

Mk4/DiFX fourfit 3.21 rev 2937

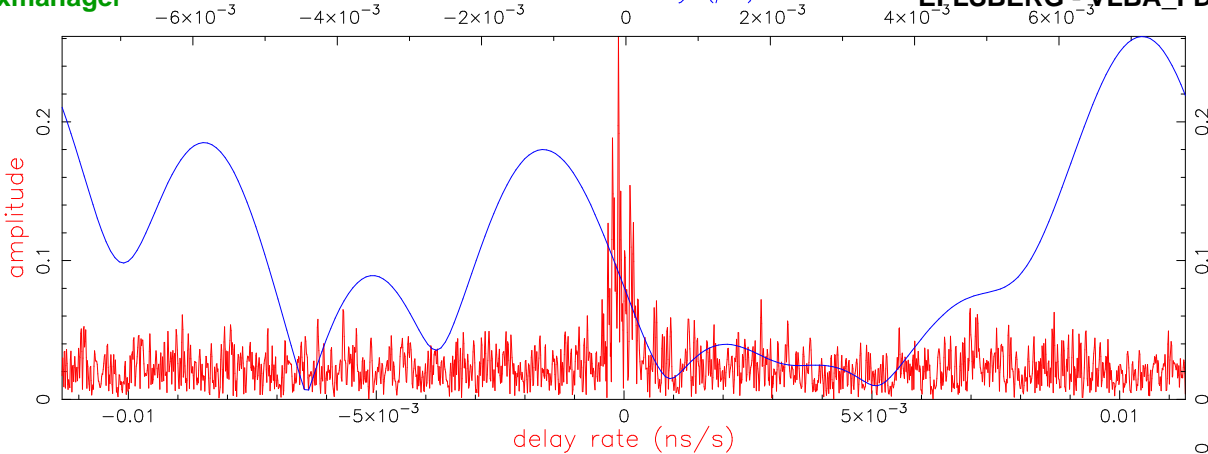
fxmanager

3C84.1X01VG, No0082, Bf

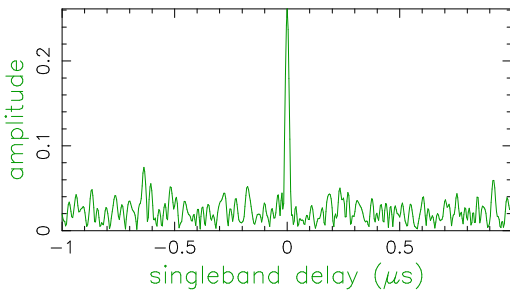
EFLSBERG - VLBA\_FD, fgroup W, pol LL

multiband delay ( $\mu$ s)

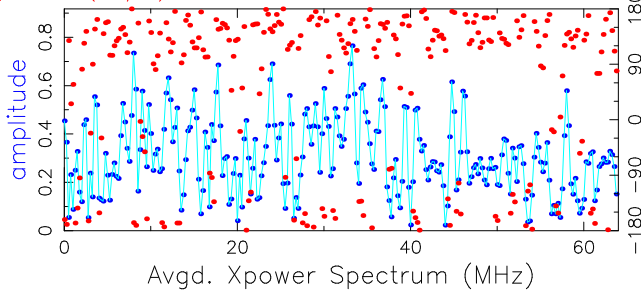
Fringe quality 7



SNR 14.5  
 Int time 413.602  
 Amp 0.262  
 Phase 70.0  
 PFD 3.9e-39  
 Delays (us)  
 SBD -0.000257  
 MBD 0.007145  
 Fringe rate (Hz)  
 -0.009341  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

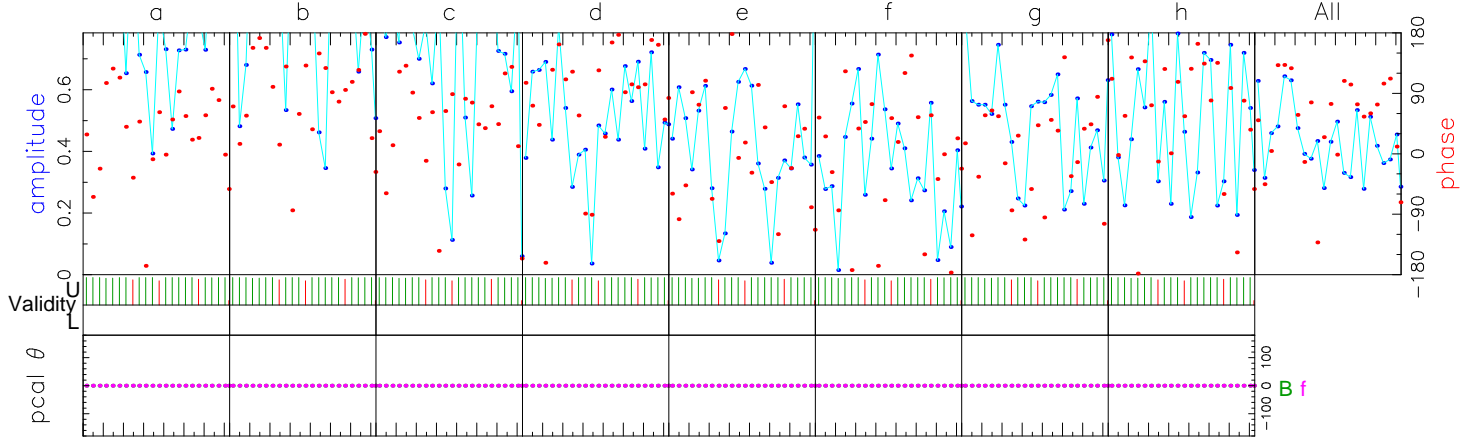


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121601  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	0	0	0	0	0	0	0	0		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	6.56568631798E+03		Apriori delay (usec)		6.56567917292E+03		Resid mbdelay (usec)		7.14506E-03	+/- 7.5E-05
Sband delay (usec)	6.56567891567E+03		Apriori clock (usec)		-3.2323917E+01		Resid sbdelay (usec)		-2.57250E-04	+/- 5.9E-04
Phase delay (usec)	6.56567917518E+03		Apriori clockrate (us/s)		-5.9999999E-08		Resid phdelay (usec)		2.25862E-06	+/- 2.5E-07
Delay rate (us/s)	-1.42343972938E+00		Apriori rate (us/s)		-1.42343962094E+00		Resid rate (us/s)		-1.08438E-07	+/- 1.1E-09
Total phase (deg)	54.0		Apriori accel (us/s/s)		-1.54419052206E-05		Resid phase (deg)		70.0	+/- 7.9

	RMS	Theor.	Amplitude	0.262 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	60.5	18.8	Search (2048X32)	0.254	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	78.2	32.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	46.4	11.1	Inc. seg. avg.	0.414	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	57.5	19.4	Inc. frq. avg.	0.314	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 267.5 el 61.3 pa 58.0 f: az 57.7 el 33.3 pa -76.3 u,v (fr/asec) 10864.505 541.511 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/Bf..1X01VG Output file: /Exps/c211c/v1/1234/No0082/Bf.W.14.1X01VG

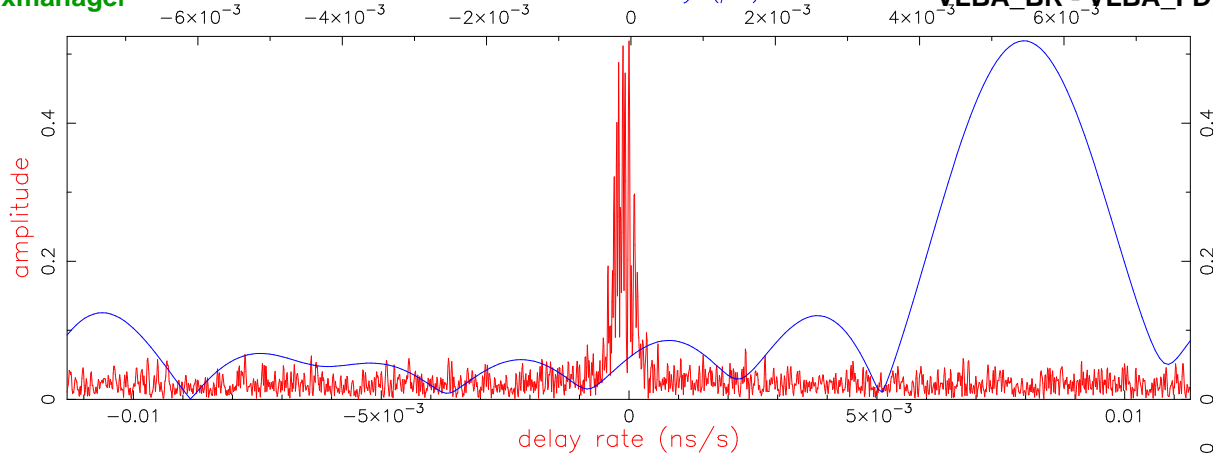
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, bf

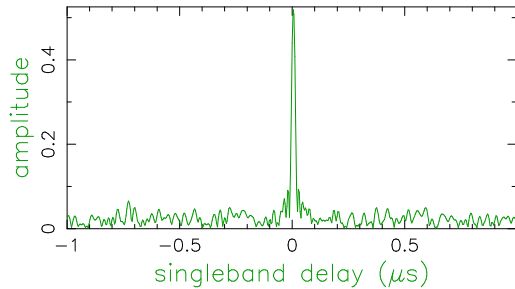
VLBA\_BR - VLBA\_FD, fgroup W, pol RR

multiband delay ( $\mu$ s)

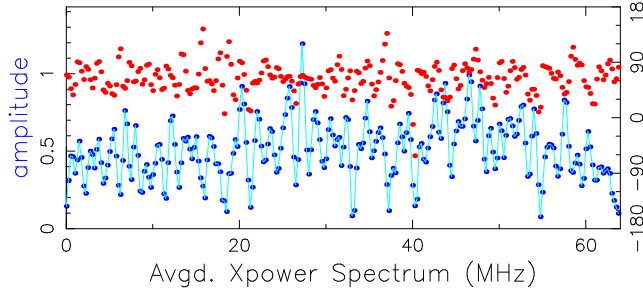


Fringe quality 7

SNR 29.2  
 Int time 411.552  
 Amp 0.526  
 Phase 64.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.005368  
 MBD 0.005489  
 Fringe rate (Hz) -0.000351  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

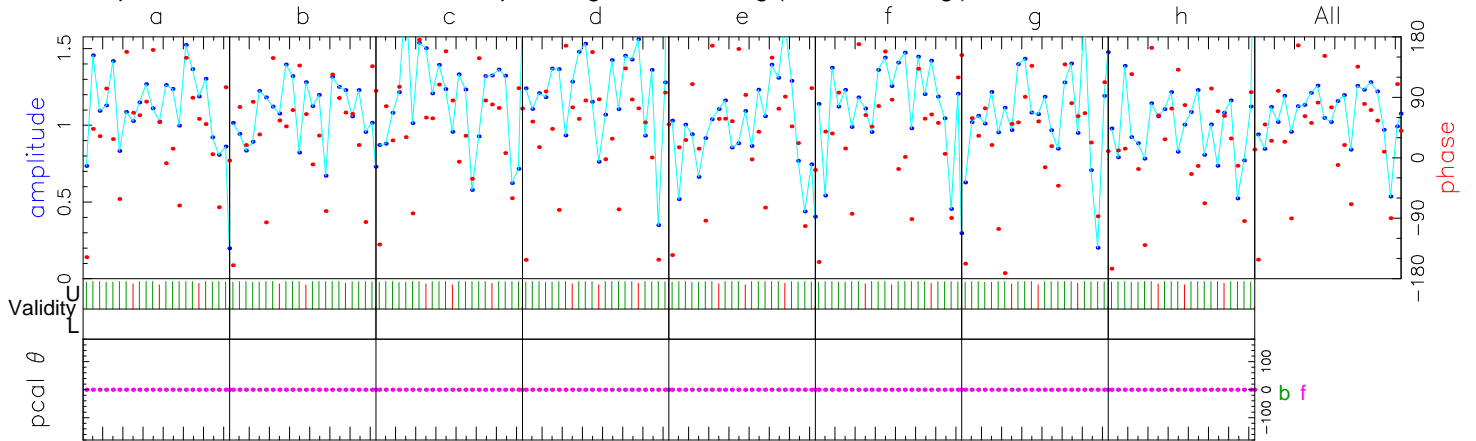


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151501.54  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121604  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	59.1	66.8	68.7	68.3	70.0	62.8	64.5	47.6	Phase	64.0
	0.5	0.5	0.6	0.6	0.4	0.5	0.6	0.4	Ampl.	0.5
	258.2	259.0	258.4	258.3	258.8	258.1	257.9	258.3	Sbd box	258.4
U/L	811/0	811/0	810/0	810/0	810/0	810/0	810/0	810/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
f	0	0	0	0	0	0	0	0	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-6.10149806613E+02		Apriori delay (usec)		-6.10155295301E+02		Resid mbdelay (usec)		5.48869E-03	+/- 3.7E-05
Sband delay (usec)	-6.10149927551E+02		Apriori clock (usec)		-1.3245110E+01		Resid sbdelay (usec)		5.36775E-03	+/- 3.0E-04
Phase delay (usec)	-6.10155293237E+02		Apriori clockrate (us/s)		-1.6000000E-07		Resid phdelay (usec)		2.06360E-06	+/- 1.3E-07
Delay rate (us/s)	-1.64327214892E-01		Apriori rate (us/s)		-1.64327210819E-01		Resid rate (us/s)		-4.07279E-09	+/- 5.3E-10
Total phase (deg)			Apriori accel (us/s/s)		2.07730303862E-05		Resid phase (deg)		64.0	+/- 3.9

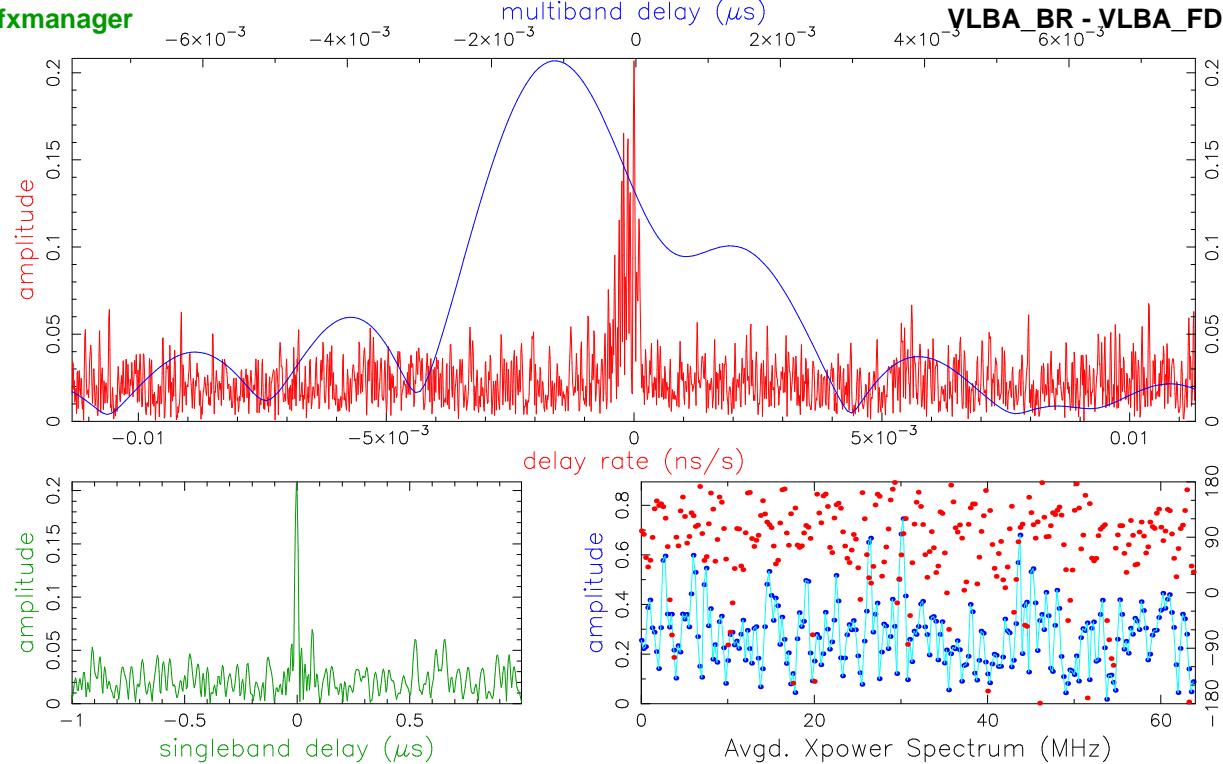
ph/seg (deg) 76.5 9.4 Search (2048X32) 0.503 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 108.9 16.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 8.0 5.6 Inc. seg. avg. 1.056 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 13.1 9.7 Inc. frq. avg. 0.520 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 b: az 61.2 el 31.6 pa -51.5 f: az 57.7 el 33.3 pa -76.3 u,v (fr/asec) 1294.866 2991.276 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/bf..1X01VG Output file: /Exps/c211c/v1/1234/No0082/bf.W.24.1X01VG

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fxmanager

3C84.1X01VG, No0082, bf

VLBA\_BR - VLBA\_FD, fgroup W, pol LL

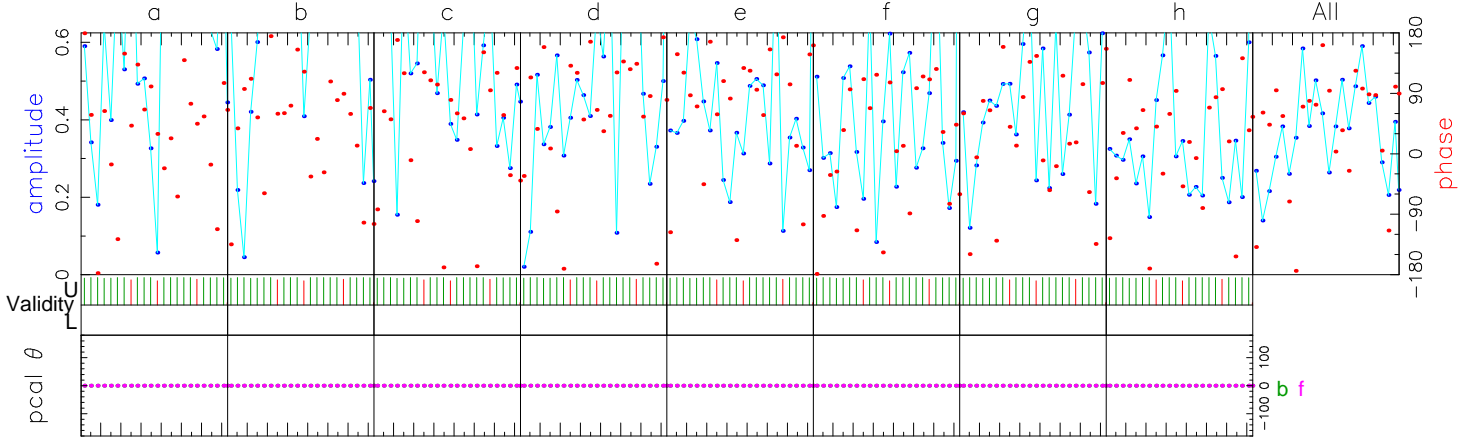


Fringe quality 9

SNR 11.6  
 Int time 411.552  
 Amp 0.208  
 Phase 78.4  
 PFD 3.5e-22  
 Delays (us)  
 SBD -0.002922  
 MBD -0.001092  
 Fringe rate (Hz) -0.000291  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151501.54  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121600  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	810/0	810/0	810/0	810/0	811/0	811/0	810/0	810/0		
b	0	0	0	0	0	0	0	0	Ampl.	0.2
f	0	0	0	0	0	0	0	0	Sbd box	256.3
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
f	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
									Tracks	
Group delay (usec)(sbd)	-6.10156387676E+02				-6.10155295301E+02				Resid mbdelay (usec)	-1.09238E-03 +/- 9.4E-05
Sband delay (usec)	-6.10158217551E+02				-1.3245110E+01				Resid sbdelay (usec)	-2.92225E-03 +/- 7.5E-04
Phase delay (usec)	-6.10155292774E+02				-1.6000000E-07				Resid phdelay (usec)	2.52676E-06 +/- 3.2E-07
Delay rate (us/s)	-1.64327214192E-01				-1.64327210819E-01				Resid rate (us/s)	-3.37273E-09 +/- 1.3E-09
Total phase (deg)			29.0		2.07730303862E-05				Resid phase (deg)	78.4 +/- 9.9
	RMS	Theor.	Amplitude	0.208 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	73.7	23.7	Search (2048X32)	0.202					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	97.2	41.3	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	25.2	14.0	Inc. seg. avg.	0.343					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	30.7	24.5	Inc. frq. avg.	0.216					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

b: az 61.2 el 31.6 pa -51.5 f: az 57.7 el 33.3 pa -76.3 u,v (fr/asec) 1294.866 2991.276 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/bf..1X01VG Output file: /Exps/c211c/v1/1234/No0082/bf.W.3.1X01VG

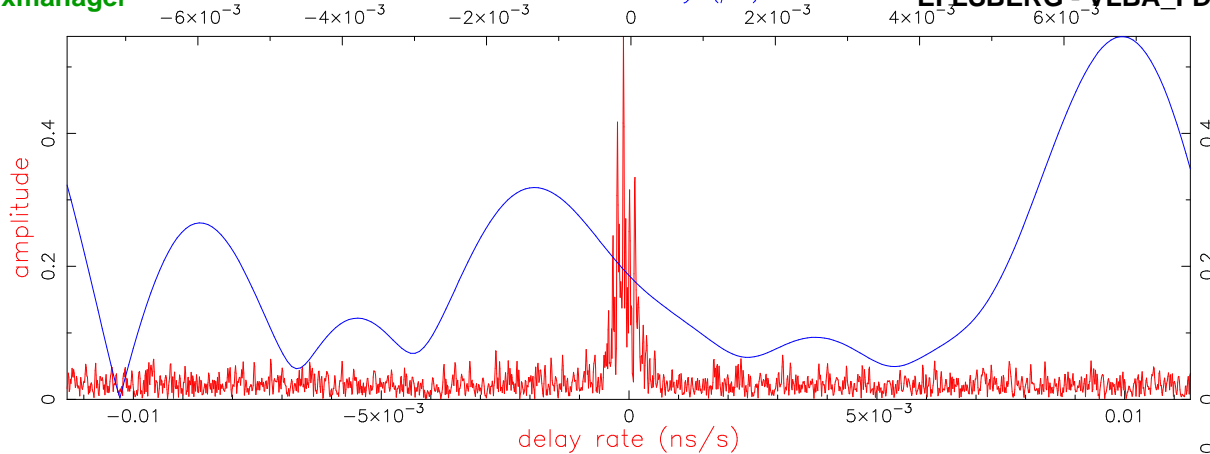
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, Bf

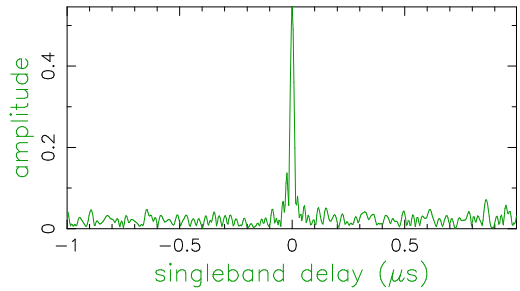
EFLSBERG - VLBA\_FD, fgroup W, pol RR

multiband delay ( $\mu$ s)

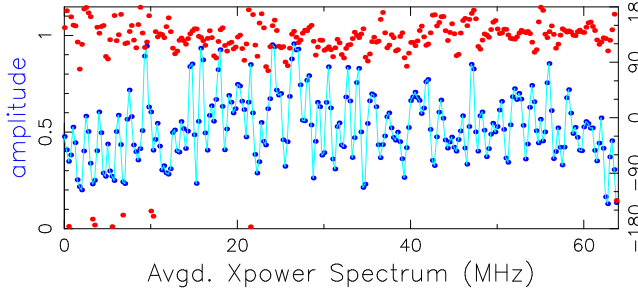


Fringe quality 4

SNR 30.4  
 Int time 413.602  
 Amp 0.546  
 Phase 52.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000286  
 MBD 0.006800  
 Fringe rate (Hz)  
 -0.009225  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

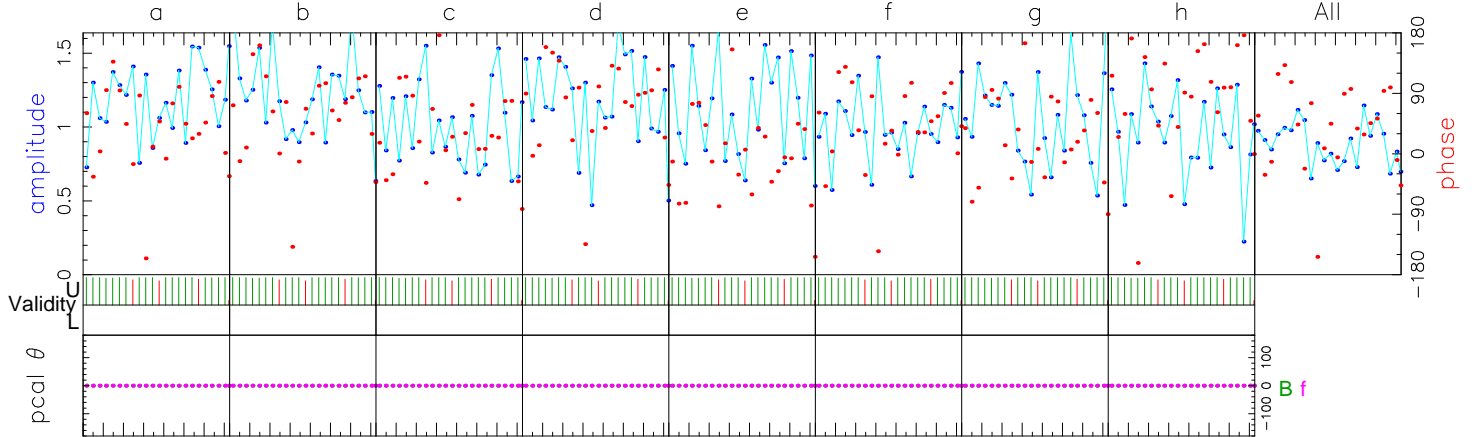


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121605  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0				
B	1000	1000	1000	1000	1000	1000	1000	1000				
f	0	0	0	0	0	0	0	0				
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
B	1000	1000	1000	1000	1000	1000	1000	1000				
f	1000	1000	1000	1000	1000	1000	1000	1000				
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
Group delay (usec)(sbd)	6.56568597301E+03		Apriori delay (usec)		6.56567917292E+03		Resid mbdelay (usec)		6.80009E-03	+/- 3.6E-05		
Sband delay (usec)	6.56567888667E+03		Apriori clock (usec)		-3.2323917E+01		Resid sbdelay (usec)		-2.86250E-04	+/- 2.8E-04		
Phase delay (usec)	6.56567917460E+03		Apriori clockrate (us/s)		-5.9999999E-08		Resid phdelay (usec)		1.67960E-06	+/- 1.2E-07		
Delay rate (us/s)	-1.42343972804E+00		Apriori rate (us/s)		-1.42343962094E+00		Resid rate (us/s)		-1.07097E-07	+/- 5.1E-10		
Total phase (deg)			36.1		Apriori accel (us/s/s)		-1.54419052206E-05		Resid phase (deg)	52.1	+/- 3.8	
RMS	57.8	9.0	Amplitude		0.546 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	68.8	15.7	Search (2048X32)		0.528		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	41.0	5.3	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	27.0	9.3	Inc. seg. avg.		0.884		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.		0.659		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 267.5 el 61.3 pa 58.0 f: az 57.7 el 33.3 pa -76.3 u,v (fr/asec) 10864.505 541.511 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/Bf..1X01VG Output file: /Exps/c211c/v1/1234/No0082/Bf.W.34.1X01VG

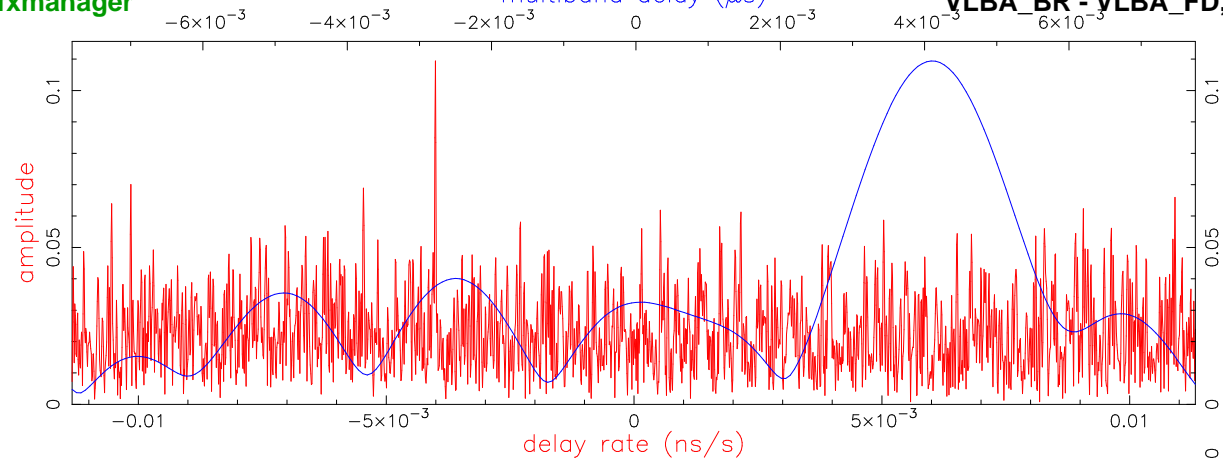
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, bf

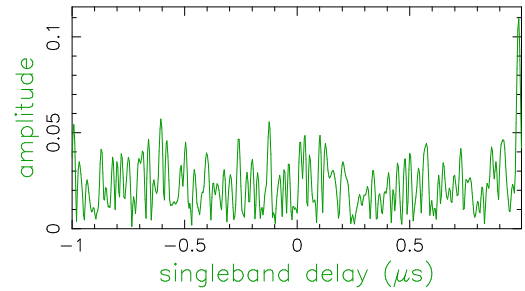
VLBA\_BR - VLBA\_FD, fgroup W, pol LR

multiband delay ( $\mu$ s)

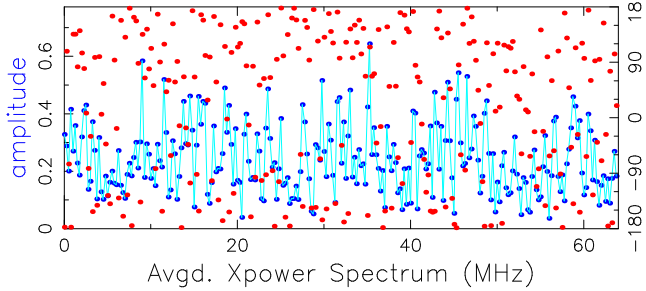


Fringe quality 0

SNR 6.1  
 Int time 411.552  
 Amp 0.116  
 Phase -90.5  
 PFD 2.6e-01  
 Delays (us)  
 SBD 0.983575  
 MBD 0.004076  
 Fringe rate (Hz)  
 -0.345991  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

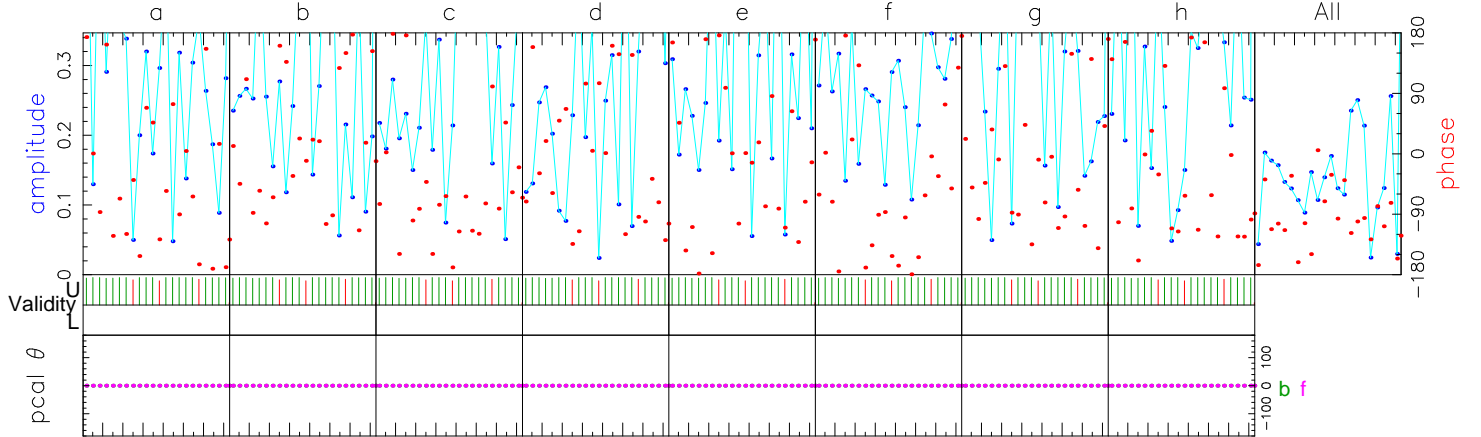


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151501.54  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121607  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-121.8	-55.1	-91.8	-82.1	-95.5	-98.7	-55.2	-109.2	Phase	-90.5		
	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1		
	226.9	495.2	510.0	125.3	362.6	259.0	190.1	75.3	Sbd box	508.8		
U/L	811/0	811/0	810/0	810/0	810/0	810/0	810/0	810/0	APs used			
b	0	0	0	0	0	0	0	0	PC freqs			
f	0	0	0	0	0	0	0	0	PC freqs			
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
f	1000	1000	1000	1000	1000	1000	1000	1000				
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Chan ids			
									Tracks			
Group delay (usec)(sbd)	-6.09166843933E+02		Apriori delay (usec)		-6.10155295301E+02		Resid mbdelay (usec)		4.07637E-03	+/- 1.8E-04		
Sband delay (usec)	-6.09171720051E+02		Apriori clock (usec)		-1.3245110E+01		Resid sbdelay (usec)		9.83575E-01	+/- 1.4E-03		
Phase delay (usec)	-6.10155298219E+02		Apriori clockrate (us/s)		-1.6000000E-07		Resid phdelay (usec)		-2.91834E-06	+/- 6.1E-07		
Delay rate (us/s)	-1.64331227430E-01		Apriori rate (us/s)		-1.64327210819E-01		Resid rate (us/s)		-4.01661E-06	+/- 2.5E-09		
Total phase (deg)			Apriori accel (us/s/s)		2.07730303862E-05		Resid phase (deg)		-90.5	+/- 18.8		
	RMS	Theor.	Amplitude	0.116 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	45.0	44.9	Search (2048X32)	0.107		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	65.5	78.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	25.8	26.6	Inc. seg. avg.	0.112		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	29.8	46.4	Inc. frq. avg.	0.112		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 61.2 el 31.6 pa -51.5      f: az 57.7 el 33.3 pa -76.3      u,v (fr/asec) 1294.866 2991.276      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps/c211c/v1/1234/No0082/bf..1X01VG    Output file: /Exps/c211c/v1/1234/No0082/bf.W.44.1X01VG

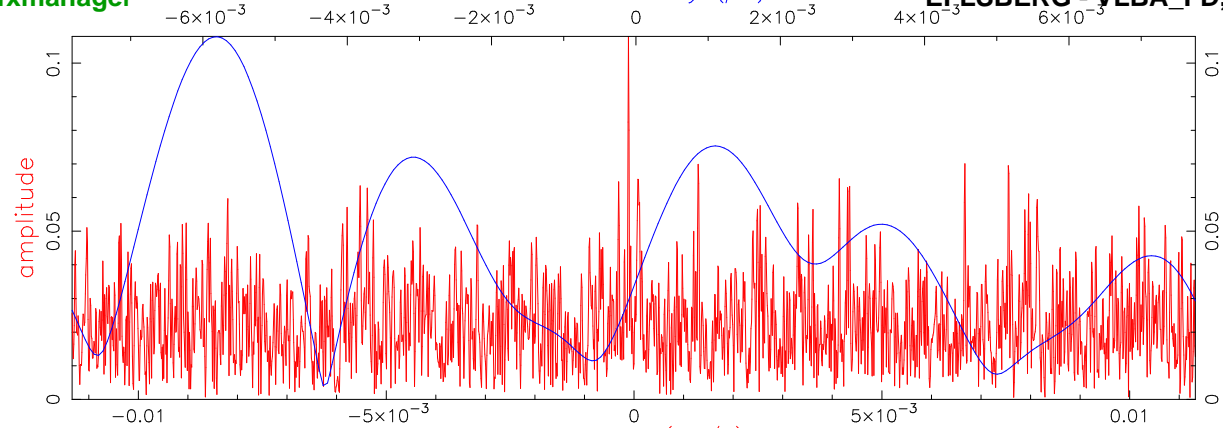
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

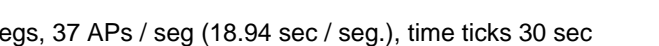
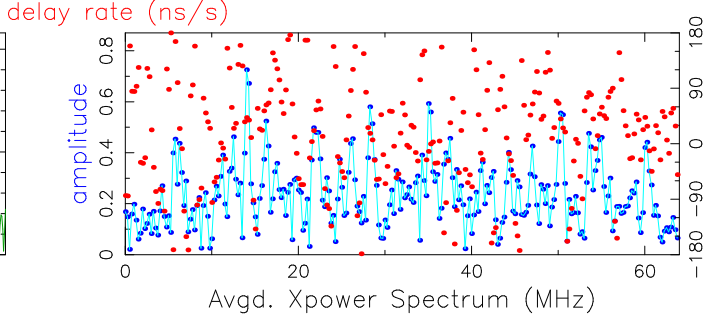
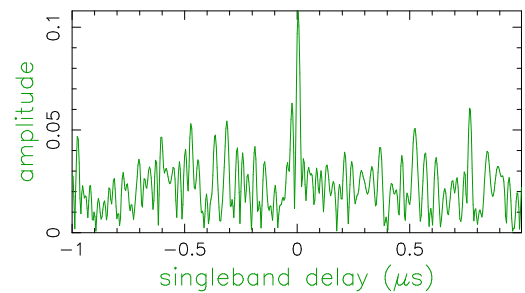
3C84.1X01VG, No0082, Bf

EFLSBERG - VLBA\_FD, fgroup W, pol LR

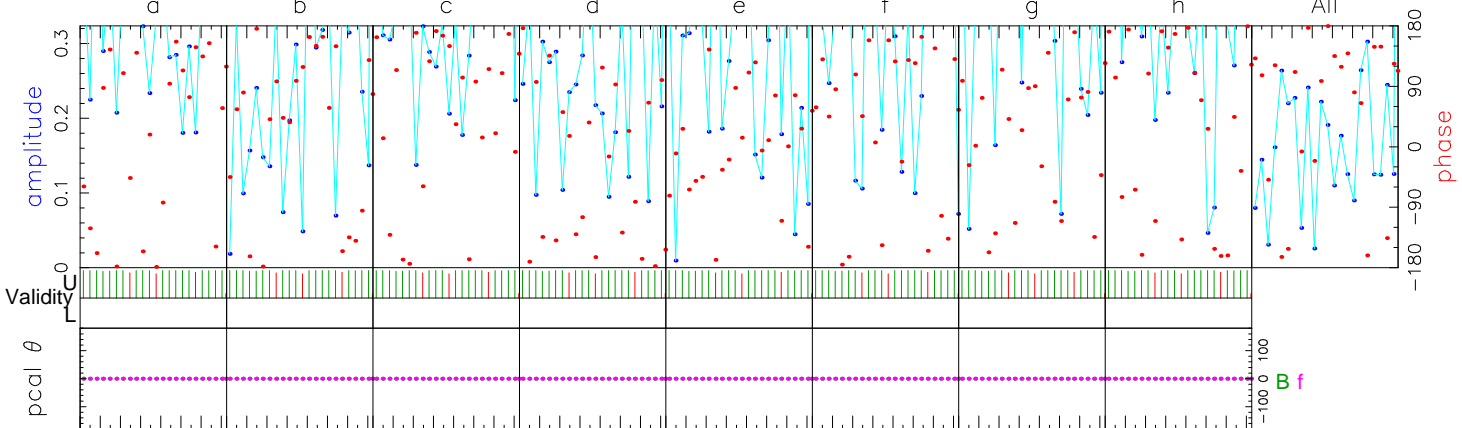
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 6.0  
 Int time 413.602  
 Amp 0.108  
 Phase 146.3  
 PFD 3.9e-01  
 Delays (us)  
 SBD 0.004285  
 MBD -0.005814  
 Fringe rate (Hz)  
 -0.009660  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121609  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	0	0	0	0	0	0	0	0		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	6.56568898420E+03		Apriori delay (usec)		6.56567917292E+03		Resid mbdelay (usec)		-5.81372E-03	+/- 1.8E-04
Sband delay (usec)	6.56568345767E+03		Apriori clock (usec)		-3.2323917E+01		Resid sbdelay (usec)		4.28475E-03	+/- 1.4E-03
Phase delay (usec)	6.56567917764E+03		Apriori clockrate (us/s)		-5.9999999E-08		Resid phdelay (usec)		4.71808E-06	+/- 6.2E-07
Delay rate (us/s)	-1.42343973309E+00		Apriori rate (us/s)		-1.42343962094E+00		Resid rate (us/s)		-1.12148E-07	+/- 2.6E-09
Total phase (deg)	130.3		Apriori accel (us/s/s)		-1.54419052206E-05		Resid phase (deg)		146.3	+/- 19.1
ph/seg (deg)	RMS 71.6	Theor. 45.6	Amplitude Search (2048X32)	0.108 +/- 0.018	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
amp/seg (%)	105.8	79.6	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)	62.5	27.0	Inc. seg. avg.	0.126	Bits/sample: 2x2		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
amp/frq (%)	46.6	47.1	Inc. frq. avg.	0.127	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00

B: az 267.5 el 61.3 pa 58.0 f: az 57.7 el 33.3 pa -76.3 u,v (fr/asec) 10864.505 541.511 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/Bf..1X01VG Output file: /Exps/c211c/v1/1234/No0082/Bf.W.53.1X01VG

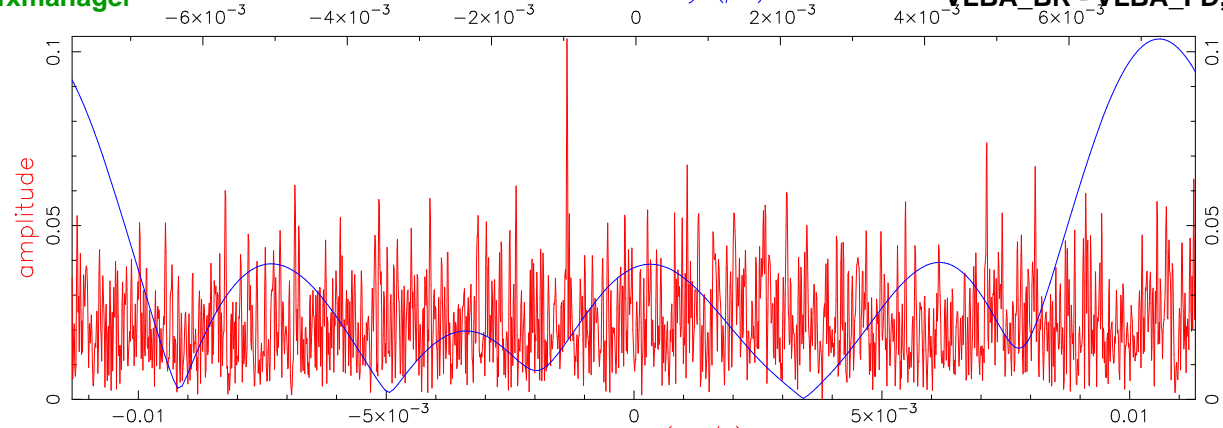
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

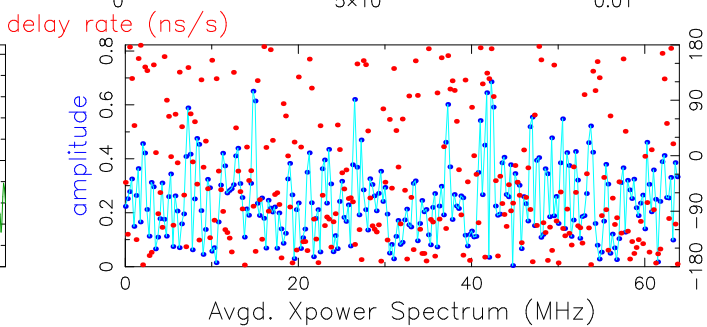
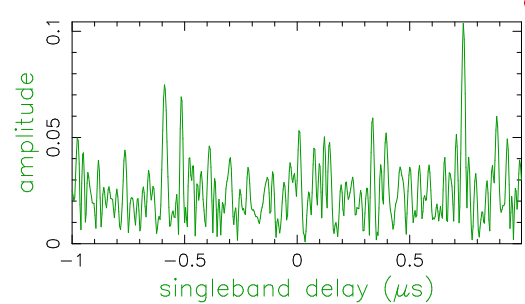
3C84.1X01VG, No0082, bf

VLBA\_BR - VLBA\_FD, fgroup W, pol RL

multiband delay ( $\mu$ s)

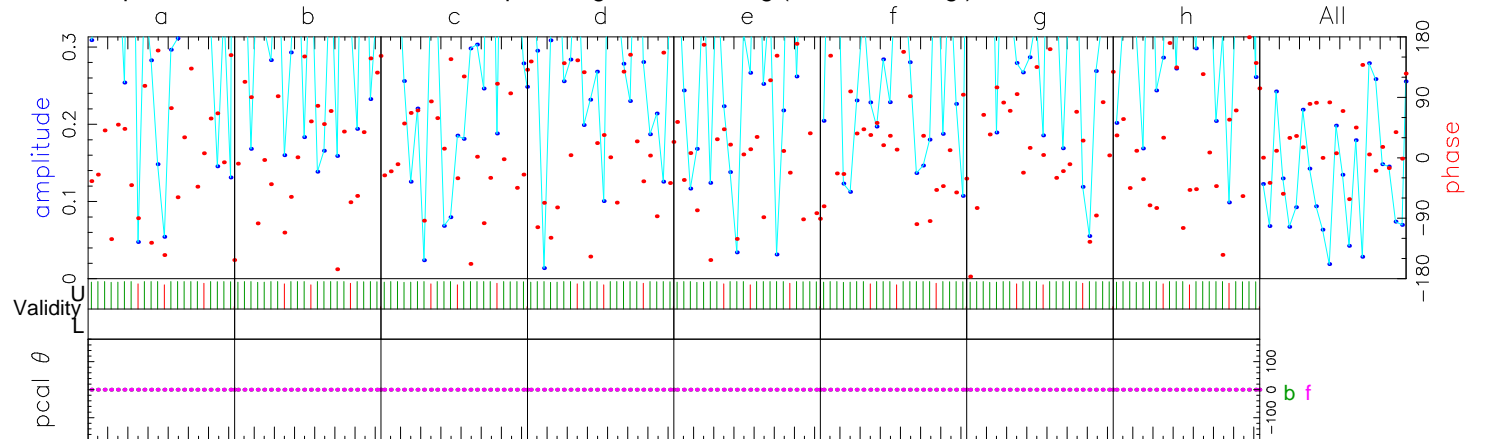


Fringe quality 0  
 SNR 5.8  
 Int time 411.552  
 Amp 0.104  
 Phase 14.1  
 PFD 8.8e-01  
 Delays (us)  
 SBD 0.738700  
 MBD 0.007252  
 Fringe rate (Hz)  
 -0.116094  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151501.54  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121611  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	8.2	39.2	3.0	-23.5	5.7	14.0	43.3	-40.3	Phase	14.1
	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.0	Ampl.	0.1
	108.4	105.5	495.0	258.4	108.2	127.0	105.2	92.7	Sbd box	446.1
U/L	810/0	810/0	810/0	810/0	811/0	811/0	810/0	810/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
f	0	0	0	0	0	0	0	0	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-6.09413667900E+02		Apriori delay (usec)		-6.10155295301E+02		Resid mbdelay (usec)		7.25240E-03	+/- 1.9E-04
Sband delay (usec)	-6.09416595301E+02		Apriori clock (usec)		-1.3245110E+01		Resid sbdelay (usec)		7.38700E-01	+/- 1.5E-03
Phase delay (usec)	-6.10155294847E+02		Apriori clockrate (us/s)		-1.6000000E-07		Resid phdelay (usec)		4.54257E-07	+/- 6.4E-07
Delay rate (us/s)	-1.64328558557E-01		Apriori rate (us/s)		-1.64327210819E-01		Resid rate (us/s)		-1.34774E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		2.07730303862E-05		Resid phase (deg)		14.1	+/- 19.9

ph/seg (deg) 48.1 47.5 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 74.9 82.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 31.8 28.1 Inc. seg. avg. 0.096 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 40.2 49.1 Inc. frq. avg. 0.100 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 b: az 61.2 el 31.6 pa -51.5 f: az 57.7 el 33.3 pa -76.3 u,v (fr/asec) 1294.866 2991.276 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/bf..1X01VG Output file: /Exps/c211c/v1/1234/No0082/bf.W.63.1X01VG

Mk4/DiFX fourfit 3.21 rev 2937

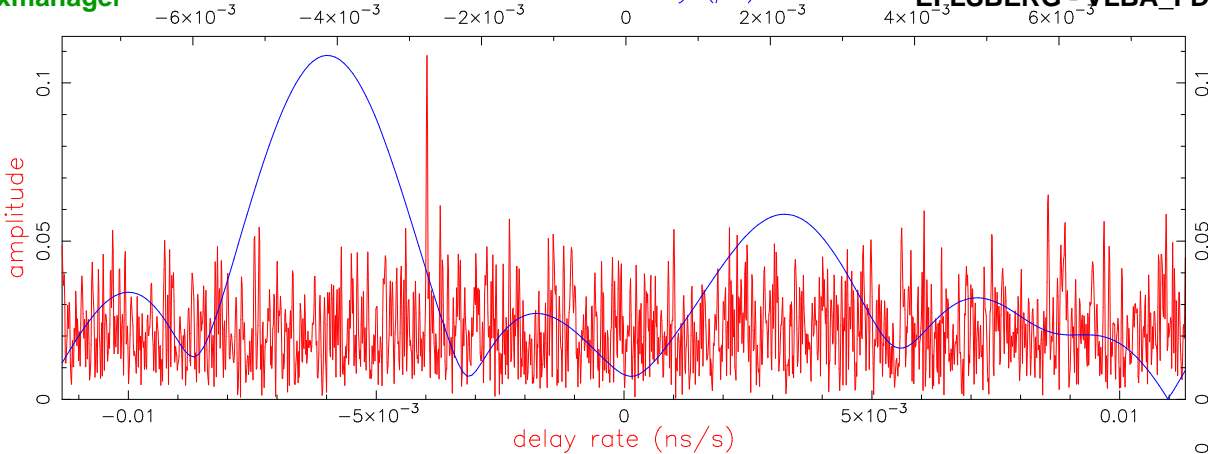
fxmanager

3C84.1X01VG, No0082, Bf

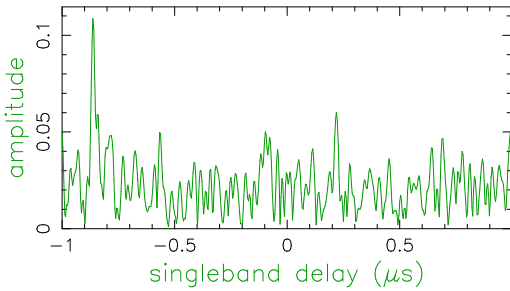
EFLSBERG - VLBA\_FD, fgroup W, pol RL

multiband delay ( $\mu$ s)

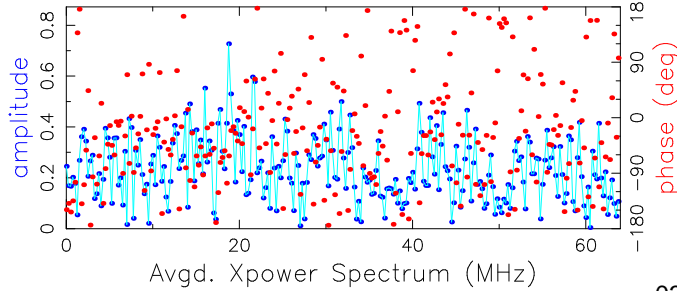
Fringe quality 0



SNR 6.1  
 Int time 413.602  
 Amp 0.115  
 Phase 140.1  
 PFD 3.0e-01  
 Delays (us)  
 SBD -0.862549  
 MBD -0.004107  
 Fringe rate (Hz)  
 -0.342918  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

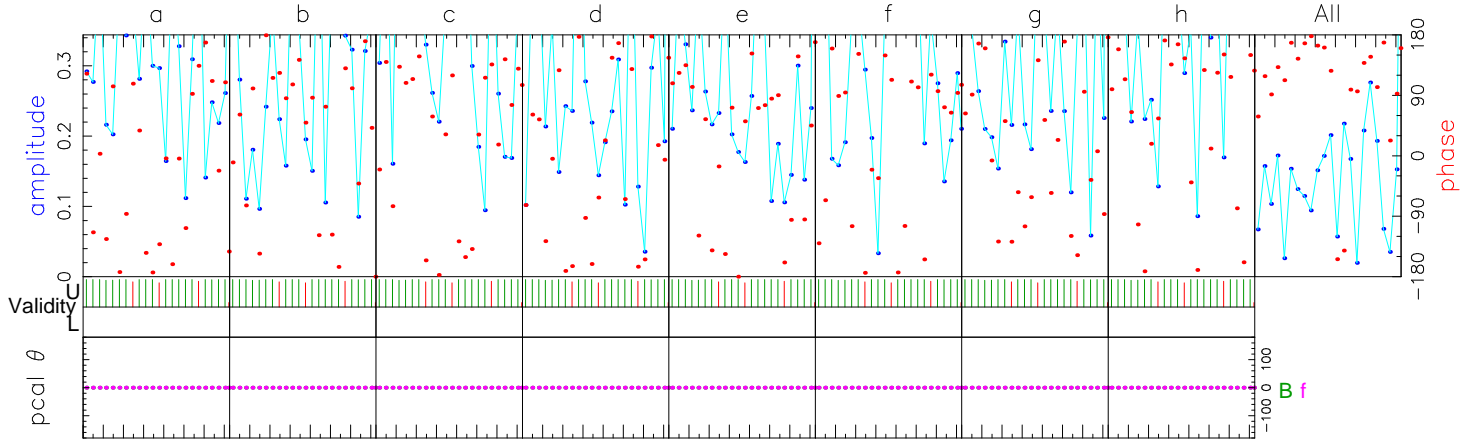


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121613  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



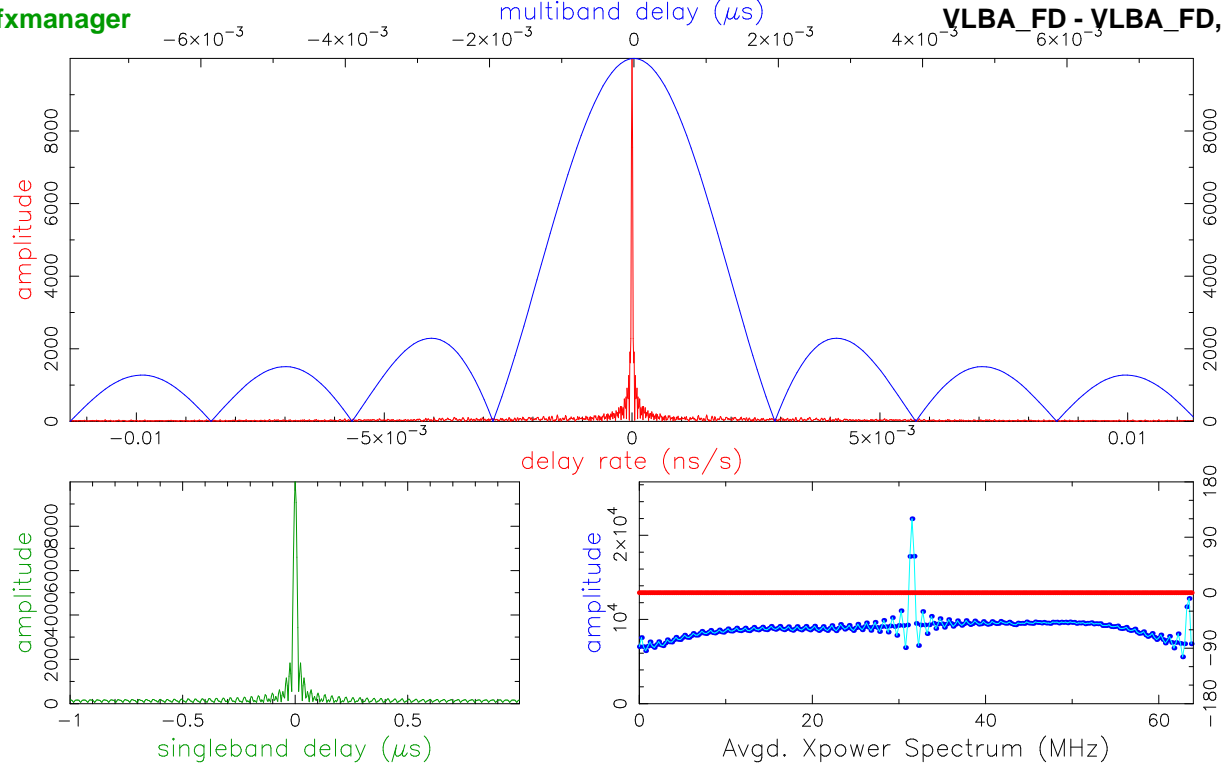
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	165.0	128.1	138.2	147.4	123.2	156.9	68.1	143.0	Phase	140.1
B	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.2	Ampl.	0.1
f	216.1	71.3	35.3	407.0	486.0	238.2	171.0	38.0	Sbd box	36.2
B	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.56481569137E+03		Apriori delay (usec)		6.56567917292E+03		Resid mbdelay (usec)		-4.10656E-03	+/- 1.8E-04
Sband delay (usec)	6.56481662367E+03		Apriori clock (usec)		-3.2323917E+01		Resid sbdelay (usec)		-8.62549E-01	+/- 1.4E-03
Phase delay (usec)	6.56567917744E+03		Apriori clockrate (us/s)		-5.9999999E-08		Resid phdelay (usec)		4.51736E-06	+/- 6.1E-07
Delay rate (us/s)	-1.42344360188E+00		Apriori rate (us/s)		-1.42343962094E+00		Resid rate (us/s)		-3.98094E-06	+/- 2.5E-09
Total phase (deg)	124.1		Apriori accel (us/s/s)		-1.54419052206E-05		Resid phase (deg)		140.1	+/- 18.9

	RMS	Theor.	Amplitude	0.115 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	46.4	45.2	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	75.8	78.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	33.1	26.7	Inc. seg. avg.	0.109	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	49.6	46.7	Inc. frq. avg.	0.108	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 267.5 el 61.3 pa 58.0 f: az 57.7 el 33.3 pa -76.3 u,v (fr/asec) 10864.505 541.511 simultaneous interpolator

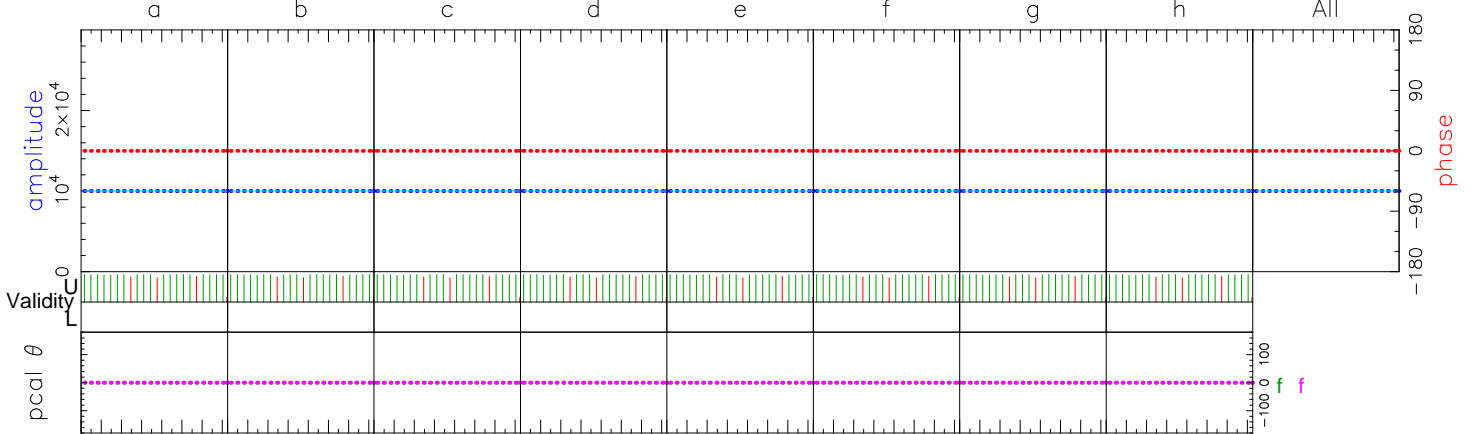
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/Bf..1X01VG Output file: /Exps/c211c/v1/1234/No0082/Bf.W.73.1X01VG





Fringe quality 9  
SNR 556154.2  
Int time 413.614  
Amp 9999.996  
Phase 0.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD 0.000000  
Fringe rate (Hz) 0.000000  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151500.00  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build 2021:303:071106  
2021:303:121621  
2021:252:122852  
RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0		
f	0	0	0	0	0	0	0	0	Ampl.	10000.0
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
									Chan ids	
									Tracks	
									Tracks	
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		+/- 2.0E-09
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		+/- 1.5E-08
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		+/- 6.6E-12
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		+/- 2.8E-14
Total phase (deg)			0.0							+/- 0.0

RMS Theor. Amplitude 9999.996 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.0 0.0 Search (2048X32) 9999.996 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. 9999.996 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 f: az 57.7 el 33.3 pa -76.3 f: az 57.7 el 33.3 pa -76.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/ff..1X0IVG Output file: /Exps/c211c/v1/1234/No0082/ff.W.105.1X0IVG

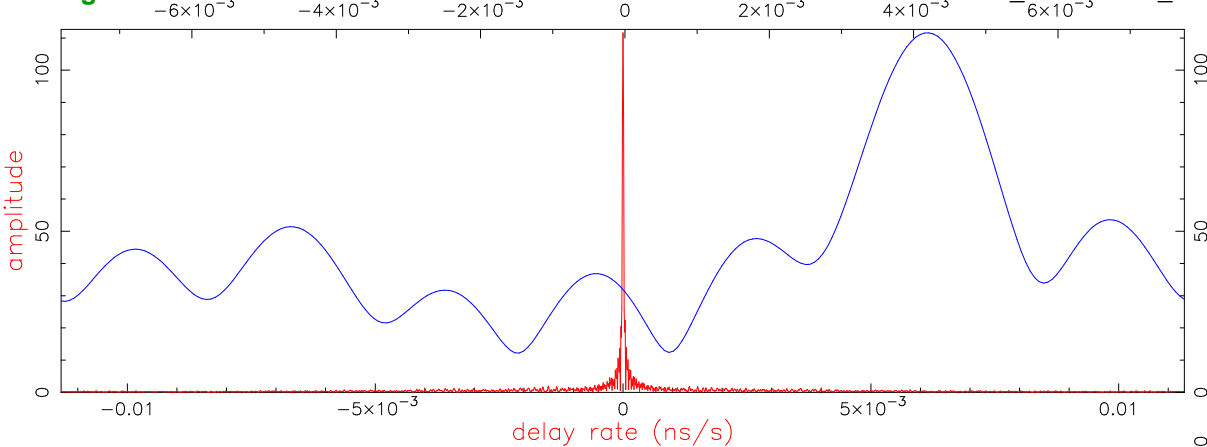
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0IVG, No0082, ff

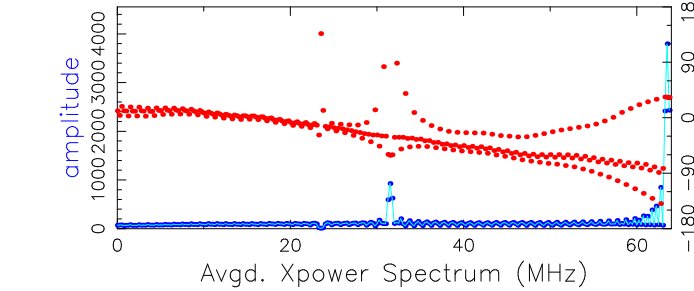
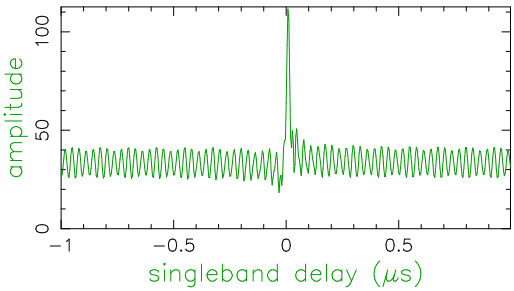
VLBA\_FD - VLBA\_FD, fgroup W, pol LR

multiband delay ( $\mu$ s)



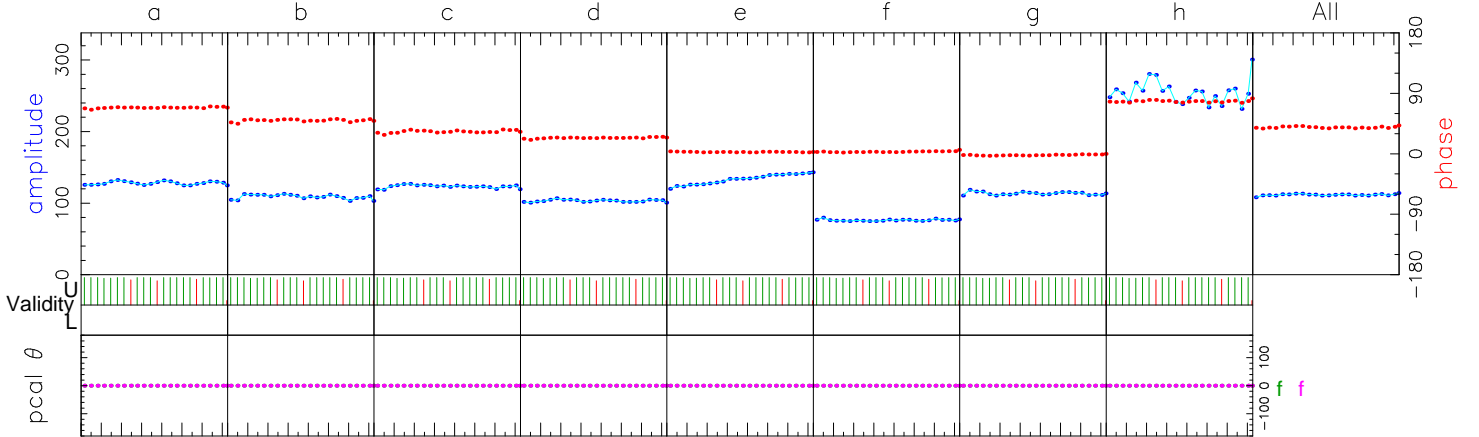
Fringe quality 5

SNR 6265.6  
 Int time 413.614  
 Amp 112.659  
 Phase 39.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.008931  
 MBD 0.004179  
 Fringe rate (Hz)  
 -0.000009  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121625  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0		
f	0	0	0	0	0	0	0	0		
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	4.17890625000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		4.17891E-03	+/- 1.7E-07
Sband delay (usec)	8.93125000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		8.93125E-03	+/- 1.4E-06
Phase delay (usec)	1.26726515584E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		1.26727E-06	+/- 5.9E-10
Delay rate (us/s)	-1.01323739601E-10		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-1.01324E-10	+/- 2.5E-12
Total phase (deg)	39.3		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		39.3	+/- 0.0

ph/seg (deg) 1.1 0.0 Theor. Amplitude 112.659 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 1.4 0.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 34.4 0.0 Inc. seg. avg. 111.626 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 46.6 0.0 Inc. frq. avg. 130.057 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 57.7 el 33.3 pa -76.3 f: az 57.7 el 33.3 pa -76.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/ff..1X0IVG Output file: /Exps/c211c/v1/1234/No0082/ff.W.122.1X0IVG

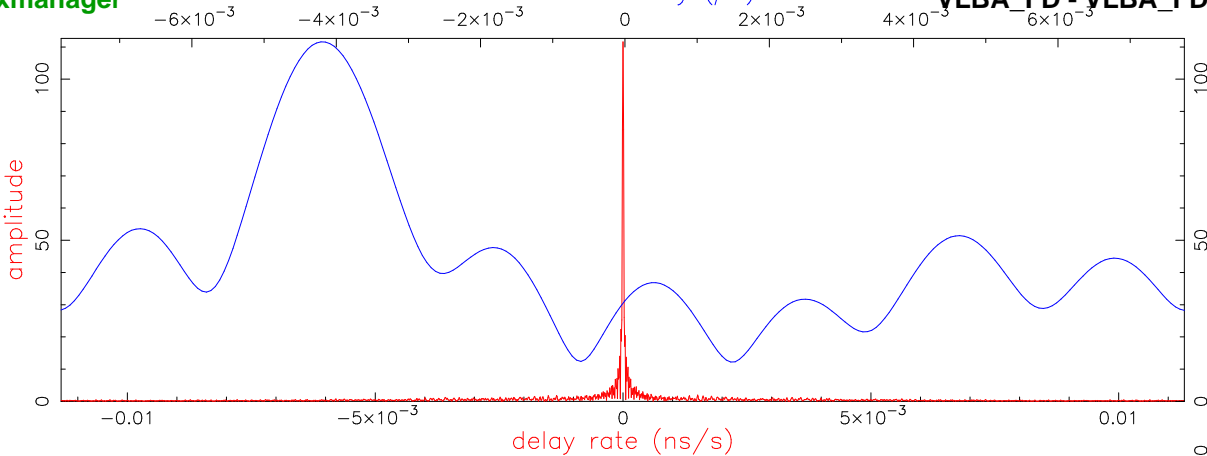
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0IVG, No0082, ff

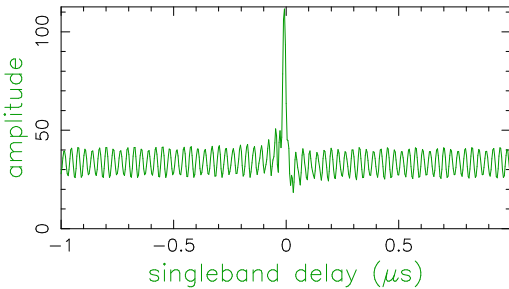
VLBA\_FD - VLBA\_FD, fgroup W, pol RL

multiband delay ( $\mu$ s)

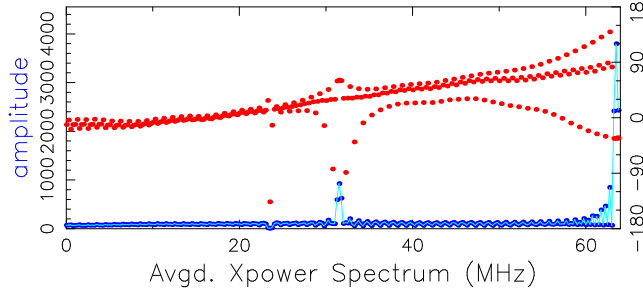


Fringe quality 5

SNR 6265.6  
 Int time 413.614  
 Amp 112.659  
 Phase -39.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.008931  
 MBD -0.004179  
 Fringe rate (Hz)  
 0.000009  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

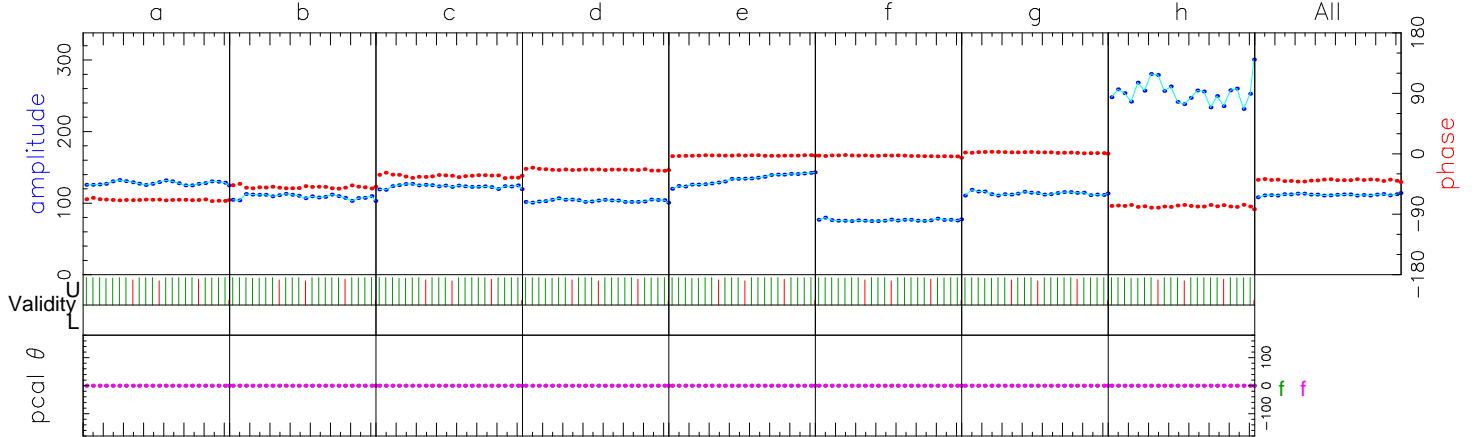


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121629  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-68.6	-49.7	-33.0	-23.6	-2.7	-3.0	1.9	-78.0	Phase	-39.3
	128.2	109.1	123.4	103.4	133.1	76.2	113.7	253.4	Ampl.	130.1
	256.4	256.1	256.3	256.0	255.9	256.1	256.2	253.6	Sbd box	254.7
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.17890625000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-4.17891E-03	+/- 1.7E-07
Sband delay (usec)	-8.93125000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-8.93125E-03	+/- 1.4E-06
Phase delay (usec)	-1.26726515570E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-1.26727E-06	+/- 5.9E-10
Delay rate (us/s)	1.01323739601E-10		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		1.01324E-10	+/- 2.5E-12
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-39.3	+/- 0.0

ph/seg (deg) 1.1 0.0  
 amp/seg (%) 1.4 0.1  
 ph/frq (deg) 34.4 0.0  
 amp/frq (%) 46.6 0.0

f: az 57.7 el 33.3 pa -76.3  
 f: az 57.7 el 33.3 pa -76.3  
 u,v (fr/asec) 0.000 0.000

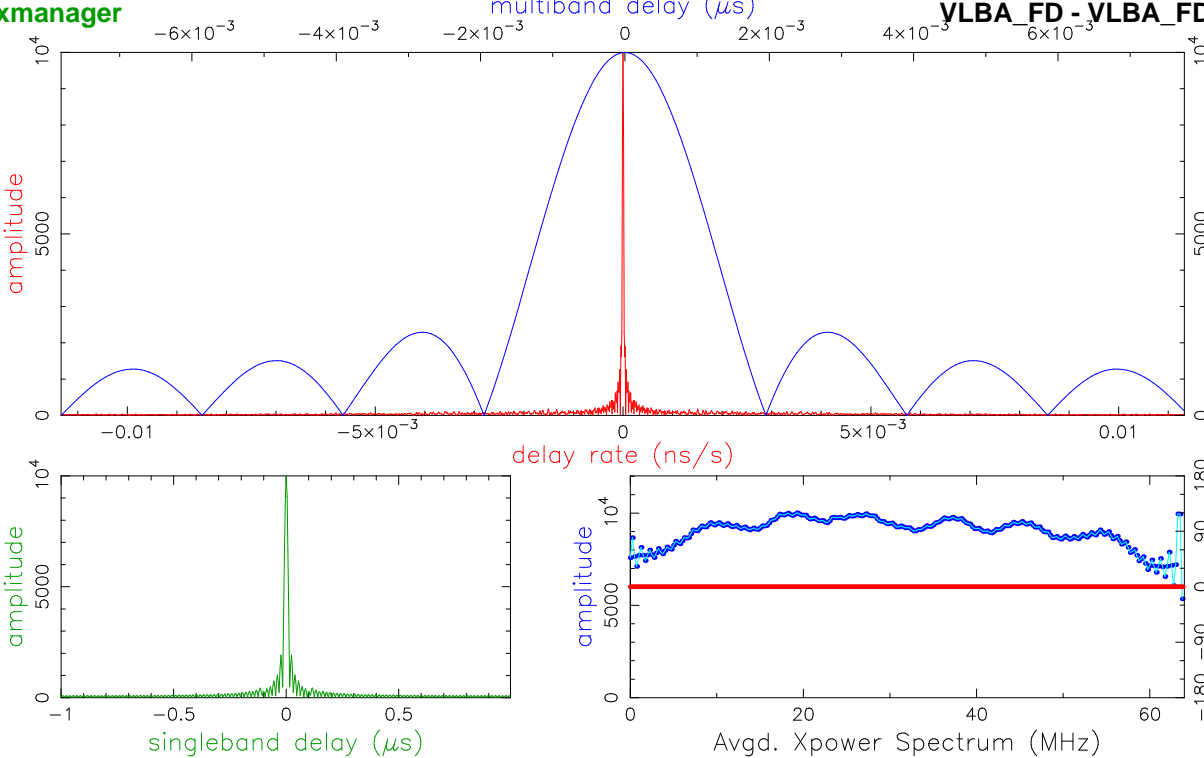
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/ff..1X0IVG Output file: /Exps/c211c/v1/1234/No0082/ff.W.142.1X0IVG

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

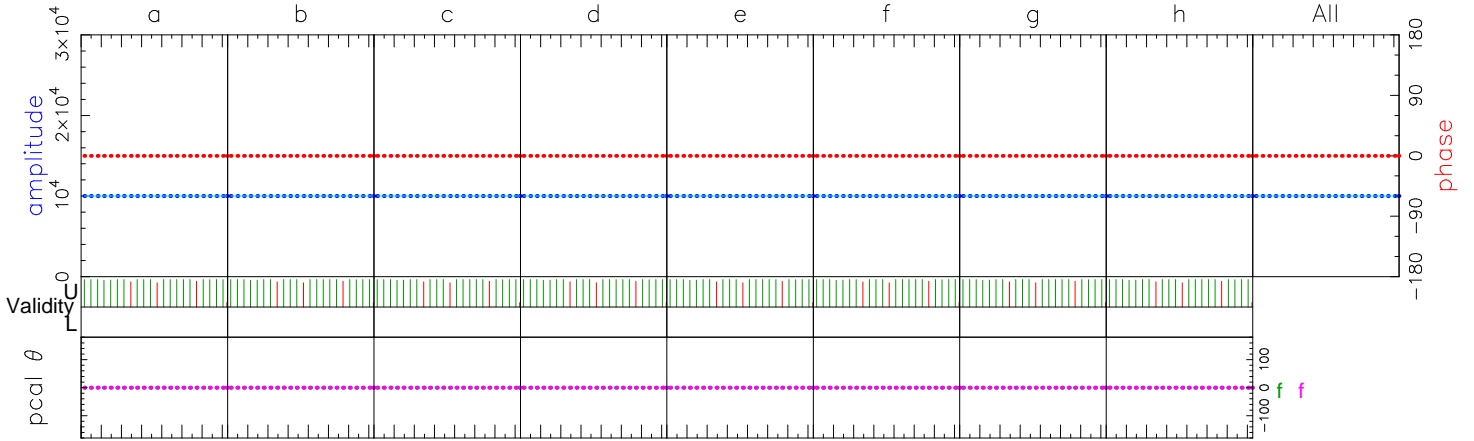
3C84.1X01VG, No0082, ff

VLBA\_FD - VLBA\_FD, fgroup W, pol LL



Fringe quality 9  
 SNR 556154.2  
 Int time 413.614  
 Amp 10000.002  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz) 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121617  
 2021:252:122852  
 RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0		
f	0	0	0	0	0	0	0	0	Ampl.	10000.0
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.0E-09  
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-08  
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.6E-12  
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.8E-14  
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 10000.002 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.002 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. 10000.002 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 f: az 57.7 el 33.3 pa -76.3 f: az 57.7 el 33.3 pa -76.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/ff..1X01VG Output file: /Exps/c211c/v1/1234/No0082/ff.W.84.1X01VG

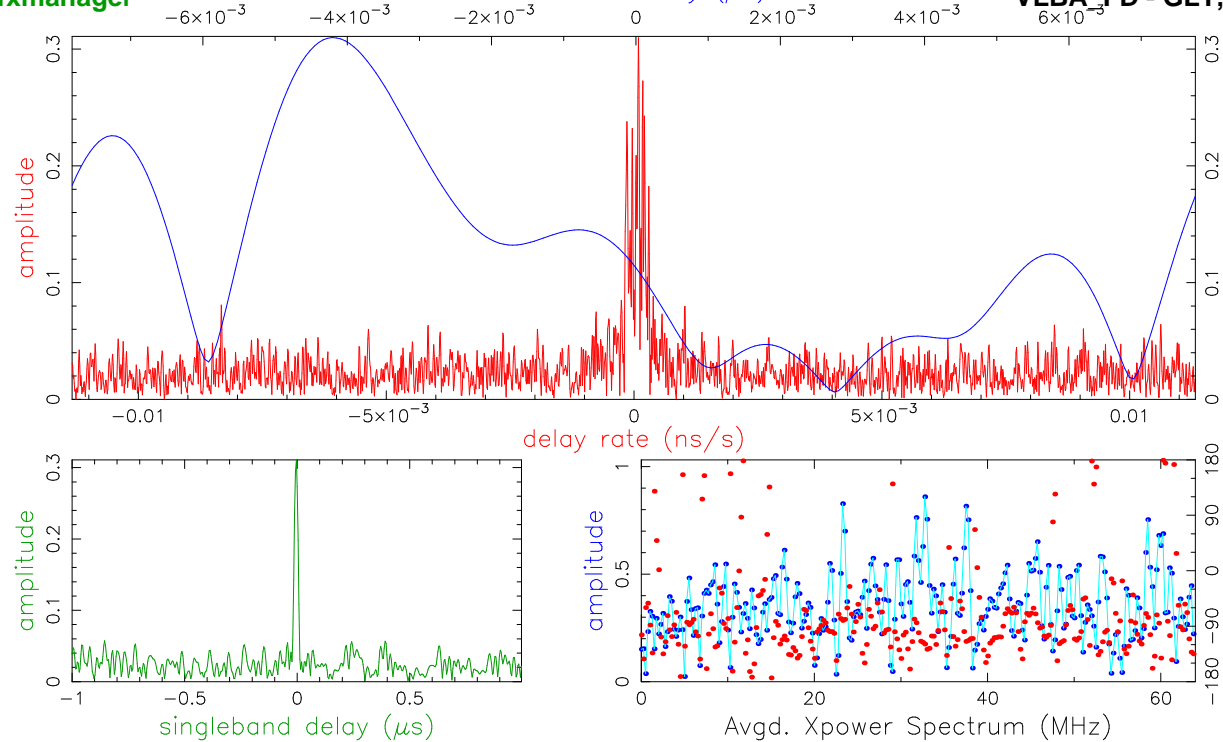
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0IVG, No0082, fg

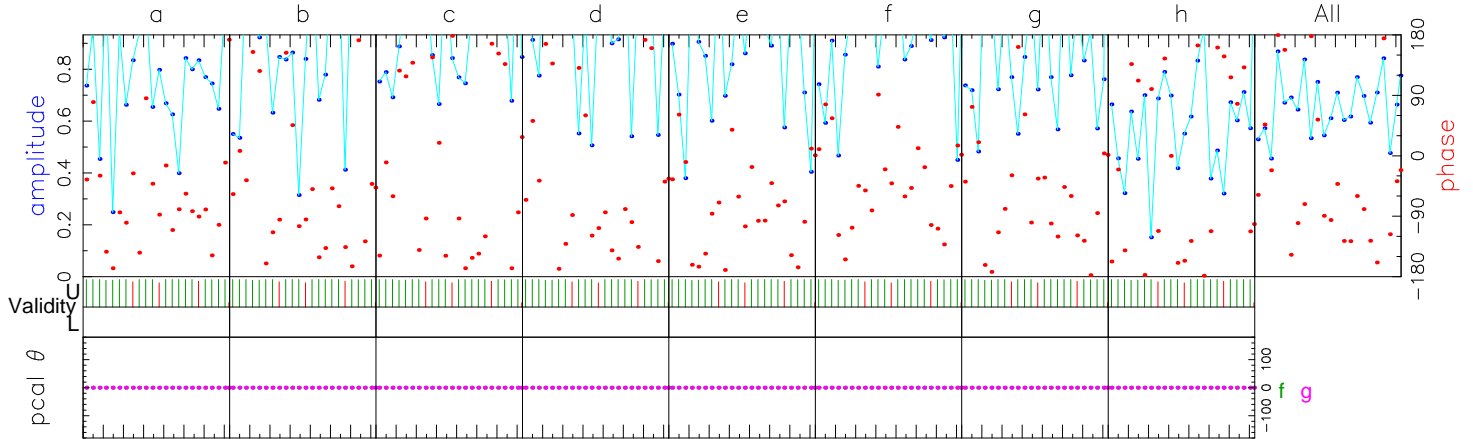
VLBA\_FD - GLT, fgroup W, pol RR

multiband delay ( $\mu$ s)



Fringe quality 8  
 SNR 17.3  
 Int time 413.609  
 Amp 0.311  
 Phase -107.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.004713  
 MBD -0.004235  
 Fringe rate (Hz) 0.008009  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121621  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-77.3	-112.9	-161.9	-129.7	-90.0	-43.2	-83.2	175.4	Phase	-107.5
	0.4	0.4	0.5	0.4	0.5	0.5	0.4	0.3	Ampl.	0.4
	254.5	255.8	256.3	256.8	255.6	256.0	255.4	254.3	Sbd box	255.8
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
f:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fg	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.84242316706E+03		Apriori delay (usec)		-4.84241893255E+03		Resid mbdelay (usec)		-4.23452E-03	+/- 6.3E-05
Sband delay (usec)	-4.84242364605E+03		Apriori clock (usec)		9.8226204E+00		Resid sbdelay (usec)		-4.71350E-03	+/- 5.0E-04
Phase delay (usec)	-4.84241893601E+03		Apriori clockrate (us/s)		-1.2000004E-08		Resid phdelay (usec)		-3.46625E-06	+/- 2.1E-07
Delay rate (us/s)	7.84318057964E-01		Apriori rate (us/s)		7.84317964990E-01		Resid rate (us/s)		9.29734E-08	+/- 8.9E-10
Total phase (deg)			Apriori accel (us/s/s)		-8.91735929232E-06		Resid phase (deg)		-107.5	+/- 6.6

ph/seg (deg) 69.5 15.8 Theor. Amplitude 0.311 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 116.3 27.6 Search (2048X32) 0.298 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 50.6 9.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 39.0 16.4 Inc. seg. avg. 0.630 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 f: az 57.7 el 33.3 pa -76.3 g: az 135.1 el 51.9 pa -12.6 u,v (fr/asec) -6015.621 -3627.561 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fg..1X0IVG Output file: /Exps/c211c/v1/1234/No0082/fg.W.107.1X0IVG simultaneous interpolator

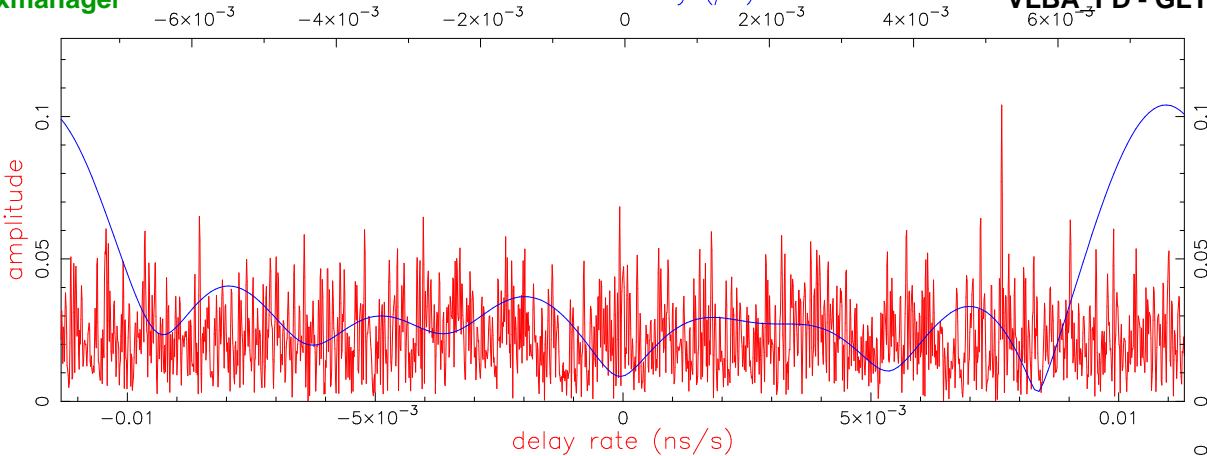
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, fg

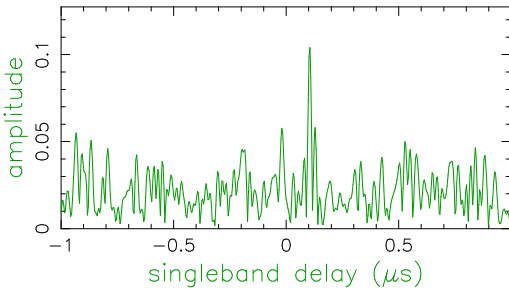
VLBA\_FD - GLT, fgroupp W, pol LR

multiband delay ( $\mu$ s)

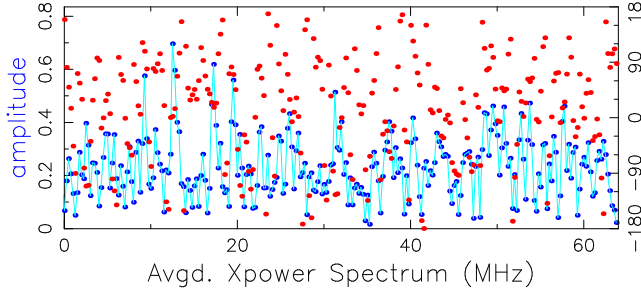


Fringe quality 0

SNR 5.8  
 Int time 413.609  
 Amp 0.127  
 Phase 78.1  
 PFD 7.5e-01  
 Delays (us)  
 SBD 0.104426  
 MBD 0.007473  
 Fringe rate (Hz)  
 0.658944  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

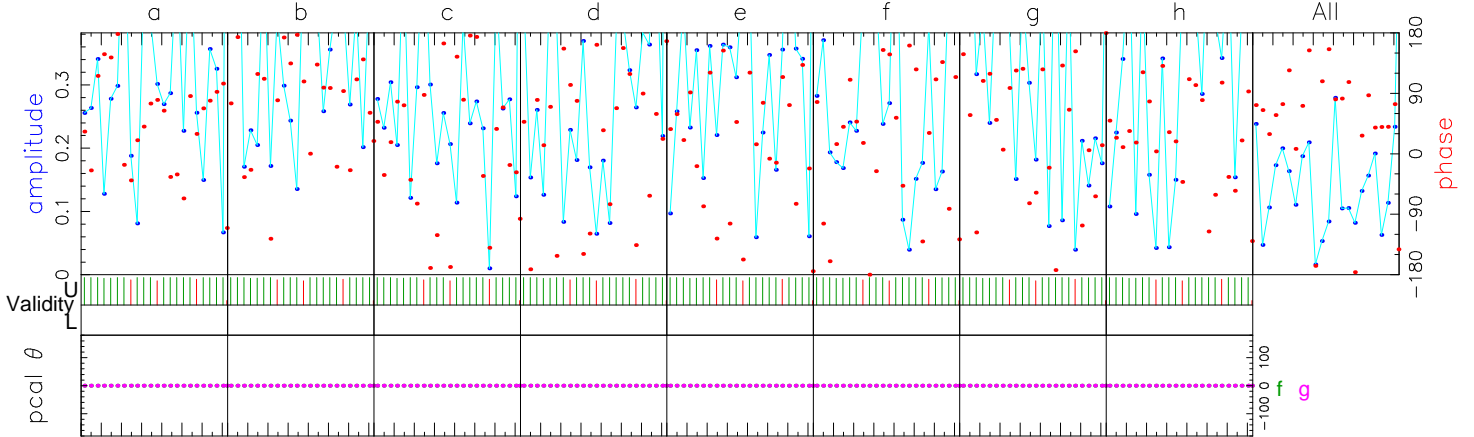


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121626  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	46.5	98.3	63.7	99.4	79.6	76.0	100.8	53.6	Phase	78.1
	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	178.2	283.1	451.8	65.5	53.4	382.3	216.1	204.8	Sbd box	283.7
U/L	813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
f:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fg	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-4.84231770905E+03	Apriori delay (usec)	-4.84241893255E+03	Resid mbdelay (usec)	7.47349E-03	+/-	1.9E-04
Sband delay (usec)	-4.84231450680E+03	Apriori clock (usec)	9.8226204E+00	Resid sbdelay (usec)	1.04426E-01	+/-	1.5E-03
Phase delay (usec)	-4.84241893003E+03	Apriori clockrate (us/s)	-1.2000004E-08	Resid phdelay (usec)	2.51941E-06	+/-	6.3E-07
Delay rate (us/s)	7.84325614675E-01	Apriori rate (us/s)	7.84317964990E-01	Resid rate (us/s)	7.64969E-06	+/-	2.6E-09
Total phase (deg)	-227.7	Apriori accel (us/s/s)	-8.91735929232E-06	Resid phase (deg)	78.1	+/-	19.6

ph/seg (deg)	51.4	Theor.	46.9	Amplitude	0.127 +/- 0.022	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	80.3	Search (2048X32)	0.103	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	23.1	Inc. seg. avg.	0.129	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	35.4	Inc. frq. avg.	0.122	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011		
				Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 57.7 el 33.3 pa -76.3

g: az 135.1 el 51.9 pa -12.6

u,v (fr/asec) -6015.621 -3627.561

simultaneous interpolator

Control file: cf\_1234\_gmva

Input file: /Exps/c211c/v1/1234/No0082/fg..1X01VG

Output file: /Exps/c211c/v1/1234/No0082/fg.W.132.1X01VG

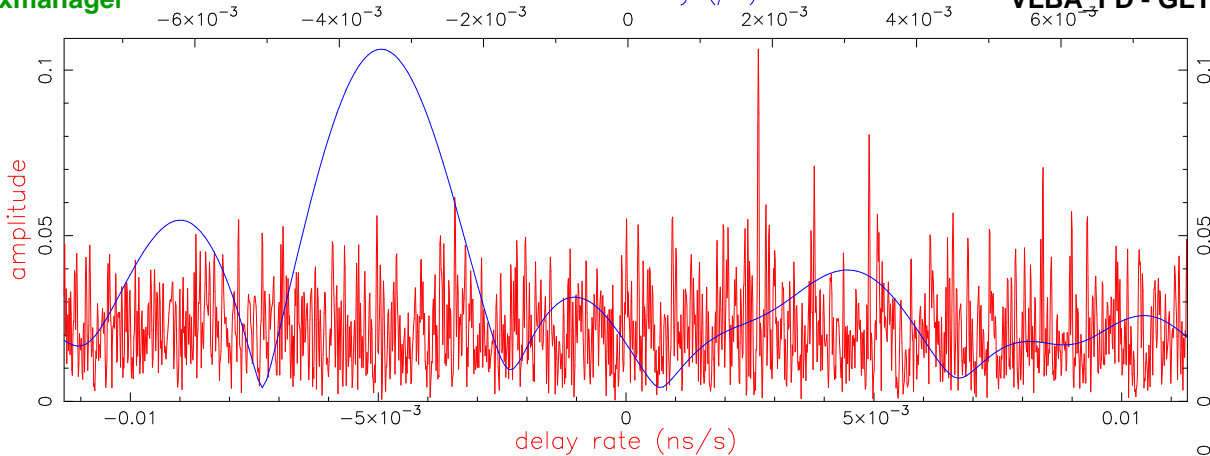
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0IVG, No0082, fg

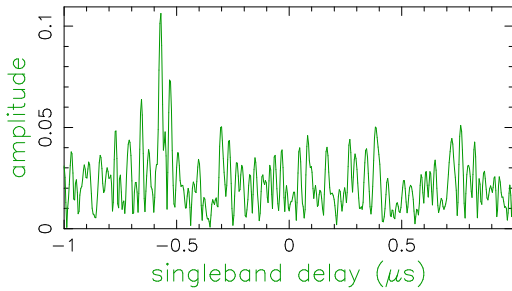
VLBA\_FD - GLT, fgroup W, pol RL

multiband delay ( $\mu$ s)

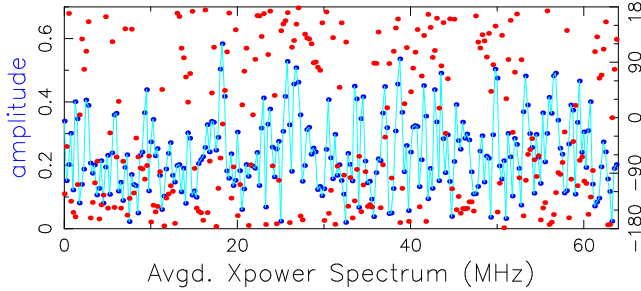


Fringe quality 0

SNR 6.0  
 Int time 413.609  
 Amp 0.110  
 Phase 130.5  
 PFD 4.9e-01  
 Delays (us)  
 SBD -0.571348  
 MBD -0.003402  
 Fringe rate (Hz)  
 0.230074  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

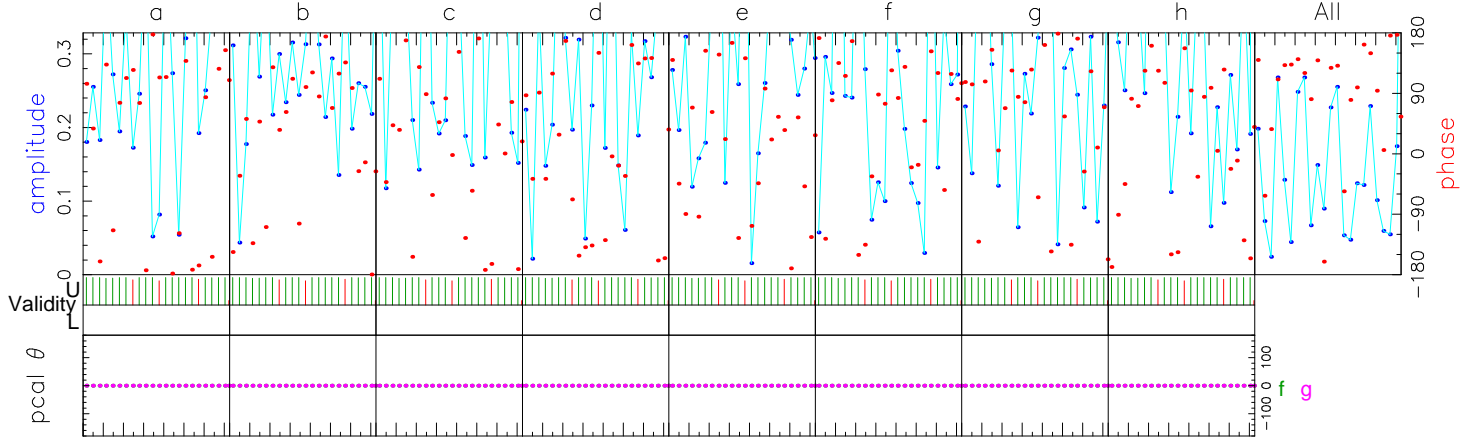


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121631  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	145.9	116.0	94.0	149.6	114.8	138.3	134.5	125.8	Phase	130.5
	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	112.2	58.0	259.6	284.0	183.3	401.2	499.8	88.6	Sbd box	110.7
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
f:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fg	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-4.84298483460E+03	Apriori delay (usec)	-4.84241893255E+03	Resid mbdelay (usec)	-3.40206E-03	+/-	1.8E-04
Sband delay (usec)	-4.84299028105E+03	Apriori clock (usec)	9.8226204E+00	Resid sbdelay (usec)	-5.71348E-01	+/-	1.4E-03
Phase delay (usec)	-4.84241892834E+03	Apriori clockrate (us/s)	-1.2000004E-08	Resid phdelay (usec)	4.20918E-06	+/-	6.2E-07
Delay rate (us/s)	7.84320635925E-01	Apriori rate (us/s)	7.84317964990E-01	Resid rate (us/s)	2.67093E-06	+/-	2.6E-09
Total phase (deg)	-175.3	Apriori accel (us/s/s)	-8.91735929232E-06	Resid phase (deg)	130.5	+/-	19.2

ph/seg (deg)	68.2	Theor.	46.0	Amplitude	0.110 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	86.6	Search (2048X32)	0.103	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	20.4	Inc. seg. avg.	0.107	Inc. frq. avg.	0.102	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	40.0	Inc. frq. avg.	0.102			Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011	
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite
							ion window (TEC)	0.00 0.00

f: az 57.7 el 33.3 pa -76.3

g: az 135.1 el 51.9 pa -12.6

u,v (fr/asec) -6015.621 -3627.561

simultaneous interpolator

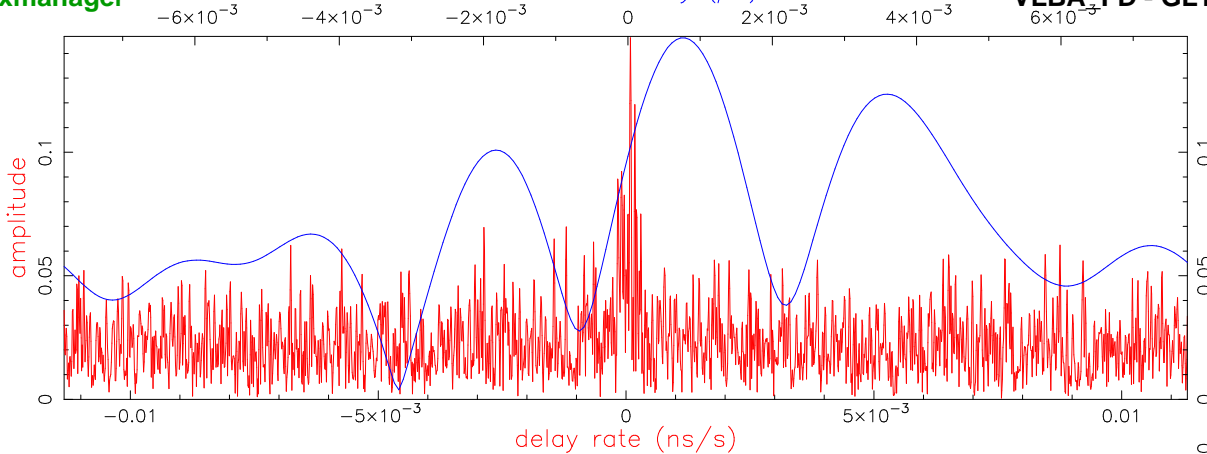
Control file: cf\_1234\_gmva

Input file: /Exps/c211c/v1/1234/No0082/fg..1X0IVG

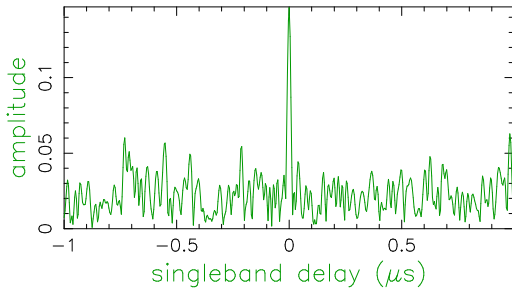
Output file: /Exps/c211c/v1/1234/No0082/fg.W.153.1X0IVG

multiband delay ( $\mu$ s)

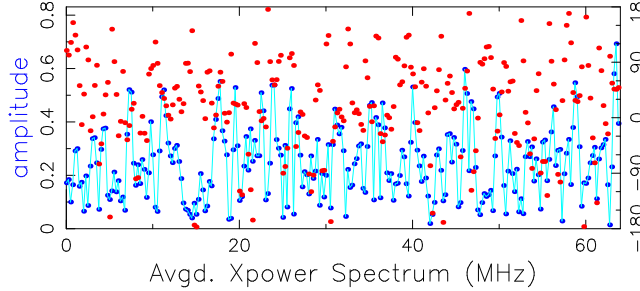
Fringe quality 9



SNR 8.2  
Int time 413.609  
Amp 0.147  
Phase 14.4  
PFD 1.1e-07  
Delays (us)  
SBD -0.000749  
MBD 0.000763  
Fringe rate (Hz)  
0.007976  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

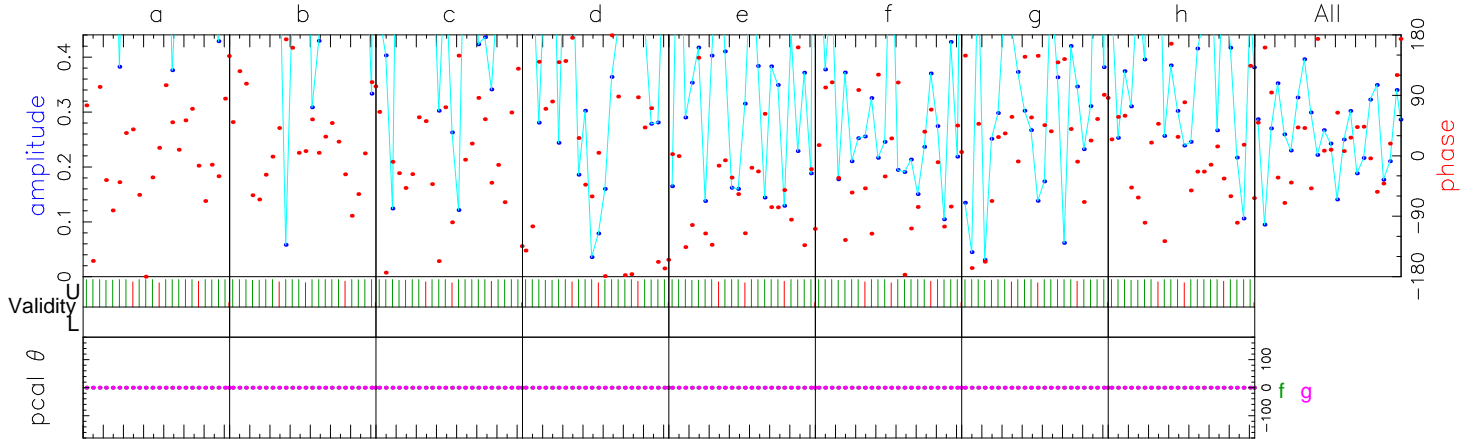


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151500.00  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121618  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	6.6	15.1	16.2	147.5	-60.0	15.9	48.7	-6.3	Phase	14.4
	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.2	Ampl.	0.2
	256.3	257.2	258.7	258.4	258.9	205.0	256.6	256.1	Sbd box	256.8
U/L	813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
f:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fg	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-4.84241816969E+03	Apriori delay (usec)	-4.84241893255E+03	Resid mbdelay (usec)	7.62858E-04	+/-	1.3E-04
Sband delay (usec)	-4.84241968130E+03	Apriori clock (usec)	9.8226204E+00	Resid sbdelay (usec)	-7.48750E-04	+/-	1.1E-03
Phase delay (usec)	-4.84241893208E+03	Apriori clockrate (us/s)	-1.2000004E-08	Resid phdelay (usec)	4.63055E-07	+/-	4.5E-07
Delay rate (us/s)	7.84318057579E-01	Apriori rate (us/s)	7.84317964990E-01	Resid rate (us/s)	9.25886E-08	+/-	1.9E-09
Total phase (deg)	-291.5	Apriori accel (us/s/s)	-8.91735929232E-06	Resid phase (deg)	14.4	+/-	14.0

ph/seg (deg)	RMS 67.6	Theor. 33.5	Amplitude Search (2048X32)	0.138	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	91.6	58.5	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)	64.5	19.8	Inc. seg. avg.	0.222	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	60.0	34.6	Inc. frq. avg.	0.198	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 57.7 el 33.3 pa -76.3      g: az 135.1 el 51.9 pa -12.6      u,v (fr/asec) -6015.621 -3627.561      simultaneous interpolator  
Control file: cf\_1234\_gmva      Input file: /Exps/c211c/v1/1234/No0082/fg..1X01VG      Output file: /Exps/c211c/v1/1234/No0082/fg.W.88.1X01VG

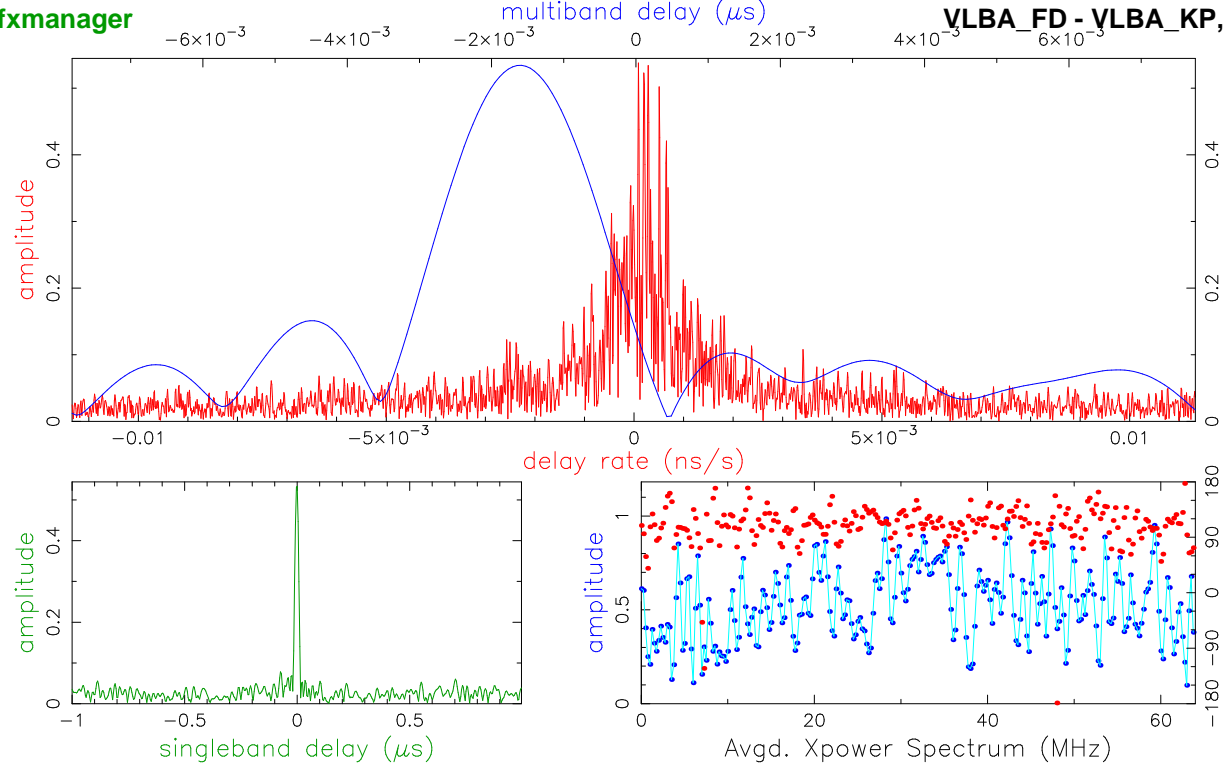


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0IVG, No0082, fk

VLBA\_FD - VLBA\_KP, fgroup W, pol RR

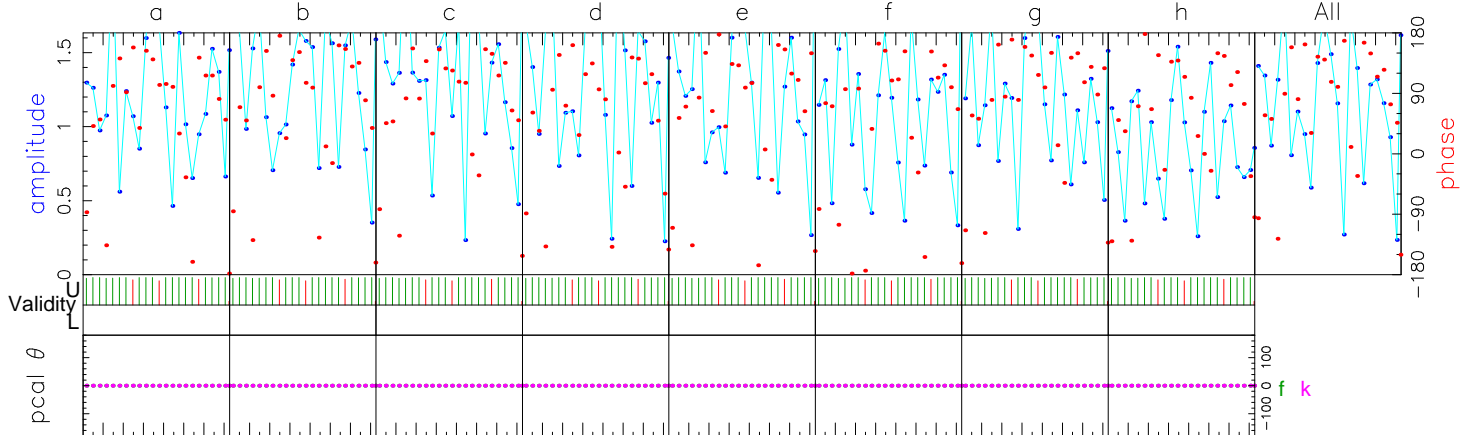


Fringe quality 7

SNR 30.2  
 Int time 412.616  
 Amp 0.545  
 Phase 108.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001844  
 MBD -0.001649  
 Fringe rate (Hz) 0.024999  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.51  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build 2021:303:071106  
 2021:303:121621  
 2021:252:122852  
 RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	813/0	813/0	812/0	812/0	812/0	812/0	812/0	812/0		
f	0	0	0	0	0	0	0	0		
k	0	0	0	0	0	0	0	0		
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	1.53200299120E+03		Apriori delay (usec)		1.53200464050E+03		Resid mbdelay (usec)		-1.64930E-03	+/- 3.6E-05
Sband delay (usec)	1.53200279675E+03		Apriori clock (usec)		9.9399185E+08		Resid sbdelay (usec)		-1.84375E-03	+/- 2.8E-04
Phase delay (usec)	1.53200464398E+03		Apriori clockrate (us/s)		5.9999999E-08		Resid phdelay (usec)		3.48231E-06	+/- 1.2E-07
Delay rate (us/s)	-2.42599308319E-02		Apriori rate (us/s)		-2.42602210451E-02		Resid rate (us/s)		2.90213E-07	+/- 5.1E-10
Total phase (deg)	11.8		Apriori accel (us/s/s)		-9.56940716441E-06		Resid phase (deg)		108.0	+/- 3.8
ph/seg (deg)	RMS 69.2	Theor. 9.0	Amplitude 0.545 +/- 0.018	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000	1.000
amp/seg (%)	136.4	15.8	Search (2048X32) 0.517	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	9.7	5.4	Interp. 0.000	Bits/sample: 2x2		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	17.6	9.4	Inc. seg. avg. 1.128	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
f: az 57.7 el 33.3 pa -76.3	k: az 56.5 el 28.5 pa -71.5		u,v (fr/asec) 167.607 -799.593						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c211c/v1/1234/No0082/fk..1X0IVG		Output file: /Exps/c211c/v1/1234/No0082/fk.W.106.1X0IVG							

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

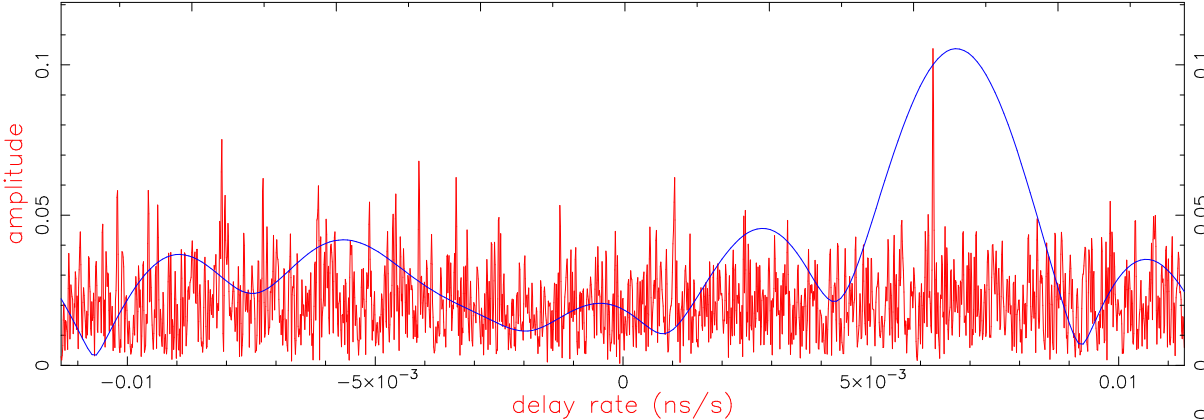
3C84.1X0IVG, No0082, fk

VLBA\_FD - VLBA\_KP, fgroup W, pol LR

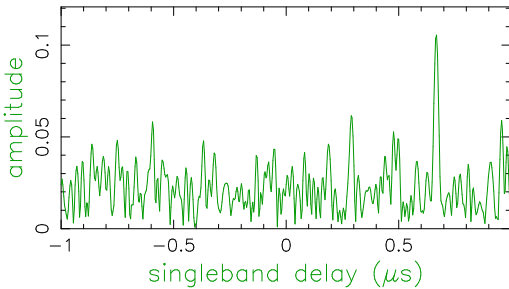
multiband delay ( $\mu$ s)

$-6 \times 10^{-3}$   $-4 \times 10^{-3}$   $-2 \times 10^{-3}$  0  $2 \times 10^{-3}$   $4 \times 10^{-3}$   $6 \times 10^{-3}$

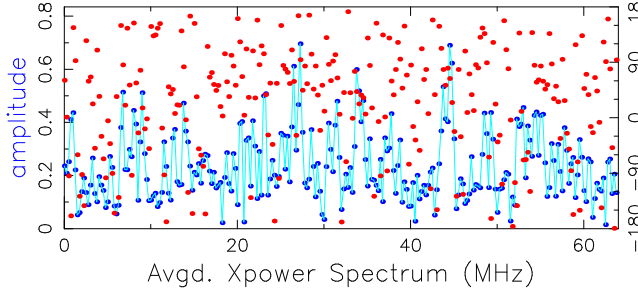
Fringe quality 0



SNR 5.9  
Int time 412.615  
Amp 0.121  
Phase 134.5  
PFD 6.1e-01  
Delays (us)  
SBD 0.666620  
MBD 0.004585  
Fringe rate (Hz)  
0.539935  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

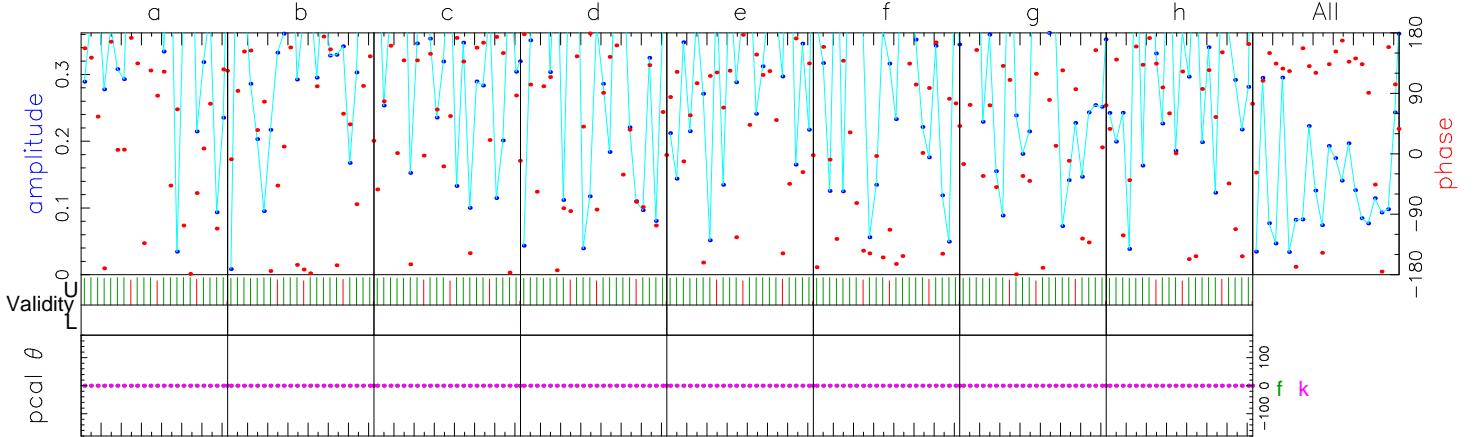


delay rate (ns/s)



Exp. c211c  
Yr:day 16383  
2021:303:071116  
Start 151500.51  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121625  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	812/0	812/0	812/0	812/0	813/0	813/0	812/0	812/0		
f	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.53266547589E+03	Apriori delay (usec)	1.53200464050E+03	Resid mbdelay (usec)	4.58539E-03	+/-	1.8E-04
Sband delay (usec)	1.53267126025E+03	Apriori clock (usec)	9.9399185E+08	Resid sbdelay (usec)	6.66620E-01	+/-	1.5E-03
Phase delay (usec)	1.53200464484E+03	Apriori clockrate (us/s)	5.9999999E-08	Resid phdelay (usec)	4.33858E-06	+/-	6.3E-07
Delay rate (us/s)	-2.42539529297E-02	Apriori rate (us/s)	-2.42602210451E-02	Resid rate (us/s)	6.26812E-06	+/-	2.6E-09
Total phase (deg)	38.3	Apriori accel (us/s/s)	-9.56940716441E-06	Resid phase (deg)	134.5	+/-	19.4

ph/seg (deg)	59.7	RMS	46.4	Theor.	59.7	Amplitude	0.121 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	78.5	Search (2048X32)	0.103	Search (2048X32)	0.103	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	30.0	Inc. seg. avg.	0.115	Inc. seg. avg.	0.115	Inc. frq. avg.	0.118	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	30.9	Inc. frq. avg.	0.118	Inc. frq. avg.	0.118	Sample rate(MISamp/s): 128	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite

f: az 57.7 el 33.3 pa -76.3 k: az 56.5 el 28.5 pa -71.5 u,v (fr/asec) 167.607 -799.593 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fk..1X0IVG Output file: /Exps/c211c/v1/1234/No0082/fk.W.125.1X0IVG

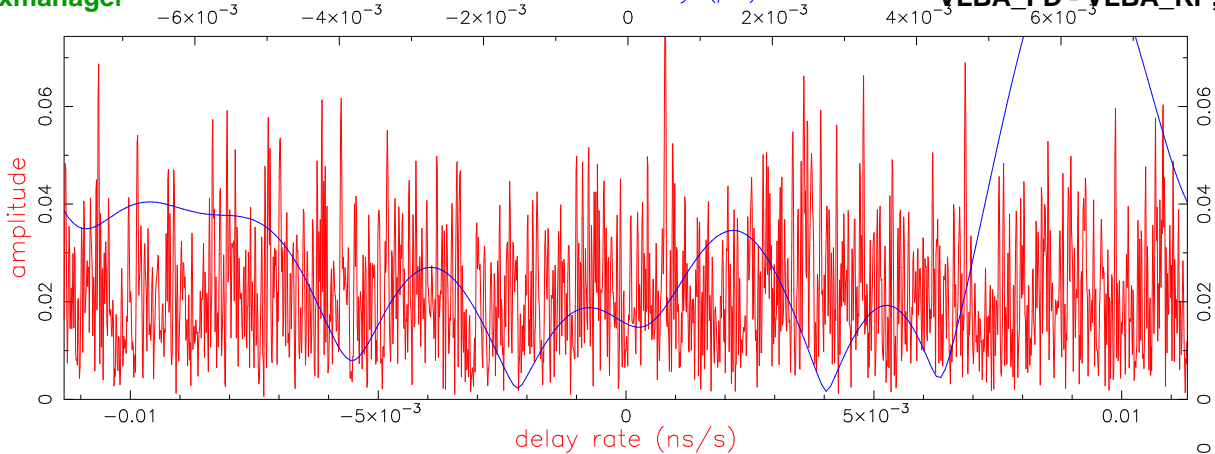
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0IVG, No0082, fk

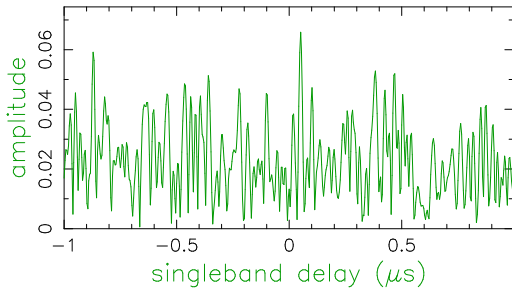
VLBA\_FD - VLBA\_KP, fgroup W, pol RL

multiband delay ( $\mu$ s)

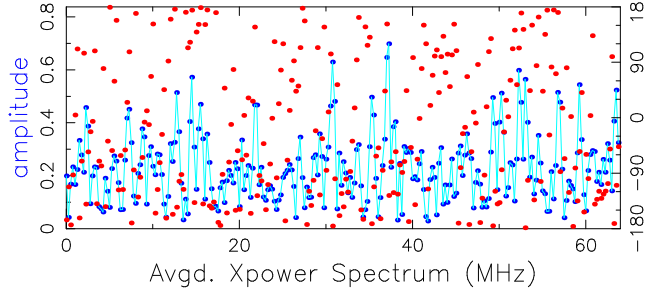


Fringe quality 0

SNR 3.3  
 Int time 412.616  
 Amp 0.074  
 Phase 8.8  
 PFD 1.0e+00  
 Delays (us)  
 SBD -0.869859  
 MBD -0.008301  
 Fringe rate (Hz)  
 -0.693956  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

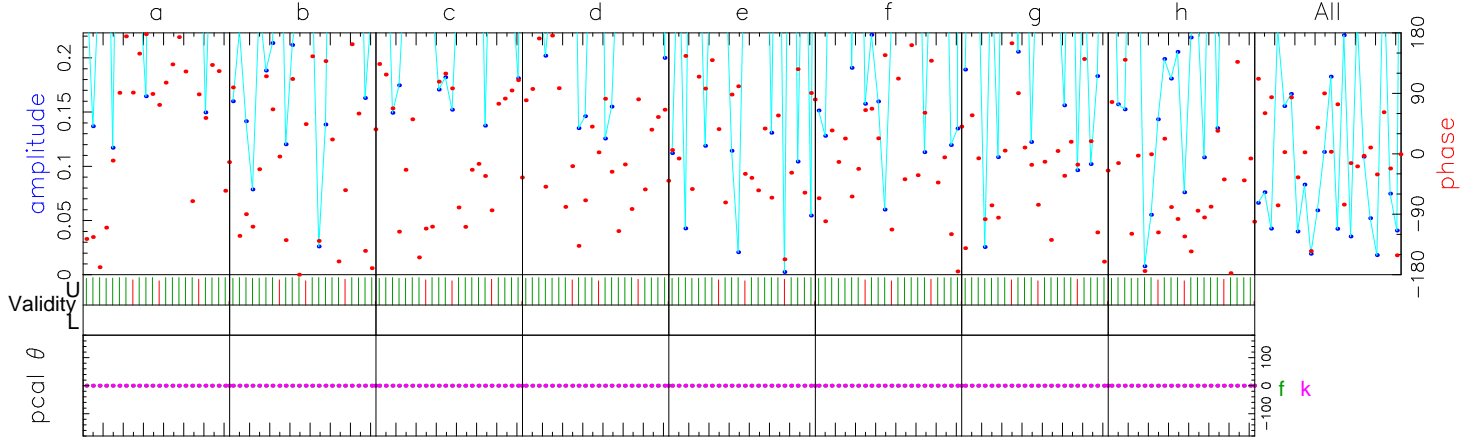


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.51  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121629  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	813/0	813/0	812/0	812/0	812/0	812/0	812/0	812/0		
f	0	0	0	0	0	0	0	0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.53113696472E+03	Apriori delay (usec)	1.53200464050E+03	Resid mbdelay (usec)	-8.30078E-03	+/-	3.3E-04
Sband delay (usec)	1.53113478150E+03	Apriori clock (usec)	9.9399185E+08	Resid sbdelay (usec)	-8.69859E-01	+/-	2.6E-03
Phase delay (usec)	1.53200464078E+03	Apriori clockrate (us/s)	5.9999999E-08	Resid phdelay (usec)	2.83880E-07	+/-	1.1E-06
Delay rate (us/s)	-2.42682771844E-02	Apriori rate (us/s)	-2.42602210451E-02	Resid rate (us/s)	-8.05614E-06	+/-	4.6E-09
Total phase (deg)	272.6	Apriori accel (us/s/s)	-9.56940716441E-06	Resid phase (deg)	8.8	+/-	34.5

ph/seg (deg)	RMS 70.4	Theor. 82.3	Amplitude Search (2048X32)	0.074 +/- 0.022	0.100	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	162.4	143.6	Interp.	0.000	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	70.0	48.7	Inc. seg. avg.	0.066	0.066	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	105.2	85.1	Inc. frq. avg.	0.094	0.094	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

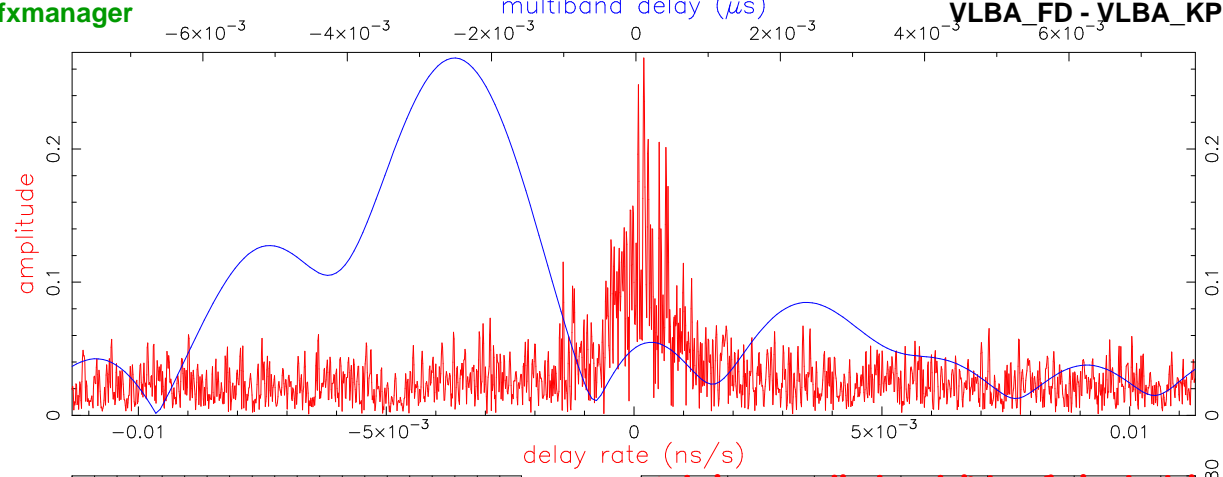
f: az 57.7 el 33.3 pa -76.3 k: az 56.5 el 28.5 pa -71.5 u,v (fr/asec) 167.607 -799.593 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fk..1X0IVG Output file: /Exps/c211c/v1/1234/No0082/fk.W.145.1X0IVG

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0IVG, No0082, fk

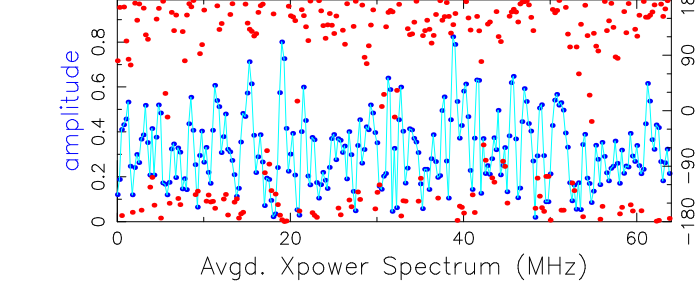
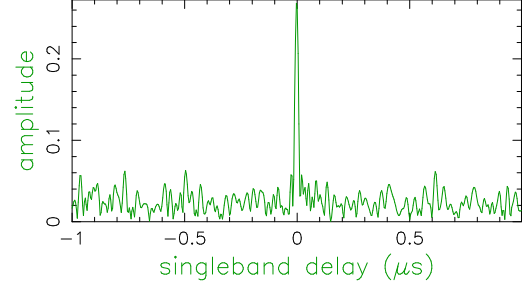
VLBA\_FD - VLBA\_KP, fgroup W, pol LL



Fringe quality 9

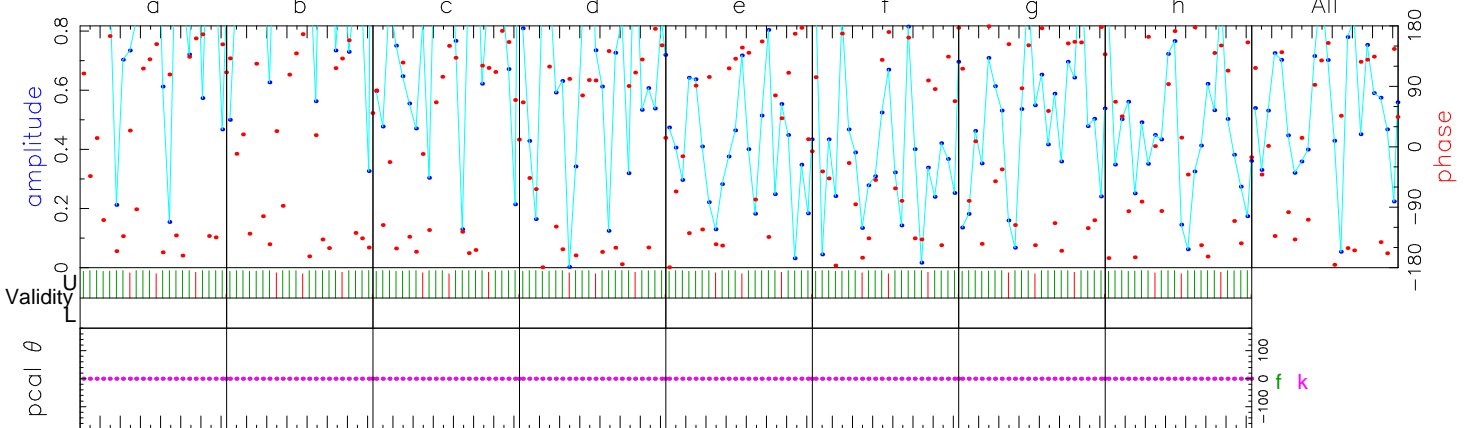
SNR 15.1  
 Int time 412.615  
 Amp 0.273  
 Phase 168.3  
 PFD 6.0e-43  
 Delays (us)  
 SBD -0.002372  
 MBD -0.002498  
 Fringe rate (Hz) 0.017609  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.51  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build 2021:303:071106  
 2021:303:121617  
 2021:252:122852  
 RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

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



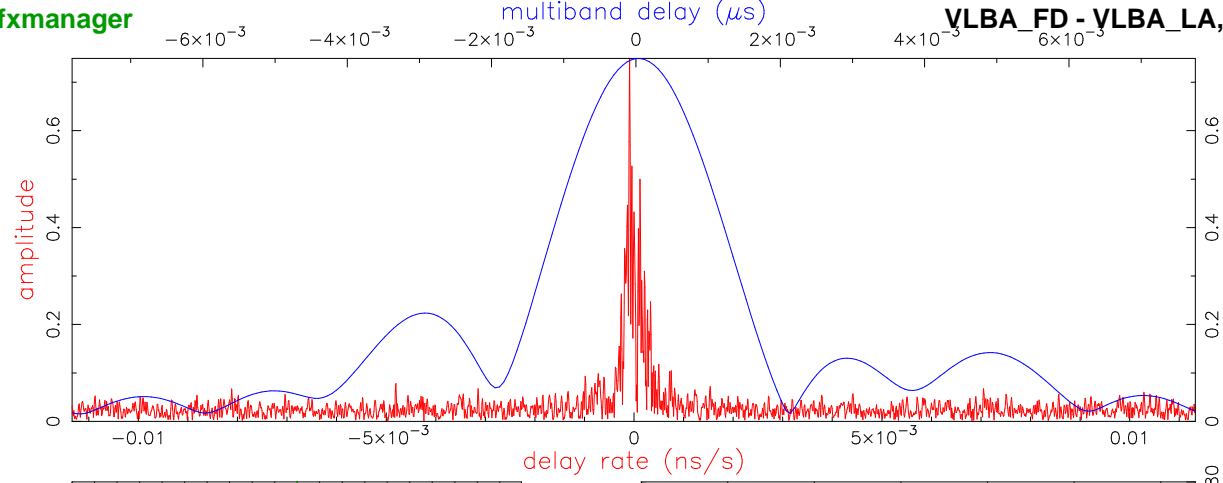
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-178.7	-176.3	145.7	146.0	160.5	169.9	-175.7	176.7	Phase	168.3
	0.4	0.4	0.3	0.4	0.2	0.1	0.2	0.2	Ampl.	0.3
	256.5	256.7	256.4	256.0	257.0	256.8	255.8	256.4	Sbd box	256.4
U/L	812/0	812/0	812/0	812/0	813/0	813/0	812/0	812/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.53200214207E+03	Apriori delay (usec)	1.53200464050E+03	Resid mbdelay (usec)	-2.49843E-03	+/-	7.2E-05
Sband delay (usec)	1.53200226900E+03	Apriori clock (usec)	9.9399185E+08	Resid sbdelay (usec)	-2.37150E-03	+/-	5.7E-04
Phase delay (usec)	1.53200464593E+03	Apriori clockrate (us/s)	5.9999999E-08	Resid phdelay (usec)	5.42629E-06	+/-	2.4E-07
Delay rate (us/s)	-2.42600166241E-02	Apriori rate (us/s)	-2.42602210451E-02	Resid rate (us/s)	2.04421E-07	+/-	1.0E-09
Total phase (deg)		Apriori accel (us/s/s)	-9.56940716441E-06	Resid phase (deg)	168.3	+/-	7.6

ph/seg (deg)	RMS 78.5	Theor. 18.1	Amplitude Search (2048X32)	0.273 +/- 0.018	0.258	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	125.4	31.6	Interp.	0.000	0.258	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	17.4	10.7	Inc. seg. avg.	0.514	0.258	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.1	18.7	Inc. frq. avg.	0.275	0.258	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

f: az 57.7 el 33.3 pa -76.3 k: az 56.5 el 28.5 pa -71.5 u,v (fr/asec) 167.607 -799.593 simultaneous interpolator

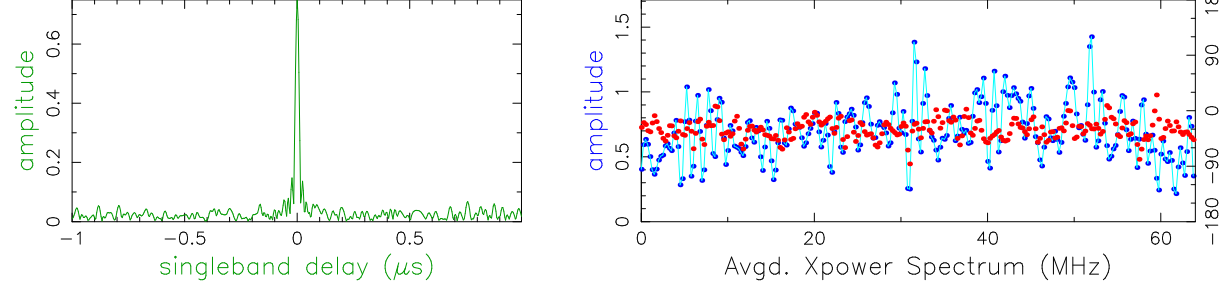
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fk..1X0IVG Output file: /Exps/c211c/v1/1234/No0082/fk.W.86.1X0IVG



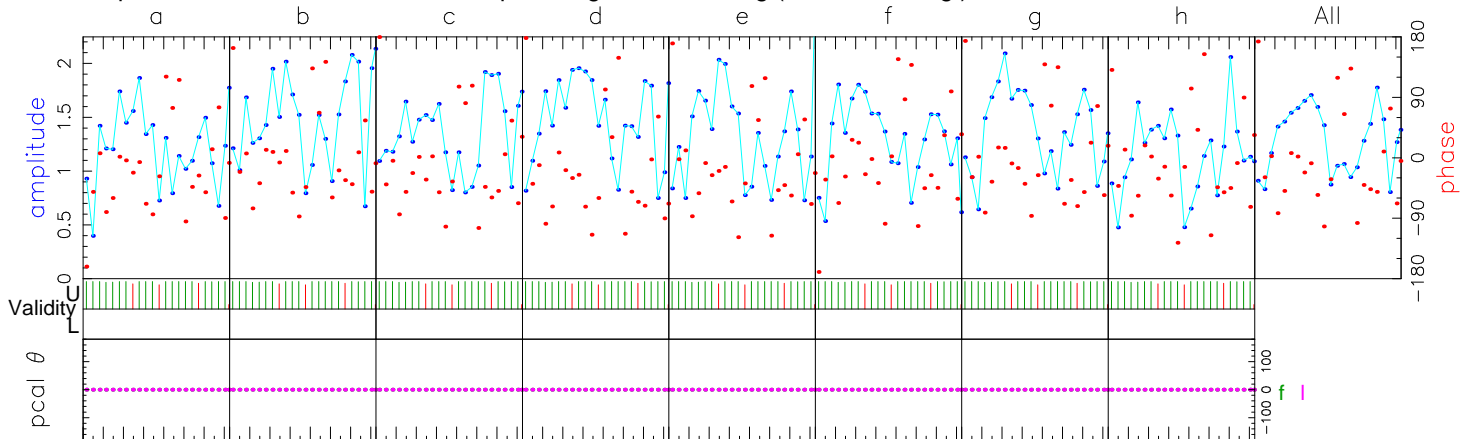
Fringe quality 7

SNR 41.7  
Int time 413.614  
Amp 0.749  
Phase -30.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000025  
MBD 0.000035  
Fringe rate (Hz)  
-0.008027  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151500.00  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121623  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-30.5	-16.7	-35.7	-48.5	-32.6	-17.7	-24.6	-34.5	Phase	-30.0	
	0.7	0.9	0.8	0.8	0.8	0.7	0.8	0.6	Ampl.	0.8	
	257.4	256.8	256.7	257.3	256.8	256.9	257.1	257.2	Sbd box	257.0	
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0	APs used		
f	0	0	0	0	0	0	0	0	PC freqs		
l	0	0	0	0	0	0	0	0	PC freqs		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
l	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Chan ids		
									Tracks		
Group delay (usec)(sbd)	-2.83860628162E+02		Apriori delay (usec)		-2.83860663523E+02		Resid mbdelay (usec)		3.53605E-05	+/- 2.6E-05	
Sband delay (usec)	-2.83860638523E+02		Apriori clock (usec)		1.2885544E+01		Resid sbdelay (usec)		2.50000E-05	+/- 2.1E-04	
Phase delay (usec)	-2.83860664492E+02		Apriori clockrate (us/s)		3.4600000E-07		Resid phdelay (usec)		-9.68943E-07	+/- 8.9E-08	
Delay rate (us/s)	4.08666038467E-02		Apriori rate (us/s)		4.08666970312E-02		Resid rate (us/s)		-9.31845E-08	+/- 3.7E-10	
Total phase (deg)			Apriori accel (us/s/s)		-4.03974282104E-06		Resid phase (deg)		-30.0	+/- 2.8	
	RMS	Theor.	Amplitude	0.749 +/- 0.018	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	72.3	6.6	Search (2048X32)	0.714	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
amp/seg (%)	82.2	11.5	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	11.3	3.9	Inc. seg. avg.	1.279	Sample rate(MISamp/s): 128		dr window (ns/s)		-0.011	0.011	
amp/frq (%)	13.0	6.8	Inc. frq. avg.	0.759	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
f: az 57.7 el 33.3 pa -76.3	l: az 60.1 el 34.3 pa -70.5		u,v (fr/asec) -319.635 -775.228						simultaneous interpolator		
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0082/fl..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fl.W.113.1X01VG											

Mk4/DiFX fourfit 3.21 rev 2937

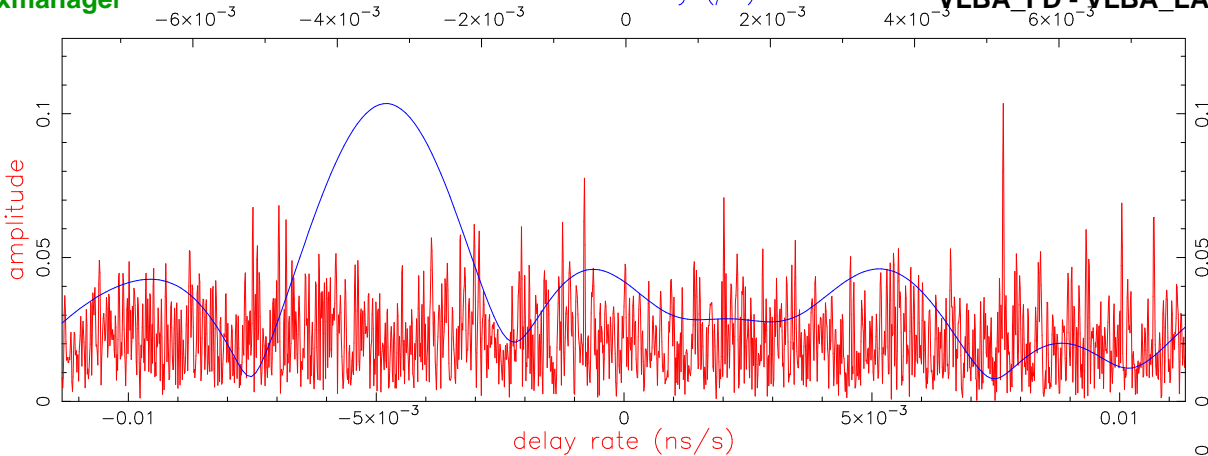
fxmanager

multiband delay ( $\mu$ s)

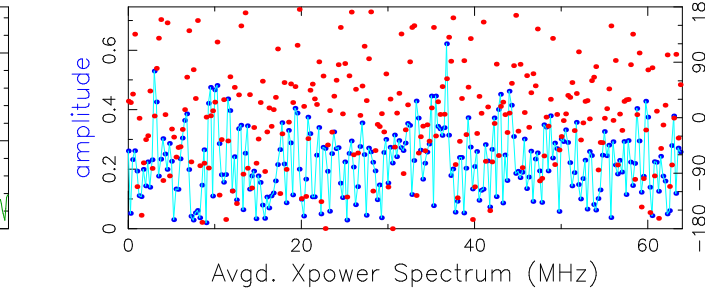
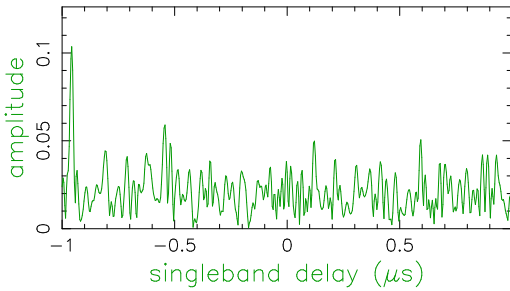
3C84.1X01VG, No0082, fl

VLBA\_FD - VLBA\_LA, fgroup W, pol LR

Fringe quality 0

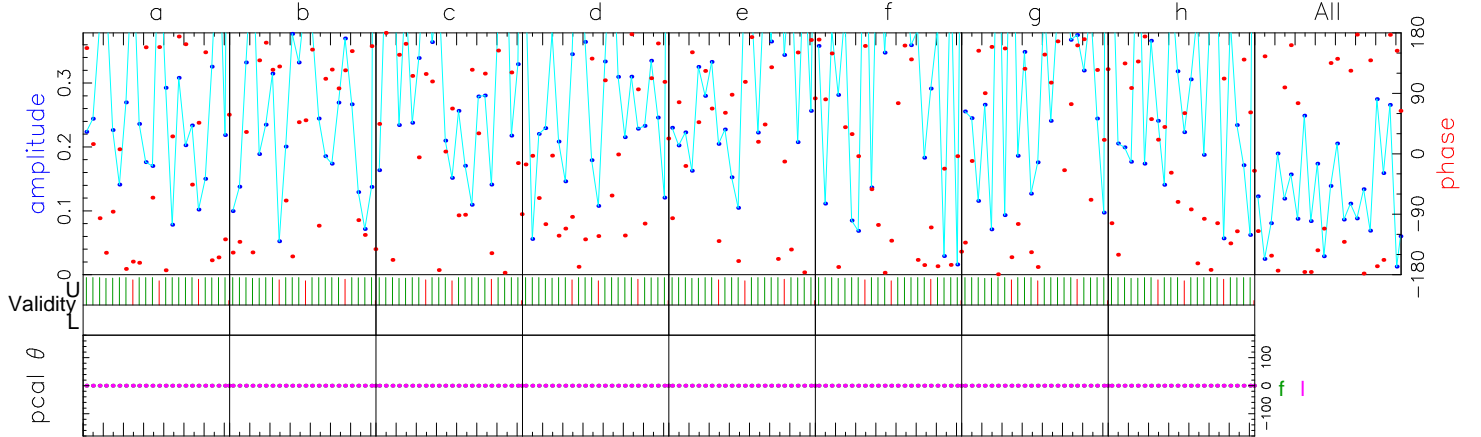


SNR 5.8  
 Int time 413.614  
 Amp 0.126  
 Phase 176.6  
 PFD 8.6e-01  
 Delays (us)  
 SBD -0.957614  
 MBD -0.003346  
 Fringe rate (Hz)  
 0.660290  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121627  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-159.3	153.7	154.7	-114.0	134.1	176.1	165.6	-132.7	Phase	176.6
	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.1	Ampl.	0.1
	131.4	286.9	347.5	153.9	310.3	2.0	102.8	123.2	Sbd box	11.9
U/L	813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
l	0	0	0	0	0	0	0	0	PC freqs	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

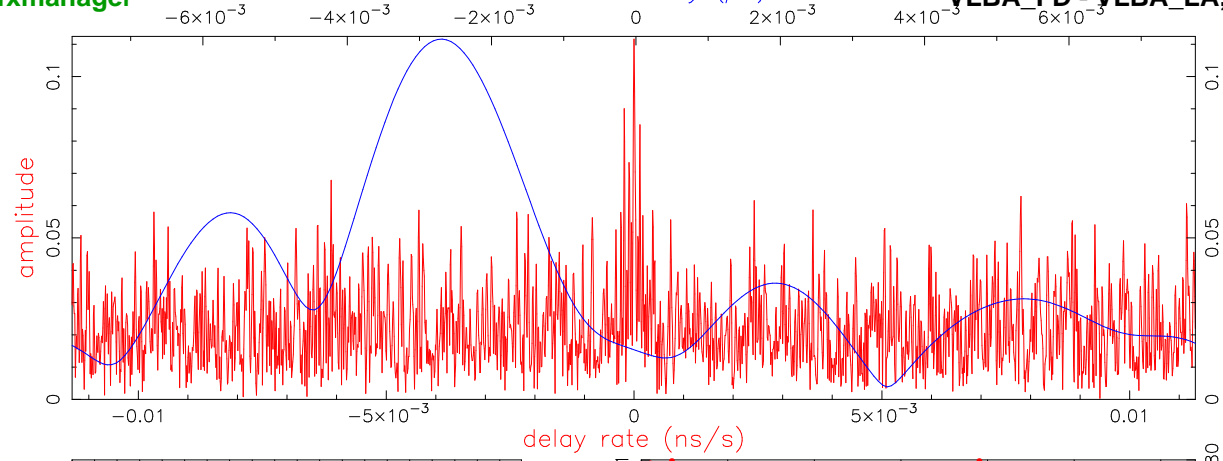
Group delay (usec)(sbd)	-2.84817134053E+02	Apriori delay (usec)	-2.83860663523E+02	Resid mbdelay (usec)	-3.34553E-03	+/-	1.9E-04
Sband delay (usec)	-2.84818277023E+02	Apriori clock (usec)	1.2885544E+01	Resid sbdelay (usec)	-9.57614E-01	+/-	1.5E-03
Phase delay (usec)	-2.83860657829E+02	Apriori clockrate (us/s)	3.4600000E-07	Resid phdelay (usec)	5.69373E-06	+/-	6.4E-07
Delay rate (us/s)	4.08743623464E-02	Apriori rate (us/s)	4.08666970312E-02	Resid rate (us/s)	7.66532E-06	+/-	2.7E-09
Total phase (deg)	-23.5	Apriori accel (us/s/s)	-4.03974282104E-06	Resid phase (deg)	176.6	+/-	19.9

ph/seg (deg)	RMS 44.5	Theor. 47.4	Amplitude Search (2048X32)	0.126 +/- 0.022	0.100	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	74.1	82.7	Interp.	0.000	0.100	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	42.6	28.1	Inc. seg. avg.	0.117	0.117	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	36.7	49.0	Inc. frq. avg.	0.131	0.131	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

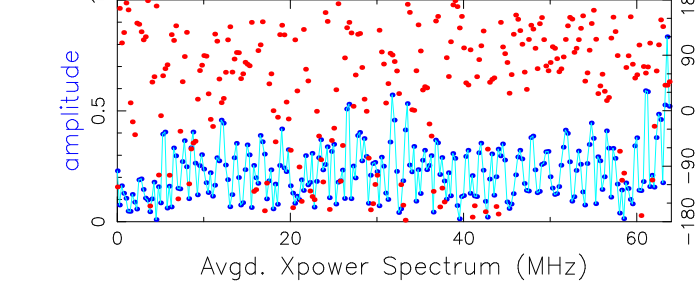
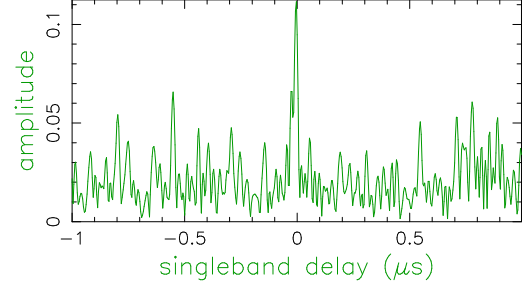
f: az 57.7 el 33.3 pa -76.3 l: az 60.1 el 34.3 pa -70.5 u,v (fr/asec) -319.635 -775.228 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fl..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fl.W.135.1X01VG

multiband delay ( $\mu$ s)

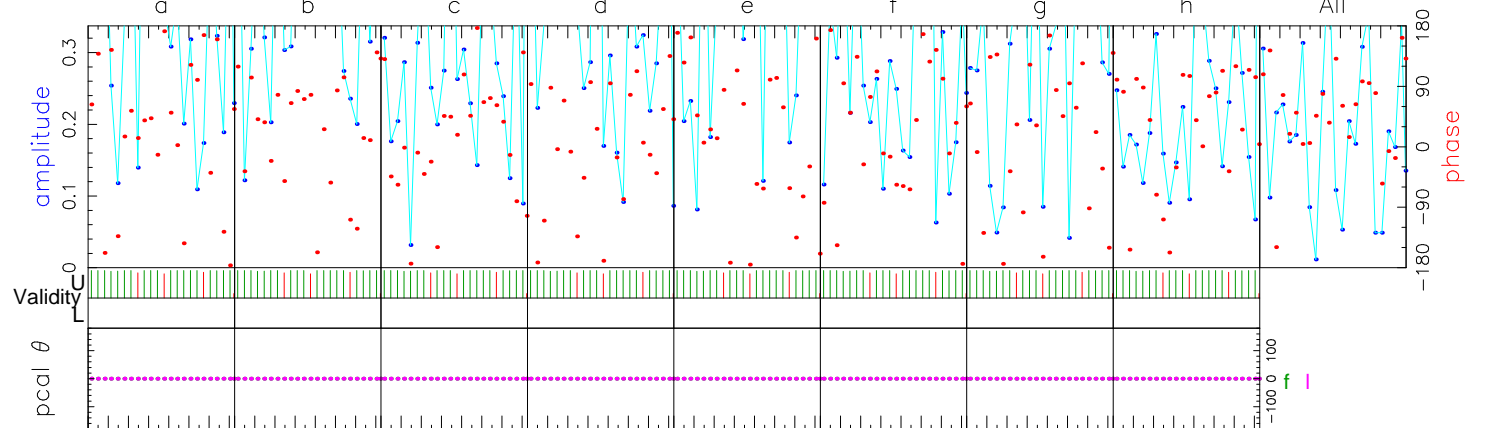


Fringe quality 0  
SNR 6.3  
Int time 413.614  
Amp 0.112  
Phase 66.1  
PFD 1.0e-01  
Delays (us)  
SBD -0.004989  
MBD -0.002716  
Fringe rate (Hz) 0.000185  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151500.00  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build 2021:303:071106  
2021:303:121631  
2021:252:122852  
RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"



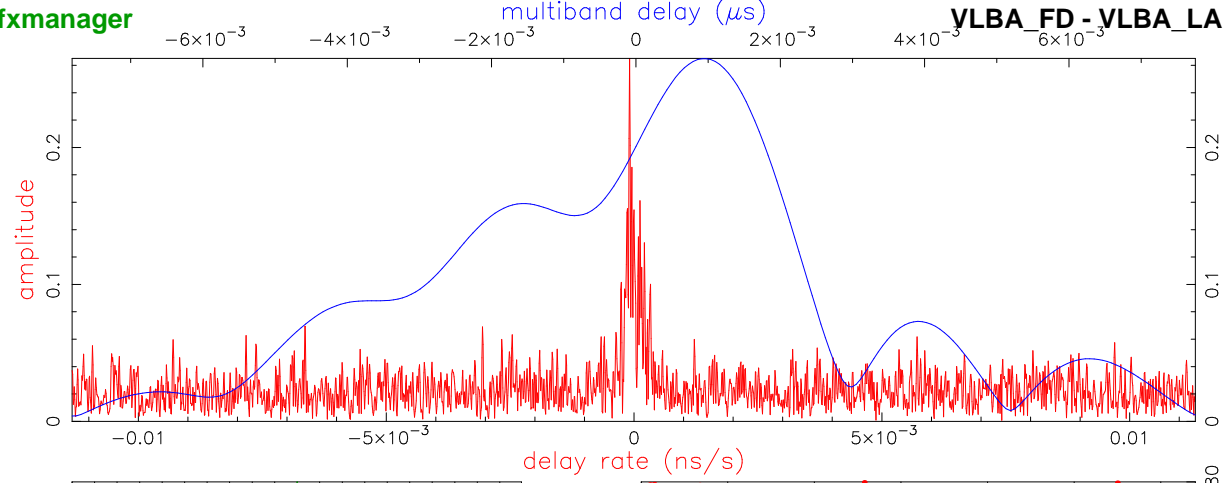
Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0				
f	0	0	0	0	0	0	0	0	APs used			
l	0	0	0	0	0	0	0	0	PC freqs			
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
l	1000	1000	1000	1000	1000	1000	1000	1000				
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
Group delay (usec)(sbd)	-2.83863379867E+02				-2.83860663523E+02				Resid mbdelay (usec)	-2.71634E-03 +/- 1.7E-04		
Sband delay (usec)	-2.83865652523E+02				1.2885544E+01				Resid sbdelay (usec)	-4.98900E-03 +/- 1.4E-03		
Phase delay (usec)	-2.83860661391E+02				3.4600000E-07				Resid phdelay (usec)	2.13221E-06 +/- 5.9E-07		
Delay rate (us/s)	4.08666991760E-02				4.08666970312E-02				Resid rate (us/s)	2.14480E-09 +/- 2.5E-09		
Total phase (deg)			-134.0		-4.03974282104E-06				Resid phase (deg)	66.1 +/- 18.3		
ph/seg (deg)	62.3	43.8			0.112 +/- 0.018				PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	124.3	76.4			Search (2048X32)	0.109			PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
ph/frq (deg)	30.2	25.9			Interp.	0.000			Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
amp/frq (%)	41.5	45.2			Inc. seg. avg.	0.152			Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011	
					Inc. frq. avg.	0.111			Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

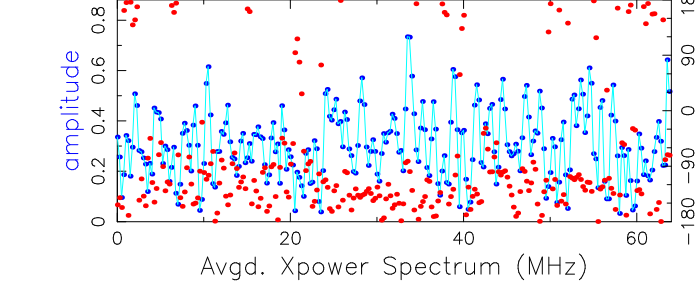
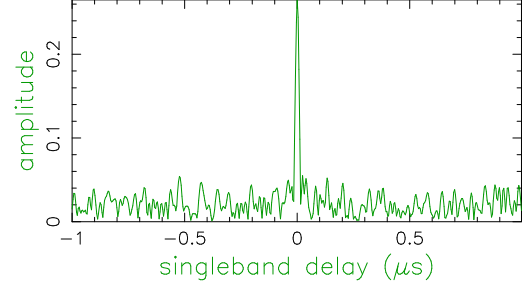
f: az 57.7 el 33.3 pa -76.3 l: az 60.1 el 34.3 pa -70.5 u,v (fr/asec) -319.635 -775.228 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fl..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fl.W.156.1X01VG



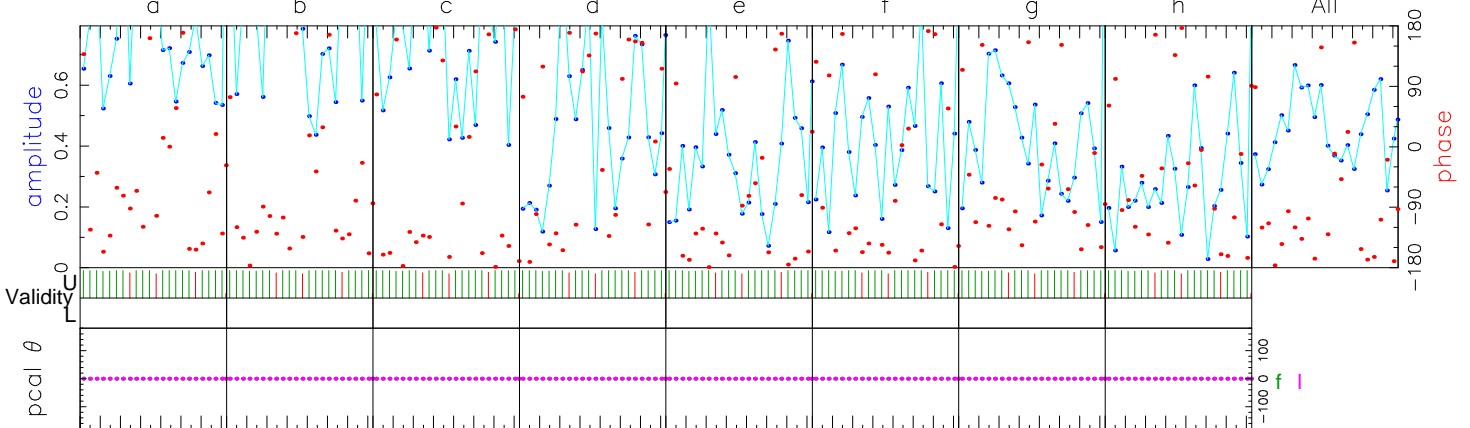
Fringe quality 7

SNR 14.7  
Int time 413.614  
Amp 0.265  
Phase -138.6  
PFD 2.2e-40  
Delays (us)  
SBD 0.000270  
MBD 0.000949  
Fringe rate (Hz)  
-0.008053  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151500.00  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121618  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-103.2	-128.2	-170.5	179.6	-150.5	-157.4	-103.2	-96.7	Phase	-138.6
	0.4	0.5	0.5	0.2	0.2	0.2	0.3	0.1	Ampl.	0.3
	257.1	256.7	256.3	123.6	257.9	256.9	257.1	257.9	Sbd box	257.1
U/L	813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
l	0	0	0	0	0	0	0	0	PC freqs	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-2.83859715006E+02	Apriori delay (usec)	-2.83860663523E+02	Resid mbdelay (usec)	9.48517E-04	+/-	7.4E-05
Sband delay (usec)	-2.83860393273E+02	Apriori clock (usec)	1.2885544E+01	Resid sbdelay (usec)	2.70250E-04	+/-	5.8E-04
Phase delay (usec)	-2.83860667991E+02	Apriori clockrate (us/s)	3.4600000E-07	Resid phdelay (usec)	-4.46810E-06	+/-	2.5E-07
Delay rate (us/s)	4.08666035491E-02	Apriori rate (us/s)	4.08666970312E-02	Resid rate (us/s)	-9.34821E-08	+/-	1.0E-09
Total phase (deg)	-338.7	Apriori accel (us/s/s)	-4.03974282104E-06	Resid phase (deg)	-138.6	+/-	7.8

ph/seg (deg)	68.5	RMS	18.6	Theor.	0.265 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	83.3	Search (2048X32)	0.251	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	35.7	Inc. seg. avg.	0.430	Inc. seg. avg.	0.430	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	52.1	Inc. frq. avg.	0.297	Inc. frq. avg.	0.297	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 57.7 el 33.3 pa -76.3 l: az 60.1 el 34.3 pa -70.5 u,v (fr/asec) -319.635 -775.228 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fl..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fl.W.91.1X01VG



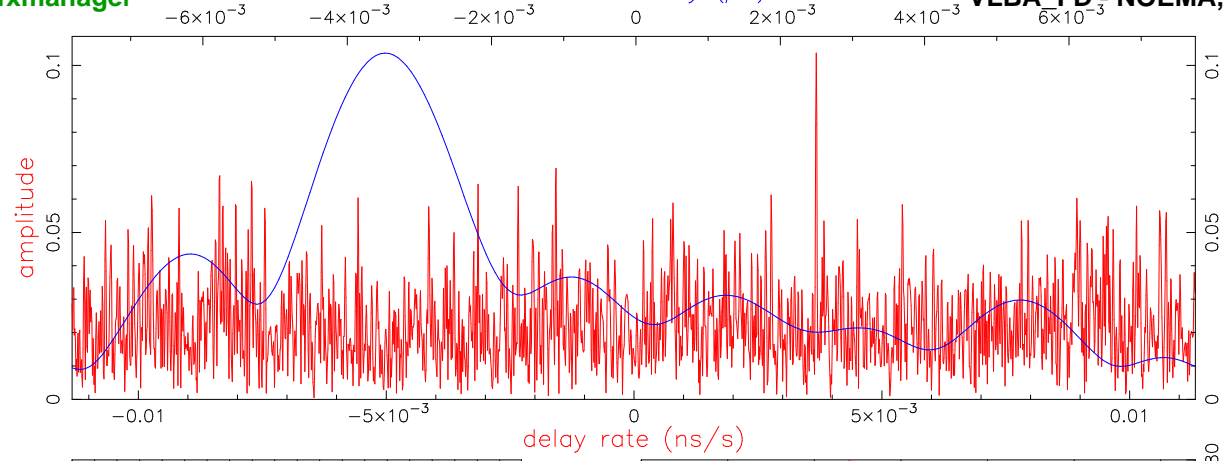
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

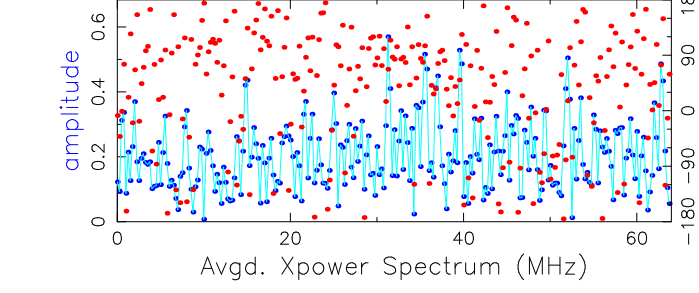
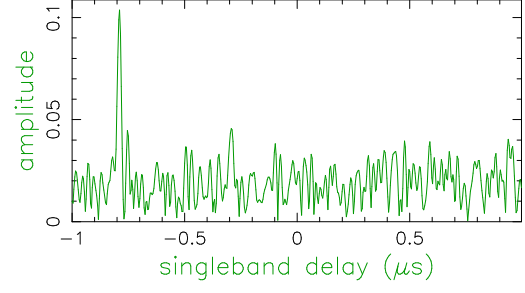
3C84.1X01VG, No0082, fN

VLBA\_FD - NOEMA, fgroup W, pol RR

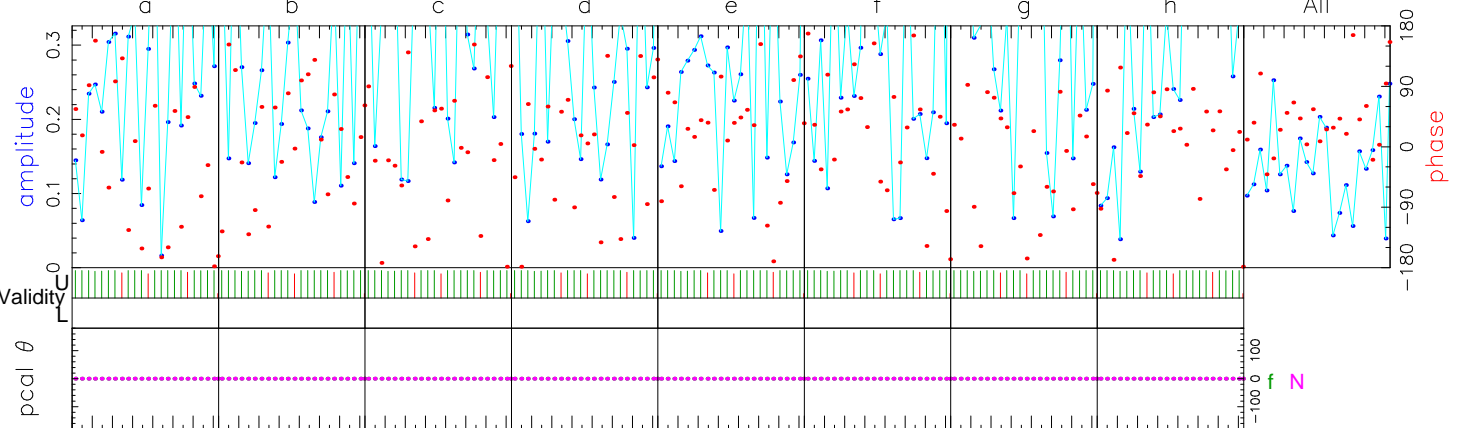
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 5.8  
 Int time 413.607  
 Amp 0.109  
 Phase 26.4  
 PFD 8.3e-01  
 Delays (us)  
 SBD -0.789877  
 MBD -0.003492  
 Fringe rate (Hz)  
 0.316818  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121622  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0		
f	0	0	0	0	0	0	0	0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-6.63879809663E+03				-6.63801335476E+03				-3.49187E-03	+/- 1.9E-04
Sband delay (usec)	-6.63880323226E+03				2.3621220E+01				-7.89877E-01	+/- 1.5E-03
Phase delay (usec)	-6.63801335391E+03				4.4490002E-06				8.50563E-07	+/- 6.4E-07
Delay rate (us/s)	1.47067687048E+00				1.47067319254E+00				3.67794E-06	+/- 2.7E-09
Total phase (deg)			-110.2		2.09618601197E-05				26.4	+/- 19.8
pcal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5							
pcal rate:	0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000							
Bits/sample:	2x2		SampCntNorm: enabled mb window (us) -0.008 0.008							
Sample rate (MSamp/s):	128		dr window (ns/s) -0.011 0.011							
Data rate (Mb/s):	2048		ion window (TEC) 0.00 0.00							
nlags:	256		t_cohere infinite							

ph/seg (deg) 47.1 47.3 Search (2048X32) 0.102 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 60.6 82.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 15.2 28.0 Inc. seg. avg. 0.103 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 53.8 48.9 Inc. frq. avg. 0.099 Sample rate (MSamp/s): 128 dr window (ns/s) -0.011 0.011  
 f: az 57.7 el 33.3 pa -76.3 N: az 277.7 el 61.7 pa 70.6 u,v (fr/asec) -11216.396 305.756 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fN..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fN.W.110.1X01VG simultaneous interpolator

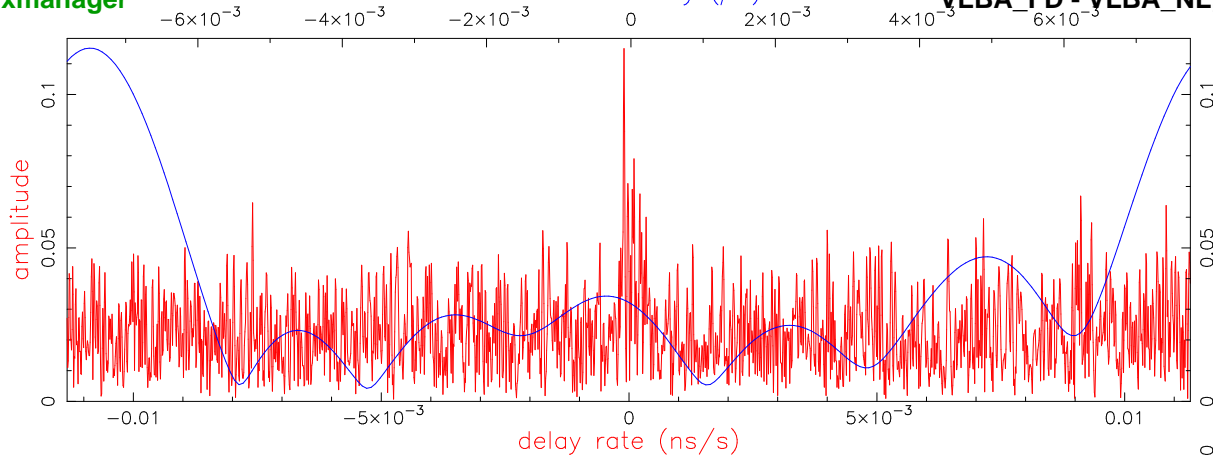
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0IVG, No0082, fn

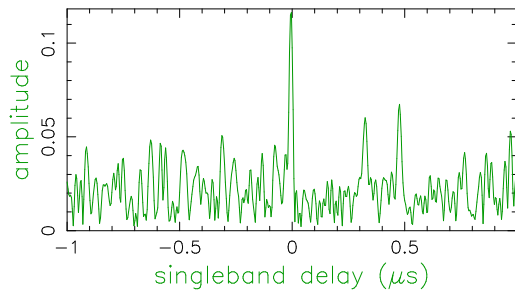
VLBA\_FD - VLBA\_NL, fgroup W, pol RR

multiband delay ( $\mu$ s)

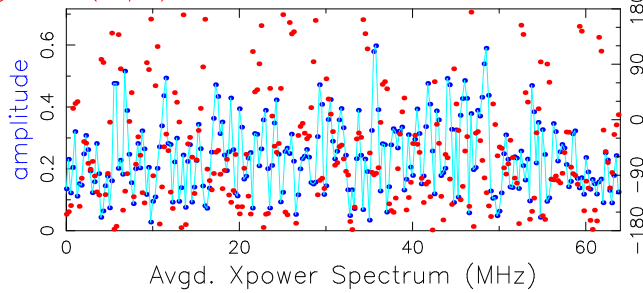


Fringe quality 0

SNR 6.6  
 Int time 411.610  
 Amp 0.118  
 Phase -61.4  
 PFD 1.5e-02  
 Delays (us)  
 SBD -0.005615  
 MBD -0.007442  
 Fringe rate (Hz)  
 -0.008145  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

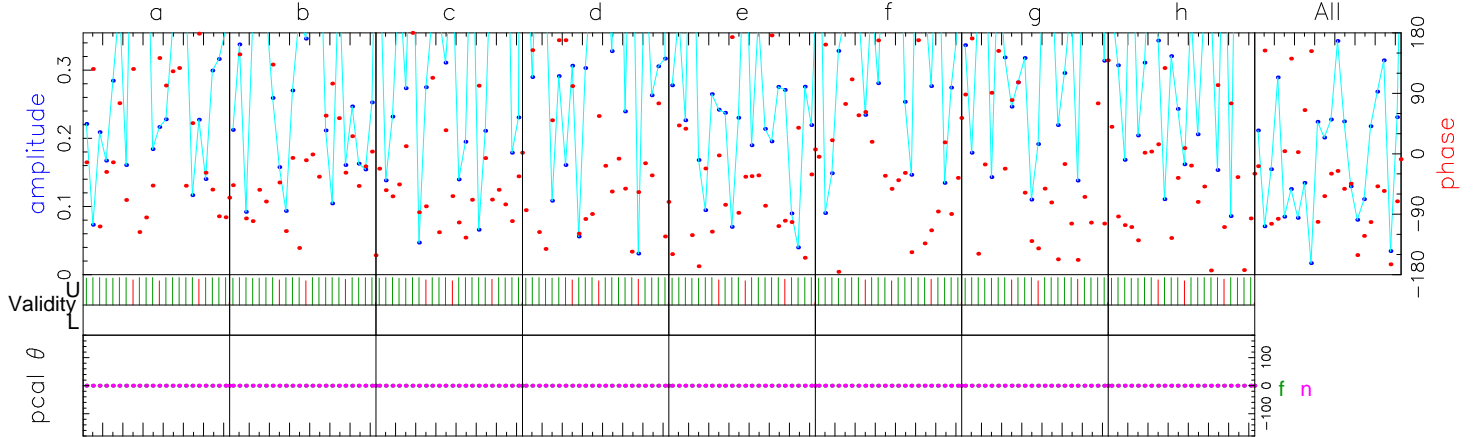


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151501.54  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121622  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-94.0	-25.8	-63.1	-76.7	-79.3	-35.4	-78.8	-60.7	Phase	-61.4
	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	340.7	477.8	255.2	335.5	281.4	191.1	237.3	21.9	Sbd box	255.6
U/L	811/0	811/0	810/0	810/0	810/0	810/0	810/0	810/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.86203263758E+03		Apriori delay (usec)		-3.86202519533E+03		Resid mbdelay (usec)		-7.44225E-03	+/- 1.7E-04
Sband delay (usec)	-3.86203080983E+03		Apriori clock (usec)		4.7853451E+00		Resid sbdelay (usec)		-5.61450E-03	+/- 1.3E-03
Phase delay (usec)	-3.86202519731E+03		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		-1.97940E-06	+/- 5.6E-07
Delay rate (us/s)	2.07707332904E-01		Apriori rate (us/s)		2.07707427463E-01		Resid rate (us/s)		-9.45591E-08	+/- 2.4E-09
Total phase (deg)			Apriori accel (us/s/s)		8.84871529056E-06		Resid phase (deg)		-61.4	+/- 17.5

	RMS	Theor.	Amplitude	0.118 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	75.3	41.7	Search (2048X32)	0.110	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	90.3	72.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	25.4	24.7	Inc. seg. avg.	0.136	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	37.4	43.1	Inc. frq. avg.	0.112	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 57.7 el 33.3 pa -76.3      n: az 69.8 el 47.2 pa -69.2      u,v (fr/asec) -1571.108 -402.277      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c211c/v1/1234/No0082/fn..1X0IVG      Output file: /Exps/c211c/v1/1234/No0082/fn.W.112.1X0IVG

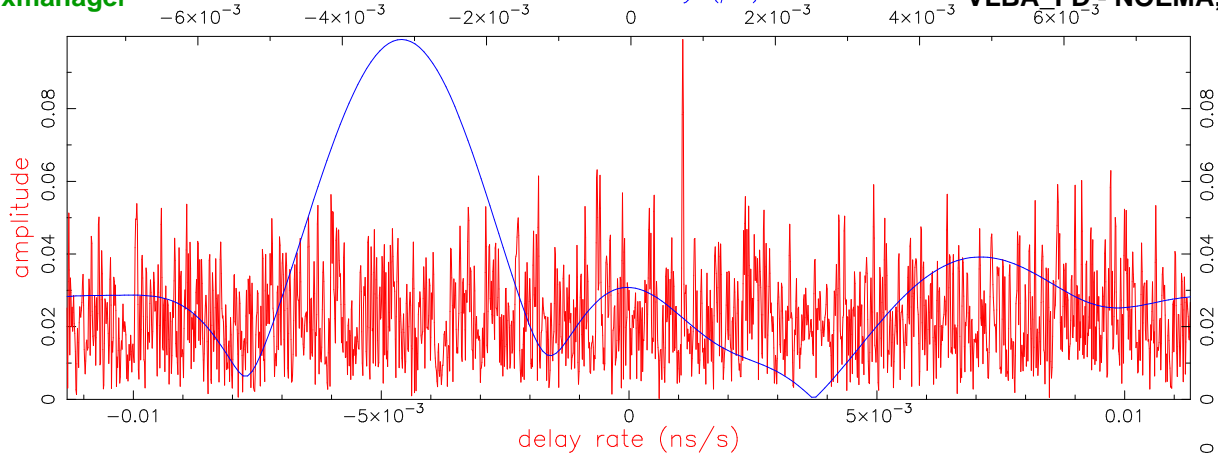
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, fN

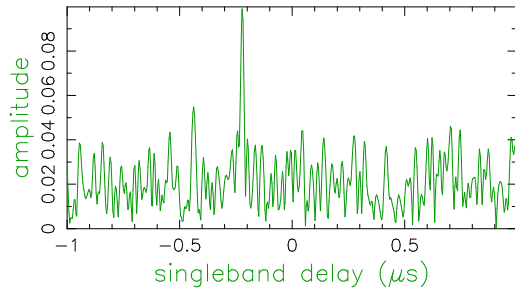
VLBA\_FD- NOEMA, fgroup W, pol LR

multiband delay ( $\mu$ s)

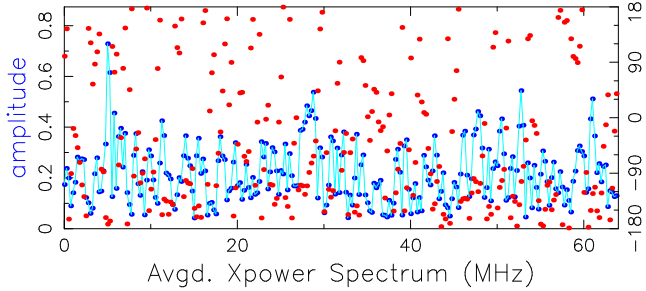


Fringe quality 0

SNR 5.5  
 Int time 413.607  
 Amp 0.100  
 Phase -122.5  
 PFD 1.0e+00  
 Delays (us)  
 SBD -0.221793  
 MBD -0.003211  
 Fringe rate (Hz)  
 0.093459  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

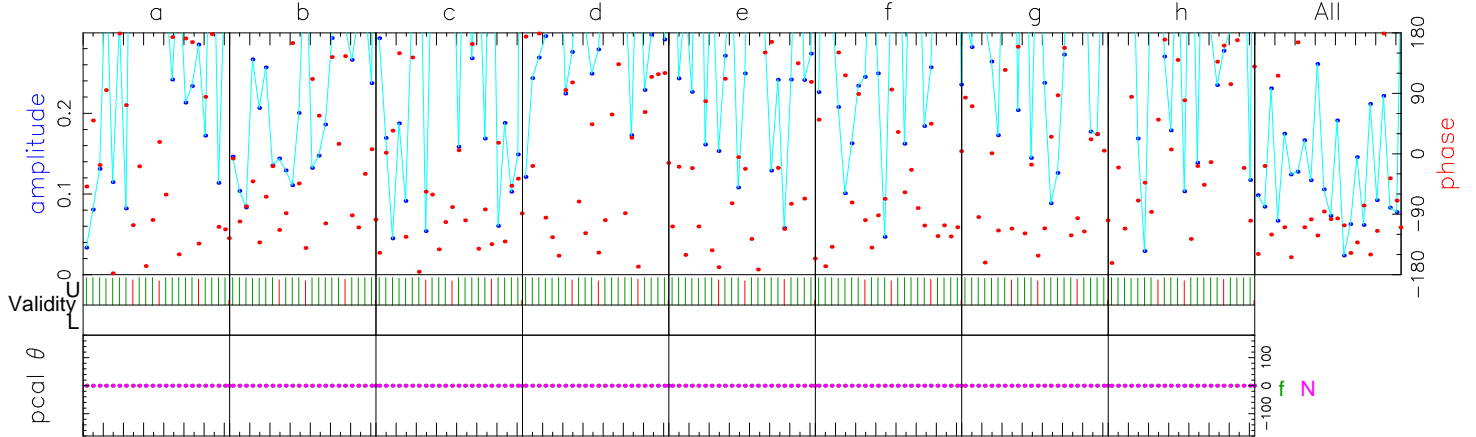


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121626  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-136.9	-73.4	-120.9	177.0	-126.8	-107.1	-118.8	-119.7	Phase	-122.5
	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	Ampl.	0.1
	35.9	397.8	199.6	511.6	272.8	324.2	271.4	57.0	Sbd box	200.2
U/L	813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-6.63823531529E+03		Apriori delay (usec)		-6.63801335476E+03		Resid mbdelay (usec)		-3.21053E-03	+/- 2.0E-04
Sband delay (usec)	-6.63823514801E+03		Apriori clock (usec)		2.3621220E+01		Resid sbdelay (usec)		-2.21793E-01	+/- 1.6E-03
Phase delay (usec)	-6.63801335871E+03		Apriori clockrate (us/s)		4.4490002E-06		Resid phdelay (usec)		-3.95063E-06	+/- 6.7E-07
Delay rate (us/s)	1.47067427751E+00		Apriori rate (us/s)		1.47067319254E+00		Resid rate (us/s)		1.08497E-06	+/- 2.8E-09
Total phase (deg)			Apriori accel (us/s/s)		2.09618601197E-05		Resid phase (deg)		-122.5	+/- 20.7

ph/seg (deg) 49.2 49.4 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 72.1 86.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 33.0 29.3 Inc. seg. avg. 0.094 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 43.6 51.1 Inc. frq. avg. 0.096 Data rate (Mbit/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 f: az 57.7 el 33.3 pa -76.3 N: az 277.7 el 61.7 pa 70.6 u,v (fr/asec) -11216.396 305.756 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fN..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fN.W.129.1X01VG

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

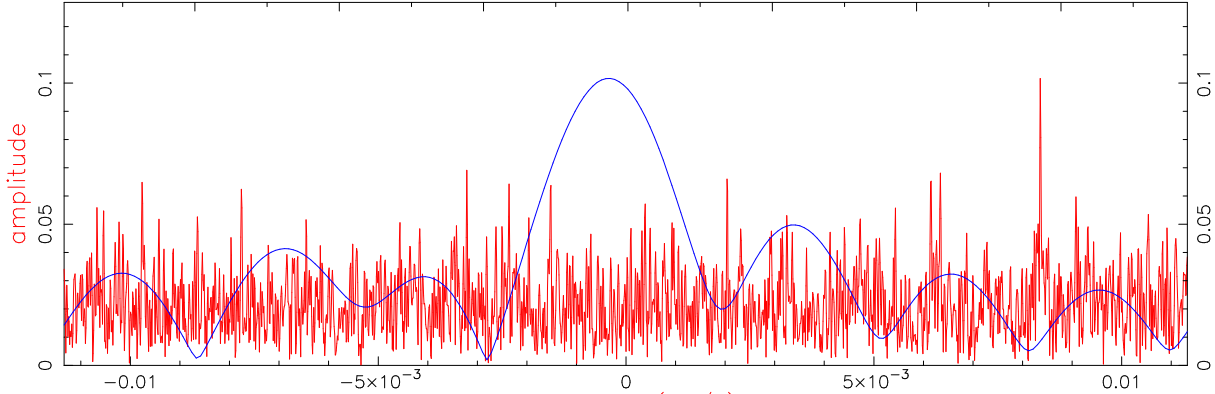
3C84.1X01VG, No0082, fn

VLBA\_FD - VLBA\_NL, fgroup W, pol LR

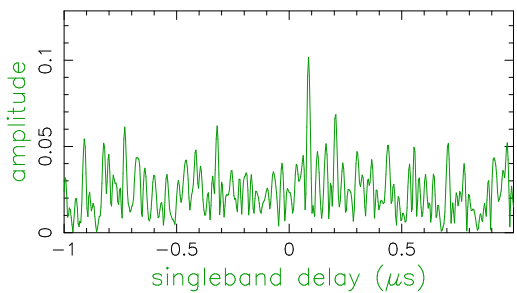
multiband delay ( $\mu$ s)

$-6 \times 10^{-3}$   $-4 \times 10^{-3}$   $-2 \times 10^{-3}$  0  $2 \times 10^{-3}$   $4 \times 10^{-3}$   $6 \times 10^{-3}$

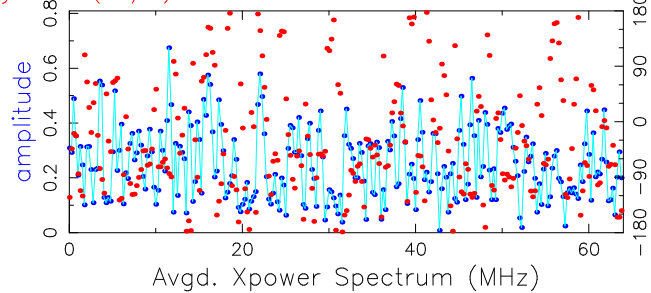
Fringe quality 0



SNR 5.6  
Int time 411.610  
Amp 0.129  
Phase -162.0  
PFD 9.8e-01  
Delays (us)  
SBD 0.085926  
MBD -0.000266  
Fringe rate (Hz)  
0.721008  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

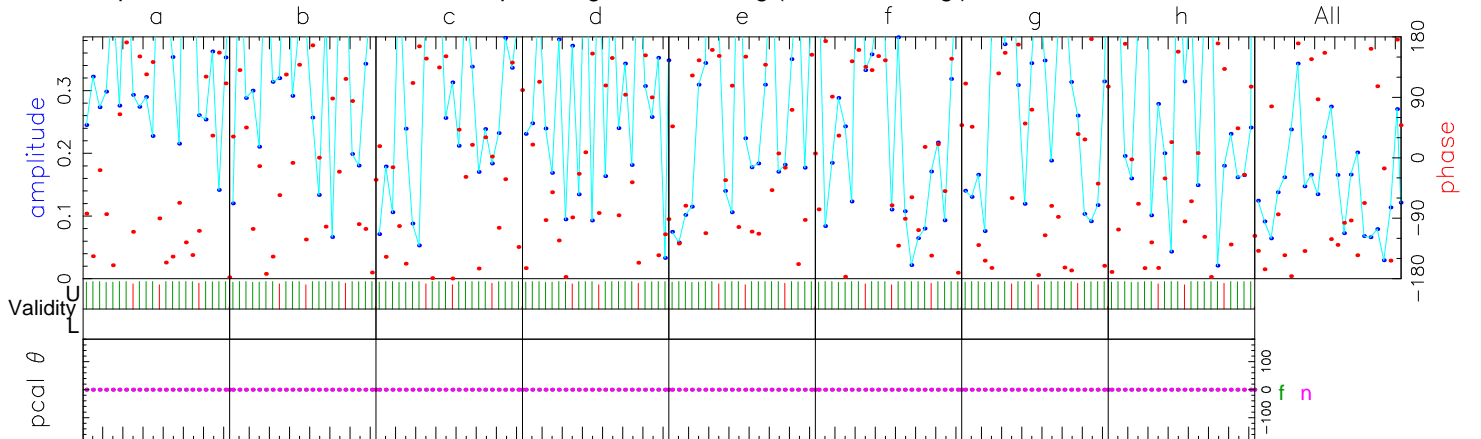


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151501.54  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121626  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-149.7	-176.1	-174.4	-147.9	-163.1	167.8	-167.1	-141.9	Phase	-162.0		
	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	Ampl.	0.1		
	278.3	346.8	65.2	257.7	50.6	371.5	174.2	278.1	Sbd box	279.0		
U/L	810/0	810/0	810/0	810/0	811/0	811/0	810/0	810/0	APs used			
f	0	0	0	0	0	0	0	0	PC freqs			
n	0	0	0	0	0	0	0	0	PC freqs			
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
n	1000	1000	1000	1000	1000	1000	1000	1000				
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Tracks			
Group delay (usec)(sbd)	-3.86193171101E+03		Apriori delay (usec)		-3.86202519533E+03		Resid mbdelay (usec)		-2.65677E-04	+/- 1.9E-04		
Sband delay (usec)	-3.86193926933E+03		Apriori clock (usec)		4.7853451E+00		Resid sbdelay (usec)		8.59260E-02	+/- 1.5E-03		
Phase delay (usec)	-3.86202520055E+03		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		-5.22281E-06	+/- 6.6E-07		
Delay rate (us/s)	2.07715797651E-01		Apriori rate (us/s)		2.07707427463E-01		Resid rate (us/s)		8.37019E-06	+/- 2.7E-09		
Total phase (deg)			Apriori accel (us/s/s)		8.84871529056E-06		Resid phase (deg)		-162.0	+/- 20.3		
	RMS	Theor.	Amplitude	0.129 +/- 0.023		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	65.6	48.5	Search (2048X32)	0.100		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	91.6	84.7	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	18.5	28.7	Inc. seg. avg.	0.141		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	41.2	50.2	Inc. frq. avg.	0.119		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
f: az 57.7 el 33.3 pa -76.3	n: az 69.8 el 47.2 pa -69.2		u, v (fr/asec) -1571.108 -402.277						simultaneous interpolator			

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fn..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fn.W.131.1X01VG

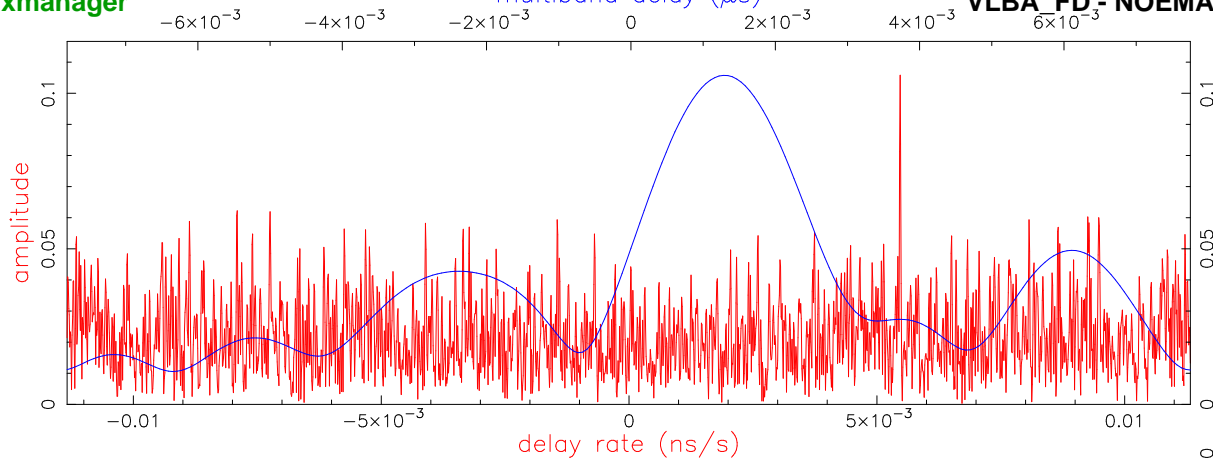
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, fN

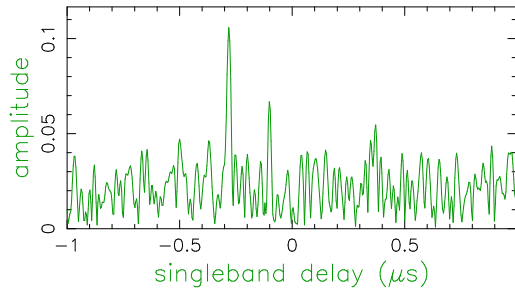
VLBA\_FD- NOEMA, fgroup W, pol RL

multiband delay ( $\mu$ s)

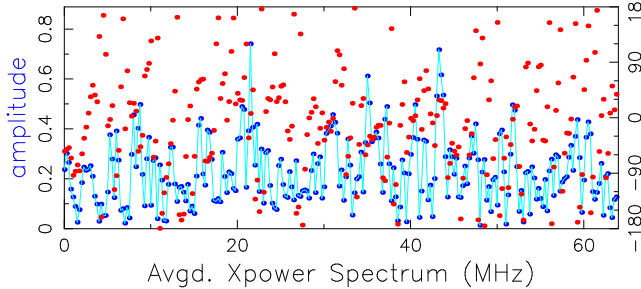


Fringe quality 0

SNR 5.9  
Int time 413.607  
Amp 0.117  
Phase -22.5  
PFD 6.4e-01  
Delays (us)  
SBD -0.281191  
MBD 0.001300  
Fringe rate (Hz)  
0.472158  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

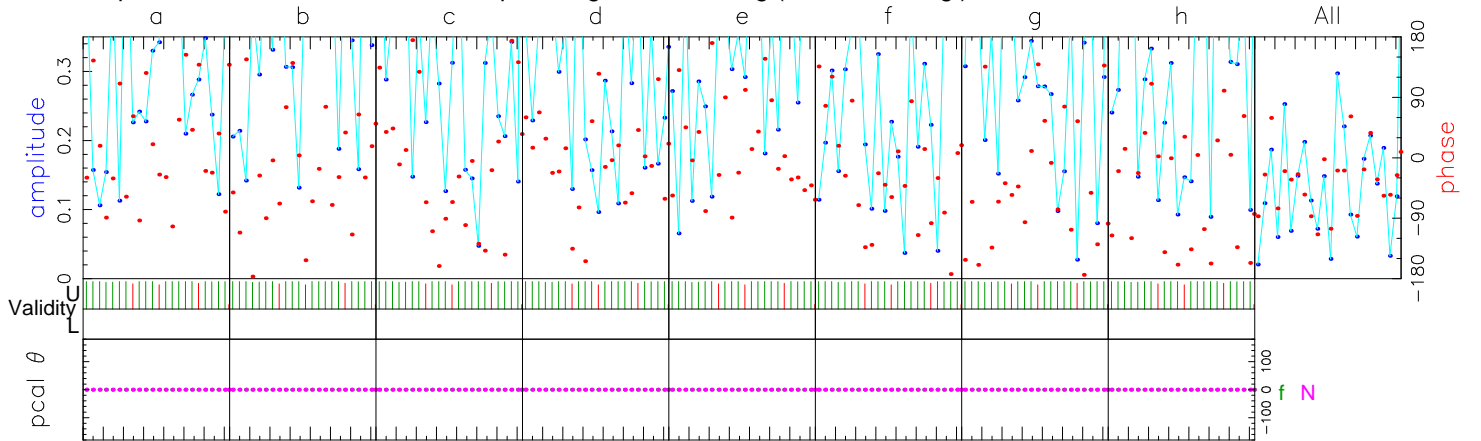


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151500.00  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121630  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-25.8	-40.7	-27.2	-4.9	0.3	-14.5	-82.6	-6.0	Phase	-22.5
	0.2	0.1	0.0	0.2	0.2	0.1	0.1	0.1	Ampl.	0.1
	371.7	228.2	346.5	185.9	186.3	195.3	183.2	156.7	Sbd box	185.0
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-6.63829330472E+03	Apriori delay (usec)	-6.63801335476E+03	Resid mbdelay (usec)	1.30004E-03	+/-	1.8E-04
Sband delay (usec)	-6.63829454601E+03	Apriori clock (usec)	2.3621220E+01	Resid sbdelay (usec)	-2.81191E-01	+/-	1.5E-03
Phase delay (usec)	-6.63801335549E+03	Apriori clockrate (us/s)	4.4490002E-06	Resid phdelay (usec)	-7.25652E-07	+/-	6.3E-07
Delay rate (us/s)	1.47067867382E+00	Apriori rate (us/s)	1.47067319254E+00	Resid rate (us/s)	5.48128E-06	+/-	2.6E-09
Total phase (deg)	-159.1	Apriori accel (us/s/s)	2.09618601197E-05	Resid phase (deg)	-22.5	+/-	19.5

ph/seg (deg)	48.2	Theor.	46.5	Amplitude	0.117 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	79.4	Search (2048X32)	0.104	Search	0.104	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	29.3	Inc. seg. avg.	0.113	Inc. seg. avg.	0.113	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.2	Inc. frq. avg.	0.116	Inc. frq. avg.	0.116	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 57.7 el 33.3 pa -76.3 N: az 277.7 el 61.7 pa 70.6 u,v (fr/asec) -11216.396 305.756 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fN..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fN.W.147.1X01VG

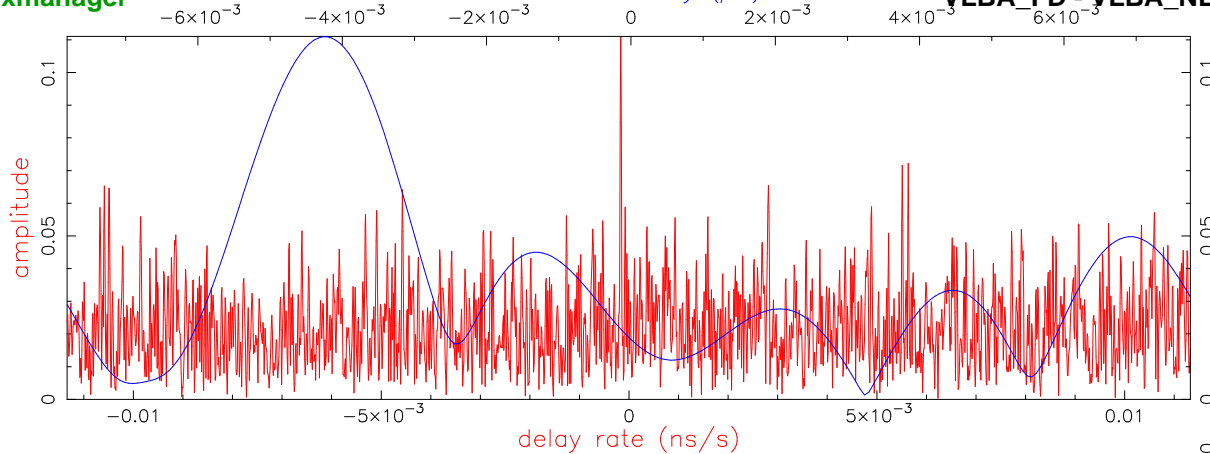
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, fn

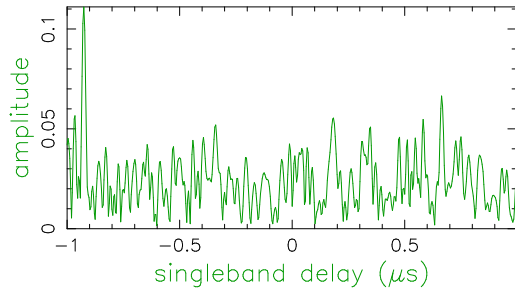
VLBA\_FD - VLBA\_NL, fgroup W, pol RL

multiband delay ( $\mu$ s)

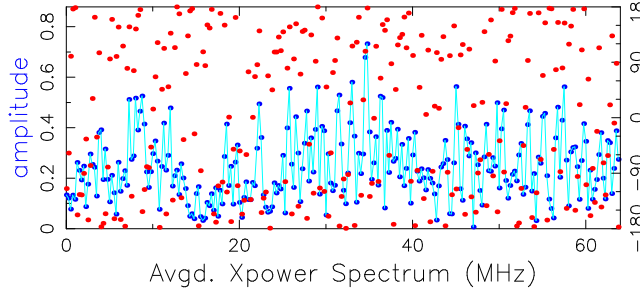


Fringe quality 0

SNR 6.2  
 Int time 411.610  
 Amp 0.111  
 Phase -11.8  
 PFD 1.7e-01  
 Delays (us)  
 SBD -0.926151  
 MBD -0.004245  
 Fringe rate (Hz)  
 -0.014071  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

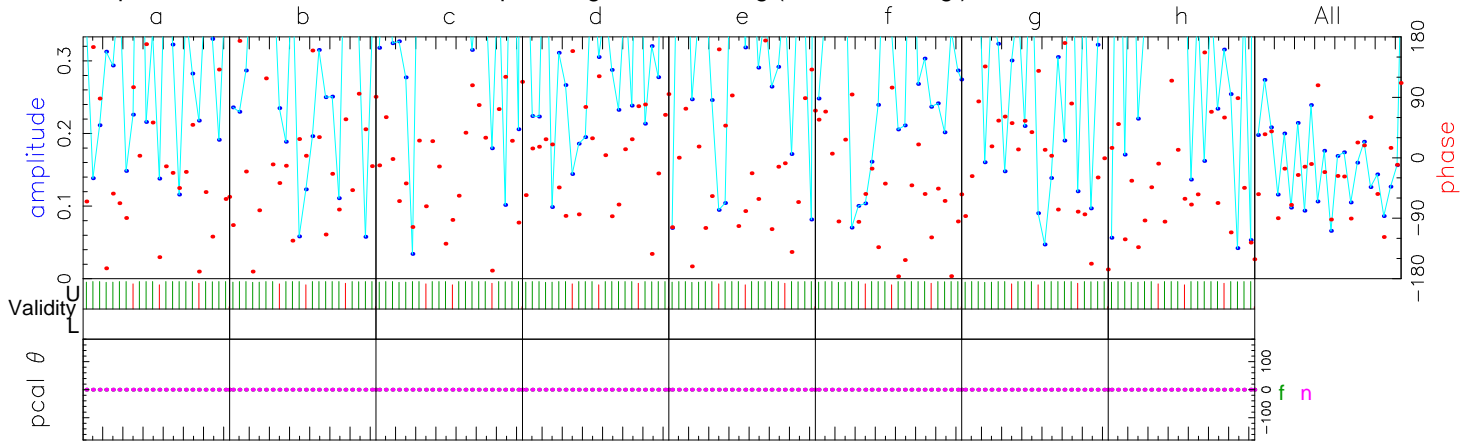


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151501.54  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121630  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-37.2	-27.5	10.0	16.0	-34.7	-42.1	17.8	-33.0	Phase	-11.8
	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1
	141.9	450.9	226.9	407.0	462.1	52.9	425.8	58.6	Sbd box	19.9
U/L	811/0	811/0	810/0	810/0	810/0	810/0	810/0	810/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-3.86295131519E+03	Apriori delay (usec)	-3.86202519533E+03	Resid mbdelay (usec)	-4.24486E-03	+/-	1.8E-04
Sband delay (usec)	-3.86295134583E+03	Apriori clock (usec)	4.7853451E+00	Resid sbdelay (usec)	-9.26151E-01	+/-	1.4E-03
Phase delay (usec)	-3.86202519571E+03	Apriori clockrate (us/s)	-2.4000000E-07	Resid phdelay (usec)	-3.80920E-07	+/-	6.0E-07
Delay rate (us/s)	2.07707264116E-01	Apriori rate (us/s)	2.07707427463E-01	Resid rate (us/s)	-1.63347E-07	+/-	2.5E-09
Total phase (deg)	-129.1	Apriori accel (us/s/s)	8.84871529056E-06	Resid phase (deg)	-11.8	+/-	18.6

ph/seg (deg)	RMS 54.6	Theor. 44.4	Amplitude Search (2048X32)	0.111 +/- 0.018	0.108	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	64.6	77.5	Interp.	0.000	0.108	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	28.6	26.3	Inc. seg. avg.	0.121	0.111	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	30.9	45.9	Inc. frq. avg.	0.111	0.111	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 57.7 el 33.3 pa -76.3 n: az 69.8 el 47.2 pa -69.2 u,v (fr/asec) -1571.108 -402.277 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fn..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fn.W.152.1X01VG

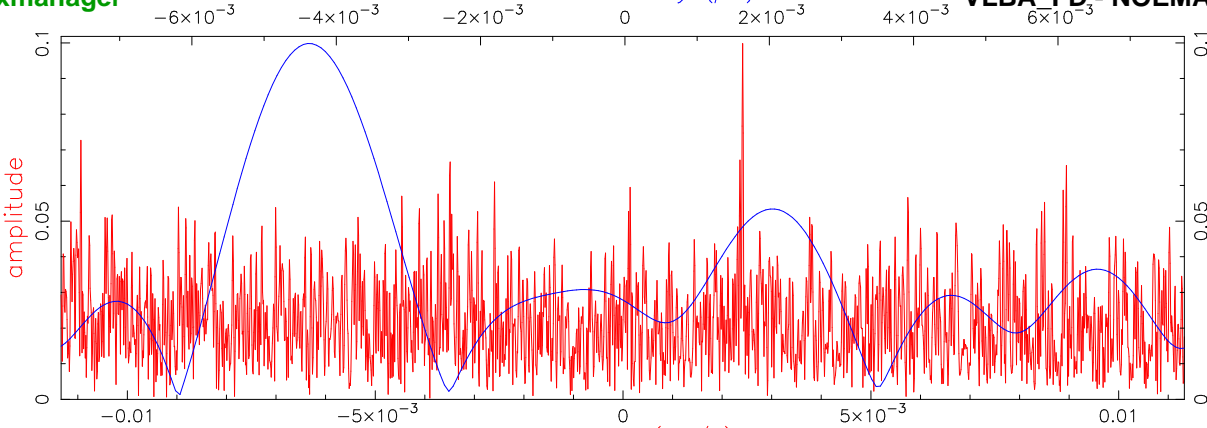
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, fN

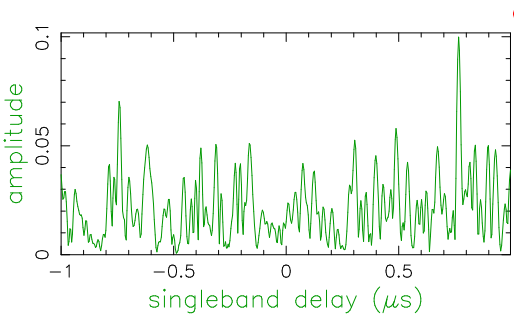
VLBA\_FD- NOEMA, fgroup W, pol LL

multiband delay ( $\mu$ s)

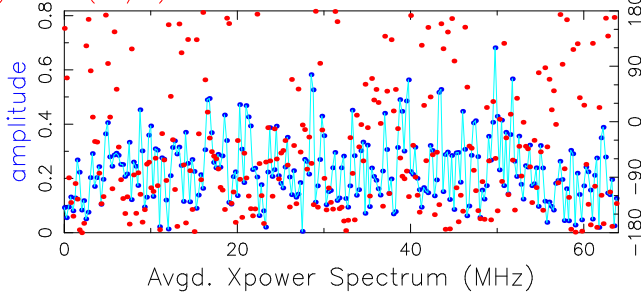


Fringe quality 0

SNR 5.6  
 Int time 413.607  
 Amp 0.102  
 Phase 132.4  
 PFD 1.0e+00  
 Delays (us)  
 SBD 0.766085  
 MBD -0.004361  
 Fringe rate (Hz)  
 0.208156  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

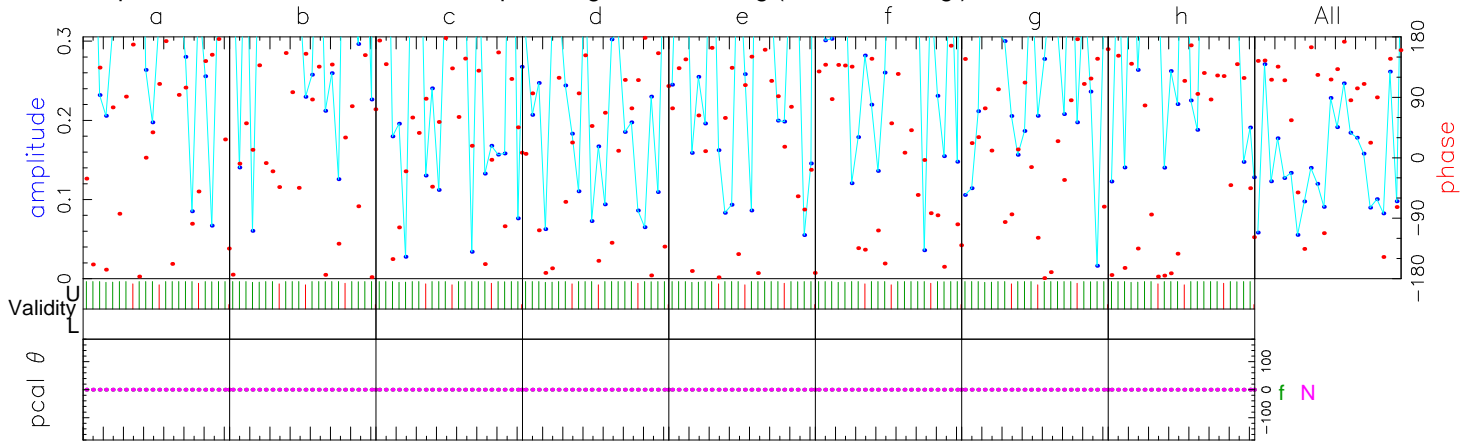


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121618  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0		
f	0	0	0	0	0	0	0	0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-6.63725209120E+03	Apriori delay (usec)		-6.63801335476E+03	Resid mbdelay (usec)		-4.36143E-03	+/-	2.0E-04	
Sband delay (usec)	-6.63724727001E+03	Apriori clock (usec)		2.3621220E+01	Resid sbdelay (usec)		7.66085E-01	+/-	1.5E-03	
Phase delay (usec)	-6.63801335049E+03	Apriori clockrate (us/s)		4.4490002E-06	Resid phdelay (usec)		4.26936E-06	+/-	6.6E-07	
Delay rate (us/s)	1.47067560902E+00	Apriori rate (us/s)		1.47067319254E+00	Resid rate (us/s)		2.41648E-06	+/-	2.8E-09	
Total phase (deg)		-4.2	Apriori accel (us/s/s)		2.09618601197E-05	Resid phase (deg)		132.4	+/-	20.6

ph/seg (deg)	RMS 70.6	Theor. 49.2	Amplitude Search (2048X32)	0.102 +/- 0.018	0.097	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
amp/seg (%)	81.0	85.9	Interp.	0.000	0.097	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	33.7	29.2	Inc. seg. avg.	0.110	0.099	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	43.3	50.9	Inc. frq. avg.	0.099	0.099	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011	
f: az 57.7 el 33.3 pa -76.3		N: az 277.7 el 61.7 pa 70.6		u,v (fr/asec)		-11216.396 305.756		ion window (TEC)		0.00 0.00
Control file: cf_1234_gmva		Input file: /Exps/c211c/v1/1234/No0082/fN..1X01VG		Output file: /Exps/c211c/v1/1234/No0082/fN.W.90.1X01VG				simultaneous interpolator		

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

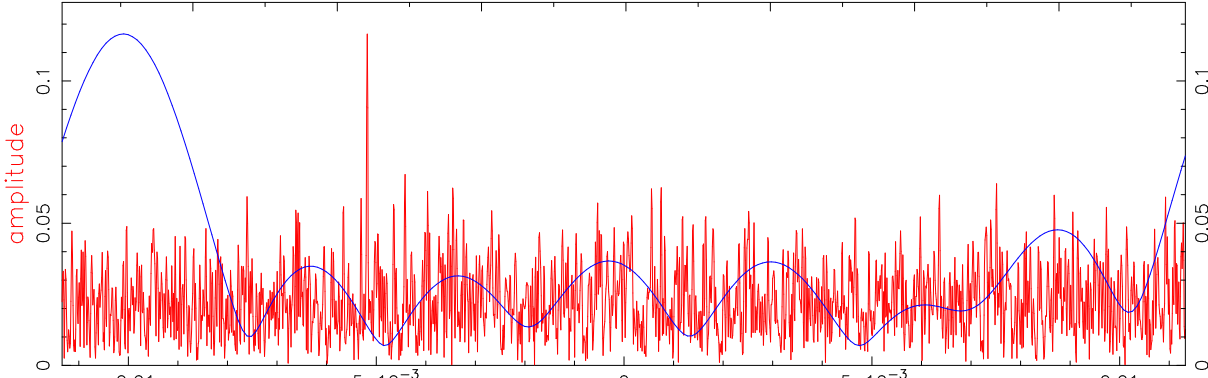
3C84.1X01VG, No0082, fn

VLBA\_FD - VLBA\_NL, fgroup W, pol LL

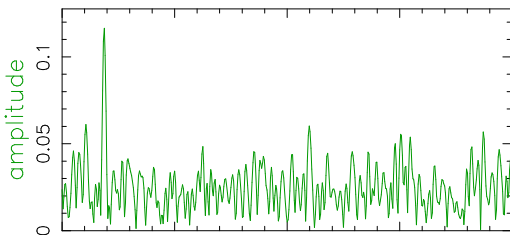
multiband delay ( $\mu$ s)

$-6 \times 10^{-3}$   $-4 \times 10^{-3}$   $-2 \times 10^{-3}$  0  $2 \times 10^{-3}$   $4 \times 10^{-3}$   $6 \times 10^{-3}$

Fringe quality 0

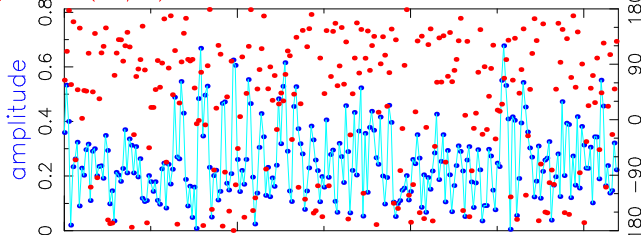


SNR 6.5  
Int time 411.610  
Amp 0.128  
Phase -179.2  
PFD 2.4e-02  
Delays (us)  
SBD -0.813220  
MBD -0.006992  
Fringe rate (Hz)  
-0.447364  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



singleband delay ( $\mu$ s)

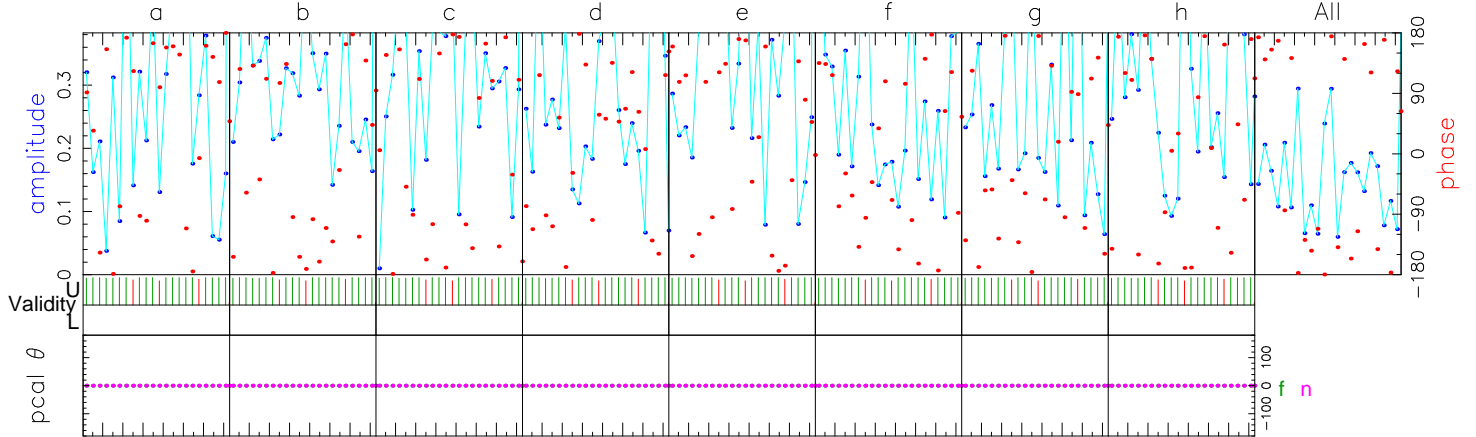
delay rate (ns/s)



Avgd. Xpower Spectrum (MHz)

Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151501.54  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121619  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	810/0	810/0	810/0	810/0	811/0	811/0	810/0	810/0		
f	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-3.86284468727E+03	Apriori delay (usec)	-3.86202519533E+03	Resid mbdelay (usec)	-6.99194E-03	+/-	1.7E-04
Sband delay (usec)	-3.86283841558E+03	Apriori clock (usec)	4.7853451E+00	Resid sbdelay (usec)	-8.13220E-01	+/-	1.3E-03
Phase delay (usec)	-3.86202520111E+03	Apriori clockrate (us/s)	-2.4000000E-07	Resid phdelay (usec)	-5.77718E-06	+/-	5.7E-07
Delay rate (us/s)	2.07702234012E-01	Apriori rate (us/s)	2.07707427463E-01	Resid rate (us/s)	-5.19345E-06	+/-	2.4E-09
Total phase (deg)	-296.4	Apriori accel (us/s/s)	8.84871529056E-06	Resid phase (deg)	-179.2	+/-	17.7

ph/seg (deg)	42.1	Theor.	42.2	Amplitude	0.128 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	65.7		73.6	Search (2048X32)	0.115	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	18.2		25.0	Inc. seg. avg.	0.130	Bits/sample:	2x2	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	35.0		43.6	Inc. frq. avg.	0.119	Data rate (Mb/s):	2048	nlags:	256	ion window (TEC)	0.00	0.00

f: az 57.7 el 33.3 pa -76.3 n: az 69.8 el 47.2 pa -69.2 u,v (fr/asec) -1571.108 -402.277 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fn..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fn.W.93.1X01VG



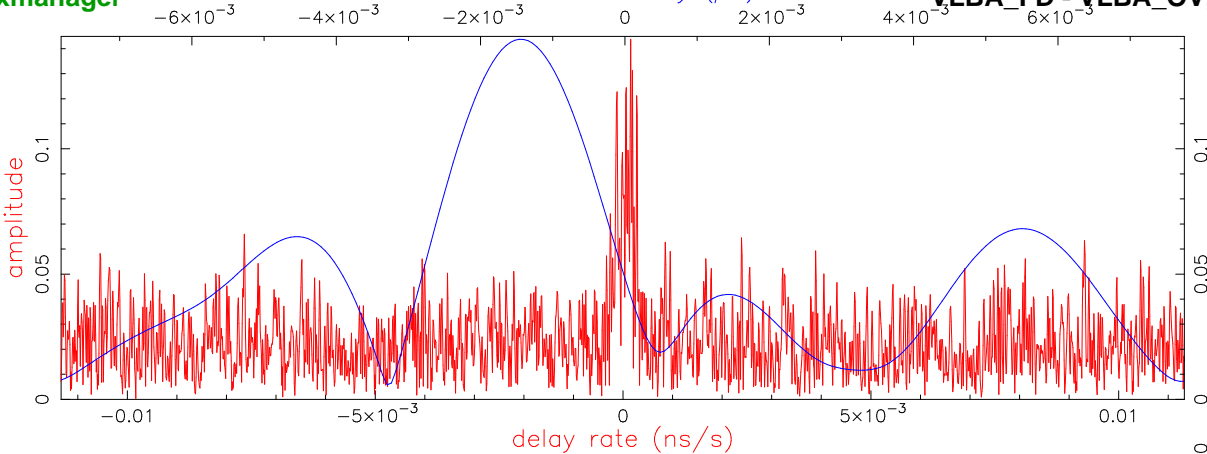
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, fo

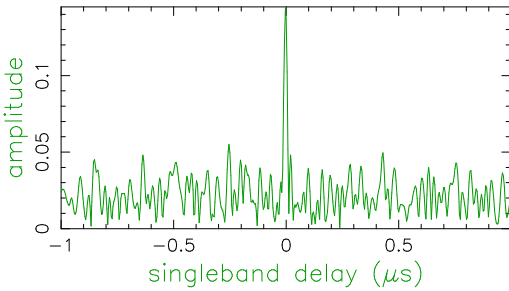
VLBA\_FD - VLBA\_OV, fgroup W, pol RR

multiband delay ( $\mu$ s)

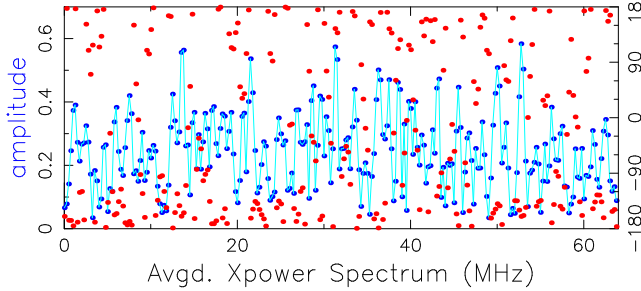


Fringe quality 9

SNR 8.0  
 Int time 412.616  
 Amp 0.145  
 Phase 174.8  
 PFD 2.9e-07  
 Delays (us)  
 SBD -0.002848  
 MBD -0.001413  
 Fringe rate (Hz)  
 0.012911  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

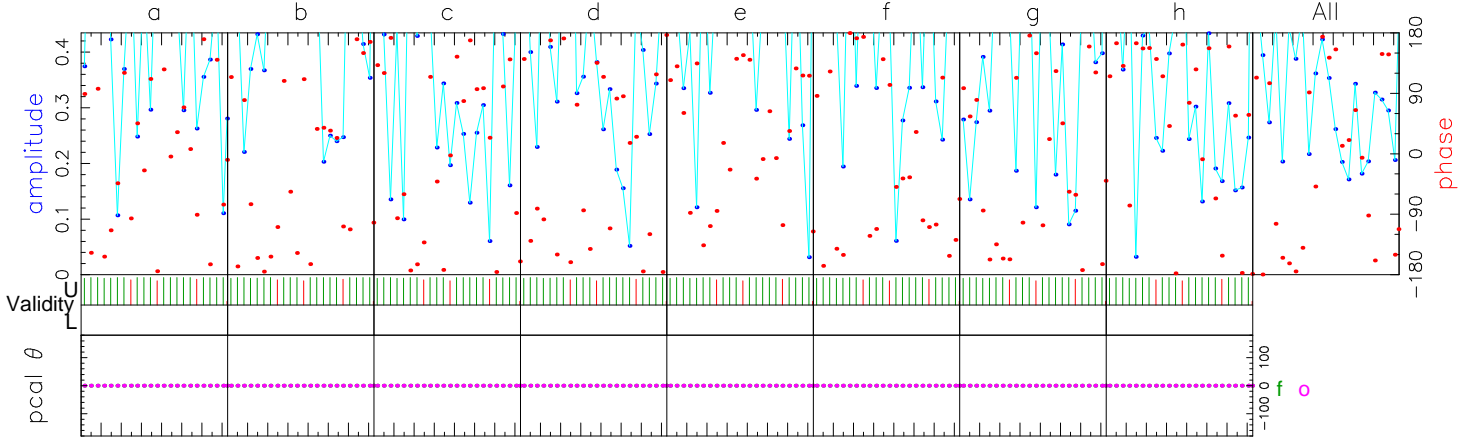


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.51  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121622  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



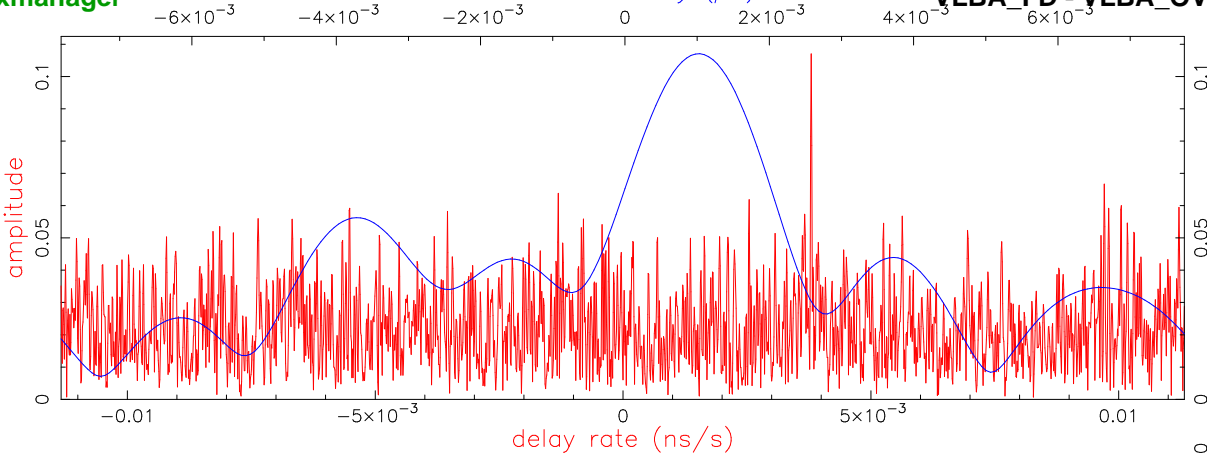
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	153.2	-173.4	165.0	-170.7	70.8	-166.4	-166.2	147.7	Phase	174.8
	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	Ampl.	0.2
	39.2	256.1	389.7	255.8	242.0	256.3	434.3	256.0	Sbd box	256.3
U/L	813/0	813/0	812/0	812/0	812/0	812/0	812/0	812/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	2.09949471515E+03		Apriori delay (usec)		2.09949612800E+03		Resid mbdelay (usec)		-1.41285E-03	+/- 1.3E-04
Sband delay (usec)	2.09949328025E+03		Apriori clock (usec)		6.5164299E+00		Resid sbdelay (usec)		-2.84775E-03	+/- 1.1E-03
Phase delay (usec)	2.09949613364E+03		Apriori clockrate (us/s)		-3.0000002E-07		Resid phdelay (usec)		5.63792E-06	+/- 4.6E-07
Delay rate (us/s)	1.75842568182E-02		Apriori rate (us/s)		1.75841069306E-02		Resid rate (us/s)		1.49888E-07	+/- 1.9E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.82714371392E-05		Resid phase (deg)		174.8	+/- 14.2

	RMS	Theor.	Amplitude	0.145 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	83.5	34.0	Search (2048X32)	0.133	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	140.1	59.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	46.9	20.1	Inc. seg. avg.	0.271	Sample rate(MSamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	38.4	35.1	Inc. frq. avg.	0.151	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

f: az 57.7 el 33.3 pa -76.3 o: az 56.6 el 26.8 pa -62.7 u,v (fr/asec) -168.469 -1903.969 simultaneous interpolator

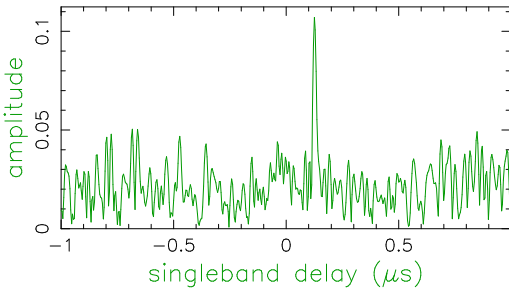
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fo..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fo.W.109.1X01VG

multiband delay ( $\mu$ s)

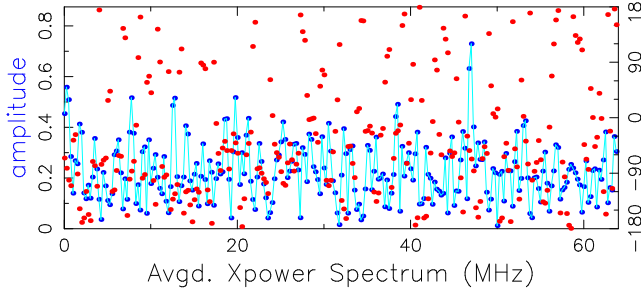


Fringe quality 0

SNR 6.0  
Int time 412.616  
Amp 0.112  
Phase -94.3  
PFD 4.8e-01  
Delays (us)  
SBD 0.125680  
MBD 0.001055  
Fringe rate (Hz)  
0.327299  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

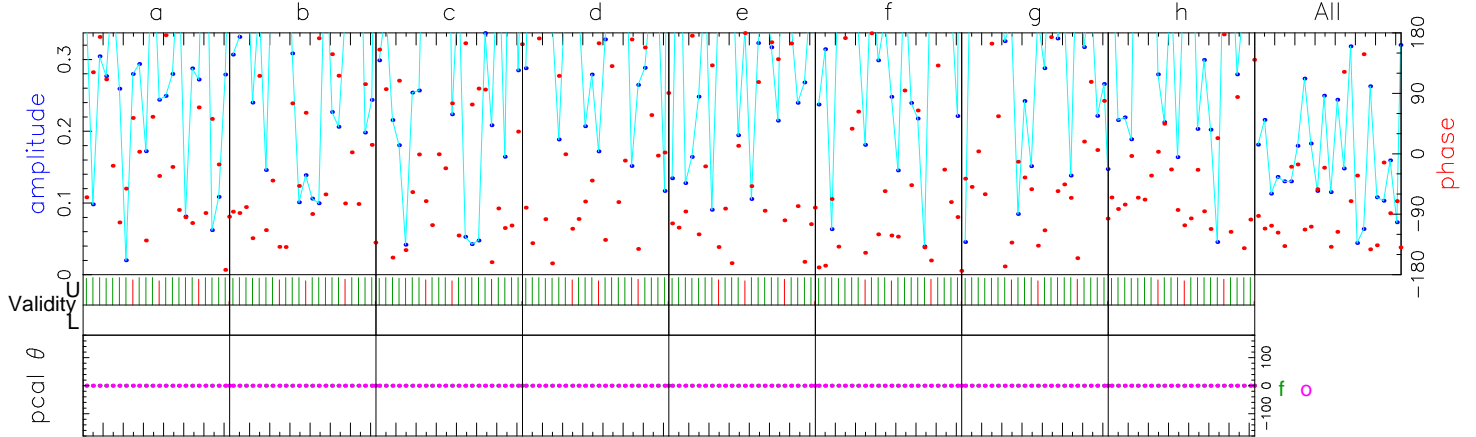


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151500.51  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121626  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-58.6	-92.5	-67.6	-103.8	-123.3	-157.7	-77.2	-74.6	Phase	-94.3
	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	Ampl.	0.1
	8.2	15.8	27.4	207.6	288.3	468.5	52.0	290.0	Sbd box	289.2
U/L	812/0	812/0	812/0	812/0	813/0	813/0	812/0	812/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	2.09962218342E+03	Apriori delay (usec)		2.09949612800E+03	Resid mbdelay (usec)		1.05542E-03	+/-	1.8E-04	
Sband delay (usec)	2.09962180825E+03	Apriori clock (usec)		0.104	Resid sbdelay (usec)		1.25680E-01	+/-	1.4E-03	
Phase delay (usec)	2.09949612496E+03	Apriori clockrate (us/s)		-3.0000002E-07	Resid phdelay (usec)		-3.04211E-06	+/-	6.2E-07	
Delay rate (us/s)	1.75879065496E-02	Apriori rate (us/s)		1.75841069306E-02	Resid rate (us/s)		3.79962E-06	+/-	2.6E-09	
Total phase (deg)		73.4	Apriori accel (us/s/s)		-1.82714371392E-05	Resid phase (deg)		-94.3	+/-	19.2

ph/seg (deg)	58.5	Theor. 45.9	Amplitude	0.112 +/- 0.019	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000	1.000
amp/seg (%)	84.5	80.1	Search (2048X32)	0.104	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	35.6	27.2	Inc. seg. avg.	0.128	Bits/sample: 2x2		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	49.5	47.5	Inc. frq. avg.	0.114	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00

f: az 57.7 el 33.3 pa -76.3 o: az 56.6 el 26.8 pa -62.7 u,v (fr/asec) -168.469 -1903.969 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fo..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fo.W.128.1X01VG

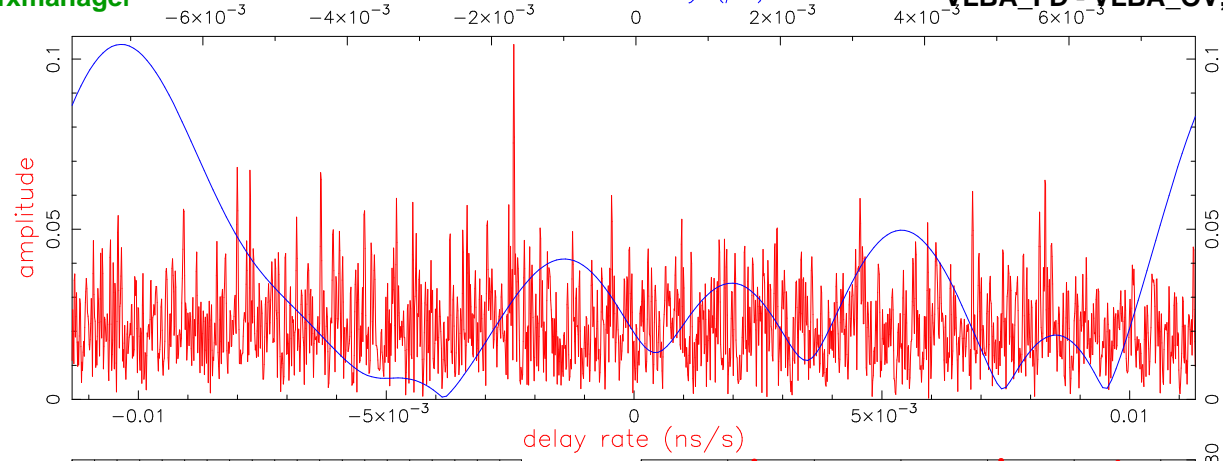
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

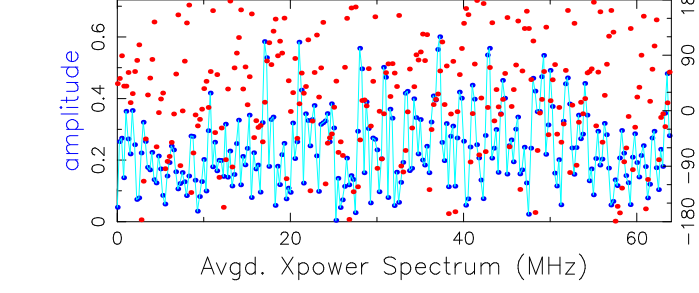
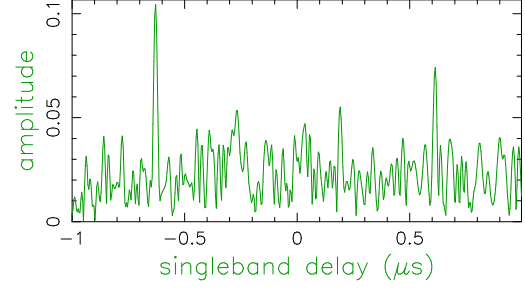
3C84.1X01VG, No0082, fo

VLBA\_FD - VLBA\_OV, fgroup W, pol RL

multiband delay ( $\mu$ s)

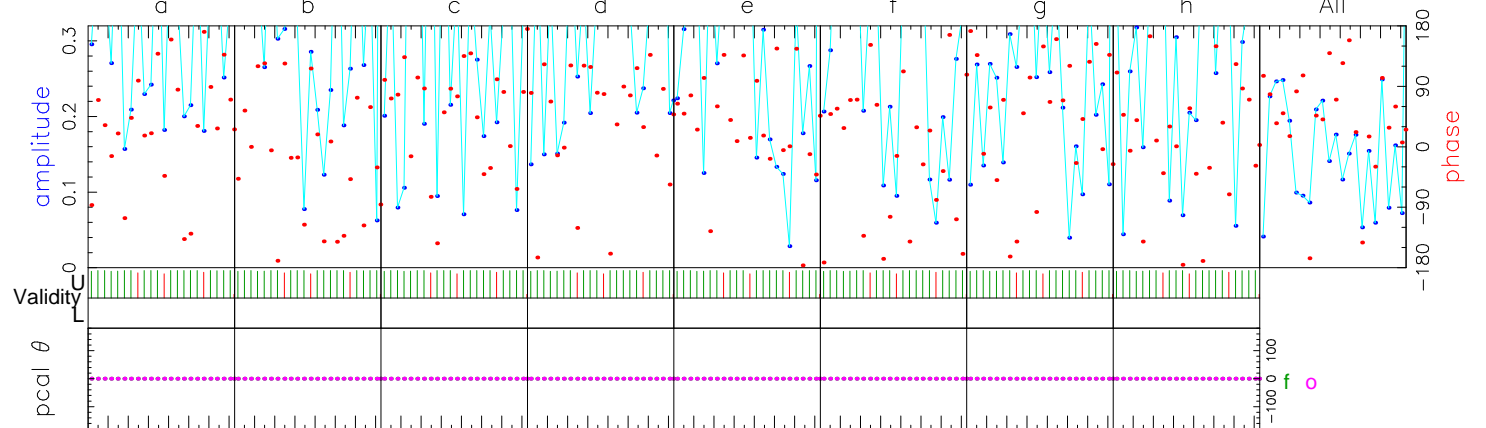


Fringe quality 0  
 SNR 5.8  
 Int time 412.616  
 Amp 0.107  
 Phase 61.6  
 PFD 7.9e-01  
 Delays (us)  
 SBD -0.629662  
 MBD -0.007128  
 Fringe rate (Hz)  
 -0.209621  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.51  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121630  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	61.6	19.8	56.5	91.6	55.8	75.6	108.9	12.8	Phase	61.6	
	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1	
	96.9	255.1	94.9	266.7	96.9	4.0	364.0	410.2	Sbd box	95.8	
U/L	813/0	813/0	812/0	812/0	812/0	812/0	812/0	812/0	APs used		
f	0	0	0	0	0	0	0	0	PC freqs		
o	0	0	0	0	0	0	0	0	PC freqs		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
fo	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
o	1000	1000	1000	1000	1000	1000	1000	1000			
f	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)	2.09886400029E+03		Apriori delay (usec)		2.09949612800E+03		Resid mbdelay (usec)		-7.12771E-03	+/- 1.9E-04	
Sband delay (usec)	2.09886646650E+03		Apriori clock (usec)		6.5164299E+07		Resid sbdelay (usec)		-6.29662E-01	+/- 1.5E-03	
Phase delay (usec)	2.09949612998E+03		Apriori clockrate (us/s)		-3.0000002E-07		Resid phdelay (usec)		1.98559E-06	+/- 6.4E-07	
Delay rate (us/s)	1.75816734398E-02		Apriori rate (us/s)		1.75841069306E-02		Resid rate (us/s)		-2.43349E-06	+/- 2.6E-09	
Total phase (deg)	229.3		Apriori accel (us/s/s)		-1.82714371392E-05		Resid phase (deg)		61.6	+/- 19.7	
	RMS	Theor.	Amplitude	0.107 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	62.6	47.1	Search (2048X32)	0.101		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	81.0	82.2	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	35.4	27.9	Inc. seg. avg.	0.114		Sample rate(MISamp/s): 128		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	37.2	48.7	Inc. frq. avg.	0.108		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00

f: az 57.7 el 33.3 pa -76.3      o: az 56.6 el 26.8 pa -62.7      u,v (fr/asec) -168.469 -1903.969      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c211c/v1/1234/No0082/fo..1X01VG      Output file: /Exps/c211c/v1/1234/No0082/fo.W.148.1X01VG

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

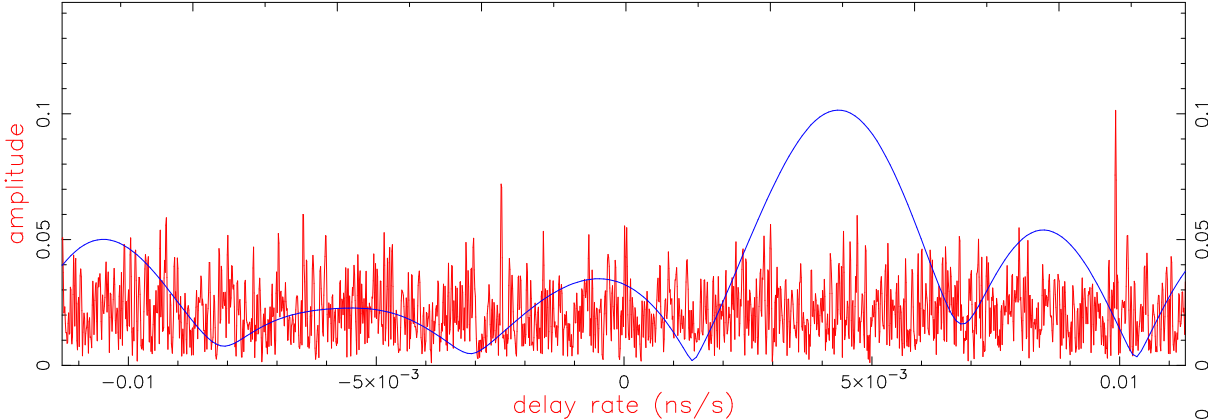
3C84.1X01VG, No0082, fo

VLBA\_FD - VLBA\_OV, fgroup W, pol LL

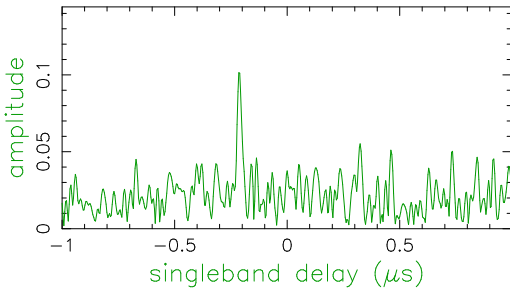
multiband delay ( $\mu$ s)

$-6 \times 10^{-3}$   $-4 \times 10^{-3}$   $-2 \times 10^{-3}$  0  $2 \times 10^{-3}$   $4 \times 10^{-3}$   $6 \times 10^{-3}$

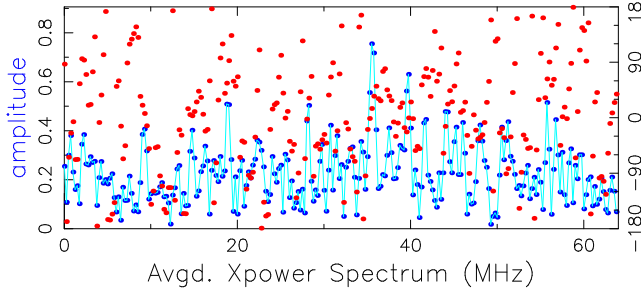
Fringe quality 0



SNR 5.7  
Int time 412.616  
Amp 0.144  
Phase 49.5  
PFD 9.4e-01  
Delays (us)  
SBD -0.212965  
MBD 0.002894  
Fringe rate (Hz)  
0.855482  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

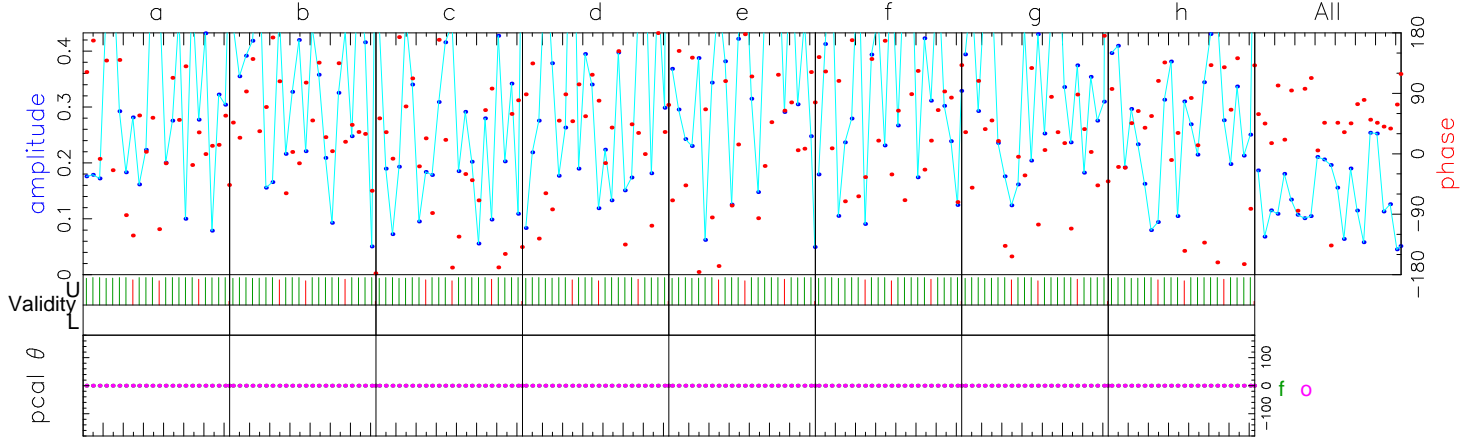


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151500.51  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121618  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	812/0	812/0	812/0	812/0	813/0	813/0	812/0	812/0		
f	0	0	0	0	0	0	0	0		
o	0	0	0	0	0	0	0	0		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fo	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	2.09928027158E+03	Apriori delay (usec)		2.09949612800E+03	Resid mbdelay (usec)		2.89358E-03	+/- 1.9E-04	
Sband delay (usec)	2.09928316350E+03	Apriori clock (usec)		6.5164299E+00	Resid sbdelay (usec)		-2.12965E-01	+/- 1.5E-03	
Phase delay (usec)	2.09949612960E+03	Apriori clockrate (us/s)		-3.0000002E-07	Resid phdelay (usec)		1.59776E-06	+/- 6.5E-07	
Delay rate (us/s)	1.75940382259E-02	Apriori rate (us/s)		1.75841069306E-02	Resid rate (us/s)		9.93130E-06	+/- 2.7E-09	
Total phase (deg)	217.3	Apriori accel (us/s/s)		-1.82714371392E-05	Resid phase (deg)		49.5	+/- 20.1	

ph/seg (deg)	53.7	Theor.	Amplitude	0.144 +/- 0.025	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	68.3	47.9	Search (2048X32)	0.099	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000
ph/frq (deg)	32.9	83.6	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		-0.008	0.008
amp/frq (%)	45.5	28.4	Inc. seg. avg.	0.145	Sample rate(MISamp/s): 128		dr window (ns/s)		-0.011	0.011
		49.5	Inc. frq. avg.	0.140	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		0.00	0.00

f: az 57.7 el 33.3 pa -76.3 o: az 56.6 el 26.8 pa -62.7 u,v (fr/asec) -168.469 -1903.969 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fo..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fo.W.89.1X01VG

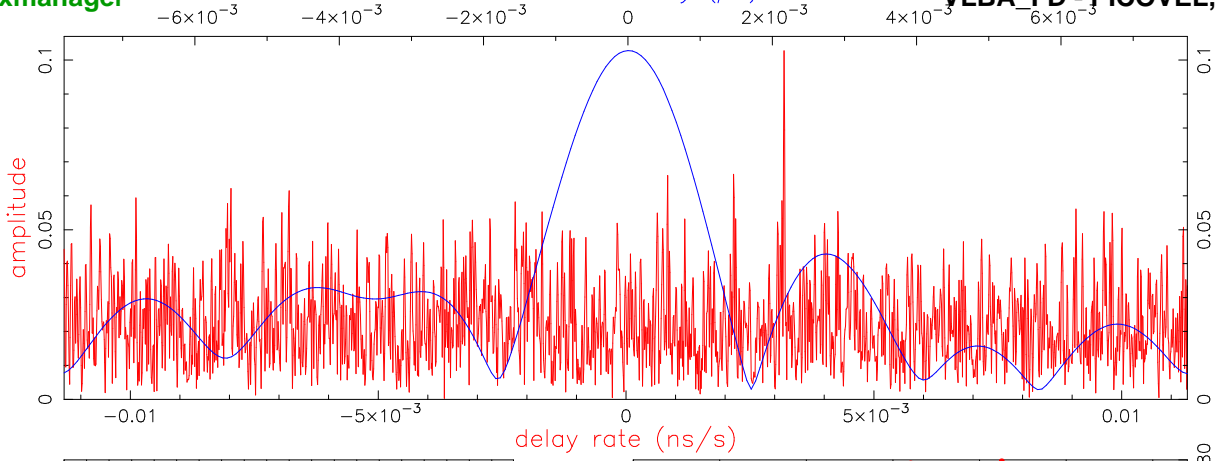
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

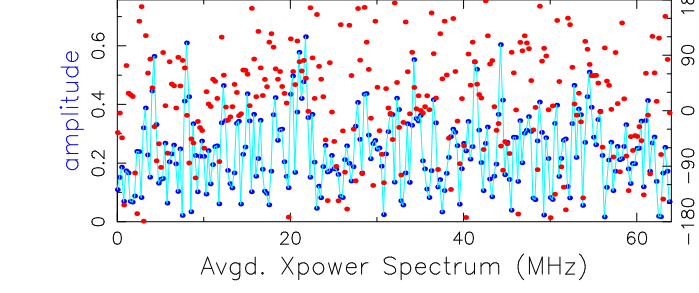
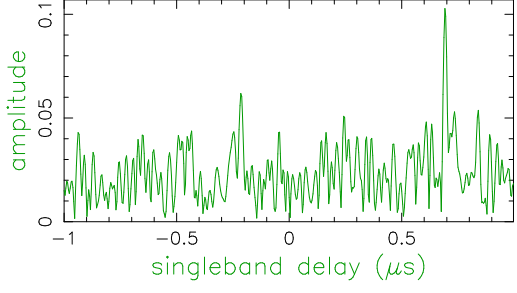
3C84.1X01VG, No0082, fP

VLBA\_FD - PICOVEL, fgroup W, pol RR

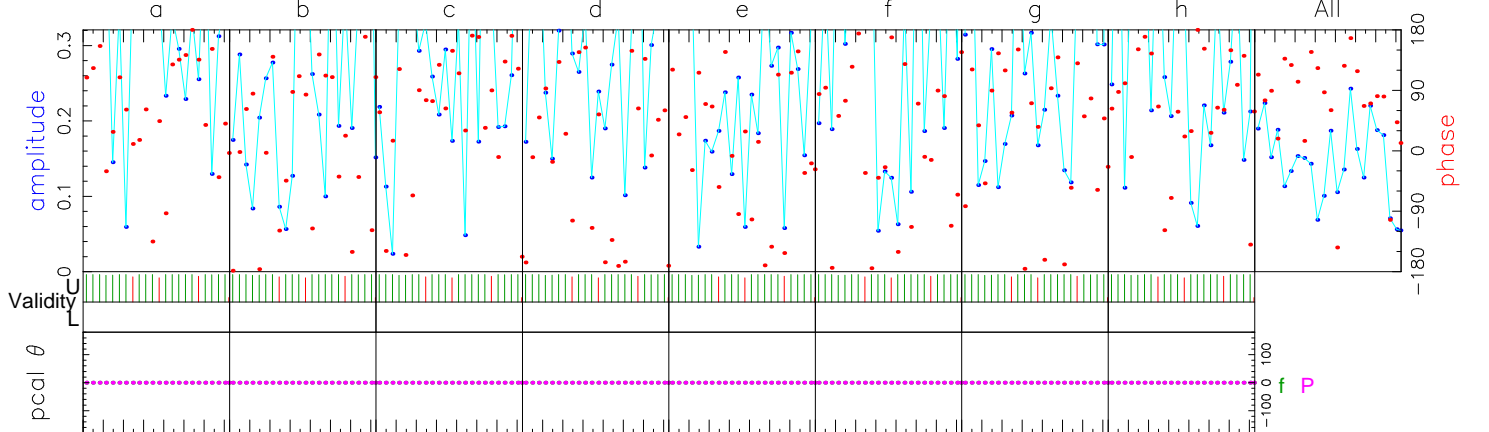
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 5.8  
 Int time 413.606  
 Amp 0.107  
 Phase 96.3  
 PFD 8.8e-01  
 Delays (us)  
 SBD 0.692545  
 MBD 0.000045  
 Fringe rate (Hz)  
 0.275402  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121622  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0		
f	0	0	0	0	0	0	0	0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.48794579659E+03				-7.48863334187E+03				4.52803E-05	+/- 1.9E-04
Sband delay (usec)	-7.48794079662E+03				1.1316063E+01				6.92545E-01	+/- 1.5E-03
Phase delay (usec)	-7.48863333876E+03				6.6000000E-07				3.10483E-06	+/- 6.4E-07
Delay rate (us/s)	1.41255397770E+00				1.41255078056E+00				3.19714E-06	+/- 2.7E-09
Total phase (deg)			71.7		3.28990072404E-05				96.3	+/- 19.9
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-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
PC period (AP's) 5, 5										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.107 +/- 0.019										
0.000										
0.114										
0.097										
f: az 57.7 el 33.3 pa -76.3										
P: az 290.4 el 66.7 pa 91.8										
u, v (fr/asec) -10749.835 1794.673										
simultaneous interpolator										

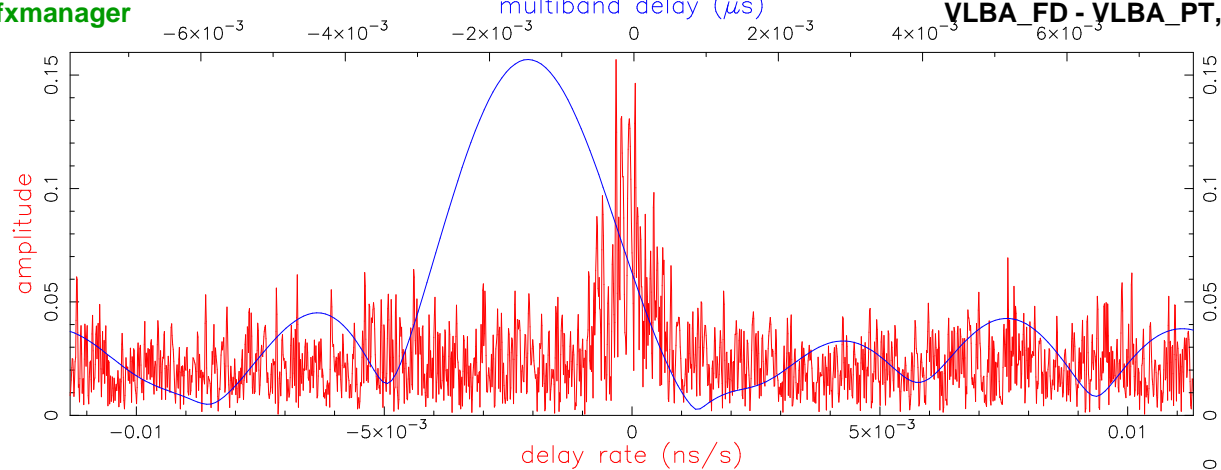
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fP..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fP.W.111.1X01VG

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

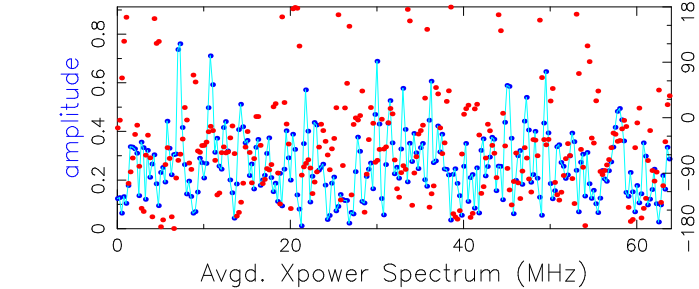
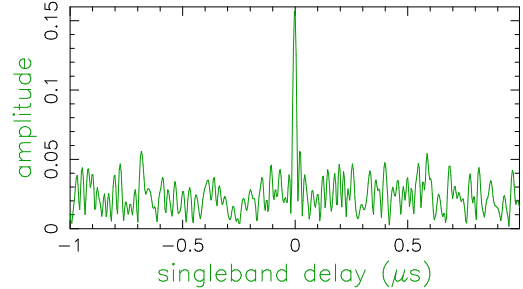
3C84.1X01VG, No0082, fp

VLBA\_FD - VLBA\_PT, fgroup W, pol RR



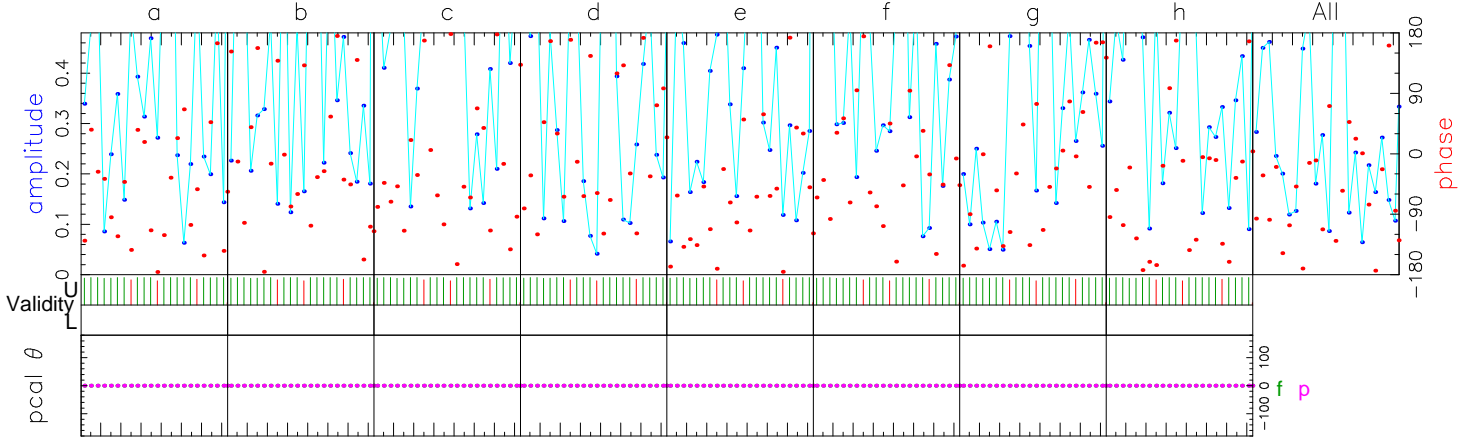
Fringe quality 9

SNR 8.9  
 Int time 411.615  
 Amp 0.160  
 Phase -74.3  
 PFD 2.7e-10  
 Delays (us)  
 SBD -0.002123  
 MBD -0.001420  
 Fringe rate (Hz)  
 -0.027485  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151501.54  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121623  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-73.6	-52.4	-83.3	-89.2	-78.9	-59.0	-50.3	-94.1	Phase	-74.3
	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	Ampl.	0.2
	438.1	27.7	256.2	258.3	257.0	81.8	311.2	258.0	Sbd box	256.5
U/L	811/0	811/0	810/0	810/0	810/0	810/0	810/0	810/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	3.43292861497E+02	Apriori delay (usec)	3.43294281564E+02	Resid mbdelay (usec)	-1.42007E-03	+/-	1.2E-04
Sband delay (usec)	3.43292158314E+02	Apriori clock (usec)	4.7237473E+00	Resid sbdelay (usec)	-2.12325E-03	+/-	9.7E-04
Phase delay (usec)	3.43294279169E+02	Apriori clockrate (us/s)	1.8000000E-07	Resid phdelay (usec)	-2.39534E-06	+/-	4.2E-07
Delay rate (us/s)	1.53781655009E-02	Apriori rate (us/s)	1.53784845729E-02	Resid rate (us/s)	-3.19072E-07	+/-	1.7E-09
Total phase (deg)	74.7	Apriori accel (us/s/s)	-5.84380693796E-06	Resid phase (deg)	-74.3	+/-	12.9

ph/seg (deg)	RMS 71.4	Theor. 30.8	Amplitude	0.160 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	154.6	53.8	Search (2048X32)	0.155	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	18.3	18.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	25.0	31.9	Inc. seg. avg.	0.254	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.	0.154	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 57.7 el 33.3 pa -76.3 p: az 58.7 el 32.2 pa -71.1 u,v (fr/asec) -128.247 -763.805 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fp..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fp.W.115.1X01VG

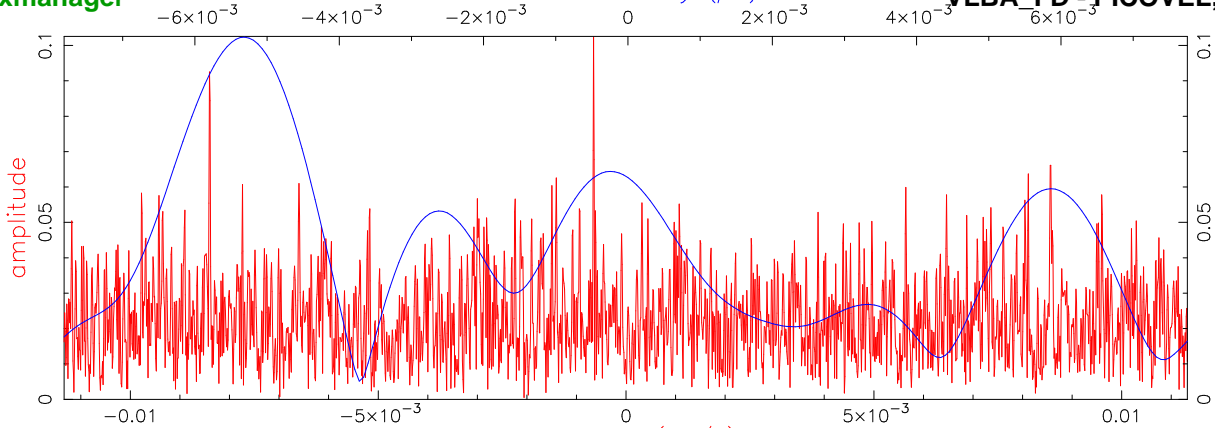
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, fP

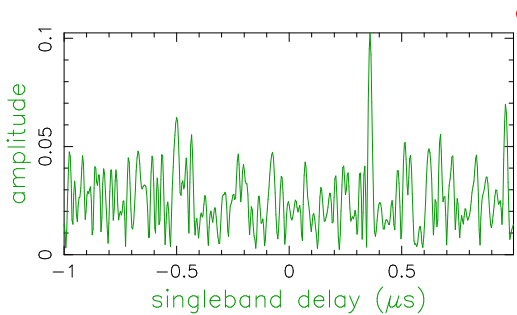
VLBA\_FD - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

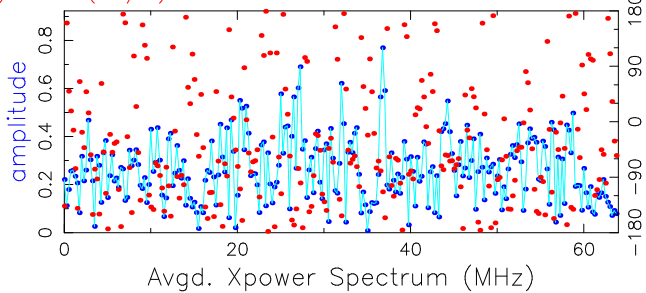


Fringe quality 0

SNR 5.7  
 Int time 413.606  
 Amp 0.103  
 Phase 144.3  
 PFD 9.5e-01  
 Delays (us)  
 SBD 0.358987  
 MBD -0.005317  
 Fringe rate (Hz)  
 -0.056242  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

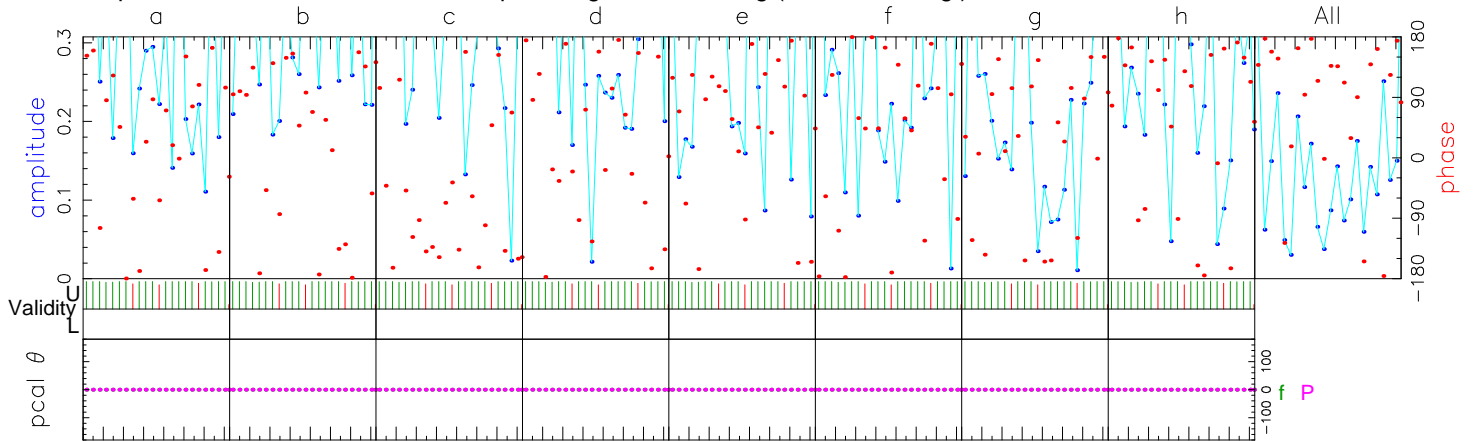


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121626  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



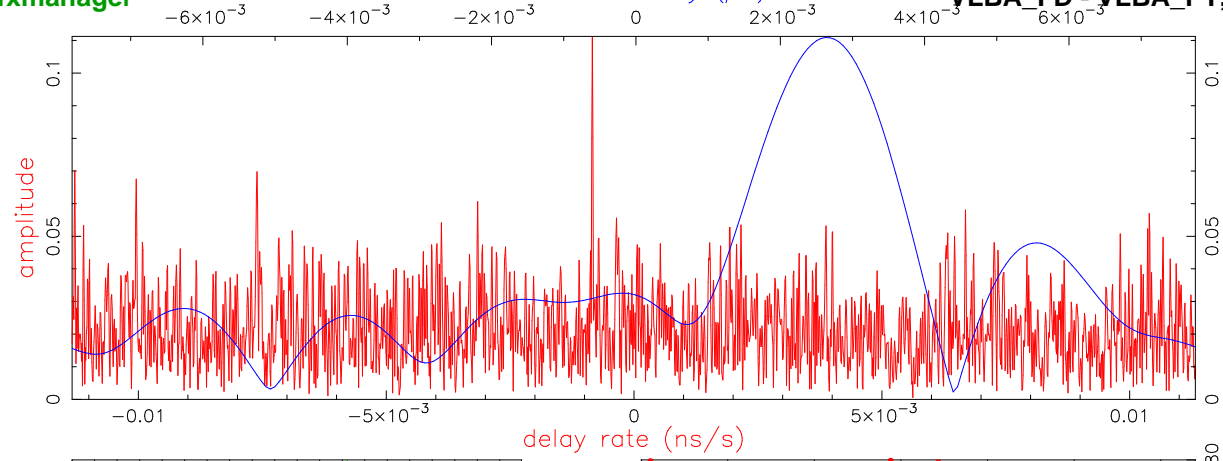
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
116.9	124.2	-127.6	170.6	114.5	161.4	118.2	145.4	145.4	Phase	144.3
0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	Ampl.	0.1
126.6	208.0	310.7	294.1	350.4	145.3	491.8	348.5	348.5	Sbd box	348.9
U/L 813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0	813/0	APs used	
f 0	0	0	0	0	0	0	0	0	PC freqs	
P 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:P 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:P 0:0	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	1000	PC amp	
P 1000	1000	1000	1000	1000	1000	1000	1000	1000		
f W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W07UL	Chan ids	
P W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.48827928340E+03		Apriori delay (usec)	-7.48863334187E+03		Resid mbdelay (usec)	-5.31654E-03		+/-	1.9E-04
Sband delay (usec)	-7.48827435512E+03		Apriori clock (usec)	1.1316063E+01		Resid sbdelay (usec)	3.58987E-01		+/-	1.5E-03
Phase delay (usec)	-7.48863333721E+03		Apriori clockrate (us/s)	6.6000000E-07		Resid phdelay (usec)	4.65223E-06		+/-	6.5E-07
Delay rate (us/s)	1.41255012764E+00		Apriori rate (us/s)	1.41255078056E+00		Resid rate (us/s)	-6.52919E-07		+/-	2.7E-09
Total phase (deg)		119.7	Apriori accel (us/s/s)	3.28990072404E-05		Resid phase (deg)	144.3		+/-	20.1

	RMS	Theor.	Amplitude	0.103 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	59.0	48.0	Search (2048X32)	0.099	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	80.1	83.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	43.7	28.5	Inc. seg. avg.	0.098	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	49.2	49.7	Inc. frq. avg.	0.115	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

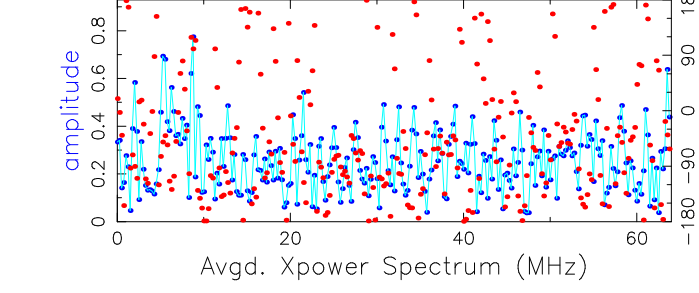
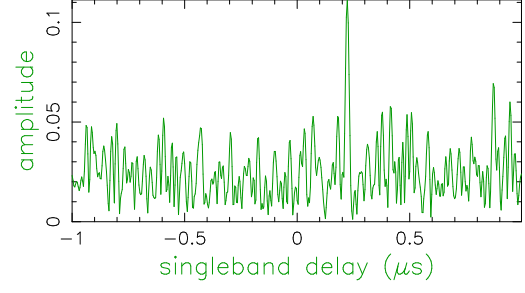
f: az 57.7 el 33.3 pa -76.3 P: az 290.4 el 66.7 pa 91.8 u,v (fr/asec) -10749.835 1794.673 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fP..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fP.W.130.1X01VG

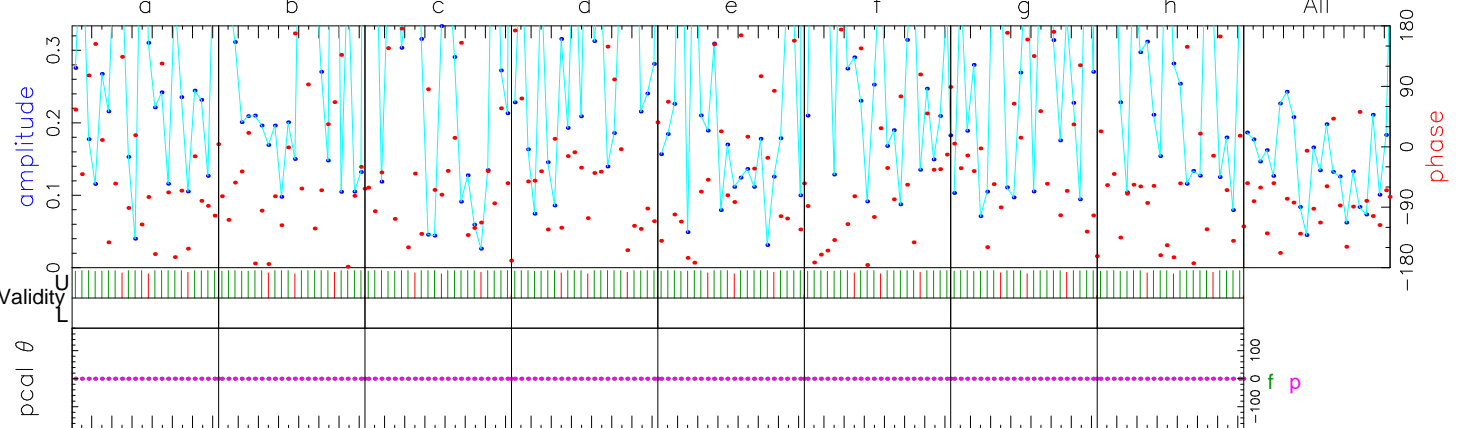
multiband delay ( $\mu$ s)



Fringe quality 0  
SNR 6.2  
Int time 411.614  
Amp 0.111  
Phase -85.3  
PFD 1.8e-01  
Delays (us)  
SBD 0.222340  
MBD 0.002633  
Fringe rate (Hz)  
-0.072237  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151501.54  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121627  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-91.7	-69.0	-81.5	-71.3	-128.0	-127.8	-64.0	-73.1	Phase	-85.3
	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	190.9	1.5	314.6	38.8	188.7	447.0	382.2	498.0	Sbd box	313.9
U/L	810/0	810/0	810/0	810/0	811/0	811/0	810/0	810/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.43515664375E+02		Apriori delay (usec)		3.43294281564E+02		Resid mbdelay (usec)		2.63281E-03	+/- 1.8E-04
Sband delay (usec)	3.43516621564E+02		Apriori clock (usec)		4.7237473E+00		Resid sbdelay (usec)		2.22340E-01	+/- 1.4E-03
Phase delay (usec)	3.43294278813E+02		Apriori clockrate (us/s)		1.8000000E-07		Resid phdelay (usec)		-2.75102E-06	+/- 6.0E-07
Delay rate (us/s)	1.53776459751E-02		Apriori rate (us/s)		1.53784845729E-02		Resid rate (us/s)		-8.38598E-07	+/- 2.5E-09
Total phase (deg)	63.7		Apriori accel (us/s/s)		-5.84380693796E-06		Resid phase (deg)		-85.3	+/- 18.6

ph/seg (deg) 52.1 44.4 Search (2048X32) 0.107 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 60.1 77.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 28.1 26.3 Inc. seg. avg. 0.113 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 28.5 45.9 Inc. frq. avg. 0.108 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 57.7 el 33.3 pa -76.3 p: az 58.7 el 32.2 pa -71.1 u,v (fr/asec) -128.247 -763.805 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fp..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fp.W.134.1X01VG



Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

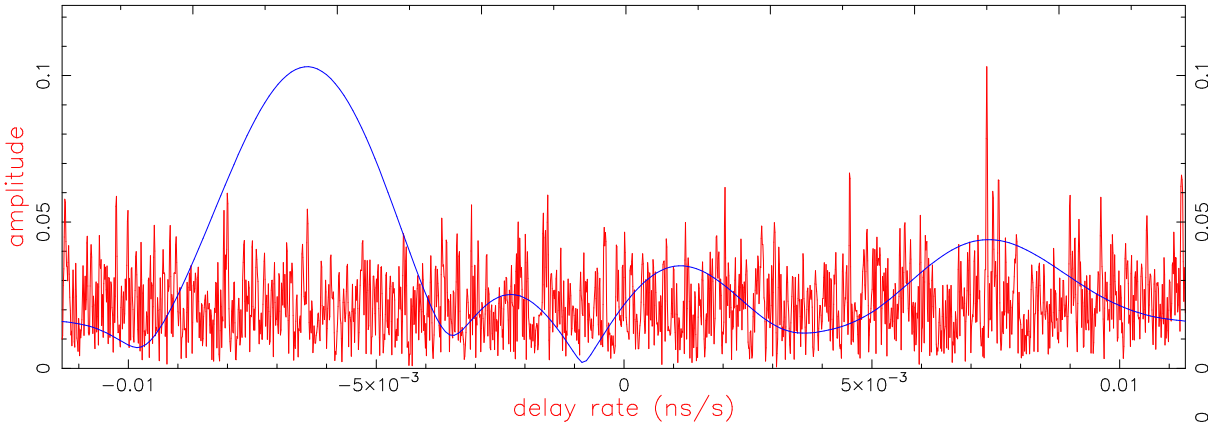
3C84.1X01VG, No0082, fP

VLBA\_FD - PICOVEL, fgroup W, pol RL

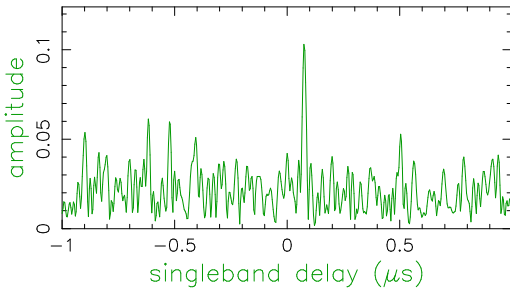
multiband delay ( $\mu$ s)

$-6 \times 10^{-3}$   $-4 \times 10^{-3}$   $-2 \times 10^{-3}$  0  $2 \times 10^{-3}$   $4 \times 10^{-3}$   $6 \times 10^{-3}$

Fringe quality 0

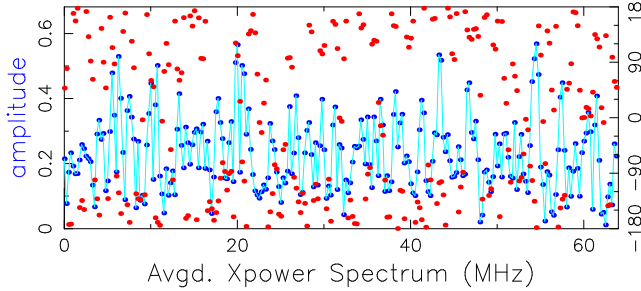


SNR 5.8  
Int time 413.606  
Amp 0.124  
Phase 13.7  
PFD 8.6e-01  
Delays (us)  
SBD 0.075321  
MBD -0.004404  
Fringe rate (Hz)  
0.631507  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



singleband delay ( $\mu$ s)

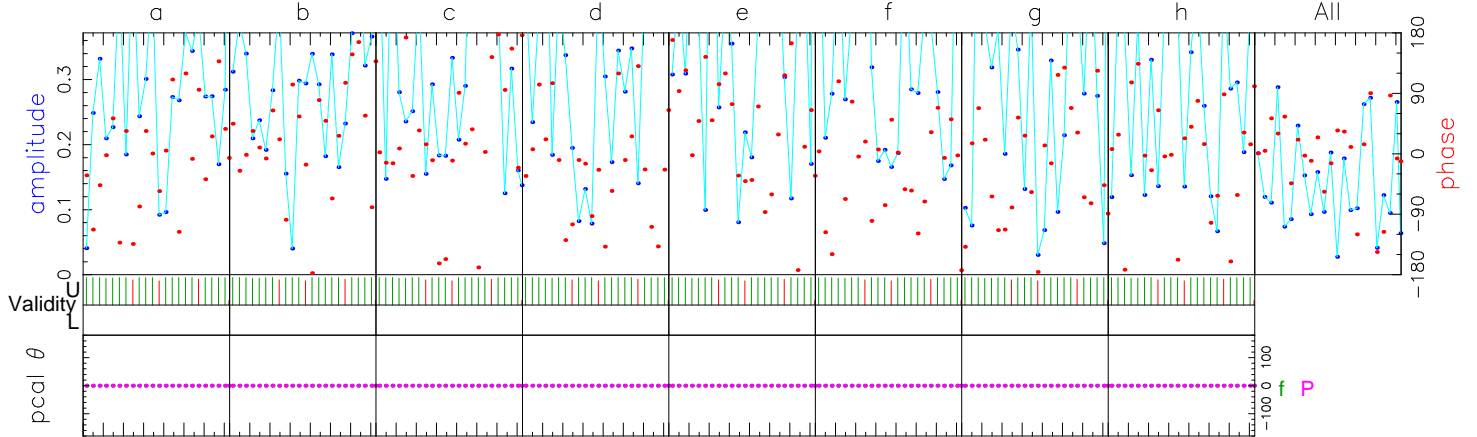
delay rate (ns/s)



Avgd. Xpower Spectrum (MHz)

Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151500.00  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121630  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-4.8	37.8	24.7	-23.0	53.8	-7.8	-6.2	32.7	Phase	13.7	
	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1	
	141.9	307.6	416.4	249.2	184.2	278.7	347.9	331.6	Sbd box	276.3	
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0	APs used		
f	0	0	0	0	0	0	0	0	PC freqs		
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec)(sbd)	-7.48855962056E+03		Apriori delay (usec)		-7.48863334187E+03		Resid mbdelay (usec)		-4.40369E-03	+/- 1.9E-04	
Sband delay (usec)	-7.48855802112E+03		Apriori clock (usec)		1.1316063E+01		Resid sbdelay (usec)		7.53208E-02	+/- 1.5E-03	
Phase delay (usec)	-7.48863334142E+03		Apriori clockrate (us/s)		6.6000000E-07		Resid phdelay (usec)		4.40974E-07	+/- 6.4E-07	
Delay rate (us/s)	1.41255811173E+00		Apriori rate (us/s)		1.41255078056E+00		Resid rate (us/s)		7.33117E-06	+/- 2.7E-09	
Total phase (deg)			Apriori accel (us/s/s)		3.28990072404E-05		Resid phase (deg)		13.7	+/- 19.9	
	RMS	Theor.	Amplitude	0.124 +/- 0.021		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	62.7	47.4	Search (2048X32)	0.102		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	83.2	82.8	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	29.5	28.1	Inc. seg. avg.	0.130		Sample rate(MISamp/s): 128		Data rate(Mb/s): 2048		dr window (ns/s)	-0.011 0.011
amp/frq (%)	32.4	49.0	Inc. frq. avg.	0.123		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
f: az 57.7 el 33.3 pa -76.3	P: az 290.4 el 66.7 pa 91.8		u, v (fr/asec)		-10749.835 1794.673				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c211c/v1/1234/No0082/fP..1X01VG		Output file: /Exps/c211c/v1/1234/No0082/fP.W.149.1X01VG								

Mk4/DiFX fourfit 3.21 rev 2937

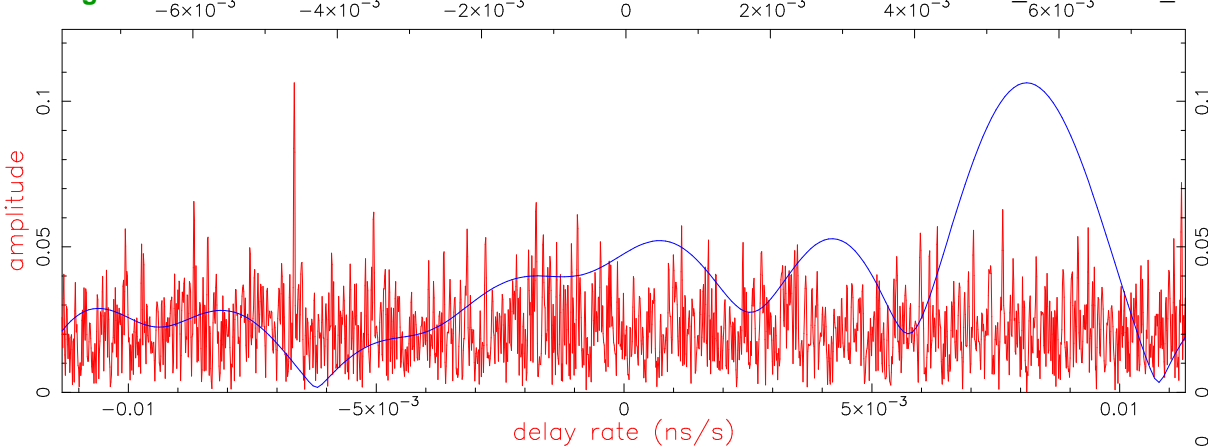
fxmanager

3C84.1X01VG, No0082, fp

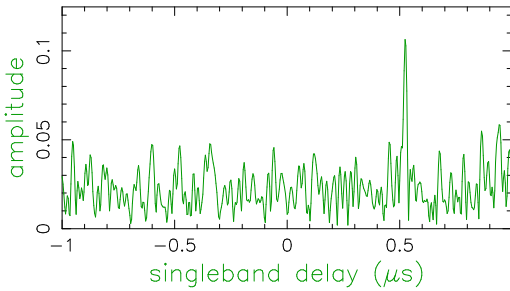
VLBA\_FD - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

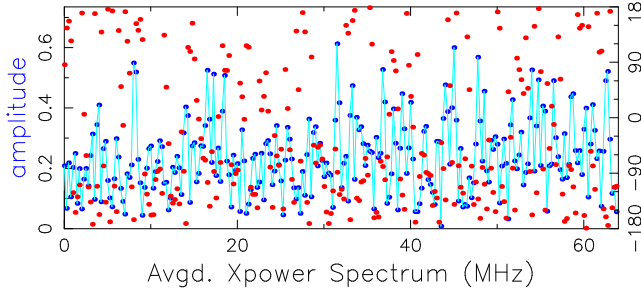
Fringe quality 0



SNR 6.0  
 Int time 411.615  
 Amp 0.125  
 Phase 94.0  
 PFD 4.4e-01  
 Delays (us)  
 SBD 0.524803  
 MBD 0.005580  
 Fringe rate (Hz)  
 -0.573817  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

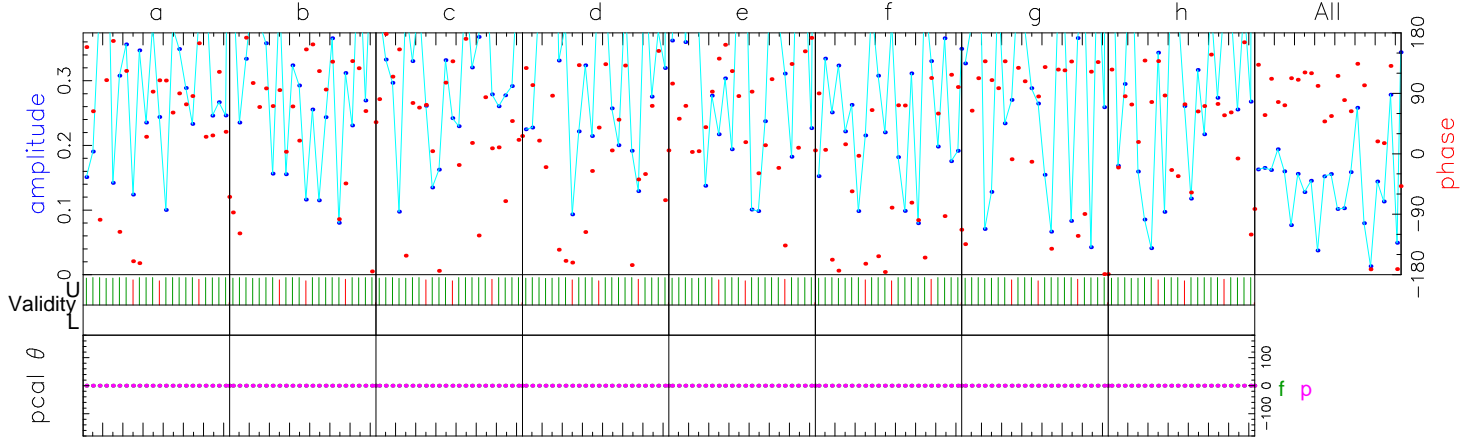


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151501.54  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121630  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	811/0	811/0	810/0	810/0	810/0	810/0	810/0	810/0		
f	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	3.43815486103E+02	Apriori delay (usec)		3.43294281564E+02	Resid mbdelay (usec)		5.57954E-03	+/-	1.8E-04
Sband delay (usec)	3.43819084814E+02	Apriori clock (usec)		4.7237473E+00	Resid sbdelay (usec)		5.24803E-01	+/-	1.4E-03
Phase delay (usec)	3.43294284596E+02	Apriori clockrate (us/s)		1.8000000E-07	Resid phdelay (usec)		3.03208E-06	+/-	6.2E-07
Delay rate (us/s)	1.53718231315E-02	Apriori rate (us/s)		1.53784845729E-02	Resid rate (us/s)		-6.66144E-06	+/-	2.6E-09
Total phase (deg)	243.0	Apriori accel (us/s/s)		-5.84380693796E-06	Resid phase (deg)		94.0	+/-	19.2

ph/seg (deg)	45.2	Theor.	45.8	Amplitude	0.125 +/- 0.021	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	64.8	Search (2048X32)	0.104	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	48.0	Inc. seg. avg.	0.120	Inc. frq. avg.	0.124	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	44.0	Inc. frq. avg.	0.124			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 57.7 el 33.3 pa -76.3      p: az 58.7 el 32.2 pa -71.1      u,v (fr/asec) -128.247 -763.805      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c211c/v1/1234/No0082/fp..1X01VG      Output file: /Exps/c211c/v1/1234/No0082/fp.W.151.1X01VG

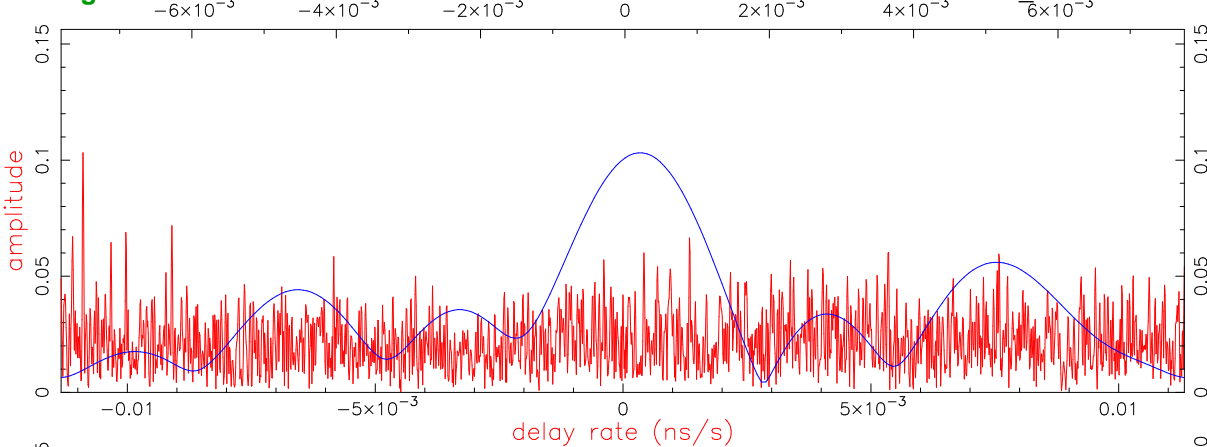
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, fP

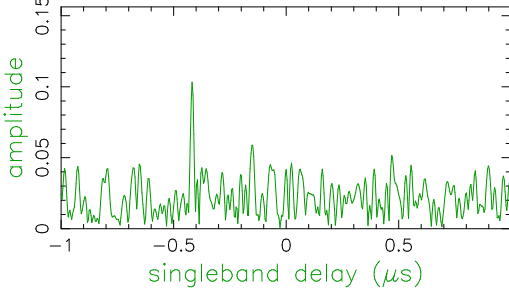
VLBA\_FD - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)

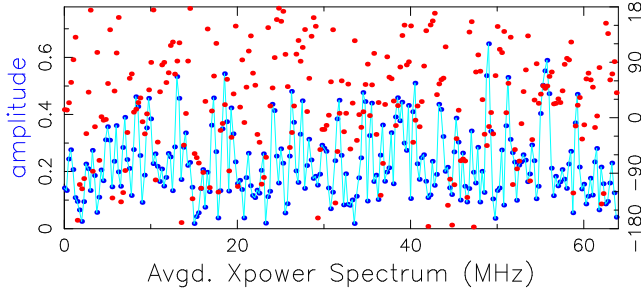


Fringe quality 0

SNR 5.7  
 Int time 413.606  
 Amp 0.156  
 Phase -93.7  
 PFD 9.0e-01  
 Delays (us)  
 SBD -0.417679  
 MBD 0.000217  
 Fringe rate (Hz)  
 -0.939646  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

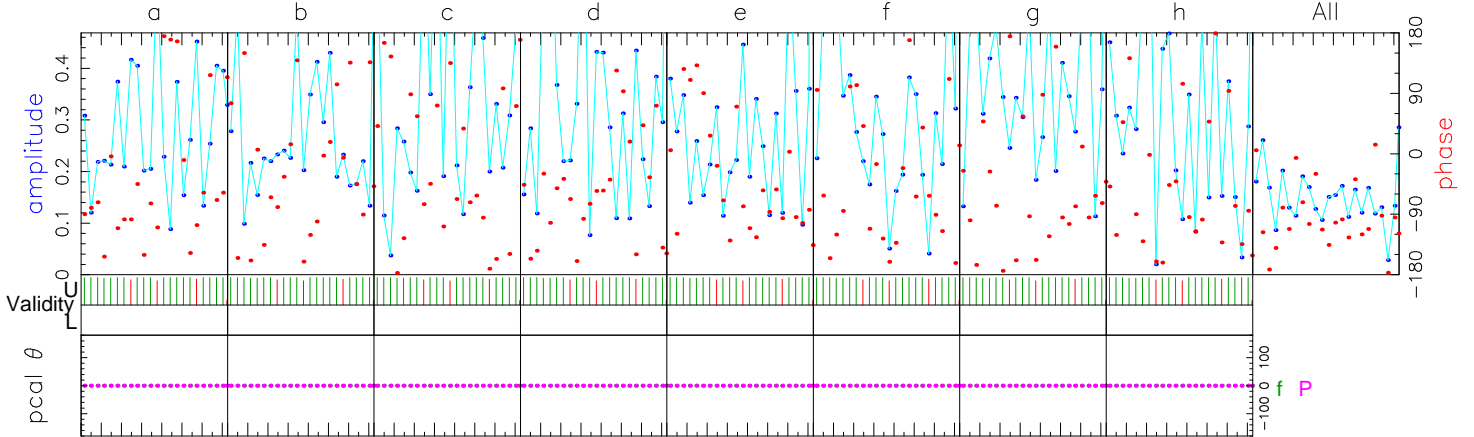


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121618  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0		
f	0	0	0	0	0	0	0	0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-7.48905500006E+03	Apriori delay (usec)	-7.48863334187E+03	Resid mbdelay (usec)	2.16805E-04	+/-	1.9E-04
Sband delay (usec)	-7.48905102062E+03	Apriori clock (usec)	1.1316063E+01	Resid sbdelay (usec)	-4.17679E-01	+/-	1.5E-03
Phase delay (usec)	-7.48863334489E+03	Apriori clockrate (us/s)	6.6000000E-07	Resid phdelay (usec)	-3.02020E-06	+/-	6.4E-07
Delay rate (us/s)	1.41253987220E+00	Apriori rate (us/s)	1.41255078056E+00	Resid rate (us/s)	-1.09084E-05	+/-	2.7E-09
Total phase (deg)	-118.2	Apriori accel (us/s/s)	3.28990072404E-05	Resid phase (deg)	-93.7	+/-	20.0

ph/seg (deg)	51.1	Theor.	47.7	Amplitude	0.156 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	61.6		83.2	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	21.0		28.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	54.0		49.3	Inc. seg. avg.	0.164	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.144	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

f: az 57.7 el 33.3 pa -76.3 P: az 290.4 el 66.7 pa 91.8 u,v (fr/asec) -10749.835 1794.673 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fP..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fP.W.92.1X01VG

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

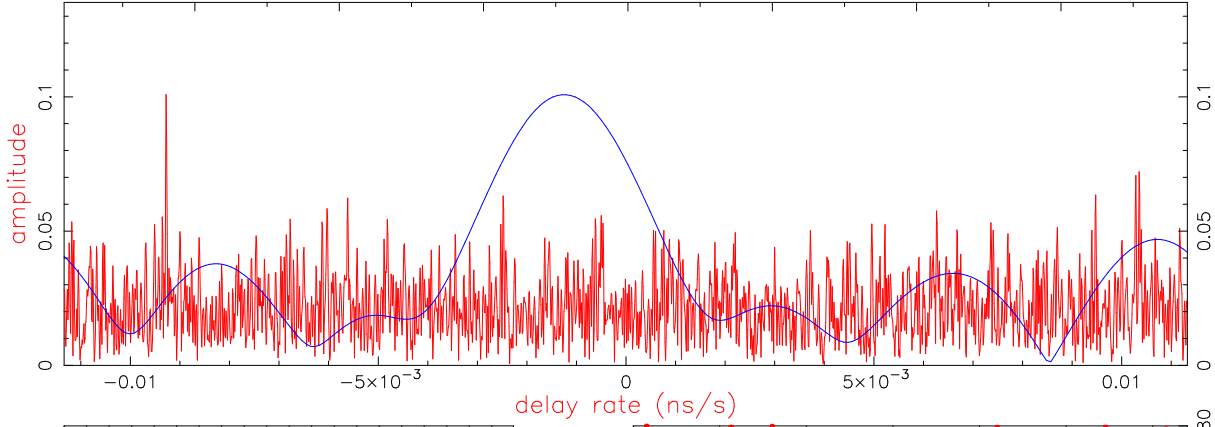
3C84.1X0IVG, No0082, fp

VLBA\_FD - VLBA\_PT, fgroup W, pol LL

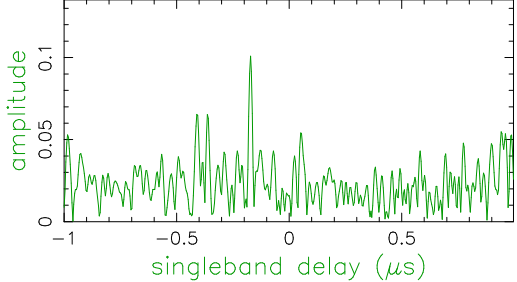
multiband delay ( $\mu$ s)

$-6 \times 10^{-3}$   $-4 \times 10^{-3}$   $-2 \times 10^{-3}$  0  $2 \times 10^{-3}$   $4 \times 10^{-3}$   $6 \times 10^{-3}$

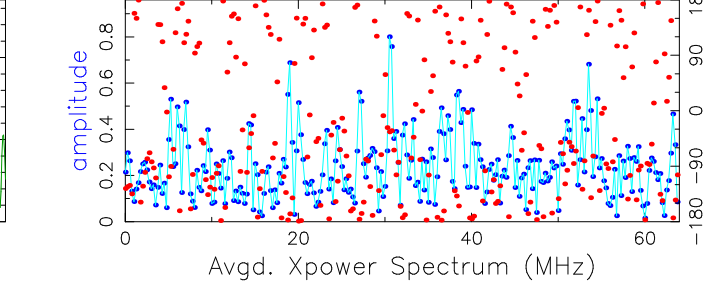
Fringe quality 0



SNR 5.6  
Int time 411.614  
Amp 0.135  
Phase 34.8  
PFD 1.0e+00  
Delays (us)  
SBD -0.171748  
MBD -0.000880  
Fringe rate (Hz)  
-0.800084  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



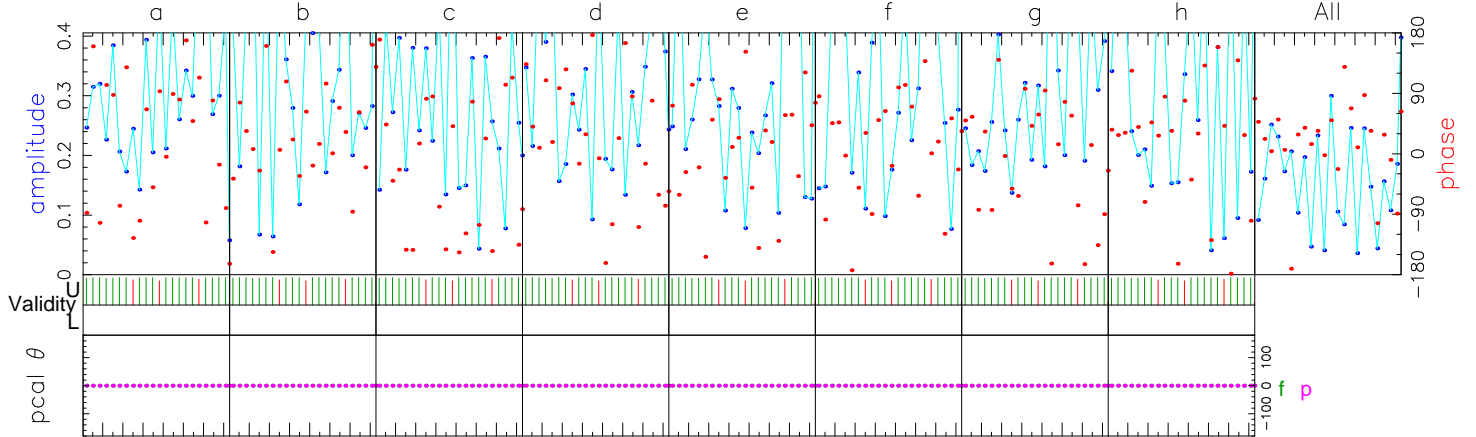
singleband delay ( $\mu$ s)



delay rate (ns/s)

Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151501.54  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121619  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	810/0	810/0	810/0	810/0	811/0	811/0	810/0	810/0		
f	0	0	0	0	0	0	0	0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	3.43121526072E+02	Apriori delay (usec)	3.43294281564E+02	Resid mbdelay (usec)	-8.80492E-04	+/-	1.9E-04
Sband delay (usec)	3.43122533314E+02	Apriori clock (usec)	4.7237473E+00	Resid sbdelay (usec)	-1.71748E-01	+/-	1.5E-03
Phase delay (usec)	3.43294282685E+02	Apriori clockrate (us/s)	1.8000000E-07	Resid phdelay (usec)	1.12083E-06	+/-	6.6E-07
Delay rate (us/s)	1.53691963865E-02	Apriori rate (us/s)	1.53784845729E-02	Resid rate (us/s)	-9.28819E-06	+/-	2.8E-09
Total phase (deg)	183.8	Apriori accel (us/s/s)	-5.84380693796E-06	Resid phase (deg)	34.8	+/-	20.5

ph/seg (deg)	61.1	RMS	48.9	Theor.	Amplitude	0.135 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	94.2	Search (2048X32)	0.100	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	30.6	Inc. seg. avg.	0.151	Inc. frq. avg.	0.127		Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	52.2	Inc. frq. avg.	0.127				Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
							Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 57.7 el 33.3 pa -76.3 p: az 58.7 el 32.2 pa -71.1 u,v (fr/asec) -128.247 -763.805 simultaneous interpolator

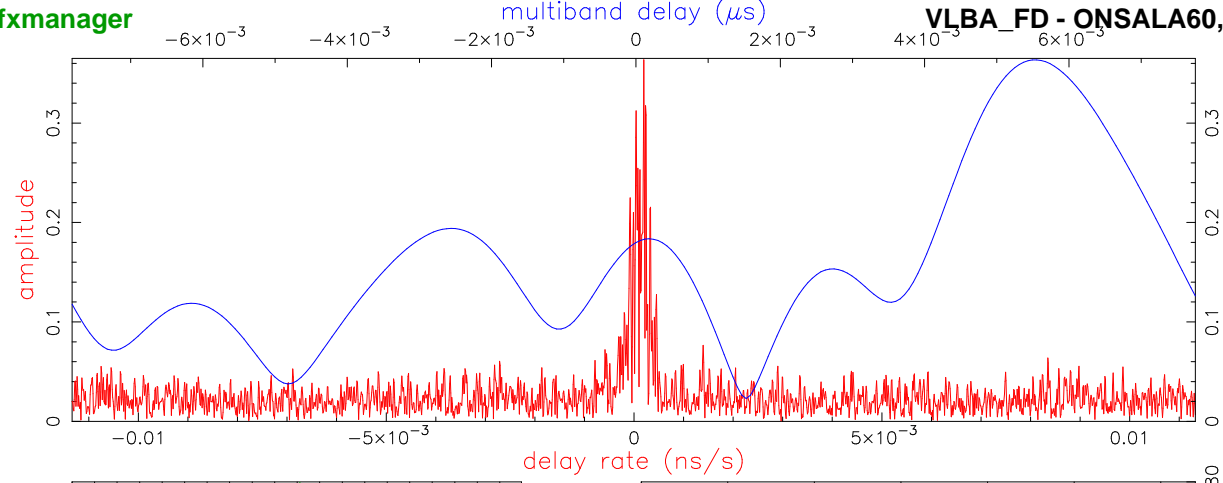
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fp..1X0IVG Output file: /Exps/c211c/v1/1234/No0082/fp.W.95.1X0IVG

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, fX

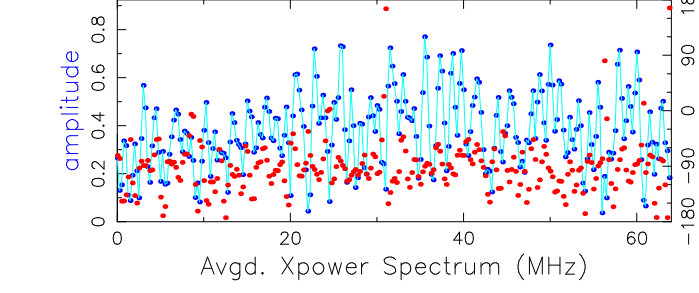
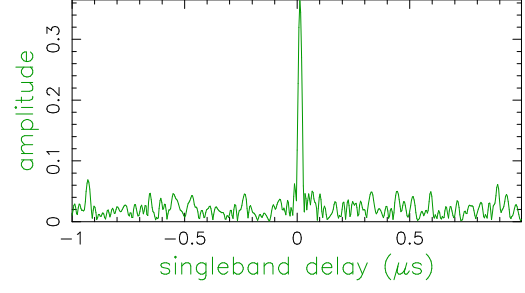
VLBA\_FD - ONSALA60, fgroup W, pol RR



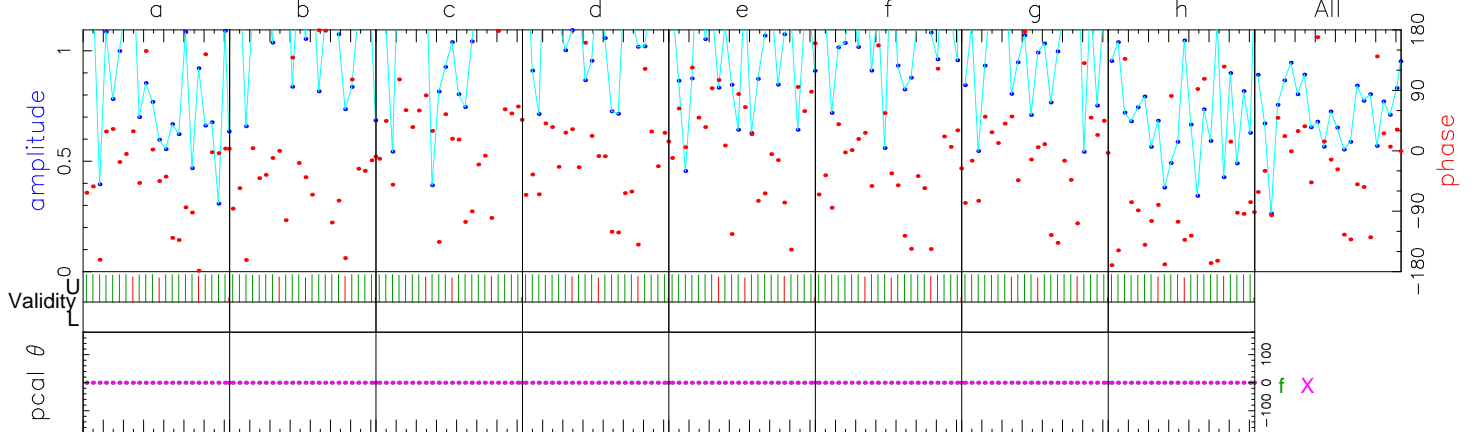
Fringe quality 7

SNR 20.3  
 Int time 413.578  
 Amp 0.365  
 Phase -13.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.012524  
 MBD 0.005548  
 Fringe rate (Hz)  
 0.017074  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121623  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-29.1	-54.2	36.0	-13.6	36.2	-18.6	-2.4	-134.2	Phase	-13.4
	0.4	0.6	0.6	0.6	0.4	0.5	0.4	0.4	Ampl.	0.5
	260.7	260.2	260.1	260.0	259.2	260.1	259.1	257.9	Sbd box	260.2
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.95478914869E+03		Apriori delay (usec)		-5.95479469630E+03		Resid mbdelay (usec)		5.54761E-03	+/- 5.3E-05
Sband delay (usec)	-5.95478217255E+03		Apriori clock (usec)		-4.6231930E+01		Resid sbdelay (usec)		1.25237E-02	+/- 4.2E-04
Phase delay (usec)	-5.95479469673E+03		Apriori clockrate (us/s)		-4.6799999E-07		Resid phdelay (usec)		-4.32452E-07	+/- 1.8E-07
Delay rate (us/s)	1.38950377935E+00		Apriori rate (us/s)		1.38950358114E+00		Resid rate (us/s)		1.98211E-07	+/- 7.6E-10
Total phase (deg)			Apriori accel (us/s/s)		6.48496814838E-06		Resid phase (deg)		-13.4	+/- 5.6

ph/seg (deg) 74.6 13.5 Search (2048X32) 0.360 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 105.5 23.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 59.9 8.0 Inc. seg. avg. 0.700 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 44.2 13.9 Inc. frq. avg. 0.492 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 57.7 el 33.3 pa -76.3 X: az 260.5 el 57.6 pa 45.3 u,v (fr/asec) -10620.974 -1636.848 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fX..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fX.W.118.1X01VG

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

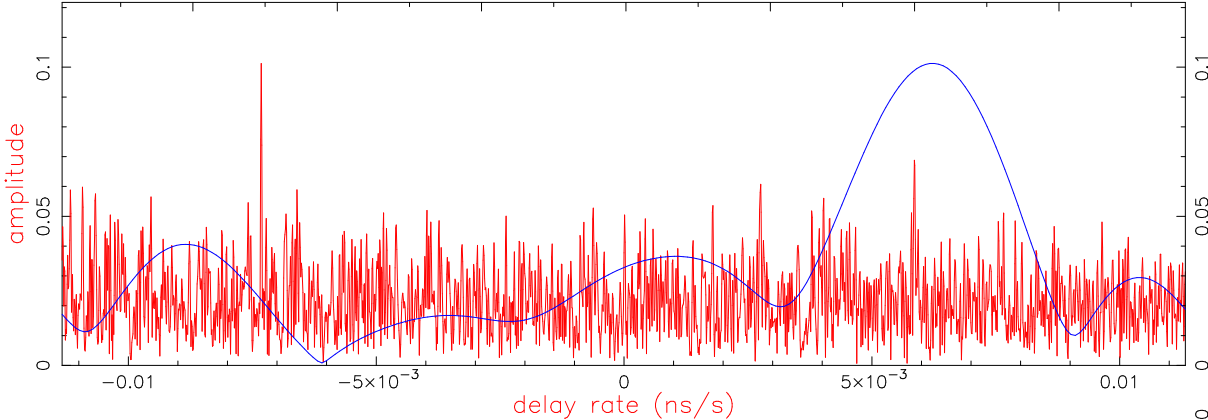
3C84.1X01VG, No0082, fX

VLBA\_FD - ONSALA60, fgroup W, pol LR

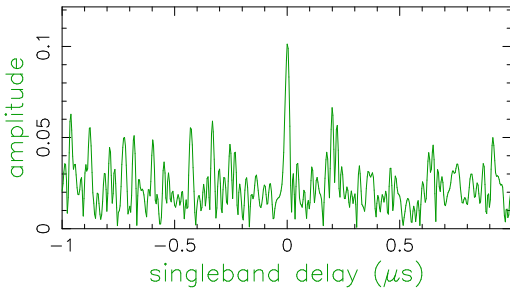
multiband delay ( $\mu$ s)

$-6 \times 10^{-3}$   $-4 \times 10^{-3}$   $-2 \times 10^{-3}$  0  $2 \times 10^{-3}$   $4 \times 10^{-3}$   $6 \times 10^{-3}$

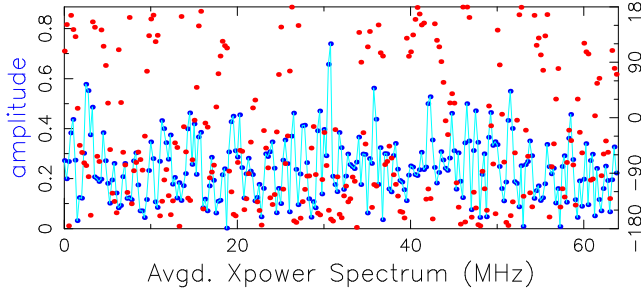
Fringe quality 0



SNR 5.7  
Int time 413.577  
Amp 0.122  
Phase -171.1  
PFD 9.7e-01  
Delays (us)  
SBD 0.001252  
MBD 0.004283  
Fringe rate (Hz)  
-0.631152  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

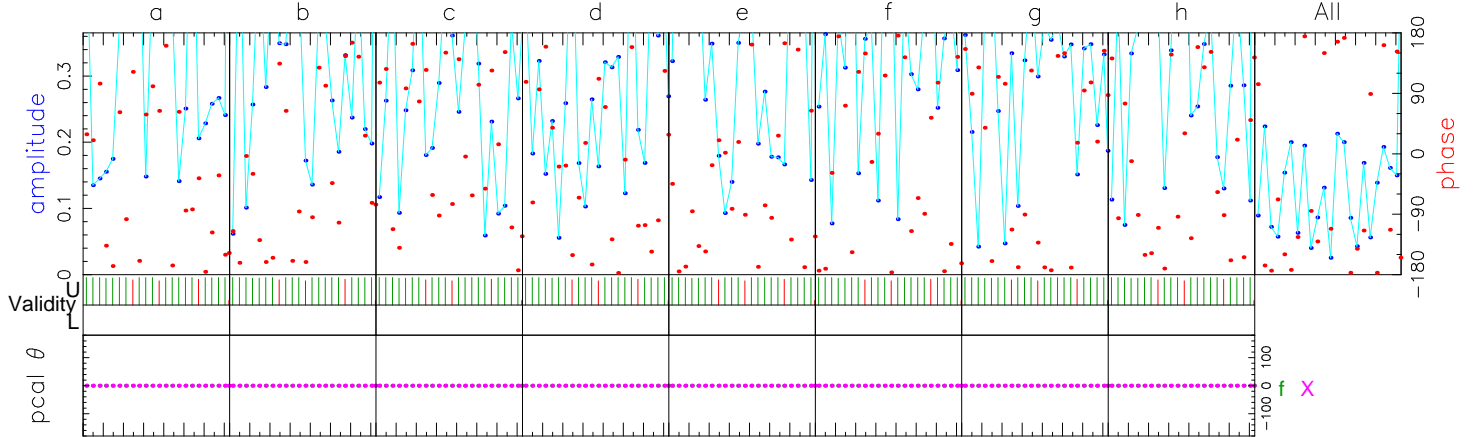


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151500.00  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121628  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-173.9	-165.3	-179.0	-179.3	-136.9	174.4	154.1	-139.3	Phase	-171.1
	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	Ampl.	0.1
	189.1	253.9	15.1	103.9	197.5	415.3	262.8	223.9	Sbd box	257.3
U/L	813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.95479041345E+03		Apriori delay (usec)		-5.95479469630E+03		Resid mbdelay (usec)		4.28285E-03	+/- 1.9E-04
Sband delay (usec)	-5.95479344405E+03		Apriori clock (usec)		-4.6231930E+01		Resid sbdelay (usec)		1.25225E-03	+/- 1.5E-03
Phase delay (usec)	-5.95479470181E+03		Apriori clockrate (us/s)		-4.6799999E-07		Resid phdelay (usec)		-5.51693E-06	+/- 6.5E-07
Delay rate (us/s)	1.38949625409E+00		Apriori rate (us/s)		1.38950358114E+00		Resid rate (us/s)		-7.32705E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		6.48496814838E-06		Resid phase (deg)		-171.1	+/- 20.2
RMS	Theor.	Amplitude	0.122 +/- 0.021		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
49.8	48.3	Search (2048X32)	0.100		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000
72.9	84.3	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
25.1	28.6	Inc. seg. avg.	0.113		Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011
38.3	49.9	Inc. frq. avg.	0.118		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00

f: az 57.7 el 33.3 pa -76.3 X: az 260.5 el 57.6 pa 45.3 u,v (fr/asec) -10620.974 -1636.848 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fX..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fX.W.139.1X01VG

Mk4/DiFX fourfit 3.21 rev 2937

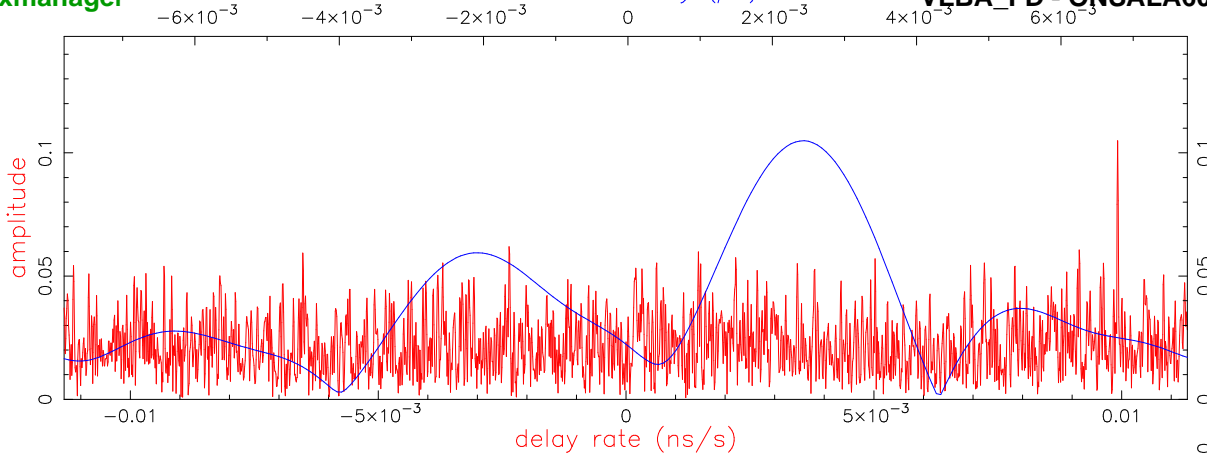
fxmanager

3C84.1X01VG, No0082, fX

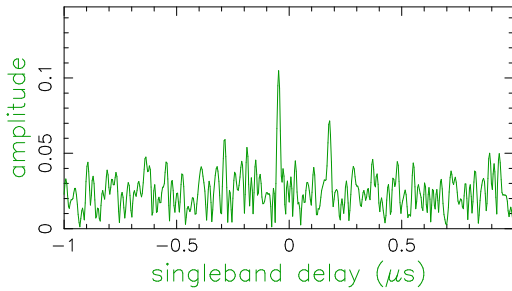
VLBA\_FD - ONSALA60, fgroup W, pol RL

multiband delay ( $\mu$ s)

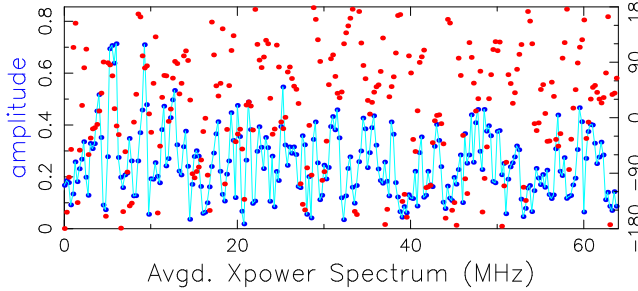
Fringe quality 0



SNR 5.8  
Int time 413.578  
Amp 0.147  
Phase -154.3  
PFD 7.4e-01  
Delays (us)  
SBD -0.047041  
MBD 0.002420  
Fringe rate (Hz)  
0.856180  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

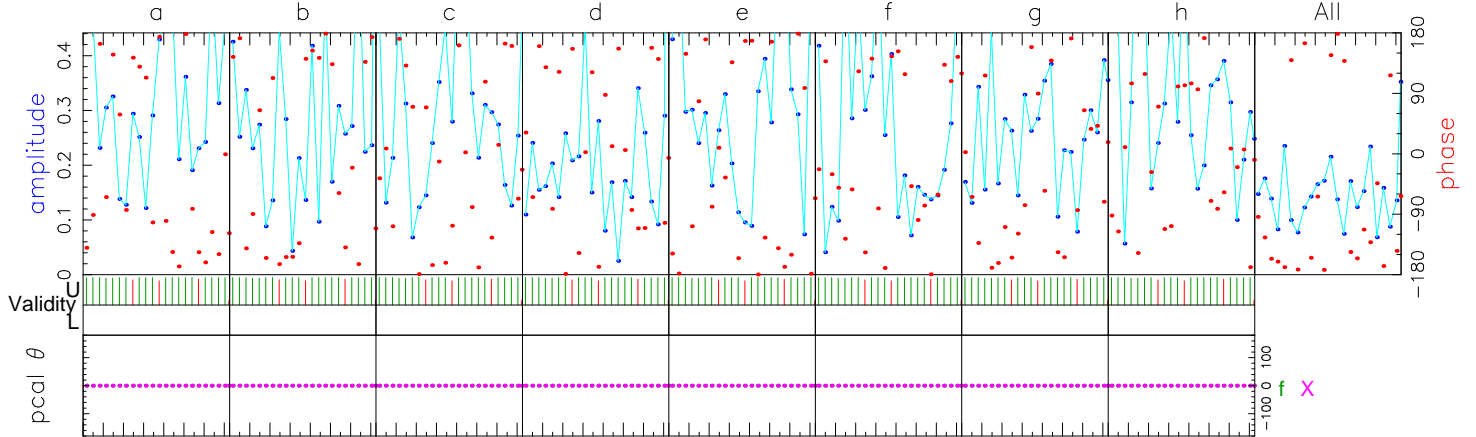


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151500.00  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121631  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0		
f	0	0	0	0	0	0	0	0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-5.95483915135E+03	Apriori delay (usec)	-5.95479469630E+03	Resid mbdelay (usec)	2.41995E-03	+/-	1.9E-04
Sband delay (usec)	-5.95484173755E+03	Apriori clock (usec)	-4.6231930E+01	Resid sbdelay (usec)	-4.70412E-02	+/-	1.5E-03
Phase delay (usec)	-5.95479470127E+03	Apriori clockrate (us/s)	-4.6799999E-07	Resid phdelay (usec)	-4.97715E-06	+/-	6.3E-07
Delay rate (us/s)	1.38951352054E+00	Apriori rate (us/s)	1.38950358114E+00	Resid rate (us/s)	9.93940E-06	+/-	2.6E-09
Total phase (deg)	-204.4	Apriori accel (us/s/s)	6.48496814838E-06	Resid phase (deg)	-154.3	+/-	19.6

ph/seg (deg)	48.8	Theor.	46.9	Amplitude	0.147 +/- 0.025	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	59.9		81.9	Search (2048X32)	0.102	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	20.0		27.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	61.2		48.5	Inc. seg. avg.	0.150	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.137	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 57.7 el 33.3 pa -76.3 X: az 260.5 el 57.6 pa 45.3 u,v (fr/asec) -10620.974 -1636.848 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fX..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fX.W.159.1X01VG

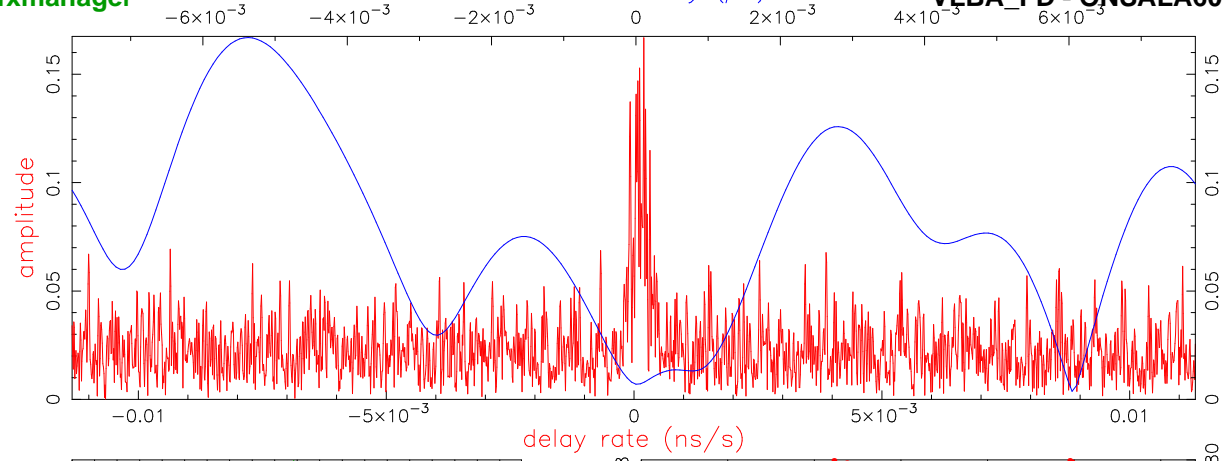
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X01VG, No0082, fX

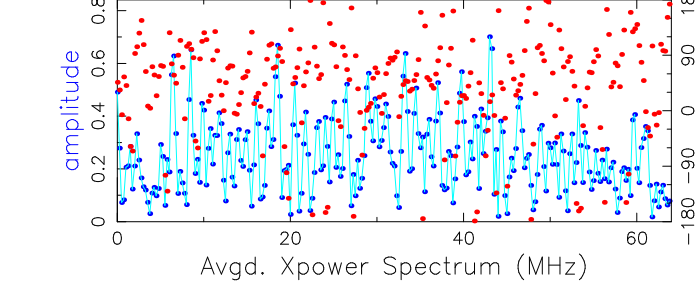
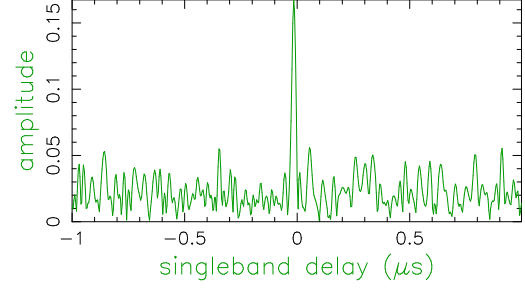
VLBA\_FD - ONSALA60, fgroup W, pol LL

multiband delay ( $\mu$ s)



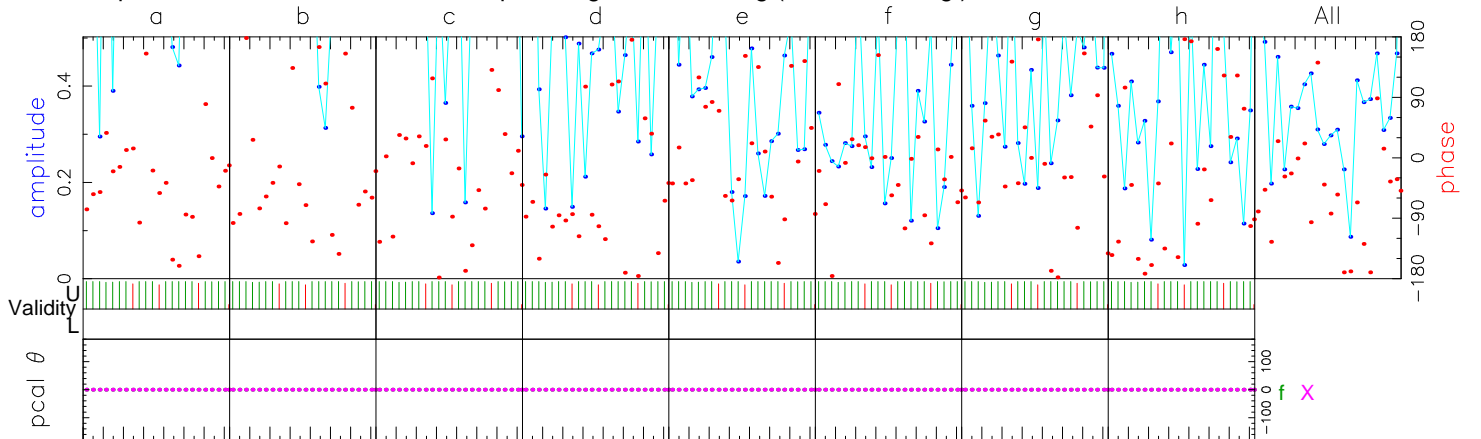
Fringe quality 9

SNR 9.3  
 Int time 413.577  
 Amp 0.167  
 Phase -48.1  
 PFD 4.9e-12  
 Delays (us)  
 SBD -0.014776  
 MBD -0.005332  
 Fringe rate (Hz) 0.017177  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151500.00  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121619  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-37.7	-77.0	-11.3	-108.5	11.5	-34.3	2.0	-148.2		Phase
	0.4	0.3	0.3	0.2	0.1	0.2	0.1	0.1		Ampl.
	253.6	251.9	253.0	252.2	490.2	280.2	14.3	214.9		Sbd box
U/L	813/0	813/0	813/0	813/0	814/0	814/0	813/0	813/0		253.2
f	0	0	0	0	0	0	0	0		APs used
X	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Manl PC
f	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
X	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks
										Tracks
Group delay (usec)(sbd)	-5.95481565340E+03		Apriori delay (usec)		-5.95479469630E+03		Resid mbdelay (usec)		-5.33211E-03	+/- 1.2E-04
Sband delay (usec)	-5.95480947230E+03		Apriori clock (usec)		-4.6231930E+01		Resid sbdelay (usec)		-1.47760E-02	+/- 9.2E-04
Phase delay (usec)	-5.95479469785E+03		Apriori clockrate (us/s)		-4.6799999E-07		Resid phdelay (usec)		-1.55187E-06	+/- 4.0E-07
Delay rate (us/s)	1.38950378055E+00		Apriori rate (us/s)		1.38950358114E+00		Resid rate (us/s)		1.99412E-07	+/- 1.7E-09
Total phase (deg)			Apriori accel (us/s/s)		6.48496814838E-06		Resid phase (deg)		-48.1	+/- 12.3

ph/seg (deg) 75.8 29.4 Search (2048X32) 0.166 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 131.0 51.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 60.8 17.4 Inc. seg. avg. 0.313 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 70.1 30.4 Inc. frq. avg. 0.220 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 57.7 el 33.3 pa -76.3 X: az 260.5 el 57.6 pa 45.3 u,v (fr/asec) -10620.974 -1636.848 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fX..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fX.W.98.1X01VG



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fxmanager

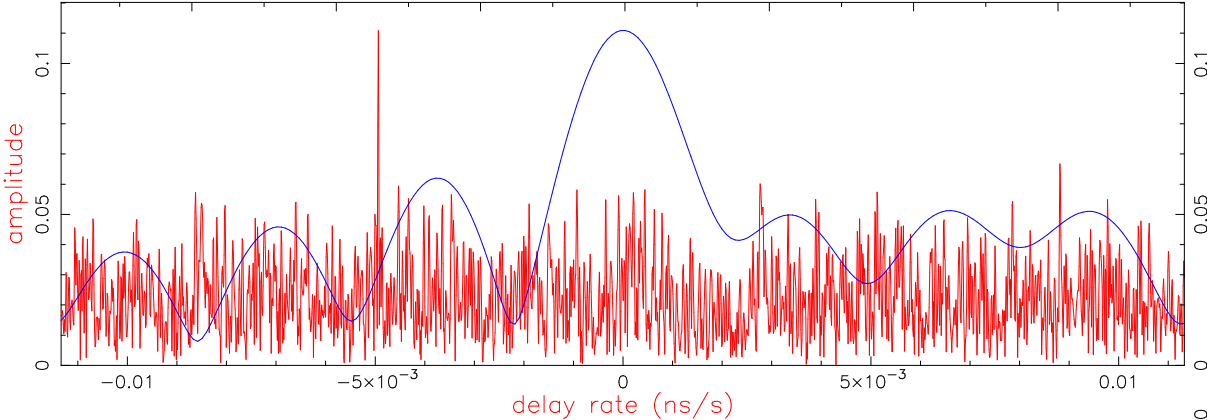
3C84.1X01VG, No0082, fZ

VLBA\_FD - METSAHOV, fgroup W, pol RR

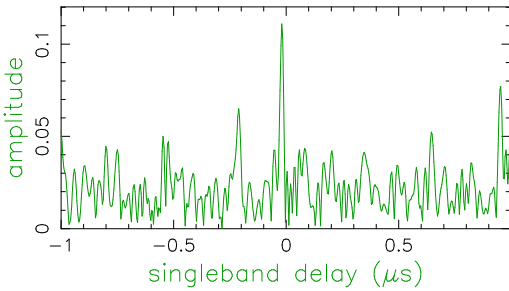
multiband delay ( $\mu$ s)

$-6 \times 10^{-3}$   $-4 \times 10^{-3}$   $-2 \times 10^{-3}$  0  $2 \times 10^{-3}$   $4 \times 10^{-3}$   $6 \times 10^{-3}$

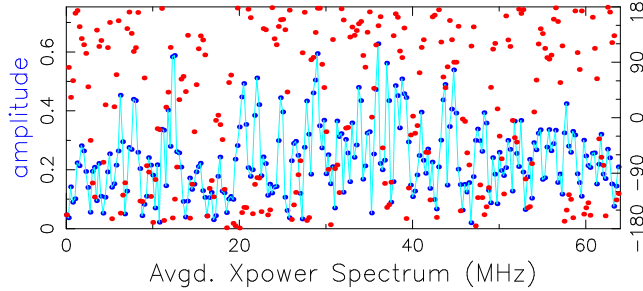
Fringe quality 0



SNR 6.1  
Int time 399.681  
Amp 0.120  
Phase -51.6  
PFD 2.8e-01  
Delays (us)  
SBD -0.019045  
MBD 0.000003  
Fringe rate (Hz)  
-0.425663  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

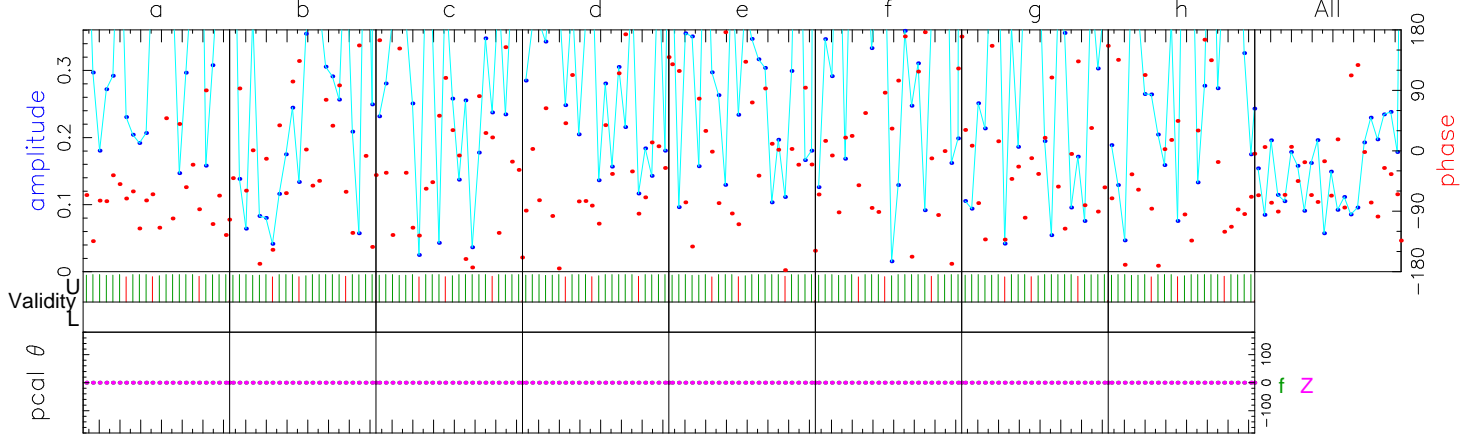


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151513.31  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121623  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 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
	-73.7	-18.9	-47.8	-44.3	-0.5	-20.3	-44.5	-98.3	Phase	-51.6
	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	251.9	379.3	176.9	145.6	154.3	242.1	52.7	277.0	Sbd box	252.1
U/L	788/0	788/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-4.43079218069E+03	Apriori delay (usec)	-4.43077655872E+03	Resid mbdelay (usec)	3.03450E-06	+/-	1.8E-04
Sband delay (usec)	-4.43079560347E+03	Apriori clock (usec)	1.0976408E+01	Resid sbdelay (usec)	-1.90447E-02	+/-	1.4E-03
Phase delay (usec)	-4.43077656038E+03	Apriori clockrate (us/s)	4.4000001E-08	Resid phdelay (usec)	-1.66503E-06	+/-	6.1E-07
Delay rate (us/s)	1.43092671361E+00	Apriori rate (us/s)	1.43093165514E+00	Resid rate (us/s)	-4.94152E-06	+/-	2.6E-09
Total phase (deg)		Apriori accel (us/s/s)	-3.23154150596E-06	Resid phase (deg)	-51.6	+/-	18.9

ph/seg (deg)	62.3	Theor.	45.1	Amplitude	0.120 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	65.6		78.7	Search (2048X32)	0.106	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	35.2		26.7	Inc. seg. avg.	0.125	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	58.2		46.6	Inc. frq. avg.	0.124	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

f: az 57.7 el 33.3 pa -76.3 Z: az 268.2 el 50.9 pa 41.5 u,v (fr/asec) -10956.466 -2480.130 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fZ..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fZ.W.114.1X01VG

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

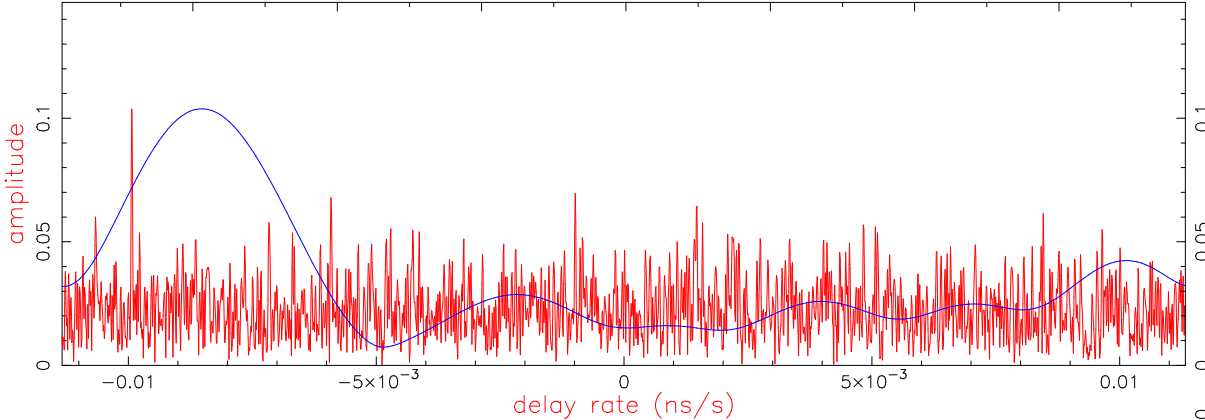
3C84.1X01VG, No0082, fZ

VLBA\_FD - METSAHOV, fgroup W, pol LR

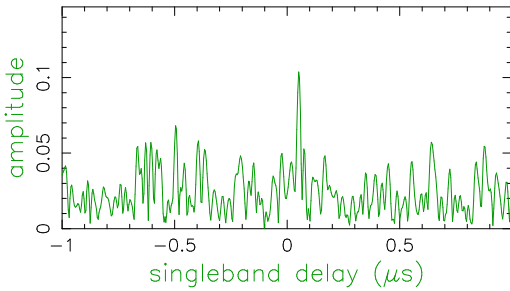
multiband delay ( $\mu$ s)

$-6 \times 10^{-3}$   $-4 \times 10^{-3}$   $-2 \times 10^{-3}$  0  $2 \times 10^{-3}$   $4 \times 10^{-3}$   $6 \times 10^{-3}$

Fringe quality 0

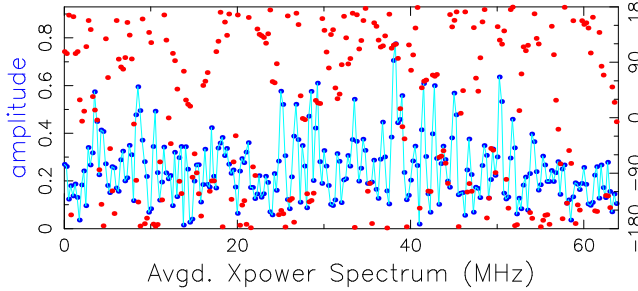


SNR 5.7  
Int time 399.681  
Amp 0.147  
Phase 102.5  
PFD 9.3e-01  
Delays (us)  
SBD 0.051942  
MBD -0.005831  
Fringe rate (Hz)  
-0.857189  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



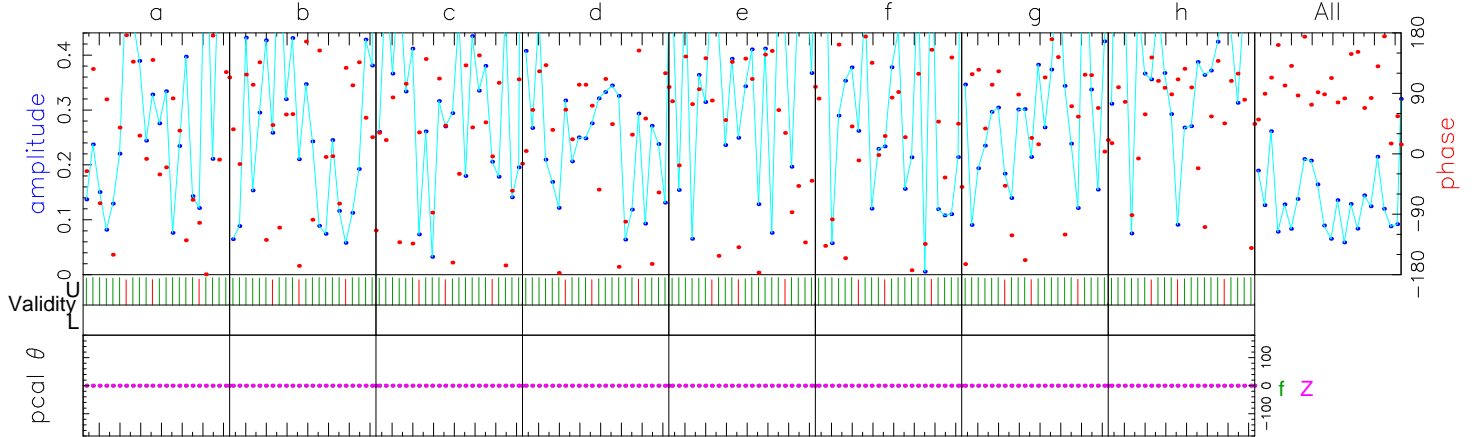
singleband delay ( $\mu$ s)

delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 151513.31  
Stop 152159.84  
FRT 151830.00  
Corr/FF/build  
2021:303:071106  
2021:303:121627  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 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	787/0	787/0	787/0	787/0	788/0	788/0	787/0	787/0		
f	0	0	0	0	0	0	0	0	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-4.43071988978E+03				-4.43077655872E+03				Resid mbdelay (usec)	-5.83106E-03 +/- 1.9E-04
Sband delay (usec)	-4.43072461697E+03					1.0976408E+01			Resid sbdelay (usec)	5.19417E-02 +/- 1.5E-03
Phase delay (usec)	-4.43077655542E+03					4.4000001E-08			Resid phdelay (usec)	3.30406E-06 +/- 6.5E-07
Delay rate (us/s)	1.43092170403E+00					1.43093165514E+00			Resid rate (us/s)	-9.95111E-06 +/- 2.8E-09
Total phase (deg)			-174.1			-3.23154150596E-06			Resid phase (deg)	102.5 +/- 20.0
ph/seg (deg)	41.3	47.9			0.102				PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	59.3	83.5			0.000				PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	17.8	28.4			0.140				Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	52.2	49.5			0.134				Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
									Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
									nlags: 256	t_cohere infinite
										ion window (TEC) 0.00 0.00

f: az 57.7 el 33.3 pa -76.3 Z: az 268.2 el 50.9 pa 41.5 u,v (fr/asec) -10956.466 -2480.130 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fZ..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fZ.W.133.1X01VG

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

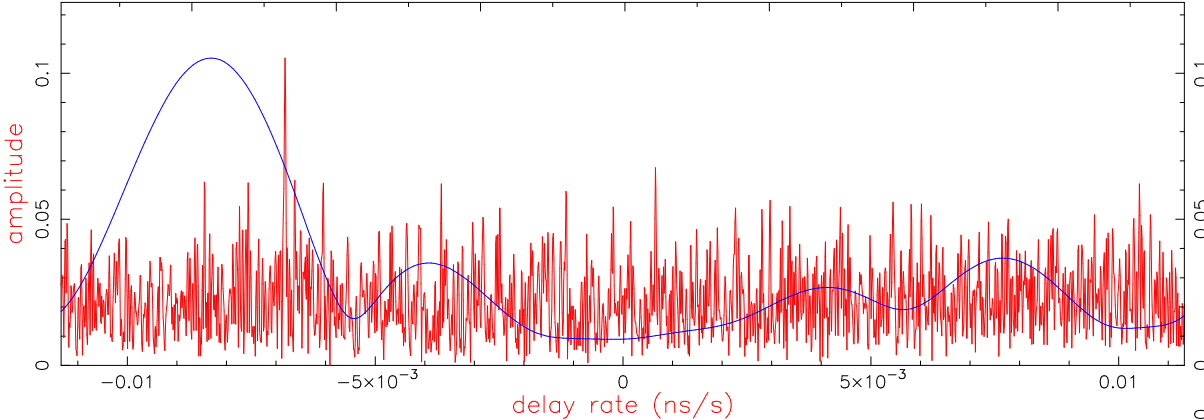
3C84.1X01VG, No0082, fZ

VLBA\_FD - METSAHOV, fgroup W, pol RL

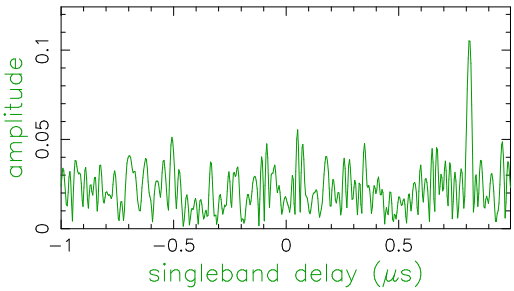
multiband delay ( $\mu$ s)

$-6 \times 10^{-3}$   $-4 \times 10^{-3}$   $-2 \times 10^{-3}$  0  $2 \times 10^{-3}$   $4 \times 10^{-3}$   $6 \times 10^{-3}$

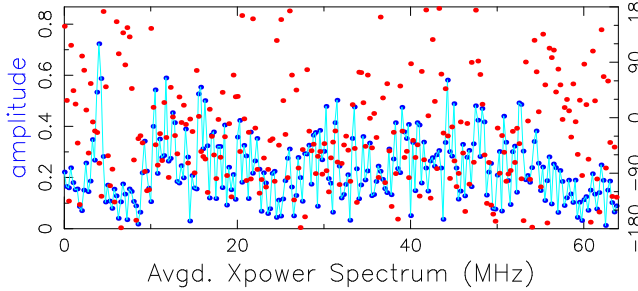
Fringe quality 0



SNR 5.8  
 Int time 399.681  
 Amp 0.124  
 Phase 36.8  
 PFD 7.7e-01  
 Delays (us)  
 SBD 0.814384  
 MBD -0.005755  
 Fringe rate (Hz)  
 -0.588773  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

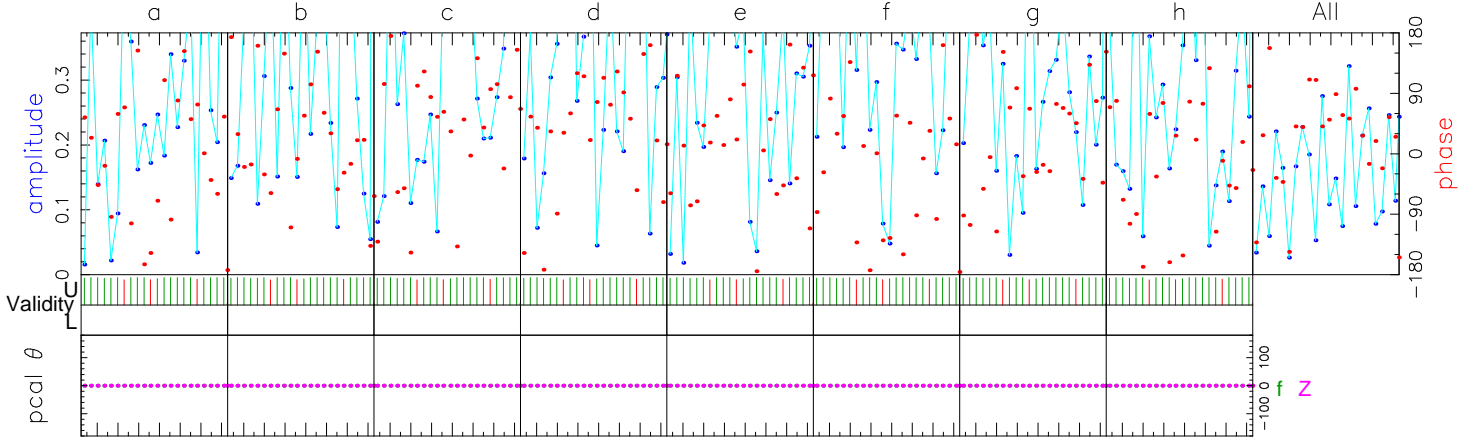


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151513.31  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121631  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 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
	24.0	5.0	76.6	59.9	20.3	27.0	38.3	33.0	Phase	36.8
	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
	501.1	502.2	366.5	297.9	194.1	226.7	237.2	434.9	Sbd box	465.5
U/L	788/0	788/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.42996981350E+03		Apriori delay (usec)		-4.43077655872E+03		Resid mbdelay (usec)		-5.75478E-03	+/- 1.9E-04
Sband delay (usec)	-4.42996217472E+03		Apriori clock (usec)		1.0976408E+01		Resid sbdelay (usec)		8.14384E-01	+/- 1.5E-03
Phase delay (usec)	-4.43077655753E+03		Apriori clockrate (us/s)		4.4000001E-08		Resid phdelay (usec)		1.18682E-06	+/- 6.3E-07
Delay rate (us/s)	1.43092482006E+00		Apriori rate (us/s)		1.43093165514E+00		Resid rate (us/s)		-6.83507E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.23154150596E-06		Resid phase (deg)		36.8	+/- 19.7

	RMS	Theor.	Amplitude	0.124 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	71.7	47.0	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	87.1	82.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	24.8	27.8	Inc. seg. avg.	0.131	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	30.2	48.6	Inc. frq. avg.	0.119	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

f: az 57.7 el 33.3 pa -76.3 Z: az 268.2 el 50.9 pa 41.5 u,v (fr/asec) -10956.466 -2480.130 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fZ..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fZ.W.154.1X01VG

Mk4/DiFX fourfit 3.21 rev 2937

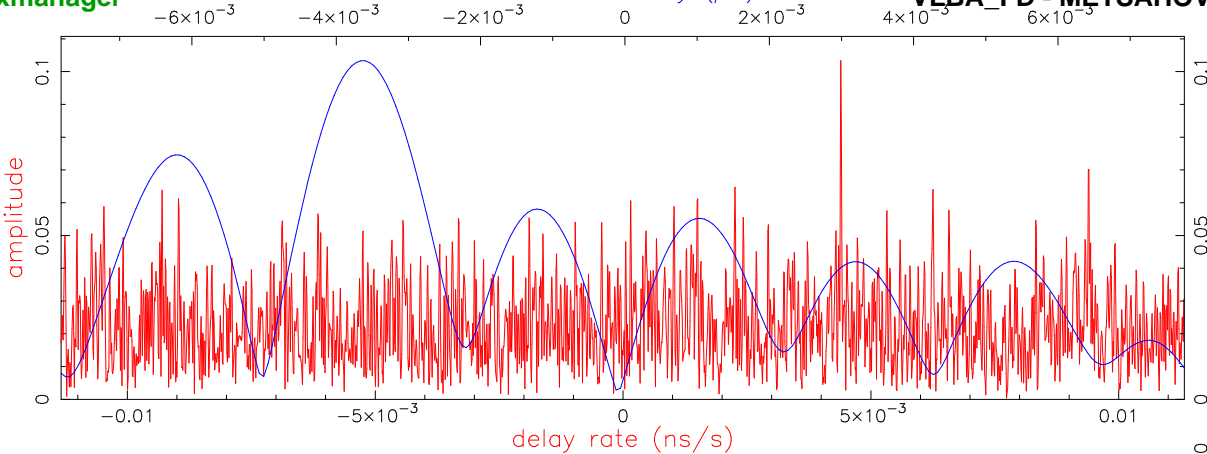
fxmanager

3C84.1X01VG, No0082, fZ

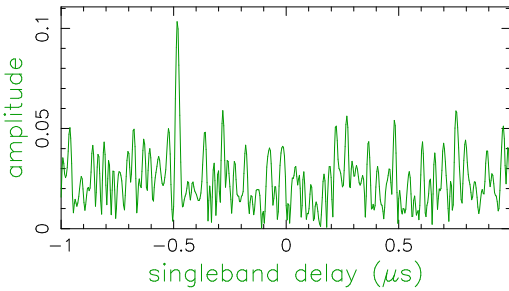
VLBA\_FD - METSAHOV, fgroup W, pol LL

multiband delay ( $\mu$ s)

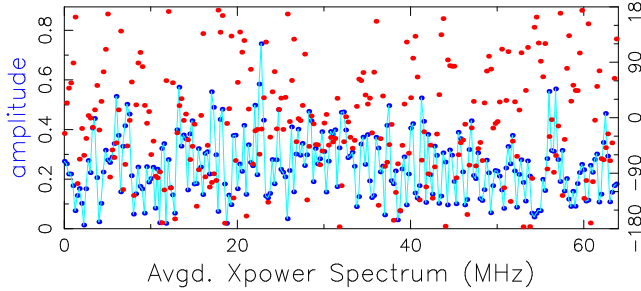
Fringe quality 0



SNR 5.7  
 Int time 399.681  
 Amp 0.111  
 Phase -149.6  
 PFD 9.6e-01  
 Delays (us)  
 SBD -0.483293  
 MBD -0.003613  
 Fringe rate (Hz)  
 0.379504  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

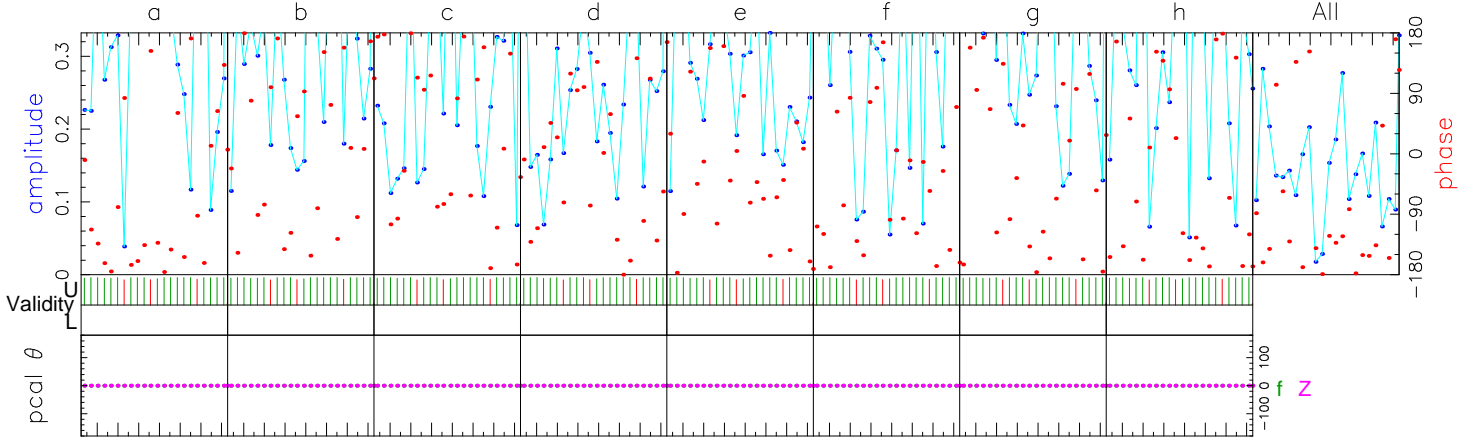


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 151513.31  
 Stop 152159.84  
 FRT 151830.00  
 Corr/FF/build  
 2021:303:071106  
 2021:303:121619  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 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
	-153.3	-152.6	-145.7	119.4	-96.0	-111.1	174.5	-156.1	Phase	-149.6
	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.2	Ampl.	0.1
	133.2	47.6	405.6	464.7	50.9	315.0	1.6	133.6	Sbd box	133.3
U/L	787/0	787/0	787/0	787/0	788/0	788/0	787/0	787/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-4.43126454636E+03	Apriori delay (usec)	-4.43077655872E+03	Resid mbdelay (usec)	-3.61264E-03	+/-	1.9E-04
Sband delay (usec)	-4.43125985197E+03	Apriori clock (usec)	1.0976408E+01	Resid sbdelay (usec)	-4.83293E-01	+/-	1.5E-03
Phase delay (usec)	-4.43077656355E+03	Apriori clockrate (us/s)	4.4000001E-08	Resid phdelay (usec)	-4.82532E-06	+/-	6.5E-07
Delay rate (us/s)	1.43093606081E+00	Apriori rate (us/s)	1.43093165514E+00	Resid rate (us/s)	4.40567E-06	+/-	2.8E-09
Total phase (deg)	-66.2	Apriori accel (us/s/s)	-3.23154150596E-06	Resid phase (deg)	-149.6	+/-	20.2

ph/seg (deg)	57.2	Theor.	48.1	Amplitude	0.111 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	74.7		84.0	Search (2048X32)	0.102	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	48.3		28.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	61.7		49.7	Inc. seg. avg.	0.113	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.109	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 57.7 el 33.3 pa -76.3 Z: az 268.2 el 50.9 pa 41.5 u,v (fr/asec) -10956.466 -2480.130 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0082/fZ..1X01VG Output file: /Exps/c211c/v1/1234/No0082/fZ.W.94.1X01VG