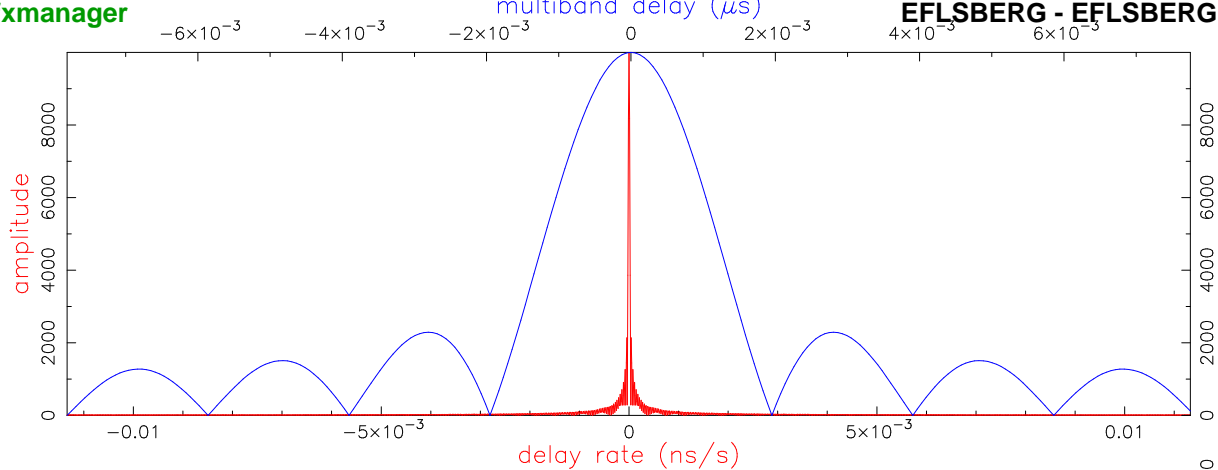


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

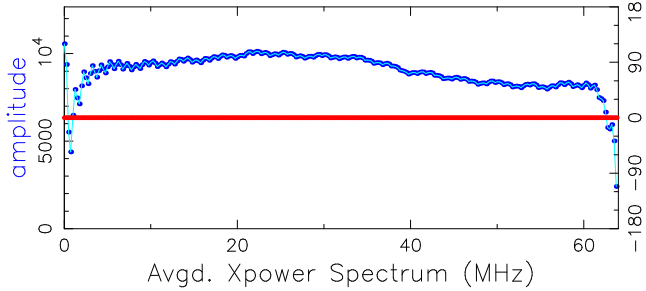
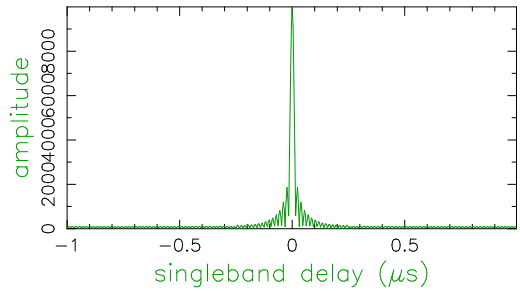
BLLAC.1W5ADF, No0245, BB

EFLSBERG - EFLSBERG, fgroup W, pol LL



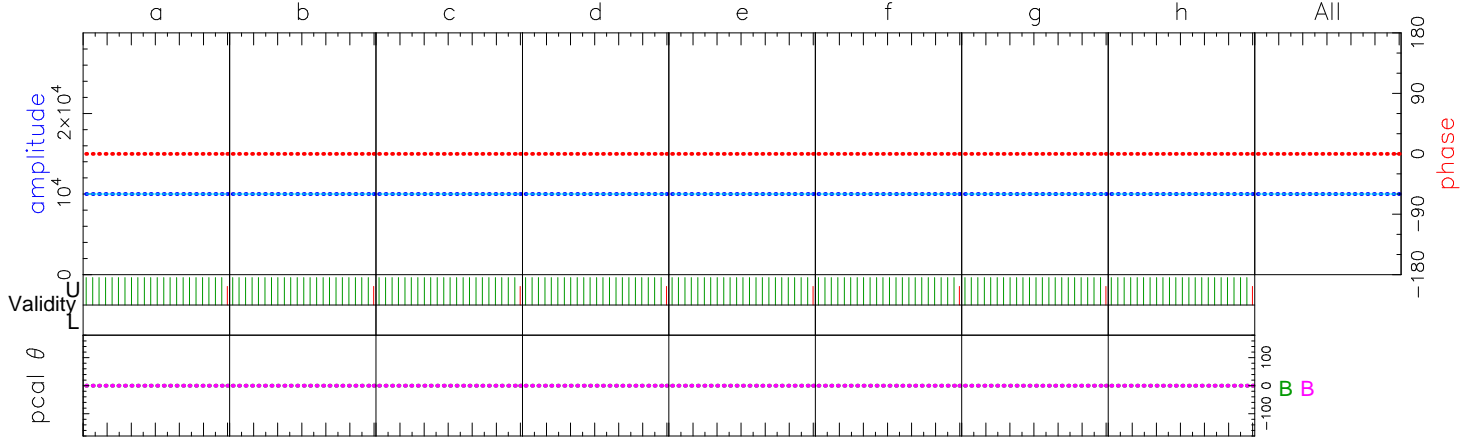
Fringe quality 9

SNR 518796.1  
 Int time 359.914  
 Amp 9999.999  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135414  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	Ampl.	10000.0
B	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
B:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
B:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
B	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	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	+/-	2.1E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.7E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	7.1E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	3.4E-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	9999.999 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	0.0	0.0	0.0	Search (2048X32)	9999.999	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.	9999.999	Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00	

B: az 302.9 el 28.7 pa 46.3      B: az 302.9 el 28.7 pa 46.3      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c211a/v2/1234/No0245/BB..1W5ADF      Output file: /Exps/c211a/v2/1234/No0245/BB.W.16.1W5ADF

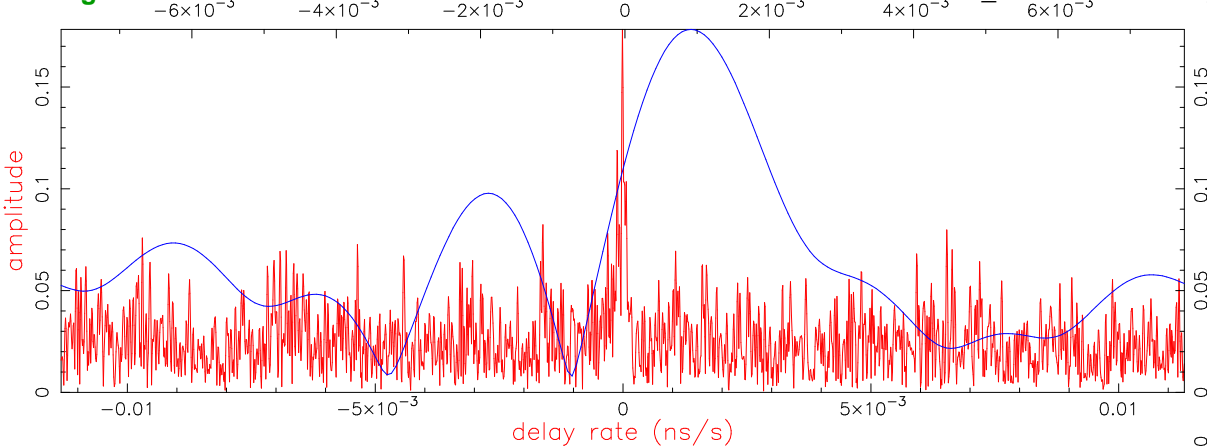
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, bB

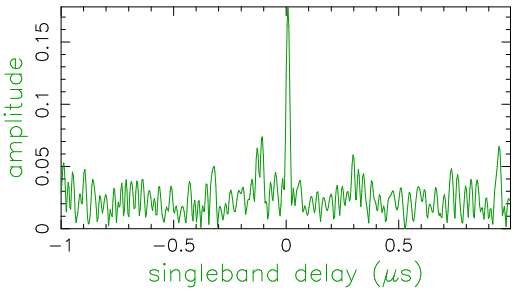
VLBA\_BR - EFLSBERG, fgroup W, pol RR

multiband delay ( $\mu$ s)

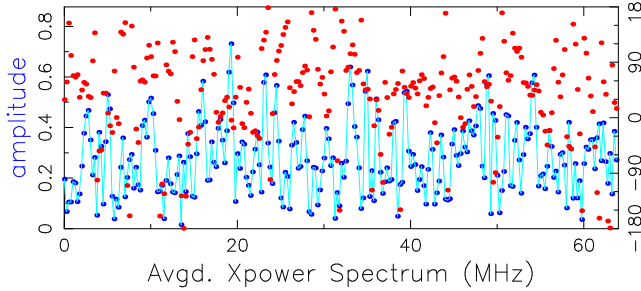


Fringe quality 9

SNR 9.1  
 Int time 350.010  
 Amp 0.178  
 Phase 131.8  
 PFD 2.9e-11  
 Delays (us)  
 SBD 0.007740  
 MBD 0.000912  
 Fringe rate (Hz)  
 -0.000678  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

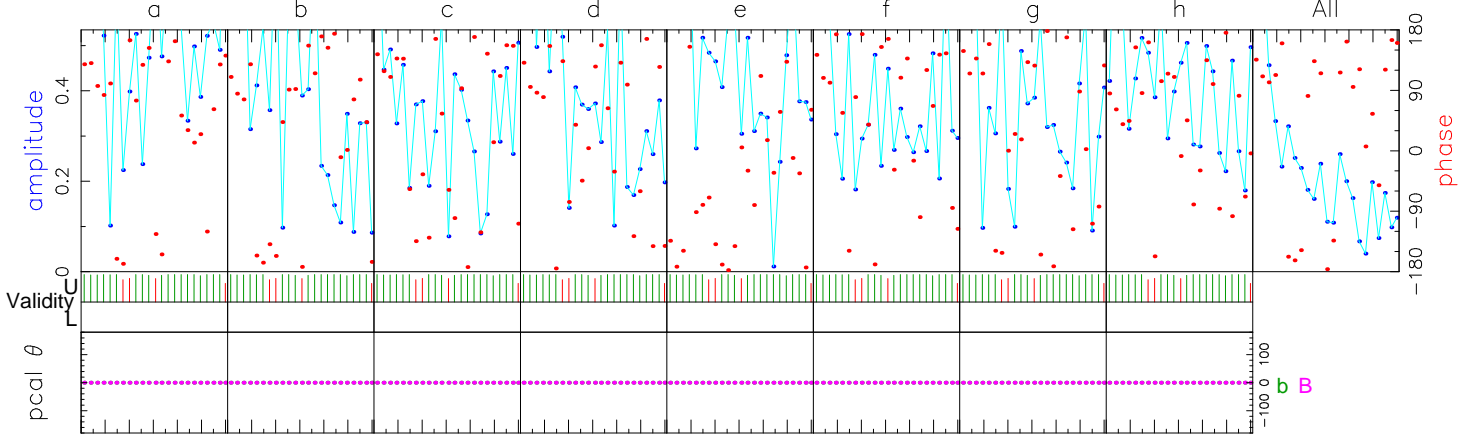


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	127.6	119.0	145.5	117.8	-140.7	137.7	152.0	82.6	Phase	131.8
	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	258.9	259.6	258.2	258.3	371.1	258.9	256.9	334.4	Sbd box	259.0
U/L	694/0	694/0	694/0	694/0	694/0	694/0	694/0	694/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:B	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	
B	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.67102868996E+03		Apriori delay (usec)		9.67102777811E+03		Resid mbdelay (usec)		9.11854E-04	+/- 1.2E-04
Sband delay (usec)	9.67103551836E+03		Apriori clock (usec)		1.9087633E+01		Resid sbdelay (usec)		7.74025E-03	+/- 9.4E-04
Phase delay (usec)	9.67102778236E+03		Apriori clockrate (us/s)		-9.9999998E-08		Resid phdelay (usec)		4.25084E-06	+/- 4.1E-07
Delay rate (us/s)	1.11846802605E+00		Apriori rate (us/s)		1.11846803391E+00		Resid rate (us/s)		-7.86570E-09	+/- 2.0E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.33993019360E-05		Resid phase (deg)		131.8	+/- 12.6

	RMS	Theor.	Amplitude	0.178 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	62.9	29.9	Search (2048X32)	0.175	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	104.3	52.2	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	43.0	17.8	Inc. seg. avg.	0.210	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	36.2	31.0	Inc. frq. avg.	0.199	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

b: az 92.6 el 67.1 pa -64.3      B: az 302.9 el 28.7 pa 46.3      u,v (fr/asec) -8773.341 -3889.667      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c211a/v2/1234/No0245/bB..1W5ADF      Output file: /Exps/c211a/v2/1234/No0245/bB.W.22.1W5ADF

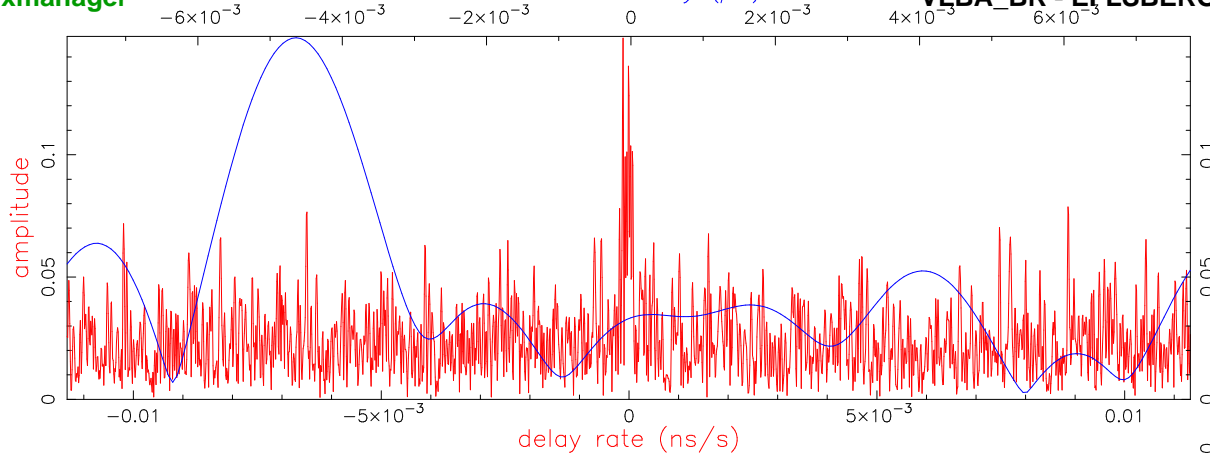
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, bB

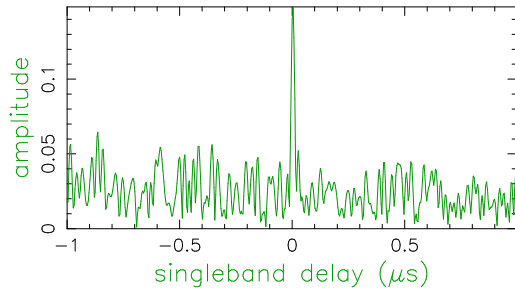
VLBA\_BR - EFLSBERG, fgroup W, pol LL

multiband delay ( $\mu\text{s}$ )

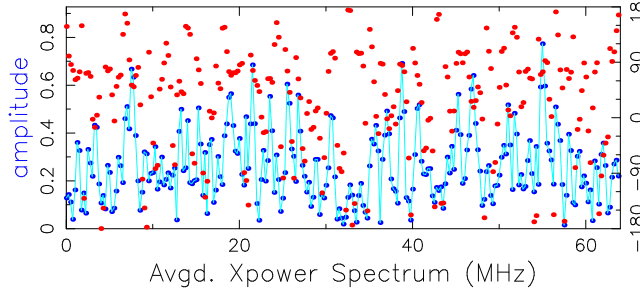


Fringe quality 9

SNR 7.6  
 Int time 350.010  
 Amp 0.148  
 Phase 154.0  
 PFD 1.0e-05  
 Delays (us)  
 SBD 0.003031  
 MBD -0.004689  
 Fringe rate (Hz)  
 -0.010303  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

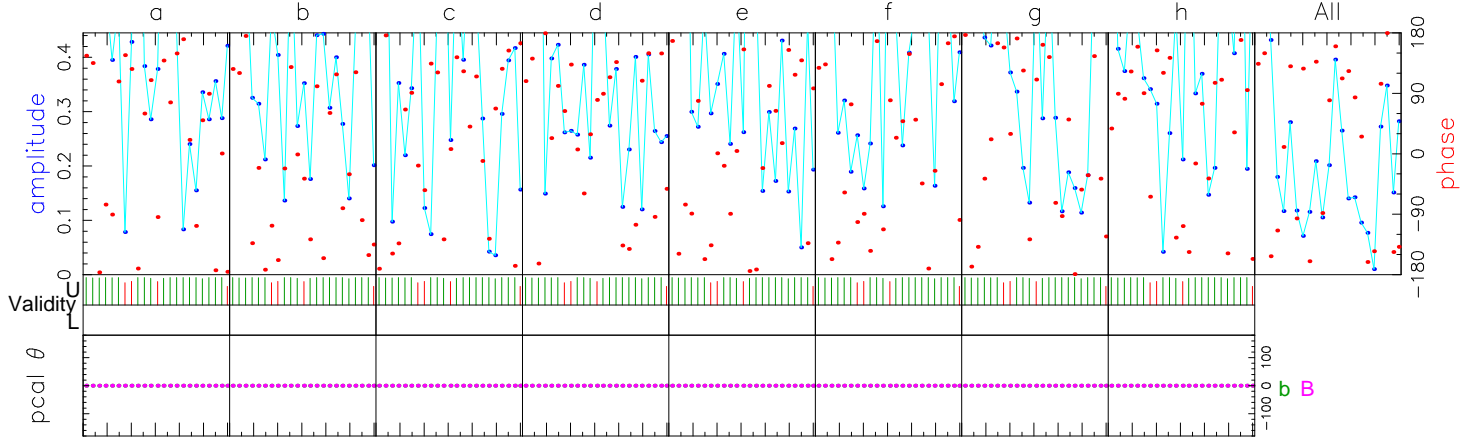


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135413  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	694/0	694/0	694/0	694/0	694/0	694/0	694/0	694/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:B	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	
B	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	9.67102308950E+03		Apriori delay (usec)		9.67102777811E+03		Resid mbdelay (usec)		-4.68861E-03	+/- 1.4E-04
Sband delay (usec)	9.67103080886E+03		Apriori clock (usec)		1.9087633E+01		Resid sbdelay (usec)		3.03075E-03	+/- 1.1E-03
Phase delay (usec)	9.67102778307E+03		Apriori clockrate (us/s)		-9.9999998E-08		Resid phdelay (usec)		4.96753E-06	+/- 4.9E-07
Delay rate (us/s)	1.11846791430E+00		Apriori rate (us/s)		1.11846803391E+00		Resid rate (us/s)		-1.19609E-07	+/- 2.4E-09
Total phase (deg)	84.3		Apriori accel (us/s/s)		-5.33993019360E-05		Resid phase (deg)		154.0	+/- 15.1

ph/seg (deg) 68.4 36.0 Theor. Amplitude 0.148 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 119.6 62.8 Search (2048X32) 0.143 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 28.7 21.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 20.5 37.3 Inc. seg. avg. 0.190 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 b: az 92.6 el 67.1 pa -64.3 B: az 302.9 el 28.7 pa 46.3 u,v (fr/asec) -8773.341 -3889.667 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 simultaneous interpolator

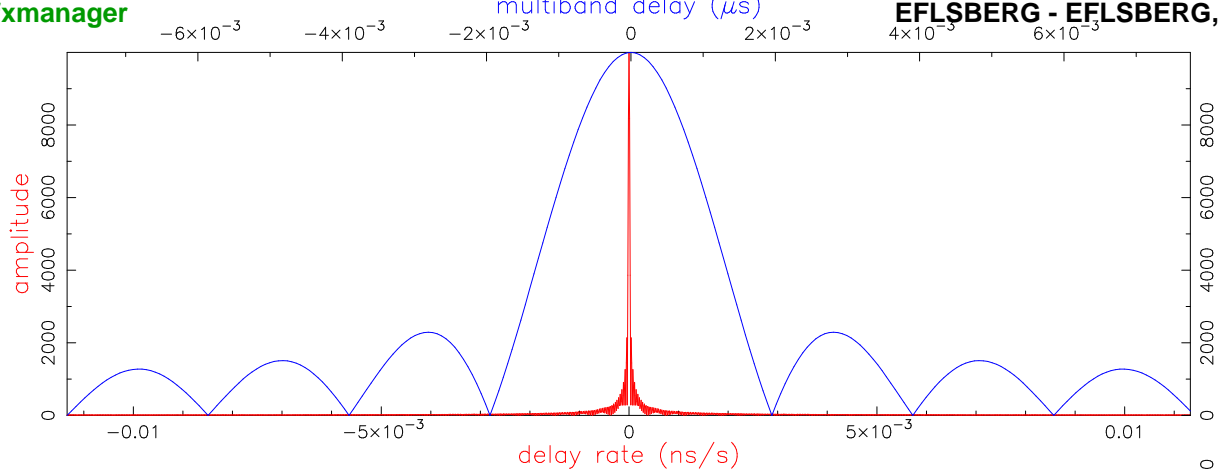
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/bB..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/bB.W.3.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

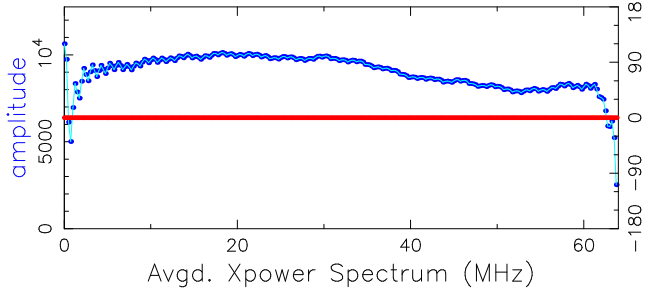
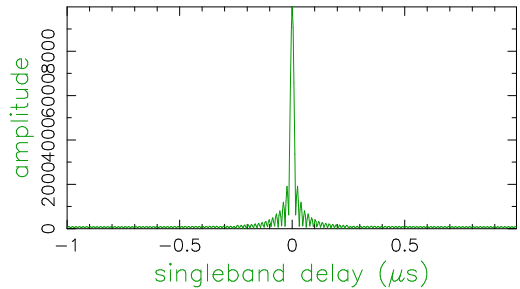
BLLAC.1W5ADF, No0245, BB

EFLSBERG - EFLSBERG, fgroup W, pol RR



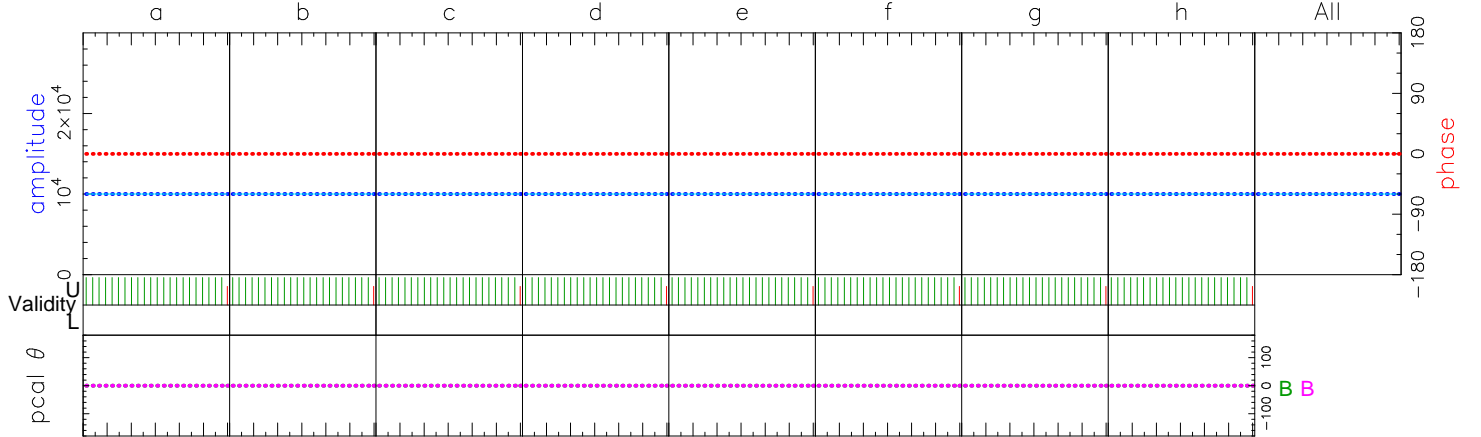
Fringe quality 9

SNR 518796.1  
 Int time 359.914  
 Amp 9999.999  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135418  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	10000.0	10000.0
B	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
B:B	0:0	0:0	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	1000	1000
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
B	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	0.00000E+00	+/- 2.1E-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	0.00000E+00	+/- 1.7E-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	0.00000E+00	+/- 7.1E-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	0.00000E+00	+/- 3.4E-14
Total phase (deg)			0.0						0.0	+/- 0.0

RMS Theor. Amplitude 9999.999 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.0 0.0 Search (2048X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 B: az 302.9 el 28.7 pa 46.3 B: az 302.9 el 28.7 pa 46.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BB..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BB.W.34.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

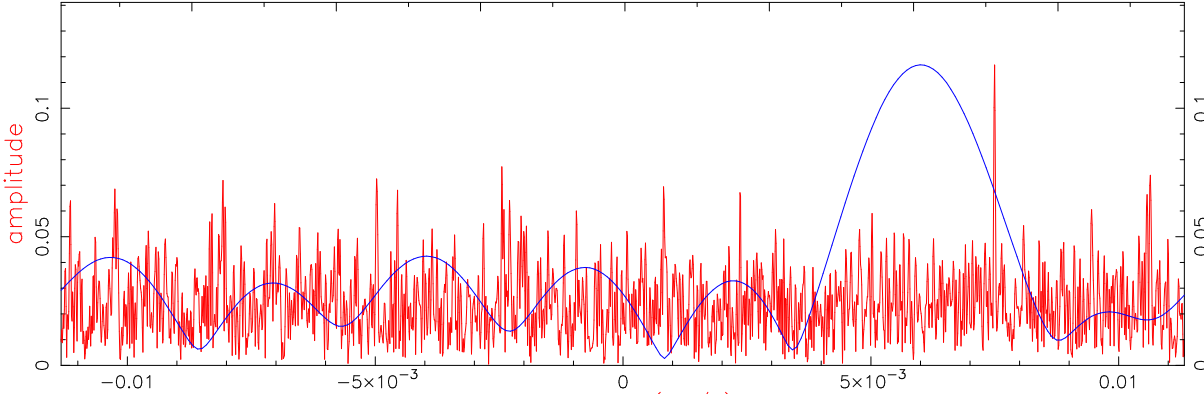
BLLAC.1W5ADF, No0245, bB

VLBA\_BR - EFLSBERG, fgroup W, pol LR

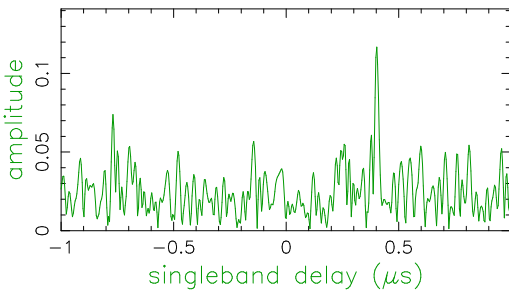
multiband delay ( $\mu$ s)

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

Fringe quality 0

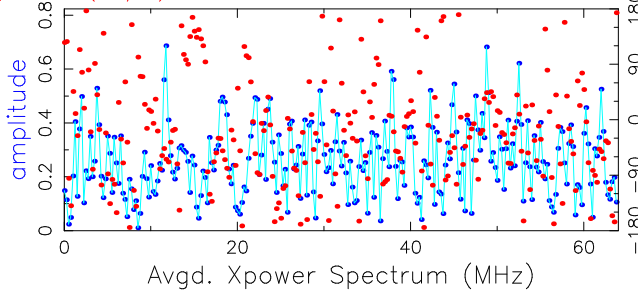


SNR 6.0  
Int time 350.010  
Amp 0.141  
Phase -134.5  
PFD 4.2e-01  
Delays (us)  
SBD 0.401746  
MBD 0.004077  
Fringe rate (Hz)  
0.646592  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



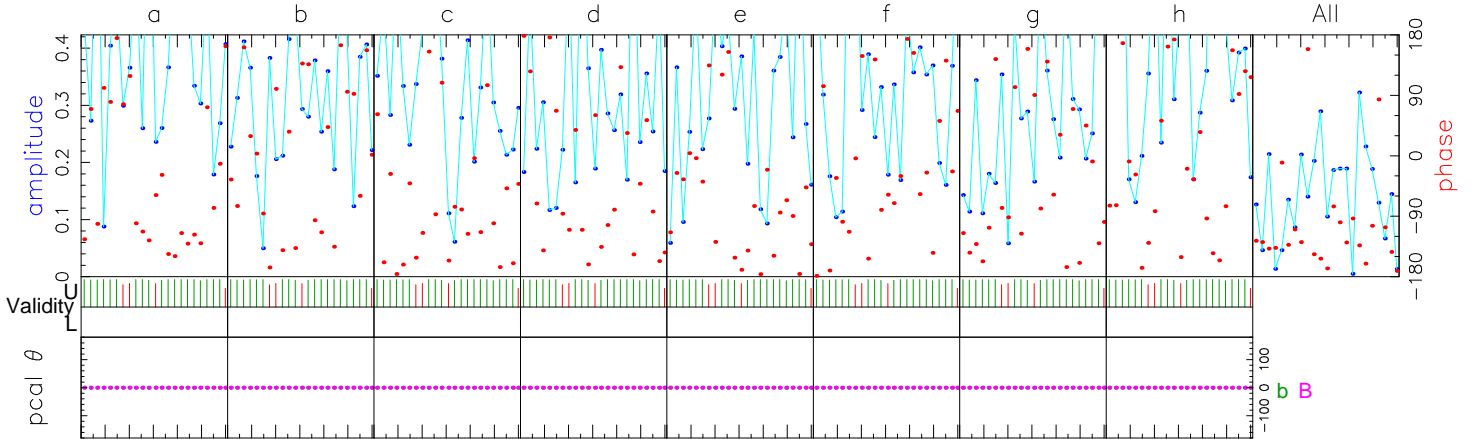
singleband delay ( $\mu$ s)

delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-131.7	174.6	-136.1	-135.6	-112.9	-122.9	-138.2	-139.9	Phase	-134.5
	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	Ampl.	0.1
	121.8	195.4	132.9	311.6	501.9	110.3	332.8	319.4	Sbd box	359.8
U/L	694/0	694/0	694/0	694/0	694/0	694/0	694/0	694/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:B	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	
B	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.67142248050E+03		Apriori delay (usec)		9.67102777811E+03		Resid mbdelay (usec)		4.07740E-03	+/- 1.8E-04
Sband delay (usec)	9.67142952386E+03		Apriori clock (usec)		1.9087633E+01		Resid sbdelay (usec)		4.01746E-01	+/- 1.4E-03
Phase delay (usec)	9.67102777377E+03		Apriori clockrate (us/s)		-9.9999998E-08		Resid phdelay (usec)		-4.33703E-06	+/- 6.2E-07
Delay rate (us/s)	1.11847554021E+00		Apriori rate (us/s)		1.11846803391E+00		Resid rate (us/s)		7.50629E-06	+/- 3.0E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.33993019360E-05		Resid phase (deg)		-134.5	+/- 19.1

	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)	48.4	45.6	Search (2048X32)	0.115	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	75.8	79.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	23.3	27.1	Inc. seg. avg.	0.132	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	35.7	47.2	Inc. frq. avg.	0.131	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

b: az 92.6 el 67.1 pa -64.3      B: az 302.9 el 28.7 pa 46.3      u,v (fr/asec) -8773.341 -3889.667      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c211a/v2/1234/No0245/bB..1W5ADF      Output file: /Exps/c211a/v2/1234/No0245/bB.W.40.1W5ADF



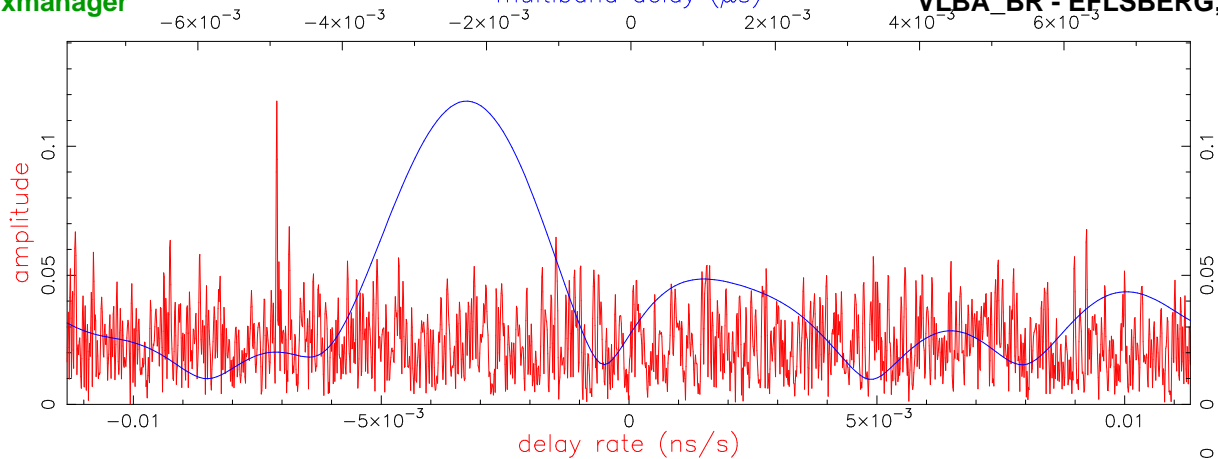
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, bB

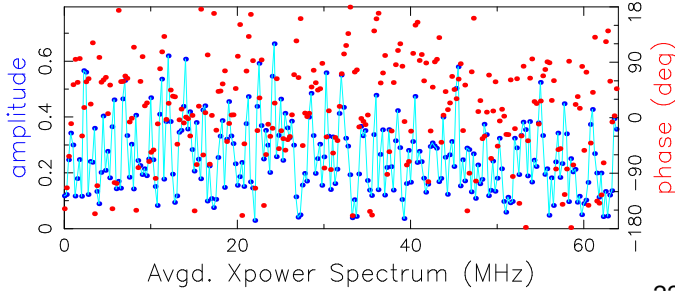
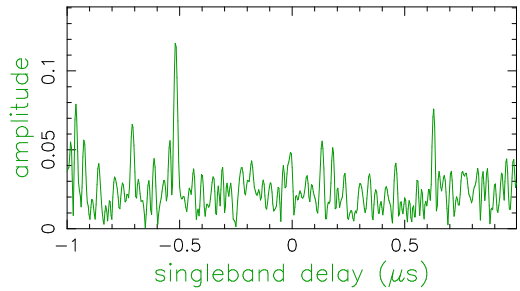
VLBA\_BR - EFLSBERG, fgroup W, pol RL

multiband delay ( $\mu$ s)



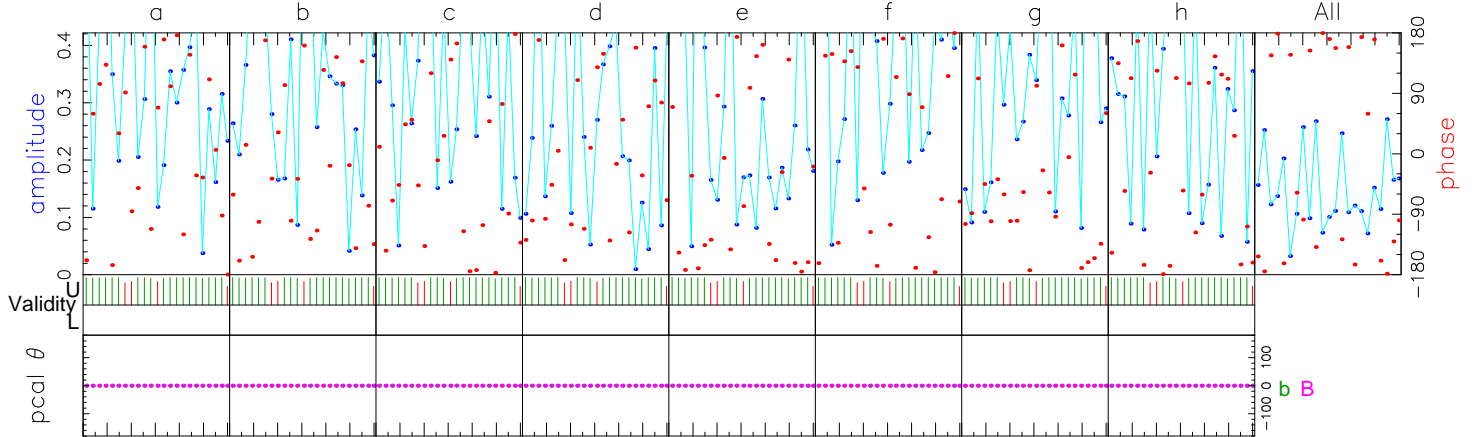
Fringe quality 0

SNR 6.1  
 Int time 350.010  
 Amp 0.141  
 Phase -161.8  
 PFD 2.7e-01  
 Delays (us)  
 SBD -0.518068  
 MBD -0.002250  
 Fringe rate (Hz)  
 -0.613461  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135422  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



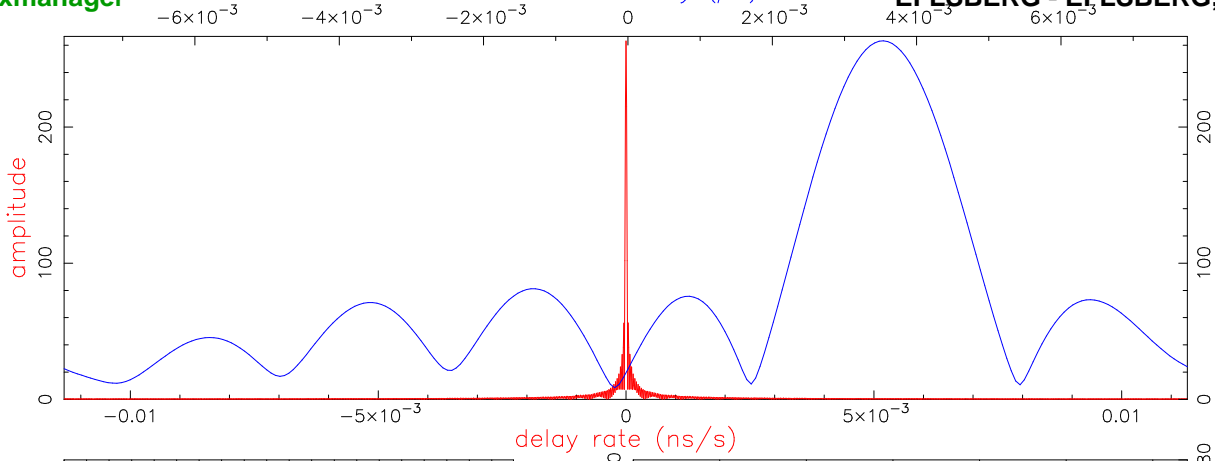
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	177.7	-143.4	-141.7	-160.2	-165.2	-176.5	-114.9	-179.7	Phase	-161.8
	0.1	0.1	0.1	0.0	0.2	0.3	0.1	0.2	Ampl.	0.1
	55.4	63.8	94.9	2.8	124.9	123.7	205.5	39.4	Sbd box	124.4
U/L	694/0	694/0	694/0	694/0	694/0	694/0	694/0	694/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:B	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	
B	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.67050990286E+03		Apriori delay (usec)		9.67102777811E+03		Resid mbdelay (usec)		-2.25025E-03	+/- 1.8E-04
Sband delay (usec)	9.67050971036E+03		Apriori clock (usec)		1.9087633E+01		Resid sbdelay (usec)		-5.18068E-01	+/- 1.4E-03
Phase delay (usec)	9.67102777289E+03		Apriori clockrate (us/s)		-9.9999998E-08		Resid phdelay (usec)		-5.21682E-06	+/- 6.1E-07
Delay rate (us/s)	1.11846091224E+00		Apriori rate (us/s)		1.11846803391E+00		Resid rate (us/s)		-7.12167E-06	+/- 3.0E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.33993019360E-05		Resid phase (deg)		-161.8	+/- 18.8

ph/seg (deg) 47.8 44.9 Search (2048X32) 0.116 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 62.5 78.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 25.5 26.6 Inc. seg. avg. 0.135 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 44.2 46.5 Inc. frq. avg. 0.134 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 b: az 92.6 el 67.1 pa -64.3 B: az 302.9 el 28.7 pa 46.3 u,v (fr/asec) -8773.341 -3889.667 ion window (TEC) 0.00 0.00  
 simultaneous interpolator

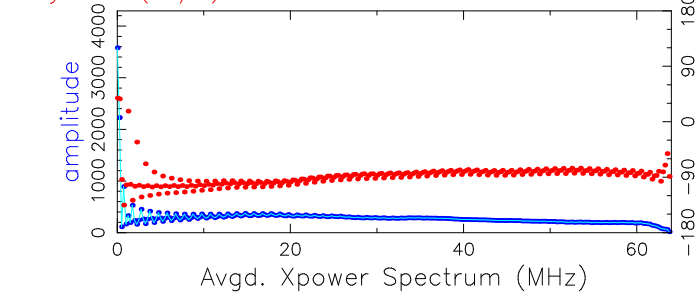
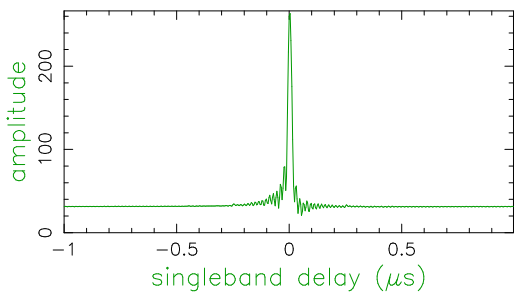
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/bB..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/bB.W.55.1W5ADF

multiband delay ( $\mu$ s)

Fringe quality 8

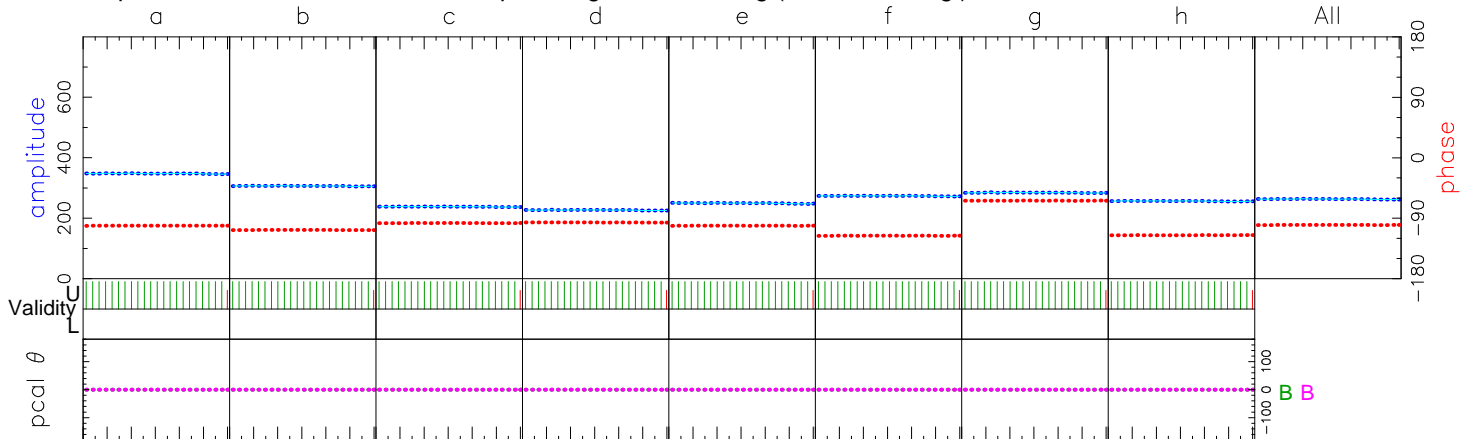


SNR 13828.9  
 Int time 359.914  
 Amp 266.558  
 Phase -100.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.002260  
 MBD 0.003496  
 Fringe rate (Hz)  
 -0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135422  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-101.0	-107.5	-97.2	-96.3	-101.0	-116.0	-63.8	-115.2	Phase	-100.0
	347.6	306.5	238.1	226.8	249.7	273.6	284.4	256.6	Ampl.	272.9
	258.3	257.5	257.3	258.6	257.6	257.6	256.0	260.5	Sbd box	257.6
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:B	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	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.49628125000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		3.49628E-03	+/- 7.8E-08
Sband delay (usec)	2.26000000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		2.26000E-03	+/- 6.2E-07
Phase delay (usec)	-3.22373036686E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-3.22373E-06	+/- 2.7E-10
Delay rate (us/s)	-2.83423047834E-12		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-2.83423E-12	+/- 1.3E-12
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-100.0	+/- 0.0

ph/seg (deg) 0.1 0.0 Theor. Amplitude 266.558 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 1.3 0.0 Search (2048X32) 261.804 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 17.7 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 14.1 0.0 Inc. seg. avg. 263.184 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 Inc. frq. avg. 272.916 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 302.9 el 28.7 pa 46.3 B: az 302.9 el 28.7 pa 46.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BB..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BB.W.59.1W5ADF

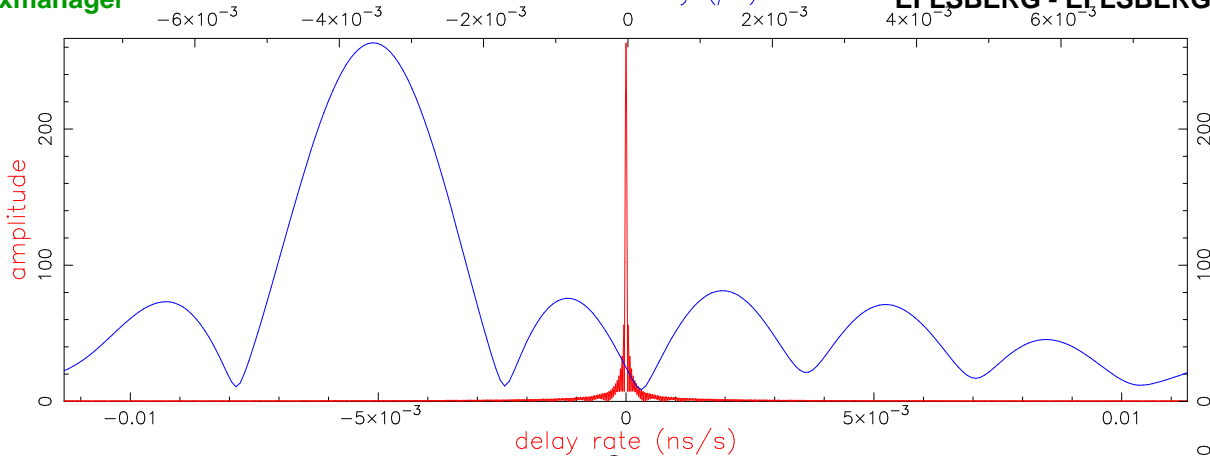
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BB

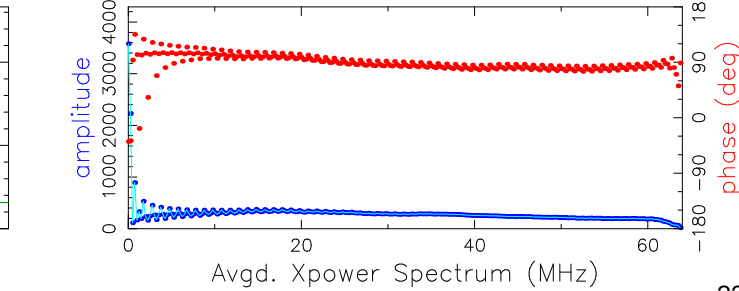
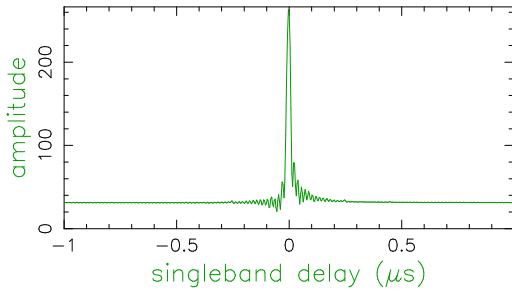
EFLSBERG - EFLSBERG, fgroup W, pol RL

multiband delay ( $\mu\text{s}$ )



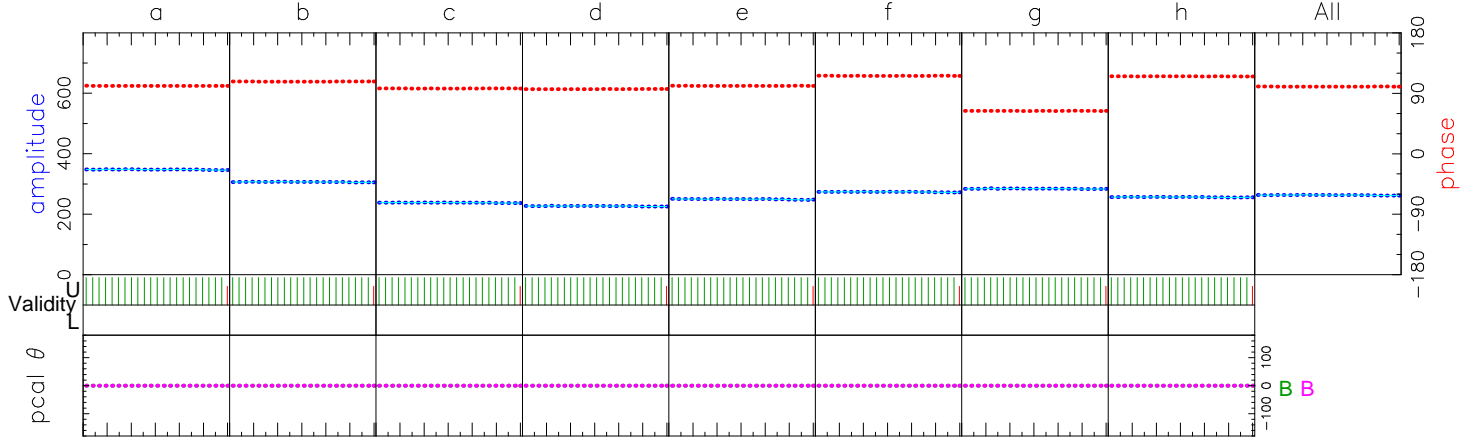
Fringe quality 8

SNR 13828.9  
 Int time 359.914  
 Amp 266.558  
 Phase 100.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002260  
 MBD -0.003496  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135425  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	101.0	107.5	97.2	96.3	101.0	116.0	63.8	115.2	Phase	100.0
	347.6	306.5	238.1	226.8	249.7	273.6	284.4	256.6	Ampl.	272.9
	255.7	256.5	256.7	255.4	256.4	256.4	258.0	253.5	Sbd box	256.4
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:B	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	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.496281250000E-03		Apriori delay (usec)		0.000000000000E+00		Resid mbdelay (usec)		-3.49628E-03	+/- 7.8E-08
Sband delay (usec)	-2.260000000000E-03		Apriori clock (usec)		0.000000000000E+00		Resid sbdelay (usec)		-2.26000E-03	+/- 6.2E-07
Phase delay (usec)	3.22373036692E-06		Apriori clockrate (us/s)		0.000000000000E+00		Resid phdelay (usec)		3.22373E-06	+/- 2.7E-10
Delay rate (us/s)	2.83423047834E-12		Apriori rate (us/s)		0.000000000000E+00		Resid rate (us/s)		2.83423E-12	+/- 1.3E-12
Total phase (deg)	100.0		Apriori accel (us/s/s)		0.000000000000E+00		Resid phase (deg)		100.0	+/- 0.0

ph/seg (deg) 0.1 0.0 Theor. Amplitude 266.558 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 1.3 0.0 Search (2048X32) 261.804 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 17.7 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 14.1 0.0 Inc. seg. avg. 263.184 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 Inc. frq. avg. 272.916 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 302.9 el 28.7 pa 46.3 B: az 302.9 el 28.7 pa 46.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BB..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BB.W.75.1W5ADF



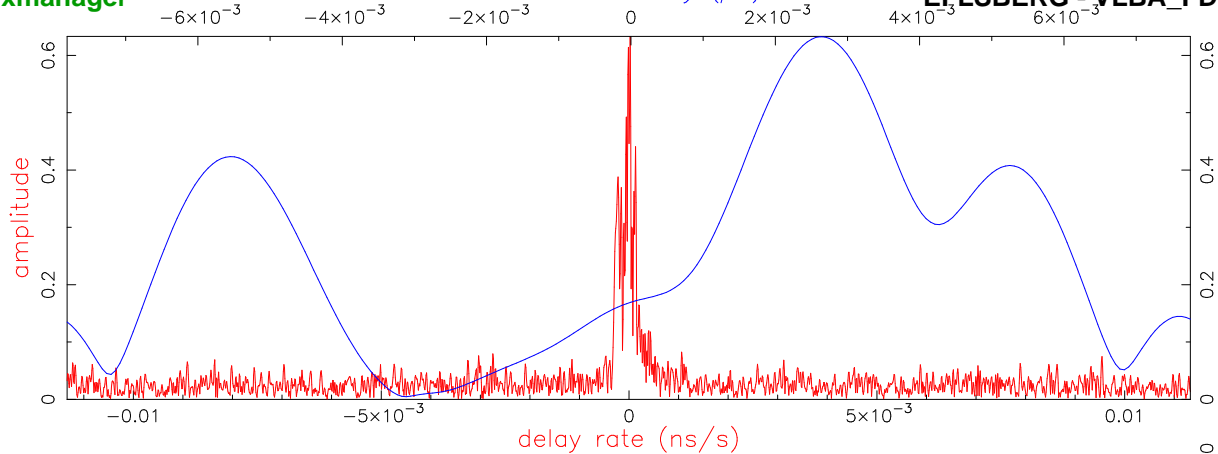
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bf

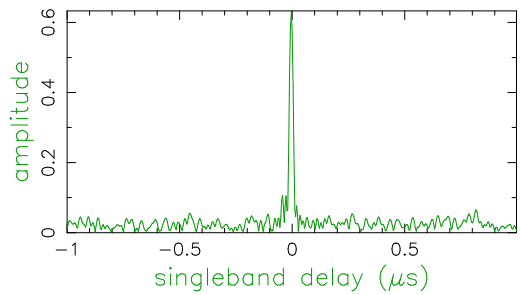
EFLSBERG - VLBA\_FD, fgroup W, pol LL

multiband delay ( $\mu$ s)

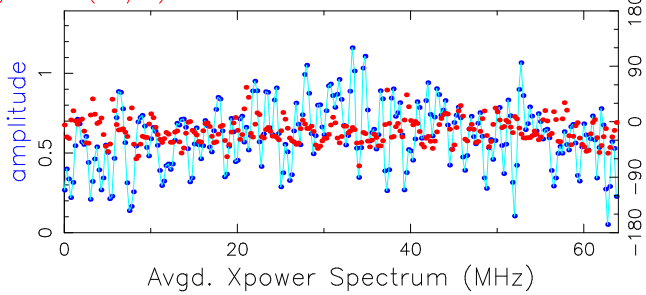


Fringe quality 3

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

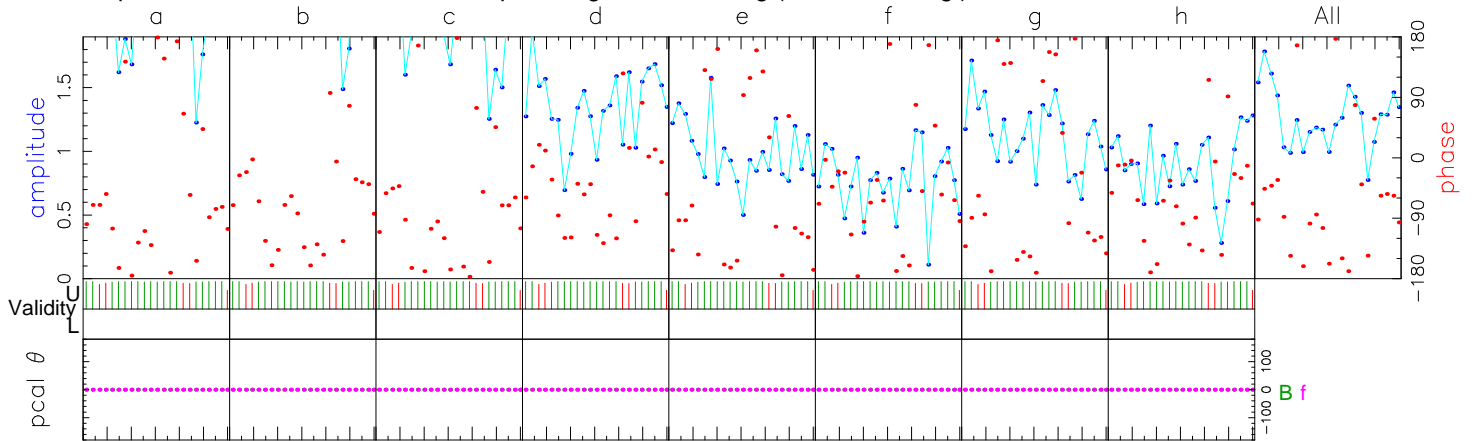


delay rate (ns/s)



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

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

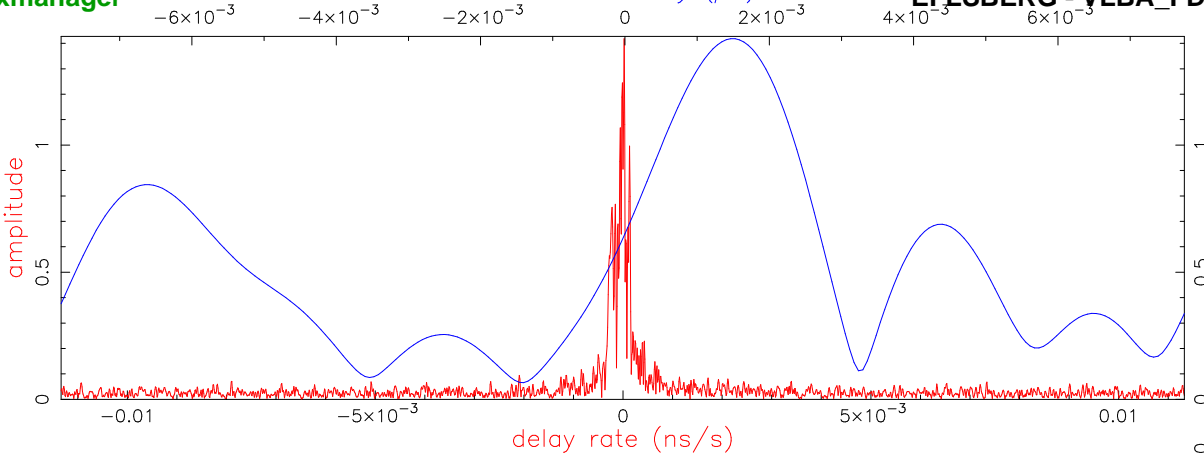


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-116.4	-73.2	-108.3	-38.8	-155.0	-58.8	-149.4	-60.6	Phase	-95.1
	1.2	1.3	1.1	0.7	0.5	0.3	0.6	0.5	Ampl.	0.8
	256.3	256.4	256.5	256.0	256.5	256.4	257.2	256.8	Sbd box	255.9
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.03685259903E+04		Apriori delay (usec)		-1.03685286230E+04		Resid mbdelay (usec)		2.63270E-03	+/- 3.3E-05
Sband delay (usec)	-1.03685328780E+04		Apriori clock (usec)		-3.2293221E+01		Resid sbdelay (usec)		-4.25500E-03	+/- 2.6E-04
Phase delay (usec)	-1.03685286261E+04		Apriori clockrate (us/s)		-5.9999999E-08		Resid phdelay (usec)		-3.06634E-06	+/- 1.1E-07
Delay rate (us/s)	-9.82420478053E-01		Apriori rate (us/s)		-9.82420501429E-01		Resid rate (us/s)		2.33760E-08	+/- 5.5E-10
Total phase (deg)	-306.6		Apriori accel (us/s/s)		7.49080739571E-05		Resid phase (deg)		-95.1	+/- 3.5

ph/seg (deg) 69.2 8.4 Search (2048X32) 0.622 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 105.9 14.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 47.1 5.0 Inc. seg. avg. 1.249 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 60.5 8.7 Inc. frq. avg. 0.776 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 B: az 302.9 el 28.7 pa 46.3 f: az 43.1 el 72.6 pa -126.0 u,v (fr/asec) 7763.056 6982.632 simultaneous interpolator

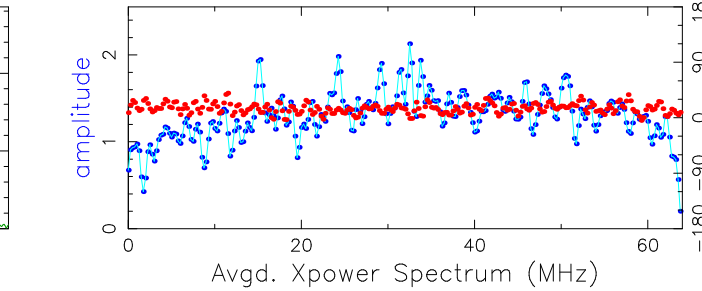
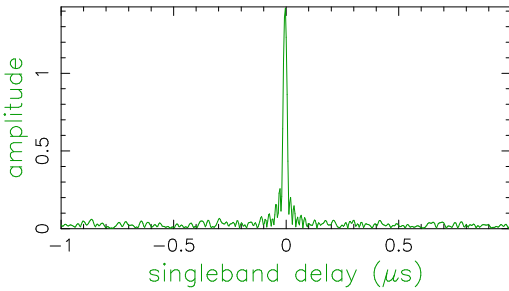
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bf..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bf.W.2.1W5ADF

multiband delay ( $\mu$ s)



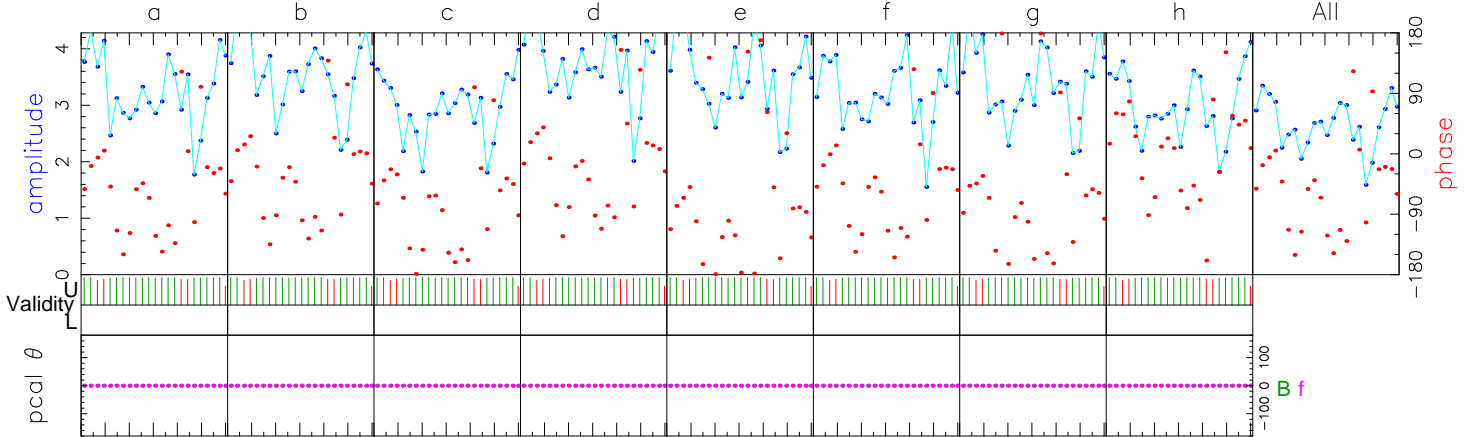
Fringe quality 2

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



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-59.4	-39.1	-82.3	-25.2	-118.5	-56.6	-93.2	9.8	Phase	-59.3
	1.8	1.9	1.6	2.0	1.9	1.7	1.8	1.5	Ampl.	1.8
	255.6	255.9	256.2	256.0	256.3	256.2	256.6	256.2	Sbd box	255.7
U/L	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.03685271528E+04		Apriori delay (usec)		-1.03685286230E+04		Resid mbdelay (usec)		1.47023E-03	+/- 1.5E-05
Sband delay (usec)	-1.0368533595E+04		Apriori clock (usec)		-3.2293221E+01		Resid sbdelay (usec)		-4.93650E-03	+/- 1.2E-04
Phase delay (usec)	-1.03685286249E+04		Apriori clockrate (us/s)		-5.9999999E-08		Resid phdelay (usec)		-1.91280E-06	+/- 5.0E-08
Delay rate (us/s)	-9.82420478539E-01		Apriori rate (us/s)		-9.82420501429E-01		Resid rate (us/s)		2.28900E-08	+/- 2.4E-10
Total phase (deg)			Apriori accel (us/s/s)		7.49080739571E-05		Resid phase (deg)		-59.3	+/- 1.6

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

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

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bf..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bf.W.24.1W5ADF

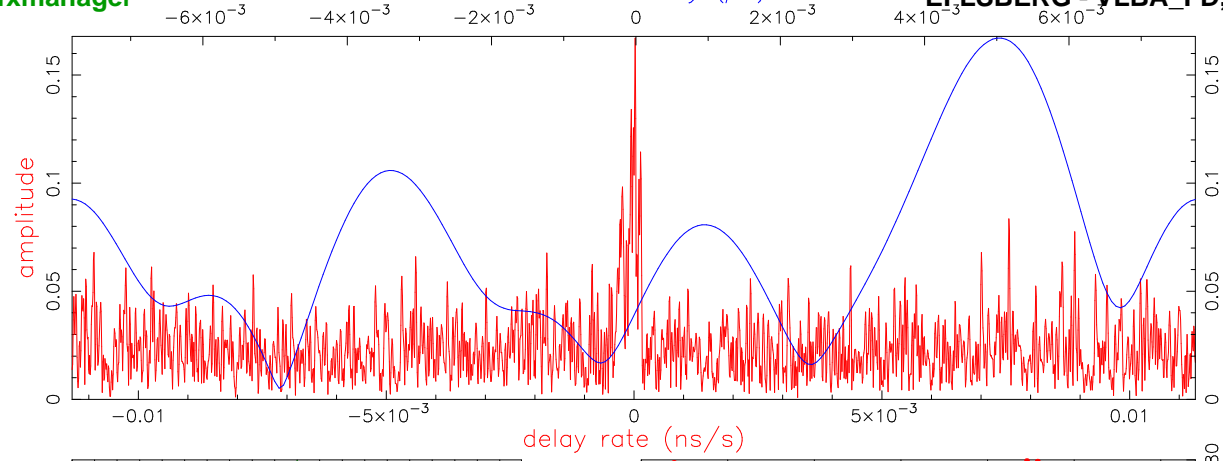
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bf

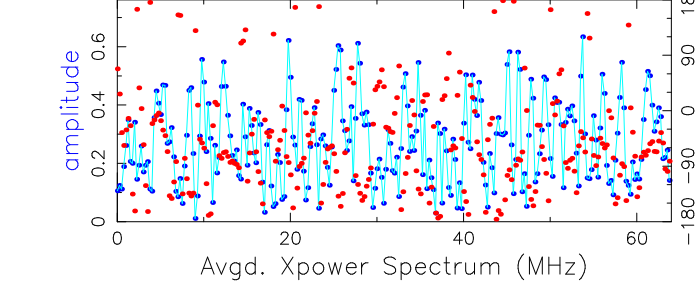
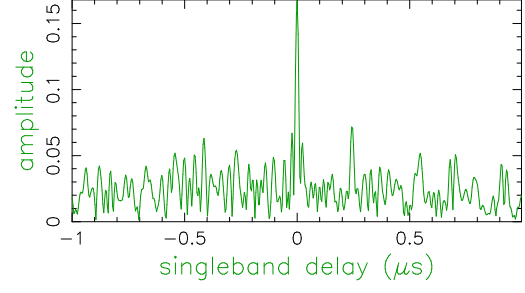
EFLSBERG - VLBA\_FD, fgroup W, pol LR

multiband delay ( $\mu$ s)



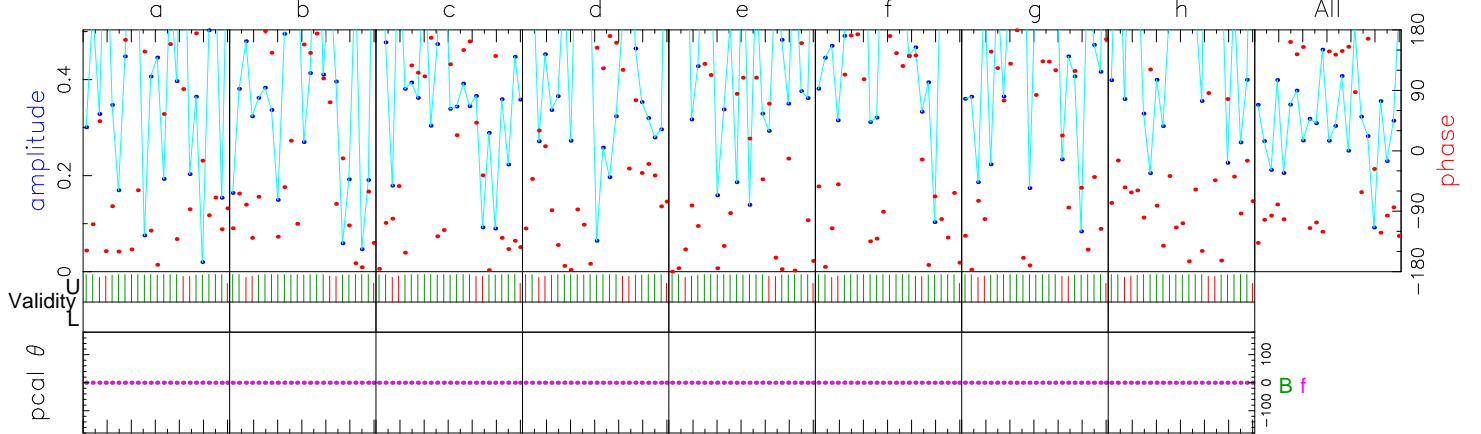
Fringe quality 9

SNR 8.6  
 Int time 353.791  
 Amp 0.168  
 Phase -146.8  
 PFD 2.2e-09  
 Delays (us)  
 SBD -0.000819  
 MBD 0.004998  
 Fringe rate (Hz)  
 0.001903  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135420  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-134.6	-137.8	-164.7	-94.2	178.8	-166.1	164.6	-76.1	Phase	-146.8
	0.2	0.1	0.2	0.2	0.3	0.3	0.2	0.3	Ampl.	0.2
	256.6	255.1	115.2	406.1	257.3	257.5	257.1	257.2	Sbd box	256.8
U/L	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.03685236252E+04		Apriori delay (usec)		-1.03685286230E+04		Resid mbdelay (usec)		4.99782E-03	+/- 1.3E-04
Sband delay (usec)	-1.03685294423E+04		Apriori clock (usec)		-3.2293221E+01		Resid sbdelay (usec)		-8.19250E-04	+/- 1.0E-03
Phase delay (usec)	-1.03685286278E+04		Apriori clockrate (us/s)		-5.9999999E-08		Resid phdelay (usec)		-4.73300E-06	+/- 4.3E-07
Delay rate (us/s)	-9.82420479340E-01		Apriori rate (us/s)		-9.82420501429E-01		Resid rate (us/s)		2.20893E-08	+/- 2.1E-09
Total phase (deg)			Apriori accel (us/s/s)		7.49080739571E-05		Resid phase (deg)		-146.8	+/- 13.3

	RMS	Theor.	Amplitude	0.168 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	62.4	31.7	Search (2048X32)	0.166	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	106.7	55.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	45.2	18.8	Inc. seg. avg.	0.277	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	41.3	32.8	Inc. frq. avg.	0.208	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

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

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bf..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bf.W.45.1W5ADF

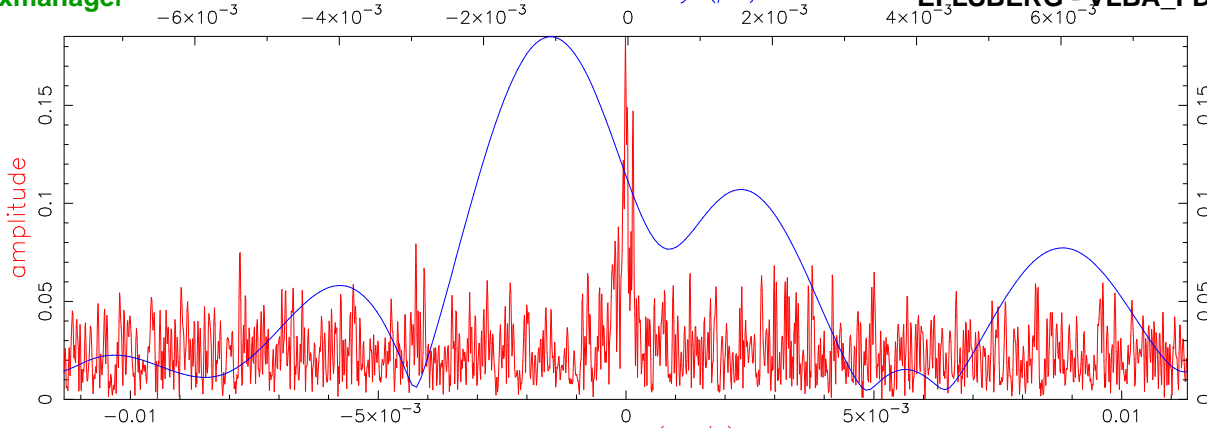
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bf

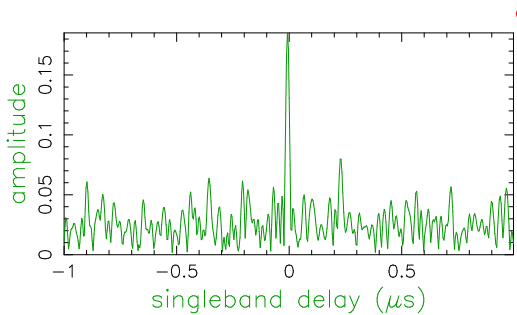
EFLSBERG - VLBA\_FD, fgroup W, pol RL

multiband delay ( $\mu$ s)

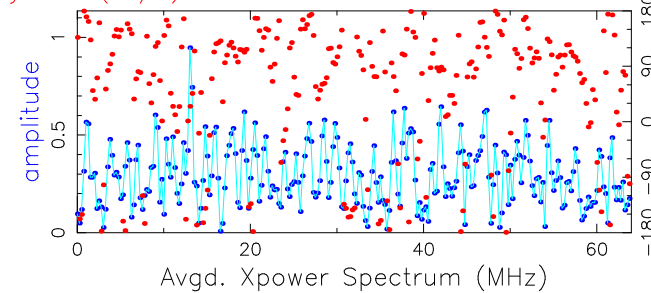


Fringe quality 9

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

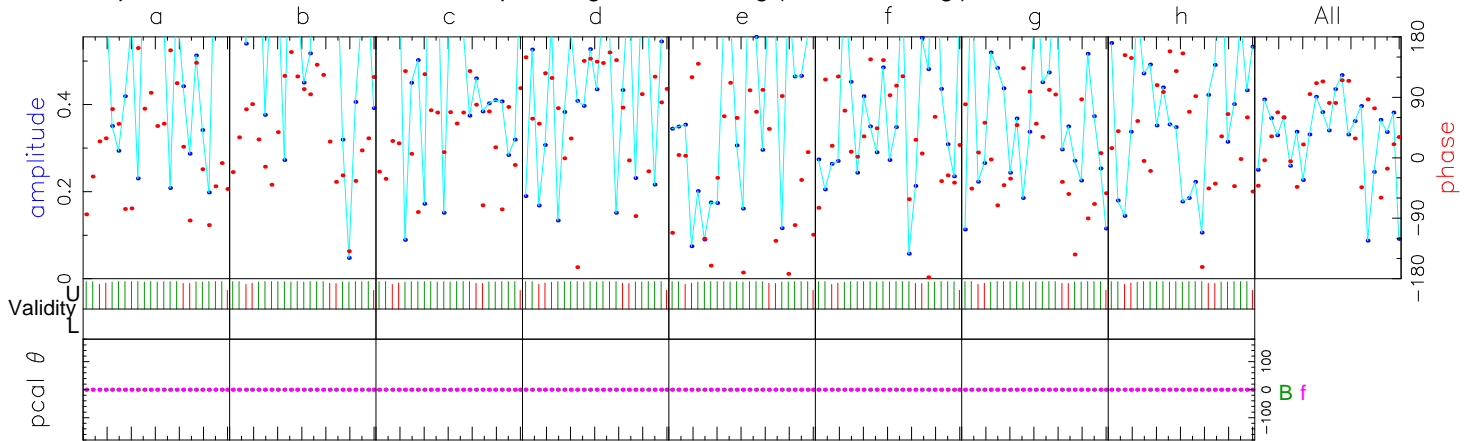


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0			
B	1000	1000	1000	1000	1000	1000	1000	1000			
f	1000	1000	1000	1000	1000	1000	1000	1000			
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
B	1000	1000	1000	1000	1000	1000	1000	1000			
f	1000	1000	1000	1000	1000	1000	1000	1000			
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)		-1.03685296809E+04				-1.03685286230E+04			Resid mbdelay (usec)	-1.05790E-03	+/- 1.1E-04
Sband delay (usec)		-1.03685360693E+04				-3.2293221E+01			Resid sbdelay (usec)	-7.44625E-03	+/- 9.0E-04
Phase delay (usec)		-1.03685286216E+04				-5.9999999E-08			Resid phdelay (usec)	1.46268E-06	+/- 3.9E-07
Delay rate (us/s)		-9.82420515162E-01				-9.82420501429E-01			Resid rate (us/s)	-1.37326E-08	+/- 1.9E-09
Total phase (deg)			-166.1			7.49080739571E-05			Resid phase (deg)	45.4	+/- 12.0
	RMS	Theor.	Amplitude	0.185 +/- 0.019		Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5		
ph/seg (deg)	56.5	28.7	Search (2048X32)	0.182		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000	1.000
amp/seg (%)	92.5	50.2	Interp.	0.000		Bits/sample: 2x2			SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	32.7	17.0	Inc. seg. avg.	0.293		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.9	29.7	Inc. frq. avg.	0.199		Data rate(Mb/s): 2048			ion window (TEC)	0.00	0.00
B: az 302.9 el 28.7 pa 46.3		f: az 43.1 el 72.6 pa -126.0		u,v (fr/asec) 7763.056 6982.632		nlags: 256 t_cohere infinite					simultaneous interpolator

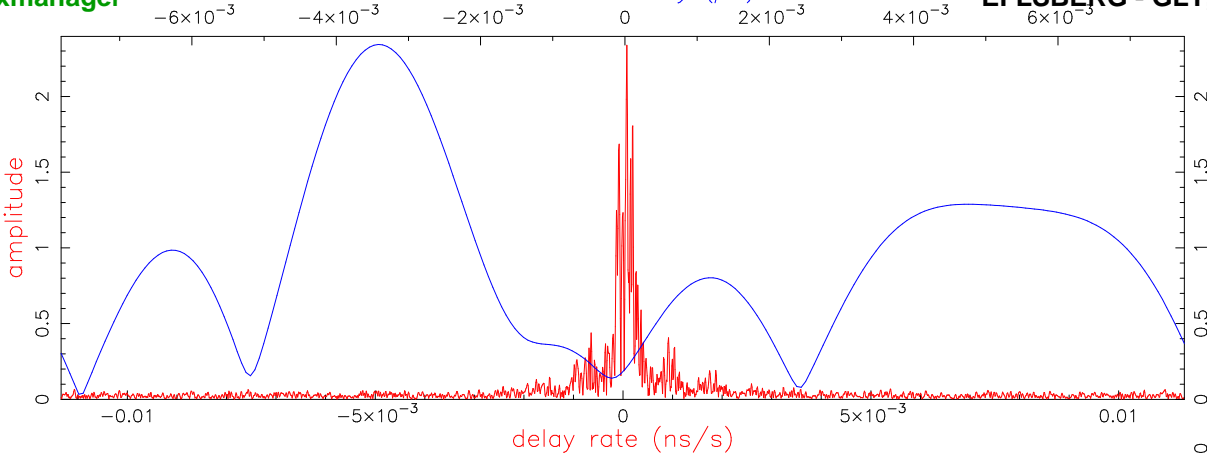
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bg

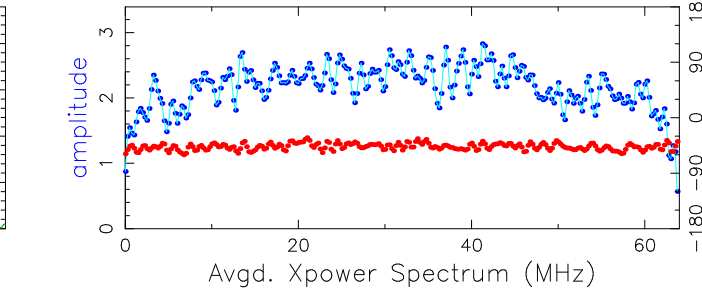
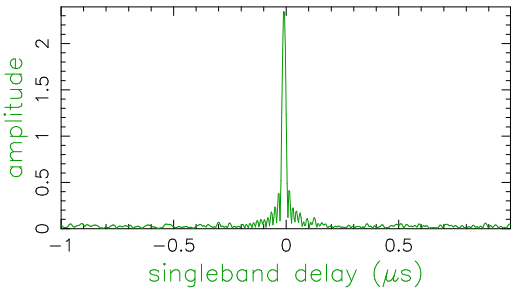
EFLSBERG - GLT, fgroup W, pol RR

multiband delay ( $\mu$ s)



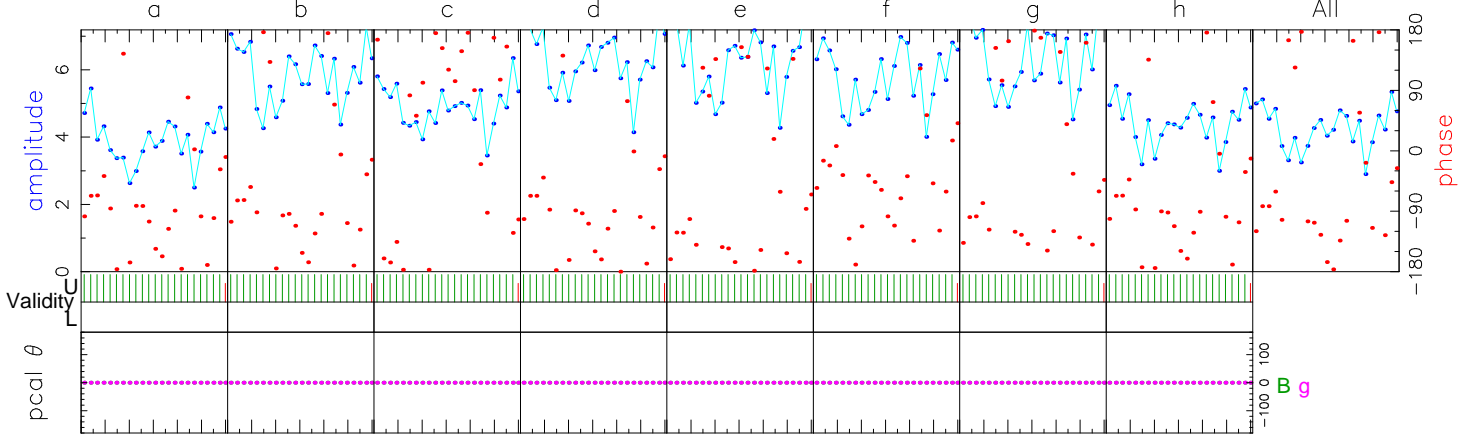
Fringe quality 2

SNR 124.3  
 Int time 359.913  
 Amp 2.396  
 Phase -119.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.009832  
 MBD -0.003476  
 Fringe rate (Hz)  
 0.007121  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135417  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-100.9	-108.5	162.0	-104.2	-160.5	-55.8	-134.0	-104.2	Phase	-119.7
	2.2	3.2	2.7	3.4	3.4	3.1	3.5	2.4	Ampl.	3.0
	252.8	254.4	255.2	255.1	255.4	255.3	254.9	253.4	Sbd box	254.5
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
B:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B:g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.35790607049E+03		Apriori delay (usec)		-7.35790259427E+03		Resid mbdelay (usec)		-3.47623E-03	+/- 8.7E-06
Sband delay (usec)	-7.35791242602E+03		Apriori clock (usec)		-2.2492220E+01		Resid sbdelay (usec)		-9.83175E-03	+/- 6.9E-05
Phase delay (usec)	-7.35790259813E+03		Apriori clockrate (us/s)		-5.9999999E-08		Resid phdelay (usec)		-3.85984E-06	+/- 3.0E-08
Delay rate (us/s)	-6.33831236291E-01		Apriori rate (us/s)		-6.33831318959E-01		Resid rate (us/s)		8.26681E-08	+/- 1.4E-10
Total phase (deg)			Apriori accel (us/s/s)		2.36975052598E-05		Resid phase (deg)		-119.7	+/- 0.9

RMS Theor. Amplitude 2.396 +/- 0.019  
 ph/seg (deg) 66.0 2.2 Search (2048X32) 2.249 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 81.8 3.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 46.6 1.3 Inc. seg. avg. 4.254 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 31.9 2.3 Inc. frq. avg. 2.990 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 B: az 302.9 el 28.7 pa 46.3 g: az 205.0 el 54.9 pa 7.2 u,v (fr/asec) 4957.008 315.110 ion window (TEC) 0.00 0.00  
 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bg..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bg.W.26.1W5ADF



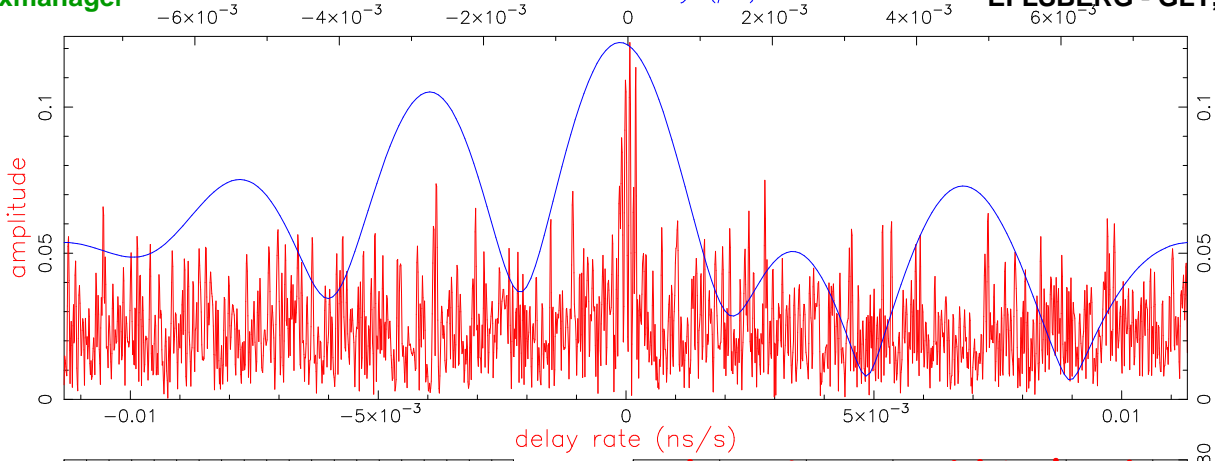
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bg

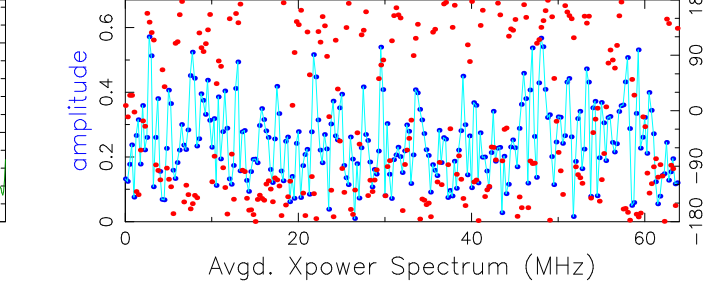
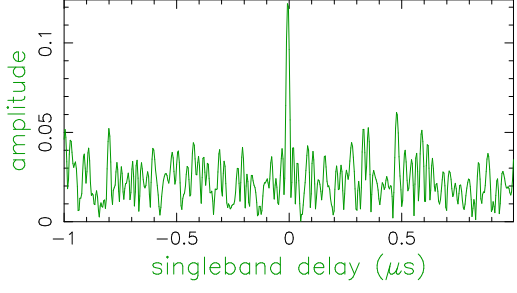
EFLSBERG - GLT, fgroup W, pol LR

multiband delay ( $\mu$ s)



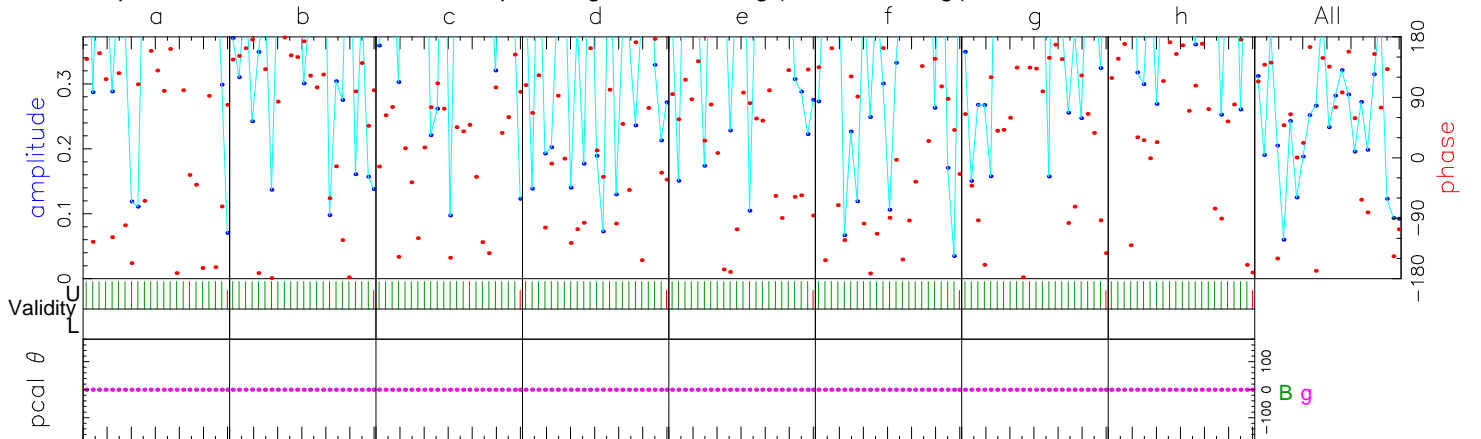
Fringe quality 0

SNR 6.4  
 Int time 359.913  
 Amp 0.124  
 Phase 126.7  
 PFD 3.2e-02  
 Delays (us)  
 SBD -0.006150  
 MBD -0.000086  
 Fringe rate (Hz)  
 0.006865  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135420  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
g	0	0	0	0	0	0	0	0		
B:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:g	1000	1000	1000	1000	1000	1000	1000	1000		
g	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.35790267987E+03									
Sband delay (usec)	-7.35790874427E+03									
Phase delay (usec)	-7.35790259018E+03									
Delay rate (us/s)	-6.33831239263E-01									
Total phase (deg)			-42.5							
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)									126.7	+/- 17.8
Pcal mode:	MANUAL, MANUAL								PC period (AP's) 5, 5	
Pcal rate:	0.000E+00, 0.000E+00 (us/s)								sb window (us) -1.000 1.000	
Bits/sample:	2x2								SampCntNorm: enabled mb window (us) -0.008 0.008	
Sample rate (MSamp/s):	128								dr window (ns/s) -0.011 0.011	
Data rate (Mb/s):	2048								ion window (TEC) 0.00 0.00	
nlags:	256								t_cohere infinite	

B: az 302.9 el 28.7 pa 46.3 g: az 205.0 el 54.9 pa 7.2 u,v (fr/asec) 4957.008 315.110 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bg..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bg.W.47.1W5ADF

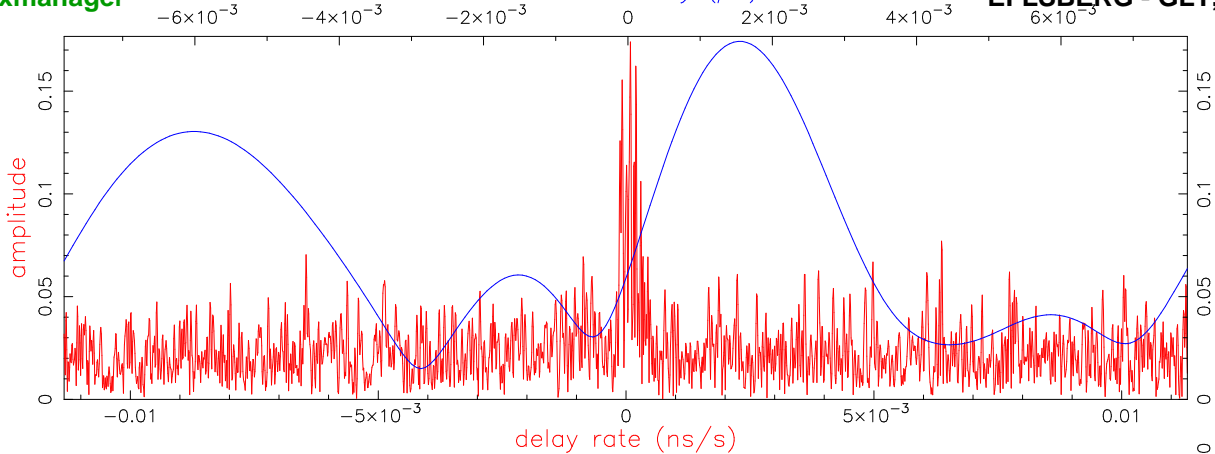
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bg

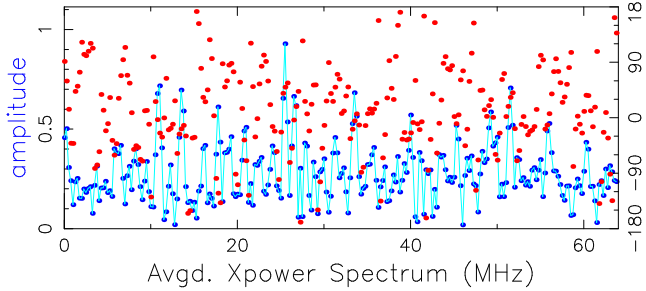
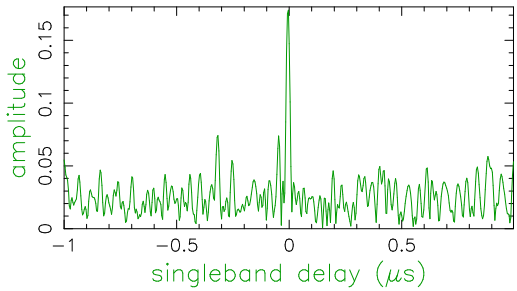
EFLSBERG - GLT, fgroup W, pol RL

multiband delay ( $\mu$ s)



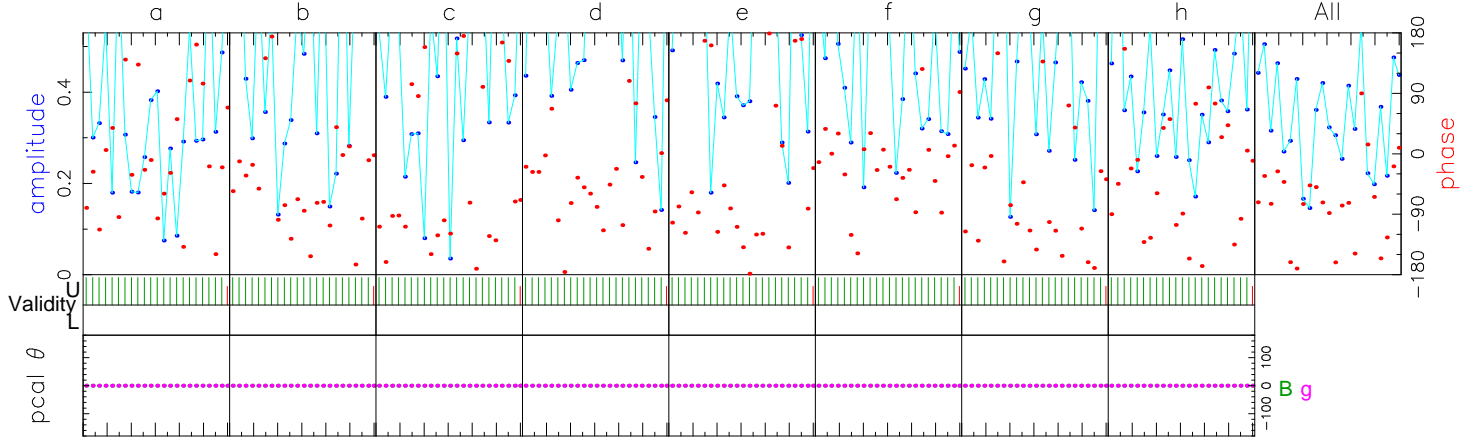
Fringe quality 9

SNR 9.2  
 Int time 359.913  
 Amp 0.177  
 Phase -71.0  
 PFD 1.9e-11  
 Delays (us)  
 SBD -0.005520  
 MBD 0.001481  
 Fringe rate (Hz)  
 0.007252  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-36.7	-58.1	-136.0	-49.5	-115.9	-13.0	-105.9	-51.3	Phase	-71.0		
	0.1	0.3	0.3	0.3	0.3	0.3	0.2	0.1	Ampl.	0.2		
	348.7	255.7	256.7	256.4	256.7	256.0	343.8	166.2	Sbd box	255.6		
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used			
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
g	0	0	0	0	0	0	0	0	PC freqs			
B:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
B:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
B:g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
g	1000	1000	1000	1000	1000	1000	1000	1000				
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec)(sbd)	-7.35790111344E+03		Apriori delay (usec)		-7.35790259427E+03		Resid mbdelay (usec)		1.48083E-03	+/- 1.2E-04		
Sband delay (usec)	-7.35790811477E+03		Apriori clock (usec)		-2.2492220E+01		Resid sbdelay (usec)		-5.52050E-03	+/- 9.4E-04		
Phase delay (usec)	-7.35790259656E+03		Apriori clockrate (us/s)		-5.9999999E-08		Resid phdelay (usec)		-2.29094E-06	+/- 4.0E-07		
Delay rate (us/s)	-6.33831234771E-01		Apriori rate (us/s)		-6.33831318959E-01		Resid rate (us/s)		8.41880E-08	+/- 1.9E-09		
Total phase (deg)			Apriori accel (us/s/s)		2.36975052598E-05		Resid phase (deg)		-71.0	+/- 12.5		
	RMS	Theor.	Amplitude	0.177 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	62.4	30.0	Search (2048X32)	0.168		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	112.5	52.3	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	46.6	17.7	Inc. seg. avg.	0.301		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011	0.011	
amp/frq (%)	58.3	30.9	Inc. frq. avg.	0.224		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 302.9 el 28.7 pa 46.3 g: az 205.0 el 54.9 pa 7.2 u,v (fr/asec) 4957.008 315.110 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bg..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bg.W.65.1W5ADF

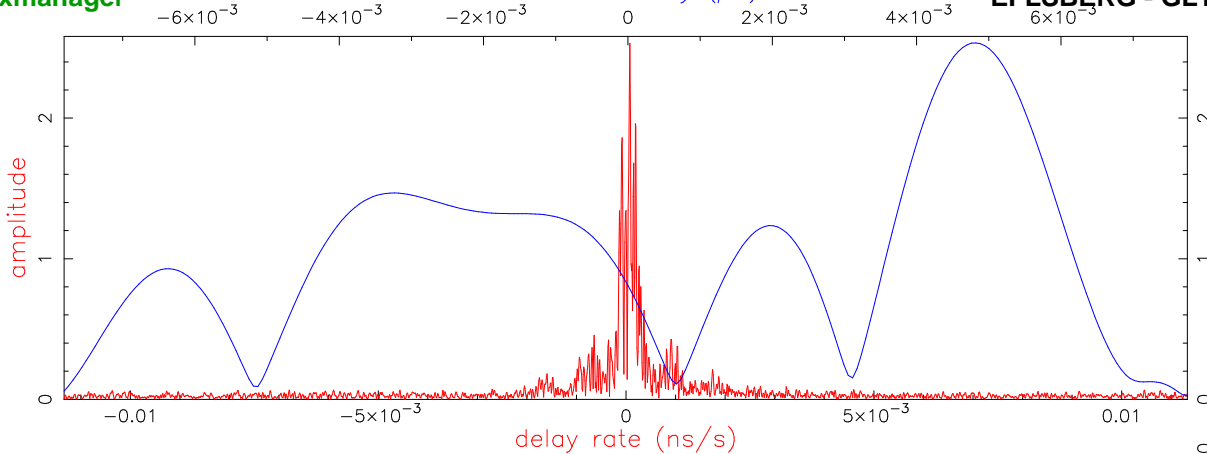
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bg

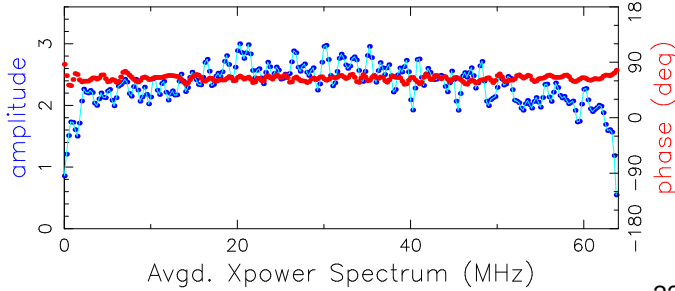
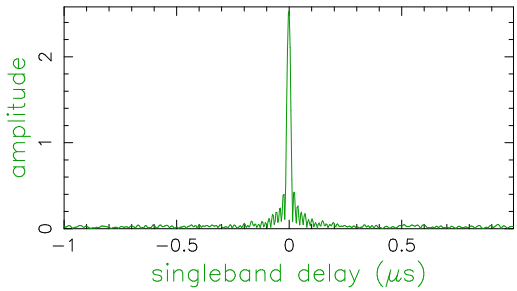
EFLSBERG - GLT, fgroup W, pol LL

multiband delay ( $\mu$ s)



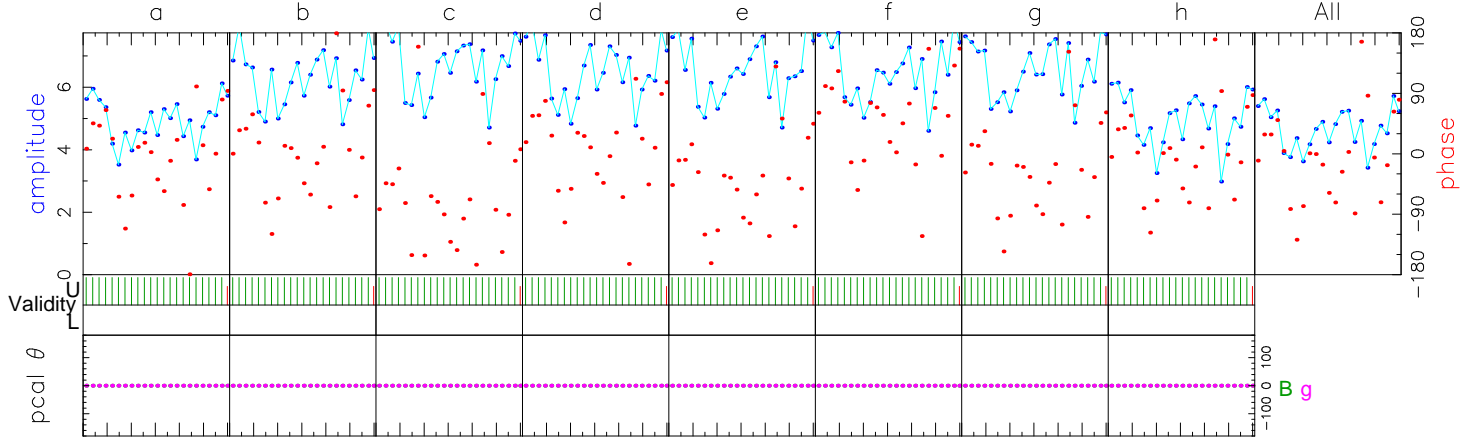
Fringe quality 2

SNR 133.9  
 Int time 359.913  
 Amp 2.581  
 Phase -11.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001780  
 MBD 0.004758  
 Fringe rate (Hz)  
 0.007110  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135413  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	6.1	-1.9	-83.9	16.1	-46.1	60.9	-29.6	-5.7	Phase	-11.3
	2.7	3.4	3.6	3.5	3.6	3.6	3.5	2.7	Ampl.	3.3
	255.3	256.4	257.3	257.4	257.4	257.3	256.7	255.7	Sbd box	256.5
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
B:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.35789783621E+03		Apriori delay (usec)		-7.35790259427E+03		Resid mbdelay (usec)		4.75805E-03	+/- 8.1E-06
Sband delay (usec)	-7.35790437377E+03		Apriori clock (usec)		-2.2492220E+01		Resid sbdelay (usec)		-1.77950E-03	+/- 6.4E-05
Phase delay (usec)	-7.35790259463E+03		Apriori clockrate (us/s)		-5.9999999E-08		Resid phdelay (usec)		-3.65199E-07	+/- 2.8E-08
Delay rate (us/s)	-6.33831236415E-01		Apriori rate (us/s)		-6.33831318959E-01		Resid rate (us/s)		8.25448E-08	+/- 1.3E-10
Total phase (deg)			Apriori accel (us/s/s)		2.36975052598E-05		Resid phase (deg)		-11.3	+/- 0.9

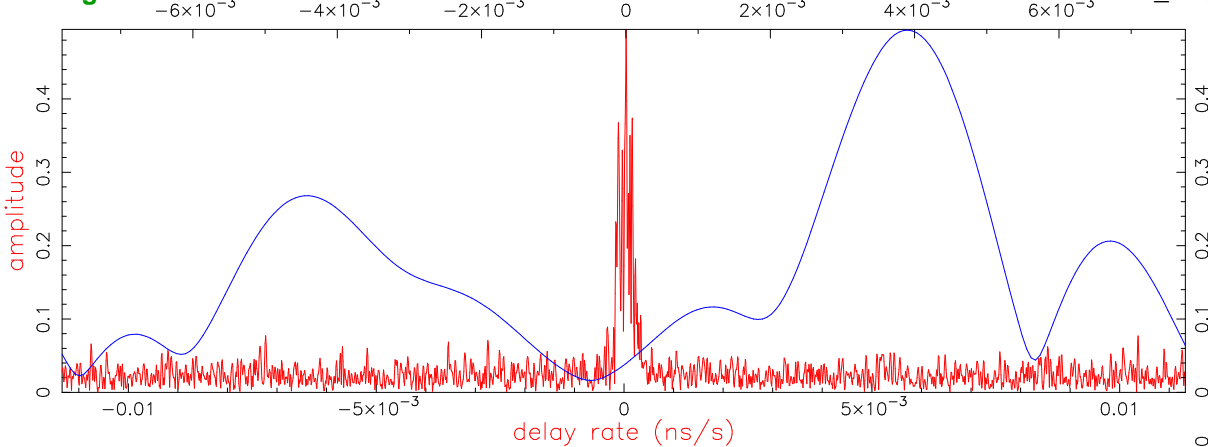
	RMS	Theor.	Amplitude	2.581 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	66.1	2.1	Search (2048X32)	2.430	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	84.0	3.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	46.9	1.2	Inc. seg. avg.	4.653	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	32.6	2.1	Inc. frq. avg.	3.336	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 302.9 el 28.7 pa 46.3 g: az 205.0 el 54.9 pa 7.2 u,v (fr/asec) 4957.008 315.110 simultaneous interpolator

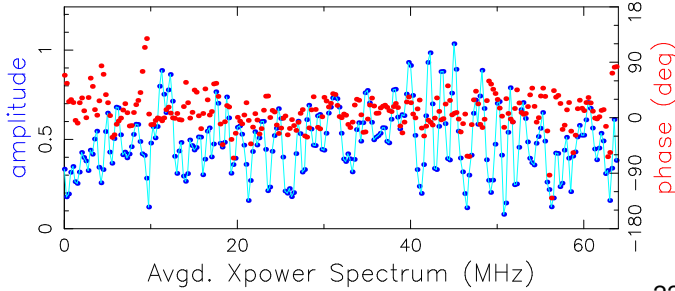
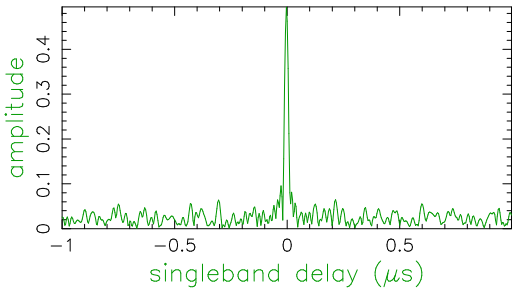
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bg..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bg.W.7.1W5ADF

multiband delay ( $\mu$ s)

Fringe quality 6

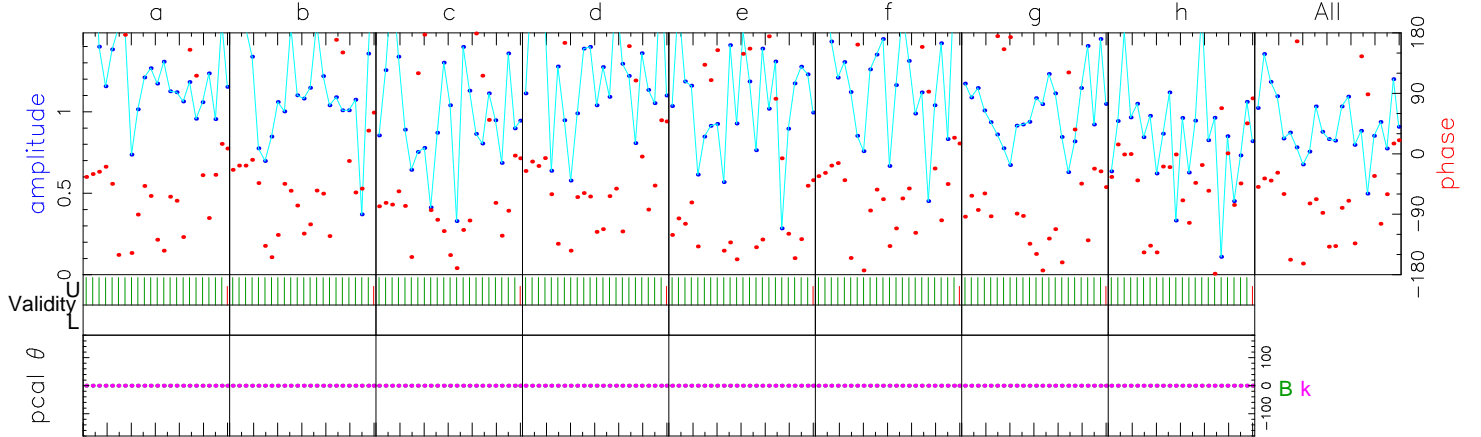


SNR 25.7  
 Int time 359.914  
 Amp 0.495  
 Phase -73.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.003320  
 MBD 0.003913  
 Fringe rate (Hz) 0.003784  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135417  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-68.0	-52.6	-96.2	-52.6	-143.2	-56.9	-103.1	-32.2	Phase	-73.7
	0.6	0.6	0.5	0.6	0.6	0.7	0.6	0.5	Ampl.	0.6
	256.3	256.2	256.7	256.3	257.5	256.3	257.2	256.8	Sbd box	256.2
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	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)	-9.88262864130E+03		Apriori delay (usec)		-9.88263255463E+03		Resid mbdelay (usec)		3.91334E-03	+/- 4.2E-05
Sband delay (usec)	-9.88263587488E+03		Apriori clock (usec)		-2.2382000E+01		Resid sbdelay (usec)		-3.32025E-03	+/- 3.4E-04
Phase delay (usec)	-9.88263255701E+03		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-2.37717E-06	+/- 1.4E-07
Delay rate (us/s)	-1.10209007862E+00		Apriori rate (us/s)		-1.10209012254E+00		Resid rate (us/s)		4.39242E-08	+/- 6.9E-10
Total phase (deg)			Apriori accel (us/s/s)		7.08783643228E-05		Resid phase (deg)		-73.7	+/- 4.5

	RMS	Theor.	Amplitude	0.495 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	69.5	10.7	Search (2048X32)	0.493	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	93.5	18.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	39.0	6.3	Inc. seg. avg.	0.902	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	21.0	11.0	Inc. frq. avg.	0.580	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 302.9 el 28.7 pa 46.3 k: az 54.2 el 68.5 pa -110.7 u,v (fr/asec) 8682.515 6552.714 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bk..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bk.W.29.1W5ADF

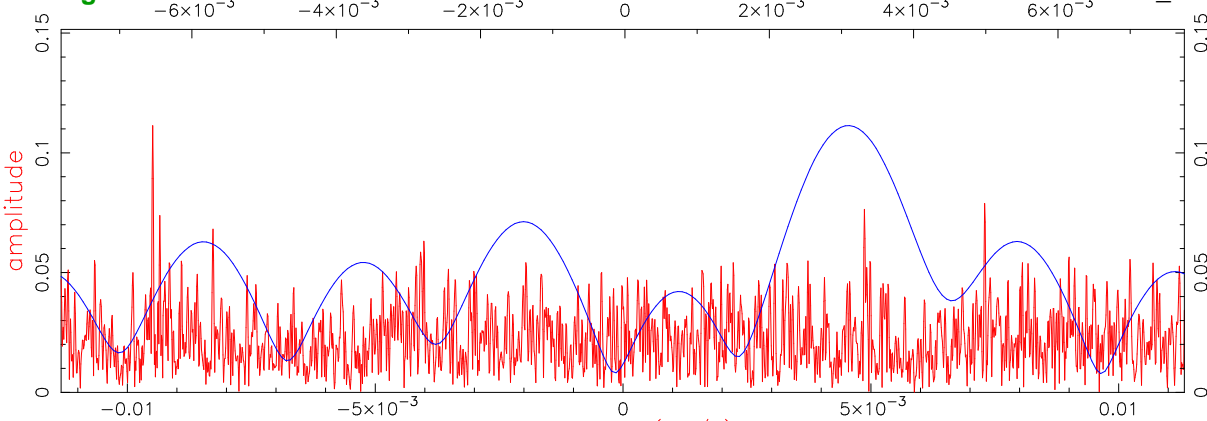
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bk

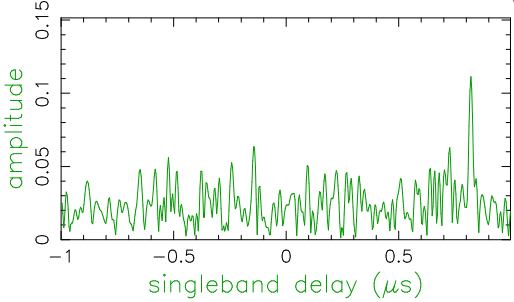
EFLSBERG - VLBA\_KP, fgroup W, pol LR

multiband delay ( $\mu$ s)

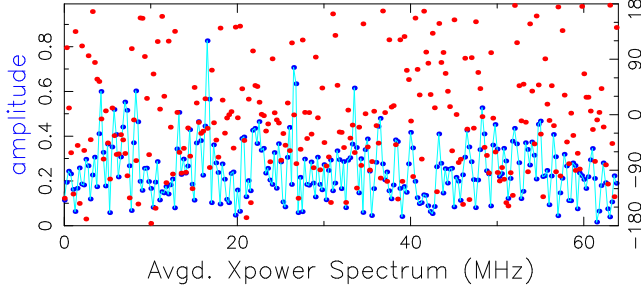


Fringe quality 0

SNR 5.8  
Int time 359.914  
Amp 0.152  
Phase 24.7  
PFD 8.5e-01  
Delays (us)  
SBD 0.820505  
MBD 0.003101  
Fringe rate (Hz)  
-0.818543  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

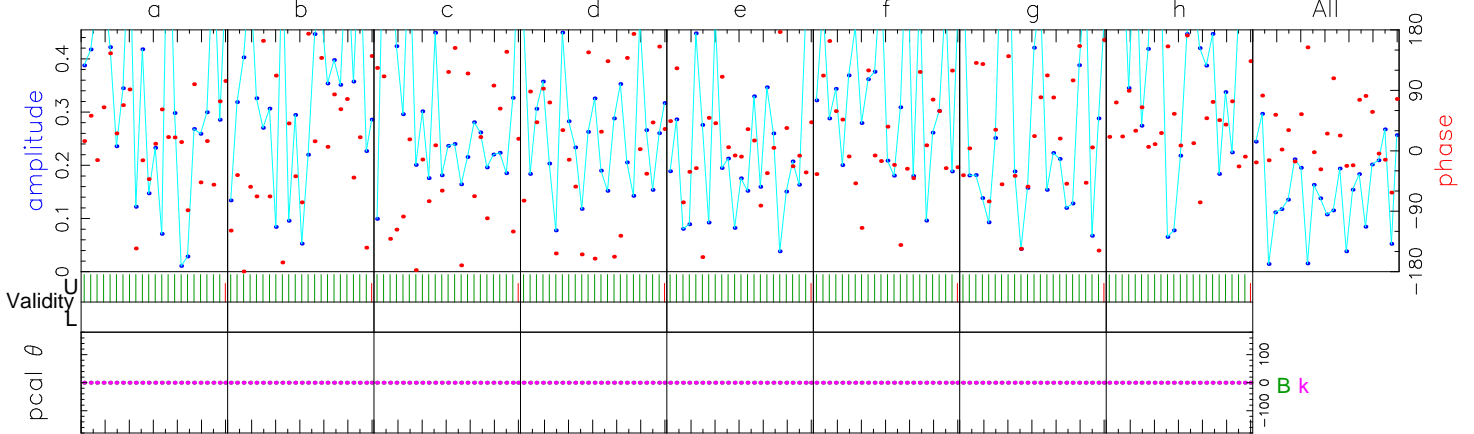


delay rate (ns/s)



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 134500.00  
Stop 135059.94  
FRT 134800.00  
Corr/FF/build  
2021:286:102153  
2021:286:135421  
2021:252:122852  
RA & Dec (J2000)  
22h02m43.291370s  
+42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
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)	-9.88181695376E+03	Apriori delay (usec)	-9.88263255463E+03	Resid mbdelay (usec)	3.10087E-03	+/-	1.9E-04
Sband delay (usec)	-9.88181204963E+03	Apriori clock (usec)	-2.2382000E+01	Resid sbdelay (usec)	8.20505E-01	+/-	1.5E-03
Phase delay (usec)	-9.88263255384E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	7.97062E-07	+/-	6.4E-07
Delay rate (us/s)	-1.10209962502E+00	Apriori rate (us/s)	-1.10209012254E+00	Resid rate (us/s)	-9.50248E-06	+/-	3.1E-09
Total phase (deg)	-67.5	Apriori accel (us/s/s)	7.08783643228E-05	Resid phase (deg)	24.7	+/-	19.8

ph/seg (deg)	51.7	Theor.	47.5	Amplitude	0.152 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	78.1		83.0	Search (2048X32)	0.108	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	23.8		28.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	84.2		48.9	Inc. seg. avg.	0.153	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.139	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

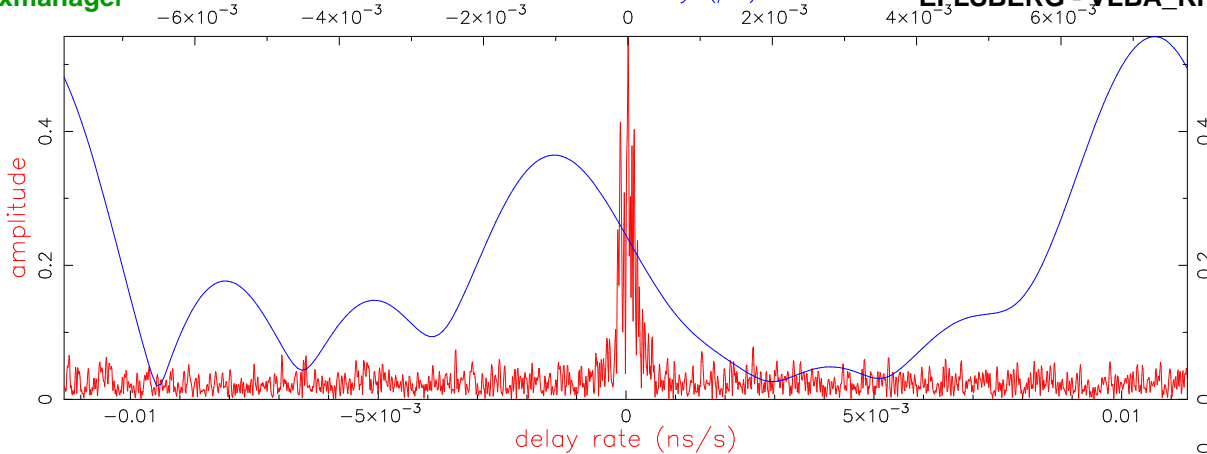
B: az 302.9 el 28.7 pa 46.3 k: az 54.2 el 68.5 pa -110.7 u,v (fr/asec) 8682.515 6552.714 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bk..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bk.W.48.1W5ADF

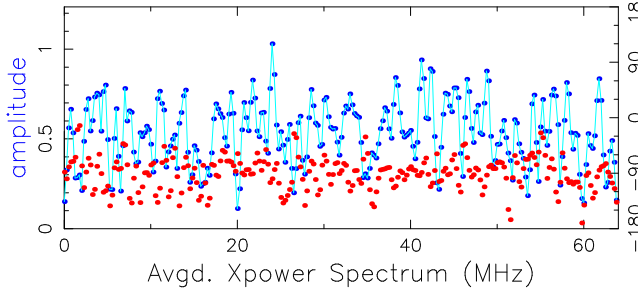
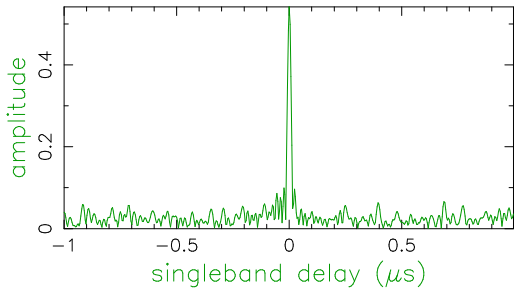


multiband delay ( $\mu$ s)

Fringe quality 6

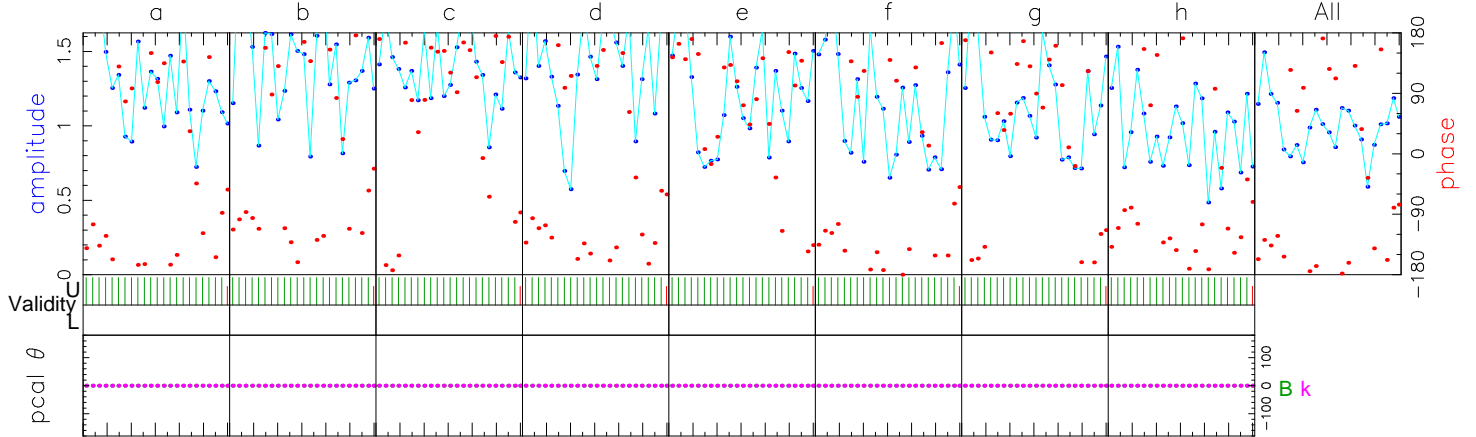


SNR 28.1  
 Int time 359.914  
 Amp 0.542  
 Phase -170.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000293  
 MBD 0.007303  
 Fringe rate (Hz)  
 0.003843  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135413  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-169.2	-135.5	154.2	-142.4	129.4	-153.9	152.0	-130.8	Phase	-170.3
	0.7	0.7	0.8	0.8	0.6	0.6	0.5	0.6	Ampl.	0.7
	257.4	257.4	257.3	257.3	258.1	257.6	258.2	257.5	Sbd box	257.1
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
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	
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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-9.88262525199E+03		Apriori delay (usec)		-9.88263255463E+03		Resid mbdelay (usec)		7.30265E-03	+/- 3.9E-05
Sband delay (usec)	-9.88263226188E+03		Apriori clock (usec)		-2.2382000E+01		Resid sbdelay (usec)		2.92750E-04	+/- 3.1E-04
Phase delay (usec)	-9.88263256013E+03		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-5.49252E-06	+/- 1.3E-07
Delay rate (us/s)	-1.10209007793E+00		Apriori rate (us/s)		-1.10209012254E+00		Resid rate (us/s)		4.46115E-08	+/- 6.3E-10
Total phase (deg)			Apriori accel (us/s/s)		7.08783643228E-05		Resid phase (deg)		-170.3	+/- 4.1

	RMS	Theor.	Amplitude	0.542 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	68.4	9.8	Search (2048X32)	0.541	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	91.5	17.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	41.1	5.8	Inc. seg. avg.	0.988	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	27.2	10.1	Inc. frq. avg.	0.656	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 302.9 el 28.7 pa 46.3 k: az 54.2 el 68.5 pa -110.7 u,v (fr/asec) 8682.515 6552.714 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bk..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bk.W.6.1W5ADF

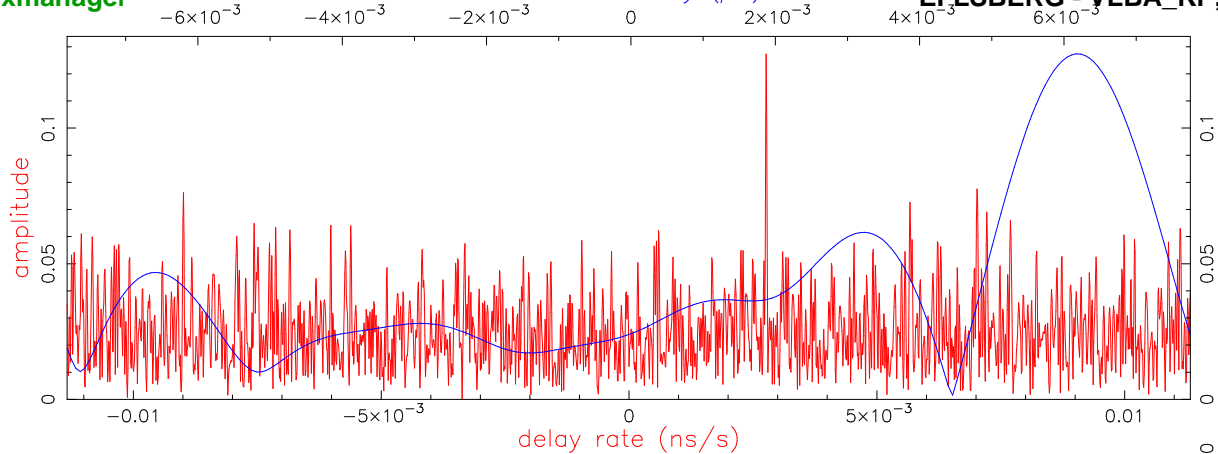
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bk

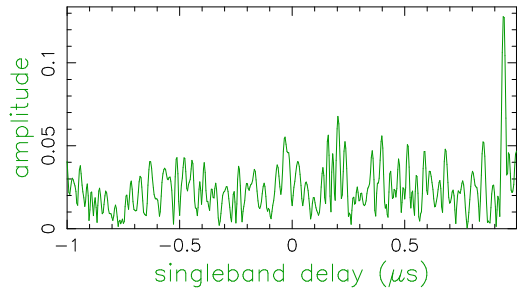
EFLSBERG - VLBA\_KP, fgroup W, pol RL

multiband delay ( $\mu$ s)

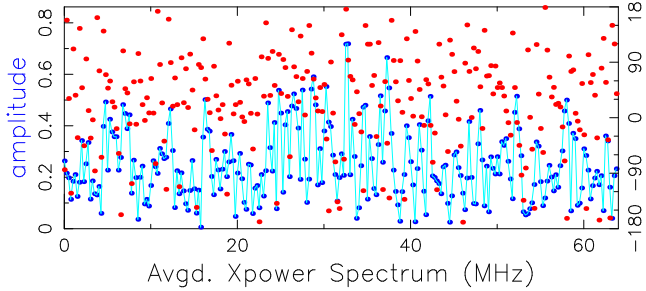


Fringe quality 0

SNR 6.8  
 Int time 359.914  
 Amp 0.134  
 Phase 0.5  
 PFD 3.7e-03  
 Delays (us)  
 SBD 0.939376  
 MBD 0.006155  
 Fringe rate (Hz)  
 0.238493  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

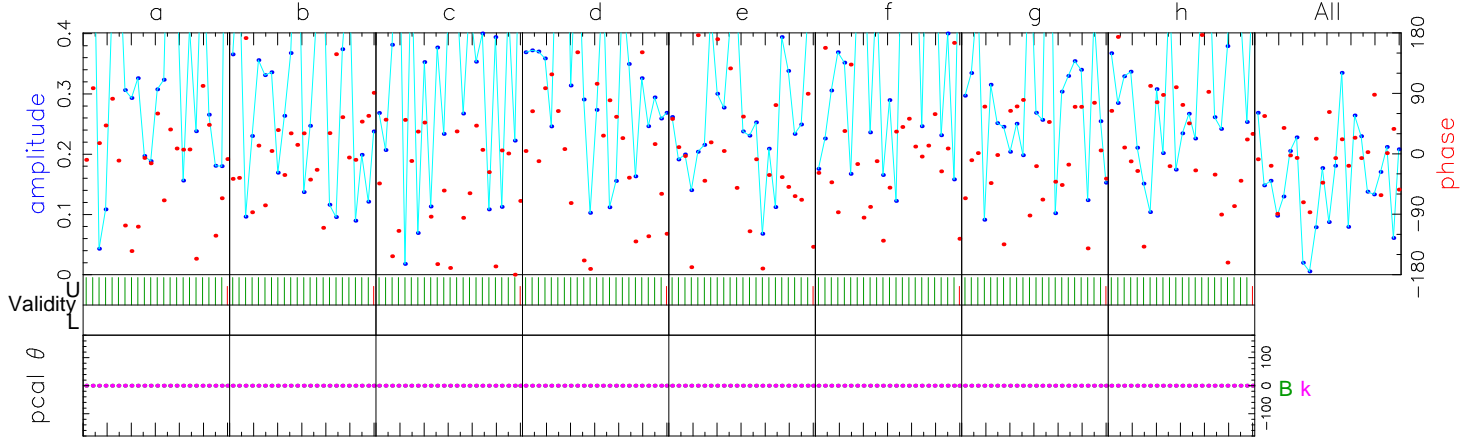


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-9.88168889954E+03	Apriori delay (usec)	-9.88263255463E+03	Resid mbdelay (usec)	6.15509E-03	+/-	1.6E-04
Sband delay (usec)	-9.88169317838E+03	Apriori clock (usec)	-2.2382000E+01	Resid sbdelay (usec)	9.39376E-01	+/-	1.3E-03
Phase delay (usec)	-9.88263255462E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.61536E-08	+/-	5.5E-07
Delay rate (us/s)	-1.10208735387E+00	Apriori rate (us/s)	-1.10209012254E+00	Resid rate (us/s)	2.76867E-06	+/-	2.6E-09
Total phase (deg)	-91.7	Apriori accel (us/s/s)	7.08783643228E-05	Resid phase (deg)	0.5	+/-	16.9

ph/seg (deg)	46.2	Theor.	40.6	Amplitude	0.134 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	64.9	Search (2048X32)	0.125	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	29.1	Inc. seg. avg.	0.128	Inc. frq. avg.	0.129	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	34.6	Inc. frq. avg.	0.129			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 302.9 el 28.7 pa 46.3 k: az 54.2 el 68.5 pa -110.7 u,v (fr/asec) 8682.515 6552.714 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bk.1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bk.W.68.1W5ADF

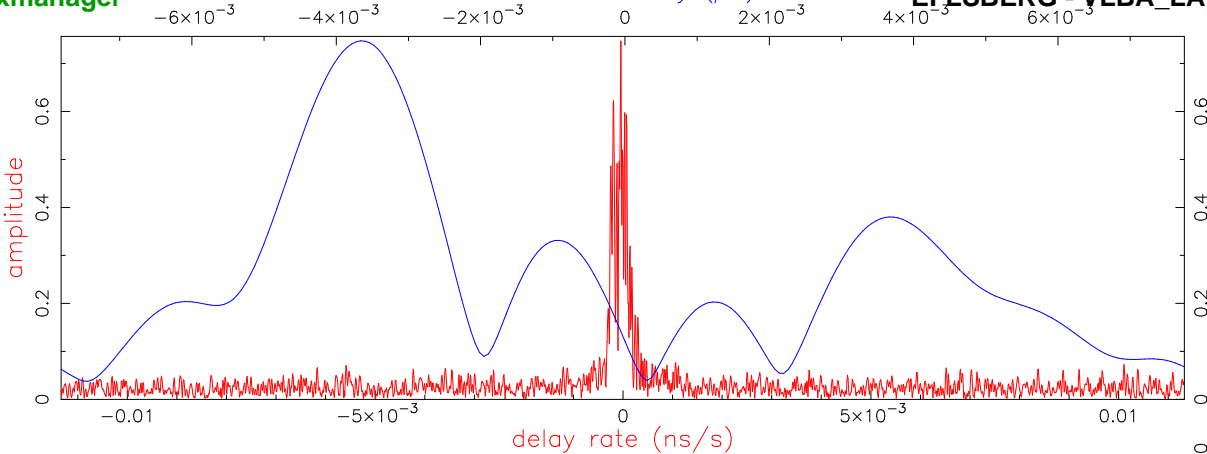
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BI

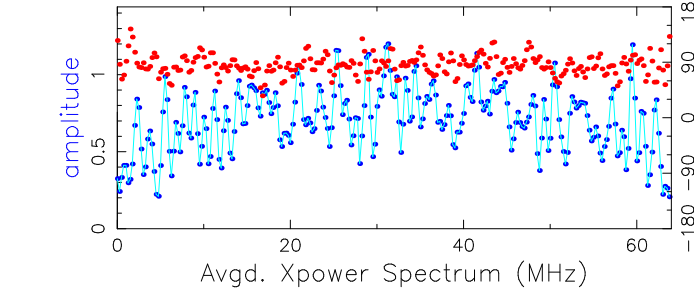
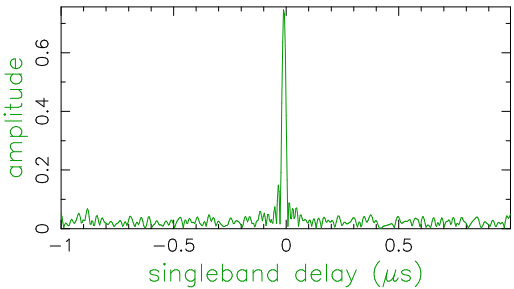
EFLSBERG - VLBA\_LA, fgroup W, pol RR

multiband delay ( $\mu$ s)



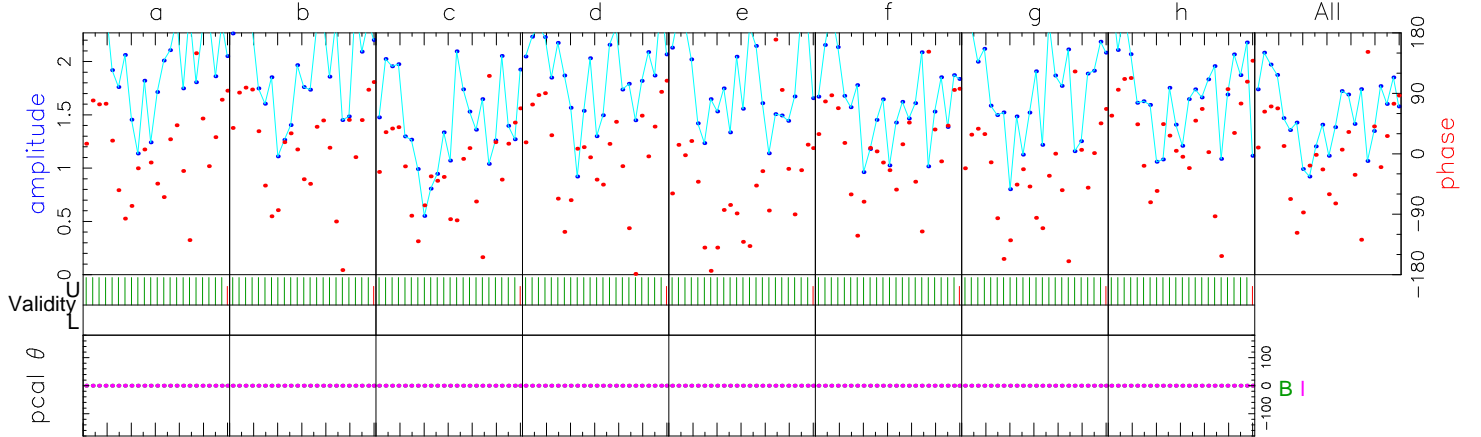
Fringe quality 5

SNR 39.2  
 Int time 359.914  
 Amp 0.757  
 Phase 9.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.010222  
 MBD -0.003609  
 Fringe rate (Hz)  
 -0.003734  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:I	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		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.05432747466E+04				-1.05432711378E+04					
Sband delay (usec)	-1.05432813600E+04				-1.9464348E+01					
Phase delay (usec)	-1.05432711375E+04				2.8600001E-07					
Delay rate (us/s)	-1.00379702031E+00				-1.00379697696E+00					
Total phase (deg)			-282.6		7.02013094561E-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					
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								

RMS Theor. Amplitude 0.757 +/- 0.019  
 ph/seg (deg) 68.5 7.0 Search (2048X32) 0.728  
 amp/seg (%) 107.7 12.2 Interp. 0.000  
 ph/frq (deg) 36.9 4.1 Inc. seg. avg. 1.498  
 amp/frq (%) 18.9 7.2 Inc. frq. avg. 0.871  
 Pcal period (AP's) 5, 5  
 SampCntNorm: enabled  
 Data rate(Mb/s): 2048  
 nlags: 256 t\_cohere infinite  
 ion window (TEC) 0.00 0.00  
 simultaneous interpolator

B: az 302.9 el 28.7 pa 46.3 I: az 59.5 el 74.4 pa -109.7 u,v (fr/asec) 7918.858 6152.260  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BI..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BI.W.23.1W5ADF

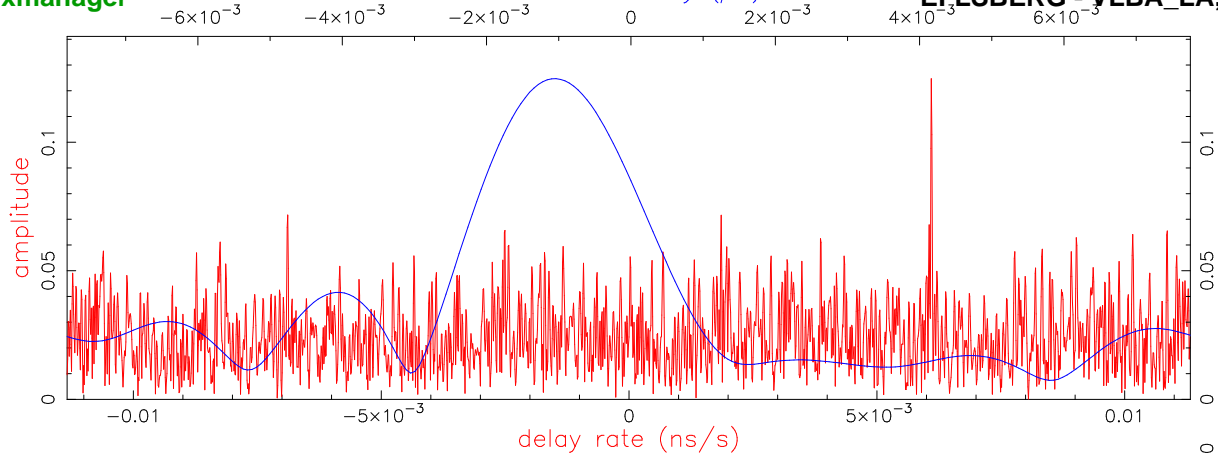
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BI

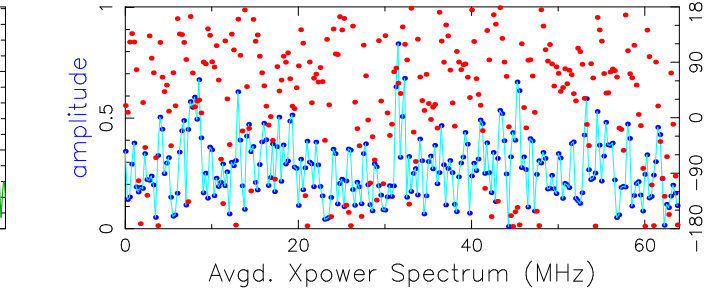
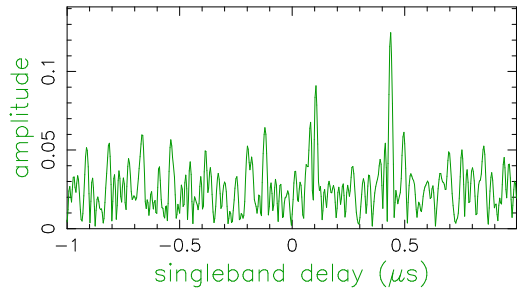
EFLSBERG - VLBA\_LA, fgroup W, pol LR

multiband delay ( $\mu$ s)



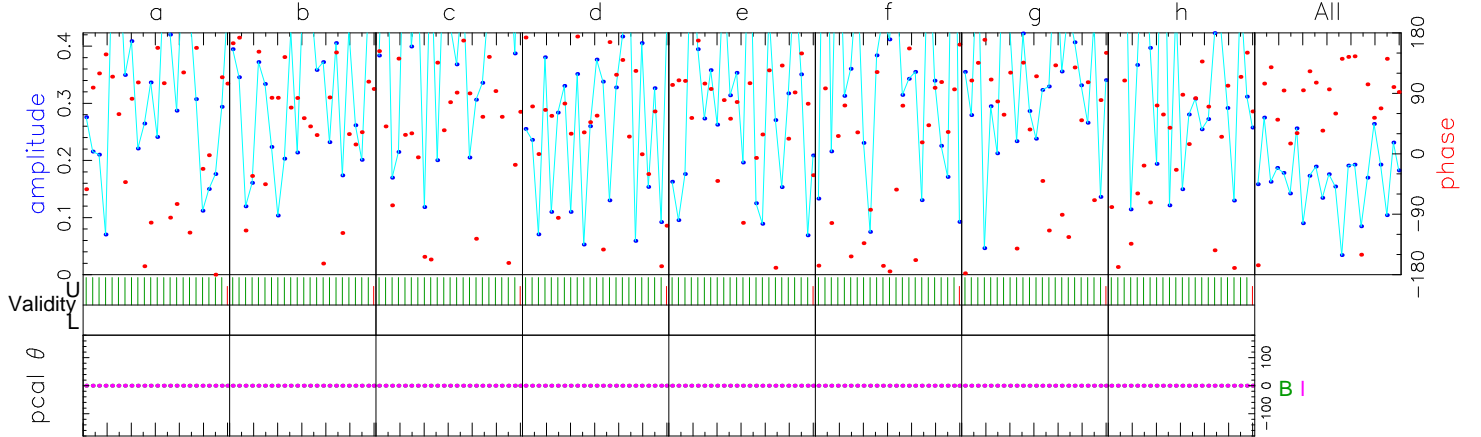
Fringe quality 0

SNR 6.5  
 Int time 359.914  
 Amp 0.141  
 Phase 93.8  
 PFD 2.6e-02  
 Delays (us)  
 SBD 0.437023  
 MBD -0.001061  
 Fringe rate (Hz)  
 0.526398  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
B:I	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		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-1.05428346991E+04	Apriori delay (usec)	-1.05432711378E+04	Resid mbdelay (usec)	-1.06134E-03	+/-	1.7E-04
Sband delay (usec)	-1.05428341150E+04	Apriori clock (usec)	-1.9464348E+01	Resid sbdelay (usec)	4.37023E-01	+/-	1.3E-03
Phase delay (usec)	-1.05432711348E+04	Apriori clockrate (us/s)	2.8600001E-07	Resid phdelay (usec)	3.02477E-06	+/-	5.7E-07
Delay rate (us/s)	-1.00379086600E+00	Apriori rate (us/s)	-1.00379697696E+00	Resid rate (us/s)	6.11096E-06	+/-	2.7E-09
Total phase (deg)	-197.8	Apriori accel (us/s/s)	7.02013094561E-05	Resid phase (deg)	93.8	+/-	17.7

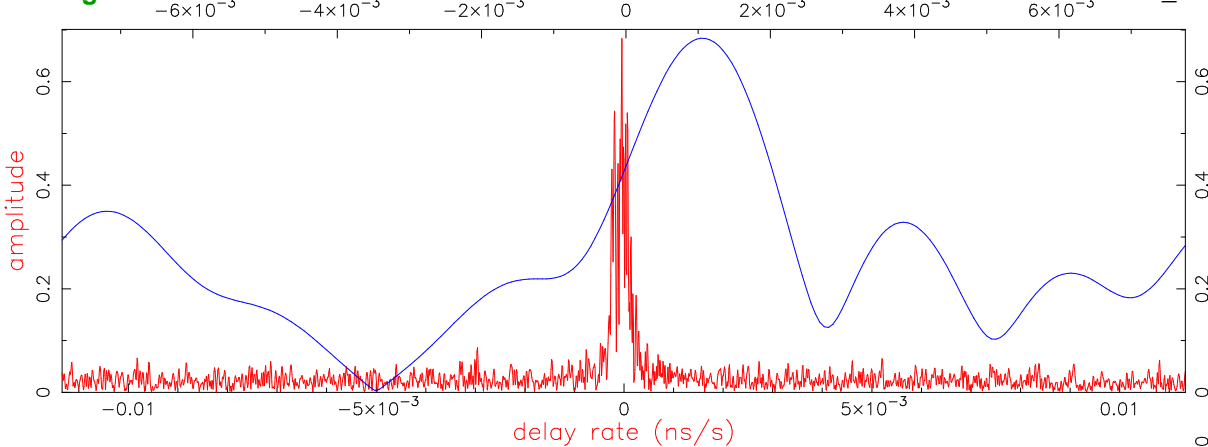
ph/seg (deg)	49.1	Theor.	42.4	Amplitude	0.141 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	58.1	Search (2048X32)	0.122	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	24.1	Inc. seg. avg.	0.151	Inc. frq. avg.	0.136	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	29.3	Inc. frq. avg.	0.136			Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

B: az 302.9 el 28.7 pa 46.3 I: az 59.5 el 74.4 pa -109.7 u,v (fr/asec) 7918.858 6152.260 simultaneous interpolator

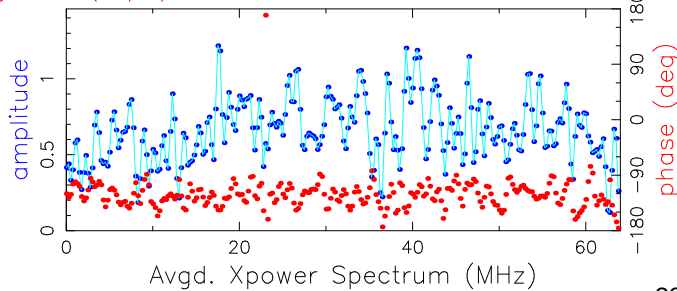
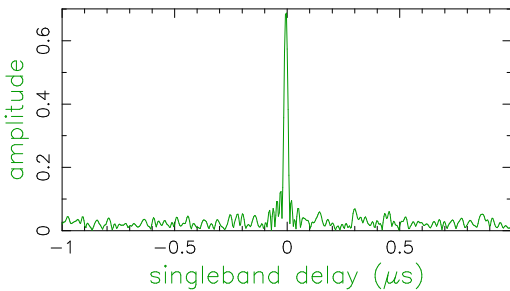
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BI..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BI.W.43.1W5ADF

multiband delay ( $\mu$ s)

Fringe quality 4

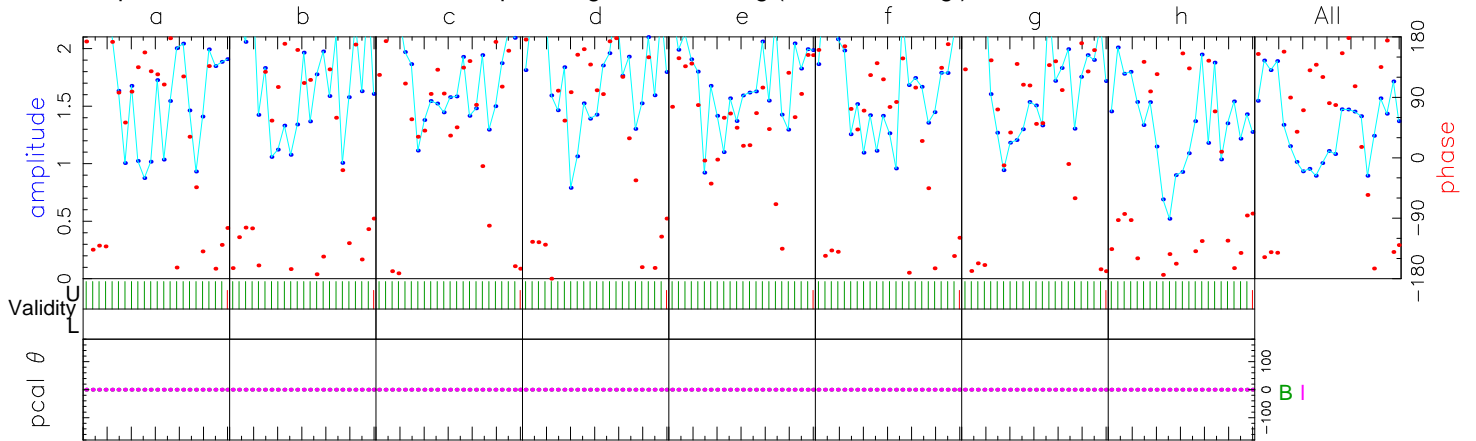


SNR 36.4  
 Int time 359.914  
 Amp 0.701  
 Phase 158.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.005730  
 MBD 0.001114  
 Fringe rate (Hz)  
 -0.003707  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135413  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	173.8	-166.9	128.9	173.1	80.0	160.9	142.9	-146.3	Phase	158.5
B	0.9	0.9	0.9	0.8	0.8	0.8	0.9	0.6	Ampl.	0.8
I	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	255.5
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
I	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	-1.05432700241E+04	Apriori delay (usec)	-1.05432711378E+04	Resid mbdelay (usec)	1.11373E-03	+/-	3.0E-05
Sband delay (usec)	-1.05432768680E+04	Apriori clock (usec)	-1.9464348E+01	Resid sbdelay (usec)	-5.73025E-03	+/-	2.4E-04
Phase delay (usec)	-1.05432711327E+04	Apriori clockrate (us/s)	2.8600001E-07	Resid phdelay (usec)	5.11277E-06	+/-	1.0E-07
Delay rate (us/s)	-1.00379701999E+00	Apriori rate (us/s)	-1.00379697696E+00	Resid rate (us/s)	-4.30307E-08	+/-	4.9E-10
Total phase (deg)	-133.1	Apriori accel (us/s/s)	7.02013094561E-05	Resid phase (deg)	158.5	+/-	3.2

ph/seg (deg)	RMS 68.5	Theor. 7.6	Amplitude Search (2048X32)	0.701 +/- 0.019	0.679	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	100.7	13.2	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	44.7	4.5	Inc. seg. avg.	1.322	1.322	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	24.0	7.8	Inc. frq. avg.	0.844	0.844	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 302.9 el 28.7 pa 46.3 I: az 59.5 el 74.4 pa -109.7 u,v (fr/asec) 7918.858 6152.260 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BI..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BI.W.5.1W5ADF



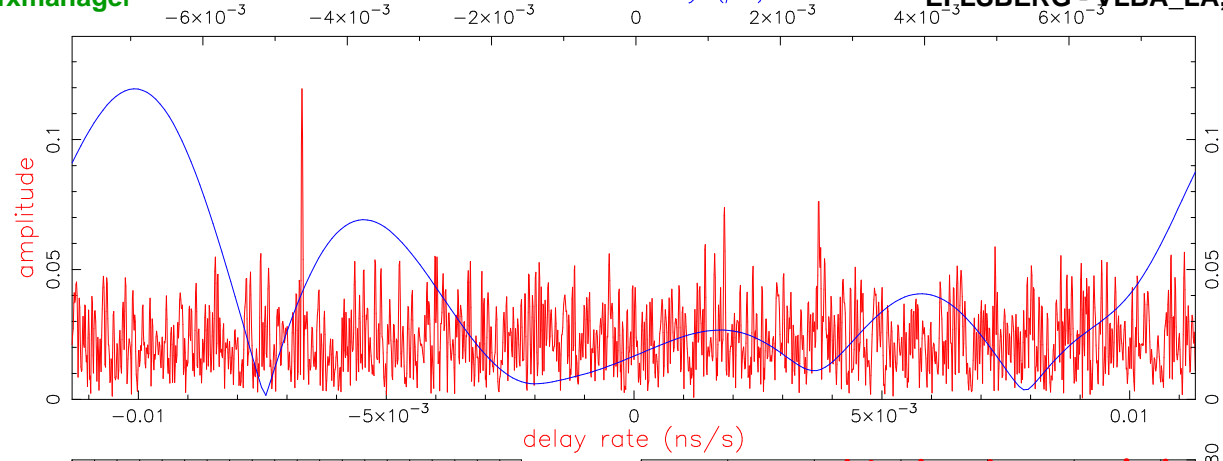
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BI

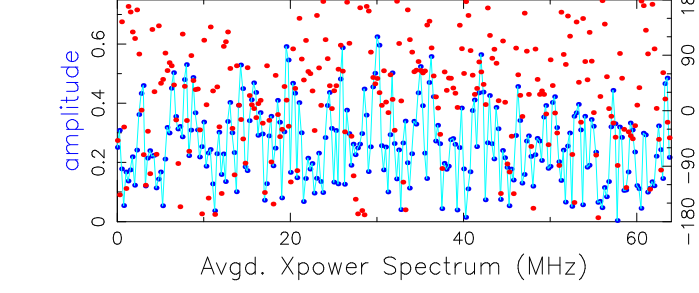
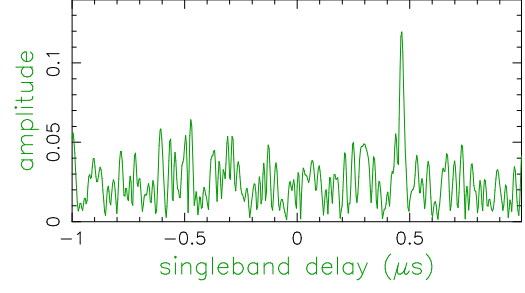
EFLSBERG - VLBA\_LA, fgroup W, pol RL

multiband delay ( $\mu$ s)



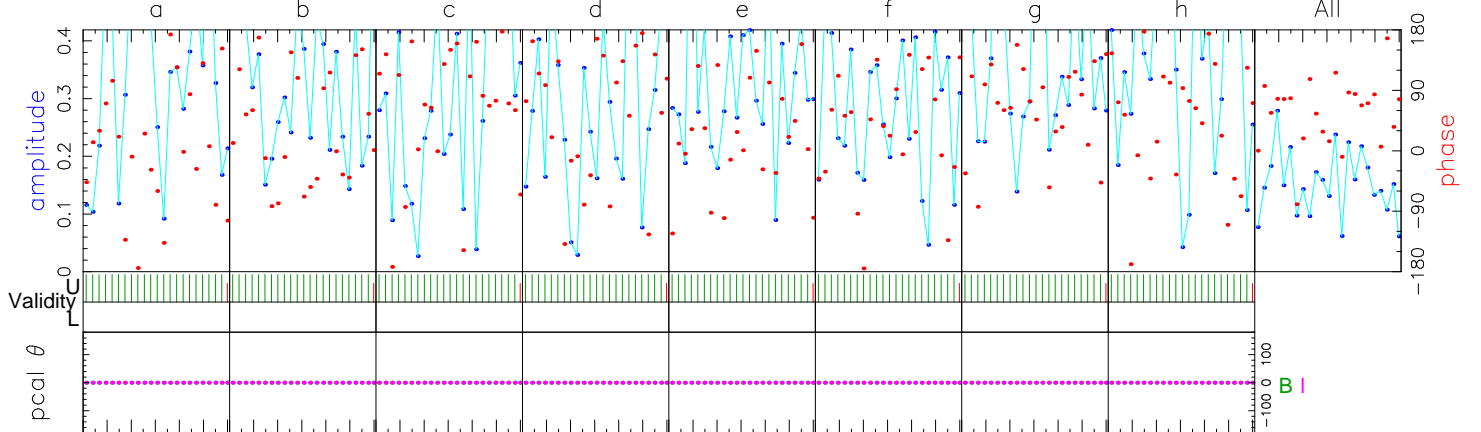
Fringe quality 0

SNR 6.3  
Int time 359.914  
Amp 0.140  
Phase 66.0  
PFD 1.0e-01  
Delays (us)  
SBD 0.463535  
MBD -0.006976  
Fringe rate (Hz)  
-0.577855  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c211a  
Exper # 16383  
Yr:day 2021:114  
Start 134500.00  
Stop 135059.94  
FRT 134800.00  
Corr/FF/build  
2021:286:102153  
2021:286:135423  
2021:252:122852  
RA & Dec (J2000)  
22h02m43.291370s  
+42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:I	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		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-1.05428093634E+04									
Sband delay (usec)	-1.05428076030E+04									
Phase delay (usec)	-1.05432711357E+04									
Delay rate (us/s)	-1.00380368529E+00									
Total phase (deg)			-225.6							
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)									66.0	+/- 18.3
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) 51.1 44.0 Search (2048X32) 0.118 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 53.5 76.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 33.3 25.9 Inc. seg. avg. 0.139 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 41.0 45.3 Inc. frq. avg. 0.141 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
B: az 302.9 el 28.7 pa 46.3 I: az 59.5 el 74.4 pa -109.7 u,v (fr/asec) 7918.858 6152.260 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BI..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BI.W.63.1W5ADF simultaneous interpolator

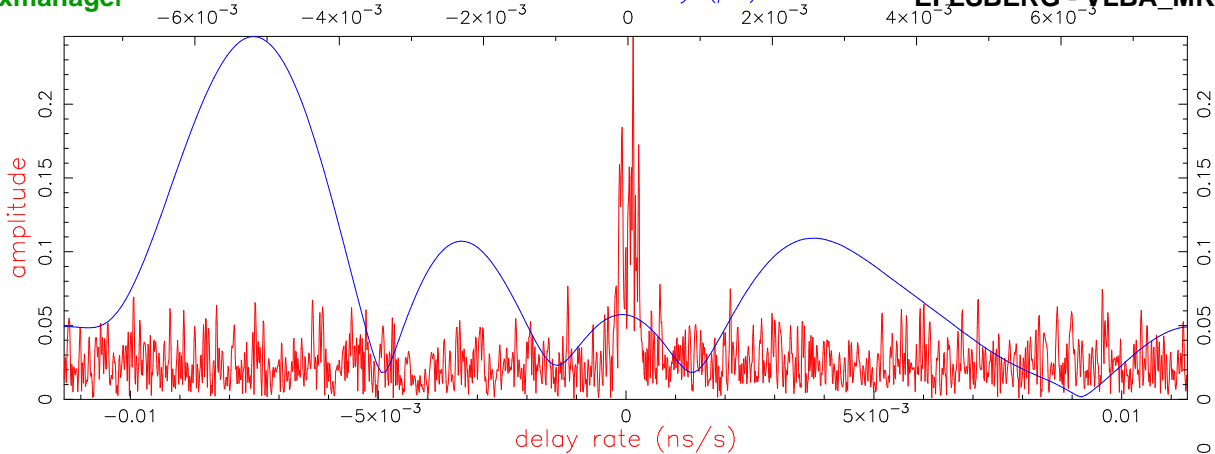
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bm

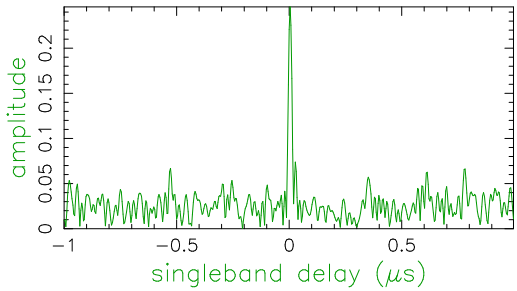
EFLSBERG - VLBA\_MK, fgroup W, pol LL

multiband delay ( $\mu$ s)

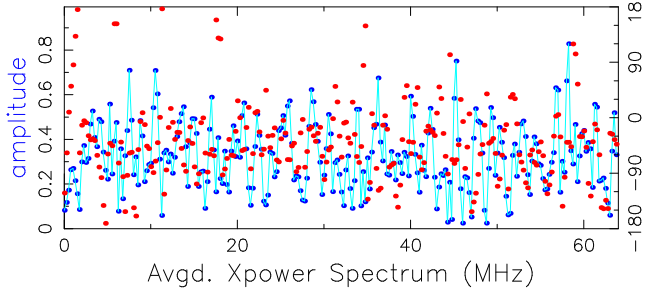


Fringe quality 9

SNR 12.8  
 Int time 359.901  
 Amp 0.246  
 Phase 59.1  
 PFD 1.5e-28  
 Delays (us)  
 SBD 0.004125  
 MBD -0.005185  
 Fringe rate (Hz)  
 0.012289  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

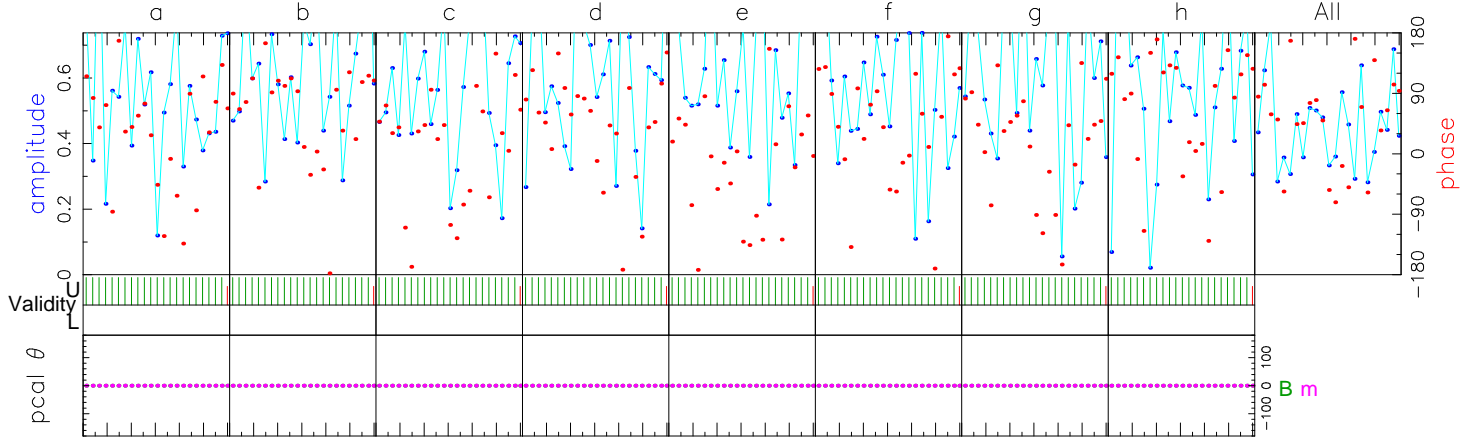


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135414  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	56.1	79.7	42.3	75.1	-1.3	64.7	36.9	103.8	Phase	59.1
	0.2	0.4	0.2	0.3	0.3	0.2	0.3	0.2	Ampl.	0.3
	193.8	258.6	258.9	258.0	258.5	259.0	258.2	258.7	Sbd box	258.1
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) -7.54960014479E+02 Apriori delay (usec) -7.54970454974E+02 Resid mbdelay (usec) -5.18451E-03 +/- 8.5E-05  
 Sband delay (usec) -7.54966329974E+02 Apriori clock (usec) -3.7725971E+01 Resid sbdelay (usec) 4.12500E-03 +/- 6.8E-04  
 Phase delay (usec) -7.54970453067E+02 Apriori clockrate (us/s) -3.1799999E-07 Resid phdelay (usec) 1.90663E-06 +/- 2.9E-07  
 Delay rate (us/s) -1.71657719677E+00 Apriori rate (us/s) -1.71657733944E+00 Resid rate (us/s) 1.42667E-07 +/- 1.4E-09  
 Total phase (deg) -297.8 Apriori accel (us/s/s) 3.67140554524E-05 Resid phase (deg) 59.1 +/- 9.0

RMS Theor. Amplitude 0.246 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 70.5 21.5 Search (2048X32) 0.242 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 100.4 37.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 34.5 12.7 Inc. seg. avg. 0.425 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 26.0 22.2 Inc. frq. avg. 0.273 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 302.9 el 28.7 pa 46.3 m: az 51.7 el 29.6 pa -89.2 u,v (fr/asec) 13380.155 5286.531 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bm..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bm.W.12.1W5ADF

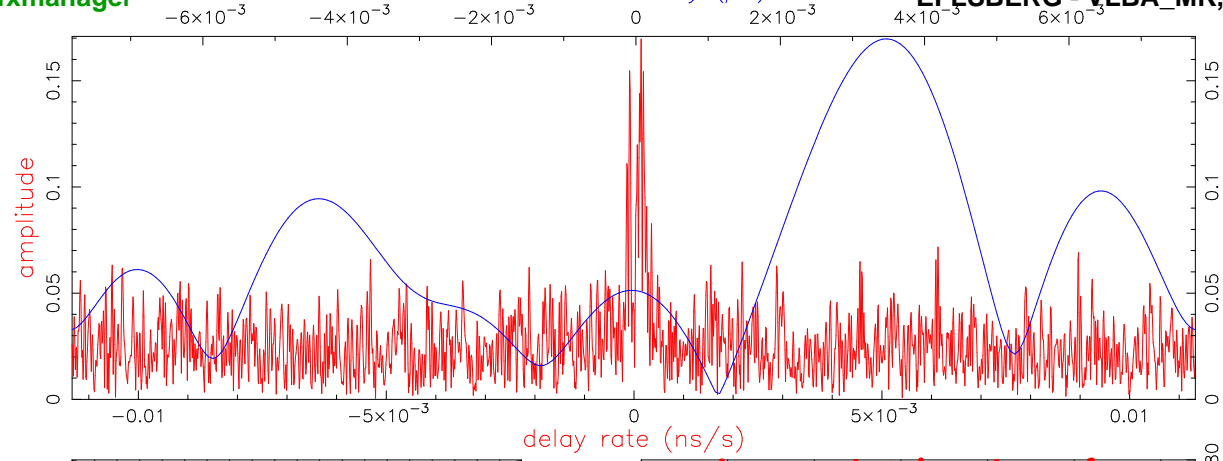
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bm

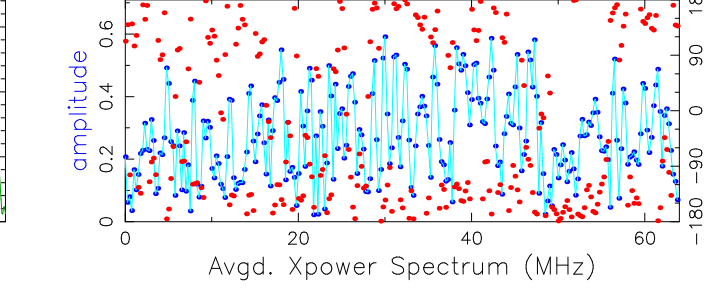
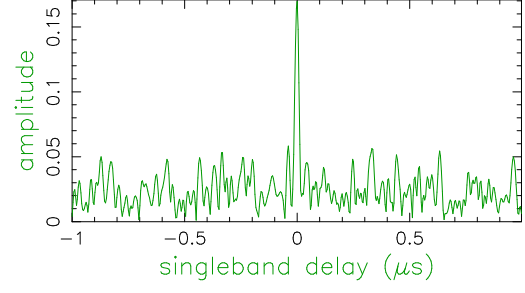
EFLSBERG - VLBA\_MK, fgroup W, pol RR

multiband delay ( $\mu$ s)



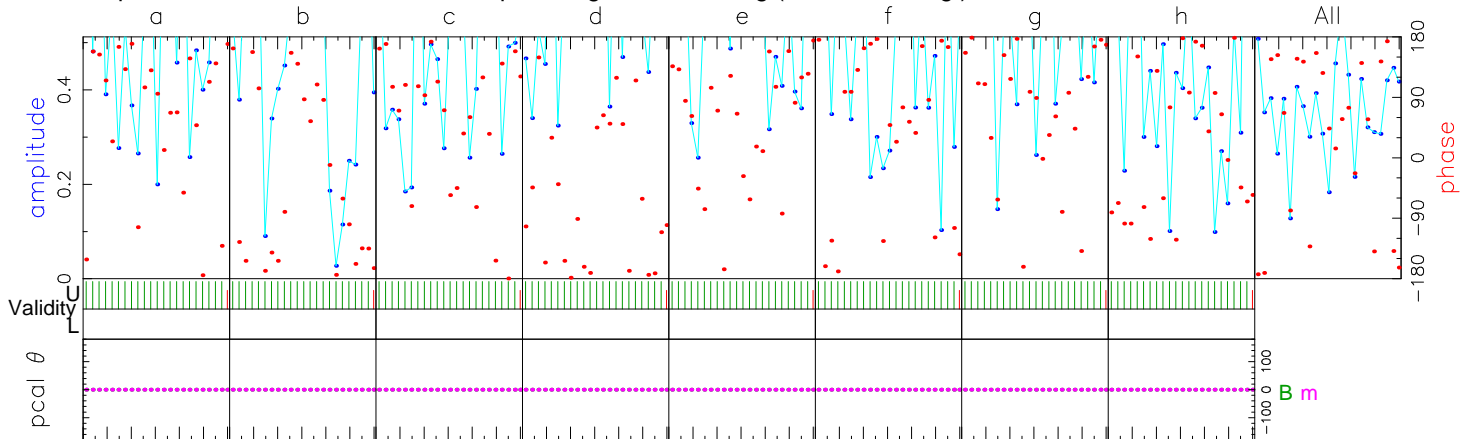
Fringe quality 9

SNR 8.9  
 Int time 359.901  
 Amp 0.171  
 Phase 142.9  
 PFD 3.0e-10  
 Delays (us)  
 SBD -0.001173  
 MBD 0.003426  
 Fringe rate (Hz)  
 0.012283  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135417  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
B:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:m	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		
m	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-7.54967028510E+02	Apriori delay (usec)	-7.54970454974E+02	Resid mbdelay (usec)	3.42646E-03	+/-	1.2E-04
Sband delay (usec)	-7.54971628224E+02	Apriori clock (usec)	-3.7725971E+01	Resid sbdelay (usec)	-1.17325E-03	+/-	9.7E-04
Phase delay (usec)	-7.54970450366E+02	Apriori clockrate (us/s)	-3.1799999E-07	Resid phdelay (usec)	4.60749E-06	+/-	4.2E-07
Delay rate (us/s)	-1.71657719685E+00	Apriori rate (us/s)	-1.71657733944E+00	Resid rate (us/s)	1.42589E-07	+/-	2.0E-09
Total phase (deg)	-214.0	Apriori accel (us/s/s)	3.67140554524E-05	Resid phase (deg)	142.9	+/-	12.9

ph/seg (deg)	74.3	Theor.	31.0	Amplitude	0.171 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	126.0		54.1	Search (2048X32)	0.168	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	54.2		18.3	Inc. seg. avg.	0.314	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	37.8		31.9	Inc. frq. avg.	0.203	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	

B: az 302.9 el 28.7 pa 46.3 m: az 51.7 el 29.6 pa -89.2 u,v (fr/asec) 13380.155 5286.531 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bm..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bm.W.32.1W5ADF

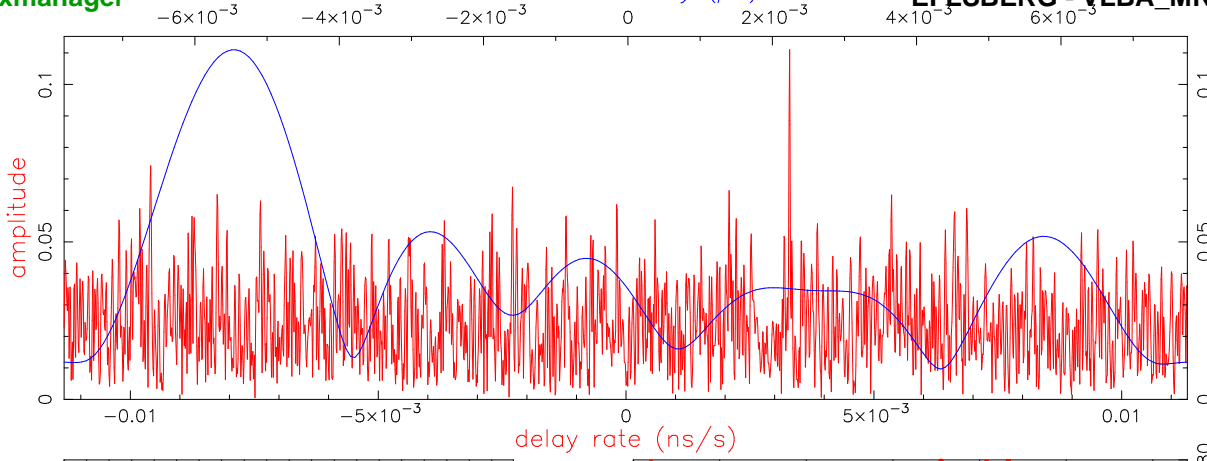
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

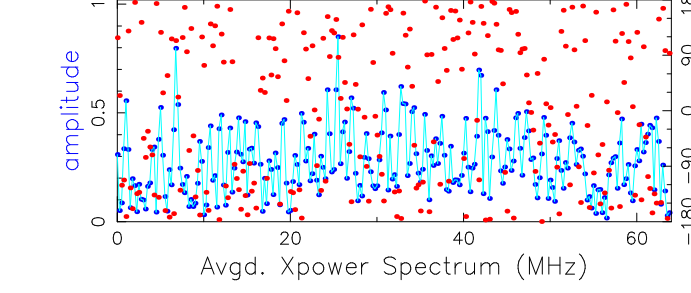
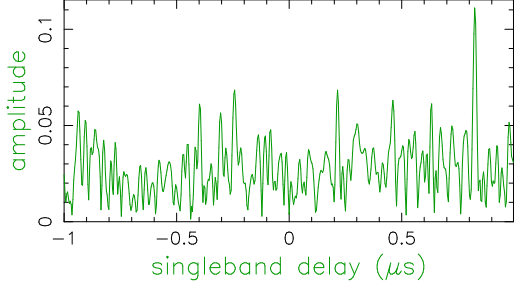
BLLAC.1W5ADF, No0245, Bm

EFLSBERG - VLBA\_MK, fgroup W, pol LR

multiband delay ( $\mu$ s)

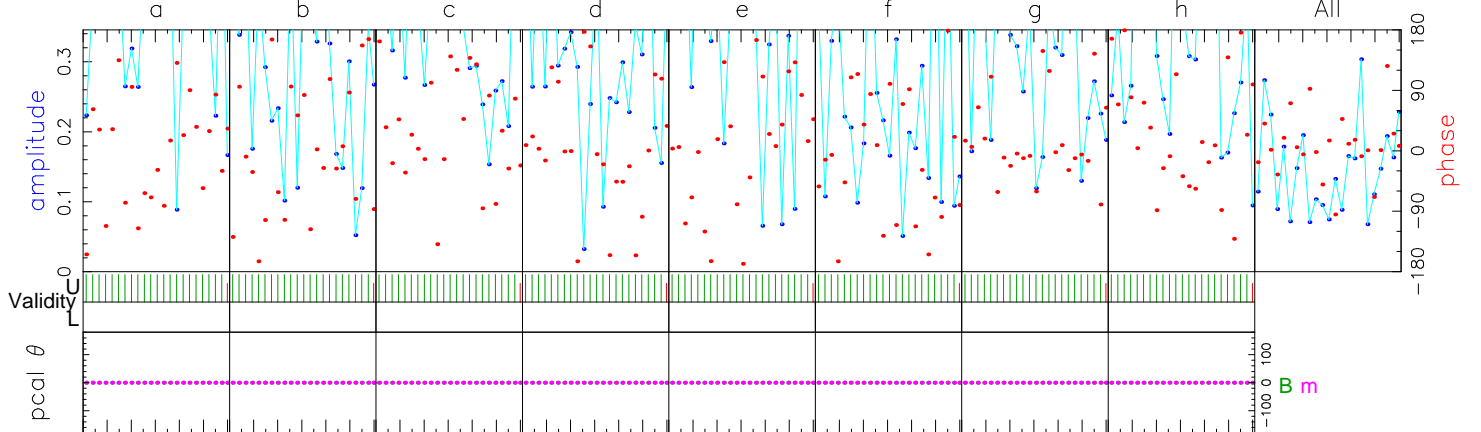


Fringe quality 0  
 SNR 5.8  
 Int time 359.901  
 Amp 0.115  
 Phase 7.9  
 PFD 8.6e-01  
 Delays (us)  
 SBD 0.824790  
 MBD -0.005450  
 Fringe rate (Hz)  
 0.284901  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135421  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-6.7	25.2	39.7	7.5	4.2	-66.5	1.5	17.5	Phase	7.9
	0.1	0.0	0.1	0.1	0.1	0.0	0.2	0.2	Ampl.	0.1
	417.3	284.0	312.0	73.1	84.0	332.6	467.8	443.4	Sbd box	468.1
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.54147779656E+02		Apriori delay (usec)		-7.54970454974E+02		Resid mbdelay (usec)		-5.44968E-03	+/- 1.9E-04
Sband delay (usec)	-7.54145664724E+02		Apriori clock (usec)		-3.7725971E+01		Resid sbdelay (usec)		8.24790E-01	+/- 1.5E-03
Phase delay (usec)	-7.54970454718E+02		Apriori clockrate (us/s)		-3.1799999E-07		Resid phdelay (usec)		2.56123E-07	+/- 6.4E-07
Delay rate (us/s)	-1.71657403202E+00		Apriori rate (us/s)		-1.71657733944E+00		Resid rate (us/s)		3.30742E-06	+/- 3.1E-09
Total phase (deg)			Apriori accel (us/s/s)		3.67140554524E-05		Resid phase (deg)		7.9	+/- 19.9

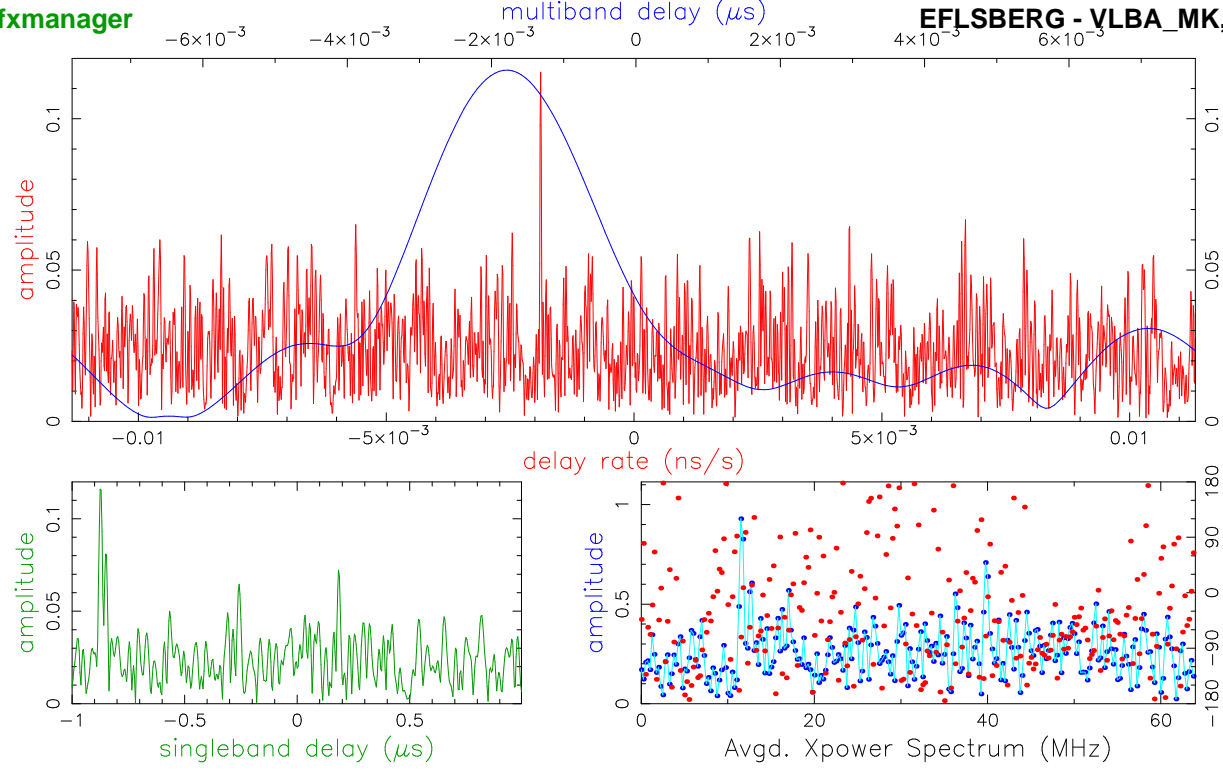
ph/seg (deg) 47.5 47.6 Search (2048X32) 0.107 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 66.2 83.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 34.7 28.1 Inc. seg. avg. 0.113 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 54.5 49.0 Inc. frq. avg. 0.110 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 B: az 302.9 el 28.7 pa 46.3 m: az 51.7 el 29.6 pa -89.2 u,v (fr/asec) 13380.155 5286.531 ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bm..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bm.W.52.1W5ADF simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

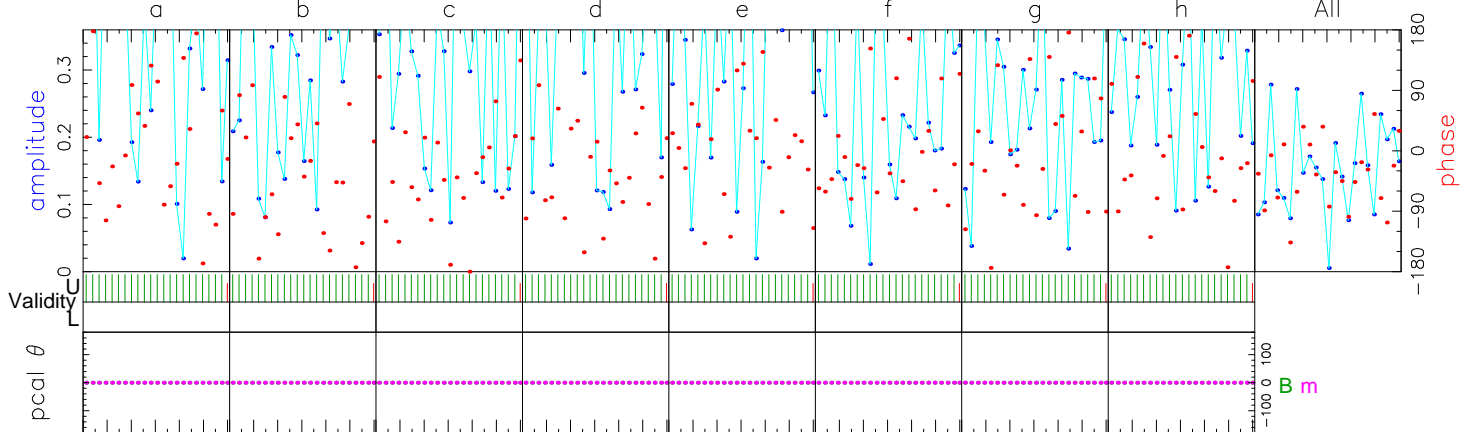
BLLAC.1W5ADF, No0245, Bm

EFLSBERG - VLBA\_MK, fgroup W, pol RL



Fringe quality 0  
 SNR 6.2  
 Int time 359.901  
 Amp 0.120  
 Phase -31.9  
 PFD 1.8e-01  
 Delays (us)  
 SBD -0.873141  
 MBD -0.001925  
 Fringe rate (Hz)  
 -0.162252  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135425  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-61.2	-45.3	-40.7	-26.9	1.1	-30.5	-28.6	-52.6	Phase	-31.9
	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	Ampl.	0.1
	191.1	271.9	67.2	160.1	32.2	32.4	279.7	333.4	Sbd box	33.5
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.55847379896E+02		Apriori delay (usec)	-7.54970454974E+02	Resid mbdelay (usec)	-1.92492E-03	+/-	1.8E-04		
Sband delay (usec)	-7.55843596224E+02		Apriori clock (usec)	-3.7725971E+01	Resid sbdelay (usec)	-8.73141E-01	+/-	1.4E-03		
Phase delay (usec)	-7.54970456001E+02		Apriori clockrate (us/s)	-3.1799999E-07	Resid phdelay (usec)	-1.02751E-06	+/-	6.0E-07		
Delay rate (us/s)	-1.71657922302E+00		Apriori rate (us/s)	-1.71657733944E+00	Resid rate (us/s)	-1.88358E-06	+/-	2.9E-09		
Total phase (deg)		-28.8	Apriori accel (us/s/s)	3.67140554524E-05	Resid phase (deg)	-31.9	+/-	18.6		

ph/seg (deg) 49.0 44.7 Search (2048X32) 0.114 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 64.7 77.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 21.1 26.3 Inc. seg. avg. 0.120 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 33.3 46.0 Inc. frq. avg. 0.112 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 B: az 302.9 el 28.7 pa 46.3 m: az 51.7 el 29.6 pa -89.2 u,v (fr/asec) 13380.155 5286.531 ion window (TEC) 0.00 0.00 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bm..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bm.W.73.1W5ADF



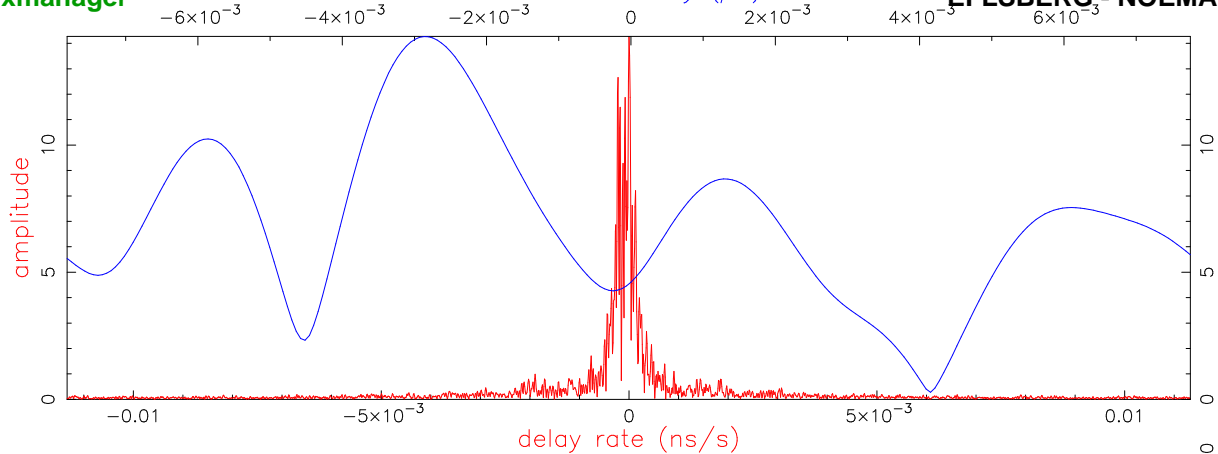
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BN

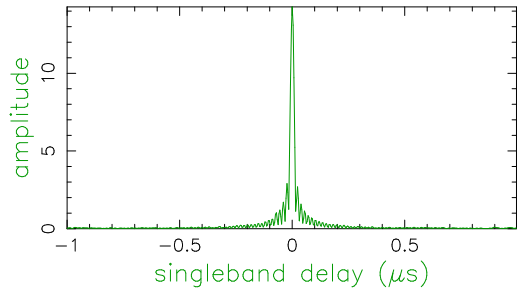
EFLSBERG<sub>3</sub>- NOEMA, fgroup W, pol LL

multiband delay ( $\mu$ s)

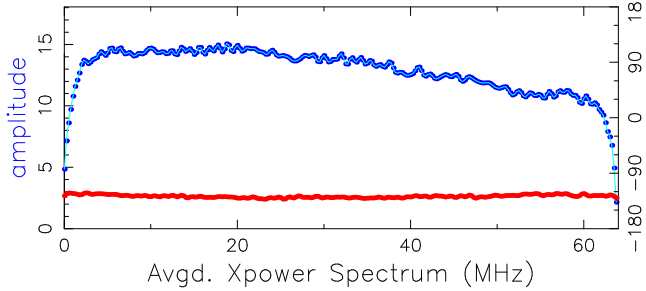


Fringe quality 1

SNR 740.5  
 Int time 359.914  
 Amp 14.274  
 Phase -92.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000213  
 MBD -0.002843  
 Fringe rate (Hz)  
 0.000215  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

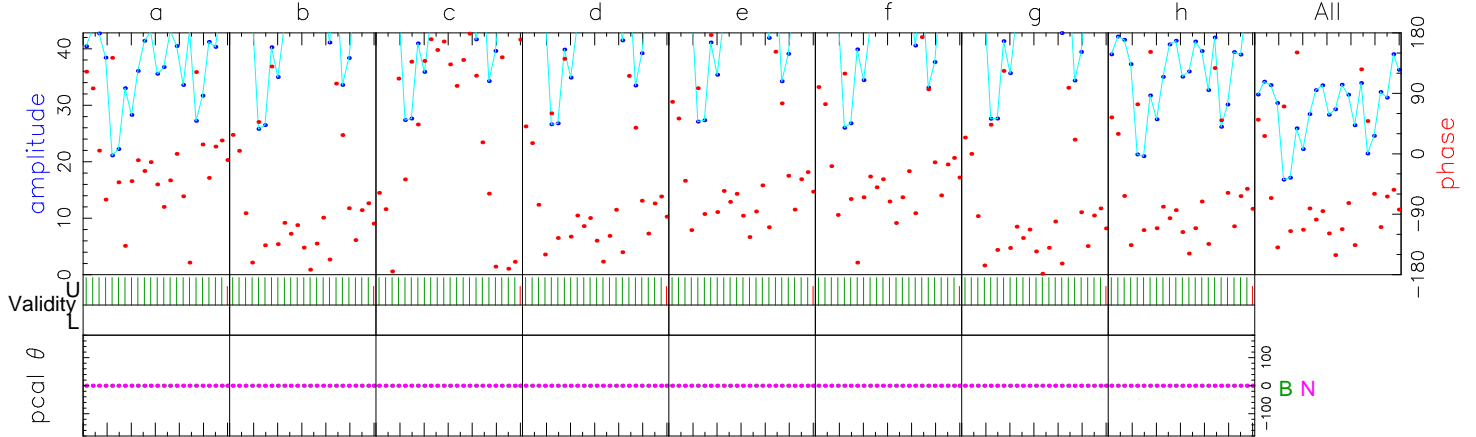


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135414  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

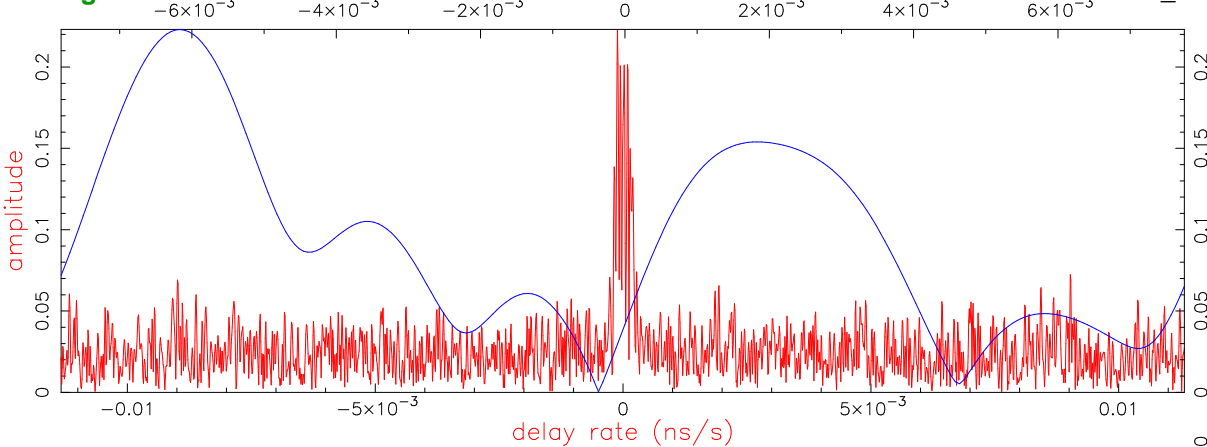
Group delay (usec)(sbd)	9.11047166230E+02	Apriori delay (usec)	9.11050008793E+02	Resid mbdelay (usec)	-2.84256E-03	+/-	1.5E-06
Sband delay (usec)	9.11050221793E+02	Apriori clock (usec)	-8.8464546E+00	Resid sbdelay (usec)	2.13000E-04	+/-	1.2E-05
Phase delay (usec)	9.11050005809E+02	Apriori clockrate (us/s)	-9.2540003E-06	Resid phdelay (usec)	-2.98400E-06	+/-	5.0E-09
Delay rate (us/s)	8.79701545155E-02	Apriori rate (us/s)	8.79701520150E-02	Resid rate (us/s)	2.50050E-09	+/-	2.4E-11
Total phase (deg)	180.1	Apriori accel (us/s/s)	3.69892020486E-07	Resid phase (deg)	-92.5	+/-	0.2

ph/seg (deg)	RMS 75.5	Theor. 0.4	Amplitude 14.274 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	112.2	0.6	Search (2048X32) 14.160	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	59.4	0.2	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	51.2	0.4	Inc. seg. avg. 29.265	Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 21.304	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite
						ion window (TEC) 0.00 0.00

B: az 302.9 el 28.7 pa 46.3 N: az 304.9 el 26.0 pa 55.2 u,v (fr/asec) -680.537 488.384 simultaneous interpolator

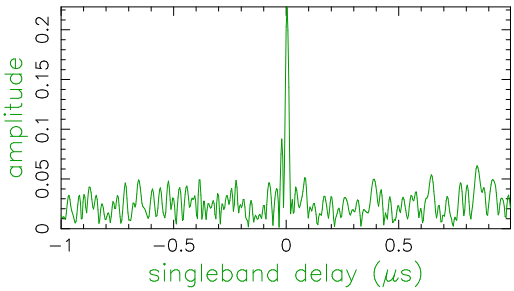
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BN..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BN.W.14.1W5ADF

multiband delay ( $\mu$ s)

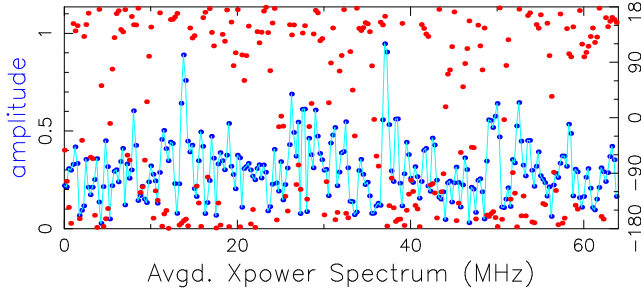


Fringe quality 9

SNR 11.6  
 Int time 359.914  
 Amp 0.223  
 Phase -72.1  
 PFD 2.7e-22  
 Delays (us)  
 SBD 0.003690  
 MBD -0.006175  
 Fringe rate (Hz)  
 -0.009715  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

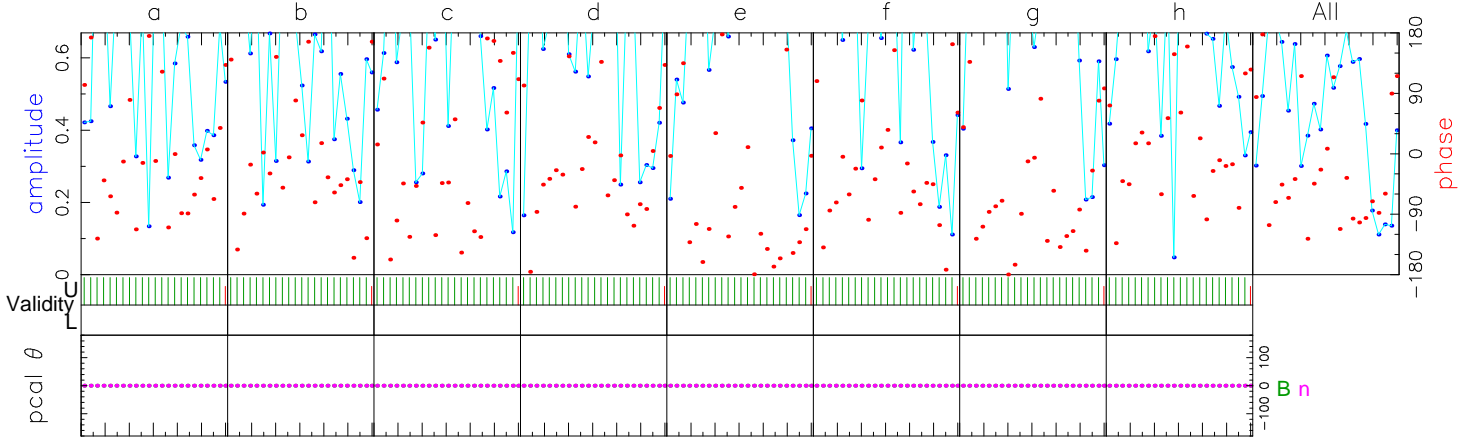


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135414  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-44.7	-51.6	-123.9	-48.4	-133.8	-50.0	-104.5	-2.2	Phase	-72.1
	0.2	0.3	0.2	0.3	0.4	0.4	0.4	0.3	Ampl.	0.3
	473.4	258.4	258.8	257.7	258.6	258.2	258.5	259.1	Sbd box	257.9
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.12519994595E+04		Apriori delay (usec)		-1.12520089094E+04		Resid mbdelay (usec)		-6.17512E-03	+/- 9.4E-05
Sband delay (usec)	-1.12520052194E+04		Apriori clock (usec)		-2.7482103E+01		Resid sbdelay (usec)		3.69000E-03	+/- 7.4E-04
Phase delay (usec)	-1.12520089117E+04		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		-2.32350E-06	+/- 3.2E-07
Delay rate (us/s)	-7.66121107217E-01		Apriori rate (us/s)		-7.66120994432E-01		Resid rate (us/s)		-1.12785E-07	+/- 1.5E-09
Total phase (deg)			Apriori accel (us/s/s)		6.77382665833E-05		Resid phase (deg)		-72.1	+/- 9.9

	RMS	Theor.	Amplitude	0.223 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	85.0	23.7	Search (2048X32)	0.219	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	133.3	41.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	49.4	14.0	Inc. seg. avg.	0.419	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	47.2	24.4	Inc. frq. avg.	0.291	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 302.9 el 28.7 pa 46.3 n: az 76.3 el 87.2 pa -102.2 u,v (fr/asec) 6071.168 5467.372 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bn..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bn.W.15.1W5ADF

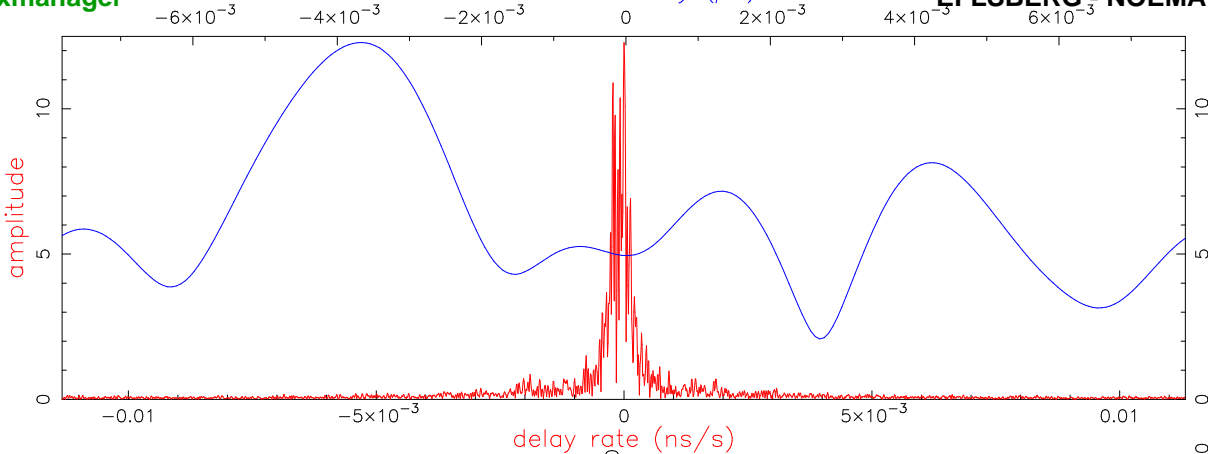
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BN

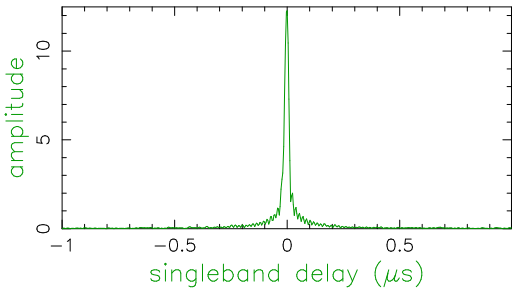
EFLSBERG - NOEMA, fgroup W, pol RR

multiband delay ( $\mu$ s)

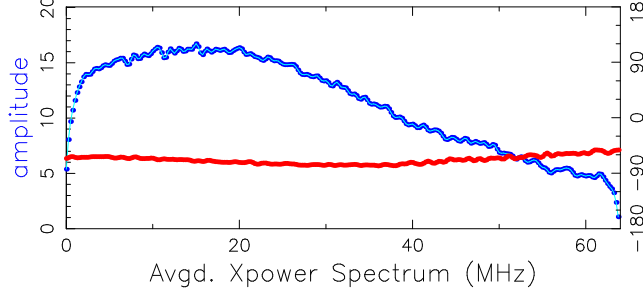


Fringe quality 1

SNR 648.1  
 Int time 359.914  
 Amp 12.493  
 Phase -44.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001805  
 MBD -0.003627  
 Fringe rate (Hz)  
 0.000194  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

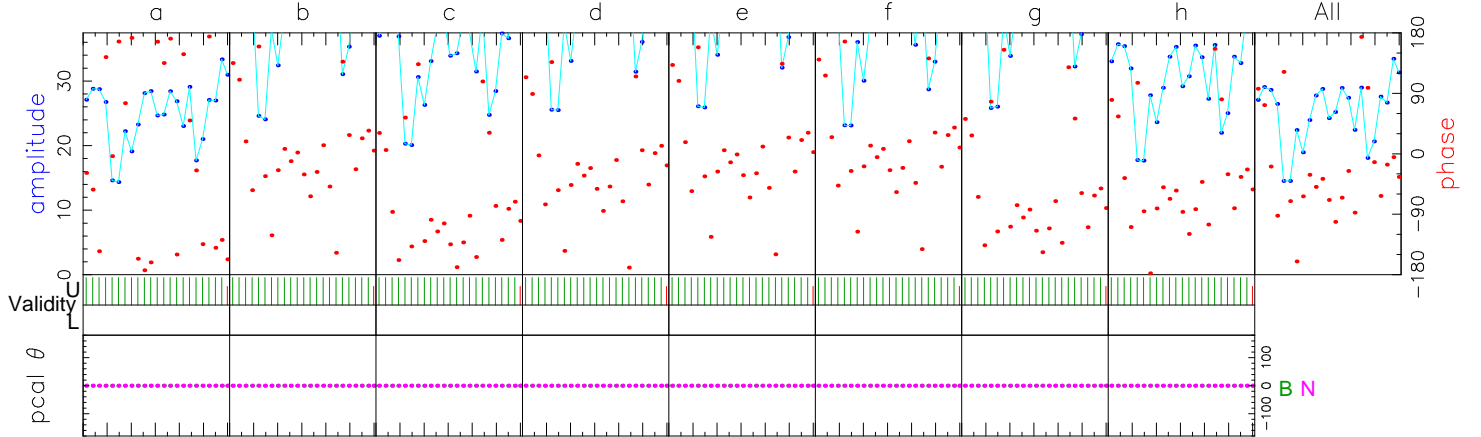


delay rate (ns/s)



Exp. c211a  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135418  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



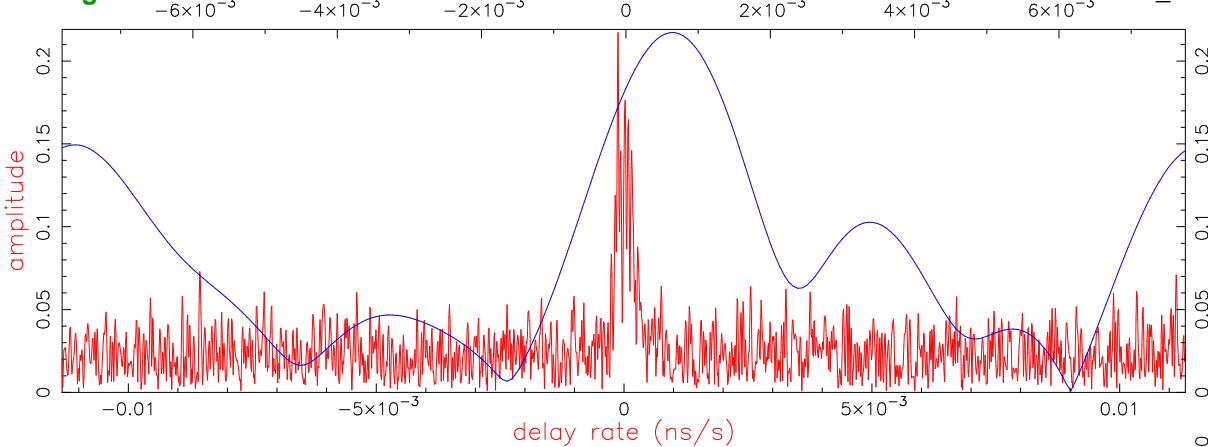
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-168.5	-5.9	-111.1	-28.2	-8.4	-0.7	-90.5	-62.6	Phase	-44.8
	12.3	20.8	16.9	21.5	22.1	19.7	22.0	15.0	Ampl.	18.8
	254.4	256.3	257.1	256.9	257.3	257.1	256.8	255.3	Sbd box	256.5
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.11046381793E+02		Apriori delay (usec)		9.11050008793E+02		Resid mbdelay (usec)		-3.62700E-03	+/- 1.7E-06
Sband delay (usec)	9.11048203543E+02		Apriori clock (usec)		-8.8464546E+00		Resid sbdelay (usec)		-1.80525E-03	+/- 1.3E-05
Phase delay (usec)	9.11050007347E+02		Apriori clockrate (us/s)		-9.2540003E-06		Resid phdelay (usec)		-1.44541E-06	+/- 5.7E-09
Delay rate (us/s)	8.79701542640E-02		Apriori rate (us/s)		8.79701520150E-02		Resid rate (us/s)		2.24896E-09	+/- 2.7E-11
Total phase (deg)	227.8		Apriori accel (us/s/s)		3.69892020486E-07		Resid phase (deg)		-44.8	+/- 0.2

ph/seg (deg) RMS Theor. Amplitude 12.493 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 75.6 0.4 Search (2048X32) 12.091 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 107.5 0.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 67.3 0.3 Inc. seg. avg. 25.006 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 57.2 0.4 Inc. frq. avg. 18.768 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

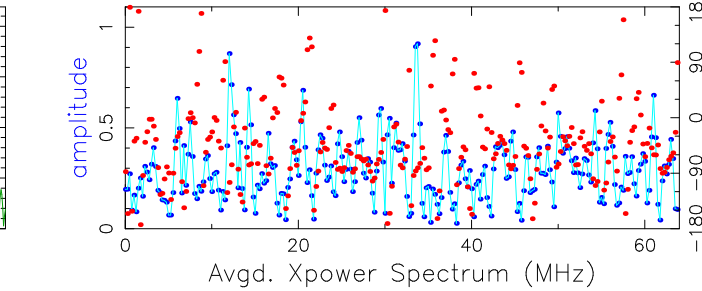
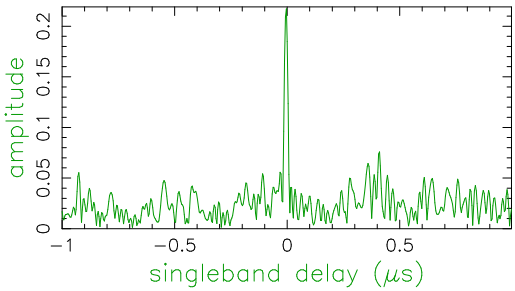
B: az 302.9 el 28.7 pa 46.3 N: az 304.9 el 26.0 pa 55.2 u,v (fr/asec) -680.537 488.384 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BN..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BN.W.35.1W5ADF

multiband delay ( $\mu$ s)

Fringe quality 9

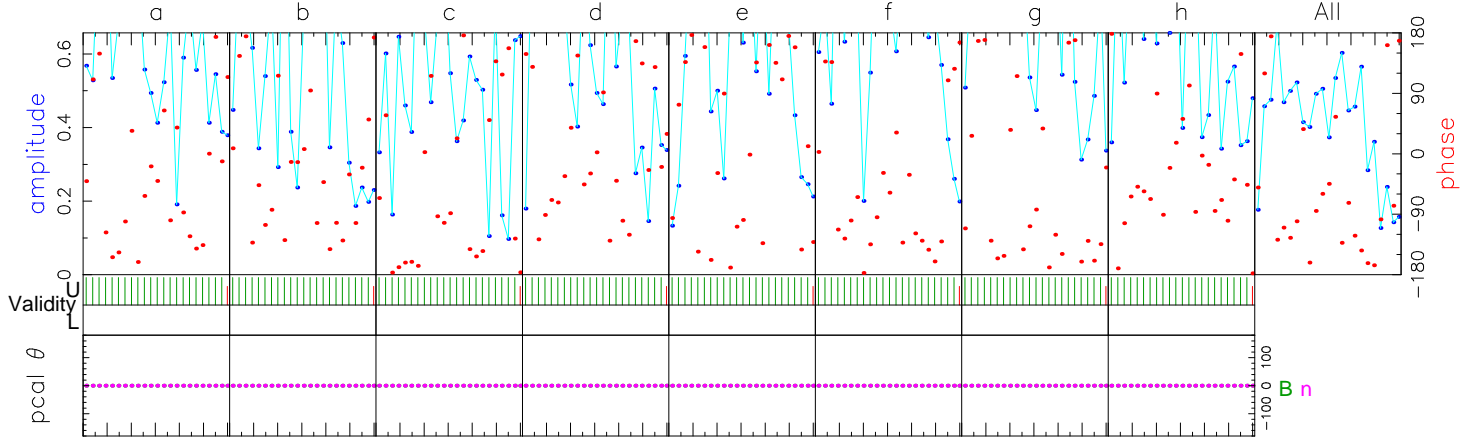


SNR 11.4  
 Int time 359.914  
 Amp 0.219  
 Phase -122.4  
 PFD 2.9e-21  
 Delays (us)  
 SBD -0.005116  
 MBD 0.000601  
 Fringe rate (Hz)  
 -0.010081  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135418  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

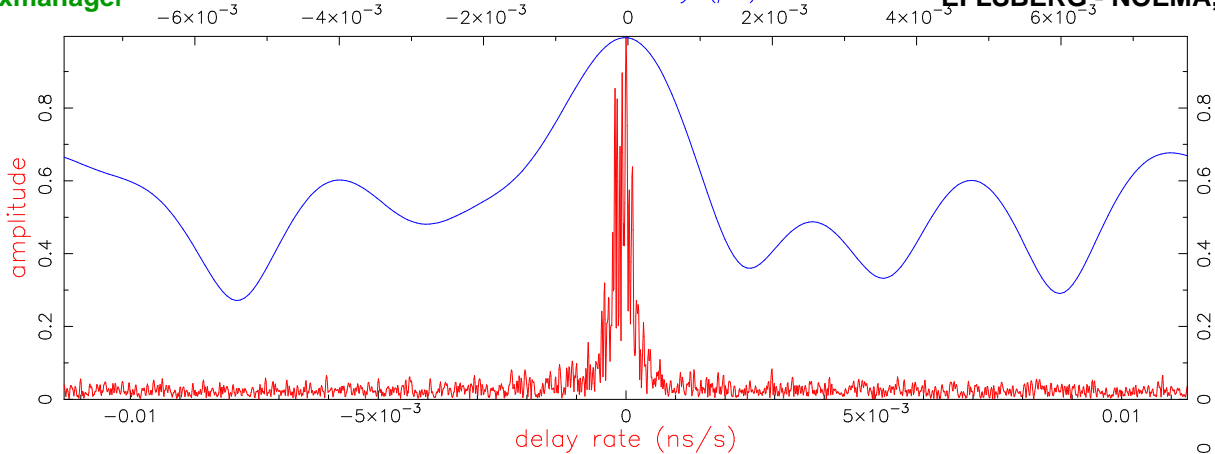
Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-116.4	-98.5	-150.7	-81.0	-174.9	-109.0	-161.9	-64.4	Phase	-122.4
	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	Ampl.	0.3
	255.9	254.9	256.4	254.9	256.1	256.7	256.5	255.8	Sbd box	255.7
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.12520083082E+04								Resid mbdelay (usec)	6.01235E-04 +/- 9.5E-05
Sband delay (usec)	-1.12520140256E+04								Resid sbdelay (usec)	-5.11625E-03 +/- 7.6E-04
Phase delay (usec)	-1.12520089133E+04								Resid phdelay (usec)	-3.94718E-06 +/- 3.3E-07
Delay rate (us/s)	-7.66121111466E-01								Resid rate (us/s)	-1.17034E-07 +/- 1.6E-09
Total phase (deg)			-286.3						Resid phase (deg)	-122.4 +/- 10.1
									Apriori delay (usec)	-1.12520089094E+04
									Apriori clock (usec)	-2.7482103E+01
									Apriori clockrate (us/s)	-2.9999999E-07
									Apriori rate (us/s)	-7.66120994432E-01
									Apriori accel (us/s/s)	6.77382665833E-05
									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
									SampCntNorm: enabled	dr window (ns/s) -0.011 0.011
									Sample rate(MISamp/s): 128	ion window (TEC) 0.00 0.00
									Data rate(Mb/s): 2048	
									nlags: 256	
									t_cohere infinite	

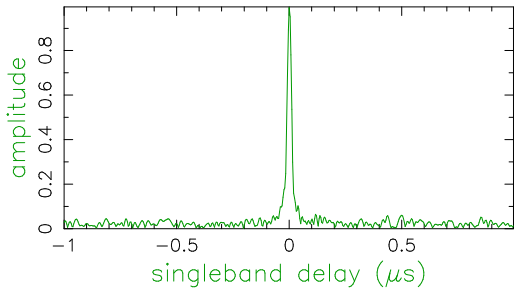
ph/seg (deg) 70.2 24.2 Search (2048X32) 0.209 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 111.0 42.2 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 42.8 14.3 Inc. seg. avg. 0.378 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 38.1 24.9 Inc. frq. avg. 0.265 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 B: az 302.9 el 28.7 pa 46.3 n: az 76.3 el 87.2 pa -102.2 u,v (fr/asec) 6071.168 5467.372 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bn..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bn.W.39.1W5ADF

multiband delay ( $\mu$ s)

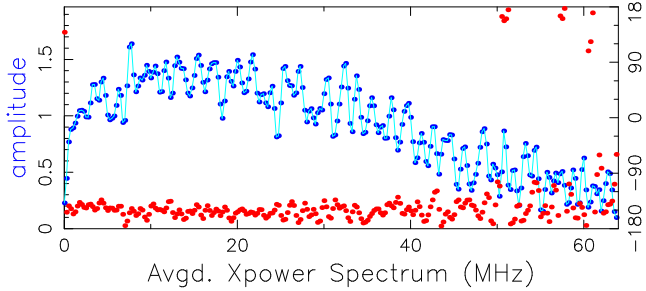


Fringe quality 1

SNR 51.7  
 Int time 359.914  
 Amp 0.996  
 Phase -143.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000829  
 MBD -0.000045  
 Fringe rate (Hz)  
 0.000089  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

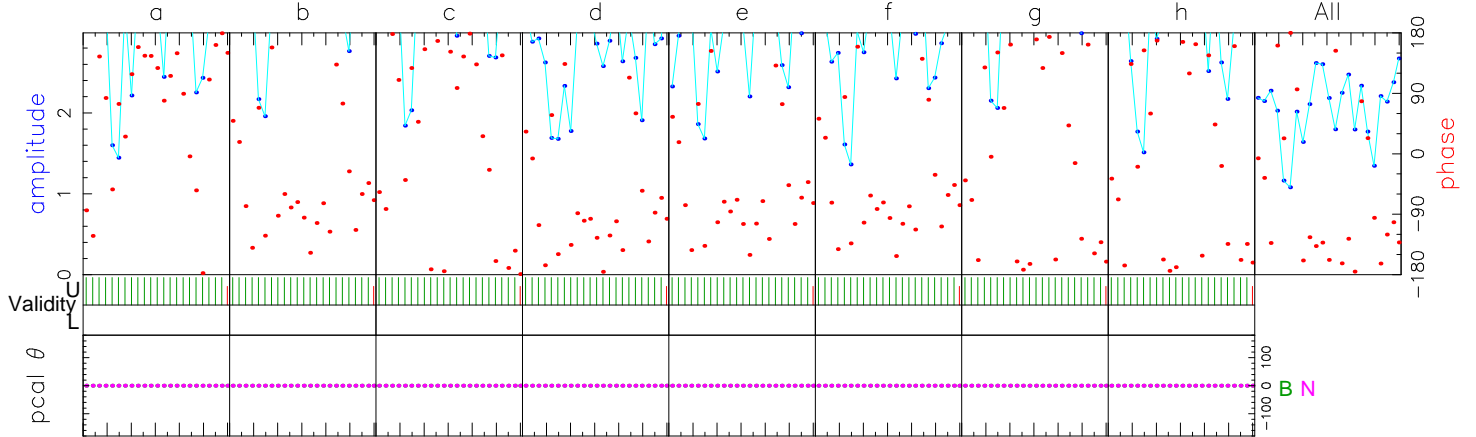


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135421  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	134.5	-81.6	167.2	-110.8	-89.2	-86.5	-174.8	-176.2	Phase	-143.4
	1.5	1.8	1.8	1.3	1.5	1.4	1.9	1.5	Ampl.	1.6
	255.6	257.1	257.6	258.3	258.2	258.0	257.4	256.6	Sbd box	257.2
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.11049964043E+02		Apriori delay (usec)		9.11050008793E+02		Resid mbdelay (usec)		-4.47500E-05	+/- 2.1E-05
Sband delay (usec)	9.11050838293E+02		Apriori clock (usec)		-8.8464546E+00		Resid sbdelay (usec)		8.29500E-04	+/- 1.7E-04
Phase delay (usec)	9.11050004169E+02		Apriori clockrate (us/s)		-9.2540003E-06		Resid phdelay (usec)		-4.62410E-06	+/- 7.1E-08
Delay rate (us/s)	8.79701530488E-02		Apriori rate (us/s)		8.79701520150E-02		Resid rate (us/s)		1.03379E-09	+/- 3.4E-10
Total phase (deg)	129.3		Apriori accel (us/s/s)		3.69892020486E-07		Resid phase (deg)		-143.4	+/- 2.2

	RMS	Theor.	Amplitude	0.996 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	77.4	5.3	Search (2048X32)	0.992	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	113.3	9.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	61.0	3.1	Inc. seg. avg.	2.035	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	64.7	5.5	Inc. frq. avg.	1.608	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
						ion window (TEC) 0.00 0.00

B: az 302.9 el 28.7 pa 46.3 N: az 304.9 el 26.0 pa 55.2 u,v (fr/asec) -680.537 488.384 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BN..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BN.W.50.1W5ADF



Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

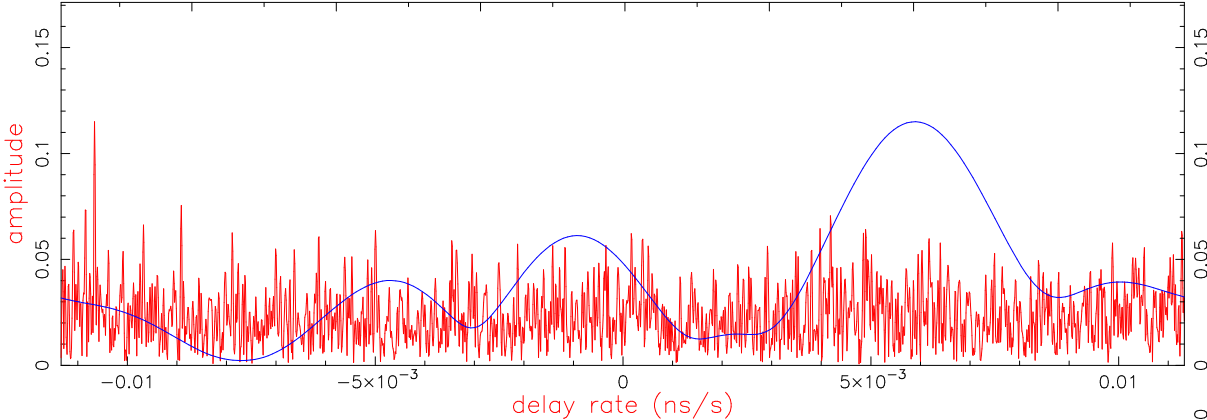
BLLAC.1W5ADF, No0245, Bn

EFLSBERG - VLBA\_NL, fgroup W, pol LR

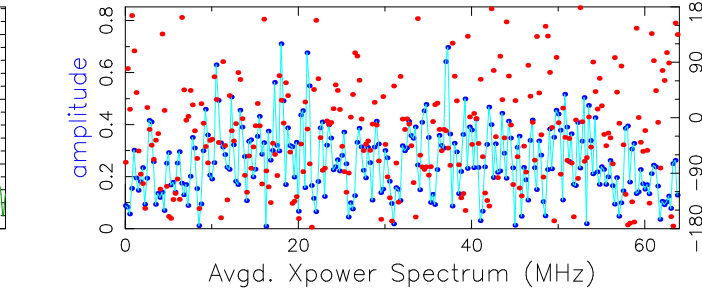
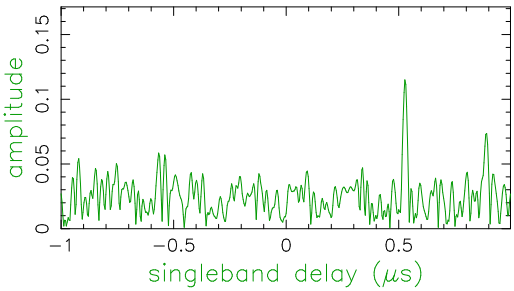
multiband delay ( $\mu$ s)

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

Fringe quality 0

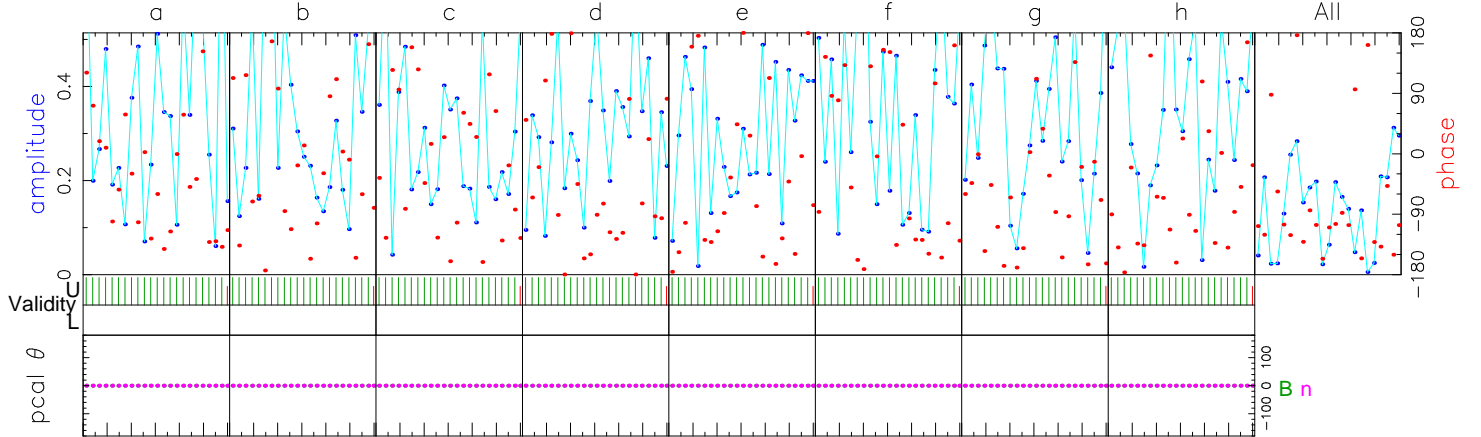


SNR 6.0  
 Int time 359.914  
 Amp 0.171  
 Phase -120.1  
 PFD 4.3e-01  
 Delays (us)  
 SBD 0.528256  
 MBD 0.004034  
 Fringe rate (Hz)  
 -0.919430  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135423  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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

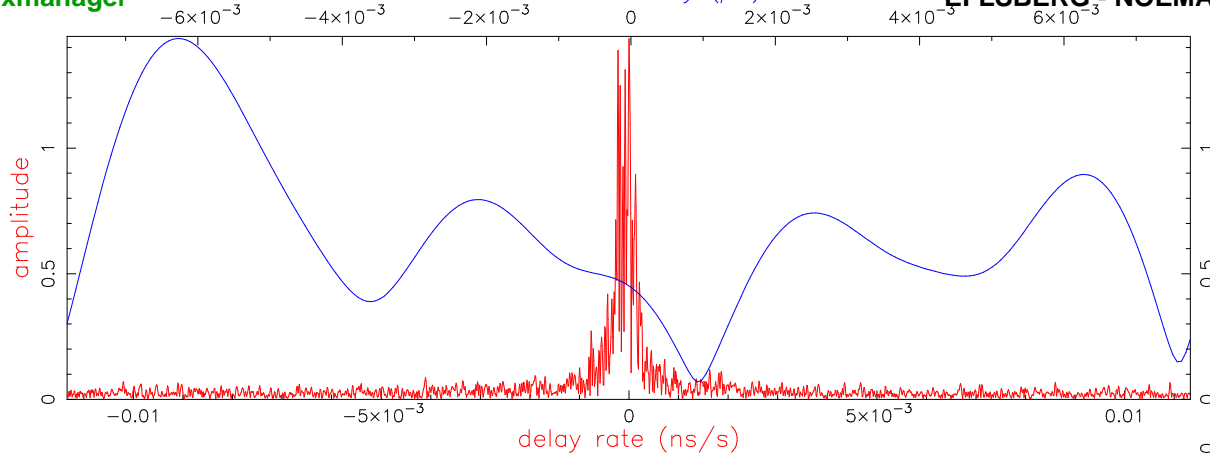


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-80.4	-139.3	-108.7	-109.7	-128.4	-171.9	-88.9	-101.2	Phase	-120.1
	0.1	0.2	0.1	0.2	0.2	0.3	0.2	0.3	Ampl.	0.2
	44.9	485.0	189.0	394.3	482.1	392.1	484.9	391.1	Sbd box	392.2
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.12514736252E+04								Resid mbdelay (usec)	4.03416E-03 +/- 1.8E-04
Sband delay (usec)	-1.12514806534E+04								Resid sbdelay (usec)	5.28256E-01 +/- 1.4E-03
Phase delay (usec)	-1.12520089133E+04								Resid phdelay (usec)	-3.87155E-06 +/- 6.2E-07
Delay rate (us/s)	-7.66131668099E-01								Resid rate (us/s)	-1.06737E-05 +/- 3.0E-09
Total phase (deg)		-283.9							Resid phase (deg)	-120.1 +/- 19.1
	RMS	Theor.	Amplitude	0.171 +/- 0.029					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	55.9	45.9	Search (2048X32)	0.114					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	84.6	80.1	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	32.3	27.1	Inc. seg. avg.	0.160					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	38.2	47.3	Inc. frq. avg.	0.176					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite

B: az 302.9 el 28.7 pa 46.3 n: az 76.3 el 87.2 pa -102.2 u,v (fr/asec) 6071.168 5467.372 simultaneous interpolator

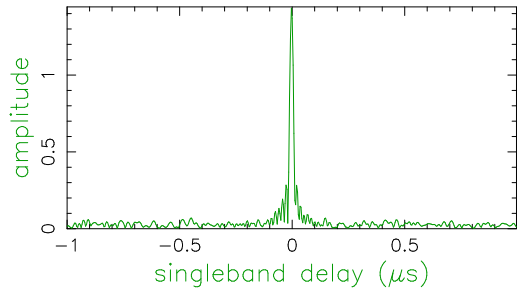
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bn..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bn.W.62.1W5ADF

multiband delay ( $\mu$ s)

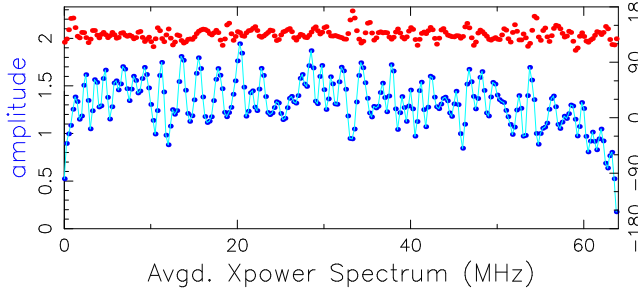


Fringe quality 1

SNR 75.0  
 Int time 359.914  
 Amp 1.445  
 Phase 172.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002890  
 MBD -0.006230  
 Fringe rate (Hz)  
 -0.000004  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

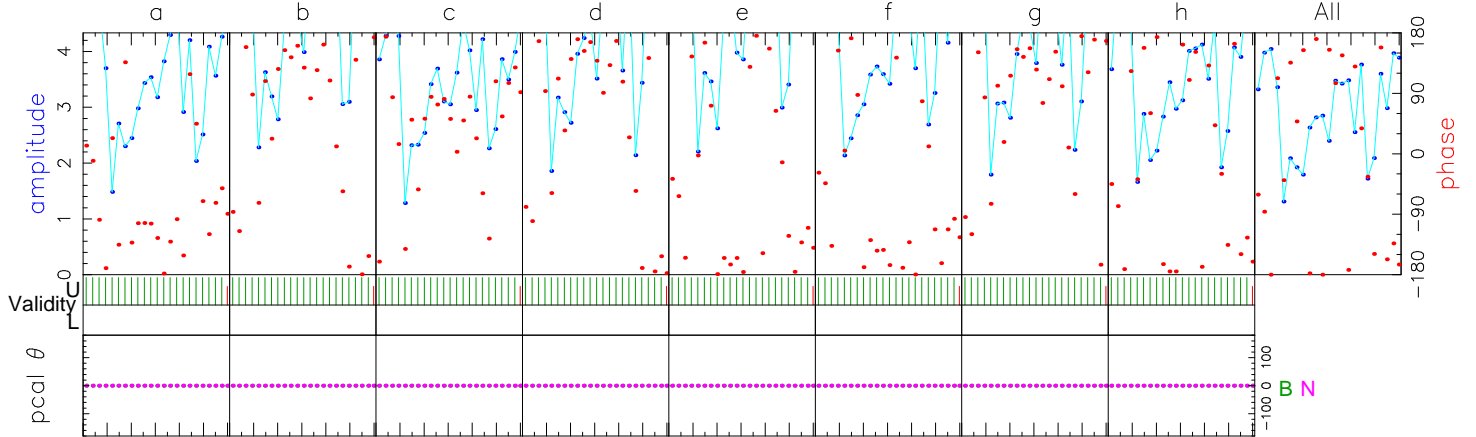


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135425  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-105.5	150.5	71.9	156.2	-161.4	-145.3	140.2	-178.4	Phase	172.8
	1.8	2.3	1.7	2.3	2.4	2.0	2.2	1.7	Ampl.	2.1
	254.2	255.6	256.6	256.5	256.8	256.6	256.3	254.9	Sbd box	256.3
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.11043779074E+02		Apriori delay (usec)		9.11050008793E+02		Resid mbdelay (usec)		-6.22972E-03	+/- 1.4E-05
Sband delay (usec)	9.11047118543E+02		Apriori clock (usec)		-8.8464546E+00		Resid sbdelay (usec)		-2.89025E-03	+/- 1.1E-04
Phase delay (usec)	9.11050014365E+02		Apriori clockrate (us/s)		-9.2540003E-06		Resid phdelay (usec)		5.57279E-06	+/- 4.9E-08
Delay rate (us/s)	8.79701519633E-02		Apriori rate (us/s)		8.79701520150E-02		Resid rate (us/s)		-5.17247E-11	+/- 2.4E-10
Total phase (deg)			85.5		Apriori accel (us/s/s)		3.69892020486E-07		172.8	+/- 1.5

	RMS	Theor.	Amplitude	1.445 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	74.0	3.7	Search (2048X32)	1.433	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	116.4	6.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	59.4	2.2	Inc. seg. avg.	2.915	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	46.2	3.8	Inc. frq. avg.	2.059	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 302.9 el 28.7 pa 46.3 N: az 304.9 el 26.0 pa 55.2 u,v (fr/asec) -680.537 488.384 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BN..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BN.W.71.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

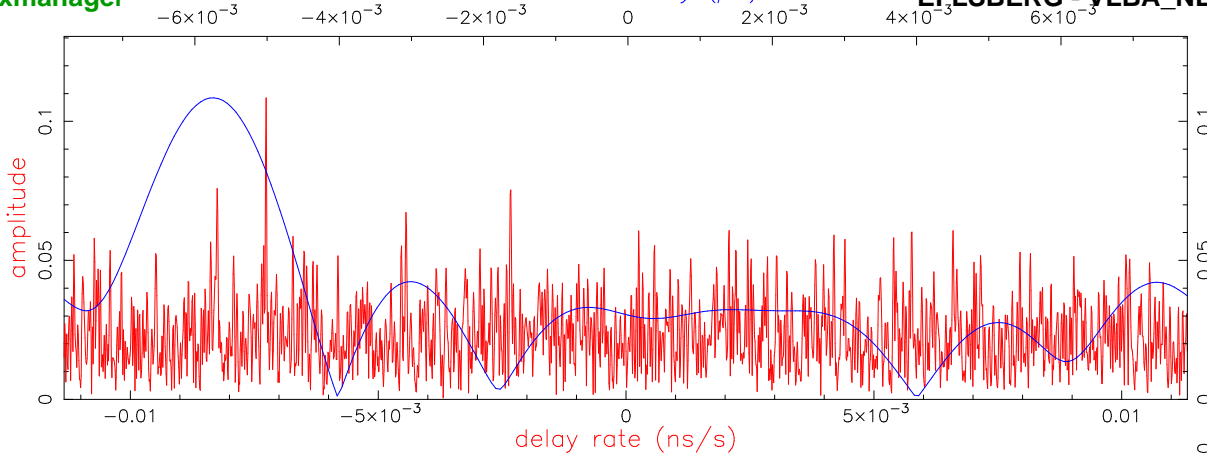
fxmanager

BLLAC.1W5ADF, No0245, Bn

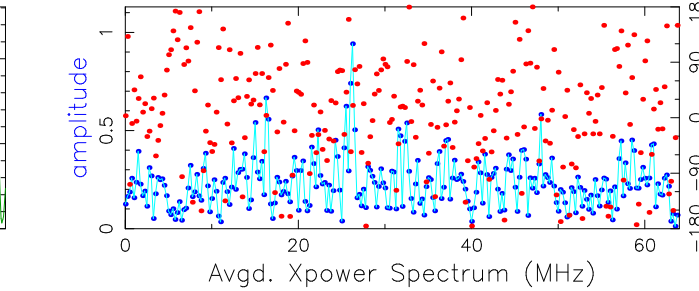
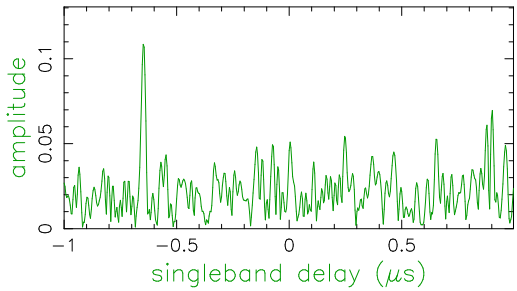
EFLSBERG - VLBA\_NL, fgroup W, pol RL

multiband delay ( $\mu$ s)

Fringe quality 0

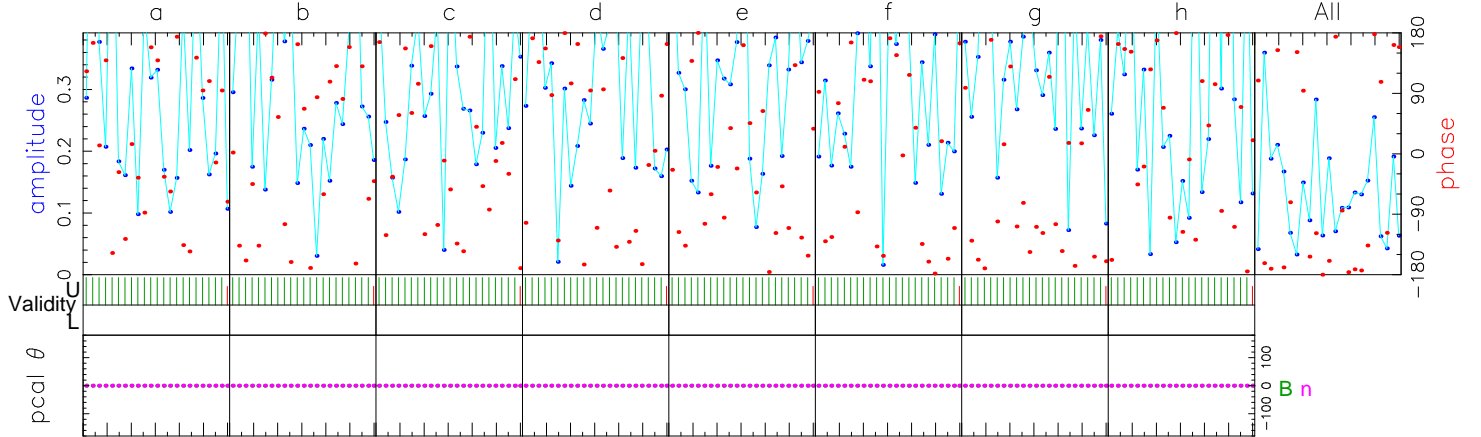


SNR 5.7  
 Int time 359.914  
 Amp 0.131  
 Phase -169.8  
 PFD 9.6e-01  
 Delays (us)  
 SBD -0.646906  
 MBD -0.005774  
 Fringe rate (Hz)  
 -0.626402  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	164.0	-174.4	-120.5	-178.2	-115.9	174.8	-160.4	175.4	Phase	-169.8
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	42.3	213.5	234.4	280.0	441.2	489.0	91.0	198.3	Sbd box	91.4
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.12526553081E+04					-1.12520089094E+04			Resid mbdelay (usec)	-5.77370E-03 +/- 1.9E-04
Sband delay (usec)	-1.12526558151E+04					-2.7482103E+01			Resid sbdelay (usec)	-6.46906E-01 +/- 1.5E-03
Phase delay (usec)	-1.12520089149E+04					-2.9999999E-07			Resid phdelay (usec)	-5.47656E-06 +/- 6.5E-07
Delay rate (us/s)	-7.66128266335E-01					-7.66120994432E-01			Resid rate (us/s)	-7.27190E-06 +/- 3.1E-09
Total phase (deg)			-333.7			6.77382665833E-05			Resid phase (deg)	-169.8 +/- 20.2
	RMS	Theor.	Amplitude	0.131 +/- 0.023					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	47.6	48.3	Search (2048X32)	0.108					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	80.3	84.4	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	33.3	28.5	Inc. seg. avg.	0.122					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	32.7	49.8	Inc. frq. avg.	0.126					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite

Mk4/DiFX fourfit 3.21 rev 2937

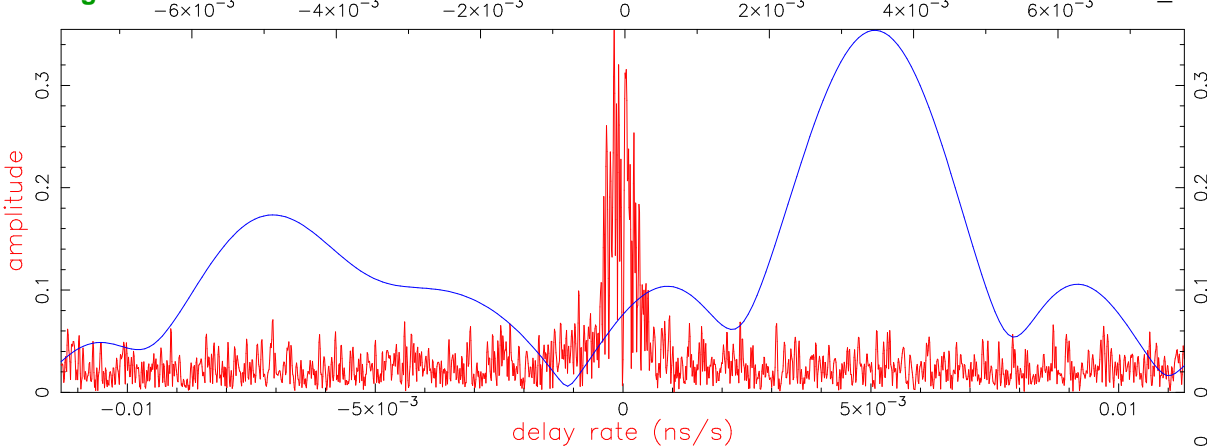
fxmanager

BLLAC.1W5ADF, No0245, Bo

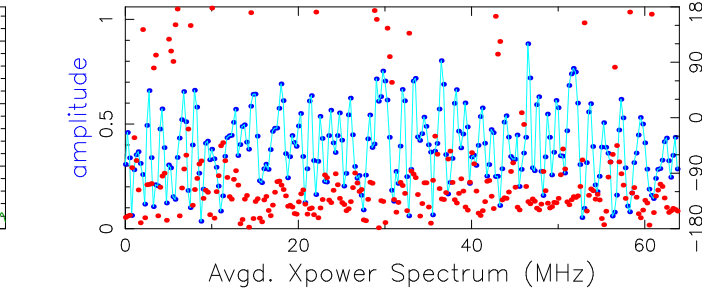
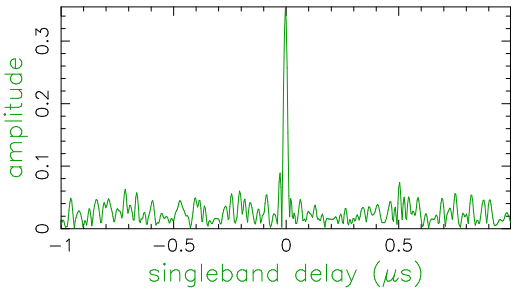
EFLSBERG - VLBA\_OV, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 8

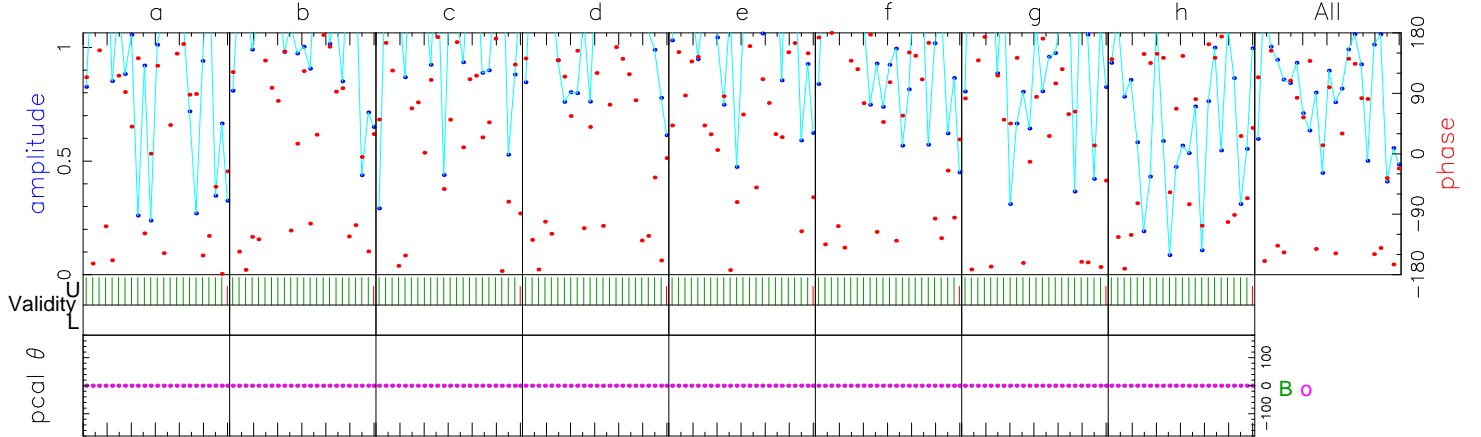


SNR 18.4  
 Int time 359.840  
 Amp 0.355  
 Phase 152.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.003266  
 MBD 0.003485  
 Fringe rate (Hz)  
 -0.015547  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135414  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
Group delay (usec)(sbd)	-9.57205372061E+03	-9.57205372061E+03	-9.57205372061E+03	-9.57205372061E+03	-9.57205372061E+03	-9.57205372061E+03	-9.57205372061E+03	-9.57205372061E+03		
Sband delay (usec)	-9.57206047233E+03	-9.57206047233E+03	-9.57206047233E+03	-9.57206047233E+03	-9.57206047233E+03	-9.57206047233E+03	-9.57206047233E+03	-9.57206047233E+03		
Phase delay (usec)	-9.57205720118E+03	-9.57205720118E+03	-9.57205720118E+03	-9.57205720118E+03	-9.57205720118E+03	-9.57205720118E+03	-9.57205720118E+03	-9.57205720118E+03		
Delay rate (us/s)	-1.17447431055E+00	-1.17447431055E+00	-1.17447431055E+00	-1.17447431055E+00	-1.17447431055E+00	-1.17447431055E+00	-1.17447431055E+00	-1.17447431055E+00		
Total phase (deg)			-111.5							
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:o	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		
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
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) 79.7 14.9 Search (2048X32) 0.346 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 141.9 26.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 34.9 8.8 Inc. seg. avg. 0.782 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 24.9 15.4 Inc. frq. avg. 0.405 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 B: az 302.9 el 28.7 pa 46.3 o: az 68.0 el 66.2 pa -91.8 u,v (fr/asec) 9228.339 5518.311 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bo..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bo.W.13.1W5ADF simultaneous interpolator

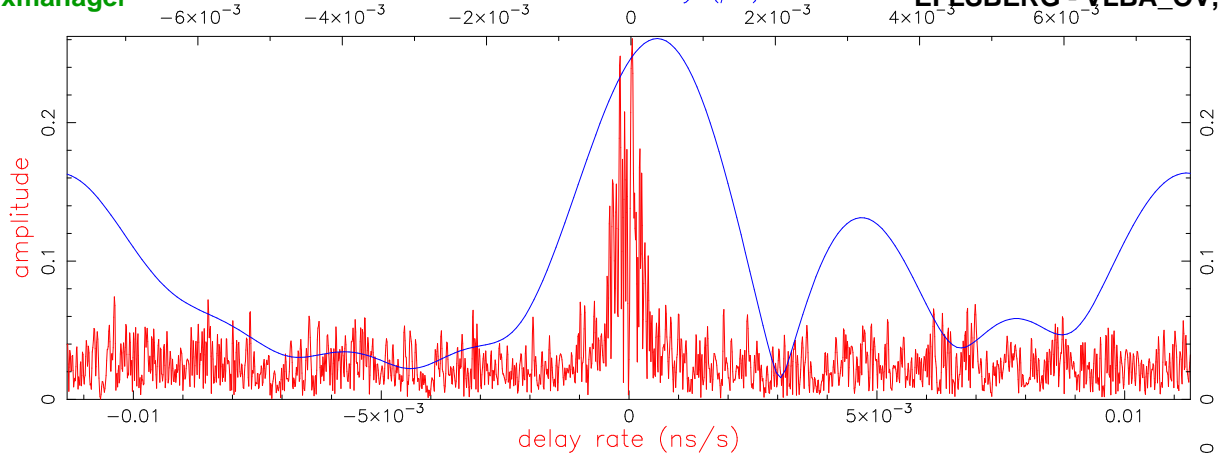
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bo

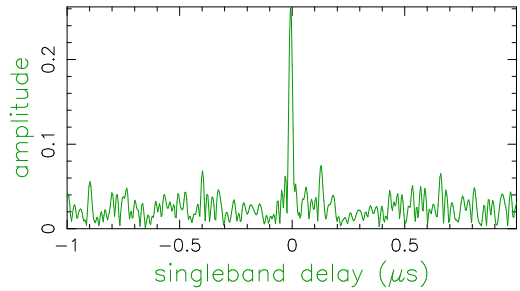
EFLSBERG - VLBA\_OV, fgroup W, pol RR

multiband delay ( $\mu$ s)

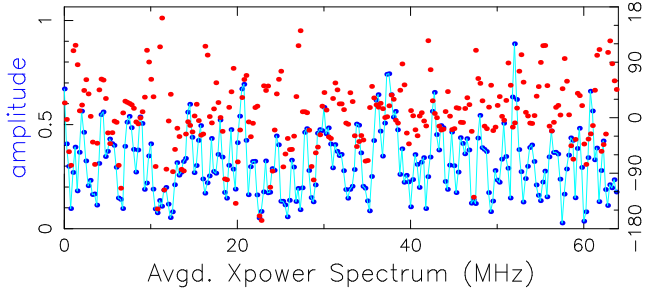


Fringe quality 9

SNR 13.6  
 Int time 359.840  
 Amp 0.262  
 Phase -74.3  
 PFD 2.0e-33  
 Delays (us)  
 SBD -0.006832  
 MBD 0.000388  
 Fringe rate (Hz)  
 0.005475  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

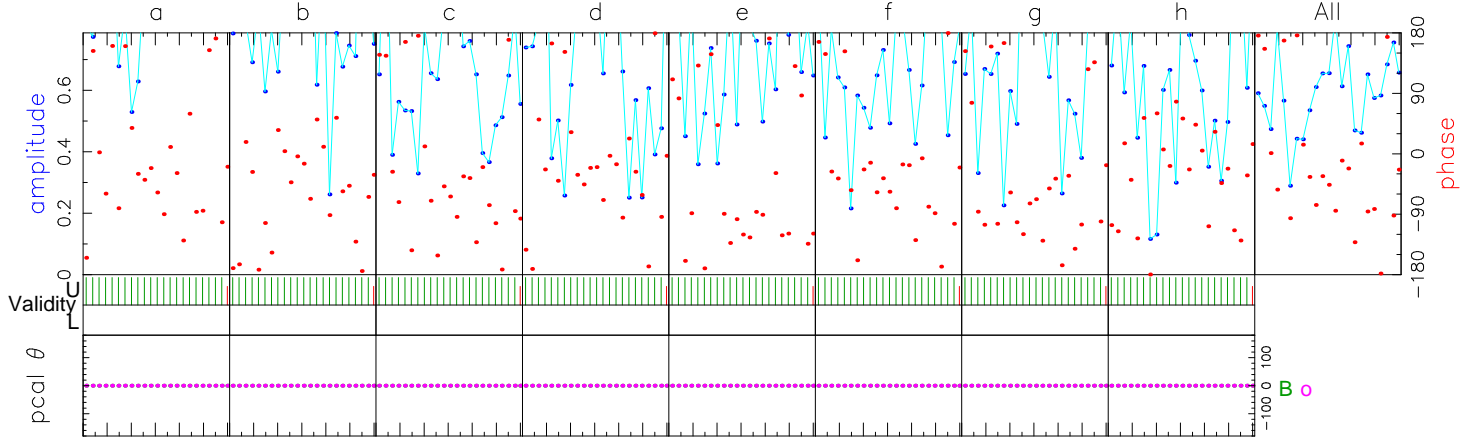


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135418  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-72.9	-49.6	-97.9	-33.9	-143.5	-70.2	-104.6	-26.9	Phase	-74.3
	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	Ampl.	0.3
	255.8	255.1	256.0	254.9	256.1	255.7	256.4	256.6	Sbd box	255.3
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	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)	-9.57205681821E+03		Apriori delay (usec)		-9.57205720608E+03		Resid mbdelay (usec)		3.87877E-04	+/- 8.0E-05
Sband delay (usec)	-9.57206403808E+03		Apriori clock (usec)		-2.5724325E+01		Resid sbdelay (usec)		-6.83200E-03	+/- 6.3E-04
Phase delay (usec)	-9.57205720848E+03		Apriori clockrate (us/s)		-3.6000001E-07		Resid phdelay (usec)		-2.39444E-06	+/- 2.7E-07
Delay rate (us/s)	-1.17447406650E+00		Apriori rate (us/s)		-1.17447413007E+00		Resid rate (us/s)		6.35633E-08	+/- 1.3E-09
Total phase (deg)			Apriori accel (us/s/s)		6.34555919485E-05		Resid phase (deg)		-74.3	+/- 8.4

	RMS	Theor.	Amplitude	0.262 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	71.8	20.2	Search (2048X32)	0.257	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	135.0	35.2	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	42.4	11.9	Inc. seg. avg.	0.558	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	25.3	20.8	Inc. frq. avg.	0.316	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

B: az 302.9 el 28.7 pa 46.3 o: az 68.0 el 66.2 pa -91.8 u,v (fr/asec) 9228.339 5518.311 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bo..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bo.W.36.1W5ADF



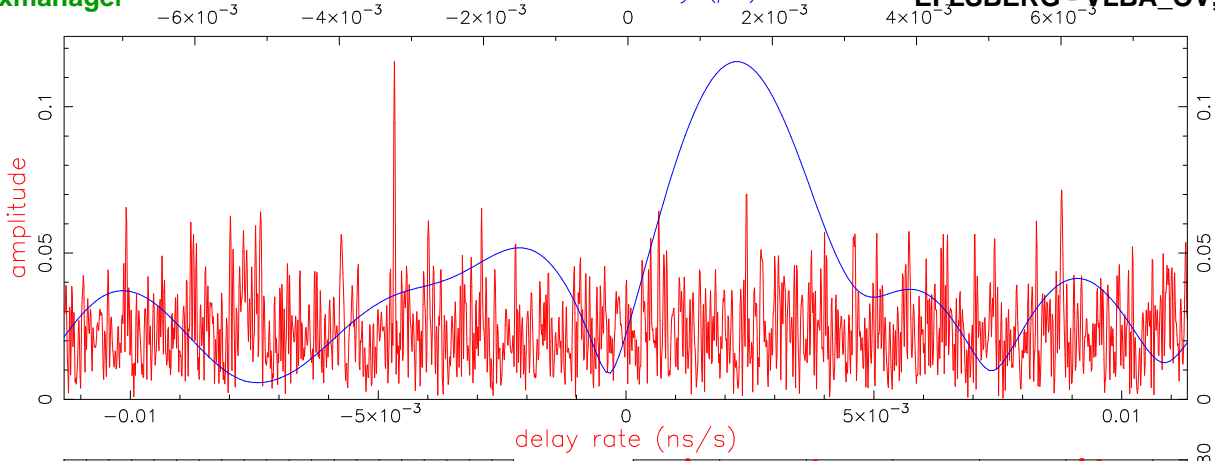
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bo

EFLSBERG - VLBA\_OV, fgroup W, pol LR

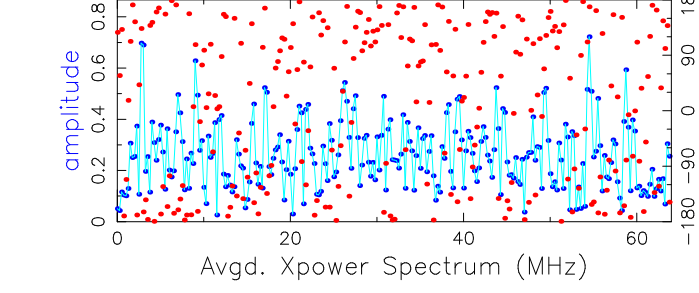
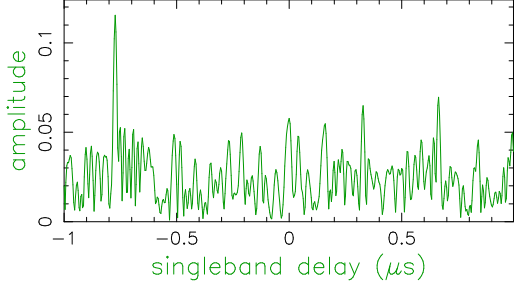
multiband delay ( $\mu$ s)



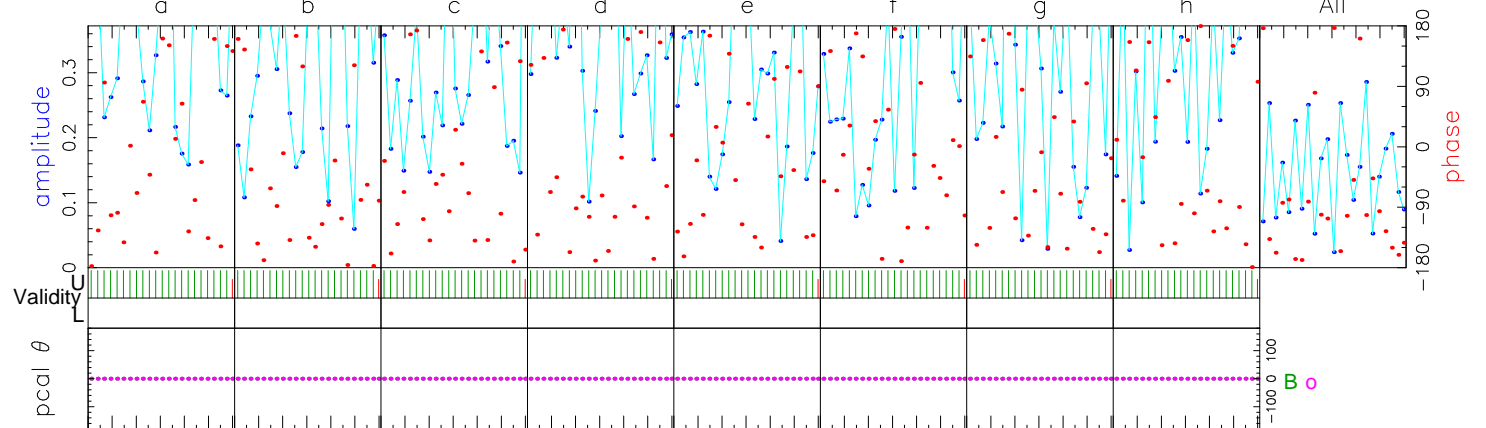
Fringe quality 0

SNR 6.0  
 Int time 359.840  
 Amp 0.124  
 Phase -124.8  
 PFD 4.1e-01  
 Delays (us)  
 SBD -0.773054  
 MBD 0.001522  
 Fringe rate (Hz)  
 -0.402670  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135422  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-147.9	-106.4	-133.3	-128.6	-123.5	-59.1	-130.3	-148.4	Phase	-124.8
	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.2	Ampl.	0.1
	101.4	65.9	273.6	68.7	392.1	300.6	355.7	421.1	Sbd box	59.1
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	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)	-9.57283693420E+03		Apriori delay (usec)		-9.57205720608E+03		Resid mbdelay (usec)		1.52188E-03	+/- 1.8E-04
Sband delay (usec)	-9.57283026058E+03		Apriori clock (usec)		-2.5724325E+01		Resid sbdelay (usec)		-7.73054E-01	+/- 1.4E-03
Phase delay (usec)	-9.57205721011E+03		Apriori clockrate (us/s)		-3.6000001E-07		Resid phdelay (usec)		-4.02539E-06	+/- 6.2E-07
Delay rate (us/s)	-1.17447880467E+00		Apriori rate (us/s)		-1.17447413007E+00		Resid rate (us/s)		-4.67460E-06	+/- 3.0E-09
Total phase (deg)			Apriori accel (us/s/s)		6.34555919485E-05		Resid phase (deg)		-124.8	+/- 19.1

ph/seg (deg) 53.3 45.8 Search (2048X32) 0.113 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 70.2 80.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 31.3 27.0 Inc. seg. avg. 0.122 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 40.0 47.2 Inc. frq. avg. 0.123 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 B: az 302.9 el 28.7 pa 46.3 o: az 68.0 el 66.2 pa -91.8 u,v (fr/asec) 9228.339 5518.311 ion window (TEC) 0.00 0.00 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bo..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bo.W.56.1W5ADF

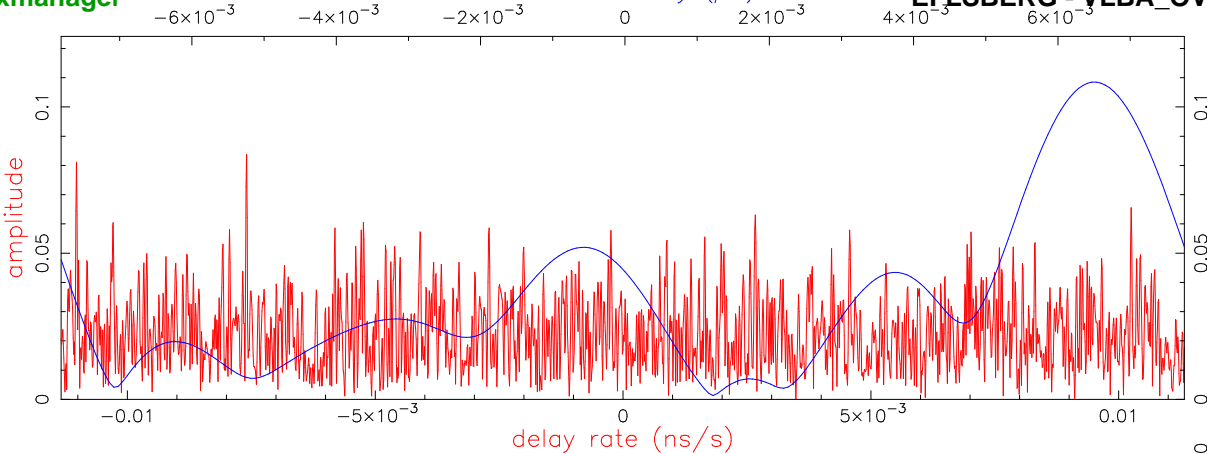
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bo

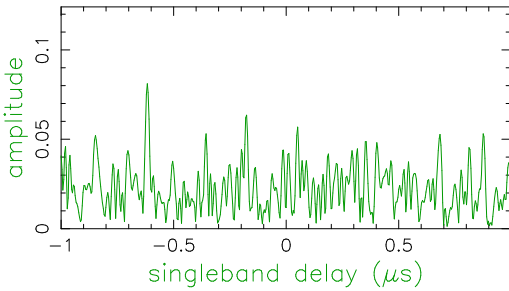
EFLSBERG - VLBA\_OV, fgroup W, pol RL

multiband delay ( $\mu$ s)

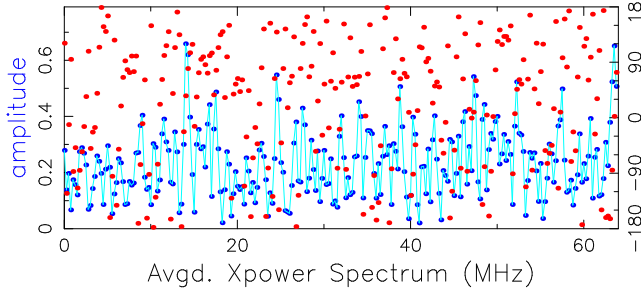


Fringe quality 0

SNR 4.2  
 Int time 359.840  
 Amp 0.124  
 Phase -85.2  
 PFD 1.0e+00  
 Delays (us)  
 SBD -0.616958  
 MBD -0.008301  
 Fringe rate (Hz)  
 -0.950803  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

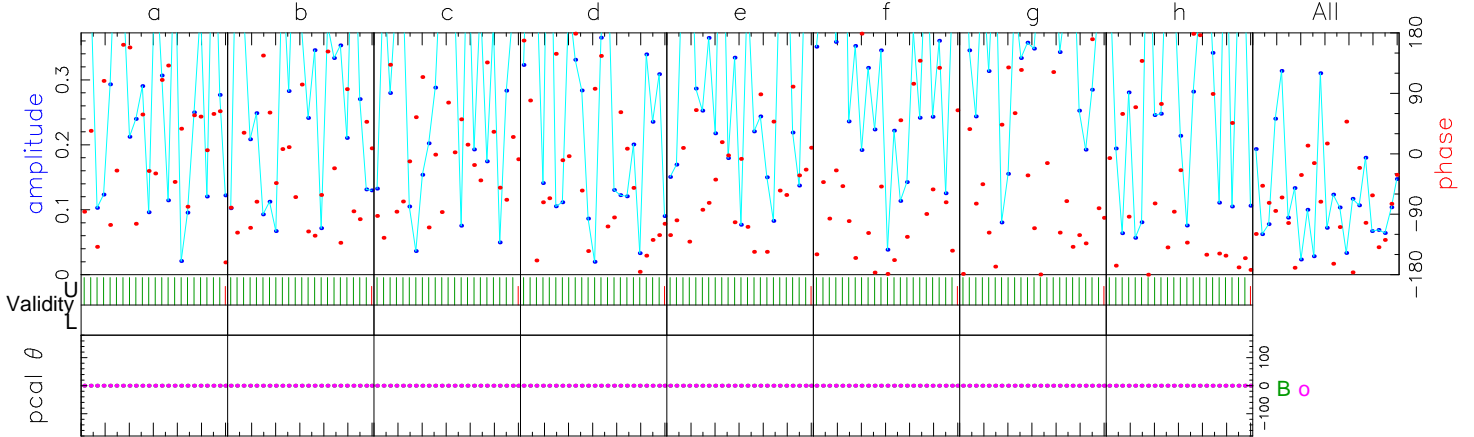


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:o	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		
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-9.57267488187E+03	Apriori delay (usec)	-9.57205720608E+03	Resid mbdelay (usec)	-8.30078E-03	+/-	2.6E-04
Sband delay (usec)	-9.57267416458E+03	Apriori clock (usec)	-2.5724325E+01	Resid sbdelay (usec)	-6.16958E-01	+/-	2.0E-03
Phase delay (usec)	-9.57205720883E+03	Apriori clockrate (us/s)	-3.6000001E-07	Resid phdelay (usec)	-2.74669E-06	+/-	8.8E-07
Delay rate (us/s)	-1.17448516795E+00	Apriori rate (us/s)	-1.17447413007E+00	Resid rate (us/s)	-1.10379E-05	+/-	4.2E-09
Total phase (deg)	-348.7	Apriori accel (us/s/s)	6.34555919485E-05	Resid phase (deg)	-85.2	+/-	27.2

ph/seg (deg)	RMS 60.4	Theor. 65.3	Amplitude Search (2048X32)	0.124 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	108.2	114.0	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)	58.8	38.5	Inc. seg. avg.	0.111	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	60.5	67.2	Inc. frq. avg.	0.152	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 302.9 el 28.7 pa 46.3 o: az 68.0 el 66.2 pa -91.8 u,v (fr/asec) 9228.339 5518.311 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bo..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bo.W.76.1W5ADF

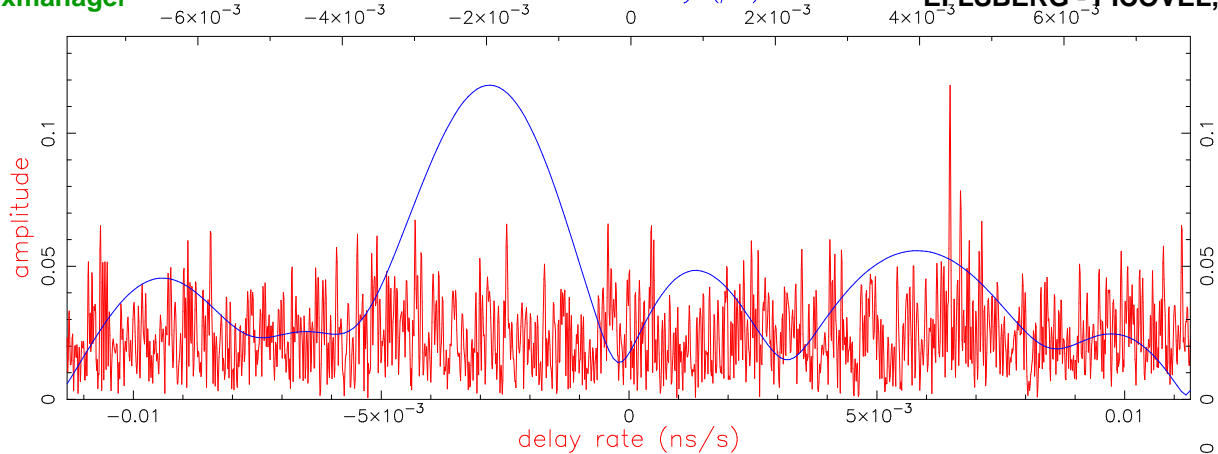
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BP

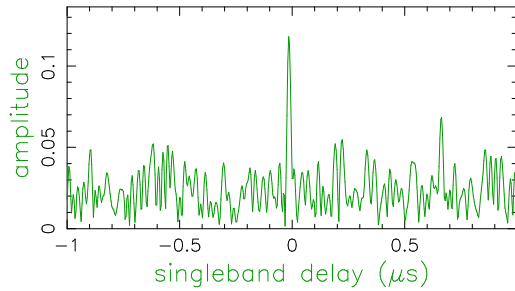
EFLSBERG - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu\text{s}$ )

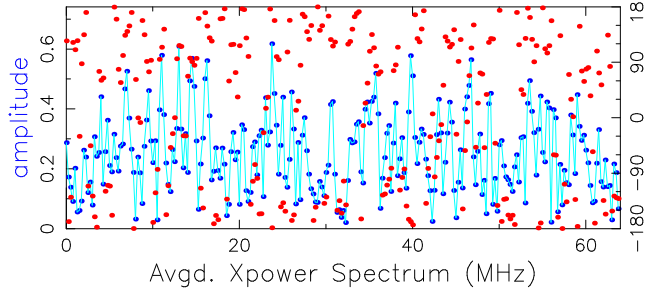


Fringe quality 0

SNR 6.2  
 Int time 359.914  
 Amp 0.136  
 Phase -4.8  
 PFD 1.7e-01  
 Delays (us)  
 SBD -0.014605  
 MBD -0.001925  
 Fringe rate (Hz)  
 0.558687  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

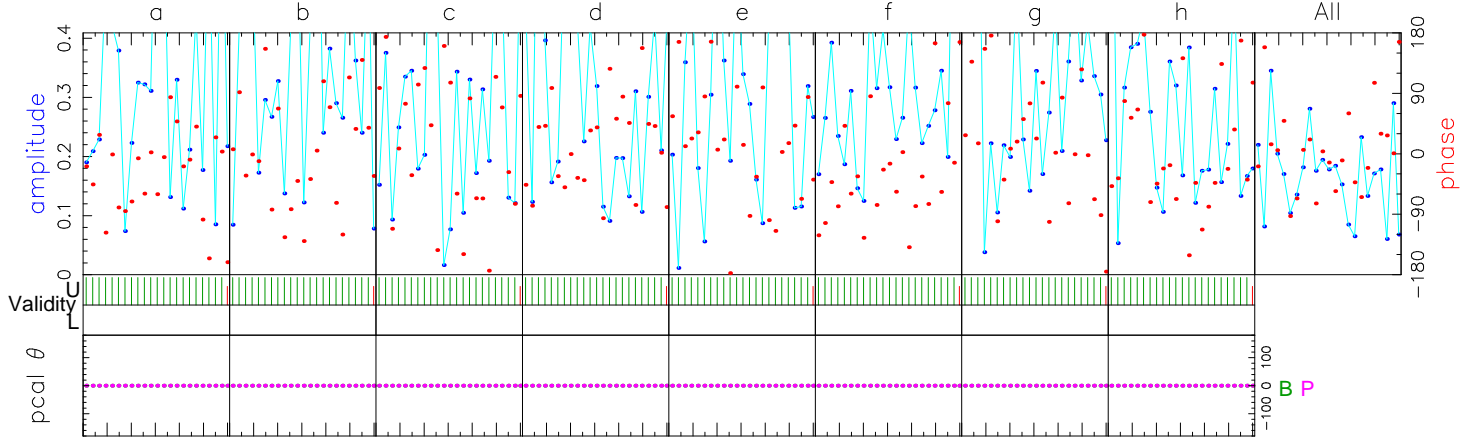


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-29.9	8.5	74.8	5.0	11.8	-50.6	11.5	-26.2	Phase	-4.8
	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	Ampl.	0.1
	253.5	419.9	342.0	252.5	285.7	61.3	338.2	166.7	Sbd box	253.3
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	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)	4.04221332044E+02		Apriori delay (usec)		4.04238882132E+02		Resid mbdelay (usec)		-1.92509E-03	+/- 1.8E-04
Sband delay (usec)	4.04224277382E+02		Apriori clock (usec)		-2.1095793E+01		Resid sbdelay (usec)		-1.46048E-02	+/- 1.4E-03
Phase delay (usec)	4.04238881976E+02		Apriori clockrate (us/s)		5.9999998E-07		Resid phdelay (usec)		-1.55667E-07	+/- 6.0E-07
Delay rate (us/s)	1.86870514397E-01		Apriori rate (us/s)		1.86864028598E-01		Resid rate (us/s)		6.48580E-06	+/- 2.9E-09
Total phase (deg)	105.6		Apriori accel (us/s/s)		1.05943711962E-05		Resid phase (deg)		-4.8	+/- 18.6

	RMS	Theor.	Amplitude	0.136 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	64.4	44.6	Search (2048X32)	0.115	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	74.9	77.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	41.5	26.3	Inc. seg. avg.	0.150	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	36.3	45.9	Inc. frq. avg.	0.142	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

B: az 302.9 el 28.7 pa 46.3 P: az 304.0 el 27.6 pa 64.2 u,v (fr/asec) -1426.061 1884.678 simultaneous interpolator

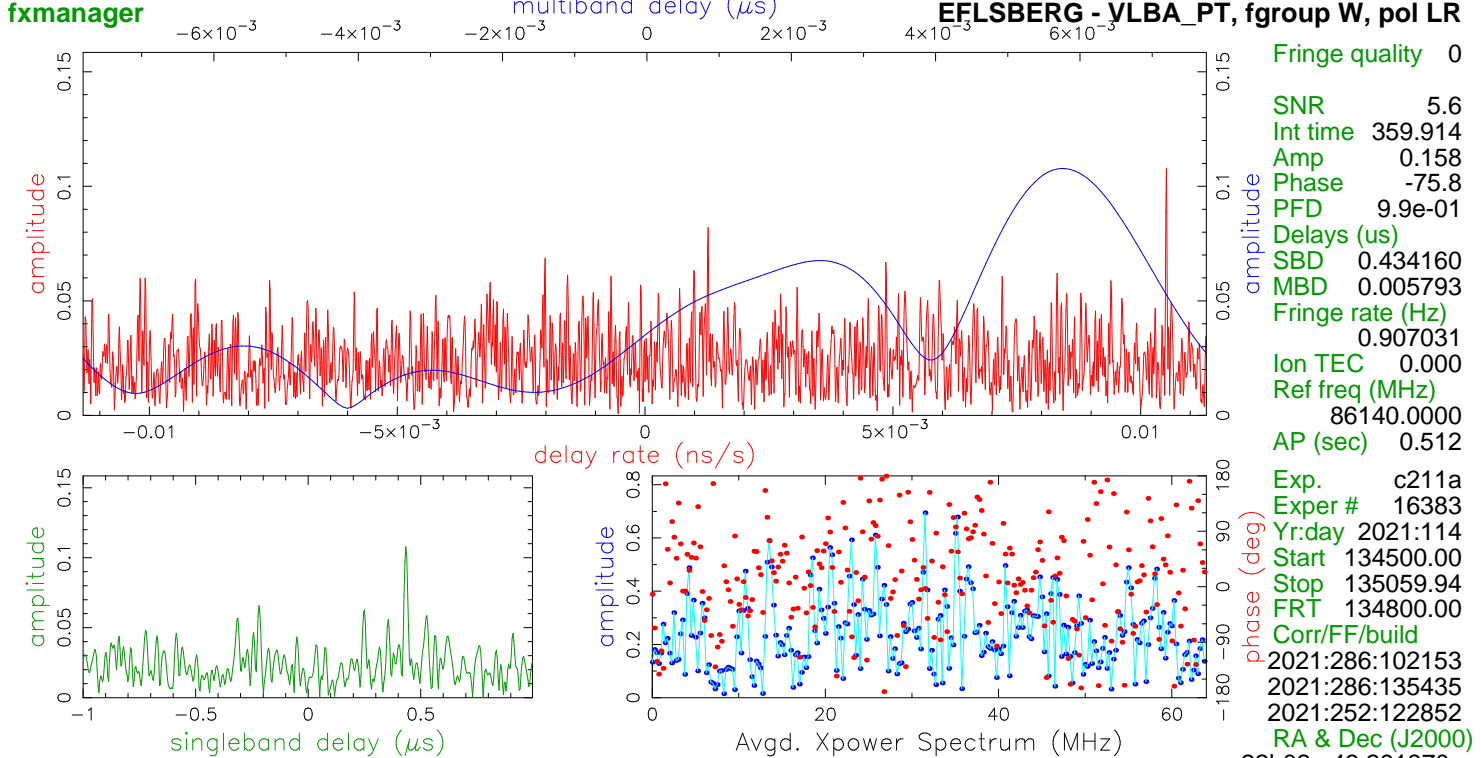
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BP..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BP.W.104.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

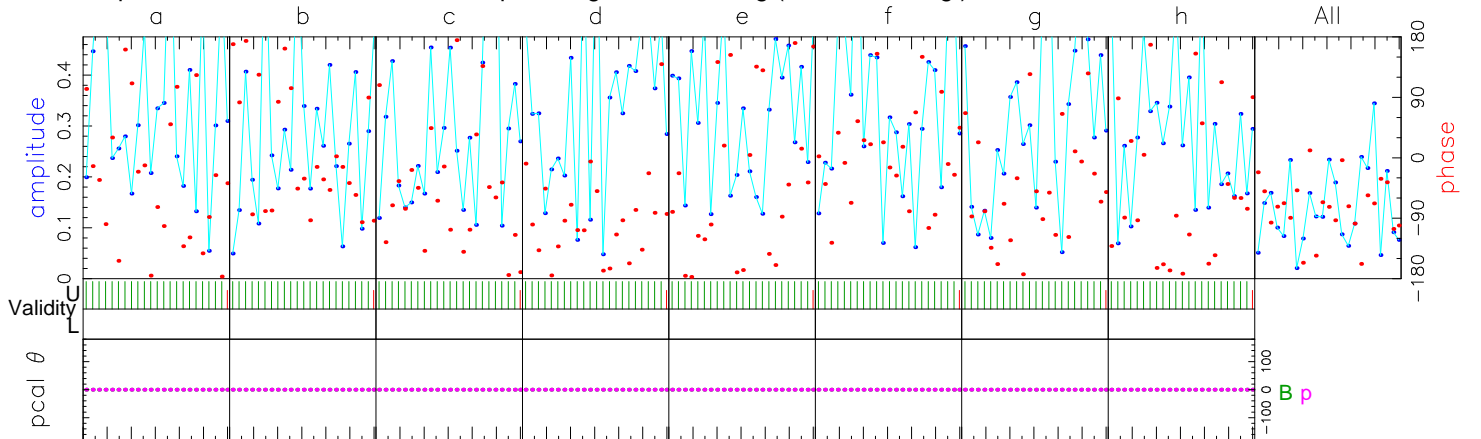
fxmanager

BLLAC.1W5ADF, No0245, Bp

EFLSBERG - VLBA\_PT, fgroup W, pol LR



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-74.5	-54.8	-77.5	-97.4	-126.5	-6.3	-58.9	-120.2	Phase	-75.8
	0.1	0.2	0.2	0.3	0.1	0.2	0.2	0.2	Ampl.	0.2
	388.9	247.1	33.1	366.9	499.2	367.4	51.7	74.8	Sbd box	368.1
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
B	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)	-1.03388151155E+04		Apriori delay (usec)		-1.03392427839E+04		Resid mbdelay (usec)		5.79335E-03	+/- 1.9E-04
Sband delay (usec)	-1.03388086241E+04		Apriori clock (usec)		-2.7597559E+01		Resid sbdelay (usec)		4.34160E-01	+/- 1.5E-03
Phase delay (usec)	-1.03392427863E+04		Apriori clockrate (us/s)		1.2000000E-07		Resid phdelay (usec)		-2.44519E-06	+/- 6.6E-07
Delay rate (us/s)	-1.03827256053E+00		Apriori rate (us/s)		-1.03828309026E+00		Resid rate (us/s)		1.05297E-05	+/- 3.2E-09
Total phase (deg)			Apriori accel (us/s/s)		7.06715856432E-05		Resid phase (deg)		-75.8	+/- 20.5

	RMS	Theor.	Amplitude	0.158 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	43.1	49.1	Search (2048X32)	0.107	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	78.5	85.6	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	41.9	28.9	Inc. seg. avg.	0.151	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	44.4	50.5	Inc. frq. avg.	0.173	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

B: az 302.9 el 28.7 pa 46.3 p: az 56.9 el 72.3 pa -111.3 u,v (fr/asec) 8187.256 6320.014 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bp..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bp.W.118.1W5ADF

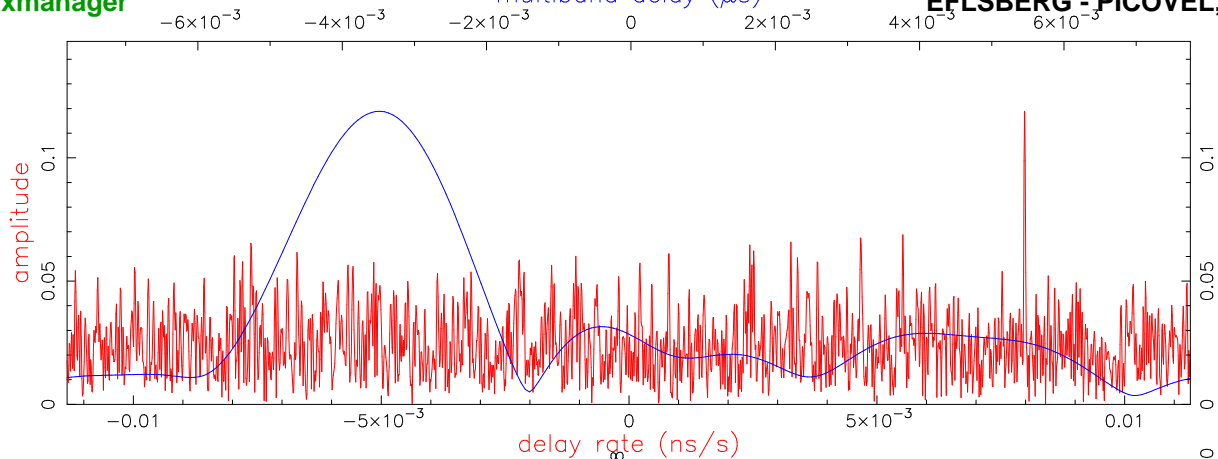
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BP

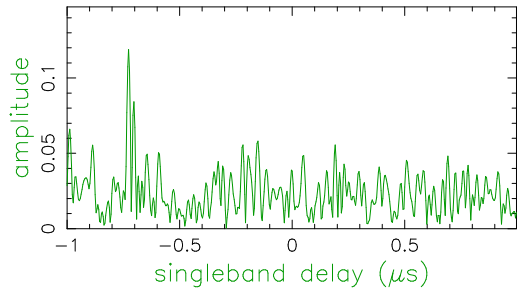
EFLSBERG - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

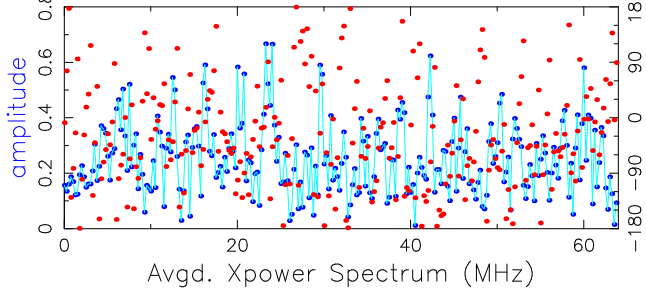


Fringe quality 0

SNR 6.2  
 Int time 359.914  
 Amp 0.147  
 Phase -95.6  
 PFD 1.7e-01  
 Delays (us)  
 SBD -0.726726  
 MBD -0.003488  
 Fringe rate (Hz)  
 0.688800  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

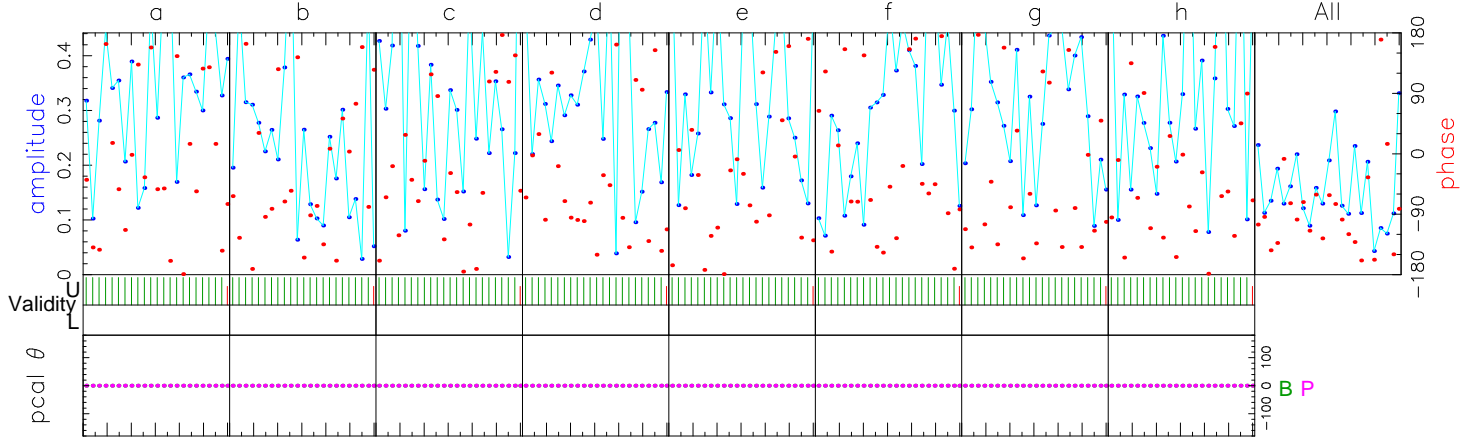


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-103.9	-91.3	-86.4	-90.3	-111.8	-97.4	-126.0	-72.1	Phase	-95.6
	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	Ampl.	0.1
	280.0	3.0	77.0	71.3	425.9	20.9	306.0	305.0	Sbd box	71.0
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.03516643744E+02		Apriori delay (usec)		4.04238882132E+02		Resid mbdelay (usec)		-3.48839E-03	+/- 1.8E-04
Sband delay (usec)	4.03512156632E+02		Apriori clock (usec)		-2.1095793E+01		Resid sbdelay (usec)		-7.26726E-01	+/- 1.4E-03
Phase delay (usec)	4.04238879048E+02		Apriori clockrate (us/s)		5.9999998E-07		Resid phdelay (usec)		-3.08374E-06	+/- 6.0E-07
Delay rate (us/s)	1.86872024887E-01		Apriori rate (us/s)		1.86864028598E-01		Resid rate (us/s)		7.99629E-06	+/- 2.9E-09
Total phase (deg)			Apriori accel (us/s/s)		1.05943711962E-05		Resid phase (deg)		-95.6	+/- 18.6

	RMS	Theor.	Amplitude	0.147 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	48.9	44.5	Search (2048X32)	0.117	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	65.0	77.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	18.0	26.3	Inc. seg. avg.	0.148	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	31.9	45.8	Inc. frq. avg.	0.138	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 302.9 el 28.7 pa 46.3 P: az 304.0 el 27.6 pa 64.2 u,v (fr/asec) -1426.061 1884.678 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BP..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BP.W.120.1W5ADF

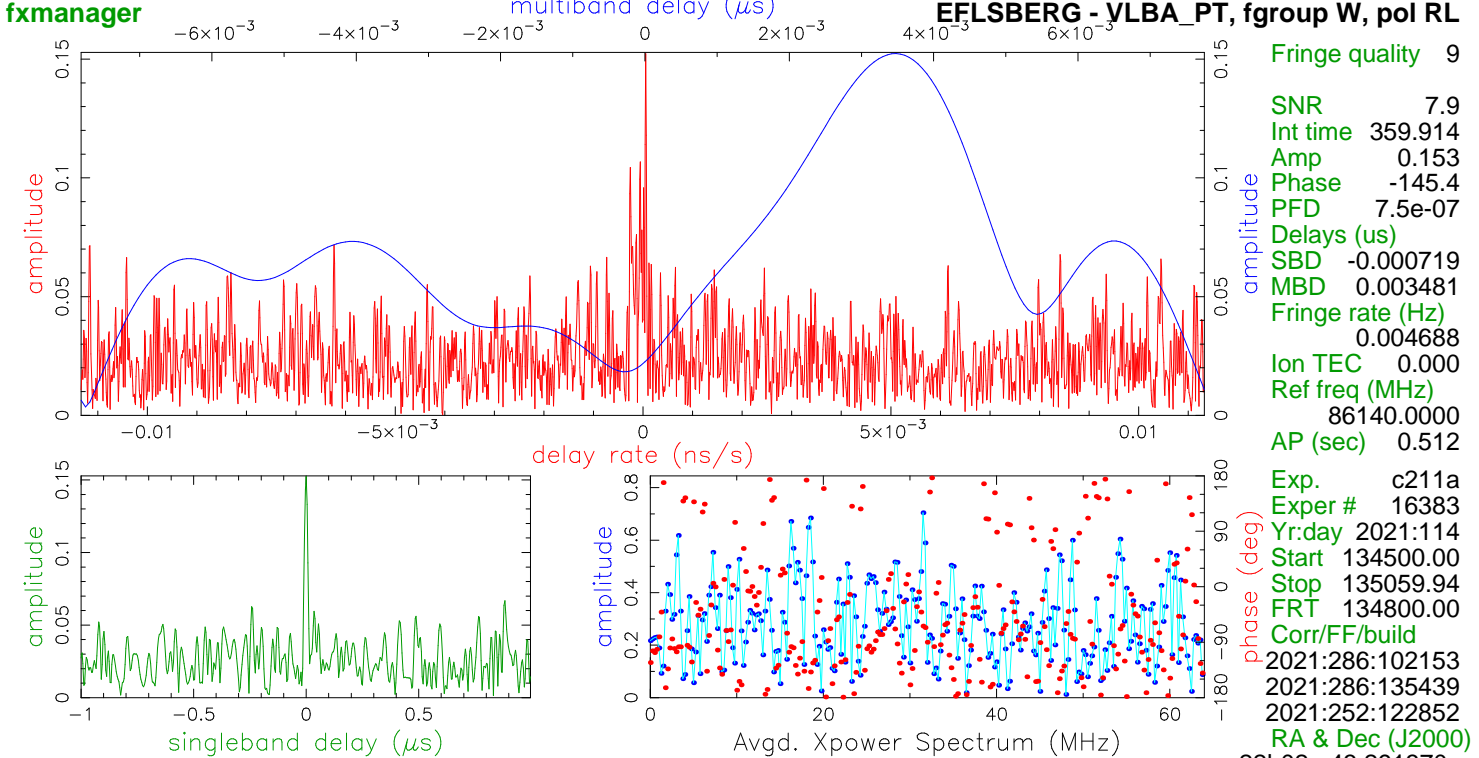


Mk4/DiFX fourfit 3.21 rev 2937

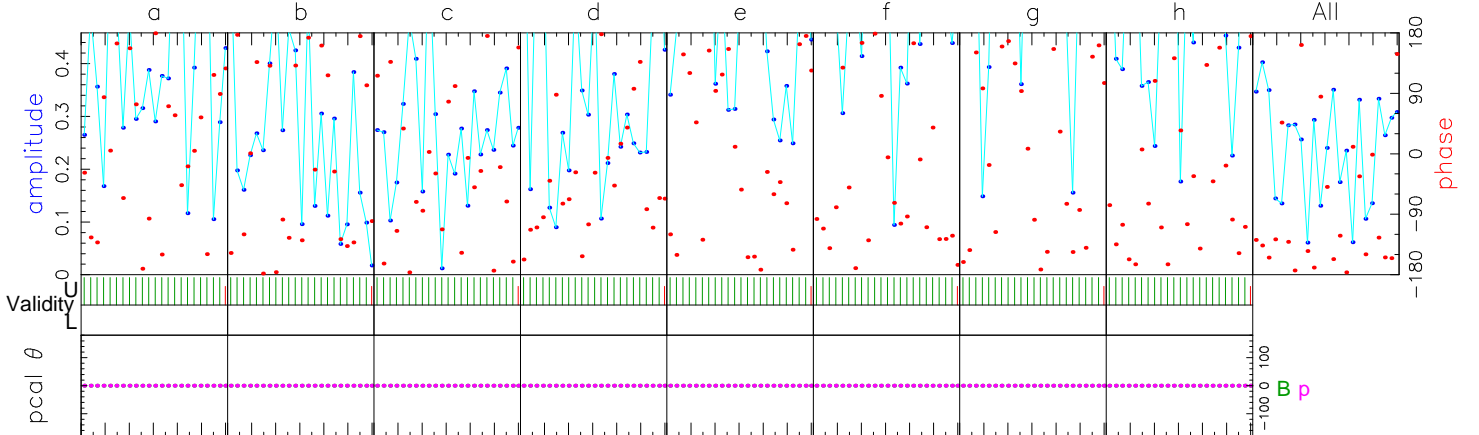
fxmanager

BLLAC.1W5ADF, No0245, Bp

EFLSBERG - VLBA\_PT, fgroup W, pol RL



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:p	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		
p	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-1.03392393032E+04		Apriori delay (usec)		-1.03392427839E+04		Resid mbdelay (usec)		3.48064E-03	+/- 1.4E-04
Sband delay (usec)	-1.03392435029E+04		Apriori clock (usec)		-2.7597559E+01		Resid sbdelay (usec)		-7.19000E-04	+/- 1.1E-03
Phase delay (usec)	-1.03392427886E+04		Apriori clockrate (us/s)		1.2000000E-07		Resid phdelay (usec)		-4.68955E-06	+/- 4.7E-07
Delay rate (us/s)	-1.03828303584E+00		Apriori rate (us/s)		-1.03828309026E+00		Resid rate (us/s)		5.44186E-08	+/- 2.2E-09
Total phase (deg)			Apriori accel (us/s/s)		7.06715856432E-05		Resid phase (deg)		-145.4	+/- 14.5

	RMS	Theor.	Amplitude	0.153 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	73.4	34.7	Search (2048X32)	0.152	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	86.1	60.5	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	56.6	20.4	Inc. seg. avg.	0.202	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	66.7	35.7	Inc. frq. avg.	0.175	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

B: az 302.9 el 28.7 pa 46.3 p: az 56.9 el 72.3 pa -111.3 u,v (fr/asec) 8187.256 6320.014 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bp..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bp.W.136.1W5ADF

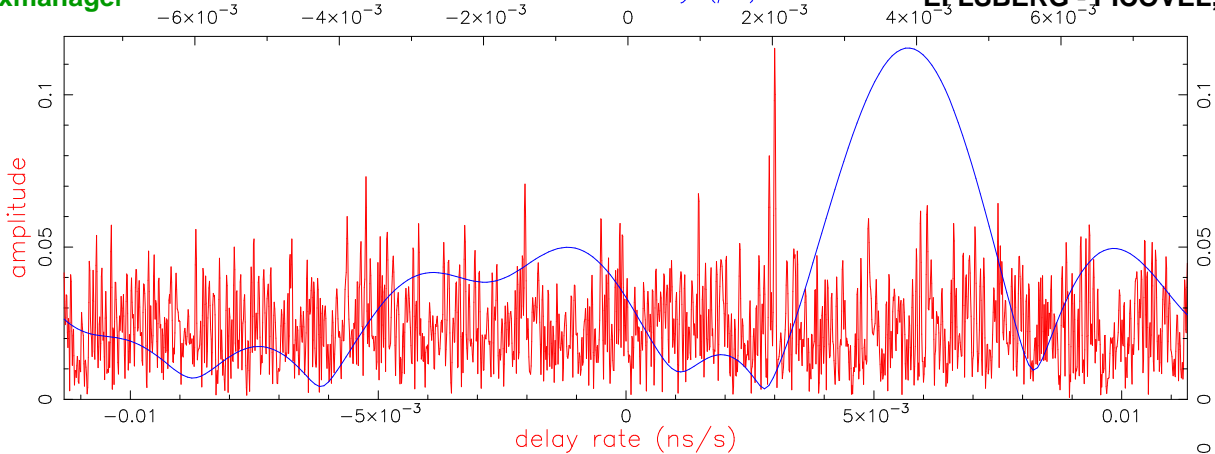
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BP

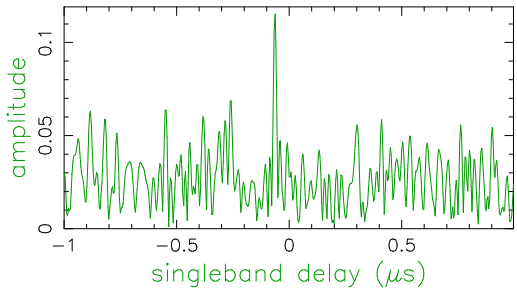
EFLSBERG - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

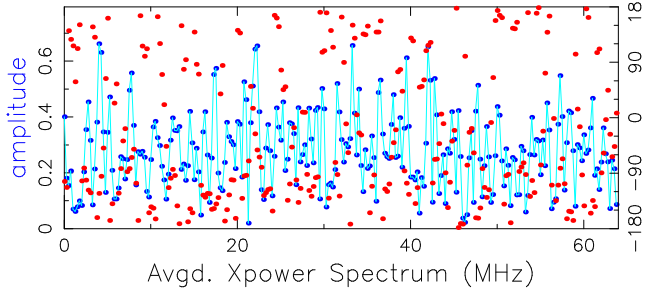


Fringe quality 0

SNR 6.0  
 Int time 359.914  
 Amp 0.119  
 Phase 178.3  
 PFD 3.9e-01  
 Delays (us)  
 SBD -0.063237  
 MBD 0.003844  
 Fringe rate (Hz)  
 0.258797  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

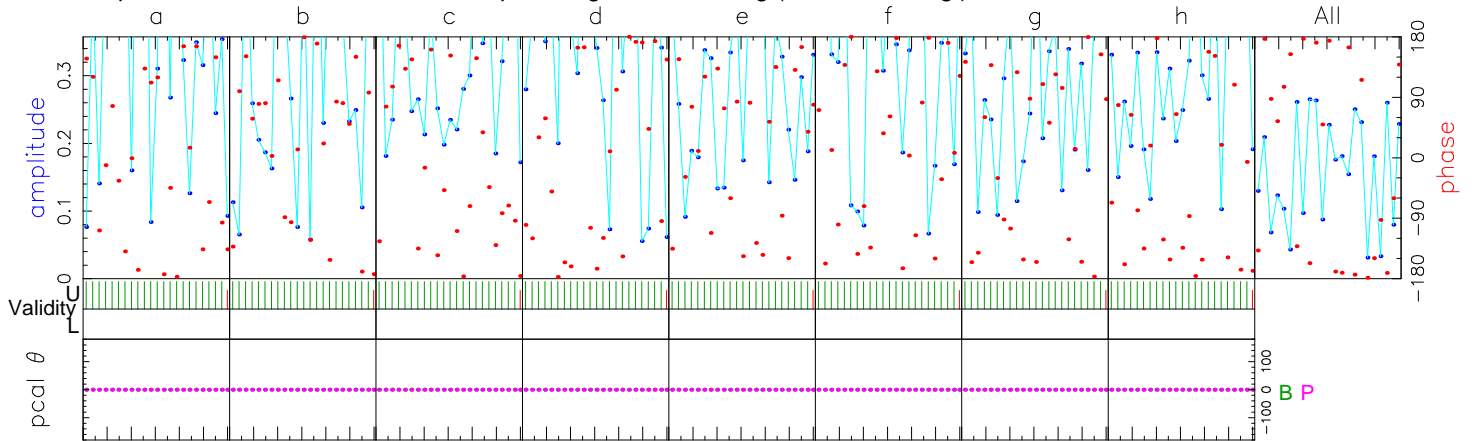


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-175.2	136.3	-142.4	-166.9	159.6	156.5	165.2	-160.8	Phase	178.3
	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1
	484.0	255.7	73.8	96.8	206.0	116.5	23.9	137.7	Sbd box	240.8
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	4.04180226417E+02	Apriori delay (usec)	4.04238882132E+02	Resid mbdelay (usec)	3.84429E-03	+/-	1.8E-04	
Sband delay (usec)	4.04175644882E+02	Apriori clock (usec)	-2.1095793E+01	Resid sbdelay (usec)	-6.32372E-02	+/-	1.4E-03	
Phase delay (usec)	4.04238887881E+02	Apriori clockrate (us/s)	5.9999998E-07	Resid phdelay (usec)	5.74934E-06	+/-	6.2E-07	
Delay rate (us/s)	1.86867032978E-01	Apriori rate (us/s)	1.86864028598E-01	Resid rate (us/s)	3.00438E-06	+/-	3.0E-09	
Total phase (deg)		288.7	Apriori accel (us/s/s)	1.05943711962E-05	Resid phase (deg)	178.3	+/-	19.1

ph/seg (deg)	59.6	Theor.	45.8	Amplitude	0.119 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	78.1		79.9	Search (2048X32)	0.111	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	28.9		27.0	Inc. seg. avg.	0.124	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	29.8		47.1	Inc. frq. avg.	0.118	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

B: az 302.9 el 28.7 pa 46.3 P: az 304.0 el 27.6 pa 64.2 u,v (fr/asec) -1426.061 1884.678 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BP..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BP.W.139.1W5ADF

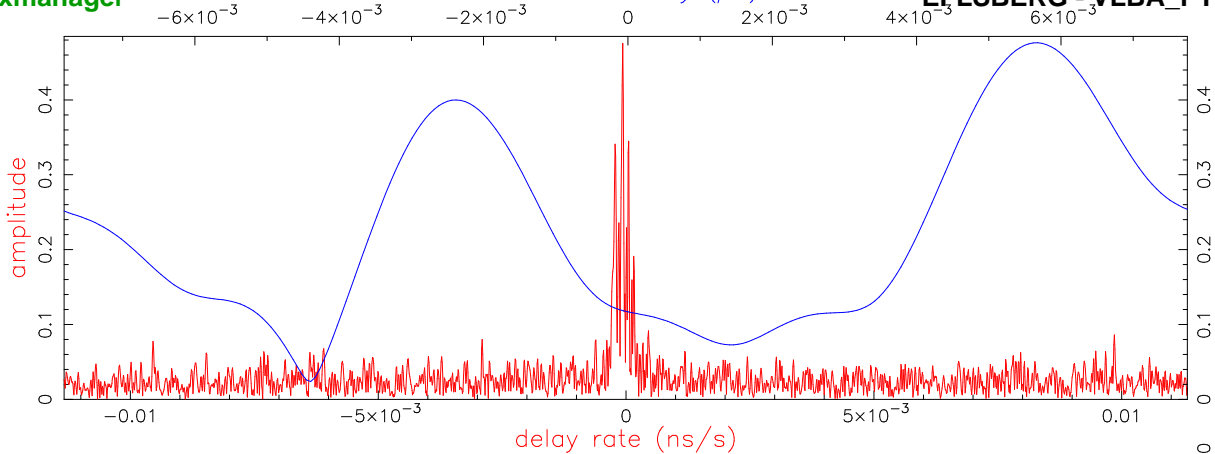
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bp

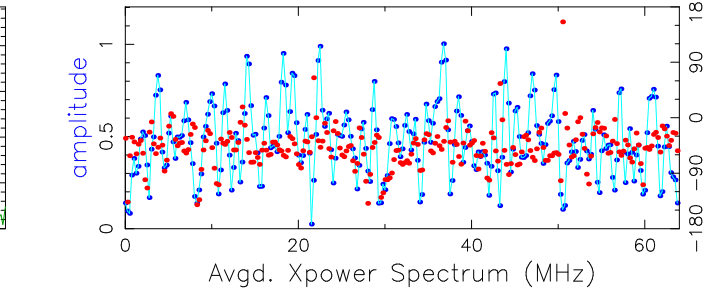
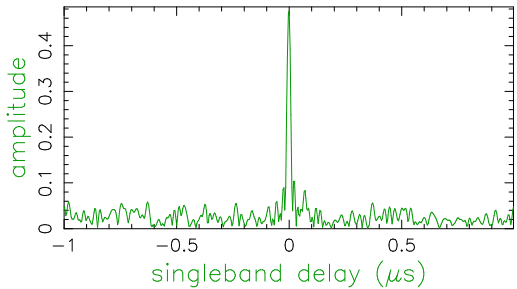
EFLSBERG - VLBA\_PT, fgroup W, pol LL

multiband delay ( $\mu$ s)



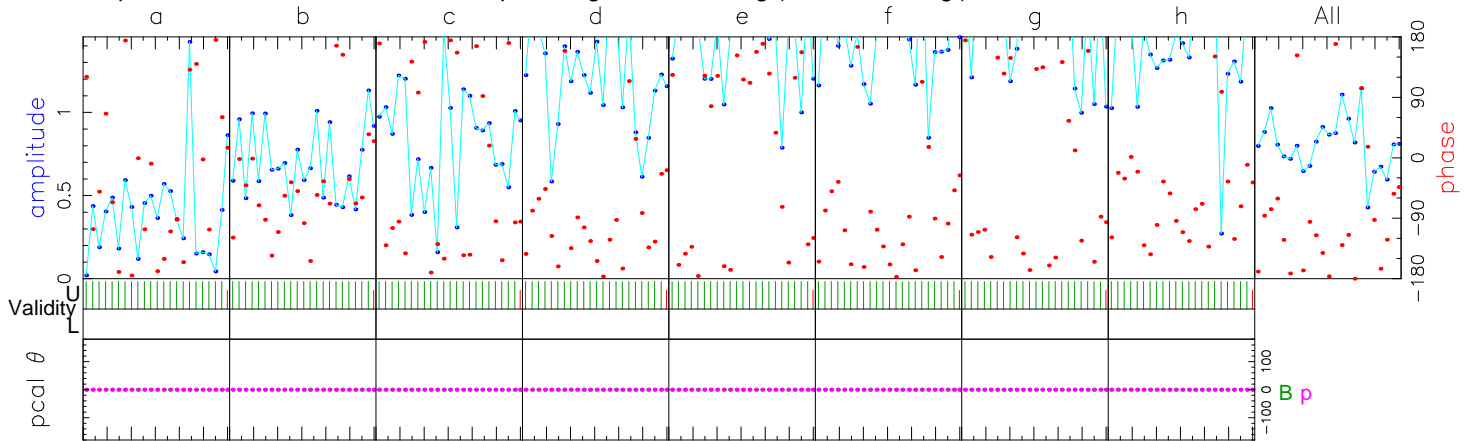
Fringe quality 5

SNR 25.2  
 Int time 359.914  
 Amp 0.485  
 Phase -132.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001762  
 MBD 0.005581  
 Fringe rate (Hz)  
 -0.005324  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135427  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



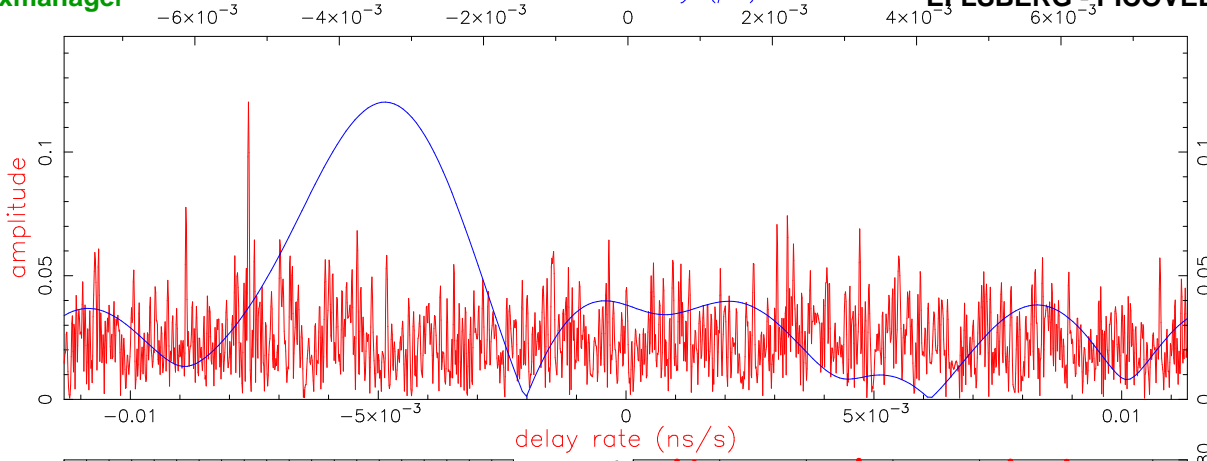
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-153.4	-57.4	-151.3	-114.6	161.5	-117.1	-167.3	-75.4	Phase	-132.6
	0.1	0.4	0.5	0.7	0.9	0.9	1.0	0.9	Ampl.	0.7
	241.6	257.0	256.4	257.3	257.5	257.3	257.2	257.7	Sbd box	256.5
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.03392372027E+04		Apriori delay (usec)		-1.03392427839E+04		Resid mbdelay (usec)		5.58115E-03	+/- 4.3E-05
Sband delay (usec)	-1.03392445459E+04		Apriori clock (usec)		-2.7597559E+01		Resid sbdelay (usec)		-1.76200E-03	+/- 3.4E-04
Phase delay (usec)	-1.03392427882E+04		Apriori clockrate (us/s)		1.2000000E-07		Resid phdelay (usec)		-4.27519E-06	+/- 1.5E-07
Delay rate (us/s)	-1.03828315206E+00		Apriori rate (us/s)		-1.03828309026E+00		Resid rate (us/s)		-6.18011E-08	+/- 7.1E-10
Total phase (deg)			Apriori accel (us/s/s)		7.06715856432E-05		Resid phase (deg)		-132.6	+/- 4.6

	RMS	Theor.	Amplitude	0.485 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	60.1	10.9	Search (2048X32)	0.463	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	74.3	19.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	51.3	6.4	Inc. seg. avg.	0.793	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	69.5	11.2	Inc. frq. avg.	0.661	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 302.9 el 28.7 pa 46.3 p: az 56.9 el 72.3 pa -111.3 u,v (fr/asec) 8187.256 6320.014 simultaneous interpolator

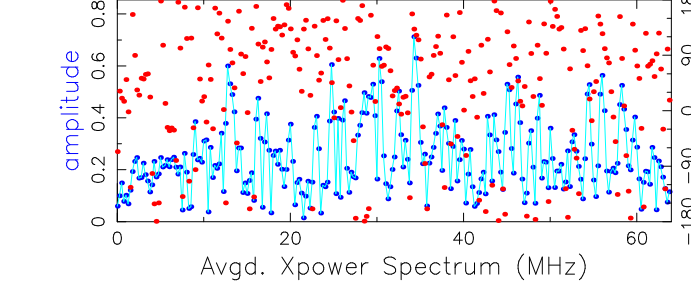
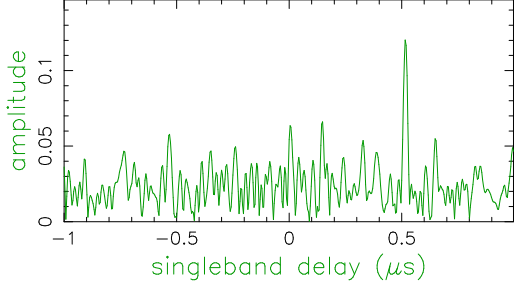
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/Bp..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bp.W.82.1W5ADF

multiband delay ( $\mu\text{s}$ )



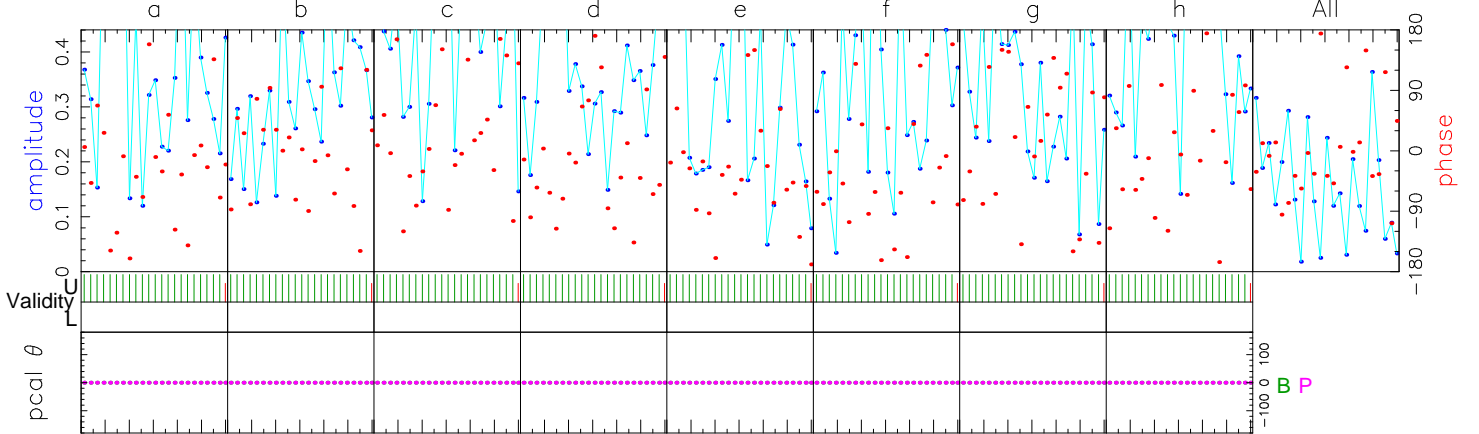
Fringe quality 0

SNR 6.3  
 Int time 359.914  
 Amp 0.147  
 Phase -28.3  
 PFD 9.1e-02  
 Delays (us)  
 SBD 0.516761  
 MBD -0.003350  
 Fringe rate (Hz)  
 -0.657319  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:P	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		
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	4.04751156689E+02	Apriori delay (usec)	4.04238882132E+02	Resid mbdelay (usec)	-3.35044E-03	+/-	1.7E-04
Sband delay (usec)	4.04755643132E+02	Apriori clock (usec)	-2.1095793E+01	Resid sbdelay (usec)	5.16761E-01	+/-	1.4E-03
Phase delay (usec)	4.04238881220E+02	Apriori clockrate (us/s)	5.9999998E-07	Resid phdelay (usec)	-9.11243E-07	+/-	5.9E-07
Delay rate (us/s)	1.86856397777E-01	Apriori rate (us/s)	1.86864028598E-01	Resid rate (us/s)	-7.63082E-06	+/-	2.8E-09
Total phase (deg)	82.2	Apriori accel (us/s/s)	1.05943711962E-05	Resid phase (deg)	-28.3	+/-	18.3

ph/seg (deg)	74.8	Theor.	43.8	Amplitude	0.147 +/- 0.023	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	86.1	Search (2048X32)	0.119	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	27.1	Inc. seg. avg.	0.150	Inc. frq. avg.	0.142	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	41.9	Inc. frq. avg.	0.142			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	

B: az 302.9 el 28.7 pa 46.3 P: az 304.0 el 27.6 pa 64.2 u,v (fr/asec) -1426.061 1884.678 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BP..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BP.W.84.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

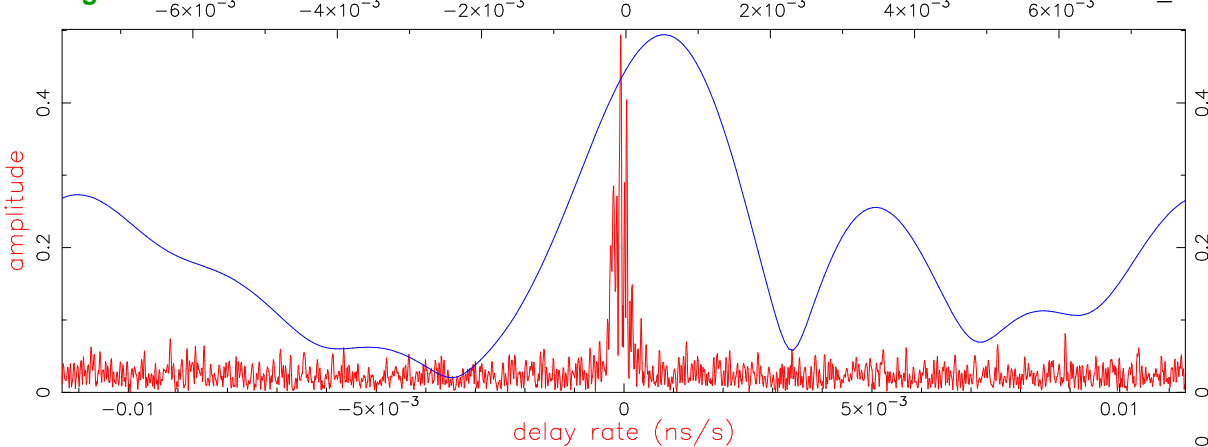
fxmanager

BLLAC.1W5ADF, No0245, Bp

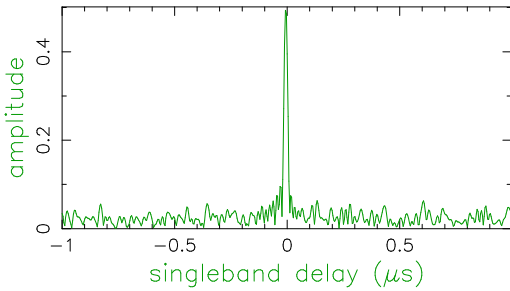
EFLSBERG - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)

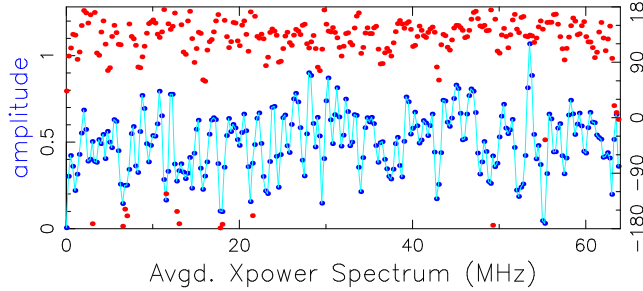
Fringe quality 6



SNR 26.0  
 Int time 359.914  
 Amp 0.502  
 Phase 57.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006202  
 MBD 0.000580  
 Fringe rate (Hz)  
 -0.005535  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

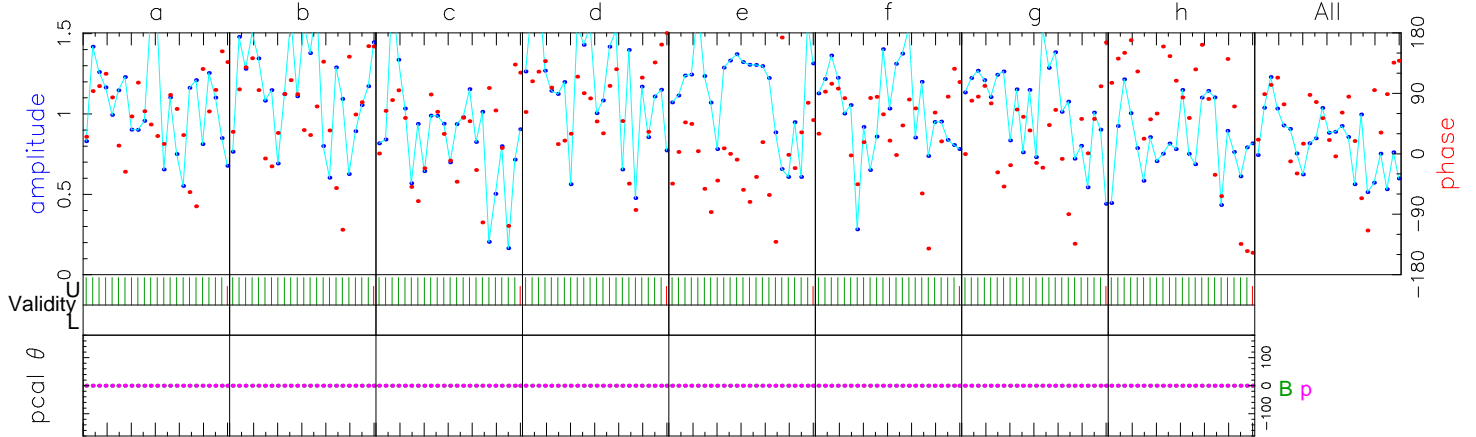


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:p	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		
p	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.03392422042E+04				-1.03392427839E+04				5.79716E-04	+/- 4.2E-05
Sband delay (usec)	-1.03392489861E+04				-2.7597559E+01				-6.20225E-03	+/- 3.3E-04
Phase delay (usec)	-1.03392427820E+04				1.2000000E-07				1.85316E-06	+/- 1.4E-07
Delay rate (us/s)	-1.03828315452E+00				-1.03828309026E+00				-6.42577E-08	+/- 6.8E-10
Total phase (deg)			-87.7		7.06715856432E-05				57.5	+/- 4.4
ph/seg (deg)	62.6	10.6			0.490					
amp/seg (%)	73.5	18.4			0.000					
ph/frq (deg)	43.7	6.2			0.807					
amp/frq (%)	31.9	10.9			0.612					
B: az 302.9 el 28.7 pa 46.3										
p: az 56.9 el 72.3 pa -111.3										
u,v (fr/asec) 8187.256 6320.014										
Control file: cf_1234_gmva	Input file: /Exps/c211a/v2/1234/No0245/Bp..1W5ADF				Output file: /Exps/c211a/v2/1234/No0245/Bp.W.97.1W5ADF					

simultaneous interpolator



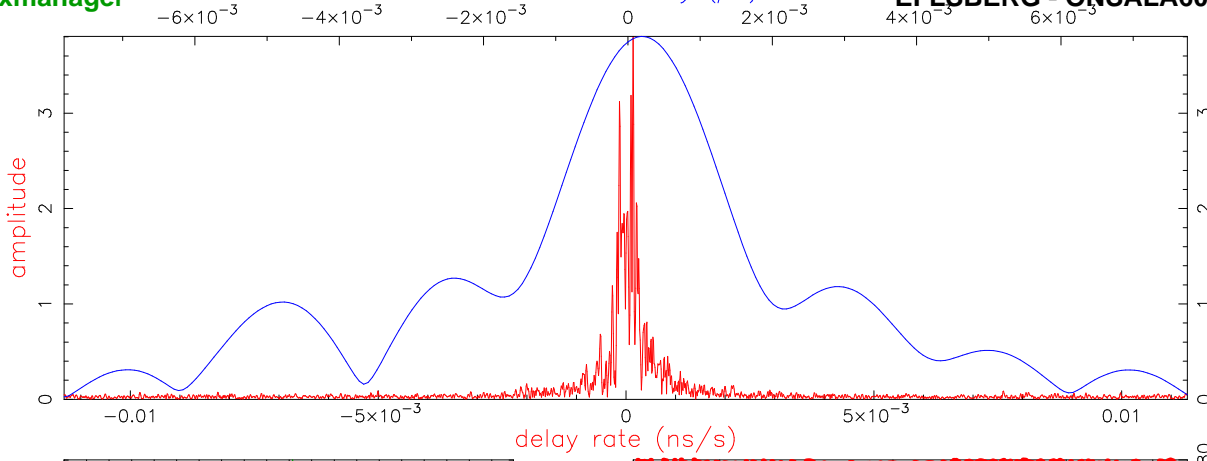
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BX

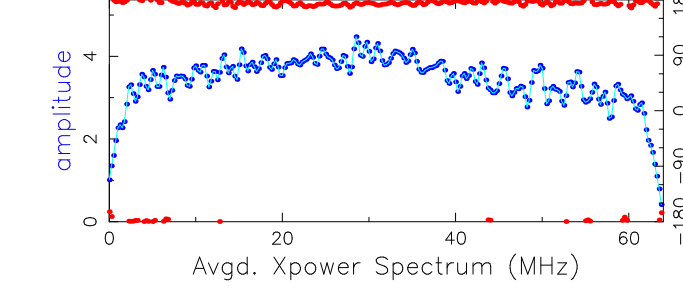
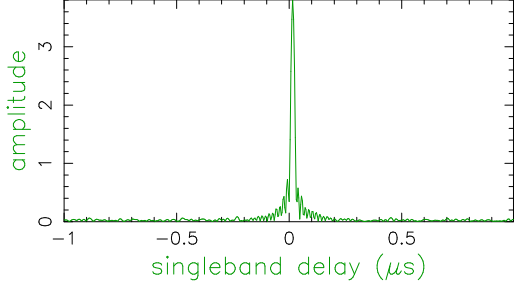
EFLSBERG - ONSALA60, fgroup W, pol RR

multiband delay ( $\mu$ s)



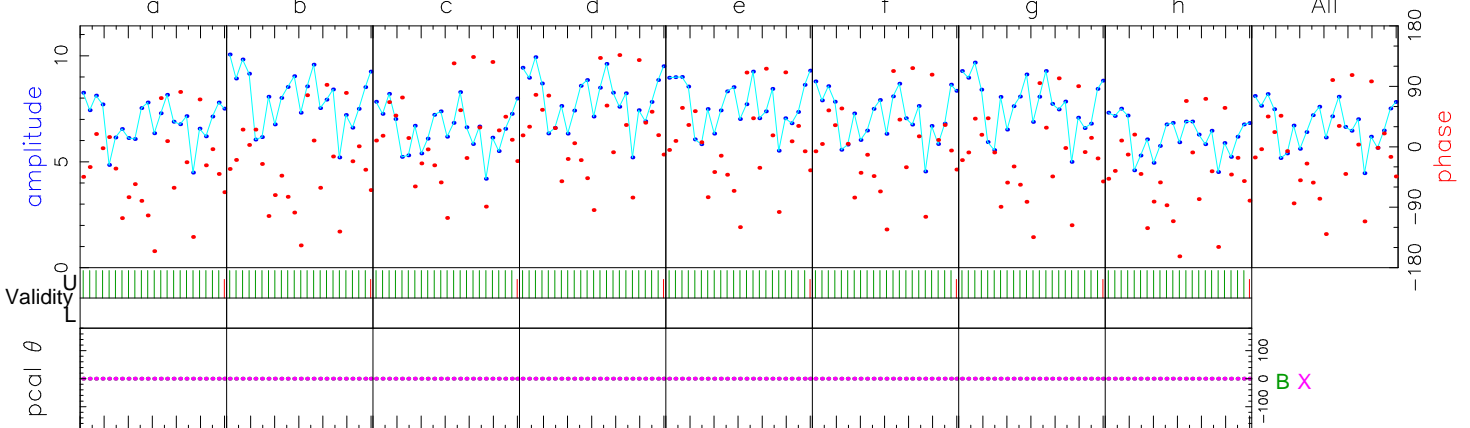
Fringe quality 3

SNR 197.4  
 Int time 359.897  
 Amp 3.804  
 Phase -7.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.015624  
 MBD 0.000196  
 Fringe rate (Hz)  
 0.012118  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



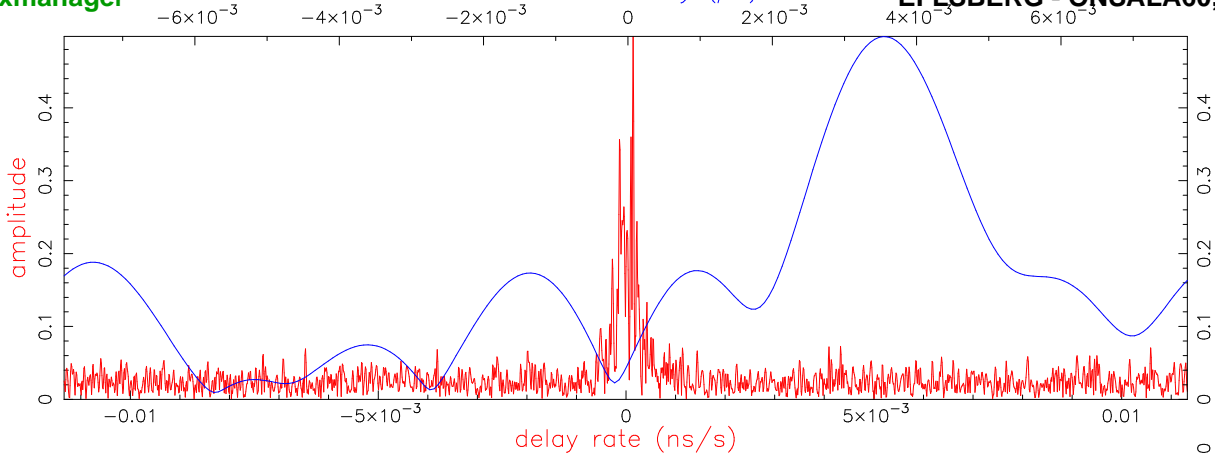
Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134500.00  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135433  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

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



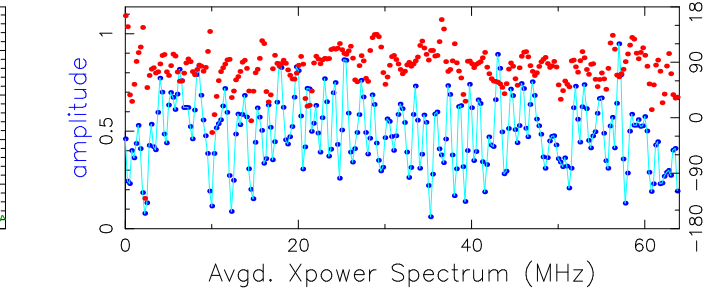
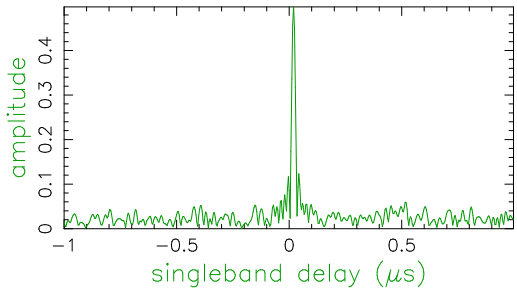
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-32.6	-26.5	16.2	25.7	3.7	3.9	-11.6	-41.9	Phase	-7.1		
	3.9	4.5	3.7	4.6	4.3	4.0	4.3	3.5	Ampl.	4.1		
	260.8	261.3	261.6	260.9	260.9	261.1	260.9	259.7	Sbd box	261.0		
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used			
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
B:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
B:X	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			
X	1000	1000	1000	1000	1000	1000	1000	1000				
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Chan ids			
									Tracks			
Group delay (usec)(sbd)	-5.03642797367E+02		Apriori delay (usec)		-5.03658618330E+02		Resid mbdelay (usec)		1.95964E-04	+/- 5.5E-06		
Sband delay (usec)	-5.03642994330E+02		Apriori clock (usec)		-7.8471741E+01		Resid sbdelay (usec)		1.56240E-02	+/- 4.4E-05		
Phase delay (usec)	-5.03658618559E+02		Apriori clockrate (us/s)		-5.2800001E-07		Resid phdelay (usec)		-2.29092E-07	+/- 1.9E-08		
Delay rate (us/s)	-1.18412370670E-01		Apriori rate (us/s)		-1.18412511345E-01		Resid rate (us/s)		1.40675E-07	+/- 9.0E-11		
Total phase (deg)			Apriori accel (us/s/s)		-3.11145713783E-06		Resid phase (deg)		-7.1	+/- 0.6		
RMS	62.0	1.4	Amplitude		3.804 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	62.0	1.4	Search (2048X32)		3.662		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
amp/seg (%)	81.2	2.4	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
ph/frq (deg)	26.2	0.8	Inc. seg. avg.		6.725		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011	
amp/frq (%)	12.6	1.4	Inc. frq. avg.		4.111		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

multiband delay ( $\mu$ s)



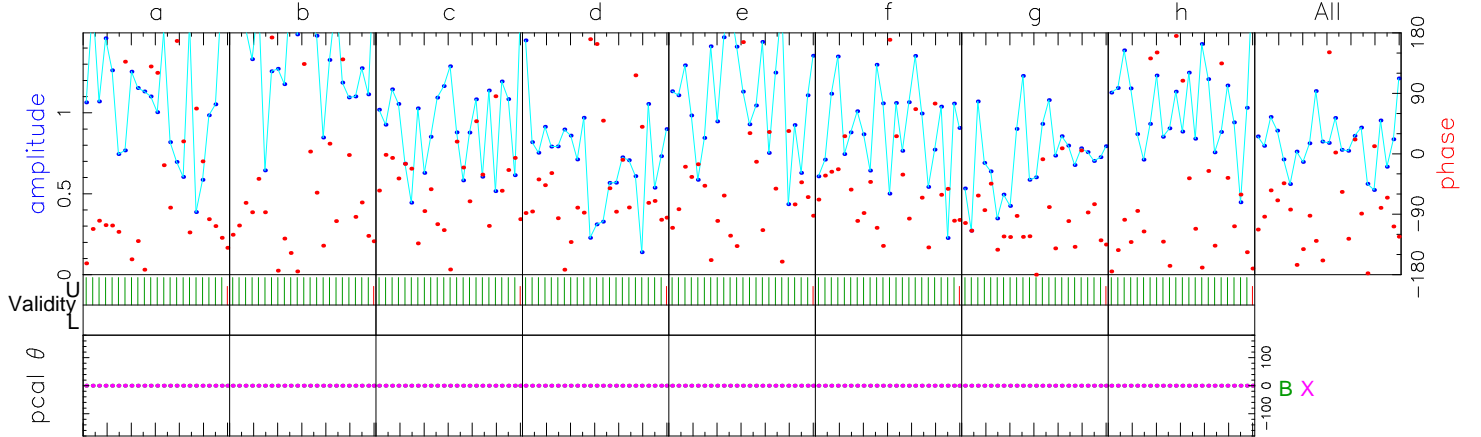
Fringe quality 6

SNR 25.8  
 Int time 359.897  
 Amp 0.498  
 Phase -95.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.019266  
 MBD 0.003543  
 Fringe rate (Hz) 0.012041  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



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

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



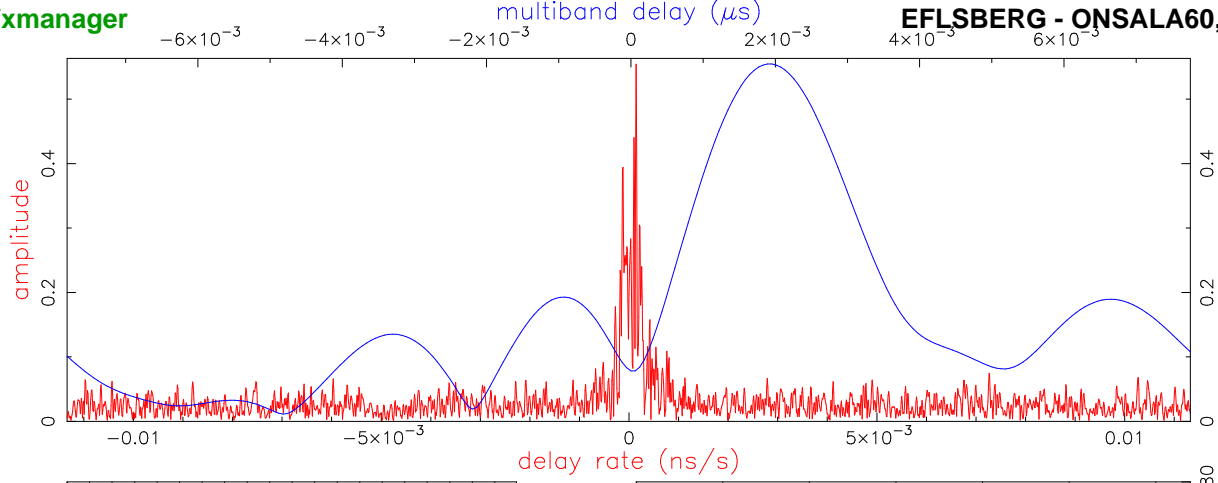
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-126.1	-108.4	-53.5	-80.7	-83.1	-59.9	-93.6	-140.3	Phase	-95.1
	0.6	0.7	0.5	0.5	0.6	0.5	0.6	0.6	Ampl.	0.6
	262.4	262.1	261.9	261.5	262.2	261.8	261.5	261.1	Sbd box	261.9
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-5.03639450648E+02	Apriori delay (usec)	-5.03658618330E+02	Resid mbdelay (usec)	3.54268E-03	+/-	4.2E-05
Sband delay (usec)	-5.03639352830E+02	Apriori clock (usec)	-7.8471741E+01	Resid sbdelay (usec)	1.92655E-02	+/-	3.3E-04
Phase delay (usec)	-5.03658621396E+02	Apriori clockrate (us/s)	-5.2800001E-07	Resid phdelay (usec)	-3.06552E-06	+/-	1.4E-07
Delay rate (us/s)	-1.18412371566E-01	Apriori rate (us/s)	-1.18412511345E-01	Resid rate (us/s)	1.39779E-07	+/-	6.9E-10
Total phase (deg)	-232.9	Apriori accel (us/s/s)	-3.11145713783E-06	Resid phase (deg)	-95.1	+/-	4.4

ph/seg (deg)	57.9	Theor.	10.6	Amplitude	0.498 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	70.9		18.6	Search (2048X32)	0.477	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	32.9		6.3	Inc. seg. avg.	0.800	Sample rate (MSamp/s):	128	nlags:	256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	20.0		10.9	Inc. frq. avg.	0.560	Data rate (Mb/s):	2048	t_cohere	infinite	ion window (TEC)	0.00	0.00

B: az 302.9 el 28.7 pa 46.3 X: az 302.8 el 30.0 pa 37.6 u,v (fr/asec) 911.037 -697.440 simultaneous interpolator

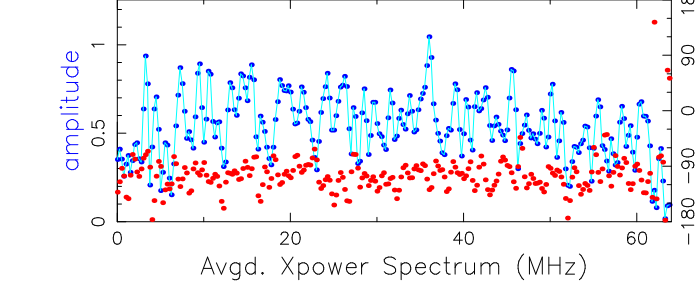
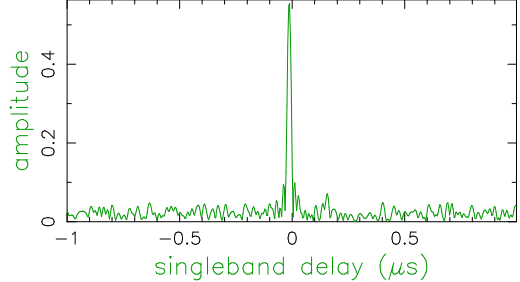
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BX..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BX.W.125.1W5ADF



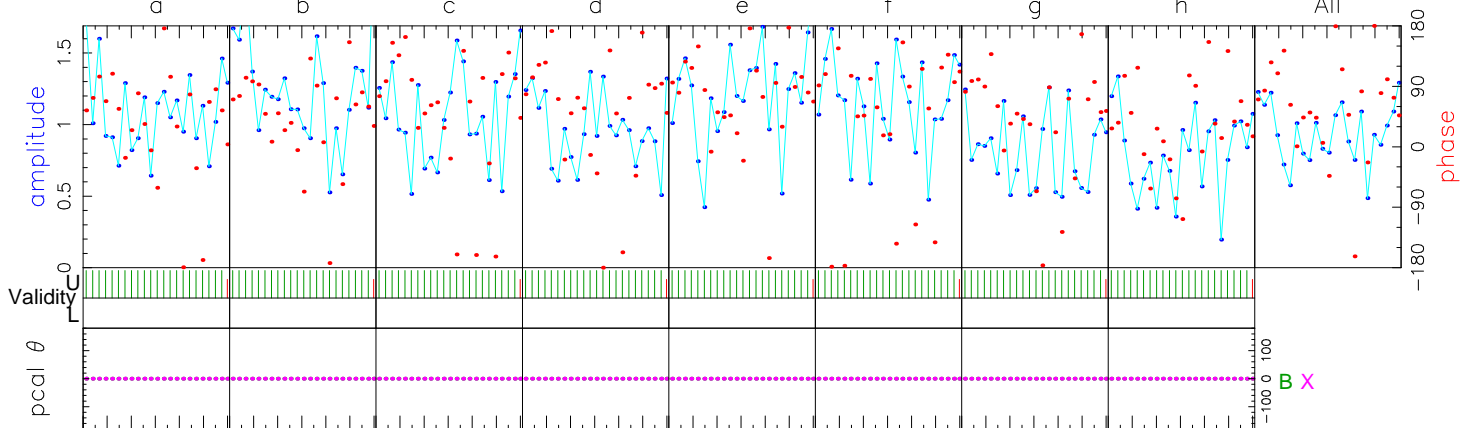
Fringe quality 4

SNR 29.2  
Int time 359.897  
Amp 0.563  
Phase 79.5  
PFD 0.0e+00  
Delays (us)  
SBD -0.013399  
MBD 0.001875  
Fringe rate (Hz) 0.012101  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512

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



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	62.1	62.1	105.3	88.4	86.4	115.6	70.6	43.0	Phase	79.5
	0.6	0.9	0.5	0.5	0.8	0.6	0.5	0.4	Ampl.	0.6
	253.7	253.6	253.8	253.2	253.9	253.6	253.0	252.2	Sbd box	253.6
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.03672368679E+02		Apriori delay (usec)		-5.03658618330E+02		Resid mbdelay (usec)		1.87465E-03	+/- 3.7E-05
Sband delay (usec)	-5.03672017580E+02		Apriori clock (usec)		-7.8471741E+01		Resid sbdelay (usec)		-1.33992E-02	+/- 2.9E-04
Phase delay (usec)	-5.03658615766E+02		Apriori clockrate (us/s)		-5.2800001E-07		Resid phdelay (usec)		2.56379E-06	+/- 1.3E-07
Delay rate (us/s)	-1.18412370863E-01		Apriori rate (us/s)		-1.18412511345E-01		Resid rate (us/s)		1.40482E-07	+/- 6.1E-10
Total phase (deg)			Apriori accel (us/s/s)		-3.11145713783E-06		Resid phase (deg)		79.5	+/- 3.9

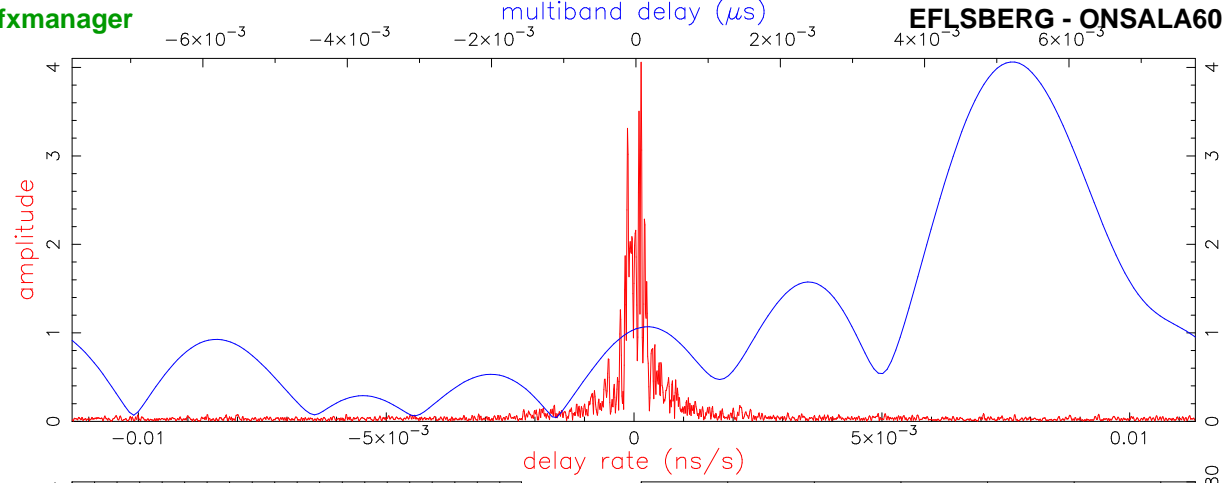
ph/seg (deg) 61.4 9.4 Search (2048X32) 0.537 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 75.1 16.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 26.2 5.5 Inc. seg. avg. 0.922 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 26.4 9.7 Inc. frq. avg. 0.594 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
B: az 302.9 el 28.7 pa 46.3 X: az 302.8 el 30.0 pa 37.6 u,v (fr/asec) 911.037 -697.440 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BX..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BX.W.141.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BX

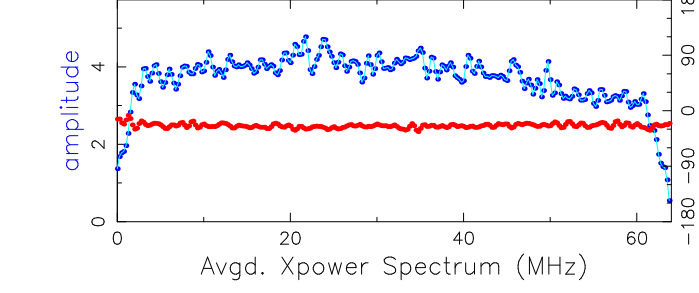
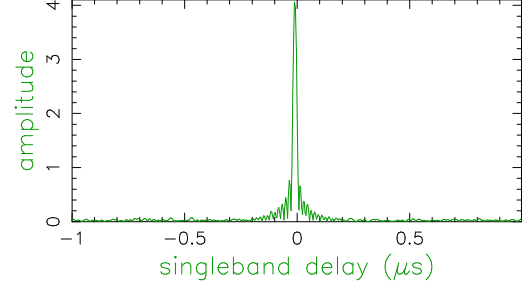
EFLSBERG - ONSALA60, fgroup W, pol LL



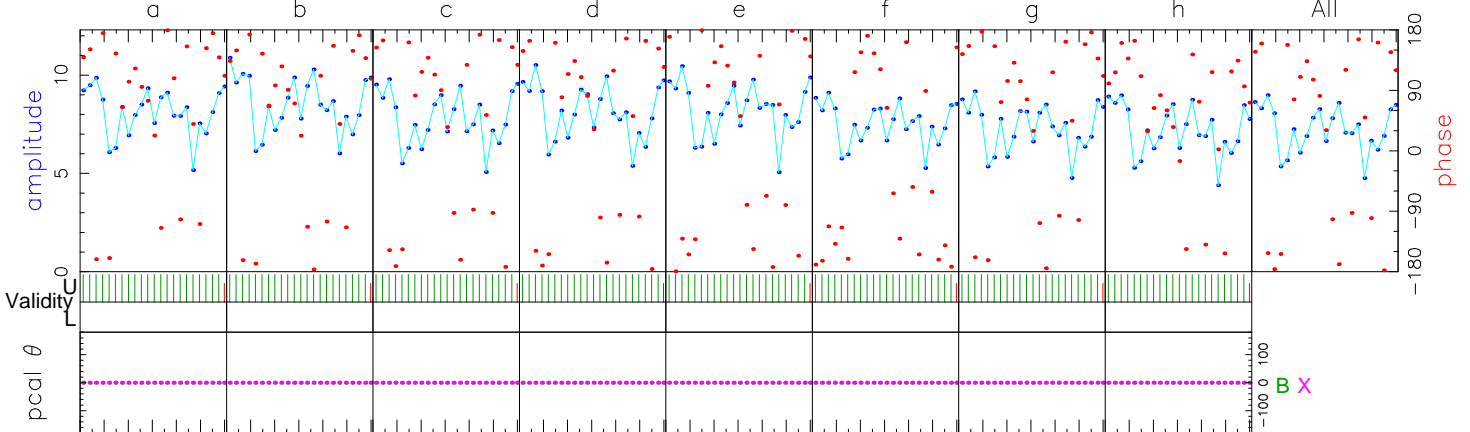
Fringe quality 3

SNR 212.8  
 Int time 359.897  
 Amp 4.102  
 Phase 154.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.010393  
 MBD 0.005252  
 Fringe rate (Hz) 0.012127  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

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



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	703/0	703/0	703/0	703/0	703/0	703/0	703/0	703/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
B:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:X	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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-5.03668991773E+02	Apriori delay (usec)	-5.03658618330E+02	Resid mbdelay (usec)	5.25156E-03	+/-	5.1E-06
Sband delay (usec)	-5.03669010830E+02	Apriori clock (usec)	-7.8471741E+01	Resid sbdelay (usec)	-1.03925E-02	+/-	4.0E-05
Phase delay (usec)	-5.03658613343E+02	Apriori clockrate (us/s)	-5.2800001E-07	Resid phdelay (usec)	4.98713E-06	+/-	1.7E-08
Delay rate (us/s)	-1.18412370566E-01	Apriori rate (us/s)	-1.18412511345E-01	Resid rate (us/s)	1.40779E-07	+/-	8.4E-11
Total phase (deg)	16.8	Apriori accel (us/s/s)	-3.11145713783E-06	Resid phase (deg)	154.7	+/-	0.5

ph/seg (deg)	62.3	1.3	Search (2048X32)	3.910	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	81.5	2.3	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)	27.5	0.8	Inc. seg. avg.	7.254	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	9.3	1.3	Inc. frq. avg.	4.407	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

B: az 302.9 el 28.7 pa 46.3 X: az 302.8 el 30.0 pa 37.6 u,v (fr/asec) 911.037 -697.440 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BX..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BX.W.87.1W5ADF

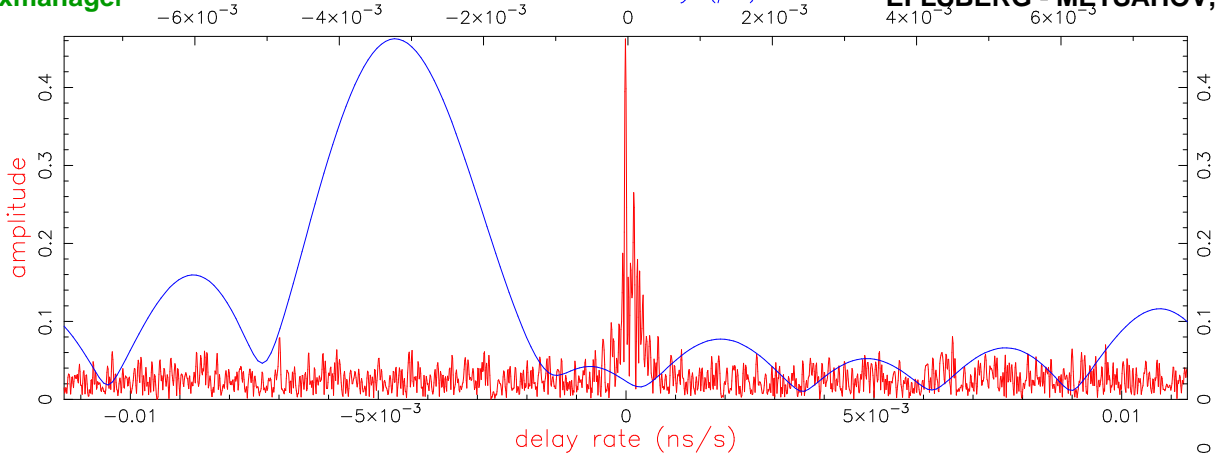
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BZ

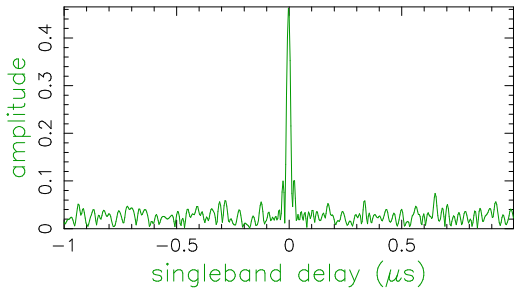
EFLSBERG - METSAHOV, fgroup W, pol RR

multiband delay ( $\mu$ s)

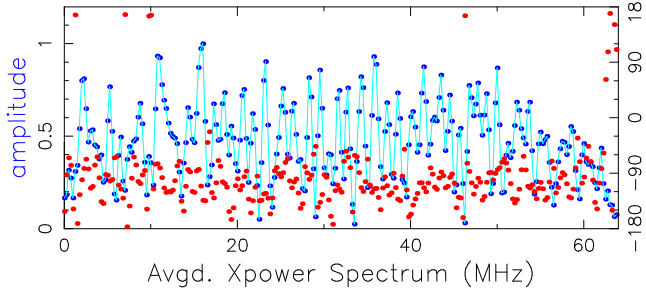


Fringe quality 9

SNR 23.7  
 Int time 345.796  
 Amp 0.465  
 Phase -103.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002820  
 MBD -0.003205  
 Fringe rate (Hz)  
 -0.000919  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

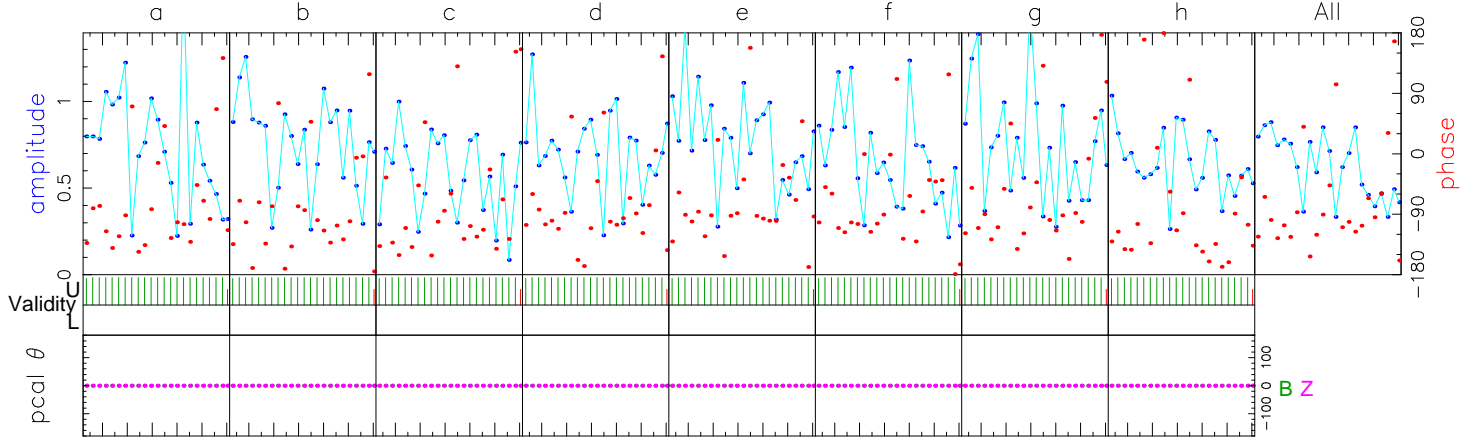


delay rate (ns/s)



Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134513.31  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135433  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 30 APs / seg (15.36 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-99.7	-113.6	-113.9	-98.2	-91.5	-90.7	-94.5	-131.1	Phase	-103.4
	0.5	0.5	0.4	0.5	0.6	0.5	0.5	0.5	Ampl.	0.5
	256.0	256.0	256.5	255.9	256.6	256.1	256.3	256.0	Sbd box	256.3
U/L	677/0	677/0	677/0	677/0	677/0	677/0	677/0	677/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.87524928790E+02		Apriori delay (usec)		6.87528133883E+02		Resid mbdelay (usec)		-3.20509E-03	+/- 4.6E-05
Sband delay (usec)	6.87525313383E+02		Apriori clock (usec)		-2.1347660E+01		Resid sbdelay (usec)		-2.82050E-03	+/- 3.6E-04
Phase delay (usec)	6.87528130549E+02		Apriori clockrate (us/s)		-1.6000000E-08		Resid phdelay (usec)		-3.33416E-06	+/- 1.6E-07
Delay rate (us/s)	-2.02253167721E-01		Apriori rate (us/s)		-2.02253157049E-01		Resid rate (us/s)		-1.06716E-08	+/- 7.8E-10
Total phase (deg)	59.6		Apriori accel (us/s/s)		-1.10881177841E-05		Resid phase (deg)		-103.4	+/- 4.8

	RMS	Theor.	Amplitude	0.465 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	61.3	11.6	Search (2048X32)	0.455	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	52.1	20.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	15.3	6.8	Inc. seg. avg.	0.614	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	11.1	12.0	Inc. frq. avg.	0.471	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 302.9 el 28.7 pa 46.3 Z: az 310.2 el 26.5 pa 31.4 u,v (fr/asec) 1545.042 -1444.972 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BZ..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BZ.W.105.1W5ADF



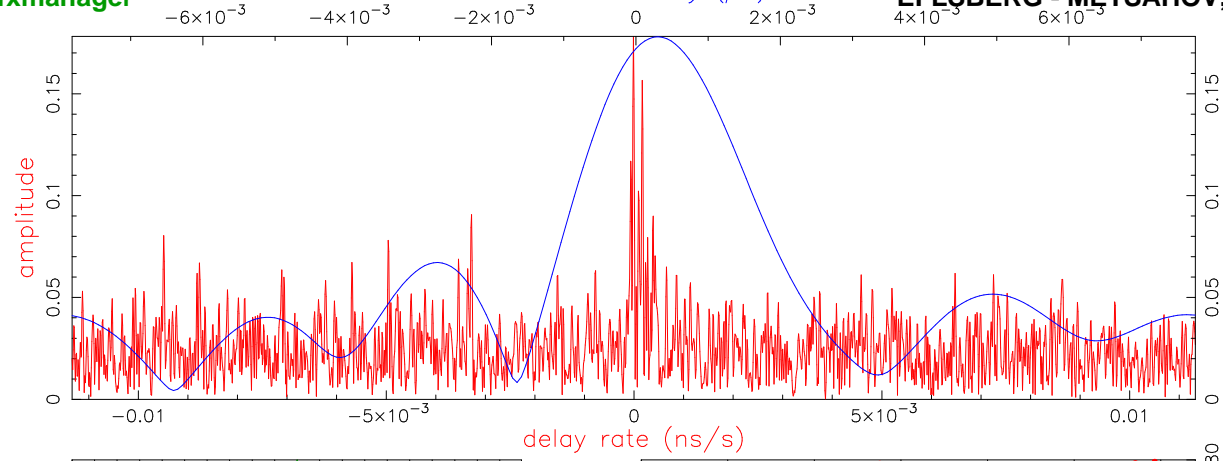
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BZ

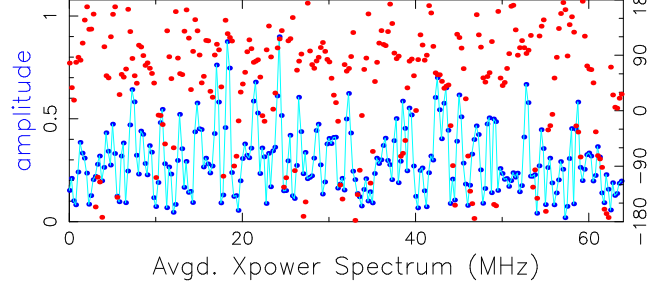
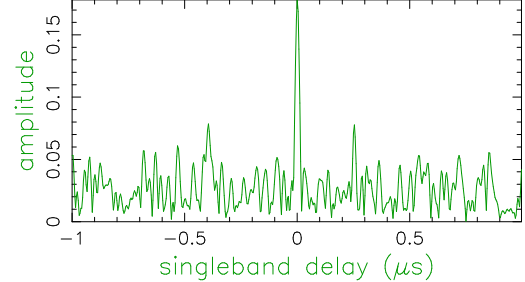
EFLSBERG - METSAHOV, fgroup W, pol LR

multiband delay ( $\mu$ s)



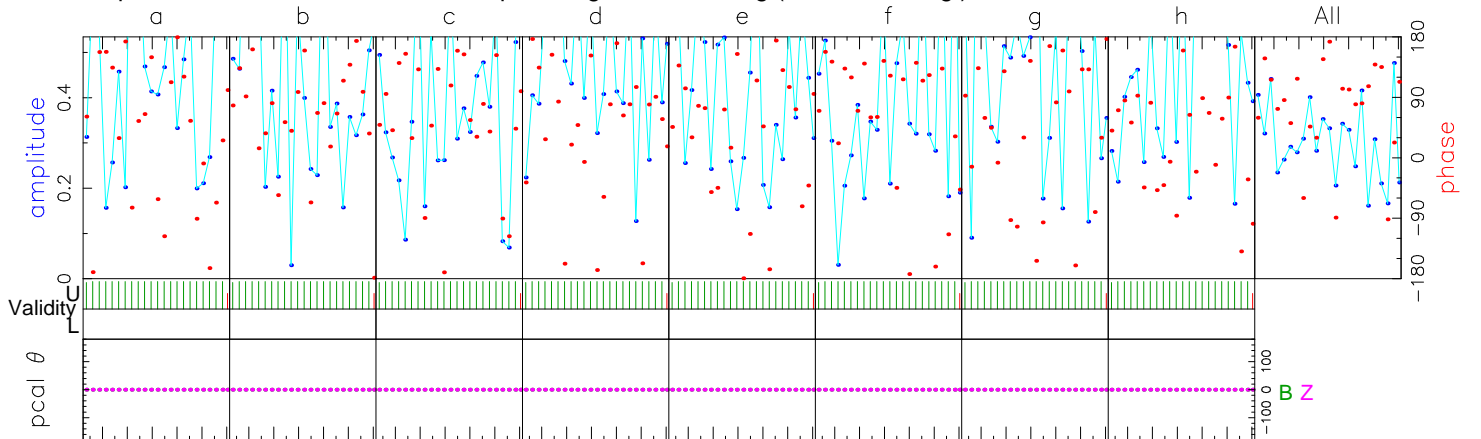
Fringe quality 9

SNR 9.1  
 Int time 345.796  
 Amp 0.178  
 Phase 92.0  
 PFD 5.0e-11  
 Delays (us)  
 SBD 0.000510  
 MBD 0.000316  
 Fringe rate (Hz)  
 -0.000982  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



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

Amp. and Phase vs. time for each freq., 23 segs, 30 APs / seg (15.36 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	92.2	86.3	92.0	92.3	80.3	114.7	135.8	44.5	Phase	92.0		
	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2		
	155.6	256.8	257.4	255.9	161.9	257.2	79.1	445.7	Sbd box	257.1		
U/L	677/0	677/0	677/0	677/0	677/0	677/0	677/0	677/0	APs used			
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
B:Z	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			
Z	1000	1000	1000	1000	1000	1000	1000	1000				
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Chan ids			
									Tracks			
Group delay (usec)(sbd)	6.87528449884E+02		Apriori delay (usec)		6.87528133883E+02		Resid mbdelay (usec)		3.16001E-04	+/- 1.2E-04		
Sband delay (usec)	6.87528643883E+02		Apriori clock (usec)		-2.1347660E+01		Resid sbdelay (usec)		5.10000E-04	+/- 9.5E-04		
Phase delay (usec)	6.87528136850E+02		Apriori clockrate (us/s)		-1.6000000E-08		Resid phdelay (usec)		2.96706E-06	+/- 4.1E-07		
Delay rate (us/s)	-2.02253168453E-01		Apriori rate (us/s)		-2.02253157049E-01		Resid rate (us/s)		-1.14042E-08	+/- 2.0E-09		
Total phase (deg)	255.0		Apriori accel (us/s/s)		-1.10881177841E-05		Resid phase (deg)		92.0	+/- 12.6		
	RMS	Theor.	Amplitude	0.178 +/- 0.020		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	72.7	30.3	Search (2048X32)	0.176		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	85.8	52.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	28.4	17.9	Inc. seg. avg.	0.268		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	33.1	31.2	Inc. frq. avg.	0.185		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

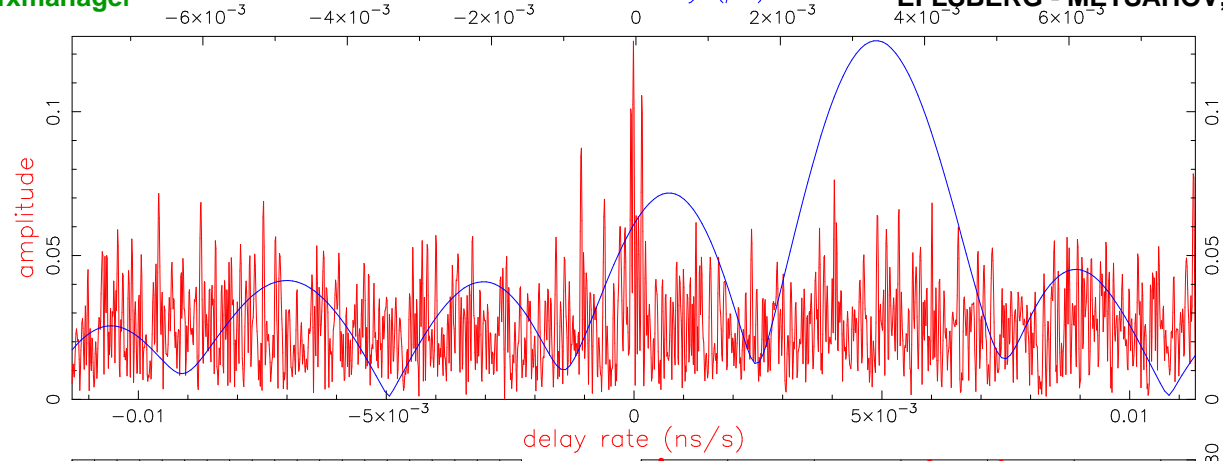
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

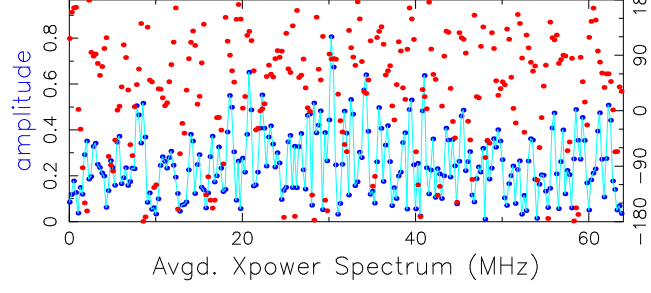
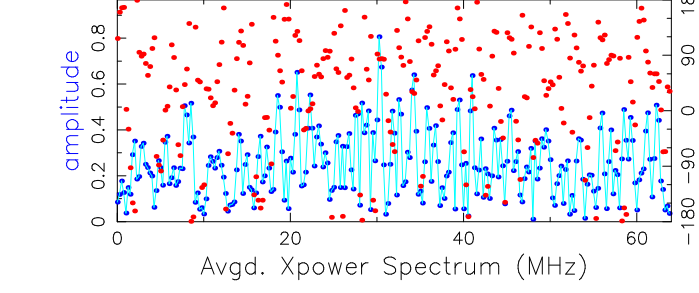
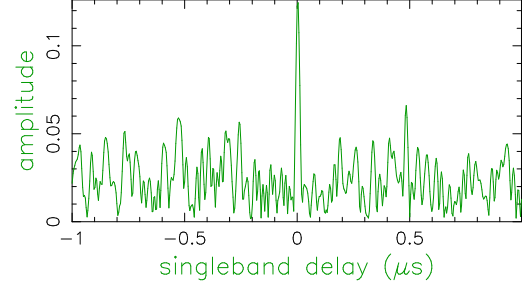
BLLAC.1W5ADF, No0245, BZ

EFLSBERG - METSAHOV, fgroup W, pol RL

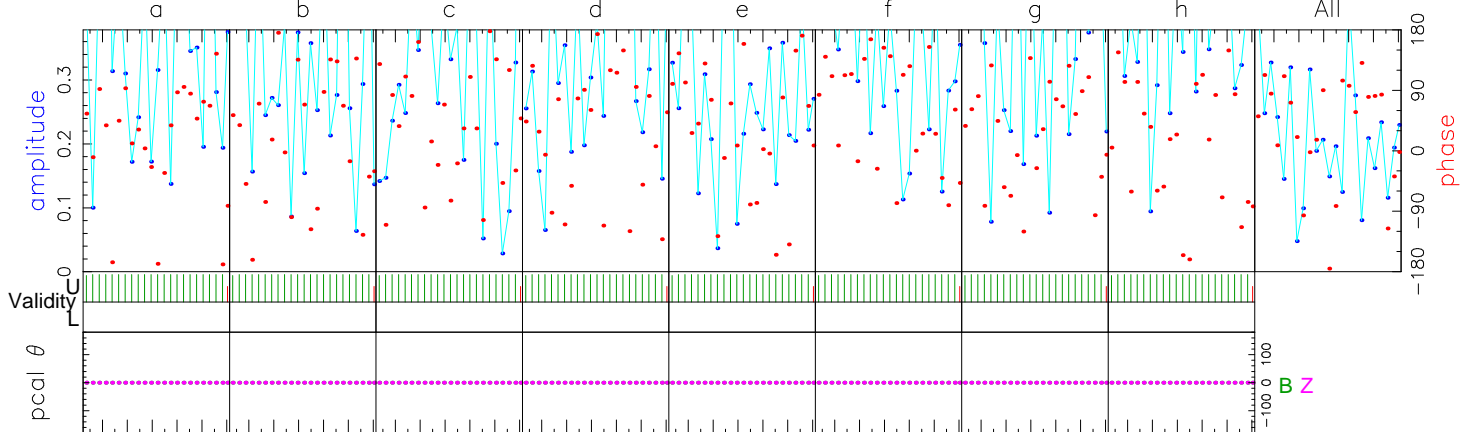
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 6.4  
 Int time 345.796  
 Amp 0.126  
 Phase 64.3  
 PFD 3.8e-02  
 Delays (us)  
 SBD 0.002322  
 MBD 0.003272  
 Fringe rate (Hz)  
 -0.000895  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134513.31  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135440  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 30 APs / seg (15.36 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	59.9	43.0	54.8	109.5	74.7	87.0	52.7	56.9	Phase	64.3
B	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.0	Ampl.	0.1
Z	259.0	373.3	121.9	412.5	152.0	265.5	258.2	191.1	Sbd box	257.6
B:Z	677/0	677/0	677/0	677/0	677/0	677/0	677/0	677/0	APs used	
B:Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	6.87531405696E+02		Apriori delay (usec)		6.87528133883E+02		Resid mbdelay (usec)		3.27181E-03	+/- 1.7E-04
Sband delay (usec)	6.87530455633E+02		Apriori clock (usec)		-2.1347660E+01		Resid sbdelay (usec)		2.32175E-03	+/- 1.3E-03
Phase delay (usec)	6.87528135956E+02		Apriori clockrate (us/s)		-1.6000000E-08		Resid phdelay (usec)		2.07282E-06	+/- 5.8E-07
Delay rate (us/s)	-2.02253167439E-01		Apriori rate (us/s)		-2.02253157049E-01		Resid rate (us/s)		-1.03896E-08	+/- 2.9E-09
Total phase (deg)	227.2		Apriori accel (us/s/s)		-1.10881177841E-05		Resid phase (deg)		64.3	+/- 17.9

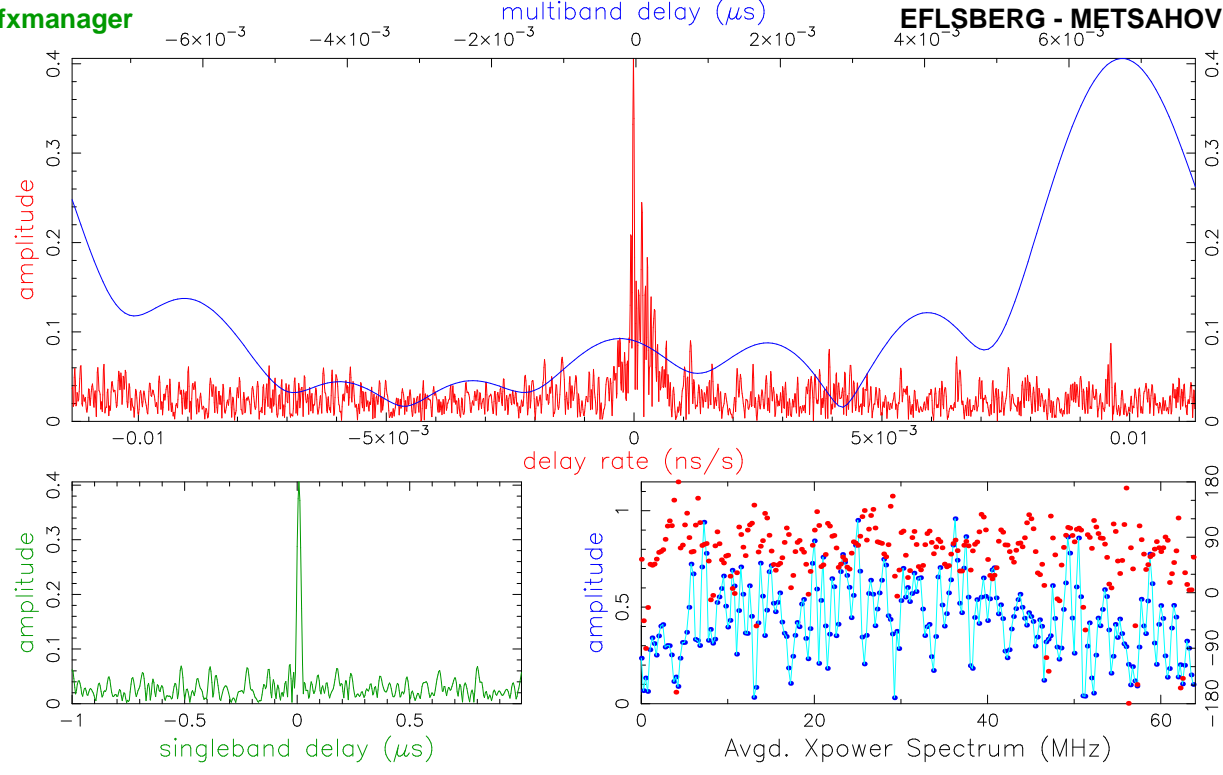
ph/seg (deg) 76.8 42.8 Search (2048X32) 0.124 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 106.1 74.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 23.9 25.3 Inc. seg. avg. 0.169 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 46.9 44.1 Inc. frq. avg. 0.120 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 B: az 302.9 el 28.7 pa 46.3 Z: az 310.2 el 26.5 pa 31.4 u,v (fr/asec) 1545.042 -1444.972 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BZ..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BZ.W.142.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, BZ

EFLSBERG - METSAHOV, fgroup W, pol LL

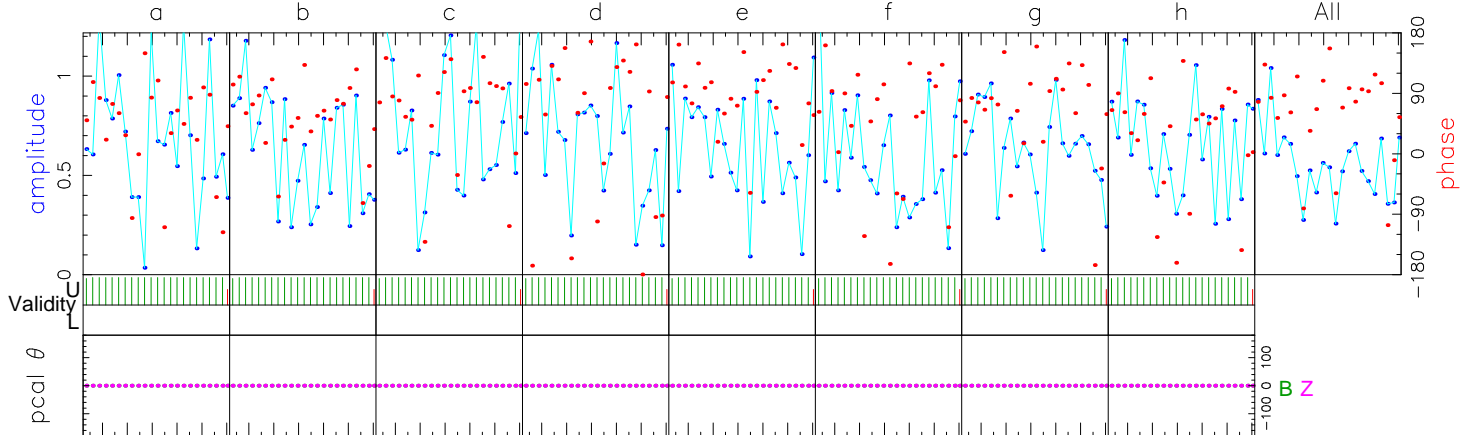


Fringe quality 8

SNR 20.6  
 Int time 345.796  
 Amp 0.406  
 Phase 85.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.007700  
 MBD 0.006735  
 Fringe rate (Hz)  
 -0.000897  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211a  
 Exper # 16383  
 Yr:day 2021:114  
 Start 134513.31  
 Stop 135059.94  
 FRT 134800.00  
 Corr/FF/build  
 2021:286:102153  
 2021:286:135430  
 2021:252:122852  
 RA & Dec (J2000)  
 22h02m43.291370s  
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 30 APs / seg (15.36 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	62.0	71.7	92.3	127.5	98.6	88.5	87.7	51.8	Phase	85.1
	0.4	0.5	0.5	0.4	0.5	0.3	0.4	0.4	Ampl.	0.4
	259.0	259.1	259.6	258.6	259.1	259.0	258.6	257.8	Sbd box	259.0
U/L	677/0	677/0	677/0	677/0	677/0	677/0	677/0	677/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.87534868946E+02		Apriori delay (usec)		6.87528133883E+02		Resid mbdelay (usec)		6.73506E-03	+/- 5.3E-05
Sband delay (usec)	6.87535833883E+02		Apriori clock (usec)		-2.1347660E+01		Resid sbdelay (usec)		7.70000E-03	+/- 4.2E-04
Phase delay (usec)	6.87528136626E+02		Apriori clockrate (us/s)		-1.6000000E-08		Resid phdelay (usec)		2.74341E-06	+/- 1.8E-07
Delay rate (us/s)	-2.02253167465E-01		Apriori rate (us/s)		-2.02253157049E-01		Resid rate (us/s)		-1.04158E-08	+/- 8.9E-10
Total phase (deg)	248.0		Apriori accel (us/s/s)		-1.10881177841E-05		Resid phase (deg)		85.1	+/- 5.5

ph/seg (deg) 67.3 13.3 Search (2048X32) 0.404 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 57.3 23.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 25.4 7.8 Inc. seg. avg. 0.541 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 16.0 13.7 Inc. frq. avg. 0.432 Data rate (Mbit/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 B: az 302.9 el 28.7 pa 46.3 Z: az 310.2 el 26.5 pa 31.4 u,v (fr/asec) 1545.042 -1444.972 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211a/v2/1234/No0245/BZ..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/BZ.W.85.1W5ADF