

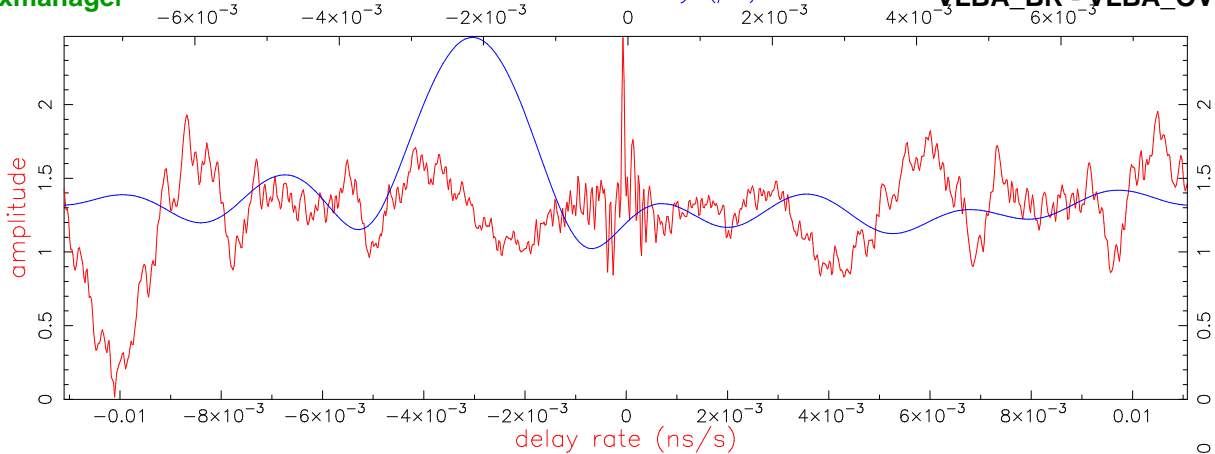
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1JLM0Z, No0079, bo

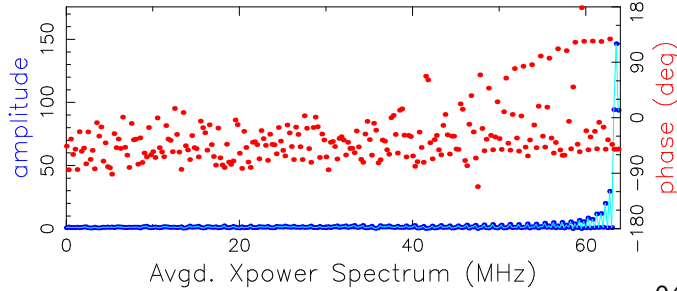
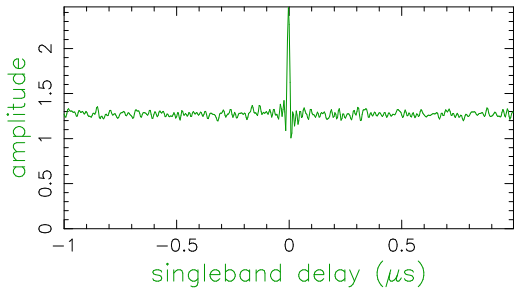
VLBA\_BR - VLBA\_OV, fgroup W, pol LL

multiband delay ( $\mu$ s)



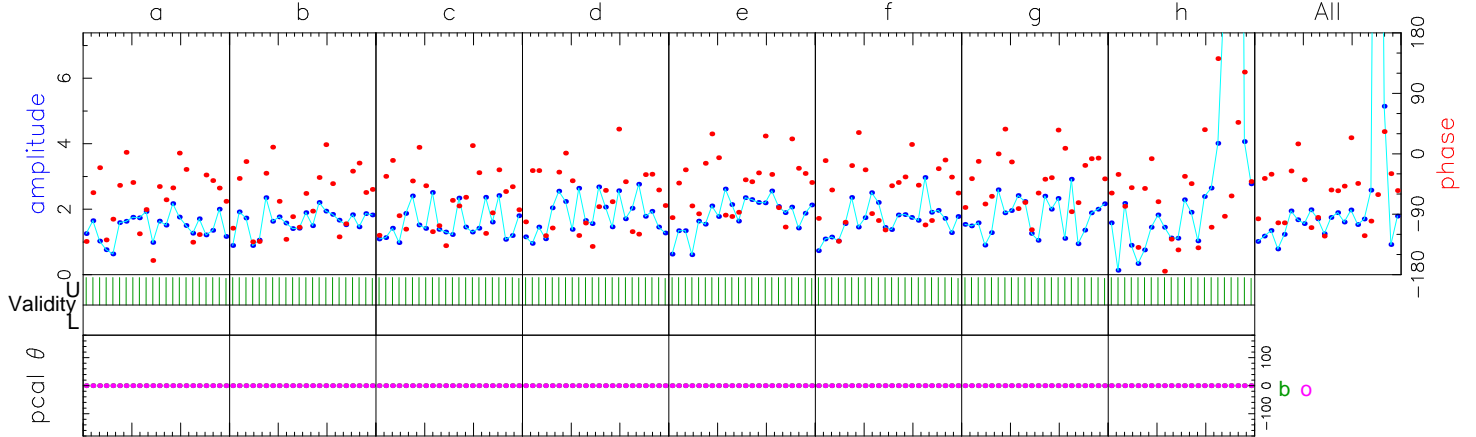
Fringe quality 2

SNR 90.4  
 Int time 179.977  
 Amp 2.463  
 Phase -55.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.003224  
 MBD -0.002199  
 Fringe rate (Hz)  
 -0.005441  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512



Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142156  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 --1°20'33.065613"

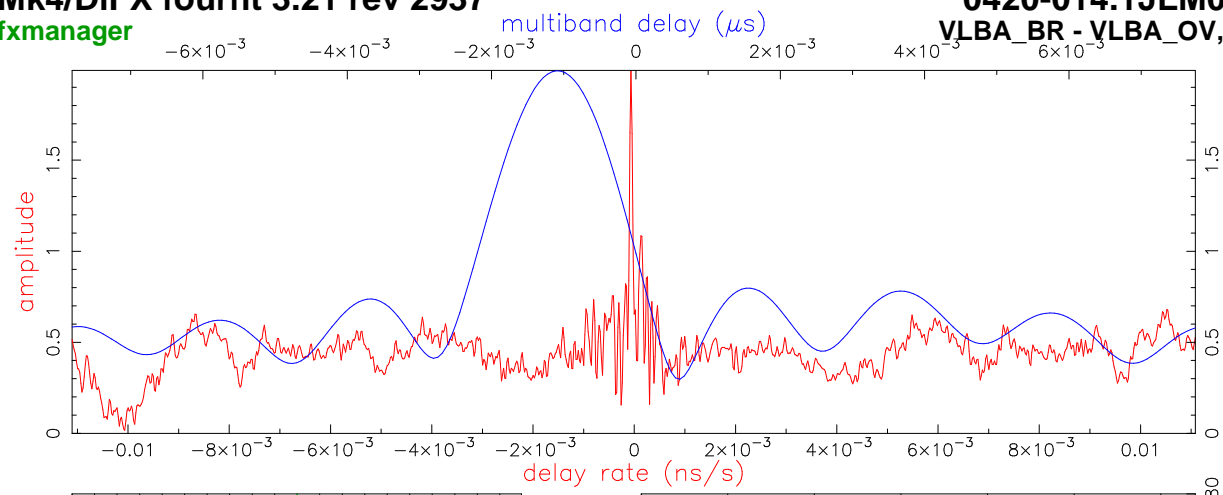
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-62.7	-57.6	-68.6	-67.0	-41.7	-55.2	-35.5	-56.3	Phase	-55.6
	1.1	1.2	1.2	1.3	1.4	1.3	1.4	1.1	Ampl.	2.5
	256.5	256.4	256.3	256.5	256.7	256.7	256.5	256.1	Sbd box	256.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.85224641763E+03		Apriori delay (usec)		-2.85224421823E+03		Resid mbdelay (usec)		-2.19940E-03 +/- 1.2E-05	
Sband delay (usec)	-2.85224744273E+03		Apriori clock (usec)		-2.3094191E+01		Resid sbdelay (usec)		-3.22450E-03 +/- 9.5E-05	
Phase delay (usec)	-2.85224421999E+03		Apriori clockrate (us/s)		9.9999998E-08		Resid phdelay (usec)		-1.75674E-06 +/- 4.0E-08	
Delay rate (us/s)	-9.50225281230E-04		Apriori rate (us/s)		-9.50163414599E-04		Resid rate (us/s)		-6.18666E-08 +/- 3.9E-10	
Total phase (deg)			Apriori accel (us/s/s)		1.46882802795E-05		Resid phase (deg)		-55.6 +/- 1.3	

ph/seg (deg) 44.5 3.0 Search (1024X32) 2.414 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 246.8 5.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 12.6 1.8 Inc. seg. avg. 3.048 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 130.2 3.1 Inc. frq. avg. 2.477 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 167.8 el 39.9 pa -8.1 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 10.994 1236.224 ion window (TEC) 0.00 0.00 simultaneous interpolator

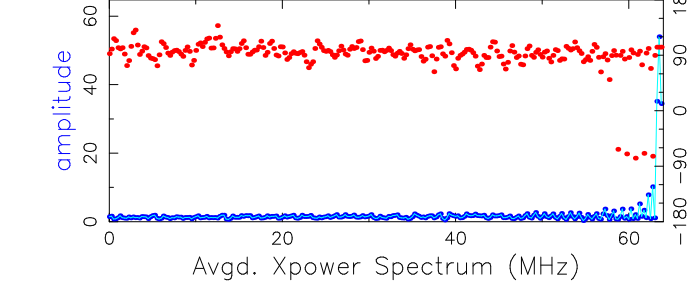
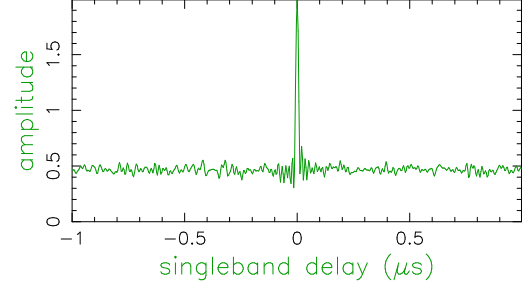
Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/bo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/bo.W.12.1JLM0Z



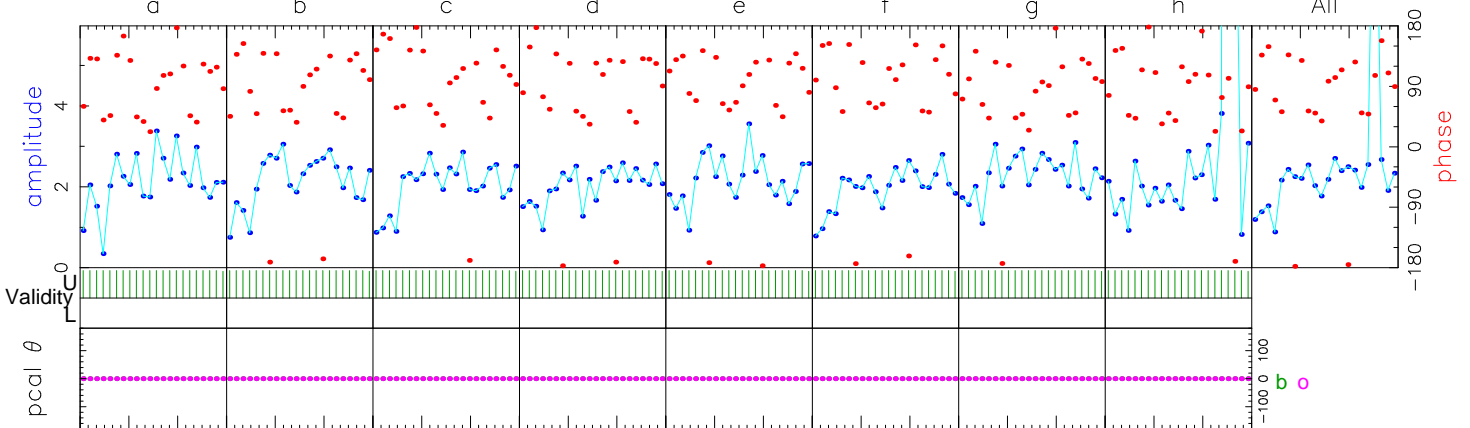
Fringe quality 3

SNR 73.1  
Int time 179.977  
Amp 1.993  
Phase 104.6  
PFD 0.0e+00  
Delays (us)  
SBD -0.000312  
MBD -0.001075  
Fringe rate (Hz)  
-0.005101  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512

Exp. c202c  
Yr:day 16383  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142159  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"



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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-2.85224529345E+03				-2.85224421823E+03					
Sband delay (usec)	-2.85224452973E+03				-2.3094191E+01					
Phase delay (usec)	-2.85224421493E+03				9.9999998E-08					
Delay rate (us/s)	-9.50221425063E-04				-9.50163414599E-04					
Total phase (deg)			-93.8		1.46882802795E-05					
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
Amplitude				1.993 +/- 0.027						
Search (1024X32)				1.953						
Interp.				0.000						
Inc. seg. avg.				2.545						
Inc. frq. avg.				1.999						
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

b: az 167.8 el 39.9 pa -8.1 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 10.994 1236.224 simultaneous interpolator

Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/bo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/bo.W.36.1JLM0Z

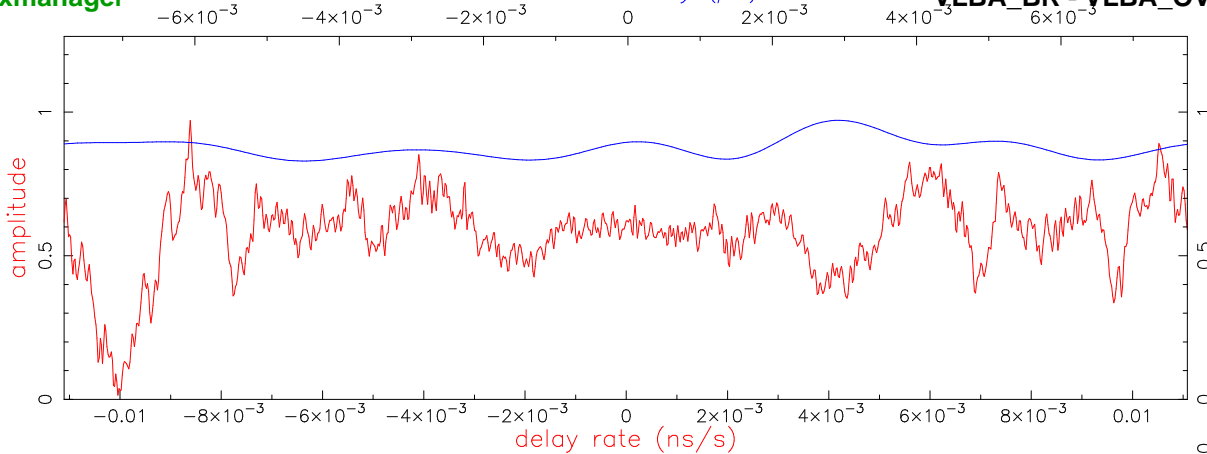
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1JLM0Z, No0079, bo

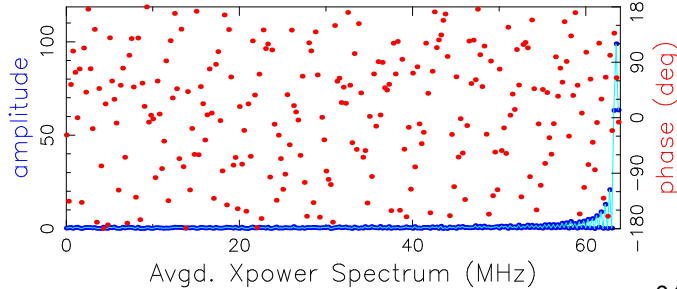
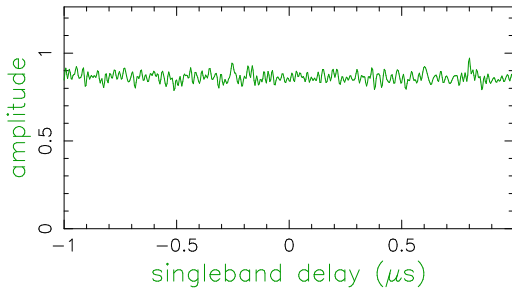
VLBA\_BR - VLBA\_OV, fgroup W, pol LR

multiband delay ( $\mu$ s)



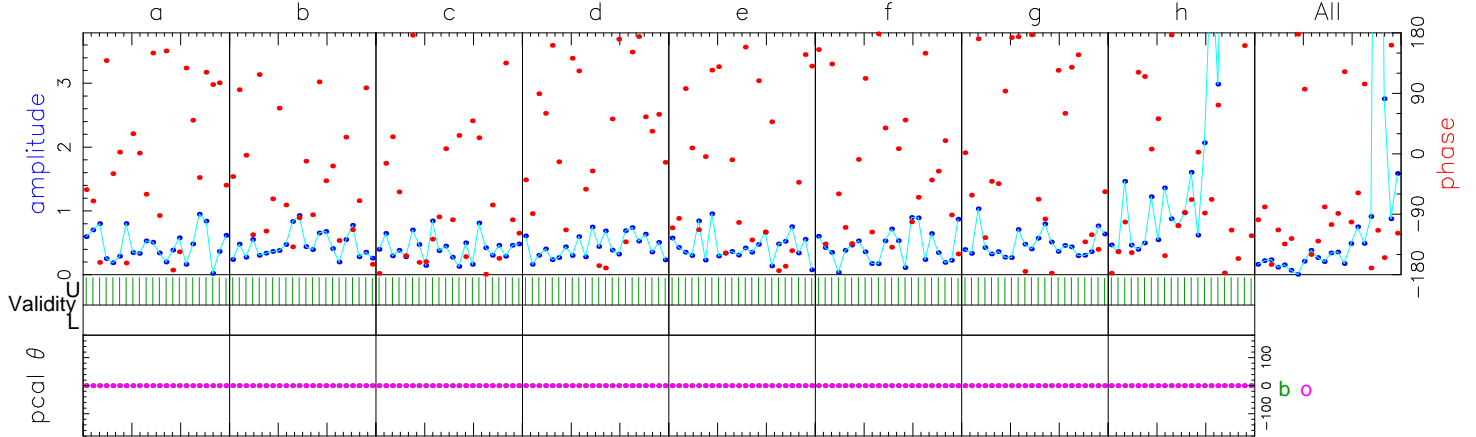
Fringe quality 3

SNR 35.7  
 Int time 179.977  
 Amp 1.264  
 Phase -123.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.799951  
 MBD 0.002980  
 Fringe rate (Hz)  
 -0.758404  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512



Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142200  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 --1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-104.1	-79.9	-121.2	130.4	-157.0	-101.4	-148.2	-122.8	Phase	-123.2
	0.1	0.2	0.2	0.1	0.2	0.2	0.3	9.1	Ampl.	1.3
	297.2	418.6	211.5	239.4	165.1	215.0	387.5	7.2	Sbd box	461.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.85144436340E+03		Apriori delay (usec)		-2.85224421823E+03		Resid mbdelay (usec)		2.97983E-03	+/- 3.0E-05
Sband delay (usec)	-2.85144426748E+03		Apriori clock (usec)		-2.3094191E+01		Resid sbdelay (usec)		7.99951E-01	+/- 2.4E-04
Phase delay (usec)	-2.85224422212E+03		Apriori clockrate (us/s)		9.9999998E-08		Resid phdelay (usec)		-3.89236E-06	+/- 1.0E-07
Delay rate (us/s)	-9.58787523523E-04		Apriori rate (us/s)		-9.50163414599E-04		Resid rate (us/s)		-8.62411E-06	+/- 9.7E-10
Total phase (deg)			Apriori accel (us/s/s)		1.46882802795E-05		Resid phase (deg)		-123.2	+/- 3.2

ph/seg (deg) 59.0 7.5 Search (1024X32) 0.951 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 303.9 13.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 51.3 4.5 Inc. seg. avg. 1.472 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 233.4 7.9 Inc. frq. avg. 1.286 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 167.8 el 39.9 pa -8.1 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 10.994 1236.224 ion window (TEC) 0.00 0.00  
 simultaneous interpolator

Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/bo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/bo.W.50.1JLM0Z

Mk4/DiFX fourfit 3.21 rev 2937

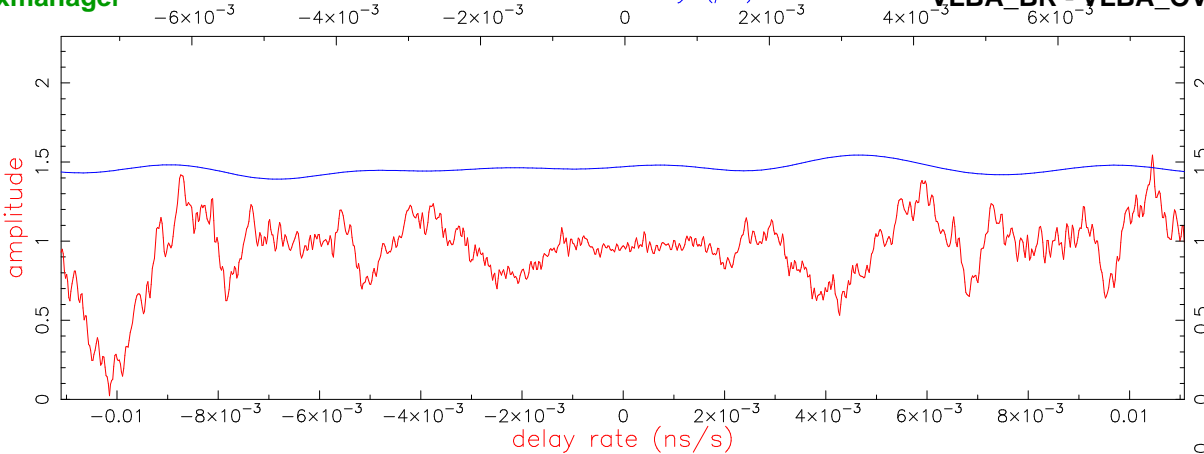
fxmanager

0420-014.1JLM0Z, No0079, bo

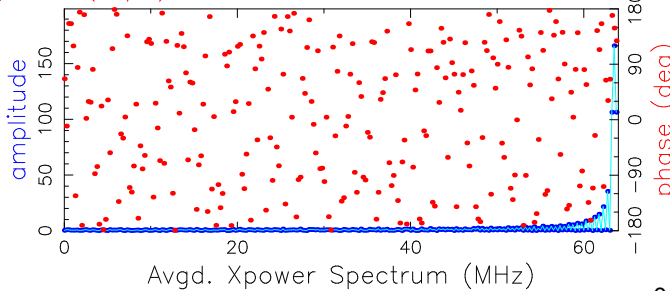
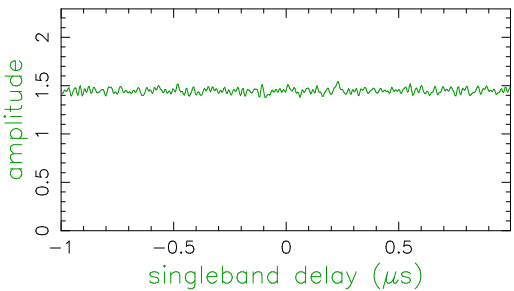
VLBA\_BR - VLBA\_OV, fgroup W, pol RL

multiband delay ( $\mu$ s)

Fringe quality 1

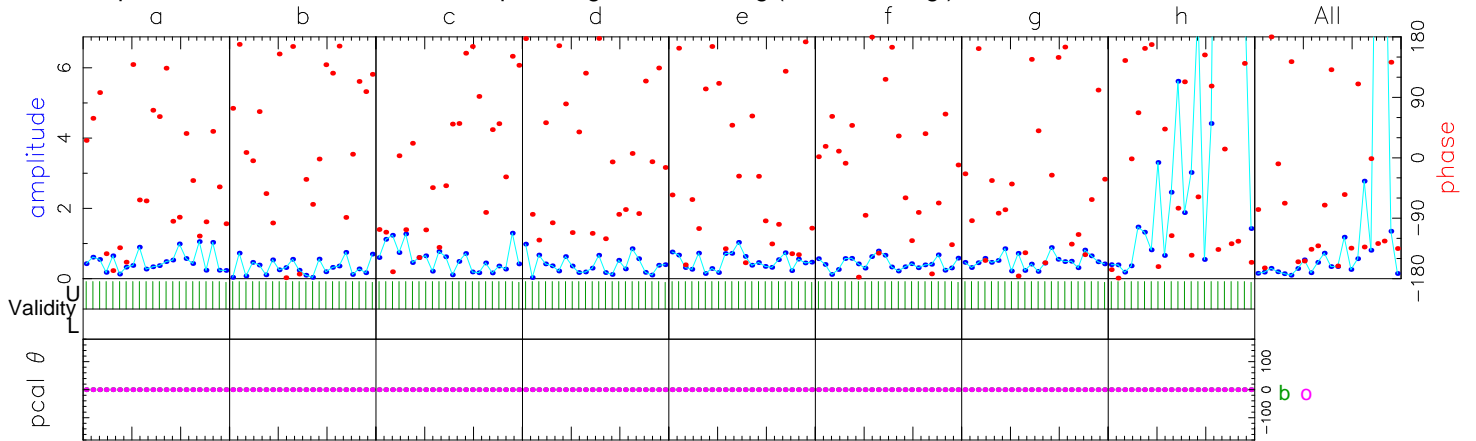


SNR 56.7  
 Int time 179.977  
 Amp 2.294  
 Phase -127.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.229864  
 MBD 0.003280  
 Fringe rate (Hz)  
 0.919806  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512



Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142202  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 -1°20'33.065613"

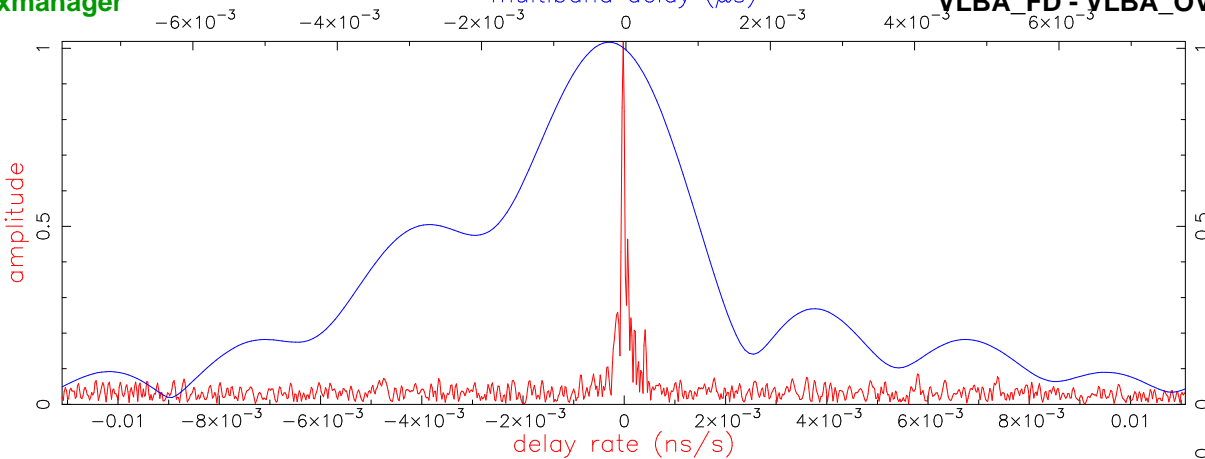
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-2.85200656316E+03									
Sband delay (usec)	-2.85201435373E+03									
Phase delay (usec)	-2.85224422226E+03									
Delay rate (us/s)	-9.39703942384E-04									
Total phase (deg)			-325.9							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
ph/seg (deg)	65.1	4.7								
amp/seg (%)	263.4	8.3								
ph/frq (deg)	53.4	2.9								
amp/frq (%)	247.2	5.0								
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
2.294 +/- 0.040										
1.540										
9.9999998E-08										
-9.50163414599E-04										
1.46882802795E-05										
3.28008E-03										
2.29864E-01										
-4.02480E-06										
1.04595E-05										
-127.4										
+/- 1.9E-05										
+/- 1.5E-04										
+/- 6.4E-08										
+/- 6.1E-10										
+/- 2.0										
simultaneous interpolator										

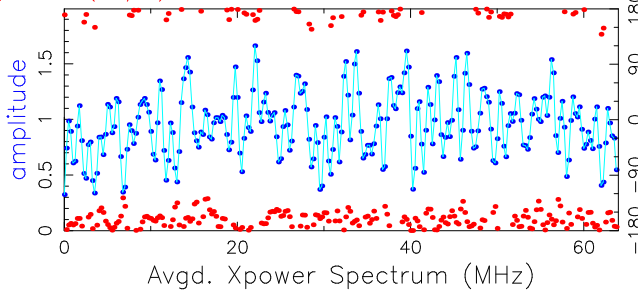
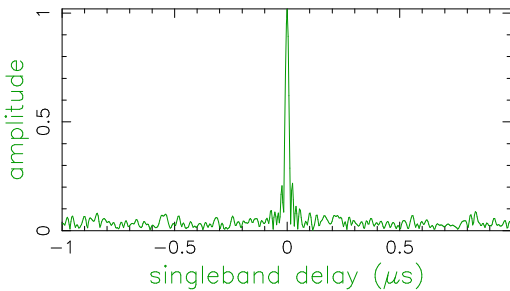
b: az 167.8 el 39.9 pa -8.1 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 10.994 1236.224 simultaneous interpolator  
 Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/bo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/bo.W.65.1JLM0Z

multiband delay ( $\mu$ s)



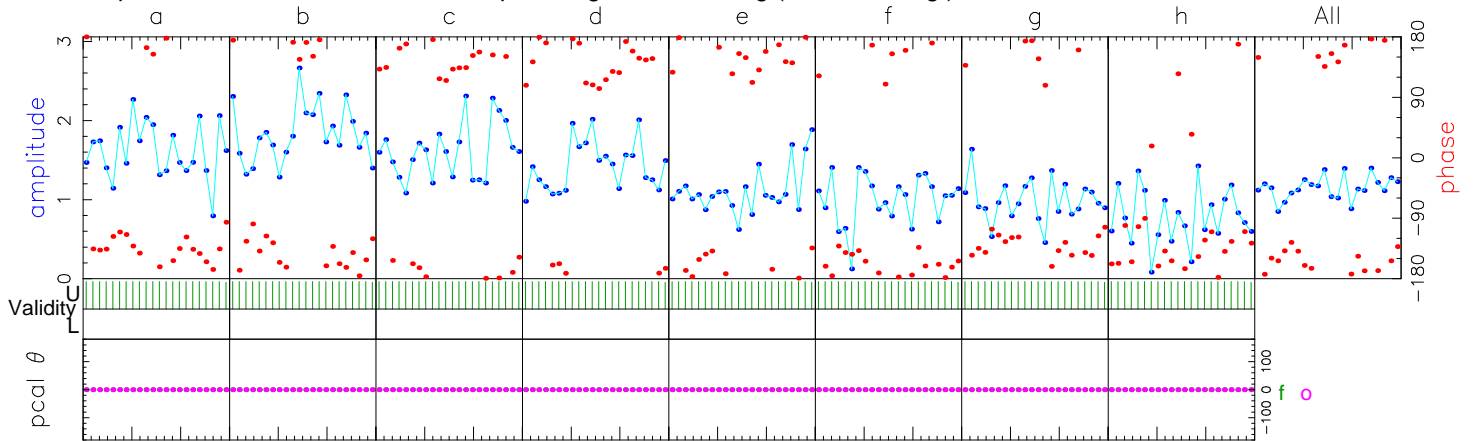
Fringe quality 5

SNR 37.4  
Int time 179.976  
Amp 1.019  
Phase -171.9  
PFD 0.0e+00  
Delays (us)  
SBD -0.000603  
MBD -0.000244  
Fringe rate (Hz)  
-0.002097  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512



Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142157  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"

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



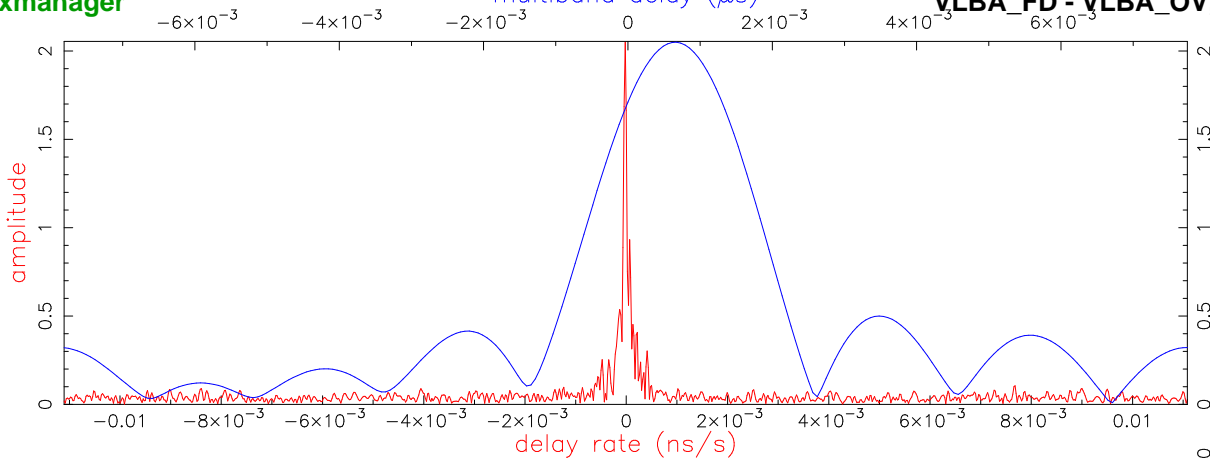
	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fo	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.41231808694E+03	Apriori delay (usec)	1.41231833070E+03	Resid mbdelay (usec)	-2.43759E-04	+/-	2.9E-05
Sband delay (usec)	1.41231772720E+03	Apriori clock (usec)	-1.3446955E+01	Resid sbdelay (usec)	-6.03500E-04	+/-	2.3E-04
Phase delay (usec)	1.41231832527E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-5.42979E-06	+/-	9.7E-08
Delay rate (us/s)	-3.20302508146E-01	Apriori rate (us/s)	-3.20302484305E-01	Resid rate (us/s)	-2.38408E-08	+/-	9.3E-10
Total phase (deg)	-171.1	Apriori accel (us/s/s)	-7.33864849646E-06	Resid phase (deg)	-171.9	+/-	3.1

ph/seg (deg)	28.2	Theor.	7.2	Amplitude	1.019 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	19.1		12.5	Search (1024X32)	0.994	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	28.5		4.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	33.1		7.6	Inc. seg. avg.	1.142	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	1.113	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

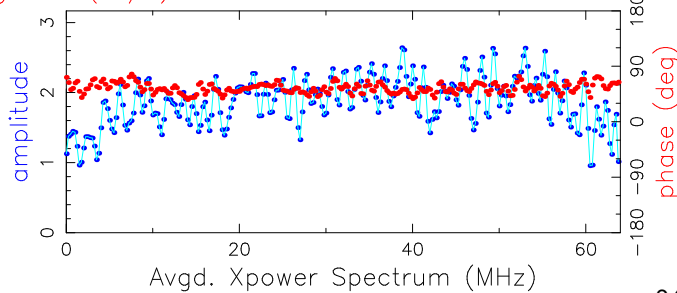
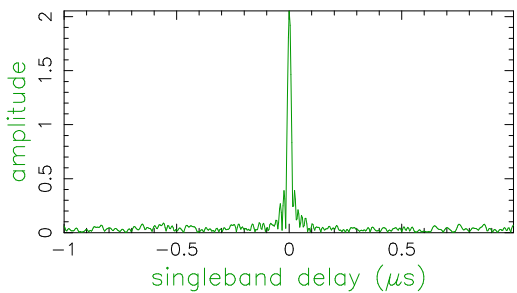
f: az 192.0 el 57.5 pa 10.7 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 1870.720 -845.553 simultaneous interpolator  
Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/fo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/fo.W.17.1JLM0Z

multiband delay ( $\mu$ s)



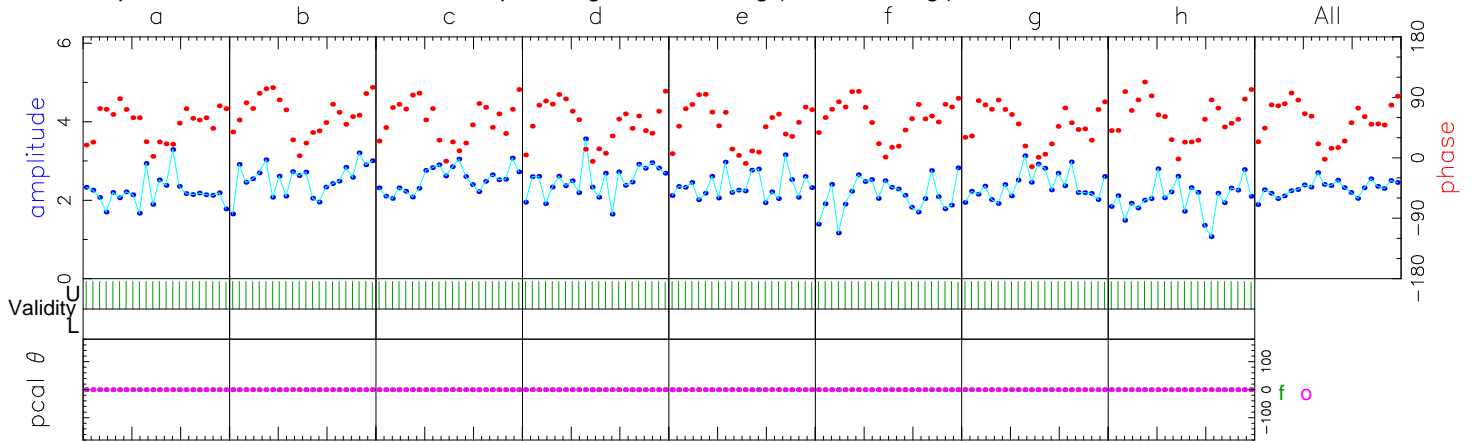
Fringe quality 7

SNR 75.4  
Int time 179.976  
Amp 2.054  
Phase 54.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000619  
MBD 0.000670  
Fringe rate (Hz)  
-0.002139  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512



Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142158  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		257.2
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:0	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.41231900073E+03			Apriori delay (usec)	1.41231833070E+03			Resid mbdelay (usec)	6.70022E-04	+/- 1.4E-05
Sband delay (usec)	1.41231894945E+03			Apriori clock (usec)	-1.3446955E+01			Resid sbdelay (usec)	6.18750E-04	+/- 1.1E-04
Phase delay (usec)	1.41231833241E+03			Apriori clockrate (us/s)	5.0000000E-07			Resid phdelay (usec)	1.70667E-06	+/- 4.8E-08
Delay rate (us/s)	-3.20302508629E-01			Apriori rate (us/s)	-3.20302484305E-01			Resid rate (us/s)	-2.43238E-08	+/- 4.6E-10
Total phase (deg)		54.8		Apriori accel (us/s/s)	-7.33864849646E-06			Resid phase (deg)	54.0	+/- 1.5

ph/seg (deg) 27.4 3.6  
amp/seg (%) 15.1 6.2  
ph/frq (deg) 7.4 2.2  
amp/frq (%) 7.3 3.8

RMS Theor. Amplitude 2.054 +/- 0.027  
Search (1024X32) 2.020  
Interp. 0.000  
Inc. seg. avg. 2.302  
Inc. frq. avg. 2.061

Group delay (usec)(sbd) 1.41231900073E+03  
Sband delay (usec) 1.41231894945E+03  
Phase delay (usec) 1.41231833241E+03  
Delay rate (us/s) -3.20302508629E-01  
Total phase (deg) 54.8

Apriori delay (usec) 1.41231833070E+03  
Apriori clock (usec) -1.3446955E+01  
Apriori clockrate (us/s) 5.0000000E-07  
Apriori rate (us/s) -3.20302484305E-01  
Apriori accel (us/s/s) -7.33864849646E-06

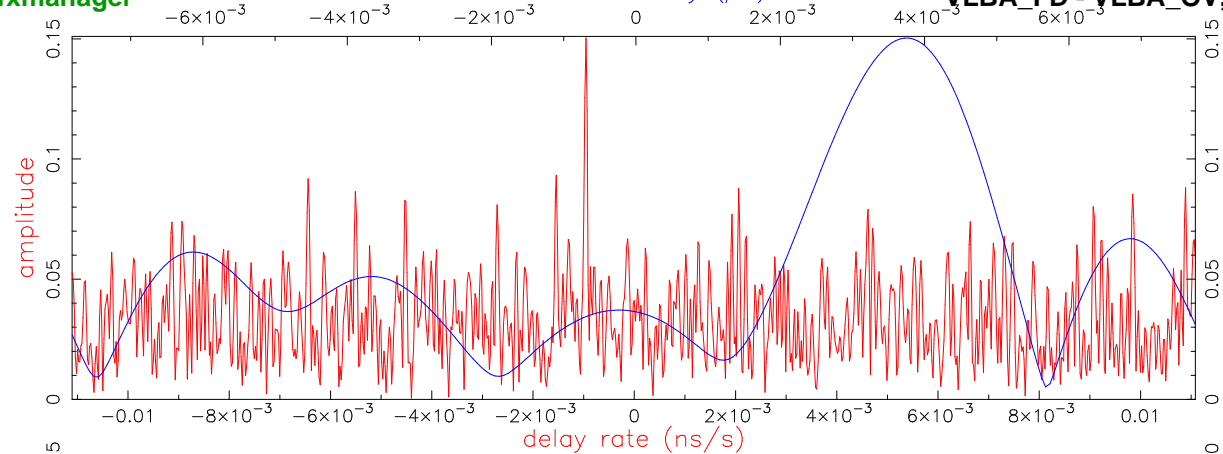
Resid mbdelay (usec) 6.70022E-04  
Resid sbdelay (usec) 6.18750E-04  
Resid phdelay (usec) 1.70667E-06  
Resid rate (us/s) -2.43238E-08  
Resid phase (deg) 54.0

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

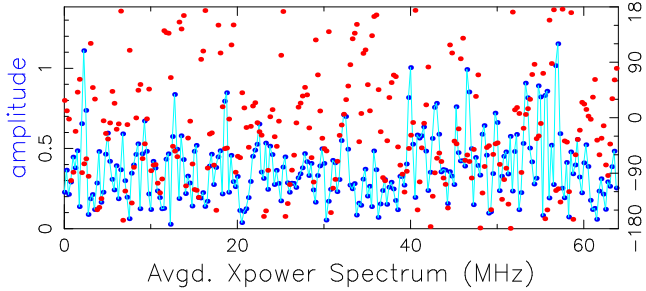
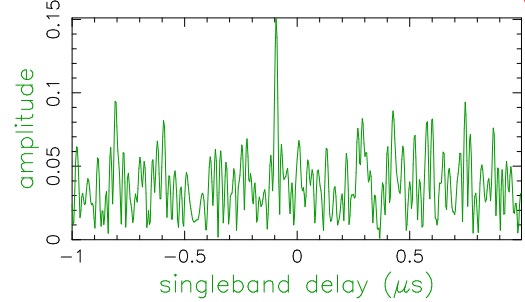
f: az 192.0 el 57.5 pa 10.7 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 1870.720 -845.553 simultaneous interpolator

multiband delay ( $\mu$ s)



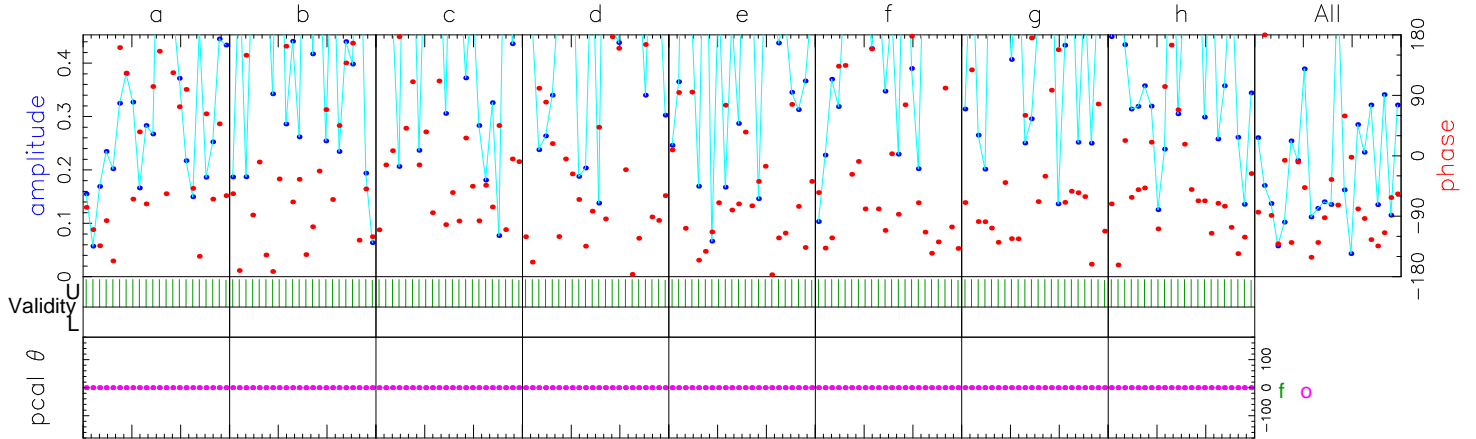
Fringe quality 0

SNR 5.5  
Int time 179.976  
Amp 0.151  
Phase -84.7  
PFD 9.8e-01  
Delays (us)  
SBD -0.093318  
MBD 0.003749  
Fringe rate (Hz)  
-0.083907  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512



Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142201  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-179.1	-104.0	-27.9	-96.2	-85.4	-109.5	-91.7	-72.9	Phase	-84.7
	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	37.0	281.2	447.3	206.7	328.6	466.0	159.2	47.8	Sbd box	233.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:0	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.41222832947E+03		Apriori delay (usec)		1.41231833070E+03		Resid mbdelay (usec)		3.74876E-03	+/- 2.0E-04
Sband delay (usec)	1.41222501220E+03		Apriori clock (usec)		-1.3446955E+01		Resid sbdelay (usec)		-9.33185E-02	+/- 1.6E-03
Phase delay (usec)	1.41231832803E+03		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-2.67448E-06	+/- 6.6E-07
Delay rate (us/s)	-3.20303438440E-01		Apriori rate (us/s)		-3.20302484305E-01		Resid rate (us/s)		-9.54135E-07	+/- 6.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-7.33864849646E-06		Resid phase (deg)		-84.7	+/- 20.7

ph/seg (deg) 56.1 48.7 Search (1024X32) 0.149 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 89.6 84.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 47.4 29.3 Inc. seg. avg. 0.155 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 40.9 51.2 Inc. frq. avg. 0.153 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 192.0 el 57.5 pa 10.7 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 1870.720 -845.553 ion window (TEC) 0.00 0.00  
 simultaneous interpolator

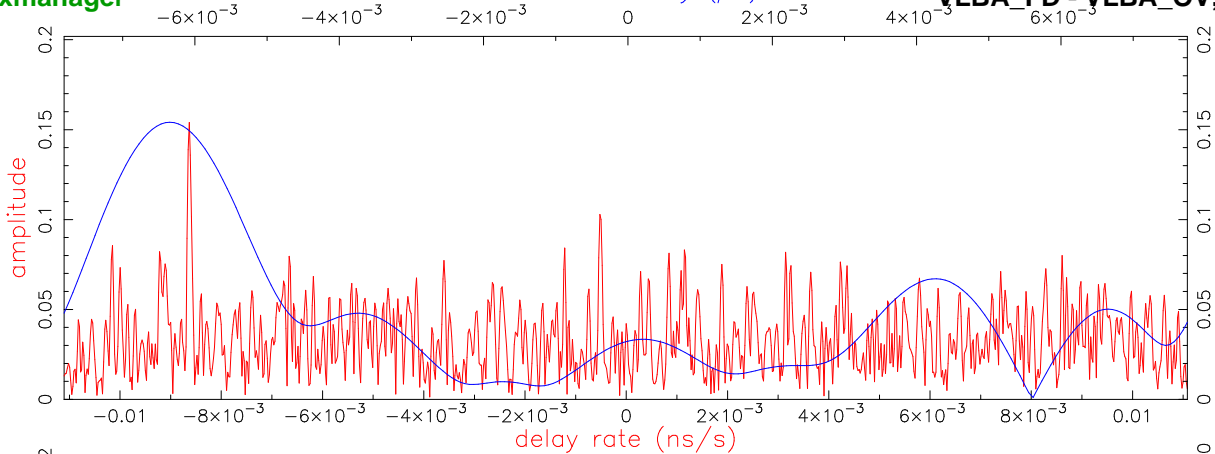
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1JLM0Z, No0079, fo

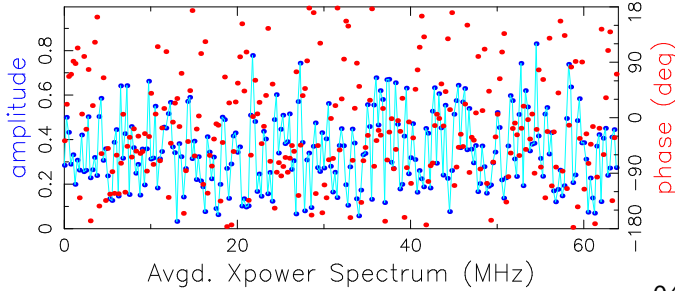
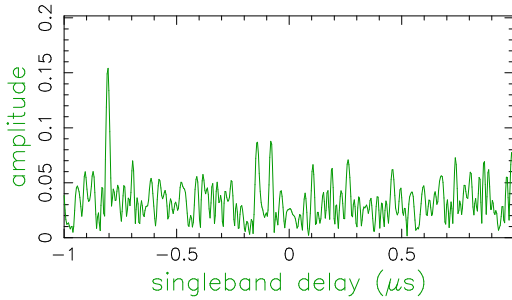
VLBA\_FD - VLBA\_OV, fgroup W, pol RL

multiband delay ( $\mu$ s)



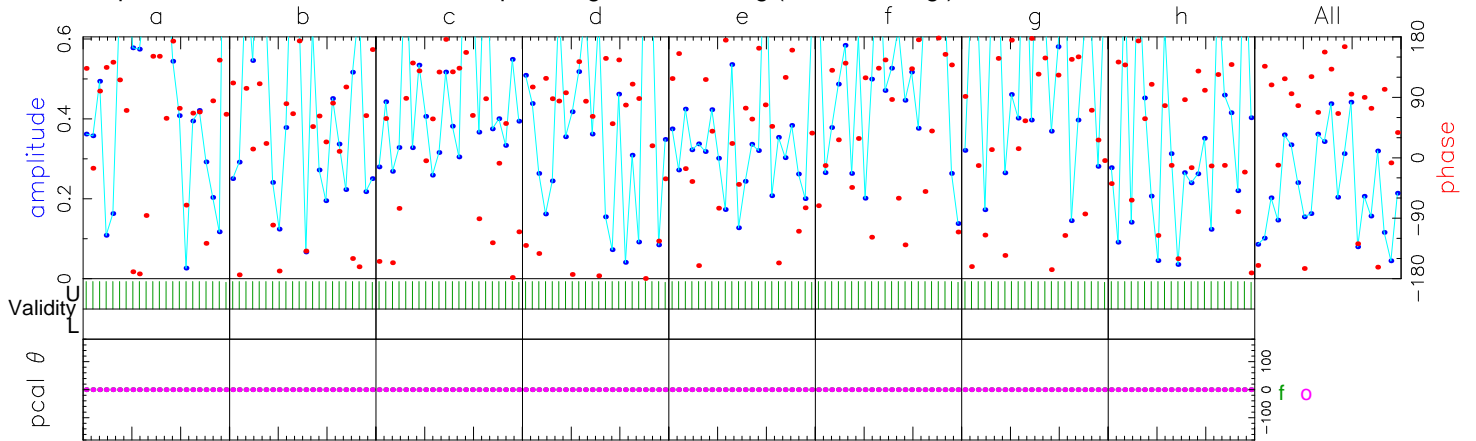
Fringe quality 0

SNR 5.7  
 Int time 179.976  
 Amp 0.202  
 Phase 112.6  
 PFD 7.8e-01  
 Delays (us)  
 SBD -0.805893  
 MBD -0.006380  
 Fringe rate (Hz)  
 -0.759287  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512



Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142203  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 --1°20'33.065613"

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

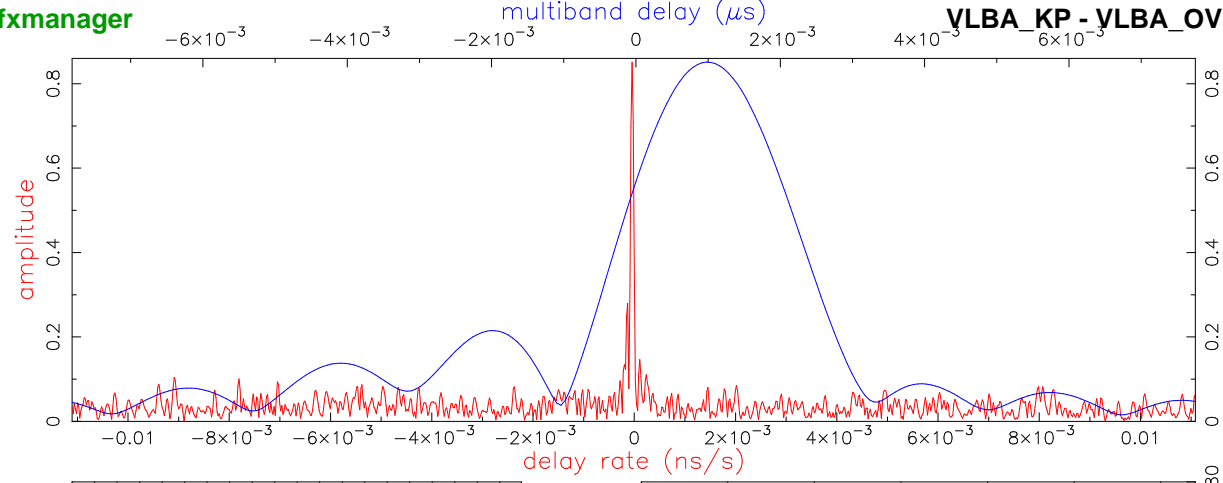


	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
fo	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		1.41151507548E+03				1.41231833070E+03			Resid mbdelay (usec)	-6.38023E-03 +/- 1.9E-04
Sband delay (usec)		1.41151243820E+03				-1.3446955E+01			Resid sbdelay (usec)	-8.05893E-01 +/- 1.5E-03
Phase delay (usec)		1.41231833426E+03				5.0000000E-07			Resid phdelay (usec)	3.55711E-01 +/- 6.4E-07
Delay rate (us/s)		-3.20311118452E-01				-3.20302484305E-01			Resid rate (us/s)	-8.63415E-06 +/- 6.1E-09
Total phase (deg)		113.4				-7.33864849646E-06			Resid phase (deg)	112.6 +/- 20.1
RMS	62.3	47.2							PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	62.3	47.2							PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	88.1	82.3							Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	23.4	28.4							Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	38.2	49.6							Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

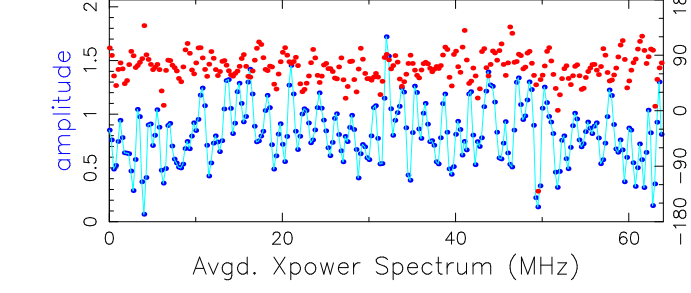
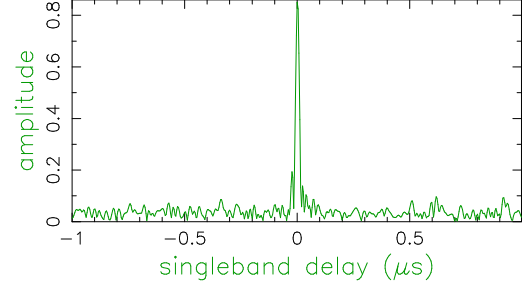
f: az 192.0 el 57.5 pa 10.7 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 1870.720 -845.553 simultaneous interpolator

Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/fo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/fo.W.76.1JLM0Z

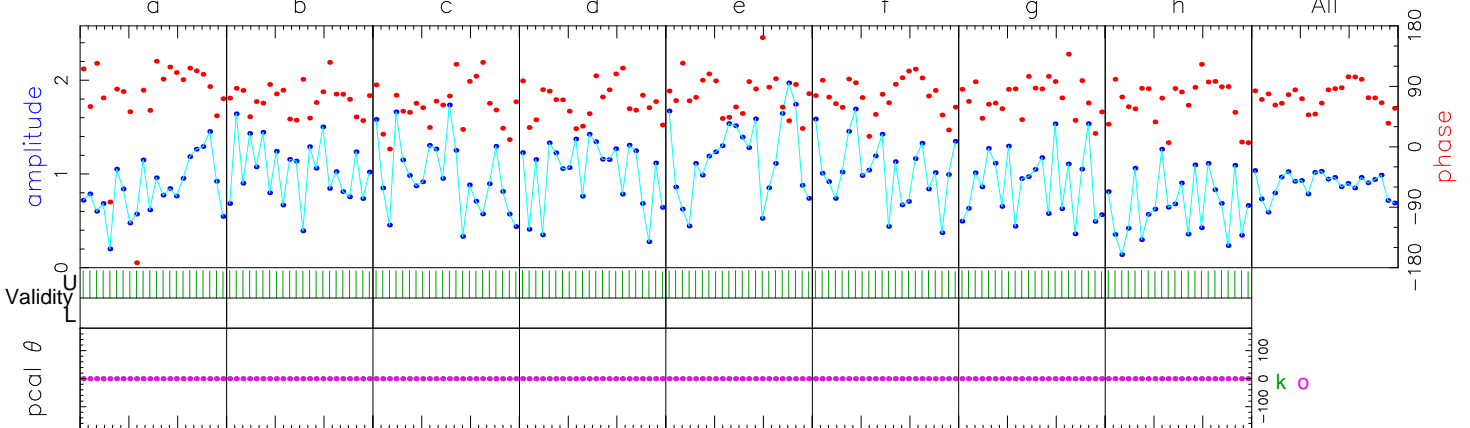




Fringe quality 9  
SNR 31.4  
Int time 178.249  
Amp 0.860  
Phase 74.5  
PFD 0.0e+00  
Delays (us)  
SBD 0.001308  
MBD 0.001024  
Fringe rate (Hz)  
-0.003068  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512  
Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142157  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"



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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		1.26921763590E+03			1.26921661148E+03			1.02442E-03		+/- 3.5E-05
Sband delay (usec)		1.26921791948E+03			-2.1038383E+01			1.30800E-03		+/- 2.7E-04
Phase delay (usec)		1.26921661383E+03			1.9999998E-07			2.35323E-06		+/- 1.2E-07
Delay rate (us/s)		-1.42159321099E-01			-1.42159286210E-01			-3.48887E-08		+/- 1.1E-09
Total phase (deg)			7.3		-6.66821504483E-06			74.5		+/- 3.6
ph/seg (deg)	RMS 17.5	Theor. 8.6	Amplitude 0.860 +/- 0.027	Search (1024X32) 0.827	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	14.3	14.9	Interp. 0.000	0.880	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	10.8	5.2	Inc. seg. avg. 0.880	0.858	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	16.6	9.0	Inc. frq. avg. 0.858	0.858	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 177.7 el 56.7 pa -1.3 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 829.031 -670.573 simultaneous interpolator  
Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/ko..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/ko.W.22.1JLM0Z

Mk4/DiFX fourfit 3.21 rev 2937

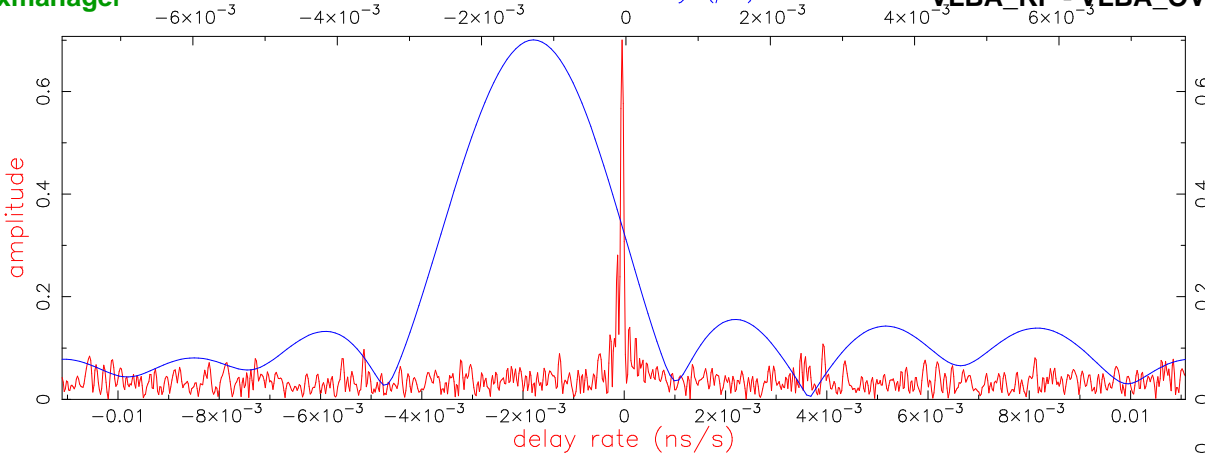
fxmanager

0420-014.1JLM0Z, No0079, ko

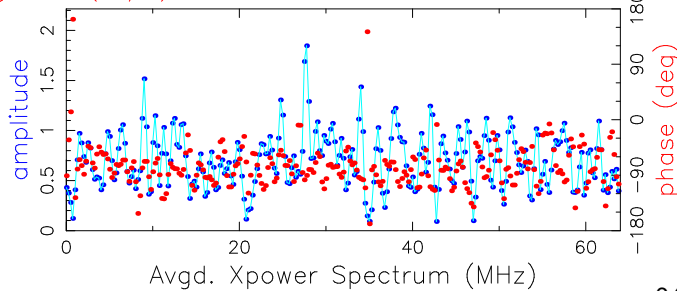
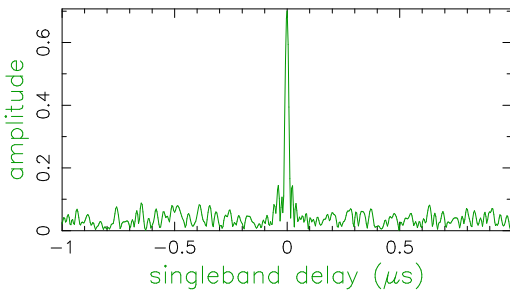
VLBA\_KP - VLBA\_OV, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 9

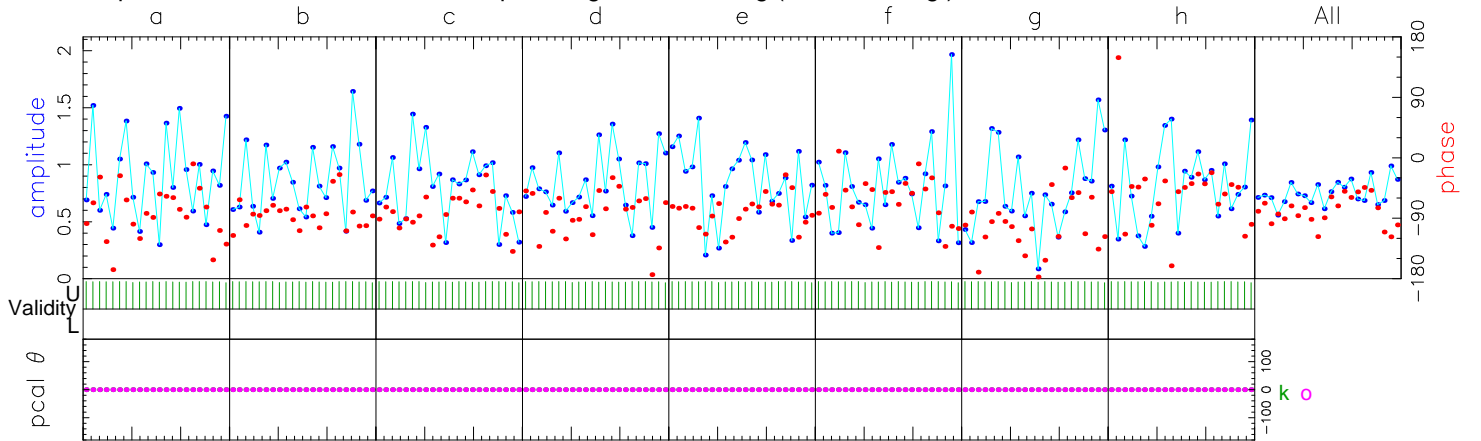


SNR 25.8  
 Int time 178.249  
 Amp 0.707  
 Phase -78.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001276  
 MBD -0.001311  
 Fringe rate (Hz)  
 -0.002960  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512



Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142201  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 --1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.26921530015E+03				1.26921661148E+03			Resid mbdelay (usec)	-1.31133E-03 +/- 4.2E-05
Sband delay (usec)		1.26921533598E+03				-2.1038383E+01			Resid sbdelay (usec)	-1.27550E-03 +/- 3.3E-04
Phase delay (usec)		1.26921660899E+03				1.9999998E-07			Resid phdelay (usec)	-2.48690E-06 +/- 1.4E-07
Delay rate (us/s)		-1.42159319869E-01				-1.42159286210E-01			Resid rate (us/s)	-3.36589E-08 +/- 1.3E-09
Total phase (deg)			214.1			-6.66821504483E-06			Resid phase (deg)	-78.7 +/- 4.4

RMS Theor. Amplitude 0.707 +/- 0.027  
 ph/seg (deg) 21.4 10.4 Search (1024X32) 0.661  
 amp/seg (%) 16.2 18.2 Interp. 0.000  
 ph/frq (deg) 12.4 6.3 Inc. seg. avg. 0.743  
 amp/frq (%) 8.2 11.0 Inc. frq. avg. 0.707

Group delay (usec)(sbd) 1.26921530015E+03 Apriori delay (usec) 1.26921661148E+03 Resid mbdelay (usec) -1.31133E-03 +/- 4.2E-05  
 Sband delay (usec) 1.26921533598E+03 Apriori clock (usec) -2.1038383E+01 Resid sbdelay (usec) -1.27550E-03 +/- 3.3E-04  
 Phase delay (usec) 1.26921660899E+03 Apriori clockrate (us/s) 1.9999998E-07 Resid phdelay (usec) -2.48690E-06 +/- 1.4E-07  
 Delay rate (us/s) -1.42159319869E-01 Apriori rate (us/s) -1.42159286210E-01 Resid rate (us/s) -3.36589E-08 +/- 1.3E-09  
 Total phase (deg) 214.1 Apriori accel (us/s/s) -6.66821504483E-06 Resid phase (deg) -78.7 +/- 4.4

pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 Sample rate(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 177.7 el 56.7 pa -1.3 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 829.031 -670.573 simultaneous interpolator

Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/ko..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/ko.W.52.1JLM0Z

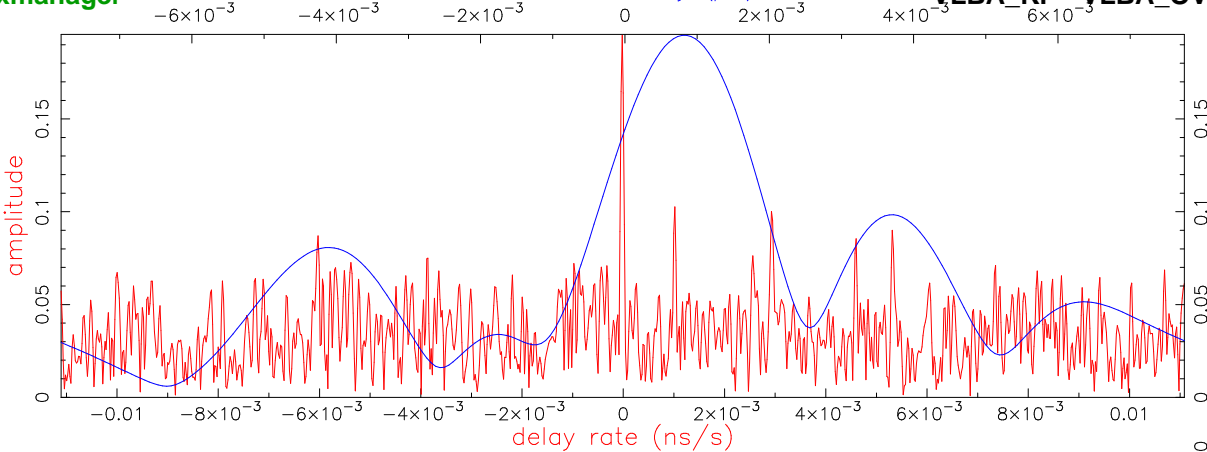
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1JLM0Z, No0079, ko

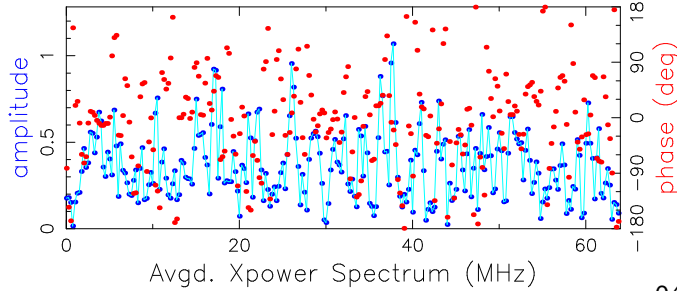
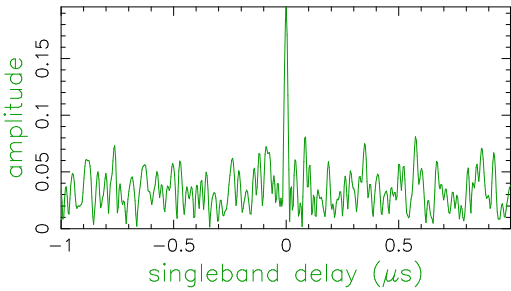
VLBA\_KP - VLBA\_OV, fgroup W, pol LR

multiband delay ( $\mu$ s)



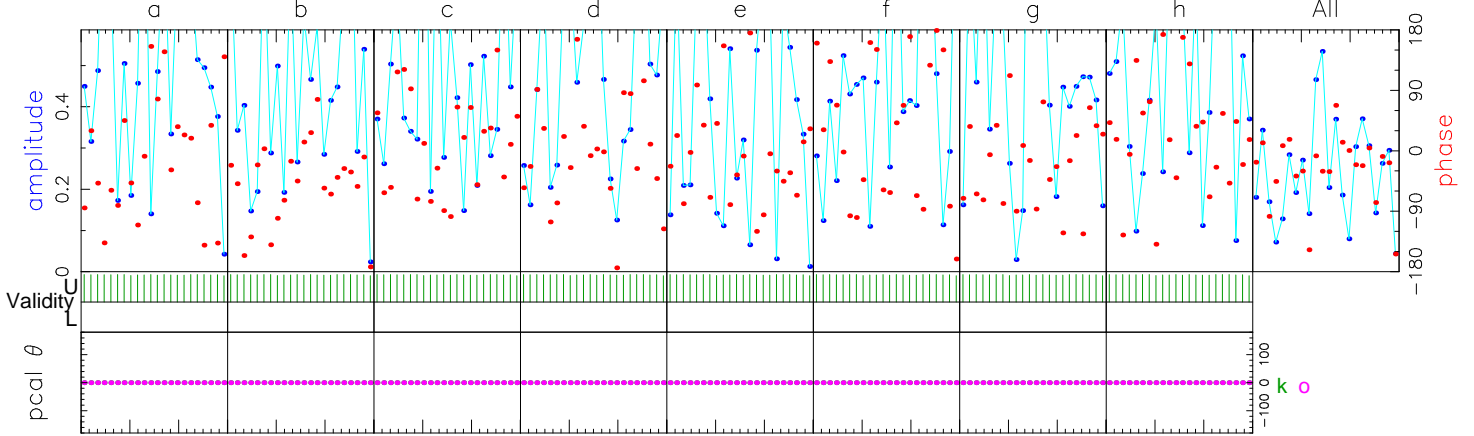
Fringe quality 0

SNR 7.1  
 Int time 178.249  
 Amp 0.196  
 Phase -13.4  
 PFD 1.4e-04  
 Delays (us)  
 SBD -0.000618  
 MBD 0.000800  
 Fringe rate (Hz)  
 -0.002405  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512



Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142202  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 --1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-18.7	-27.5	9.4	6.4	-27.0	-120.8	-16.4	1.9	Phase	-13.4
	0.2	0.3	0.2	0.3	0.2	0.1	0.3	0.2	Ampl.	0.2
	30.5	257.3	58.5	257.1	427.8	236.9	256.6	216.8	Sbd box	256.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.26921741109E+03		Apriori delay (usec)		1.26921661148E+03		Resid mbdelay (usec)		7.99616E-04	+/- 1.5E-04
Sband delay (usec)	1.26921599323E+03		Apriori clock (usec)		-2.1038383E+01		Resid sbdelay (usec)		-6.18250E-04	+/- 1.2E-03
Phase delay (usec)	1.26921661106E+03		Apriori clockrate (us/s)		1.9999998E-07		Resid phdelay (usec)		-4.22887E-07	+/- 5.1E-07
Delay rate (us/s)	-1.42159313557E-01		Apriori rate (us/s)		-1.42159286210E-01		Resid rate (us/s)		-2.73471E-08	+/- 4.9E-09
Total phase (deg)	279.4		Apriori accel (us/s/s)		-6.66821504483E-06		Resid phase (deg)		-13.4	+/- 16.1

	RMS	Theor.	Amplitude	0.196 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	52.5	37.6	Search (1024X32)	0.191	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	67.7	65.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	46.7	22.7	Inc. seg. avg.	0.200	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	36.1	39.6	Inc. frq. avg.	0.199	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

k: az 177.7 el 56.7 pa -1.3 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 829.031 -670.573 simultaneous interpolator

Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/ko..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/ko.W.68.1JLM0Z

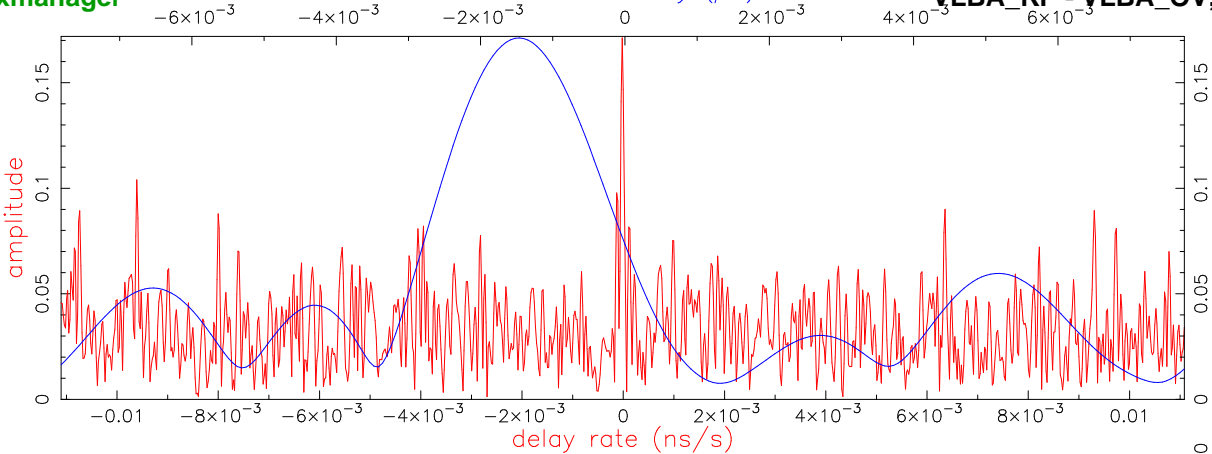
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1JLM0Z, No0079, ko

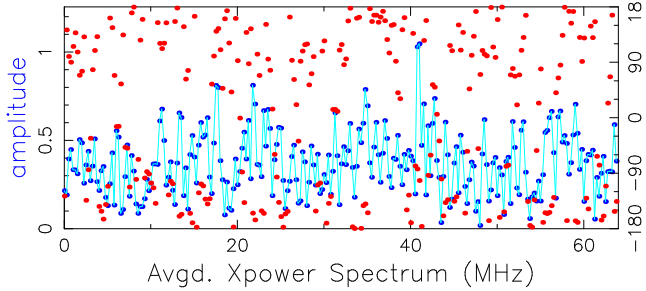
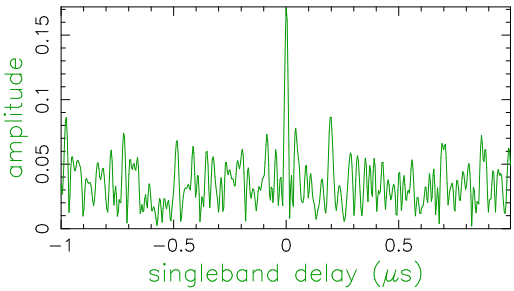
VLBA\_KP - VLBA\_OV, fgroup W, pol RL

multiband delay ( $\mu$ s)



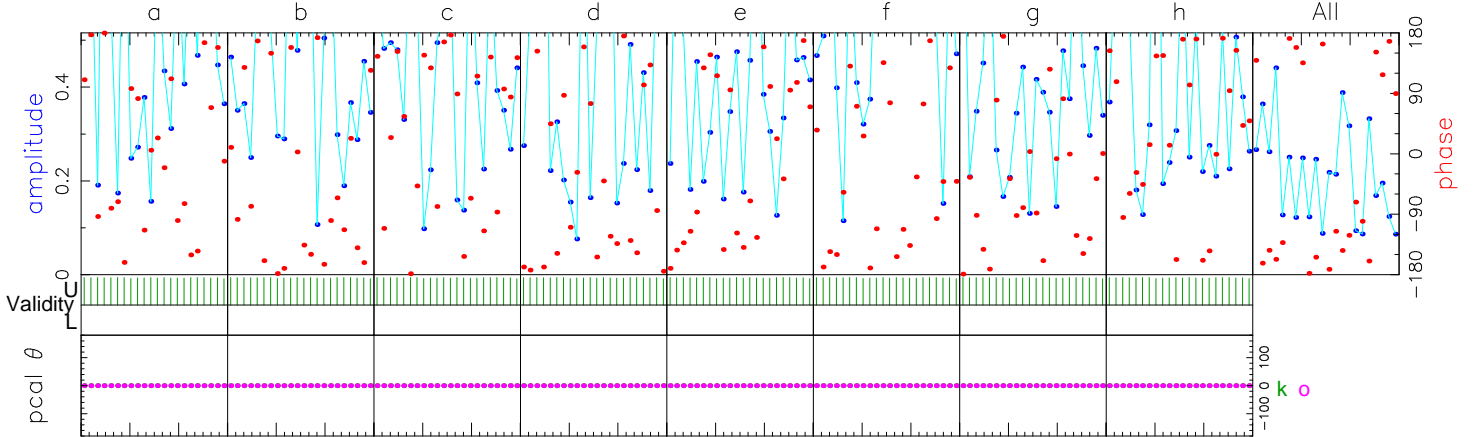
Fringe quality 0

SNR 6.3  
Int time 178.249  
Amp 0.172  
Phase -167.1  
PFD 4.5e-02  
Delays (us)  
SBD 0.000847  
MBD -0.001452  
Fringe rate (Hz)  
-0.002156  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512



Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142204  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"

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

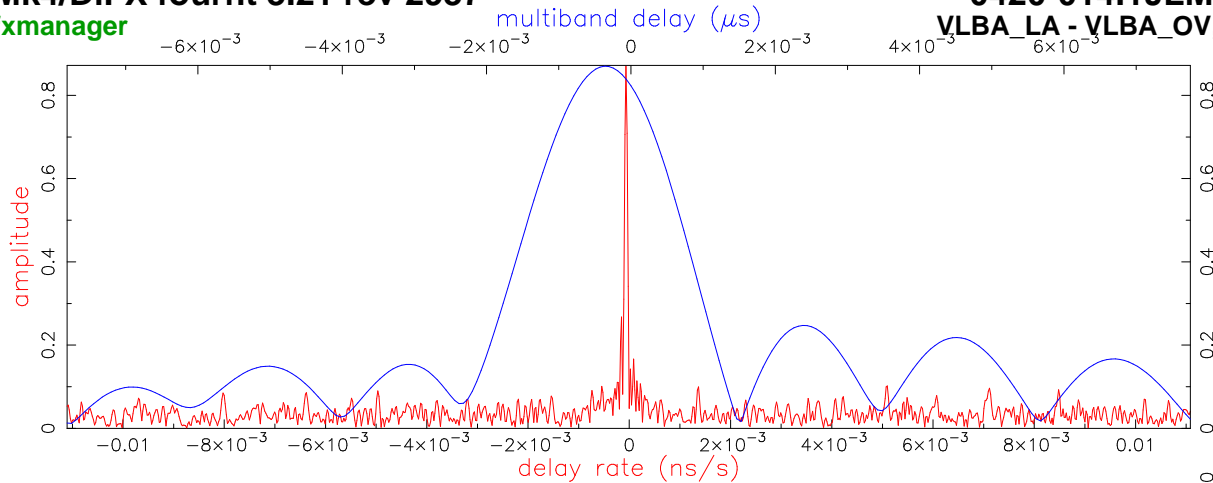


	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-171.2	-158.0	171.6	-163.8	-173.1	-159.8	-123.5	154.6	Phase	-167.1
	0.2	0.2	0.1	0.3	0.2	0.2	0.2	0.2	Ampl.	0.2
	231.8	445.8	245.7	257.5	487.2	506.1	297.7	104.7	Sbd box	257.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	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)	1.26921515934E+03		Apriori delay (usec)		1.26921661148E+03		Resid mbdelay (usec)		-1.45213E-03	+/- 1.7E-04
Sband delay (usec)	1.26921745873E+03		Apriori clock (usec)		-2.1038383E+01		Resid sbdelay (usec)		8.47250E-04	+/- 1.4E-03
Phase delay (usec)	1.26921660620E+03		Apriori clockrate (us/s)		1.9999998E-07		Resid phdelay (usec)		-5.27757E-06	+/- 5.8E-07
Delay rate (us/s)	-1.42159310724E-01		Apriori rate (us/s)		-1.42159286210E-01		Resid rate (us/s)		-2.45140E-08	+/- 5.5E-09
Total phase (deg)	125.7		Apriori accel (us/s/s)		-6.66821504483E-06		Resid phase (deg)		-167.1	+/- 18.3

	RMS	Theor.	Amplitude	0.172 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	46.8	42.8	Search (1024X32)	0.171	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	65.5	74.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	25.9	25.8	Inc. seg. avg.	0.170	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	28.0	45.1	Inc. frq. avg.	0.166	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
						ion window (TEC) 0.00 0.00

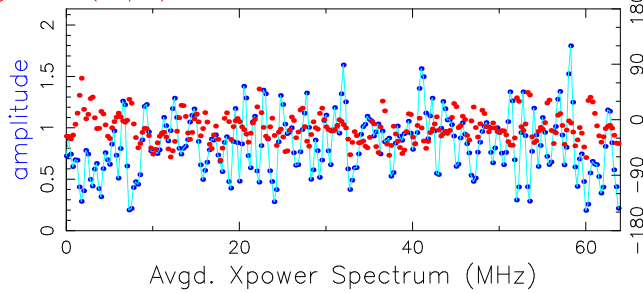
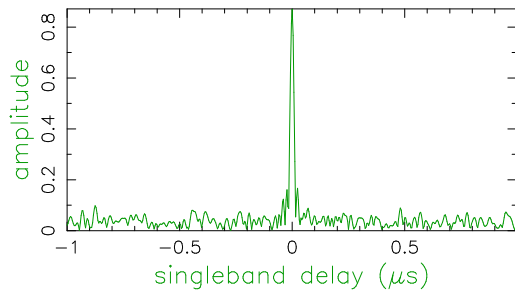
k: az 177.7 el 56.7 pa -1.3 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 829.031 -670.573 simultaneous interpolator

Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/ko..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/ko.W.81.1JLM0Z



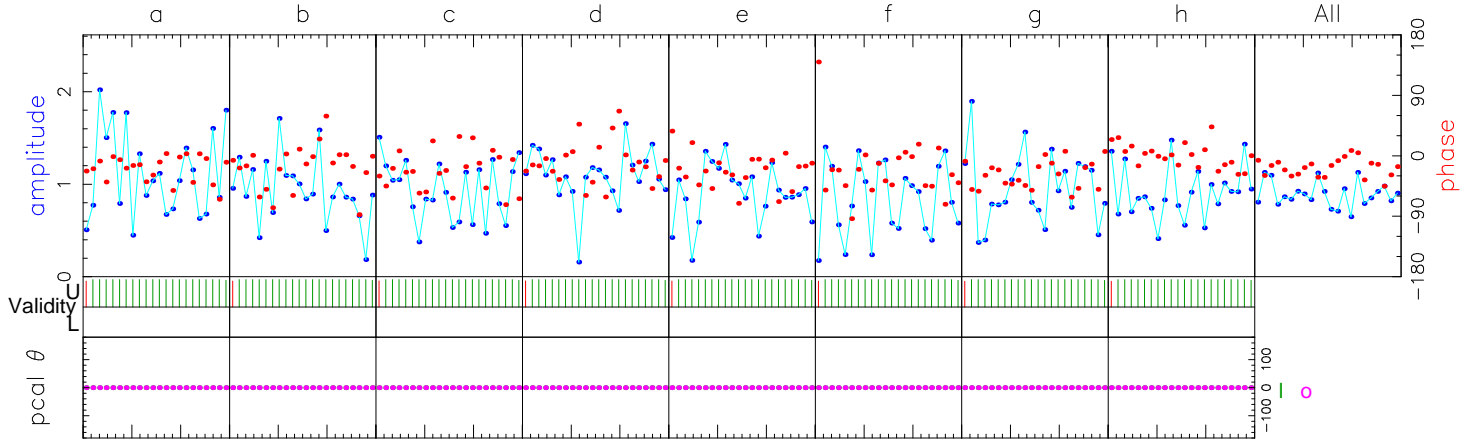
Fringe quality 9

SNR 31.9  
Int time 179.511  
Amp 0.872  
Phase -18.4  
PFD 0.0e+00  
Delays (us)  
SBD -0.000607  
MBD -0.000367  
Fringe rate (Hz)  
-0.004817  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512

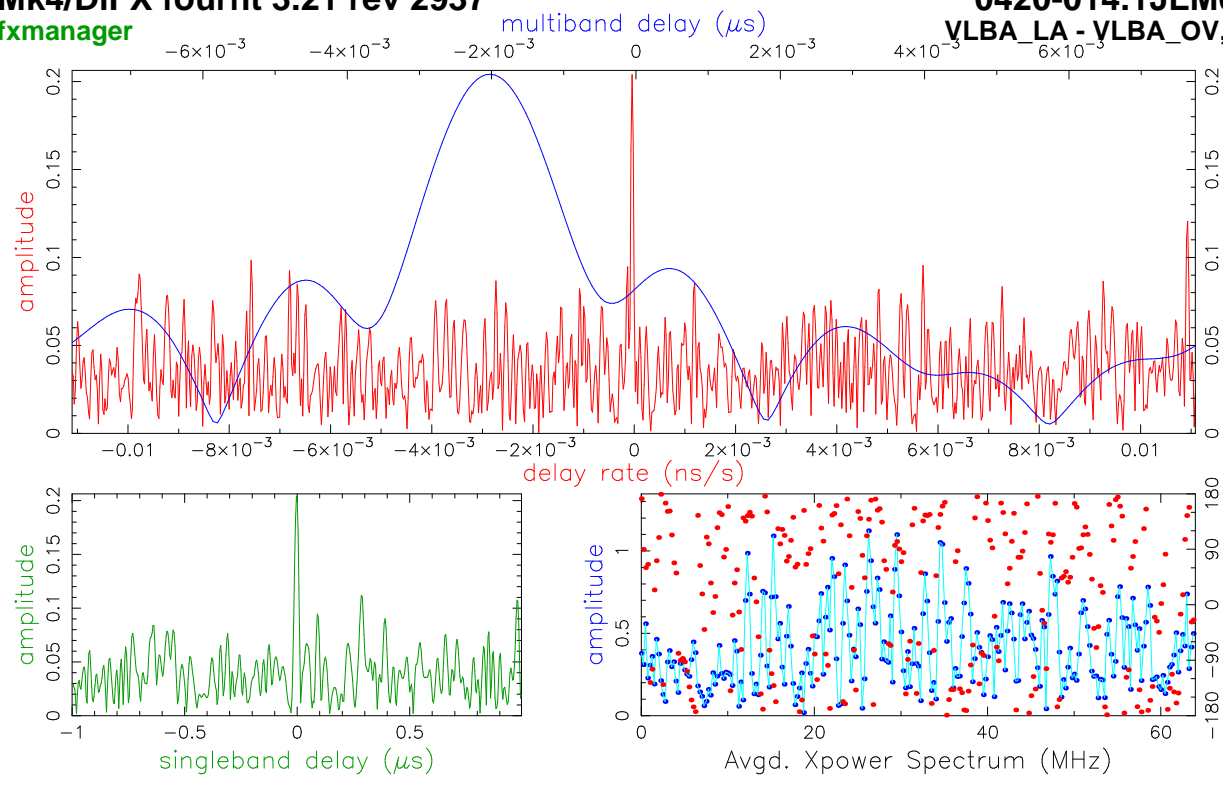


Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142207  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"

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

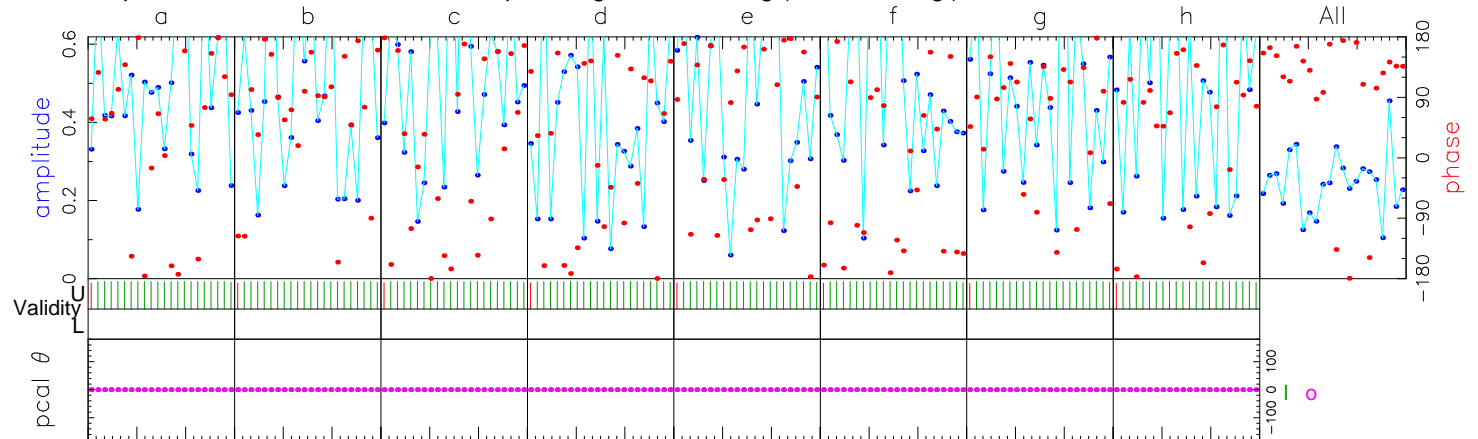


	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		4.03619927401E+02			4.03620294021E+02					
Sband delay (usec)		4.03619687521E+02			-2.1806000E+01					
Phase delay (usec)		4.03620293442E+02			0.0000000E+00					
Delay rate (us/s)		-2.60964321256E-01			-2.60964266486E-01					
Total phase (deg)			217.9							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal theta										
RMS	13.2	8.4								
Theor.										
Amplitude										
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
ph/seg (deg)	13.2	8.4								
amp/seg (%)	15.3	14.7								
ph/frq (deg)	9.5	5.1								
amp/frq (%)	11.0	8.9								
PCal period (AP's) 5, 5										
SampCntNorm: enabled										
nlags: 256 t_cohere infinite										
simultaneous interpolator										



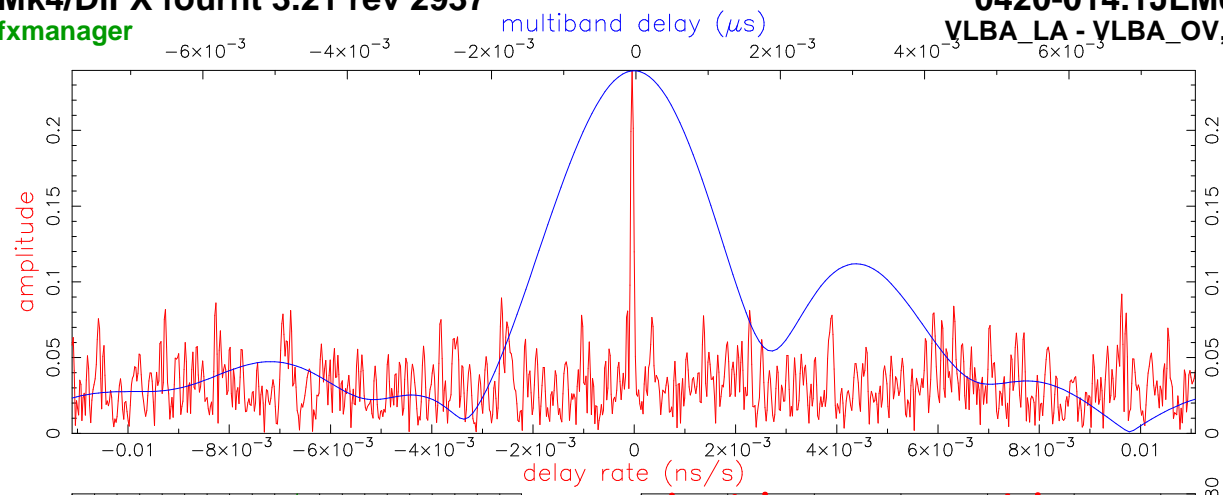
Fringe quality 9  
SNR 7.6  
Int time 179.511  
Amp 0.206  
Phase 148.8  
PFD 6.5e-06  
Delays (us)  
SBD -0.002324  
MBD -0.001981  
Fringe rate (Hz)  
-0.004537  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512  
Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142209  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"

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

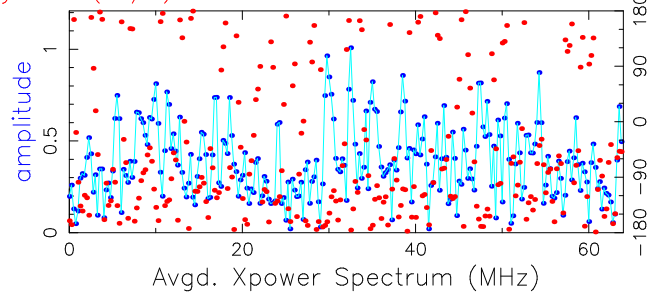
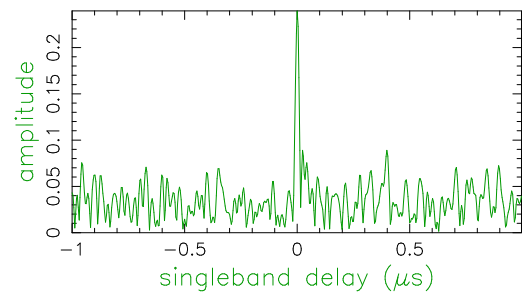


	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	4.03618313441E+02		Apriori delay (usec)		4.03620294021E+02		Resid mbdelay (usec)		-1.98058E-03	+/- 1.4E-04
Sband delay (usec)	4.03617970021E+02		Apriori clock (usec)		-2.1806000E+01		Resid sbdelay (usec)		-2.32400E-03	+/- 1.1E-03
Phase delay (usec)	4.03620298723E+02		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		4.70170E-06	+/- 4.8E-07
Delay rate (us/s)	-2.60964318083E-01		Apriori rate (us/s)		-2.60964266486E-01		Resid rate (us/s)		-5.15974E-08	+/- 4.6E-09
Total phase (deg)	25.1		Apriori accel (us/s/s)		-2.21040503422E-06		Resid phase (deg)		148.8	+/- 15.2

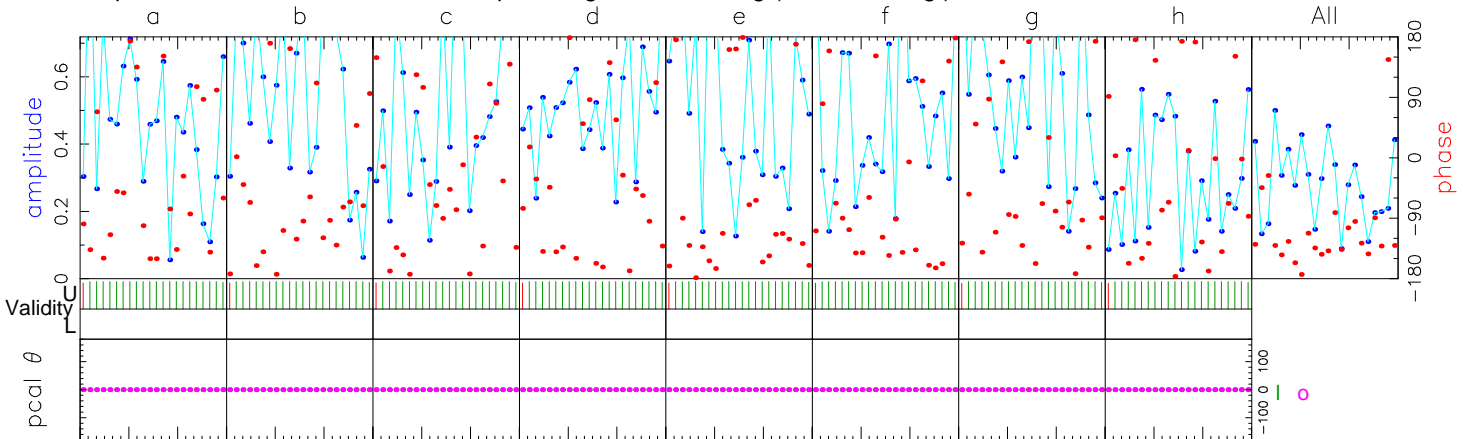
ph/seg (deg) 34.5 35.5 Search (1024X32) 0.198 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 42.3 62.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 35.6 21.4 Inc. seg. avg. 0.207 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 18.3 37.4 Inc. frq. avg. 0.221 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 186.8 el 52.7 pa 6.1 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 1525.197 -177.120 simultaneous interpolator  
Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/lo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/lo.W.117.1JLM0Z



Fringe quality 9  
SNR 8.8  
Int time 179.511  
Amp 0.240  
Phase -127.3  
PFD 3.1e-10  
Delays (us)  
SBD 0.000433  
MBD -0.000021  
Fringe rate (Hz)  
-0.004411  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512  
Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142210  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"

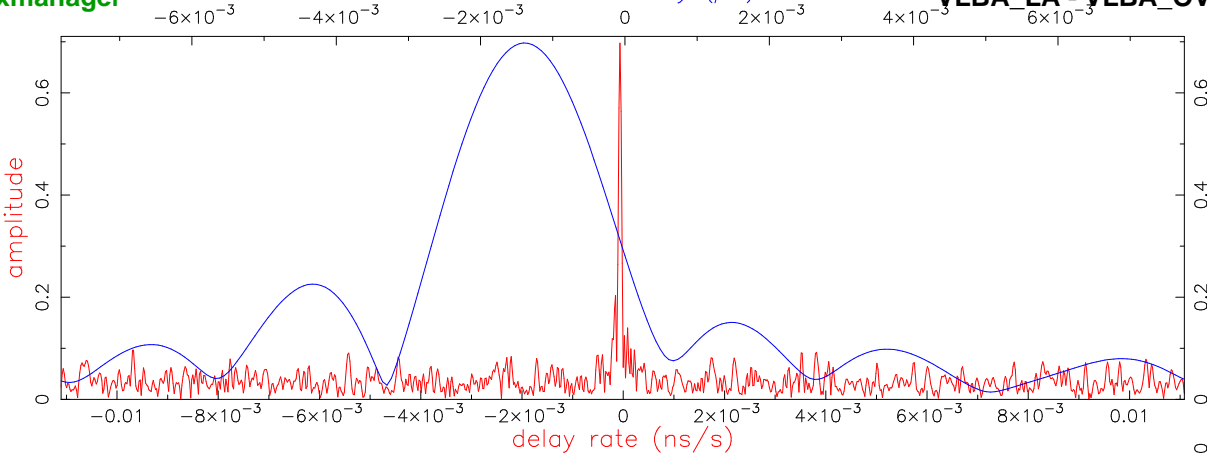


Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



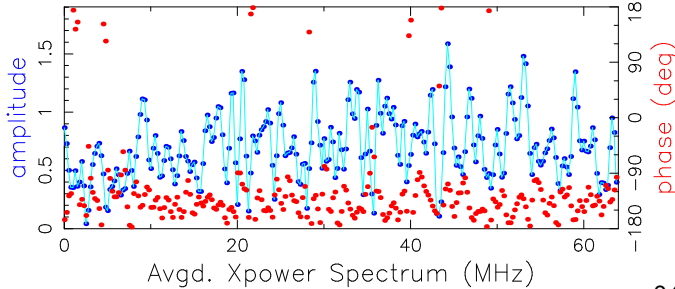
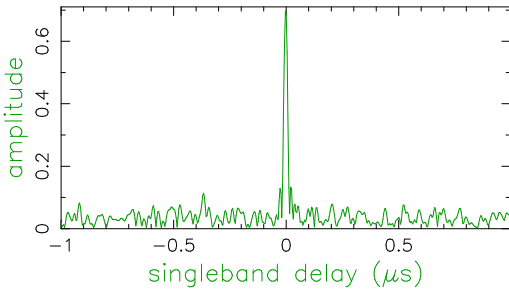
	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All		
	-134.4	-111.9	-109.0	-130.0	-145.7	-137.7	-114.1	-107.5	Phase	-127.3		
	0.2	0.3	0.1	0.2	0.4	0.3	0.3	0.1	Ampl.	0.2		
	22.9	257.7	357.3	47.6	256.9	256.3	257.4	371.9	Sbd box	257.1		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Chan ids			
									Tracks			
Group delay (usec)(sbd)	4.03620273378E+02		Apriori delay (usec)		4.03620294021E+02		Resid mbdelay (usec)		-2.06430E-05	+/- 1.2E-04		
Sband delay (usec)	4.03620726521E+02		Apriori clock (usec)		-2.1806000E+01		Resid sbdelay (usec)		4.32500E-04	+/- 9.8E-04		
Phase delay (usec)	4.03620290001E+02		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-4.02059E-06	+/- 4.1E-07		
Delay rate (us/s)	-2.60964316649E-01		Apriori rate (us/s)		-2.60964266486E-01		Resid rate (us/s)		-5.01635E-08	+/- 4.0E-09		
Total phase (deg)	109.0		Apriori accel (us/s/s)		-2.21040503422E-06		Resid phase (deg)		-127.3	+/- 13.1		
	RMS	Theor.	Amplitude	0.240 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	39.4	30.6	Search (1024X32)	0.235		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	51.3	53.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	16.6	18.5	Inc. seg. avg.	0.247		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	42.6	32.2	Inc. frq. avg.	0.235		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

multiband delay ( $\mu$ s)



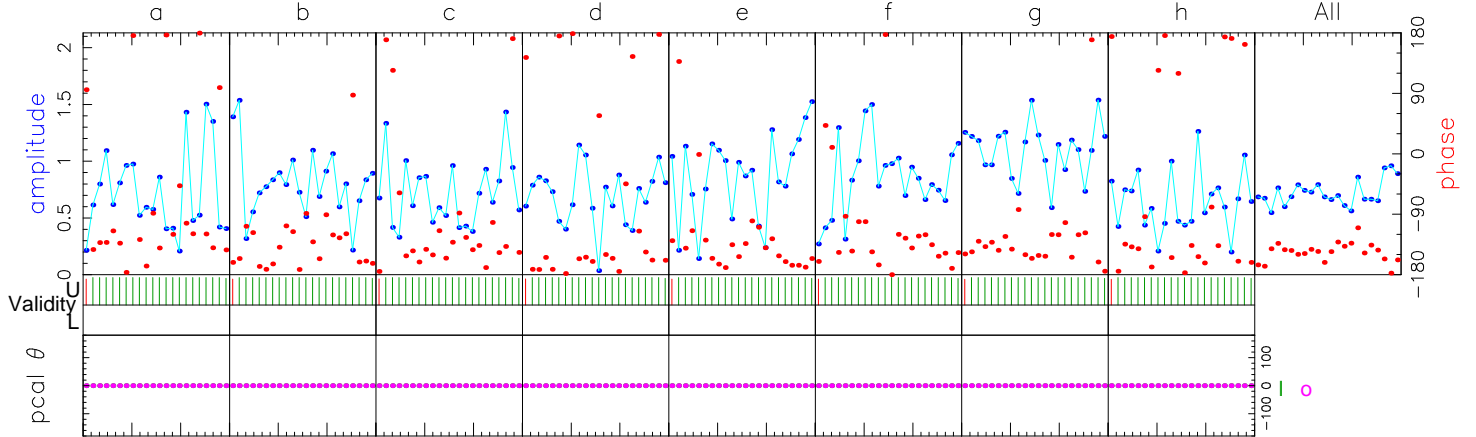
Fringe quality 9

SNR 26.0  
Int time 179.511  
Amp 0.710  
Phase -146.8  
PFD 0.0e+00  
Delays (us)  
SBD -0.002136  
MBD -0.001354  
Fringe rate (Hz)  
-0.004776  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512



Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142206  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-138.3	-141.1	-149.7	-163.8	-147.2	-139.8	-141.8	-159.1	Phase	-146.8
	0.6	0.7	0.6	0.6	0.8	0.7	1.0	0.5	Ampl.	0.7
	256.4	256.6	256.1	256.6	256.9	256.6	256.3	255.8	Sbd box	256.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
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)	4.03618939588E+02		Apriori delay (usec)		4.03620294021E+02		Resid mbdelay (usec)		-1.35443E-03	+/- 4.2E-05
Sband delay (usec)	4.03618158271E+02		Apriori clock (usec)		-2.1806000E+01		Resid sbdelay (usec)		-2.13575E-03	+/- 3.3E-04
Phase delay (usec)	4.03620289385E+02		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-4.63661E-06	+/- 1.4E-07
Delay rate (us/s)	-2.60964320794E-01		Apriori rate (us/s)		-2.60964266486E-01		Resid rate (us/s)		-5.43084E-08	+/- 1.3E-09
Total phase (deg)			89.5		Apriori accel (us/s/s)		-2.21040503422E-06		-146.8	+/- 4.4

	RMS	Theor.	Amplitude	0.710 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	14.2	10.3	Search (1024X32)	0.663	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/seg (%)	15.7	18.0	Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	10.2	6.2	Inc. seg. avg.	0.710	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00
amp/frq (%)	19.8	10.9	Inc. frq. avg.	0.700					



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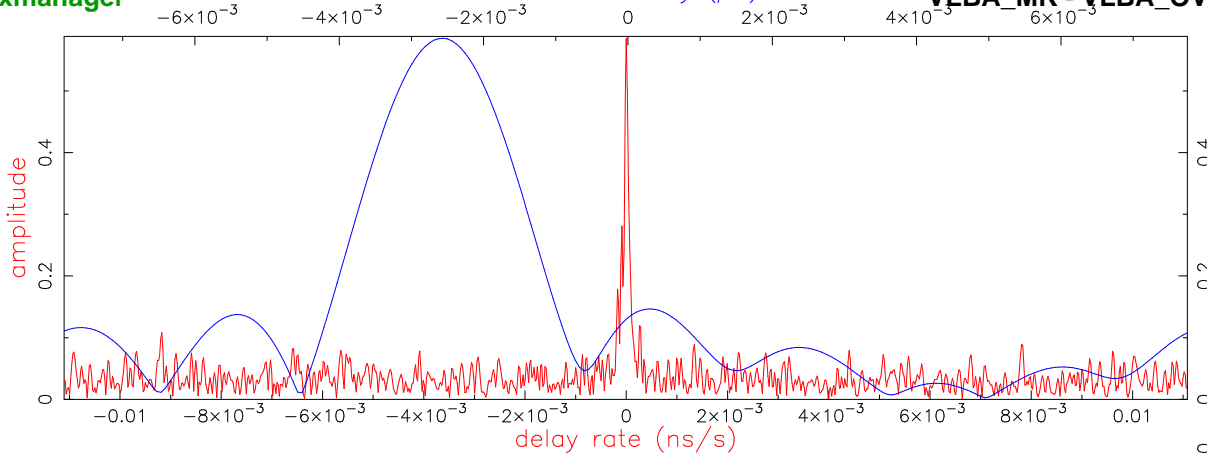
fxmanager

0420-014.1JLM0Z, No0079, mo

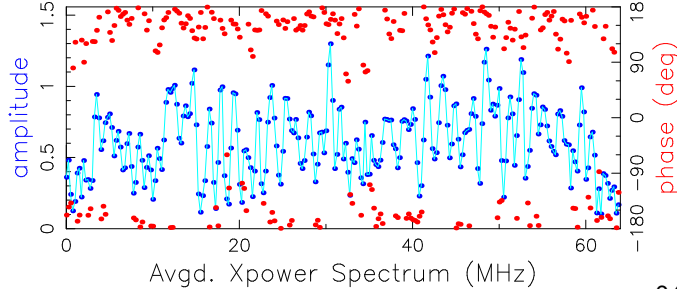
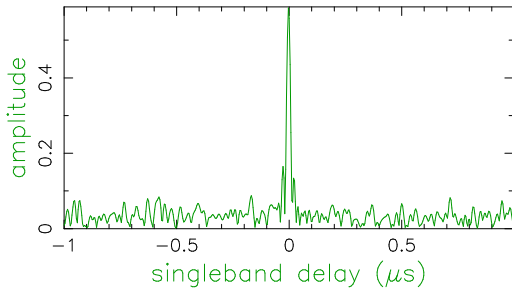
VLBA\_MK - VLBA\_OV, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 9

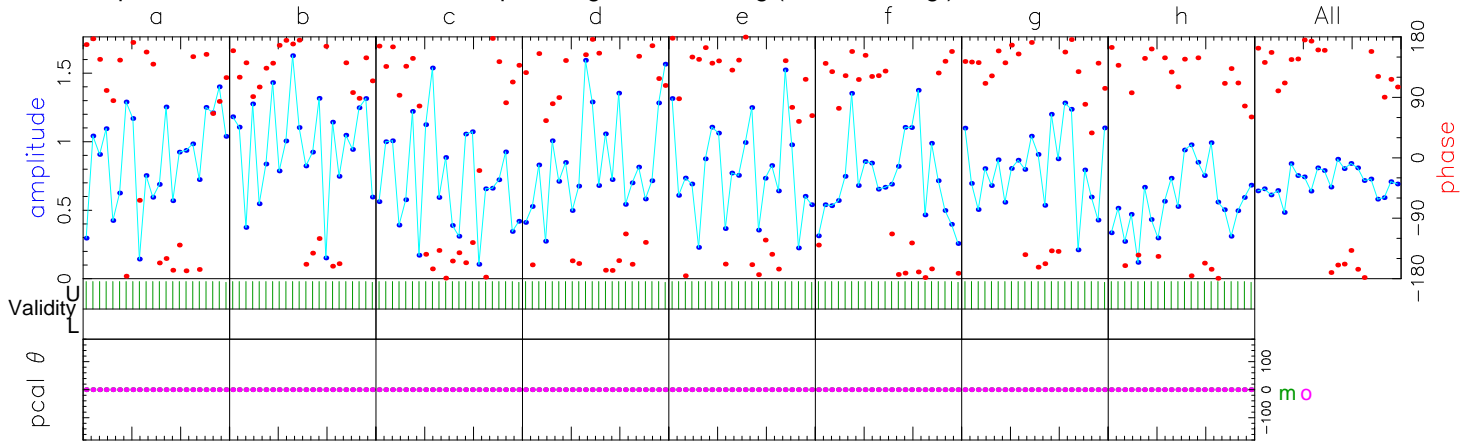


SNR 21.6  
 Int time 179.977  
 Amp 0.588  
 Phase 159.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002966  
 MBD -0.002549  
 Fringe rate (Hz)  
 -0.000163  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512



Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142208  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 -1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	156.7	154.4	172.8	161.0	158.1	162.5	158.1	148.2	Phase	159.0
m	0.6	0.7	0.5	0.6	0.6	0.6	0.6	0.4	Ampl.	0.6
o	256.3	256.1	256.1	256.2	256.0	256.7	256.1	256.5	Sbd box	256.2
m	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-2.4568486833E+03	Apriori delay (usec)	-2.45684613699E+03	Resid mbdelay (usec)	-2.54934E-03	+/-	5.0E-05
Sband delay (usec)	-2.45684910299E+03	Apriori clock (usec)	-7.9993820E+00	Resid sbdelay (usec)	-2.96600E-03	+/-	4.0E-04
Phase delay (usec)	-2.45684613197E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	5.02156E-06	+/-	1.7E-07
Delay rate (us/s)	8.65563716064E-01	Apriori rate (us/s)	8.65563717913E-01	Resid rate (us/s)	-1.84896E-09	+/-	1.6E-09
Total phase (deg)		Apriori accel (us/s/s)	1.36986307831E-05	Resid phase (deg)	159.0	+/-	5.3

ph/seg (deg)	RMS 35.6	Theor. 12.4	Amplitude Search (1024X32)	0.581	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	26.5	21.7	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)	7.7	7.5	Inc. seg. avg.	0.694	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	13.5	13.1	Inc. frq. avg.	0.584	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

m: az 110.2 el 41.0 pa -61.9 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) -5049.963 -2437.735 simultaneous interpolator

Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/mo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/mo.W.112.1JLM0Z

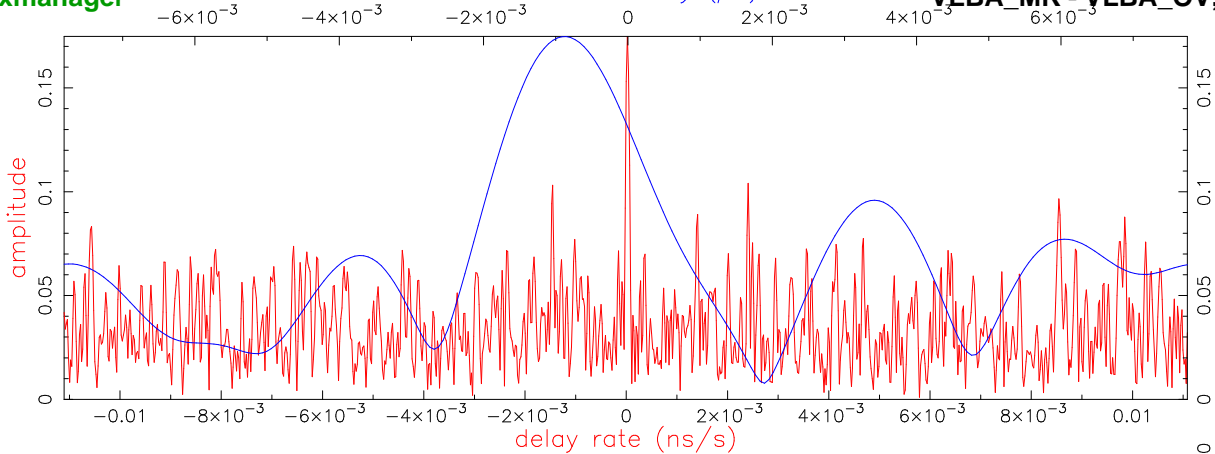
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1JLM0Z, No0079, mo

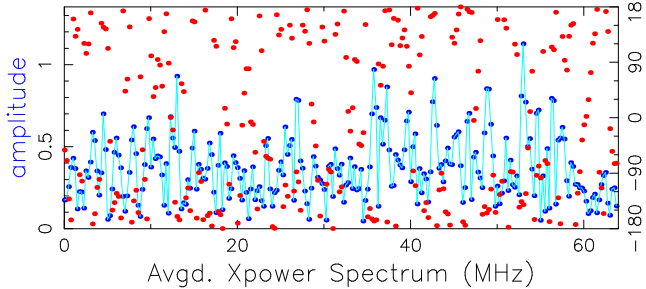
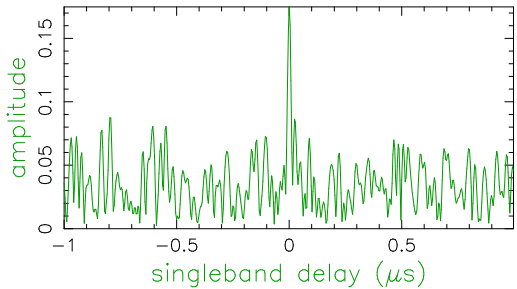
VLBA\_MK - VLBA\_OV, fgroup W, pol LR

multiband delay ( $\mu$ s)



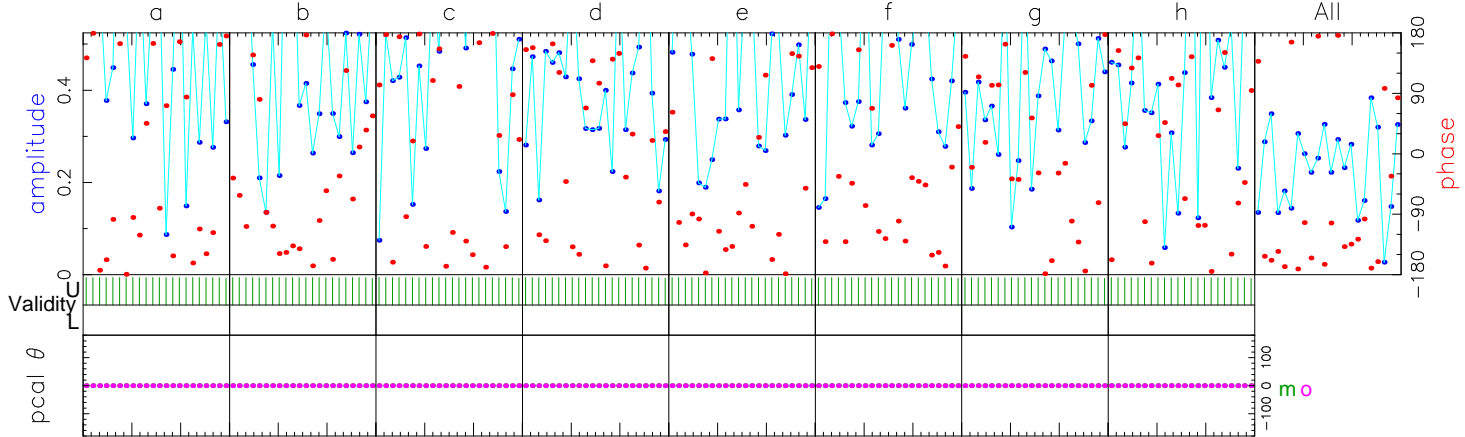
Fringe quality 0

SNR 6.4  
 Int time 179.977  
 Amp 0.175  
 Phase -158.1  
 PFD 1.9e-02  
 Delays (us)  
 SBD 0.000273  
 MBD -0.000882  
 Fringe rate (Hz)  
 0.001290  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512



Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142210  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 -1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-167.9	-110.1	179.7	176.3	-134.9	-101.8	171.1	169.1	Phase	-158.1
	0.4	0.2	0.3	0.2	0.2	0.2	0.1	0.1	Ampl.	0.2
	256.2	367.4	258.9	16.0	13.5	427.1	21.9	187.0	Sbd box	257.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-2.45684701883E+03	Apriori delay (usec)	-2.45684613699E+03	Resid mbdelay (usec)	-8.81835E-04	+/-	1.7E-04
Sband delay (usec)	-2.45684586399E+03	Apriori clock (usec)	-7.9993820E+00	Resid sbdelay (usec)	2.73000E-04	+/-	1.3E-03
Phase delay (usec)	-2.45684614198E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-4.99365E-06	+/-	5.6E-07
Delay rate (us/s)	8.65563732586E-01	Apriori rate (us/s)	8.65563717913E-01	Resid rate (us/s)	1.46723E-08	+/-	5.4E-09
Total phase (deg)	-261.4	Apriori accel (us/s/s)	1.36986307831E-05	Resid phase (deg)	-158.1	+/-	17.9

ph/seg (deg)	52.0	Theor.	41.9	Amplitude	0.175 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	60.7	Search (1024X32)	0.172	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	39.3	Inc. seg. avg.	0.183	Inc. seg. avg.	0.183	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	51.6	Inc. frq. avg.	0.186	Inc. frq. avg.	0.186	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

m: az 110.2 el 41.0 pa -61.9 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) -5049.963 -2437.735 simultaneous interpolator

Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/mo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/mo.W.126.1JLM0Z

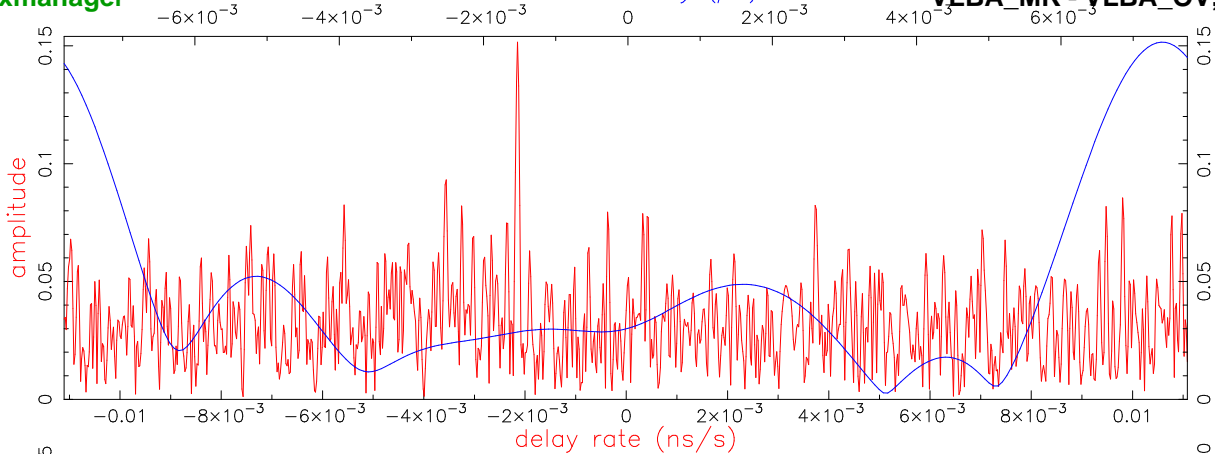
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1JLM0Z, No0079, mo

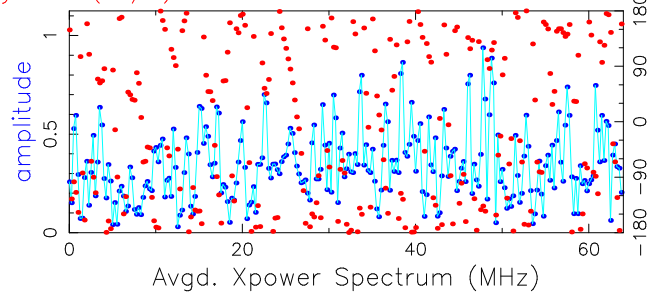
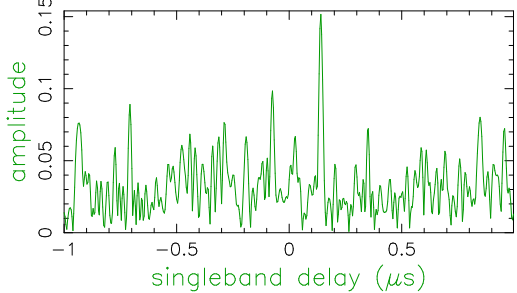
VLBA\_MK - VLBA\_OV, fgroup W, pol RL

multiband delay ( $\mu$ s)



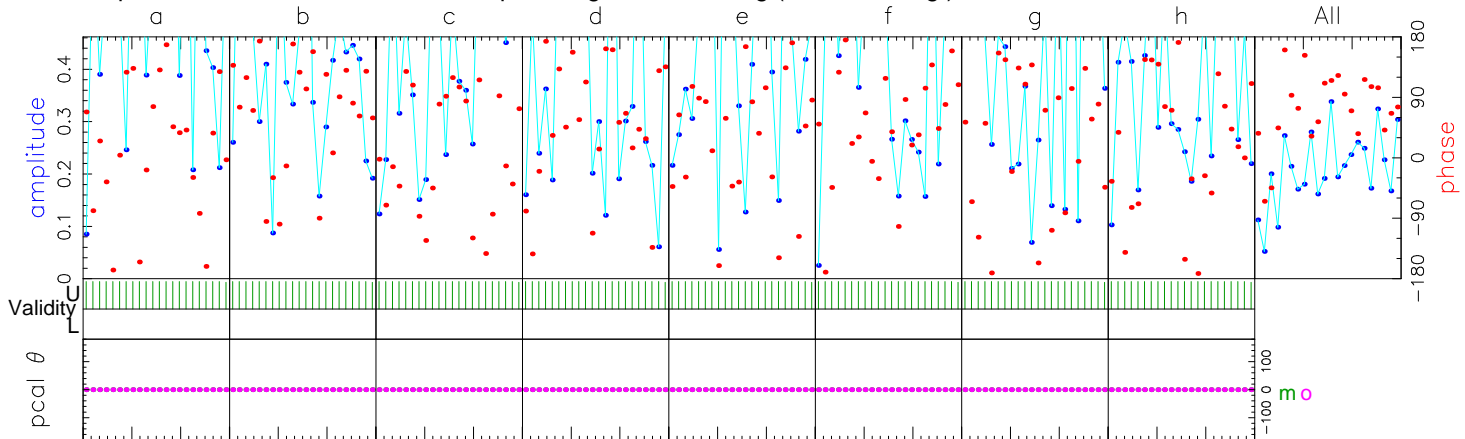
Fringe quality 0

SNR 5.6  
 Int time 179.977  
 Amp 0.154  
 Phase 84.6  
 PFD 9.6e-01  
 Delays (us)  
 SBD 0.140263  
 MBD -0.008234  
 Fringe rate (Hz)  
 -0.188905  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512



Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142211  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 --1°20'33.065613"

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



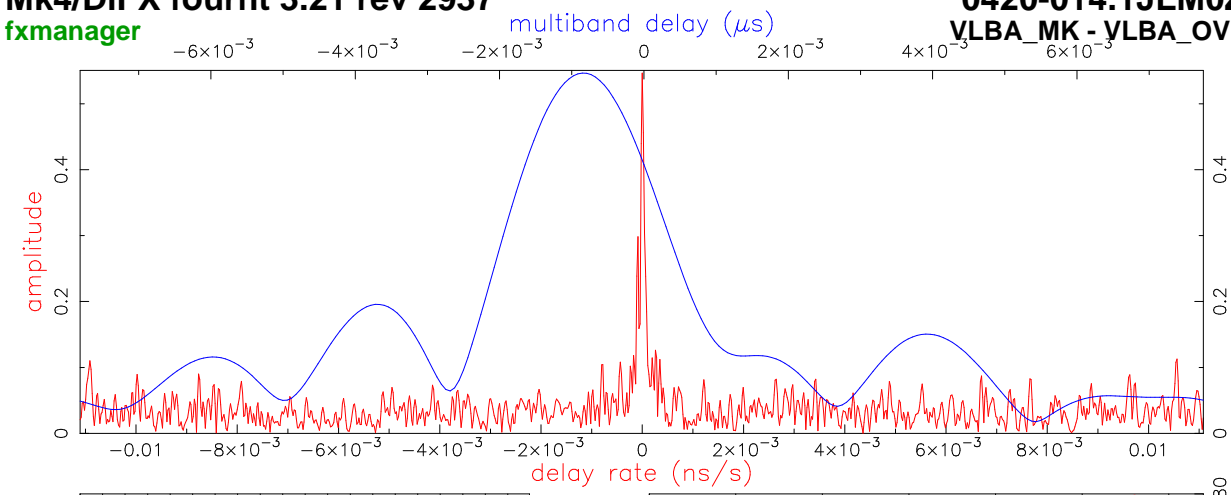
	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	54.3	103.1	60.9	106.5	62.5	75.6	99.1	82.9	Phase	84.6
	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	Ampl.	0.1
	186.9	94.2	503.1	59.1	75.7	49.4	176.4	306.8	Sbd box	292.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-2.45669812096E+03	Apriori delay (usec)	-2.45684613699E+03	Resid mbdelay (usec)	-8.23397E-03	+/-	2.0E-04
Sband delay (usec)	-2.45670587374E+03	Apriori clock (usec)	-7.9993820E+00	Resid sbdelay (usec)	1.40263E-01	+/-	1.5E-03
Phase delay (usec)	-2.45684613432E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	2.67206E-06	+/-	6.5E-07
Delay rate (us/s)	8.65561569803E-01	Apriori rate (us/s)	8.65563717913E-01	Resid rate (us/s)	-2.14811E-06	+/-	6.3E-09
Total phase (deg)	-18.7	Apriori accel (us/s/s)	1.36986307831E-05	Resid phase (deg)	84.6	+/-	20.6

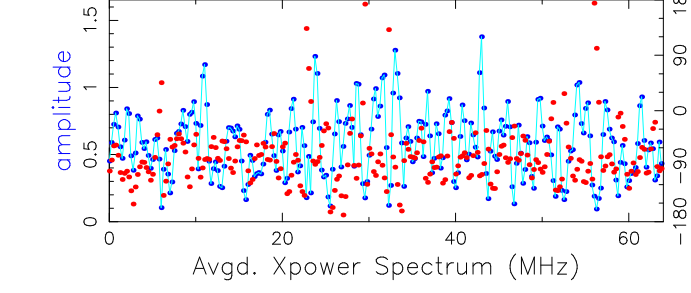
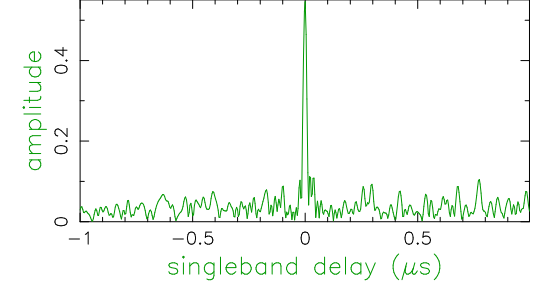
ph/seg (deg)	55.2	RMS	48.3	Theor.	Amplitude	0.154 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	60.3	Search (1024X32)	0.147	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	22.7	Inc. seg. avg.	0.158	Inc. frq. avg.	0.144	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	37.5	Inc. frq. avg.	0.144	Sample rate(MISamp/s): 128	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011

m: az 110.2 el 41.0 pa -61.9 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) -5049.963 -2437.735 simultaneous interpolator

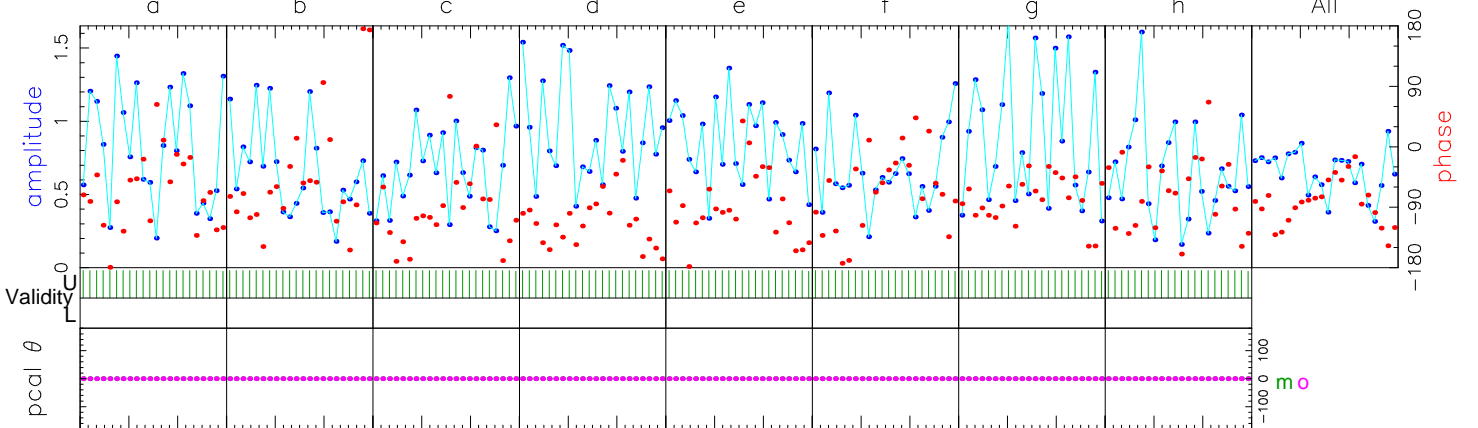
Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/mo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/mo.W.139.1JLM0Z



Fringe quality 9  
SNR 20.2  
Int time 179.977  
Amp 0.551  
Phase -85.6  
PFD 0.0e+00  
Delays (us)  
SBD -0.001078  
MBD -0.000874  
Fringe rate (Hz) 0.000260  
Ion TEC 0.000  
Ref freq (MHz) 87940.0000  
AP (sec) 0.512  
Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142206  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"



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

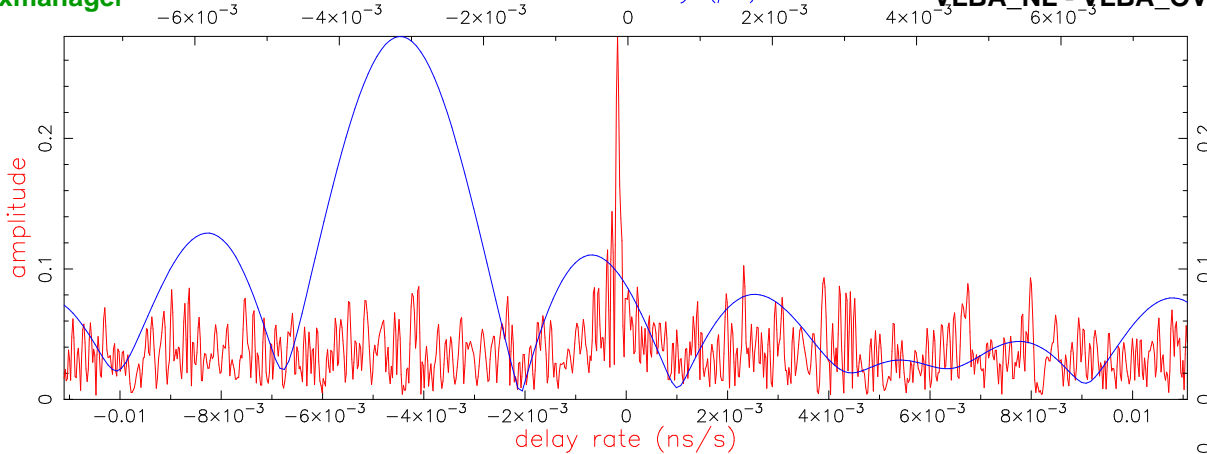


	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-65.1	-81.1	-103.6	-113.6	-91.7	-68.0	-76.8	-75.9	Phase	-85.6
	0.6	0.5	0.5	0.8	0.6	0.4	0.8	0.5	Ampl.	0.6
	256.5	256.9	256.5	256.8	257.0	257.1	257.0	255.7	Sbd box	256.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	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)	-2.45684701077E+03		Apriori delay (usec)		-2.45684613699E+03		Resid mbdelay (usec)		-8.73781E-04	+/- 5.4E-05
Sband delay (usec)	-2.45684721499E+03		Apriori clock (usec)		-7.9993820E+00		Resid sbdelay (usec)		-1.07800E-03	+/- 4.3E-04
Phase delay (usec)	-2.45684613969E+03		Apriori clockrate (us/s)		1.9999998E-07		Resid phdelay (usec)		-2.70266E-06	+/- 1.8E-07
Delay rate (us/s)	8.65563720871E-01		Apriori rate (us/s)		8.65563717913E-01		Resid rate (us/s)		2.95806E-09	+/- 1.7E-09
Total phase (deg)			Apriori accel (us/s/s)		1.36986307831E-05		Resid phase (deg)		-85.6	+/- 5.7

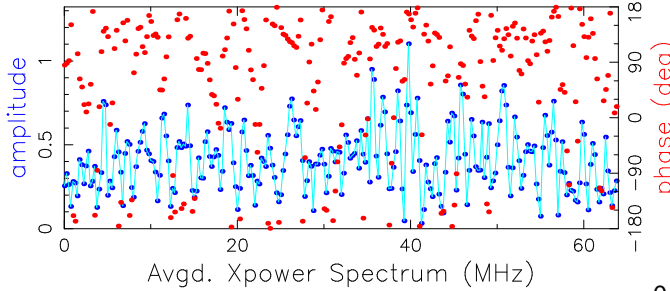
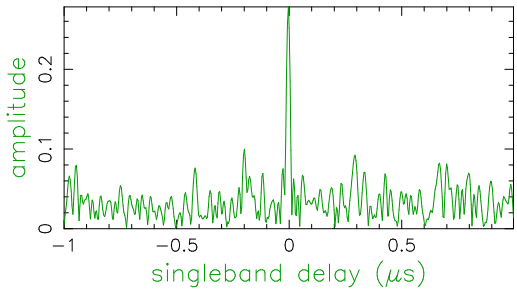
ph/seg (deg) 33.4 13.3 Theor. Amplitude 0.551 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 33.1 23.2 Search (1024X32) 0.541 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 18.5 8.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 23.9 14.0 Inc. seg. avg. 0.638 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
m: az 110.2 el 41.0 pa -61.9 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) -5049.963 -2437.735 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/mo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/mo.W.92.1JLM0Z simultaneous interpolator

multiband delay ( $\mu$ s)

Fringe quality 9

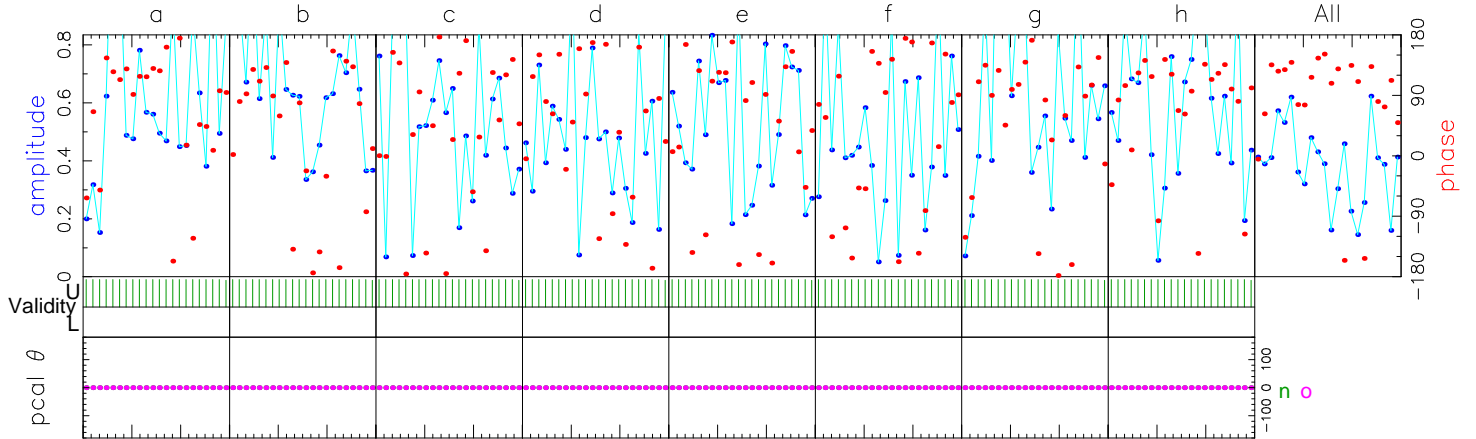


SNR 10.2  
Int time 179.977  
Amp 0.278  
Phase 116.4  
PFD 4.0e-16  
Delays (us)  
SBD -0.004093  
MBD -0.003160  
Fringe rate (Hz)  
-0.015935  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512



Exp. c202c  
Yr:day 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142208  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"

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



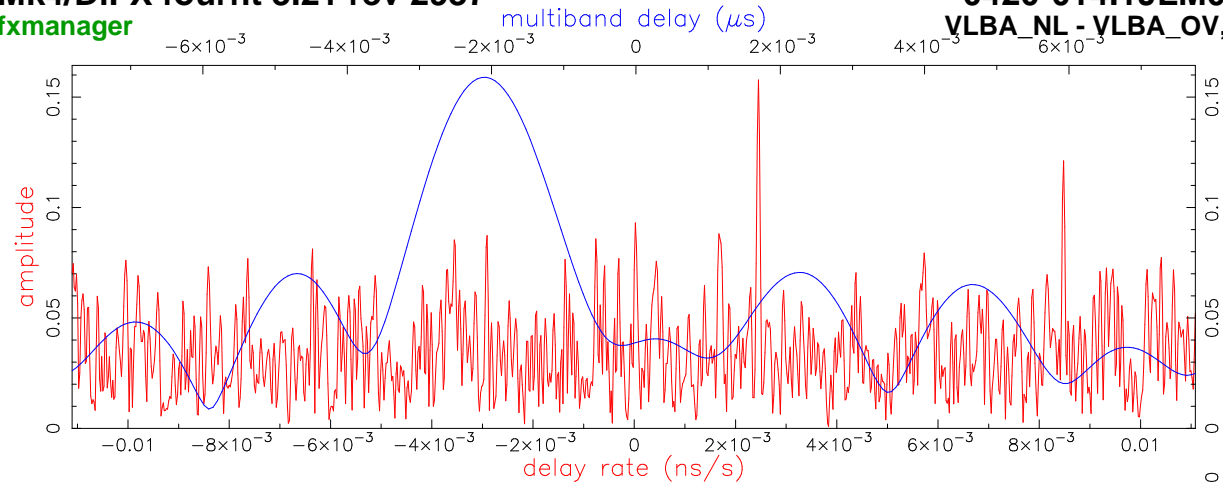
	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.85695617926E+03								Resid mbdelay (usec)	-3.16023E-03 +/- 1.1E-04
Sband delay (usec)	-1.85695711228E+03								Resid sbdelay (usec)	-4.09325E-03 +/- 8.4E-04
Phase delay (usec)	-1.85695301536E+03								Resid phdelay (usec)	3.67758E-06 +/- 3.5E-07
Delay rate (us/s)	-5.42539413949E-01								Resid rate (us/s)	-1.81200E-07 +/- 3.4E-09
Total phase (deg)		-61.3							Resid phase (deg)	116.4 +/- 11.2
	RMS	Theor.	Amplitude	0.278 +/- 0.027					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	47.0	26.3	Search (1024X32)	0.264					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	61.8	46.0	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	8.5	15.9	Inc. seg. avg.	0.348					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	35.7	27.7	Inc. frq. avg.	0.269					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

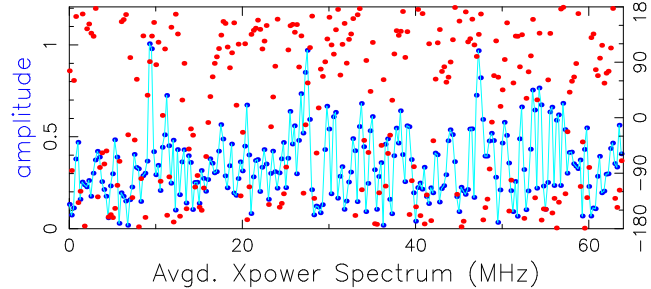
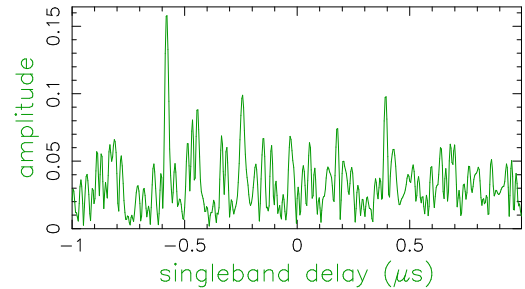
0420-014.1JLM0Z, No0079, no

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



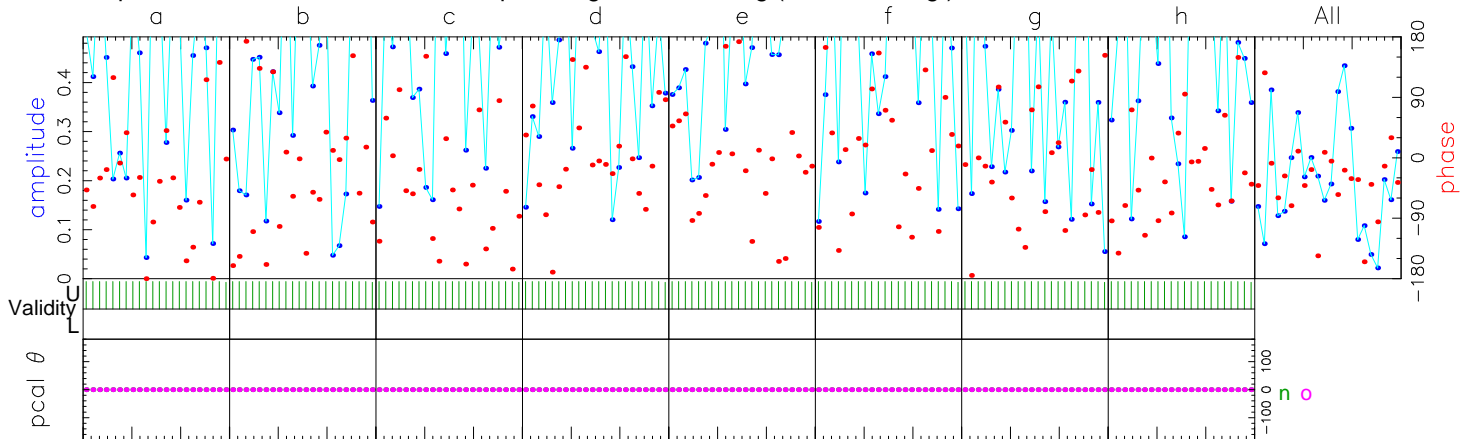
Fringe quality 0

SNR 5.9  
 Int time 179.977  
 Amp 0.164  
 Phase -28.0  
 PFD 3.5e-01  
 Delays (us)  
 SBD -0.580040  
 MBD -0.002226  
 Fringe rate (Hz)  
 0.216757  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512



Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142210  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 --1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-1.85753337017E+03	Apriori delay (usec)	-1.85695301903E+03	Resid mbdelay (usec)	-2.22613E-03	+/-	1.8E-04
Sband delay (usec)	-1.85753305878E+03	Apriori clock (usec)	-2.1144146E+01	Resid sbdelay (usec)	-5.80040E-01	+/-	1.5E-03
Phase delay (usec)	-1.85695301992E+03	Apriori clockrate (us/s)	6.0000003E-07	Resid phdelay (usec)	-8.84462E-07	+/-	6.1E-07
Delay rate (us/s)	-5.42536767919E-01	Apriori rate (us/s)	-5.42539232749E-01	Resid rate (us/s)	2.46483E-06	+/-	5.9E-09
Total phase (deg)	-205.8	Apriori accel (us/s/s)	9.60625459014E-06	Resid phase (deg)	-28.0	+/-	19.4

ph/seg (deg)	56.4	Theor.	45.5	Amplitude	0.164 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	73.6		79.4	Search (1024X32)	0.154	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	33.1		27.4	Inc. seg. avg.	0.158	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	36.9		47.9	Inc. frq. avg.	0.162	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

n: az 206.5 el 43.7 pa 19.4 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 3176.630 540.814 simultaneous interpolator

Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/no..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/no.W.124.1JLM0Z

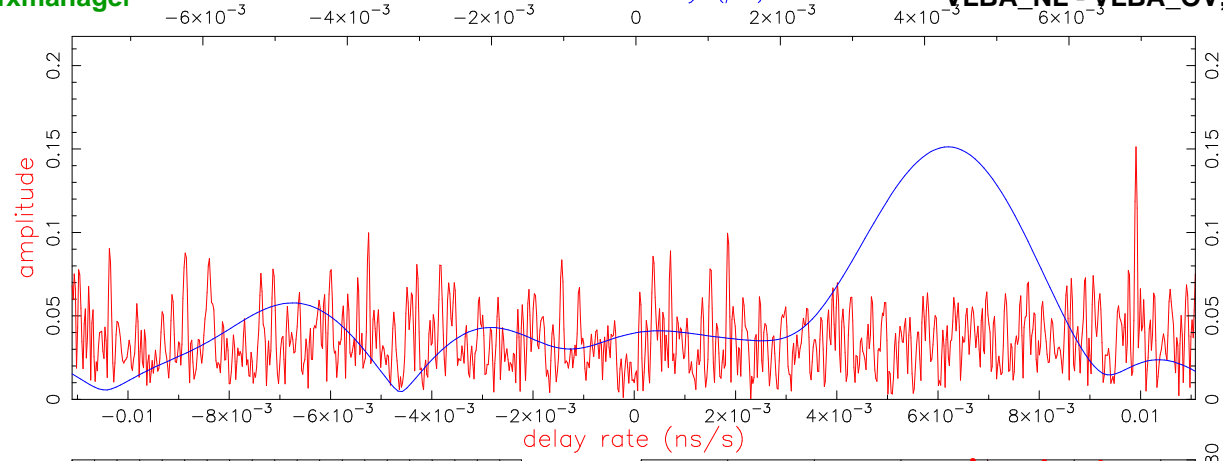
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1JLM0Z, No0079, no

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

multiband delay ( $\mu$ s)



Fringe quality 0

SNR 5.6

Int time 179.977

Amp 0.218

Phase -71.3

PFD 9.2e-01

Delays (us)

SBD 0.334851

MBD 0.004298

Fringe rate (Hz) 0.873414

Ion TEC 0.000

Ref freq (MHz) 87940.0000

AP (sec) 0.512

Exp. c202c

Exper # 16383

Yr:day 2020:286

Start 102000.00

Stop 102300.22

FRT 102130.00

Corr/FF/build

2021:041:230658

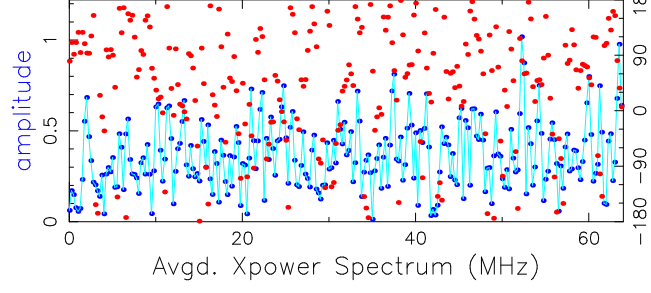
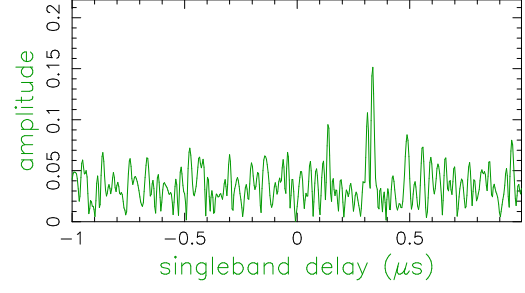
2021:042:142212

2020:247:085004

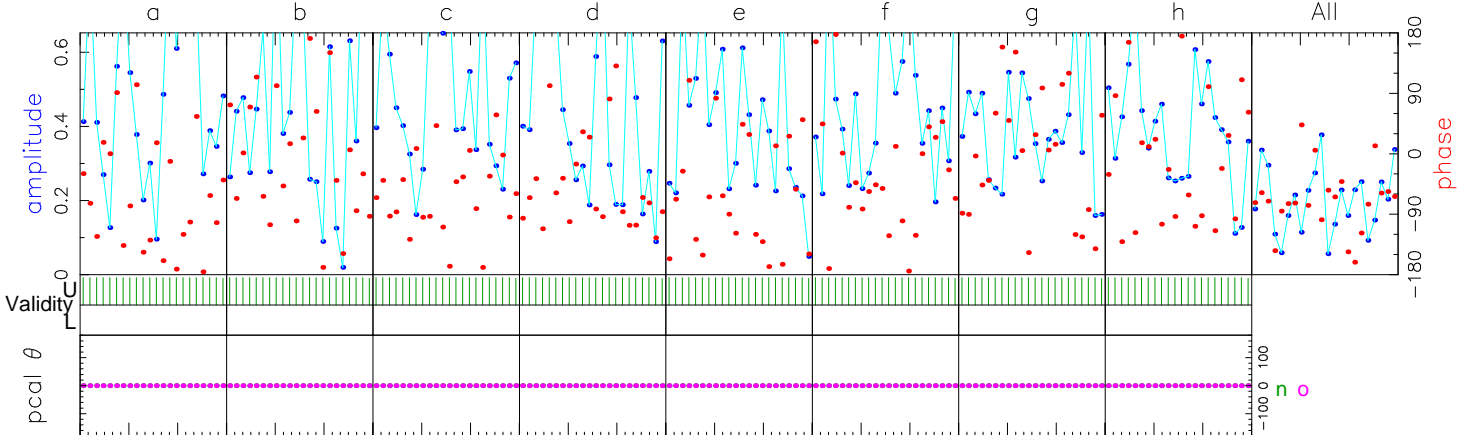
RA & Dec (J2000)

04h23m15.800724s

--1°20'33.065613"



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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-92.6	-21.2	-70.1	-76.0	-96.3	-77.0	-40.5	-70.9	Phase	-71.3
	0.3	0.2	0.4	0.4	0.1	0.2	0.1	0.1	Ampl.	0.2
	450.2	135.8	342.7	239.3	207.8	340.6	444.0	400.2	Sbd box	342.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.85662059633E+03	Apriori delay (usec)	-1.85695301903E+03	Resid mbdelay (usec)	4.29770E-03	+/-	1.9E-04
Sband delay (usec)	-1.85661816803E+03	Apriori clock (usec)	-2.1144146E+01	Resid sbdelay (usec)	3.34851E-01	+/-	1.5E-03
Phase delay (usec)	-1.85695302129E+03	Apriori clockrate (us/s)	6.0000003E-07	Resid phdelay (usec)	-2.25255E-06	+/-	6.5E-07
Delay rate (us/s)	-5.42529300817E-01	Apriori rate (us/s)	-5.42539232749E-01	Resid rate (us/s)	9.93193E-06	+/-	6.2E-09
Total phase (deg)	-249.1	Apriori accel (us/s/s)	9.60625459014E-06	Resid phase (deg)	-71.3	+/-	20.5

ph/seg (deg)	47.6	Theor.	48.0	Amplitude	0.218 +/- 0.039	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	65.8	Search (1024X32)	0.150	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	27.7	Inc. seg. avg.	0.213	Inc. frq. avg.	0.204	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	46.7	Inc. frq. avg.	0.204			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011			
						Data rate (Mb/s):	2048	nlags:	256	t_cohere infinite	ion window (TEC)	0.00 0.00

n: az 206.5 el 43.7 pa 19.4 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 3176.630 540.814 simultaneous interpolator

Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/no..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/no.W.141.1JLM0Z

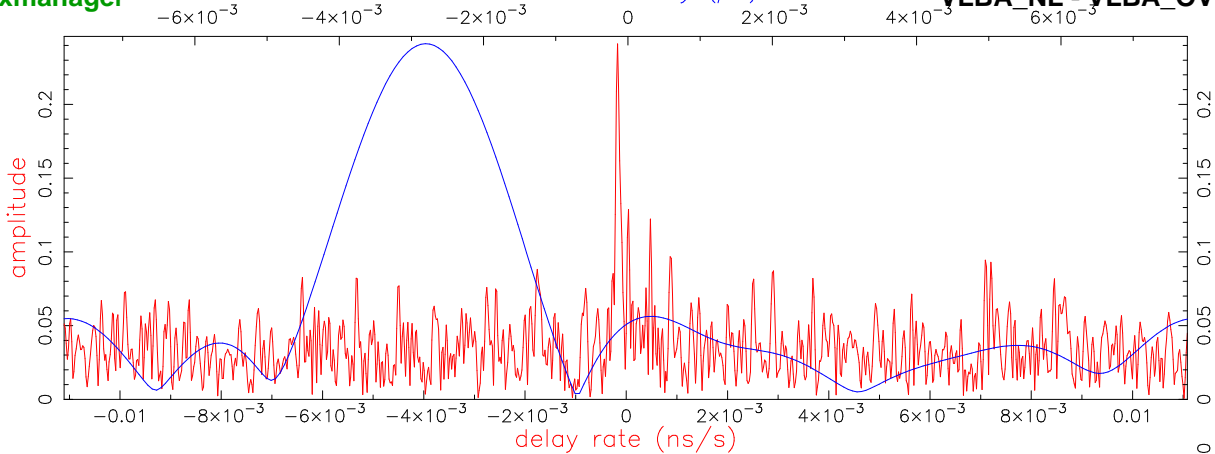
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1JLM0Z, No0079, no

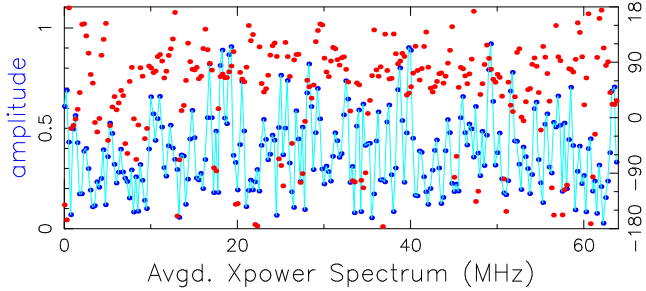
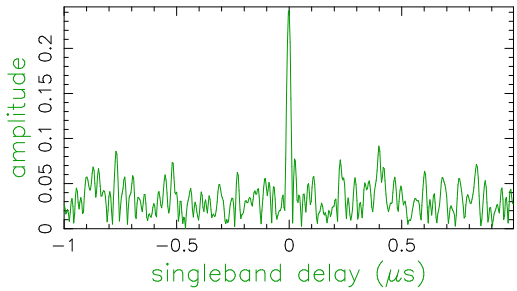
VLBA\_NL - VLBA\_OV, fgroup W, pol LL

multiband delay ( $\mu$ s)



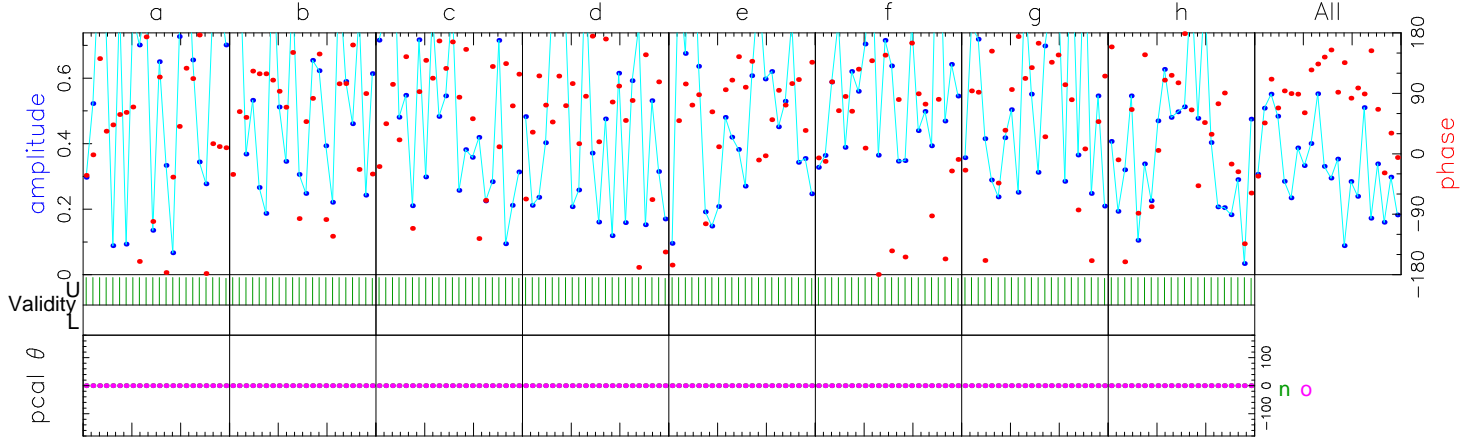
Fringe quality 9

SNR 9.0  
 Int time 179.977  
 Amp 0.246  
 Phase 89.0  
 PFD 3.4e-11  
 Delays (us)  
 SBD -0.001872  
 MBD -0.002770  
 Fringe rate (Hz)  
 -0.015746  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512



Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142206  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 --1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-1.85695578879E+03									
Sband delay (usec)	-1.85695489103E+03									
Phase delay (usec)	-1.85695301622E+03									
Delay rate (us/s)	-5.42539411803E-01									
Total phase (deg)			-88.8							
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)									89.0	+/- 12.7
Pcal mode:	MANUAL	MANUAL								
Pcal rate:	0.000E+00	0.000E+00								
Bits/sample:	2x2									
Sample rate(MISamp/s):	128									
Data rate(Mb/s):	2048									
PC period (AP's)	5	5								
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								

n: az 206.5 el 43.7 pa 19.4 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 3176.630 540.814 simultaneous interpolator

Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/no..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/no.W.94.1JLM0Z



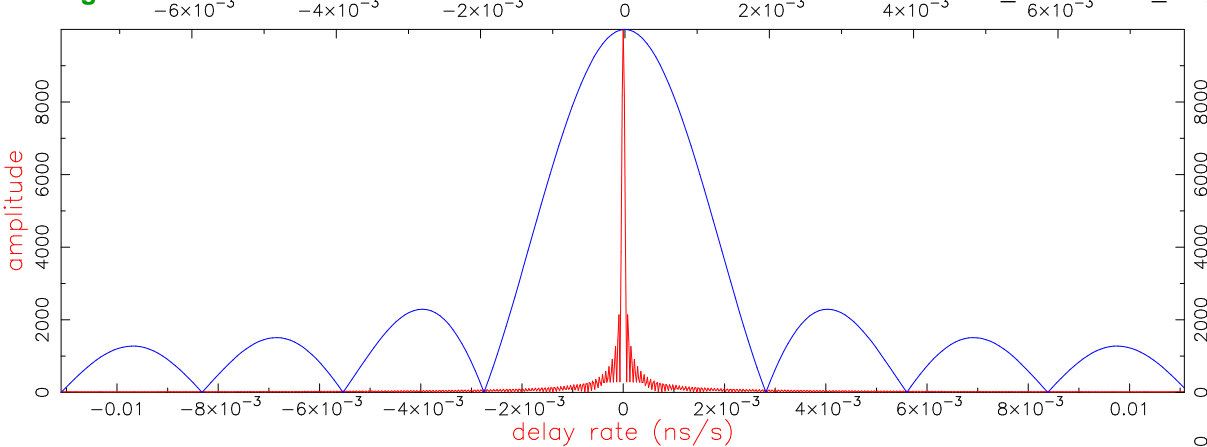
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0420-014.1JLM0Z, No0079, oo

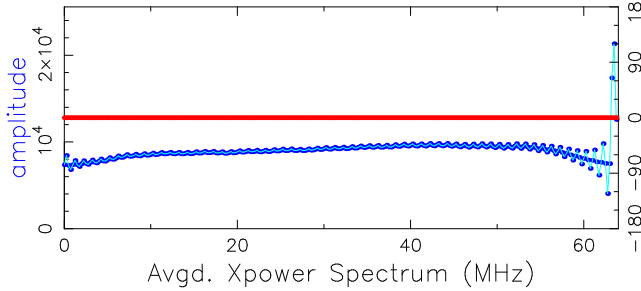
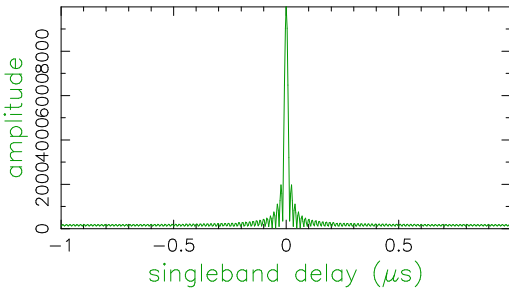
VLBA\_OV - VLBA\_OV, fgroup W, pol RR

multiband delay ( $\mu$ s)



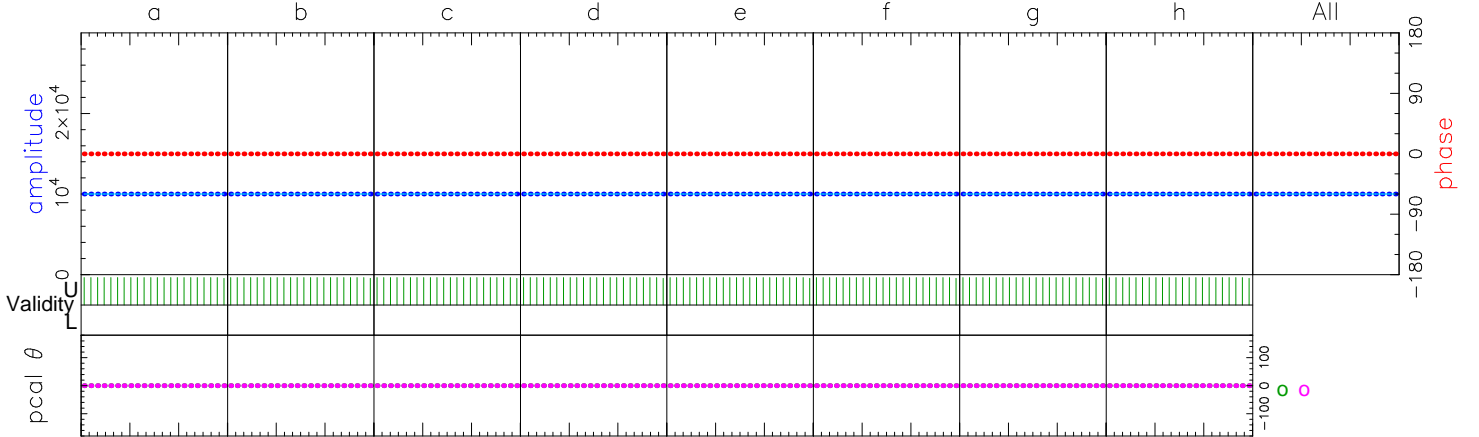
Fringe quality 9

SNR 366864.9  
 Int time 179.977  
 Amp 9999.999  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512



Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142208  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 --1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	Ampl.	10000.0
o	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
o	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

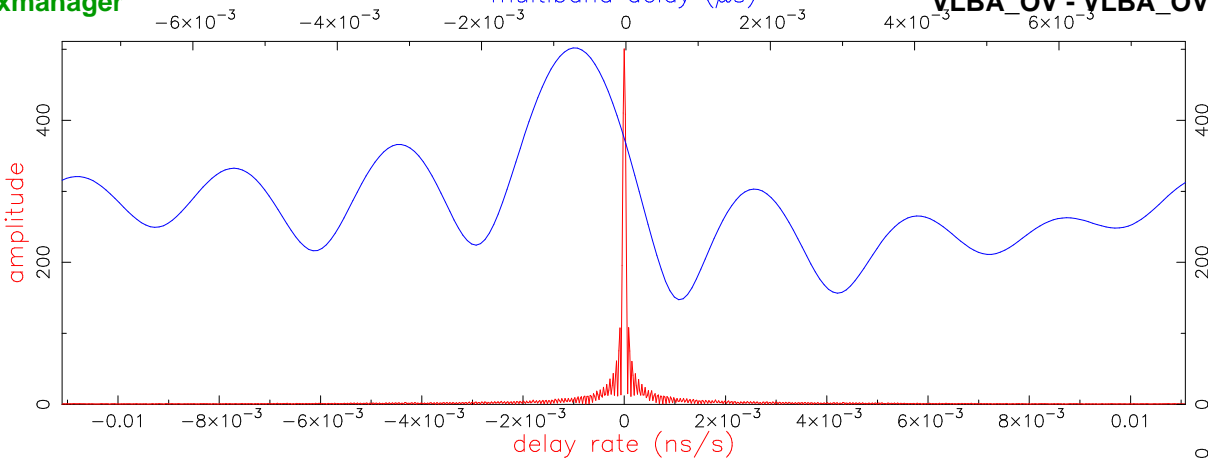
Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09  
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08  
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 9.9E-12  
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 9.5E-14  
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 9999.999 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.0 0.0 Search (1024X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 o: az 167.4 el 50.8 pa -9.6 u,v (vr/asec) 0.000 0.000 simultaneous interpolator  
 o: az 167.4 el 50.8 pa -9.6

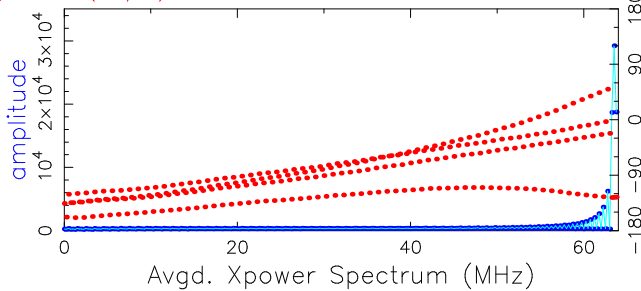
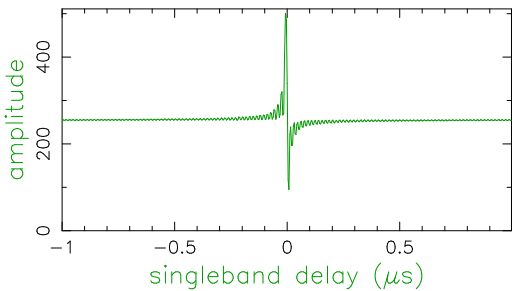
Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/oo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/oo.W.107.1JLM0Z

multiband delay ( $\mu$ s)

Fringe quality 5

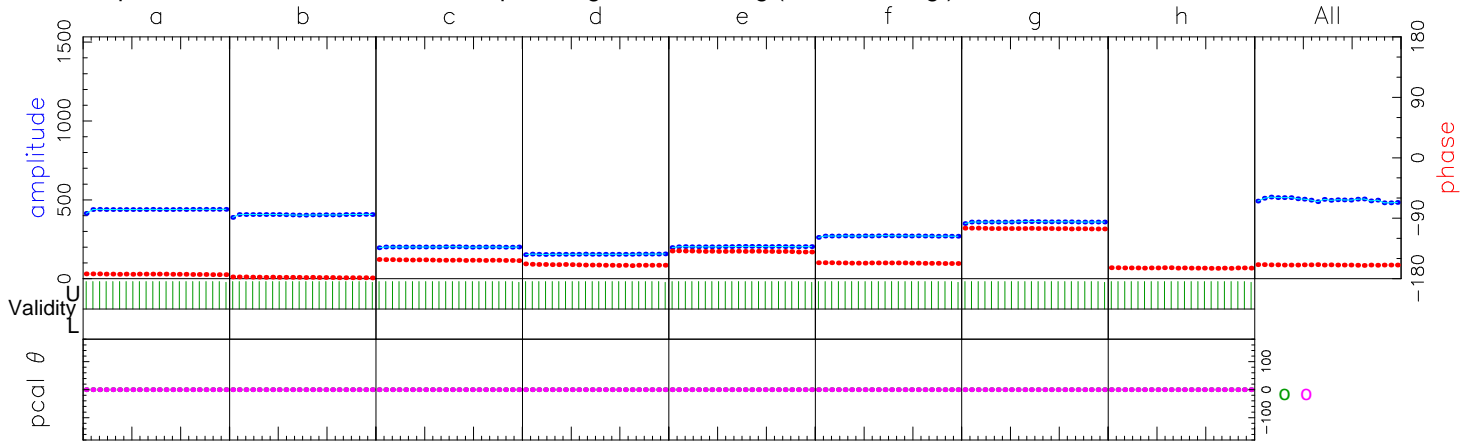


SNR 18755.5  
Int time 179.977  
Amp 511.236  
Phase -159.5  
PFD 0.0e+00  
Delays (us)  
SBD -0.006272  
MBD -0.000784  
Fringe rate (Hz)  
0.000024  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512



Exp. c202c  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142209  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.84250000000E-04	-7.84250000000E-04	-7.84250000000E-04	-7.84250000000E-04	-7.84250000000E-04	-7.84250000000E-04	-7.84250000000E-04	-7.84250000000E-04		
Sband delay (usec)	-6.27150000000E-03	-6.27150000000E-03	-6.27150000000E-03	-6.27150000000E-03	-6.27150000000E-03	-6.27150000000E-03	-6.27150000000E-03	-6.27150000000E-03		
Phase delay (usec)	-5.03834752346E-03	-5.03834752346E-03	-5.03834752346E-03	-5.03834752346E-03	-5.03834752346E-03	-5.03834752346E-03	-5.03834752346E-03	-5.03834752346E-03		
Delay rate (us/s)	2.73457475782E-10	2.73457475782E-10	2.73457475782E-10	2.73457475782E-10	2.73457475782E-10	2.73457475782E-10	2.73457475782E-10	2.73457475782E-10		
Total phase (deg)			-159.5							-159.5
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)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)	-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								

o: az 167.4 el 50.8 pa -9.6      o: az 167.4 el 50.8 pa -9.6      u,v (fr/asec) 0.000 0.000      simultaneous interpolator  
Control file: cf\_1234\_88GHz\_gmva    Input file: /Exps/c202c/v1/1234/No0079/oo..1JLM0Z    Output file: /Exps/c202c/v1/1234/No0079/oo.W.120.1JLM0Z

Mk4/DiFX fourfit 3.21 rev 2937

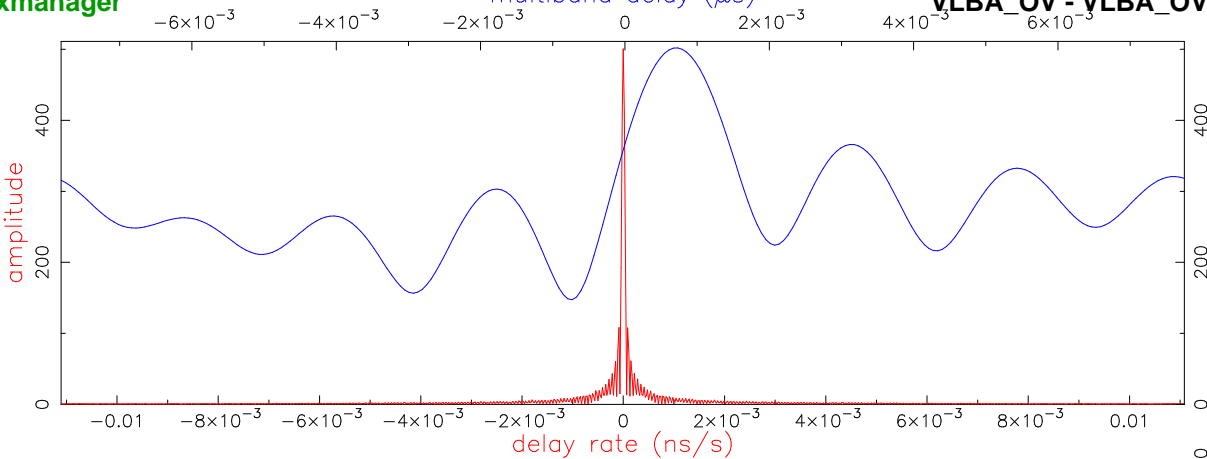
fxmanager

0420-014.1JLM0Z, No0079, oo

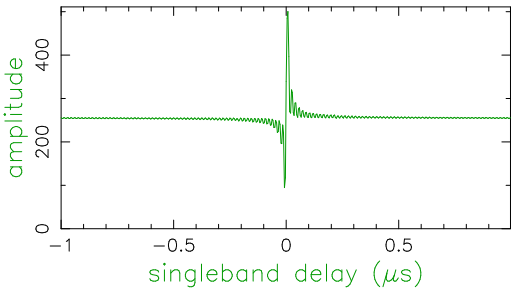
VLBA\_OV - VLBA\_OV, fgroup W, pol RL

multiband delay ( $\mu$ s)

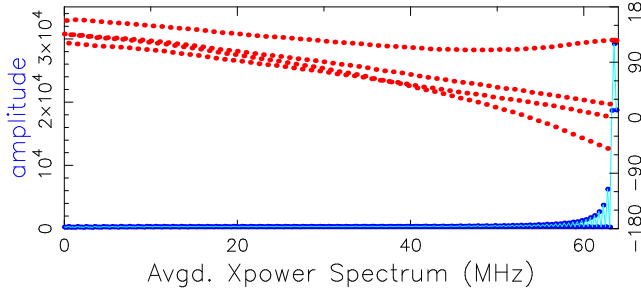
Fringe quality 5



SNR 18755.5  
 Int time 179.977  
 Amp 511.236  
 Phase 159.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.006272  
 MBD 0.000784  
 Fringe rate (Hz)  
 -0.000024  
 Ion TEC 0.000  
 Ref freq (MHz)  
 87940.0000  
 AP (sec) 0.512

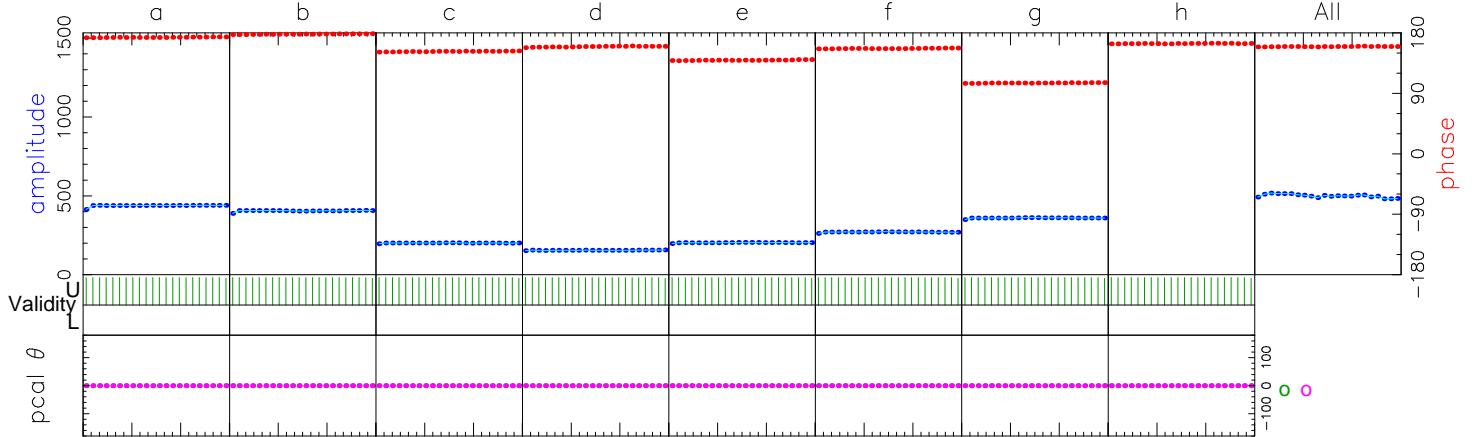


singleband delay ( $\mu$ s)



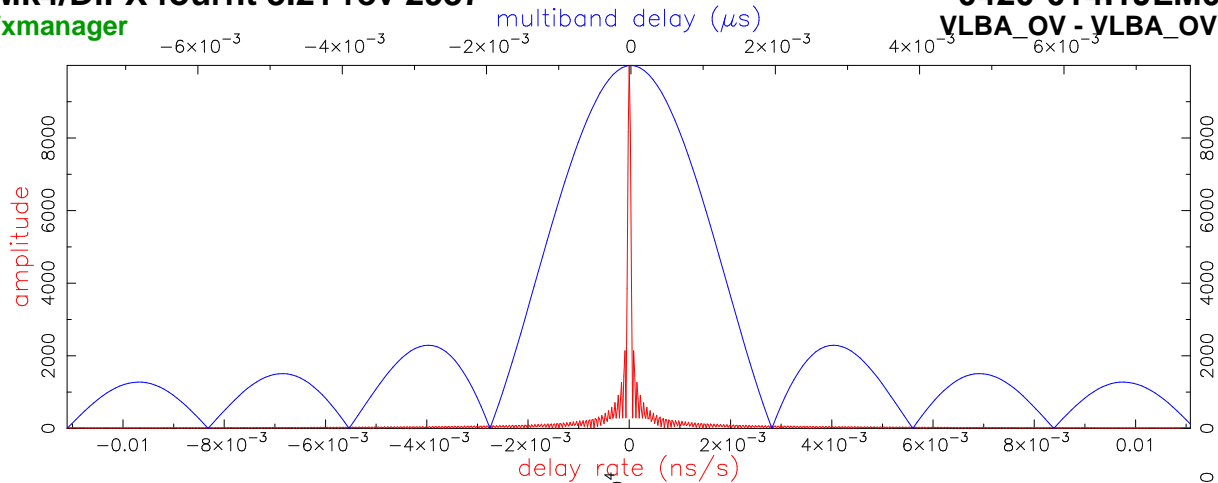
Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142211  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 --1°20'33.065613"

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

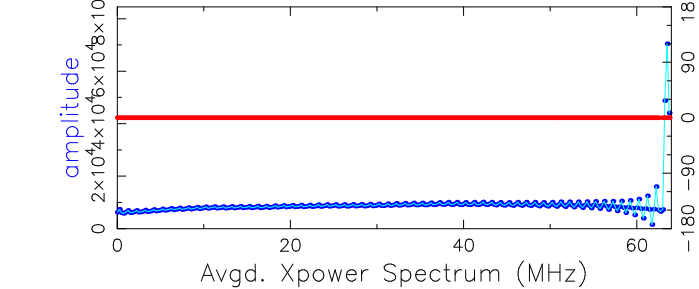
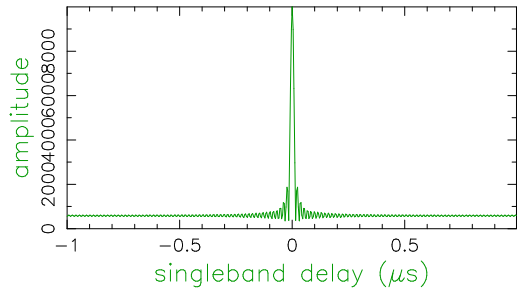


	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	7.84250000000E-04								7.84250E-04	+/- 5.8E-08
Sband delay (usec)	6.27150000000E-03								6.27150E-03	+/- 4.6E-07
Phase delay (usec)	5.03834752348E-06								5.03835E-06	+/- 1.9E-10
Delay rate (us/s)	-2.73457475782E-10								-2.73457E-10	+/- 1.9E-12
Total phase (deg)			159.5						159.5	+/- 0.0
Apriori delay (usec)					0.00000000000E+00				7.84250E-04	+/- 5.8E-08
Apriori clock (usec)					0.0000000E+00				6.27150E-03	+/- 4.6E-07
Apriori clockrate (us/s)					0.0000000E+00				5.03835E-06	+/- 1.9E-10
Apriori rate (us/s)					0.00000000000E+00				-2.73457E-10	+/- 1.9E-12
Apriori accel (us/s/s)					0.00000000000E+00				159.5	+/- 0.0
RMS	0.3	0.0								
Theor.										
Amplitude					511.236 +/- 0.027					
Search (1024X32)					487.786					
Interp.					0.000					
Inc. seg. avg.					500.553					
Inc. frq. avg.					526.020					
Pcal mode:					MANUAL, MANUAL					
Pcal rate:					0.000E+00, 0.000E+00 (us/s)					
Bits/sample:					2x2					
Sample rate (MSamp/s):					128					
Data rate (Mb/s):					2048					
nlags:					256					
t_cohere					infinite					
sb window (us)					-1.000				1.000	
mb window (us)					-0.008				0.008	
dr window (ns/s)					-0.011				0.011	
ion window (TEC)					0.00				0.00	
o: az 167.4 el 50.8 pa -9.6					o: az 167.4 el 50.8 pa -9.6				u,v (fr/asec) 0.000 0.000	
Control file: cf_1234_88GHz_gmva					Input file: /Exps/c202c/v1/1234/No0079/oo..1JLM0Z				Output file: /Exps/c202c/v1/1234/No0079/oo.W.134.1JLM0Z	

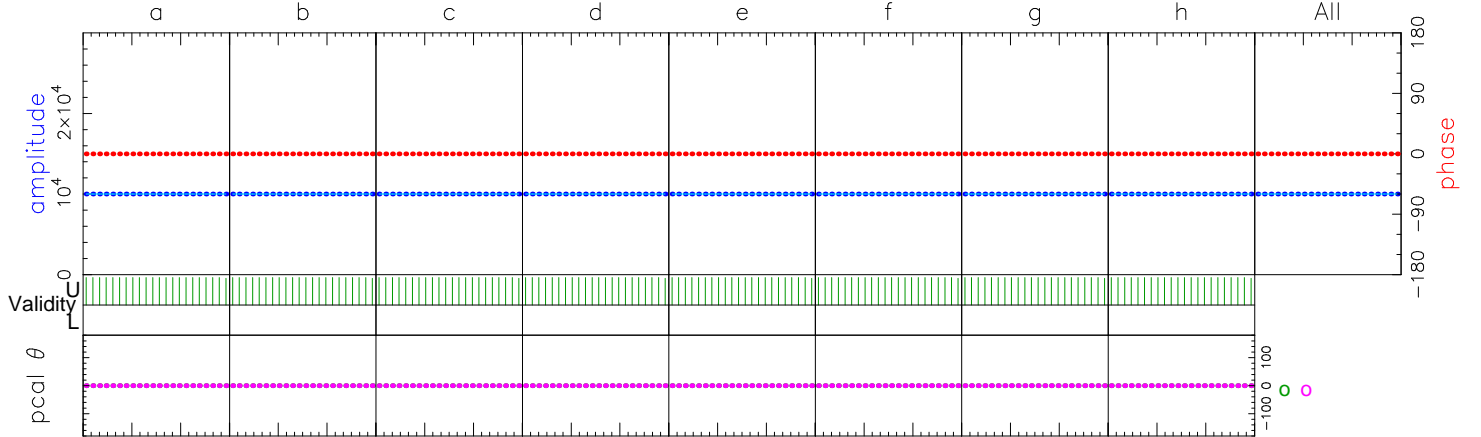
simultaneous interpolator



Fringe quality 9  
SNR 366864.9  
Int time 179.977  
Amp 9999.999  
Phase 0.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD 0.000000  
Fringe rate (Hz)  
0.000000  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512  
Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142206  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"



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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	Ampl.	10000.0
o	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
o	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09  
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08  
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 9.9E-12  
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 9.5E-14  
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 9999.999 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.0 0.0 Search (1024X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

o: az 167.4 el 50.8 pa -9.6 o: az 167.4 el 50.8 pa -9.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/oo..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/oo.W.93.1JLM0Z

Mk4/DiFX fourfit 3.21 rev 2937

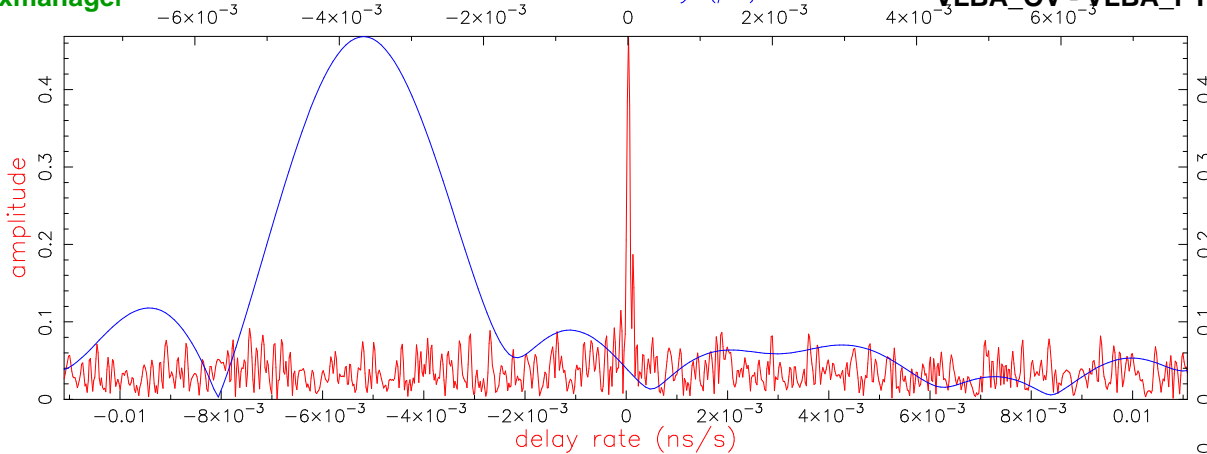
fxmanager

0420-014.1JLM0Z, No0079, op

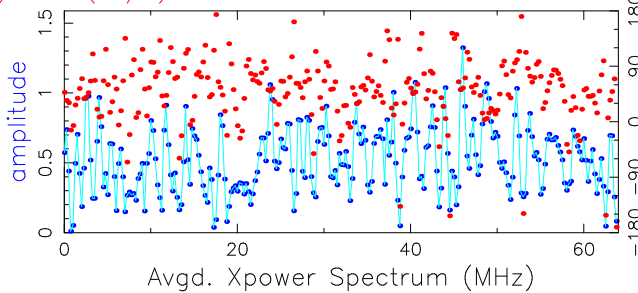
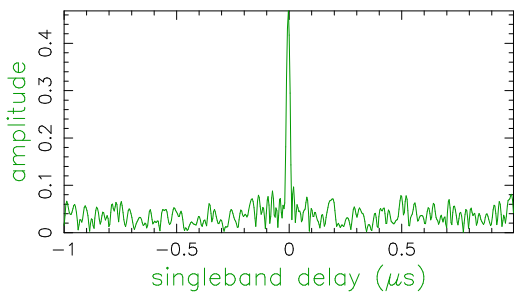
VLBA\_OV - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 9

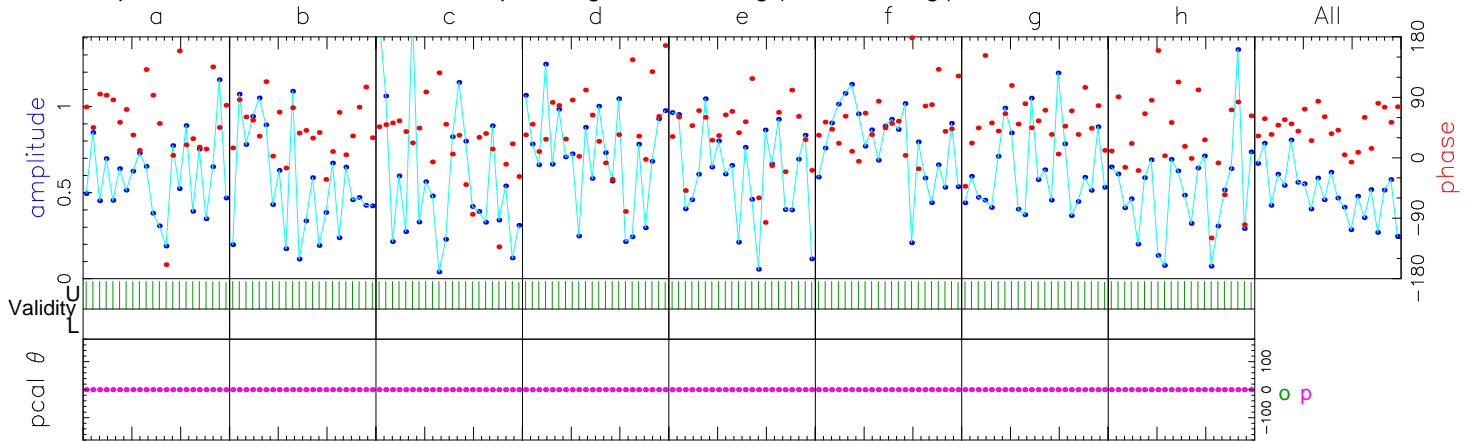


SNR 17.2  
Int time 179.976  
Amp 0.469  
Phase 46.5  
PFD 0.0e+00  
Delays (us)  
SBD -0.004225  
MBD -0.003672  
Fringe rate (Hz)  
0.003221  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512



Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142208  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-7.63374173368E+02									
Sband delay (usec)	-7.63374726480E+02									
Phase delay (usec)	-7.63370499760E+02									
Delay rate (us/s)	2.20887512598E-01									
Total phase (deg)			-269.6							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
o: az 167.4 el 50.8 pa -9.6										
p: az 183.9 el 54.3 pa 3.7										
u,v (fr/asec) -1290.213 364.323										
Control file: cf_1234_88GHz_gmva										
Input file: /Exps/c202c/v1/1234/No0079/op..1JLM0Z										
Output file: /Exps/c202c/v1/1234/No0079/op.W.111.1JLM0Z										

simultaneous interpolator

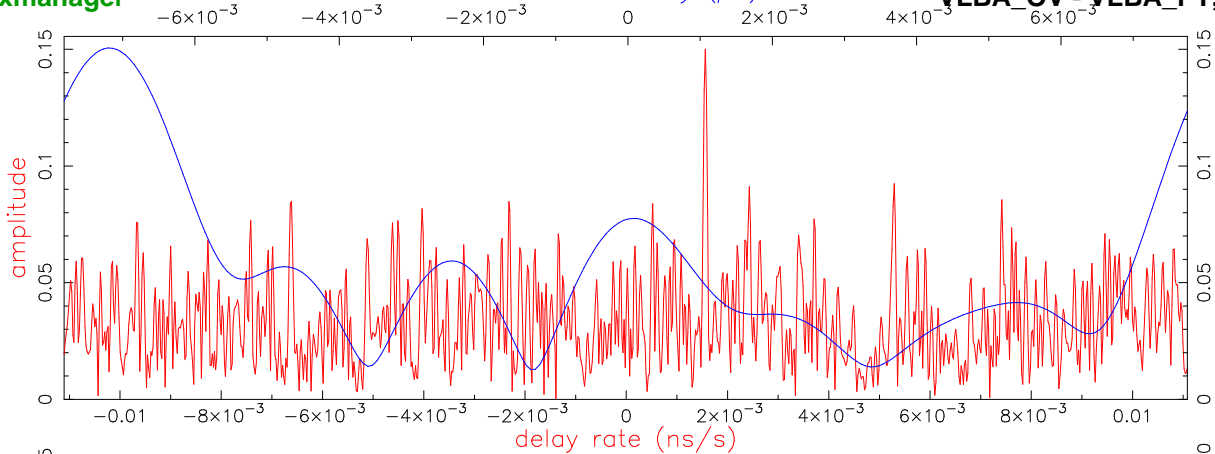
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

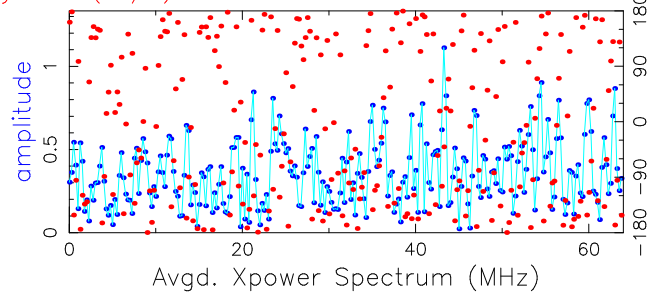
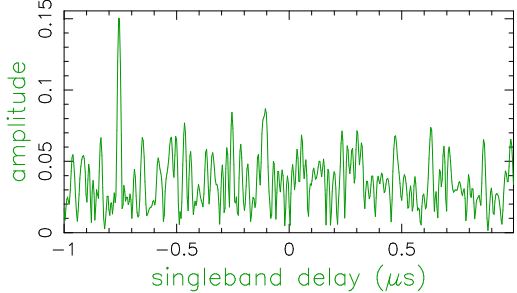
0420-014.1JLM0Z, No0079, op

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

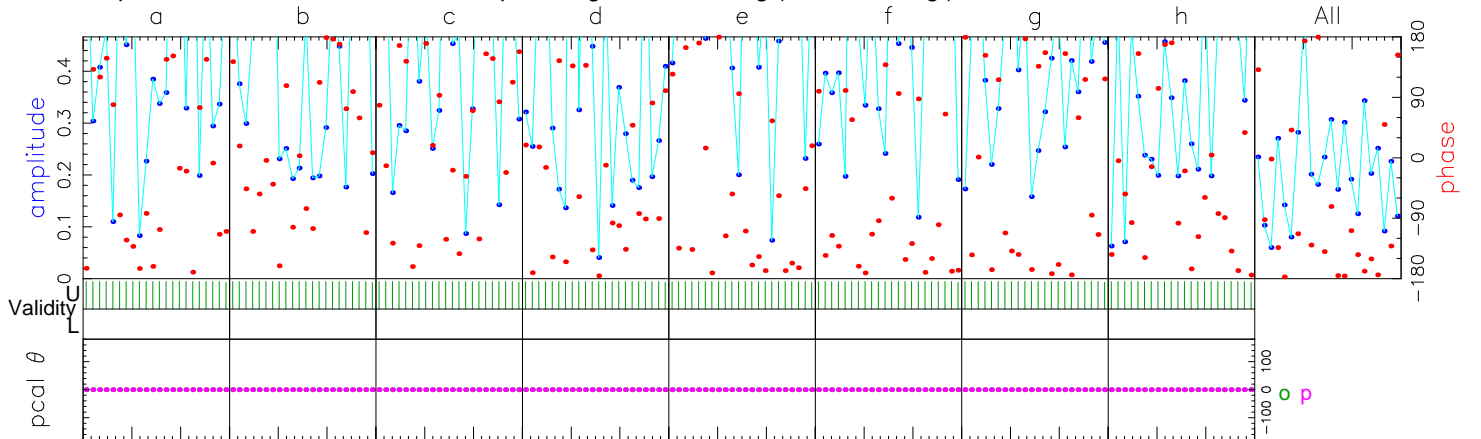
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 5.7  
 Int time 179.976  
 Amp 0.156  
 Phase -154.6  
 PFD 8.4e-01  
 Delays (us)  
 SBD -0.755899  
 MBD -0.007282  
 Fringe rate (Hz) 0.136862  
 Ion TEC 0.000  
 Ref freq (MHz) 87940.0000  
 AP (sec) 0.512  
 Exp. c202c  
 Exper # 16383  
 Yr:day 2020:286  
 Start 102000.00  
 Stop 102300.22  
 FRT 102130.00  
 Corr/FF/build  
 2021:041:230658  
 2021:042:142210  
 2020:247:085004  
 RA & Dec (J2000)  
 04h23m15.800724s  
 -1°20'33.065613"



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



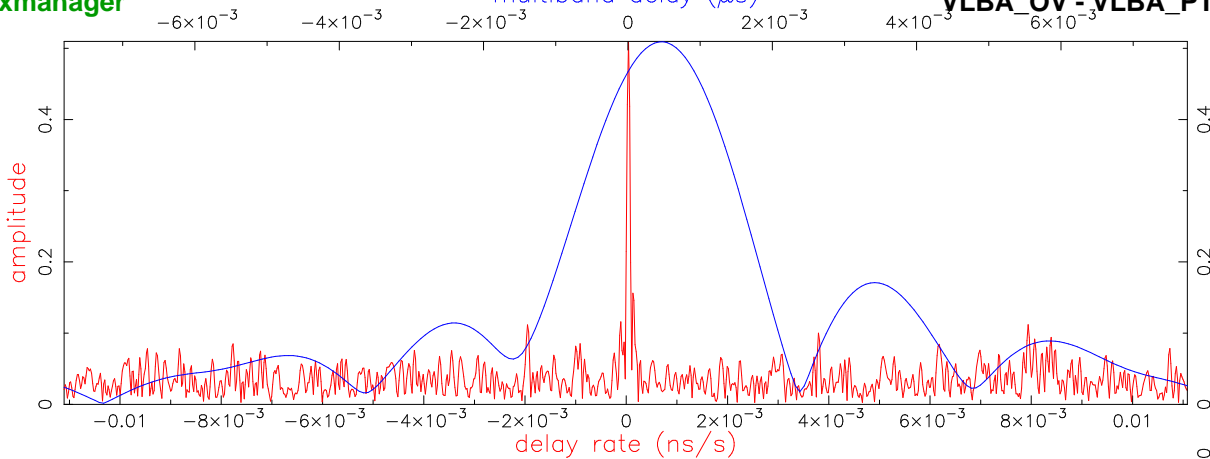
	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
Group delay (usec)(sbd)	-160.3	-73.5	178.5	178.4	-150.1	-155.6	-173.5	-112.8	Phase	-154.6
Sband delay (usec)	0.2	0.1	0.1	0.0	0.3	0.2	0.2	0.2	Ampl.	0.1
Phase delay (usec)	122.8	294.3	176.1	340.0	64.1	169.4	378.3	67.0	Sbd box	63.5
Delay rate (us/s)	U/L 352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Total phase (deg)	o 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
	p 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
	o:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
	o:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
	o 1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
	p 1000	1000	1000	1000	1000	1000	1000	1000		
	o W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
	p W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)									Resid mbdelay (usec)	-7.28207E-03 +/- 1.9E-04
Sband delay (usec)									Resid sbdelay (usec)	-7.55899E-01 +/- 1.5E-03
Phase delay (usec)									Resid phdelay (usec)	-4.88189E-06 +/- 6.4E-07
Delay rate (us/s)									Resid rate (us/s)	1.55631E-06 +/- 6.1E-09
Total phase (deg)									Resid phase (deg)	-154.6 +/- 20.2

ph/seg (deg) 68.4 47.5 Search (1024X32) 0.148 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 75.4 82.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 41.2 28.6 Inc. seg. avg. 0.158 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 52.6 50.0 Inc. frq. avg. 0.148 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 o: az 167.4 el 50.8 pa -9.6 p: az 183.9 el 54.3 pa 3.7 u,v (fr/asec) -1290.213 364.323 simultaneous interpolator  
 Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/op..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/op.W.127.1JLM0Z

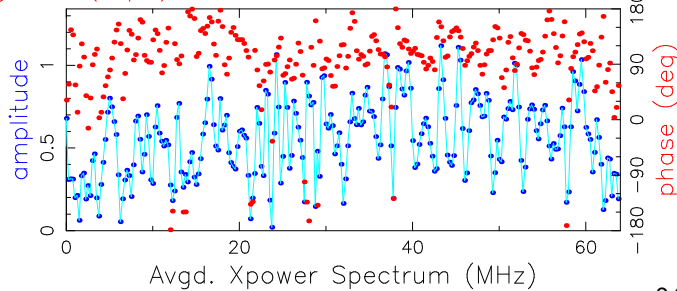
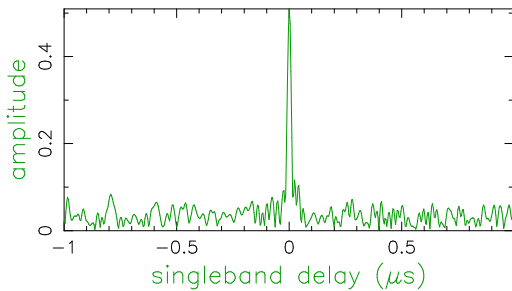


multiband delay ( $\mu$ s)

Fringe quality 9

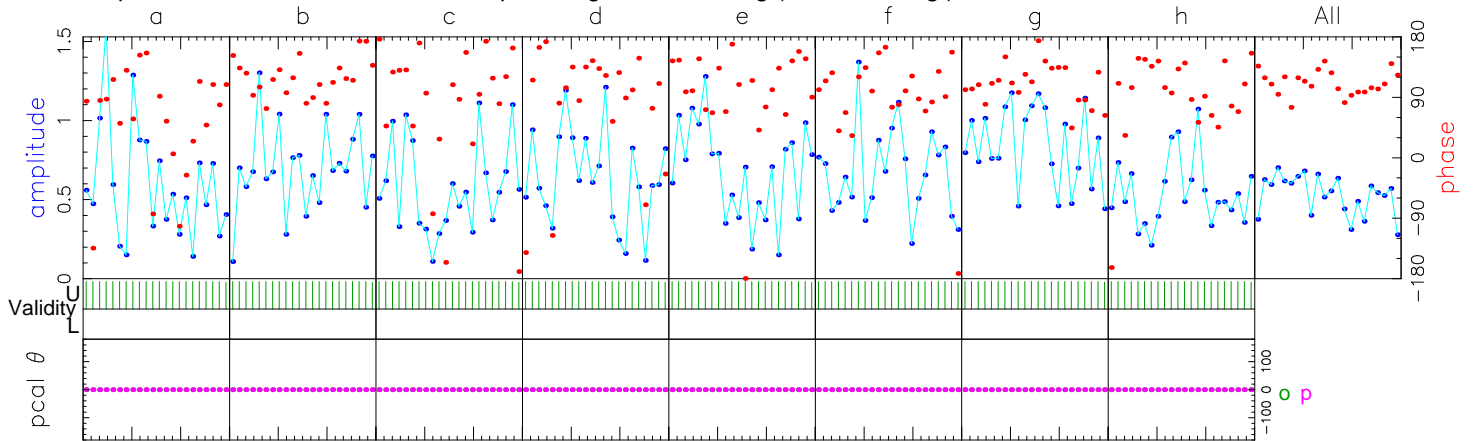


SNR 18.7  
Int time 179.976  
Amp 0.510  
Phase 111.6  
PFD 0.0e+00  
Delays (us)  
SBD 0.000428  
MBD 0.000478  
Fringe rate (Hz)  
0.003316  
Ion TEC 0.000  
Ref freq (MHz)  
87940.0000  
AP (sec) 0.512



Exp. c202c  
Exper # 16383  
Yr:day 2020:286  
Start 102000.00  
Stop 102300.22  
FRT 102130.00  
Corr/FF/build  
2021:041:230658  
2021:042:142206  
2020:247:085004  
RA & Dec (J2000)  
04h23m15.800724s  
--1°20'33.065613"

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



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	91.7	119.0	122.0	118.6	114.2	102.9	114.1	104.3	Phase	111.6
	0.4	0.6	0.4	0.5	0.5	0.6	0.7	0.4	Ampl.	0.5
	257.7	257.4	256.3	257.2	257.2	256.7	256.5	257.6	Sbd box	257.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-7.63370022993E+02	Apriori delay (usec)	-7.63370501230E+02	Resid mbdelay (usec)	4.78237E-04	+/-	5.8E-05
Sband delay (usec)	-7.63370073230E+02	Apriori clock (usec)	2.1236954E+01	Resid sbdelay (usec)	4.28000E-04	+/-	4.6E-04
Phase delay (usec)	-7.63370497706E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	3.52414E-06	+/-	1.9E-07
Delay rate (us/s)	2.20887513688E-01	Apriori rate (us/s)	2.20887475976E-01	Resid rate (us/s)	3.77121E-08	+/-	1.9E-09
Total phase (deg)	-204.6	Apriori accel (us/s/s)	4.06678695197E-06	Resid phase (deg)	111.6	+/-	6.1

ph/seg (deg)	RMS 17.7	Theor. 14.4	Amplitude Search (1024X32)	0.510 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	24.0	25.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	11.2	8.7	Inc. seg. avg.	0.517	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	23.2	15.1	Inc. frq. avg.	0.509	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011	
					Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

o: az 167.4 el 50.8 pa -9.6 p: az 183.9 el 54.3 pa 3.7 u,v (fr/asec) -1290.213 364.323 simultaneous interpolator  
Control file: cf\_1234\_88GHz\_gmva Input file: /Exps/c202c/v1/1234/No0079/op..1JLM0Z Output file: /Exps/c202c/v1/1234/No0079/op.W.95.1JLM0Z