

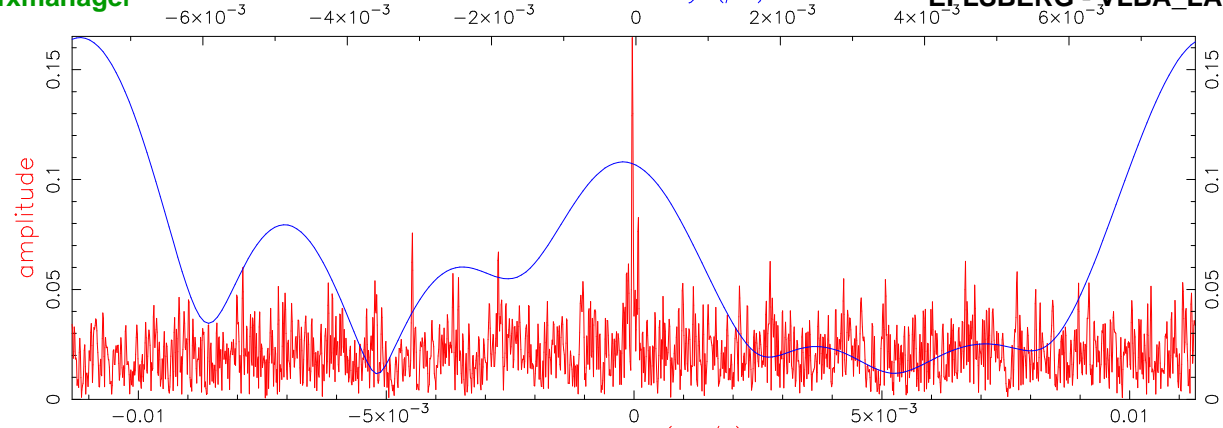
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, BI

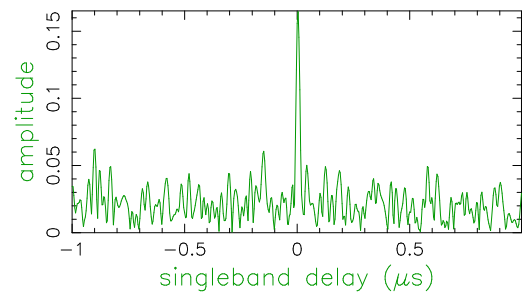
EFLSBERG - VLBA\_LA, fgroup W, pol LL

multiband delay ( $\mu$ s)

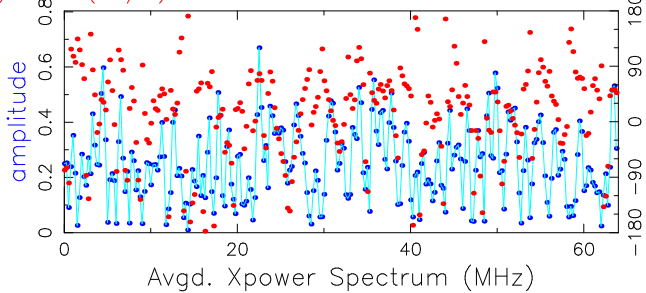


Fringe quality 9

SNR 9.2  
 Int time 417.821  
 Amp 0.165  
 Phase 153.7  
 PFD 1.1e-11  
 Delays (us)  
 SBD 0.003138  
 MBD -0.007695  
 Fringe rate (Hz)  
 -0.002807  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

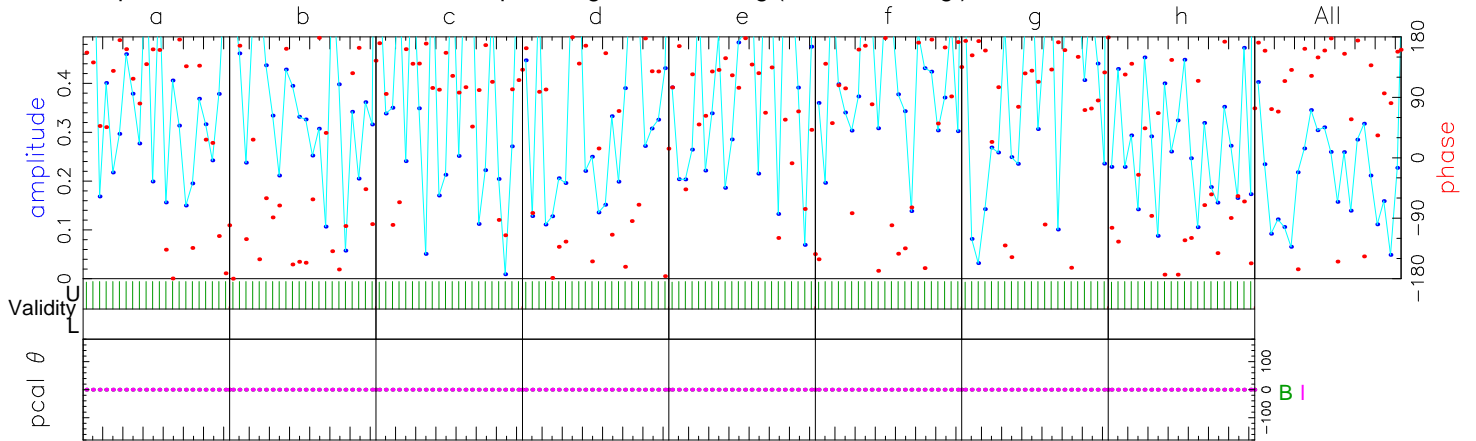


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121309  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	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: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)		8.73180294868E+03		Apriori delay (usec)		8.73179501903E+03		Resid mbdelay (usec)	-7.69534E-03	+/- 1.2E-04
Sband delay (usec)		8.73179815703E+03		Apriori clock (usec)		-1.9438889E+01		Resid sbdelay (usec)	3.13800E-03	+/- 9.3E-04
Phase delay (usec)		8.73179502398E+03		Apriori clockrate (us/s)		2.8600001E-07		Resid phdelay (usec)	4.95485E-06	+/- 4.0E-07
Delay rate (us/s)		-1.33571381804E+00		Apriori rate (us/s)		-1.33571378546E+00		Resid rate (us/s)	-3.25809E-08	+/- 1.7E-09
Total phase (deg)			131.7	Apriori accel (us/s/s)		-3.25092797238E-05		Resid phase (deg)	153.7	+/- 12.4

ph/seg (deg) 51.7 29.8 Amplitude 0.165 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 65.1 52.0 Search (2048X32) 0.163 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 48.9 17.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 37.3 30.6 Inc. seg. avg. 0.187 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

B: az 260.7 el 66.0 pa 56.7 I: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 10161.093 -1137.674 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/BI..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/BI.W.10.1X0HBB



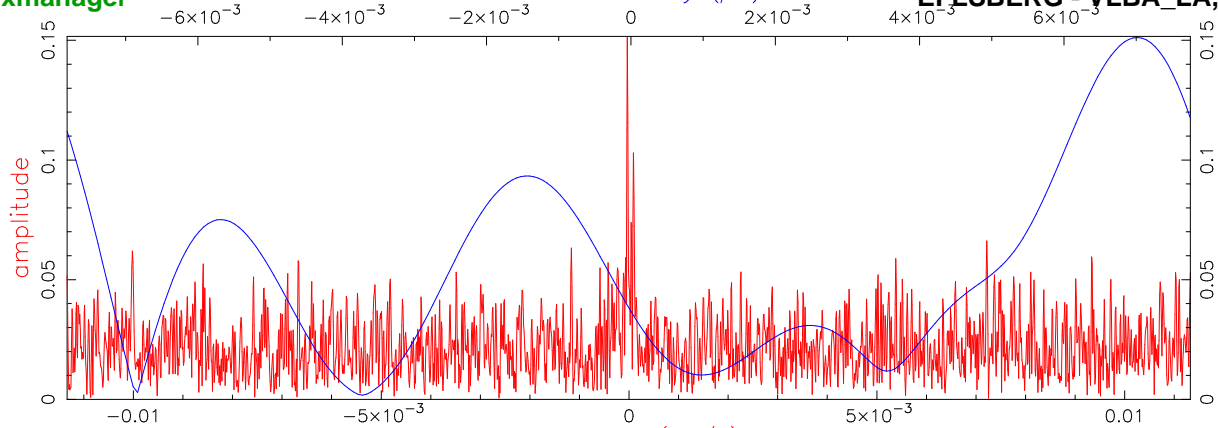
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, BI

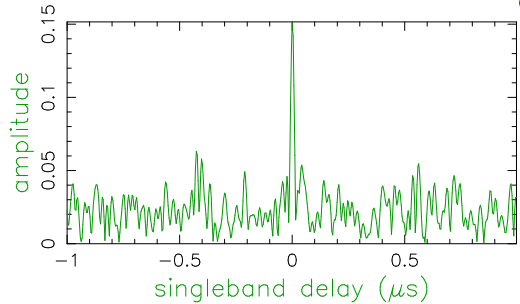
EFLSBERG - VLBA\_LA, fgroup W, pol RR

multiband delay ( $\mu$ s)



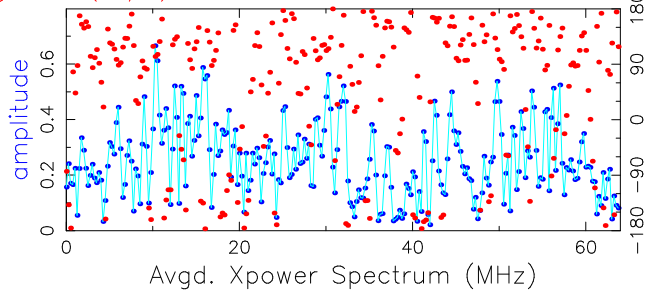
Fringe quality 9

SNR 8.5  
 Int time 417.821  
 Amp 0.152  
 Phase 62.0  
 PFD 8.4e-09  
 Delays (us)  
 SBD 0.000707  
 MBD 0.007031  
 Fringe rate (Hz)  
 -0.002842  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



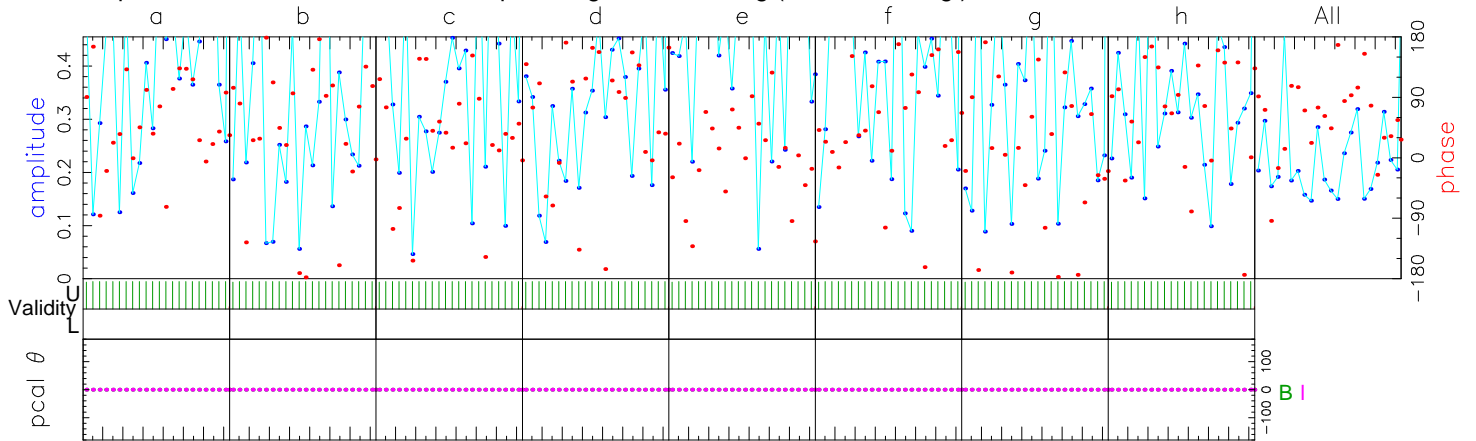
singleband delay ( $\mu$ s)

delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121313  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

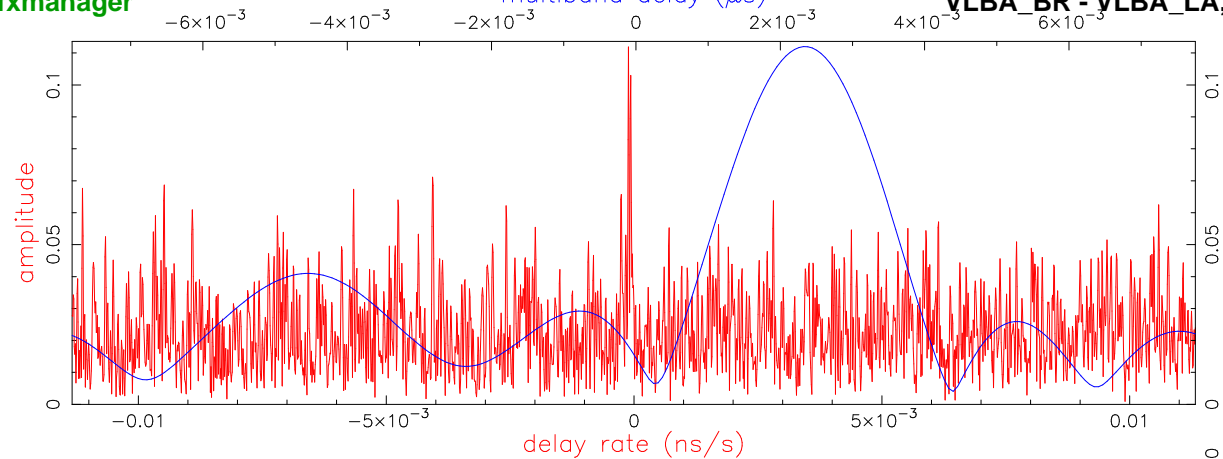
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



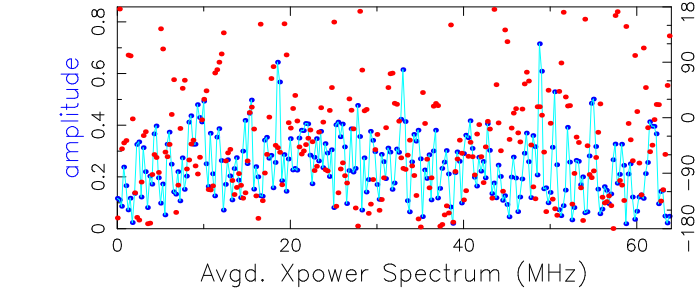
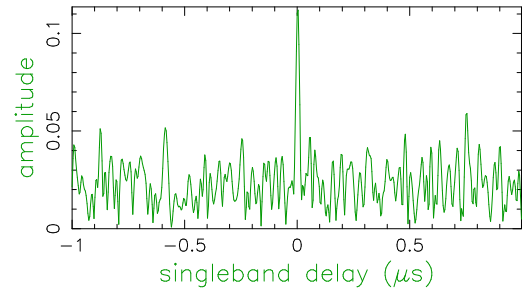
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	0	0	0	0	0	0	0	0		
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	8.73180205024E+03		Apriori delay (usec)		8.73179501903E+03		Resid mbdelay (usec)		7.03121E-03	+/- 1.3E-04
Sband delay (usec)	8.73179572653E+03		Apriori clock (usec)		-1.9438889E+01		Resid sbdelay (usec)		7.07500E-04	+/- 1.0E-03
Phase delay (usec)	8.73179502103E+03		Apriori clockrate (us/s)		2.8600001E-07		Resid phdelay (usec)		1.99826E-06	+/- 4.4E-07
Delay rate (us/s)	-1.33571381846E+00		Apriori rate (us/s)		-1.33571378546E+00		Resid rate (us/s)		-3.29975E-08	+/- 1.8E-09
Total phase (deg)			40.0		Apriori accel (us/s/s)		-3.25092797238E-05		62.0	+/- 13.5

ph/seg (deg) 57.4 32.4 Amplitude 0.152 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 69.4 56.6 Search (2048X32) 0.149 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 36.5 19.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 41.7 33.4 Inc. seg. avg. 0.194 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 260.7 el 66.0 pa 56.7 I: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 10161.093 -1137.674 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/BI..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/BI.W.29.1X0HBB

multiband delay ( $\mu$ s)

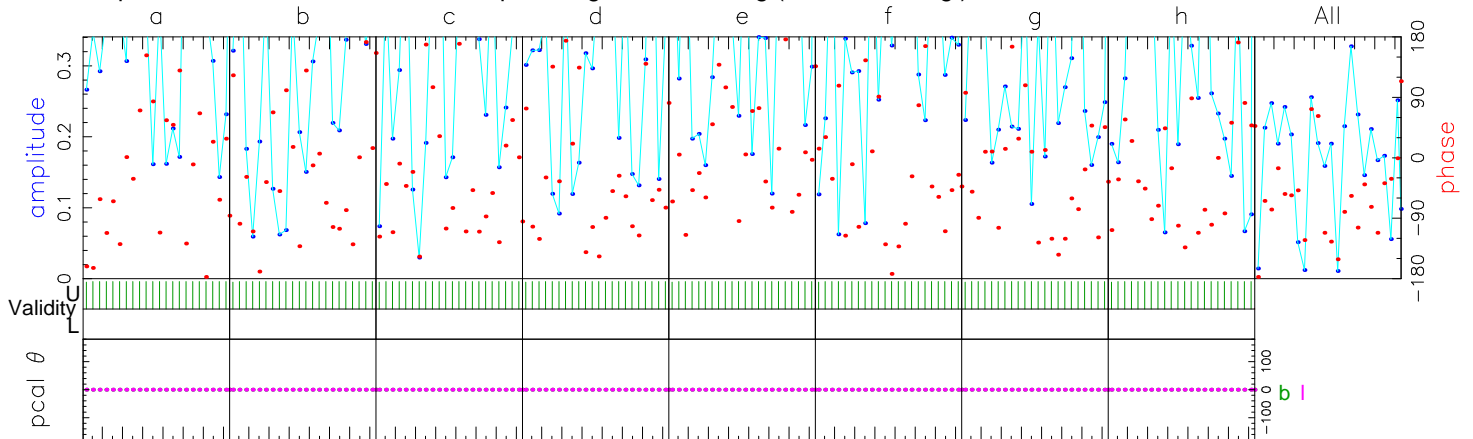


Fringe quality 0  
SNR 6.3  
Int time 416.830  
Amp 0.114  
Phase -58.1  
PFD 5.9e-02  
Delays (us)  
SBD 0.002275  
MBD 0.002291  
Fringe rate (Hz) -0.009448  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 144502.56  
Stop 145159.84  
FRT 144830.00  
Corr/FF/build  
2021:303:063723  
2021:303:121316  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-71.2	-61.9	-42.2	-90.8	-16.2	-62.5	-63.2	-52.3	Phase	-58.1
	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	167.7	127.9	482.4	179.9	296.5	316.7	69.3	46.2	Sbd box	257.6
U/L	815/0	815/0	815/0	815/0	815/0	815/0	815/0	815/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
l	0	0	0	0	0	0	0	0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-6.45353277370E+02		Apriori delay (usec)		-6.45355567901E+02		Resid mbdelay (usec)		2.29053E-03	+/- 1.7E-04
Sband delay (usec)	-6.45353292651E+02		Apriori clock (usec)		-3.5989952E-01		Resid sbdelay (usec)		2.27525E-03	+/- 1.4E-03
Phase delay (usec)	-6.45355569776E+02		Apriori clockrate (us/s)		1.8600001E-07		Resid phdelay (usec)		-1.87463E-06	+/- 5.8E-07
Delay rate (us/s)	-1.52432135115E-01		Apriori rate (us/s)		-1.52432025433E-01		Resid rate (us/s)		-1.09682E-07	+/- 2.4E-09
Total phase (deg)			Apriori accel (us/s/s)		1.54110542657E-05		Resid phase (deg)		-58.1	+/- 18.1

ph/seg (deg) 59.9 43.3 Search (2048X32) 0.111 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 91.1 75.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 23.6 25.5 Inc. seg. avg. 0.133 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 28.9 44.6 Inc. frq. avg. 0.108 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 57.1 el 27.3 pa -48.5 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 1194.493 2121.441 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/bl.1X0HBB Output file: /Exps/c211c/v1/1234/No0080/bl.W.45.1X0HBB

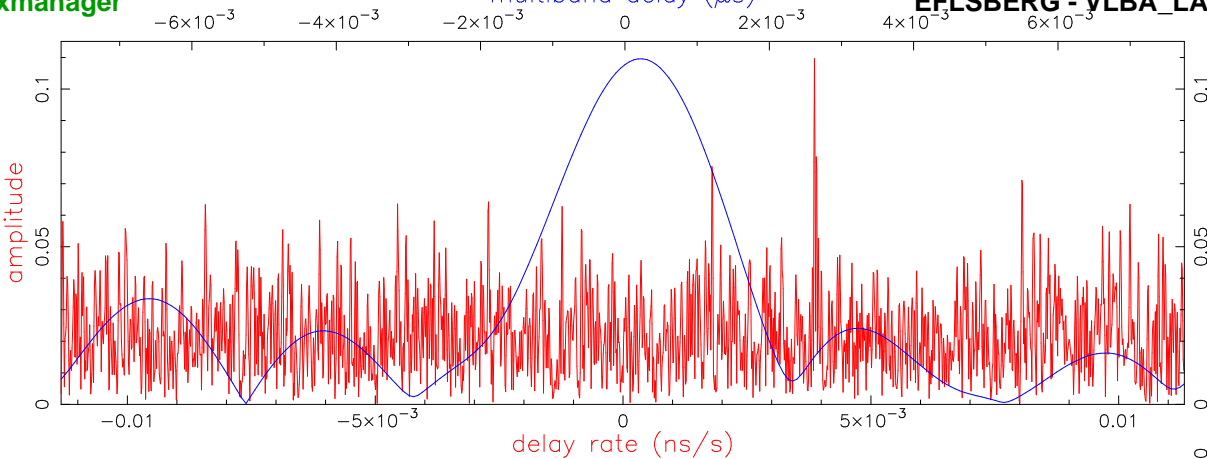
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, BI

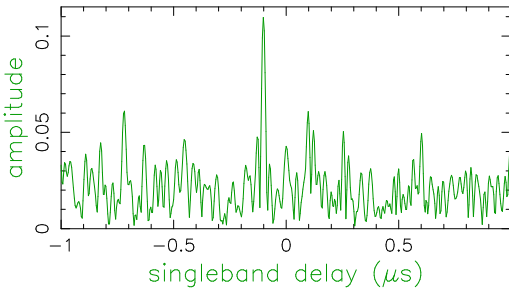
EFLSBERG - VLBA\_LA, fgroup W, pol LR

multiband delay ( $\mu$ s)

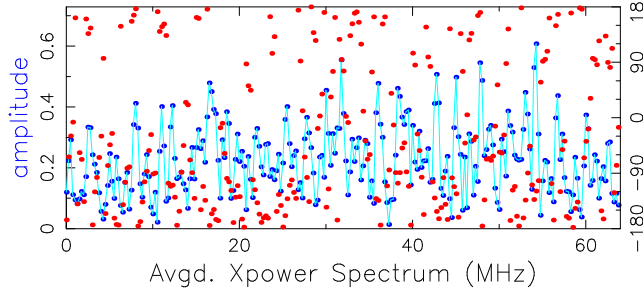


Fringe quality 0

SNR 6.1  
 Int time 417.821  
 Amp 0.115  
 Phase 127.4  
 PFD 2.1e-01  
 Delays (us)  
 SBD -0.101176  
 MBD 0.000231  
 Fringe rate (Hz)  
 0.333246  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

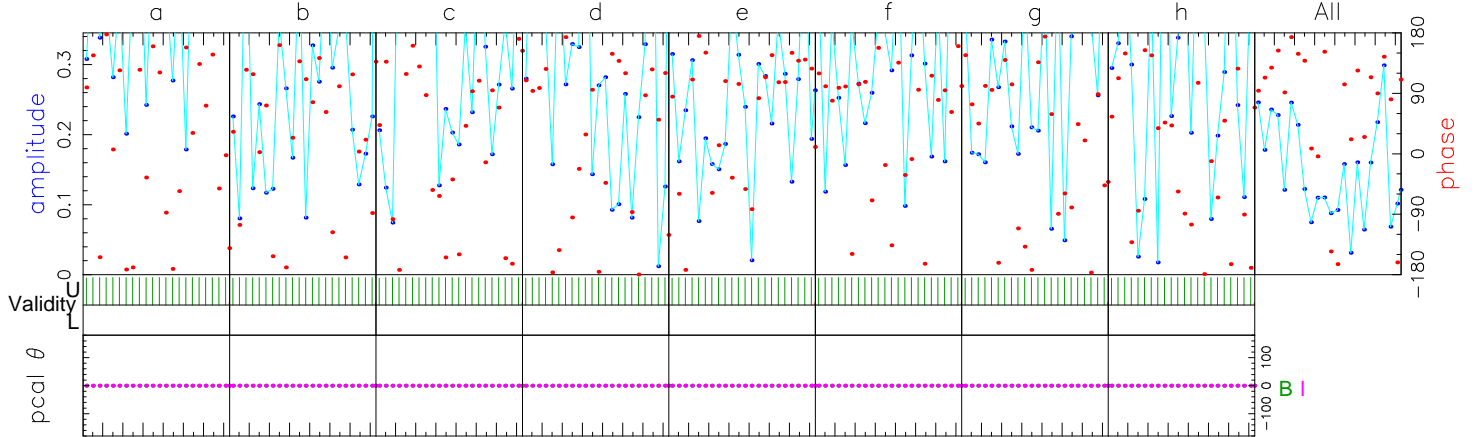


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121317  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	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:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	8.73170150001E+03	Apriori delay (usec)	8.73179501903E+03	Resid mbdelay (usec)	2.30985E-04	+/-	1.8E-04
Sband delay (usec)	8.73169384353E+03	Apriori clock (usec)	-1.9438889E+01	Resid sbdelay (usec)	-1.01176E-01	+/-	1.4E-03
Phase delay (usec)	8.73179502314E+03	Apriori clockrate (us/s)	2.8600001E-07	Resid phdelay (usec)	4.10701E-06	+/-	6.0E-07
Delay rate (us/s)	-1.33570991681E+00	Apriori rate (us/s)	-1.33571378546E+00	Resid rate (us/s)	3.86865E-06	+/-	2.5E-09
Total phase (deg)	105.4	Apriori accel (us/s/s)	-3.25092797238E-05	Resid phase (deg)	127.4	+/-	18.7

ph/seg (deg)	60.9	RMS	75.0	Theor.	44.8	Amplitude	0.115 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	75.0	Search (2048X32)	0.102	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	18.4	Inc. seg. avg.	0.121	Inc. frq. avg.	0.107	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	30.1	Inc. frq. avg.	0.107	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite

B: az 260.7 el 66.0 pa 56.7 I: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 10161.093 -1137.674 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/BI..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/BI.W.51.1X0HBB



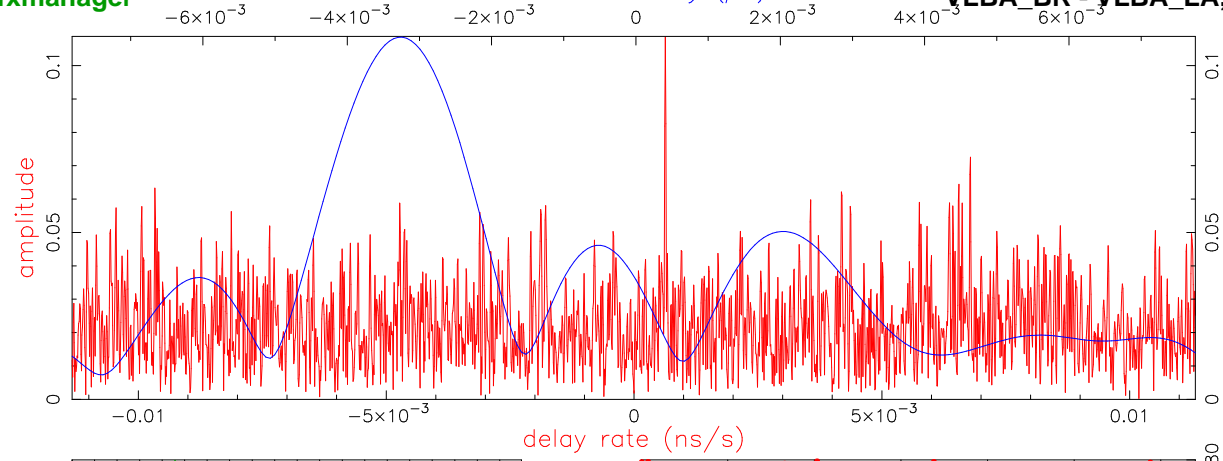
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

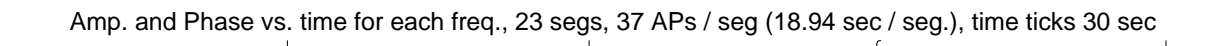
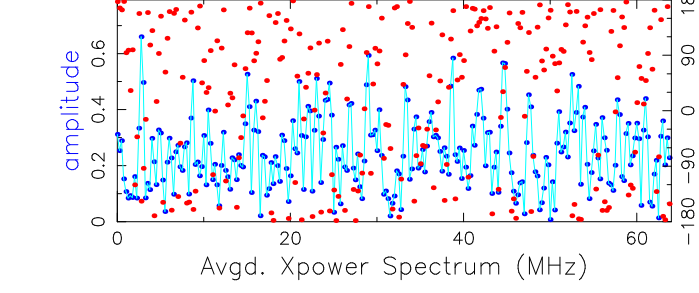
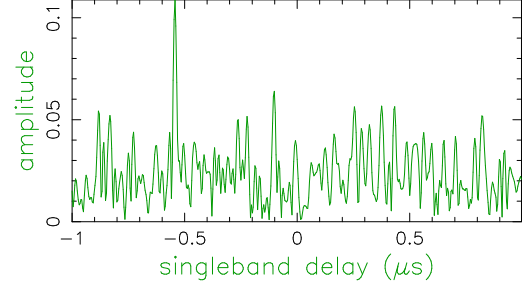
3C84.1X0HBB, No0080, bl

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

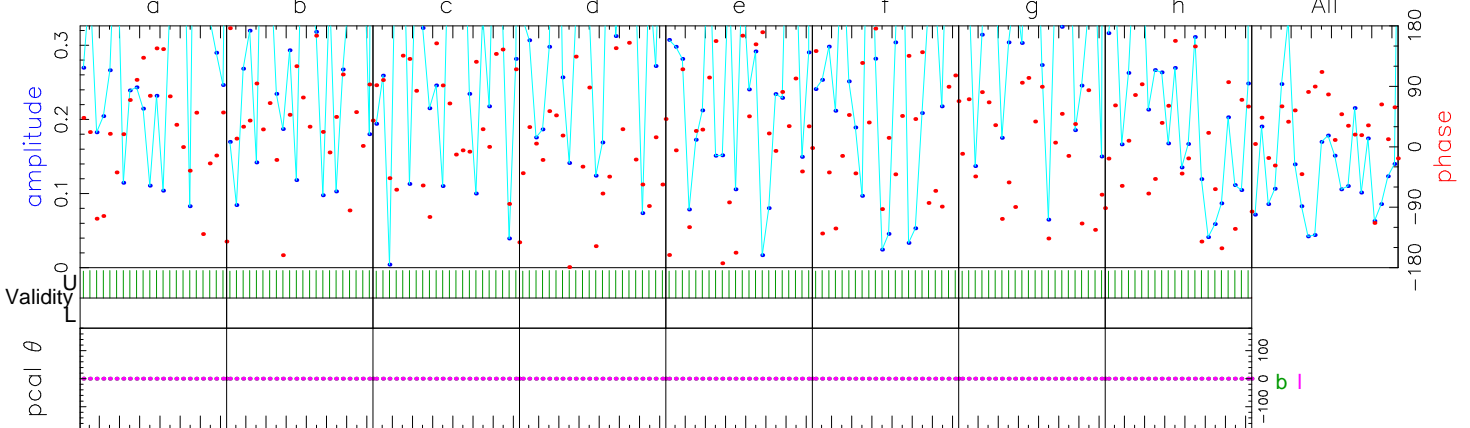
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 6.1  
 Int time 416.830  
 Amp 0.109  
 Phase 37.8  
 PFD 2.9e-01  
 Delays (us)  
 SBD -0.543307  
 MBD -0.003269  
 Fringe rate (Hz)  
 0.054514  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144502.56  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121320  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	815/0	815/0	815/0	815/0	815/0	815/0	815/0	815/0		
b	0	0	0	0	0	0	0	0		
l	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: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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-6.45905711656E+02	Apriori delay (usec)	-6.45355567901E+02	Resid mbdelay (usec)	-3.26875E-03	+/-	1.8E-04
Sband delay (usec)	-6.45898874401E+02	Apriori clock (usec)	-3.5989952E-01	Resid sbdelay (usec)	-5.43307E-01	+/-	1.4E-03
Phase delay (usec)	-6.45355566681E+02	Apriori clockrate (us/s)	1.8600001E-07	Resid phdelay (usec)	1.21995E-06	+/-	6.1E-07
Delay rate (us/s)	-1.52431392577E-01	Apriori rate (us/s)	-1.52432025433E-01	Resid rate (us/s)	6.32855E-07	+/-	2.5E-09
Total phase (deg)	-185.0	Apriori accel (us/s/s)	1.54110542657E-05	Resid phase (deg)	37.8	+/-	18.9

ph/seg (deg)	49.3	RMS	45.3	Theor.	49.3	Amplitude	0.109 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	69.0	Search (2048X32)	0.106	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	26.1	Inc. seg. avg.	0.103	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
amp/frq (%)	37.2	Inc. frq. avg.	0.105										

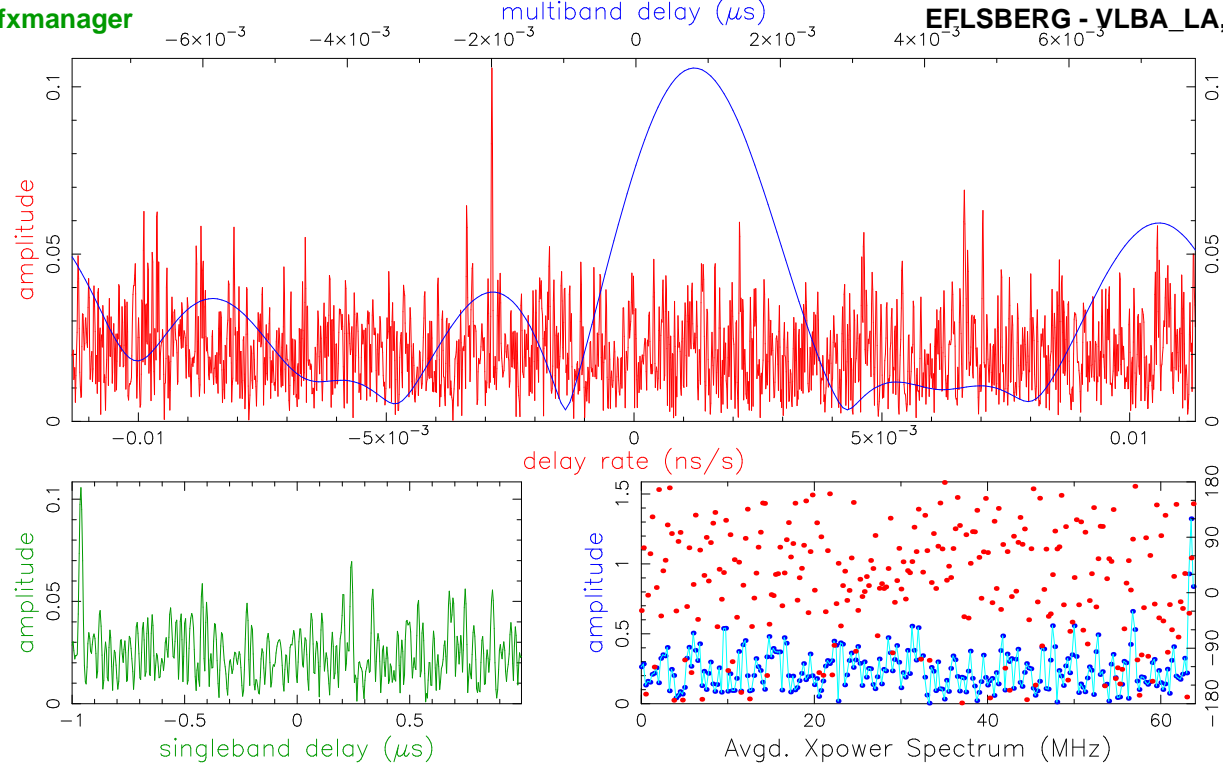
b: az 57.1 el 27.3 pa -48.5 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 1194.493 2121.441 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/bl.1X0HBB Output file: /Exps/c211c/v1/1234/No0080/bl.W.64.1X0HBB

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

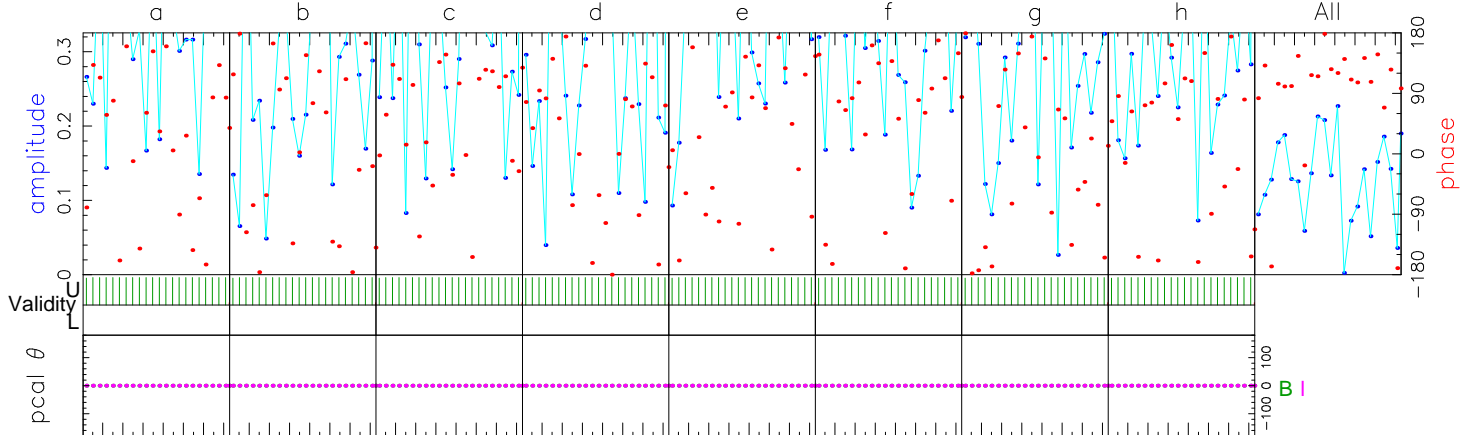
3C84.1X0HBB, No0080, BI

EFLSBERG - VLBA\_LA, fgroup W, pol RL



Fringe quality 0  
 SNR 5.9  
 Int time 417.821  
 Amp 0.109  
 Phase 122.4  
 PFD 5.9e-01  
 Delays (us)  
 SBD -0.961211  
 MBD 0.000820  
 Fringe rate (Hz)  
 -0.247186  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121321  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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

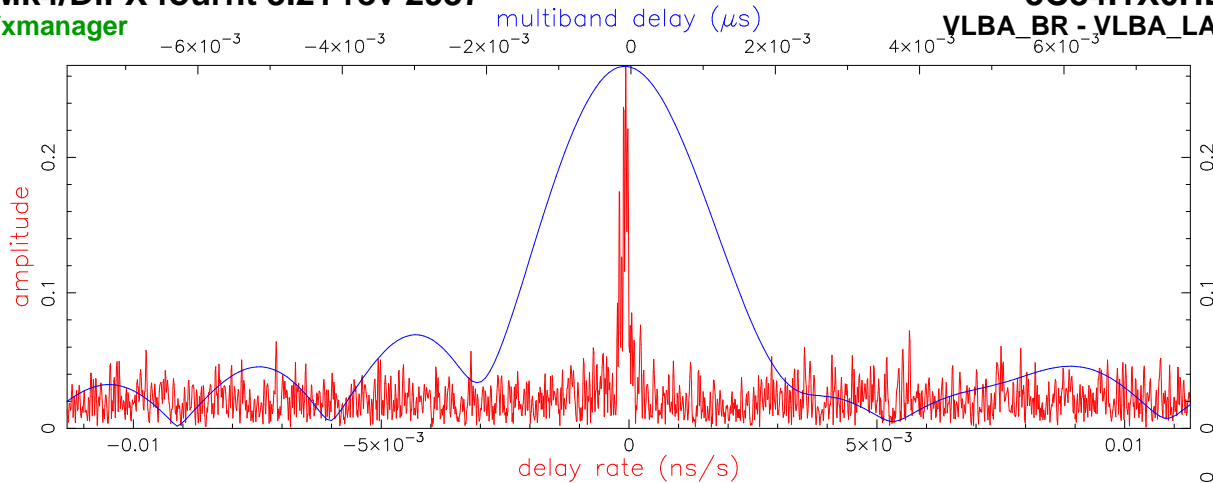


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	129.0	143.3	92.9	125.8	134.4	121.1	-178.3	104.1	Phase	122.4
B	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
I	435.6	61.2	128.6	448.8	477.8	10.7	86.6	255.2	Sbd box	10.9
B	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

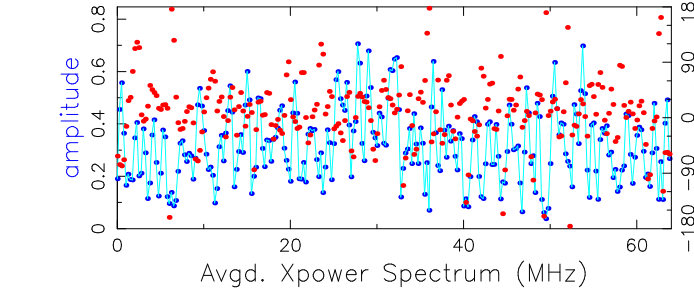
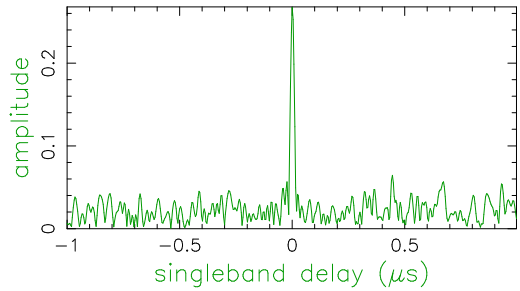
Group delay (usec)(sbd)	8.73082708932E+03	Apriori delay (usec)	8.73179501903E+03	Resid mbdelay (usec)	8.20288E-04	+/-	1.8E-04
Sband delay (usec)	8.73083380778E+03	Apriori clock (usec)	-1.9438889E+01	Resid sbdelay (usec)	-9.61211E-01	+/-	1.5E-03
Phase delay (usec)	8.73179502297E+03	Apriori clockrate (us/s)	2.8600001E-07	Resid phdelay (usec)	3.94644E-06	+/-	6.3E-07
Delay rate (us/s)	-1.33571665504E+00	Apriori rate (us/s)	-1.33571378546E+00	Resid rate (us/s)	-2.86958E-06	+/-	2.6E-09
Total phase (deg)	100.5	Apriori accel (us/s/s)	-3.25092797238E-05	Resid phase (deg)	122.4	+/-	19.4

ph/seg (deg)	42.9	RMS	46.5	Theor.	46.5	Amplitude	0.109 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	59.1	42.9	46.5	Search (2048X32)	0.103	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
ph/frq (deg)	29.9	59.1	81.2	Inc. seg. avg.	0.098	Inc. frq. avg.	0.105	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
amp/frq (%)	41.8	29.9	27.4	Inc. frq. avg.	0.105	Sample rate(MISamp/s): 128		Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	dr window (ns/s) -0.011 0.011
										ion window (TEC) 0.00 0.00	

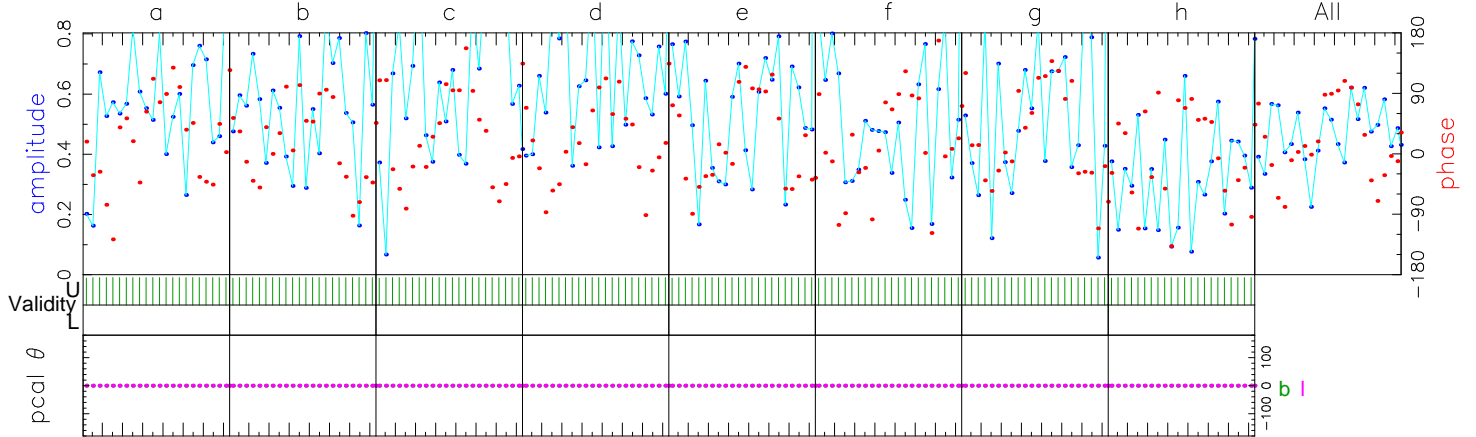
B: az 260.7 el 66.0 pa 56.7 I: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 10161.093 -1137.674 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/BI..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/BI.W.70.1X0HBB



Fringe quality 9  
SNR 15.0  
Int time 416.830  
Amp 0.268  
Phase 16.4  
PFD 8.7e-42  
Delays (us)  
SBD 0.000682  
MBD -0.000070  
Fringe rate (Hz)  
-0.005898  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 144502.56  
Stop 145159.84  
FRT 144830.00  
Corr/FF/build  
2021:303:063723  
2021:303:121309  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"



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



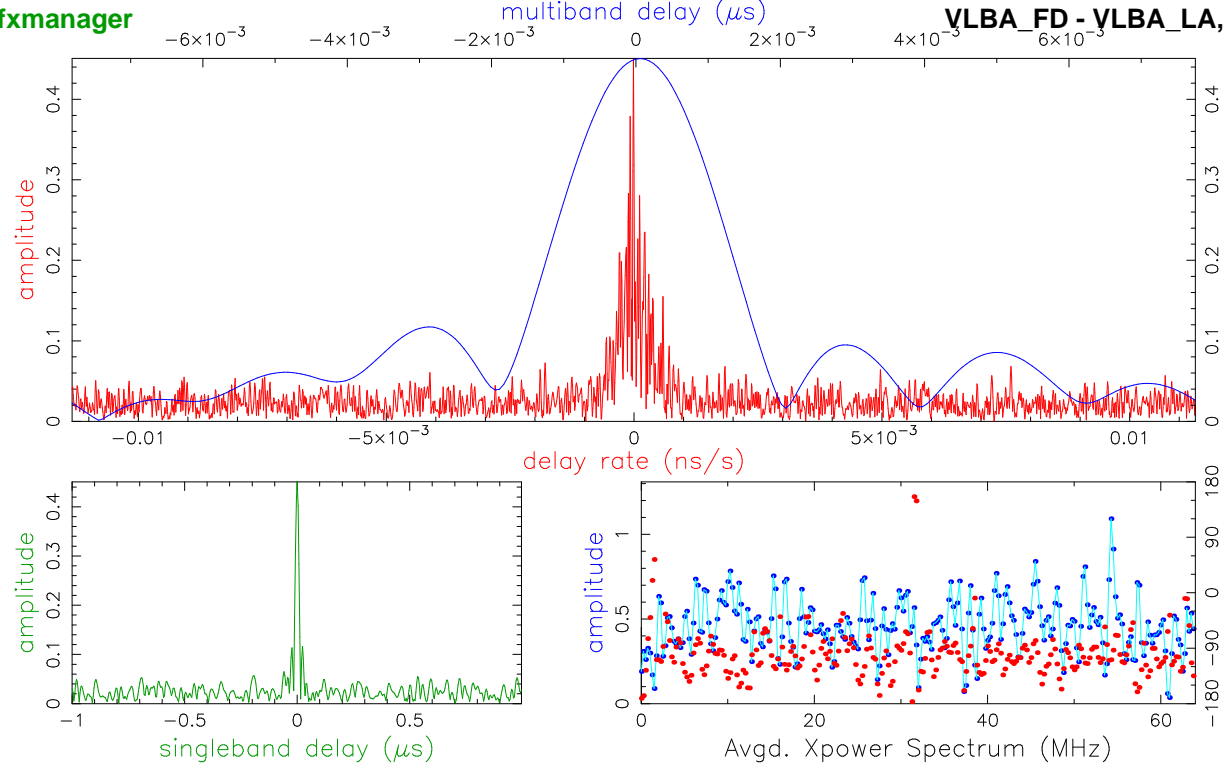
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	815/0	815/0	815/0	815/0	815/0	815/0	815/0	815/0		
b	0	0	0	0	0	0	0	0		
l	0	0	0	0	0	0	0	0		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-6.45355638289E+02	Apriori delay (usec)	-6.4535567901E+02	Resid mbdelay (usec)	-7.03877E-05	+/-	7.3E-05
Sband delay (usec)	-6.45354885901E+02	Apriori clock (usec)	-3.5989952E-01	Resid sbdelay (usec)	6.82000E-04	+/-	5.8E-04
Phase delay (usec)	-6.4535567372E+02	Apriori clockrate (us/s)	1.8600001E-07	Resid phdelay (usec)	5.29593E-07	+/-	2.5E-07
Delay rate (us/s)	-1.52432093903E-01	Apriori rate (us/s)	-1.52432025433E-01	Resid rate (us/s)	-6.84701E-08	+/-	1.0E-09
Total phase (deg)	-206.4	Apriori accel (us/s/s)	1.54110542657E-05	Resid phase (deg)	16.4	+/-	7.7

ph/seg (deg)	56.7	RMS	18.4	Theor.	18.4	Amplitude	0.268 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	84.0	Search (2048X32)	0.264	Search	0.264	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	15.3	Inc. seg. avg.	0.448	Inc. seg. avg.	0.448	Inc. frq. avg.	0.268	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	25.1	Inc. frq. avg.	0.268	Inc. frq. avg.	0.268	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011
												ion window (TEC)	0.00 0.00

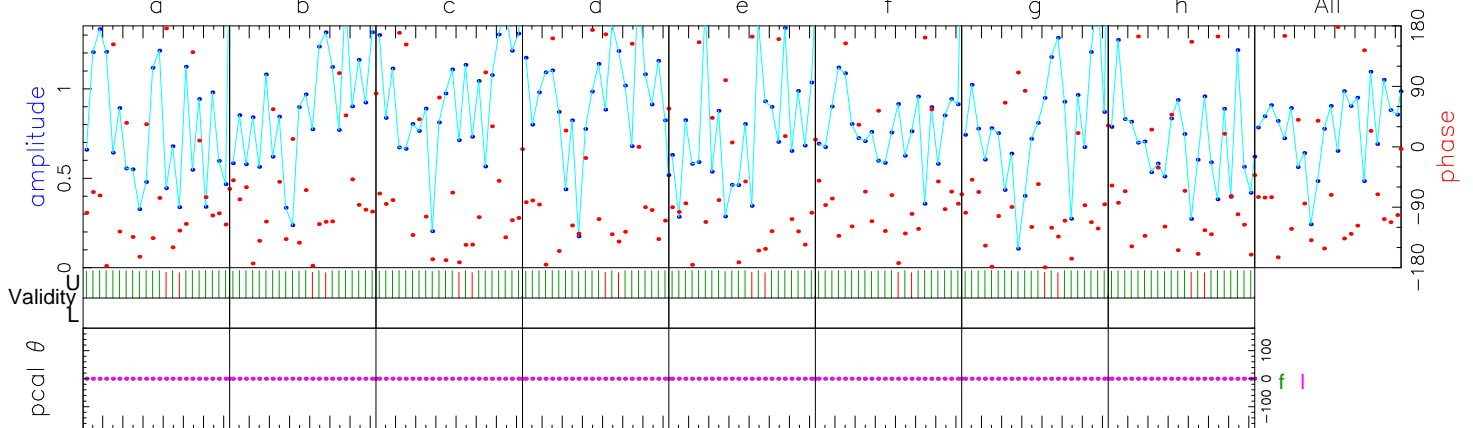
b: az 57.1 el 27.3 pa -48.5 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 1194.493 2121.441 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/bl.1X0HBB Output file: /Exps/c211c/v1/1234/No0080/bl.W.8.1X0HBB





Fringe quality 7  
SNR 25.1  
Int time 414.126  
Amp 0.451  
Phase -109.0  
PFD 0.0e+00  
Delays (us)  
SBD -0.000335  
MBD 0.000050  
Fringe rate (Hz)  
-0.000551  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 144501.54  
Stop 145159.84  
FRT 144830.00  
Corr/FF/build  
2021:303:063723  
2021:303:121330  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-110.7	-96.0	-110.6	-122.0	-118.7	-98.7	-107.2	-105.3	Phase	-109.0
	0.4	0.5	0.5	0.6	0.4	0.4	0.5	0.4	Ampl.	0.5
	257.0	257.1	256.7	256.9	257.2	257.0	257.0	256.2	Sbd box	256.9
U/L	813/0	813/0	814/0	814/0	814/0	814/0	814/0	814/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
l	0	0	0	0	0	0	0	0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-3.63744634548E+02		Apriori delay (usec)		-3.63744684837E+02		Resid mbdelay (usec)		5.02886E-05	+/- 4.3E-05
Sband delay (usec)	-3.63745020337E+02		Apriori clock (usec)		1.2884918E+01		Resid sbdelay (usec)		-3.35500E-04	+/- 3.4E-04
Phase delay (usec)	-3.63744688350E+02		Apriori clockrate (us/s)		3.4600000E-07		Resid phdelay (usec)		-3.51344E-06	+/- 1.5E-07
Delay rate (us/s)	4.77658592002E-02		Apriori rate (us/s)		4.77658655998E-02		Resid rate (us/s)		-6.39969E-09	+/- 6.1E-10
Total phase (deg)			Apriori accel (us/s/s)		-3.61499499561E-06		Resid phase (deg)		-109.0	+/- 4.6

ph/seg (deg) 67.8 10.9 Search (2048X32) 0.423 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 85.6 19.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 9.7 6.5 Inc. seg. avg. 0.767 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 13.7 11.3 Inc. frq. avg. 0.453 Sample rate(MISamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
f: az 56.0 el 27.9 pa -72.3 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) -371.637 -745.040 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/fl..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/fl.W.108.1X0HBB

Mk4/DiFX fourfit 3.21 rev 2937

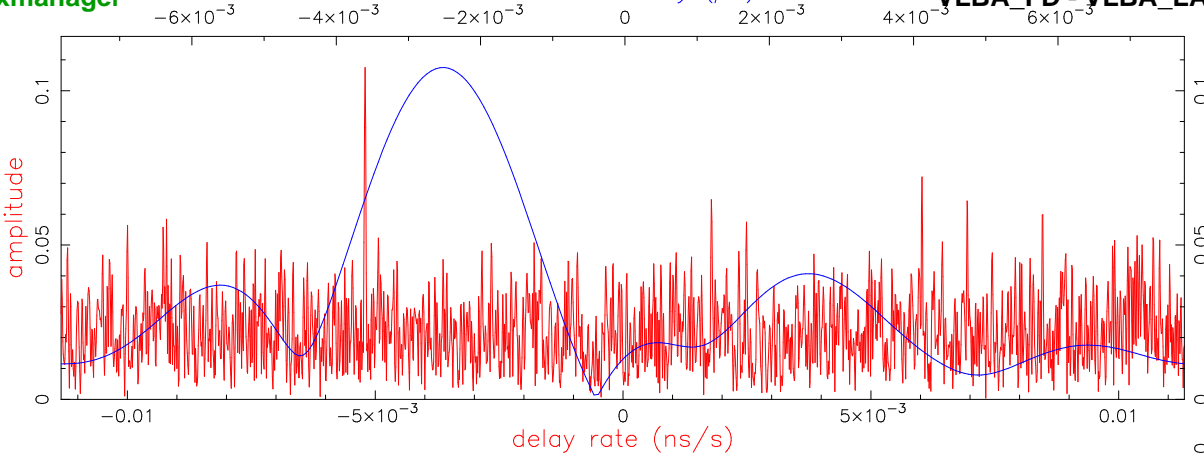
fxmanager

3C84.1X0HBB, No0080, fl

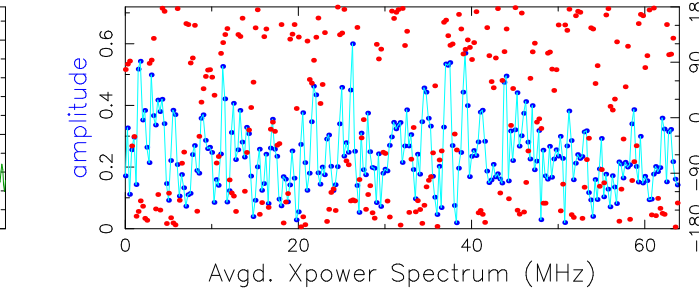
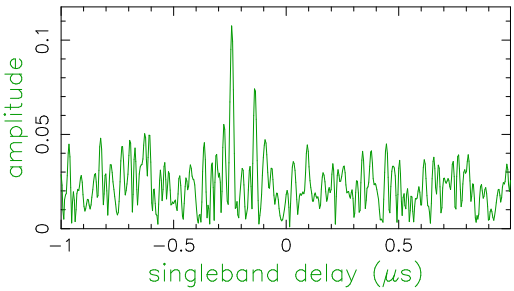
VLBA\_FD - VLBA\_LA, fgroup W, pol LR

multiband delay ( $\mu$ s)

Fringe quality 0

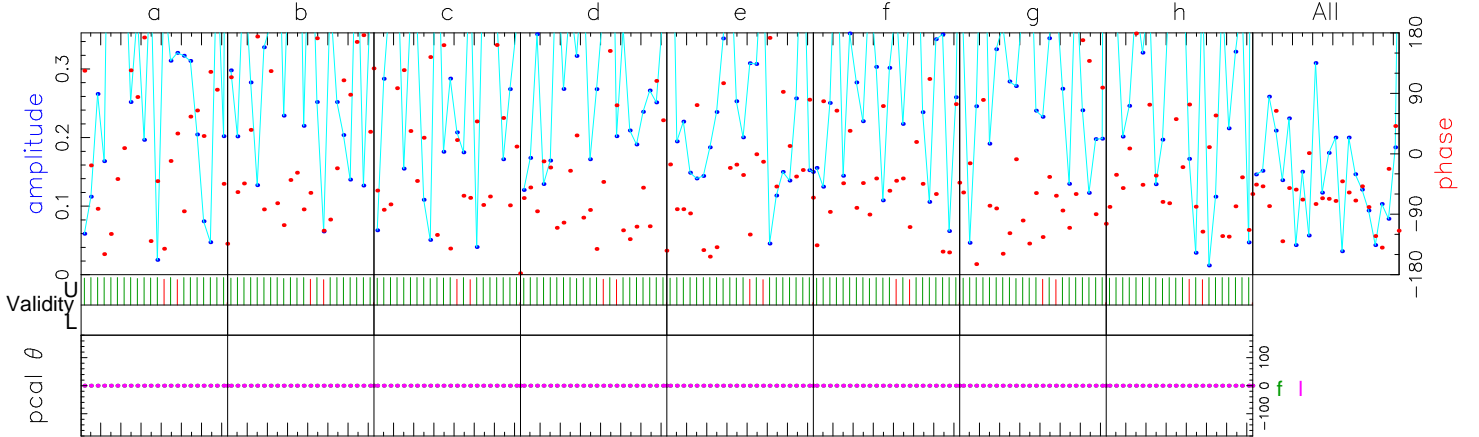


SNR 6.0  
 Int time 414.126  
 Amp 0.118  
 Phase -60.1  
 PFD 4.2e-01  
 Delays (us)  
 SBD -0.241767  
 MBD -0.002512  
 Fringe rate (Hz)  
 -0.448585  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121334  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0		
f	0	0	0	0	0	0	0	0		
l	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: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)	-3.63981571772E+02	Apriori delay (usec)	-3.63744684837E+02	Resid mbdelay (usec)	-2.51194E-03	+/-	1.8E-04
Sband delay (usec)	-3.63986452087E+02	Apriori clock (usec)	1.2884918E+01	Resid sbdelay (usec)	-2.41767E-01	+/-	1.4E-03
Phase delay (usec)	-3.63744686775E+02	Apriori clockrate (us/s)	3.4600000E-07	Resid phdelay (usec)	-1.93843E-06	+/-	6.2E-07
Delay rate (us/s)	4.77606579748E-02	Apriori rate (us/s)	4.77658655998E-02	Resid rate (us/s)	-5.20762E-06	+/-	2.6E-09
Total phase (deg)	-114.8	Apriori accel (us/s/s)	-3.61499499561E-06	Resid phase (deg)	-60.1	+/-	19.1

ph/seg (deg)	46.9	Theor.	45.8	Amplitude	0.118 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	79.1		79.9	Search (2048X32)	0.104	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	23.6		27.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	28.4		47.2	Inc. seg. avg.	0.122	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.114	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 56.0 el 27.9 pa -72.3 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) -371.637 -745.040 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/fl..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/fl.W.127.1X0HBB

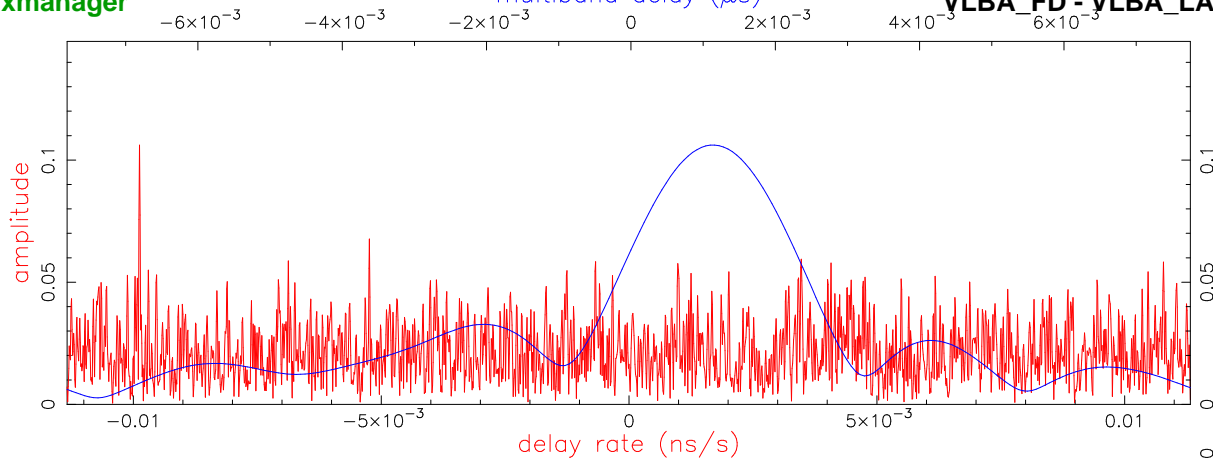
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, fl

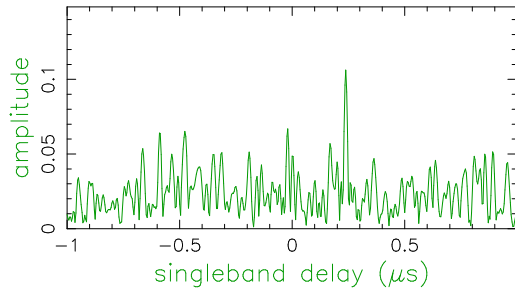
VLBA\_FD - VLBA\_LA, fgroup W, pol RL

multiband delay ( $\mu$ s)

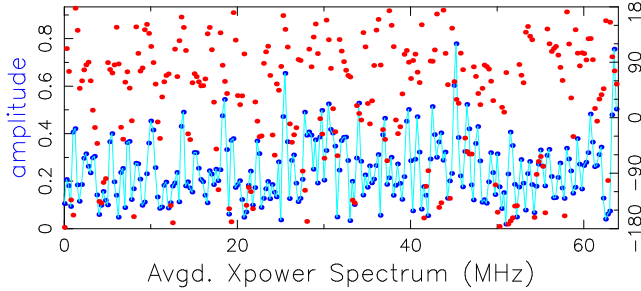


Fringe quality 0

SNR 5.9  
 Int time 414.126  
 Amp 0.149  
 Phase -66.9  
 PFD 5.7e-01  
 Delays (us)  
 SBD 0.237892  
 MBD 0.001130  
 Fringe rate (Hz)  
 -0.851630  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

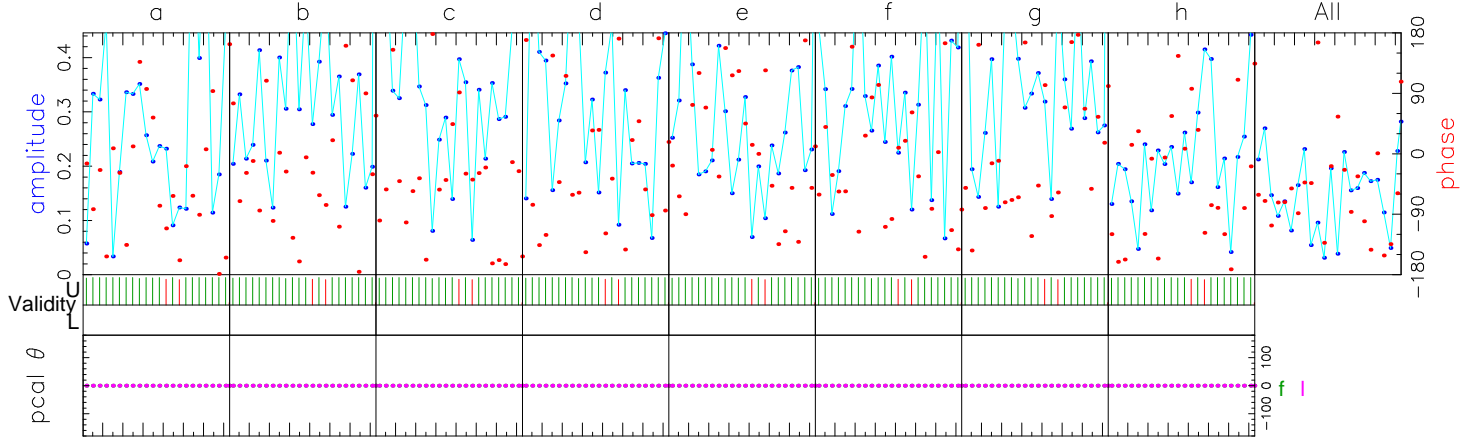


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121337  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-75.3	-57.0	-62.9	-84.8	-47.8	-70.7	-61.0	-72.3	Phase	-66.9
	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	Ampl.	0.1
	178.3	360.8	324.4	57.2	148.7	258.9	32.3	276.4	Sbd box	317.9
U/L	813/0	813/0	814/0	814/0	814/0	814/0	814/0	814/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
l	0	0	0	0	0	0	0	0	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	Mani 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	

Group delay (usec)(sbd)	-3.63509180148E+02	Apriori delay (usec)	-3.63744684837E+02	Resid mbdelay (usec)	1.12969E-03	+/-	1.8E-04
Sband delay (usec)	-3.63506793087E+02	Apriori clock (usec)	1.2884918E+01	Resid sbdelay (usec)	2.37892E-01	+/-	1.5E-03
Phase delay (usec)	-3.63744686994E+02	Apriori clockrate (us/s)	3.4600000E-07	Resid phdelay (usec)	-2.15738E-06	+/-	6.2E-07
Delay rate (us/s)	4.77559790167E-02	Apriori rate (us/s)	4.77658655998E-02	Resid rate (us/s)	-9.88658E-06	+/-	2.6E-09
Total phase (deg)	-121.6	Apriori accel (us/s/s)	-3.61499499561E-06	Resid phase (deg)	-66.9	+/-	19.4

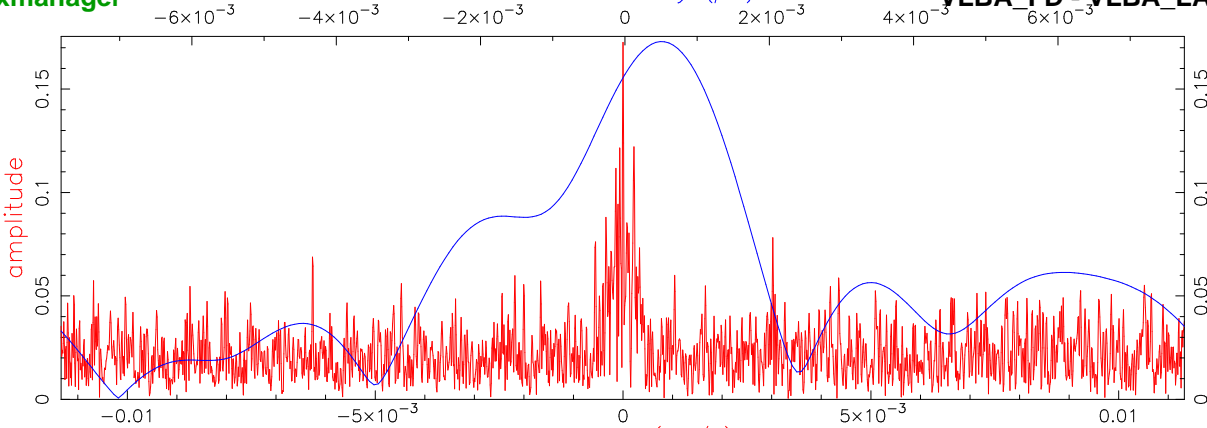
ph/seg (deg)	RMS 56.3	Theor. 46.4	Amplitude Search (2048X32)	0.149 +/- 0.025	0.103	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	74.3	80.9	Interp.	0.000	0.103	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
ph/frq (deg)	12.6	27.4	Inc. seg. avg.	0.156	0.135	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
amp/frq (%)	35.7	47.8	Inc. frq. avg.	0.135	0.135	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

f: az 56.0 el 27.9 pa -72.3 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) -371.637 -745.040 simultaneous interpolator

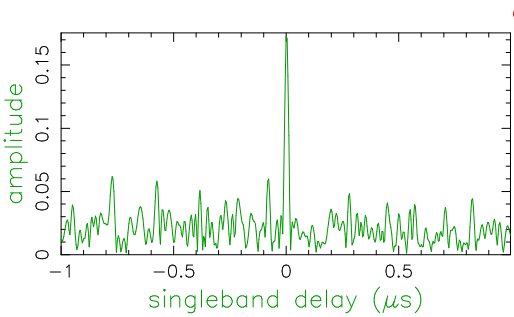
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/fl..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/fl.W.145.1X0HBB

multiband delay ( $\mu$ s)

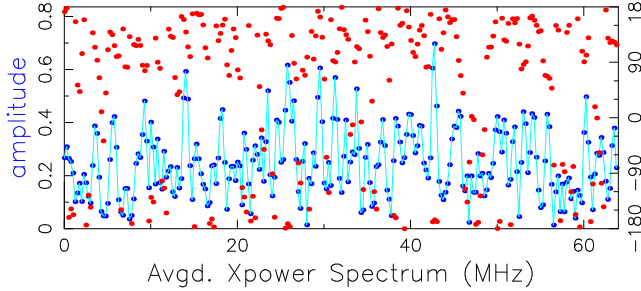
Fringe quality 9



SNR 9.8  
Int time 414.126  
Amp 0.175  
Phase 154.1  
PFD 6.5e-14  
Delays (us)  
SBD 0.001707  
MBD 0.000587  
Fringe rate (Hz)  
-0.000457  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

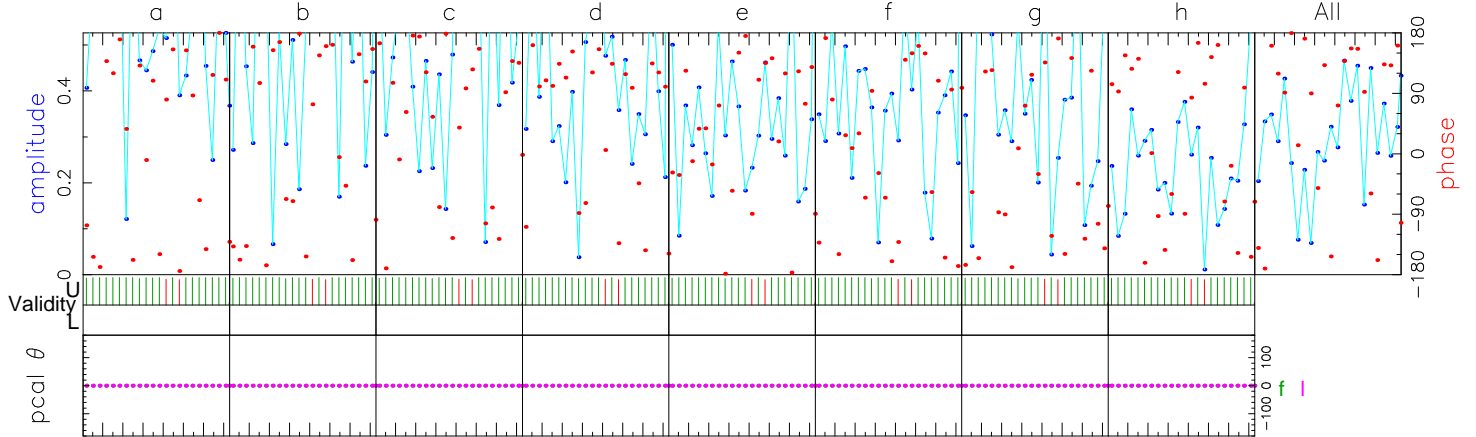


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 144501.54  
Stop 145159.84  
FRT 144830.00  
Corr/FF/build  
2021:303:063723  
2021:303:121325  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	167.1	176.0	125.3	137.2	102.8	145.5	-178.7	165.7	Phase	154.1
	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	Ampl.	0.2
	257.3	256.7	258.2	256.9	208.0	349.0	415.1	1.7	Sbd box	257.4
U/L	814/0	814/0	813/0	813/0	813/0	813/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
l	0	0	0	0	0	0	0	0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

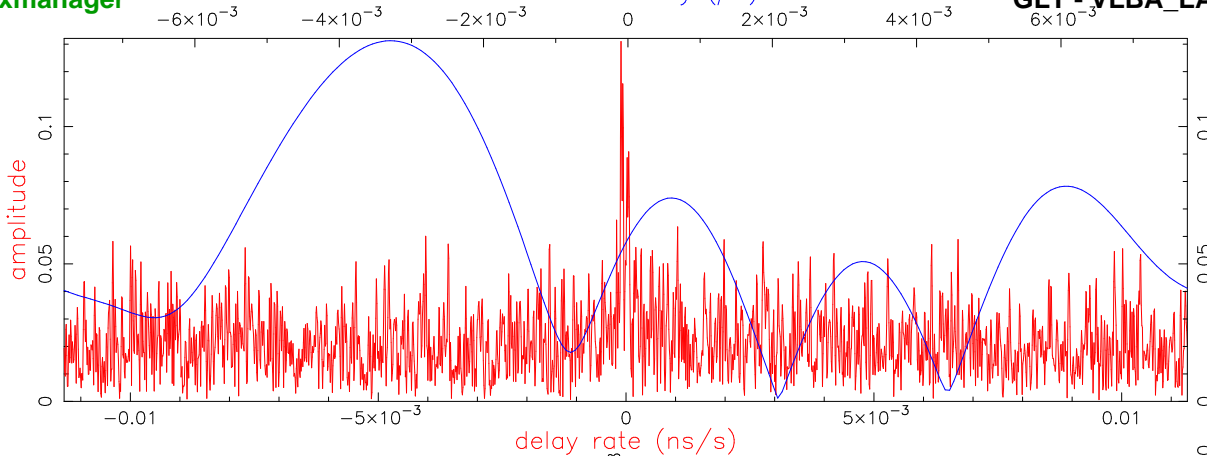
Group delay (usec)(sbd)	-3.63744098118E+02	Apriori delay (usec)	-3.63744684837E+02	Resid mbdelay (usec)	5.86719E-04	+/-	1.1E-04
Sband delay (usec)	-3.63742977337E+02	Apriori clock (usec)	1.2884918E+01	Resid sbdelay (usec)	1.70750E-03	+/-	8.8E-04
Phase delay (usec)	-3.63744679866E+02	Apriori clockrate (us/s)	3.4600000E-07	Resid phdelay (usec)	4.97043E-06	+/-	3.8E-07
Delay rate (us/s)	4.77658602906E-02	Apriori rate (us/s)	4.77658655998E-02	Resid rate (us/s)	-5.30922E-09	+/-	1.6E-09
Total phase (deg)		Apriori accel (us/s/s)	-3.61499499561E-06	Resid phase (deg)	154.1	+/-	11.7

ph/seg (deg)	RMS 67.3	Theor. 28.1	Amplitude Search (2048X32)	0.175 +/- 0.018	0.161	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	91.3	49.0	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	29.8	16.6	Inc. seg. avg.	0.262	0.262	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	52.1	29.0	Inc. frq. avg.	0.180	0.180	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

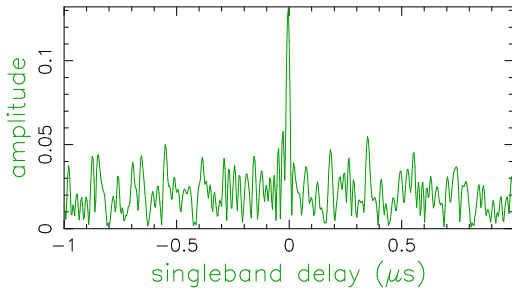
f: az 56.0 el 27.9 pa -72.3 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) -371.637 -745.040 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/fl..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/fl.W.86.1X0HBB

multiband delay ( $\mu$ s)

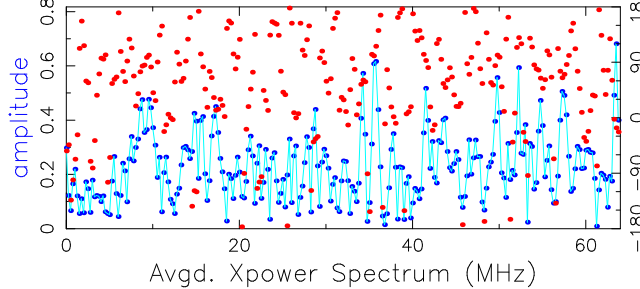
Fringe quality 9



SNR 7.4  
Int time 417.829  
Amp 0.132  
Phase 51.5  
PFD 4.9e-05  
Delays (us)  
SBD -0.005059  
MBD -0.003405  
Fringe rate (Hz)  
-0.008603  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

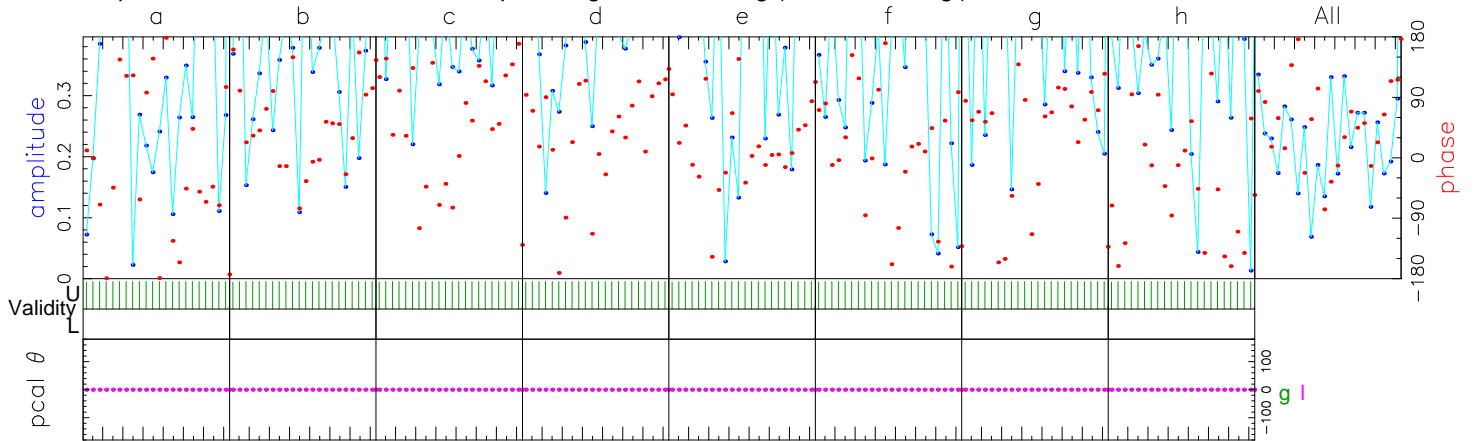


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 144501.54  
Stop 145159.84  
FRT 144830.00  
Corr/FF/build  
2021:303:063723  
2021:303:121330  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



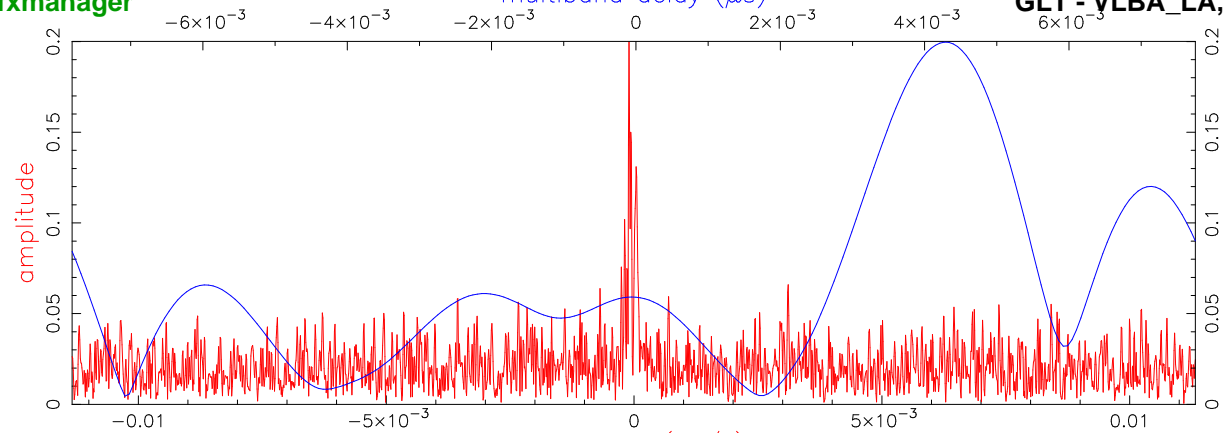
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
g	0	0	0	0	0	0	0	0		
l	0	0	0	0	0	0	0	0		
g:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	5.90081829450E+03		Apriori delay (usec)		5.90082169987E+03		Resid mbdelay (usec)		-3.40537E-03	+/- 1.5E-04
Sband delay (usec)	5.90081664112E+03		Apriori clock (usec)		3.0622787E+00		Resid sbdelay (usec)		-5.05875E-03	+/- 1.2E-03
Phase delay (usec)	5.90082170153E+03		Apriori clockrate (us/s)		3.5800001E-07		Resid phdelay (usec)		1.66014E-06	+/- 5.0E-07
Delay rate (us/s)	-7.45810813450E-01		Apriori rate (us/s)		-7.45810713581E-01		Resid rate (us/s)		-9.98691E-08	+/- 2.1E-09
Total phase (deg)	133.0		Apriori accel (us/s/s)		-2.25976765797E-06		Resid phase (deg)		51.5	+/- 15.5

	RMS	Theor.	Amplitude	0.132 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	60.3	37.2	Search (2048X32)	0.130	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	92.5	65.0	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	84.5	21.9	Inc. seg. avg.	0.186	Sample rate(MSamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	69.7	38.3	Inc. frq. avg.	0.167	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

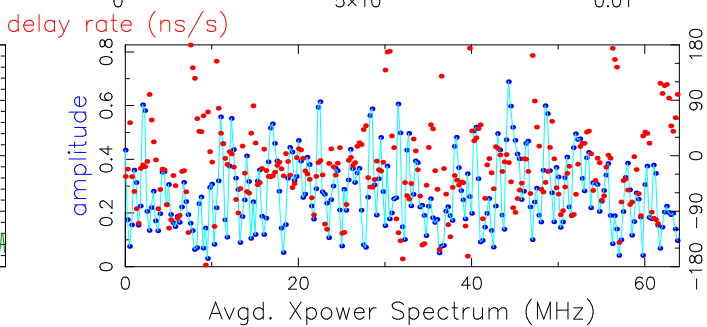
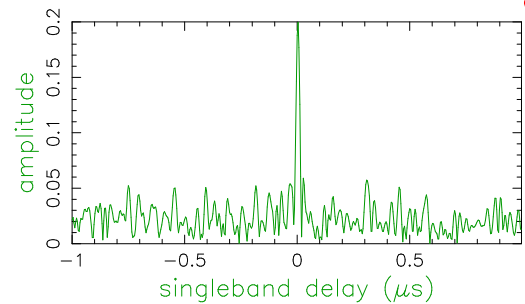
g: az 126.3 el 50.6 pa -14.4 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 5700.335 2354.707 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/gl.1X0HBB Output file: /Exps/c211c/v1/1234/No0080/gl.W.106.1X0HBB



multiband delay ( $\mu$ s)

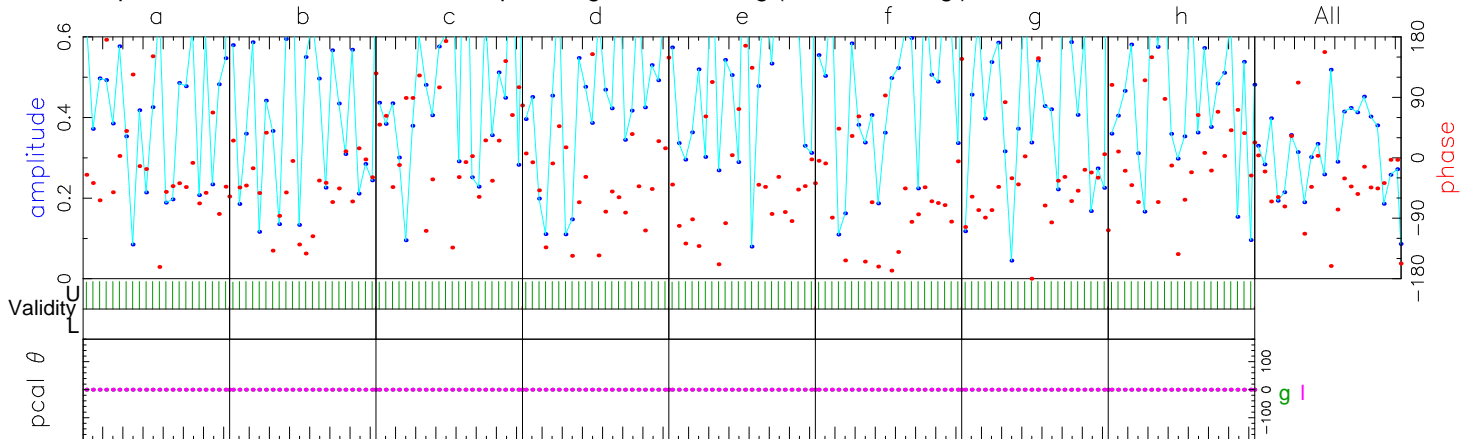


Fringe quality 9  
SNR 11.2  
Int time 417.829  
Amp 0.200  
Phase -37.4  
PFD 2.3e-20  
Delays (us)  
SBD 0.003294  
MBD 0.004267  
Fringe rate (Hz)  
-0.008685  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 144501.54  
Stop 145159.84  
FRT 144830.00  
Corr/FF/build  
2021:303:063723  
2021:303:121334  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

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



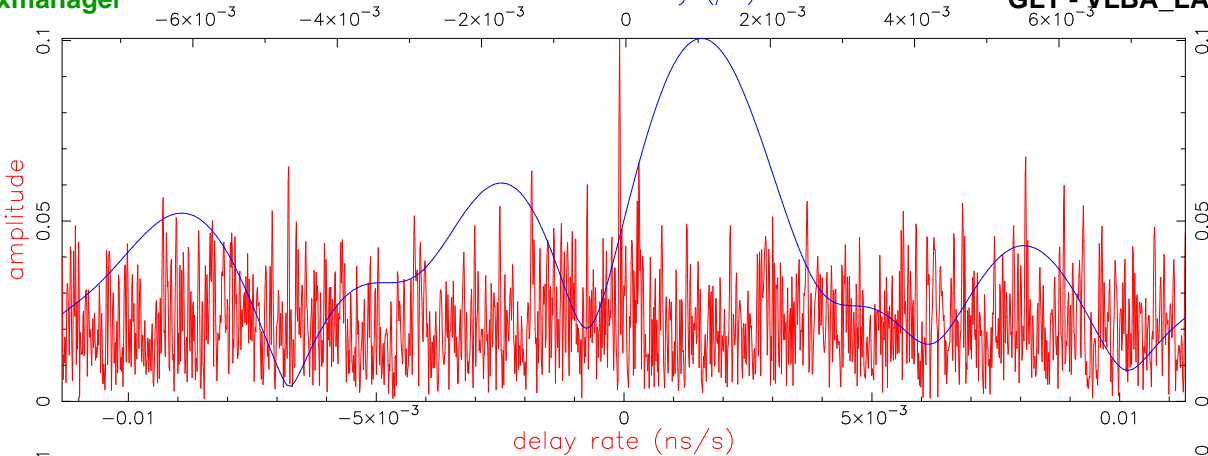
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
g	0	0	0	0	0	0	0	0		
l	0	0	0	0	0	0	0	0		
g:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	5.90082596656E+03	Apriori delay (usec)	5.90082169987E+03	Resid mbdelay (usec)	4.26669E-03	+/-	9.7E-05
Sband delay (usec)	5.90082499362E+03	Apriori clock (usec)	3.0622787E-07	Resid sbdelay (usec)	3.29375E-03	+/-	7.7E-04
Phase delay (usec)	5.90082169866E+03	Apriori clockrate (us/s)	3.5800001E-07	Resid phdelay (usec)	-1.20677E-06	+/-	3.3E-07
Delay rate (us/s)	-7.45810814402E-01	Apriori rate (us/s)	-7.45810713581E-01	Resid rate (us/s)	-1.00821E-07	+/-	1.4E-09
Total phase (deg)	44.1	Apriori accel (us/s/s)	-2.25976765797E-06	Resid phase (deg)	-37.4	+/-	10.2

ph/seg (deg)	63.0	Theor.	24.6	Amplitude	0.200 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	77.5	Search (2048X32)	0.197	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	40.8	Inc. seg. avg.	0.298	Inc. frq. avg.	0.225	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	23.8	Inc. frq. avg.	0.225			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	

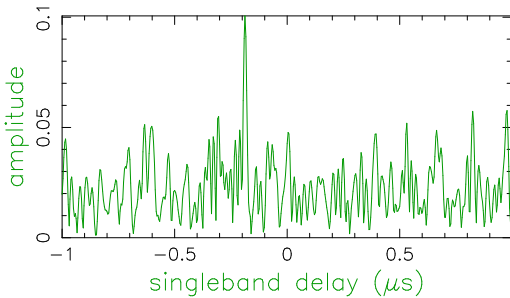
g: az 126.3 el 50.6 pa -14.4 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 5700.335 2354.707 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/gl..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/gl.W.126.1X0HBB

multiband delay ( $\mu$ s)

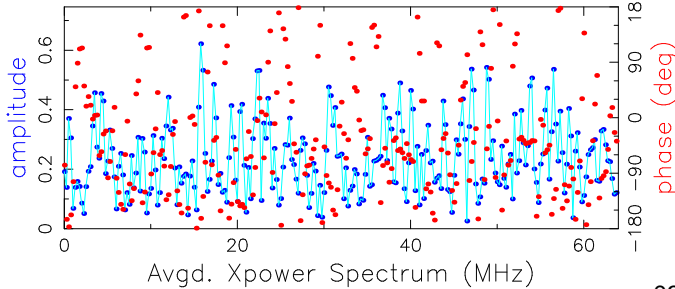


Fringe quality 0

SNR 5.6  
Int time 417.829  
Amp 0.101  
Phase -87.9  
PFD 9.9e-01  
Delays (us)  
SBD -0.187472  
MBD 0.001048  
Fringe rate (Hz)  
-0.007360  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

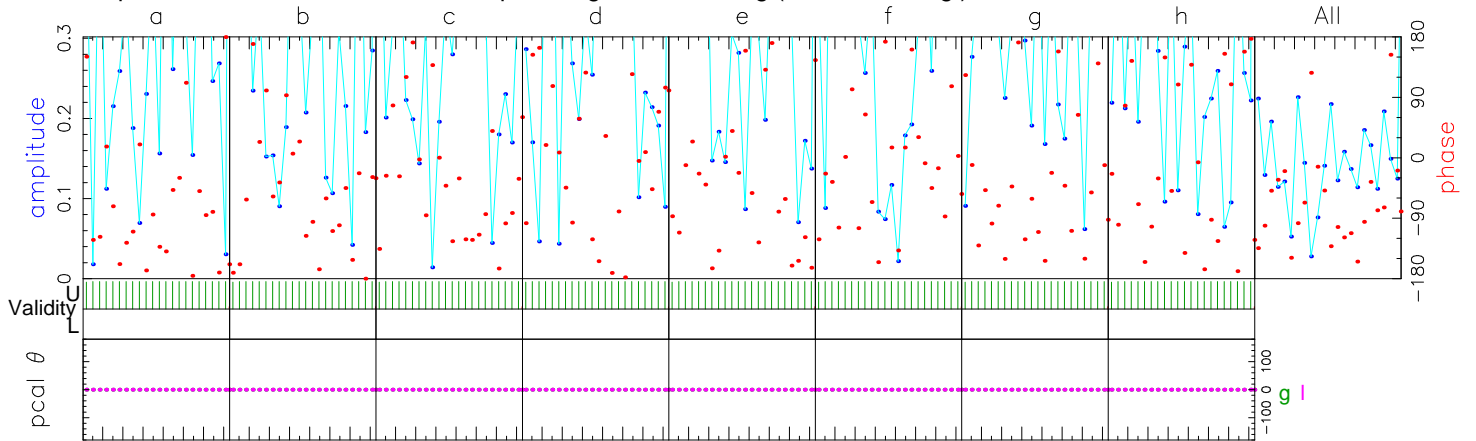


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 144501.54  
Stop 145159.84  
FRT 144830.00  
Corr/FF/build  
2021:303:063723  
2021:303:121337  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-111.7	-66.8	-85.5	169.0	-67.1	-29.0	-90.0	-139.1	Phase	-87.9
	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	Ampl.	0.1
	209.1	427.7	296.0	466.3	208.4	326.0	121.5	52.9	Sbd box	209.0
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
l	0	0	0	0	0	0	0	0	PC freqs	
g:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

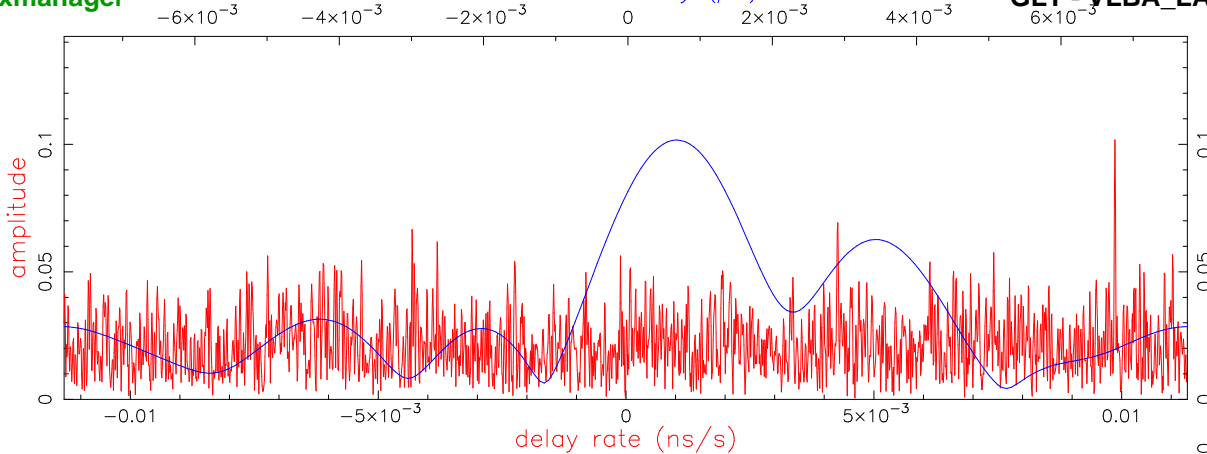
Group delay (usec)(sbd) 5.90063524793E+03 Apriori delay (usec) 5.90082169987E+03 Resid mbdelay (usec) 1.04806E-03 +/- 1.9E-04  
 Sband delay (usec) 5.90063422762E+03 Apriori clock (usec) 3.0622787E+00 Resid sbdelay (usec) -1.87472E-01 +/- 1.5E-03  
 Phase delay (usec) 5.90082169703E+03 Apriori clockrate (us/s) 3.5800001E-07 Resid phdelay (usec) -2.83446E-06 +/- 6.6E-07  
 Delay rate (us/s) -7.45810799022E-01 Apriori rate (us/s) -7.45810713581E-01 Resid rate (us/s) -8.54414E-08 +/- 2.7E-09  
 Total phase (deg) -6.4 Apriori accel (us/s/s) -2.25976765797E-06 Resid phase (deg) -87.9 +/- 20.4

RMS Theor. Amplitude 0.101 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 57.9 48.9 Search (2048X32) 0.099 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 69.0 85.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 55.0 28.8 Inc. seg. avg. 0.106 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 46.4 50.3 Inc. frq. avg. 0.108 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

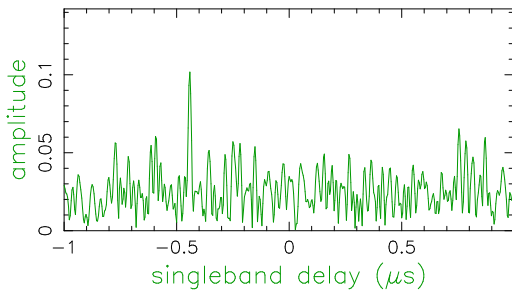
g: az 126.3 el 50.6 pa -14.4 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 5700.335 2354.707 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/gl.1X0HBB Output file: /Exps/c211c/v1/1234/No0080/gl.W.144.1X0HBB

multiband delay ( $\mu$ s)

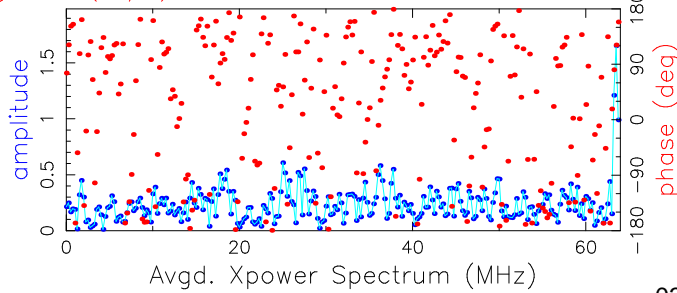
Fringe quality 0



SNR 5.7  
Int time 417.829  
Amp 0.142  
Phase 65.3  
PFD 9.5e-01  
Delays (us)  
SBD -0.441909  
MBD 0.000671  
Fringe rate (Hz)  
0.850679  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

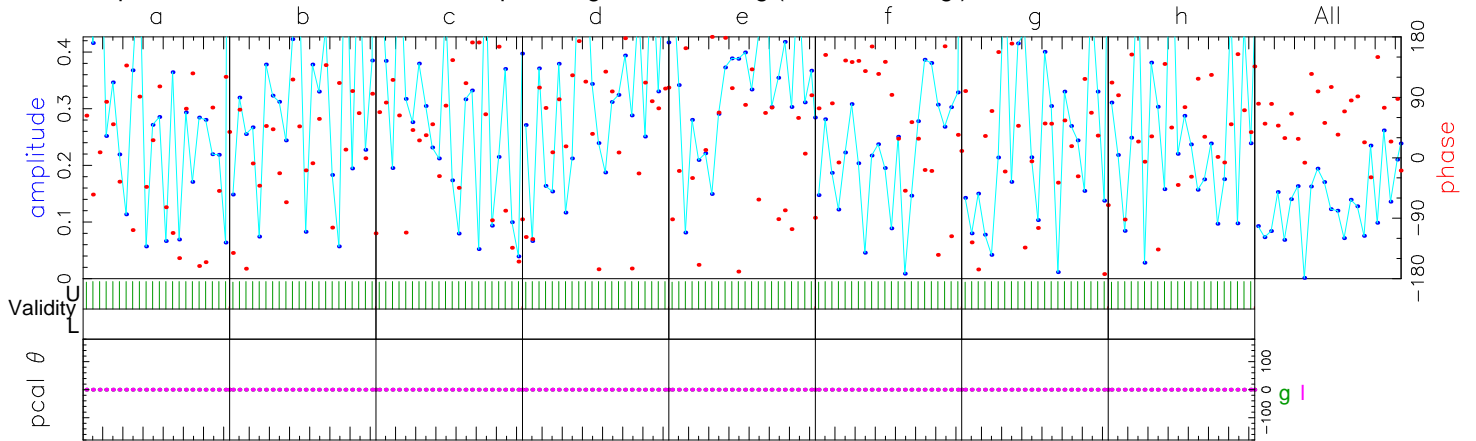


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 144501.54  
Stop 145159.84  
FRT 144830.00  
Corr/FF/build  
2021:303:063723  
2021:303:121341  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
g	0	0	0	0	0	0	0	0		
l	0	0	0	0	0	0	0	0		
g:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	5.90038487047E+03	Apriori delay (usec)		5.90082169987E+03	Resid mbdelay (usec)		6.70600E-04	+/-	1.9E-04	
Sband delay (usec)	5.90037979137E+03	Apriori clock (usec)		0.100	Resid sbdelay (usec)		-4.41909E-01	+/-	1.5E-03	
Phase delay (usec)	5.90082170197E+03	Apriori clockrate (us/s)		0.000	Resid phdelay (usec)		2.10653E-06	+/-	6.5E-07	
Delay rate (us/s)	-7.45800838039E-01	Apriori rate (us/s)		-7.45810713581E-01	Resid rate (us/s)		9.87554E-06	+/-	2.7E-09	
Total phase (deg)		146.9	Apriori accel (us/s/s)		-2.25976765797E-06	Resid phase (deg)		65.3	+/-	20.1

ph/seg (deg)	41.5	Theor. 48.3	Amplitude	0.142 +/- 0.025	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5	
amp/seg (%)	65.9	84.2	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	26.4	28.5	Interp.	0.000	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	45.3	49.7	Inc. seg. avg.	0.137	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
			Inc. frq. avg.	0.138	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

g: az 126.3 el 50.6 pa -14.4 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 5700.335 2354.707 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/gl..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/gl.W.156.1X0HBB

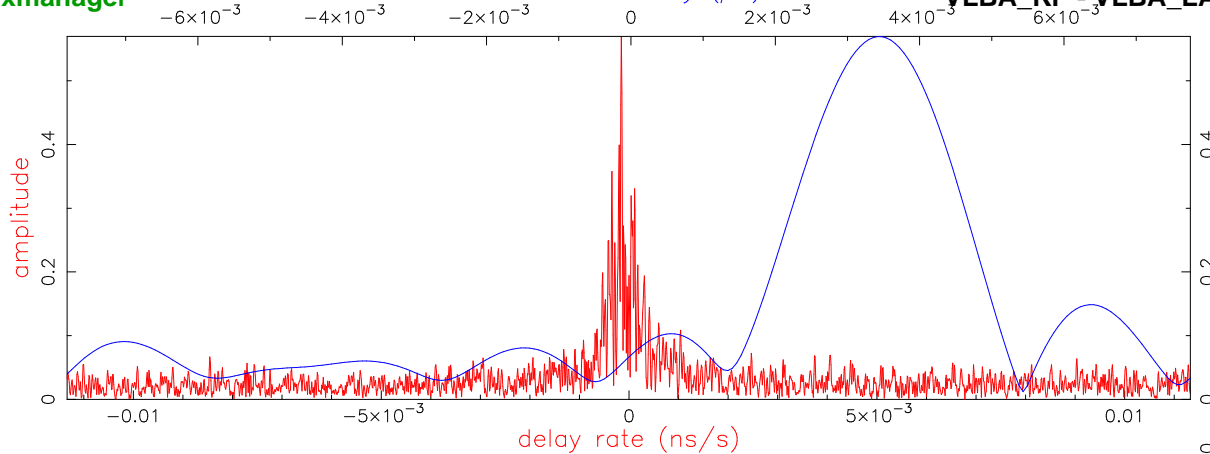
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, kl

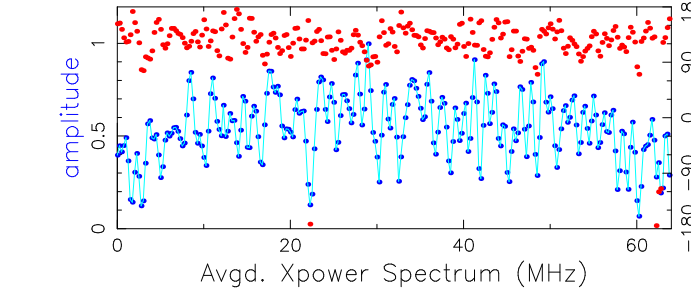
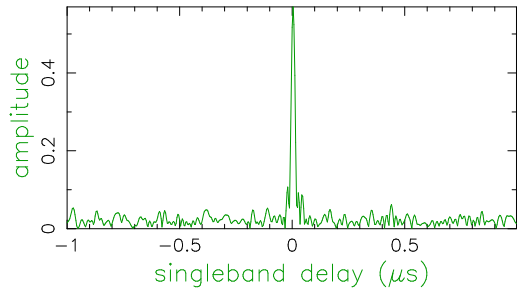
VLBA\_KP - VLBA\_LA, fgroup W, pol LL

multiband delay ( $\mu$ s)



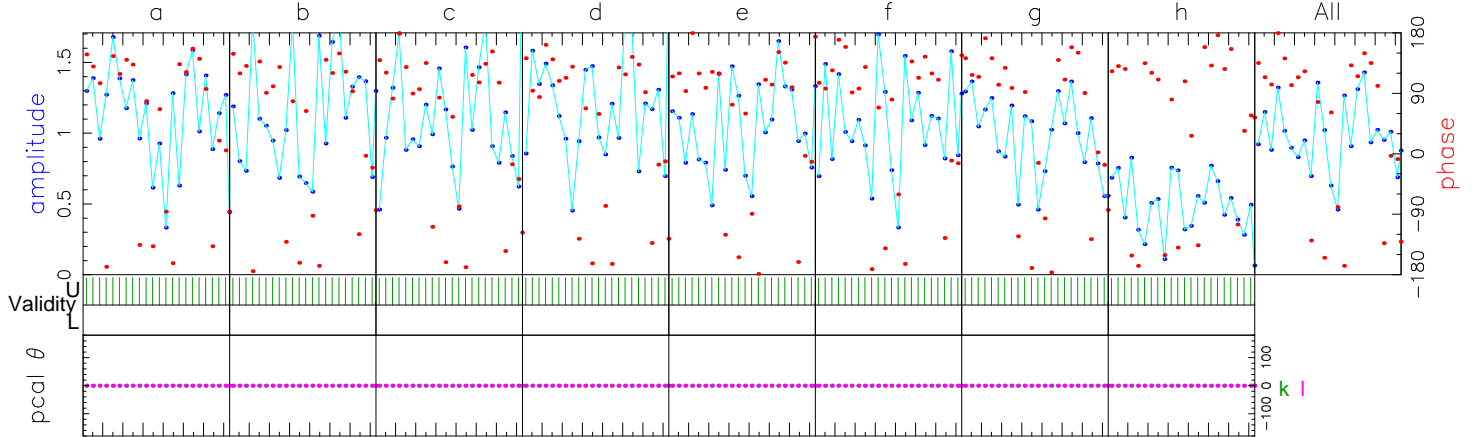
Fringe quality 7

SNR 31.8  
 Int time 417.790  
 Amp 0.570  
 Phase 133.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.004037  
 MBD 0.003444  
 Fringe rate (Hz)  
 -0.013150  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121343  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	135.5	137.9	134.4	128.7	127.4	125.0	138.6	144.0	Phase	133.4
	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.3	Ampl.	0.6
	257.8	257.6	258.5	258.0	257.7	258.3	258.1	258.3	Sbd box	258.0
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
l	0	0	0	0	0	0	0	0	PC freqs	
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.92380883114E+03	Apriori delay (usec)	-1.92381227530E+03	Resid mbdelay (usec)	3.44417E-03	+/-	3.4E-05
Sband delay (usec)	-1.92380823830E+03	Apriori clock (usec)	2.9451103E+00	Resid sbdelay (usec)	4.03700E-03	+/-	2.7E-04
Phase delay (usec)	-1.92381227100E+03	Apriori clockrate (us/s)	2.8600001E-07	Resid phdelay (usec)	4.30028E-06	+/-	1.2E-07
Delay rate (us/s)	5.46417876874E-02	Apriori rate (us/s)	5.46419403447E-02	Resid rate (us/s)	-1.52657E-07	+/-	4.8E-10
Total phase (deg)	-8.7	Apriori accel (us/s/s)	6.10356758735E-06	Resid phase (deg)	133.4	+/-	3.6

ph/seg (deg)	RMS 68.3	Theor. 8.6	Amplitude Search (2048X32)	0.570 +/- 0.018	0.563	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	84.3	15.1	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	7.0	5.1	Inc. seg. avg.	0.974	0.974	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	18.8	8.9	Inc. frq. avg.	0.570	0.570	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

k: az 54.3 el 23.2 pa -67.5 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) -405.866 63.479 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/kl.1X0HBB Output file: /Exps/c211c/v1/1234/No0080/kl.W.165.1X0HBB

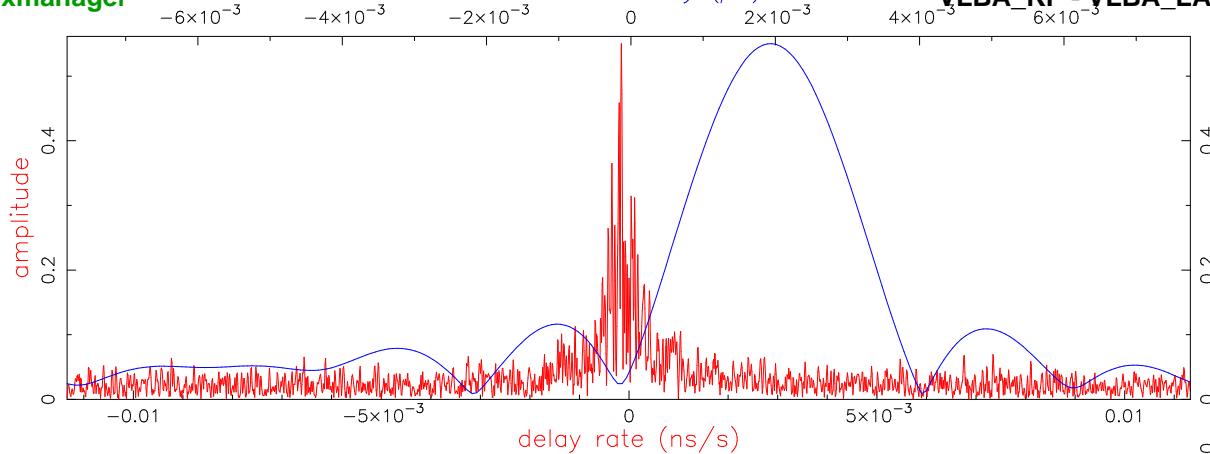
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, kl

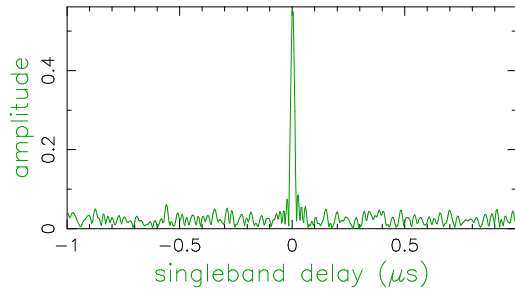
VLBA\_KP - VLBA\_LA, fgroup W, pol RR

multiband delay ( $\mu$ s)

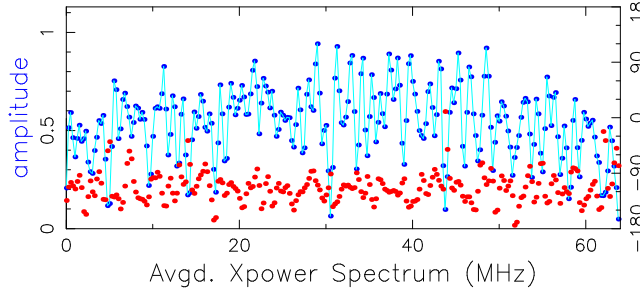


Fringe quality 7

SNR 31.4  
 Int time 417.791  
 Amp 0.561  
 Phase -117.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.001875  
 MBD 0.001969  
 Fringe rate (Hz)  
 -0.013151  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

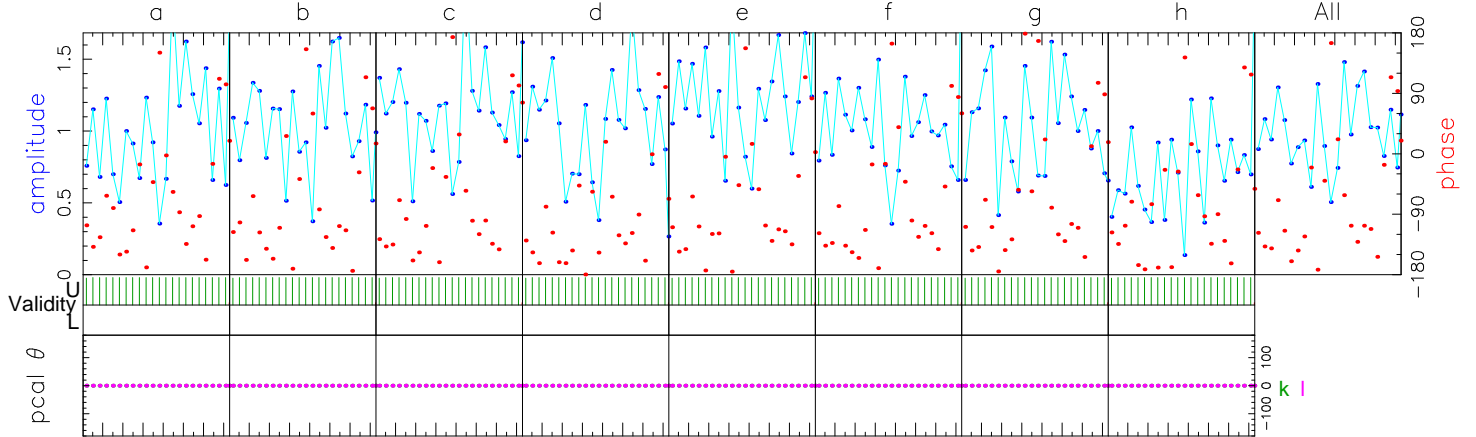


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121347  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
k	0	0	0	0	0	0	0	0		
l	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: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)	-1.92381030633E+03	-1.92381040005E+03	-1.92381030633E+03	-1.92381030633E+03	-1.92381227530E+03	-1.92381227530E+03	-1.92381227530E+03	-1.92381227530E+03	1.96898E-03	+/- 3.5E-05
Sband delay (usec)	-1.92381040005E+03	-1.92381040005E+03	-1.92381040005E+03	-1.92381040005E+03	2.9451103E-07	2.9451103E-07	2.9451103E-07	2.9451103E-07	1.87525E-03	+/- 2.7E-04
Phase delay (usec)	-1.92381227908E+03	-1.92381227908E+03	-1.92381227908E+03	-1.92381227908E+03	2.8600001E-07	2.8600001E-07	2.8600001E-07	2.8600001E-07	-3.77321E-06	+/- 1.2E-07
Delay rate (us/s)	5.46417876782E-02	5.46417876782E-02	5.46417876782E-02	5.46417876782E-02	5.46419403447E-02	5.46419403447E-02	5.46419403447E-02	5.46419403447E-02	-1.52667E-07	+/- 4.9E-10
Total phase (deg)			-259.1		6.10356758735E-06	6.10356758735E-06	6.10356758735E-06	6.10356758735E-06	-117.0	+/- 3.7
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-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) 69.0 8.8  
 amp/seg (%) 89.6 15.3  
 ph/frq (deg) 7.0 5.2  
 amp/frq (%) 17.1 9.0

RMS Theor. Amplitude 0.561 +/- 0.018  
 Search (2048X32) 0.545  
 Interp. 0.000  
 Inc. seg. avg. 0.986  
 Inc. frq. avg. 0.551

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 Sbd window (us) -1.000 1.000  
 SampCntNorm: enabled mb window (us) -0.008 0.008  
 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

k: az 54.3 el 23.2 pa -67.5 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) -405.866 63.479 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/kl.1X0HBB Output file: /Exps/c211c/v1/1234/No0080/kl.W.180.1X0HBB



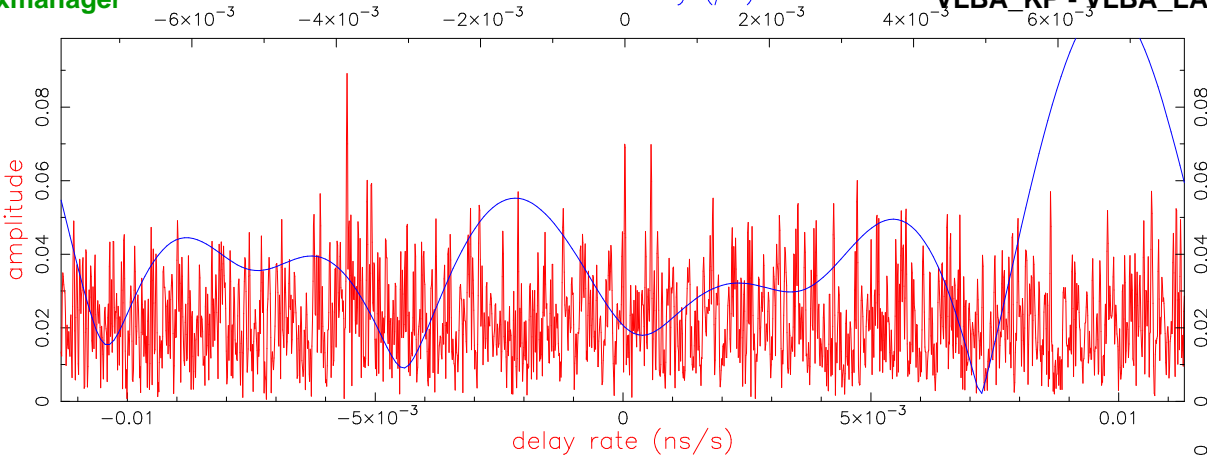
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, kl

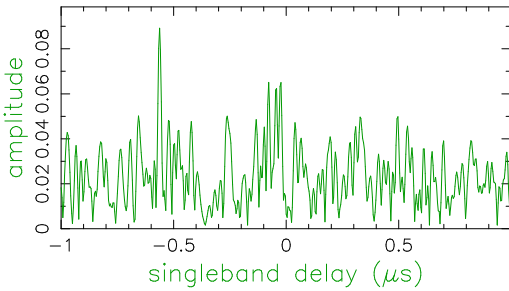
VLBA\_KP - VLBA\_LA, fgroup W, pol LR

multiband delay ( $\mu$ s)

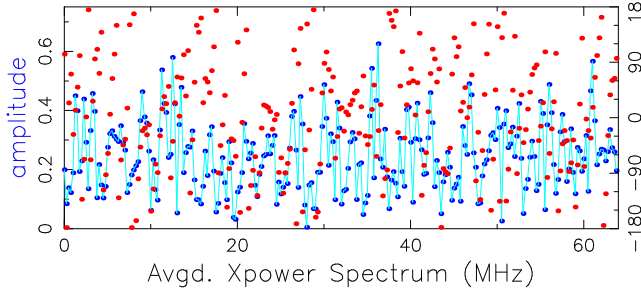


Fringe quality 0

SNR 5.0  
 Int time 417.790  
 Amp 0.099  
 Phase 103.1  
 PFD 1.0e+00  
 Delays (us)  
 SBD -0.562583  
 MBD -0.008301  
 Fringe rate (Hz)  
 -0.480707  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

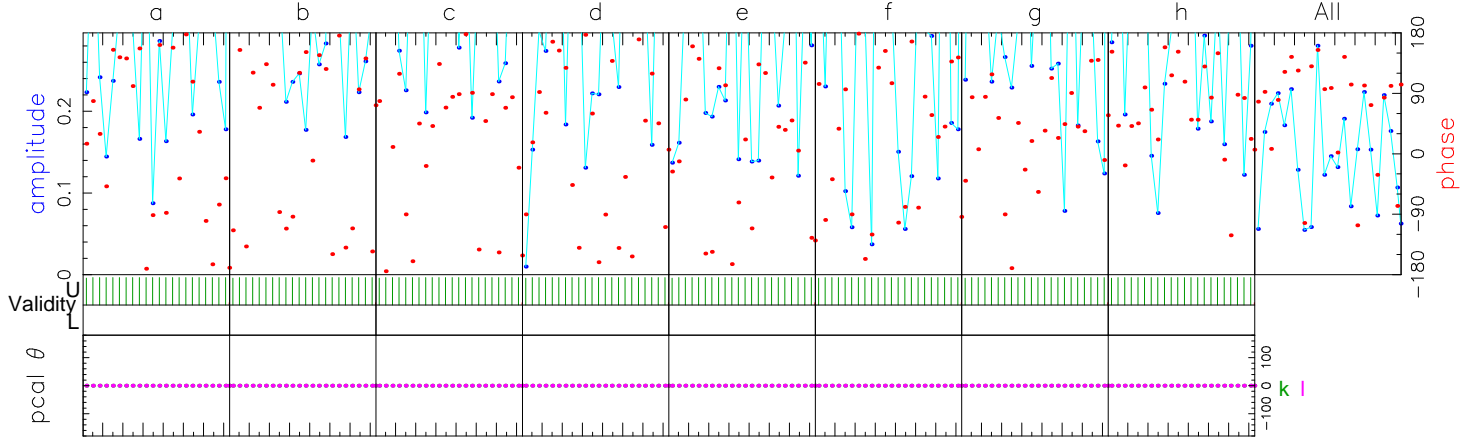


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121350  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
k	0	0	0	0	0	0	0	0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.92436745109E+03				-1.92381227530E+03				Resid mbdelay (usec)	-8.30078E-03 +/- 2.2E-04
Sband delay (usec)	-1.92437485855E+03				2.9451103E+00				Resid sbdelay (usec)	-5.62583E-01 +/- 1.7E-03
Phase delay (usec)	-1.92381227198E+03				2.8600001E-07				Resid phdelay (usec)	3.32539E-06 +/- 7.4E-07
Delay rate (us/s)	5.46363598087E-02				5.46419403447E-02				Resid rate (us/s)	-5.58054E-06 +/- 3.1E-09
Total phase (deg)			-39.0		6.10356758735E-06				Resid phase (deg)	103.1 +/- 23.0
	RMS	Theor.	Amplitude	0.099 +/- 0.020	Pcal mode: MANUAL, MANUAL				PC period (AP's) 5, 5	
ph/seg (deg)	75.6	55.1	Search (2048X32)	0.108	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				sb window (us)	-1.000 1.000
amp/seg (%)	100.3	96.2	Interp.	0.000	Bits/sample: 2x2				mb window (us)	-0.008 0.008
ph/frq (deg)	55.2	32.5	Inc. seg. avg.	0.116	Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011
amp/frq (%)	70.1	56.8	Inc. frq. avg.	0.119	Data rate(Mb/s): 2048				ion window (TEC)	0.00 0.00
					nlags: 256				t_cohere infinite	

k: az 54.3 el 23.2 pa -67.5 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) -405.866 63.479 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/kl.1X0HBB Output file: /Exps/c211c/v1/1234/No0080/kl.W.198.1X0HBB

Mk4/DiFX fourfit 3.21 rev 2937

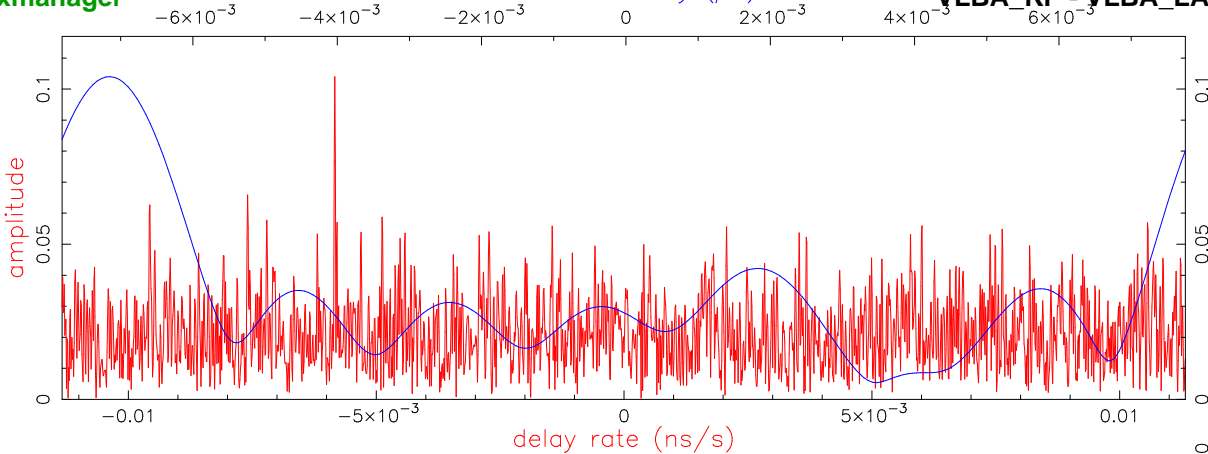
fxmanager

3C84.1X0HBB, No0080, kl

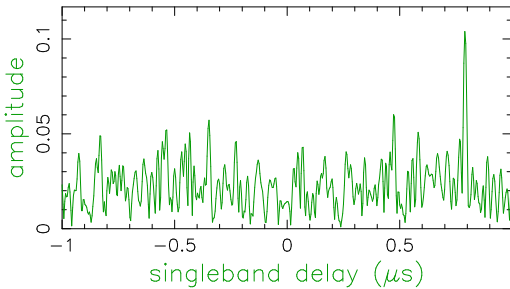
VLBA\_KP - VLBA\_LA, fgroup W, pol RL

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

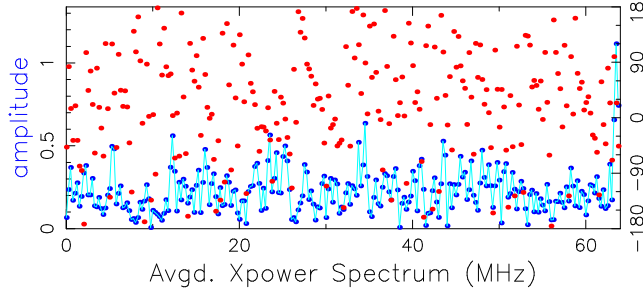
Fringe quality 0



SNR 5.8  
 Int time 417.791  
 Amp 0.117  
 Phase -140.0  
 PFD 7.2e-01  
 Delays (us)  
 SBD 0.789933  
 MBD -0.007140  
 Fringe rate (Hz)  
 -0.503605  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

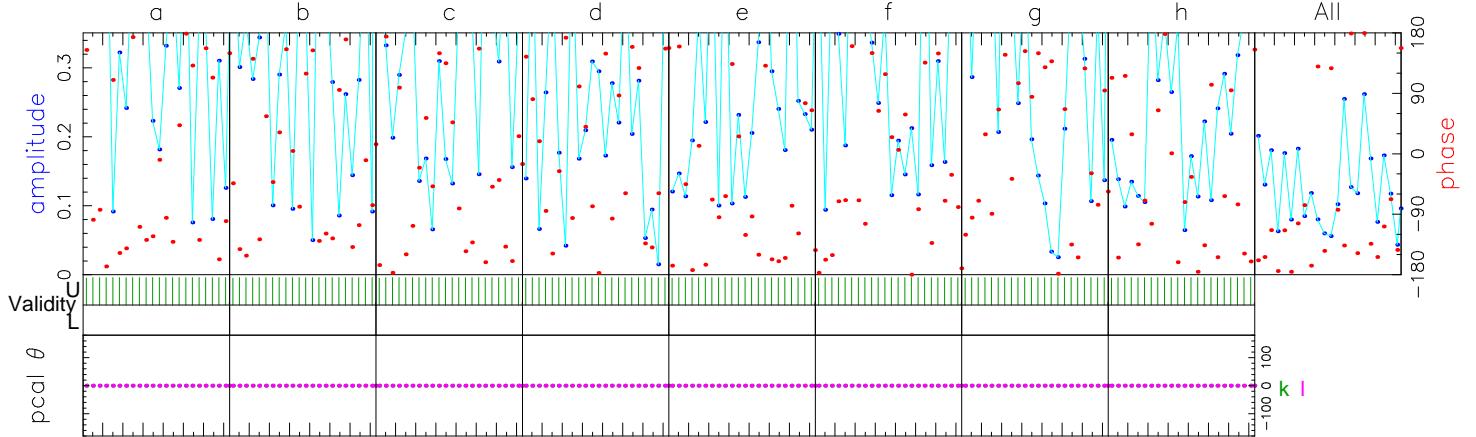


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121354  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
k	0	0	0	0	0	0	0	0		
l	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:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks

Group delay (usec)(sbd)	-1.92302254006E+03	Apriori delay (usec)	-1.92381227530E+03	Resid mbdelay (usec)	-7.13976E-03	+/-	1.9E-04
Sband delay (usec)	-1.92302234230E+03	Apriori clock (usec)	2.94511033E-07	Resid sbdelay (usec)	7.89933E-01	+/-	1.5E-03
Phase delay (usec)	-1.92381227982E+03	Apriori clockrate (us/s)	2.8600001E-07	Resid phdelay (usec)	-4.51503E-06	+/-	6.3E-07
Delay rate (us/s)	5.46360939876E-02	Apriori rate (us/s)	5.46419403447E-02	Resid rate (us/s)	-5.84636E-06	+/-	2.6E-09
Total phase (deg)	-282.1	Apriori accel (us/s/s)	6.10356758735E-06	Resid phase (deg)	-140.0	+/-	19.6

ph/seg (deg)	RMS 42.9	Theor. 47.0	Amplitude Search (2048X32)	0.117 +/- 0.020	0.103	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	63.2	82.0	Interp.	0.000	0.103	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	16.3	27.7	Inc. seg. avg.	0.109	0.109	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	45.0	48.4	Inc. frq. avg.	0.107	0.107	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

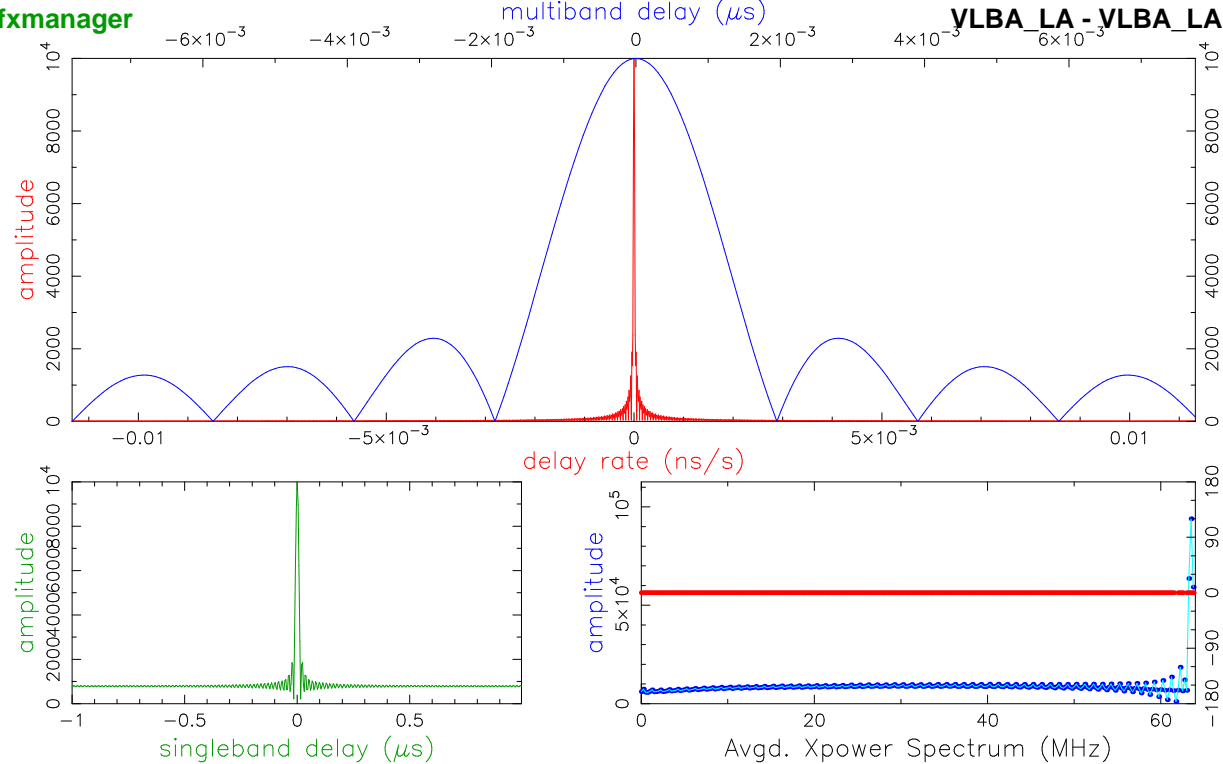
k: az 54.3 el 23.2 pa -67.5 l: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) -405.866 63.479 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/kl.1X0HBB Output file: /Exps/c211c/v1/1234/No0080/kl.W.219.1X0HBB

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fxmanager

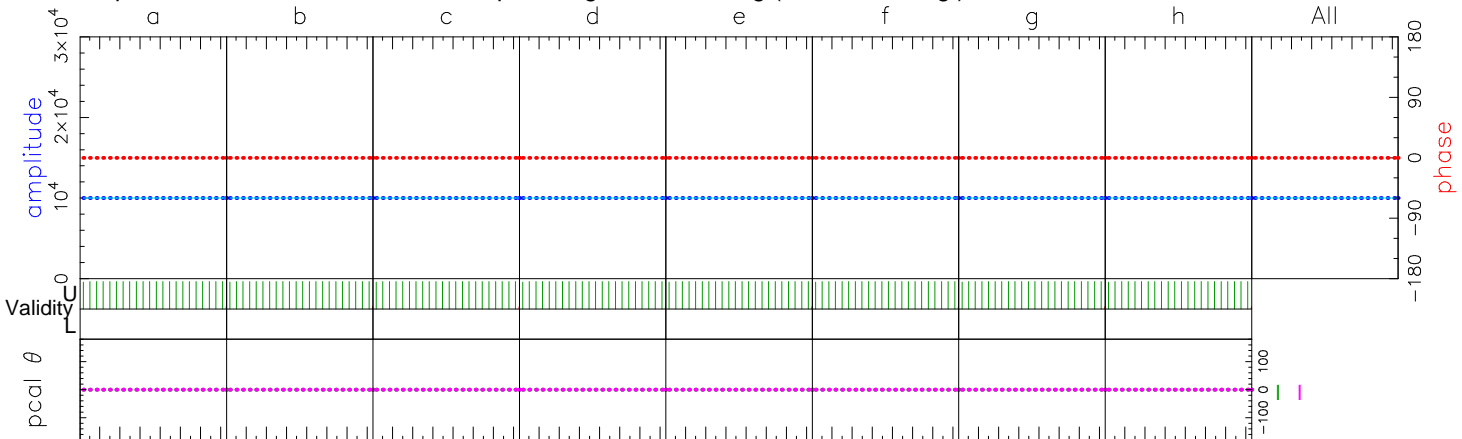
3C84.1X0HBB, No0080, II

VLBA LA - VLBA LA, fgroup W, pol LL



Fringe quality 9  
 SNR 558981.2  
 Int time 417.830  
 Amp 10000.000  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz) 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121344  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
Ampl.	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0
Phase	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sbd box	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0
APs used	0	0	0	0	0	0	0	0	0	0
PC freqs	0:0	0:0	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	0:0	0:0
Mani PC	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
PC amp	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Chan ids	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Tracks	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 1.9E-09  
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-08  
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.6E-12  
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.7E-14  
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

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

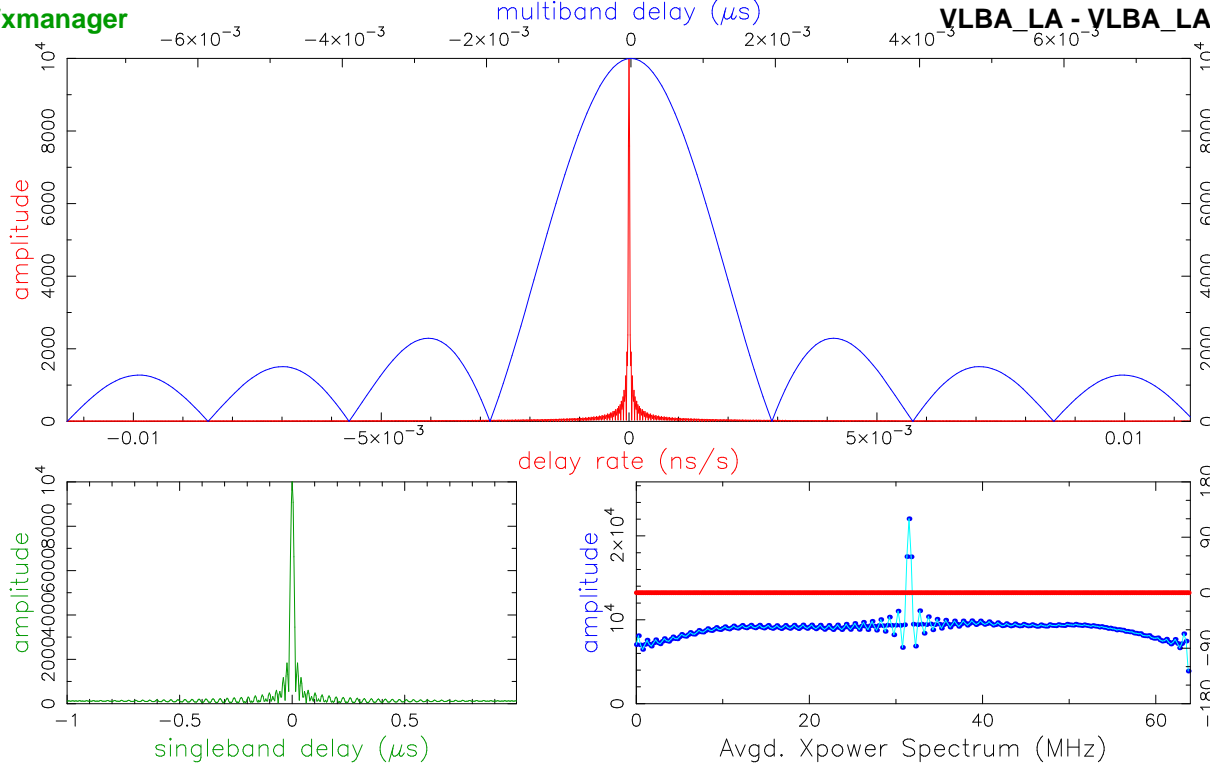
l: az 57.6 el 29.1 pa -66.8 i: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/II..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/II.W.172.1X0HBB

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fxmanager

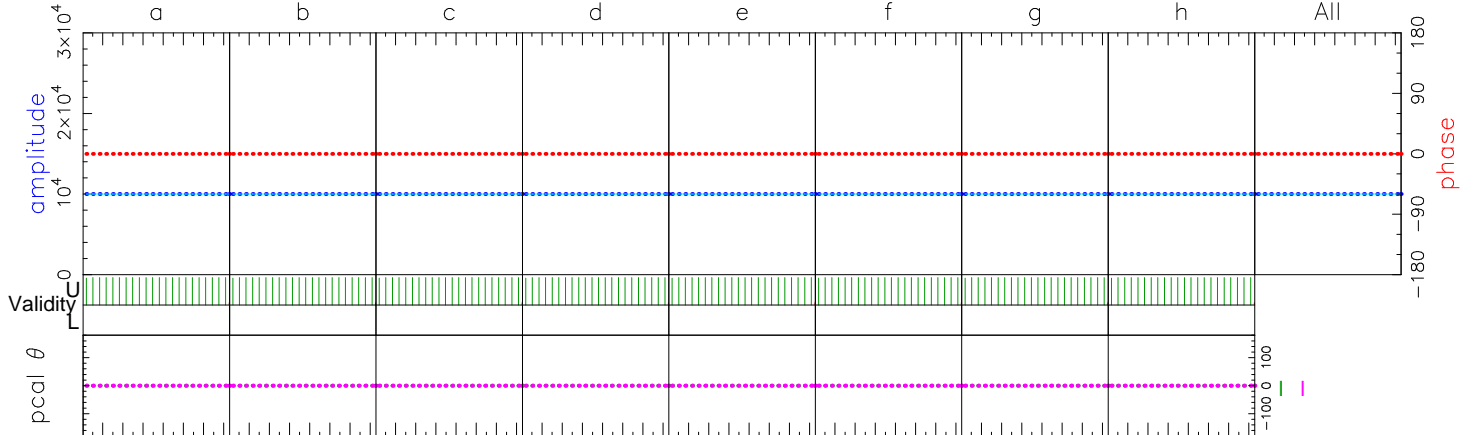
3C84.1X0HBB, No0080, II

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



Fringe quality 9  
 SNR 558981.2  
 Int time 417.830  
 Amp 10000.000  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz) 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build 2021:303:063723  
 2021:303:121348  
 2021:252:122852  
 RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
Ampl.	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0		10000.0
Phase	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Validity	1000	1000	1000	1000	1000	1000	1000	1000		1000
Chan ids	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 +/- 1.9E-09  
 Sband delay (usec) 0.000000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.000000E+00 +/- 1.5E-08  
 Phase delay (usec) 0.000000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.000000E+00 +/- 6.6E-12  
 Delay rate (us/s) 0.000000000000E+00 Apriori rate (us/s) 0.000000000000E+00 Resid rate (us/s) 0.000000E+00 +/- 2.7E-14  
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.000000000000E+00 Resid phase (deg) 0.0 +/- 0.0

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

l: az 57.6 el 29.1 pa -66.8 i: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/II..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/II.W.189.1X0HBB

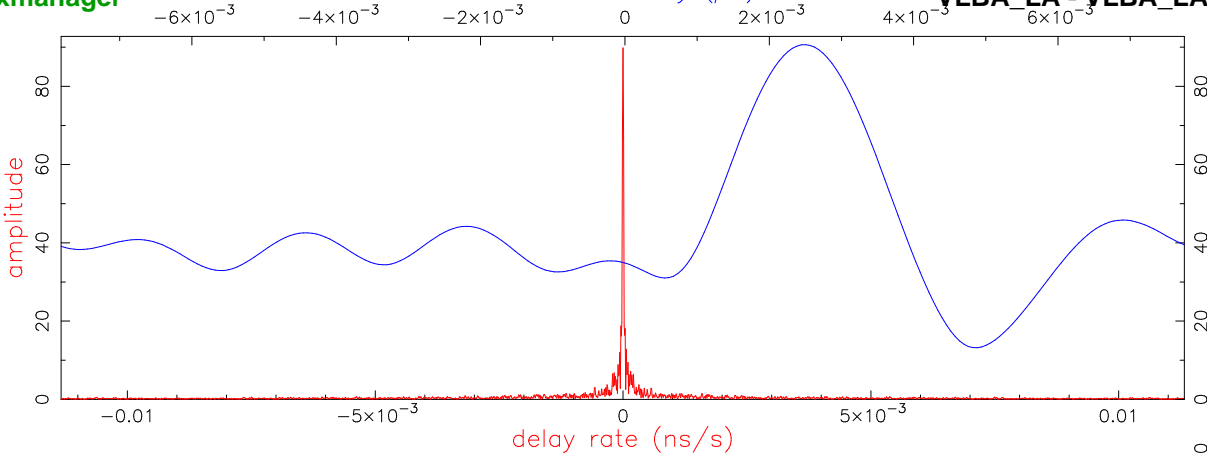
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, II

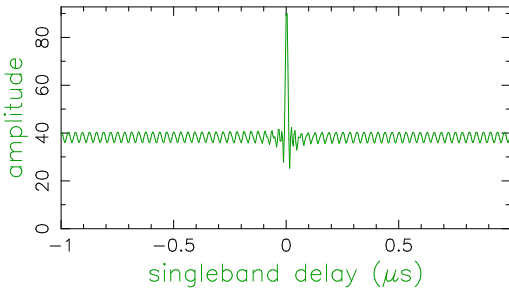
VLBA\_LA - VLBA\_LA, fgroup W, pol LR

multiband delay ( $\mu$ s)

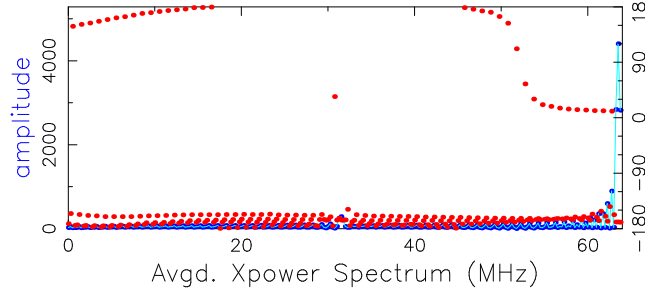


Fringe quality 6

SNR 5185.5  
 Int time 417.830  
 Amp 92.766  
 Phase 174.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.001930  
 MBD 0.002647  
 Fringe rate (Hz)  
 0.000002  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

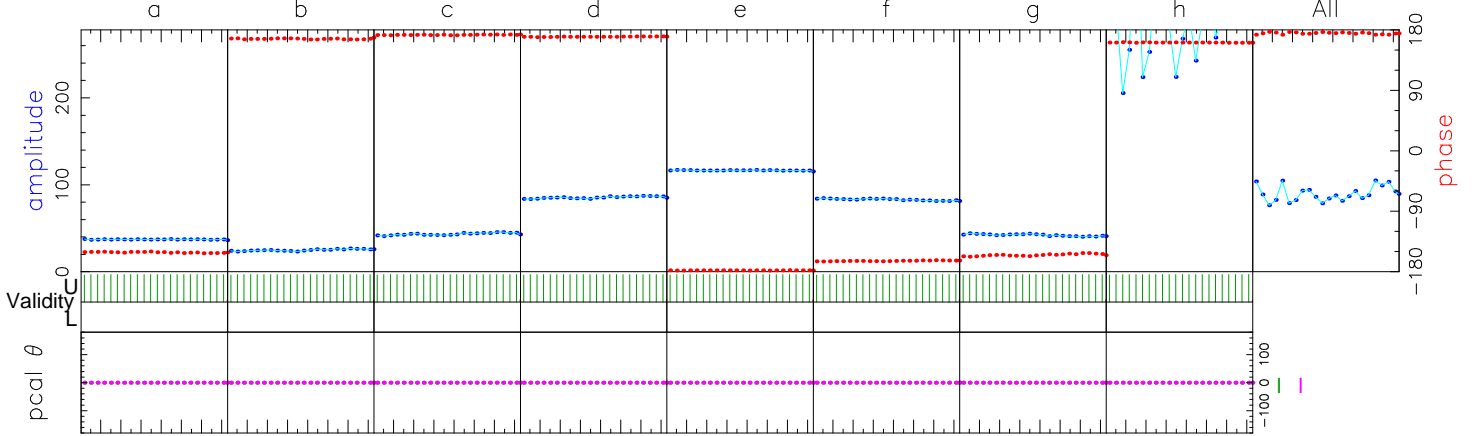


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121352  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
	0	0	0	0	0	0	0	0	APs used	
:	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
:	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 2.64715625000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 2.64716E-03 +/- 2.1E-07  
 Sband delay (usec) 1.92950000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 1.92950E-03 +/- 1.7E-06  
 Phase delay (usec) 5.63469576290E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 5.63470E-06 +/- 7.1E-10  
 Delay rate (us/s) 2.12567285875E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 2.12567E-11 +/- 3.0E-12  
 Total phase (deg) 174.7 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 174.7 +/- 0.0

RMS Theor. Amplitude 92.766 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 1.4 0.1 Search (2048X32) 90.598 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 9.8 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 21.9 0.0 Inc. seg. avg. 89.844 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 95.1 0.1 Inc. frq. avg. 93.381 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

l: az 57.6 el 29.1 pa -66.8 i: az 57.6 el 29.1 pa -66.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/ll..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/ll.W.206.1X0HBB

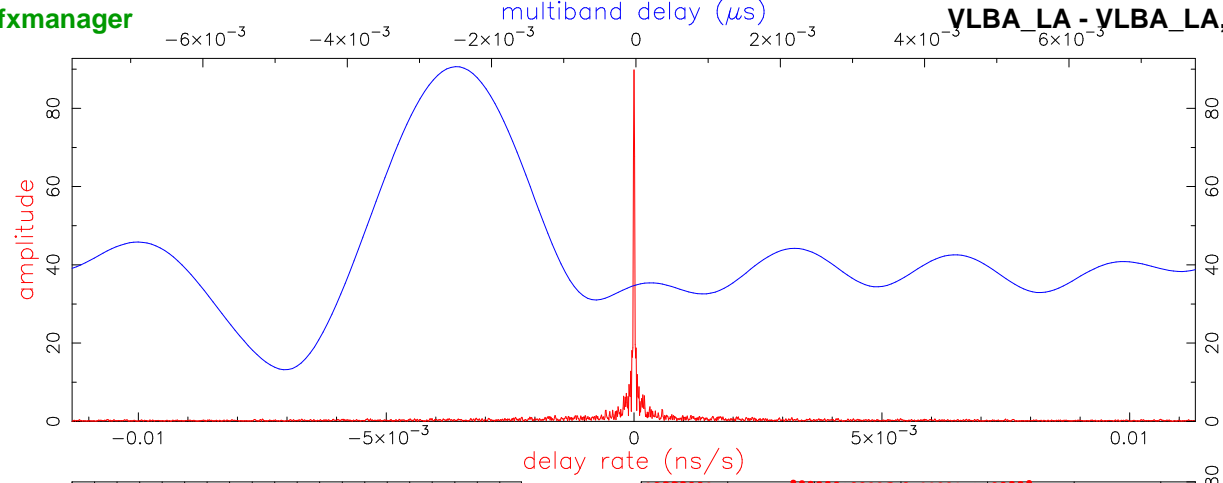


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, II

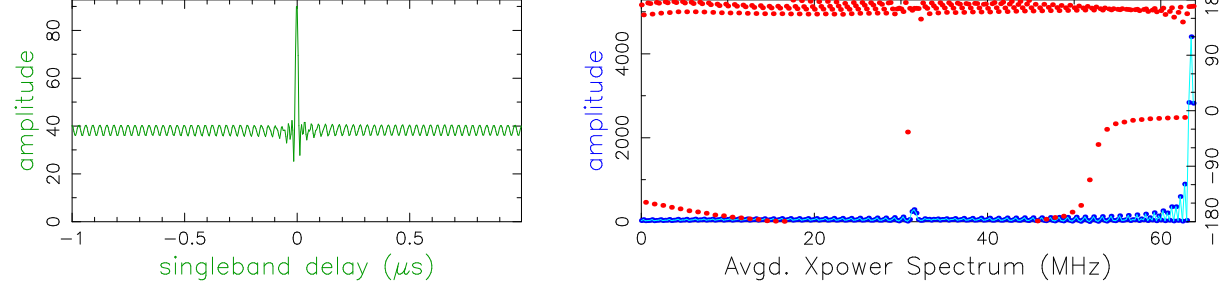
VLBA\_LA - VLBA\_LA, fgroup W, pol RL



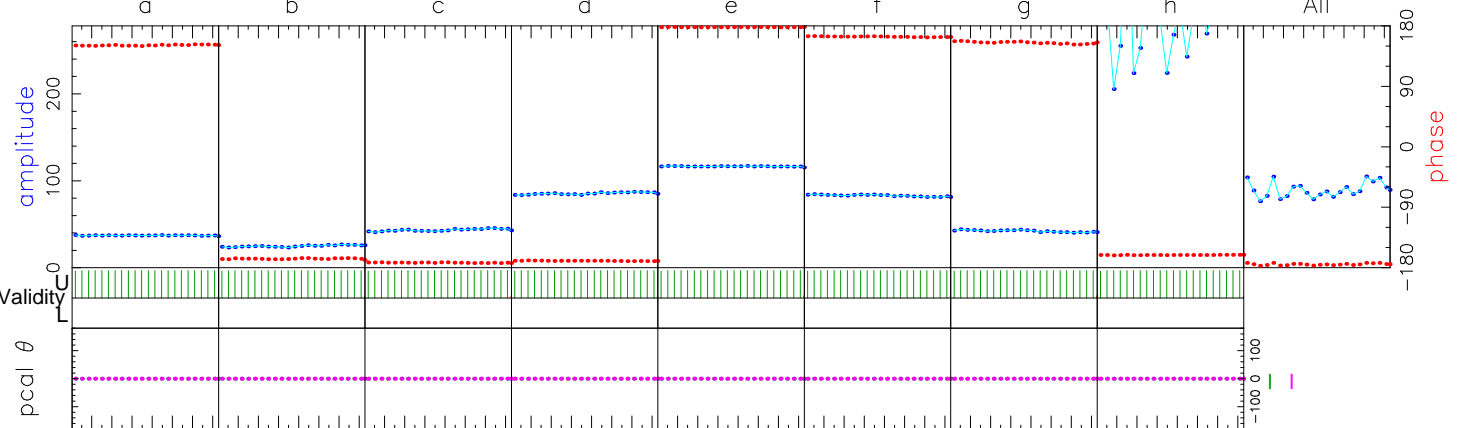
Fringe quality 6

SNR 5185.5  
 Int time 417.830  
 Amp 92.766  
 Phase -174.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001930  
 MBD -0.002647  
 Fringe rate (Hz)  
 -0.000002  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121355  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0			
Ampl.	151.1	-166.5	-172.5	-169.7	177.9	163.8	155.0	-161.0		-174.7	
Phase	37.2	24.9	43.4	85.6	116.6	83.1	42.2	313.9		93.4	
Sbd box	256.9	256.5	256.5	256.2	256.3	256.3	256.1	256.6		256.5	
APs used	0	0	0	0	0	0	0	0			
PC freqs	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
Mani PC	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
PC amp	1000	1000	1000	1000	1000	1000	1000	1000			
Chan ids	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Tracks	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)		-2.64715625000E-03			0.00000000000E+00				Resid mbdelay (usec)	-2.64716E-03	+/- 2.1E-07
Sband delay (usec)		-1.92950000000E-03			0.0000000E+00				Resid sbdelay (usec)	-1.92950E-03	+/- 1.7E-06
Phase delay (usec)		-5.63469576285E-06			0.0000000E+00				Resid phdelay (usec)	-5.63470E-06	+/- 7.1E-10
Delay rate (us/s)		-2.12567285875E-11			0.00000000000E+00				Resid rate (us/s)	-2.12567E-11	+/- 3.0E-12
Total phase (deg)			-174.7		0.00000000000E+00				Resid phase (deg)	-174.7	+/- 0.0

ph/seg (deg) 1.4 0.1  
 amp/seg (%) 9.8 0.1  
 ph/frq (deg) 21.9 0.0  
 amp/frq (%) 95.1 0.1

RMS Theor. Amplitude 92.766 +/- 0.018  
 Search (2048X32) 90.598  
 Interp. 0.000  
 Inc. seg. avg. 89.844  
 Inc. frq. avg. 93.381

Group delay (usec)(sbd) -2.64715625000E-03  
 Sband delay (usec) -1.92950000000E-03  
 Phase delay (usec) -5.63469576285E-06  
 Delay rate (us/s) -2.12567285875E-11  
 Total phase (deg) -174.7

Apriori delay (usec) 0.00000000000E+00  
 Apriori clock (usec) 0.0000000E+00  
 Apriori clockrate (us/s) 0.0000000E+00  
 Apriori rate (us/s) 0.00000000000E+00  
 Apriori accel (us/s/s) 0.00000000000E+00

Resid mbdelay (usec) -2.64716E-03  
 Resid sbdelay (usec) -1.92950E-03  
 Resid phdelay (usec) -5.63470E-06  
 Resid rate (us/s) -2.12567E-11  
 Resid phase (deg) -174.7

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 PCal rate: 0.000E+00, 0.000E+00 (us/s)  
 Bits/sample: 2x2 SampCntNorm: enabled  
 Sample rate(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

simultaneous interpolator

l: az 57.6 el 29.1 pa -66.8  
 i: az 57.6 el 29.1 pa -66.8  
 u,v (fr/asec) 0.000 0.000

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/II..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/II.W.224.1X0HBB

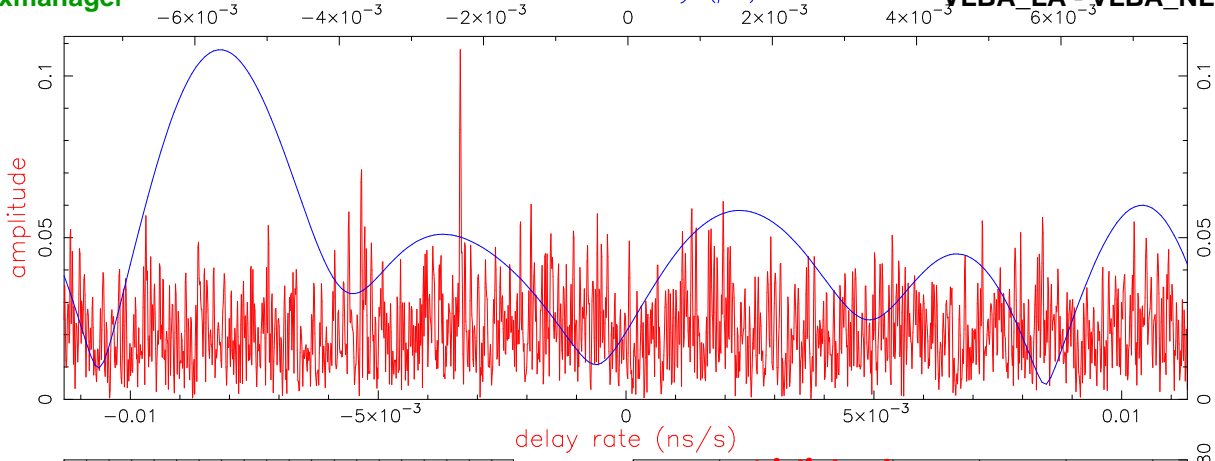
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

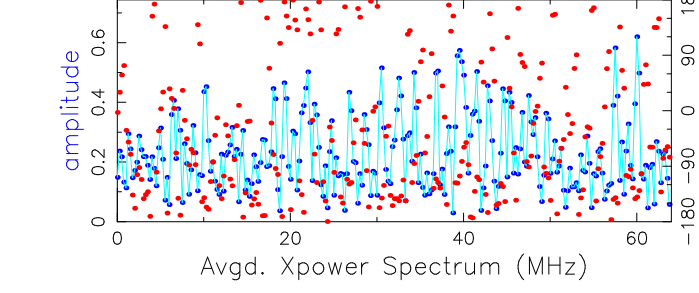
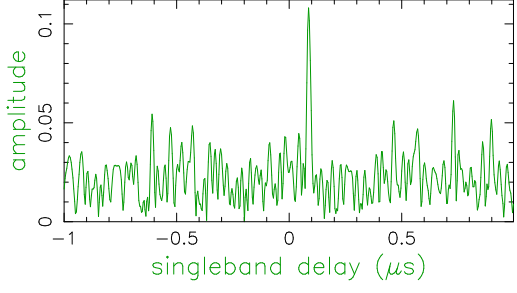
3C84.1X0HBB, No0080, In

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

multiband delay ( $\mu$ s)

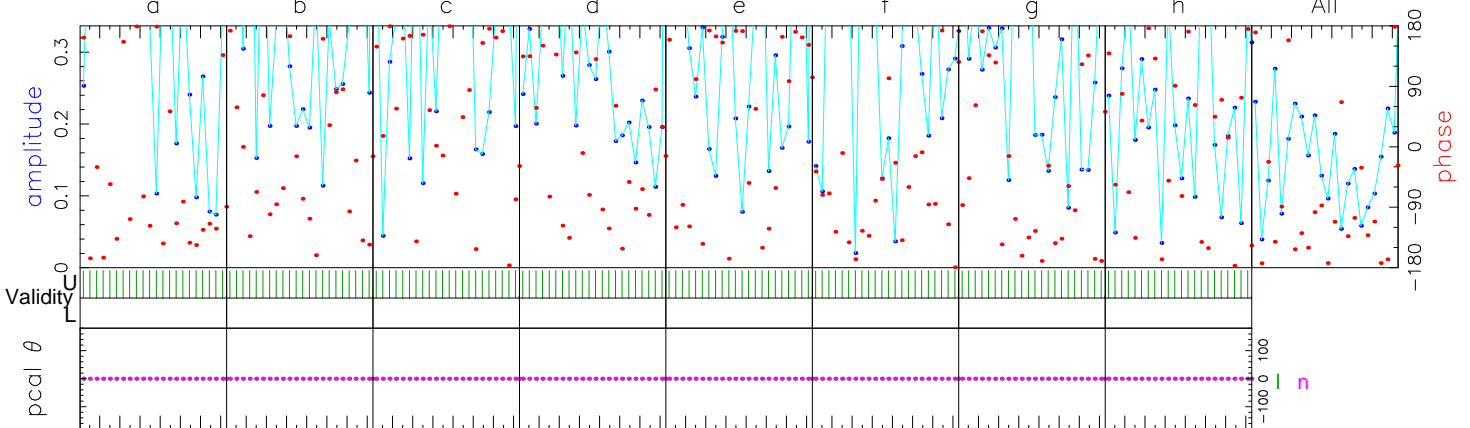


Fringe quality 0  
 SNR 6.0  
 Int time 417.830  
 Amp 0.112  
 Phase -141.1  
 PFD 3.2e-01  
 Delays (us)  
 SBD 0.086406  
 MBD -0.005639  
 Fringe rate (Hz)  
 -0.288458  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121347  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
l	0	0	0	0	0	0	0	0		
n	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:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-3.85667882947E+03	Apriori delay (usec)	-3.85676694020E+03	Resid mbdelay (usec)	-5.63927E-03	+/-	1.8E-04
Sband delay (usec)	-3.85668053470E+03	Apriori clock (usec)	-8.0991440E+00	Resid sbdelay (usec)	8.64055E-02	+/-	1.4E-03
Phase delay (usec)	-3.85676694475E+03	Apriori clockrate (us/s)	-5.8600000E-07	Resid phdelay (usec)	-4.54968E-06	+/-	6.1E-07
Delay rate (us/s)	1.42269601934E-01	Apriori rate (us/s)	1.42272950646E-01	Resid rate (us/s)	-3.34871E-06	+/-	2.5E-09
Total phase (deg)	-223.5	Apriori accel (us/s/s)	1.43698670296E-05	Resid phase (deg)	-141.1	+/-	18.9

ph/seg (deg)	57.5	Theor.	45.4	Amplitude	0.112 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	71.4		79.3	Search (2048X32)	0.101	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	40.7		26.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	60.9		46.8	Inc. seg. avg.	0.117	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.121	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 57.6 el 29.1 pa -66.8 n: az 66.8 el 42.0 pa -66.4 u,v (fr/asec) -1060.538 474.115 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/In..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/In.W.183.1X0HBB

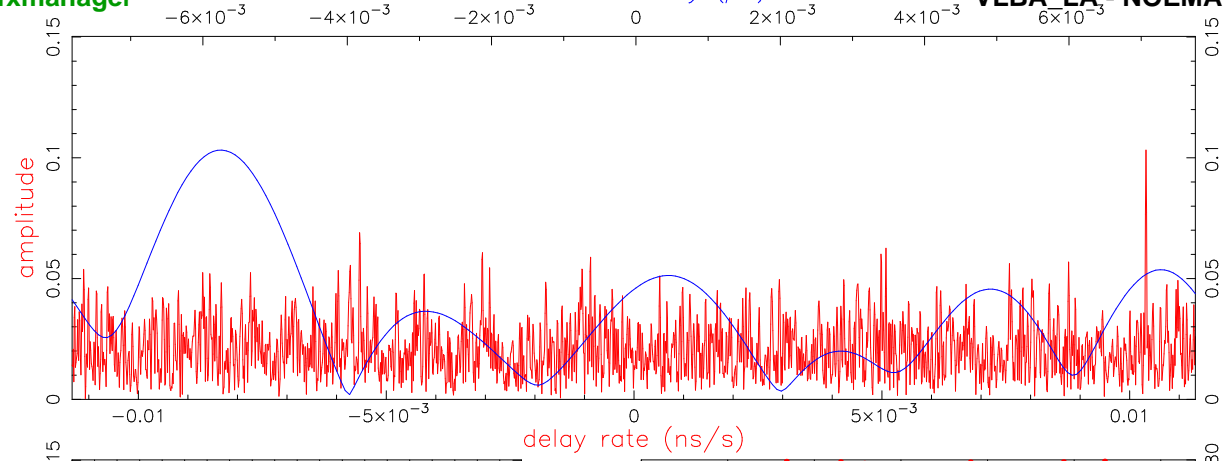
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

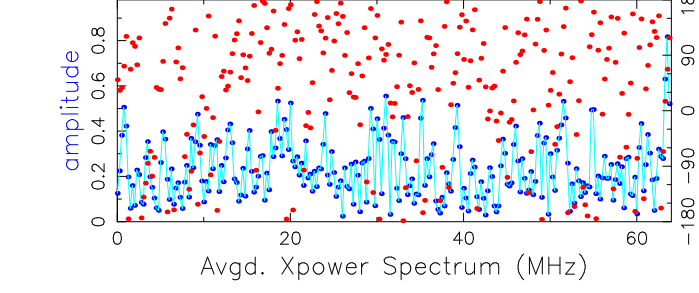
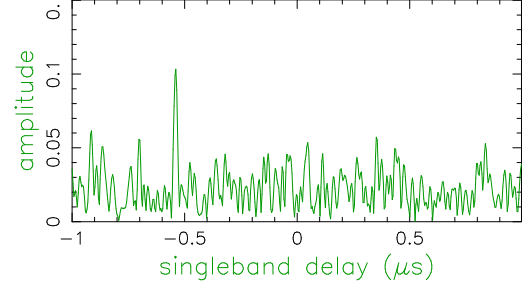
3C84.1X0HBB, No0080, IN

VLBA LA- NOEMA, fgroup W, pol LL

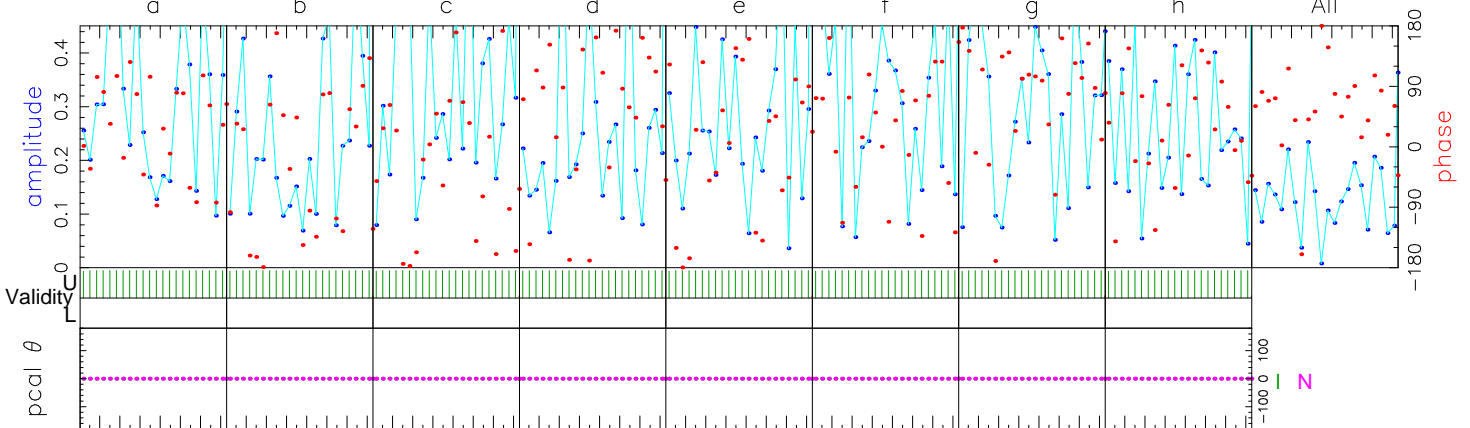
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 5.8  
 Int time 417.830  
 Amp 0.150  
 Phase 68.1  
 PFD 8.0e-01  
 Delays (us)  
 SBD -0.540110  
 MBD -0.005759  
 Fringe rate (Hz) 0.890736  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121348  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
I	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:N	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	
N	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-8.88051324527E+03	Apriori delay (usec)	-8.87997623593E+03	Resid mbdelay (usec)	-5.75934E-03	+/-	1.9E-04
Sband delay (usec)	-8.88051634593E+03	Apriori clock (usec)	1.0728291E+01	Resid sbdelay (usec)	-5.40110E-01	+/-	1.5E-03
Phase delay (usec)	-8.87997623374E+03	Apriori clockrate (us/s)	4.1030001E-06	Resid phdelay (usec)	2.19669E-06	+/-	6.4E-07
Delay rate (us/s)	1.37264402114E+00	Apriori rate (us/s)	1.37263368058E+00	Resid rate (us/s)	1.03406E-05	+/-	2.6E-09
Total phase (deg)	-278.6	Apriori accel (us/s/s)	3.84325076803E-05	Resid phase (deg)	68.1	+/-	19.7

ph/seg (deg)	50.0	Theor.	47.3	Amplitude	0.150 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	62.0	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	36.3	Interp.	0.000	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	46.3	Inc. seg. avg.	0.139	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
		Inc. frq. avg.	0.148	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

I: az 57.6 el 29.1 pa -66.8 N: az 273.5 el 67.0 pa 71.6 u,v (fr/asec) -10433.249 2012.172 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/IN..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/IN.W.192.1X0HBB

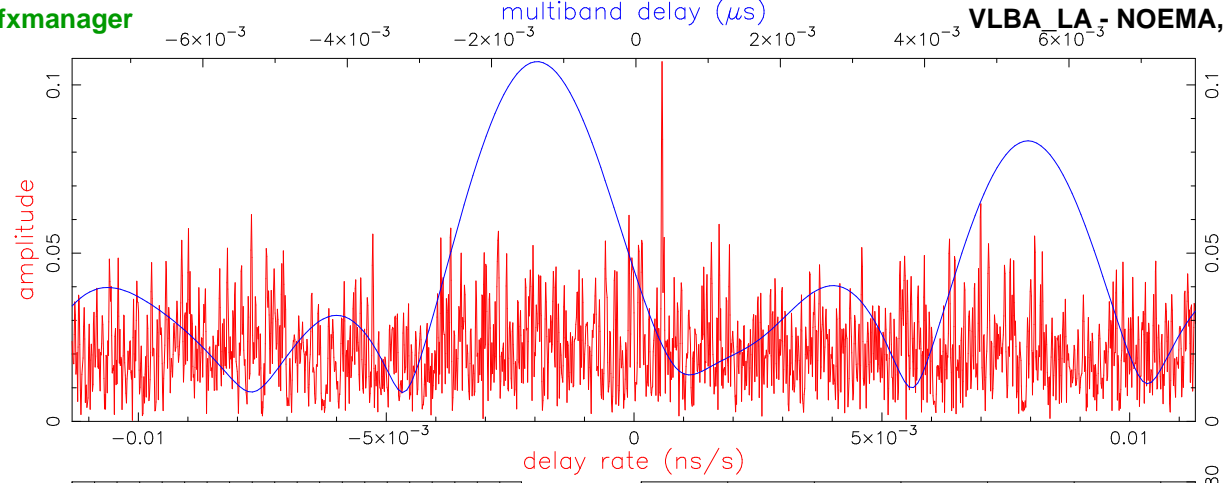


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, IN

VLBA LA - NOEMA, fgroup W, pol RR



Fringe quality 0

SNR 6.0

Int time 417.830

Amp 0.108

Phase 144.0

PFD 3.6e-01

Delays (us)

SBD 0.040151

MBD -0.001362

Fringe rate (Hz)

0.048850

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c211c

Exper # 16383

Yr:day 2021:116

Start 144501.54

Stop 145159.84

FRT 144830.00

Corr/FF/build

2021:303:063723

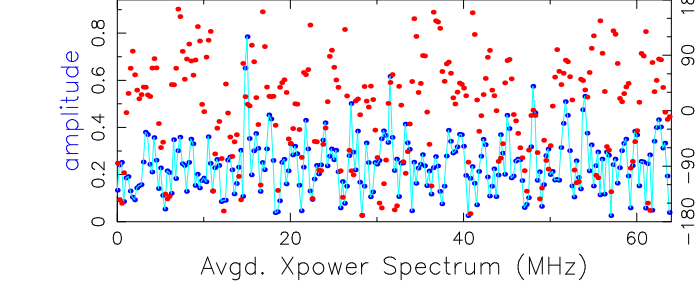
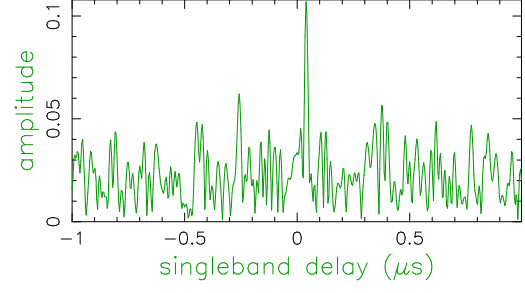
2021:303:121353

2021:252:122852

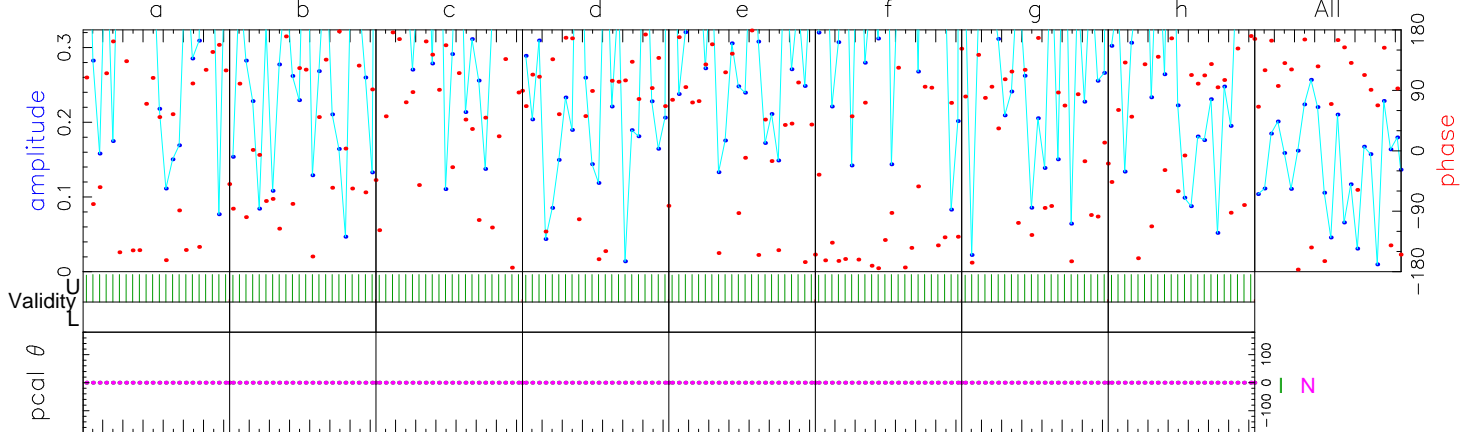
RA & Dec (J2000)

03h19m48.160095s

+41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
I	0	0	0	0	0	0	0	0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
I:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:N	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		
N	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-8.87993072284E+03	Apriori delay (usec)	-8.87997623593E+03	Resid mbdelay (usec)	-1.36191E-03	+/-	1.8E-04
Sband delay (usec)	-8.87993608443E+03	Apriori clock (usec)	1.0728291E+01	Resid sbdelay (usec)	4.01515E-02	+/-	1.4E-03
Phase delay (usec)	-8.87997623129E+03	Apriori clockrate (us/s)	4.1030001E-06	Resid phdelay (usec)	4.64384E-06	+/-	6.1E-07
Delay rate (us/s)	1.37263424767E+00	Apriori rate (us/s)	1.37263368058E+00	Resid rate (us/s)	5.67098E-07	+/-	2.5E-09
Total phase (deg)	-202.8	Apriori accel (us/s/s)	3.84325076803E-05	Resid phase (deg)	144.0	+/-	19.0

ph/seg (deg)	56.2	Theor.	45.6	Amplitude	0.108 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	71.0		79.6	Search (2048X32)	0.104	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	42.1		26.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	55.5		46.9	Inc. seg. avg.	0.111	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.114	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

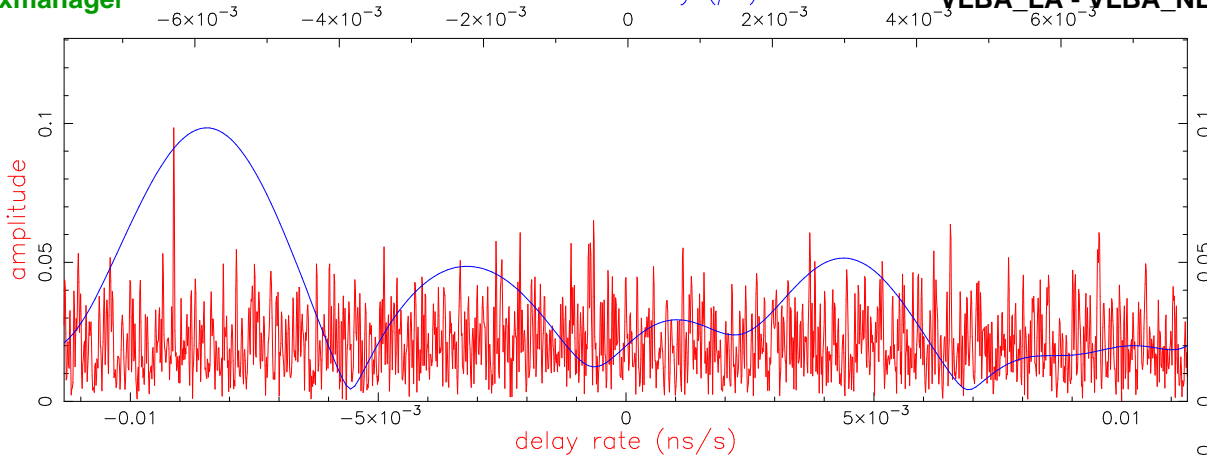
I: az 57.6 el 29.1 pa -66.8 N: az 273.5 el 67.0 pa 71.6 u,v (fr/asec) -10433.249 2012.172 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/IN..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/IN.W.212.1X0HBB

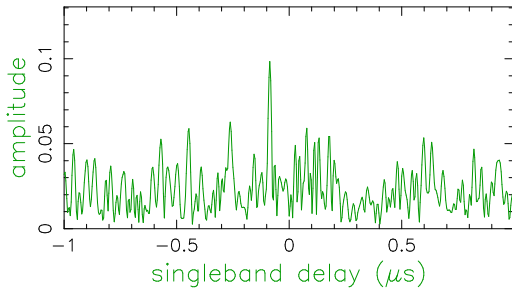


multiband delay ( $\mu$ s)

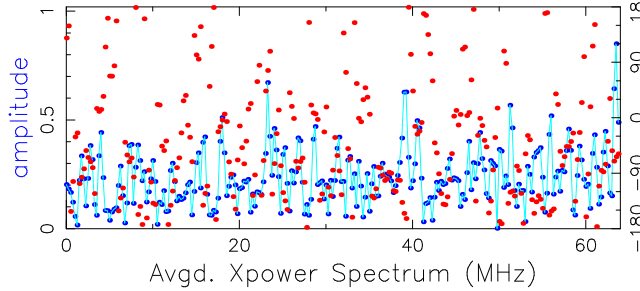
Fringe quality 0



SNR 5.5  
Int time 417.830  
Amp 0.131  
Phase 73.0  
PFD 1.0e+00  
Delays (us)  
SBD -0.086062  
MBD -0.005835  
Fringe rate (Hz)  
-0.786639  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

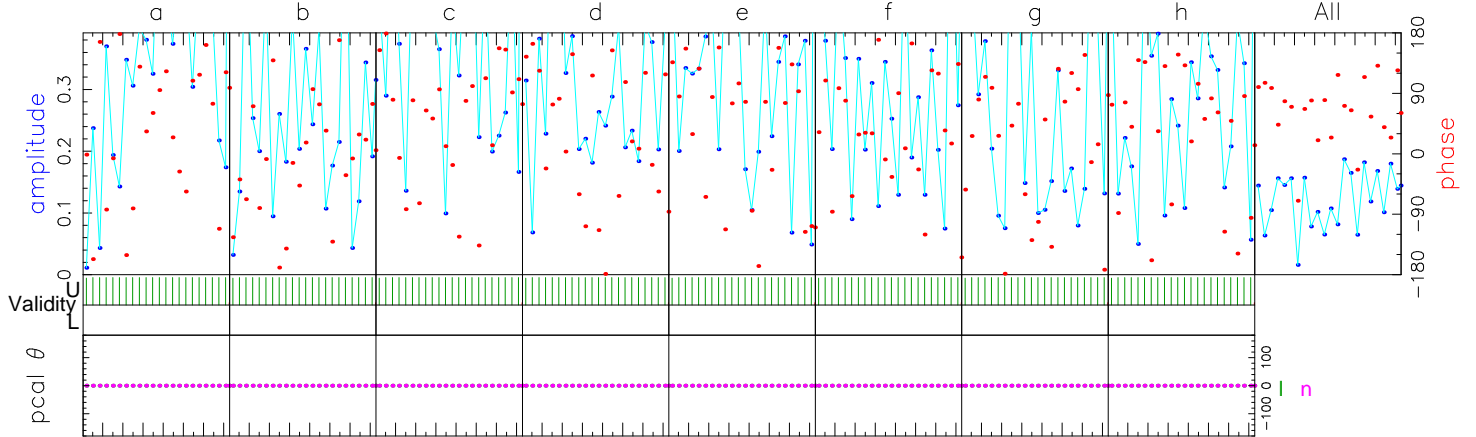


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 144501.54  
Stop 145159.84  
FRT 144830.00  
Corr/FF/build  
2021:303:063723  
2021:303:121355  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
l	0	0	0	0	0	0	0	0		
n	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: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		
Group delay (usec)(sbd)	-3.85685090052E+03									
Sband delay (usec)	-3.85685300220E+03									
Phase delay (usec)	-3.85676693785E+03									
Delay rate (us/s)	1.42263818552E-01									
Total phase (deg)			-9.5							
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)									73.0	+/- 20.8
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
SampCntNorm: enabled										
mb window (us)										-0.008 0.008
dr window (ns/s)										-0.011 0.011
nlags: 256 t_cohere infinite										
ion window (TEC)										0.00 0.00

ph/seg (deg) 48.5 49.9 Search (2048X32) 0.097 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 52.3 87.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 42.4 29.5 Inc. seg. avg. 0.117 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 37.5 51.4 Inc. frq. avg. 0.139 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
l: az 57.6 el 29.1 pa -66.8 n: az 66.8 el 42.0 pa -66.4 u,v (fr/asec) -1060.538 474.115 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/In..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/In.W.227.1X0HBB

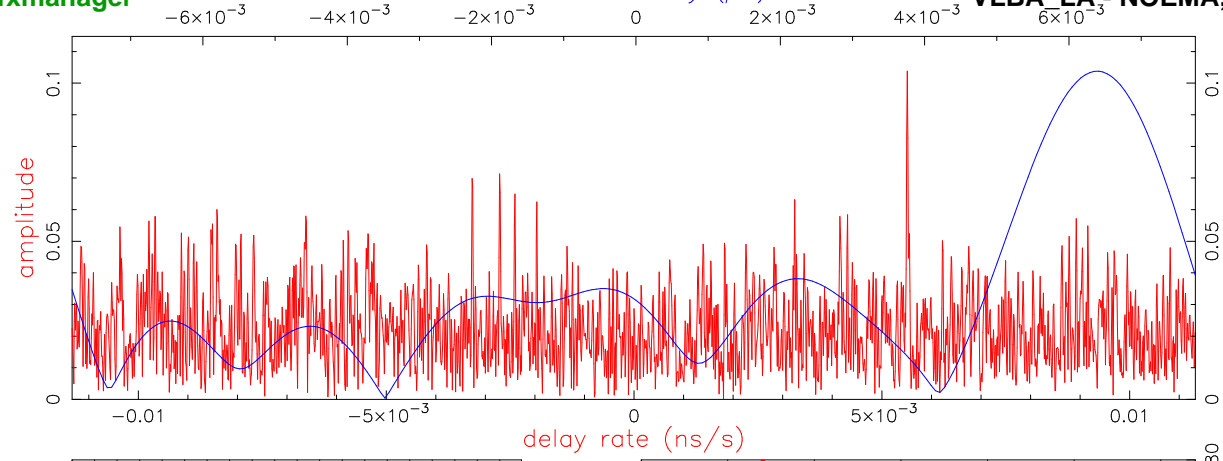
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, IN

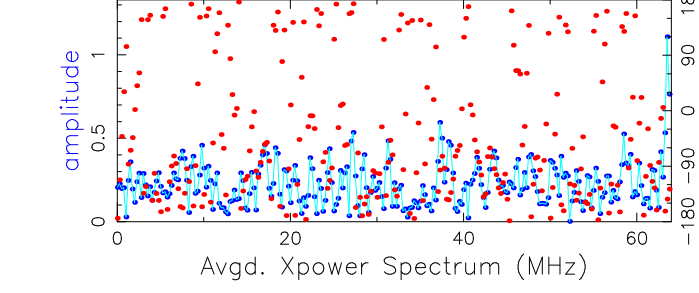
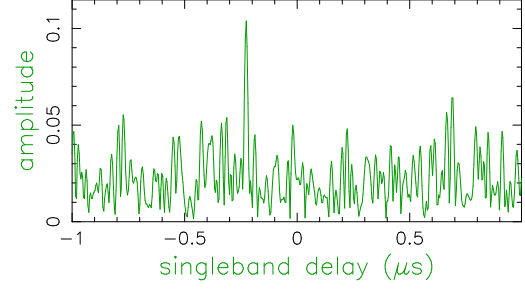
VLBA LA- NOEMA, fgroup W, pol LR

multiband delay ( $\mu$ s)



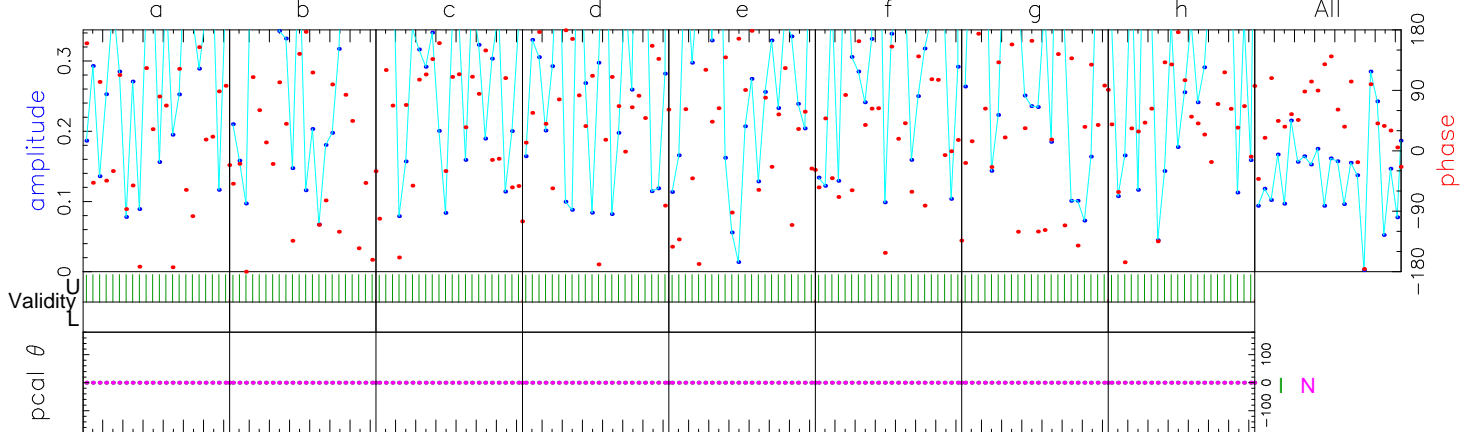
Fringe quality 0

SNR 5.8  
 Int time 417.830  
 Amp 0.115  
 Phase 63.7  
 PFD 8.0e-01  
 Delays (us)  
 SBD -0.226943  
 MBD 0.006397  
 Fringe rate (Hz)  
 0.475931  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121357  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
I	0	0	0	0	0	0	0	0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
I:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:N	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		
N	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-8.88020421440E+03	Apriori delay (usec)	-8.87997623593E+03	Resid mbdelay (usec)	6.39653E-03	+/-	1.9E-04
Sband delay (usec)	-8.88020317868E+03	Apriori clock (usec)	1.0728291E+01	Resid sbdelay (usec)	-2.26943E-01	+/-	1.5E-03
Phase delay (usec)	-8.87997623388E+03	Apriori clockrate (us/s)	4.1030001E-06	Resid phdelay (usec)	2.05353E-06	+/-	6.4E-07
Delay rate (us/s)	1.37263920566E+00	Apriori rate (us/s)	1.37263368058E+00	Resid rate (us/s)	5.52508E-06	+/-	2.6E-09
Total phase (deg)	-283.1	Apriori accel (us/s/s)	3.84325076803E-05	Resid phase (deg)	63.7	+/-	19.7

ph/seg (deg)	52.3	Theor.	47.3	Amplitude	0.115 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	67.6		82.6	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	21.1		27.9	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	43.5		48.7	Inc. seg. avg.	0.114	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
				Inc. frq. avg.	0.107	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

I: az 57.6 el 29.1 pa -66.8 N: az 273.5 el 67.0 pa 71.6 u,v (fr/asec) -10433.249 2012.172 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/IN..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/IN.W.233.1X0HBB

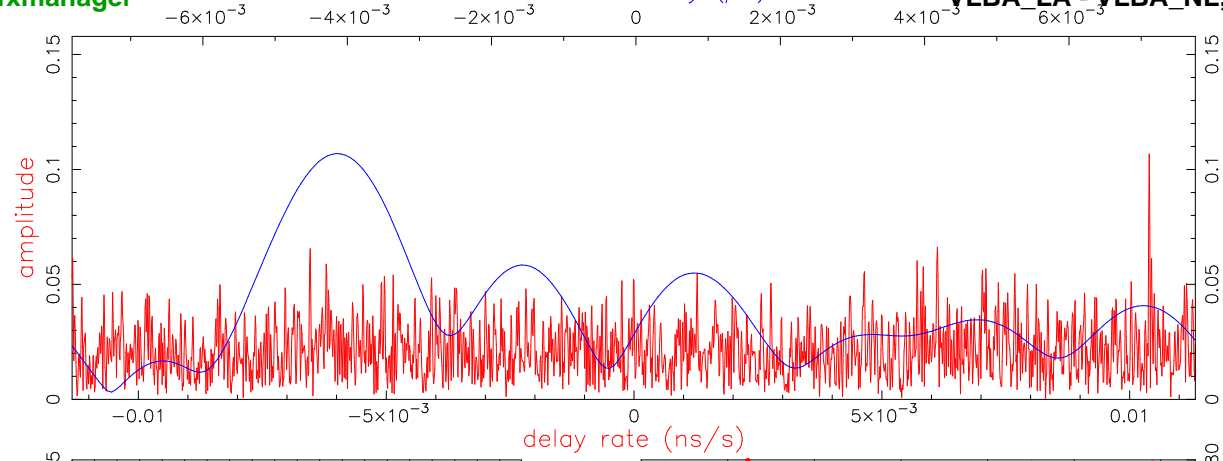
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, In

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

multiband delay ( $\mu$ s)



Fringe quality 0

SNR 6.1

Int time 417.830

Amp 0.158

Phase -5.5

PFD 2.9e-01

Delays (us)

SBD 0.639144

MBD -0.004188

Fringe rate (Hz)

0.896778

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c211c

Exper # 16383

Yr:day 2021:116

Start 144501.54

Stop 145159.84

FRT 144830.00

Corr/FF/build

2021:303:063723

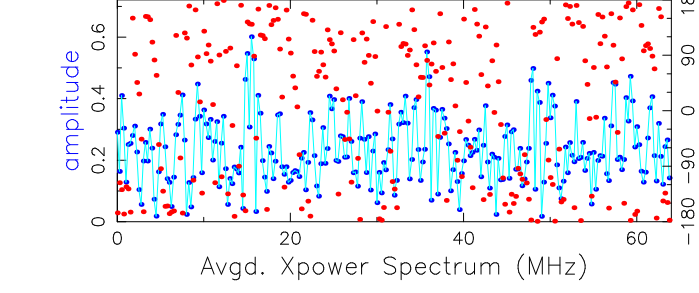
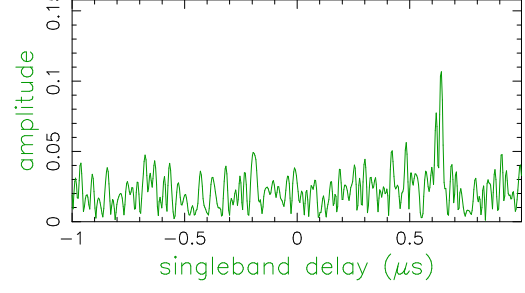
2021:303:121359

2021:252:122852

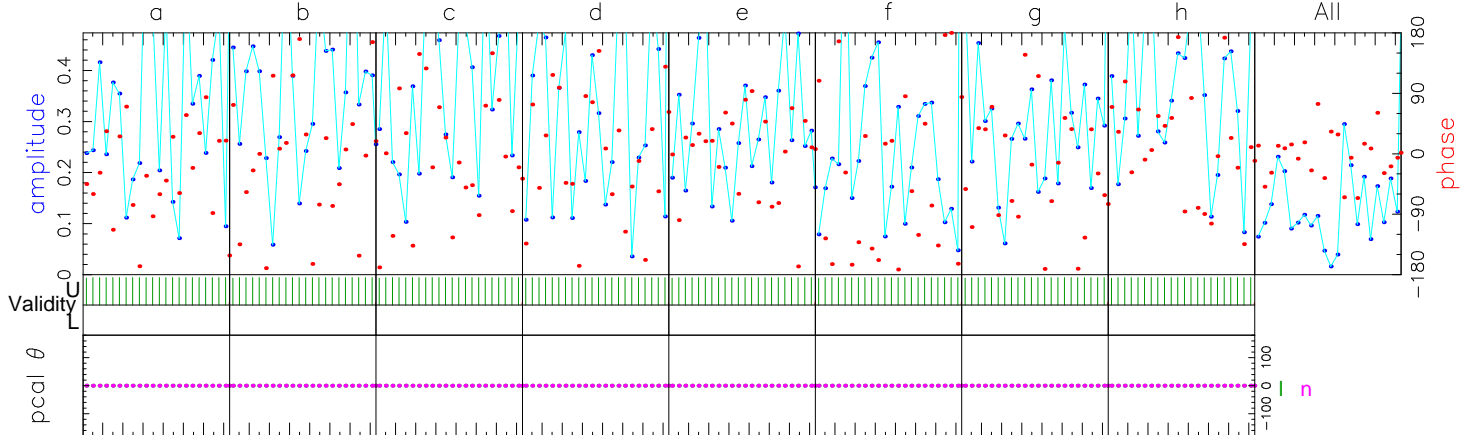
RA & Dec (J2000)

03h19m48.160095s

+41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
l	0	0	0	0	0	0	0	0	APs used	
n	0	0	0	0	0	0	0	0	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)	-3.85613050324E+03									
Sband delay (usec)	-3.85612779620E+03									
Phase delay (usec)	-3.85676694038E+03									
Delay rate (us/s)	1.42283361345E-01									
Total phase (deg)			-88.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
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)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

ph/seg (deg) 35.2 45.3 Search (2048X32) 0.103 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 68.4 79.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 50.1 26.7 Inc. seg. avg. 0.144 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 35.6 46.6 Inc. frq. avg. 0.162 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 57.6 el 29.1 pa -66.8 n: az 66.8 el 42.0 pa -66.4 u,v (fr/asec) -1060.538 474.115 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/In..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/In.W.237.1X0HBB

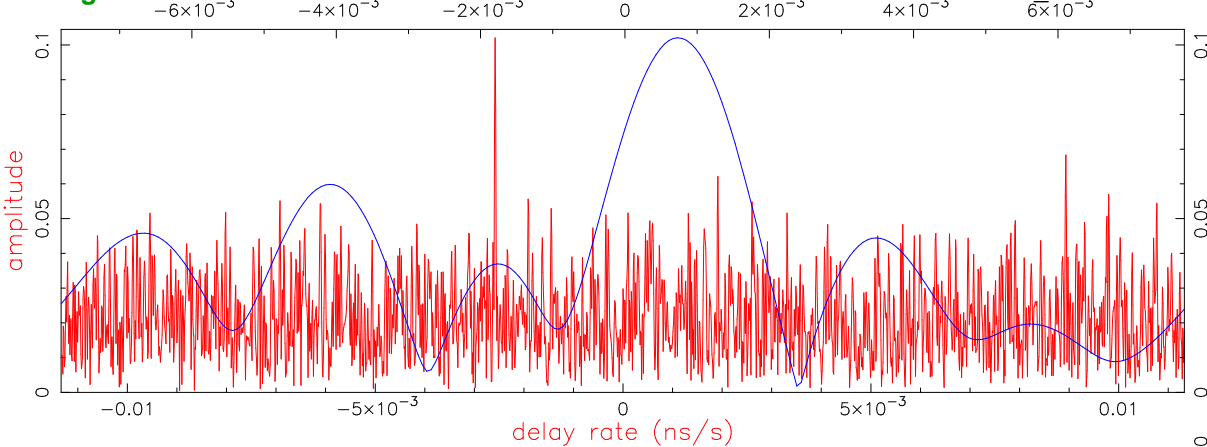
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, IN

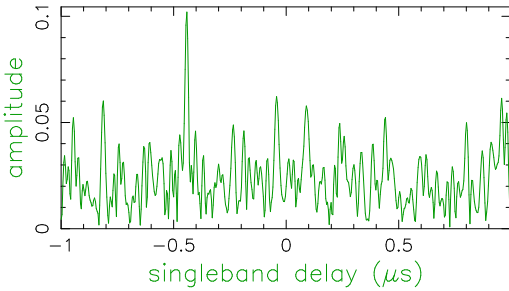
VLBA LA- NOEMA, fgroup W, pol RL

multiband delay ( $\mu$ s)

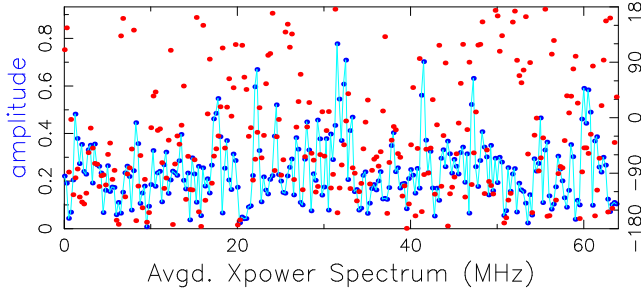


Fringe quality 0

SNR 5.7  
 Int time 417.830  
 Amp 0.104  
 Phase -134.5  
 PFD 9.3e-01  
 Delays (us)  
 SBD -0.442039  
 MBD 0.000704  
 Fringe rate (Hz)  
 -0.222258  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

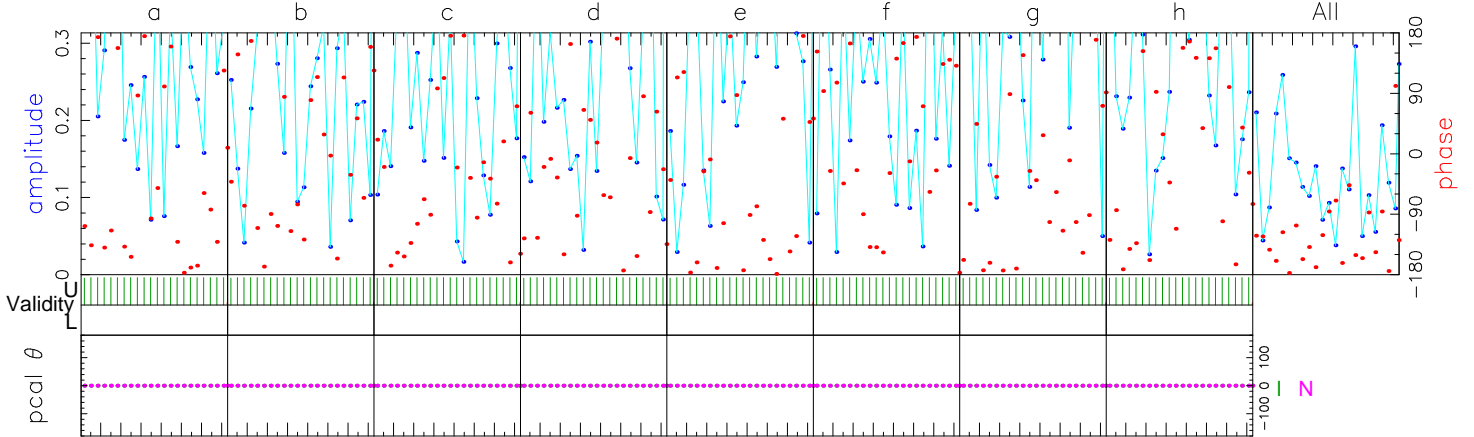


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121401  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-147.0	-142.9	-104.7	-90.0	-150.6	-137.6	-118.4	-157.0	Phase	-134.5
	0.2	0.1	0.1	0.1	0.2	0.0	0.2	0.1	Ampl.	0.1
	144.0	369.4	58.4	270.6	195.9	385.9	144.2	99.0	Sbd box	143.8
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
I	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:N	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	
N	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-8.88041303199E+03	Apriori delay (usec)	-8.87997623593E+03	Resid mbdelay (usec)	7.03939E-04	+/-	1.9E-04
Sband delay (usec)	-8.88041827543E+03	Apriori clock (usec)	1.0728291E+01	Resid sbdelay (usec)	-4.42039E-01	+/-	1.5E-03
Phase delay (usec)	-8.87997624027E+03	Apriori clockrate (us/s)	4.1030001E-06	Resid phdelay (usec)	-4.33703E-06	+/-	6.5E-07
Delay rate (us/s)	1.37263110038E+00	Apriori rate (us/s)	1.37263368058E+00	Resid rate (us/s)	-2.58019E-06	+/-	2.7E-09
Total phase (deg)	-121.3	Apriori accel (us/s/s)	3.84325076803E-05	Resid phase (deg)	-134.5	+/-	20.0

ph/seg (deg)	RMS 44.3	Theor. 48.1	Amplitude Search (2048X32)	0.104 +/- 0.018	0.099	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	71.1	83.9	Interp.	0.000	0.097	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	26.2	28.3	Inc. seg. avg.	0.097	0.099	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	56.6	49.5	Inc. frq. avg.	0.099	0.099	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

I: az 57.6 el 29.1 pa -66.8 N: az 273.5 el 67.0 pa 71.6 u,v (fr/asec) -10433.249 2012.172 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/IN..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/IN.W.242.1X0HBB

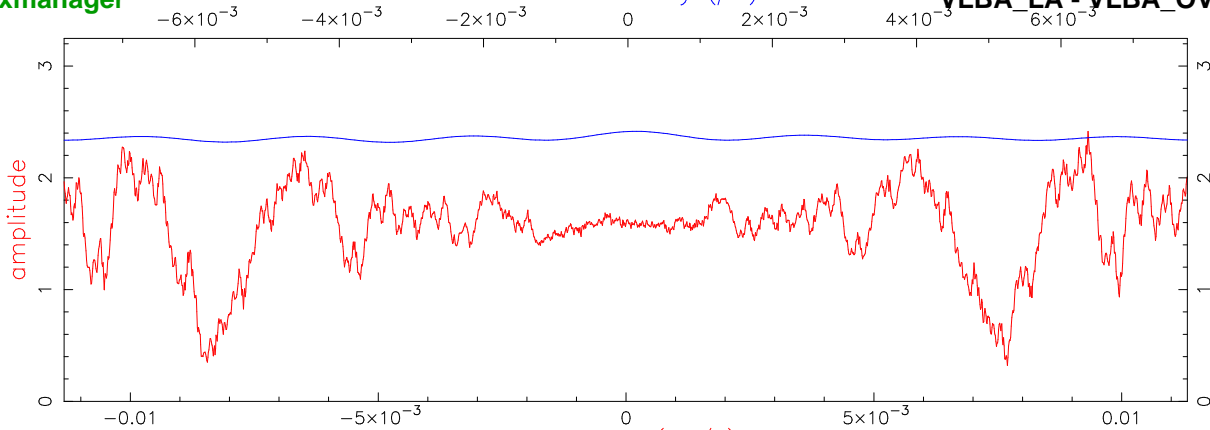
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, lo

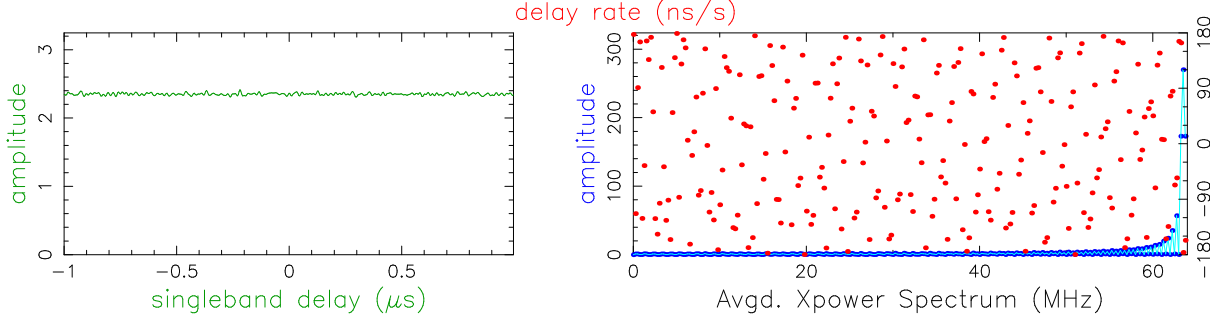
VLBA\_LA - VLBA\_OV, fgroup W, pol LL

multiband delay ( $\mu$ s)



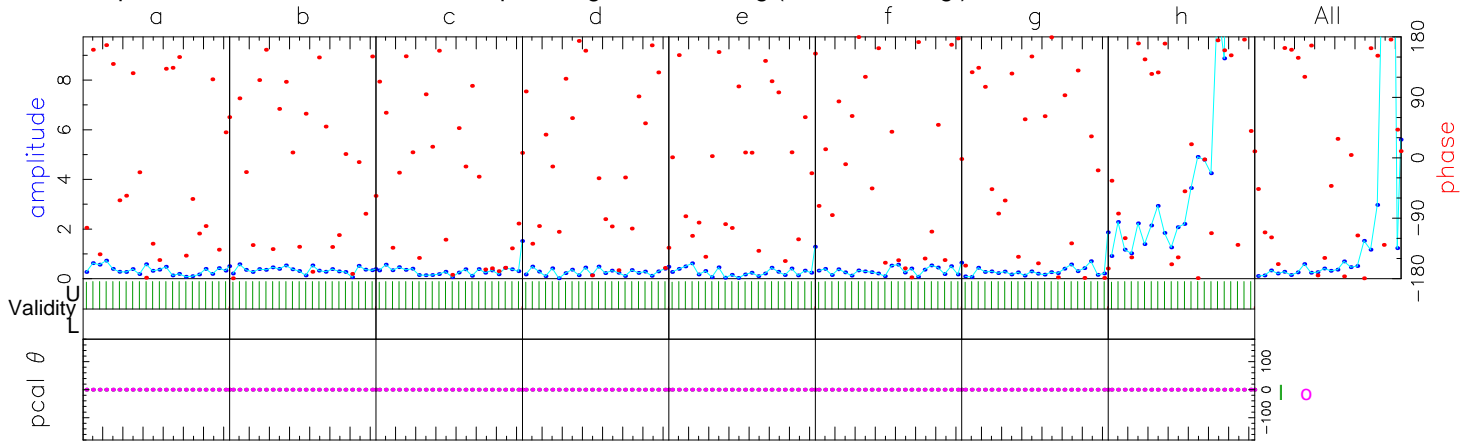
Fringe quality 1

SNR 135.0  
Int time 417.787  
Amp 3.247  
Phase -171.7  
PFD 0.0e+00  
Delays (us)  
SBD -0.218484  
MBD 0.000095  
Fringe rate (Hz)  
0.803831  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 144501.54  
Stop 145159.84  
FRT 144830.00  
Corr/FF/build  
2021:303:063723  
2021:303:121347  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-170.2	152.2	-150.5	-150.1	-154.7	-174.5	160.2	-171.6	Phase	-171.7
	0.2	0.1	0.0	0.1	0.0	0.1	0.1	25.3	Ampl.	3.3
	163.1	158.8	289.8	49.8	208.7	436.0	485.4	222.9	Sbd box	201.1
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	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	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	2.40190435583E+03		Apriori delay (usec)		2.40212301043E+03		Resid mbdelay (usec)		9.53995E-05	+/- 8.0E-06
Sband delay (usec)	2.40190452618E+03		Apriori clock (usec)		-6.3679504E+00		Resid sbdelay (usec)		-2.18484E-01	+/- 6.4E-05
Phase delay (usec)	2.40212300489E+03		Apriori clockrate (us/s)		-6.4600002E-07		Resid phdelay (usec)		-5.53635E-06	+/- 2.7E-08
Delay rate (us/s)	2.47047756001E-03		Apriori rate (us/s)		2.46114588238E-03		Resid rate (us/s)		9.33168E-06	+/- 1.1E-10
Total phase (deg)			Apriori accel (us/s/s)		-1.43313650138E-05		Resid phase (deg)		-171.7	+/- 0.8

	RMS	Theor.	Amplitude	3.247 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	78.3	2.0	Search (2048X32)	2.323	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	333.8	3.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	23.5	1.2	Inc. seg. avg.	3.990	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	257.0	2.1	Inc. frq. avg.	3.252	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
l: az 57.6 el 29.1 pa -66.8	o: az 53.6 el 21.9 pa -59.1		u,v (fr/asec) -46.119 -1133.511		ion window (TEC) 0.00 0.00	

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/lo..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/lo.W.178.1X0HBB simultaneous interpolator

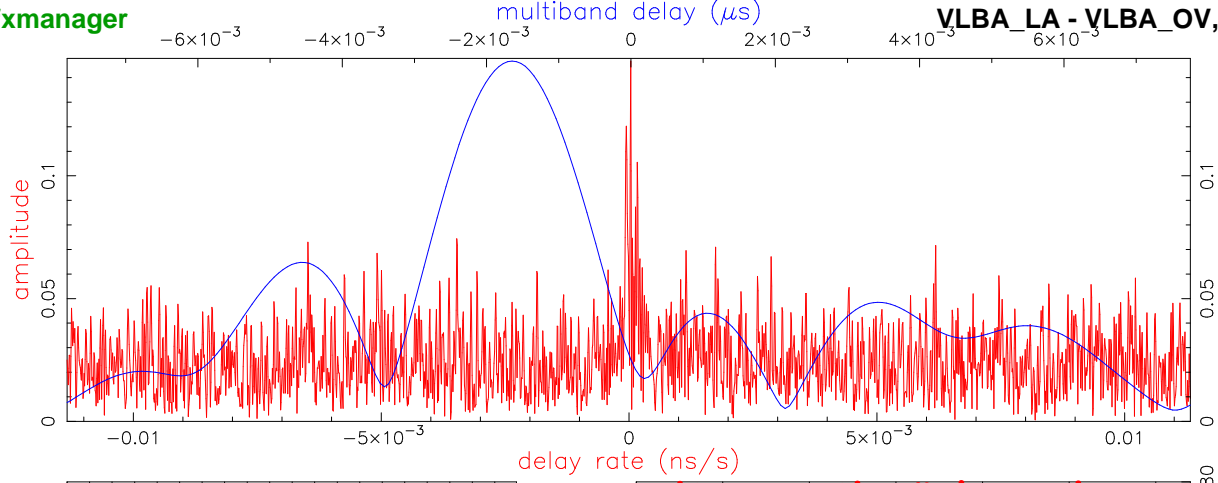


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, lo

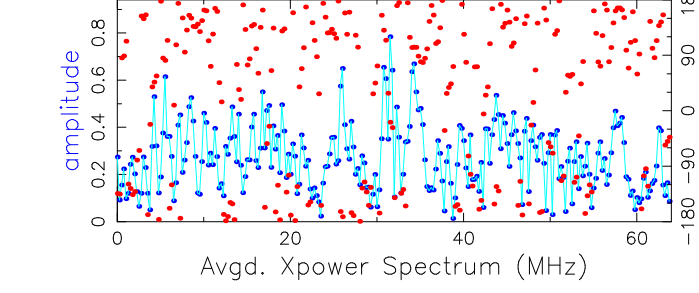
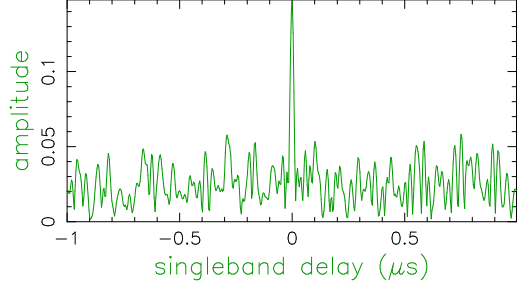
VLBA\_LA - VLBA\_OV, fgroup W, pol RR



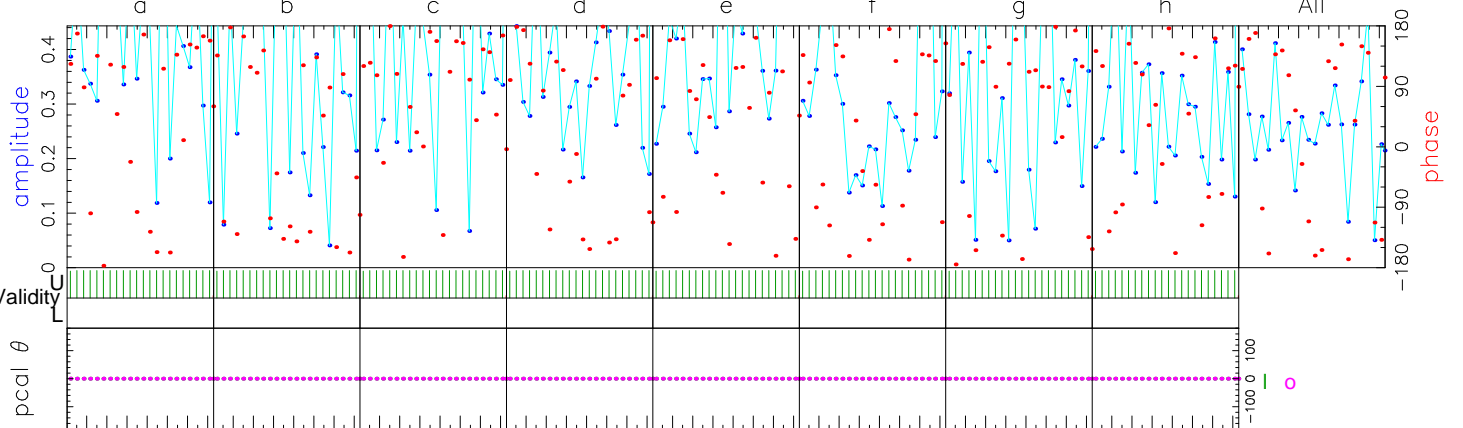
Fringe quality 9

SNR 8.3  
 Int time 417.787  
 Amp 0.148  
 Phase 153.4  
 PFD 5.0e-08  
 Delays (us)  
 SBD -0.001103  
 MBD -0.001658  
 Fringe rate (Hz) 0.003079  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build 2021:303:063723  
 2021:303:121351  
 2021:252:122852  
 RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
l	0	0	0	0	0	0	0	0		
o	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: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)	146.6	177.1	128.9	155.2	-179.4	171.5	145.0	152.9		
Sband delay (usec)	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1		
Phase delay (usec)	256.4	257.5	256.7	255.7	38.5	502.0	306.2	509.7		
Delay rate (us/s)	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
Total phase (deg)			196.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										

ph/seg (deg) 69.4 33.3 Search (2048X32) 0.142 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 99.8 58.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 19.8 19.6 Inc. seg. avg. 0.223 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 37.2 34.2 Inc. frq. avg. 0.144 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 l: az 57.6 el 29.1 pa -66.8 o: az 53.6 el 21.9 pa -59.1 u,v (fr/asec) -46.119 -1133.511 ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/lo..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/lo.W.200.1X0HBB simultaneous interpolator

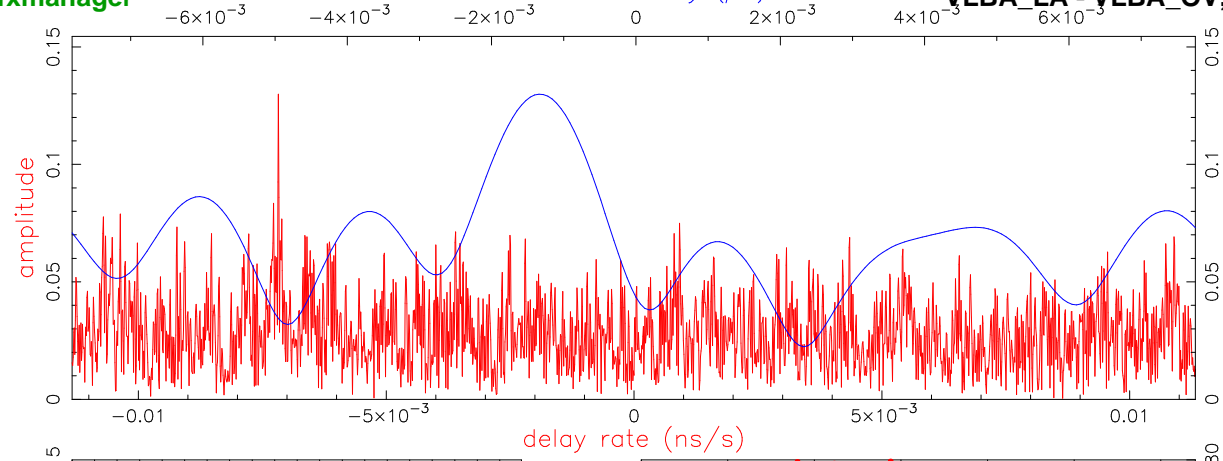
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, lo

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

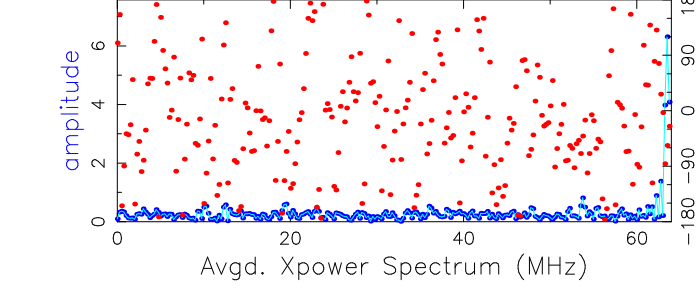
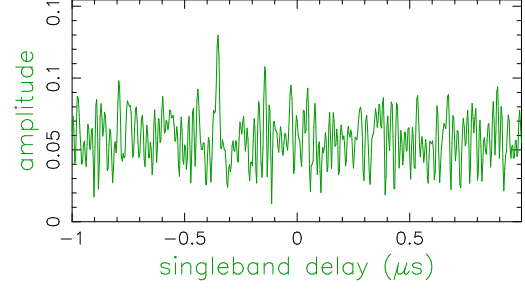
multiband delay ( $\mu$ s)



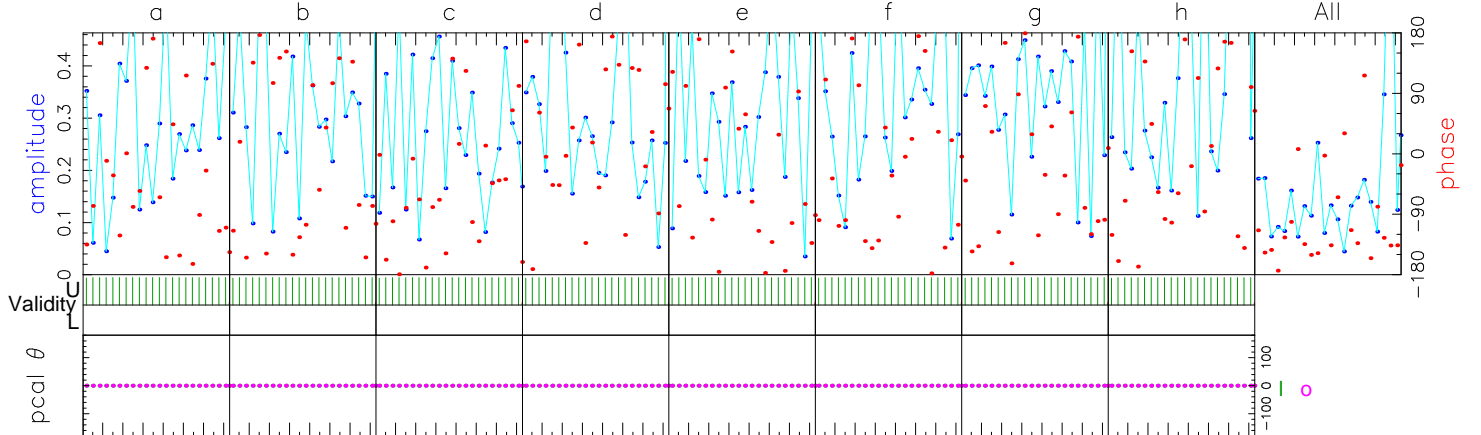
Fringe quality 0

SNR 7.3  
 Int time 417.787  
 Amp 0.154  
 Phase -132.0  
 PFD 1.1e-04  
 Delays (us)  
 SBD -0.352167  
 MBD -0.001320  
 Fringe rate (Hz)  
 -0.619004  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121355  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-125.0	-165.9	-92.2	-50.3	-136.3	-126.7	-86.1	-139.0	Phase	-132.0
	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.6	Ampl.	0.2
	469.8	270.6	130.3	431.2	214.7	230.0	286.6	74.0	Sbd box	166.8
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	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		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 2.40177794000E+03 Apriori delay (usec) 2.40212301043E+03 Resid mbdelay (usec) -1.32043E-03 +/- 1.5E-04  
 Sband delay (usec) 2.40177084368E+03 Apriori clock (usec) 0.126 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 Phase delay (usec) 2.40212300617E+03 Apriori clockrate (us/s) -6.4600002E-07 Resid sbdelay (usec) -3.52167E-01 +/- 1.2E-03  
 Delay rate (us/s) 2.45395985964E-03 Apriori rate (us/s) 2.46114588238E-03 Resid phdelay (usec) -4.25626E-06 +/- 5.1E-07  
 Total phase (deg) -89.4 Apriori accel (us/s/s) -1.43313650138E-05 Resid rate (us/s) -7.18602E-06 +/- 2.1E-09  
 Resid phase (deg) -132.0 +/- 15.7

RMS Theor. Amplitude 0.154 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 63.2 37.8 Search (2048X32) 0.126 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 121.5 65.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 44.1 22.3 Inc. seg. avg. 0.163 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 107.5 38.9 Inc. frq. avg. 0.153 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

l: az 57.6 el 29.1 pa -66.8 o: az 53.6 el 21.9 pa -59.1 u,v (fr/asec) -46.119 -1133.511 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/lo..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/lo.W.222.1X0HBB

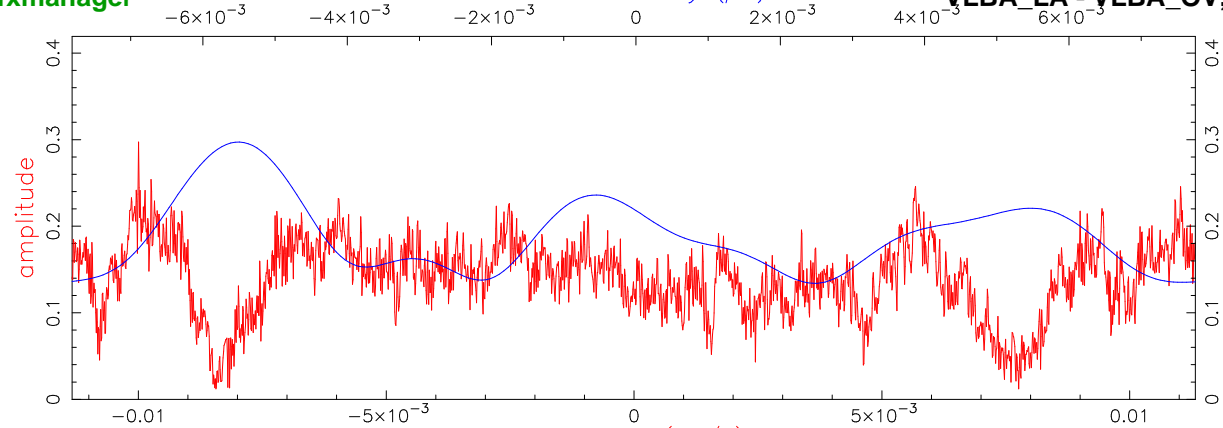
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, lo

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

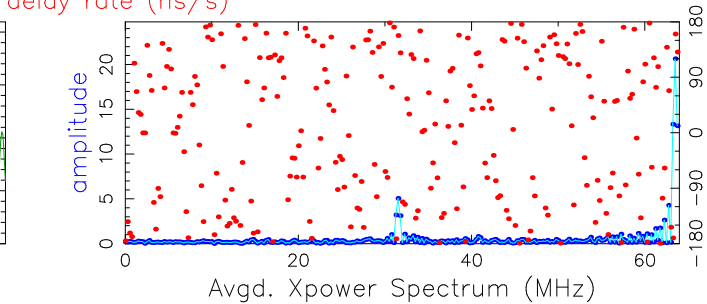
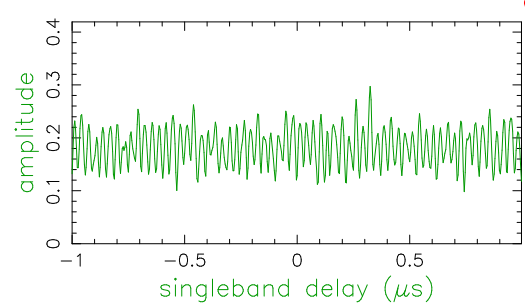
multiband delay ( $\mu$ s)



Fringe quality 8

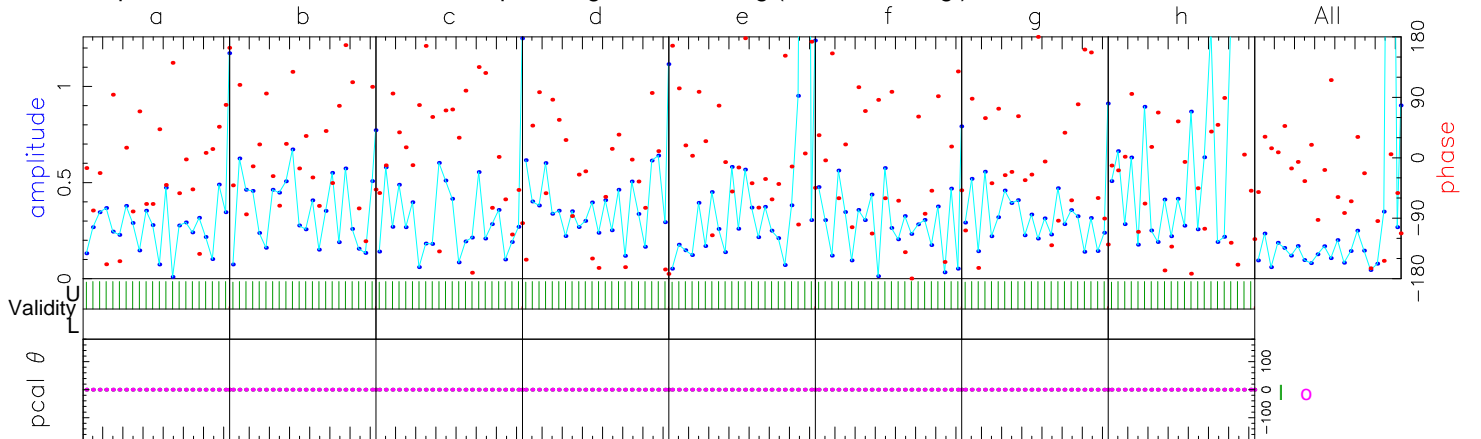
SNR 16.6  
 Int time 417.787  
 Amp 0.419  
 Phase -2.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.324098  
 MBD -0.005499  
 Fringe rate (Hz)  
 -0.862153  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121359  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-29.2	17.4	37.9	0.3	-6.8	-9.5	-4.6	-3.0	Phase	-2.9
	0.1	0.1	0.1	0.1	0.6	0.1	0.1	2.1	Ampl.	0.4
	167.7	286.6	273.9	322.8	213.9	445.9	374.9	450.0	Sbd box	340.0
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	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		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	2.40244563614E+03		Apriori delay (usec)		2.40212301043E+03		Resid mbdelay (usec)		-5.49929E-03	+/- 6.5E-05
Sband delay (usec)	2.40244710793E+03		Apriori clock (usec)		-6.3679504E+00		Resid sbdelay (usec)		3.24098E-01	+/- 5.2E-04
Phase delay (usec)	2.40212301033E+03		Apriori clockrate (us/s)		-6.4600002E-07		Resid phdelay (usec)		-9.40729E-08	+/- 2.2E-07
Delay rate (us/s)	2.45113714181E-03		Apriori rate (us/s)		2.46114588238E-03		Resid rate (us/s)		-1.00087E-05	+/- 9.2E-10
Total phase (deg)	39.7		Apriori accel (us/s/s)		-1.43313650138E-05		Resid phase (deg)		-2.9	+/- 6.9

ph/seg (deg) 69.1 16.5 Search (2048X32) 0.288 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 348.6 28.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 21.8 9.8 Inc. seg. avg. 0.513 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 153.0 17.0 Inc. frq. avg. 0.420 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 57.6 el 29.1 pa -66.8 o: az 53.6 el 21.9 pa -59.1 u,v (fr/asec) -46.119 -1133.511 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/lo..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/lo.W.236.1X0HBB

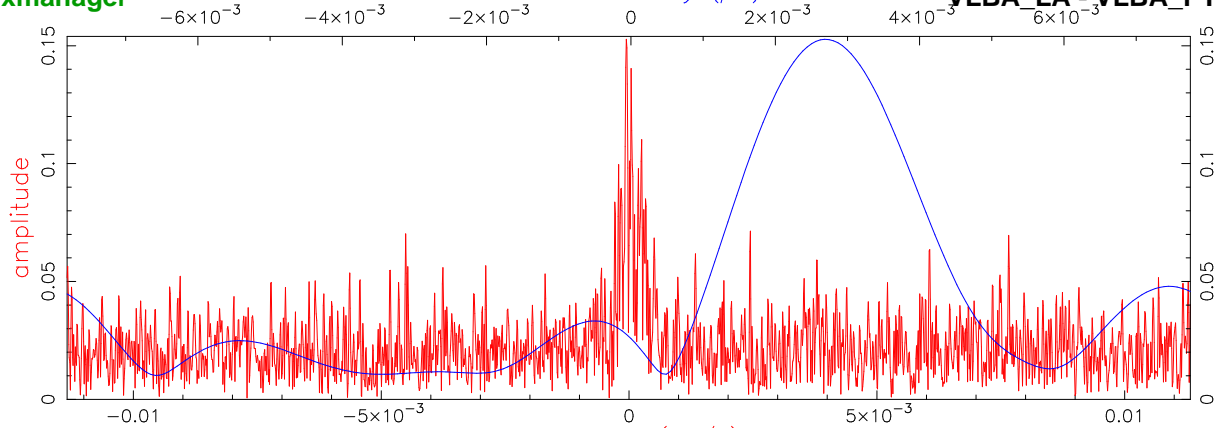
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, lp

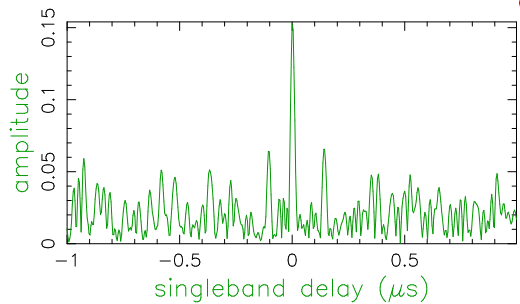
VLBA\_LA - VLBA\_PT, fgroup W, pol LL

multiband delay ( $\mu$ s)

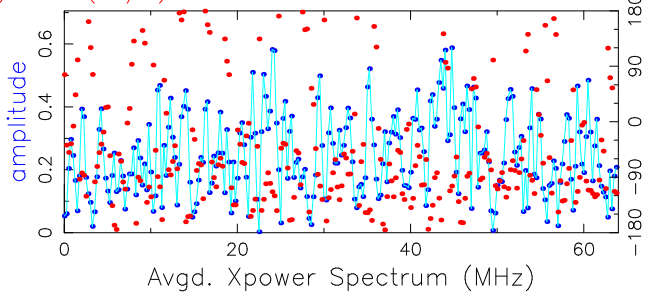


Fringe quality 9

SNR 8.6  
 Int time 417.830  
 Amp 0.154  
 Phase -117.5  
 PFD 2.8e-09  
 Delays (us)  
 SBD 0.001220  
 MBD 0.002713  
 Fringe rate (Hz)  
 -0.005109  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

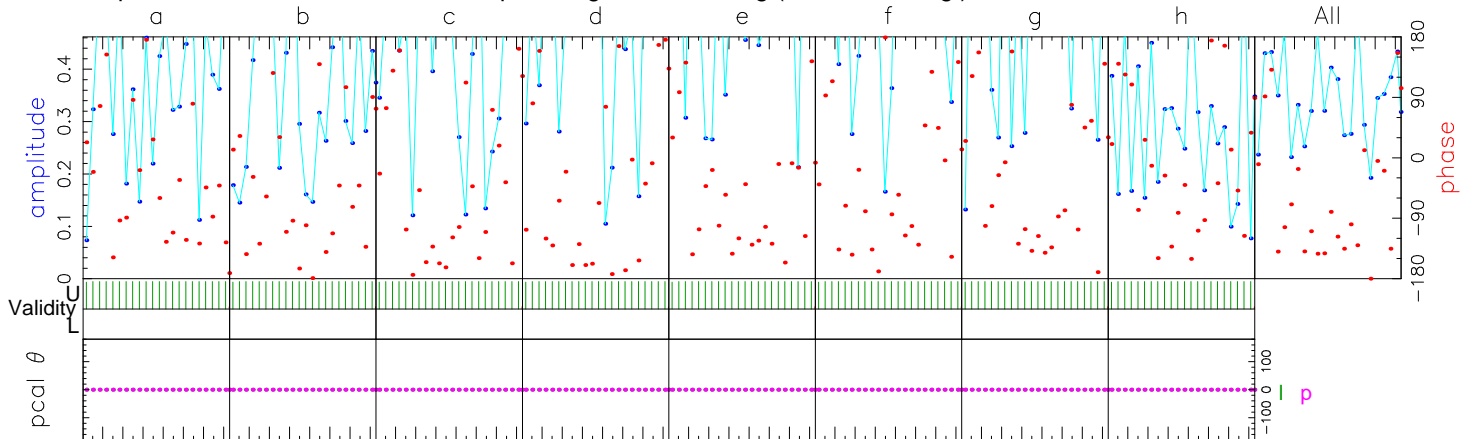


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121347  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-97.2	-95.2	-146.6	-133.6	-109.9	-104.8	-128.4	-99.9	Phase	-117.5
	0.1	0.1	0.2	0.2	0.3	0.1	0.2	0.1	Ampl.	0.2
	8.7	428.1	256.3	257.0	257.1	258.6	247.5	68.1	Sbd box	257.3
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
lp	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		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	6.69986435321E+02	Apriori delay (usec)	6.69983722566E+02	Resid mbdelay (usec)	2.71276E-03	+/-	1.3E-04
Sband delay (usec)	6.69984942316E+02	Apriori clock (usec)	-8.1614971E+00	Resid sbdelay (usec)	1.21975E-03	+/-	1.0E-03
Phase delay (usec)	6.69983718778E+02	Apriori clockrate (us/s)	-1.6600001E-07	Resid phdelay (usec)	-3.78817E-06	+/-	4.3E-07
Delay rate (us/s)	-2.20310419878E-02	Apriori rate (us/s)	-2.20309826801E-02	Resid rate (us/s)	-5.93077E-08	+/-	1.8E-09
Total phase (deg)	192.8	Apriori accel (us/s/s)	-2.03178313381E-06	Resid phase (deg)	-117.5	+/-	13.3

ph/seg (deg)	RMS 72.5	Theor. 31.9	Amplitude Search (2048X32)	0.151	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	139.4	55.7	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)	21.1	18.8	Inc. seg. avg.	0.304	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	33.0	32.9	Inc. frq. avg.	0.152	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

l: az 57.6 el 29.1 pa -66.8 p: az 56.3 el 27.0 pa -67.3 u,v (fr/asec) 164.482 -4.155 simultaneous interpolator

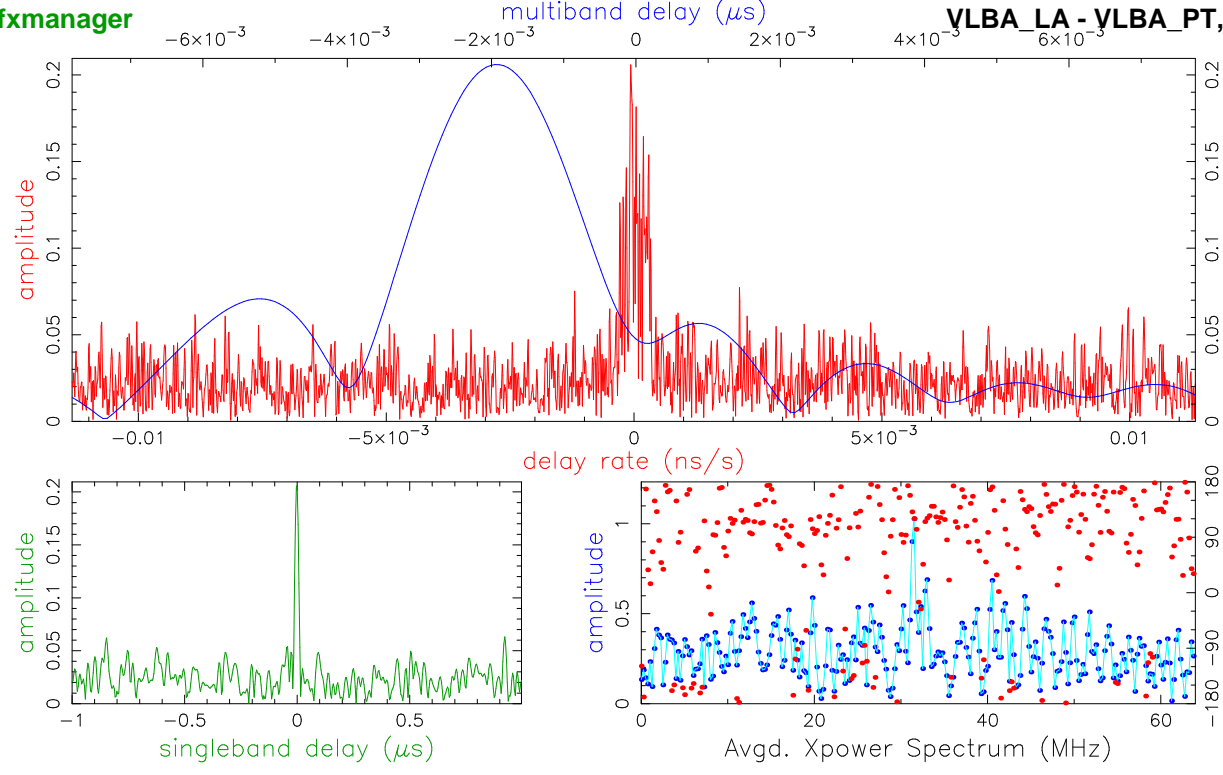
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/lp..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/lp.W.182.1X0HBB

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, lp

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

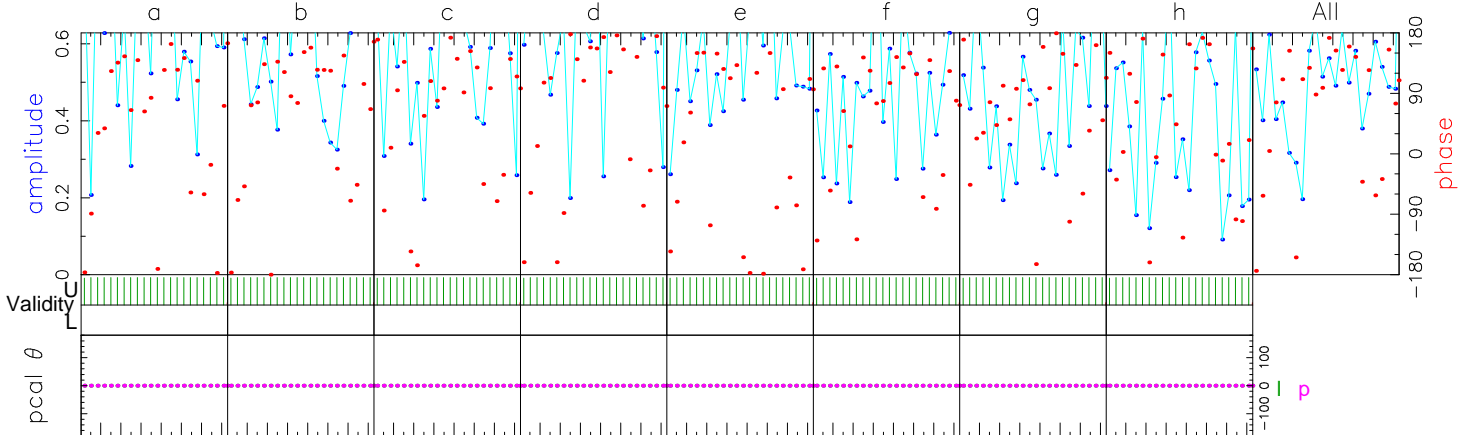


Fringe quality 9

SNR 11.7  
 Int time 417.830  
 Amp 0.210  
 Phase 126.6  
 PFD 5.4e-23  
 Delays (us)  
 SBD -0.002127  
 MBD -0.001869  
 Fringe rate (Hz)  
 -0.005906  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121351  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
l	0	0	0	0	0	0	0	0		
p	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		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	6.69981853673E+02		Apriori delay (usec)		6.69983722566E+02		Resid mbdelay (usec)		-1.86889E-03	+/- 9.3E-05
Sband delay (usec)	6.69981595816E+02		Apriori clock (usec)		-8.1614971E+00		Resid sbdelay (usec)		-2.12675E-03	+/- 7.4E-04
Phase delay (usec)	6.69983726649E+02		Apriori clockrate (us/s)		-1.6600001E-07		Resid phdelay (usec)		4.08279E-06	+/- 3.2E-07
Delay rate (us/s)	-2.20310512465E-02		Apriori rate (us/s)		-2.20309826801E-02		Resid rate (us/s)		-6.85664E-08	+/- 1.3E-09
Total phase (deg)	76.9		Apriori accel (us/s/s)		-2.03178313381E-06		Resid phase (deg)		126.6	+/- 9.8

ph/seg (deg) 83.1 23.5 Search (2048X32) 0.205 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 145.4 40.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 20.3 13.8 Inc. seg. avg. 0.451 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 27.0 24.1 Inc. frq. avg. 0.210 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 57.6 el 29.1 pa -66.8 p: az 56.3 el 27.0 pa -67.3 u,v (fr/asec) 164.482 -4.155 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/lp..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/lp.W.202.1X0HBB



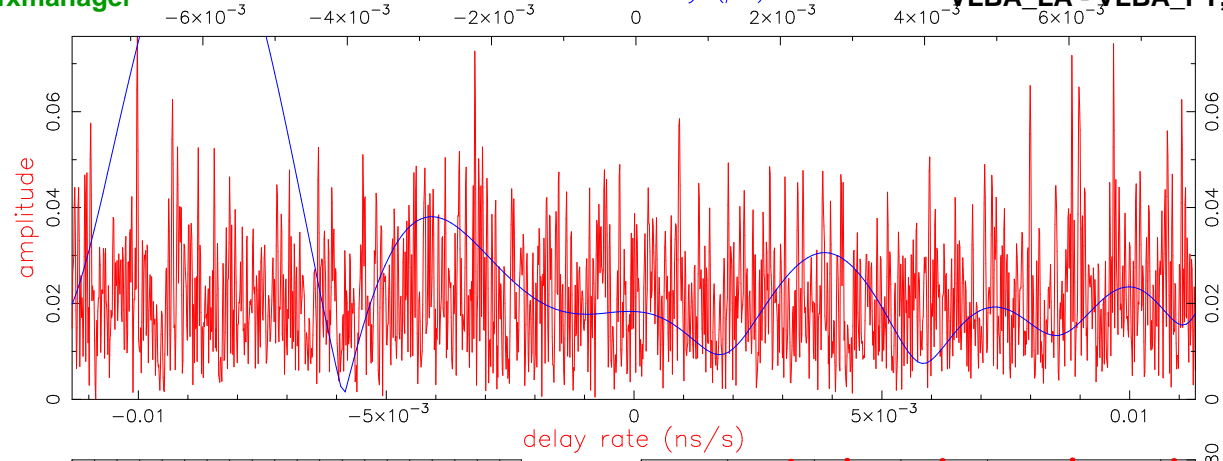
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

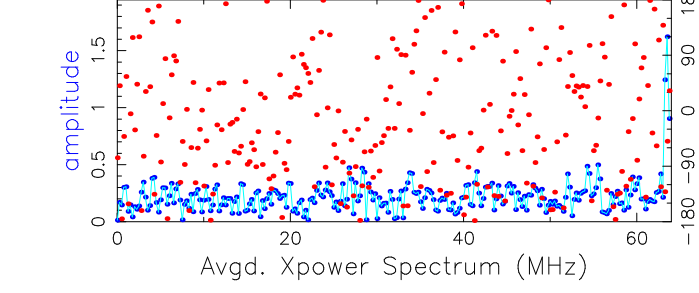
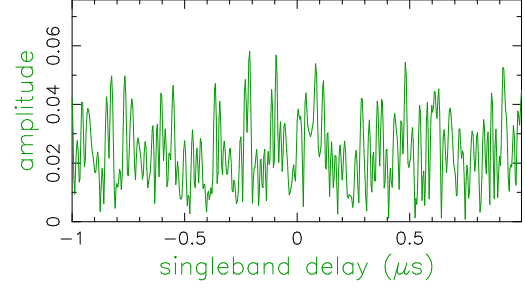
3C84.1X0HBB, No0080, lp

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

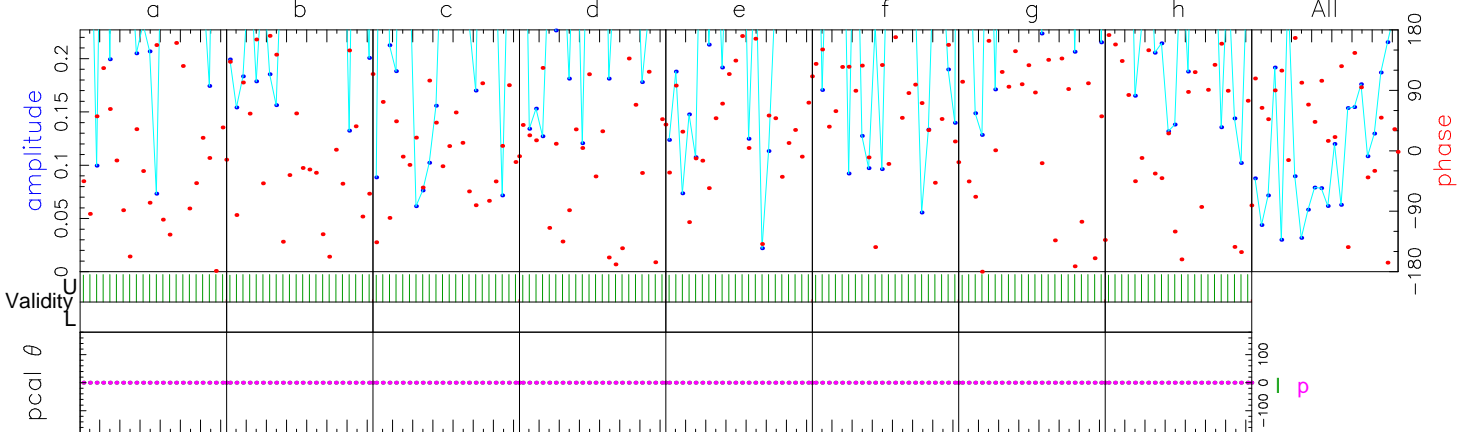
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 2.8  
 Int time 417.830  
 Amp 0.076  
 Phase 63.6  
 PFD 1.0e+00  
 Delays (us)  
 SBD -0.825277  
 MBD 0.008301  
 Fringe rate (Hz) 0.937069  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121355  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-78.1	-46.7	11.9	63.3	48.4	83.7	139.9	128.5	Phase	63.6	
	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	Ampl.	0.1	
	163.4	301.1	44.1	111.8	391.3	230.8	212.2	287.6	Sbd box	45.7	
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used		
l	0	0	0	0	0	0	0	0	PC freqs		
p	0	0	0	0	0	0	0	0	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			
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Chan ids		
									Tracks		
Group delay (usec)(sbd)	6.69163898347E+02		Apriori delay (usec)		6.69983722566E+02		Resid mbdelay (usec)		8.30078E-03	+/- 3.9E-04	
Sband delay (usec)	6.69158445816E+02		Apriori clock (usec)		-8.1614971E+00		Resid sbdelay (usec)		-8.25277E-01	+/- 3.1E-03	
Phase delay (usec)	6.69983724617E+02		Apriori clockrate (us/s)		-1.6600001E-07		Resid phdelay (usec)		2.05087E-06	+/- 1.3E-06	
Delay rate (us/s)	-2.20201042339E-02		Apriori rate (us/s)		-2.20309826801E-02		Resid rate (us/s)		1.08784E-05	+/- 5.5E-09	
Total phase (deg)			Apriori accel (us/s/s)		-2.03178313381E-06		Resid phase (deg)		63.6	+/- 40.9	
	RMS	Theor.	Amplitude	0.076 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	68.5	98.1	Search (2048X32)	0.098		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	195.9	171.2	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	87.2	57.8	Inc. seg. avg.	0.074		Sample rate(MISamp/s): 128		Data rate(Mb/s): 2048		dr window (ns/s)	-0.011 0.011
amp/frq (%)	137.4	101.0	Inc. frq. avg.	0.110		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00

l: az 57.6 el 29.1 pa -66.8 p: az 56.3 el 27.0 pa -67.3 u,v (fr/asec) 164.482 -4.155 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/lp..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/lp.W.221.1X0HBB

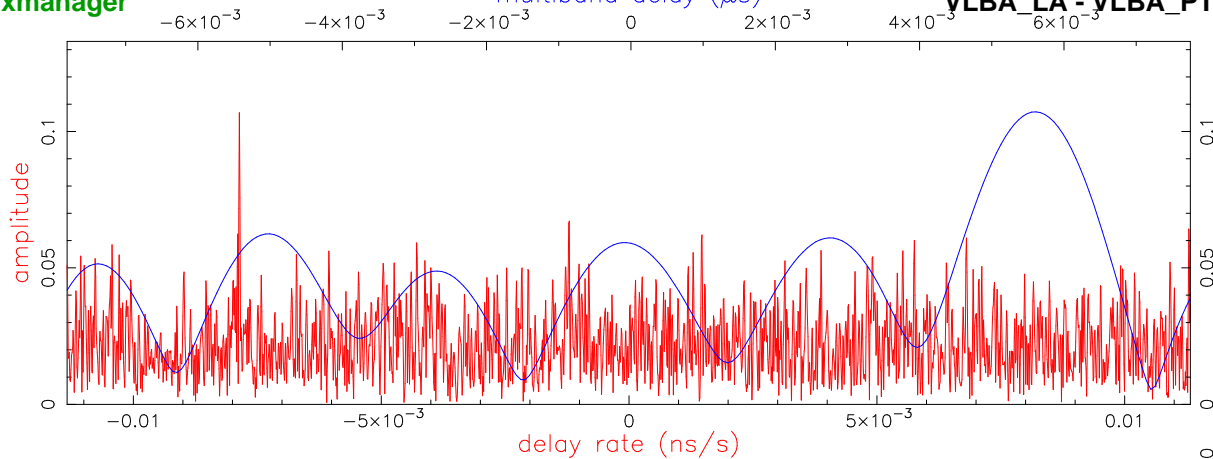
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, lp

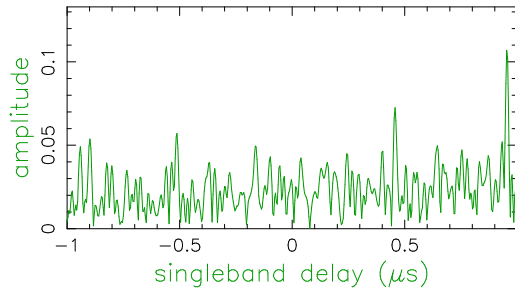
VLBA\_LA - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

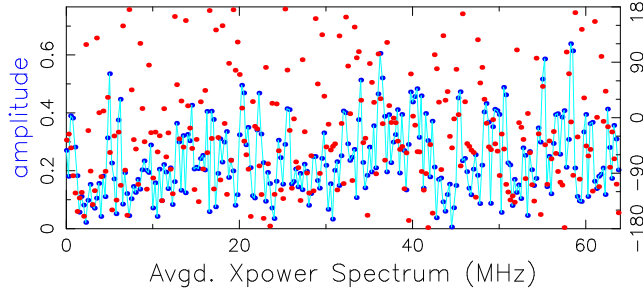


Fringe quality 0

SNR 6.0  
 Int time 417.830  
 Amp 0.133  
 Phase 81.1  
 PFD 3.2e-01  
 Delays (us)  
 SBD 0.954332  
 MBD 0.005675  
 Fringe rate (Hz)  
 -0.678276  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

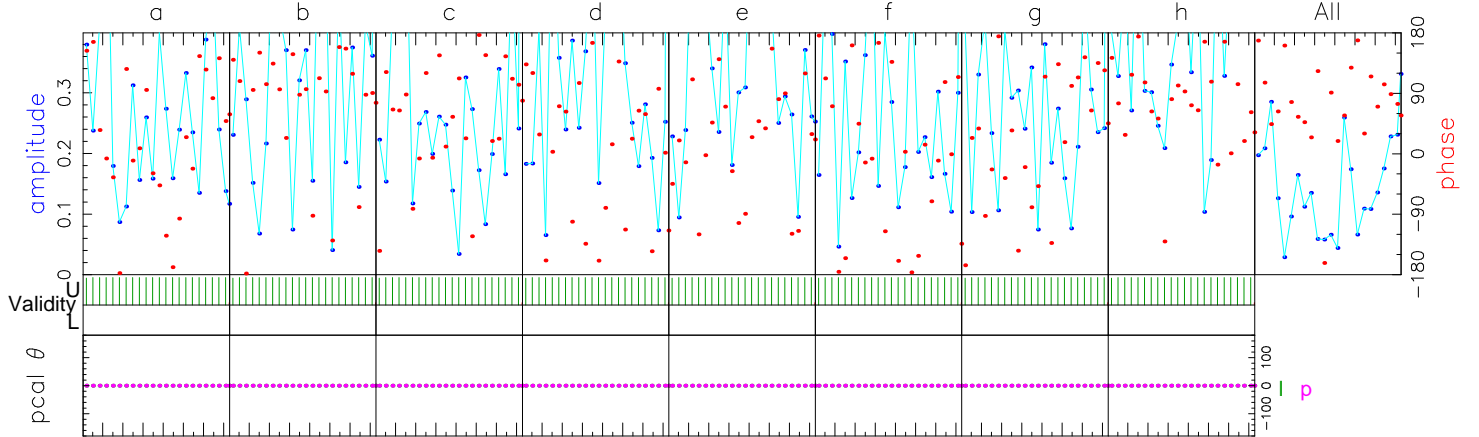


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121358  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	38.3	111.8	77.7	73.3	49.0	116.5	105.3	77.3	Phase	81.1
	0.1	0.3	0.2	0.1	0.2	0.0	0.0	0.3	Ampl.	0.1
	331.1	500.8	168.7	206.3	398.4	159.8	289.7	501.7	Sbd box	501.3
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
lp	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		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	6.70942522598E+02		Apriori delay (usec)		6.69983722566E+02		Resid mbdelay (usec)		5.67503E-03	+/- 1.8E-04
Sband delay (usec)	6.70938054816E+02		Apriori clock (usec)		-8.1614971E+00		Resid sbdelay (usec)		9.54332E-01	+/- 1.4E-03
Phase delay (usec)	6.69983725183E+02		Apriori clockrate (us/s)		-1.6600001E-07		Resid phdelay (usec)		2.61684E-06	+/- 6.1E-07
Delay rate (us/s)	-2.20388567888E-02		Apriori rate (us/s)		-2.20309826801E-02		Resid rate (us/s)		-7.87411E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.03178313381E-06		Resid phase (deg)		81.1	+/- 19.0

	RMS	Theor.	Amplitude	0.133 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	50.1	45.5	Search (2048X32)	0.104	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	73.2	79.3	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	30.9	26.8	Inc. seg. avg.	0.131	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	77.1	46.8	Inc. frq. avg.	0.130	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

l: az 57.6 el 29.1 pa -66.8 p: az 56.3 el 27.0 pa -67.3 u,v (fr/asec) 164.482 -4.155 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/lp..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/lp.W.235.1X0HBB

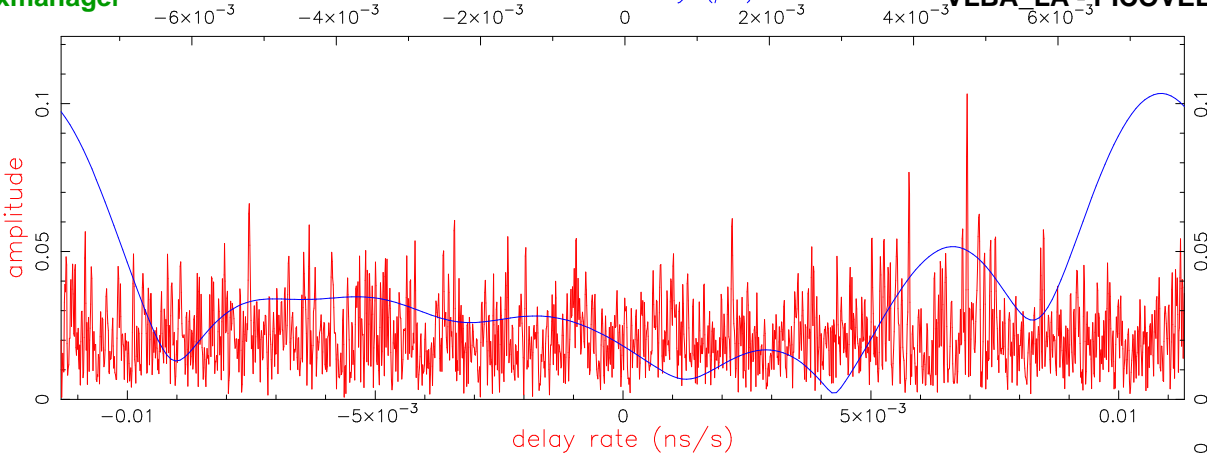
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, IP

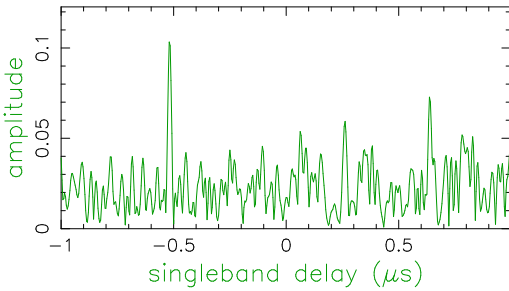
VLBA\_LA - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)

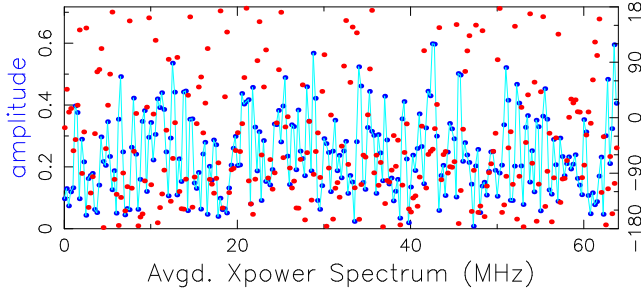


Fringe quality 0

SNR 5.9  
 Int time 417.830  
 Amp 0.123  
 Phase -27.4  
 PFD 7.1e-01  
 Delays (us)  
 SBD -0.518028  
 MBD 0.007357  
 Fringe rate (Hz)  
 0.598373  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

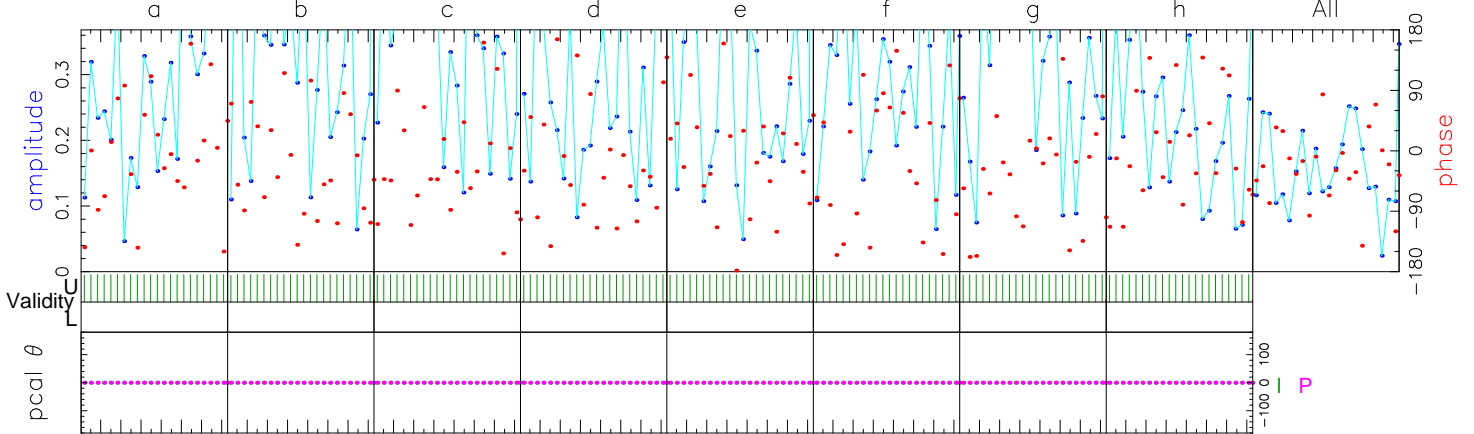


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121401  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-0.1	-36.6	-42.1	-47.9	7.2	-140.4	-26.2	-7.7	Phase	-27.4
	0.1	0.2	0.2	0.1	0.1	0.0	0.2	0.1	Ampl.	0.1
	432.5	298.1	135.8	200.3	502.7	470.0	251.6	371.2	Sbd box	124.4
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
I	0	0	0	0	0	0	0	0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-9.60748948135E+03	Apriori delay (usec)	-9.60696558853E+03	Resid mbdelay (usec)	7.35718E-03	+/-	1.9E-04
Sband delay (usec)	-9.60748361703E+03	Apriori clock (usec)	-1.5700455E+00	Resid sbdelay (usec)	-5.18028E-01	+/-	1.5E-03
Phase delay (usec)	-9.60696558942E+03	Apriori clockrate (us/s)	3.1399997E-07	Resid phdelay (usec)	-8.82695E-07	+/-	6.3E-07
Delay rate (us/s)	1.29359293682E+00	Apriori rate (us/s)	1.29358599030E+00	Resid rate (us/s)	6.94652E-06	+/-	2.6E-09
Total phase (deg)	-314.1	Apriori accel (us/s/s)	4.97122790554E-05	Resid phase (deg)	-27.4	+/-	19.6

ph/seg (deg)	RMS 54.6	Theor. 47.0	Amplitude Search (2048X32)	0.123 +/- 0.021	0.098	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	74.3	82.0	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	51.4	27.7	Inc. seg. avg.	0.135	0.135	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	47.7	48.3	Inc. frq. avg.	0.117	0.117	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

I: az 57.6 el 29.1 pa -66.8

P: az 291.7 el 72.3 pa 98.2

u,v (fr/asec) -9807.750 3453.501

simultaneous interpolator

Control file: cf\_1234\_gmva

Input file: /Exps/c211c/v1/1234/No0080/IP..1X0HBB

Output file: /Exps/c211c/v1/1234/No0080/IP.W.244.1X0HBB

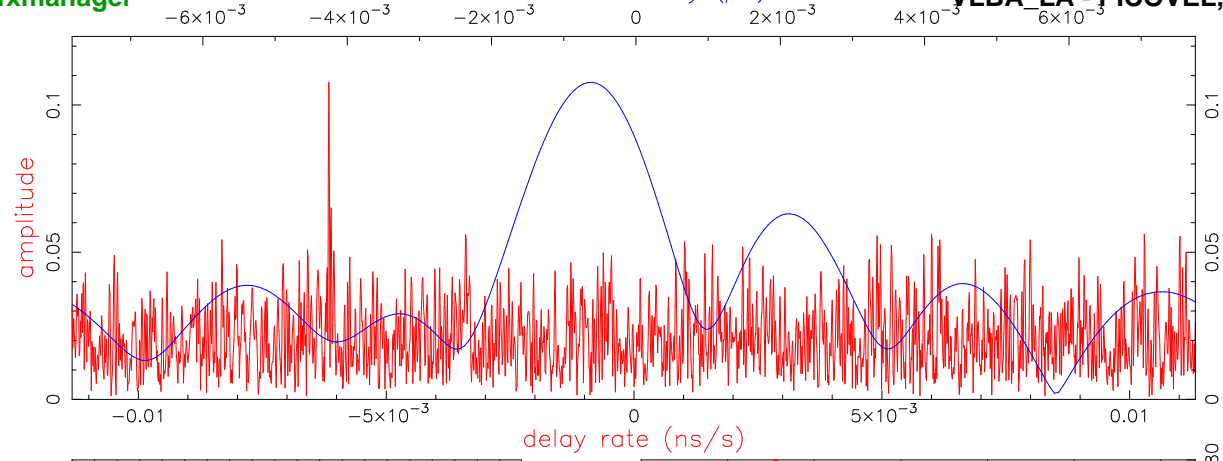
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, IP

VLBA\_LA - PICOVEL, fgroup W, pol RR

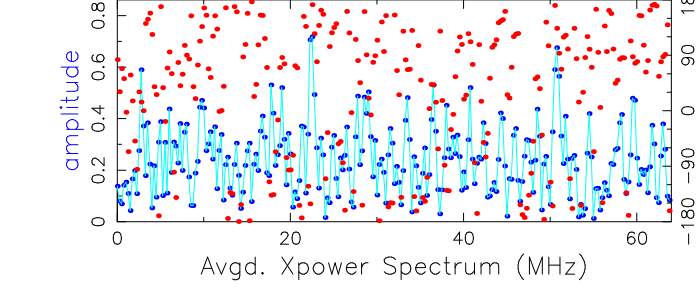
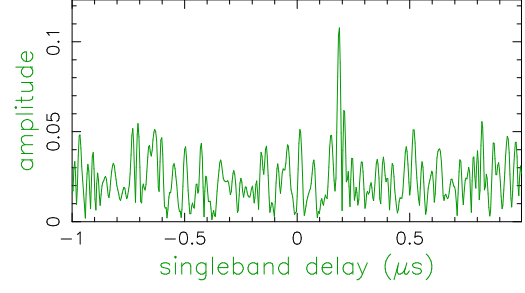
multiband delay ( $\mu$ s)



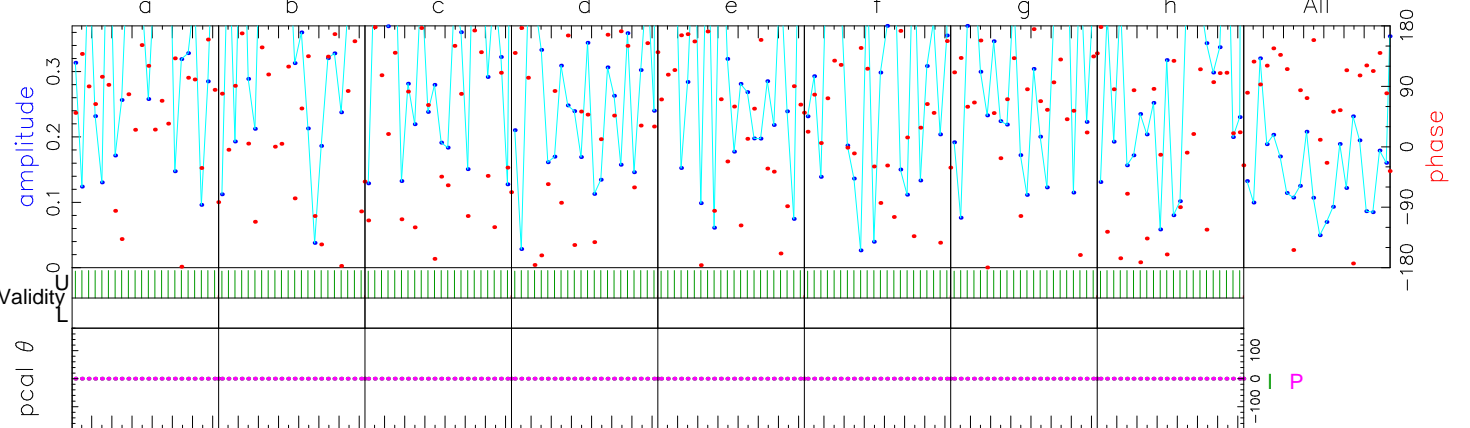
Fringe quality 0

SNR 6.1  
 Int time 417.830  
 Amp 0.123  
 Phase 110.4  
 PFD 2.6e-01  
 Delays (us)  
 SBD 0.186270  
 MBD -0.000656  
 Fringe rate (Hz)  
 -0.530961  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121405  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
I	0	0	0	0	0	0	0	0	APs used	
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-9.60677874492E+03								Resid mbdelay (usec)	-6.56387E-04 +/- 1.8E-04
Sband delay (usec)	-9.60677931853E+03								Resid sbdelay (usec)	1.86270E-01 +/- 1.4E-03
Phase delay (usec)	-9.60696558497E+03								Resid phdelay (usec)	3.55979E-06 +/- 6.1E-07
Delay rate (us/s)	1.29357982637E+00								Resid rate (us/s)	-6.16393E-06 +/- 2.5E-09
Total phase (deg)			-176.3						Resid phase (deg)	110.4 +/- 18.8
	RMS	Theor.	Amplitude	0.123 +/- 0.020					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	52.7	45.2	Search (2048X32)	0.103					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	68.4	78.8	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	27.0	26.6	Inc. seg. avg.	0.128					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	48.8	46.5	Inc. frq. avg.	0.120					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite
I: az 57.6 el 29.1 pa -66.8			P: az 291.7 el 72.3 pa 98.2							
Control file: cf_1234_gmva			Input file: /Exps/c211c/v1/1234/No0080/IP..1X0HBB							simultaneous interpolator
			Output file: /Exps/c211c/v1/1234/No0080/IP.W.263.1X0HBB							

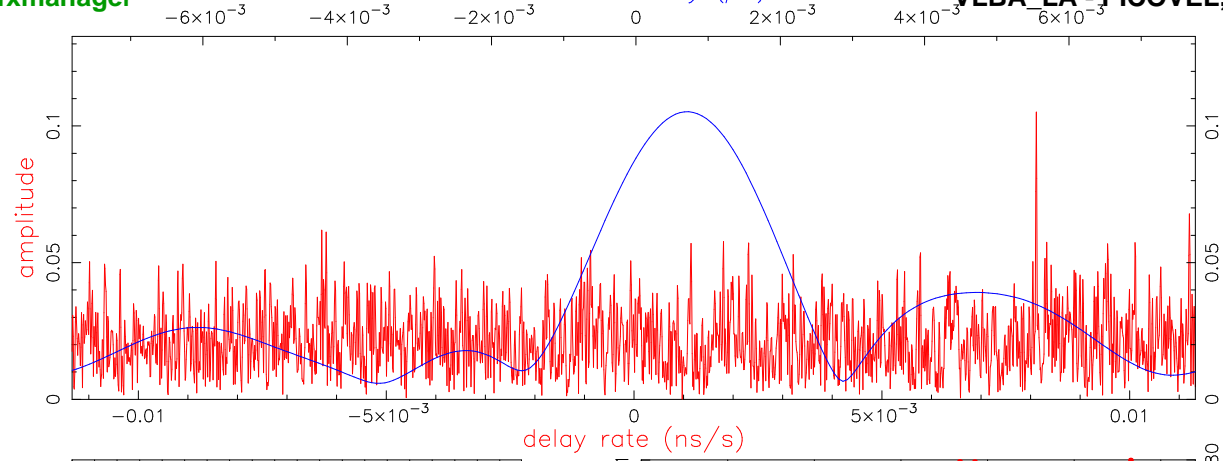
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

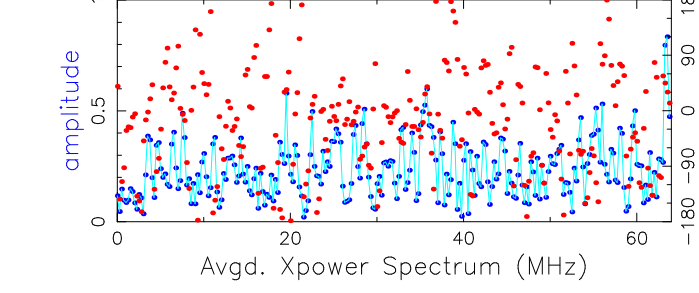
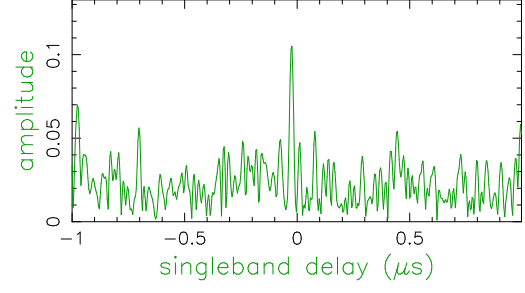
3C84.1X0HBB, No0080, IP

VLBA\_LA - PICOVEL, fgroup W, pol LR

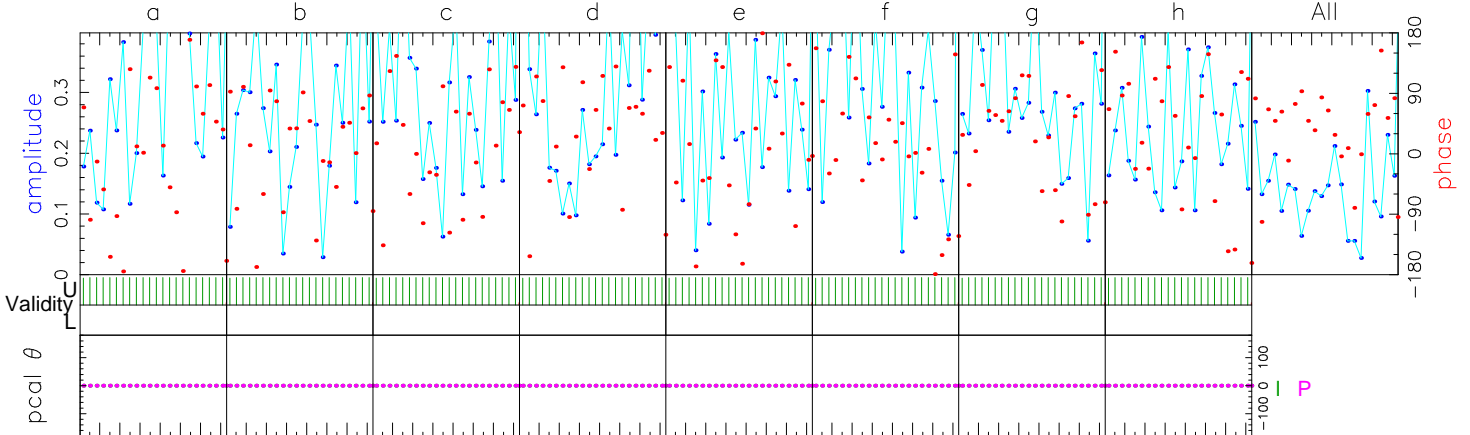
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 5.9  
 Int time 417.830  
 Amp 0.133  
 Phase 53.5  
 PFD 5.0e-01  
 Delays (us)  
 SBD -0.024924  
 MBD 0.000770  
 Fringe rate (Hz)  
 0.700340  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121410  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
I	0	0	0	0	0	0	0	0	APs used	
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)	-9.60699606805E+03								7.70486E-04	+/- 1.8E-04
Sband delay (usec)	-9.60699051278E+03								-2.49243E-02	+/- 1.4E-03
Phase delay (usec)	-9.60696558681E+03								1.72623E-06	+/- 6.2E-07
Delay rate (us/s)	1.29359412055E+00								8.13025E-06	+/- 2.6E-09
Total phase (deg)			-233.2						53.5	+/- 19.3
				Apriori delay (usec)	-9.60696558853E+03				Resid mbdelay (usec)	
				Apriori clock (usec)	-1.5700455E+00				Resid sbdelay (usec)	
				Apriori clockrate (us/s)	3.139997E-07				Resid phdelay (usec)	
				Apriori rate (us/s)	1.29358599030E+00				Resid rate (us/s)	
				Apriori accel (us/s/s)	4.97122790554E-05				Resid phase (deg)	
ph/seg (deg)	57.3	46.2		Search (2048X32)	0.100				PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	72.0	80.6		Interp.	0.000				PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	27.3	27.2		Inc. seg. avg.	0.135				Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	40.8	47.6		Inc. frq. avg.	0.125				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
I: az 57.6 el 29.1 pa -66.8				P: az 291.7 el 72.3 pa 98.2						
Control file: cf_1234_gmva				Input file: /Exps/c211c/v1/1234/No0080/IP..1X0HBB						
				Output file: /Exps/c211c/v1/1234/No0080/IP.W.288.1X0HBB						

simultaneous interpolator

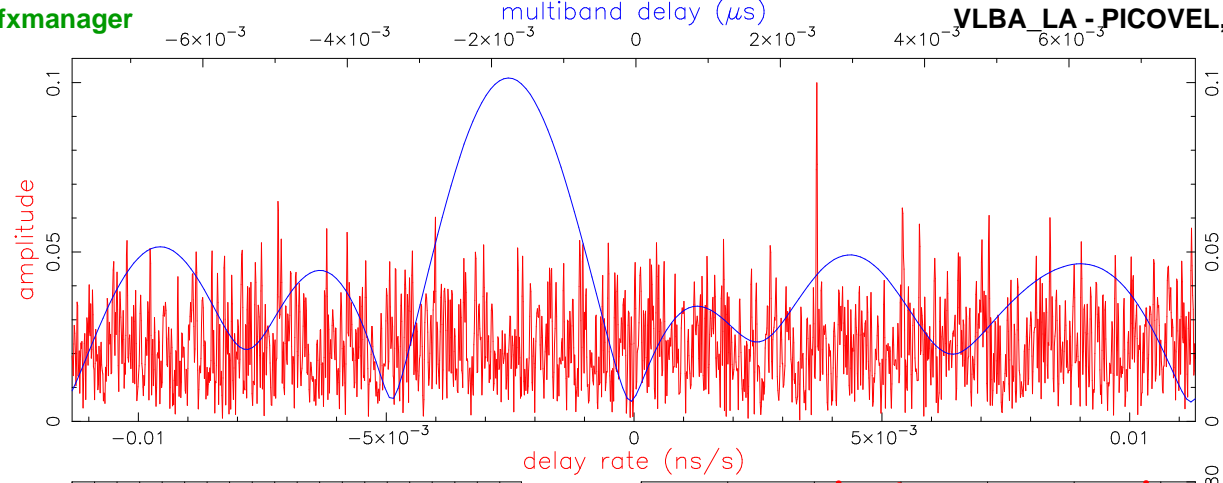


Mk4/DiFX fourfit 3.21 rev 2937

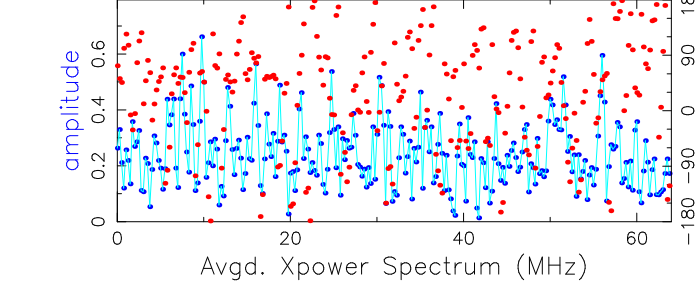
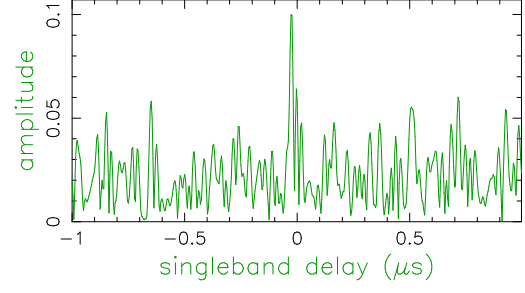
fxmanager

3C84.1X0HBB, No0080, IP

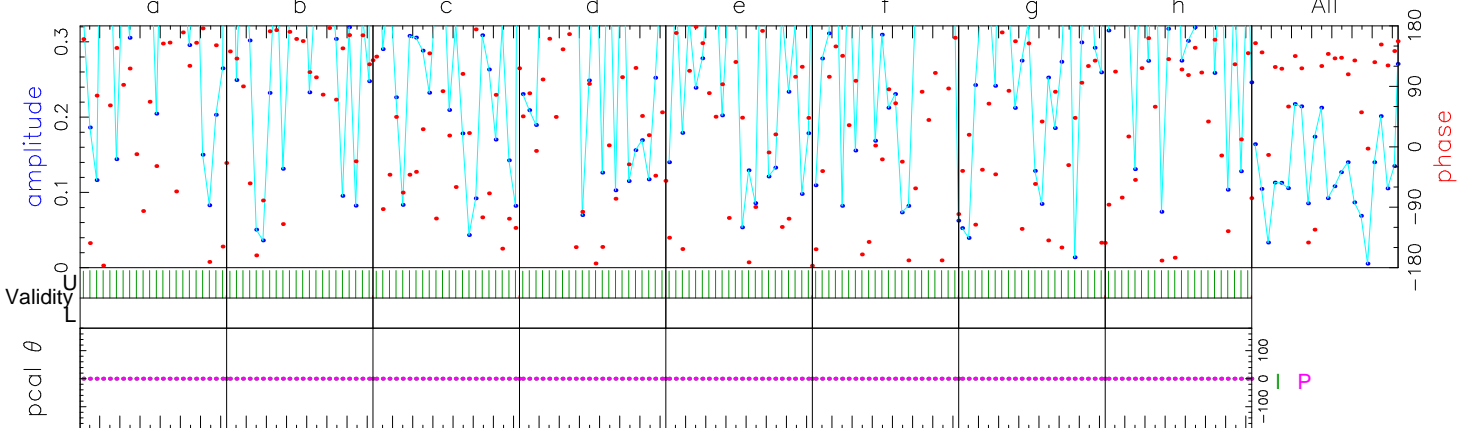
VLBA\_LA - PICOVEL, fgroup W, pol RL



Fringe quality 0  
 SNR 5.7  
 Int time 417.830  
 Amp 0.107  
 Phase 132.2  
 PFD 9.2e-01  
 Delays (us)  
 SBD -0.025403  
 MBD -0.001605  
 Fringe rate (Hz) 0.317606  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121414  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



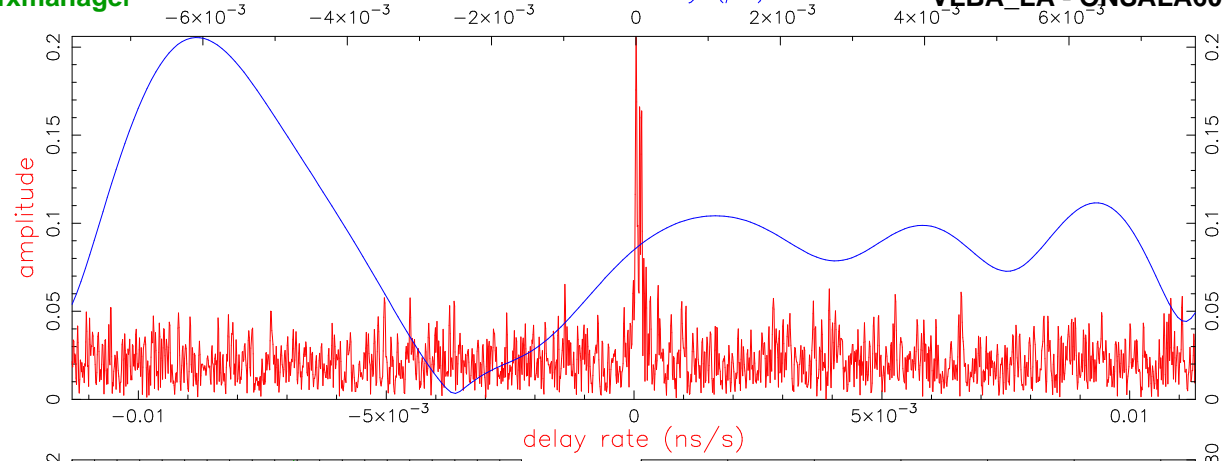
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
I	0	0	0	0	0	0	0	0	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-9.60699844328E+03	Apriori delay (usec)	-9.60696558853E+03	Resid mbdelay (usec)	-1.60474E-03	+/-	1.9E-04
Sband delay (usec)	-9.60699099178E+03	Apriori clock (usec)	-1.5700455E+00	Resid sbdelay (usec)	-2.54033E-02	+/-	1.5E-03
Phase delay (usec)	-9.60696558427E+03	Apriori clockrate (us/s)	3.1399997E-07	Resid phdelay (usec)	4.26153E-06	+/-	6.4E-07
Delay rate (us/s)	1.29358967738E+00	Apriori rate (us/s)	1.29358599030E+00	Resid rate (us/s)	3.68709E-06	+/-	2.7E-09
Total phase (deg)	-154.5	Apriori accel (us/s/s)	4.97122790554E-05	Resid phase (deg)	132.2	+/-	20.0

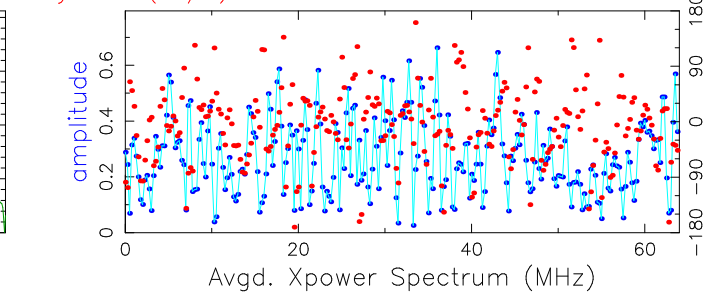
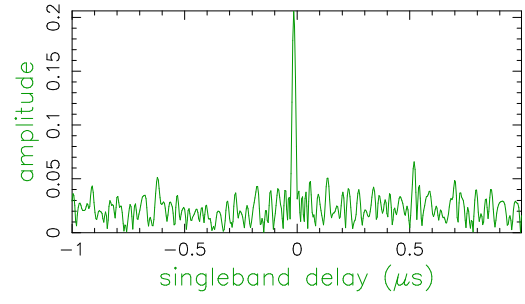
ph/seg (deg)	57.0	Theor.	47.9	Amplitude	0.107 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	58.5	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	72.2	Interp.	0.000	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	52.4	Inc. seg. avg.	0.097	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
		Inc. frq. avg.	0.107	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

I: az 57.6 el 29.1 pa -66.8 P: az 291.7 el 72.3 pa 98.2 u,v (fr/asec) -9807.750 3453.501 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/IP..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/IP.W.304.1X0HBB

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

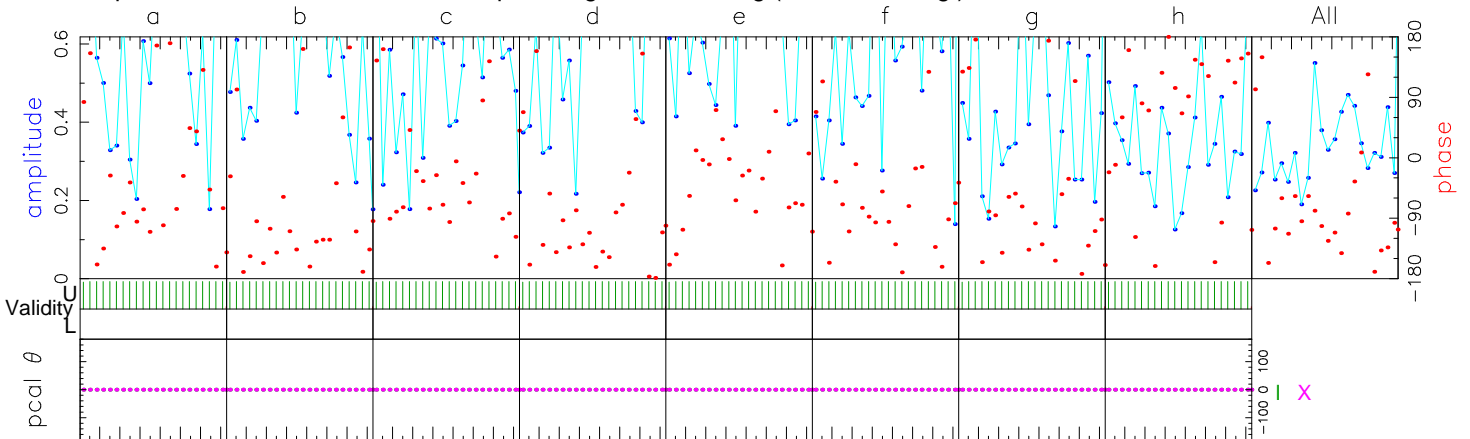


Fringe quality 9  
 SNR 11.5  
 Int time 417.830  
 Amp 0.206  
 Phase -106.3  
 PFD 5.1e-22  
 Delays (us)  
 SBD -0.014922  
 MBD -0.006106  
 Fringe rate (Hz) 0.003995  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build 2021:303:063723  
 2021:303:121400  
 2021:252:122852  
 RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-121.2	-131.6	-73.6	-131.3	-30.5	-91.4	-121.1	142.1	Phase	-106.3
	0.2	0.3	0.2	0.4	0.4	0.3	0.3	0.2	Ampl.	0.3
	253.8	252.4	252.9	253.1	252.9	253.0	251.6	249.7	Sbd box	253.2
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
I	0	0	0	0	0	0	0	0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-8.07451206589E+03	Apriori delay (usec)	-8.07449033465E+03	Resid mbdelay (usec)	-6.10625E-03	+/-	9.4E-05
Sband delay (usec)	-8.07450525715E+03	Apriori clock (usec)	-5.9116013E+01	Resid sbdelay (usec)	-1.49225E-02	+/-	7.5E-04
Phase delay (usec)	-8.07449033807E+03	Apriori clockrate (us/s)	-8.1400002E-07	Resid phdelay (usec)	-3.42793E-06	+/-	3.2E-07
Delay rate (us/s)	1.31814593356E+00	Apriori rate (us/s)	1.31814588718E+00	Resid rate (us/s)	4.63779E-08	+/-	1.3E-09
Total phase (deg)	-259.8	Apriori accel (us/s/s)	2.33055117892E-05	Resid phase (deg)	-106.3	+/-	9.9

ph/seg (deg)	62.7	RMS	23.9	Theor.	23.9	Amplitude	0.206 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	77.9	Search (2048X32)	0.201	Inc. seg. avg.	0.311	Inc. frq. avg.	0.277	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	59.4	Interp.	0.000	Inc. seg. avg.	0.311	Inc. frq. avg.	0.277	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	54.7	Sample rate (MSamp/s):	128	Inc. seg. avg.	0.311	Inc. frq. avg.	0.277	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

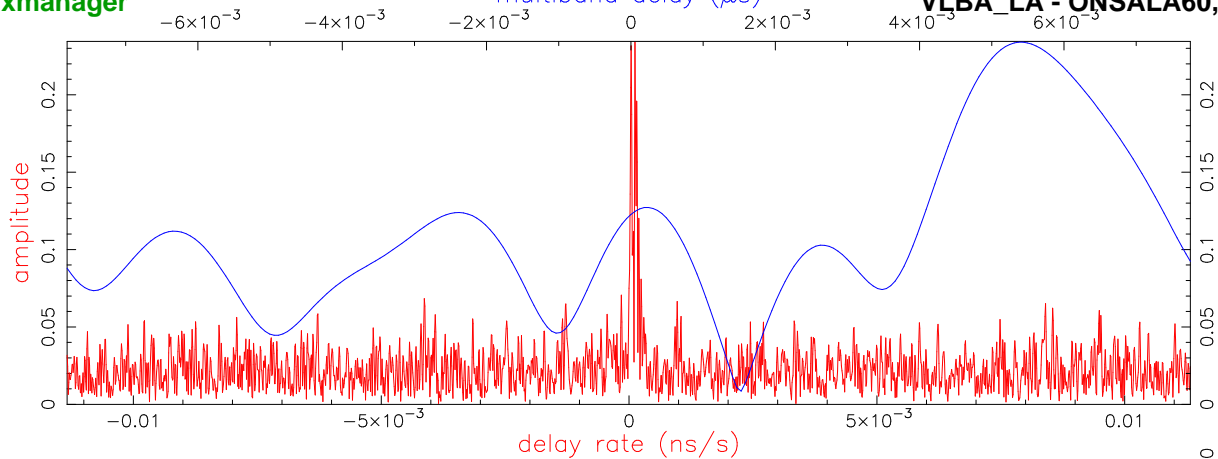
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, IX

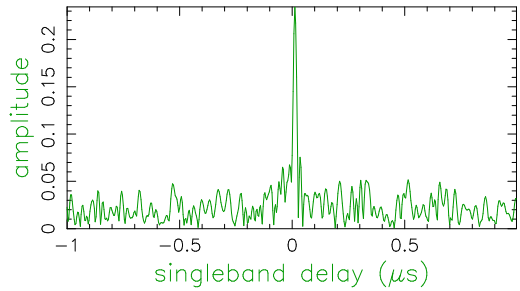
VLBA\_LA - ONSALA60, fgroup W, pol RR

multiband delay ( $\mu$ s)

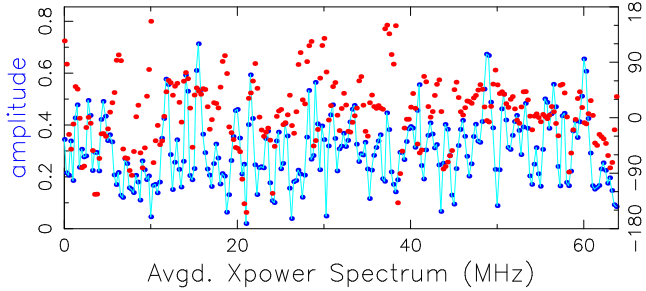


Fringe quality 9

SNR 13.1  
 Int time 417.830  
 Amp 0.234  
 Phase 90.9  
 PFD 1.7e-30  
 Delays (us)  
 SBD 0.012249  
 MBD 0.005415  
 Fringe rate (Hz) 0.010303  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

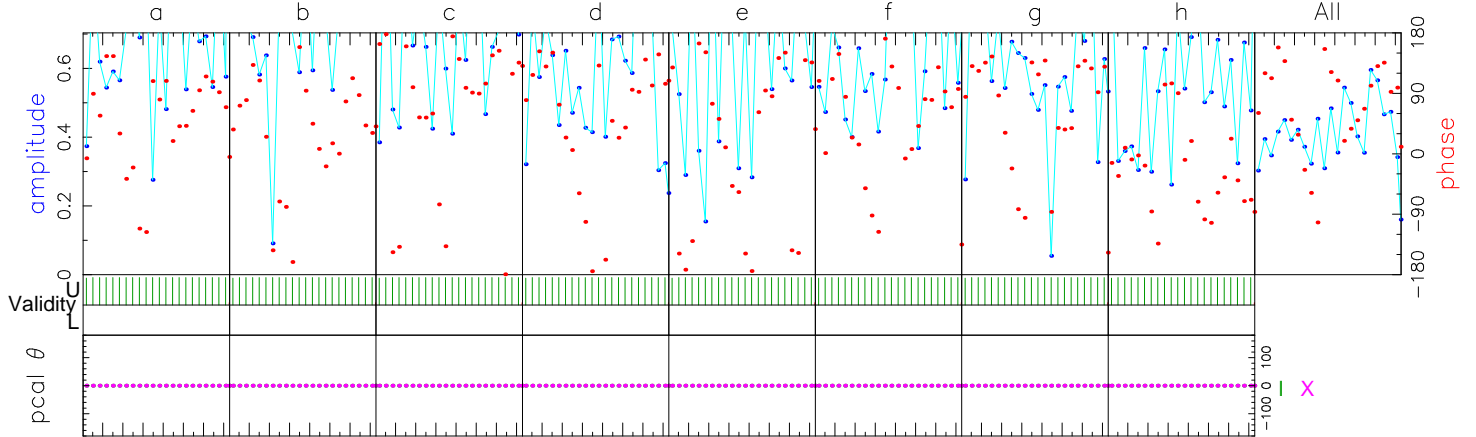


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121405  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
I	0	0	0	0	0	0	0	0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-8.07448491963E+03									
Sband delay (usec)	-8.07447808615E+03									
Phase delay (usec)	-8.07449033171E+03									
Delay rate (us/s)	1.31814600679E+00									
Total phase (deg)			-62.6							
Apriori delay (usec)					-8.07449033465E+03				5.41501E-03	+/- 8.3E-05
Apriori clock (usec)					-5.9116013E+01				1.22485E-02	+/- 6.6E-04
Apriori clockrate (us/s)					-8.1400002E-07				2.93178E-06	+/- 2.8E-07
Apriori rate (us/s)					1.31814588718E+00				1.19609E-07	+/- 1.2E-09
Apriori accel (us/s/s)					2.33055117892E-05				90.9	+/- 8.7
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

ph/seg (deg) 66.6 21.0 Search (2048X32) 0.230 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 86.7 36.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 60.9 12.4 Inc. seg. avg. 0.394 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 50.4 21.6 Inc. frq. avg. 0.328 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 57.6 el 29.1 pa -66.8 X: az 252.6 el 61.5 pa 43.6 u,v (fr/asec) -10043.348 26.523 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/IX..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/IX.W.262.1X0HBB

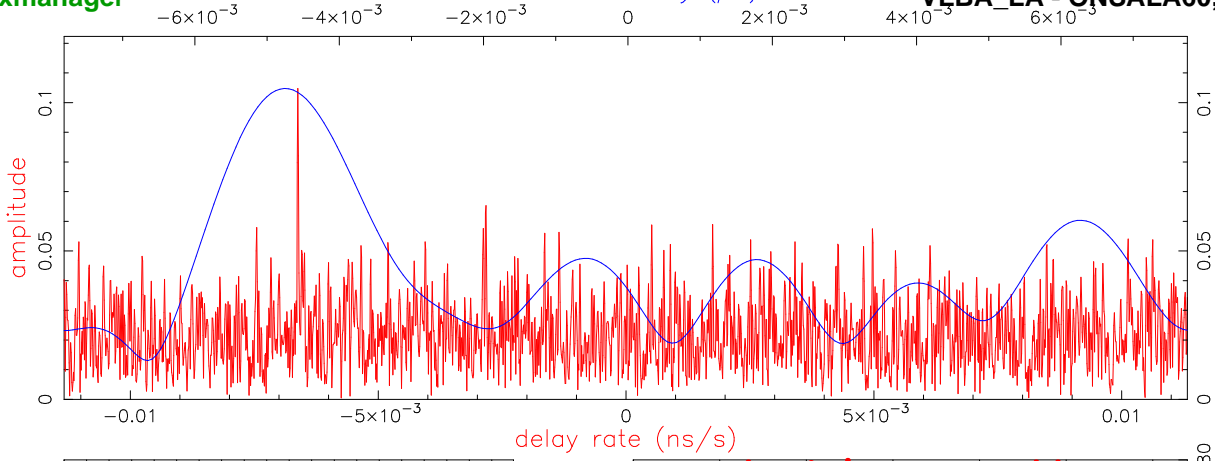
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, IX

VLBA\_LA - ONSALA60, fgroup W, pol LR

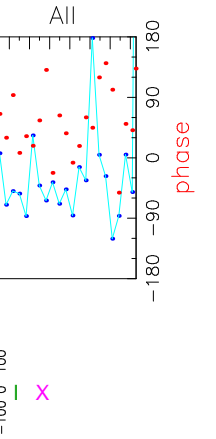
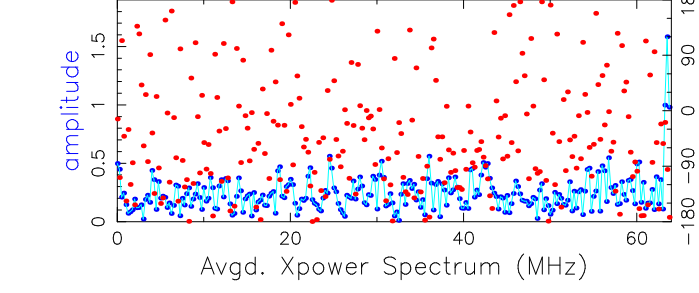
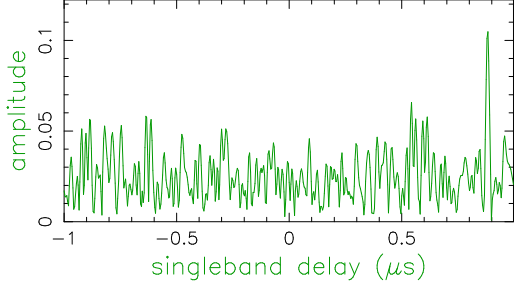
multiband delay ( $\mu$ s)



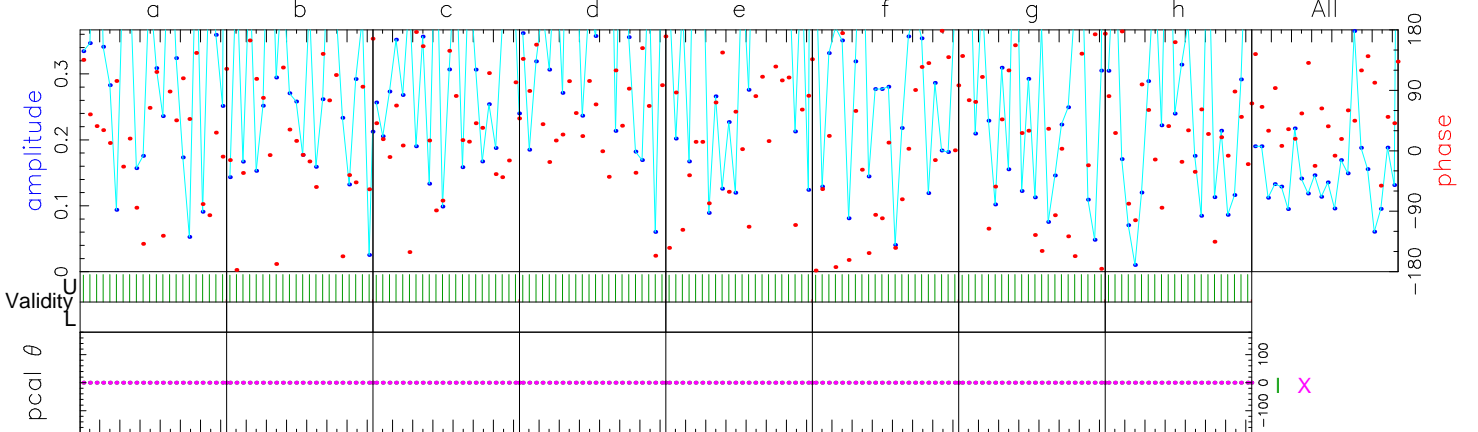
Fringe quality 0

SNR 5.9  
 Int time 417.830  
 Amp 0.122  
 Phase 54.7  
 PFD 5.7e-01  
 Delays (us)  
 SBD 0.881568  
 MBD -0.004735  
 Fringe rate (Hz)  
 -0.571204  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121409  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
I	0	0	0	0	0	0	0	0		
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)	-8.07360444491E+03									
Sband delay (usec)	-8.07360876640E+03									
Phase delay (usec)	-8.07449033288E+03									
Delay rate (us/s)	1.31813925607E+00									
Total phase (deg)			-98.8							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
pcal mode										
PC period (AP's)										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

I: az 57.6 el 29.1 pa -66.8 X: az 252.6 el 61.5 pa 43.6 u,v (fr/asec) -10043.348 26.523

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/IX..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/IX.W.282.1X0HBB

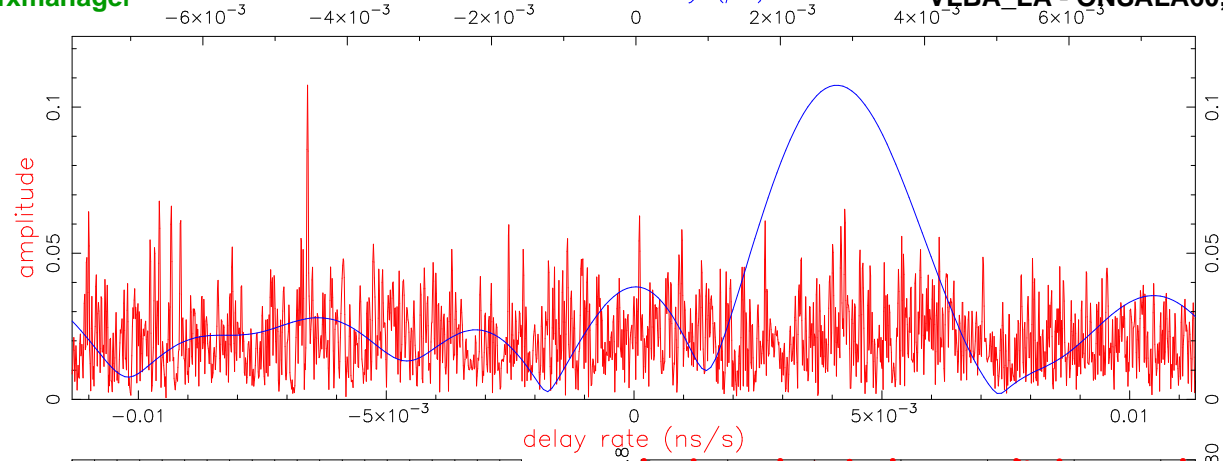
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, IX

VLBA\_LA - ONSALA60, fgroup W, pol RL

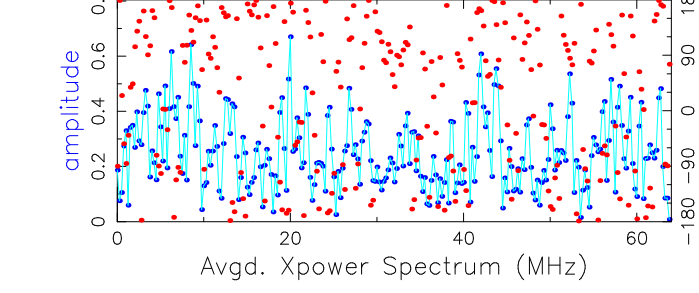
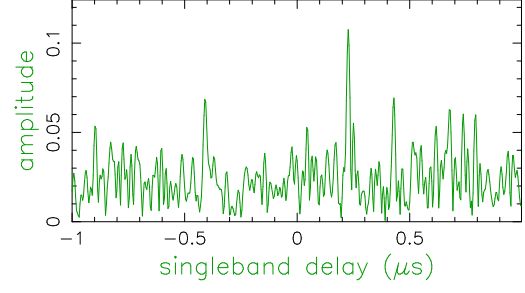
multiband delay ( $\mu$ s)



Fringe quality 0

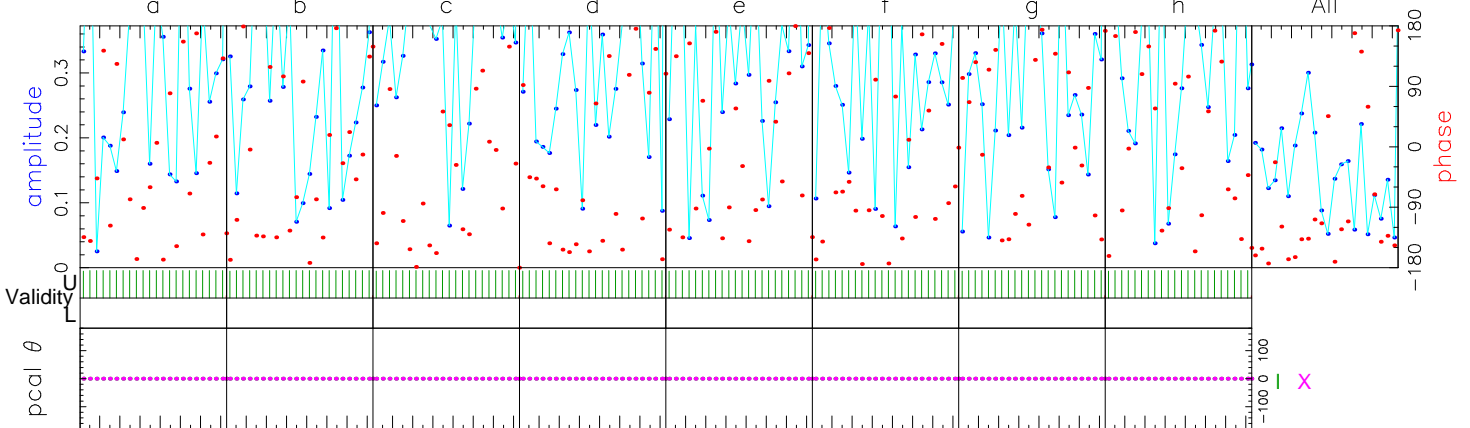
SNR 6.0  
 Int time 417.830  
 Amp 0.124  
 Phase -141.6  
 PFD 3.7e-01  
 Delays (us)  
 SBD 0.226976  
 MBD 0.002798  
 Fringe rate (Hz) -0.568448  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144501.54  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121413  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-138.1	-148.2	-131.5	-157.6	-138.2	-117.7	-130.4	-165.9	Phase	-141.6
	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
	273.6	251.2	426.7	347.9	317.5	299.8	296.7	60.4	Sbd box	315.1
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
I	0	0	0	0	0	0	0	0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-8.07426878662E+03	Apriori delay (usec)	-8.07449033465E+03	Resid mbdelay (usec)	2.79803E-03	+/-	1.8E-04
Sband delay (usec)	-8.07426335915E+03	Apriori clock (usec)	-5.9116013E+01	Resid sbdelay (usec)	2.26976E-01	+/-	1.4E-03
Phase delay (usec)	-8.07449033921E+03	Apriori clockrate (us/s)	-8.1400002E-07	Resid phdelay (usec)	-4.56511E-06	+/-	6.1E-07
Delay rate (us/s)	1.31813928807E+00	Apriori rate (us/s)	1.31814588718E+00	Resid rate (us/s)	-6.59911E-06	+/-	2.5E-09
Total phase (deg)	-295.1	Apriori accel (us/s/s)	2.33055117892E-05	Resid phase (deg)	-141.6	+/-	19.1

ph/seg (deg)	63.9	Theor.	45.7	Amplitude	0.124 +/- 0.021	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	73.5		79.7	Search (2048X32)	0.104	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	16.9		26.9	Inc. seg. avg.	0.128	Sample rate (MSamp/s):	128	nlags:	256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	32.2		47.0	Inc. frq. avg.	0.116	Data rate (Mb/s):	2048	t_cohere	infinite	ion window (TEC)	0.00	0.00

I: az 57.6 el 29.1 pa -66.8 X: az 252.6 el 61.5 pa 43.6 u,v (fr/asec) -10043.348 26.523 simultaneous interpolator

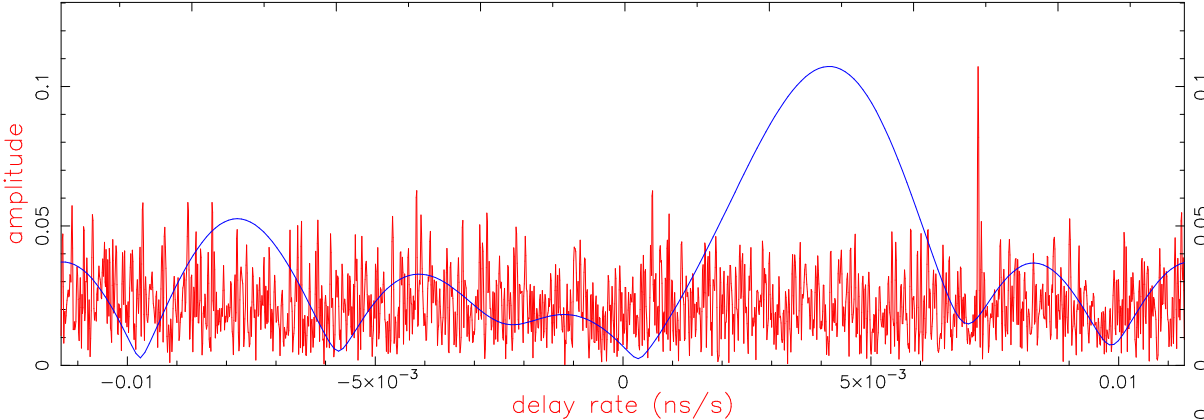
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/IX..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/IX.W.301.1X0HBB



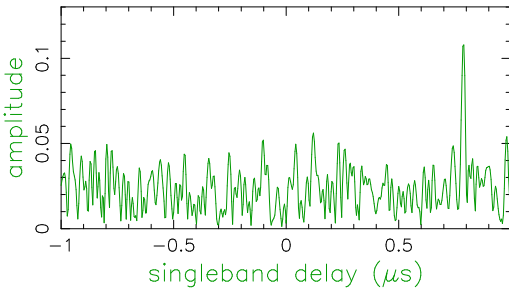
multiband delay ( $\mu$ s)

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

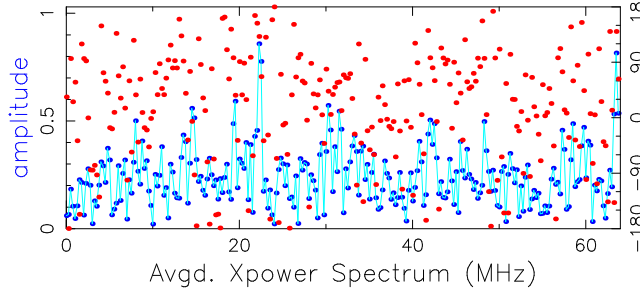
Fringe quality 0



SNR 6.0  
 Int time 405.622  
 Amp 0.130  
 Phase 91.1  
 PFD 3.2e-01  
 Delays (us)  
 SBD 0.787291  
 MBD 0.002885  
 Fringe rate (Hz)  
 0.617799  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

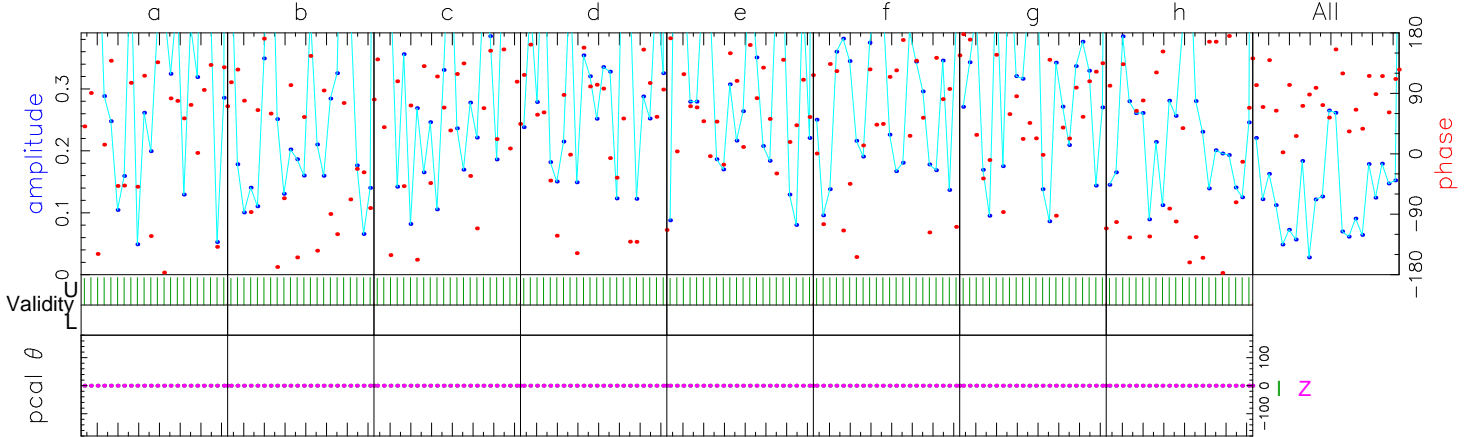


singleband delay ( $\mu$ s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144513.31  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121400  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0		
I	0	0	0	0	0	0	0	0		
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)	-6.63976281521E+03	Apriori delay (usec)	-6.64054694975E+03	Resid mbdelay (usec)	2.88454E-03	+/-	1.8E-04
Sband delay (usec)	-6.63975965875E+03	Apriori clock (usec)	-1.9085922E+00	Resid sbdelay (usec)	7.87291E-01	+/-	1.4E-03
Phase delay (usec)	-6.64054694681E+03	Apriori clockrate (us/s)	-3.0200002E-07	Resid phdelay (usec)	2.93807E-06	+/-	6.1E-07
Delay rate (us/s)	1.37666431149E+00	Apriori rate (us/s)	1.37665713945E+00	Resid rate (us/s)	7.17204E-06	+/-	2.6E-09
Total phase (deg)		Apriori accel (us/s/s)	1.40679720357E-05	Resid phase (deg)	91.1	+/-	19.0

ph/seg (deg)	38.4	Theor.	45.4	Amplitude	0.130 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	66.3	Search (2048X32)	0.106	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	39.2	Inc. seg. avg.	0.118	Inc. frq. avg.	0.129	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	40.0	Inc. frq. avg.	0.129			Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

I: az 57.6 el 29.1 pa -66.8

Z: az 261.2 el 54.6 pa 40.9

u, v (fr/asec) -10508.706 -781.931

simultaneous interpolator

Control file: cf\_1234\_gmva

Input file: /Exps/c211c/v1/1234/No0080/IZ..1X0HBB

Output file: /Exps/c211c/v1/1234/No0080/IZ.W.240.1X0HBB

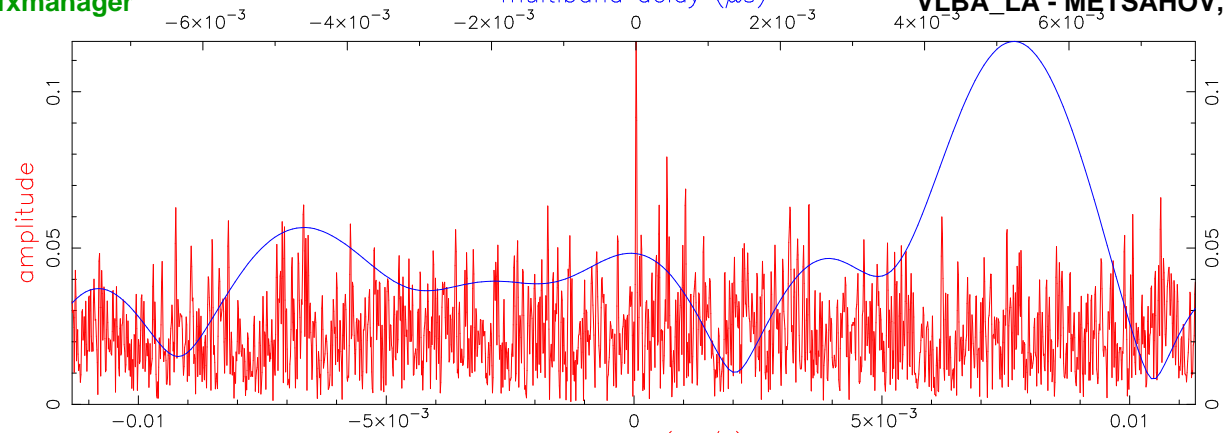
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1X0HBB, No0080, IZ

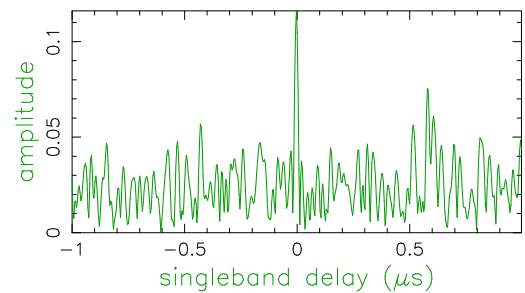
VLBA\_LA - METSAHOV, fgroup W, pol RR

multiband delay ( $\mu$ s)

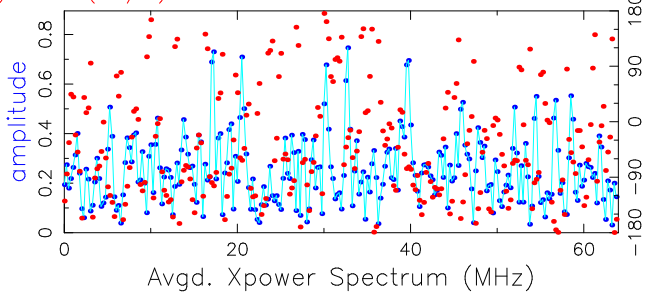


Fringe quality 0

SNR 6.4  
Int time 405.622  
Amp 0.116  
Phase -178.6  
PFD 4.4e-02  
Delays (us)  
SBD -0.003846  
MBD 0.005238  
Fringe rate (Hz)  
0.004245  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

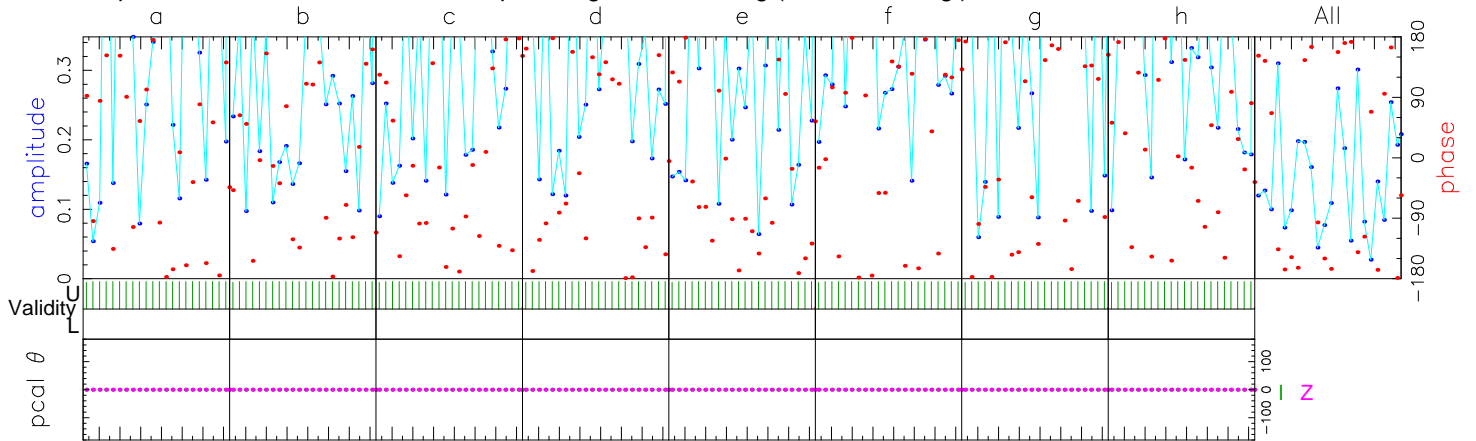


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 144513.31  
Stop 145159.84  
FRT 144830.00  
Corr/FF/build  
2021:303:063723  
2021:303:121404  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	161.2	159.5	-126.3	174.0	-100.6	163.7	179.9	141.2	Phase	-178.6
	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	Ampl.	0.1
	257.7	146.3	397.7	255.9	305.3	262.0	255.8	311.0	Sbd box	256.0
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	APs used	
I	0	0	0	0	0	0	0	0	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)	-6.64055733721E+03		Apriori delay (usec)		-6.64054694975E+03		Resid mbdelay (usec)		5.23754E-03	+/- 1.7E-04
Sband delay (usec)	-6.64055079600E+03		Apriori clock (usec)		-1.9085922E+00		Resid sbdelay (usec)		-3.84625E-03	+/- 1.3E-03
Phase delay (usec)	-6.64054695551E+03		Apriori clockrate (us/s)		-3.0200002E-07		Resid phdelay (usec)		-5.75907E-06	+/- 5.8E-07
Delay rate (us/s)	1.37665718874E+00		Apriori rate (us/s)		1.37665713945E+00		Resid rate (us/s)		4.92851E-08	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		1.40679720357E-05		Resid phase (deg)		-178.6	+/- 17.9

	RMS	Theor.	Amplitude	0.116 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	50.1	43.0	Search (2048X32)	0.109	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	74.8	75.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	44.1	25.3	Inc. seg. avg.	0.114	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	50.8	44.2	Inc. frq. avg.	0.126	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
						ion window (TEC) 0.00 0.00

I: az 57.6 el 29.1 pa -66.8 Z: az 261.2 el 54.6 pa 40.9 u,v (fr/asec) -10508.706 -781.931 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/IZ..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/IZ.W.257.1X0HBB

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

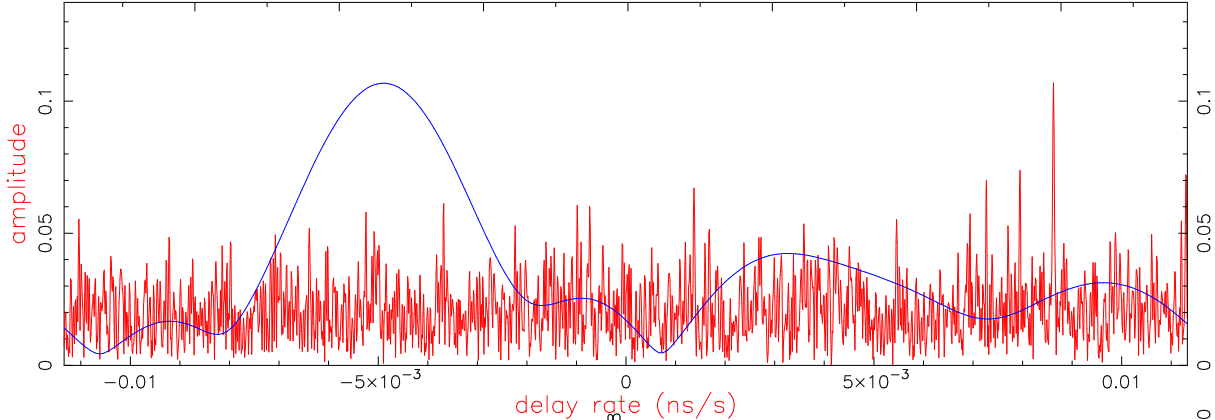
3C84.1X0HBB, No0080, IZ

VLBA\_LA - METSAHOV, fgroup W, pol LR

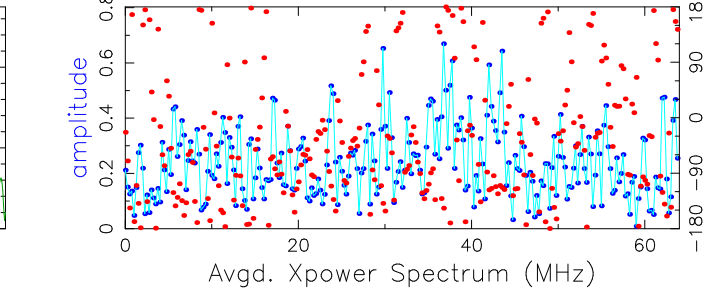
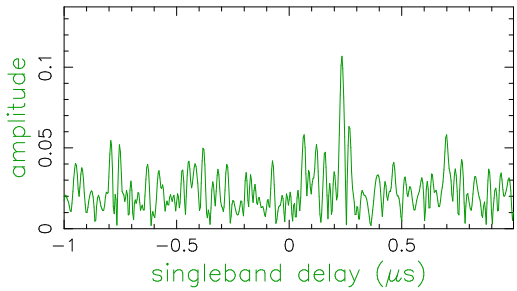
multiband delay ( $\mu\text{s}$ )

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

Fringe quality 0

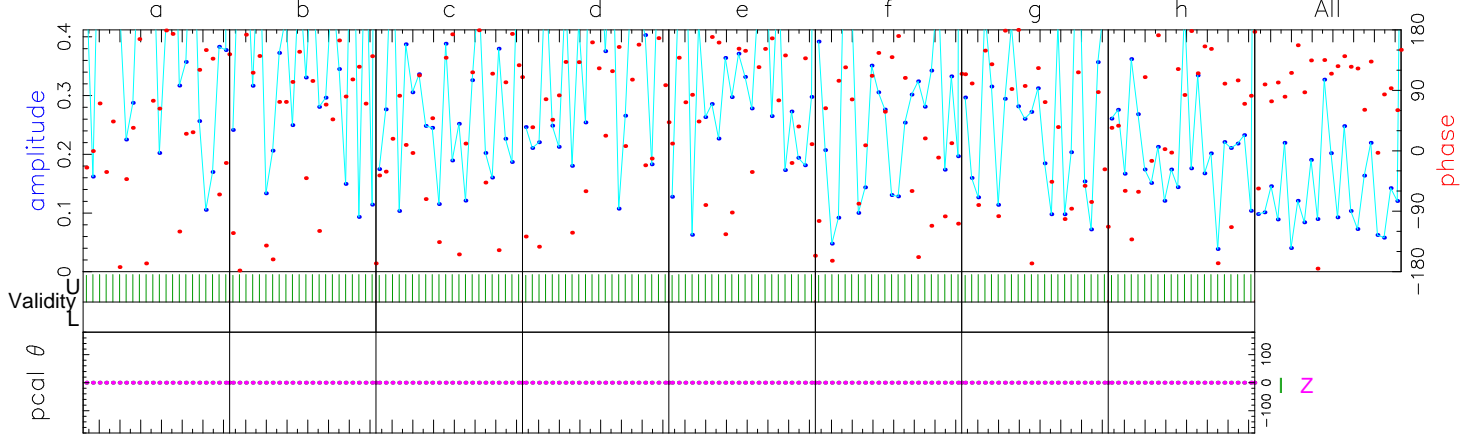


SNR 5.9  
Int time 405.622  
Amp 0.137  
Phase 112.2  
PFD 6.4e-01  
Delays (us)  
SBD 0.234090  
MBD -0.003399  
Fringe rate (Hz)  
0.744175  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 144513.31  
Stop 145159.84  
FRT 144830.00  
Corr/FF/build  
2021:303:063723  
2021:303:121407  
2021:252:122852  
RA & Dec (J2000)  
03h19m48.160095s  
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0		
I	0	0	0	0	0	0	0	0		
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)	-6.64031597361E+03	Apriori delay (usec)	-6.64054694975E+03	Resid mbdelay (usec)	-3.39886E-03	+/-	1.8E-04
Sband delay (usec)	-6.64031285950E+03	Apriori clock (usec)	-1.9085922E+00	Resid sbdelay (usec)	2.34090E-01	+/-	1.5E-03
Phase delay (usec)	-6.64054694613E+03	Apriori clockrate (us/s)	-3.0200002E-07	Resid phdelay (usec)	3.61953E-06	+/-	6.3E-07
Delay rate (us/s)	1.37666577859E+00	Apriori rate (us/s)	1.37665713945E+00	Resid rate (us/s)	8.63913E-06	+/-	2.7E-09
Total phase (deg)		Apriori accel (us/s/s)	1.40679720357E-05	Resid phase (deg)	112.2	+/-	19.5

ph/seg (deg)	52.6	Theor.	46.7	Amplitude	0.137 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	76.5		81.5	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	18.6		27.5	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	56.4		48.1	Inc. seg. avg.	0.133	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
				Inc. frq. avg.	0.126	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

I: az 57.6 el 29.1 pa -66.8 Z: az 261.2 el 54.6 pa 40.9 u,v (fr/asec) -10508.706 -781.931 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/IZ..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/IZ.W.274.1X0HBB

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

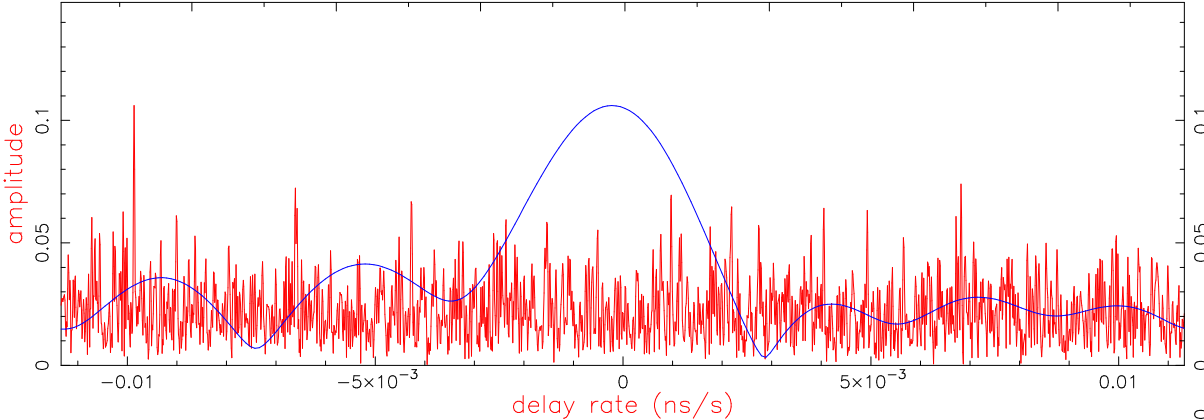
3C84.1X0HBB, No0080, IZ

VLBA\_LA - METSAHOV, fgroup W, pol RL

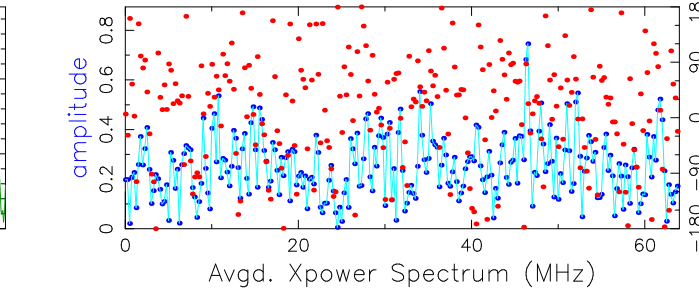
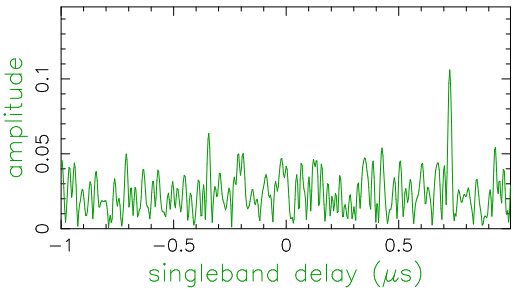
multiband delay ( $\mu$ s)

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

Fringe quality 0

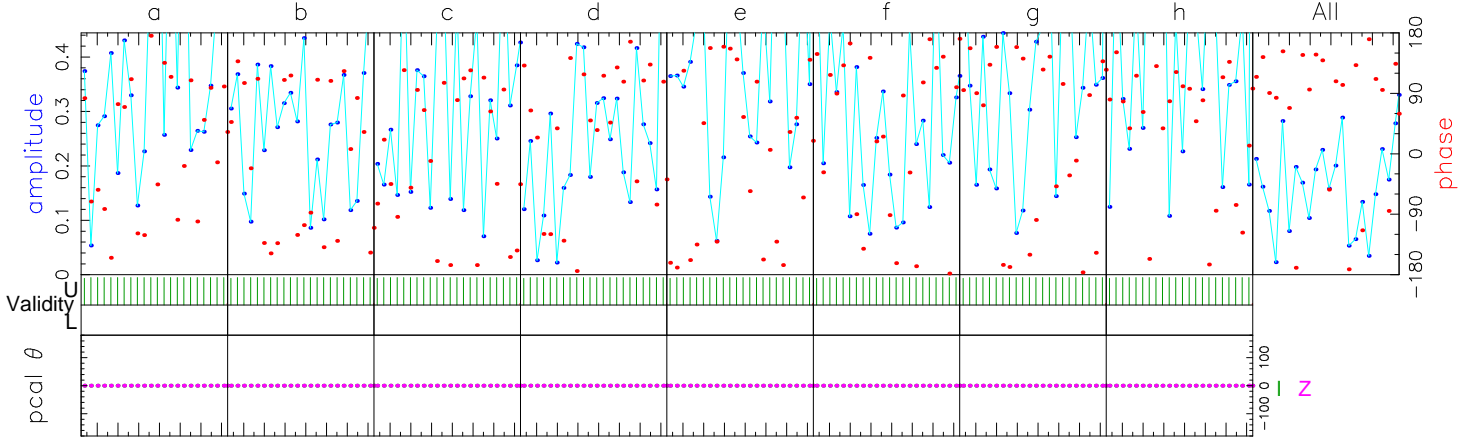


SNR 5.8  
 Int time 405.622  
 Amp 0.148  
 Phase 132.4  
 PFD 7.3e-01  
 Delays (us)  
 SBD 0.726423  
 MBD -0.000180  
 Fringe rate (Hz)  
 -0.850812  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 144513.31  
 Stop 145159.84  
 FRT 144830.00  
 Corr/FF/build  
 2021:303:063723  
 2021:303:121411  
 2021:252:122852  
 RA & Dec (J2000)  
 03h19m48.160095s  
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0		
I	0	0	0	0	0	0	0	0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks

Group delay (usec)(sbd)	-6.63981275484E+03	Apriori delay (usec)	-6.64054694975E+03	Resid mbdelay (usec)	-1.80087E-04	+/-	1.9E-04
Sband delay (usec)	-6.63982052650E+03	Apriori clock (usec)	-1.9085922E+00	Resid sbdelay (usec)	7.26423E-01	+/-	1.5E-03
Phase delay (usec)	-6.64054694548E+03	Apriori clockrate (us/s)	-3.0200002E-07	Resid phdelay (usec)	4.26991E-06	+/-	6.3E-07
Delay rate (us/s)	1.37664726238E+00	Apriori rate (us/s)	1.37665713945E+00	Resid rate (us/s)	-9.87708E-06	+/-	2.7E-09
Total phase (deg)		Apriori accel (us/s/s)	1.40679720357E-05	Resid phase (deg)	132.4	+/-	19.6

ph/seg (deg)	62.6	Theor.	47.0	Amplitude	0.148 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	89.4	Search (2048X32)	0.104	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	41.6	Inc. seg. avg.	0.168	Inc. frq. avg.	0.150	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	36.5	Inc. frq. avg.	0.150			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

I: az 57.6 el 29.1 pa -66.8 Z: az 261.2 el 54.6 pa 40.9 u,v (fr/asec) -10508.706 -781.931 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0080/IZ..1X0HBB Output file: /Exps/c211c/v1/1234/No0080/IZ.W.294.1X0HBB