

Mk4/DiFX fourfit 3.21 rev 2937

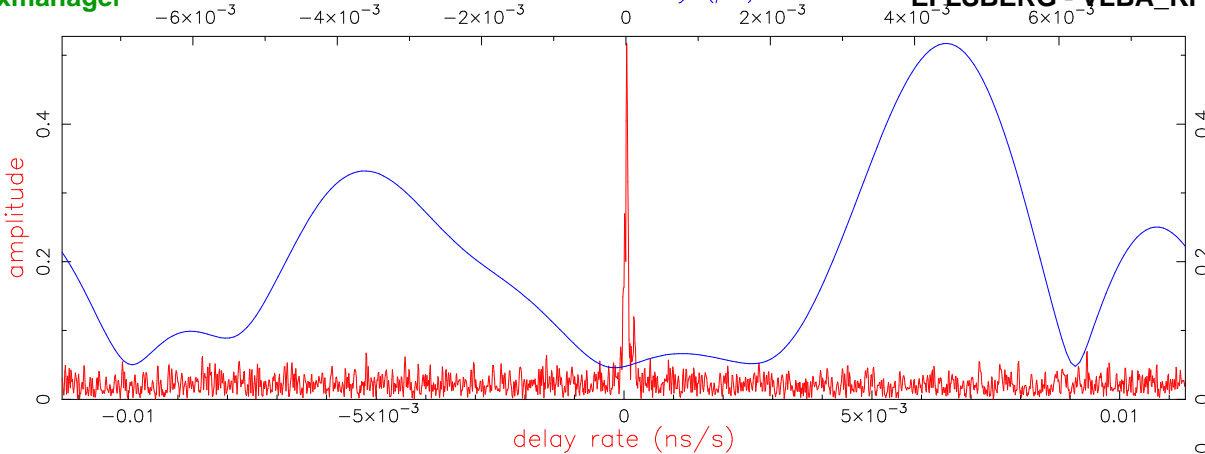
fxmanager

3C273.1W6WJ8, No0155, Bk

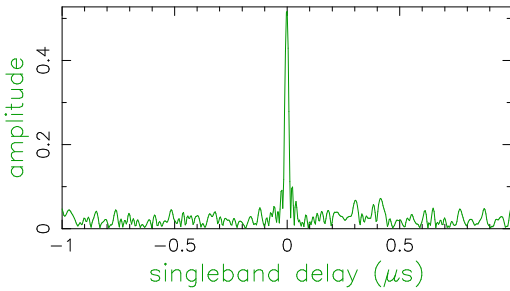
EFLSBERG - VLBA\_KP, fgroup W, pol RR

multiband delay ( $\mu$ s)

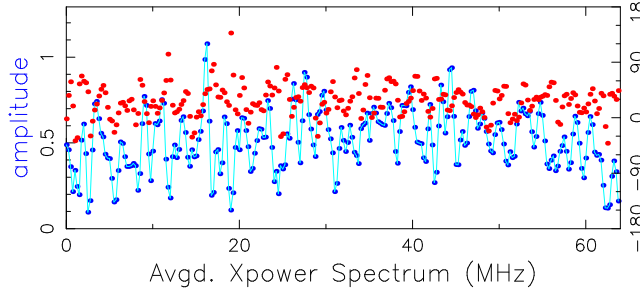
Fringe quality 5



SNR 29.5  
 Int time 419.713  
 Amp 0.527  
 Phase -45.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001829  
 MBD 0.004401  
 Fringe rate (Hz)  
 0.004468  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

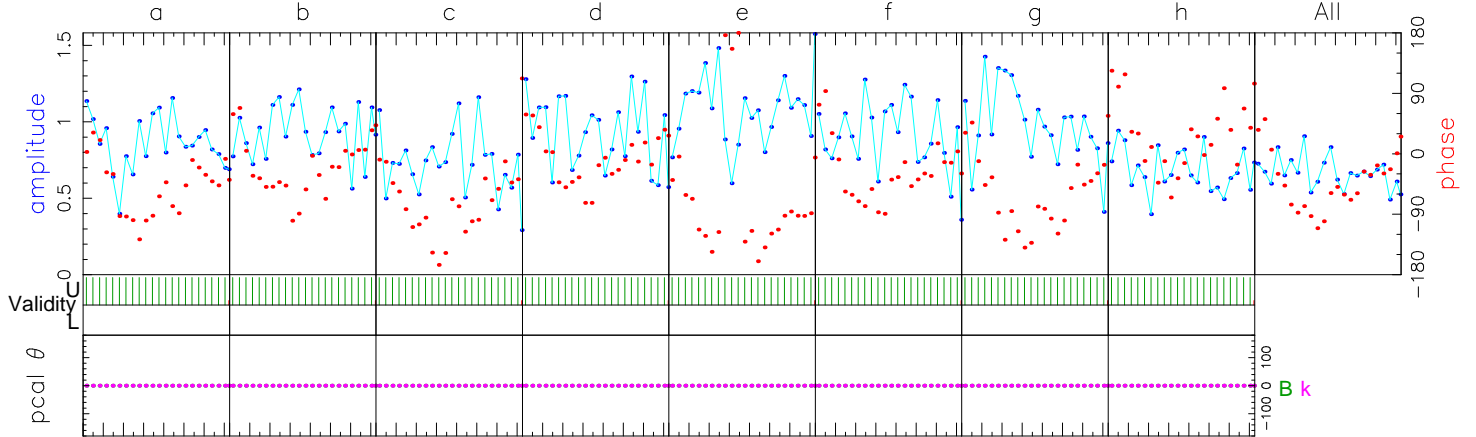


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080331  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

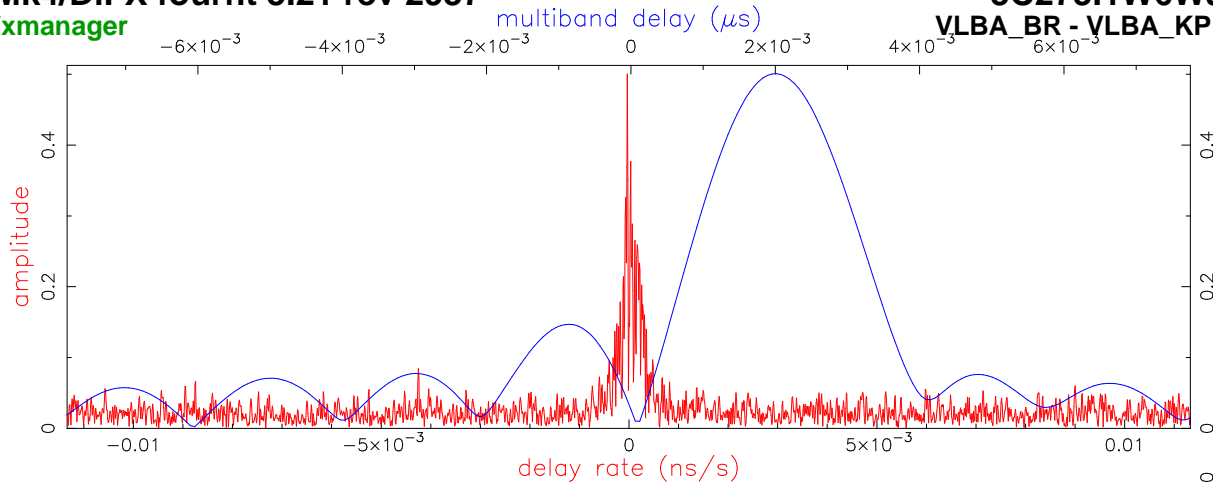
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



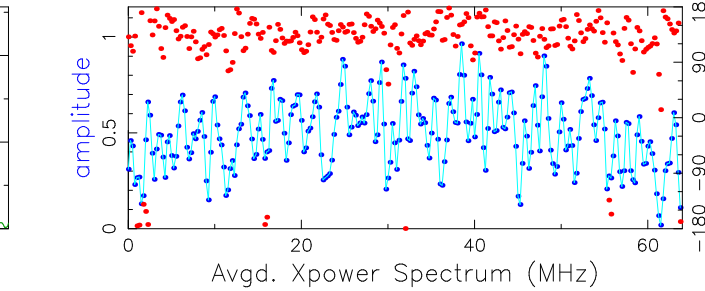
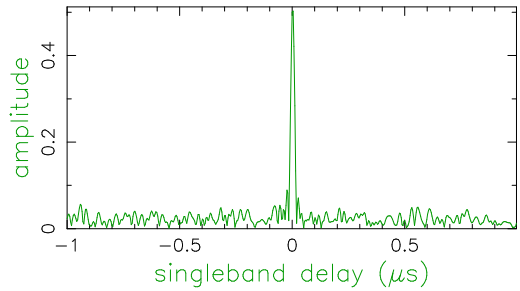
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-48.0	-23.7	-75.4	-6.8	-109.5	-30.5	-69.3	25.1		-45.3
	0.6	0.7	0.6	0.8	0.8	0.7	0.7	0.4	Ampl.	0.7
	256.4	256.7	257.0	256.7	257.2	256.8	257.4	256.6	Sbd box	256.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.47323452782E+03		Apriori delay (usec)		-5.47323892852E+03		Resid mbdelay (usec)		4.40070E-03	+/- 3.7E-05
Sband delay (usec)	-5.47324075752E+03		Apriori clock (usec)		-2.2382000E+01		Resid sbdelay (usec)		-1.82900E-03	+/- 2.9E-04
Phase delay (usec)	-5.47323892998E+03		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-1.45955E-06	+/- 1.3E-07
Delay rate (us/s)	-1.94522867150E+00		Apriori rate (us/s)		-1.94522872337E+00		Resid rate (us/s)		5.18650E-08	+/- 5.2E-10
Total phase (deg)			Apriori accel (us/s/s)		2.99075904491E-05		Resid phase (deg)		-45.3	+/- 3.9

ph/seg (deg) 41.6 9.3 Search (2048X32) 0.506 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 33.2 16.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 46.1 5.5 Inc. seg. avg. 0.664 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 31.9 9.6 Inc. frq. avg. 0.653 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 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 11191.674 2217.737 simultaneous interpolator

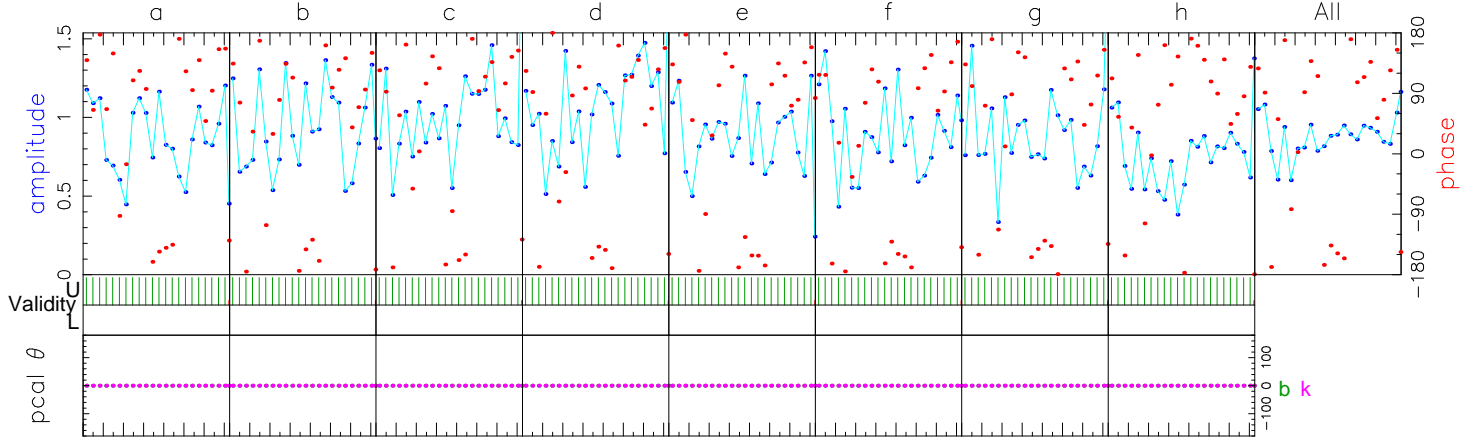
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/Bk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/Bk.W.23.1W6WJ8



Fringe quality 7  
SNR 28.7  
Int time 419.706  
Amp 0.513  
Phase 138.2  
PFD 0.0e+00  
Delays (us)  
SBD 0.002049  
MBD 0.002051  
Fringe rate (Hz) -0.003019  
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  
2021:287:080332  
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	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-3.86899716603E+03								2.05110E-03	+/- 3.8E-05
Sband delay (usec)	-3.86899716788E+03								2.04925E-03	+/- 3.0E-04
Phase delay (usec)	-3.86899921267E+03								4.45615E-06	+/- 1.3E-07
Delay rate (us/s)	-1.40417900333E-01								-3.50531E-08	+/- 5.3E-10
Total phase (deg)			-64.6						138.2	+/- 4.0
Apriori delay (usec)					-3.86899921713E+03				Resid mbdelay (usec)	
Apriori clock (usec)					-3.2902298E+00				Resid sbdelay (usec)	
Apriori clockrate (us/s)					-9.9999998E-08				Resid phdelay (usec)	
Apriori rate (us/s)					-1.40417865280E-01				Resid rate (us/s)	
Apriori accel (us/s/s)					2.13754072498E-05				Resid phase (deg)	
PCal mode: MANUAL, MANUAL									PC period (AP's) 5, 5	
PCal rate: 0.000E+00, 0.000E+00 (us/s)									sb window (us)	-1.000 1.000
Bits/sample: 2x2									mb window (us)	-0.008 0.008
Sample rate(MISamp/s): 128									dr window (ns/s)	-0.011 0.011
Data rate(Mb/s): 2048									ion window (TEC)	0.00 0.00
nlags: 256										
t_cohere infinite										

b: az 110.8 el 20.1 pa -38.6 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 837.988 1962.763 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/bk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/bk.W.29.1W6WJ8

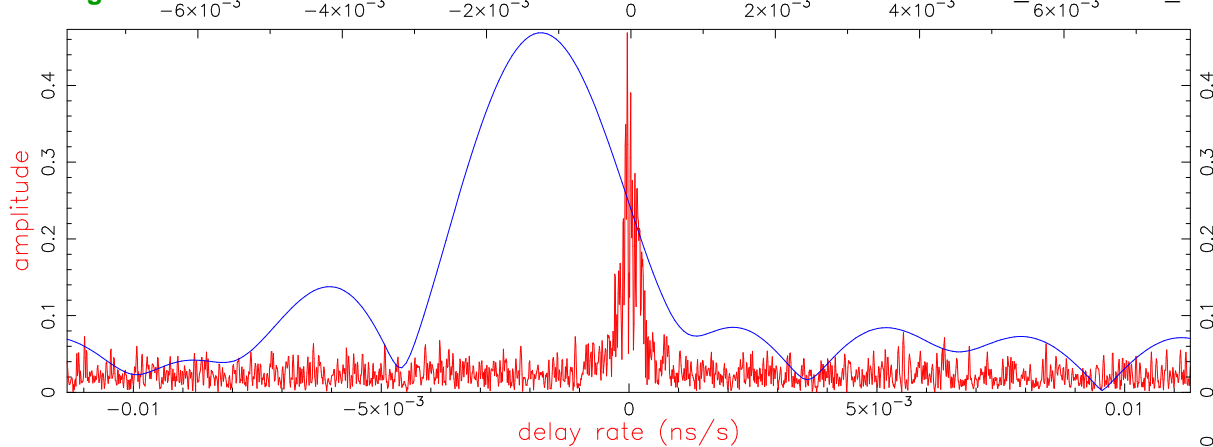
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, bk

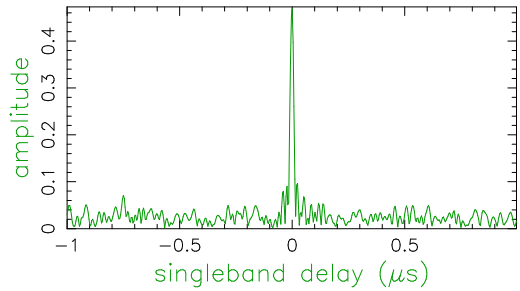
VLBA\_BR - VLBA\_KP, fgroup W, pol LL

multiband delay ( $\mu$ s)

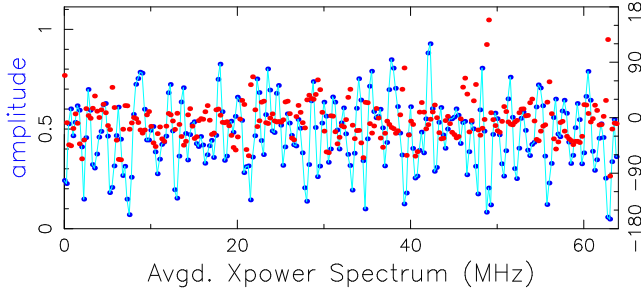


Fringe quality 7

SNR 26.5  
 Int time 419.706  
 Amp 0.473  
 Phase -8.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001234  
 MBD -0.001278  
 Fringe rate (Hz)  
 -0.003028  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

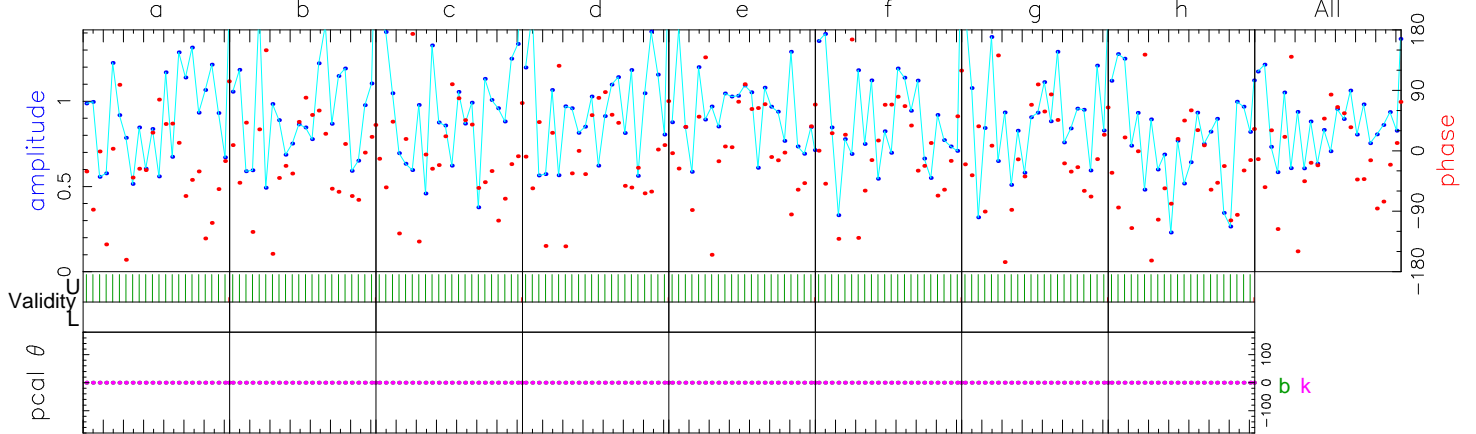


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080328  
 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
	-29.1	0.6	-16.0	-8.5	14.2	3.0	-0.9	-32.7		-8.2
	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.4	Ampl.	0.5
	256.3	257.2	256.8	256.3	257.2	256.8	256.5	255.8	Sbd box	256.7
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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.86900049466E+03		Apriori delay (usec)		-3.86899921713E+03		Resid mbdelay (usec)		-1.27753E-03	+/- 4.1E-05
Sband delay (usec)	-3.86900045113E+03		Apriori clock (usec)		-3.2902298E+00		Resid sbdelay (usec)		-1.23400E-03	+/- 3.3E-04
Phase delay (usec)	-3.86899921739E+03		Apriori clockrate (us/s)		-9.9999998E-08		Resid phdelay (usec)		-2.63268E-07	+/- 1.4E-07
Delay rate (us/s)	-1.40417900433E-01		Apriori rate (us/s)		-1.40417865280E-01		Resid rate (us/s)		-3.51530E-08	+/- 5.8E-10
Total phase (deg)			Apriori accel (us/s/s)		2.13754072498E-05		Resid phase (deg)		-8.2	+/- 4.3

ph/seg (deg) 66.3 10.4 Search (2048X32) 0.454 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 90.0 18.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 17.6 6.1 Inc. seg. avg. 0.846 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 8.6 10.7 Inc. frq. avg. 0.482 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 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 837.988 1962.763 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/bk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/bk.W.4.1W6WJ8

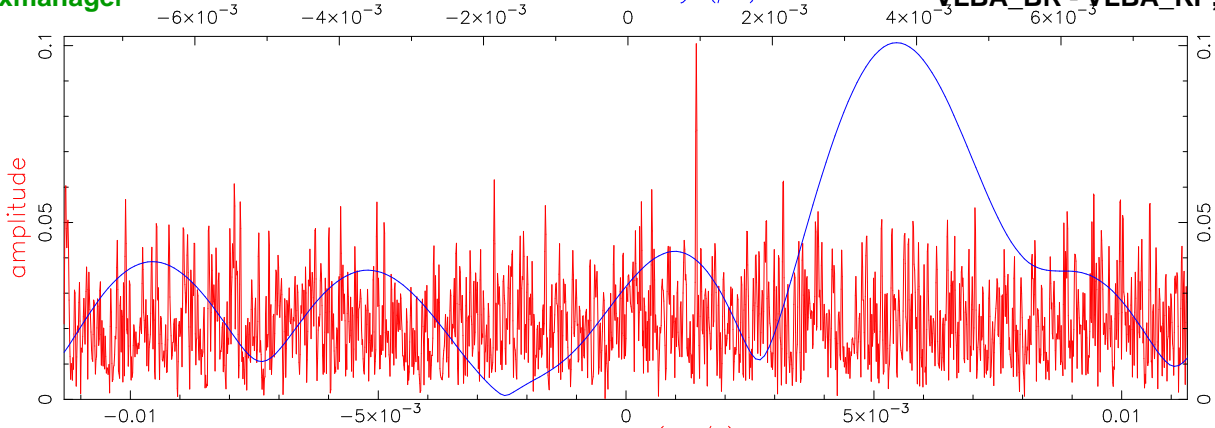
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

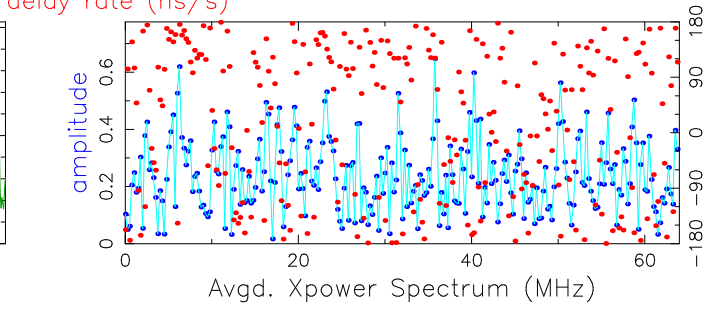
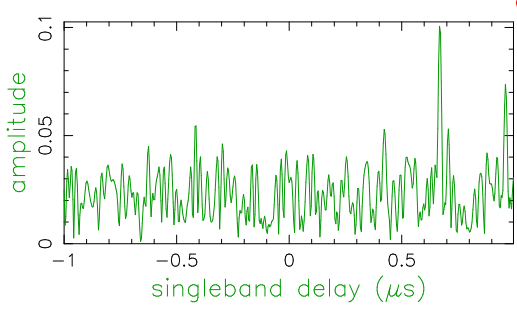
3C273.1W6WJ8, No0155, bk

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

multiband delay ( $\mu$ s)

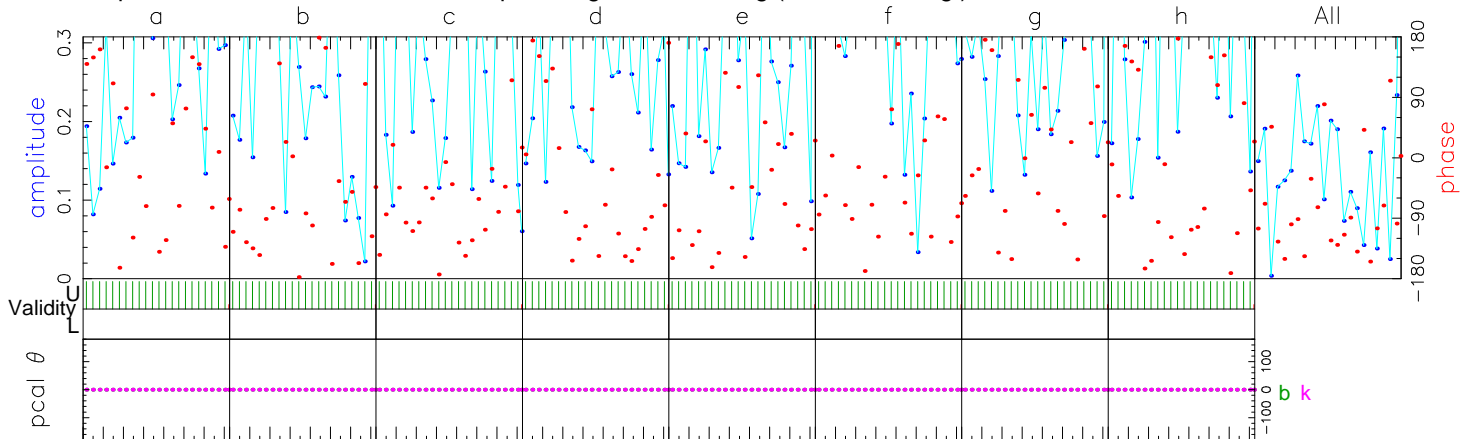


Fringe quality 0  
 SNR 5.7  
 Int time 419.706  
 Amp 0.103  
 Phase -101.4  
 PFD 9.4e-01  
 Delays (us)  
 SBD 0.669367  
 MBD 0.003810  
 Fringe rate (Hz)  
 0.121988  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080336  
 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
	-89.2	-115.2	-85.9	-114.5	-86.9	-78.3	-71.0	-133.6	Phase	-101.4
	0.0	0.2	0.2	0.1	0.1	0.1	0.0	0.1	Ampl.	0.1
	323.4	428.3	427.4	150.6	445.3	74.7	141.1	126.0	Sbd box	428.4
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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.86832353171E+03		Apriori delay (usec)		-3.86899921713E+03		Resid mbdelay (usec)		3.81042E-03	+/- 1.9E-04
Sband delay (usec)	-3.86832984988E+03		Apriori clock (usec)		-3.2902298E+00		Resid sbdelay (usec)		6.69367E-01	+/- 1.5E-03
Phase delay (usec)	-3.86899922040E+03		Apriori clockrate (us/s)		-9.9999998E-08		Resid phdelay (usec)		-3.26869E-06	+/- 6.5E-07
Delay rate (us/s)	-1.40416449118E-01		Apriori rate (us/s)		-1.40417865280E-01		Resid rate (us/s)		1.41616E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		2.13754072498E-05		Resid phase (deg)		-101.4	+/- 20.1

ph/seg (deg) 72.1 48.1 Search (2048X32) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 82.5 84.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 24.0 28.4 Inc. seg. avg. 0.104 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 56.6 49.5 Inc. frq. avg. 0.096 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 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 837.988 1962.763 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/bk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/bk.W.47.1W6WJ8

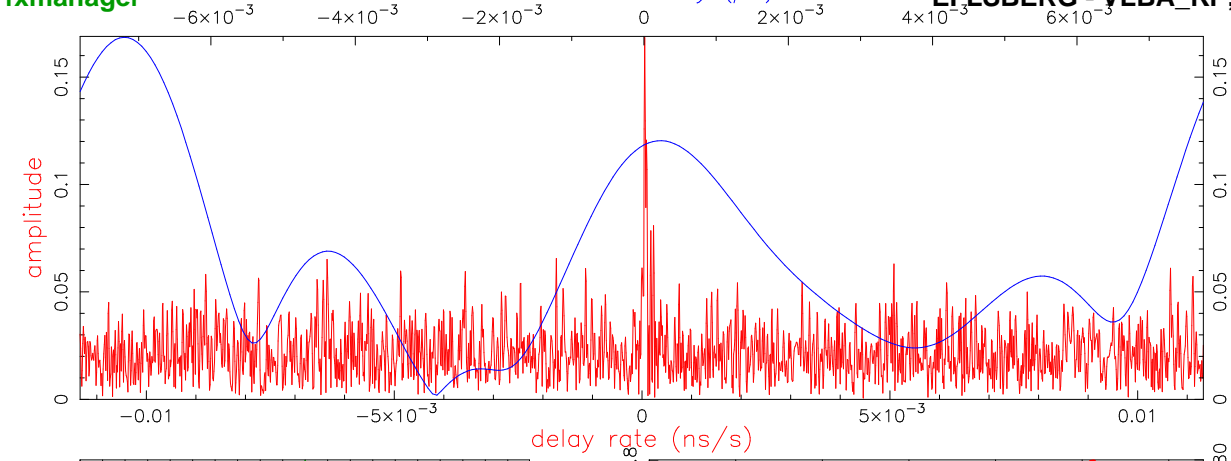
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, Bk

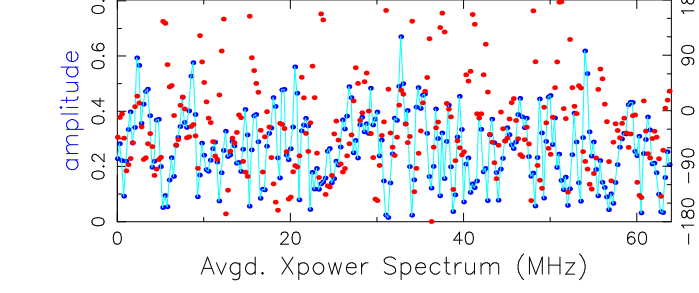
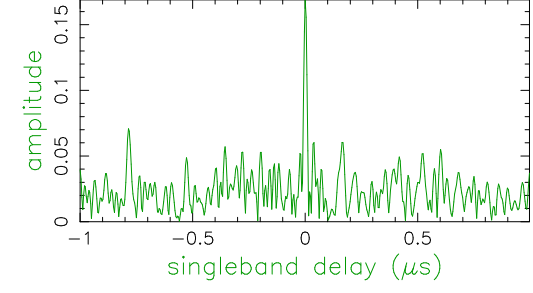
EFLSBERG - VLBA\_KP, fgroup W, pol LR

multiband delay ( $\mu$ s)



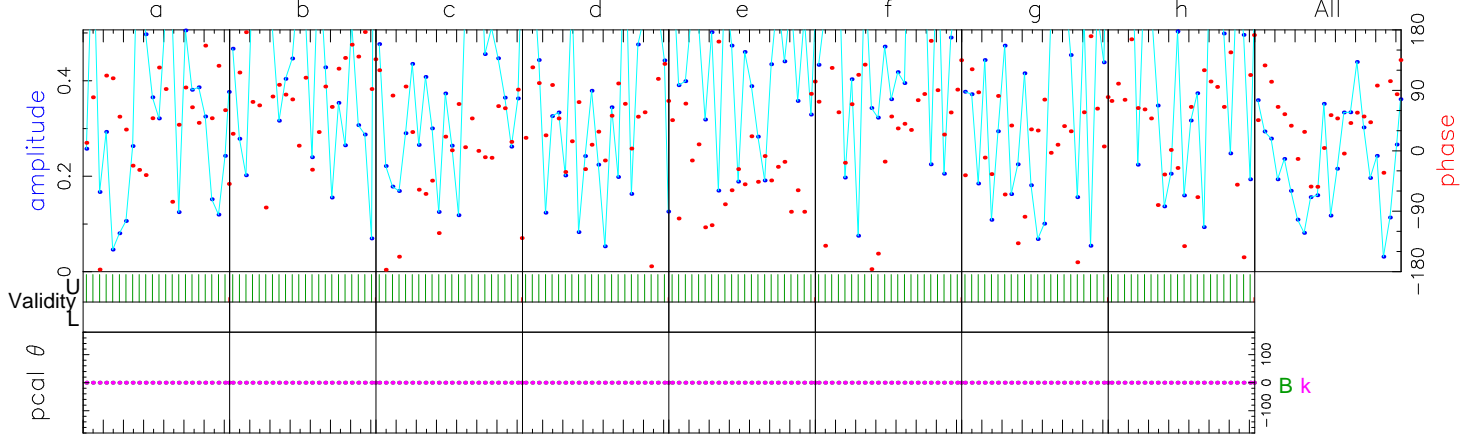
Fringe quality 9

SNR 9.5  
 Int time 419.713  
 Amp 0.169  
 Phase 49.7  
 PFD 1.2e-12  
 Delays (us)  
 SBD 0.000599  
 MBD -0.007176  
 Fringe rate (Hz)  
 0.004459  
 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  
 2021:287:080336  
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:k	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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-5.47324610425E+03									
Sband delay (usec)	-5.47323833002E+03									
Phase delay (usec)	-5.47323892692E+03									
Delay rate (us/s)	-1.94522867160E+00									
Total phase (deg)			-59.2							
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								
Bits/sample:	2x2									
Sample rate (MSamp/s):	128									
Data rate (Mb/s):	2048									
nlags:	256									
t_cohere	infinite									
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								
pcal $\theta$										

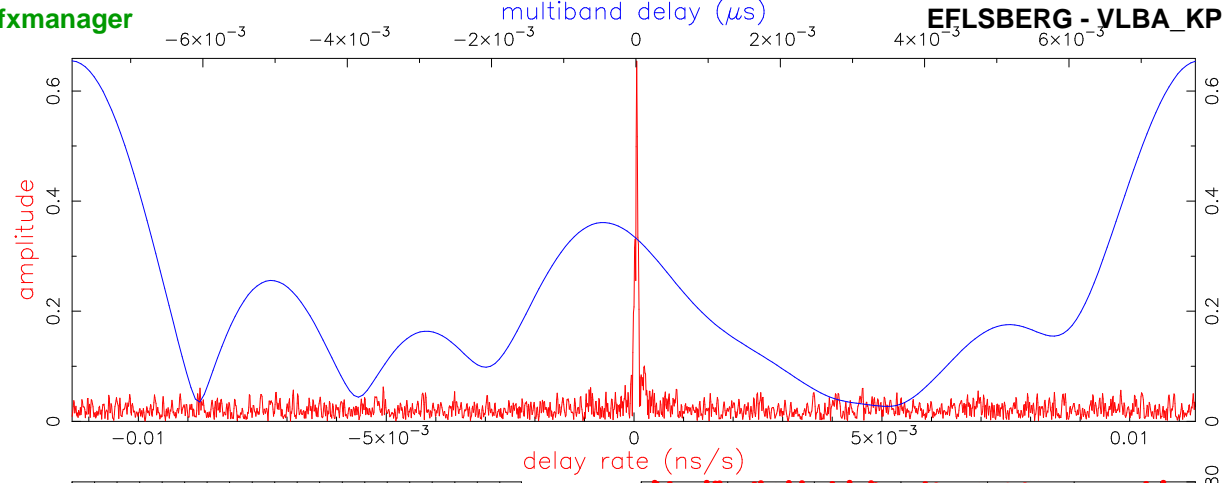
B: az 251.6 el 17.0 pa 37.2 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 11191.674 2217.737 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/Bk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/Bk.W.48.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, Bk

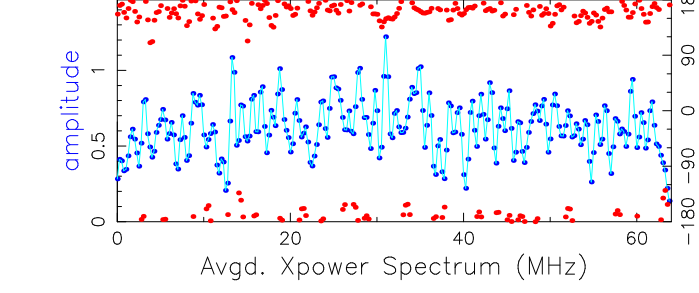
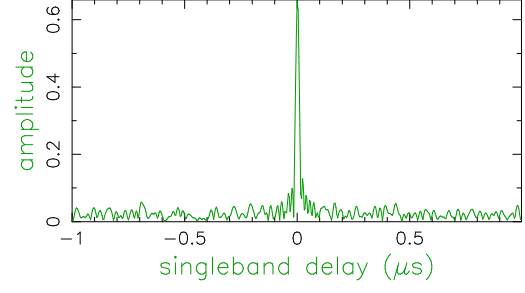
EFLSBERG - VLBA\_KP, fgroup W, pol LL



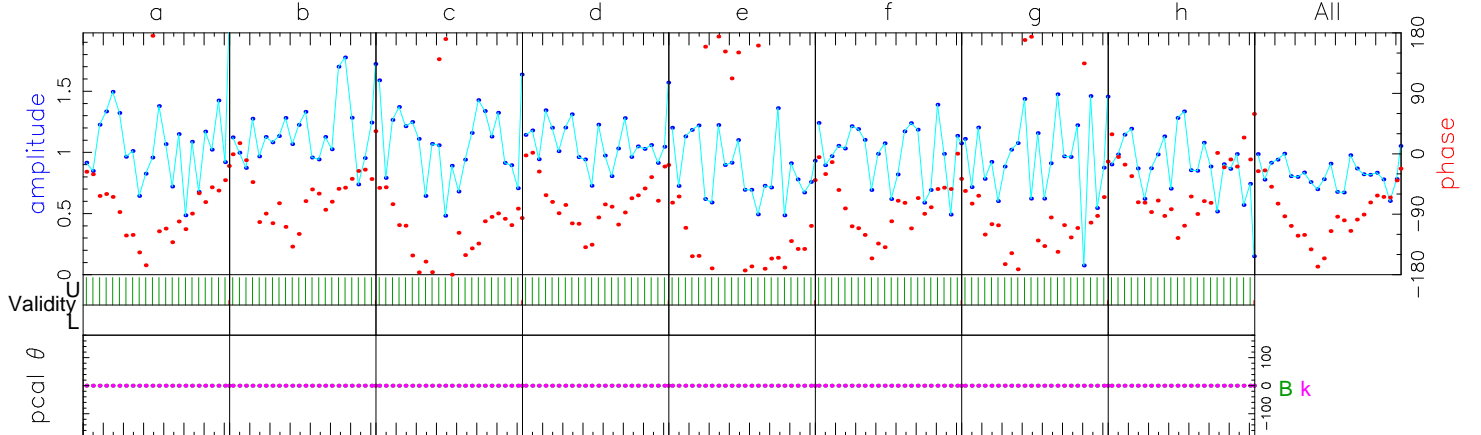
Fringe quality 5

SNR 36.9  
Int time 419.713  
Amp 0.659  
Phase -89.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.001096  
MBD -0.007791  
Fringe rate (Hz) 0.004389  
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  
2021:287:080328  
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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:k	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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-5.47323109466E+03				-5.47323892852E+03					
Sband delay (usec)	-5.47323783252E+03				-2.2382000E+01					
Phase delay (usec)	-5.47323893139E+03				0.0000000E+00					
Delay rate (us/s)	-1.94522867242E+00				-1.94522872337E+00					
Total phase (deg)			-198.0		2.99075904491E-05					
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.659 +/- 0.018										
0.628										
0.000										
0.814										
0.766										
PC period (AP's) 5, 5										
simultaneous interpolator										

B: az 251.6 el 17.0 pa 37.2 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 11191.674 2217.737

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/Bk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/Bk.W.5.1W6WJ8

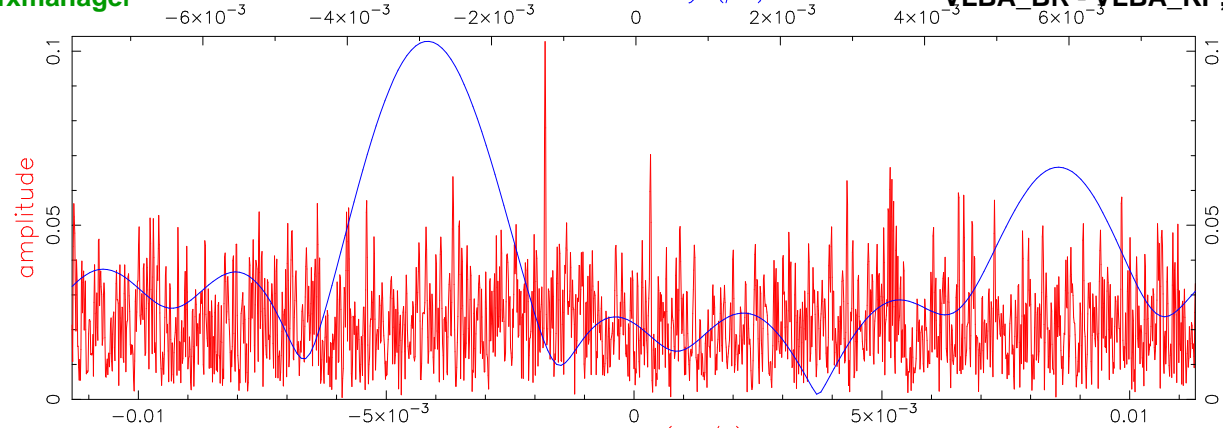
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, bk

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

multiband delay ( $\mu$ s)



Fringe quality 0

SNR 5.8

Int time 419.706

Amp 0.104

Phase 15.7

PFD 8.5e-01

Delays (us)

SBD -0.774218

MBD -0.002933

Fringe rate (Hz)

-0.154309

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

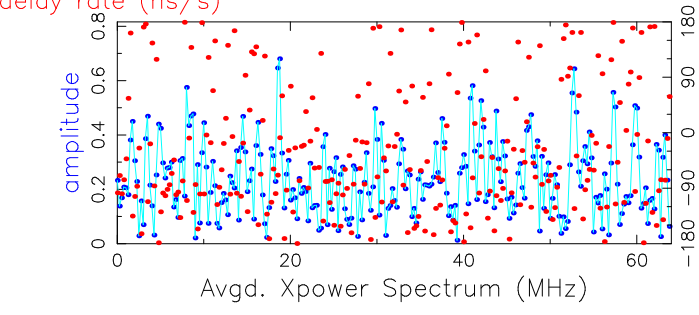
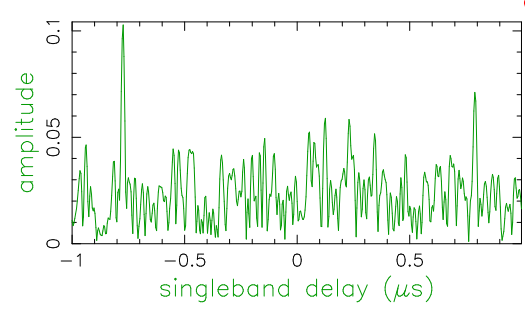
2021:287:080339

2021:252:122852

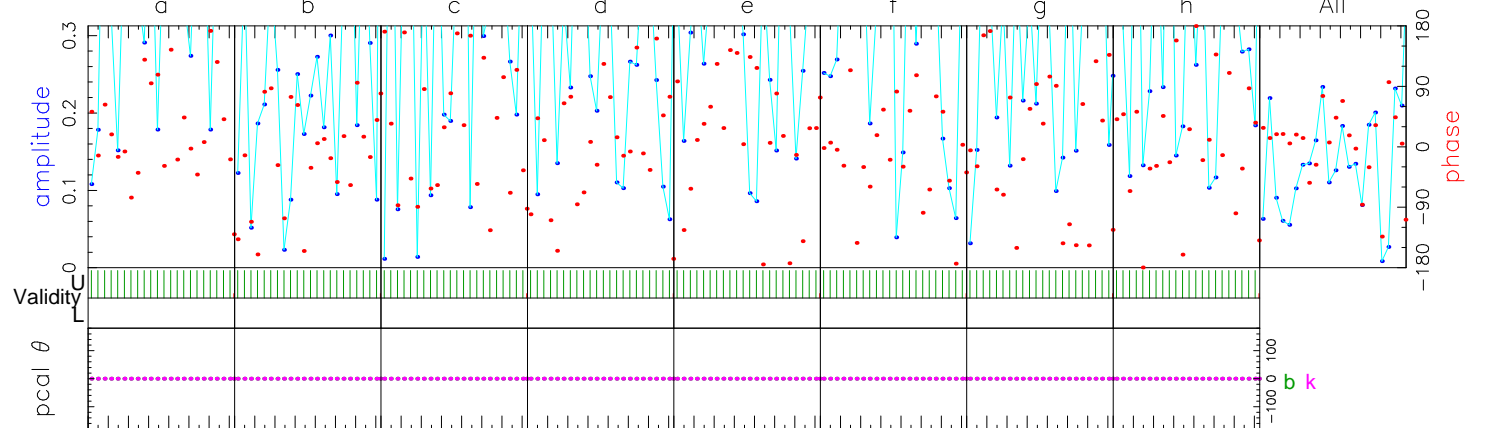
RA & Dec (J2000)

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	86140.00	15.7
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	0.1
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	58.8
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0.1
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0.1
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	0.1
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	58.8
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		15.7
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		58.8
Group delay (usec)(sbd)	-3.86976777525E+03									-1.9E-04
Sband delay (usec)	-3.86977343563E+03									-1.5E-03
Phase delay (usec)	-3.86899921662E+03									-6.4E-07
Delay rate (us/s)	-1.40419656651E-01									-2.6E-09
Total phase (deg)			-187.1							15.7
Apriori delay (usec)										15.7
Apriori clock (usec)										1.9E-04
Apriori clockrate (us/s)										1.5E-03
Apriori rate (us/s)										6.4E-07
Apriori accel (us/s/s)										2.6E-09
Resid mbdelay (usec)										15.7
Resid sbdelay (usec)										1.9E-04
Resid phdelay (usec)										1.5E-03
Resid rate (us/s)										6.4E-07
Resid phase (deg)										2.6E-09

ph/seg (deg) 51.8 47.5 Search (2048X32) 0.100 0.104 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 71.2 83.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 51.8 28.0 Inc. seg. avg. 0.100 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 43.3 48.9 Inc. frq. avg. 0.106 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 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 837.988 1962.763 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/bk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/bk.W.67.1W6WJ8

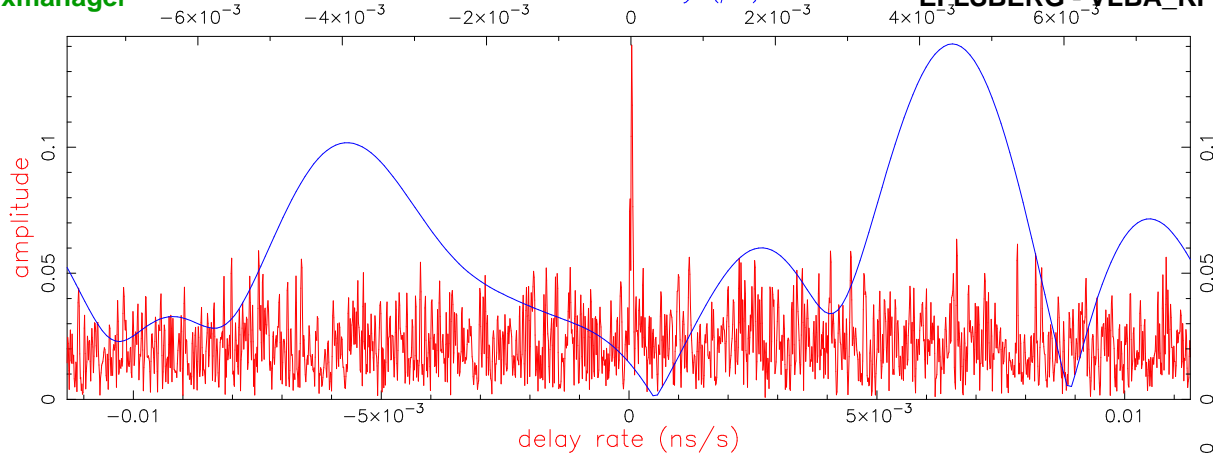
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, Bk

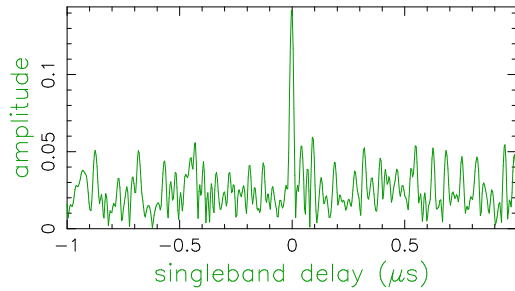
EFLSBERG - VLBA\_KP, fgroup W, pol RL

multiband delay ( $\mu$ s)

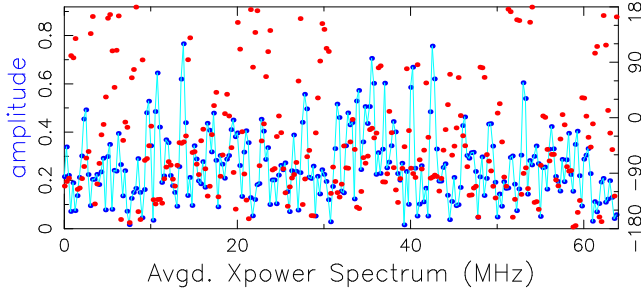


Fringe quality 9

SNR 8.1  
 Int time 419.713  
 Amp 0.144  
 Phase -159.1  
 PFD 2.5e-07  
 Delays (us)  
 SBD -0.002126  
 MBD 0.004373  
 Fringe rate (Hz)  
 0.004479  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

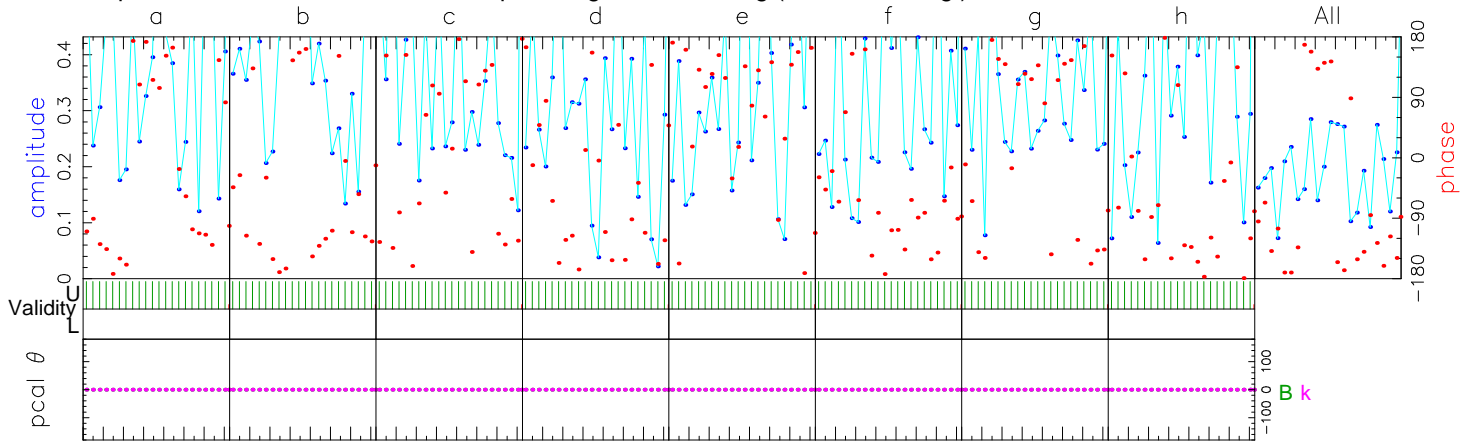


delay rate (ns/s)



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

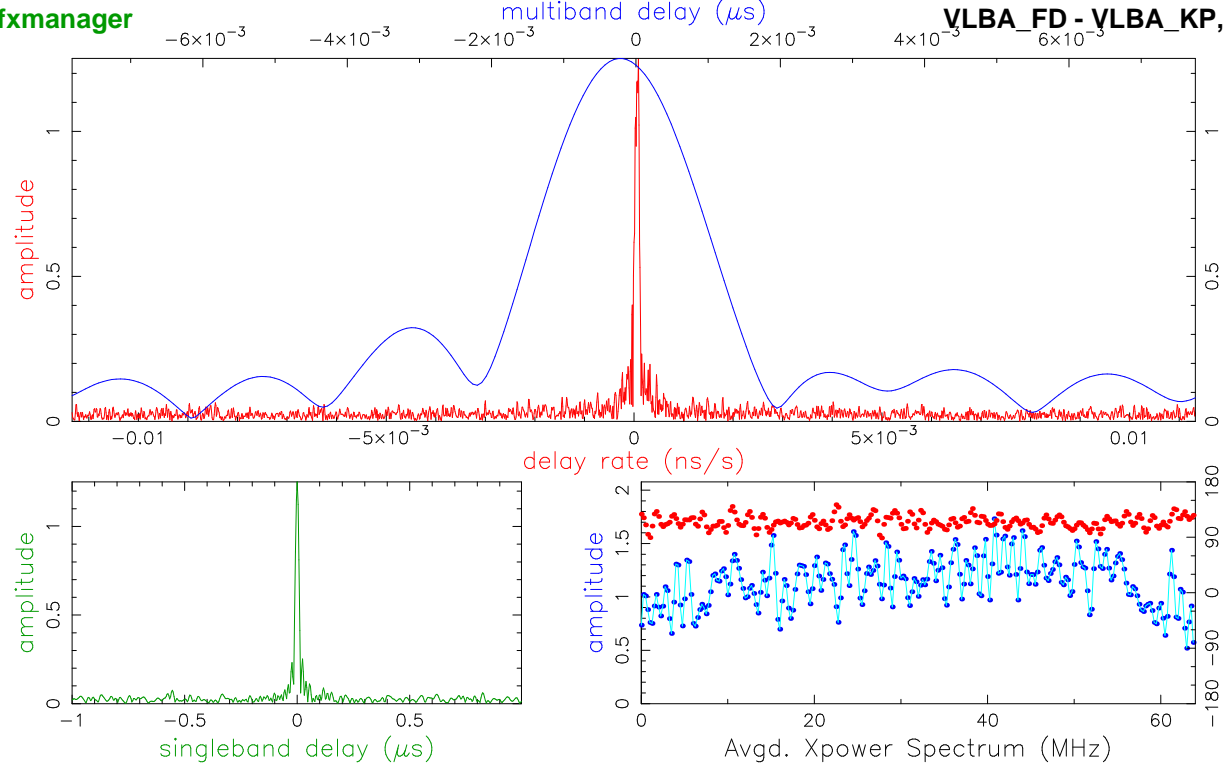


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-161.8	-146.9	179.2	-110.3	134.3	-104.3	171.3	-125.4	Phase	-159.1
	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	Ampl.	0.2
	256.5	256.0	258.8	32.0	256.8	257.0	256.4	258.0	Sbd box	256.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.47323455544E+03		Apriori delay (usec)		-5.47323892852E+03		Resid mbdelay (usec)		4.37308E-03	+/- 1.3E-04
Sband delay (usec)	-5.47324105452E+03		Apriori clock (usec)		-2.2382000E+01		Resid sbdelay (usec)		-2.12600E-03	+/- 1.1E-03
Phase delay (usec)	-5.47323893365E+03		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-5.13021E-06	+/- 4.6E-07
Delay rate (us/s)	-1.94522867138E+00		Apriori rate (us/s)		-1.94522872337E+00		Resid rate (us/s)		5.19933E-08	+/- 1.9E-09
Total phase (deg)			Apriori accel (us/s/s)		2.99075904491E-05		Resid phase (deg)		-159.1	+/- 14.2

	RMS	Theor.	Amplitude	0.144 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	49.2	34.1	Search (2048X32)	0.138	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	58.5	59.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	45.6	20.1	Inc. seg. avg.	0.162	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	40.2	35.1	Inc. frq. avg.	0.171	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

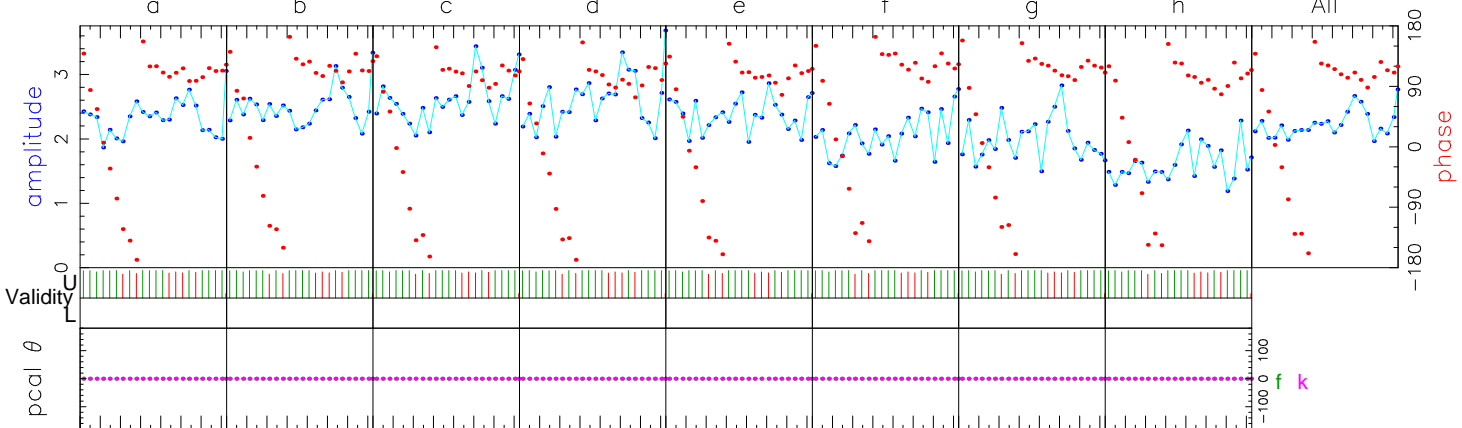
B: az 251.6 el 17.0 pa 37.2 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 11191.674 2217.737 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/Bk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/Bk.W.68.1W6WJ8





Fringe quality 5  
SNR 69.2  
Int time 408.369  
Amp 1.252  
Phase 115.2  
PFD 0.0e+00  
Delays (us)  
SBD -0.000209  
MBD -0.000221  
Fringe rate (Hz) 0.007472  
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  
2021:287:080348  
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	805/0	805/0	805/0	805/0	805/0	805/0	805/0	805/0			
f	1000	1000	1000	1000	1000	1000	1000	1000			
k	1000	1000	1000	1000	1000	1000	1000	1000			
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
f	1000	1000	1000	1000	1000	1000	1000	1000			
k	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)	1.98146403527E+03				1.98146425629E+03				Resid mbdelay (usec)	-2.21017E-04	+/- 1.6E-05
Sband delay (usec)	1.98146404679E+03				9.9087372E+00				Resid sbdelay (usec)	-2.09500E-04	+/- 1.2E-04
Phase delay (usec)	1.98146426000E+03				5.9999999E-08				Resid phdelay (usec)	3.71520E-06	+/- 5.3E-08
Delay rate (us/s)	-1.04082590020E-01				-1.04082676759E-01				Resid rate (us/s)	8.67388E-08	+/- 2.2E-10
Total phase (deg)		128.4			-1.05586937210E-05				Resid phase (deg)	115.2	+/- 1.7

ph/seg (deg) 68.6 3.9 Search (2048X32) 1.213 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 78.4 6.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 9.0 2.3 Inc. seg. avg. 2.212 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 14.6 4.1 Inc. frq. avg. 1.261 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 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 579.986 -203.133 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/fk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/fk.W.103.1W6WJ8

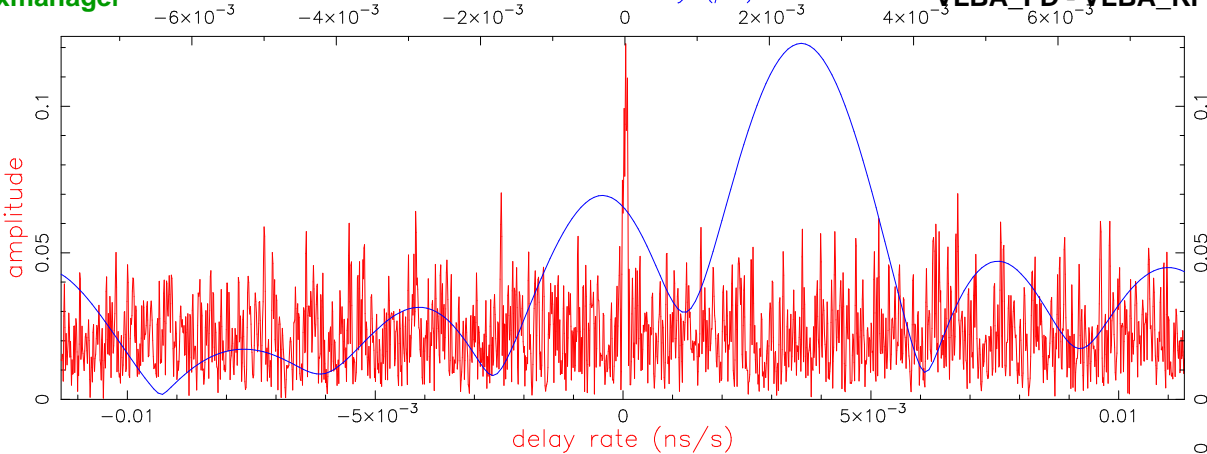
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, fk

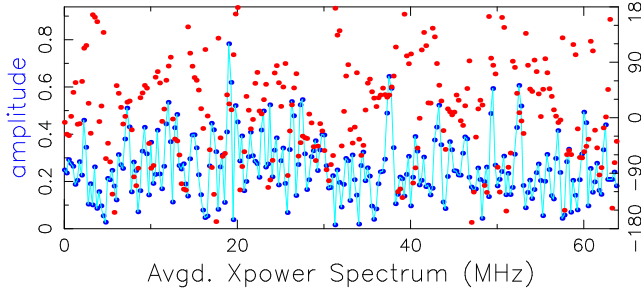
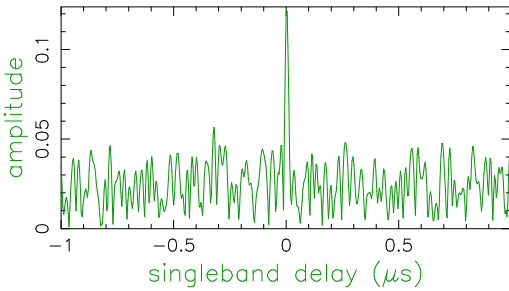
VLBA\_FD - VLBA\_KP, fgroup W, pol LR

multiband delay ( $\mu$ s)



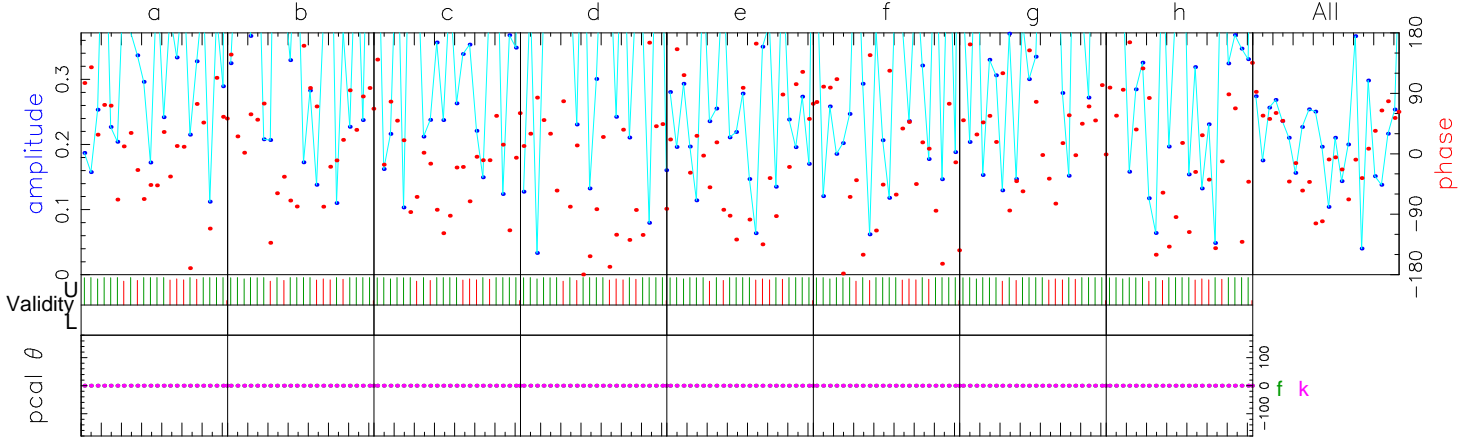
Fringe quality 0

SNR 6.8  
 Int time 408.369  
 Amp 0.124  
 Phase 10.3  
 PFD 2.3e-03  
 Delays (us)  
 SBD 0.002083  
 MBD 0.002403  
 Fringe rate (Hz) 0.004839  
 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  
 2021:287:080352  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

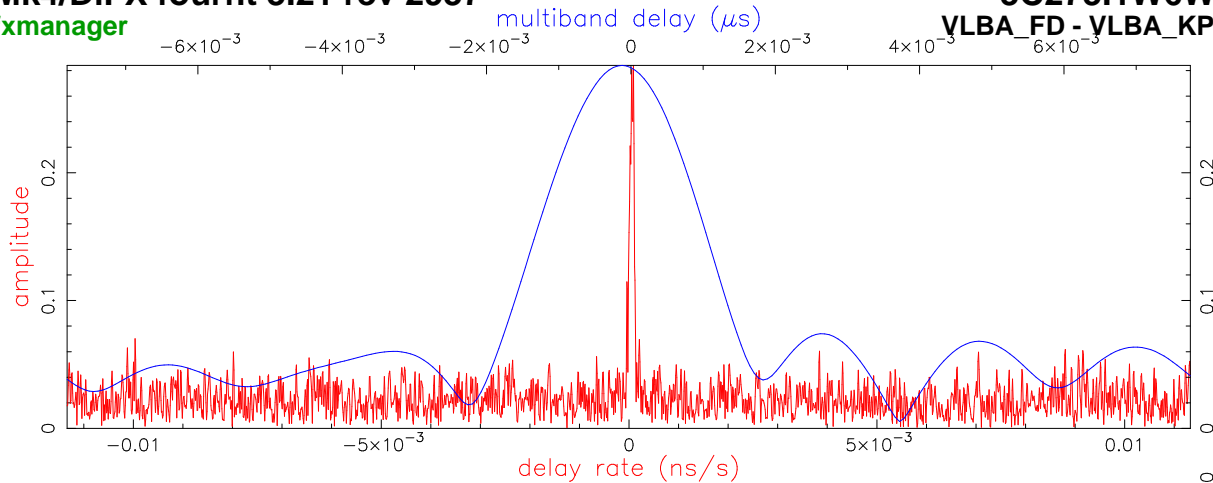
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	805/0	805/0	805/0	805/0	805/0	805/0	805/0	805/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.98146665955E+03				1.98146425629E+03			2.40327E-03	+/- 1.6E-04
Sband delay (usec)		1.98146633929E+03				9.9087372E+00			2.08300E-03	+/- 1.3E-03
Phase delay (usec)		1.98146425662E+03				5.9999999E-08			3.31163E-07	+/- 5.4E-07
Delay rate (us/s)		-1.04082620581E-01				-1.04082676759E-01			5.61787E-08	+/- 2.3E-09
Total phase (deg)			23.5			-1.05586937210E-05			10.3	+/- 16.7
	RMS	Theor.	Amplitude	0.124 +/- 0.018		PCal mode: MANUAL, MANUAL			PC period (AP's) 5, 5	
ph/seg (deg)	56.9	39.8	Search (2048X32)	0.121		PCal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000 1.000
amp/seg (%)	91.6	69.4	Interp.	0.000		Bits/sample: 2x2			SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	22.3	23.7	Inc. seg. avg.	0.170		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011
amp/frq (%)	45.2	41.3	Inc. frq. avg.	0.118		Data rate(Mb/s): 2048			ion window (TEC)	0.00 0.00

f: az 114.6 el 38.2 pa -51.6 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 579.986 -203.133 simultaneous interpolator

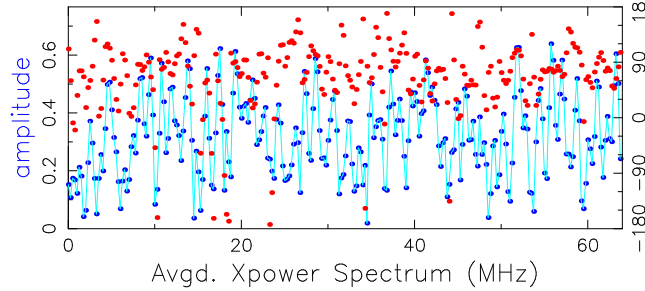
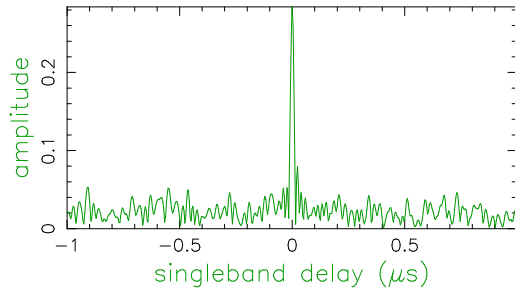
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/fk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/fk.W.123.1W6WJ8



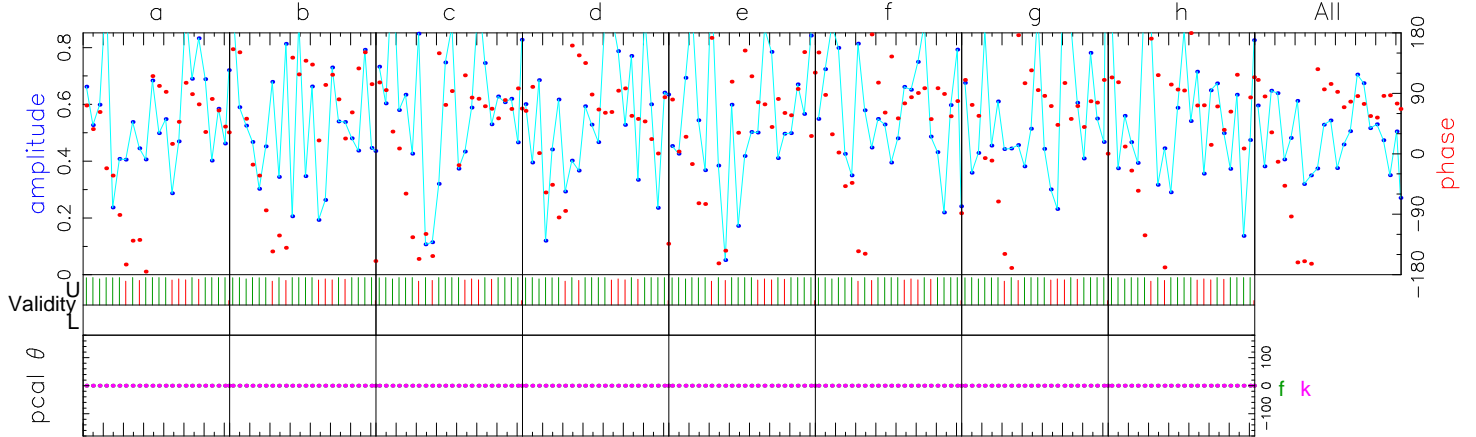
Fringe quality 9

SNR 15.7  
Int time 408.369  
Amp 0.284  
Phase 80.9  
PFD 0.0e+00  
Delays (us)  
SBD 0.000152  
MBD -0.000119  
Fringe rate (Hz) 0.007591  
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

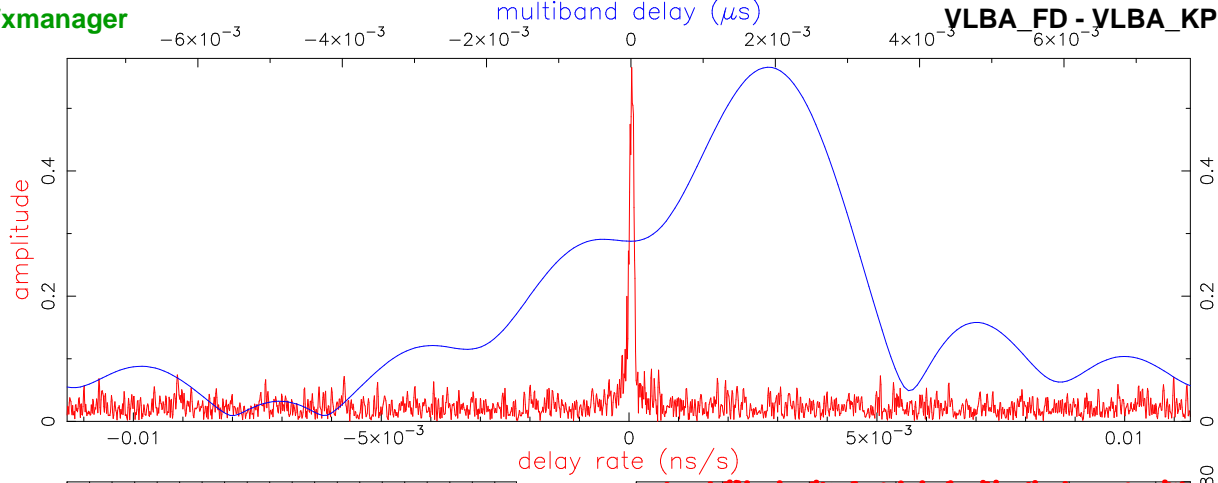


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	68.9	129.9	75.7	64.6	70.3	81.2	79.0	93.7	Phase	80.9
	0.3	0.2	0.4	0.3	0.3	0.3	0.3	0.3	Ampl.	0.3
	257.2	257.2	256.7	257.5	257.0	256.7	257.3	257.6	Sbd box	257.0
U/L	805/0	805/0	805/0	805/0	805/0	805/0	805/0	805/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.98146413683E+03		Apriori delay (usec)		1.98146425629E+03		Resid mbdelay (usec)		-1.19454E-04	+/- 6.9E-05
Sband delay (usec)	1.98146440829E+03		Apriori clock (usec)		9.9087372E+00		Resid sbdelay (usec)		1.52000E-04	+/- 5.5E-04
Phase delay (usec)	1.98146425890E+03		Apriori clockrate (us/s)		5.9999999E-08		Resid phdelay (usec)		2.60884E-06	+/- 2.4E-07
Delay rate (us/s)	-1.04082588630E-01		Apriori rate (us/s)		-1.04082676759E-01		Resid rate (us/s)		8.81290E-08	+/- 9.9E-10
Total phase (deg)			Apriori accel (us/s/s)		-1.05586937210E-05		Resid phase (deg)		80.9	+/- 7.3

	RMS	Theor.	Amplitude	0.284 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	68.5	17.3	Search (2048X32)	0.280	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	84.5	30.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	22.8	10.3	Inc. seg. avg.	0.474	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	15.2	18.0	Inc. frq. avg.	0.294	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 114.6 el 38.2 pa -51.6 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 579.986 -203.133 simultaneous interpolator

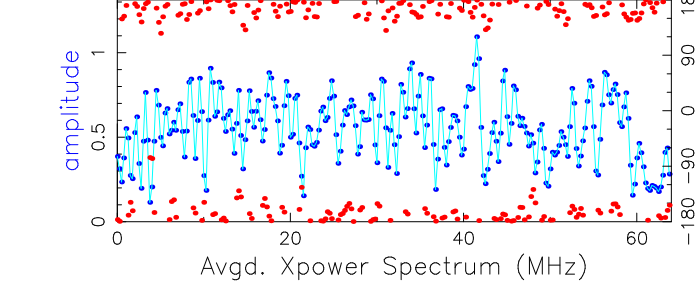
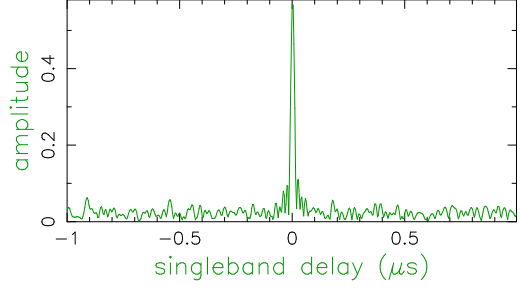
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/fk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/fk.W.145.1W6WJ8



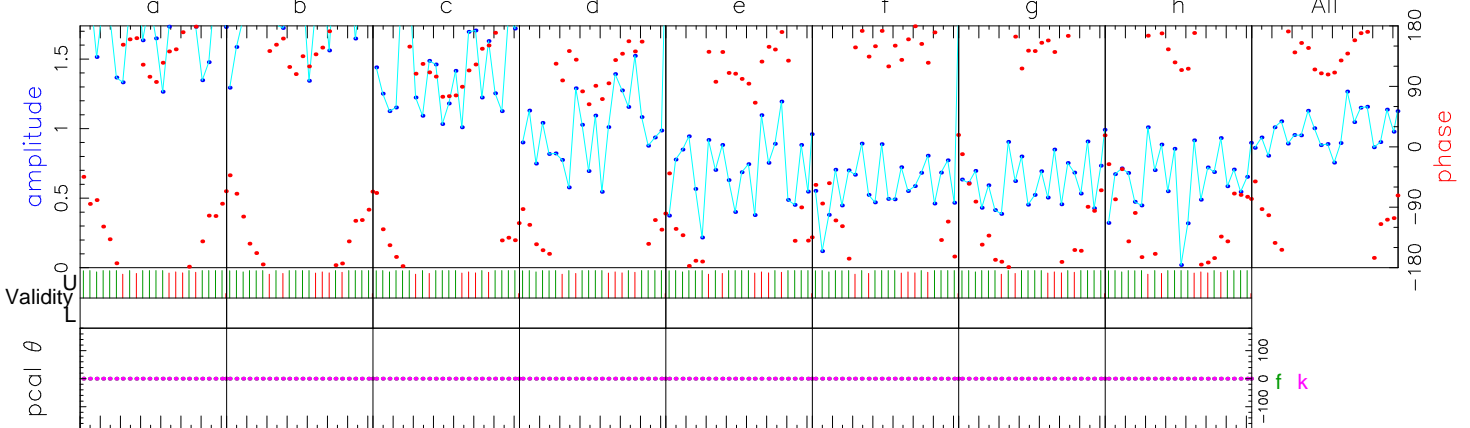
Fringe quality 3

SNR 32.0  
Int time 408.369  
Amp 0.580  
Phase 178.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.001867  
MBD 0.001869  
Fringe rate (Hz) 0.005126  
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  
2021:287:080344  
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
	-168.3	-173.0	153.6	156.0	158.0	178.7	-162.7	-149.1	Phase	178.0
	0.9	1.1	0.8	0.5	0.4	0.4	0.3	0.3	Ampl.	0.6
	257.5	257.5	257.3	257.4	257.4	258.4	256.8	258.1	Sbd box	257.5
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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 1.98146612559E+03 Apriori delay (usec) 1.98146425629E+03 Resid mbdelay (usec) 1.86930E-03 +/- 3.4E-05  
 Sband delay (usec) 1.98146612304E+03 Apriori clock (usec) 9.9087372E+00 Resid sbdelay (usec) 1.86675E-03 +/- 2.7E-04  
 Phase delay (usec) 1.98146426203E+03 Apriori clockrate (us/s) 5.9999999E-08 Resid phdelay (usec) 5.74066E-06 +/- 1.2E-07  
 Delay rate (us/s) -1.04082617254E-01 Apriori rate (us/s) -1.04082676759E-01 Resid rate (us/s) 5.95054E-08 +/- 4.8E-10  
 Total phase (deg) 191.2 Apriori accel (us/s/s) -1.05586937210E-05 Resid phase (deg) 178.0 +/- 3.6

RMS Theor. Amplitude 0.580 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 59.4 8.5 Search (2048X32) 0.553 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 72.1 14.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 23.1 5.1 Inc. seg. avg. 0.967 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 47.3 8.8 Inc. frq. avg. 0.594 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

f: az 114.6 el 38.2 pa -51.6 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 579.986 -203.133 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/fk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/fk.W.83.1W6WJ8

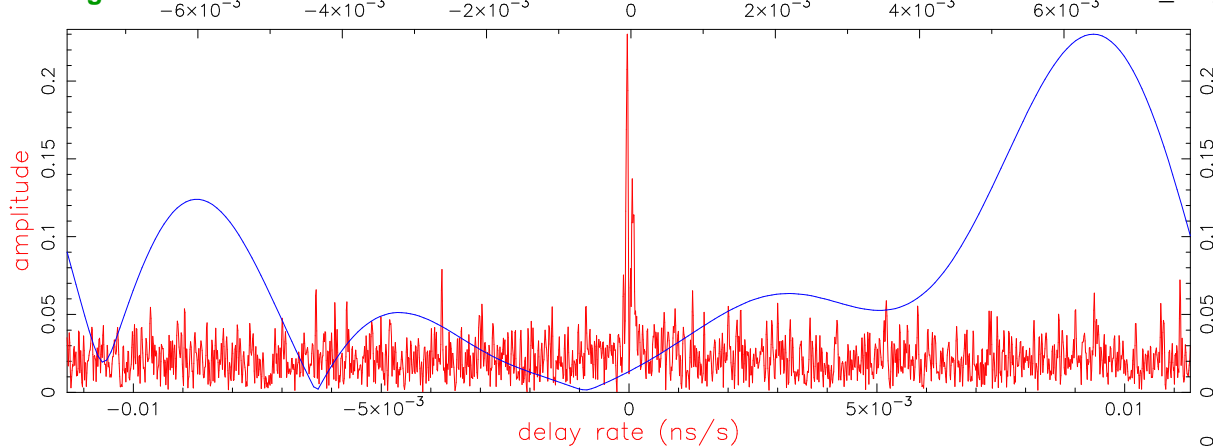
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, gk

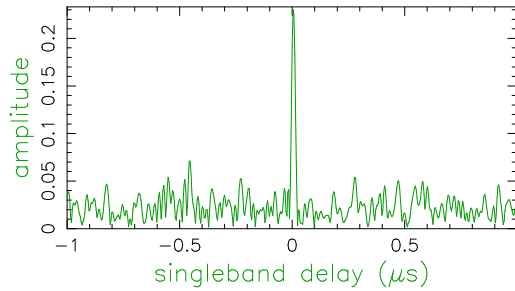
GLT - VLBA\_KP, fgroup W, pol RR

multiband delay ( $\mu$ s)

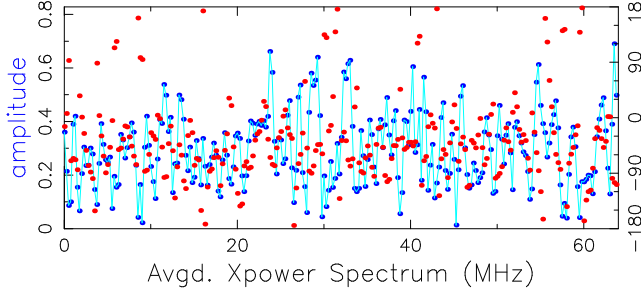


Fringe quality 9

SNR 13.1  
 Int time 419.716  
 Amp 0.233  
 Phase -66.0  
 PFD 3.0e-30  
 Delays (us)  
 SBD 0.005400  
 MBD 0.006437  
 Fringe rate (Hz)  
 -0.002669  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

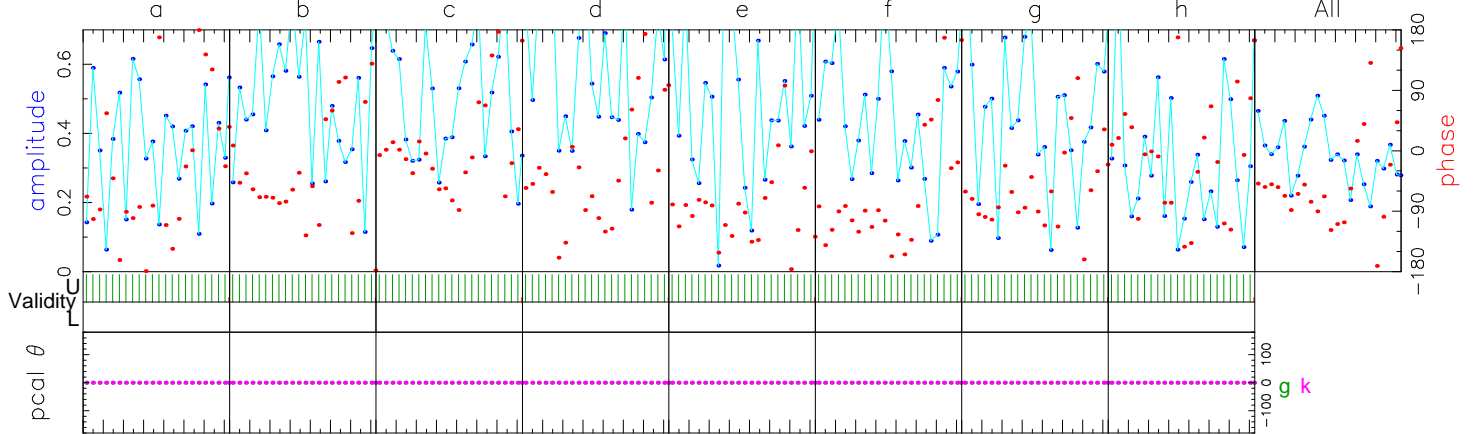


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080350  
 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

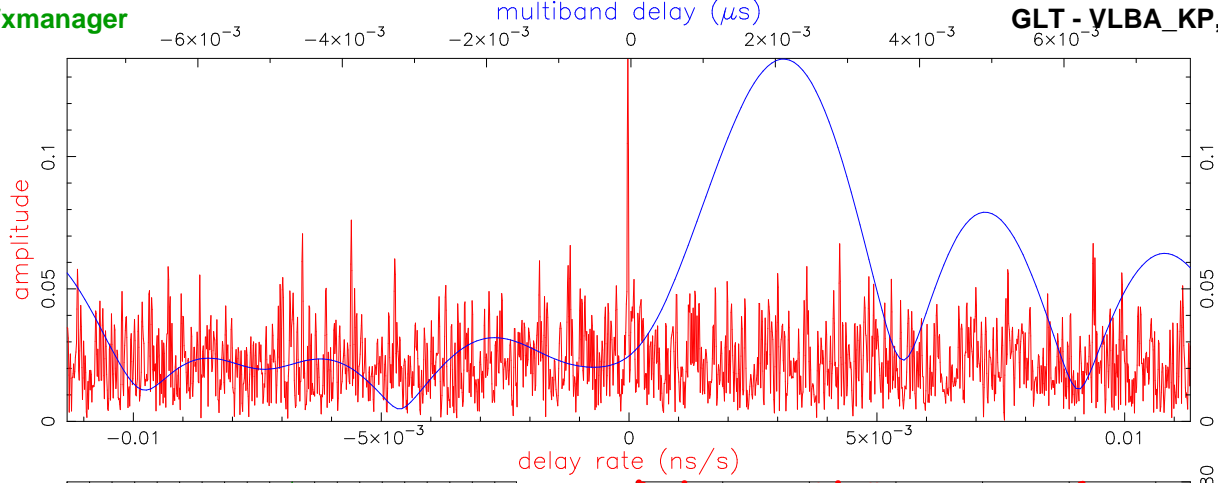


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-95.6	-66.8	-13.7	-54.6	-91.9	-104.9	-61.9	-19.7	Phase	-66.0
	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.1	Ampl.	0.3
	260.1	258.8	258.9	258.5	258.0	257.4	259.4	22.8	Sbd box	258.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.85050463536E+03		Apriori delay (usec)		-5.85051107220E+03		Resid mbdelay (usec)		6.43685E-03	+/- 8.3E-05
Sband delay (usec)	-5.85050567195E+03		Apriori clock (usec)		1.0773849E-01		Resid sbdelay (usec)		5.40025E-03	+/- 6.6E-04
Phase delay (usec)	-5.85051107433E+03		Apriori clockrate (us/s)		5.9999999E-08		Resid phdelay (usec)		-2.12944E-06	+/- 2.8E-07
Delay rate (us/s)	-9.82420049330E-01		Apriori rate (us/s)		-9.82420018347E-01		Resid rate (us/s)		-3.09824E-08	+/- 1.2E-09
Total phase (deg)			Apriori accel (us/s/s)		3.28013412696E-05		Resid phase (deg)		-66.0	+/- 8.8

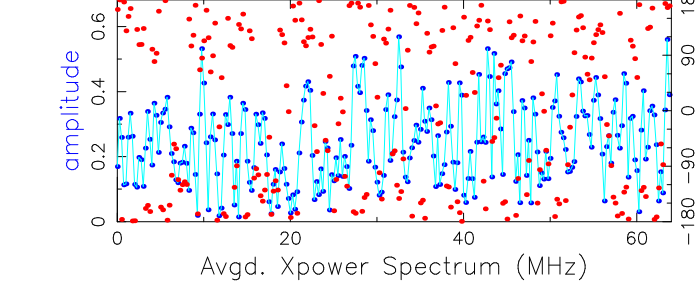
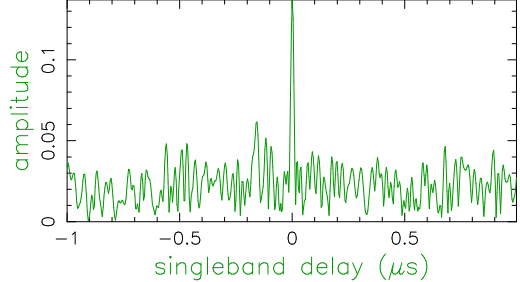
	RMS	Theor.	Amplitude	0.233 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	60.9	21.0	Search (2048X32)	0.228	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	57.5	36.7	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	36.7	12.4	Inc. seg. avg.	0.318	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	35.3	21.7	Inc. frq. avg.	0.260	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

g: az 169.2 el 15.2 pa -2.3 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 5680.282 4013.342 simultaneous interpolator

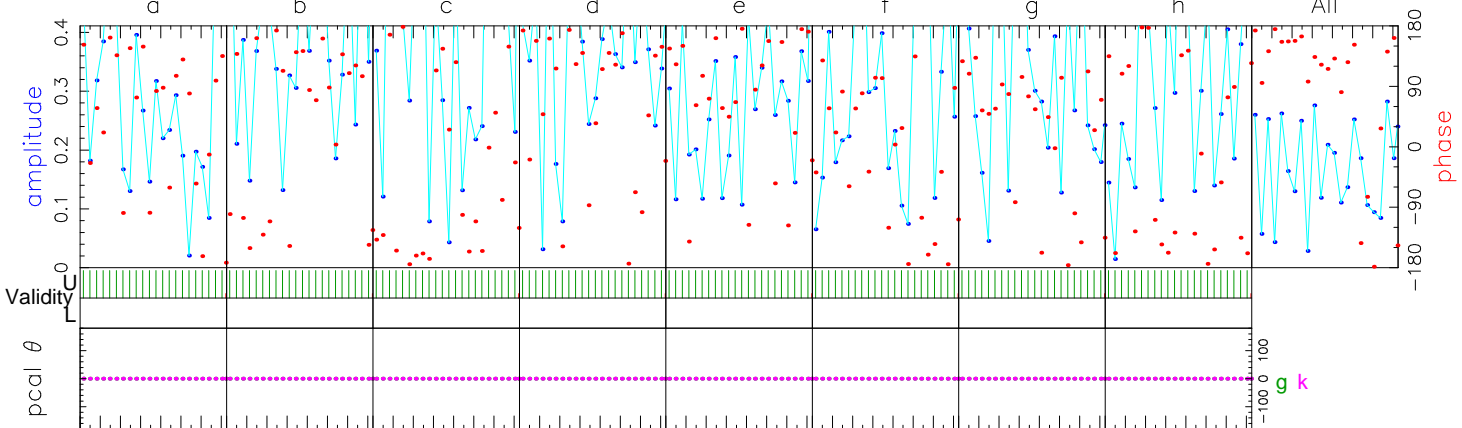
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/gk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/gk.W.112.1W6WJ8



Fringe quality 9  
SNR 7.7  
Int time 419.713  
Amp 0.137  
Phase 148.7  
PFD 5.3e-06  
Delays (us)  
SBD 0.000504  
MBD 0.002130  
Fringe rate (Hz) -0.002081  
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  
2021:287:080353  
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
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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) -5.85050894188E+03 Apriori delay (usec) -5.85051107220E+03 Resid mbdelay (usec) 2.13032E-03 +/- 1.4E-04  
 Sband delay (usec) -5.85051056770E+03 Apriori clock (usec) 1.0773849E-01 Resid sbdelay (usec) 5.04500E-04 +/- 1.1E-03  
 Phase delay (usec) -5.85051106741E+03 Apriori clockrate (us/s) 5.9999999E-08 Resid phdelay (usec) 4.79633E-06 +/- 4.8E-07  
 Delay rate (us/s) -9.82420042504E-01 Apriori rate (us/s) -9.82420018347E-01 Resid rate (us/s) -2.41561E-08 +/- 2.0E-09  
 Total phase (deg) -124.7 Apriori accel (us/s/s) 3.28013412696E-05 Resid phase (deg) 148.7 +/- 14.9

ph/seg (deg) 49.7 35.8 Amplitude 0.137 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 61.9 62.5 Search (2048X32) 0.134 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 35.7 21.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 32.8 36.8 Inc. seg. avg. 0.141 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011  
 g: az 169.2 el 15.2 pa -2.3 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 5680.282 4013.342 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 simultaneous interpolator

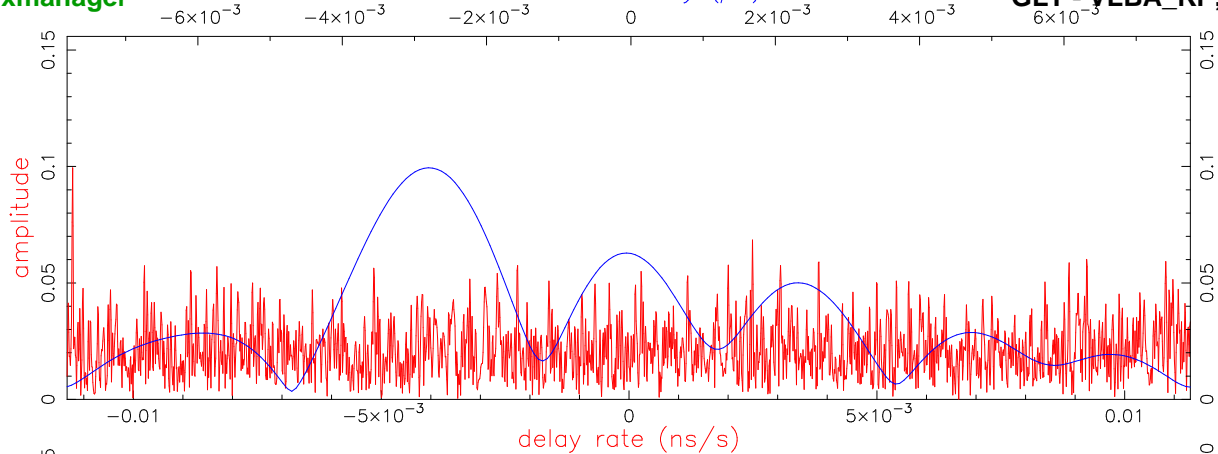
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, gk

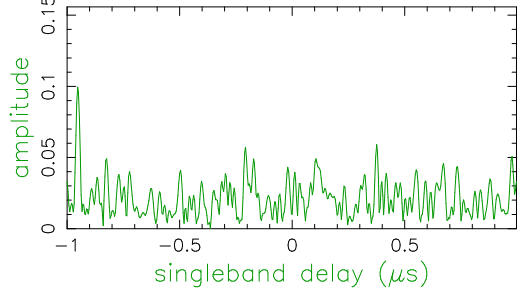
GLT - VLBA\_KP, fgroup W, pol RL

multiband delay ( $\mu$ s)

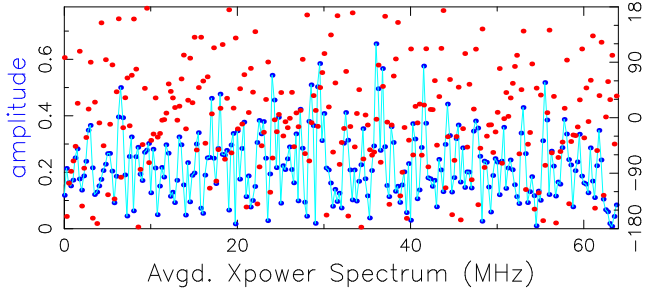


Fringe quality 0

SNR 5.6  
 Int time 419.716  
 Amp 0.156  
 Phase -135.1  
 PFD 9.9e-01  
 Delays (us)  
 SBD -0.952074  
 MBD -0.002786  
 Fringe rate (Hz)  
 -0.968942  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

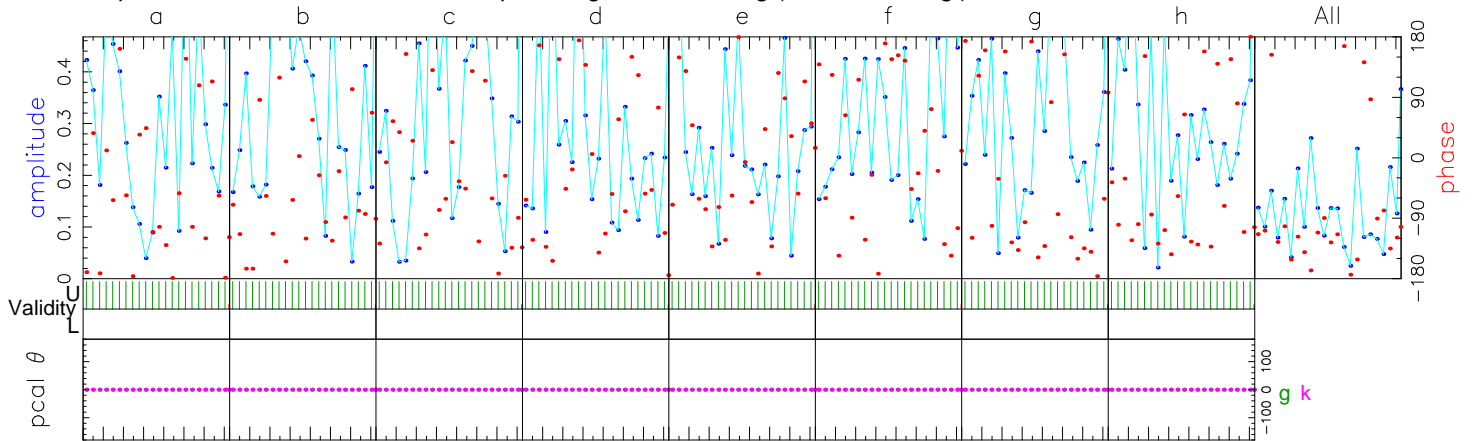


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080357  
 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
	-165.4	-100.2	-113.9	-144.7	-157.3	-167.1	-154.9	-113.8	Phase	-135.1
	0.1	0.2	0.1	0.2	0.0	0.1	0.2	0.3	Ampl.	0.2
	283.7	366.9	279.1	460.5	269.8	215.0	13.1	13.2	Sbd box	13.3
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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.85146698351E+03		Apriori delay (usec)		-5.85051107220E+03		Resid mbdelay (usec)		-2.78631E-03	+/- 1.9E-04
Sband delay (usec)	-5.85146314620E+03		Apriori clock (usec)		1.0773849E-01		Resid sbdelay (usec)		-9.52074E-01	+/- 1.5E-03
Phase delay (usec)	-5.85051107656E+03		Apriori clockrate (us/s)		5.9999999E-08		Resid phdelay (usec)		-4.35502E-06	+/- 6.6E-07
Delay rate (us/s)	-9.82431266801E-01		Apriori rate (us/s)		-9.82420018347E-01		Resid rate (us/s)		-1.12485E-05	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		3.28013412696E-05		Resid phase (deg)		-135.1	+/- 20.5

ph/seg (deg) 47.0 49.0 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 73.3 85.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 29.0 28.9 Inc. seg. avg. 0.144 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 48.8 50.5 Inc. frq. avg. 0.151 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 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 5680.282 4013.342 ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/gk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/gk.W.148.1W6WJ8 simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

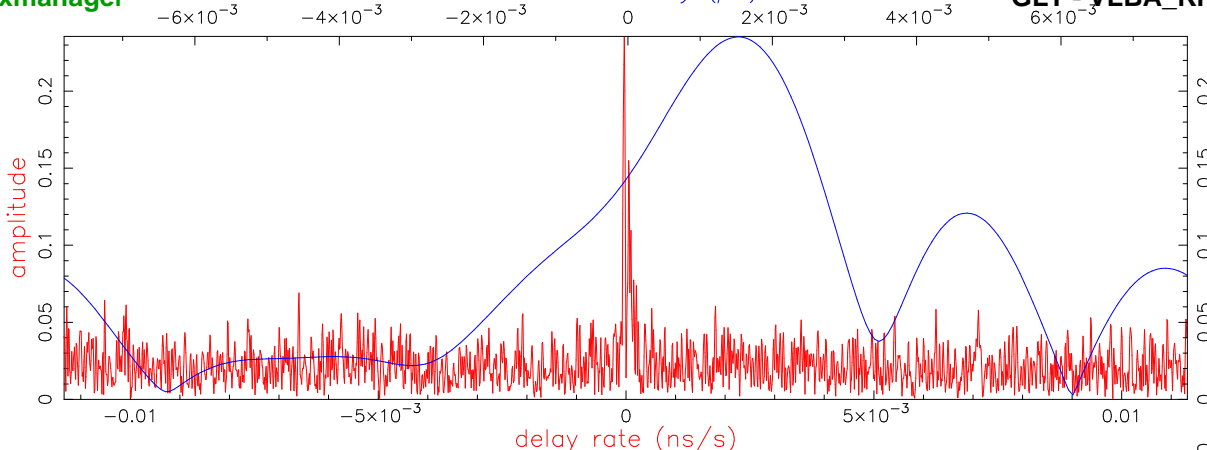
fxmanager

3C273.1W6WJ8, No0155, gk

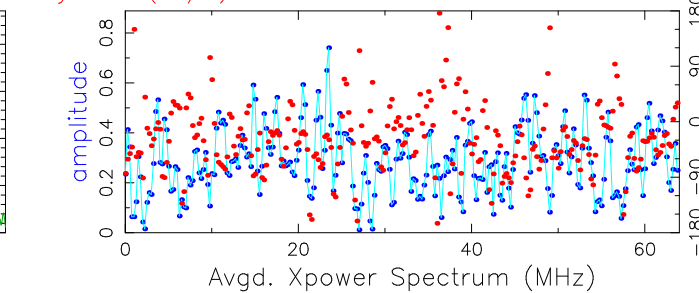
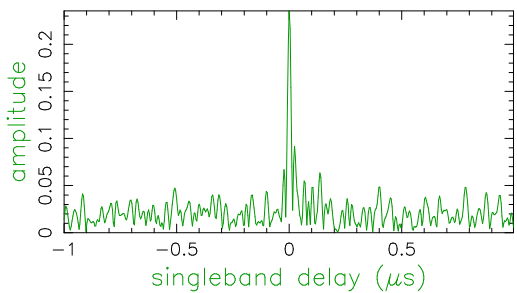
GLT - VLBA\_KP, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 9

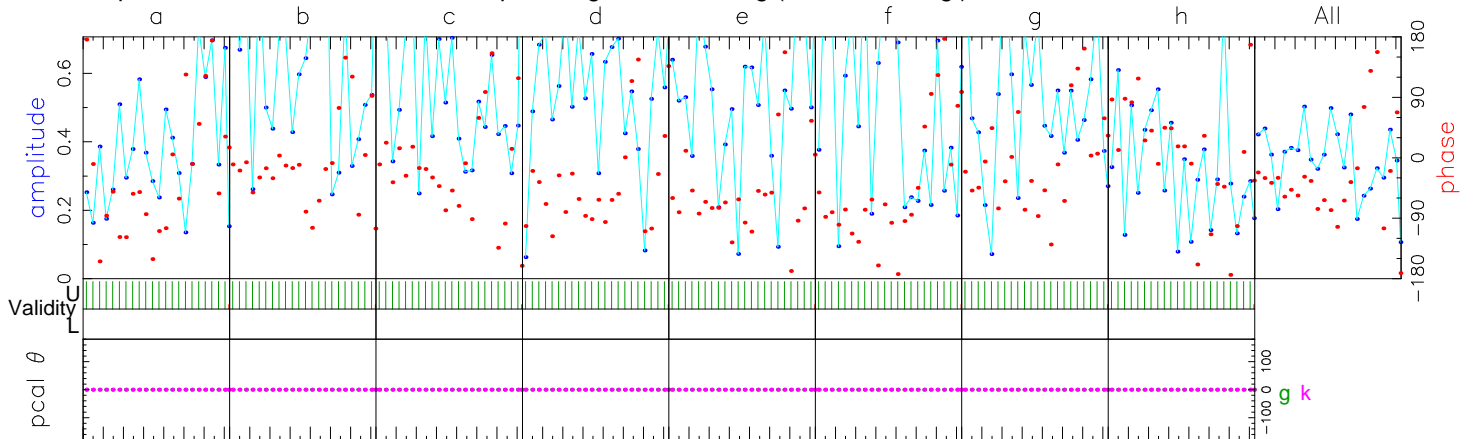


SNR 13.2  
 Int time 419.713  
 Amp 0.236  
 Phase -45.9  
 PFD 5.1e-31  
 Delays (us)  
 SBD 0.000495  
 MBD 0.001552  
 Fringe rate (Hz)  
 -0.002595  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080346  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

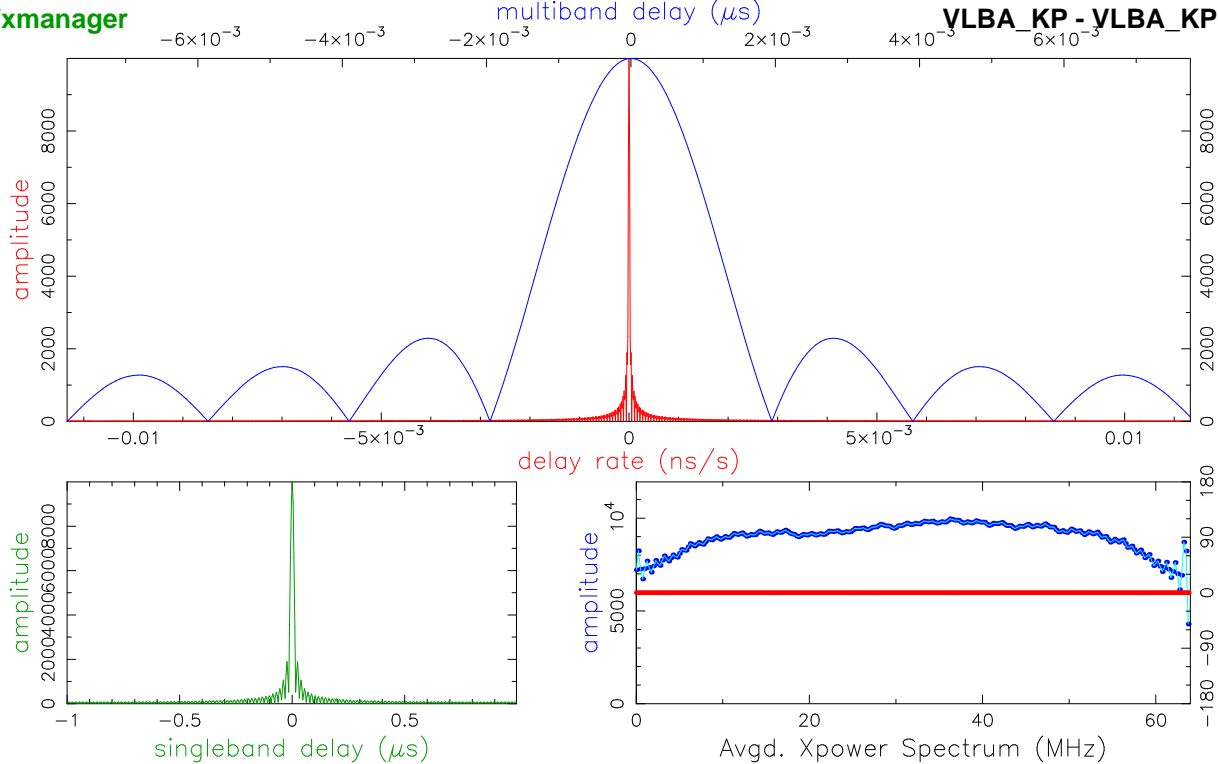
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-74.2	-22.1	-18.6	-58.4	-75.8	-95.9	-30.6	23.7		-45.9
	0.1	0.4	0.3	0.4	0.4	0.3	0.3	0.2		0.3
	260.0	257.2	256.8	257.1	257.0	257.5	257.2	260.0		257.1
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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks
										Tracks
Group delay (usec)(sbd)	-5.85050952058E+03		Apriori delay (usec)		-5.85051107220E+03		Resid mbdelay (usec)		1.55163E-03	+/- 8.2E-05
Sband delay (usec)	-5.85051057745E+03		Apriori clock (usec)		1.0773849E-01		Resid sbdelay (usec)		4.94750E-04	+/- 6.5E-04
Phase delay (usec)	-5.85051107368E+03		Apriori clockrate (us/s)		5.9999999E-08		Resid phdelay (usec)		-1.48039E-06	+/- 2.8E-07
Delay rate (us/s)	-9.82420048478E-01		Apriori rate (us/s)		-9.82420018347E-01		Resid rate (us/s)		-3.01307E-08	+/- 1.2E-09
Total phase (deg)			Apriori accel (us/s/s)		3.28013412696E-05		Resid phase (deg)		-45.9	+/- 8.7

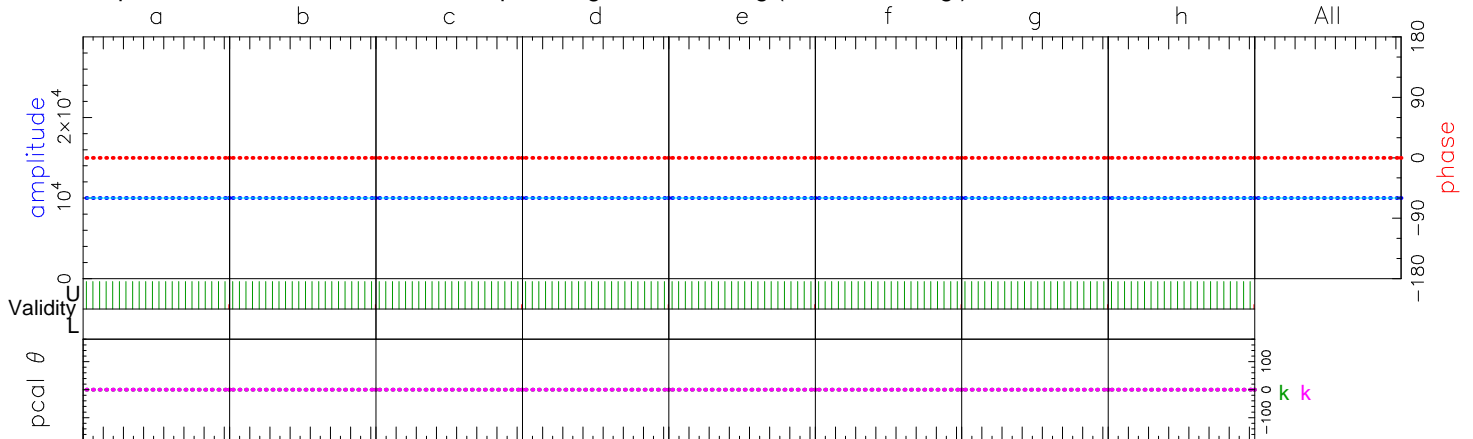
ph/seg (deg) 66.6 20.8 Search (2048X32) 0.233 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 63.9 36.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 42.3 12.3 Inc. seg. avg. 0.335 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 44.3 21.4 Inc. frq. avg. 0.273 Sample rate(MSamp/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 k: az 109.7 el 31.6 pa -52.9 u,v (fr/asec) 5680.282 4013.342 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/gk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/gk.W.93.1W6WJ8





Fringe quality 9  
SNR 560241.8  
Int time 419.716  
Amp 9999.998  
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 021500.00  
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	10000.0	10000.0
k	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	10000.0
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	

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

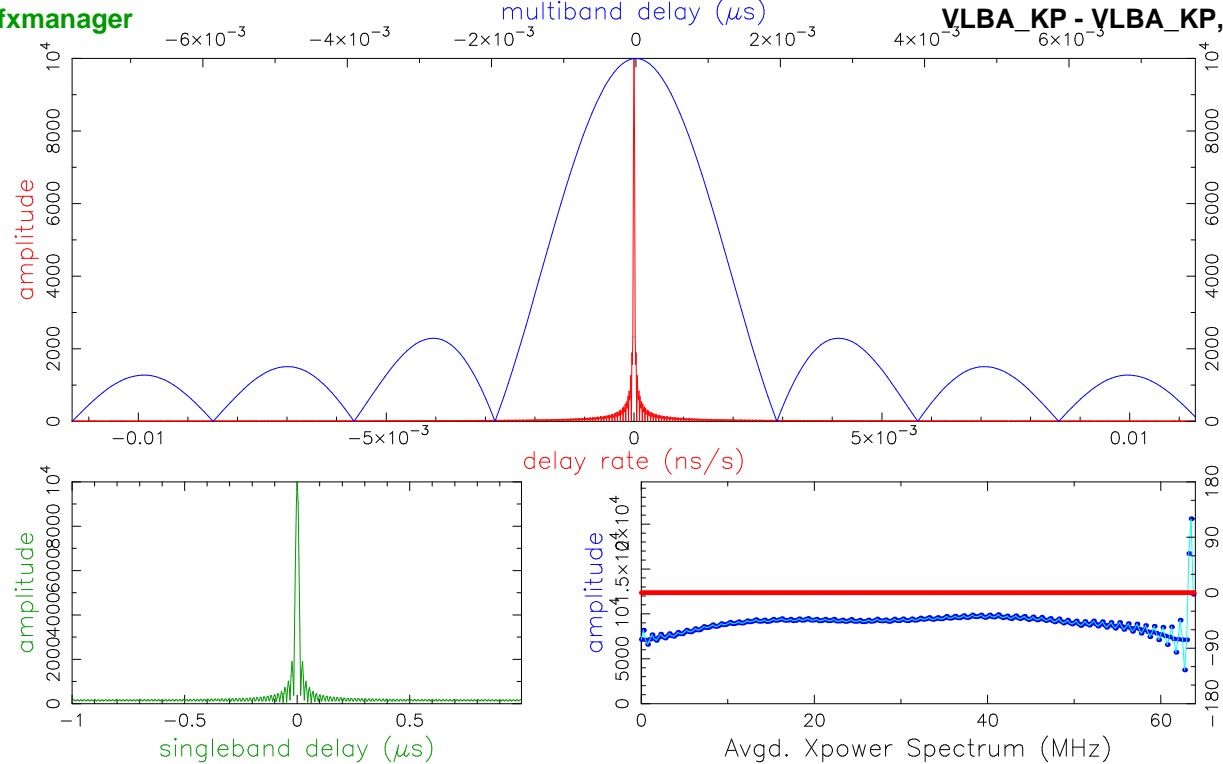
ph/seg (deg)	0.0	RMS	Theor.	Amplitude	9999.998 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	0.0	0.0	0.0	Search (2048X32)	9999.998	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	9999.998	Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00	

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kk

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

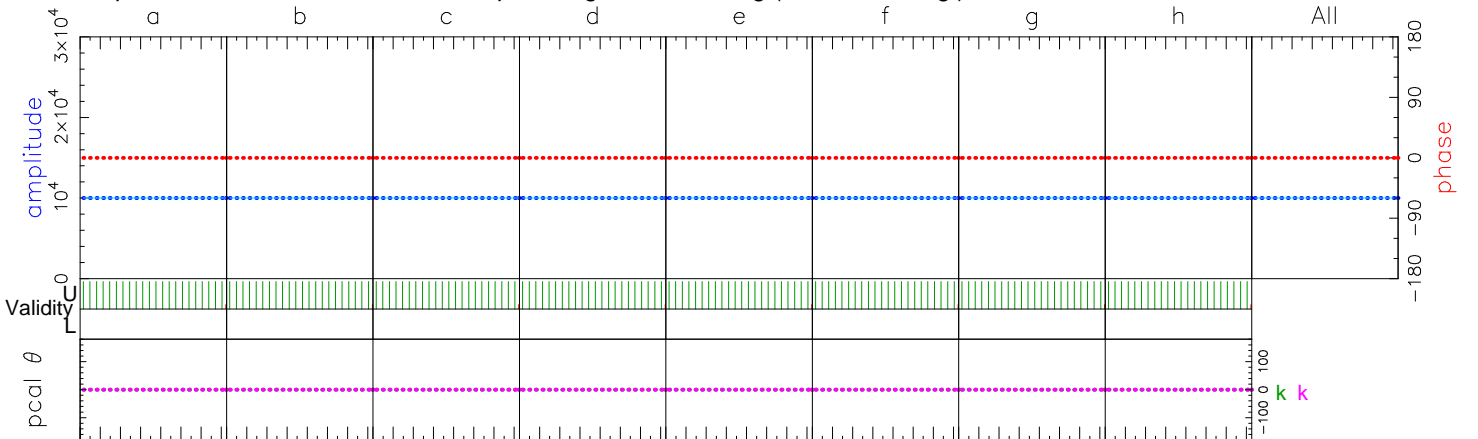


Fringe quality 9

SNR 560241.8  
 Int time 419.716  
 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

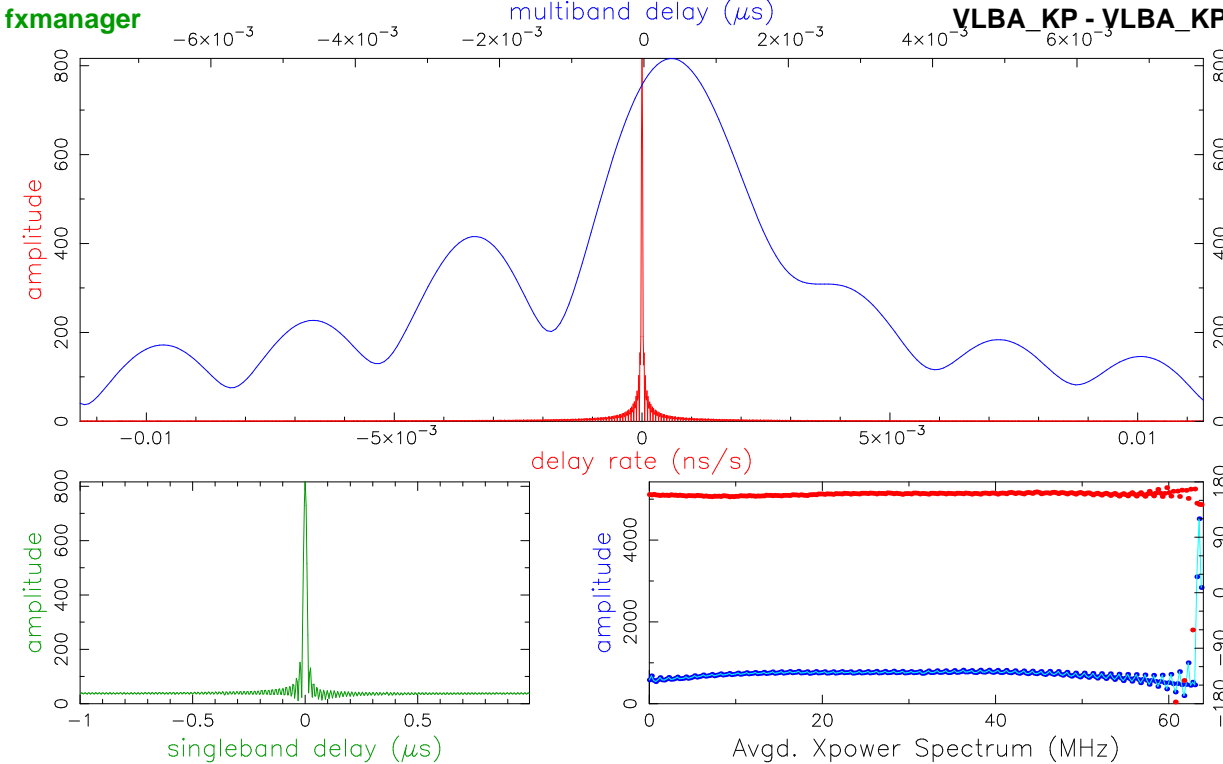
Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080405  
 2021:252:122852  
 RA & Dec (J2000)  
 12h29m06.699731s  
 +02°03'08.598201"

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



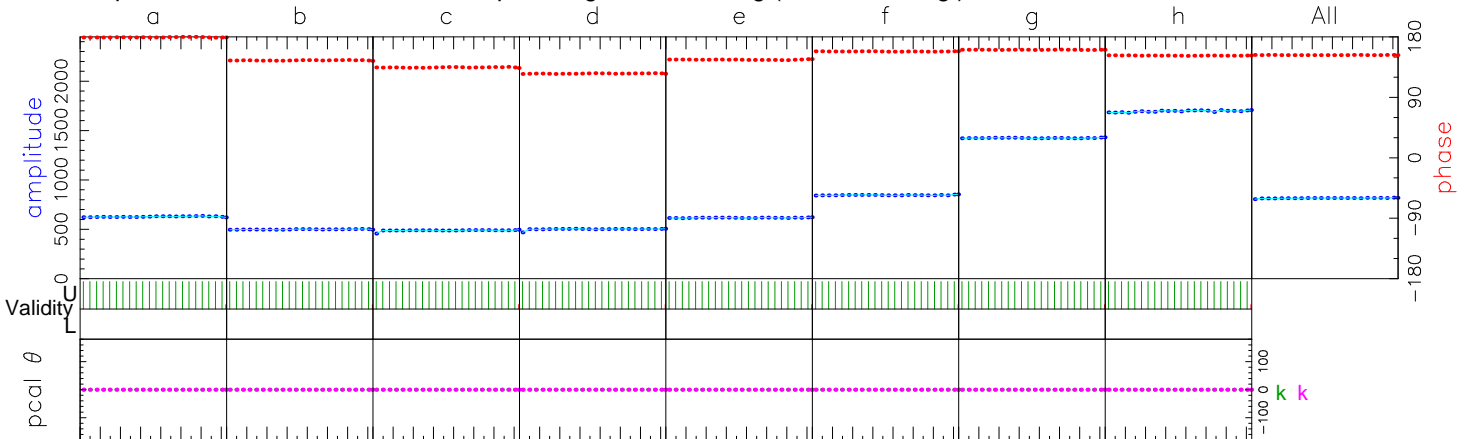
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	10000.0	10000.0
k	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0.0	0.0
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0.0	0.0
k	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
k	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
k	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	0.000000E+00	+/- 1.9E-09
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 1.5E-08
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 6.6E-12
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 2.7E-14
Total phase (deg)			0.0						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  
 k: az 109.7 el 31.6 pa -52.9 k: az 109.7 el 31.6 pa -52.9 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  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kk.W.179.1W6WJ8 simultaneous interpolator



Fringe quality 6  
SNR 45735.0  
Int time 419.716  
Amp 816.343  
Phase 152.8  
PFD 0.0e+00  
Delays (us)  
SBD -0.000185  
MBD 0.000378  
Fringe rate (Hz) 0.000001  
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
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	
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	3.77625000000E-04		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		3.77625E-04	+/- 2.4E-08
Sband delay (usec)	-1.85000000000E-04		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.85000E-04	+/- 1.9E-07
Phase delay (usec)	4.92815038130E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		4.92815E-06	+/- 8.1E-11
Delay rate (us/s)	9.91980667418E-12		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		9.91981E-12	+/- 3.3E-13
Total phase (deg)	152.8		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		152.8	+/- 0.0

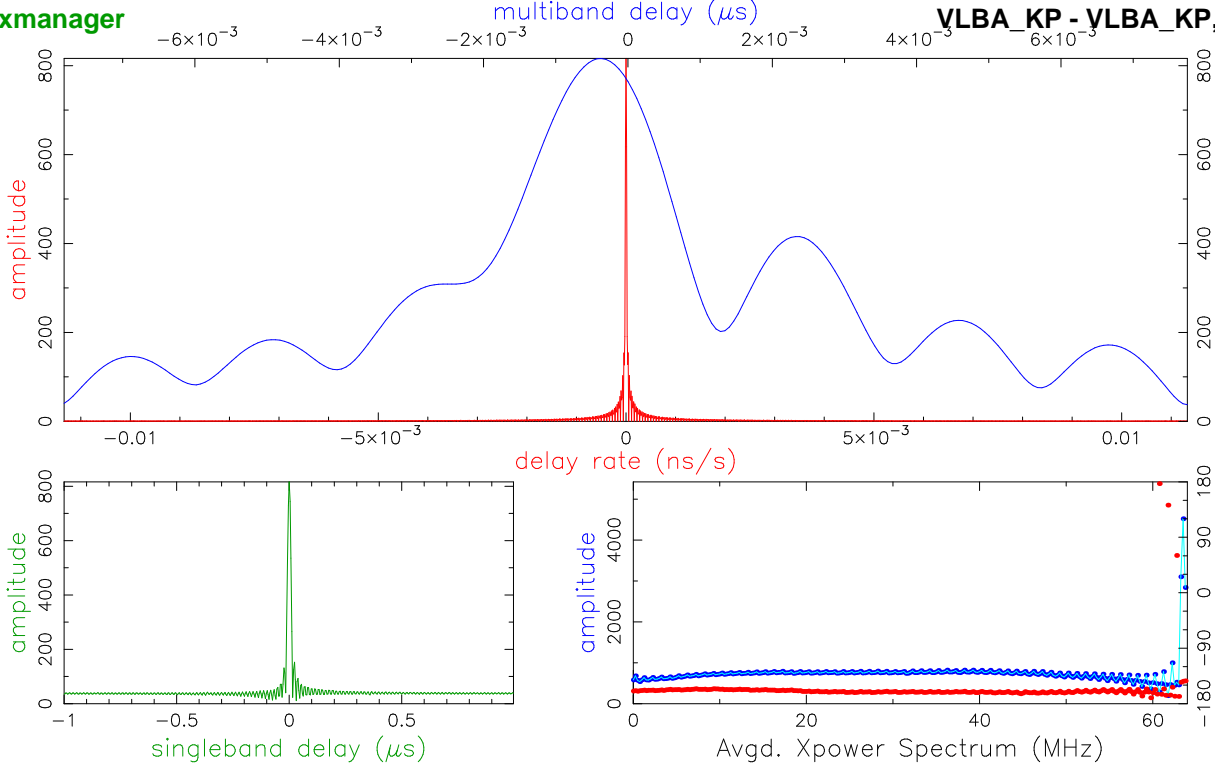
ph/seg (deg) 0.1 0.0 Theor. Amplitude 816.343 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 0.4 0.0 Search (2048X32) 811.949 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 18.2 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 53.5 0.0 Inc. seg. avg. 816.163 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
k: az 109.7 el 31.6 pa -52.9 k: az 109.7 el 31.6 pa -52.9 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  
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kk.W.198.1W6WJ8 simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

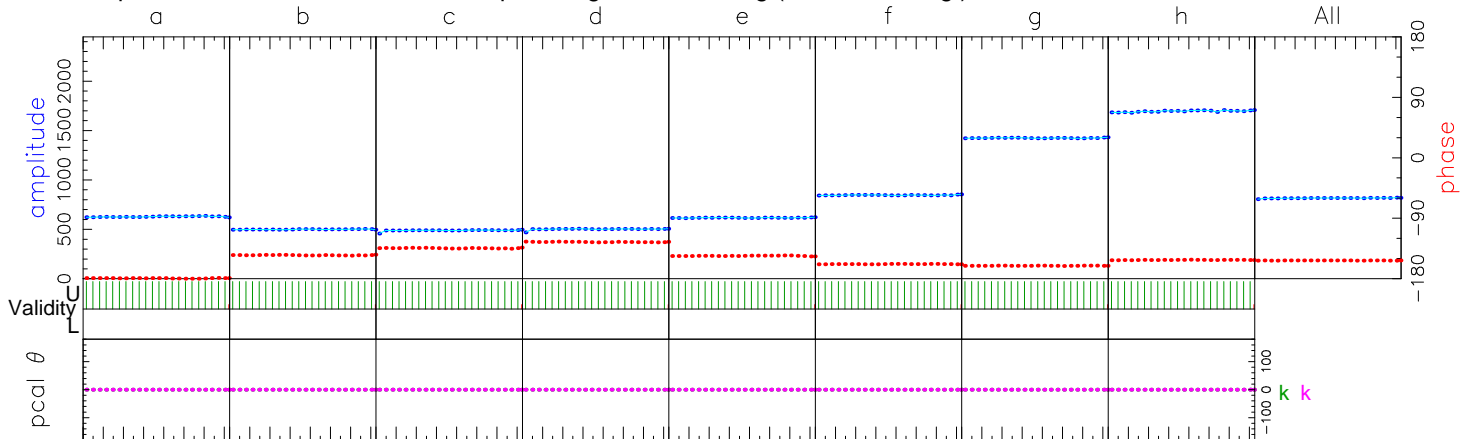
3C273.1W6WJ8, No0155, kk

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



Fringe quality 6  
 SNR 45735.0  
 Int time 419.716  
 Amp 816.343  
 Phase -152.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000185  
 MBD -0.000378  
 Fringe rate (Hz)  
 -0.000001  
 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"

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	
	-179.2	-144.9	-134.5	-125.3	-145.8	-158.2	-160.6	-152.0	Phase	-152.8	
	628.6	499.7	489.3	501.6	617.0	846.4	1424.6	1695.5	Ampl.	837.8	
	257.2	257.4	257.0	257.0	256.5	257.0	256.8	257.3	Sbd box	257.0	
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		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
k:k	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		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec)(sbd)	-3.77625000000E-04		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-3.77625E-04	+/- 2.4E-08	
Sband delay (usec)	1.85000000000E-04		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		1.85000E-04	+/- 1.9E-07	
Phase delay (usec)	-4.92815038130E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-4.92815E-06	+/- 8.1E-11	
Delay rate (us/s)	-9.91980667418E-12		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-9.91981E-12	+/- 3.3E-13	
Total phase (deg)			-152.8		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)	-152.8	+/- 0.0

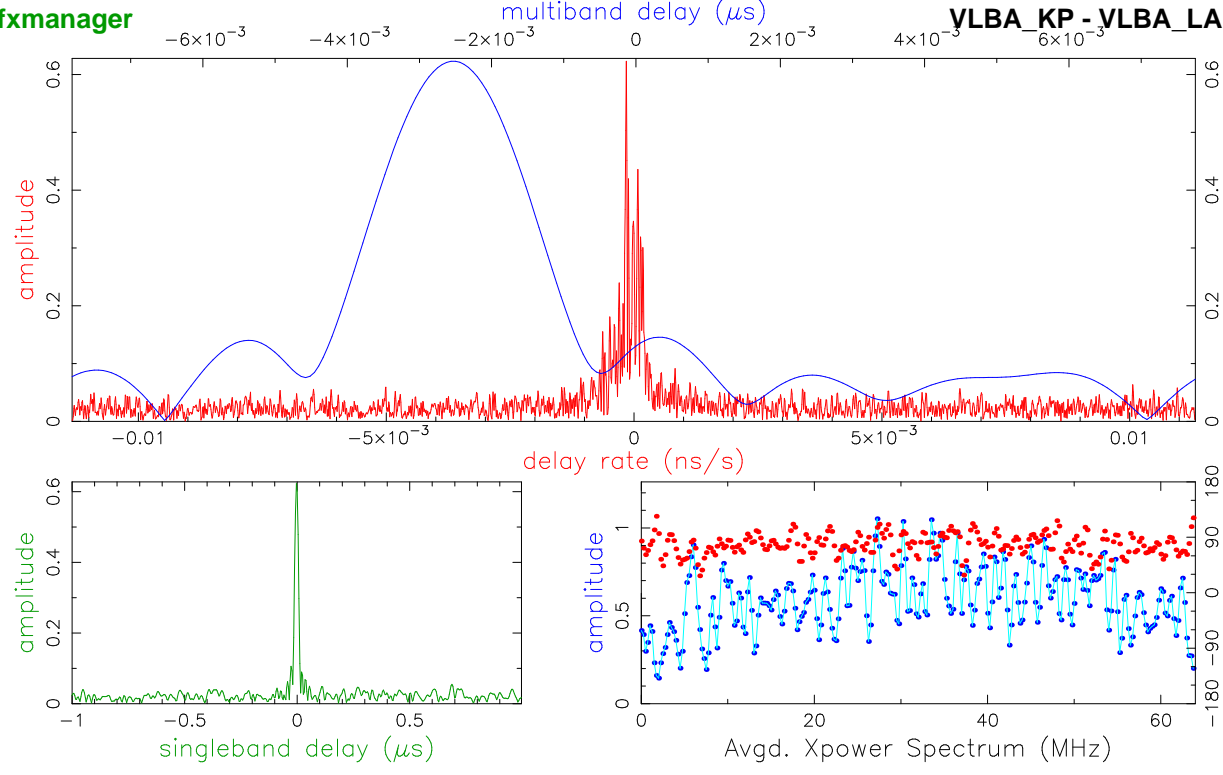
ph/seg (deg) 0.1 0.0 Theor. Amplitude 816.343 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.4 0.0 Search (2048X32) 811.949 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 18.2 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 53.5 0.0 Inc. seg. avg. 816.163 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 k: az 109.7 el 31.6 pa -52.9 k: az 109.7 el 31.6 pa -52.9 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  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kk..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kk.W.219.1W6WJ8 simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kl

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

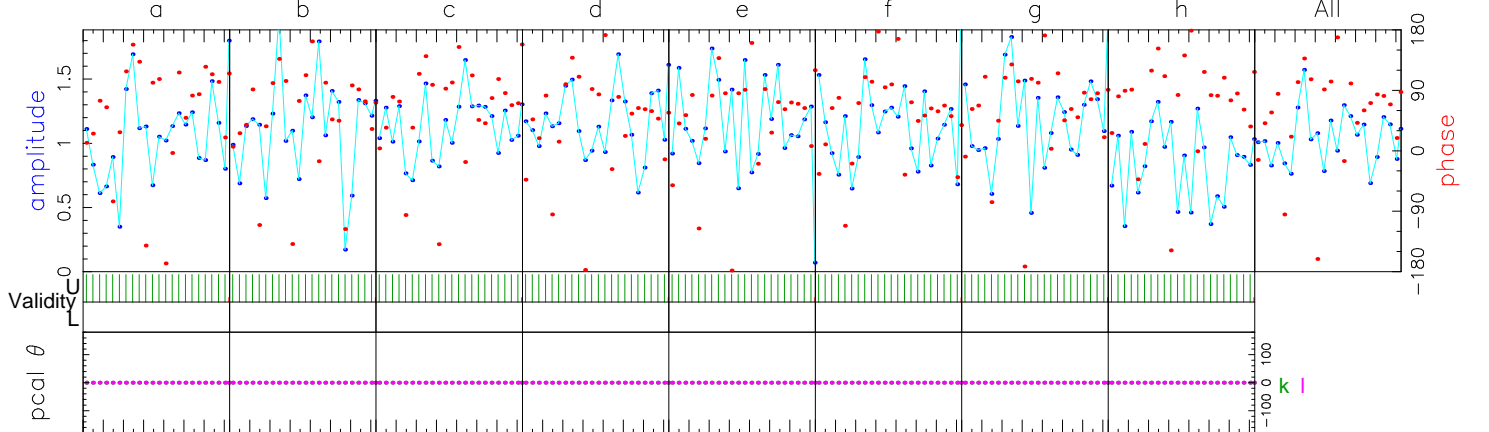


Fringe quality 6

SNR 35.2  
 Int time 419.714  
 Amp 0.628  
 Phase 76.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002744  
 MBD -0.002501  
 Fringe rate (Hz)  
 -0.013472  
 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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-7.84878708470E+02				-7.84876207554E+02					
Sband delay (usec)	-7.84878951804E+02				2.9058208E+00					
Phase delay (usec)	-7.84876205076E+02				2.8600001E-07					
Delay rate (us/s)	1.2191825253E-01				1.21918408926E-01					
Total phase (deg)			-109.9		3.97828916620E-06					
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
Amplitude	0.628 +/- 0.018				0.616					
Search (2048X32)					0.000					
Interp.					1.030					
Inc. seg. avg.					0.634					
Inc. frq. avg.										
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								

k: az 109.7 el 31.6 pa -52.9 l: az 116.1 el 34.2 pa -46.5 u,v (fr/asec) -692.495 -478.599 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kl.1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kl.W.162.1W6WJ8

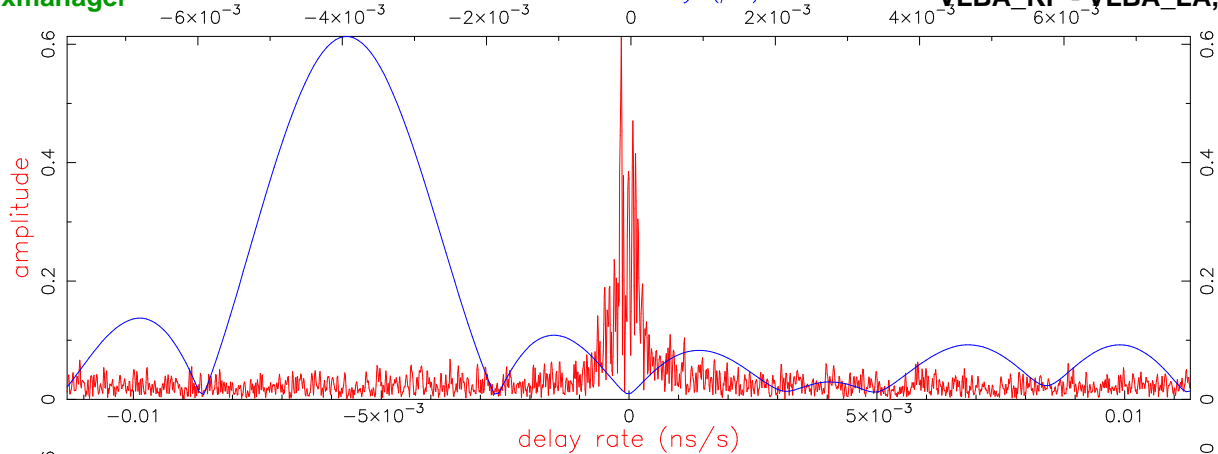
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kl

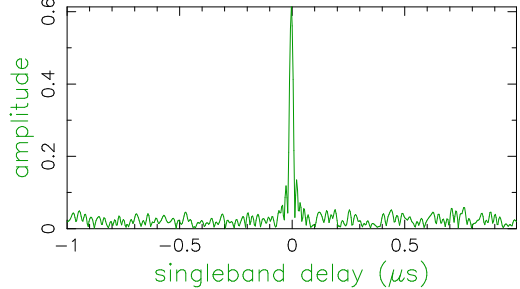
VLBA\_KP - VLBA\_LA, fgroup W, pol RR

multiband delay ( $\mu$ s)

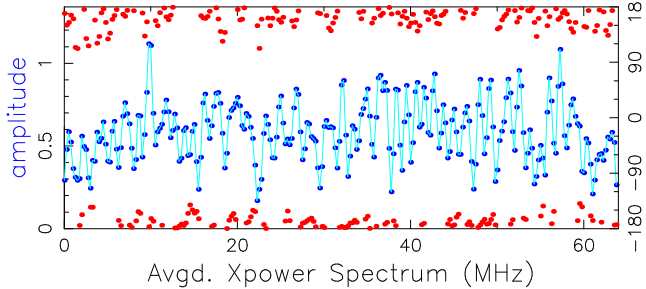


Fringe quality 7

SNR 34.4  
 Int time 419.715  
 Amp 0.613  
 Phase 175.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.003777  
 MBD -0.003937  
 Fringe rate (Hz)  
 -0.013477  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

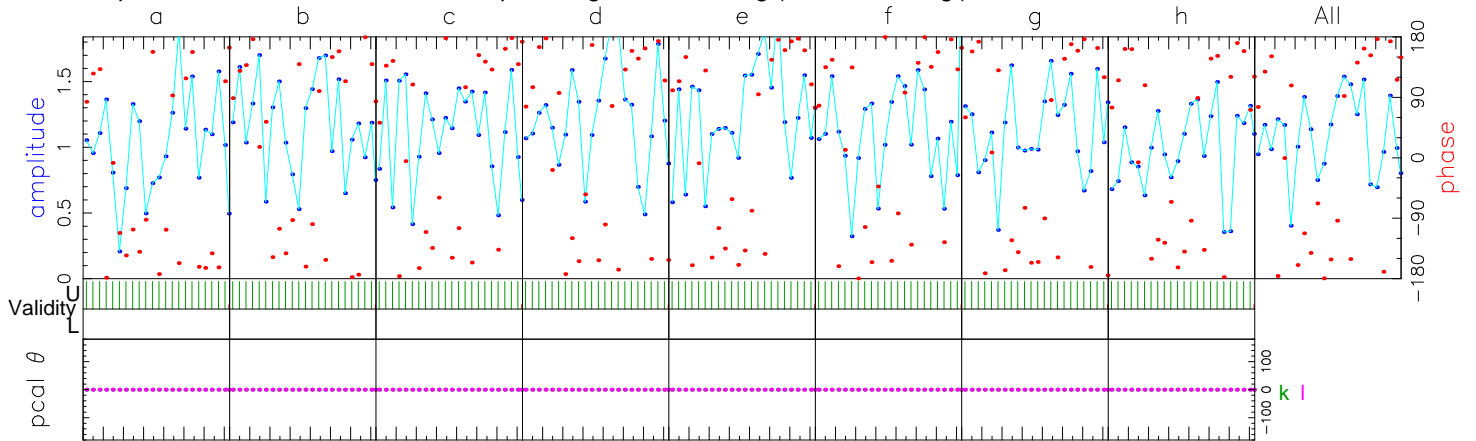


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080405  
 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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.84880144720E+02				-7.84876207554E+02					
Sband delay (usec)	-7.84879984804E+02				2.9058208E+00					
Phase delay (usec)	-7.84876201882E+02				2.8600001E-07					
Delay rate (us/s)	1.21918252472E-01				1.21918408926E-01					
Total phase (deg)			-10.8		3.97828916620E-06					
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode:	MANUAL				MANUAL					
Pcal rate:	0.000E+00				0.000E+00					
Bits/sample:	2x2									
Sample rate (MSamp/s):	128									
Data rate (Mb/s):	2048									
nlags:	256									
t_cohere	infinite									
sb window (us)	-1.000				1.000					
mb window (us)	-0.008				0.008					
dr window (ns/s)	-0.011				0.011					
ion window (TEC)	0.00				0.00					

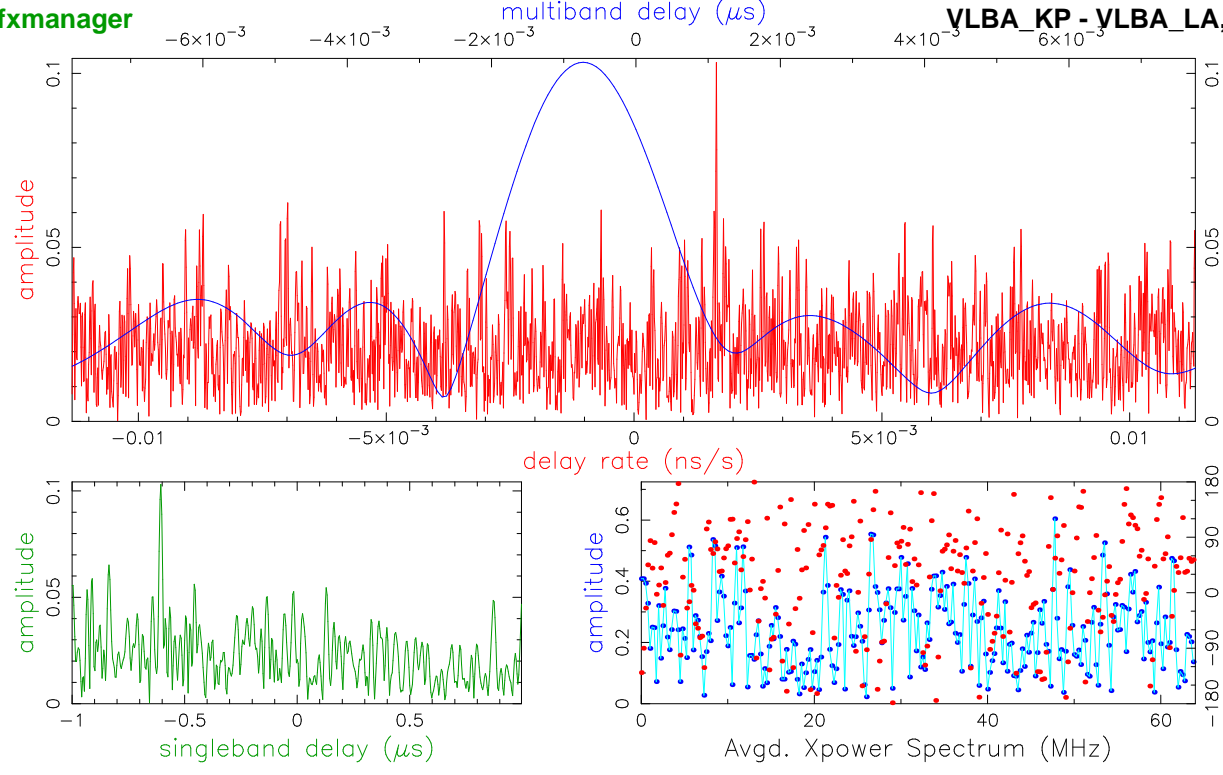
ph/seg (deg) 64.8 8.0 Search (2048X32) 0.607 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 91.7 14.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 5.1 4.7 Inc. seg. avg. 1.085 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 9.0 8.2 Inc. frq. avg. 0.613 Sample rate (MSamp/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 l: az 116.1 el 34.2 pa -46.5 u, v (fr/asec) -692.495 -478.599 ion window (TEC) 0.00 0.00 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kl.1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kl.W.180.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

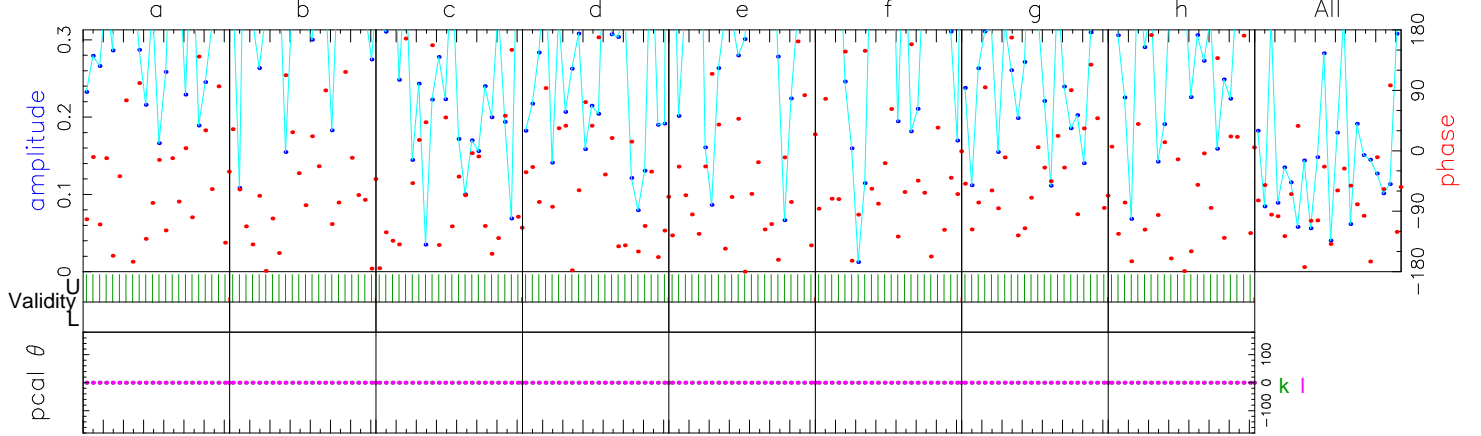
3C273.1W6WJ8, No0155, kl

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



Fringe quality 0  
 SNR 5.8  
 Int time 419.715  
 Amp 0.104  
 Phase -78.1  
 PFD 8.2e-01  
 Delays (us)  
 SBD -0.606081  
 MBD -0.000766  
 Fringe rate (Hz) 0.142934  
 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
	-65.2	-66.2	-123.7	-45.7	-100.1	-70.9	-41.0	-94.7	Phase	-78.1
	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
	460.0	389.4	225.8	199.3	226.0	102.0	105.2	189.9	Sbd box	101.8
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	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:l	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	
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.85486349048E+02		Apriori delay (usec)		-7.84876207554E+02		Resid mbdelay (usec)		-7.66494E-04	+/- 1.9E-04
Sband delay (usec)	-7.8548228804E+02		Apriori clock (usec)		2.9058208E+00		Resid sbdelay (usec)		-6.06081E-01	+/- 1.5E-03
Phase delay (usec)	-7.84876210072E+02		Apriori clockrate (us/s)		2.8600001E-07		Resid phdelay (usec)		-2.51814E-06	+/- 6.4E-07
Delay rate (us/s)	1.21920068250E-01		Apriori rate (us/s)		1.21918408926E-01		Resid rate (us/s)		1.65932E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		3.97828916620E-06		Resid phase (deg)		-78.1	+/- 19.8

ph/seg (deg) 61.4 47.4 Amplitude 0.104 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 100.3 82.8 Search (2048X32) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 30.6 28.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 32.5 48.8 Inc. seg. 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  
 Inc. frq. avg. 0.103 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 l: az 116.1 el 34.2 pa -46.5 u,v (fr/asec) -692.495 -478.599 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kl.1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kl.W.201.1W6WJ8

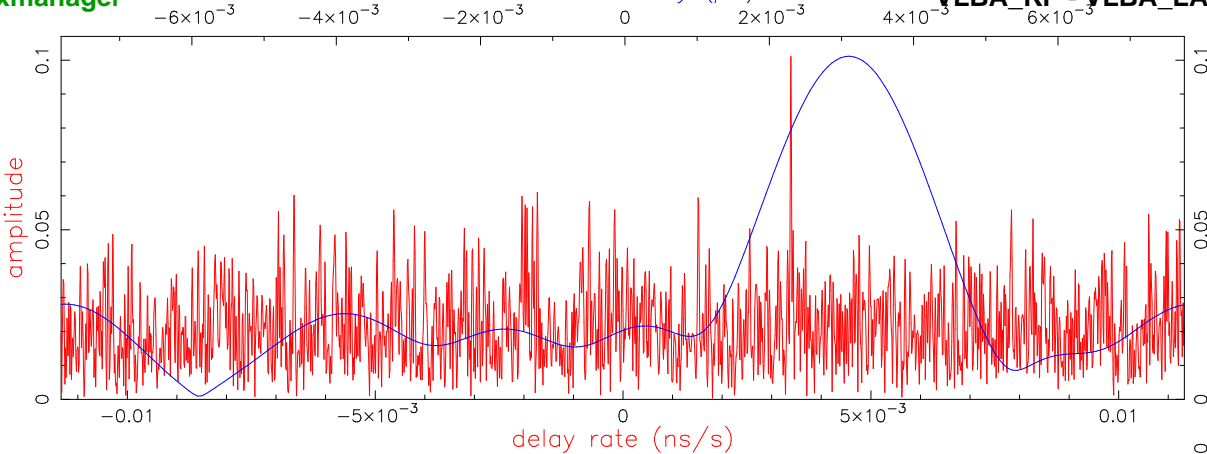
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kl

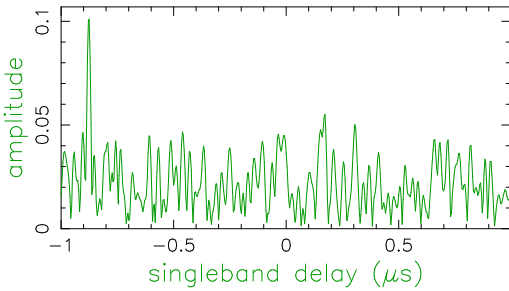
VLBA\_KP - VLBA\_LA, fgroup W, pol RL

multiband delay ( $\mu$ s)

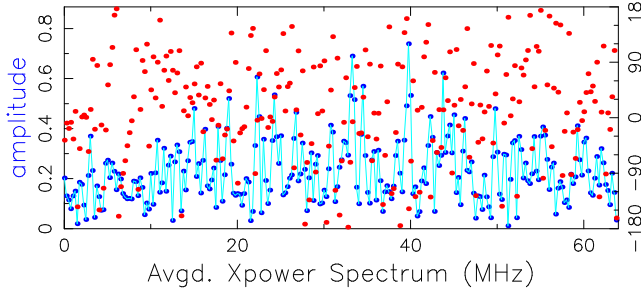


Fringe quality 0

SNR 5.8  
 Int time 419.714  
 Amp 0.107  
 Phase -25.5  
 PFD 8.5e-01  
 Delays (us)  
 SBD -0.876775  
 MBD 0.003049  
 Fringe rate (Hz)  
 0.291952  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

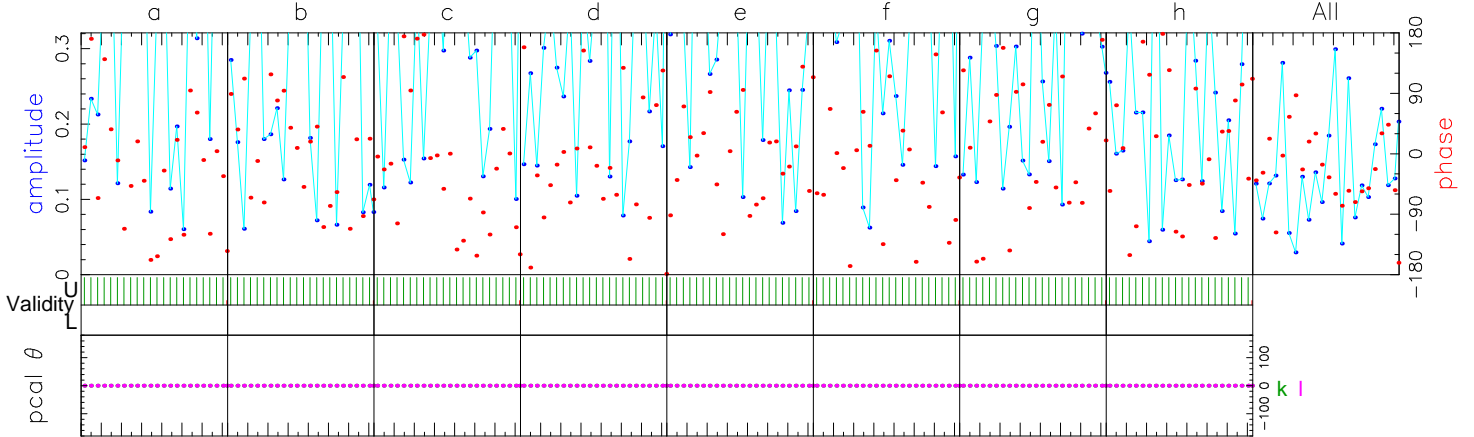


delay rate (ns/s)



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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks
Group delay (usec)(sbd)	-7.85748158579E+02									
Sband delay (usec)	-7.85752982554E+02									
Phase delay (usec)	-7.84876208376E+02									
Delay rate (us/s)	1.21921798202E-01									
Total phase (deg)			-212.2							
Apriori delay (usec)					-7.84876207554E+02				3.04898E-03	+/- 1.9E-04
Apriori clock (usec)					0.100				-8.76775E-01	+/- 1.5E-03
Apriori clockrate (us/s)					2.8600001E-07				-8.22300E-07	+/- 6.4E-07
Apriori rate (us/s)					1.21918408926E-01				3.38928E-06	+/- 2.6E-09
Apriori accel (us/s/s)					3.97828916620E-06				-25.5	+/- 19.8
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) 50.2 47.6 Search (2048X32) 0.107 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 77.2 83.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 21.3 28.1 Inc. seg. avg. 0.105 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 31.3 49.0 Inc. frq. avg. 0.099 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 l: az 116.1 el 34.2 pa -46.5 u,v (fr/asec) -692.495 -478.599 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kl.1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kl.W.221.1W6WJ8



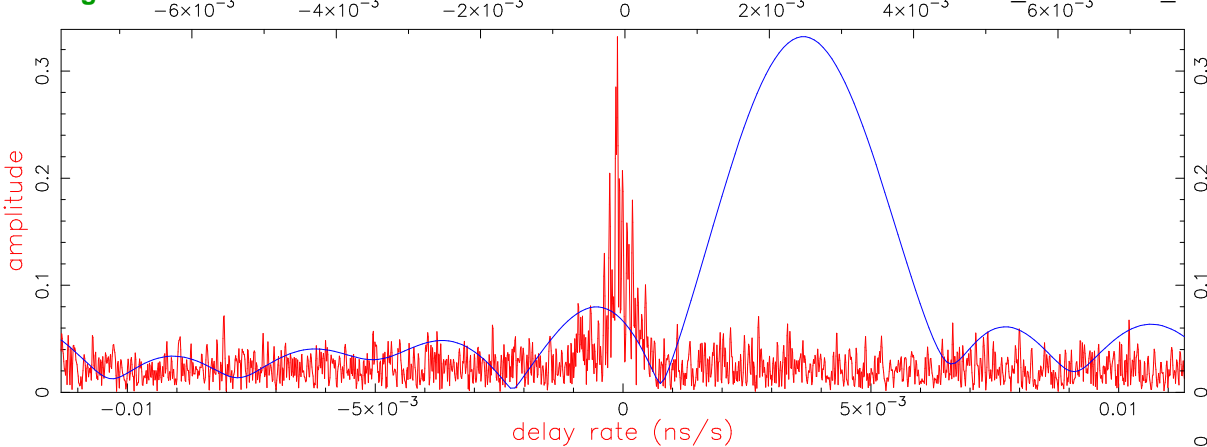
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kn

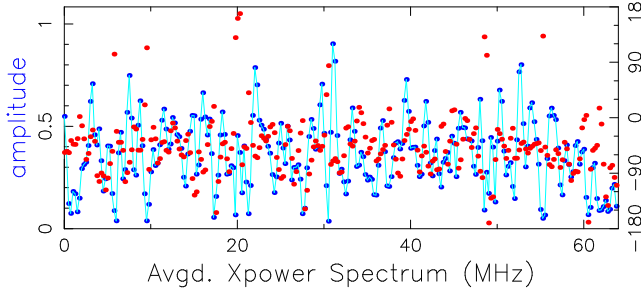
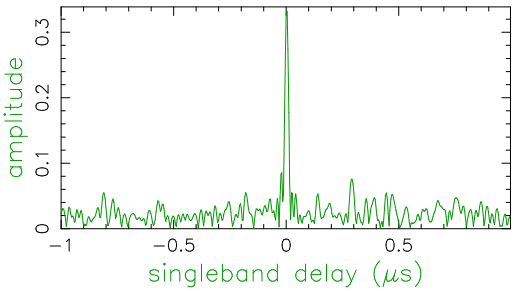
VLBA\_KP - VLBA\_NL, fgroup W, pol LL

multiband delay ( $\mu$ s)



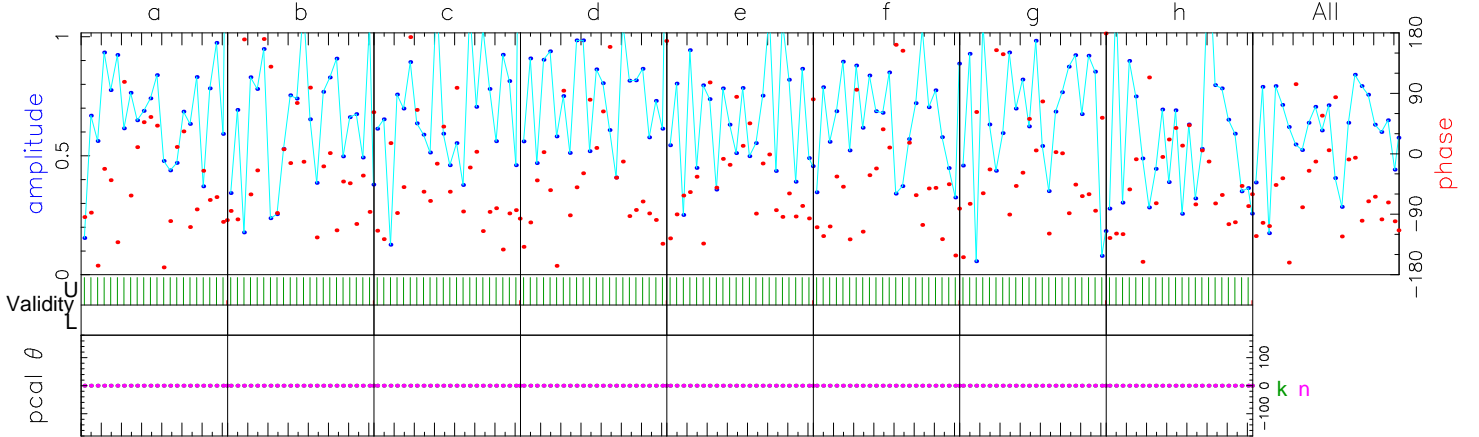
Fringe quality 9

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				-2.47739808754E+03				2.43444E-03	+/- 5.7E-05
Sband delay (usec)	-2.47739600379E+03				-5.0876942E+00				2.08375E-03	+/- 4.5E-04
Phase delay (usec)	-2.47739808934E+03				-2.9999999E-07				-1.80291E-06	+/- 1.9E-07
Delay rate (us/s)	4.24266750089E-01				4.24266861776E-01				-1.11687E-07	+/- 8.0E-10
Total phase (deg)			-149.8		1.26256971962E-05				-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										
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

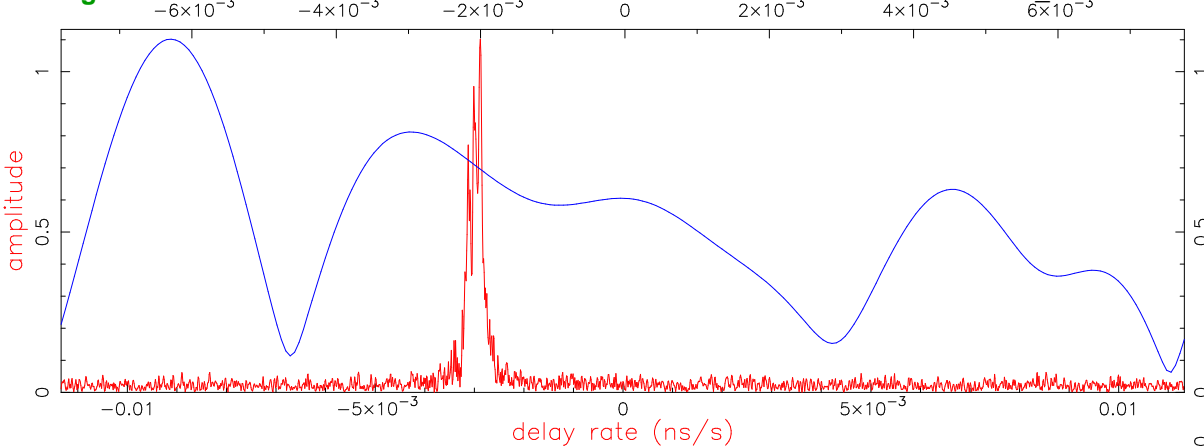
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kN

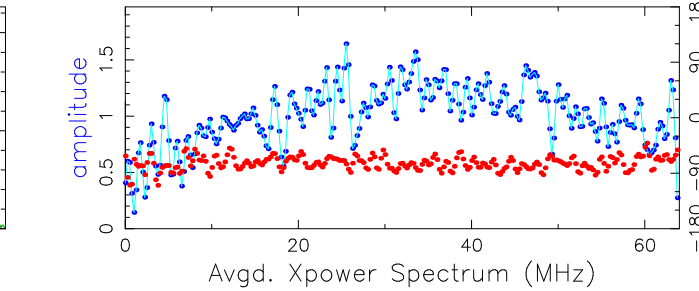
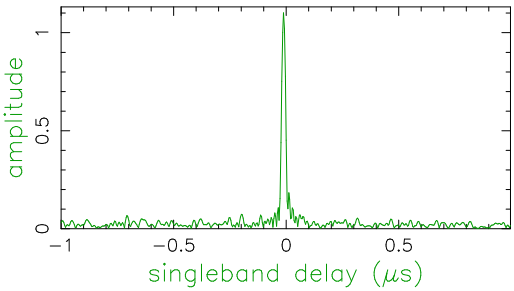
VLBA\_KP - NOEMA, fgroup W, pol LL

multiband delay ( $\mu$ s)



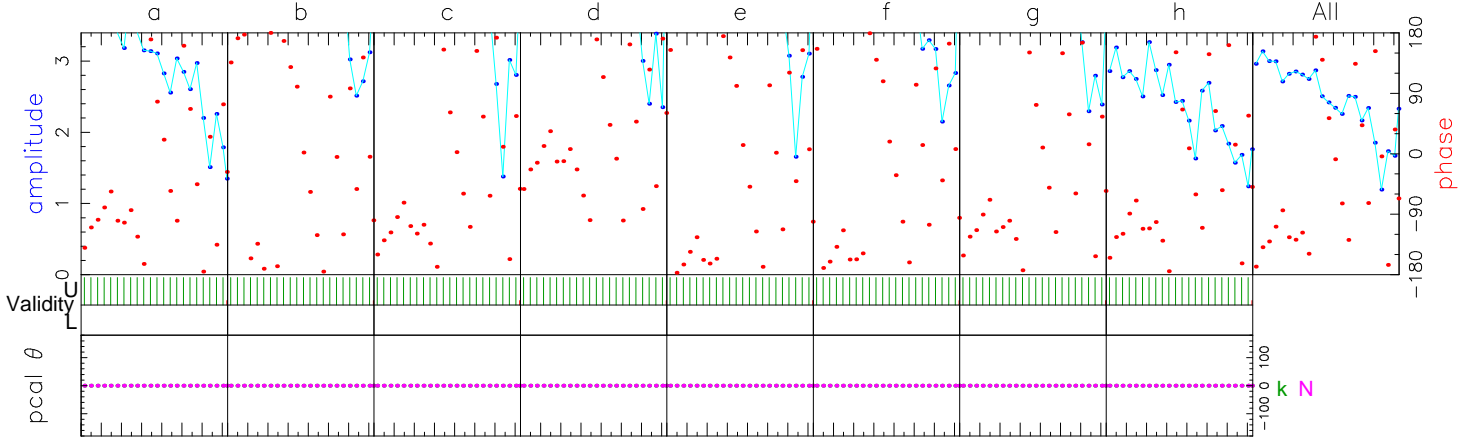
Fringe quality 1

SNR 61.8  
 Int time 419.715  
 Amp 1.132  
 Phase -133.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.011490  
 MBD -0.006288  
 Fringe rate (Hz)  
 -0.248203  
 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  
 2021:287:080403  
 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		
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		Chan ids
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks

Group delay (usec)(sbd)	4.62838934120E+03	Apriori delay (usec)	4.62839562961E+03	Resid mbdelay (usec)	-6.28841E-03	+/-	1.8E-05
Sband delay (usec)	4.62838413936E+03	Apriori clock (usec)	1.3728707E+01	Resid sbdelay (usec)	-1.14903E-02	+/-	1.4E-04
Phase delay (usec)	4.62839562530E+03	Apriori clockrate (us/s)	-8.6550003E-06	Resid phdelay (usec)	-4.30876E-06	+/-	6.0E-08
Delay rate (us/s)	2.04542510275E+00	Apriori rate (us/s)	2.04542798414E+00	Resid rate (us/s)	-2.88139E-06	+/-	2.5E-10
Total phase (deg)	58.9	Apriori accel (us/s/s)	-2.51980697016E-05	Resid phase (deg)	-133.6	+/-	1.9

ph/seg (deg)	85.1	Theor.	4.4	Amplitude	1.132 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	131.9	Search (2048X32)	1.082	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	57.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	54.1	Inc. seg. avg.	2.531	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	1.674	Data rate (Mb/s):	2048	ion window (TEC)	0.00	0.00	

k: az 109.7 el 31.6 pa -52.9 N: az 252.6 el 19.5 pa 42.9 u,v (fr/asec) -11758.391 -1591.927 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.167.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

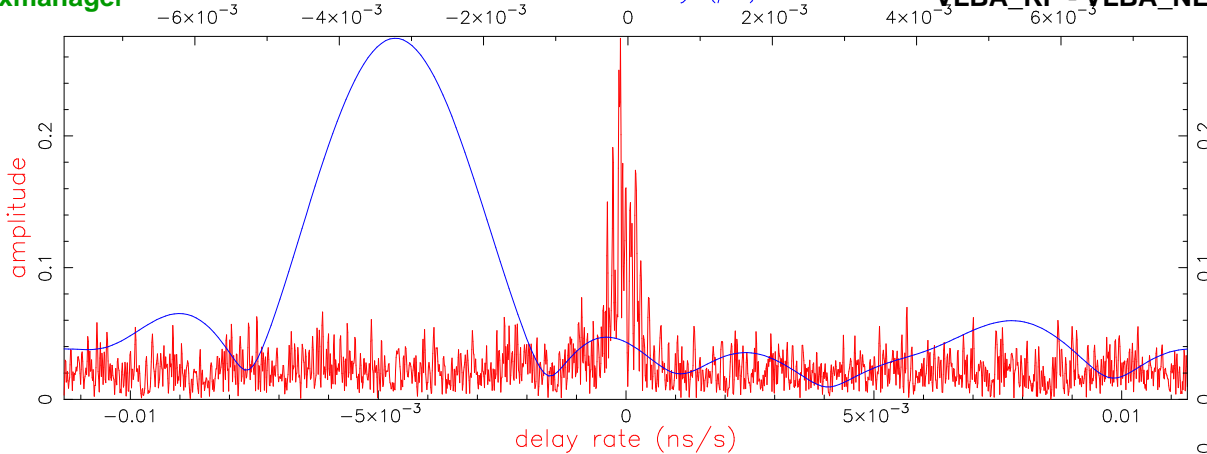
fxmanager

3C273.1W6WJ8, No0155, kn

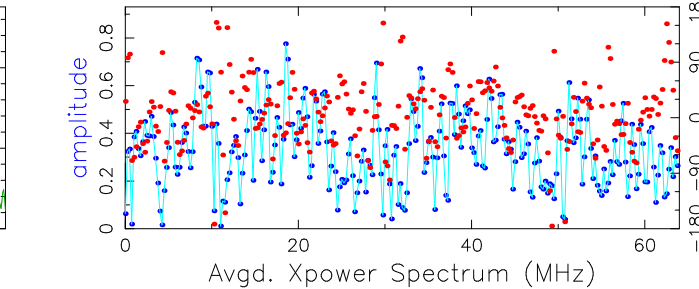
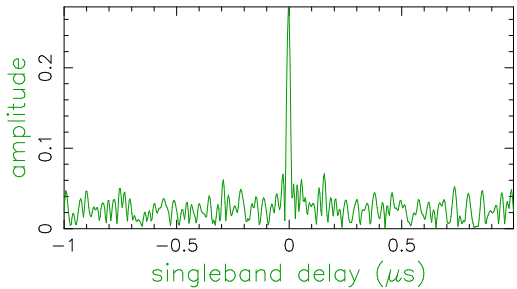
VLBA\_KP - VLBA\_NL, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 9

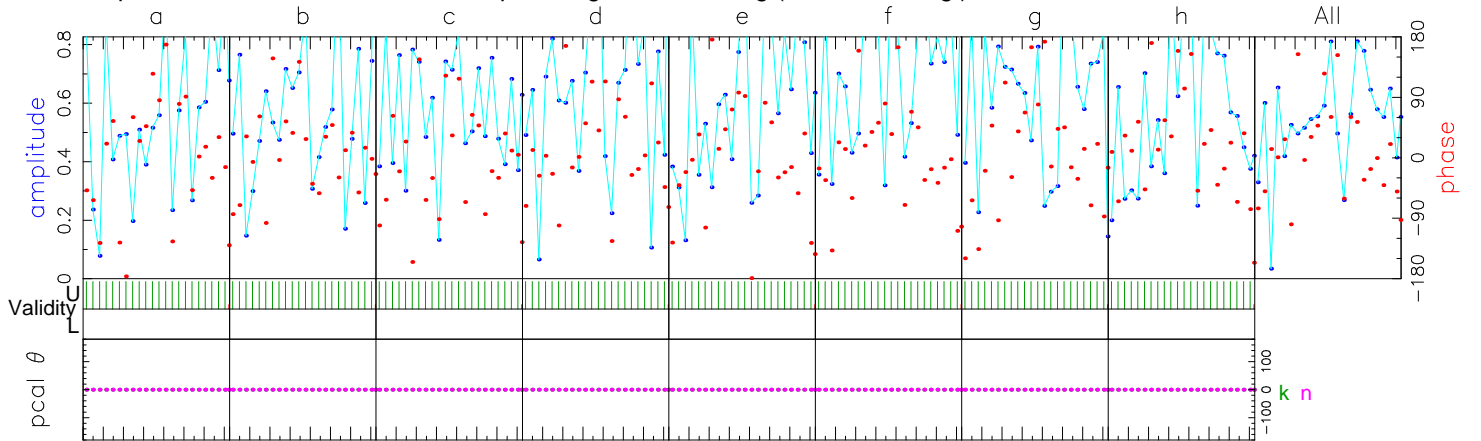


SNR 15.4  
 Int time 419.714  
 Amp 0.276  
 Phase 9.1  
 PFD 5.6e-45  
 Delays (us)  
 SBD -0.002982  
 MBD -0.003203  
 Fringe rate (Hz)  
 -0.009625  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



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		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-2.47740129076E+03									
Sband delay (usec)	-2.47740106954E+03									
Phase delay (usec)	-2.47739808725E+03									
Delay rate (us/s)	4.24266750039E-01									
Total phase (deg)			-84.8							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

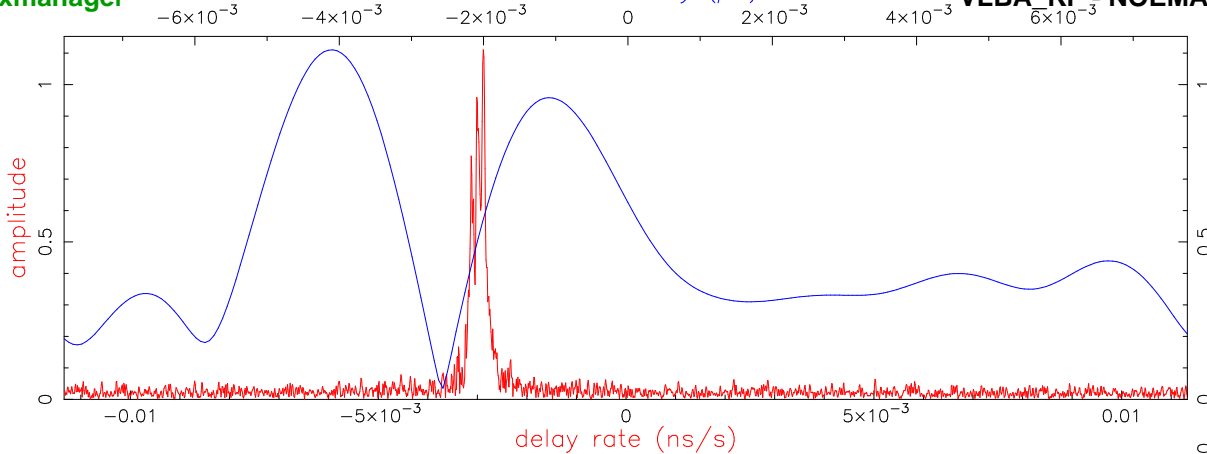
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kN

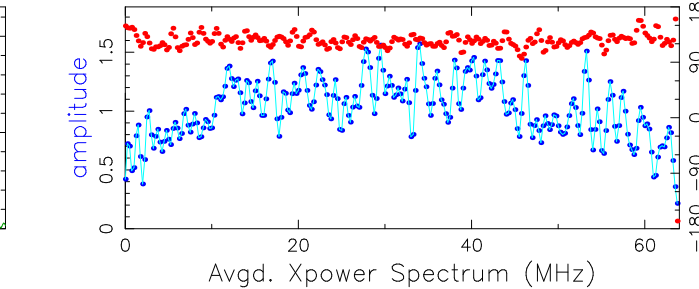
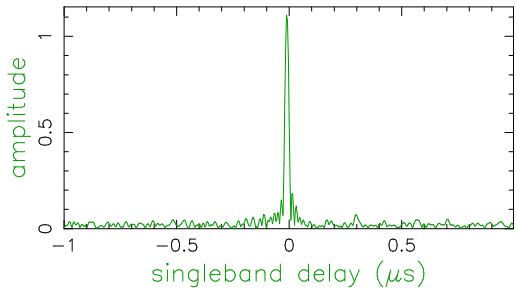
VLBA\_KP - NOEMA, fgroup W, pol RR

multiband delay ( $\mu$ s)



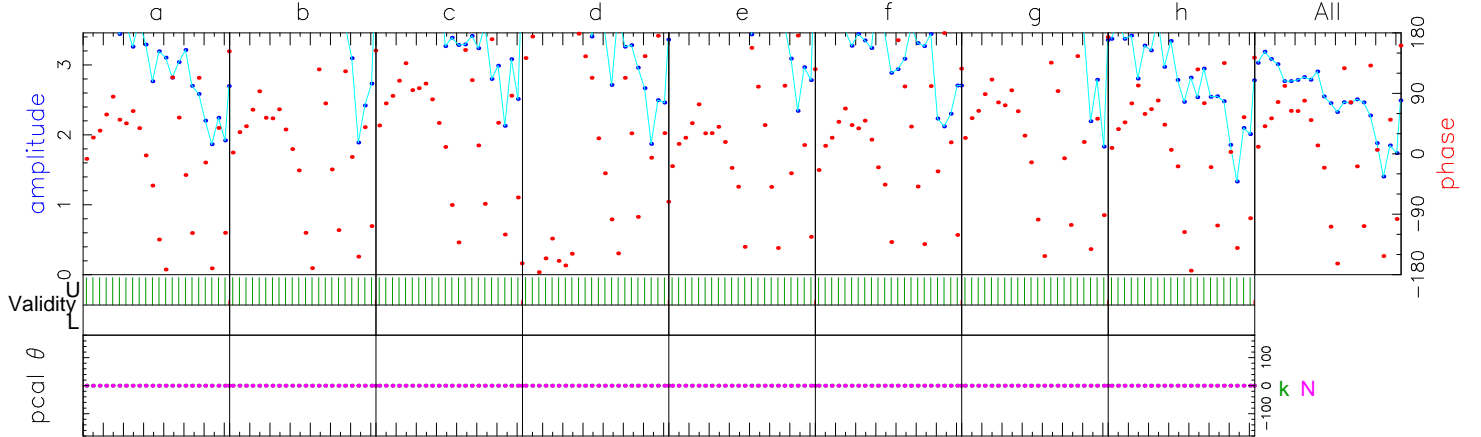
Fringe quality 2

SNR 62.9  
Int time 419.716  
Amp 1.153  
Phase 53.0  
PFD 0.0e+00  
Delays (us)  
SBD -0.010321  
MBD -0.004088  
Fringe rate (Hz)  
-0.248481  
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  
2021:287:080407  
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		4.62839154189E+03			4.62839562961E+03						
Sband delay (usec)		4.62838530861E+03			1.3728707E+01						
Phase delay (usec)		4.62839563132E+03			-8.6550003E-06						
Delay rate (us/s)		2.04542509953E+00			2.04542798414E+00						
Total phase (deg)			245.5		-2.51980697016E-05						
				Apriori delay (usec)					Resid mbdelay (usec)	-4.08772E-03	+/- 1.7E-05
				Apriori clock (usec)					Resid sbdelay (usec)	-1.03210E-02	+/- 1.4E-04
				Apriori clockrate (us/s)					Resid phdelay (usec)	1.70993E-06	+/- 5.9E-08
				Apriori rate (us/s)					Resid rate (us/s)	-2.88462E-06	+/- 2.4E-10
				Apriori accel (us/s/s)					Resid phase (deg)	53.0	+/- 1.8
ph/seg (deg)	83.2	4.4		Amplitude	1.153 +/- 0.018				Pcal mode: MANUAL, MANUAL		
amp/seg (%)	131.3	7.6		Search (2048X32)	1.100				Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	58.7	2.6		Interp.	0.000				Bits/sample: 2x2	mb window (us)	-0.008 0.008
amp/frq (%)	39.7	4.5		Inc. seg. avg.	2.585				SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	1.574				Sample rate(MISamp/s): 128	ion window (TEC)	0.00 0.00
									Data rate(Mb/s): 2048		
									nlags: 256		
									t_cohere infinite		

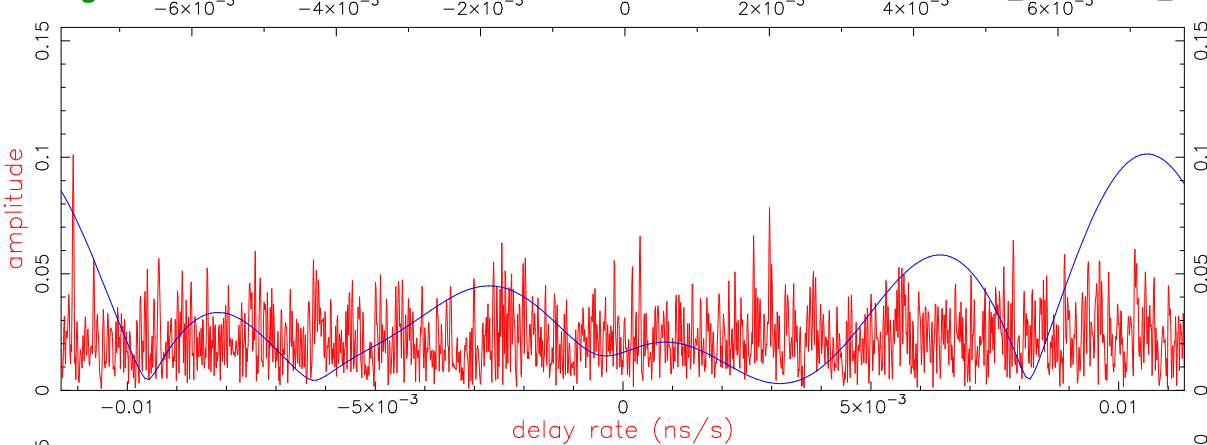
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kn

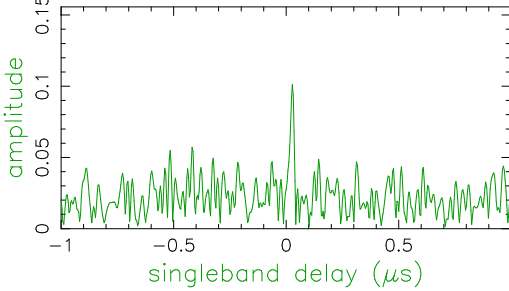
VLBA\_KP - VLBA\_NL, fgroup W, pol LR

multiband delay ( $\mu$ s)

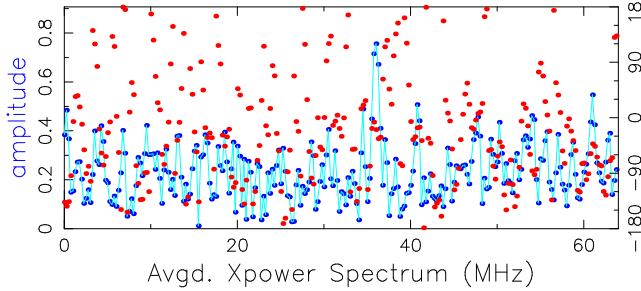


Fringe quality 0

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



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
2021:287:080410
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

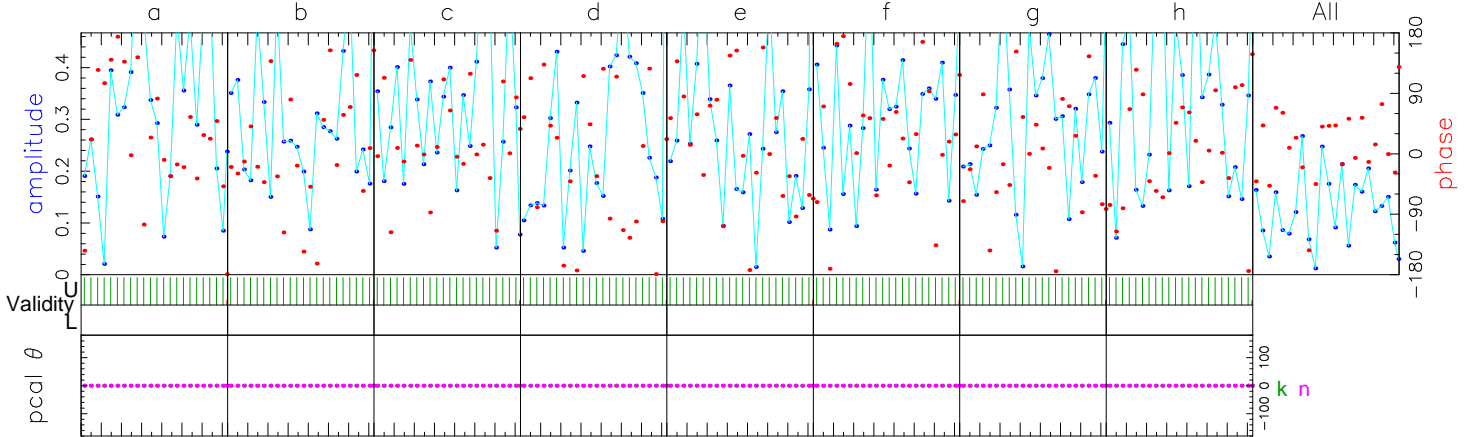


Table with columns for frequency (MHz), amplitude, phase, and various parameters like U/L, k, n, k:n, k:n, k, n, k, n. Includes summary statistics and delay rates.

Summary statistics table including RMS, Theor., Amplitude, Search, Interp., Inc. seg. avg., Inc. frq. avg., Pcal mode, Pcal rate, Bits/sample, Sample rate, Data rate, nlags, t\_cohere, sb window, mb window, dr window, ion window.

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

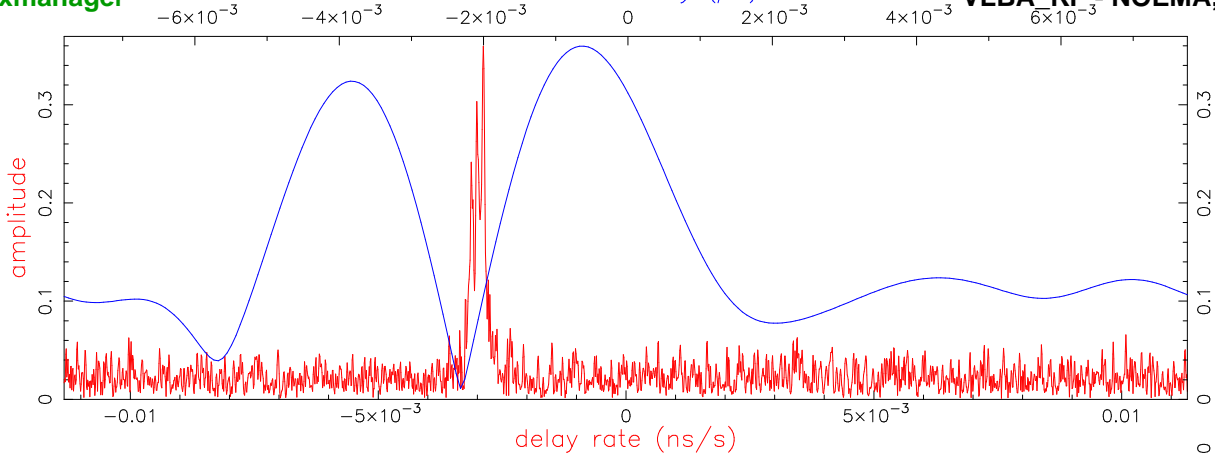
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kN

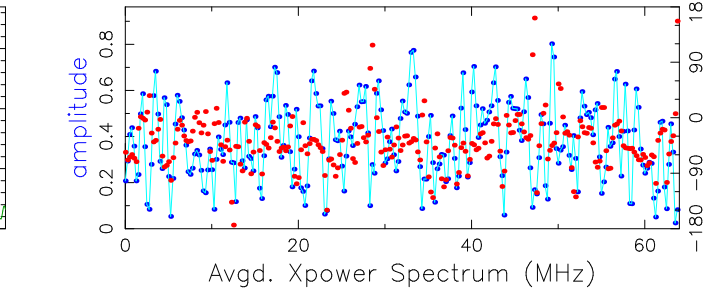
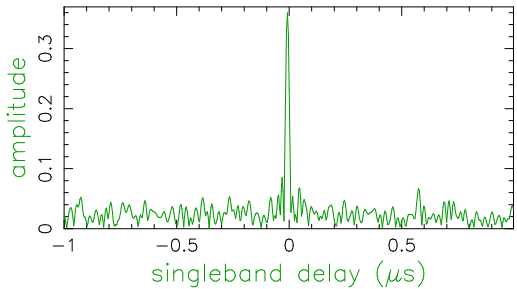
VLBA\_KP - NOEMA, fgroup W, pol LR

multiband delay ( $\mu$ s)



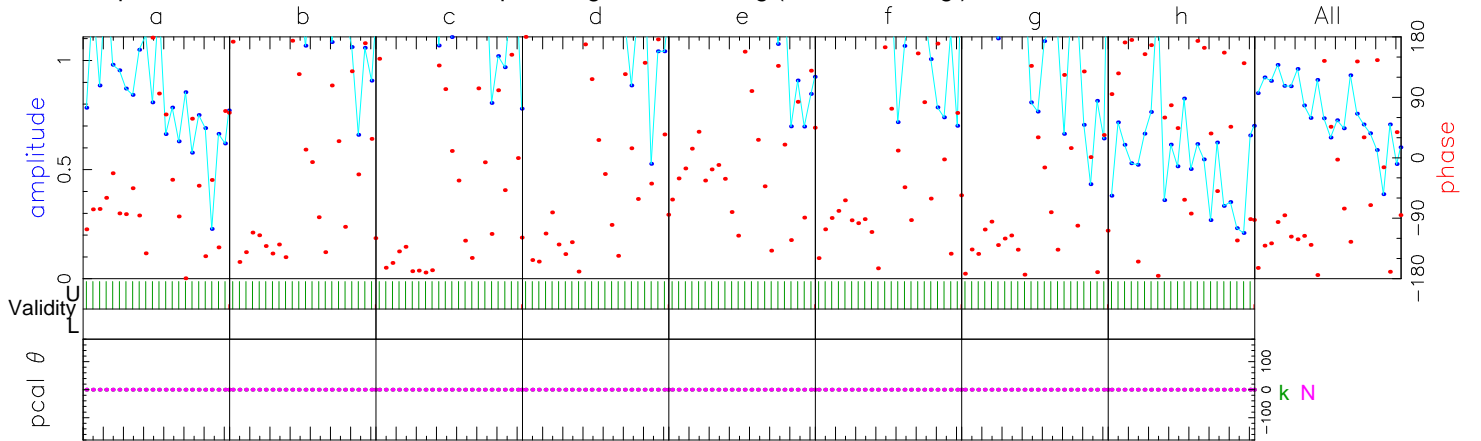
Fringe quality 7

SNR 20.2  
 Int time 419.716  
 Amp 0.370  
 Phase -124.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.008078  
 MBD -0.000648  
 Fringe rate (Hz)  
 -0.248099  
 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
	-80.4	-143.8	-167.3	-142.0	-23.9	-106.1	-126.6	170.9	Phase	-124.9
	0.4	0.7	0.6	0.6	0.5	0.5	0.6	0.2	Ampl.	0.5
	252.6	254.7	255.5	255.1	255.4	255.2	254.4	251.8	Sbd box	254.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.62839498120E+03		Apriori delay (usec)		4.62839562961E+03		Resid mbdelay (usec)		-6.48408E-04	+/- 5.4E-05
Sband delay (usec)	4.62838755211E+03		Apriori clock (usec)		1.3728707E+01		Resid sbdelay (usec)		-8.07750E-03	+/- 4.3E-04
Phase delay (usec)	4.62839562558E+03		Apriori clockrate (us/s)		-8.6550003E-06		Resid phdelay (usec)		-4.02749E-06	+/- 1.8E-07
Delay rate (us/s)	2.04542510396E+00		Apriori rate (us/s)		2.04542798414E+00		Resid rate (us/s)		-2.88019E-06	+/- 7.6E-10
Total phase (deg)	67.6		Apriori accel (us/s/s)		-2.51980697016E-05		Resid phase (deg)		-124.9	+/- 5.7

	RMS	Theor.	Amplitude	0.370 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	81.2	13.6	Search (2048X32)	0.358	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	120.5	23.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	56.4	8.0	Inc. seg. avg.	0.766	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	52.0	14.0	Inc. frq. avg.	0.502	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

k: az 109.7 el 31.6 pa -52.9 N: az 252.6 el 19.5 pa 42.9 u,v (fr/asec) -11758.391 -1591.927 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.207.1W6WJ8

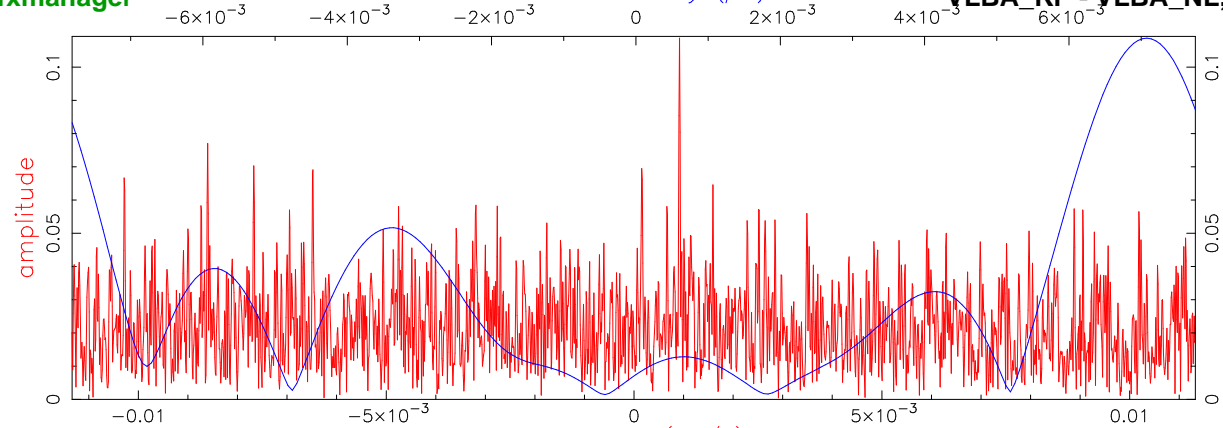
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kn

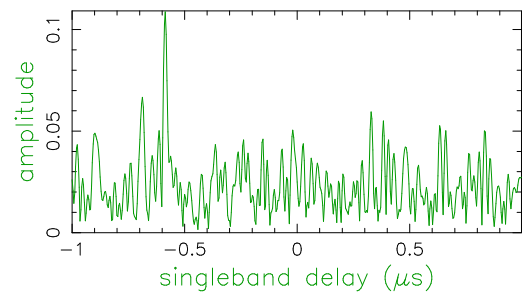
VLBA\_KP - VLBA\_NL, fgroup W, pol RL

multiband delay ( $\mu$ s)

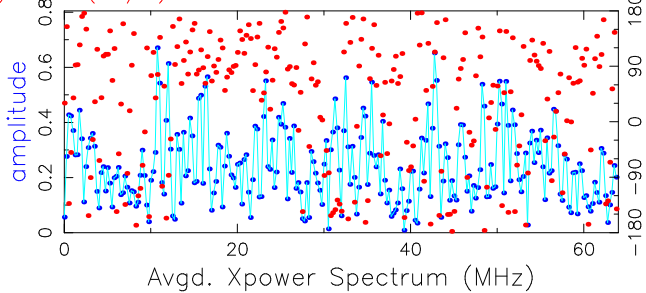


Fringe quality 0

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

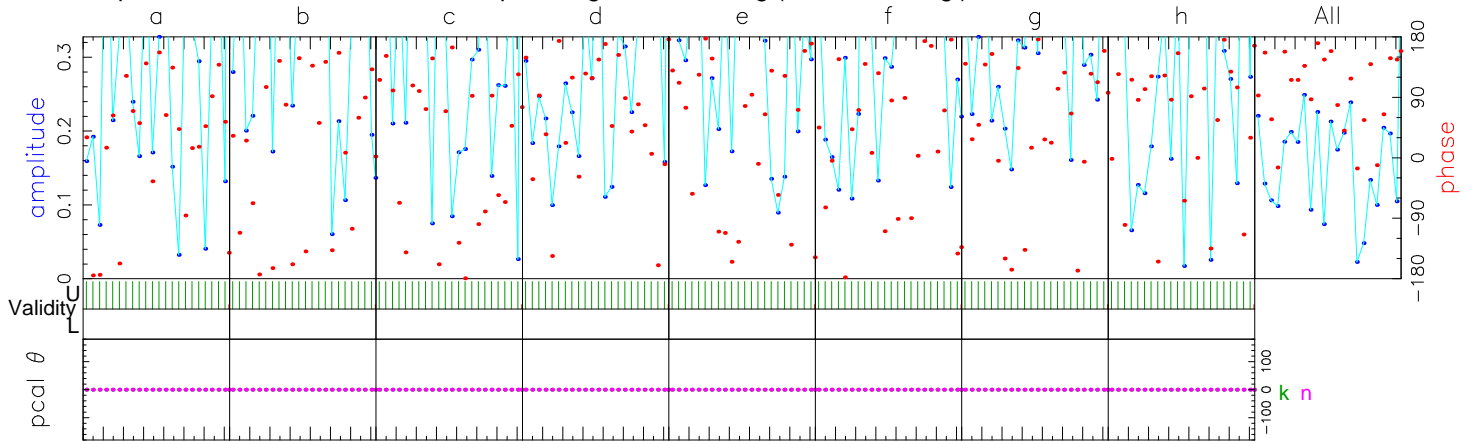


delay rate (ns/s)



Exp. c211a  
 Yr:day 16383  
 Start 2021:114  
 Stop 2021:114  
 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	119.2	Phase	116.6
0.1	0.2	0.1	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	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	
									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)		22.7	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

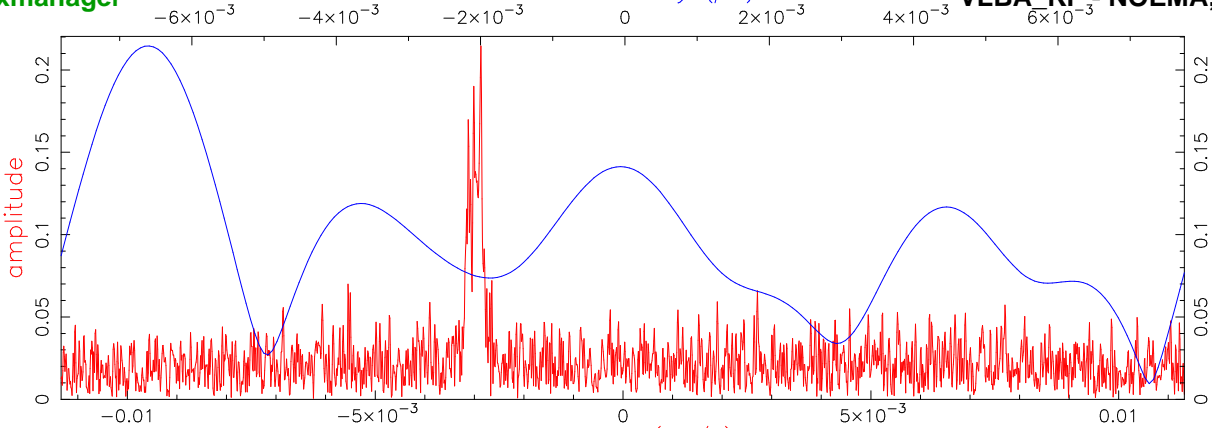
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kN

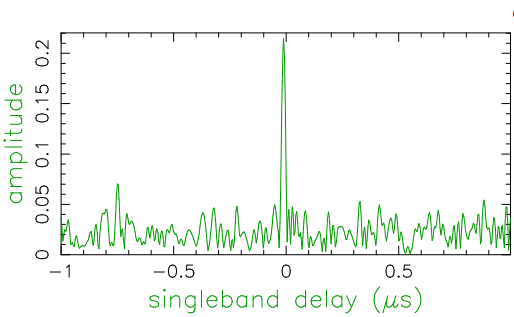
VLBA\_KP - NOEMA, fgroup W, pol RL

multiband delay ( $\mu$ s)

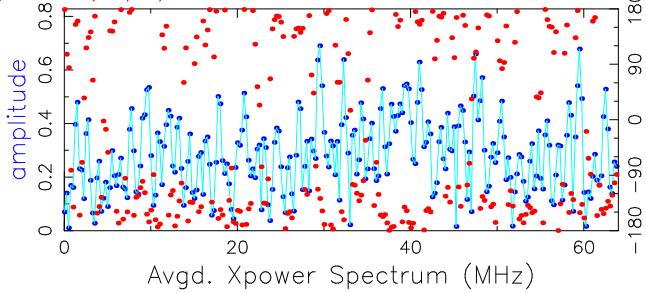


Fringe quality 9

SNR 12.0  
Int time 419.715  
Amp 0.220  
Phase 133.0  
PFD 1.4e-24  
Delays (us)  
SBD -0.011655  
MBD -0.006606  
Fringe rate (Hz)  
-0.247472  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

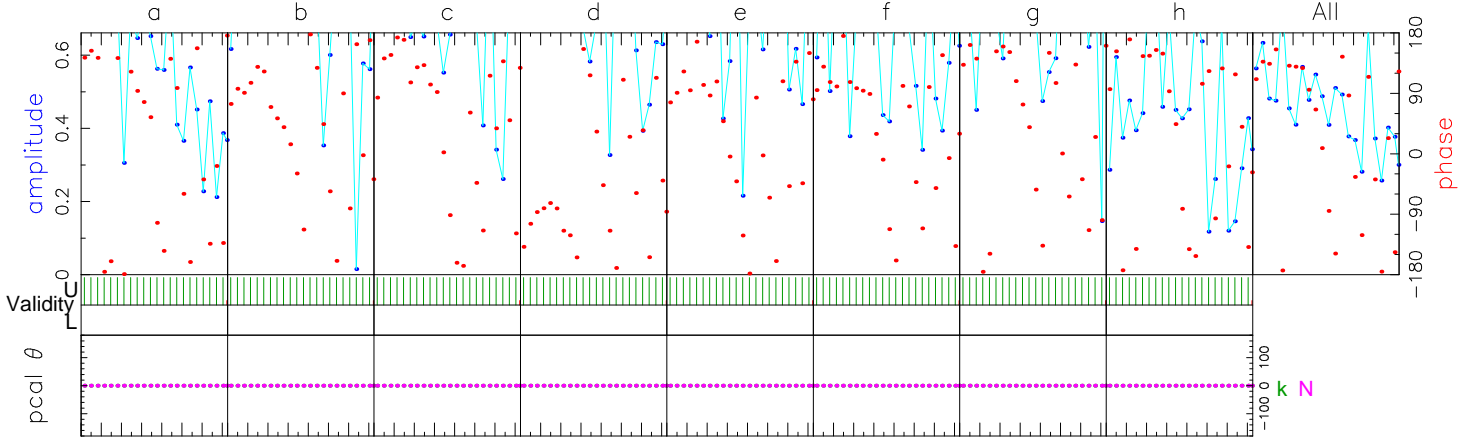


delay rate (ns/s)



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080414  
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
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	4.62838902355E+03	Apriori delay (usec)	4.62839562961E+03	Resid mbdelay (usec)	-6.60606E-03	+/-	9.0E-05
Sband delay (usec)	4.62838397461E+03	Apriori clock (usec)	1.3728707E+01	Resid sbdelay (usec)	-1.16550E-02	+/-	7.2E-04
Phase delay (usec)	4.62839563390E+03	Apriori clockrate (us/s)	-8.6550003E-06	Resid phdelay (usec)	4.28966E-06	+/-	3.1E-07
Delay rate (us/s)	2.04542511124E+00	Apriori rate (us/s)	2.04542798414E+00	Resid rate (us/s)	-2.87291E-06	+/-	1.3E-09
Total phase (deg)		Apriori accel (us/s/s)	-2.51980697016E-05	Resid phase (deg)	133.0	+/-	9.5

ph/seg (deg)	80.6	RMS	22.9	Theor.	Amplitude	0.220 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	131.1		39.9		Search (2048X32)	0.207	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	58.2		13.5		Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	43.5		23.5		Inc. seg. avg.	0.447	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00
					Inc. frq. avg.	0.296		t_cohere infinite			

k: az 109.7 el 31.6 pa -52.9 N: az 252.6 el 19.5 pa 42.9 u,v (fr/asec) -11758.391 -1591.927 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.226.1W6WJ8

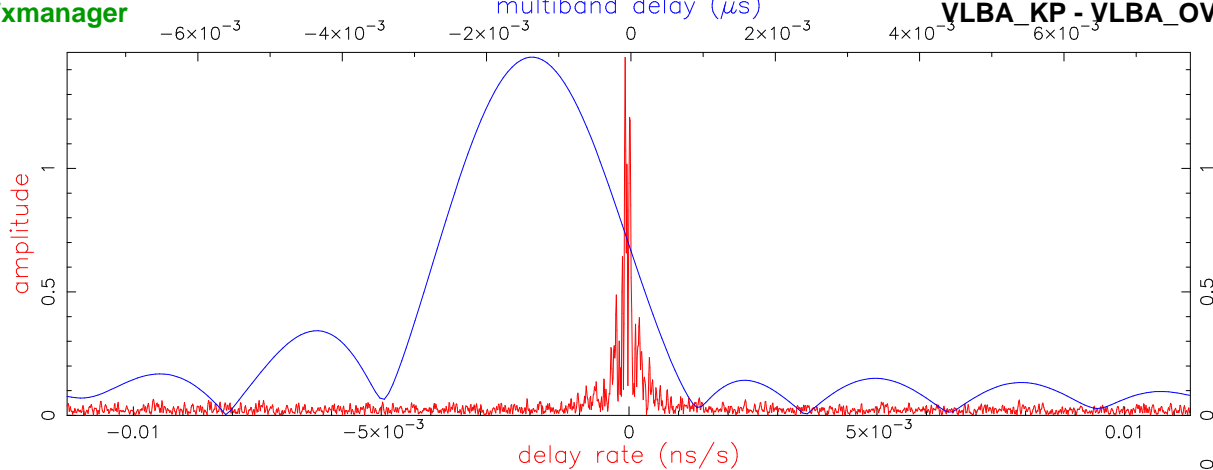


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

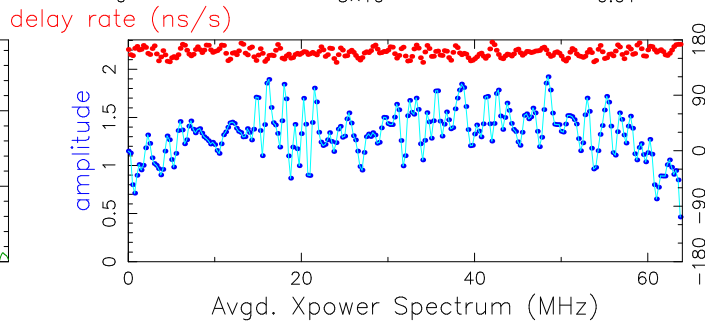
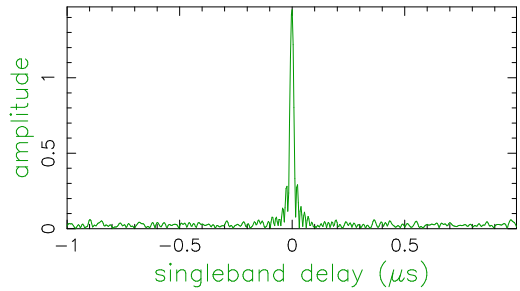
3C273.1W6WJ8, No0155, ko

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



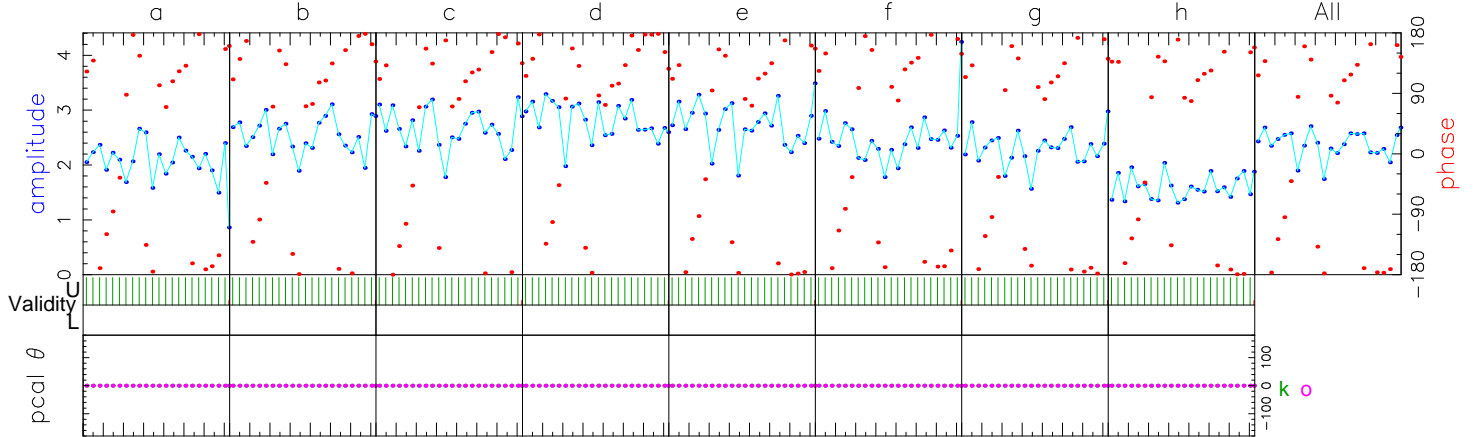
Fringe quality 5

SNR 82.4  
 Int time 419.716  
 Amp 1.470  
 Phase 158.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001497  
 MBD -0.001416  
 Fringe rate (Hz)  
 -0.006380  
 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  
 2021:287:080404  
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:o	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		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	2.24740881288E+03		Apriori delay (usec)		2.24741022898E+03		Resid mbdelay (usec)		-1.41610E-03	+/- 1.3E-05
Sband delay (usec)	2.24740873148E+03		Apriori clock (usec)		-3.3274326E+00		Resid sbdelay (usec)		-1.49750E-03	+/- 1.0E-04
Phase delay (usec)	2.24741023407E+03		Apriori clockrate (us/s)		-3.6000001E-07		Resid phdelay (usec)		5.09884E-06	+/- 4.5E-08
Delay rate (us/s)	-1.74064226448E-02		Apriori rate (us/s)		-1.74063485764E-02		Resid rate (us/s)		-7.40684E-08	+/- 1.9E-10
Total phase (deg)	202.7		Apriori accel (us/s/s)		-1.22562015142E-05		Resid phase (deg)		158.1	+/- 1.4

	RMS	Theor.	Amplitude	1.470 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	58.6	3.3	Search (2048X32)	1.400	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	63.5	5.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	7.5	2.0	Inc. seg. avg.	2.368	Sample rate(MSamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	15.7	3.4	Inc. frq. avg.	1.459	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

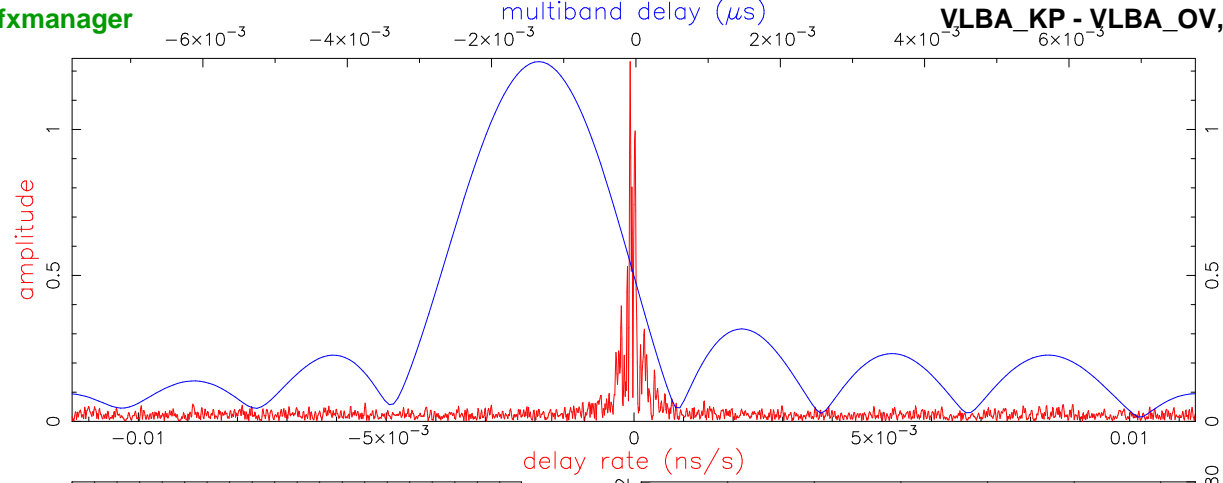
k: az 109.7 el 31.6 pa -52.9 o: az 107.7 el 24.7 pa -49.4 u,v (fr/asec) 80.635 -702.738 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/ko..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/ko.W.177.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, ko

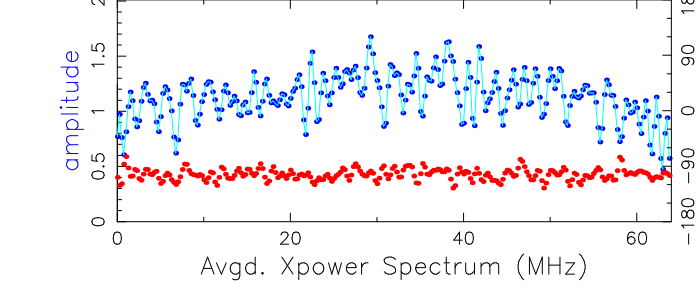
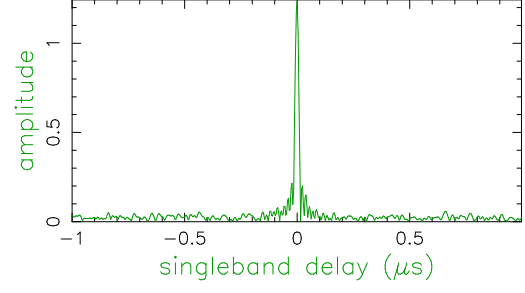
VLBA\_KP - VLBA\_OV, fgroup W, pol RR



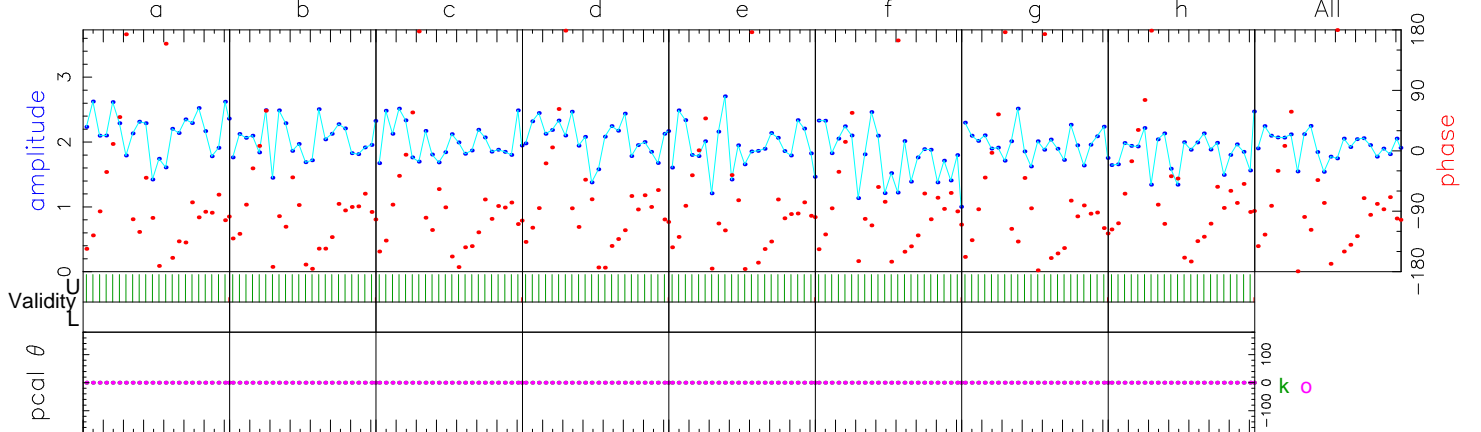
Fringe quality 5

SNR 69.7  
 Int time 419.716  
 Amp 1.244  
 Phase -101.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001229  
 MBD -0.001375  
 Fringe rate (Hz)  
 -0.006404  
 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  
 2021:287:080408  
 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
	-105.5	-99.3	-103.7	-97.1	-105.4	-98.8	-114.1	-87.3	Phase	-101.7
	1.3	1.3	1.3	1.3	1.3	1.1	1.2	1.1	Ampl.	1.2
	256.8	256.5	256.5	257.0	256.6	256.8	256.7	256.9	Sbd box	256.7
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	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	2.24740885416E+03		Apriori delay (usec)		2.24741022898E+03		Resid mbdelay (usec)		-1.37482E-03	+/- 1.6E-05
Sband delay (usec)	2.24740899998E+03		Apriori clock (usec)		-3.3274326E+00		Resid sbdelay (usec)		-1.22900E-03	+/- 1.2E-04
Phase delay (usec)	2.24741022570E+03		Apriori clockrate (us/s)		-3.6000001E-07		Resid phdelay (usec)		-3.27979E-06	+/- 5.3E-08
Delay rate (us/s)	-1.74064229162E-02		Apriori rate (us/s)		-1.74063485764E-02		Resid rate (us/s)		-7.43397E-08	+/- 2.2E-10
Total phase (deg)			Apriori accel (us/s/s)		-1.22562015142E-05		Resid phase (deg)		-101.7	+/- 1.6

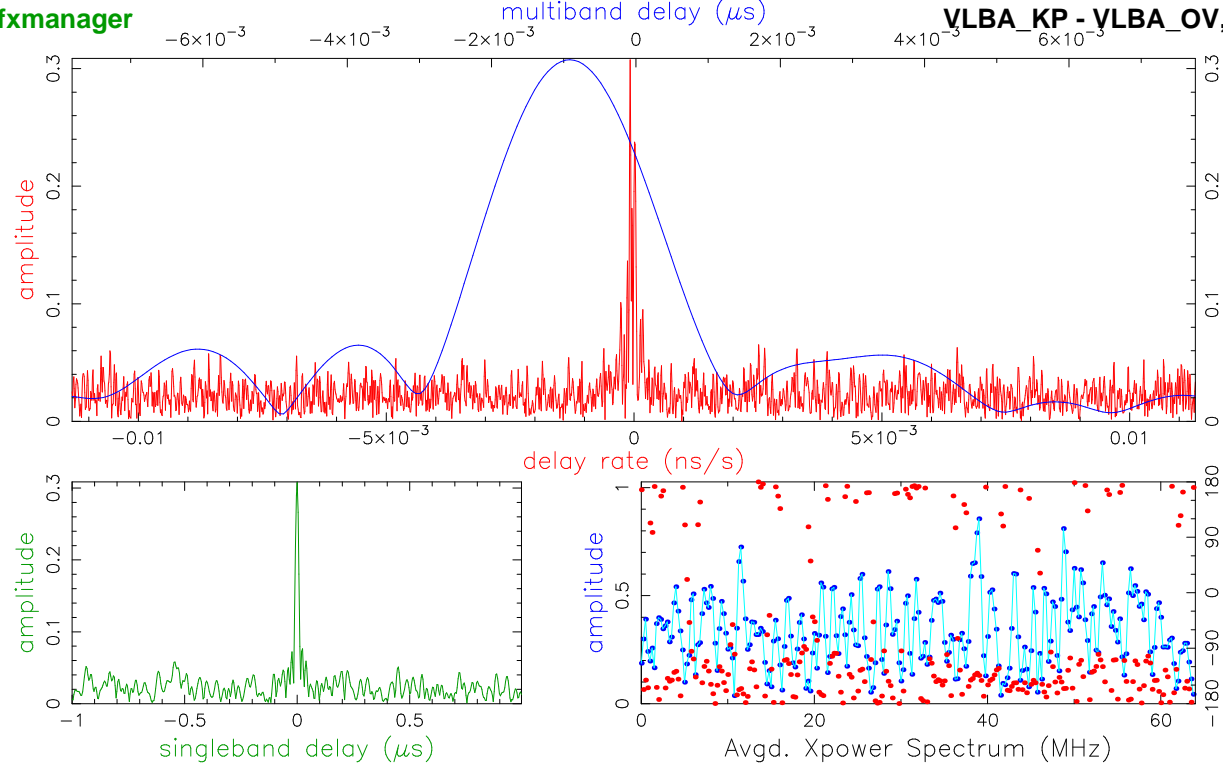
ph/seg (deg) 57.5 3.9 Search (2048X32) 1.192 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 58.8 6.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 8.5 2.3 Inc. seg. avg. 1.946 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 7.2 4.1 Inc. frq. avg. 1.241 Sample rate(MSamp/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 o: az 107.7 el 24.7 pa -49.4 u,v (fr/asec) 80.635 -702.738 ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/ko..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/ko.W.197.1W6WJ8 simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

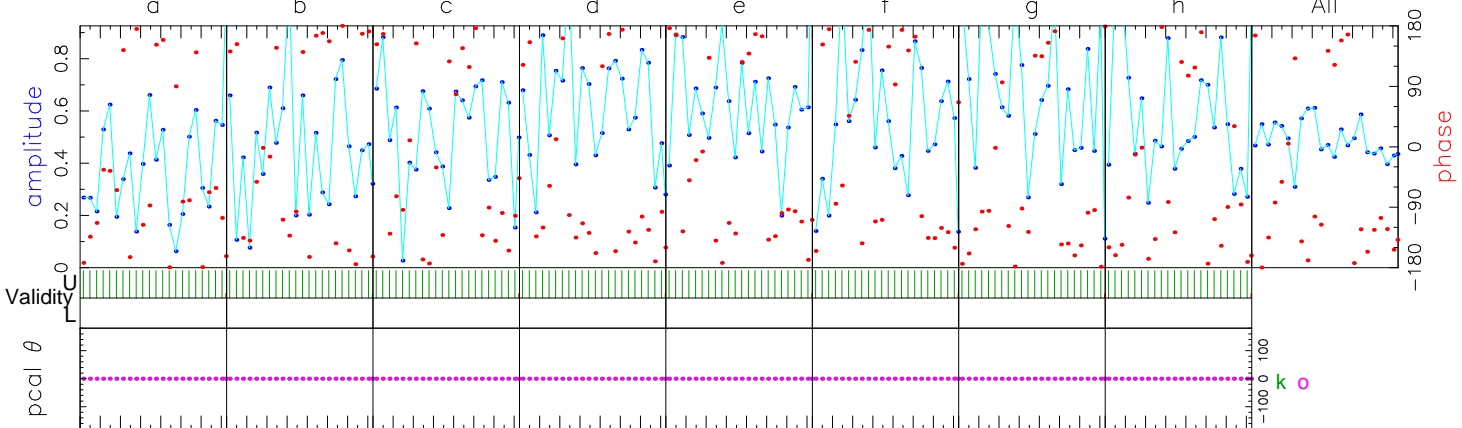
3C273.1W6WJ8, No0155, ko

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



Fringe quality 9  
 SNR 17.3  
 Int time 419.716  
 Amp 0.309  
 Phase -148.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000777  
 MBD -0.000929  
 Fringe rate (Hz)  
 -0.006430  
 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
	-122.1	-163.6	-164.6	-141.7	-146.5	-149.9	-150.4	-142.4	Phase	-148.4
	0.2	0.3	0.3	0.4	0.3	0.3	0.4	0.3	Ampl.	0.3
	256.0	256.4	256.7	257.1	256.4	257.0	257.2	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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	2.24740929953E+03		Apriori delay (usec)		2.24741022898E+03		Resid mbdelay (usec)		-9.29442E-04	+/- 6.3E-05
Sband delay (usec)	2.24740945173E+03		Apriori clock (usec)		-3.3274326E+00		Resid sbdelay (usec)		-7.77250E-04	+/- 5.0E-04
Phase delay (usec)	2.24741022419E+03		Apriori clockrate (us/s)		-3.6000001E-07		Resid phdelay (usec)		-4.78443E-06	+/- 2.1E-07
Delay rate (us/s)	-1.74064232209E-02		Apriori rate (us/s)		-1.74063485764E-02		Resid rate (us/s)		-7.46444E-08	+/- 8.8E-10
Total phase (deg)			Apriori accel (us/s/s)		-1.22562015142E-05		Resid phase (deg)		-148.4	+/- 6.6

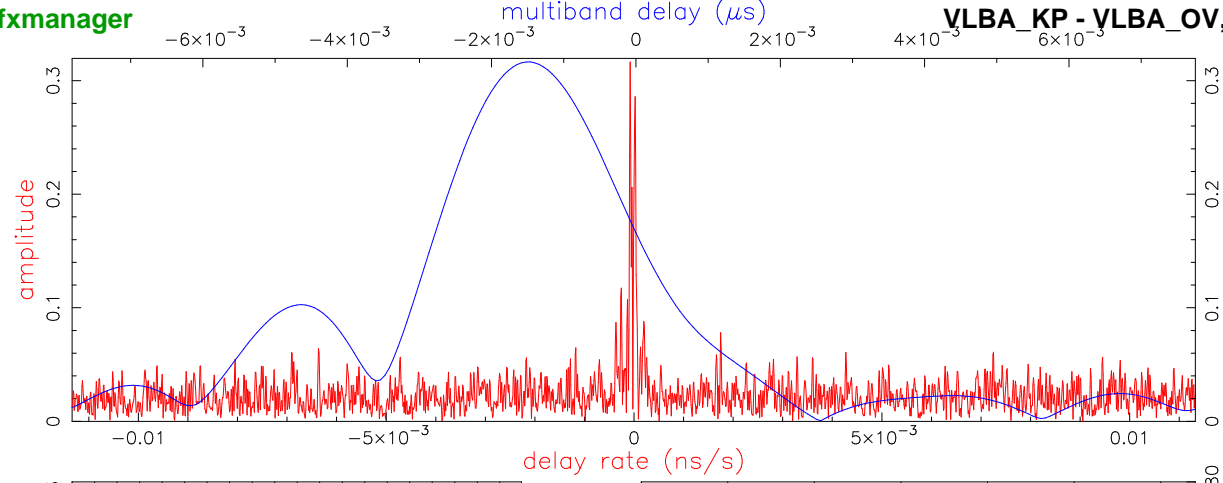
ph/seg (deg) 57.1 15.9 Search (2048X32) 0.301 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 63.1 27.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 14.6 9.4 Inc. seg. avg. 0.471 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 24.0 16.4 Inc. frq. avg. 0.309 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 o: az 107.7 el 24.7 pa -49.4 u,v (fr/asec) 80.635 -702.738 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/ko.1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/ko.W.215.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

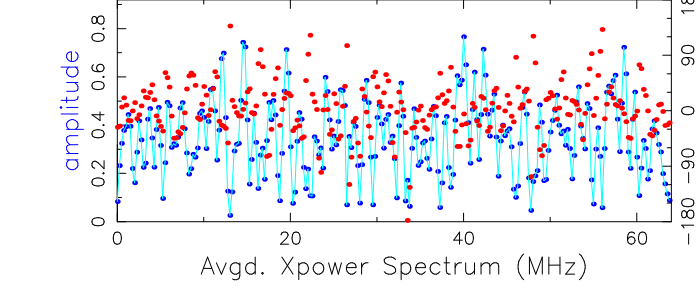
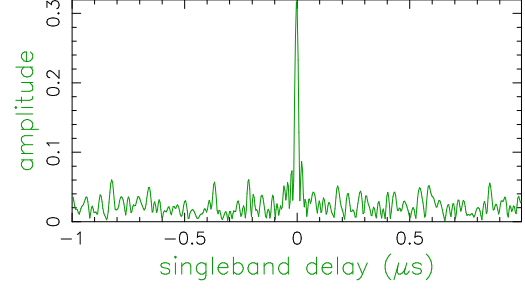
fxmanager

3C273.1W6WJ8, No0155, ko

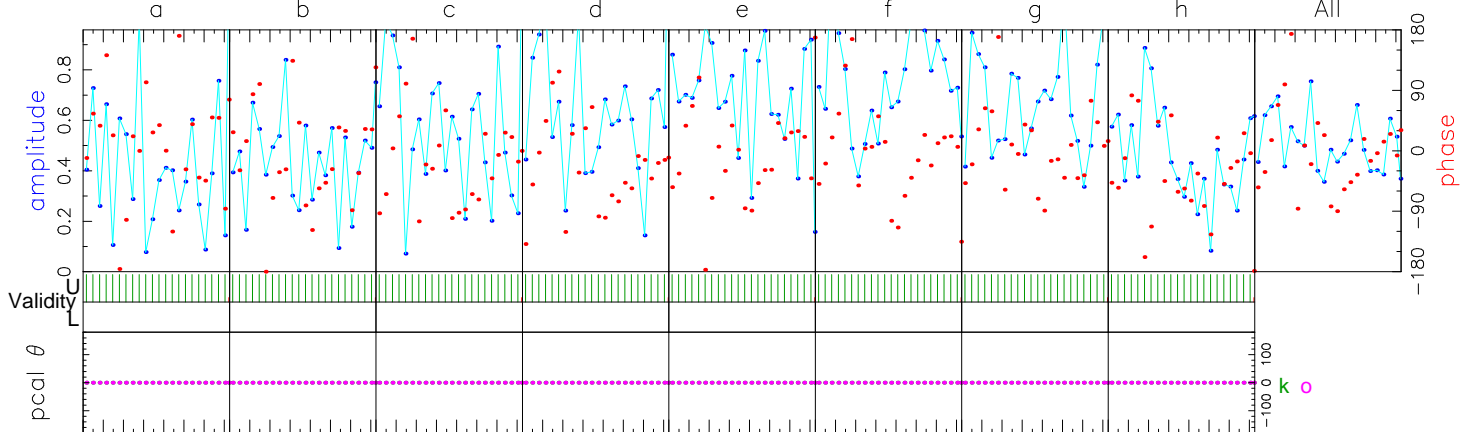
VLBA\_KP - VLBA\_OV, fgroup W, pol RL



Fringe quality 9  
 SNR 17.9  
 Int time 419.716  
 Amp 0.320  
 Phase -11.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002684  
 MBD -0.001456  
 Fringe rate (Hz) -0.006339  
 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  
 2021:287:080416  
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:o	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		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	2.24740877291E+03									
Sband delay (usec)	2.24740754548E+03									
Phase delay (usec)	2.24741022860E+03									
Delay rate (us/s)	-1.74064221694E-02									
Total phase (deg)			33.0							
Apriori delay (usec)					2.24741022898E+03					
Apriori clock (usec)					-3.3274326E+00					
Apriori clockrate (us/s)					-3.6000001E-07					
Apriori rate (us/s)					-1.74063485764E-02					
Apriori accel (us/s/s)					-1.22562015142E-05					
Resid mbdelay (usec)									-1.45607E-03	+/- 6.1E-05
Resid sbdelay (usec)									-2.68350E-03	+/- 4.8E-04
Resid phdelay (usec)									-3.76174E-07	+/- 2.1E-07
Resid rate (us/s)									-7.35929E-08	+/- 8.5E-10
Resid phase (deg)									-11.7	+/- 6.4
Pcal mode:	MANUAL, MANUAL				PC period (AP's) 5, 5					
Pcal rate:	0.000E+00, 0.000E+00 (us/s)				sb window (us)		-1.000 1.000			
Bits/sample:	2x2				SampCntNorm: enabled		mb window (us)		-0.008 0.008	
Sample rate (MSamp/s):	128				dr window (ns/s)		-0.011 0.011			
Data rate (Mb/s):	2048				ion window (TEC)		0.00 0.00			
nlags:	256				t_cohere infinite					

ph/seg (deg) 60.2 15.3 Amplitude 0.320 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 69.5 26.8 Search (2048X32) 0.304 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 20.7 9.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 36.0 15.8 Inc. seg. avg. 0.495 Sample rate (MSamp/s): 128 dr window (ns/s) -0.011 0.011  
 Inc. frq. avg. 0.324 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 o: az 107.7 el 24.7 pa -49.4 u,v (fr/asec) 80.635 -702.738 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/ko..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/ko.W.233.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

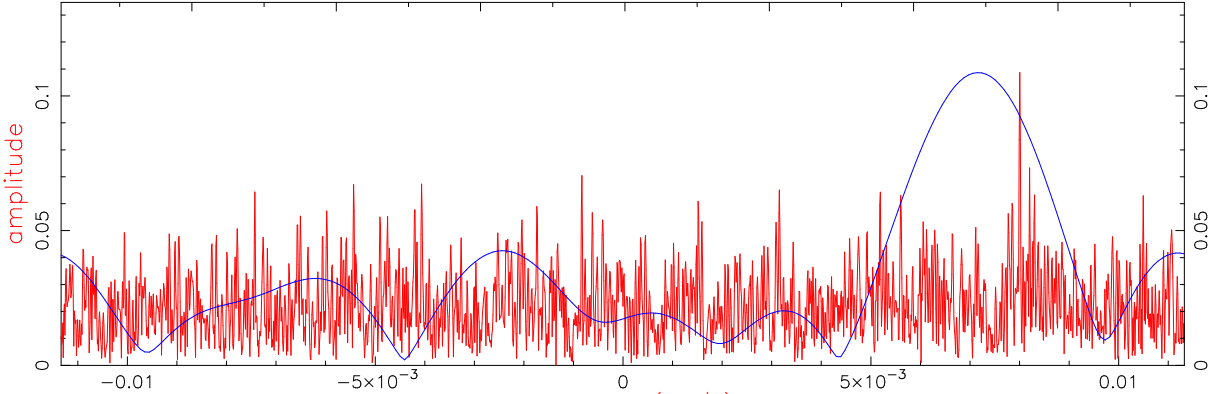
3C273.1W6WJ8, No0155, kP

VLBA\_KP - PICOVEL, fgroup W, pol LL

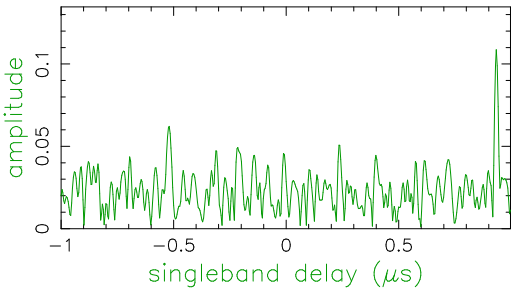
multiband delay ( $\mu$ s)

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

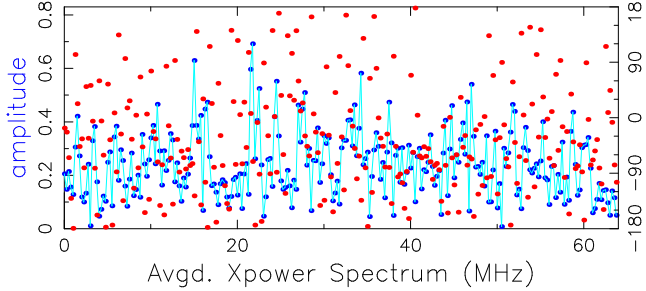
Fringe quality 0



SNR 6.1  
Int time 419.716  
Amp 0.135  
Phase -157.6  
PFD 2.6e-01  
Delays (us)  
SBD 0.933557  
MBD 0.004895  
Fringe rate (Hz)  
0.690761  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

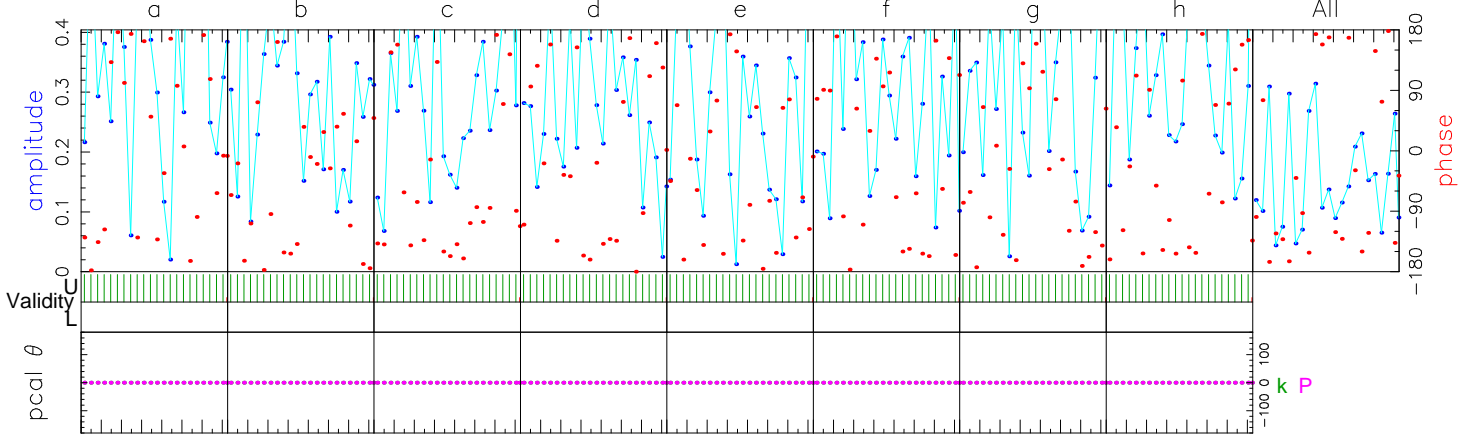


delay rate (ns/s)



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080402  
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
	-175.1	-126.2	-145.6	-162.5	-134.7	-173.8	-145.7	-164.5	Phase	-157.6
	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	342.9	238.6	239.8	62.9	263.0	388.7	285.7	316.6	Sbd box	496.0
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	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.52097628085E+03	Apriori delay (usec)	1.52004951063E+03	Resid mbdelay (usec)	4.89522E-03	+/-	1.8E-04
Sband delay (usec)	1.52098306788E+03	Apriori clock (usec)	1.2613850E+00	Resid sbdelay (usec)	9.33557E-01	+/-	1.4E-03
Phase delay (usec)	1.52004950555E+03	Apriori clockrate (us/s)	5.9999998E-07	Resid phdelay (usec)	-5.08192E-06	+/-	6.1E-07
Delay rate (us/s)	2.06845274443E+00	Apriori rate (us/s)	2.06844472538E+00	Resid rate (us/s)	8.01905E-06	+/-	2.5E-09
Total phase (deg)	146.9	Apriori accel (us/s/s)	-8.35579893926E-06	Resid phase (deg)	-157.6	+/-	18.8

ph/seg (deg)	62.9	RMS	45.1	Theor.	45.1	Amplitude	0.135 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	90.9	62.9	45.1	Search (2048X32)	0.104	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)	20.1	20.1	26.6	Inc. seg. avg.	0.150	Inc. frq. avg.	0.127	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	32.7	32.7	46.5	Inc. frq. avg.	0.127			Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

k: az 109.7 el 31.6 pa -52.9 P: az 248.7 el 28.6 pa 48.1 u,v (fr/asec) -11863.998 -662.552 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kP..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kP.W.163.1W6WJ8

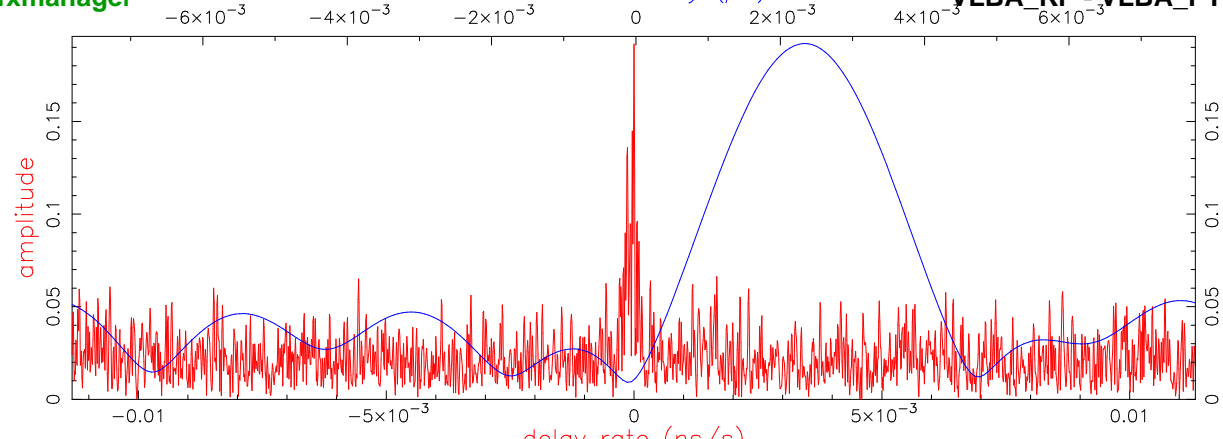
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kp

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

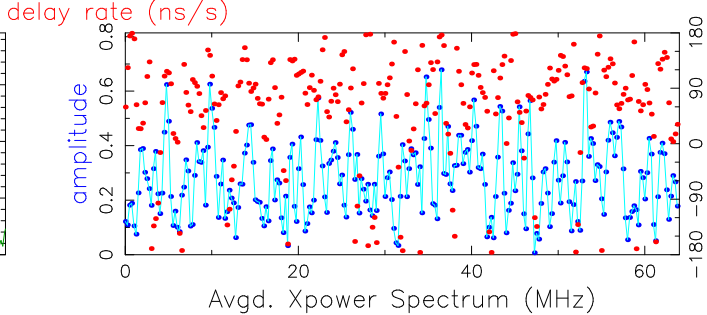
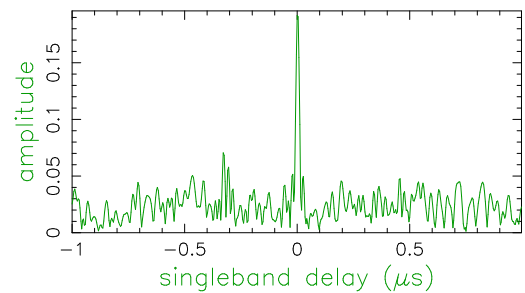
multiband delay ( $\mu$ s)



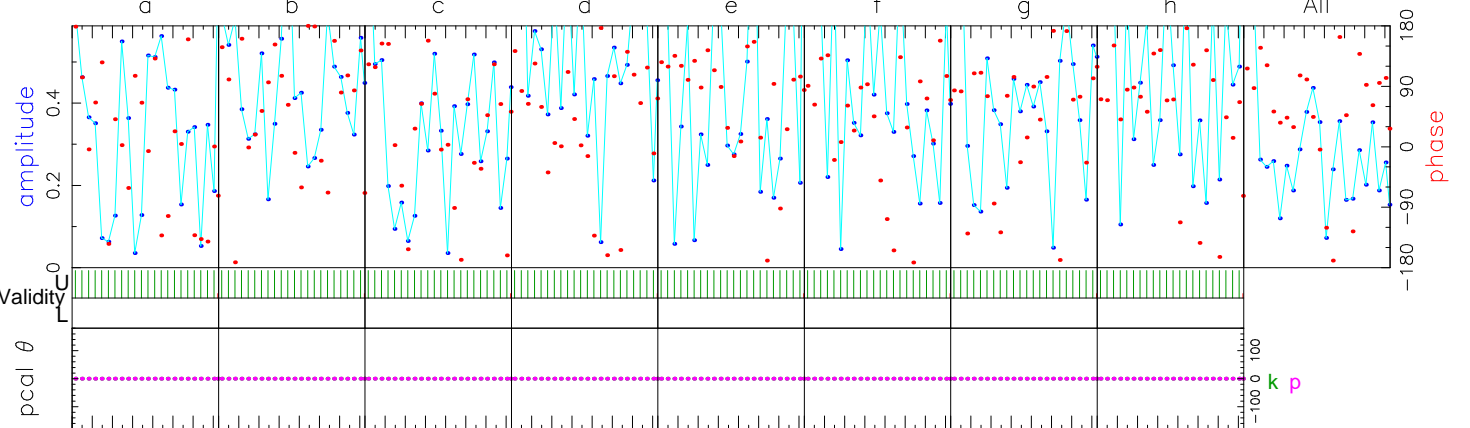
Fringe quality 9

SNR 11.0  
 Int time 419.716  
 Amp 0.196  
 Phase 92.6  
 PFD 2.3e-19  
 Delays (us)  
 SBD 0.001833  
 MBD 0.002414  
 Fringe rate (Hz) 0.000356  
 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  
 2021:287:080403  
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
kp	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		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-5.66982921525E+02									
Sband delay (usec)	-5.66983502056E+02									
Phase delay (usec)	-5.66985332568E+02									
Delay rate (us/s)	7.70170014798E-02									
Total phase (deg)			-197.1							
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)										

ph/seg (deg) 63.6 25.0 Search (2048X32) 0.182 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 90.6 43.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 53.4 14.8 Inc. seg. avg. 0.266 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 46.3 25.8 Inc. frq. avg. 0.191 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 k: az 109.7 el 31.6 pa -52.9 p: az 113.7 el 33.5 pa -48.9 u,v (fr/asec) -436.924 -295.647 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kp..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kp.W.168.1W6WJ8

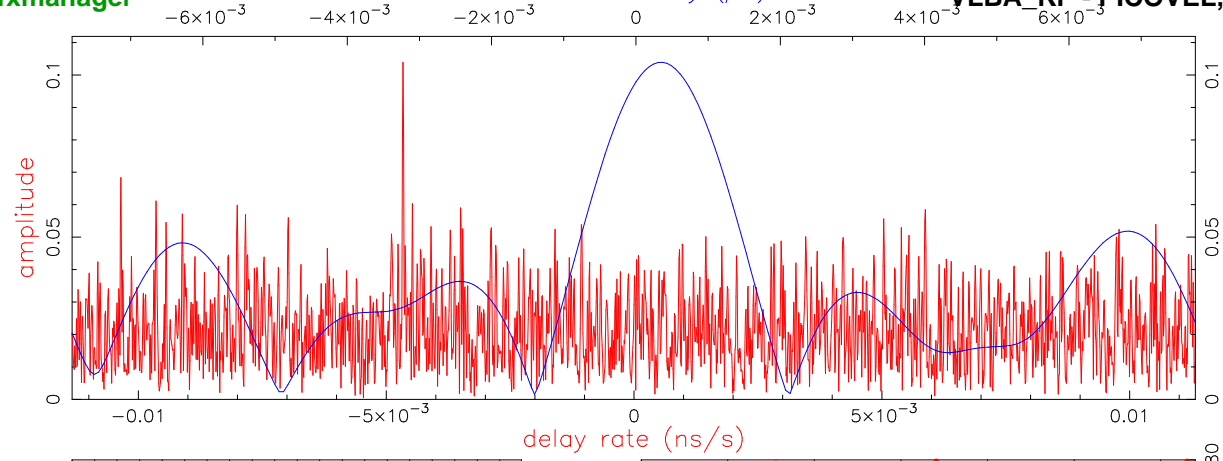
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kP

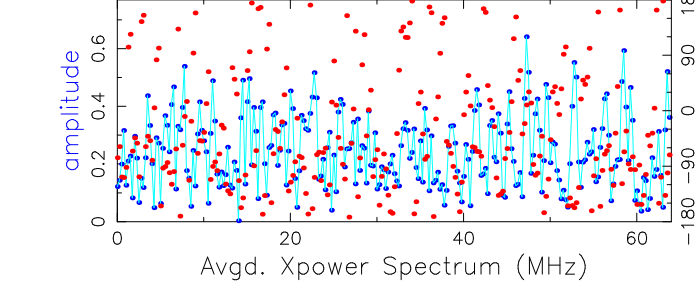
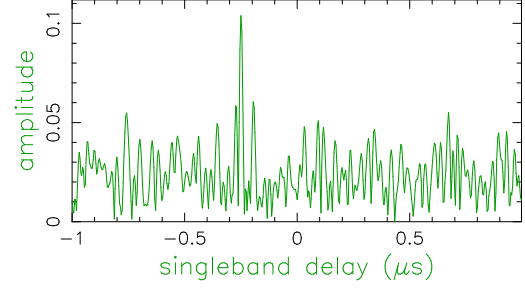
VLBA\_KP - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)



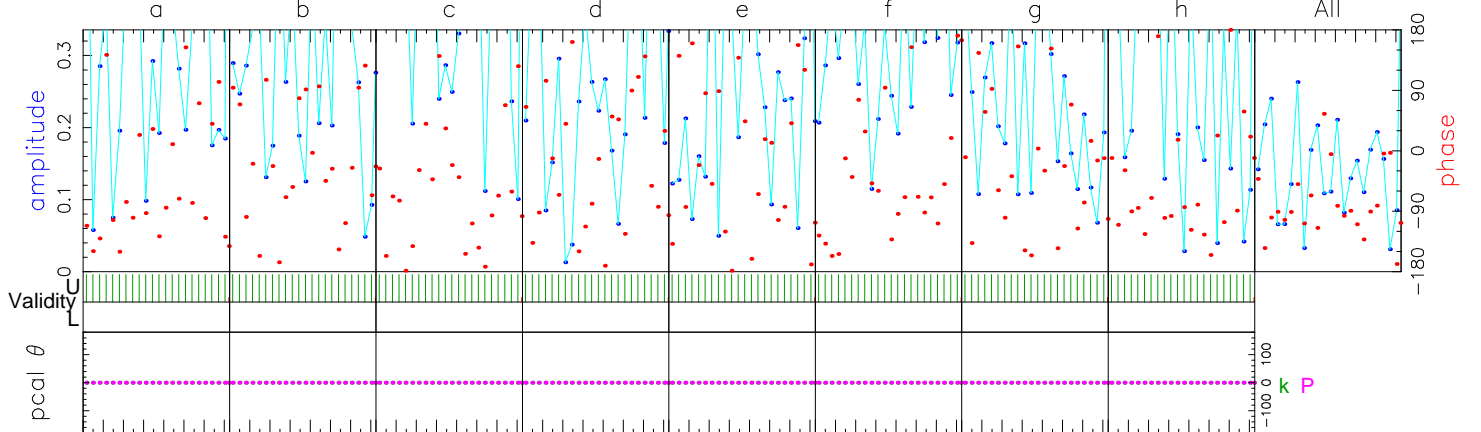
Fringe quality 0

SNR 5.8  
 Int time 419.716  
 Amp 0.112  
 Phase -84.8  
 PFD 7.3e-01  
 Delays (us)  
 SBD -0.249352  
 MBD 0.000344  
 Fringe rate (Hz)  
 -0.401716  
 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"

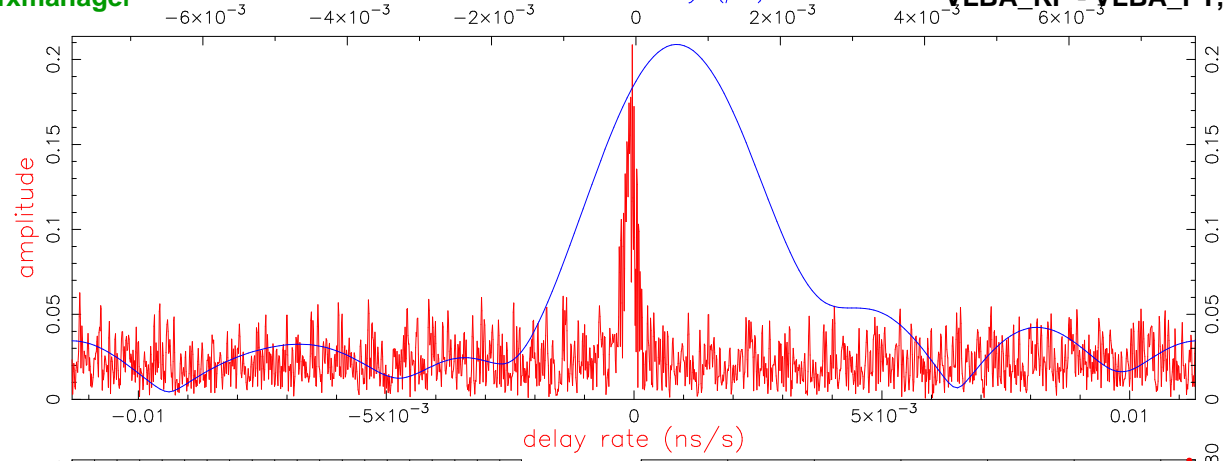
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



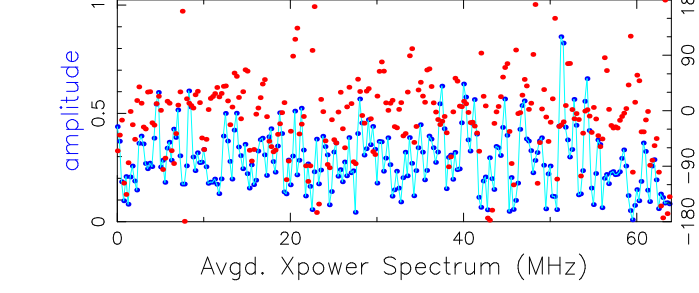
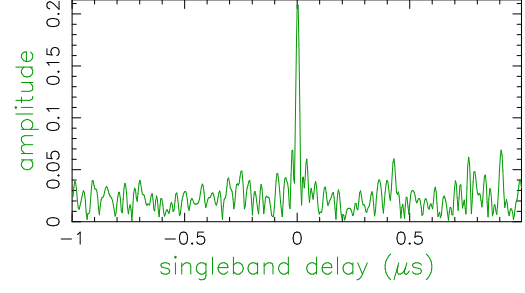
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0			
k	1000	1000	1000	1000	1000	1000	1000	1000			
P	1000	1000	1000	1000	1000	1000	1000	1000			
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
k	1000	1000	1000	1000	1000	1000	1000	1000			
P	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		1.51979985458E+03			1.52004951063E+03				3.43950E-04	+/- 1.9E-04	
Sband delay (usec)		1.51980015813E+03			1.2613850E+00				-2.49352E-01	+/- 1.5E-03	
Phase delay (usec)		1.52004950790E+03			5.9999998E-07				-2.73569E-06	+/- 6.3E-07	
Delay rate (us/s)		2.06844006186E+00			2.06844472538E+00				-4.66353E-06	+/- 2.6E-09	
Total phase (deg)			219.7		-8.35579893926E-06				-84.8	+/- 19.6	
	RMS	Theor.	Amplitude	0.112 +/- 0.019	Pcal mode: MANUAL, MANUAL				PC period (AP's) 5, 5		
ph/seg (deg)	51.3	47.0	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				sb window (us)	-1.000 1.000	
amp/seg (%)	72.5	82.1	Interp.	0.000	Bits/sample: 2x2				SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	28.4	27.7	Inc. seg. avg.	0.113	Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011	
amp/frq (%)	47.9	48.4	Inc. frq. avg.	0.106	Data rate(Mb/s): 2048				ion window (TEC)	0.00 0.00	
					nlags: 256				t_cohere infinite		

k: az 109.7 el 31.6 pa -52.9 P: az 248.7 el 28.6 pa 48.1 u,v (fr/asec) -11863.998 -662.552 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kP..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kP.W.181.1W6WJ8

multiband delay ( $\mu$ s)

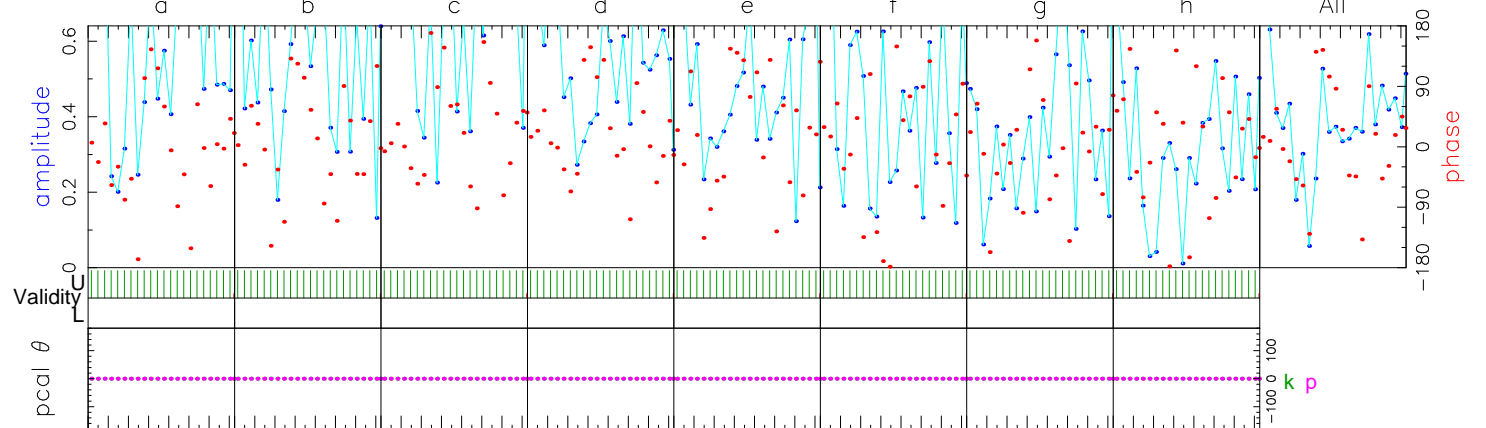


Fringe quality 9  
SNR 12.0  
Int time 419.716  
Amp 0.214  
Phase 16.0  
PFD 2.7e-24  
Delays (us)  
SBD 0.001962  
MBD 0.000498  
Fringe rate (Hz) -0.002510  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080407  
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
	-2.3	21.5	17.4	20.3	22.4	31.8	-1.7	26.4	Phase	16.0
	0.2	0.2	0.3	0.3	0.2	0.1	0.2	0.1	Ampl.	0.2
	256.8	257.0	257.4	258.2	257.0	463.9	256.9	276.6	Sbd box	257.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	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)	-5.66984837835E+02		Apriori delay (usec)		-5.66985335556E+02		Resid mbdelay (usec)		4.97721E-04	+/- 9.1E-05
Sband delay (usec)	-5.66983373556E+02		Apriori clock (usec)		-5.2205219E+00		Resid sbdelay (usec)		1.96200E-03	+/- 7.2E-04
Phase delay (usec)	-5.66985335041E+02		Apriori clockrate (us/s)		1.2000000E-07		Resid phdelay (usec)		5.14839E-07	+/- 3.1E-07
Delay rate (us/s)	7.70169682088E-02		Apriori rate (us/s)		7.70169973418E-02		Resid rate (us/s)		-2.91331E-08	+/- 1.3E-09
Total phase (deg)			Apriori accel (us/s/s)		2.85651948090E-06		Resid phase (deg)		16.0	+/- 9.6

ph/seg (deg) 74.3 23.0 Search (2048X32) 0.195 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 118.9 40.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 13.5 13.5 Inc. seg. avg. 0.376 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 36.5 23.6 Inc. frq. avg. 0.207 Sample rate(MSamp/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 p: az 113.7 el 33.5 pa -48.9 u,v (fr/asec) -436.924 -295.647 ion window (TEC) 0.00 0.00  
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kp..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kp.W.191.1W6WJ8 simultaneous interpolator



Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

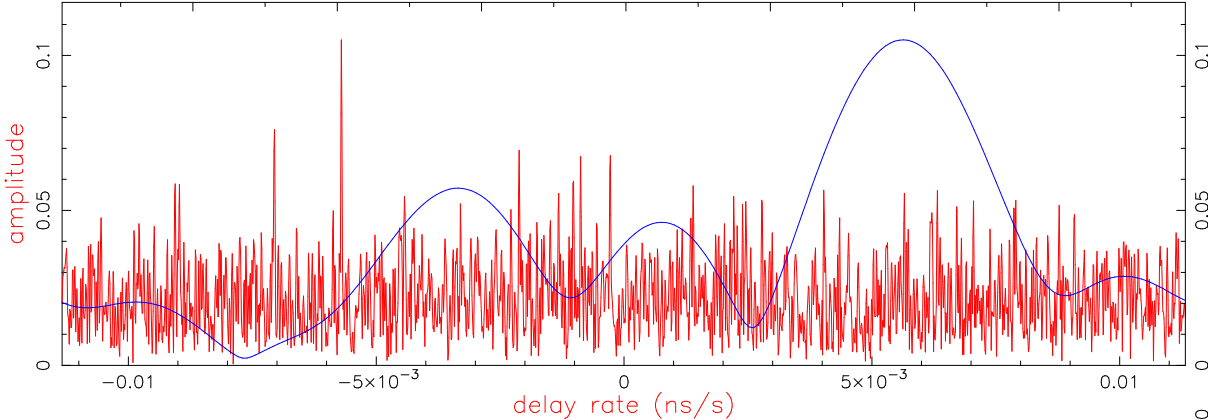
3C273.1W6WJ8, No0155, kP

VLBA\_KP - PICOVEL, fgroup W, pol LR

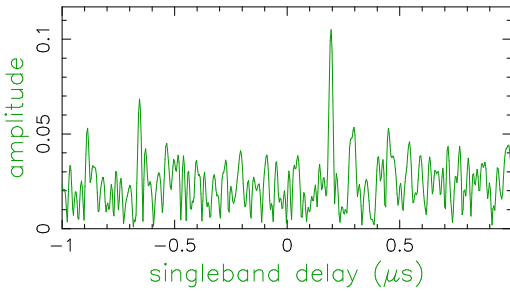
multiband delay ( $\mu$ s)

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

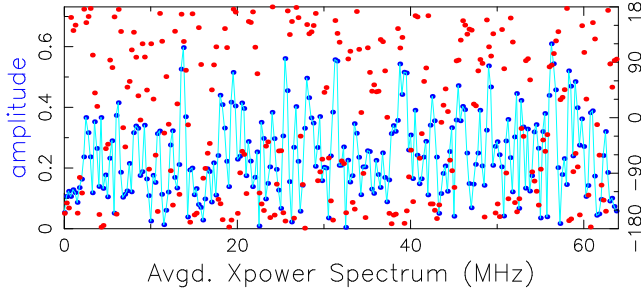
Fringe quality 0



SNR 5.9  
Int time 419.716  
Amp 0.117  
Phase -152.9  
PFD 6.1e-01  
Delays (us)  
SBD 0.194656  
MBD 0.003841  
Fringe rate (Hz)  
-0.491851  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

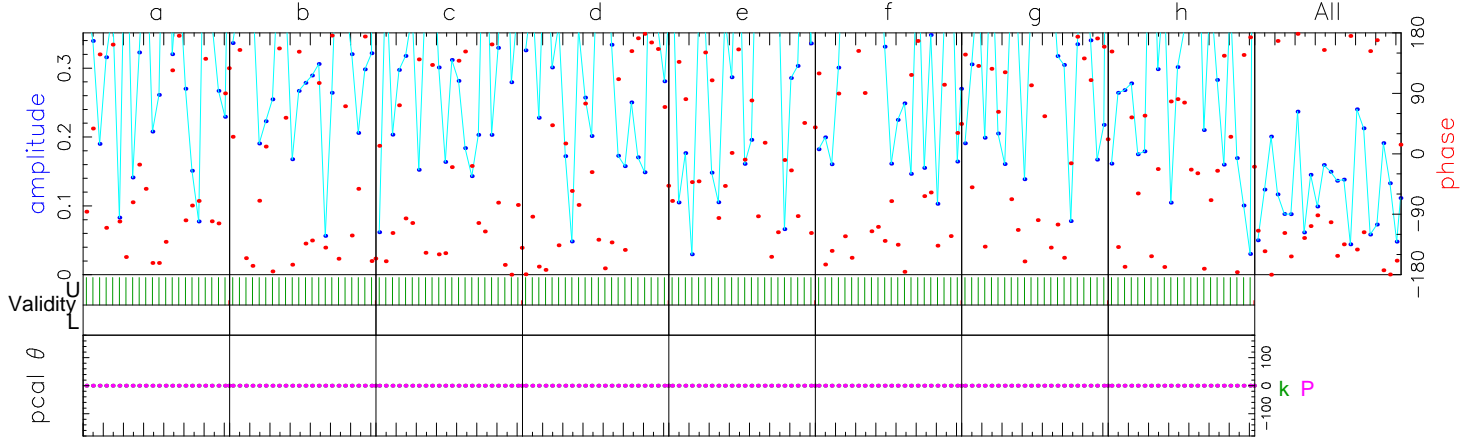


delay rate (ns/s)



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080409  
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
	-140.2	-177.2	-143.0	-166.1	-60.9	-151.3	174.2	-53.8	Phase	-152.9
	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.0	Ampl.	0.1
	117.9	305.6	138.9	52.2	66.2	418.8	462.9	503.9	Sbd box	306.8
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	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.52024085148E+03		Apriori delay (usec)		1.52004951063E+03		Resid mbdelay (usec)		3.84085E-03	+/- 1.8E-04
Sband delay (usec)	1.52024416638E+03		Apriori clock (usec)		1.2613850E+00		Resid sbdelay (usec)		1.94656E-01	+/- 1.5E-03
Phase delay (usec)	1.52004950570E+03		Apriori clockrate (us/s)		5.9999998E-07		Resid phdelay (usec)		-4.92961E-06	+/- 6.3E-07
Delay rate (us/s)	2.06843901548E+00		Apriori rate (us/s)		2.06844472538E+00		Resid rate (us/s)		-5.70991E-06	+/- 2.6E-09
Total phase (deg)	151.7		Apriori accel (us/s/s)		-8.35579893926E-06		Resid phase (deg)		-152.9	+/- 19.4

	RMS	Theor.	Amplitude	0.117 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	37.2	46.6	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	60.3	81.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	58.3	27.5	Inc. seg. avg.	0.106	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	48.6	48.0	Inc. frq. avg.	0.122	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

k: az 109.7 el 31.6 pa -52.9 P: az 248.7 el 28.6 pa 48.1 u,v (fr/asec) -11863.998 -662.552 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kP..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kP.W.200.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

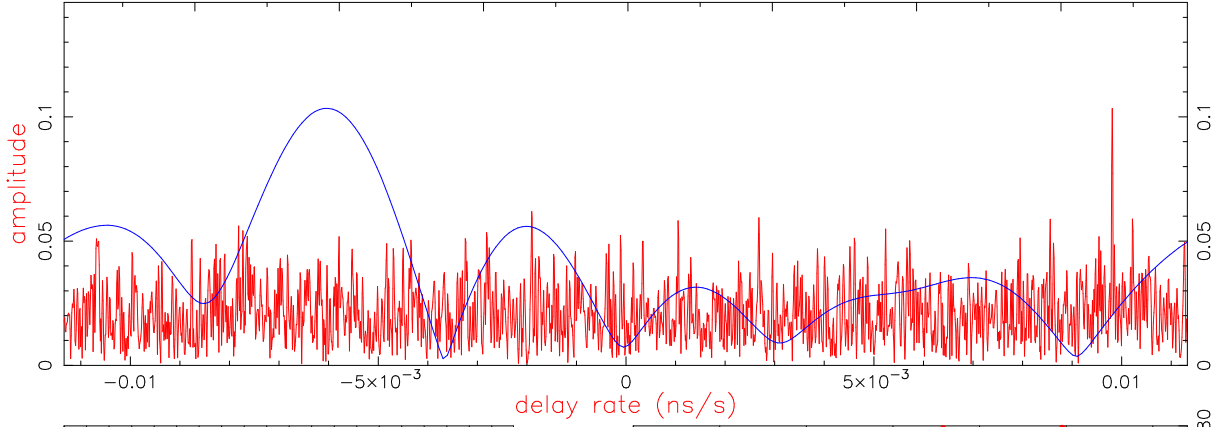
3C273.1W6WJ8, No0155, kp

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

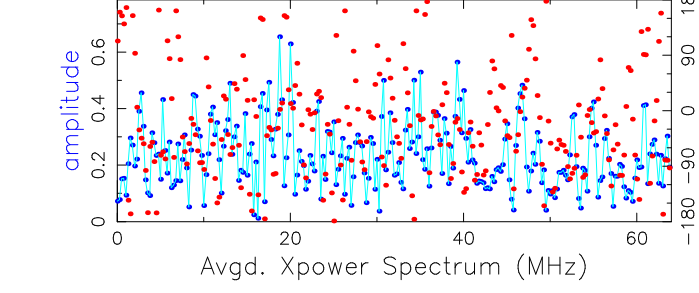
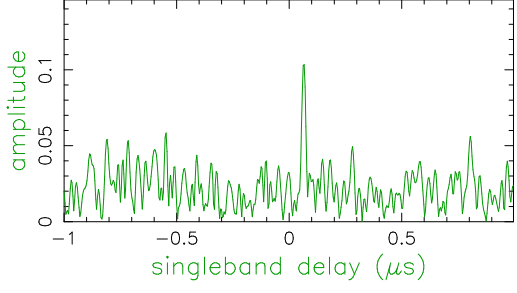
multiband delay ( $\mu$ s)

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

Fringe quality 0

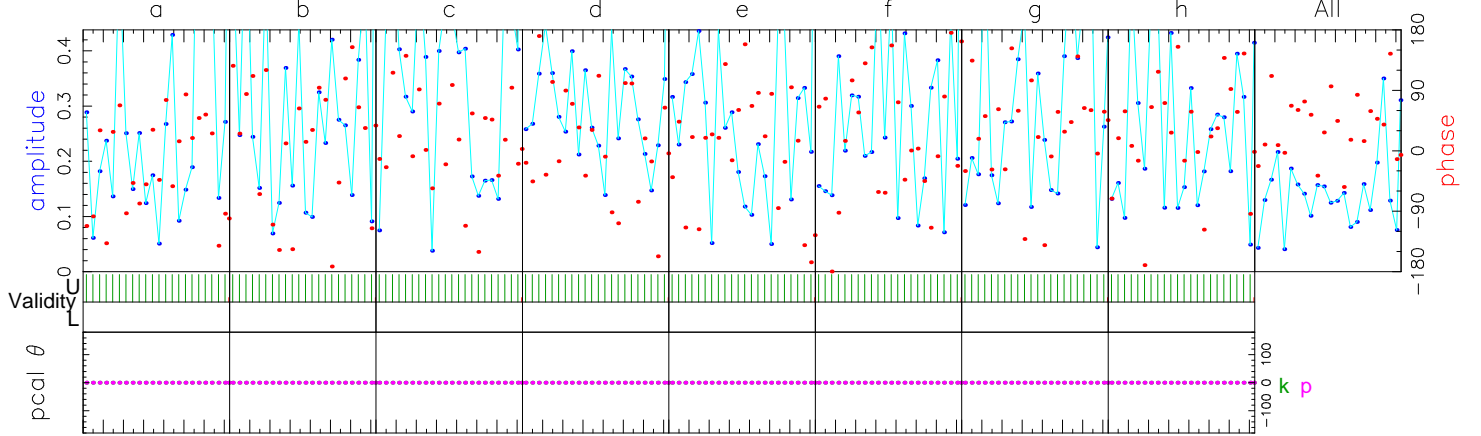


SNR 5.9  
Int time 419.716  
Amp 0.146  
Phase 39.6  
PFD 6.5e-01  
Delays (us)  
SBD 0.064647  
MBD -0.004212  
Fringe rate (Hz)  
0.845930  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



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
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		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
kp	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		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-5.66927047991E+02									
Sband delay (usec)	-5.66920688556E+02									
Phase delay (usec)	-5.66985334279E+02									
Delay rate (us/s)	7.70268177478E-02									
Total phase (deg)			-250.1							
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 $\theta$										
Chan ids										
Tracks										
Chan ids										
Tracks										
RMS	47.8	46.7								
Theor.										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
ph/seg (deg)	47.8	46.7								
amp/seg (%)	71.2	81.6								
ph/frq (deg)	43.0	27.6								
amp/frq (%)	47.7	48.1								
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal $\theta$										
Chan ids										
Tracks										
Chan ids										
Tracks										
Group delay (usec)(sbd)										
Sband delay (usec)										
Phase delay (usec)										
Delay rate (us/s)										
Total phase (deg)										
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										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal $\theta$										
Chan ids										
Tracks										
Chan ids										
Tracks										
Group delay (usec)(sbd)										
Sband delay (usec)										
Phase delay (usec)										
Delay rate (us/s)										
Total phase (deg)										
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										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal $\theta$										
Chan ids										
Tracks										
Chan ids										
Tracks										

k: az 109.7 el 31.6 pa -52.9 p: az 113.7 el 33.5 pa -48.9 u,v (fr/asec) -436.924 -295.647 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kp..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kp.W.214.1W6WJ8

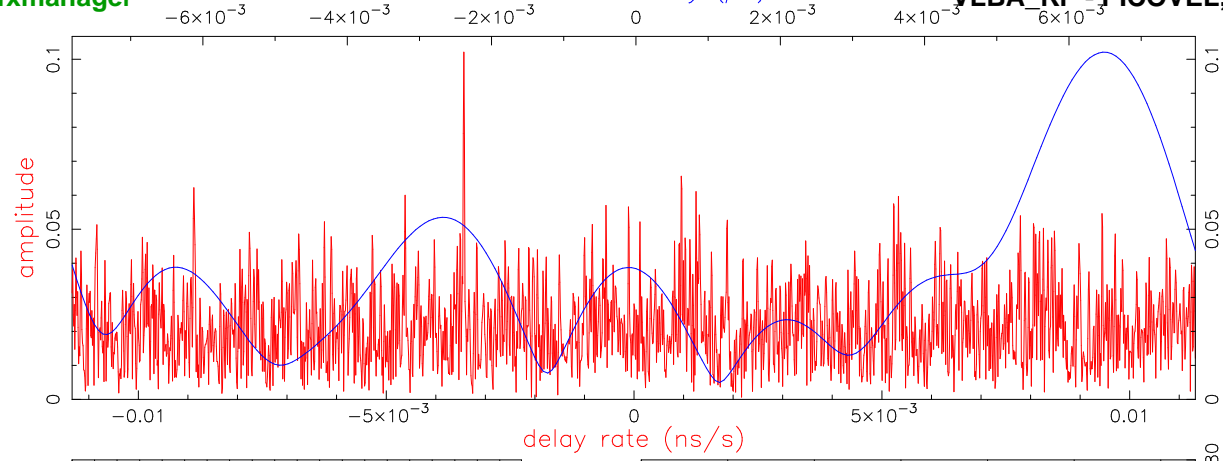
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

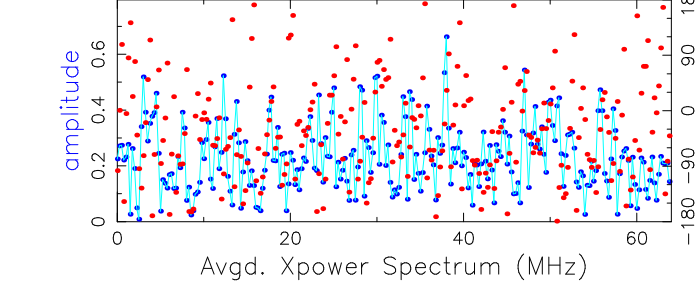
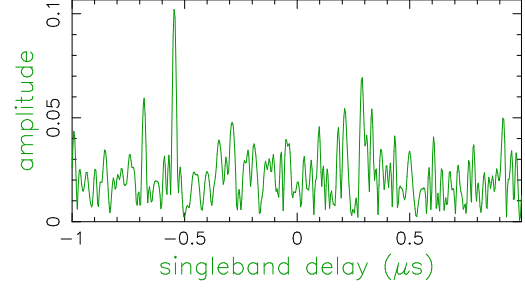
3C273.1W6WJ8, No0155, kP

VLBA\_KP - PICOVEL, fgroup W, pol RL

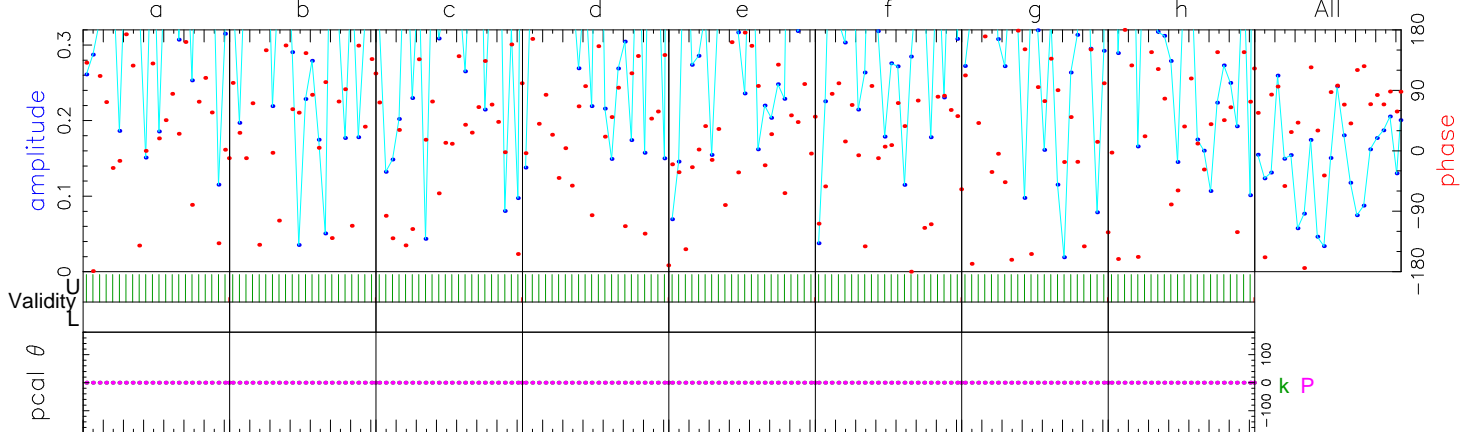
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 5.8  
 Int time 419.716  
 Amp 0.107  
 Phase 80.1  
 PFD 8.8e-01  
 Delays (us)  
 SBD -0.545823  
 MBD 0.006501  
 Fringe rate (Hz)  
 -0.296473  
 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  
 2021:287:080413  
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.51950913708E+03	Apriori delay (usec)	1.52004951063E+03	Resid mbdelay (usec)	6.50145E-03	+/-	1.9E-04
Sband delay (usec)	1.51950368788E+03	Apriori clock (usec)	1.2613850E+00	Resid sbdelay (usec)	-5.45823E-01	+/-	1.5E-03
Phase delay (usec)	1.52004951322E+03	Apriori clockrate (us/s)	5.9999998E-07	Resid phdelay (usec)	2.58402E-06	+/-	6.4E-07
Delay rate (us/s)	2.06844128363E+00	Apriori rate (us/s)	2.06844472538E+00	Resid rate (us/s)	-3.44175E-06	+/-	2.6E-09
Total phase (deg)	24.7	Apriori accel (us/s/s)	-8.35579893926E-06	Resid phase (deg)	80.1	+/-	19.9

ph/seg (deg)	57.4	Theor.	47.7	Amplitude	0.107 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	68.0	Search (2048X32)	0.100	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	44.2	Inc. seg. avg.	0.108	Inc. frq. avg.	0.111	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	36.4	Inc. frq. avg.	0.111			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

k: az 109.7 el 31.6 pa -52.9 P: az 248.7 el 28.6 pa 48.1 u,v (fr/asec) -11863.998 -662.552 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kP..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kP.W.218.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

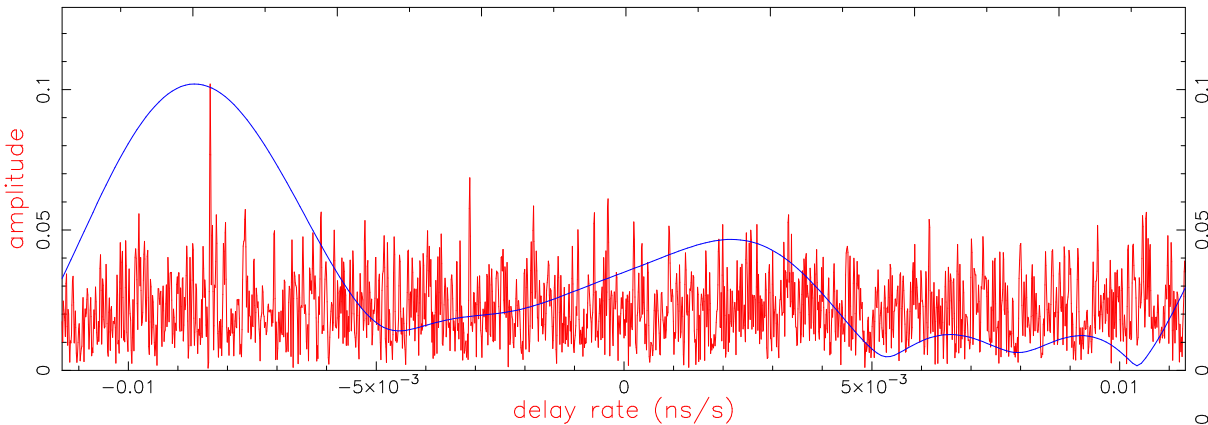
3C273.1W6WJ8, No0155, kp

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

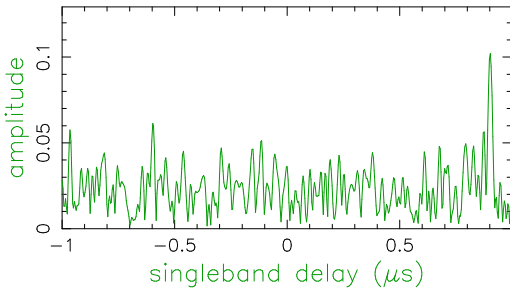
multiband delay ( $\mu$ s)

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

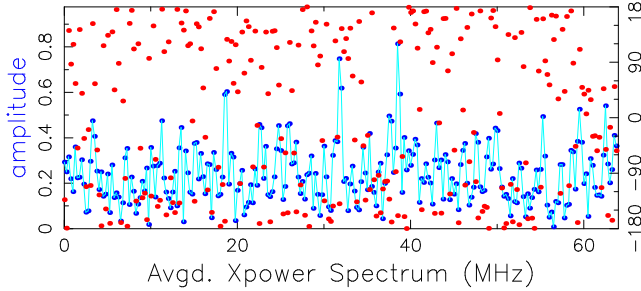
Fringe quality 0



SNR 5.7  
Int time 419.716  
Amp 0.129  
Phase -172.2  
PFD 9.2e-01  
Delays (us)  
SBD 0.901550  
MBD -0.005981  
Fringe rate (Hz)  
-0.720250  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

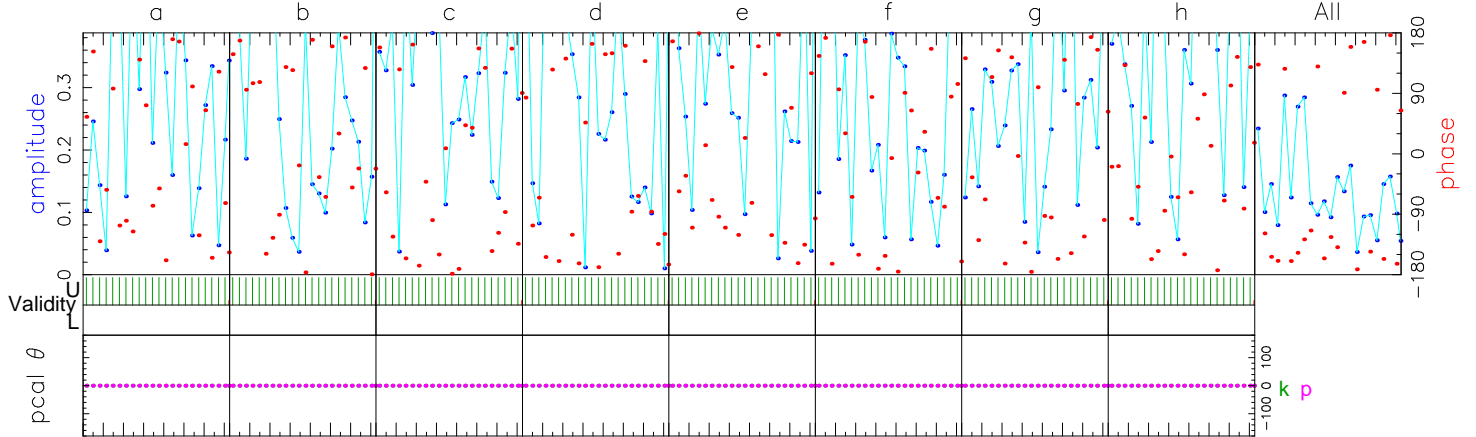


delay rate (ns/s)



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 021500.00  
Stop 022159.84  
FRT 021830.00  
Corr/FF/build  
2021:287:071811  
2021:287:080415  
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
	-165.2	165.8	-160.1	176.5	-132.4	147.3	-154.9	83.6	Phase	-172.2
	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.0	Ampl.	0.1
	47.6	9.5	480.7	487.1	325.5	431.0	275.3	87.1	Sbd box	487.8
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	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.66085066538E+02		Apriori delay (usec)		-5.66985335556E+02		Resid mbdelay (usec)		-5.98098E-03	+/- 1.9E-04
Sband delay (usec)	-5.66083785306E+02		Apriori clock (usec)		-5.2205219E+00		Resid sbdelay (usec)		9.01550E-01	+/- 1.5E-03
Phase delay (usec)	-5.66985341109E+02		Apriori clockrate (us/s)		1.2000000E-07		Resid phdelay (usec)		-5.55297E-06	+/- 6.5E-07
Delay rate (us/s)	7.70086359559E-02		Apriori rate (us/s)		7.70169973418E-02		Resid rate (us/s)		-8.36139E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		2.85651948090E-06		Resid phase (deg)		-172.2	+/- 20.0

	RMS	Theor.	Amplitude	0.129 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	45.7	48.0	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	77.0	83.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	50.3	28.3	Inc. seg. avg.	0.131	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	50.7	49.4	Inc. frq. avg.	0.131	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

k: az 109.7 el 31.6 pa -52.9 p: az 113.7 el 33.5 pa -48.9 u,v (fr/asec) -436.924 -295.647 simultaneous interpolator

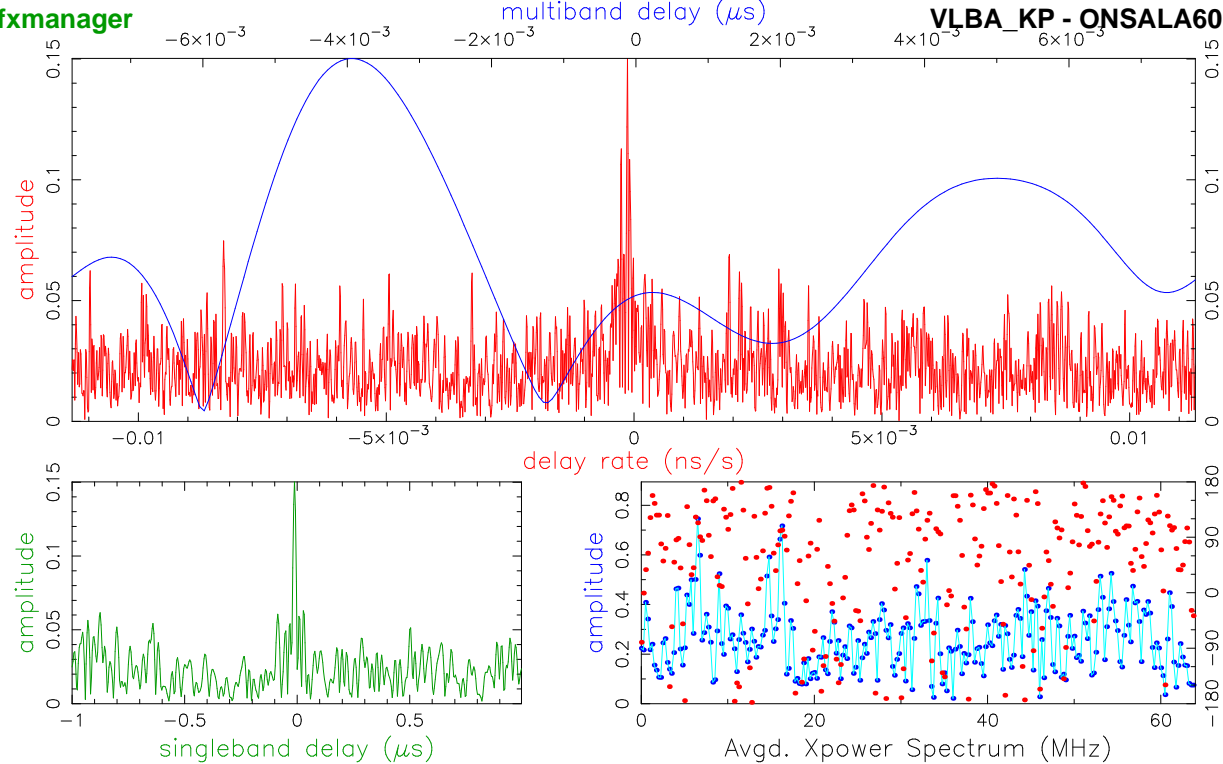
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kp..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kp.W.231.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kX

VLBA\_KP - ONSALA60, fgroup W, pol LL

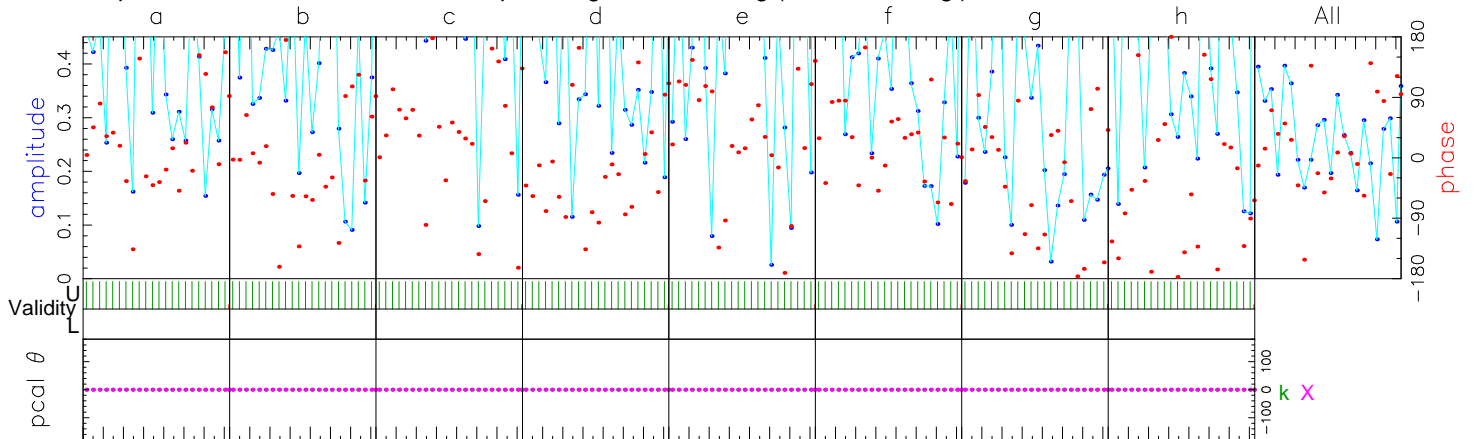


Fringe quality 9

SNR 8.4  
 Int time 419.696  
 Amp 0.150  
 Phase 14.9  
 PFD 1.4e-08  
 Delays (us)  
 SBD -0.011943  
 MBD -0.003940  
 Fringe rate (Hz)  
 -0.011808  
 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  
 2021:287:080403  
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:X	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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		7.11501461226E+03			7.11503417678E+03					
Sband delay (usec)		7.11502223403E+03			-5.6067898E+01					
Phase delay (usec)		7.11503417726E+03			-5.2800001E-07					
Delay rate (us/s)		1.83423901185E+00			1.83423914893E+00					
Total phase (deg)			10.4		-3.93228195345E-05					
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

ph/seg (deg) 69.5 32.6 Search (2048X32) 0.144 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 92.9 57.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 59.4 19.3 Inc. seg. avg. 0.224 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 67.8 33.6 Inc. frq. avg. 0.193 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 X: az 254.2 el 12.2 pa 31.4 u,v (fr/asec) -10570.447 -2869.022 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kX..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kX.W.171.1W6WJ8

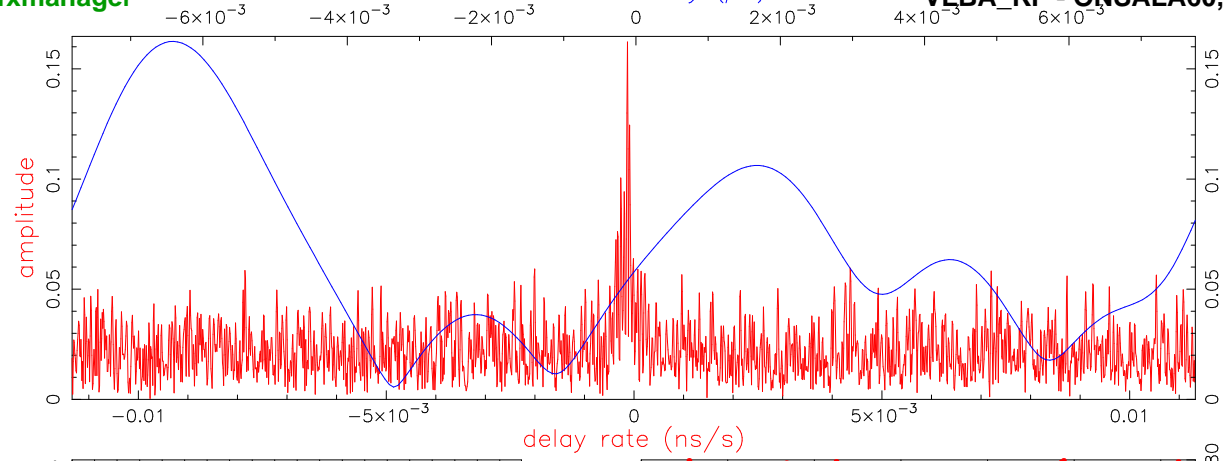
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

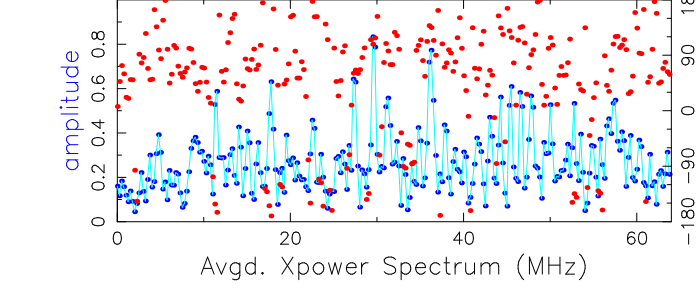
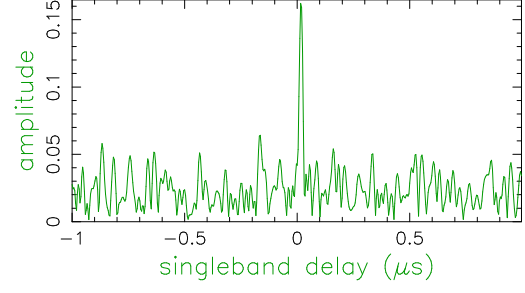
3C273.1W6WJ8, No0155, kX

VLBA\_KP - ONSALA60, fgroup W, pol RR

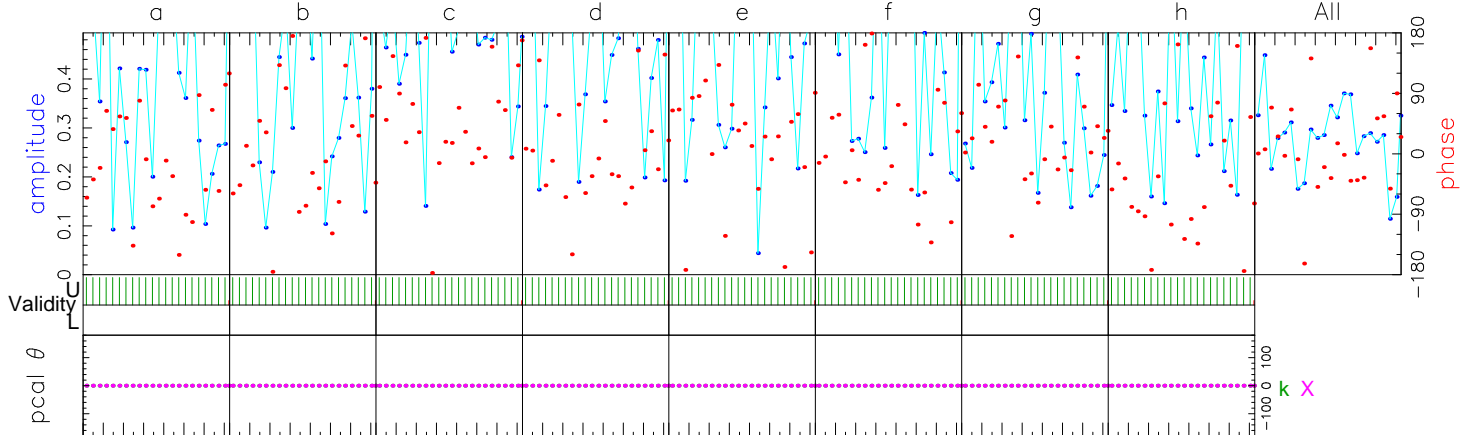
multiband delay ( $\mu$ s)



Fringe quality 9  
 SNR 9.2  
 Int time 419.696  
 Amp 0.165  
 Phase 6.6  
 PFD 1.1e-11  
 Delays (us)  
 SBD 0.017193  
 MBD -0.006342  
 Fringe rate (Hz)  
 -0.011537  
 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  
 2021:287:080407  
 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			
X	1000	1000	1000	1000	1000	1000	1000	1000			
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
k:X	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			
X	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	
Group delay (usec)(sbd)		7.11505908469E+03			7.11503417678E+03				-6.34208E-03	+/- 1.2E-04	
Sband delay (usec)		7.11505136978E+03			-5.6067898E+01				1.71930E-02	+/- 9.3E-04	
Phase delay (usec)		7.11503417699E+03			-5.2800001E-07				2.13243E-07	+/- 4.0E-07	
Delay rate (us/s)		1.83423901500E+00			1.83423914893E+00				-1.33930E-07	+/- 1.7E-09	
Total phase (deg)			2.2		-3.93228195345E-05				6.6	+/- 12.4	
	RMS	Theor.	Amplitude	0.165 +/- 0.018	Pcal mode: MANUAL, MANUAL				PC period (AP's) 5, 5		
ph/seg (deg)	68.7	29.8	Search (2048X32)	0.161	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				sb window (us)	-1.000 1.000	
amp/seg (%)	83.1	52.0	Interp.	0.000	Bits/sample: 2x2				SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	50.8	17.6	Inc. seg. avg.	0.247	Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011	
amp/frq (%)	46.3	30.6	Inc. frq. avg.	0.206	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 X: az 254.2 el 12.2 pa 31.4 u,v (fr/asec) -10570.447 -2869.022 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kX..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kX.W.190.1W6WJ8

Mk4/DiFX fourfit 3.21 rev 2937

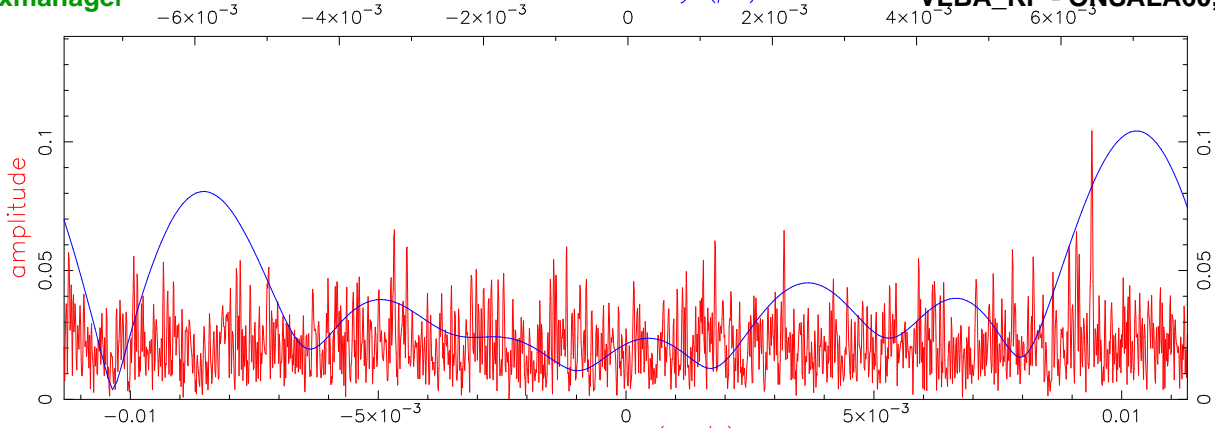
fxmanager

3C273.1W6WJ8, No0155, kX

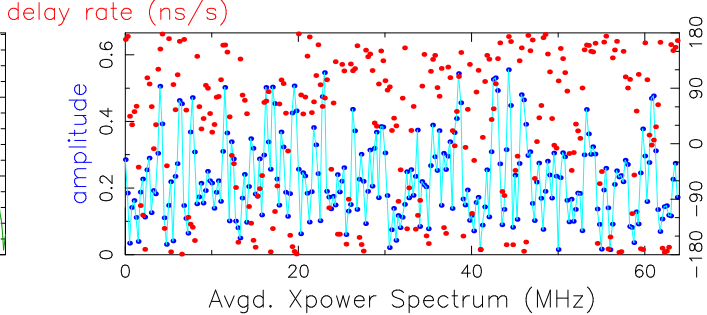
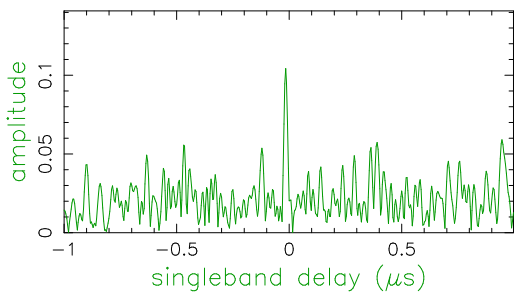
VLBA\_KP - ONSALA60, fgroup W, pol LR

multiband delay ( $\mu$ s)

Fringe quality 0

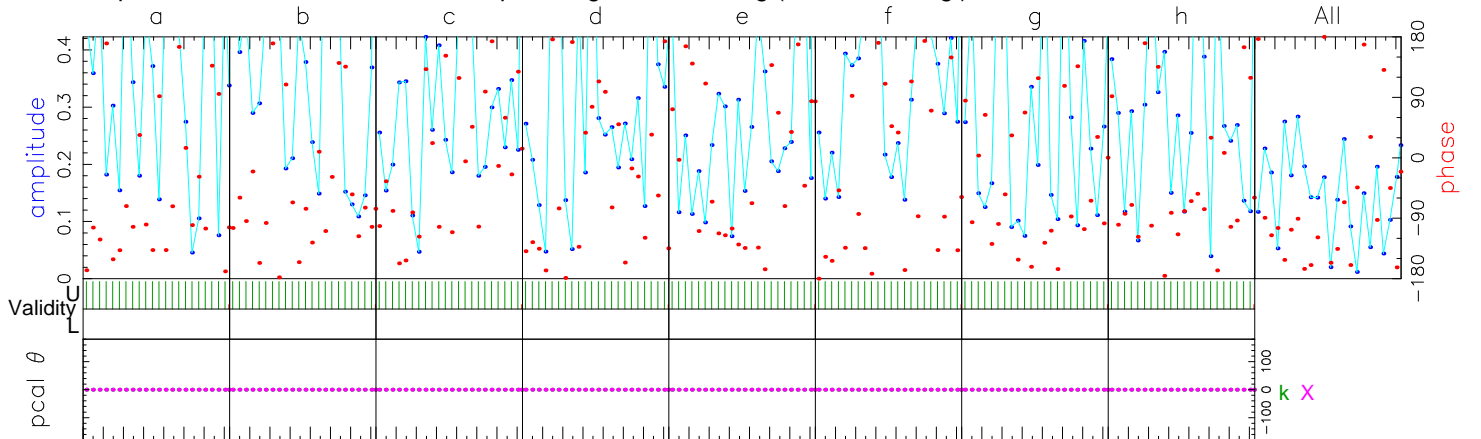


SNR 5.8  
 Int time 419.696  
 Amp 0.141  
 Phase -126.3  
 PFD 7.3e-01  
 Delays (us)  
 SBD -0.015581  
 MBD 0.007048  
 Fringe rate (Hz) 0.810743  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080411  
 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
	-129.7	-111.8	-67.8	-132.4	-139.4	-166.2	-109.5	-107.7	Phase	-126.3
	0.3	0.3	0.0	0.0	0.1	0.2	0.1	0.2	Ampl.	0.1
	253.4	252.9	213.2	211.8	275.2	251.6	261.6	329.9	Sbd box	253.0
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	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
k	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)	7.11502559946E+03		Apriori delay (usec)		7.11503417678E+03		Resid mbdelay (usec)		7.04768E-03	+/- 1.9E-04
Sband delay (usec)	7.11501859553E+03		Apriori clock (usec)		-5.6067898E+01		Resid sbdelay (usec)		-1.55813E-02	+/- 1.5E-03
Phase delay (usec)	7.11503417271E+03		Apriori clockrate (us/s)		-5.2800001E-07		Resid phdelay (usec)		-4.07232E-06	+/- 6.3E-07
Delay rate (us/s)	1.83424856086E+00		Apriori rate (us/s)		1.83423914893E+00		Resid rate (us/s)		9.41193E-06	+/- 2.6E-09
Total phase (deg)	229.3		Apriori accel (us/s/s)		-3.93228195345E-05		Resid phase (deg)		-126.3	+/- 19.6

	RMS	Theor.	Amplitude	0.141 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	58.6	47.0	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/seg (%)	83.9	82.1	Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	31.8	27.7	Inc. seg. avg.	0.148	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
amp/frq (%)	65.6	48.4	Inc. frq. avg.	0.135				

k: az 109.7 el 31.6 pa -52.9 X: az 254.2 el 12.2 pa 31.4 u,v (fr/asec) -10570.447 -2869.022 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kX..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kX.W.208.1W6WJ8

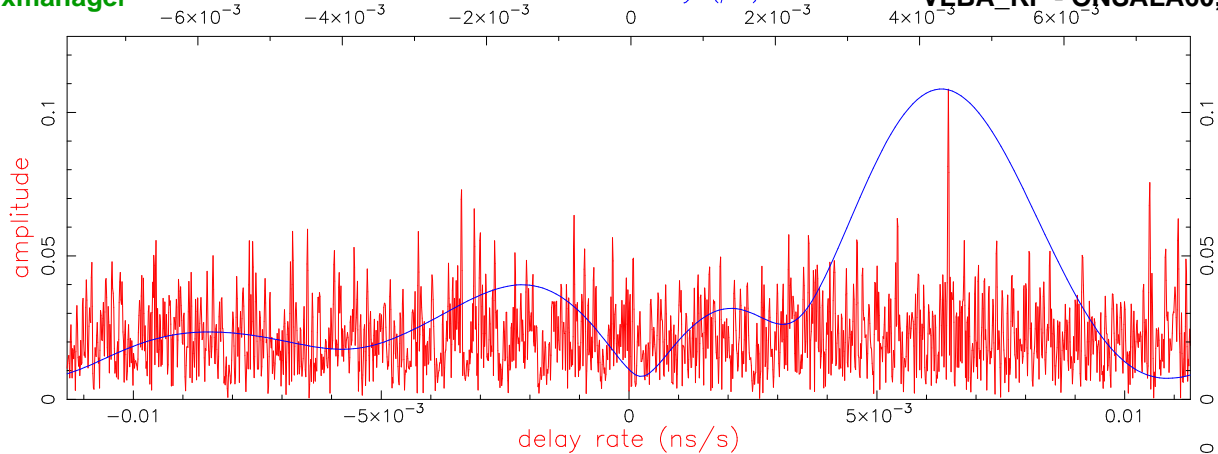
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C273.1W6WJ8, No0155, kX

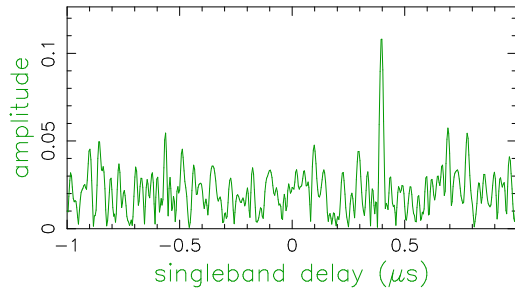
VLBA\_KP - ONSALA60, fgroup W, pol RL

multiband delay ( $\mu$ s)

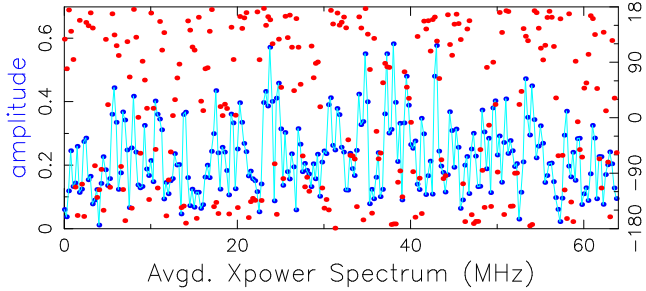


Fringe quality 0

SNR 6.2  
 Int time 419.696  
 Amp 0.126  
 Phase 5.2  
 PFD 1.6e-01  
 Delays (us)  
 SBD 0.396544  
 MBD 0.004252  
 Fringe rate (Hz)  
 0.555807  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

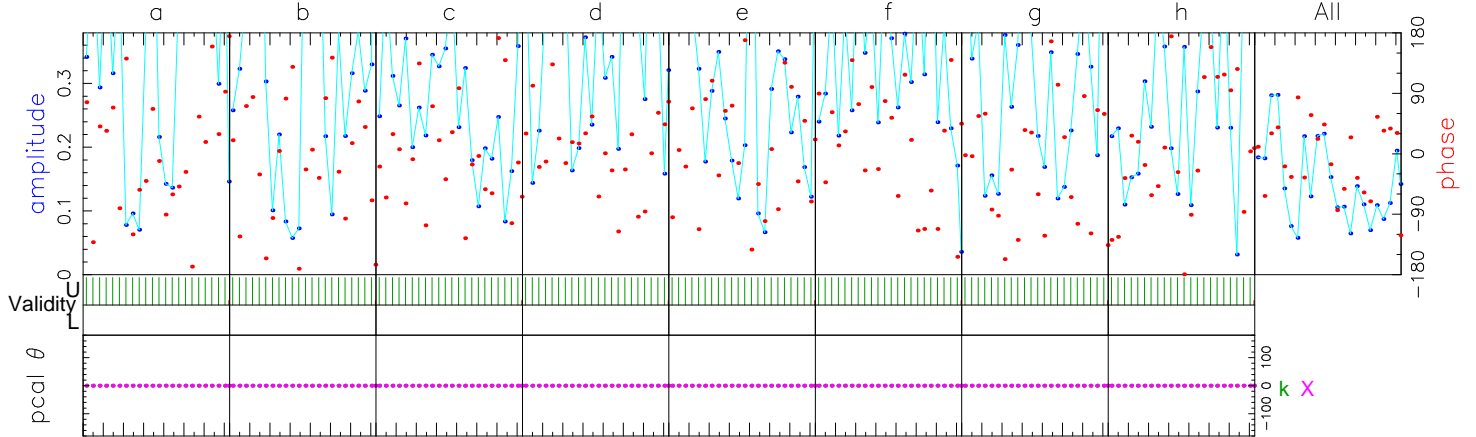


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 021500.00  
 Stop 022159.84  
 FRT 021830.00  
 Corr/FF/build  
 2021:287:071811  
 2021:287:080415  
 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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:X	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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		7.11542905376E+03				7.11503417678E+03			Resid mbdelay (usec)	4.25198E-03 +/- 1.8E-04
Sband delay (usec)		7.11543072053E+03				-5.6067898E+01			Resid sbdelay (usec)	3.96544E-01 +/- 1.4E-03
Phase delay (usec)		7.11503417695E+03				-5.2800001E-07			Resid phdelay (usec)	1.69160E-07 +/- 6.0E-07
Delay rate (us/s)		1.83424560130E+00				1.83423914893E+00			Resid rate (us/s)	6.45237E-06 +/- 2.5E-09
Total phase (deg)			0.8			-3.93228195345E-05			Resid phase (deg)	5.2 +/- 18.5
	RMS	Theor.	Amplitude	0.126 +/- 0.020					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	48.4	44.5	Search (2048X32)	0.106					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	67.7	77.6	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	22.2	26.2	Inc. seg. avg.	0.129					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	53.8	45.8	Inc. frq. avg.	0.118					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 X: az 254.2 el 12.2 pa 31.4 u,v (fr/asec) -10570.447 -2869.022 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0155/kX..1W6WJ8 Output file: /Exps/c211a/v2/1234/No0155/kX.W.227.1W6WJ8