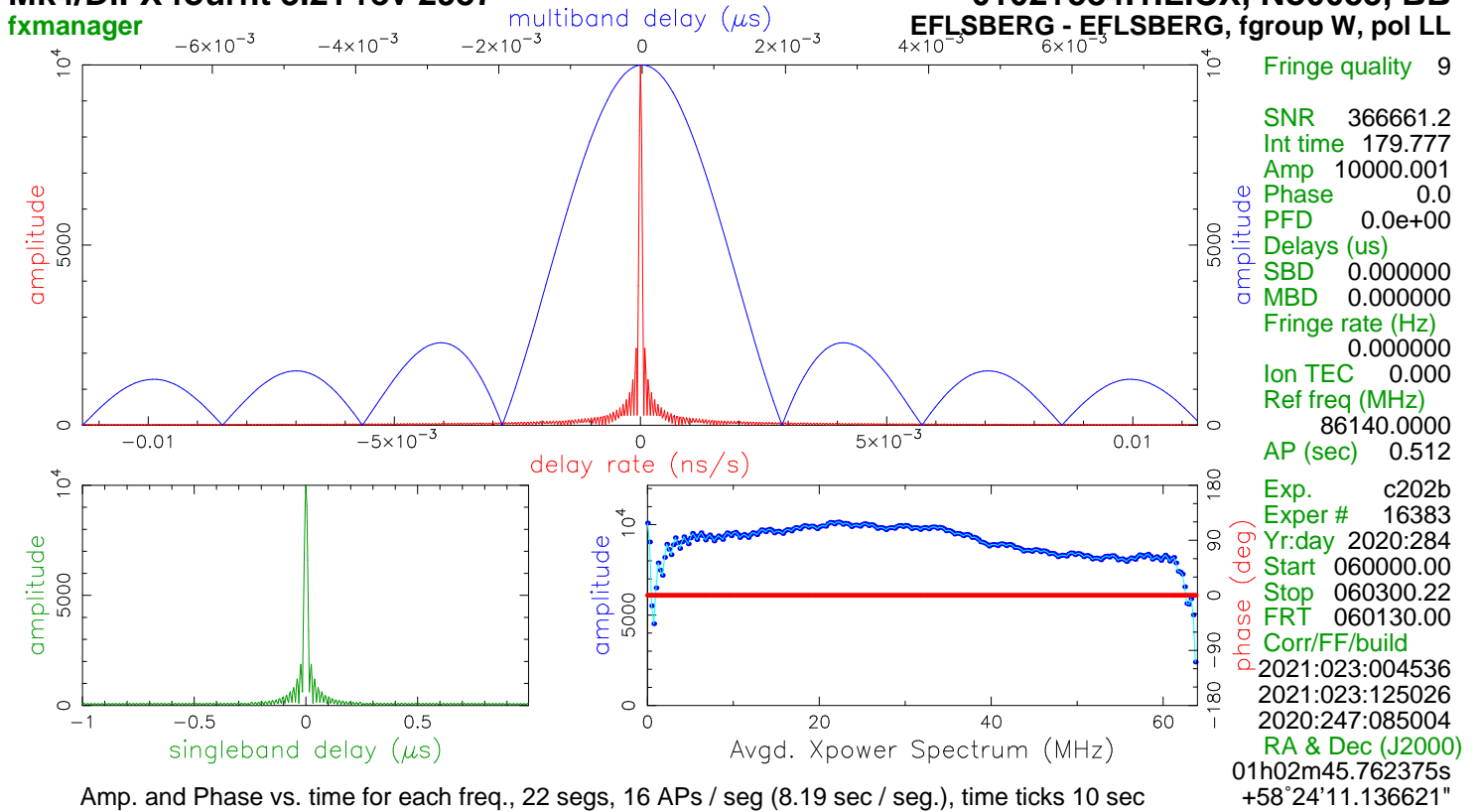


Mk4/DiFX fourfit 3.21 rev 2937

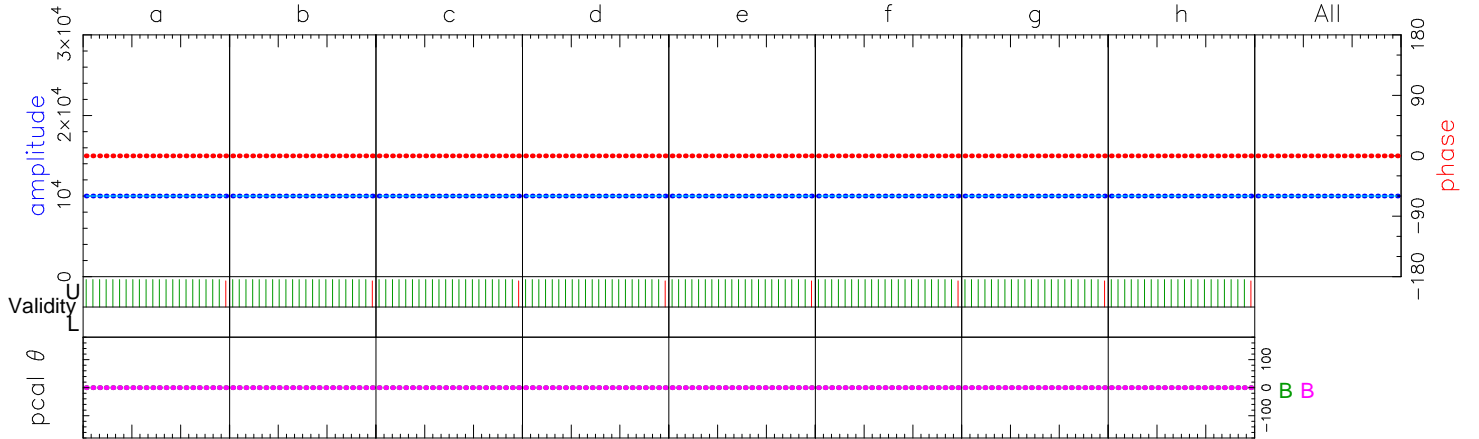
fxmanager

0102+584.1ILICX, No0055, BB

EFLSBERG - EFLSBERG, fgroup W, pol LL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0
B 1000	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
B 1000	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	Sbd box	257.0
B:B 0:0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B:B 0:0	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
B 1000	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B 1000	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
B W00UL	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
B W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.0E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	2.3E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.0E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	9.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

	RMS	Theor.	Amplitude	10000.001 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	0.0	0.0	Search (1024X32)	10000.001	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.001	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

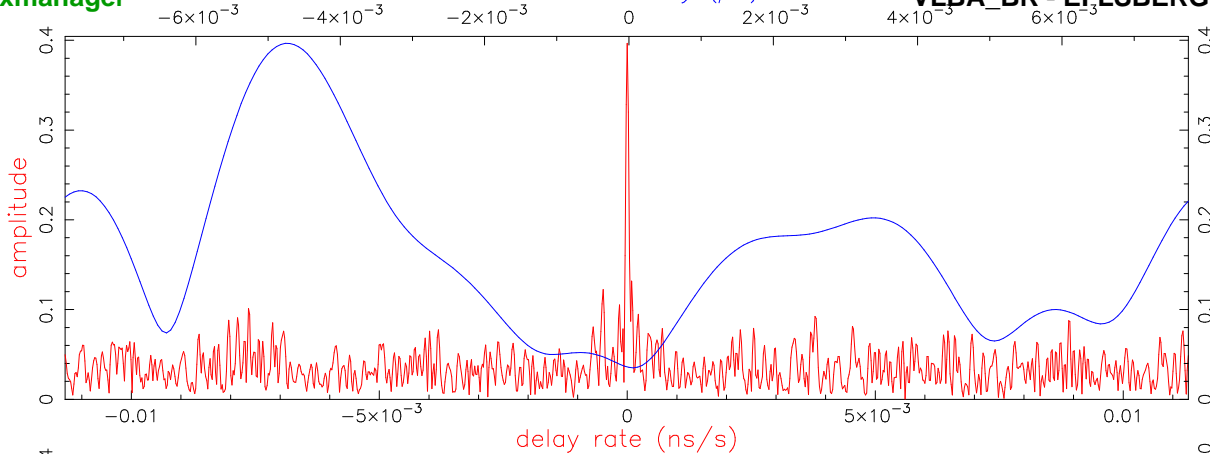
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BB..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BB.W.15.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

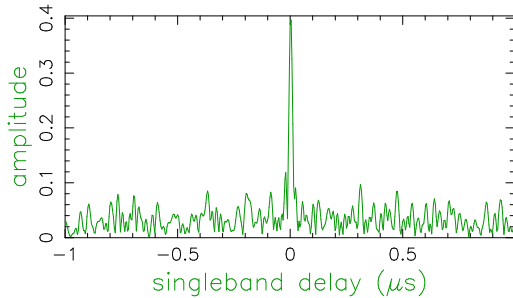
0102+584.1ILICX, No0055, bB

VLBA\_BR - EFLSBERG, fgroup W, pol RR

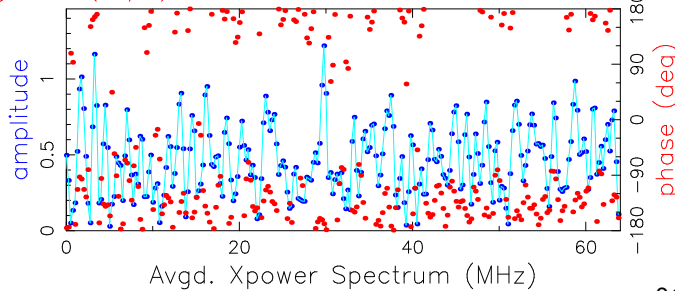
multiband delay ( $\mu$ s)

Fringe quality 8

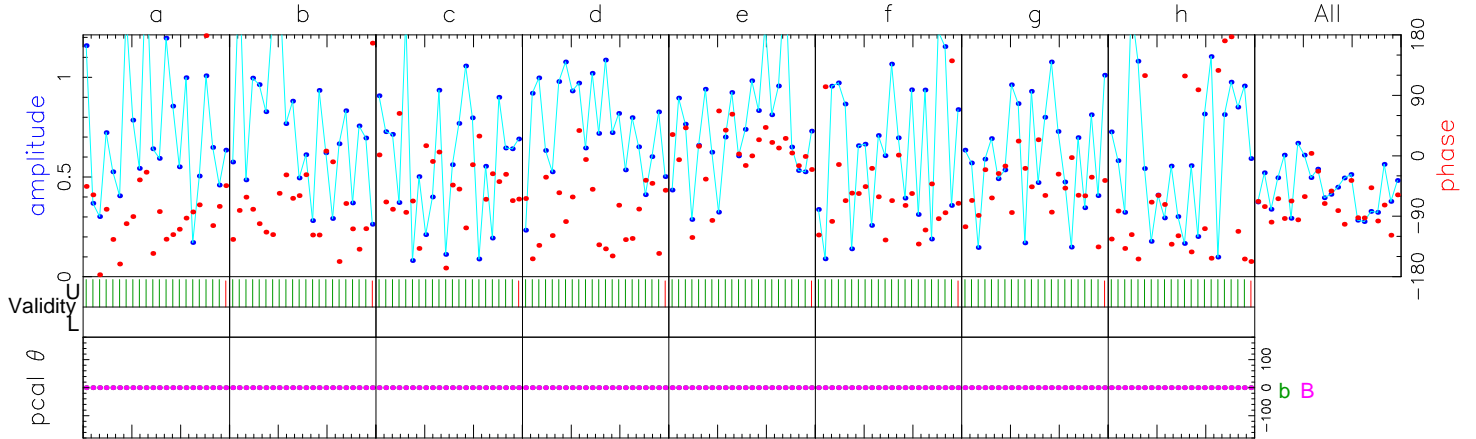
SNR 14.8  
 Int time 179.777  
 Amp 0.404  
 Phase -70.6  
 PFD 3.1e-41  
 Delays (us)  
 SBD 0.002202  
 MBD -0.004762  
 Fringe rate (Hz) 0.000747  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 060000.00  
 Stop 060300.22  
 FRT 060130.00  
 Corr/FF/build  
 2021:023:004536  
 2021:023:125028  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"



delay rate (ns/s)



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-92.1	-86.7	-49.5	-90.5	11.6	-72.0	-48.3	-140.4	Phase	-70.6
	0.5	0.6	0.4	0.5	0.6	0.5	0.5	0.5	Ampl.	0.5
	258.0	257.6	256.9	257.0	257.0	256.8	256.7	256.8	Sbd box	257.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	7.46760831522E+03	Apriori delay (usec)	7.46761307765E+03	Resid mbdelay (usec)	-4.76244E-03	+/-	7.3E-05	
Sband delay (usec)	7.46761527965E+03	Apriori clock (usec)	-1.1817061E+01	Resid sbdelay (usec)	2.20200E-03	+/-	5.8E-04	
Phase delay (usec)	7.46761307538E+03	Apriori clockrate (us/s)	2.0000000E-07	Resid phdelay (usec)	-2.27775E-06	+/-	2.5E-07	
Delay rate (us/s)	7.45157403862E-01	Apriori rate (us/s)	7.45157395187E-01	Resid rate (us/s)	8.67558E-09	+/-	2.4E-09	
Total phase (deg)	112.6	Apriori accel (us/s/s)	-4.23978807935E-05	Resid phase (deg)	-70.6	+/-	7.7	
RMS	Theor.	Amplitude	0.404 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	27.9	18.1	Search (1024X32)	0.383	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
amp/seg (%)	29.8	31.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	47.8	10.9	Inc. seg. avg.	0.426	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011 0.011
amp/frq (%)	32.5	19.1	Inc. frq. avg.	0.513	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 46.4 el 71.3 pa -112.1 B: az 320.0 el 36.8 pa 51.9 u,v (fr/asec) -8205.101 -5526.790

simultaneous interpolator

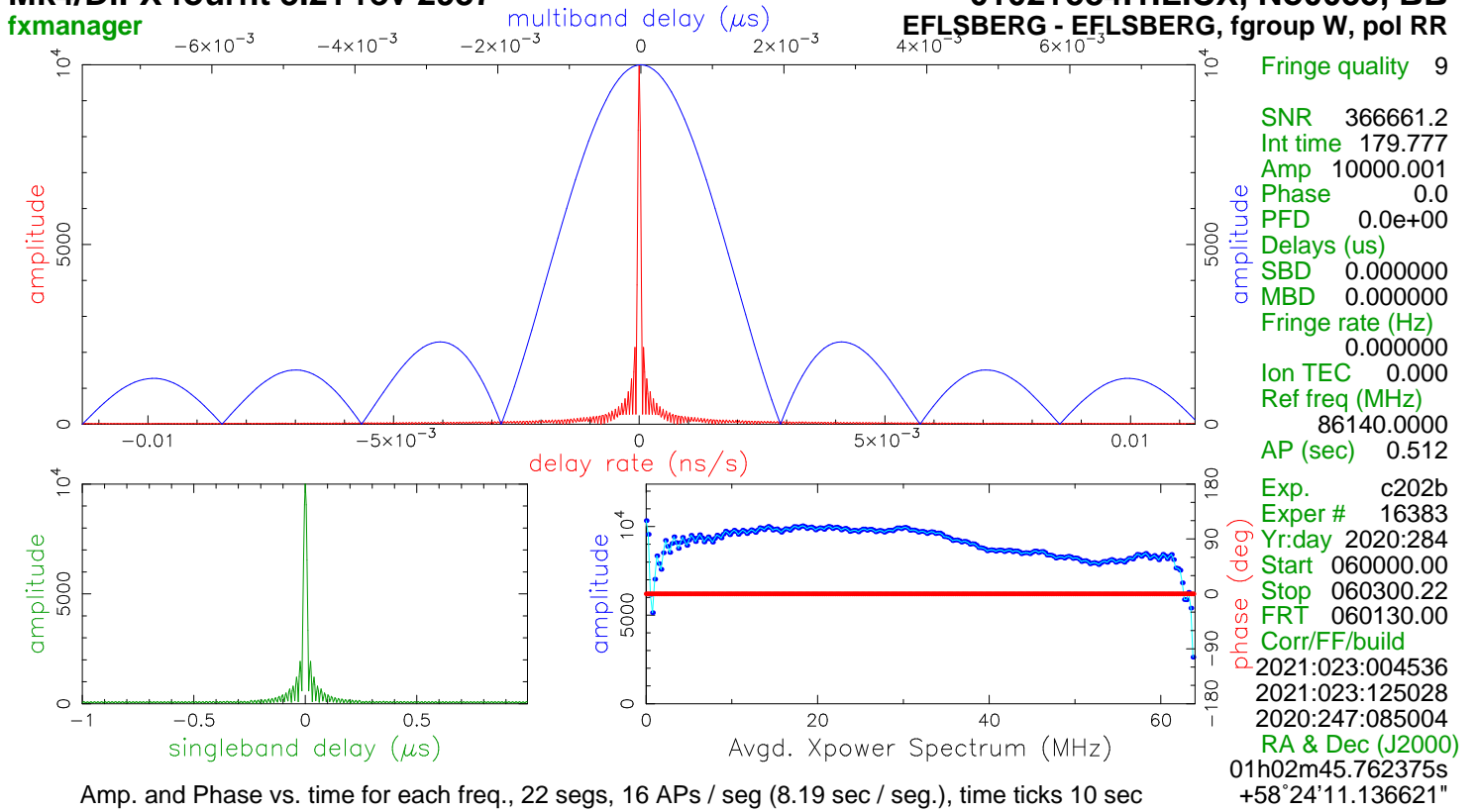
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/bB..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/bB.W.27.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

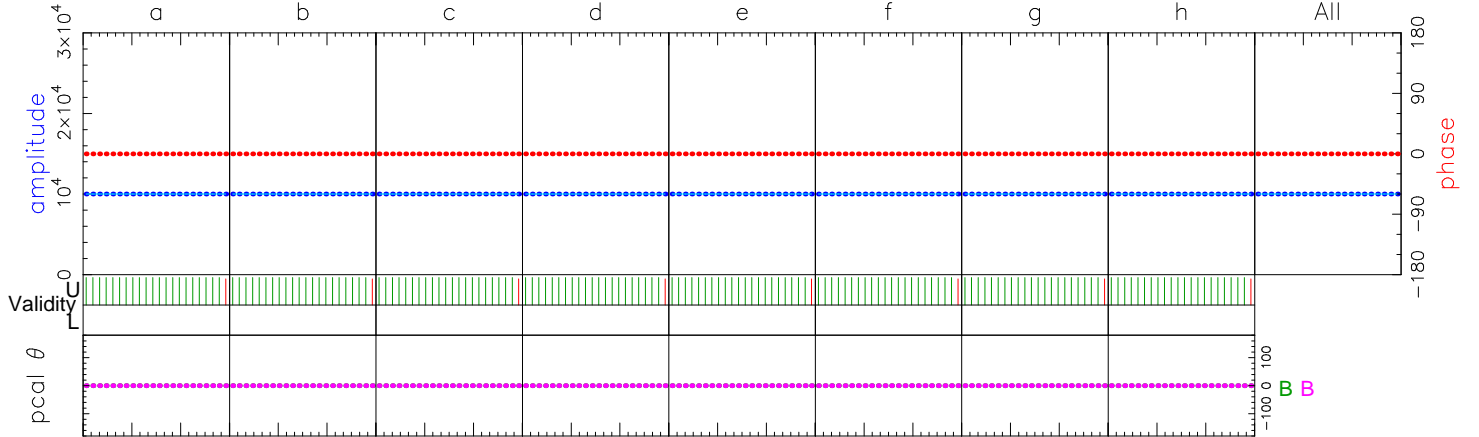
fxmanager

0102+584.1ILICX, No0055, BB

EFLSBERG - EFLSBERG, fgroup W, pol RR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0
B 1000	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
B 1000	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	Sbd box	257.0
B:B 0:0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B:B 0:0	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
B 1000	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B 1000	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.0E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	2.3E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.0E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	9.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

	RMS	Theor.	Amplitude	10000.001 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	0.0	0.0	Search (1024X32)	10000.001	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.001	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 B: az 320.0 el 36.8 pa 51.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BB..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BB.W.30.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

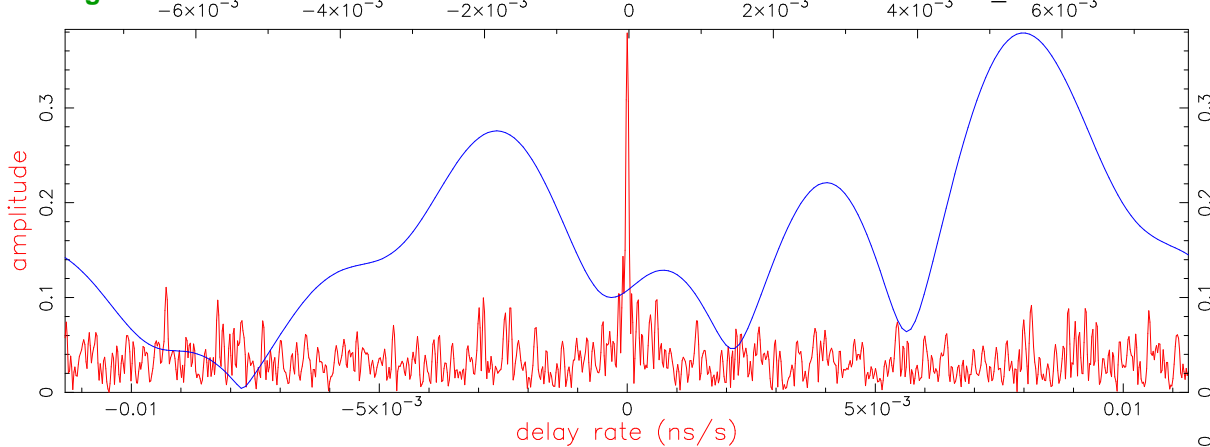
fxmanager

0102+584.1ILICX, No0055, bB

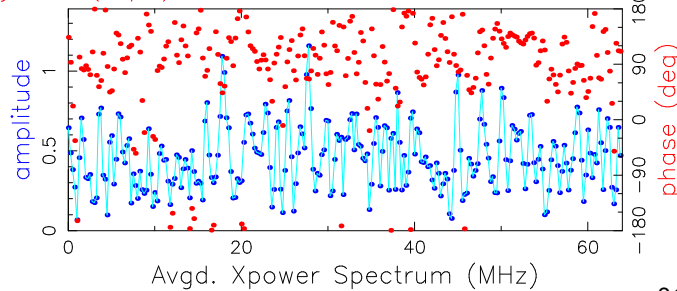
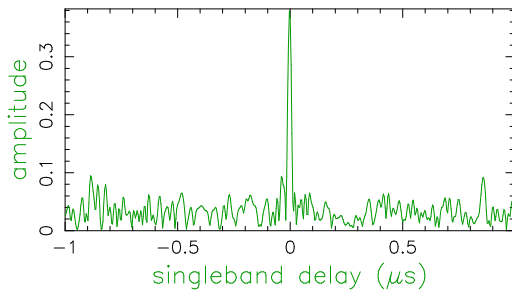
VLBA\_BR - EFLSBERG, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 9

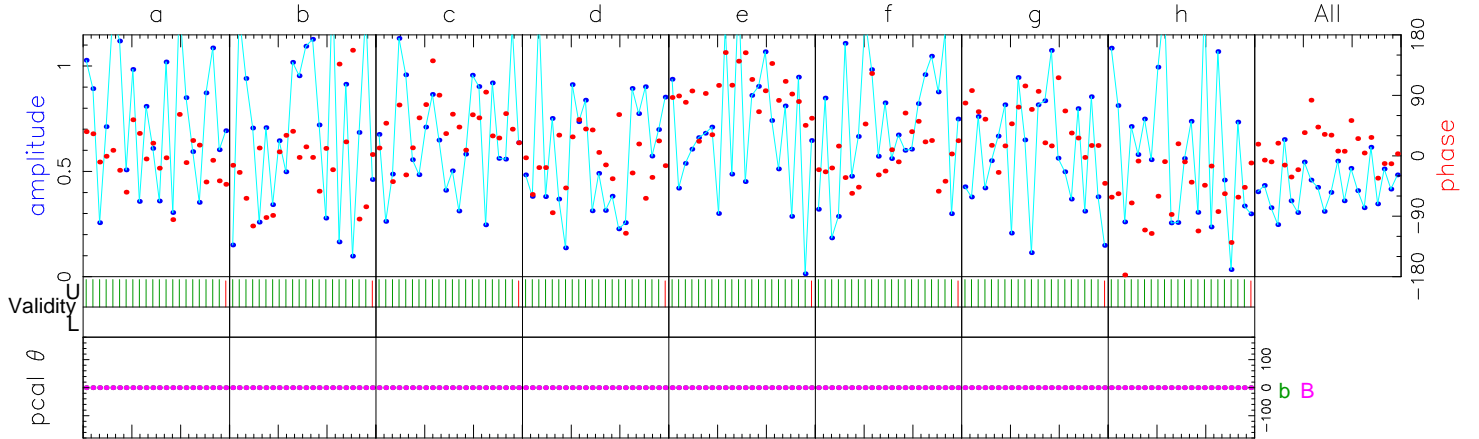


SNR 14.0  
Int time 179.777  
Amp 0.383  
Phase 11.9  
PFD 2.8e-36  
Delays (us)  
SBD -0.002653  
MBD 0.005492  
Fringe rate (Hz)  
0.000602  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125025  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
b	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	

Group delay (usec)(sbd)	7.46760294497E+03	Apriori delay (usec)	7.46761307765E+03	Resid mbdelay (usec)	5.49231E-03	+/-	7.7E-05
Sband delay (usec)	7.46761042465E+03	Apriori clock (usec)	-1.1817061E+01	Resid sbdelay (usec)	-2.65300E-03	+/-	6.1E-04
Phase delay (usec)	7.46761307804E+03	Apriori clockrate (us/s)	2.0000000E-07	Resid phdelay (usec)	3.82729E-07	+/-	2.6E-07
Delay rate (us/s)	7.45157402172E-01	Apriori rate (us/s)	7.45157395187E-01	Resid rate (us/s)	6.98496E-09	+/-	2.5E-09
Total phase (deg)	195.1	Apriori accel (us/s/s)	-4.23978807935E-05	Resid phase (deg)	11.9	+/-	8.2

	RMS	Theor.	Amplitude	0.383 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	27.9	19.1	Search (1024X32)	0.370	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	29.2	33.4	Interp.	0.000	Bits/sample: 2x2      SampCntNorm: enabled	mb window (us)	-0.008	0.008		
ph/frq (deg)	51.3	11.5	Inc. seg. avg.	0.405	Sample rate(MSamp/s): 128	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	38.4	20.2	Inc. frq. avg.	0.509	Data rate(Mb/s): 2048      nlags: 256      t_cohere infinite	ion window (TEC)	0.00	0.00		

b: az 46.4 el 71.3 pa -112.1 B: az 320.0 el 36.8 pa 51.9 u,v (fr/asec) -8205.101 -5526.790 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/bB..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/bB.W.4.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

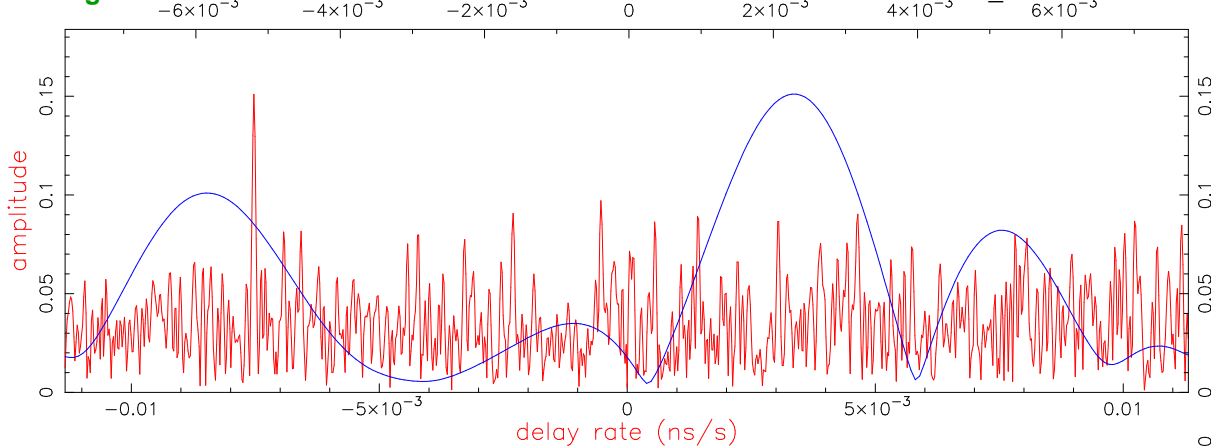
fxmanager

0102+584.1ILICX, No0055, bB

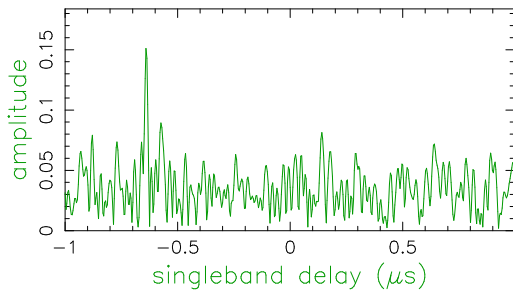
VLBA\_BR - EFLSBERG, fgroup W, pol LR

multiband delay ( $\mu$ s)

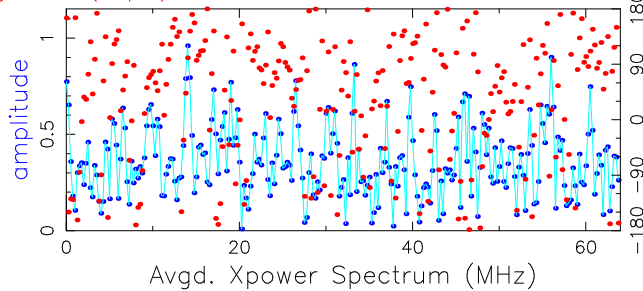
Fringe quality 0



SNR 5.6  
Int time 179.777  
Amp 0.184  
Phase -101.5  
PFD 9.4e-01  
Delays (us)  
SBD -0.639583  
MBD 0.002333  
Fringe rate (Hz)  
-0.649531  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

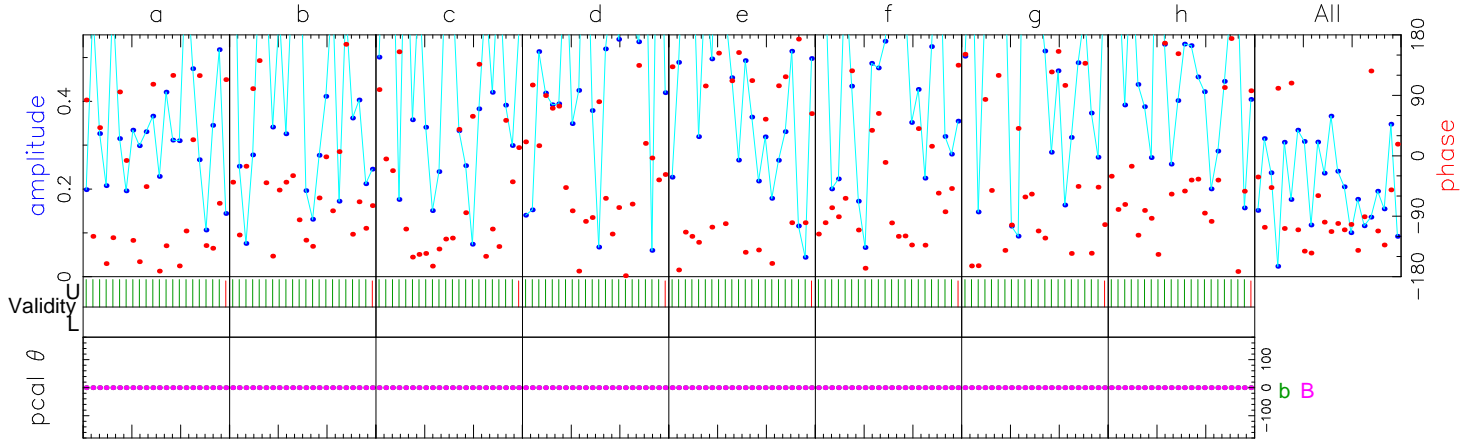


delay rate (ns/s)



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125029  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-136.9	-72.0	-107.5	-56.3	-172.7	-80.5	-132.3	-87.9	Phase	-101.5
	0.1	0.3	0.2	0.2	0.2	0.3	0.2	0.2	Ampl.	0.2
	135.7	176.2	497.9	113.6	114.0	509.3	293.1	423.3	Sbd box	93.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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)	7.46697478594E+03		Apriori delay (usec)	7.46761307765E+03	Resid mbdelay (usec)	2.33329E-03	+/-	1.9E-04		
Sband delay (usec)	7.46697349515E+03		Apriori clock (usec)	-1.1817061E+01	Resid sbdelay (usec)	-6.39583E-01	+/-	1.5E-03		
Phase delay (usec)	7.46761307438E+03		Apriori clockrate (us/s)	2.0000000E-07	Resid phdelay (usec)	-3.27288E-06	+/-	6.6E-07		
Delay rate (us/s)	7.45149854772E-01		Apriori rate (us/s)	7.45157395187E-01	Resid rate (us/s)	-7.54042E-06	+/-	6.4E-09		
Total phase (deg)		81.8	Apriori accel (us/s/s)	-4.23978807935E-05	Resid phase (deg)	-101.5	+/-	20.5		

RMS Theor. Amplitude 0.184 +/- 0.033 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 66.6 48.1 Search (1024X32) 0.147 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
amp/seg (%) 72.8 84.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
ph/frq (deg) 42.5 29.0 Inc. seg. avg. 0.189 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011  
amp/frq (%) 30.7 50.7 Inc. frq. avg. 0.199 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

b: az 46.4 el 71.3 pa -112.1 B: az 320.0 el 36.8 pa 51.9 u,v (fr/asec) -8205.101 -5526.790

simultaneous interpolator

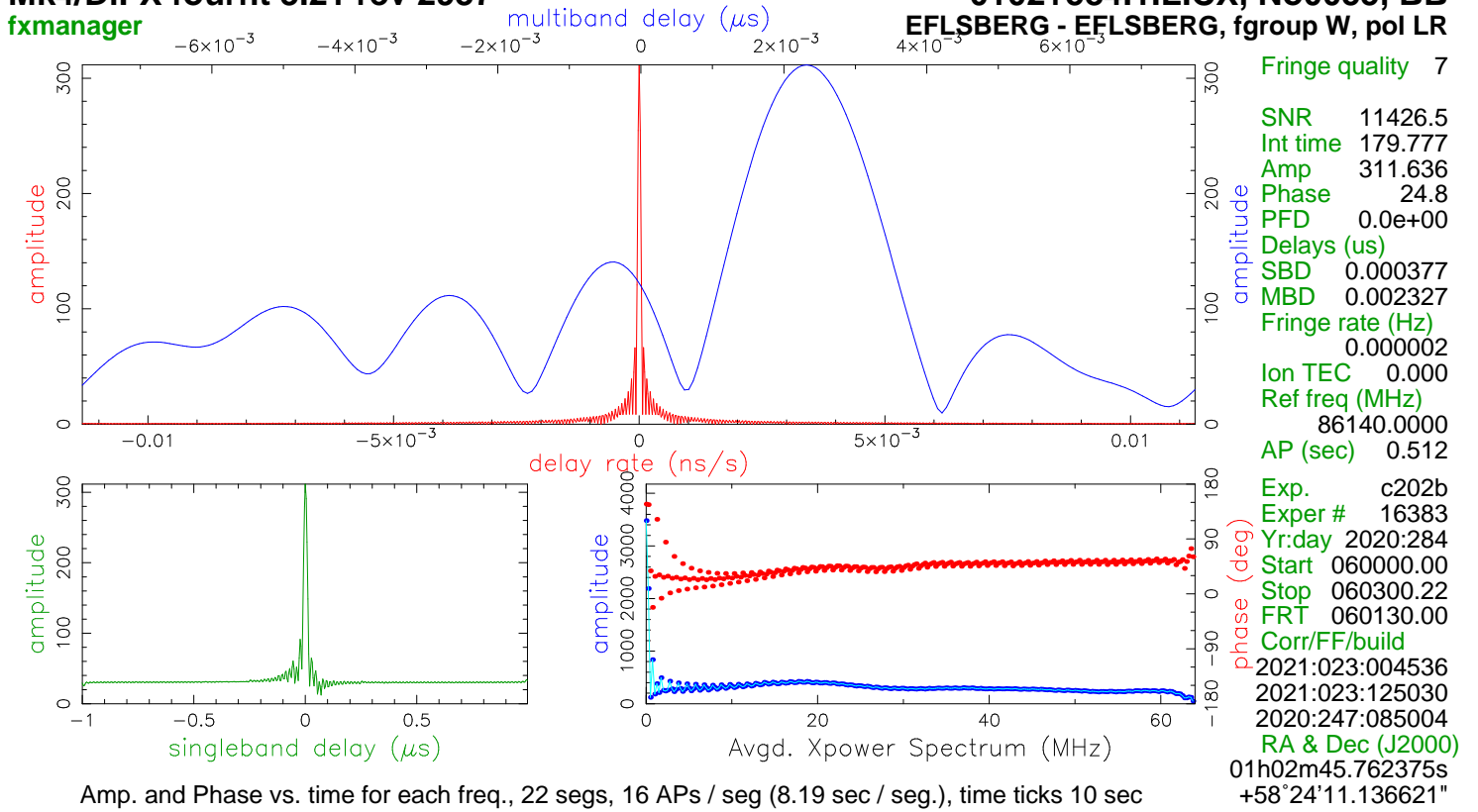
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/bB..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/bB.W.44.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

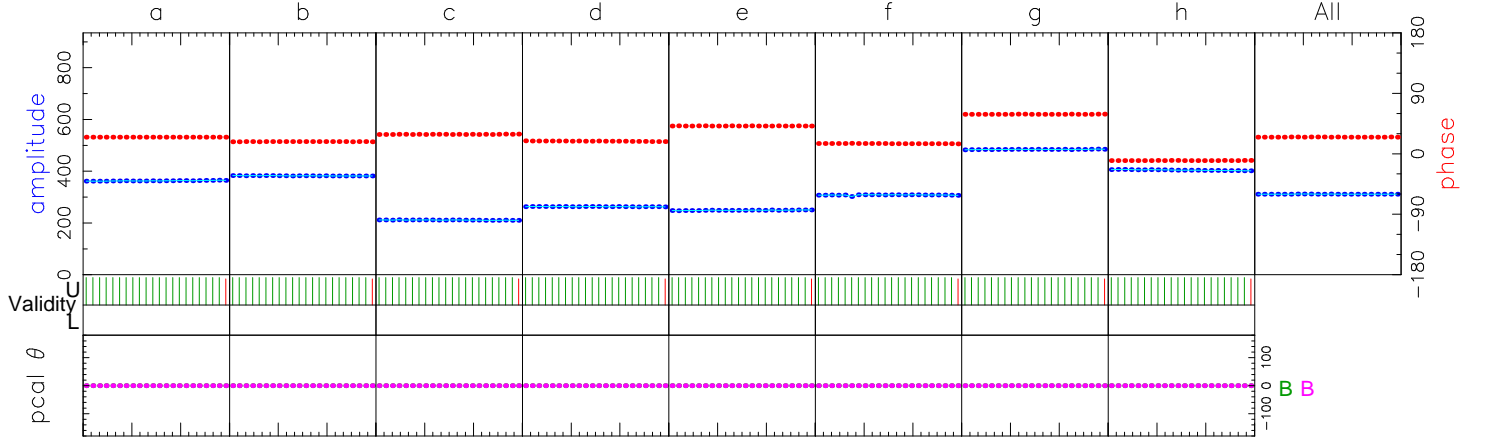
fxmanager

0102+584.1ILICX, No0055, BB

EFLSBERG - EFLSBERG, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	24.7	18.1	28.9	18.7	41.4	15.2	58.8	-10.0	Phase	24.8
	363.2	382.4	211.2	263.2	249.2	308.2	484.2	404.3	Ampl.	333.2
	257.6	257.4	257.7	257.7	257.1	257.2	256.0	256.5	Sbd box	257.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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)	2.32725000000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	2.32725E-03	+/-	9.5E-08
Sband delay (usec)	3.77000000000E-04	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	3.77000E-04	+/-	7.5E-07
Phase delay (usec)	8.01005387004E-07	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	8.01005E-07	+/-	3.2E-10
Delay rate (us/s)	2.69251895442E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	2.69252E-11	+/-	3.1E-12
Total phase (deg)	24.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	24.8	+/-	0.0

	RMS	Theor.	Amplitude	311.636 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	0.0	0.0	Search (1024X32)	309.086	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	0.1	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	21.8	0.0	Inc. seg. avg.	311.389	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011 0.011
amp/frq (%)	28.3	0.0	Inc. frq. avg.	333.233	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

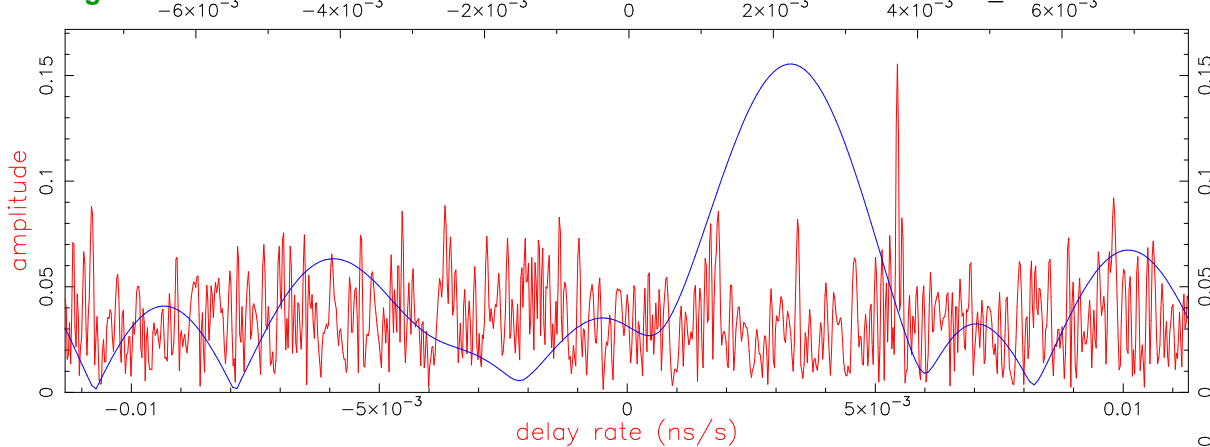
B: az 320.0 el 36.8 pa 51.9 B: az 320.0 el 36.8 pa 51.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BB..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BB.W.54.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILICX, No0055, bB

VLBA\_BR - EFLSBERG, fgroup W, pol RL

multiband delay ( $\mu$ s)

Fringe quality 0

SNR 5.7

Int time 179.777

Amp 0.172

Phase 133.8

PFD 7.4e-01

Delays (us)

SBD 0.172684

MBD 0.002274

Fringe rate (Hz)

0.469264

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Exper # 16383

Yr:day 2020:284

Start 060000.00

Stop 060300.22

FRT 060130.00

Corr/FF/build

2021:023:004536

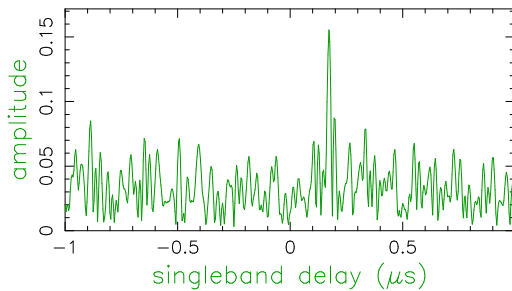
2021:023:125031

2020:247:085004

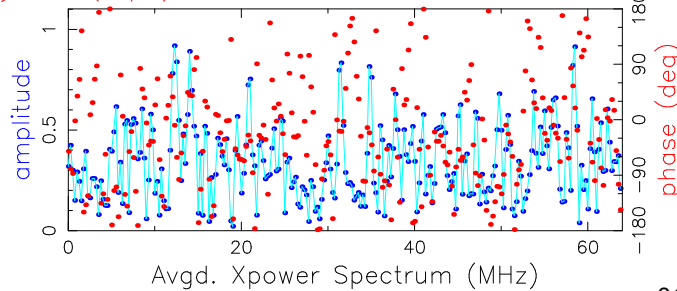
RA &amp; Dec (J2000)

01h02m45.762375s

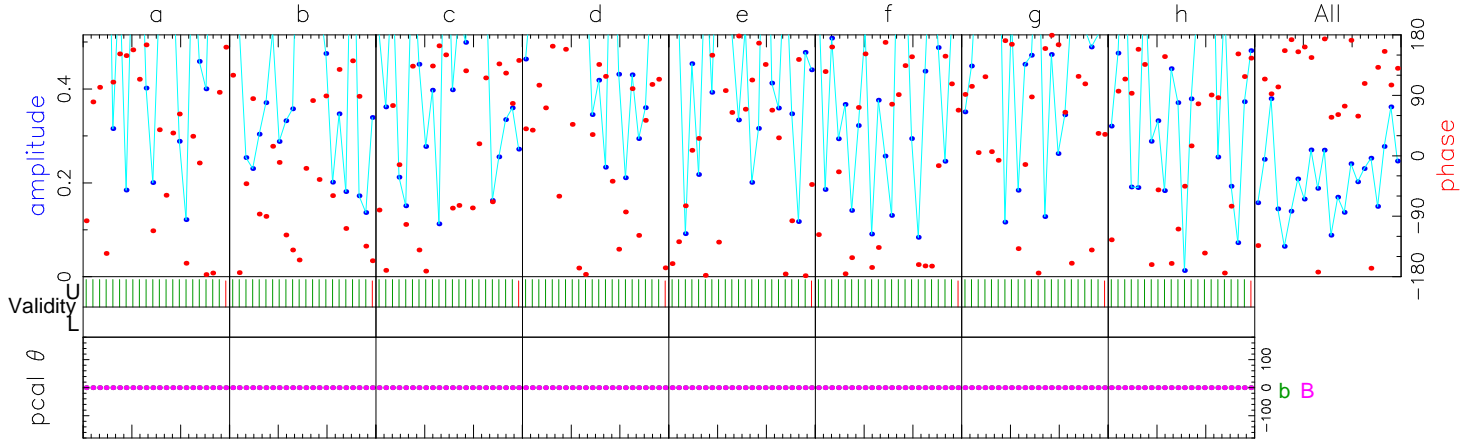
+58°24'11.136621"



delay rate (ns/s)



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	126.9	168.2	151.8	117.4	157.2	141.9	97.6	139.6	Phase	133.8
b	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
B	312.8	307.4	340.2	68.6	28.9	370.5	31.3	154.9	Sbd box	301.2
b:B	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b: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	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	7.46778722668E+03		Apriori delay (usec)	7.46761307765E+03	Resid mbdelay (usec)	2.27403E-03	+/-	1.9E-04		
Sband delay (usec)	7.46778576190E+03		Apriori clock (usec)	-1.1817061E+01	Resid sbdelay (usec)	1.72684E-01	+/-	1.5E-03		
Phase delay (usec)	7.46761308197E+03		Apriori clockrate (us/s)	2.0000000E-07	Resid phdelay (usec)	4.31606E-06	+/-	6.5E-07		
Delay rate (us/s)	7.45162842874E-01		Apriori rate (us/s)	7.45157395187E-01	Resid rate (us/s)	5.44769E-06	+/-	6.2E-09		
Total phase (deg)	317.1		Apriori accel (us/s/s)	-4.23978807935E-05	Resid phase (deg)	133.8	+/-	20.0		

ph/seg (deg)	46.1	Theor.	47.0	Amplitude	0.172 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	60.0		47.0	Search (1024X32)	0.151	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	25.1		28.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	34.0		49.5	Inc. seg. avg.	0.172	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
				Inc. frq. avg.	0.161	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00

b: az 46.4 el 71.3 pa -112.1 B: az 320.0 el 36.8 pa 51.9 u,v (fr/asec) -8205.101 -5526.790 simultaneous interpolator

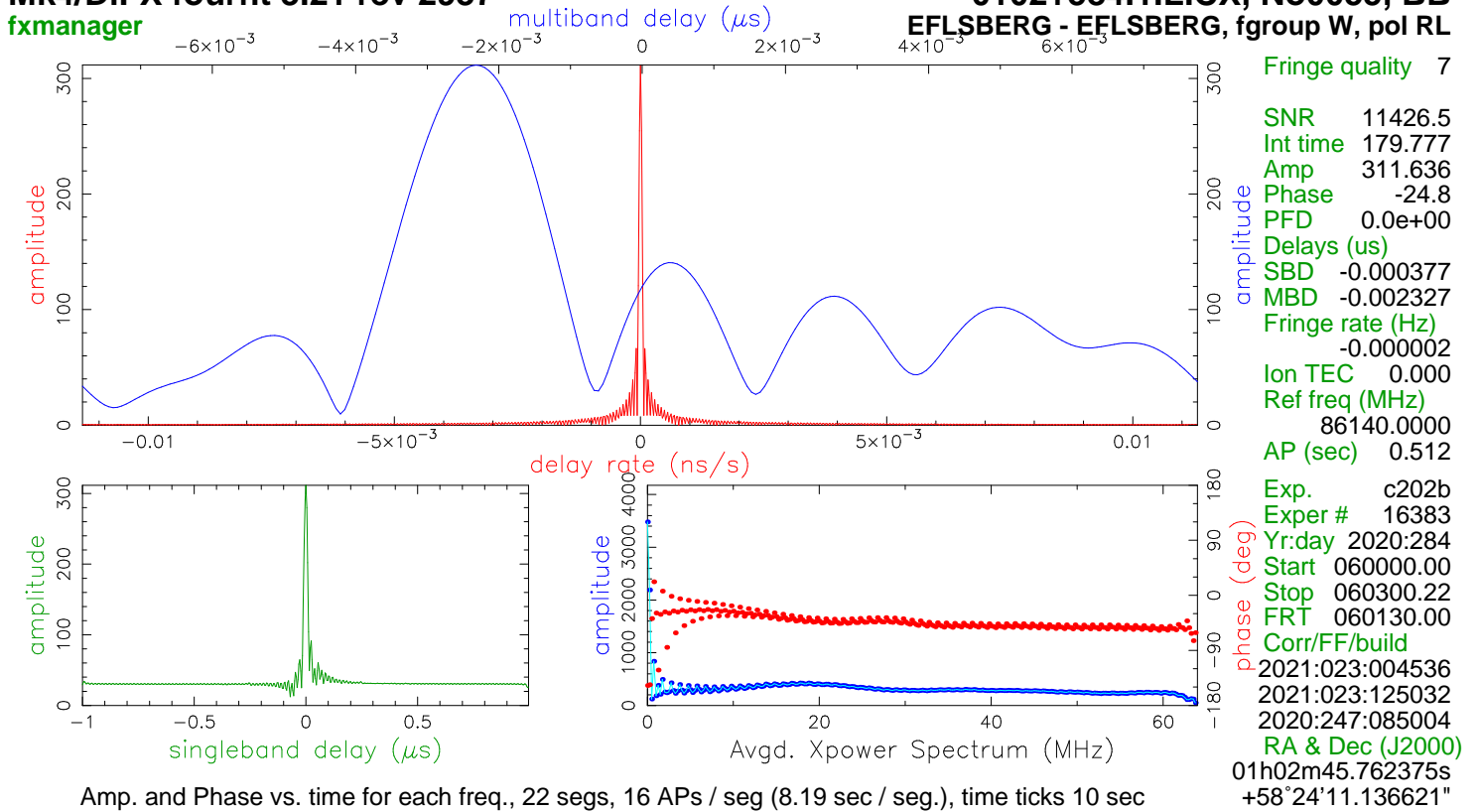
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/bB..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/bB.W.61.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

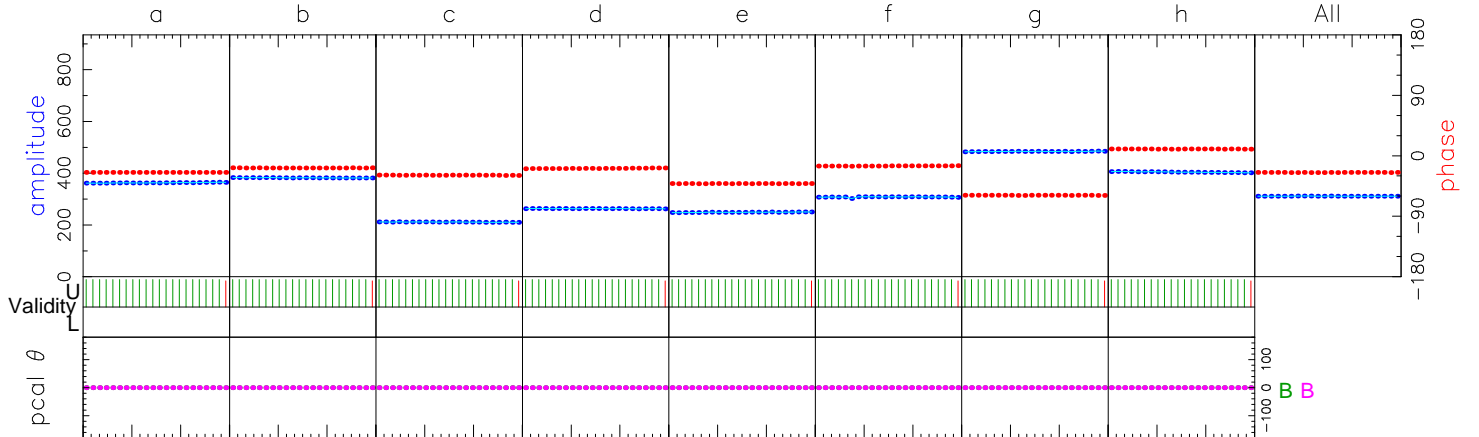
fxmanager

0102+584.1ILICX, No0055, BB

EFLSBERG - EFLSBERG, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-24.7	-18.1	-28.9	-18.7	-41.4	-15.2	-58.8	10.0	Phase	-24.8
	363.2	382.4	211.2	263.2	249.2	308.2	484.2	404.3	Ampl.	333.2
	256.4	256.6	256.3	256.3	256.9	256.8	258.0	257.5	Sbd box	256.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	-2.32725000000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-2.32725E-03	+/-	9.5E-08
Sband delay (usec)	-3.77000000000E-04	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-3.77000E-04	+/-	7.5E-07
Phase delay (usec)	-8.01005387034E-07	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-8.01005E-07	+/-	3.2E-10
Delay rate (us/s)	-2.69251895442E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-2.69252E-11	+/-	3.1E-12
Total phase (deg)	-24.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-24.8	+/-	0.0

	RMS	Theor.	Amplitude	311.636 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	0.0	0.0	Search (1024X32)	309.086	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	0.1	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	21.8	0.0	Inc. seg. avg.	311.389	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	28.3	0.0	Inc. frq. avg.	333.233	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 B: az 320.0 el 36.8 pa 51.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

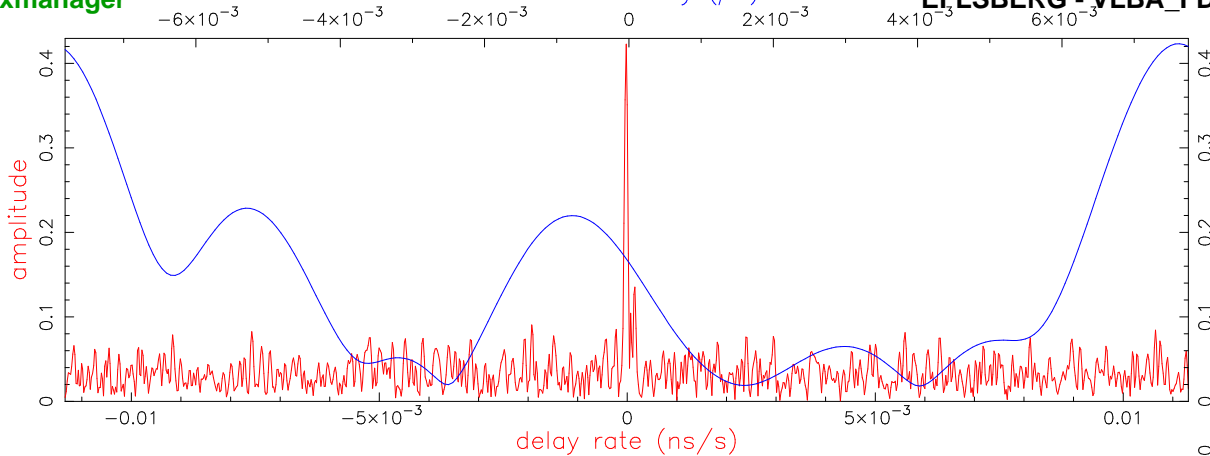
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BB..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BB.W.72.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILICX, No0055, Bf

EFLSBERG - VLBA\_FD, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 8

SNR 15.6

Int time 176.481

Amp 0.430

Phase -178.3

PFD 0.0e+00

Delays (us)

SBD 0.001623

MBD -0.007959

Fringe rate (Hz)

-0.002196

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Expt # 16383

Yr:day 2020:284

Start 060000.00

Stop 060300.22

FRT 060130.00

Corr/FF/build

2021:023:004536

2021:023:125026

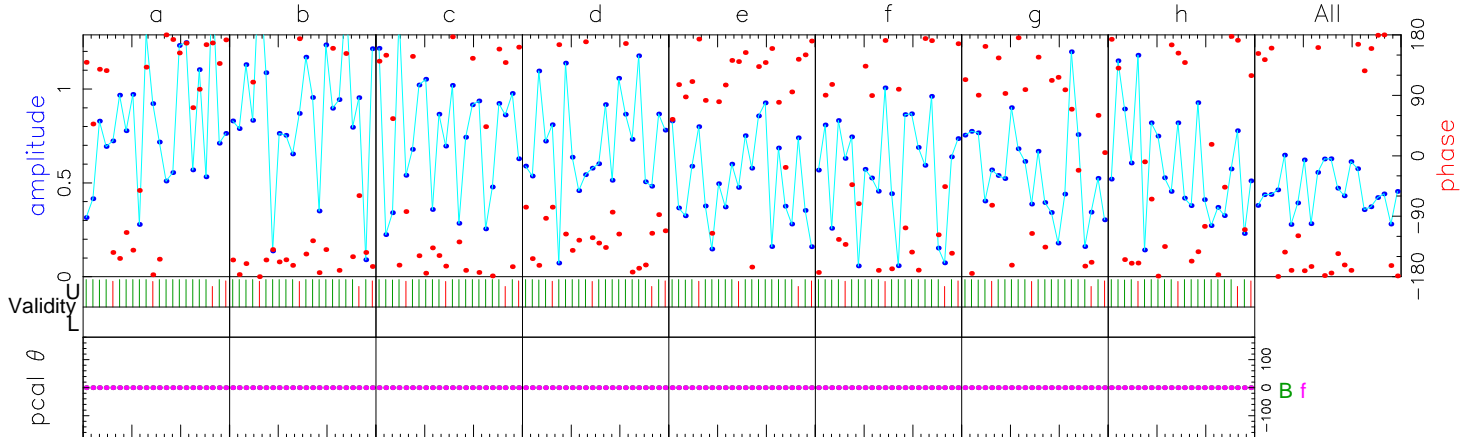
2020:247:085004

RA &amp; Dec (J2000)

01h02m45.762375s

+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	163.9	-165.7	179.6	-131.7	124.3	-169.7	129.8	-170.3	Phase	-178.3
B	0.6	0.8	0.6	0.6	0.4	0.4	0.2	0.4	Ampl.	0.5
f	257.5	257.6	257.8	258.1	257.9	257.1	258.4	259.1	Sbd box	257.4
B	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0	APs used	
B: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	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
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)	-5.96570908288E+03		Apriori delay (usec)	-5.96571674929E+03	Resid mbdelay (usec)	-7.95859E-03	+/-	7.0E-05		
Sband delay (usec)	-5.96571512629E+03		Apriori clock (usec)	2.2431860E+00	Resid sbdelay (usec)	1.62300E-03	+/-	5.5E-04		
Phase delay (usec)	-5.96571675504E+03		Apriori clockrate (us/s)	-5.999998E-07	Resid phdelay (usec)	-5.75067E-06	+/-	2.4E-07		
Delay rate (us/s)	-6.32036106785E-01		Apriori rate (us/s)	-6.32036081289E-01	Resid rate (us/s)	-2.54953E-08	+/-	2.3E-09		
Total phase (deg)	-100.5		Apriori accel (us/s/s)	5.69713233431E-05	Resid phase (deg)	-178.3	+/-	7.3		

	RMS	Theor.	Amplitude	0.430 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	25.1	17.2	Search (1024X32)	0.416	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	28.0	30.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	38.2	10.4	Inc. seg. avg.	0.442	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.3	18.1	Inc. frq. avg.	0.478	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9

f: az 11.6 el 61.2 pa -160.3

u,v (fr/asec) 6975.471 8488.494

simultaneous interpolator

Control file: cf\_1234\_gmva

Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bf..1ILICX

Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bf.W.14.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

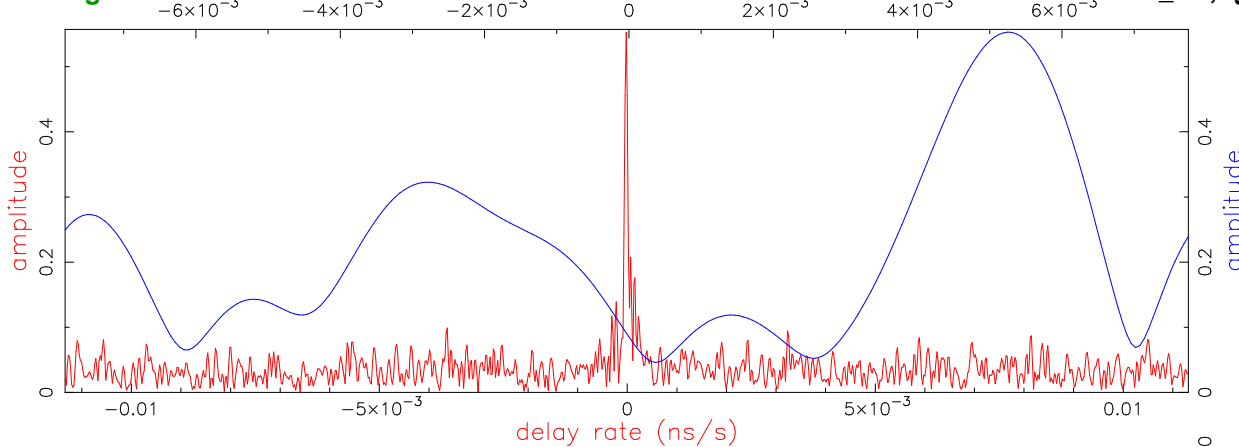
fxmanager

0102+584.1ILICX, No0055, Bf

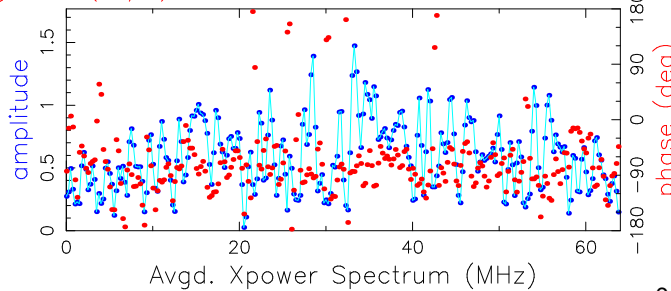
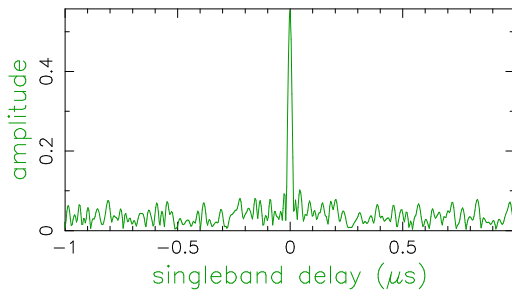
EFLSBERG - VLBA\_FD, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 8

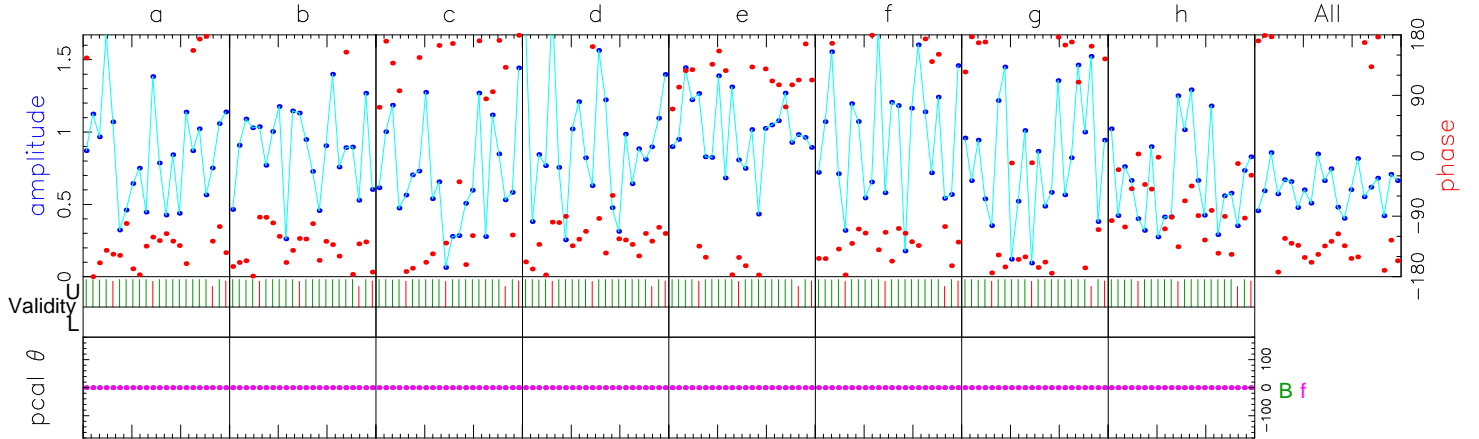


SNR 20.2  
Int time 176.481  
Amp 0.557  
Phase -155.3  
PFD 0.0e+00  
Delays (us)  
SBD -0.001214  
MBD 0.005222  
Fringe rate (Hz)  
-0.002067  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125028  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



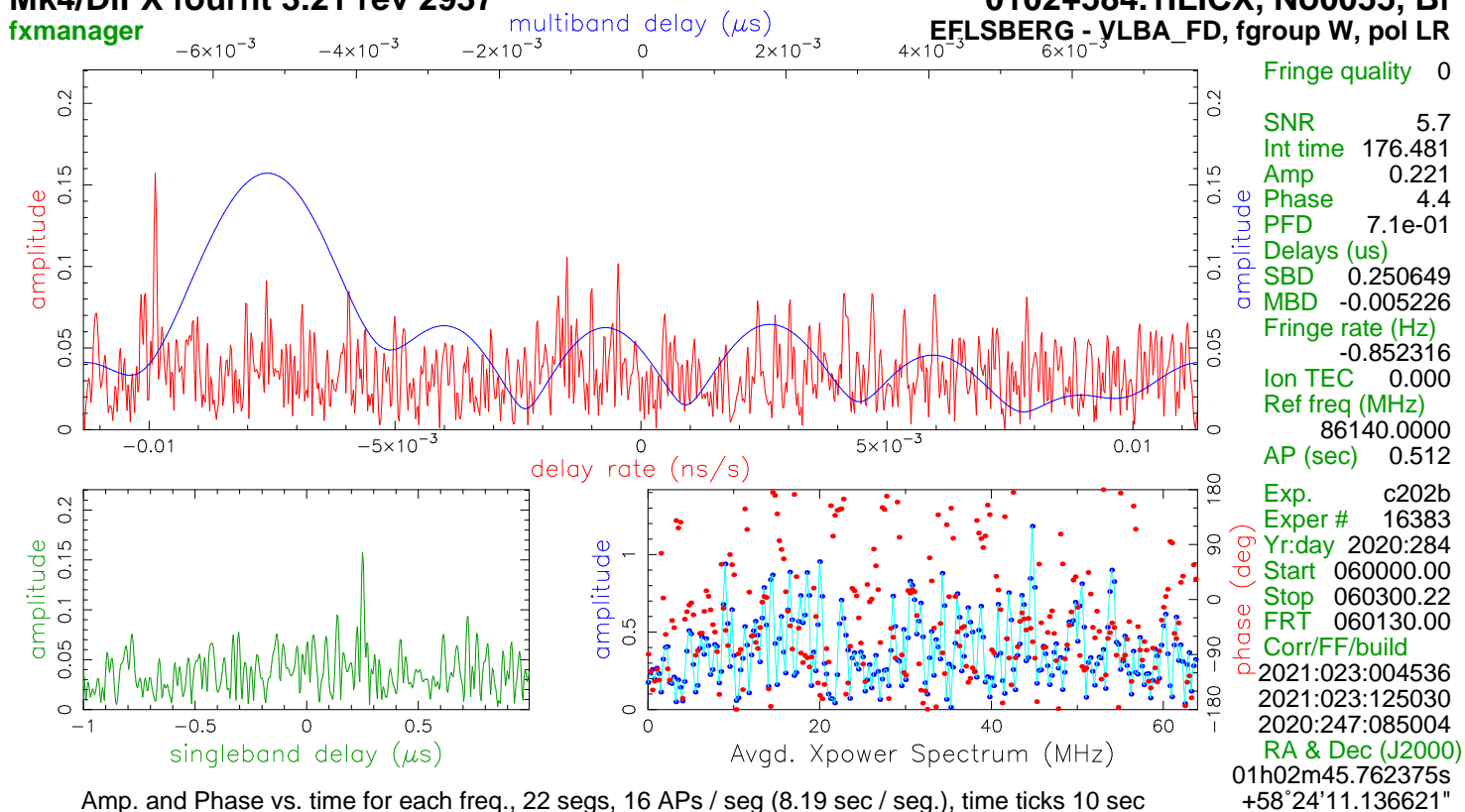
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:f	0:0	0:0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-5.96571152731E+03	Apriori delay (usec)	-5.96571674929E+03	Resid mbdelay (usec)	5.22198E-03	+/-	5.4E-05
Sband delay (usec)	-5.96571796304E+03	Apriori clock (usec)	2.2431860E+00	Resid sbdelay (usec)	-1.21375E-03	+/-	4.3E-04
Phase delay (usec)	-5.96571675430E+03	Apriori clockrate (us/s)	-5.9999998E-07	Resid phdelay (usec)	-5.00744E-06	+/-	1.8E-07
Delay rate (us/s)	-6.32036105290E-01	Apriori rate (us/s)	-6.32036081289E-01	Resid rate (us/s)	-2.40003E-08	+/-	1.8E-09
Total phase (deg)	-77.5	Apriori accel (us/s/s)	5.69713233431E-05	Resid phase (deg)	-155.3	+/-	5.7

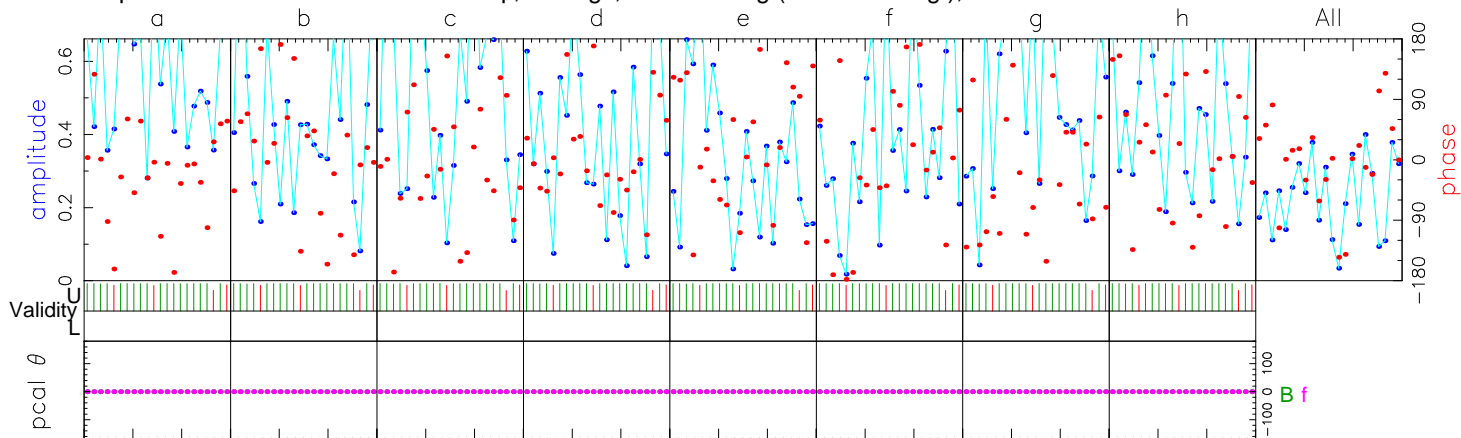
	RMS	Theor.	Amplitude	0.557 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	27.8	13.2	Search (1024X32)	0.550	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	25.4	23.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	48.3	8.0	Inc. seg. avg.	0.604	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	33.8	14.0	Inc. frq. avg.	0.698	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 f: az 11.6 el 61.2 pa -160.3 u,v (fr/asec) 6975.471 8488.494 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bf..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bf.W.31.1ILICX



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



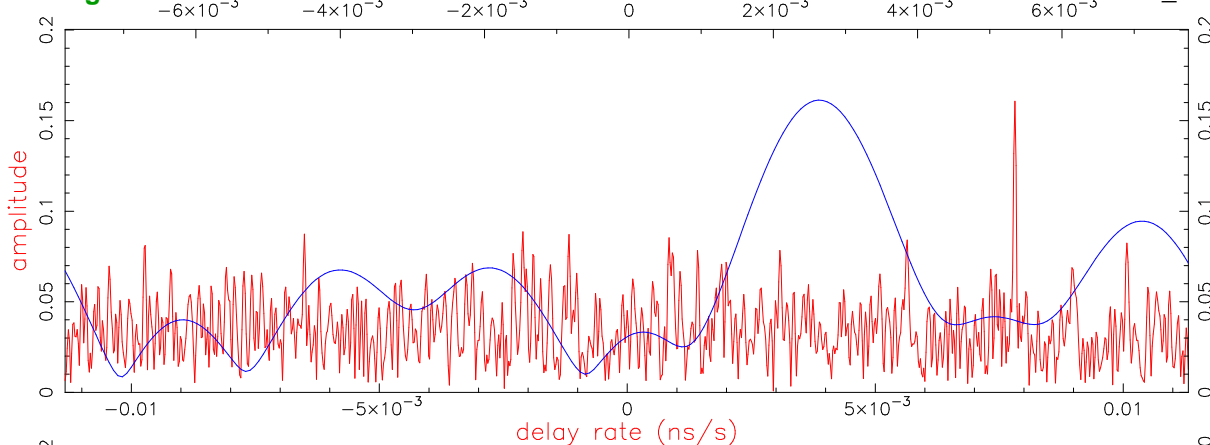
U/L B f B:f B:f B f B f	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-3.7	19.4	1.5	7.9	11.7	17.4	-64.2	15.4	Phase	4.4		
	0.4	0.3	0.2	0.3	0.1	0.2	0.1	0.2	Ampl.	0.2		
	320.4	415.3	148.5	57.7	187.0	227.9	305.9	151.1	Sbd box	321.2		
	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0	APs used			
	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Chan ids			
									Tracks			
Group delay (usec)(sbd)		-5.96547197489E+03		Apriori delay (usec)		-5.96571674929E+03		Resid mbdelay (usec)		-5.22560E-03	+/-	1.9E-04
Sband delay (usec)		-5.96546610054E+03		Apriori clock (usec)		2.2431860E+00		Resid sbdelay (usec)		2.50649E-01	+/-	1.5E-03
Phase delay (usec)		-5.96571674915E+03		Apriori clockrate (us/s)		-5.9999998E-07		Resid phdelay (usec)		1.41255E-07	+/-	6.5E-07
Delay rate (us/s)		-6.32045975836E-01		Apriori rate (us/s)		-6.32036081289E-01		Resid rate (us/s)		-9.89455E-06	+/-	6.2E-09
Total phase (deg)		-277.8		Apriori accel (us/s/s)		5.69713233431E-05		Resid phase (deg)		4.4	+/-	20.0
Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5												
Pcal rate: 0.000E+00, 0.000E+00 (us/s)												
Bits/sample: 2x2 SampCntNorm: enabled												
Sample rate(MSamp/s): 128												
Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite												
ion window (TEC) 0.00 0.00												
B: az 320.0 el 36.8 pa 51.9 f: az 11.6 el 61.2 pa -160.3 u,v (fr/asec) 6975.471 8488.494 simultaneous interpolator												
Control file: cf_1234.qmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0055/Bf.1.1LICX Output file: /Exps/c202b/v1/v1_3mm/1234/No0055/Bf.W.46.1LICX												

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fxmanager

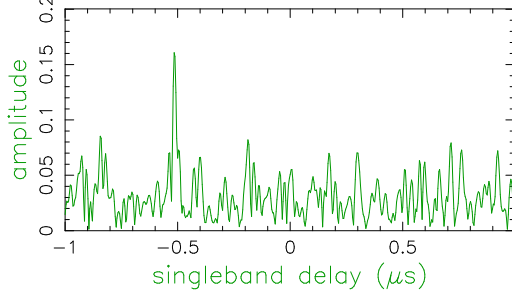
0102+584.1ILICX, No0055, Bf

EFLSBERG - VLBA\_FD, fgroup W, pol RL

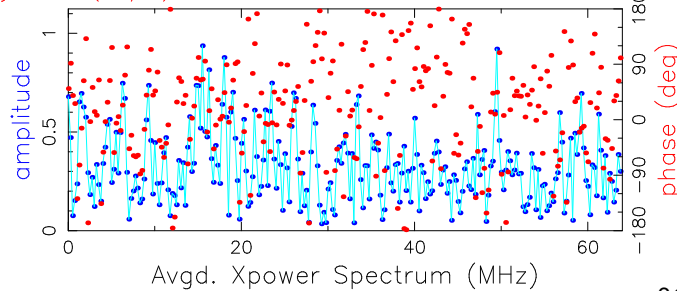
multiband delay ( $\mu$ s)

Fringe quality 0

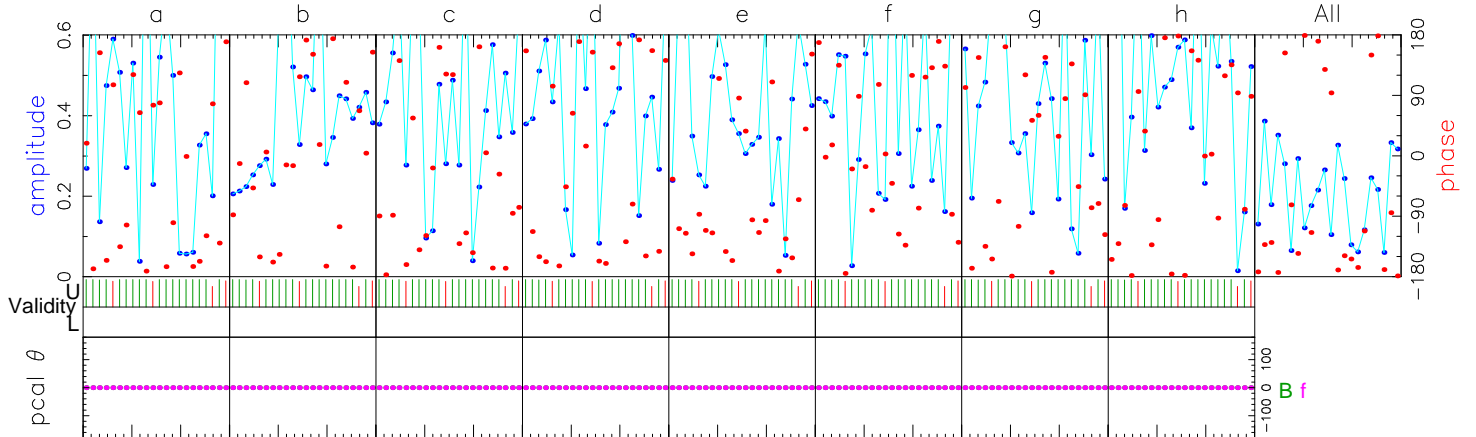
SNR 5.9  
 Int time 176.481  
 Amp 0.200  
 Phase -163.7  
 PFD 3.1e-01  
 Delays (us)  
 SBD -0.514094  
 MBD 0.002726  
 Fringe rate (Hz)  
 0.673704  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 060000.00  
 Stop 060300.22  
 FRT 060130.00  
 Corr/FF/build  
 2021:023:004536  
 2021:023:125032  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"



delay rate (ns/s)



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	170.5	174.0	-145.9	-172.0	-126.8	-118.6	161.8	175.3	Phase	-163.7
B	0.3	0.0	0.2	0.4	0.2	0.1	0.2	0.3	Ampl.	0.2
f	125.9	332.8	405.9	125.3	106.5	299.4	267.3	125.3	Sbd box	125.4
B:f	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0	APs used	
B: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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	-5.96622964833E+03	Apriori delay (usec)	-5.96571674929E+03	Resid mbdelay (usec)	2.72596E-03	+/-	1.8E-04
Sband delay (usec)	-5.96623084279E+03	Apriori clock (usec)	2.2431860E+00	Resid sbdelay (usec)	-5.14094E-01	+/-	1.5E-03
Phase delay (usec)	-5.96571675457E+03	Apriori clockrate (us/s)	-5.9999998E-07	Resid phdelay (usec)	-5.27777E-06	+/-	6.2E-07
Delay rate (us/s)	-6.32028260257E-01	Apriori rate (us/s)	-6.32036081289E-01	Resid rate (us/s)	7.82103E-06	+/-	6.0E-09
Total phase (deg)	-85.9	Apriori accel (us/s/s)	5.69713233431E-05	Resid phase (deg)	-163.7	+/-	19.3

	RMS	Theor.	Amplitude	0.200 +/- 0.034	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	44.6	45.1	Search (1024X32)	0.160	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	68.0	78.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	31.5	27.3	Inc. seg. avg.	0.195	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	56.2	47.7	Inc. frq. avg.	0.194	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 f: az 11.6 el 61.2 pa -160.3 u,v (fr/asec) 6975.471 8488.494 simultaneous interpolator

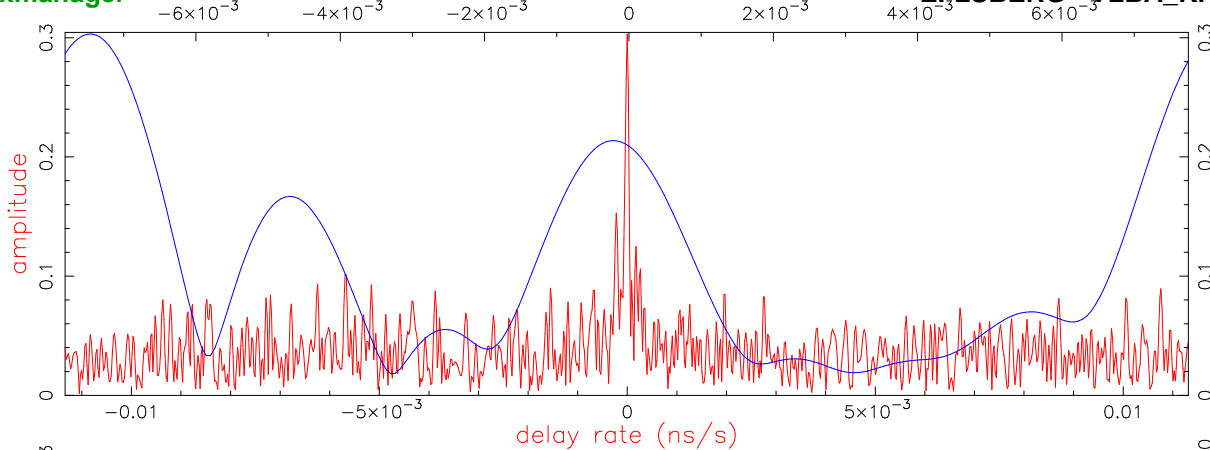
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bf.1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bf.W.65.1ILICX

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fxmanager

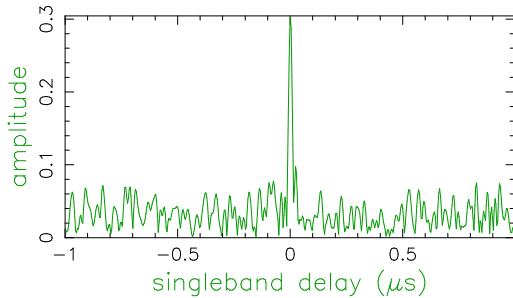
0102+584.1ILICX, No0055, Bk

EFLSBERG - VLBA\_KP, fgroup W, pol LL

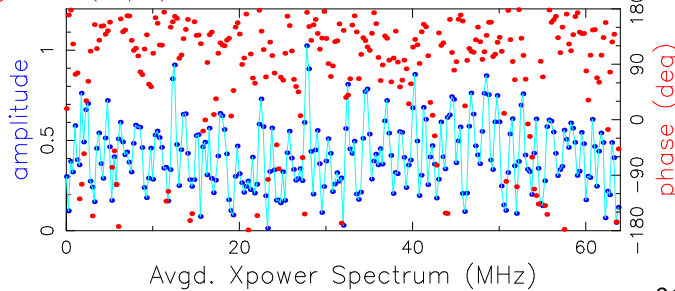
multiband delay ( $\mu$ s)

Fringe quality 9

SNR 11.1  
Int time 178.926  
Amp 0.304  
Phase -136.2  
PFD 2.0e-20  
Delays (us)  
SBD 0.000867  
MBD -0.007440  
Fringe rate (Hz)  
0.000553  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

singleband delay ( $\mu$ s)

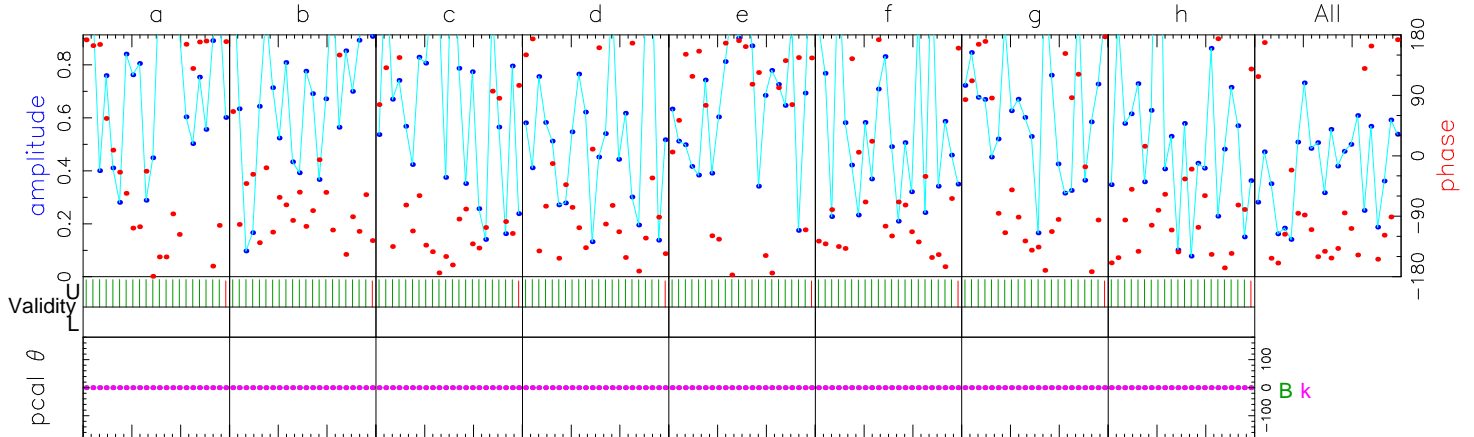
delay rate (ns/s)



Avgd. Xpower Spectrum (MHz)

Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125026  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	-149.1	-88.1	-153.2	-112.0	149.4	-126.8	-161.2	-106.4	Phase	-136.2
B	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.4	Ampl.	0.4
k	257.5	257.7	257.9	257.9	259.1	257.3	258.3	256.4	Sbd box	257.2
B:k	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B: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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
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)	-5.87692609266E+03	Apriori delay (usec)	-5.87693427775E+03	Resid mbdelay (usec)	-7.43991E-03	+/-	9.7E-05
Sband delay (usec)	-5.87693341050E+03	Apriori clock (usec)	9.7710934E+00	Resid sbdelay (usec)	8.67250E-04	+/-	7.7E-04
Phase delay (usec)	-5.87693428215E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-4.39084E-06	+/-	3.3E-07
Delay rate (us/s)	-7.19585461336E-01	Apriori rate (us/s)	-7.19585467757E-01	Resid rate (us/s)	6.42095E-09	+/-	3.2E-09
Total phase (deg)	-23.0	Apriori accel (us/s/s)	5.46430174039E-05	Resid phase (deg)	-136.2	+/-	10.3

	RMS	Theor.	Amplitude	0.304 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	50.5	24.1	Search (1024X32)	0.296	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	64.6	42.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	41.8	14.6	Inc. seg. avg.	0.383	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011 0.011
amp/frq (%)	28.7	25.4	Inc. frq. avg.	0.365	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 320.0 el 36.8 pa 51.9 k: az 19.6 el 60.7 pa -147.6 u,v (fr/asec) 7933.615 8094.489 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bk..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bk.W.12.1ILICX

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fxmanager

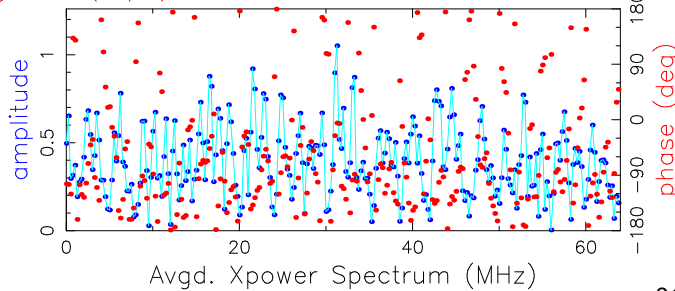
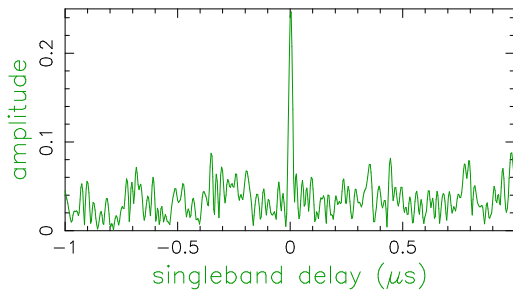
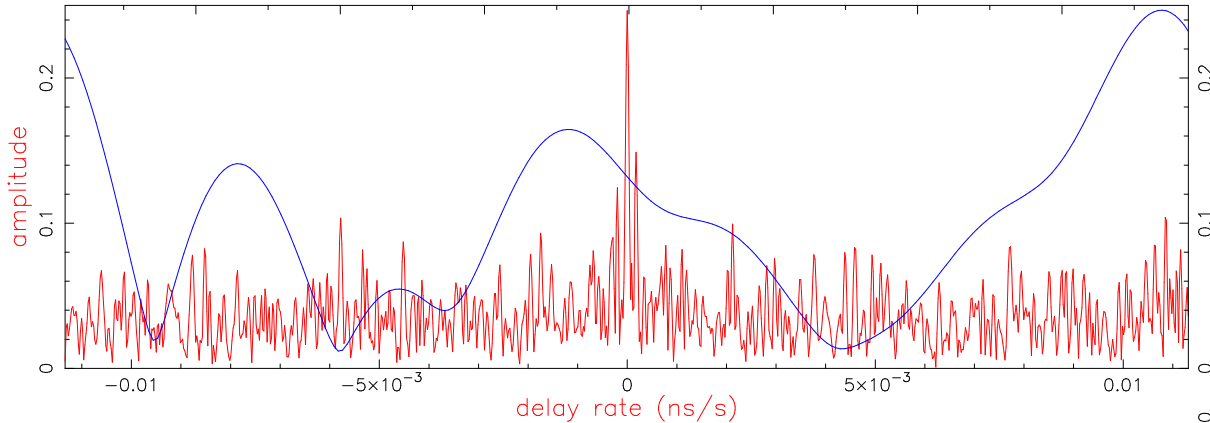
0102+584.1ILICX, No0055, Bk

EFLSBERG - VLBA\_KP, fgroup W, pol RR

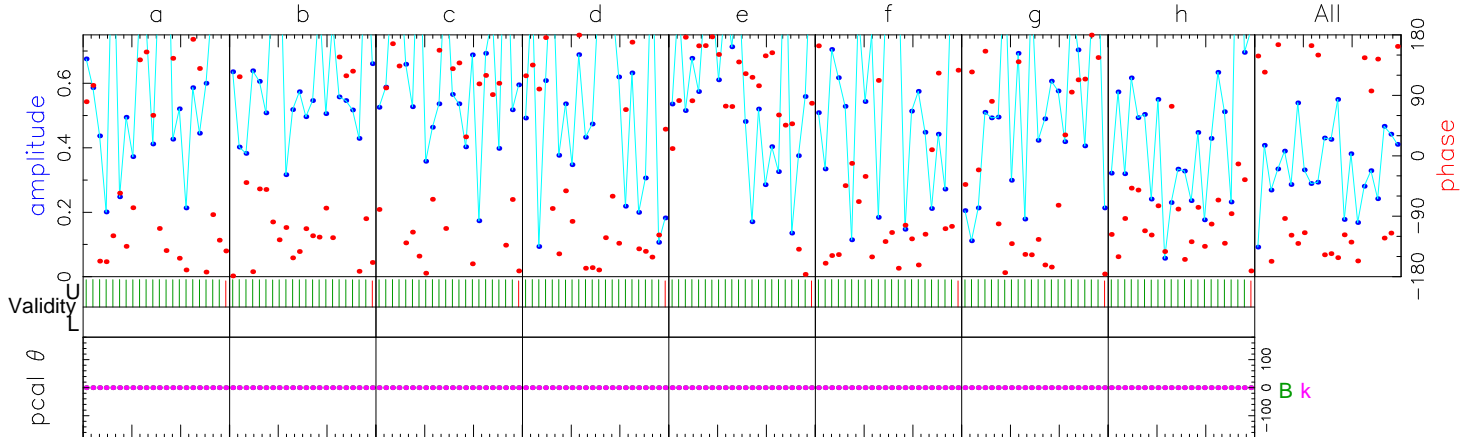
multiband delay ( $\mu$ s)

Fringe quality 9

SNR 9.1  
 Int time 178.925  
 Amp 0.250  
 Phase -157.6  
 PFD 1.2e-11  
 Delays (us)  
 SBD 0.002343  
 MBD 0.007325  
 Fringe rate (Hz)  
 0.000239  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 060000.00  
 Stop 060300.22  
 FRT 060130.00  
 Corr/FF/build  
 2021:023:004536  
 2021:023:125028  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-155.6	-129.9	-175.9	-149.7	114.0	-136.1	169.8	-85.2	Phase	-157.6
	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	Ampl.	0.3
	257.5	257.3	257.6	257.8	257.4	259.1	257.8	258.0	Sbd box	257.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.87692695307E+03		Apriori delay (usec)	-5.87693427775E+03	Resid mbdelay (usec)	7.32469E-03	+/-	1.2E-04		
Sband delay (usec)	-5.87693193475E+03		Apriori clock (usec)	9.7710934E+00	Resid sbdelay (usec)	2.34300E-03	+/-	9.4E-04		
Phase delay (usec)	-5.87693428284E+03		Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-5.08103E-06	+/-	4.0E-07		
Delay rate (us/s)	-7.19585464985E-01		Apriori rate (us/s)	-7.19585467757E-01	Resid rate (us/s)	2.77188E-09	+/-	3.9E-09		
Total phase (deg)	-44.4		Apriori accel (us/s/s)	5.46430174039E-05	Resid phase (deg)	-157.6	+/-	12.5		

RMS Theor. Amplitude 0.250 +/- 0.027  
 ph/seg (deg) 46.8 29.4 Search (1024X32) 0.246  
 amp/seg (%) 58.4 51.3 Interp. 0.000  
 ph/frq (deg) 51.3 17.7 Inc. seg. avg. 0.302  
 amp/frq (%) 38.3 30.9 Inc. frq. avg. 0.320

B: az 320.0 el 36.8 pa 51.9 k: az 19.6 el 60.7 pa -147.6 u,v (fr/asec) 7933.615 8094.489 simultaneous interpolator

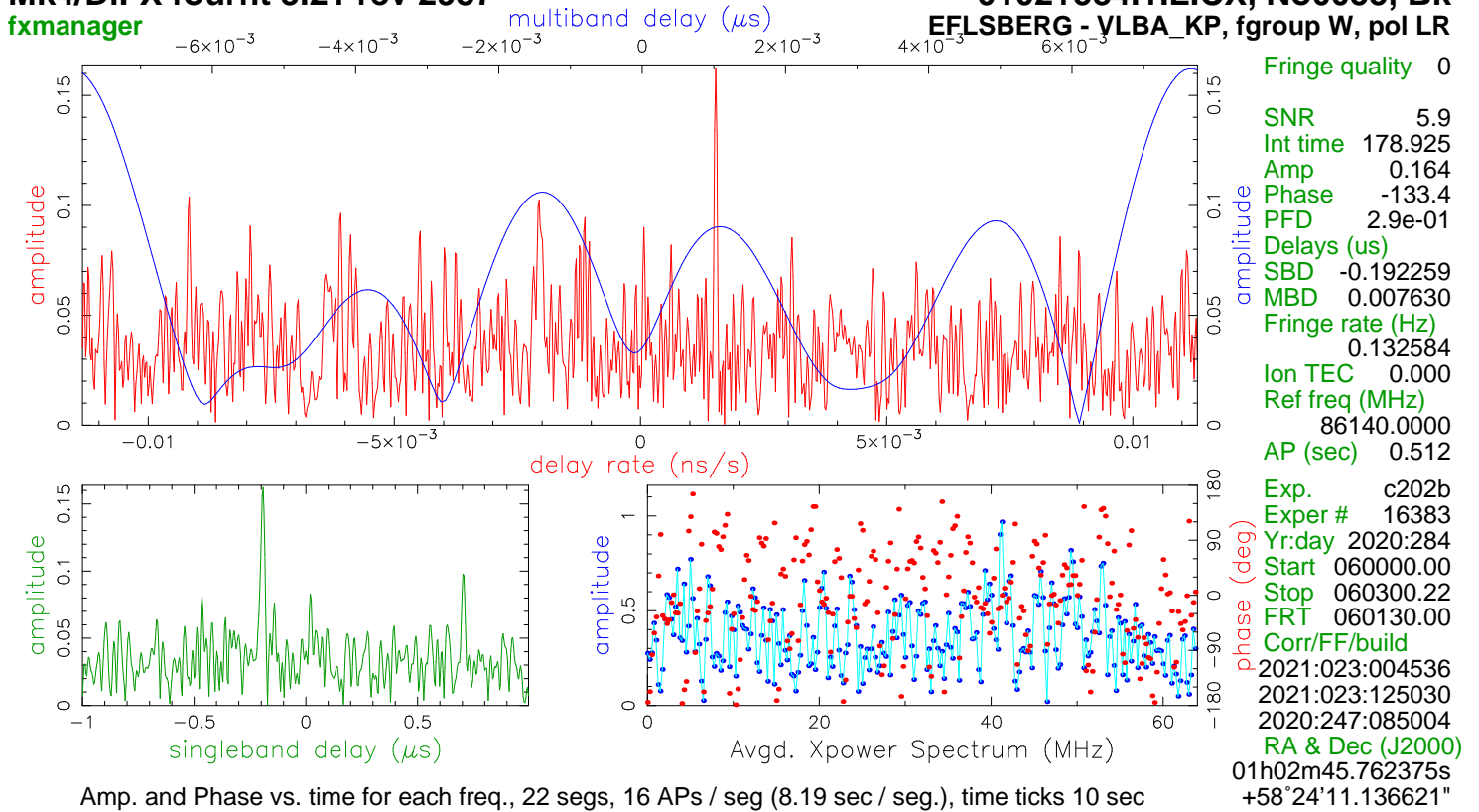
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bk..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bk.W.35.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

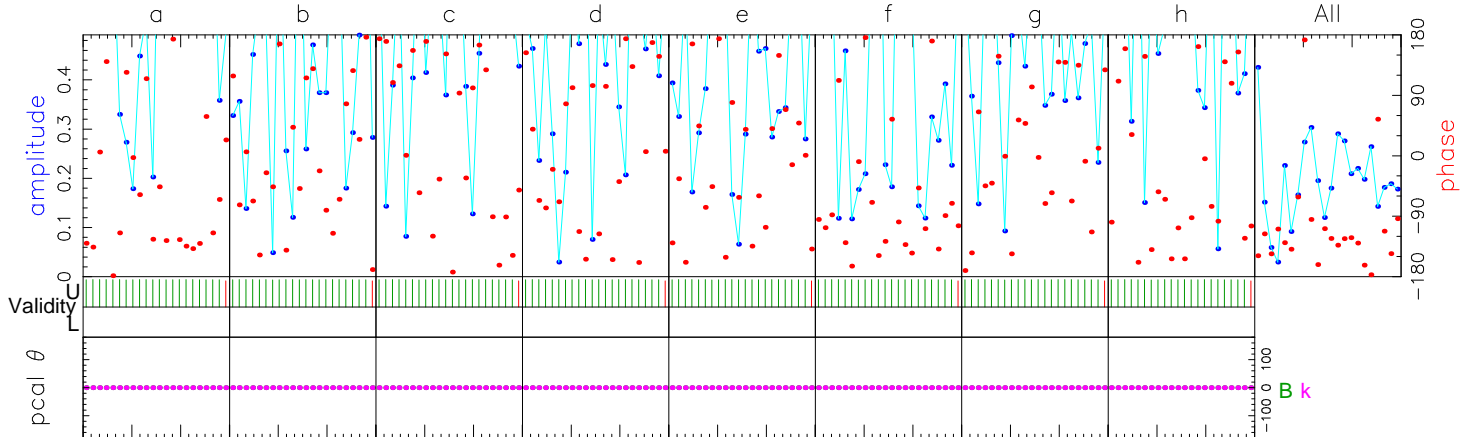
fxmanager

0102+584.1ILICX, No0055, Bk

EFLSBERG - VLBA\_KP, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-128.7	-112.6	-166.6	179.4	-97.9	-115.4	-7.3	-141.4	Phase	-133.4
	0.3	0.1	0.2	0.1	0.1	0.4	0.0	0.3	Ampl.	0.2
	208.0	85.8	371.5	65.9	165.9	207.5	44.5	207.9	Sbd box	207.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.87712977314E+03		Apriori delay (usec)	-5.87693427775E+03		Resid mbdelay (usec)	7.62961E-03	+/-	1.8E-04	
Sband delay (usec)	-5.87712653650E+03		Apriori clock (usec)	9.7710934E+00		Resid sbdelay (usec)	-1.92259E-01	+/-	1.4E-03	
Phase delay (usec)	-5.87693428206E+03		Apriori clockrate (us/s)	-2.9999999E-07		Resid phdelay (usec)	-4.30227E-06	+/-	6.2E-07	
Delay rate (us/s)	-7.19583928587E-01		Apriori rate (us/s)	-7.19585467757E-01		Resid rate (us/s)	1.53917E-06	+/-	6.0E-09	
Total phase (deg)	-20.3		Apriori accel (us/s/s)	5.46430174039E-05		Resid phase (deg)	-133.4	+/-	19.3	

RMS Theor. Amplitude 0.164 +/- 0.028

ph/seg (deg) 46.3 45.2 Search (1024X32) 0.152

amp/seg (%) 57.2 78.8 Interp. 0.000

ph/frq (deg) 59.6 27.2 Inc. seg. avg. 0.153

amp/frq (%) 68.3 47.5 Inc. frq. avg. 0.162

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 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 320.0 el 36.8 pa 51.9 k: az 19.6 el 60.7 pa -147.6 u,v (fr/asec) 7933.615 8094.489 simultaneous interpolator

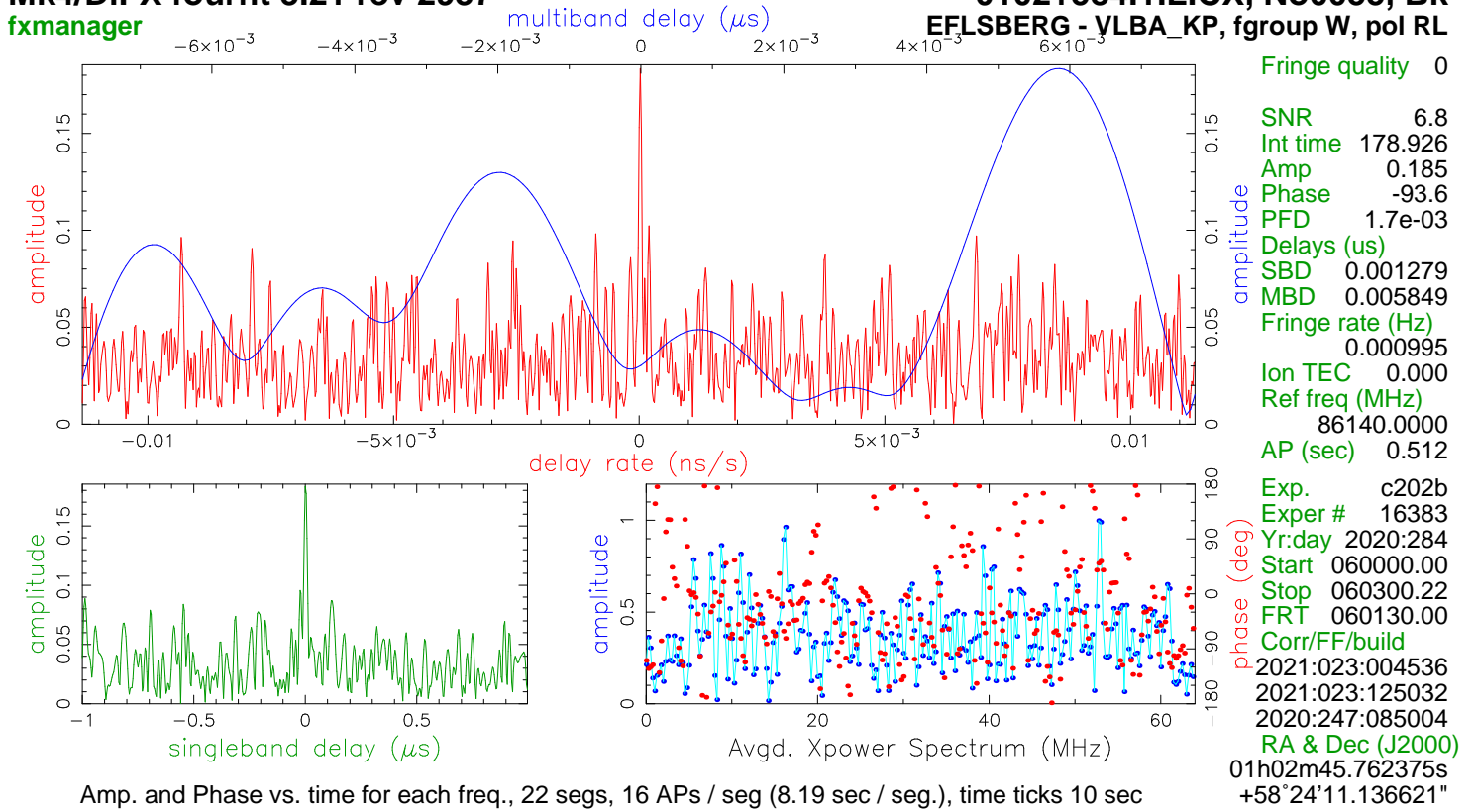
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bk..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bk.W.51.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

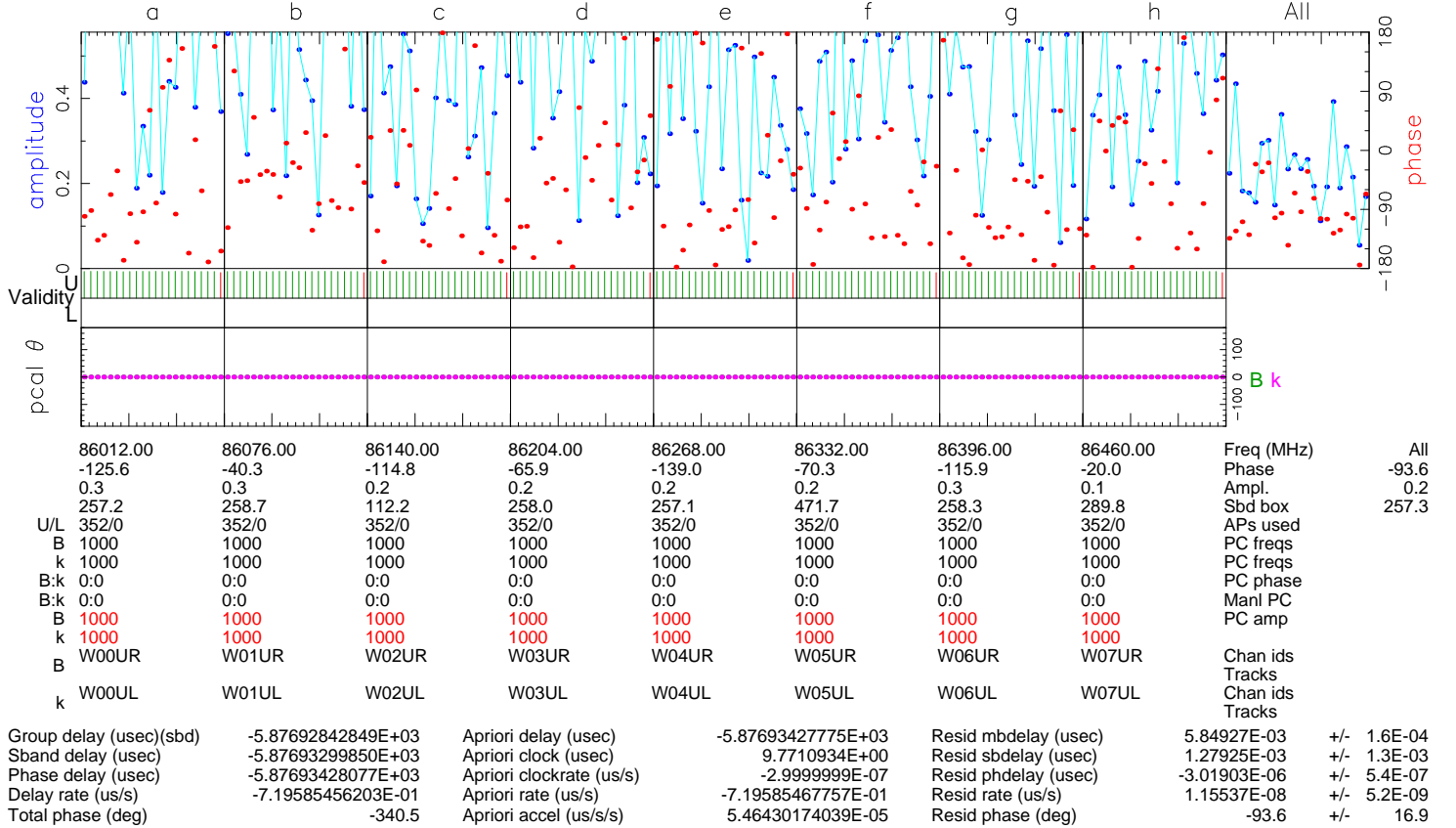
fxmanager

0102+584.1ILICX, No0055, Bk

EFLSBERG - VLBA\_KP, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

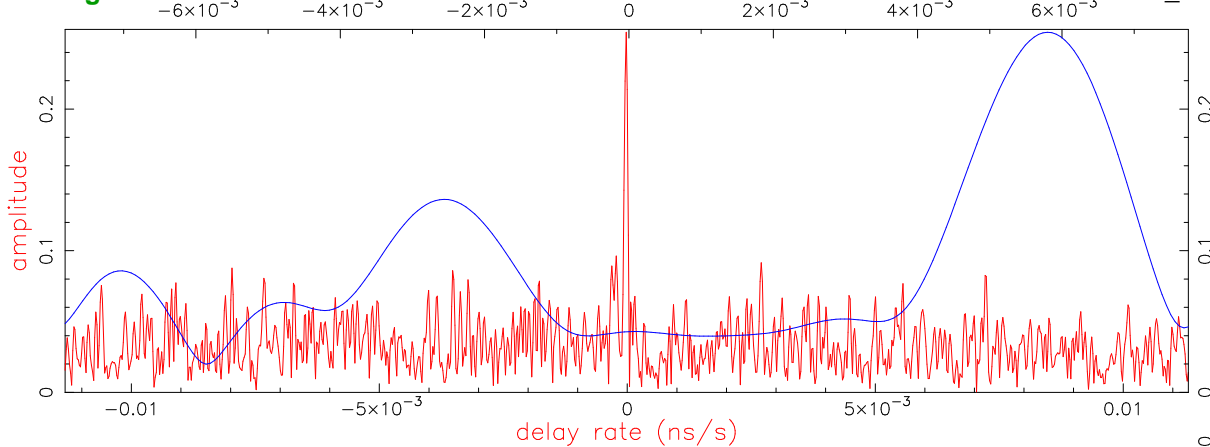
fxmanager

0102+584.1ILICX, No0055, BI

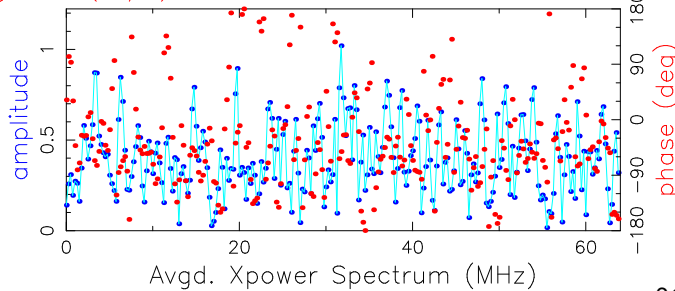
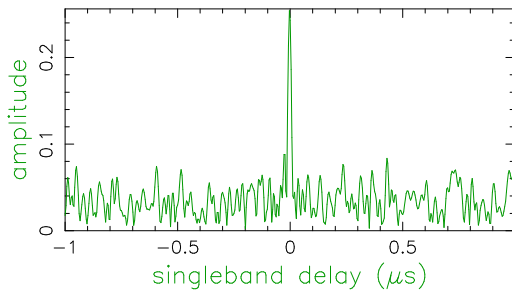
EFLSBERG - VLBA\_LA, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 9

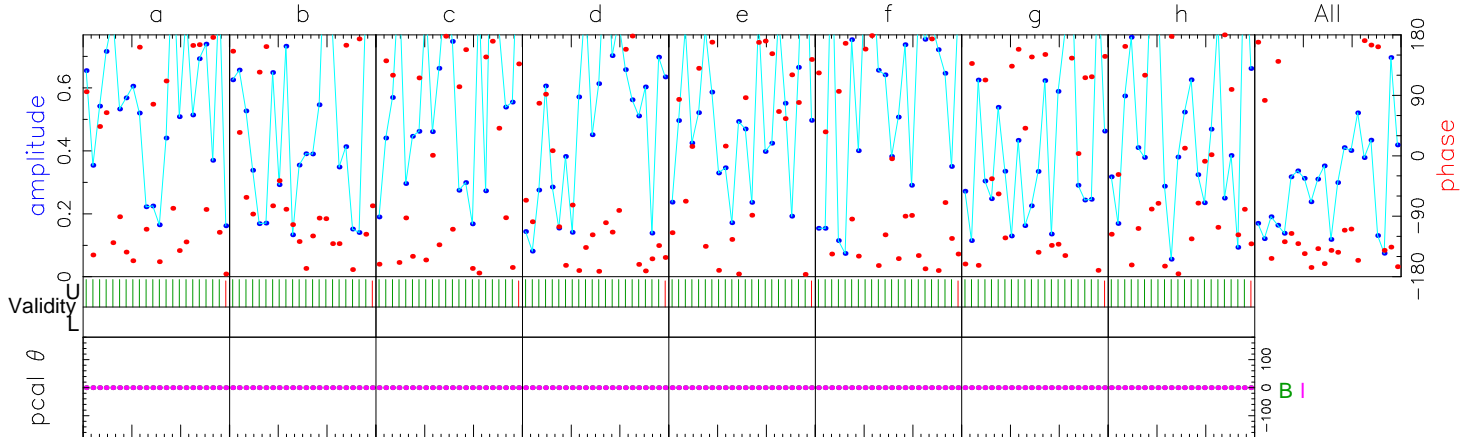


SNR 9.4  
Int time 179.777  
Amp 0.256  
Phase -151.1  
PFD 1.1e-12  
Delays (us)  
SBD -0.002813  
MBD 0.005828  
Fringe rate (Hz)  
-0.001285  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125027  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	-147.3	-106.9	-179.7	-143.5	148.7	-148.3	-179.7	-107.1	Phase	-151.1
B	0.3	0.3	0.4	0.3	0.2	0.4	0.2	0.3	Ampl.	0.3
I	289.8	256.8	256.4	256.8	257.8	257.1	257.9	258.5	Sbd box	256.3
B	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:I	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	
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	-6.70827945414E+03	Apriori delay (usec)	-6.70826965706E+03	Resid mbdelay (usec)	5.82792E-03	+/-	1.2E-04
Sband delay (usec)	-6.70827246981E+03	Apriori clock (usec)	1.0507030E+01	Resid sbdelay (usec)	-2.81275E-03	+/-	9.2E-04
Phase delay (usec)	-6.70826966193E+03	Apriori clockrate (us/s)	-9.9999998E-08	Resid phdelay (usec)	-4.87236E-06	+/-	3.9E-07
Delay rate (us/s)	-6.50875674058E-01	Apriori rate (us/s)	-6.50875659142E-01	Resid rate (us/s)	-1.49166E-08	+/-	3.8E-09
Total phase (deg)	-244.4	Apriori accel (us/s/s)	5.37463642266E-05	Resid phase (deg)	-151.1	+/-	12.2

	RMS	Theor.	Amplitude	0.256 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	39.7	28.6	Search (1024X32)	0.250	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	60.5	49.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	39.2	17.2	Inc. seg. avg.	0.264	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	30.6	30.1	Inc. frq. avg.	0.284	Data rate(Mb/s): 2048	lags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 I: az 16.5 el 65.7 pa -154.4 u,v (fr/asec) 7179.800 7726.921 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BI..1LICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BI.W.18.1LICX

Mk4/DiFX fourfit 3.21 rev 2937

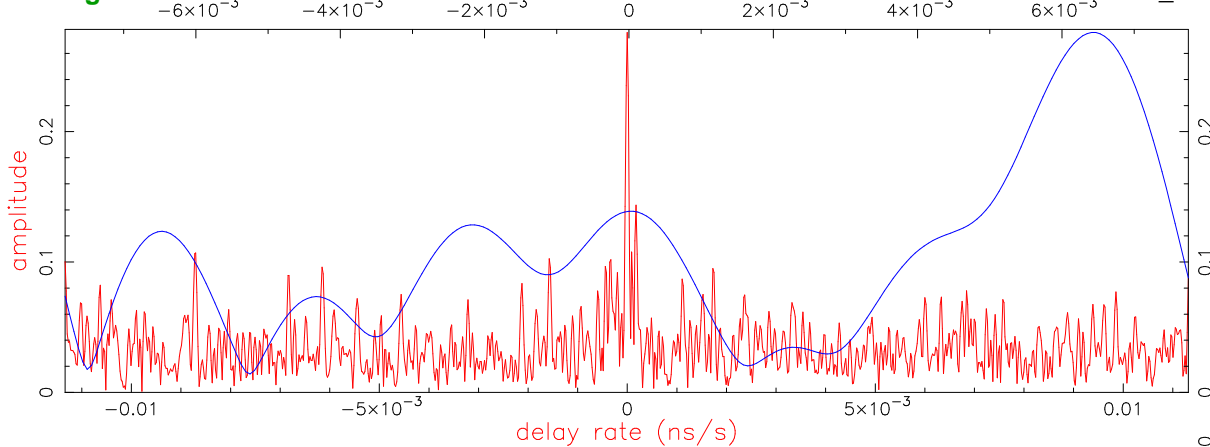
fxmanager

0102+584.1ILICX, No0055, BI

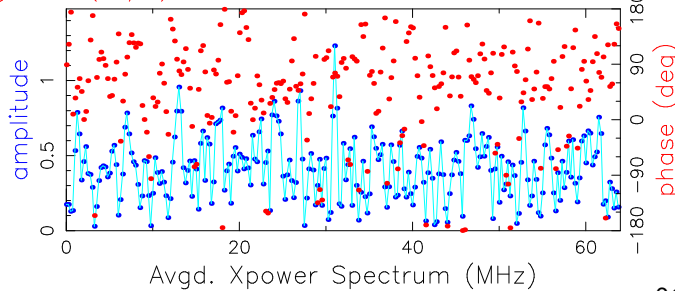
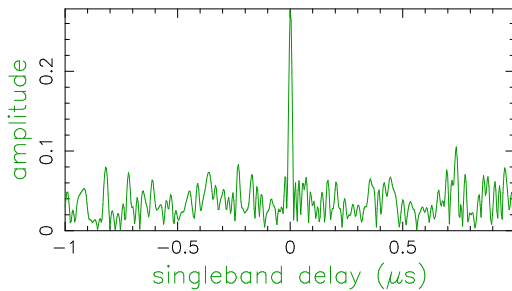
EFLSBERG - VLBA\_LA, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 9

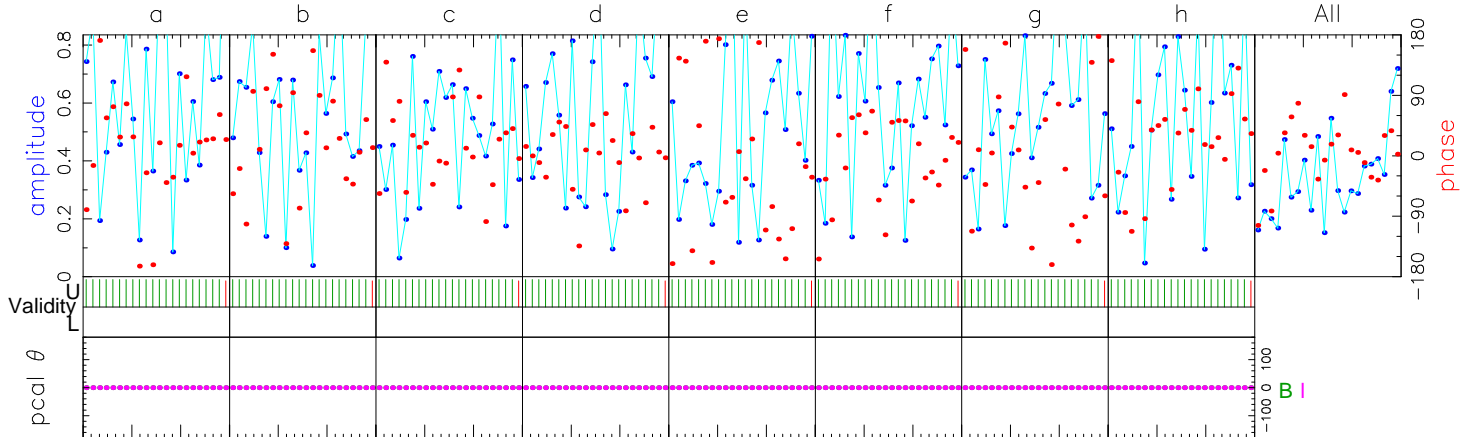


SNR 10.2  
Int time 179.777  
Amp 0.278  
Phase 9.6  
PFD 3.9e-16  
Delays (us)  
SBD 0.001123  
MBD 0.006473  
Fringe rate (Hz)  
-0.000552  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c202b  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125029  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	19.0	35.9	14.8	0.8	-83.0	1.0	-44.8	50.0	Phase	9.6
B	0.4	0.3	0.3	0.5	0.2	0.4	0.1	0.4	Ampl.	0.3
I	256.9	257.3	256.8	257.7	258.3	257.9	7.5	257.7	Sbd box	257.3
B	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:I	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	
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd) -6.70826318456E+03 Apriori delay (usec) -6.70826965706E+03 Resid mbdelay (usec) 6.47250E-03 +/- 1.1E-04  
Sband delay (usec) -6.70826853431E+03 Apriori clock (usec) 1.0507030E+01 Resid sbdelay (usec) 1.12275E-03 +/- 8.4E-04  
Phase delay (usec) -6.70826965675E+03 Apriori clockrate (us/s) -9.9999998E-08 Resid phdelay (usec) 3.10478E-07 +/- 3.6E-07  
Delay rate (us/s) -6.50875665550E-01 Apriori rate (us/s) -6.50875659142E-01 Resid rate (us/s) -6.40820E-09 +/- 3.5E-09  
Total phase (deg) -83.7 Apriori accel (us/s/s) 5.37463642266E-05 Resid phase (deg) 9.6 +/- 11.2

RMS Theor. Amplitude 0.278 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 45.3 26.3 Search (1024X32) 0.271 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
amp/seg (%) 58.7 45.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
ph/frq (deg) 48.5 15.9 Inc. seg. avg. 0.312 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011  
amp/frq (%) 40.6 27.7 Inc. frq. avg. 0.320 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 320.0 el 36.8 pa 51.9 I: az 16.5 el 65.7 pa -154.4 u,v (fr/asec) 7179.800 7726.921 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BI..1LICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BI.W.40.1LICX

Mk4/DiFX fourfit 3.21 rev 2937

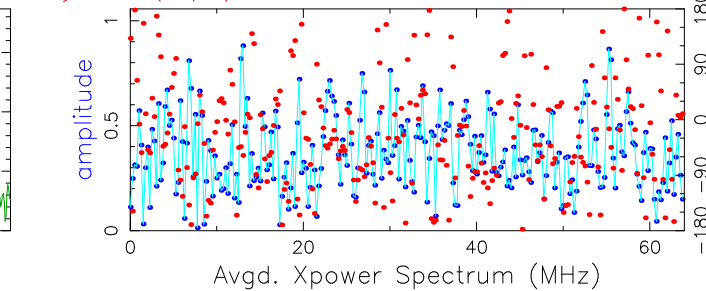
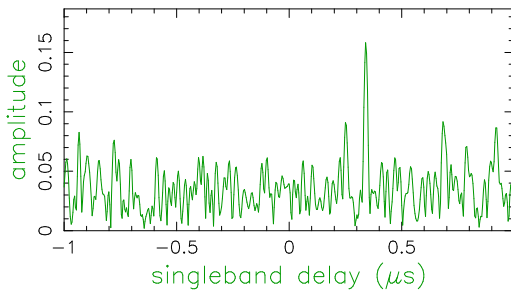
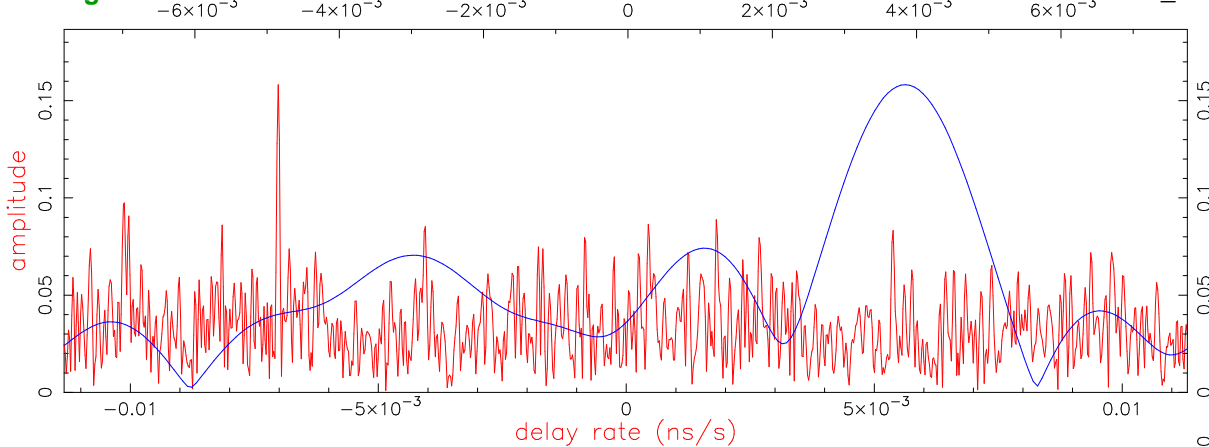
fxmanager

0102+584.1ILICX, No0055, BI

EFLSBERG - VLBA\_LA, fgroup W, pol LR

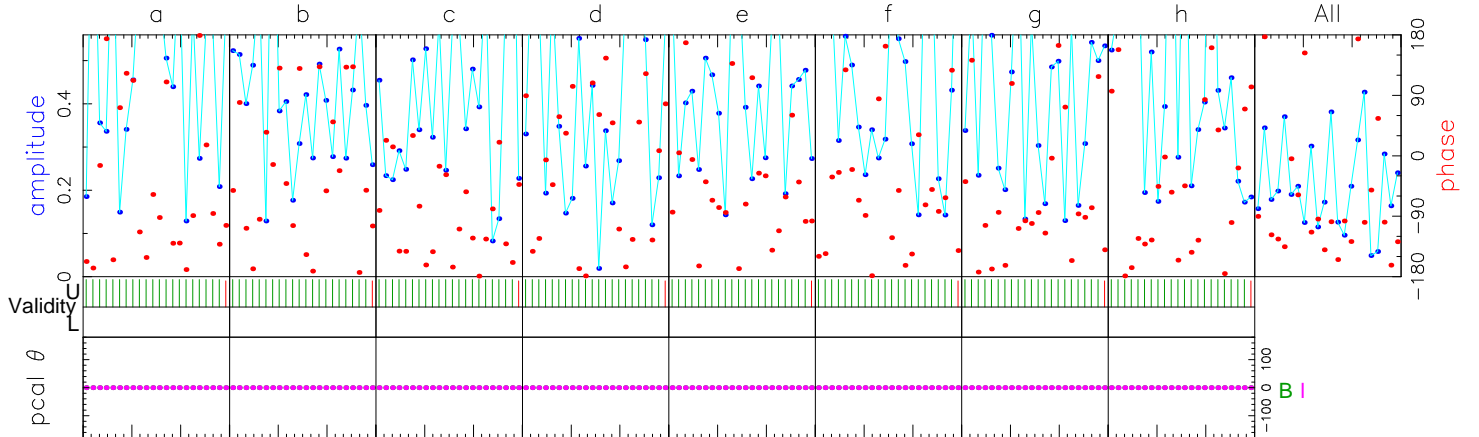
multiband delay ( $\mu$ s)

Fringe quality 0



SNR 5.8  
Int time 179.777  
Amp 0.187  
Phase -122.0  
PFD 5.4e-01  
Delays (us)  
SBD 0.340427  
MBD 0.003858  
Fringe rate (Hz)  
-0.605550  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125031  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	-129.8	-100.6	-116.3	168.2	-88.5	-107.9	-130.6	-140.6	Phase	-122.0
B	0.3	0.1	0.3	0.1	0.2	0.2	0.2	0.2	Ampl.	0.2
I	344.7	241.8	138.0	196.9	464.1	294.5	53.7	432.1	Sbd box	344.1
B	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:I	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	
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	-6.70792204883E+03	Apriori delay (usec)	-6.70826965706E+03	Resid mbdelay (usec)	3.85823E-03	+/-	1.9E-04
Sband delay (usec)	-6.70792923006E+03	Apriori clock (usec)	1.0507030E+01	Resid sbdelay (usec)	3.40427E-01	+/-	1.5E-03
Phase delay (usec)	-6.70826966099E+03	Apriori clockrate (us/s)	-9.9999998E-08	Resid phdelay (usec)	-3.93414E-06	+/-	6.4E-07
Delay rate (us/s)	-6.50882688981E-01	Apriori rate (us/s)	-6.50875659142E-01	Resid rate (us/s)	-7.02984E-06	+/-	6.1E-09
Total phase (deg)	-215.3	Apriori accel (us/s/s)	5.37463642266E-05	Resid phase (deg)	-122.0	+/-	19.7

	RMS	Theor.	Amplitude	0.187 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	59.2	46.2	Search (1024X32)	0.150	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	74.7	80.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	34.6	27.9	Inc. seg. avg.	0.191	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	40.4	48.7	Inc. frq. avg.	0.181	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 I: az 16.5 el 65.7 pa -154.4 u,v (fr/asec) 7179.800 7726.921 simultaneous interpolator

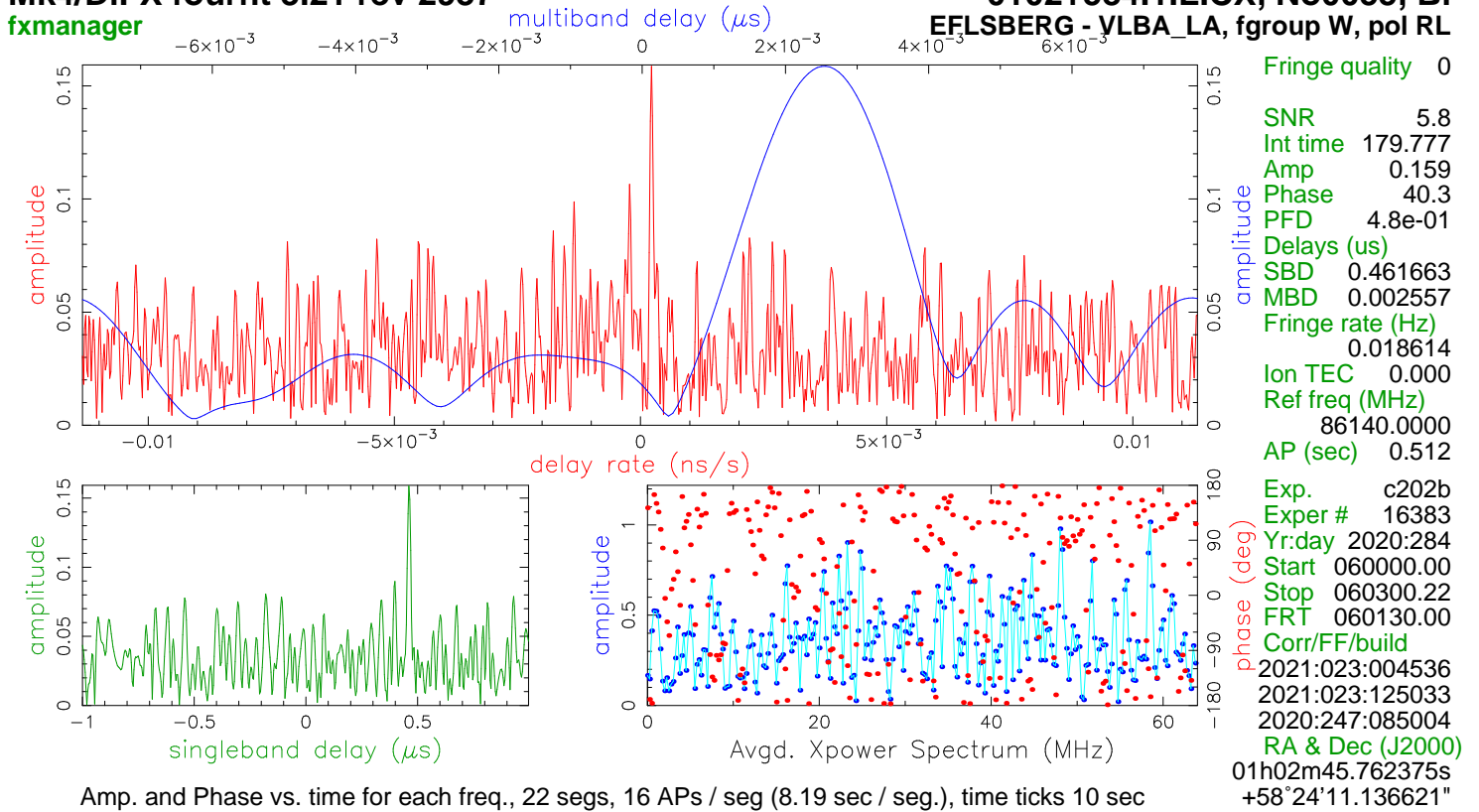
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BI..1LICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BI.W.62.1LICX

Mk4/DiFX fourfit 3.21 rev 2937

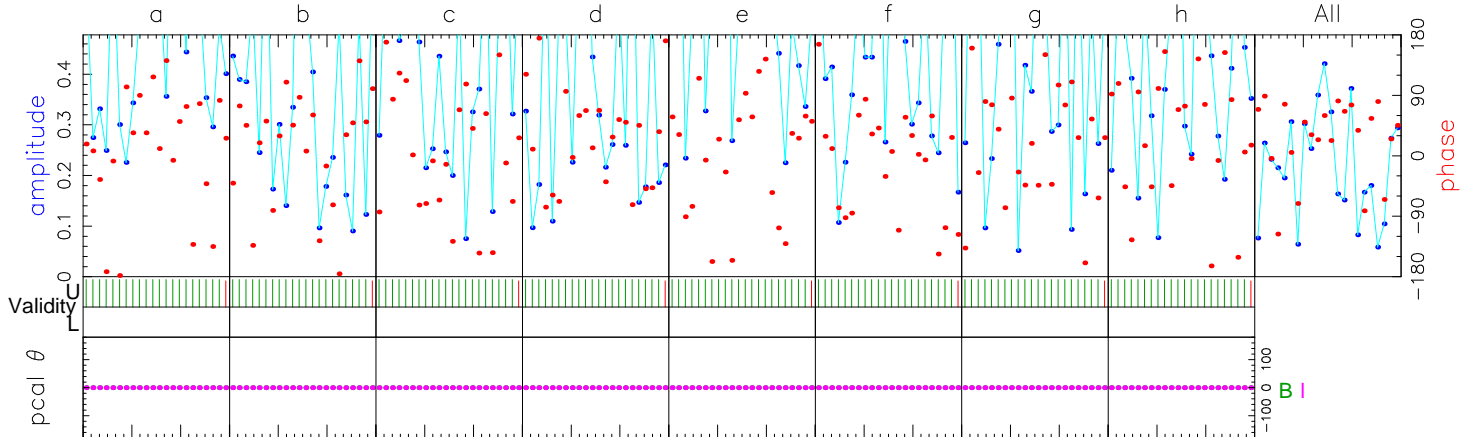
fxmanager

0102+584.1ILICX, No0055, BI

EFLSBERG - VLBA\_LA, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	41.0	60.4	36.2	19.0	51.4	16.3	35.1	73.1	Phase	40.3
B	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	Ampl.	0.1
I	188.2	298.0	441.1	496.8	341.1	373.4	39.4	353.9	Sbd box	375.2
B	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:I	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	
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-6.70781397497E+03		Apriori delay (usec)	-6.70826965706E+03	Resid mbdelay (usec)	2.55709E-03	+/-	1.9E-04		
Sband delay (usec)	-6.70780799456E+03		Apriori clock (usec)	1.0507030E+01	Resid sbdelay (usec)	4.61663E-01	+/-	1.5E-03		
Phase delay (usec)	-6.70826965576E+03		Apriori clockrate (us/s)	-9.9999998E-08	Resid phdelay (usec)	1.30018E-06	+/-	6.3E-07		
Delay rate (us/s)	-6.50875443057E-01		Apriori rate (us/s)	-6.50875659142E-01	Resid rate (us/s)	2.16085E-07	+/-	6.1E-09		
Total phase (deg)	-53.0		Apriori accel (us/s/s)	5.37463642266E-05	Resid phase (deg)	40.3	+/-	19.6		

ph/seg (deg) 59.4 46.0 Amplitude 0.159 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 75.6 80.3 Search (1024X32) 0.157 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 21.1 27.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 25.3 48.4 Inc. seg. avg. 0.167 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011

B: az 320.0 el 36.8 pa 51.9 I: az 16.5 el 65.7 pa -154.4 u,v (fr/asec) 7179.800 7726.921 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/c202b/v1/v1\_3mm/1234/No0055/BI..1LICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BI.W.75.1LICX simultaneous interpolator

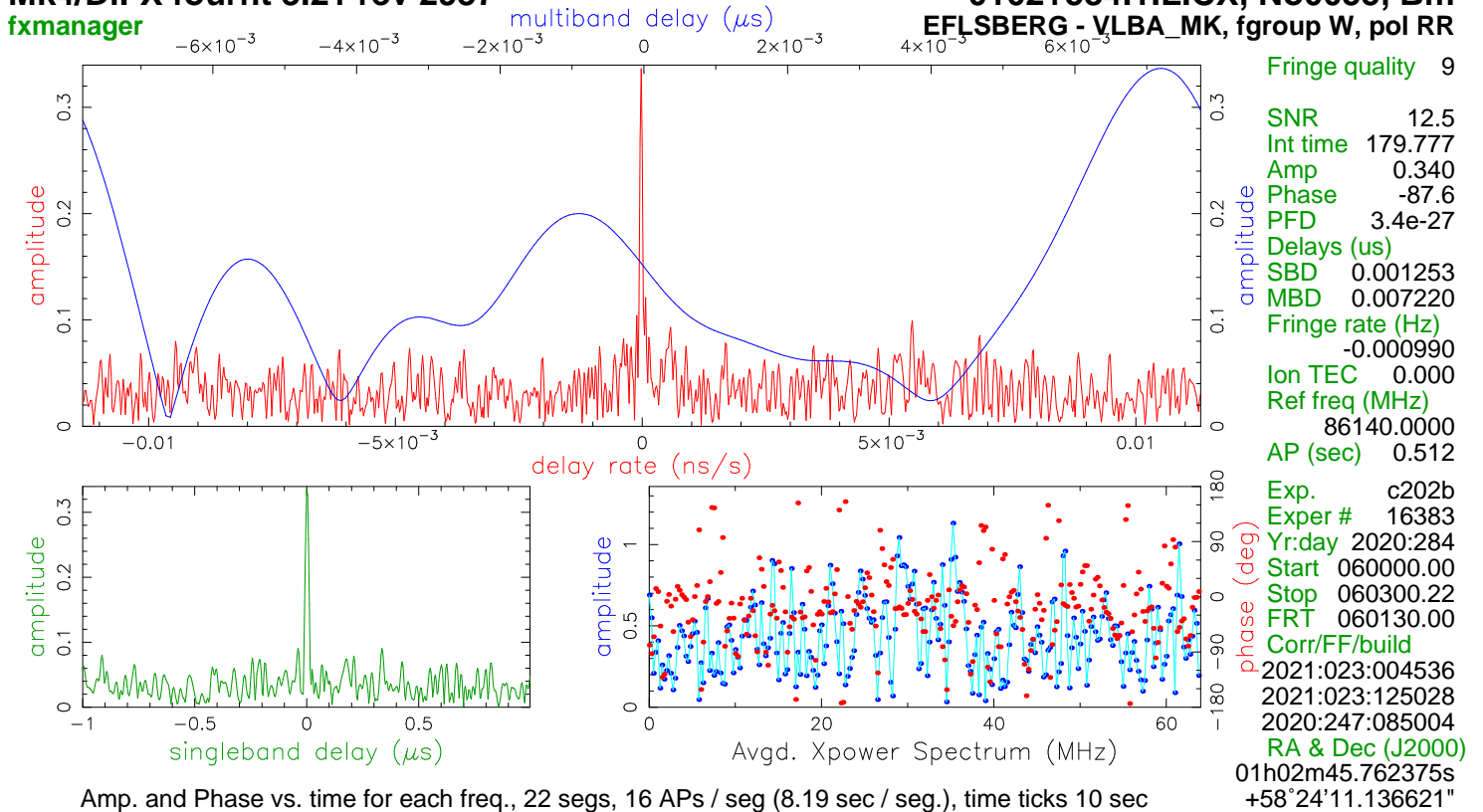


Mk4/DiFX fourfit 3.21 rev 2937

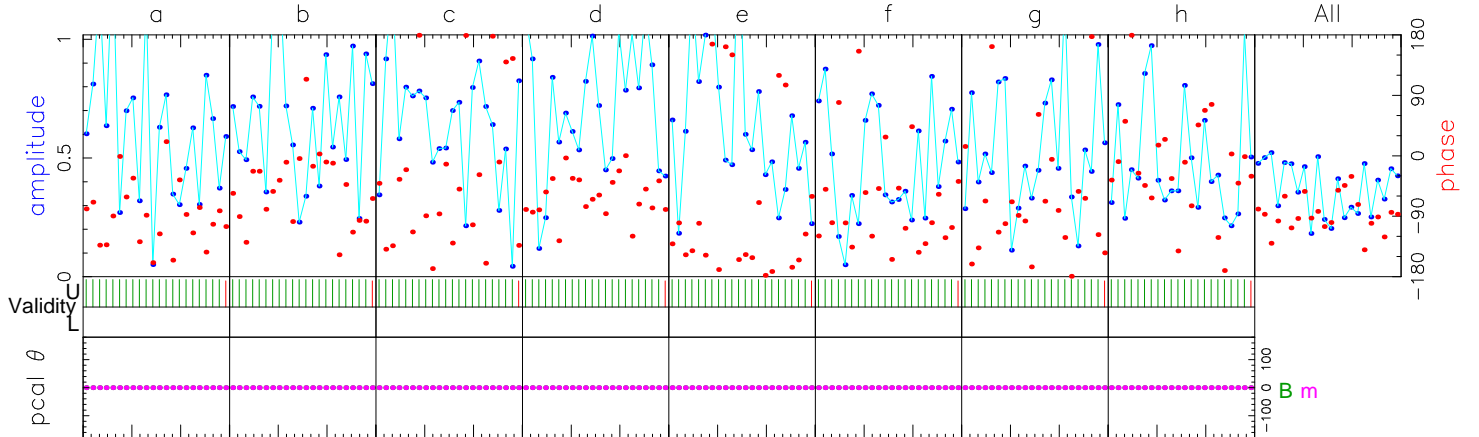
fxmanager

0102+584.1ILICX, No0055, Bm

EFLSBERG - VLBA\_MK, fgroup W, pol RR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-92.8	-54.4	-109.8	-59.6	-153.3	-92.1	-109.0	-20.9	Phase	-87.6
	0.5	0.5	0.4	0.6	0.5	0.3	0.3	0.3	Ampl.	0.4
	257.0	256.8	257.4	257.2	257.4	257.8	258.9	258.3	Sbd box	257.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
B:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
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	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.58260495617E+03	Apriori delay (usec)	1.58259773616E+03	Resid mbdelay (usec)	7.22001E-03	+/-	8.7E-05
Sband delay (usec)	1.58259898941E+03	Apriori clock (usec)	-3.2589071E+00	Resid sbdelay (usec)	1.25325E-03	+/-	6.9E-04
Phase delay (usec)	1.58259773333E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-2.82527E-06	+/-	3.0E-07
Delay rate (us/s)	-1.17995658404E+00	Apriori rate (us/s)	-1.17995657255E+00	Resid rate (us/s)	-1.14886E-08	+/-	2.9E-09
Total phase (deg)	269.8	Apriori accel (us/s/s)	3.31954183145E-05	Resid phase (deg)	-87.6	+/-	9.2

ph/seg (deg)	26.6	Theor.	21.6	Amplitude	0.340 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	33.7		37.7	Search (1024X32)	0.319	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	44.1		13.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.6		22.7	Inc. seg. avg.	0.351	Sample rate(MSamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.410	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 320.0 el 36.8 pa 51.9 m: az 32.7 el 31.2 pa -103.2 u,v (fr/asec) 12962.755 6201.490 simultaneous interpolator

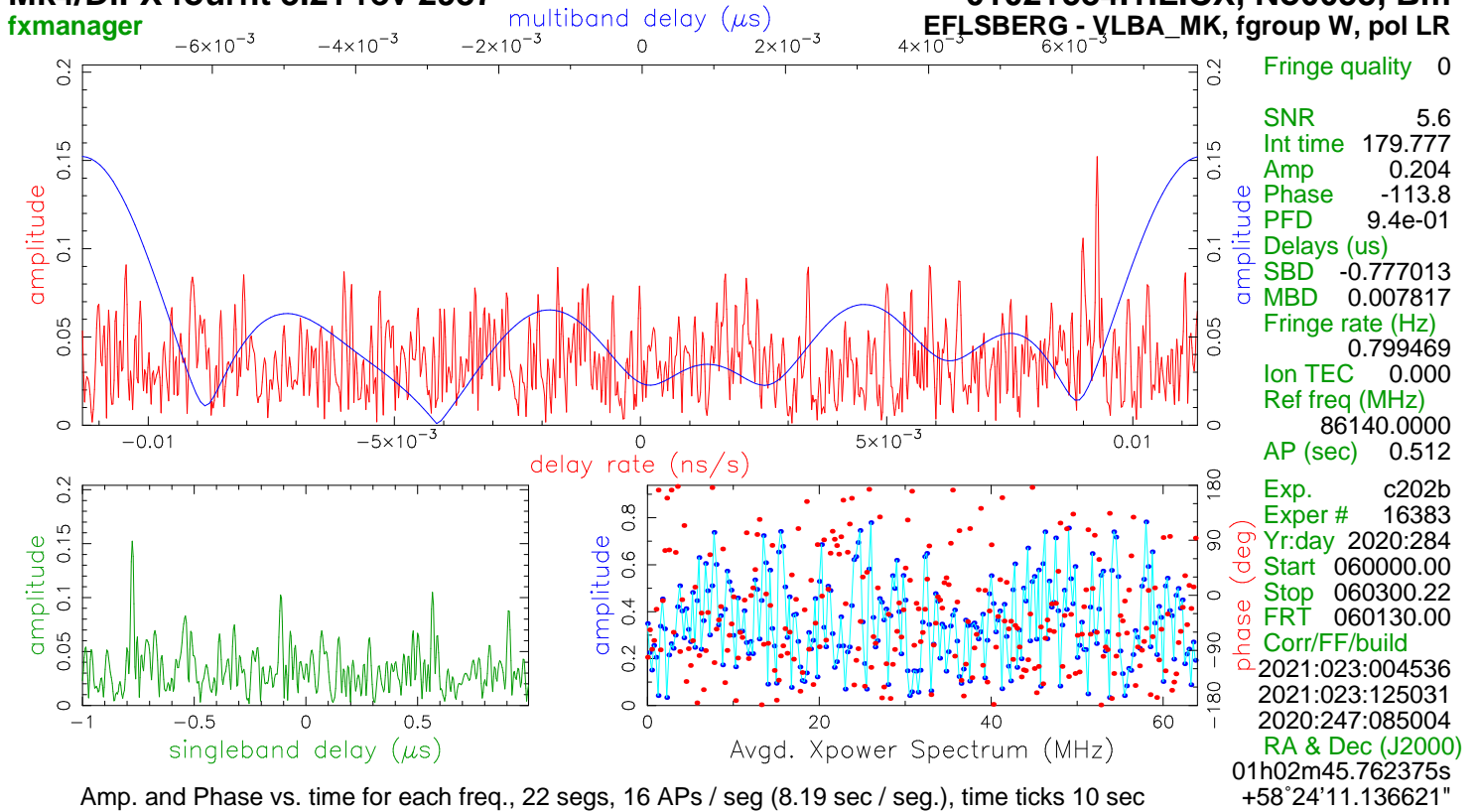
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bm..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bm.W.34.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

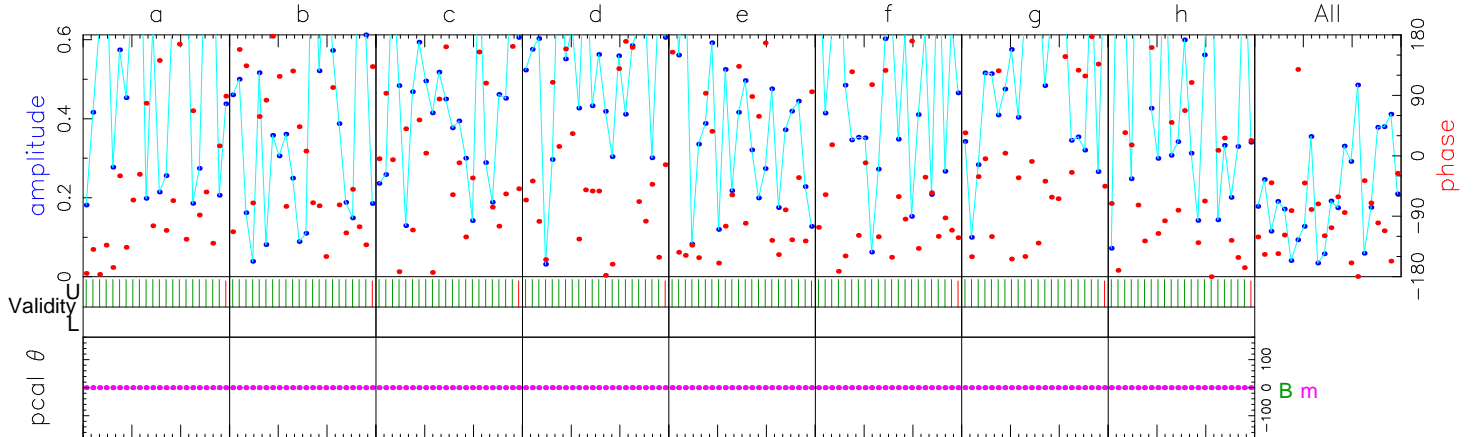
fxmanager

0102+584.1ILICX, No0055, Bm

EFLSBERG - VLBA\_MK, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-111.4	-126.3	-87.2	-81.9	-150.3	-115.6	-85.6	-125.6	Phase	-113.8
	0.4	0.2	0.0	0.2	0.2	0.4	0.2	0.2	Ampl.	0.2
	61.9	116.6	214.8	448.0	27.7	57.5	341.8	76.1	Sbd box	58.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.58182430293E+03	Apriori delay (usec)	1.58259773616E+03	Resid mbdelay (usec)	7.81677E-03	+/-	1.9E-04
Sband delay (usec)	1.58182072316E+03	Apriori clock (usec)	-3.2589071E+00	Resid sbdelay (usec)	-7.77013E-01	+/-	1.5E-03
Phase delay (usec)	1.58259773249E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-3.67045E-06	+/-	6.6E-07
Delay rate (us/s)	-1.17994729151E+00	Apriori rate (us/s)	-1.17995657255E+00	Resid rate (us/s)	9.28104E-06	+/-	6.4E-09
Total phase (deg)	243.6	Apriori accel (us/s/s)	3.31954183145E-05	Resid phase (deg)	-113.8	+/-	20.5

	RMS	Theor.	Amplitude	0.204 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	51.4	48.1	Search (1024X32)	0.149	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	92.9	84.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	26.3	29.0	Inc. seg. avg.	0.212	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	48.9	50.6	Inc. frq. avg.	0.192	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 m: az 32.7 el 31.2 pa -103.2 u,v (fr/asec) 12962.755 6201.490 simultaneous interpolator

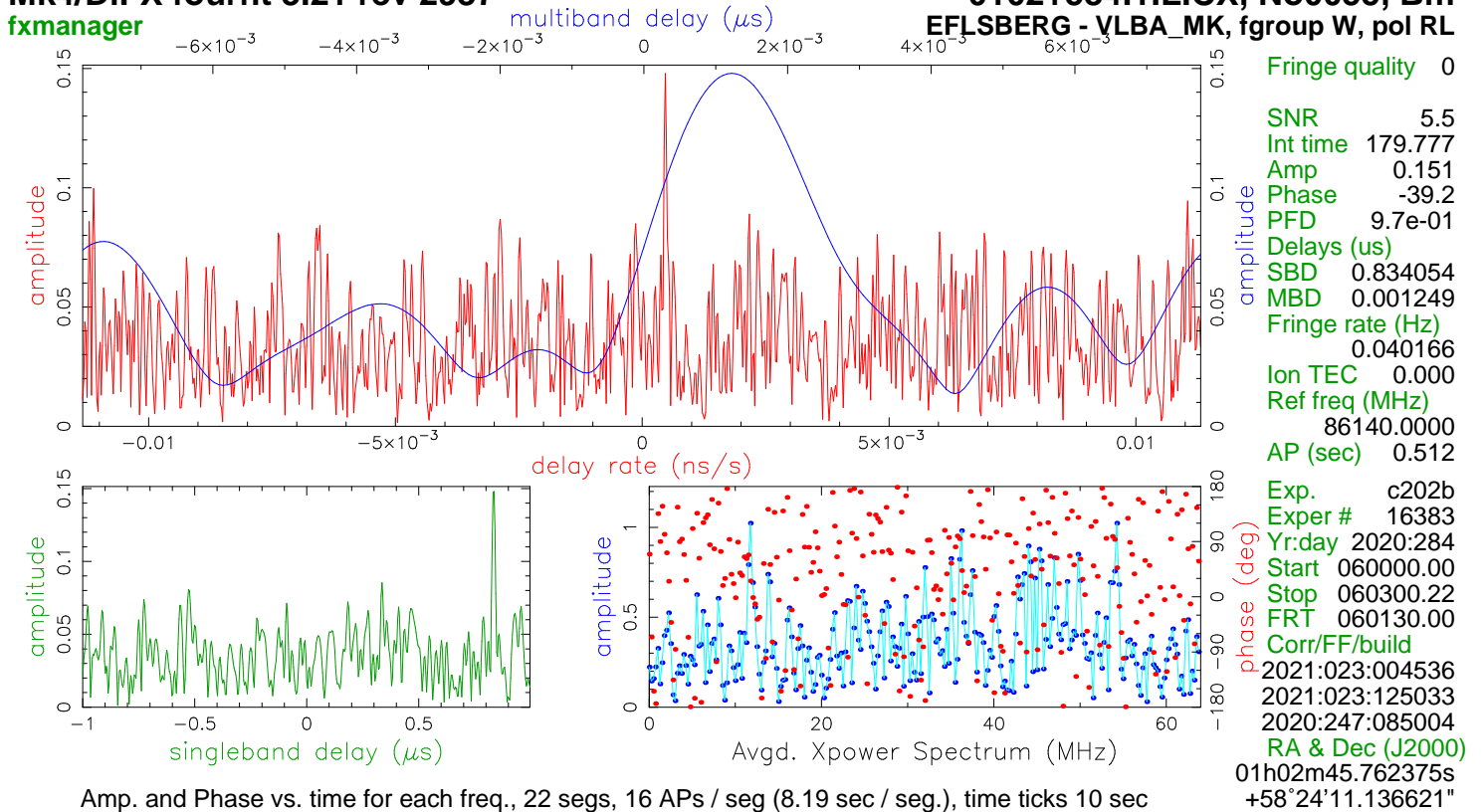
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## Mk4/DiFX fourfit 3.21 rev 2937

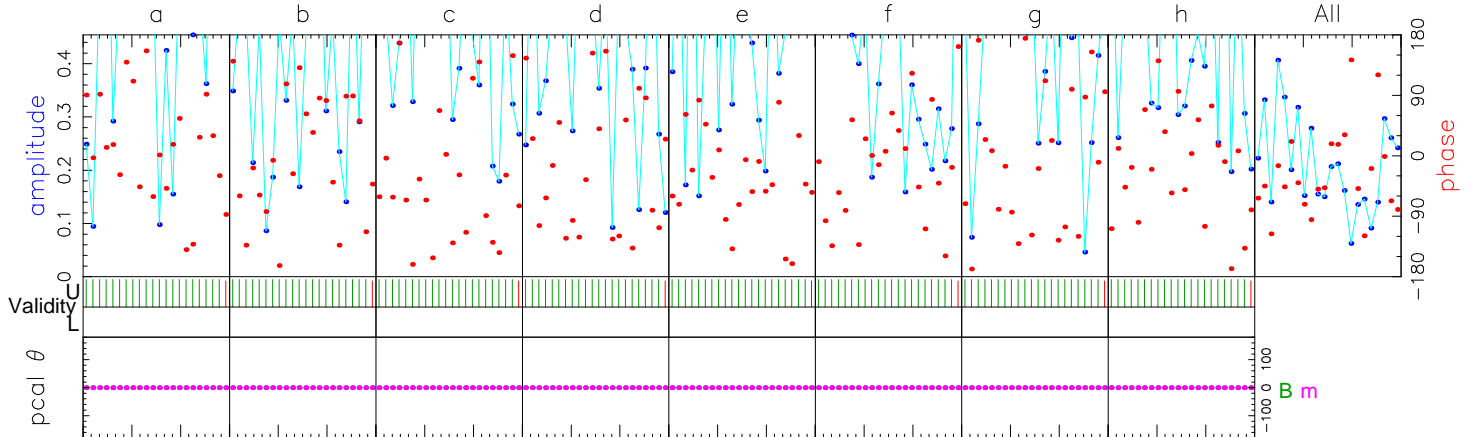
fxmanager

0102+584.1ILICX, No0055, Bm

EFLSBERG - VLBA\_MK, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-0.3	0.2	-73.6	-69.3	-42.4	-30.6	-73.2	-13.0	Phase	-39.2
	0.2	0.1	0.2	0.1	0.3	0.1	0.2	0.2	Ampl.	0.1
	326.2	434.5	320.1	68.0	471.3	184.7	23.0	416.7	Sbd box	470.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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)	1.58342711030E+03	Apriori delay (usec)	1.58259773616E+03	Resid mbdelay (usec)	1.24914E-03	+/-	2.0E-04
Sband delay (usec)	1.58343178991E+03	Apriori clock (usec)	-3.2589071E+00	Resid sbdelay (usec)	8.34054E-01	+/-	1.6E-03
Phase delay (usec)	1.58259773489E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-1.26467E-06	+/-	6.7E-07
Delay rate (us/s)	-1.17995610627E+00	Apriori rate (us/s)	-1.17995657255E+00	Resid rate (us/s)	4.66285E-07	+/-	6.4E-09
Total phase (deg)	318.2	Apriori accel (us/s/s)	3.31954183145E-05	Resid phase (deg)	-39.2	+/-	20.7

	RMS	Theor.	Amplitude	0.151 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	65.6	48.4	Search (1024X32)	0.145	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	69.7	84.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	34.4	29.2	Inc. seg. avg.	0.156	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	49.4	51.0	Inc. frq. avg.	0.148	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 m: az 32.7 el 31.2 pa -103.2 u,v (fr/asec) 12962.755 6201.490 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bm..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bm.W.73.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

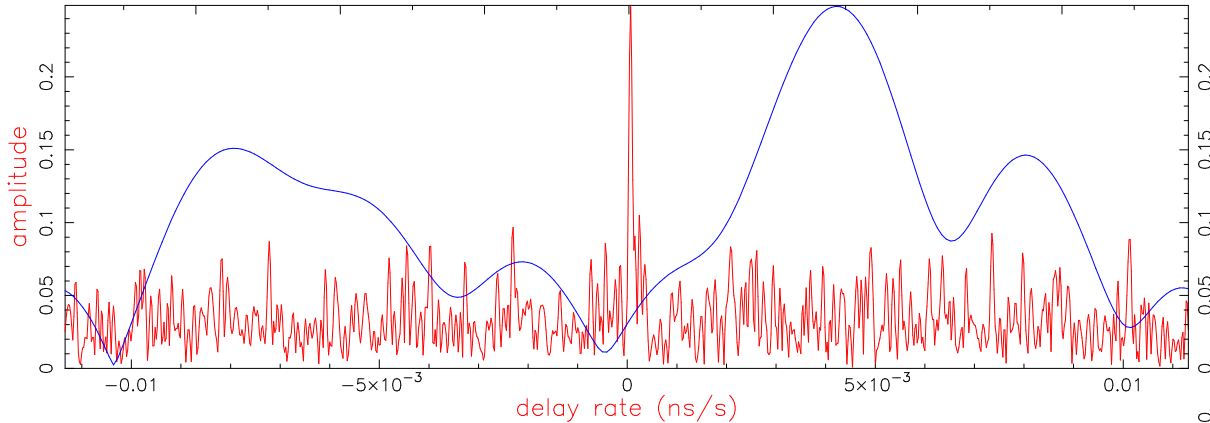
fxmanager

0102+584.1ILICX, No0055, Bn

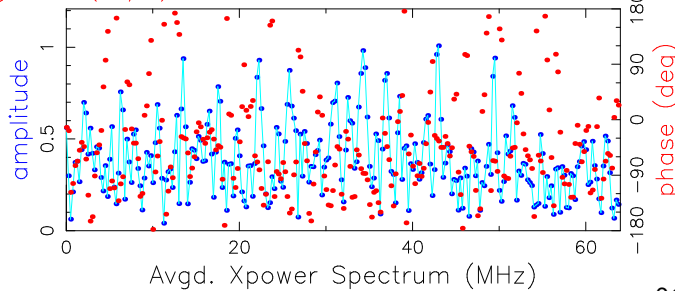
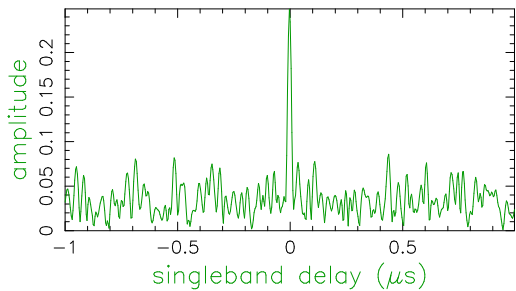
EFLSBERG - VLBA\_NL, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 9

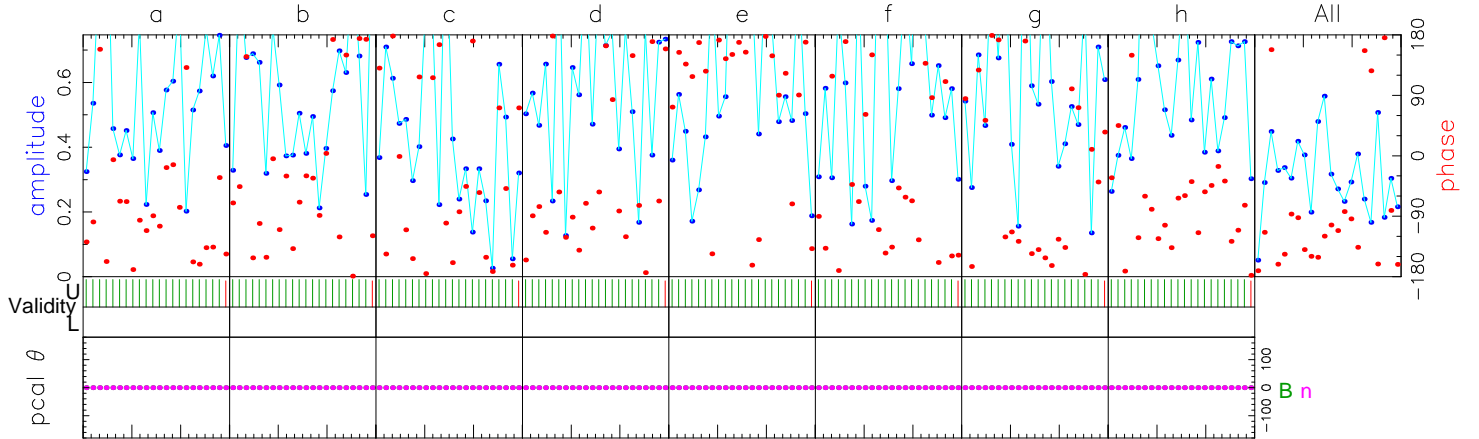


SNR 9.1  
Int time 179.777  
Amp 0.249  
Phase -135.6  
PFD 1.3e-11  
Delays (us)  
SBD -0.003185  
MBD 0.002905  
Fringe rate (Hz)  
0.006100  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c202b  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125027  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-112.2	-119.0	-157.8	-113.9	158.3	-132.5	-172.7	-83.7	Phase	-135.6
	0.3	0.3	0.1	0.3	0.5	0.3	0.3	0.4	Ampl.	0.3
	257.1	255.6	279.4	256.7	256.9	257.0	257.1	256.9	Sbd box	256.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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)	-7.66435467094E+03		Apriori delay (usec)	-7.66435757593E+03	Resid mbdelay (usec)	2.90499E-03	+/-	1.2E-04		
Sband delay (usec)	-7.66436076118E+03		Apriori clock (usec)	9.9452171E+00	Resid sbdelay (usec)	-3.18525E-03	+/-	9.4E-04		
Phase delay (usec)	-7.66435758030E+03		Apriori clockrate (us/s)	-7.0000001E-07	Resid phdelay (usec)	-4.37321E-06	+/-	4.0E-07		
Delay rate (us/s)	-4.85396334650E-01		Apriori rate (us/s)	-4.85396405466E-01	Resid rate (us/s)	7.08161E-08	+/-	3.9E-09		
Total phase (deg)	-348.2		Apriori accel (us/s/s)	5.09963482983E-05	Resid phase (deg)	-135.6	+/-	12.5		

RMS Theor. Amplitude 0.249 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 42.1 29.4 Search (1024X32) 0.246 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
amp/seg (%) 54.1 51.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
ph/frq (deg) 41.3 17.7 Inc. seg. avg. 0.277 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011  
amp/frq (%) 46.4 31.0 Inc. frq. avg. 0.305 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 320.0 el 36.8 pa 51.9 n: az 356.9 el 73.2 pa 175.6 u,v (fr/asec) 5363.551 7005.680

simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bn..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bn.W.20.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

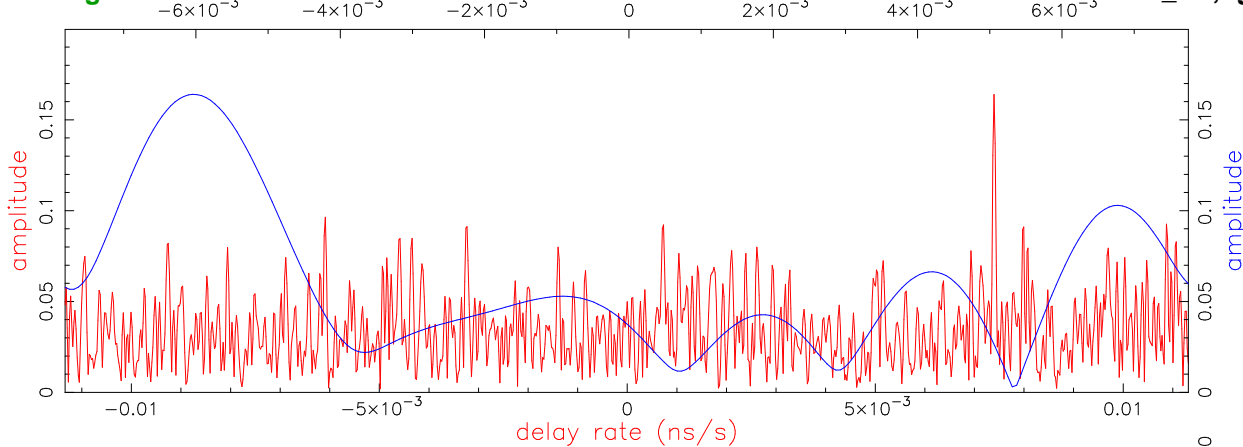
fxmanager

multiband delay ( $\mu$ s)

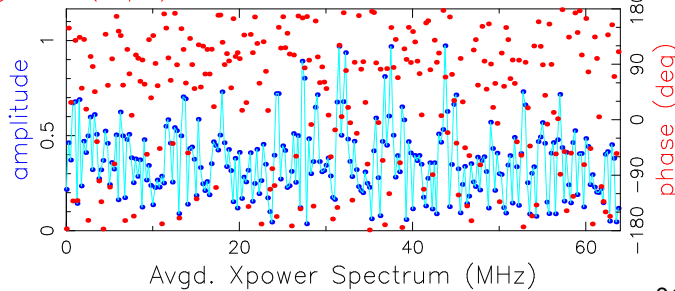
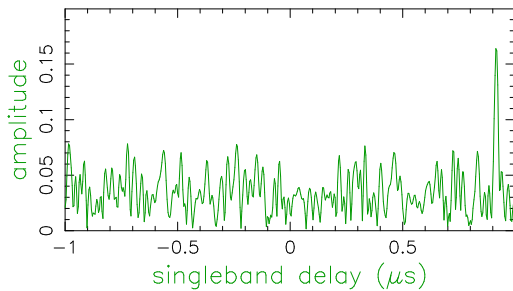
0102+584.1ILICX, No0055, Bn

EFLSBERG - VLBA\_NL, fgroup W, pol LR

Fringe quality 0

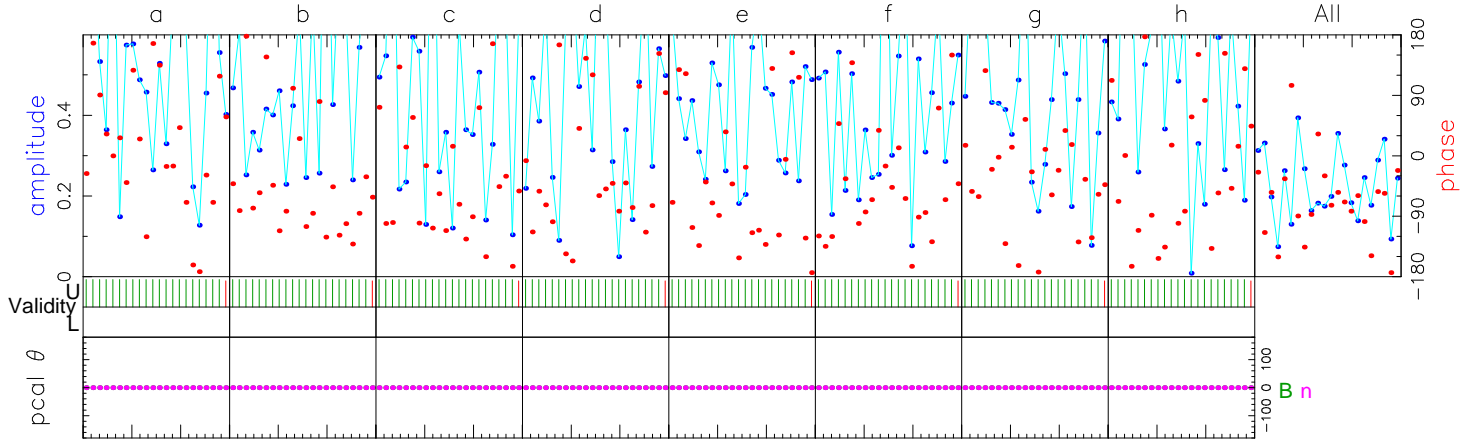


SNR 6.1  
Int time 179.777  
Amp 0.200  
Phase -69.4  
PFD 1.2e-01  
Delays (us)  
SBD 0.915741  
MBD -0.005992  
Fringe rate (Hz)  
0.637285  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125029  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	104.3	491.3	62.1	449.1	300.3	115.3	158.8	342.3	Ampl.	0.2
B	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	491.4
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd) -7.66344169253E+03 Apriori delay (usec) -7.66435757593E+03 Resid mbdelay (usec) -5.99160E-03 +/- 1.8E-04  
Sband delay (usec) -7.66344183493E+03 Apriori clock (usec) 9.9452171E+00 Resid sbdelay (usec) 9.15741E-01 +/- 1.4E-03  
Phase delay (usec) -7.66435757817E+03 Apriori clockrate (us/s) -7.0000001E-07 Resid phdelay (usec) -2.23835E-06 +/- 6.0E-07  
Delay rate (us/s) -4.85389007213E-01 Apriori rate (us/s) -4.85396405466E-01 Resid rate (us/s) 7.39825E-06 +/- 5.8E-09  
Total phase (deg) -282.0 Apriori accel (us/s/s) 5.09963482983E-05 Resid phase (deg) -69.4 +/- 18.8

RMS Theor. Amplitude 0.200 +/- 0.033 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 60.6 44.0 Search (1024X32) 0.162 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
amp/seg (%) 63.2 76.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
ph/frq (deg) 41.6 26.5 Inc. seg. avg. 0.212 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011  
amp/frq (%) 37.9 46.3 Inc. frq. avg. 0.214 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 320.0 el 36.8 pa 51.9 n: az 356.9 el 73.2 pa 175.6 u,v (fr/asec) 5363.551 7005.680 simultaneous interpolator

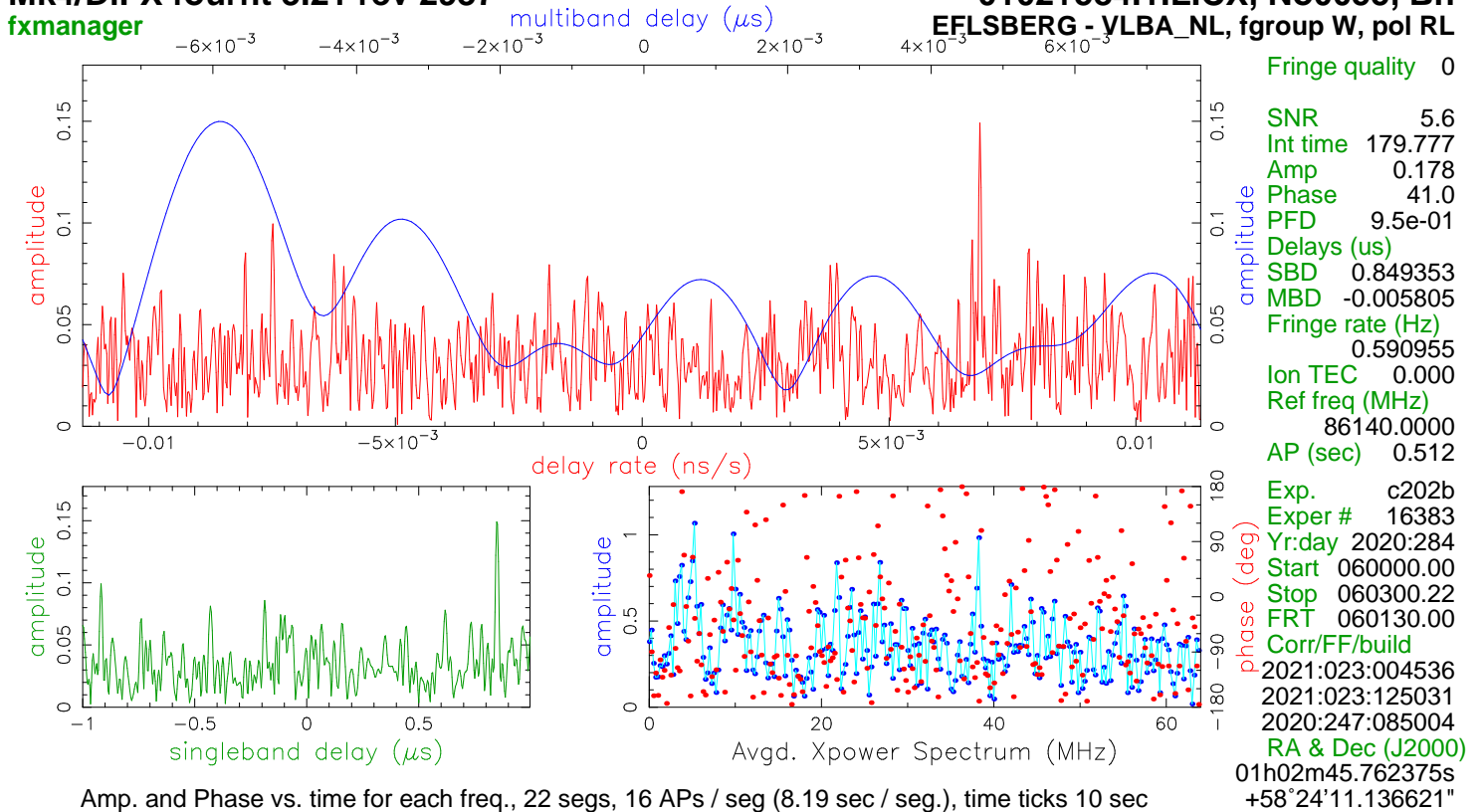
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bn..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bn.W.43.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

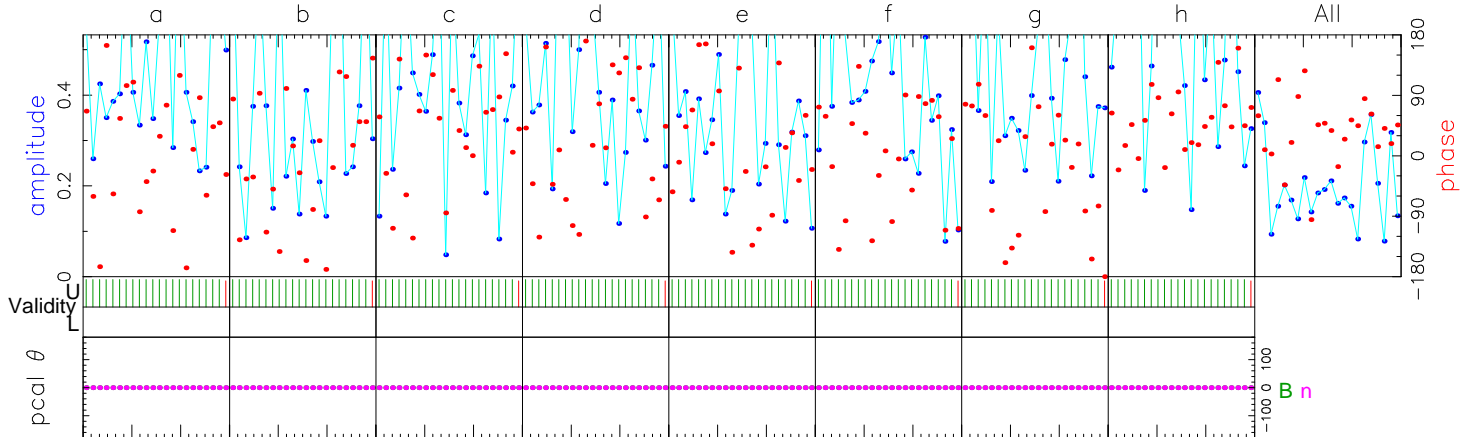
fxmanager

0102+584.1ILICX, No0055, Bn

EFLSBERG - VLBA\_NL, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	53.7	73.2	56.6	-16.5	-17.2	22.7	33.2	45.9	Phase	41.0
B	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.5	Ampl.	0.2
n	18.4	133.2	66.6	21.2	112.8	445.1	88.1	474.6	Sbd box	474.4
B	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.66350400607E+03					-7.66435757593E+03			Resid mbdelay (usec)	-5.80514E-03 +/- 1.9E-04
Sband delay (usec)	-7.66350822318E+03					9.9452171E+00			Resid sbdelay (usec)	8.49353E-01 +/- 1.5E-03
Phase delay (usec)	-7.66435757461E+03					-7.0000001E-07			Resid phdelay (usec)	1.32159E-06 +/- 6.6E-07
Delay rate (us/s)	-4.85389545066E-01					-4.85396405466E-01			Resid rate (us/s)	6.86040E-06 +/- 6.4E-09
Total phase (deg)	-171.6					5.09963482983E-05			Resid phase (deg)	41.0 +/- 20.6

ph/seg (deg) 48.2 48.2 48.2 48.2 48.2 48.2 48.2 48.2 48.2 48.2 48.2

amp/seg (%) 66.0 66.0 66.0 66.0 66.0 66.0 66.0 66.0 66.0 66.0 66.0

ph/frq (deg) 37.8 37.8 37.8 37.8 37.8 37.8 37.8 37.8 37.8 37.8 37.8

amp/frq (%) 75.1 75.1 75.1 75.1 75.1 75.1 75.1 75.1 75.1 75.1 75.1

B: az 320.0 el 36.8 pa 51.9 n: az 356.9 el 73.2 pa 175.6 u,v (fr/asec) 5363.551 7005.680

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bn..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bn.W.58.1ILICX

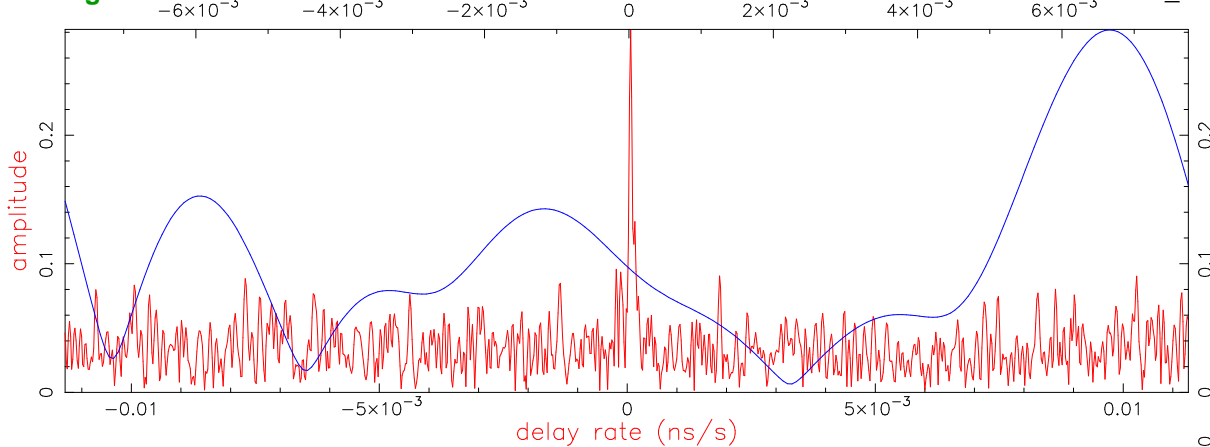
simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILICX, No0055, Bn

EFLSBERG - VLBA\_NL, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 9

SNR 10.3

Int time 179.777

Amp 0.282

Phase -93.2

PFD 9.3e-17

Delays (us)

SBD -0.000510

MBD 0.006654

Fringe rate (Hz)

0.005611

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Exper # 16383

Yr:day 2020:284

Start 060000.00

Stop 060300.22

FRT 060130.00

Corr/FF/build

2021:023:004536

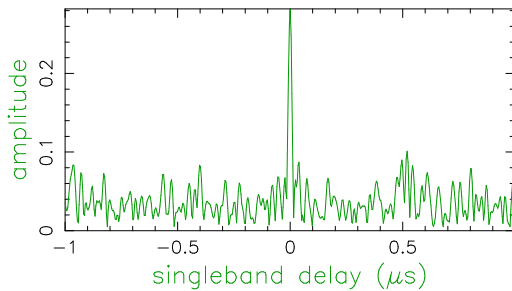
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2020:247:085004

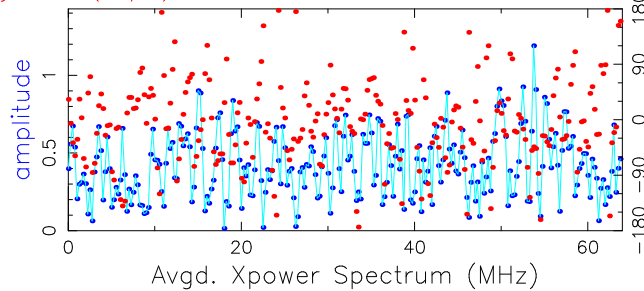
RA &amp; Dec (J2000)

01h02m45.762375s

+58°24'11.136621"



delay rate (ns/s)



amplitude

phase (deg)

2021:023:004536

2021:023:125025

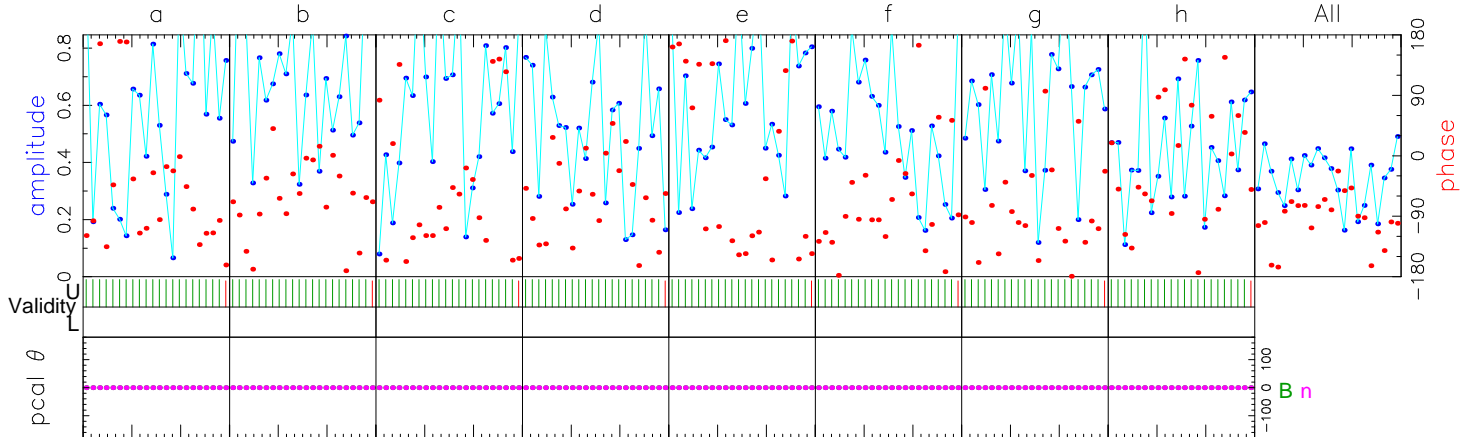
2020:247:085004

RA &amp; Dec (J2000)

01h02m45.762375s

+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	PC freqs	PC freqs
B	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	PC phase
n	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	Mani PC
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	PC amp
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Chan ids	Chan ids
B	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	Tracks
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	Tracks

Group delay (usec)(sbd)	-7.66435092209E+03	Apriori delay (usec)	-7.66435757593E+03	Resid mbdelay (usec)	6.65384E-03	+/-	1.0E-04
Sband delay (usec)	-7.66435808568E+03	Apriori clock (usec)	9.9452171E+00	Resid sbdelay (usec)	-5.09750E-04	+/-	8.3E-04
Phase delay (usec)	-7.66435757894E+03	Apriori clockrate (us/s)	-7.0000001E-07	Resid phdelay (usec)	-3.00686E-06	+/-	3.6E-07
Delay rate (us/s)	-4.85396340328E-01	Apriori rate (us/s)	-4.85396405466E-01	Resid rate (us/s)	6.51377E-08	+/-	3.4E-09
Total phase (deg)	-305.8	Apriori accel (us/s/s)	5.09963482983E-05	Resid phase (deg)	-93.2	+/-	11.1

ph/seg (deg)	36.8	Theor.	Amplitude	0.282 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	39.6	26.0	Search (1024X32)	0.278	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	48.3	15.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	38.6	27.3	Inc. seg. avg.	0.313	Sample rate(MSamp/s): 128		ion window (TEC)	0.00	0.00
			Inc. frq. avg.	0.330	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 320.0 el 36.8 pa 51.9 n: az 356.9 el 73.2 pa 175.6 u,v (fr/asec) 5363.551 7005.680 simultaneous interpolator

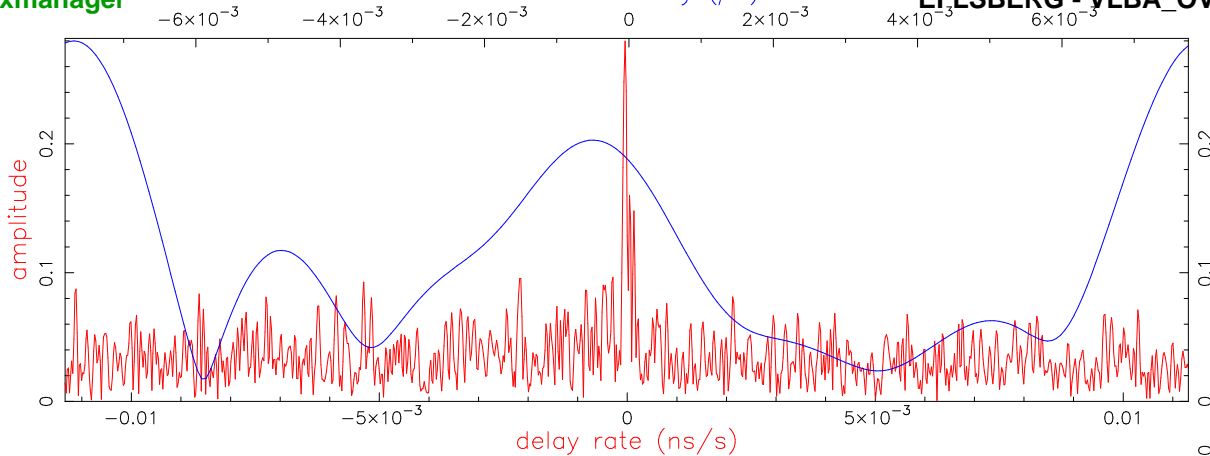
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bn..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bn.W.7.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILICX, No0055, Bo

EFLSBERG - VLBA\_OV, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 9

SNR 10.3

Int time 178.985

Amp 0.282

Phase 0.1

PFD 1.3e-16

Delays (us)

SBD 0.001069

MBD -0.007671

Fringe rate (Hz)

-0.003753

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Exper # 16383

Yr:day 2020:284

Start 060000.00

Stop 060300.22

FRT 060130.00

Corr/FF/build

2021:023:004536

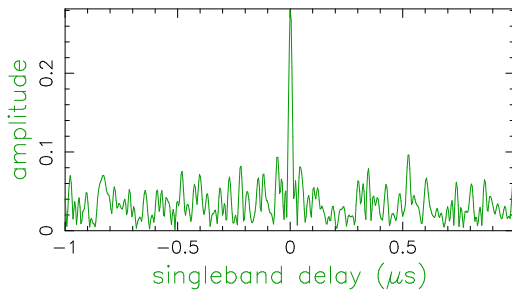
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2020:247:085004

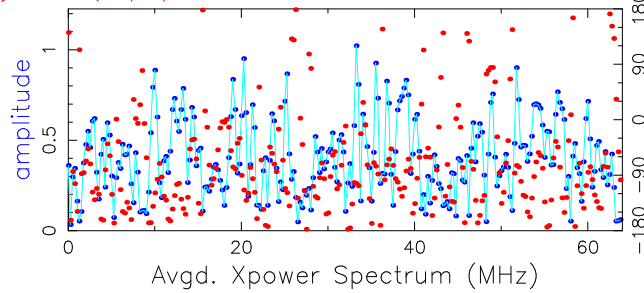
RA &amp; Dec (J2000)

01h02m45.762375s

+58°24'11.136621"



delay rate (ns/s)



phase (deg)

2021:023:004536

2021:023:125027

2020:247:085004

RA &amp; Dec (J2000)

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

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+58°24'11.136621"

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+58°24'11.136621"

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+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

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+58°24'11.136621"

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+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

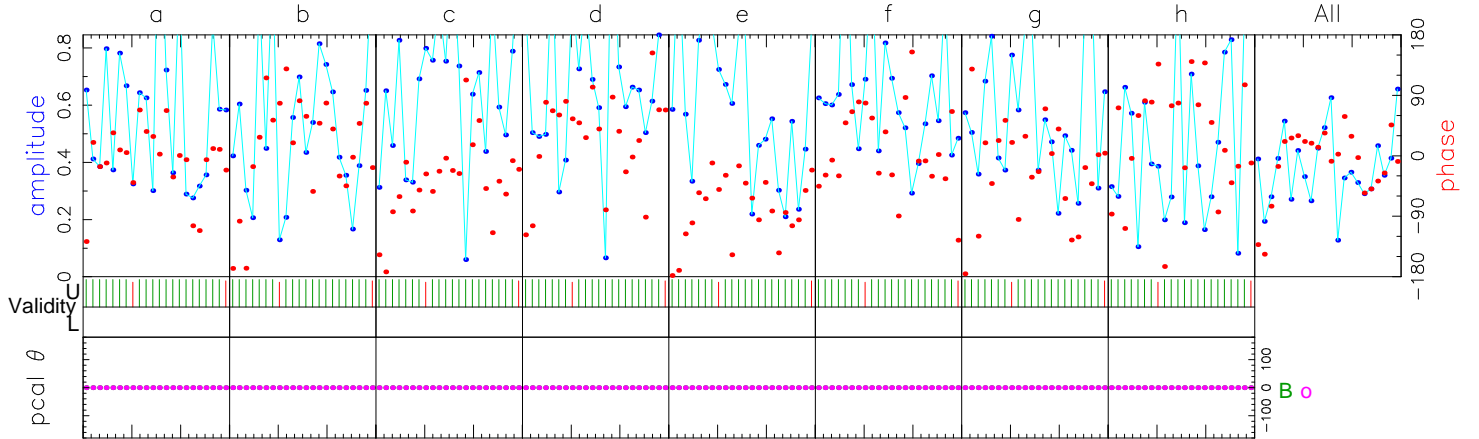
01h02m45.762375s

+58°24'11.136621"

01h02m45.762375s

+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	351/0	351/0	351/0	351/0	351/0	351/0	351/0	351/0	351/0	351/0
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
o	1000	1000	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	0:0	0:0
B:o	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
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	Tracks
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	Tracks
Group delay (usec)(sbd)	-6.34163065837E+03	-6.34163065837E+03	-6.34163065837E+03	-6.34163065837E+03	-6.34163065837E+03	-6.34163065837E+03	-6.34163065837E+03	-6.34163065837E+03	-6.34163065837E+03	-6.34163065837E+03
Sband delay (usec)	-6.34163754353E+03	-6.34163754353E+03	-6.34163754353E+03	-6.34163754353E+03	-6.34163754353E+03	-6.34163754353E+03	-6.34163754353E+03	-6.34163754353E+03	-6.34163754353E+03	-6.34163754353E+03
Phase delay (usec)	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03
Delay rate (us/s)	-7.76543201275E-01	-7.76543201275E-01	-7.76543201275E-01	-7.76543201275E-01	-7.76543201275E-01	-7.76543201275E-01	-7.76543201275E-01	-7.76543201275E-01	-7.76543201275E-01	-7.76543201275E-01
Total phase (deg)	-29.9	-29.9	-29.9	-29.9	-29.9	-29.9	-29.9	-29.9	-29.9	-29.9
Apriori delay (usec)	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03	-6.34163861253E+03
Apriori clock (usec)	-1.1293969E+01	-1.1293969E+01	-1.1293969E+01	-1.1293969E+01	-1.1293969E+01	-1.1293969E+01	-1.1293969E+01	-1.1293969E+01	-1.1293969E+01	-1.1293969E+01
Apriori clockrate (us/s)	-9.9999998E-08	-9.9999998E-08	-9.9999998E-08	-9.9999998E-08	-9.9999998E-08	-9.9999998E-08	-9.9999998E-08	-9.9999998E-08	-9.9999998E-08	-9.9999998E-08
Apriori rate (us/s)	-7.76543157708E-01	-7.76543157708E-01	-7.76543157708E-01	-7.76543157708E-01	-7.76543157708E-01	-7.76543157708E-01	-7.76543157708E-01	-7.76543157708E-01	-7.76543157708E-01	-7.76543157708E-01
Apriori accel (us/s/s)	4.97222315358E-05	4.97222315358E-05	4.97222315358E-05	4.97222315358E-05	4.97222315358E-05	4.97222315358E-05	4.97222315358E-05	4.97222315358E-05	4.97222315358E-05	4.97222315358E-05
Resid mbdelay (usec)	-7.67084E-03	-7.67084E-03	-7.67084E-03	-7.67084E-03	-7.67084E-03	-7.67084E-03	-7.67084E-03	-7.67084E-03	-7.67084E-03	-7.67084E-03
Resid sbdelay (usec)	1.06900E-03	1.06900E-03	1.06900E-03	1.06900E-03	1.06900E-03	1.06900E-03	1.06900E-03	1.06900E-03	1.06900E-03	1.06900E-03
Resid phdelay (usec)	2.99439E-09	2.99439E-09	2.99439E-09	2.99439E-09	2.99439E-09	2.99439E-09	2.99439E-09	2.99439E-09	2.99439E-09	2.99439E-09
Resid rate (us/s)	-4.35664E-08	-4.35664E-08	-4.35664E-08	-4.35664E-08	-4.35664E-08	-4.35664E-08	-4.35664E-08	-4.35664E-08	-4.35664E-08	-4.35664E-08
Resid phase (deg)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

ph/seg (deg)	53.7	26.0	Amplitude	0.282 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	57.2	45.4	Search (1024X32)	0.278	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	46.5	15.7	Inc. seg. avg.	0.346	Bits/sample: 2x2	Sample rate(MSamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	42.0	27.4	Inc. frq. avg.	0.347	Data rate(Mb/s): 2048	lags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 o: az 29.3 el 63.2 pa -131.2 u,v (fr/asec) 8554.502 7110.609 simultaneous interpolator

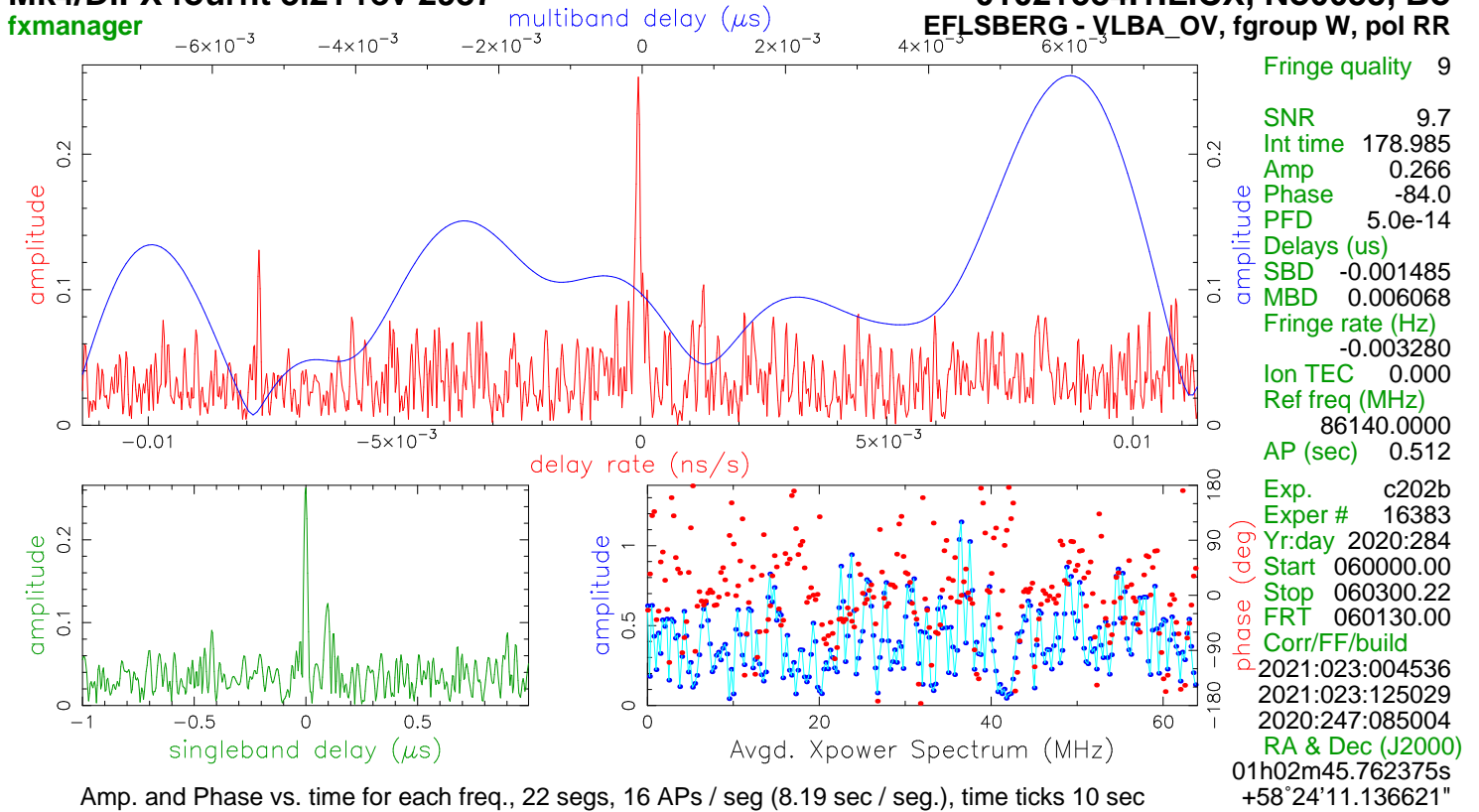
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Mk4/DiFX fourfit 3.21 rev 2937

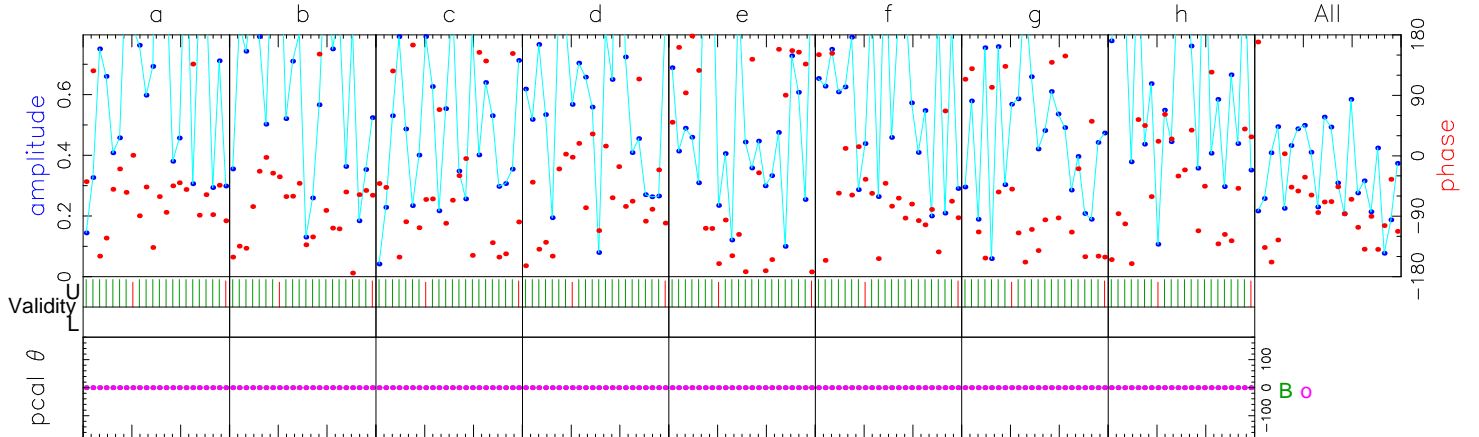
fxmanager

0102+584.1ILICX, No0055, Bo

EFLSBERG - VLBA\_OV, fgroup W, pol RR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	-68.8	-76.7	-119.0	-44.2	-165.0	-79.0	-138.2	-34.9	Phase	-84.0
B	0.5	0.4	0.2	0.3	0.3	0.4	0.2	0.2	Ampl.	0.3
o	256.5	256.0	257.4	257.4	257.0	256.3	258.0	290.4	Sbd box	256.6
B	351/0	351/0	351/0	351/0	351/0	351/0	351/0	351/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
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)	-6.34163254441E+03		Apriori delay (usec)	-6.34163861253E+03	Resid mbdelay (usec)	6.06812E-03	+/-	1.1E-04		
Sband delay (usec)	-6.34164009778E+03		Apriori clock (usec)	-1.1293969E+01	Resid sbdelay (usec)	-1.48525E-03	+/-	8.9E-04		
Phase delay (usec)	-6.34163861524E+03		Apriori clockrate (us/s)	-9.999998E-08	Resid phdelay (usec)	-2.71008E-06	+/-	3.8E-07		
Delay rate (us/s)	-7.76543195788E-01		Apriori rate (us/s)	-7.76543157708E-01	Resid rate (us/s)	-3.80793E-08	+/-	3.7E-09		
Total phase (deg)	-114.1		Apriori accel (us/s/s)	4.97222315358E-05	Resid phase (deg)	-84.0	+/-	11.8		

RMS Theor. Amplitude 0.266 +/- 0.027

ph/seg (deg) 46.3 27.6 Search (1024X32) 0.254

amp/seg (%) 58.8 48.2 Interp. 0.000

ph/frq (deg) 50.0 16.7 Inc. seg. avg. 0.311

amp/frq (%) 41.9 29.1 Inc. frq. avg. 0.313

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 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 320.0 el 36.8 pa 51.9 o: az 29.3 el 63.2 pa -131.2 u,v (fr/asec) 8554.502 7110.609 simultaneous interpolator

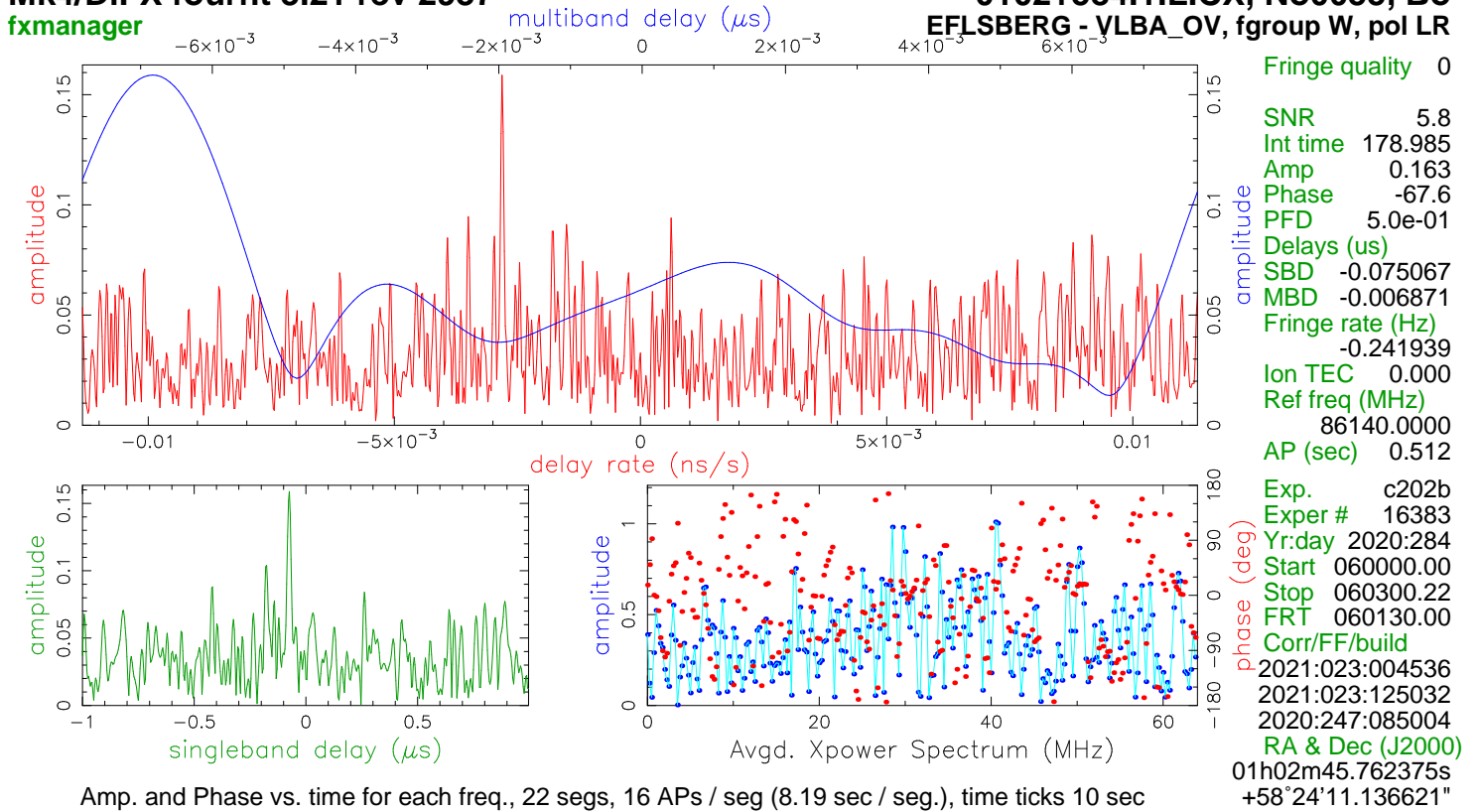
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## Mk4/DiFX fourfit 3.21 rev 2937

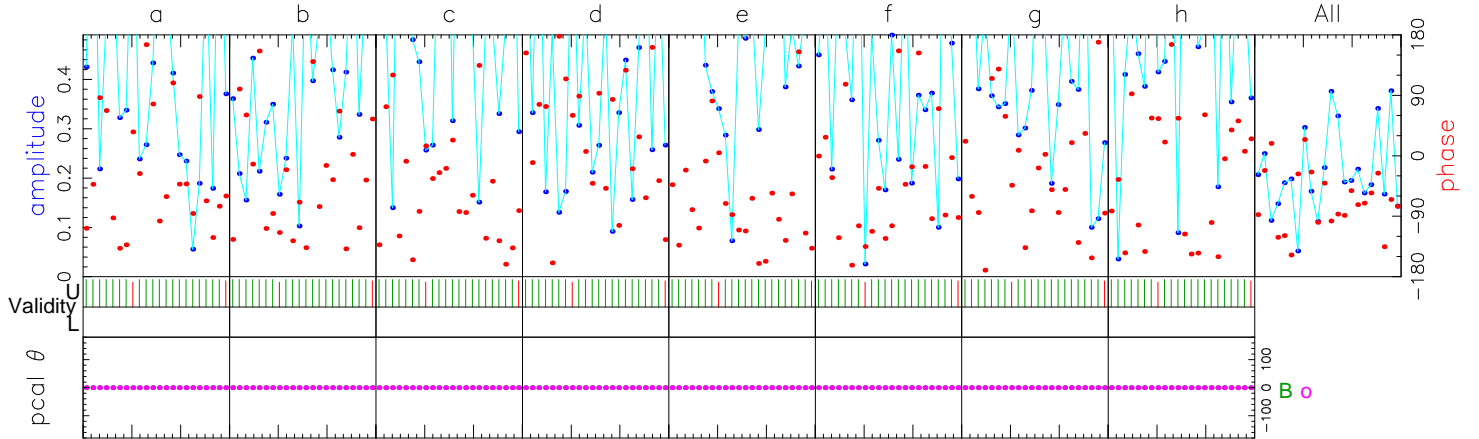
fxmanager

0102+584.1ILICX, No0055, Bo

EFLSBERG - VLBA\_OV, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-61.3	-62.6	-79.0	35.6	-89.2	-76.8	-33.8	-61.8	Phase	-67.6
	0.2	0.1	0.3	0.1	0.3	0.2	0.2	0.0	Ampl.	0.2
	52.0	46.2	111.9	150.1	239.5	359.6	172.5	222.5	Sbd box	237.8
U/L	351/0	351/0	351/0	351/0	351/0	351/0	351/0	351/0	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)	-6.34170798327E+03		Apriori delay (usec)	-6.34163861253E+03	Resid mbdelay (usec)	-6.87074E-03	+/-	1.9E-04		
Sband delay (usec)	-6.34171367978E+03		Apriori clock (usec)	-1.1293969E+01	Resid sbdelay (usec)	-7.50673E-02	+/-	1.5E-03		
Phase delay (usec)	-6.34163861471E+03		Apriori clockrate (us/s)	-9.9999998E-08	Resid phdelay (usec)	-2.17892E-06	+/-	6.3E-07		
Delay rate (us/s)	-7.76545966384E-01		Apriori rate (us/s)	-7.76543157708E-01	Resid rate (us/s)	-2.80868E-06	+/-	6.1E-09		
Total phase (deg)	-97.6		Apriori accel (us/s/s)	4.97222315358E-05	Resid phase (deg)	-67.6	+/-	19.7		

RMS Theor. Amplitude 0.163 +/- 0.028

ph/seg (deg) 44.4 46.0 Search (1024X32) 0.154

amp/seg (%) 62.0 80.3 Interp. 0.000

ph/frq (deg) 45.8 27.8 Inc. seg. avg. 0.164

amp/frq (%) 57.8 48.5 Inc. frq. avg. 0.164

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 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 320.0 el 36.8 pa 51.9 o: az 29.3 el 63.2 pa -131.2 u,v (fr/asec) 8554.502 7110.609 simultaneous interpolator

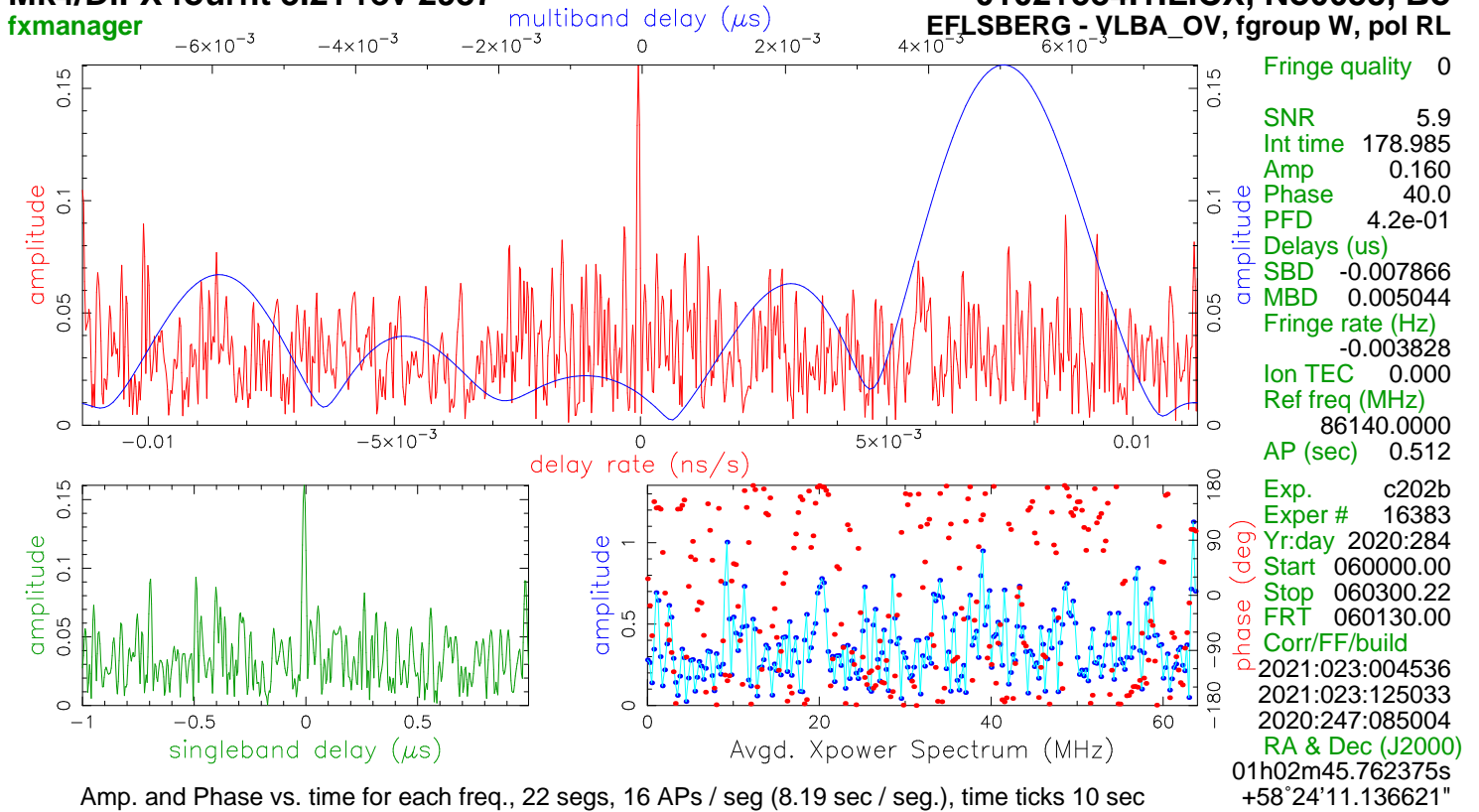
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bo..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bo.W.64.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

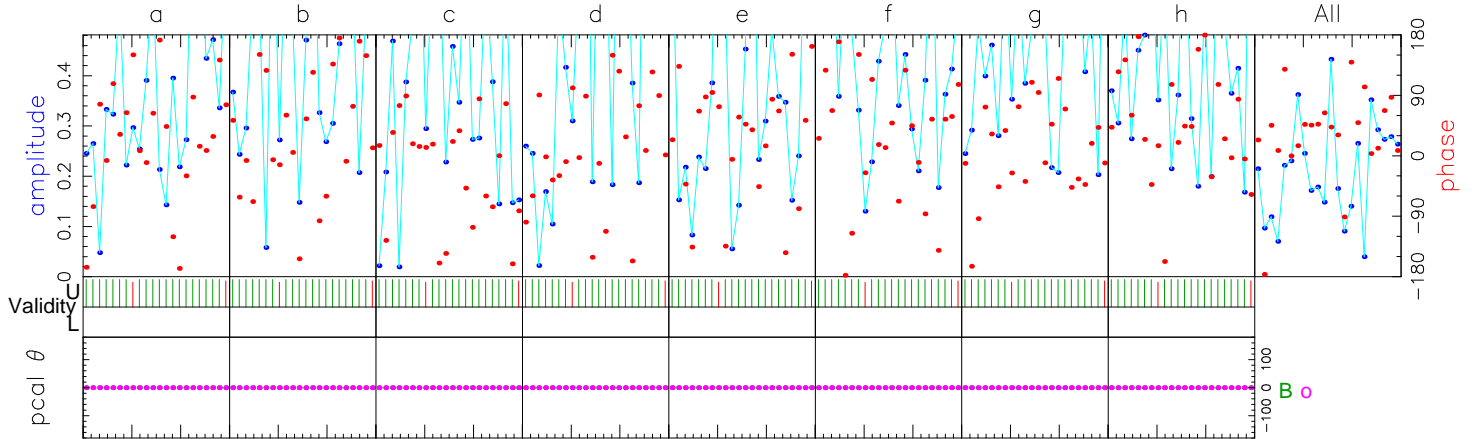
fxmanager

0102+584.1ILICX, No0055, Bo

EFLSBERG - VLBA\_OV, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	47.8	46.0	2.2	34.9	61.2	72.9	13.3	49.8	Phase	40.0
B	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	Ampl.	0.2
o	455.1	112.3	291.2	399.5	507.1	257.2	509.4	110.0	Sbd box	255.0
B	351/0	351/0	351/0	351/0	351/0	351/0	351/0	351/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-6.34164919347E+03		Apriori delay (usec)	-6.34163861253E+03	Resid mbdelay (usec)	5.04406E-03	+/-	1.8E-04		
Sband delay (usec)	-6.34164647828E+03		Apriori clock (usec)	-1.1293969E+01	Resid sbdelay (usec)	-7.86575E-03	+/-	1.5E-03		
Phase delay (usec)	-6.34163861124E+03		Apriori clockrate (us/s)	-9.9999998E-08	Resid phdelay (usec)	1.29030E-06	+/-	6.3E-07		
Delay rate (us/s)	-7.76543202142E-01		Apriori rate (us/s)	-7.76543157708E-01	Resid rate (us/s)	-4.44336E-08	+/-	6.1E-09		
Total phase (deg)	10.0		Apriori accel (us/s/s)	4.97222315358E-05	Resid phase (deg)	40.0	+/-	19.5		

ph/seg (deg) 56.6 45.7 Amplitude 0.160 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 69.2 79.8 Search (1024X32) 0.158 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 25.5 27.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 23.9 48.2 Inc. seg. avg. 0.161 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011

B: az 320.0 el 36.8 pa 51.9 o: az 29.3 el 63.2 pa -131.2 u,v (fr/asec) 8554.502 7110.609 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/c202b/v1/v1\_3mm/1234/No0055/Bo..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bo.W.76.1ILICX simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

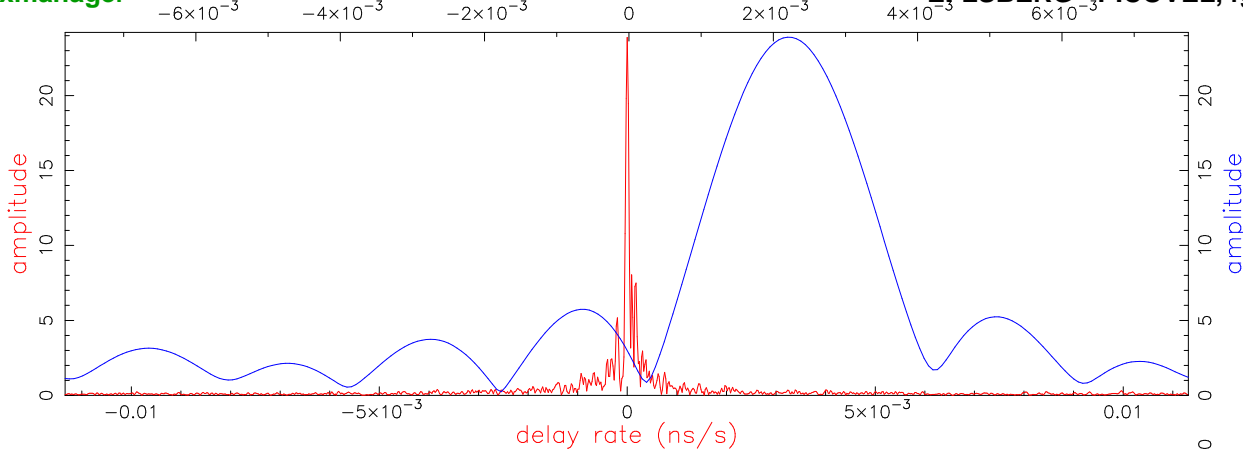
fxmanager

0102+584.1ILICX, No0055, BP

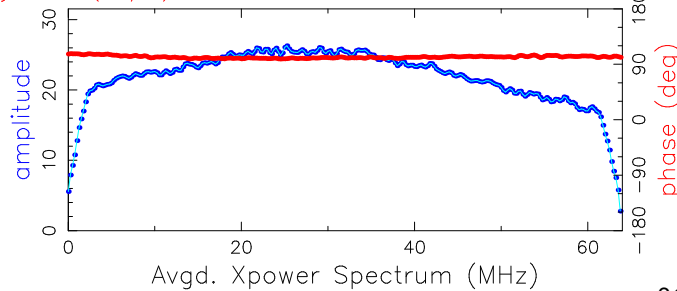
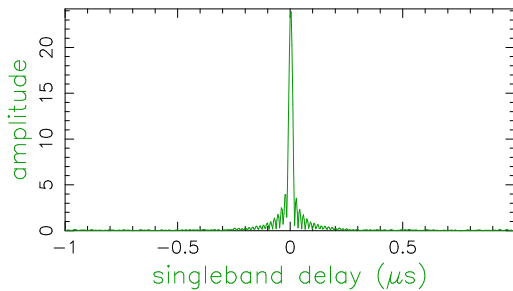
EFLSBERG - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 8

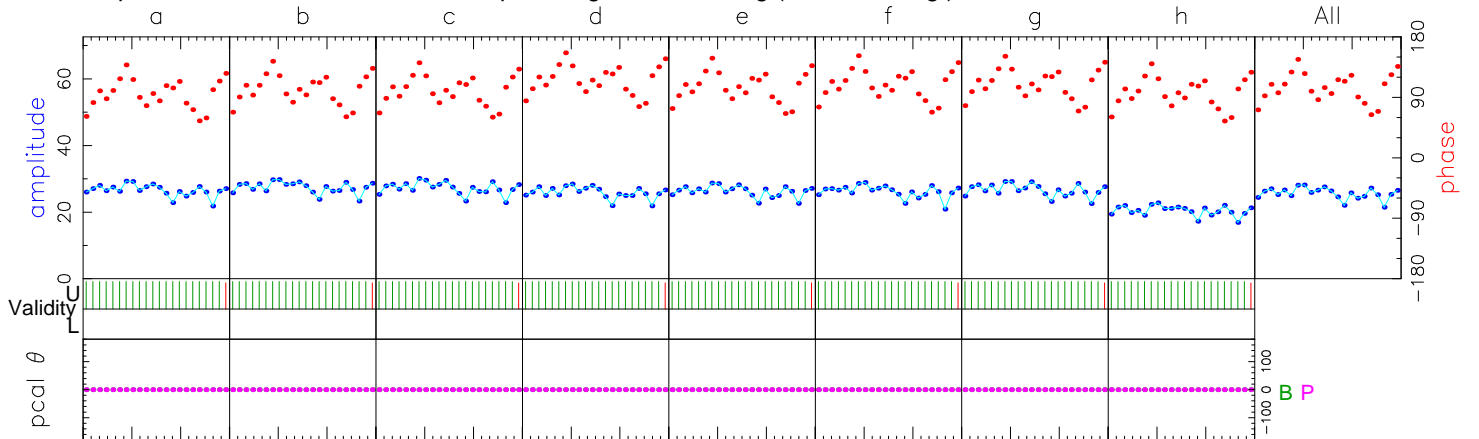


SNR 887.3  
Int time 179.587  
Amp 24.213  
Phase 104.3  
PFD 0.0e+00  
Delays (us)  
SBD 0.002348  
MBD 0.002169  
Fringe rate (Hz)  
-0.000523  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125027  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	94.9	101.6	100.0	115.7	105.5	109.0	110.2	96.3	Phase	104.3
B	24.7	25.5	25.3	24.2	24.4	24.3	24.8	19.0	Ampl.	24.0
P	257.5	257.4	257.7	257.6	257.7	257.7	257.6	256.4	Sbd box	257.6
B:P	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B: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	

Group delay (usec)(sbd)	1.81565293302E+03	Apriori delay (usec)	1.81565076440E+03	Resid mbdelay (usec)	2.16862E-03	+/-	1.2E-06
Sband delay (usec)	1.81565311215E+03	Apriori clock (usec)	1.0309258E+01	Resid sbdelay (usec)	2.34775E-03	+/-	9.7E-06
Phase delay (usec)	1.81565076776E+03	Apriori clockrate (us/s)	2.0000000E-07	Resid phdelay (usec)	3.36361E-06	+/-	4.2E-09
Delay rate (us/s)	1.40162210345E-01	Apriori rate (us/s)	1.40162216414E-01	Resid rate (us/s)	-6.06950E-09	+/-	4.0E-11
Total phase (deg)	48.6	Apriori accel (us/s/s)	6.66662612630E-06	Resid phase (deg)	104.3	+/-	0.1

	RMS	Theor.	Amplitude	24.213 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	21.4	0.3	Search (1024X32)	23.069	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	9.1	0.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	7.8	0.2	Inc. seg. avg.	25.657	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	8.2	0.3	Inc. frq. avg.	24.039	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 P: az 322.5 el 31.0 pa 69.0 u,v (fr/asec) -1532.262 1643.998 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BP..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BP.W.17.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

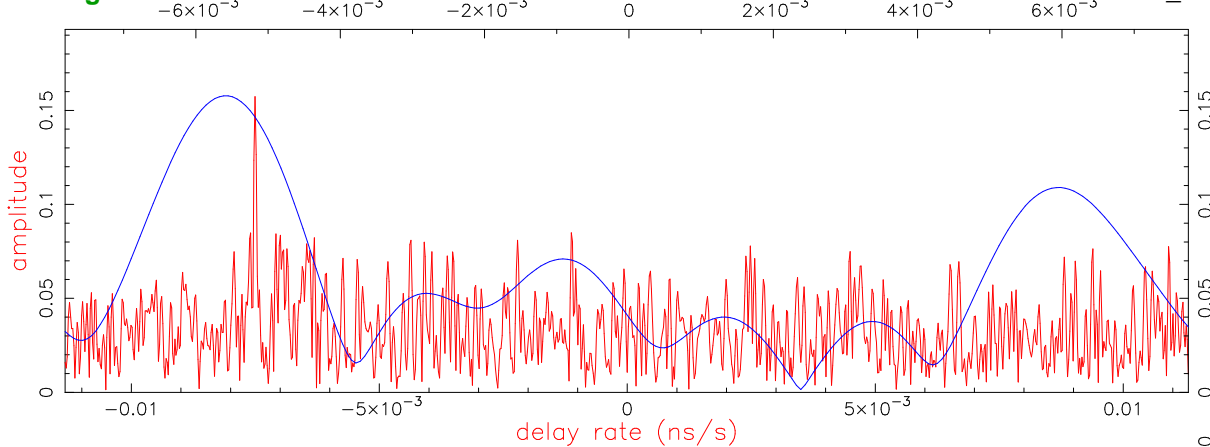
fxmanager

0102+584.1ILICX, No0055, Bp

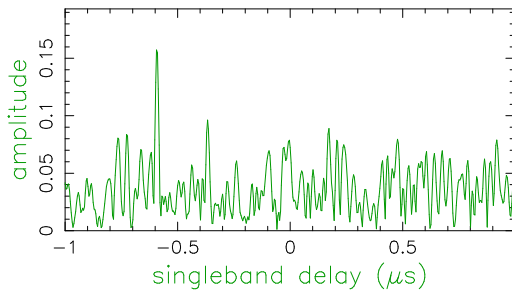
EFLSBERG - VLBA\_PT, fgroup W, pol LL

multiband delay ( $\mu$ s)

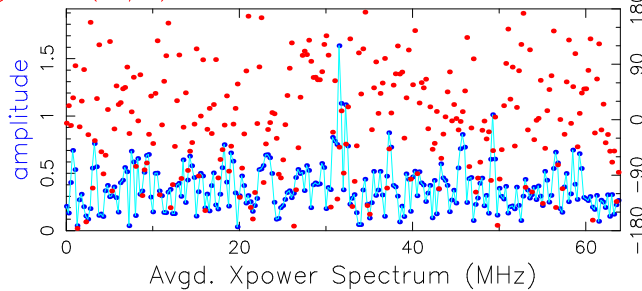
Fringe quality 0



SNR 5.9  
Int time 179.777  
Amp 0.193  
Phase 85.5  
PFD 4.3e-01  
Delays (us)  
SBD -0.592116  
MBD -0.005502  
Fringe rate (Hz)  
-0.646852  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

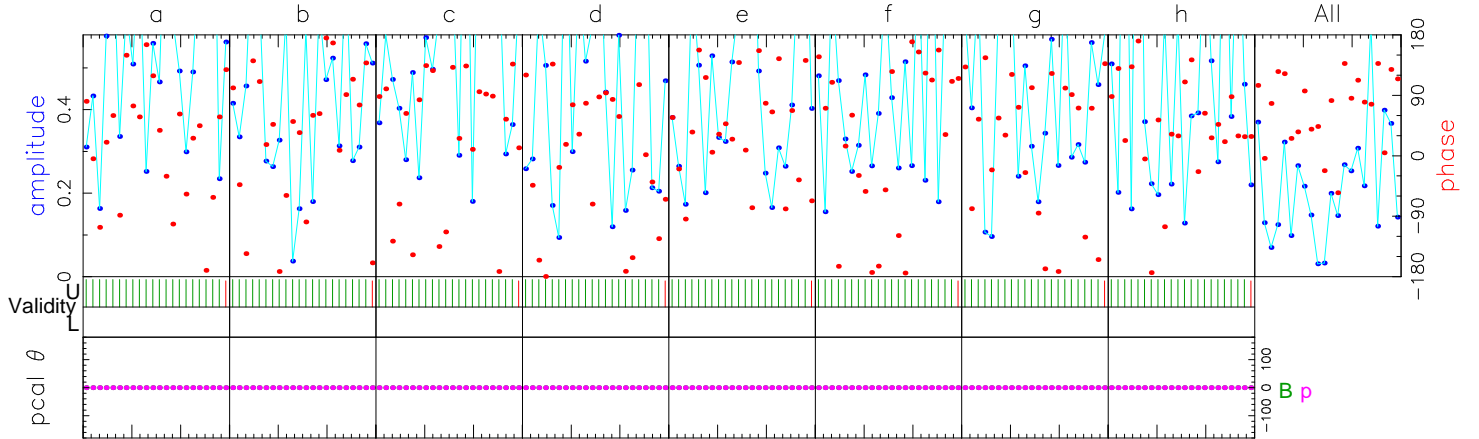


delay rate (ns/s)



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125028  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	36.7	123.1	120.8	57.2	38.3	126.8	97.9	48.9	Phase	85.5
B	0.2	0.2	0.3	0.2	0.1	0.3	0.2	0.3	Ampl.	0.2
p	450.7	99.9	114.2	326.0	356.9	137.0	249.3	161.5	Sbd box	105.4
B:p	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B: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	
B	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)	-6.41899432354E+03		Apriori delay (usec)	-6.41839507189E+03		Resid mbdelay (usec)	-5.50164E-03	+/-	1.8E-04	
Sband delay (usec)	-6.41898718839E+03		Apriori clock (usec)	1.0032187E+01		Resid sbdelay (usec)	-5.92116E-01	+/-	1.5E-03	
Phase delay (usec)	-6.41839506914E+03		Apriori clockrate (us/s)	-5.9999998E-07		Resid phdelay (usec)	2.75565E-06	+/-	6.3E-07	
Delay rate (us/s)	-6.74803516218E-01		Apriori rate (us/s)	-6.74796006913E-01		Resid rate (us/s)	-7.50930E-06	+/-	6.1E-09	
Total phase (deg)	-92.0		Apriori accel (us/s/s)	5.42249288499E-05		Resid phase (deg)	85.5	+/-	19.5	

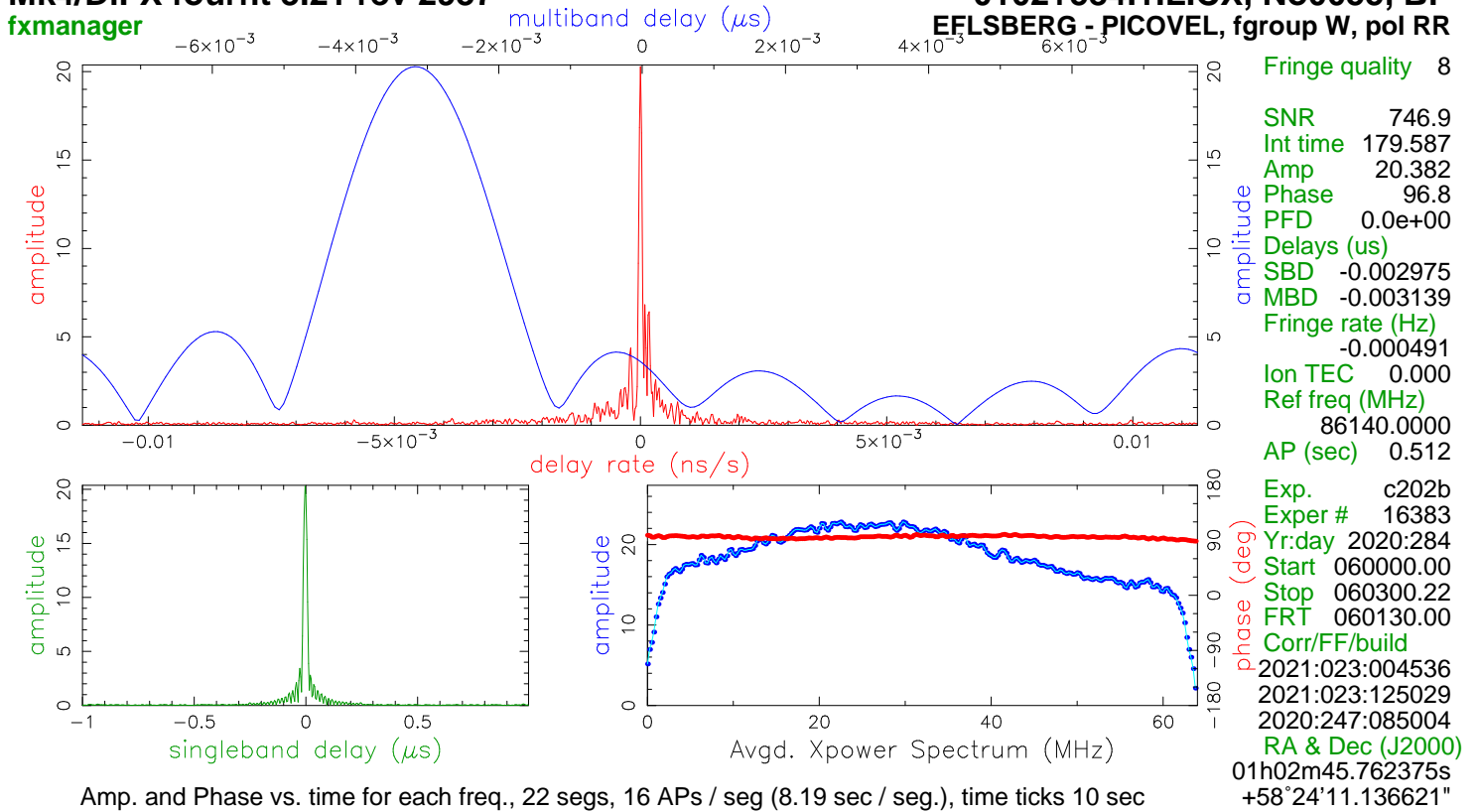
RMS Theor. Amplitude 0.193 +/- 0.033 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 55.7 45.8 Search (1024X32) 0.157 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
amp/seg (%) 92.8 79.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
ph/frq (deg) 43.3 27.6 Inc. seg. avg. 0.201 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011  
amp/frq (%) 40.7 48.2 Inc. frq. avg. 0.212 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
B: az 320.0 el 36.8 pa 51.9 p: az 17.7 el 63.9 pa -152.0 u,v (fr/asec) 7442.353 7884.399 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bp..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bp.W.29.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

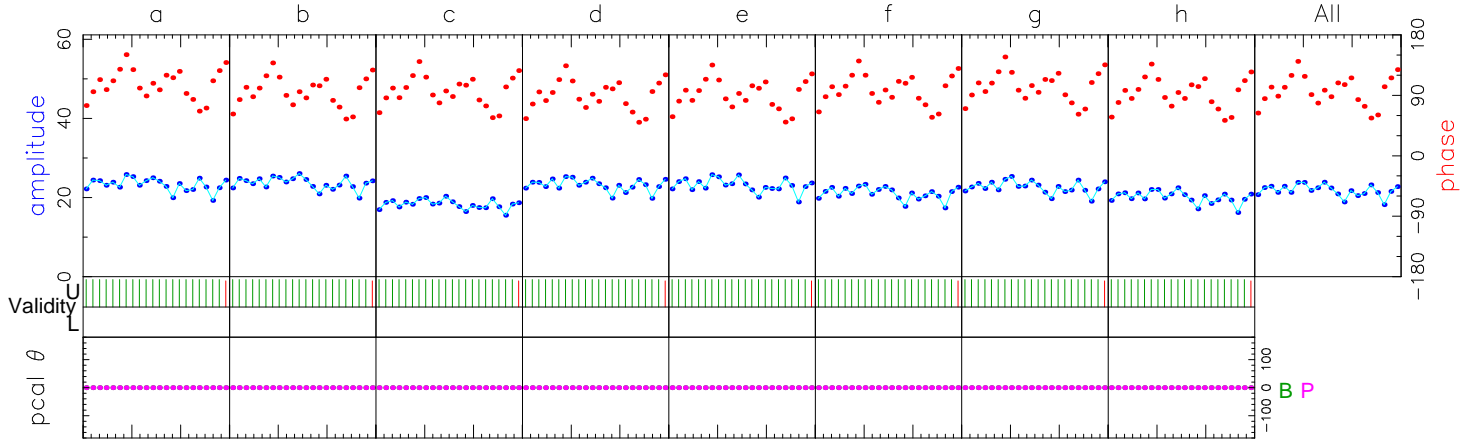
fxmanager

0102+584.1ILICX, No0055, BP

EFLSBERG - PICOVEL, fgroup W, pol RR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	107.0	95.1	96.3	89.8	91.4	98.5	103.3	93.1	Phase	96.8
B	21.6	22.0	17.1	21.5	21.5	19.6	21.1	18.6	Ampl.	20.4
P	255.9	256.0	256.4	256.1	256.5	256.5	256.4	255.3	Sbd box	256.2
B:P	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B: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	
B	1000	1000	1000	1000	1000	1000	1000	1000		
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)	1.81564762571E+03	Apriori delay (usec)	1.81565076440E+03	Resid mbdelay (usec)	-3.13869E-03	+/-	1.5E-06
Sband delay (usec)	1.81564778915E+03	Apriori clock (usec)	1.0309258E+01	Resid sbdelay (usec)	-2.97525E-03	+/-	1.2E-05
Phase delay (usec)	1.81565076752E+03	Apriori clockrate (us/s)	2.0000000E-07	Resid phdelay (usec)	3.12245E-06	+/-	4.9E-09
Delay rate (us/s)	1.40162210716E-01	Apriori rate (us/s)	1.40162216414E-01	Resid rate (us/s)	-5.69822E-09	+/-	4.8E-11
Total phase (deg)	41.1	Apriori accel (us/s/s)	6.66662612630E-06	Resid phase (deg)	96.8	+/-	0.2

	RMS	Theor.	Amplitude	20.382 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	21.6	0.4	Search (1024X32)	19.570	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	10.0	0.6	Interp.	0.000	Bits/sample: 2x2      SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	6.4	0.2	Inc. seg. avg.	21.824	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	8.1	0.4	Inc. frq. avg.	20.380	Data rate(Mb/s): 2048      nlags: 256      t_cohere infinite		ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 P: az 322.5 el 31.0 pa 69.0 u,v (fr/asec) -1532.262 1643.998 simultaneous interpolator

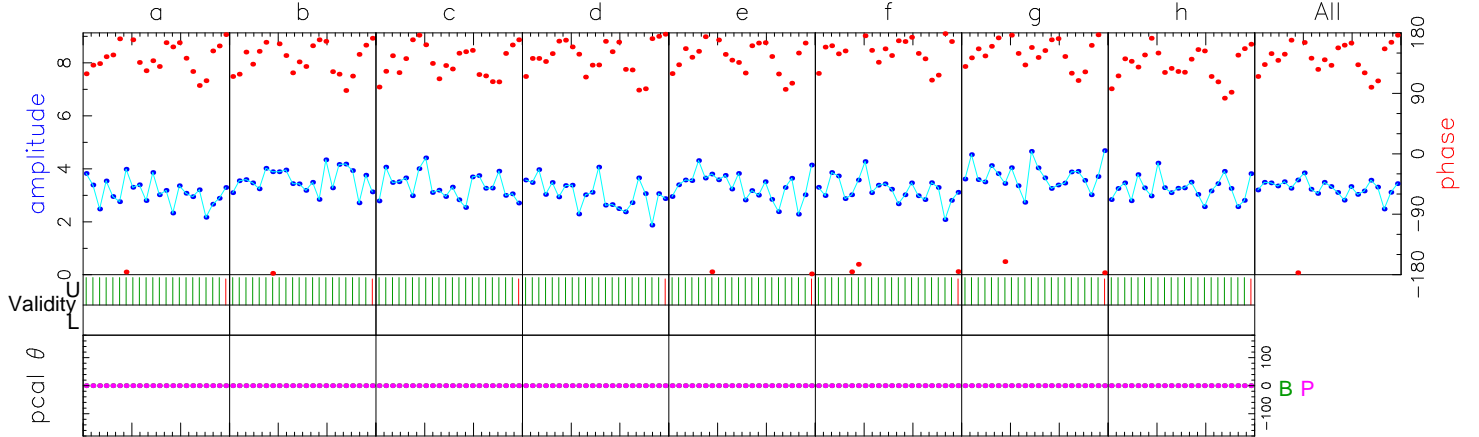
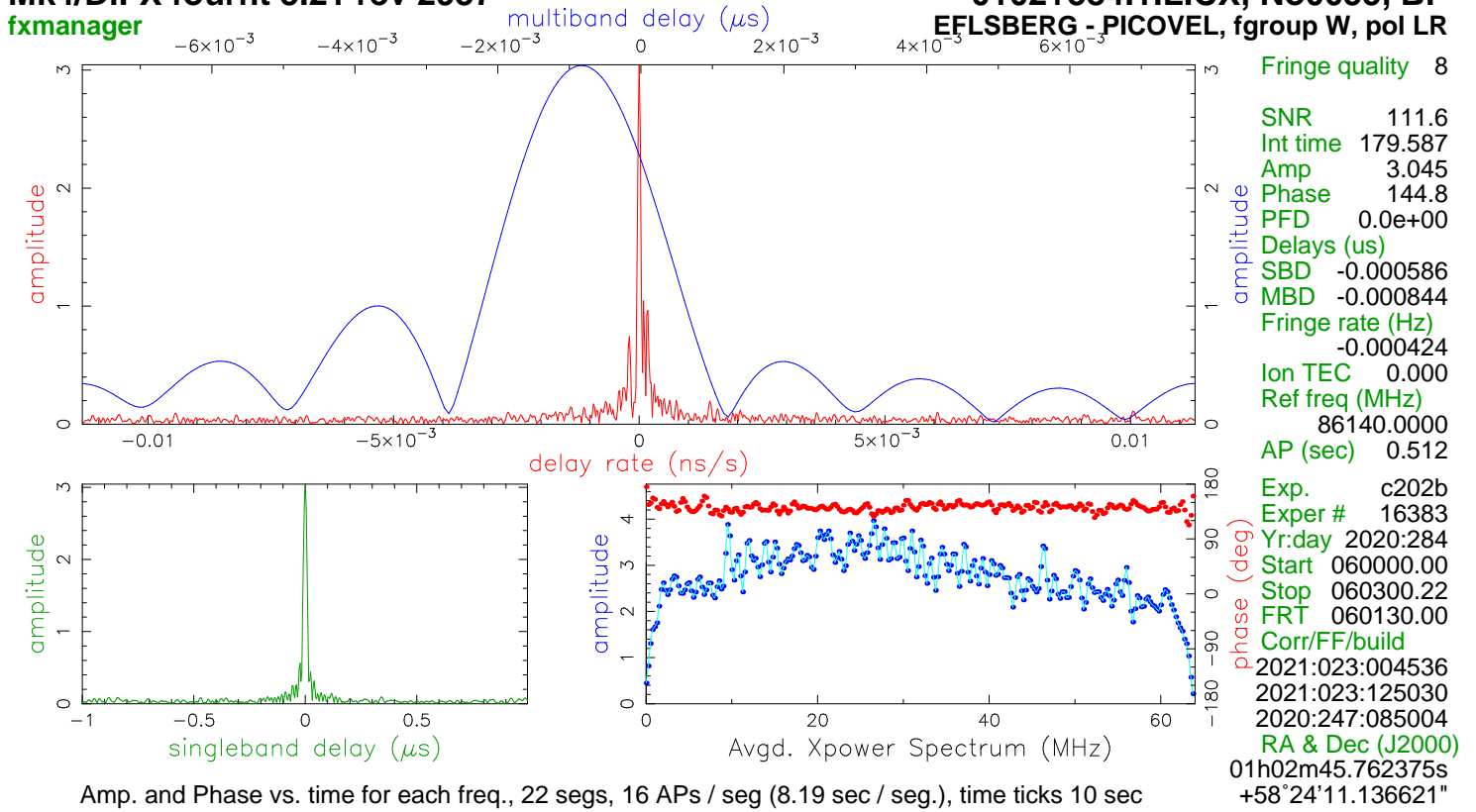
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BP..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BP.W.36.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILICX, No0055, BP

EFLSBERG - PICOVEL, fgroup W, pol LR



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	145.3	142.9	137.3	142.3	148.1	156.4	153.7	131.1	Phase	144.8
B	2.9	3.3	3.1	2.8	3.1	3.0	3.5	3.0	Ampl.	3.1
P	256.8	256.5	256.9	256.8	257.1	257.0	256.6	255.9	Sbd box	256.8
B:P	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B: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)	1.81564992049E+03	Apriori delay (usec)	1.81565076440E+03	Resid mbdelay (usec)	-8.43906E-04	+/-	9.7E-06
Sband delay (usec)	1.81565017815E+03	Apriori clock (usec)	1.0309258E+01	Resid sbdelay (usec)	-5.86250E-04	+/-	7.7E-05
Phase delay (usec)	1.81565076907E+03	Apriori clockrate (us/s)	2.0000000E-07	Resid phdelay (usec)	4.66917E-06	+/-	3.3E-08
Delay rate (us/s)	1.40162211494E-01	Apriori rate (us/s)	1.40162216414E-01	Resid rate (us/s)	-4.92022E-09	+/-	3.2E-10
Total phase (deg)	89.1	Apriori accel (us/s/s)	6.66662612630E-06	Resid phase (deg)	144.8	+/-	1.0

	RMS	Theor.	Amplitude	3.045 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	22.1	2.4	Search (1024X32)	2.983	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	12.1	4.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	8.9	1.5	Inc. seg. avg.	3.279	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011 0.011
amp/frq (%)	6.6	2.5	Inc. frq. avg.	3.066	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 320.0 el 36.8 pa 51.9 P: az 322.5 el 31.0 pa 69.0 u,v (fr/asec) -1532.262 1643.998 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BP..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BP.W.50.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

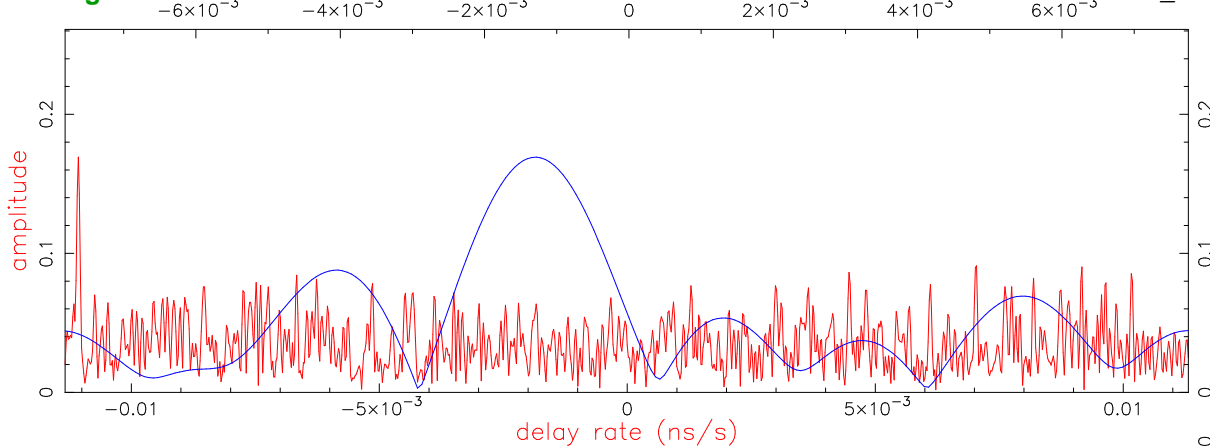
fxmanager

0102+584.1ILICX, No0055, Bp

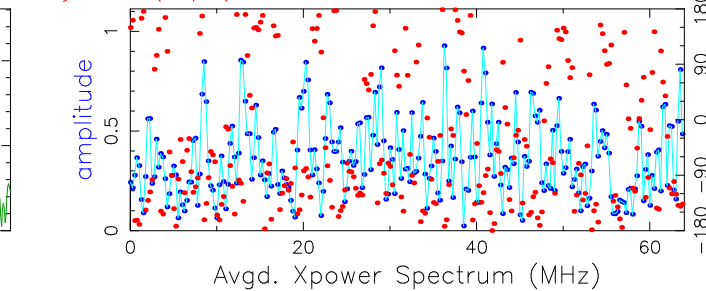
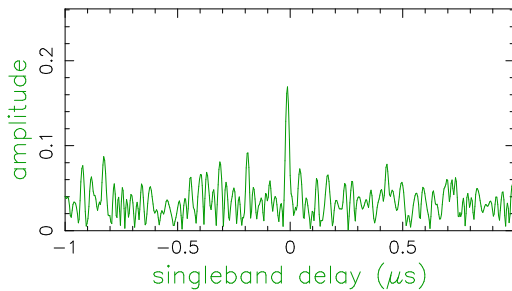
EFLSBERG - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 0

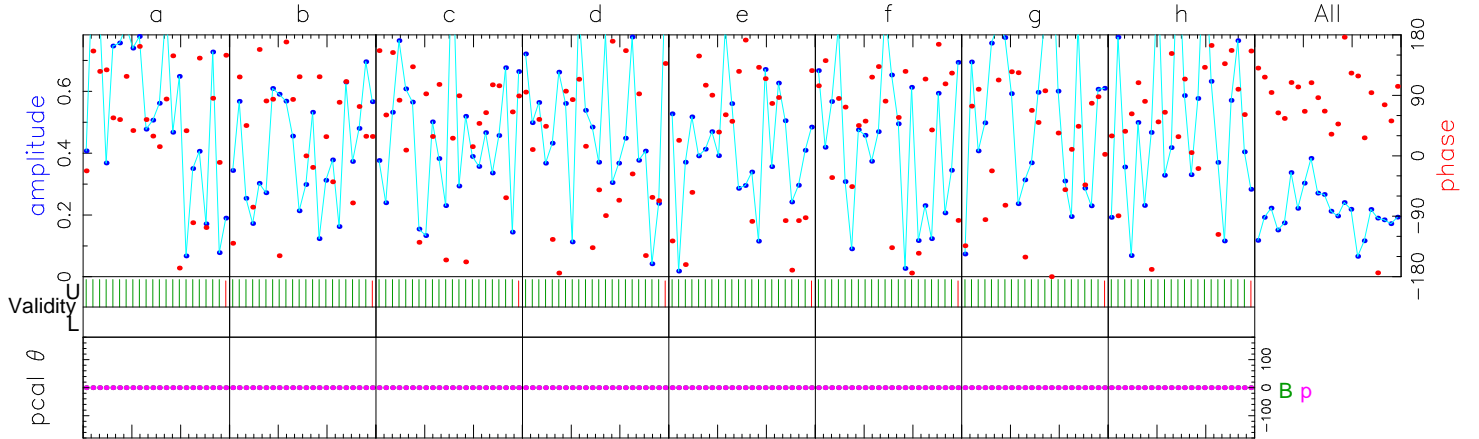


SNR 6.2  
Int time 179.777  
Amp 0.261  
Phase 91.8  
PFD 6.0e-02  
Delays (us)  
SBD -0.012650  
MBD -0.001299  
Fringe rate (Hz)  
-0.954215  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125030  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	99.8	73.0	76.3	115.4	116.2	108.6	67.9	94.8	Phase	91.8
B	0.4	0.2	0.3	0.1	0.2	0.3	0.3	0.3	Ampl.	0.2
p	252.8	424.1	399.7	493.4	89.5	509.7	35.9	229.1	Sbd box	253.8
B:p	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B: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	
B	1000	1000	1000	1000	1000	1000	1000	1000		
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)	-6.41841199631E+03		Apriori delay (usec)	-6.41839507189E+03		Resid mbdelay (usec)	-1.29942E-03	+/-	1.7E-04	
Sband delay (usec)	-6.41840772214E+03		Apriori clock (usec)	1.0032187E+01		Resid sbdelay (usec)	-1.26503E-02	+/-	1.4E-03	
Phase delay (usec)	-6.41839506893E+03		Apriori clockrate (us/s)	-5.9999998E-07		Resid phdelay (usec)	2.96117E-06	+/-	5.9E-07	
Delay rate (us/s)	-6.74807084405E-01		Apriori rate (us/s)	-6.74796006913E-01		Resid rate (us/s)	-1.10775E-05	+/-	5.7E-09	
Total phase (deg)	-85.6		Apriori accel (us/s/s)	5.42249288499E-05		Resid phase (deg)	91.8	+/-	18.4	

RMS Theor. Amplitude 0.261 +/- 0.042 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 40.3 43.1 Search (1024X32) 0.164 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
amp/seg (%) 48.0 75.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
ph/frq (deg) 21.1 26.0 Inc. seg. avg. 0.253 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011  
amp/frq (%) 37.5 45.4 Inc. frq. avg. 0.246 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 320.0 el 36.8 pa 51.9 p: az 17.7 el 63.9 pa -152.0 u,v (fr/asec) 7442.353 7884.399 simultaneous interpolator

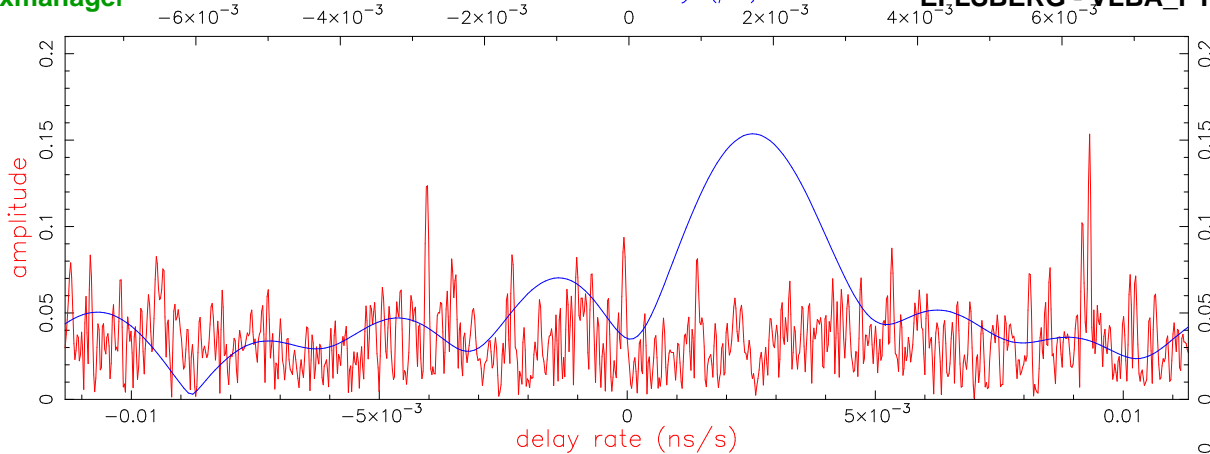
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bp..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bp.W.53.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILICX, No0055, Bp

EFLSBERG - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

Fringe quality 0

SNR 5.7

Int time 179.777

Amp 0.210

Phase -36.4

PFD 7.1e-01

Delays (us)

SBD -0.615077

MBD 0.001655

Fringe rate (Hz)

0.803523

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Exper # 16383

Yr:day 2020:284

Start 060000.00

Stop 060300.22

FRT 060130.00

Corr/FF/build

2021:023:004536

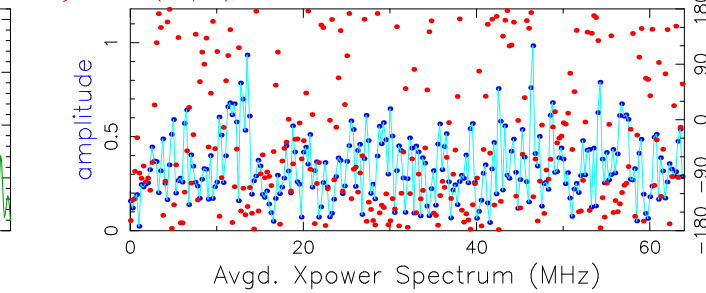
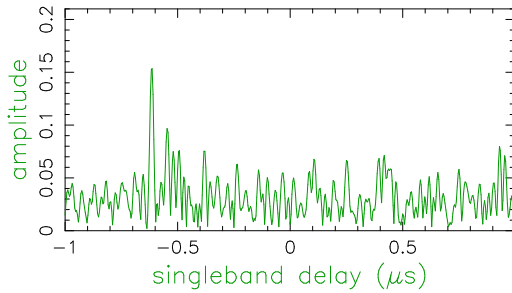
2021:023:125032

2020:247:085004

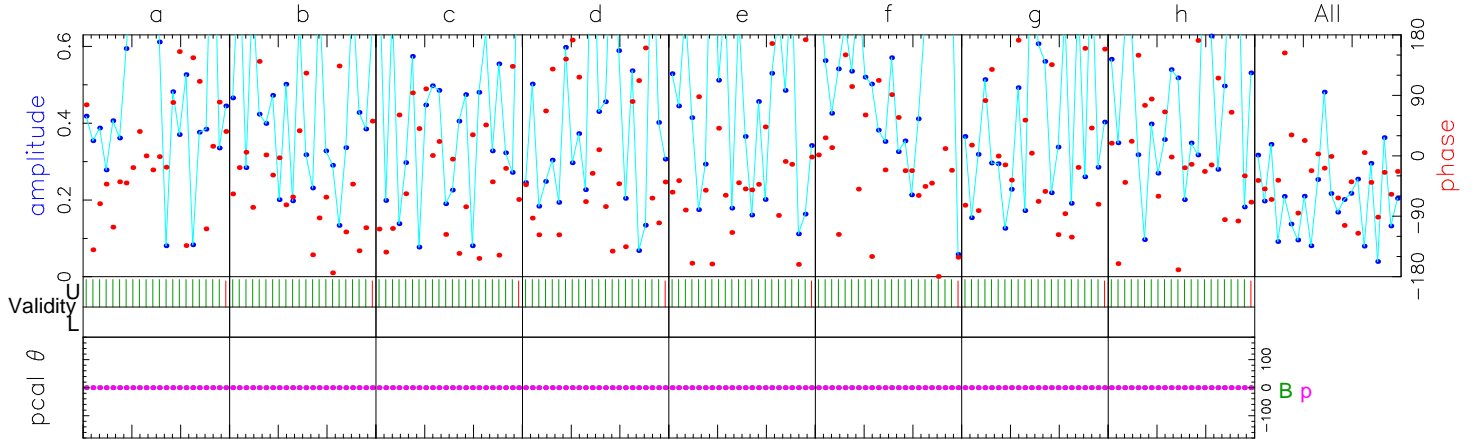
RA &amp; Dec (J2000)

01h02m45.762375s

+58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-5.9	-50.8	-71.2	-78.0	-60.5	-6.2	-32.5	-14.3	Phase	-36.4
	0.3	0.3	0.1	0.2	0.3	0.3	0.2	0.2	Ampl.	0.2
	98.9	117.8	329.3	95.7	448.8	135.7	158.1	55.2	Sbd box	99.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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)	-6.41900279236E+03					-6.41839507189E+03			Resid mbdelay (usec)	1.65453E-03 +/- 1.9E-04
Sband delay (usec)	-6.41901014864E+03					1.0032187E+01			Resid sbdelay (usec)	-6.15077E-01 +/- 1.5E-03
Phase delay (usec)	-6.41839507307E+03					-5.9999998E-07			Resid phdelay (usec)	-1.17386E-06 +/- 6.4E-07
Delay rate (us/s)	-6.74786678813E-01					-6.74796006913E-01			Resid rate (us/s)	9.32810E-06 +/- 6.2E-09
Total phase (deg)		-213.8				5.42249288499E-05			Resid phase (deg)	-36.4 +/- 20.0
RMS	52.6	46.9							PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
Theor.									PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
Amplitude									Bits/sample: 2x2	mb window (us) -0.008 0.008
Search (1024X32)									Sample rate(MSamp/s): 128	dr window (ns/s) -0.011 0.011
Interp.									Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
Inc. seg. avg.										
Inc. frq. avg.										
ph/seg (deg)	31.8	28.3								
amp/seg (%)	30.1	49.4								
ph/frq (deg)										
amp/frq (%)										

B: az 320.0 el 36.8 pa 51.9 p: az 17.7 el 63.9 pa -152.0 u,v (fr/asec) 7442.353 7884.399 simultaneous interpolator

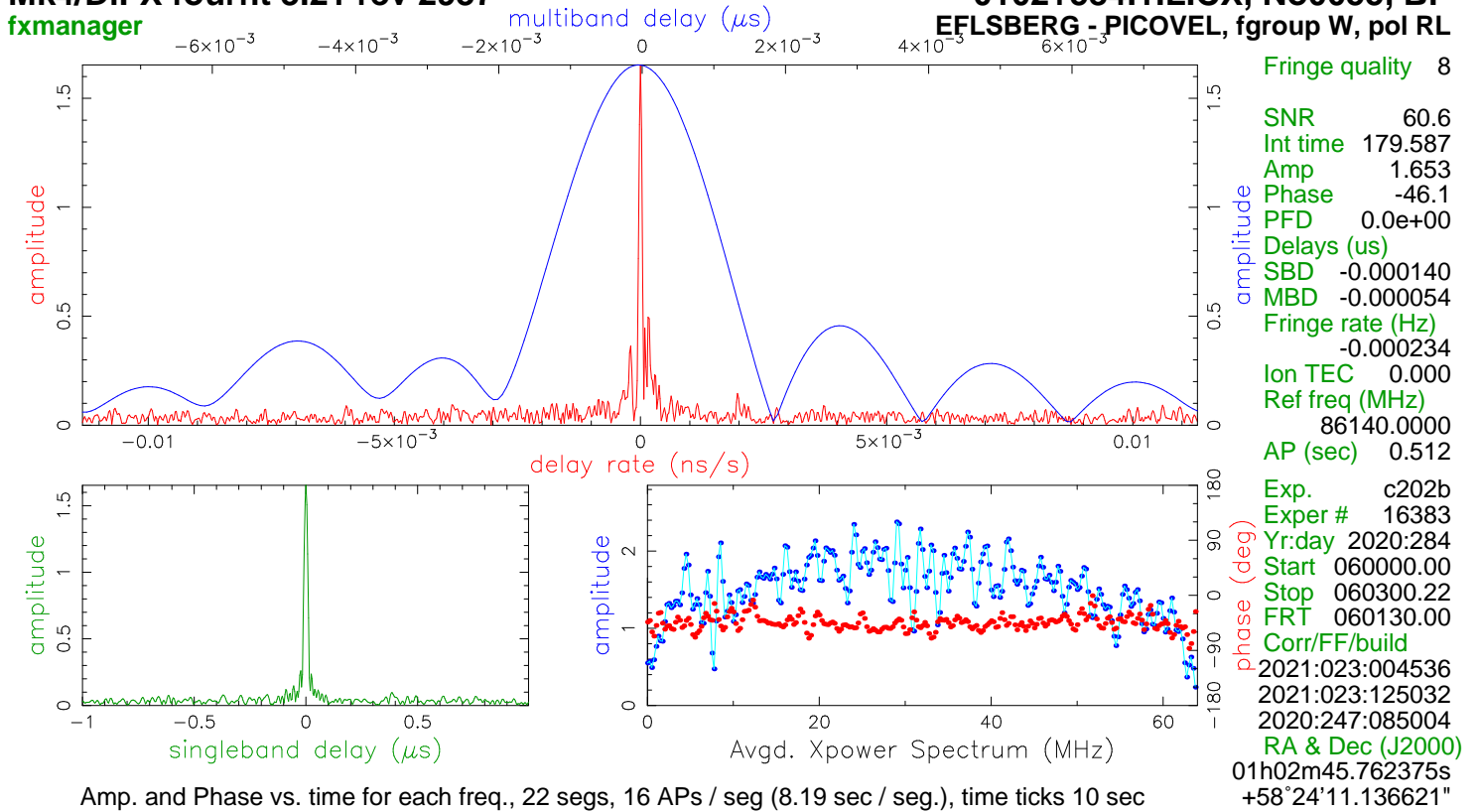
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bp..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bp.W.67.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

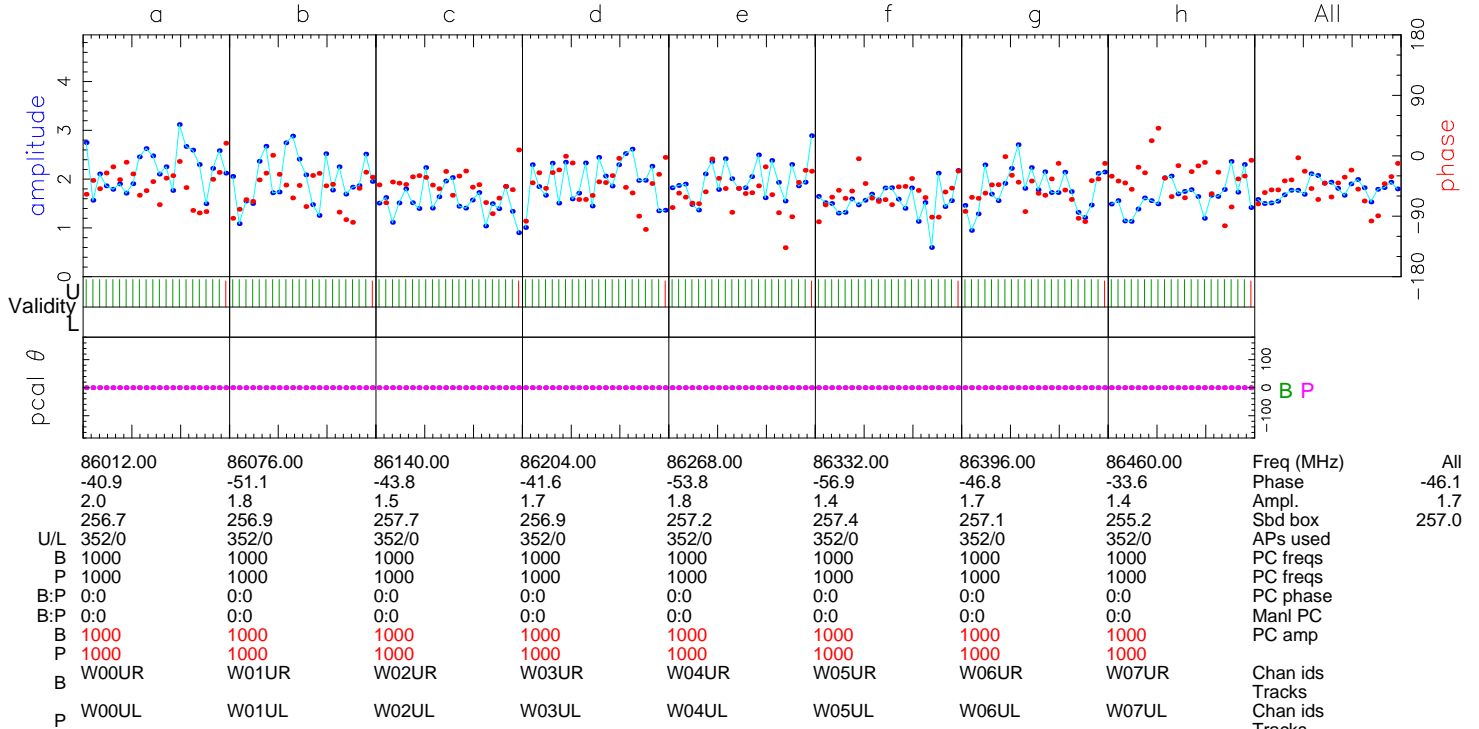
fxmanager

0102+584.1ILICX, No0055, BP

EFLSBERG - PICOVEL, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



Group delay (usec)(sbd)	1.81565071012E+03	Apriori delay (usec)	1.81565076440E+03	Resid mbdelay (usec)	-5.42812E-05	+/-	1.8E-05
Sband delay (usec)	1.81565062390E+03	Apriori clock (usec)	1.0309258E+01	Resid sbdelay (usec)	-1.40500E-04	+/-	1.4E-04
Phase delay (usec)	1.81565076291E+03	Apriori clockrate (us/s)	2.0000000E-07	Resid phdelay (usec)	-1.48621E-06	+/-	6.1E-08
Delay rate (us/s)	1.40162213702E-01	Apriori rate (us/s)	1.40162216414E-01	Resid rate (us/s)	-2.71236E-09	+/-	5.9E-10
Total phase (deg)	258.2	Apriori accel (us/s/s)	6.66662612630E-06	Resid phase (deg)	-46.1	+/-	1.9

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5

PCal rate: 0.000E+00, 0.000E+00 (us/s)

Bits/sample: 2x2 SampCntNorm: enabled

Sample rate(MSamp/s): 128

Data rate(Mb/s): 2048

lags: 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

simultaneous interpolator

B: az 320.0 el 36.8 pa 51.9 P: az 322.5 el 31.0 pa 69.0 u,v (fr/asec) -1532.262 1643.998

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BP..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BP.W.69.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

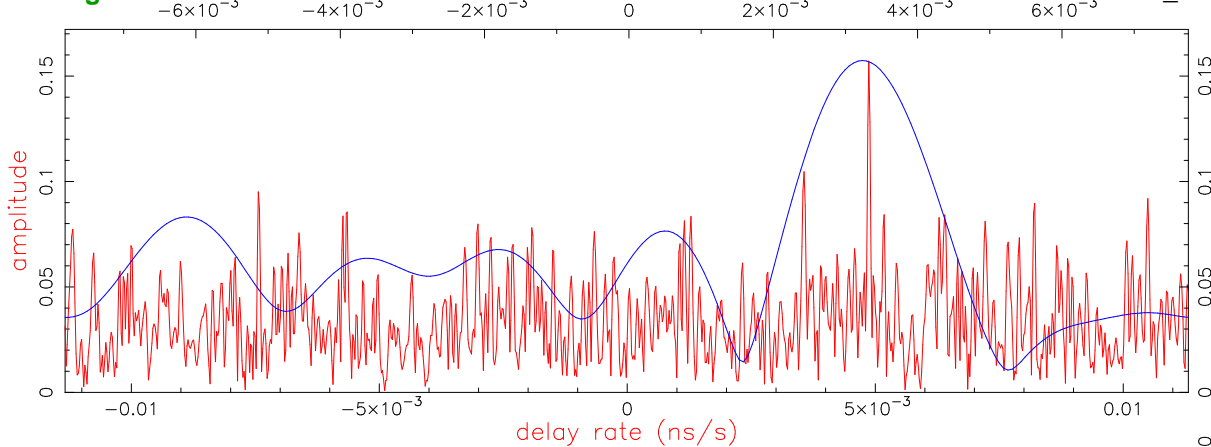
fxmanager

0102+584.1ILICX, No0055, Bp

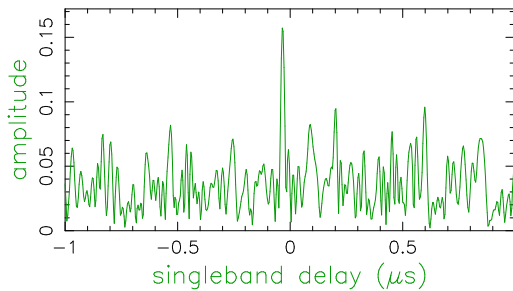
EFLSBERG - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

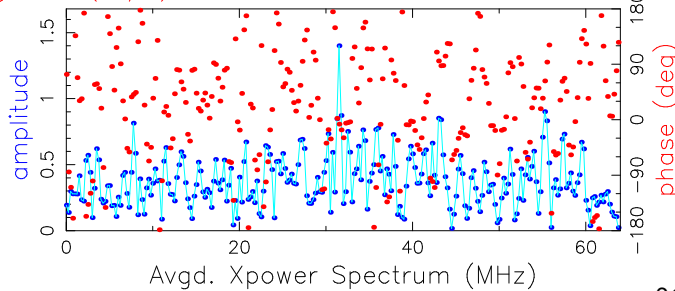
Fringe quality 0



SNR 5.8  
Int time 179.777  
Amp 0.172  
Phase -23.4  
PFD 4.8e-01  
Delays (us)  
SBD -0.033564  
MBD 0.003294  
Fringe rate (Hz)  
0.419350  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

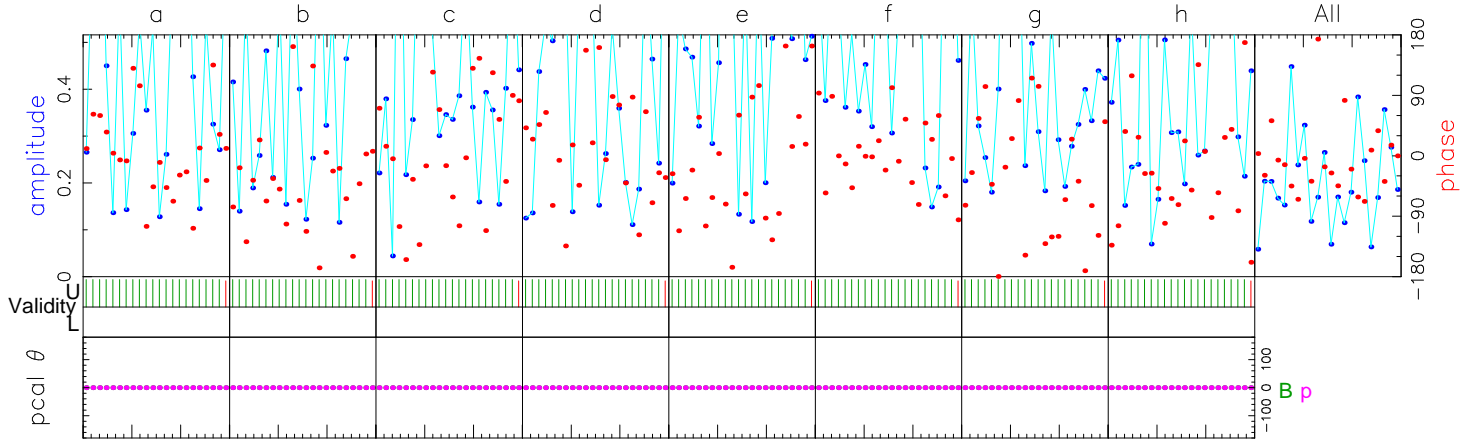


delay rate (ns/s)



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125034  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	309.8	340.6	42.9	78.1	187.0	247.8	450.2	137.6	Sbd box	248.4
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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-6.41842302809E+03		Apriori delay (usec)	-6.41839507189E+03	Resid mbdelay (usec)	3.29380E-03	+/-	1.9E-04		
Sband delay (usec)	-6.41842863614E+03		Apriori clock (usec)	1.0032187E+01	Resid sbdelay (usec)	-3.35643E-02	+/-	1.5E-03		
Phase delay (usec)	-6.41839507265E+03		Apriori clockrate (us/s)	-5.9999998E-07	Resid phdelay (usec)	-7.53560E-07	+/-	6.3E-07		
Delay rate (us/s)	-6.74791138672E-01		Apriori rate (us/s)	-6.74796006913E-01	Resid rate (us/s)	4.86824E-06	+/-	6.1E-09		
Total phase (deg)	-200.8		Apriori accel (us/s/s)	5.42249288499E-05	Resid phase (deg)	-23.4	+/-	19.6		

RMS Theor. Amplitude 0.172 +/- 0.029  
ph/seg (deg) 51.5 46.0 Search (1024X32) 0.154  
amp/seg (%) 70.3 80.3 Interp. 0.000  
ph/frq (deg) 31.5 27.7 Inc. seg. avg. 0.170  
amp/frq (%) 56.5 48.4 Inc. frq. avg. 0.172

Group delay (usec)(sbd) -6.41842302809E+03 Apriori delay (usec) -6.41839507189E+03 Resid mbdelay (usec) 3.29380E-03 +/- 1.9E-04  
Sband delay (usec) -6.41842863614E+03 Apriori clock (usec) 1.0032187E+01 Resid sbdelay (usec) -3.35643E-02 +/- 1.5E-03  
Phase delay (usec) -6.41839507265E+03 Apriori clockrate (us/s) -5.9999998E-07 Resid phdelay (usec) -7.53560E-07 +/- 6.3E-07  
Delay rate (us/s) -6.74791138672E-01 Apriori rate (us/s) -6.74796006913E-01 Resid rate (us/s) 4.86824E-06 +/- 6.1E-09  
Total phase (deg) -200.8 Apriori accel (us/s/s) 5.42249288499E-05 Resid phase (deg) -23.4 +/- 19.6

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 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

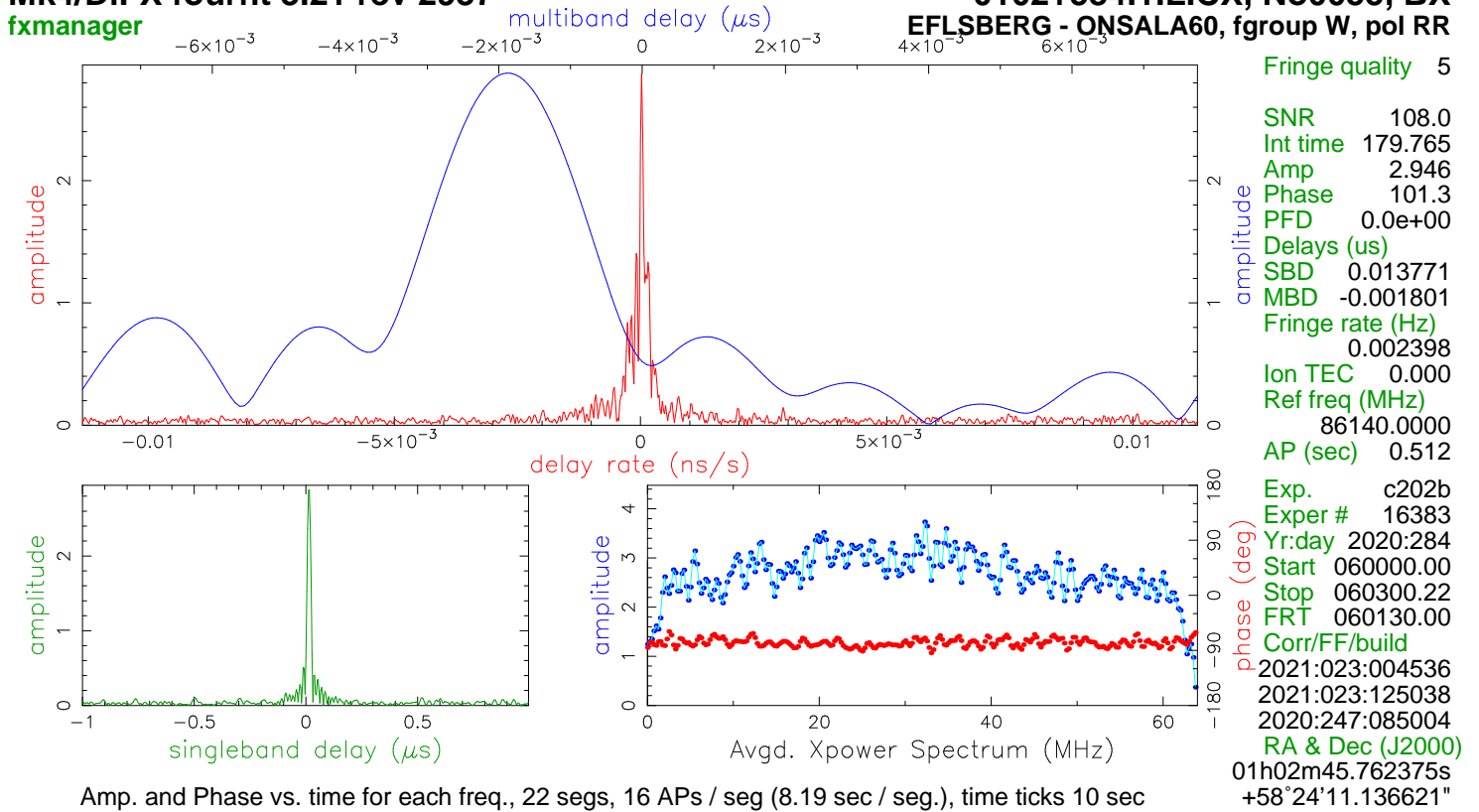
B: az 320.0 el 36.8 pa 51.9 p: az 17.7 el 63.9 pa -152.0 u,v (fr/asec) 7442.353 7884.399 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bp..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/Bp.W.77.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

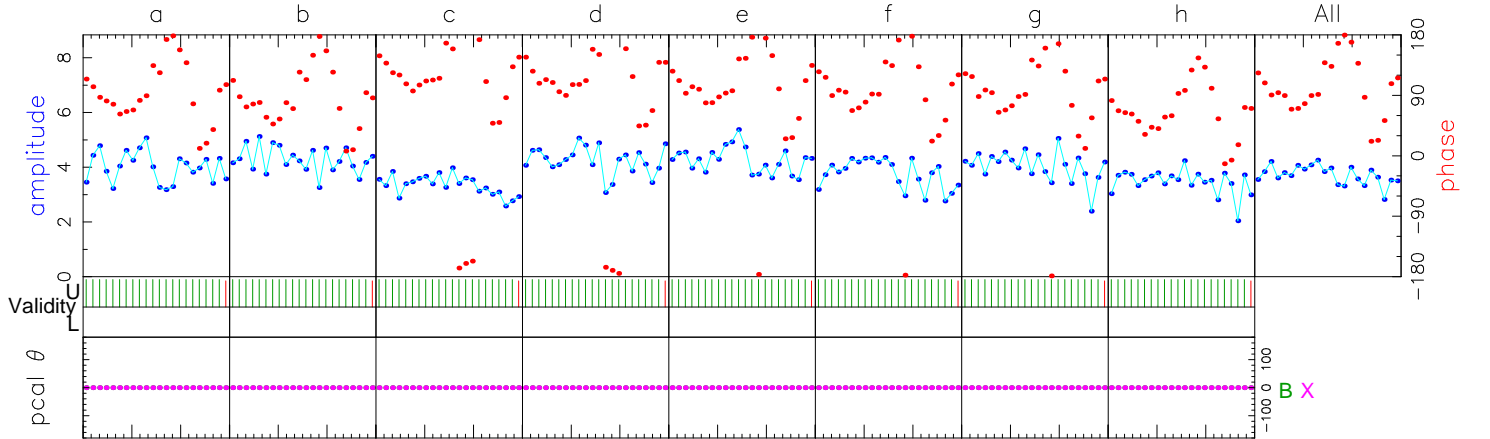
fxmanager

0102+584.1ILICX, No0055, BX

EFLSBERG - ONSALA60, fgroup W, pol RR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	92.6	84.1	130.6	122.1	109.1	102.5	101.7	66.8	Phase	101.3
B	3.0	3.3	2.6	3.3	3.3	2.9	3.1	2.7	Ampl.	3.0
X	260.3	260.8	260.9	260.3	260.3	260.8	260.6	259.3	Sbd box	260.5
B:X	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B: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)	-9.99347815852E+02		Apriori delay (usec)	-9.99361640308E+02		Resid mbdelay (usec)	-1.80054E-03	+/-	1.0E-05	
Sband delay (usec)	-9.99347869808E+02		Apriori clock (usec)	-3.8225204E+01		Resid sbdelay (usec)	1.37705E-02	+/-	8.0E-05	
Phase delay (usec)	-9.99361637042E+02		Apriori clockrate (us/s)	-7.2800002E-07		Resid phdelay (usec)	3.26643E-06	+/-	3.4E-08	
Delay rate (us/s)	-8.59269245400E-02		Apriori rate (us/s)	-8.59269523778E-02		Resid rate (us/s)	2.78378E-08	+/-	3.3E-10	
Total phase (deg)	-149.3		Apriori accel (us/s/s)	-1.68667556781E-06		Resid phase (deg)	101.3	+/-	1.1	

ph/seg (deg)	41.5	2.5	Amplitude	2.946 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	28.6	4.3	Search (1024X32)	2.837	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	22.1	1.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	9.3	2.6	Inc. seg. avg.	3.718	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
			Inc. frq. avg.	3.028	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00

B: az 320.0 el 36.8 pa 51.9 X: az 318.8 el 40.1 pa 43.3 u,v (fr/asec) 941.146 -547.378 simultaneous interpolator

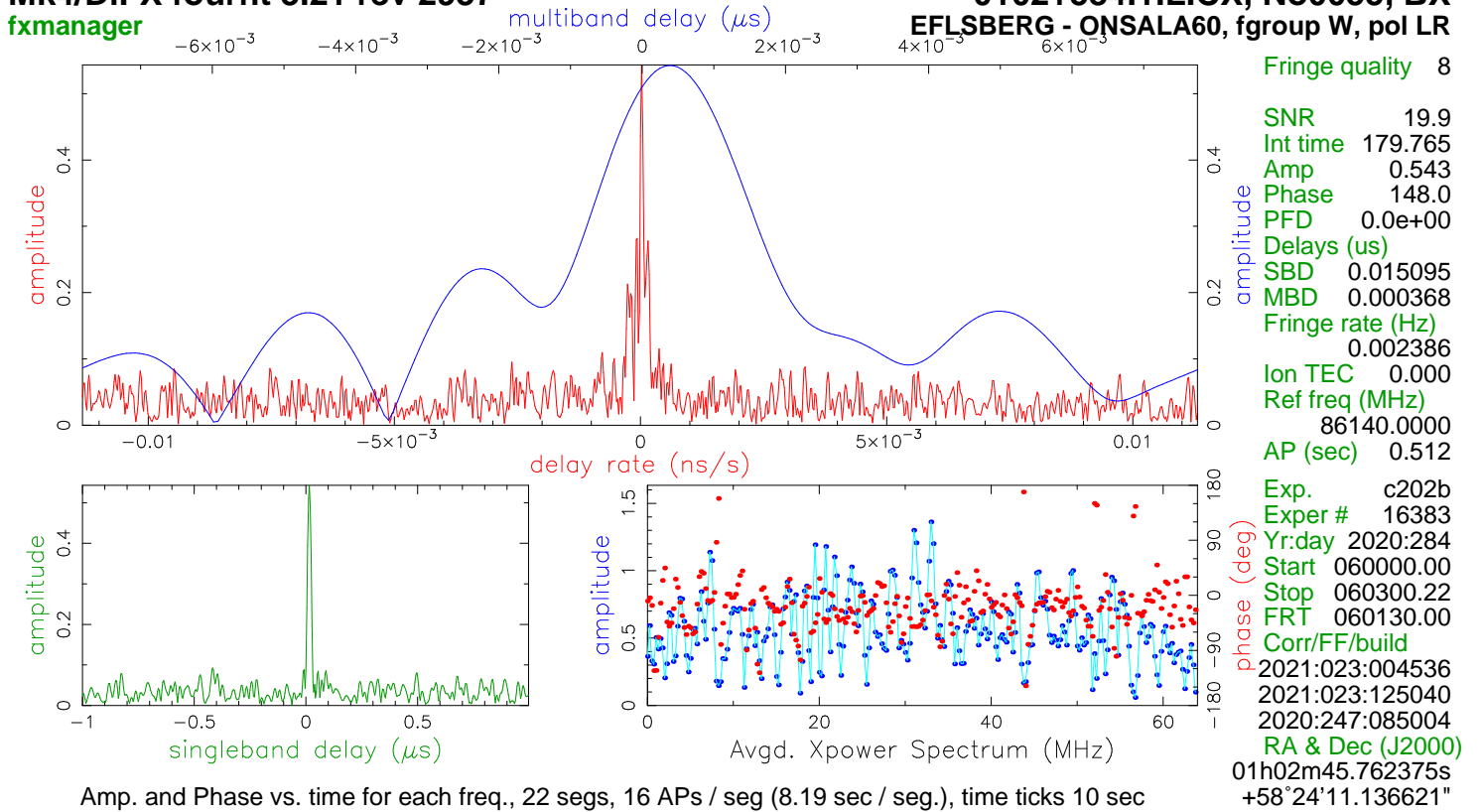
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BX..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BX.W.112.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

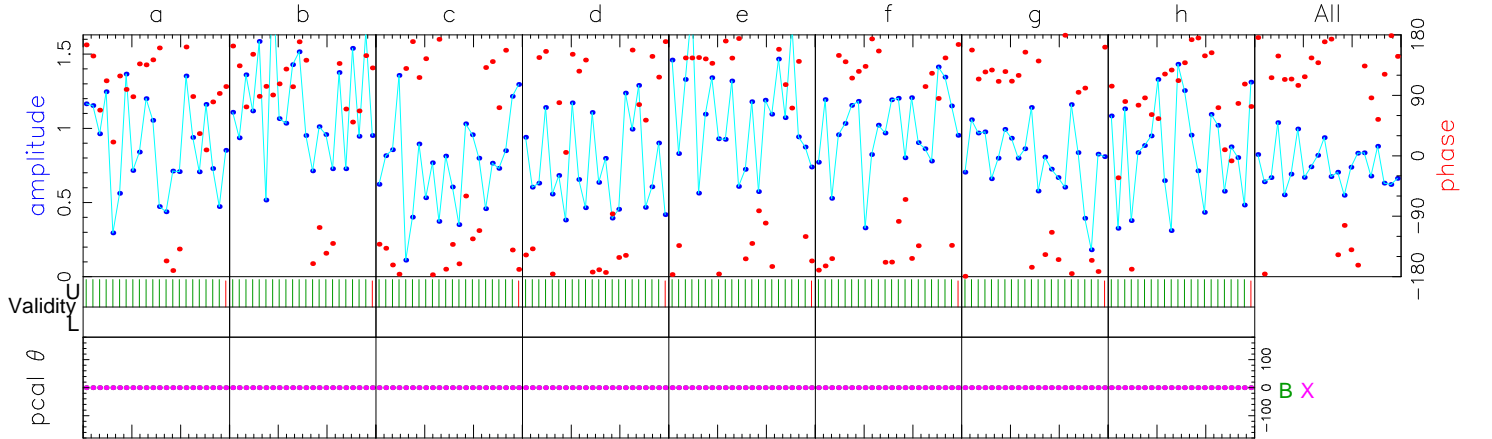
fxmanager

0102+584.1ILICX, No0055, BX

EFLSBERG - ONSALA60, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	120.1	124.4	-167.7	160.7	168.2	170.5	153.7	96.9	Phase	148.0
	0.6	0.8	0.5	0.5	0.7	0.6	0.6	0.6	Ampl.	0.6
	260.2	261.2	261.6	260.4	260.9	260.7	260.5	259.4	Sbd box	260.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-9.99345647696E+02		Apriori delay (usec)	-9.99361640308E+02		Resid mbdelay (usec)	3.67612E-04	+/-	5.4E-05	
Sband delay (usec)	-9.99346545058E+02		Apriori clock (usec)	-3.8225204E+01		Resid sbdelay (usec)	1.50952E-02	+/-	4.3E-04	
Phase delay (usec)	-9.99361635535E+02		Apriori clockrate (us/s)	-7.2800002E-07		Resid phdelay (usec)	4.77264E-06	+/-	1.9E-07	
Delay rate (us/s)	-8.59269246760E-02		Apriori rate (us/s)	-8.59269523778E-02		Resid rate (us/s)	2.77018E-08	+/-	1.8E-09	
Total phase (deg)	-102.6		Apriori accel (us/s/s)	-1.68667556781E-06		Resid phase (deg)	148.0	+/-	5.8	

ph/seg (deg)	46.5	13.5	Amplitude	0.543 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	44.3	23.5	Search (1024X32)	0.534	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	34.2	8.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	21.9	14.2	Inc. seg. avg.	0.725	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011	
			Inc. frq. avg.	0.612	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 X: az 318.8 el 40.1 pa 43.3 u,v (fr/asec) 941.146 -547.378 simultaneous interpolator

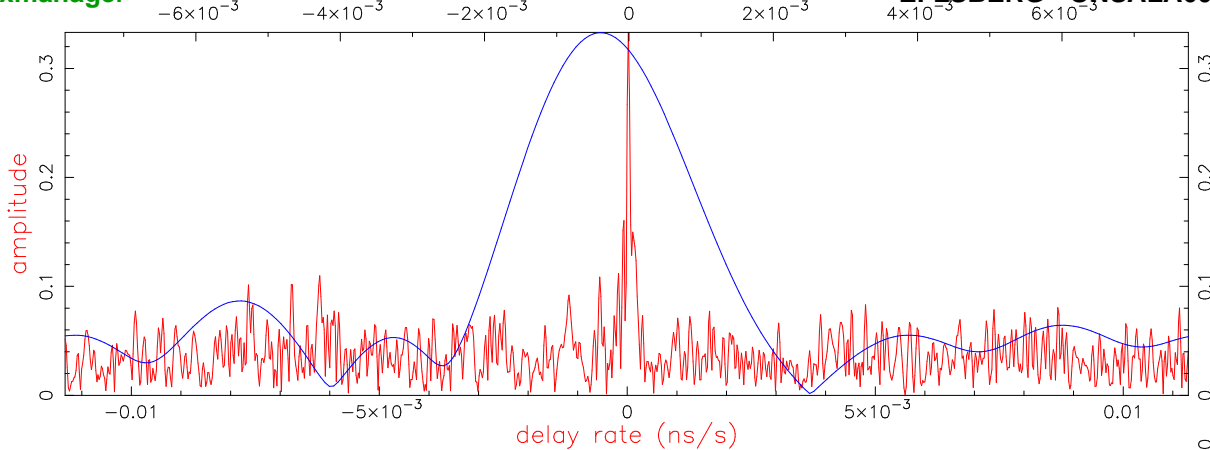
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BX..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BX.W.128.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

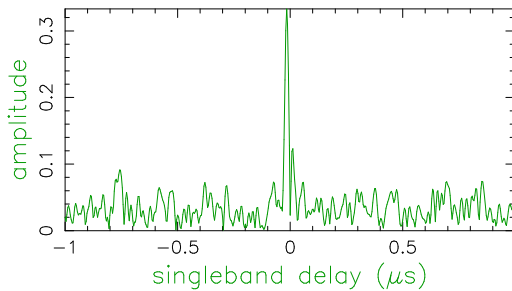
0102+584.1ILICX, No0055, BX

EFLSBERG - ONSALA60, fgroup W, pol RL

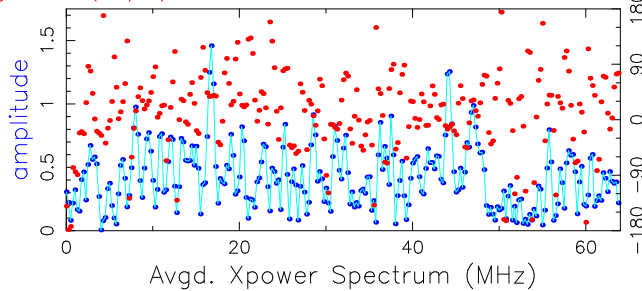
multiband delay ( $\mu$ s)

Fringe quality 9

SNR 12.2  
Int time 179.765  
Amp 0.333  
Phase -148.8  
PFD 6.7e-26  
Delays (us)  
SBD -0.015232  
MBD -0.000379  
Fringe rate (Hz)  
0.002442  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

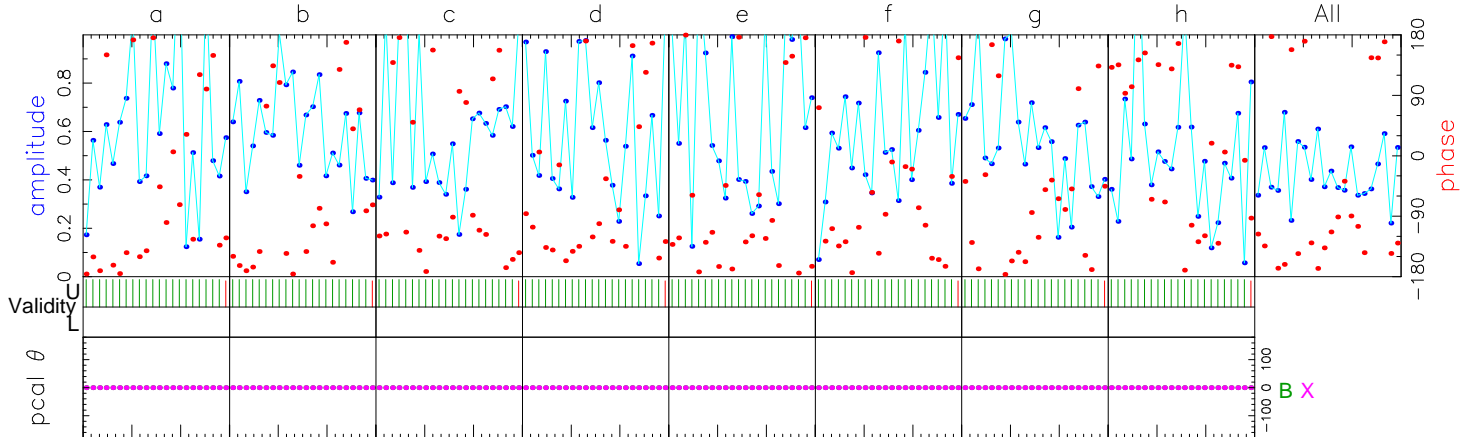


delay rate (ns/s)



Exp. c202b  
Yr:day 16383  
Yr:day 2020:284  
Start 060000.00  
Stop 060300.22  
FRT 060130.00  
Corr/FF/build  
2021:023:004536  
2021:023:125042  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-153.7	-161.5	-147.0	-133.9	-157.4	-122.6	-133.4	164.6	Phase	-148.8
	0.3	0.3	0.4	0.4	0.5	0.4	0.3	0.2	Ampl.	0.3
	252.5	253.3	253.9	252.2	253.1	253.7	252.6	438.8	Sbd box	253.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	

Group delay (usec)(sbd)	-9.99377644008E+02	Apriori delay (usec)	-9.99361640308E+02	Resid mbdelay (usec)	-3.78700E-04	+/-	8.9E-05
Sband delay (usec)	-9.99376872558E+02	Apriori clock (usec)	-3.8225204E+01	Resid sbdelay (usec)	-1.52323E-02	+/-	7.1E-04
Phase delay (usec)	-9.99361645105E+02	Apriori clockrate (us/s)	-7.2800002E-07	Resid phdelay (usec)	-4.79740E-06	+/-	3.0E-07
Delay rate (us/s)	-8.59269240256E-02	Apriori rate (us/s)	-8.59269523778E-02	Resid rate (us/s)	2.83522E-08	+/-	2.9E-09
Total phase (deg)	-39.4	Apriori accel (us/s/s)	-1.68667556781E-06	Resid phase (deg)	-148.8	+/-	9.4

	RMS	Theor.	Amplitude	0.333 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	43.4	22.0	Search (1024X32)	0.326	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	47.0	38.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	24.4	13.3	Inc. seg. avg.	0.404	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011 0.011
amp/frq (%)	27.3	23.2	Inc. frq. avg.	0.342	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 320.0 el 36.8 pa 51.9

X: az 318.8 el 40.1 pa 43.3

u,v (fr/asec) 941.146 -547.378

simultaneous interpolator

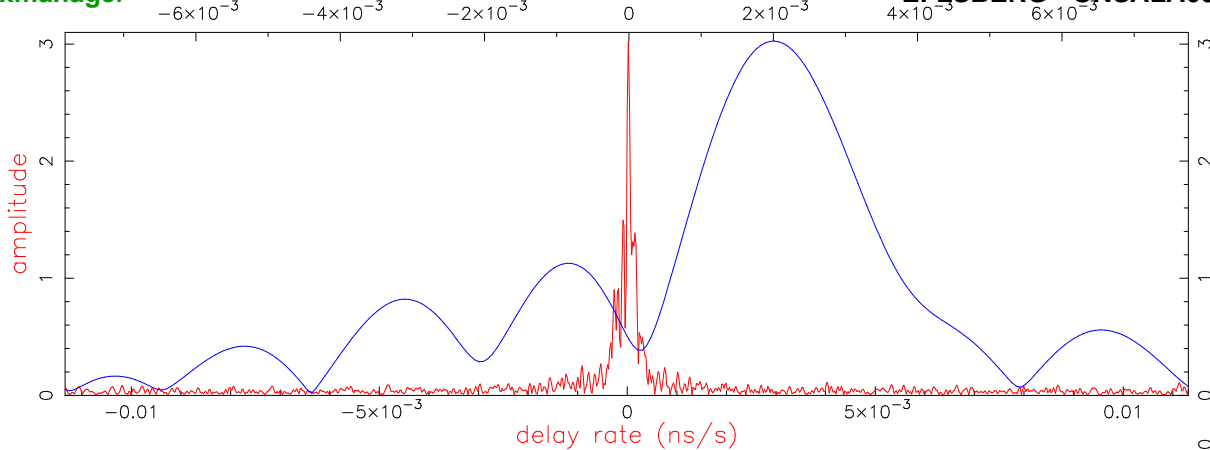
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BX..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BX.W.148.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILICX, No0055, BX

EFLSBERG - ONSALA60, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 4

SNR 113.6

Int time 179.765

Amp 3.099

Phase 24.1

PFD 0.0e+00

Delays (us)

SBD -0.013537

MBD 0.002067

Fringe rate (Hz)

0.002367

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Exper # 16383

Yr:day 2020:284

Start 060000.00

Stop 060300.22

FRT 060130.00

Corr/FF/build

2021:023:004536

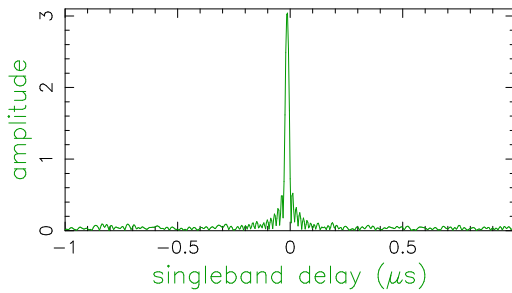
2021:023:125036

2020:247:085004

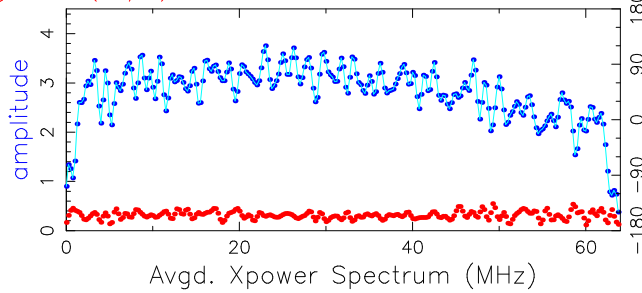
RA &amp; Dec (J2000)

01h02m45.762375s

+58°24'11.136621"



delay rate (ns/s)



amplitude

phase (deg)

180

90

0

-90

-180

180

90

0

-90

-180

180

90

0

-90

-180

180

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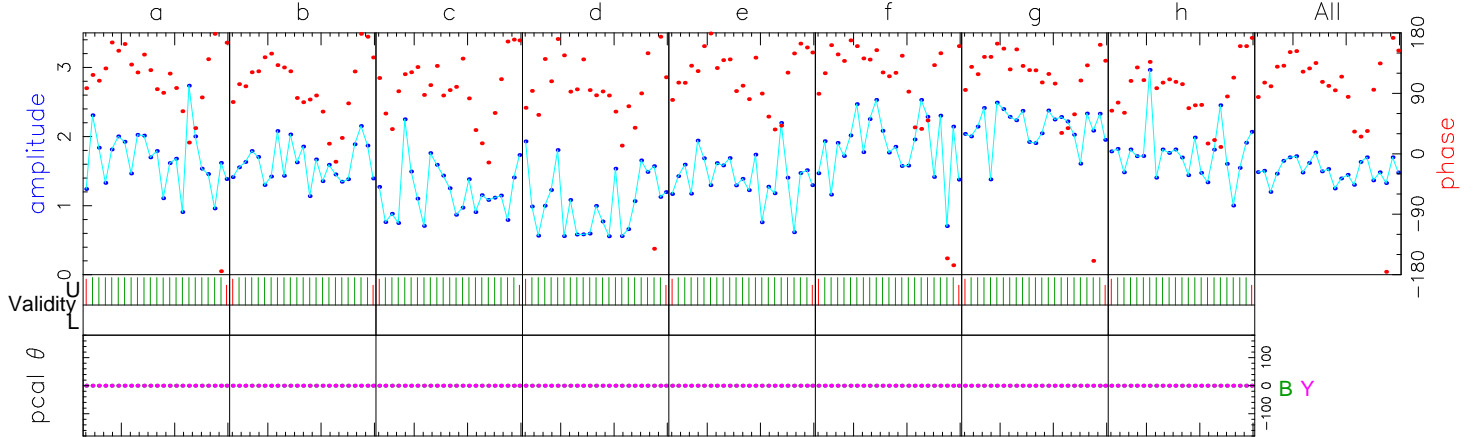
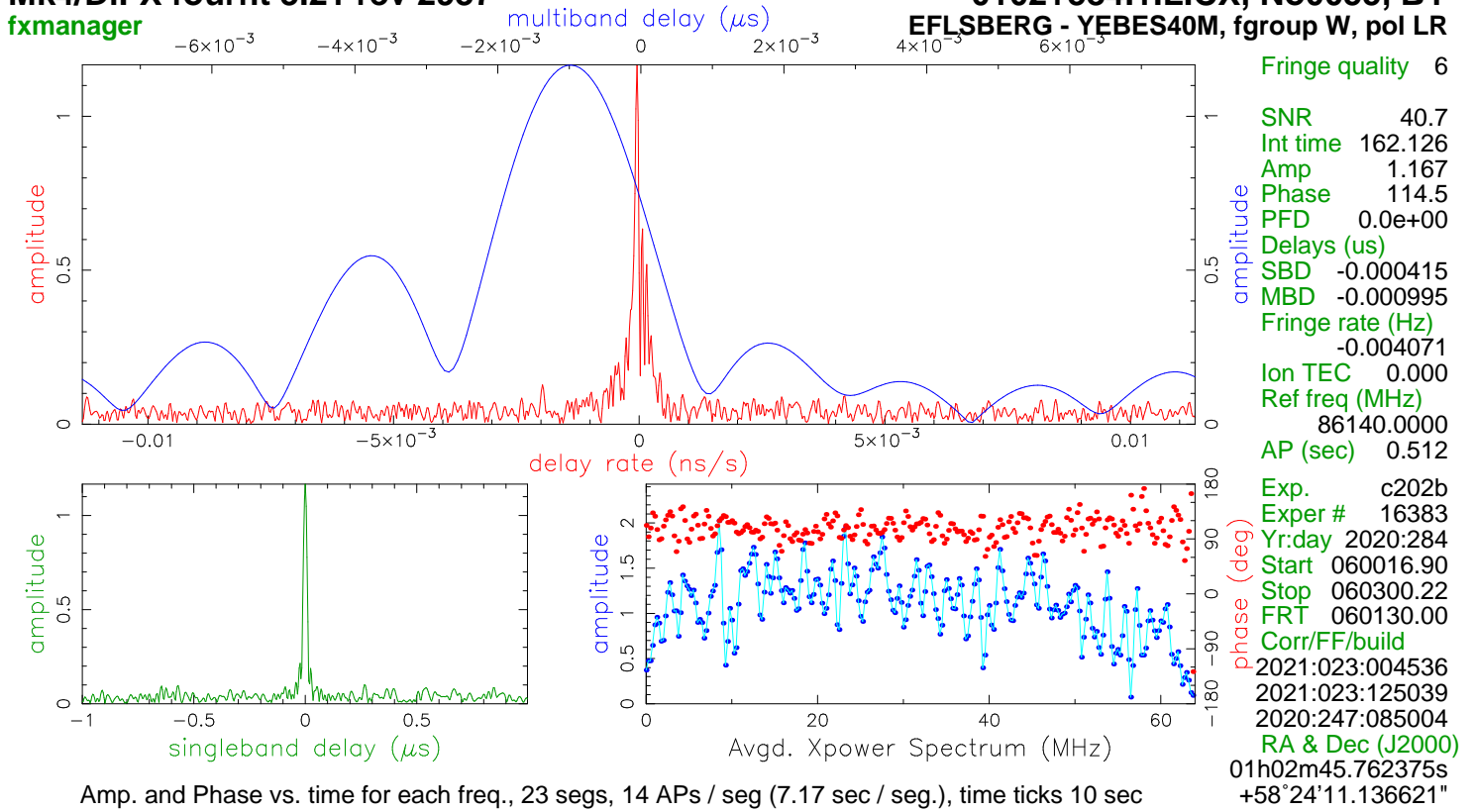
180

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILICX, No0055, BY

EFLSBERG - YEBES40M, fgroup W, pol LR



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	119.3	106.9	102.7	106.8	118.2	130.1	124.8	95.3	Phase	114.5
	1.2	1.2	0.9	0.7	1.1	1.4	1.7	1.3	Ampl.	1.2
	257.2	256.0	257.2	256.9	257.1	256.8	256.5	255.7	Sbd box	256.9
U/L	319/0	319/0	319/0	319/0	319/0	319/0	319/0	319/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
B	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	9.97020155779E+02	Apriori delay (usec)	9.97021150724E+02	Resid mbdelay (usec)	-9.94945E-04	+/-	2.7E-05
Sband delay (usec)	9.97020735224E+02	Apriori clock (usec)	-3.5792766E+00	Resid sbdelay (usec)	-4.15500E-04	+/-	2.1E-04
Phase delay (usec)	9.97021154416E+02	Apriori clockrate (us/s)	-3.1999999E-07	Resid phdelay (usec)	3.69197E-06	+/-	9.1E-08
Delay rate (us/s)	1.09381387523E-01	Apriori rate (us/s)	1.09381434778E-01	Resid rate (us/s)	-4.72551E-08	+/-	9.6E-10
Total phase (deg)	86.9	Apriori accel (us/s/s)	6.43724820759E-06	Resid phase (deg)	114.5	+/-	2.8

	RMS	Theor.	Amplitude	1.167 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	40.8	6.8	Search (1024X32)	1.163	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	32.1	11.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	13.0	4.0	Inc. seg. avg.	1.498	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	24.3	7.0	Inc. frq. avg.	1.188	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00
									0.00

B: az 320.0 el 36.8 pa 51.9 Y: az 321.2 el 33.6 pa 65.7 u,v (fr/asec) -1194.701 1396.248 simultaneous interpolator

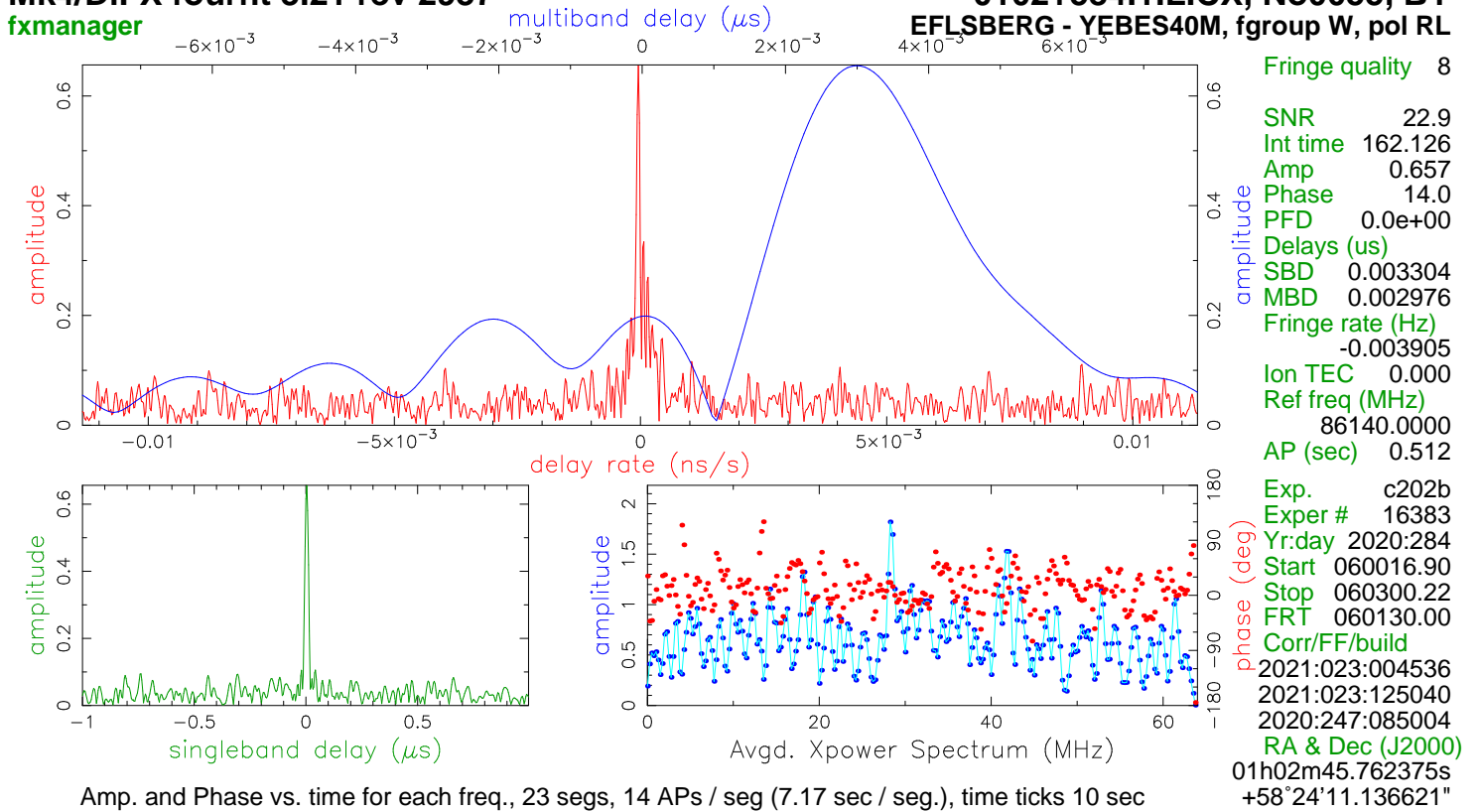
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BY..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BY.W.115.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

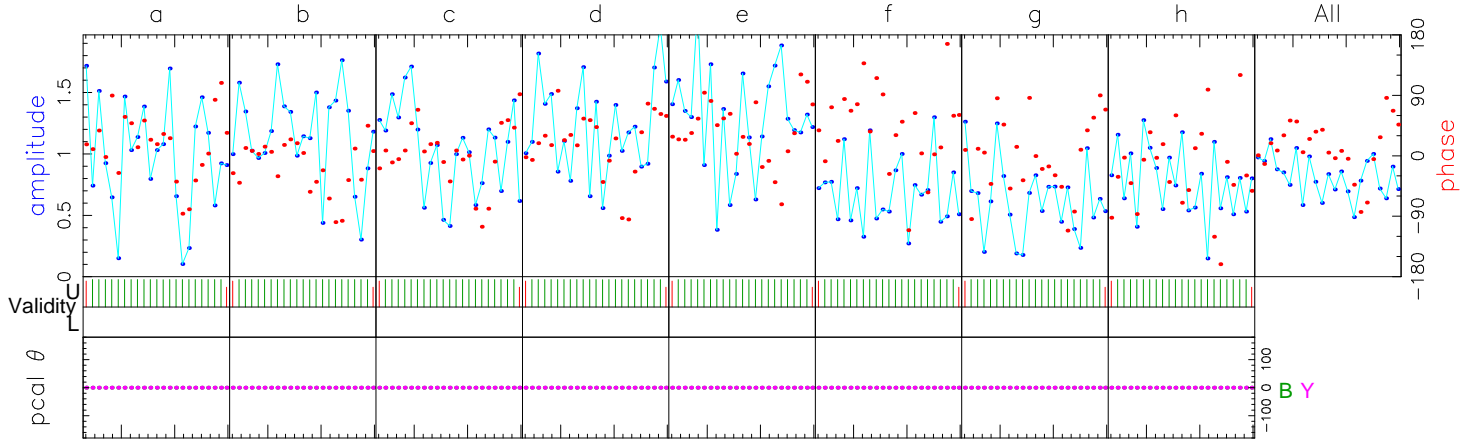
fxmanager

0102+584.1ILICX, No0055, BY

EFLSBERG - YEBES40M, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	24.3	-19.0	8.1	27.9	33.2	43.4	8.8	-24.2	Phase	14.0
	0.8	0.9	0.8	0.9	0.9	0.5	0.4	0.5	Ampl.	0.7
	257.3	257.9	258.2	257.7	258.1	257.2	257.2	255.7	Sbd box	257.8
U/L	319/0	319/0	319/0	319/0	319/0	319/0	319/0	319/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd) 9.97024126717E+02 Apriori delay (usec) 9.97021150724E+02 Resid mbdelay (usec) 2.97599E-03 +/- 4.7E-05

Sband delay (usec) 9.97024454474E+02 Apriori clock (usec) -3.5792766E+00 Resid sbdelay (usec) 3.30375E-03 +/- 3.8E-04

Phase delay (usec) 9.97021151176E+02 Apriori clockrate (us/s) -3.1999999E-07 Resid phdelay (usec) 4.52239E-07 +/- 1.6E-07

Delay rate (us/s) 1.09381389446E-01 Apriori rate (us/s) 1.09381434778E-01 Resid rate (us/s) -4.53321E-08 +/- 1.7E-09

Total phase (deg) 346.4 Apriori accel (us/s/s) 6.43724820759E-06 Resid phase (deg) 14.0 +/- 5.0

RMS Theor. Amplitude 0.657 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

ph/seg (deg) 39.4 12.0 Search (1024X32) 0.654 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

amp/seg (%) 34.3 21.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

ph/frq (deg) 26.3 7.1 Inc. seg. avg. 0.799 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011

amp/frq (%) 33.8 12.4 Inc. frq. avg. 0.700 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 320.0 el 36.8 pa 51.9 Y: az 321.2 el 33.6 pa 65.7 u,v (fr/asec) -1194.701 1396.248 simultaneous interpolator

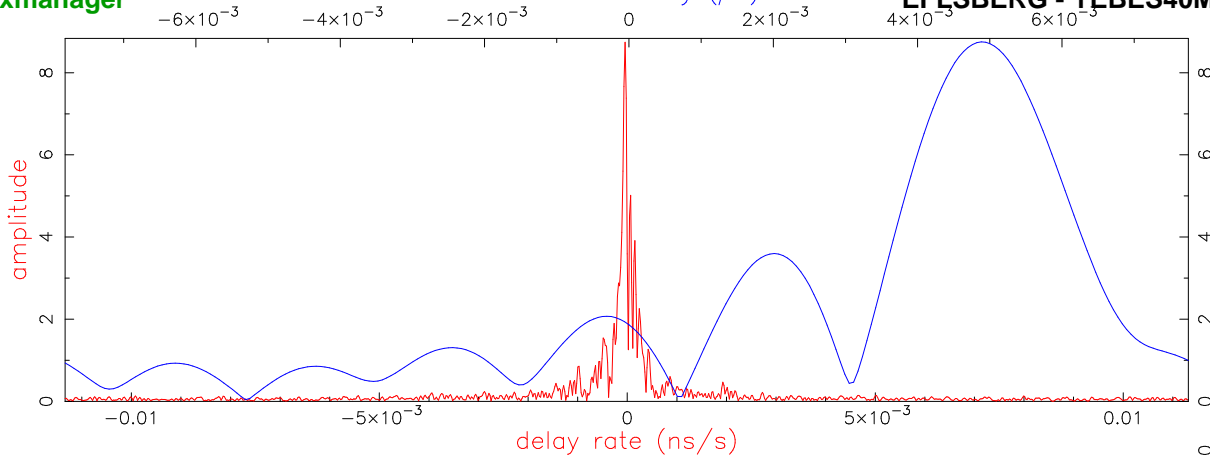
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Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILICX, No0055, BY

EFLSBERG - YEBES40M, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 5

SNR 307.6

Int time 162.126

Amp 8.835

Phase -117.2

PFD 0.0e+00

Delays (us)

SBD 0.005243

MBD 0.004932

Fringe rate (Hz)

-0.004234

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Exper # 16383

Yr:day 2020:284

Start 060016.90

Stop 060300.22

FRT 060130.00

Corr/FF/build

2021:023:004536

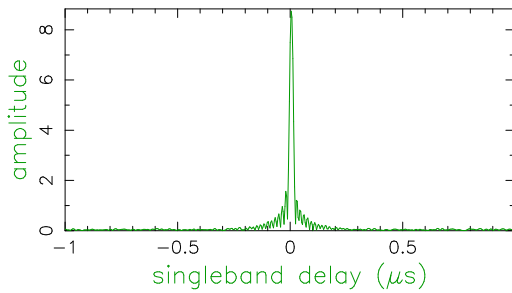
2021:023:125035

2020:247:085004

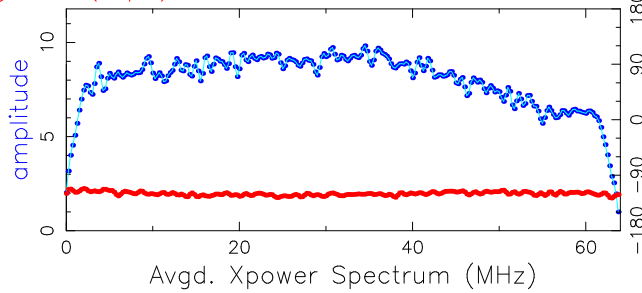
RA &amp; Dec (J2000)

01h02m45.762375s

+58°24'11.136621"



delay rate (ns/s)



amplitude

phase (deg)

amplitude

phase (deg)

amplitude

phase (deg)

amplitude

phase (deg)

amplitude

phase (deg)

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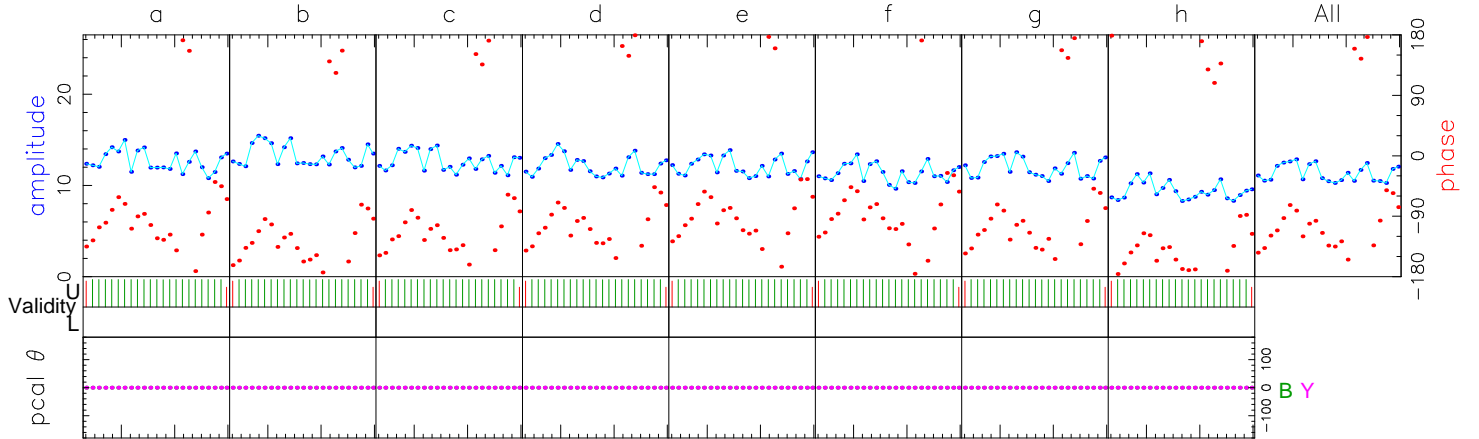
amplitude

phase (deg)

amplitude

phase (deg)

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-105.7	-136.9	-124.0	-113.9	-98.7	-92.0	-117.8	-154.8	Phase	-117.2
	9.8	10.3	9.8	9.3	9.2	8.7	9.2	7.3	Ampl.	9.2
	258.5	258.0	258.5	258.5	258.6	258.1	258.1	256.6	Sbd box	258.3
U/L	319/0	319/0	319/0	319/0	319/0	319/0	319/0	319/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	9.97026082717E+02	Apriori delay (usec)	9.97021150724E+02	Resid mbdelay (usec)	4.93199E-03	+/-	3.5E-06
Sband delay (usec)	9.97026393974E+02	Apriori clock (usec)	-3.5792766E+00	Resid sbdelay (usec)	5.24325E-03	+/-	2.8E-05
Phase delay (usec)	9.97021146944E+02	Apriori clockrate (us/s)	-3.1999999E-07	Resid phdelay (usec)	-3.77998E-06	+/-	1.2E-08
Delay rate (us/s)	1.09381385624E-01	Apriori rate (us/s)	1.09381434778E-01	Resid rate (us/s)	-4.91541E-08	+/-	1.3E-10
Total phase (deg)	215.2	Apriori accel (us/s/s)	6.43724820759E-06	Resid phase (deg)	-117.2	+/-	0.4

	RMS	Theor.	Amplitude	8.835 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	41.3	0.9	Search (1024X32)	8.682	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	30.3	1.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	22.2	0.5	Inc. seg. avg.	11.357	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	10.5	0.9	Inc. frq. avg.	9.206	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00
									0.00

B: az 320.0 el 36.8 pa 51.9 Y: az 321.2 el 33.6 pa 65.7 u,v (fr/asec) -1194.701 1396.248 simultaneous interpolator

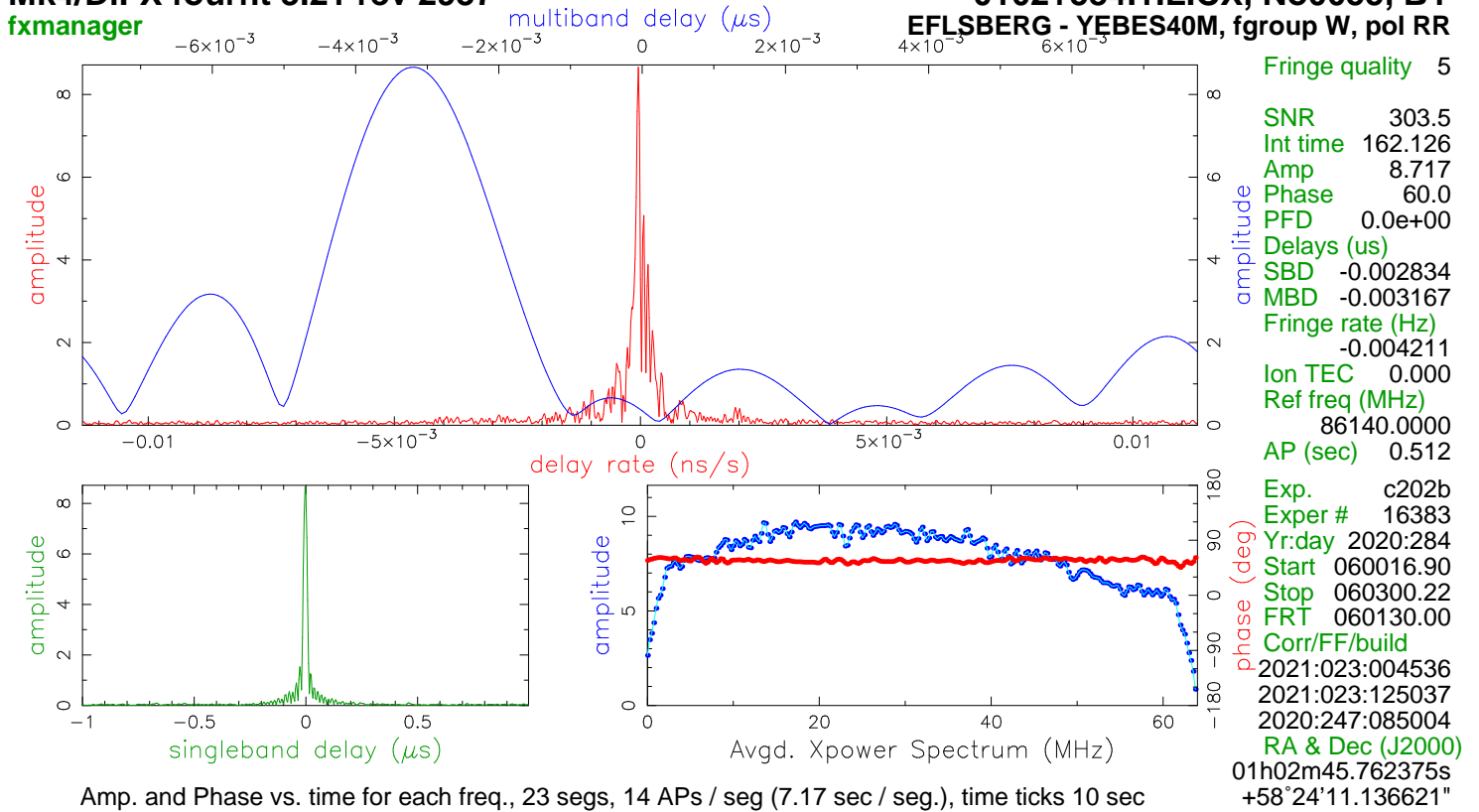
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BY..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BY.W.79.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

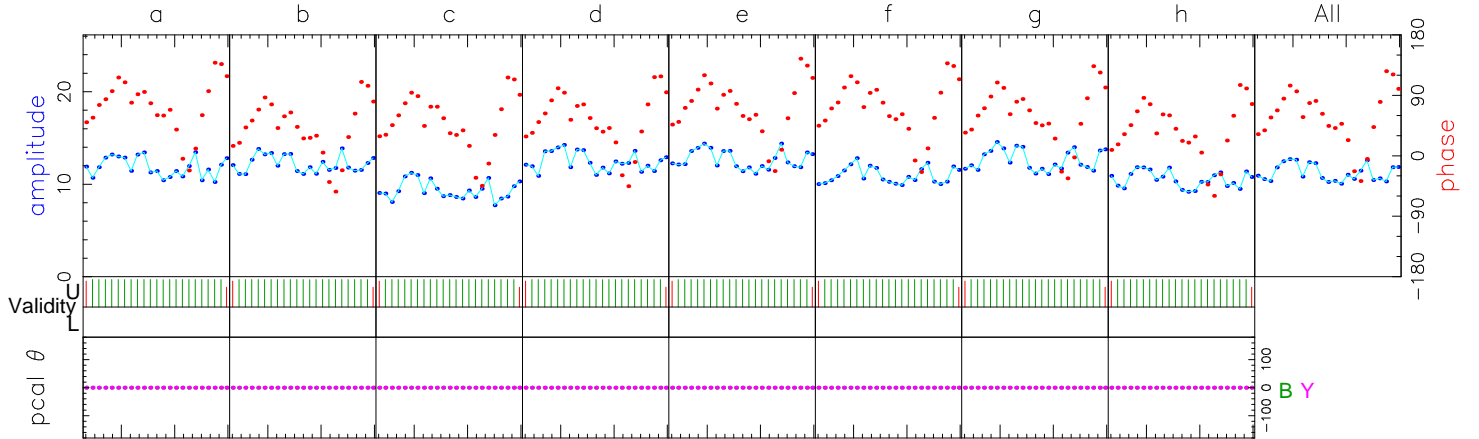
fxmanager

0102+584.1ILICX, No0055, BY

EFLSBERG - YEBES40M, fgroup W, pol RR



Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	76.1	42.5	51.6	55.4	73.8	74.3	63.5	38.9	Phase	60.0
	9.3	9.5	7.2	9.6	9.7	8.4	9.6	8.0	Ampl.	8.9
	256.2	255.7	256.6	256.2	256.4	256.3	256.2	255.1	Sbd box	256.3
U/L	319/0	319/0	319/0	319/0	319/0	319/0	319/0	319/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.97017983279E+02		Apriori delay (usec)	9.97021150724E+02	Resid mbdelay (usec)	-3.16744E-03	+/-	3.6E-06		
Sband delay (usec)	9.97018316474E+02		Apriori clock (usec)	-3.5792766E+00	Resid sbdelay (usec)	-2.83425E-03	+/-	2.8E-05		
Phase delay (usec)	9.97021152659E+02		Apriori clockrate (us/s)	-3.1999999E-07	Resid phdelay (usec)	1.93522E-06	+/-	1.2E-08		
Delay rate (us/s)	1.09381385896E-01		Apriori rate (us/s)	1.09381434778E-01	Resid rate (us/s)	-4.88820E-08	+/-	1.3E-10		
Total phase (deg)	32.4		Apriori accel (us/s/s)	6.43724820759E-06	Resid phase (deg)	60.0	+/-	0.4		

ph/seg (deg) 41.2 0.9 Theor. Amplitude 8.717 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 30.9 1.6 Search (1024X32) 8.423 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 15.9 0.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 10.2 0.9 Inc. seg. avg. 11.256 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011

B: az 320.0 el 36.8 pa 51.9 Y: az 321.2 el 33.6 pa 65.7 u,v (fr/asec) -1194.701 1396.248 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/c202b/v1/v1\_3mm/1234/No0055/BY..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BY.W.96.1ILICX simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

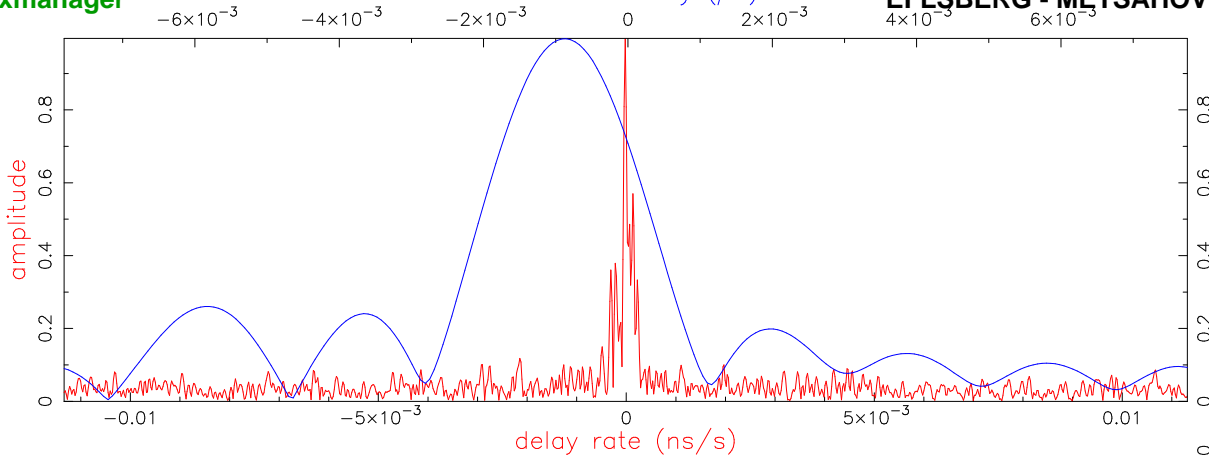
fxmanager

0102+584.1ILICX, No0055, BZ

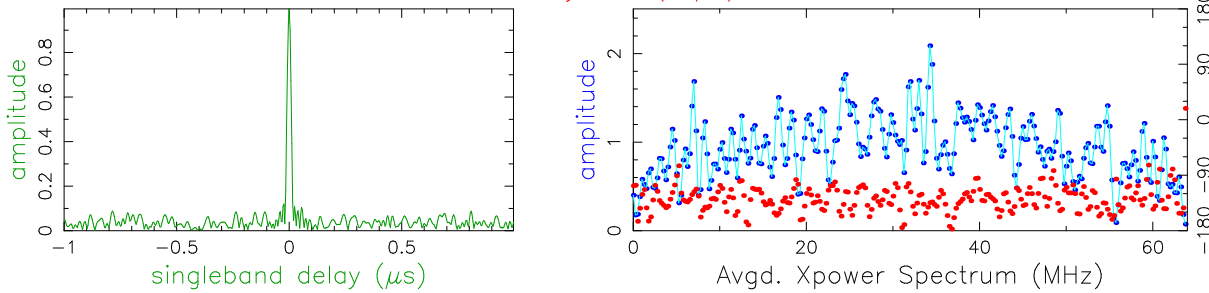
EFLSBERG - METSAHOV, fgroup W, pol RR

multiband delay ( $\mu$ s)

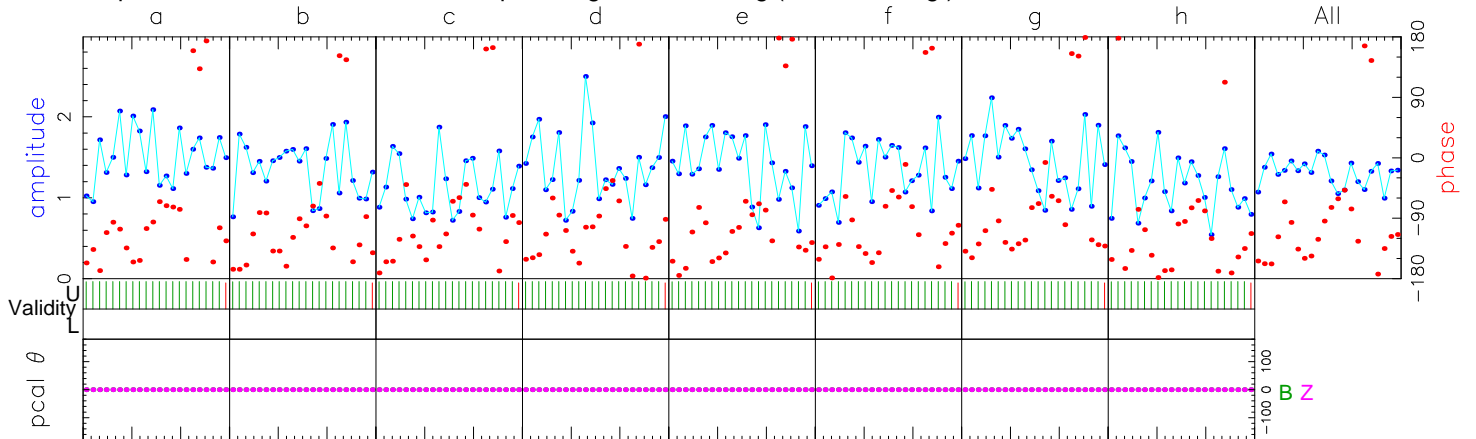
Fringe quality 8



SNR 36.5  
 Int time 179.668  
 Amp 0.996  
 Phase -124.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000420  
 MBD -0.000886  
 Fringe rate (Hz)  
 -0.002008  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 060000.00  
 Stop 060300.22  
 FRT 060130.00  
 Corr/FF/build  
 2021:023:004536  
 2021:023:125038  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-128.6	-129.4	-120.1	-116.4	-127.8	-116.0	-115.5	-139.5	Phase	-124.0
	1.1	1.0	0.8	1.1	1.1	0.9	1.1	0.8	Ampl.	1.0
	256.8	257.0	256.7	256.6	256.9	257.4	256.9	256.1	Sbd box	256.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd) -4.24702032761E+02 Apriori delay (usec) -4.24701146430E+02 Resid mbdelay (usec) -8.86331E-04 +/- 3.0E-05  
 Sband delay (usec) -4.2470156680E+02 Apriori clock (usec) 9.9630384E+00 Resid sbdelay (usec) -4.20250E-04 +/- 2.4E-04  
 Phase delay (usec) -4.24701150428E+02 Apriori clockrate (us/s) -2.1600000E-07 Resid phdelay (usec) -3.99775E-06 +/- 1.0E-07  
 Delay rate (us/s) -1.51401494858E-01 Apriori rate (us/s) -1.51401471552E-01 Resid rate (us/s) -2.33059E-08 +/- 9.7E-10  
 Total phase (deg) -35.2 Apriori accel (us/s/s) -6.94878902082E-06 Resid phase (deg) -124.0 +/- 3.1

RMS Theor. Amplitude 0.996 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 42.7 7.4 Search (1024X32) 0.990 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 35.2 12.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 9.3 4.4 Inc. seg. avg. 1.296 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 11.3 7.7 Inc. frq. avg. 1.002 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

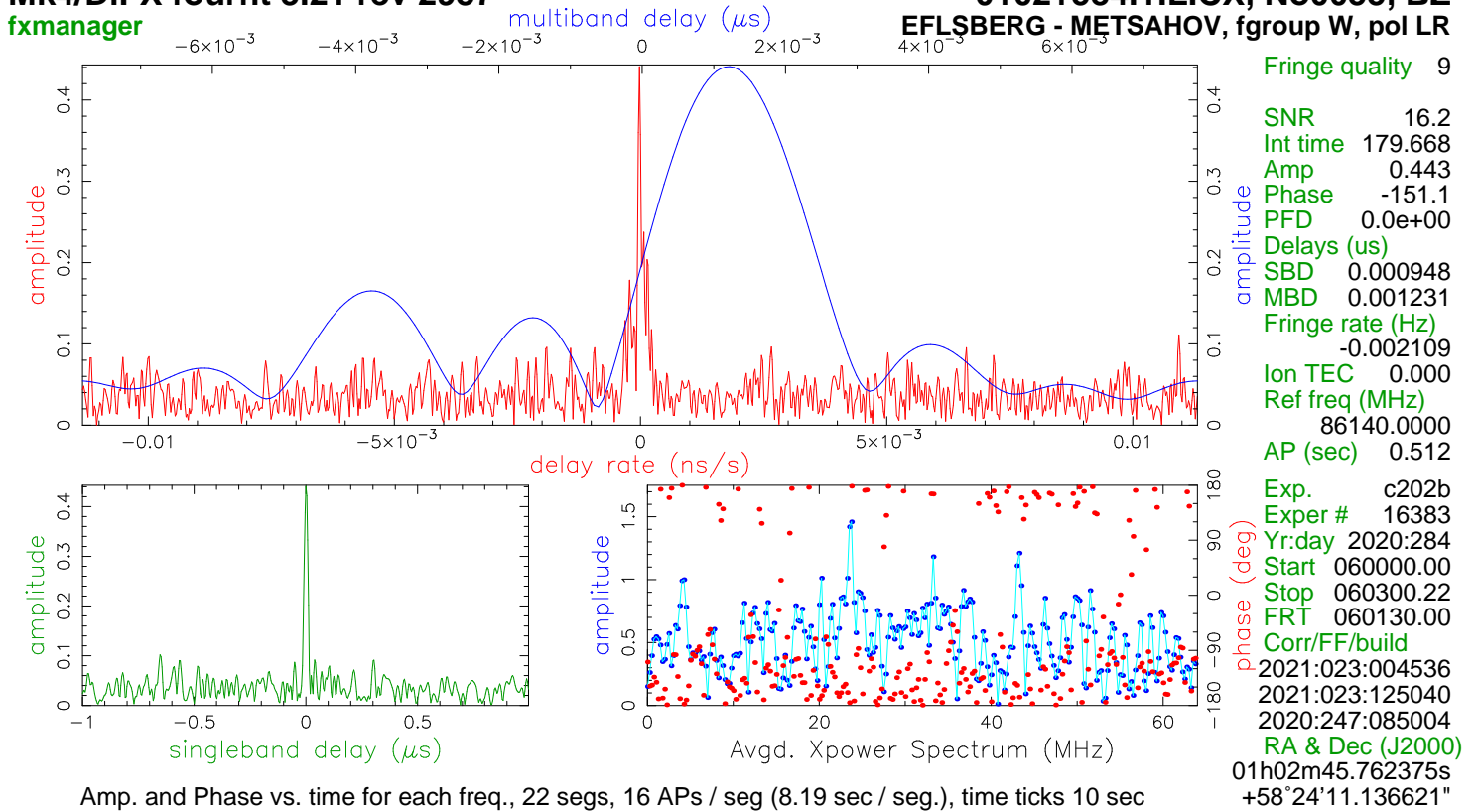
B: az 320.0 el 36.8 pa 51.9 Z: az 323.9 el 38.3 pa 34.5 u,v (fr/asec) 1654.869 -1343.749 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BZ..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BZ.W.108.1ILICX

Mk4/DiFX fourfit 3.21 rev 2937

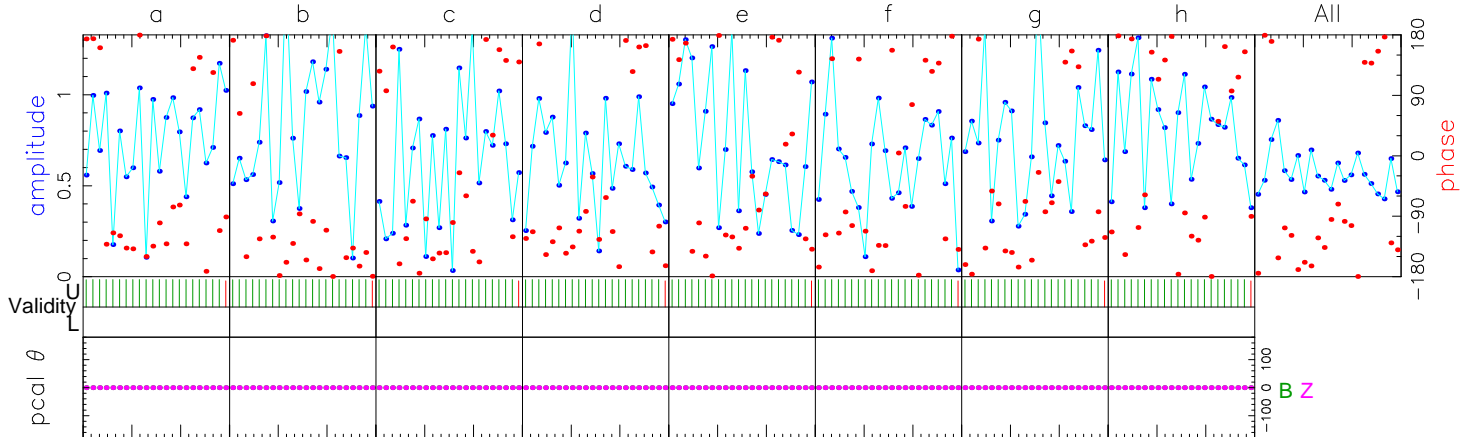
fxmanager

0102+584.1ILICX, No0055, BZ

EFLSBERG - METSAHOV, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-145.4	-157.2	-157.2	-139.9	-149.3	-166.6	-124.8	-172.1	Phase	-151.1
	0.5	0.7	0.3	0.5	0.5	0.4	0.4	0.4	Ampl.	0.4
	257.4	256.9	258.5	257.1	256.7	258.1	256.5	256.7	Sbd box	257.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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)	-4.24699915605E+02	Apriori delay (usec)	-4.24701146430E+02	Resid mbdelay (usec)	1.23083E-03	+/-	6.7E-05
Sband delay (usec)	-4.24700198680E+02	Apriori clock (usec)	9.9630384E+00	Resid sbdelay (usec)	9.47750E-04	+/-	5.3E-04
Phase delay (usec)	-4.24701151304E+02	Apriori clockrate (us/s)	-2.1600000E-07	Resid phdelay (usec)	-4.87370E-06	+/-	2.3E-07
Delay rate (us/s)	-1.51401496041E-01	Apriori rate (us/s)	-1.51401471552E-01	Resid rate (us/s)	-2.44892E-08	+/-	2.2E-09
Total phase (deg)	-62.4	Apriori accel (us/s/s)	-6.94878902082E-06	Resid phase (deg)	-151.1	+/-	7.1

	RMS	Theor.	Amplitude	0.443 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	41.2	16.5	Search (1024X32)	0.429	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	37.7	28.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	16.4	10.0	Inc. seg. avg.	0.549	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	21.7	17.4	Inc. frq. avg.	0.447	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 Z: az 323.9 el 38.3 pa 34.5 u,v (fr/asec) 1654.869 -1343.749 simultaneous interpolator

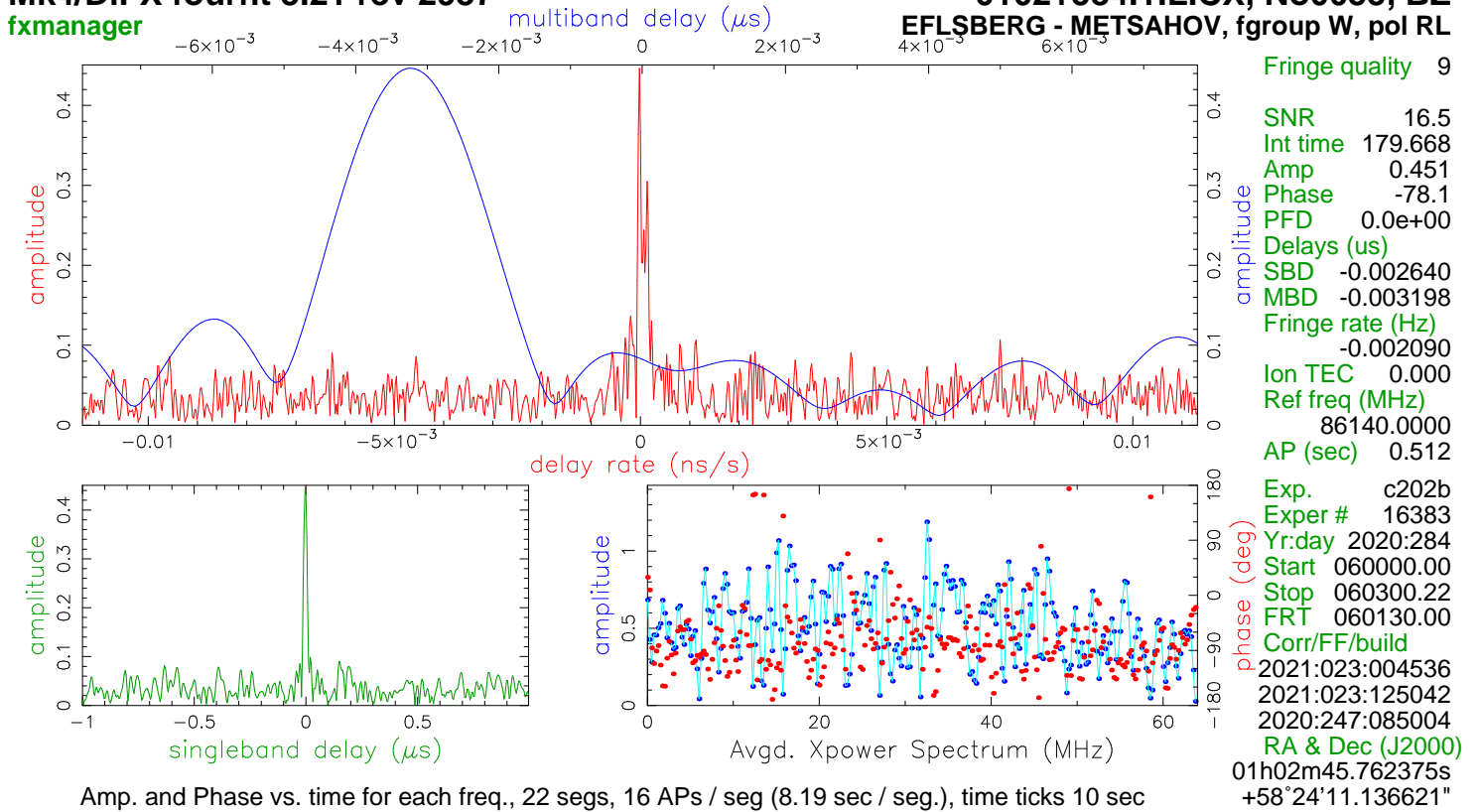
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Mk4/DiFX fourfit 3.21 rev 2937

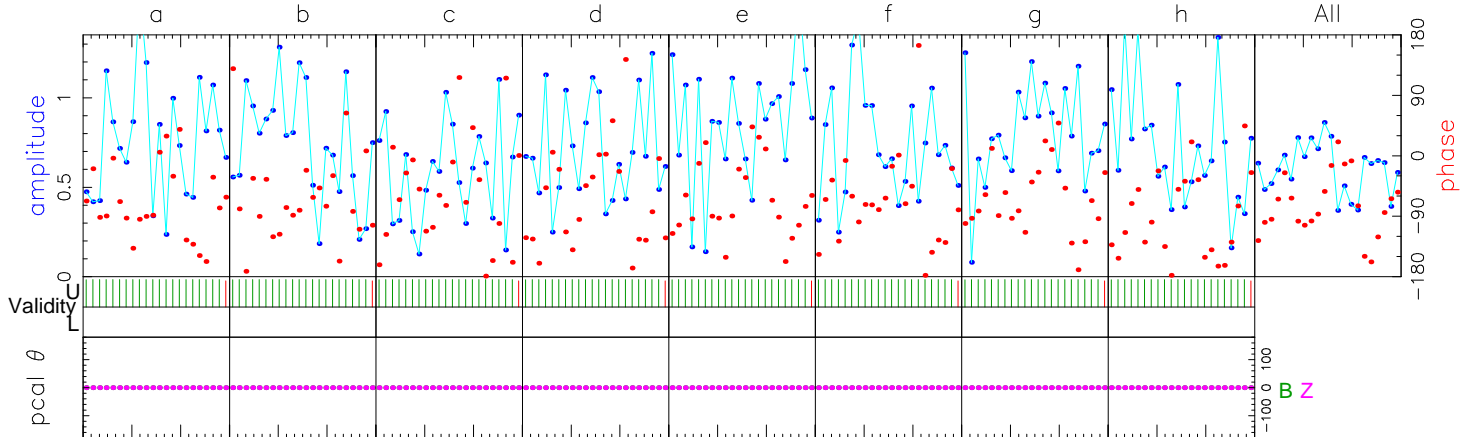
fxmanager

0102+584.1ILICX, No0055, BZ

EFLSBERG - METSAHOV, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-76.6	-78.7	-77.0	-80.6	-74.1	-78.1	-63.9	-99.5		-78.1
	0.5	0.4	0.3	0.4	0.6	0.5	0.5	0.4		0.4
	256.0	256.7	256.7	256.5	256.2	255.8	256.0	256.1		256.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-4.24704343949E+02	Apriori delay (usec)	-4.24701146430E+02	Resid mbdelay (usec)	-3.19752E-03	+/-	6.6E-05
Sband delay (usec)	-4.24703786680E+02	Apriori clock (usec)	9.9630384E+00	Resid sbdelay (usec)	-2.64025E-03	+/-	5.2E-04
Phase delay (usec)	-4.24701148950E+02	Apriori clockrate (us/s)	-2.1600000E-07	Resid phdelay (usec)	-2.51949E-06	+/-	2.2E-07
Delay rate (us/s)	-1.51401495813E-01	Apriori rate (us/s)	-1.51401471552E-01	Resid rate (us/s)	-2.42610E-08	+/-	2.1E-09
Total phase (deg)	-349.4	Apriori accel (us/s/s)	-6.94878902082E-06	Resid phase (deg)	-78.1	+/-	6.9

ph/seg (deg)	45.5	Theor.	16.3	Amplitude	0.451 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	45.6	Search (1024X32)	0.439	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)	10.7	Inc. seg. avg.	0.580	Inc. frq. avg.	0.446	Bits/sample: 2x2	Sample rate(MSamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	20.3	Inc. frq. avg.	0.446			Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 320.0 el 36.8 pa 51.9 Z: az 323.9 el 38.3 pa 34.5 u,v (fr/asec) 1654.869 -1343.749 simultaneous interpolator

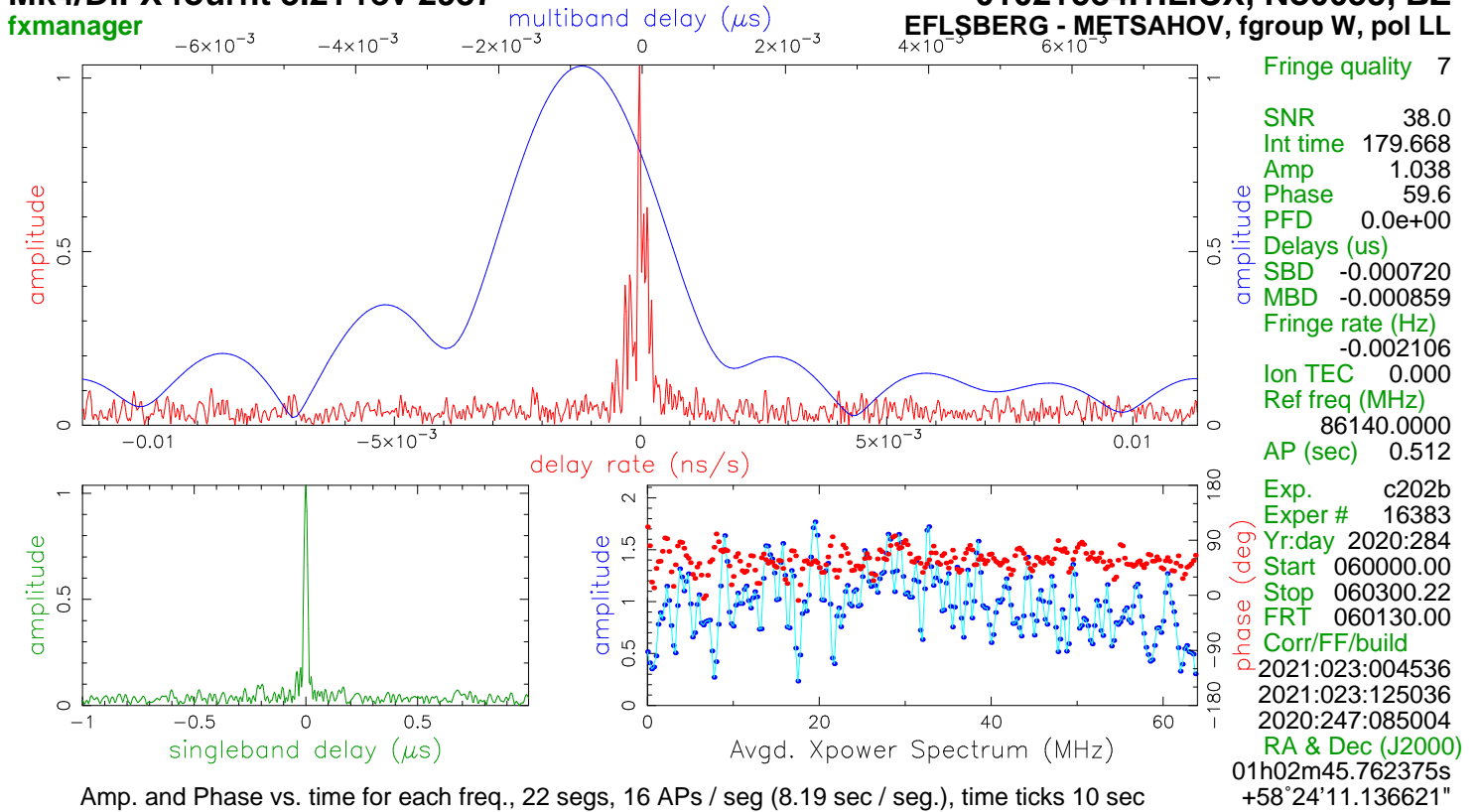
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BZ..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BZ.W.144.1ILICX

## Mk4/DiFX fourfit 3.21 rev 2937

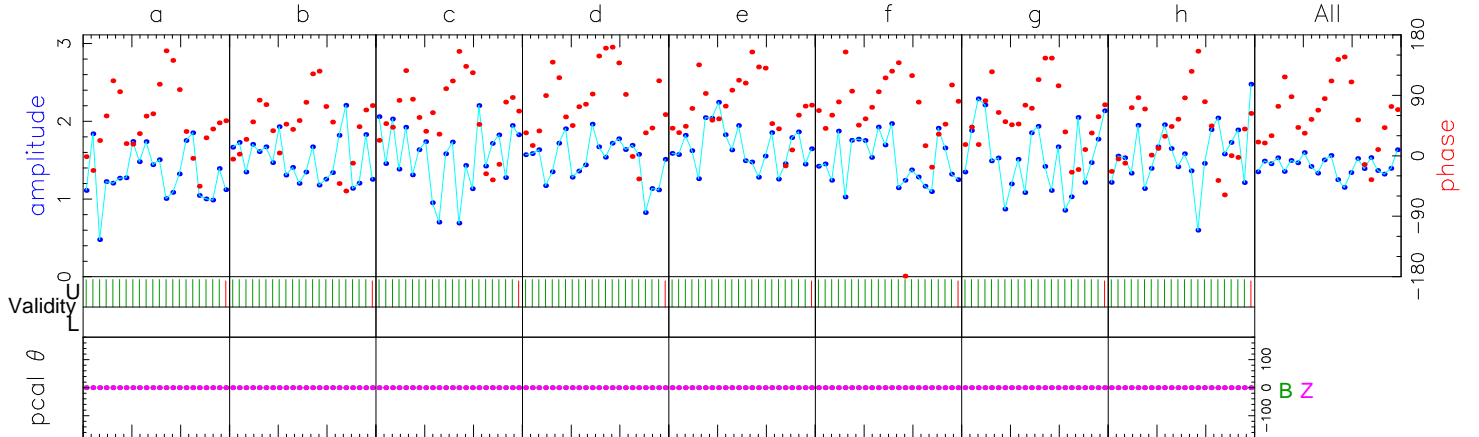
fxmanager

0102+584.1ILICX, No0055, BZ

EFLSBERG - METSAHOV, fgroup W, pol LL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	46.1	40.8	63.0	79.2	71.9	80.0	59.7	32.4	Phase	59.6
	0.9	1.1	1.1	0.9	1.3	1.1	1.1	1.1	Ampl.	1.1
	257.0	256.8	257.2	256.8	256.8	256.6	256.2	256.1	Sbd box	256.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	-4.24702005074E+02	Apriori delay (usec)	-4.24701146430E+02	Resid mbdelay (usec)	-8.58643E-04	+/-	2.9E-05
Sband delay (usec)	-4.24701866680E+02	Apriori clock (usec)	9.9630384E+00	Resid sbdelay (usec)	-7.20250E-04	+/-	2.3E-04
Phase delay (usec)	-4.24701144509E+02	Apriori clockrate (us/s)	-2.1600000E-07	Resid phdelay (usec)	1.92135E-06	+/-	9.7E-08
Delay rate (us/s)	-1.51401496000E-01	Apriori rate (us/s)	-1.51401471552E-01	Resid rate (us/s)	-2.44481E-08	+/-	9.3E-10
Total phase (deg)	-211.7	Apriori accel (us/s/s)	-6.94878902082E-06	Resid phase (deg)	59.6	+/-	3.0

ph/seg (deg)	46.5	Theor.	7.1	Amplitude	1.038 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	39.3	Search (1024X32)	1.024	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)
ph/frq (deg)	19.3	Interp.	0.000	Interp.	0.000	Bits/sample: 2x2	mb window (us)
amp/frq (%)	11.5	Inc. seg. avg.	1.419	Inc. seg. avg.	1.419	Sample rate(MSamp/s): 128	dr window (ns/s)
		Inc. frq. avg.	1.077	Inc. frq. avg.	1.077	Data rate(Mb/s): 2048	ion window (TEC)

B: az 320.0 el 36.8 pa 51.9 Z: az 323.9 el 38.3 pa 34.5 u,v (fr/asec) 1654.869 -1343.749 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BZ..1ILICX Output file: /Exps/c202b/v1/v1\_3mm/1234/No0055/BZ.W.88.1ILICX