

Mk4/DiFX fourfit 3.21 rev 2937

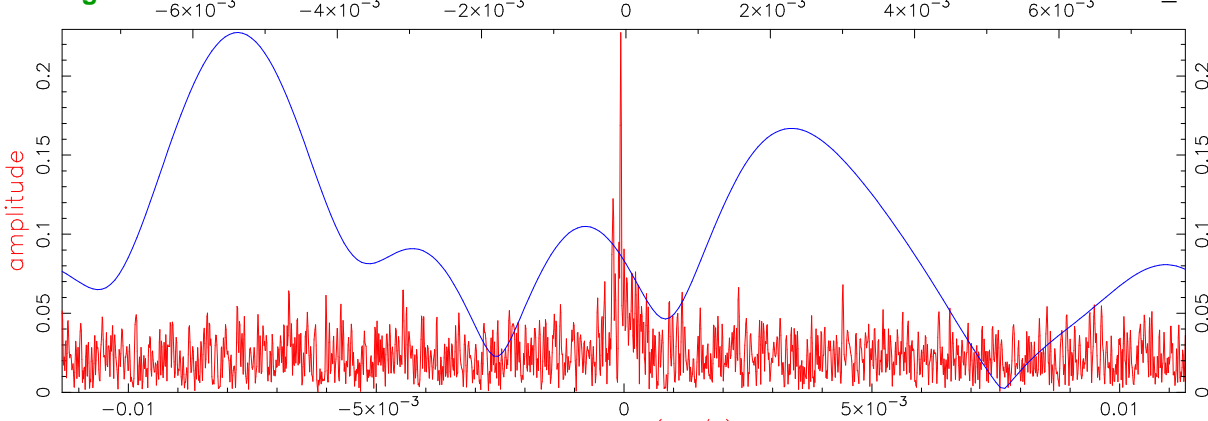
fxmanager

3C273.1W6WJ8, No0155, Bn

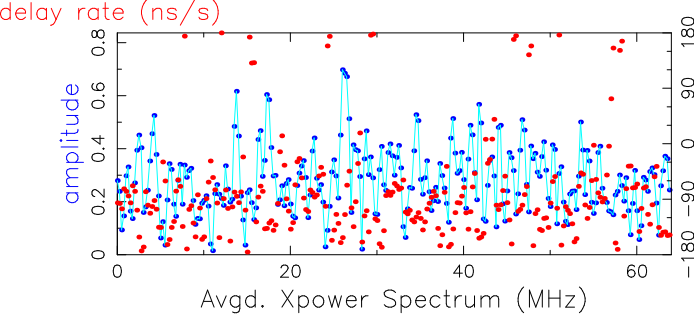
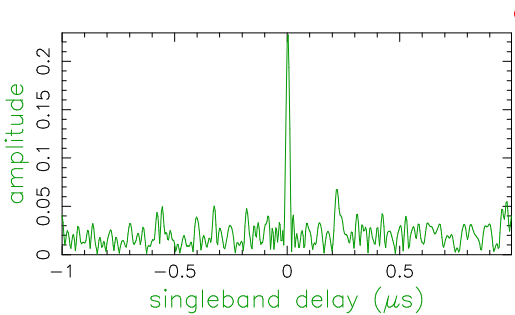
EFLSBERG - VLBA\_NL, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 9

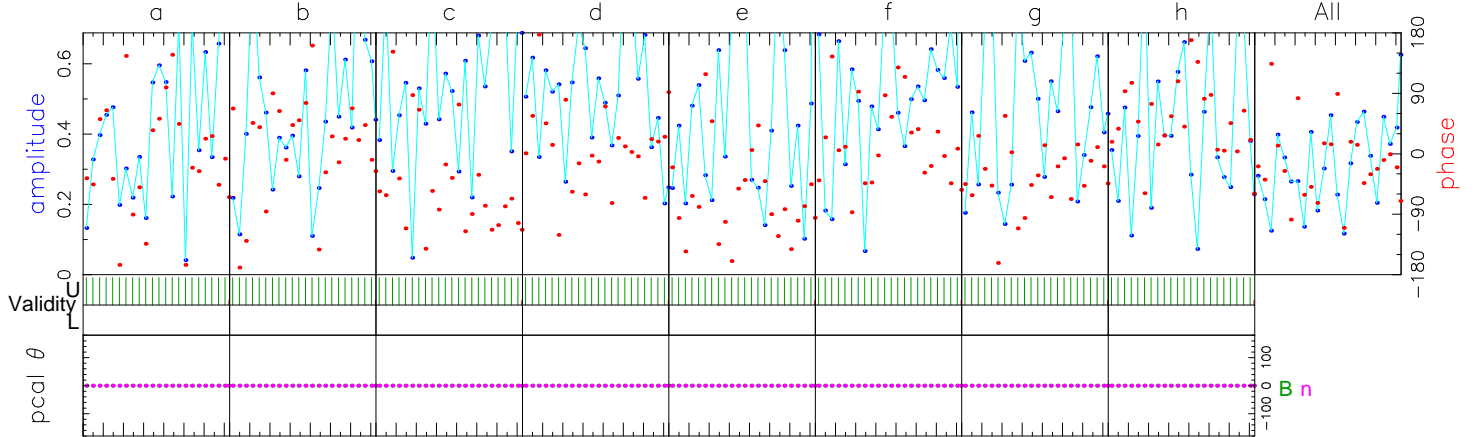


SNR 12.9  
 Int time 419.825  
 Amp 0.229  
 Phase -13.5  
 PFD 4.2e-29  
 Delays (us)  
 SBD 0.002703  
 MBD -0.005413  
 Fringe rate (Hz)  
 -0.005277  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080329  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



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

Group delay (usec)(sbd)	-7.95062680402E+03	Apriori delay (usec)	-7.95063701606E+03	Resid mbdelay (usec)	-5.41296E-03	+/-	8.4E-05
Sband delay (usec)	-7.95063431281E+03	Apriori clock (usec)	-2.7469694E+01	Resid sbdelay (usec)	2.70325E-03	+/-	6.7E-04
Phase delay (usec)	-7.95063701650E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-4.36066E-07	+/-	2.9E-07
Delay rate (us/s)	-1.52096192285E+00	Apriori rate (us/s)	-1.52096186159E+00	Resid rate (us/s)	-6.12569E-08	+/-	1.2E-09
Total phase (deg)	-216.4	Apriori accel (us/s/s)	4.25332876452E-05	Resid phase (deg)	-13.5	+/-	8.9

ph/seg (deg)	56.9	Theor.	21.4	Amplitude	0.229 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	59.5	Search (2048X32)	0.213	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	51.7	Inc. seg. avg.	0.287	Inc. frq. avg.	0.307	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	41.3	Inc. frq. avg.	0.307			Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

B: az 251.6 el 17.0 pa 37.2 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) 8780.074 1042.857 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/Bn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/Bn.W.16.1W6WJ8

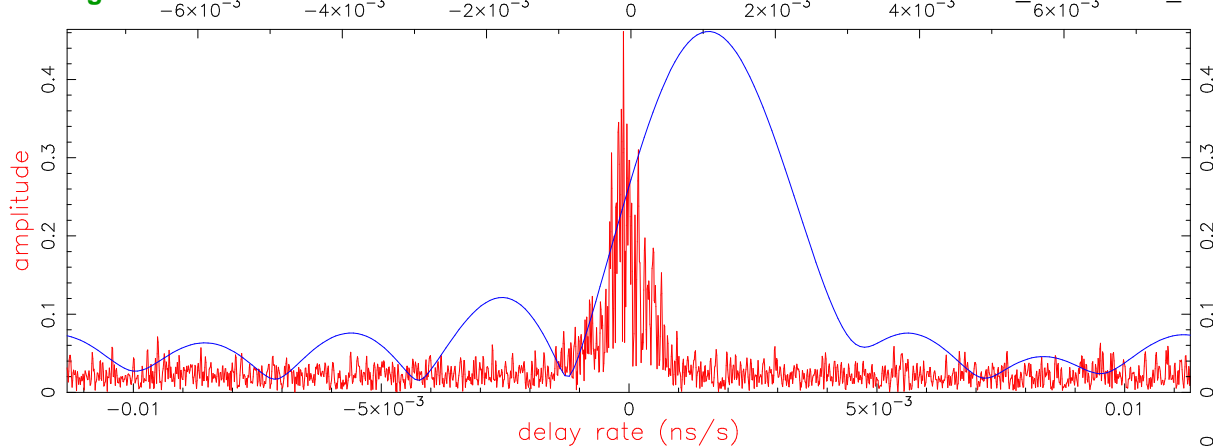
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, bn

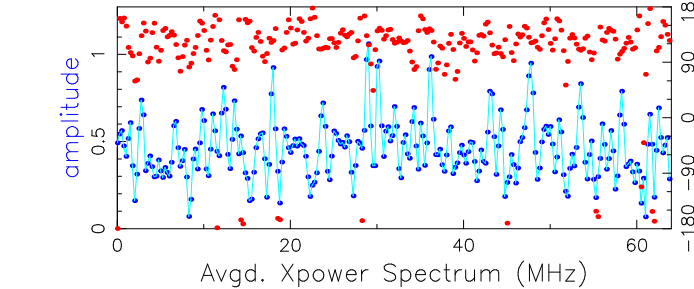
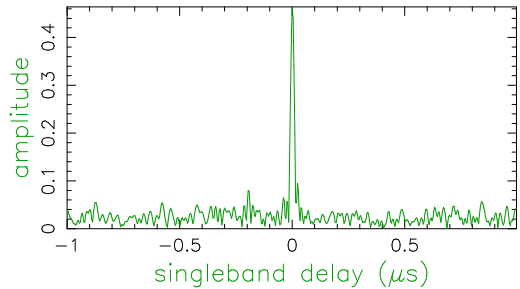
VLBA\_BR - VLBA\_NL, fgroup W, pol LL

multiband delay ( $\mu$ s)



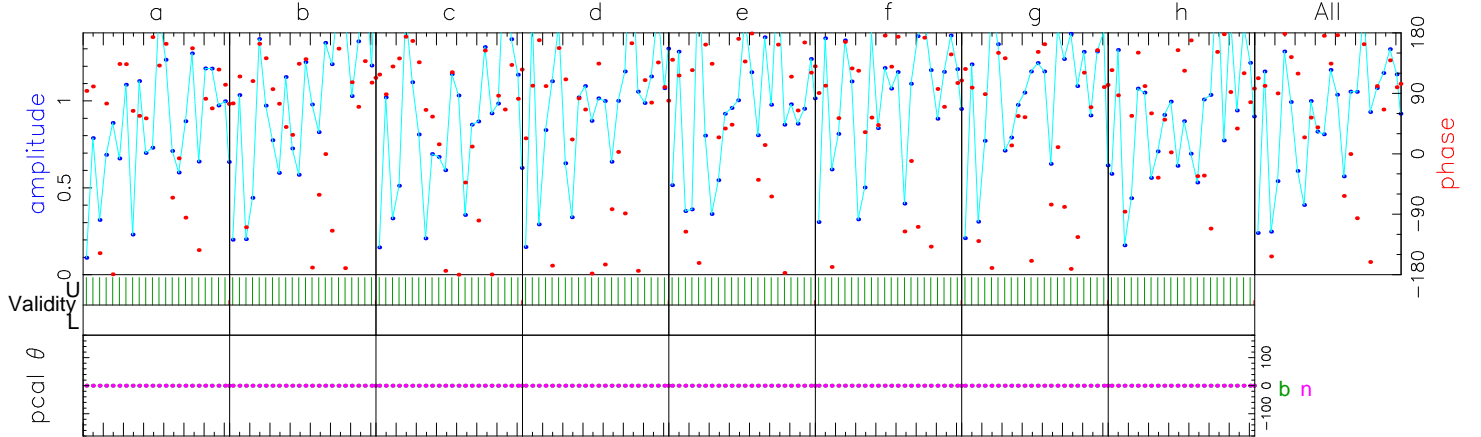
Fringe quality 7

SNR 26.0  
 Int time 419.816  
 Amp 0.464  
 Phase 126.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000981  
 MBD 0.001099  
 Fringe rate (Hz)  
 -0.009496  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080330  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-6.34639620555E+03								1.09912E-03	+/- 4.2E-05
Sband delay (usec)	-6.34639632342E+03								9.81250E-04	+/- 3.3E-04
Phase delay (usec)	-6.34639730060E+03								4.07228E-06	+/- 1.4E-07
Delay rate (us/s)	2.83848886252E-01								-1.10244E-07	+/- 5.9E-10
Total phase (deg)			-170.4						126.3	+/- 4.4
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

b: az 110.8 el 20.1 pa -38.6 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -1573.612 787.883 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/bn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/bn.W.19.1W6WJ8

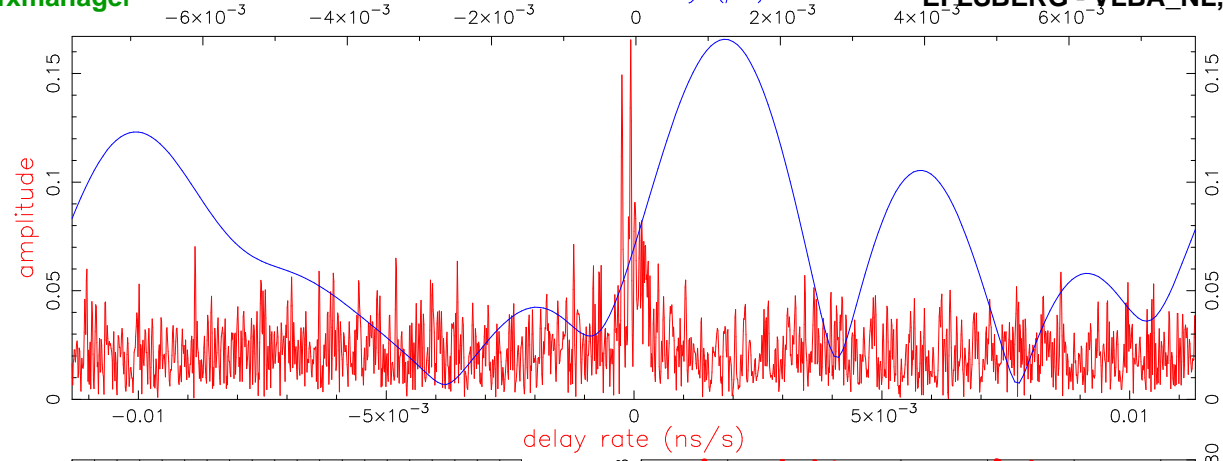
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, Bn

EFLSBERG - VLBA\_NL, fgroup W, pol RR

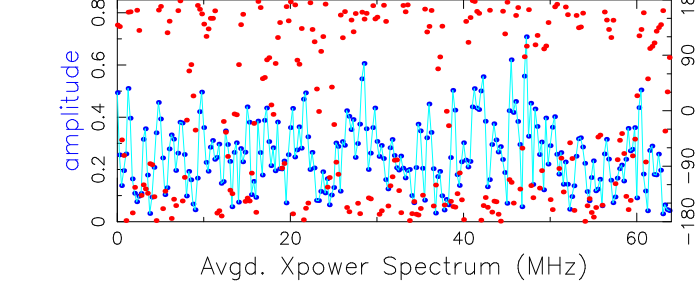
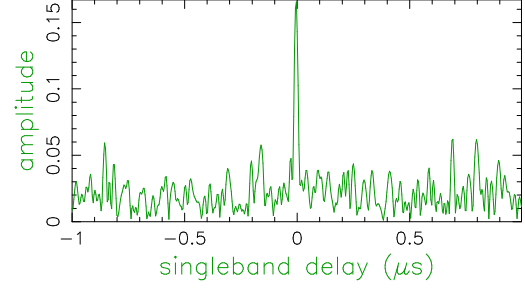
multiband delay ( $\mu$ s)



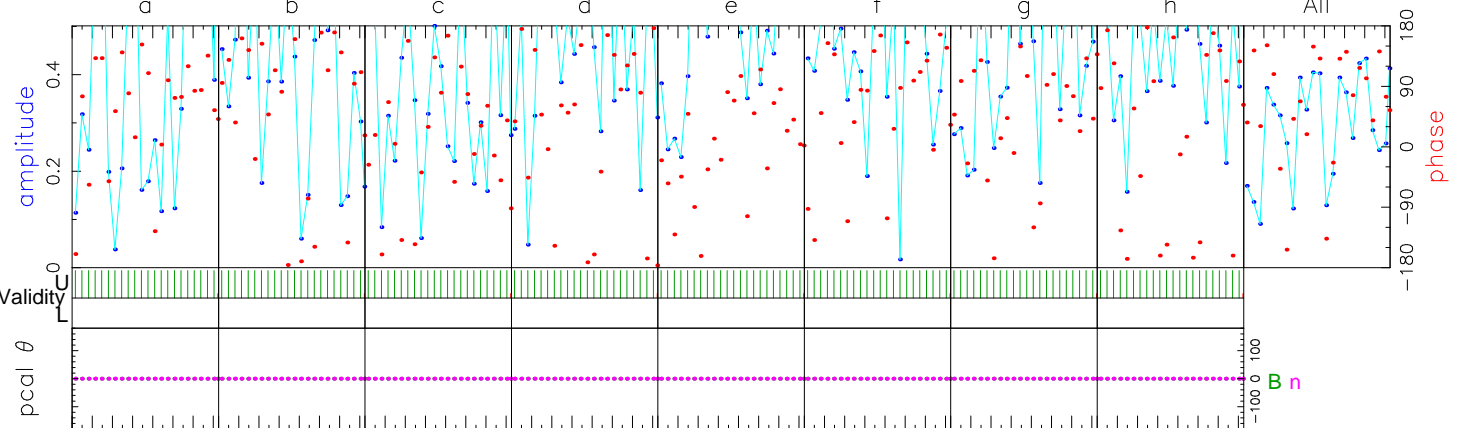
Fringe quality 9

SNR 9.4  
 Int time 419.825  
 Amp 0.167  
 Phase 104.1  
 PFD 3.1e-12  
 Delays (us)  
 SBD -0.005200  
 MBD 0.001178  
 Fringe rate (Hz)  
 -0.005309  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211a  
 Yr:day 16383  
 Start 2021:114  
 Stop 2021:114  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080333  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

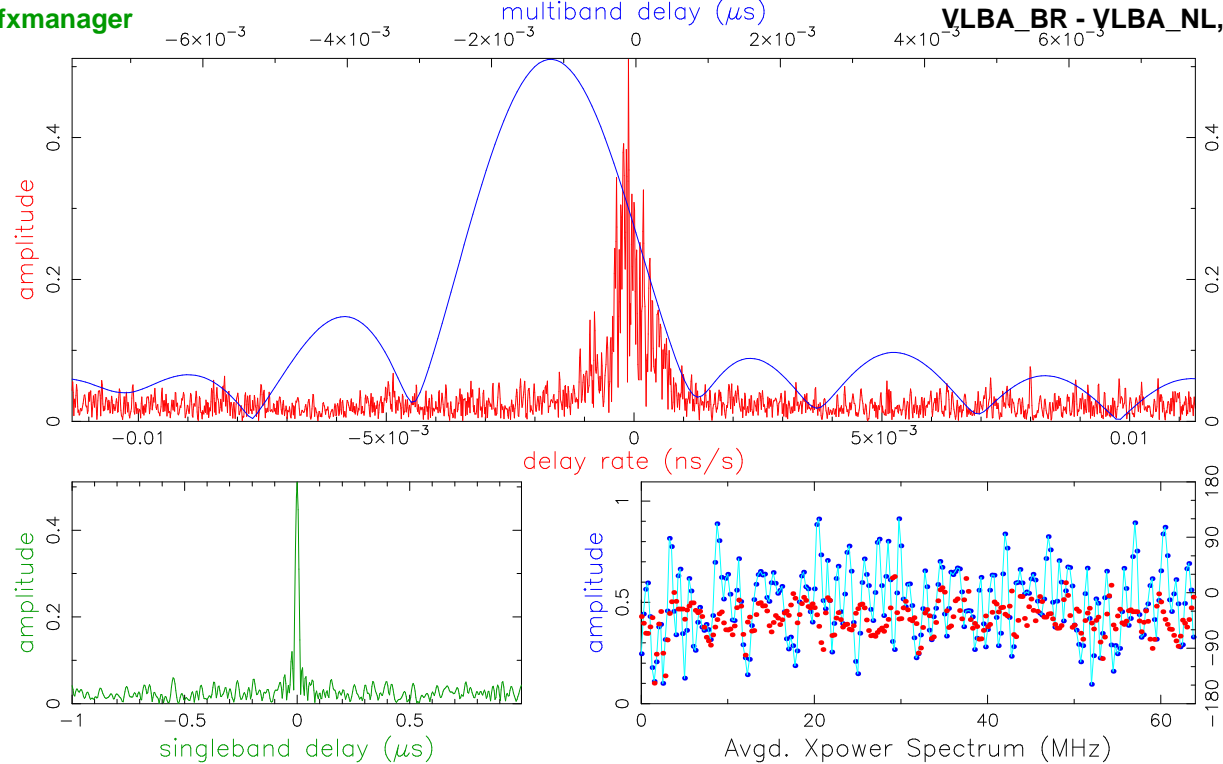


Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



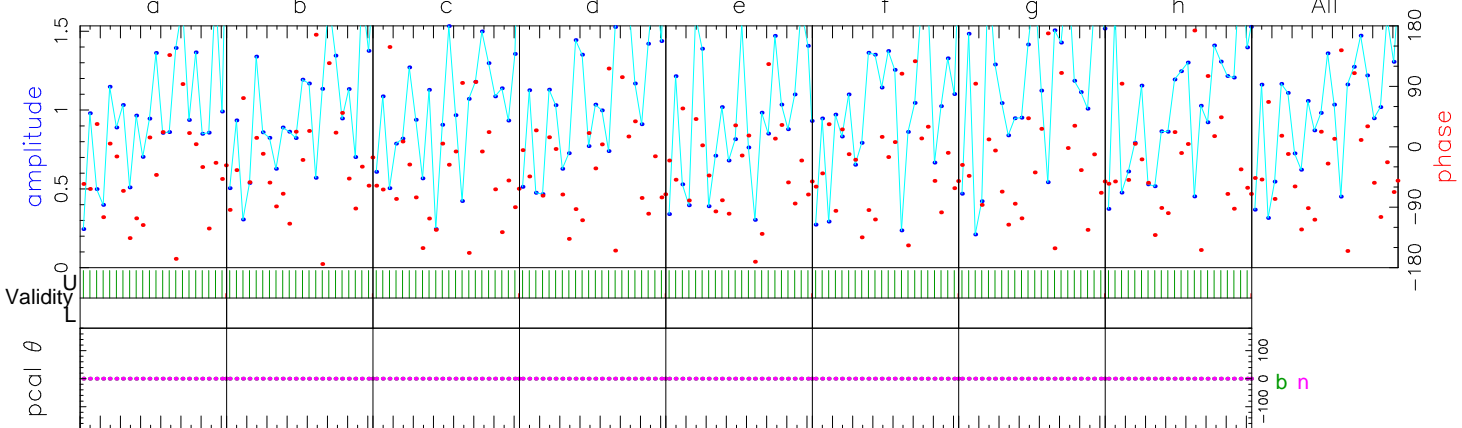
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.95063583762E+03				-7.95063701606E+03				1.17844E-03	+/- 1.2E-04
Sband delay (usec)	-7.95064221631E+03				-2.7469694E+01				-5.20025E-03	+/- 9.2E-04
Phase delay (usec)	-7.95063701270E+03				-2.9999999E-07				3.35612E-06	+/- 3.9E-07
Delay rate (us/s)	-1.52096192323E+00				-1.52096186159E+00				-6.16367E-08	+/- 1.6E-09
Total phase (deg)			-98.8		4.25332876452E-05				104.1	+/- 12.2
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

ph/seg (deg) 66.8 29.3 Search (2048X32) 0.156 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 96.6 51.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 50.4 17.3 Inc. seg. avg. 0.255 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 42.8 30.2 Inc. frq. avg. 0.209 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 251.6 el 17.0 pa 37.2 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) 8780.074 1042.857 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/Bn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/Bn.W.33.1W6WJ8 simultaneous interpolator



Fringe quality 7  
SNR 28.7  
Int time 419.816  
Amp 0.512  
Phase -33.3  
PFD 0.0e+00  
Delays (us)  
SBD -0.000611  
MBD -0.001196  
Fringe rate (Hz)  
-0.009383  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080334  
2021:252:122852  
RA & Dec (J2000)  
12h29m06.699731s  
+02°03'08.598201"

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
	-31.2	-26.3	-49.9	-37.7	-25.7	-30.8	-30.4	-34.7	Phase	-33.3
	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	Ampl.	0.5
	257.0	256.7	256.5	256.8	257.0	257.3	256.9	256.7	Sbd box	256.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-6.34639850027E+03		Apriori delay (usec)		-6.34639730467E+03		Resid mbdelay (usec)		-1.19560E-03	+/- 3.8E-05
Sband delay (usec)	-6.34639791567E+03		Apriori clock (usec)		-8.3779240E+00		Resid sbdelay (usec)		-6.11000E-04	+/- 3.0E-04
Phase delay (usec)	-6.34639730574E+03		Apriori clockrate (us/s)		-3.9999999E-07		Resid phdelay (usec)		-1.07228E-06	+/- 1.3E-07
Delay rate (us/s)	2.83848887564E-01		Apriori rate (us/s)		2.83848996496E-01		Resid rate (us/s)		-1.08932E-07	+/- 5.3E-10
Total phase (deg)	-330.0		Apriori accel (us/s/s)		3.40011044460E-05		Resid phase (deg)		-33.3	+/- 4.0

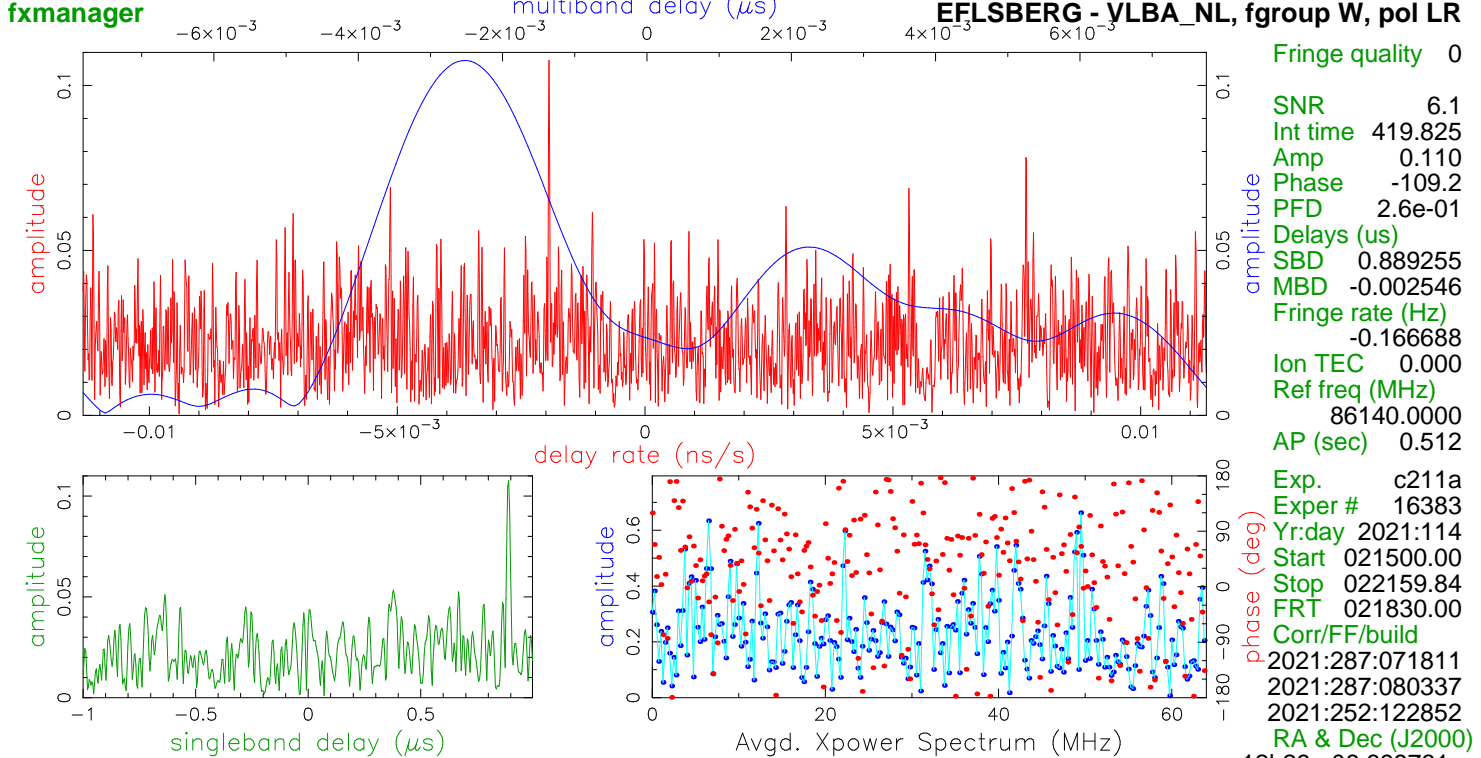
ph/seg (deg) 72.8 9.6 Search (2048X32) 0.496 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 116.4 16.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 8.4 5.7 Inc. seg. avg. 0.980 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 10.2 9.9 Inc. frq. avg. 0.512 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 110.8 el 20.1 pa -38.6 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -1573.612 787.883 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/bn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/bn.W.40.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, Bn

EFLSBERG - VLBA\_NL, fgroup W, pol LR

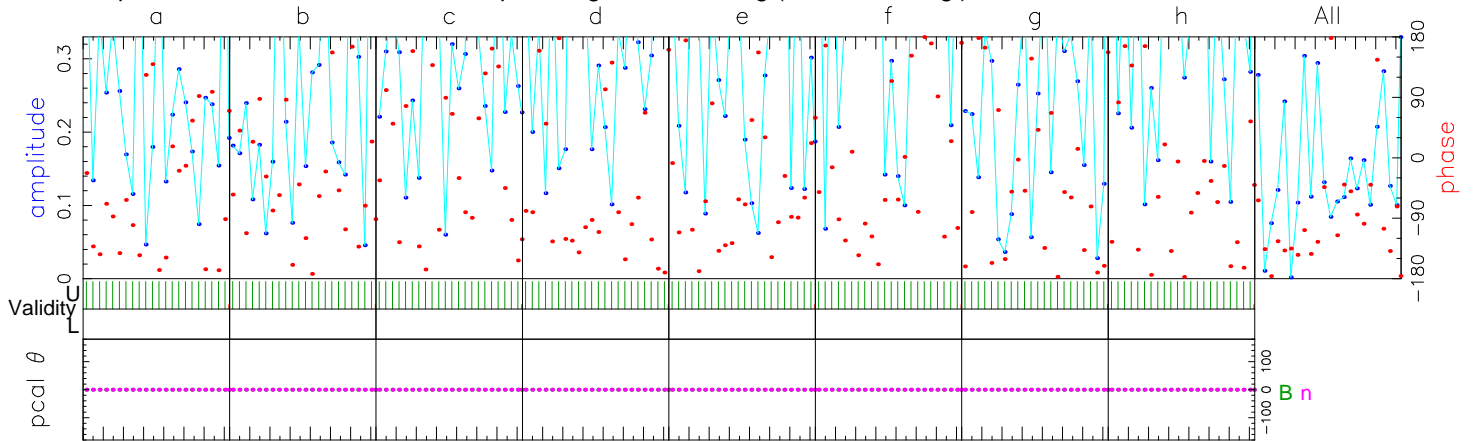


Fringe quality 0

SNR 6.1  
 Int time 419.825  
 Amp 0.110  
 Phase -109.2  
 PFD 2.6e-01  
 Delays (us)  
 SBD 0.889255  
 MBD -0.002546  
 Fringe rate (Hz)  
 -0.166688  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080337  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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
	-110.5	-58.7	-161.2	-127.7	-83.3	-117.8	-107.1	-97.9	Phase	-109.2
	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
	455.7	149.1	412.3	484.8	486.1	256.3	290.2	376.3	Sbd box	484.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.94974893703E+03					-7.95063701606E+03			Resid mbdelay (usec)	-2.54596E-03 +/- 1.8E-04
Sband delay (usec)	-7.94974776106E+03					-2.7469694E+01			Resid sbdelay (usec)	8.89255E-01 +/- 1.4E-03
Phase delay (usec)	-7.95063701958E+03					-2.9999999E-07			Resid phdelay (usec)	-3.52142E-06 +/- 6.1E-07
Delay rate (us/s)	-1.52096379667E+00					-1.52096186159E+00			Resid rate (us/s)	-1.93508E-06 +/- 2.5E-09
Total phase (deg)			-312.0			4.25332876452E-05			Resid phase (deg)	-109.2 +/- 18.8
	RMS	Theor.	Amplitude	0.110 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	47.0	45.1	Search (2048X32)	0.104					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	86.7	78.7	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	32.9	26.6	Inc. seg. avg.	0.115					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	47.6	46.4	Inc. frq. avg.	0.107					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite

B: az 251.6 el 17.0 pa 37.2 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) 8780.074 1042.857 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/Bn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/Bn.W.52.1W6WJ8

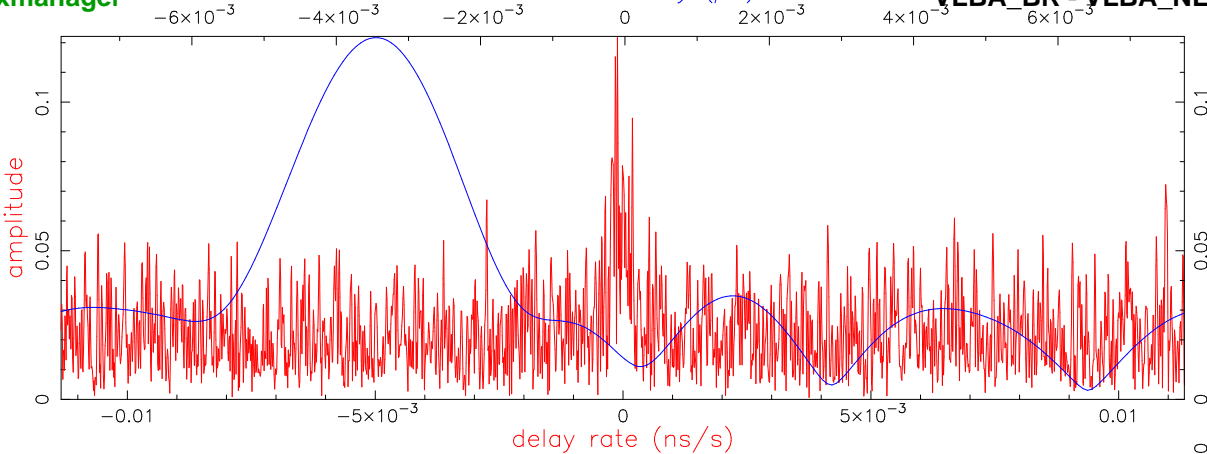
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, bn

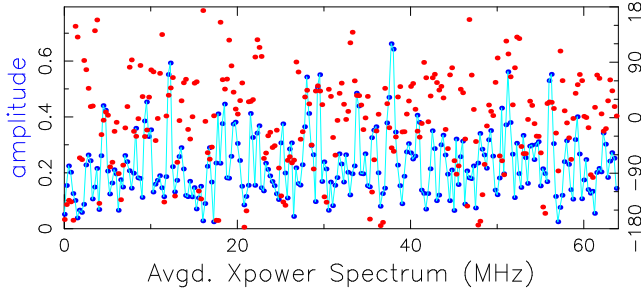
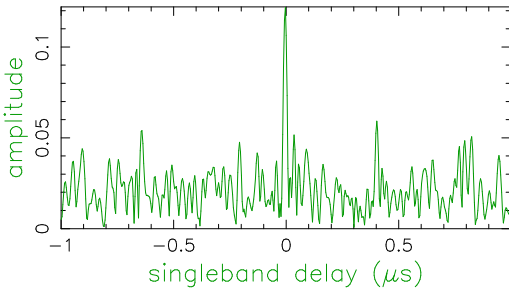
VLBA\_BR - VLBA\_NL, fgroup W, pol LR

multiband delay ( $\mu$ s)



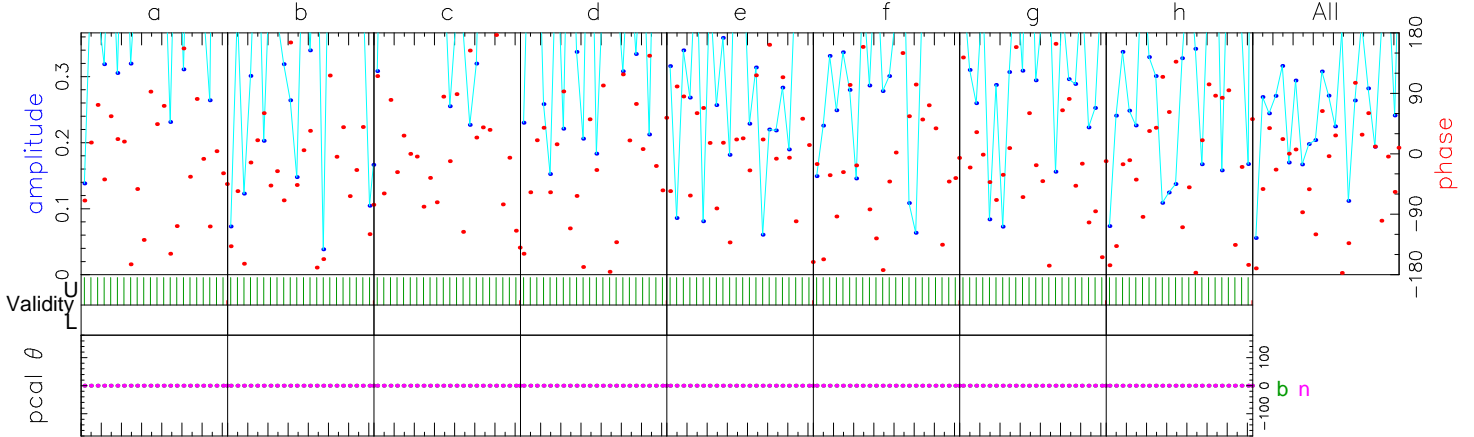
Fringe quality 0

SNR 6.8  
 Int time 419.816  
 Amp 0.122  
 Phase -3.0  
 PFD 2.3e-03  
 Delays (us)  
 SBD -0.004629  
 MBD -0.003466  
 Fringe rate (Hz)  
 -0.009625  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080338  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-6.34640077045E+03									
Sband delay (usec)	-6.34640193342E+03									
Phase delay (usec)	-6.34639730477E+03									
Delay rate (us/s)	2.83848884758E-01									
Total phase (deg)			-299.7							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal $\theta$										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.122 +/- 0.018										
0.121										
0.000										
0.208										
0.118										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
-1.000 1.000										
-0.008 0.008										
-0.011 0.011										
0.00 0.00										
simultaneous interpolator										

b: az 110.8 el 20.1 pa -38.6 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -1573.612 787.883 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/bn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/bn.W.60.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

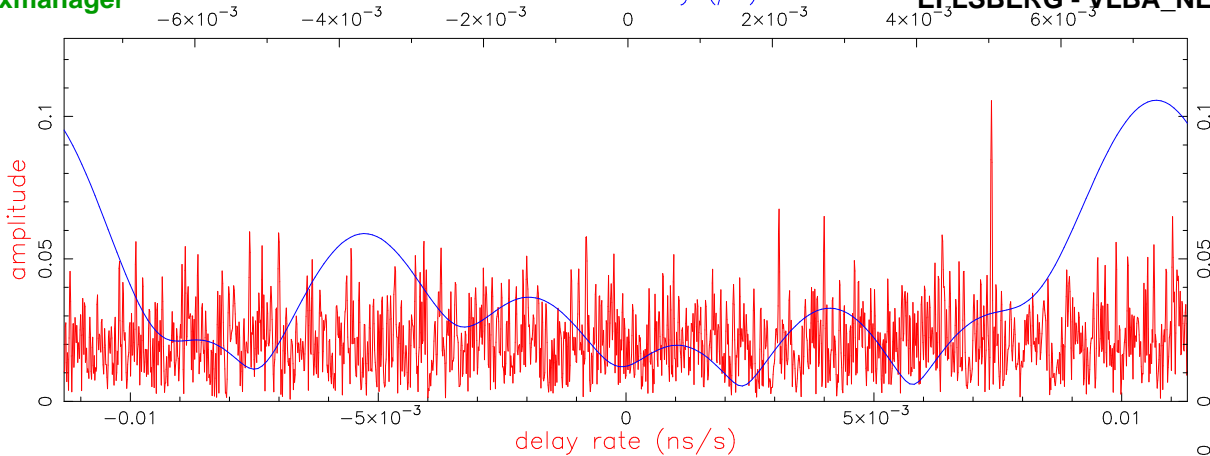
fxmanager

3C273.1W6WJ8, No0155, Bn

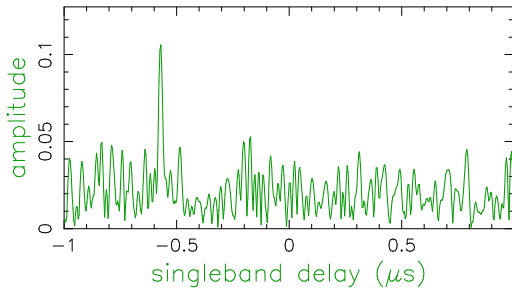
EFLSBERG - VLBA\_NL, fgroup W, pol RL

multiband delay ( $\mu$ s)

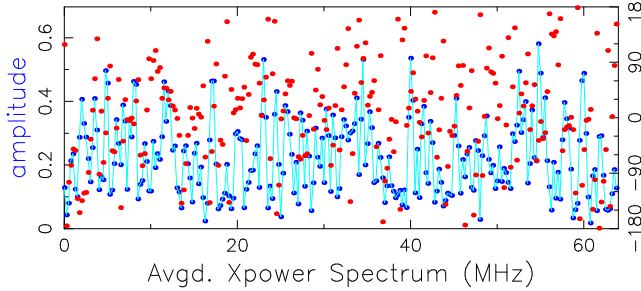
Fringe quality 0



SNR 6.0  
Int time 419.825  
Amp 0.127  
Phase -172.1  
PFD 4.8e-01  
Delays (us)  
SBD -0.571520  
MBD 0.007272  
Fringe rate (Hz)  
0.635958  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

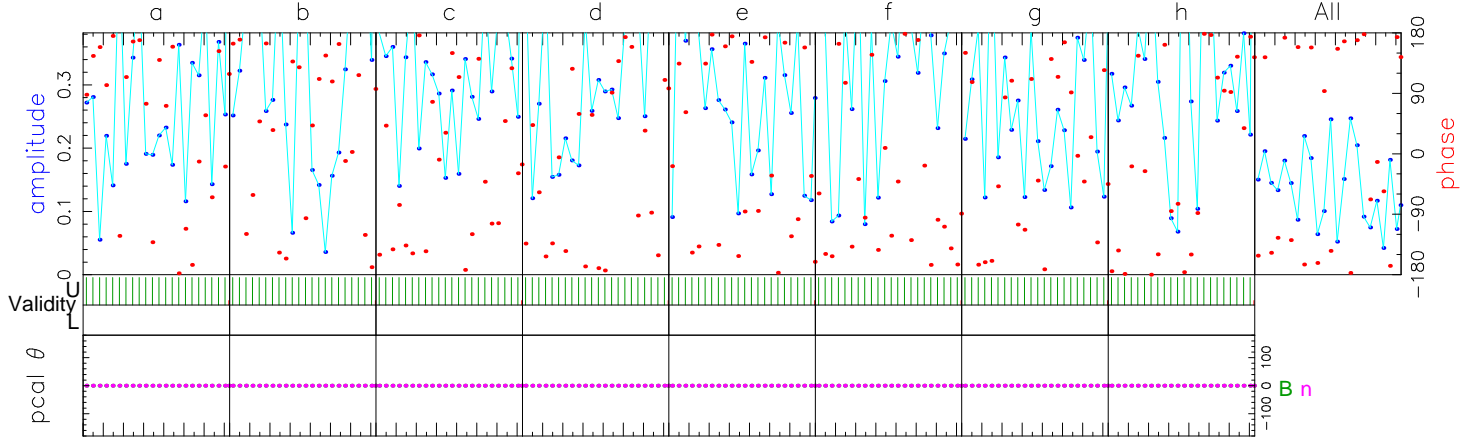


delay rate (ns/s)



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080340  
2021:252:122852  
RA & Dec (J2000)  
12h29m06.699731s  
+02°03'08.598201"

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						
150.8	-176.9	-143.0	-171.0	-167.1	-126.0	146.4	170.3	Phase	-172.1						
0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	Ampl.	0.1						
204.5	30.7	199.6	164.7	123.9	463.6	274.7	111.3	Sbd box	110.7						
U/L 820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used							
B 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs							
n 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs							
B:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase							
B:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC							
B 1000	1000	1000	1000	1000	1000	1000	1000	PC amp							
n 1000	1000	1000	1000	1000	1000	1000	1000								
B W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids							
n W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks							
Group delay (usec)(sbd)									-7.95120786921E+03	Apriori delay (usec)	-7.95063701606E+03	Resid mbdelay (usec)	7.27185E-03	+/-	1.8E-04
Sband delay (usec)									-7.95120853581E+03	Apriori clock (usec)	0.105	Resid sbdelay (usec)	-5.71520E-01	+/-	1.4E-03
Phase delay (usec)									-7.95063702161E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-5.55103E-06	+/-	6.2E-07
Delay rate (us/s)									-1.52095447875E+00	Apriori rate (us/s)	-1.52096186159E+00	Resid rate (us/s)	7.38284E-06	+/-	2.6E-09
Total phase (deg)									-15.0	Apriori accel (us/s/s)	4.25332876452E-05	Resid phase (deg)	-172.1	+/-	19.2

ph/seg (deg)	56.8	Theor. 46.1	Amplitude 0.127 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	65.1	80.5	Search (2048X32) 0.105	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	32.7	27.2	Interp. 0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	43.6	47.5	Inc. seg. avg. 0.127	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.128	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

B: az 251.6 el 17.0 pa 37.2 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) 8780.074 1042.857 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/Bn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/Bn.W.71.1W6WJ8

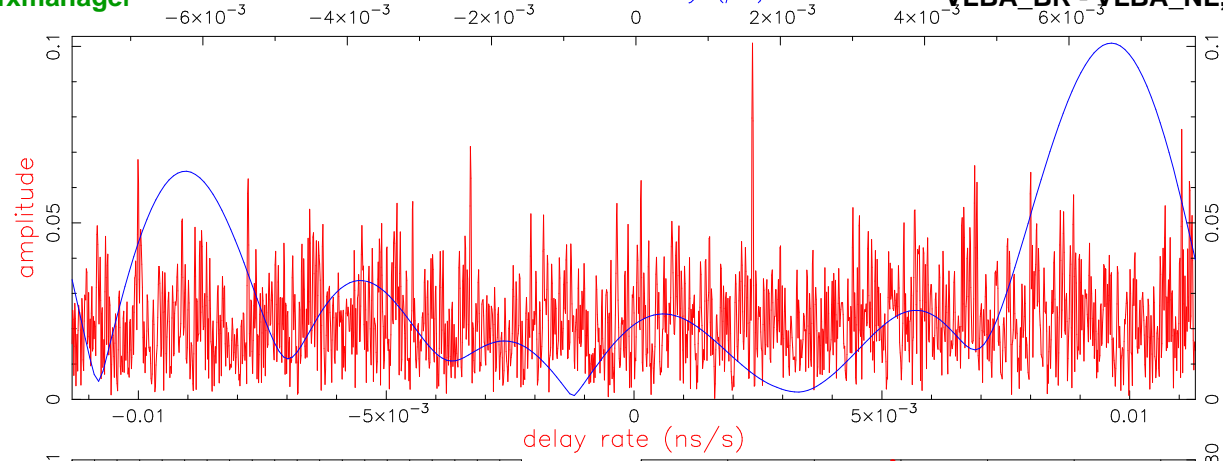
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

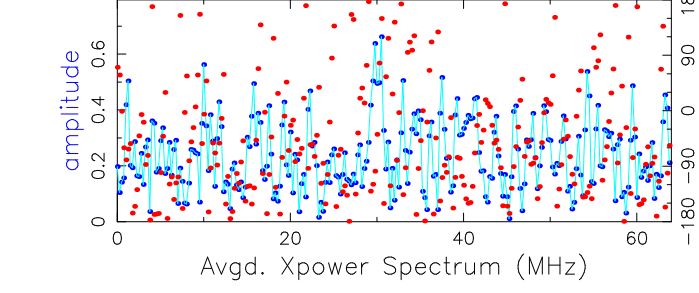
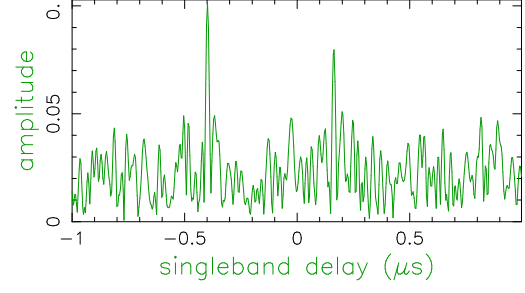
3C273.1W6WJ8, No0155, bn

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

multiband delay ( $\mu$ s)

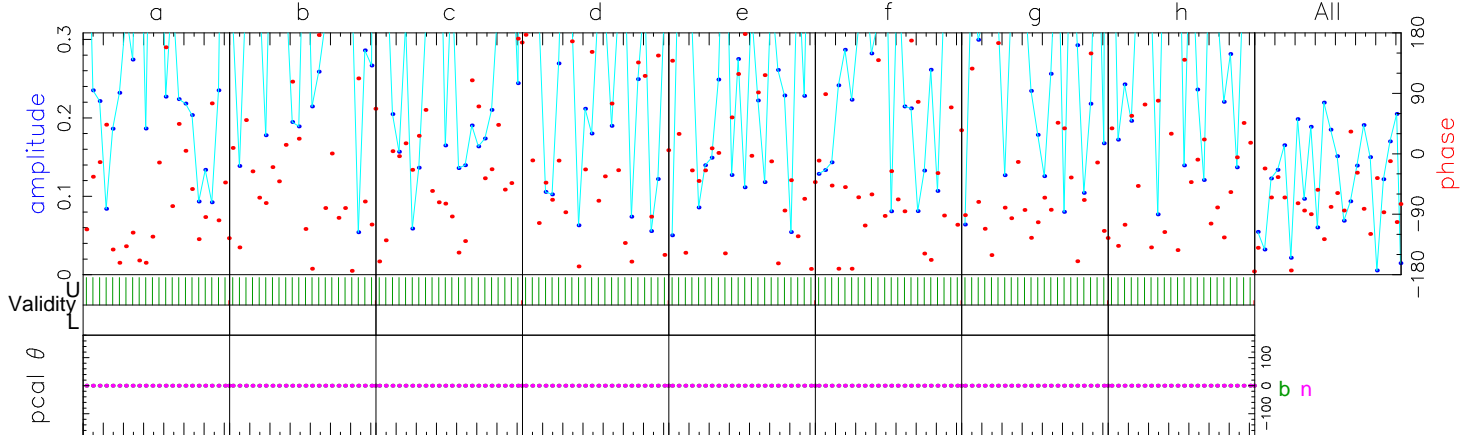


Fringe quality 0  
 SNR 5.7  
 Int time 419.816  
 Amp 0.103  
 Phase -74.9  
 PFD 9.8e-01  
 Delays (us)  
 SBD -0.398648  
 MBD 0.006579  
 Fringe rate (Hz) 0.205992  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080342  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"



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
	-92.3	-51.4	-54.4	-103.4	-86.7	-94.3	-84.9	-47.4	Phase	-74.9
	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.1	Ampl.	0.1
	484.4	385.1	377.0	331.3	78.4	286.5	260.8	465.8	Sbd box	154.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-6.34679697581E+03		Apriori delay (usec)		-6.34639730467E+03		Resid mbdelay (usec)		6.57886E-03	+/- 1.9E-04
Sband delay (usec)	-6.34679595267E+03		Apriori clock (usec)		-8.3779240E+00		Resid sbdelay (usec)		-3.98648E-01	+/- 1.5E-03
Phase delay (usec)	-6.34639730709E+03		Apriori clockrate (us/s)		-3.9999999E-07		Resid phdelay (usec)		-2.41634E-06	+/- 6.5E-07
Delay rate (us/s)	2.83851387862E-01		Apriori rate (us/s)		2.83848996496E-01		Resid rate (us/s)		2.39137E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		3.40011044460E-05		Resid phase (deg)		-74.9	+/- 20.3

	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)	44.9	48.6	Search (2048X32)	0.097	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	66.7	84.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	24.0	28.7	Inc. seg. avg.	0.094	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	37.7	50.0	Inc. frq. avg.	0.098	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

b: az 110.8 el 20.1 pa -38.6 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -1573.612 787.883 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/bn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/bn.W.80.1W6WJ8



Mk4/DiFX fourfit 3.21 rev 2937

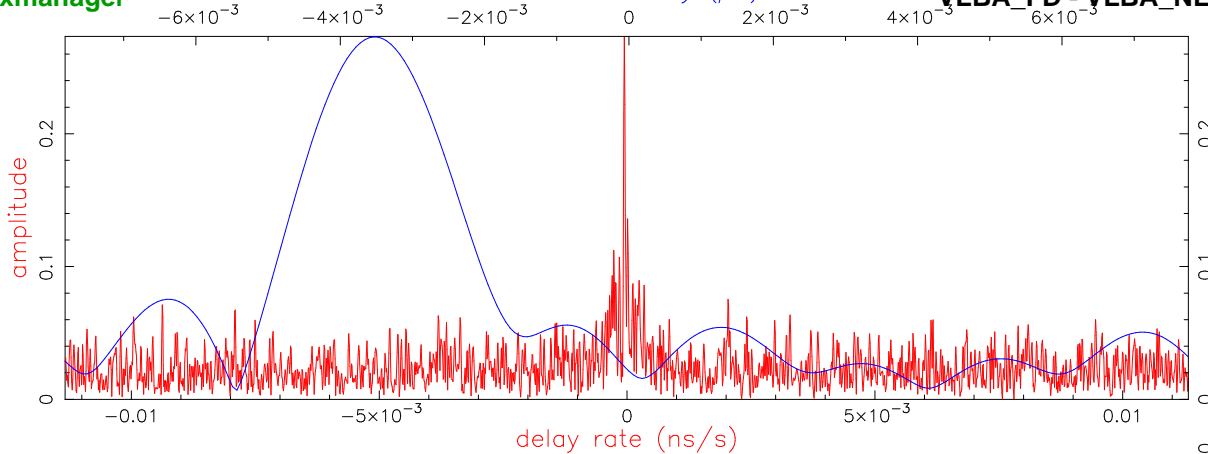
fxmanager

3C273.1W6WJ8, No0155, fn

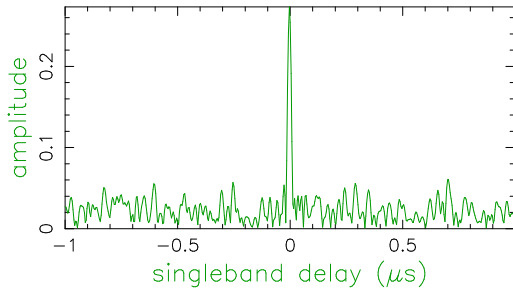
VLBA\_FD - VLBA\_NL, fgroup W, pol RR

multiband delay ( $\mu$ s)

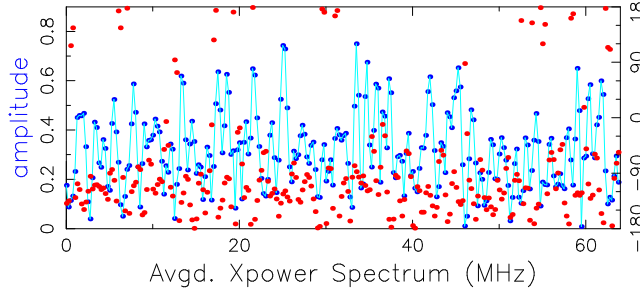
Fringe quality 9



SNR 15.1  
 Int time 408.481  
 Amp 0.273  
 Phase -121.9  
 PFD 9.3e-43  
 Delays (us)  
 SBD -0.003431  
 MBD -0.003511  
 Fringe rate (Hz)  
 -0.004602  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

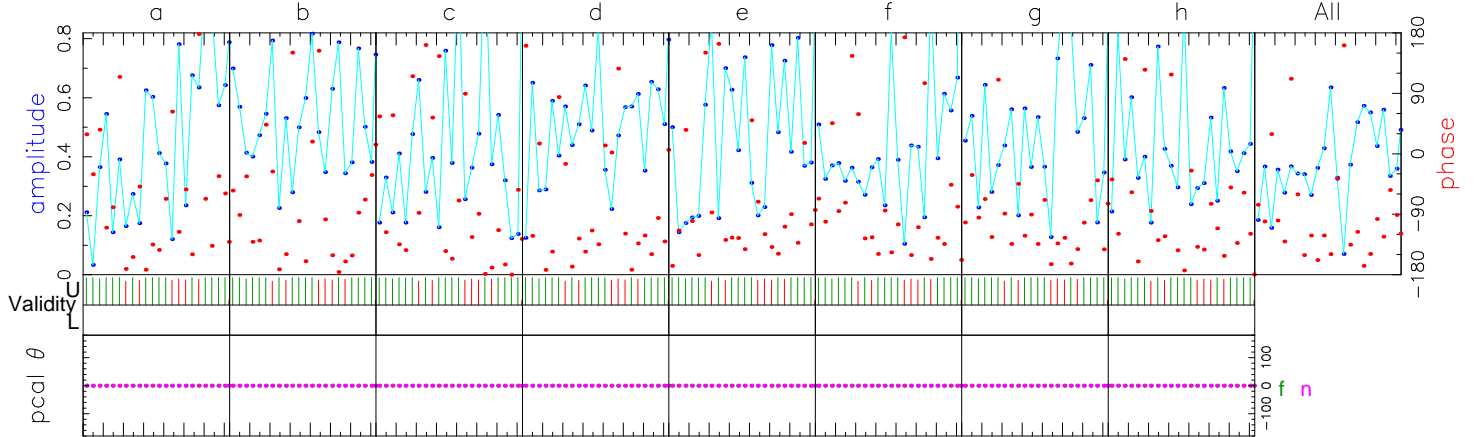


delay rate (ns/s)



Exp. c211a  
 Yr:day 16383  
 Start 2021:287:07114  
 Stop 2021:287:071811  
 FRT 2021:287:080349  
 Corr/FF/build 2021:252:122852  
 RA & Dec (J2000) 12h29m06.699731s +02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-114.2	-105.3	-140.2	-134.2	-126.5	-119.5	-110.5	-127.1	Phase	-121.9
	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	Ampl.	0.3
	256.0	256.2	255.6	255.9	256.7	255.5	256.6	255.8	Sbd box	256.1
U/L	805/0	805/0	805/0	805/0	805/0	805/0	805/0	805/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.95937341864E+02		Apriori delay (usec)		-4.95933831254E+02		Resid mbdelay (usec)		-3.51061E-03 +/- 7.2E-05	
Sband delay (usec)	-4.95937262504E+02		Apriori clock (usec)		4.8210430E+00		Resid sbdelay (usec)		-3.43125E-03 +/- 5.7E-04	
Phase delay (usec)	-4.95933835186E+02		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		-3.93237E-06 +/- 2.4E-07	
Delay rate (us/s)	3.20184131593E-01		Apriori rate (us/s)		3.20184185016E-01		Resid rate (us/s)		-5.34231E-08 +/- 1.0E-09	
Total phase (deg)			Apriori accel (us/s/s)		2.06700347520E-06		Resid phase (deg)		-121.9 +/- 7.6	

ph/seg (deg) 56.4 18.0 Search (2048X32) 0.273 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 61.5 31.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 12.9 10.7 Inc. seg. avg. 0.357 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 16.5 18.7 Inc. frq. avg. 0.273 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 114.6 el 38.2 pa -51.6 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -1831.613 -1378.012 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/fn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/fn.W.105.1W6WJ8

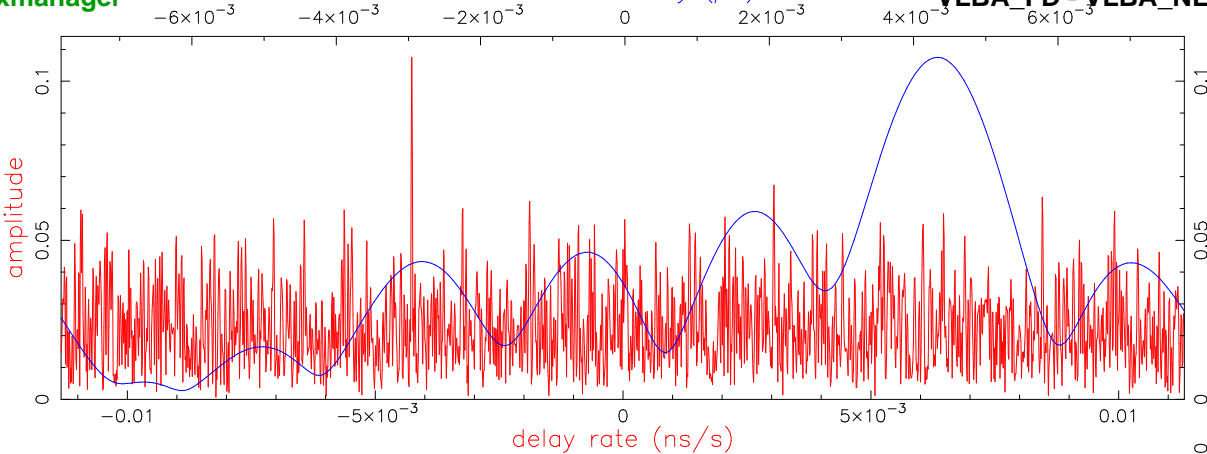
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, fn

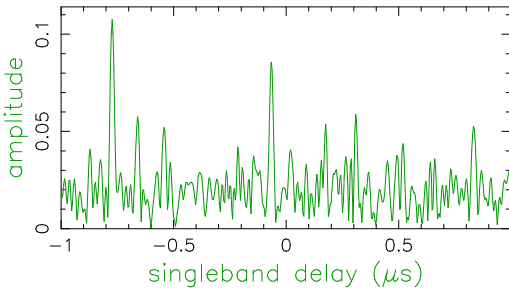
VLBA\_FD - VLBA\_NL, fgroup W, pol LR

multiband delay ( $\mu$ s)

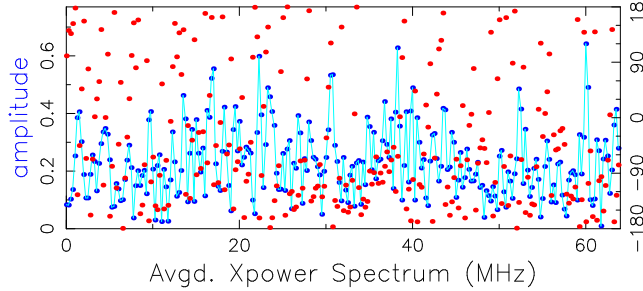


Fringe quality 0

SNR 5.9  
 Int time 408.481  
 Amp 0.114  
 Phase -80.2  
 PFD 5.1e-01  
 Delays (us)  
 SBD -0.773242  
 MBD 0.004340  
 Fringe rate (Hz)  
 -0.368151  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

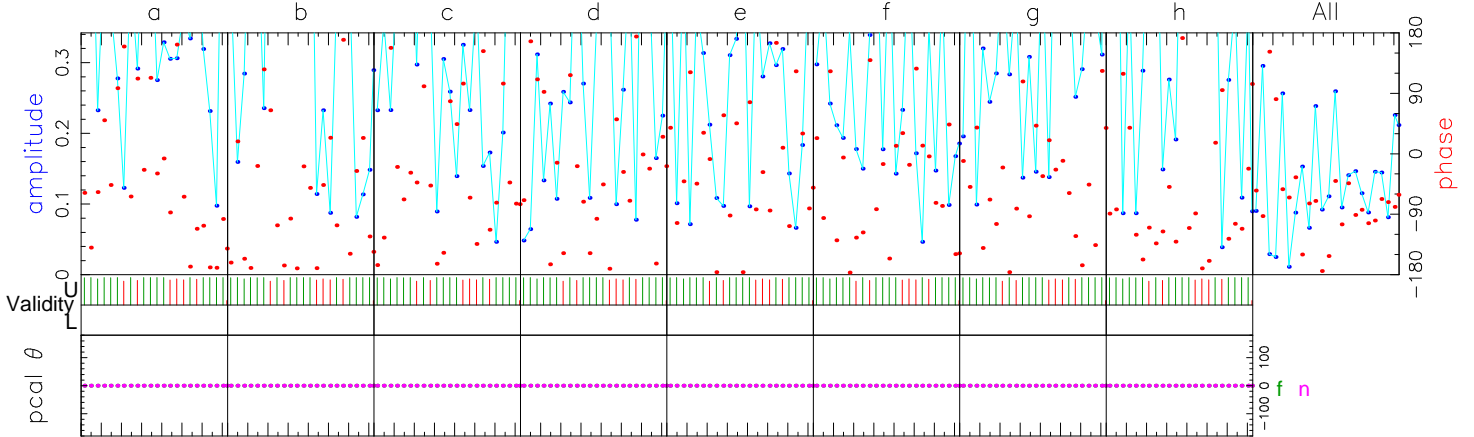


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080353  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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
	-89.2	-115.8	-69.5	-46.0	-39.9	-79.0	-59.8	-112.0	Phase	-80.2
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	50.8	89.1	442.8	180.3	47.9	213.1	240.9	59.8	Sbd box	59.0
U/L	805/0	805/0	805/0	805/0	805/0	805/0	805/0	805/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.96710741717E+02		Apriori delay (usec)		-4.95933831254E+02		Resid mbdelay (usec)		4.33954E-03	+/- 1.8E-04
Sband delay (usec)	-4.96707073504E+02		Apriori clock (usec)		4.8210430E+00		Resid sbdelay (usec)		-7.73242E-01	+/- 1.4E-03
Phase delay (usec)	-4.9593383841E+02		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		-2.58702E-06	+/- 6.2E-07
Delay rate (us/s)	3.20179911149E-01		Apriori rate (us/s)		3.20184185016E-01		Resid rate (us/s)		-4.27387E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		2.06700347520E-06		Resid phase (deg)		-80.2	+/- 19.3

	RMS	Theor.	Amplitude	0.114 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	56.5	45.8	Search (2048X32)	0.105	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	76.6	80.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	30.8	27.3	Inc. seg. avg.	0.107	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	39.5	47.6	Inc. frq. avg.	0.115	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 114.6 el 38.2 pa -51.6 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -1831.613 -1378.012 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/fn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/fn.W.127.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

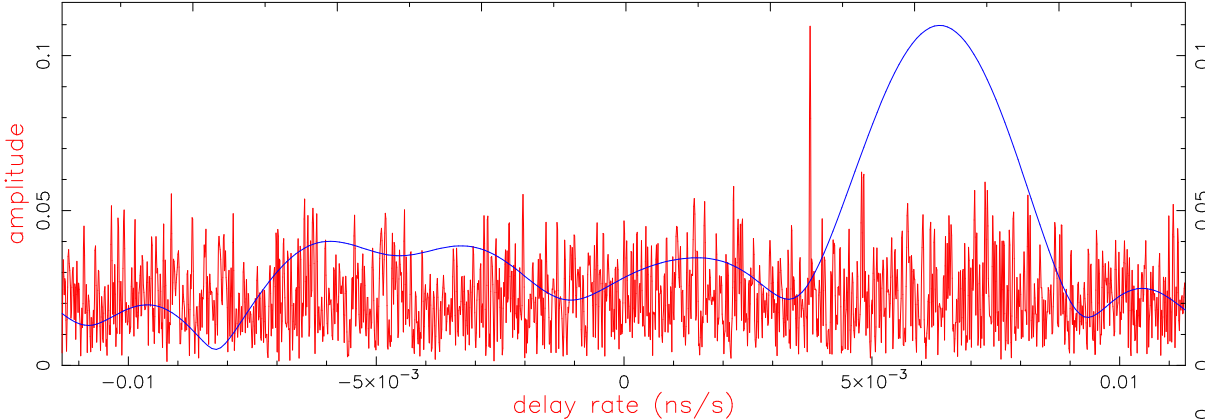
3C273.1W6WJ8, No0155, fn

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

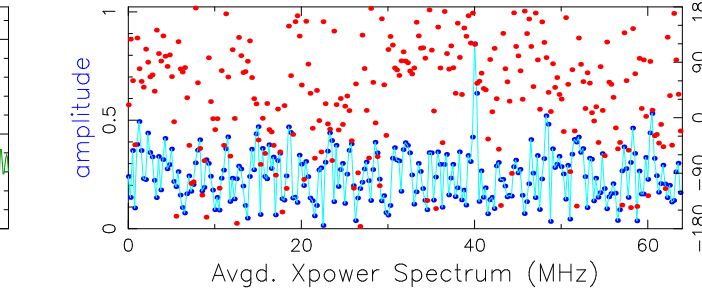
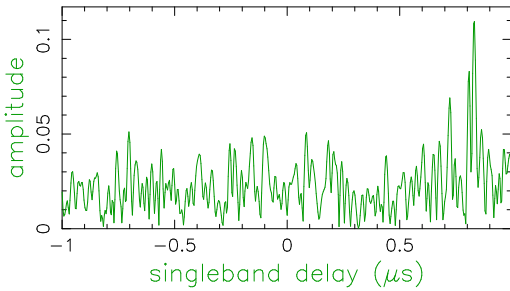
multiband delay ( $\mu$ s)

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

Fringe quality 0

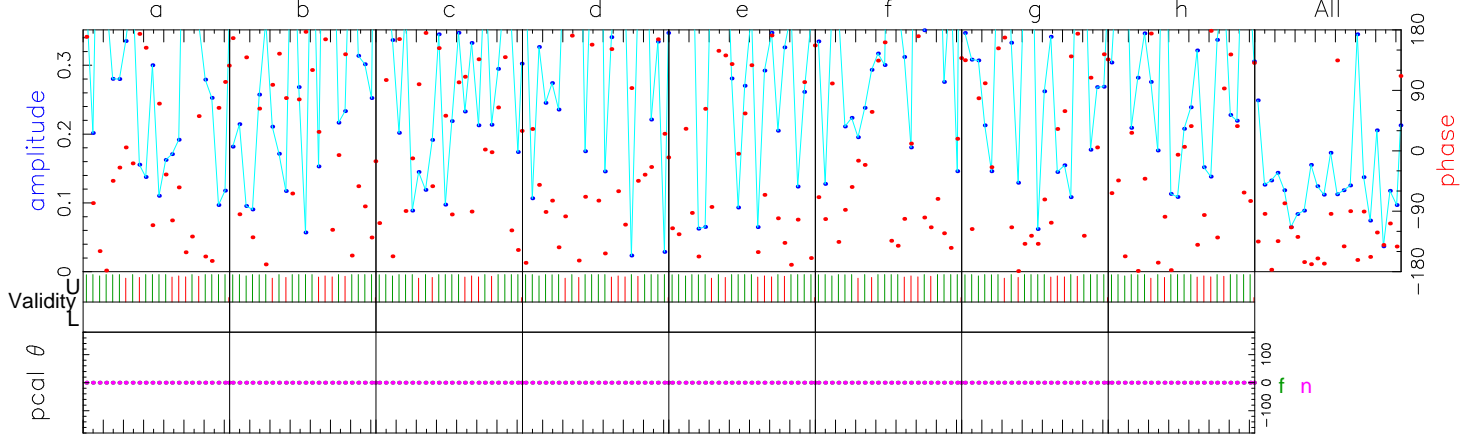


SNR 6.2  
Int time 408.481  
Amp 0.117  
Phase -136.4  
PFD 1.5e-01  
Delays (us)  
SBD 0.830257  
MBD 0.004266  
Fringe rate (Hz)  
0.323495  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080357  
2021:252:122852  
RA & Dec (J2000)  
12h29m06.699731s  
+02°03'08.598201"

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



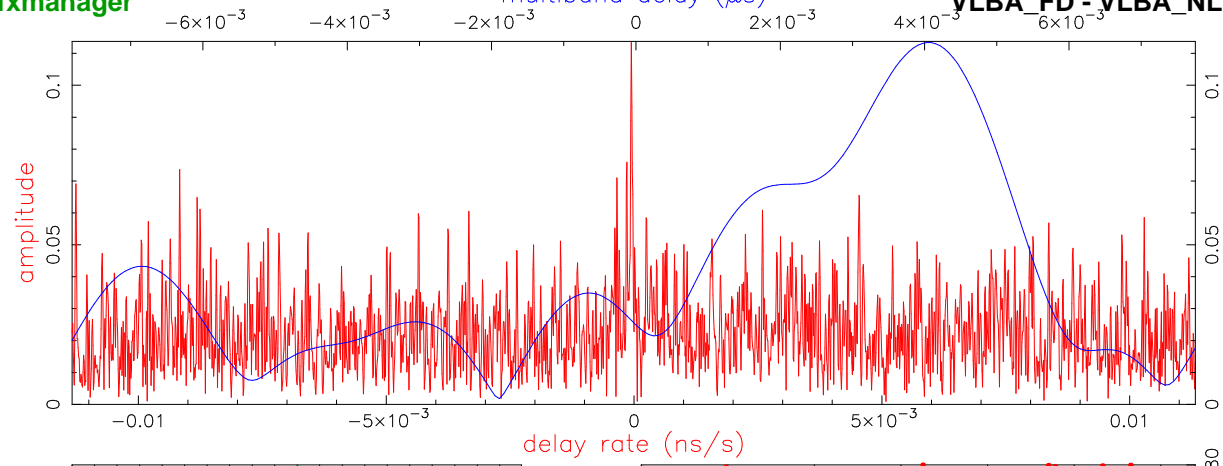
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-131.0	-162.5	-177.2	-105.4	-157.3	-127.5	-167.1	-97.2	Phase	-136.4
	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
	39.8	384.1	189.6	282.6	471.6	469.6	86.8	59.4	Sbd box	469.5
U/L	805/0	805/0	805/0	805/0	805/0	805/0	805/0	805/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.95101440273E+02		Apriori delay (usec)		-4.95933831254E+02		Resid mbdelay (usec)		4.26598E-03	+/- 1.8E-04
Sband delay (usec)	-4.95103574254E+02		Apriori clock (usec)		4.8210430E+00		Resid sbdelay (usec)		8.30257E-01	+/- 1.4E-03
Phase delay (usec)	-4.95933835652E+02		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		-4.39824E-06	+/- 6.0E-07
Delay rate (us/s)	3.20187940477E-01		Apriori rate (us/s)		3.20184185016E-01		Resid rate (us/s)		3.75546E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		2.06700347520E-06		Resid phase (deg)		-136.4	+/- 18.5

	RMS	Theor.	Amplitude	0.117 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	36.5	44.0	Search (2048X32)	0.108	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	60.0	76.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	32.5	26.2	Inc. seg. avg.	0.108	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	36.9	45.7	Inc. frq. avg.	0.116	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

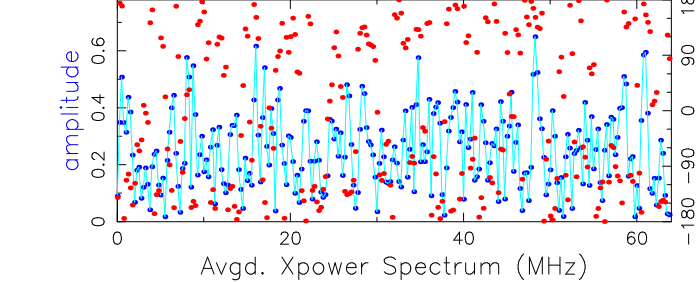
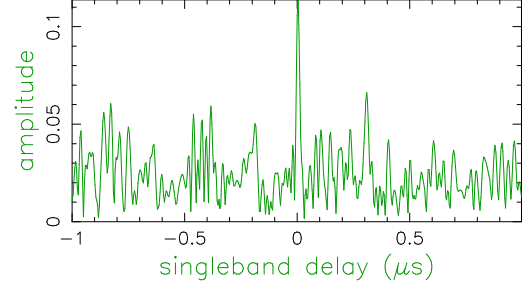
f: az 114.6 el 38.2 pa -51.6 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -1831.613 -1378.012 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/fn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/fn.W.149.1W6WJ8

multiband delay ( $\mu$ s)

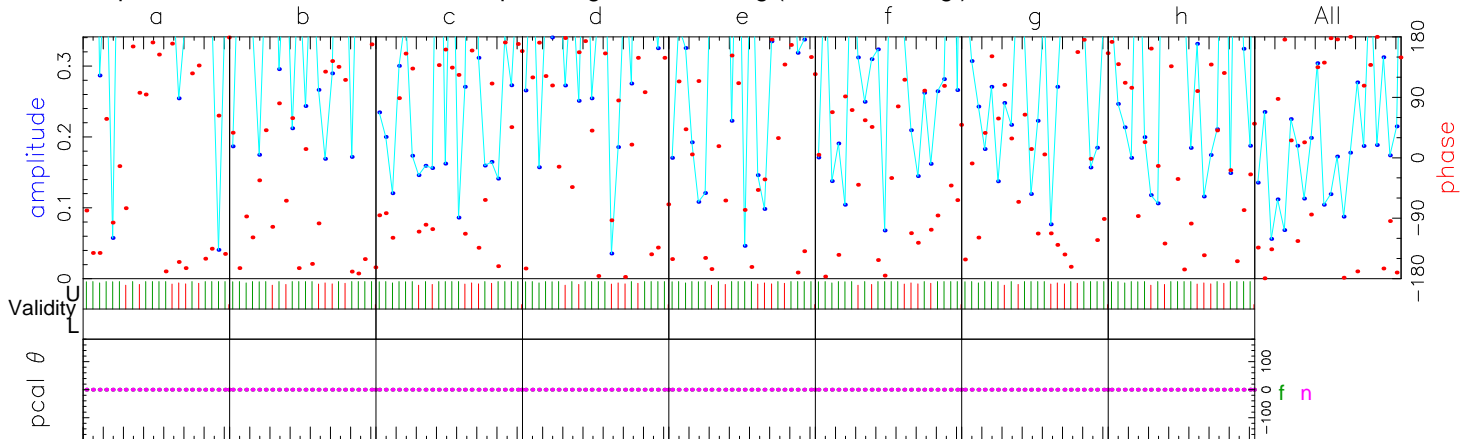


Fringe quality 0  
SNR 6.3  
Int time 408.481  
Amp 0.114  
Phase 173.8  
PFD 8.4e-02  
Delays (us)  
SBD 0.003216  
MBD 0.004028  
Fringe rate (Hz)  
-0.004582  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080345  
2021:252:122852  
RA & Dec (J2000)  
12h29m06.699731s  
+02°03'08.598201"



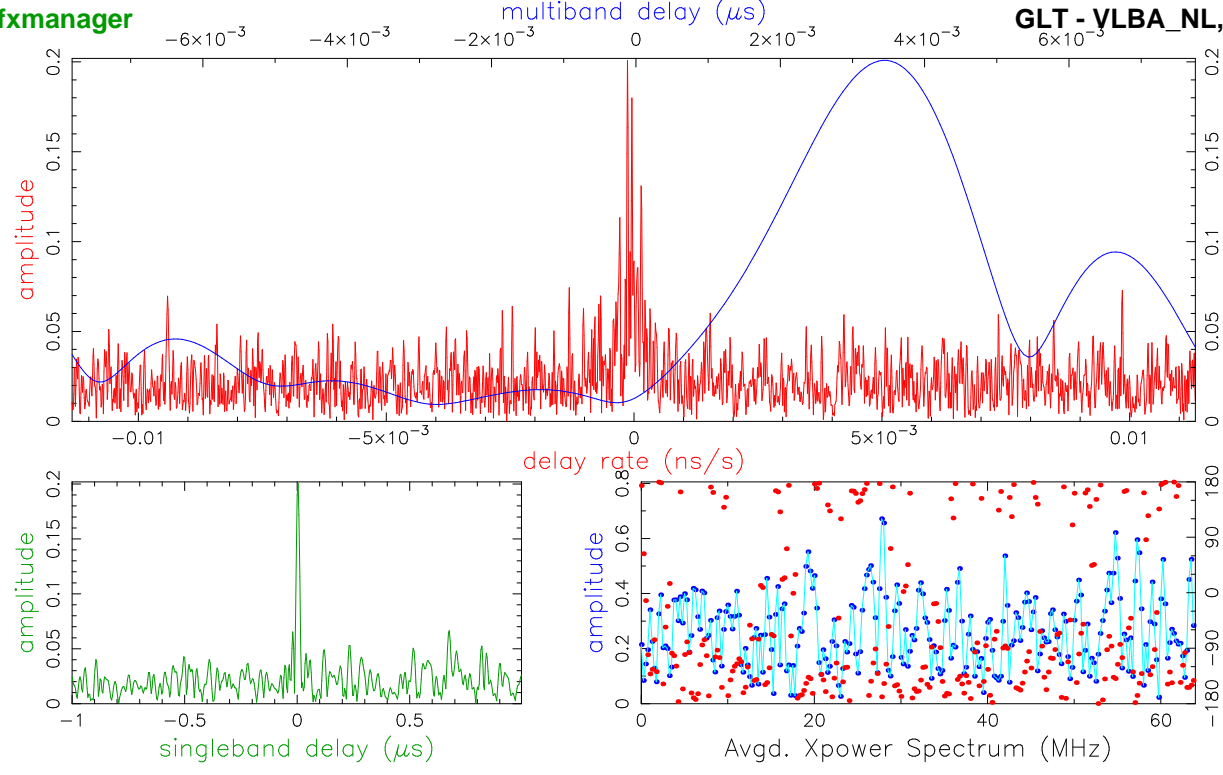
Avgd. Xpower Spectrum (MHz)

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



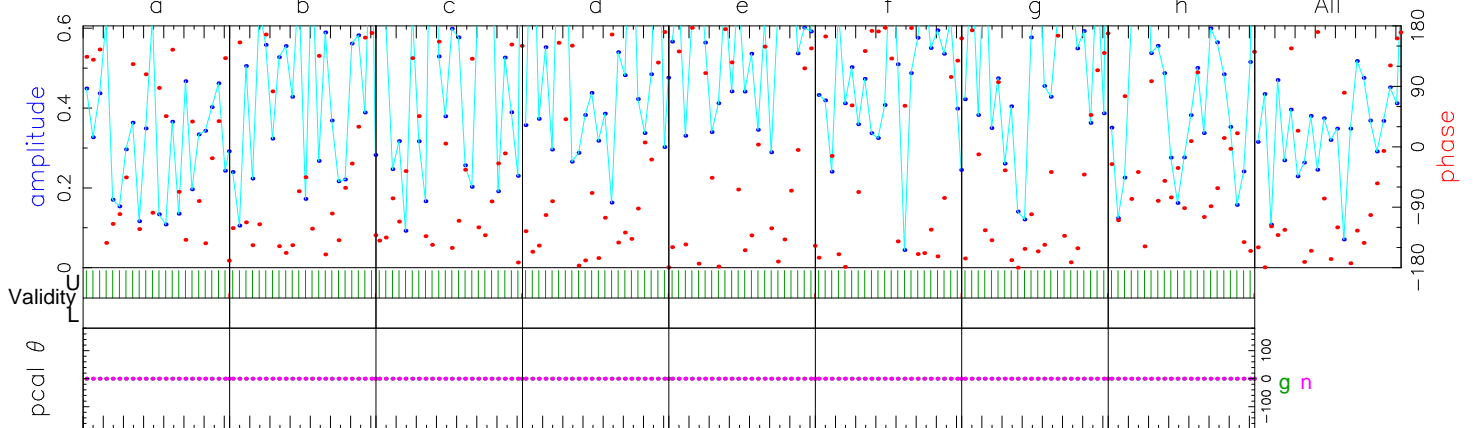
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-178.4	-170.3	165.7	152.4	157.4	15.2	-142.7	-169.2	Phase	173.8
	0.2	0.2	0.2	0.2	0.1	0.0	0.1	0.1	Ampl.	0.1
	355.2	487.0	335.4	257.9	264.3	312.0	8.2	339.9	Sbd box	257.8
U/L	805/0	805/0	805/0	805/0	805/0	805/0	805/0	805/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.95929803052E+02		Apriori delay (usec)		-4.95933831254E+02		Resid mbdelay (usec)		4.02820E-03	+/- 1.7E-04
Sband delay (usec)	-4.95930615254E+02		Apriori clock (usec)		4.8210430E+00		Resid sbdelay (usec)		3.21600E-03	+/- 1.4E-03
Phase delay (usec)	-4.95933825650E+02		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		5.60397E-06	+/- 5.9E-07
Delay rate (us/s)	3.20184131826E-01		Apriori rate (us/s)		3.20184185016E-01		Resid rate (us/s)		-5.31907E-08	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		2.06700347520E-06		Resid phase (deg)		173.8	+/- 18.2

ph/seg (deg) 63.8 43.3 Search (2048X32) 0.112 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 104.5 75.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 68.8 25.8 Inc. seg. avg. 0.146 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 51.6 45.0 Inc. frq. avg. 0.117 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 114.6 el 38.2 pa -51.6 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -1831.613 -1378.012 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/fn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/fn.W.86.1W6WJ8



Fringe quality 9  
SNR 11.3  
Int time 419.826  
Amp 0.202  
Phase -150.2  
PFD 5.3e-21  
Delays (us)  
SBD 0.002972  
MBD 0.003394  
Fringe rate (Hz)  
-0.011127  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080350  
2021:252:122852  
RA & Dec (J2000)  
12h29m06.699731s  
+02°03'08.598201"

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
	-172.3	-138.3	-133.1	-150.5	-168.4	-179.2	-157.2	-71.1	Phase	-150.2
	0.1	0.2	0.3	0.2	0.3	0.3	0.3	0.2	Ampl.	0.2
	298.9	257.9	257.0	257.2	258.0	257.5	258.9	259.7	Sbd box	257.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.32790576599E+03		Apriori delay (usec)		-8.32790915975E+03		Resid mbdelay (usec)		3.39376E-03	+/- 9.6E-05
Sband delay (usec)	-8.32790618750E+03		Apriori clock (usec)		-4.9799557E+00		Resid sbdelay (usec)		2.97225E-03	+/- 7.6E-04
Phase delay (usec)	-8.32790916459E+03		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		-4.84411E-06	+/- 3.3E-07
Delay rate (us/s)	-5.58153285744E-01		Apriori rate (us/s)		-5.58153156572E-01		Resid rate (us/s)		-1.29172E-07	+/- 1.3E-09
Total phase (deg)			Apriori accel (us/s/s)		4.54270384658E-05		Resid phase (deg)		-150.2	+/- 10.1

ph/seg (deg) 69.3 24.3 Amplitude 0.202 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 88.8 42.4 Interp. 0.194 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 37.4 14.3 Inc. seg. avg. 0.313 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 34.8 25.0 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  
g: az 169.2 el 15.2 pa -2.3 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) 3268.682 2838.463 ion window (TEC) 0.00 0.00  
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/gn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/gn.W.116.1W6WJ8 simultaneous interpolator

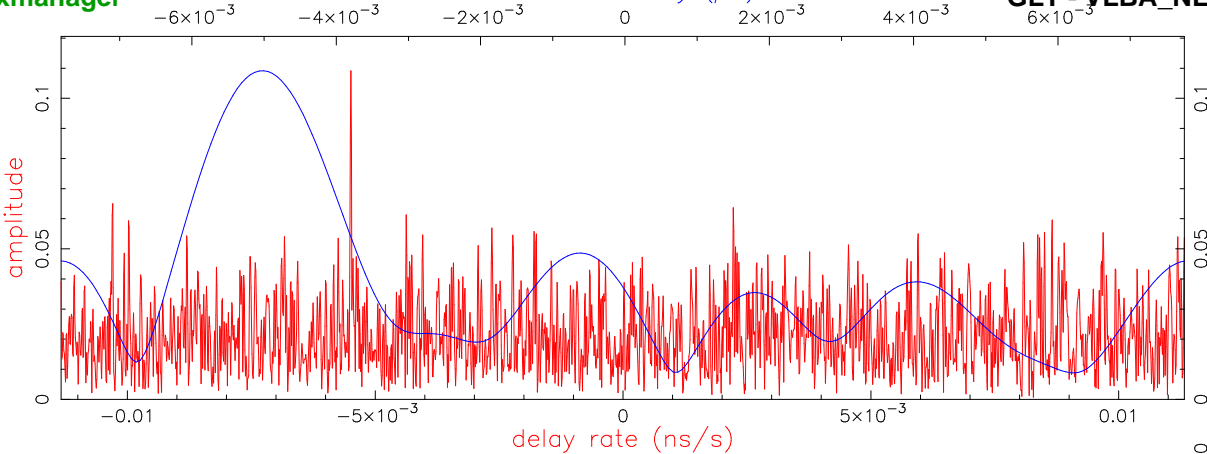
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, gn

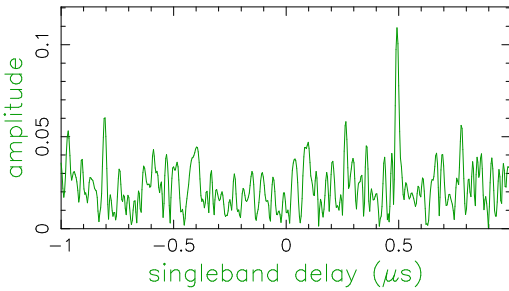
GLT - VLBA\_NL, fgroup W, pol LR

multiband delay ( $\mu$ s)

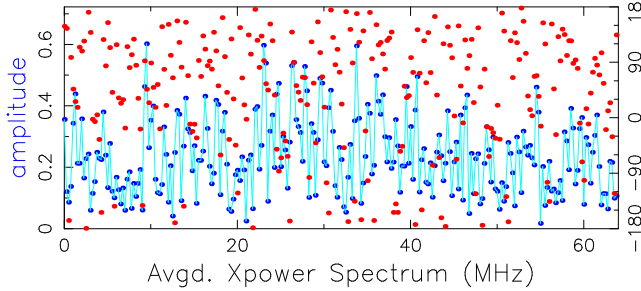


Fringe quality 0

SNR 6.1  
 Int time 419.823  
 Amp 0.121  
 Phase 66.9  
 PFD 2.2e-01  
 Delays (us)  
 SBD 0.492417  
 MBD -0.005009  
 Fringe rate (Hz)  
 -0.474161  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

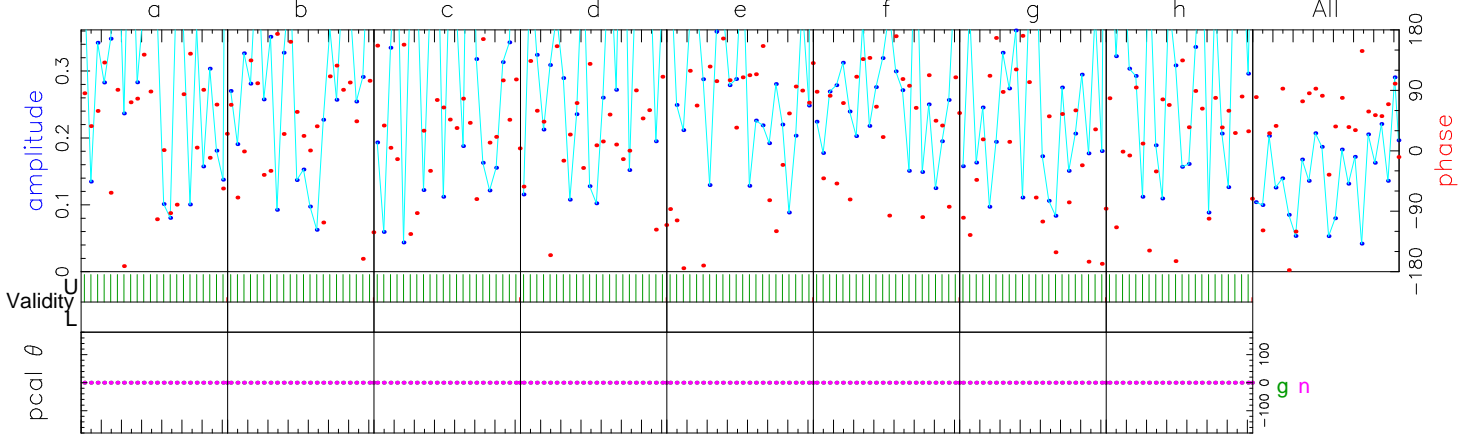


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080354  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

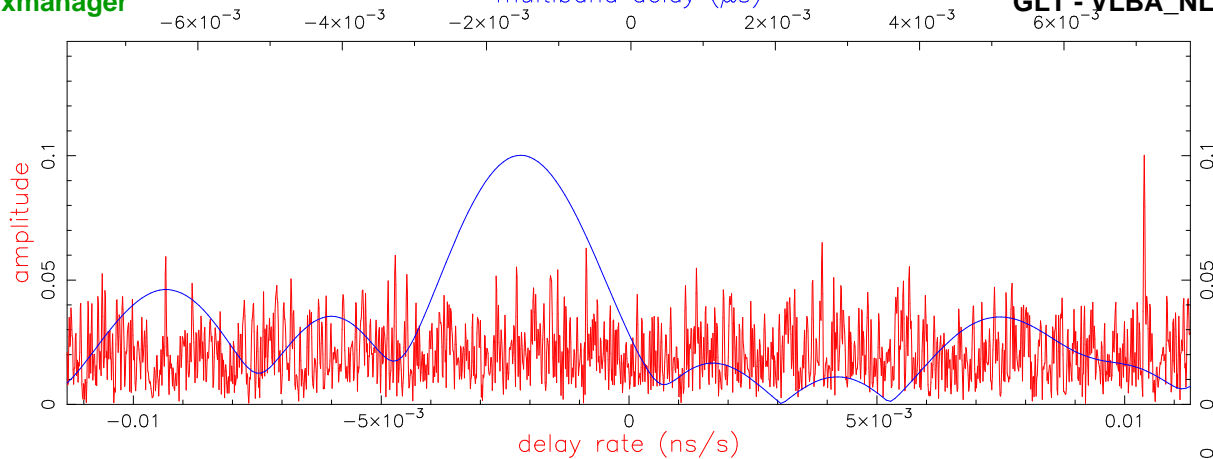
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0			
g	0	0	0	0	0	0	0	0			
n	1000	1000	1000	1000	1000	1000	1000	1000			
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
g	1000	1000	1000	1000	1000	1000	1000	1000			
n	1000	1000	1000	1000	1000	1000	1000	1000			
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)	-8.32741416900E+03				-8.32790915975E+03				-5.00925E-03	+/- 1.8E-04	
Sband delay (usec)	-8.32741674250E+03				-4.9799557E+00				4.92417E-01	+/- 1.4E-03	
Phase delay (usec)	-8.32790915759E+03				-2.4000000E-07				2.15813E-06	+/- 6.0E-07	
Delay rate (us/s)	-5.58158661115E-01				-5.58153156572E-01				-5.50454E-06	+/- 2.5E-09	
Total phase (deg)			59.5		4.54270384658E-05				66.9	+/- 18.7	
	RMS	Theor.	Amplitude	0.121 +/- 0.020	Pcal mode: MANUAL, MANUAL				PC period (AP's) 5, 5		
ph/seg (deg)	67.7	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 (%)	64.9	78.4	Interp.	0.000	Bits/sample: 2x2				SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	31.4	26.5	Inc. seg. avg.	0.123	Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011	
amp/frq (%)	38.7	46.2	Inc. frq. avg.	0.120	Data rate(Mb/s): 2048				nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

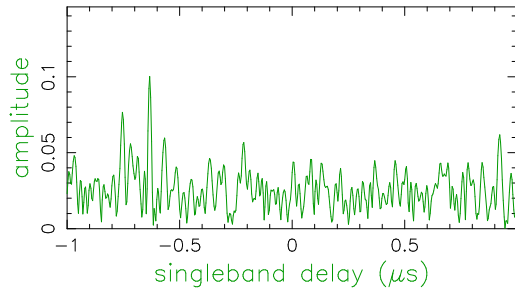
g: az 169.2 el 15.2 pa -2.3 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) 3268.682 2838.463 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/gn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/gn.W.135.1W6WJ8

multiband delay ( $\mu$ s)

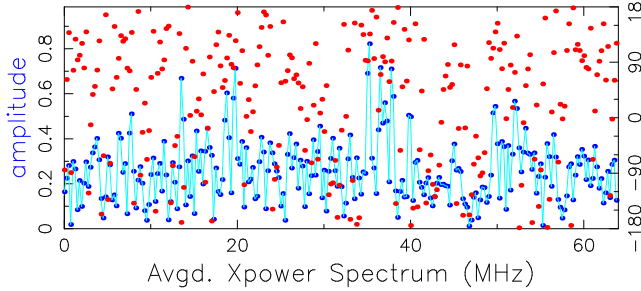


Fringe quality 0

SNR 5.6  
Int time 419.826  
Amp 0.146  
Phase 27.4  
PFD 9.9e-01  
Delays (us)  
SBD -0.633353  
MBD -0.001545  
Fringe rate (Hz)  
0.896653  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

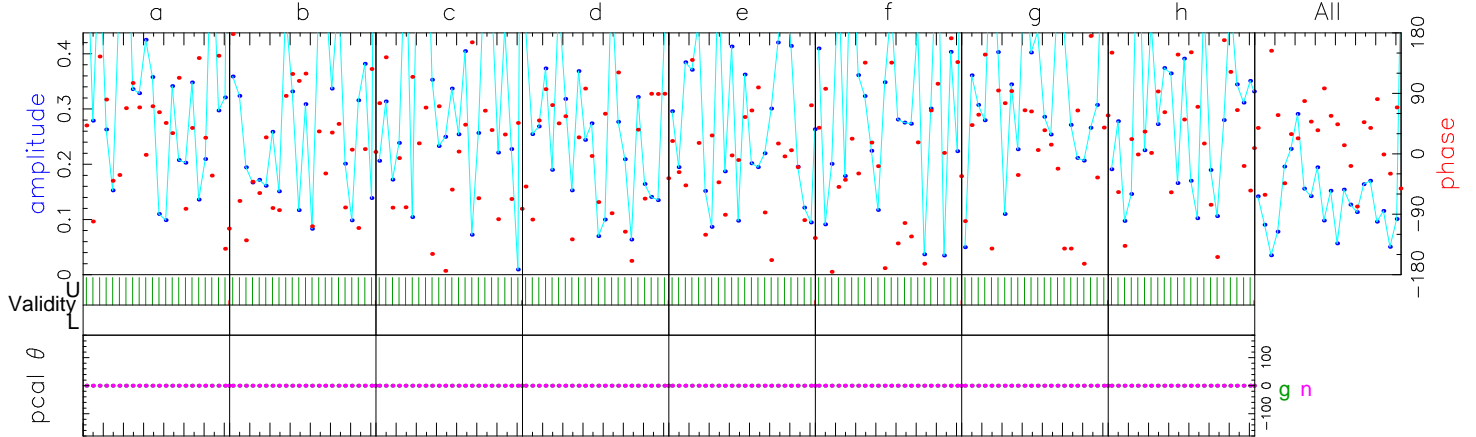


delay rate (ns/s)



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080358  
2021:252:122852  
RA & Dec (J2000)  
12h29m06.699731s  
+02°03'08.598201"

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
	46.7	8.7	16.5	36.5	-4.6	61.6	50.7	26.4	Phase	27.4
	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	Ampl.	0.1
	213.9	60.0	99.8	7.7	334.5	312.9	64.2	7.2	Sbd box	94.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.32853570505E+03		Apriori delay (usec)		-8.32790915975E+03		Resid mbdelay (usec)		-1.54530E-03	+/- 1.9E-04
Sband delay (usec)	-8.32854251225E+03		Apriori clock (usec)		-4.9799557E+00		Resid sbdelay (usec)		-6.33353E-01	+/- 1.5E-03
Phase delay (usec)	-8.32790915886E+03		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		8.83055E-07	+/- 6.6E-07
Delay rate (us/s)	-5.58142747320E-01		Apriori rate (us/s)		-5.58153156572E-01		Resid rate (us/s)		1.04093E-05	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		4.54270384658E-05		Resid phase (deg)		27.4	+/- 20.4

	RMS	Theor.	Amplitude	0.146 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	53.1	48.9	Search (2048X32)	0.097	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	75.9	85.3	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	24.7	28.8	Inc. seg. avg.	0.146	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	31.8	50.3	Inc. frq. avg.	0.138	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

g: az 169.2 el 15.2 pa -2.3 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) 3268.682 2838.463 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/gn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/gn.W.156.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

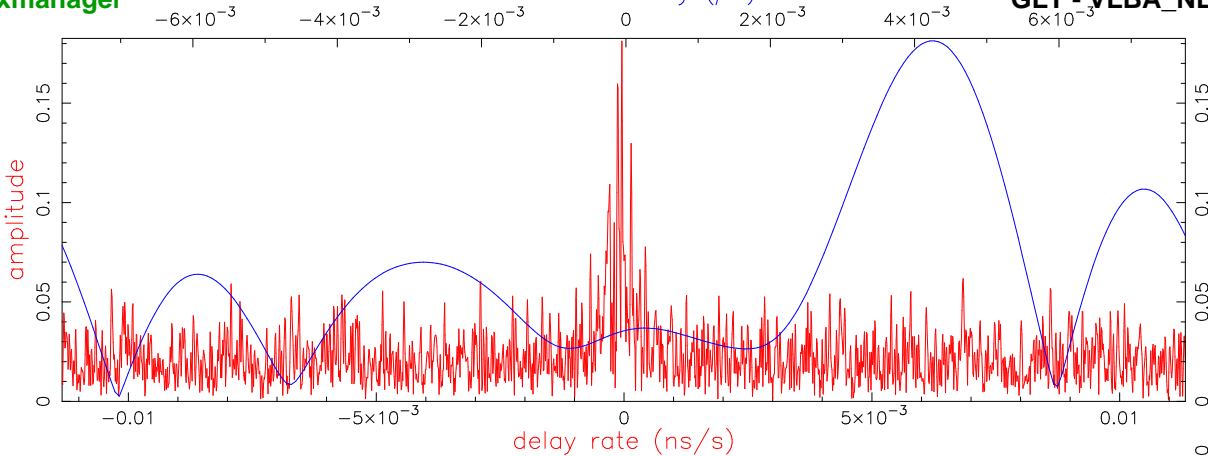
fxmanager

3C273.1W6WJ8, No0155, gn

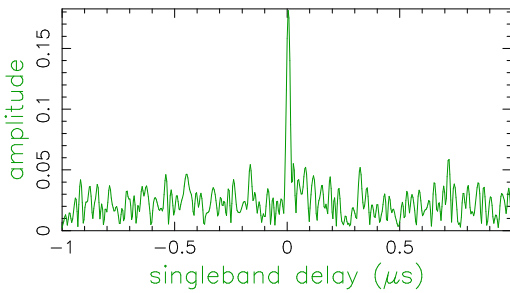
GLT - VLBA\_NL, fgroup W, pol LL

multiband delay ( $\mu$ s)

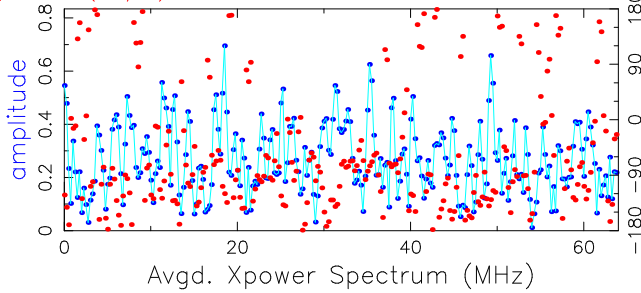
Fringe quality 9



SNR 10.2  
 Int time 419.823  
 Amp 0.183  
 Phase -101.5  
 PFD 6.2e-16  
 Delays (us)  
 SBD 0.005075  
 MBD 0.004298  
 Fringe rate (Hz)  
 -0.003518  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

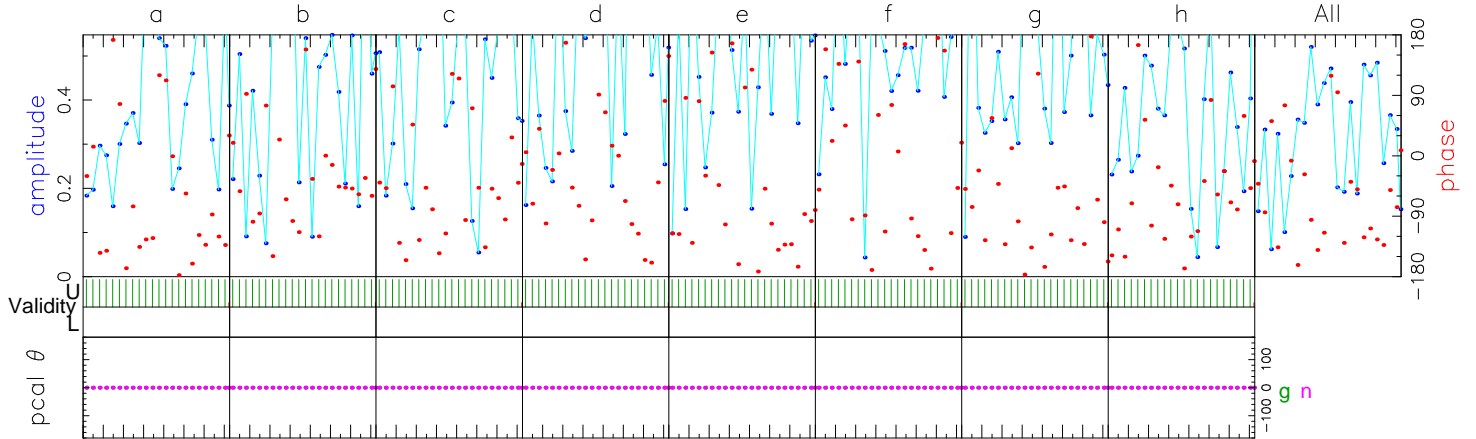


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080347  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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
	-135.0	-59.4	-90.1	-75.7	-125.2	-166.5	-98.1	-74.2	Phase	-101.5
	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.1	Ampl.	0.2
	259.4	257.9	256.9	282.1	257.0	257.3	259.2	260.3	Sbd box	258.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.32790486172E+03		Apriori delay (usec)		-8.32790915975E+03		Resid mbdelay (usec)		4.29802E-03	+/- 1.1E-04
Sband delay (usec)	-8.32790408475E+03		Apriori clock (usec)		-4.9799557E+00		Resid sbdelay (usec)		5.07500E-03	+/- 8.4E-04
Phase delay (usec)	-8.32790916302E+03		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		-3.27319E-06	+/- 3.6E-07
Delay rate (us/s)	-5.58153197412E-01		Apriori rate (us/s)		-5.58153156572E-01		Resid rate (us/s)		-4.08406E-08	+/- 1.5E-09
Total phase (deg)			Apriori accel (us/s/s)		4.54270384658E-05		Resid phase (deg)		-101.5	+/- 11.2

ph/seg (deg) 79.5 26.9 Search (2048X32) 0.175 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 103.6 46.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 39.3 15.8 Inc. seg. avg. 0.289 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 32.0 27.6 Inc. frq. avg. 0.206 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 g: az 169.2 el 15.2 pa -2.3 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) 3268.682 2838.463 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/gn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/gn.W.98.1W6WJ8



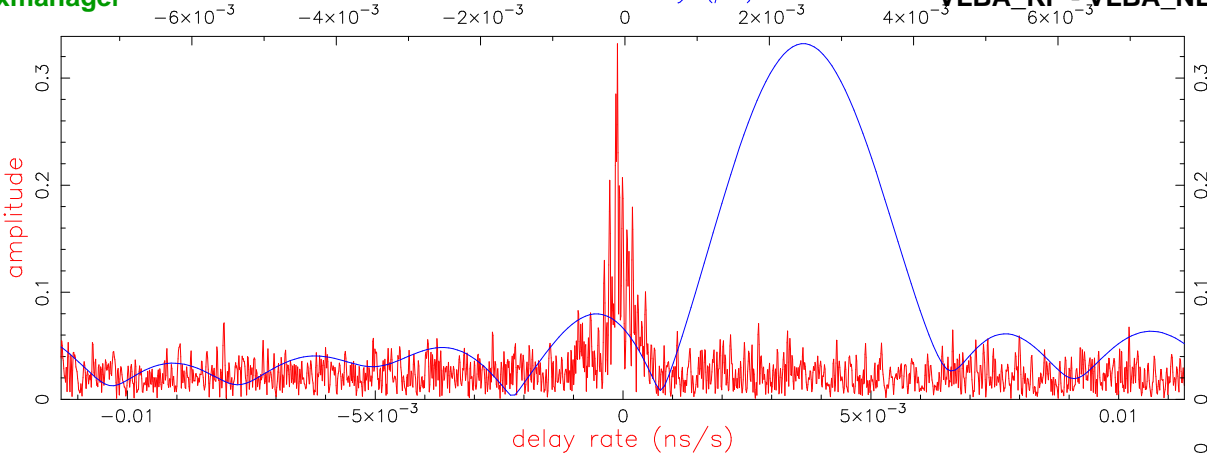
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kn

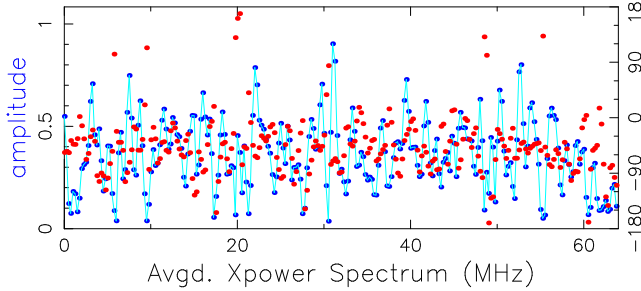
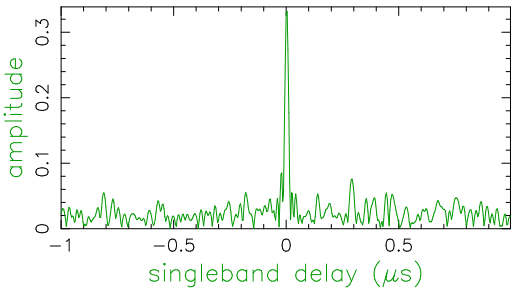
VLBA\_KP - VLBA\_NL, fgroup W, pol LL

multiband delay ( $\mu$ s)



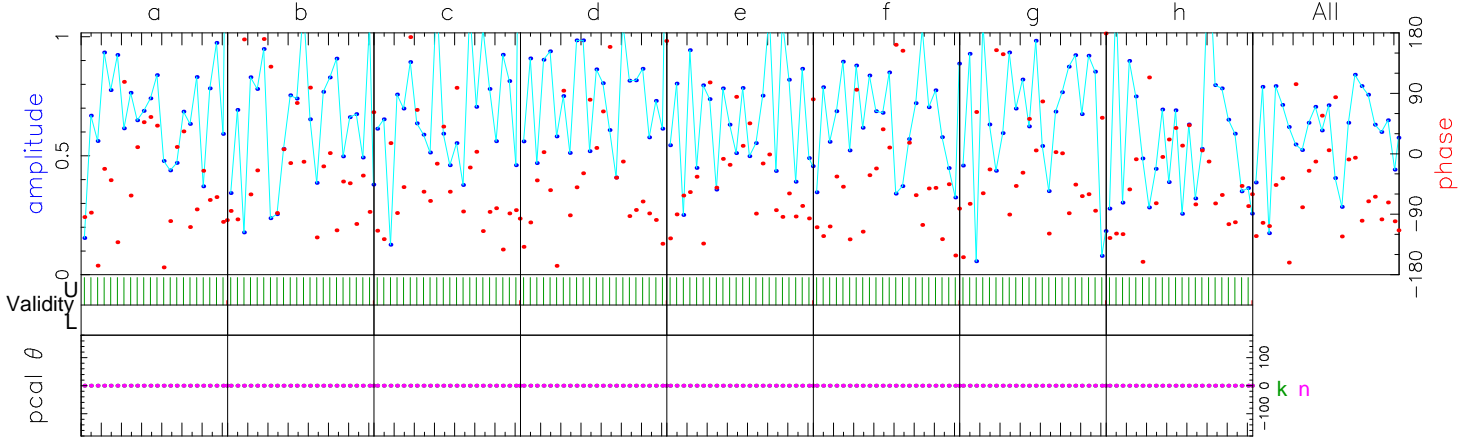
Fringe quality 9

SNR 19.0  
 Int time 419.714  
 Amp 0.339  
 Phase -55.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.002084  
 MBD 0.002434  
 Fringe rate (Hz)  
 -0.009621  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080402  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-2.4773956531E+03	-2.47739600379E+03	-2.47739808934E+03	-2.47739808754E+03	-2.47739808754E+03	-2.47739808754E+03	-2.47739808754E+03	-2.47739808754E+03	2.43444E-03	+/- 5.7E-05
Sband delay (usec)	-2.47739600379E+03	-2.47739600379E+03	-2.47739808934E+03	-2.47739808754E+03	-2.47739808754E+03	-2.47739808754E+03	-2.47739808754E+03	-2.47739808754E+03	2.08375E-03	+/- 4.5E-04
Phase delay (usec)	-2.47739808934E+03	-2.47739808934E+03	-2.47739808934E+03	-2.47739808934E+03	-2.47739808934E+03	-2.47739808934E+03	-2.47739808934E+03	-2.47739808934E+03	-1.80291E-06	+/- 1.9E-07
Delay rate (us/s)	4.24266750089E-01	4.24266750089E-01	4.24266750089E-01	4.24266750089E-01	4.24266750089E-01	4.24266750089E-01	4.24266750089E-01	4.24266750089E-01	-1.11687E-07	+/- 8.0E-10
Total phase (deg)			-149.8						-55.9	+/- 6.0
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
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										
ion window (TEC)										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

ph/seg (deg) 67.8 14.5 Search (2048X32) 0.329 PC period (AP's) 5, 5  
 amp/seg (%) 92.4 25.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 9.4 8.5 Inc. seg. avg. 0.584 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 9.5 14.9 Inc. frq. avg. 0.332 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 k: az 109.7 el 31.6 pa -52.9 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -2411.599 -1174.879 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kn.W.164.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

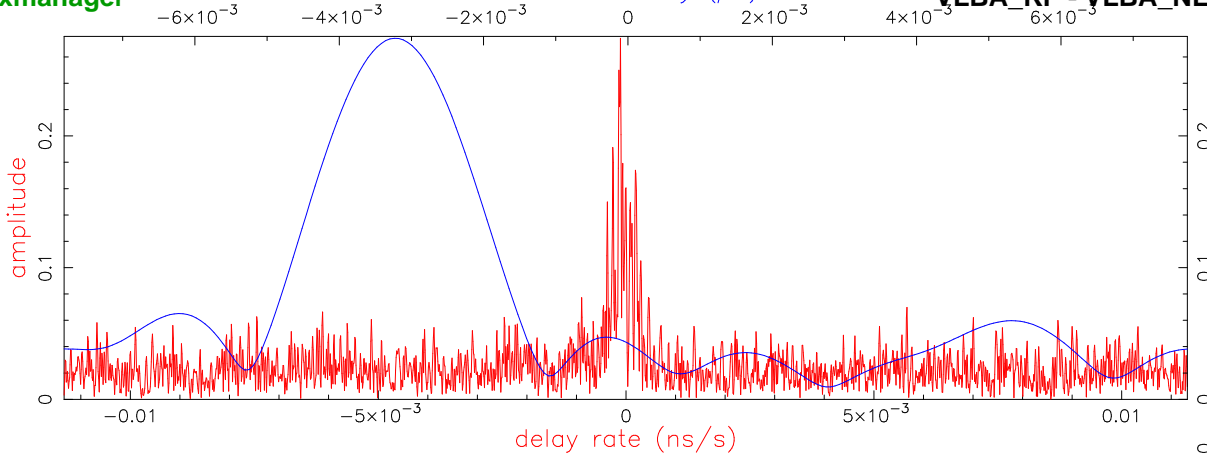
fxmanager

3C273.1W6WJ8, No0155, kn

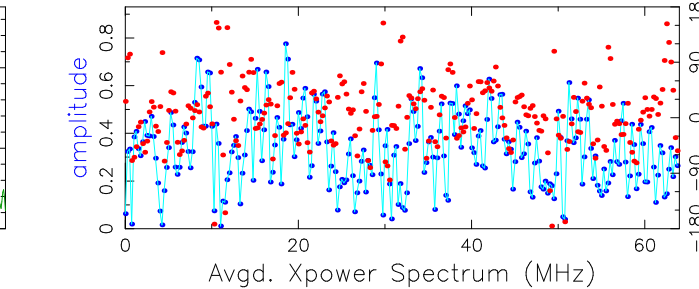
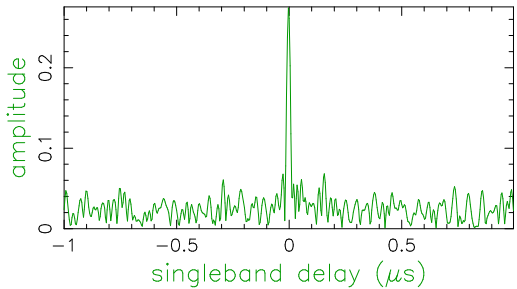
VLBA\_KP - VLBA\_NL, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 9

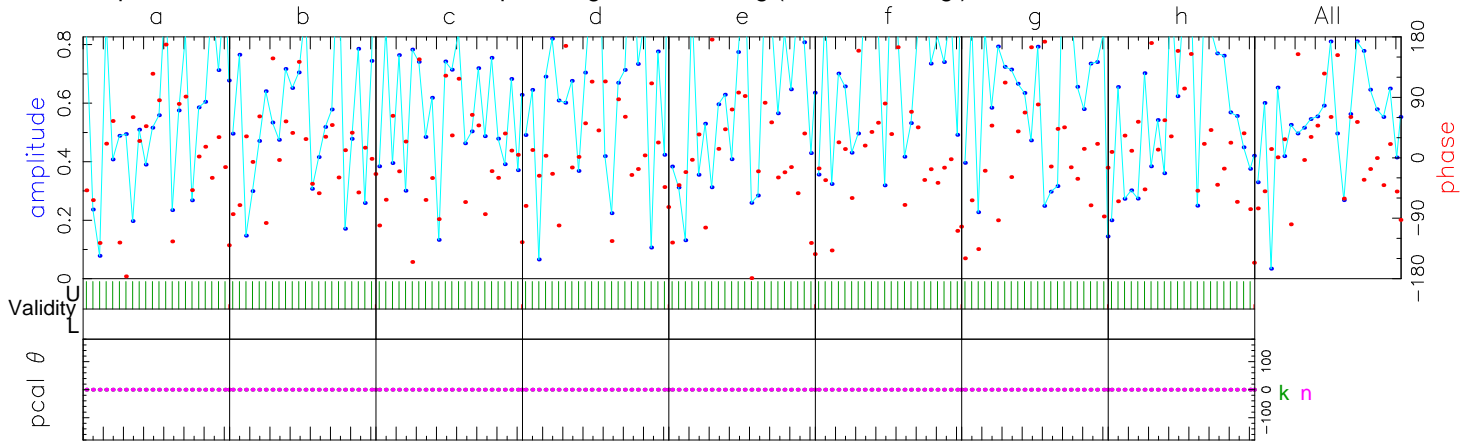


SNR 15.4  
 Int time 419.714  
 Amp 0.276  
 Phase 9.1  
 PFD 5.6e-45  
 Delays (us)  
 SBD -0.002982  
 MBD -0.003203  
 Fringe rate (Hz)  
 -0.009625  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080406  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	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)	-2.47740129076E+03								Resid mbdelay (usec)	-3.20322E-03 +/- 7.0E-05
Sband delay (usec)	-2.47740106954E+03								Resid sbdelay (usec)	-2.98200E-03 +/- 5.6E-04
Phase delay (usec)	-2.47739808725E+03								Resid phdelay (usec)	2.93041E-07 +/- 2.4E-07
Delay rate (us/s)	4.24266750039E-01								Resid rate (us/s)	-1.11737E-07 +/- 9.9E-10
Total phase (deg)			-84.8						Resid phase (deg)	9.1 +/- 7.4
	RMS	Theor.	Amplitude	0.276 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	68.0	17.8	Search (2048X32)	0.267					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	114.0	31.1	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	11.4	10.5	Inc. seg. avg.	0.513					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	24.3	18.3	Inc. frq. avg.	0.273					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
			Apriori delay (usec)	-2.47739808754E+03					nlags: 256	t_cohere infinite
			Apriori clock (usec)	-5.0876942E+00						
			Apriori clockrate (us/s)	-2.9999999E-07						
			Apriori rate (us/s)	4.24266861776E-01						
			Apriori accel (us/s/s)	1.26256971962E-05						

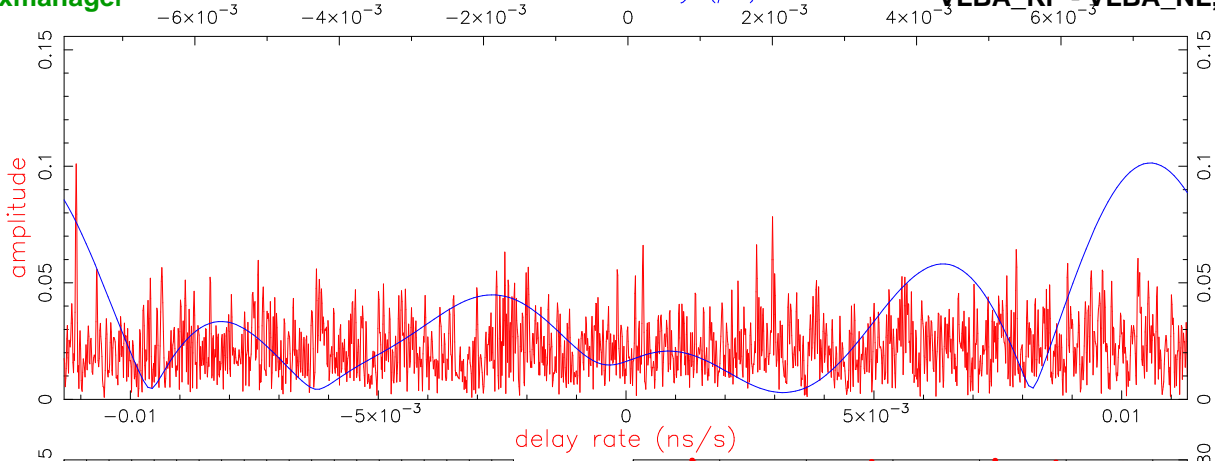
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

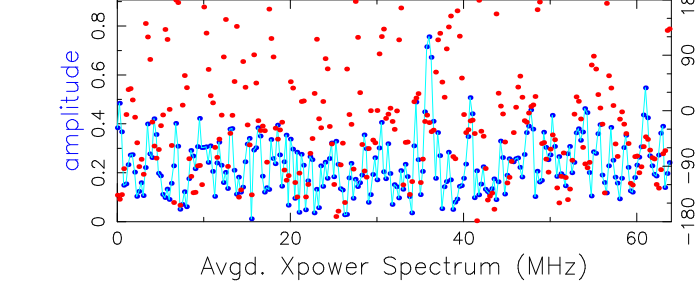
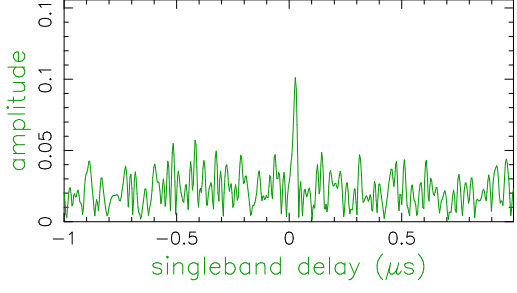
3C273.1W6WJ8, No0155, kn

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

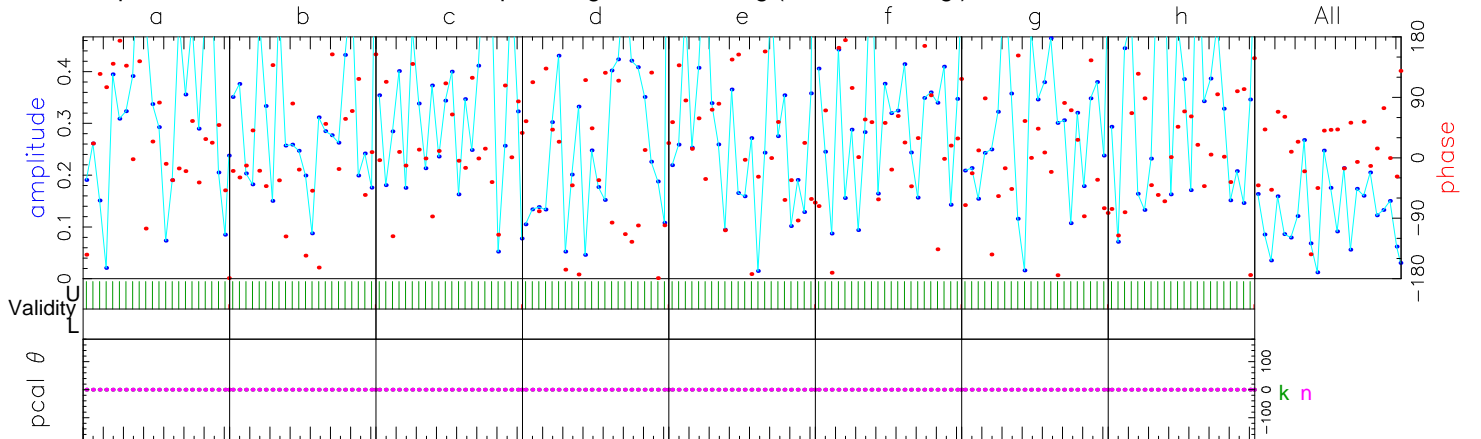
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 5.7  
 Int time 419.714  
 Amp 0.156  
 Phase 15.3  
 PFD 9.7e-01  
 Delays (us)  
 SBD 0.027656  
 MBD -0.008301  
 Fringe rate (Hz)  
 -0.957299  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080410  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-2.47737513832E+03				-2.47739808754E+03				-8.30078E-03	+/- 1.9E-04
Sband delay (usec)	-2.47737043104E+03				-5.0876942E+00				2.76565E-02	+/- 1.5E-03
Phase delay (usec)	-2.47739808705E+03				-2.9999999E-07				4.91911E-07	+/- 6.5E-07
Delay rate (us/s)	4.24255748480E-01				4.24266861776E-01				-1.11133E-05	+/- 2.7E-09
Total phase (deg)			-78.6		1.26256971962E-05				15.3	+/- 20.2
	RMS	Theor.	Amplitude	0.156 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	51.0	48.5	Search (2048X32)	0.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)		-1.000	1.000	
amp/seg (%)	72.0	84.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	50.5	28.6	Inc. seg. avg.	0.147	Sample rate(MISamp/s): 128	dr window (ns/s)		-0.011	0.011	
amp/frq (%)	41.0	49.9	Inc. frq. avg.	0.152	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00

k: az 109.7 el 31.6 pa -52.9 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -2411.599 -1174.879 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kn.W.205.1W6WJ8

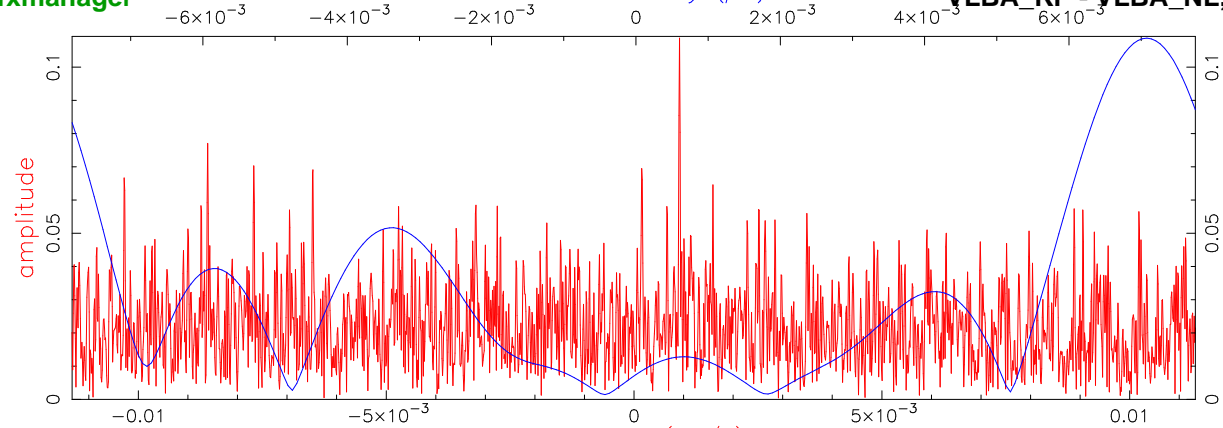
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

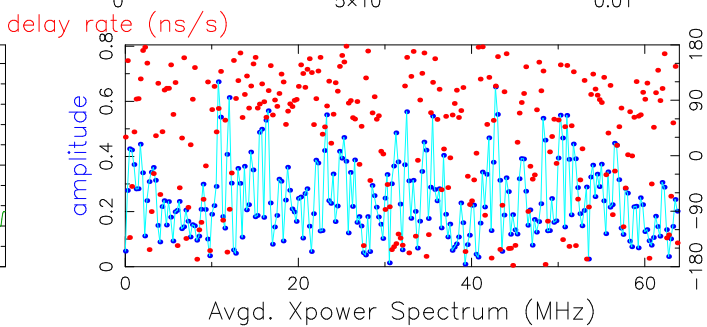
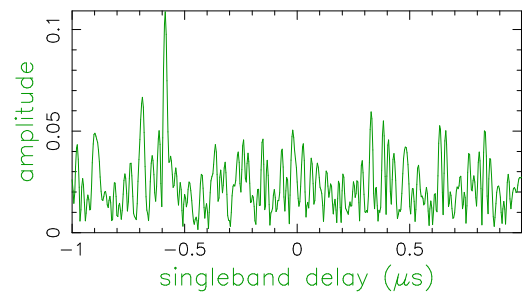
3C273.1W6WJ8, No0155, kn

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

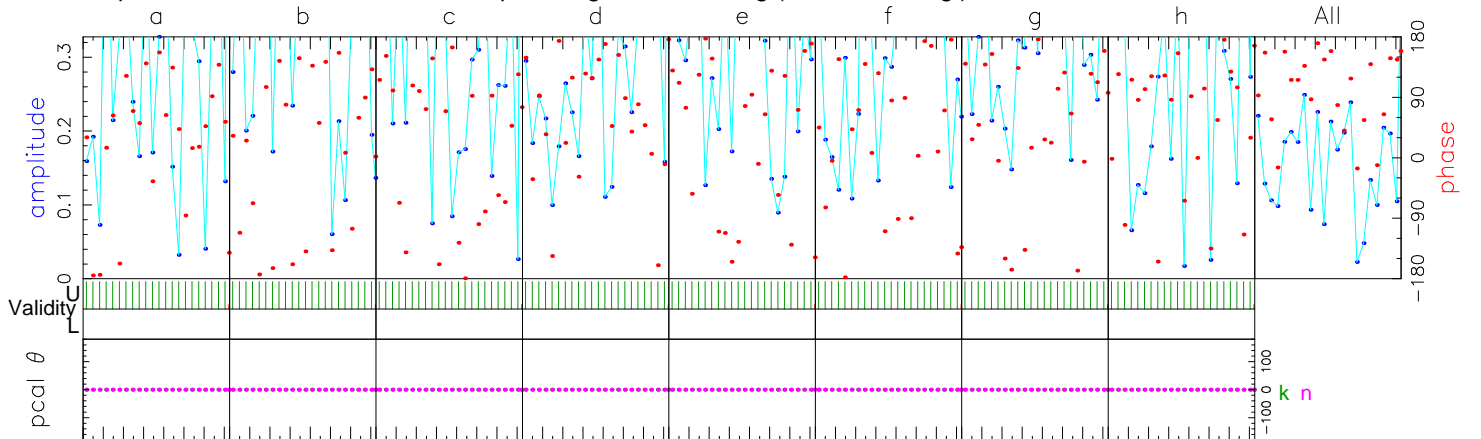
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 6.1  
 Int time 419.714  
 Amp 0.109  
 Phase 116.6  
 PFD 2.4e-01  
 Delays (us)  
 SBD -0.586593  
 MBD 0.007067  
 Fringe rate (Hz) 0.078811  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211a  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build 2021:287:071811  
 2021:287:080414  
 2021:252:122852  
 RA & Dec (J2000) 12h29m06.699731s +02°03'08.598201"



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
89.2	136.5	122.6	96.1	148.4	106.9	108.4	119.2		Phase	116.6
0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1		Ampl.	0.1
79.4	6.8	450.9	205.8	118.3	135.8	141.6	245.9		Sbd box	106.8
U/L 820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used	
k 1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
n 1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
k:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
k:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Manl PC	
k 1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
n 1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	-2.47798477034E+03		Apriori delay (usec)		-2.47739808754E+03		Resid mbdelay (usec)		7.06720E-03	+/- 1.8E-04
Sband delay (usec)	-2.47798468079E+03		Apriori clock (usec)		-5.0876942E+00		Resid sbdelay (usec)		-5.86593E-01	+/- 1.4E-03
Phase delay (usec)	-2.47739808378E+03		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		3.76095E-06	+/- 6.1E-07
Delay rate (us/s)	4.24267776694E-01		Apriori rate (us/s)		4.24266861776E-01		Resid rate (us/s)		9.14918E-07	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		1.26256971962E-05		Resid phase (deg)		116.6	+/- 18.8

	RMS	Theor.	Amplitude	0.109 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	60.7	45.0	Search (2048X32)	0.104	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	75.0	78.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	21.5	26.6	Inc. seg. avg.	0.120	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	29.8	46.3	Inc. frq. avg.	0.104	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

k: az 109.7 el 31.6 pa -52.9 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -2411.599 -1174.879 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kn.W.225.1W6WJ8

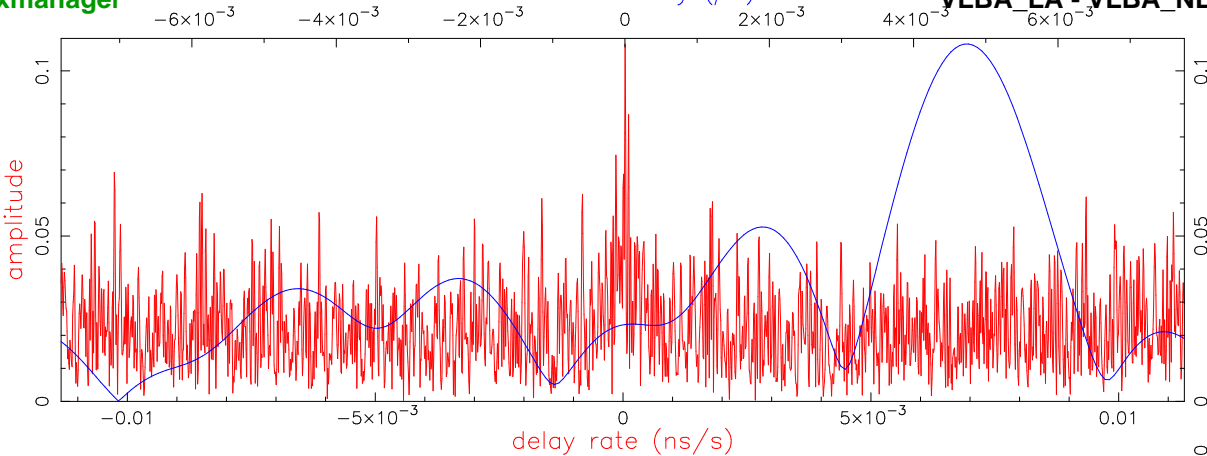
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, In

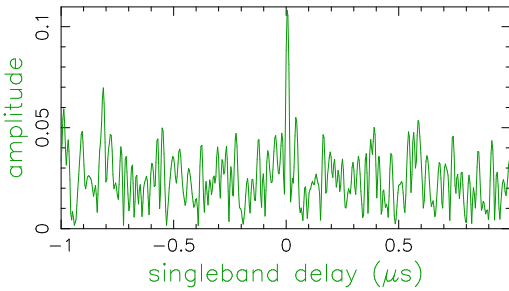
VLBA\_LA - VLBA\_NL, fgroup W, pol LL

multiband delay ( $\mu$ s)

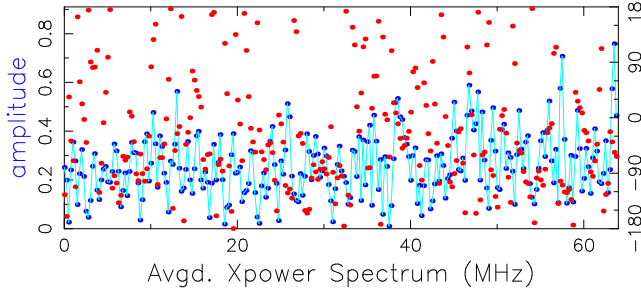


Fringe quality 0

SNR 6.2  
 Int time 419.825  
 Amp 0.110  
 Phase -54.8  
 PFD 1.8e-01  
 Delays (us)  
 SBD 0.005413  
 MBD 0.004785  
 Fringe rate (Hz) 0.004194  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

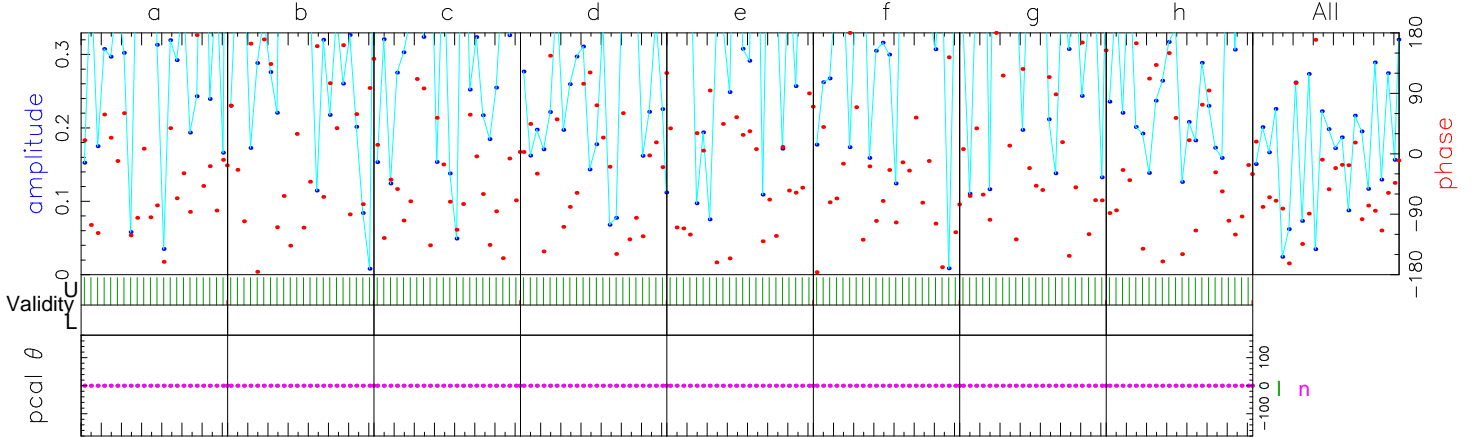


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080403  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



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

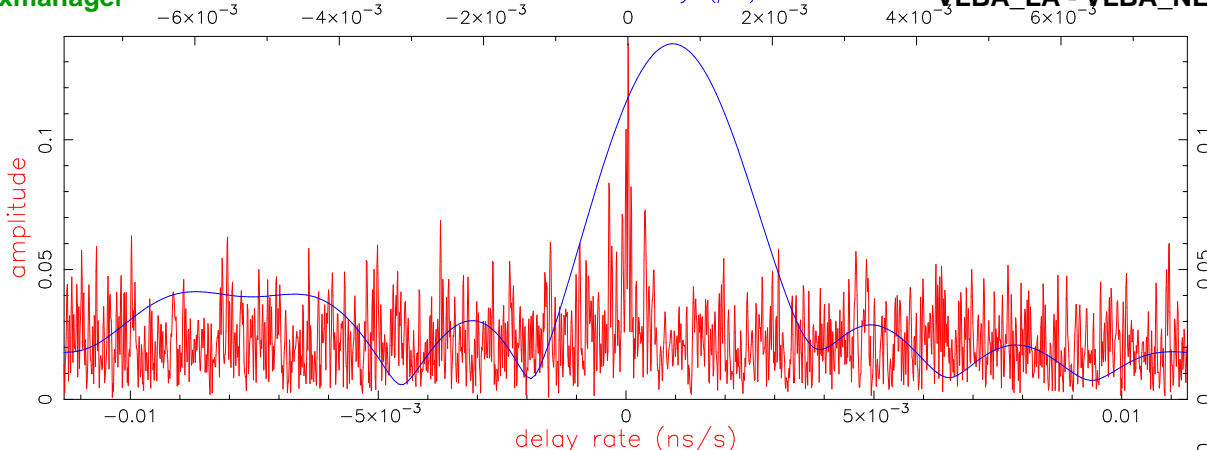
Group delay (usec)(sbd)	-1.69251709511E+03	Apriori delay (usec)	-1.69252187999E+03	Resid mbdelay (usec)	4.78488E-03	+/-	1.8E-04
Sband delay (usec)	-1.69251646724E+03	Apriori clock (usec)	-7.9935150E+00	Resid sbdelay (usec)	5.41275E-03	+/-	1.4E-03
Phase delay (usec)	-1.69252188176E+03	Apriori clockrate (us/s)	-5.8600000E-07	Resid phdelay (usec)	-1.76787E-06	+/-	6.0E-07
Delay rate (us/s)	3.02348501534E-01	Apriori rate (us/s)	3.02348452850E-01	Resid rate (us/s)	4.86836E-08	+/-	2.5E-09
Total phase (deg)	-322.0	Apriori accel (us/s/s)	8.64740802999E-06	Resid phase (deg)	-54.8	+/-	18.6

ph/seg (deg)	63.2	Theor.	44.7	Amplitude	0.110 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	89.0		77.9	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	27.5		26.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	34.1		46.0	Inc. seg. avg.	0.131	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.104	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

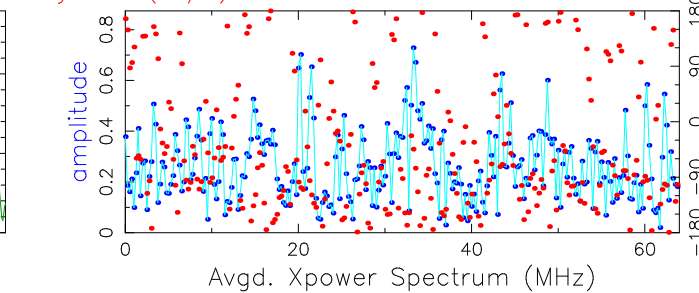
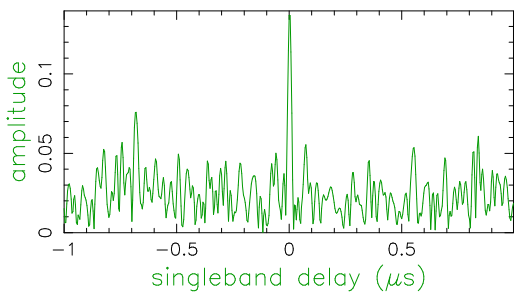
l: az 116.1 el 34.2 pa -46.5 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -1719.104 -696.281 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/ln..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/ln.W.166.1W6WJ8

multiband delay ( $\mu$ s)

Fringe quality 9

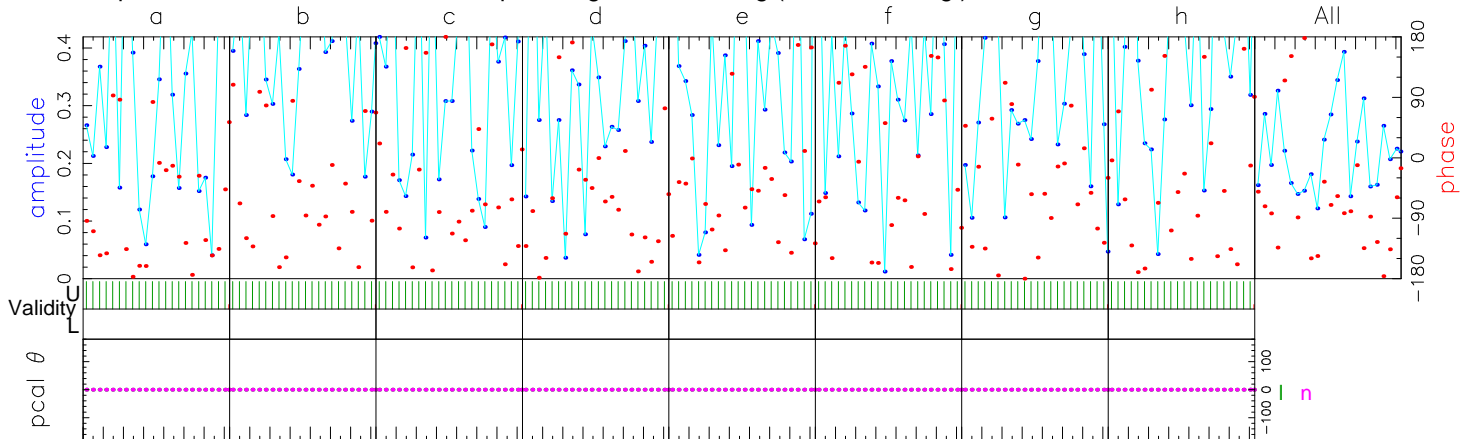


SNR 7.8  
Int time 419.826  
Amp 0.140  
Phase -98.2  
PFD 1.6e-06  
Delays (us)  
SBD 0.001922  
MBD 0.000648  
Fringe rate (Hz)  
0.003740  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080406  
2021:252:122852  
RA & Dec (J2000)  
12h29m06.699731s  
+02°03'08.598201"

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
	-100.9	-94.4	-104.5	-96.8	-79.3	-133.4	-63.3	-113.6	Phase	-98.2
	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	Ampl.	0.1
	324.4	472.4	46.0	386.1	257.3	106.5	147.5	92.6	Sbd box	257.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.69252123214E+03					-1.69252187999E+03			Resid mbdelay (usec)	6.47851E-04 +/- 1.4E-04
Sband delay (usec)	-1.69251995774E+03					-7.9935150E+00			Resid sbdelay (usec)	1.92225E-03 +/- 1.1E-03
Phase delay (usec)	-1.69252188316E+03					-5.8600000E-07			Resid phdelay (usec)	-3.16805E-06 +/- 4.7E-07
Delay rate (us/s)	3.02348496262E-01					3.02348452850E-01			Resid rate (us/s)	4.34119E-08 +/- 1.9E-09
Total phase (deg)			-5.4			8.64740802999E-06			Resid phase (deg)	-98.2 +/- 14.6
	RMS	Theor.	Amplitude	0.140 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	59.0	35.1	Search (2048X32)	0.136					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	79.8	61.2	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	22.8	20.7	Inc. seg. avg.	0.189					Sample rate(MSamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	20.7	36.1	Inc. frq. avg.	0.135					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite
l: az 116.1 el 34.2 pa -46.5		n: az 134.1 el 40.2 pa -31.9		u, v (fr/asec) -1719.104 -696.281						simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

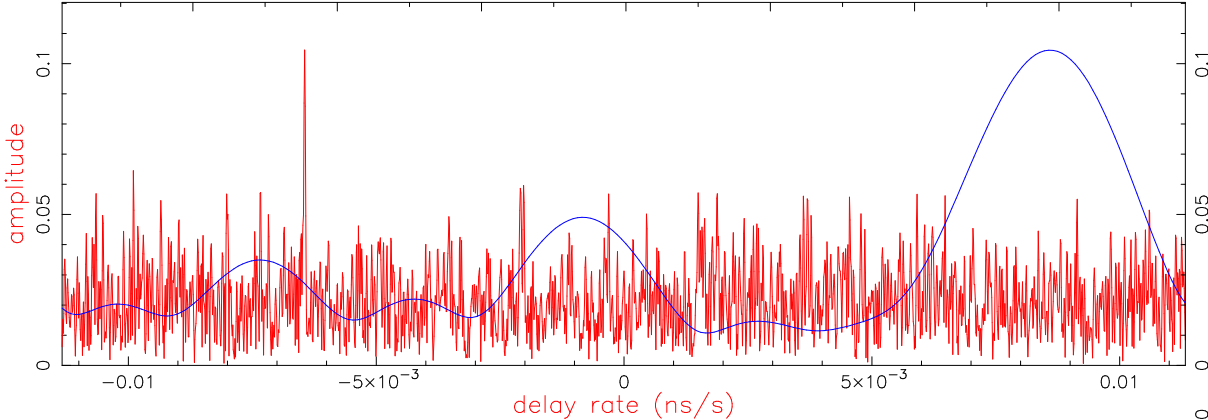
3C273.1W6WJ8, No0155, In

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

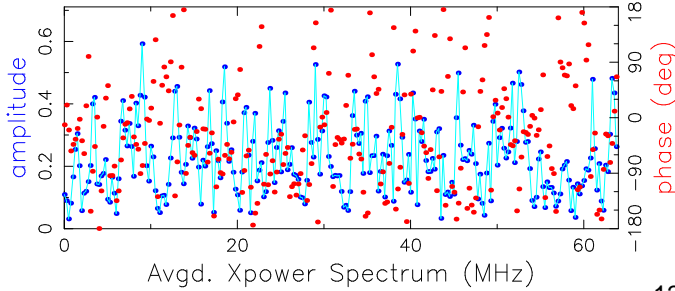
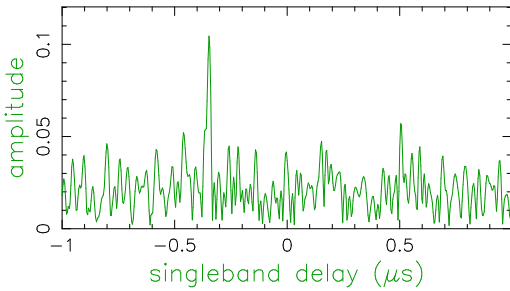
multiband delay ( $\mu$ s)

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

Fringe quality 0

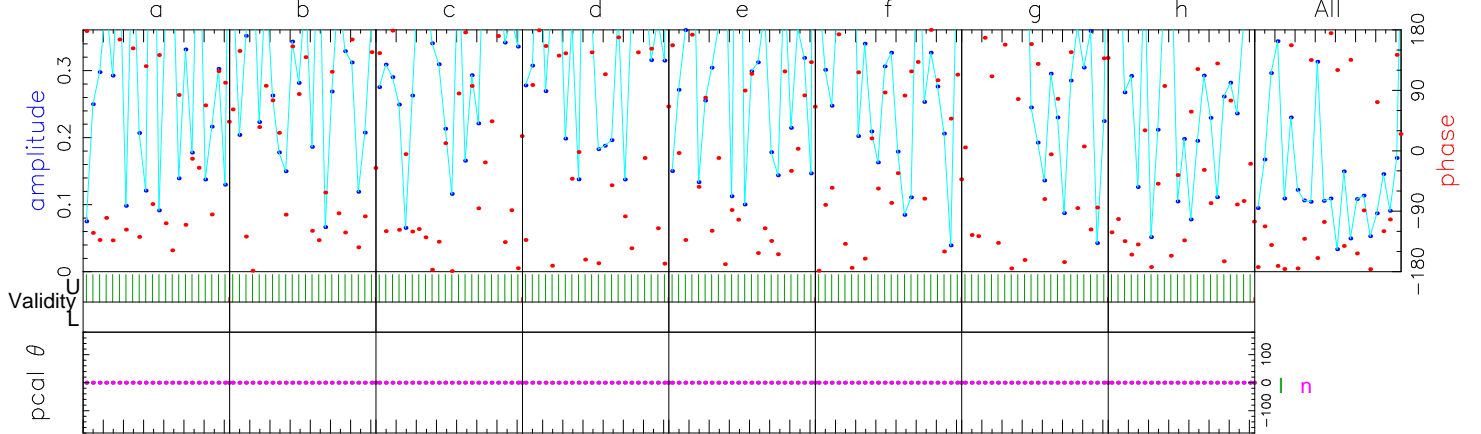


SNR 5.9  
 Int time 419.825  
 Amp 0.120  
 Phase -161.4  
 PFD 6.5e-01  
 Delays (us)  
 SBD -0.346863  
 MBD 0.005883  
 Fringe rate (Hz)  
 -0.556031  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080409  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



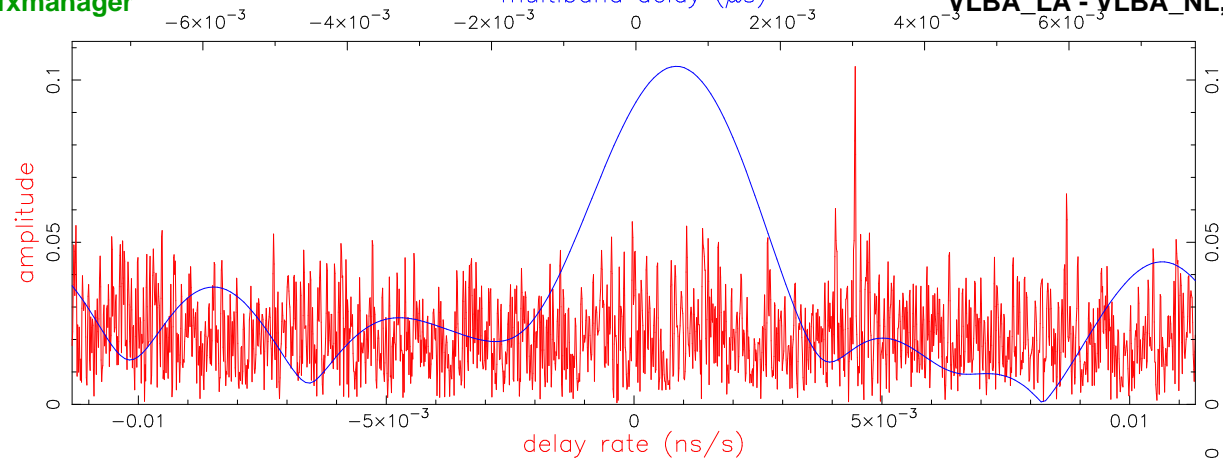
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-126.9	167.2	-145.5	-180.0	-153.8	179.9	178.6	-106.0		-161.4
	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1
	53.5	113.6	291.8	167.1	69.7	295.1	386.9	219.3	Sbd box	168.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.69287537150E+03		Apriori delay (usec)		-1.69252187999E+03		Resid mbdelay (usec)		5.88349E-03	+/- 1.8E-04
Sband delay (usec)	-1.69286874299E+03		Apriori clock (usec)		-7.9935150E+00		Resid sbdelay (usec)		-3.46863E-01	+/- 1.5E-03
Phase delay (usec)	-1.69252188519E+03		Apriori clockrate (us/s)		-5.8600000E-07		Resid phdelay (usec)		-5.20328E-06	+/- 6.3E-07
Delay rate (us/s)	3.02341997885E-01		Apriori rate (us/s)		3.02348452850E-01		Resid rate (us/s)		-6.45496E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		8.64740802999E-06		Resid phase (deg)		-161.4	+/- 19.5

	RMS	Theor.	Amplitude	0.120 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	51.7	46.7	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	89.5	81.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	33.3	27.6	Inc. seg. avg.	0.123	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	30.7	48.1	Inc. frq. avg.	0.121	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

l: az 116.1 el 34.2 pa -46.5 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -1719.104 -696.281 simultaneous interpolator

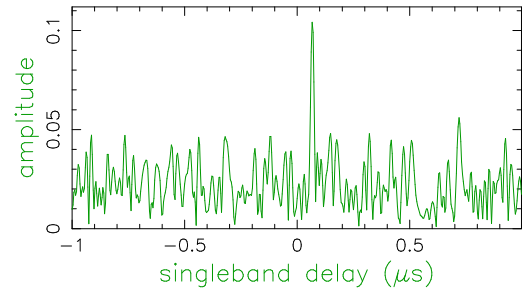
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/ln..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/ln.W.202.1W6WJ8

multiband delay ( $\mu$ s)

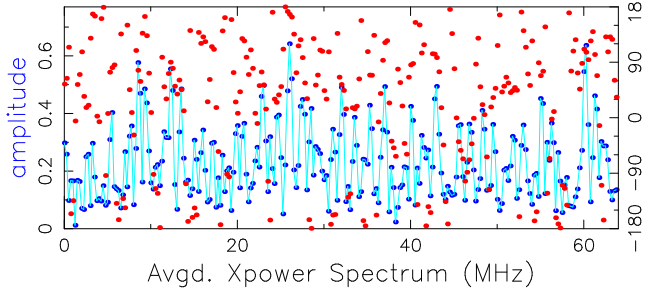


Fringe quality 0

SNR 5.9  
Int time 419.826  
Amp 0.112  
Phase 139.4  
PFD 6.5e-01  
Delays (us)  
SBD 0.067426  
MBD 0.000608  
Fringe rate (Hz)  
0.385334  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

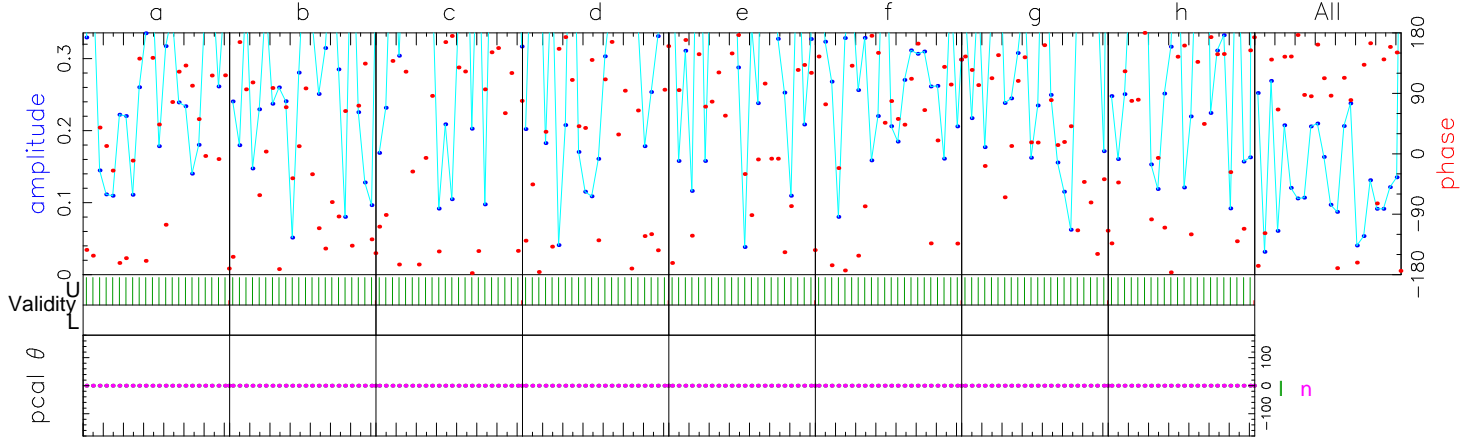


delay rate (ns/s)



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080413  
2021:252:122852  
RA & Dec (J2000)  
12h29m06.699731s  
+02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.69245877235E+03	Apriori delay (usec)	-1.69252187999E+03	Resid mbdelay (usec)	6.07637E-04	+/-	1.8E-04
Sband delay (usec)	-1.69245445424E+03	Apriori clock (usec)	-7.9935150E+00	Resid sbdelay (usec)	6.74258E-02	+/-	1.5E-03
Phase delay (usec)	-1.69252187549E+03	Apriori clockrate (us/s)	-5.8600000E-07	Resid phdelay (usec)	4.49398E-06	+/-	6.3E-07
Delay rate (us/s)	3.02352926193E-01	Apriori rate (us/s)	3.02348452850E-01	Resid rate (us/s)	4.47334E-06	+/-	2.6E-09
Total phase (deg)	-127.8	Apriori accel (us/s/s)	8.64740802999E-06	Resid phase (deg)	139.4	+/-	19.5

ph/seg (deg)	53.4	Theor.	46.8	Amplitude	0.112 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	83.5		81.6	Search (2048X32)	0.103	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	34.8		27.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.5		48.1	Inc. seg. avg.	0.113	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.104	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

l: az 116.1 el 34.2 pa -46.5 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) -1719.104 -696.281 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/ln..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/ln.W.222.1W6WJ8

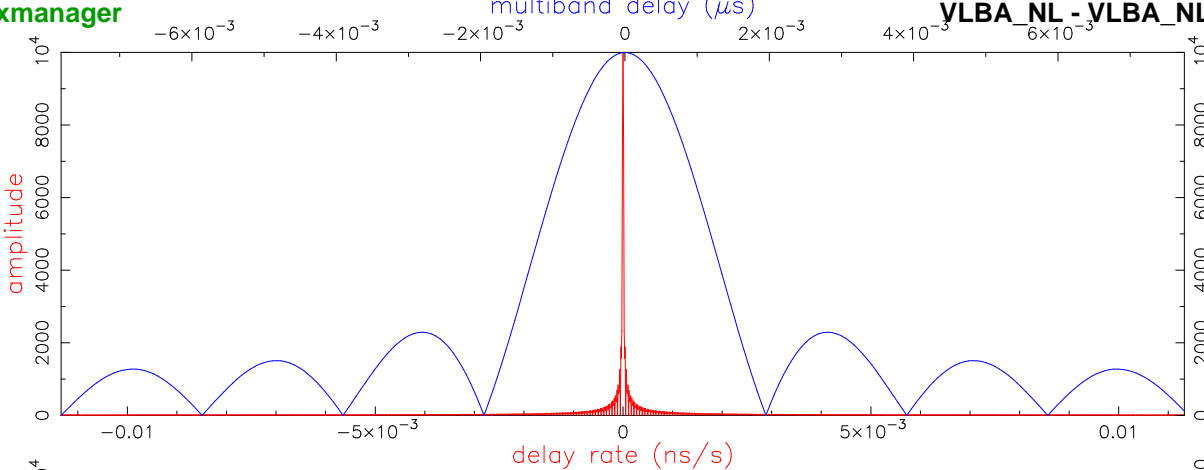


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

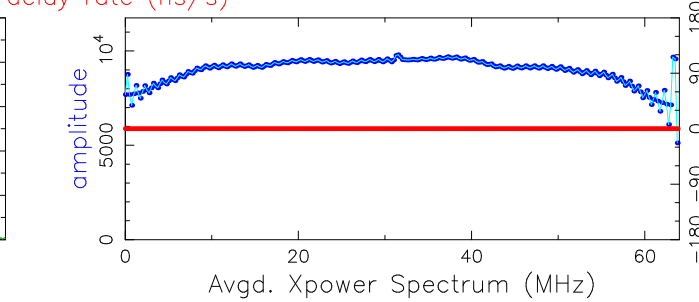
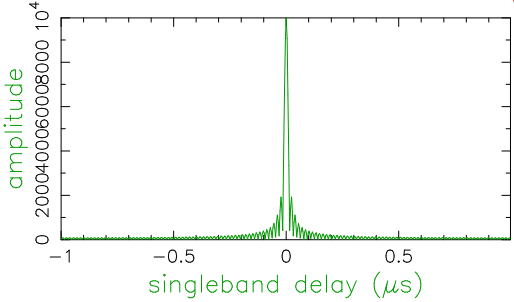
3C273.1W6WJ8, No0155, nn

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



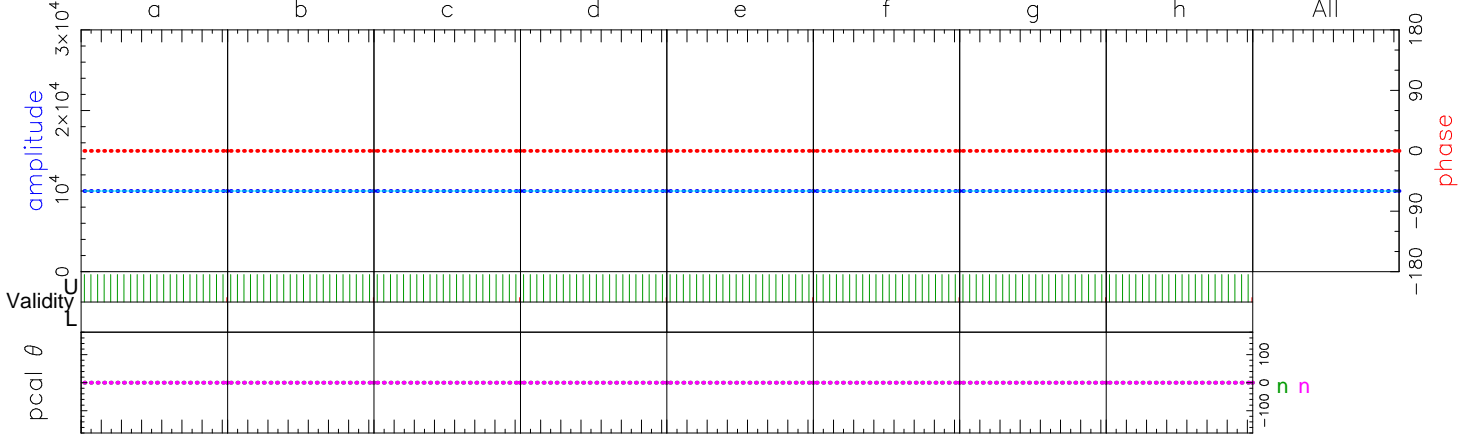
Fringe quality 9

SNR 560315.2  
 Int time 419.826  
 Amp 10000.000  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Yr:day 16383  
 Start 2021:114  
 Stop 2021:114  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080404  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



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

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	1.9E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.5E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	6.6E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	Theor.	Amplitude	10000.000 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	0.0	Search (2048X32)	10000.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	10000.000	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

n: az 134.1 el 40.2 pa -31.9 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nn.W.172.1W6WJ8

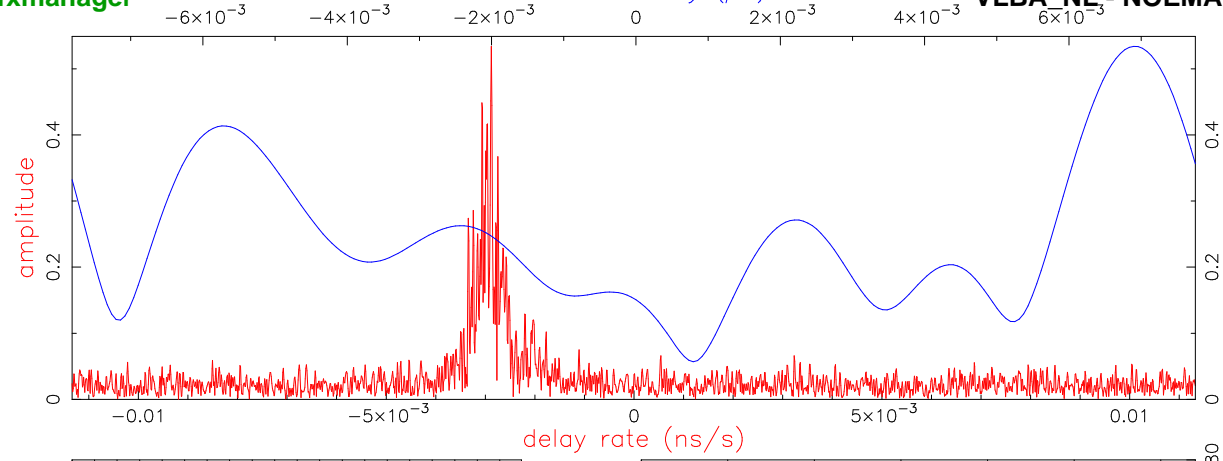
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, nN

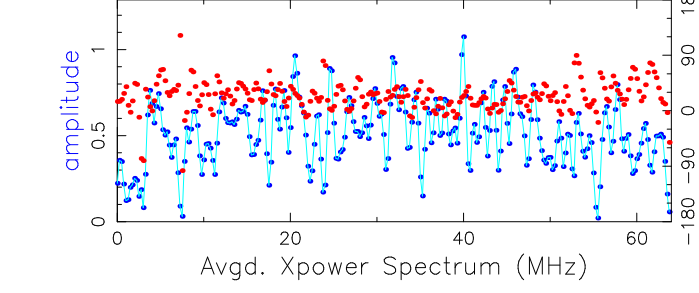
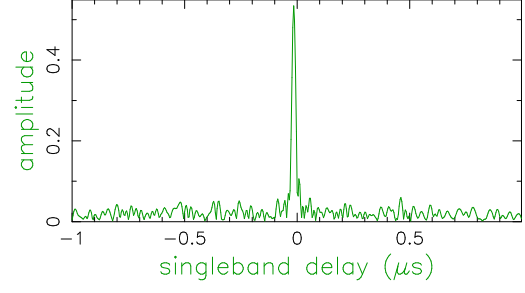
VLBA\_NL- NOEMA, fgroup W, pol LL

multiband delay ( $\mu$ s)



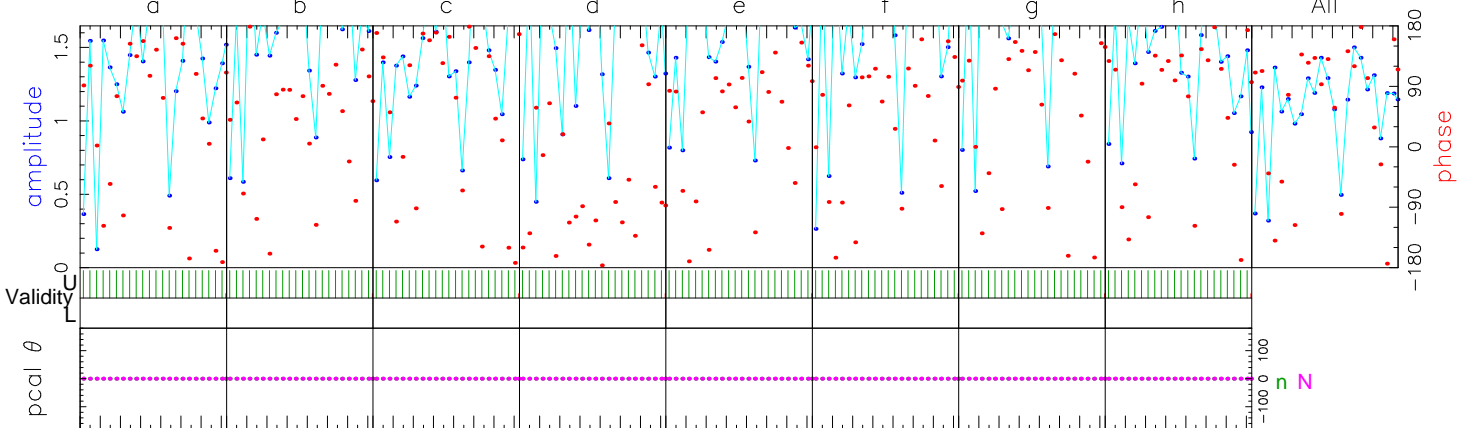
Fringe quality 3

SNR 30.0  
 Int time 419.825  
 Amp 0.549  
 Phase 128.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.015206  
 MBD 0.006925  
 Fringe rate (Hz)  
 -0.248091  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080406  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



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

Group delay (usec)(sbd) 7.10578501746E+03 Apriori delay (usec) 7.10579371715E+03 Resid mbdelay (usec) 6.92531E-03 +/- 3.6E-05  
 Sband delay (usec) 7.10577851065E+03 Apriori clock (usec) 1.8816402E+01 Resid sbdelay (usec) -1.52065E-02 +/- 2.9E-04  
 Phase delay (usec) 7.10579372131E+03 Apriori clockrate (us/s) -8.3550007E-06 Resid phdelay (usec) 4.15501E-06 +/- 1.2E-07  
 Delay rate (us/s) 1.62115824228E+00 Apriori rate (us/s) 1.62116112237E+00 Resid rate (us/s) -2.88009E-06 +/- 5.1E-10  
 Total phase (deg) 55.3 Apriori accel (us/s/s) -3.78237668978E-05 Resid phase (deg) 128.8 +/- 3.8

ph/seg (deg) 82.4 9.2 Amplitude 0.549 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 120.7 16.0 Search (2048X32) 0.516 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 59.9 5.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 44.2 9.4 Inc. seg. avg. 1.114 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

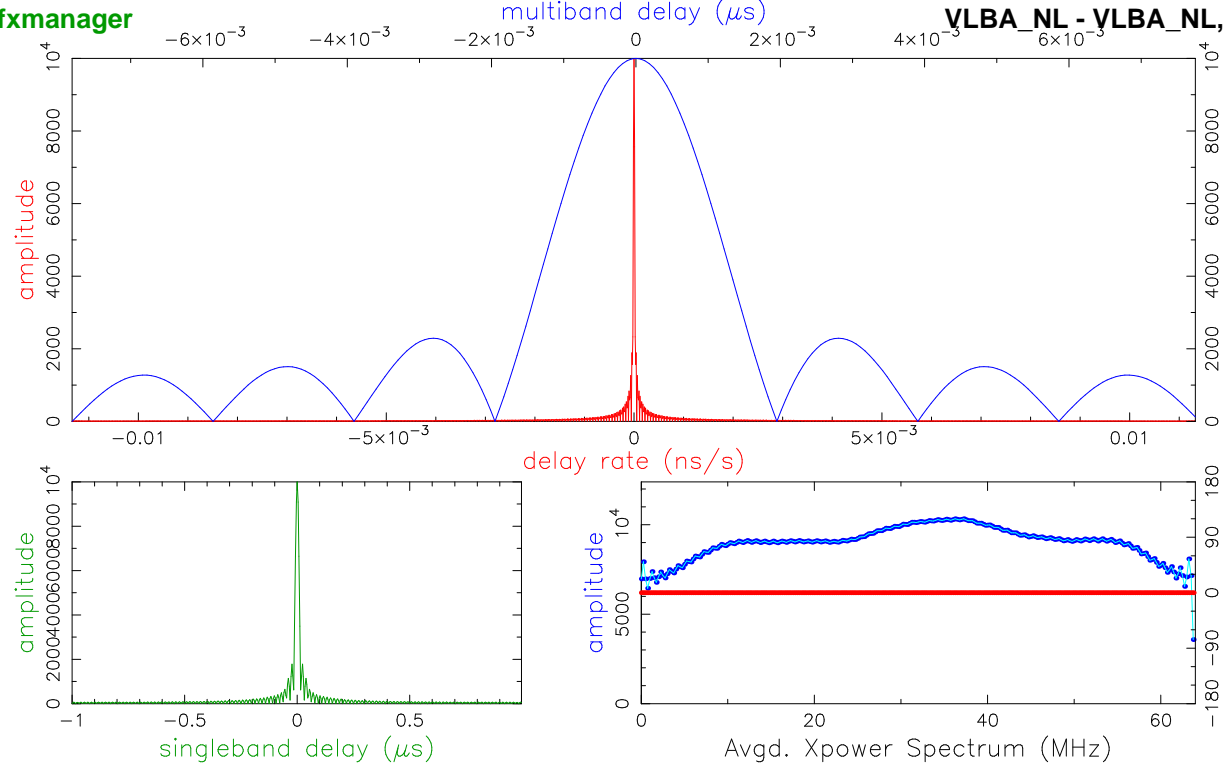
n: az 134.1 el 40.2 pa -31.9 N: az 252.6 el 19.5 pa 42.9 u,v (fr/asec) -9346.792 -417.047 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nN..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nN.W.185.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, nn

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

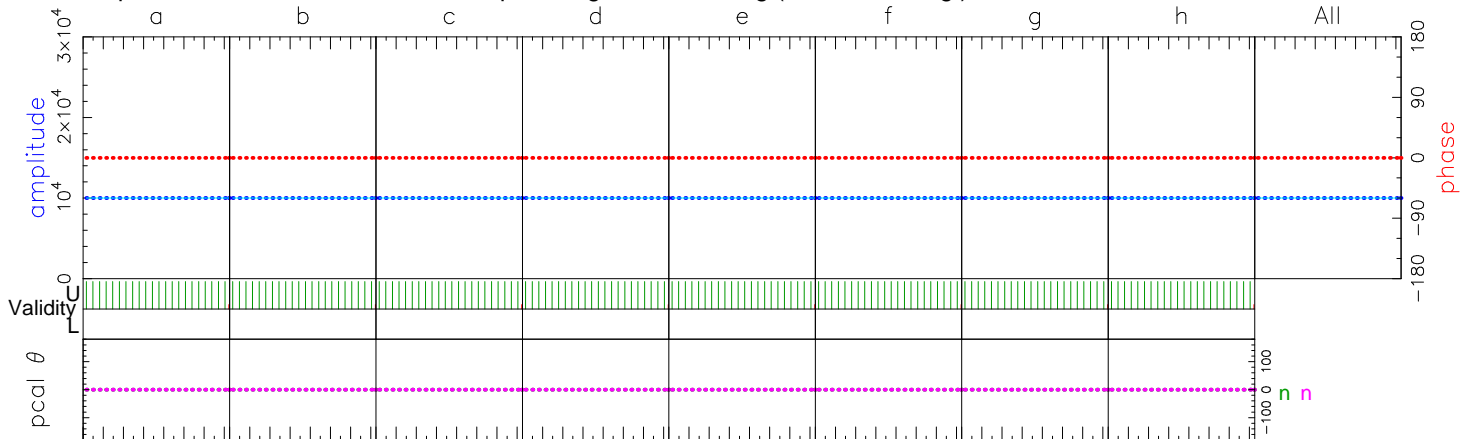


Fringe quality 9

SNR 560315.2  
 Int time 419.826  
 Amp 10000.000  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz) 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c211a  
 Yr:day 16383  
 Start 2021:114  
 Stop 2021:114  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080408  
 2021:252:122852  
 RA & Dec (J2000) 12h29m06.699731s +02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		
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		
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		
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		
Total phase (deg)			0.0							
				Apriori delay (usec)				Resid mbdelay (usec)	0.00000E+00	+/- 1.9E-09
			Apriori clock (usec)	10000.000			Resid sbdelay (usec)	0.00000E+00	+/- 1.5E-08	
			Apriori clockrate (us/s)	10000.000			Resid phdelay (usec)	0.00000E+00	+/- 6.6E-12	
			Apriori rate (us/s)	10000.000			Resid rate (us/s)	0.00000E+00	+/- 2.7E-14	
			Apriori accel (us/s/s)	10000.000			Resid phase (deg)	0.0	+/- 0.0	

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.000 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

n: az 134.1 el 40.2 pa -31.9 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

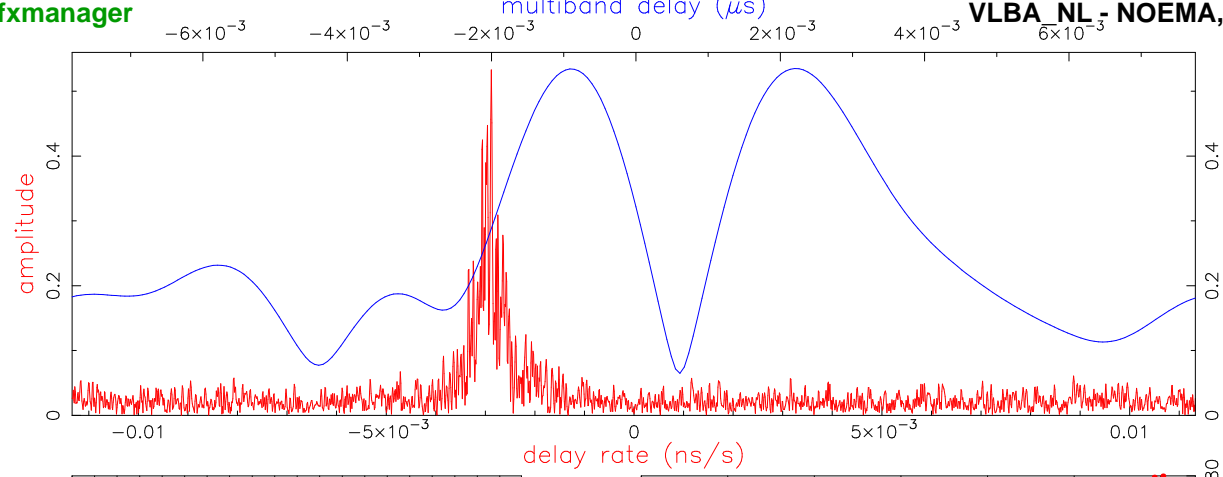
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nn.W.196.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

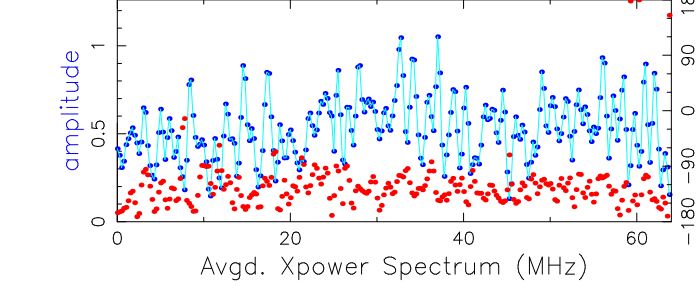
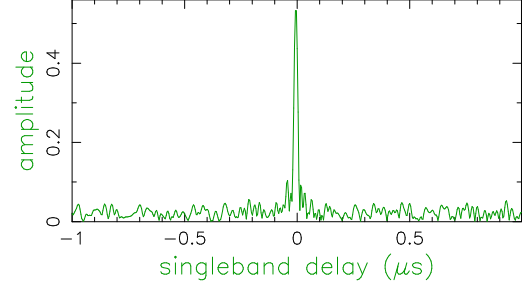
3C273.1W6WJ8, No0155, nN

VLBA\_NL - NOEMA, fgroup W, pol RR



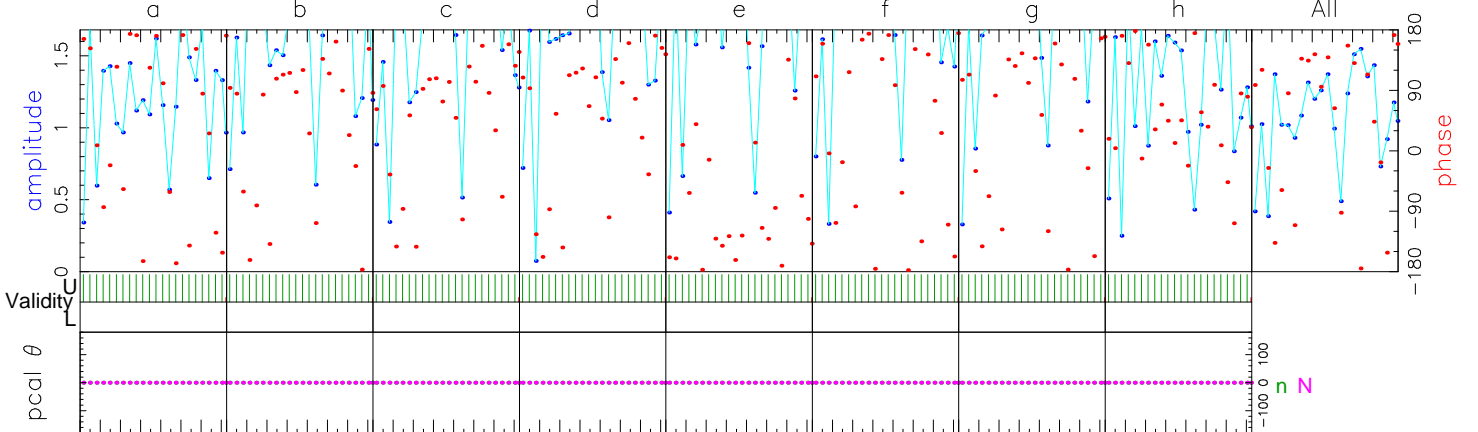
Fringe quality 3

SNR 30.6  
 Int time 419.826  
 Amp 0.560  
 Phase 139.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.005876  
 MBD 0.002320  
 Fringe rate (Hz)  
 -0.248187  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080410  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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	176.4	116.5	106.4	117.9	-129.4	169.4	140.7	41.9	Phase	139.2
n	0.6	0.8	0.8	0.9	1.0	0.9	1.0	0.7	Ampl.	0.8
N	253.3	255.5	256.1	256.0	255.6	255.4	254.9	253.5	Sbd box	255.5
n:N	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n:N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 7.10578041193E+03 Apriori delay (usec) 7.10579371715E+03 Resid mbdelay (usec) 2.31978E-03 +/- 3.6E-05  
 Sband delay (usec) 7.10578784090E+03 Apriori clock (usec) 1.8816402E+01 Resid sbdelay (usec) -5.87625E-03 +/- 2.8E-04  
 Phase delay (usec) 7.10579372164E+03 Apriori clockrate (us/s) -8.3550007E-06 Resid phdelay (usec) 4.48863E-06 +/- 1.2E-07  
 Delay rate (us/s) 1.62115824117E+00 Apriori rate (us/s) 1.62116112237E+00 Resid rate (us/s) -2.88120E-06 +/- 5.0E-10  
 Total phase (deg) 65.6 Apriori accel (us/s/s) -3.78237668978E-05 Resid phase (deg) 139.2 +/- 3.8

ph/seg (deg) 80.8 RMS 9.0 Theor. Amplitude 0.560 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 115.2 15.7 Search (2048X32) 0.522 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 60.8 5.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 53.8 9.3 Inc. seg. avg. 1.097 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

n: az 134.1 el 40.2 pa -31.9 N: az 252.6 el 19.5 pa 42.9 u,v (fr/asec) -9346.792 -417.047 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nN..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nN.W.204.1W6WJ8

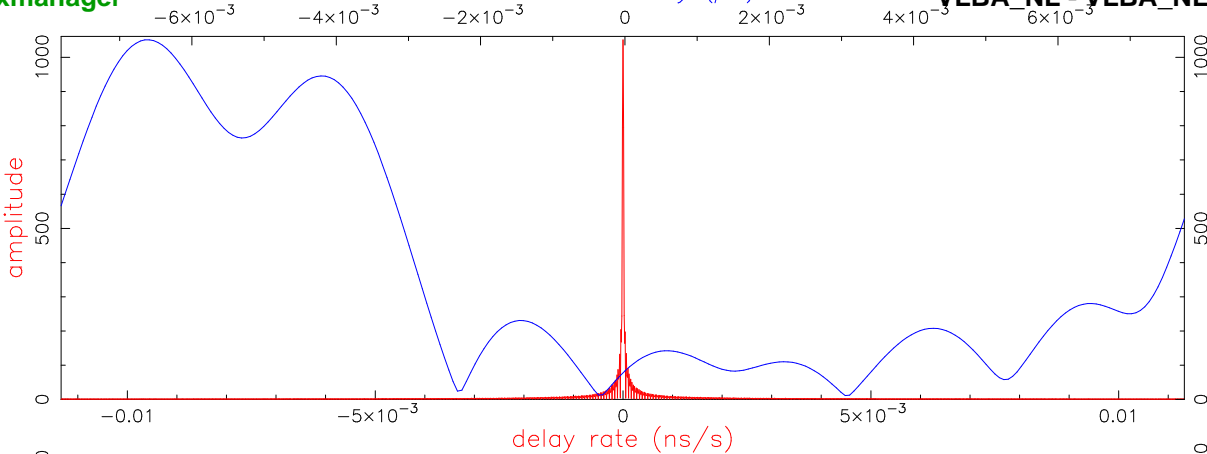
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, nn

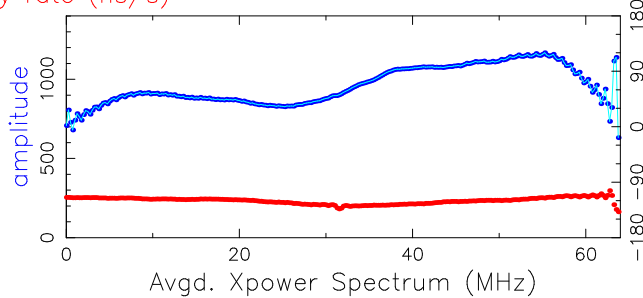
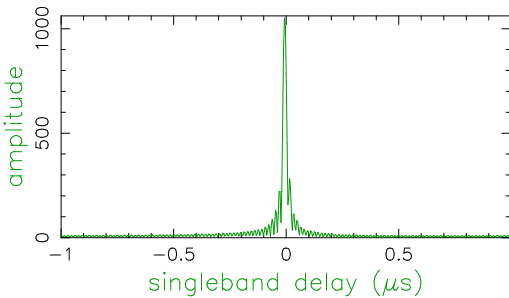
VLBA\_NL - VLBA\_NL, fgroup W, pol LR

multiband delay ( $\mu$ s)



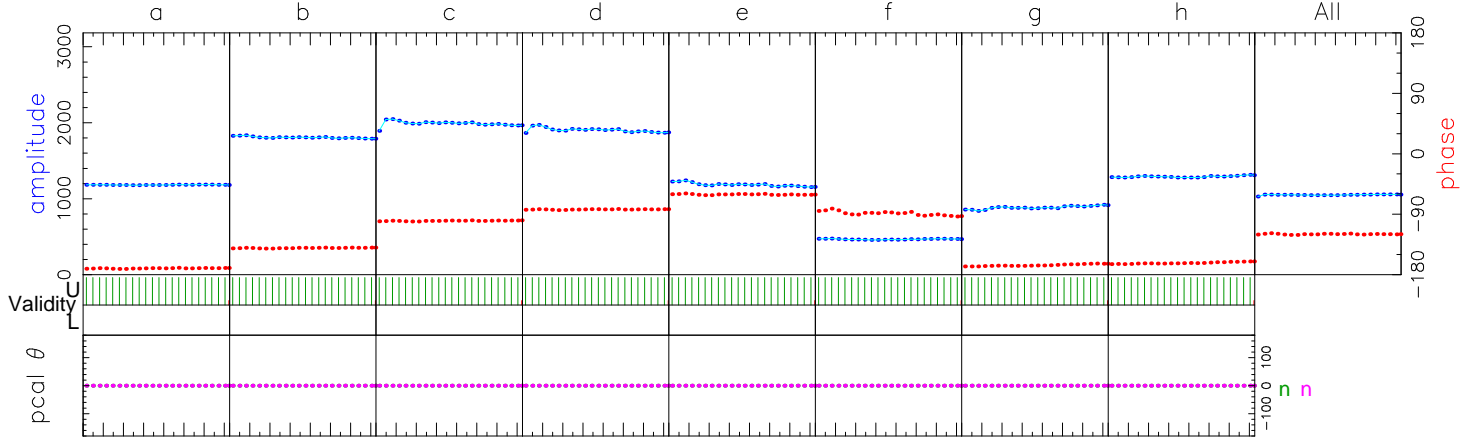
Fringe quality 5

SNR 59473.9  
 Int time 419.826  
 Amp 1061.437  
 Phase -119.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006594  
 MBD -0.006577  
 Fringe rate (Hz)  
 -0.000024  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080412  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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
	-170.4	-140.2	-99.8	-82.8	-60.5	-88.5	-165.7	-162.5	Phase	-119.6
	1183.1	1808.0	1992.1	1904.9	1187.3	466.6	884.3	1291.3	Ampl.	1339.7
	256.1	255.6	255.5	255.5	255.8	254.2	255.4	255.3	Sbd box	255.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
n	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-6.57659375000E-03		Apriori delay (usec)		0.0000000000E+00		Resid mbdelay (usec)		-6.57659E-03	+/- 1.8E-08
Sband delay (usec)	-6.5942500000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-6.59425E-03	+/- 1.4E-07
Phase delay (usec)	-3.85550363151E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-3.85550E-06	+/- 6.2E-11
Delay rate (us/s)	-2.82005932595E-10		Apriori rate (us/s)		0.0000000000E+00		Resid rate (us/s)		-2.82006E-10	+/- 2.6E-13
Total phase (deg)			Apriori accel (us/s/s)		0.0000000000E+00		Resid phase (deg)		-119.6	+/- 0.0

ph/seg (deg) 0.6 0.0 Theor. Amplitude 1061.437 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 1.1 0.0 Search (2048X32) 1031.846 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 46.9 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 53.7 0.0 Inc. seg. avg. 1051.158 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 n: az 134.1 el 40.2 pa -31.9 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nn.W.216.1W6WJ8

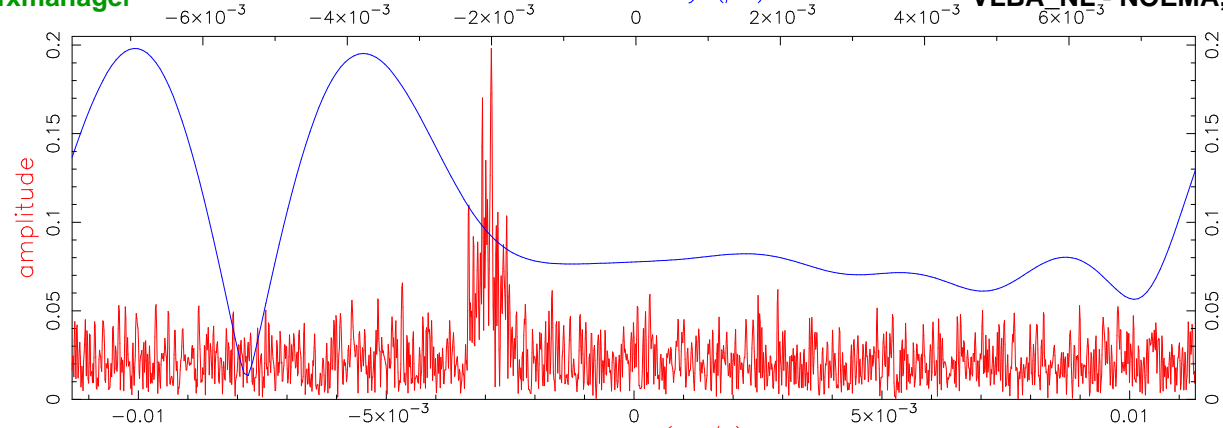
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, nN

VLBA\_NL- NOEMA, fgroup W, pol LR

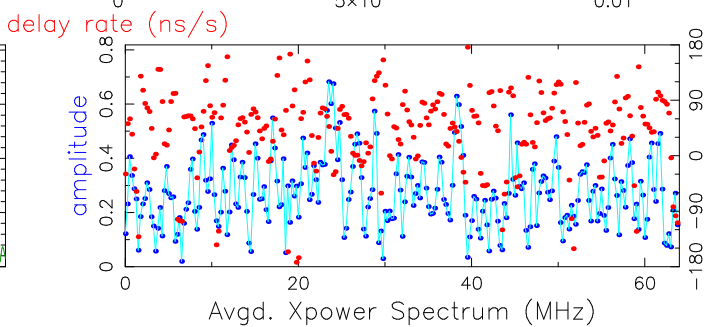
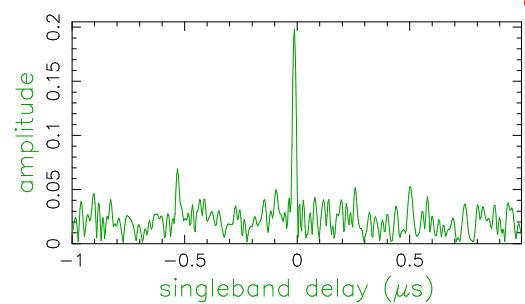
multiband delay ( $\mu$ s)



Fringe quality 9

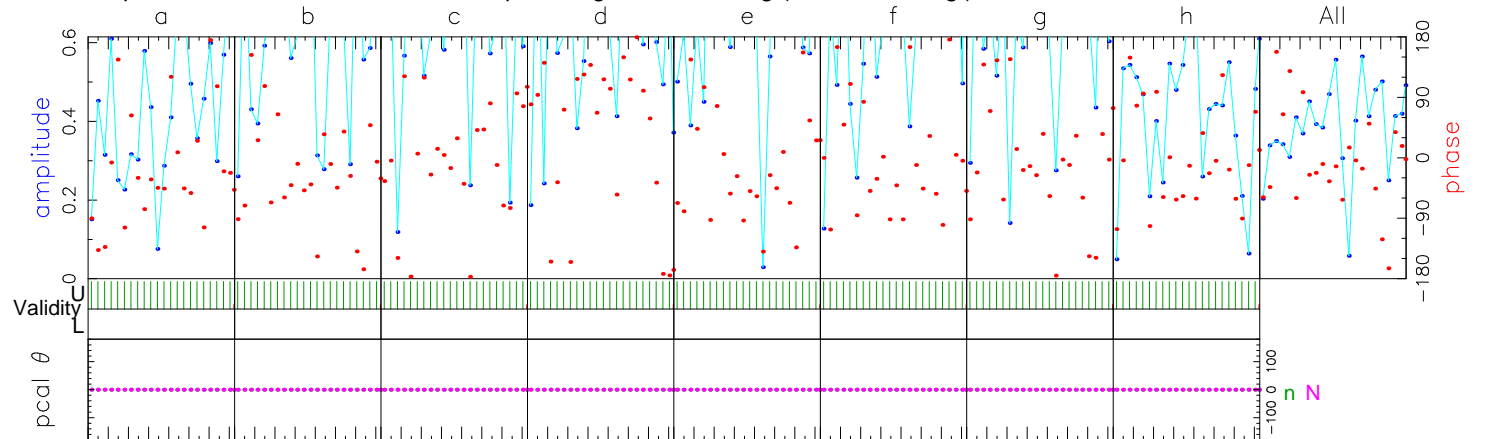
SNR 11.2  
 Int time 419.826  
 Amp 0.205  
 Phase -14.3  
 PFD 2.4e-20  
 Delays (us)  
 SBD -0.012799  
 MBD -0.006962  
 Fringe rate (Hz)  
 -0.248295  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080413  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"



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
	-41.5	-33.9	17.1	127.0	-35.9	-43.2	-7.3	-5.8	Phase	-14.3
	0.2	0.3	0.3	0.4	0.4	0.3	0.4	0.2	Ampl.	0.3
	252.7	253.9	254.5	254.1	254.5	253.8	253.7	252.2	Sbd box	253.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	7.10578675521E+03		Apriori delay (usec)		7.10579371715E+03		Resid mbdelay (usec)		-6.96194E-03	+/- 9.7E-05
Sband delay (usec)	7.10578091790E+03		Apriori clock (usec)		1.8816402E+01		Resid sbdelay (usec)		-1.27992E-02	+/- 7.7E-04
Phase delay (usec)	7.10579371669E+03		Apriori clockrate (us/s)		-8.3550007E-06		Resid phdelay (usec)		-4.62643E-07	+/- 3.3E-07
Delay rate (us/s)	1.62115823991E+00		Apriori rate (us/s)		1.62116112237E+00		Resid rate (us/s)		-2.88246E-06	+/- 1.4E-09
Total phase (deg)	272.1		Apriori accel (us/s/s)		-3.78237668978E-05		Resid phase (deg)		-14.3	+/- 10.3

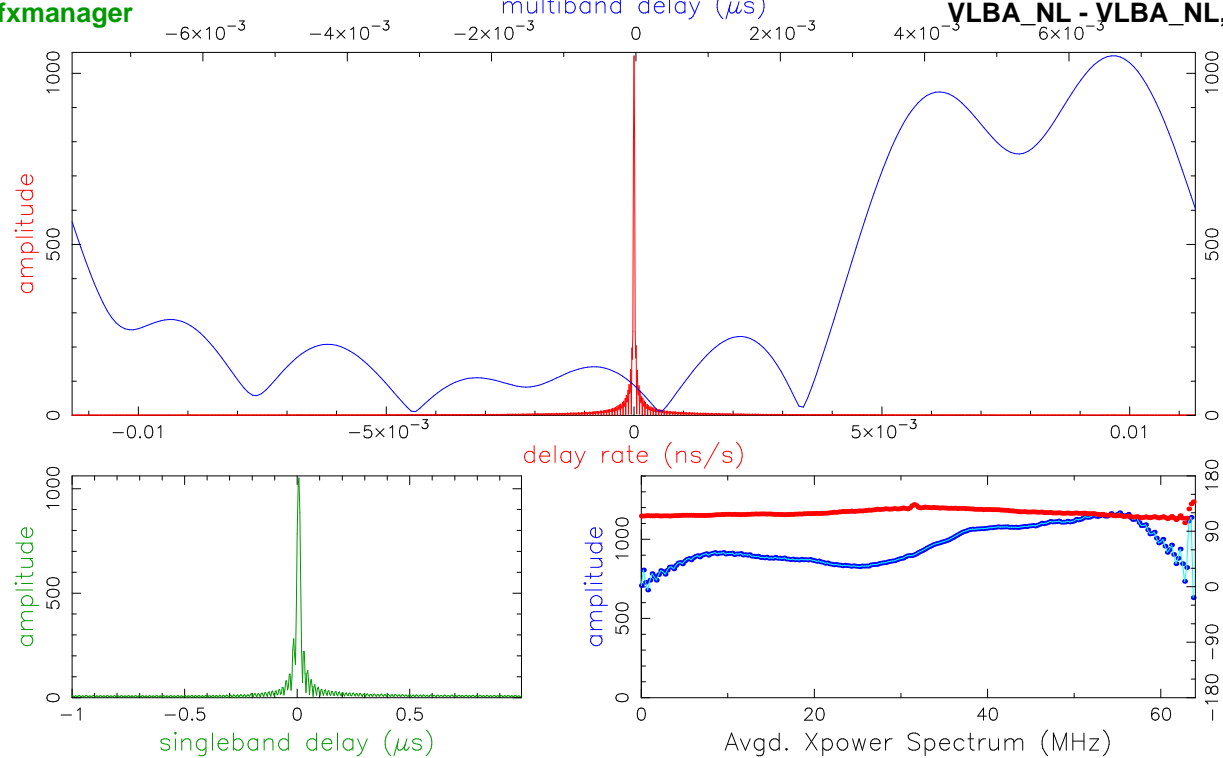
ph/seg (deg) 73.8 24.6 Search (2048X32) 0.193 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 107.2 42.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 62.6 14.5 Inc. seg. avg. 0.359 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 62.4 25.3 Inc. frq. avg. 0.302 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 n: az 134.1 el 40.2 pa -31.9 N: az 252.6 el 19.5 pa 42.9 u,v (fr/asec) -9346.792 -417.047 ion window (TEC) 0.00 0.00  
 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nN..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nN.W.223.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, nn

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

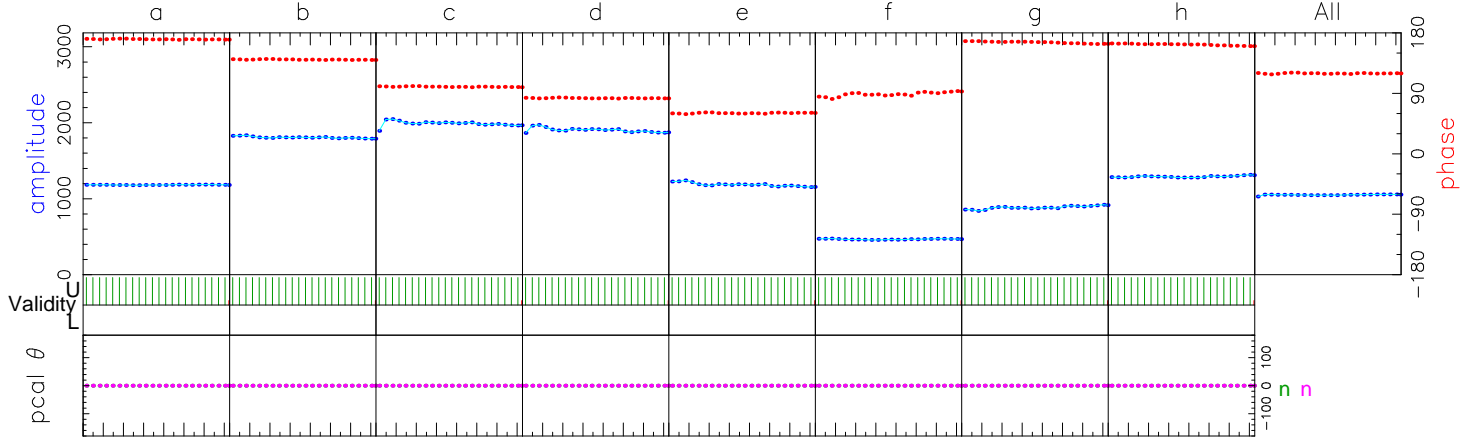


Fringe quality 5

SNR 59473.9  
 Int time 419.826  
 Amp 1061.437  
 Phase 119.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.006594  
 MBD 0.006577  
 Fringe rate (Hz)  
 0.000024  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080416  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.57659375000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		6.57659E-03	+/- 1.8E-08
Sband delay (usec)	6.59425000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		6.59425E-03	+/- 1.4E-07
Phase delay (usec)	3.85550363159E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		3.85550E-06	+/- 6.2E-11
Delay rate (us/s)	2.82005932595E-10		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		2.82006E-10	+/- 2.6E-13
Total phase (deg)	119.6		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		119.6	+/- 0.0

ph/seg (deg) 0.6 0.0 Search (2048X32) 1031.846 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 1.1 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 46.9 0.0 Inc. seg. avg. 1051.158 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 53.7 0.0 Inc. frq. avg. 1339.691 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 n: az 134.1 el 40.2 pa -31.9 n: az 134.1 el 40.2 pa -31.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nn..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nn.W.232.1W6WJ8

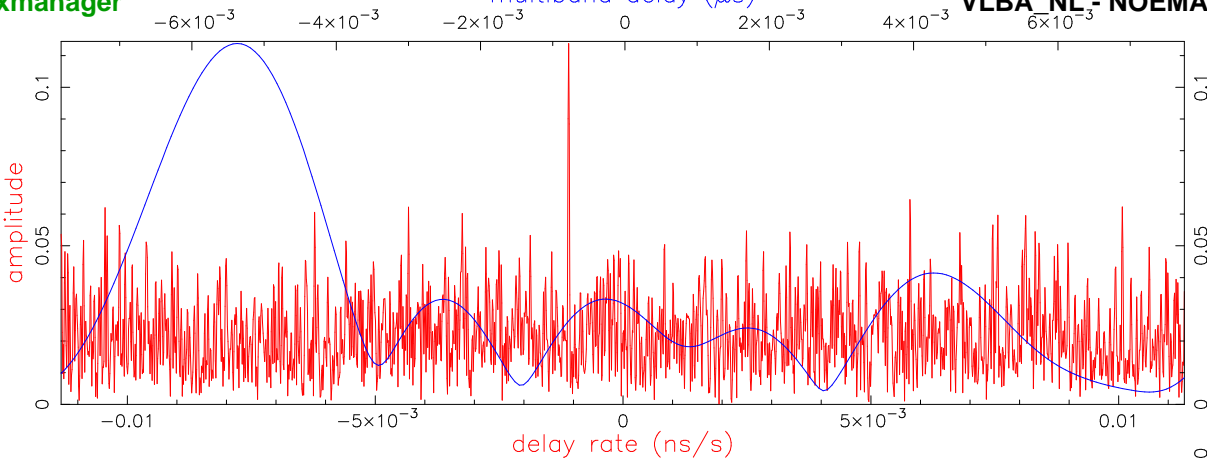
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, nN

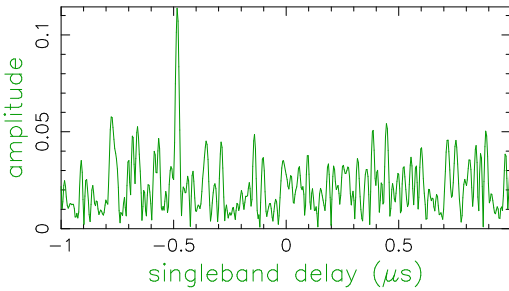
VLBA\_NL- NOEMA, fgroup W, pol RL

multiband delay ( $\mu$ s)

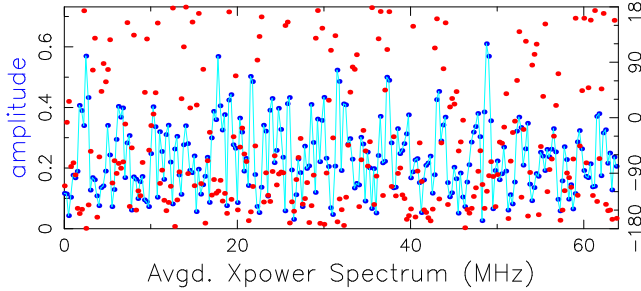


Fringe quality 0

SNR 6.4  
 Int time 419.825  
 Amp 0.114  
 Phase 120.6  
 PFD 4.4e-02  
 Delays (us)  
 SBD -0.483766  
 MBD -0.005353  
 Fringe rate (Hz)  
 -0.094182  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

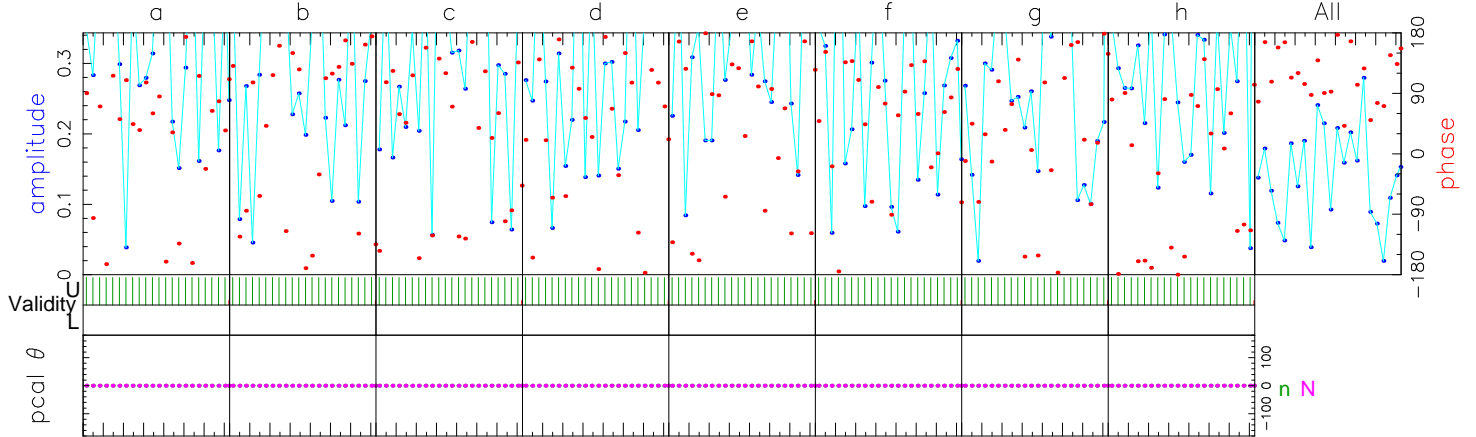


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080417  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	7.10530398898E+03	Apriori delay (usec)	7.10579371715E+03	Resid mbdelay (usec)	-5.35317E-03	+/-	1.7E-04
Sband delay (usec)	7.10530995165E+03	Apriori clock (usec)	1.8816402E+01	Resid sbdelay (usec)	-4.83766E-01	+/-	1.3E-03
Phase delay (usec)	7.10579372104E+03	Apriori clockrate (us/s)	-8.3550007E-06	Resid phdelay (usec)	3.88935E-06	+/-	5.8E-07
Delay rate (us/s)	1.62116002901E+00	Apriori rate (us/s)	1.62116112237E+00	Resid rate (us/s)	-1.09336E-06	+/-	2.4E-09
Total phase (deg)	47.0	Apriori accel (us/s/s)	-3.78237668978E-05	Resid phase (deg)	120.6	+/-	17.9

ph/seg (deg)	38.9	Theor.	43.0	Amplitude	0.114 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	63.1	Search (2048X32)	0.109	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	Inc. seg. avg.	0.110	Inc. frq. avg.	0.114	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	27.0	Inc. frq. avg.	0.114			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

n: az 134.1 el 40.2 pa -31.9 N: az 252.6 el 19.5 pa 42.9 u,v (fr/asec) -9346.792 -417.047 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nN..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nN.W.237.1W6WJ8



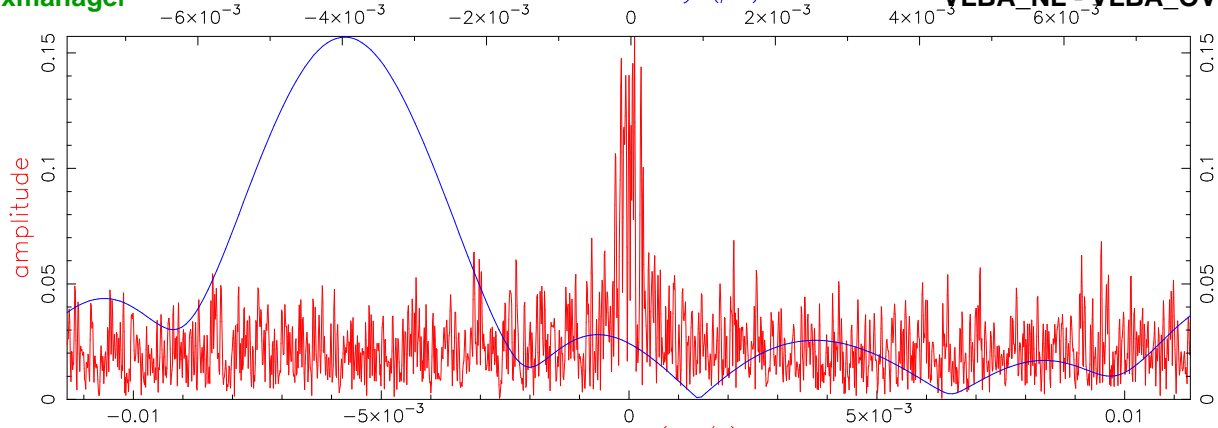
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, no

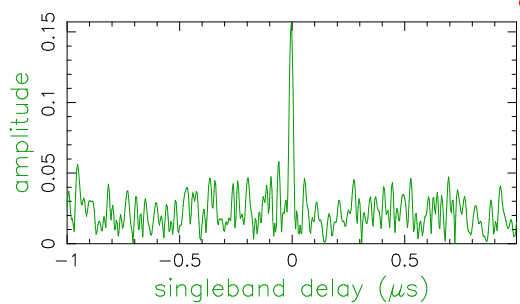
VLBA\_NL - VLBA\_OV, fgroup W, pol LL

multiband delay ( $\mu$ s)

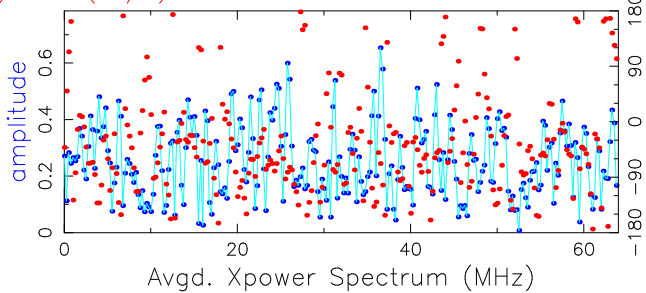


Fringe quality 9

SNR 8.8  
 Int time 419.826  
 Amp 0.157  
 Phase -69.7  
 PFD 4.9e-10  
 Delays (us)  
 SBD -0.004546  
 MBD -0.003987  
 Fringe rate (Hz) 0.009431  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

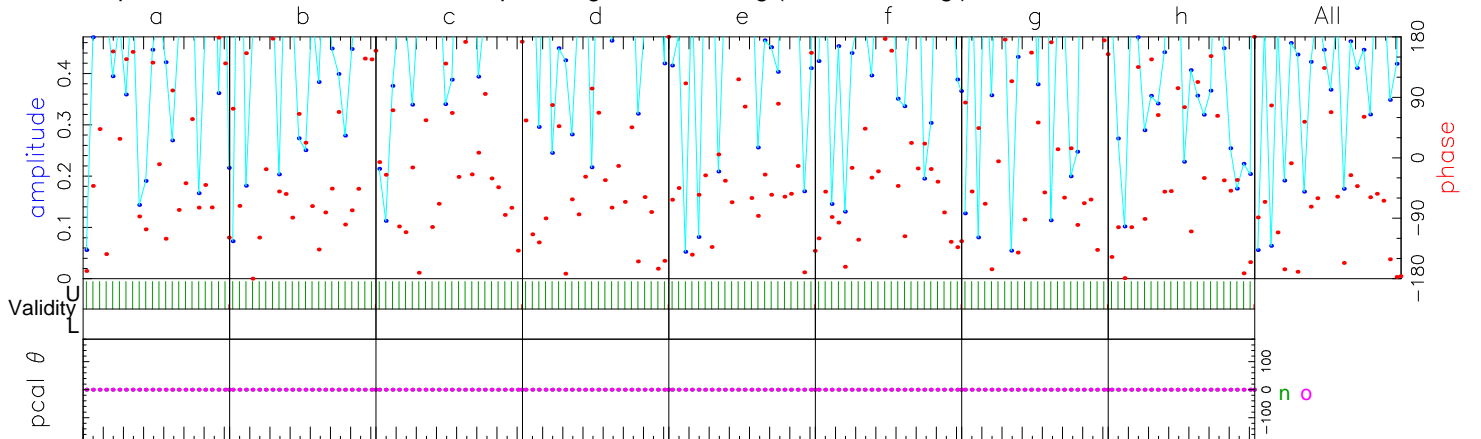


delay rate (ns/s)



Exp. c211a  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080417  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.72480432993E+03		Apriori delay (usec)		4.72480831652E+03		Resid mbdelay (usec)		-3.98659E-03	+/- 1.2E-04
Sband delay (usec)	4.72480377077E+03		Apriori clock (usec)		1.7602615E+00		Resid sbdelay (usec)		-4.54575E-03	+/- 9.8E-04
Phase delay (usec)	4.72480831427E+03		Apriori clockrate (us/s)		-6.0000019E-08		Resid phdelay (usec)		-2.24787E-06	+/- 4.2E-07
Delay rate (us/s)	-4.41673100869E-01		Apriori rate (us/s)		-4.41673210352E-01		Resid rate (us/s)		1.09483E-07	+/- 1.7E-09
Total phase (deg)	68.8		Apriori accel (us/s/s)		-2.48818987104E-05		Resid phase (deg)		-69.7	+/- 13.0

ph/seg (deg) 83.2 31.2 Search (2048X32) 0.155 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 178.2 54.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 25.4 18.4 Inc. seg. avg. 0.337 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 45.4 32.1 Inc. frq. avg. 0.154 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 n: az 134.1 el 40.2 pa -31.9 o: az 107.7 el 24.7 pa -49.4 u,v (fr/asec) 2492.234 472.141 ion window (TEC) 0.00 0.00 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/no..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/no.W.238.1W6WJ8

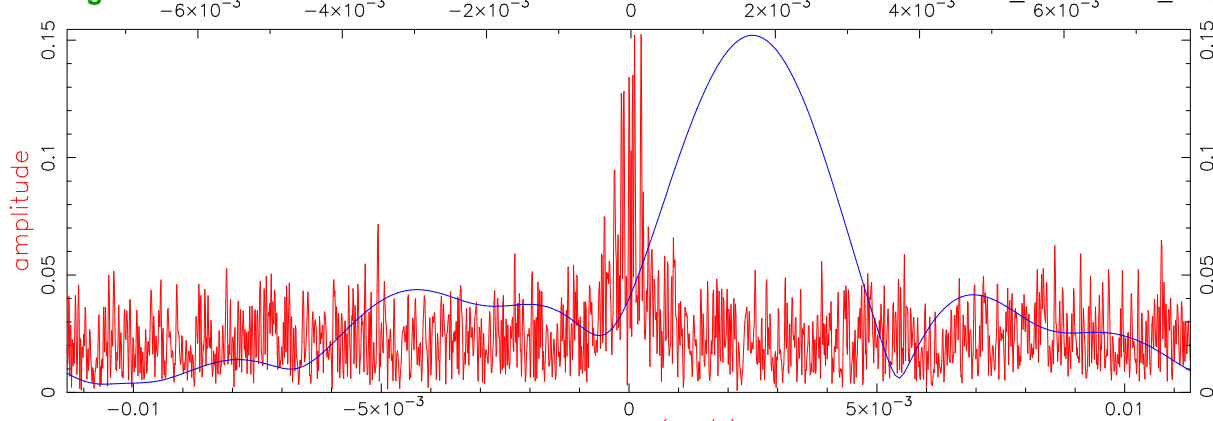
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, no

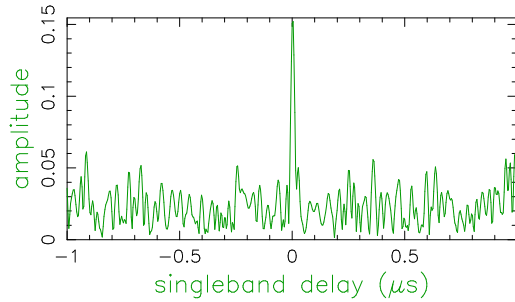
VLBA\_NL - VLBA\_OV, fgroup W, pol RR

multiband delay ( $\mu$ s)

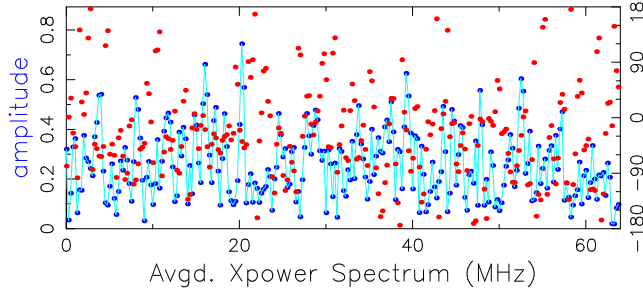


Fringe quality 9

SNR 8.7  
 Int time 419.826  
 Amp 0.155  
 Phase -26.1  
 PFD 1.7e-09  
 Delays (us)  
 SBD 0.002170  
 MBD 0.001644  
 Fringe rate (Hz)  
 0.009452  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

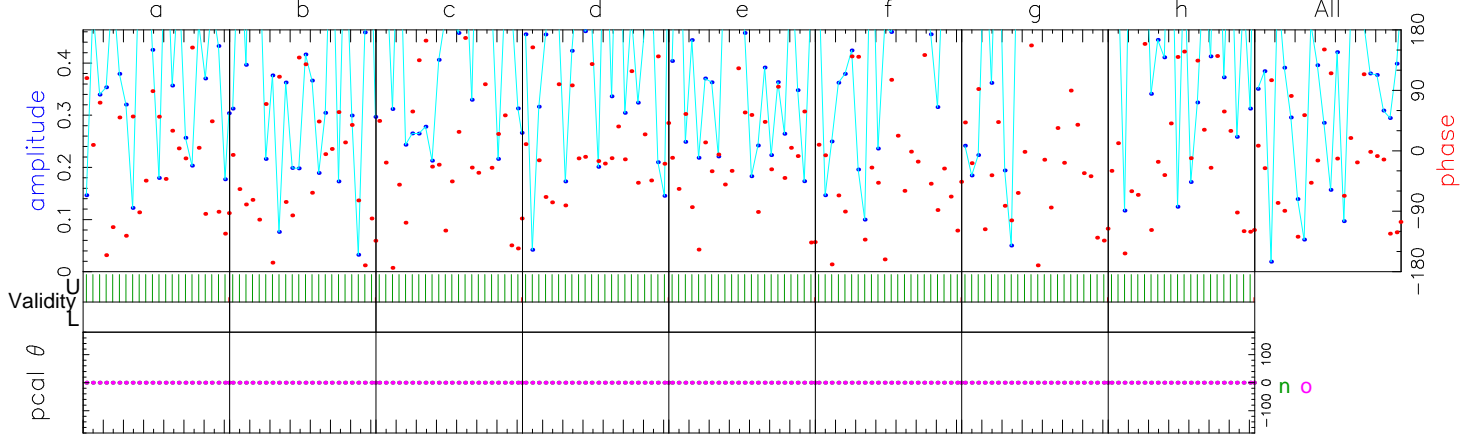


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080421  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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

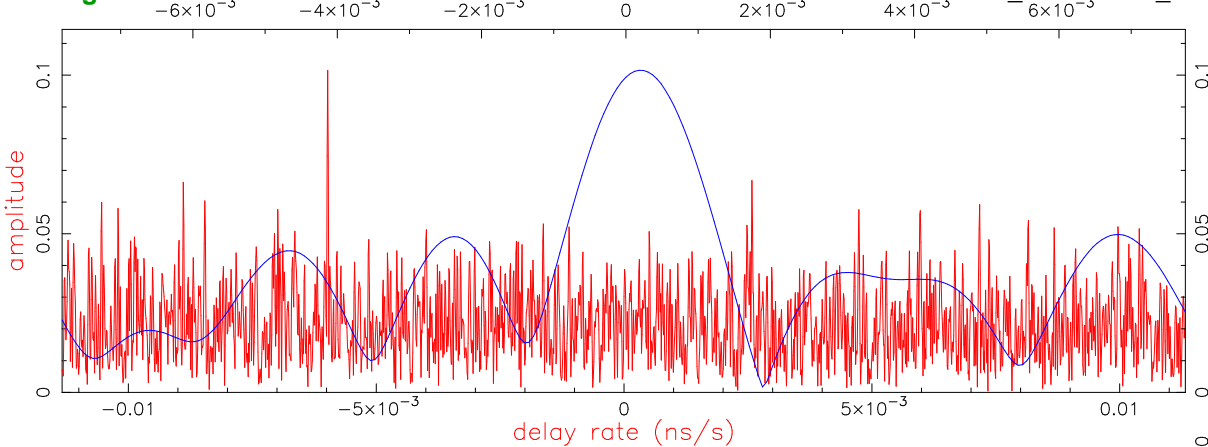


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-24.3	-55.6	-23.9	1.8	-17.1	-48.9	-28.1	-14.8	Phase	-26.1
	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	Ampl.	0.2
	502.7	257.4	299.4	258.8	257.7	257.3	257.9	293.0	Sbd box	257.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	4.72480996005E+03		Apriori delay (usec)		4.72480831652E+03		Resid mbdelay (usec)		1.64353E-03	+/- 1.3E-04
Sband delay (usec)	4.72481048677E+03		Apriori clock (usec)		1.7602615E+08		Resid sbdelay (usec)		2.17025E-03	+/- 9.9E-04
Phase delay (usec)	4.72480831567E+03		Apriori clockrate (us/s)		-6.0000019E-08		Resid phdelay (usec)		-8.42994E-07	+/- 4.3E-07
Delay rate (us/s)	-4.41673100619E-01		Apriori rate (us/s)		-4.41673210352E-01		Resid rate (us/s)		1.09733E-07	+/- 1.8E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.48818987104E-05		Resid phase (deg)		-26.1	+/- 13.2

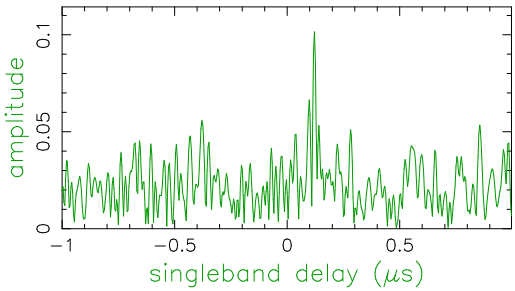
RMS Theor. Amplitude 0.155 +/- 0.018  
 ph/seg (deg) 82.1 31.7 Search (2048X32) 0.149 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 146.8 55.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 19.9 18.7 Inc. seg. avg. 0.286 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 23.1 32.7 Inc. frq. avg. 0.152 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 n: az 134.1 el 40.2 pa -31.9 o: az 107.7 el 24.7 pa -49.4 u,v (fr/asec) 2492.234 472.141 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/no..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/no.W.250.1W6WJ8

multiband delay ( $\mu$ s)

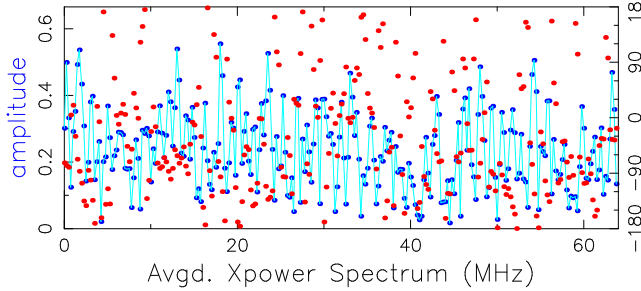
Fringe quality 0



SNR 5.7  
Int time 419.826  
Amp 0.114  
Phase -123.2  
PFD 9.5e-01  
Delays (us)  
SBD 0.120645  
MBD 0.000182  
Fringe rate (Hz)  
-0.516165  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

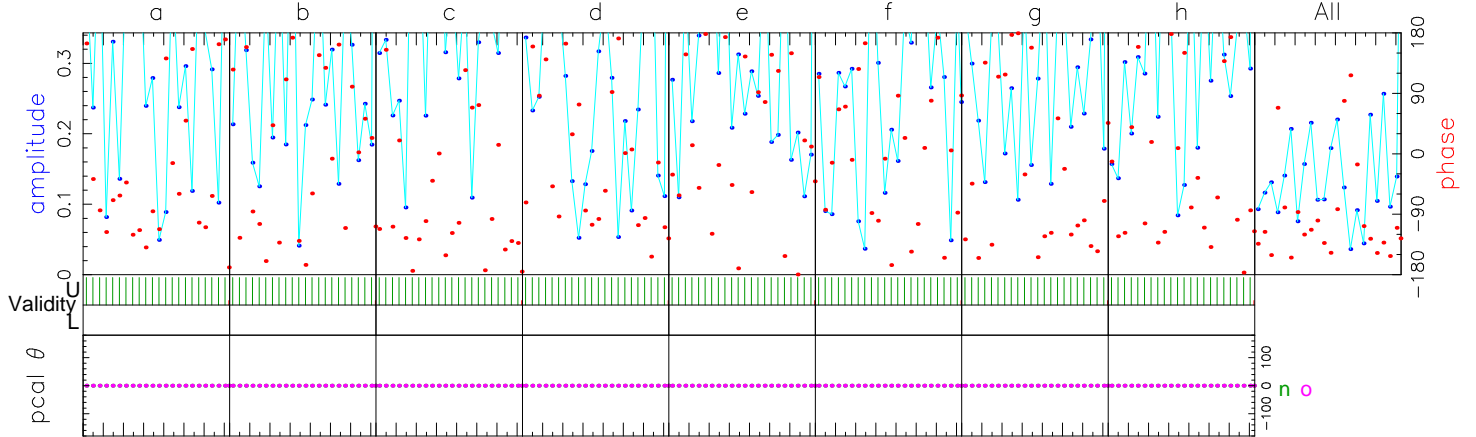


delay rate (ns/s)



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080425  
2021:252:122852  
RA & Dec (J2000)  
12h29m06.699731s  
+02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	4.72493349869E+03				4.72480831652E+03				1.82170E-04	+/- 1.9E-04
Sband delay (usec)	4.72492896127E+03				1.7602615E+00				1.20645E-01	+/- 1.5E-03
Phase delay (usec)	4.72480831254E+03				-6.0000019E-08				-3.97237E-06	+/- 6.5E-07
Delay rate (us/s)	-4.41679202519E-01				-4.41673210352E-01				-5.99217E-06	+/- 2.7E-09
Total phase (deg)			15.3		-2.48818987104E-05				-123.2	+/- 20.1
	RMS	Theor.	Amplitude	0.114 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	63.5	48.2	Search (2048X32)	0.099	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	76.9	84.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	36.9	28.4	Inc. seg. avg.	0.114	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	44.6	49.6	Inc. frq. avg.	0.113	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

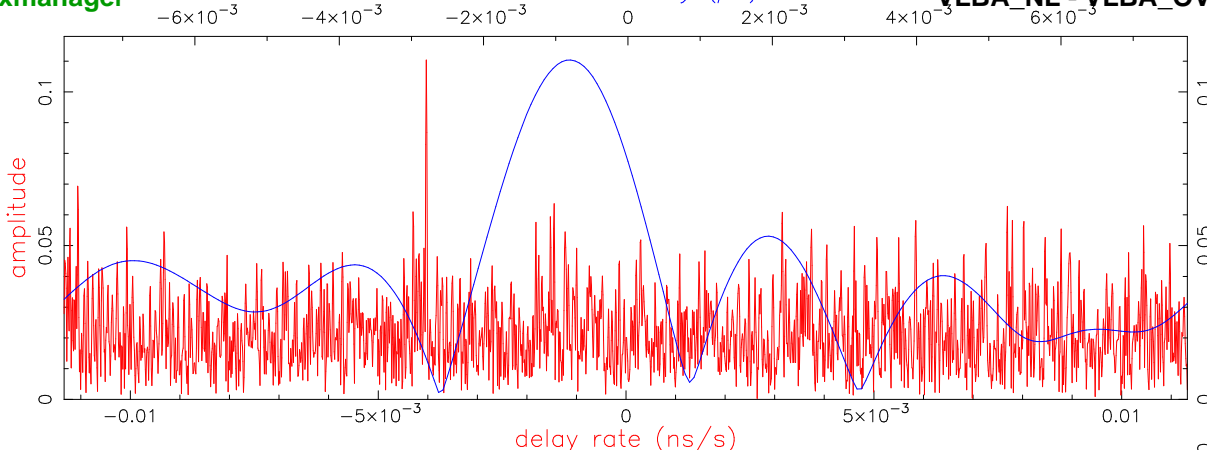
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, no

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

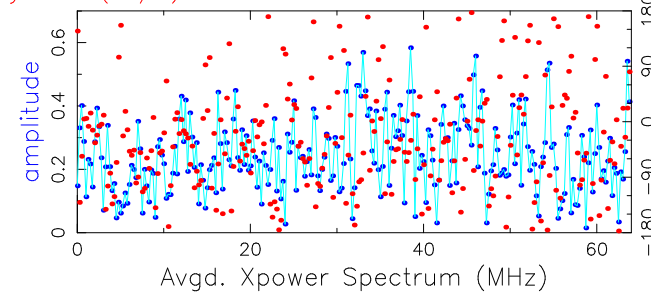
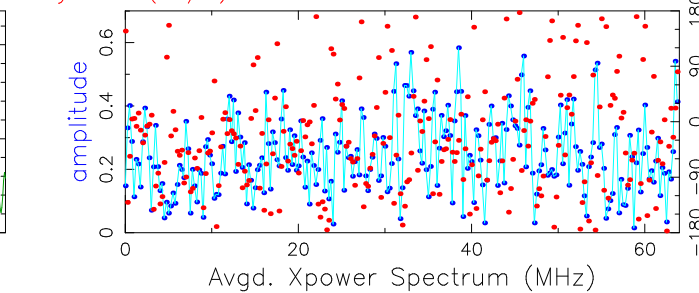
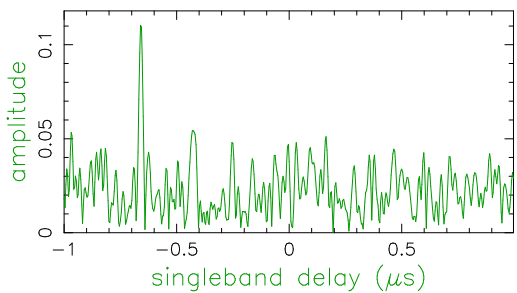
multiband delay ( $\mu$ s)



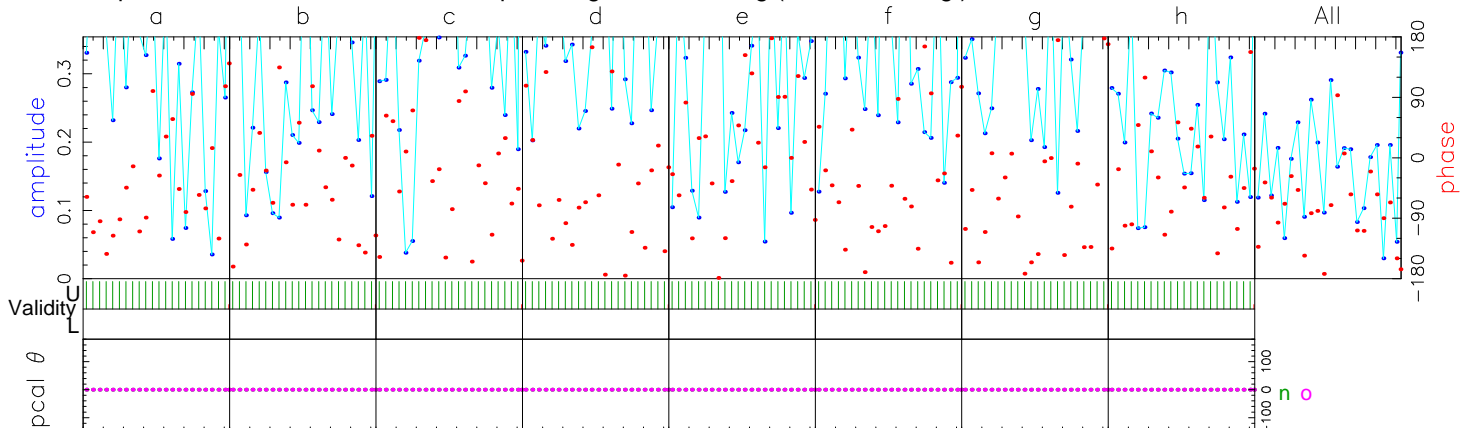
Fringe quality 0

SNR 6.3  
 Int time 419.826  
 Amp 0.118  
 Phase -66.4  
 PFD 9.0e-02  
 Delays (us)  
 SBD -0.658422  
 MBD -0.000777  
 Fringe rate (Hz)  
 -0.347719  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080428  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"



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
	-75.6	-44.5	-51.6	-96.1	50.4	-65.3	-89.4	-47.6	Phase	-66.4
	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	Ampl.	0.1
	147.5	95.5	239.1	87.1	106.9	308.4	89.3	310.8	Sbd box	88.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.72415128919E+03		Apriori delay (usec)		4.72480831652E+03		Resid mbdelay (usec)		-7.77324E-04	+/- 1.7E-04
Sband delay (usec)	4.72414989477E+03		Apriori clock (usec)		1.7602615E+08		Resid sbdelay (usec)		-6.58422E-01	+/- 1.4E-03
Phase delay (usec)	4.72480831437E+03		Apriori clockrate (us/s)		-6.0000019E-08		Resid phdelay (usec)		-2.14220E-06	+/- 5.9E-07
Delay rate (us/s)	-4.41677247020E-01		Apriori rate (us/s)		-4.41673210352E-01		Resid rate (us/s)		-4.03667E-06	+/- 2.4E-09
Total phase (deg)	72.1		Apriori accel (us/s/s)		-2.48818987104E-05		Resid phase (deg)		-66.4	+/- 18.3

ph/seg (deg) 56.9 43.8 Search (2048X32) 0.105 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 75.6 76.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 52.0 25.8 Inc. seg. avg. 0.129 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 36.8 45.1 Inc. frq. avg. 0.120 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 n: az 134.1 el 40.2 pa -31.9 o: az 107.7 el 24.7 pa -49.4 u,v (fr/asec) 2492.234 472.141 ion window (TEC) 0.00 0.00 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/no..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/no.W.290.1W6WJ8

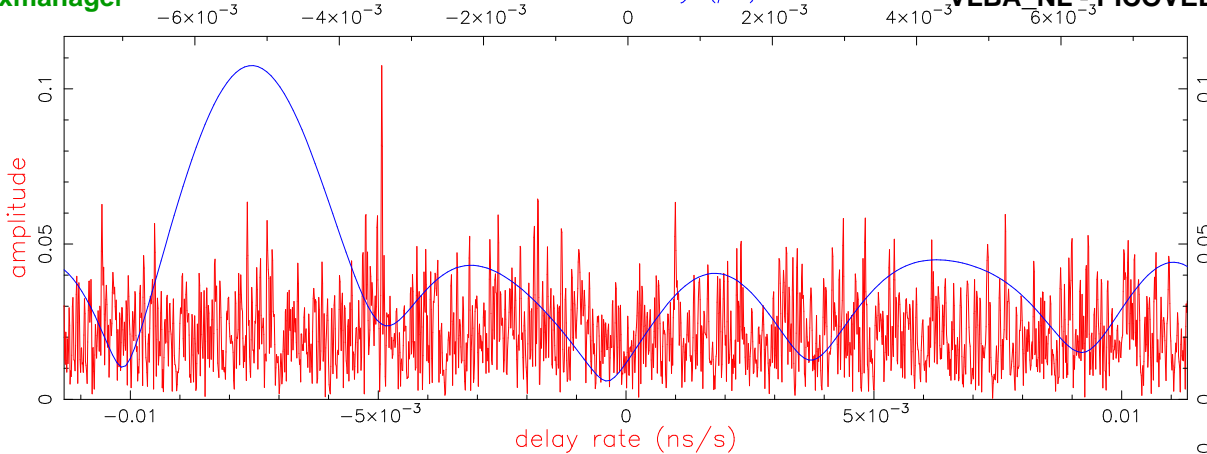
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, nP

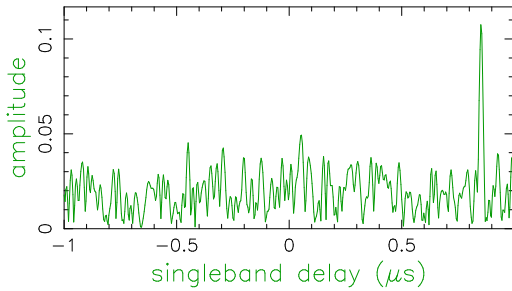
VLBA\_NL - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)

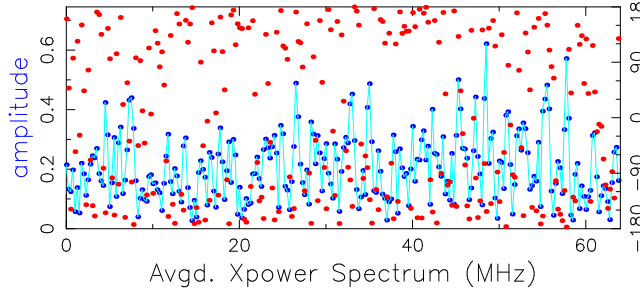


Fringe quality 0

SNR 6.1  
 Int time 419.826  
 Amp 0.117  
 Phase -14.9  
 PFD 3.1e-01  
 Delays (us)  
 SBD 0.852495  
 MBD -0.005190  
 Fringe rate (Hz)  
 -0.425027  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

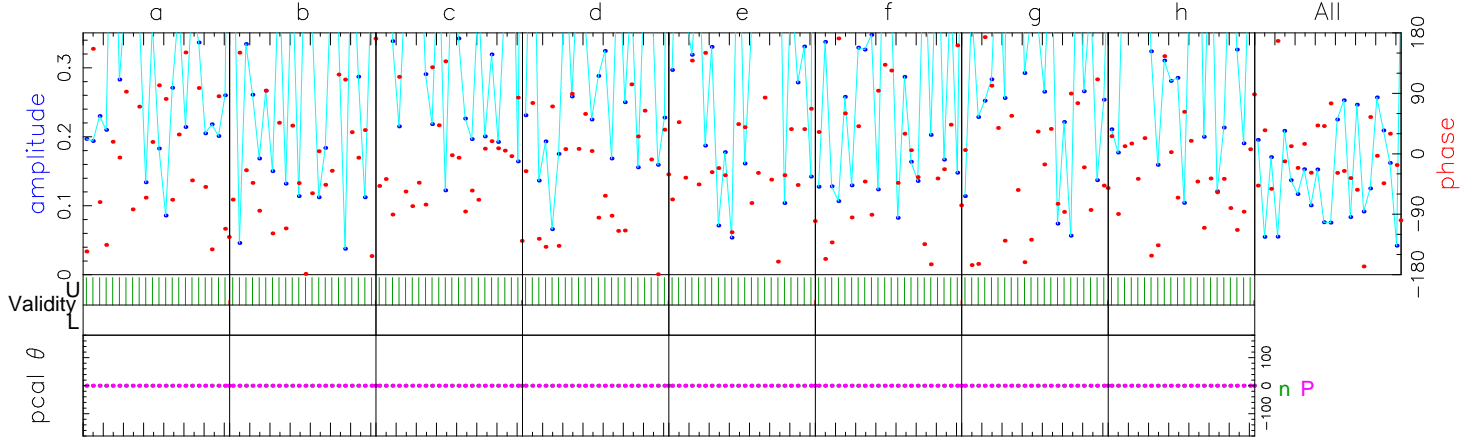


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080419  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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	1.2	-18.9	-28.5	11.5	-9.7	-5.3	9.0	-26.5	Phase	-14.9
n	0.1	0.1	0.3	0.1	0.1	0.0	0.1	0.2	Ampl.	0.1
P	365.8	29.7	475.5	334.3	476.7	389.3	21.5	474.7	Sbd box	475.2
n	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	3.99830178285E+03	Apriori delay (usec)	3.99744759817E+03	Resid mbdelay (usec)	-5.19032E-03	+/-	1.8E-04
Sband delay (usec)	3.99830009367E+03	Apriori clock (usec)	6.3490791E+00	Resid sbdelay (usec)	8.52495E-01	+/-	1.4E-03
Phase delay (usec)	3.99744759769E+03	Apriori clockrate (us/s)	8.9999996E-07	Resid phdelay (usec)	-4.79228E-07	+/-	6.1E-07
Delay rate (us/s)	1.64417292946E+00	Apriori rate (us/s)	1.64417786361E+00	Resid rate (us/s)	-4.93414E-06	+/-	2.5E-09
Total phase (deg)	23.6	Apriori accel (us/s/s)	-2.09814961355E-05	Resid phase (deg)	-14.9	+/-	18.9

ph/seg (deg)	62.8	Theor.	45.4	Search (2048X32)	0.101	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	74.4		79.2	Interp.	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	18.2		26.8	Inc. seg. avg.	0.121	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	62.9		46.7	Inc. frq. avg.	0.108	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

n: az 134.1 el 40.2 pa -31.9 P: az 248.7 el 28.6 pa 48.1 u,v (fr/asec) -9452.399 512.327 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nP..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nP.W.240.1W6WJ8

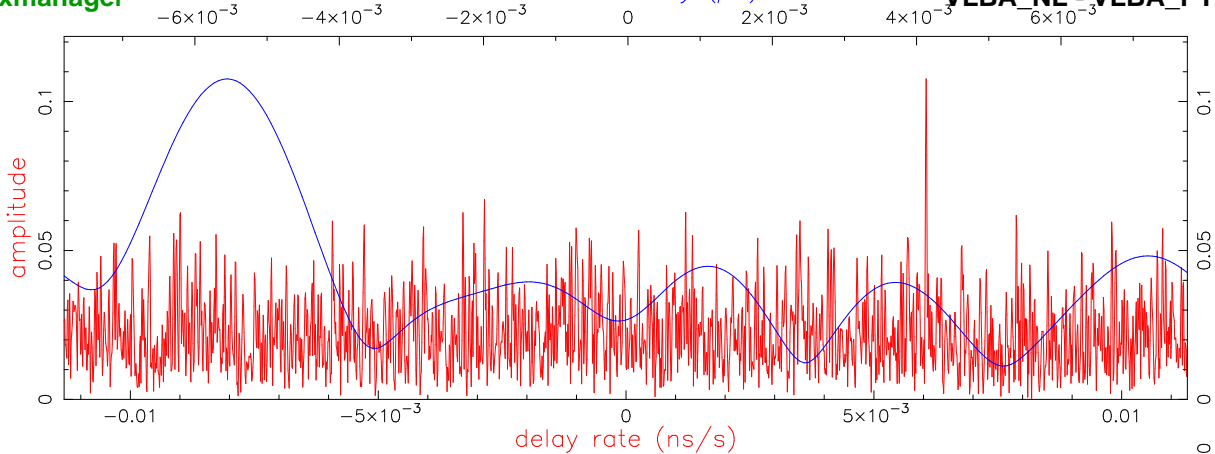
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, np

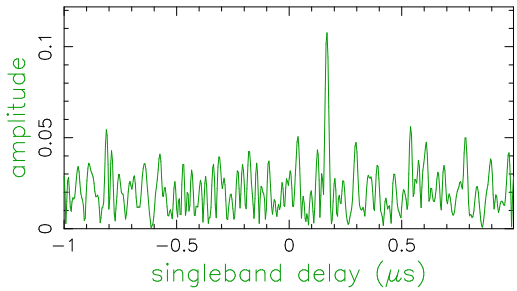
VLBA\_NL - VLBA\_PT, fgroup W, pol LL

multiband delay ( $\mu$ s)

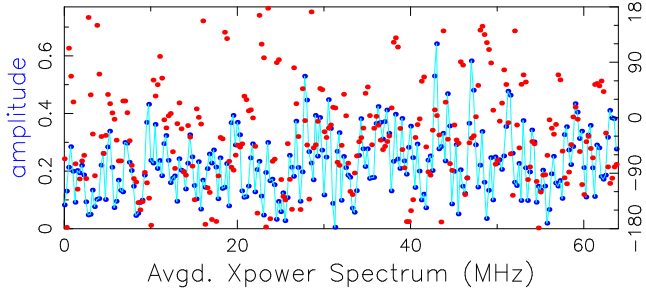


Fringe quality 0

SNR 6.1  
 Int time 419.826  
 Amp 0.122  
 Phase 154.1  
 PFD 3.1e-01  
 Delays (us)  
 SBD 0.167167  
 MBD -0.005566  
 Fringe rate (Hz)  
 0.522694  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

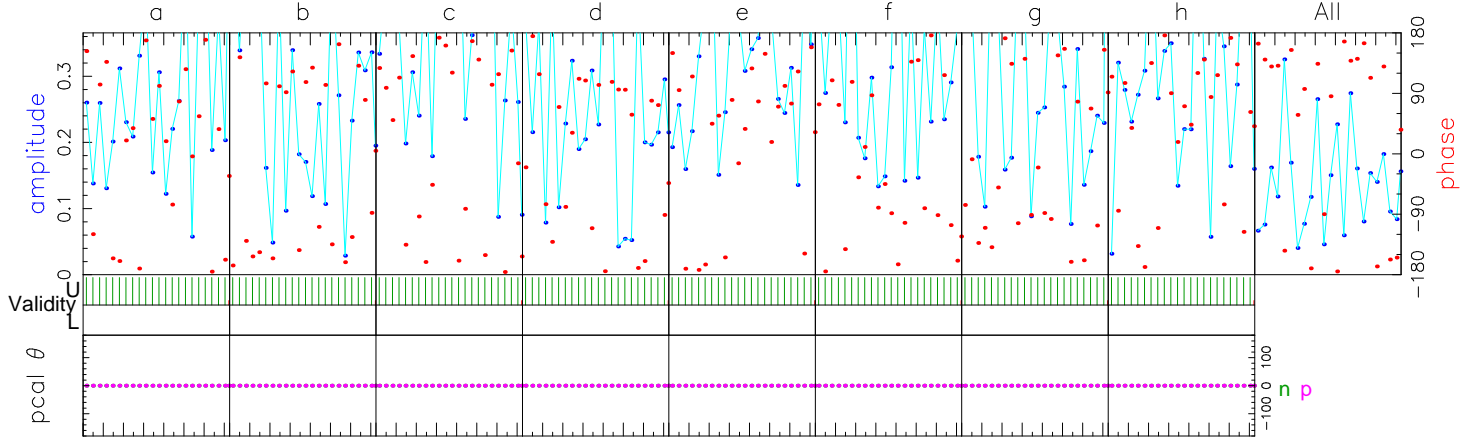


delay rate (ns/s)



Exp. c211a  
 Yr:day 16383  
 Start 2021:287:07114  
 Stop 2021:287:080420  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080420  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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
130.0	-177.5	154.2	155.1	108.0	166.7	-128.0	135.8		Phase	154.1
0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1		Ampl.	0.1
353.9	300.1	300.5	333.0	407.5	479.1	258.4	459.1		Sbd box	299.8
U/L 820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used	
n 1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
p 1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
n:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
n:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC	
n 1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
p 1000	1000	1000	1000	1000	1000	1000	1000			
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.91057906095E+03		Apriori delay (usec)	1.91041275199E+03		Resid mbdelay (usec)	-5.56604E-03		+/-	1.8E-04
Sband delay (usec)	1.91057991874E+03		Apriori clock (usec)	-1.3282776E-01		Resid sbdelay (usec)	1.67167E-01		+/-	1.4E-03
Phase delay (usec)	1.91041275696E+03		Apriori clockrate (us/s)	4.1999997E-07		Resid phdelay (usec)	4.97050E-06		+/-	6.1E-07
Delay rate (us/s)	-3.47243796473E-01		Apriori rate (us/s)	-3.47249864434E-01		Resid rate (us/s)	6.06796E-06		+/-	2.5E-09
Total phase (deg)		318.3	Apriori accel (us/s/s)	-9.76917771529E-06		Resid phase (deg)	154.1		+/-	18.9

	RMS	Theor.	Amplitude	0.122 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	47.6	45.4	Search (2048X32)	0.107	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	76.3	79.2	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	41.0	26.8	Inc. seg. avg.	0.120	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	45.8	46.7	Inc. frq. avg.	0.129	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

n: az 134.1 el 40.2 pa -31.9 p: az 113.7 el 33.5 pa -48.9 u,v (fr/asec) 1974.675 879.233 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/np..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/np.W.242.1W6WJ8

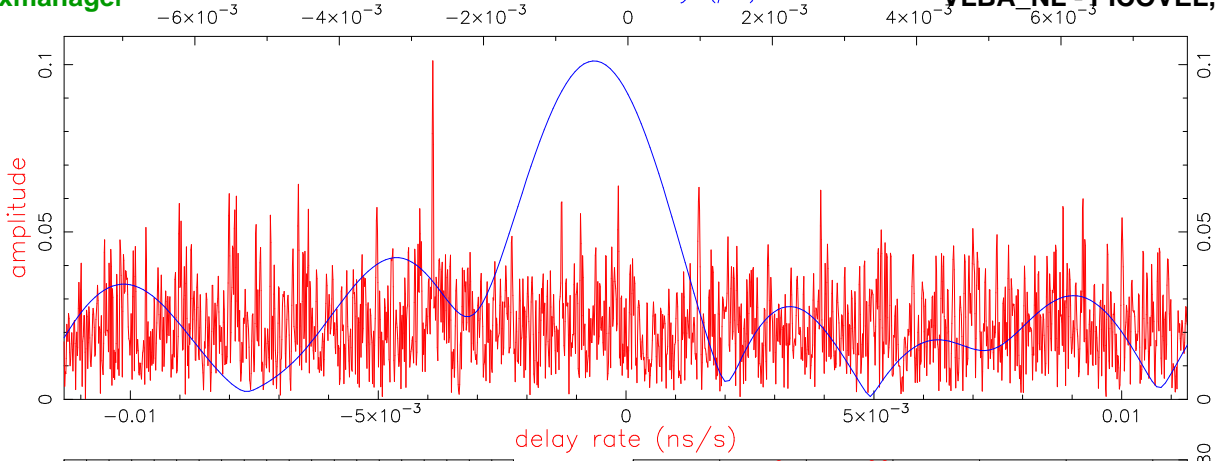
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

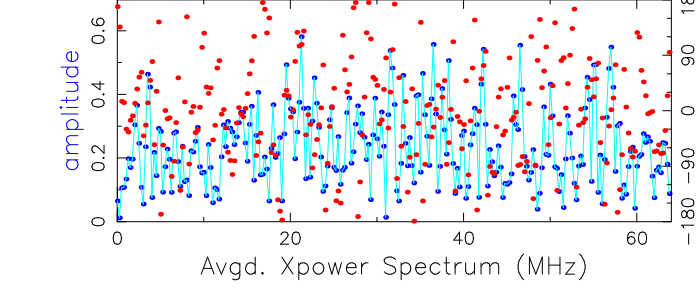
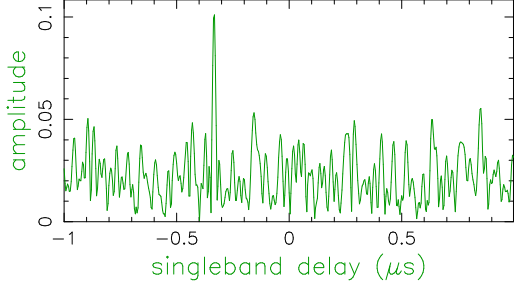
3C273.1W6WJ8, No0155, nP

VLBA\_NL - PICOVEL, fgroup W, pol RR

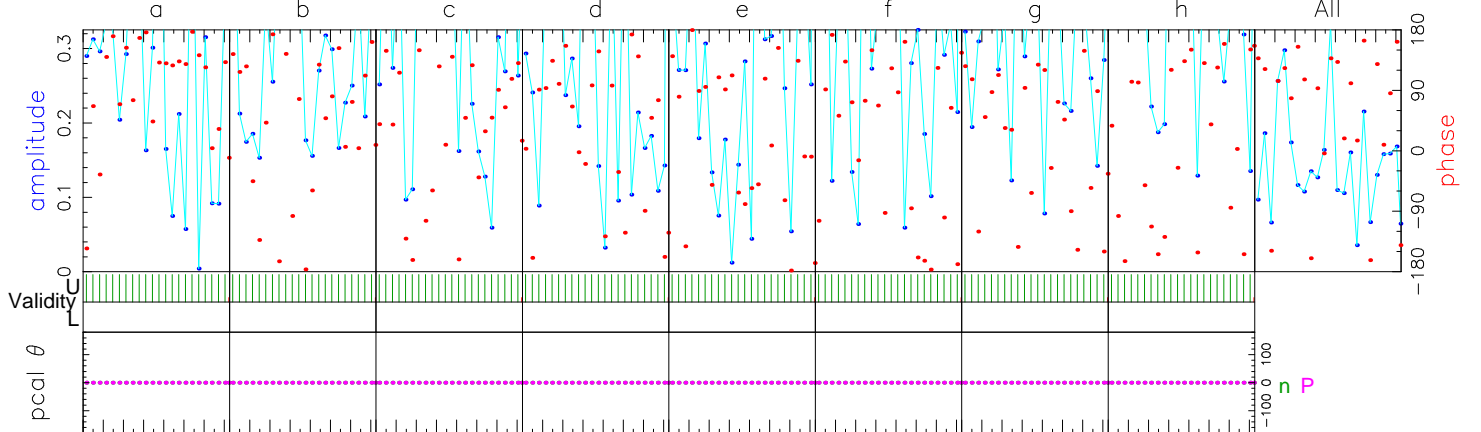
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 5.8  
 Int time 419.826  
 Amp 0.108  
 Phase 119.0  
 PFD 8.4e-01  
 Delays (us)  
 SBD -0.333705  
 MBD -0.000480  
 Fringe rate (Hz)  
 -0.335958  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080423  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	3.99711899326E+03		Apriori delay (usec)		3.99744759817E+03		Resid mbdelay (usec)		-4.79918E-04	+/- 1.9E-04
Sband delay (usec)	3.99711389317E+03		Apriori clock (usec)		6.3490791E+00		Resid sbdelay (usec)		-3.33705E-01	+/- 1.5E-03
Phase delay (usec)	3.99744760201E+03		Apriori clockrate (us/s)		8.9999996E-07		Resid phdelay (usec)		3.83816E-06	+/- 6.4E-07
Delay rate (us/s)	1.64417396347E+00		Apriori rate (us/s)		1.64417786361E+00		Resid rate (us/s)		-3.90014E-06	+/- 2.6E-09
Total phase (deg)	157.4		Apriori accel (us/s/s)		-2.09814961355E-05		Resid phase (deg)		119.0	+/- 19.8

ph/seg (deg) 60.6 47.5 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 84.2 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) 12.6 28.0 Inc. seg. avg. 0.119 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 41.1 48.9 Inc. frq. avg. 0.097 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 n: az 134.1 el 40.2 pa -31.9 P: az 248.7 el 28.6 pa 48.1 u,v (fr/asec) -9452.399 512.327 ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nP..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nP.W.258.1W6WJ8 simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

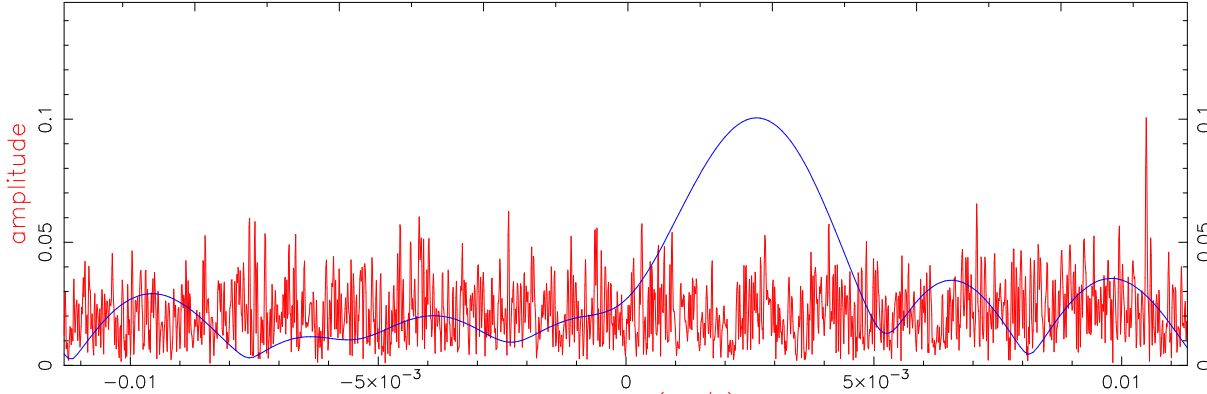
3C273.1W6WJ8, No0155, np

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

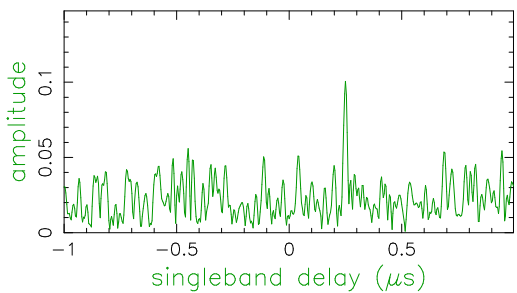
multiband delay ( $\mu$ s)

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

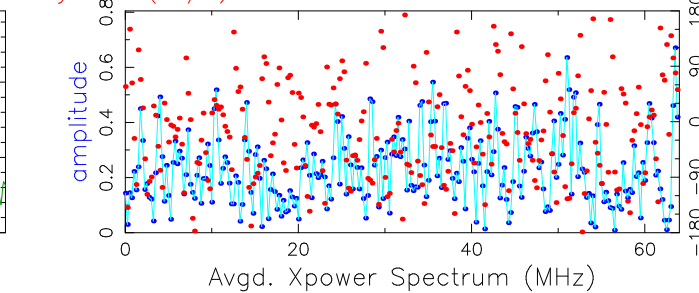
Fringe quality 0



SNR 5.6  
Int time 419.826  
Amp 0.147  
Phase -47.4  
PFD 9.9e-01  
Delays (us)  
SBD 0.249984  
MBD 0.001782  
Fringe rate (Hz) 0.905823  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512



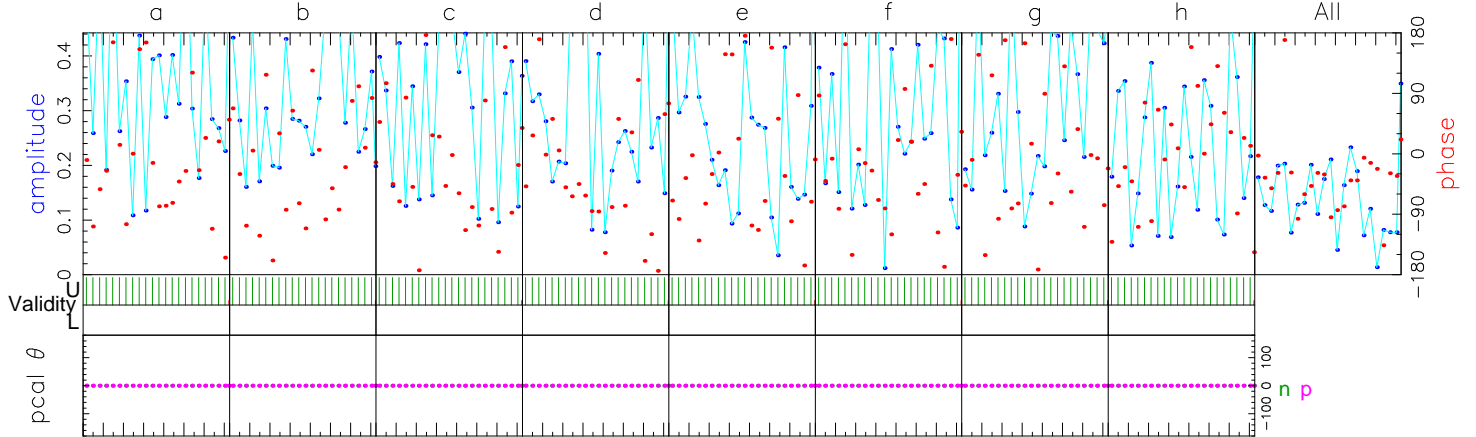
singleband delay ( $\mu$ s)



Avgd. Xpower Spectrum (MHz)

Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080423  
2021:252:122852  
RA & Dec (J2000)  
12h29m06.699731s  
+02°03'08.598201"

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
	-46.8	-14.3	-47.1	-57.3	-73.6	-58.5	-56.9	-11.9	Phase	-47.4
	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.1	Ampl.	0.1
	458.4	169.1	142.8	319.5	147.7	148.0	284.7	115.6	Sbd box	321.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.91066453422E+03		Apriori delay (usec)		1.91041275199E+03		Resid mbdelay (usec)		1.78223E-03	+/- 1.9E-04
Sband delay (usec)	1.91066273574E+03		Apriori clock (usec)		-1.3282776E-01		Resid sbdelay (usec)		2.49984E-01	+/- 1.5E-03
Phase delay (usec)	1.91041275046E+03		Apriori clockrate (us/s)		4.1999997E-07		Resid phdelay (usec)		-1.52849E-06	+/- 6.6E-07
Delay rate (us/s)	-3.47239348732E-01		Apriori rate (us/s)		-3.47249864434E-01		Resid rate (us/s)		1.05157E-05	+/- 2.7E-09
Total phase (deg)	116.8		Apriori accel (us/s/s)		-9.76917771529E-06		Resid phase (deg)		-47.4	+/- 20.3

ph/seg (deg) 44.6 48.8 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 70.1 85.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 23.7 28.8 Inc. seg. avg. 0.145 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 23.6 50.2 Inc. frq. avg. 0.139 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 n: az 134.1 el 40.2 pa -31.9 p: az 113.7 el 33.5 pa -48.9 u,v (fr/asec) 1974.675 879.233 ion window (TEC) 0.00 0.00  
 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/np..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/np.W.260.1W6WJ8



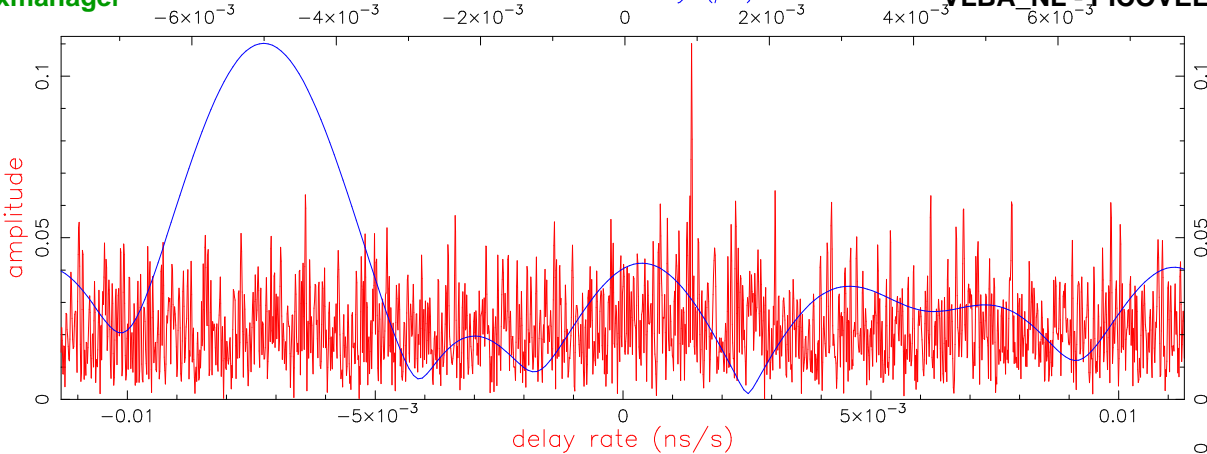
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, nP

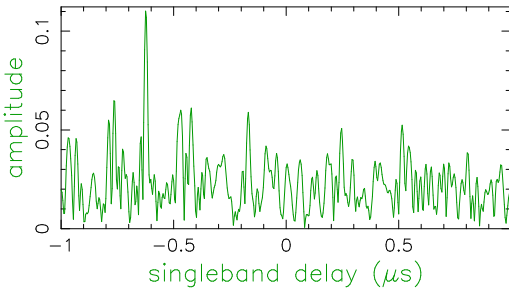
VLBA\_NL - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

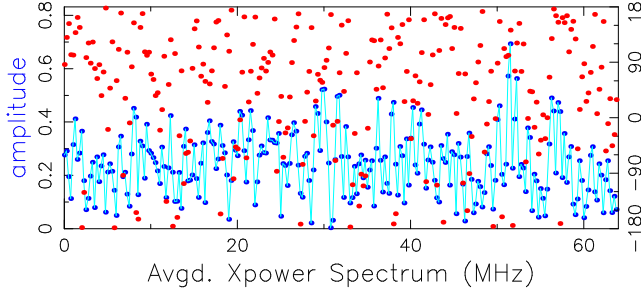


Fringe quality 0

SNR 6.3  
Int time 419.826  
Amp 0.112  
Phase 171.2  
PFD 1.0e-01  
Delays (us)  
SBD -0.623608  
MBD -0.004981  
Fringe rate (Hz)  
0.119196  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

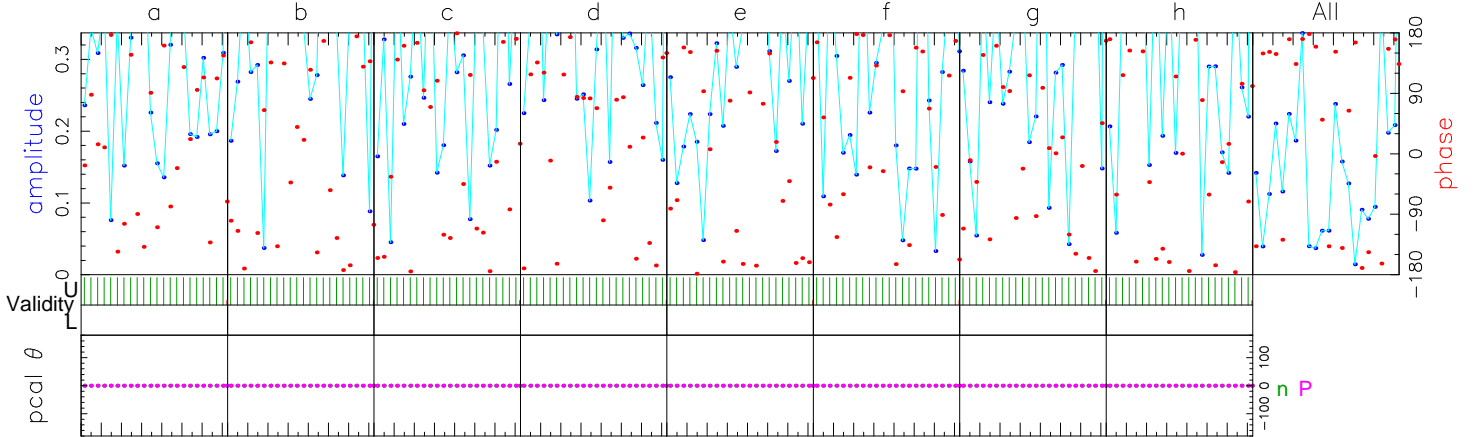


delay rate (ns/s)



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080426  
2021:252:122852  
RA & Dec (J2000)  
12h29m06.699731s  
+02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		3.99681761728E+03			3.99744759817E+03				-4.98089E-03	+/- 1.7E-04
Sband delay (usec)		3.99682399067E+03			6.3490791E+00				-6.23608E-01	+/- 1.4E-03
Phase delay (usec)		3.99744760369E+03			8.9999996E-07				5.51987E-06	+/- 5.9E-07
Delay rate (us/s)		1.64417924735E+00			1.64417786361E+00				1.38375E-06	+/- 2.4E-09
Total phase (deg)			209.6		-2.09814961355E-05				171.2	+/- 18.3
	RMS	Theor.	Amplitude	0.112 +/- 0.018						
ph/seg (deg)	57.9	43.9	Search (2048X32)	0.109						
amp/seg (%)	94.9	76.7	Interp.	0.000						
ph/frq (deg)	21.3	25.9	Inc. seg. avg.	0.114						
amp/frq (%)	48.1	45.2	Inc. frq. avg.	0.106						
n: az 134.1 el 40.2 pa -31.9	P: az 248.7 el 28.6 pa 48.1		u,v (fr/asec) -9452.399 512.327		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
Control file: cf_1234_gmva	Input file: /Exps/c211a/v2/1234/No0155/nP..1W6WJ8		Output file: /Exps/c211a/v2/1234/No0155/nP.W.276.1W6WJ8		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008 0.008
					Sample rate(MISamp/s): 128		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

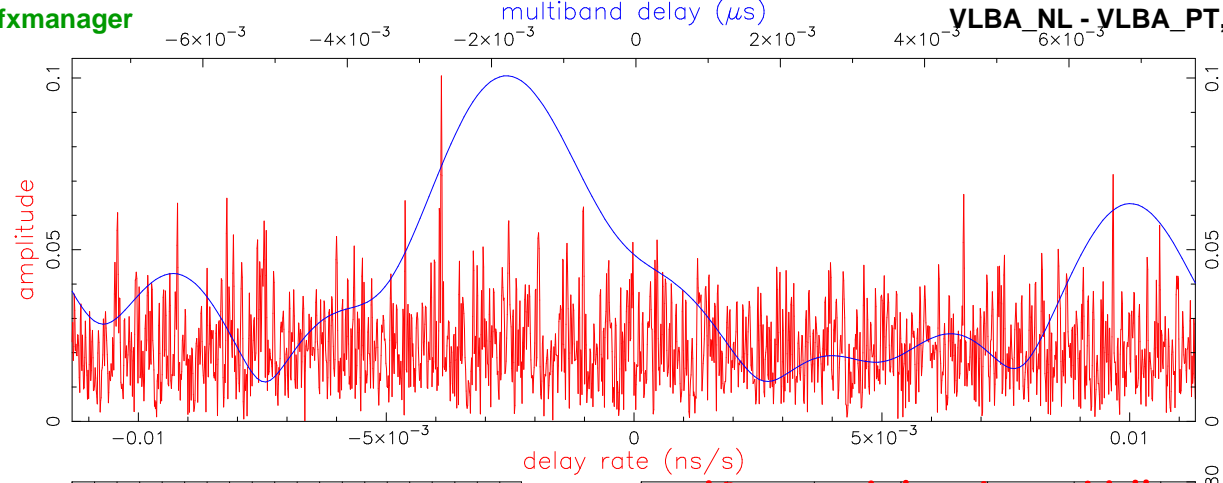
simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, np

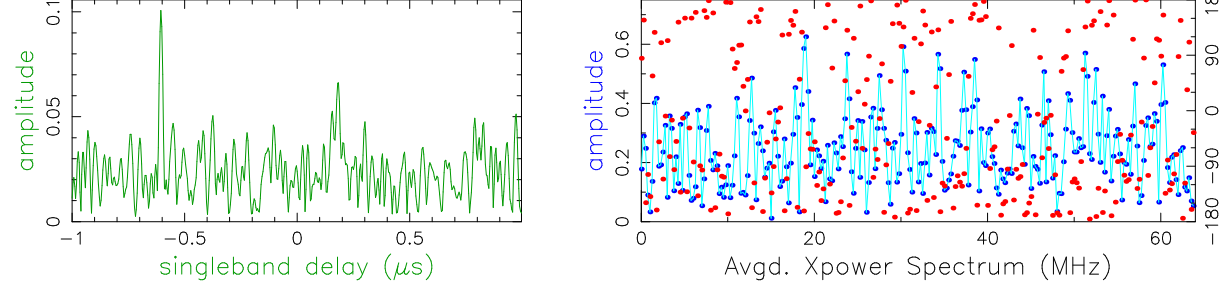
VLBA\_NL - VLBA\_PT, fgroup W, pol LR



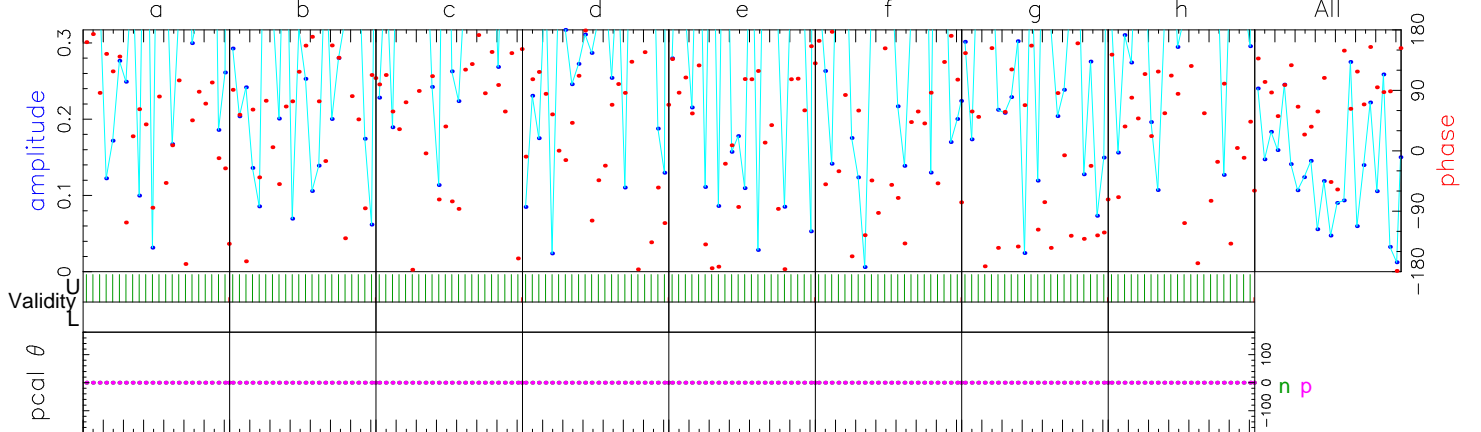
Fringe quality 0

SNR 5.6  
 Int time 419.826  
 Amp 0.106  
 Phase 90.7  
 PFD 9.8e-01  
 Delays (us)  
 SBD -0.605203  
 MBD -0.001775  
 Fringe rate (Hz)  
 -0.334974  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080426  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0			
n	1000	1000	1000	1000	1000	1000	1000	1000			
p	1000	1000	1000	1000	1000	1000	1000	1000			
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
n	1000	1000	1000	1000	1000	1000	1000	1000			
p	1000	1000	1000	1000	1000	1000	1000	1000			
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		1.90980160192E+03				1.91041275199E+03			Resid mbdelay (usec)	-1.77506E-03	+/- 1.9E-04
Sband delay (usec)		1.90980754924E+03				-1.3282776E-01			Resid sbdelay (usec)	-6.05203E-01	+/- 1.5E-03
Phase delay (usec)		1.91041275491E+03				4.1999997E-07			Resid phdelay (usec)	2.92559E-06	+/- 6.6E-07
Delay rate (us/s)		-3.47253753153E-01				-3.47249864434E-01			Resid rate (us/s)	-3.88872E-06	+/- 2.7E-09
Total phase (deg)			254.9			-9.76917771529E-06			Resid phase (deg)	90.7	+/- 20.3

ph/seg (deg) 57.7 48.7 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 81.3 85.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 55.9 28.7 Inc. seg. avg. 0.105 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 56.7 50.1 Inc. frq. avg. 0.114 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 n: az 134.1 el 40.2 pa -31.9 p: az 113.7 el 33.5 pa -48.9 u,v (fr/asec) 1974.675 879.233 ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/np..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/np.W.277.1W6WJ8 simultaneous interpolator

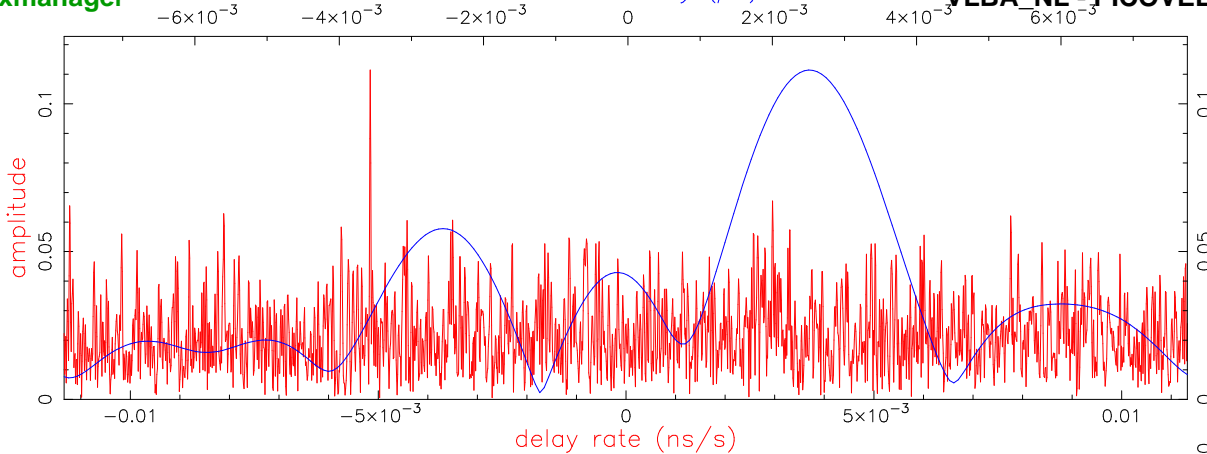
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, nP

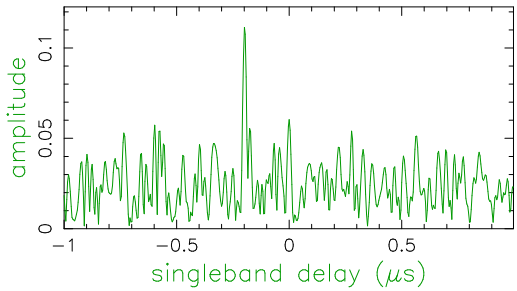
VLBA\_NL - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

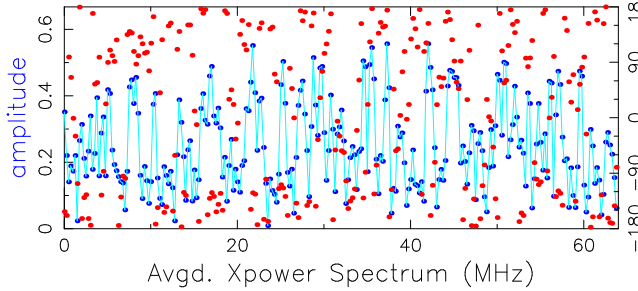


Fringe quality 0

SNR 6.3  
 Int time 419.826  
 Amp 0.123  
 Phase 20.4  
 PFD 7.4e-02  
 Delays (us)  
 SBD -0.197939  
 MBD 0.002527  
 Fringe rate (Hz)  
 -0.445363  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

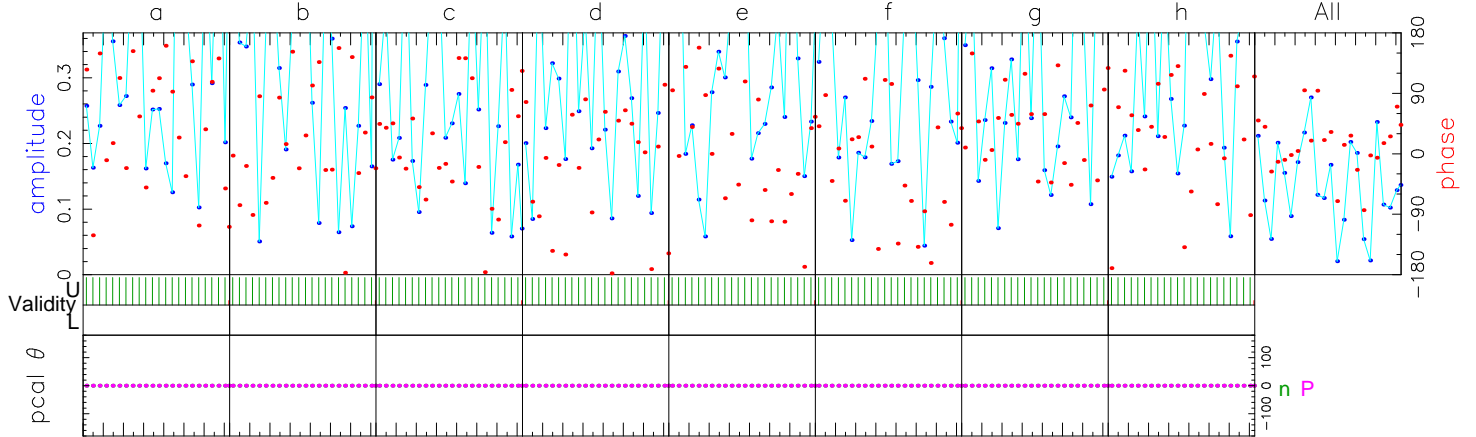


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080429  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)		3.99724700037E+03			3.99744759817E+03				Resid mbdelay (usec)	2.52719E-03 +/- 1.7E-04
Sband delay (usec)		3.99724965892E+03			6.3490791E+00				Resid sbdelay (usec)	-1.97939E-01 +/- 1.4E-03
Phase delay (usec)		3.99744759883E+03			8.9999996E-07				Resid phdelay (usec)	6.57415E-07 +/- 5.9E-07
Delay rate (us/s)		1.64417269339E+00			1.64417786361E+00				Resid rate (us/s)	-5.17022E-06 +/- 2.4E-09
Total phase (deg)			58.8		-2.09814961355E-05				Resid phase (deg)	20.4 +/- 18.2
ph/seg (deg)	RMS 43.6	Theor. 43.6	Amplitude 43.6	0.123 +/- 0.019	Search (2048X32) 0.109	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	63.9	76.0	Interp. 63.9	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	30.0	25.7	Inc. seg. avg. 30.0	0.116	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	29.7	44.8	Inc. frq. avg. 29.7	0.122	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

n: az 134.1 el 40.2 pa -31.9 P: az 248.7 el 28.6 pa 48.1 u,v (fr/asec) -9452.399 512.327 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nP..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nP.W.293.1W6WJ8

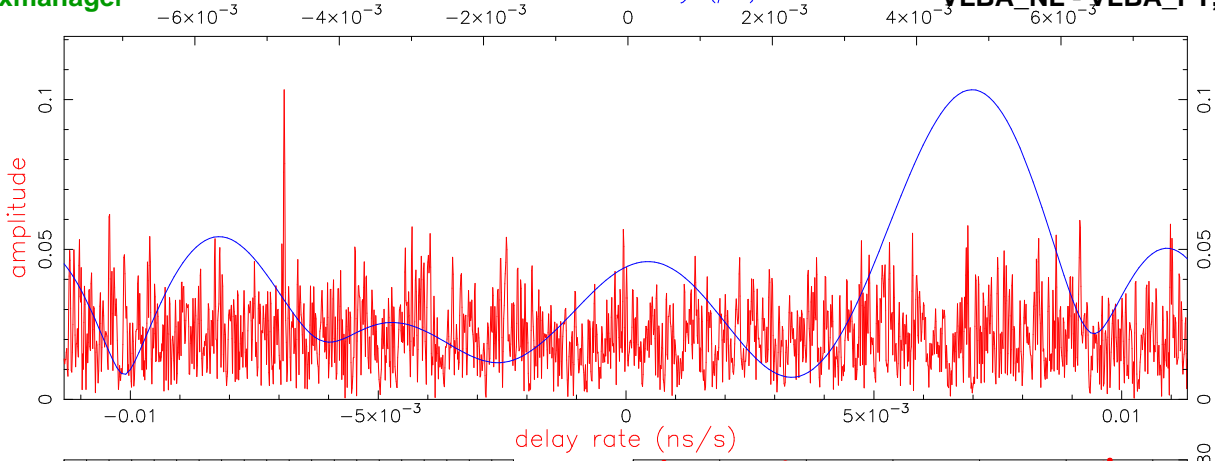
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, np

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

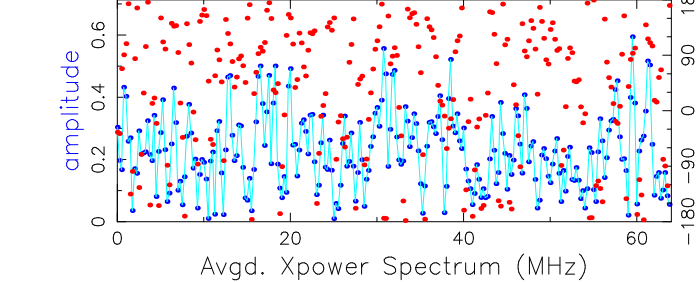
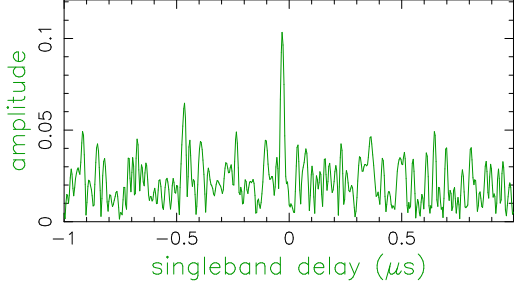
multiband delay ( $\mu$ s)



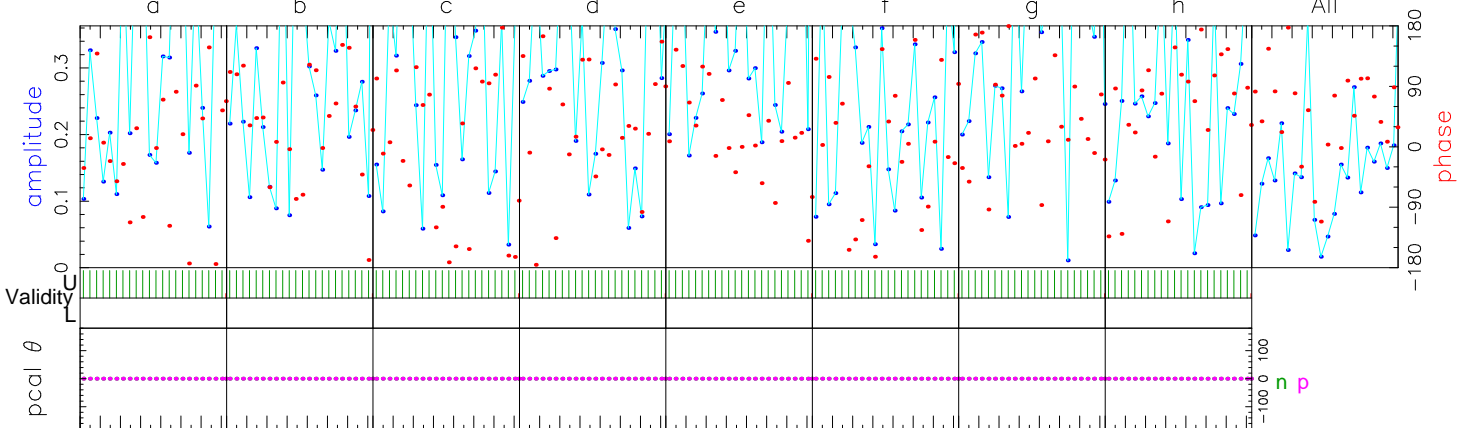
Fringe quality 0

SNR 5.8  
 Int time 419.826  
 Amp 0.121  
 Phase 56.7  
 PFD 8.2e-01  
 Delays (us)  
 SBD -0.030810  
 MBD 0.004766  
 Fringe rate (Hz)  
 -0.595333  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080430  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		1.91038626767E+03			1.91041275199E+03				4.76568E-03	+/- 1.9E-04
Sband delay (usec)		1.91038194199E+03			-1.3282776E-01				-3.08100E-02	+/- 1.5E-03
Phase delay (usec)		1.91041275381E+03			4.199997E-07				1.82863E-06	+/- 6.4E-07
Delay rate (us/s)		-3.47256775657E-01			-3.47249864434E-01				-6.91122E-06	+/- 2.6E-09
Total phase (deg)			220.9		-9.76917771529E-06				56.7	+/- 19.8
pcal mode:					MANUAL, MANUAL					
pcal rate:					0.000E+00, 0.000E+00 (us/s)					
Bits/sample:					2x2					
Sample rate (MSamp/s):					128					
Data rate (Mb/s):					2048					
pcal period (AP's)					5, 5					
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

ph/seg (deg) 66.3 47.4 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 88.4 82.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 44.0 28.0 Inc. seg. avg. 0.125 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 50.0 48.8 Inc. frq. avg. 0.122 Sample rate (MSamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 n: az 134.1 el 40.2 pa -31.9 p: az 113.7 el 33.5 pa -48.9 u,v (fr/asec) 1974.675 879.233 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/np..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/np.W.294.1W6WJ8

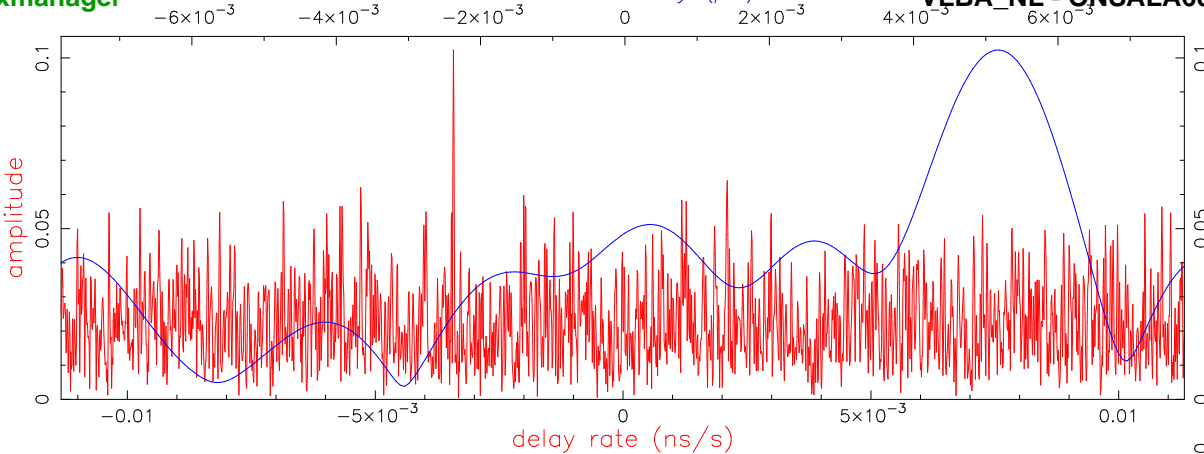
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, nX

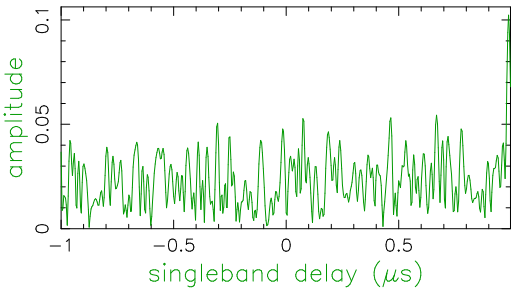
VLBA\_NL - ONSALA60, fgroup W, pol LL

multiband delay ( $\mu$ s)

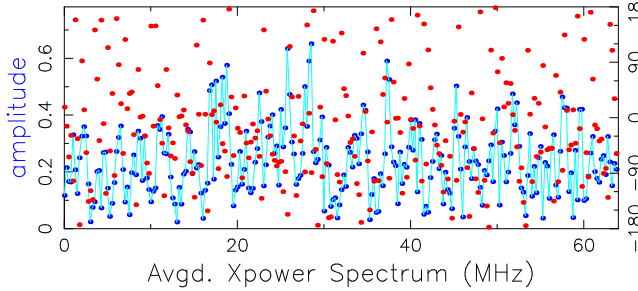


Fringe quality 0

SNR 5.7  
 Int time 419.808  
 Amp 0.106  
 Phase 126.4  
 PFD 9.1e-01  
 Delays (us)  
 SBD 0.988134  
 MBD 0.005169  
 Fringe rate (Hz)  
 -0.295569  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

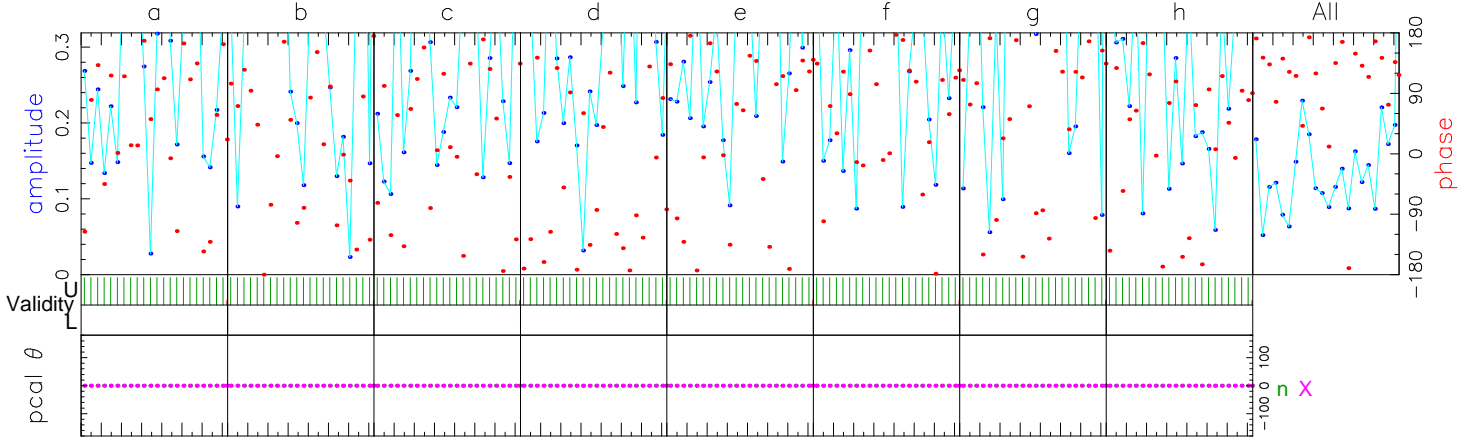


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080420  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	9.59342180812E+03	Apriori delay (usec)	9.59243226432E+03	Resid mbdelay (usec)	5.16880E-03	+/-	1.9E-04
Sband delay (usec)	9.59342039857E+03	Apriori clock (usec)	-5.0980202E+01	Resid sbdelay (usec)	9.88134E-01	+/-	1.5E-03
Phase delay (usec)	9.59243226840E+03	Apriori clockrate (us/s)	-2.2800002E-07	Resid phdelay (usec)	4.07740E-01	+/-	6.4E-07
Delay rate (us/s)	1.40996885589E+00	Apriori rate (us/s)	1.40997228716E+00	Resid rate (us/s)	-3.43126E-06	+/-	2.7E-09
Total phase (deg)	215.9	Apriori accel (us/s/s)	-5.19485167307E-05	Resid phase (deg)	126.4	+/-	20.0

ph/seg (deg)	43.9	RMS	43.9	Theor.	47.9	Amplitude	0.106 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	66.5		66.5		83.6	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	38.7		38.7		28.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	33.9		33.9		49.3	Inc. seg. avg.	0.105	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Inc. frq. avg.	0.115	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

n: az 134.1 el 40.2 pa -31.9 X: az 254.2 el 12.2 pa 31.4 u,v (fr/asec) -8158.848 -1694.143 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nX..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nX.W.243.1W6WJ8

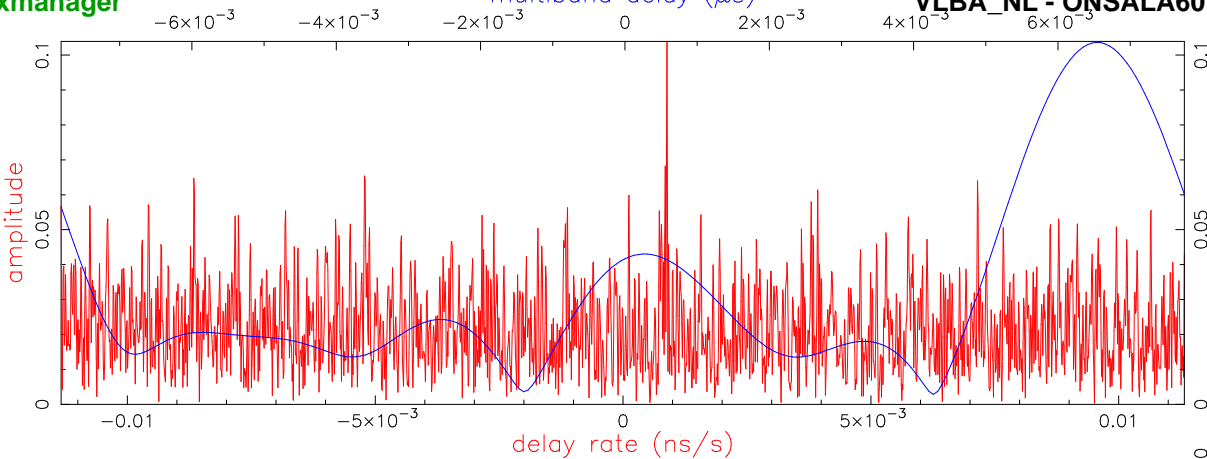
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, nX

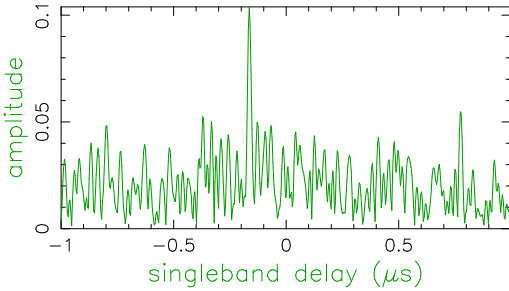
VLBA\_NL - ONSALA60, fgroup W, pol RR

multiband delay ( $\mu$ s)

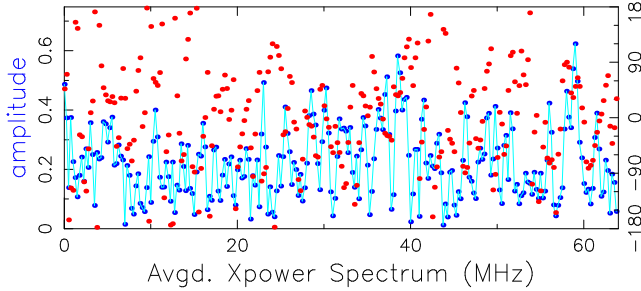


Fringe quality 0

SNR 5.8  
 Int time 419.808  
 Amp 0.104  
 Phase -158.4  
 PFD 8.0e-01  
 Delays (us)  
 SBD -0.163895  
 MBD 0.006552  
 Fringe rate (Hz)  
 0.076307  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

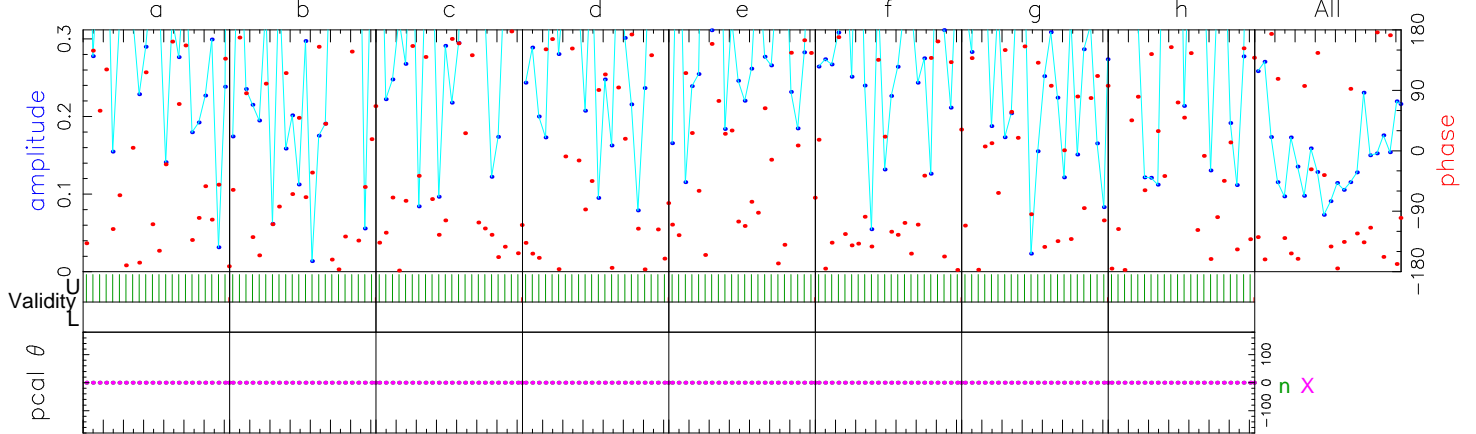


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080423  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



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

Group delay (usec)(sbd) 9.59226694128E+03 Apriori delay (usec) 9.59243226432E+03 Resid mbdelay (usec) 6.55196E-03 +/- 1.9E-04  
 Sband delay (usec) 9.59226836957E+03 Apriori clock (usec) -5.0980202E+01 Resid sbdelay (usec) -1.63895E-01 +/- 1.5E-03  
 Phase delay (usec) 9.59243225921E+03 Apriori clockrate (us/s) -2.2800002E-07 Resid phdelay (usec) -5.10872E-06 +/- 6.4E-07  
 Delay rate (us/s) 1.40997317301E+00 Apriori rate (us/s) 1.40997228716E+00 Resid rate (us/s) 8.85851E-07 +/- 2.6E-09  
 Total phase (deg) -68.9 Apriori accel (us/s/s) -5.19485167307E-05 Resid phase (deg) -158.4 +/- 19.7

RMS Theor. Amplitude 0.104 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 58.8 47.3 Search (2048X32) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 68.7 82.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 21.4 27.9 Inc. seg. avg. 0.113 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 48.7 48.7 Inc. frq. avg. 0.096 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

n: az 134.1 el 40.2 pa -31.9 X: az 254.2 el 12.2 pa 31.4 u,v (fr/asec) -8158.848 -1694.143 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nX..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nX.W.262.1W6WJ8

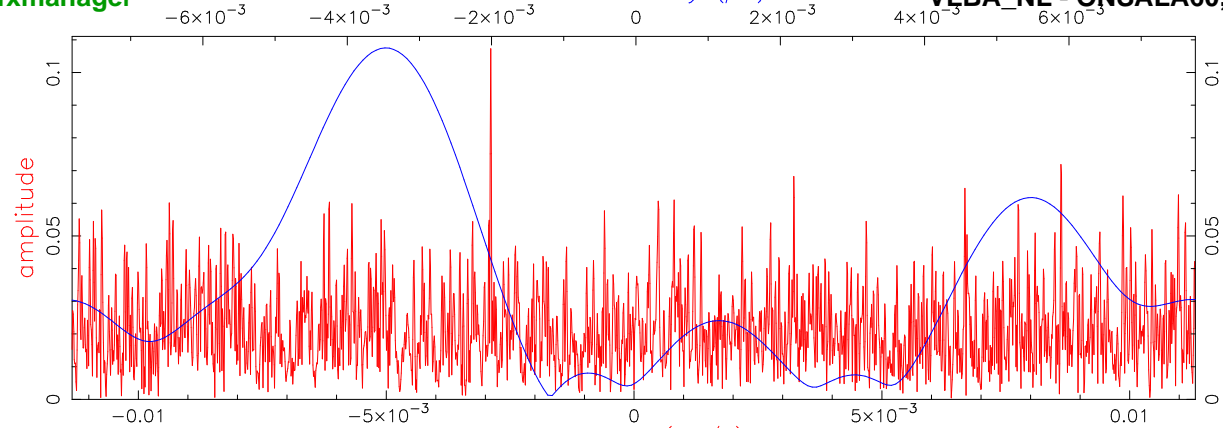
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, nX

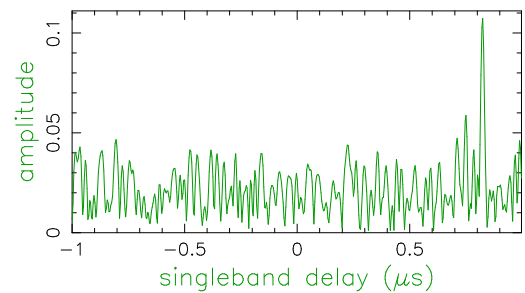
VLBA\_NL - ONSALA60, fgroup W, pol LR

multiband delay ( $\mu$ s)

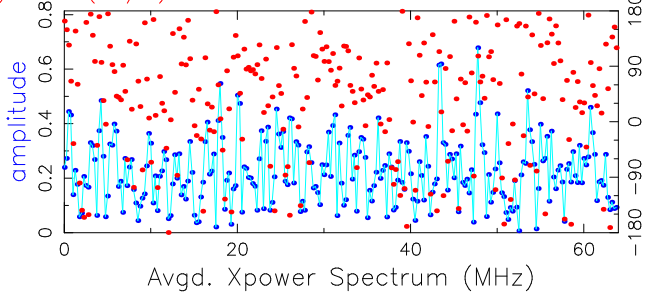


Fringe quality 0

SNR 6.1  
Int time 419.808  
Amp 0.111  
Phase -118.2  
PFD 3.0e-01  
Delays (us)  
SBD 0.823107  
MBD -0.003550  
Fringe rate (Hz)  
-0.249593  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

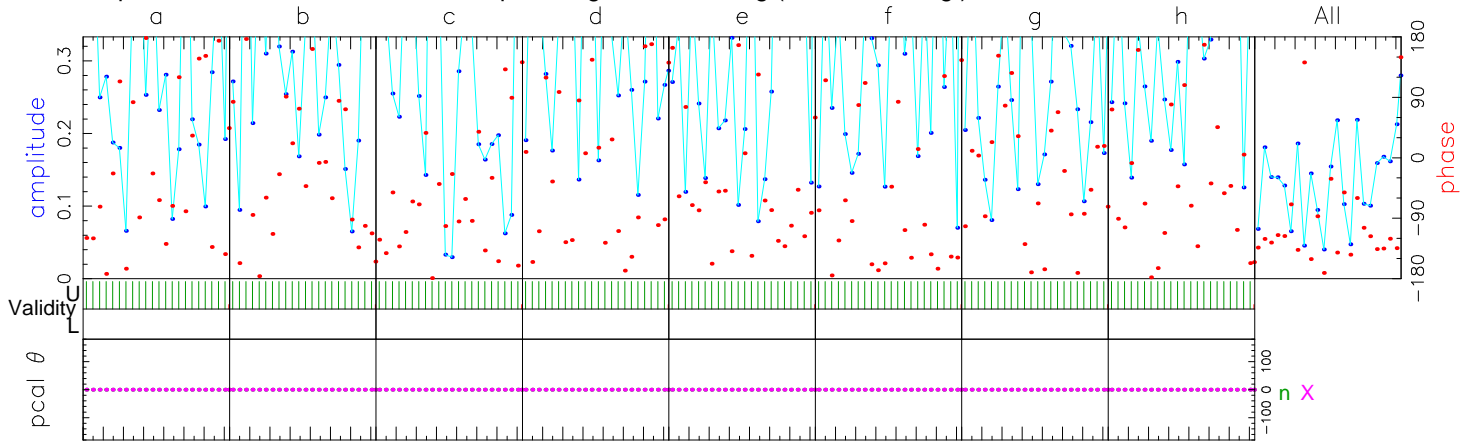


delay rate (ns/s)



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080427  
2021:252:122852  
RA & Dec (J2000)  
12h29m06.699731s  
+02°03'08.598201"

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
	-117.8	-112.5	-111.0	-147.8	-103.4	-161.5	-8.0	-95.7	Phase	-118.2
	0.1	0.1	0.2	0.1	0.2	0.1	0.0	0.1	Ampl.	0.1
	466.1	280.0	459.7	469.3	468.8	364.9	479.1	93.9	Sbd box	467.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.59325683886E+03		Apriori delay (usec)		9.59243226432E+03		Resid mbdelay (usec)		-3.55046E-03	+/- 1.8E-04
Sband delay (usec)	9.59325537182E+03		Apriori clock (usec)		-5.0980202E+01		Resid sbdelay (usec)		8.23107E-01	+/- 1.4E-03
Phase delay (usec)	9.59243226051E+03		Apriori clockrate (us/s)		-2.2800002E-07		Resid phdelay (usec)		-3.81239E-06	+/- 6.1E-07
Delay rate (us/s)	1.40996938963E+00		Apriori rate (us/s)		1.40997228716E+00		Resid rate (us/s)		-2.89753E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.19485167307E-05		Resid phase (deg)		-118.2	+/- 18.9

	RMS	Theor.	Amplitude	0.111 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	40.9	45.4	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	56.4	79.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	51.2	26.8	Inc. seg. avg.	0.103	Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
amp/frq (%)	43.0	46.7	Inc. frq. avg.	0.114	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite
n: az 134.1 el 40.2 pa -31.9	X: az 254.2 el 12.2 pa 31.4		u,v (fr/asec) -8158.848 -1694.143				ion window (TEC) 0.00 0.00

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nX..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nX.W.282.1W6WJ8

simultaneous interpolator

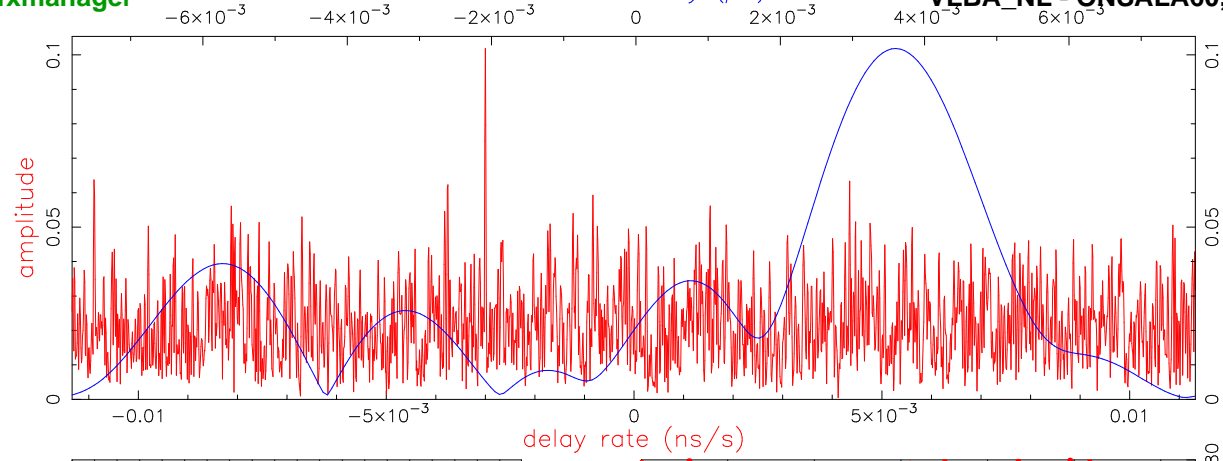
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

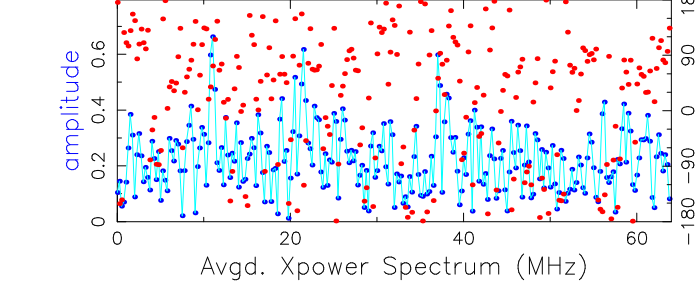
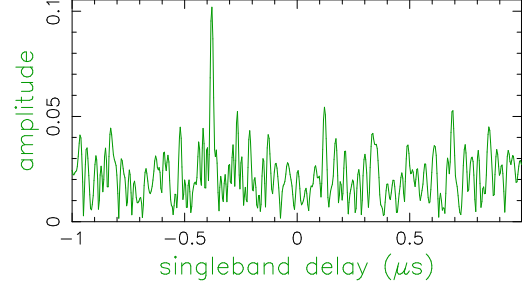
3C273.1W6WJ8, No0155, nX

VLBA\_NL - ONSALA60, fgroup W, pol RL

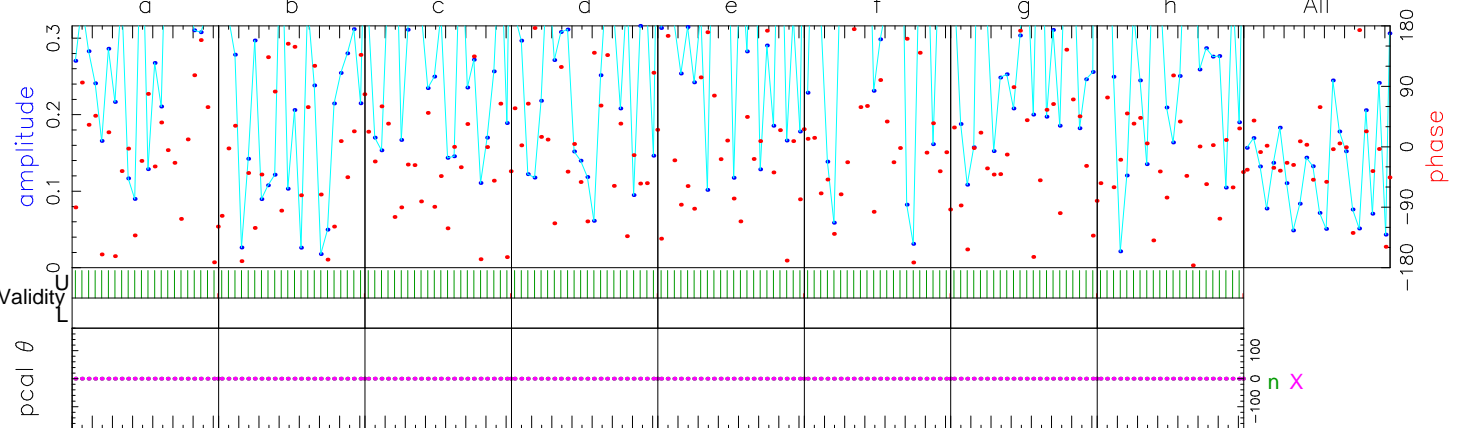
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 5.7  
 Int time 419.808  
 Amp 0.105  
 Phase -10.0  
 PFD 9.1e-01  
 Delays (us)  
 SBD -0.379743  
 MBD 0.003586  
 Fringe rate (Hz)  
 -0.258750  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080430  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		9.59204522499E+03			9.59243226432E+03				3.58567E-03	+/- 1.9E-04
Sband delay (usec)		9.59205252157E+03			-5.0980202E+01				-3.79743E-01	+/- 1.5E-03
Phase delay (usec)		9.59243226400E+03			-2.2800002E-07				-3.20887E-07	+/- 6.4E-07
Delay rate (us/s)		1.40996928332E+00			1.40997228716E+00				-3.00383E-06	+/- 2.7E-09
Total phase (deg)			79.5		-5.19485167307E-05				-10.0	+/- 20.0
ph/seg (deg)	60.1	47.9		0.105 +/- 0.018						
amp/seg (%)	65.4	83.6								
ph/frq (deg)	15.8	28.3								
amp/frq (%)	40.5	49.3								

n: az 134.1 el 40.2 pa -31.9 X: az 254.2 el 12.2 pa 31.4 u,v (fr/asec) -8158.848 -1694.143 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/nX..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/nX.W.299.1W6WJ8