

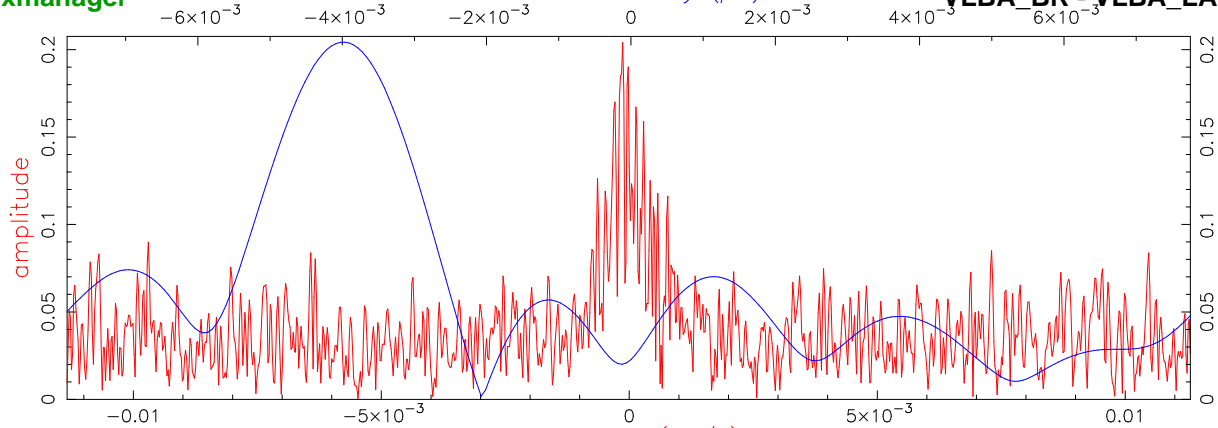
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, bl

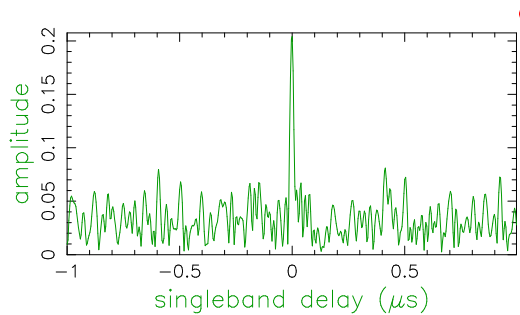
VLBA\_BR - VLBA\_LA, fgroup W, pol LL

multiband delay ( $\mu$ s)

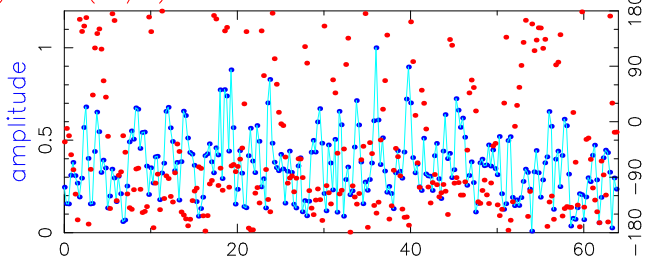


Fringe quality 9

SNR 7.6  
 Int time 179.973  
 Amp 0.208  
 Phase -101.1  
 PFD 4.3e-06  
 Delays (us)  
 SBD -0.001694  
 MBD -0.004037  
 Fringe rate (Hz)  
 -0.011650  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

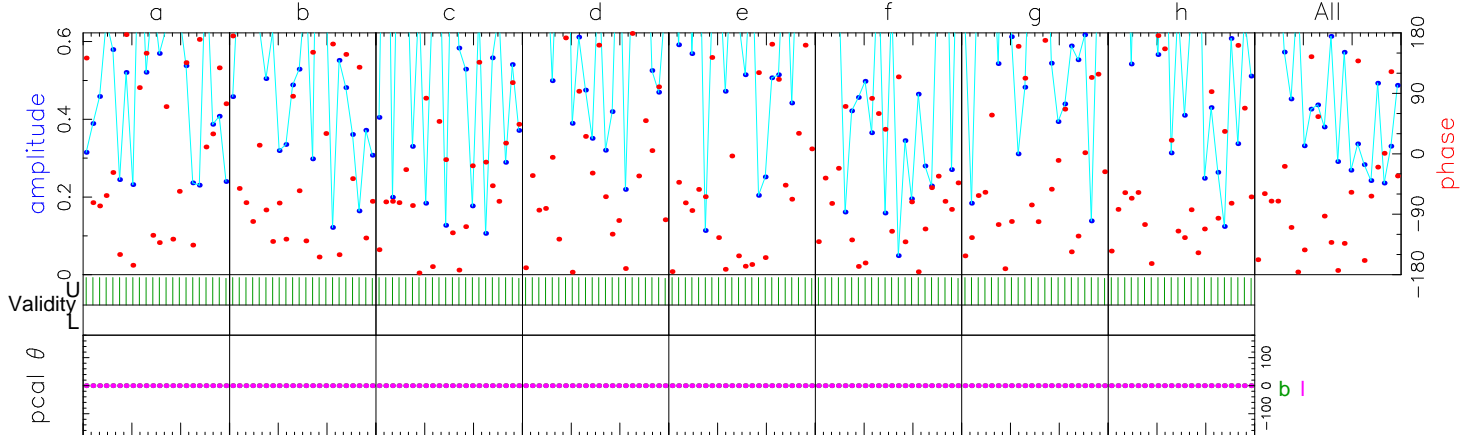


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130124  
 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
	-142.6	-108.1	-83.9	-110.0	-108.5	-76.9	-96.3	-110.9	Phase	-101.1
	0.1	0.3	0.2	0.2	0.2	0.3	0.2	0.3	Ampl.	0.2
	361.0	257.2	398.0	209.1	144.5	256.9	255.4	255.8	Sbd box	256.6
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	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.33211277251E+03	Apriori delay (usec)	1.33211680987E+03	Resid mbdelay (usec)	-4.03736E-03	+/-	1.4E-04
Sband delay (usec)	1.33211511562E+03	Apriori clock (usec)	-1.3095512E+00	Resid sbdelay (usec)	-1.69425E-03	+/-	1.1E-03
Phase delay (usec)	1.33211680661E+03	Apriori clockrate (us/s)	9.9999998E-08	Resid phdelay (usec)	-3.25909E-06	+/-	4.9E-07
Delay rate (us/s)	1.41932191299E-01	Apriori rate (us/s)	1.41932326542E-01	Resid rate (us/s)	-1.35242E-07	+/-	4.7E-09
Total phase (deg)	-100.3	Apriori accel (us/s/s)	8.30282468454E-06	Resid phase (deg)	-101.1	+/-	15.0

ph/seg (deg)	RMS 76.2	Theor. 35.3	Amplitude Search (1024X32)	0.208 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	156.7	61.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	22.0	21.3	Inc. seg. avg.	0.401	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	37.1	37.1	Inc. frq. avg.	0.198	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 17.5 el 79.0 pa -157.3 l: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) -1550.278 1811.896 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/bl..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/bl.W.11.1ILLXI

Mk4/DiFX fourfit 3.21 rev 2937

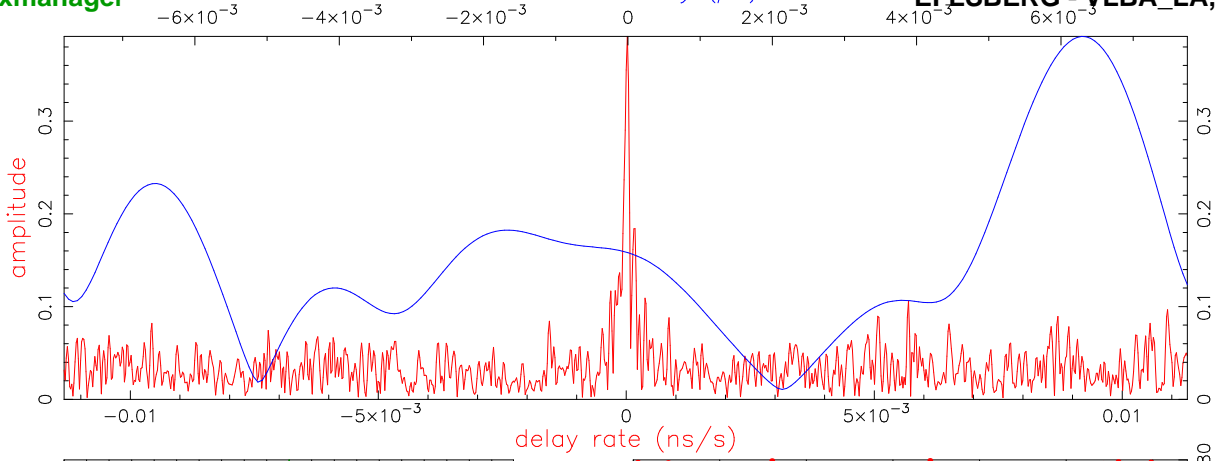
fxmanager

0102+584.1ILLXI, No0070, BI

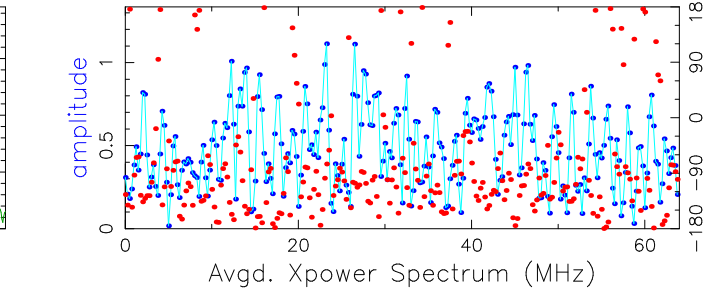
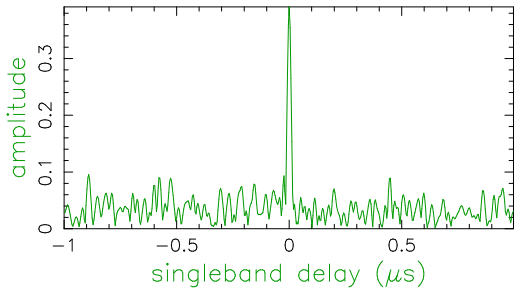
EFLSBERG - VLBA\_LA, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 8

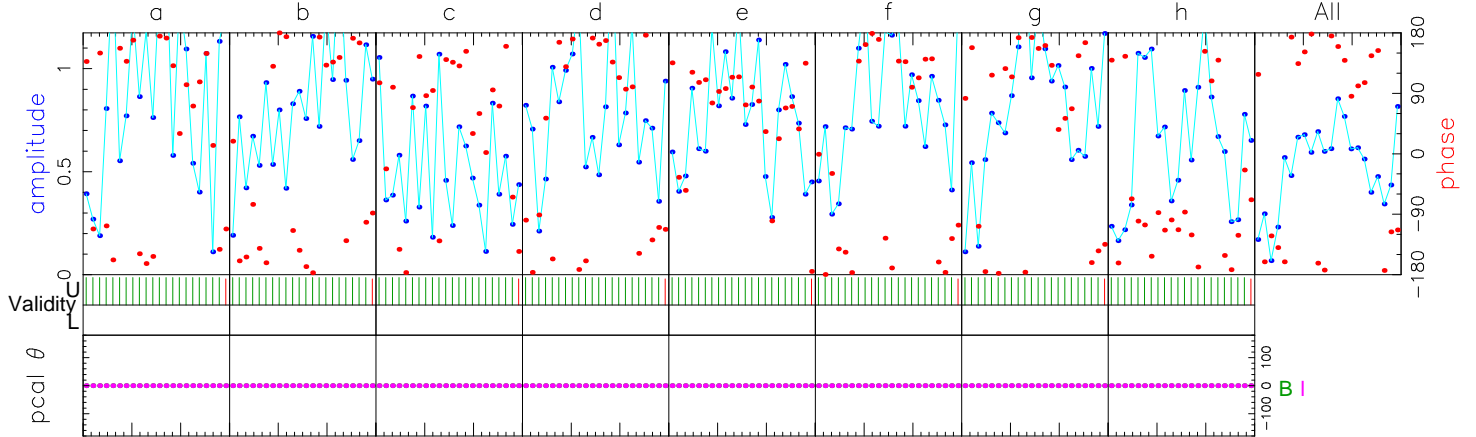


SNR 14.3  
 Int time 179.778  
 Amp 0.391  
 Phase 165.4  
 PFD 3.3e-38  
 Delays (us)  
 SBD -0.000188  
 MBD 0.006296  
 Fringe rate (Hz)  
 0.000956  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130125  
 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

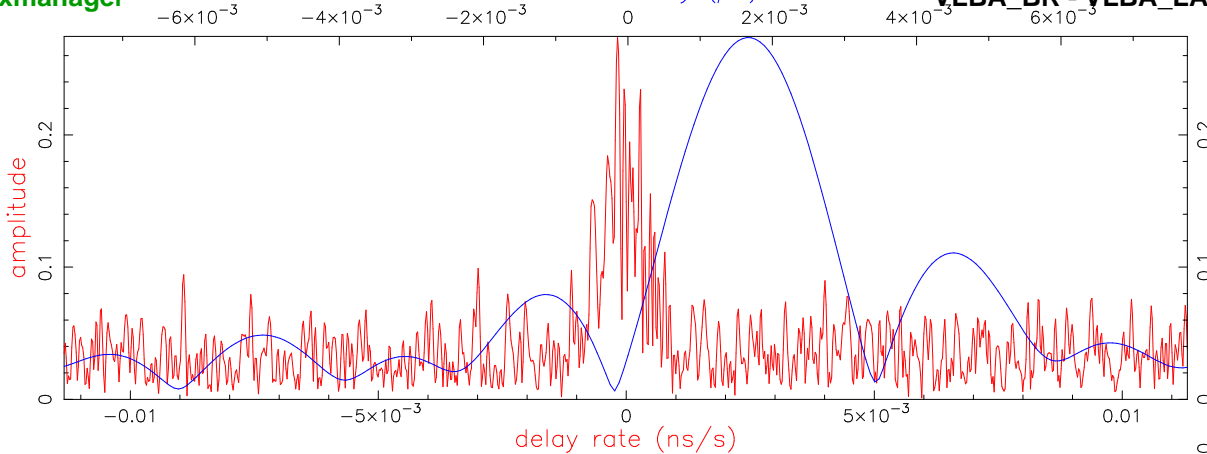


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	176.3	-168.2	121.0	171.2	87.4	172.9	157.3	-132.1	Phase	165.4
B	0.5	0.6	0.3	0.5	0.6	0.6	0.6	0.4	Ampl.	0.5
I	256.7	256.5	466.1	257.6	257.7	257.9	257.7	259.0	Sbd box	257.0
B	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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)	-9.15619997367E+03		Apriori delay (usec)		-9.15620626923E+03		Resid mbdelay (usec)		6.29556E-03	+/- 7.6E-05
Sband delay (usec)	-9.15620645698E+03		Apriori clock (usec)		1.0506551E+01		Resid sbdelay (usec)		-1.87750E-04	+/- 6.0E-04
Phase delay (usec)	-9.15620626389E+03		Apriori clockrate (us/s)		-9.9999998E-08		Resid phdelay (usec)		5.33499E-06	+/- 2.6E-07
Delay rate (us/s)	-3.58663070278E-01		Apriori rate (us/s)		-3.58663081374E-01		Resid rate (us/s)		1.10960E-08	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		6.67632677626E-05		Resid phase (deg)		165.4	+/- 8.0

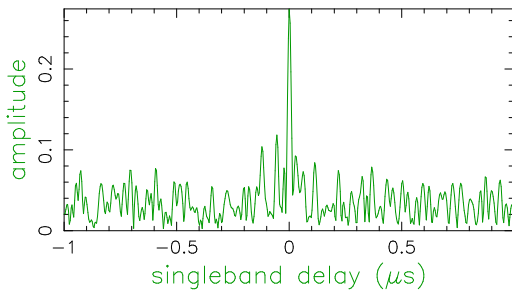
ph/seg (deg) 44.8 18.7 Search (1024X32) 0.381 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 61.7 32.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 46.4 11.3 Inc. seg. avg. 0.498 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 37.3 19.7 Inc. frq. avg. 0.480 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 B: az 328.8 el 29.4 pa 40.1 I: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) 3986.493 9410.242 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/BI..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/BI.W.27.1ILLXI

multiband delay ( $\mu$ s)

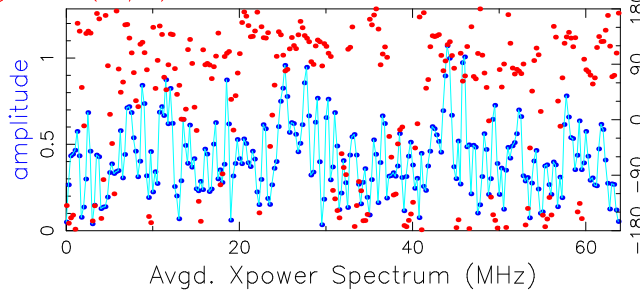
Fringe quality 9



SNR 10.1  
Int time 179.973  
Amp 0.275  
Phase 112.5  
PFD 1.6e-15  
Delays (us)  
SBD 0.000695  
MBD 0.001683  
Fringe rate (Hz)  
-0.015083  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

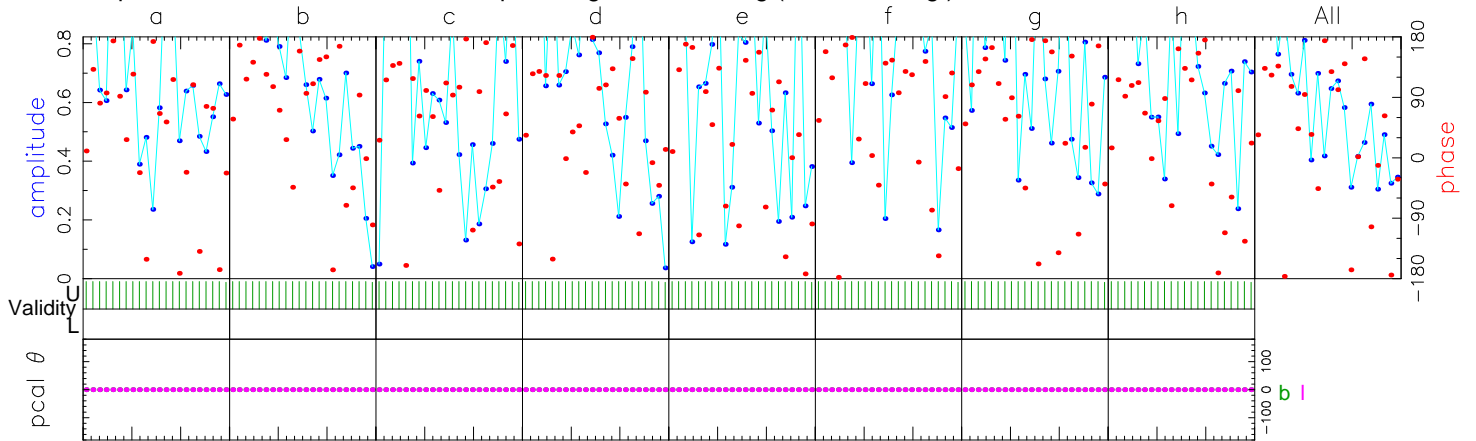


delay rate (ns/s)



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 072000.00  
Stop 072300.22  
FRT 072130.00  
Corr/FF/build  
2021:023:020244  
2021:023:130126  
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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	1.33211849278E+03	Apriori delay (usec)	1.33211680987E+03	Resid mbdelay (usec)	1.68292E-03	+/-	1.1E-04
Sband delay (usec)	1.33211750487E+03	Apriori clock (usec)	-1.3095512E+00	Resid sbdelay (usec)	6.95000E-04	+/-	8.6E-04
Phase delay (usec)	1.33211681350E+03	Apriori clockrate (us/s)	9.999998E-08	Resid phdelay (usec)	3.62916E-06	+/-	3.7E-07
Delay rate (us/s)	1.41932151446E-01	Apriori rate (us/s)	1.41932326542E-01	Resid rate (us/s)	-1.75096E-07	+/-	3.5E-09
Total phase (deg)	113.3	Apriori accel (us/s/s)	8.30282468454E-06	Resid phase (deg)	112.5	+/-	11.4

ph/seg (deg)	RMS 79.2	Theor. 26.7	Amplitude Search (1024X32)	0.275 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	145.6	46.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	11.2	16.1	Inc. seg. avg.	0.549	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	20.2	28.1	Inc. frq. avg.	0.267	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 17.5 el 79.0 pa -157.3 l: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) -1550.278 1811.896 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/bl..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/bl.W.36.1ILLXI

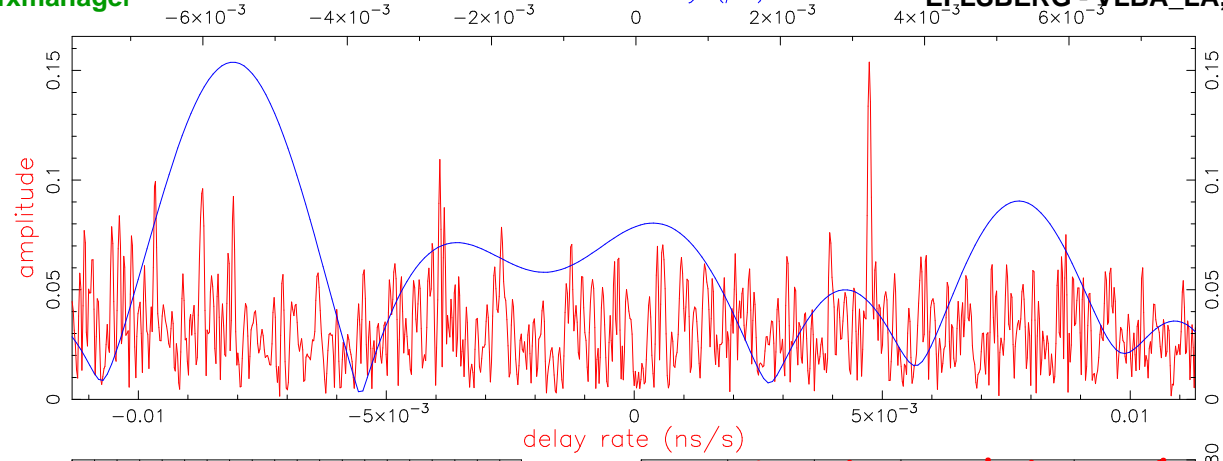
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

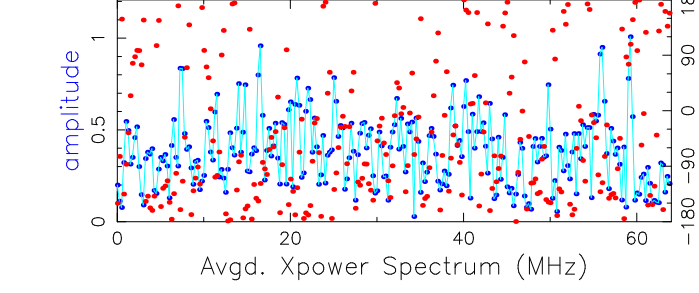
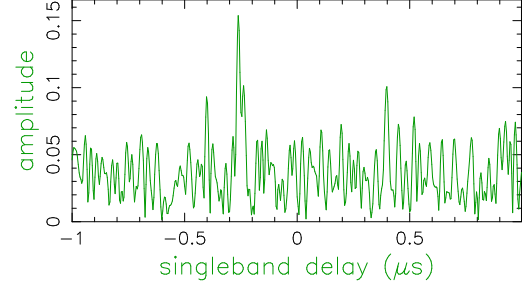
0102+584.1ILLXI, No0070, BI

EFLSBERG - VLBA\_LA, fgroup W, pol LR

multiband delay ( $\mu$ s)

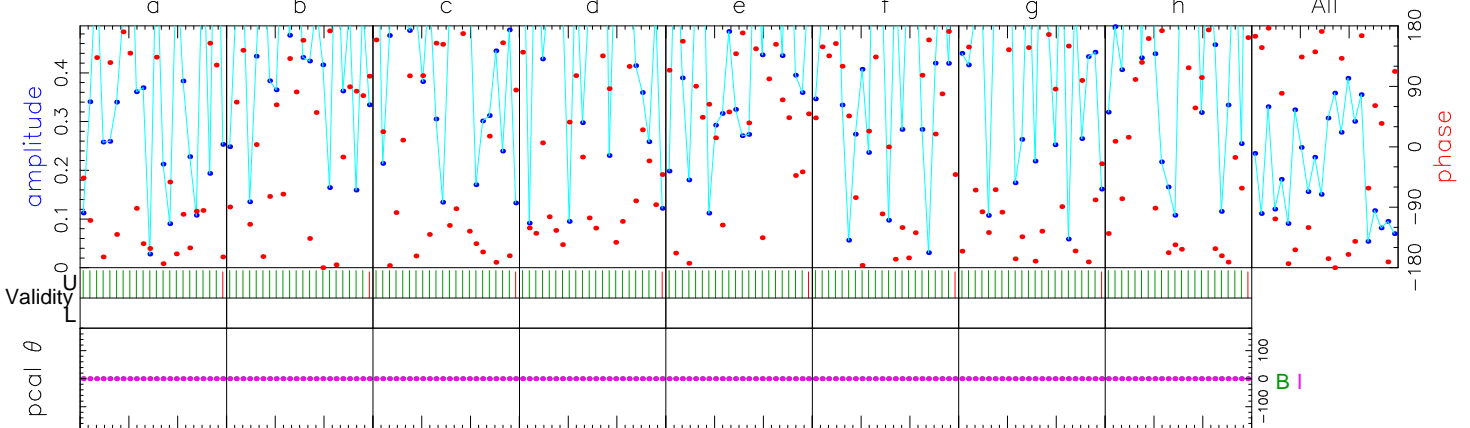


Fringe quality 0  
 SNR 5.6  
 Int time 179.778  
 Amp 0.166  
 Phase 174.7  
 PFD 8.7e-01  
 Delays (us)  
 SBD -0.261410  
 MBD -0.005572  
 Fringe rate (Hz)  
 0.408884  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130128  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

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
	-177.3	123.9	-162.6	-149.2	97.9	159.0	-142.2	153.1	Phase	174.7
	0.3	0.1	0.3	0.2	0.2	0.2	0.3	0.2	Ampl.	0.2
	294.0	47.2	188.8	434.9	169.7	54.1	188.6	371.2	Sbd box	190.1
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	
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)	-9.15646184085E+03		Apriori delay (usec)		-9.15620626923E+03		Resid mbdelay (usec)		-5.57162E-03	+/- 1.9E-04
Sband delay (usec)	-9.15646767948E+03		Apriori clock (usec)		1.0506551E+01		Resid sbdelay (usec)		-2.61410E-01	+/- 1.5E-03
Phase delay (usec)	-9.15620626360E+03		Apriori clockrate (us/s)		-9.9999998E-08		Resid phdelay (usec)		5.63370E-06	+/- 6.6E-07
Delay rate (us/s)	-3.58658334641E-01		Apriori rate (us/s)		-3.58663081374E-01		Resid rate (us/s)		4.74673E-06	+/- 6.3E-09
Total phase (deg)			Apriori accel (us/s/s)		6.67632677626E-05		Resid phase (deg)		174.7	+/- 20.3

ph/seg (deg) 60.7 47.6 Search (1024X32) 0.148 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 77.6 83.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 46.4 28.7 Inc. seg. avg. 0.167 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 35.7 50.1 Inc. frq. avg. 0.186 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 B: az 328.8 el 29.4 pa 40.1 I: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) 3986.493 9410.242 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/BI..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/BI.W.48.1ILLXI

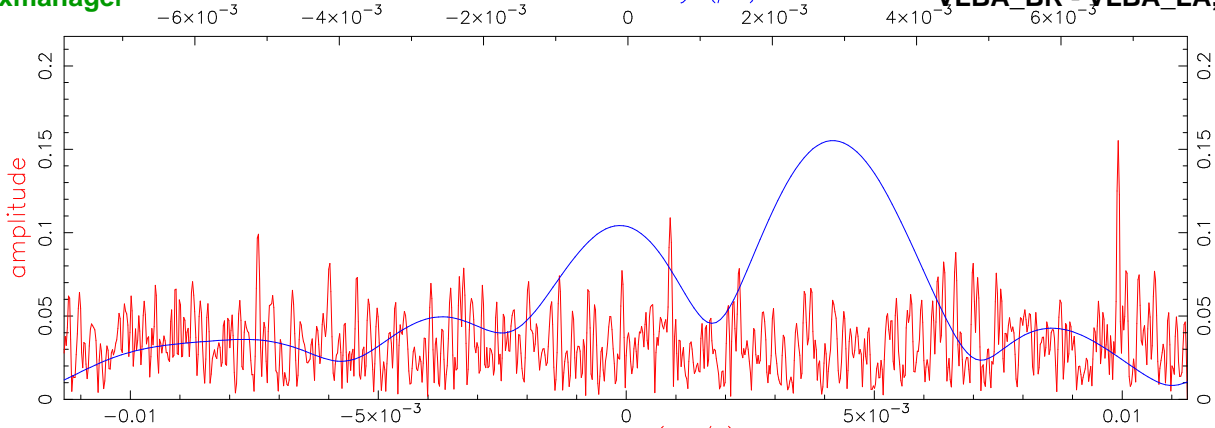
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, bl

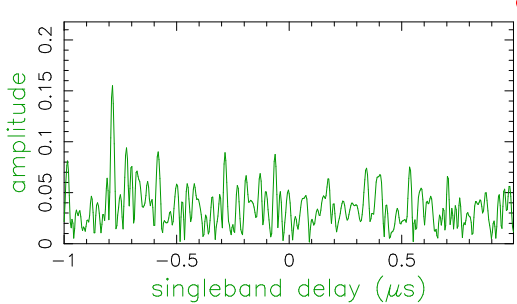
VLBA\_BR - VLBA\_LA, fgroup W, pol LR

multiband delay ( $\mu$ s)

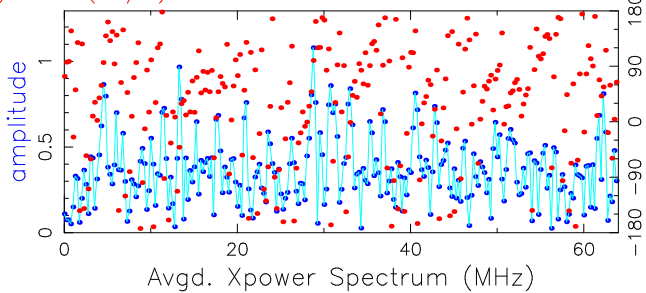


Fringe quality 0

SNR 5.7  
 Int time 179.973  
 Amp 0.218  
 Phase -6.8  
 PFD 7.8e-01  
 Delays (us)  
 SBD -0.785586  
 MBD 0.002801  
 Fringe rate (Hz) 0.854994  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

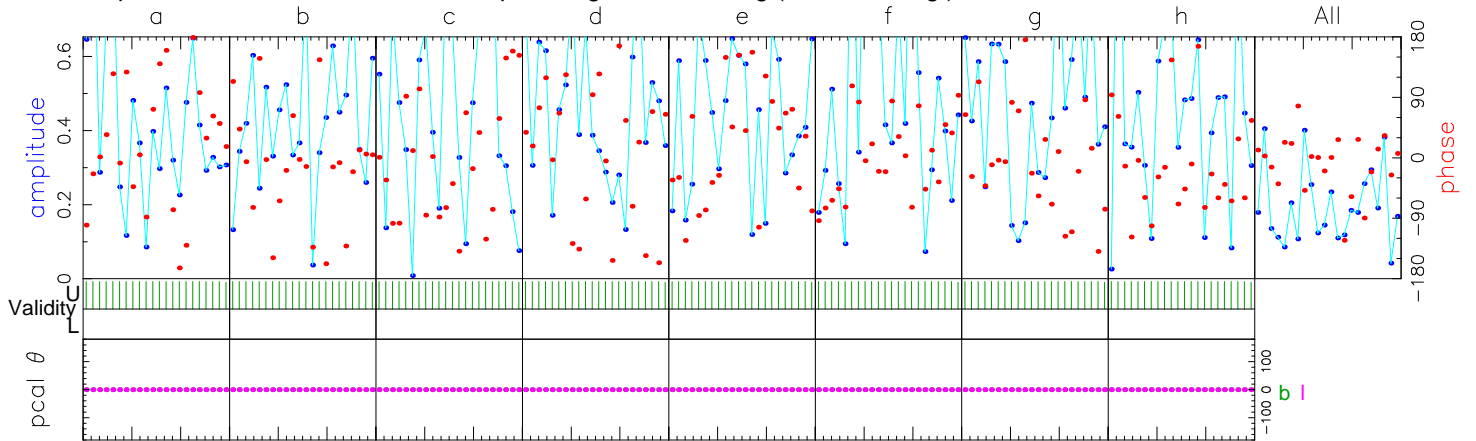


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130128  
 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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.33133836117E+03			1.33211680987E+03				2.80131E-03	+/- 1.9E-04
Sband delay (usec)		1.33133122362E+03			-1.3095512E+00				-7.85586E-01	+/- 1.5E-03
Phase delay (usec)		1.33211680965E+03			9.999998E-08				-2.20441E-07	+/- 6.5E-07
Delay rate (us/s)		1.41942252180E-01			1.41932326542E-01				9.92564E-06	+/- 6.2E-09
Total phase (deg)			-6.1		8.30282468454E-06				-6.8	+/- 20.1
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

b: az 17.5 el 79.0 pa -157.3 l: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) -1550.278 1811.896 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/bl..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/bl.W.53.1ILLXI

Mk4/DiFX fourfit 3.21 rev 2937

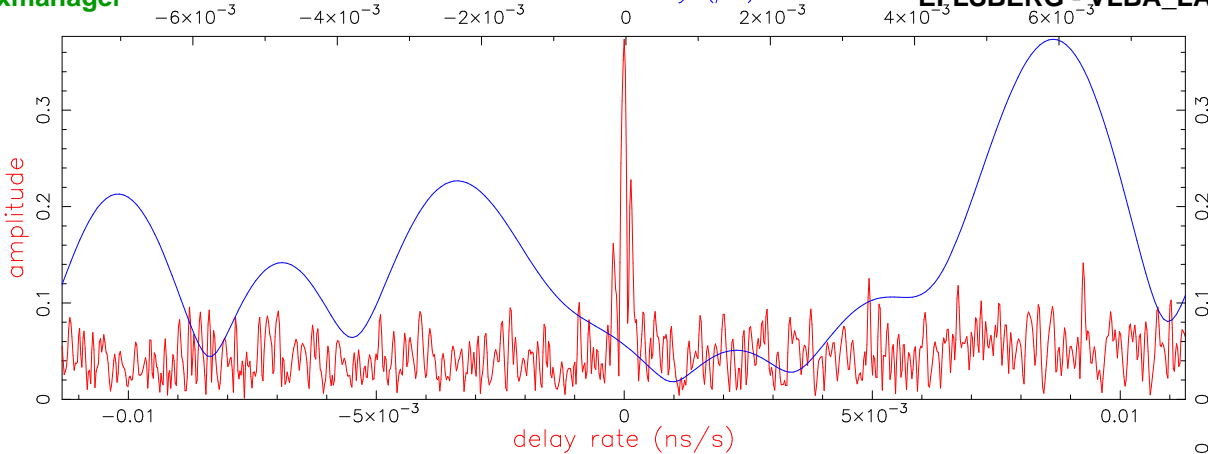
fxmanager

0102+584.1ILLXI, No0070, BI

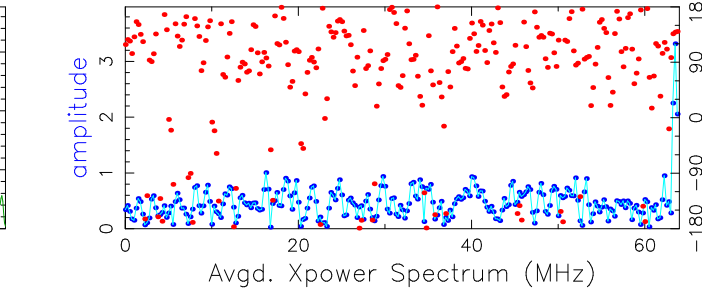
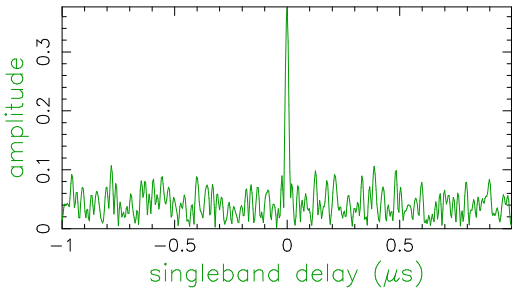
EFLSBERG - VLBA\_LA, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 9

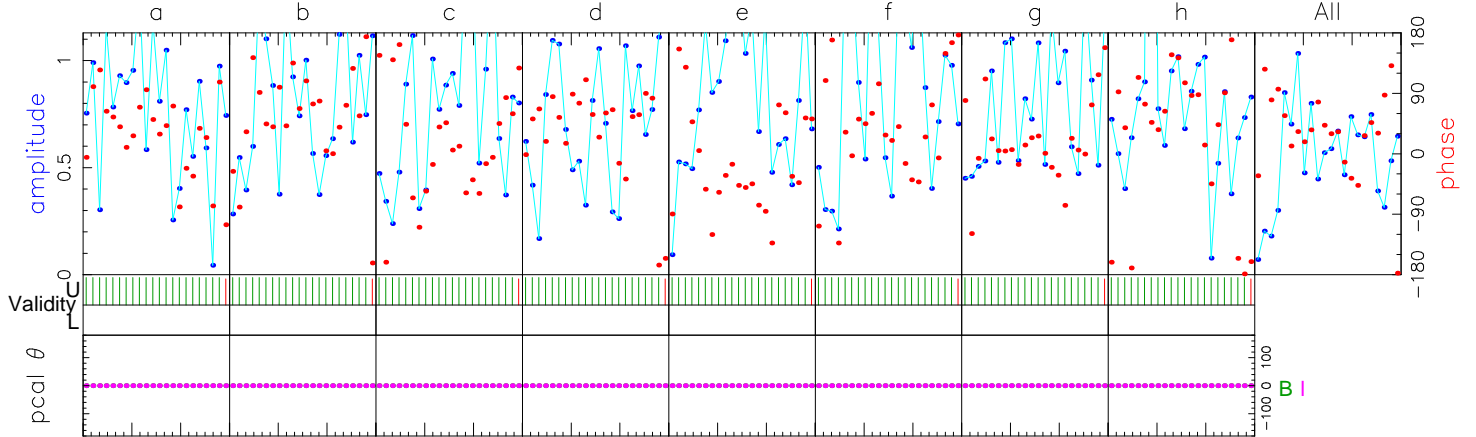


SNR 13.8  
 Int time 179.778  
 Amp 0.377  
 Phase 35.9  
 PFD 6.6e-35  
 Delays (us)  
 SBD -0.001077  
 MBD 0.005928  
 Fringe rate (Hz)  
 -0.000431  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130123  
 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		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-9.15620034135E+03									
Sband delay (usec)	-9.15620734648E+03									
Phase delay (usec)	-9.15620626807E+03									
Delay rate (us/s)	-3.58663086380E-01									
Total phase (deg)			24.6							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal theta										
RMS	55.7	19.5								
Theor.										
Amplitude										
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.377 +/- 0.027										
0.372										
0.000										
0.517										
0.458										
5.92788E-03										
-1.07725E-03										
1.15825E-06										
-5.00667E-09										
35.9										
+/- 7.9E-05										
+/- 6.2E-04										
+/- 2.7E-07										
+/- 2.6E-09										
+/- 8.3										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

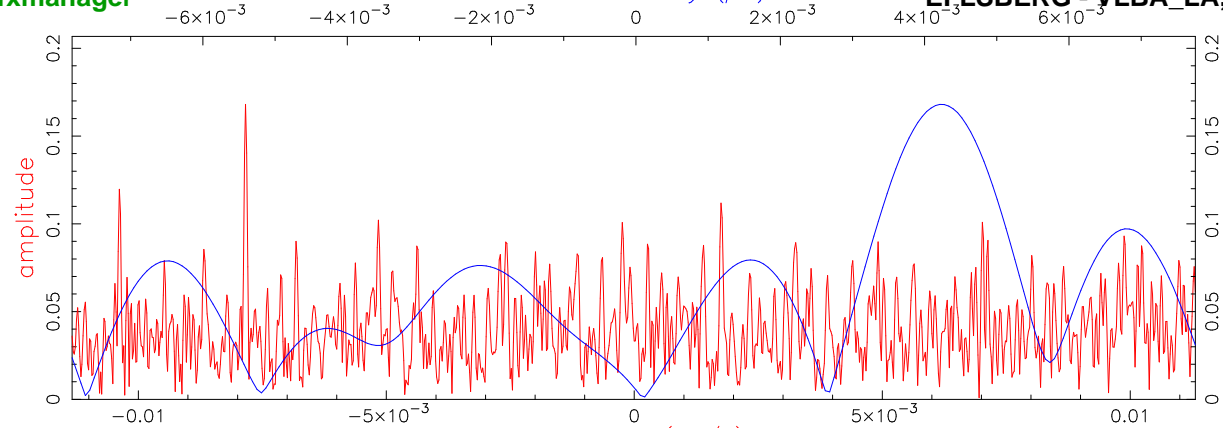
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, BI

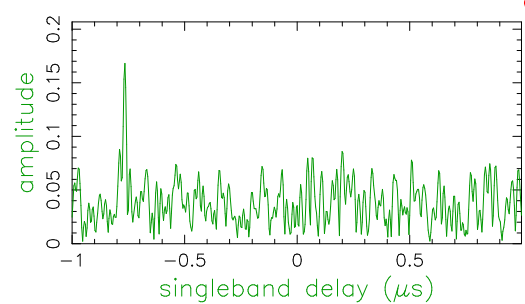
EFLSBERG - VLBA\_LA, fgroup W, pol RL

multiband delay ( $\mu$ s)

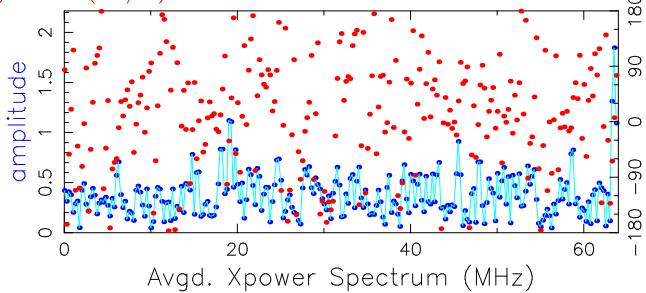


Fringe quality 0

SNR 6.2  
Int time 179.778  
Amp 0.207  
Phase 150.0  
PFD 8.7e-02  
Delays (us)  
SBD -0.766017  
MBD 0.004235  
Fringe rate (Hz)  
-0.677098  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

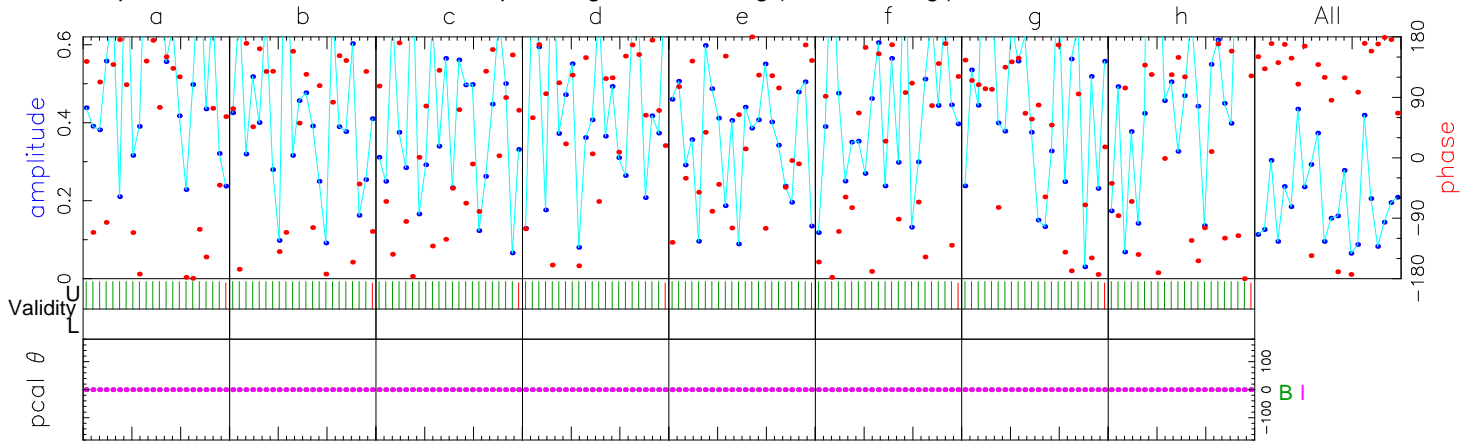


delay rate (ns/s)



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 072000.00  
Stop 072300.22  
FRT 072130.00  
Corr/FF/build  
2021:023:020244  
2021:023:130129  
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		
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-9.15696765879E+03									
Sband delay (usec)	-9.15697228648E+03									
Phase delay (usec)	-9.15620626439E+03									
Delay rate (us/s)	-3.58670941804E-01									
Total phase (deg)			138.7							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
ion window (TEC)										
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								
PCal period (AP's) 5, 5										
simultaneous interpolator										

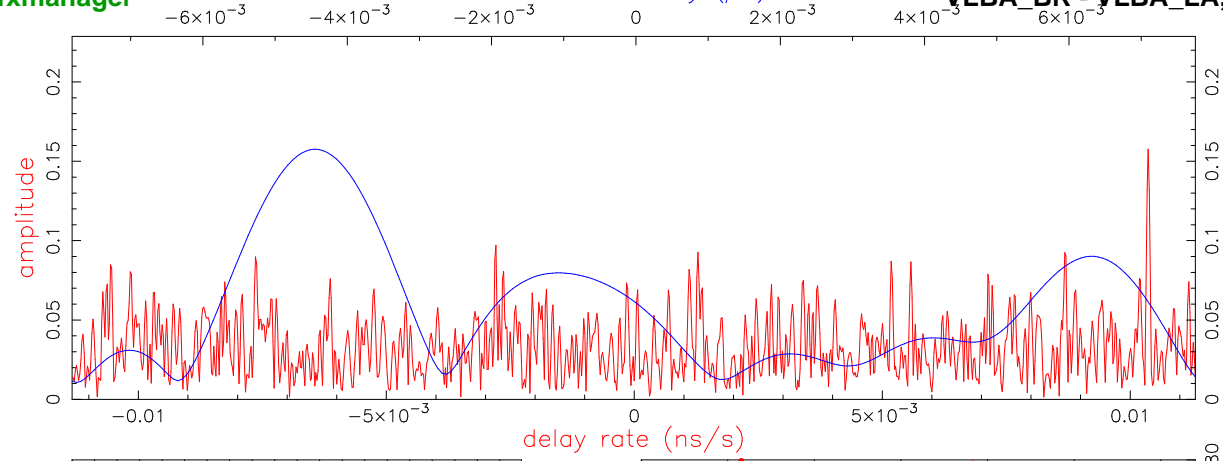
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, bl

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

multiband delay ( $\mu$ s)



Fringe quality 0

SNR 5.8

Int time 179.973

Amp 0.229

Phase 42.9

PFD 6.0e-01

Delays (us)

SBD -0.293078

MBD -0.004449

Fringe rate (Hz)

0.894158

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Exper # 16383

Yr:day 2020:284

Start 072000.00

Stop 072300.22

FRT 072130.00

Corr/FF/build

2021:023:020244

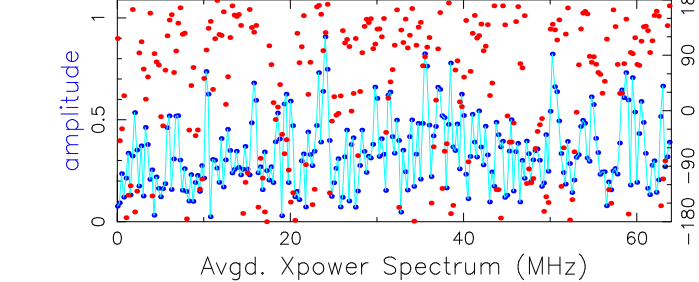
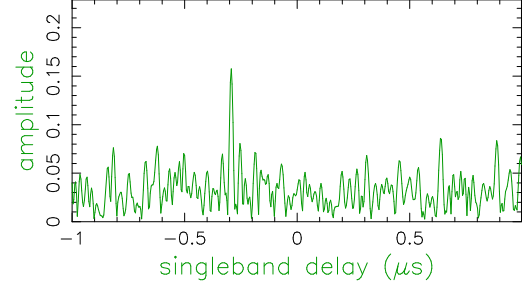
2021:023:130130

2020:247:085004

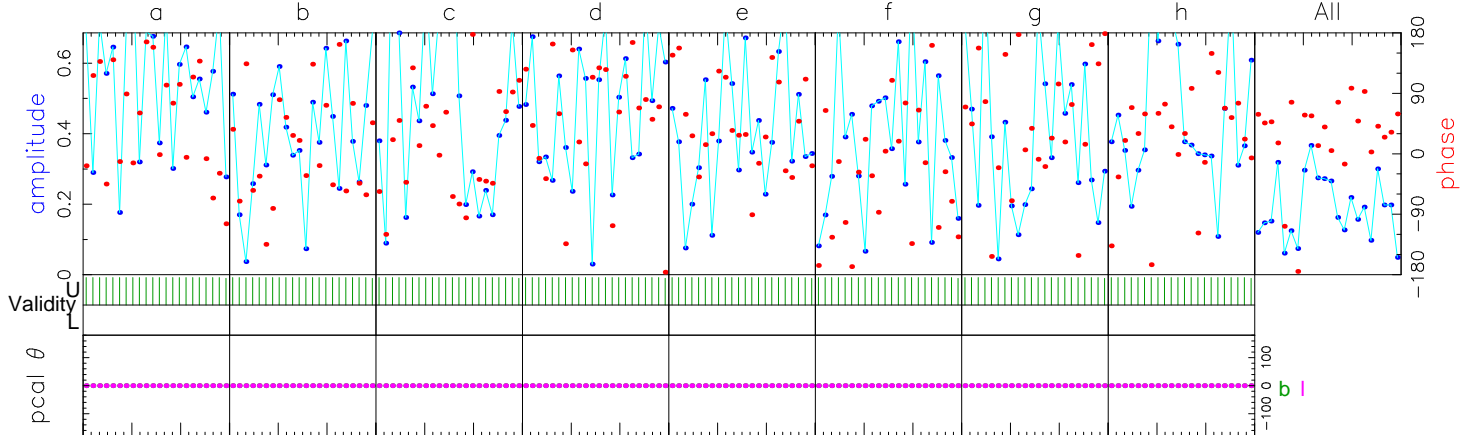
RA & Dec (J2000)

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	APs used		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
b:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
Group delay (usec)(sbd)		1.33183111059E+03			1.33211680987E+03				Resid mbdelay (usec)	-4.44928E-03 +/- 1.9E-04	
Sband delay (usec)		1.33182373187E+03			-1.3095512E+00				Resid sbdelay (usec)	-2.93078E-01 +/- 1.5E-03	
Phase delay (usec)		1.33211681125E+03			9.9999998E-08				Resid phdelay (usec)	1.38455E-06 +/- 6.4E-07	
Delay rate (us/s)		1.41942706826E-01			1.41932326542E-01				Resid rate (us/s)	1.03803E-05 +/- 6.1E-09	
Total phase (deg)			43.7		8.30282468454E-06				Resid phase (deg)	42.9 +/- 19.8	
ph/seg (deg)	52.4	46.5		0.155					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	59.1	81.1		0.000					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	45.0	28.0		0.207					Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	31.8	48.9		0.246					Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
									Data rate(Mb/s): 2048		ion window (TEC) 0.00 0.00
									nlags: 256		t_cohere infinite

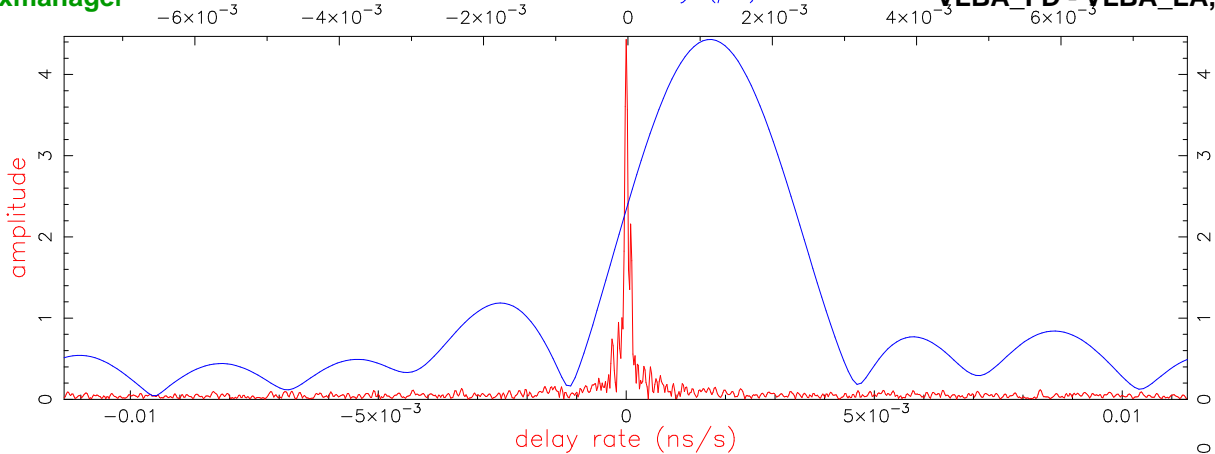
b: az 17.5 el 79.0 pa -157.3 l: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) -1550.278 1811.896 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/bl..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/bl.W.67.1ILLXI

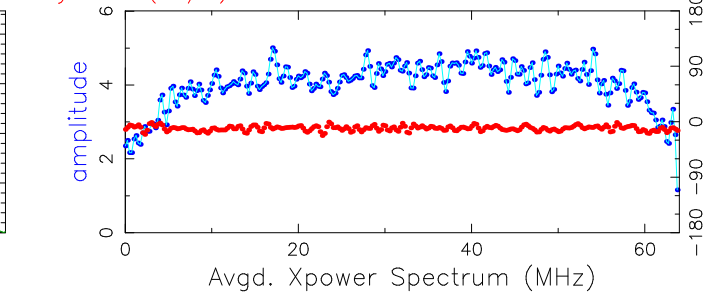
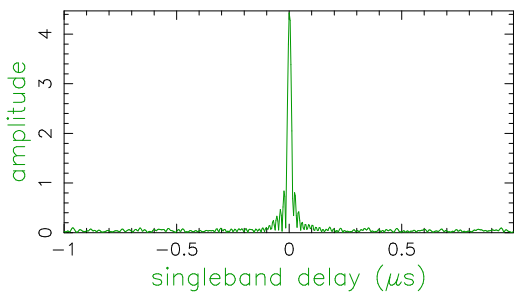


multiband delay ( $\mu$ s)

Fringe quality 8

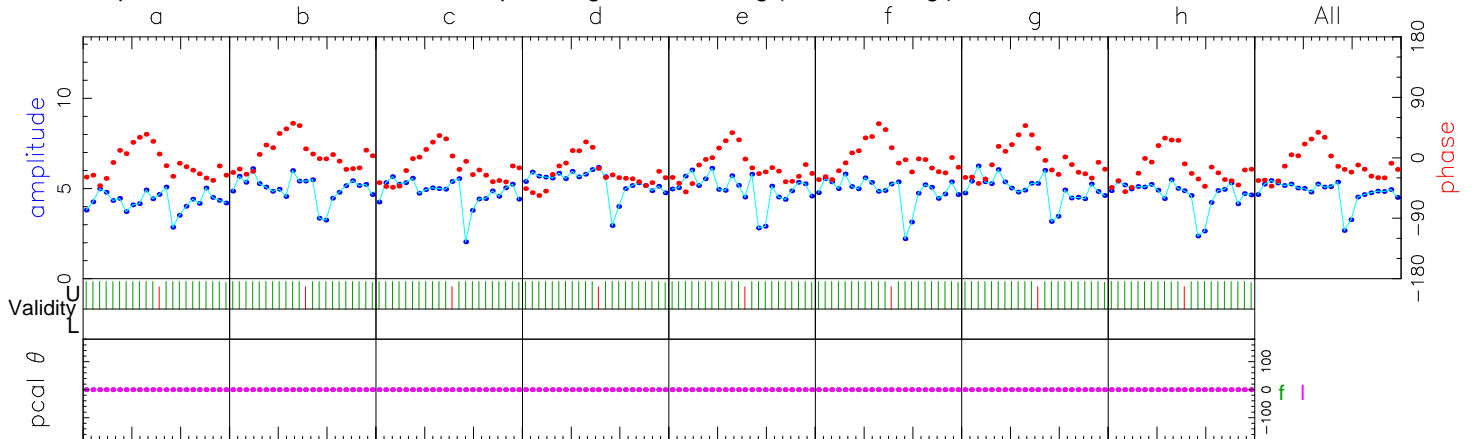


SNR 163.3  
Int time 178.429  
Amp 4.469  
Phase -10.1  
PFD 0.0e+00  
Delays (us)  
SBD 0.001196  
MBD 0.001166  
Fringe rate (Hz)  
0.000351  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 072000.00  
Stop 072300.22  
FRT 072130.00  
Corr/FF/build  
2021:023:020244  
2021:023:130136  
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
	-9.7	4.9	-14.7	-23.0	-13.2	-2.0	-5.4	-17.3	Phase	-10.1
	4.0	4.6	4.4	4.9	4.6	4.5	4.5	4.3	Ampl.	4.5
	257.7	257.1	257.1	257.4	257.2	257.3	257.3	257.4	Sbd box	257.3
U/L	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-8.67920253320E+02	Apriori delay (usec)	-8.67921419476E+02	Resid mbdelay (usec)	1.16616E-03	+/-	6.6E-06
Sband delay (usec)	-8.67920223726E+02	Apriori clock (usec)	8.2662449E+00	Resid sbdelay (usec)	1.19575E-03	+/-	5.3E-05
Phase delay (usec)	-8.67921419802E+02	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-3.25914E-07	+/-	2.3E-08
Delay rate (us/s)	-3.28628854568E-02	Apriori rate (us/s)	-3.28628895296E-02	Resid rate (us/s)	4.07279E-09	+/-	2.2E-10
Total phase (deg)	-36.6	Apriori accel (us/s/s)	-2.55830824974E-06	Resid phase (deg)	-10.1	+/-	0.7

ph/seg (deg)	22.4	1.6	Search (1024X32)	4.357	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	16.2	2.9	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)	9.7	1.0	Inc. seg. avg.	4.803	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	5.7	1.7	Inc. frq. avg.	4.480	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

Mk4/DiFX fourfit 3.21 rev 2937

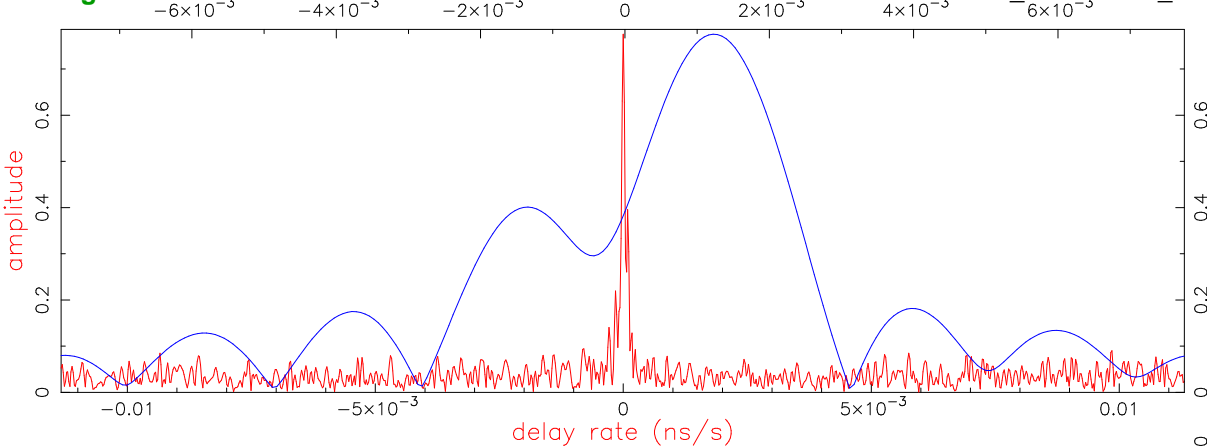
fxmanager

0102+584.1ILLXI, No0070, fl

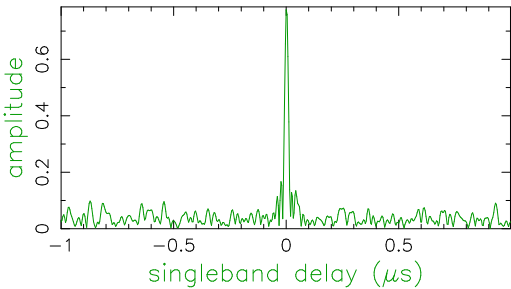
VLBA\_FD - VLBA\_LA, fgroup W, pol LR

multiband delay ( $\mu$ s)

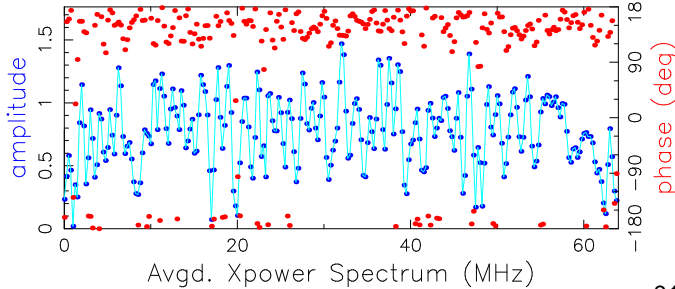
Fringe quality 6



SNR 28.7  
 Int time 178.429  
 Amp 0.786  
 Phase 157.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.001476  
 MBD 0.001245  
 Fringe rate (Hz)  
 0.000381  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

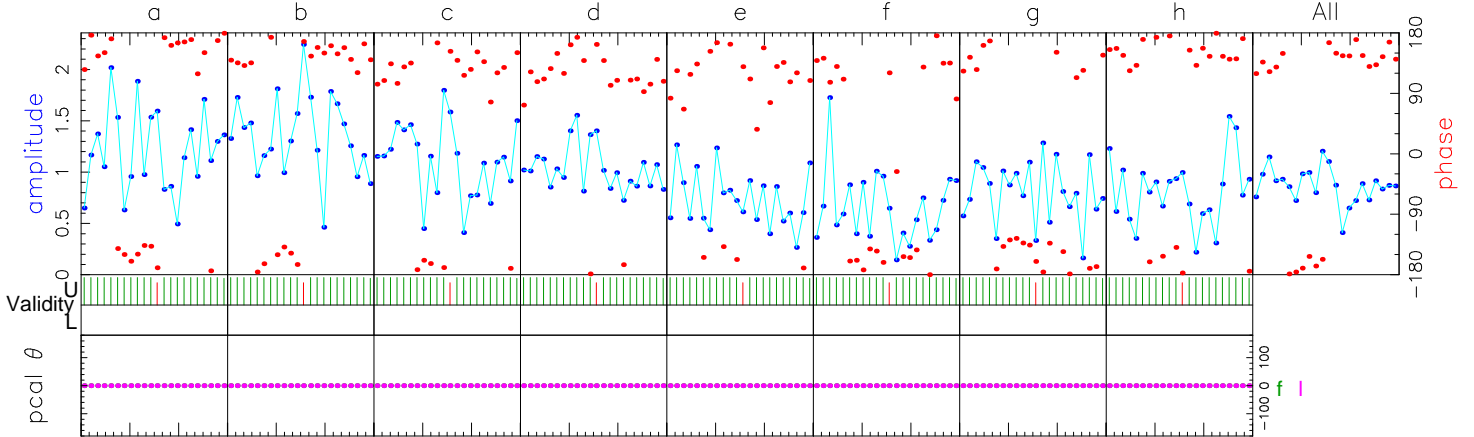


delay rate (ns/s)



Exp. c202b  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130137  
 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		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-8.67920174007E+02	Apriori delay (usec)	-8.67921419476E+02	Resid mbdelay (usec)	1.24547E-03	+/-	3.8E-05
Sband delay (usec)	-8.67919943726E+02	Apriori clock (usec)	8.2662449E+00	Resid sbdelay (usec)	1.47575E-03	+/-	3.0E-04
Phase delay (usec)	-8.67921414400E+02	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	5.07594E-06	+/-	1.3E-07
Delay rate (us/s)	-3.28628851067E-02	Apriori rate (us/s)	-3.28628895296E-02	Resid rate (us/s)	4.42282E-09	+/-	1.2E-09
Total phase (deg)	130.9	Apriori accel (us/s/s)	-2.55830824974E-06	Resid phase (deg)	157.4	+/-	4.0

ph/seg (deg)	26.0	RMS	26.0	Theor.	9.3	Amplitude	0.786 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	23.9	Search (1024X32)	0.750	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	20.7	Inc. seg. avg.	0.857	Inc. frq. avg.	0.810	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	30.8	Inc. frq. avg.	0.810	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 349.7 el 61.4 pa 163.1 l: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) 358.639 -676.769 simultaneous interpolator

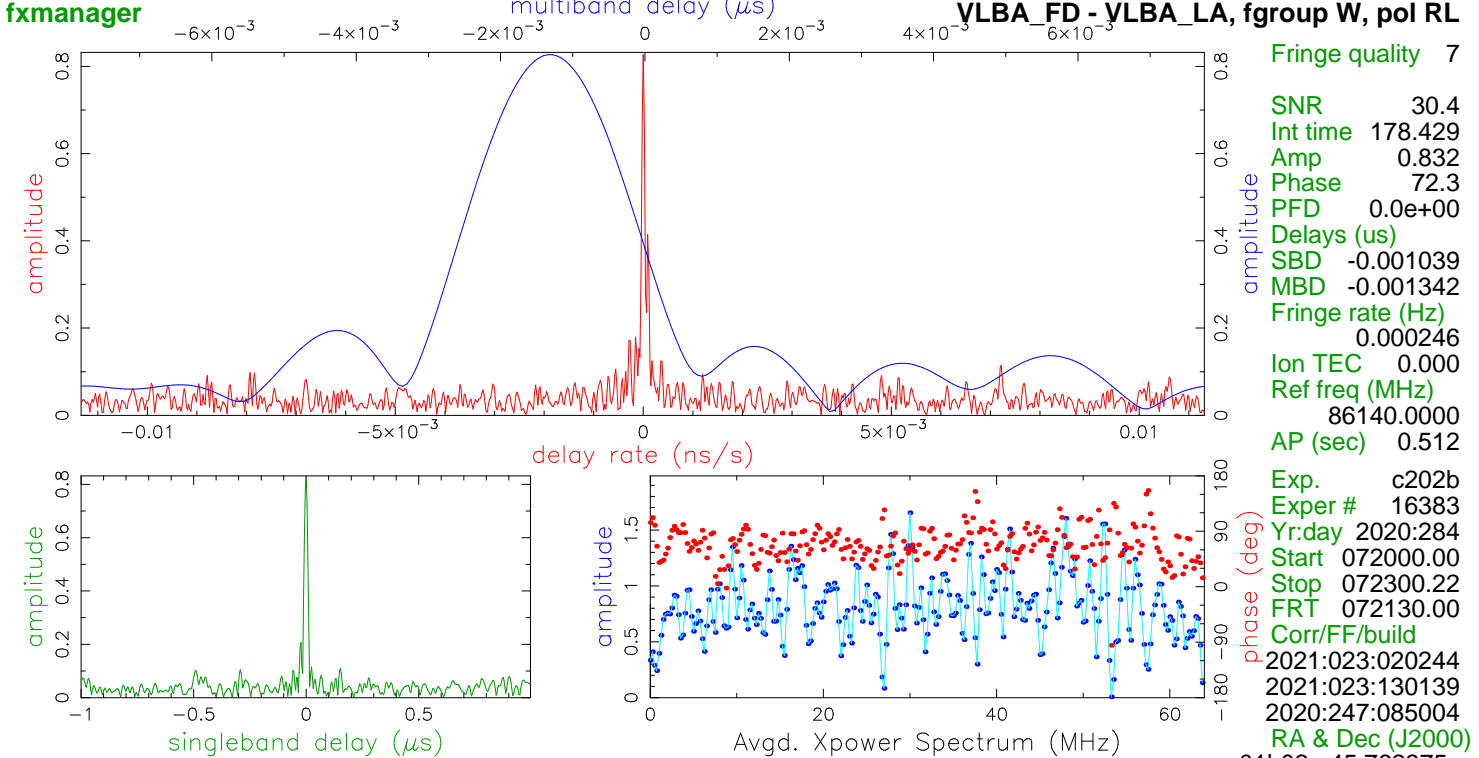
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/fl.1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/fl.W.122.1ILLXI

Mk4/DiFX fourfit 3.21 rev 2937

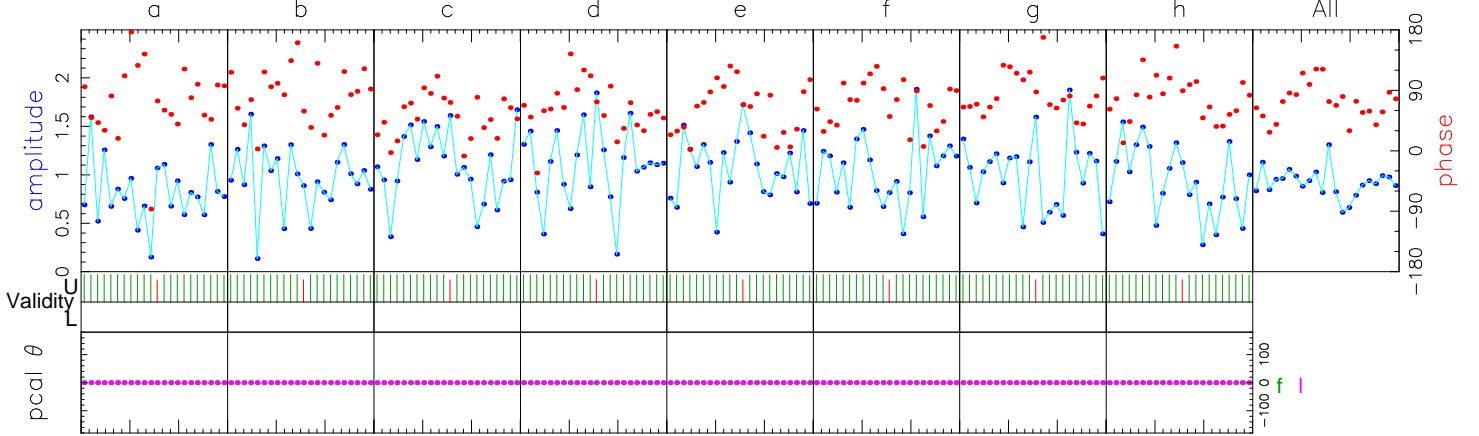
fxmanager

0102+584.1ILLXI, No0070, fl

VLBA\_FD - 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
73.1	91.9	56.7	66.2	61.5	71.5	81.2	80.3	80.3	Phase	72.3
0.6	0.8	1.0	0.9	0.9	0.9	0.9	0.8	0.8	Ampl.	0.8
256.7	256.8	256.7	256.8	256.7	256.8	257.0	256.6	256.6	Sbd box	256.7
U/L	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-8.67922761632E+02		Apriori delay (usec)	-8.67921419476E+02	Resid mbdelay (usec)	-1.34216E-03	+/-	3.6E-05		
Sband delay (usec)	-8.67922458726E+02		Apriori clock (usec)	8.2662449E+00	Resid sbdelay (usec)	-1.03925E-03	+/-	2.8E-04		
Phase delay (usec)	-8.67921417146E+02		Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	2.32987E-06	+/-	1.2E-07		
Delay rate (us/s)	-3.28628866769E-02		Apriori rate (us/s)	-3.28628895296E-02	Resid rate (us/s)	2.85265E-09	+/-	1.2E-09		
Total phase (deg)		45.7	Apriori accel (us/s/s)	-2.55830824974E-06	Resid phase (deg)	72.3	+/-	3.8		

	RMS	Theor.	Amplitude	0.832 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	26.4	8.8	Search (1024X32)	0.817	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	19.7	15.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	12.4	5.3	Inc. seg. avg.	0.906	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	11.8	9.3	Inc. frq. avg.	0.838	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

f: az 349.7 el 61.4 pa 163.1 l: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) 358.639 -676.769 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/fl.1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/fl.W.141.1ILLXI

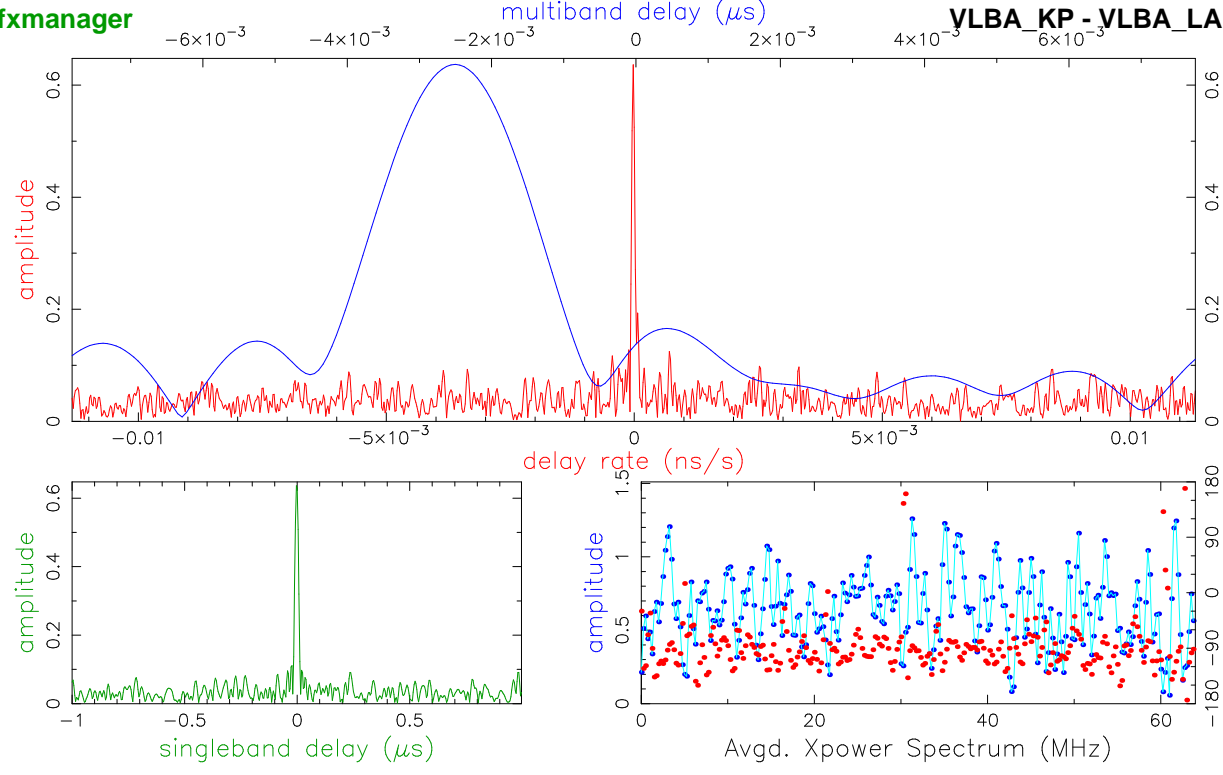


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, kl

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

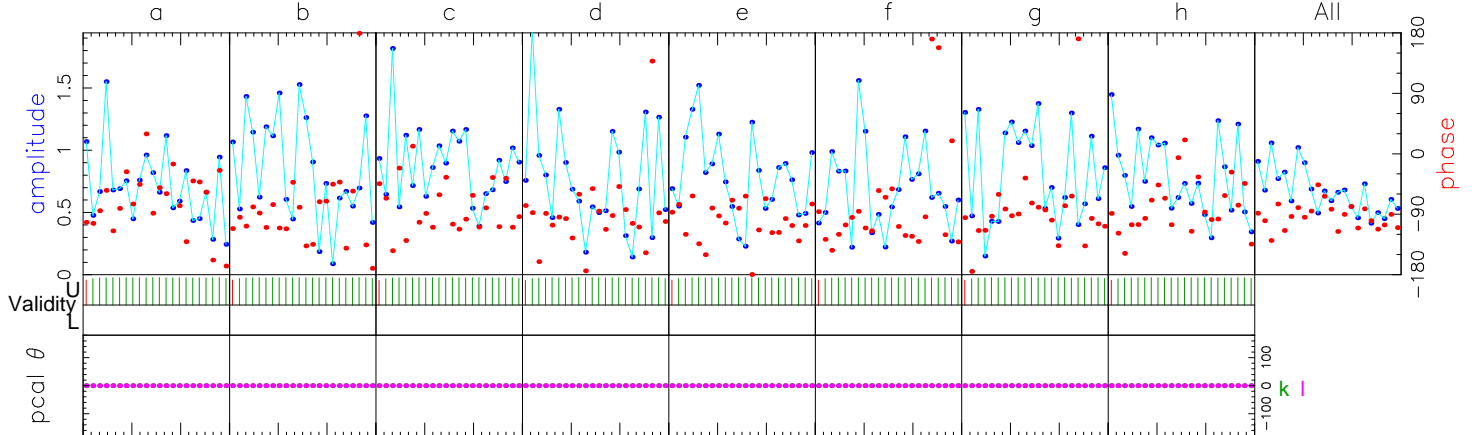


Fringe quality 9

SNR 23.6  
 Int time 177.788  
 Amp 0.648  
 Phase -93.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002227  
 MBD -0.002467  
 Fringe rate (Hz)  
 -0.001548  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130135  
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		-5.18448405708E+02			-5.18445938252E+02					
Sband delay (usec)		-5.18448165002E+02			7.3689747E-01					
Phase delay (usec)		-5.18445941263E+02			1.9999998E-07					
Delay rate (us/s)		6.03270267122E-02			6.03270446840E-02					
Total phase (deg)			-136.9		-2.56043008591E-06					
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal $\theta$										
Chan ids										
Tracks										
Chan ids										
Tracks										
RMS	18.6	11.4								
Theor.										
Amplitude										
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
ph/seg (deg)	18.6	11.4								
amp/seg (%)	27.6	19.9								
ph/frq (deg)	16.8	6.9								
amp/frq (%)	9.6	12.0								
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
Chan ids										
Tracks										
Chan ids										
Tracks										
Group delay (usec)(sbd)										
Sband delay (usec)										
Phase delay (usec)										
Delay rate (us/s)										
Total phase (deg)										
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Chan ids										
Tracks										
Chan ids										
Tracks										
Group delay (usec)(sbd)										
Sband delay (usec)										
Phase delay (usec)										
Delay rate (us/s)										
Total phase (deg)										
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Chan ids										
Tracks										
Chan ids										
Tracks										

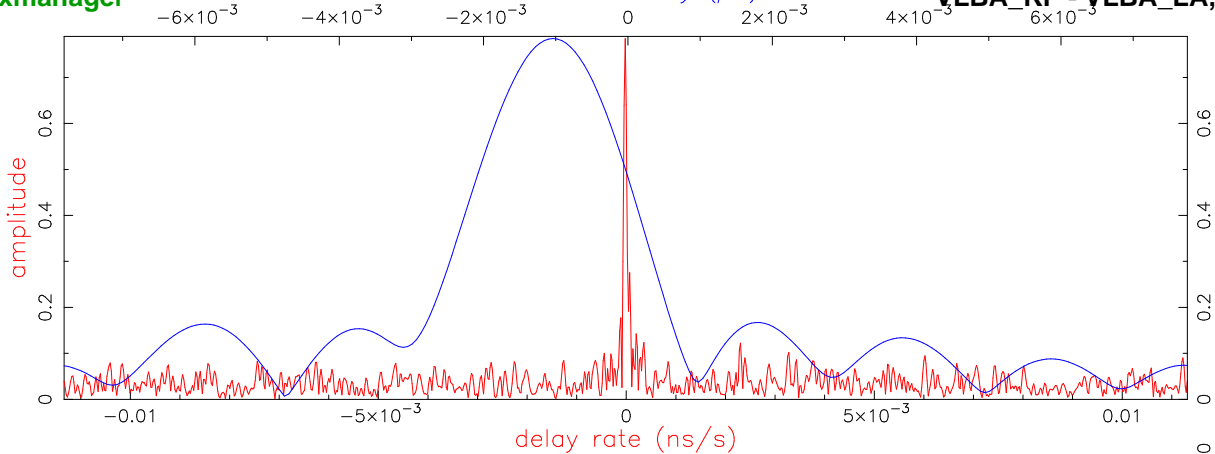
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, kl

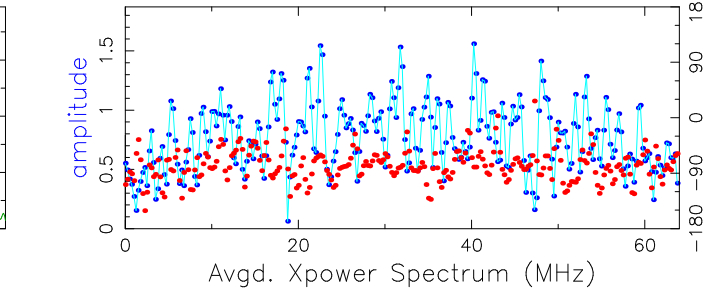
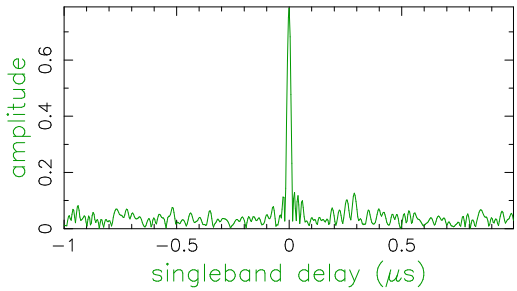
VLBA\_KP - VLBA\_LA, fgroup W, pol RR

multiband delay ( $\mu$ s)



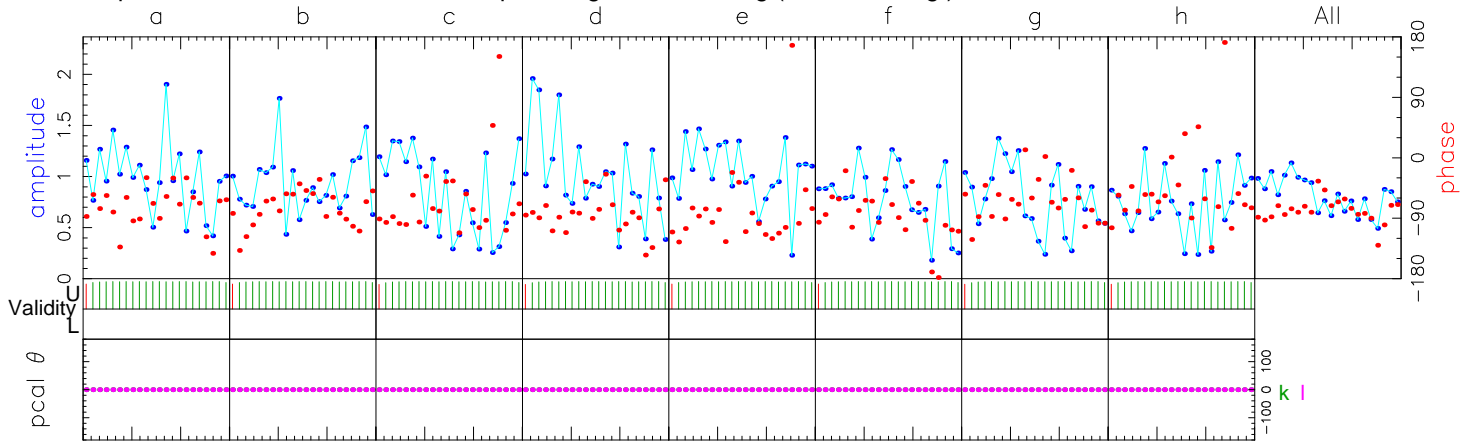
Fringe quality 9

SNR 28.8  
Int time 177.789  
Amp 0.789  
Phase -77.9  
PFD 0.0e+00  
Delays (us)  
SBD -0.001008  
MBD -0.001058  
Fringe rate (Hz)  
-0.001558  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



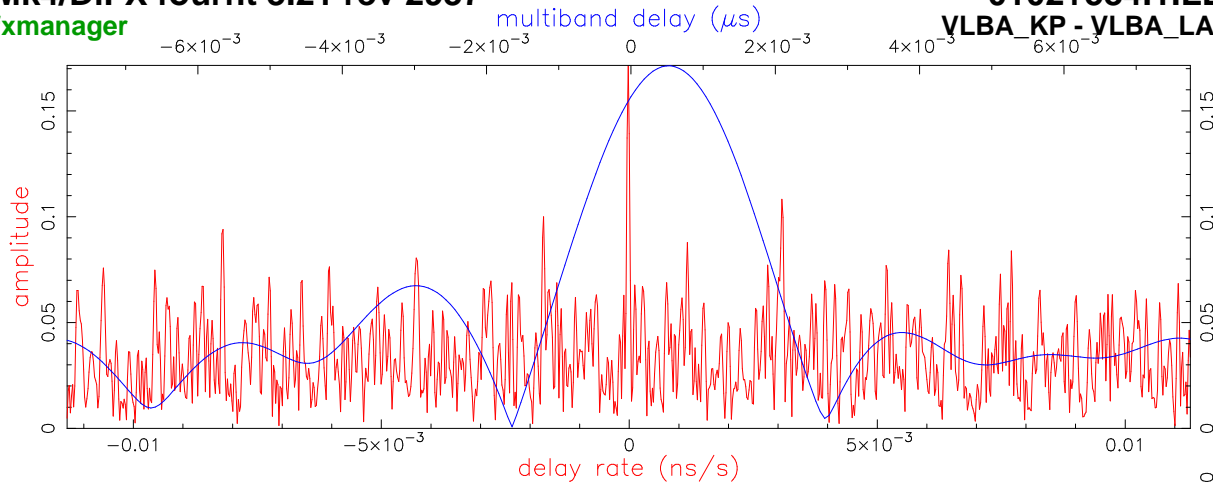
Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 072000.00  
Stop 072300.22  
FRT 072130.00  
Corr/FF/build  
2021:023:020244  
2021:023:130137  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

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

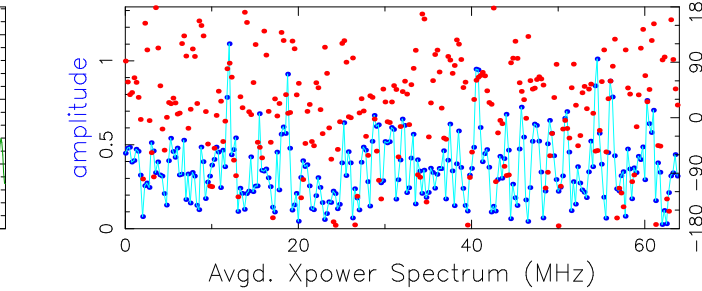
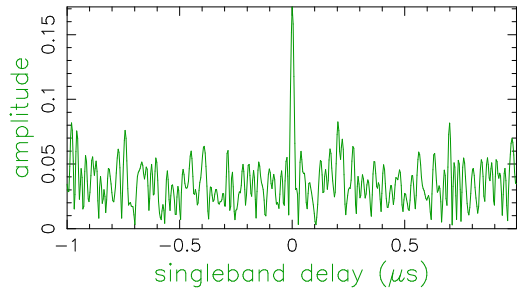


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-5.18446996270E+02									
Sband delay (usec)	-5.18446946502E+02									
Phase delay (usec)	-5.18445940765E+02									
Delay rate (us/s)	6.03270265917E-02									
Total phase (deg)			-121.5							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
PC freqs										
PC phase										
Mani PC										
PC amp										
Chan ids										
Tracks										
Chan ids										
Tracks										
ph/seg (deg)	18.3	9.3								
amp/seg (%)	21.6	16.3								
ph/frq (deg)	9.1	5.6								
amp/frq (%)	14.5	9.8								
RMS										
Theor.										
Amplitude										
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.789 +/- 0.027										
0.778										
0.000										
0.806										
0.788										
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
PC freqs										
PC phase										
Mani PC										
PC amp										
Chan ids										
Tracks										
Chan ids										
Tracks										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
0.000 1.000										
-1.000 0.008										
-0.011 0.011										
0.00 0.00										

k: az 358.0 el 63.4 pa 176.1 l: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) -663.269 -581.320 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/kl..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/kl.W.125.1ILLXI

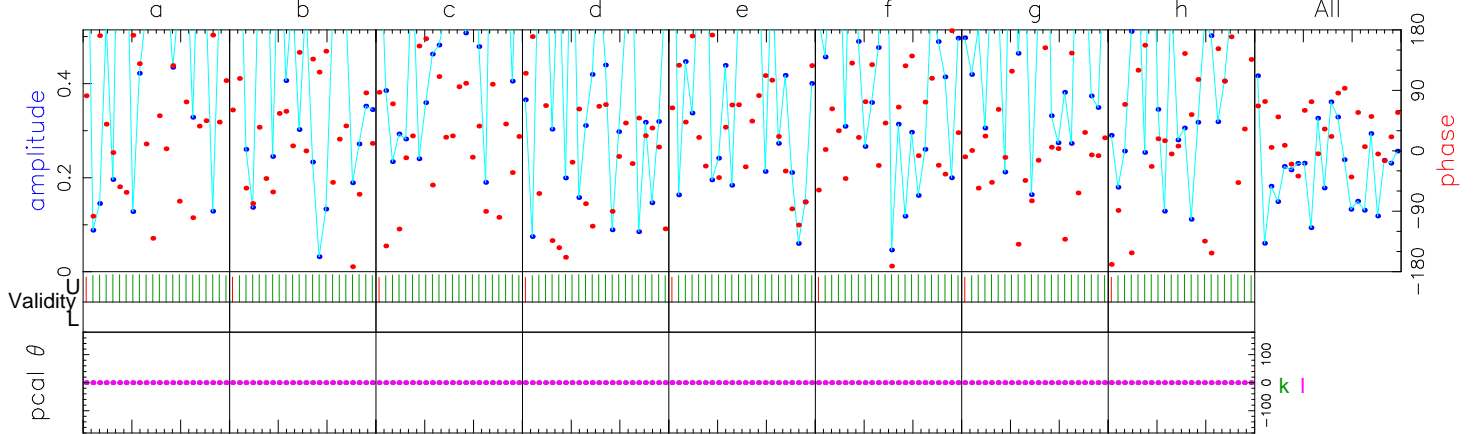


Fringe quality 0  
SNR 6.3  
Int time 177.788  
Amp 0.172  
Phase 30.7  
PFD 5.2e-02  
Delays (us)  
SBD 0.000405  
MBD 0.000533  
Fringe rate (Hz)  
-0.001396  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 072000.00  
Stop 072300.22  
FRT 072130.00  
Corr/FF/build  
2021:023:020244  
2021:023:130139  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-5.18445404927E+02	Apriori delay (usec)	-5.18445938252E+02	Resid mbdelay (usec)	5.33325E-04	+/-	1.7E-04
Sband delay (usec)	-5.18445533252E+02	Apriori clock (usec)	7.3689747E-01	Resid sbdelay (usec)	4.05000E-04	+/-	1.4E-03
Phase delay (usec)	-5.18445937263E+02	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	9.88717E-07	+/-	5.9E-07
Delay rate (us/s)	6.03270284722E-02	Apriori rate (us/s)	6.03270446840E-02	Resid rate (us/s)	-1.62118E-08	+/-	5.7E-09
Total phase (deg)	-12.9	Apriori accel (us/s/s)	-2.56043008591E-06	Resid phase (deg)	30.7	+/-	18.3

ph/seg (deg)	39.0	Theor.	43.0	Amplitude	0.172 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	57.2		75.0	Search (1024X32)	0.169	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	41.8		25.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.0		45.2	Inc. seg. avg.	0.169	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.169	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

k: az 358.0 el 63.4 pa 176.1 l: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) -663.269 -581.320 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/kl..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/kl.W.143.1ILLXI

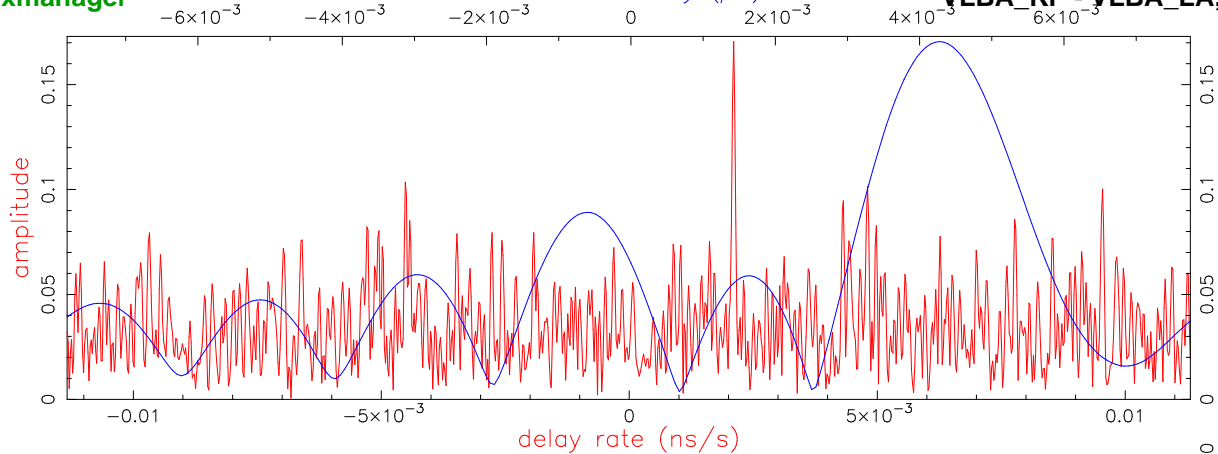
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, kl

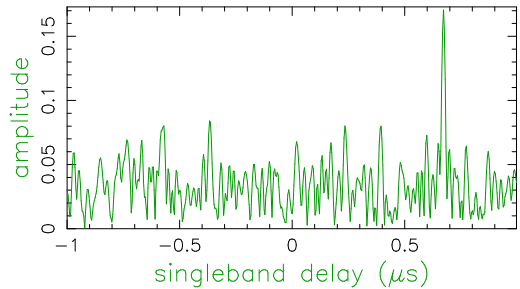
VLBA\_KP - VLBA\_LA, fgroup W, pol RL

multiband delay ( $\mu$ s)

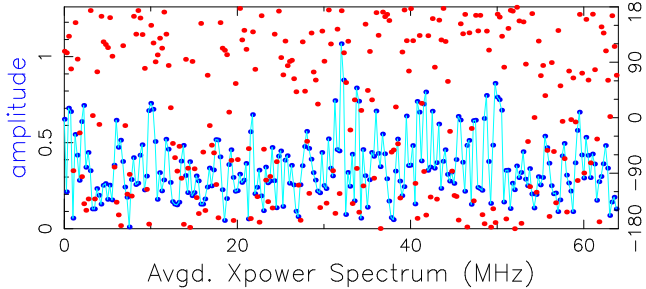


Fringe quality 0

SNR 6.2  
 Int time 177.789  
 Amp 0.173  
 Phase -62.8  
 PFD 6.5e-02  
 Delays (us)  
 SBD 0.672073  
 MBD 0.004280  
 Fringe rate (Hz)  
 0.182161  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

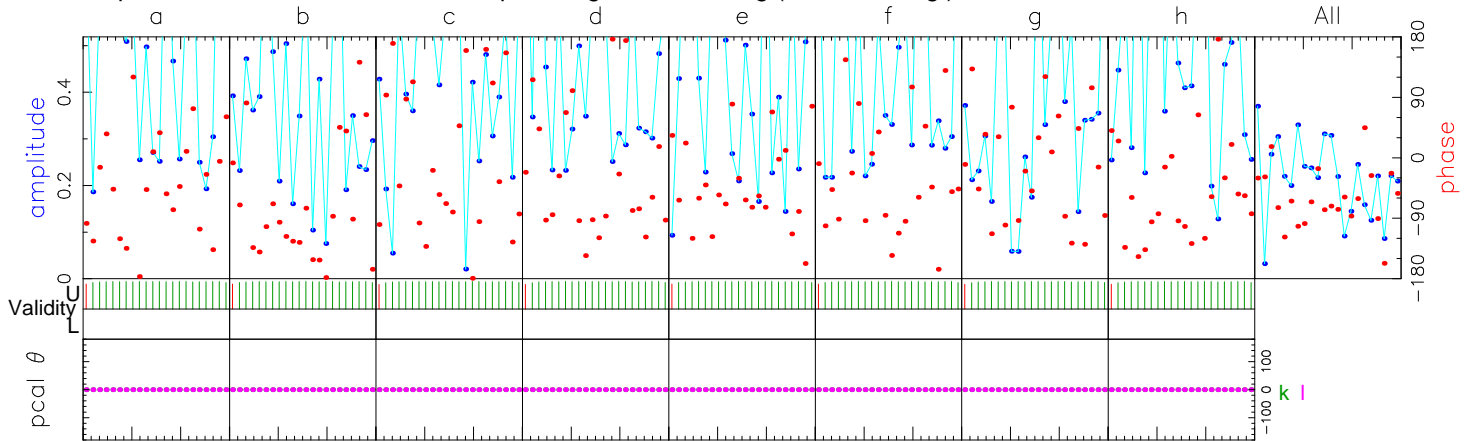


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130141  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"

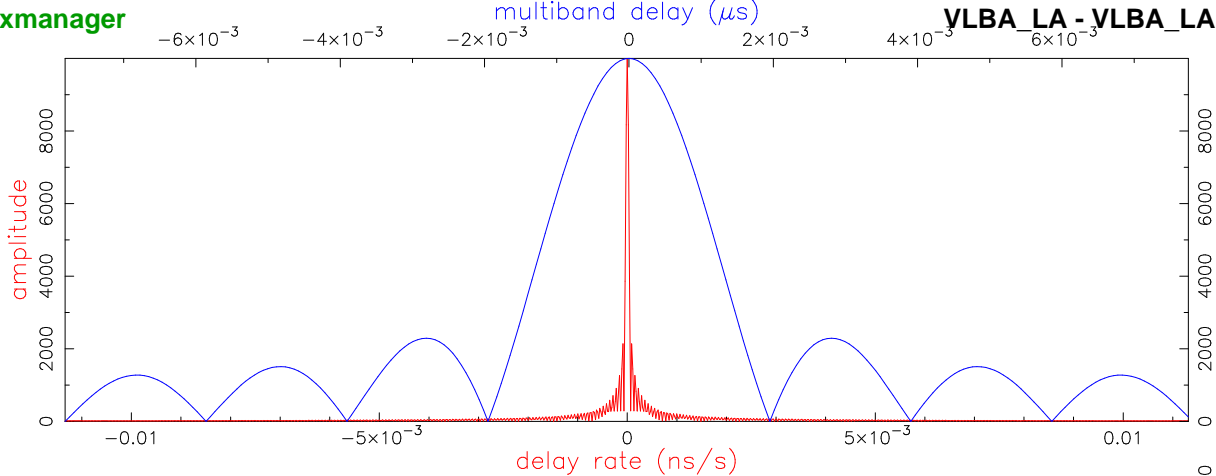
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



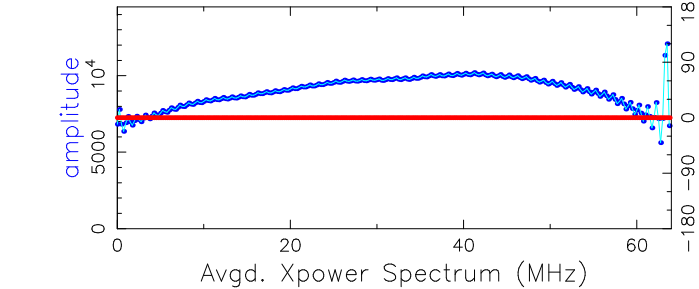
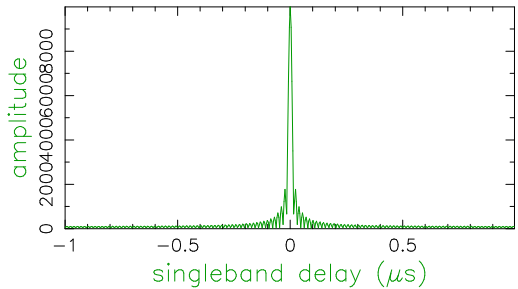
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-5.17769783079E+02								4.28017E-03	+/- 1.7E-04
Sband delay (usec)	-5.17773864752E+02								6.72073E-01	+/- 1.4E-03
Phase delay (usec)	-5.18445940276E+02								-2.02378E-06	+/- 5.9E-07
Delay rate (us/s)	6.03291593941E-02								2.11471E-06	+/- 5.7E-09
Total phase (deg)			-106.3						-62.8	+/- 18.4
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

ph/seg (deg) 43.7 43.2 Search (1024X32) 0.161 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 54.9 75.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 32.7 26.1 Inc. seg. avg. 0.171 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 31.5 45.5 Inc. frq. avg. 0.174 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 k: az 358.0 el 63.4 pa 176.1 l: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) -663.269 -581.320 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/kl..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/kl.W.158.1ILLXI

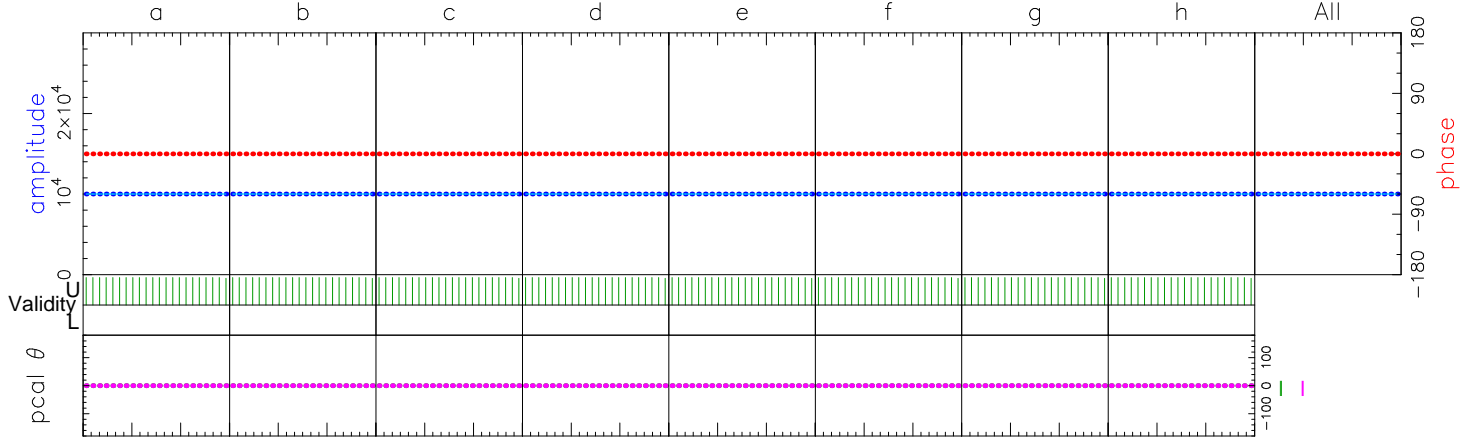




Fringe quality 9  
SNR 366861.9  
Int time 179.974  
Amp 9999.998  
Phase 0.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD 0.000000  
Fringe rate (Hz) 0.000000  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. c202b  
Yr:day 16383  
Start 2020:284  
Stop 2021:023:020244  
FRT 072130.00  
Corr/FF/build  
2021:023:130144  
2020:247:085004  
RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"

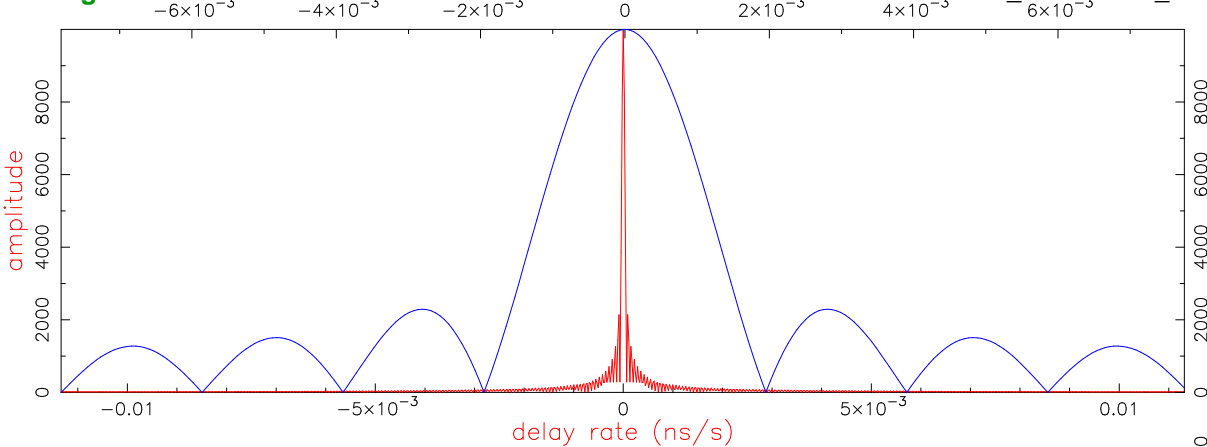


Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



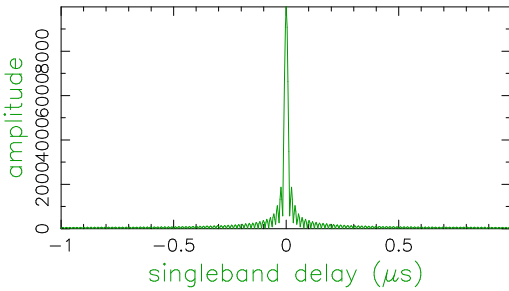
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	10000.0	10000.0
	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
	1000	1000	1000	1000	1000	1000	1000	1000	257.0	257.0
:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	Tracks
	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	Tracks
Group delay (usec)(sbd)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.00000E+00	+/- 3.0E-09
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.00000E+00	+/- 2.3E-08
Phase delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.00000E+00	+/- 1.0E-11
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.00000E+00	+/- 9.7E-14
Total phase (deg)			0.0						0.0	+/- 0.0
RMS		Theor.								
ph/seg (deg)	0.0	0.0	Amplitude	9999.998 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	0.0	0.0	Search (1024X32)	9999.998	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
			Inc. frq. avg.	9999.998	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

multiband delay ( $\mu$ s)

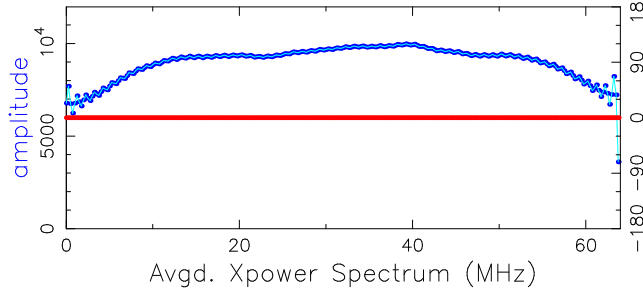


Fringe quality 9

SNR 366861.9  
 Int time 179.974  
 Amp 9999.998  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

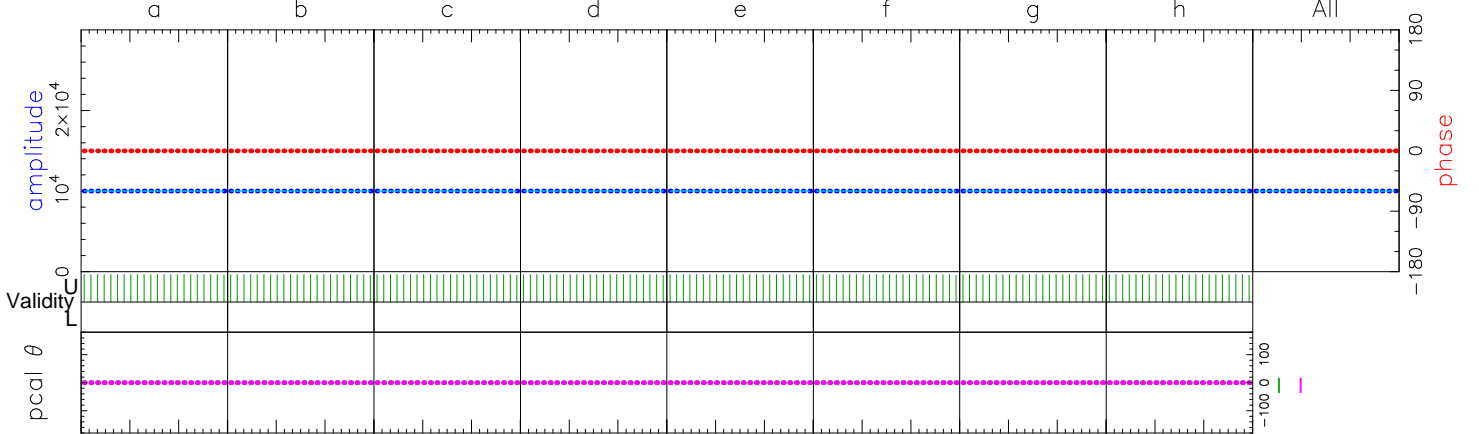


delay rate (ns/s)



Exp. c202b  
 Yr:day 16383  
 Start 2021:023:020244  
 Stop 2021:023:130146  
 FRT 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		
	1000	1000	1000	1000	1000	1000	1000	1000		
	1000	1000	1000	1000	1000	1000	1000	1000		
:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
	1000	1000	1000	1000	1000	1000	1000	1000		
	1000	1000	1000	1000	1000	1000	1000	1000		
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	3.0E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	2.3E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	1.0E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	9.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	Theor.	Amplitude	9999.998 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	0.0	0.0	0.0	Search (1024X32)	9999.998	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	9999.998	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

l: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/II.1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/II.W.188.1ILLXI

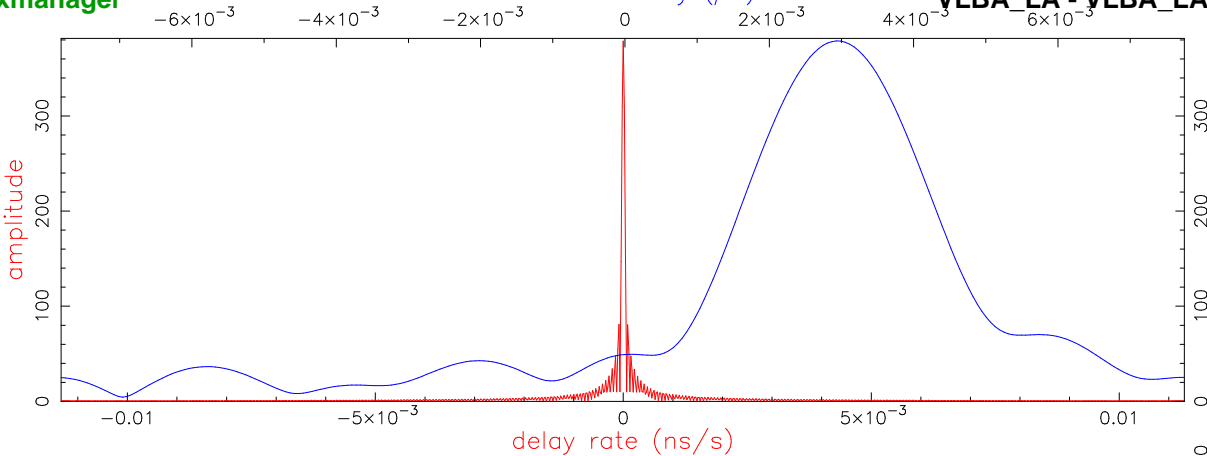
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, II

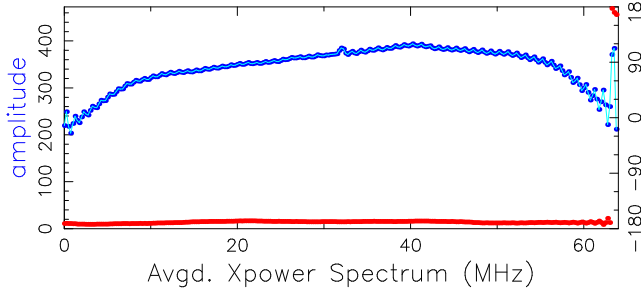
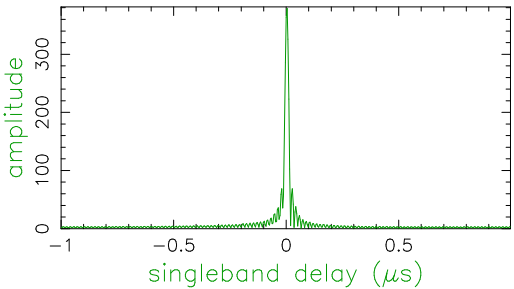
VLBA\_LA - VLBA\_LA, fgroup W, pol LR

multiband delay ( $\mu$ s)



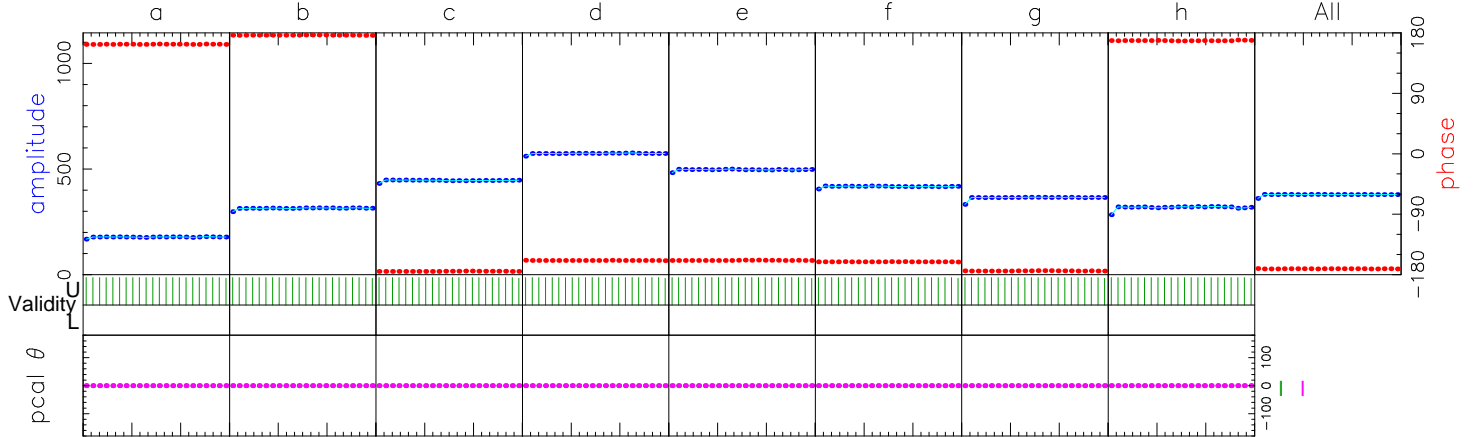
Fringe quality 7

SNR 13998.2  
 Int time 179.974  
 Amp 381.566  
 Phase -171.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.002809  
 MBD 0.002913  
 Fringe rate (Hz)  
 0.000005  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130148  
 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		
	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
	1000	1000	1000	1000	1000	1000	1000	1000		
	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

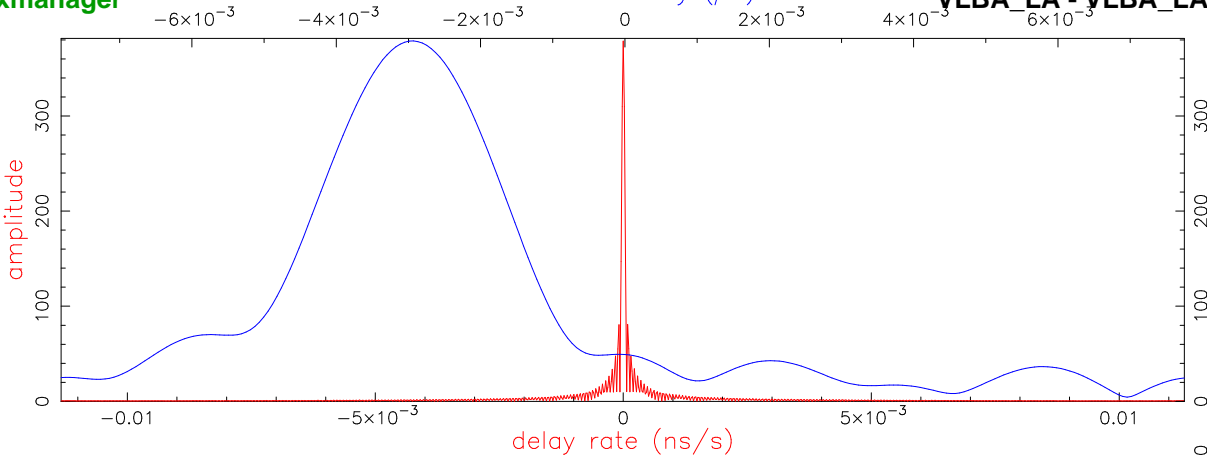
Group delay (usec)(sbd)	2.91340625000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	2.91341E-03	+/-	7.8E-08
Sband delay (usec)	2.80875000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	2.80875E-03	+/-	6.2E-07
Phase delay (usec)	-5.51778189636E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.51778E-06	+/-	2.6E-10
Delay rate (us/s)	6.37701857626E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	6.37702E-11	+/-	2.5E-12
Total phase (deg)	-171.1	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-171.1	+/-	0.0

ph/seg (deg)	0.1	0.0	RMS	381.565 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	1.2	0.0	Theor.		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	16.8	0.0	Amplitude		Search (1024X32)	378.870	mb window (us)	-0.008 0.008	
amp/frq (%)	30.1	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
			Inc. seg. avg.	378.780	Sample rate (MSamp/s):	128	ion window (TEC)	0.00 0.00	
			Inc. frq. avg.	388.666	Data rate (Mb/s):	2048	nlags:	256	
							t_cohere	infinite	

l: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

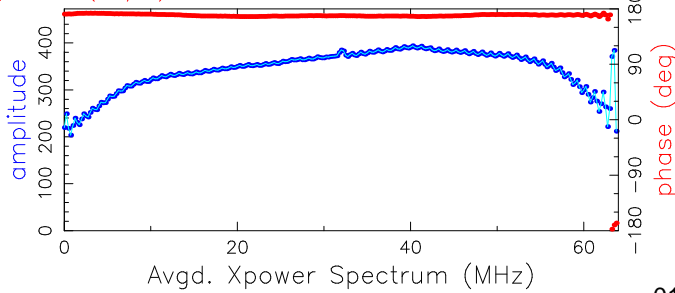
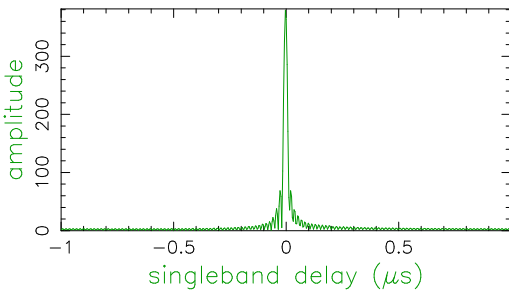
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/II.1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/II.W.209.1ILLXI

multiband delay ( $\mu$ s)



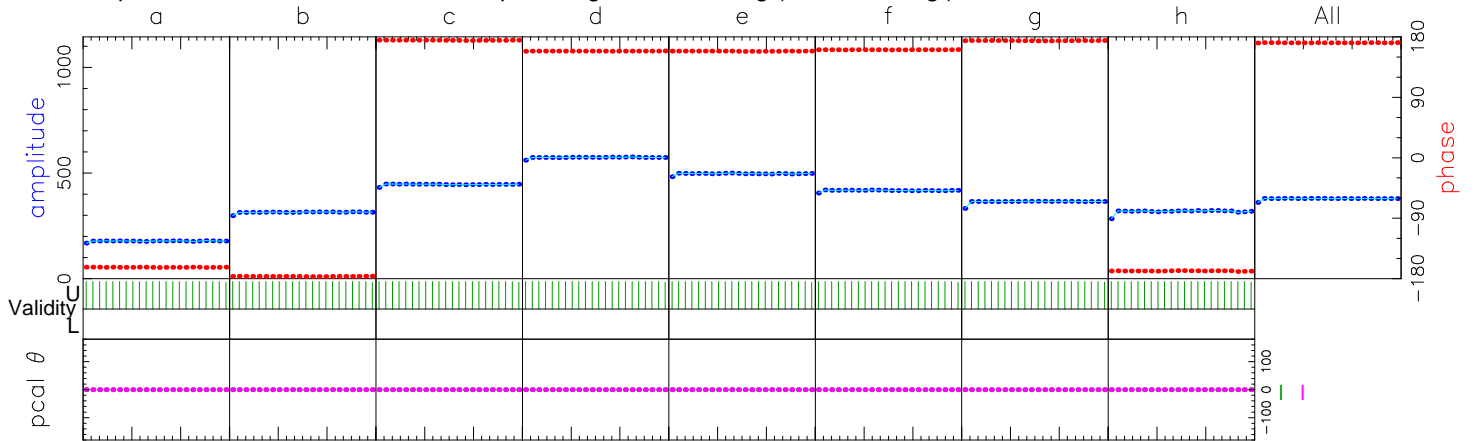
Fringe quality 7

SNR 13998.2  
Int time 179.974  
Amp 381.566  
Phase 171.1  
PFD 0.0e+00  
Delays (us)  
SBD -0.002809  
MBD -0.002913  
Fringe rate (Hz)  
-0.000005  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 072000.00  
Stop 072300.22  
FRT 072130.00  
Corr/FF/build  
2021:023:020244  
2021:023:130150  
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
	-162.9	-176.5	174.9	158.7	158.6	160.7	174.3	-168.4	Phase	171.1
	178.0	314.4	446.0	573.7	496.9	417.5	364.3	318.5	Ampl.	388.7
	256.1	256.1	256.3	255.9	256.5	256.4	256.5	256.5	Sbd box	256.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
:	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
:	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.91340625000E-03		Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-2.91341E-03	+/-	7.8E-08		
Sband delay (usec)	-2.80875000000E-03		Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-2.80875E-03	+/-	6.2E-07		
Phase delay (usec)	5.51778189639E-06		Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	5.51778E-06	+/-	2.6E-10		
Delay rate (us/s)	-6.37701857626E-11		Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-6.37702E-11	+/-	2.5E-12		
Total phase (deg)		171.1	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	171.1	+/-	0.0		

ph/seg (deg) 0.1 0.0 Theor. Amplitude 381.565 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 1.2 0.0 Search (1024X32) 378.870 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 16.8 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 30.1 0.0 Inc. seg. avg. 378.780 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 Inc. frq. avg. 388.666 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

l: az 350.6 el 66.8 pa 164.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/II.1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/II.W.224.1ILLXI

Mk4/DiFX fourfit 3.21 rev 2937

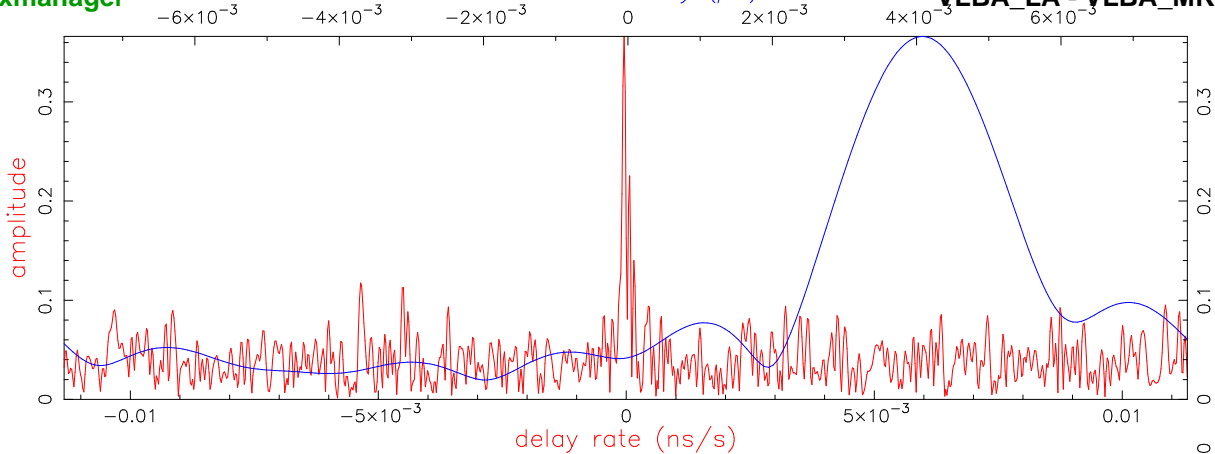
fxmanager

0102+584.1ILLXI, No0070, Im

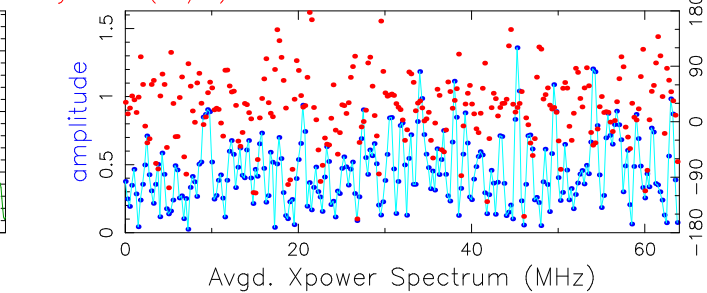
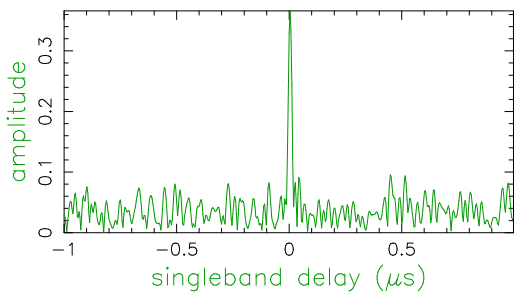
VLBA\_LA - VLBA\_MK, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 9

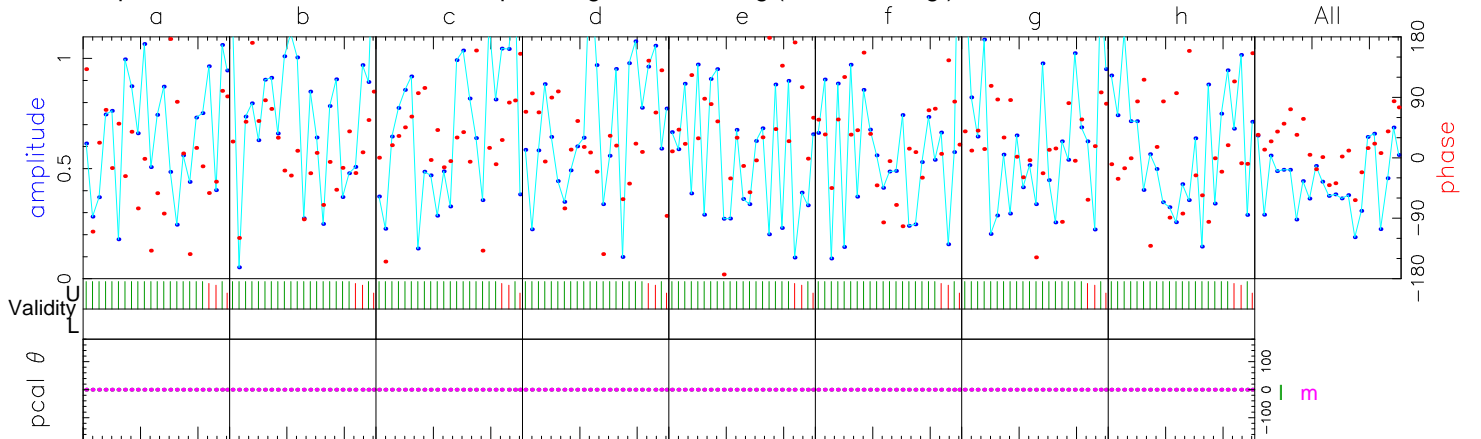


SNR 12.2  
 Int time 148.895  
 Amp 0.366  
 Phase 23.1  
 PFD 6.5e-26  
 Delays (us)  
 SBD 0.004043  
 MBD 0.004080  
 Fringe rate (Hz)  
 -0.002932  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072230.53  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130144  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 5.56848258732E+03 Apriori delay (usec) 5.56847850714E+03 Resid mbdelay (usec) 4.08018E-03 +/- 8.9E-05  
 Sband delay (usec) 5.56848255014E+03 Apriori clock (usec) -1.3766898E+01 Resid sbdelay (usec) 4.04300E-03 +/- 7.1E-04  
 Phase delay (usec) 5.56847850789E+03 Apriori clockrate (us/s) -1.999998E-07 Resid phdelay (usec) 7.45991E-07 +/- 3.0E-07  
 Delay rate (us/s) -5.93643155777E-01 Apriori rate (us/s) -5.93643121734E-01 Resid rate (us/s) -3.40434E-08 +/- 3.5E-09  
 Total phase (deg) 241.0 Apriori accel (us/s/s) -6.07475810972E-06 Resid phase (deg) 23.1 +/- 9.4

ph/seg (deg) 37.3 22.5 Amplitude 0.366 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 43.3 39.2 Search (1024X32) 0.352 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 19.6 13.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 21.9 23.2 Inc. seg. avg. 0.412 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 Inc. frq. avg. 0.369 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

l: az 350.6 el 66.8 pa 164.6 m: az 27.6 el 40.8 pa -123.3 u,v (fr/asec) 6502.764 327.714 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/Im..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/Im.W.173.1ILLXI

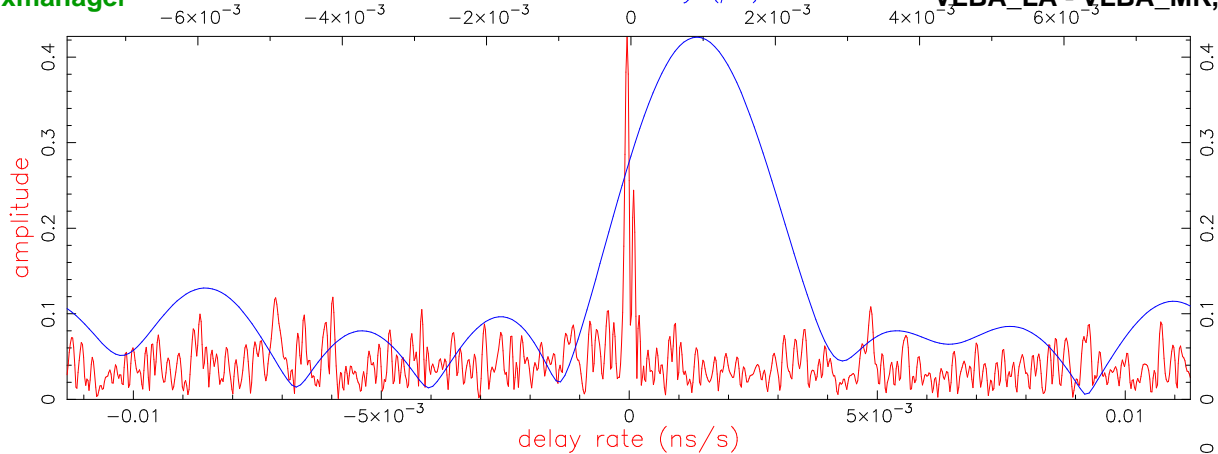
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, Im

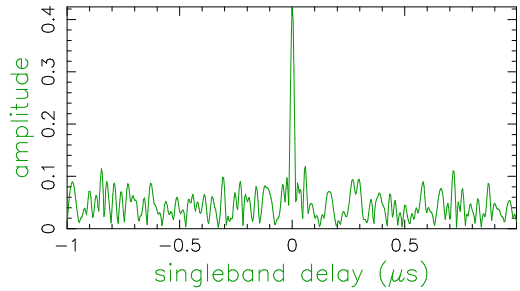
VLBA\_LA - VLBA\_MK, fgroup W, pol RR

multiband delay ( $\mu$ s)

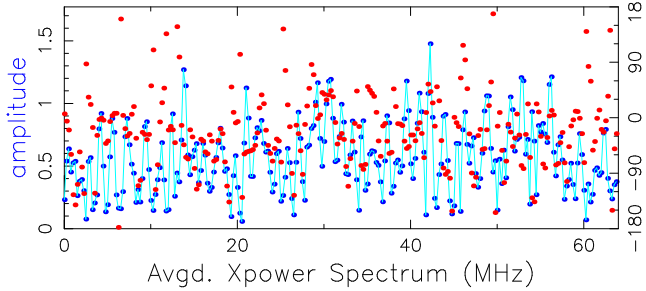


Fringe quality 9

SNR 13.4  
 Int time 132.681  
 Amp 0.424  
 Phase -26.8  
 PFD 2.8e-32  
 Delays (us)  
 SBD 0.000621  
 MBD 0.000941  
 Fringe rate (Hz) -0.003864  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

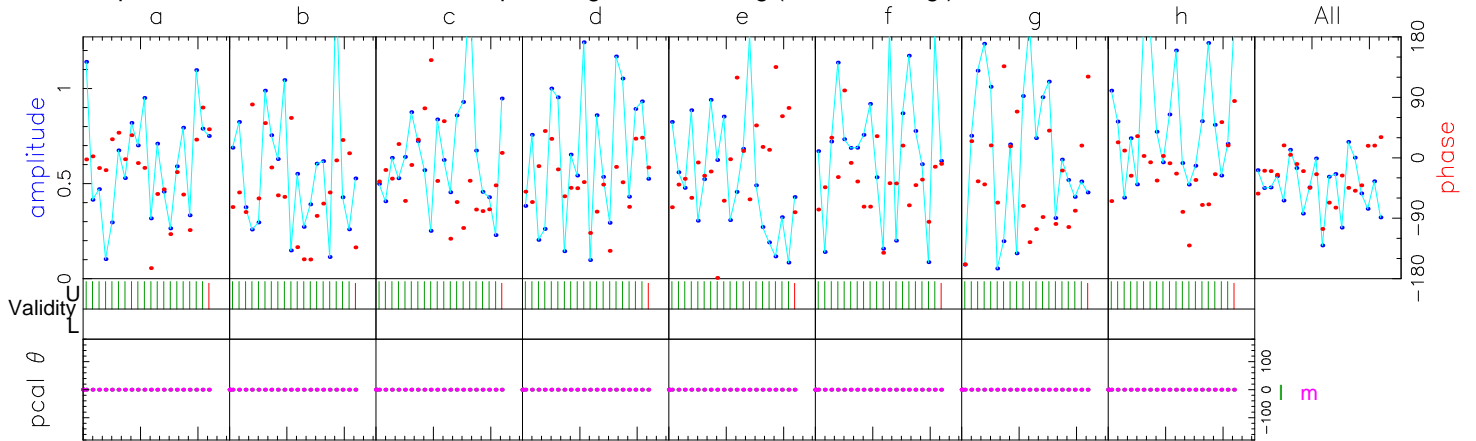


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072230.53  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130146  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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	260/0	260/0	260/0	260/0	260/0	260/0	260/0	260/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	5.56847944851E+03				5.56847850714E+03				9.41369E-04	+/- 8.1E-05
Sband delay (usec)	5.56847912764E+03				-1.3766898E+01				6.20500E-04	+/- 6.4E-04
Phase delay (usec)	5.56847850628E+03				-1.999998E-07				-8.64916E-07	+/- 2.8E-07
Delay rate (us/s)	-5.93643166595E-01				-5.93643121734E-01				-4.48616E-08	+/- 3.6E-09
Total phase (deg)			191.0		-6.07475810972E-06				-26.8	+/- 8.6
	RMS	Theor.	Amplitude	0.424 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	33.8	19.3	Search (1024X32)	0.423	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	35.5	33.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	15.4	12.1	Inc. seg. avg.	0.458	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	23.2	21.2	Inc. frq. avg.	0.424	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

l: az 350.6 el 66.8 pa 164.6 m: az 27.6 el 40.8 pa -123.3 u,v (fr/asec) 6502.764 327.714 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/Im..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/Im.W.194.1ILLXI

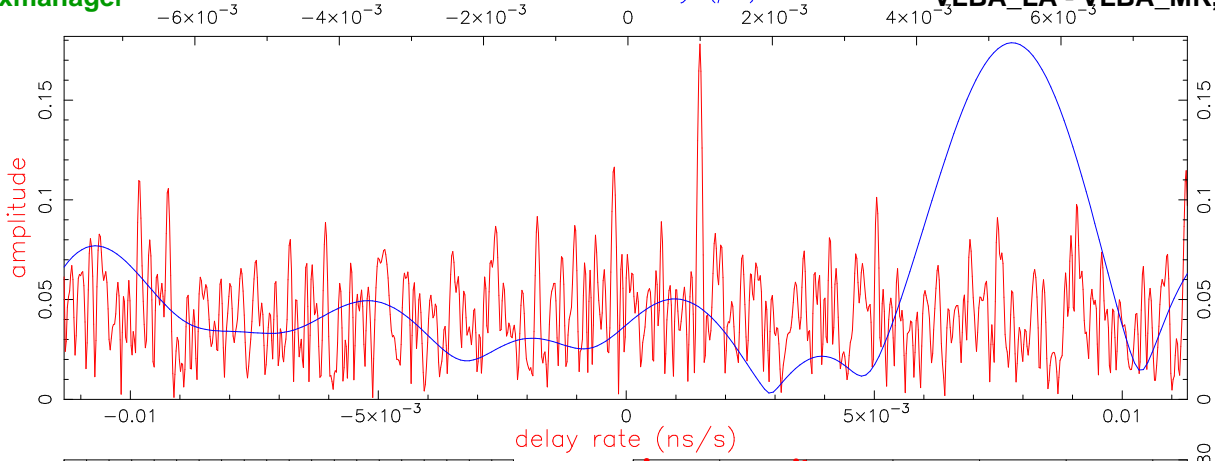
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

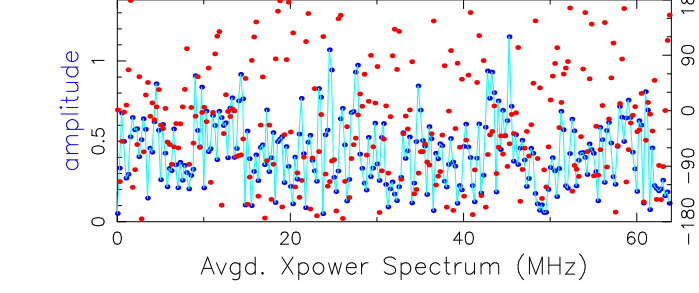
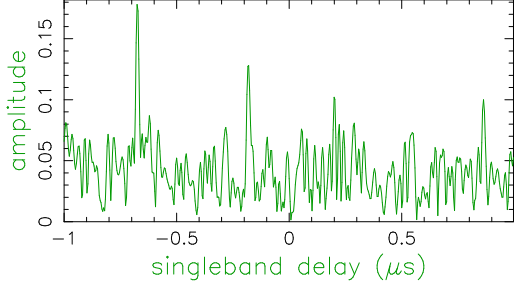
0102+584.1ILLXI, No0070, Im

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

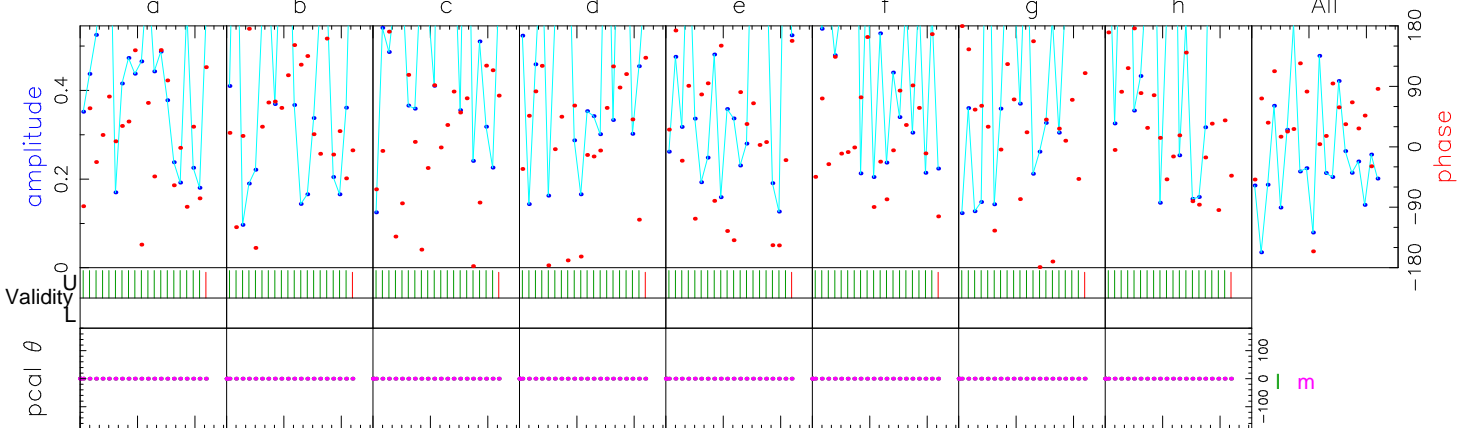
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 5.7  
 Int time 132.681  
 Amp 0.182  
 Phase 42.2  
 PFD 7.9e-01  
 Delays (us)  
 SBD -0.674368  
 MBD 0.005414  
 Fringe rate (Hz) 0.128218  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072230.53  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130148  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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	260/0	260/0	260/0	260/0	260/0	260/0	260/0	260/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	5.56779642140E+03	Apriori delay (usec)	5.56847850714E+03	Resid mbdelay (usec)	5.41426E-03	+/-	1.9E-04
Sband delay (usec)	5.56780413889E+03	Apriori clock (usec)	-1.3766898E+01	Resid sbdelay (usec)	-6.74368E-01	+/-	1.5E-03
Phase delay (usec)	5.56847850850E+03	Apriori clockrate (us/s)	-1.999998E-07	Resid phdelay (usec)	1.36044E-06	+/-	6.5E-07
Delay rate (us/s)	-5.93641633252E-01	Apriori rate (us/s)	-5.93643121734E-01	Resid rate (us/s)	1.48848E-06	+/-	8.4E-09
Total phase (deg)	260.0	Apriori accel (us/s/s)	-6.07475810972E-06	Resid phase (deg)	42.2	+/-	20.1

ph/seg (deg)	56.2	Theor.	45.4	Amplitude	0.182 +/- 0.032	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	77.6	Search (1024X32)	0.175	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	21.3	Inc. seg. avg.	0.183	Inc. frq. avg.	0.170	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	27.7	Inc. frq. avg.	0.170			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

l: az 350.6 el 66.8 pa 164.6 m: az 27.6 el 40.8 pa -123.3 u,v (fr/asec) 6502.764 327.714 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/Im..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/Im.W.212.1ILLXI

Mk4/DiFX fourfit 3.21 rev 2937

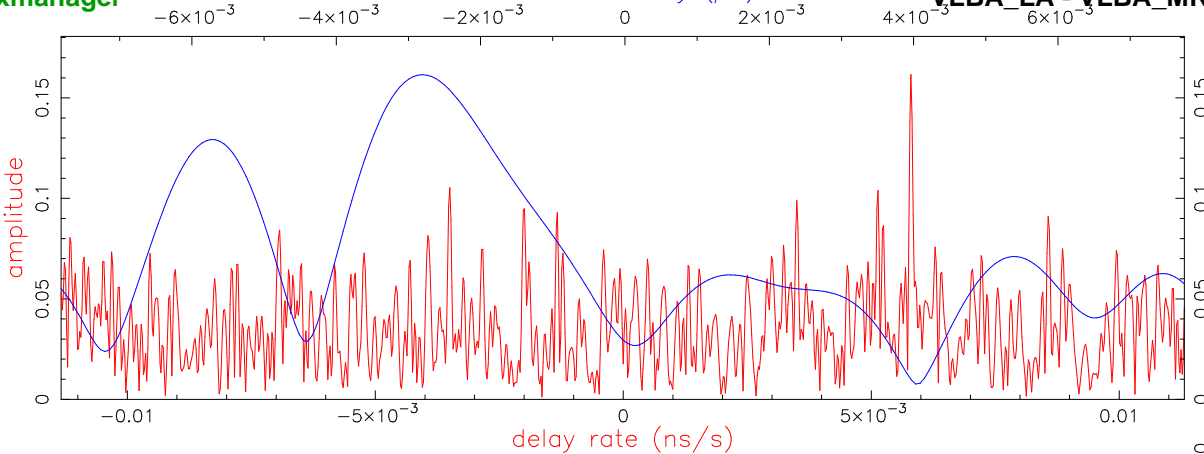
fxmanager

0102+584.1ILLXI, No0070, Im

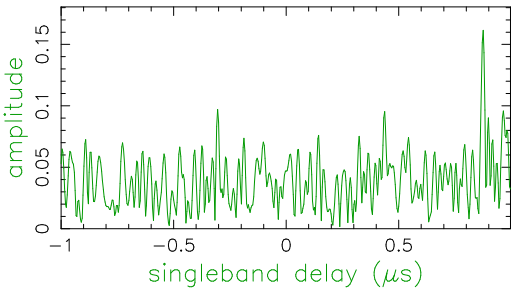
VLBA\_LA - VLBA\_MK, fgroup W, pol RL

multiband delay ( $\mu$ s)

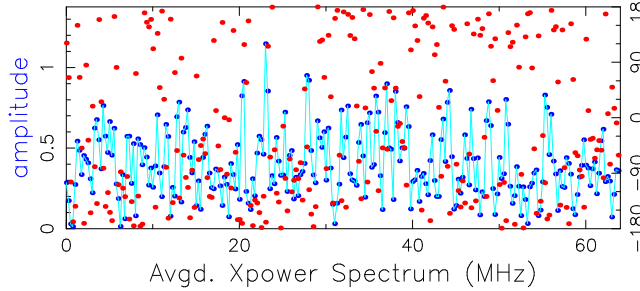
Fringe quality 0



SNR 5.4  
 Int time 148.895  
 Amp 0.181  
 Phase -120.1  
 PFD 1.0e+00  
 Delays (us)  
 SBD 0.874533  
 MBD -0.002819  
 Fringe rate (Hz)  
 0.500047  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

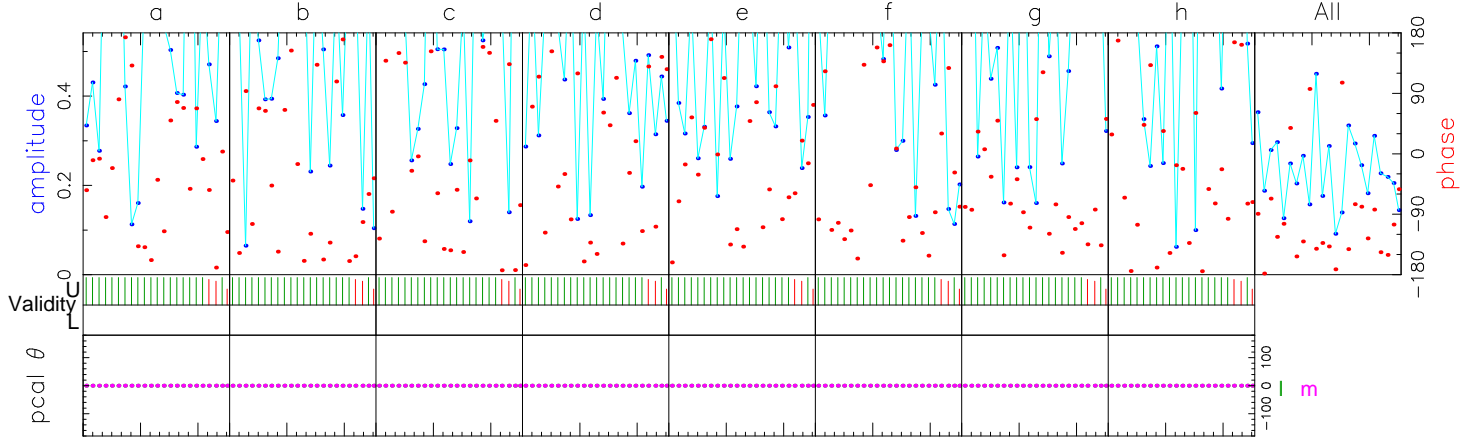


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072230.53  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130150  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



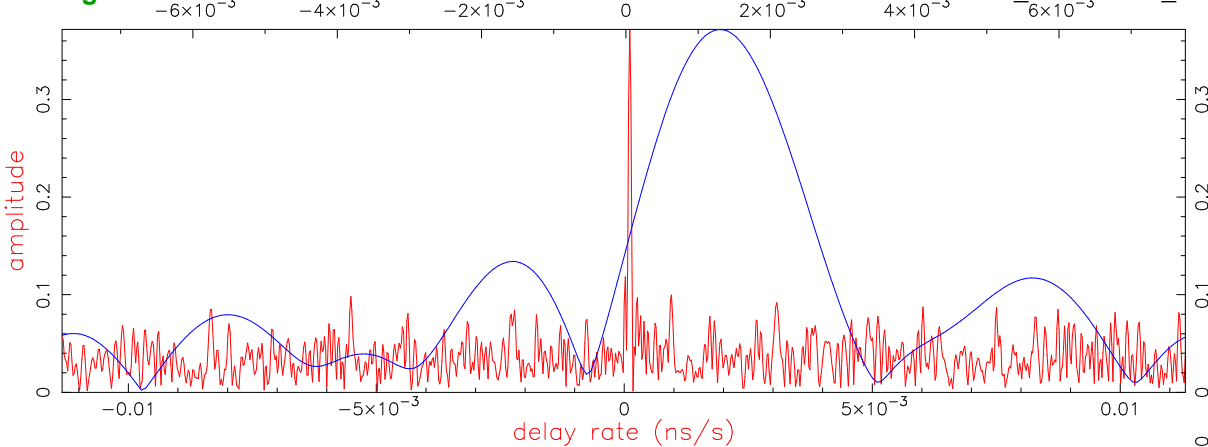
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-40.0	-153.0	-158.2	172.0	-73.7	-132.1	-90.0	-128.2	Phase	-120.1
	0.2	0.2	0.3	0.1	0.1	0.3	0.4	0.3	Ampl.	0.2
	241.0	491.4	362.9	324.5	269.6	479.7	481.8	481.7	Sbd box	480.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	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)	5.56935068805E+03		Apriori delay (usec)		5.56847850714E+03		Resid mbdelay (usec)		-2.81909E-03	+/- 2.0E-04
Sband delay (usec)	5.56935304014E+03		Apriori clock (usec)		-1.3766898E+01		Resid sbdelay (usec)		8.74533E-01	+/- 1.6E-03
Phase delay (usec)	5.56847850327E+03		Apriori clockrate (us/s)		-1.999998E-07		Resid phdelay (usec)		-3.87261E-06	+/- 6.8E-07
Delay rate (us/s)	-5.93637316688E-01		Apriori rate (us/s)		-5.93643121734E-01		Resid rate (us/s)		5.80505E-06	+/- 7.9E-09
Total phase (deg)			Apriori accel (us/s/s)		-6.07475810972E-06		Resid phase (deg)		-120.1	+/- 21.2

ph/seg (deg) 61.9 50.8 Search (1024X32) 0.160 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 69.9 88.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 53.0 30.0 Inc. seg. avg. 0.191 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 65.7 52.4 Inc. frq. avg. 0.202 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 l: az 350.6 el 66.8 pa 164.6 m: az 27.6 el 40.8 pa -123.3 u,v (fr/asec) 6502.764 327.714 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/Im..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/Im.W.226.1ILLXI

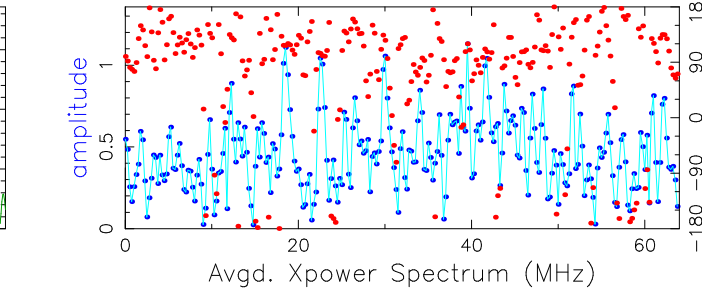
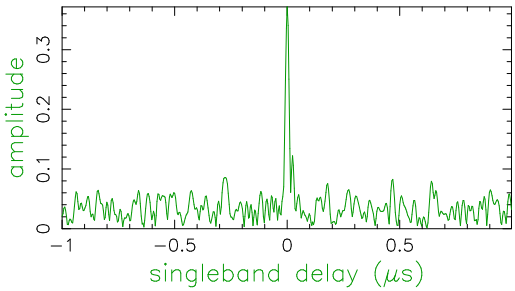


multiband delay ( $\mu$ s)

Fringe quality 9

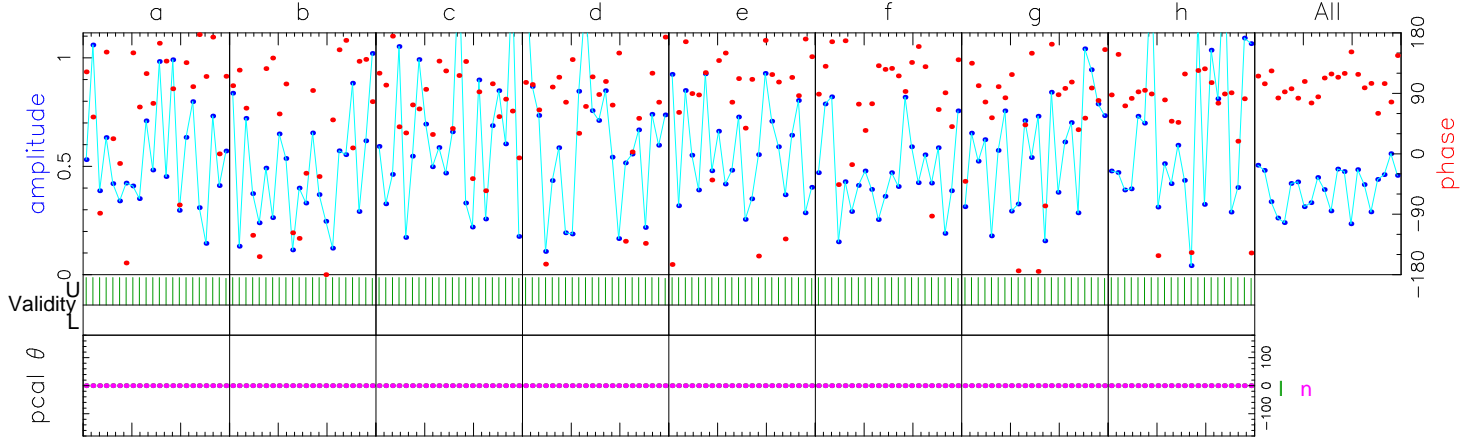


SNR 13.6  
Int time 179.974  
Amp 0.372  
Phase 103.4  
PFD 6.8e-34  
Delays (us)  
SBD 0.000164  
MBD 0.001308  
Fringe rate (Hz) 0.009535  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 072000.00  
Stop 072300.22  
FRT 072130.00  
Corr/FF/build  
2021:023:020244  
2021:023:130144  
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		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-2.09264070857E+02	Apriori delay (usec)	-2.09265378512E+02	Resid mbdelay (usec)	1.30765E-03	+/-	8.0E-05
Sband delay (usec)	-2.09265214262E+02	Apriori clock (usec)	-5.6469345E-01	Resid sbdelay (usec)	1.64250E-04	+/-	6.3E-04
Phase delay (usec)	-2.09265375176E+02	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	3.33581E-06	+/-	2.7E-07
Delay rate (us/s)	1.42513443116E-01	Apriori rate (us/s)	1.42513332428E-01	Resid rate (us/s)	1.10688E-07	+/-	2.6E-09
Total phase (deg)	-150.4	Apriori accel (us/s/s)	-6.72122655527E-06	Resid phase (deg)	103.4	+/-	8.4

ph/seg (deg)	21.7	Theor.	19.7	Amplitude	0.372 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	25.8		34.4	Search (1024X32)	0.367	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	16.7		11.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	24.7		20.7	Inc. seg. avg.	0.376	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.376	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 350.6 el 66.8 pa 164.6 n: az 328.2 el 68.4 pa 131.5 u,v (fr/asec) -1567.702 -1231.583 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/ln..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/ln.W.177.1ILLXI



Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

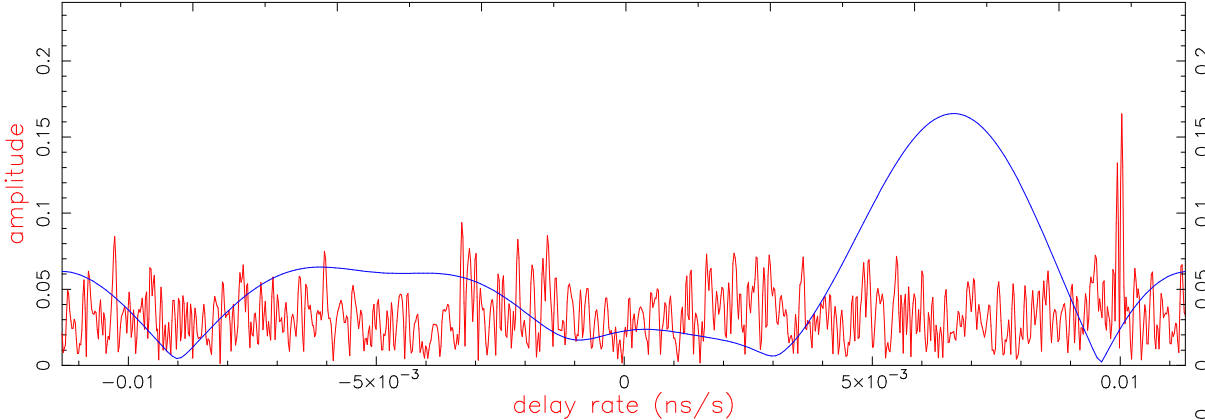
0102+584.1ILLXI, No0070, In

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

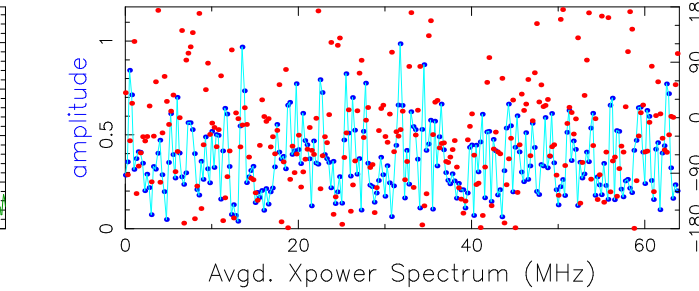
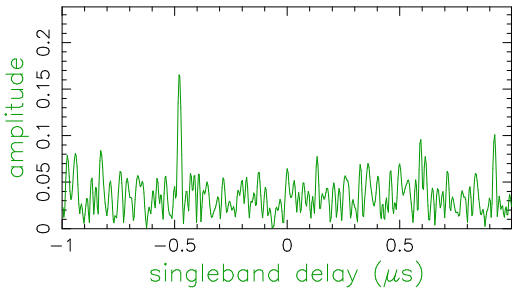
multiband delay ( $\mu$ s)

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

Fringe quality 0

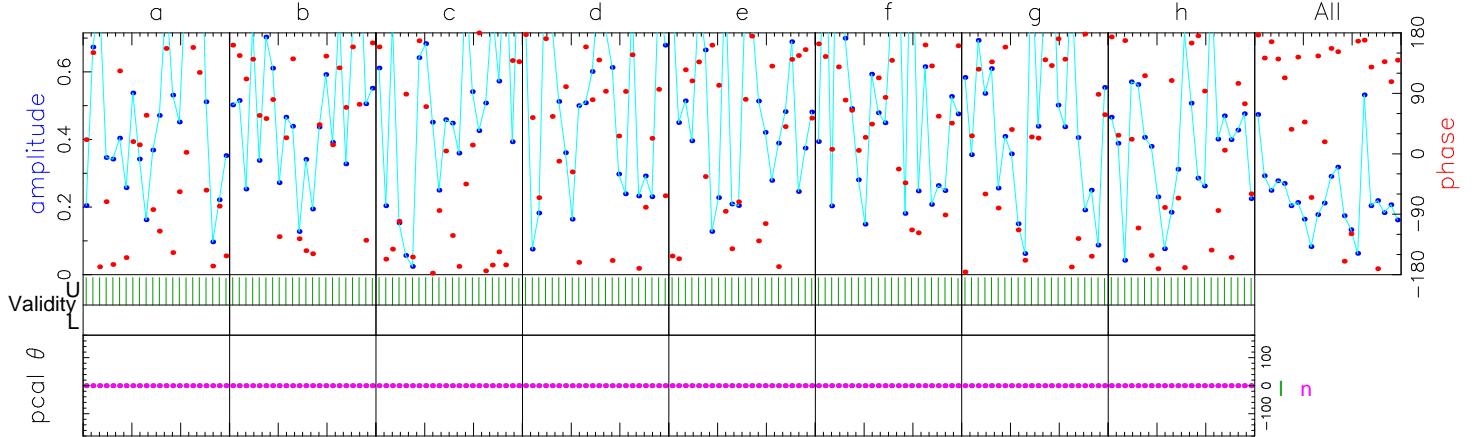


SNR 6.2  
Int time 179.974  
Amp 0.238  
Phase 148.5  
PFD 8.0e-02  
Delays (us)  
SBD -0.478776  
MBD 0.004589  
Fringe rate (Hz)  
0.865667  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 072000.00  
Stop 072300.22  
FRT 072130.00  
Corr/FF/build  
2021:023:020244  
2021:023:130149  
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
Group delay (usec)(sbd)	-176.0	118.9	-171.7	130.5	164.5	113.5	138.7	-175.2		148.5
Sband delay (usec)	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.2		0.2
Phase delay (usec)	292.7	134.5	302.0	277.8	256.0	147.8	486.7	408.9		134.4
Delay rate (us/s)	U/L 352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Total phase (deg)	l 1000	1000	1000	1000	1000	1000	1000	1000		
	n 1000	1000	1000	1000	1000	1000	1000	1000		
	l:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
	l:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
	l 1000	1000	1000	1000	1000	1000	1000	1000		
	n 1000	1000	1000	1000	1000	1000	1000	1000		
	l W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
	n W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										

	RMS	Theor.	Amplitude	0.238 +/- 0.039	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	60.3	43.5	Search (1024X32)	0.161	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	73.5	75.9	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	34.0	26.2	Inc. seg. avg.	0.255	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	32.5	45.7	Inc. frq. avg.	0.242	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

l: az 350.6 el 66.8 pa 164.6 n: az 328.2 el 68.4 pa 131.5 u,v (fr/asec) -1567.702 -1231.583 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/In..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/In.W.215.1ILLXI

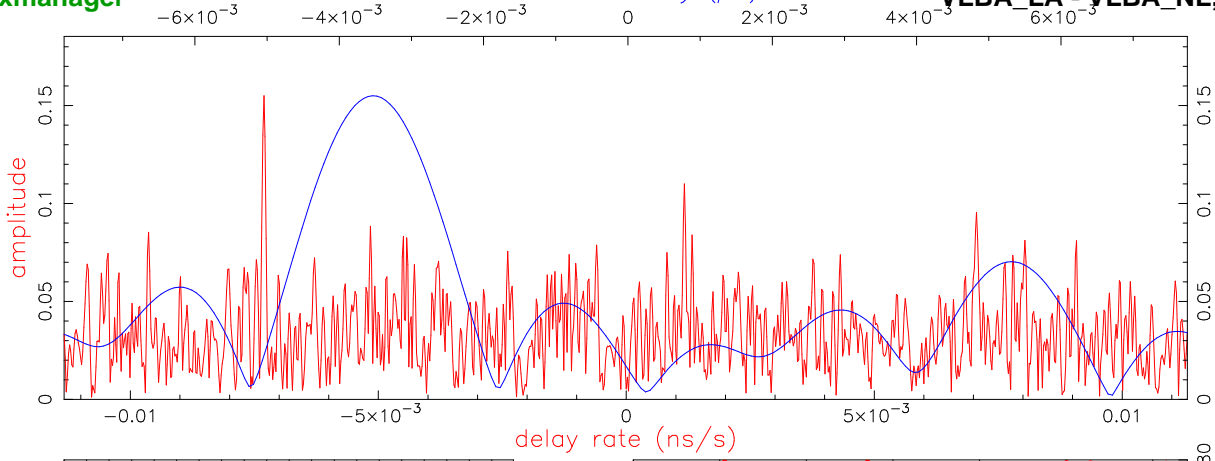
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, In

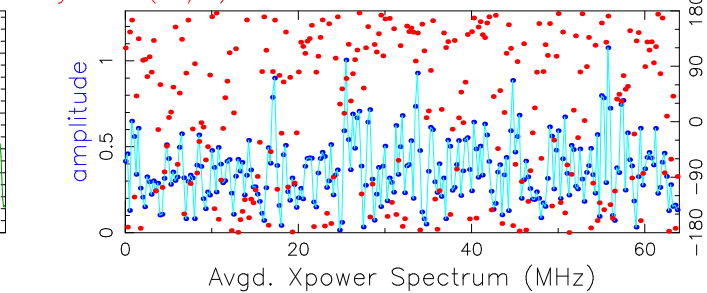
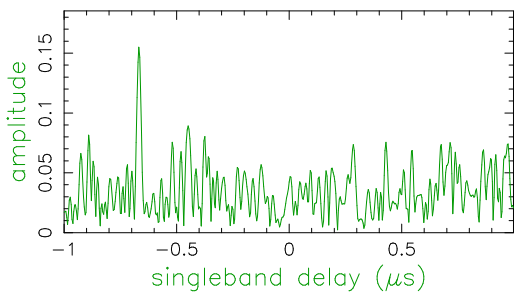
VLBA\_LA - VLBA\_NL, fgroup W, pol RL

multiband delay ( $\mu$ s)



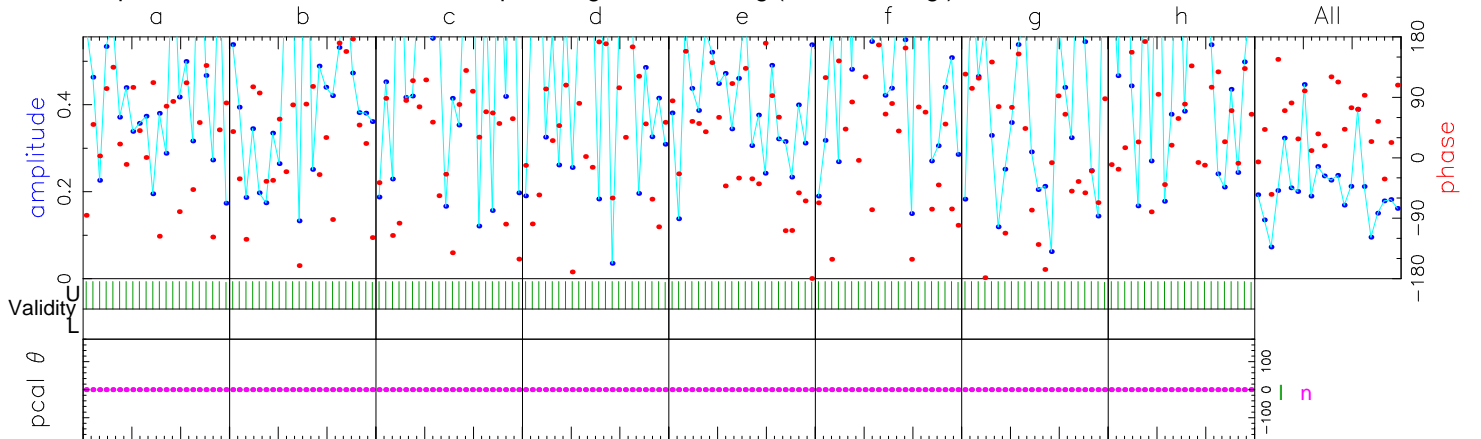
Fringe quality 0

SNR 5.7  
 Int time 179.974  
 Amp 0.185  
 Phase 62.8  
 PFD 7.9e-01  
 Delays (us)  
 SBD -0.667565  
 MBD -0.003517  
 Fringe rate (Hz)  
 -0.630686  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130150  
 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		
l	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	-2.09925145321E+02								Resid mbdelay (usec)	-3.51681E-03 +/- 1.9E-04
Sband delay (usec)	-2.09932943512E+02								Resid sbdelay (usec)	-6.67565E-01 +/- 1.5E-03
Phase delay (usec)	-2.09265376487E+02								Resid phdelay (usec)	2.02519E-06 +/- 6.5E-07
Delay rate (us/s)	1.42506010783E-01								Resid rate (us/s)	-7.32164E-06 +/- 6.2E-09
Total phase (deg)			-191.0						Resid phase (deg)	62.8 +/- 20.1
RMS	50.4	47.2							PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	50.4	47.2							PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	65.3	82.4							Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	15.5	28.5							Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	38.5	49.7							Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

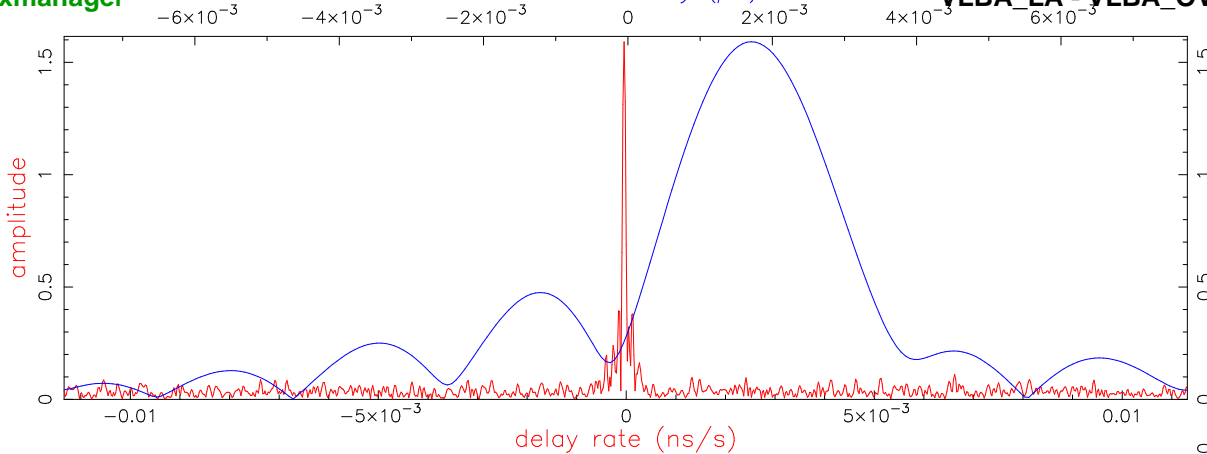
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, lo

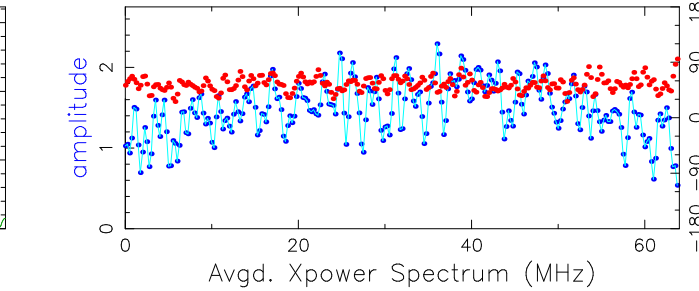
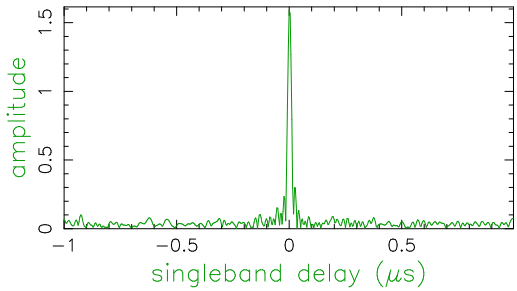
VLBA\_LA - VLBA\_OV, fgroup W, pol LL

multiband delay ( $\mu$ s)



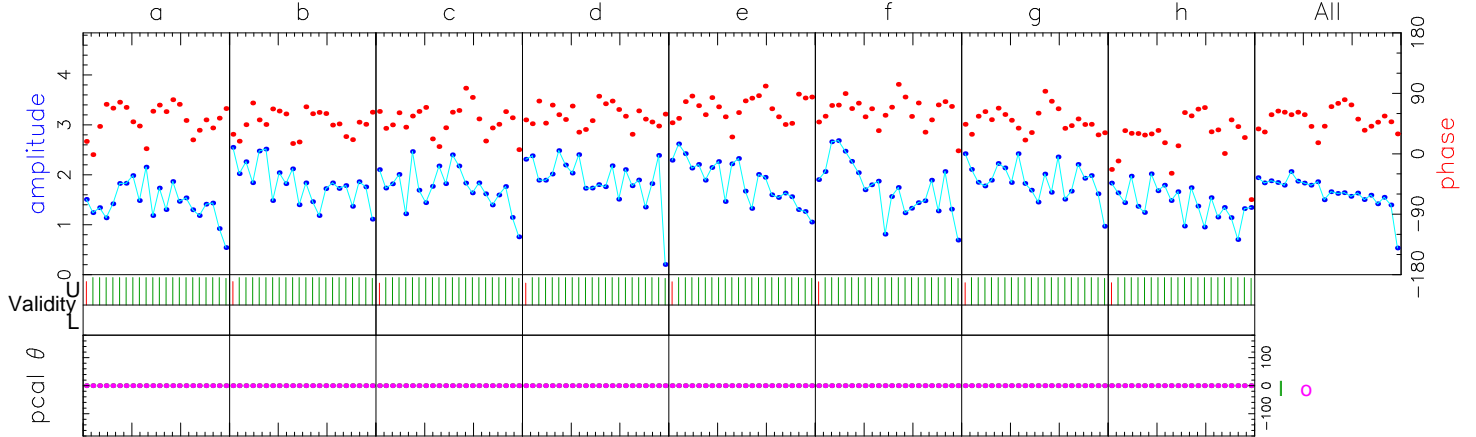
Fringe quality 7

SNR 59.0  
 Int time 178.557  
 Amp 1.615  
 Phase 52.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.001597  
 MBD 0.001746  
 Fringe rate (Hz)  
 -0.003691  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130144  
 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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-2.70216214386E+02	Apriori delay (usec)	-2.70217960162E+02	Resid mbdelay (usec)	1.74578E-03	+/-	1.8E-05
Sband delay (usec)	-2.70216363662E+02	Apriori clock (usec)	-2.1800999E+01	Resid sbdelay (usec)	1.59650E-03	+/-	1.5E-04
Phase delay (usec)	-2.70217958471E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.69140E-06	+/-	6.3E-08
Delay rate (us/s)	-1.36971615418E-01	Apriori rate (us/s)	-1.36971572568E-01	Resid rate (us/s)	-4.28493E-08	+/-	6.0E-10
Total phase (deg)	20.6	Apriori accel (us/s/s)	-6.37715865316E-07	Resid phase (deg)	52.5	+/-	1.9

ph/seg (deg)	16.0	Theor.	Amplitude	1.615 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	18.6	4.6	Search (1024X32)	1.555	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	14.7	2.7	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	12.8	4.8	Inc. seg. avg.	1.648	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.	1.624	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

l: az 350.6 el 66.8 pa 164.6 o: az 7.0 el 68.5 pa -168.9 u,v (fr/asec) 1501.432 -182.621 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/lo..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/lo.W.175.1ILLXI

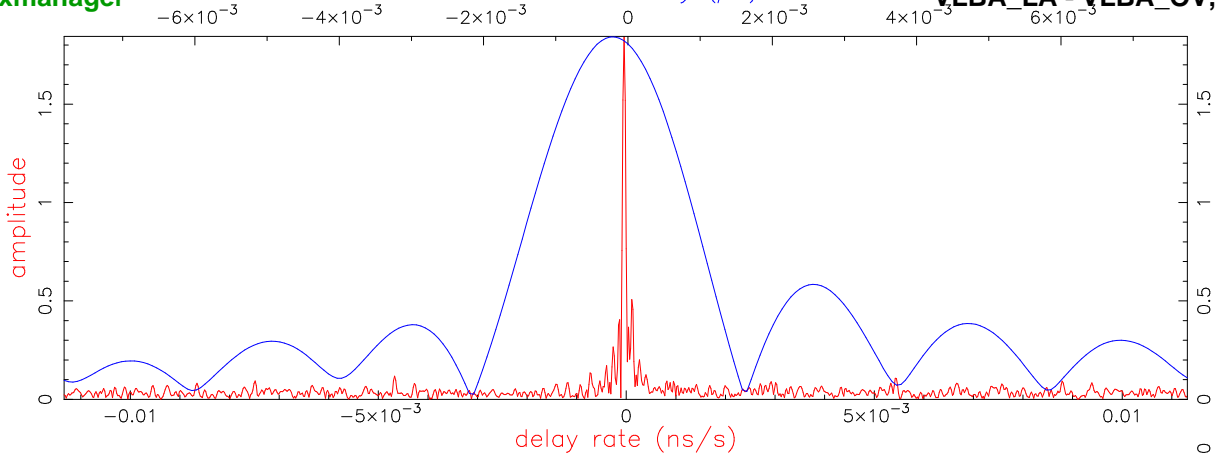
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, lo

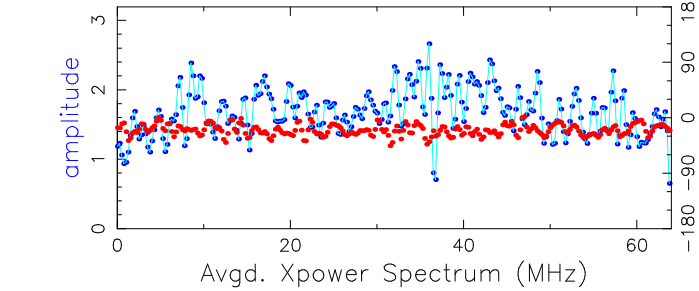
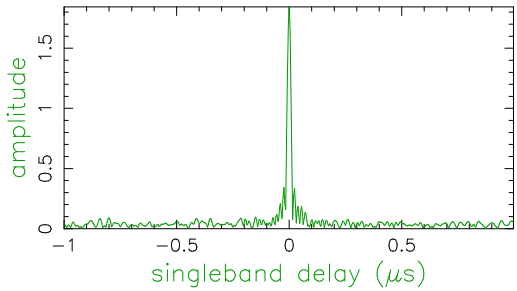
VLBA\_LA - VLBA\_OV, fgroup W, pol RR

multiband delay ( $\mu$ s)



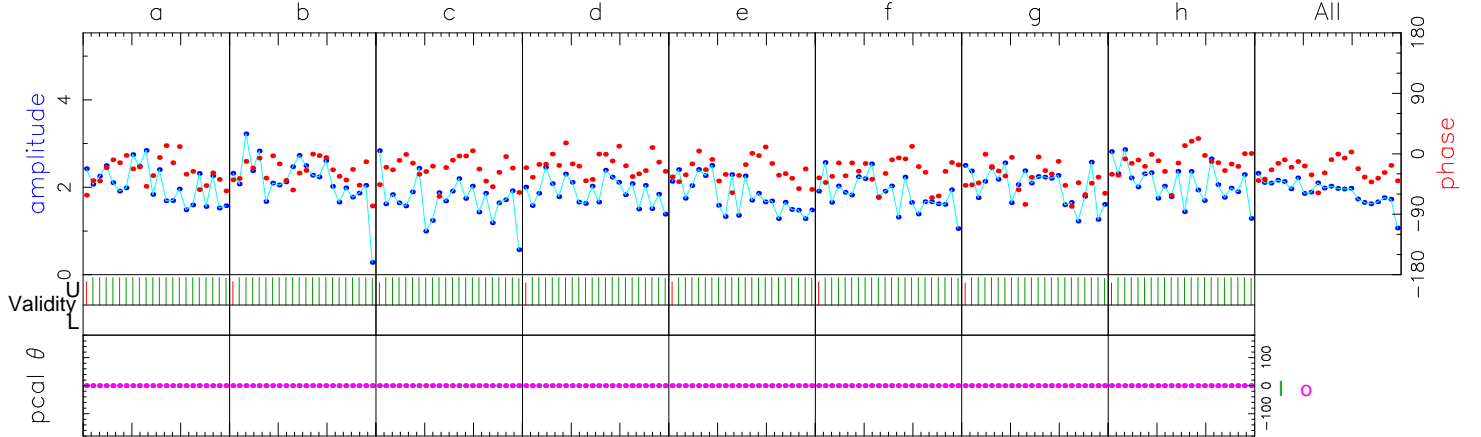
Fringe quality 8

SNR 67.4  
 Int time 178.557  
 Amp 1.844  
 Phase -23.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000457  
 MBD -0.000220  
 Fringe rate (Hz)  
 -0.003638  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130146  
 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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-2.70218180167E+02									
Sband delay (usec)	-2.70218417662E+02									
Phase delay (usec)	-2.70217960907E+02									
Delay rate (us/s)	-1.36971614799E-01									
Total phase (deg)			-54.9							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
Validity										
pcal $\theta$										
RMS	15.0	4.0								
Theor.	4.0									
Amplitude										
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
1.844 +/- 0.027										
1.804										
0.000										
1.903										
1.855										
PCal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
Validity										
pcal $\theta$										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
Validity										
pcal $\theta$										

Mk4/DiFX fourfit 3.21 rev 2937

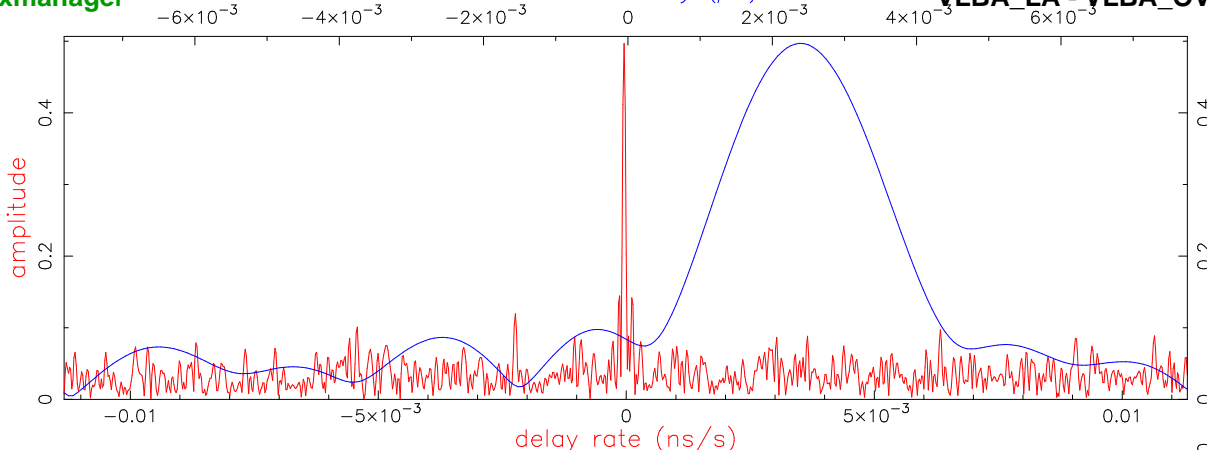
fxmanager

0102+584.1ILLXI, No0070, lo

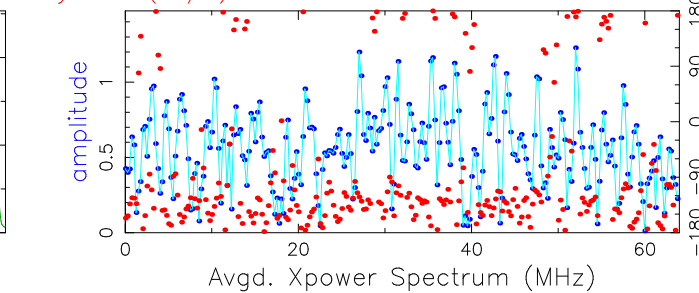
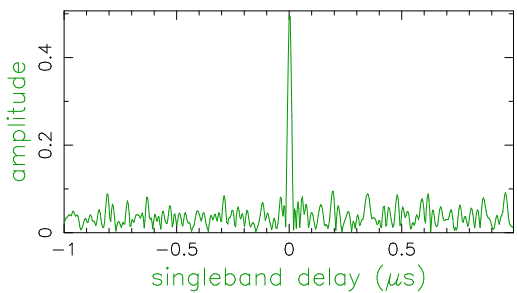
VLBA\_LA - VLBA\_OV, fgroup W, pol LR

multiband delay ( $\mu$ s)

Fringe quality 9

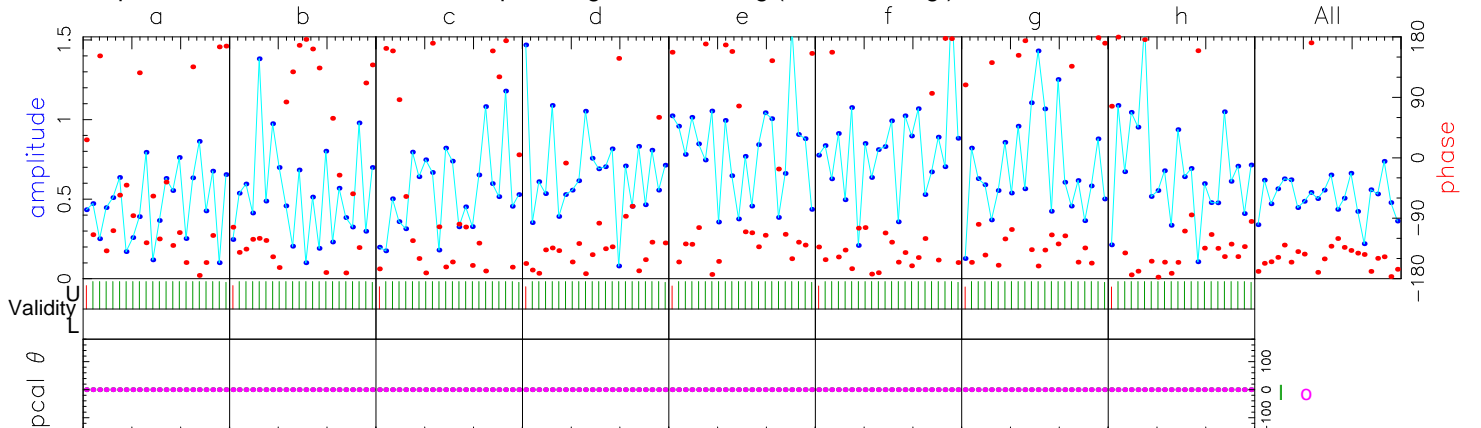


SNR 18.5  
 Int time 178.557  
 Amp 0.507  
 Phase -150.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.001845  
 MBD 0.002430  
 Fringe rate (Hz) -0.004037  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



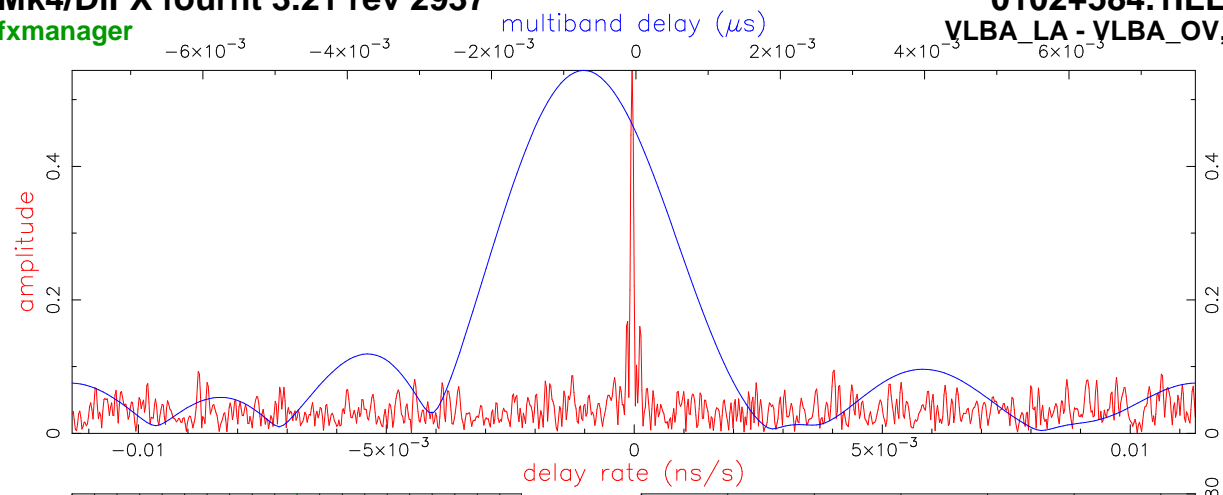
Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130148  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"

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

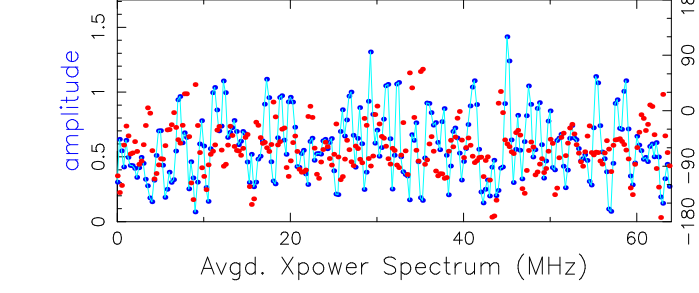
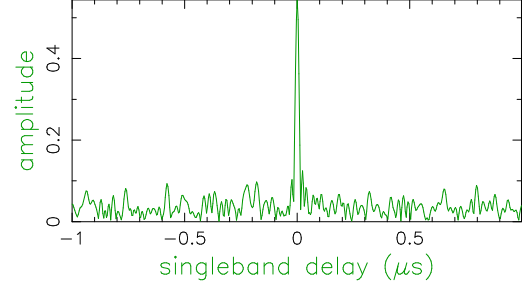


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All															
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0																	
l	1000	1000	1000	1000	1000	1000	1000	1000																	
o	1000	1000	1000	1000	1000	1000	1000	1000																	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0																	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0																	
l	1000	1000	1000	1000	1000	1000	1000	1000																	
o	1000	1000	1000	1000	1000	1000	1000	1000																	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL																	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR																	
Group delay (usec)(sbd)	-2.70215530074E+02	-2.70216114662E+02	-2.70217965012E+02	-1.36971619431E-01	-182.2	Apriori delay (usec)	-2.70217960162E+02	Apriori clock (usec)	-2.1800999E+01	Apriori clockrate (us/s)	0.0000000E+00	Apriori rate (us/s)	-1.36971572568E-01	Apriori accel (us/s/s)	-6.37715865316E-07	Resid mbdelay (usec)	2.43009E-03	Resid sbdelay (usec)	1.84550E-03	Resid phdelay (usec)	-4.85041E-06	Resid rate (us/s)	-4.68626E-08	Resid phase (deg)	-150.4
Sband delay (usec)	-2.70216114662E+02	-2.70217965012E+02	-1.36971619431E-01	-182.2	Apriori delay (usec)	-2.70217960162E+02	Apriori clock (usec)	-2.1800999E+01	Apriori clockrate (us/s)	0.0000000E+00	Apriori rate (us/s)	-1.36971572568E-01	Apriori accel (us/s/s)	-6.37715865316E-07	Resid mbdelay (usec)	2.43009E-03	Resid sbdelay (usec)	1.84550E-03	Resid phdelay (usec)	-4.85041E-06	Resid rate (us/s)	-4.68626E-08	Resid phase (deg)	-150.4	
Phase delay (usec)	-2.70217965012E+02	-1.36971619431E-01	-182.2	Apriori delay (usec)	-2.70217960162E+02	Apriori clock (usec)	-2.1800999E+01	Apriori clockrate (us/s)	0.0000000E+00	Apriori rate (us/s)	-1.36971572568E-01	Apriori accel (us/s/s)	-6.37715865316E-07	Resid mbdelay (usec)	2.43009E-03	Resid sbdelay (usec)	1.84550E-03	Resid phdelay (usec)	-4.85041E-06	Resid rate (us/s)	-4.68626E-08	Resid phase (deg)	-150.4		
Delay rate (us/s)	-1.36971619431E-01	-182.2	Apriori delay (usec)	-2.70217960162E+02	Apriori clock (usec)	-2.1800999E+01	Apriori clockrate (us/s)	0.0000000E+00	Apriori rate (us/s)	-1.36971572568E-01	Apriori accel (us/s/s)	-6.37715865316E-07	Resid mbdelay (usec)	2.43009E-03	Resid sbdelay (usec)	1.84550E-03	Resid phdelay (usec)	-4.85041E-06	Resid rate (us/s)	-4.68626E-08	Resid phase (deg)	-150.4			
Total phase (deg)	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4	-150.4

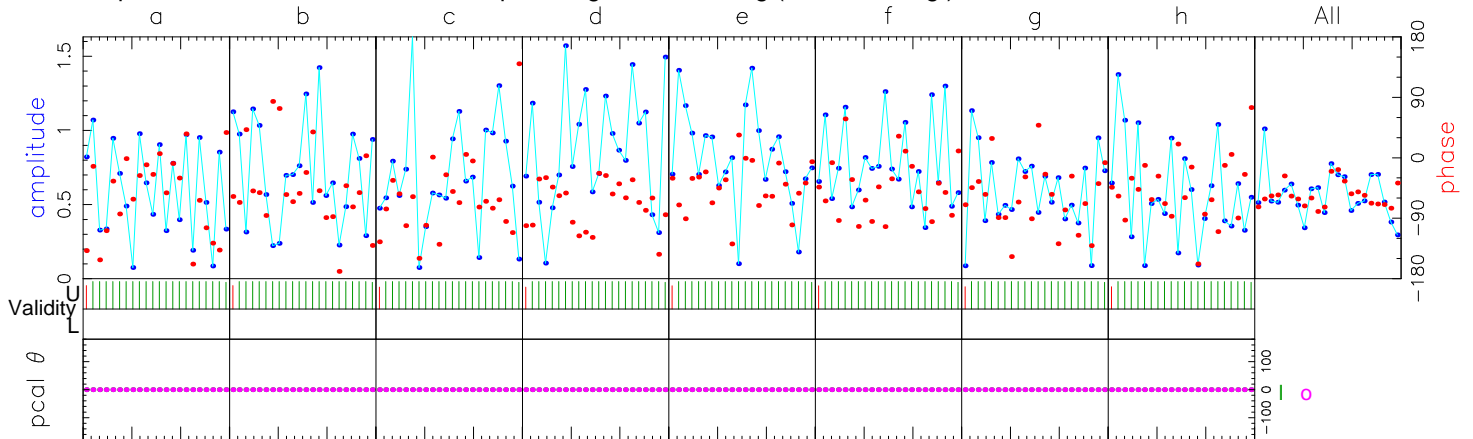
ph/seg (deg) 16.6 14.5 Search (1024X32) 0.495 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 22.9 25.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 10.9 8.8 Inc. seg. avg. 0.501 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 27.9 15.3 Inc. frq. avg. 0.496 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 l: az 350.6 el 66.8 pa 164.6 o: az 7.0 el 68.5 pa -168.9 u,v (fr/asec) 1501.432 -182.621 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/lo..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/lo.W.211.1ILLXI



Fringe quality 9  
SNR 19.9  
Int time 178.557  
Amp 0.544  
Phase -54.8  
PFD 0.0e+00  
Delays (us)  
SBD 0.000023  
MBD -0.000723  
Fringe rate (Hz)  
-0.003474  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 072000.00  
Stop 072300.22  
FRT 072130.00  
Corr/FF/build  
2021:023:020244  
2021:023:130150  
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		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	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)	-2.70218682730E+02				-2.70217960162E+02				Resid mbdelay (usec)	-7.22568E-04 +/- 5.5E-05
Sband delay (usec)	-2.70217937662E+02				-2.1800999E+01				Resid sbdelay (usec)	2.25000E-05 +/- 4.3E-04
Phase delay (usec)	-2.70217961928E+02				0.0000000E+00				Resid phdelay (usec)	-1.76610E-06 +/- 1.9E-07
Delay rate (us/s)	-1.36971612900E-01				-1.36971572568E-01				Resid rate (us/s)	-4.03311E-08 +/- 1.8E-09
Total phase (deg)			-86.6		-6.37715865316E-07				Resid phase (deg)	-54.8 +/- 5.8
	RMS	Theor.	Amplitude	0.544 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			sb window (us)	-1.000 1.000
ph/seg (deg)	17.6	13.5	Search (1024X32)	0.530	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				mb window (us)	-0.008 0.008
amp/seg (%)	28.9	23.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled			dr window (ns/s)	-0.011 0.011
ph/frq (deg)	10.7	8.2	Inc. seg. avg.	0.557	Sample rate(MISamp/s): 128				ion window (TEC)	0.00 0.00
amp/frq (%)	22.1	14.2	Inc. frq. avg.	0.546	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite			



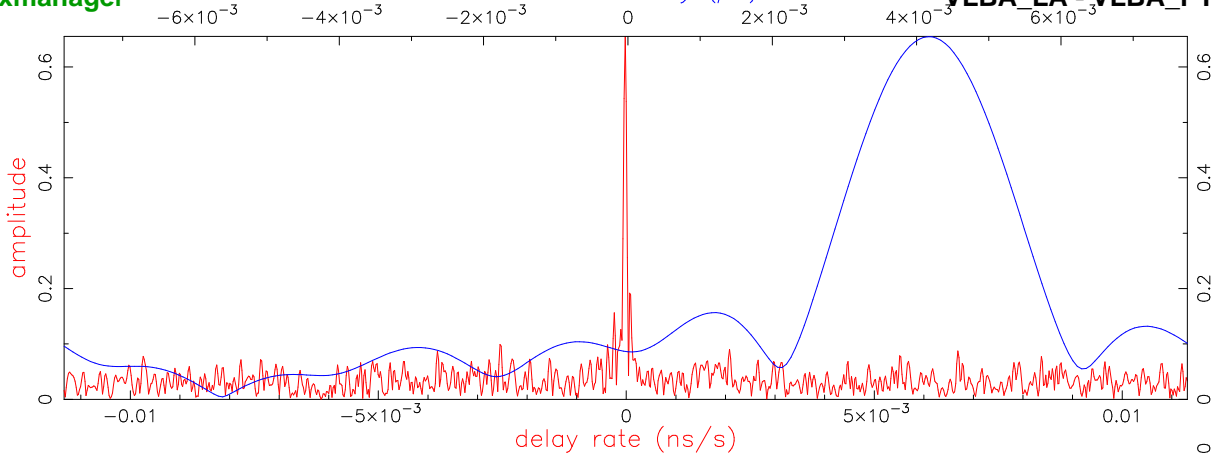
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, lp

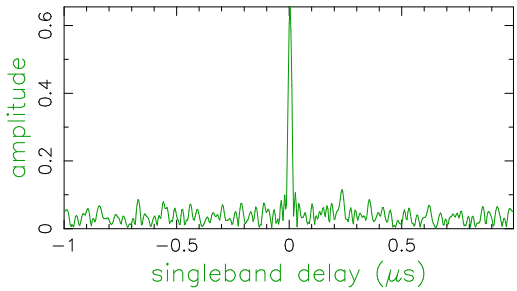
VLBA\_LA - VLBA\_PT, fgroup W, pol LL

multiband delay ( $\mu$ s)

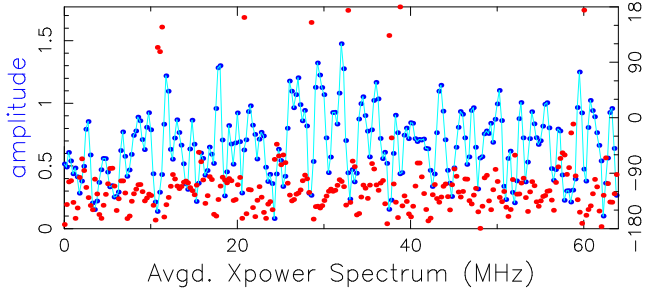


Fringe quality 9

SNR 24.0  
 Int time 179.974  
 Amp 0.655  
 Phase -130.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.003565  
 MBD 0.004163  
 Fringe rate (Hz)  
 -0.002003  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

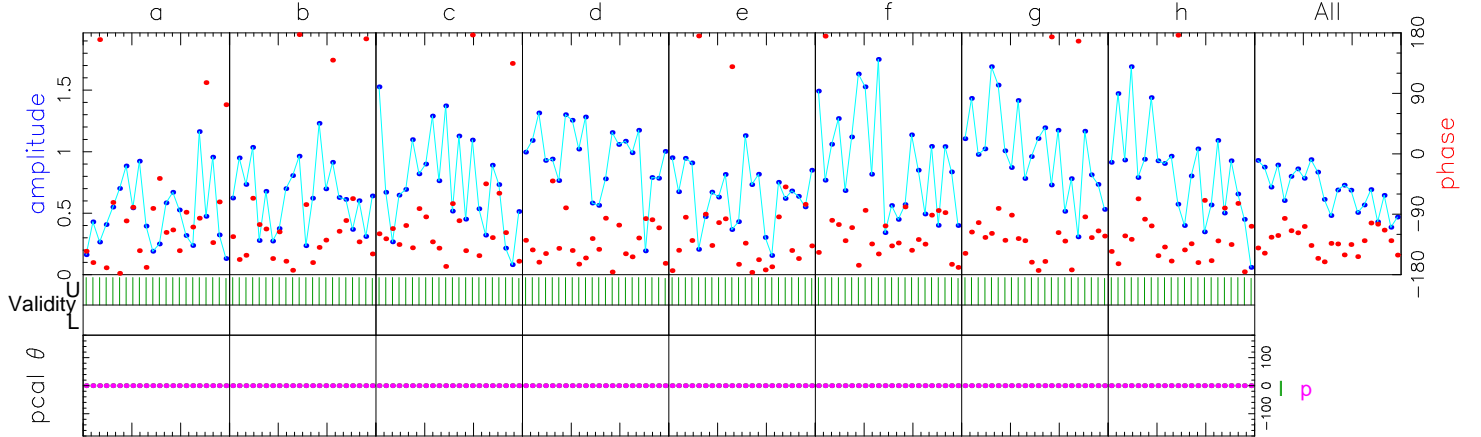


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130144  
 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
	-123.5	-140.1	-125.0	-134.0	-131.8	-126.5	-127.8	-132.1	Phase	-130.1
	0.4	0.5	0.6	0.8	0.5	0.8	0.9	0.7	Ampl.	0.7
	257.8	257.9	258.3	258.3	258.1	257.9	257.7	257.4	Sbd box	257.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.82848196693E+02	Apriori delay (usec)	1.82844033743E+02	Resid mbdelay (usec)	4.16295E-03	+/-	4.5E-05
Sband delay (usec)	1.82847598993E+02	Apriori clock (usec)	-4.7724438E-01	Resid sbdelay (usec)	3.56525E-03	+/-	3.6E-04
Phase delay (usec)	1.82844029547E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-4.19641E-06	+/-	1.5E-07
Delay rate (us/s)	-2.02195107451E-02	Apriori rate (us/s)	-2.02194874931E-02	Resid rate (us/s)	-2.32520E-08	+/-	1.5E-09
Total phase (deg)	-106.1	Apriori accel (us/s/s)	1.04768402875E-06	Resid phase (deg)	-130.1	+/-	4.8

ph/seg (deg)	18.1	Theor.	11.2	Amplitude	0.655 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	25.3	Search (1024X32)	0.643	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	5.9	Inc. seg. avg.	0.674	Inc. frq. avg.	0.653	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	25.5	Inc. frq. avg.	0.653			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

l: az 350.6 el 66.8 pa 164.6 p: az 353.4 el 65.5 pa 168.7 u,v (fr/asec) 222.442 230.636 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/lp..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/lp.W.174.1ILLXI

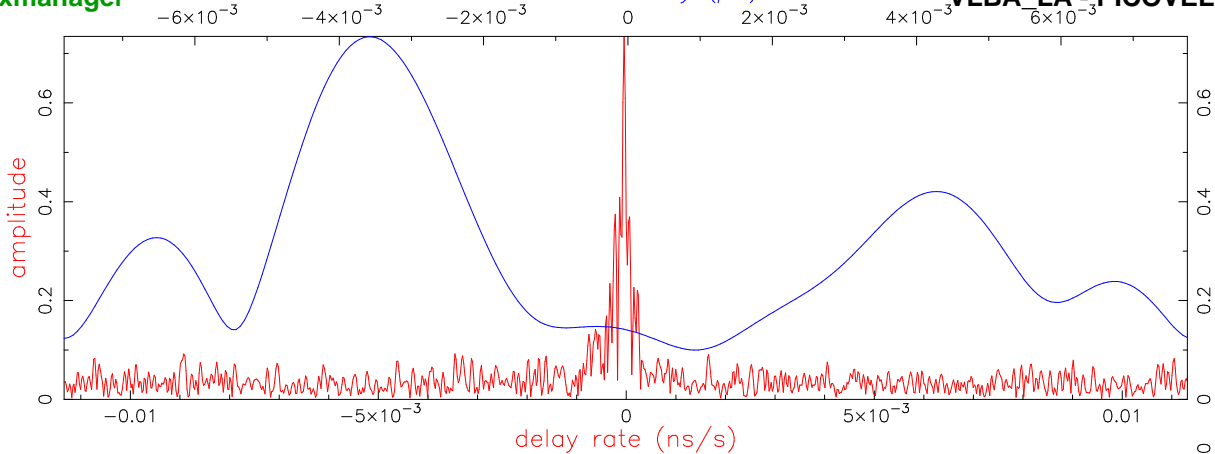
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, IP

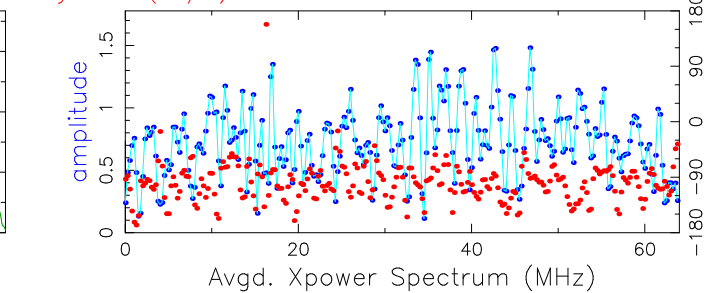
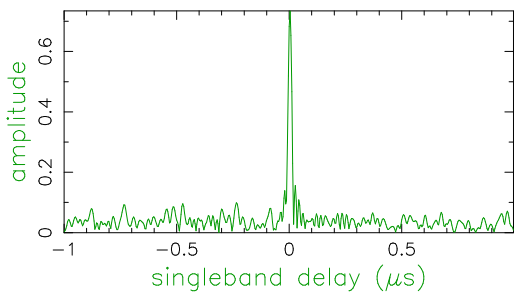
VLBA\_LA - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)



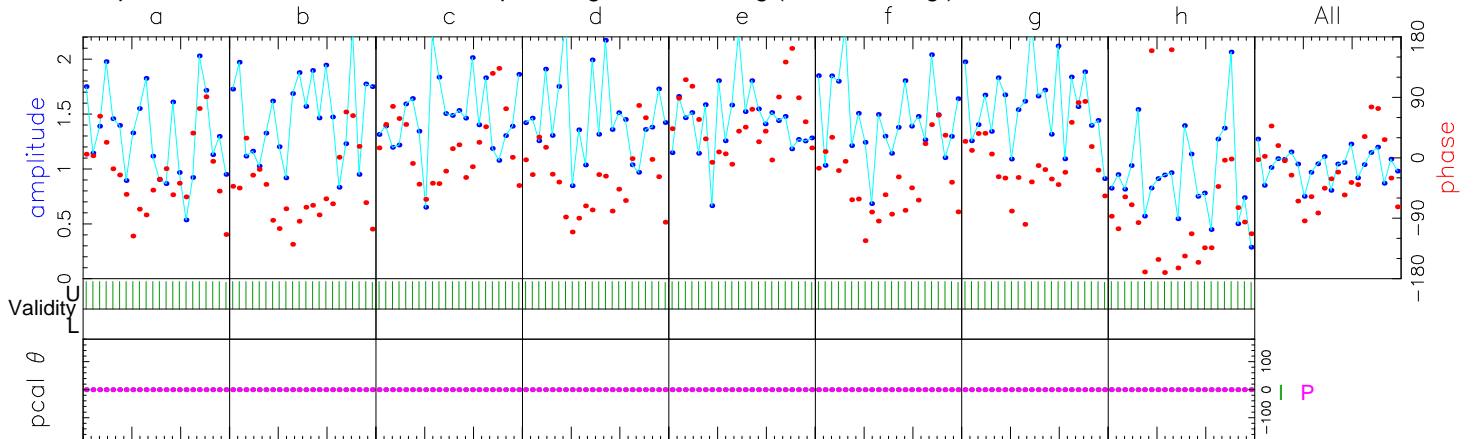
Fringe quality 6

SNR 26.9  
 Int time 179.783  
 Amp 0.735  
 Phase -18.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.003492  
 MBD -0.003587  
 Fringe rate (Hz)  
 -0.003714  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130145  
 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		
I	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.17069972385E+04	Apriori delay (usec)	1.17070008259E+04	Resid mbdelay (usec)	-3.58741E-03	+/-	4.0E-05
Sband delay (usec)	1.17070043179E+04	Apriori clock (usec)	-1.9633293E-01	Resid sbdelay (usec)	3.49200E-03	+/-	3.2E-04
Phase delay (usec)	1.17070008253E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-5.96520E-03	+/-	1.4E-07
Delay rate (us/s)	5.21677086821E-01	Apriori rate (us/s)	5.21677129931E-01	Resid rate (us/s)	-4.31101E-08	+/-	1.3E-09
Total phase (deg)	33.0	Apriori accel (us/s/s)	-6.40056961732E-05	Resid phase (deg)	-18.5	+/-	4.3

ph/seg (deg)	46.7	Theor.	10.0	Amplitude	0.735 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	44.7		17.4	Search (1024X32)	0.727	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	50.7		6.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	37.7		10.5	Inc. seg. avg.	1.020	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.929	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

I: az 350.6 el 66.8 pa 164.6 P: az 328.1 el 21.8 pa 54.4 u,v (fr/asec) -5772.528 -8266.398 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IP..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IP.W.179.1ILLXI



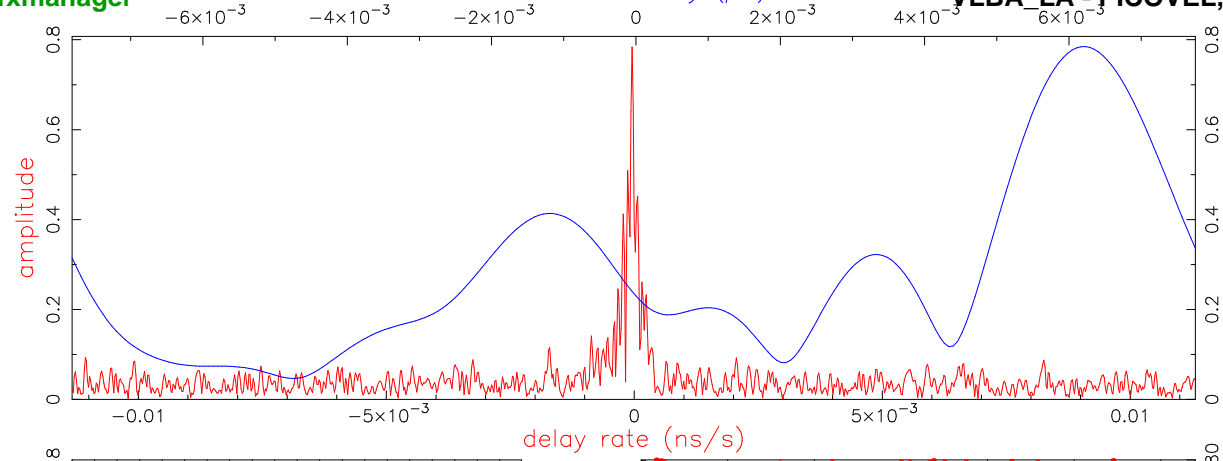
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, IP

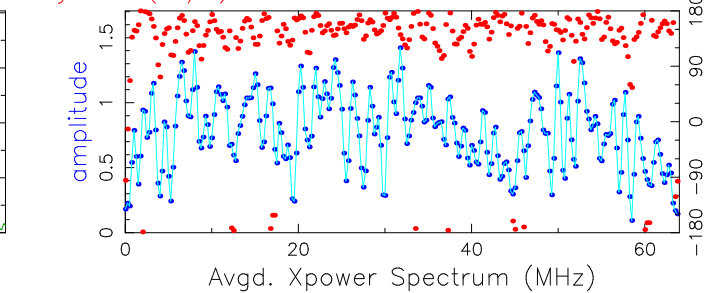
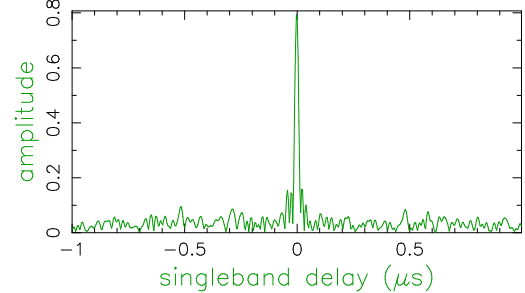
VLBA\_LA - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)



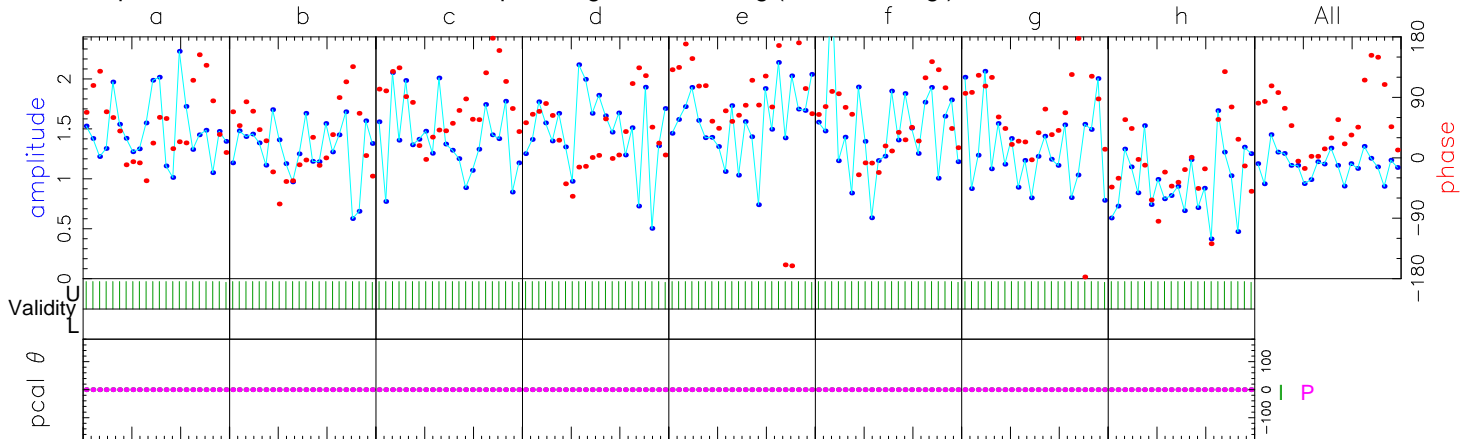
Fringe quality 4

SNR 29.6  
 Int time 179.783  
 Amp 0.807  
 Phase 56.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002239  
 MBD 0.006145  
 Fringe rate (Hz)  
 -0.003891  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130147  
 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				
I	1000	1000	1000	1000	1000	1000	1000	1000				
P	1000	1000	1000	1000	1000	1000	1000	1000				
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
I	1000	1000	1000	1000	1000	1000	1000	1000				
P	1000	1000	1000	1000	1000	1000	1000	1000				
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
Group delay (usec)(sbd)		1.17069913461E+04				1.17070008259E+04			Resid mbdelay (usec)	6.14521E-03 +/- 3.7E-05		
Sband delay (usec)		1.17069985872E+04				-1.9633293E-01			Resid sbdelay (usec)	-2.23875E-03 +/- 2.9E-04		
Phase delay (usec)		1.17070008277E+04				2.9999999E-07			Resid phdelay (usec)	1.82564E-06 +/- 1.2E-07		
Delay rate (us/s)		5.21677084759E-01				5.21677129931E-01			Resid rate (us/s)	-4.51720E-08 +/- 1.2E-09		
Total phase (deg)			108.1			-6.40056961732E-05			Resid phase (deg)	56.6 +/- 3.9		
ph/seg (deg)	48.4	9.1		0.807 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	44.5	15.8		0.779					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
ph/frq (deg)	41.1	5.5		0.000					Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
amp/frq (%)	24.0	9.6		0.000					Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011	
				0.935					Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

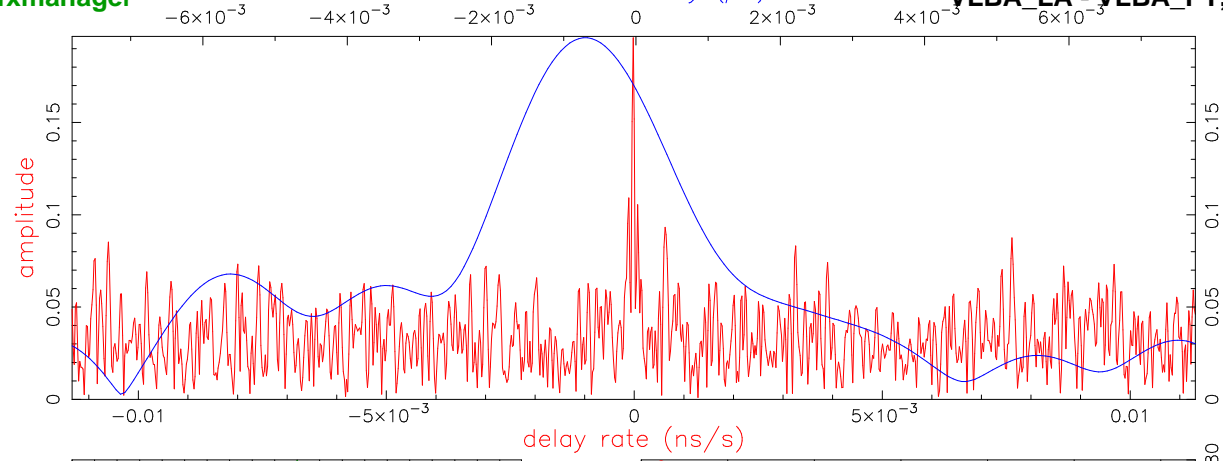
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

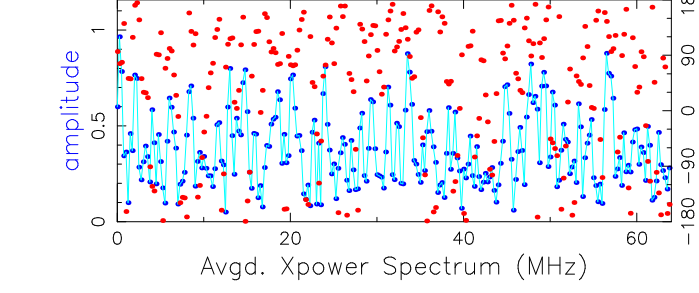
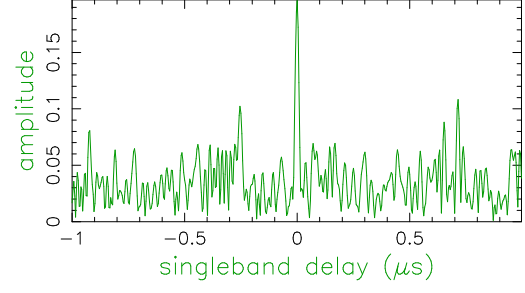
0102+584.1ILLXI, No0070, lp

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

multiband delay ( $\mu$ s)

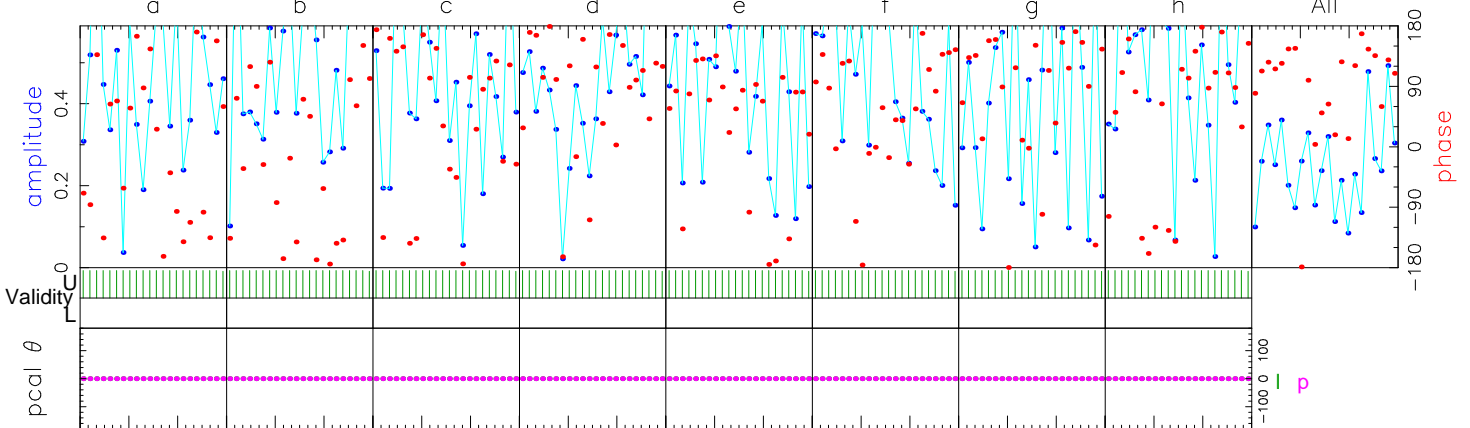


Fringe quality 9  
 SNR 7.2  
 Int time 179.974  
 Amp 0.197  
 Phase 114.9  
 PFD 8.4e-05  
 Delays (us)  
 SBD -0.000793  
 MBD -0.000714  
 Fringe rate (Hz)  
 -0.001729  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130148  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
lp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	1.82843319912E+02	Apriori delay (usec)	1.82844033743E+02	Resid mbdelay (usec)	-7.13831E-04	+/-	1.5E-04
Sband delay (usec)	1.82843240493E+02	Apriori clock (usec)	-4.7724438E-01	Resid sbdelay (usec)	-7.93250E-04	+/-	1.2E-03
Phase delay (usec)	1.82844037447E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	3.70450E-06	+/-	5.1E-07
Delay rate (us/s)	-2.02195075637E-02	Apriori rate (us/s)	-2.02194874931E-02	Resid rate (us/s)	-2.00706E-08	+/-	4.9E-09
Total phase (deg)	138.9	Apriori accel (us/s/s)	1.04768402875E-06	Resid phase (deg)	114.9	+/-	15.9

ph/seg (deg)	49.9	Theor.	37.3	Amplitude	0.197 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	61.2		65.0	Search (1024X32)	0.193	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	37.2		22.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	34.1		39.2	Inc. seg. avg.	0.207	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.205	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 350.6 el 66.8 pa 164.6 p: az 353.4 el 65.5 pa 168.7 u,v (fr/asec) 222.442 230.636 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/lp..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/lp.W.210.1ILLXI

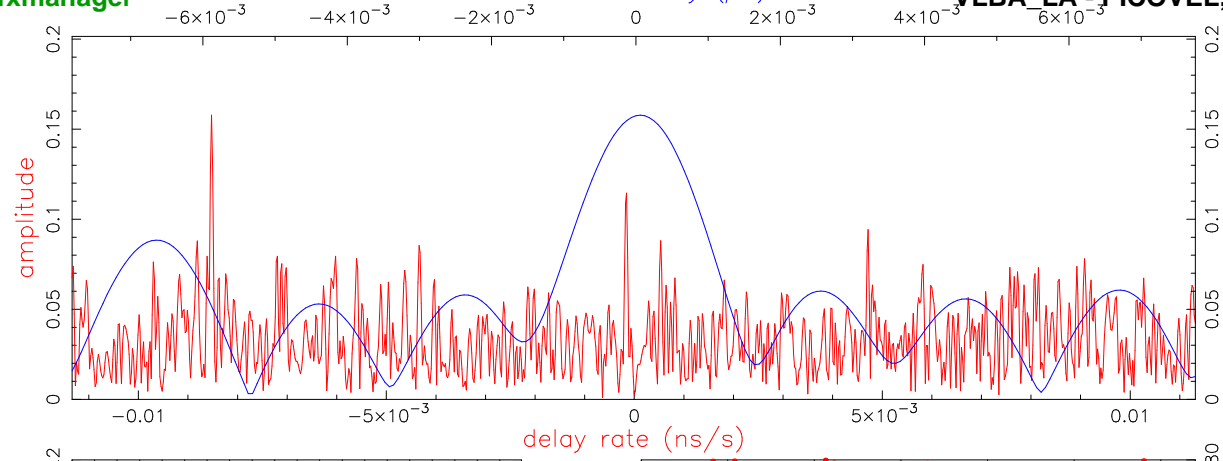
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, IP

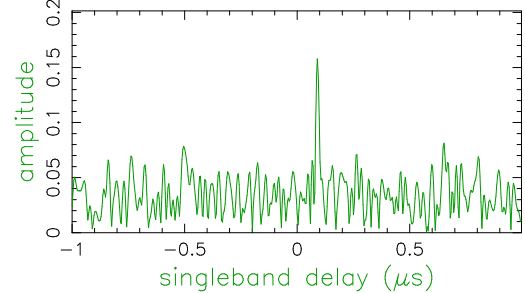
VLBA\_LA - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

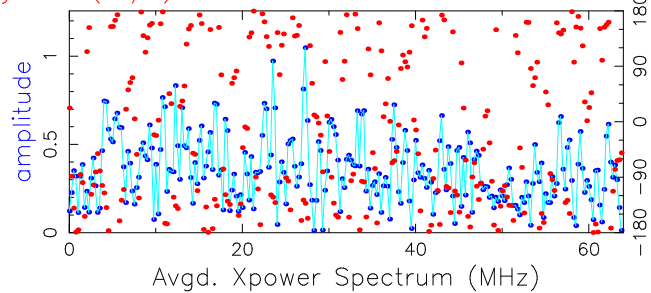


Fringe quality 0

SNR 5.8  
 Int time 179.783  
 Amp 0.202  
 Phase 153.0  
 PFD 6.0e-01  
 Delays (us)  
 SBD 0.089781  
 MBD 0.000057  
 Fringe rate (Hz)  
 -0.734606  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

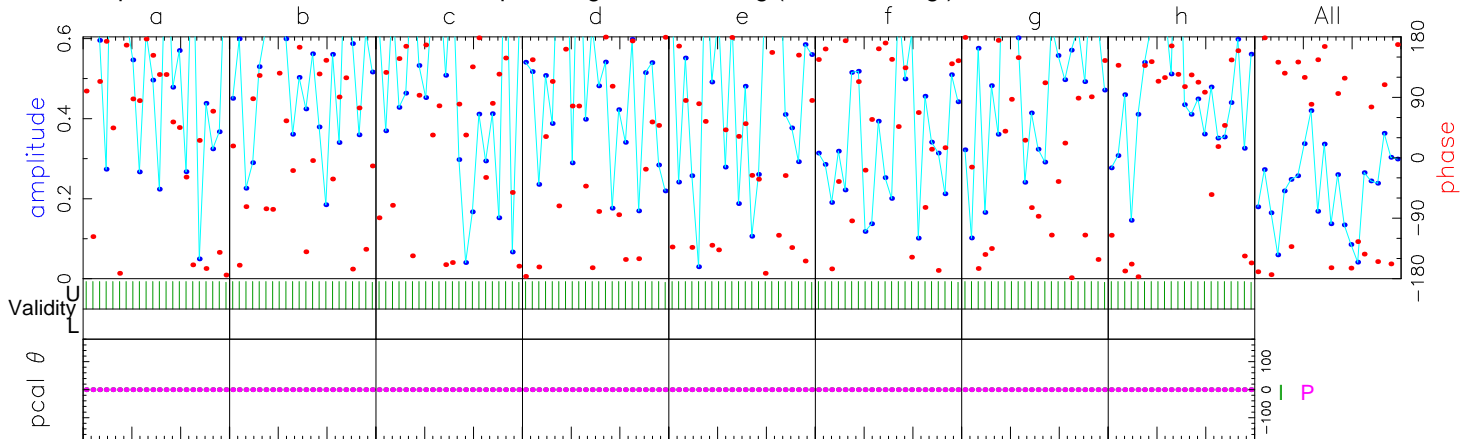


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130149  
 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		
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.17070946327E+04	Apriori delay (usec)	1.17070008259E+04	Resid mbdelay (usec)	5.67911E-05	+/-	1.9E-04
Sband delay (usec)	1.17070906064E+04	Apriori clock (usec)	-1.9633293E-01	Resid sbdelay (usec)	8.97805E-02	+/-	1.5E-03
Phase delay (usec)	1.17070008308E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	4.93389E-06	+/-	6.4E-07
Delay rate (us/s)	5.21668601880E-01	Apriori rate (us/s)	5.21677129931E-01	Resid rate (us/s)	-8.52805E-06	+/-	6.1E-09
Total phase (deg)	204.5	Apriori accel (us/s/s)	-6.40056961732E-05	Resid phase (deg)	153.0	+/-	19.8

ph/seg (deg)	47.2	Theor.	46.5	Amplitude	0.202 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	76.1	Search (1024X32)	0.154	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	17.1	Inc. seg. avg.	0.220	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	54.3	Inc. frq. avg.	0.186	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

I: az 350.6 el 66.8 pa 164.6 P: az 328.1 el 21.8 pa 54.4 u,v (fr/asec) -5772.528 -8266.398 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IP..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IP.W.216.1ILLXI

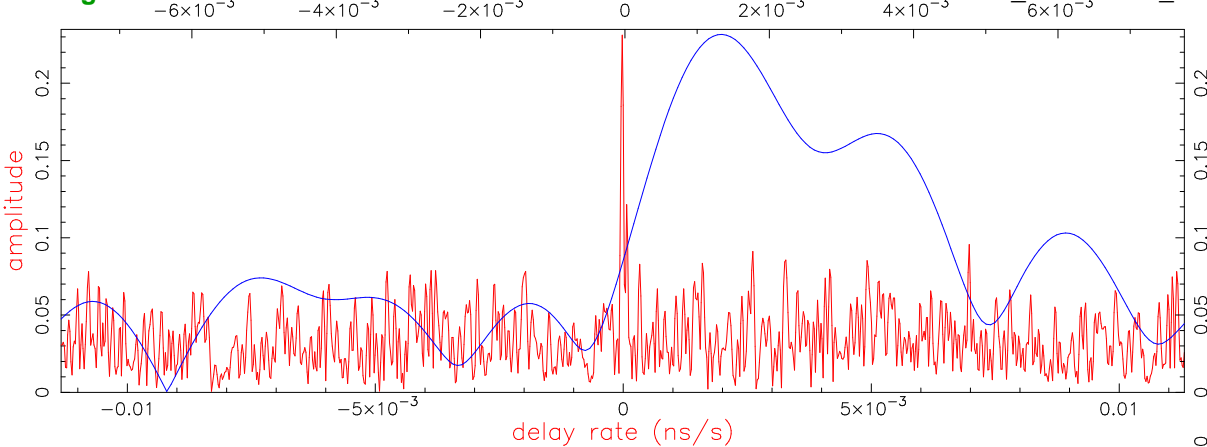
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, lp

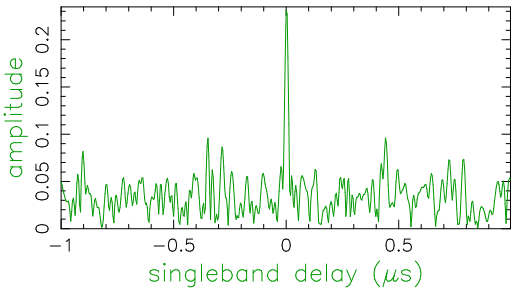
VLBA\_LA - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

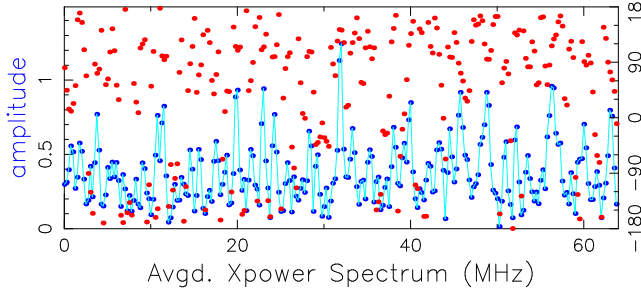


Fringe quality 9

SNR 8.6  
 Int time 179.974  
 Amp 0.235  
 Phase 112.6  
 PFD 1.3e-09  
 Delays (us)  
 SBD 0.001587  
 MBD 0.001402  
 Fringe rate (Hz) -0.002038  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

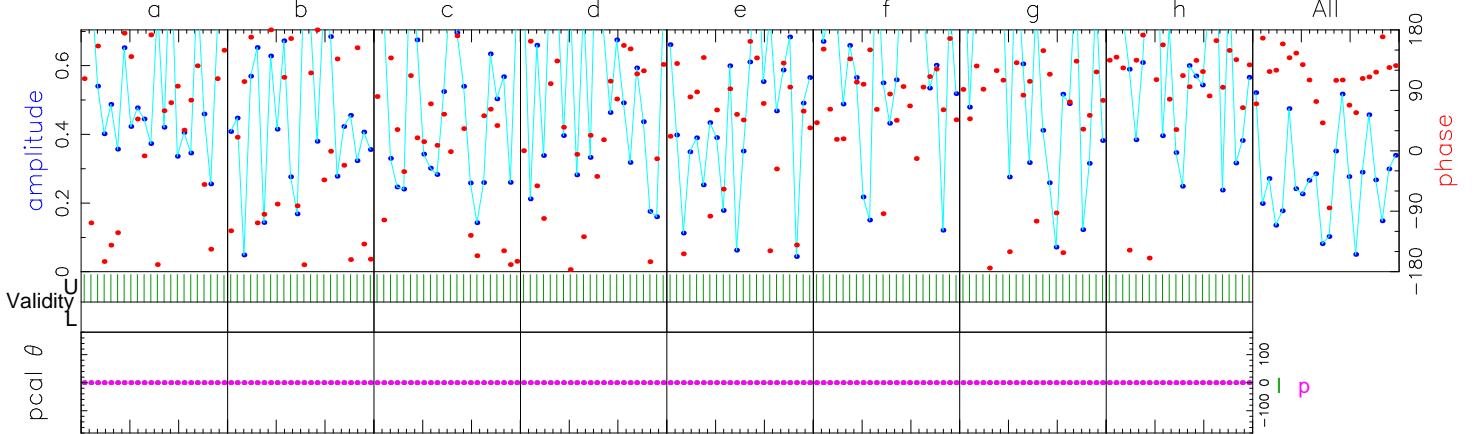


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130150  
 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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.82845435412E+02	Apriori delay (usec)	1.82844033743E+02	Resid mbdelay (usec)	1.40167E-03	+/-	1.3E-04
Sband delay (usec)	1.82845620993E+02	Apriori clock (usec)	-4.7724438E-01	Resid sbdelay (usec)	1.58725E-03	+/-	1.0E-03
Phase delay (usec)	1.82844037375E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	3.63172E-06	+/-	4.3E-07
Delay rate (us/s)	-2.02195111504E-02	Apriori rate (us/s)	-2.02194874931E-02	Resid rate (us/s)	-2.36573E-08	+/-	4.1E-09
Total phase (deg)	136.6	Apriori accel (us/s/s)	1.04768402875E-06	Resid phase (deg)	112.6	+/-	13.3

ph/seg (deg)	48.1	Theor.	31.2	Amplitude	0.235 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	57.8		54.4	Search (1024X32)	0.230	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	45.2		18.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	58.9		32.8	Inc. seg. avg.	0.237	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.257	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 350.6 el 66.8 pa 164.6 p: az 353.4 el 65.5 pa 168.7 u,v (fr/asec) 222.442 230.636 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/lp..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/lp.W.225.1ILLXI

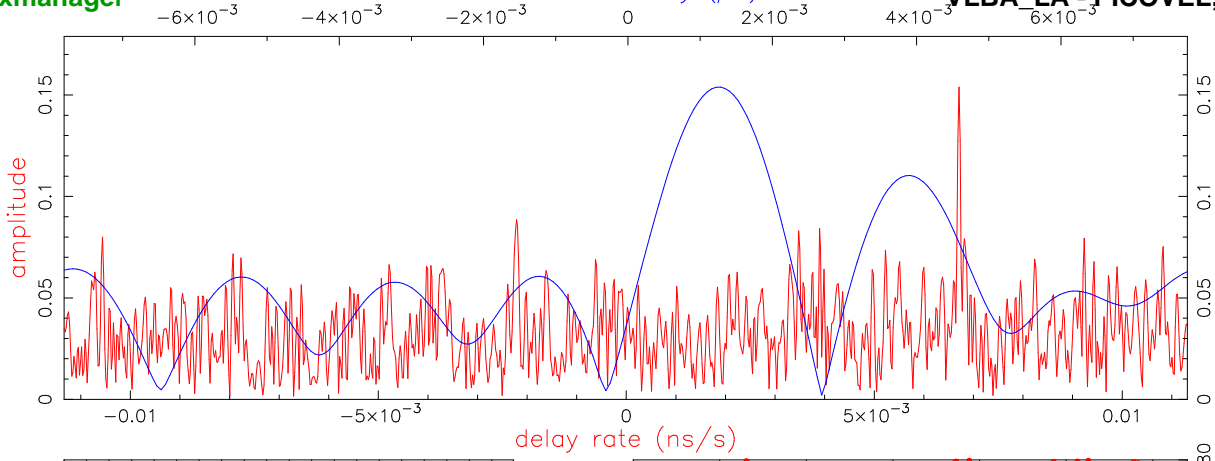
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, IP

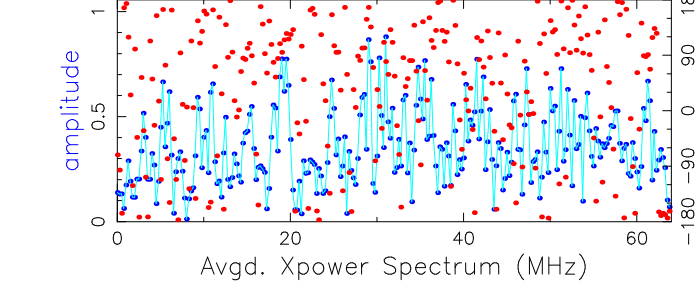
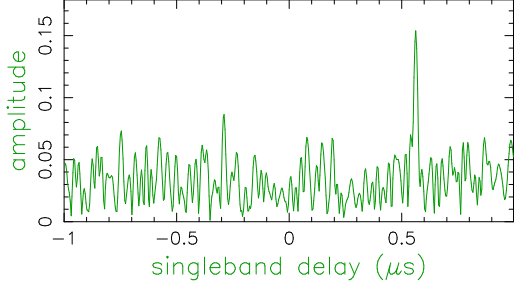
VLBA\_LA - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)



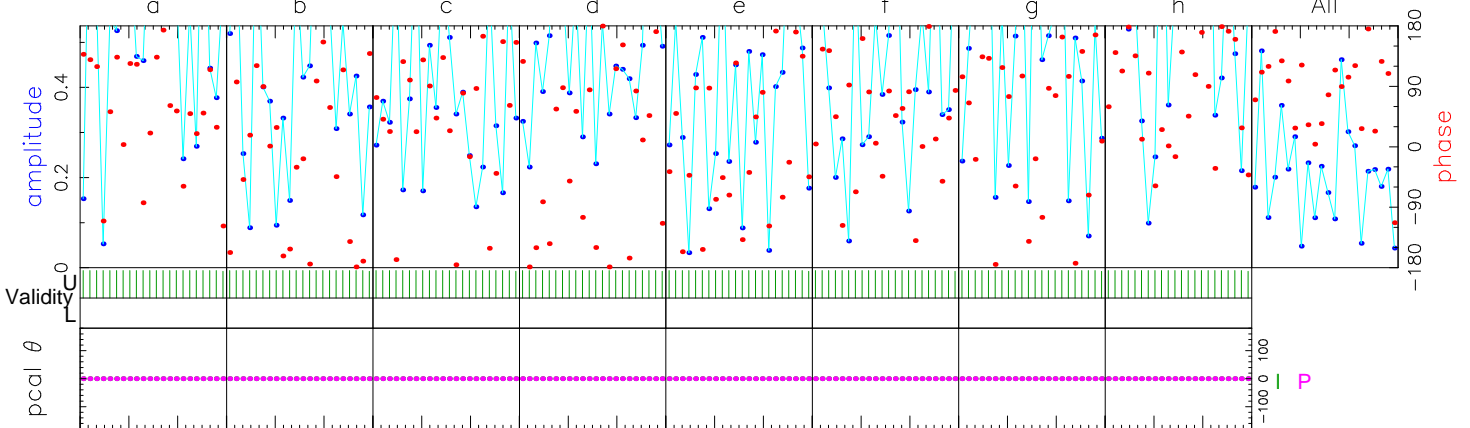
Fringe quality 0

SNR 5.7  
 Int time 179.783  
 Amp 0.179  
 Phase 94.5  
 PFD 8.6e-01  
 Delays (us)  
 SBD 0.561991  
 MBD 0.001236  
 Fringe rate (Hz)  
 0.579333  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c202b  
 Yr:day 16383  
 Start 2021:023:020284  
 Stop 2021:023:022300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130151  
 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		
I	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		1.17075645624E+04			1.17070008259E+04				1.23647E-03	+/- 1.9E-04
Sband delay (usec)		1.17075628169E+04			-1.9633293E-01				5.61991E-01	+/- 1.5E-03
Phase delay (usec)		1.17070008289E+04			2.9999999E-07				3.04767E-06	+/- 6.5E-07
Delay rate (us/s)		5.21683855412E-01			5.21677129931E-01				6.72548E-06	+/- 6.3E-09
Total phase (deg)			146.0		-6.40056961732E-05				94.5	+/- 20.3
	RMS	Theor.	Amplitude	0.179 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	56.8	47.6	Search (1024X32)	0.148	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	83.9	83.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	59.8	28.7	Inc. seg. avg.	0.184	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	52.8	50.1	Inc. frq. avg.	0.181	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00



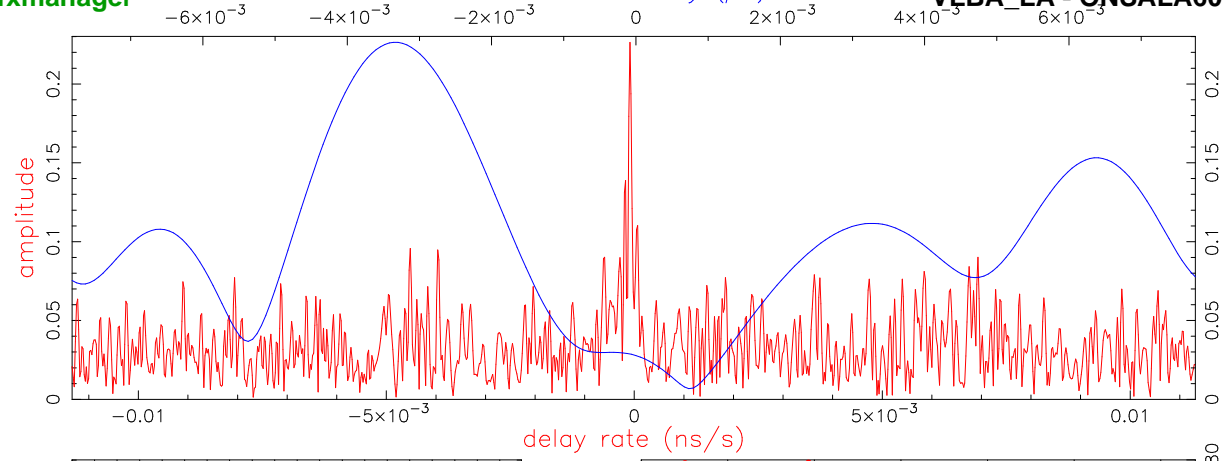
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

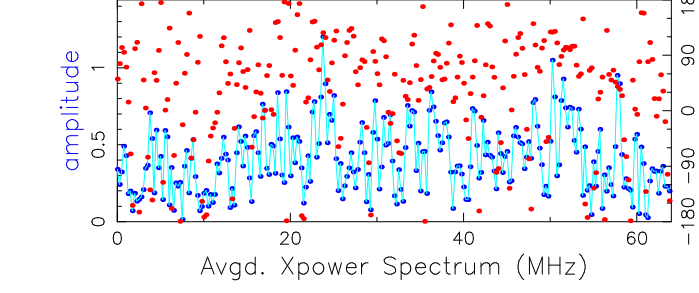
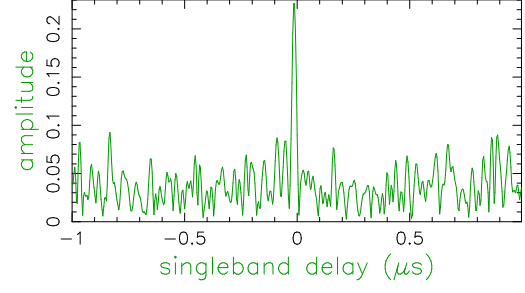
0102+584.1ILLXI, No0070, IX

VLBA\_LA - ONSALA60, fgroup W, pol LL

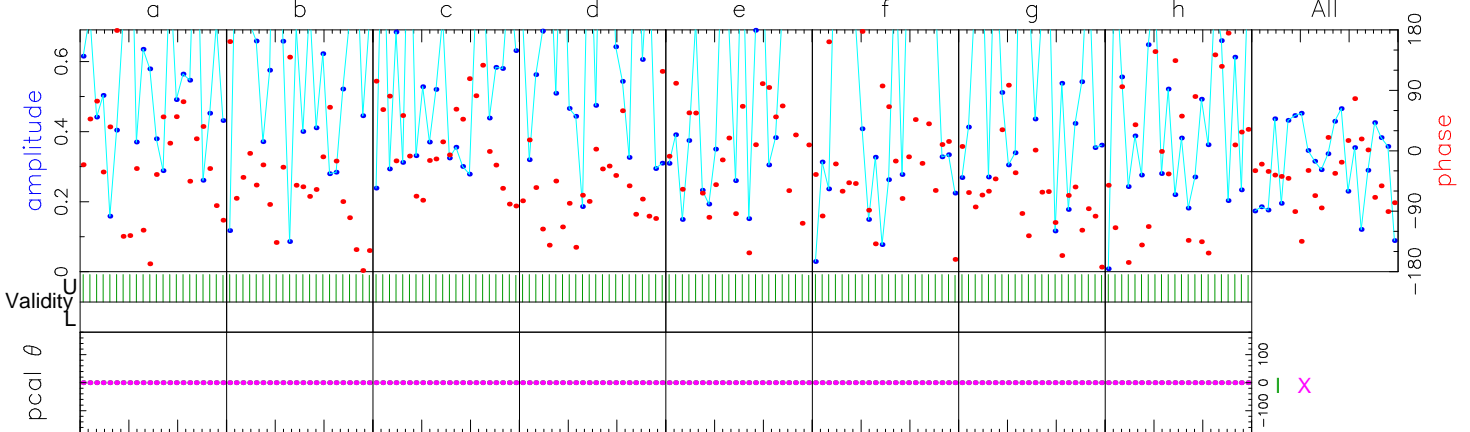
multiband delay ( $\mu$ s)



Fringe quality 9  
 SNR 8.4  
 Int time 179.955  
 Amp 0.230  
 Phase -42.6  
 PFD 5.5e-09  
 Delays (us)  
 SBD -0.013641  
 MBD -0.003295  
 Fringe rate (Hz)  
 -0.007672  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130144  
 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		
I	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
I:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	7.73351375280E+03	Apriori delay (usec)		7.73353267234E+03	Resid mbdelay (usec)	-3.29454E-03	+/-	1.3E-04	
Sband delay (usec)	7.73351903109E+03	Apriori clock (usec)		-4.8735249E+01	Resid sbdelay (usec)	-1.36413E-02	+/-	1.0E-03	
Phase delay (usec)	7.73353267096E+03	Apriori clockrate (us/s)		-6.2800004E-07	Resid phdelay (usec)	-1.37401E-06	+/-	4.4E-07	
Delay rate (us/s)	2.70014399109E-01	Apriori rate (us/s)		2.70014488178E-01	Resid rate (us/s)	-8.90685E-08	+/-	4.2E-09	
Total phase (deg)		99.7	Apriori accel (us/s/s)		-6.61990072795E-05	Resid phase (deg)	-42.6	+/-	13.6

ph/seg (deg)	46.0	31.8	Search (1024X32)		0.226	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5
amp/seg (%)	62.0	55.6	Interp.		0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000
ph/frq (deg)	83.0	19.2	Inc. seg. avg.		0.273	Bits/sample: 2x2		SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%)	60.0	33.5	Inc. frq. avg.		0.285	Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

I: az 350.6 el 66.8 pa 164.6 X: az 329.1 el 33.8 pa 32.2 u,v (fr/asec) -3013.655 -9669.117 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IX..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IX.W.176.1ILLXI

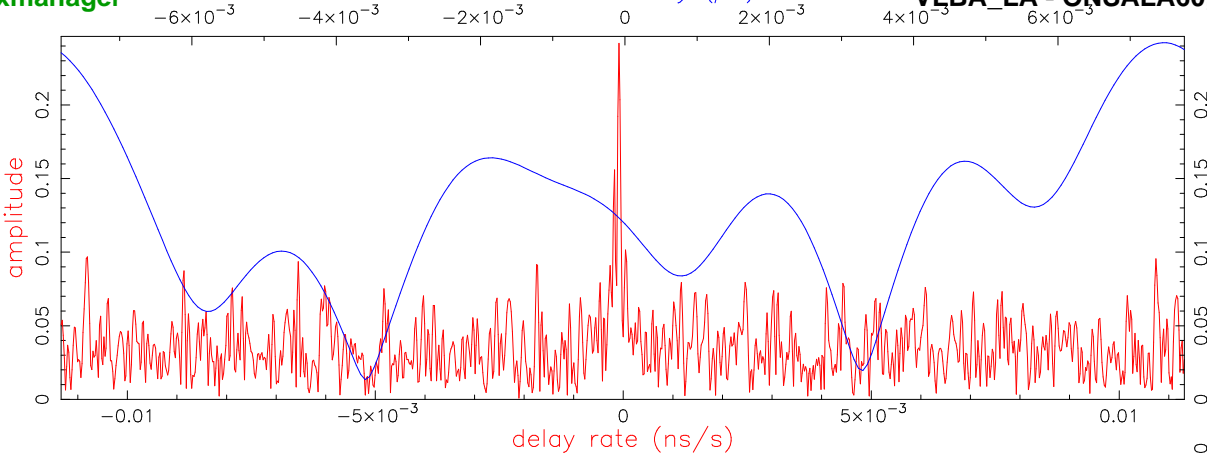
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, IX

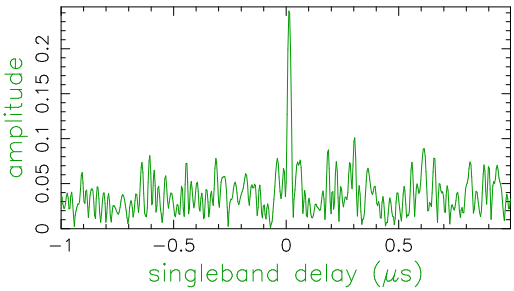
VLBA\_LA - ONSALA60, fgroup W, pol RR

multiband delay ( $\mu$ s)

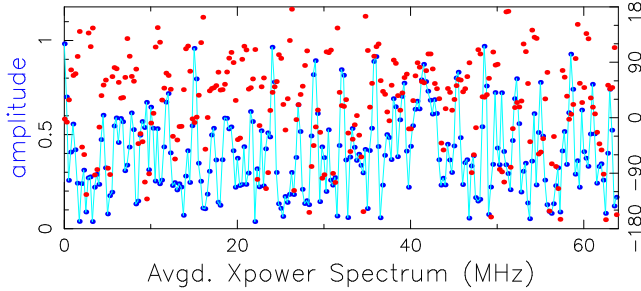


Fringe quality 9

SNR 9.0  
 Int time 179.955  
 Amp 0.247  
 Phase 108.2  
 PFD 2.9e-11  
 Delays (us)  
 SBD 0.013459  
 MBD 0.007551  
 Fringe rate (Hz)  
 -0.008452  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

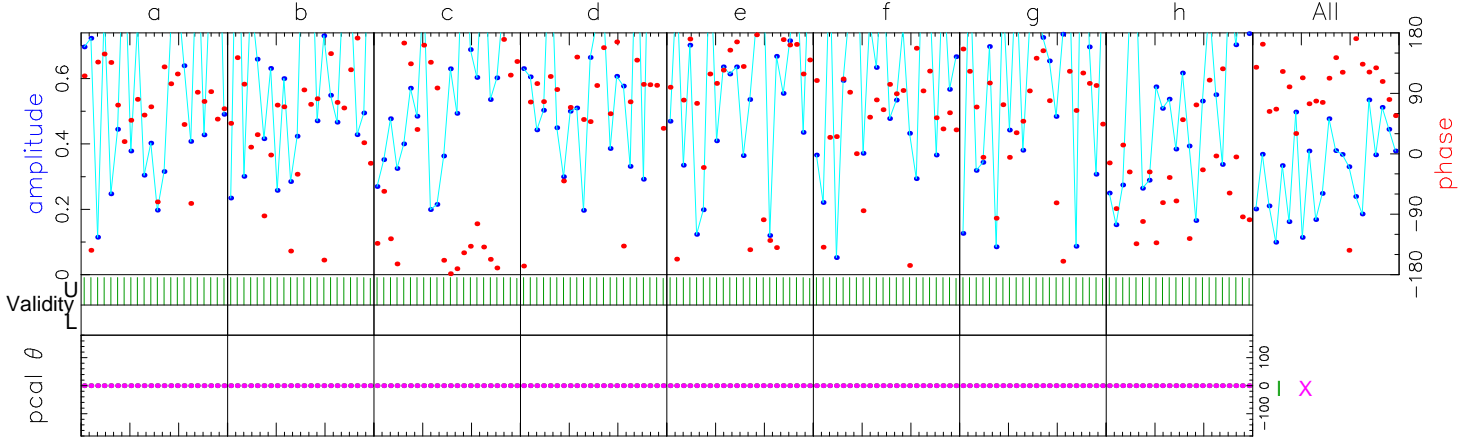


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130146  
 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
	84.4	74.5	-176.1	106.1	161.2	72.2	98.2	-56.8	Phase	108.2
	0.4	0.3	0.4	0.5	0.4	0.4	0.4	0.2	Ampl.	0.4
	259.9	261.3	260.9	259.9	259.5	259.5	260.5	257.8	Sbd box	260.4
U/L	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	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	7.73354022383E+03		Apriori delay (usec)		7.73353267234E+03		Resid mbdelay (usec)		7.55149E-03	+/- 1.2E-04
Sband delay (usec)	7.73354613159E+03		Apriori clock (usec)		-4.8735249E+01		Resid sbdelay (usec)		1.34593E-02	+/- 9.5E-04
Phase delay (usec)	7.73353267583E+03		Apriori clockrate (us/s)		-6.2800004E-07		Resid phdelay (usec)		3.48838E-06	+/- 4.1E-07
Delay rate (us/s)	2.70014390060E-01		Apriori rate (us/s)		2.70014488178E-01		Resid rate (us/s)		-9.81182E-08	+/- 3.9E-09
Total phase (deg)	250.5		Apriori accel (us/s/s)		-6.61990072795E-05		Resid phase (deg)		108.2	+/- 12.7

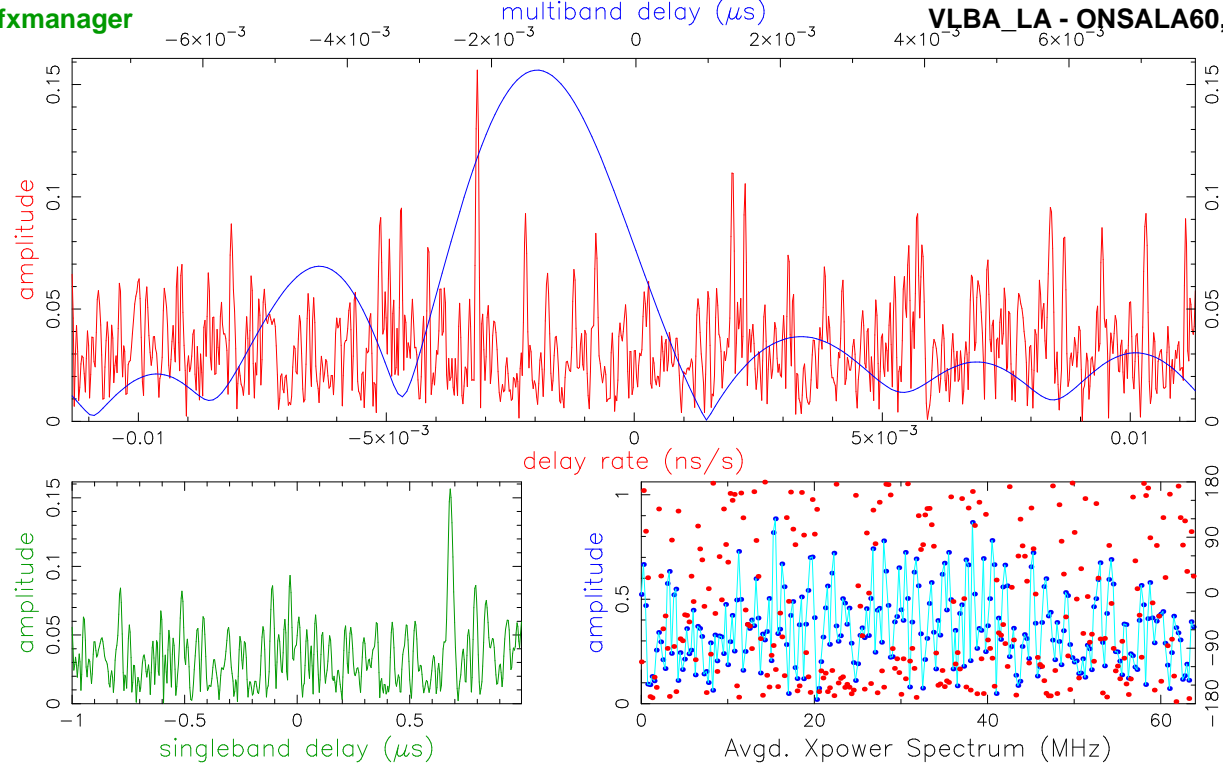
ph/seg (deg) 41.7 29.7 Search (1024X32) 0.233 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 59.9 51.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 80.5 17.9 Inc. seg. avg. 0.280 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 61.5 31.3 Inc. frq. avg. 0.365 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 I: az 350.6 el 66.8 pa 164.6 X: az 329.1 el 33.8 pa 32.2 u,v (fr/asec) -3013.655 -9669.117 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IX..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IX.W.191.1ILLXI

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, IX

VLBA\_LA - ONSALA60, fgroup W, pol LR

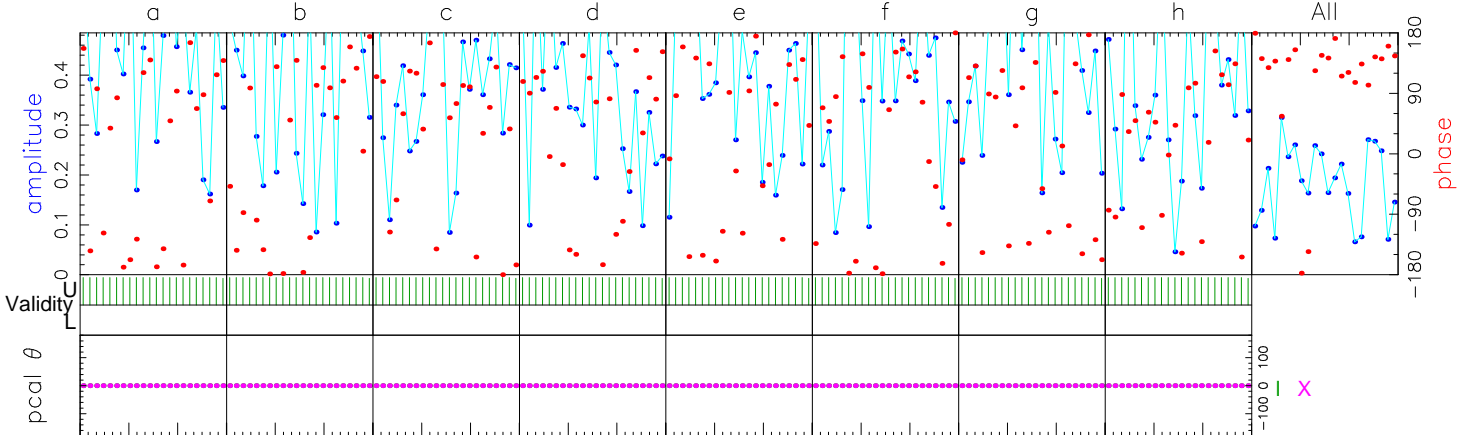


Fringe quality 0

SNR 5.7  
 Int time 179.955  
 Amp 0.162  
 Phase 137.1  
 PFD 6.9e-01  
 Delays (us)  
 SBD 0.680038  
 MBD -0.001366  
 Fringe rate (Hz)  
 -0.272980  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072300.22  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130147  
 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		
I	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
I:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	7.73421880593E+03		Apriori delay (usec)		7.73353267234E+03		Resid mbdelay (usec)		-1.36641E-03	+/- 1.9E-04
Sband delay (usec)	7.73421271059E+03		Apriori clock (usec)		-4.8735249E+01		Resid sbdelay (usec)		6.80038E-01	+/- 1.5E-03
Phase delay (usec)	7.73353267676E+03		Apriori clockrate (us/s)		-6.2800004E-07		Resid phdelay (usec)		4.42140E-06	+/- 6.4E-07
Delay rate (us/s)	2.70011319154E-01		Apriori rate (us/s)		2.70014488178E-01		Resid rate (us/s)		-3.16902E-06	+/- 6.2E-09
Total phase (deg)	279.4		Apriori accel (us/s/s)		-6.61990072795E-05		Resid phase (deg)		137.1	+/- 20.0

ph/seg (deg) 31.6 46.8 Amplitude 0.162 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 50.5 81.7 Search (1024X32) 0.154 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 30.9 28.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 26.0 49.3 Inc. seg. avg. 0.143 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 I: az 350.6 el 66.8 pa 164.6 X: az 329.1 el 33.8 pa 32.2 u,v (fr/asec) -3013.655 -9669.117 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/No0070/IX..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IX.W.205.1ILLXI simultaneous interpolator



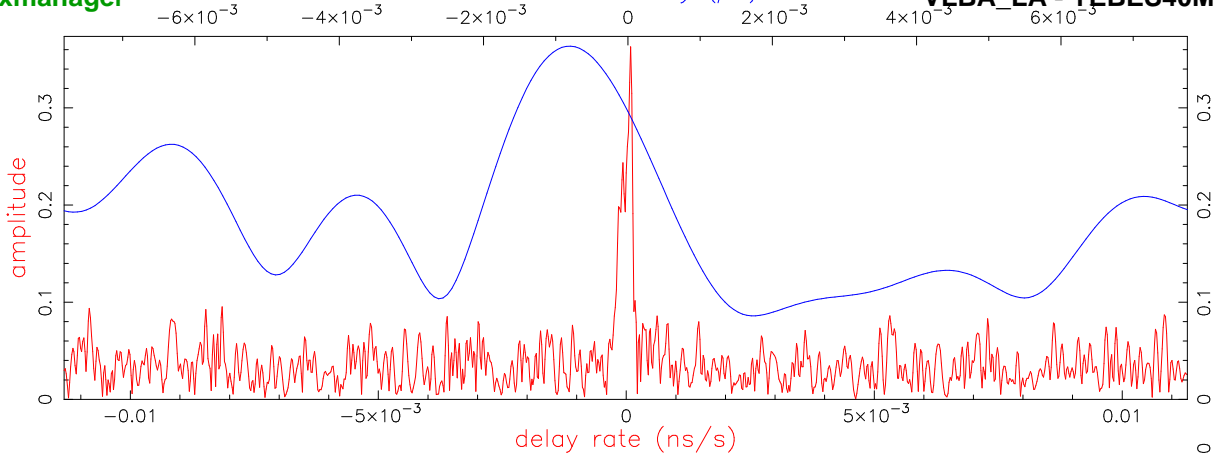
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, IY

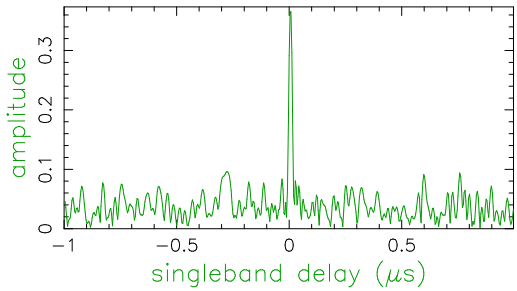
VLBA\_LA - YEBES40M, fgroup W, pol LL

multiband delay ( $\mu$ s)

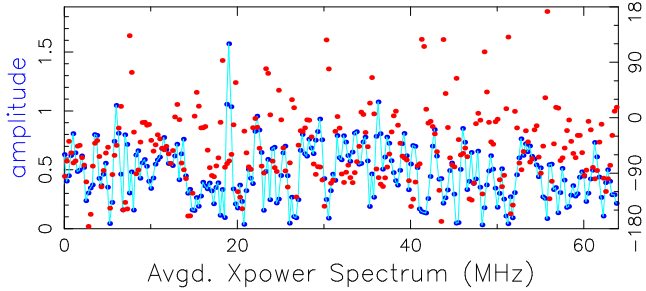


Fringe quality 9

SNR 13.0  
 Int time 162.269  
 Amp 0.374  
 Phase 19.3  
 PFD 2.8e-30  
 Delays (us)  
 SBD 0.005993  
 MBD -0.000739  
 Fringe rate (Hz) 0.008288  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

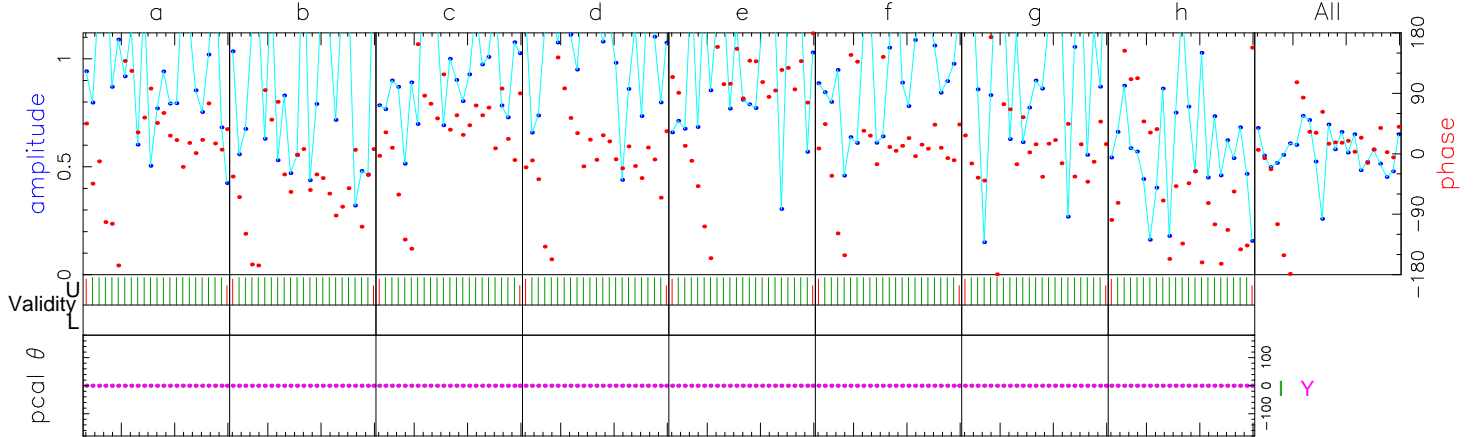


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072016.90  
 Stop 072259.71  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130145  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"

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
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.07410055003E+04	Apriori delay (usec)	1.07410062397E+04	Resid mbdelay (usec)	-7.39360E-04	+/-	8.3E-05
Sband delay (usec)	1.07410122332E+04	Apriori clock (usec)	-1.4087363E+01	Resid sbdelay (usec)	5.99350E-03	+/-	6.6E-04
Phase delay (usec)	1.07410062403E+04	Apriori clockrate (us/s)	-2.1999999E-07	Resid phdelay (usec)	6.20949E-07	+/-	2.8E-07
Delay rate (us/s)	4.91684079382E-01	Apriori rate (us/s)	4.91683983162E-01	Resid rate (us/s)	9.62193E-08	+/-	3.0E-09
Total phase (deg)	193.8	Apriori accel (us/s/s)	-6.34515000032E-05	Resid phase (deg)	19.3	+/-	8.8

ph/seg (deg)	63.2	RMS	21.1	Theor.	21.1	Amplitude	0.374 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	58.9	Search (1024X32)	0.357	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	71.9	Inc. seg. avg.	0.532	Inc. frq. avg.	0.527	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	56.4	Inc. frq. avg.	0.527	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

I: az 350.6 el 66.8 pa 164.6 Y: az 327.4 el 24.6 pa 51.6 u,v (fr/asec) -5442.960 -8413.629 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IY..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IY.W.181.1ILLXI

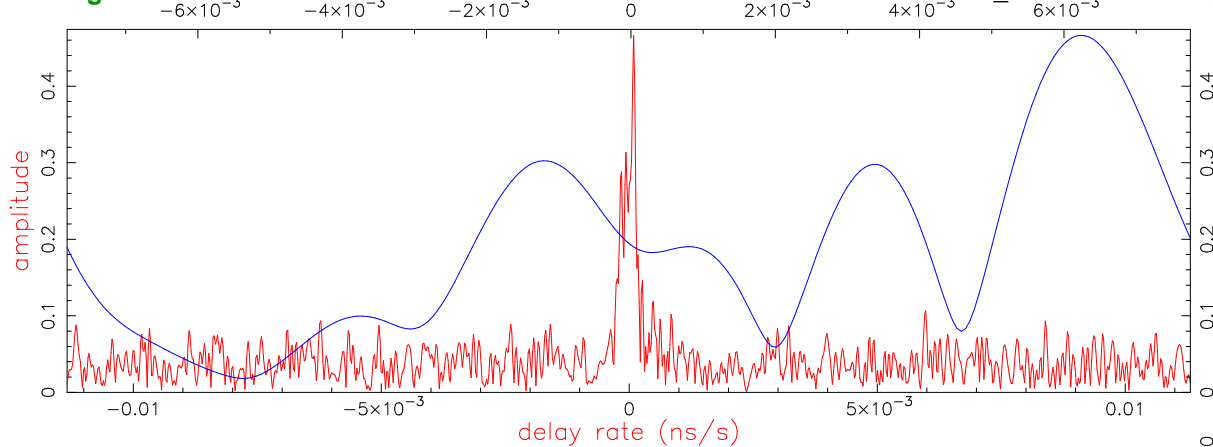
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, IY

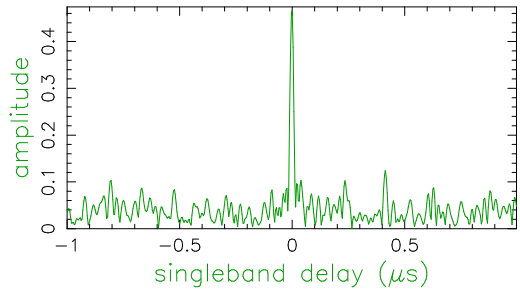
VLBA\_LA - YEBES40M, fgroup W, pol RR

multiband delay ( $\mu$ s)

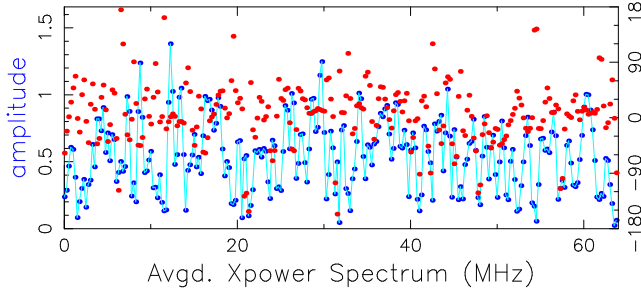


Fringe quality 8

SNR 16.5  
Int time 162.269  
Amp 0.474  
Phase -85.5  
PFD 0.0e+00  
Delays (us)  
SBD -0.001671  
MBD 0.006192  
Fringe rate (Hz)  
0.008473  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

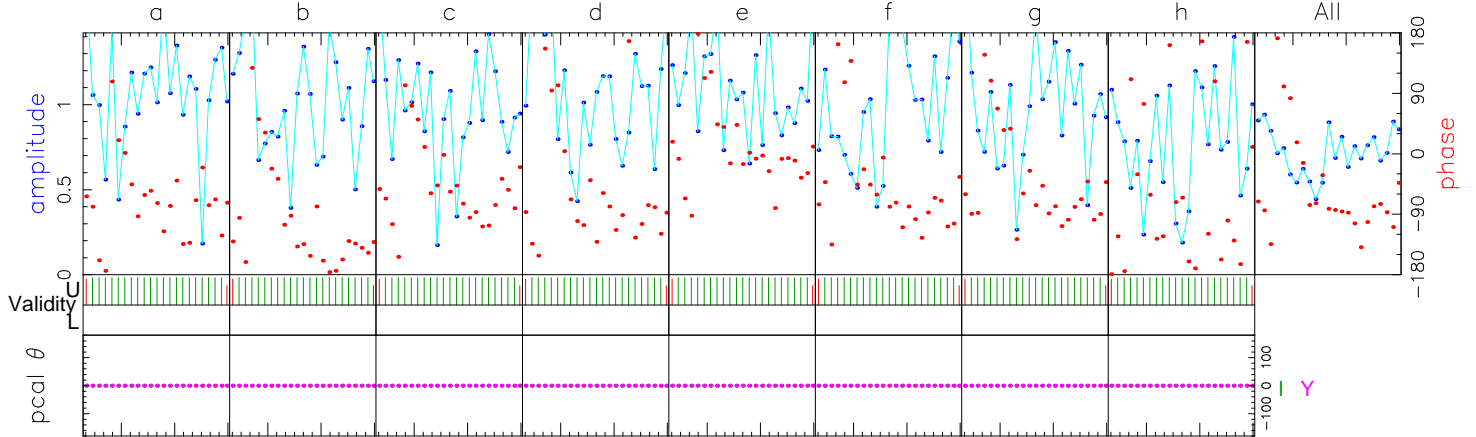


delay rate (ns/s)



Exp. c202b  
Exper # 16383  
Yr:day 2020:284  
Start 072016.90  
Stop 072259.71  
FRT 072130.00  
Corr/FF/build  
2021:023:020244  
2021:023:130146  
2020:247:085004  
RA & Dec (J2000)  
01h02m45.762375s  
+58°24'11.136621"

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
	-81.0	-140.6	-62.1	-110.3	-5.7	-81.4	-69.5	-154.5	Phase	-85.5
	0.7	0.6	0.6	0.6	0.7	0.7	0.6	0.4	Ampl.	0.6
	255.9	255.9	256.5	256.0	256.1	255.7	255.8	253.6	Sbd box	256.6
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
I	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)	1.07409968066E+04		Apriori delay (usec)		1.07410062397E+04		Resid mbdelay (usec)		6.19192E-03	+/- 6.6E-05
Sband delay (usec)	1.07410045692E+04		Apriori clock (usec)		-1.4087363E+01		Resid sbdelay (usec)		-1.67050E-03	+/- 5.2E-04
Phase delay (usec)	1.07410062369E+04		Apriori clockrate (us/s)		-2.1999999E-07		Resid phdelay (usec)		-2.75599E-06	+/- 2.2E-07
Delay rate (us/s)	4.91684081523E-01		Apriori rate (us/s)		4.91683983162E-01		Resid rate (us/s)		9.83606E-08	+/- 2.4E-09
Total phase (deg)			Apriori accel (us/s/s)		-6.34515000032E-05		Resid phase (deg)		-85.5	+/- 6.9

	RMS	Theor.	Amplitude	0.474 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	65.1	16.6	Search (1024X32)	0.450	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	59.1	29.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	51.0	9.8	Inc. seg. avg.	0.692	Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
amp/frq (%)	35.8	17.1	Inc. frq. avg.	0.610	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite
							ion window (TEC) 0.00 0.00

I: az 350.6 el 66.8 pa 164.6 Y: az 327.4 el 24.6 pa 51.6 u,v (fr/asec) -5442.960 -8413.629 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IY..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IY.W.195.1ILLXI

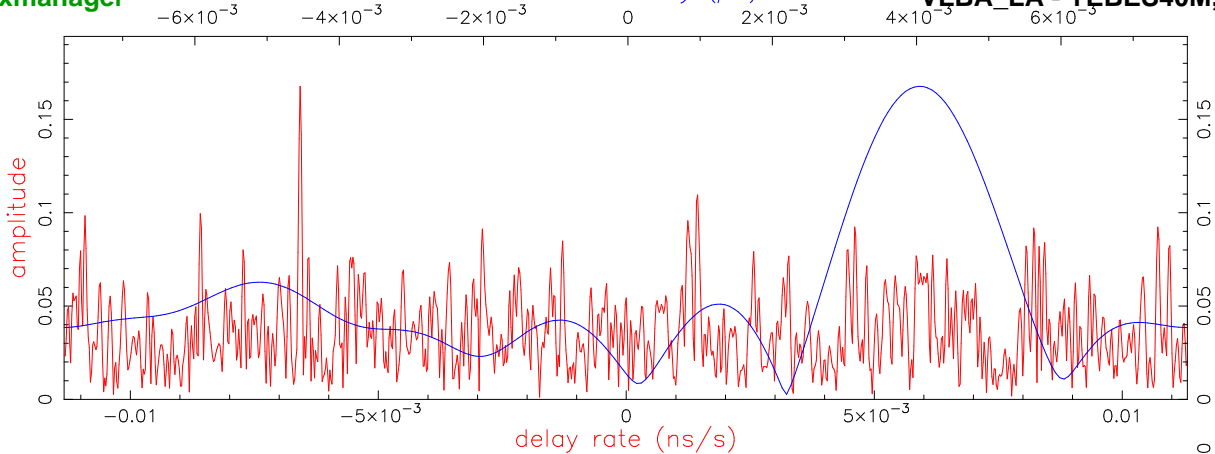
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, IY

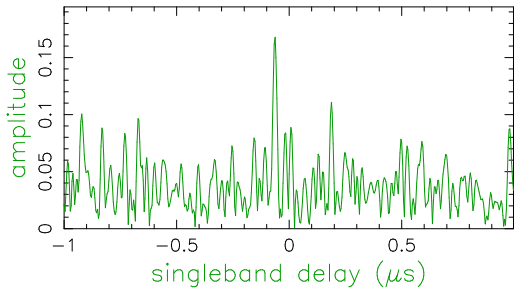
VLBA\_LA - YEBES40M, fgroup W, pol LR

multiband delay ( $\mu$ s)

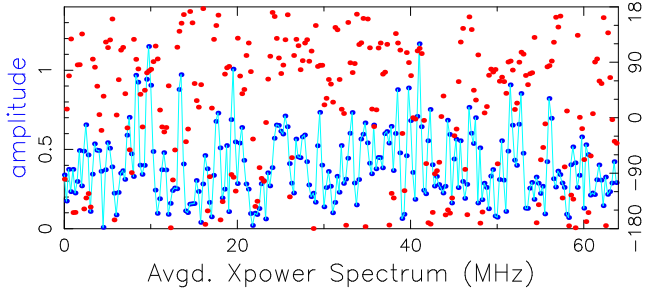


Fringe quality 0

SNR 5.9  
 Int time 162.269  
 Amp 0.194  
 Phase 49.7  
 PFD 4.3e-01  
 Delays (us)  
 SBD -0.063479  
 MBD 0.004039  
 Fringe rate (Hz)  
 -0.568172  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

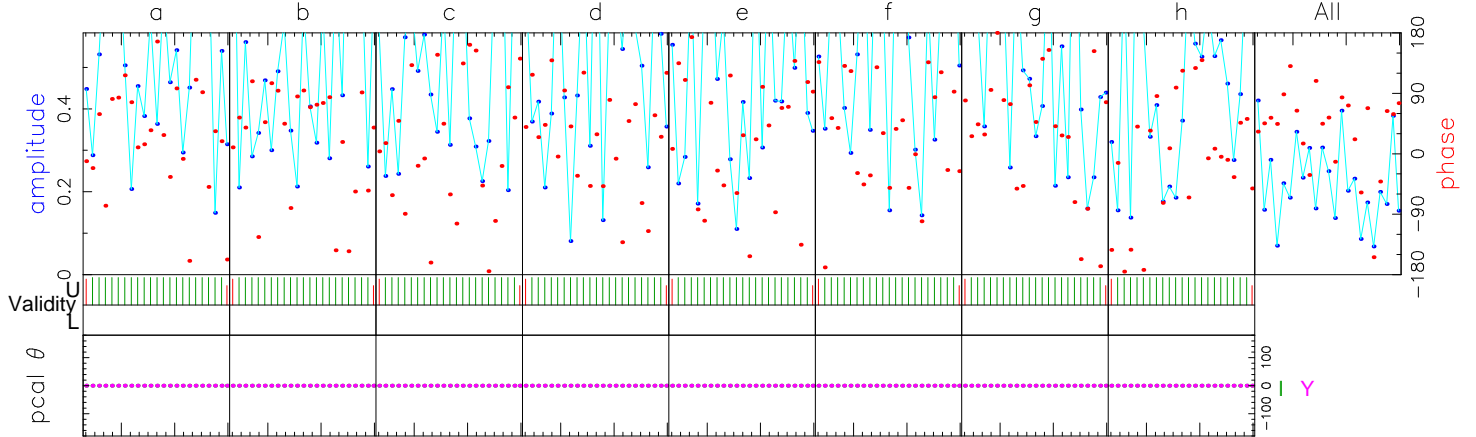


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072016.90  
 Stop 072259.71  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130148  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"

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
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.07409477786E+04				1.07410062397E+04			Resid mbdelay (usec)	4.03894E-03 +/- 1.8E-04
Sband delay (usec)		1.07409427602E+04				-1.4087363E+01			Resid sbdelay (usec)	-6.34795E-02 +/- 1.5E-03
Phase delay (usec)		1.07410062413E+04				-2.1999999E-07			Resid phdelay (usec)	1.60403E-06 +/- 6.3E-07
Delay rate (us/s)		4.91677387253E-01				4.91683983162E-01			Resid rate (us/s)	-6.59591E-06 +/- 6.7E-09
Total phase (deg)			224.3			-6.34515000032E-05			Resid phase (deg)	49.7 +/- 19.5
	RMS	Theor.	Amplitude	0.194 +/- 0.033		Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5	
ph/seg (deg)	56.1	46.8	Search (1024X32)	0.165		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000 1.000
amp/seg (%)	66.7	81.7	Interp.	0.000		Bits/sample: 2x2			SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	27.2	27.6	Inc. seg. avg.	0.194		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011
amp/frq (%)	42.9	48.2	Inc. frq. avg.	0.179		Data rate(Mb/s): 2048			nlags: 256	t_cohere infinite
									ion window (TEC)	0.00 0.00

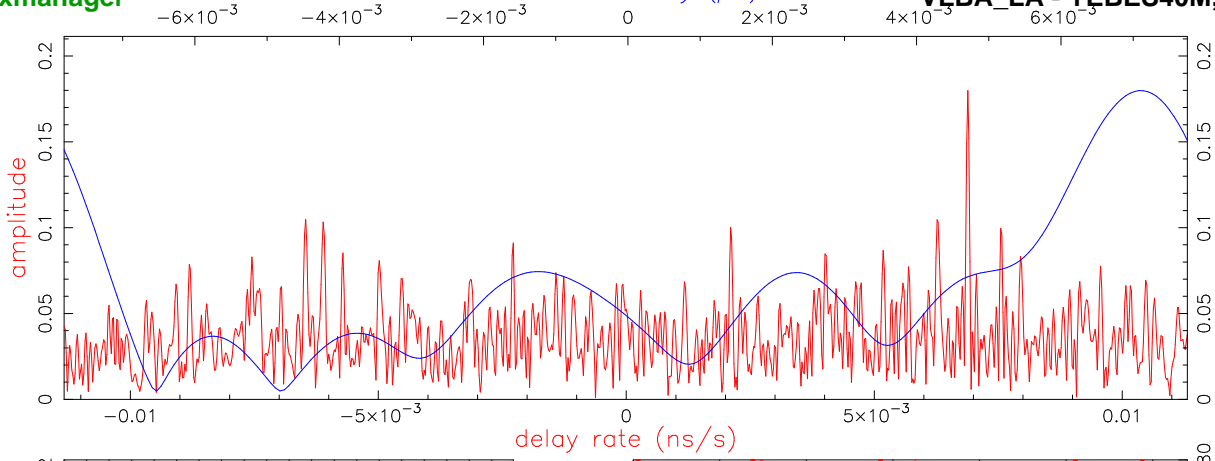
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

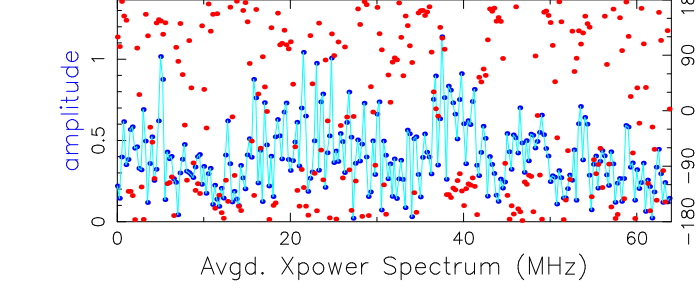
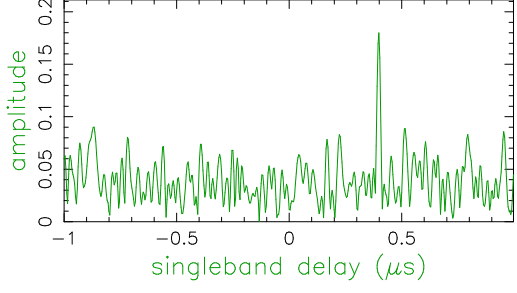
0102+584.1ILLXI, No0070, IY

VLBA\_LA - YEBES40M, fgroup W, pol RL

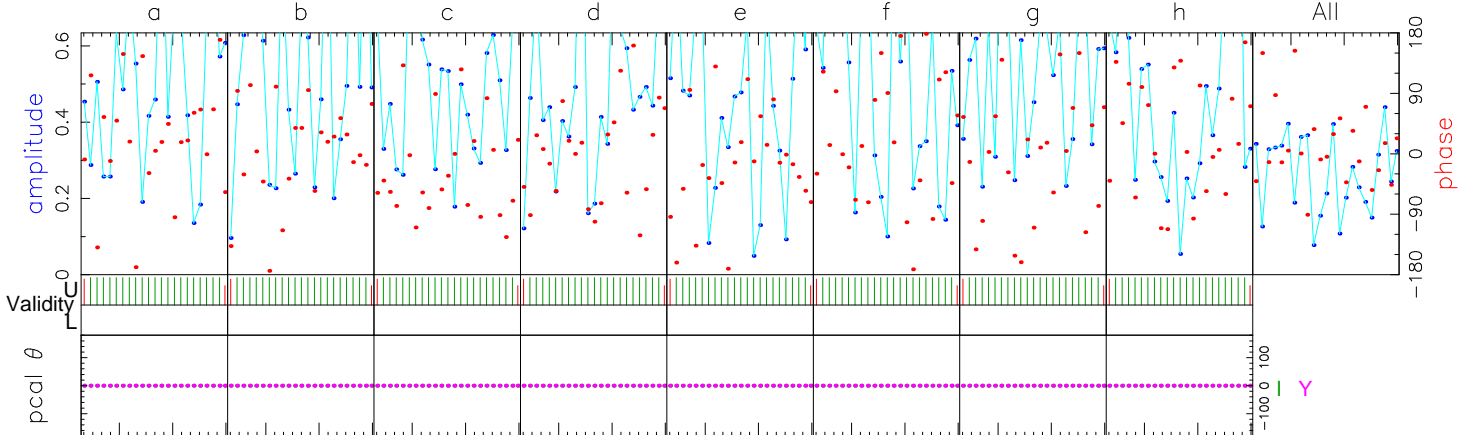
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 6.3  
 Int time 162.269  
 Amp 0.211  
 Phase 0.3  
 PFD 4.1e-02  
 Delays (us)  
 SBD 0.397619  
 MBD 0.007092  
 Fringe rate (Hz) 0.594547  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072016.90  
 Stop 072259.71  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130149  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"



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	
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0			
I	1000	1000	1000	1000	1000	1000	1000	1000			
Y	1000	1000	1000	1000	1000	1000	1000	1000			
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
I	1000	1000	1000	1000	1000	1000	1000	1000			
Y	1000	1000	1000	1000	1000	1000	1000	1000			
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)		1.07414039565E+04				1.07410062397E+04			7.09186E-03	+/- 1.7E-04	
Sband delay (usec)		1.07414038584E+04				-1.4087363E+01			3.97619E-01	+/- 1.4E-03	
Phase delay (usec)		1.07410062397E+04				-2.1999999E-07			8.85079E-09	+/- 5.9E-07	
Delay rate (us/s)		4.91690885259E-01				4.91683983162E-01			6.90210E-06	+/- 6.2E-09	
Total phase (deg)			174.8			-6.34515000032E-05			0.3	+/- 18.2	
ph/seg (deg)	RMS 60.5	Theor. 43.7	Amplitude 0.211 +/- 0.034	Search (1024X32) 0.174	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			sb window (us)	-1.000	1.000
amp/seg (%)	72.9	76.2	Interp. 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	31.1	25.8	Inc. seg. avg. 0.240	Sample rate(MISamp/s): 128	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00	
amp/frq (%)	42.7	44.9	Inc. frq. avg. 0.216								

I: az 350.6 el 66.8 pa 164.6 Y: az 327.4 el 24.6 pa 51.6 u,v (fr/asec) -5442.960 -8413.629 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IY..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IY.W.221.1ILLXI



Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, IZ

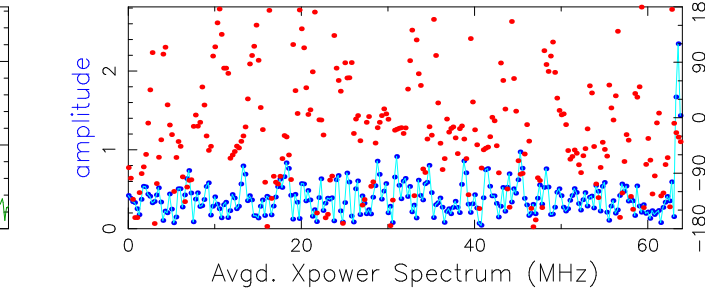
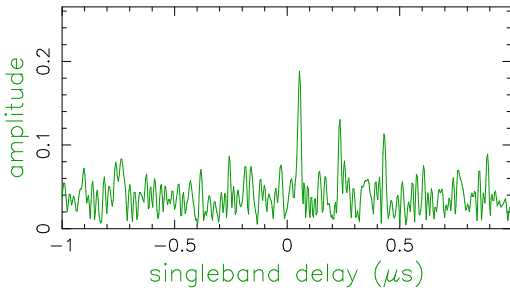
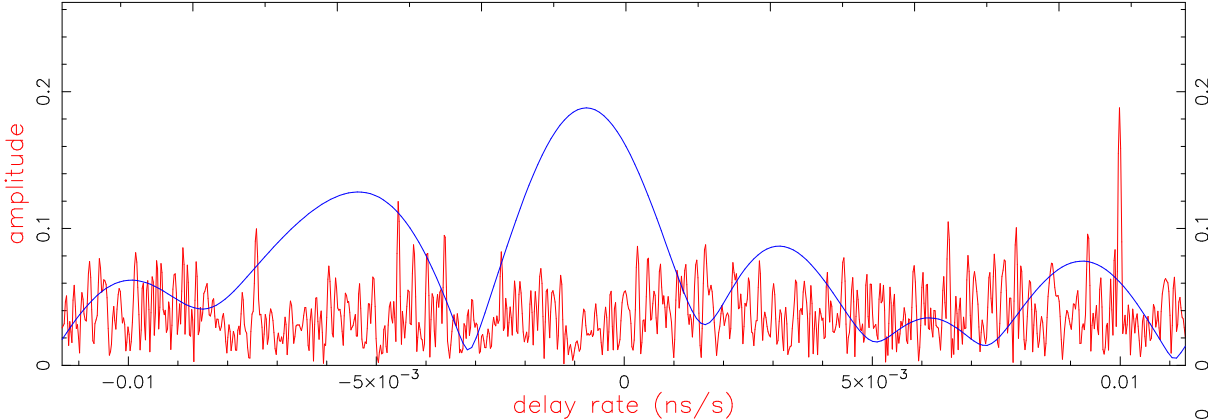
VLBA\_LA - METSAHOV, fgroup W, pol LL

multiband delay ( $\mu$ s)



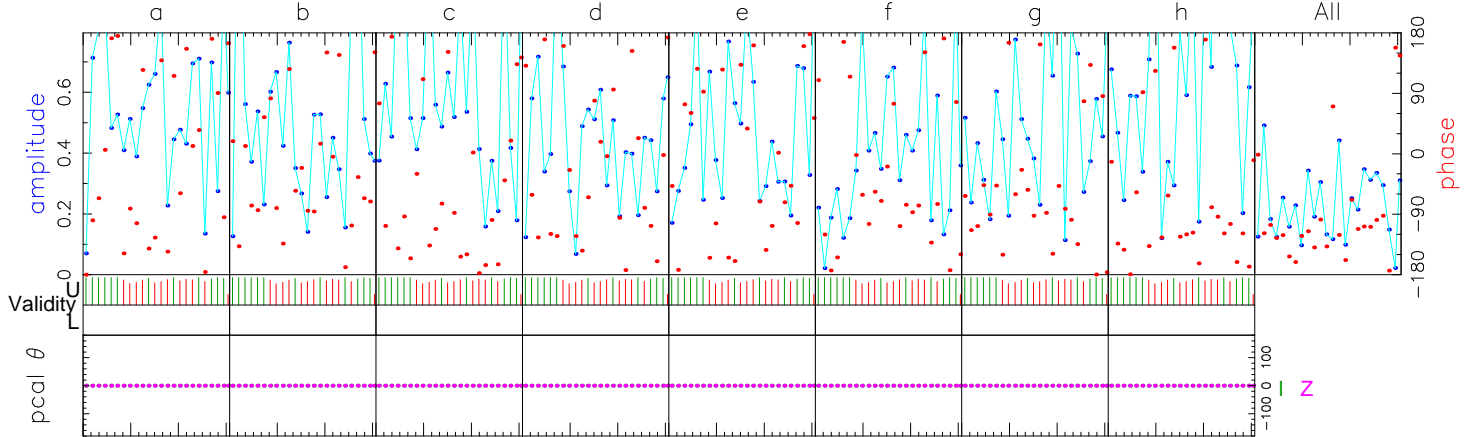
Fringe quality 0

SNR 6.7  
 Int time 167.806  
 Amp 0.265  
 Phase -117.3  
 PFD 3.7e-03  
 Delays (us)  
 SBD 0.054912  
 MBD -0.000547  
 Fringe rate (Hz)  
 0.860986  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072259.71  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130146  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 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		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	7.94035240796E+03	Apriori delay (usec)	7.94029045516E+03	Resid mbdelay (usec)	-5.47202E-04	+/-	1.6E-04
Sband delay (usec)	7.94034536716E+03	Apriori clock (usec)	-5.4454994E-01	Resid sbdelay (usec)	5.49120E-02	+/-	1.3E-03
Phase delay (usec)	7.94029045138E+03	Apriori clockrate (us/s)	-1.1600001E-07	Resid phdelay (usec)	-3.78366E-06	+/-	5.5E-07
Delay rate (us/s)	1.83774479274E-01	Apriori rate (us/s)	1.83764484081E-01	Resid rate (us/s)	9.99519E-06	+/-	5.3E-09
Total phase (deg)	173.4	Apriori accel (us/s/s)	-6.95047857241E-05	Resid phase (deg)	-117.3	+/-	17.2

ph/seg (deg)	53.2	RMS	42.1	Theor.	42.1	Amplitude	0.265 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	64.8	Search (1024X32)	0.180	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	38.0	Inc. seg. avg.	0.253	Inc. frq. avg.	0.274	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	59.7	Inc. frq. avg.	0.274	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

I: az 350.6 el 66.8 pa 164.6 Z: az 335.2 el 33.2 pa 24.0 u,v (fr/asec) -2070.528 -10215.637 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IZ..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IZ.W.193.1ILLXI

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

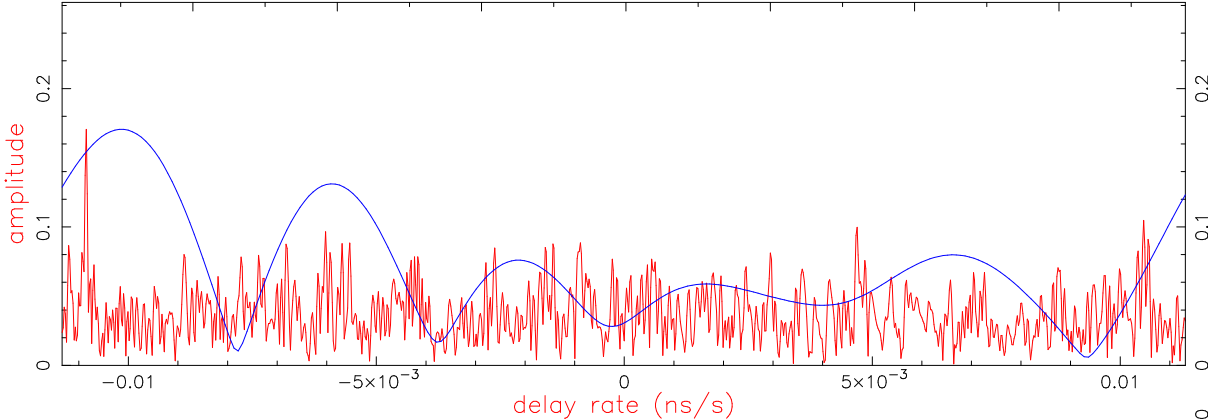
0102+584.1ILLXI, No0070, IZ

VLBA\_LA - METSAHOV, fgroup W, pol RR

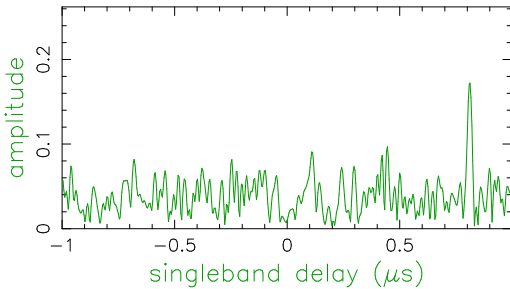
multiband delay ( $\mu$ s)

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

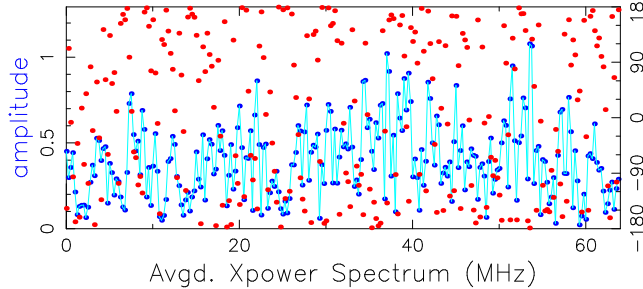
Fringe quality 0



SNR 6.2  
 Int time 167.806  
 Amp 0.262  
 Phase -119.5  
 PFD 9.3e-02  
 Delays (us)  
 SBD 0.810884  
 MBD -0.006953  
 Fringe rate (Hz)  
 -0.935884  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

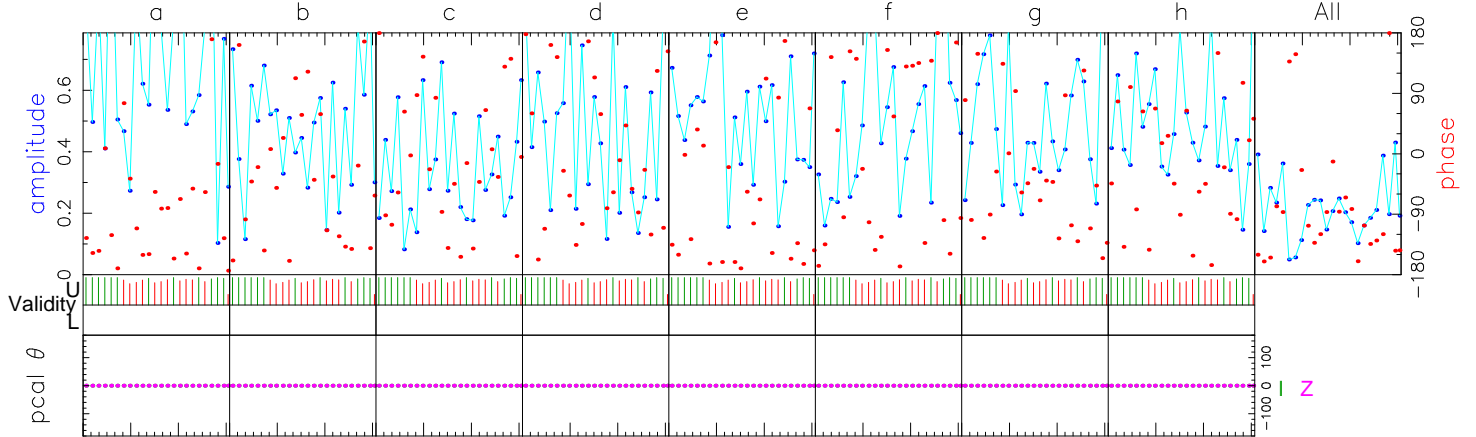


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072259.71  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130148  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 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
	-118.5	-96.9	-66.5	-119.2	-149.5	-158.3	-99.5	-41.4	Phase	-119.5
	0.7	0.2	0.2	0.2	0.3	0.4	0.3	0.1	Ampl.	0.3
	465.0	371.7	435.8	385.3	287.1	182.1	490.2	93.0	Sbd box	464.6
U/L	351/0	351/0	351/0	351/0	351/0	351/0	351/0	351/0	APs used	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	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)	7.94109600178E+03		Apriori delay (usec)		7.94029045516E+03		Resid mbdelay (usec)		-6.95338E-03	+/- 1.8E-04
Sband delay (usec)	7.94110133941E+03		Apriori clock (usec)		-5.4454994E-01		Resid sbdelay (usec)		8.10884E-01	+/- 1.4E-03
Phase delay (usec)	7.94029045131E+03		Apriori clockrate (us/s)		-1.1600001E-07		Resid phdelay (usec)		-3.85200E-06	+/- 6.0E-07
Delay rate (us/s)	1.83753619402E-01		Apriori rate (us/s)		1.83764484081E-01		Resid rate (us/s)		-1.08647E-05	+/- 5.8E-09
Total phase (deg)			Apriori accel (us/s/s)		-6.95047857241E-05		Resid phase (deg)		-119.5	+/- 18.6

	RMS	Theor.	Amplitude	0.262 +/- 0.043	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	50.1	45.6	Search (1024X32)	0.166	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	63.0	79.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	45.1	26.3	Inc. seg. avg.	0.251	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	68.7	45.9	Inc. frq. avg.	0.269	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

I: az 350.6 el 66.8 pa 164.6      Z: az 335.2 el 33.2 pa 24.0      u,v (fr/asec) -2070.528 -10215.637      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IZ..1ILLXI    Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IZ.W.213.1ILLXI

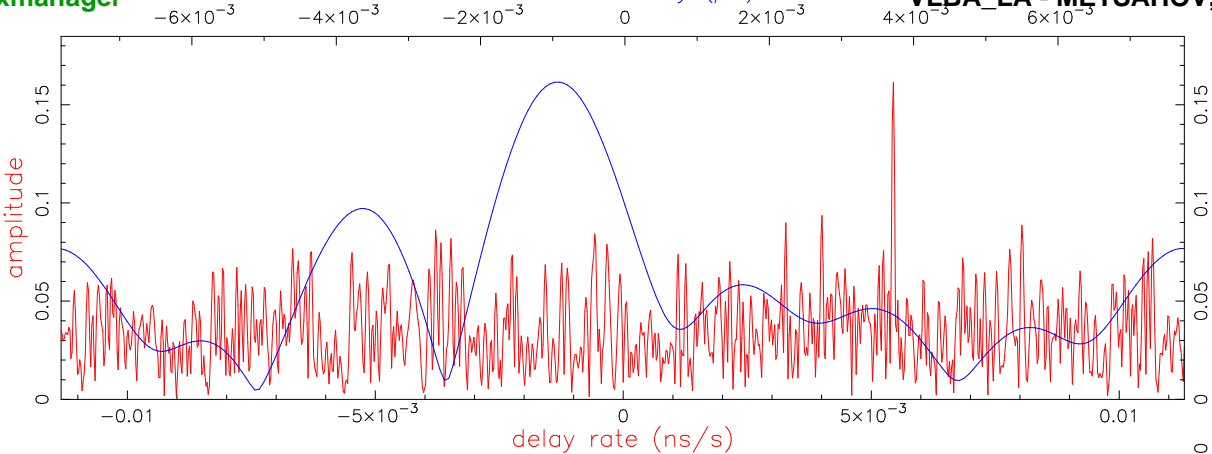
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, IZ

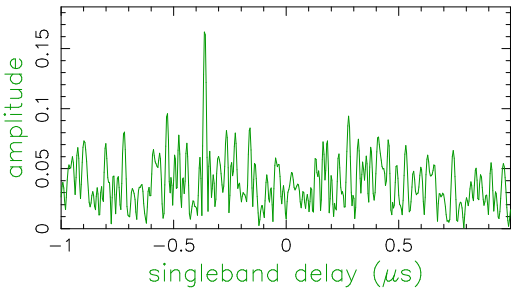
VLBA\_LA - METSAHOV, fgroup W, pol LR

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

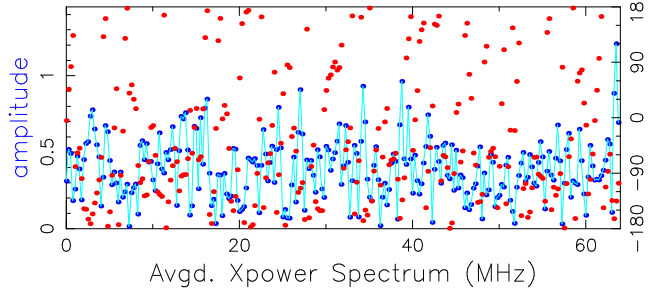


Fringe quality 0

SNR 5.9  
 Int time 167.806  
 Amp 0.185  
 Phase 49.5  
 PFD 3.0e-01  
 Delays (us)  
 SBD -0.361560  
 MBD -0.000971  
 Fringe rate (Hz)  
 0.469473  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

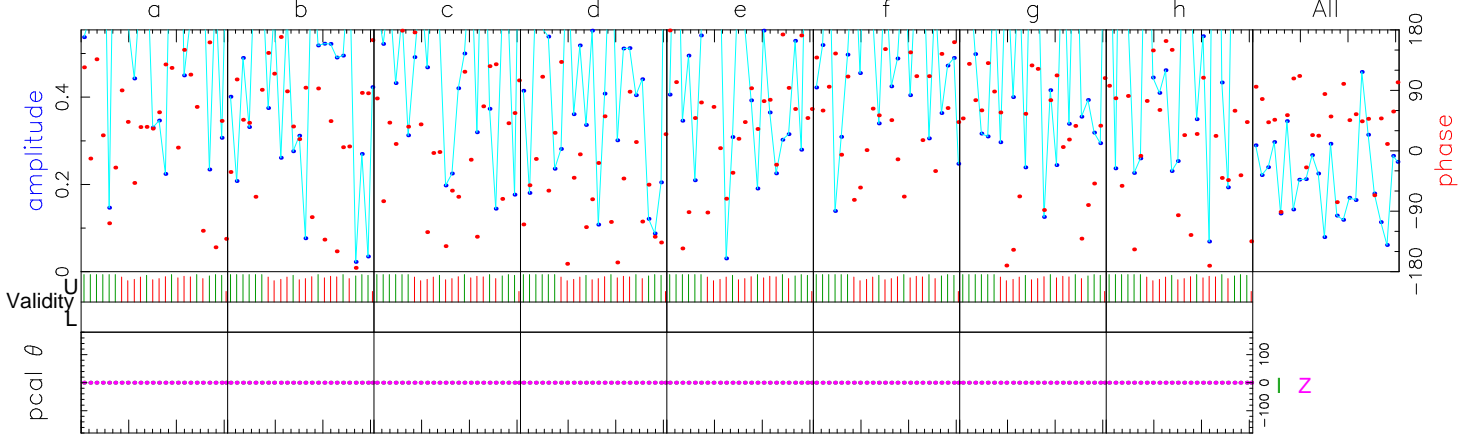


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072259.71  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130150  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 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			
I	1000	1000	1000	1000	1000	1000	1000	1000			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
I	1000	1000	1000	1000	1000	1000	1000	1000			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		7.93993010925E+03				7.94029045516E+03			Resid mbdelay (usec)	-9.70911E-04	+/- 1.8E-04
Sband delay (usec)		7.93992889516E+03				-5.4454994E-01			Resid sbdelay (usec)	-3.61560E-01	+/- 1.4E-03
Phase delay (usec)		7.94029045676E+03				-1.1600001E-07			Resid phdelay (usec)	1.59732E-06	+/- 6.2E-07
Delay rate (us/s)		1.83769934195E-01				1.83764484081E-01			Resid rate (us/s)	5.45011E-06	+/- 6.0E-09
Total phase (deg)			340.3			-6.95047857241E-05			Resid phase (deg)	49.5	+/- 19.3
	RMS	Theor.	Amplitude	0.185 +/- 0.031					Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5
ph/seg (deg)	55.3	47.2	Search (1024X32)	0.161					Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000
amp/seg (%)	62.1	82.4	Interp.	0.000					Bits/sample: 2x2		SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	44.9	27.3	Inc. seg. avg.	0.178					Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
amp/frq (%)	30.4	47.6	Inc. frq. avg.	0.184					Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

I: az 350.6 el 66.8 pa 164.6 Z: az 335.2 el 33.2 pa 24.0 u,v (fr/asec) -2070.528 -10215.637 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IZ..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IZ.W.227.1ILLXI

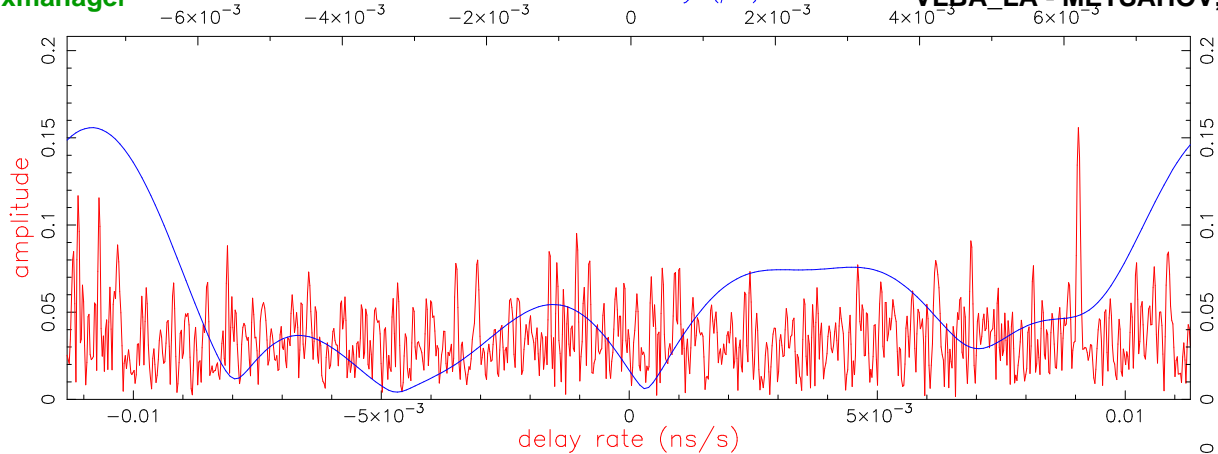
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1ILLXI, No0070, IZ

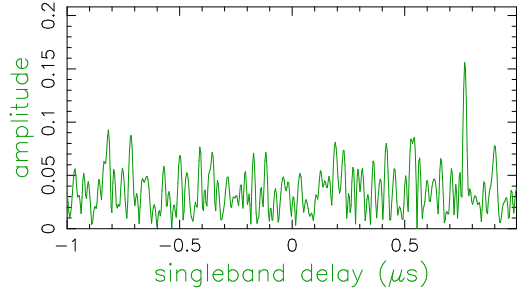
VLBA\_LA - METSAHOV, fgroup W, pol RL

multiband delay ( $\mu$ s)

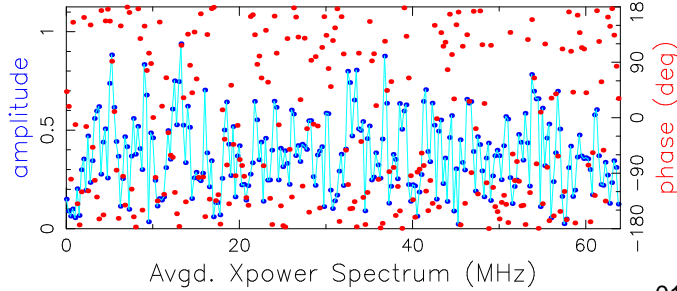


Fringe quality 0

SNR 5.6  
 Int time 167.806  
 Amp 0.208  
 Phase -73.0  
 PFD 9.5e-01  
 Delays (us)  
 SBD 0.766886  
 MBD 0.008173  
 Fringe rate (Hz)  
 0.782069  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

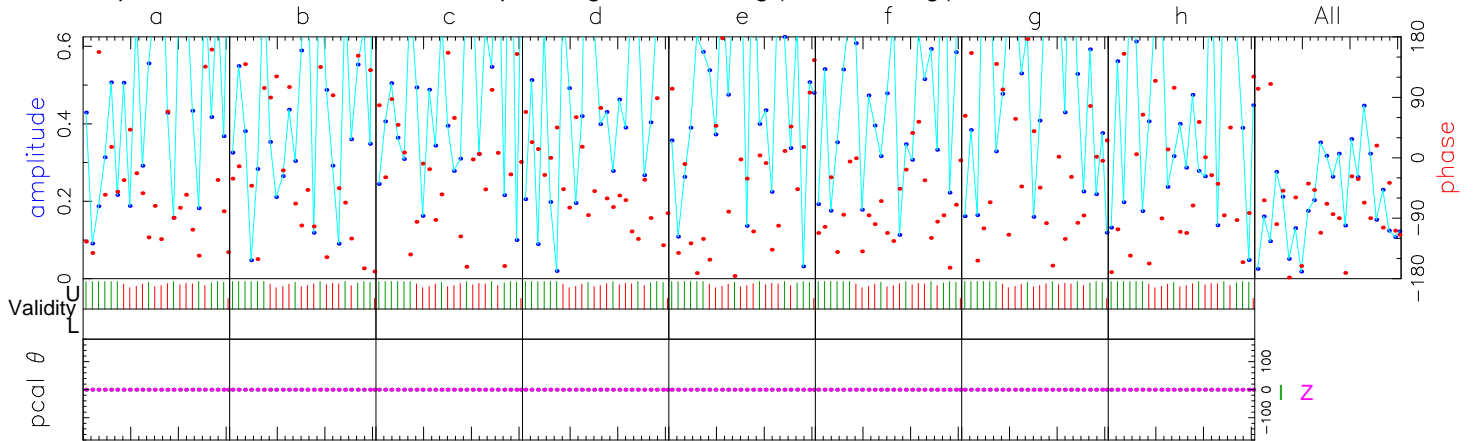


delay rate (ns/s)



Exp. c202b  
 Exper # 16383  
 Yr:day 2020:284  
 Start 072000.00  
 Stop 072259.71  
 FRT 072130.00  
 Corr/FF/build  
 2021:023:020244  
 2021:023:130152  
 2020:247:085004  
 RA & Dec (J2000)  
 01h02m45.762375s  
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 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	
	-78.0	-175.0	-23.9	-61.2	-102.3	-70.7	-77.3	-81.8	Phase	-73.0	
	0.3	0.1	0.2	0.3	0.2	0.4	0.2	0.2	Ampl.	0.2	
	91.3	463.8	170.6	363.4	392.2	452.9	222.7	414.8	Sbd box	453.3	
U/L	351/0	351/0	351/0	351/0	351/0	351/0	351/0	351/0	APs used		
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Chan ids		
									Tracks		
Group delay (usec)(sbd)	7.94106425341E+03		Apriori delay (usec)		7.94029045516E+03		Resid mbdelay (usec)		8.17325E-03	+/- 1.9E-04	
Sband delay (usec)	7.94105734166E+03		Apriori clock (usec)		-5.4454994E-01		Resid sbdelay (usec)		7.66886E-01	+/- 1.5E-03	
Phase delay (usec)	7.94029045281E+03		Apriori clockrate (us/s)		-1.1600001E-07		Resid phdelay (usec)		-2.35539E-06	+/- 6.6E-07	
Delay rate (us/s)	1.83773563126E-01		Apriori rate (us/s)		1.83764484081E-01		Resid rate (us/s)		9.07904E-06	+/- 6.4E-09	
Total phase (deg)			Apriori accel (us/s/s)		-6.95047857241E-05		Resid phase (deg)		-73.0	+/- 20.5	
RMS	Theor.	Amplitude	0.208 +/- 0.037		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	70.5	50.3	Search (1024X32)	0.154	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
amp/seg (%)	76.8	87.8	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	48.2	29.1	Inc. seg. avg.	0.195	Sample rate(MISamp/s): 128		dr window (ns/s)		-0.011	0.011	
amp/frq (%)	45.1	50.7	Inc. frq. avg.	0.210	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00

I: az 350.6 el 66.8 pa 164.6 Z: az 335.2 el 33.2 pa 24.0 u,v (fr/asec) -2070.528 -10215.637 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IZ..1ILLXI Output file: /Exps/c202b/v1/v1\_3mm/1234/No0070/IZ.W.242.1ILLXI