

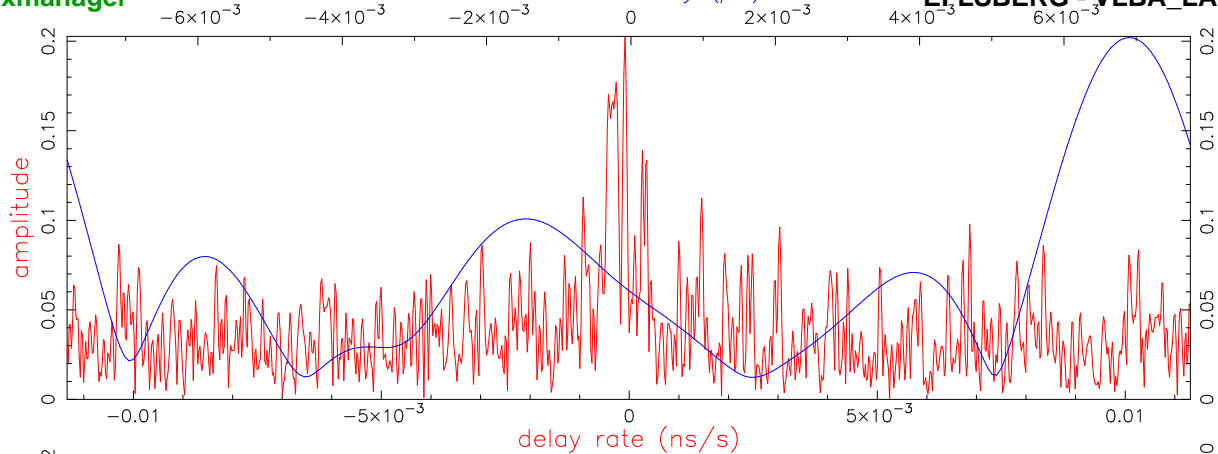
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, BI

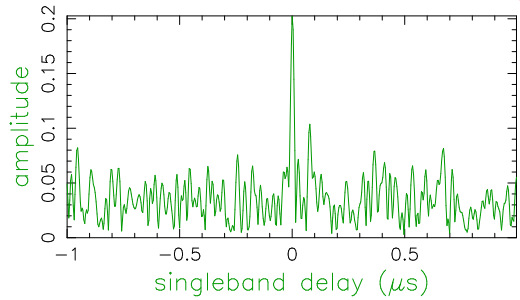
EFLSBERG - VLBA_LA, fgroup W, pol LL

multiband delay (μ s)

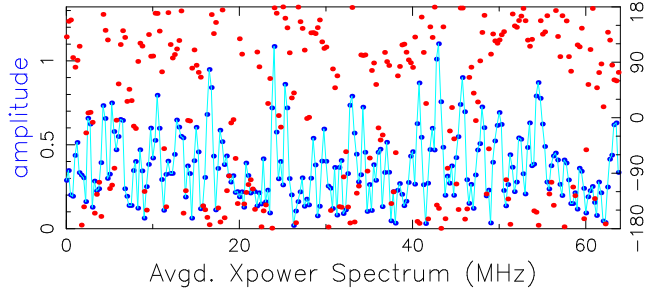


Fringe quality 9

SNR 7.4
 Int time 179.778
 Amp 0.203
 Phase 82.8
 PFD 1.7e-05
 Delays (us)
 SBD 0.000714
 MBD 0.006922
 Fringe rate (Hz)
 -0.008560
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

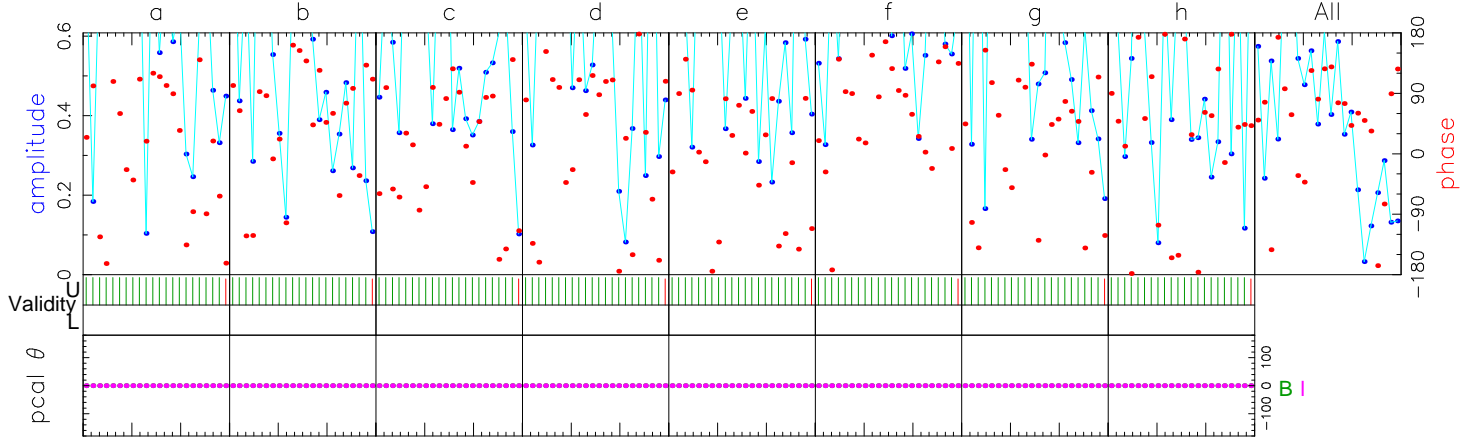


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:141947
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-5.65622016881E+03	Apriori delay (usec)	-5.65622709054E+03	Resid mbdelay (usec)	6.92174E-03	+/-	1.5E-04
Sband delay (usec)	-5.65622637679E+03	Apriori clock (usec)	1.0508512E+01	Resid sbdelay (usec)	7.13750E-04	+/-	1.2E-03
Phase delay (usec)	-5.65622708787E+03	Apriori clockrate (us/s)	-9.9999998E-08	Resid phdelay (usec)	2.66961E-06	+/-	5.0E-07
Delay rate (us/s)	7.28592470904E-01	Apriori rate (us/s)	7.28592570275E-01	Resid rate (us/s)	-9.93710E-08	+/-	4.8E-09
Total phase (deg)	-125.8	Apriori accel (us/s/s)	4.81522372769E-05	Resid phase (deg)	82.8	+/-	15.4

ph/seg (deg)	70.0	Theor.	36.2	Amplitude	0.203 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	149.1	Search (1024X32)	0.198	Search	0.198	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	35.5	Interp.	0.000	Inc. seg. avg.	0.338	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	35.4	Inc. frq. avg.	0.211	Inc. frq. avg.	0.211	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 5.2 el 19.3 pa -6.4 I: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -7950.157 7076.477 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/BI..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/BI.W.10.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

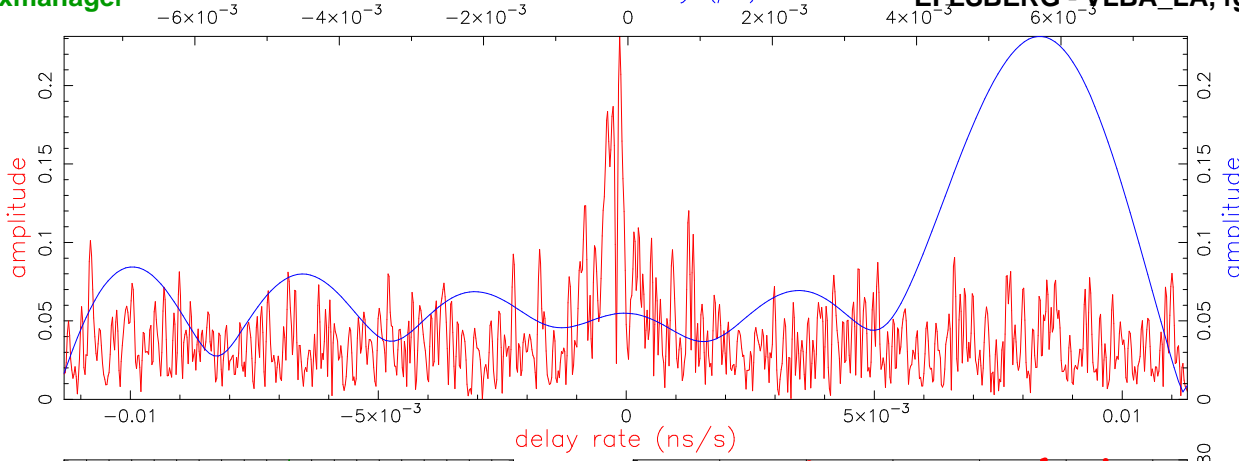
fxmanager

0102+584.1HT0UR, No0131, BI

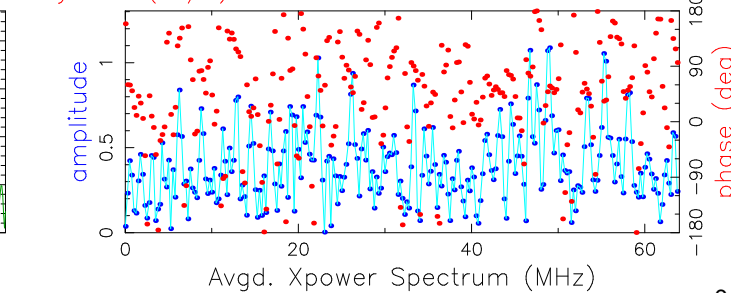
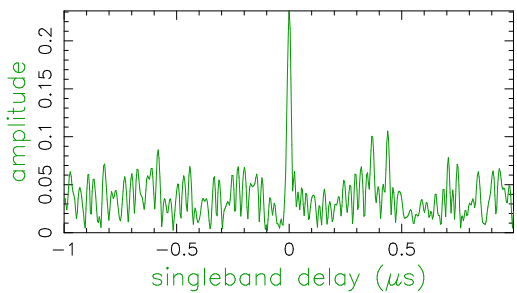
EFLSBERG - VLBA_LA, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

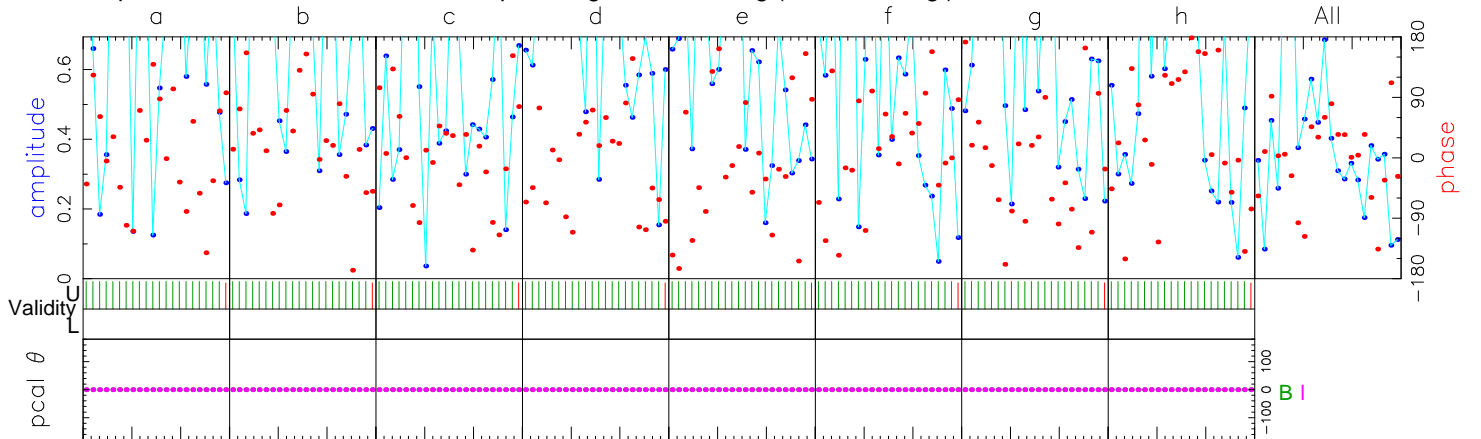


SNR 8.5
 Int time 179.778
 Amp 0.231
 Phase 4.0
 PFD 4.0e-09
 Delays (us)
 SBD 0.000078
 MBD 0.005707
 Fringe rate (Hz)
 -0.010820
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:141949
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		257.0
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-5.65622138350E+03	Apriori delay (usec)	-5.65622709054E+03	Resid mbdelay (usec)	5.70705E-03	+/-	1.3E-04
Sband delay (usec)	-5.65622701229E+03	Apriori clock (usec)	1.0508512E+01	Resid sbdelay (usec)	7.82500E-05	+/-	1.0E-03
Phase delay (usec)	-5.65622709041E+03	Apriori clockrate (us/s)	-9.9999998E-08	Resid phdelay (usec)	1.30391E-07	+/-	4.4E-07
Delay rate (us/s)	7.28592444663E-01	Apriori rate (us/s)	7.28592570275E-01	Resid rate (us/s)	-1.25612E-07	+/-	4.2E-09
Total phase (deg)	-204.6	Apriori accel (us/s/s)	4.81522372769E-05	Resid phase (deg)	4.0	+/-	13.5

ph/seg (deg)	63.6	Theor.	31.7	Amplitude	0.231 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	135.4	Search (1024X32)	0.226	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	49.2	Inc. seg. avg.	0.353	Inc. seg. avg.	0.353	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	39.3	Inc. frq. avg.	0.246	Inc. frq. avg.	0.246	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 5.2 el 19.3 pa -6.4 I: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -7950.157 7076.477 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/BI..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/BI.W.25.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

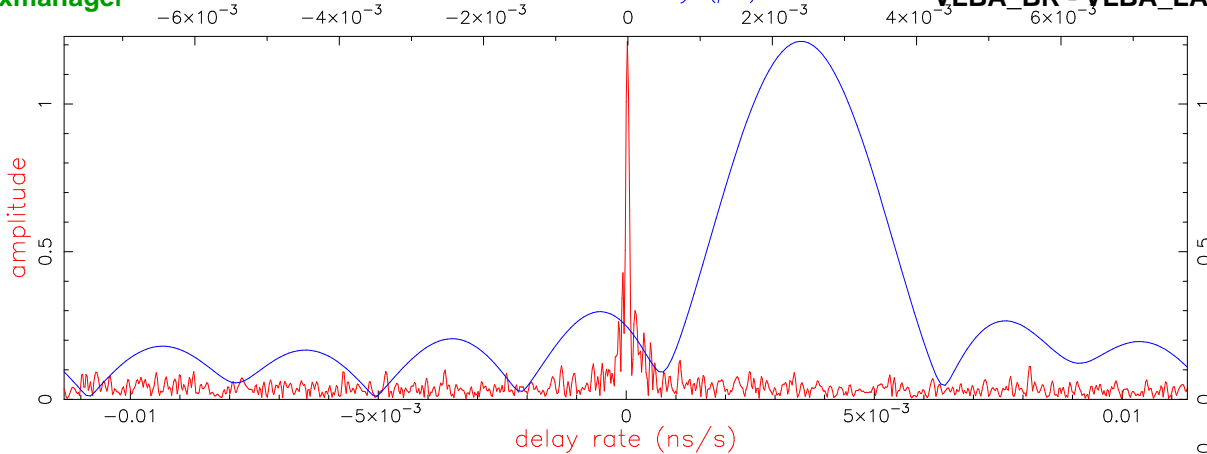
fxmanager

0102+584.1HT0UR, No0131, bl

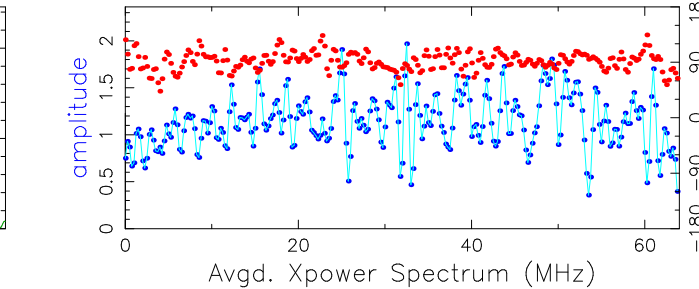
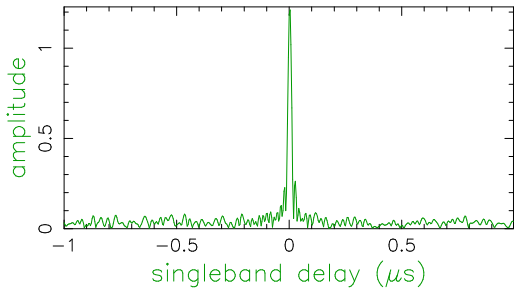
VLBA_BR - VLBA_LA, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 8

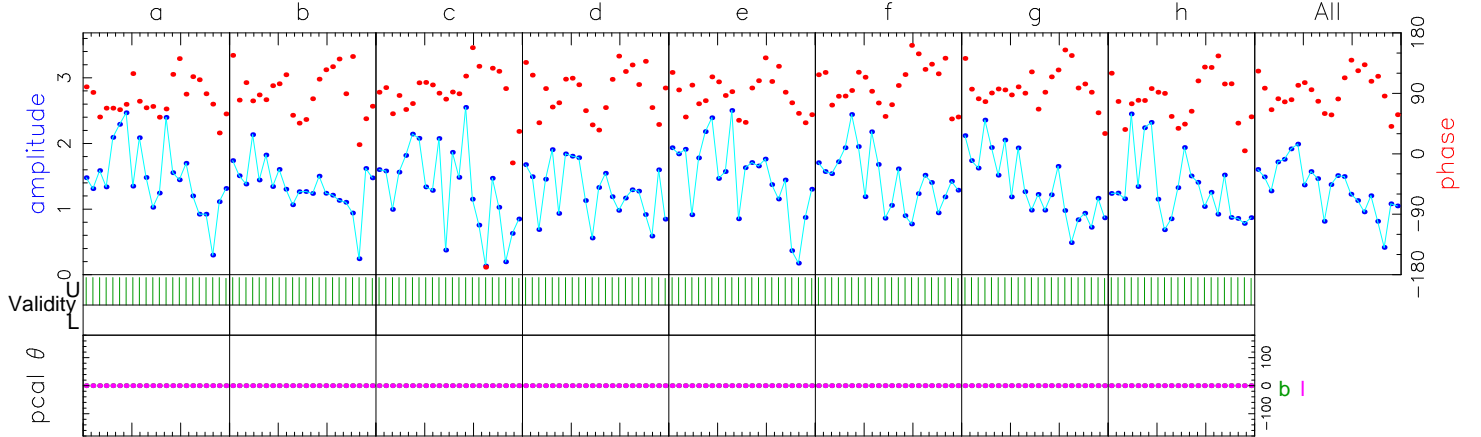


SNR 45.1
 Int time 179.977
 Amp 1.229
 Phase 92.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.002406
 MBD 0.002369
 Fringe rate (Hz)
 0.002585
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:141949
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		4.15880666841E+03				4.15880429905E+03			Resid mbdelay (usec)	2.36936E-03 +/- 2.4E-05
Sband delay (usec)		4.15880670480E+03				-1.3215103E+00			Resid sbdelay (usec)	2.40575E-03 +/- 1.9E-04
Phase delay (usec)		4.15880430202E+03				9.999998E-08			Resid phdelay (usec)	2.97026E-06 +/- 8.2E-08
Delay rate (us/s)		1.56831434661E-01				1.56831404652E-01			Resid rate (us/s)	3.00088E-08 +/- 7.9E-10
Total phase (deg)			207.2			-6.72815292506E-06			Resid phase (deg)	92.1 +/- 2.5
RMS	26.0	6.0							PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	31.5	10.4							PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	8.2	3.6							Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	7.6	6.3							Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
amp/frq (%)									Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
									nlags: 256	t_cohere infinite
										ion window (TEC) 0.00 0.00

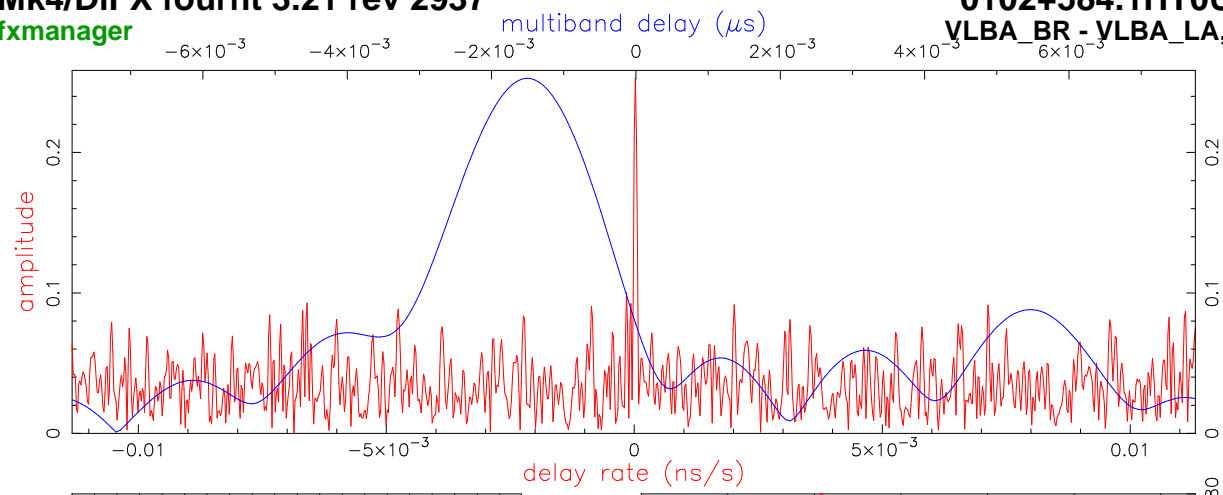
b: az 310.1 el 52.6 pa 77.8 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -1725.993 -114.784 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/bl..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/bl.W.28.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, bl

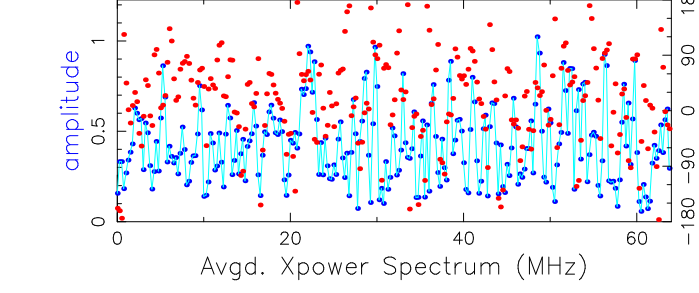
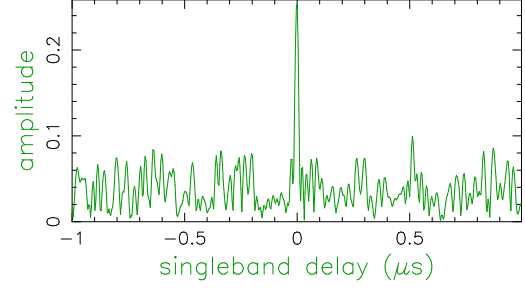
VLBA_BR - VLBA_LA, fgroup W, pol LR



Fringe quality 9

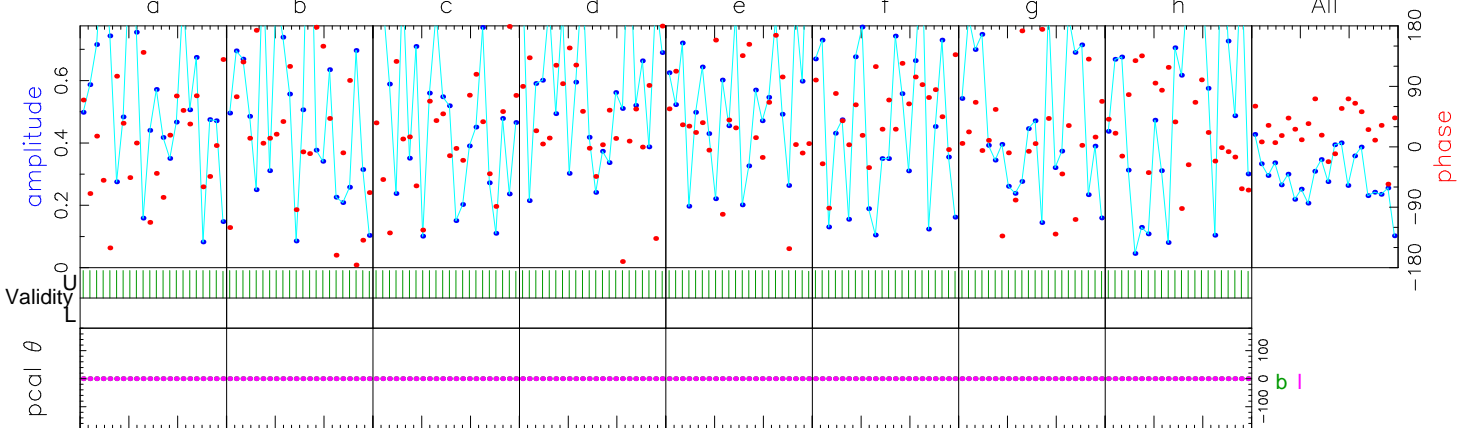
SNR 9.5
 Int time 179.977
 Amp 0.258
 Phase 29.1
 PFD 5.0e-13
 Delays (us)
 SBD -0.001906
 MBD -0.001545
 Fringe rate (Hz) 0.002795
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:141950
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All			
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0					
b	1000	1000	1000	1000	1000	1000	1000	1000					
l	1000	1000	1000	1000	1000	1000	1000	1000					
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0					
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0					
b	1000	1000	1000	1000	1000	1000	1000	1000					
l	1000	1000	1000	1000	1000	1000	1000	1000					
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL					
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR					
Group delay (usec)(sbd)		4.15880275416E+03			4.15880429905E+03								
Sband delay (usec)		4.15880239255E+03			-1.3215103E+00								
Phase delay (usec)		4.15880429999E+03			9.9999998E-08								
Delay rate (us/s)		1.56831437095E-01			1.56831404652E-01								
Total phase (deg)			144.3		-6.72815292506E-06								
				Apriori delay (usec)					Resid mbdelay (usec)	-1.54489E-03	+/- 1.1E-04		
				Apriori clock (usec)	0.244				Resid sbdelay (usec)	-1.90650E-03	+/- 9.1E-04		
				Apriori clockrate (us/s)	0.000				Resid phdelay (usec)	9.39668E-07	+/- 3.9E-07		
				Apriori rate (us/s)	0.258				Resid rate (us/s)	3.24434E-08	+/- 3.7E-09		
				Apriori accel (us/s/s)	0.258				Resid phase (deg)	29.1	+/- 12.1		
ph/seg (deg)	RMS 30.9	Theor. 28.3	Amplitude Search (1024X32)	0.258 +/- 0.027					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	31.8	49.5	Interp.	0.000					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	23.0	17.1	Inc. seg. avg.	0.261					Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	18.7	29.8	Inc. frq. avg.	0.258					Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011	
									Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 310.1 el 52.6 pa 77.8 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -1725.993 -114.784 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/bl..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/bl.W.43.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

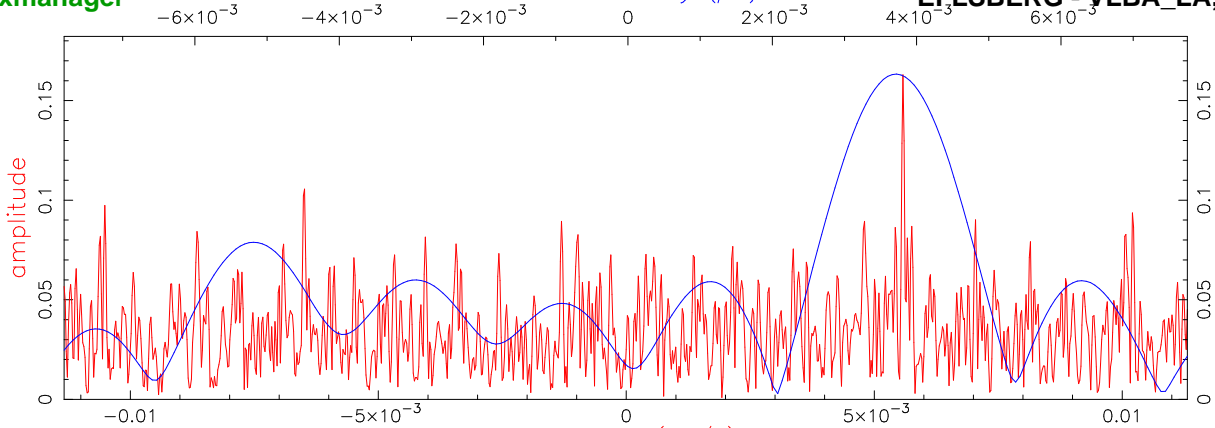
fxmanager

0102+584.1HT0UR, No0131, BI

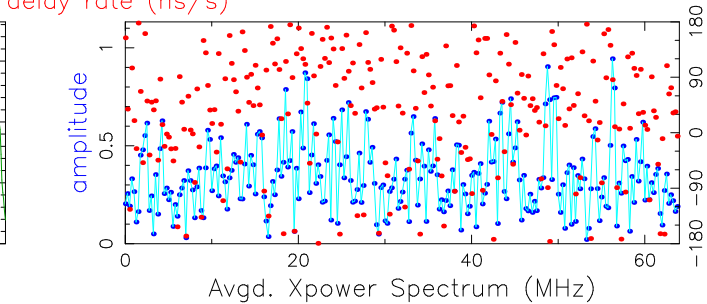
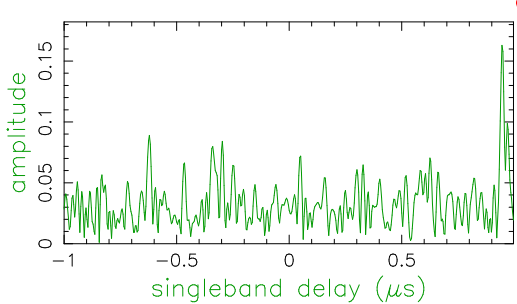
EFLSBERG - VLBA_LA, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

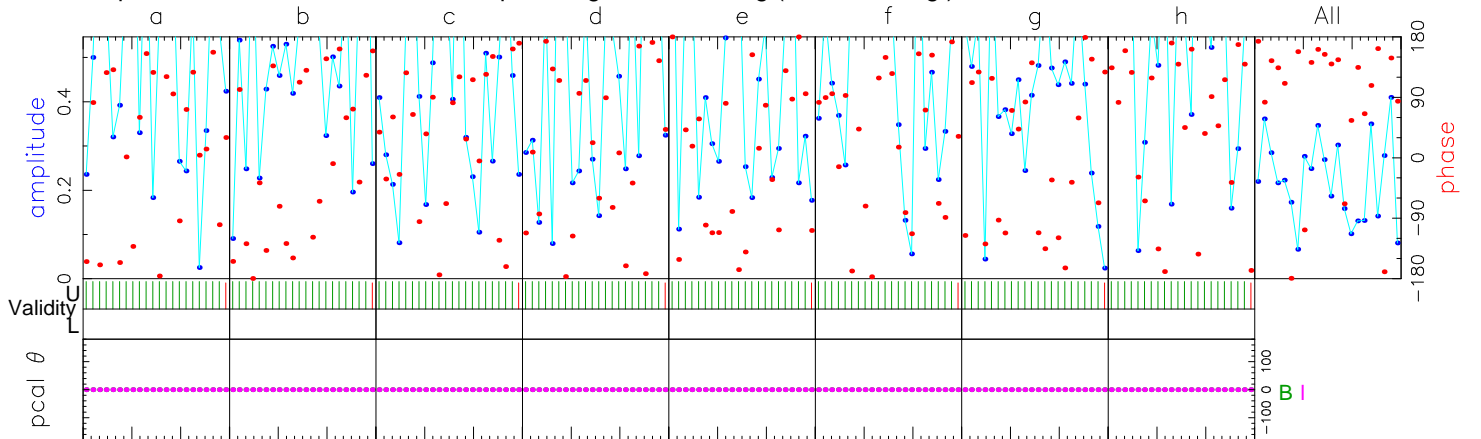


SNR 6.0
Int time 179.778
Amp 0.182
Phase 143.7
PFD 1.9e-01
Delays (us)
SBD 0.946588
MBD 0.003778
Fringe rate (Hz) 0.481740
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:141951
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) -5.65528581251E+03 Apriori delay (usec) -5.65622709054E+03 Resid mbdelay (usec) 3.77803E-03 +/- 1.8E-04
 Sband delay (usec) -5.65528050254E+03 Apriori clock (usec) 1.0508512E+01 Resid sbdelay (usec) 9.46588E-01 +/- 1.4E-03
 Phase delay (usec) -5.65622708591E+03 Apriori clockrate (us/s) -9.9999998E-08 Resid phdelay (usec) 4.63484E-06 +/- 6.1E-07
 Delay rate (us/s) 7.28598162801E-01 Apriori rate (us/s) 7.28592570275E-01 Resid rate (us/s) 5.59253E-06 +/- 5.9E-09
 Total phase (deg) -64.9 Apriori accel (us/s/s) 4.81522372769E-05 Resid phase (deg) 143.7 +/- 19.0

ph/seg (deg) 53.4 44.5 Search (1024X32) 0.154 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 68.1 77.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 20.7 26.9 Inc. seg. avg. 0.192 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 44.4 46.9 Inc. frq. avg. 0.168 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 5.2 el 19.3 pa -6.4 I: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -7950.157 7076.477 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/BI..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/BI.W.44.1HT0UR

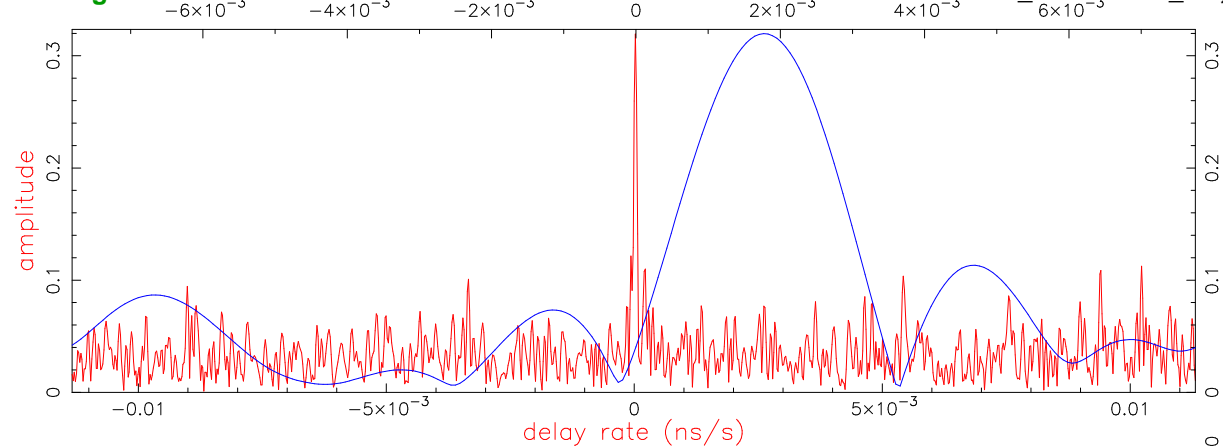
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, bl

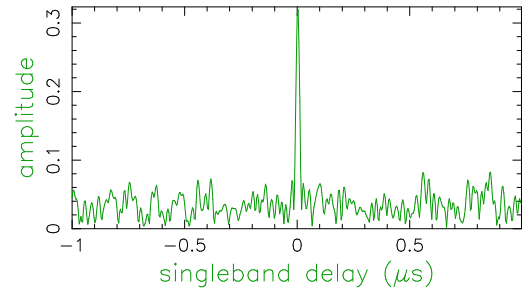
VLBA_BR - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

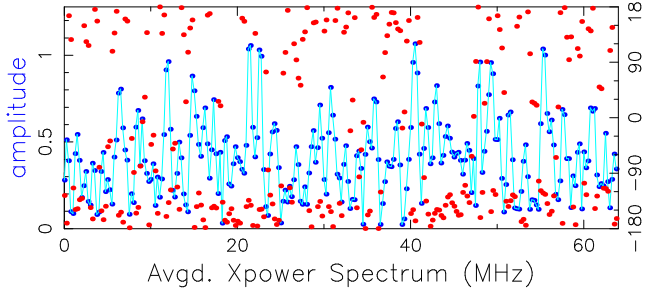


Fringe quality 9

SNR 11.9
 Int time 179.977
 Amp 0.324
 Phase -156.5
 PFD 4.3e-24
 Delays (us)
 SBD 0.002447
 MBD 0.001735
 Fringe rate (Hz) 0.002588
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

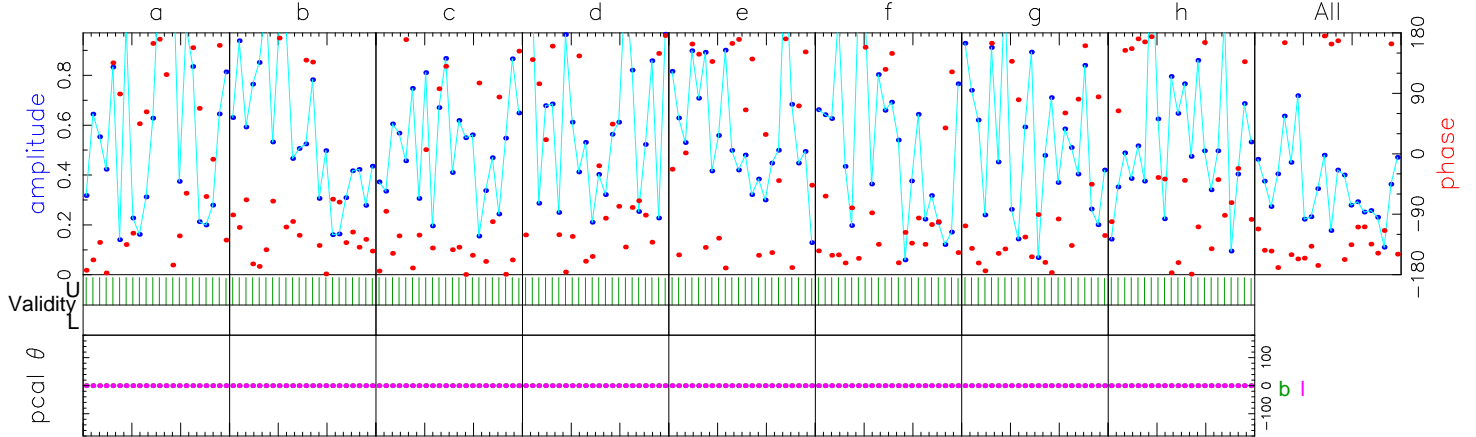


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:141952
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-174.3	-137.3	-168.5	-145.0	-179.9	-150.2	-157.5	-146.3	Phase	-156.5		
	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.2	Ampl.	0.3		
	257.5	258.0	257.6	257.1	256.7	257.6	258.1	412.3	Sbd box	257.6		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
l	1000	1000	1000	1000	1000	1000	1000	1000				
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec)(sbd)	4.15880603388E+03		Apriori delay (usec)		4.15880429905E+03		Resid mbdelay (usec)		1.73483E-03	+/- 9.1E-05		
Sband delay (usec)	4.15880674580E+03		Apriori clock (usec)		-1.3215103E+00		Resid sbdelay (usec)		2.44675E-03	+/- 7.3E-04		
Phase delay (usec)	4.15880429400E+03		Apriori clockrate (us/s)		9.9999998E-08		Resid phdelay (usec)		-5.04713E-06	+/- 3.1E-07		
Delay rate (us/s)	1.56831434690E-01		Apriori rate (us/s)		1.56831404652E-01		Resid rate (us/s)		3.00386E-08	+/- 3.0E-09		
Total phase (deg)			Apriori accel (us/s/s)		-6.72815292506E-06		Resid phase (deg)		-156.5	+/- 9.7		
	RMS	Theor.	Amplitude	0.324 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	27.9	22.6	Search (1024X32)	0.306		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	45.2	39.5	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	16.6	13.7	Inc. seg. avg.	0.331		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	17.4	23.8	Inc. frq. avg.	0.321		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

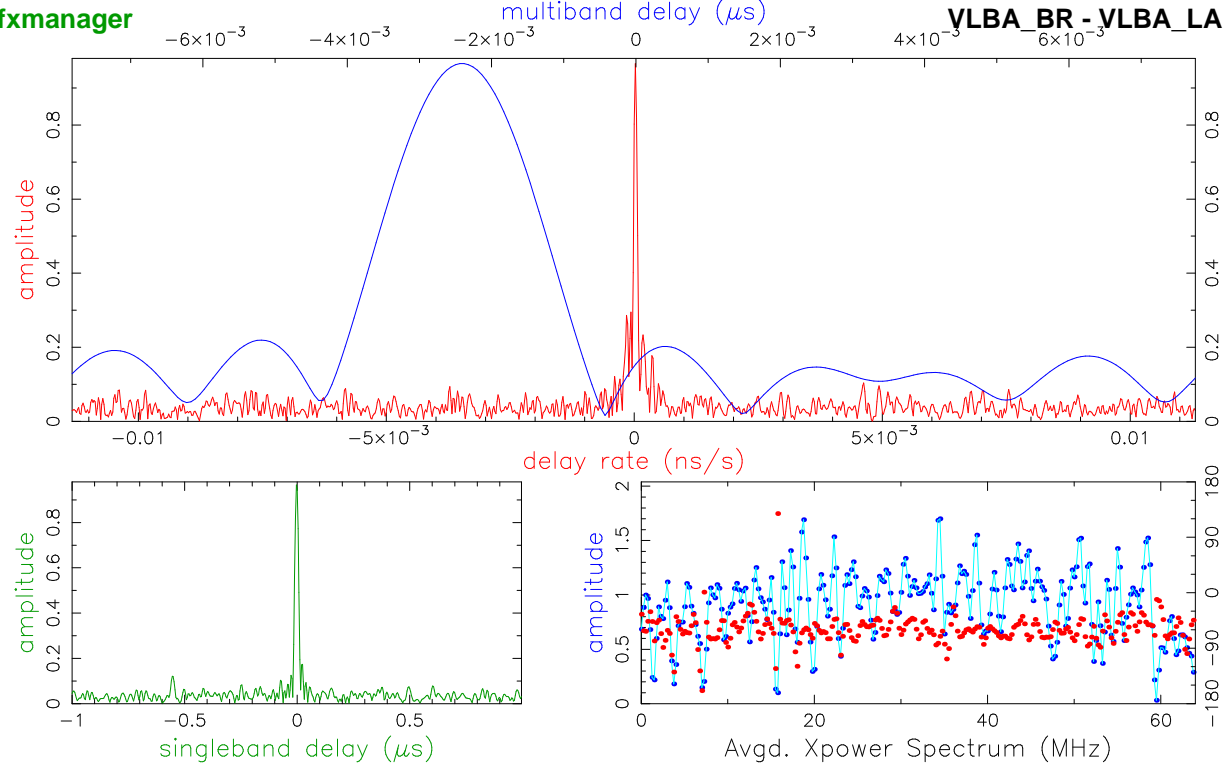
b: az 310.1 el 52.6 pa 77.8 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -1725.993 -114.784 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/bl..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/bl.W.60.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, bl

VLBA_BR - VLBA_LA, fgroup W, pol LL

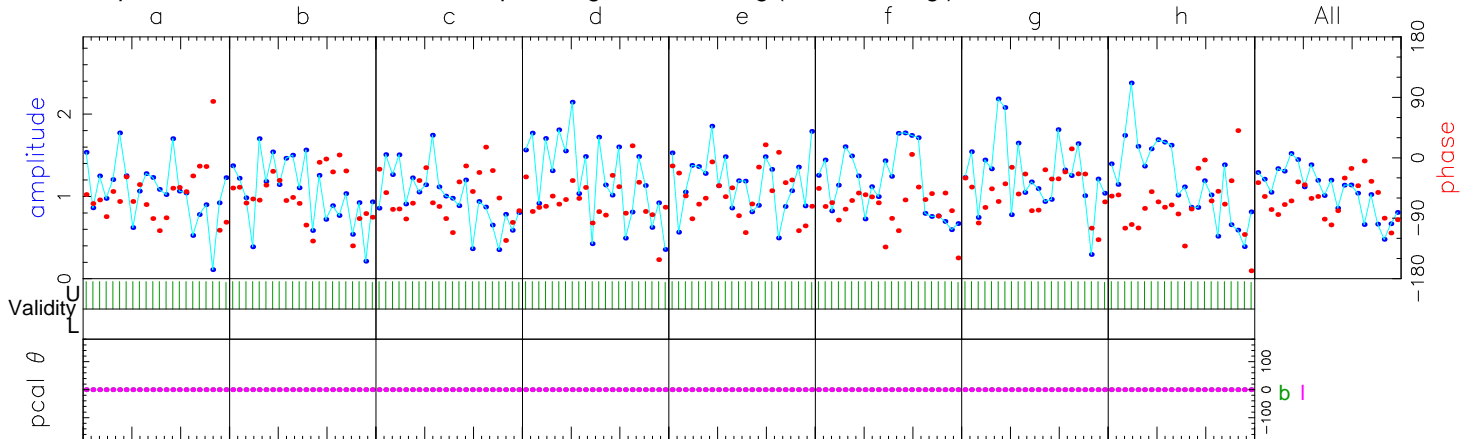


Fringe quality 8

SNR 35.9
 Int time 179.977
 Amp 0.980
 Phase -59.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.002329
 MBD -0.002373
 Fringe rate (Hz) 0.002603
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:141946
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		4.15880192597E+03			4.15880429905E+03				Resid mbdelay (usec)	-2.37308E-03 +/- 3.0E-05
Sband delay (usec)		4.15880197030E+03			-1.3215103E+00				Resid sbdelay (usec)	-2.32875E-03 +/- 2.4E-04
Phase delay (usec)		4.15880429714E+03			9.9999998E-08				Resid phdelay (usec)	-1.90137E-06 +/- 1.0E-07
Delay rate (us/s)		1.56831434869E-01			1.56831404652E-01				Resid rate (us/s)	3.02171E-08 +/- 9.9E-10
Total phase (deg)			56.2		-6.72815292506E-06				Resid phase (deg)	-59.0 +/- 3.2
ph/seg (deg)	27.8	7.5		0.980 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	29.5	13.0		0.943					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	9.9	4.5		0.000					Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	9.0	7.9		1.061					Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
				0.974					Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
									nlags: 256	t_cohere infinite
										ion window (TEC) 0.00 0.00

b: az 310.1 el 52.6 pa 77.8 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -1725.993 -114.784 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/bl..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/bl.W.6.1HT0UR

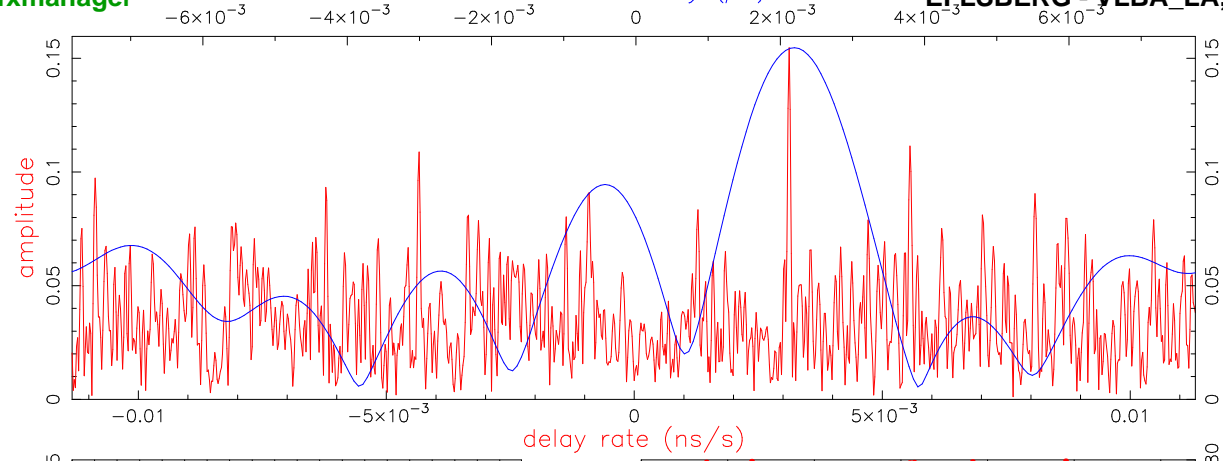
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

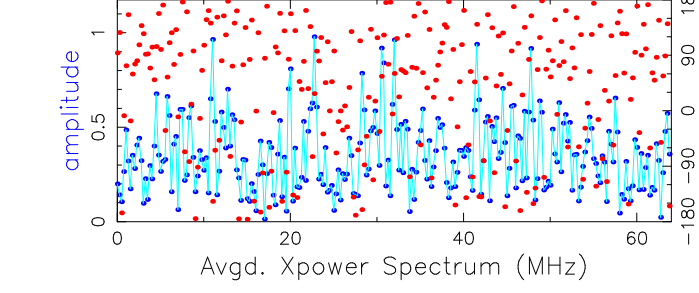
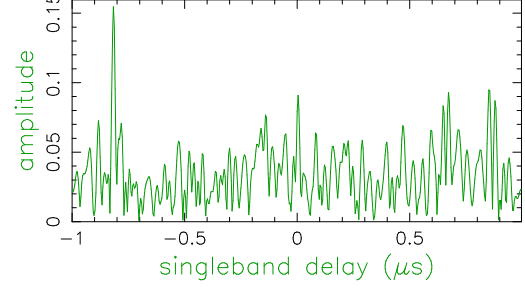
0102+584.1HT0UR, No0131, BI

EFLSBERG - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

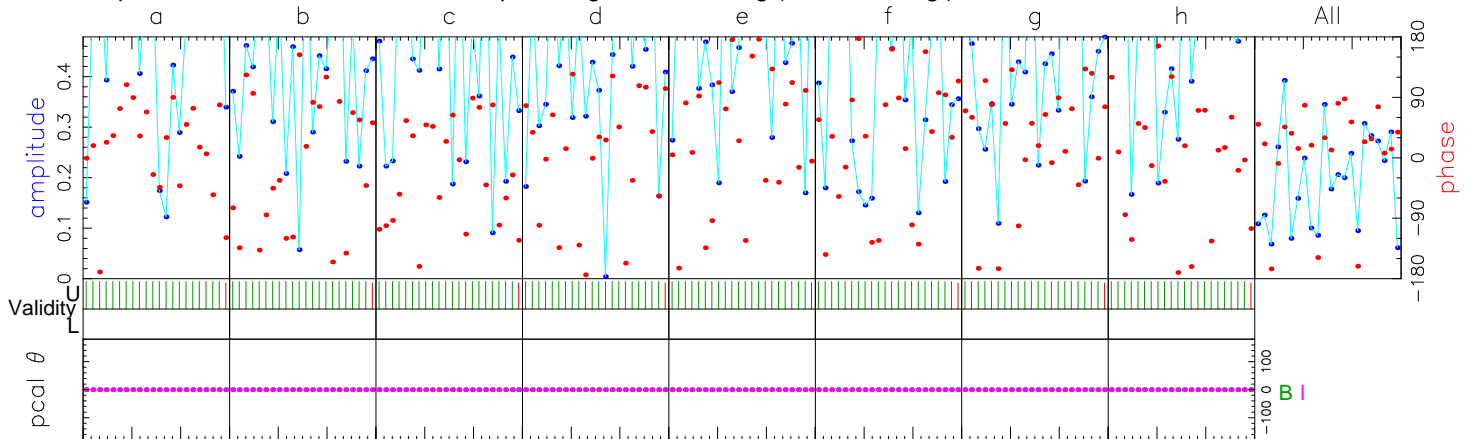


Fringe quality 0
 SNR 5.7
 Int time 179.778
 Amp 0.160
 Phase 38.1
 PFD 8.2e-01
 Delays (us)
 SBD -0.816181
 MBD 0.002205
 Fringe rate (Hz)
 0.269464
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:141953
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-5.65703738532E+03									
Sband delay (usec)	-5.65704327179E+03									
Phase delay (usec)	-5.65622708932E+03									
Delay rate (us/s)	7.28595698480E-01									
Total phase (deg)			-170.6							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
simultaneous interpolator										

ph/seg (deg) 65.6 47.4 Search (1024X32) 0.151 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 67.4 82.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.6 28.6 Inc. seg. avg. 0.152 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 54.0 49.9 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
 B: az 5.2 el 19.3 pa -6.4 I: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -7950.157 7076.477 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/BI..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/BI.W.65.1HT0UR

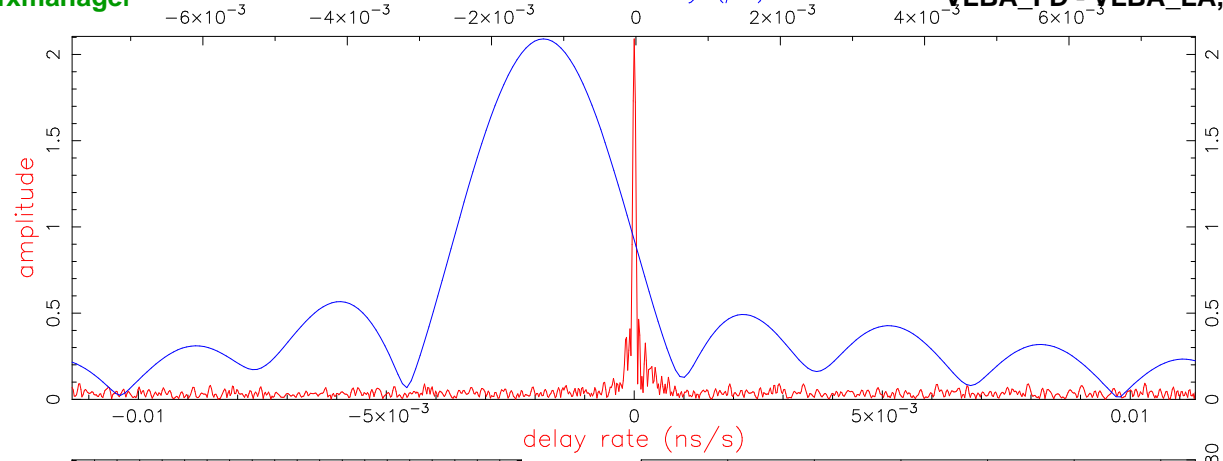
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

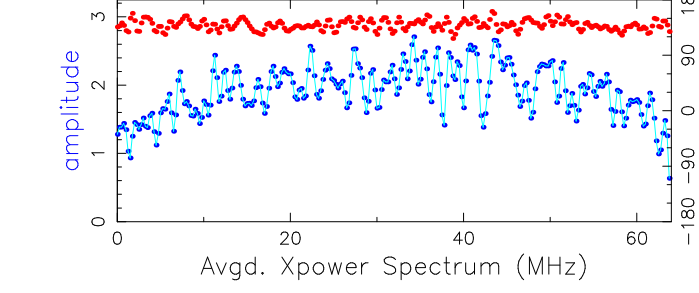
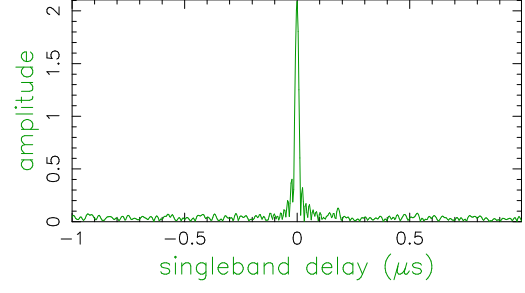
0102+584.1HT0UR, No0131, fl

VLBA_FD - VLBA_LA, fgroup W, pol RR

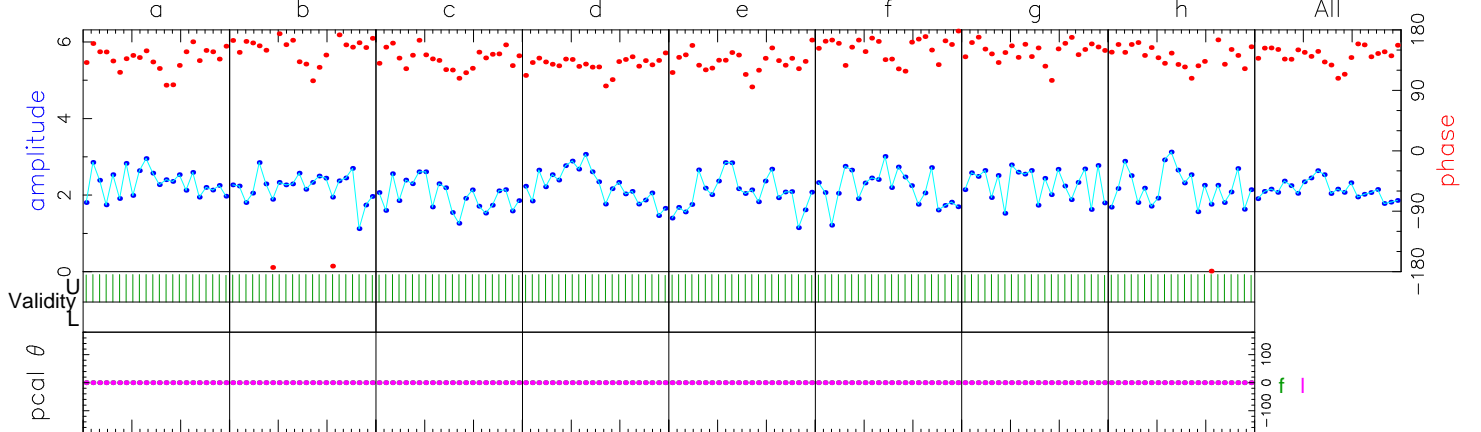
multiband delay (μ s)



Fringe quality 8
 SNR 77.2
 Int time 179.868
 Amp 2.105
 Phase 141.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.001095
 MBD -0.001309
 Fringe rate (Hz) 0.000508
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:141959
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

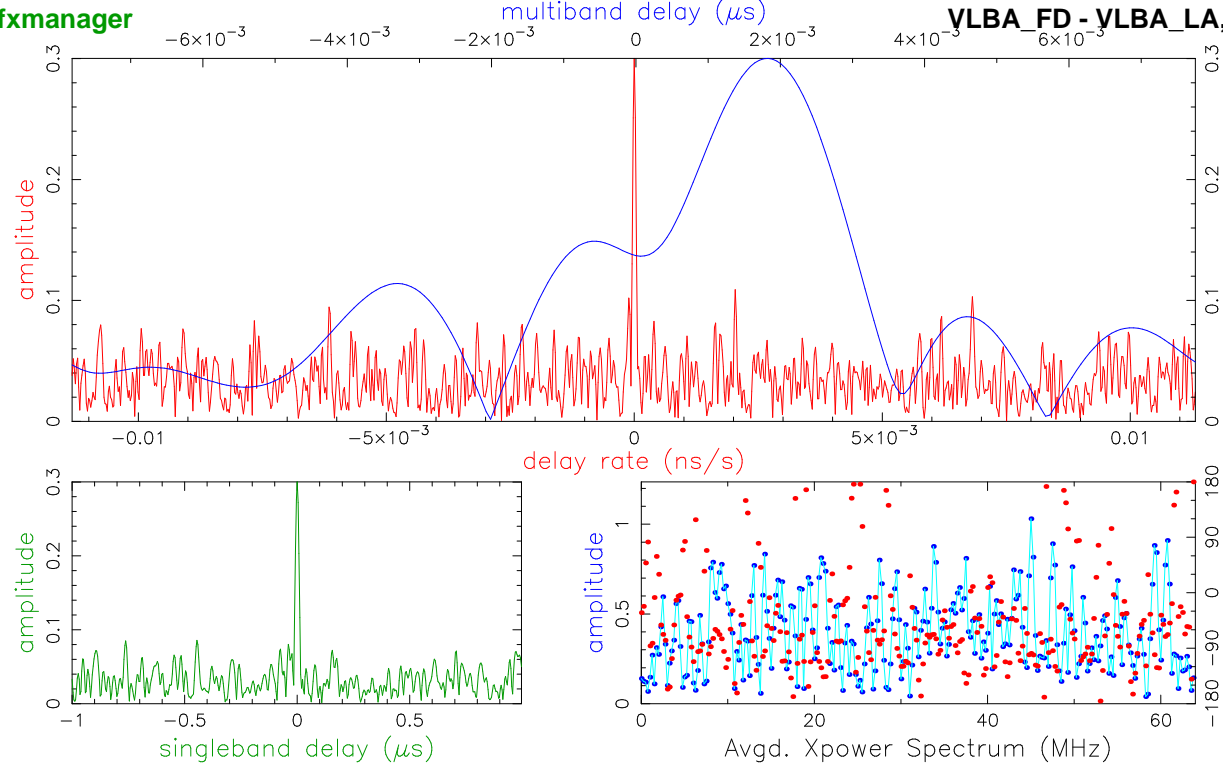


Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



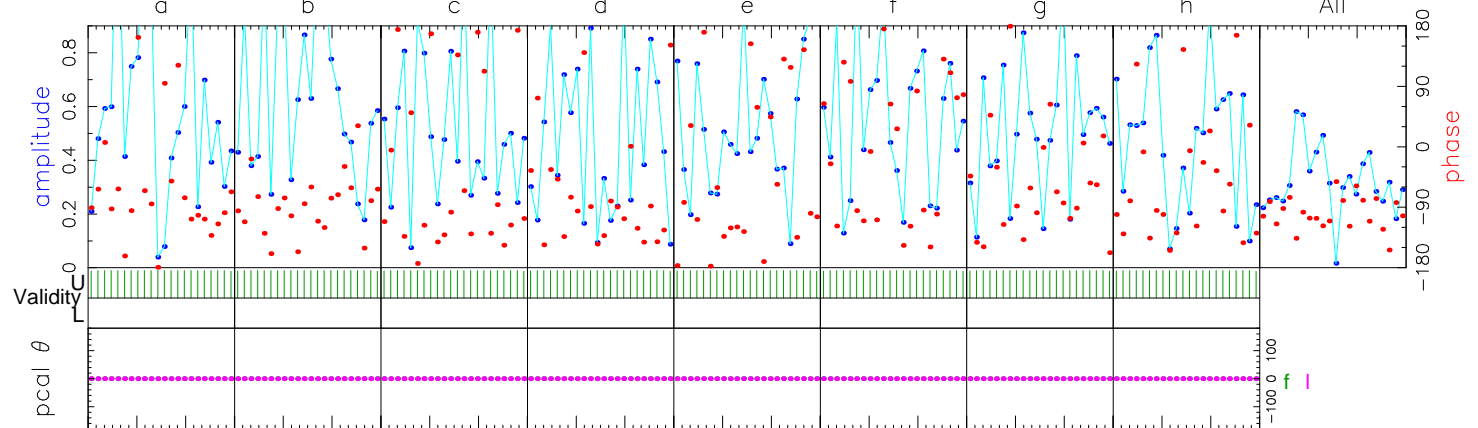
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
f:l	0:0	0:0	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
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.59958796422E+03				-1.59958665566E+03					
Sband delay (usec)	-1.59958775116E+03				8.2284451E+00					
Phase delay (usec)	-1.59958665109E+03				5.0000000E-07					
Delay rate (us/s)	-4.44645142529E-02				-4.44645201523E-02					
Total phase (deg)			-45.1		1.33208798103E-06				141.6	1.5
Apriori delay (usec)									-1.30856E-03	+/- 1.4E-05
Apriori clock (usec)									-1.09550E-03	+/- 1.1E-04
Apriori clockrate (us/s)									4.56726E-06	+/- 4.8E-08
Apriori rate (us/s)									5.89945E-09	+/- 4.6E-10
Apriori accel (us/s/s)										
RMS	12.8	3.5								
Theor.										
Amplitude					2.105 +/- 0.027					
Search (1024X32)					2.033					
Interp.					0.000					
Inc. seg. avg.					2.138					
Inc. frq. avg.					2.111					
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					
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

f: az 323.1 el 31.6 pa 82.0 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) 489.041 -178.467 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/fl.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/fl.W.114.1HT0UR



Fringe quality 9
SNR 11.0
Int time 179.868
Amp 0.300
Phase -103.4
PFD 8.0e-20
Delays (us)
SBD -0.000159
MBD 0.001820
Fringe rate (Hz)
0.000782
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142002
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) -1.59958483532E+03 Apriori delay (usec) -1.59958665566E+03 Resid mbdelay (usec) 1.82034E-03 +/- 9.9E-05
Sband delay (usec) -1.59958681491E+03 Apriori clock (usec) 8.2284451E+00 Resid sbdelay (usec) -1.59250E-04 +/- 7.8E-04
Phase delay (usec) -1.59958665900E+03 Apriori clockrate (us/s) 5.0000000E-07 Resid phdelay (usec) -3.33586E-06 +/- 3.4E-07
Delay rate (us/s) -4.44645110757E-02 Apriori rate (us/s) -4.44645201523E-02 Resid rate (us/s) 9.07662E-09 +/- 3.2E-09
Total phase (deg) -290.1 Apriori accel (us/s/s) 1.33208798103E-06 Resid phase (deg) -103.4 +/- 10.4

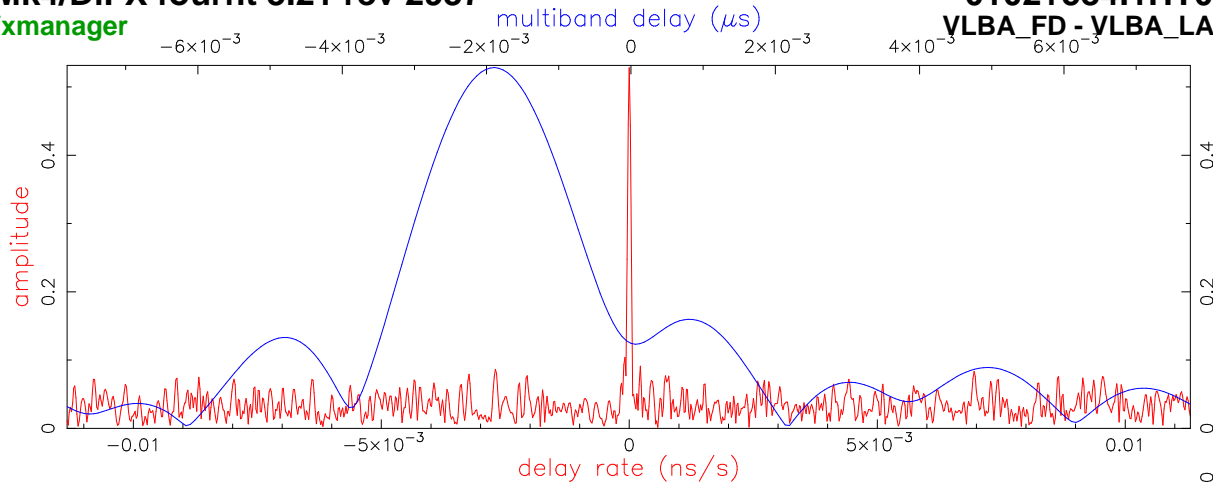
ph/seg (deg) 24.3 24.4 Search (1024X32) 0.289 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 41.8 42.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 30.9 14.7 Inc. seg. avg. 0.296 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 44.3 25.7 Inc. frq. avg. 0.313 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 323.1 el 31.6 pa 82.0 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) 489.041 -178.467 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/fl.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/fl.W.137.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

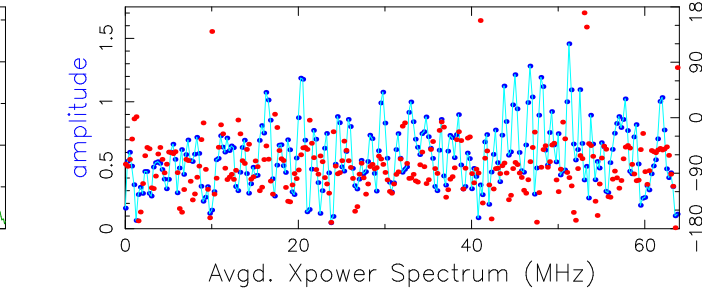
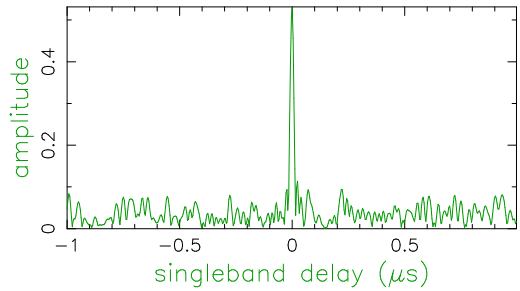
0102+584.1HT0UR, No0131, fl

VLBA_FD - VLBA_LA, fgroup W, pol RL



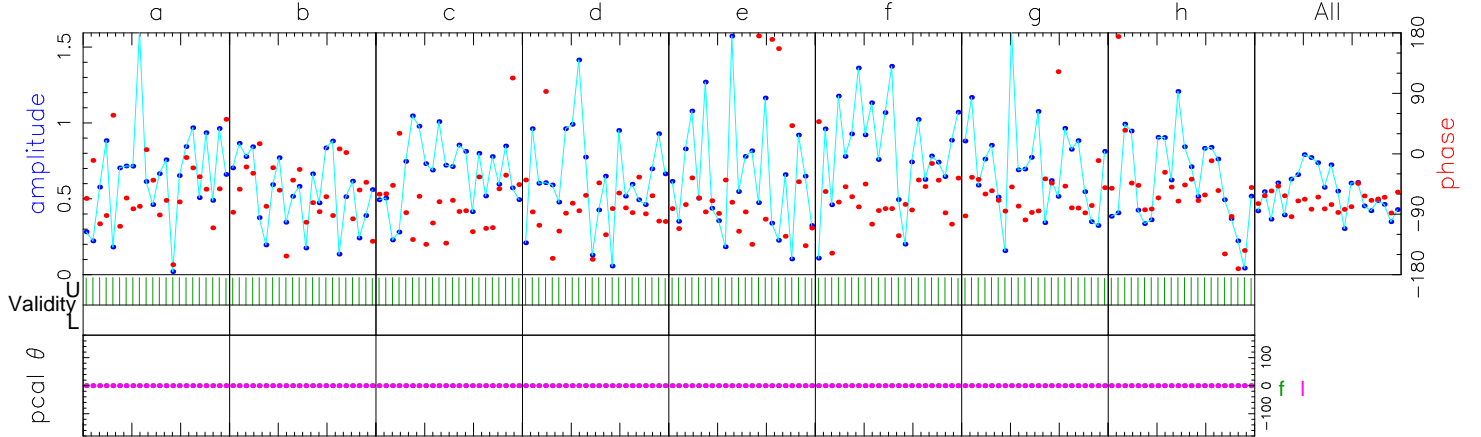
Fringe quality 9

SNR 19.5
 Int time 179.868
 Amp 0.532
 Phase -70.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.001020
 MBD -0.001922
 Fringe rate (Hz)
 0.000355
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142003
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.59958857804E+03	Apriori delay (usec)	-1.59958665566E+03	Resid mbdelay (usec)	-1.92238E-03	+/-	5.6E-05
Sband delay (usec)	-1.59958767616E+03	Apriori clock (usec)	8.2284451E+00	Resid sbdelay (usec)	-1.02050E-03	+/-	4.4E-04
Phase delay (usec)	-1.59958665792E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-2.26373E-06	+/-	1.9E-07
Delay rate (us/s)	-4.44645160285E-02	Apriori rate (us/s)	-4.44645201523E-02	Resid rate (us/s)	4.12381E-09	+/-	1.8E-09
Total phase (deg)	-256.9	Apriori accel (us/s/s)	1.33208798103E-06	Resid phase (deg)	-70.2	+/-	5.9

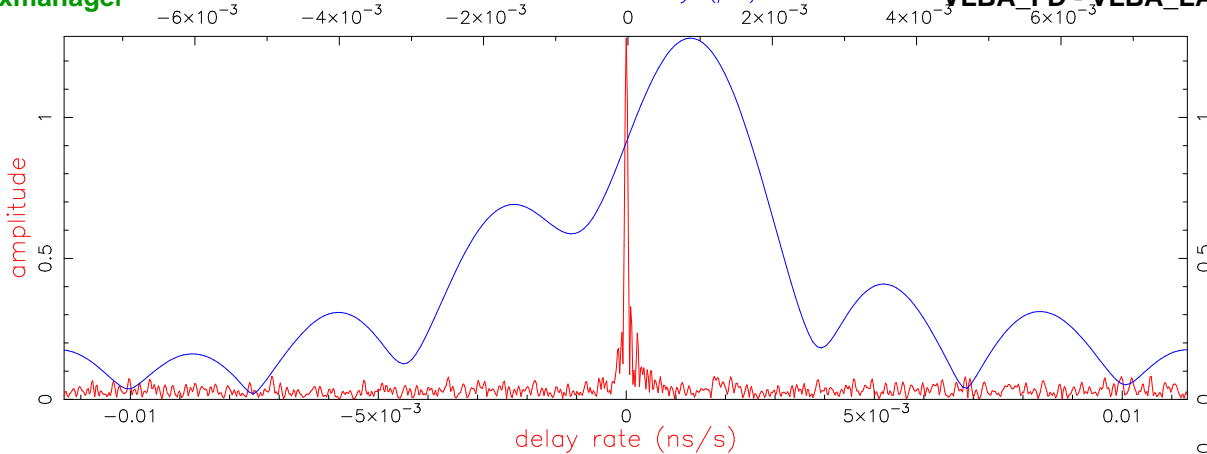
ph/seg (deg)	12.7	Theor.	13.8	Amplitude	0.532 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	26.3		24.1	Search (1024X32)	0.525	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	15.2		8.3	Inc. seg. avg.	0.526	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	16.7		14.5	Inc. frq. avg.	0.536	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 323.1 el 31.6 pa 82.0 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) 489.041 -178.467 simultaneous interpolator

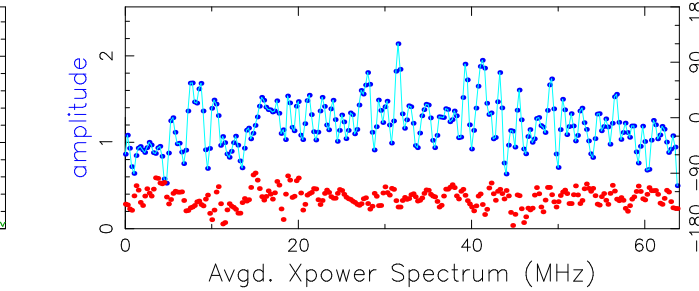
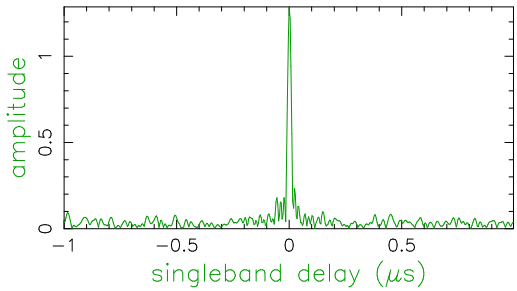
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/fl.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/fl.W.151.1HT0UR

multiband delay (μ s)

Fringe quality 5

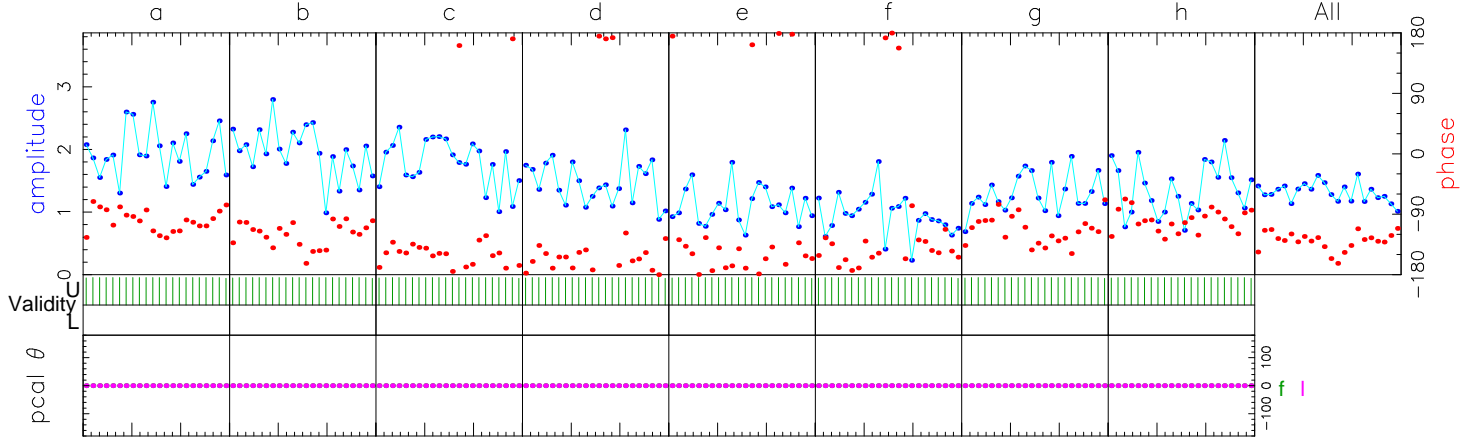


SNR 47.2
 Int time 179.868
 Amp 1.287
 Phase -129.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.000886
 MBD 0.000879
 Fringe rate (Hz) 0.000493
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:141958
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.59958577650E+03	Apriori delay (usec)	-1.59958665566E+03	Resid mbdelay (usec)	8.79156E-04	+/-	2.3E-05
Sband delay (usec)	-1.59958576991E+03	Apriori clock (usec)	8.2284451E+00	Resid sbdelay (usec)	8.85750E-04	+/-	1.8E-04
Phase delay (usec)	-1.59958665984E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-4.18127E-06	+/-	7.8E-08
Delay rate (us/s)	-4.44645144343E-02	Apriori rate (us/s)	-4.44645201523E-02	Resid rate (us/s)	5.71806E-09	+/-	7.5E-10
Total phase (deg)	-316.3	Apriori accel (us/s/s)	1.33208798103E-06	Resid phase (deg)	-129.7	+/-	2.4

ph/seg (deg)	13.4	Theor.	5.7	Amplitude	1.287 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	11.6	Search (1024X32)	1.259	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	29.0	Inc. seg. avg.	1.309	Inc. frq. avg.	1.409	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	28.4	Inc. frq. avg.	1.409			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 323.1 el 31.6 pa 82.0 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) 489.041 -178.467 simultaneous interpolator

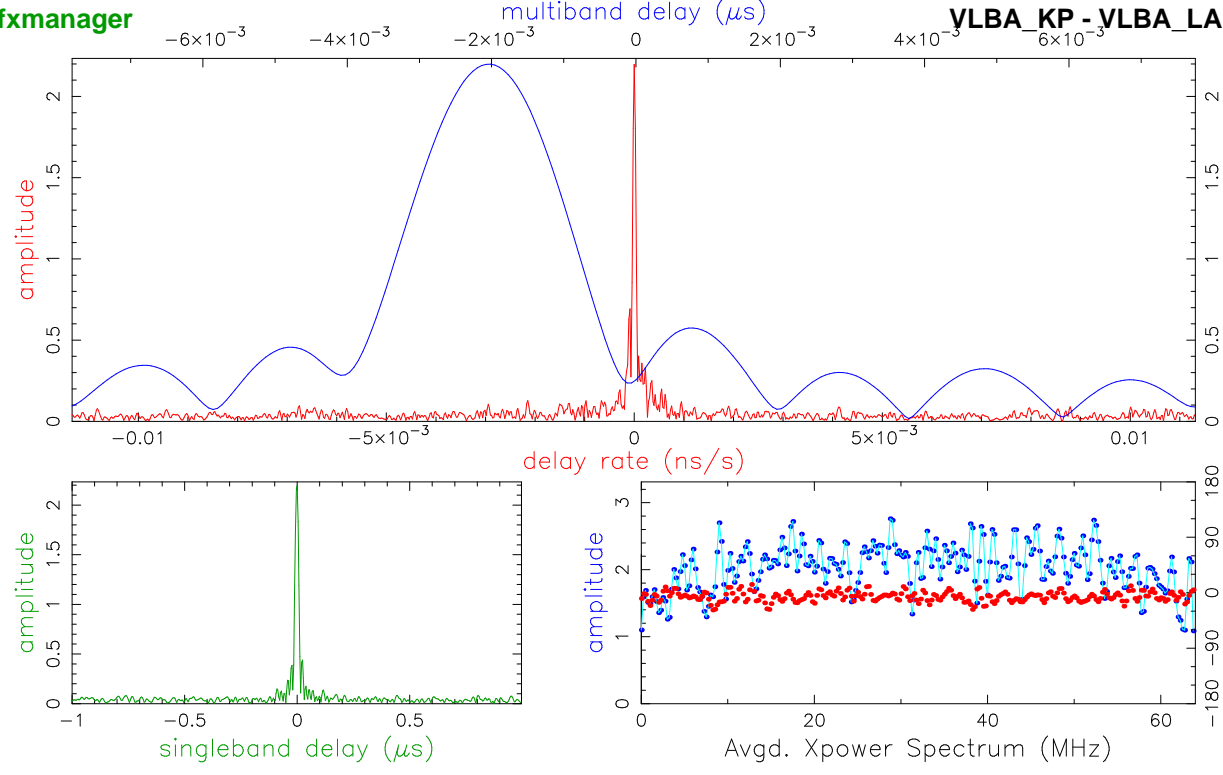
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/fl.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/fl.W.97.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, kl

VLBA_KP - VLBA_LA, fgroup W, pol LL

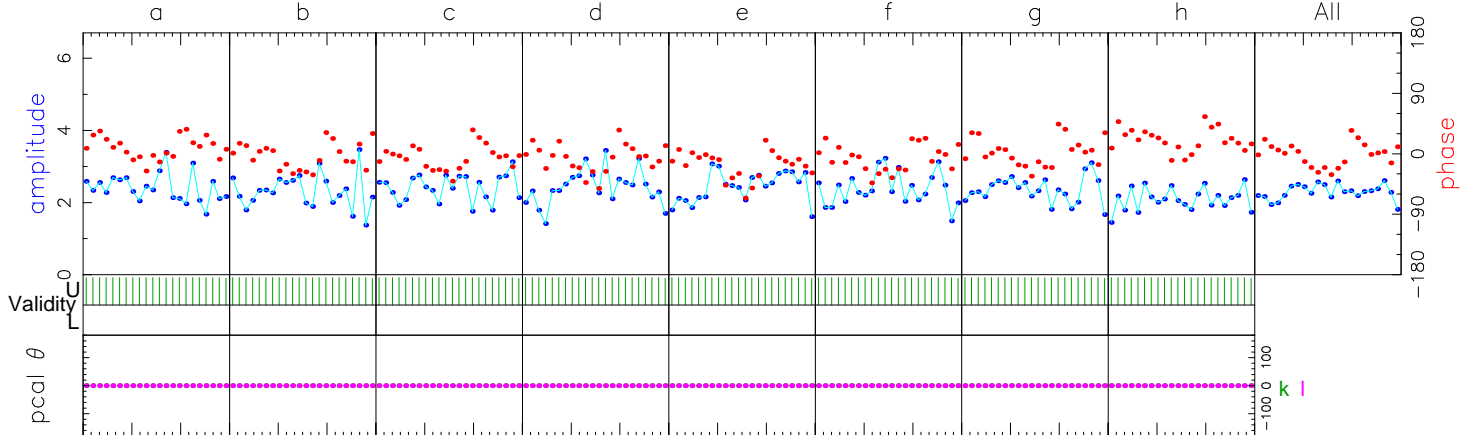


Fringe quality 7

SNR 82.0
 Int time 179.915
 Amp 2.234
 Phase -1.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.001645
 MBD -0.002081
 Fringe rate (Hz)
 0.000758
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142004
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		-5.56320103854E+01								
Sband delay (usec)		-5.56315748542E+01								
Phase delay (usec)		-5.56299294011E+01								
Delay rate (us/s)		-1.14085732429E-02								
Total phase (deg)			-42.7							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
k l										
Chn ids										
Tracks										
Chn ids										
Tracks										
ph/seg (deg)	16.9	3.3								
amp/seg (%)	9.6	5.7								
ph/frq (deg)	12.6	2.0								
amp/frq (%)	4.3	3.5								
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
PC period (AP's) 5, 5										
SampCntNorm: enabled										
nlags: 256										
t_cohere infinite										
simultaneous interpolator										

k: az 322.1 el 36.6 pa 87.0 l: az 320.7 el 36.8 pa 80.3 u, v (fr/asec) 121.263 -900.386

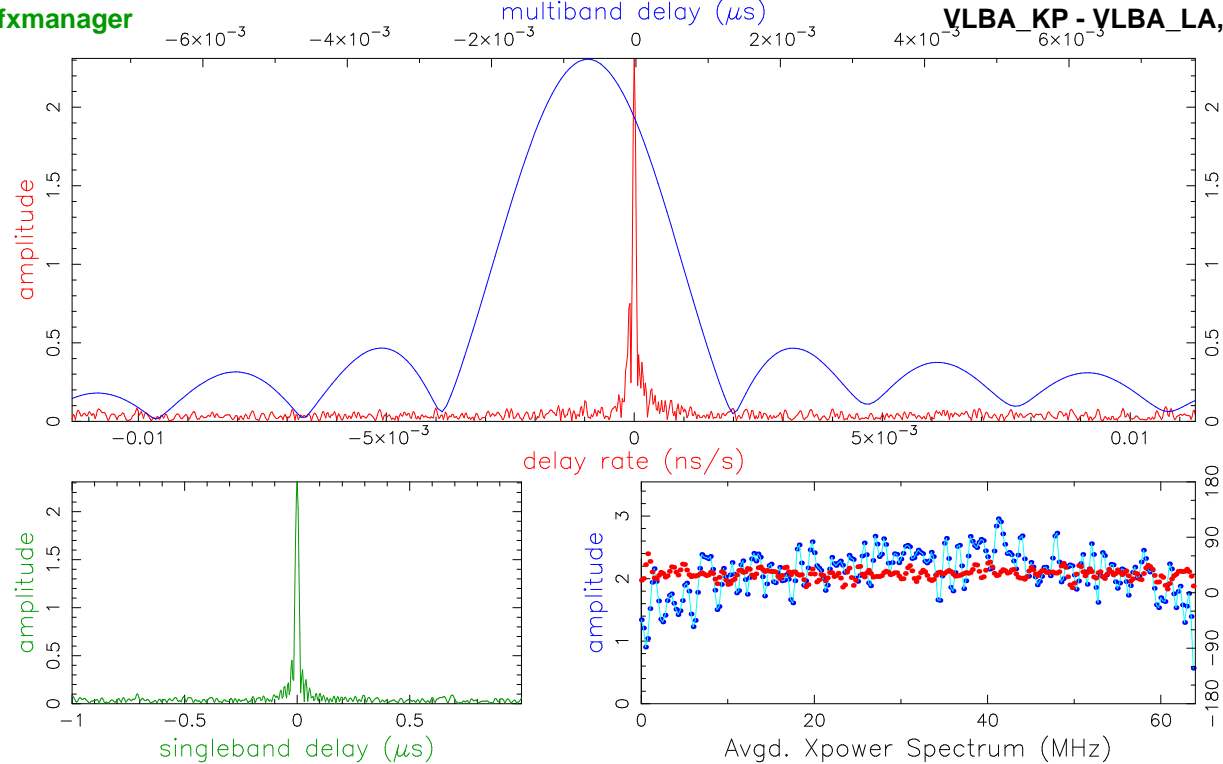
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/kl..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/kl.W.153.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, kl

VLBA_KP - VLBA_LA, fgroup W, pol RR

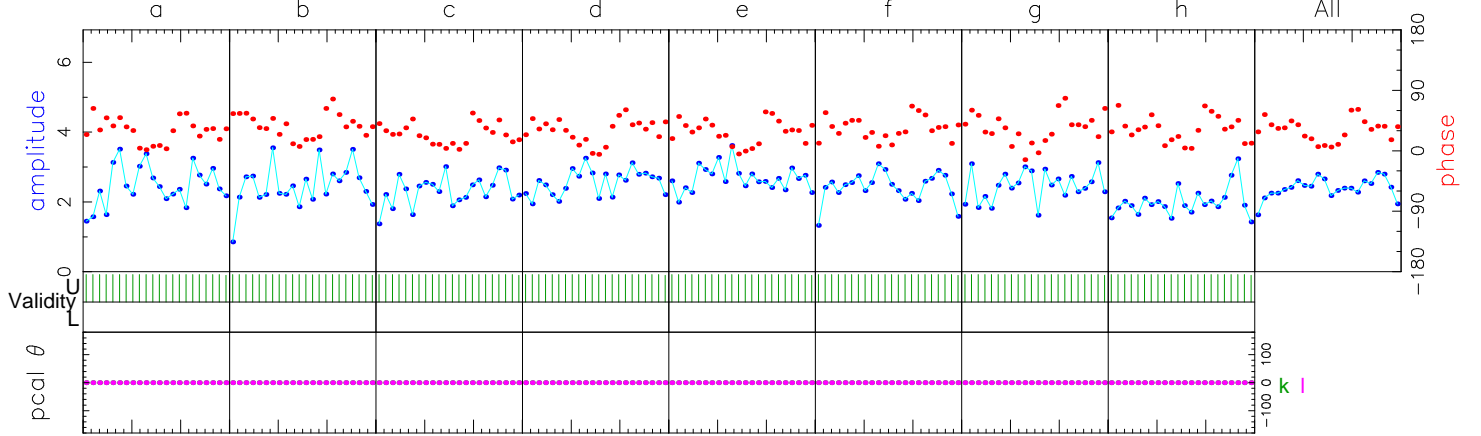


Fringe quality 8

SNR 84.8
 Int time 179.915
 Amp 2.311
 Phase 30.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.000641
 MBD -0.000682
 Fringe rate (Hz) 0.000721
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142005
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



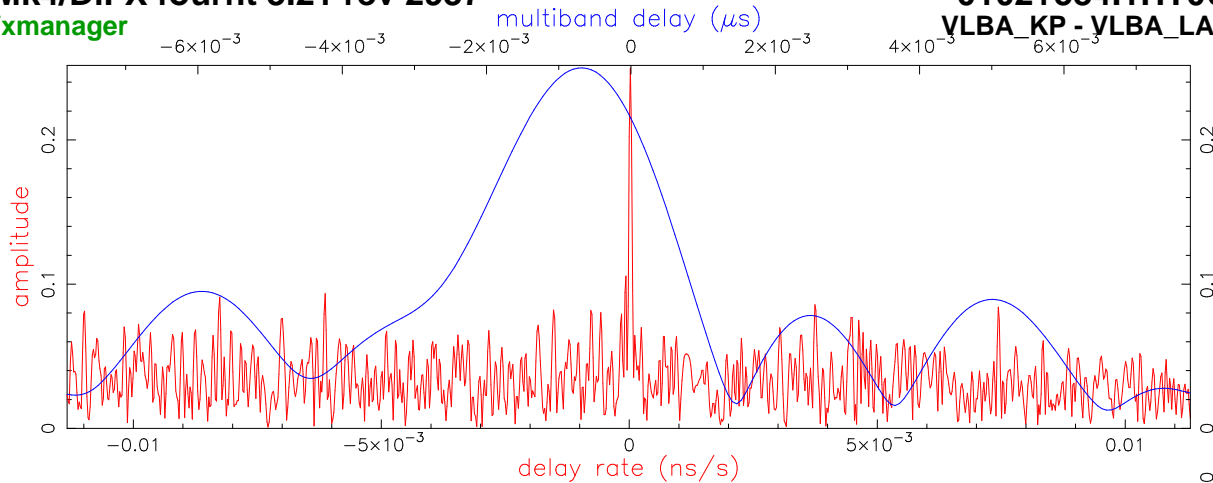
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		-5.56306111354E+01								
Sband delay (usec)		-5.56305708542E+01								
Phase delay (usec)		-5.56299283575E+01								
Delay rate (us/s)		-1.14085736780E-02								
Total phase (deg)			-10.3							
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)	16.1	3.2								
amp/seg (%)	12.5	5.5								
ph/frq (deg)	4.6	1.9								
amp/frq (%)	7.7	3.3								
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
2.311 +/- 0.027										
2.213										
0.000										
2.394										
2.309										
PCal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
-1.000 1.000										
-0.008 0.008										
-0.011 0.011										
0.00 0.00										
0.00 0.00										

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

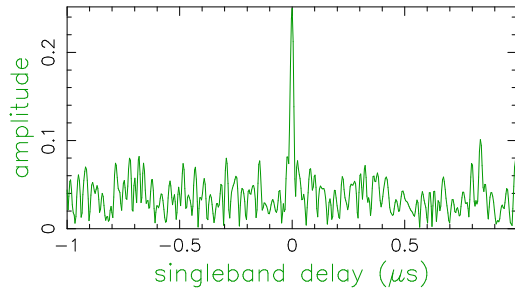
0102+584.1HT0UR, No0131, kl

VLBA_KP - VLBA_LA, fgroup W, pol LR

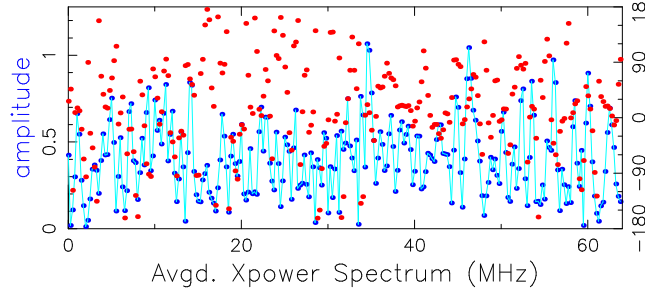


Fringe quality 9

SNR 9.2
 Int time 179.915
 Amp 0.252
 Phase 19.3
 PFD 5.3e-12
 Delays (us)
 SBD -0.001050
 MBD -0.000734
 Fringe rate (Hz) 0.001159
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

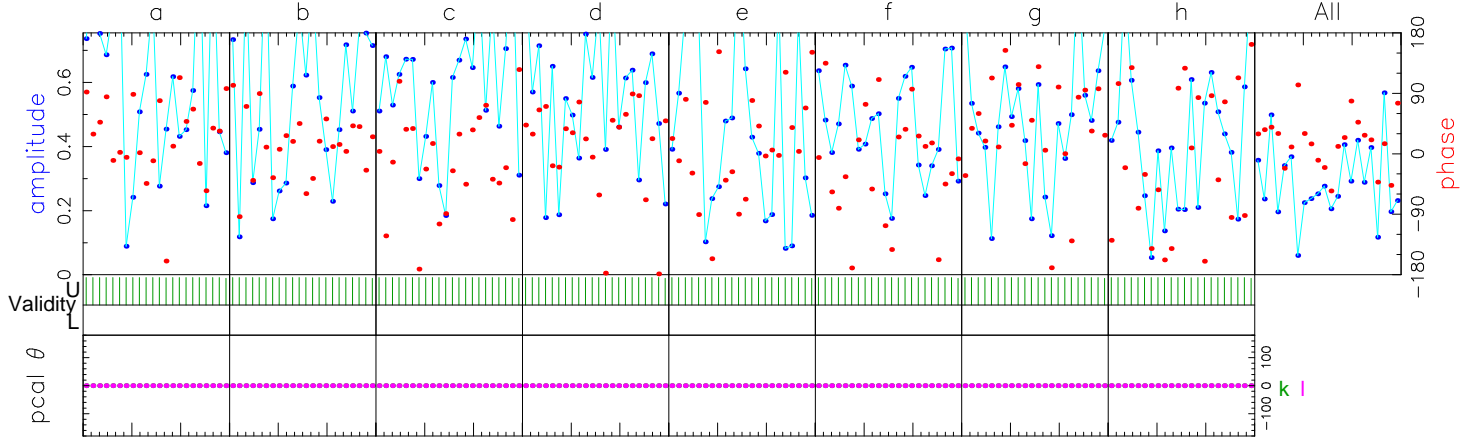


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142007
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
k	1000	1000	1000	1000	1000	1000	1000	1000			
l	1000	1000	1000	1000	1000	1000	1000	1000			
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
k	1000	1000	1000	1000	1000	1000	1000	1000			
l	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)	-5.56306630545E+01				-5.56299293542E+01				-7.33700E-04	+/- 1.2E-04	
Sband delay (usec)	-5.56309796042E+01				7.1797848E-01				-1.05025E-03	+/- 9.3E-04	
Phase delay (usec)	-5.56299287315E+01				1.9999998E-07				6.22681E-07	+/- 4.0E-07	
Delay rate (us/s)	-1.14085685877E-02				-1.14085820475E-02				1.34598E-08	+/- 3.8E-09	
Total phase (deg)			-21.9		-5.02156635268E-06				19.3	+/- 12.4	
	RMS	Theor.	Amplitude	0.252 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			sb window (us)	-1.000	1.000
ph/seg (deg)	39.0	29.1	Search (1024X32)	0.240	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				mb window (us)	-0.008	0.008
amp/seg (%)	49.1	50.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled			dr window (ns/s)	-0.011	0.011
ph/frq (deg)	72.3	17.6	Inc. seg. avg.	0.258	Sample rate(MISamp/s): 128				ion window (TEC)	0.00	0.00
amp/frq (%)	50.8	30.6	Inc. frq. avg.	0.262	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite				

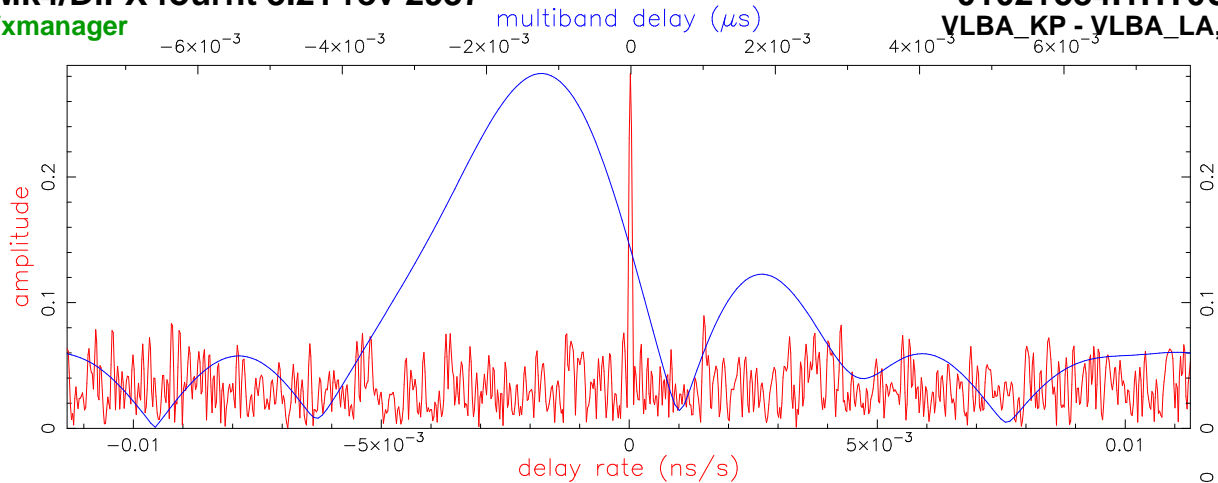
k: az 322.1 el 36.6 pa 87.0 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) 121.263 -900.386 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/kl..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/kl.W.170.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

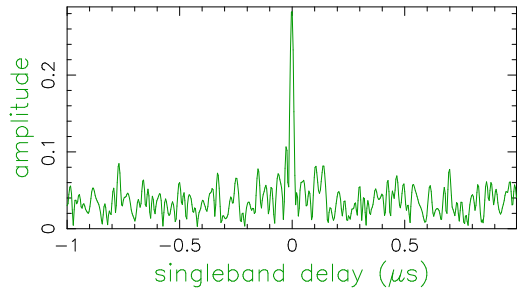
0102+584.1HT0UR, No0131, kl

VLBA_KP - VLBA_LA, fgroup W, pol RL

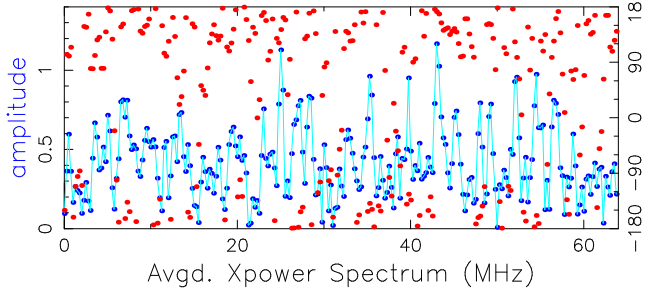


Fringe quality 9

SNR 10.6
 Int time 179.915
 Amp 0.289
 Phase 150.1
 PFD 7.3e-18
 Delays (us)
 SBD -0.001953
 MBD -0.001284
 Fringe rate (Hz)
 0.001048
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

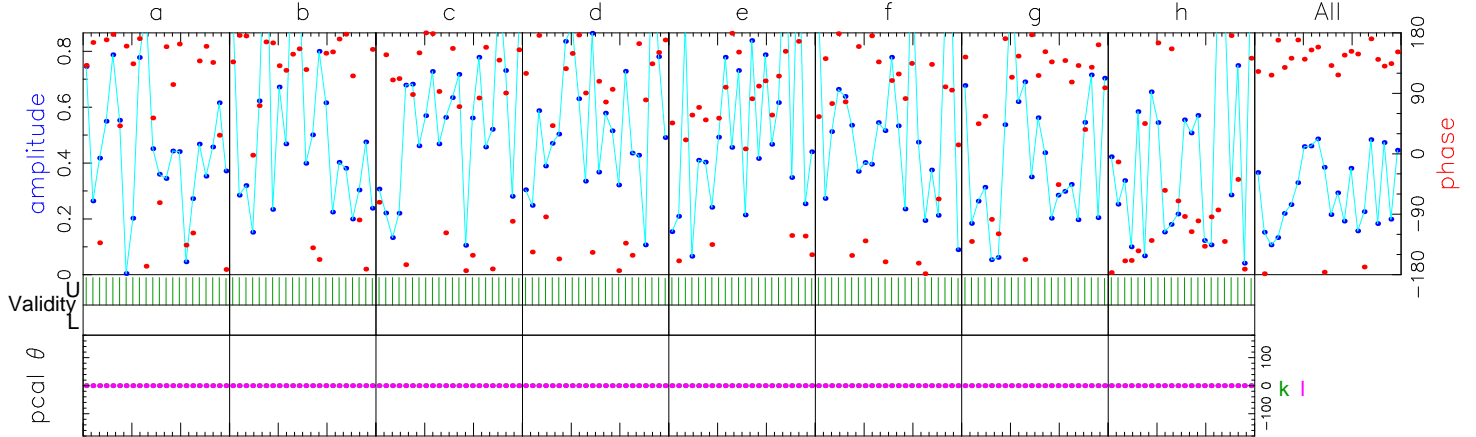


delay rate (ns/s)



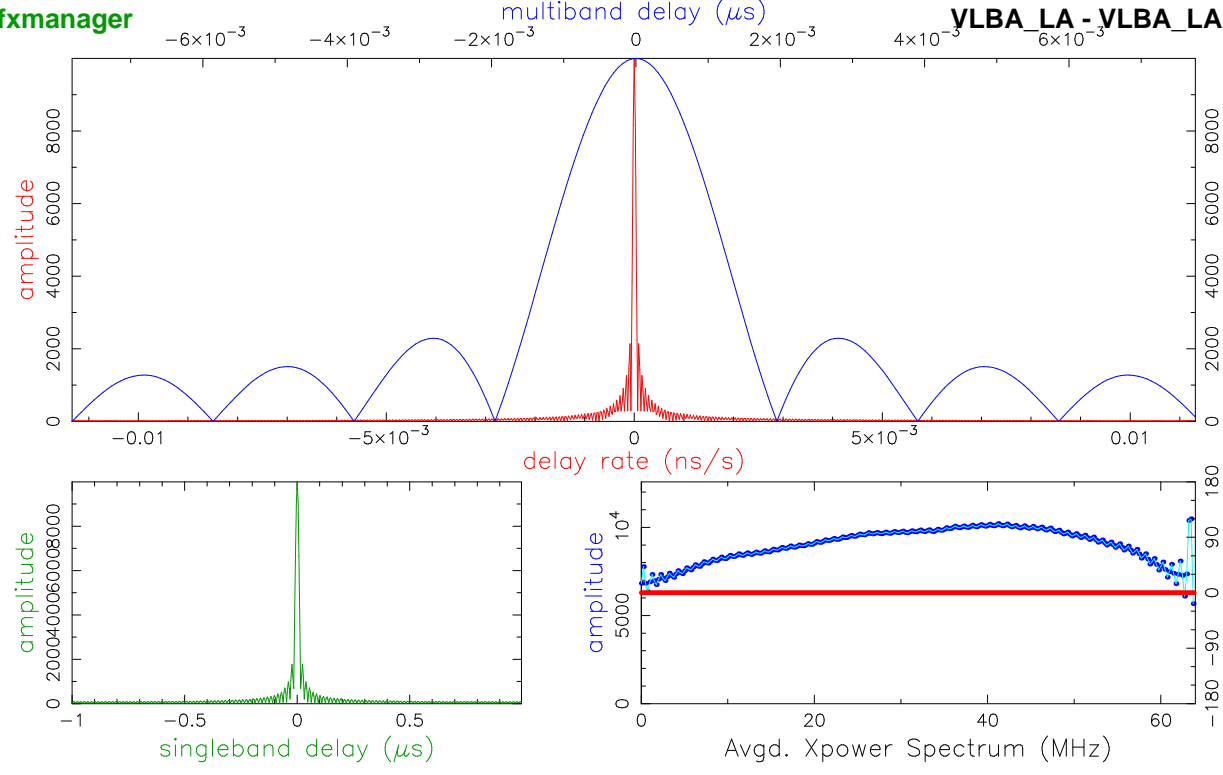
Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142009
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



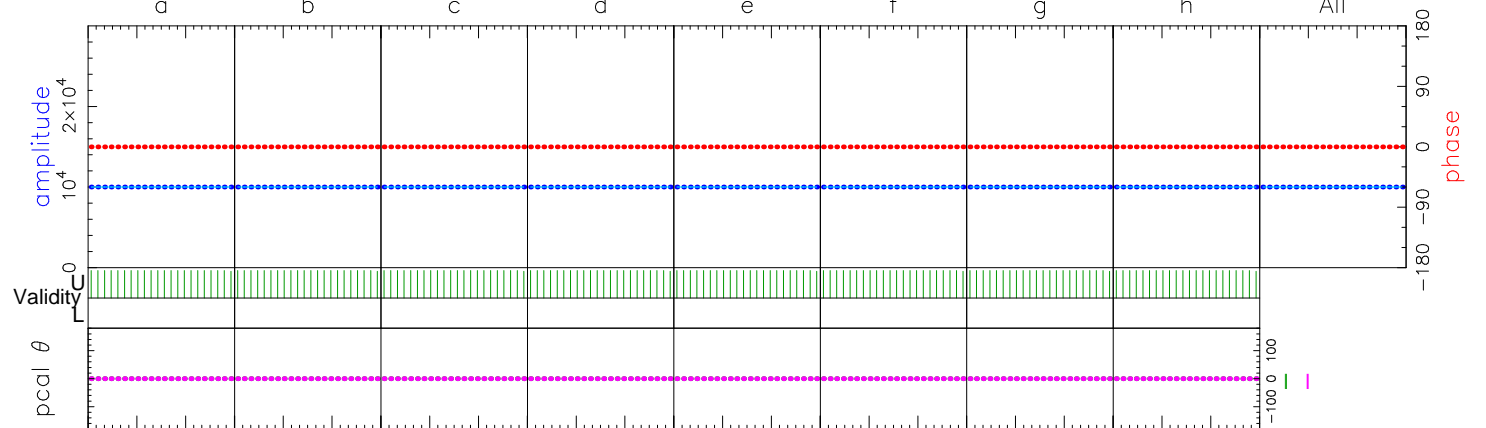
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-5.56312128670E+01									
Sband delay (usec)	-5.56318823542E+01									
Phase delay (usec)	-5.56299245145E+01									
Delay rate (us/s)	-1.14085698787E-02									
Total phase (deg)			108.8							
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)									150.1	+/- 10.8
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

ph/seg (deg) 21.1 25.4 Search (1024X32) 0.271 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 44.1 44.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 38.0 15.3 Inc. seg. avg. 0.273 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 22.8 26.7 Inc. frq. avg. 0.310 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 322.1 el 36.6 pa 87.0 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) 121.263 -900.386 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/kl..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/kl.W.187.1HT0UR



Fringe quality 9
SNR 366868.8
Int time 179.981
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142007
2020:247:085004
RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"

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

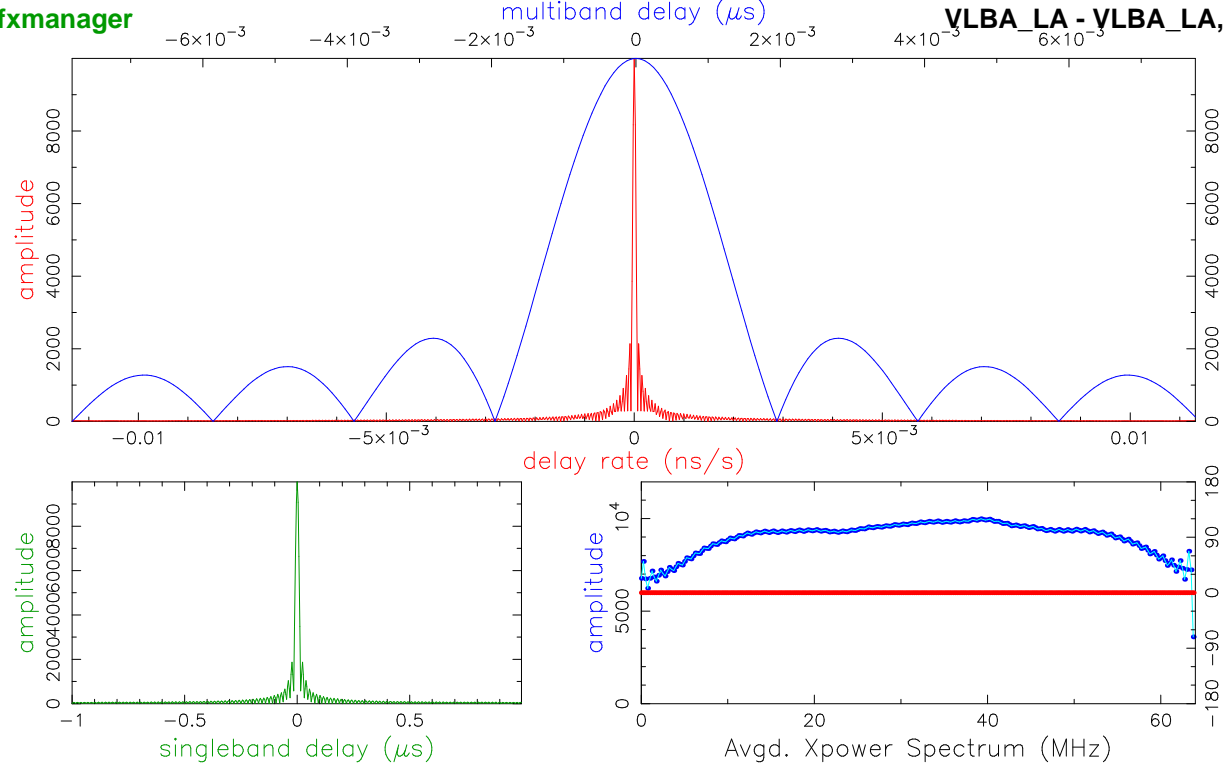


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
	1000	1000	1000	1000	1000	1000	1000	1000		
l:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
	1000	1000	1000	1000	1000	1000	1000	1000		
	1000	1000	1000	1000	1000	1000	1000	1000		
	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

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

RMS Theor. Amplitude 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

l: az 320.7 el 36.8 pa 80.3 i: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/II.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/II.W.174.1HT0UR

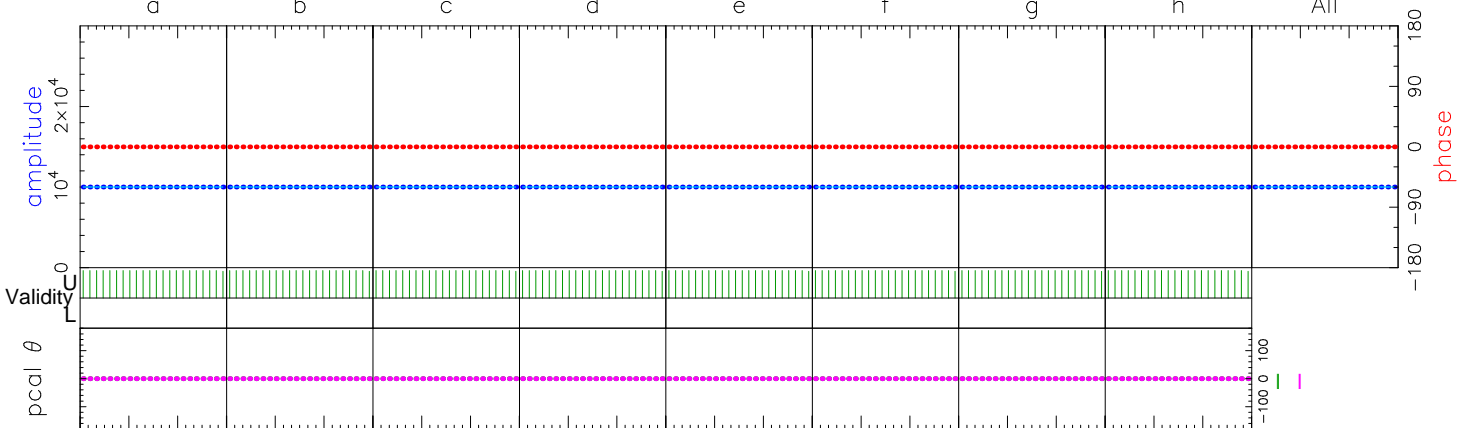


Fringe quality 9

SNR 366868.8
Int time 179.981
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c202a
Yr:day 16383
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142010
2020:247:085004
RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"

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



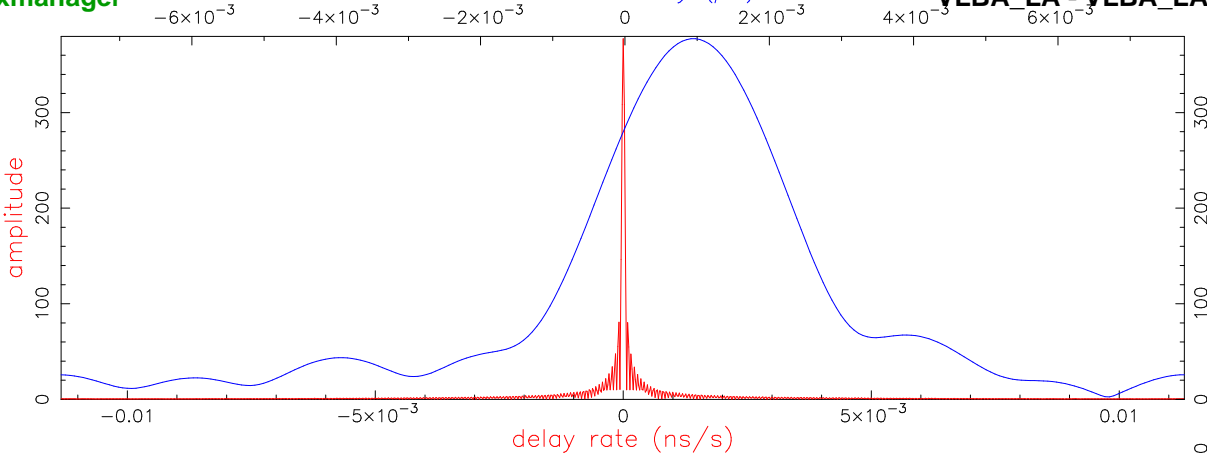
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
	1000	1000	1000	1000	1000	1000	1000	1000		
:	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
:	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
	1000	1000	1000	1000	1000	1000	1000	1000		
	1000	1000	1000	1000	1000	1000	1000	1000		
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

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

RMS Theor. Amplitude 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

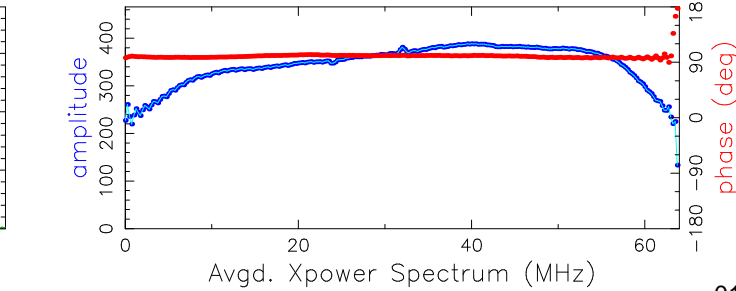
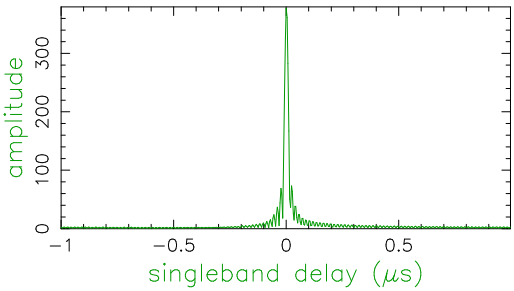
l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/II.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/II.W.197.1HT0UR

multiband delay (μ s)



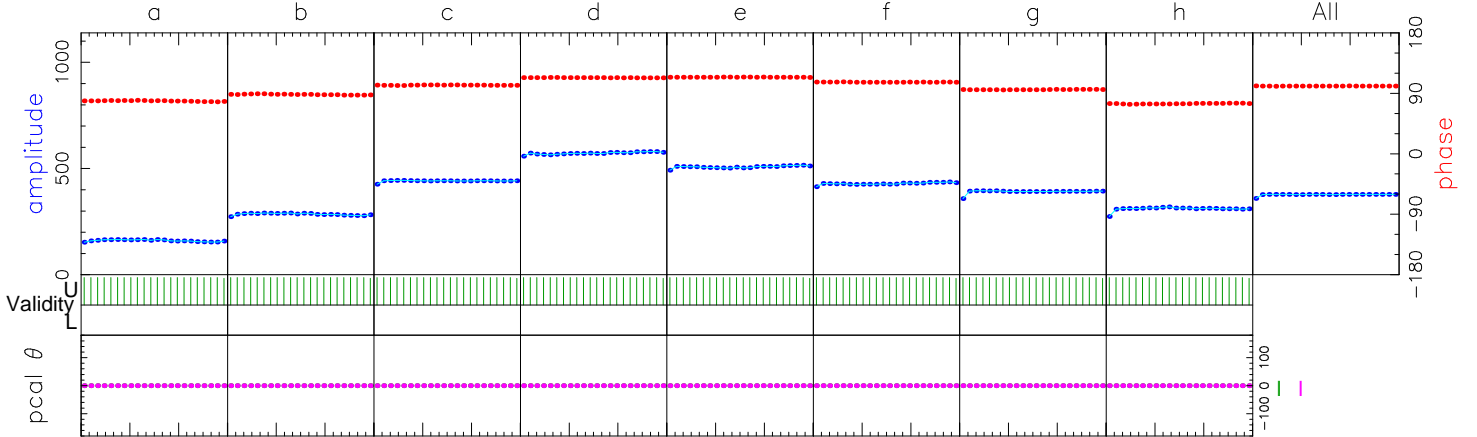
Fringe quality 7

SNR 13931.0
 Int time 179.981
 Amp 379.728
 Phase 100.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.001038
 MBD 0.000981
 Fringe rate (Hz) 0.000004
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142012
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
:	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
:	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
	1000	1000	1000	1000	1000	1000	1000	1000		
	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

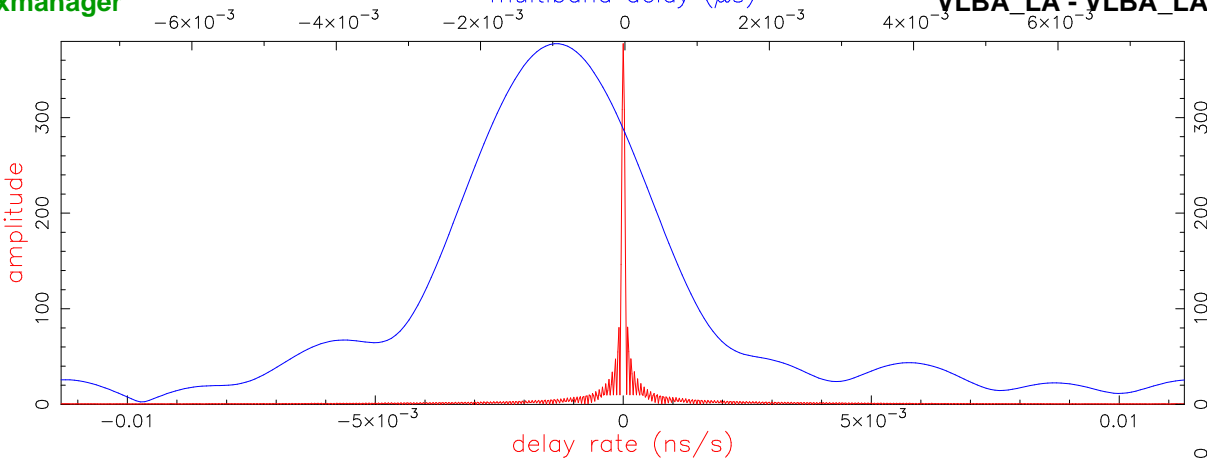
Group delay (usec)(sbd)	9.81343750000E-04	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	9.81344E-04	+/-	7.8E-08
Sband delay (usec)	1.03775000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.03775E-03	+/-	6.2E-07
Phase delay (usec)	3.24731138319E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	3.24731E-06	+/-	2.7E-10
Delay rate (us/s)	5.10161486101E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	5.10161E-11	+/-	2.5E-12
Total phase (deg)	100.7	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	100.7	+/-	0.0

ph/seg (deg)	0.1	RMS	0.0	Theor.	Amplitude	379.728 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	1.2	0.0	0.0	Search (1024X32)	377.300	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	16.9	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	32.5	0.0	0.0	Inc. seg. avg.	377.266	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	387.446	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

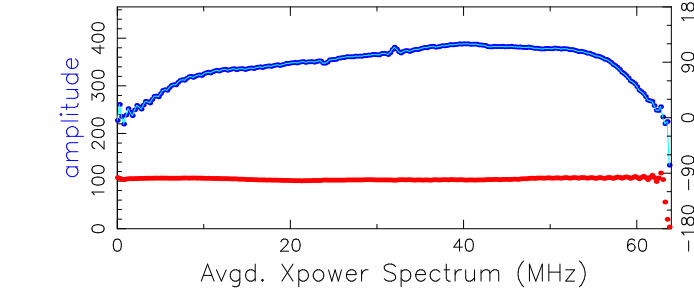
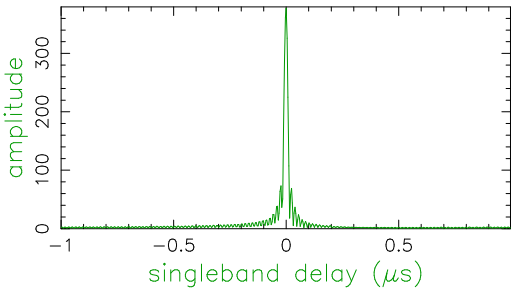
l: az 320.7 el 36.8 pa 80.3 l: az 320.7 el 36.8 pa 80.3 u, v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/II.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/II.W.213.1HT0UR

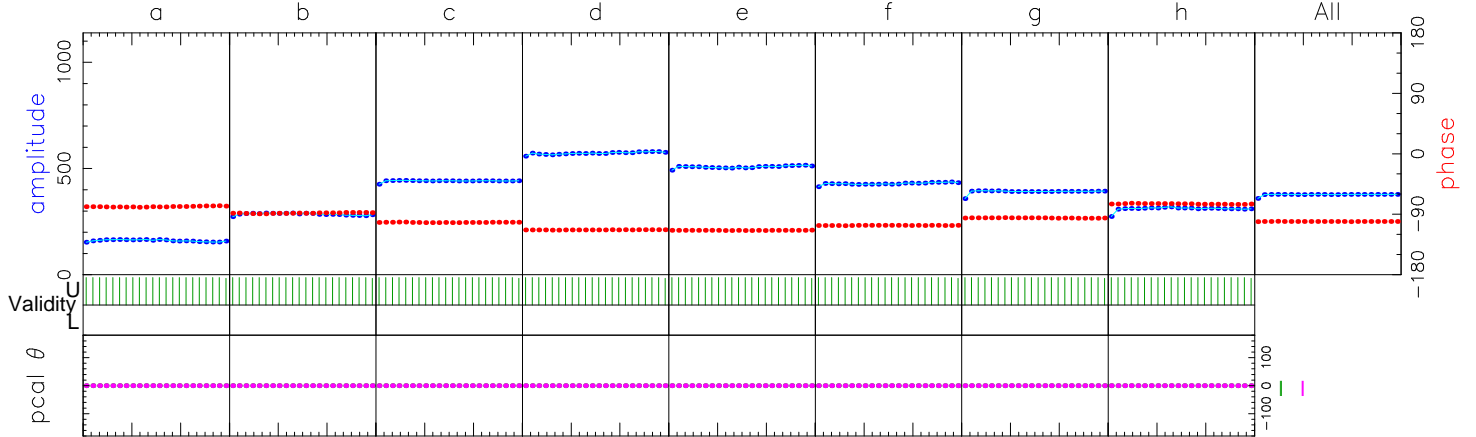
multiband delay (μ s)



Fringe quality 7
SNR 13931.0
Int time 179.981
Amp 379.728
Phase -100.7
PFD 0.0e+00
Delays (us)
SBD -0.001038
MBD -0.000981
Fringe rate (Hz)
-0.000004
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142013
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
:	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
:	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
	1000	1000	1000	1000	1000	1000	1000	1000		
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

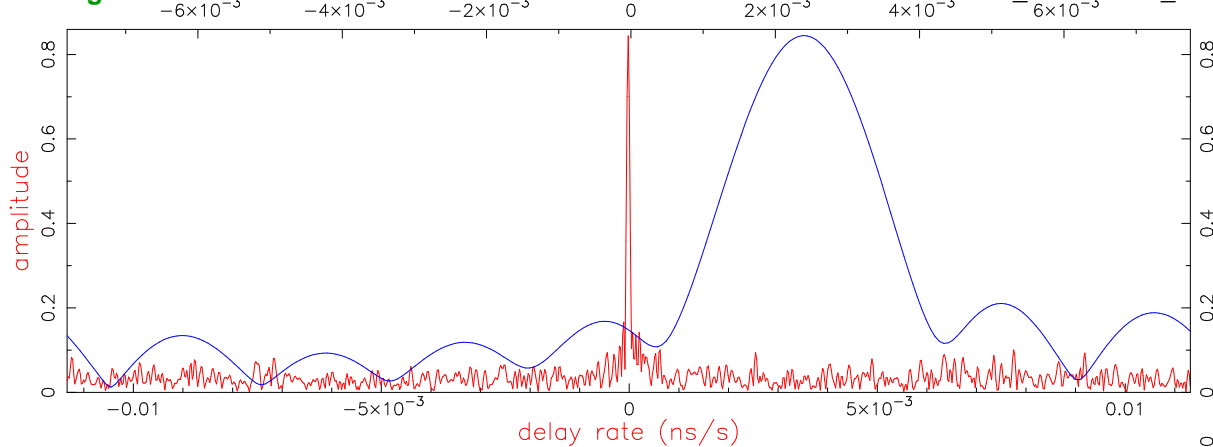
Group delay (usec)(sbd)	-9.81343750000E-04	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-9.81344E-04	+/-	7.8E-08
Sband delay (usec)	-1.03775000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.03775E-03	+/-	6.2E-07
Phase delay (usec)	-3.24731138327E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-3.24731E-06	+/-	2.7E-10
Delay rate (us/s)	-5.10161486101E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-5.10161E-11	+/-	2.5E-12
Total phase (deg)	-100.7	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-100.7	+/-	0.0

ph/seg (deg)	0.1	0.0	RMS	379.728 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	1.2	0.0	Theor.		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	16.9	0.0	Search (1024X32)	377.300	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	32.5	0.0	Interp.	0.000	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
			Inc. seg. avg.	377.266	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		
			Inc. frq. avg.	387.446					

l: az 320.7 el 36.8 pa 80.3 l: az 320.7 el 36.8 pa 80.3 u, v (fr/asec) 0.000 0.000 simultaneous interpolator

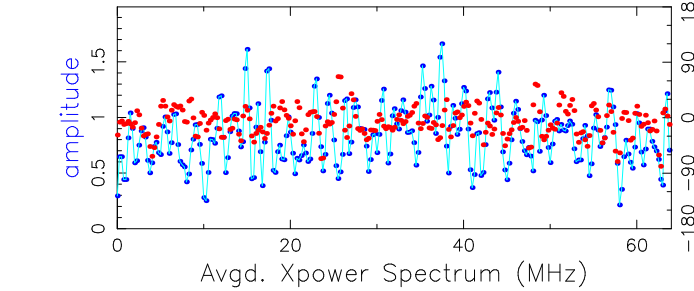
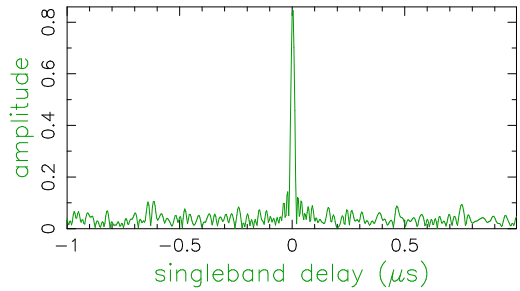
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/II.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/II.W.228.1HT0UR

multiband delay (μ s)



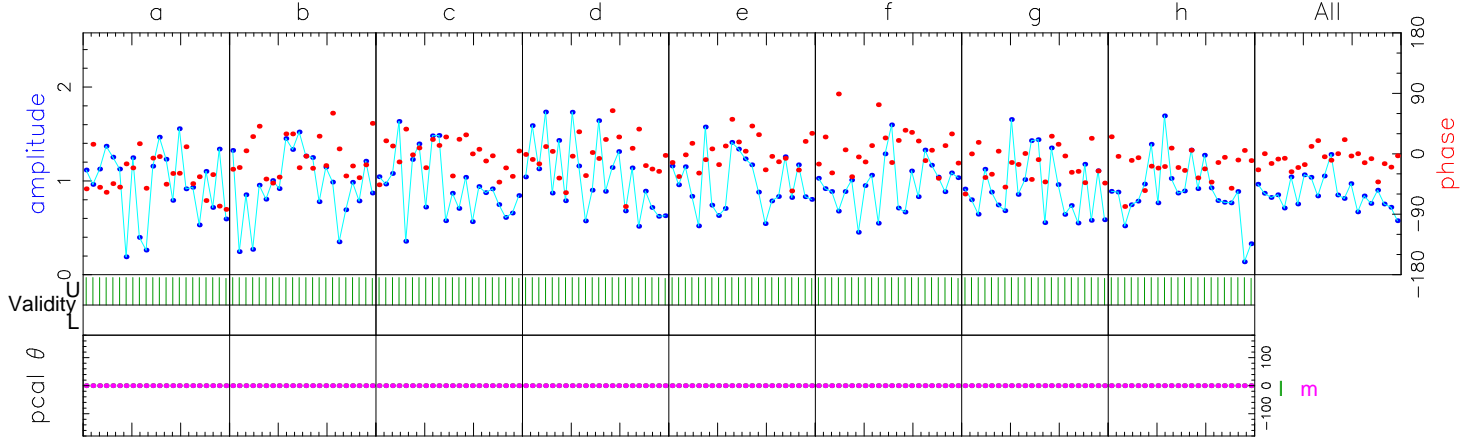
Fringe quality 8

SNR 31.5
 Int time 179.978
 Amp 0.859
 Phase -8.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.002195
 MBD 0.002352
 Fringe rate (Hz)
 -0.002128
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142008
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-2.77899174361E+03	Apriori delay (usec)		-2.77899409563E+03	Resid mbdelay (usec)		2.35201E-03	+/-	3.4E-05	
Sband delay (usec)	-2.77899190113E+03	Apriori clock (usec)		-1.3747978E+01	Resid sbdelay (usec)		2.19450E-03	+/-	2.7E-04	
Phase delay (usec)	-2.77899409590E+03	Apriori clockrate (us/s)		-1.9999998E-07	Resid phdelay (usec)		-2.75188E-07	+/-	1.2E-07	
Delay rate (us/s)	-2.88629566355E-01	Apriori rate (us/s)		-2.88629541655E-01	Resid rate (us/s)		-2.47003E-08	+/-	1.1E-09	
Total phase (deg)		-151.6	Apriori accel (us/s/s)		3.83129264350E-05	Resid phase (deg)		-8.5	+/-	3.6

ph/seg (deg)	14.2	8.5	Search (1024X32)	0.842	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	18.2	14.9	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	15.0	5.1	Inc. seg. avg.	0.861	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	3.6	9.0	Inc. frq. avg.	0.863	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

l: az 320.7 el 36.8 pa 80.3 m: az 339.8 el 46.6 pa 141.8 u,v (fr/asec) 3194.883 6034.291 simultaneous interpolator

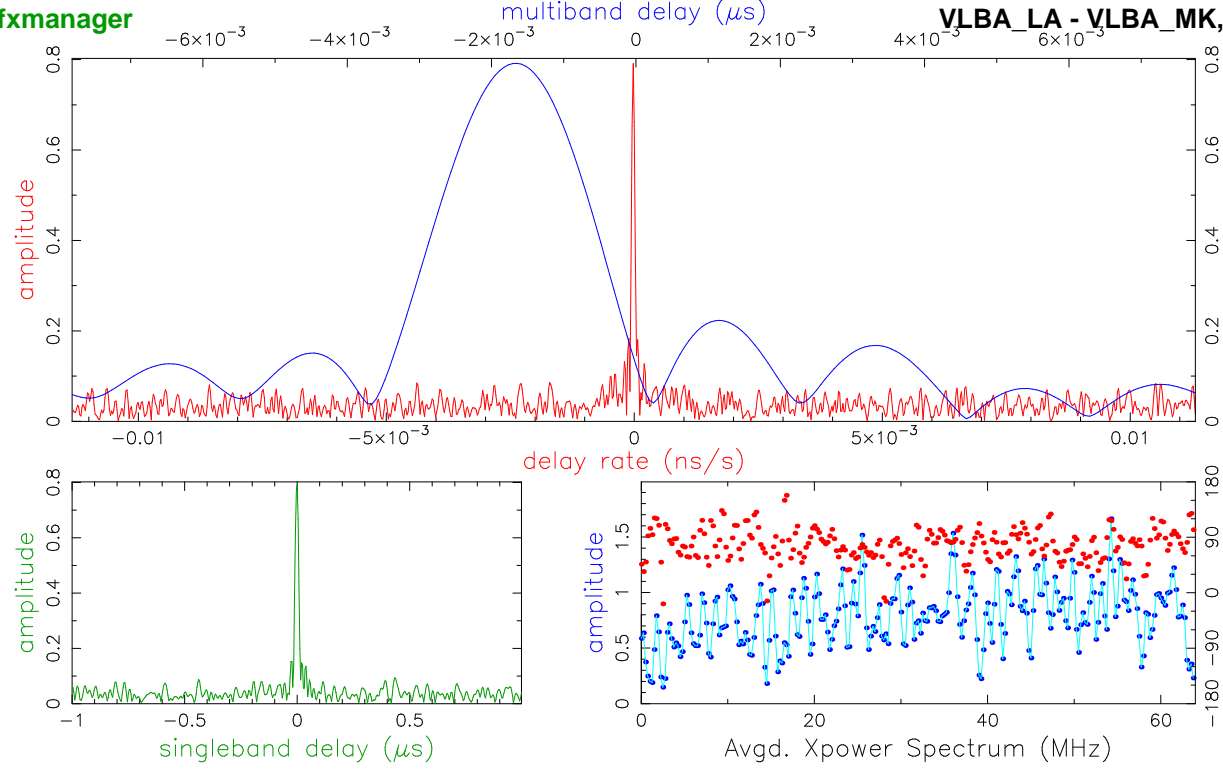
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/Im..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/Im.W.180.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, Im

VLBA_LA - VLBA_MK, fgroup W, pol RR

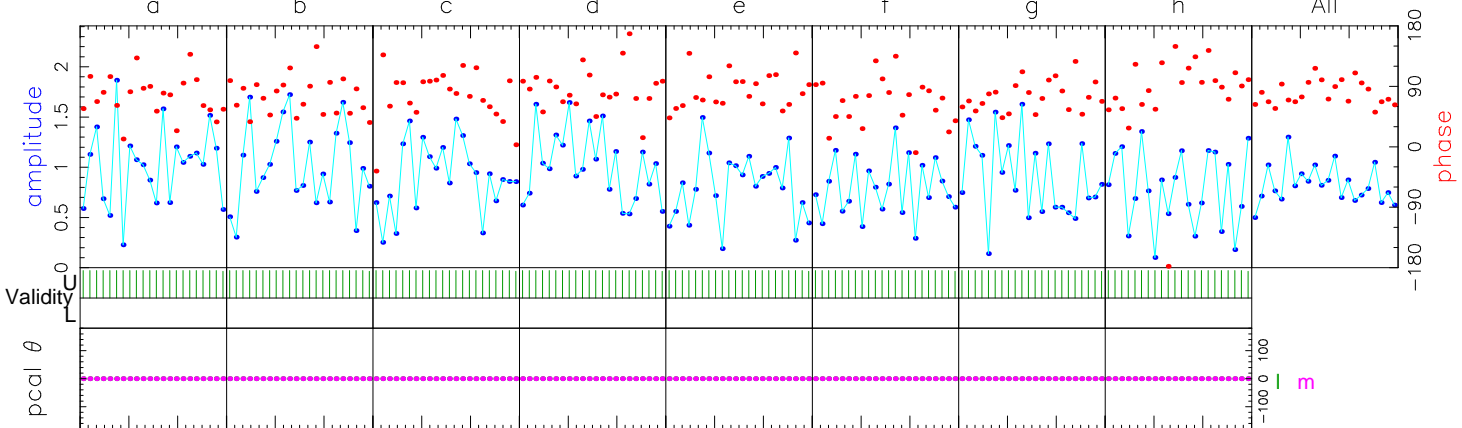


Fringe quality 9

SNR 29.4
 Int time 179.978
 Amp 0.803
 Phase 79.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.001541
 MBD -0.001711
 Fringe rate (Hz)
 -0.001931
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142010
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) -2.77899580646E+03 Apriori delay (usec) -2.77899409563E+03 Resid mbdelay (usec) -1.71083E-03 +/- 3.7E-05
 Sband delay (usec) -2.77899563688E+03 Apriori clock (usec) -1.3747978E+01 Resid sbdelay (usec) -1.54125E-03 +/- 2.9E-04
 Phase delay (usec) -2.77899409306E+03 Apriori clockrate (us/s) -1.9999998E-07 Resid phdelay (usec) 2.56425E-06 +/- 1.3E-07
 Delay rate (us/s) -2.88629564074E-01 Apriori rate (us/s) -2.88629541655E-01 Resid rate (us/s) -2.24188E-08 +/- 1.2E-09
 Total phase (deg) -63.5 Apriori accel (us/s/s) 3.83129264350E-05 Resid phase (deg) 79.5 +/- 3.9

ph/seg (deg) 17.5 9.1 Search (1024X32) 0.778 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 22.9 15.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 8.4 5.5 Inc. seg. avg. 0.819 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 11.7 9.6 Inc. frq. avg. 0.793 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 320.7 el 36.8 pa 80.3 m: az 339.8 el 46.6 pa 141.8 u,v (fr/asec) 3194.883 6034.291 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/Im..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/Im.W.203.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

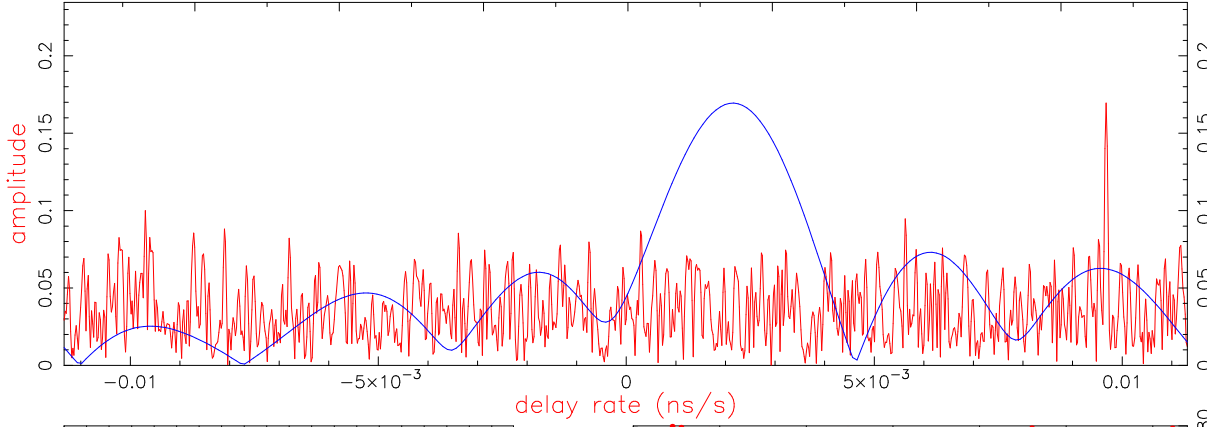
0102+584.1HT0UR, No0131, Im

VLBA_LA - VLBA_MK, fgroup W, pol LR

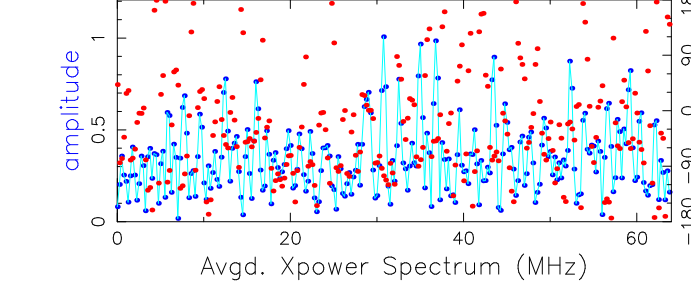
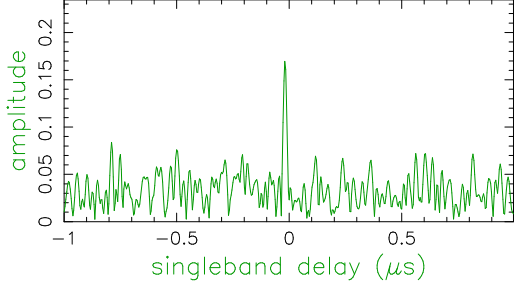
multiband delay (μ s)

-6×10^{-3} -4×10^{-3} -2×10^{-3} 0 2×10^{-3} 4×10^{-3} 6×10^{-3}

Fringe quality 0

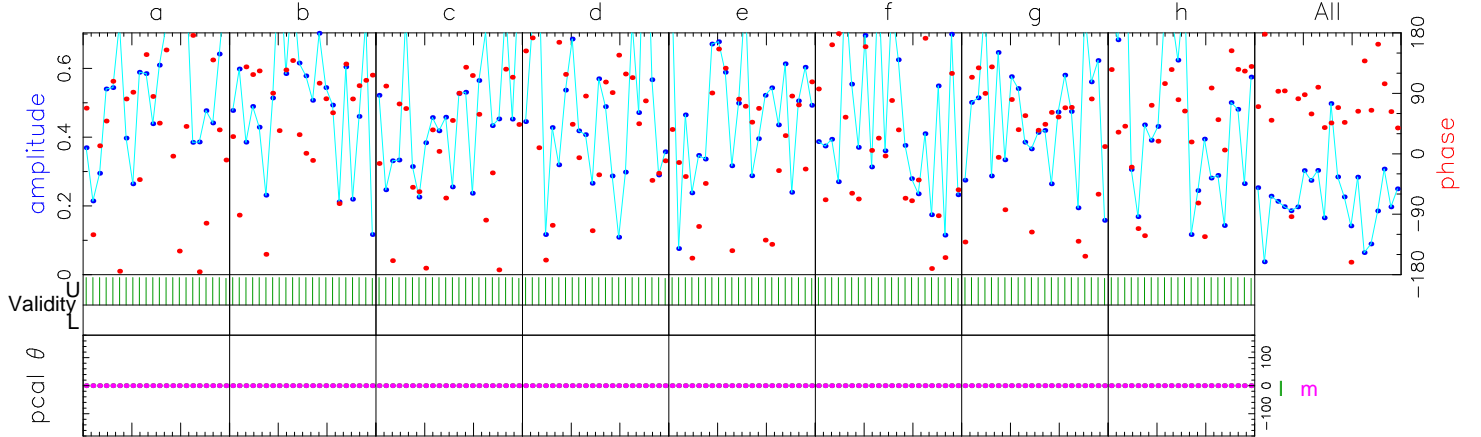


SNR 6.2
Int time 179.978
Amp 0.235
Phase 73.8
PFD 5.7e-02
Delays (us)
SBD -0.018734
MBD 0.001472
Fringe rate (Hz)
0.835364
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142013
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) -2.77900824857E+03 Apriori delay (usec) -2.77899409563E+03 Resid mbdelay (usec) 1.47206E-03 +/- 1.7E-04
 Sband delay (usec) -2.77901282938E+03 Apriori clock (usec) -1.3747978E+01 Resid sbdelay (usec) -1.87337E-02 +/- 1.4E-03
 Phase delay (usec) -2.77899409325E+03 Apriori clockrate (us/s) -1.9999998E-07 Resid phdelay (usec) 2.38003E-06 +/- 5.9E-07
 Delay rate (us/s) -2.88619843905E-01 Apriori rate (us/s) -2.88629541655E-01 Resid rate (us/s) 9.69775E-06 +/- 5.7E-09
 Total phase (deg) -69.2 Apriori accel (us/s/s) 3.83129264350E-05 Resid phase (deg) 73.8 +/- 18.4

RMS Theor. Amplitude 0.235 +/- 0.038 Pcd mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 58.1 43.1 Search (1024X32) 0.167 Pcd rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 63.9 75.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 19.1 26.0 Inc. seg. avg. 0.239 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 37.5 45.3 Inc. frq. avg. 0.217 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

l: az 320.7 el 36.8 pa 80.3 m: az 339.8 el 46.6 pa 141.8 u,v (fr/asec) 3194.883 6034.291 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/Im..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/Im.W.223.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

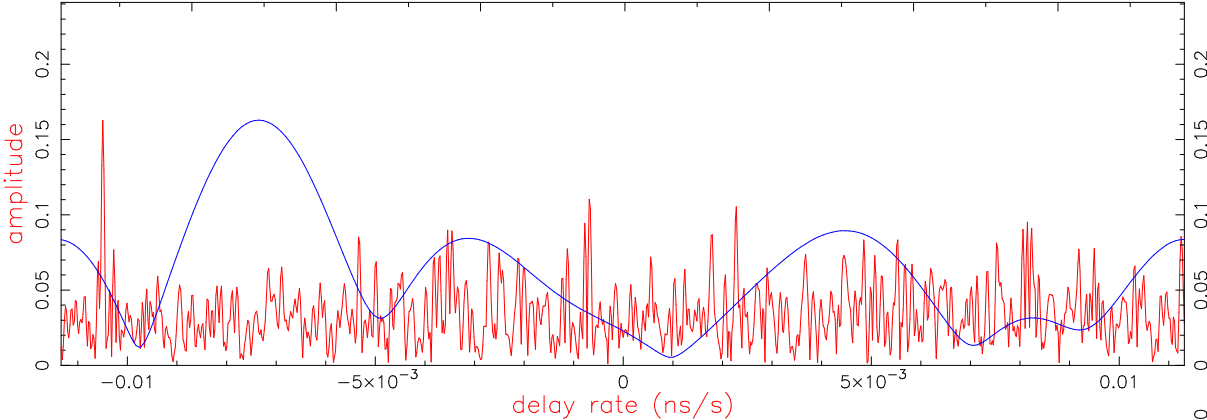
0102+584.1HT0UR, No0131, Im

VLBA_LA - VLBA_MK, fgroup W, pol RL

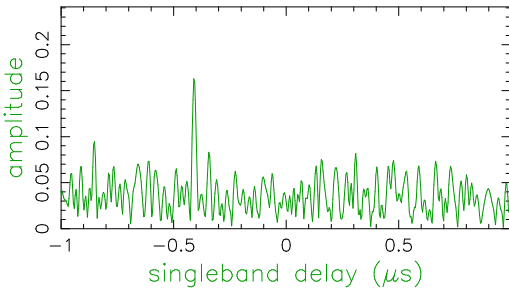
multiband delay (μ s)

-6×10^{-3} -4×10^{-3} -2×10^{-3} 0 2×10^{-3} 4×10^{-3} 6×10^{-3}

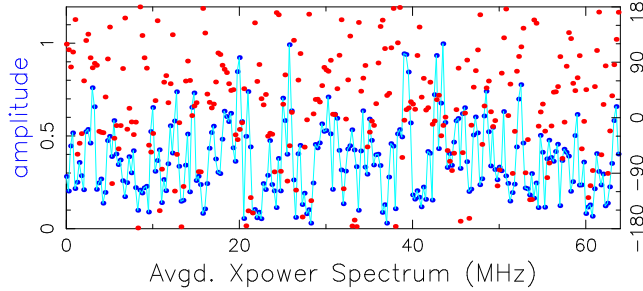
Fringe quality 0



SNR 6.0
Int time 179.978
Amp 0.241
Phase 65.4
PFD 1.9e-01
Delays (us)
SBD -0.408804
MBD -0.005039
Fringe rate (Hz)
-0.905692
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

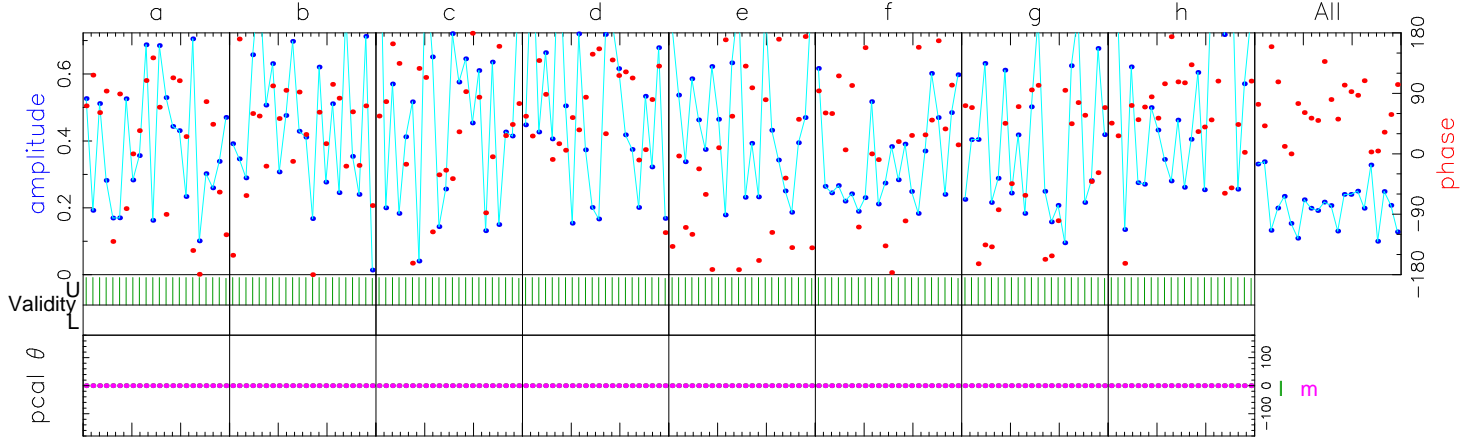


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142014
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-2.77940538452E+03	Apriori delay (usec)	-2.77899409563E+03	Resid mbdelay (usec)	-5.03890E-03	+/-	1.8E-04
Sband delay (usec)	-2.77940289938E+03	Apriori clock (usec)	-1.3747978E+01	Resid sbdelay (usec)	-4.08804E-01	+/-	1.4E-03
Phase delay (usec)	-2.77899409352E+03	Apriori clockrate (us/s)	-1.9999998E-07	Resid phdelay (usec)	-2.10783E-06	+/-	6.1E-07
Delay rate (us/s)	-2.88640055844E-01	Apriori rate (us/s)	-2.88629541655E-01	Resid rate (us/s)	-1.05142E-05	+/-	5.9E-09
Total phase (deg)	-77.7	Apriori accel (us/s/s)	3.83129264350E-05	Resid phase (deg)	65.4	+/-	19.0

ph/seg (deg)	42.2	Theor.	44.6	Amplitude	0.241 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	48.6		77.8	Search (1024X32)	0.158	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	56.8		26.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	50.8		46.9	Inc. seg. avg.	0.236	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.249	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 320.7 el 36.8 pa 80.3 m: az 339.8 el 46.6 pa 141.8 u,v (fr/asec) 3194.883 6034.291 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/Im..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/Im.W.237.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

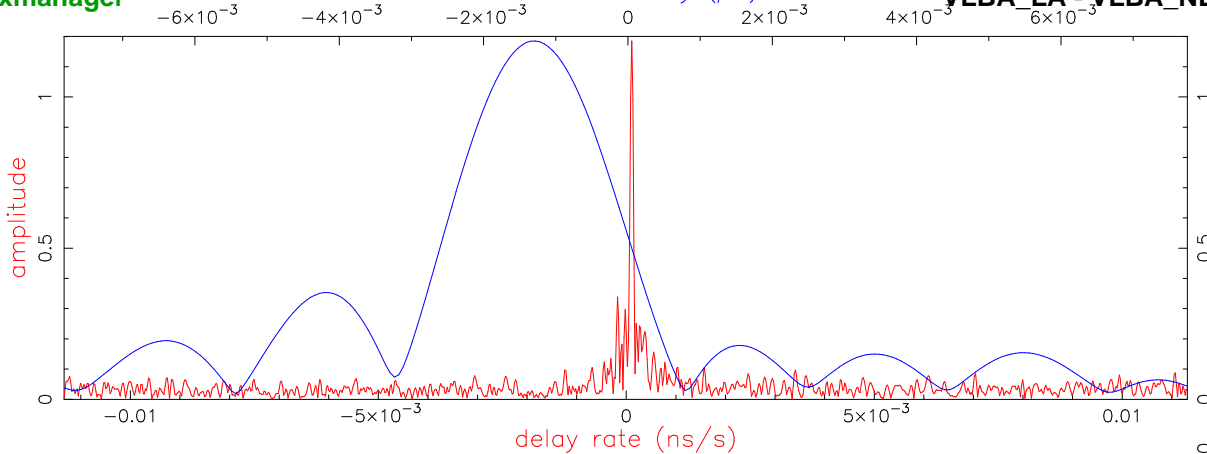
fxmanager

0102+584.1HT0UR, No0131, In

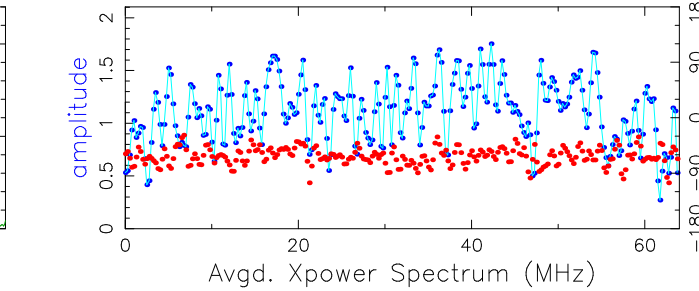
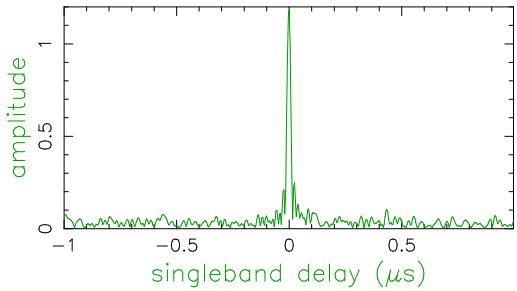
VLBA_LA - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 8

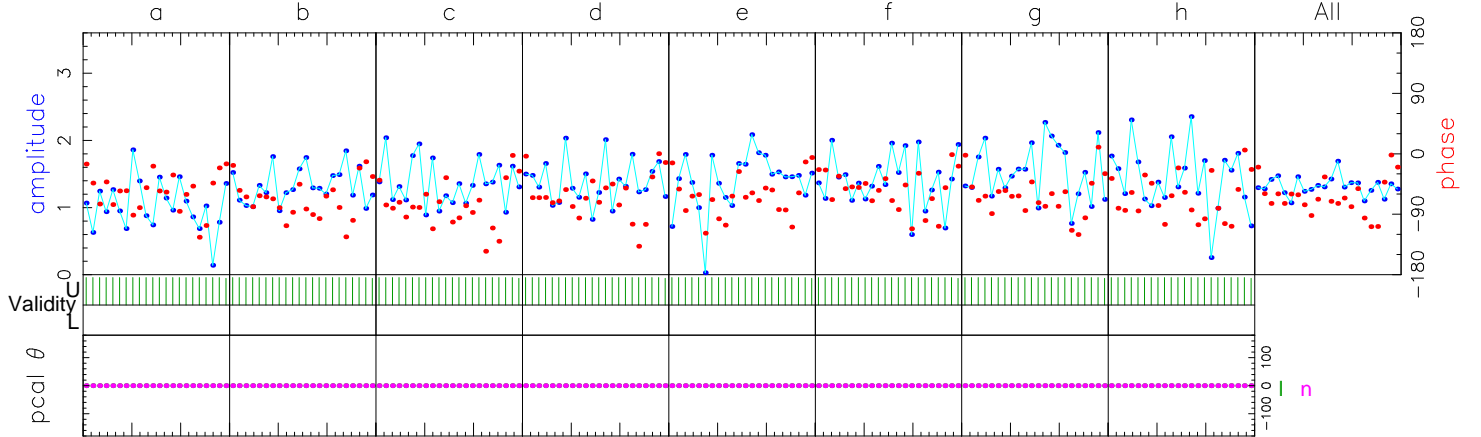


SNR 44.0
 Int time 179.981
 Amp 1.200
 Phase -63.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.001450
 MBD -0.001331
 Fringe rate (Hz)
 0.010019
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142007
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



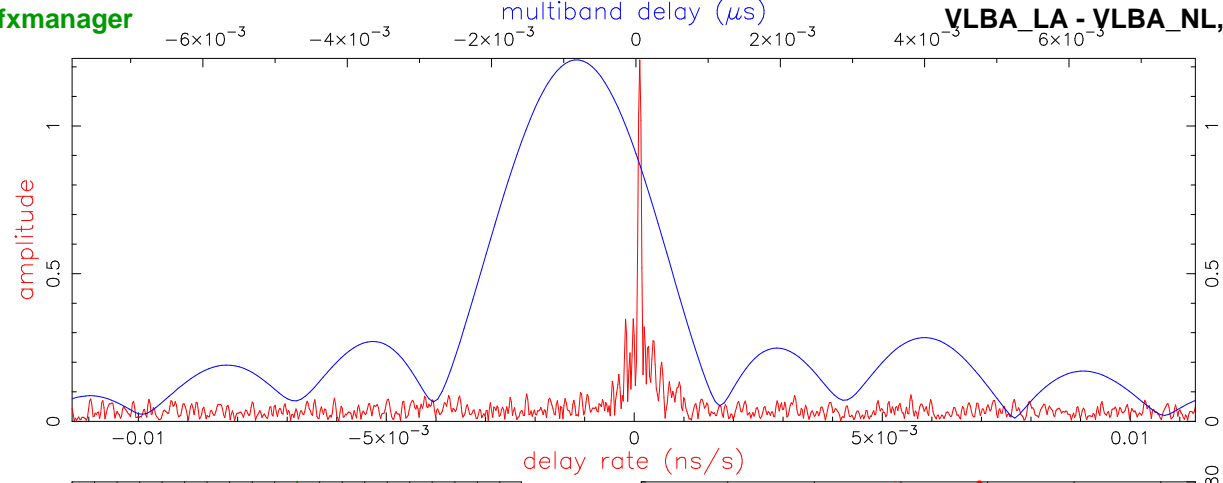
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	8.02576094234E+02	Apriori delay (usec)	8.02577425392E+02	Resid mbdelay (usec)	-1.33116E-03	+/-	2.5E-05
Sband delay (usec)	8.02575975142E+02	Apriori clock (usec)	-5.2493477E-01	Resid sbdelay (usec)	-1.45025E-03	+/-	2.0E-04
Phase delay (usec)	8.02577423332E+02	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	-2.05979E-06	+/-	8.4E-08
Delay rate (us/s)	-3.55746584213E-02	Apriori rate (us/s)	-3.55747747282E-02	Resid rate (us/s)	1.16307E-07	+/-	8.1E-10
Total phase (deg)		Apriori accel (us/s/s)	-1.21015077637E-05	Resid phase (deg)	-63.9	+/-	2.6

ph/seg (deg)	RMS 26.7	Theor. 6.1	Amplitude Search (1024X32)	1.200 +/- 0.027	1.159	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	14.8	10.7	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)	8.4	3.7	Inc. seg. avg.	1.311		Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	10.3	6.4	Inc. frq. avg.	1.192		Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

l: az 320.7 el 36.8 pa 80.3 n: az 320.9 el 34.2 pa 64.4 u,v (fr/asec) 380.550 -1930.123 simultaneous interpolator

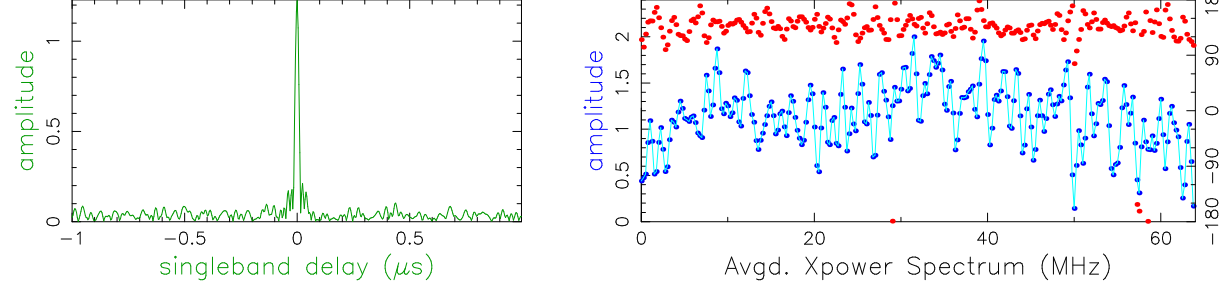
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/In..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/In.W.175.1HT0UR



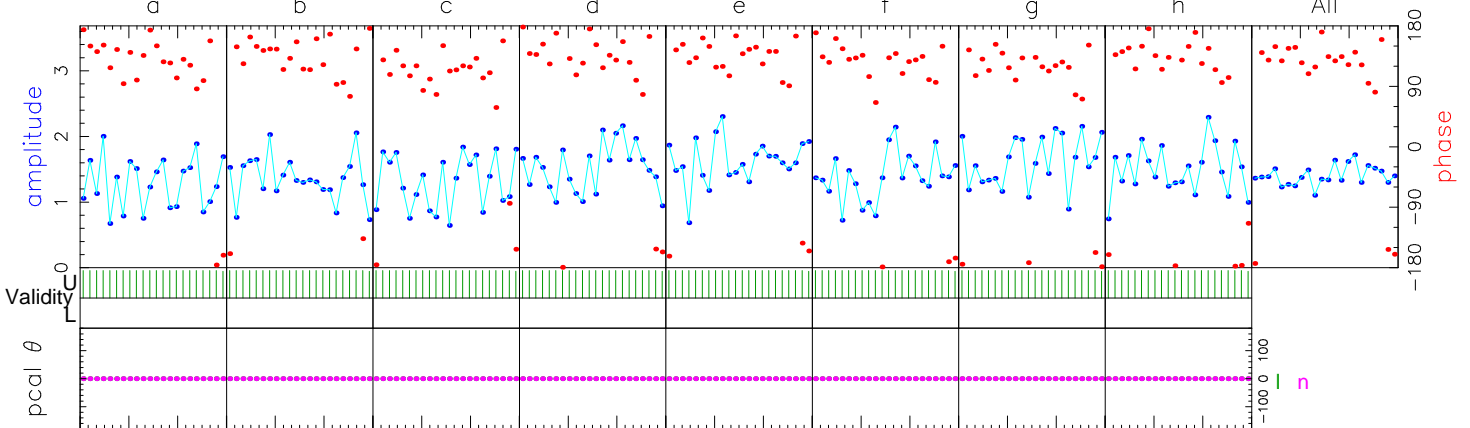
Fringe quality 8

SNR 45.1
Int time 179.981
Amp 1.229
Phase 138.2
PFD 0.0e+00
Delays (us)
SBD -0.000836
MBD -0.000840
Fringe rate (Hz)
0.010124
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142009
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	8.02576585234E+02		Apriori delay (usec)		8.02577425392E+02		Resid mbdelay (usec)		-8.40158E-04	+/- 2.4E-05
Sband delay (usec)	8.02576589392E+02		Apriori clock (usec)		-5.2493477E-01		Resid sbdelay (usec)		-8.36000E-04	+/- 1.9E-04
Phase delay (usec)	8.02577429848E+02		Apriori clockrate (us/s)		-6.0000003E-07		Resid phdelay (usec)		4.45602E-06	+/- 8.2E-08
Delay rate (us/s)	-3.55746571969E-02		Apriori rate (us/s)		-3.55747747282E-02		Resid rate (us/s)		1.17531E-07	+/- 7.9E-10
Total phase (deg)	290.5		Apriori accel (us/s/s)		-1.21015077637E-05		Resid phase (deg)		138.2	+/- 2.5

ph/seg (deg) 30.2 6.0 Search (1024X32) 1.192 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 18.6 10.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 8.1 3.6 Inc. seg. avg. 1.397 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 9.6 6.3 Inc. frq. avg. 1.230 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 320.7 el 36.8 pa 80.3 n: az 320.9 el 34.2 pa 64.4 u,v (fr/asec) 380.550 -1930.123 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/In..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/In.W.189.1HT0UR

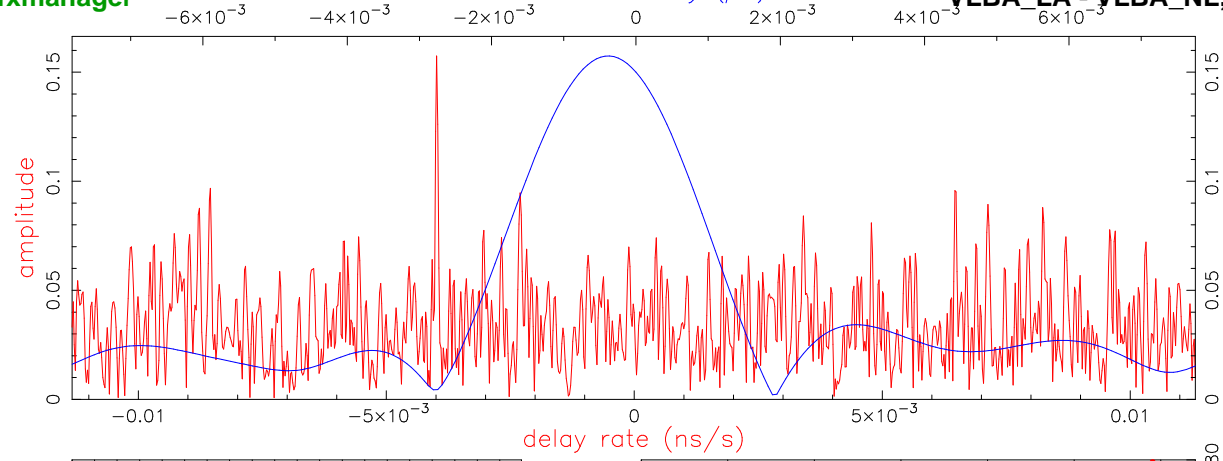
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

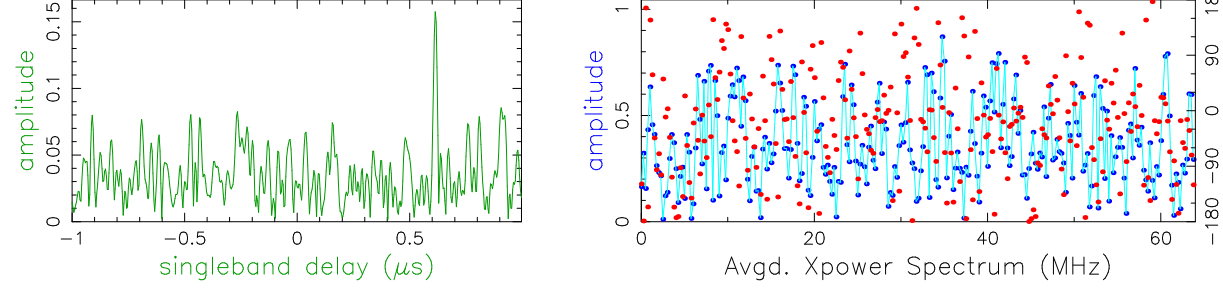
0102+584.1HT0UR, No0131, In

VLBA_LA - VLBA_NL, fgroup W, pol LR

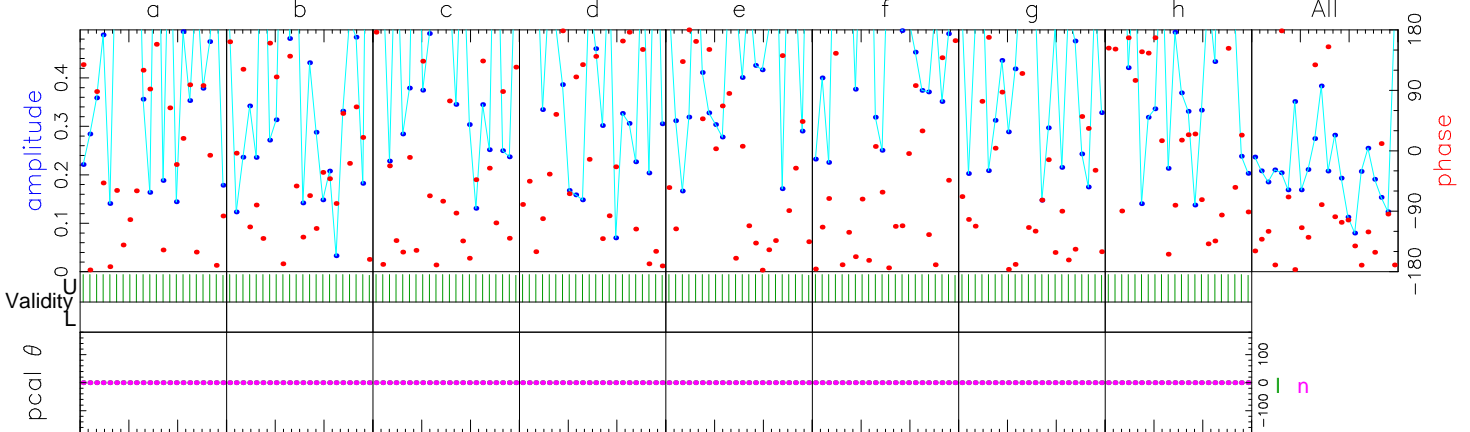
multiband delay (μ s)



Fringe quality 0
 SNR 5.8
 Int time 179.981
 Amp 0.166
 Phase -140.6
 PFD 5.7e-01
 Delays (us)
 SBD 0.614130
 MBD -0.000369
 Fringe rate (Hz)
 -0.343801
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142011
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	8.03186431423E+02	Apriori delay (usec)	8.02577425392E+02	Resid mbdelay (usec)	-3.68968E-04	+/-	1.9E-04
Sband delay (usec)	8.03191555642E+02	Apriori clock (usec)	-5.2493477E-01	Resid sbdelay (usec)	6.14130E-01	+/-	1.5E-03
Phase delay (usec)	8.02577420857E+02	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	-4.53474E-06	+/-	6.4E-07
Delay rate (us/s)	-3.55787659128E-02	Apriori rate (us/s)	-3.55747747282E-02	Resid rate (us/s)	-3.99118E-06	+/-	6.1E-09
Total phase (deg)	11.7	Apriori accel (us/s/s)	-1.21015077637E-05	Resid phase (deg)	-140.6	+/-	19.8

ph/seg (deg)	51.5	Theor.	46.3	Amplitude	0.166 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	73.0		80.9	Search (1024X32)	0.154	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	7.6		27.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	38.7		48.8	Inc. seg. avg.	0.178	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.149	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 320.7 el 36.8 pa 80.3 n: az 320.9 el 34.2 pa 64.4 u,v (fr/asec) 380.550 -1930.123 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/In..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/In.W.204.1HT0UR

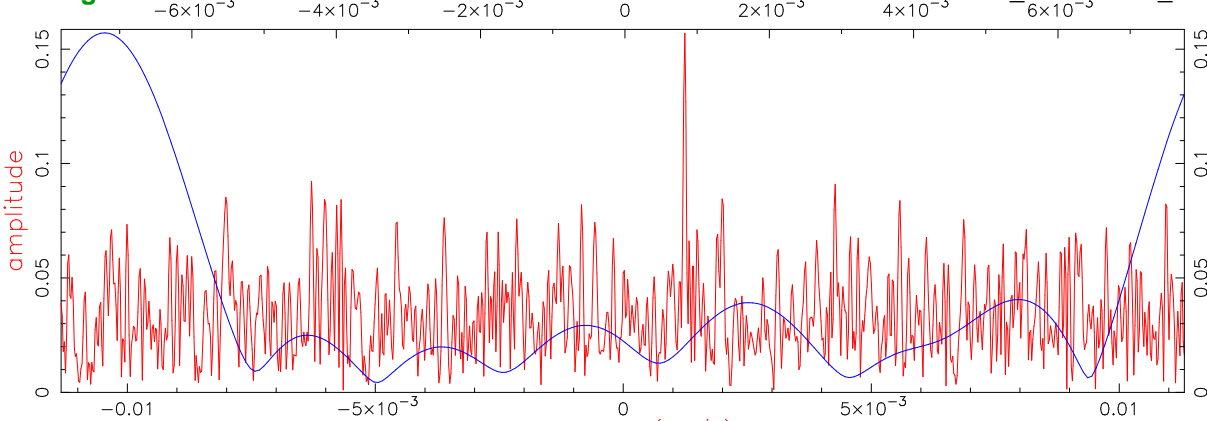
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, In

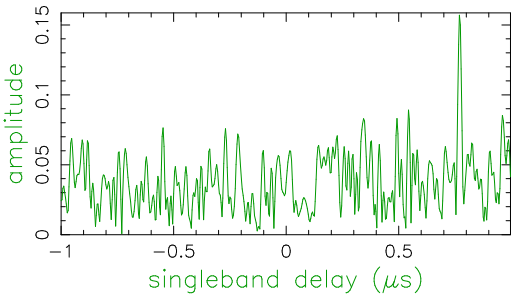
VLBA_LA - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

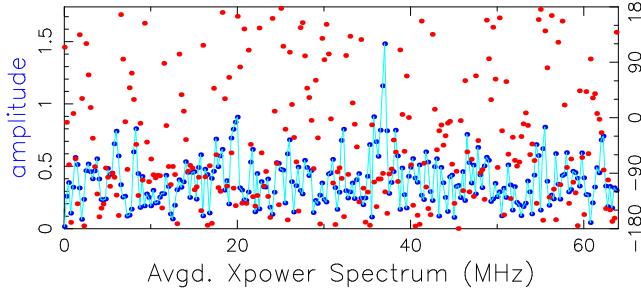


Fringe quality 0

SNR 5.8
 Int time 179.981
 Amp 0.159
 Phase -149.3
 PFD 5.8e-01
 Delays (us)
 SBD 0.770509
 MBD -0.007154
 Fringe rate (Hz) 0.106605
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

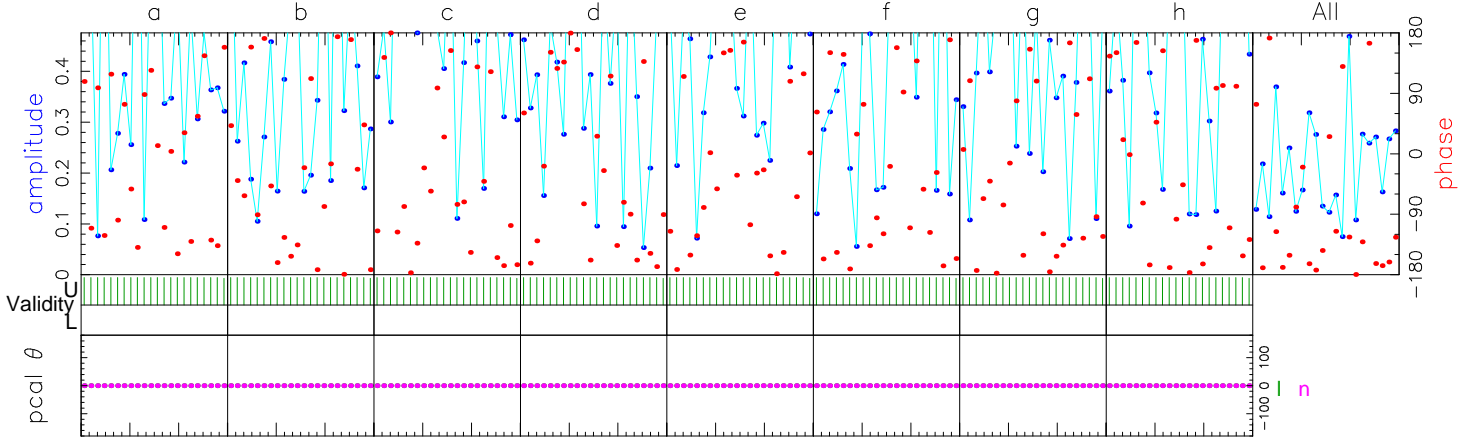


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142012
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	8.03351521266E+02	Apriori delay (usec)	8.02577425392E+02	Resid mbdelay (usec)	-7.15413E-03	+/-	1.9E-04
Sband delay (usec)	8.03347934392E+02	Apriori clock (usec)	-5.2493477E-01	Resid sbdelay (usec)	7.70509E-01	+/-	1.5E-03
Phase delay (usec)	8.02577420576E+02	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	-4.81535E-06	+/-	6.4E-07
Delay rate (us/s)	-3.55735371473E-02	Apriori rate (us/s)	-3.55747747282E-02	Resid rate (us/s)	1.23758E-06	+/-	6.1E-09
Total phase (deg)	3.0	Apriori accel (us/s/s)	-1.21015077637E-05	Resid phase (deg)	-149.3	+/-	19.8

ph/seg (deg)	63.4	RMS	46.4	Theor.	46.4	Amplitude	0.159 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	70.6	Search (1024X32)	0.155	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		Interp.	0.000	SampCntNorm: enabled	sb window (us)	-1.000 1.000
ph/frq (deg)	13.4	Inc. seg. avg.	0.162	Bits/sample: 2x2		Inc. frq. avg.	0.144	Sample rate(MISamp/s): 128	mb window (us)	-0.008 0.008
amp/frq (%)	18.7	Inc. frq. avg.	0.144	Data rate(Mb/s): 2048				nlags: 256	dr window (ns/s)	-0.011 0.011
								t_cohere infinite	ion window (TEC)	0.00 0.00

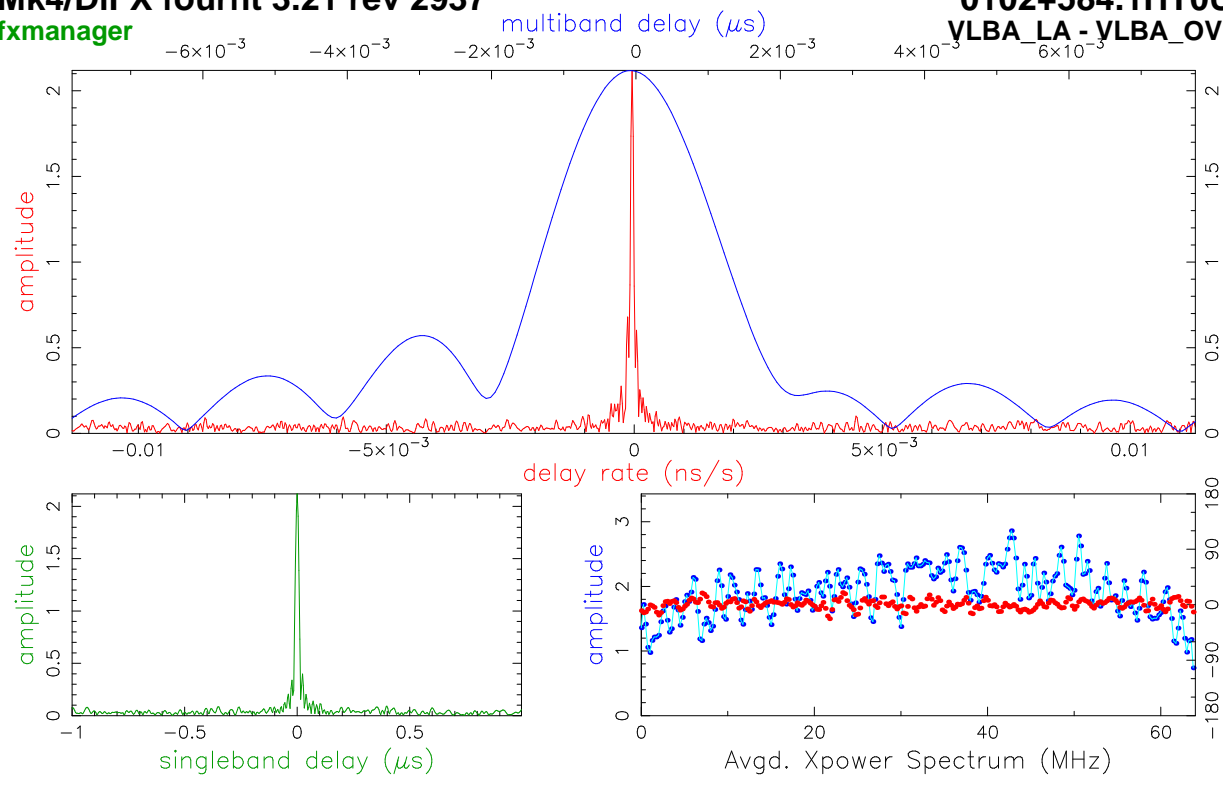
l: az 320.7 el 36.8 pa 80.3

n: az 320.9 el 34.2 pa 64.4

u,v (fr/asec) 380.550 -1930.123

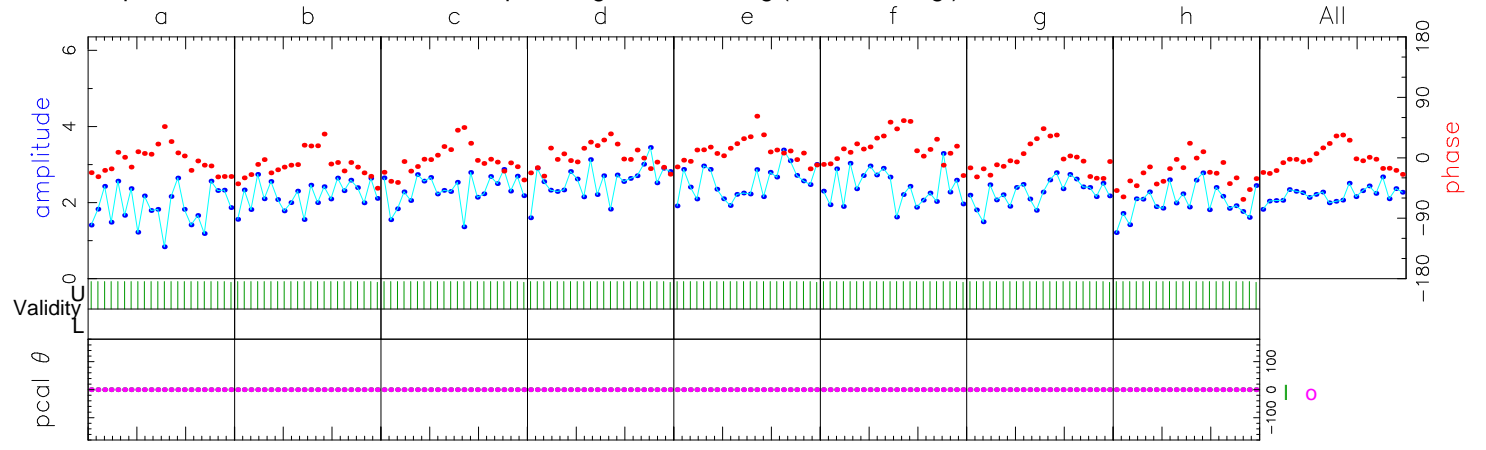
simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/In..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/In.W.219.1HT0UR



Fringe quality 7
SNR 77.7
Int time 179.979
Amp 2.119
Phase -1.7
PFD 0.0e+00
Delays (us)
SBD -0.000268
MBD -0.000081
Fringe rate (Hz)
-0.004598
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142007
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		256.9		
l	1000	1000	1000	1000	1000	1000	1000	1000				
o	1000	1000	1000	1000	1000	1000	1000	1000				
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
l	1000	1000	1000	1000	1000	1000	1000	1000				
o	1000	1000	1000	1000	1000	1000	1000	1000				
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL				
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL				
Group delay (usec)(sbd)	-2.10356911199E+03	-2.10356929908E+03	-2.10356903088E+03	-5.68018968703E-02	-115.2	Apriori delay (usec)	-2.10356903083E+03	Apriori clock (usec)	-2.1792999E+01	Resid mbdelay (usec)	-8.11618E-05	+/- 1.4E-05
Sband delay (usec)	-2.10356929908E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid sbdelay (usec)	-2.68250E-04	+/- 1.1E-04						
Phase delay (usec)	-2.10356903088E+03	Apriori rate (us/s)	-5.68018434932E-02	Resid phdelay (usec)	-5.33138E-08	+/- 4.8E-08						
Delay rate (us/s)	-5.68018968703E-02	Apriori accel (us/s/s)	9.11117053248E-06	Resid rate (us/s)	-5.33771E-08	+/- 4.6E-10						
Total phase (deg)				Resid phase (deg)	-1.7	+/- 1.5						

ph/seg (deg) 17.2 3.5
amp/seg (%) 9.9 6.0
ph/frq (deg) 13.1 2.1
amp/frq (%) 10.5 3.6

RMS Theor. Amplitude 2.119 +/- 0.027
Search (1024X32) 2.045
Interp. 0.000
Inc. seg. avg. 2.210
Inc. frq. avg. 2.158

l: az 320.7 el 36.8 pa 80.3
o: az 319.0 el 44.1 pa 88.5
u,v (fr/asec) 630.412 1071.354

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/lo..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/lo.W.172.1HT0UR

simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

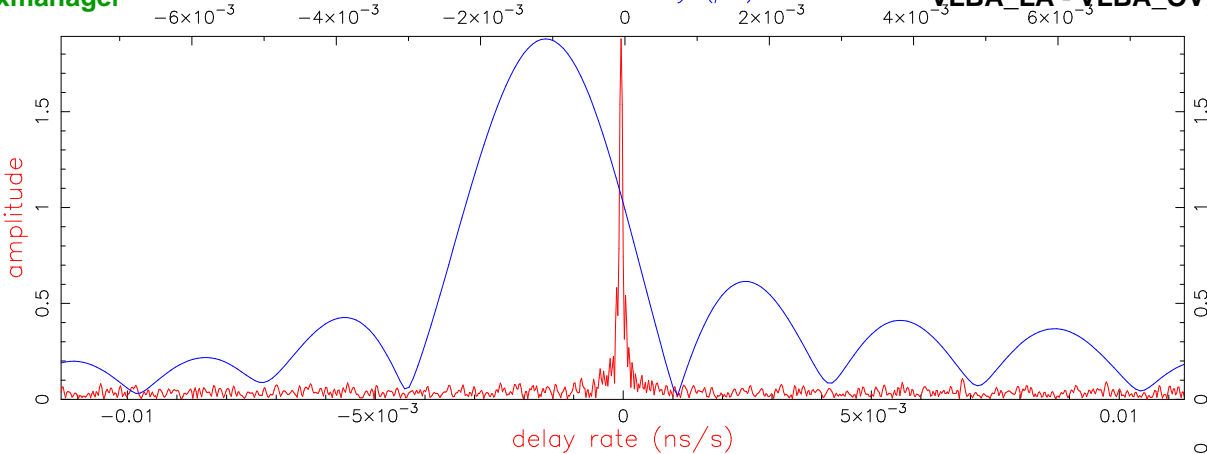
fxmanager

0102+584.1HT0UR, No0131, lo

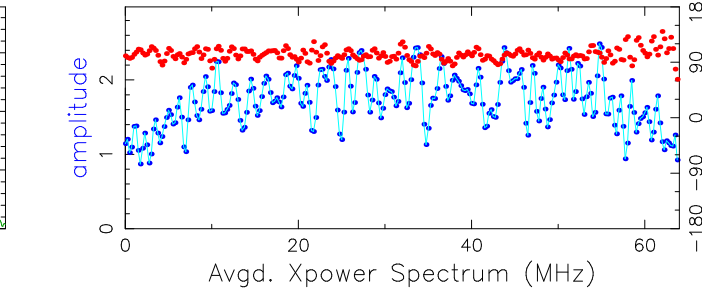
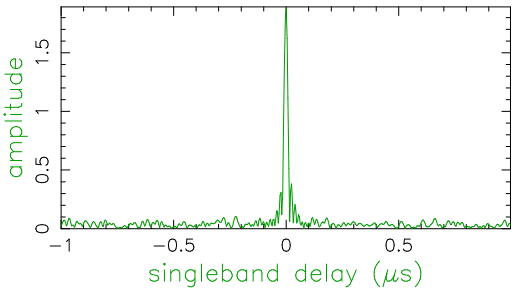
VLBA_LA - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 8

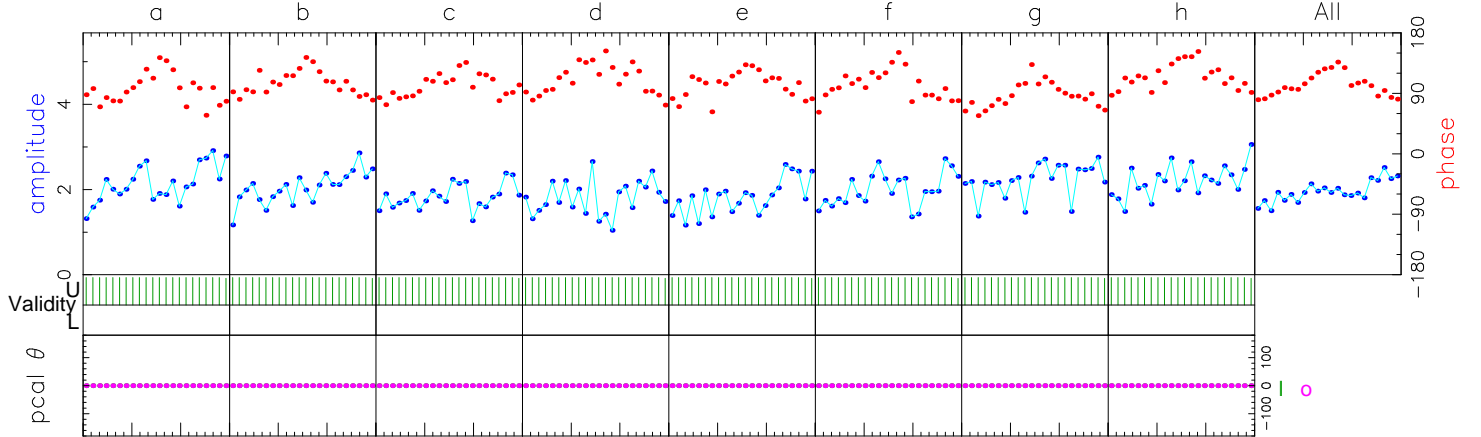


SNR 69.4
 Int time 179.979
 Amp 1.892
 Phase 102.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.001091
 MBD -0.001124
 Fringe rate (Hz)
 -0.004604
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

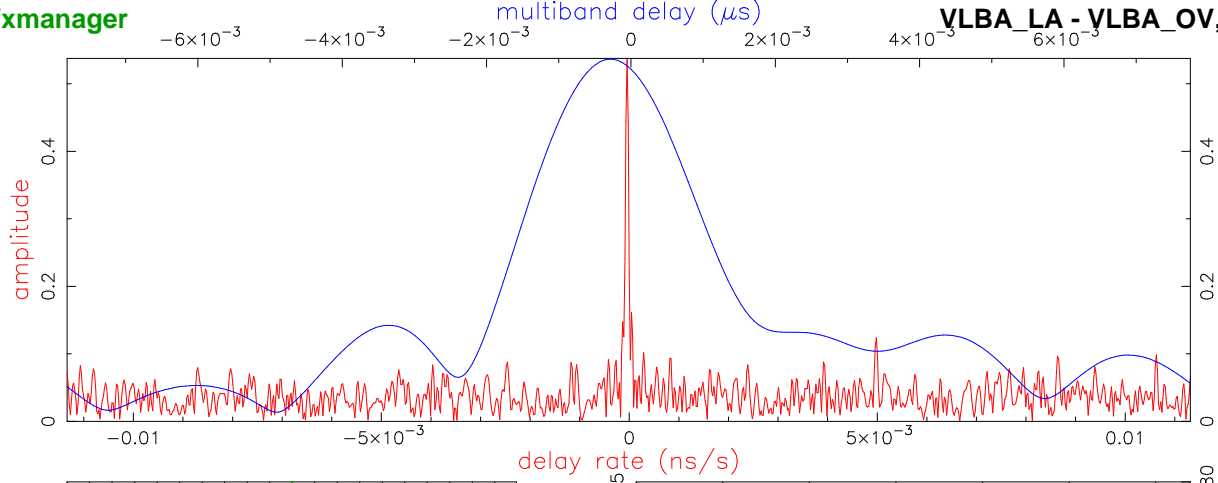


Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142009
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

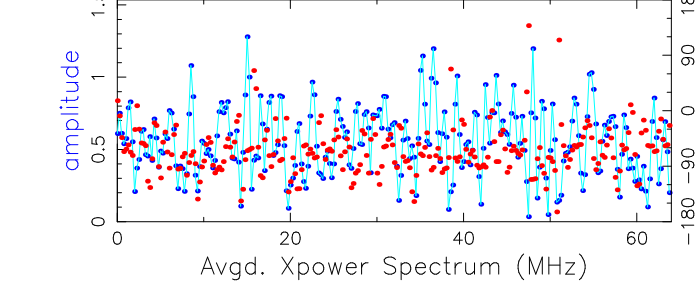
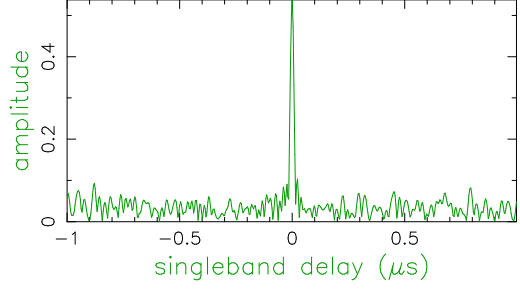
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



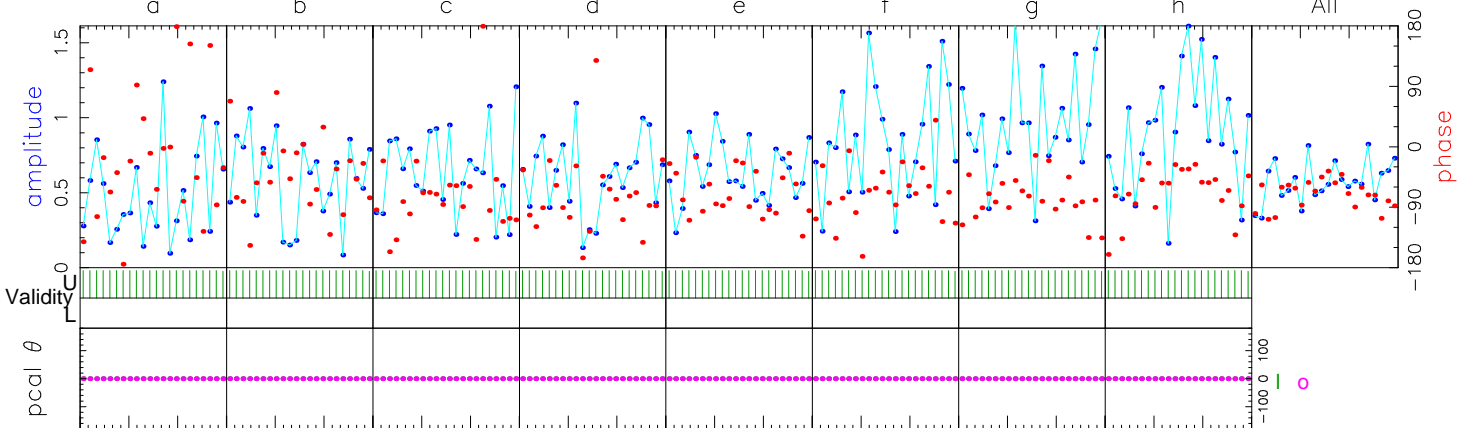
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All			
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0					
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs				
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs				
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase				
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC				
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp				
o	1000	1000	1000	1000	1000	1000	1000	1000					
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids				
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks				
Group delay (usec)(sbd)	-2.10357015436E+03												
Sband delay (usec)	-2.10357012183E+03												
Phase delay (usec)	-2.10356902753E+03												
Delay rate (us/s)	-5.68018969383E-02												
Total phase (deg)			-11.2										
				Apriori delay (usec)	-2.10356903083E+03				Resid mbdelay (usec)	-1.12354E-03	+/- 1.6E-05		
				Apriori clock (usec)	-2.1792999E+01				Resid sbdelay (usec)	-1.09100E-03	+/- 1.2E-04		
				Apriori clockrate (us/s)	0.000000E+00				Resid phdelay (usec)	3.30038E-06	+/- 5.3E-08		
				Apriori rate (us/s)	-5.68018434932E-02				Resid rate (us/s)	-5.34451E-08	+/- 5.1E-10		
				Apriori accel (us/s/s)	9.11117053248E-06				Resid phase (deg)	102.3	+/- 1.7		
ph/seg (deg)	16.6	3.9		Search (1024X32)	1.806				PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	13.4	6.8		Interp.	0.000				PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	9.2	2.3		Inc. seg. avg.	1.955				Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	8.1	4.1		Inc. frq. avg.	1.897				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
l: az 320.7 el 36.8 pa 80.3				o: az 319.0 el 44.1 pa 88.5									simultaneous interpolator
Control file: cf_1234_gmva				Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/lo..1HT0UR									Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/lo.W.188.1HT0UR



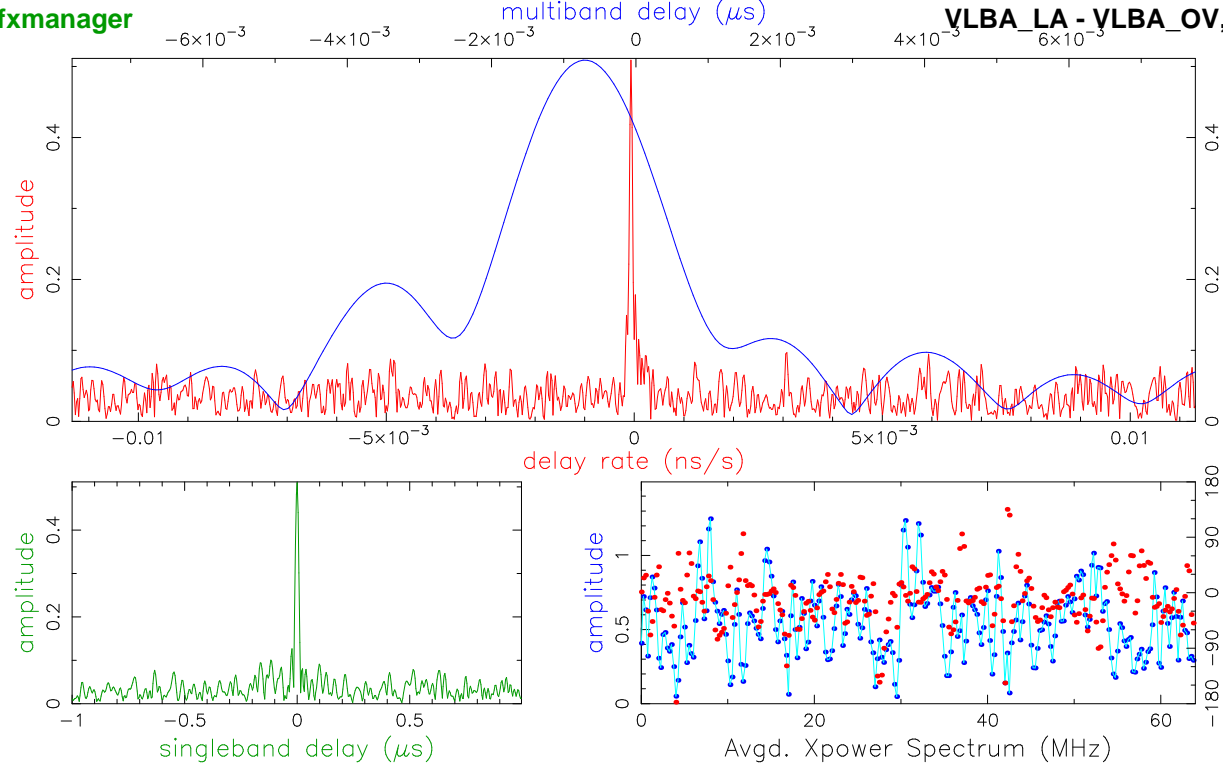
Fringe quality 9
SNR 19.7
Int time 179.979
Amp 0.538
Phase -71.4
PFD 0.0e+00
Delays (us)
SBD -0.000587
MBD -0.000301
Fringe rate (Hz)
-0.004606
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142011
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



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

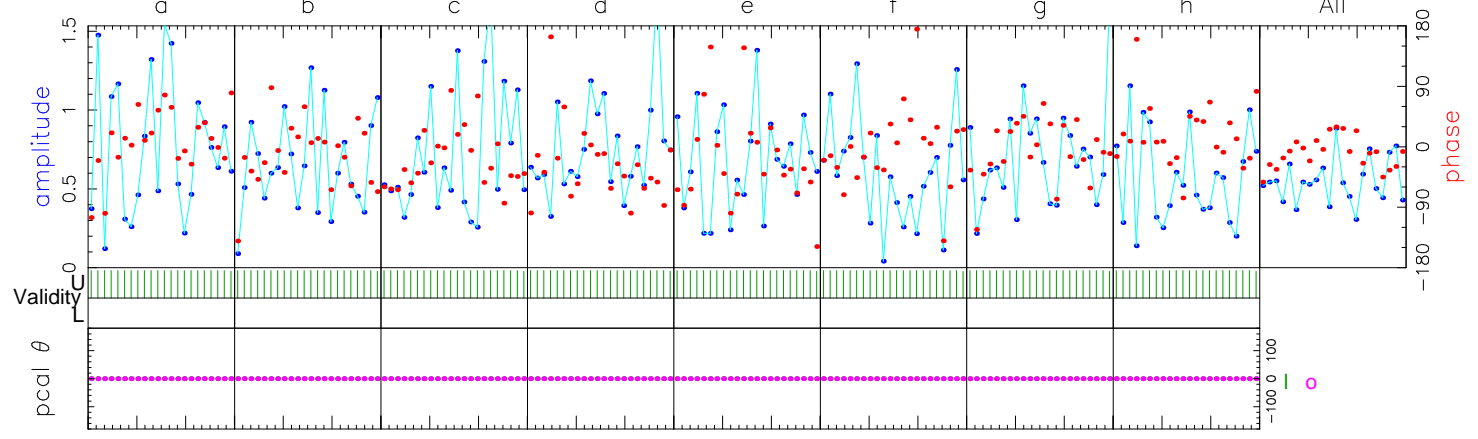


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
o	1000	1000	1000	1000	1000	1000	1000	1000			
l	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)	-2.10356933218E+03										
Sband delay (usec)	-2.10356961808E+03										
Phase delay (usec)	-2.10356903313E+03										
Delay rate (us/s)	-5.68018969624E-02										
Total phase (deg)			-185.0								
				Apriori delay (usec)	-2.10356903083E+03				Resid mbdelay (usec)	-3.01349E-04	+/- 5.5E-05
				Apriori clock (usec)	-2.1792999E+01				Resid sbdelay (usec)	-5.87250E-04	+/- 4.4E-04
				Apriori clockrate (us/s)	0.0000000E+00				Resid phdelay (usec)	-2.30290E-06	+/- 1.9E-07
				Apriori rate (us/s)	-5.68018434932E-02				Resid rate (us/s)	-5.34692E-08	+/- 1.8E-09
				Apriori accel (us/s/s)	9.11117053248E-06				Resid phase (deg)	-71.4	+/- 5.8
ph/seg (deg)	21.0	13.6		Search (1024X32)	0.510				PCal mode: MANUAL, MANUAL		
amp/seg (%)	25.8	23.8		Interp.	0.000				PCal rate: 0.000E+00, 0.000E+00 (us/s)		
ph/frq (deg)	15.7	8.2		Inc. seg. avg.	0.560				Bits/sample: 2x2	sb window (us)	-1.000 1.000
amp/frq (%)	38.6	14.3		Inc. frq. avg.	0.544				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	ion window (TEC)	0.00 0.00
									nlags: 256	t_cohere infinite	
l: az 320.7 el 36.8 pa 80.3				o: az 319.0 el 44.1 pa 88.5					u,v (fr/asec)	630.412 1071.354	simultaneous interpolator
Control file: cf_1234_gmva				Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/lo..1HT0UR					Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/lo.W.208.1HT0UR		



Fringe quality 9
SNR 18.8
Int time 179.979
Amp 0.511
Phase -9.9
PFD 0.0e+00
Delays (us)
SBD -0.000883
MBD -0.000732
Fringe rate (Hz) -0.004828
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142013
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

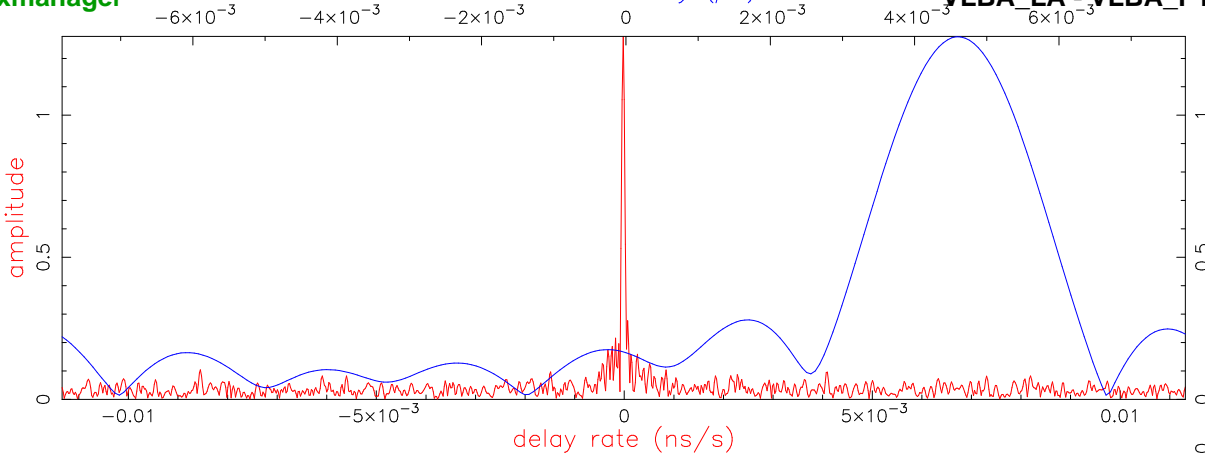
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



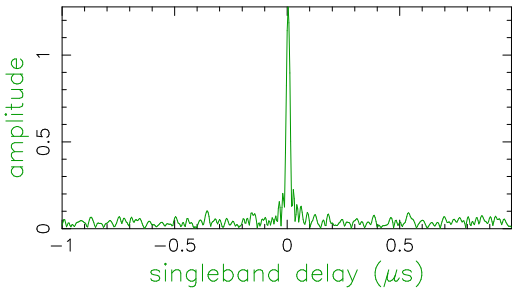
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		-2.10356976279E+03				-2.10356903083E+03				
Sband delay (usec)		-2.10356991333E+03				-2.1792999E+01				
Phase delay (usec)		-2.10356903115E+03				0.0000000E+00				
Delay rate (us/s)		-5.68018995416E-02				-5.68018434932E-02				
Total phase (deg)			-123.5			9.11117053248E-06				
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
ion window (TEC)										
sb window (us)										
mb window (us)										
dr window (ns/s)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
simultaneous interpolator										

multiband delay (μ s)

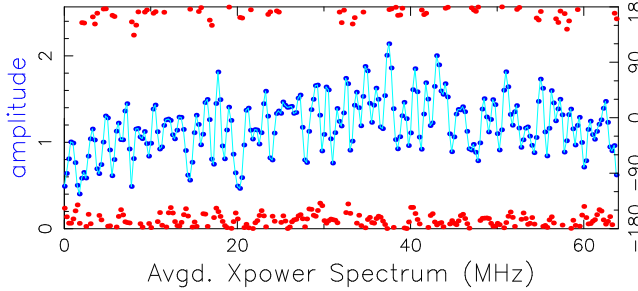
Fringe quality 9



SNR 46.9
Int time 179.981
Amp 1.277
Phase -175.4
PFD 0.0e+00
Delays (us)
SBD 0.004315
MBD 0.004611
Fringe rate (Hz)
-0.001310
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

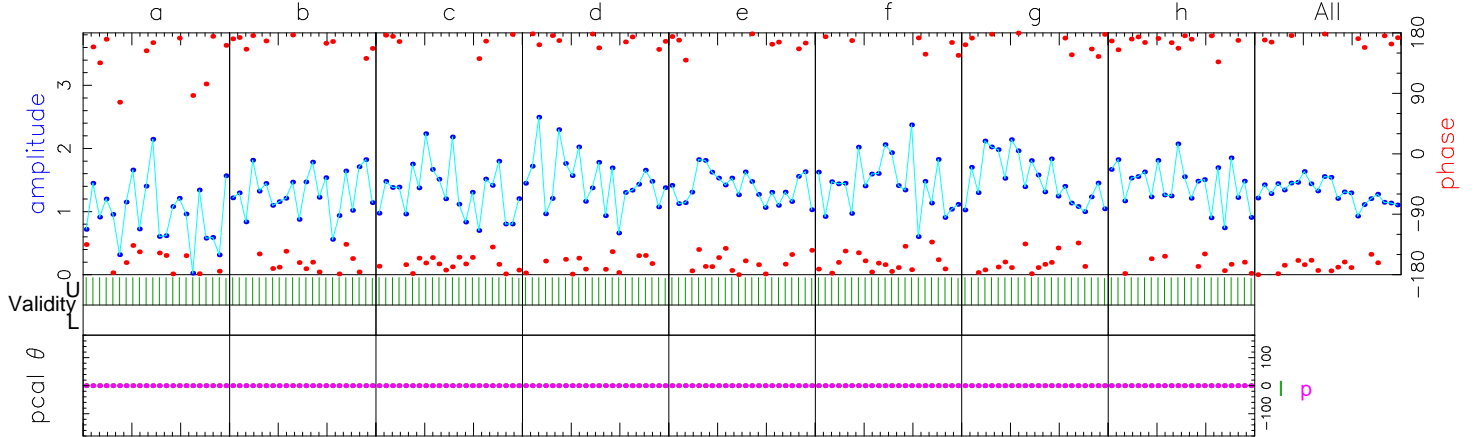


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142007
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
lp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	5.07538943173E+01	Apriori delay (usec)	5.07492832732E+01	Resid mbdelay (usec)	4.61104E-03	+/-	2.3E-05
Sband delay (usec)	5.07535985232E+01	Apriori clock (usec)	-4.3944550E-01	Resid sbdelay (usec)	4.31525E-03	+/-	1.8E-04
Phase delay (usec)	5.07492776154E+01	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-5.65776E-06	+/-	7.9E-08
Delay rate (us/s)	6.25312116009E-03	Apriori rate (us/s)	6.25313636857E-03	Resid rate (us/s)	-1.52085E-08	+/-	7.6E-10
Total phase (deg)	-81.4	Apriori accel (us/s/s)	1.75030028402E-06	Resid phase (deg)	-175.4	+/-	2.4

ph/seg (deg)	13.8	Theor.	5.7	Amplitude	1.277 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	13.5		10.0	Search (1024X32)	1.232	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	5.5		3.5	Inc. seg. avg.	1.306	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	13.5		6.0	Inc. frq. avg.	1.278	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 320.7 el 36.8 pa 80.3 p: az 321.2 el 36.6 pa 82.3 u,v (fr/asec) -67.244 322.015 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/lp..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/lp.W.173.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

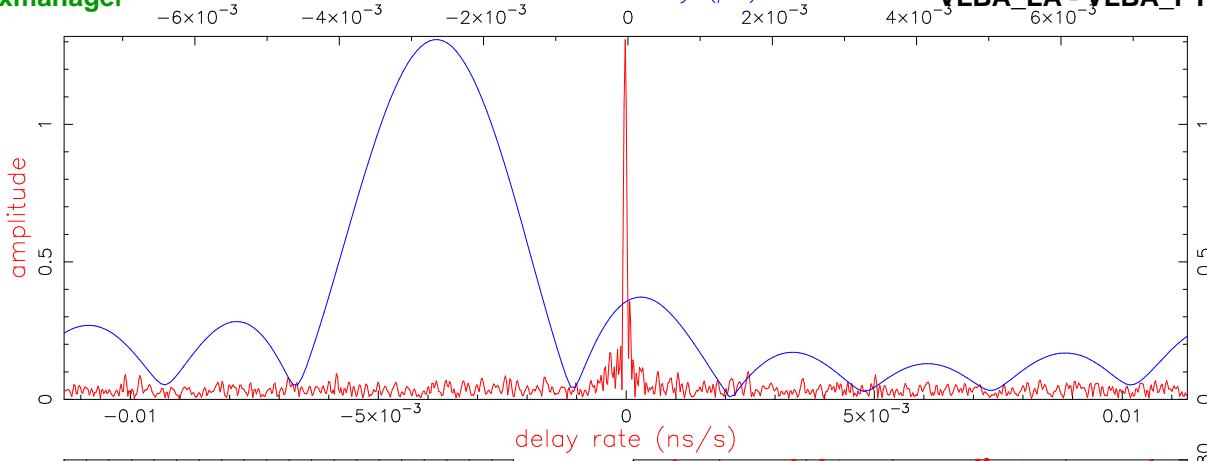
fxmanager

0102+584.1HT0UR, No0131, lp

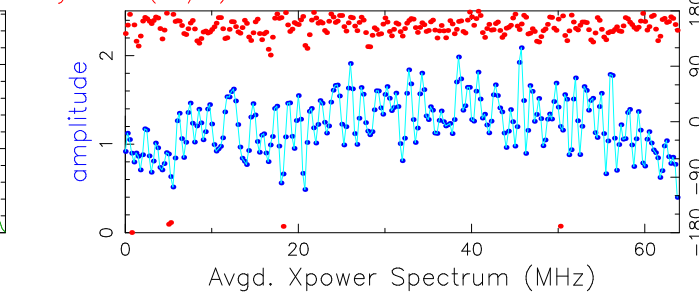
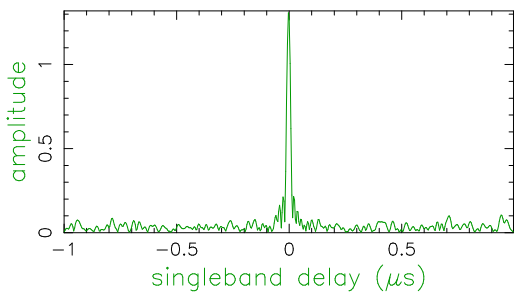
VLBA_LA - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 8

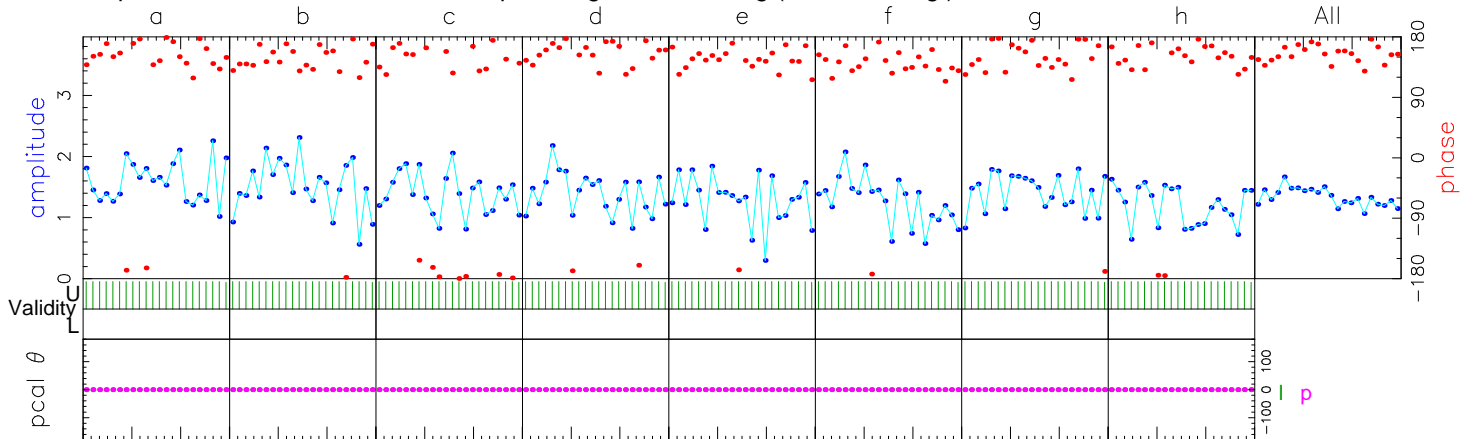


SNR 48.4
 Int time 179.981
 Amp 1.320
 Phase 154.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.002677
 MBD -0.002626
 Fringe rate (Hz)
 -0.001145
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Yr:day 16383
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142009
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
p	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 5.07466577548E+01 Apriori delay (usec) 5.07492832732E+01 Resid mbdelay (usec) -2.62552E-03 +/- 2.2E-05
 Sband delay (usec) 5.07466062732E+01 Apriori clock (usec) -4.3944550E-01 Resid sbdelay (usec) -2.67700E-03 +/- 1.8E-04
 Phase delay (usec) 5.07492882564E+01 Apriori clockrate (us/s) -5.0000000E-07 Resid phdelay (usec) 4.98318E-06 +/- 7.6E-08
 Delay rate (us/s) 6.25312307745E-03 Apriori rate (us/s) 6.25313636857E-03 Resid rate (us/s) -1.32911E-08 +/- 7.3E-10
 Total phase (deg) 248.5 Apriori accel (us/s/s) 1.75030028402E-06 Resid phase (deg) 154.5 +/- 2.4

RMS Theor. Amplitude 1.320 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 12.3 5.6 Search (1024X32) 1.242 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 10.9 9.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 5.9 3.3 Inc. seg. avg. 1.332 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 8.4 5.8 Inc. frq. avg. 1.311 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

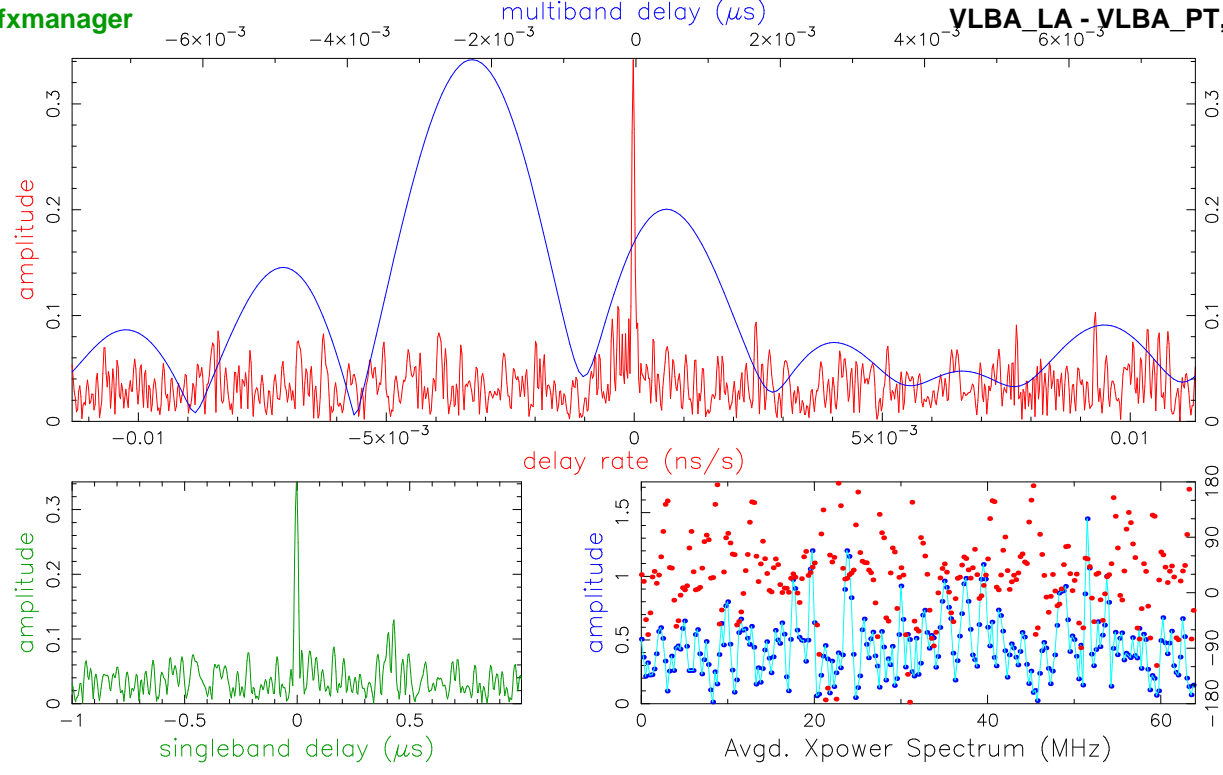
l: az 320.7 el 36.8 pa 80.3 p: az 321.2 el 36.6 pa 82.3 u,v (fr/asec) -67.244 322.015 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/lp..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/lp.W.193.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, lp

VLBA_LA - VLBA_PT, fgroup W, pol LR

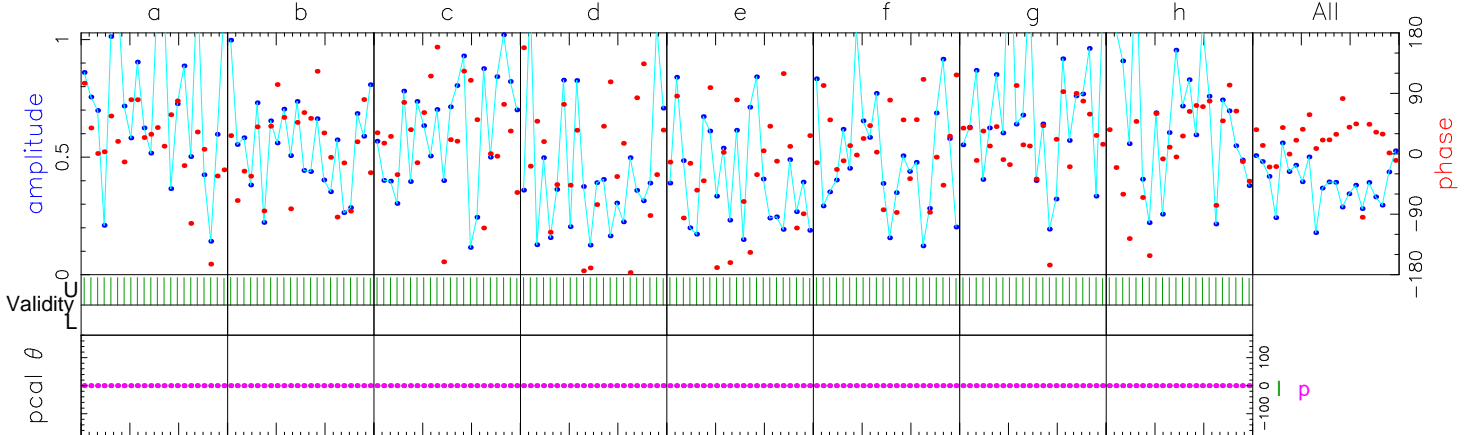


Fringe quality 9

SNR 12.6
 Int time 179.981
 Amp 0.343
 Phase 22.2
 PFD 7.1e-28
 Delays (us)
 SBD -0.003134
 MBD -0.002257
 Fringe rate (Hz)
 -0.001251
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142012
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	5.07470264735E+01		Apriori delay (usec)		5.07492832732E+01		Resid mbdelay (usec)		-2.25680E-03	+/- 8.6E-05
Sband delay (usec)	5.07461495232E+01		Apriori clock (usec)		-4.3944550E-01		Resid sbdelay (usec)		-3.13375E-03	+/- 6.8E-04
Phase delay (usec)	5.07492839899E+01		Apriori clockrate (us/s)		-5.0000000E-07		Resid phdelay (usec)		7.16689E-07	+/- 2.9E-07
Delay rate (us/s)	6.25312184456E-03		Apriori rate (us/s)		6.25313636857E-03		Resid rate (us/s)		-1.45240E-08	+/- 2.8E-09
Total phase (deg)	116.2		Apriori accel (us/s/s)		1.75030028402E-06		Resid phase (deg)		22.2	+/- 9.1

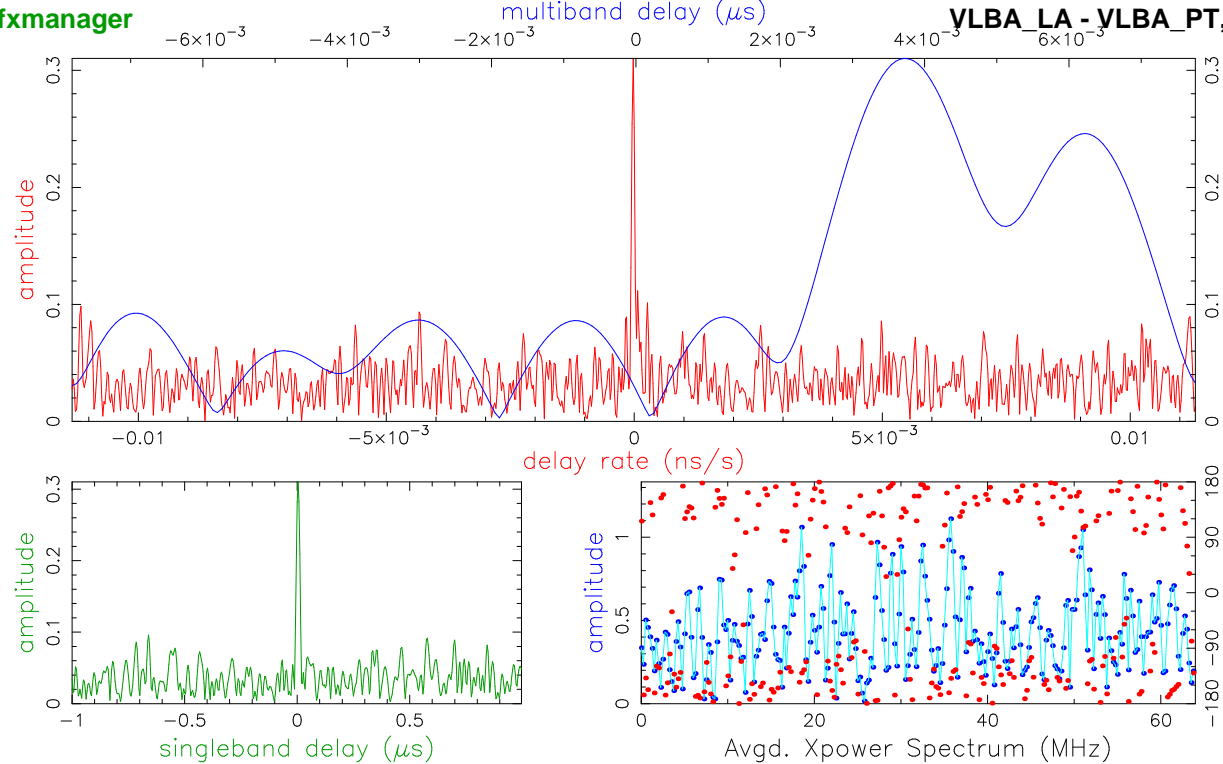
ph/seg (deg) 34.6 21.4 Search (1024X32) 0.328 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 31.0 37.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.5 12.9 Inc. seg. avg. 0.366 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.5 22.5 Inc. frq. avg. 0.341 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 320.7 el 36.8 pa 80.3 p: az 321.2 el 36.6 pa 82.3 u,v (fr/asec) -67.244 322.015 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/lp..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/lp.W.218.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

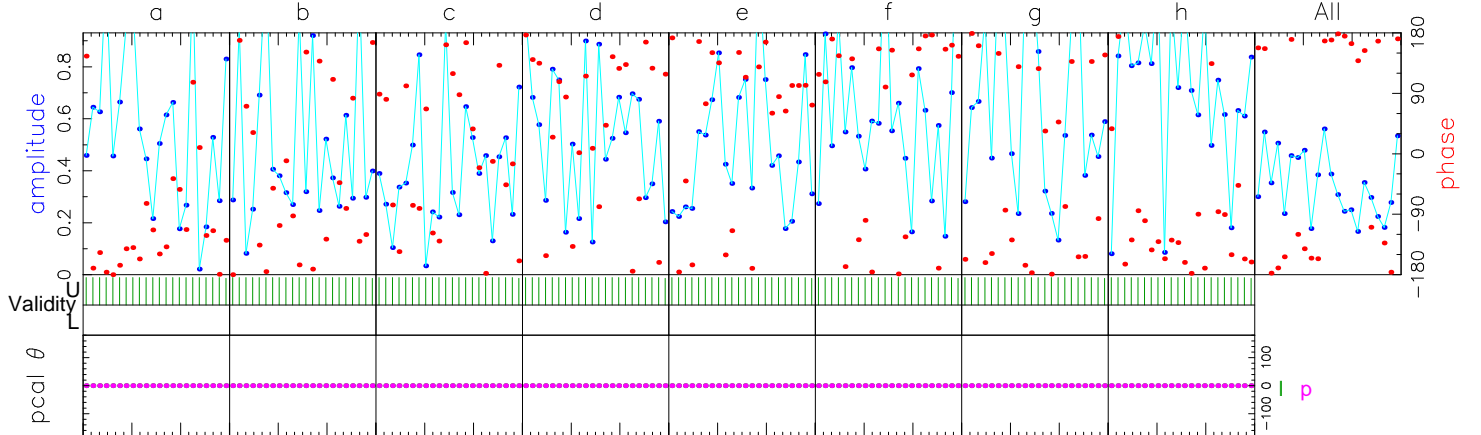
0102+584.1HT0UR, No0131, lp

VLBA_LA - VLBA_PT, fgroup W, pol RL



Fringe quality 9
 SNR 11.4
 Int time 179.981
 Amp 0.310
 Phase -176.1
 PFD 1.2e-21
 Delays (us)
 SBD 0.003950
 MBD 0.003731
 Fringe rate (Hz) -0.001090
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142014
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-151.2	-154.4	-173.7	147.3	132.9	157.3	-175.9	-136.8		-176.1
	0.4	0.3	0.1	0.2	0.3	0.5	0.4	0.6		0.4
	257.3	184.3	82.7	495.2	258.4	258.7	258.1	258.3		258.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
p	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
lp	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
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks
										Chan ids
										Tracks
Group delay (usec)(sbd)	5.07530144423E+01		Apriori delay (usec)		5.07492832732E+01		Resid mbdelay (usec)		3.73117E-03	+/- 9.5E-05
Sband delay (usec)	5.07532335232E+01		Apriori clock (usec)		-4.3944550E-01		Resid sbdelay (usec)		3.95025E-03	+/- 7.6E-04
Phase delay (usec)	5.07492775950E+01		Apriori clockrate (us/s)		-5.0000000E-07		Resid phdelay (usec)		-5.67823E-06	+/- 3.2E-07
Delay rate (us/s)	6.25312371373E-03		Apriori rate (us/s)		6.25313636857E-03		Resid rate (us/s)		-1.26548E-08	+/- 3.1E-09
Total phase (deg)			Apriori accel (us/s/s)		1.75030028402E-06		Resid phase (deg)		-176.1	+/- 10.1

ph/seg (deg) 28.7 23.6 Search (1024X32) 0.296 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 41.8 41.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 34.9 14.2 Inc. seg. avg. 0.322 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 49.9 24.8 Inc. frq. avg. 0.352 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 320.7 el 36.8 pa 80.3 p: az 321.2 el 36.6 pa 82.3 u,v (fr/asec) -67.244 322.015 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/lp..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/lp.W.235.1HT0UR

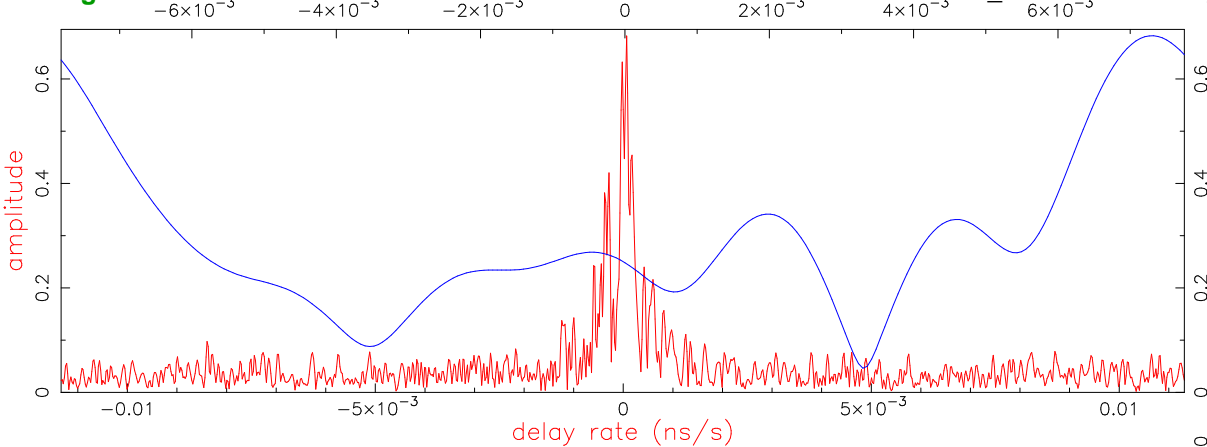
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, IX

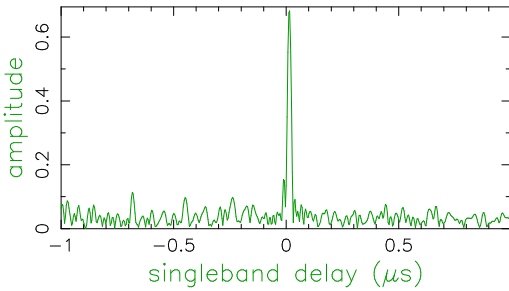
VLBA_LA - ONSALA60, fgroup W, pol RR

multiband delay (μ s)

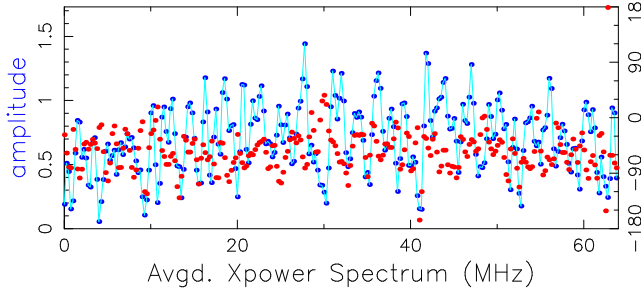


Fringe quality 5

SNR 25.5
 Int time 179.959
 Amp 0.695
 Phase 19.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.013871
 MBD 0.007258
 Fringe rate (Hz)
 0.005319
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

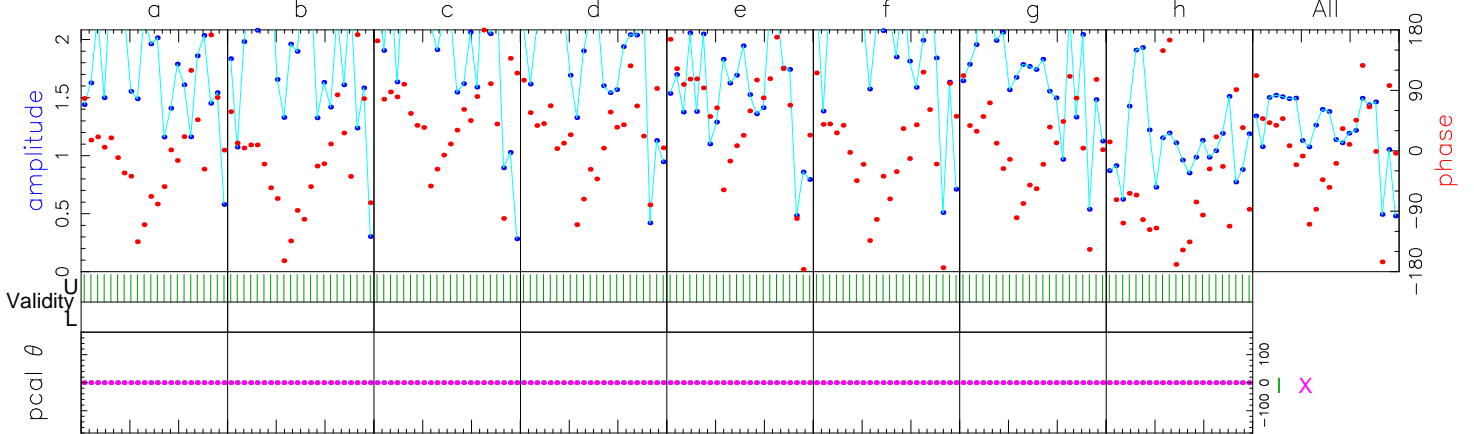


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142010
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-10.1	-24.4	59.6	28.7	87.6	12.2	19.2	-91.4		19.2
	0.9	0.9	1.1	1.2	0.9	1.0	0.9	0.6		0.9
	260.4	261.0	260.6	260.2	259.9	260.3	259.5	257.9		260.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
I:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks

Group delay (usec)(sbd)	3.16557257359E+03	Apriori delay (usec)	3.16556531532E+03	Resid mbdelay (usec)	7.25827E-03	+/-	4.3E-05
Sband delay (usec)	3.16557918582E+03	Apriori clock (usec)	-4.8685539E+01	Resid sbdelay (usec)	1.38705E-02	+/-	3.4E-04
Phase delay (usec)	3.16556531594E+03	Apriori clockrate (us/s)	-6.2800004E-07	Resid phdelay (usec)	6.18904E-07	+/-	1.4E-07
Delay rate (us/s)	-7.52829682114E-01	Apriori rate (us/s)	-7.52829743863E-01	Resid rate (us/s)	6.17494E-08	+/-	1.4E-09
Total phase (deg)	113.4	Apriori accel (us/s/s)	-4.19086226675E-05	Resid phase (deg)	19.2	+/-	4.5

ph/seg (deg)	69.0	Theor.	10.5	Amplitude	0.695 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	88.7		18.4	Search (1024X32)	0.676	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	59.8		6.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	41.2		11.1	Inc. seg. avg.	1.220	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.920	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

I: az 320.7 el 36.8 pa 80.3 X: az 8.4 el 26.5 pa -8.8 u, v (fr/asec) 8221.418 -6603.981 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/IX..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/IX.W.201.1HT0UR

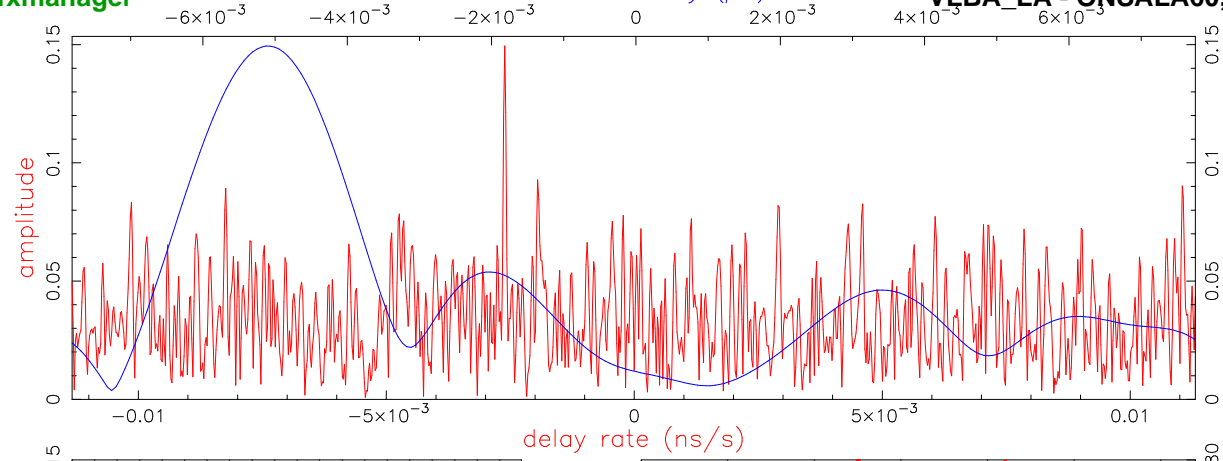
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

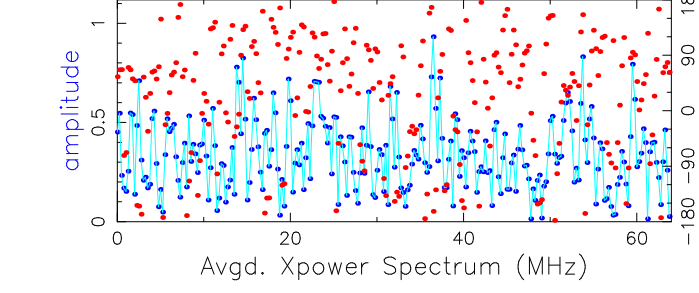
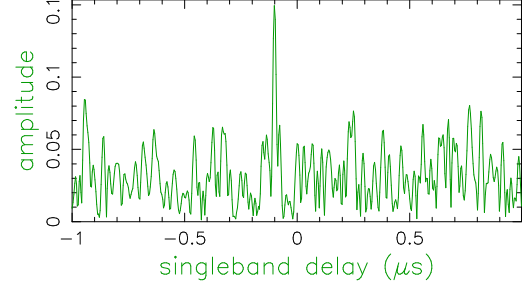
0102+584.1HT0UR, No0131, IX

VLBA_LA - ONSALA60, fgroup W, pol LR

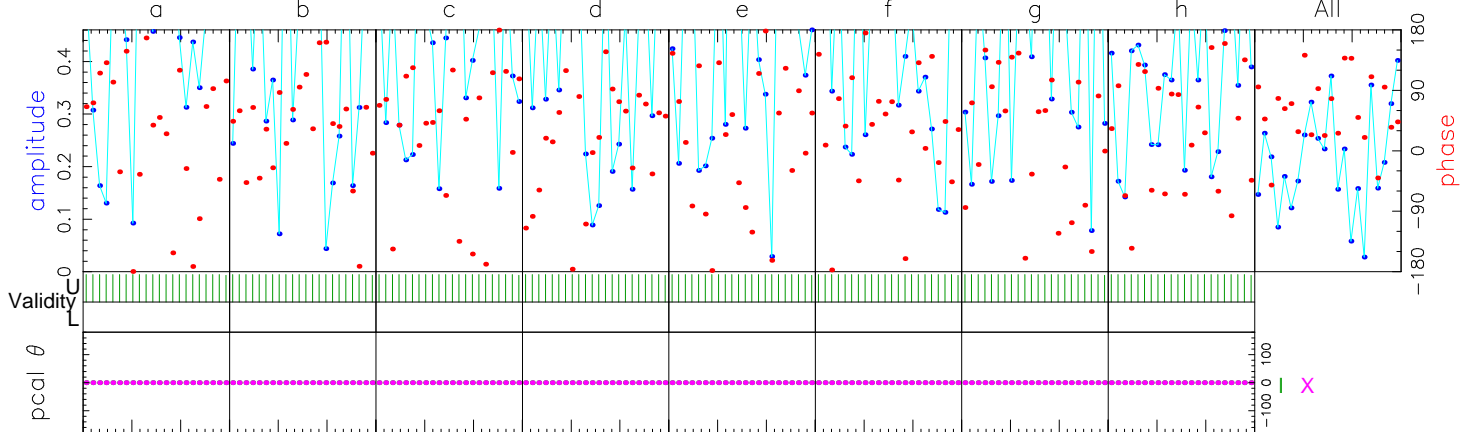
multiband delay (μ s)



Fringe quality 0
 SNR 5.5
 Int time 179.959
 Amp 0.153
 Phase 61.7
 PFD 9.9e-01
 Delays (us)
 SBD -0.100749
 MBD -0.005095
 Fringe rate (Hz)
 -0.225137
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142014
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
I	1000	1000	1000	1000	1000	1000	1000	1000			
X	1000	1000	1000	1000	1000	1000	1000	1000			
I:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
I:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
I	1000	1000	1000	1000	1000	1000	1000	1000			
X	1000	1000	1000	1000	1000	1000	1000	1000			
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		3.16546647009E+03				3.16556531532E+03			Resid mbdelay (usec)	-5.09523E-03	+/- 2.0E-04
Sband delay (usec)		3.16546456607E+03				-4.8685539E+01			Resid sbdelay (usec)	-1.00749E-01	+/- 1.6E-03
Phase delay (usec)		3.16556531731E+03				-6.2800004E-07			Resid phdelay (usec)	1.99086E-06	+/- 6.7E-07
Delay rate (us/s)		-7.52832357475E-01				-7.52829743863E-01			Resid rate (us/s)	-2.61361E-06	+/- 6.4E-09
Total phase (deg)			155.9			-4.19086226675E-05			Resid phase (deg)	61.7	+/- 20.8
ph/seg (deg)	RMS 50.4	Theor. 48.8	Amplitude 0.153 +/- 0.028	Search (1024X32) 0.148	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us) -1.000	1.000			
amp/seg (%)	77.8	85.2	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)	18.1	29.4	Inc. seg. avg. 0.161	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011	0.011				
amp/frq (%)	36.7	51.4	Inc. frq. avg. 0.141	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00	0.00			
I: az 320.7 el 36.8 pa 80.3		X: az 8.4 el 26.5 pa -8.8		u,v (fr/asec) 8221.418 -6603.981							simultaneous interpolator
Control file: cf_1234_gmva		Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/IX..1HT0UR		Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/IX.W.234.1HT0UR							

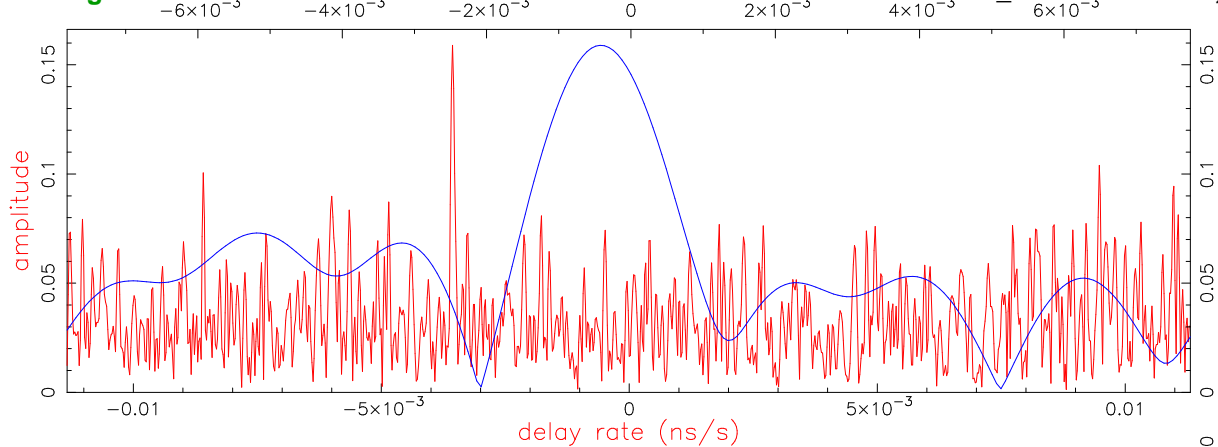
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, IX

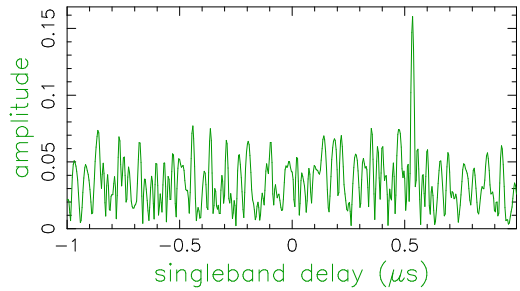
VLBA_LA - ONSALA60, fgroup W, pol RL

multiband delay (μ s)

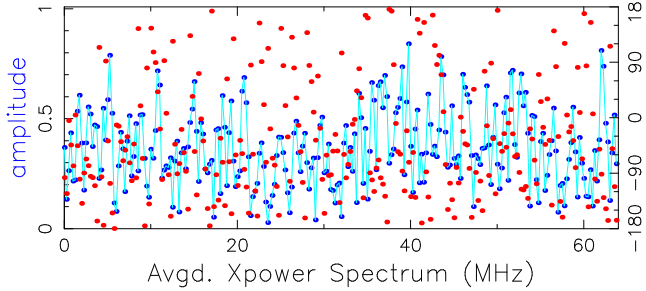


Fringe quality 0

SNR 5.9
Int time 179.959
Amp 0.166
Phase -41.0
PFD 4.6e-01
Delays (us)
SBD 0.534454
MBD -0.000437
Fringe rate (Hz)
-0.307114
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

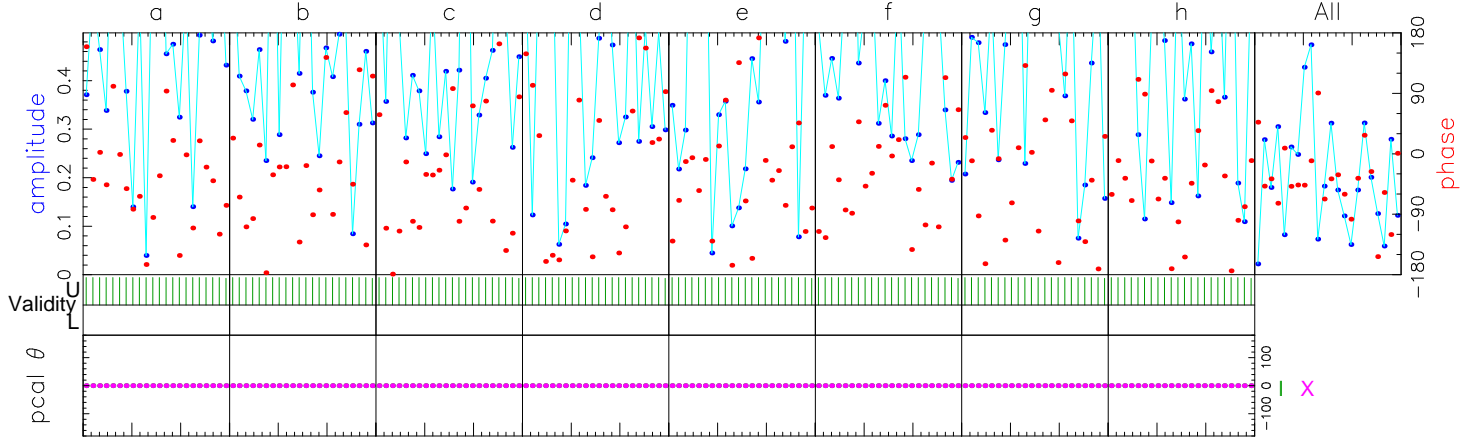


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142016
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-34.4	-27.3	-98.3	38.2	-36.2	-45.5	-10.9	-42.6	Phase	-41.0		
	0.3	0.2	0.2	0.0	0.3	0.2	0.1	0.2	Ampl.	0.2		
	306.2	120.2	168.8	227.8	392.9	437.5	196.9	242.8	Sbd box	393.8		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
I:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
I:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
X	1000	1000	1000	1000	1000	1000	1000	1000				
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec)(sbd)	3.16609612817E+03		Apriori delay (usec)		3.16556531532E+03		Resid mbdelay (usec)		-4.37150E-04	+/- 1.9E-04		
Sband delay (usec)	3.16609976932E+03		Apriori clock (usec)		-4.8685539E+01		Resid sbdelay (usec)		5.34454E-01	+/- 1.5E-03		
Phase delay (usec)	3.16556531400E+03		Apriori clockrate (us/s)		-6.2800004E-07		Resid phdelay (usec)		-1.32362E-06	+/- 6.3E-07		
Delay rate (us/s)	-7.52833309156E-01		Apriori rate (us/s)		-7.52829743863E-01		Resid rate (us/s)		-3.56529E-06	+/- 6.1E-09		
Total phase (deg)			Apriori accel (us/s/s)		-4.19086226675E-05		Resid phase (deg)		-41.0	+/- 19.6		
	RMS	Theor.	Amplitude	0.166 +/- 0.028		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	52.1	45.9	Search (1024X32)	0.158		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	78.5	80.1	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	42.3	27.7	Inc. seg. avg.	0.161		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	52.0	48.3	Inc. frq. avg.	0.159		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
I: az 320.7 el 36.8 pa 80.3	X: az 8.4 el 26.5 pa -8.8		u, v (fr/asec) 8221.418 -6603.981						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/IX..1HT0UR		Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/IX.W.246.1HT0UR									

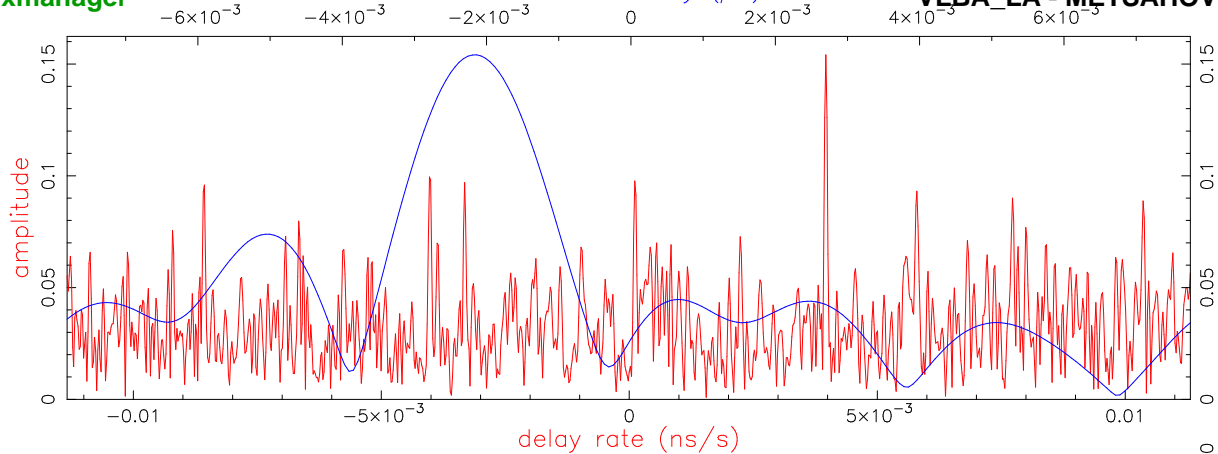
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, IZ

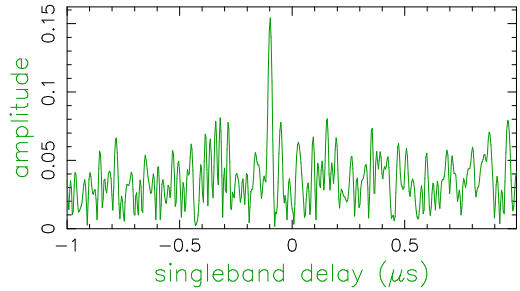
VLBA_LA - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

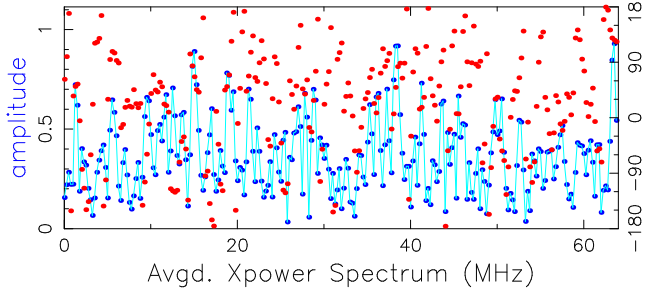


Fringe quality 0

SNR 5.7
Int time 179.874
Amp 0.162
Phase 27.5
PFD 8.5e-01
Delays (us)
SBD -0.098086
MBD -0.002165
Fringe rate (Hz)
0.342679
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

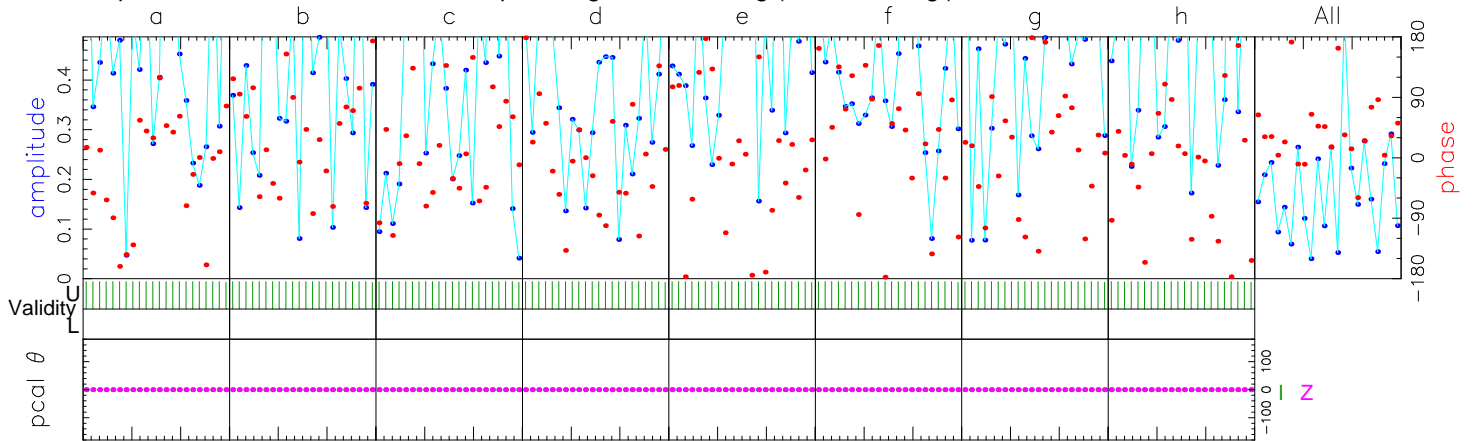


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 120000.00
Stop 120300.22
FRT 120130.00
Corr/FF/build
2021:007:151726
2021:010:142009
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.86545955896E+03	Apriori delay (usec)	1.8655547365E+03	Resid mbdelay (usec)	-2.16469E-03	+/-	1.9E-04
Sband delay (usec)	1.86545738740E+03	Apriori clock (usec)	-5.3547668E-01	Resid sbdelay (usec)	-9.80863E-02	+/-	1.5E-03
Phase delay (usec)	1.8655547454E+03	Apriori clockrate (us/s)	-1.1600001E-07	Resid phdelay (usec)	8.85891E-07	+/-	6.5E-07
Delay rate (us/s)	-8.25825594107E-01	Apriori rate (us/s)	-8.25829572268E-01	Resid rate (us/s)	3.97816E-06	+/-	6.3E-09
Total phase (deg)	207.6	Apriori accel (us/s/s)	-3.72023592525E-05	Resid phase (deg)	27.5	+/-	20.3

ph/seg (deg)	52.7	Theor.	47.5	Amplitude	0.162 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	72.2	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)	25.3	Inc. seg. avg.	0.143	Inc. frq. avg.	0.155	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	30.6	Inc. frq. avg.	0.155	Sample rate(MISamp/s): 128		Data rate(Mb/s): 2048	mb window (us) -0.008 0.008
				nlags: 256	t_cohere infinite		dr window (ns/s) -0.011 0.011
							ion window (TEC) 0.00 0.00

I: az 320.7 el 36.8 pa 80.3 Z: az 16.0 el 30.6 pa -15.2 u,v (fr/asec) 9025.848 -6122.489 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/IZ..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/IZ.W.186.1HT0UR

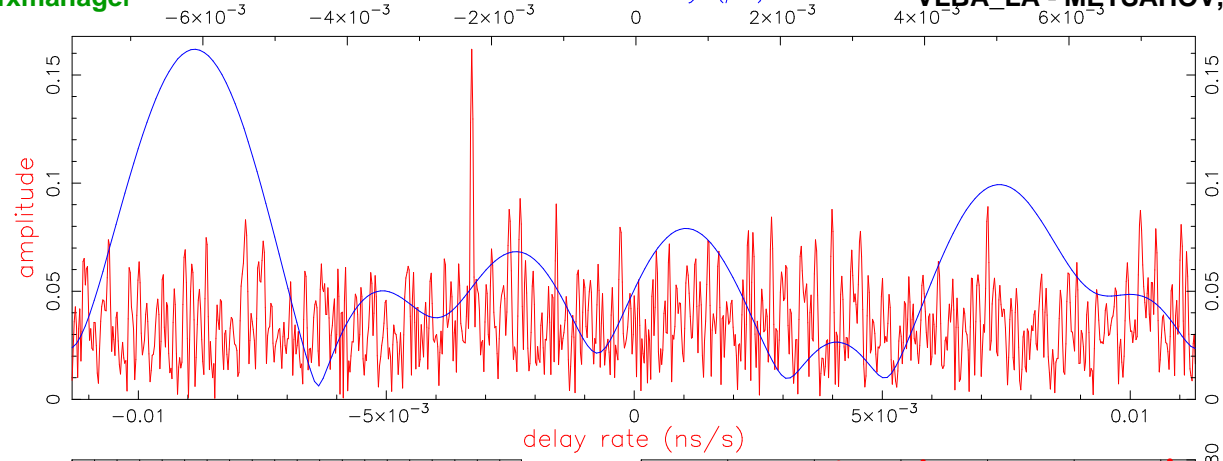
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

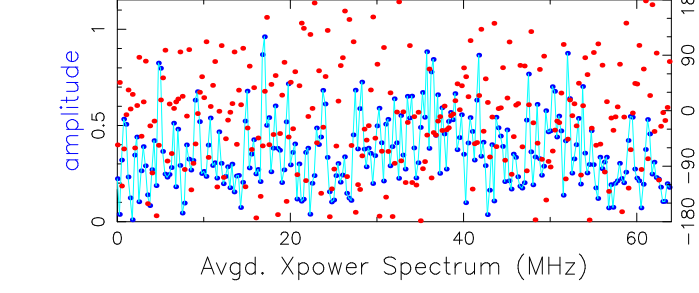
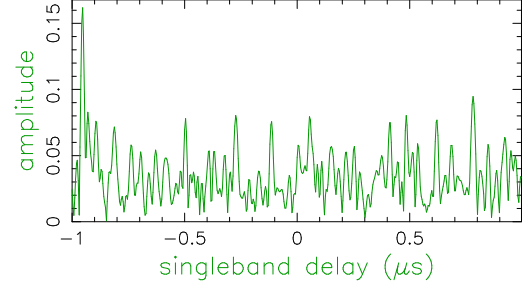
0102+584.1HT0UR, No0131, IZ

VLBA_LA - METSAHOV, fgroup W, pol RR

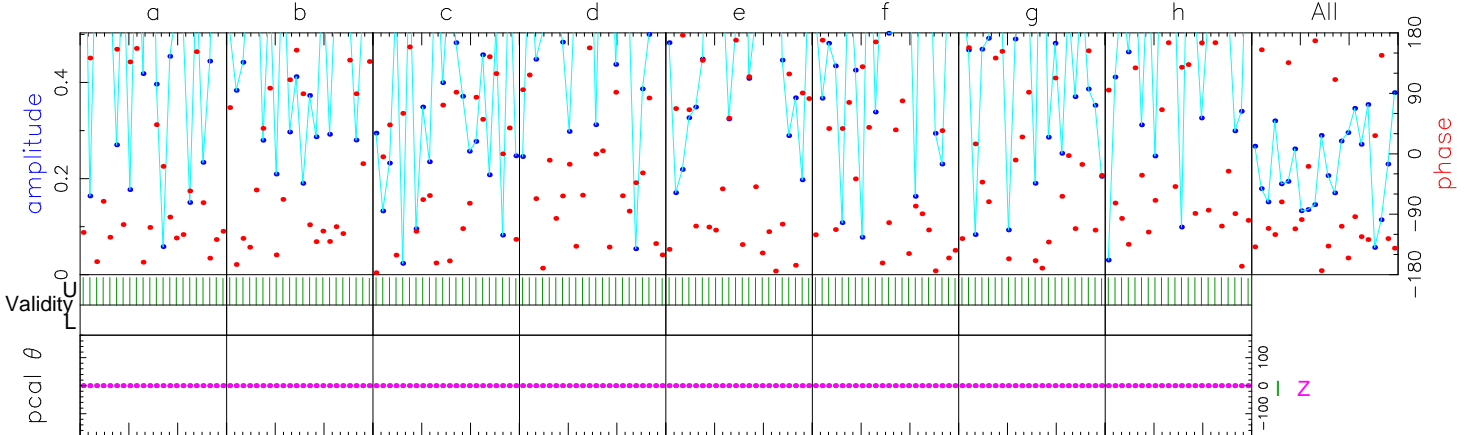
multiband delay (μ s)



Fringe quality 0
 SNR 5.9
 Int time 179.874
 Amp 0.168
 Phase -134.5
 PFD 3.0e-01
 Delays (us)
 SBD -0.953638
 MBD -0.006135
 Fringe rate (Hz)
 -0.282058
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142010
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-129.9	-137.4	156.1	-102.5	-149.1	-134.3	-140.7	-123.4	Phase	-134.5
	0.4	0.1	0.1	0.2	0.2	0.1	0.1	0.2	Ampl.	0.2
	12.8	216.8	369.0	363.3	329.1	267.1	415.2	348.3	Sbd box	12.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 1.86459621371E+03 Apriori delay (usec) 1.8655547365E+03 Resid mbdelay (usec) -6.13494E-03 +/- 1.8E-04
 Sband delay (usec) 1.86460183515E+03 Apriori clock (usec) -5.3547668E-01 Resid sbdelay (usec) -9.53638E-01 +/- 1.4E-03
 Phase delay (usec) 1.8655546931E+03 Apriori clockrate (us/s) -1.1600001E-07 Resid phdelay (usec) -4.33641E-06 +/- 6.2E-07
 Delay rate (us/s) -8.25832846679E-01 Apriori rate (us/s) -8.25829572268E-01 Resid rate (us/s) -3.27441E-06 +/- 6.0E-09
 Total phase (deg) 45.6 Apriori accel (us/s/s) -3.72023592525E-05 Resid phase (deg) -134.5 +/- 19.3

RMS Theor. Amplitude 0.168 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 62.8 45.2 Search (1024X32) 0.160 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 65.3 78.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 32.2 27.3 Inc. seg. avg. 0.178 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 61.7 47.6 Inc. frq. avg. 0.161 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

I: az 320.7 el 36.8 pa 80.3 Z: az 16.0 el 30.6 pa -15.2 u,v (fr/asec) 9025.848 -6122.489 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/IZ..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/IZ.W.202.1HT0UR

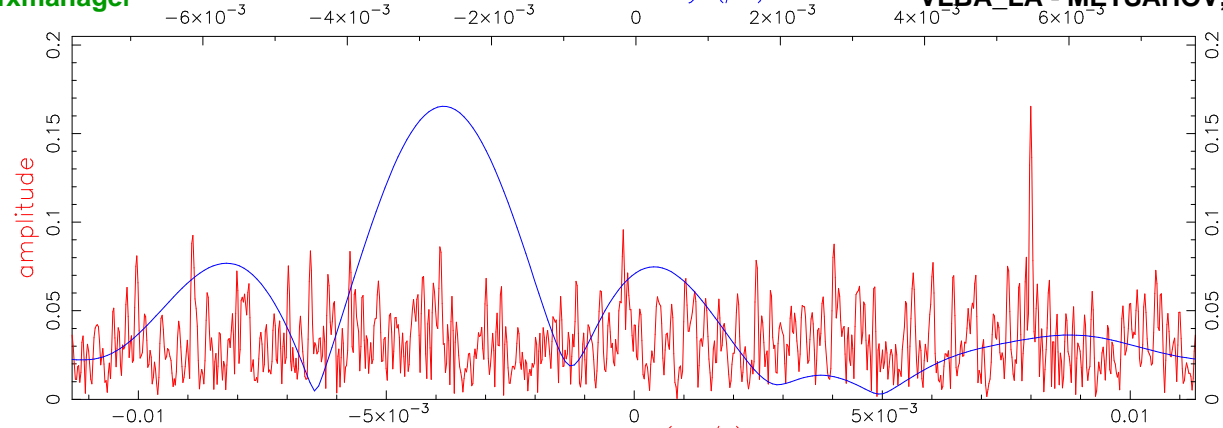
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

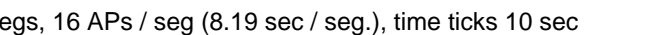
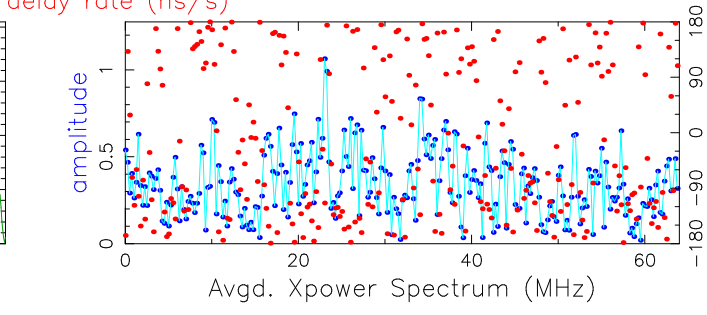
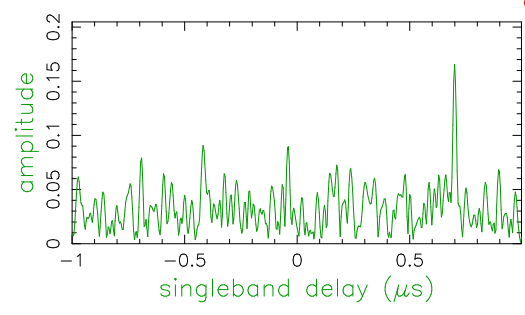
0102+584.1HT0UR, No0131, IZ

VLBA_LA - METSAHOV, fgroup W, pol LR

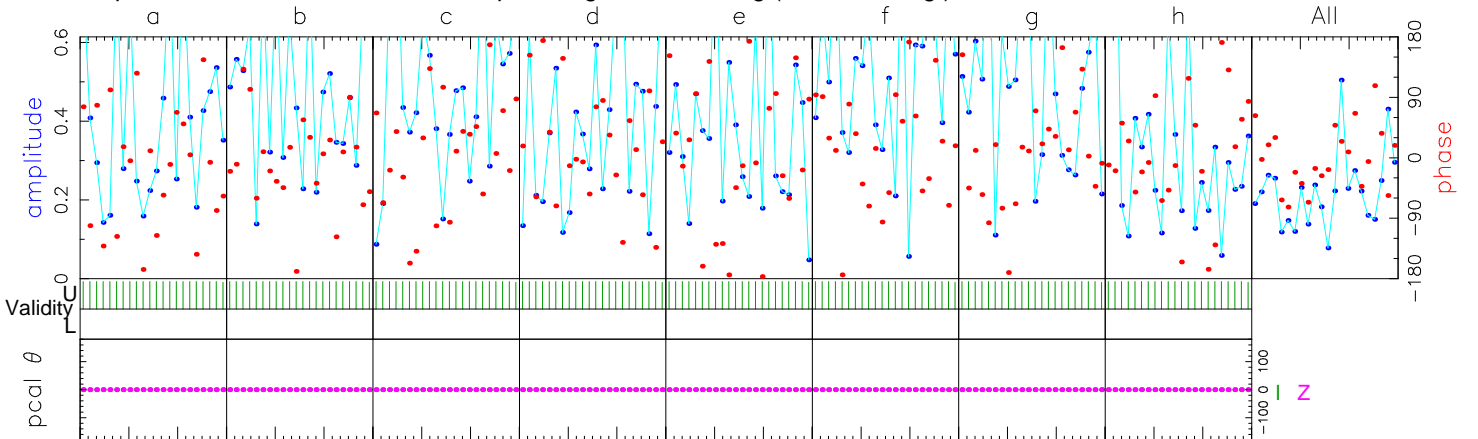
multiband delay (μ s)



Fringe quality 0
 SNR 6.1
 Int time 179.874
 Amp 0.205
 Phase 2.6
 PFD 1.6e-01
 Delays (us)
 SBD 0.699210
 MBD -0.002665
 Fringe rate (Hz) 0.688878
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142012
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 1.86625593373E+03 Apriori delay (usec) 1.8655547365E+03 Resid mbdelay (usec) -2.66492E-03 +/- 1.8E-04
 Sband delay (usec) 1.86625468390E+03 Apriori clock (usec) -5.3547668E-01 Resid sbdelay (usec) 6.99210E-01 +/- 1.4E-03
 Phase delay (usec) 1.8655547374E+03 Apriori clockrate (us/s) -1.1600001E-07 Resid phdelay (usec) 8.40904E-08 +/- 6.1E-07
 Delay rate (us/s) -8.25821575079E-01 Apriori rate (us/s) -8.25829572268E-01 Resid rate (us/s) 7.99719E-06 +/- 5.9E-09
 Total phase (deg) 182.7 Apriori accel (us/s/s) -3.72023592525E-05 Resid phase (deg) 2.6 +/- 18.9

RMS Theor. Amplitude 0.205 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 46.6 44.3 Search (1024X32) 0.164 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 67.8 77.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 39.9 26.7 Inc. seg. avg. 0.214 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 42.2 46.6 Inc. frq. avg. 0.192 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

I: az 320.7 el 36.8 pa 80.3 Z: az 16.0 el 30.6 pa -15.2 u,v (fr/asec) 9025.848 -6122.489 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/IZ..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/IZ.W.216.1HT0UR

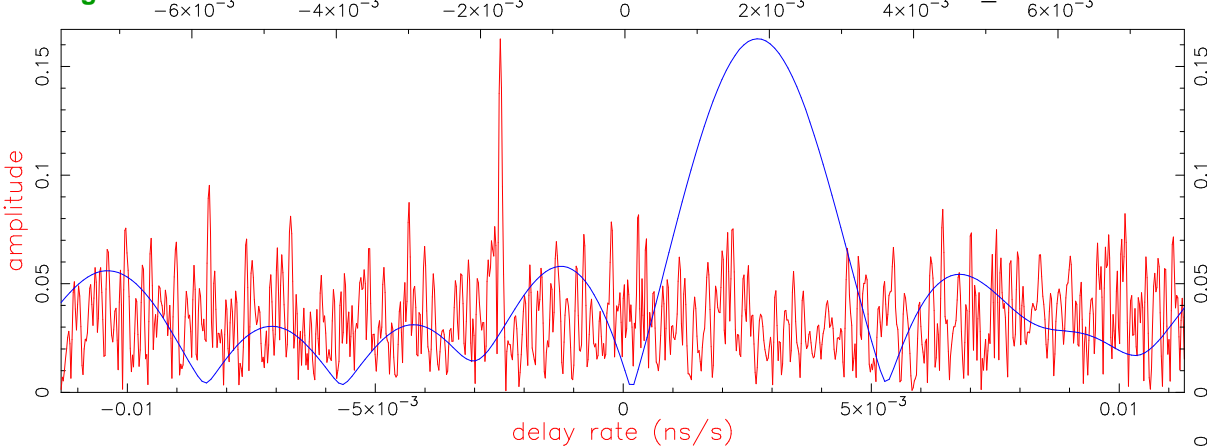
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, IZ

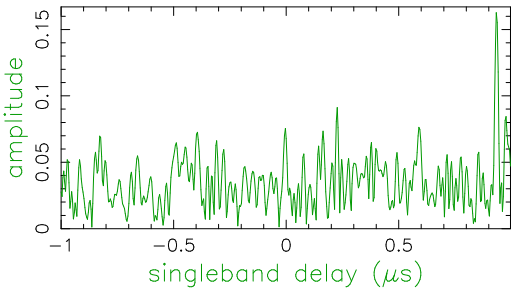
VLBA_LA - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

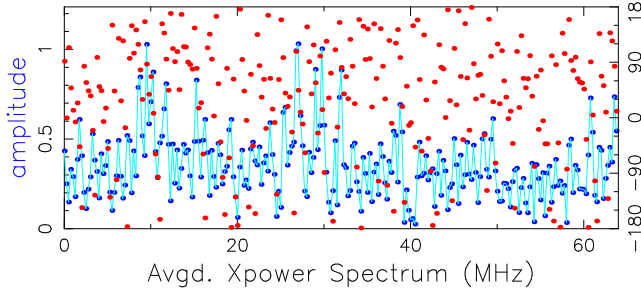


Fringe quality 0

SNR 6.0
 Int time 179.874
 Amp 0.167
 Phase 21.5
 PFD 2.2e-01
 Delays (us)
 SBD 0.934648
 MBD 0.001883
 Fringe rate (Hz)
 -0.213108
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

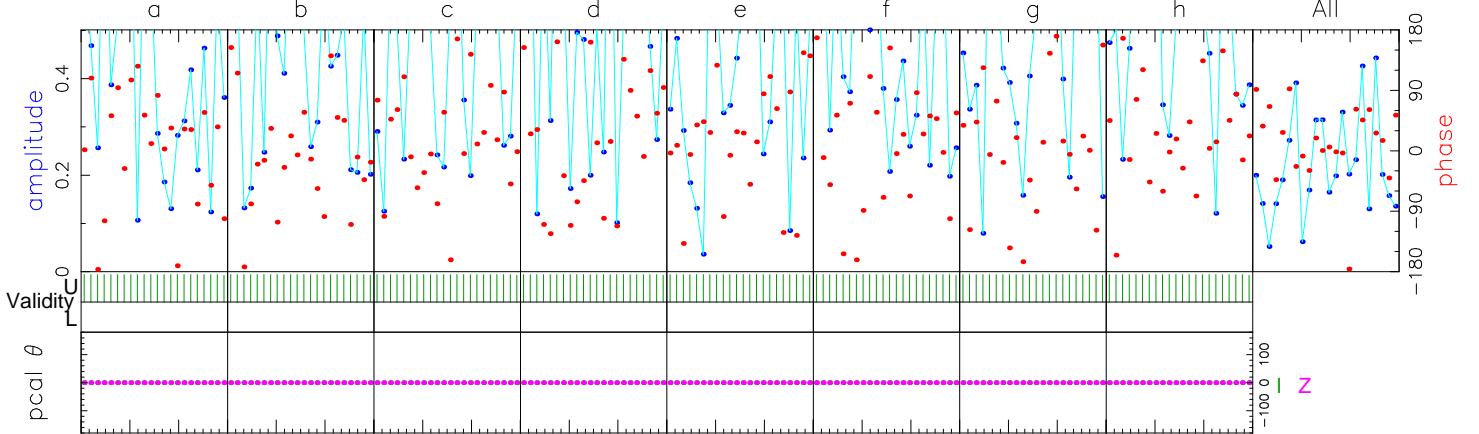


delay rate (ns/s)



Exp. c202a
 Yr:day 16383
 Start 2020:283
 Stop 2020:283
 FRT 120300.22
 Corr/FF/build
 2021:007:151726
 2021:010:142013
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.86649485665E+03	Apriori delay (usec)	1.8655547365E+03	Resid mbdelay (usec)	1.88300E-03	+/-	1.8E-04
Sband delay (usec)	1.86649012165E+03	Apriori clock (usec)	-5.3547668E-01	Resid sbdelay (usec)	9.34648E-01	+/-	1.4E-03
Phase delay (usec)	1.8655547434E+03	Apriori clockrate (us/s)	-1.1600001E-07	Resid phdelay (usec)	6.93400E-07	+/-	6.2E-07
Delay rate (us/s)	-8.25832046245E-01	Apriori rate (us/s)	-8.25829572268E-01	Resid rate (us/s)	-2.47398E-06	+/-	5.9E-09
Total phase (deg)	201.6	Apriori accel (us/s/s)	-3.72023592525E-05	Resid phase (deg)	21.5	+/-	19.1

ph/seg (deg)	51.7	Theor.	44.7	Amplitude	0.167 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	73.7		78.1	Search (1024X32)	0.159	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	18.6		27.0	Inc. seg. avg.	0.173	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	22.7		47.1	Inc. frq. avg.	0.155	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

I: az 320.7 el 36.8 pa 80.3 Z: az 16.0 el 30.6 pa -15.2 u,v (fr/asec) 9025.848 -6122.489 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/IZ..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/IZ.W.231.1HT0UR

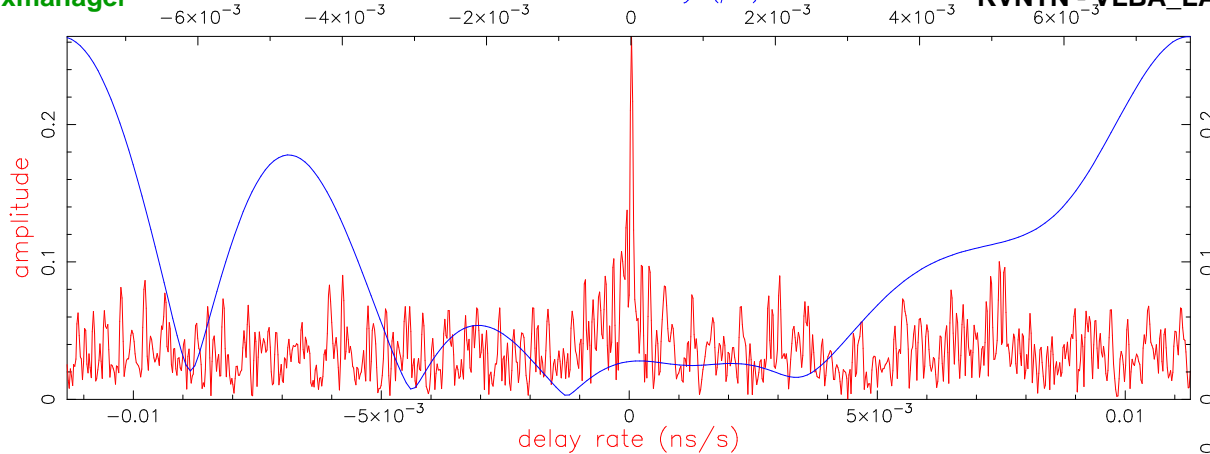
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, tl

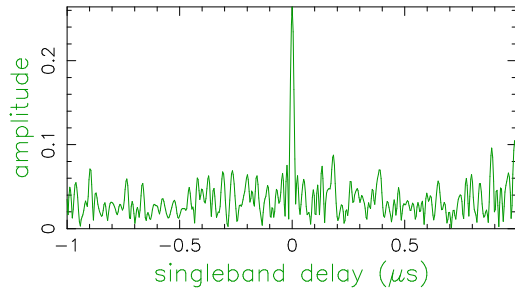
KVNTN - VLBA_LA, fgroup W, pol LL

multiband delay (μ s)

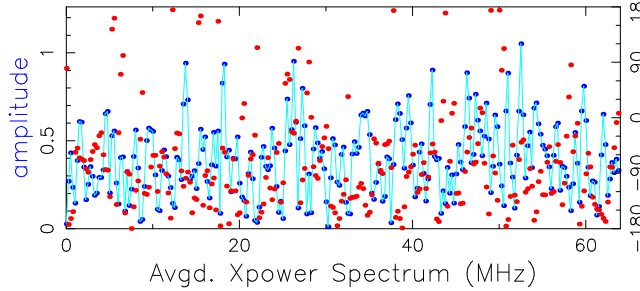


Fringe quality 9

SNR 9.7
 Int time 179.912
 Amp 0.264
 Phase -12.3
 PFD 6.9e-14
 Delays (us)
 SBD -0.000360
 MBD -0.007921
 Fringe rate (Hz) 0.003028
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

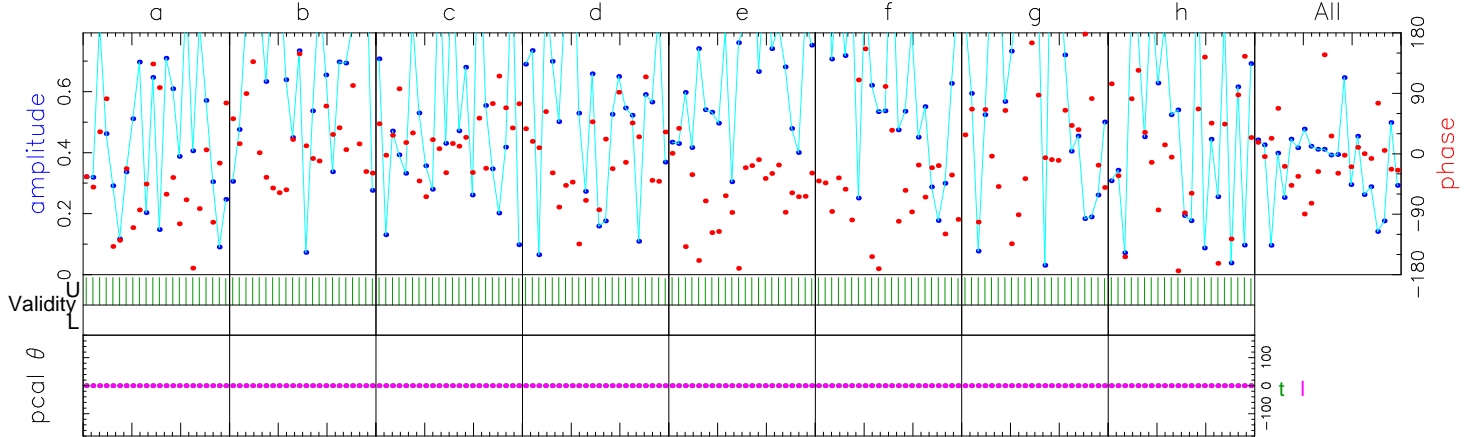


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142017
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 3.17310871872E+03 Apriori delay (usec) 3.17311663937E+03 Resid mbdelay (usec) -7.92065E-03 +/- 1.1E-04
 Sband delay (usec) 3.17311627937E+03 Apriori clock (usec) 1.7629786E+00 Resid sbdelay (usec) -3.60000E-04 +/- 8.9E-04
 Phase delay (usec) 3.17311663898E+03 Apriori clockrate (us/s) 1.9999998E-07 Resid phdelay (usec) -3.95255E-07 +/- 3.8E-07
 Delay rate (us/s) 1.16471898716E+00 Apriori rate (us/s) 1.16471895201E+00 Resid rate (us/s) 3.51487E-08 +/- 3.7E-09
 Total phase (deg) 101.3 Apriori accel (us/s/s) -2.03138527761E-05 Resid phase (deg) -12.3 +/- 11.8

ph/seg (deg) 50.7 27.7 Search (1024X32) 0.255 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 60.8 48.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 44.4 16.7 Inc. seg. avg. 0.327 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.8 29.2 Inc. frq. avg. 0.317 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 37.3 el 48.0 pa -103.7 l: az 320.7 el 36.8 pa 80.3 u, v (fr/asec) -12787.205 -2714.249 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/tl.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/tl.W.255.1HT0UR

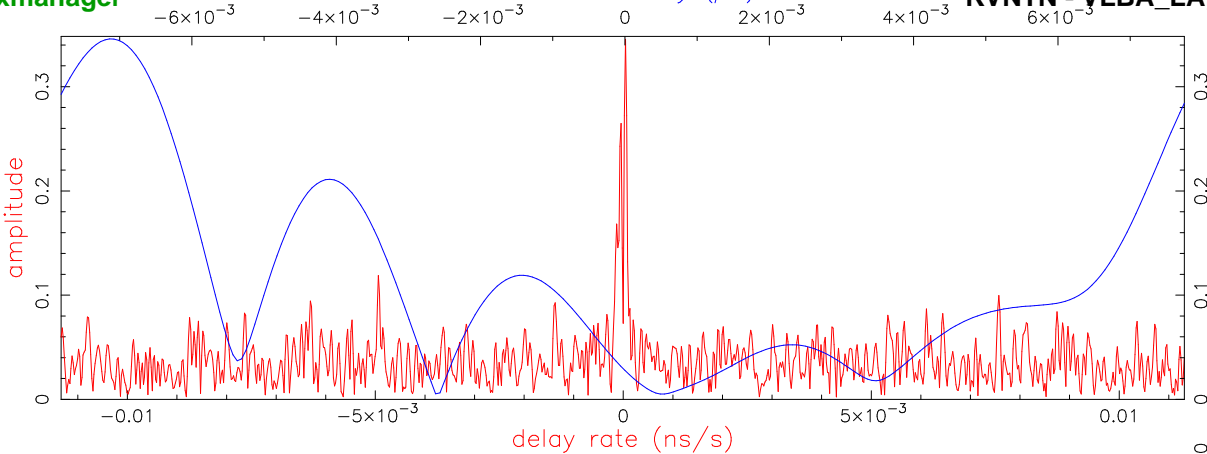
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, tl

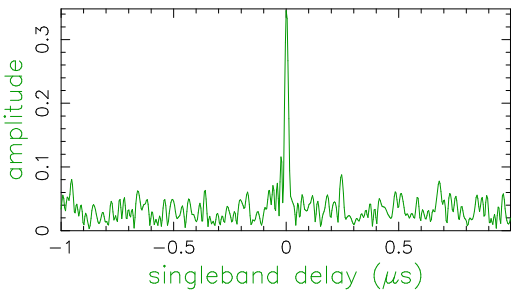
KVNTN - VLBA_LA, fgroup W, pol RR

multiband delay (μ s)

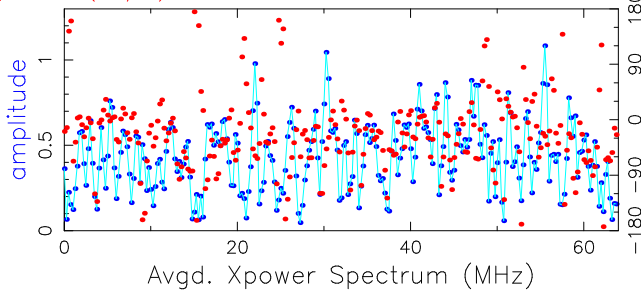


Fringe quality 9

SNR 12.8
 Int time 179.912
 Amp 0.348
 Phase 67.4
 PFD 6.1e-29
 Delays (us)
 SBD 0.001137
 MBD -0.007068
 Fringe rate (Hz)
 0.003656
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

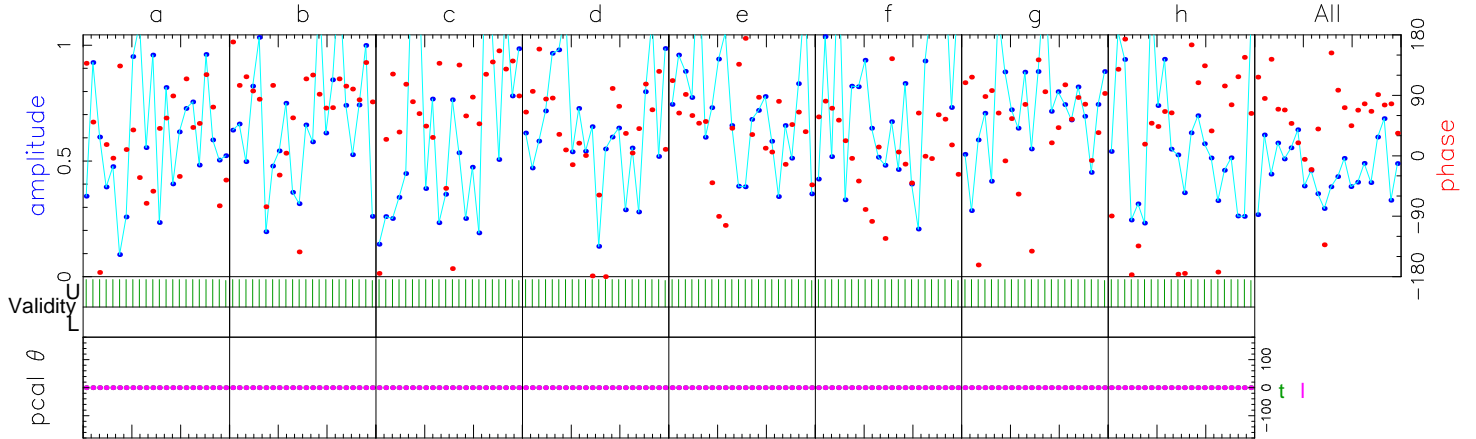


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142020
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
t	1000	1000	1000	1000	1000	1000	1000	1000			
l	1000	1000	1000	1000	1000	1000	1000	1000			
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
t	1000	1000	1000	1000	1000	1000	1000	1000			
l	1000	1000	1000	1000	1000	1000	1000	1000			
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		3.17312519628E+03				3.17311663937E+03			Resid mbdelay (usec)	-7.06809E-03	+/- 8.5E-05
Sband delay (usec)		3.17311777662E+03				1.7629786E+00			Resid sbdelay (usec)	1.13725E-03	+/- 6.7E-04
Phase delay (usec)		3.17311664155E+03				1.9999998E-07			Resid phdelay (usec)	2.17247E-06	+/- 2.9E-07
Delay rate (us/s)		1.16471899445E+00				1.16471895201E+00			Resid rate (us/s)	4.24469E-08	+/- 2.8E-09
Total phase (deg)			181.0			-2.03138527761E-05			Resid phase (deg)	67.4	+/- 9.0

ph/seg (deg) 52.9 21.0 Search (1024X32) 0.340 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 46.1 36.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.8 12.7 Inc. seg. avg. 0.436 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 27.5 22.1 Inc. frq. avg. 0.398 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 37.3 el 48.0 pa -103.7 l: az 320.7 el 36.8 pa 80.3 u, v (fr/asec) -12787.205 -2714.249 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/tl.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/tl.W.278.1HT0UR

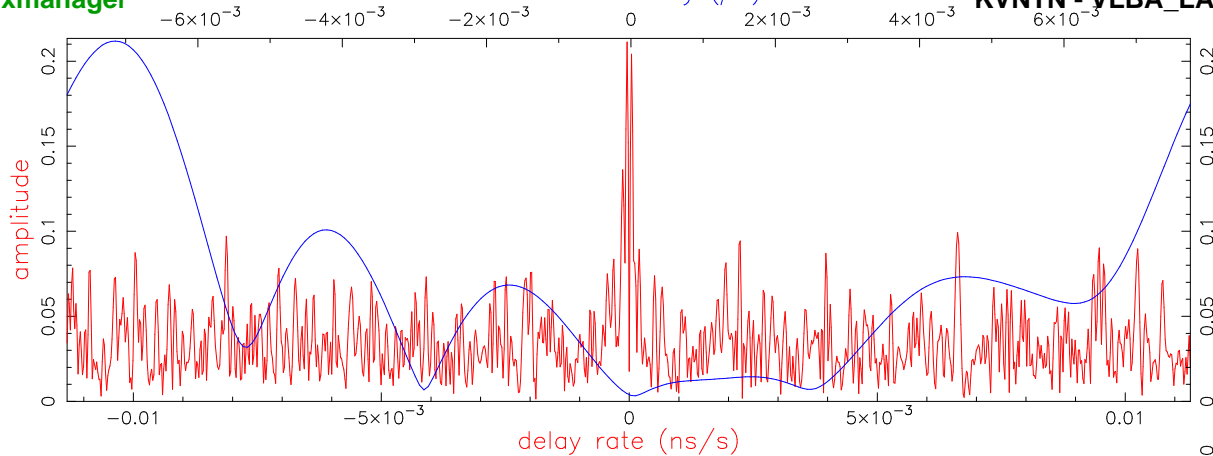
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, tl

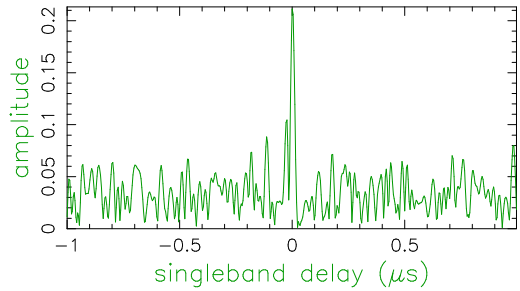
KVNTN - VLBA_LA, fgroup W, pol LR

multiband delay (μ s)

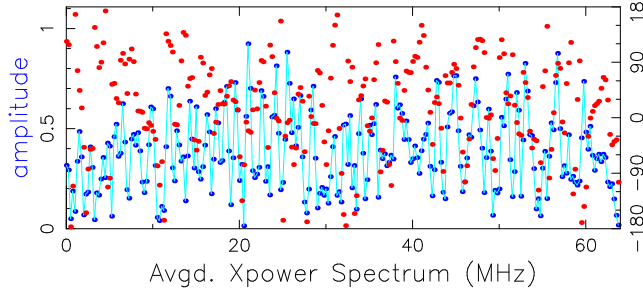


Fringe quality 9

SNR 7.8
 Int time 179.912
 Amp 0.213
 Phase 133.9
 PFD 8.3e-07
 Delays (us)
 SBD 0.001362
 MBD -0.007059
 Fringe rate (Hz)
 -0.004575
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

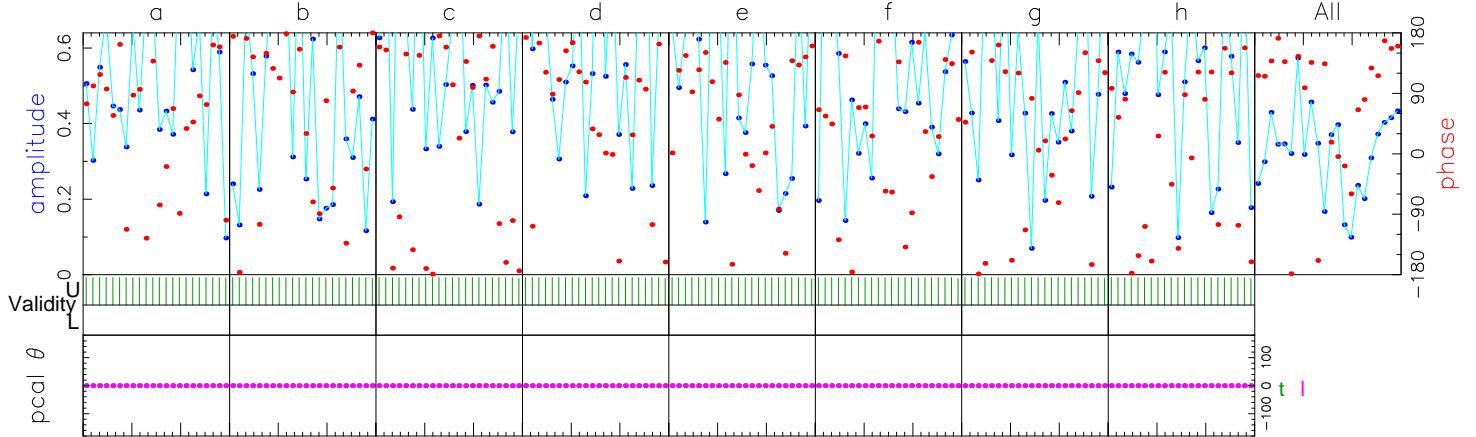


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142022
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		3.17312520515E+03				3.17311663937E+03			Resid mbdelay (usec)	-7.05922E-03 +/- 1.4E-04
Sband delay (usec)		3.17311800137E+03				1.7629786E+00			Resid sbdelay (usec)	1.36200E-03 +/- 1.1E-03
Phase delay (usec)		3.17311664369E+03				1.9999998E-07			Resid phdelay (usec)	4.31920E-06 +/- 4.7E-07
Delay rate (us/s)		1.16471889889E+00				1.16471895201E+00			Resid rate (us/s)	-5.31163E-08 +/- 4.5E-09
Total phase (deg)			247.5			-2.03138527761E-05			Resid phase (deg)	133.9 +/- 14.6

	RMS	Theor.	Amplitude	0.213 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	68.8	34.3	Search (1024X32)	0.202	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	74.7	59.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	35.1	20.7	Inc. seg. avg.	0.278	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	38.3	36.1	Inc. frq. avg.	0.221	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

t: az 37.3 el 48.0 pa -103.7 l: az 320.7 el 36.8 pa 80.3 u, v (fr/asec) -12787.205 -2714.249 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/tl.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/tl.W.295.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

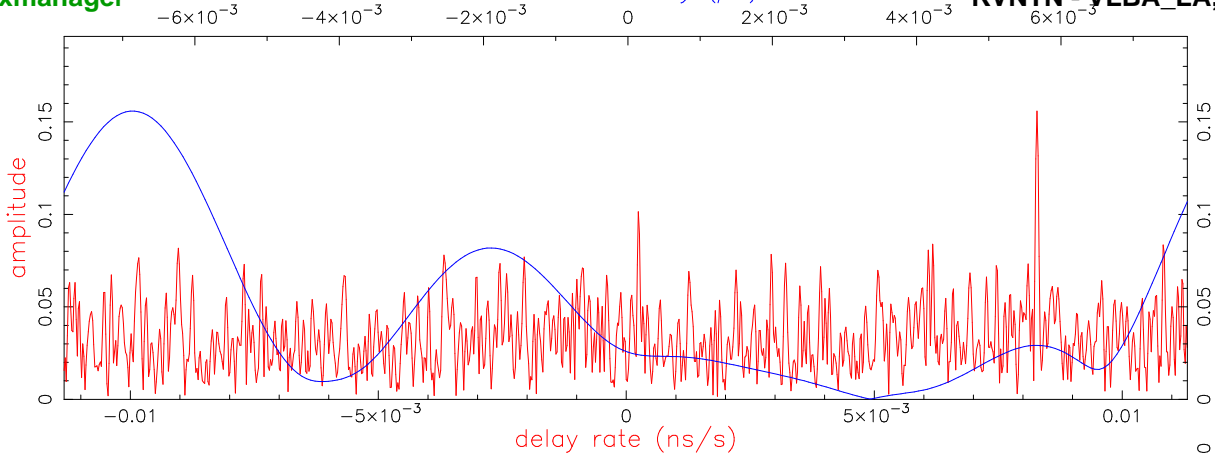
fxmanager

0102+584.1HT0UR, No0131, tl

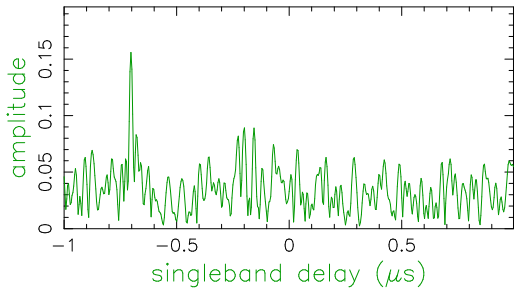
KVNTN - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

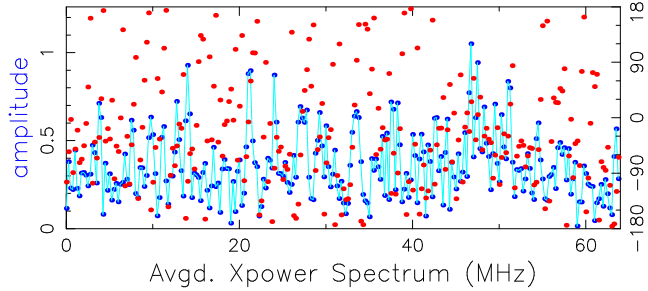
Fringe quality 0



SNR 5.7
 Int time 179.912
 Amp 0.196
 Phase -145.7
 PFD 7.4e-01
 Delays (us)
 SBD -0.702995
 MBD -0.006860
 Fringe rate (Hz)
 0.713498
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

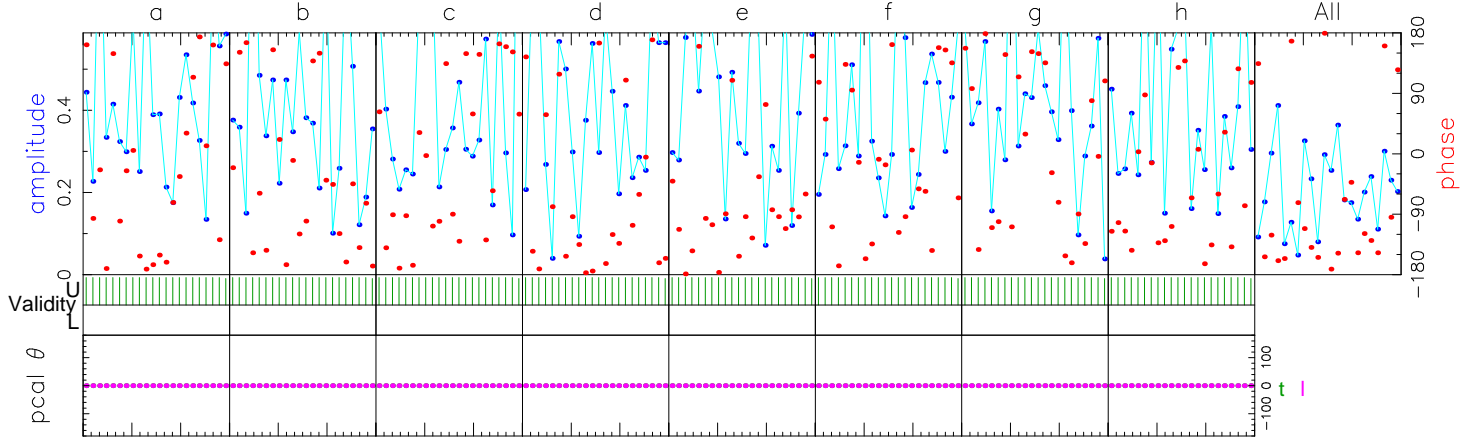


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142023
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	3.17240665391E+03	Apriori delay (usec)	3.17311663937E+03	Resid mbdelay (usec)	-6.86046E-03	+/-	1.9E-04
Sband delay (usec)	3.17241364412E+03	Apriori clock (usec)	1.7629786E+00	Resid sbdelay (usec)	-7.02995E-01	+/-	1.5E-03
Phase delay (usec)	3.17311663468E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-4.69740E-06	+/-	6.5E-07
Delay rate (us/s)	1.16472723501E+00	Apriori rate (us/s)	1.16471895201E+00	Resid rate (us/s)	8.28301E-06	+/-	6.2E-09
Total phase (deg)	-32.1	Apriori accel (us/s/s)	-2.03138527761E-05	Resid phase (deg)	-145.7	+/-	20.0

ph/seg (deg)	47.2	Theor.	47.0	Amplitude	0.196 +/- 0.034	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	70.0		82.0	Search (1024X32)	0.153	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	23.8		28.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	46.8		49.5	Inc. seg. avg.	0.195	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.186	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 37.3 el 48.0 pa -103.7 l: az 320.7 el 36.8 pa 80.3 u, v (fr/asec) -12787.205 -2714.249 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/tl.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/tl.W.311.1HT0UR

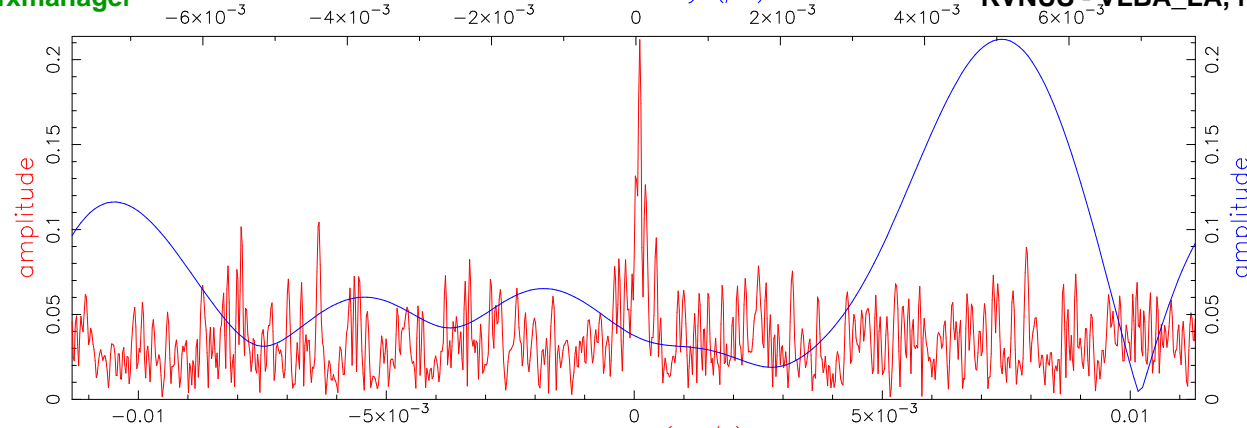
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

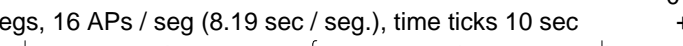
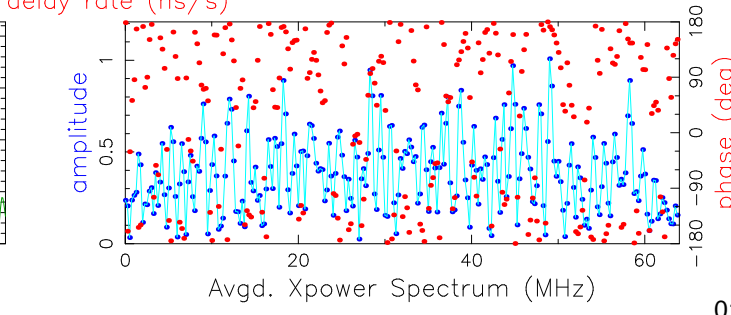
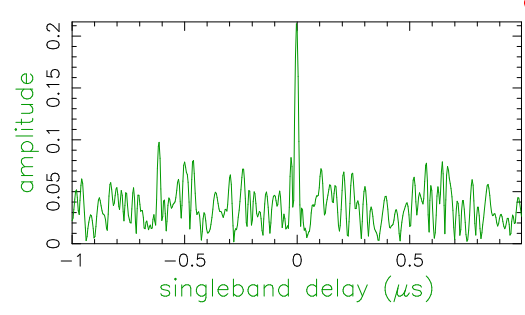
0102+584.1HT0UR, No0131, ul

KVNUS - VLBA_LA, fgroup W, pol LL

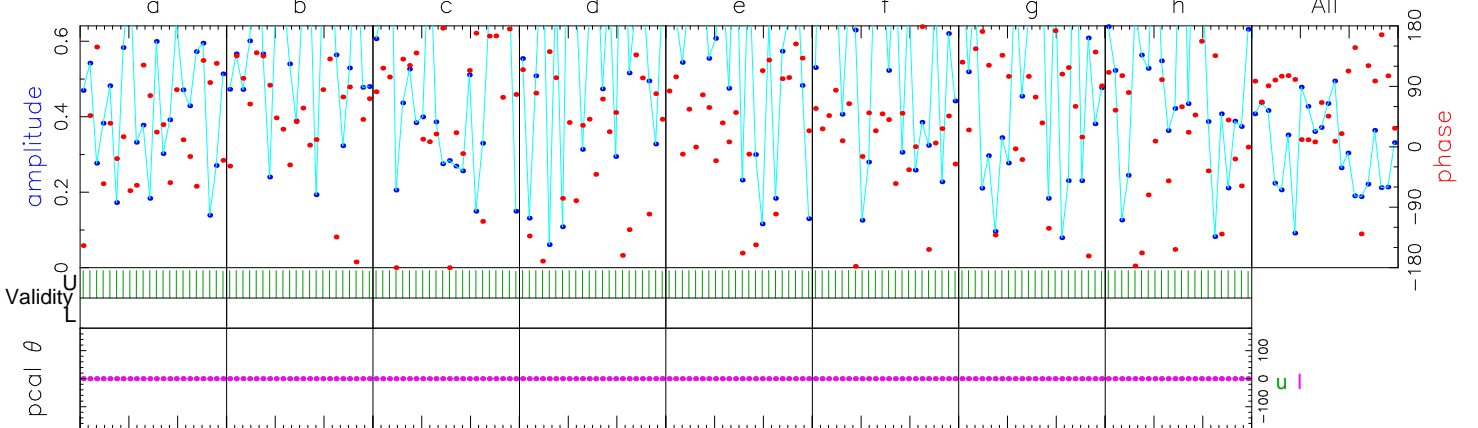
multiband delay (μ s)



Fringe quality 9
 SNR 7.8
 Int time 179.977
 Amp 0.214
 Phase 67.0
 PFD 7.5e-07
 Delays (us)
 SBD -0.002709
 MBD 0.005124
 Fringe rate (Hz) 0.008966
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142019
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	3.93828475432E+03		Apriori delay (usec)		3.93829525532E+03		Resid mbdelay (usec)		5.12400E-03	+/- 1.4E-04
Sband delay (usec)	3.93829254632E+03		Apriori clock (usec)		2.9144459E+00		Resid sbdelay (usec)		-2.70900E-03	+/- 1.1E-03
Phase delay (usec)	3.93829525748E+03		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		2.16124E-06	+/- 4.7E-07
Delay rate (us/s)	1.12981163755E+00		Apriori rate (us/s)		1.12981153347E+00		Resid rate (us/s)		1.04087E-07	+/- 4.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.12554876379E-05		Resid phase (deg)		67.0	+/- 14.6

ph/seg (deg) 58.3 34.3 Search (1024X32) 0.206 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.7 59.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 36.8 20.7 Inc. seg. avg. 0.270 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 40.5 36.1 Inc. frq. avg. 0.232 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 u: az 38.4 el 51.2 pa -105.1 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -12405.405 -2686.578 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/ul..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/ul.W.272.1HT0UR

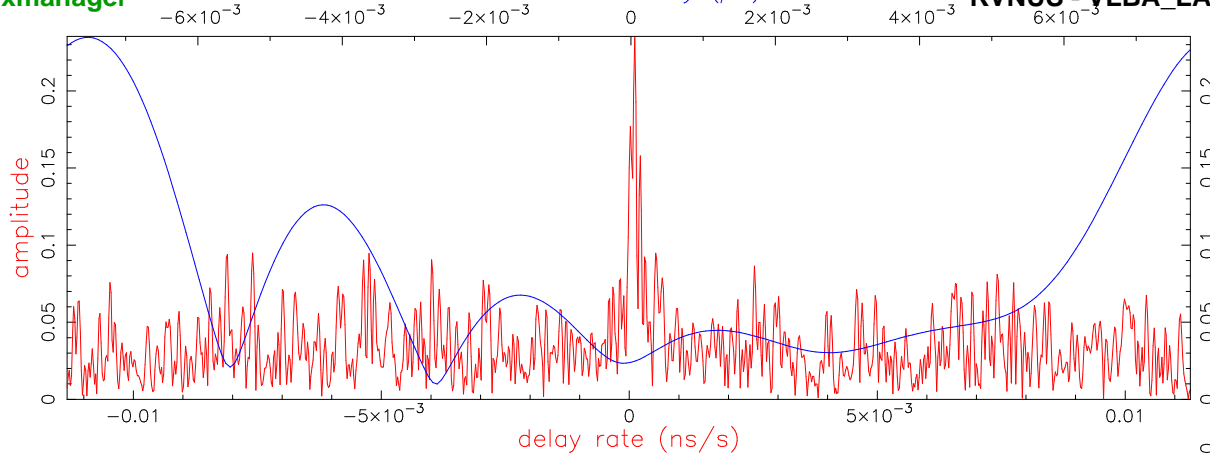
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, ul

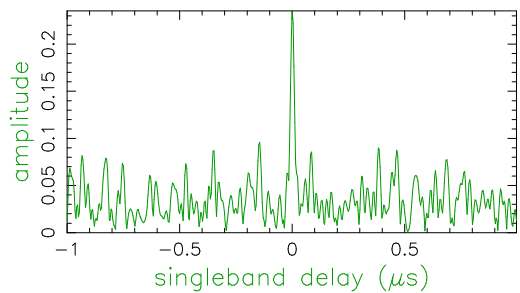
KVNUS - VLBA_LA, fgroup W, pol RR

multiband delay (μ s)

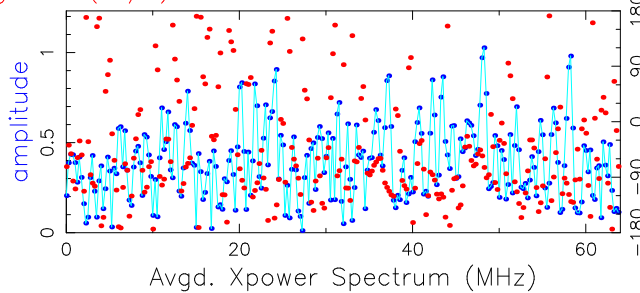


Fringe quality 9

SNR 8.6
 Int time 179.977
 Amp 0.235
 Phase 8.1
 PFD 1.1e-09
 Delays (us)
 SBD 0.000690
 MBD -0.007514
 Fringe rate (Hz)
 0.009001
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

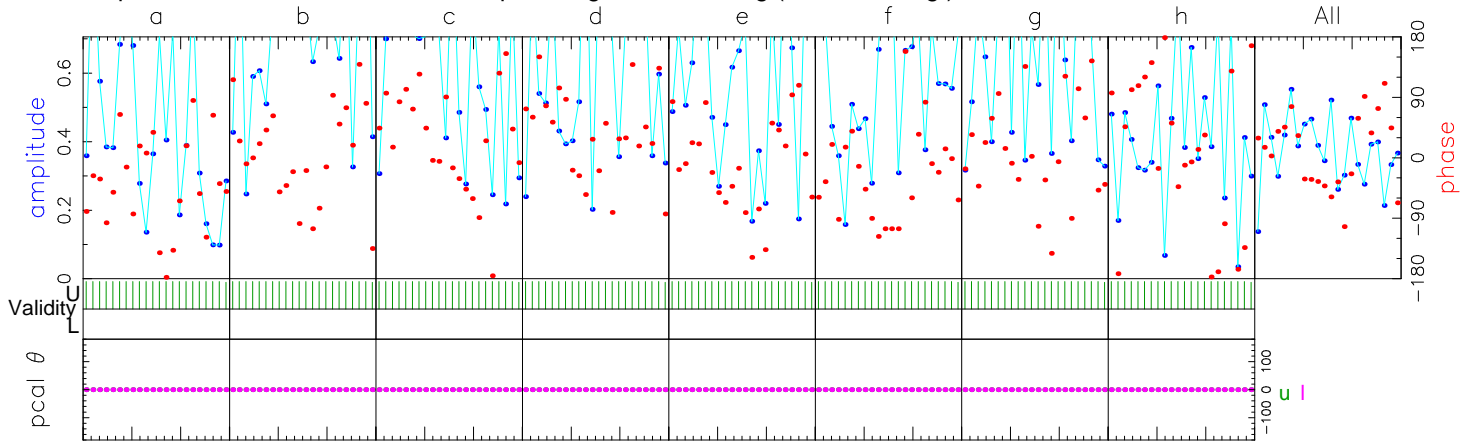


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142022
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		3.93830336594E+03				3.93829525532E+03			Resid mbdelay (usec)	-7.51438E-03 +/- 1.3E-04
Sband delay (usec)		3.93829594557E+03				2.9144459E+00			Resid sbdelay (usec)	6.90250E-04 +/- 1.0E-03
Phase delay (usec)		3.93829525558E+03				5.0000000E-07			Resid phdelay (usec)	2.59896E-07 +/- 4.3E-07
Delay rate (us/s)		1.12981163797E+00				1.12981153347E+00			Resid rate (us/s)	1.04498E-07 +/- 4.1E-09
Total phase (deg)			113.6			-2.12554876379E-05			Resid phase (deg)	8.1 +/- 13.3
	RMS	Theor.	Amplitude	0.235 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	55.3	31.1	Search (1024X32)	0.228					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	72.7	54.3	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	43.3	18.8	Inc. seg. avg.	0.326					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	40.5	32.8	Inc. frq. avg.	0.260					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 38.4 el 51.2 pa -105.1 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -12405.405 -2686.578 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/ul..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/ul.W.298.1HT0UR

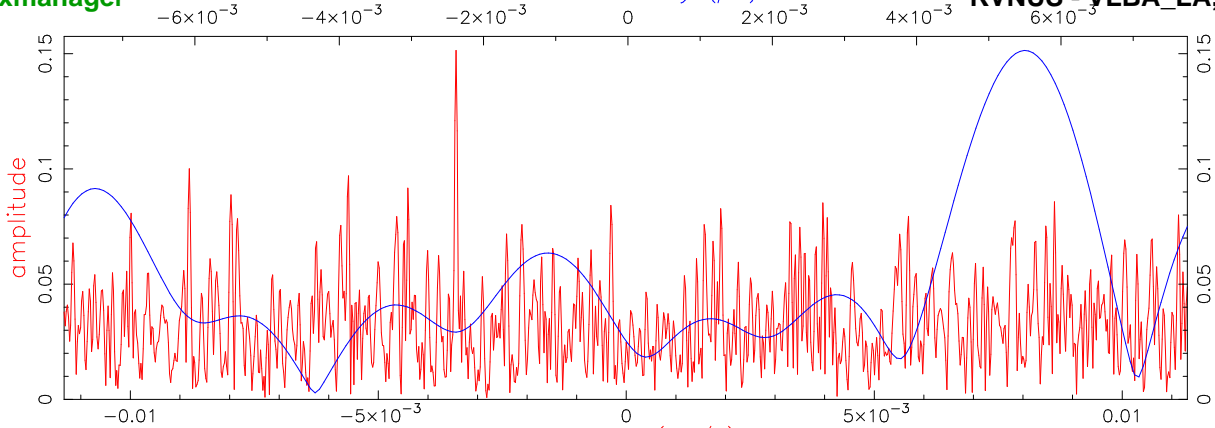
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, ul

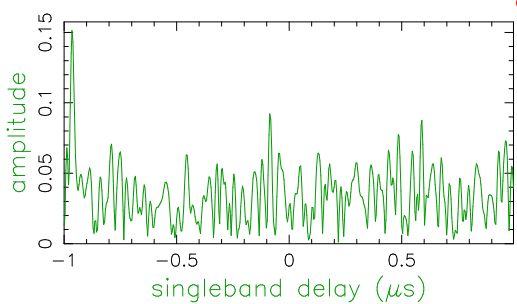
KVNUS - VLBA_LA, fgroup W, pol LR

multiband delay (μ s)

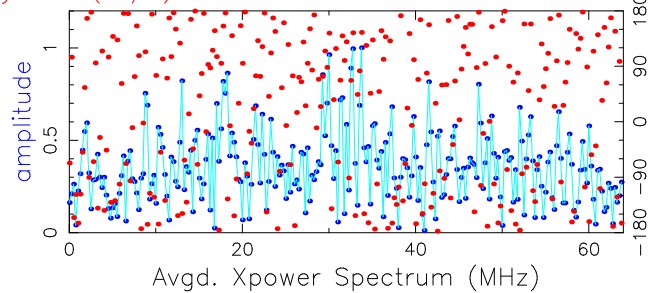


Fringe quality 0

SNR 5.6
 Int time 179.977
 Amp 0.158
 Phase 139.2
 PFD 9.6e-01
 Delays (us)
 SBD -0.964293
 MBD 0.005503
 Fringe rate (Hz)
 -0.295825
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

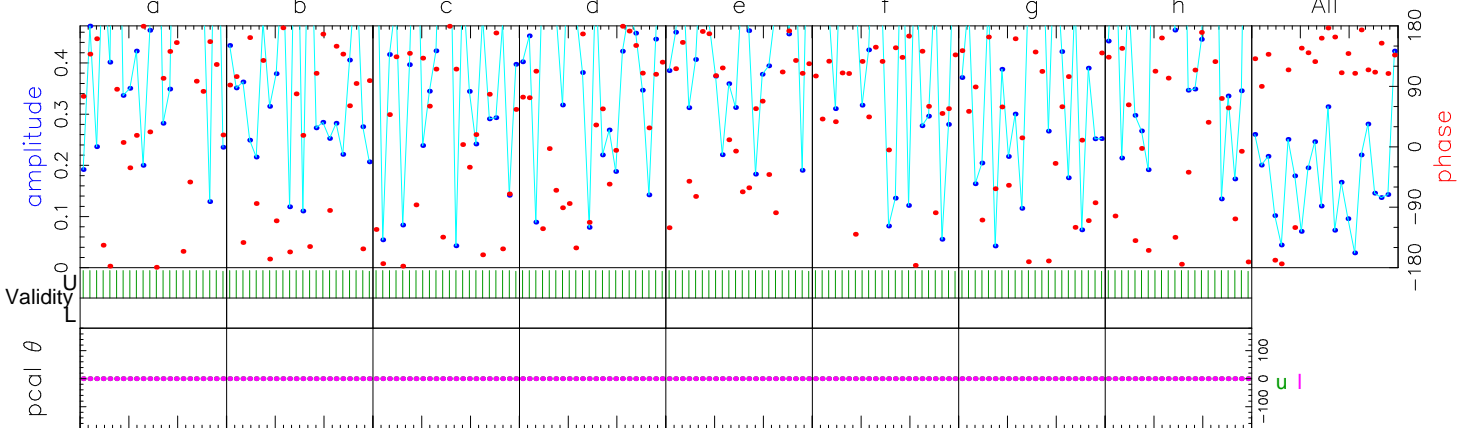


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142024
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 3.93733200806E+03 Apriori delay (usec) 3.93829525532E+03 Resid mbdelay (usec) 5.50274E-03 +/- 2.0E-04
 Sband delay (usec) 3.93733096282E+03 Apriori clock (usec) 2.9144459E+00 Resid sbdelay (usec) -9.64293E-01 +/- 1.5E-03
 Phase delay (usec) 3.93829525981E+03 Apriori clockrate (us/s) 5.0000000E-07 Resid phdelay (usec) 4.48896E-06 +/- 6.6E-07
 Delay rate (us/s) 1.12980809923E+00 Apriori rate (us/s) 1.12981153347E+00 Resid rate (us/s) -3.43424E-06 +/- 6.4E-09
 Total phase (deg) 244.7 Apriori accel (us/s/s) -2.12554876379E-05 Resid phase (deg) 139.2 +/- 20.6

ph/seg (deg) 34.6 48.3 Amplitude 0.158 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 63.8 84.3 Search (1024X32) 0.149 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.6 29.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 51.7 50.8 Inc. seg. avg. 0.136 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.146 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 38.4 el 51.2 pa -105.1 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -12405.405 -2686.578 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/ul..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/ul.W.314.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

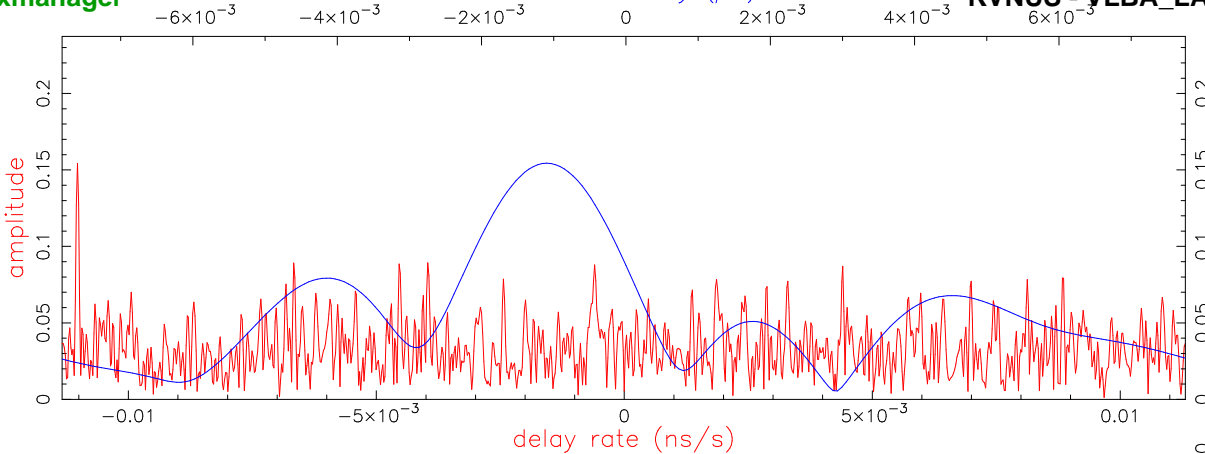
fxmanager

0102+584.1HT0UR, No0131, ul

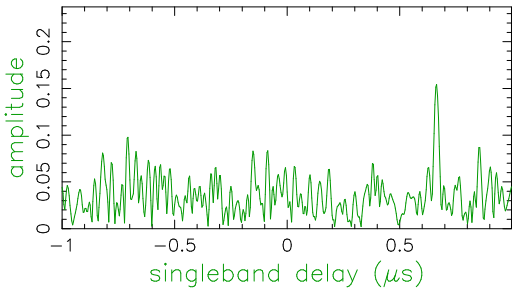
KVNUS - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

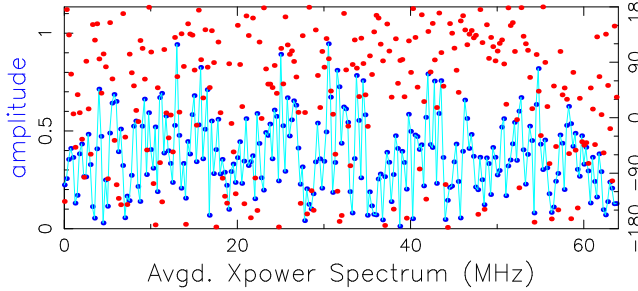
Fringe quality 0



SNR 5.7
 Int time 179.977
 Amp 0.237
 Phase -167.7
 PFD 7.9e-01
 Delays (us)
 SBD 0.662826
 MBD -0.001133
 Fringe rate (Hz)
 -0.950412
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

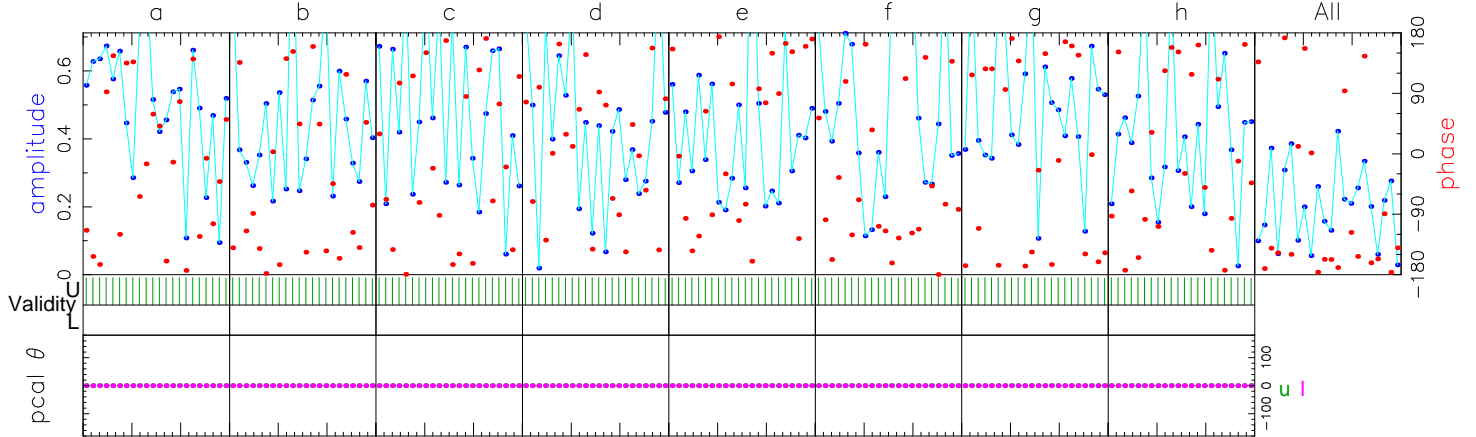


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142025
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-175.1	-168.6	-178.1	80.7	-168.1	-128.4	169.9	-159.4	Phase	-167.7
	0.1	0.3	0.2	0.0	0.3	0.3	0.4	0.3	Ampl.	0.2
	417.3	46.4	216.1	502.2	18.7	68.4	428.1	428.6	Sbd box	426.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.93895037253E+03		Apriori delay (usec)		3.93829525532E+03		Resid mbdelay (usec)		-1.13279E-03	+/- 1.9E-04
Sband delay (usec)	3.93895808082E+03		Apriori clock (usec)		2.9144459E+00		Resid sbdelay (usec)		6.62826E-01	+/- 1.5E-03
Phase delay (usec)	3.93829524991E+03		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-5.40770E-06	+/- 6.5E-07
Delay rate (us/s)	1.12980050013E+00		Apriori rate (us/s)		1.12981153347E+00		Resid rate (us/s)		-1.10333E-05	+/- 6.2E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.12554876379E-05		Resid phase (deg)		-167.7	+/- 20.1

ph/seg (deg) 63.6 47.2 Search (1024X32) 0.150 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 78.8 82.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 49.6 28.5 Inc. seg. avg. 0.234 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 56.2 49.7 Inc. frq. avg. 0.225 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 u: az 38.4 el 51.2 pa -105.1 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -12405.405 -2686.578 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/ul..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/ul.W.328.1HT0UR

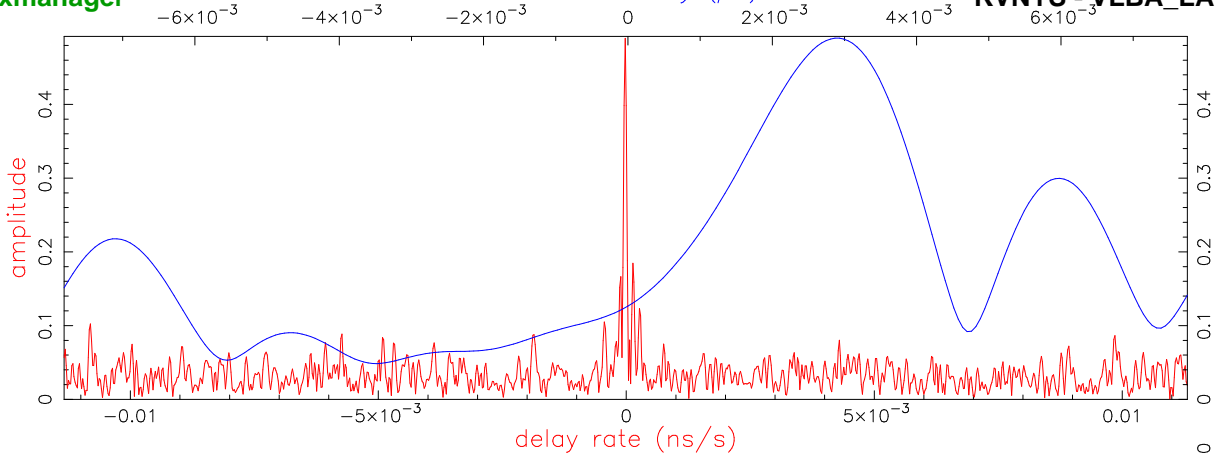
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, yl

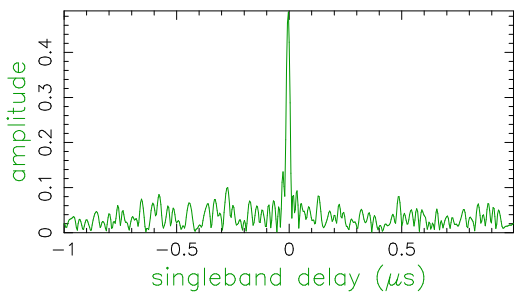
KVNS - VLBA_LA, fgroup W, pol LL

multiband delay (μ s)

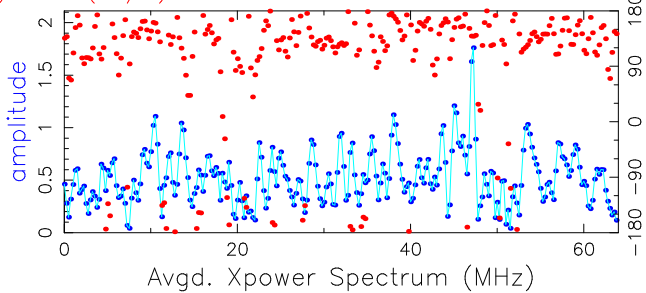


Fringe quality 8

SNR 18.1
 Int time 179.973
 Amp 0.492
 Phase 53.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.004845
 MBD 0.002844
 Fringe rate (Hz)
 -0.002756
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

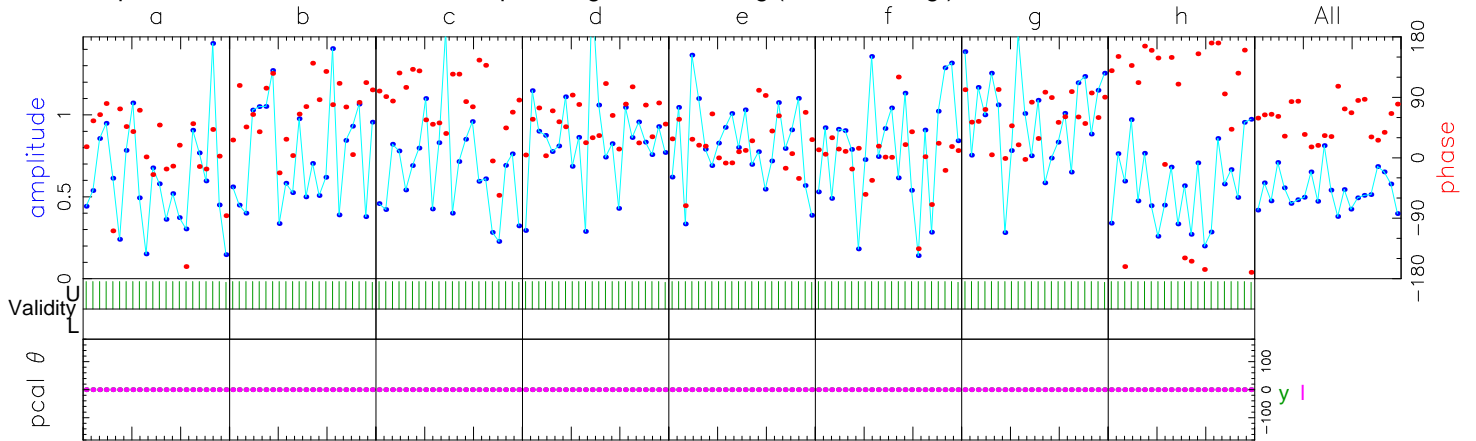


delay rate (ns/s)



Exp. c202a
 Yr:day 16383
 Start 2020:283
 Stop 2020:283
 FRT 120300.22
 Corr/FF/build
 2021:007:151726
 2021:010:142028
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
y:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	4.02475261596E+03	Apriori delay (usec)	4.02474977166E+03	Resid mbdelay (usec)	2.84429E-03	+/-	6.0E-05
Sband delay (usec)	4.02474492716E+03	Apriori clock (usec)	1.6289787E+00	Resid sbdelay (usec)	-4.84450E-03	+/-	4.8E-04
Phase delay (usec)	4.02474977339E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	1.73017E-06	+/-	2.0E-07
Delay rate (us/s)	1.13424848507E+00	Apriori rate (us/s)	1.13424851707E+00	Resid rate (us/s)	-3.19970E-08	+/-	2.0E-09
Total phase (deg)	172.8	Apriori accel (us/s/s)	-1.89994958708E-05	Resid phase (deg)	53.7	+/-	6.3

ph/seg (deg)	25.5	Theor.	14.9	Amplitude	0.492 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	23.6	Search (1024X32)	0.470	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	50.7	Inc. seg. avg.	0.521	Inc. seg. avg.	0.521	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	37.6	Inc. frq. avg.	0.607	Inc. frq. avg.	0.607	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

y: az 40.4 el 51.6 pa -100.8 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -12452.357 -2266.137 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/yl..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/yl.W.345.1HT0UR

Mk4/DiFX fourfit 3.21 rev 2937

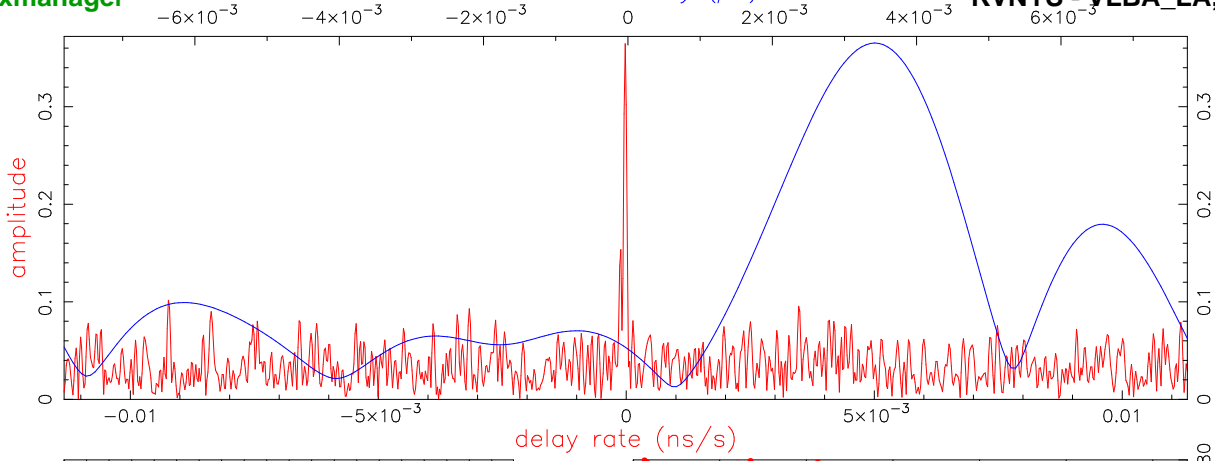
fxmanager

0102+584.1HT0UR, No0131, yl

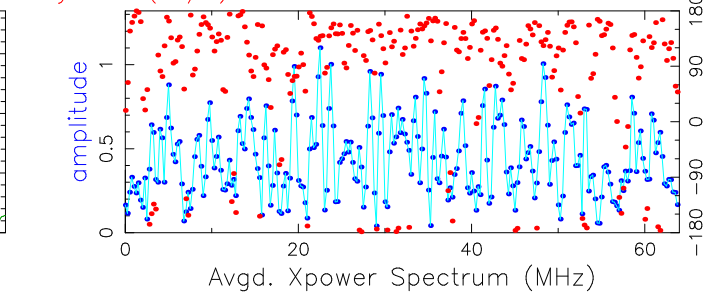
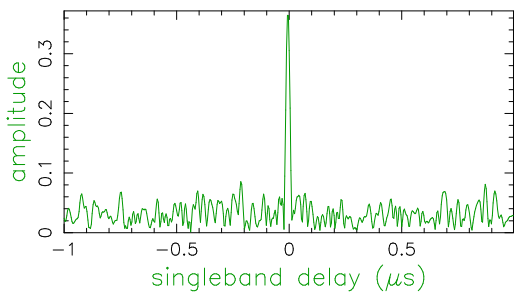
KVNS - VLBA_LA, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 9

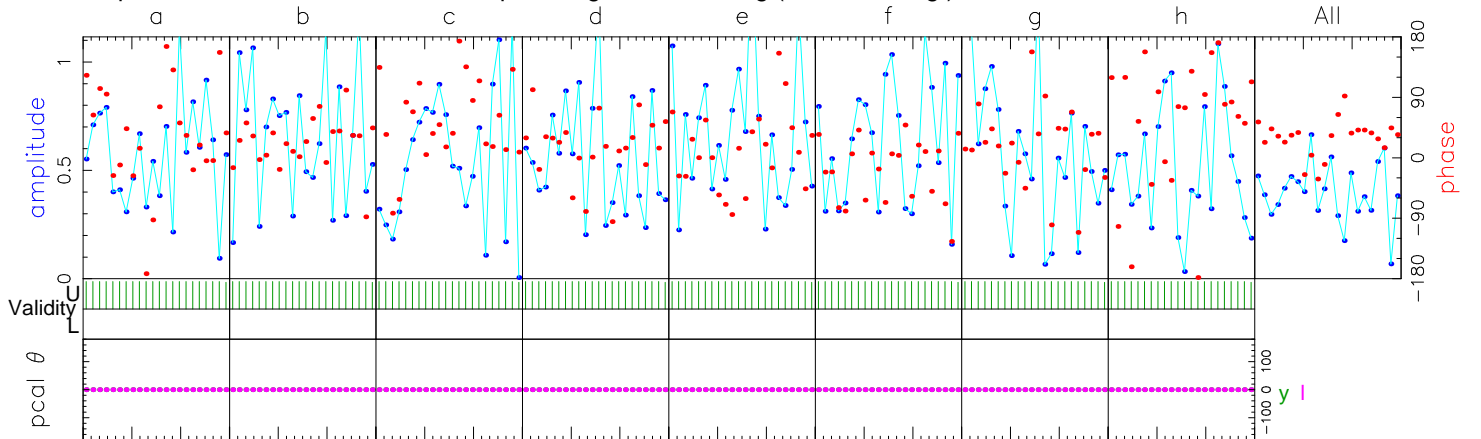


SNR 13.6
 Int time 179.973
 Amp 0.372
 Phase 26.7
 PFD 5.9e-34
 Delays (us)
 SBD -0.005896
 MBD 0.003497
 Fringe rate (Hz)
 -0.002812
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142032
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
y:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 4.02473764343E+03 Apriori delay (usec) 4.02474977166E+03 Resid mbdelay (usec) 3.49676E-03 +/- 8.0E-05
 Sband delay (usec) 4.02474387516E+03 Apriori clock (usec) 1.6289787E+00 Resid sbdelay (usec) -5.89650E-03 +/- 6.3E-04
 Phase delay (usec) 4.02474977253E+03 Apriori clockrate (us/s) 1.9999998E-07 Resid phdelay (usec) 8.62412E-07 +/- 2.7E-07
 Delay rate (us/s) 1.13424848442E+00 Apriori rate (us/s) 1.13424851707E+00 Resid rate (us/s) -3.26432E-08 +/- 2.6E-09
 Total phase (deg) 145.9 Apriori accel (us/s/s) -1.89994958708E-05 Resid phase (deg) 26.7 +/- 8.4

ph/seg (deg) 26.9 19.7 Search (1024X32) 0.350 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 36.3 34.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.0 11.9 Inc. seg. avg. 0.376 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.9 20.7 Inc. frq. avg. 0.402 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 y: az 40.4 el 51.6 pa -100.8 l: az 320.7 el 36.8 pa 80.3 u,v (fr/asec) -12452.357 -2266.137 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/yl..1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/yl.W.382.1HT0UR

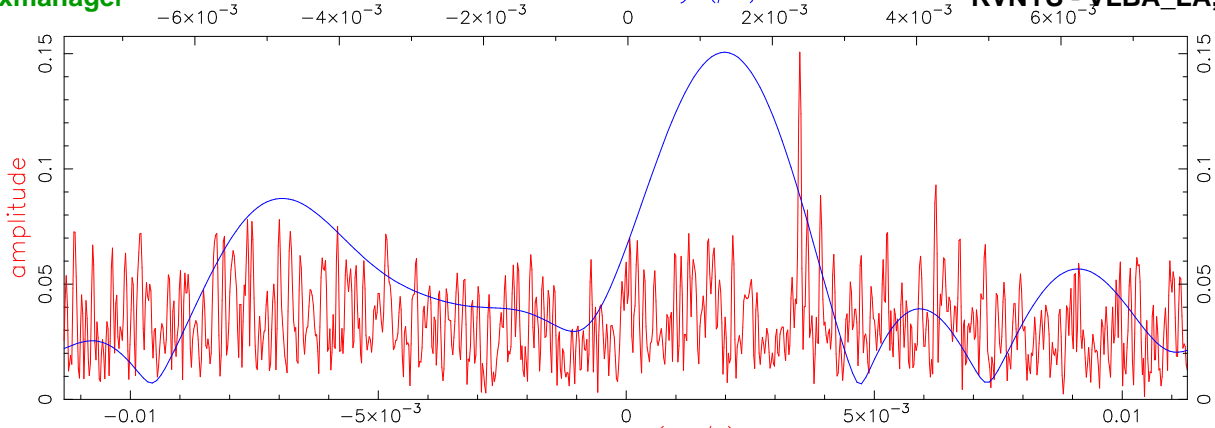
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HT0UR, No0131, yl

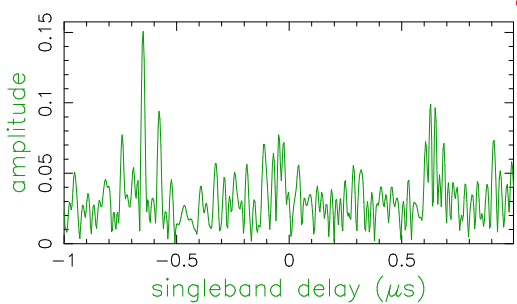
KVNYS - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

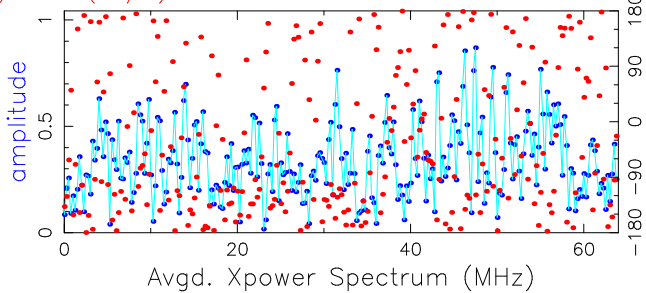


Fringe quality 0

SNR 5.6
 Int time 179.973
 Amp 0.157
 Phase -70.9
 PFD 9.7e-01
 Delays (us)
 SBD -0.649323
 MBD 0.001337
 Fringe rate (Hz)
 0.301930
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

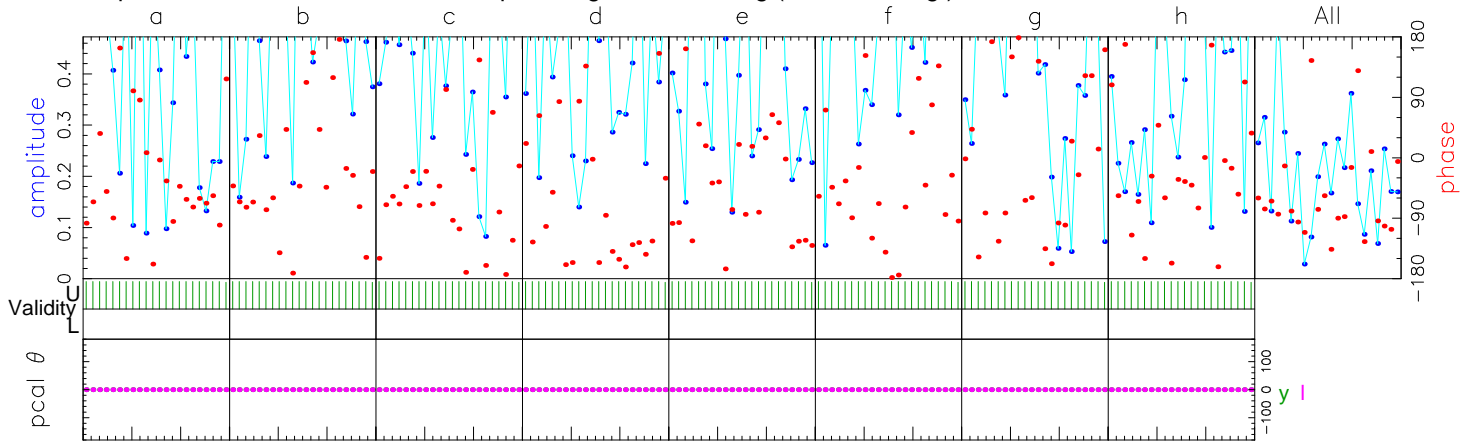


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 120000.00
 Stop 120300.22
 FRT 120130.00
 Corr/FF/build
 2021:007:151726
 2021:010:142034
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-70.4	-53.3	-66.8	-122.6	-20.2	-74.2	-136.6	-37.6	Phase	-70.9
	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.2	Ampl.	0.2
	489.0	250.3	414.1	89.2	416.7	497.1	225.6	182.4	Sbd box	90.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	4.02409485863E+03	Apriori delay (usec)	4.02474977166E+03	Resid mbdelay (usec)	1.33697E-03	+/-	2.0E-04
Sband delay (usec)	4.02410044891E+03	Apriori clock (usec)	1.6289787E+00	Resid sbdelay (usec)	-6.49323E-01	+/-	1.6E-03
Phase delay (usec)	4.02474976938E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-2.28739E-06	+/-	6.7E-07
Delay rate (us/s)	1.13425202218E+00	Apriori rate (us/s)	1.13424851707E+00	Resid rate (us/s)	3.50511E-06	+/-	6.4E-09
Total phase (deg)	48.2	Apriori accel (us/s/s)	-1.89994958708E-05	Resid phase (deg)	-70.9	+/-	20.6

ph/seg (deg)	59.2	Theor.	48.4	Amplitude	0.157 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	83.9		84.5	Search (1024X32)	0.146	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	42.8		29.2	Inc. seg. avg.	0.161	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	28.3		50.9	Inc. frq. avg.	0.168	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

y: az 40.4 el 51.6 pa -100.8 l: az 320.7 el 36.8 pa 80.3 u, v (fr/asec) -12452.357 -2266.137 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0131/yl.1HT0UR Output file: /Exps/c202a/v1/v1_3mm/1234/No0131/yl.W.395.1HT0UR