

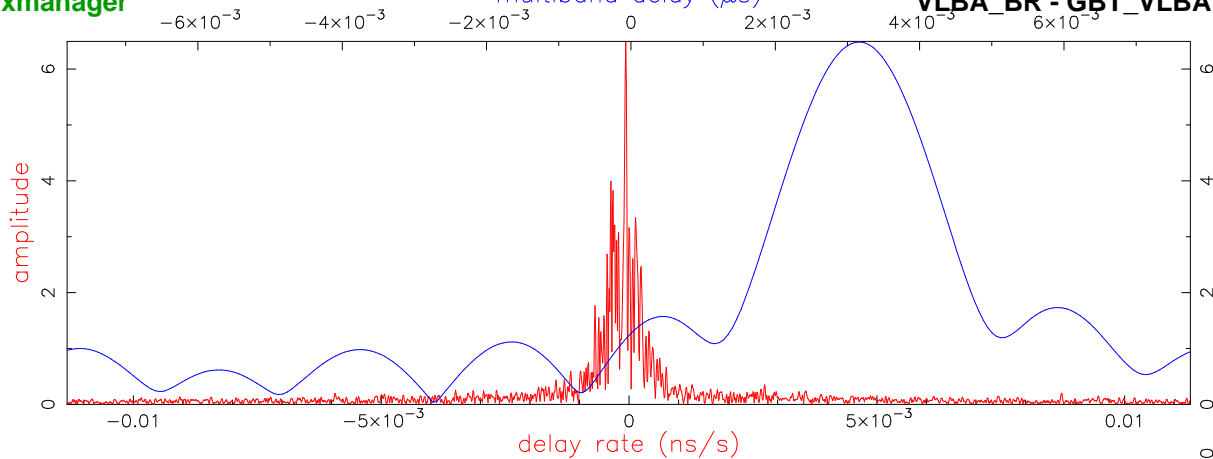
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, bG

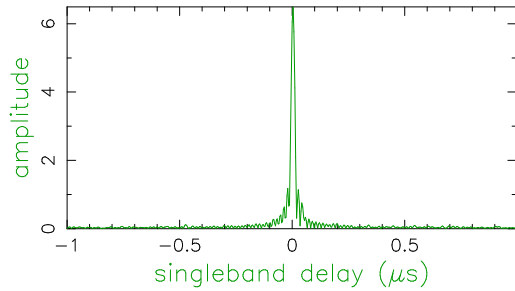
VLBA_BR - GBT_VLBA, fgroup W, pol RR

multiband delay (μ s)

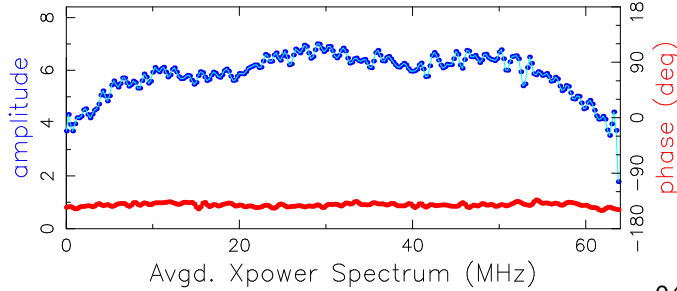


Fringe quality 4

SNR 336.5
 Int time 358.885
 Amp 6.495
 Phase -138.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.003398
 MBD 0.003148
 Fringe rate (Hz)
 -0.005936
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

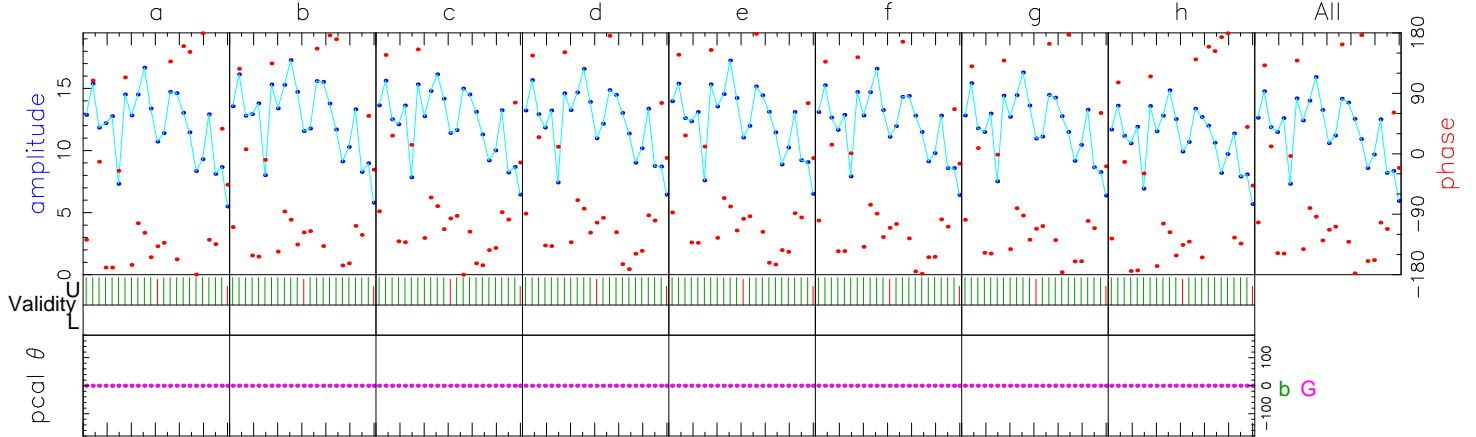


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163006
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 -1°20'33.065613"

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
	-162.7	-144.6	-122.3	-126.6	-122.8	-134.0	-137.4	-162.7	Phase	-138.6
	6.7	7.0	6.9	6.8	6.9	6.7	6.6	6.1	Ampl.	6.7
	258.0	258.2	258.1	257.7	257.9	257.7	257.4	257.7	Sbd box	257.9
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:G	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	
G	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.82786113396E+02				-5.82789261644E+02				Resid mbdelay (usec)	3.14825E-03 +/- 3.2E-06
Sband delay (usec)	-5.82785863394E+02					1.1313002E+01			Resid sbdelay (usec)	3.39825E-03 +/- 2.6E-05
Phase delay (usec)	-5.82789266114E+02					0.0000000E+00			Resid phdelay (usec)	-4.47018E-06 +/- 1.1E-08
Delay rate (us/s)	7.85330915658E-01					7.85330984568E-01			Resid rate (us/s)	-6.89101E-08 +/- 5.3E-11
Total phase (deg)			-137.9			2.84520233744E-06			Resid phase (deg)	-138.6 +/- 0.3
	RMS	Theor.	Amplitude	6.495 +/- 0.019					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	69.4	0.8	Search (2048X32)	6.289					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	88.6	1.4	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	17.7	0.5	Inc. seg. avg.	11.700					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	5.5	0.8	Inc. frq. avg.	6.717					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
b: az 165.5 el 39.6 pa -9.6		G: az 220.5 el 42.3 pa 31.3		u,v (fr/asec) -4497.636 1075.893						simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/bG..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/bG.W.22.1W7CYL

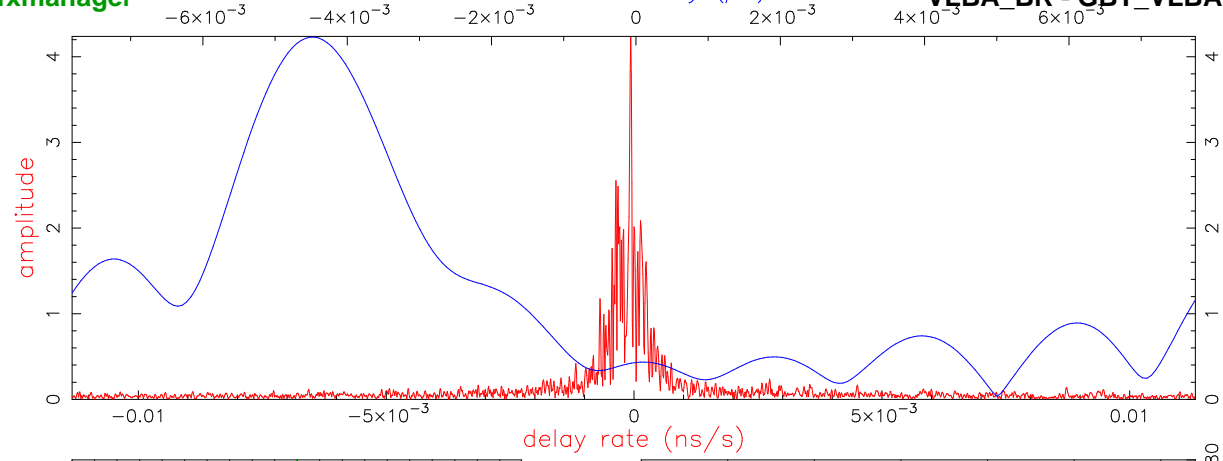
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

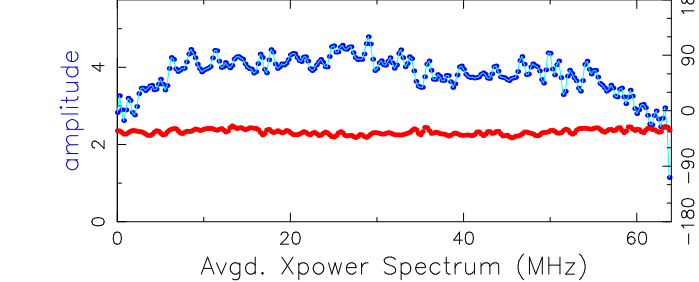
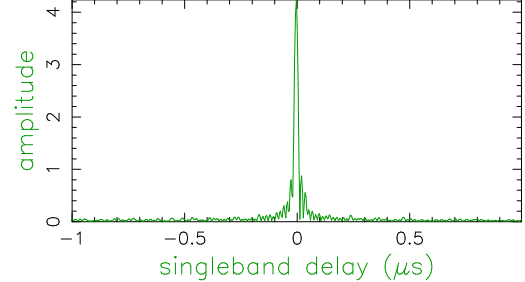
0420-014.1W7CYL, No0108, bG

VLBA_BR - GBT_VLBA, fgroup W, pol LL

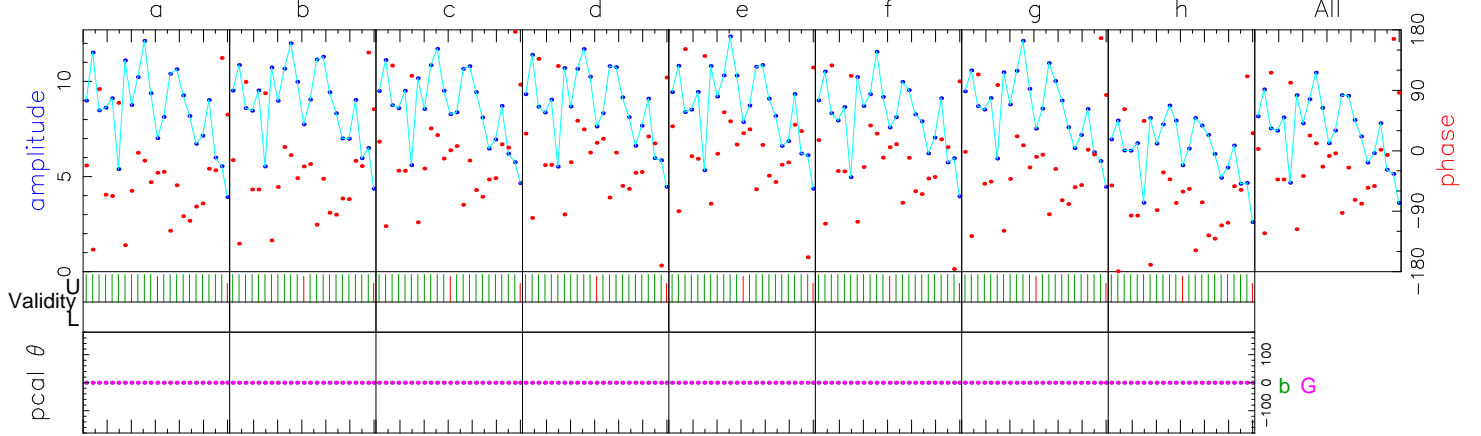
multiband delay (μ s)



Fringe quality 3
 SNR 219.5
 Int time 358.885
 Amp 4.238
 Phase -33.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.004431
 MBD -0.004496
 Fringe rate (Hz)
 -0.005952
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163002
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 -1°20'33.065613"



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
	-59.6	-50.5	-21.8	-13.1	0.2	-20.3	-35.1	-87.8	Phase	-33.8
	4.8	4.9	4.9	4.9	4.9	4.6	4.8	3.7	Ampl.	4.7
	255.9	255.9	256.3	255.8	255.9	255.7	255.4	254.6	Sbd box	255.9
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
G	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-5.82793757771E+02	Apriori delay (usec)	-5.82789261644E+02	Resid mbdelay (usec)	-4.49613E-03	+/-	4.9E-06
Sband delay (usec)	-5.82793692894E+02	Apriori clock (usec)	1.1313002E+01	Resid sbdelay (usec)	-4.43125E-03	+/-	3.9E-05
Phase delay (usec)	-5.82789262735E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.09142E-06	+/-	1.7E-08
Delay rate (us/s)	7.85330915468E-01	Apriori rate (us/s)	7.85330984568E-01	Resid rate (us/s)	-6.91000E-08	+/-	8.1E-11
Total phase (deg)	-33.1	Apriori accel (us/s/s)	2.84520233744E-06	Resid phase (deg)	-33.8	+/-	0.5

ph/seg (deg)	69.5	1.3	Search (2048X32)	4.189	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	87.3	2.2	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)	31.0	0.7	Inc. seg. avg.	7.550	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	14.1	1.3	Inc. frq. avg.	4.678	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

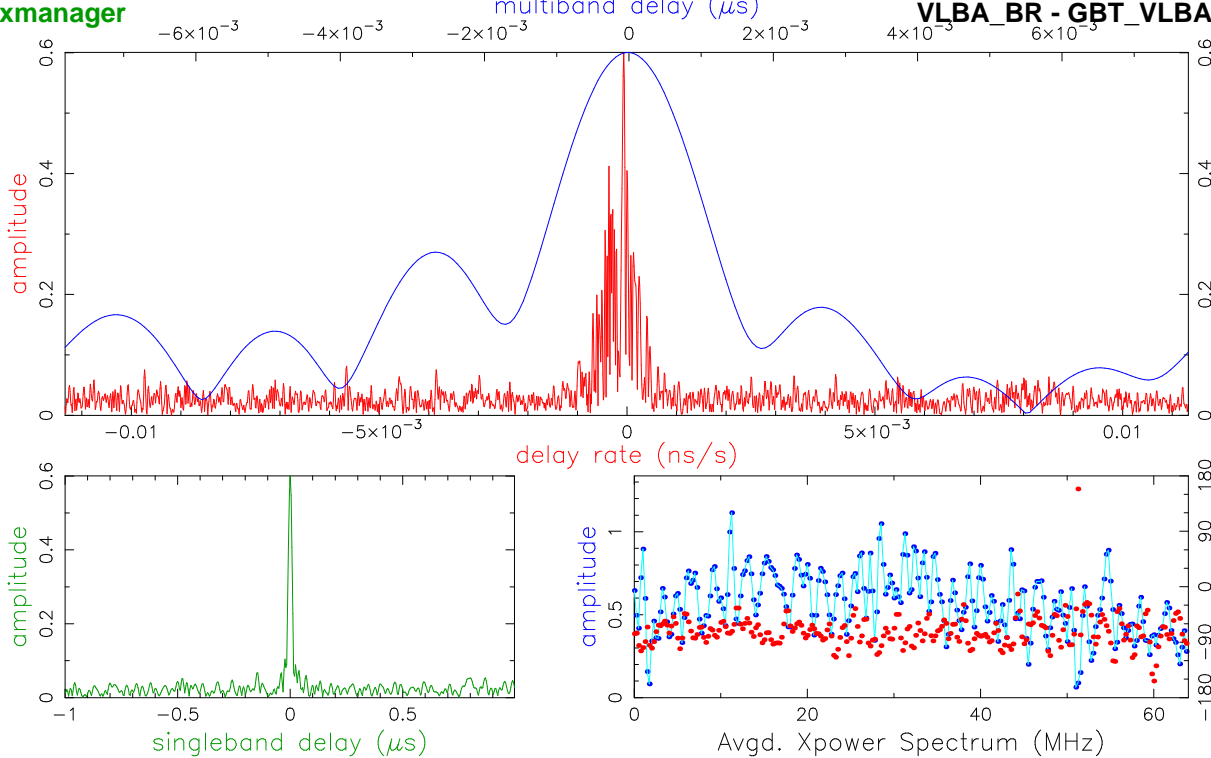
b: az 165.5 el 39.6 pa -9.6 G: az 220.5 el 42.3 pa 31.3 u,v (fr/asec) -4497.636 1075.893 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/bG..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/bG.W.3.1W7CYL

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, bG

VLBA_BR - GBT_VLBA, fgroup W, pol LR

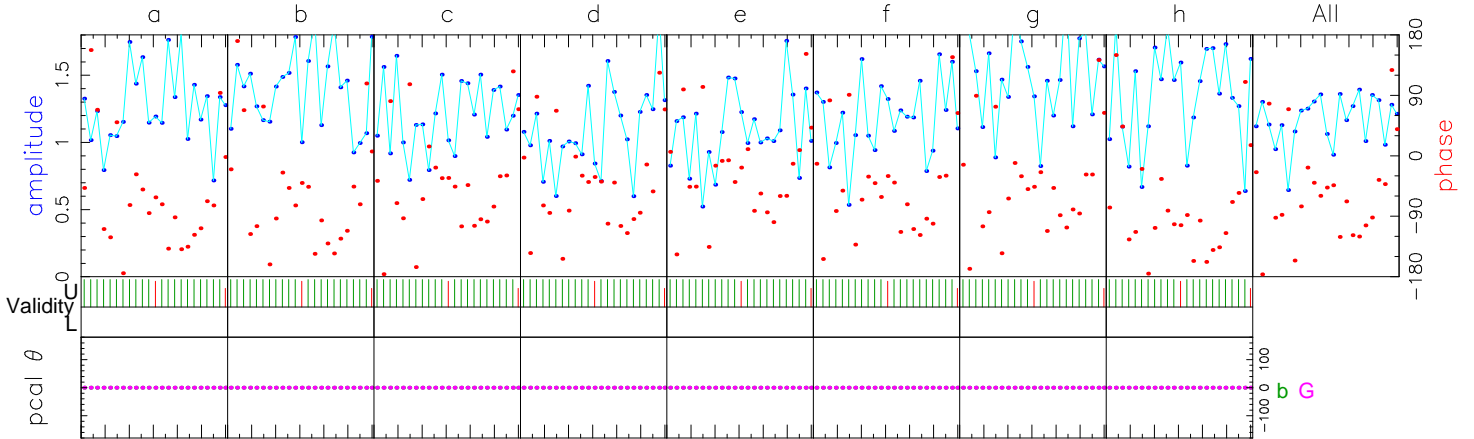


Fringe quality 5

SNR 31.1
 Int time 358.885
 Amp 0.601
 Phase -74.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.000069
 MBD -0.000016
 Fringe rate (Hz)
 -0.006022
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163010
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
G	1000	1000	1000	1000	1000	1000	1000	1000		
b:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:G	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		
G	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-5.82789278021E+02				-5.82789261644E+02					
Sband delay (usec)	-5.82789331144E+02				1.1313002E+01					
Phase delay (usec)	-5.82789264058E+02				0.0000000E+00					
Delay rate (us/s)	7.85330914659E-01				7.85330984568E-01					
Total phase (deg)			-74.2		2.84520233744E-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										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
Chan ids										
Tracks										
Chan ids										
Tracks										
ph/seg (deg)	70.9	8.8								
amp/seg (%)	98.8	15.4								
ph/frq (deg)	24.4	5.2								
amp/frq (%)	17.1	9.1								
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.601 +/- 0.019										
0.595										
0.000										
1.153										
0.641										
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)										
simultaneous interpolator										

b: az 165.5 el 39.6 pa -9.6 G: az 220.5 el 42.3 pa 31.3 u,v (fr/asec) -4497.636 1075.893 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/bG..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/bG.W.44.1W7CYL

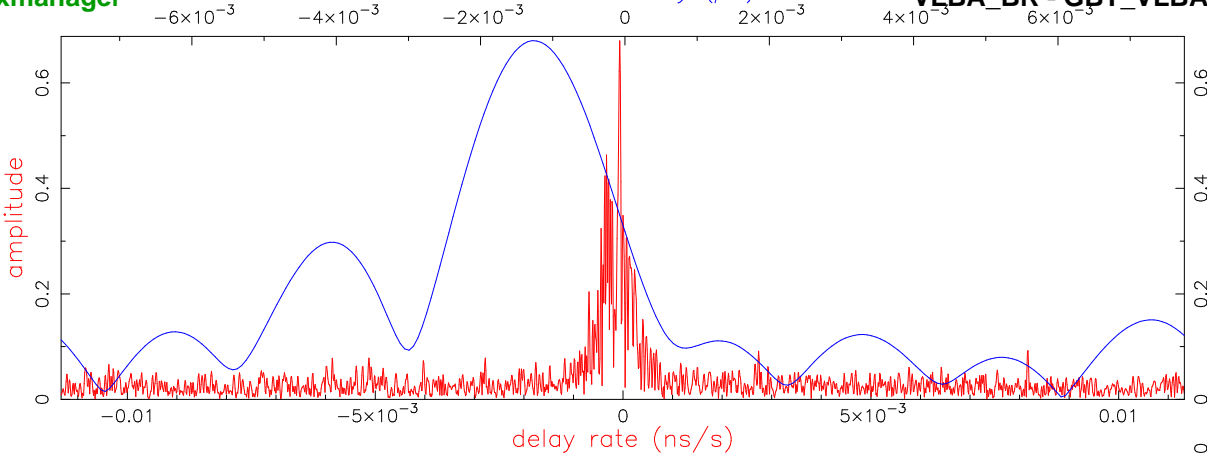
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, bG

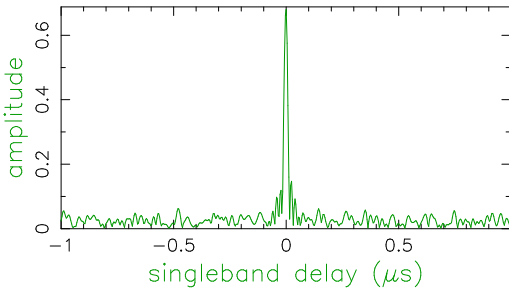
VLBA_BR - GBT_VLBA, fgroup W, pol RL

multiband delay (μ s)

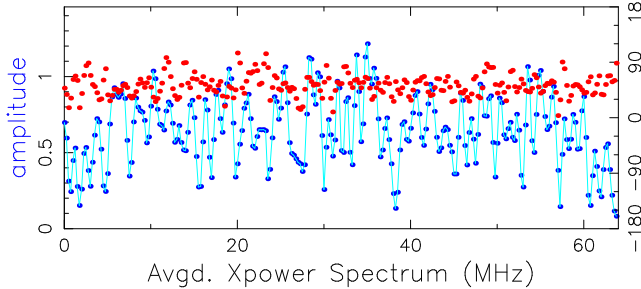


Fringe quality 6

SNR 35.7
 Int time 358.885
 Amp 0.688
 Phase 51.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.001406
 MBD -0.001287
 Fringe rate (Hz)
 -0.005672
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

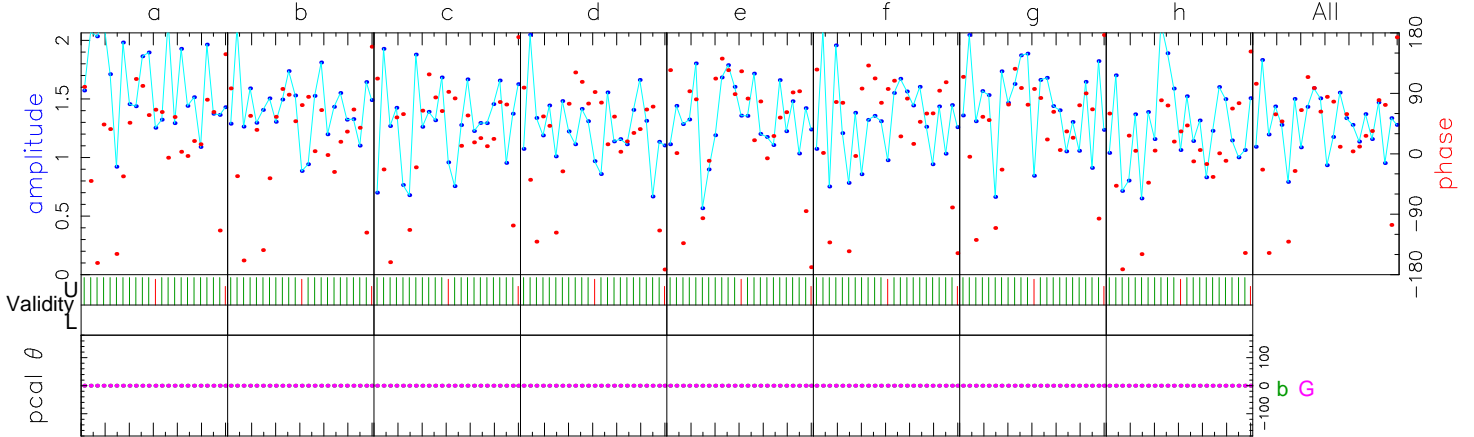


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163013
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 -1°20'33.065613"

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	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:G	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	
G	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-5.82790549021E+02	Apriori delay (usec)	-5.82789261644E+02	Resid mbdelay (usec)	-1.28738E-03	+/-	3.0E-05
Sband delay (usec)	-5.82790667394E+02	Apriori clock (usec)	1.1313002E+01	Resid sbdelay (usec)	-1.40575E-03	+/-	2.4E-04
Phase delay (usec)	-5.82789259992E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.65182E-06	+/-	1.0E-07
Delay rate (us/s)	7.85330918721E-01	Apriori rate (us/s)	7.85330984568E-01	Resid rate (us/s)	-6.58470E-08	+/-	5.0E-10
Total phase (deg)	-308.1	Apriori accel (us/s/s)	2.84520233744E-06	Resid phase (deg)	51.2	+/-	3.2

ph/seg (deg)	73.7	Theor.	7.7	Amplitude	0.688 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	94.4		13.4	Search (2048X32)	0.665	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	20.7		4.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	9.9		7.9	Inc. seg. avg.	1.282	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.712	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

b: az 165.5 el 39.6 pa -9.6 G: az 220.5 el 42.3 pa 31.3 u,v (fr/asec) -4497.636 1075.893 simultaneous interpolator

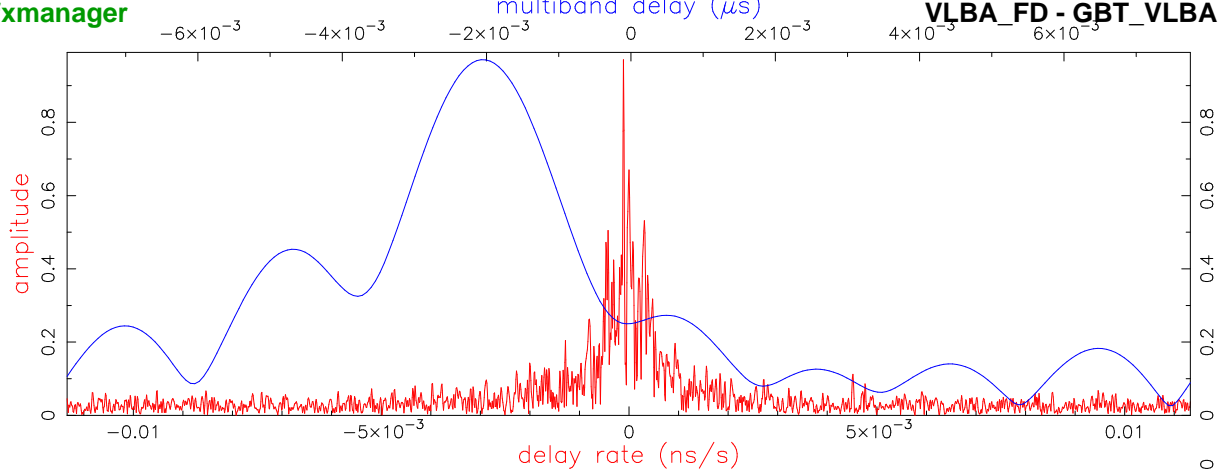
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/bG..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/bG.W.64.1W7CYL

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

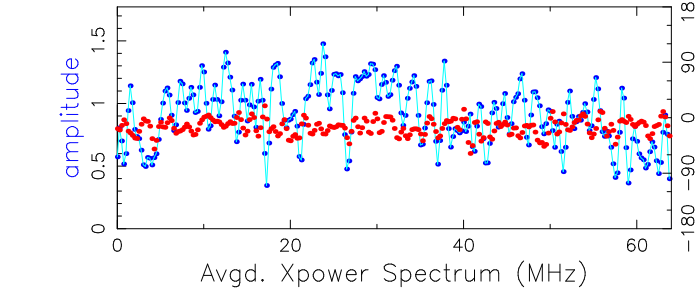
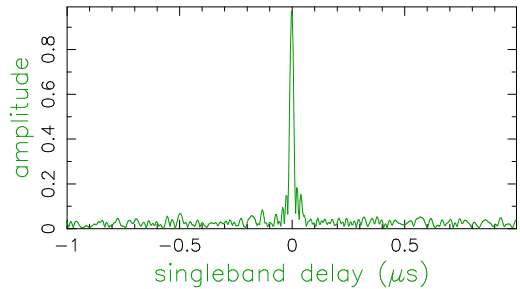
0420-014.1W7CYL, No0108, fG

VLBA_FD - GBT_VLBA, fgroup W, pol LL



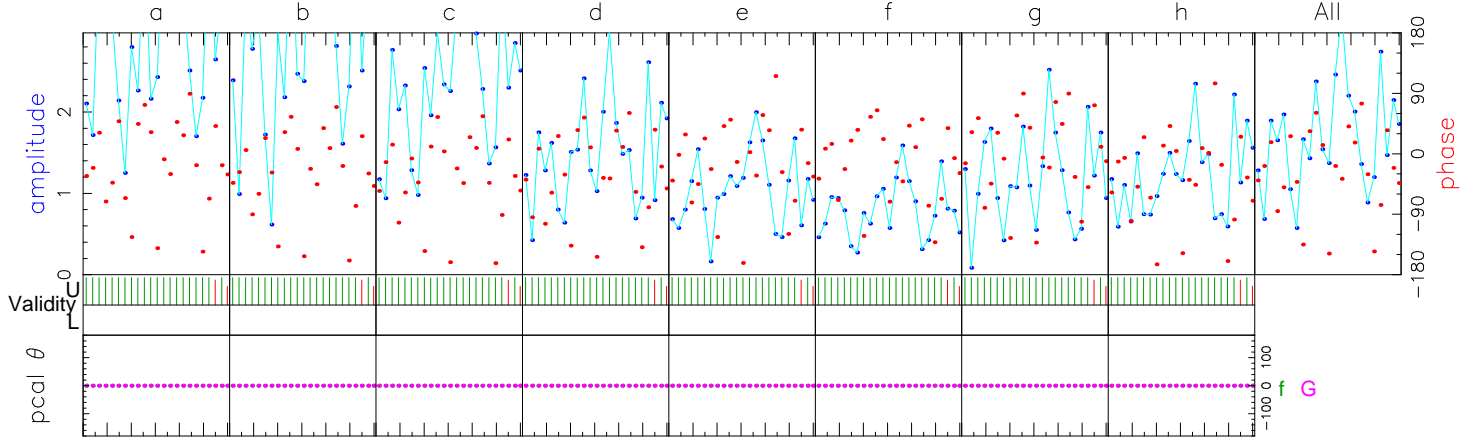
Fringe quality 2

SNR 51.3
 Int time 358.085
 Amp 0.991
 Phase -16.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.002065
 MBD -0.002025
 Fringe rate (Hz)
 -0.009249
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163004
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	-6.9	-20.6	-24.6	-22.3	-15.4	-12.3	5.6	-32.6		-16.7
	1.6	1.7	1.3	0.9	0.6	0.5	0.6	0.7		1.0
	256.7	256.0	256.6	256.8	256.5	256.5	256.0	256.6		256.5
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
G	1000	1000	1000	1000	1000	1000	1000	1000		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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks
										Tracks
Group delay (usec)(sbd)	3.79382728568E+03		Apriori delay (usec)		3.79382931114E+03		Resid mbdelay (usec)		-2.02546E-03	+/- 2.1E-05
Sband delay (usec)	3.79382724664E+03		Apriori clock (usec)		2.4509230E+01		Resid sbdelay (usec)		-2.06450E-03	+/- 1.7E-04
Phase delay (usec)	3.79382931060E+03		Apriori clockrate (us/s)		1.6000000E-07		Resid phdelay (usec)		-5.38357E-07	+/- 7.2E-08
Delay rate (us/s)	4.73636789801E-01		Apriori rate (us/s)		4.73636897172E-01		Resid rate (us/s)		-1.07371E-07	+/- 3.5E-10
Total phase (deg)	293.4		Apriori accel (us/s/s)		-1.97575292428E-05		Resid phase (deg)		-16.7	+/- 2.2

ph/seg (deg) 62.1 5.4 Search (2048X32) 0.947 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 96.1 9.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 12.8 3.2 Inc. seg. avg. 1.688 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 44.5 5.5 Inc. frq. avg. 0.985 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 188.7 el 57.8 pa 8.2 G: az 220.5 el 42.3 pa 31.3 u,v (fr/asec) -2731.613 -962.157 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/fg..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/fg.W.18.1W7CYL

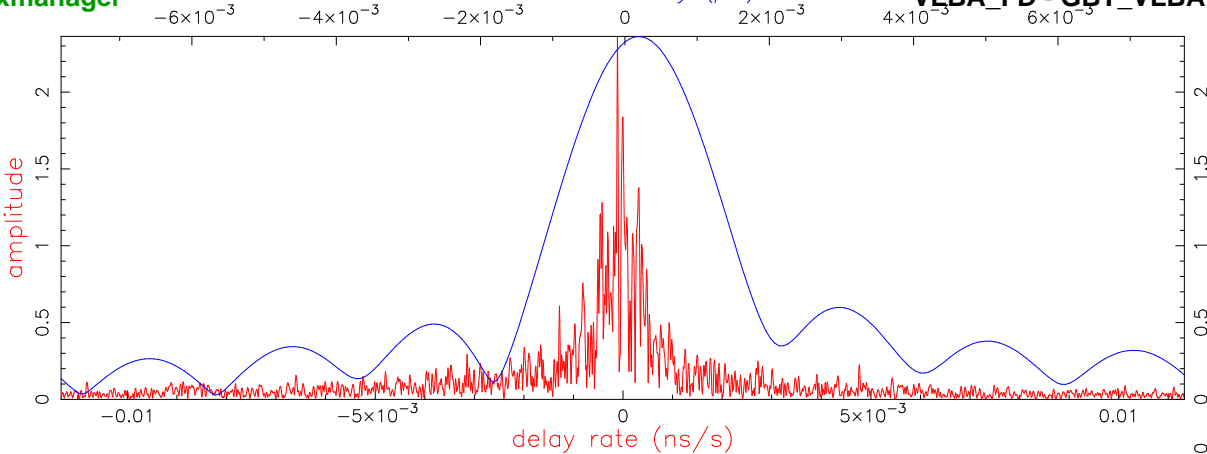
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, fG

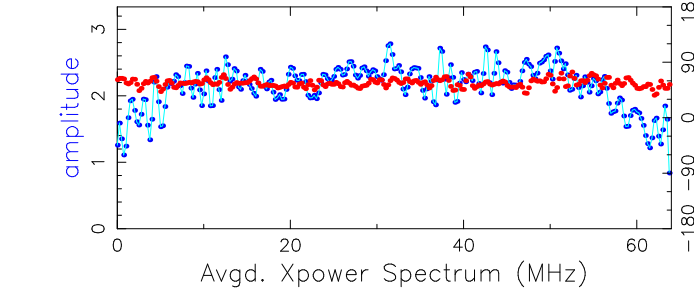
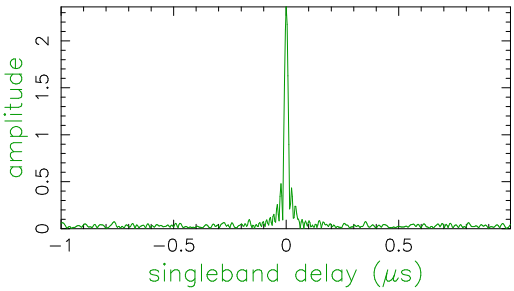
VLBA_FD - GBT_VLBA, fgroup W, pol RR

multiband delay (μ s)



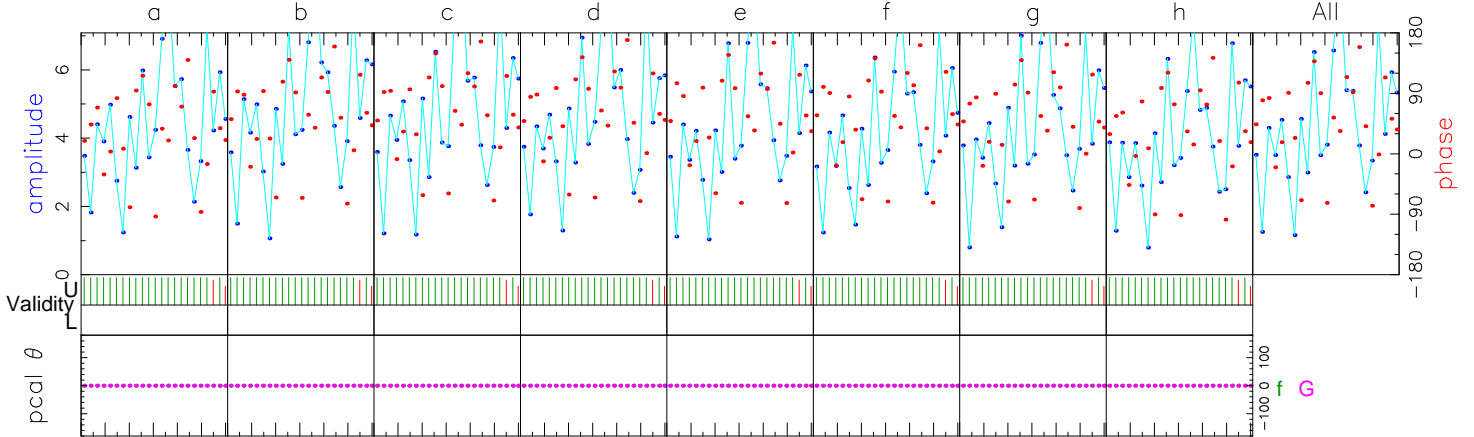
Fringe quality 5

SNR 122.2
 Int time 358.085
 Amp 2.362
 Phase 56.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.000251
 MBD 0.000198
 Fringe rate (Hz)
 -0.009406
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163008
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	39.1	61.8	63.9	63.9	61.4	62.6	56.9	40.4	Phase	56.6
	2.5	2.7	2.6	2.5	2.3	2.2	2.2	2.1	Ampl.	2.4
	257.3	257.1	257.1	257.0	257.1	257.1	256.9	256.8	Sbd box	257.1
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.79382950905E+03		Apriori delay (usec)		3.79382931114E+03		Resid mbdelay (usec)		1.97913E-04	+/- 8.9E-06
Sband delay (usec)	3.79382956264E+03		Apriori clock (usec)		2.4509230E+01		Resid sbdelay (usec)		2.51500E-04	+/- 7.0E-05
Phase delay (usec)	3.79382931296E+03		Apriori clockrate (us/s)		1.6000000E-07		Resid phdelay (usec)		1.82565E-06	+/- 3.0E-08
Delay rate (us/s)	4.73636787980E-01		Apriori rate (us/s)		4.73636897172E-01		Resid rate (us/s)		-1.09192E-07	+/- 1.5E-10
Total phase (deg)	6.8		Apriori accel (us/s/s)		-1.97575292428E-05		Resid phase (deg)		56.6	+/- 0.9

	RMS	Theor.	Amplitude	2.362 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	64.5	2.2	Search (2048X32)	2.301	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	115.1	3.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	11.3	1.3	Inc. seg. avg.	4.375	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	8.4	2.3	Inc. frq. avg.	2.394	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

f: az 188.7 el 57.8 pa 8.2 G: az 220.5 el 42.3 pa 31.3 u,v (fr/asec) -2731.613 -962.157 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/fg..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/fg.W.40.1W7CYL

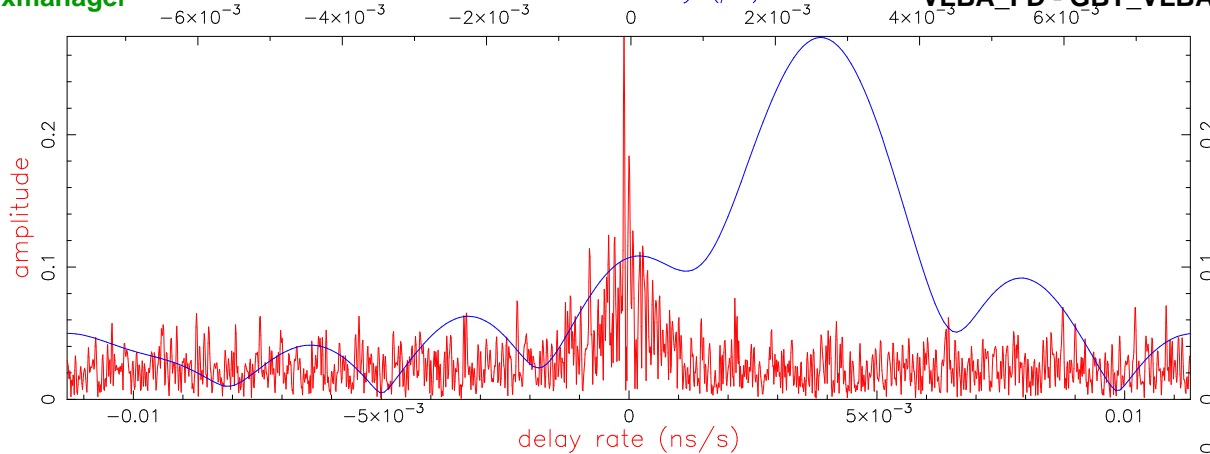
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, fG

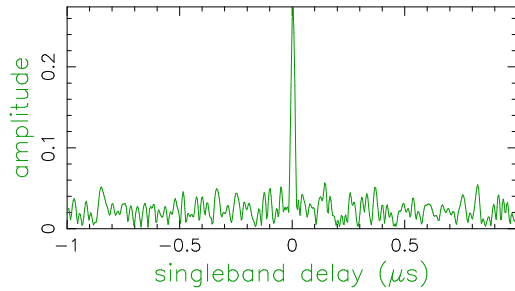
VLBA_FD - GBT_VLBA, fgroup W, pol LR

multiband delay (μ s)

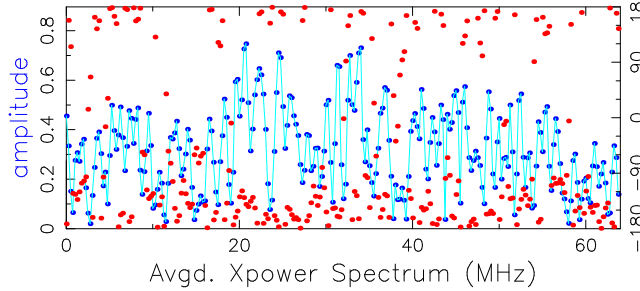


Fringe quality 8

SNR 14.2
 Int time 358.085
 Amp 0.274
 Phase -151.2
 PFD 6.2e-37
 Delays (us)
 SBD 0.003189
 MBD 0.002620
 Fringe rate (Hz)
 -0.009007
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

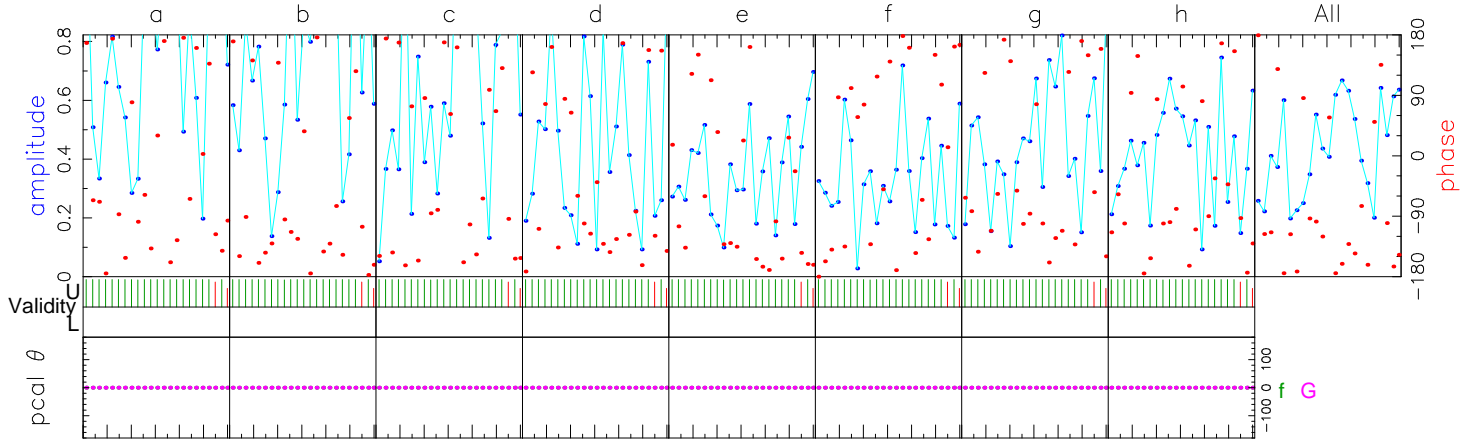


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163012
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	-143.2	-151.9	-159.7	-152.5	-158.5	179.4	-131.3	-142.2	Phase	-151.2
	0.4	0.4	0.4	0.3	0.1	0.2	0.2	0.2	Ampl.	0.3
	258.3	257.7	257.6	257.9	231.3	351.0	256.6	21.1	Sbd box	257.8
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	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	Manl 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	

Group delay (usec)(sbd)	3.79383193114E+03	Apriori delay (usec)	3.79382931114E+03	Resid mbdelay (usec)	2.62000E-03	+/-	7.6E-05
Sband delay (usec)	3.79383250039E+03	Apriori clock (usec)	2.4509230E+01	Resid sbdelay (usec)	3.18925E-03	+/-	6.1E-04
Phase delay (usec)	3.79382930626E+03	Apriori clockrate (us/s)	1.6000000E-07	Resid phdelay (usec)	-4.87656E-06	+/-	2.6E-07
Delay rate (us/s)	4.73636792611E-01	Apriori rate (us/s)	4.73636897172E-01	Resid rate (us/s)	-1.04560E-07	+/-	1.3E-09
Total phase (deg)	158.9	Apriori accel (us/s/s)	-1.97575292428E-05	Resid phase (deg)	-151.2	+/-	8.1

ph/seg (deg)	RMS 65.7	Theor. 19.3	Amplitude Search (2048X32)	0.274 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	82.0	33.8	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)	16.0	11.4	Inc. seg. avg.	0.410	Bits/sample: 2x2	Sample rate(MSamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	40.6	19.9	Inc. frq. avg.	0.274	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

f: az 188.7 el 57.8 pa 8.2 G: az 220.5 el 42.3 pa 31.3 u,v (fr/asec) -2731.613 -962.157 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/fg..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/fg.W.60.1W7CYL

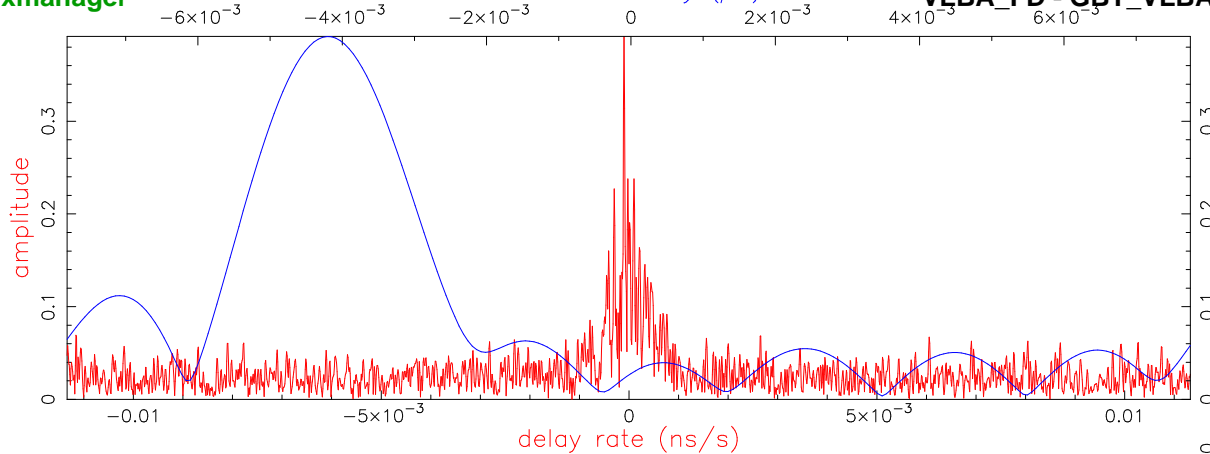
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, fG

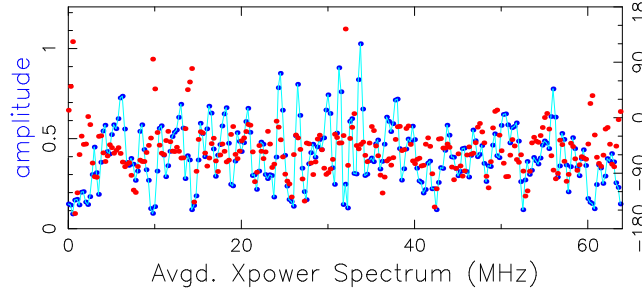
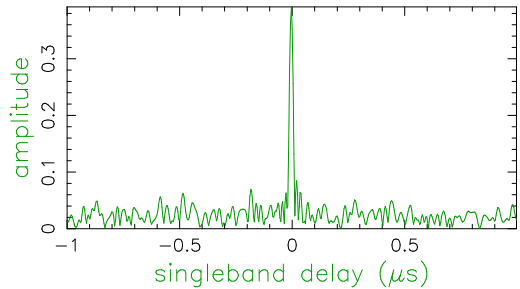
VLBA_FD - GBT_VLBA, fgroup W, pol RL

multiband delay (μ s)



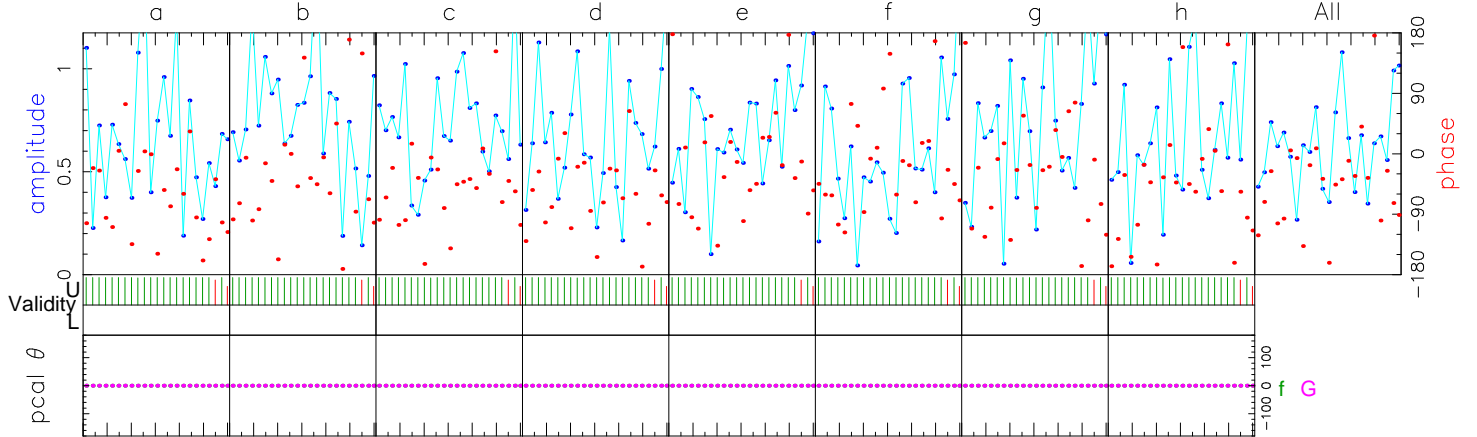
Fringe quality 9

SNR 20.3
 Int time 358.085
 Amp 0.392
 Phase -53.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.004142
 MBD -0.004204
 Fringe rate (Hz)
 -0.008915
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163015
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	-53.1	-56.0	-59.3	-52.5	-45.7	-41.2	-46.1	-69.0	Phase	-53.2
	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.3	Ampl.	0.4
	256.4	255.7	256.3	256.0	256.3	255.3	255.9	255.1	Sbd box	255.9
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 3.79382510751E+03 Apriori delay (usec) 3.79382931114E+03 Resid mbdelay (usec) -4.20363E-03 +/- 5.4E-05
 Sband delay (usec) 3.79382516864E+03 Apriori clock (usec) 2.4509230E+01 Resid sbdelay (usec) -4.14250E-03 +/- 4.3E-04
 Phase delay (usec) 3.79382930942E+03 Apriori clockrate (us/s) 1.6000000E-07 Resid phdelay (usec) -1.71714E-06 +/- 1.8E-07
 Delay rate (us/s) 4.73636793679E-01 Apriori rate (us/s) 4.73636897172E-01 Resid rate (us/s) -1.03493E-07 +/- 8.8E-10
 Total phase (deg) 256.9 Apriori accel (us/s/s) -1.97575292428E-05 Resid phase (deg) -53.2 +/- 5.7

RMS Theor. Amplitude 0.392 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 56.8 13.6 Search (2048X32) 0.376 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 79.4 23.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 9.6 8.0 Inc. seg. avg. 0.606 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 14.9 14.0 Inc. frq. avg. 0.391 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

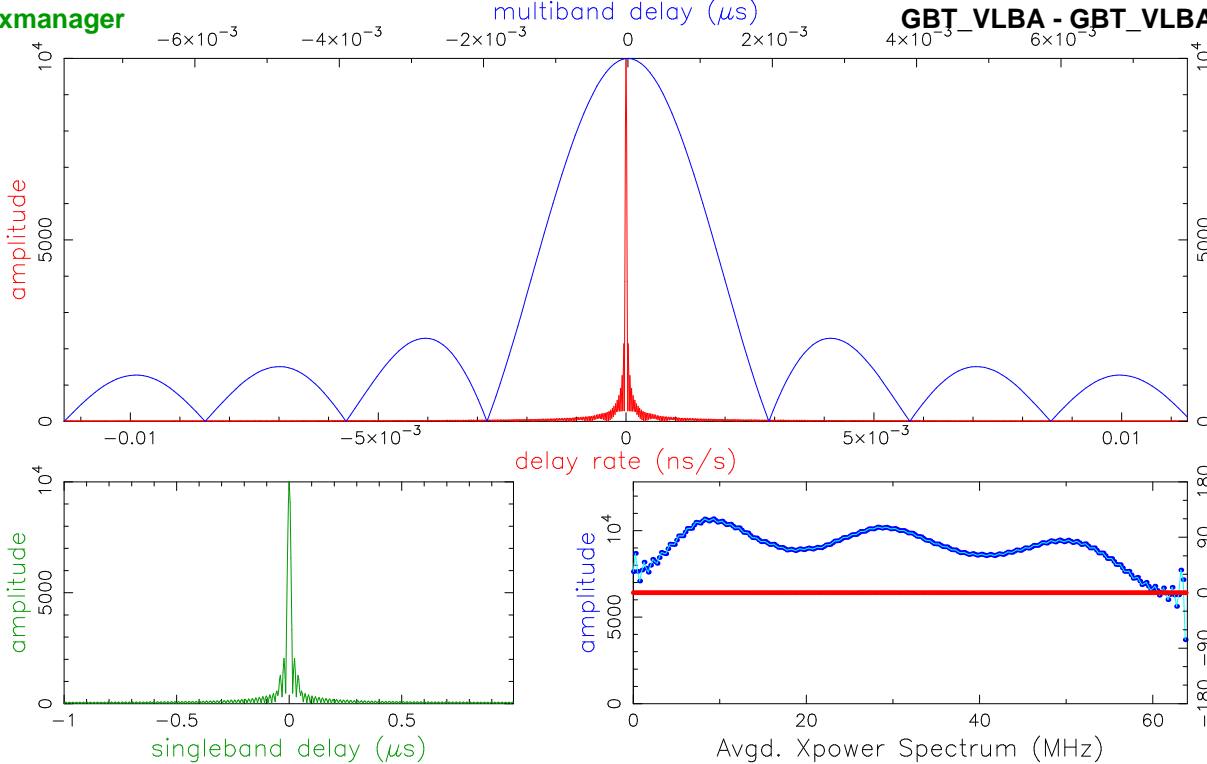
f: az 188.7 el 57.8 pa 8.2 G: az 220.5 el 42.3 pa 31.3 u,v (fr/asec) -2731.613 -962.157 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/fg..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/fg.W.78.1W7CYL

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

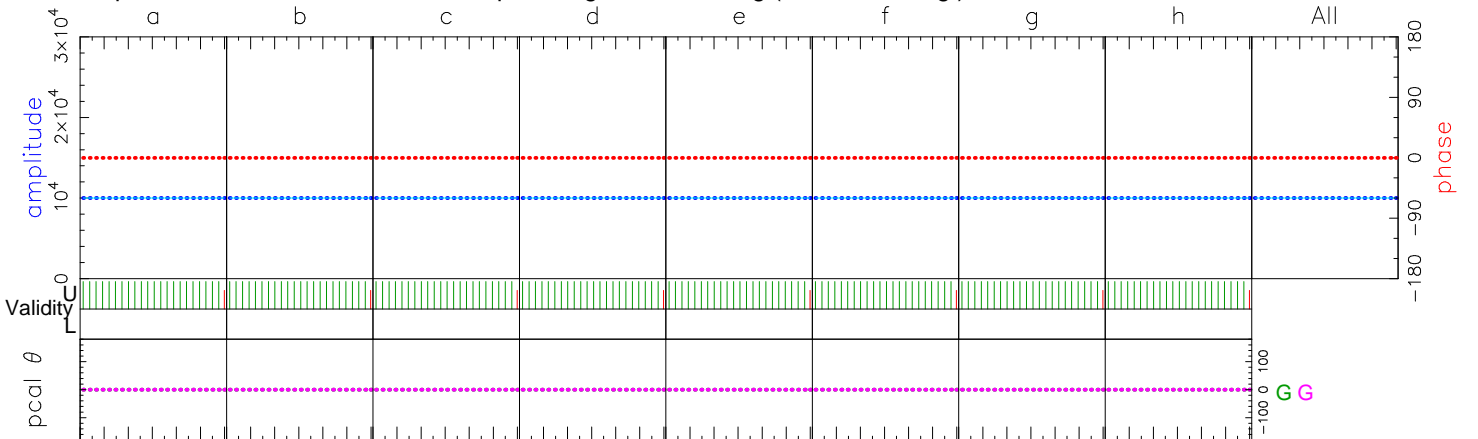
0420-014.1W7CYL, No0108, GG

GBT_VLBA - GBT_VLBA, fgroup W, pol LL



Fringe quality 9
 SNR 518802.0
 Int time 359.922
 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
 Yr:day 16383
 Start 2021:113
 Stop 2021:113
 FRT 213000.00
 Corr/FF/build
 2021:287:131300
 2021:287:163004
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
G:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G:G	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.1E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.7E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 7.1E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 3.4E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

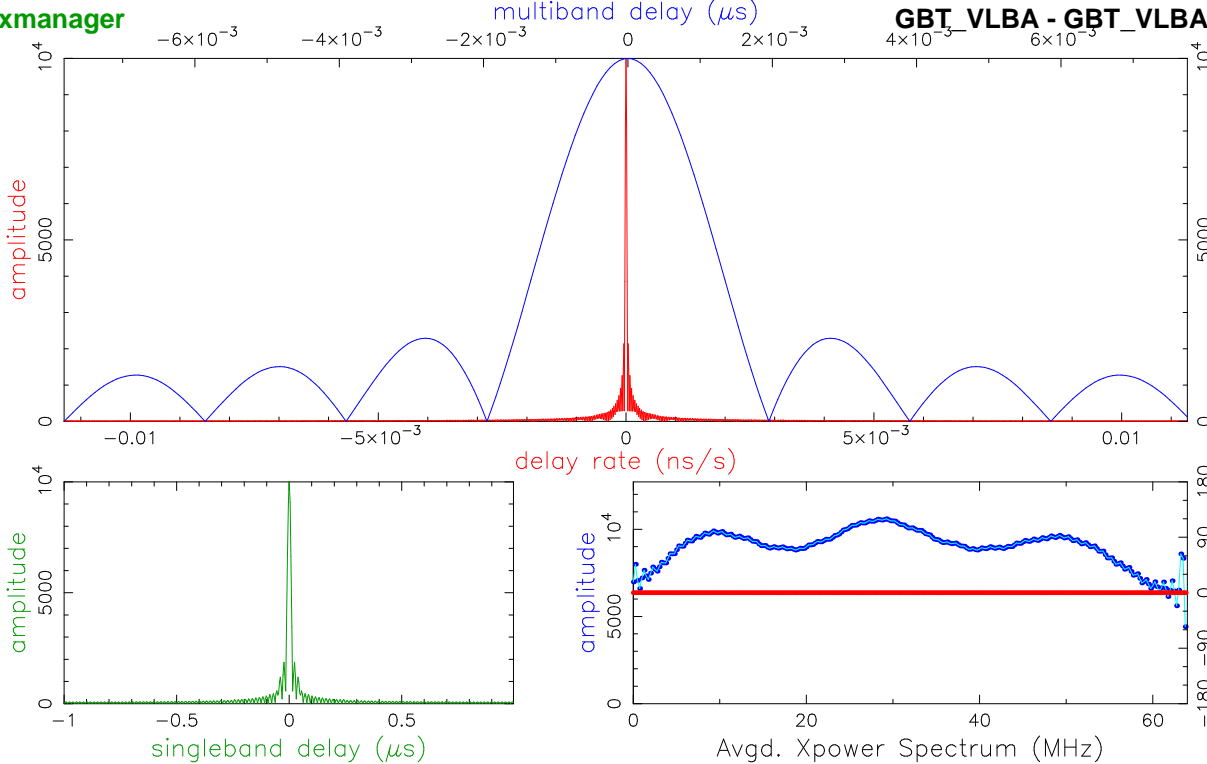
G: az 220.5 el 42.3 pa 31.3 G: az 220.5 el 42.3 pa 31.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/GG..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/GG.W.16.1W7CYL

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

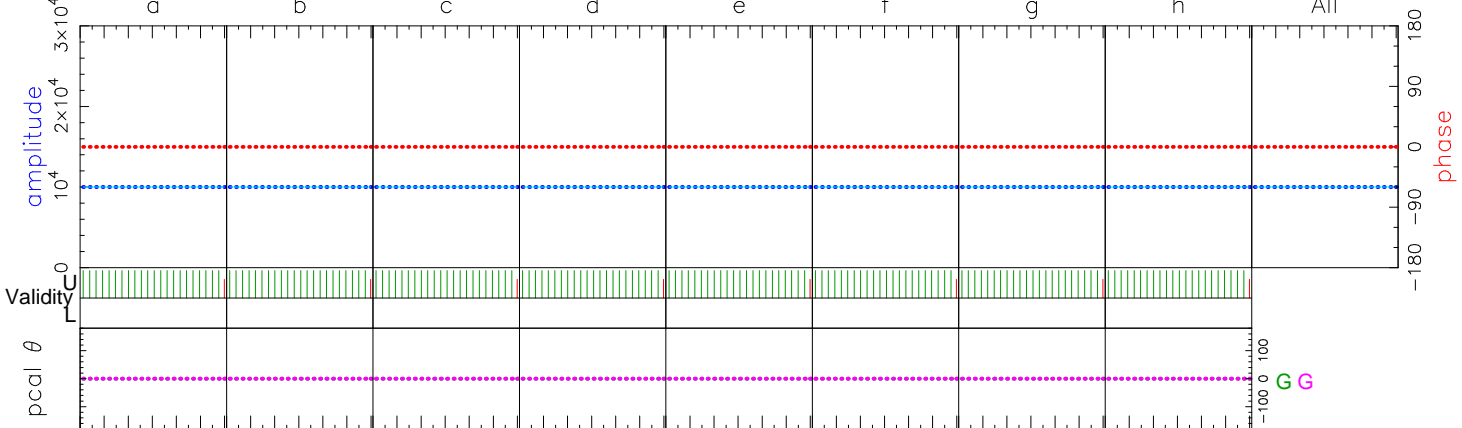
0420-014.1W7CYL, No0108, GG

GBT_VLBA - GBT_VLBA, fgroup W, pol RR



Fringe quality 9
 SNR 518802.0
 Int time 359.922
 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 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163008
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
G:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G:G	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 0.00000000000E+00 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.1E-09
 Sband delay (usec) 0.00000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.7E-08
 Phase delay (usec) 0.00000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 7.1E-12
 Delay rate (us/s) 0.00000000000E+00 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 3.4E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 10000.001 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.001 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

G: az 220.5 el 42.3 pa 31.3 G: az 220.5 el 42.3 pa 31.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/GG..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/GG.W.36.1W7CYL

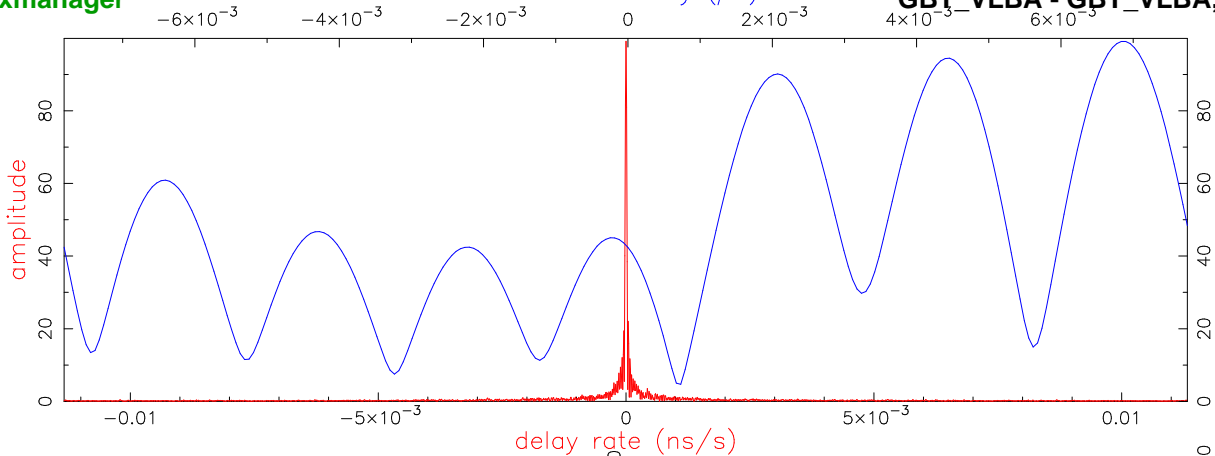
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, GG

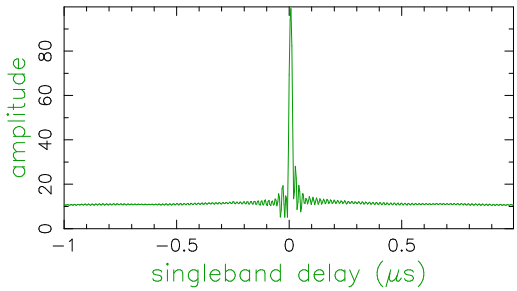
GBT_VLBA - GBT_VLBA, fgroup W, pol LR

multiband delay (μ s)

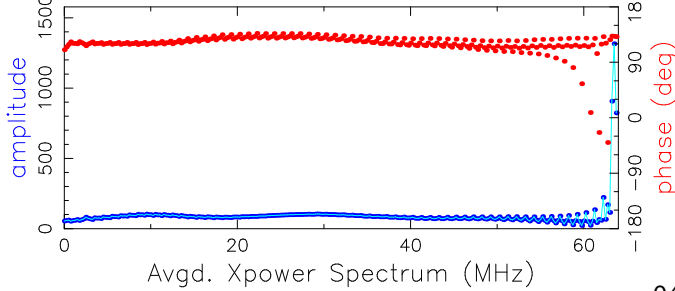


Fringe quality 5

SNR 5184.5
 Int time 359.922
 Amp 99.932
 Phase 122.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.006774
 MBD 0.006878
 Fringe rate (Hz)
 -0.000036
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

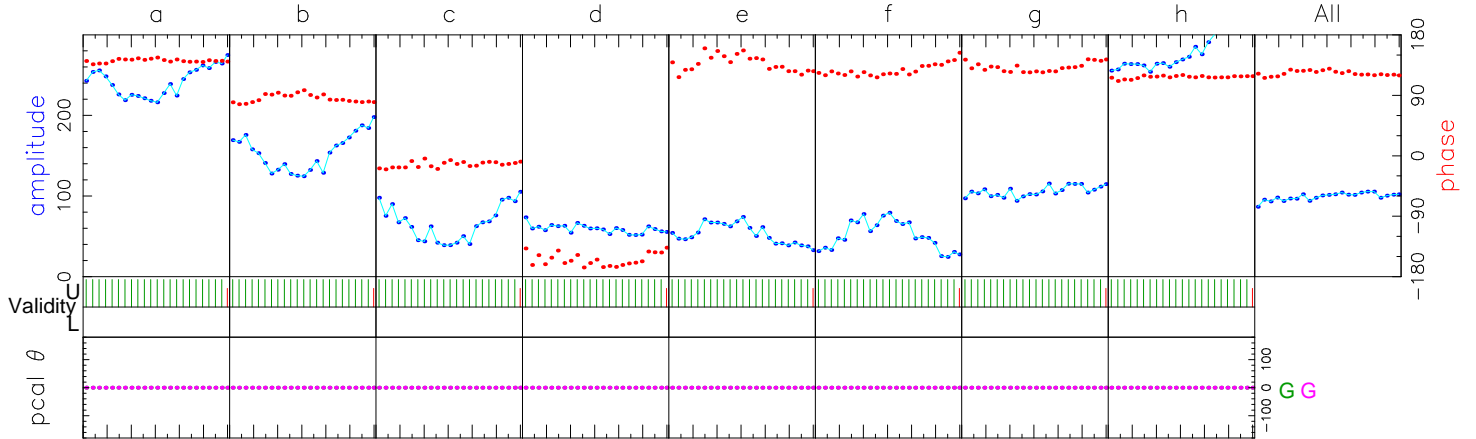


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163011
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	141.3	84.8	-13.2	-154.1	139.9	125.4	131.8	117.1	Phase	122.8
	241.0	153.0	66.1	58.7	52.2	51.3	105.1	280.7	Ampl.	126.0
	258.0	258.0	257.4	257.5	259.1	258.7	258.8	258.9	Sbd box	258.7
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
G	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	6.87790625000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	6.87791E-03	+/-	2.1E-07
Sband delay (usec)	6.77375000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	6.77375E-03	+/-	1.7E-06
Phase delay (usec)	3.96133236786E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	3.96133E-06	+/-	7.1E-10
Delay rate (us/s)	-4.16631880316E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-4.16632E-10	+/-	3.4E-12
Total phase (deg)	122.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	122.8	+/-	0.0

ph/seg (deg)	3.6	RMS	3.6	Theor.	0.1	Amplitude	99.932 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	4.5		4.5		0.1	Search (2048X32)	99.032	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	67.8		67.8		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	88.7		88.7		0.1	Inc. seg. avg.	99.320	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Inc. frq. avg.	126.027	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

G: az 220.5 el 42.3 pa 31.3 G: az 220.5 el 42.3 pa 31.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/GG..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/GG.W.55.1W7CYL

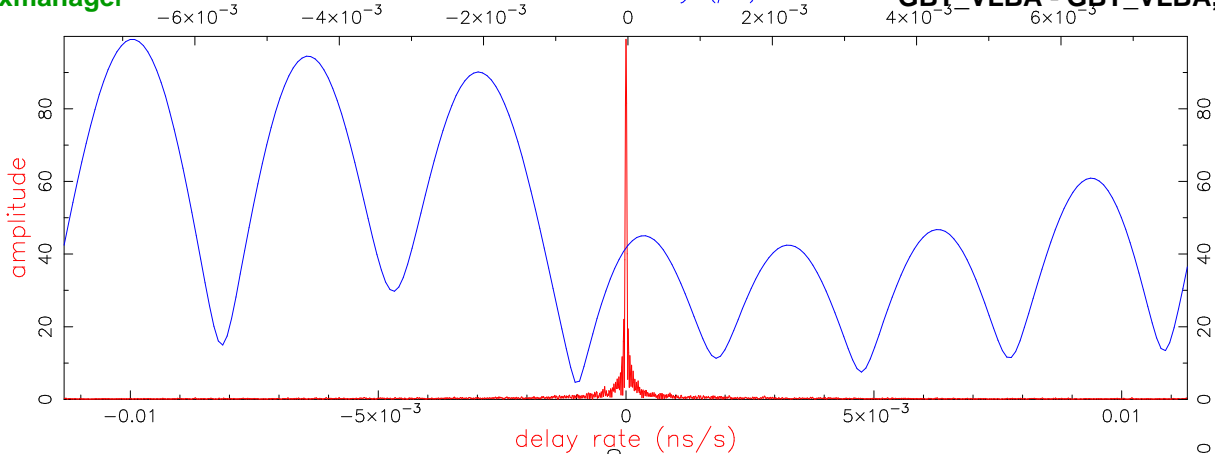
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, GG

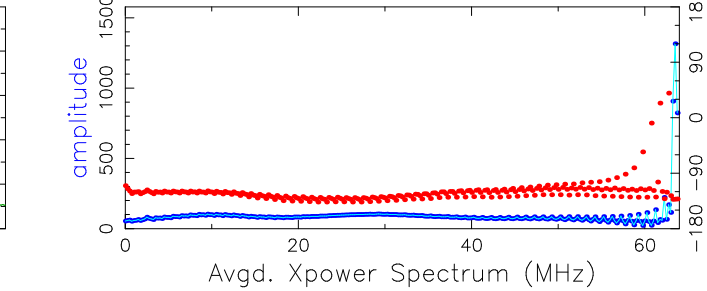
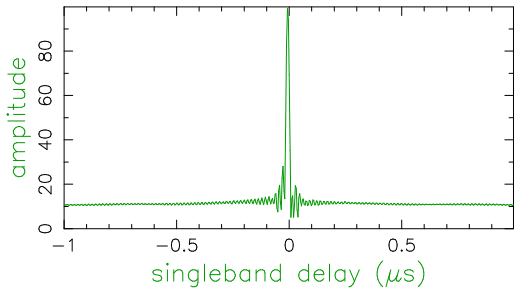
GBT_VLBA - GBT_VLBA, fgroup W, pol RL

multiband delay (μ s)



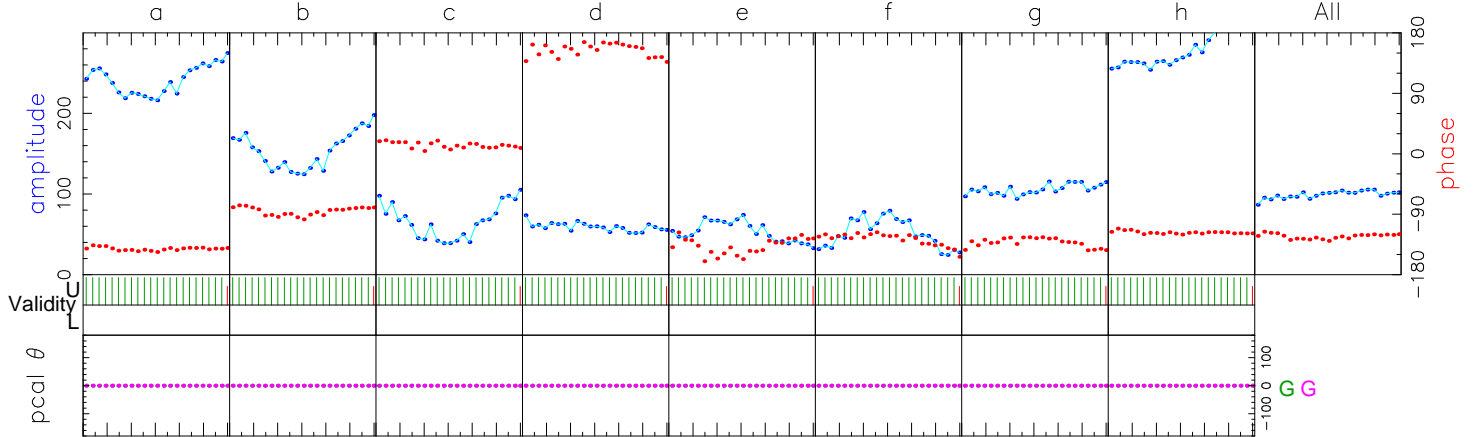
Fringe quality 5

SNR 5184.5
 Int time 359.922
 Amp 99.932
 Phase -122.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.006774
 MBD -0.006878
 Fringe rate (Hz)
 0.000036
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163015
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	-141.3	-84.8	13.2	154.1	-139.9	-125.4	-131.8	-117.1	Phase	-122.8
	241.0	153.0	66.1	58.7	52.2	51.3	105.1	280.7	Ampl.	126.0
	256.0	256.0	256.6	256.5	254.9	255.3	255.2	255.1	Sbd box	255.3
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
G	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-6.87790625000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-6.87791E-03	+/-	2.1E-07
Sband delay (usec)	-6.77375000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-6.77375E-03	+/-	1.7E-06
Phase delay (usec)	-3.96133236805E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-3.96133E-06	+/-	7.1E-10
Delay rate (us/s)	4.16631880316E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	4.16632E-10	+/-	3.4E-12
Total phase (deg)	-122.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-122.8	+/-	0.0

ph/seg (deg)	3.6	0.1	Amplitude	99.932 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	4.5	0.1	Search (2048X32)	99.032	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	67.8	0.0	Inc. seg. avg.	99.320	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	88.7	0.1	Inc. frq. avg.	126.027	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011	
					Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

G: az 220.5 el 42.3 pa 31.3 G: az 220.5 el 42.3 pa 31.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/GG..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/GG.W.74.1W7CYL

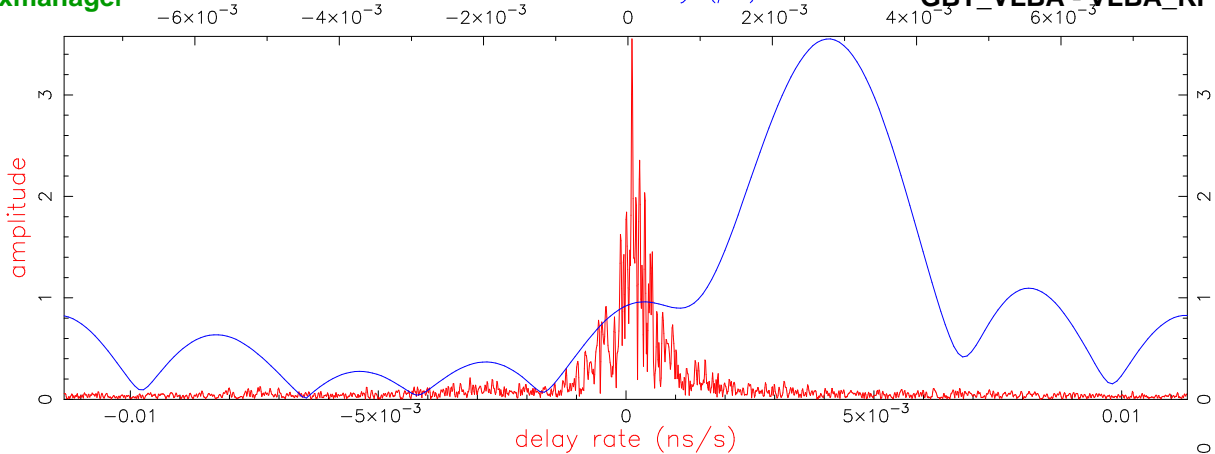
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gk

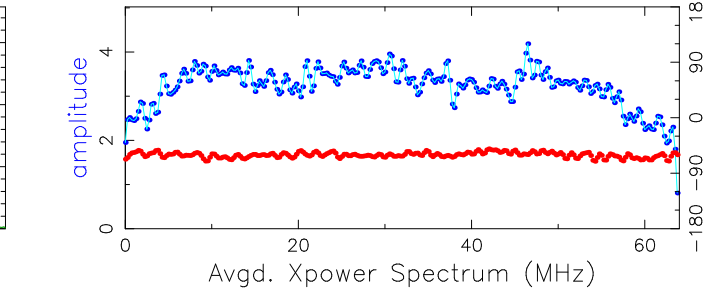
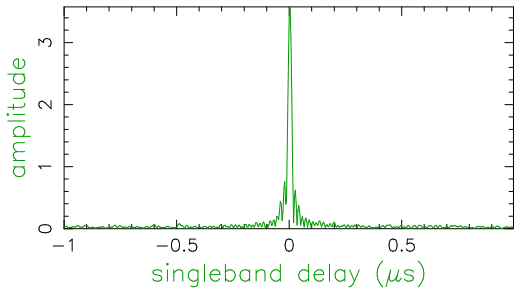
GBT_VLBA - VLBA_KP, fgroup W, pol LL

multiband delay (μ s)



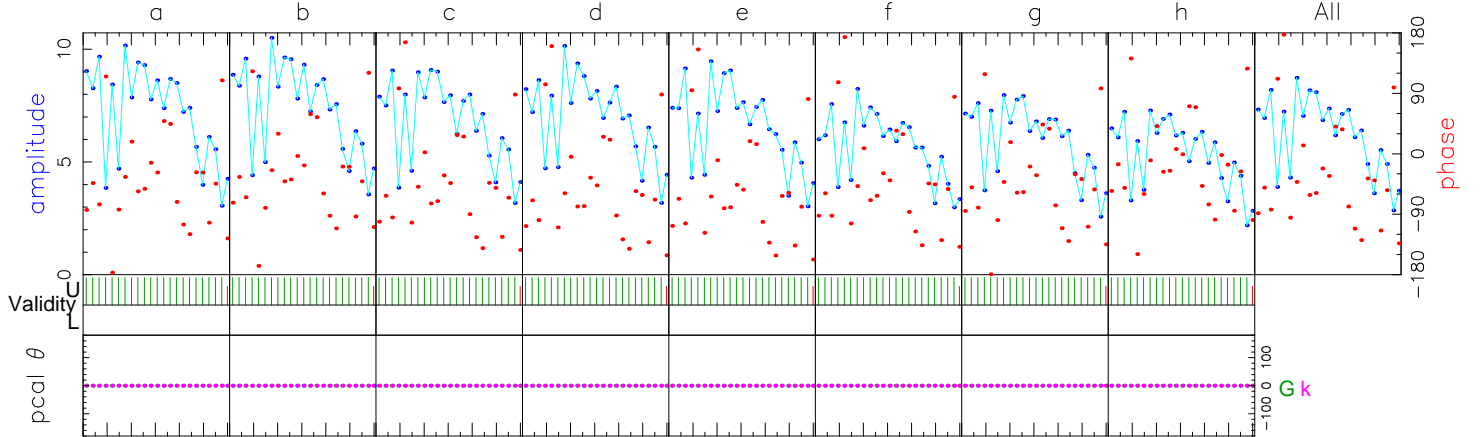
Fringe quality 4

SNR 185.6
 Int time 359.918
 Amp 3.577
 Phase -59.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.002835
 MBD 0.002757
 Fringe rate (Hz)
 0.010491
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163005
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 -1°20'33.065613"

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
	-51.3	-40.8	-69.9	-76.4	-80.0	-64.7	-58.2	-26.8	Phase	-59.0
	4.2	4.2	3.9	4.0	3.8	3.1	3.4	3.2	Ampl.	3.7
	257.8	257.9	257.3	257.6	257.9	257.7	258.0	258.3	Sbd box	257.7
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-3.58730164181E+03	Apriori delay (usec)	-3.58730439857E+03	Resid mbdelay (usec)	2.75676E-03	+/-	5.8E-06
Sband delay (usec)	-3.58730156357E+03	Apriori clock (usec)	-1.4601519E+01	Resid sbdelay (usec)	2.83500E-03	+/-	4.6E-05
Phase delay (usec)	-3.58730440047E+03	Apriori clockrate (us/s)	-9.9999998E-08	Resid phdelay (usec)	-1.90120E-06	+/-	2.0E-08
Delay rate (us/s)	-6.51494265498E-01	Apriori rate (us/s)	-6.51494387285E-01	Resid rate (us/s)	1.21787E-07	+/-	9.6E-11
Total phase (deg)	-20.4	Apriori accel (us/s/s)	1.87622640463E-05	Resid phase (deg)	-59.0	+/-	0.6

ph/seg (deg)	71.0	1.5	Search (2048X32)	3.501	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	87.5	2.6	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)	19.7	0.9	Inc. seg. avg.	6.246	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	11.9	1.5	Inc. frq. avg.	3.708	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

G: az 220.5 el 42.3 pa 31.3 k: az 174.4 el 56.6 pa -4.0 u,v (fr/asec) 3749.717 791.514 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gk..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gk.W.19.1W7CYL

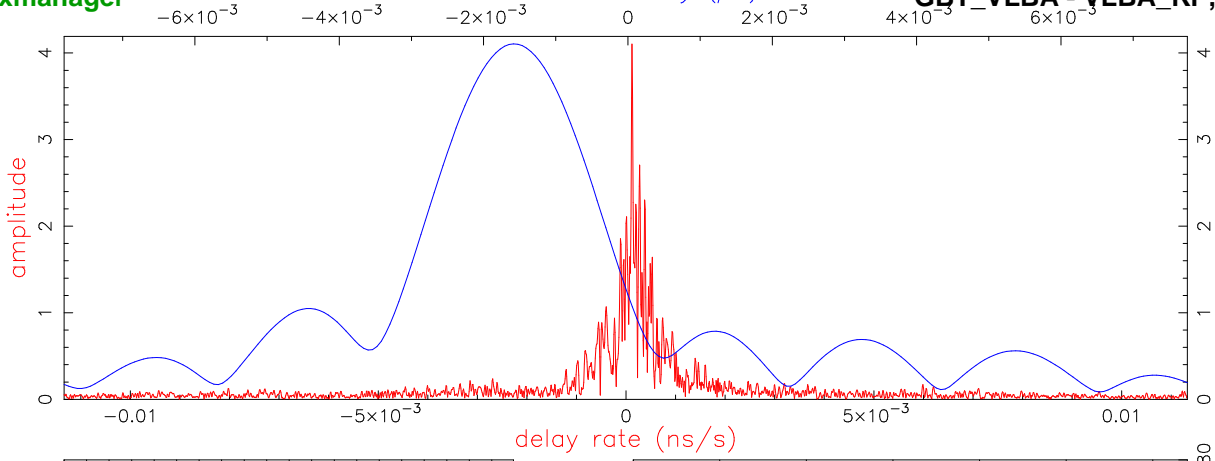
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

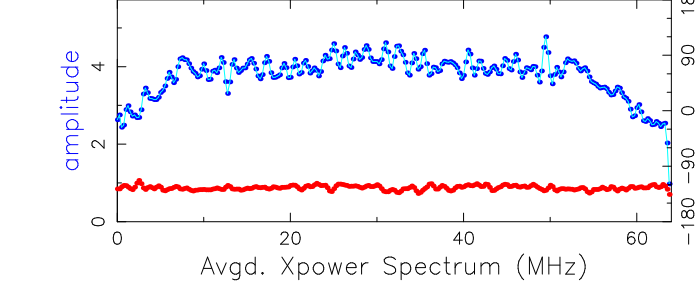
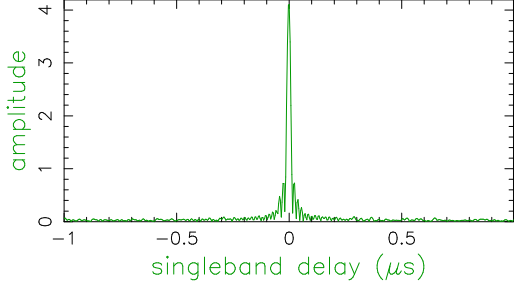
0420-014.1W7CYL, No0108, Gk

GBT_VLBA - VLBA_KP, fgroup W, pol RR

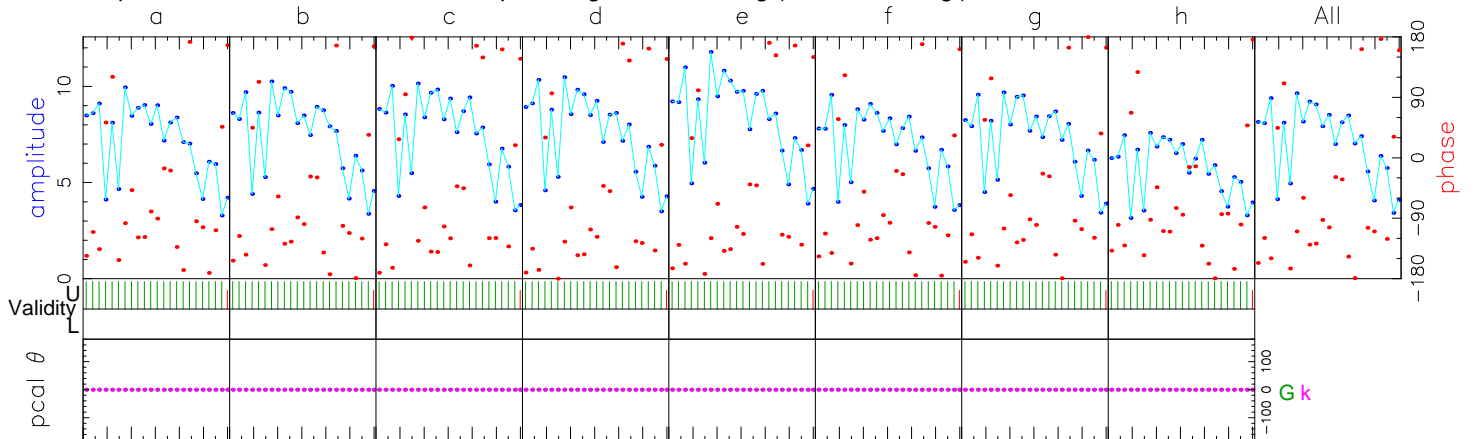
multiband delay (μ s)



Fringe quality 4
 SNR 217.5
 Int time 359.918
 Amp 4.192
 Phase -127.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.001885
 MBD -0.001621
 Fringe rate (Hz) 0.010514
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163009
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 -1°20'33.065613"



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
	-115.1	-124.2	-140.5	-143.8	-136.3	-120.7	-125.2	-108.5	Phase	-127.7
	4.1	4.3	4.3	4.4	4.8	4.0	4.1	3.3	Ampl.	4.2
	256.3	256.4	256.4	256.4	256.9	256.4	256.9	256.5	Sbd box	256.5
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) -3.58730602006E+03 Apriori delay (usec) -3.58730439857E+03 Resid mbdelay (usec) -1.62149E-03 +/- 5.0E-06
 Sband delay (usec) -3.58730628307E+03 Apriori clock (usec) -1.4601519E+01 Resid sbdelay (usec) -1.88450E-03 +/- 4.0E-05
 Phase delay (usec) -3.58730440269E+03 Apriori clockrate (us/s) -9.9999998E-08 Resid phdelay (usec) -4.11701E-06 +/- 1.7E-08
 Delay rate (us/s) -6.51494265230E-01 Apriori rate (us/s) -6.51494387285E-01 Resid rate (us/s) 1.22055E-07 +/- 8.2E-11
 Total phase (deg) -89.2 Apriori accel (us/s/s) 1.87622640463E-05 Resid phase (deg) -127.7 +/- 0.5

RMS Theor. Amplitude 4.192 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 70.8 1.3 Search (2048X32) 4.067 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 82.4 2.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 13.5 0.7 Inc. seg. avg. 7.115 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 amp/frq (%) 9.5 1.3 Inc. frq. avg. 4.185 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

G: az 220.5 el 42.3 pa 31.3 k: az 174.4 el 56.6 pa -4.0 u,v (fr/asec) 3749.717 791.514 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gk..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gk.W.41.1W7CYL

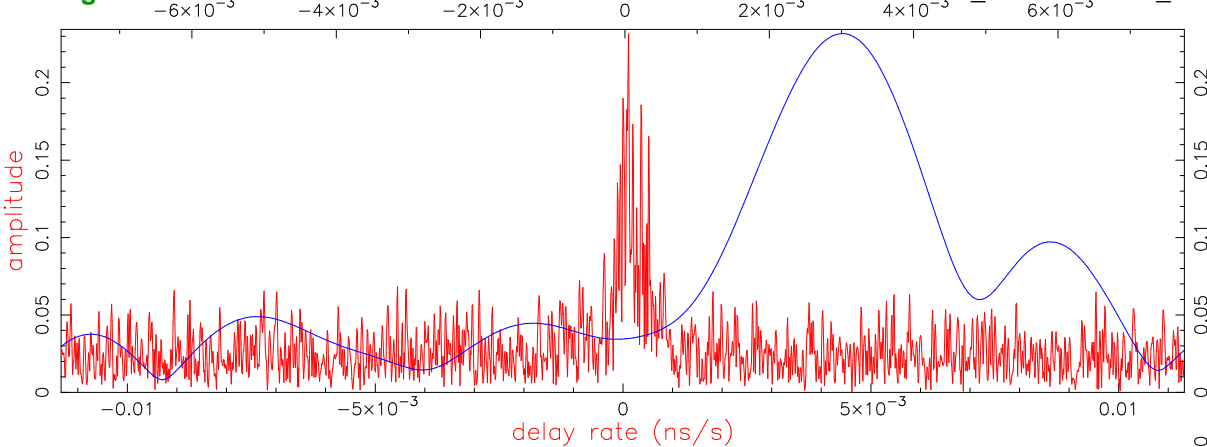
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gk

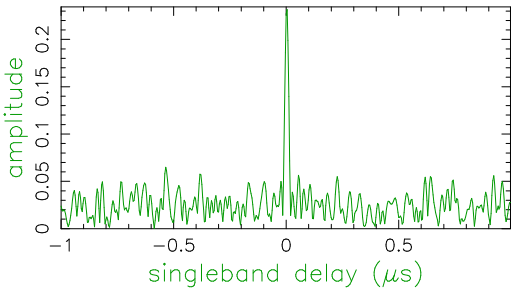
GBT_VLBA - VLBA_KP, fgroup W, pol LR

multiband delay (μ s)

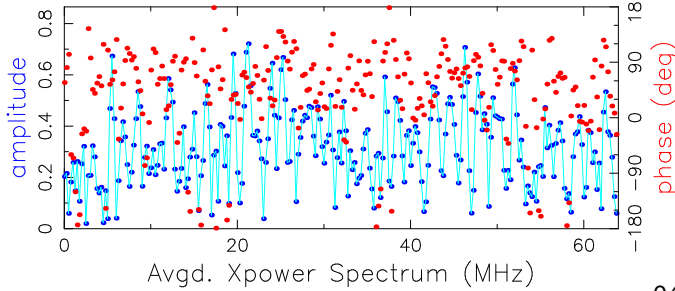


Fringe quality 9

SNR 12.2
 Int time 359.918
 Amp 0.234
 Phase 57.7
 PFD 2.6e-25
 Delays (us)
 SBD 0.002430
 MBD 0.002969
 Fringe rate (Hz) 0.009899
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

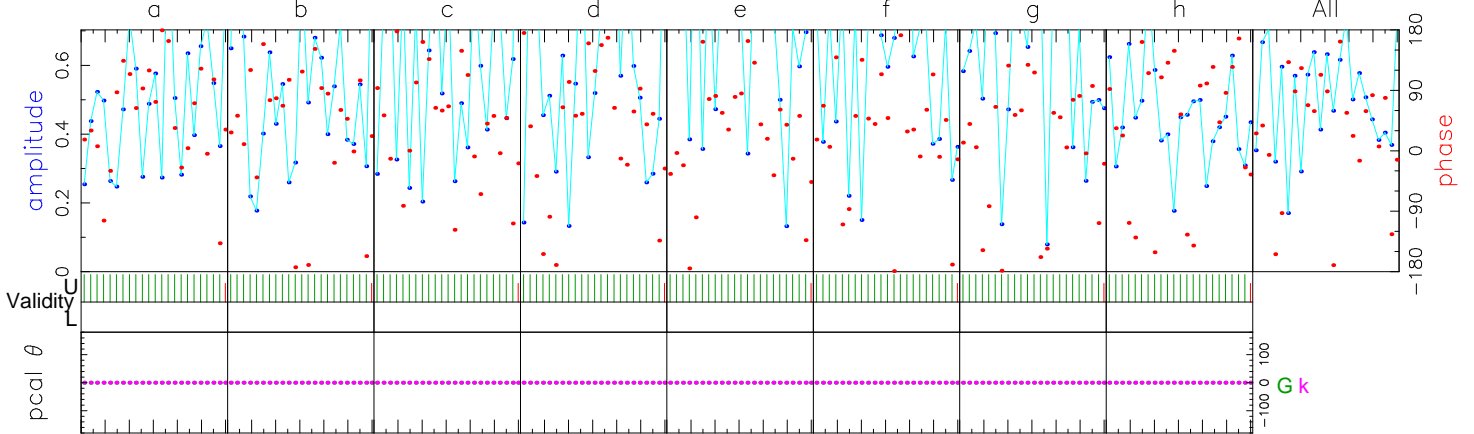


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163012
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
G:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-3.58730142986E+03				-3.58730439857E+03				2.96871E-03	+/- 8.9E-05
Sband delay (usec)	-3.58730196882E+03				-1.4601519E+01				2.42975E-03	+/- 7.1E-04
Phase delay (usec)	-3.58730439671E+03				-9.9999998E-08				1.86206E-06	+/- 3.0E-07
Delay rate (us/s)	-6.51494272367E-01				-6.51494387285E-01				1.14918E-07	+/- 1.5E-09
Total phase (deg)			-263.7		1.87622640463E-05				57.7	+/- 9.4
	RMS	Theor.	Amplitude	0.234 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	78.2	22.6	Search (2048X32)	0.227	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	131.2	39.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	33.3	13.3	Inc. seg. avg.	0.468	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	23.7	23.3	Inc. frq. avg.	0.249	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

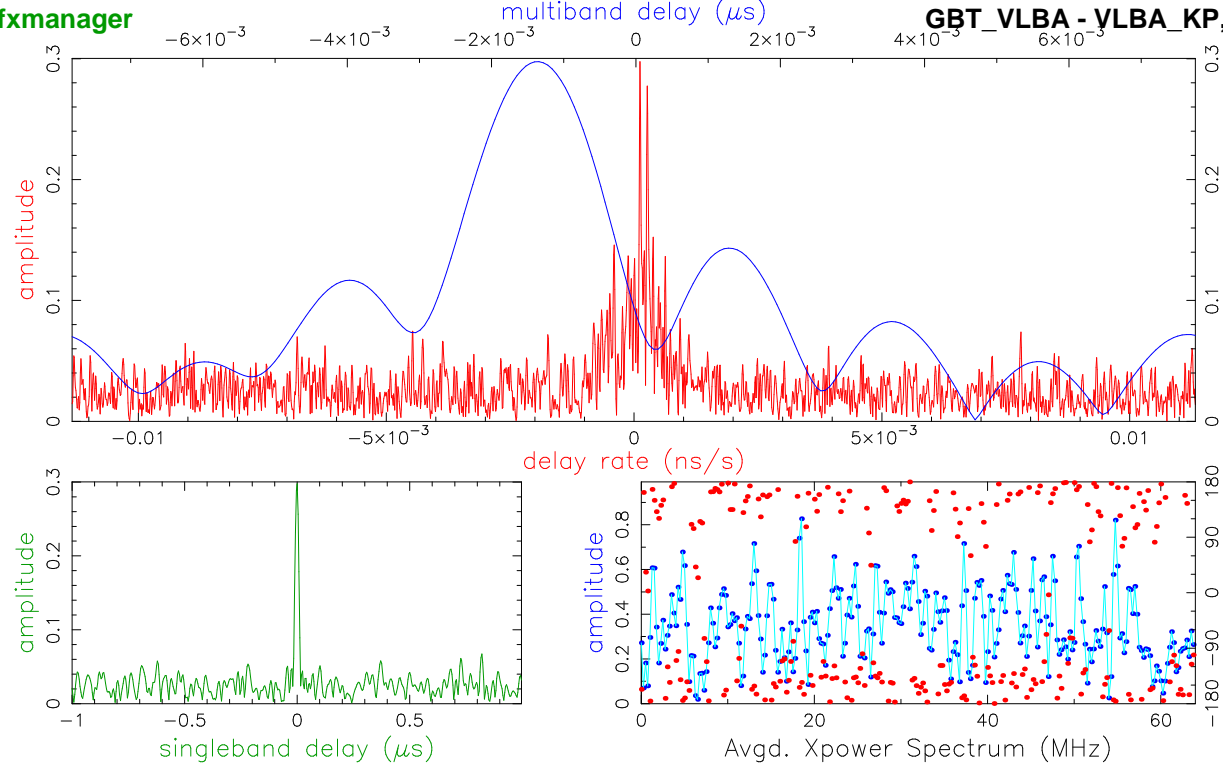
G: az 220.5 el 42.3 pa 31.3 k: az 174.4 el 56.6 pa -4.0 u,v (fr/asec) 3749.717 791.514 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gk..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gk.W.61.1W7CYL

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gk

GBT_VLBA - VLBA_KP, fgroup W, pol RL

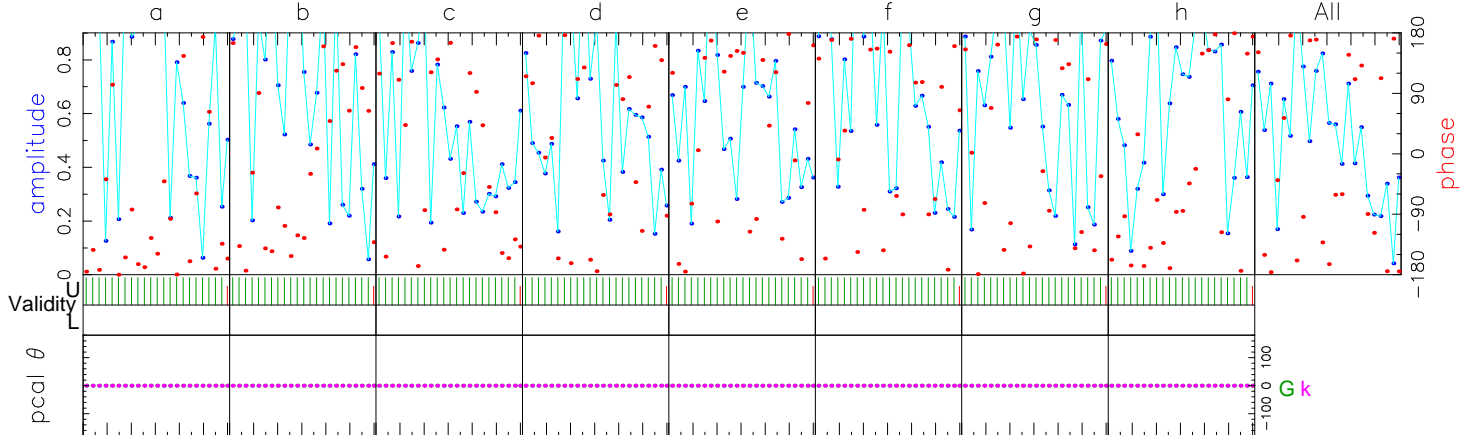


Fringe quality 8

SNR 15.6
 Int time 359.918
 Amp 0.300
 Phase -169.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.001253
 MBD -0.001392
 Fringe rate (Hz) 0.010641
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163016
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 -1°20'33.065613"

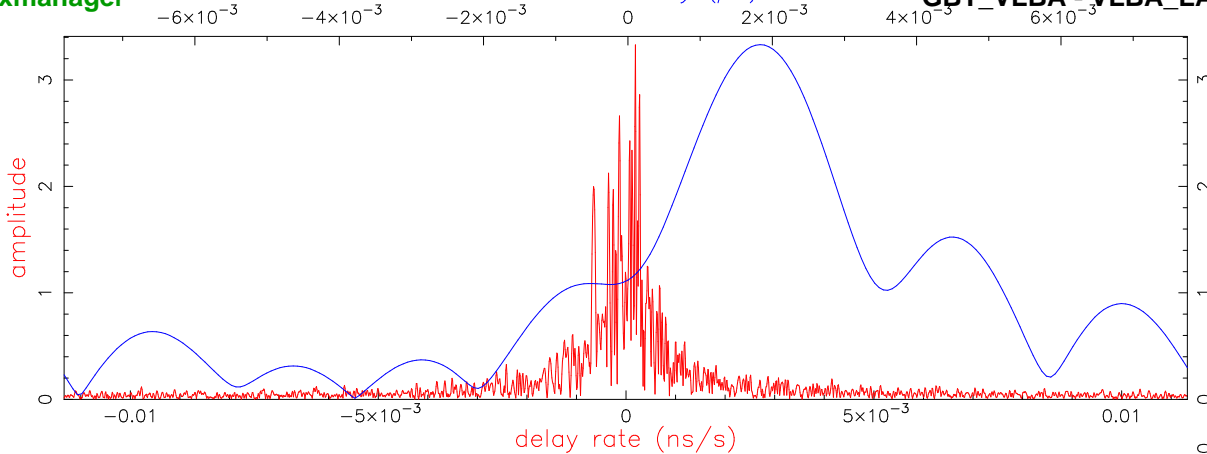
Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-155.1	-163.1	179.6	148.1	167.2	-175.6	-169.2	-136.7	Phase	-169.9
	0.5	0.4	0.2	0.3	0.2	0.3	0.3	0.3	Ampl.	0.3
	256.6	257.0	256.1	256.6	256.0	256.8	257.0	257.7	Sbd box	256.7
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.58730579034E+03		Apriori delay (usec)		-3.58730439857E+03		Resid mbdelay (usec)		-1.39177E-03	+/- 7.0E-05
Sband delay (usec)	-3.58730565207E+03		Apriori clock (usec)		-1.4601519E+01		Resid sbdelay (usec)		-1.25350E-03	+/- 5.5E-04
Phase delay (usec)	-3.58730440405E+03		Apriori clockrate (us/s)		-9.9999998E-08		Resid phdelay (usec)		-5.47781E-06	+/- 2.4E-07
Delay rate (us/s)	-6.51494263760E-01		Apriori rate (us/s)		-6.51494387285E-01		Resid rate (us/s)		1.23526E-07	+/- 1.1E-09
Total phase (deg)			Apriori accel (us/s/s)		1.87622640463E-05		Resid phase (deg)		-169.9	+/- 7.4

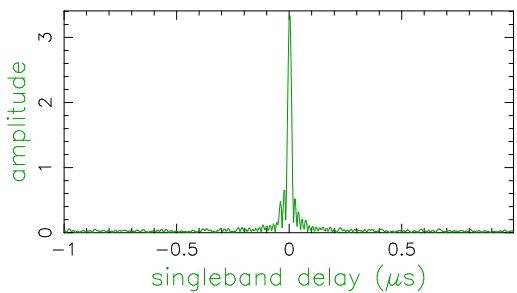
ph/seg (deg) 65.5 17.6 Search (2048X32) 0.295 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 108.9 30.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 25.2 10.4 Inc. seg. avg. 0.498 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 26.7 18.2 Inc. frq. avg. 0.313 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 G: az 220.5 el 42.3 pa 31.3 k: az 174.4 el 56.6 pa -4.0 u,v (fr/asec) 3749.717 791.514 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gk..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gk.W.80.1W7CYL

multiband delay (μs)

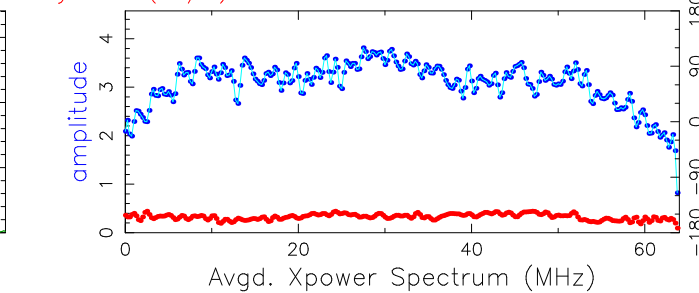


Fringe quality 3

SNR 176.9
Int time 359.919
Amp 3.410
Phase -151.6
PFD 0.0e+00
Delays (us)
SBD 0.001927
MBD 0.001785
Fringe rate (Hz)
0.016145
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

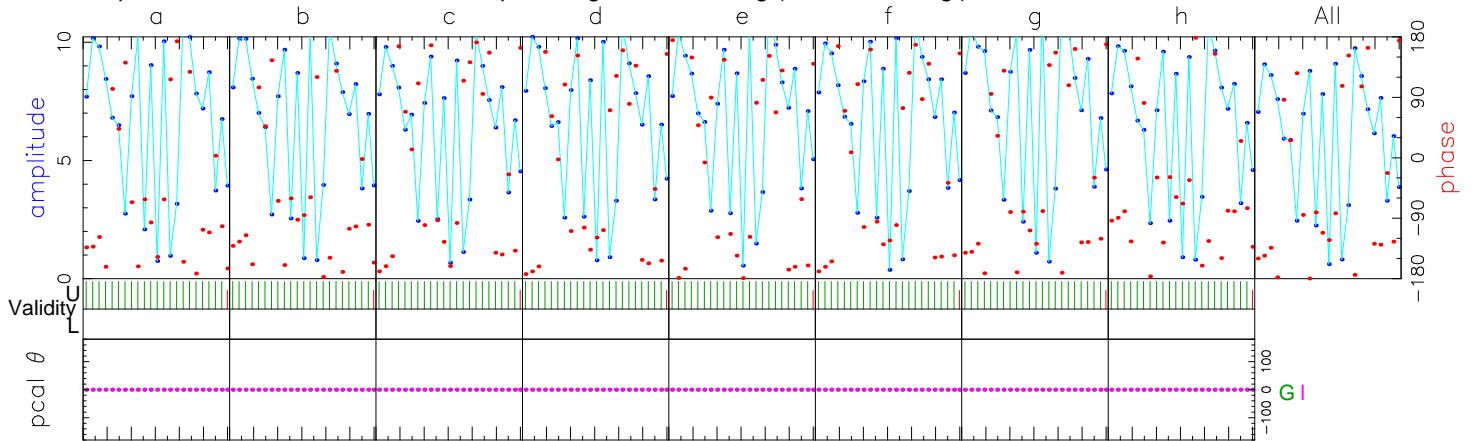


singleband delay (μs)



Exp. c211a
Exper # 16383
Yr:day 2021:113
Start 213000.00
Stop 213559.94
FRT 213300.00
Corr/FF/build
2021:287:131300
2021:287:163004
2021:252:122852
RA & Dec (J2000)
04h23m15.800724s
--1°20'33.065613"

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
	-134.3	-128.2	-166.5	-176.4	173.4	-170.3	-147.1	-100.4	Phase	-151.6
	3.7	3.7	3.5	3.7	3.8	3.7	4.0	3.7	Ampl.	3.7
	257.6	257.5	257.1	257.3	257.5	257.7	257.8	258.3	Sbd box	257.5
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
I	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-2.76054920836E+03	Apriori delay (usec)	-2.76055099375E+03	Resid mbdelay (usec)	1.78539E-03	+/-	6.1E-06
Sband delay (usec)	-2.76054906675E+03	Apriori clock (usec)	-1.1700598E-01	Resid sbdelay (usec)	1.92700E-03	+/-	4.9E-05
Phase delay (usec)	-2.76055099864E+03	Apriori clockrate (us/s)	1.8600001E-07	Resid phdelay (usec)	-4.88764E-06	+/-	2.1E-08
Delay rate (us/s)	-5.31196766257E-01	Apriori rate (us/s)	-5.31196953679E-01	Resid rate (us/s)	1.87422E-07	+/-	1.0E-10
Total phase (deg)	-8.3	Apriori accel (us/s/s)	1.45226188729E-05	Resid phase (deg)	-151.6	+/-	0.6

ph/seg (deg)	RMS 71.9	Theor. 1.6	Amplitude Search (2048X32)	3.410 +/- 0.019	3.280	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	111.1	2.7	Interp.	0.000	3.280	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
ph/frq (deg)	31.4	0.9	Inc. seg. avg.	6.051	3.280	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
amp/frq (%)	10.2	1.6	Inc. frq. avg.	3.729	3.280	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011		
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

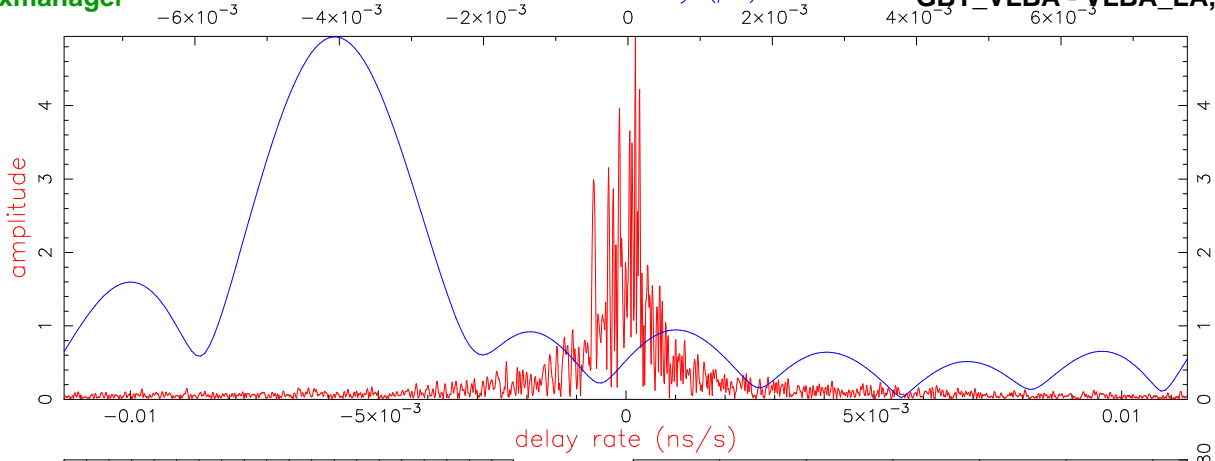
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

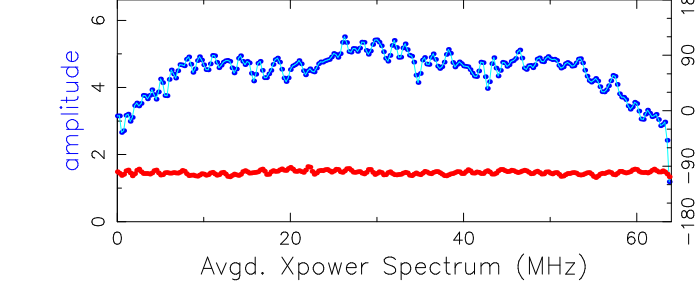
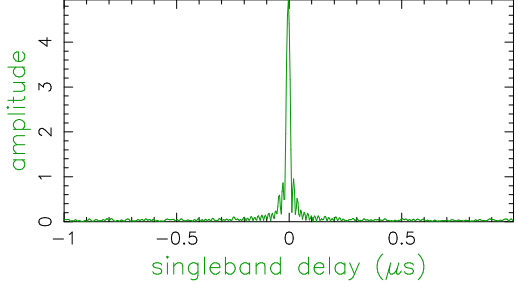
0420-014.1W7CYL, No0108, GI

GBT_VLBA - VLBA_LA, fgroup W, pol RR

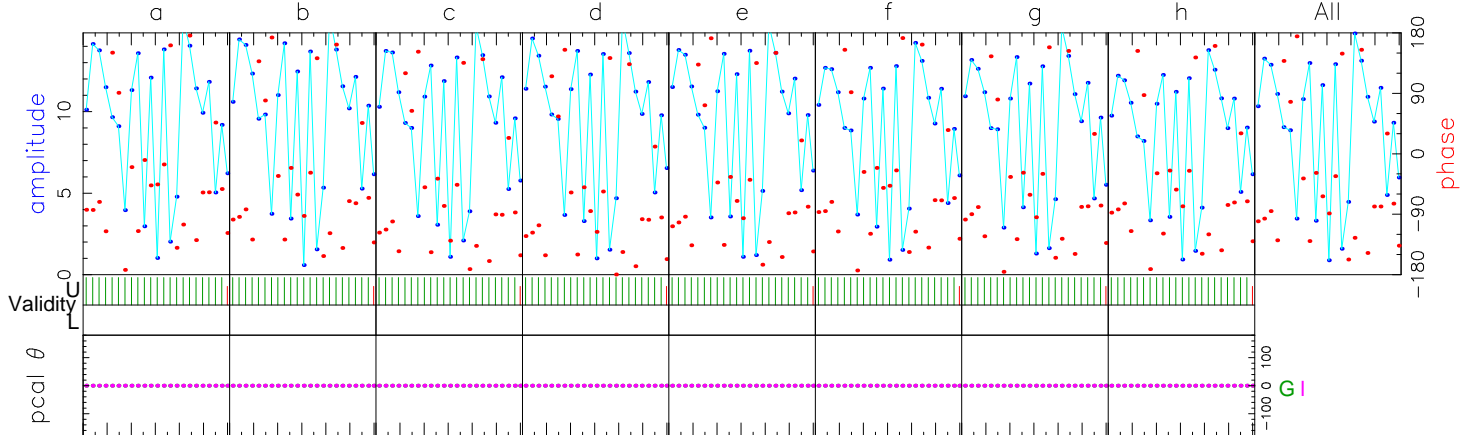
multiband delay (μ s)



Fringe quality 4
 SNR 256.4
 Int time 359.919
 Amp 4.942
 Phase -103.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.004316
 MBD -0.004071
 Fringe rate (Hz) 0.016142
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163008
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"



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
	-86.1	-99.0	-117.4	-124.0	-109.8	-92.7	-100.6	-93.9	Phase	-103.1
	5.1	5.2	4.9	5.2	5.3	4.9	5.0	4.7	Ampl.	5.1
	255.9	255.6	255.6	256.1	256.1	256.0	256.1	255.9	Sbd box	255.9
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
I	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.76055506433E+03		Apriori delay (usec)		-2.76055099375E+03		Resid mbdelay (usec)		-4.07058E-03 +/- 4.2E-06	
Sband delay (usec)	-2.76055530975E+03		Apriori clock (usec)		-1.1700598E+01		Resid sbdelay (usec)		-4.31600E-03 +/- 3.4E-05	
Phase delay (usec)	-2.76055099708E+03		Apriori clockrate (us/s)		1.8600001E-07		Resid phdelay (usec)		-3.32336E-06 +/- 1.4E-08	
Delay rate (us/s)	-5.31196766284E-01		Apriori rate (us/s)		-5.31196953679E-01		Resid rate (us/s)		1.87395E-07 +/- 6.9E-11	
Total phase (deg)			Apriori accel (us/s/s)		1.45226188729E-05		Resid phase (deg)		-103.1 +/- 0.4	

ph/seg (deg) 72.6 1.1 Search (2048X32) 4.836 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 116.4 1.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 14.1 0.6 Inc. seg. avg. 9.050 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 4.3 1.1 Inc. frq. avg. 5.051 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 G: az 220.5 el 42.3 pa 31.3 I: az 183.8 el 52.9 pa 4.2 u,v (fr/asec) 3057.170 307.580 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/GI.1W7CYL Output file: /Exps/c211a/v2/1234/No0108/GI.W.38.1W7CYL

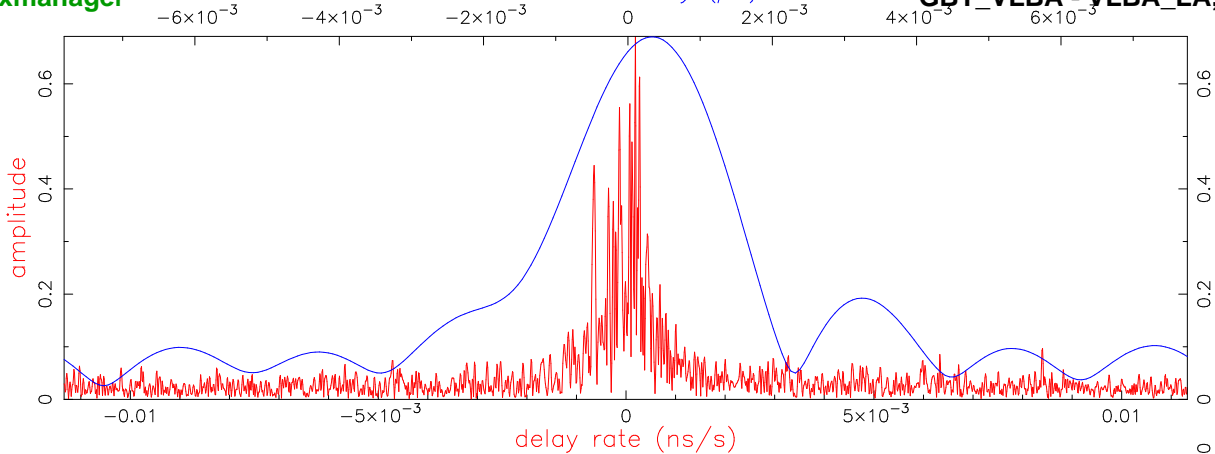
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, GI

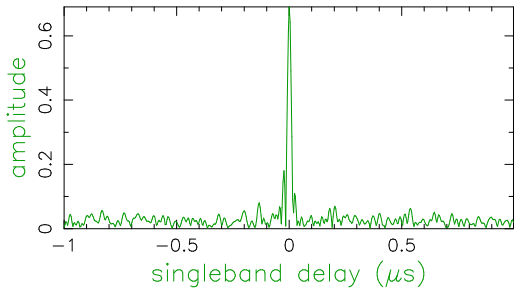
GBT_VLBA - VLBA_LA, fgroup W, pol LR

multiband delay (μ s)

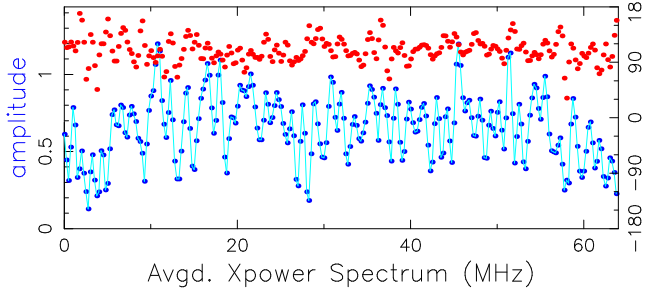


Fringe quality 5

SNR 35.8
 Int time 359.919
 Amp 0.690
 Phase 111.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.000424
 MBD 0.000345
 Fringe rate (Hz) 0.016116
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

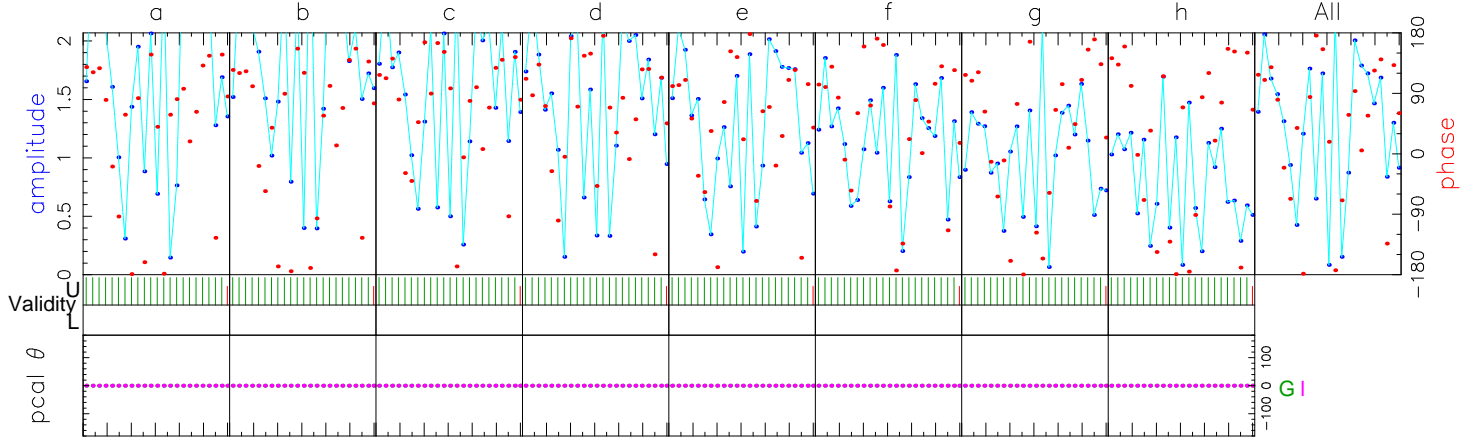


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163012
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 -1°20'33.065613"

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	116.3	112.3	102.8	93.4	102.9	111.4	138.6	Phase	111.3
	1.0	0.9	0.9	0.8	0.6	0.6	0.4	0.4	Ampl.	0.7
	257.4	257.0	256.7	257.0	257.1	257.2	257.4	257.5	Sbd box	257.1
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
I	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.76055064911E+03		Apriori delay (usec)		-2.76055099375E+03		Resid mbdelay (usec)		3.44642E-04	+/- 3.0E-05
Sband delay (usec)	-2.76055056975E+03		Apriori clock (usec)		-1.1700598E+01		Resid sbdelay (usec)		4.24000E-04	+/- 2.4E-04
Phase delay (usec)	-2.76055099017E+03		Apriori clockrate (us/s)		1.8600001E-07		Resid phdelay (usec)		3.58871E-06	+/- 1.0E-07
Delay rate (us/s)	-5.31196766593E-01		Apriori rate (us/s)		-5.31196953679E-01		Resid rate (us/s)		1.87087E-07	+/- 5.0E-10
Total phase (deg)			Apriori accel (us/s/s)		1.45226188729E-05		Resid phase (deg)		111.3	+/- 3.2

	RMS	Theor.	Amplitude	0.690 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	80.8	7.7	Search (2048X32)	0.676	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	121.9	13.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	14.6	4.5	Inc. seg. avg.	1.286	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	29.3	7.9	Inc. frq. avg.	0.700	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

G: az 220.5 el 42.3 pa 31.3 I: az 183.8 el 52.9 pa 4.2 u,v (fr/asec) 3057.170 307.580 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/GI.1W7CYL Output file: /Exps/c211a/v2/1234/No0108/GI.W.58.1W7CYL

Mk4/DiFX fourfit 3.21 rev 2937

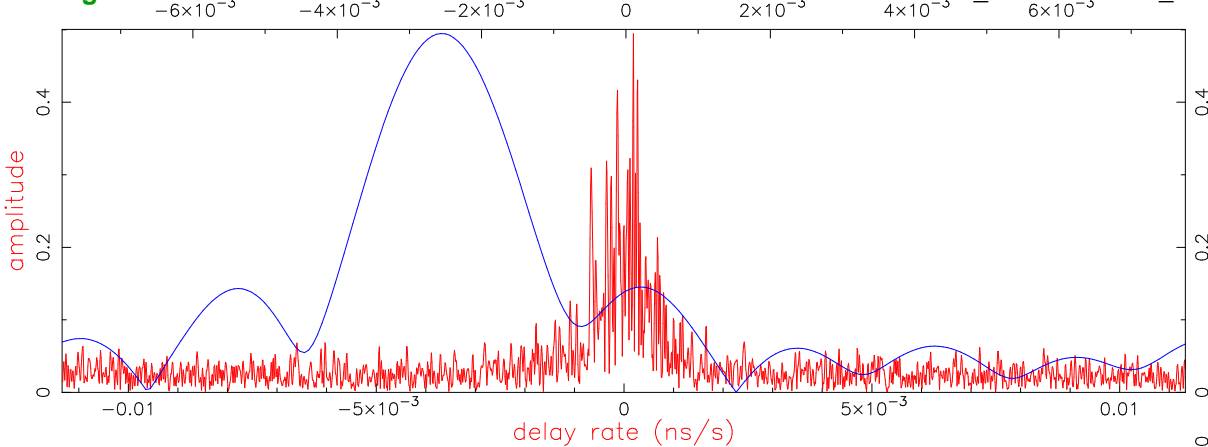
fxmanager

0420-014.1W7CYL, No0108, GI

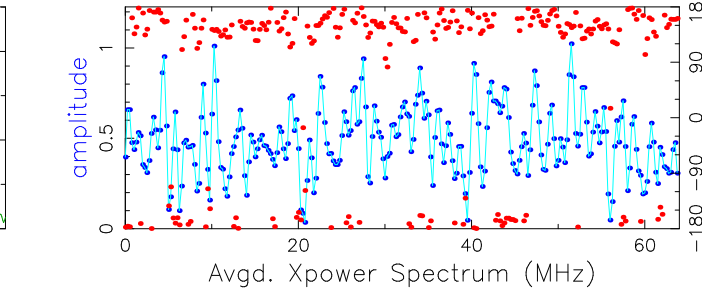
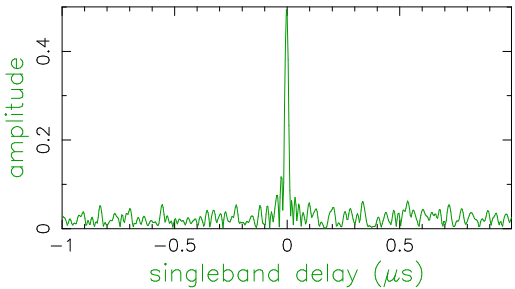
GBT_VLBA - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 7

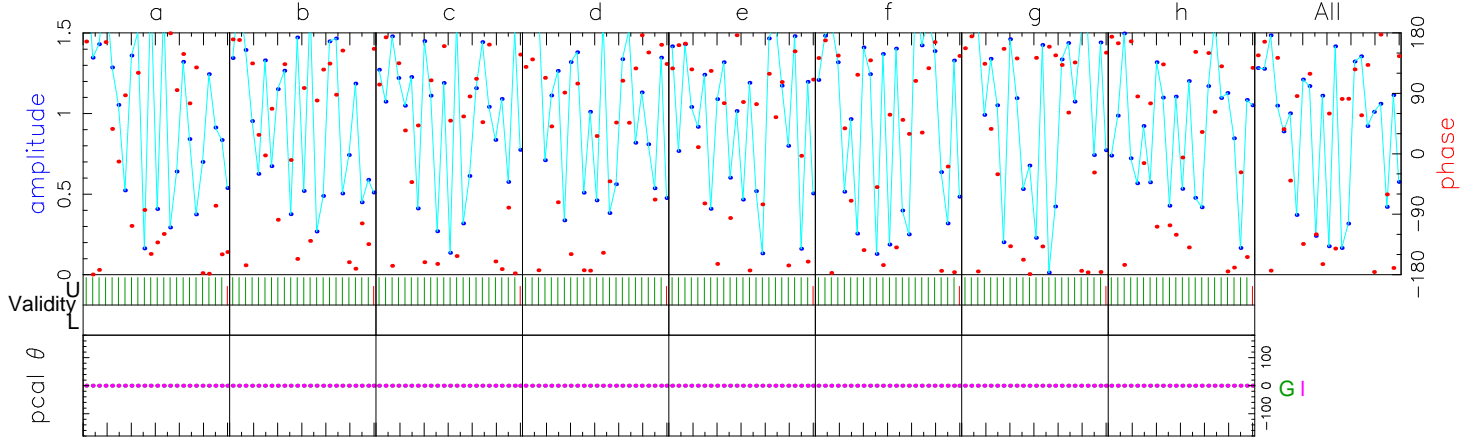


SNR 26.0
 Int time 359.919
 Amp 0.501
 Phase 161.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.002530
 MBD -0.002512
 Fringe rate (Hz)
 0.016260
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163015
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
G:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-2.76055350589E+03									
Sband delay (usec)	-2.76055352400E+03									
Phase delay (usec)	-2.76055098856E+03									
Delay rate (us/s)	-5.31196764911E-01									
Total phase (deg)			-55.7							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)									161.0	+/- 4.4
Pcal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5							
Pcal rate:	0.000E+00, 0.000E+00 (us/s)									
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								

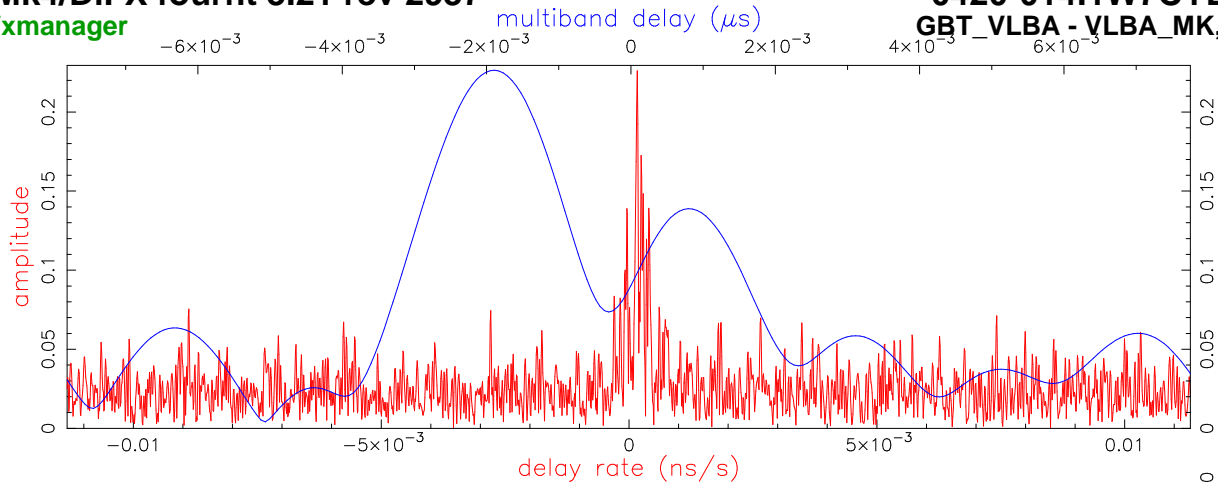
G: az 220.5 el 42.3 pa 31.3 I: az 183.8 el 52.9 pa 4.2 u,v (fr/asec) 3057.170 307.580 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/GI..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/GI.W.77.1W7CYL

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

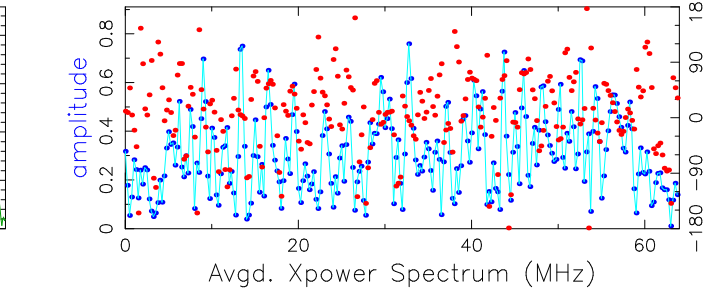
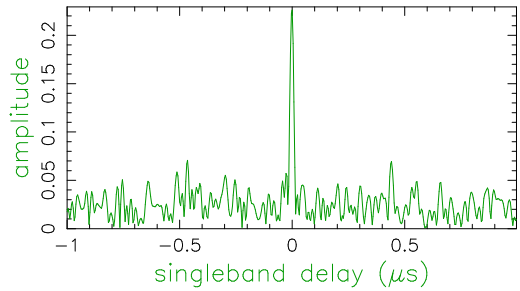
0420-014.1W7CYL, No0108, Gm

GBT_VLBA - VLBA_MK, fgroup W, pol LR



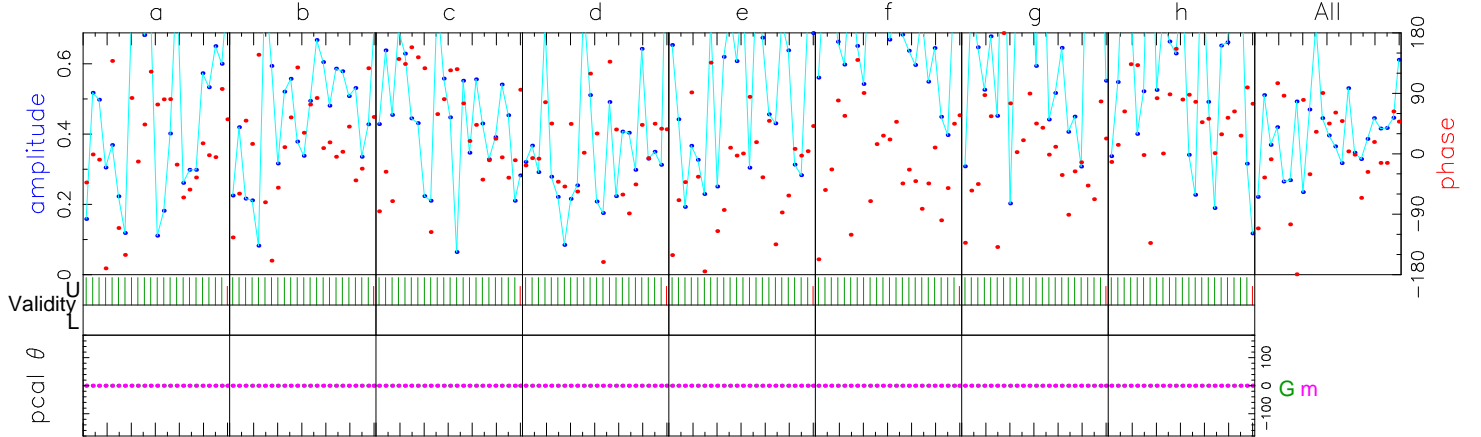
Fringe quality 9

SNR 11.9
 Int time 359.922
 Amp 0.229
 Phase 19.5
 PFD 5.7e-24
 Delays (us)
 SBD -0.001616
 MBD -0.001960
 Fringe rate (Hz) 0.014408
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163025
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	25.8	16.7	51.6	21.0	-19.3	-10.2	10.2	61.3	Phase	19.5
	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.4	Ampl.	0.2
	257.2	256.6	361.7	255.7	257.3	257.2	256.6	256.9	Sbd box	256.6
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.80870180148E+02		Apriori delay (usec)		4.80872139705E+02		Resid mbdelay (usec)		-1.95956E-03	+/- 9.1E-05
Sband delay (usec)	4.80870523705E+02		Apriori clock (usec)		-2.9926886E+01		Resid sbdelay (usec)		-1.61600E-03	+/- 7.2E-04
Phase delay (usec)	4.80872140332E+02		Apriori clockrate (us/s)		-4.1800000E-07		Resid phdelay (usec)		6.27614E-07	+/- 3.1E-07
Delay rate (us/s)	-1.65191283374E+00		Apriori rate (us/s)		-1.65191300100E+00		Resid rate (us/s)		1.67259E-07	+/- 1.5E-09
Total phase (deg)	60.6		Apriori accel (us/s/s)		-3.43687742266E-06		Resid phase (deg)		19.5	+/- 9.6

	RMS	Theor.	Amplitude	0.229 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	67.5	23.1	Search (2048X32)	0.224	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	91.7	40.3	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	29.7	13.6	Inc. seg. avg.	0.376	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	31.5	23.8	Inc. frq. avg.	0.246	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

G: az 220.5 el 42.3 pa 31.3 m: az 109.1 el 39.4 pa -62.6 u,v (fr/asec) 9454.326 2527.033 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gm..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gm.W.116.1W7CYL

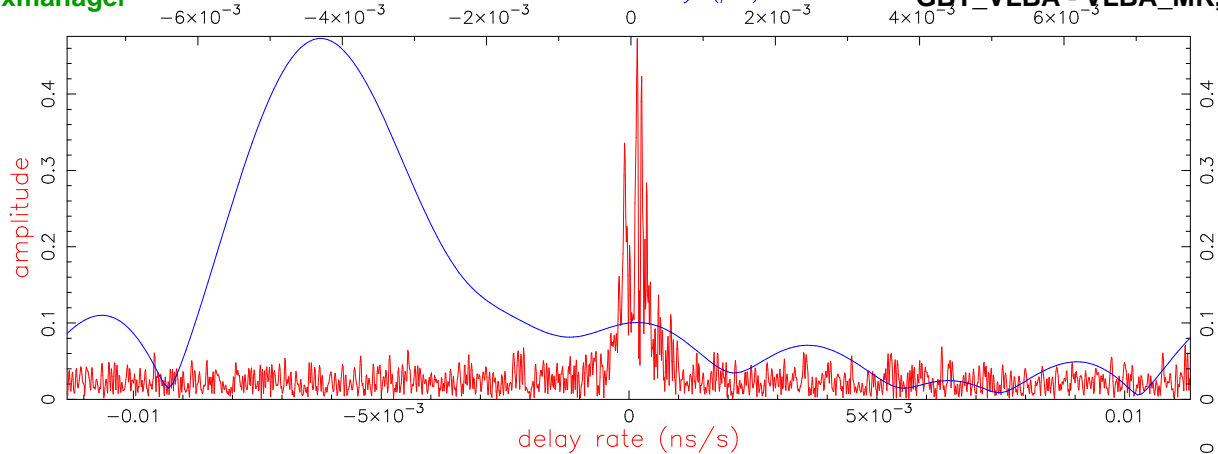
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gm

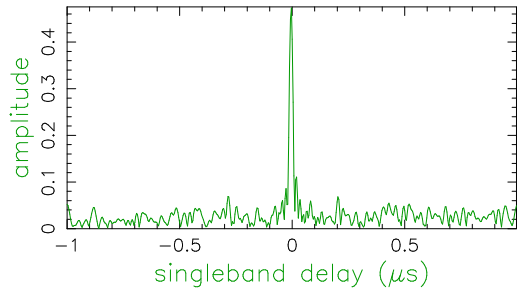
GBT_VLBA - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

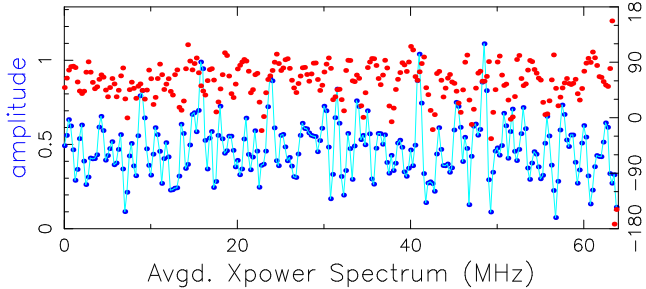


Fringe quality 6

SNR 24.7
 Int time 359.922
 Amp 0.476
 Phase 55.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.004835
 MBD -0.004325
 Fringe rate (Hz)
 0.014782
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

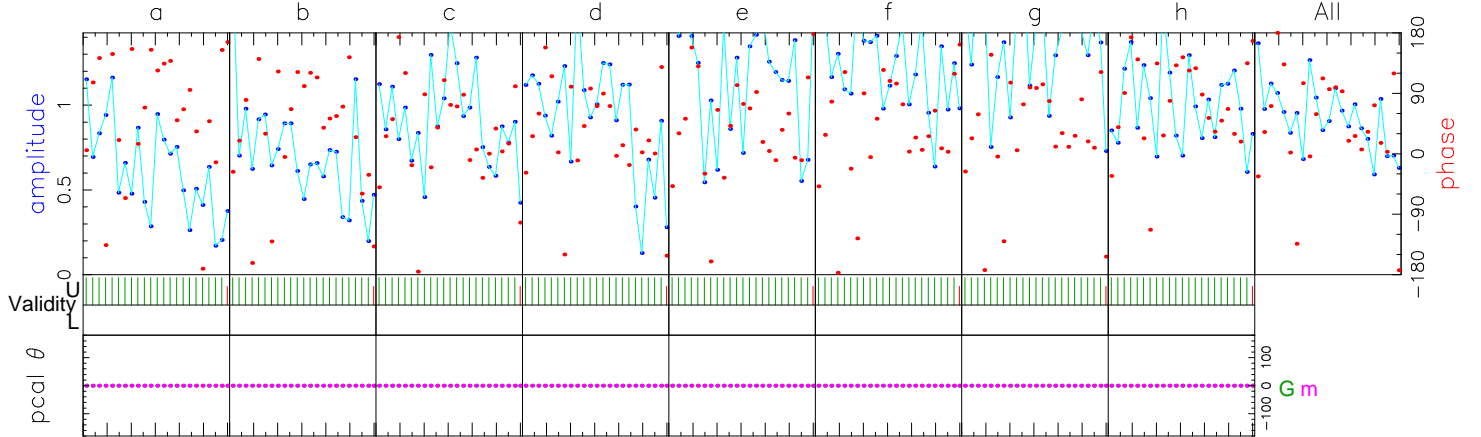


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163029
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	101.3	58.5	39.0	43.7	43.3	49.7	53.2	79.7	Phase	55.2
	0.3	0.3	0.5	0.5	0.6	0.6	0.7	0.5	Ampl.	0.5
	256.1	255.1	255.4	255.9	256.1	255.6	256.1	256.4	Sbd box	255.8
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.80867814336E+02		Apriori delay (usec)		4.80872139705E+02		Resid mbdelay (usec)		-4.32537E-03	+/- 4.4E-05
Sband delay (usec)	4.80867304205E+02		Apriori clock (usec)		-2.9926886E+01		Resid sbdelay (usec)		-4.83550E-03	+/- 3.5E-04
Phase delay (usec)	4.80872141484E+02		Apriori clockrate (us/s)		-4.1800000E-07		Resid phdelay (usec)		1.77956E-06	+/- 1.5E-07
Delay rate (us/s)	-1.65191282940E+00		Apriori rate (us/s)		-1.65191300100E+00		Resid rate (us/s)		1.71604E-07	+/- 7.2E-10
Total phase (deg)			96.3		Apriori accel (us/s/s)		-3.43687742266E-06		Resid phase (deg)	55.2 +/- 4.6

RMS Theor. Amplitude 0.476 +/- 0.019
 ph/seg (deg) 67.1 11.1 Search (2048X32) 0.455 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 103.7 19.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.5 6.6 Inc. seg. avg. 0.914 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 29.9 11.5 Inc. frq. avg. 0.491 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 G: az 220.5 el 42.3 pa 31.3 m: az 109.1 el 39.4 pa -62.6 u,v (fr/asec) 9454.326 2527.033 ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gm..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gm.W.138.1W7CYL

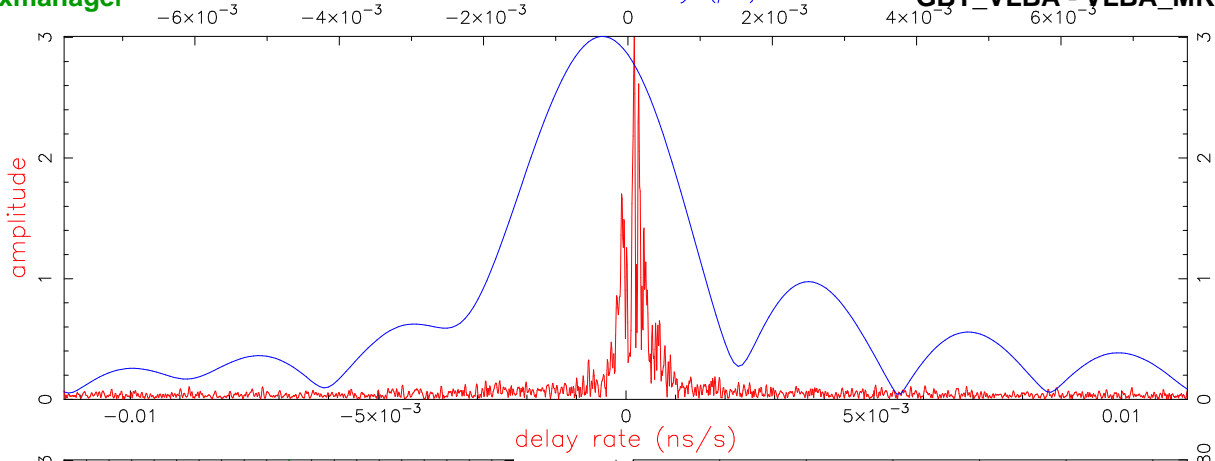
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gm

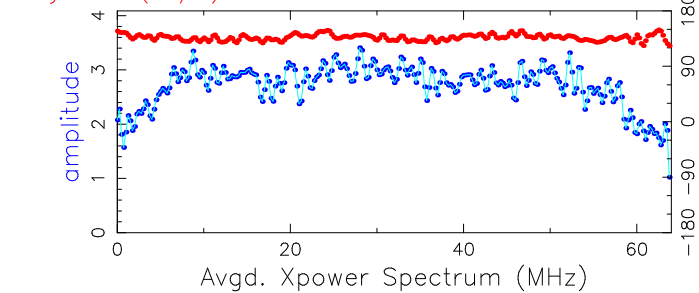
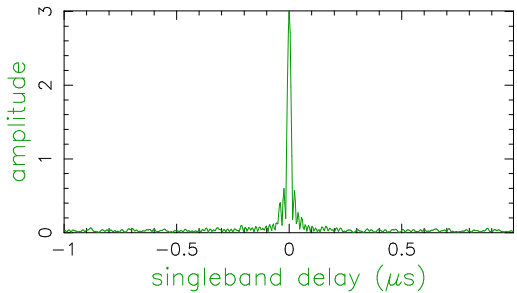
GBT_VLBA - VLBA_MK, fgroup W, pol LL

multiband delay (μ s)



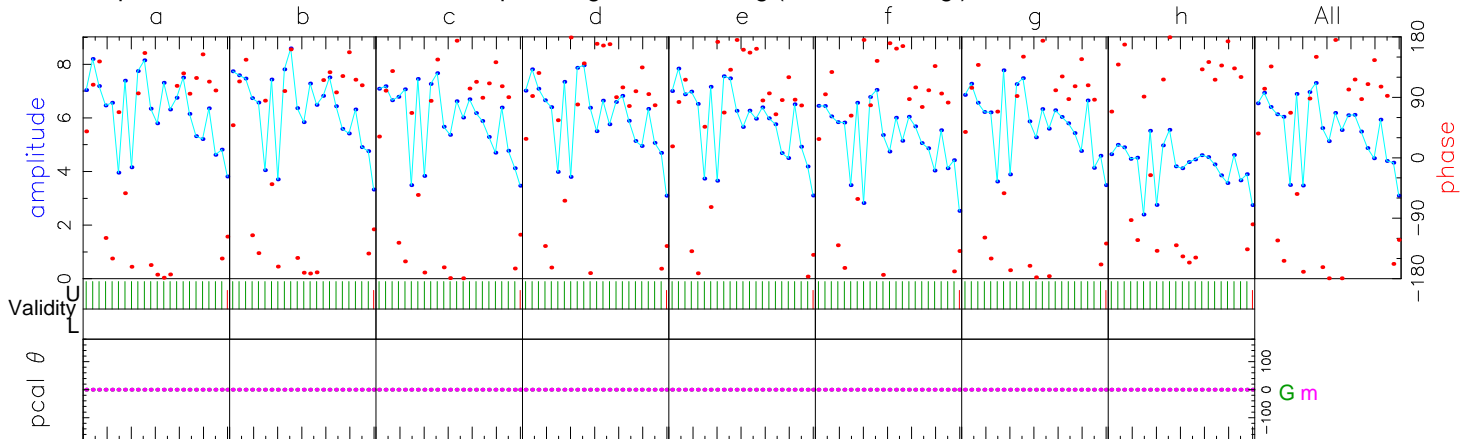
Fringe quality 4

SNR 156.0
 Int time 359.922
 Amp 3.008
 Phase 139.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.000128
 MBD -0.000354
 Fringe rate (Hz)
 0.014544
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163017
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	147.2	149.9	138.0	128.1	119.5	128.1	140.5	170.6	Phase	139.4
	3.5	3.5	3.2	3.3	3.1	2.9	3.1	2.3	Ampl.	3.1
	257.1	257.2	256.7	256.8	257.1	256.9	257.1	257.2	Sbd box	257.0
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.80871785273E+02		Apriori delay (usec)		4.80872139705E+02		Resid mbdelay (usec)		-3.54431E-04	+/- 7.0E-06
Sband delay (usec)	4.80872011955E+02		Apriori clock (usec)		-2.9926886E+01		Resid sbdelay (usec)		-1.27750E-04	+/- 5.5E-05
Phase delay (usec)	4.80872144200E+02		Apriori clockrate (us/s)		-4.1800000E-07		Resid phdelay (usec)		4.49575E-06	+/- 2.4E-08
Delay rate (us/s)	-1.65191283216E+00		Apriori rate (us/s)		-1.65191300100E+00		Resid rate (us/s)		1.68837E-07	+/- 1.1E-10
Total phase (deg)	180.5		Apriori accel (us/s/s)		-3.43687742266E-06		Resid phase (deg)		139.4	+/- 0.7

	RMS	Theor.	Amplitude	3.008 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	63.7	1.8	Search (2048X32)	2.955	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	93.5	3.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	17.3	1.0	Inc. seg. avg.	5.577	Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
amp/frq (%)	12.3	1.8	Inc. frq. avg.	3.099	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite
							ion window (TEC) 0.00 0.00

G: az 220.5 el 42.3 pa 31.3 m: az 109.1 el 39.4 pa -62.6 u,v (fr/asec) 9454.326 2527.033 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gm..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gm.W.83.1W7CYL

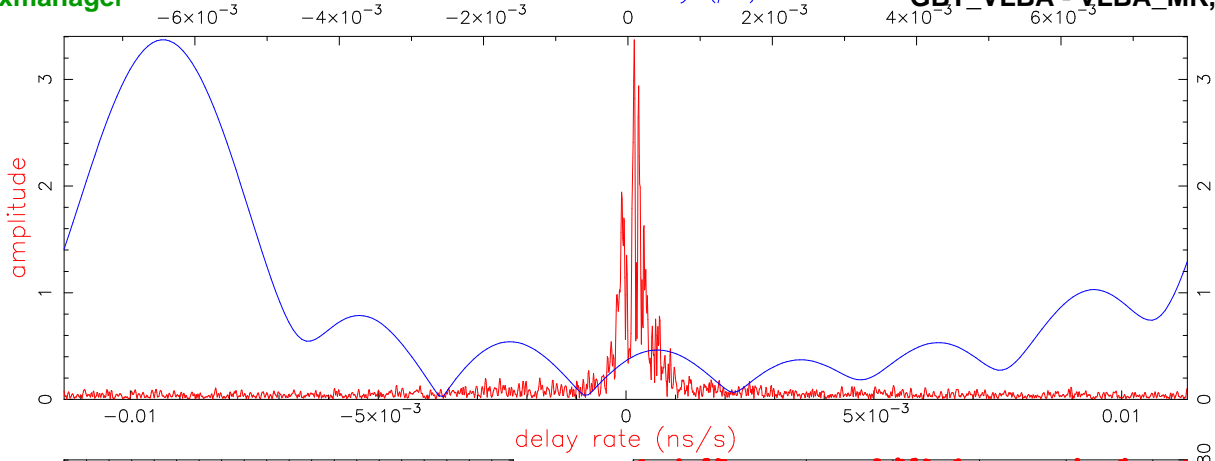
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gm

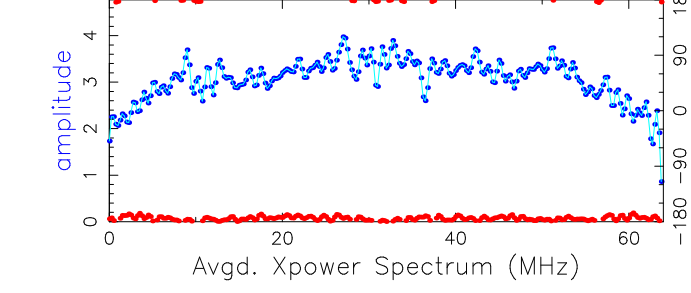
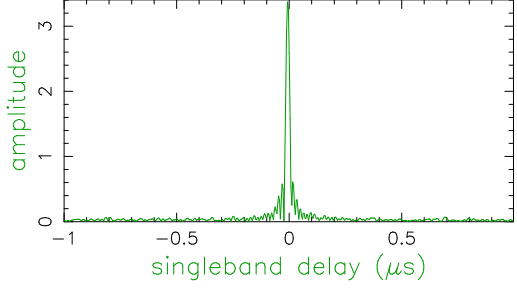
GBT_VLBA - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)



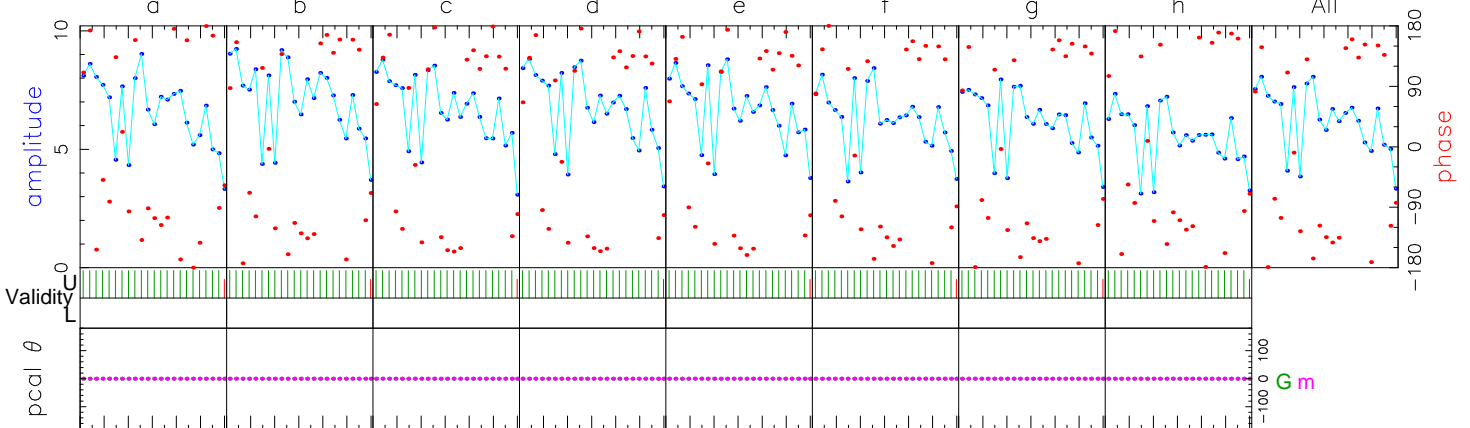
Fringe quality 4

SNR 176.6
 Int time 359.922
 Amp 3.404
 Phase -176.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.006550
 MBD -0.006408
 Fringe rate (Hz)
 0.014510
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163021
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 -1°20'33.065613"

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
	-149.0	-171.4	167.7	166.2	165.8	-178.8	-176.6	-156.0	Phase	-176.9
	3.6	3.9	3.6	3.7	3.6	3.4	3.3	3.0	Ampl.	3.5
	255.2	255.0	255.2	255.4	255.4	255.4	255.7	255.7	Sbd box	255.3
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	4.80865731711E+02	Apriori delay (usec)	4.80872139705E+02	Resid mbdelay (usec)	-6.40799E-03	+/-	6.1E-06
Sband delay (usec)	4.80865589705E+02	Apriori clock (usec)	-2.9926886E+01	Resid sbdelay (usec)	-6.55000E-03	+/-	4.9E-05
Phase delay (usec)	4.80872133999E+02	Apriori clockrate (us/s)	-4.1800000E-07	Resid phdelay (usec)	-5.70596E-06	+/-	2.1E-08
Delay rate (us/s)	-1.65191283255E+00	Apriori rate (us/s)	-1.65191300100E+00	Resid rate (us/s)	1.68449E-07	+/-	1.0E-10
Total phase (deg)	-135.8	Apriori accel (us/s/s)	-3.43687742266E-06	Resid phase (deg)	-176.9	+/-	0.6

ph/seg (deg)	63.6	RMS	1.6	Theor.	3.404 +/- 0.019	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	92.0	Search (2048X32)	3.315	PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	18.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	8.0	Inc. seg. avg.	6.262	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011		
		Inc. frq. avg.	3.507	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

G: az 220.5 el 42.3 pa 31.3 m: az 109.1 el 39.4 pa -62.6 u,v (fr/asec) 9454.326 2527.033 simultaneous interpolator

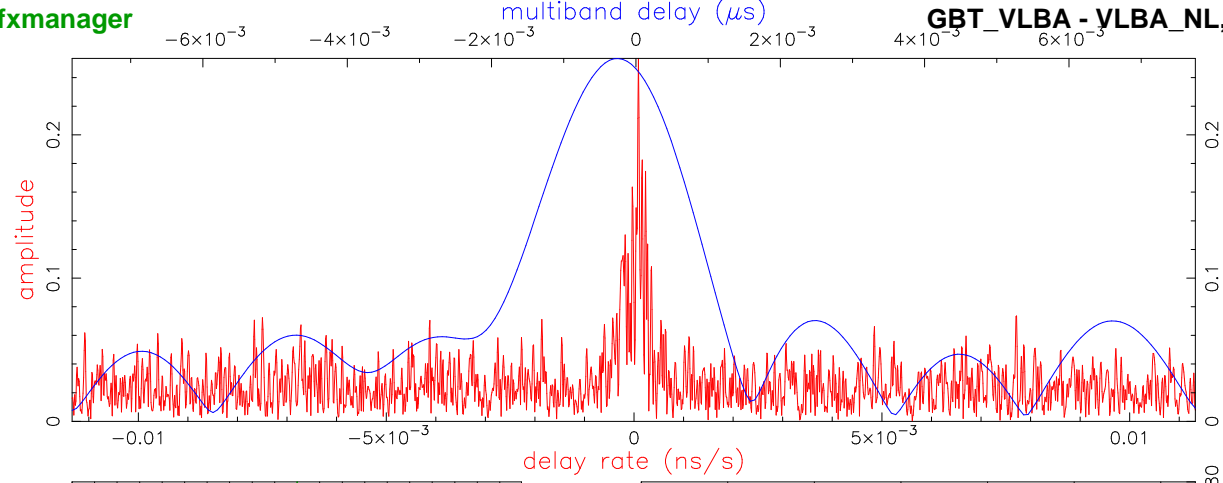
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gm..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gm.W.94.1W7CYL

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gn

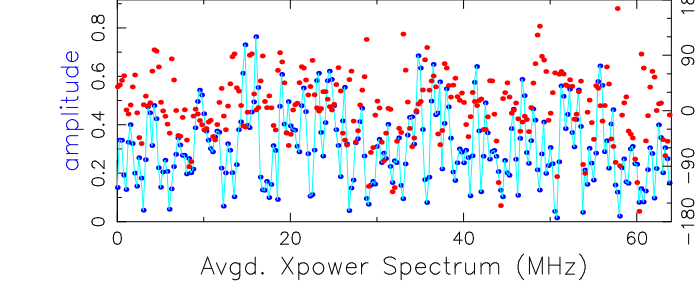
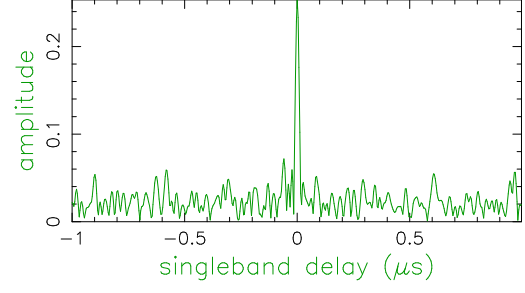
GBT_VLBA - VLBA_NL, fgroup W, pol LR



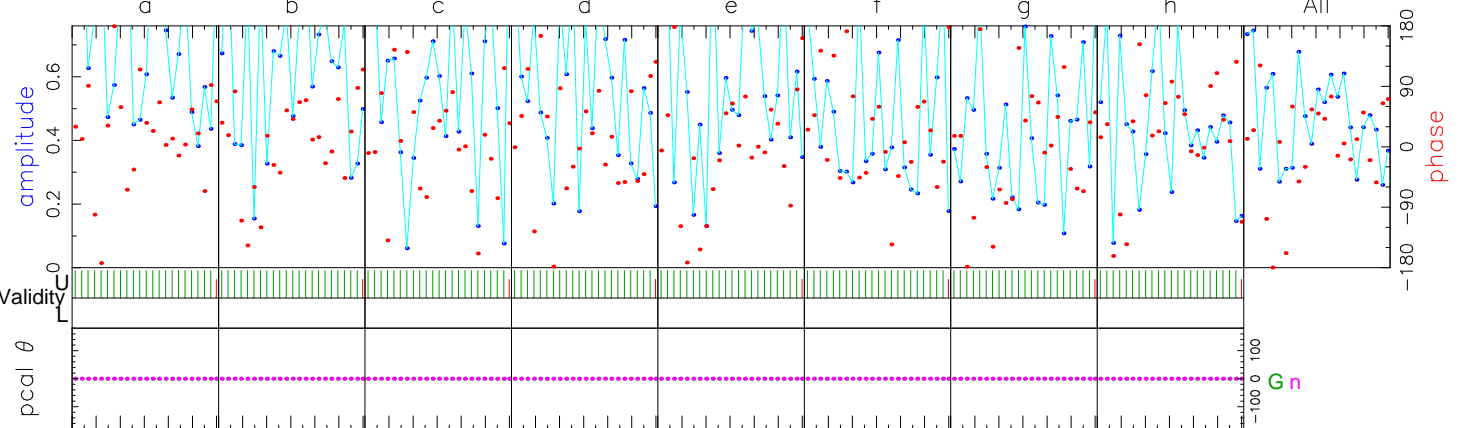
Fringe quality 9

SNR 13.1
 Int time 359.921
 Amp 0.253
 Phase 14.4
 PFD 1.0e-30
 Delays (us)
 SBD 0.000196
 MBD -0.000252
 Fringe rate (Hz) 0.007703
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build 2021:287:131300
 2021:287:163024
 2021:252:122852
 RA & Dec (J2000) 04h23m15.800724s
 --1°20'33.065613"



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	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-6.04537940697E+02									
Sband delay (usec)	-6.04537492054E+02									
Phase delay (usec)	-6.04537688089E+02									
Delay rate (us/s)	-2.45655503736E-01									
Total phase (deg)			-162.7							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)									14.4	+/- 8.7
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

ph/seg (deg) 70.6 20.9 Search (2048X32) 0.247 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 105.4 36.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 16.1 12.3 Inc. seg. avg. 0.447 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 25.7 21.5 Inc. frq. avg. 0.253 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 G: az 220.5 el 42.3 pa 31.3 n: az 204.1 el 44.3 pa 17.8 u,v (fr/asec) 1411.219 -396.988 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gn..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gn.W.111.1W7CYL

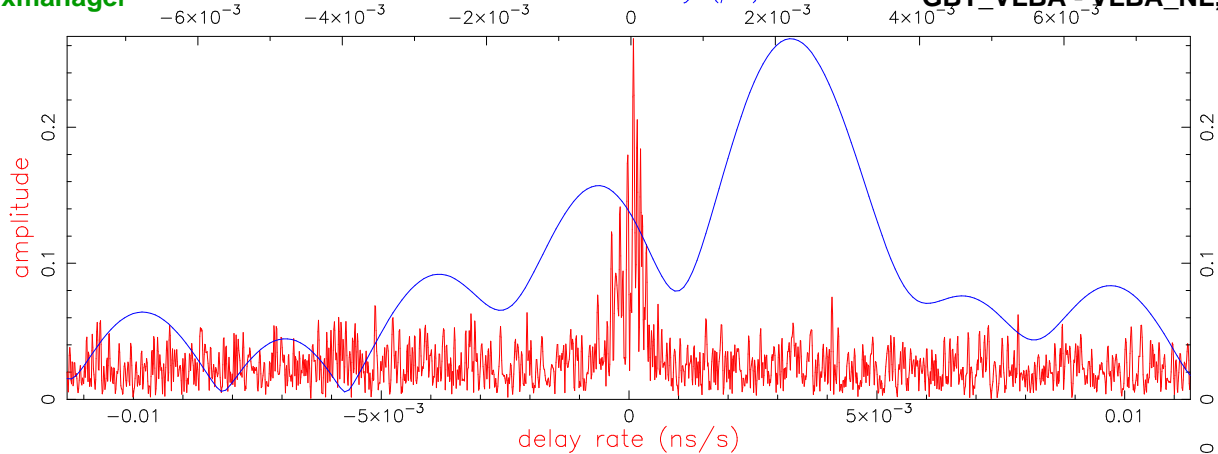
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gn

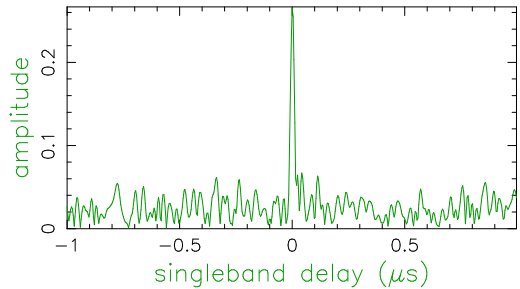
GBT_VLBA - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

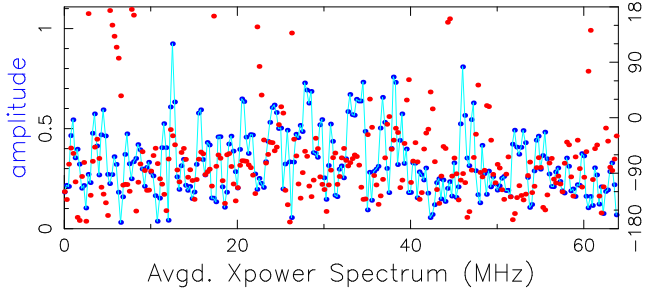


Fringe quality 9

SNR 13.8
 Int time 359.921
 Amp 0.267
 Phase -99.6
 PFD 8.4e-35
 Delays (us)
 SBD 0.001076
 MBD 0.002233
 Fringe rate (Hz)
 0.007990
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

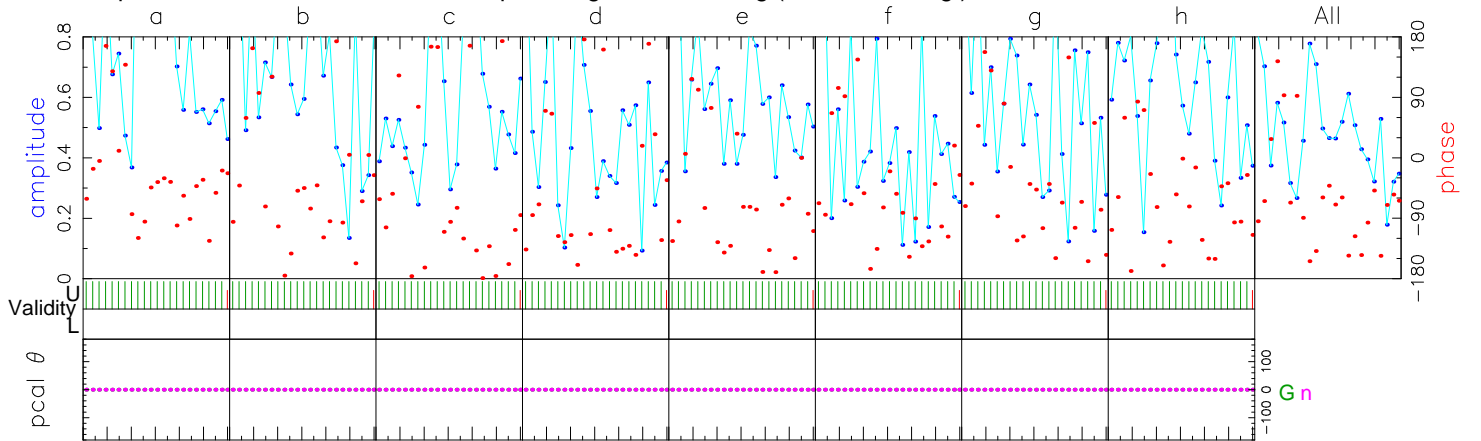


delay rate (ns/s)



Exp. c211a
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163028
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	-61.1	-95.0	-150.9	-141.5	-104.3	-90.4	-83.1	-87.5	Phase	-99.6
	0.4	0.3	0.4	0.2	0.3	0.2	0.2	0.3	Ampl.	0.3
	257.2	258.0	256.7	257.7	257.1	257.7	257.1	257.7	Sbd box	257.3
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
G	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)	-6.04535455322E+02		Apriori delay (usec)		-6.04537688554E+02		Resid mbdelay (usec)		2.23323E-03	+/- 7.8E-05
Sband delay (usec)	-6.04536612554E+02		Apriori clock (usec)		-1.9684072E+01		Resid sbdelay (usec)		1.07600E-03	+/- 6.2E-04
Phase delay (usec)	-6.04537691765E+02		Apriori clockrate (us/s)		-3.9999999E-07		Resid phdelay (usec)		-3.21062E-06	+/- 2.7E-07
Delay rate (us/s)	-2.45655500406E-01		Apriori rate (us/s)		-2.45655593158E-01		Resid rate (us/s)		9.27516E-08	+/- 1.3E-09
Total phase (deg)			Apriori accel (us/s/s)		3.22342386284E-06		Resid phase (deg)		-99.6	+/- 8.3

ph/seg (deg) 70.8 19.9 Search (2048X32) 0.252 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 101.3 34.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 32.7 11.7 Inc. seg. avg. 0.457 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 29.7 20.4 Inc. frq. avg. 0.299 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 G: az 220.5 el 42.3 pa 31.3 n: az 204.1 el 44.3 pa 17.8 u,v (fr/asec) 1411.219 -396.988 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gn..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gn.W.133.1W7CYL

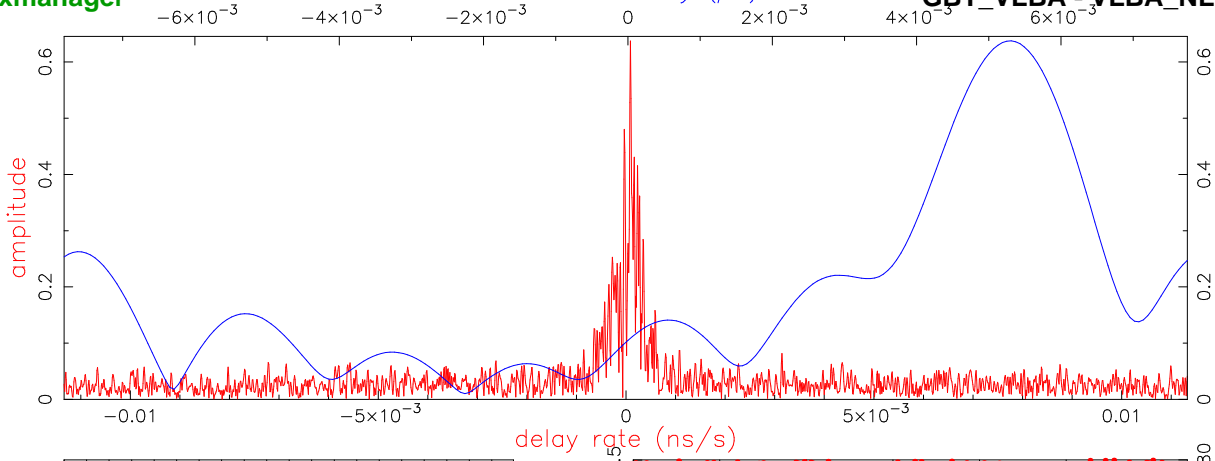
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gn

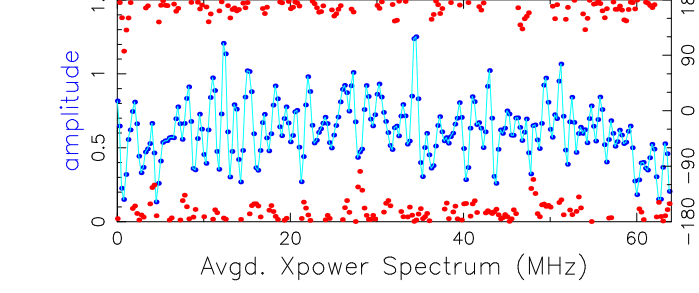
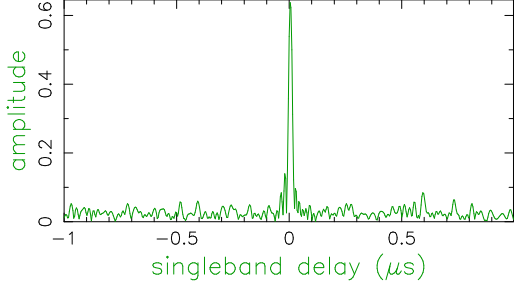
GBT_VLBA - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)



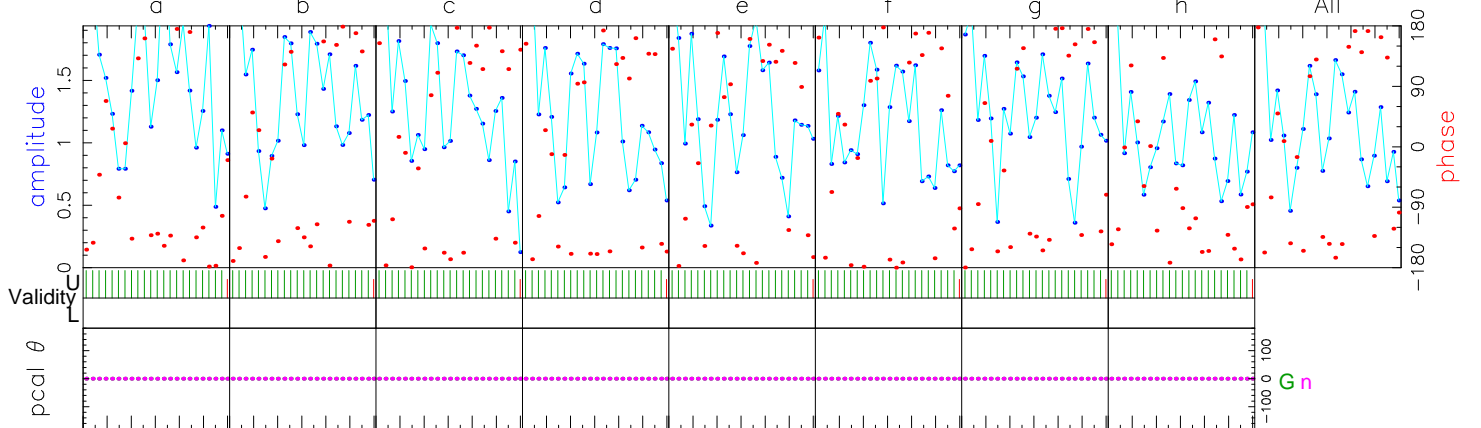
Fringe quality 5

SNR 33.5
 Int time 359.921
 Amp 0.646
 Phase -177.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.005346
 MBD 0.005312
 Fringe rate (Hz) 0.007822
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build 2021:287:131300
 2021:287:163017
 2021:252:122852
 RA & Dec (J2000) 04h23m15.800724s
 --1°20'33.065613"

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
	-153.1	-165.3	163.8	163.7	151.7	159.9	-166.6	-137.5	Phase	-177.2
	0.9	0.8	0.6	0.7	0.7	0.7	0.7	0.6	Ampl.	0.7
	258.4	258.5	258.1	258.2	258.5	258.8	258.5	258.5	Sbd box	258.4
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-6.04532376666E+02		Apriori delay (usec)		-6.04537688554E+02		Resid mbdelay (usec)		5.31189E-03	+/- 3.2E-05
Sband delay (usec)	-6.04532342054E+02		Apriori clock (usec)		-1.9684072E+01		Resid sbdelay (usec)		5.34650E-03	+/- 2.6E-04
Phase delay (usec)	-6.04537694267E+02		Apriori clockrate (us/s)		-3.9999999E-07		Resid phdelay (usec)		-5.71298E-06	+/- 1.1E-07
Delay rate (us/s)	-2.45655502350E-01		Apriori rate (us/s)		-2.45655593158E-01		Resid rate (us/s)		9.08080E-08	+/- 5.3E-10
Total phase (deg)			Apriori accel (us/s/s)		3.22342386284E-06		Resid phase (deg)		-177.2	+/- 3.4

ph/seg (deg) 71.2 8.2 Search (2048X32) 0.629 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 103.0 14.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 27.8 4.8 Inc. seg. avg. 1.147 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 16.0 8.4 Inc. frq. avg. 0.692 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 G: az 220.5 el 42.3 pa 31.3 n: az 204.1 el 44.3 pa 17.8 u,v (fr/asec) 1411.219 -396.988 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gn..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gn.W.82.1W7CYL

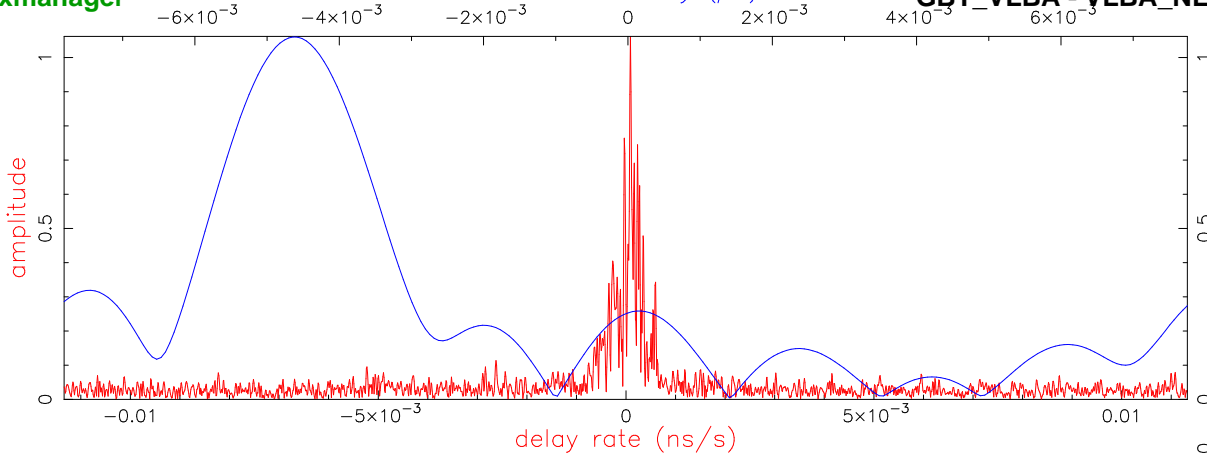
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gn

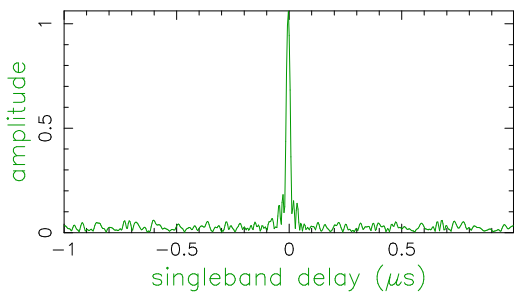
GBT_VLBA - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

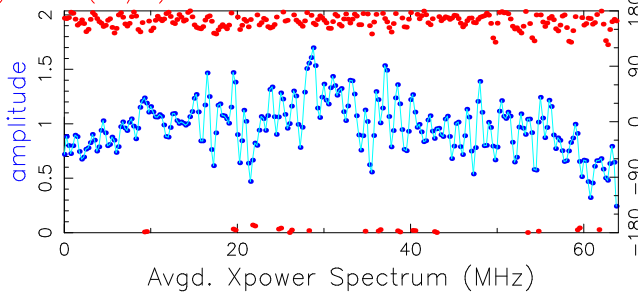


Fringe quality 4

SNR 55.1
 Int time 359.921
 Amp 1.062
 Phase 168.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.004426
 MBD -0.004629
 Fringe rate (Hz)
 0.007782
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

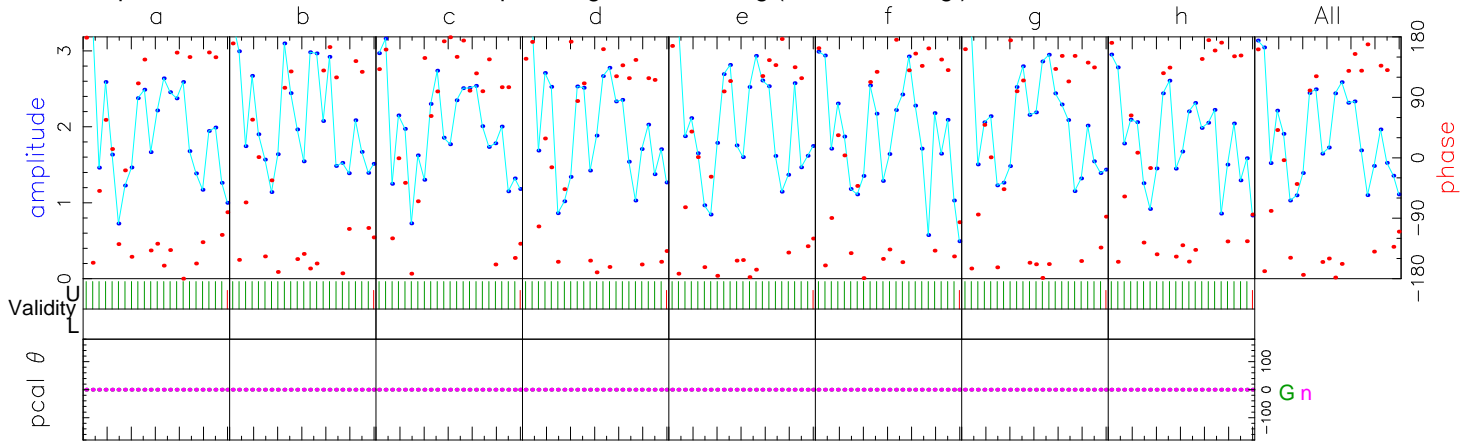


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163021
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	-172.7	176.4	140.6	153.6	165.1	169.7	165.9	-174.2	Phase	168.1
	1.1	1.1	1.0	1.1	1.2	1.0	1.2	1.0	Ampl.	1.1
	256.0	255.9	255.2	255.8	256.1	255.9	256.2	256.0	Sbd box	255.9
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-6.04542317822E+02		Apriori delay (usec)		-6.04537688554E+02		Resid mbdelay (usec)		-4.62927E-03	+/- 2.0E-05
Sband delay (usec)	-6.04542114804E+02		Apriori clock (usec)		-1.9684072E+01		Resid sbdelay (usec)		-4.42625E-03	+/- 1.6E-04
Phase delay (usec)	-6.04537683134E+02		Apriori clockrate (us/s)		-3.9999999E-07		Resid phdelay (usec)		5.42063E-06	+/- 6.7E-08
Delay rate (us/s)	-2.45655502820E-01		Apriori rate (us/s)		-2.45655593158E-01		Resid rate (us/s)		9.03376E-08	+/- 3.2E-10
Total phase (deg)	-9.0		Apriori accel (us/s/s)		3.22342386284E-06		Resid phase (deg)		168.1	+/- 2.1

	RMS	Theor.	Amplitude	1.062 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	70.3	5.0	Search (2048X32)	1.027	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	97.8	8.7	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	17.0	2.9	Inc. seg. avg.	1.898	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	6.0	5.1	Inc. frq. avg.	1.093	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

G: az 220.5 el 42.3 pa 31.3 n: az 204.1 el 44.3 pa 17.8 u,v (fr/asec) 1411.219 -396.988 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gn..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gn.W.93.1W7CYL

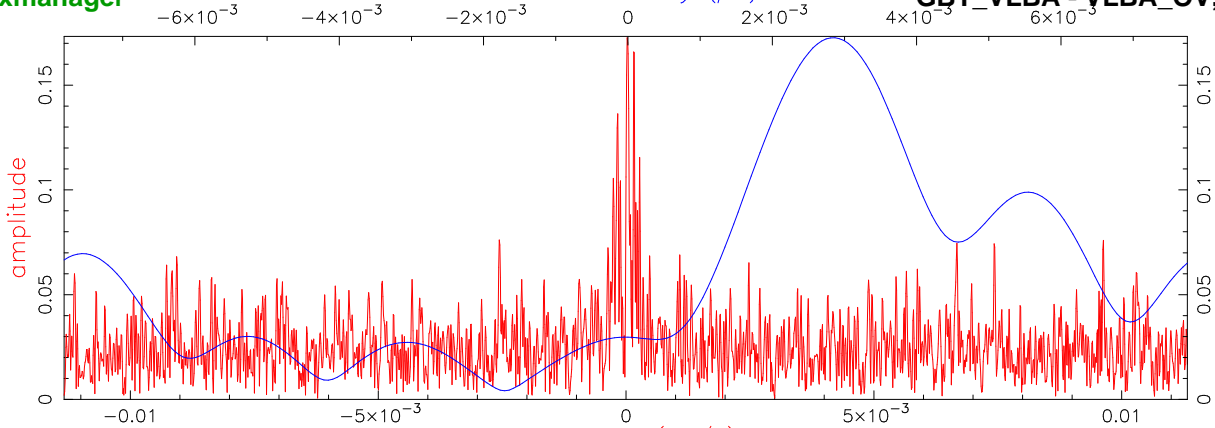
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Go

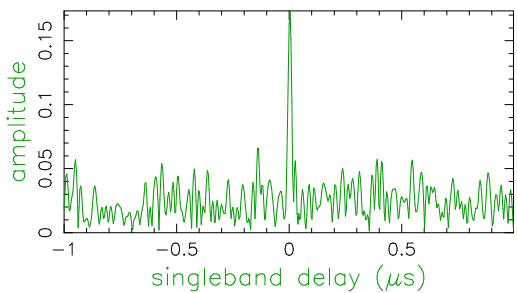
GBT_VLBA - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

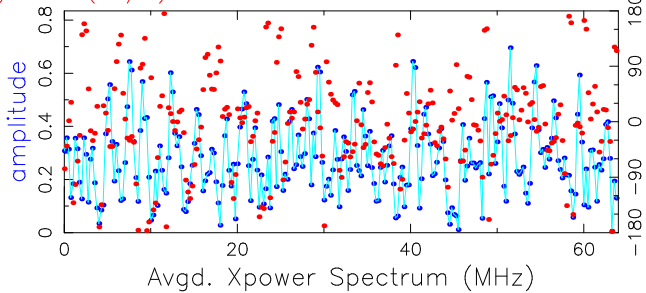


Fringe quality 9

SNR 9.0
 Int time 359.870
 Amp 0.173
 Phase -0.7
 PFD 9.3e-11
 Delays (us)
 SBD 0.003127
 MBD 0.002822
 Fringe rate (Hz) 0.002087
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

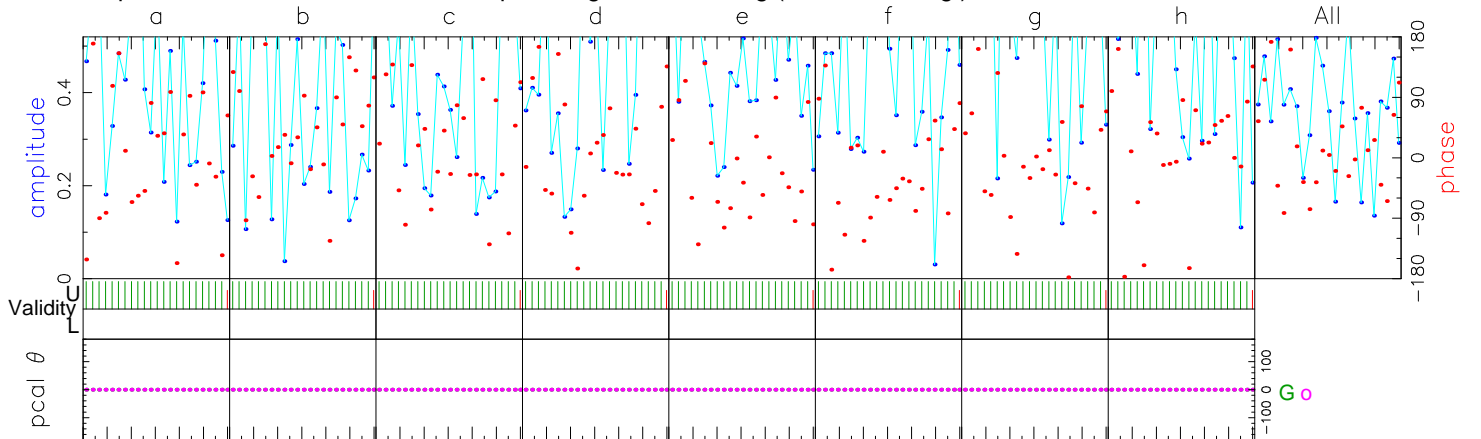


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163025
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 -1°20'33.065613"

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
	-10.8	42.6	17.5	-21.4	-25.4	-33.7	-11.7	49.4	Phase	-0.7
	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	Ampl.	0.2
	104.4	11.1	112.2	258.8	258.3	257.6	258.7	258.2	Sbd box	257.8
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-2.25190868538E+03	Apriori delay (usec)	-2.25191150721E+03	Resid mbdelay (usec)	2.82182E-03	+/-	1.2E-04
Sband delay (usec)	-2.25190838046E+03	Apriori clock (usec)	-1.7922785E+01	Resid sbdelay (usec)	3.12675E-03	+/-	9.6E-04
Phase delay (usec)	-2.25191150723E+03	Apriori clockrate (us/s)	-4.5999999E-07	Resid phdelay (usec)	-2.32903E-08	+/-	4.1E-07
Delay rate (us/s)	-7.91321490007E-01	Apriori rate (us/s)	-7.91321514231E-01	Resid rate (us/s)	2.42242E-08	+/-	2.0E-09
Total phase (deg)	-83.8	Apriori accel (us/s/s)	1.18367497089E-05	Resid phase (deg)	-0.7	+/-	12.7

ph/seg (deg)	72.2	Theor.	30.6	Amplitude	0.173 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	127.6	Search (2048X32)	0.171	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	34.3	Inc. seg. avg.	0.319	Inc. frq. avg.	0.190	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	39.9	Inc. frq. avg.	0.190			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

G: az 220.5 el 42.3 pa 31.3 o: az 164.6 el 50.4 pa -11.5 u,v (fr/asec) 4544.782 135.198 simultaneous interpolator

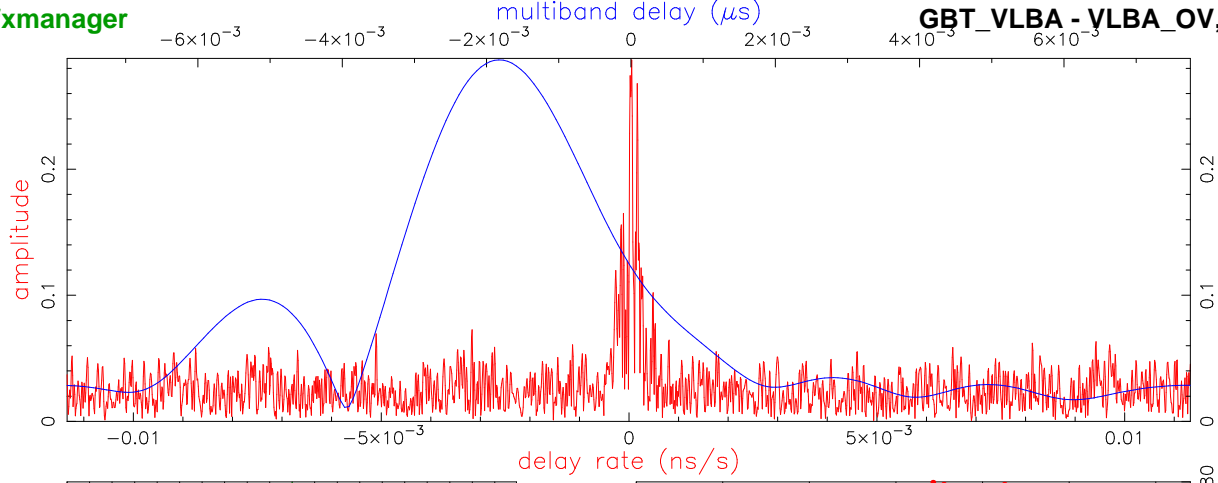
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Go..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Go.W.112.1W7CYL

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

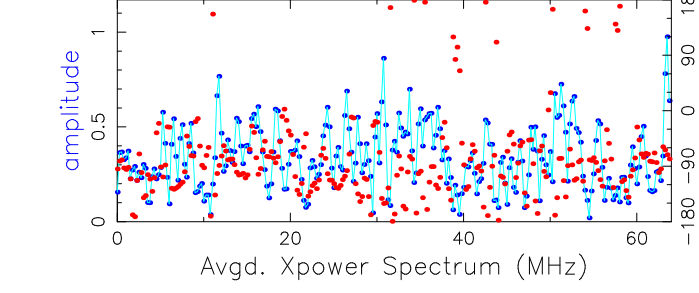
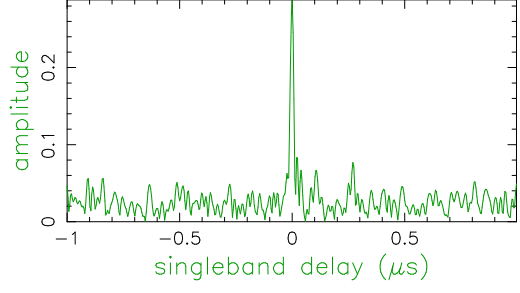
0420-014.1W7CYL, No0108, Go

GBT_VLBA - VLBA_OV, fgroup W, pol RL



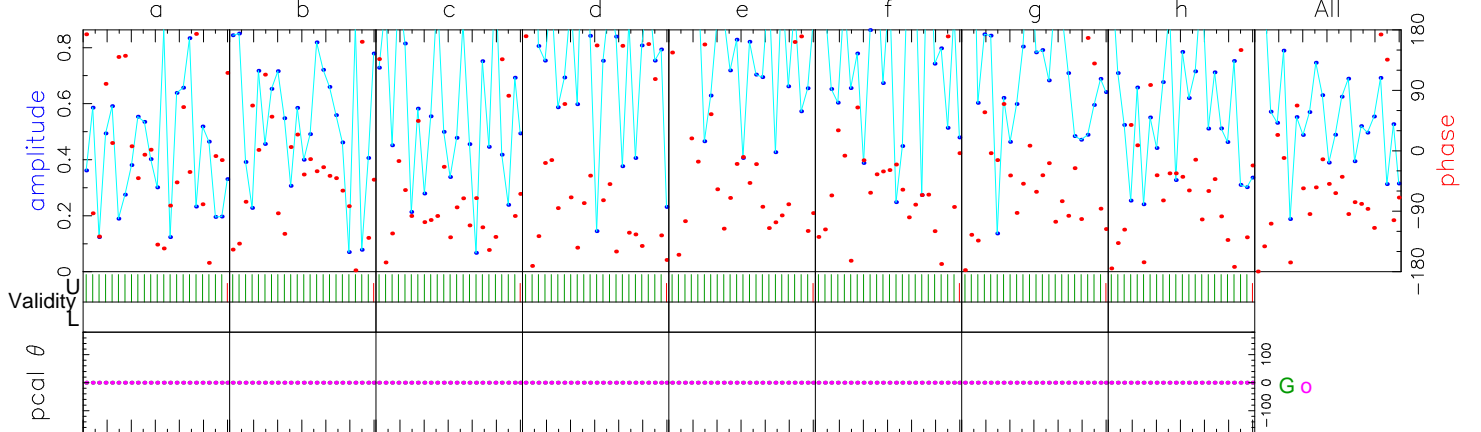
Fringe quality 8

SNR 14.9
 Int time 359.870
 Amp 0.288
 Phase -84.5
 PFD 1.2e-41
 Delays (us)
 SBD -0.000793
 MBD -0.001849
 Fringe rate (Hz) 0.004383
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163028
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	-46.3	-55.6	-100.5	-120.7	-91.2	-71.3	-76.5	-79.6	Phase	-84.5
	0.1	0.2	0.3	0.4	0.4	0.5	0.3	0.3	Ampl.	0.3
	511.4	256.9	256.4	256.1	256.8	256.4	257.2	257.2	Sbd box	256.8
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-2.25191335666E+03		Apriori delay (usec)		-2.25191150721E+03		Resid mbdelay (usec)		-1.84946E-03	+/- 7.3E-05
Sband delay (usec)	-2.25191230071E+03		Apriori clock (usec)		-1.7922785E+01		Resid sbdelay (usec)		-7.93500E-04	+/- 5.8E-04
Phase delay (usec)	-2.25191150993E+03		Apriori clockrate (us/s)		-4.5999999E-07		Resid phdelay (usec)		-2.72574E-06	+/- 2.5E-07
Delay rate (us/s)	-7.91321463353E-01		Apriori rate (us/s)		-7.91321514231E-01		Resid rate (us/s)		5.08780E-08	+/- 1.2E-09
Total phase (deg)			Apriori accel (us/s/s)		1.18367497089E-05		Resid phase (deg)		-84.5	+/- 7.7

ph/seg (deg) 67.2 18.4 Amplitude 0.288 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 117.0 32.1 Search (2048X32) 0.278 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.4 10.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.8 18.9 Inc. seg. avg. 0.541 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 G: az 220.5 el 42.3 pa 31.3 o: az 164.6 el 50.4 pa -11.5 u,v (fr/asec) 4544.782 135.198 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Go..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Go.W.132.1W7CYL simultaneous interpolator

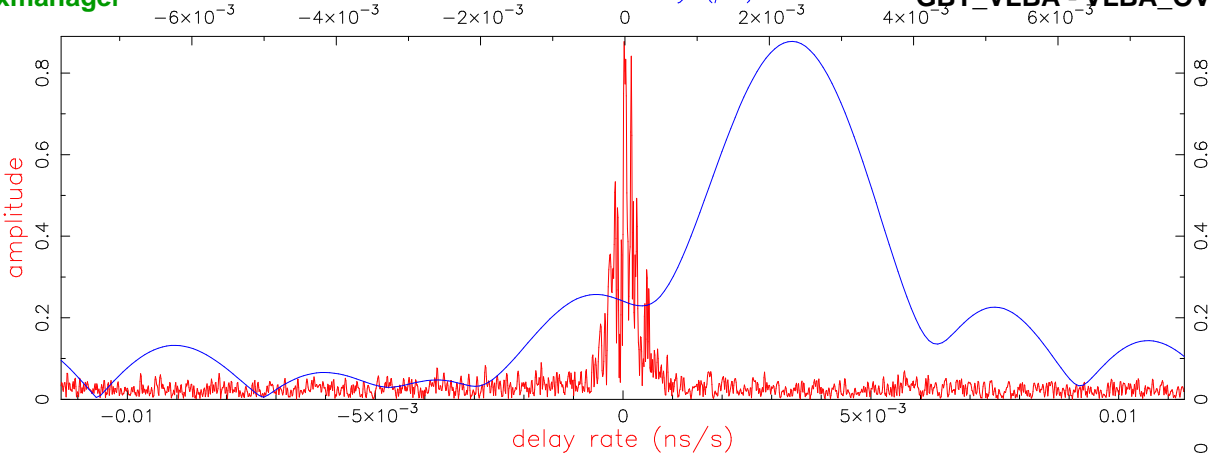
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Go

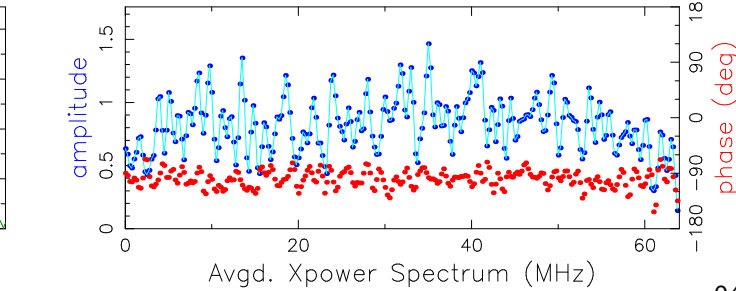
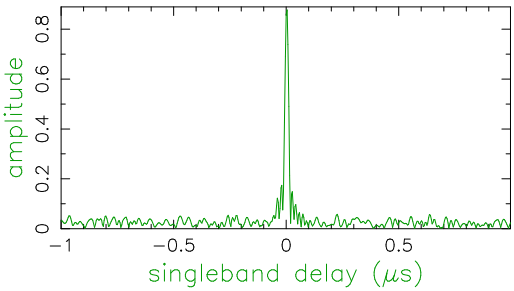
GBT_VLBA - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)



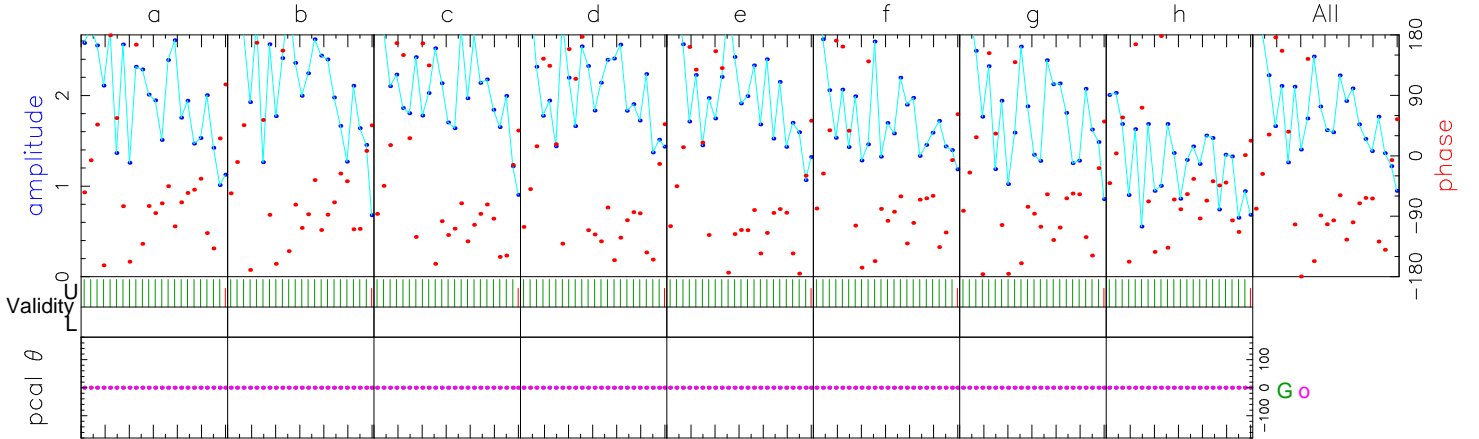
Fringe quality 6

SNR 46.2
 Int time 359.870
 Amp 0.890
 Phase -97.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.002371
 MBD 0.002272
 Fringe rate (Hz)
 0.001452
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163017
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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
	-82.5	-84.8	-109.5	-120.9	-117.4	-93.5	-94.1	-62.7	Phase	-97.5
	0.9	1.0	1.1	1.0	1.0	0.9	0.9	0.7	Ampl.	0.9
	257.4	257.6	257.4	257.6	257.7	257.7	257.9	257.9	Sbd box	257.6
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.25190923523E+03		Apriori delay (usec)		-2.25191150721E+03		Resid mbdelay (usec)		2.27198E-03	+/- 2.4E-05
Sband delay (usec)	-2.25190913646E+03		Apriori clock (usec)		-1.7922785E+01		Resid sbdelay (usec)		2.37075E-03	+/- 1.9E-04
Phase delay (usec)	-2.25191151035E+03		Apriori clockrate (us/s)		-4.5999999E-07		Resid phdelay (usec)		-3.14561E-06	+/- 8.0E-08
Delay rate (us/s)	-7.91321497374E-01		Apriori rate (us/s)		-7.91321514231E-01		Resid rate (us/s)		1.68566E-08	+/- 3.9E-10
Total phase (deg)			Apriori accel (us/s/s)		1.18367497089E-05		Resid phase (deg)		-97.5	+/- 2.5

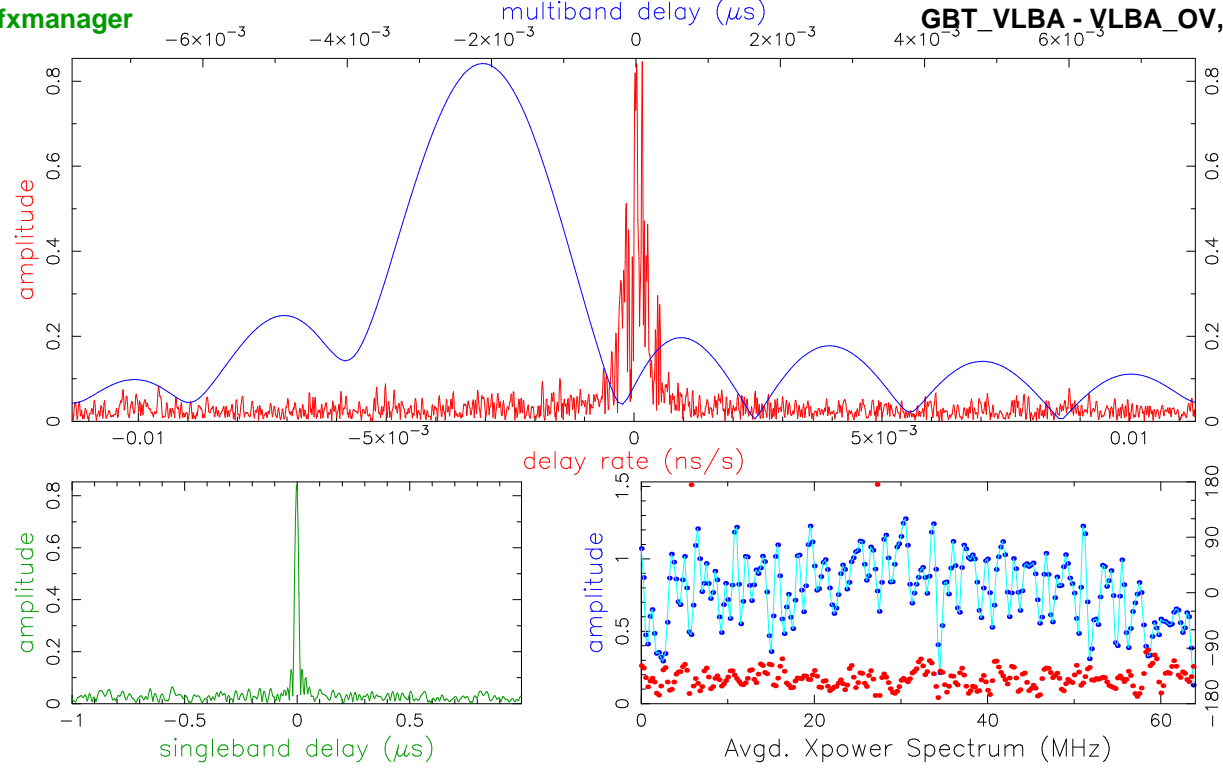
ph/seg (deg) 71.2 6.0 Search (2048X32) 0.849 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 116.1 10.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.3 3.5 Inc. seg. avg. 1.811 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 14.2 6.1 Inc. frq. avg. 0.918 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 G: az 220.5 el 42.3 pa 31.3 o: az 164.6 el 50.4 pa -11.5 u,v (fr/asec) 4544.782 135.198 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Go..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Go.W.81.1W7CYL

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Go

GBT_VLBA - VLBA_OV, fgroup W, pol RR

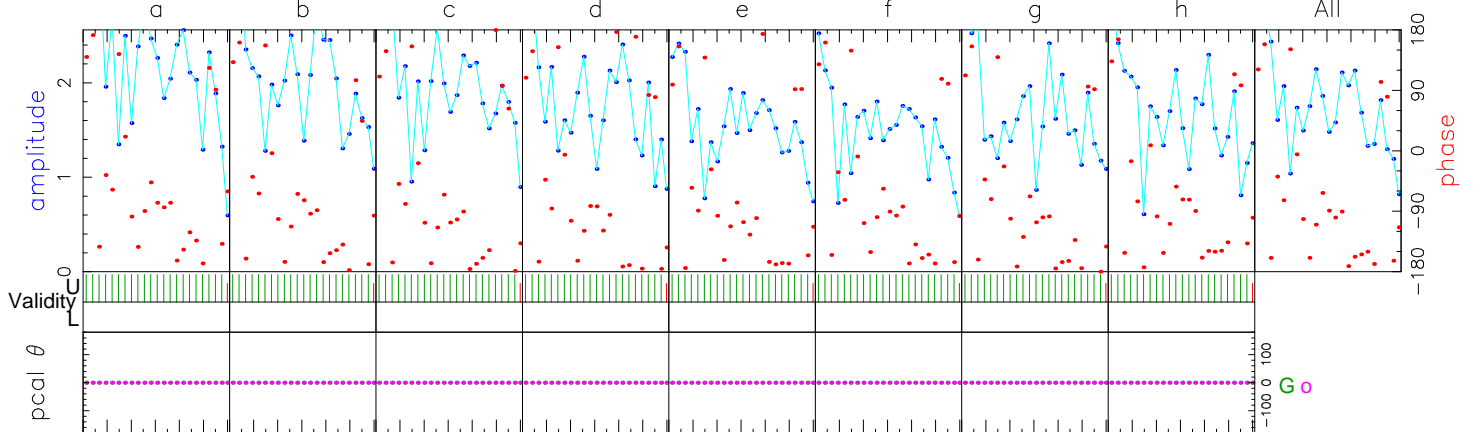


Fringe quality 6

SNR 44.3
 Int time 359.870
 Amp 0.854
 Phase -143.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.002323
 MBD -0.002086
 Fringe rate (Hz)
 0.004491
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163021
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 -1°20'33.065613"

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
	-128.3	-137.6	-150.9	-158.3	-151.6	-140.0	-153.1	-129.4	Phase	-143.4
	1.0	1.0	0.9	0.9	0.8	0.7	0.8	0.8	Ampl.	0.9
	256.6	256.4	256.1	256.3	256.5	256.4	256.8	256.6	Sbd box	256.4
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.25191359332E+03		Apriori delay (usec)		-2.25191150721E+03		Resid mbdelay (usec)		-2.08611E-03	+/- 2.5E-05
Sband delay (usec)	-2.25191382971E+03		Apriori clock (usec)		-1.7922785E+01		Resid sbdelay (usec)		-2.32250E-03	+/- 1.9E-04
Phase delay (usec)	-2.25191151183E+03		Apriori clockrate (us/s)		-4.5999999E-07		Resid phdelay (usec)		-4.62276E-06	+/- 8.3E-08
Delay rate (us/s)	-7.91321462095E-01		Apriori rate (us/s)		-7.91321514231E-01		Resid rate (us/s)		5.21357E-08	+/- 4.0E-10
Total phase (deg)			Apriori accel (us/s/s)		1.18367497089E-05		Resid phase (deg)		-143.4	+/- 2.6

ph/seg (deg) 67.6 6.2 Theor. Amplitude 0.854 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 122.5 10.8 Search (2048X32) 0.818 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 12.3 3.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 10.1 6.4 Inc. seg. avg. 1.764 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 G: az 220.5 el 42.3 pa 31.3 o: az 164.6 el 50.4 pa -11.5 u,v (fr/asec) 4544.782 135.198 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Go..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Go.W.96.1W7CYL simultaneous interpolator

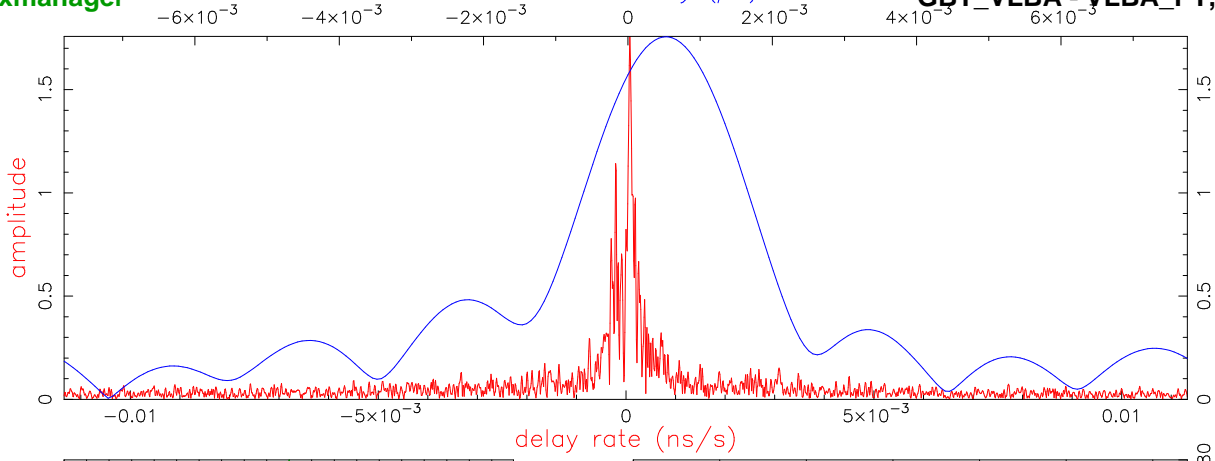
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gp

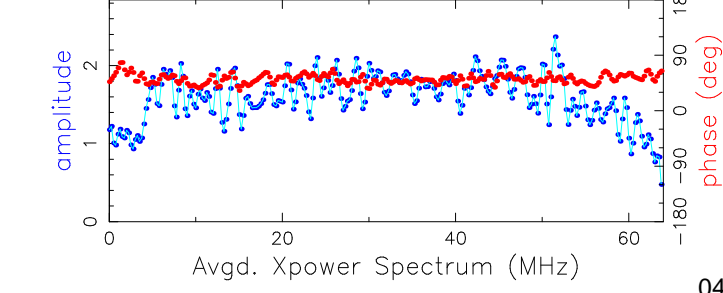
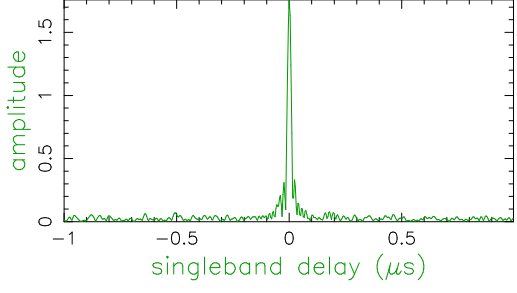
GBT_VLBA - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)



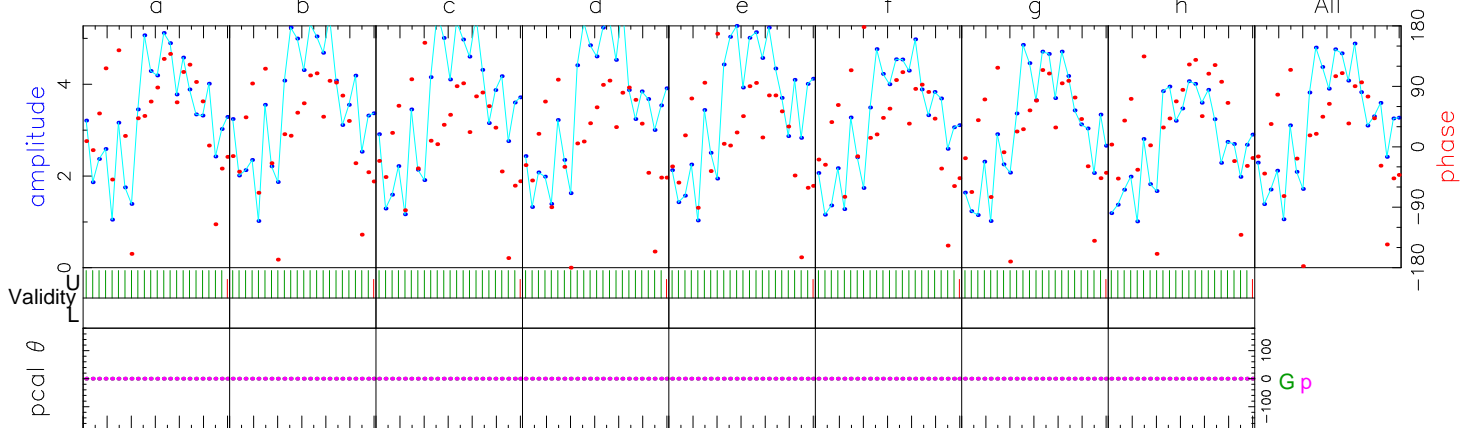
Fringe quality 4

SNR 91.2
 Int time 359.919
 Amp 1.758
 Phase 49.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.000410
 MBD 0.000536
 Fringe rate (Hz)
 0.006639
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163022
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"

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	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
G:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-3.11401411171E+03									
Sband delay (usec)	-3.11401423705E+03									
Phase delay (usec)	-3.11401464570E+03									
Delay rate (us/s)	-5.71897753498E-01									
Total phase (deg)			-209.2							
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										

G: az 220.5 el 42.3 pa 31.3 p: az 180.8 el 54.4 pa 1.6 u,v (fr/asec) 3291.804 491.150

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gp..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gp.W.104.1W7CYL

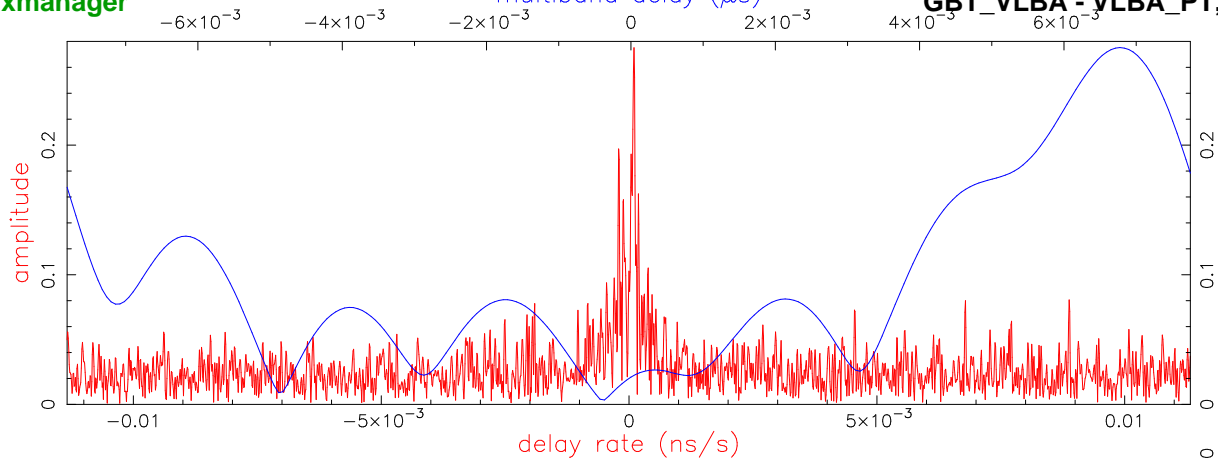
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gp

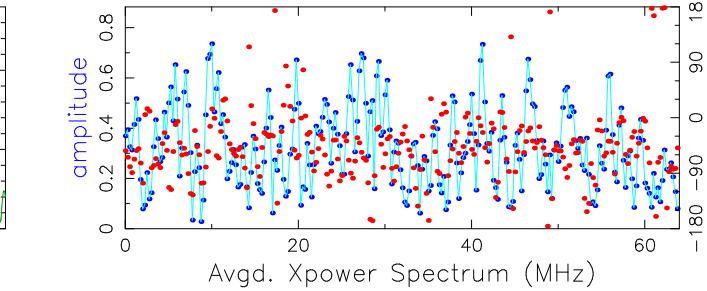
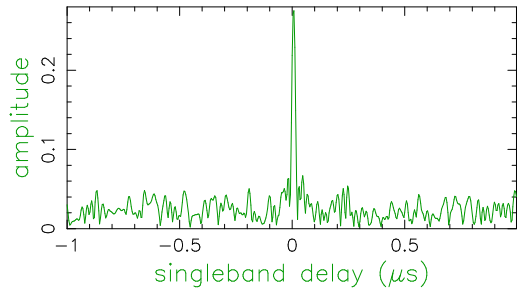
GBT_VLBA - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)



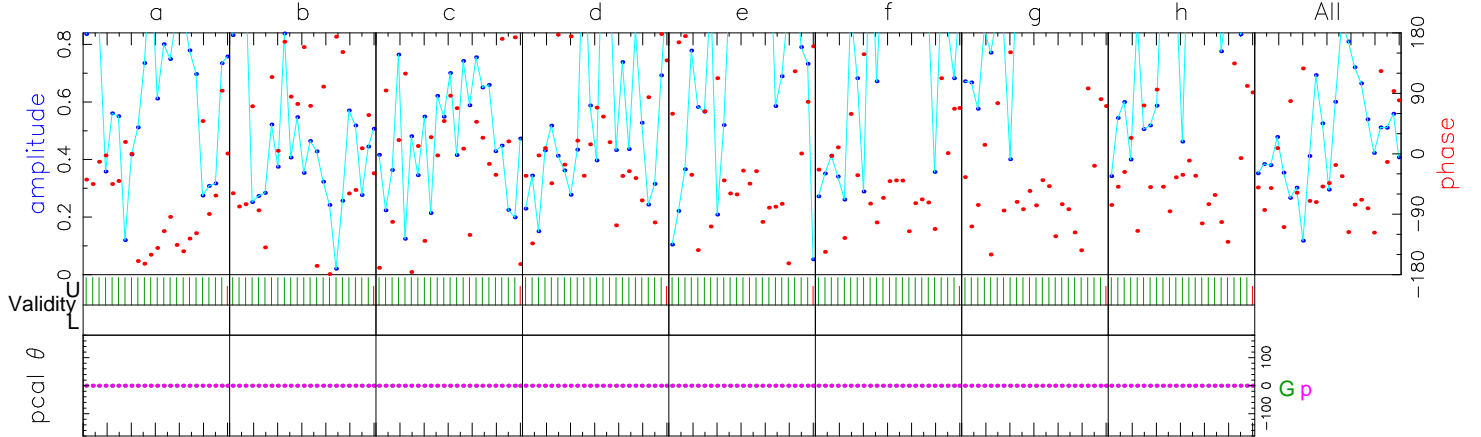
Fringe quality 7

SNR 14.5
 Int time 359.919
 Amp 0.280
 Phase -56.7
 PFD 5.1e-39
 Delays (us)
 SBD 0.006137
 MBD 0.006751
 Fringe rate (Hz) 0.008420
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163026
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 -1°20'33.065613"

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
	-93.6	-61.7	26.6	-11.0	-62.5	-49.6	-71.3	-56.5	Phase	-56.7
	0.3	0.1	0.1	0.2	0.3	0.4	0.5	0.4	Ampl.	0.3
	258.4	350.0	430.9	258.3	258.5	258.4	258.6	258.7	Sbd box	258.6
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-3.11400789583E+03		Apriori delay (usec)		-3.11401464730E+03		Resid mbdelay (usec)		6.75147E-03	+/- 7.5E-05
Sband delay (usec)	-3.11400851005E+03		Apriori clock (usec)		-1.9824097E+01		Resid sbdelay (usec)		6.13725E-03	+/- 5.9E-04
Phase delay (usec)	-3.11401464913E+03		Apriori clockrate (us/s)		2.0000000E-08		Resid phdelay (usec)		-1.82742E-06	+/- 2.5E-07
Delay rate (us/s)	-5.71897732819E-01		Apriori rate (us/s)		-5.71897830568E-01		Resid rate (us/s)		9.77491E-08	+/- 1.2E-09
Total phase (deg)			Apriori accel (us/s/s)		1.63052971533E-05		Resid phase (deg)		-56.7	+/- 7.9

	RMS	Theor.	Amplitude	0.280 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	77.9	18.9	Search (2048X32)	0.273	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	98.2	33.0	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	42.2	11.2	Inc. seg. avg.	0.462	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	54.7	19.5	Inc. frq. avg.	0.304	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

G: az 220.5 el 42.3 pa 31.3 p: az 180.8 el 54.4 pa 1.6 u,v (fr/asec) 3291.804 491.150 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gp..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gp.W.121.1W7CYL

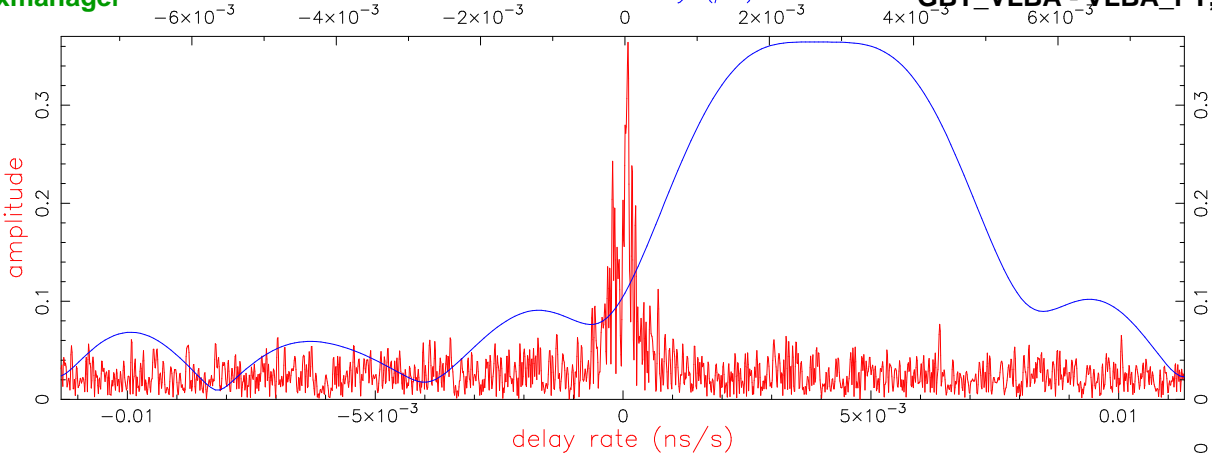
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1W7CYL, No0108, Gp

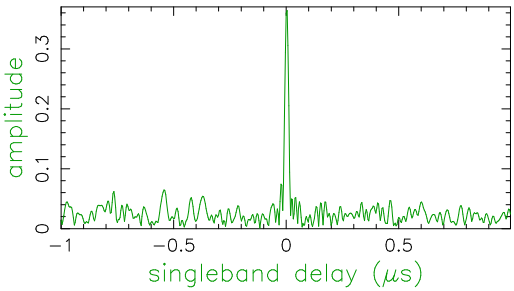
GBT_VLBA - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

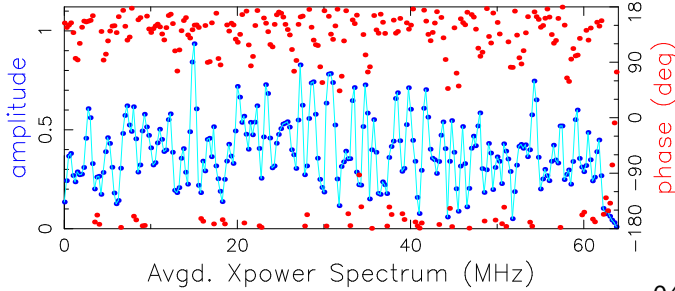


Fringe quality 7

SNR 19.2
 Int time 359.919
 Amp 0.370
 Phase 150.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.002215
 MBD 0.002282
 Fringe rate (Hz) 0.008587
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

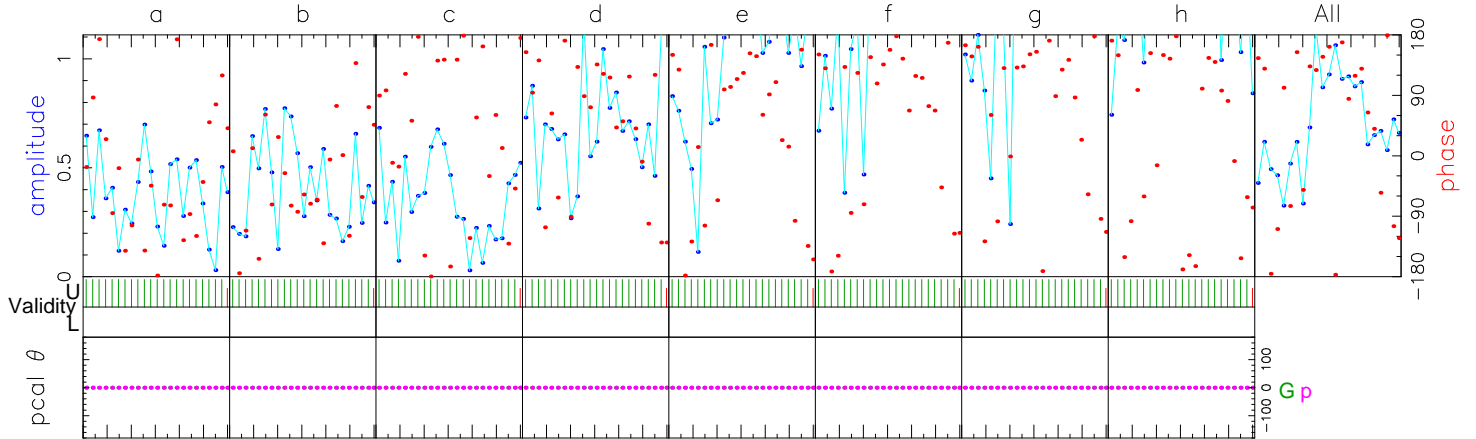


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163029
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 -1°20'33.065613"

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
	-96.4	-46.3	146.6	116.7	135.0	143.0	152.4	164.2	Phase	150.3
	0.1	0.1	0.1	0.2	0.4	0.7	0.9	0.7	Ampl.	0.4
	125.2	117.9	203.9	257.1	258.0	257.7	257.6	257.9	Sbd box	257.6
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
G	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)	-3.11401236558E+03		Apriori delay (usec)		-3.11401464730E+03		Resid mbdelay (usec)		2.28172E-03	+/- 5.7E-05
Sband delay (usec)	-3.11401243205E+03		Apriori clock (usec)		-1.9824097E+01		Resid sbdelay (usec)		2.21525E-03	+/- 4.5E-04
Phase delay (usec)	-3.11401464245E+03		Apriori clockrate (us/s)		2.0000000E-08		Resid phdelay (usec)		4.84773E-06	+/- 1.9E-07
Delay rate (us/s)	-5.71897730877E-01		Apriori rate (us/s)		-5.71897830568E-01		Resid rate (us/s)		9.96912E-08	+/- 9.3E-10
Total phase (deg)			Apriori accel (us/s/s)		1.63052971533E-05		Resid phase (deg)		150.3	+/- 6.0

	RMS	Theor.	Amplitude	0.370 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	74.6	14.3	Search (2048X32)	0.363	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	106.1	25.0	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	82.8	8.4	Inc. seg. avg.	0.675	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	80.6	14.7	Inc. frq. avg.	0.424	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

G: az 220.5 el 42.3 pa 31.3 p: az 180.8 el 54.4 pa 1.6 u,v (fr/asec) 3291.804 491.150 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gp..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gp.W.140.1W7CYL

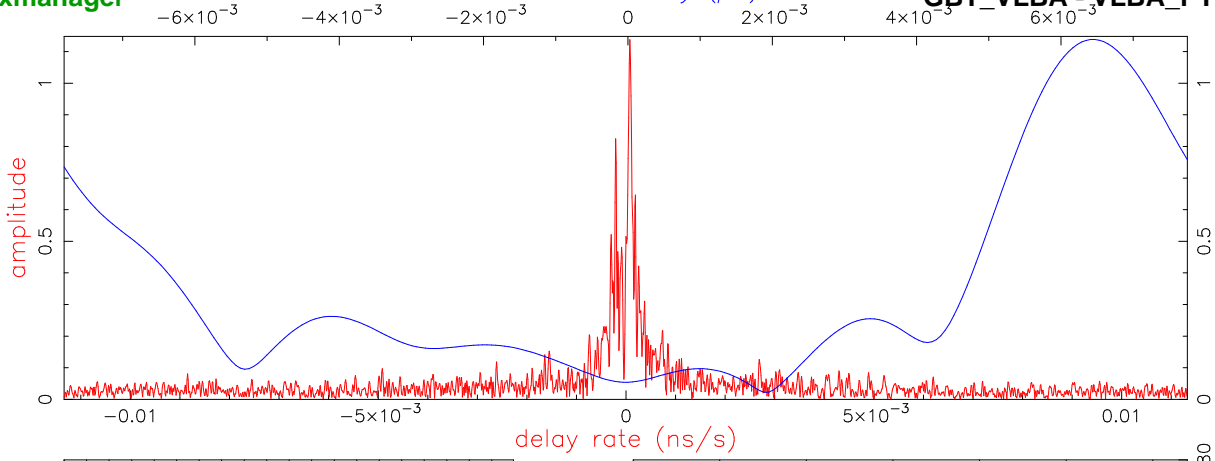
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

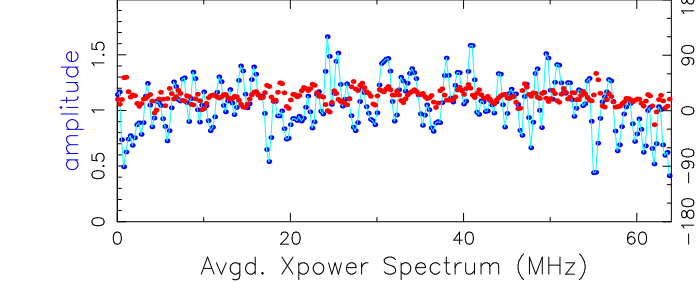
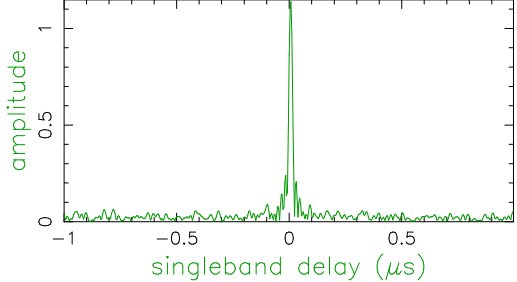
0420-014.1W7CYL, No0108, Gp

GBT_VLBA - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

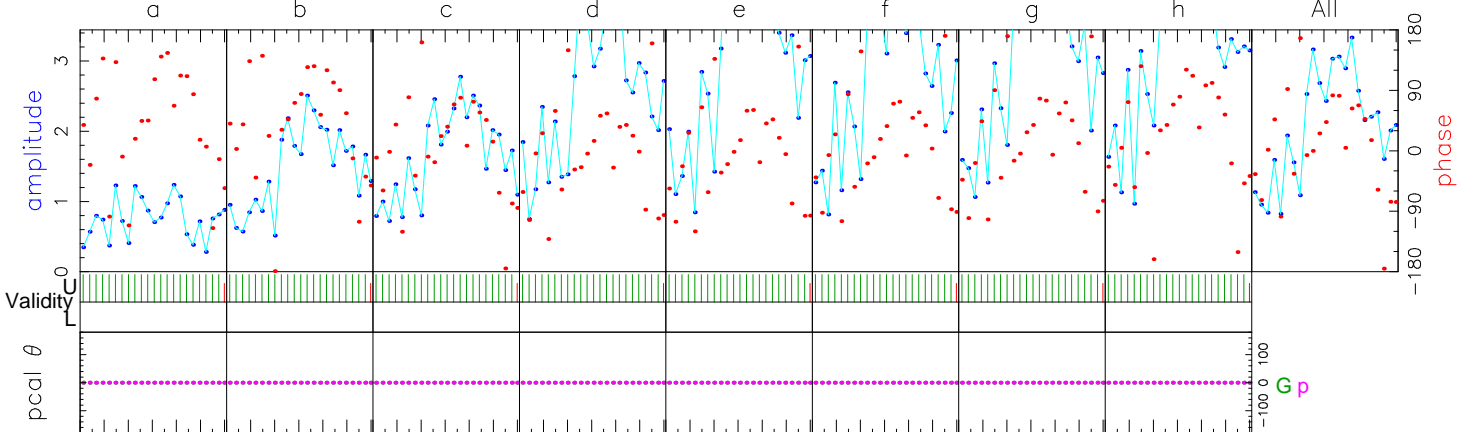


Fringe quality 1
 SNR 59.6
 Int time 359.919
 Amp 1.148
 Phase 25.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.006620
 MBD 0.006400
 Fringe rate (Hz) 0.006766
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:113
 Start 213000.00
 Stop 213559.94
 FRT 213300.00
 Corr/FF/build
 2021:287:131300
 2021:287:163018
 2021:252:122852
 RA & Dec (J2000)
 04h23m15.800724s
 --1°20'33.065613"



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	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
G:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-3.11400824771E+03	Apriori delay (usec)	-3.11401464730E+03	Resid mbdelay (usec)	6.39959E-03	+/-	1.8E-05
Sband delay (usec)	-3.11400802680E+03	Apriori clock (usec)	-1.9824097E+01	Resid sbdelay (usec)	6.62050E-03	+/-	1.4E-04
Phase delay (usec)	-3.11401464648E+03	Apriori clockrate (us/s)	2.0000000E-08	Resid phdelay (usec)	8.18372E-07	+/-	6.2E-08
Delay rate (us/s)	-5.71897752017E-01	Apriori rate (us/s)	-5.71897830568E-01	Resid rate (us/s)	7.85507E-08	+/-	3.0E-10
Total phase (deg)	-233.2	Apriori accel (us/s/s)	1.63052971533E-05	Resid phase (deg)	25.4	+/-	1.9

ph/seg (deg)	72.7	Theor.	4.6	Amplitude	1.148 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	105.5	Search (2048X32)	1.134	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	31.8	Inc. seg. avg.	2.080	Inc. seg. avg.	2.080	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	42.4	Inc. frq. avg.	1.248	Inc. frq. avg.	1.248	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011			
						Data rate (Mb/s):	2048	nlags:	256	t_cohere infinite	ion window (TEC)	0.00 0.00

G: az 220.5 el 42.3 pa 31.3 p: az 180.8 el 54.4 pa 1.6 u,v (fr/asec) 3291.804 491.150 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0108/Gp..1W7CYL Output file: /Exps/c211a/v2/1234/No0108/Gp.W.84.1W7CYL