

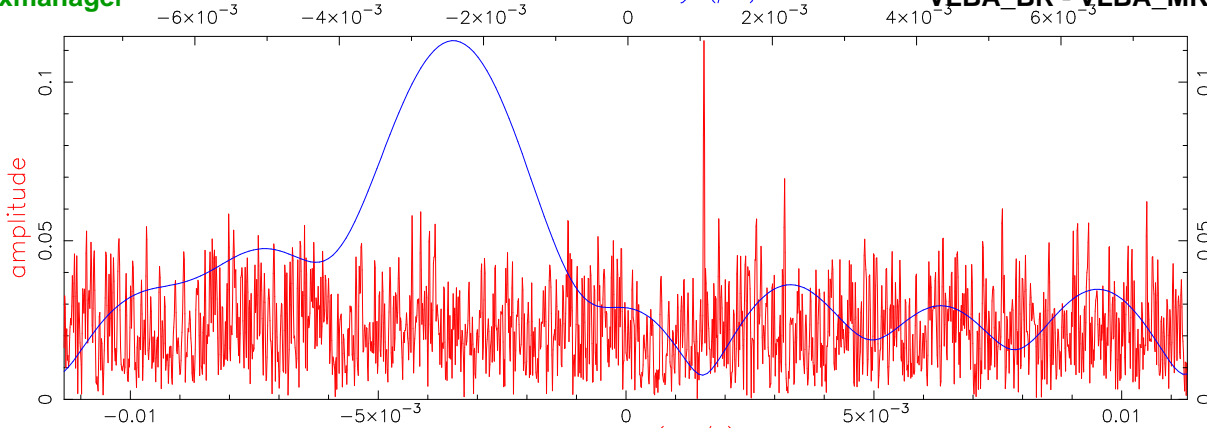
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

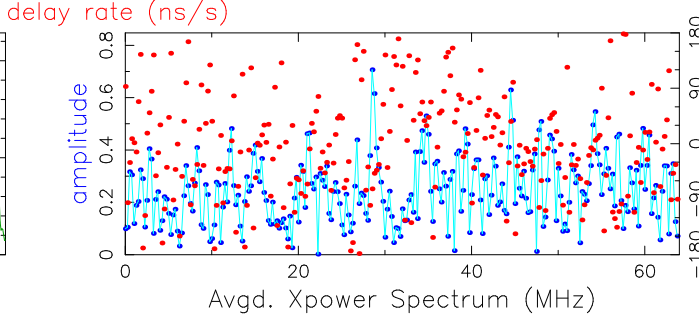
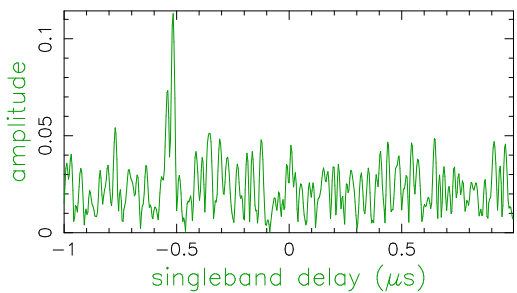
NRAO150.1X1QEV, No0120, bm

VLBA_BR - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)

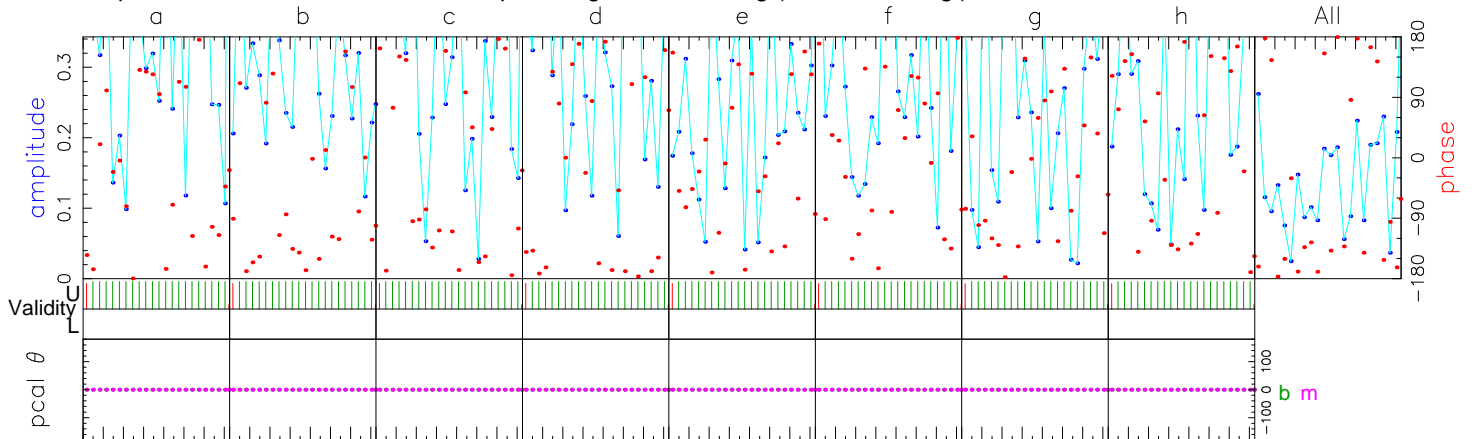


Fringe quality 0
 SNR 6.3
 Int time 418.450
 Amp 0.114
 Phase -170.9
 PFD 5.8e-02
 Delays (us)
 SBD -0.516468
 MBD -0.002460
 Fringe rate (Hz) 0.135376
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133852
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	177.8	-150.5	-166.9	174.5	-167.7	176.4	-117.3	-171.1	Phase	-170.9
	0.1	0.1	0.2	0.2	0.1	0.0	0.1	0.1	Ampl.	0.1
	56.2	90.6	126.0	125.4	75.3	203.2	281.4	199.8	Sbd box	124.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.78753157143E+02		Apriori delay (usec)		3.79271242184E+02		Resid mbdelay (usec)		-2.46004E-03	+/- 1.7E-04
Sband delay (usec)	3.78754774684E+02		Apriori clock (usec)		-1.8705137E+01		Resid sbdelay (usec)		-5.16468E-01	+/- 1.4E-03
Phase delay (usec)	3.79271236671E+02		Apriori clockrate (us/s)		-4.1800000E-07		Resid phdelay (usec)		-5.51241E-06	+/- 5.8E-07
Delay rate (us/s)	-2.94983086435E-01		Apriori rate (us/s)		-2.94984658011E-01		Resid rate (us/s)		1.57158E-06	+/- 2.4E-09
Total phase (deg)	117.7		Apriori accel (us/s/s)		3.34388349607E-05		Resid phase (deg)		-170.9	+/- 18.0

ph/seg (deg) 48.6 43.3 Search (2048X32) 0.110 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.5 75.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 25.2 25.5 Inc. seg. avg. 0.107 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 58.2 44.6 Inc. frq. avg. 0.108 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 293.2 el 60.3 pa 77.2 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 2752.574 5471.030 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bm.W.28.1X1QEV

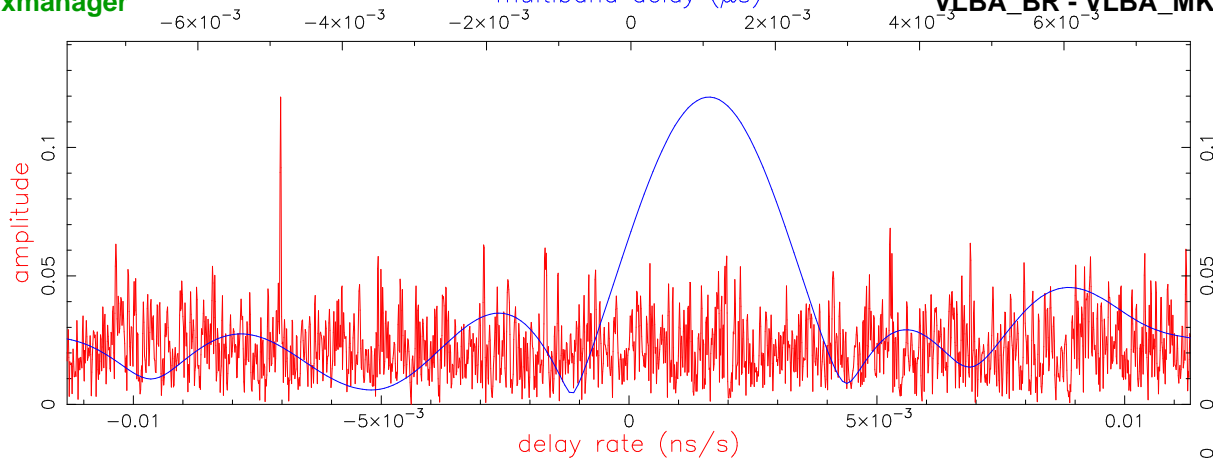
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, bm

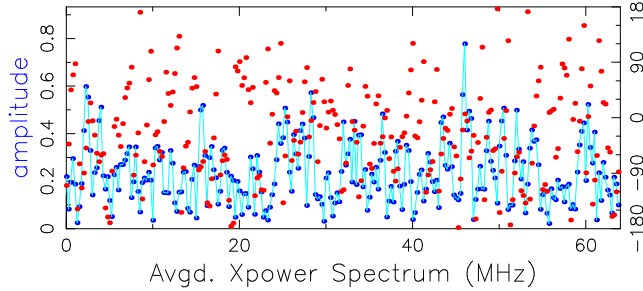
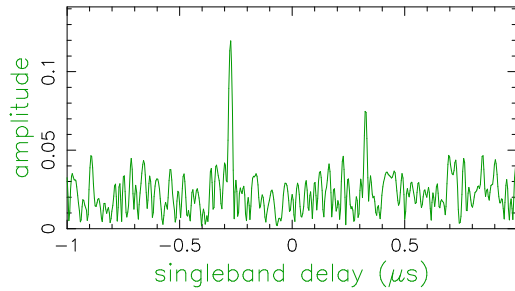
VLBA_BR - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)



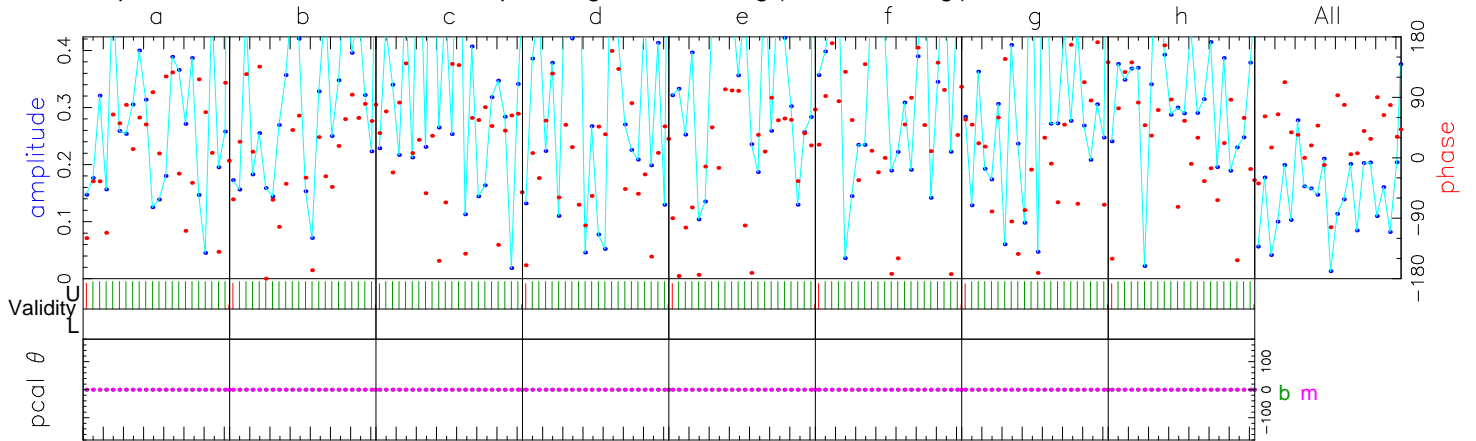
Fringe quality 0

SNR 6.7
 Int time 418.450
 Amp 0.141
 Phase 40.6
 PFD 5.6e-03
 Delays (us)
 SBD -0.274168
 MBD 0.001052
 Fringe rate (Hz)
 -0.606293
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133856
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	31.6	40.4	57.3	4.1	41.9	69.6	5.0	47.3	Phase	40.6
	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.2	Ampl.	0.1
	307.4	185.9	341.1	314.8	412.1	249.3	85.2	260.1	Sbd box	186.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.78991043971E+02		Apriori delay (usec)		3.79271242184E+02		Resid mbdelay (usec)		1.05179E-03	+/- 1.6E-04
Sband delay (usec)	3.78997074684E+02		Apriori clock (usec)		-1.8705137E+01		Resid sbdelay (usec)		-2.74168E-01	+/- 1.3E-03
Phase delay (usec)	3.79271243494E+02		Apriori clockrate (us/s)		-4.1800000E-07		Resid phdelay (usec)		1.31022E-06	+/- 5.5E-07
Delay rate (us/s)	-2.94991696476E-01		Apriori rate (us/s)		-2.94984658011E-01		Resid rate (us/s)		-7.03846E-06	+/- 2.3E-09
Total phase (deg)	329.2		Apriori accel (us/s/s)		3.34388349607E-05		Resid phase (deg)		40.6	+/- 17.1

ph/seg (deg) 47.3 41.0 Search (2048X32) 0.116 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 59.2 71.5 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 24.2 Inc. seg. avg. 0.136 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 19.3 42.2 Inc. frq. avg. 0.138 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 293.2 el 60.3 pa 77.2 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 2752.574 5471.030 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bm.W.46.1X1QEV

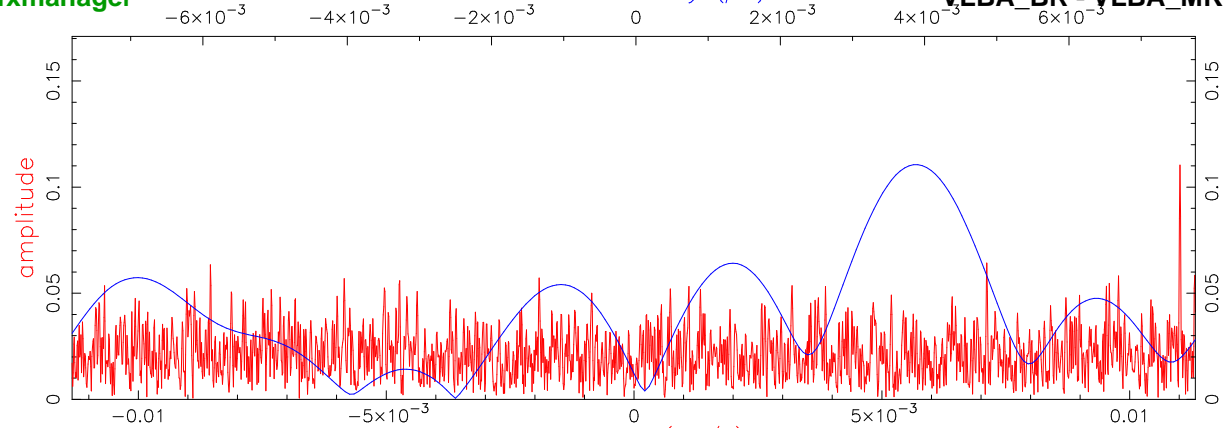
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

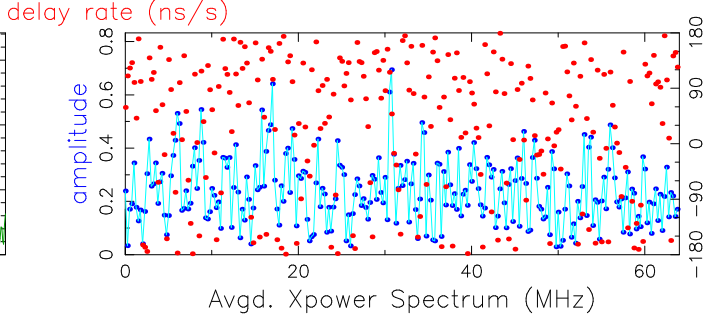
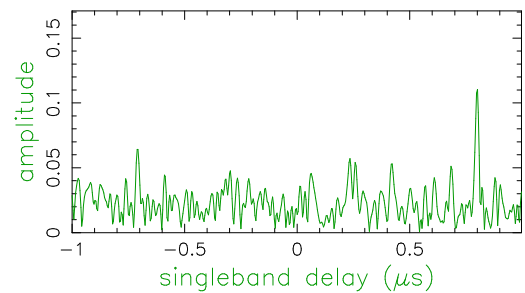
NRAO150.1X1QEV, No0120, bm

VLBA_BR - VLBA_MK, fgroup W, pol LL

multiband delay (μ s)

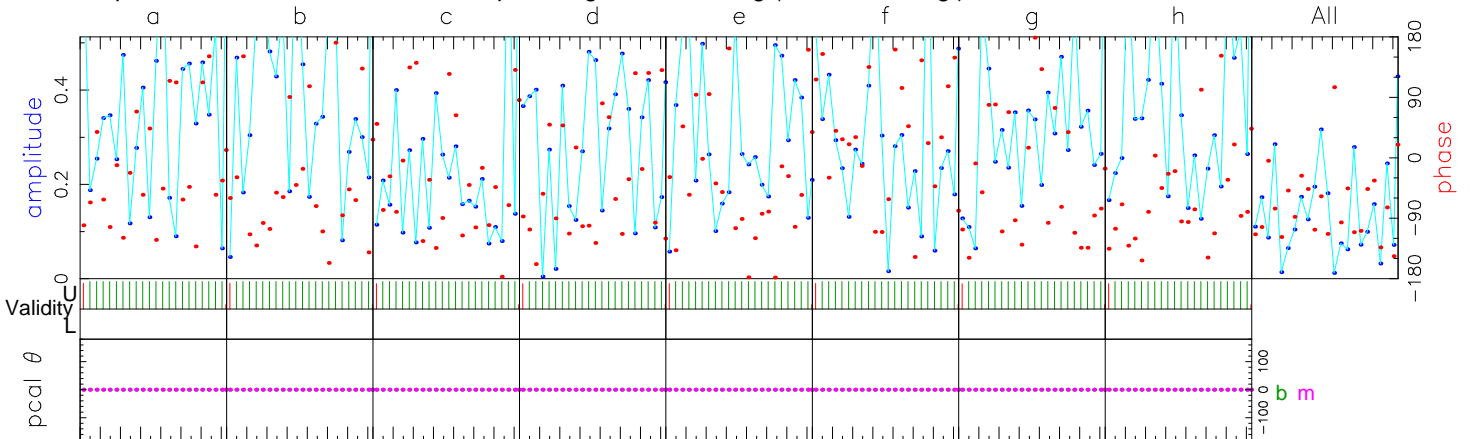


Fringe quality 0
 SNR 6.3
 Int time 418.450
 Amp 0.171
 Phase -76.7
 PFD 1.0e-01
 Delays (us)
 SBD 0.799385
 MBD 0.003825
 Fringe rate (Hz) 0.950451
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133848
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'59.161694"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-68.6	-88.5	-83.4	-90.8	-73.2	66.2	-87.5	-70.0	Phase	-76.7
	0.2	0.3	0.1	0.1	0.2	0.1	0.2	0.3	Ampl.	0.2
	272.5	461.7	431.0	123.7	497.2	172.1	34.1	461.8	Sbd box	461.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 3.80071942650E+02 Apriori delay (usec) 3.79271242184E+02 Resid mbdelay (usec) 3.82547E-03 +/- 1.7E-04
 Sband delay (usec) 3.80070627184E+02 Apriori clock (usec) -1.8705137E+01 Resid sbdelay (usec) 7.99385E-01 +/- 1.4E-03
 Phase delay (usec) 3.79271239711E+02 Apriori clockrate (us/s) -4.1800000E-07 Resid phdelay (usec) -2.47249E-06 +/- 5.9E-07
 Delay rate (us/s) -2.94973624215E-01 Apriori rate (us/s) -2.94984658011E-01 Resid rate (us/s) 1.10338E-05 +/- 2.4E-09
 Total phase (deg) 211.9 Apriori accel (us/s/s) 3.34388349607E-05 Resid phase (deg) -76.7 +/- 18.3

RMS Theor. Amplitude 0.171 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 53.6 44.0 Search (2048X32) 0.106 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 83.3 76.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 59.2 25.9 Inc. seg. avg. 0.161 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 47.7 45.2 Inc. frq. avg. 0.174 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 293.2 el 60.3 pa 77.2 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 2752.574 5471.030 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bm.W.6.1X1QEV

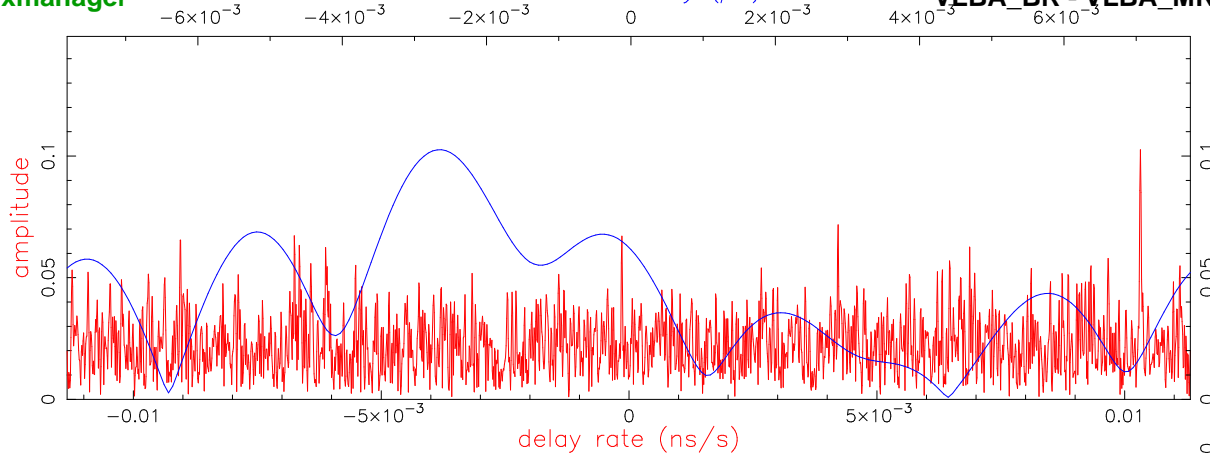
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, bm

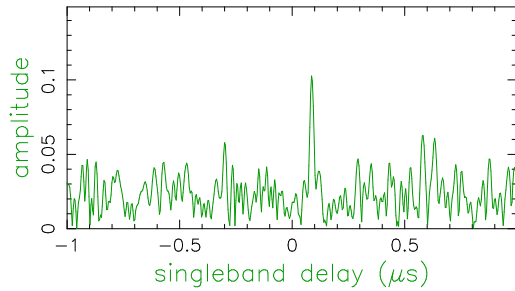
VLBA_BR - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

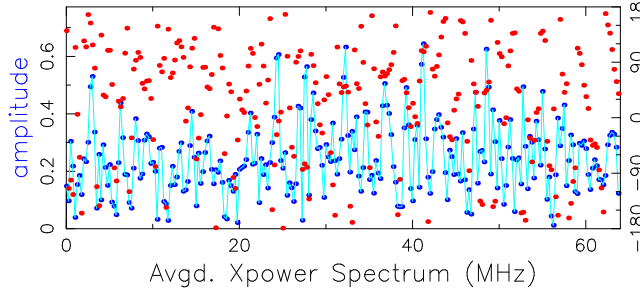


Fringe quality 0

SNR 5.8
 Int time 418.450
 Amp 0.149
 Phase 24.4
 PFD 8.6e-01
 Delays (us)
 SBD 0.087051
 MBD -0.002628
 Fringe rate (Hz)
 0.889747
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

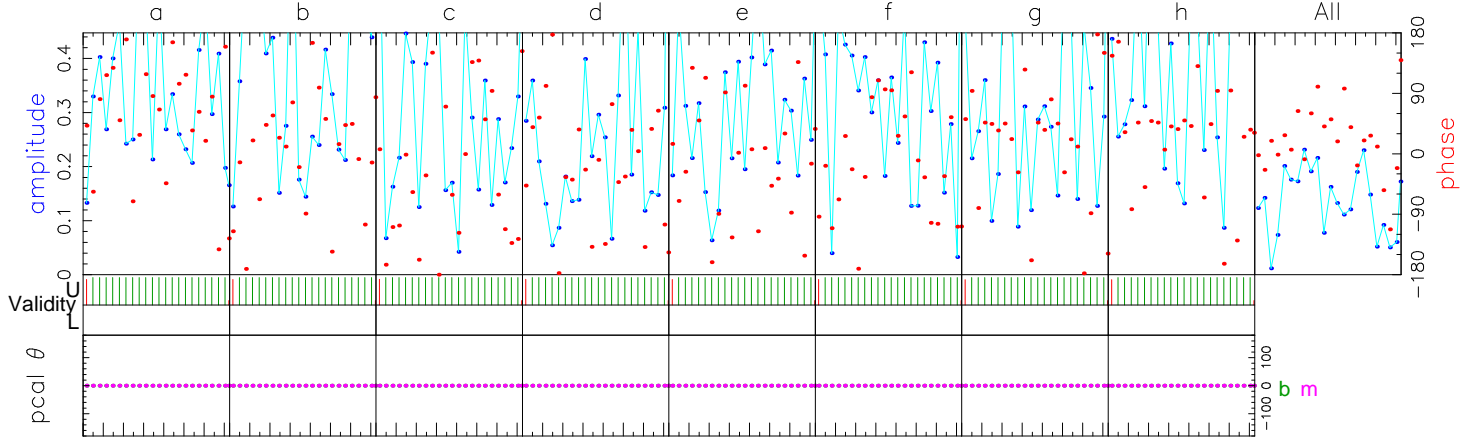


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133859
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	78.9	23.1	-57.2	-21.1	-23.3	-13.8	40.5	48.5	Phase	24.4
	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.3	Ampl.	0.2
	364.7	279.6	358.0	388.4	245.9	224.8	243.8	278.5	Sbd box	279.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

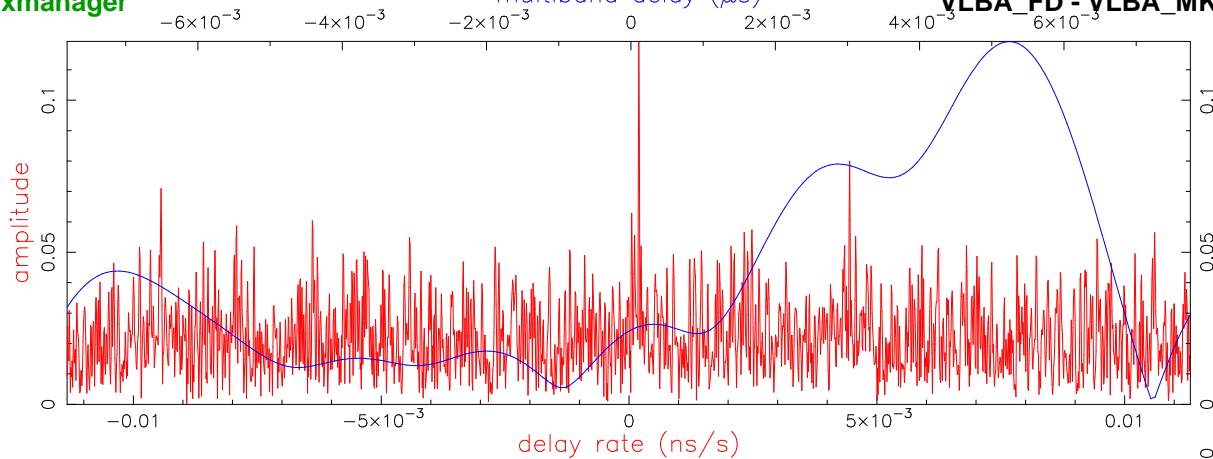
Group delay (usec)(sbd)	3.79362364316E+02	Apriori delay (usec)	3.79271242184E+02	Resid mbdelay (usec)	-2.62787E-03	+/-	1.9E-04
Sband delay (usec)	3.79358292934E+02	Apriori clock (usec)	-1.8705137E+01	Resid sbdelay (usec)	8.70508E-02	+/-	1.5E-03
Phase delay (usec)	3.79271242969E+02	Apriori clockrate (us/s)	-4.1800000E-07	Resid phdelay (usec)	7.85676E-07	+/-	6.4E-07
Delay rate (us/s)	-2.94974328926E-01	Apriori rate (us/s)	-2.94984658011E-01	Resid rate (us/s)	1.03291E-05	+/-	2.6E-09
Total phase (deg)	313.0	Apriori accel (us/s/s)	3.34388349607E-05	Resid phase (deg)	24.4	+/-	19.8

ph/seg (deg)	48.1	Theor.	47.6	Amplitude	0.149 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	67.4	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	52.1	Interp.	0.000	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	55.5	Inc. seg. avg.	0.145	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
		Inc. frq. avg.	0.167	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

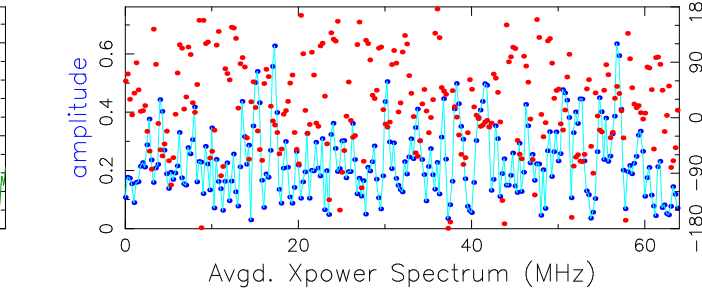
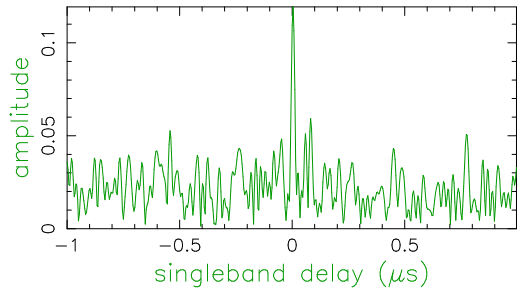
b: az 293.2 el 60.3 pa 77.2 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 2752.574 5471.030 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bm.W.64.1X1QEV

multiband delay (μ s)

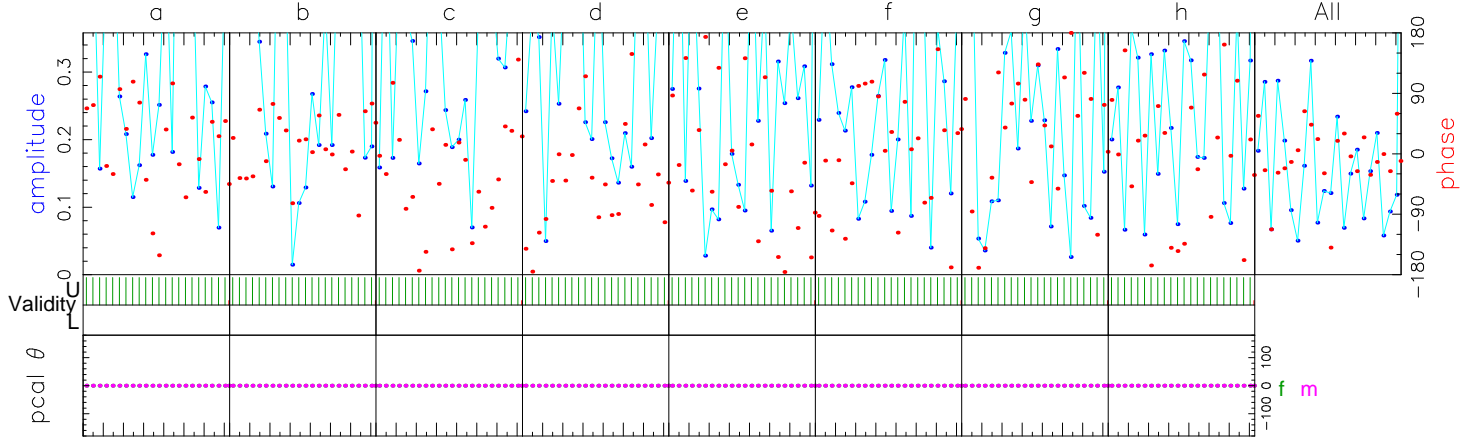


Fringe quality 0
SNR 6.7
Int time 419.820
Amp 0.119
Phase -0.6
PFD 6.5e-03
Delays (us)
SBD 0.003669
MBD 0.005235
Fringe rate (Hz) 0.016861
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133849
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

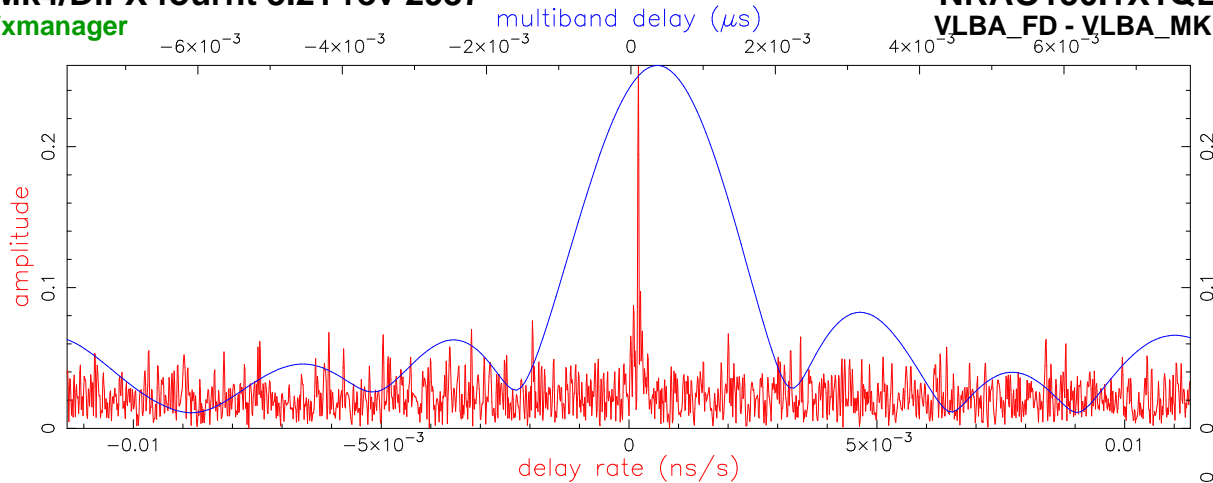


Avgd. Xpower Spectrum (MHz)

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

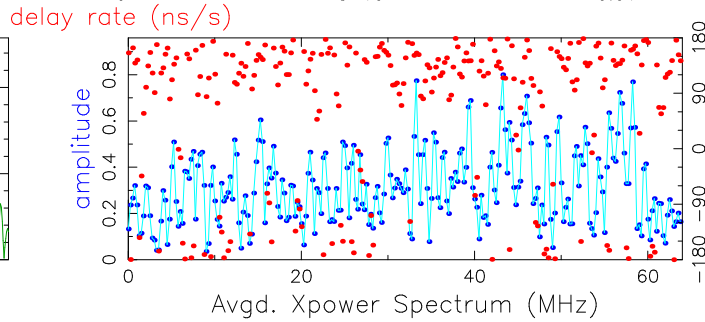
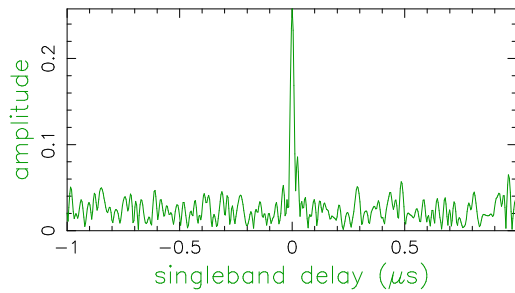


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
f	0	0	0	0	0	0	0	0	Ampl.	0.1
m	0	0	0	0	0	0	0	0	Sbd box	257.9
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
m	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.33335849136E+03				-4.33336372685E+03				Resid mbdelay (usec)	5.23549E-03 +/- 1.6E-04
Sband delay (usec)	-4.33336005835E+03				-5.4545555E+00				Resid sbdelay (usec)	3.66850E-03 +/- 1.3E-03
Phase delay (usec)	-4.33336372687E+03				-2.5800000E-07				Resid phdelay (usec)	-2.09323E-08 +/- 5.5E-07
Delay rate (us/s)	-5.64525165762E-01				-5.64525361506E-01				Resid rate (us/s)	1.95744E-07 +/- 2.3E-09
Total phase (deg)		-155.6			3.79562222430E-05				Resid phase (deg)	-0.6 +/- 17.1
	RMS	Theor.	Amplitude	0.119 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	48.6	41.1	Search (2048X32)	0.114					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	84.1	71.7	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	36.6	24.2	Inc. seg. avg.	0.124					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	57.5	42.3	Inc. frq. avg.	0.125					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
f: az 313.0 el 40.5 pa 88.9			m: az 347.6 el 57.7 pa 160.9						nlags: 256	t_cohere infinite
Control file: cf_1234_gmva			Input file: /Exps/c211c/v1/1234/No0120/fm..1X1QEV							simultaneous interpolator
			Output file: /Exps/c211c/v1/1234/No0120/fm.W.19.1X1QEV							



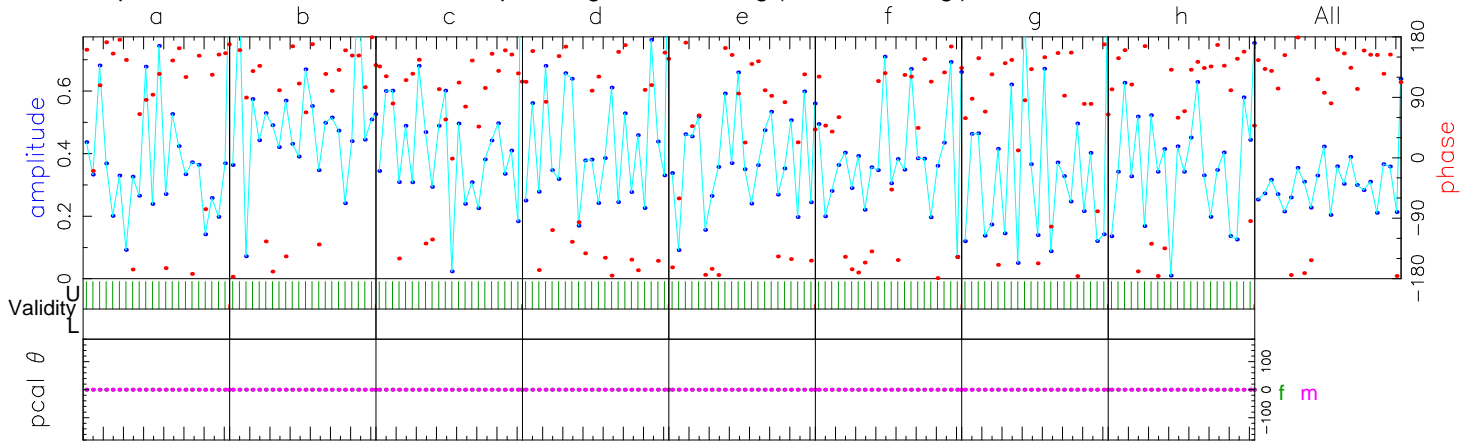
Fringe quality 9

SNR 14.4
Int time 419.820
Amp 0.258
Phase 143.6
PFD 1.8e-38
Delays (us)
SBD -0.000084
MBD 0.000362
Fringe rate (Hz)
0.016614
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133853
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'59.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
f	0	0	0	0	0	0	0	0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-4.33336336528E+03				-4.33336372685E+03				3.61570E-04	+/- 7.5E-05
Sband delay (usec)	-4.33336381035E+03				-5.4545555E+00				-8.35000E-05	+/- 6.0E-04
Phase delay (usec)	-4.33336372222E+03				-2.5800000E-07				4.62926E-06	+/- 2.6E-07
Delay rate (us/s)	-5.64525168635E-01				-5.64525361506E-01				1.92871E-07	+/- 1.1E-09
Total phase (deg)			-11.4		3.79562222430E-05				143.6	+/- 7.9
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								
ph/seg (deg)	32.1	19.0	Search (2048X32)	0.241						
amp/seg (%)	30.7	33.2	Interp.	0.000						
ph/frq (deg)	15.2	11.2	Inc. seg. avg.	0.284						
amp/frq (%)	19.2	19.6	Inc. frq. avg.	0.260						
f: az 313.0 el 40.5 pa 88.9			m: az 347.6 el 57.7 pa 160.9							
Control file: cf_1234_gmva			Input file: /Exps/c211c/v1/1234/No0120/fm..1X1QEV							
			Output file: /Exps/c211c/v1/1234/No0120/fm.W.37.1X1QEV							
										simultaneous interpolator

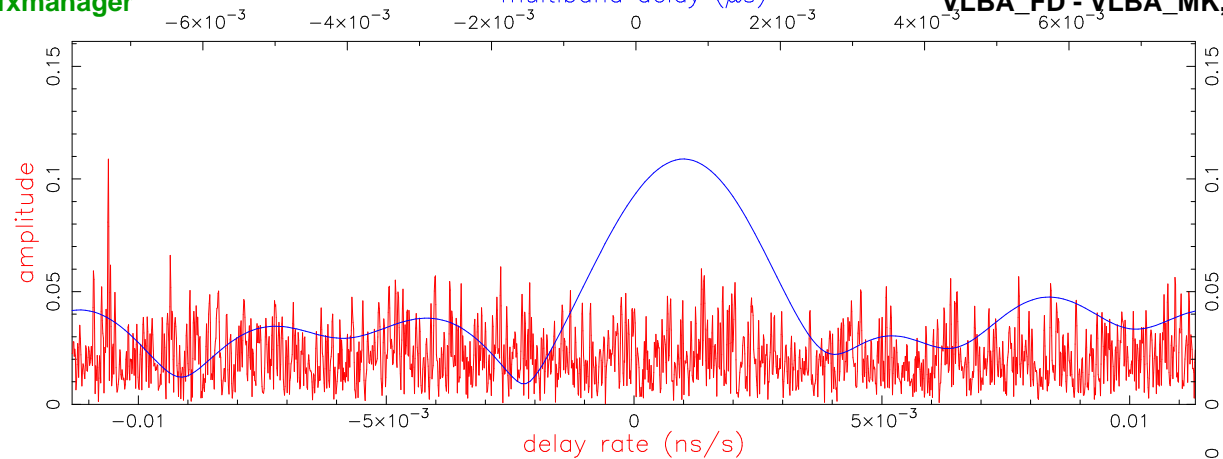
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fm

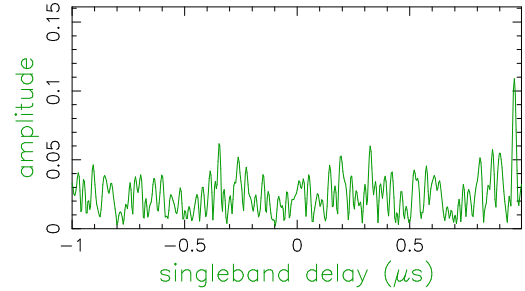
VLBA_FD - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

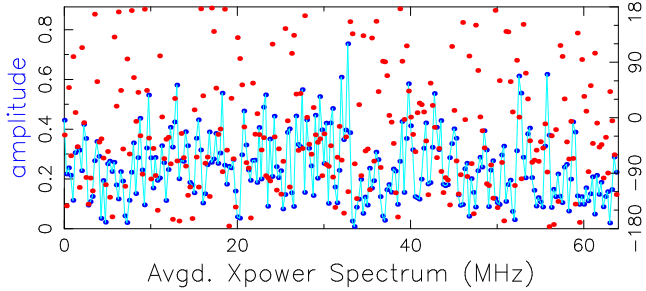


Fringe quality 0

SNR 6.1
 Int time 419.820
 Amp 0.161
 Phase -108.8
 PFD 2.4e-01
 Delays (us)
 SBD 0.964472
 MBD 0.000638
 Fringe rate (Hz)
 -0.914577
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

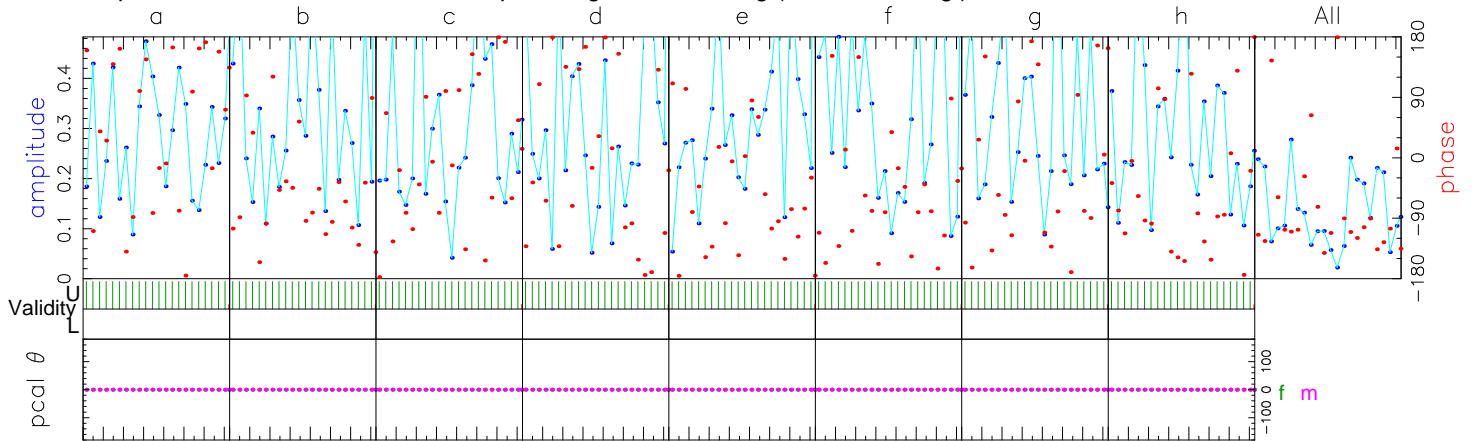


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133857
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	171.0	-73.0	-108.9	-155.5	-81.8	-108.5	-106.0	-109.5	Phase	-108.8
	0.1	0.3	0.1	0.2	0.2	0.3	0.2	0.2	Ampl.	0.2
	229.4	503.7	174.1	162.0	340.8	504.0	31.7	396.5	Sbd box	503.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-4.3323943888E+03	Apriori delay (usec)	-4.33336372685E+03	Resid mbdelay (usec)	6.37961E-04	+/-	1.8E-04
Sband delay (usec)	-4.33239925435E+03	Apriori clock (usec)	-5.4545555E+00	Resid sbdelay (usec)	9.64472E-01	+/-	1.4E-03
Phase delay (usec)	-4.33336373035E+03	Apriori clockrate (us/s)	-2.5800000E-07	Resid phdelay (usec)	-3.50809E-06	+/-	6.1E-07
Delay rate (us/s)	-5.64535978838E-01	Apriori rate (us/s)	-5.64525361506E-01	Resid rate (us/s)	-1.06173E-05	+/-	2.5E-09
Total phase (deg)	-263.8	Apriori accel (us/s/s)	3.79562222430E-05	Resid phase (deg)	-108.8	+/-	18.8

ph/seg (deg)	58.1	Theor.	45.0	Amplitude	0.161 +/- 0.026	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	71.5	Search (2048X32)	0.108	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	42.1	Inc. seg. avg.	0.156	Inc. frq. avg.	0.170	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	47.1	Inc. frq. avg.	0.170	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011

f: az 313.0 el 40.5 pa 88.9 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 5219.835 4568.740 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fm.W.55.1X1QEV

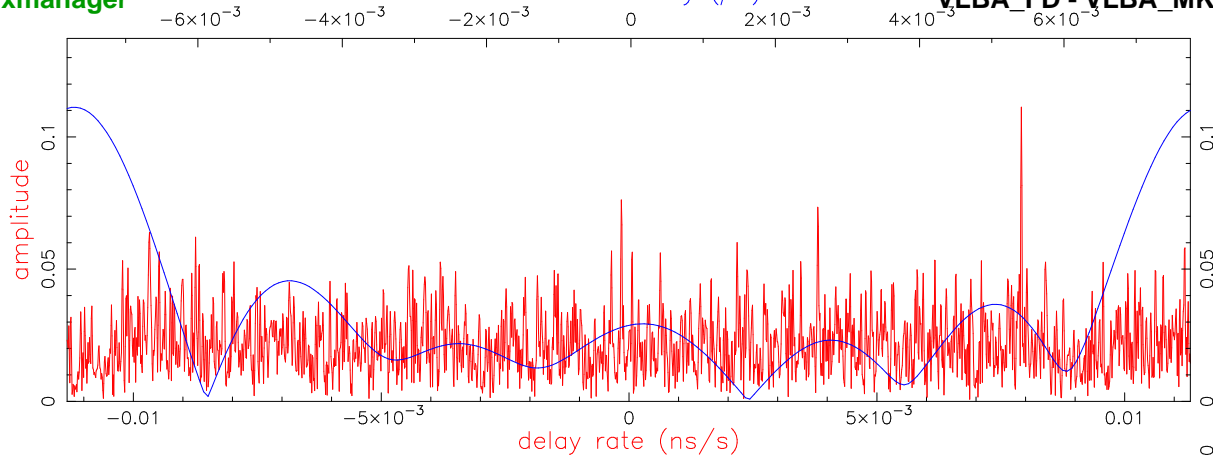
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fm

VLBA_FD - VLBA_MK, fgroup W, pol RL

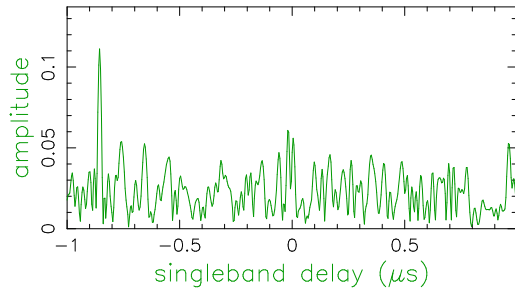
multiband delay (μ s)



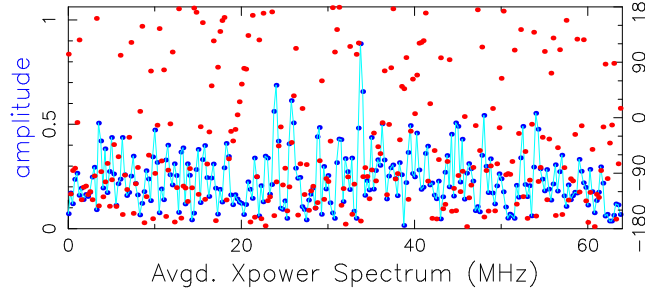
Fringe quality 0

SNR 6.2
 Int time 419.820
 Amp 0.137
 Phase 10.1
 PFD 1.1e-01
 Delays (us)
 SBD -0.855686
 MBD 0.007904
 Fringe rate (Hz)
 0.683020
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

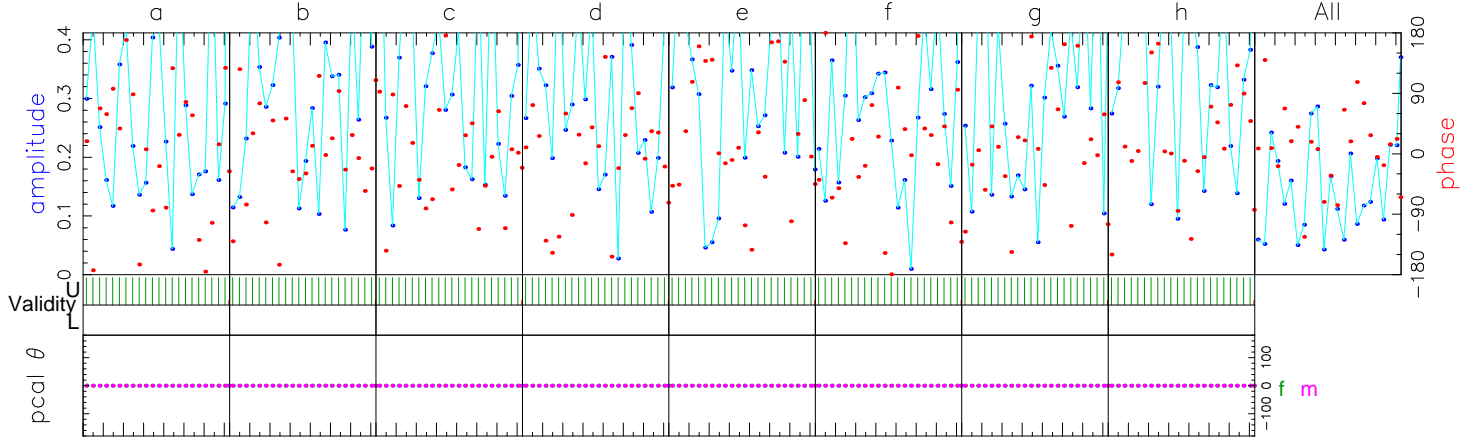
Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133901
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



delay rate (ns/s)



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
f	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-4.33421519797E+03	Apriori delay (usec)	-4.33336372685E+03	Resid mbdelay (usec)	7.90387E-03	+/-	1.7E-04
Sband delay (usec)	-4.33421941285E+03	Apriori clock (usec)	-5.4545555E+00	Resid sbdelay (usec)	-8.55686E-01	+/-	1.4E-03
Phase delay (usec)	-4.33336372652E+03	Apriori clockrate (us/s)	-2.5800000E-07	Resid phdelay (usec)	3.26607E-07	+/-	5.9E-07
Delay rate (us/s)	-5.64517432316E-01	Apriori rate (us/s)	-5.64525361506E-01	Resid rate (us/s)	7.92919E-06	+/-	2.4E-09
Total phase (deg)	-144.8	Apriori accel (us/s/s)	3.79562222430E-05	Resid phase (deg)	10.1	+/-	18.4

ph/seg (deg)	58.1	RMS	44.1	Theor.	58.1	Amplitude	0.137 +/- 0.022	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	75.7	Search (2048X32)	0.108	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	Bits/sample:	2x2	SampCntNorm:	enabled
ph/frq (deg)	13.5	Inc. seg. avg.	0.139	Inc. frq. avg.	0.127	Sample rate (MSamp/s):	128	nlags:	256	t_cohere:	infinite
amp/frq (%)	38.8	Inc. frq. avg.	0.127			Data rate (Mb/s):	2048	ion window (TEC)	0.00	0.00	

f: az 313.0 el 40.5 pa 88.9 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 5219.835 4568.740 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fm.W.75.1X1QEV

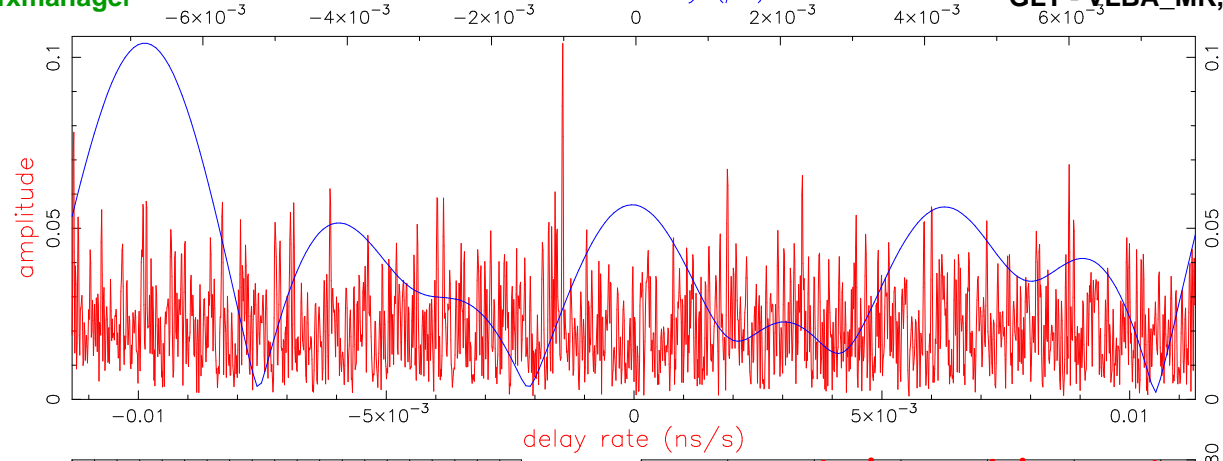
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

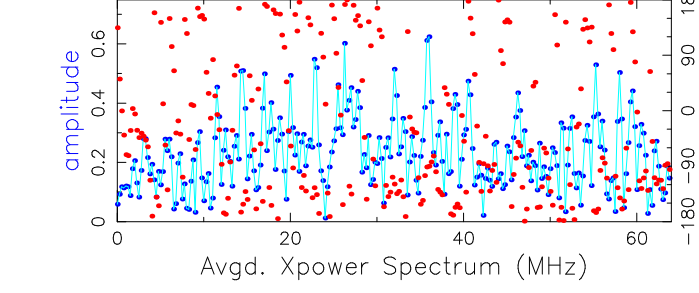
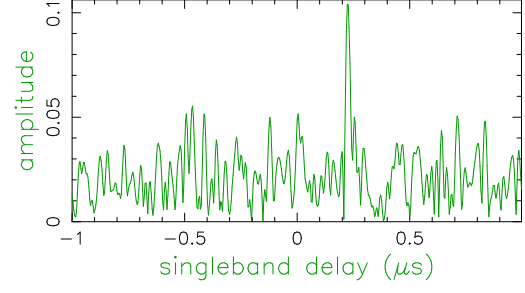
NRAO150.1X1QEV, No0120, gm

GLT - VLBA_MK, fgroup W, pol RR

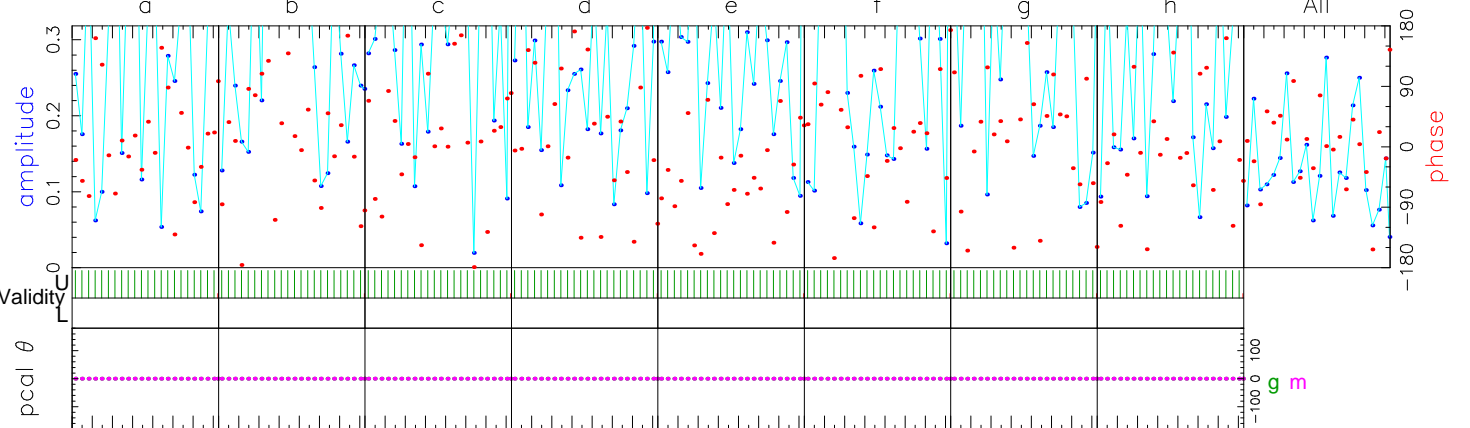
multiband delay (μ s)



Fringe quality 0
 SNR 5.9
 Int time 419.819
 Amp 0.106
 Phase 6.5
 PFD 5.9e-01
 Delays (us)
 SBD 0.224450
 MBD -0.006758
 Fringe rate (Hz)
 -0.123762
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133909
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



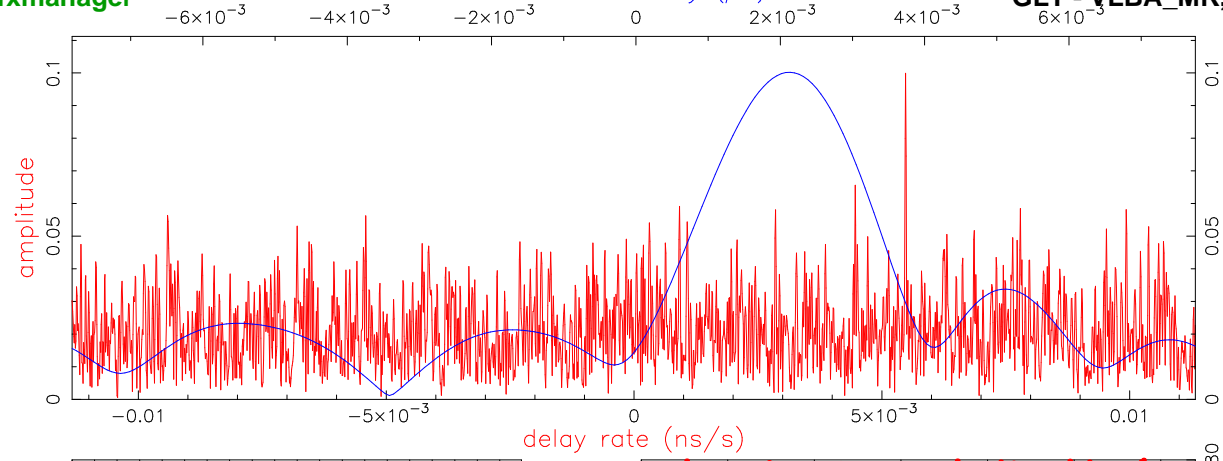
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



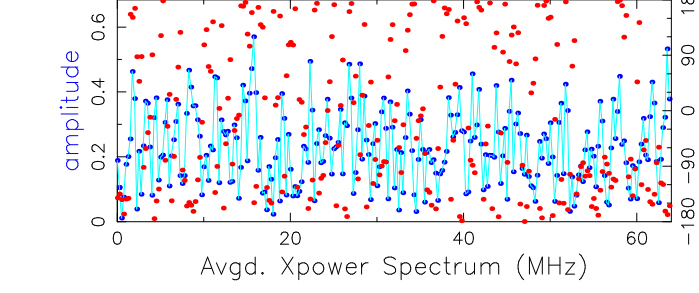
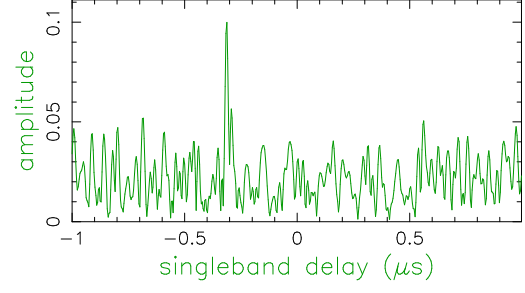
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-7.0	45.2	15.6	33.6	-61.9	38.6	36.8	-14.3		Phase
	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2		Ampl.
	361.4	235.7	15.4	138.2	315.3	2.0	309.0	314.6		Sbd box
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		314.5
g	0	0	0	0	0	0	0	0		APs used
m	0	0	0	0	0	0	0	0		PC freqs
g:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
g:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
g	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
m	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Tracks
Group delay (usec)(sbd)	-2.35896892943E+03		Apriori delay (usec)		-2.35919654680E+03		Resid mbdelay (usec)		-6.75763E-03	+/- 1.8E-04
Sband delay (usec)	-2.35897209705E+03		Apriori clock (usec)		-1.5276766E+01		Resid sbdelay (usec)		2.24450E-01	+/- 1.5E-03
Phase delay (usec)	-2.35919654659E+03		Apriori clockrate (us/s)		-2.4600000E-07		Resid phdelay (usec)		2.08811E-07	+/- 6.3E-07
Delay rate (us/s)	-4.00379753672E-02		Apriori rate (us/s)		-4.00365386129E-02		Resid rate (us/s)		-1.43675E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		6.80703531067E-05		Resid phase (deg)		6.5	+/- 19.4

ph/seg (deg) 55.7 46.5 Amplitude 0.106 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 68.0 81.2 Search (2048X32) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.9 27.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.0 47.9 Inc. seg. avg. 0.105 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 g: az 292.5 el 47.5 pa 19.9 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 503.903 10135.841 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/gm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/gm.W.106.1X1QEV

multiband delay (μ s)

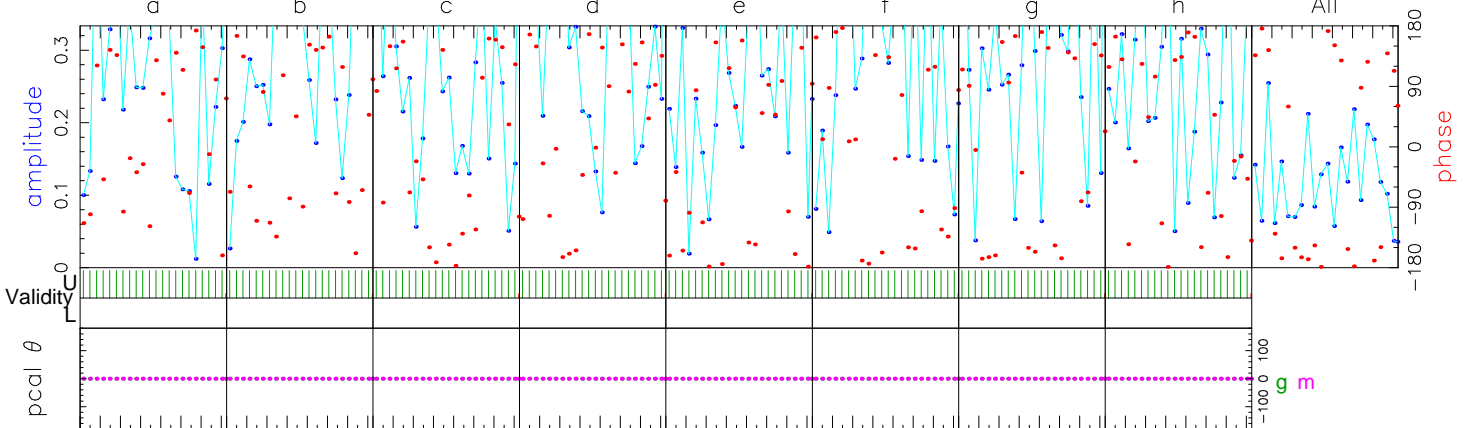


Fringe quality 0
SNR 5.6
Int time 419.820
Amp 0.111
Phase 168.1
PFD 9.8e-01
Delays (us)
SBD -0.313556
MBD 0.002031
Fringe rate (Hz) 0.472917
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133913
2021:252:122852
RA & Dec (J2000) 03h59m29.747267s +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
g	0	0	0	0	0	0	0	0		
m	0	0	0	0	0	0	0	0		
g:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-2.35950701556E+03		Apriori delay (usec)		-2.35919654680E+03		Resid mbdelay (usec)		2.03124E-03	+/- 1.9E-04
Sband delay (usec)	-2.35951010255E+03		Apriori clock (usec)		-1.5276766E+01		Resid sbdelay (usec)		-3.13556E-01	+/- 1.5E-03
Phase delay (usec)	-2.35919654138E+03		Apriori clockrate (us/s)		-2.4600000E-07		Resid phdelay (usec)		5.42165E-06	+/- 6.5E-07
Delay rate (us/s)	-4.00310485122E-02		Apriori rate (us/s)		-4.00365386129E-02		Resid rate (us/s)		5.49010E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		6.80703531067E-05		Resid phase (deg)		168.1	+/- 20.3

ph/seg (deg) 44.2 48.7 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 62.6 84.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 21.9 28.7 Inc. seg. avg. 0.101 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 39.8 50.1 Inc. frq. avg. 0.101 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
g: az 292.5 el 47.5 pa 19.9 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 503.903 10135.841 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/gm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/gm.W.125.1X1QEV

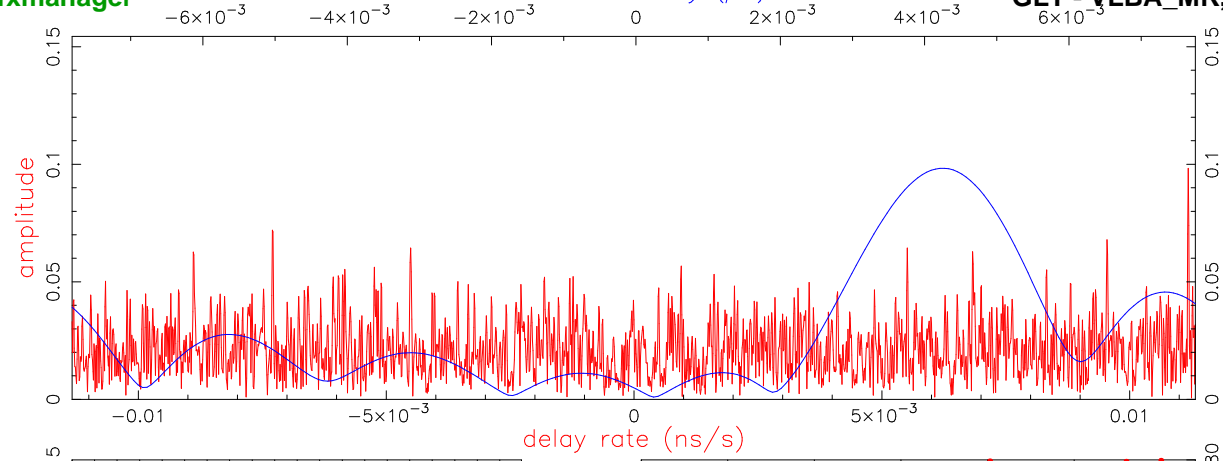
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

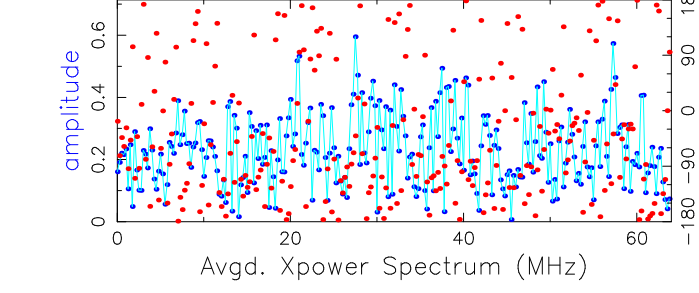
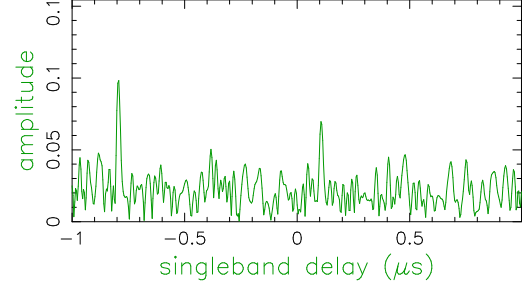
NRAO150.1X1QEV, No0120, gm

GLT - VLBA_MK, fgroup W, pol RL

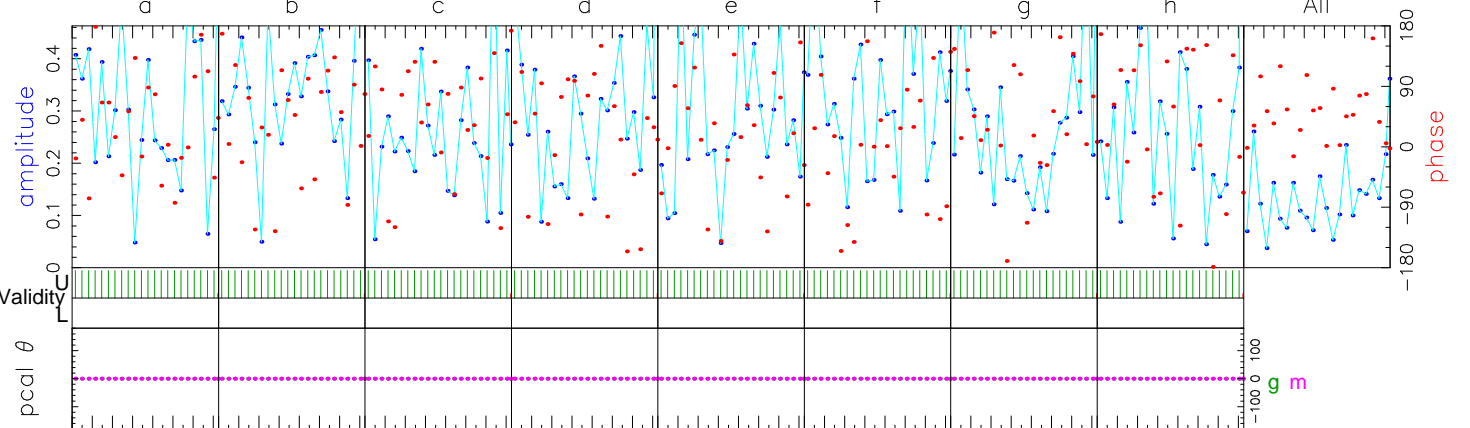
multiband delay (μ s)



Fringe quality 0
 SNR 5.6
 Int time 419.819
 Amp 0.154
 Phase 45.8
 PFD 1.0e+00
 Delays (us)
 SBD -0.794489
 MBD 0.004201
 Fringe rate (Hz) 0.964872
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133916
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
g	0	0	0	0	0	0	0	0	Ampl.	45.8
g:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Ampl.	0.1
g:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	53.6
g	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Tracks	
Group delay (usec)(sbd)	-2.35998922035E+03				-2.35919654680E+03				Resid mbdelay (usec)	4.20145E-03 +/- 1.9E-04
Sband delay (usec)	-2.35999103580E+03				-1.5276766E+01				Resid sbdelay (usec)	-7.94489E-01 +/- 1.5E-03
Phase delay (usec)	-2.35919654532E+03				-2.4600000E-07				Resid phdelay (usec)	1.47719E-06 +/- 6.6E-07
Delay rate (us/s)	-4.00253374109E-02				-4.00365386129E-02				Resid rate (us/s)	1.12012E-05 +/- 2.7E-09
Total phase (deg)		-149.1			6.80703531067E-05				Resid phase (deg)	45.8 +/- 20.6

ph/seg (deg) 43.8 49.3 Search (2048X32) 0.097 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 68.3 86.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.4 29.1 Inc. seg. avg. 0.149 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 37.7 50.7 Inc. frq. avg. 0.142 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 g: az 292.5 el 47.5 pa 19.9 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 503.903 10135.841 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/gm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/gm.W.142.1X1QEV

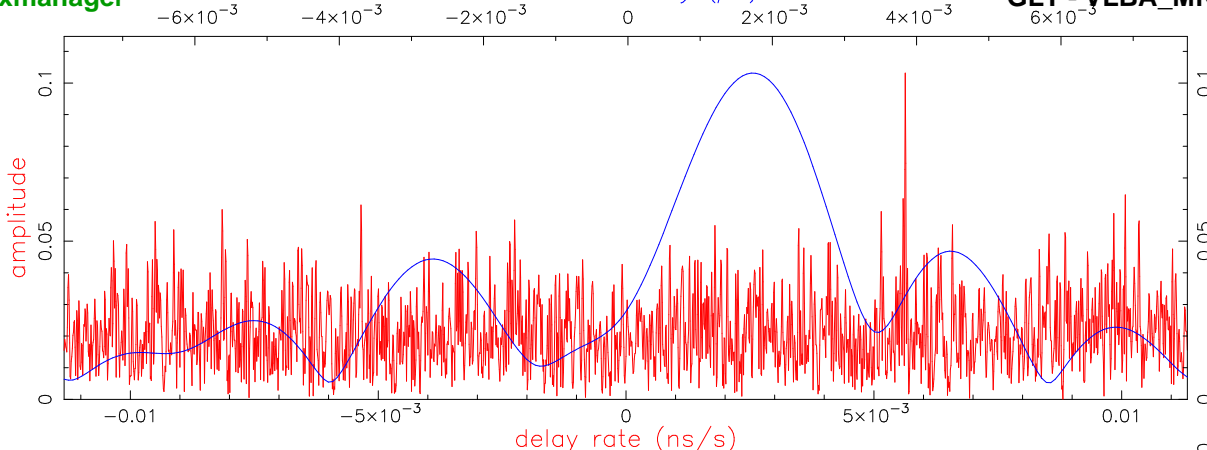
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, gm

GLT - VLBA_MK, fgroup W, pol LL

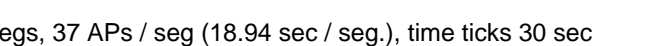
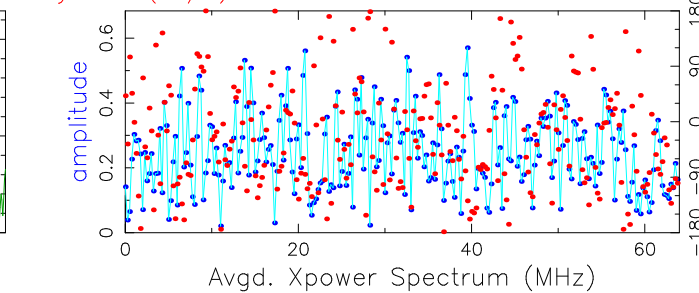
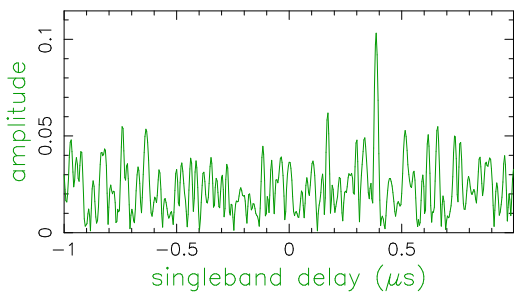
multiband delay (μ s)



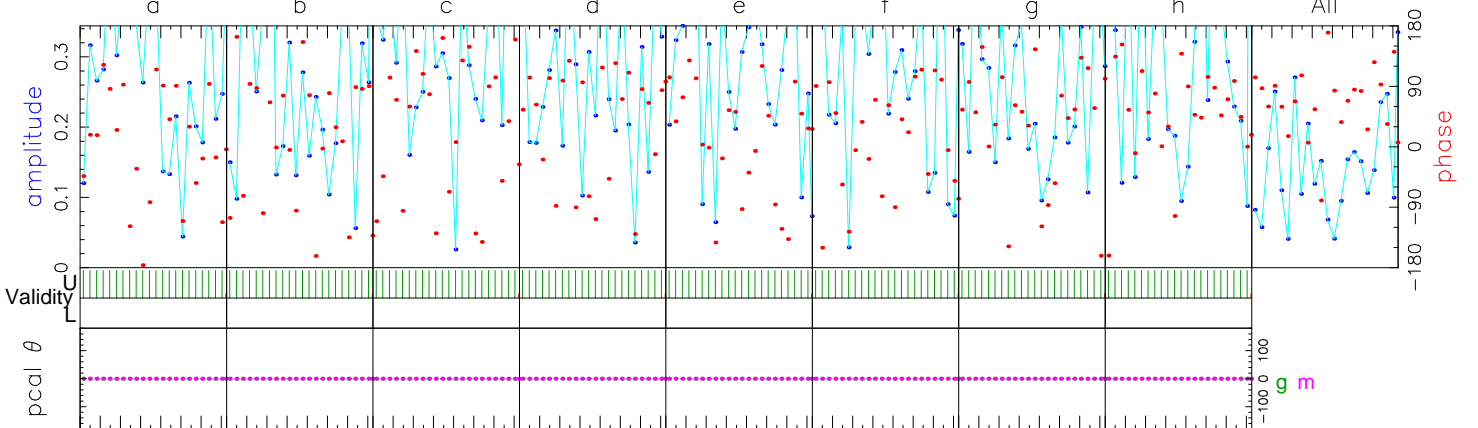
Fringe quality 0

SNR 5.8
Int time 419.820
Amp 0.115
Phase 68.9
PFD 8.2e-01
Delays (us)
SBD 0.386058
MBD 0.001712
Fringe rate (Hz) 0.486134
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133905
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
g	0	0	0	0	0	0	0	0		
m	0	0	0	0	0	0	0	0		
g:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-2.35880420971E+03									
Sband delay (usec)	-2.35881048880E+03									
Phase delay (usec)	-2.35919654458E+03									
Delay rate (us/s)	-4.00308950740E-02									
Total phase (deg)			-126.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

ph/seg (deg) 50.8 47.4 Search (2048X32) 0.100 PC period (AP's) 5, 5
 amp/seg (%) 75.6 82.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.9 28.0 Inc. seg. avg. 0.116 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.0 48.8 Inc. frq. avg. 0.109 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 g: az 292.5 el 47.5 pa 19.9 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 503.903 10135.841 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/gm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/gm.W.86.1X1QEV

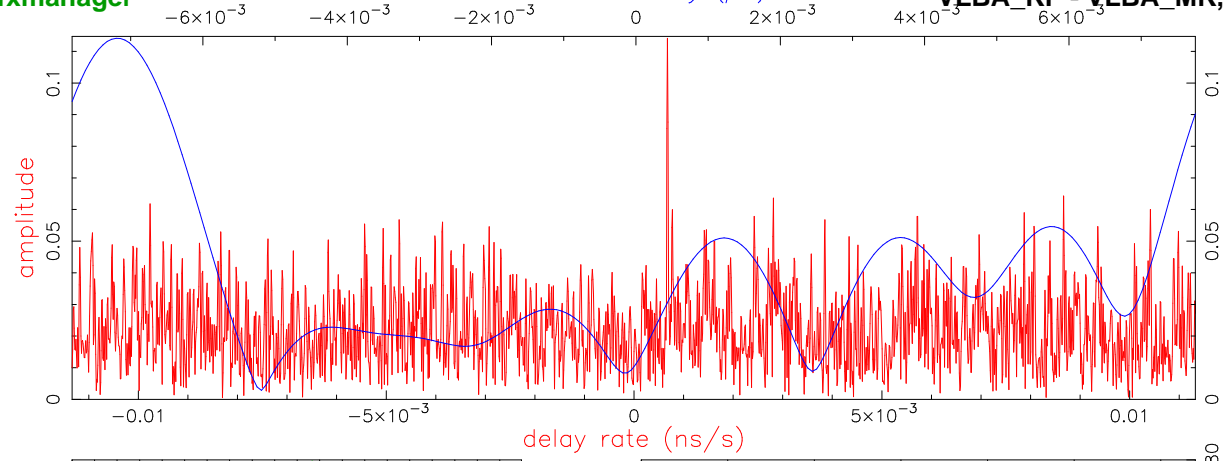
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, km

VLBA_KP - VLBA_MK, fgroup W, pol RR

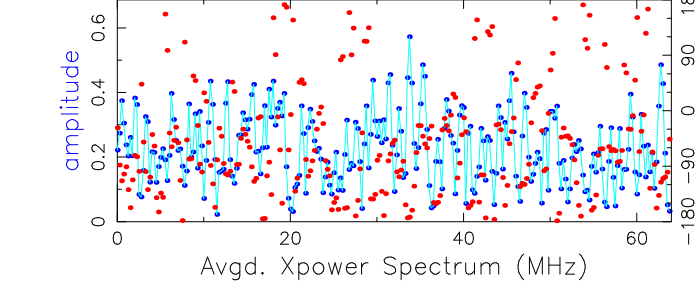
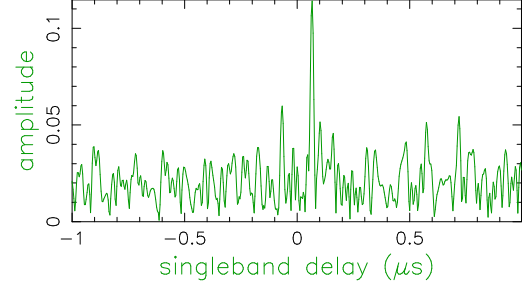
multiband delay (μ s)



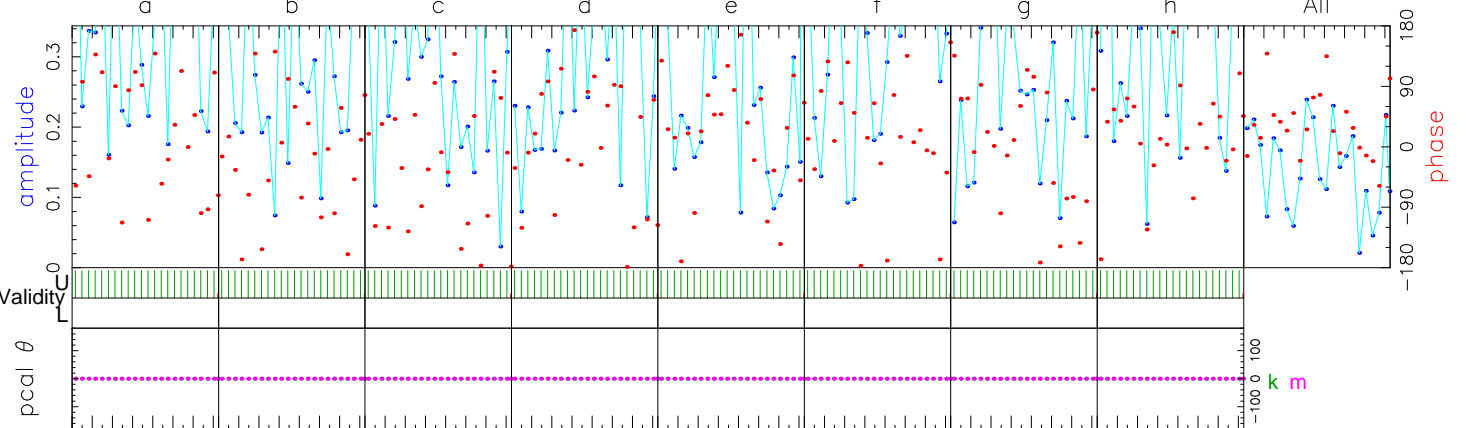
Fringe quality 0

SNR 6.4
Int time 419.811
Amp 0.115
Phase 30.5
PFD 3.7e-02
Delays (us)
SBD 0.065673
MBD -0.007213
Fringe rate (Hz) 0.058136
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133910
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	60.6	-11.1	7.4	49.4	61.0	27.7	27.8	26.0	Phase	30.5
	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.2	Ampl.	0.1
	365.9	273.4	180.3	318.0	274.8	6.1	86.6	273.6	Sbd box	273.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-2.78261596469E+03		Apriori delay (usec)		-2.78268687628E+03		Resid mbdelay (usec)		-7.21341E-03	+/- 1.7E-04
Sband delay (usec)	-2.78262120353E+03		Apriori clock (usec)		-1.5396526E+01		Resid sbdelay (usec)		6.56727E-02	+/- 1.3E-03
Phase delay (usec)	-2.78268687529E+03		Apriori clockrate (us/s)		-3.1799999E-07		Resid phdelay (usec)		9.82400E-07	+/- 5.8E-07
Delay rate (us/s)	-4.97603454844E-01		Apriori rate (us/s)		-4.97604129748E-01		Resid rate (us/s)		6.74904E-07	+/- 2.4E-09
Total phase (deg)			Apriori accel (us/s/s)		3.13863175794E-05		Resid phase (deg)		30.5	+/- 17.9

ph/seg (deg) 46.9 42.8 Search (2048X32) 0.113 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 60.3 74.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 27.3 25.2 Inc. seg. avg. 0.112 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 45.4 44.1 Inc. frq. avg. 0.114 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
k: az 312.3 el 46.3 pa 94.2 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 4595.927 4048.588 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/km..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/km.W.112.1X1QEV

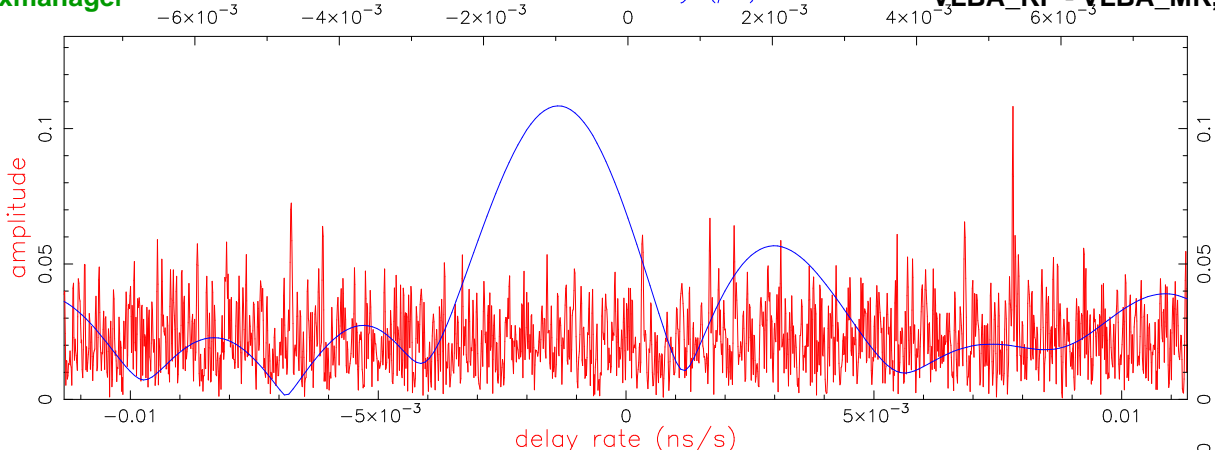
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, km

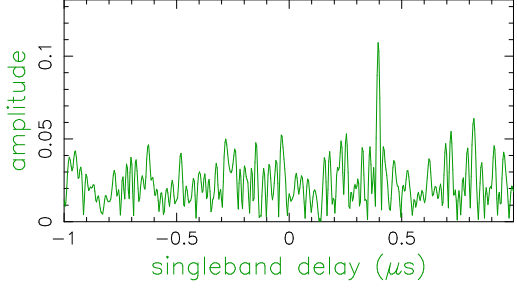
VLBA_KP - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

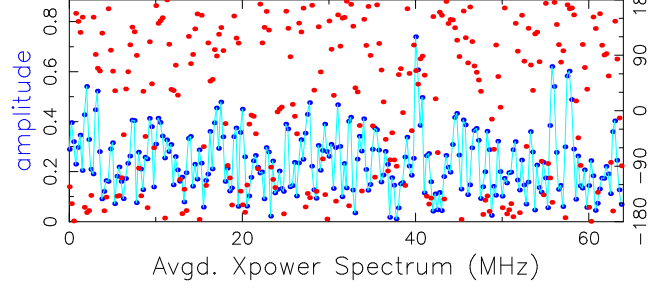


Fringe quality 0

SNR 6.1
 Int time 419.812
 Amp 0.134
 Phase 35.2
 PFD 2.1e-01
 Delays (us)
 SBD 0.395680
 MBD -0.000900
 Fringe rate (Hz)
 0.673510
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

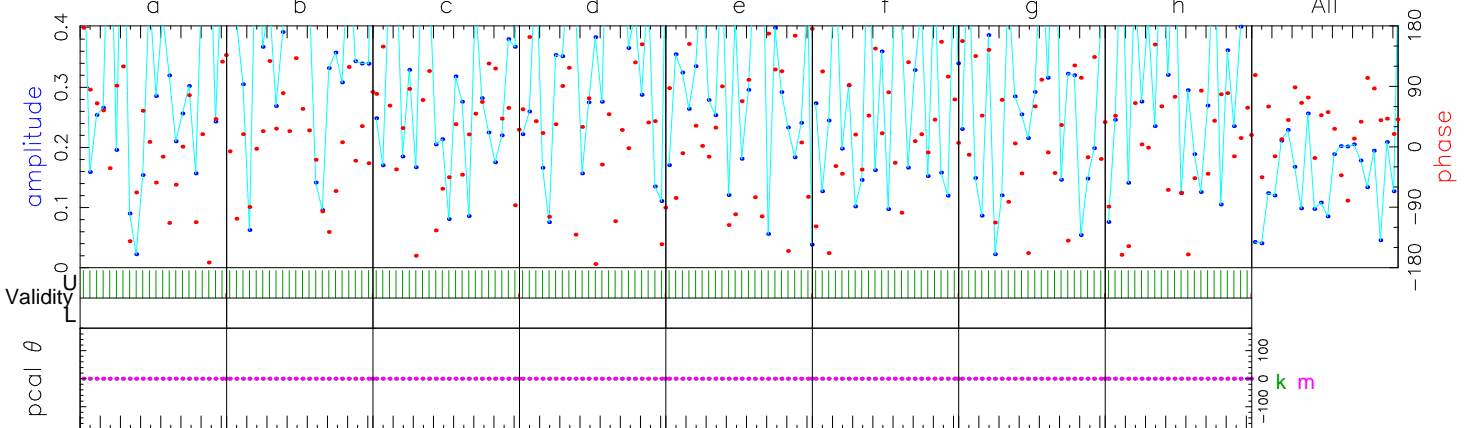


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133914
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'59.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	0	0	0	0	0	0	0	0		
m	0	0	0	0	0	0	0	0		
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:m	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		
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-2.78229715130E+03									
Sband delay (usec)	-2.78229119603E+03									
Phase delay (usec)	-2.78268687514E+03									
Delay rate (us/s)	-4.97596310959E-01									
Total phase (deg)			-152.9							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
k m										
RMS	48.0	44.8								
Theor.										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
0.134 +/- 0.022										
0.105										
0.000										
0.141										
0.128										
0.000E+00, 0.000E+00 (us/s)										
SampCntNorm: enabled										
nlags: 256										
t_cohere infinite										
simultaneous interpolator										

k: az 312.3 el 46.3 pa 94.2 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 4595.927 4048.588 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/km..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/km.W.131.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

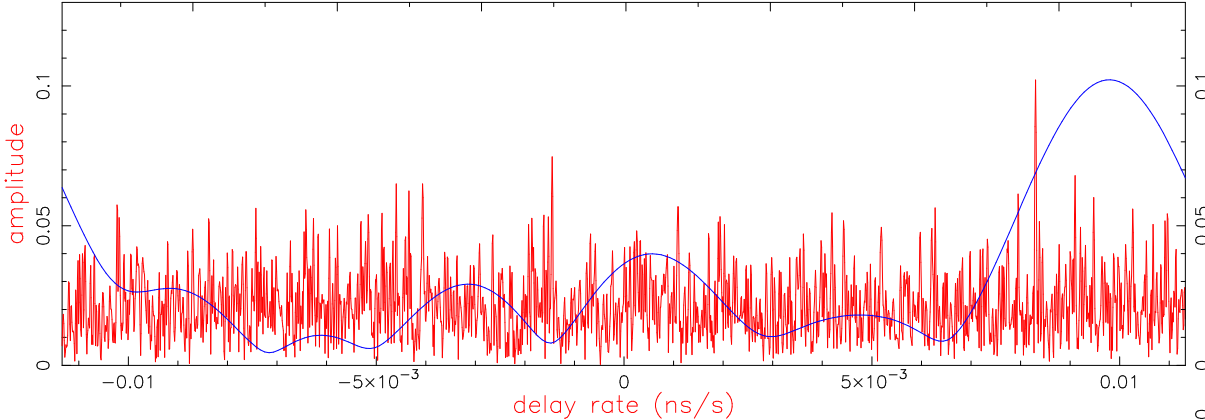
NRAO150.1X1QEV, No0120, km

VLBA_KP - VLBA_MK, fgroup W, pol RL

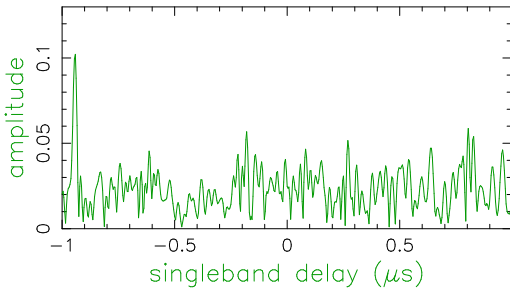
multiband delay (μ s)

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

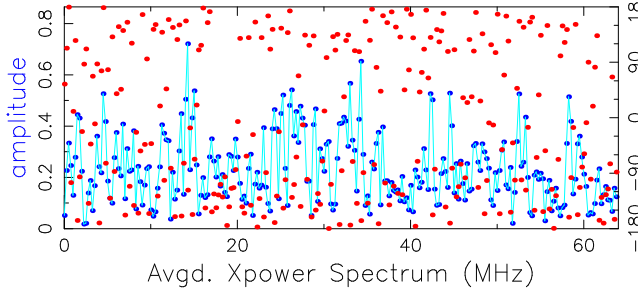
Fringe quality 0



SNR 5.8
 Int time 419.811
 Amp 0.130
 Phase 57.8
 PFD 8.5e-01
 Delays (us)
 SBD -0.942692
 MBD 0.006644
 Fringe rate (Hz)
 0.716068
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

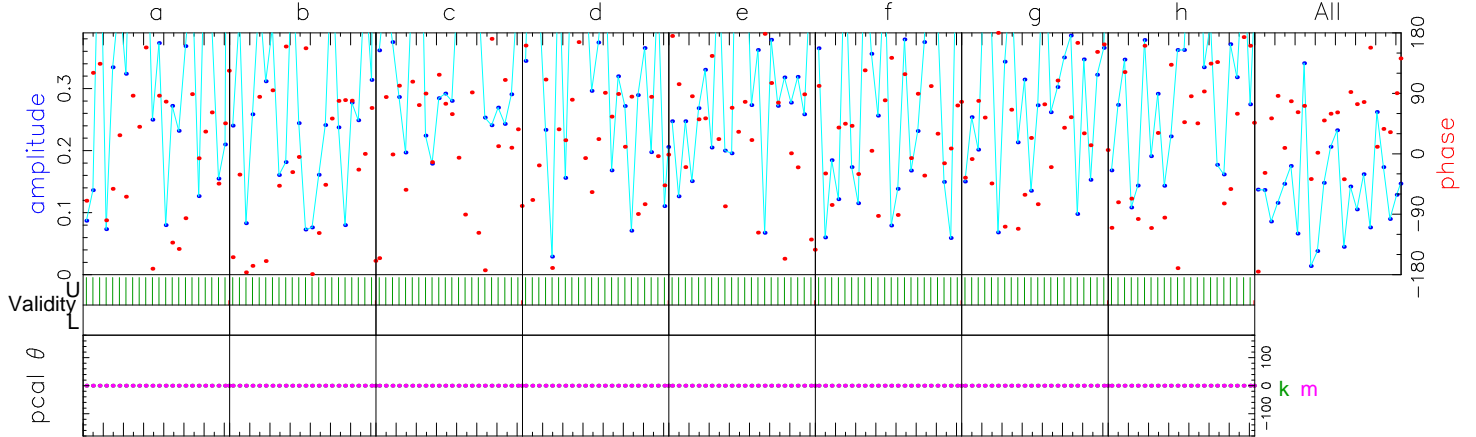


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133918
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	0	0	0	0	0	0	0	0		
m	0	0	0	0	0	0	0	0		
k:m	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		
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-2.78363335718E+03				-2.78268687628E+03				6.64410E-03	+/- 1.9E-04
Sband delay (usec)	-2.78362956803E+03				-1.5396526E+01				-9.42692E-01	+/- 1.5E-03
Phase delay (usec)	-2.78268687441E+03				-3.1799999E-07				1.86443E-06	+/- 6.4E-07
Delay rate (us/s)	-4.97595816906E-01				-4.97604129748E-01				8.31284E-06	+/- 2.6E-09
Total phase (deg)			-130.2						57.8	+/- 19.8
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

ph/seg (deg) 54.7 47.6 Search (2048X32) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 79.8 83.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 30.8 28.1 Inc. seg. avg. 0.129 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 27.4 49.0 Inc. frq. avg. 0.126 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 312.3 el 46.3 pa 94.2 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 4595.927 4048.588 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/km..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/km.W.152.1X1QEV

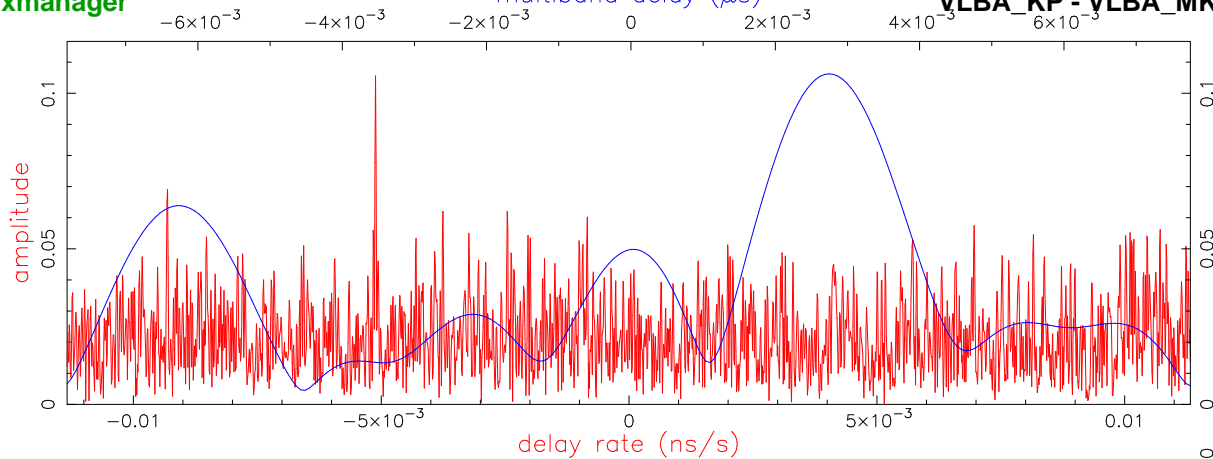
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, km

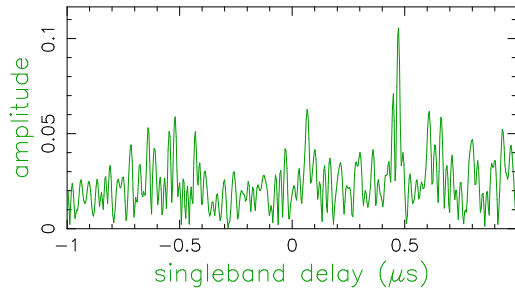
VLBA_KP - VLBA_MK, fgroup W, pol LL

multiband delay (μ s)

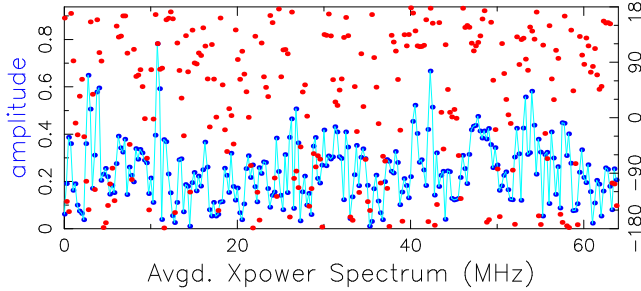


Fringe quality 0

SNR 6.0
Int time 419.812
Amp 0.117
Phase 132.6
PFD 4.0e-01
Delays (us)
SBD 0.471253
MBD 0.002628
Fringe rate (Hz)
-0.441309
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

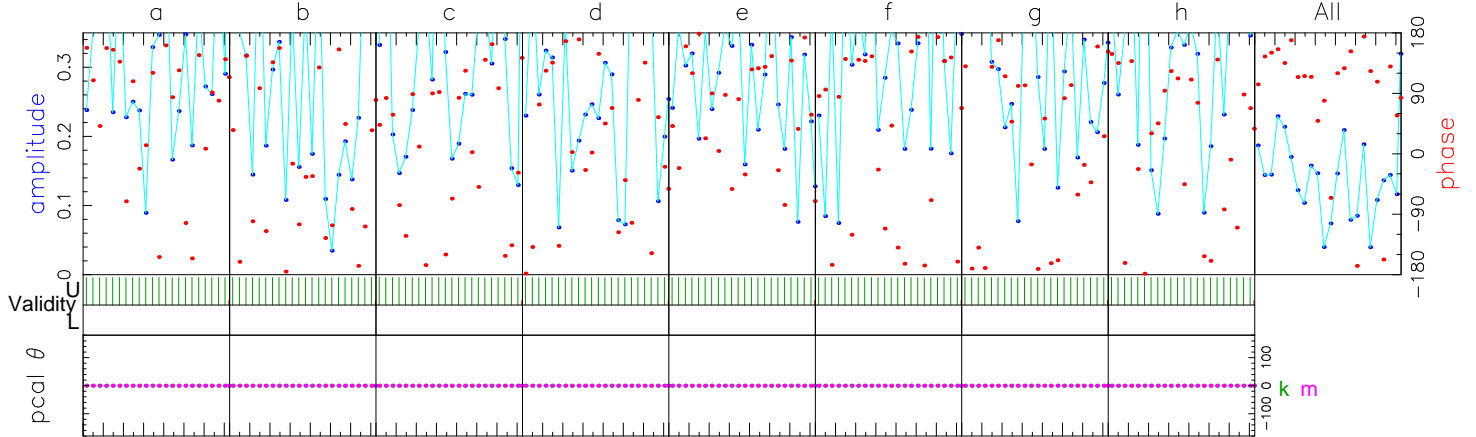


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133906
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	126.7	149.4	103.3	137.3	93.2	169.3	144.2	124.0	Phase	132.6
	0.2	0.0	0.1	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	376.2	401.6	460.1	308.0	442.9	378.5	227.7	369.0	Sbd box	377.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-2.78221549823E+03	Apriori delay (usec)	-2.78268687628E+03	Resid mbdelay (usec)	2.62805E-03	+/-	1.8E-04
Sband delay (usec)	-2.78221562303E+03	Apriori clock (usec)	-1.5396526E+01	Resid sbdelay (usec)	4.71253E-01	+/-	1.4E-03
Phase delay (usec)	-2.78268687200E+03	Apriori clockrate (us/s)	-3.1799999E-07	Resid phdelay (usec)	4.27731E-06	+/-	6.2E-07
Delay rate (us/s)	-4.97609252907E-01	Apriori rate (us/s)	-4.97604129748E-01	Resid rate (us/s)	-5.12316E-06	+/-	2.5E-09
Total phase (deg)	-55.4	Apriori accel (us/s/s)	3.13863175794E-05	Resid phase (deg)	132.6	+/-	19.1

ph/seg (deg)	51.1	Theor.	45.8	Amplitude	0.117 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	57.4		79.9	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	26.8		27.0	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	47.3		47.1	Inc. seg. avg.	0.113	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
				Inc. frq. avg.	0.114	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

k: az 312.3 el 46.3 pa 94.2 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 4595.927 4048.588 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/km..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/km.W.95.1X1QEV

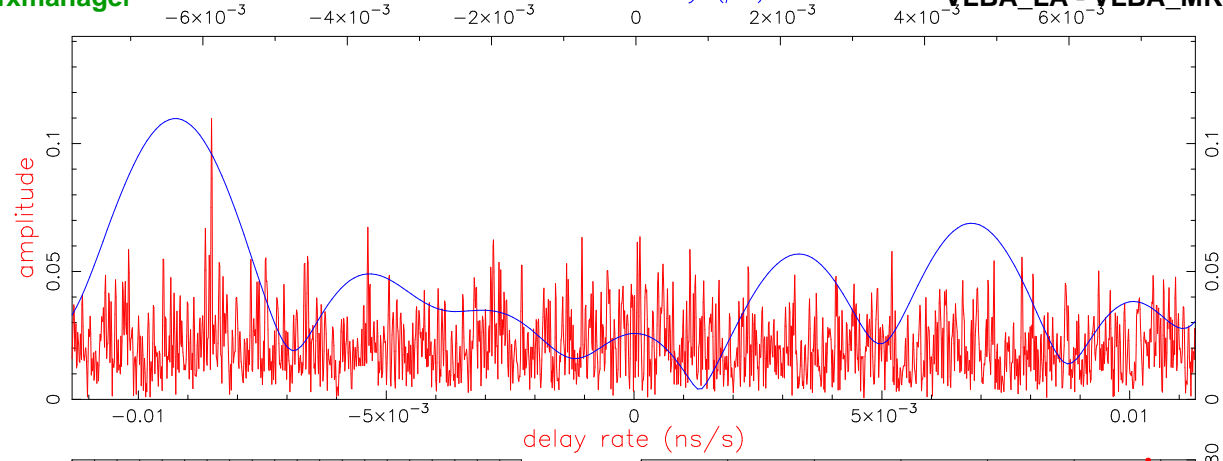
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, Im

VLBA_LA - VLBA_MK, fgroup W, pol LL

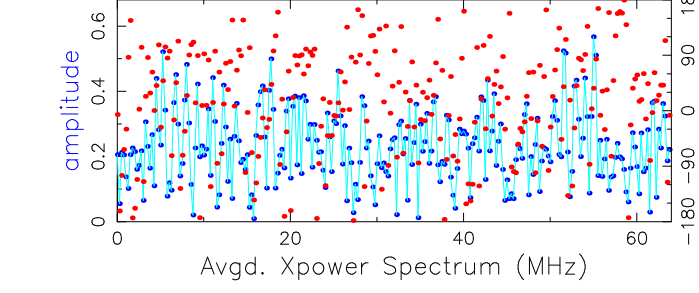
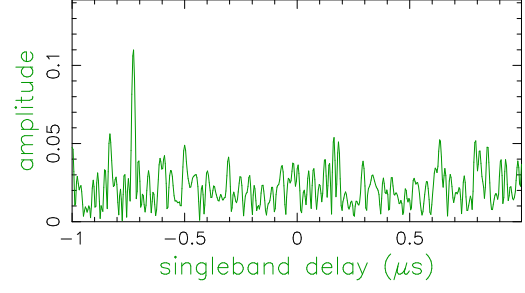
multiband delay (μ s)



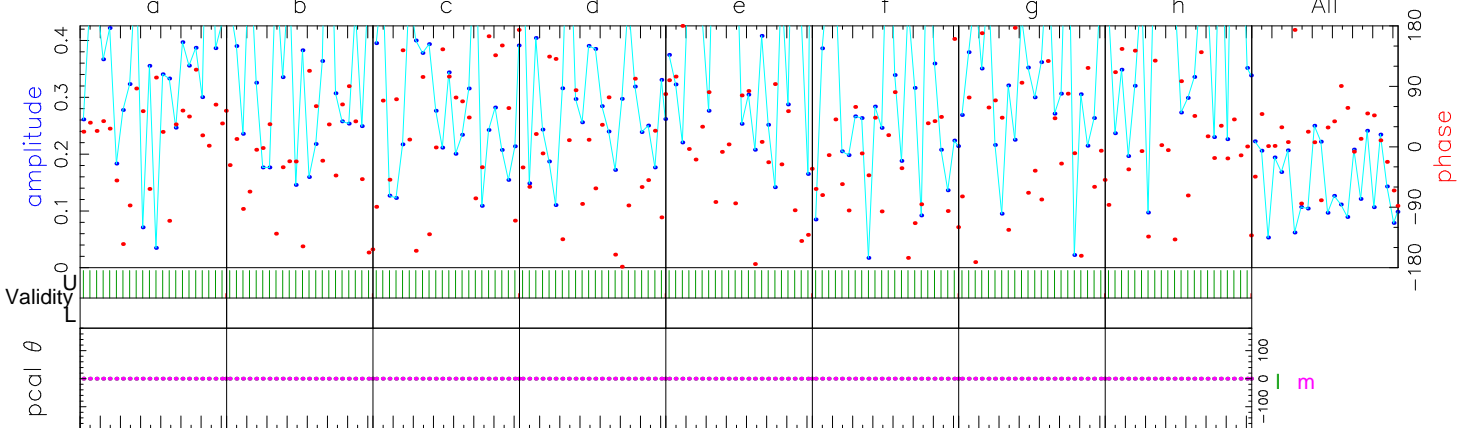
Fringe quality 0

SNR 6.2
 Int time 419.820
 Amp 0.142
 Phase 7.7
 PFD 1.2e-01
 Delays (us)
 SBD -0.727860
 MBD -0.006406
 Fringe rate (Hz)
 -0.735439
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133923
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
l	0	0	0	0	0	0	0	0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-3.01967525886E+03	Apriori delay (usec)	-3.01895010304E+03	Resid mbdelay (usec)	-6.40582E-03	+/-	1.7E-04
Sband delay (usec)	-3.01967796279E+03	Apriori clock (usec)	-1.8351933E+01	Resid sbdelay (usec)	-7.27860E-01	+/-	1.4E-03
Phase delay (usec)	-3.01895010279E+03	Apriori clockrate (us/s)	-6.0400003E-07	Resid phdelay (usec)	2.49116E-07	+/-	5.9E-07
Delay rate (us/s)	-5.07014114106E-01	Apriori rate (us/s)	-5.07005576393E-01	Resid rate (us/s)	-8.53771E-06	+/-	2.4E-09
Total phase (deg)	-307.6	Apriori accel (us/s/s)	3.74778458587E-05	Resid phase (deg)	7.7	+/-	18.4

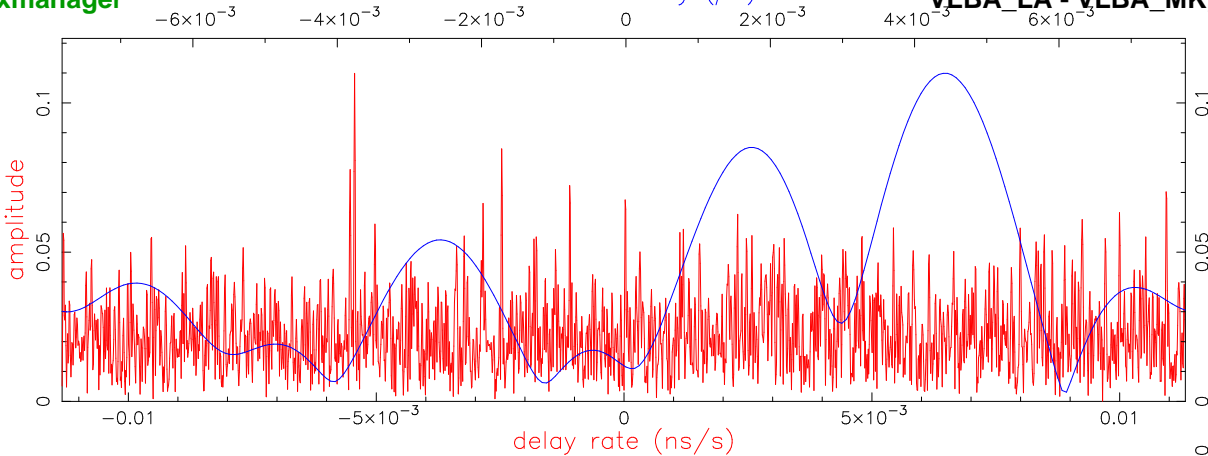
ph/seg (deg)	56.5	Theor.	44.2	Amplitude	0.142 +/- 0.023	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	67.0	Search (2048X32)	0.105	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	50.1	Inc. seg. avg.	0.150	Inc. frq. avg.	0.147	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	52.0	Inc. frq. avg.	0.147			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

l: az 309.3 el 45.4 pa 86.6 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 4694.011 4947.004 simultaneous interpolator

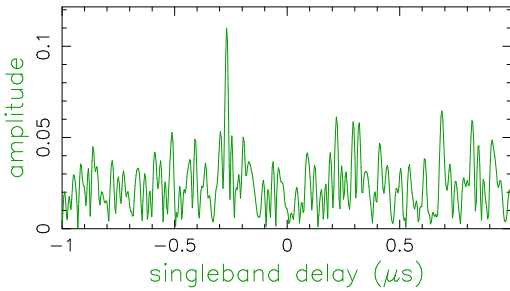
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/lm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/lm.W.166.1X1QEV

multiband delay (μ s)

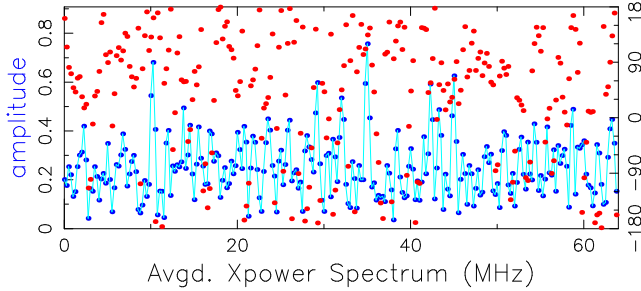
Fringe quality 0



SNR 6.2
Int time 419.820
Amp 0.122
Phase -169.7
PFD 1.5e-01
Delays (us)
SBD -0.268687
MBD 0.004456
Fringe rate (Hz)
-0.469035
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

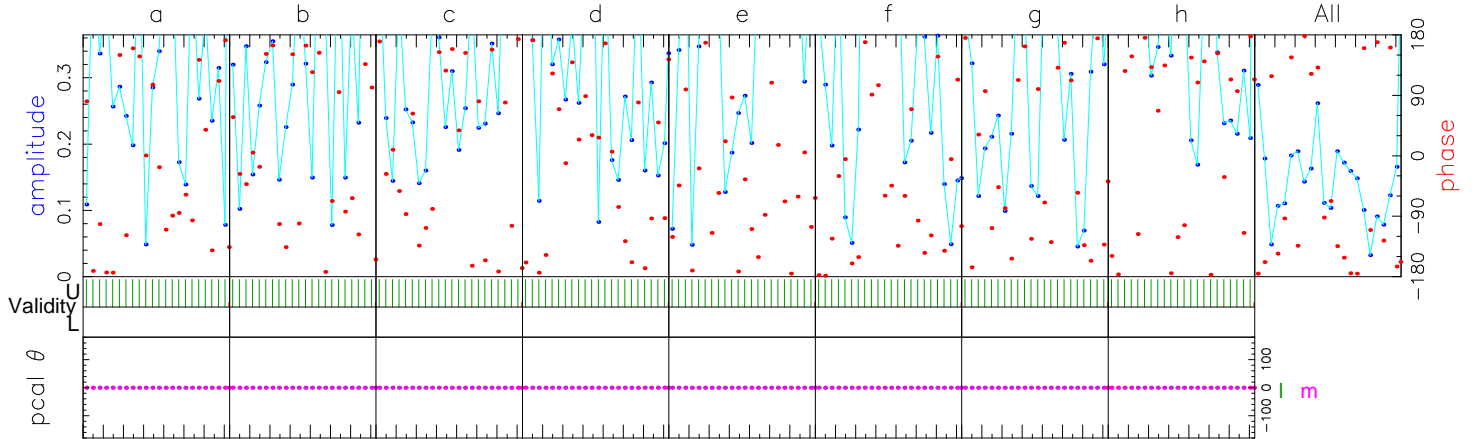


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133927
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-153.7	167.9	-178.7	140.5	-92.6	-144.2	-171.9	174.7	Phase	-169.7
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	Ampl.	0.1
	246.8	466.6	20.4	384.9	362.1	180.6	496.0	188.2	Sbd box	188.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	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	
									Tracks	
Group delay (usec)(sbd)	-3.01921127199E+03		Apriori delay (usec)		-3.01895010304E+03		Resid mbdelay (usec)		4.45605E-03	+/- 1.8E-04
Sband delay (usec)	-3.01921878954E+03		Apriori clock (usec)		-1.8351933E+01		Resid sbdelay (usec)		-2.68687E-01	+/- 1.4E-03
Phase delay (usec)	-3.01895010851E+03		Apriori clockrate (us/s)		-6.0400003E-07		Resid phdelay (usec)		-5.47096E-06	+/- 6.0E-07
Delay rate (us/s)	-5.07011021429E-01		Apriori rate (us/s)		-5.07005576393E-01		Resid rate (us/s)		-5.44504E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		3.74778458587E-05		Resid phase (deg)		-169.7	+/- 18.5

	RMS	Theor.	Amplitude	0.122 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	47.0	44.4	Search (2048X32)	0.106	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	66.9	77.5	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	41.2	26.2	Inc. seg. avg.	0.123	Sample rate(MSamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	49.0	45.7	Inc. frq. avg.	0.129	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

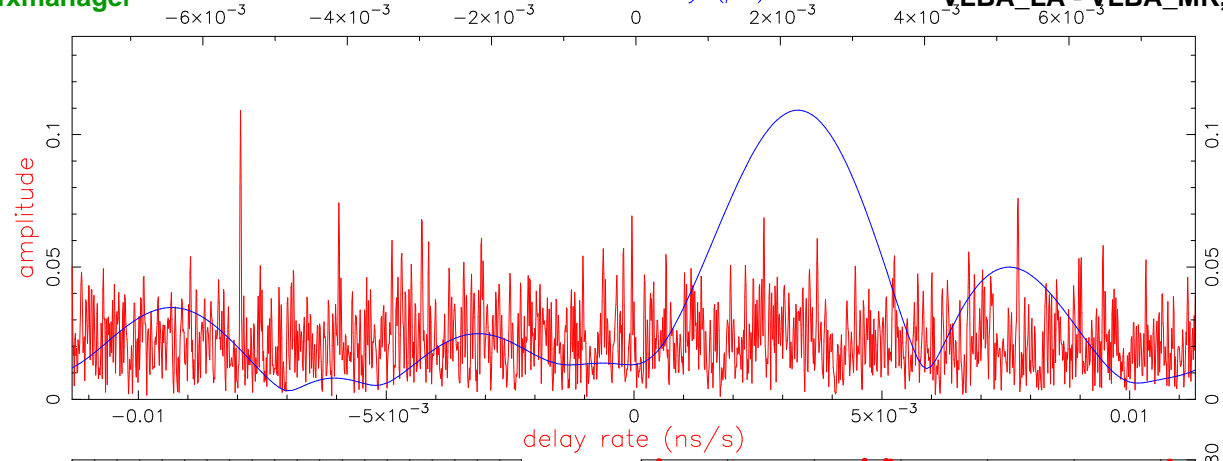
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

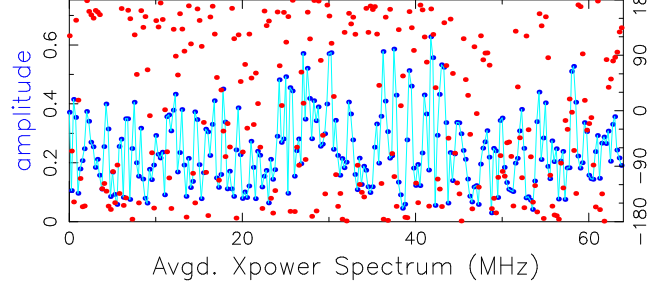
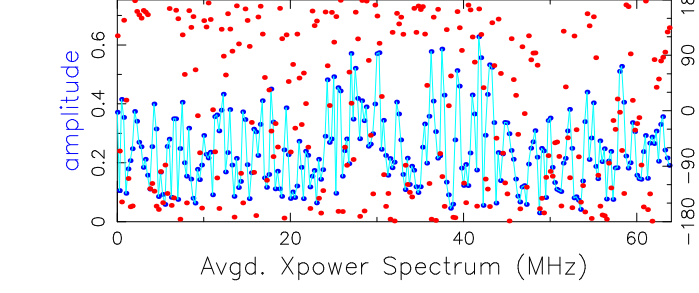
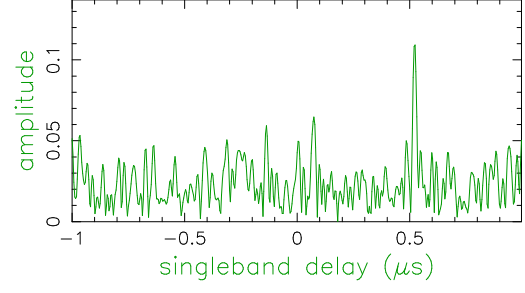
NRAO150.1X1QEV, No0120, Im

VLBA_LA - VLBA_MK, fgroup W, pol LR

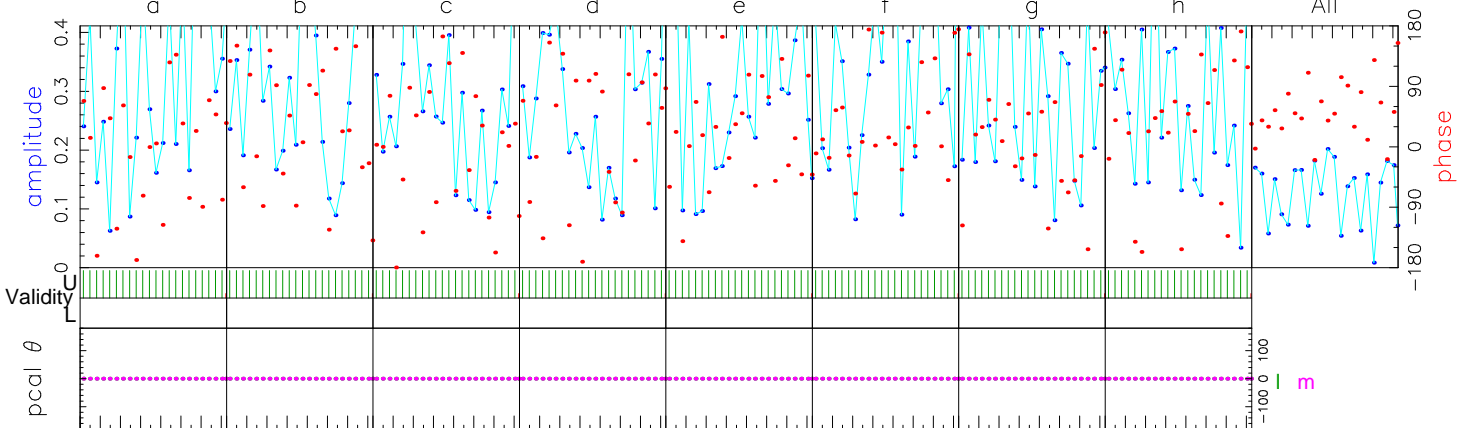
multiband delay (μ s)



Fringe quality 0
 SNR 6.2
 Int time 419.820
 Amp 0.137
 Phase 40.6
 PFD 1.2e-01
 Delays (us)
 SBD 0.521666
 MBD 0.002195
 Fringe rate (Hz) -0.684627
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133931
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
l	0	0	0	0	0	0	0	0		
m	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: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)	-3.01843228339E+03	Apriori delay (usec)	-3.01895010304E+03	Resid mbdelay (usec)	2.19465E-03	+/-	1.7E-04
Sband delay (usec)	-3.01842843704E+03	Apriori clock (usec)	-1.8351933E+01	Resid sbdelay (usec)	5.21666E-01	+/-	1.4E-03
Phase delay (usec)	-3.01895010173E+03	Apriori clockrate (us/s)	-6.0400003E-07	Resid phdelay (usec)	1.30807E-06	+/-	5.9E-07
Delay rate (us/s)	-5.07013524235E-01	Apriori rate (us/s)	-5.07005576393E-01	Resid rate (us/s)	-7.94784E-06	+/-	2.5E-09
Total phase (deg)	-274.8	Apriori accel (us/s/s)	3.74778458587E-05	Resid phase (deg)	40.6	+/-	18.4

ph/seg (deg)	40.6	Theor.	44.2	Amplitude	0.137 +/- 0.022	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	50.7	Search (2048X32)	0.107	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	Inc. seg. avg.	0.124	Inc. frq. avg.	0.132	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	21.5	Inc. frq. avg.	0.132	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011
										ion window (TEC)	0.00 0.00

l: az 309.3 el 45.4 pa 86.6 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 4694.011 4947.004 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/lm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/lm.W.210.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

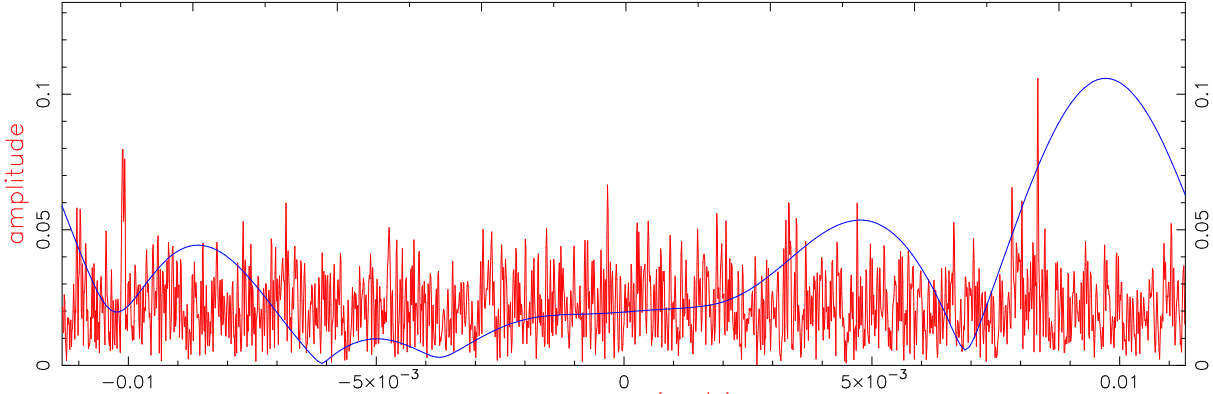
NRAO150.1X1QE, No0120, Im

VLBA_LA - VLBA_MK, fgroup W, pol RL

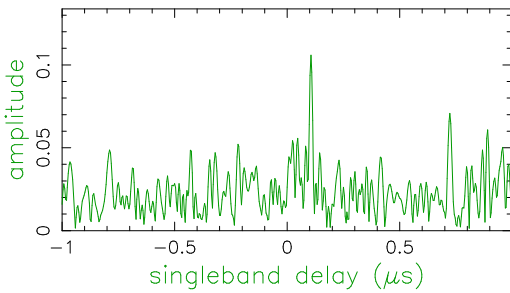
multiband delay (μ s)

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

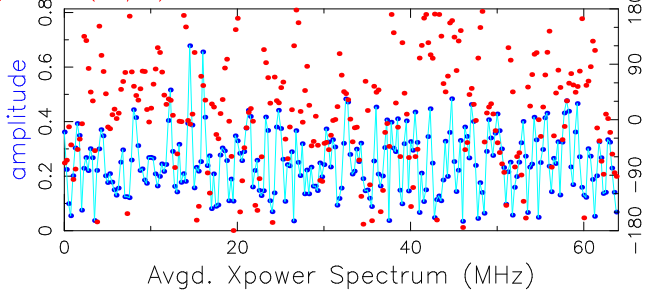
Fringe quality 0



SNR 5.9
 Int time 419.820
 Amp 0.134
 Phase 85.4
 PFD 5.4e-01
 Delays (us)
 SBD 0.105653
 MBD 0.006650
 Fringe rate (Hz)
 0.720136
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

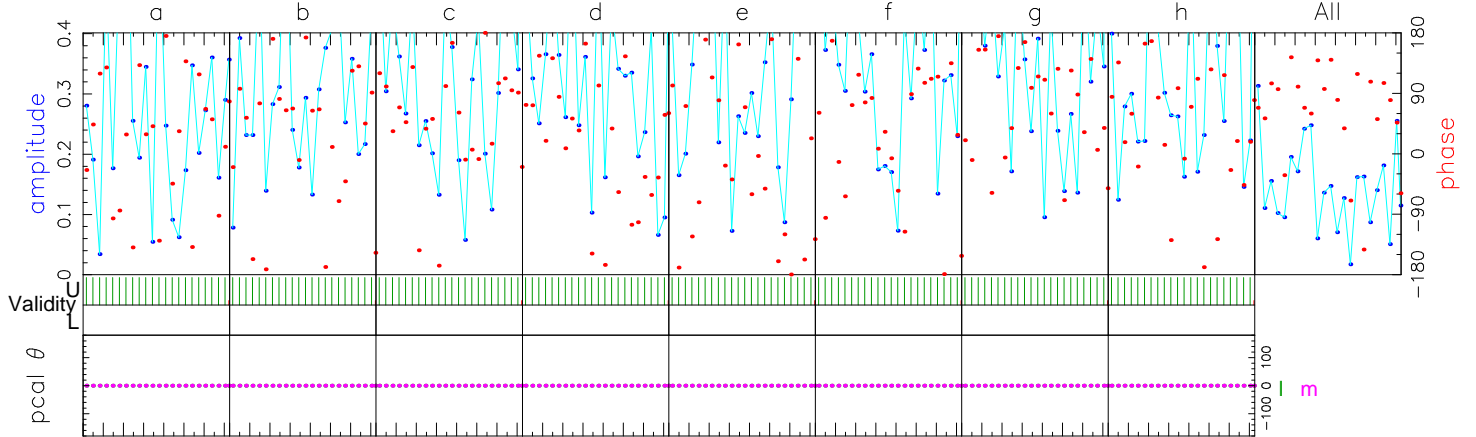


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133935
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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

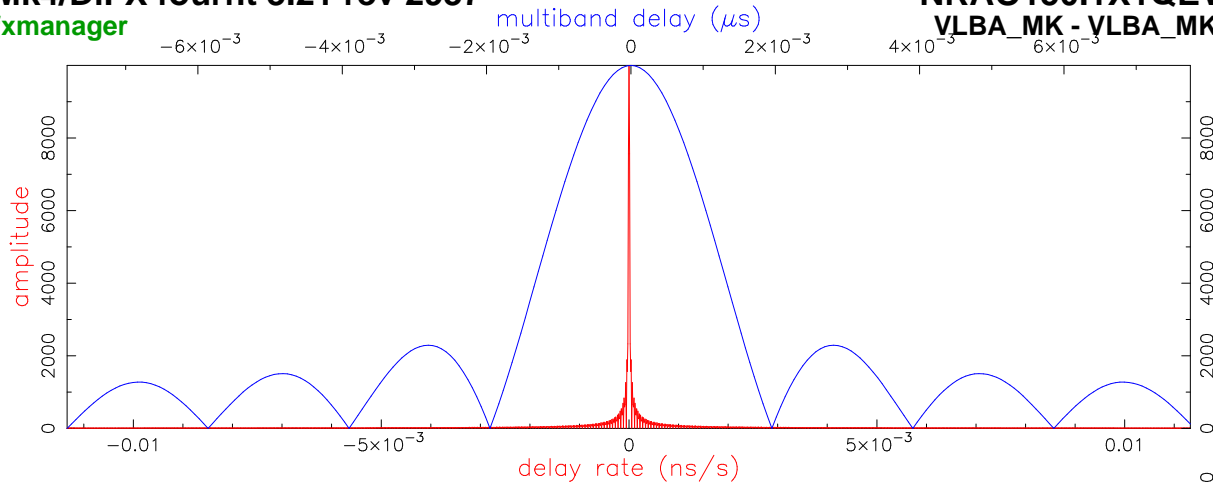


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
l	0	0	0	0	0	0	0	0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

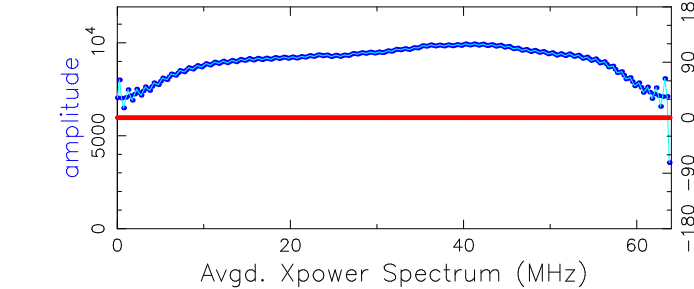
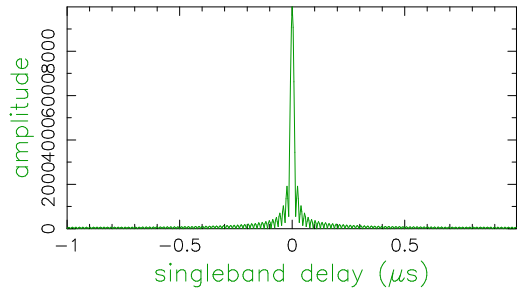
Group delay (usec)(sbd) -3.01884970343E+03 Apriori delay (usec) -3.01895010304E+03 Resid mbdelay (usec) 6.64961E-03 +/- 1.8E-04
 Sband delay (usec) -3.01884445004E+03 Apriori clock (usec) -1.8351933E+01 Resid sbdelay (usec) 1.05653E-01 +/- 1.5E-03
 Phase delay (usec) -3.01895010029E+03 Apriori clockrate (us/s) -6.0400003E-07 Resid phdelay (usec) 2.75441E-06 +/- 6.2E-07
 Delay rate (us/s) -5.06997216325E-01 Apriori rate (us/s) -5.07005576393E-01 Resid rate (us/s) 8.36007E-06 +/- 2.6E-09
 Total phase (deg) -229.9 Apriori accel (us/s/s) 3.74778458587E-05 Resid phase (deg) 85.4 +/- 19.3

RMS Theor. Amplitude 0.134 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 59.3 46.3 Search (2048X32) 0.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 77.8 80.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 38.6 27.3 Inc. seg. avg. 0.140 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 46.5 47.7 Inc. frq. avg. 0.131 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

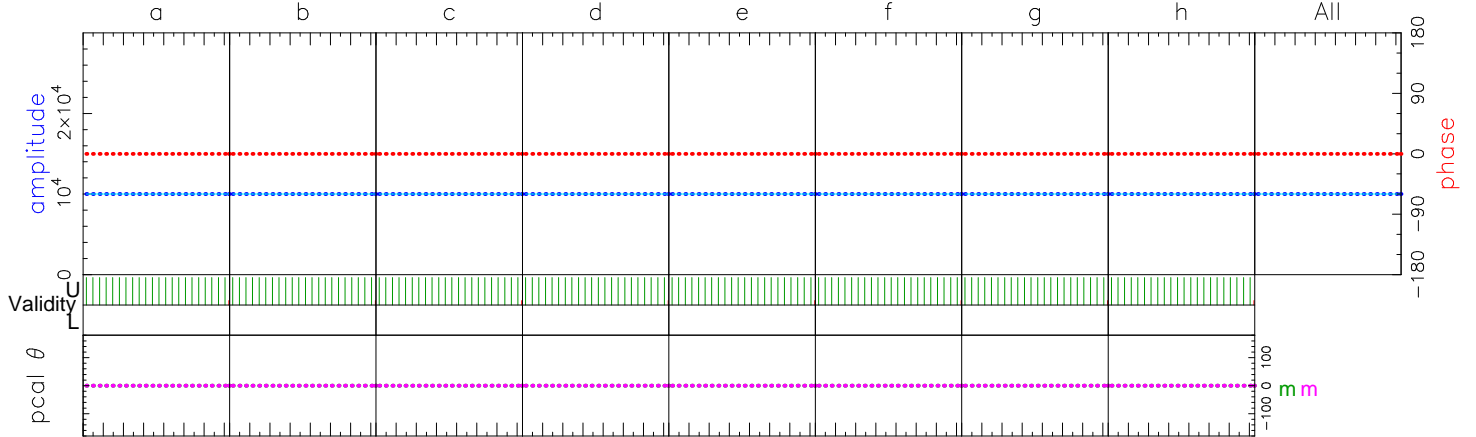
l: az 309.3 el 45.4 pa 86.6 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 4694.011 4947.004 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/lm..1X1QE V Output file: /Exps/c211c/v1/1234/No0120/lm.W.229.1X1QE V



Fringe quality 9
SNR 560310.8
Int time 419.820
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. c211c
Yr:day 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133922
2021:252:122852
RA & Dec (J2000) 03h59m29.747267s +50°57'50.161694"



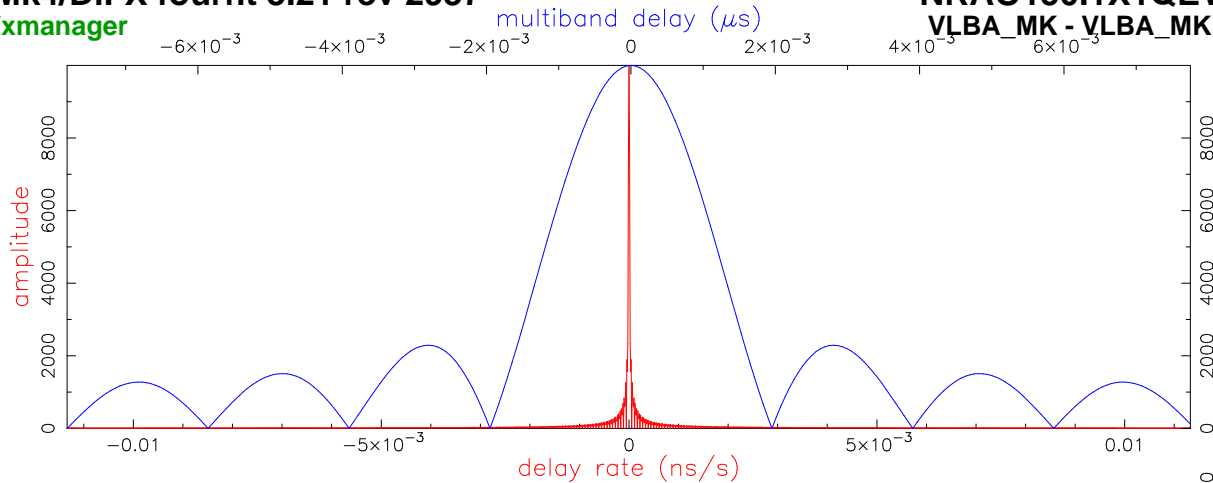
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
m	0	0	0	0	0	0	0	0		
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

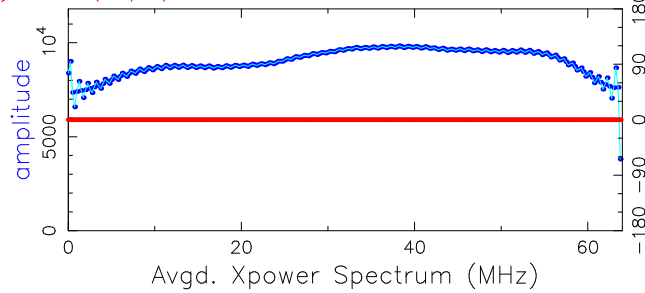
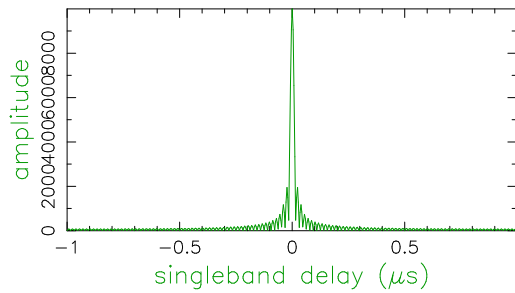
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	1.9E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)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

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 9999.999 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 0.0 0.0 Search (2048X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
m: az 347.6 el 57.7 pa 160.9 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mm.W.163.1X1QEV simultaneous interpolator



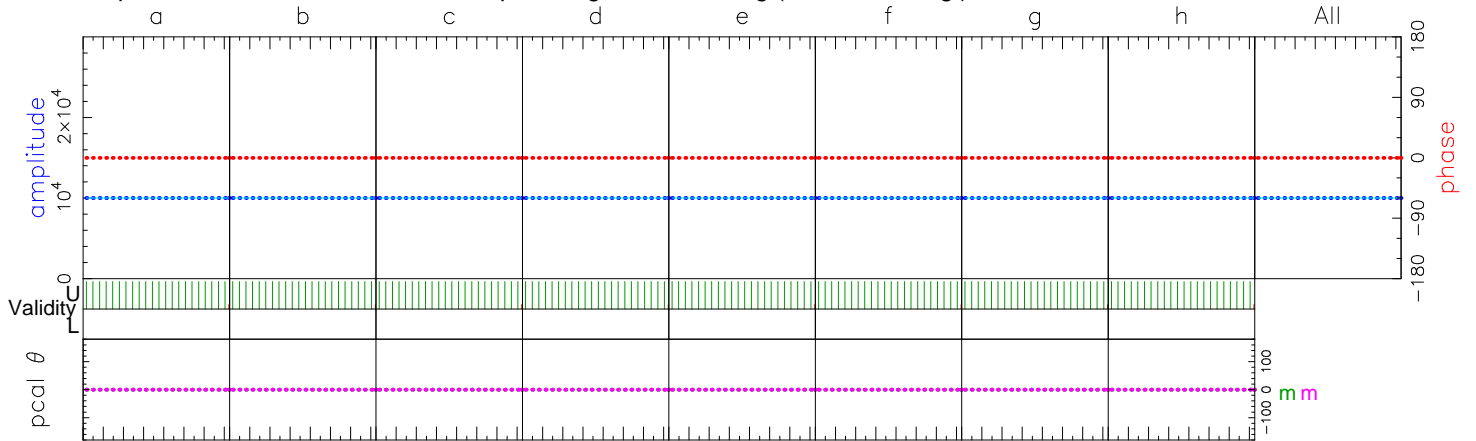
Fringe quality 9

SNR 560310.8
Int time 419.820
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. c211c
Yr:day 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133925
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	10000.0	10000.0
m	0	0	0	0	0	0	0	0	Ampl.	10000.0
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
m	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC freqs	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 1.9E-09
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 1.5E-08
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 6.6E-12
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 2.7E-14
Total phase (deg)			0.0						0.0	+/- 0.0
RMS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Theor.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Amplitude	9999.999 +/- 0.018	9999.999	9999.999	9999.999	9999.999	9999.999	9999.999	9999.999	9999.999	
Search (2048X32)	9999.999	9999.999	9999.999	9999.999	9999.999	9999.999	9999.999	9999.999	9999.999	
Interp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Inc. seg. avg.	10000.000	10000.000	10000.000	10000.000	10000.000	10000.000	10000.000	10000.000	10000.000	
Inc. frq. avg.	9999.999	9999.999	9999.999	9999.999	9999.999	9999.999	9999.999	9999.999	9999.999	
PCal mode:	MANUAL, MANUAL	MANUAL, MANUAL	MANUAL, MANUAL	MANUAL, MANUAL	MANUAL, MANUAL	MANUAL, MANUAL	MANUAL, MANUAL	MANUAL, MANUAL	MANUAL, MANUAL	PC period (AP's) 5, 5
PCal rate:	0.000E+00, 0.000E+00 (us/s)	0.000E+00, 0.000E+00 (us/s)	0.000E+00, 0.000E+00 (us/s)	0.000E+00, 0.000E+00 (us/s)	0.000E+00, 0.000E+00 (us/s)	0.000E+00, 0.000E+00 (us/s)	0.000E+00, 0.000E+00 (us/s)	0.000E+00, 0.000E+00 (us/s)	0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
Bits/sample:	2x2	2x2	2x2	2x2	2x2	2x2	2x2	2x2	2x2	mb window (us) -0.008 0.008
Sample rate (MSamp/s):	128	128	128	128	128	128	128	128	128	dr window (ns/s) -0.011 0.011
Data rate (Mb/s):	2048	2048	2048	2048	2048	2048	2048	2048	2048	ion window (TEC) 0.00 0.00
nlags:	256	256	256	256	256	256	256	256	256	t_cohere infinite

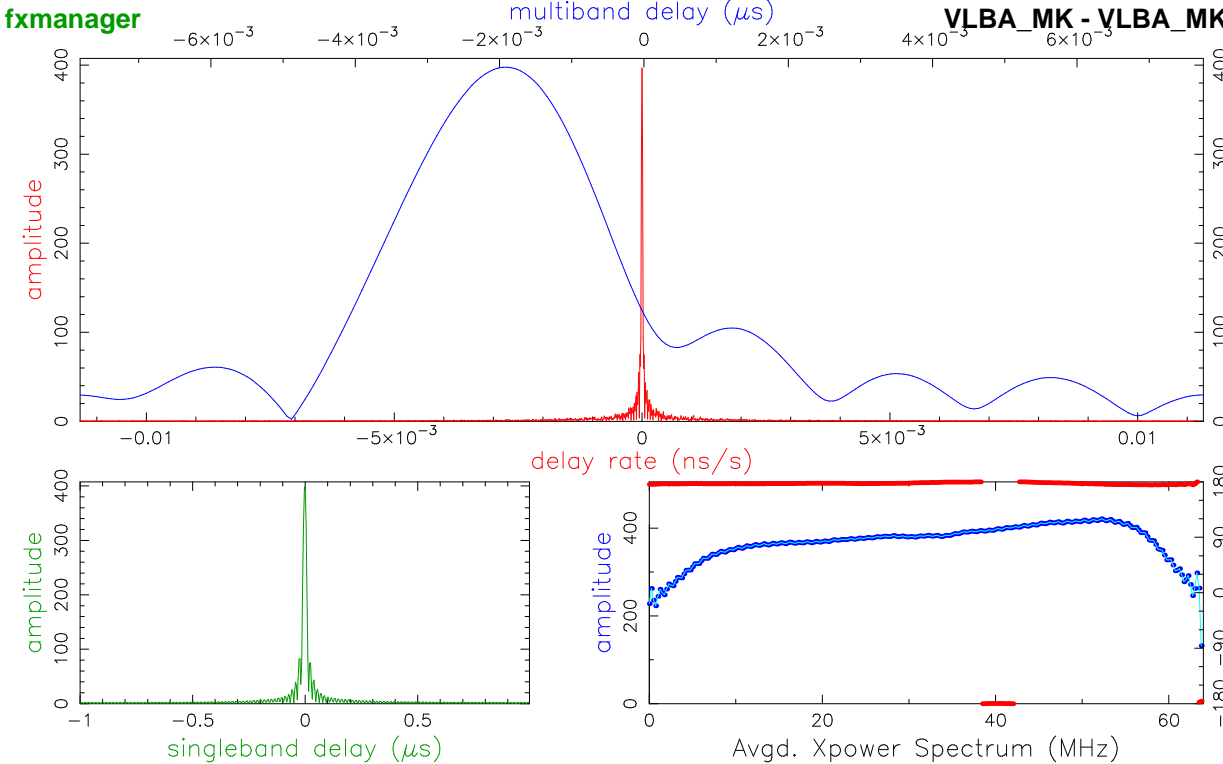
m: az 347.6 el 57.7 pa 160.9 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mm.W.180.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, mm

VLBA_MK - VLBA_MK, fgroup W, pol LR

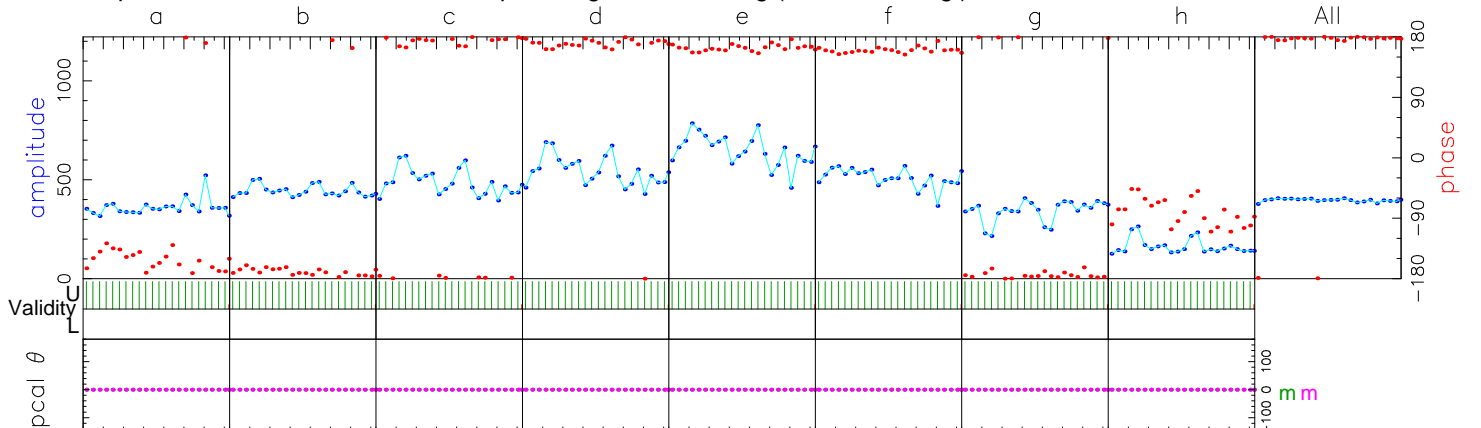


Fringe quality 6

SNR 22836.4
 Int time 419.820
 Amp 407.567
 Phase 178.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.001827
 MBD -0.001818
 Fringe rate (Hz) 0.000023
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133929
 2021:252:122852
 RA & Dec (J2000) 03h59m29.747267s +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-155.7	-171.4	175.8	170.1	163.1	159.8	-175.7	-77.1	Phase	178.0
	347.1	440.8	485.2	543.4	647.0	507.2	341.3	153.0	Ampl.	433.1
	256.3	256.2	256.4	256.7	256.3	256.9	257.1	258.0	Sbd box	256.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) -1.81781250000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -1.81781E-03 +/- 4.8E-08
 Sband delay (usec) -1.82675000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -1.82675E-03 +/- 3.8E-07
 Phase delay (usec) 5.74101557112E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 5.74102E-06 +/- 1.6E-10
 Delay rate (us/s) 2.70669010681E-10 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 2.70669E-10 +/- 6.7E-13
 Total phase (deg) 178.0 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 178.0 +/- 0.0

RMS Theor. Amplitude 407.567 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 1.9 0.0 Search (2048X32) 397.526 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 3.2 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 45.6 0.0 Inc. seg. avg. 397.019 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 35.3 0.0 Inc. frq. avg. 433.122 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

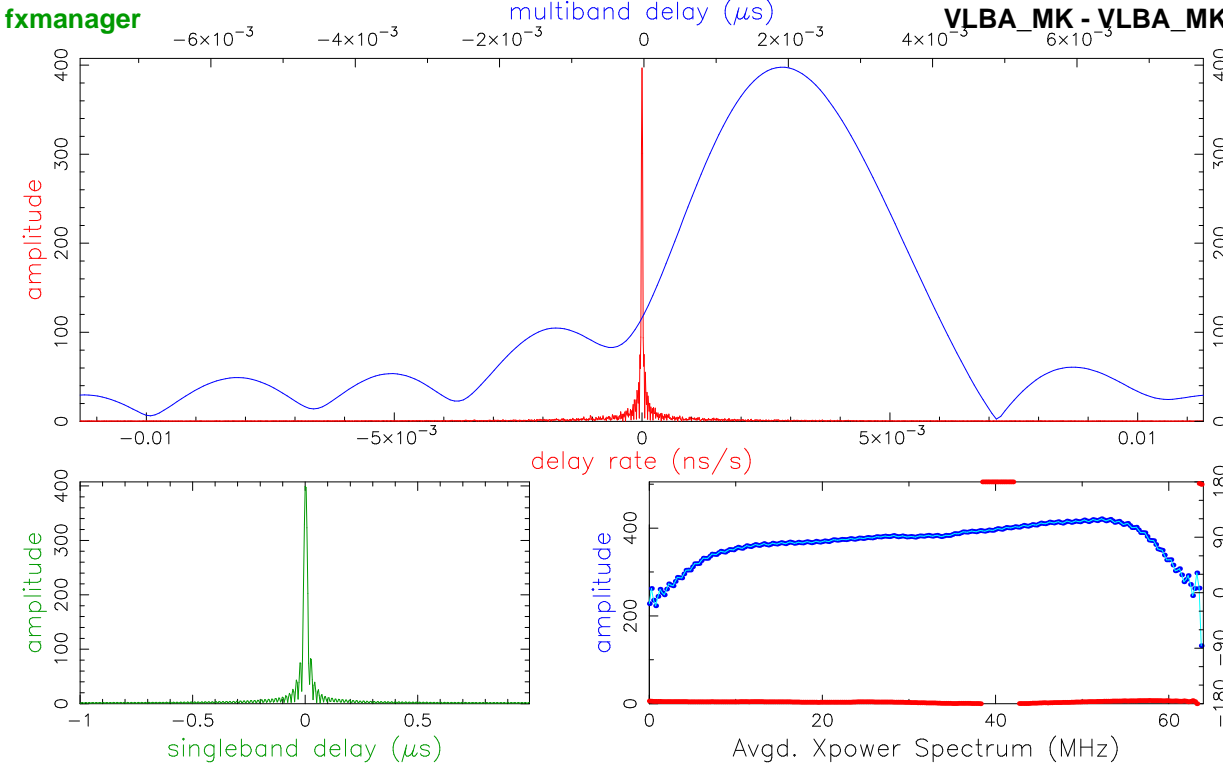
m: az 347.6 el 57.7 pa 160.9 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mm.W.200.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

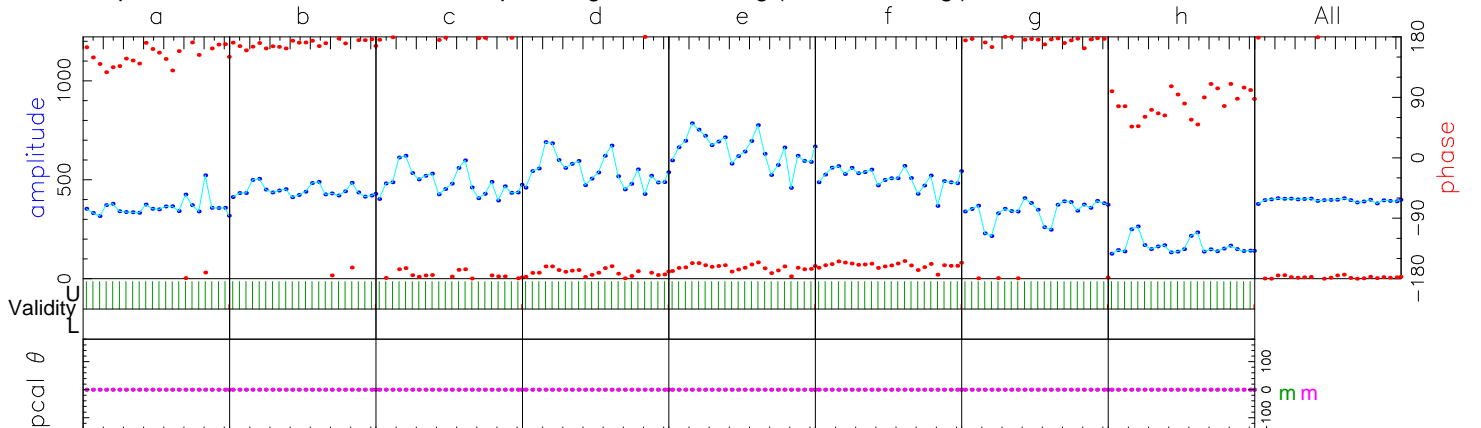
NRAO150.1X1QEV, No0120, mm

VLBA_MK - VLBA_MK, fgroup W, pol RL



Fringe quality 6
 SNR 22836.4
 Int time 419.820
 Amp 407.567
 Phase -178.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.001827
 MBD 0.001818
 Fringe rate (Hz) -0.000023
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133933
 2021:252:122852
 RA & Dec (J2000) 03h59m29.747267s +50°57'59.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
m	0	0	0	0	0	0	0	0	APs used	
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
m	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.81781250000E-03								1.81781E-03	+/- 4.8E-08
Sband delay (usec)	1.82675000000E-03								1.82675E-03	+/- 3.8E-07
Phase delay (usec)	-5.74101557119E-06								-5.74102E-06	+/- 1.6E-10
Delay rate (us/s)	-2.70669010681E-10								-2.70669E-10	+/- 6.7E-13
Total phase (deg)			-178.0						-178.0	+/- 0.0
	RMS	Theor.	Amplitude	407.567 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	1.9	0.0	Search (2048X32)	397.526					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	3.2	0.0	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	45.6	0.0	Inc. seg. avg.	397.019					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	35.3	0.0	Inc. frq. avg.	433.122					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
m: az 347.6 el 57.7 pa 160.9			m: az 347.6 el 57.7 pa 160.9						nlags: 256	t_cohere infinite
Control file: cf_1234_gmva			Input file: /Exps/c211c/v1/1234/No0120/mm..1X1QEV						u,v (fr/asec) 0.000 0.000	simultaneous interpolator
									Output file: /Exps/c211c/v1/1234/No0120/mm.W.219.1X1QEV	

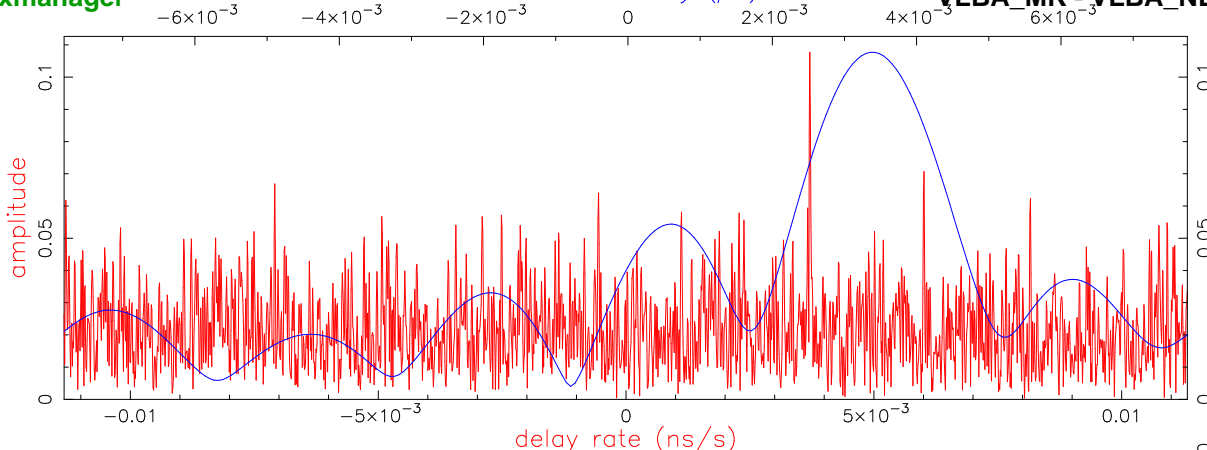
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

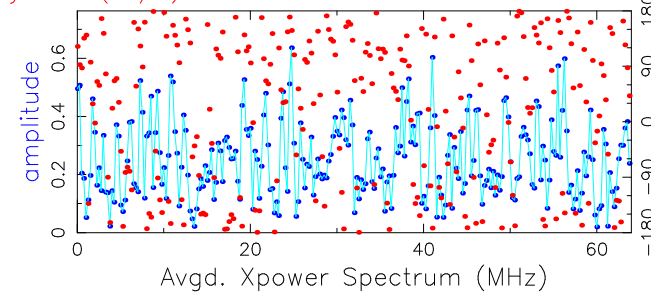
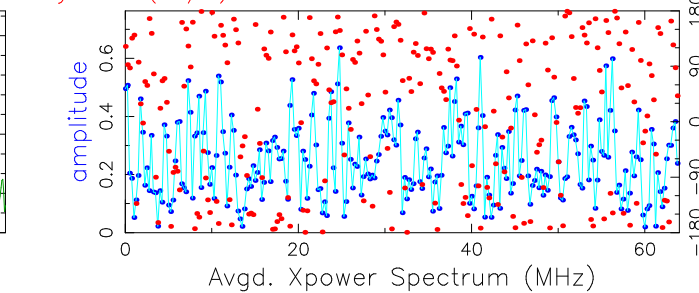
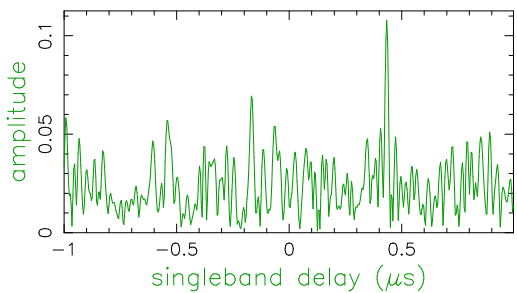
NRAO150.1X1QEV, No0120, mn

VLBA_MK - VLBA_NL, fgroup W, pol LL

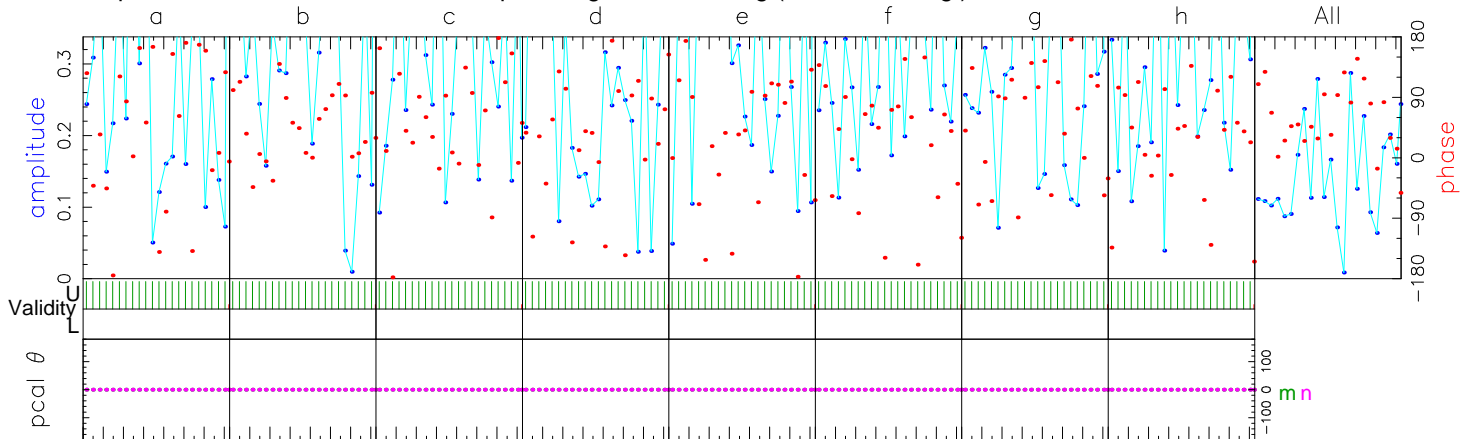
multiband delay (μ s)



Fringe quality 0
 SNR 6.0
 Int time 419.820
 Amp 0.113
 Phase 58.7
 PFD 3.4e-01
 Delays (us)
 SBD 0.433447
 MBD 0.003381
 Fringe rate (Hz) 0.319496
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build 2021:303:225133
 2021:304:133924
 2021:252:122852
 RA & Dec (J2000) 03h59m29.747267s +50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
m	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	4.46583833573E+03		Apriori delay (usec)		4.46539745469E+03		Resid mbdelay (usec)		3.38104E-03	+/- 1.8E-04
Sband delay (usec)	4.46583090169E+03		Apriori clock (usec)		1.0231693E+01		Resid sbdelay (usec)		4.33447E-01	+/- 1.4E-03
Phase delay (usec)	4.46539745658E+03		Apriori clockrate (us/s)		1.8000006E-08		Resid phdelay (usec)		1.89278E-06	+/- 6.1E-07
Delay rate (us/s)	5.20302675675E-01		Apriori rate (us/s)		5.20298966646E-01		Resid rate (us/s)		3.70903E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.23514173423E-05		Resid phase (deg)		58.7	+/- 19.0

ph/seg (deg) 45.3 45.5 Search (2048X32) 0.106 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 72.5 79.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 14.7 26.8 Inc. seg. avg. 0.113 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 48.3 46.9 Inc. frq. avg. 0.103 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 347.6 el 57.7 pa 160.9 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) -4846.354 -6842.759 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mn..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mn.W.174.1X1QEV

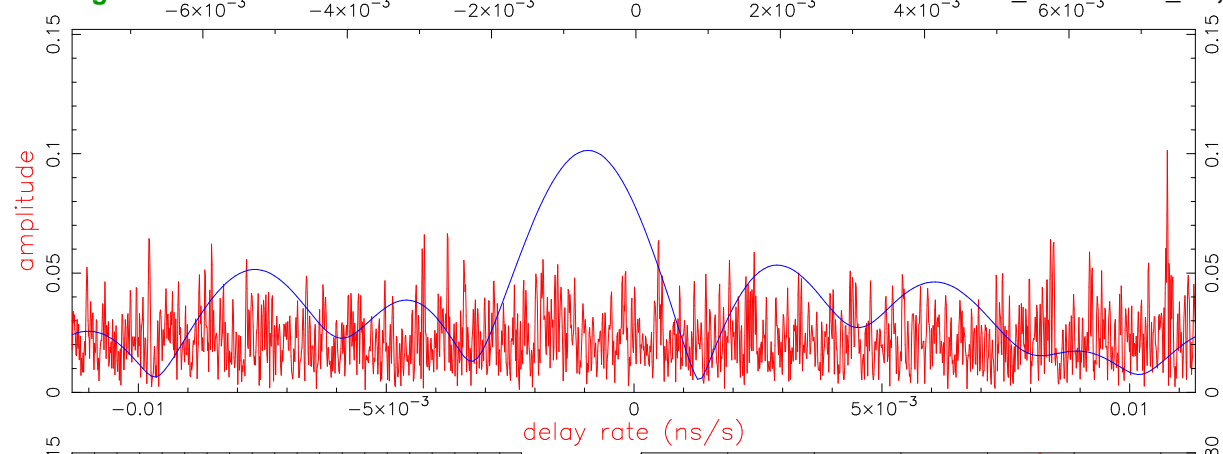
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

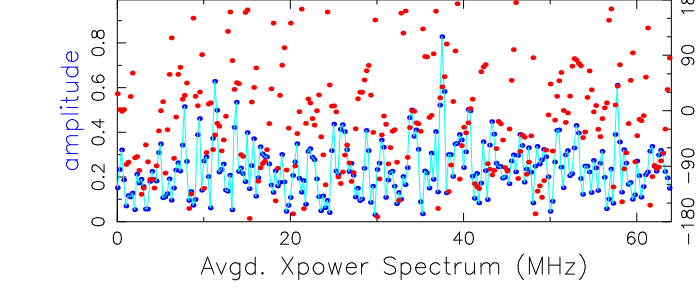
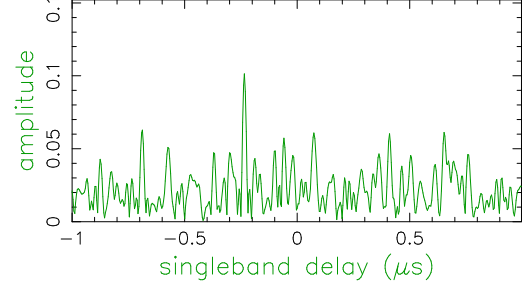
NRAO150.1X1QEV, No0120, mn

VLBA_MK - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

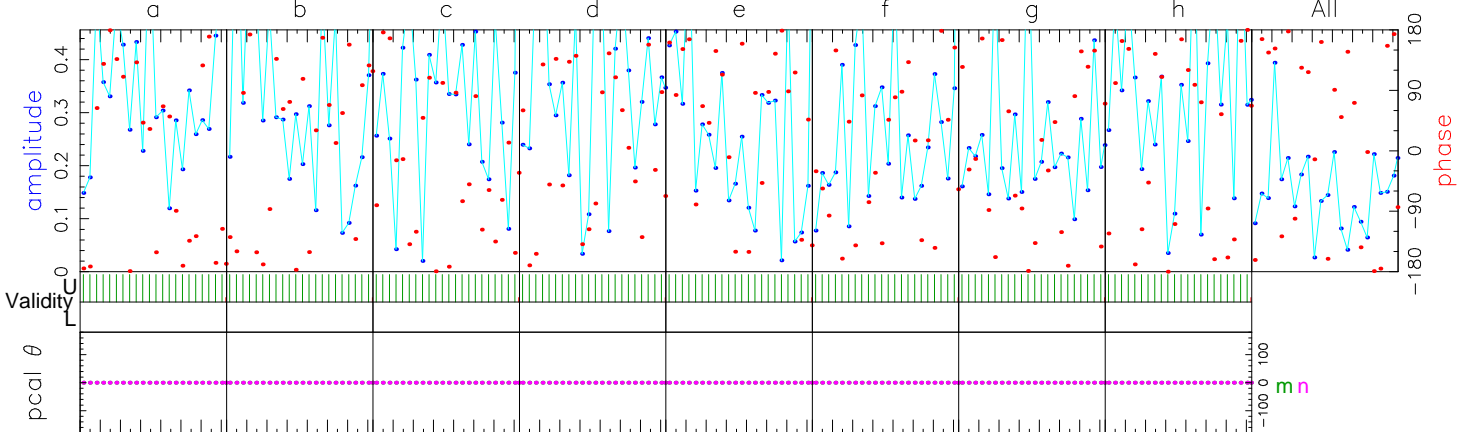


Fringe quality 0
 SNR 5.7
 Int time 419.820
 Amp 0.152
 Phase 160.5
 PFD 9.6e-01
 Delays (us)
 SBD -0.234835
 MBD -0.000681
 Fringe rate (Hz) 0.928785
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133928
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'59.161694"



Avgd. Xpower Spectrum (MHz)

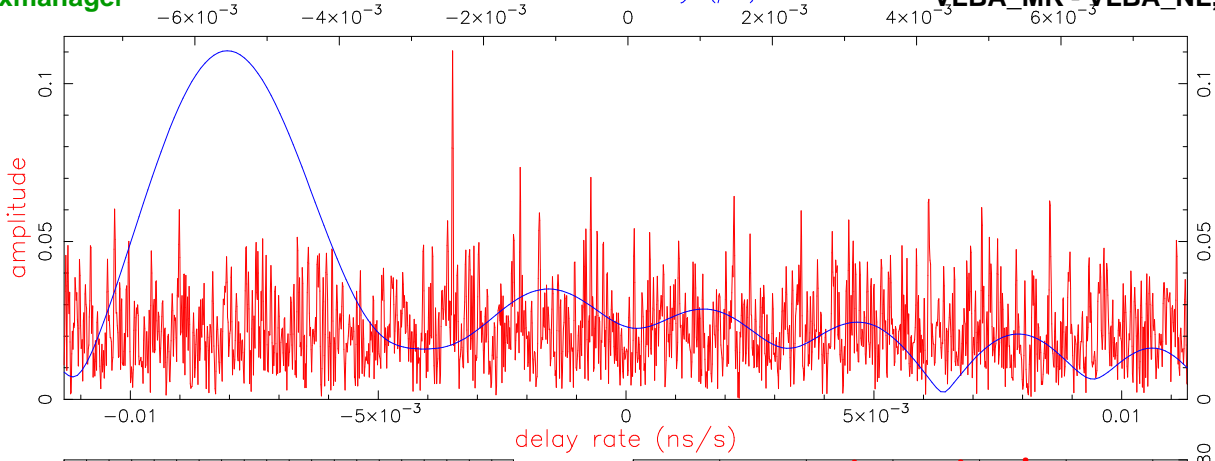
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	154.7	165.4	-144.7	127.5	124.2	160.3	-168.0	163.2	Phase	160.5
	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.3	Ampl.	0.1
	349.7	226.4	346.9	230.4	135.6	47.8	79.4	196.2	Sbd box	196.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	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)	4.46516239856E+03		Apriori delay (usec)		4.46539745469E+03		Resid mbdelay (usec)		-6.81130E-04	+/- 1.9E-04
Sband delay (usec)	4.46516261969E+03		Apriori clock (usec)		1.0231693E+01		Resid sbdelay (usec)		-2.34835E-01	+/- 1.5E-03
Phase delay (usec)	4.46539745986E+03		Apriori clockrate (us/s)		1.8000006E-08		Resid phdelay (usec)		5.17415E-06	+/- 6.5E-07
Delay rate (us/s)	5.20309748915E-01		Apriori rate (us/s)		5.20298966646E-01		Resid rate (us/s)		1.07823E-05	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.23514173423E-05		Resid phase (deg)		160.5	+/- 20.1

ph/seg (deg) 70.4 48.3 Amplitude 0.152 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 90.1 84.3 Search (2048X32) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 32.8 28.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.9 49.7 Inc. seg. avg. 0.167 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 m: az 347.6 el 57.7 pa 160.9 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) -4846.354 -6842.759 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mn..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mn.W.196.1X1QEV simultaneous interpolator

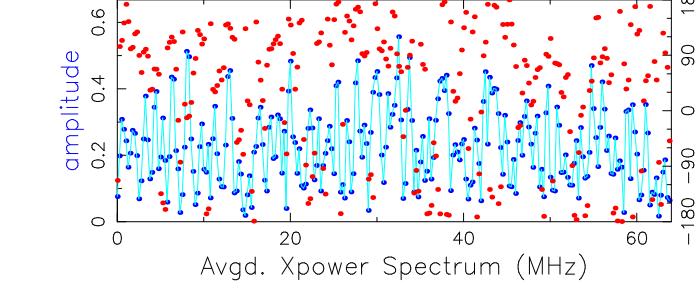
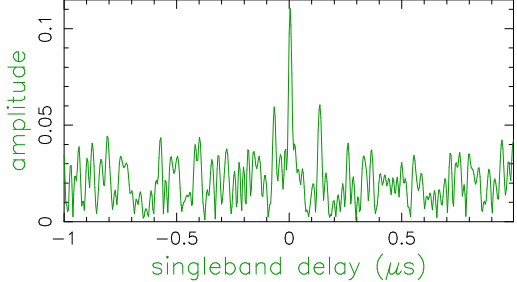
multiband delay (μ s)



Fringe quality 0

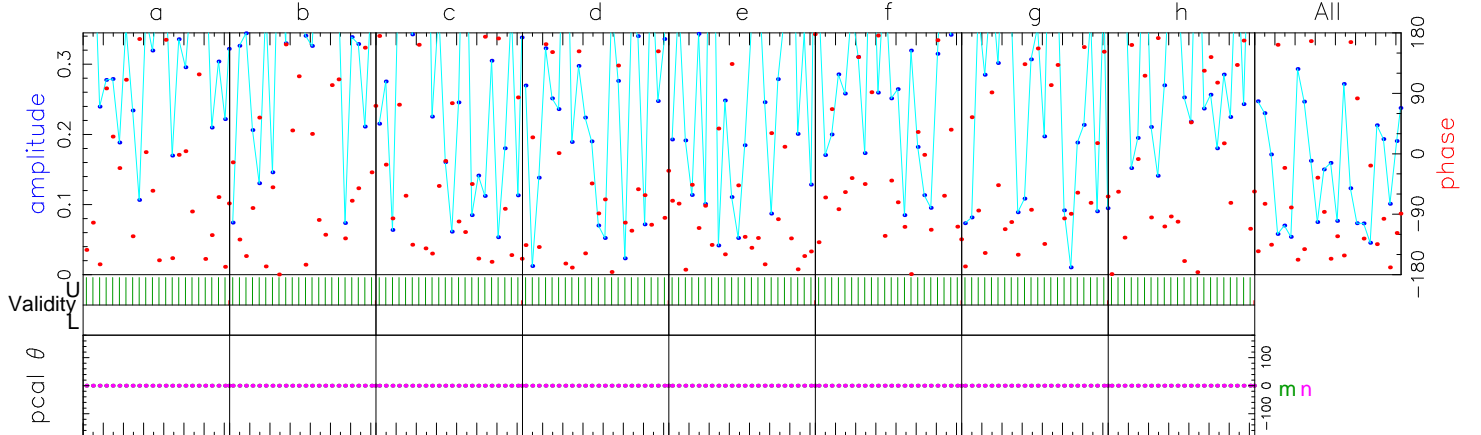
SNR 6.2
 Int time 419.820
 Amp 0.115
 Phase -133.7
 PFD 1.5e-01
 Delays (us)
 SBD 0.004271
 MBD -0.005534
 Fringe rate (Hz)
 -0.301438
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133932
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-131.8	-156.0	-129.3	-144.2	-124.3	-94.8	-152.6	-147.9	Phase	-133.7
	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
	291.4	382.1	385.5	151.5	258.0	343.4	306.9	433.5	Sbd box	258.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.46540754540E+03		Apriori delay (usec)		4.46539745469E+03		Resid mbdelay (usec)		-5.53429E-03	+/- 1.8E-04
Sband delay (usec)	4.46540172594E+03		Apriori clock (usec)		1.0231693E+01		Resid sbdelay (usec)		4.27125E-03	+/- 1.4E-03
Phase delay (usec)	4.46539745038E+03		Apriori clockrate (us/s)		1.8000006E-08		Resid phdelay (usec)		-4.31286E-06	+/- 6.0E-07
Delay rate (us/s)	5.20295467254E-01		Apriori rate (us/s)		5.20298966646E-01		Resid rate (us/s)		-3.49939E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.23514173423E-05		Resid phase (deg)		-133.7	+/- 18.5

ph/seg (deg) 60.6 44.4 Search (2048X32) 0.109 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 78.1 77.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.6 26.2 Inc. seg. avg. 0.120 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.5 45.7 Inc. frq. avg. 0.108 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 347.6 el 57.7 pa 160.9 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) -4846.354 -6842.759 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mn..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mn.W.216.1X1QEV

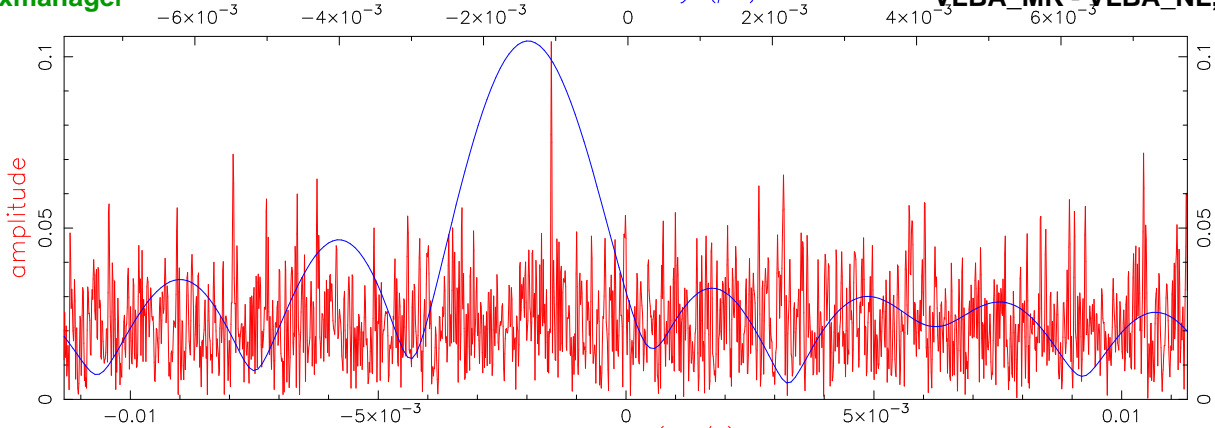
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

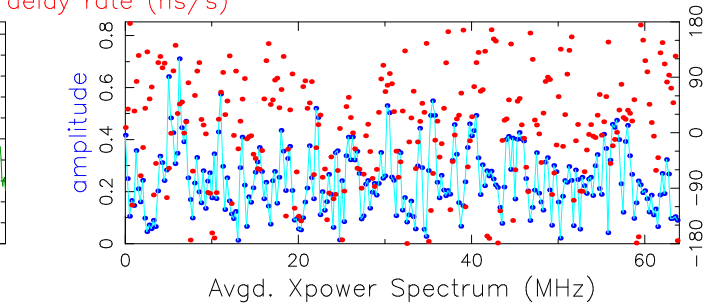
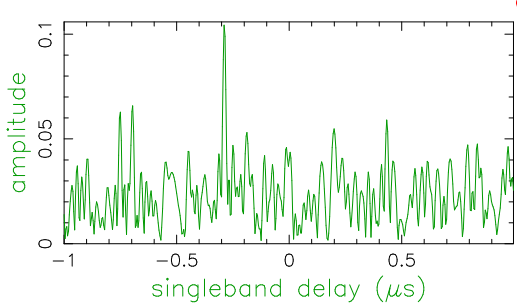
NRAO150.1X1QEV, No0120, mn

VLBA_MK - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

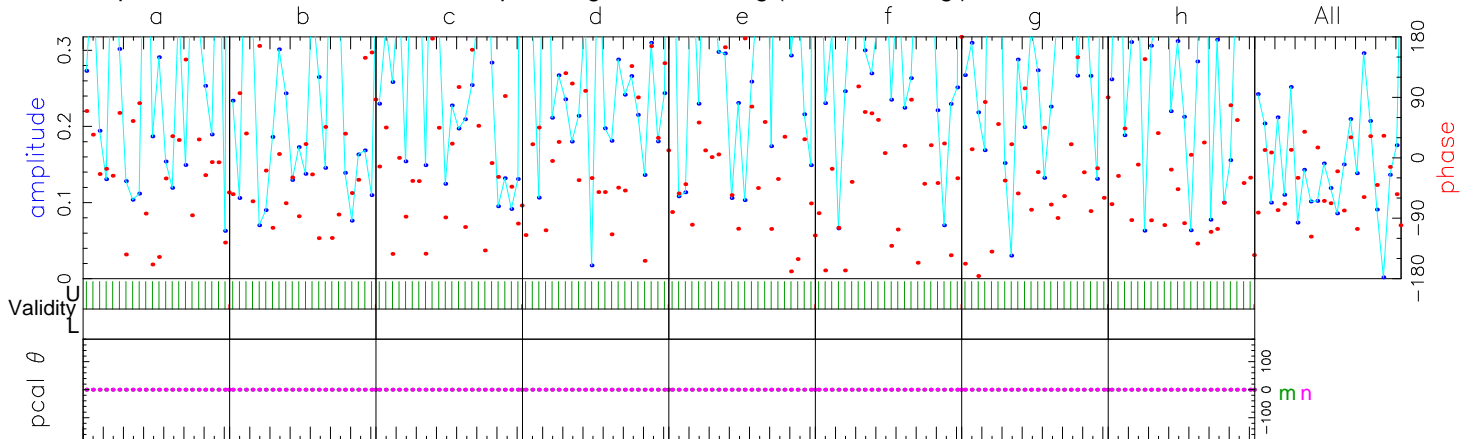


Fringe quality 0
 SNR 5.9
 Int time 419.820
 Amp 0.106
 Phase -35.5
 PFD 6.2e-01
 Delays (us)
 SBD -0.288042
 MBD -0.001322
 Fringe rate (Hz)
 -0.129830
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133936
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-15.9	-50.3	-38.3	-49.0	-30.0	-28.7	-42.9	-39.1	Phase	-35.5
	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	Ampl.	0.1
	191.8	404.7	28.2	208.5	366.4	232.9	410.3	180.9	Sbd box	183.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.46511488313E+03		Apriori delay (usec)		4.46539745469E+03		Resid mbdelay (usec)		-1.32156E-03	+/- 1.8E-04
Sband delay (usec)	4.46510941319E+03		Apriori clock (usec)		1.0231693E+01		Resid sbdelay (usec)		-2.88042E-01	+/- 1.5E-03
Phase delay (usec)	4.46539745355E+03		Apriori clockrate (us/s)		1.8000006E-08		Resid phdelay (usec)		-1.14323E-06	+/- 6.3E-07
Delay rate (us/s)	5.20297459453E-01		Apriori rate (us/s)		5.20298966646E-01		Resid rate (us/s)		-1.50719E-06	+/- 2.6E-09
Total phase (deg)	233.5		Apriori accel (us/s/s)		-5.23514173423E-05		Resid phase (deg)		-35.5	+/- 19.4

ph/seg (deg) 47.8 46.6 Search (2048X32) 0.102 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 80.6 81.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 12.5 27.5 Inc. seg. avg. 0.115 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.4 48.0 Inc. frq. avg. 0.096 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 347.6 el 57.7 pa 160.9 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) -4846.354 -6842.759 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mn..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mn.W.238.1X1QEV

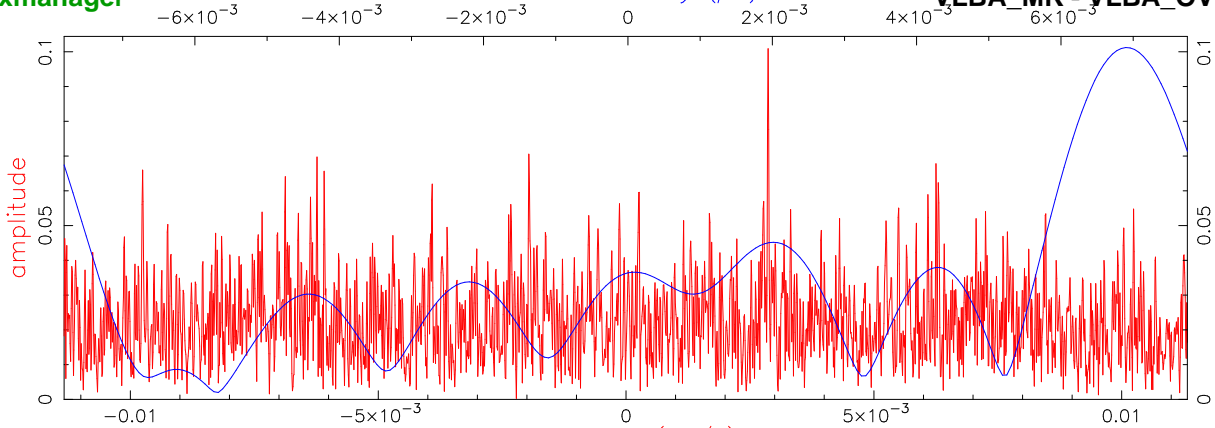
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

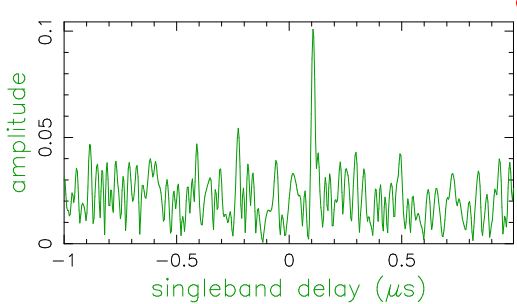
NRAO150.1X1QEV, No0120, mo

VLBA_MK - VLBA_OV, fgroup W, pol LL

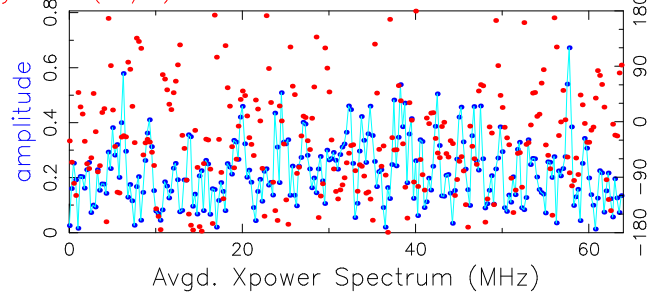
multiband delay (μ s)



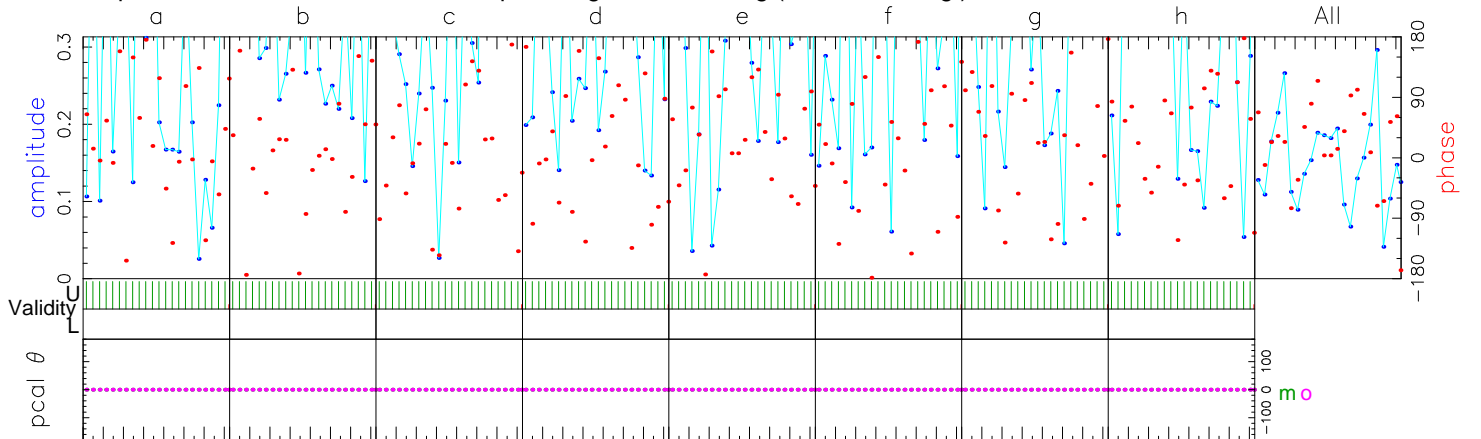
Fringe quality 0
 SNR 5.7
 Int time 419.820
 Amp 0.104
 Phase 27.7
 PFD 9.5e-01
 Delays (us)
 SBD 0.106612
 MBD 0.006992
 Fringe rate (Hz) 0.247146
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133923
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



delay rate (ns/s)



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
m	0	0	0	0	0	0	0	0		
o	0	0	0	0	0	0	0	0		
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	9.47459643359E+02	Apriori delay (usec)	9.47358901742E+02	Resid mbdelay (usec)	6.99162E-03	+/-	1.9E-04
Sband delay (usec)	9.47465513492E+02	Apriori clock (usec)	1.1960726E+01	Resid sbdelay (usec)	1.06612E-01	+/-	1.5E-03
Phase delay (usec)	9.47358902634E+02	Apriori clockrate (us/s)	-4.2000013E-08	Resid phdelay (usec)	8.92195E-07	+/-	6.5E-07
Delay rate (us/s)	4.00152166584E-01	Apriori rate (us/s)	4.00149297469E-01	Resid rate (us/s)	2.86911E-06	+/-	2.7E-09
Total phase (deg)		Apriori accel (us/s/s)	-2.82817286434E-05	Resid phase (deg)	27.7	+/-	20.1

ph/seg (deg)	54.3	RMS	48.2	Theor.	54.3	Amplitude	0.104 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	77.8	Search (2048X32)	0.100	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)	20.4	Inc. seg. avg.	0.116	Inc. frq. avg.	0.097	Bits/sample:	2x2	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	44.7	Inc. frq. avg.	0.097	u,v (fr/asec)	-3700.791 -4180.155	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite	ion window (TEC)	0.00	0.00

m: az 347.6 el 57.7 pa 160.9 o: az 308.0 el 53.8 pa 92.9 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mo..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mo.W.171.1X1QEV

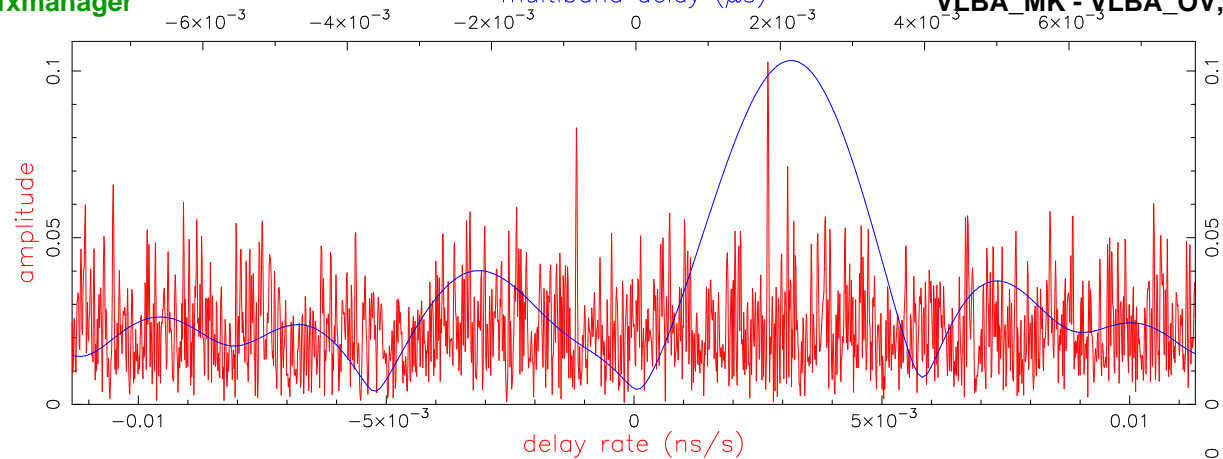
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, mo

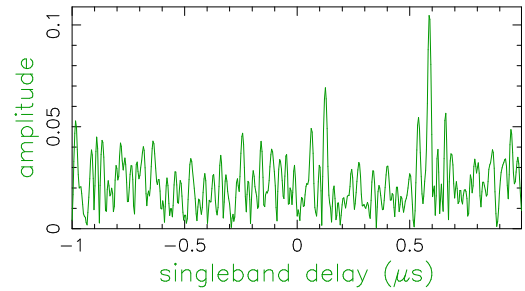
VLBA_MK - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

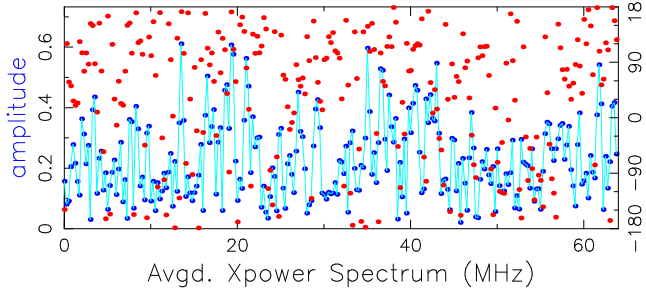


Fringe quality 0

SNR 6.0
 Int time 419.820
 Amp 0.109
 Phase 16.7
 PFD 4.8e-01
 Delays (us)
 SBD 0.587545
 MBD 0.002045
 Fringe rate (Hz)
 0.233339
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

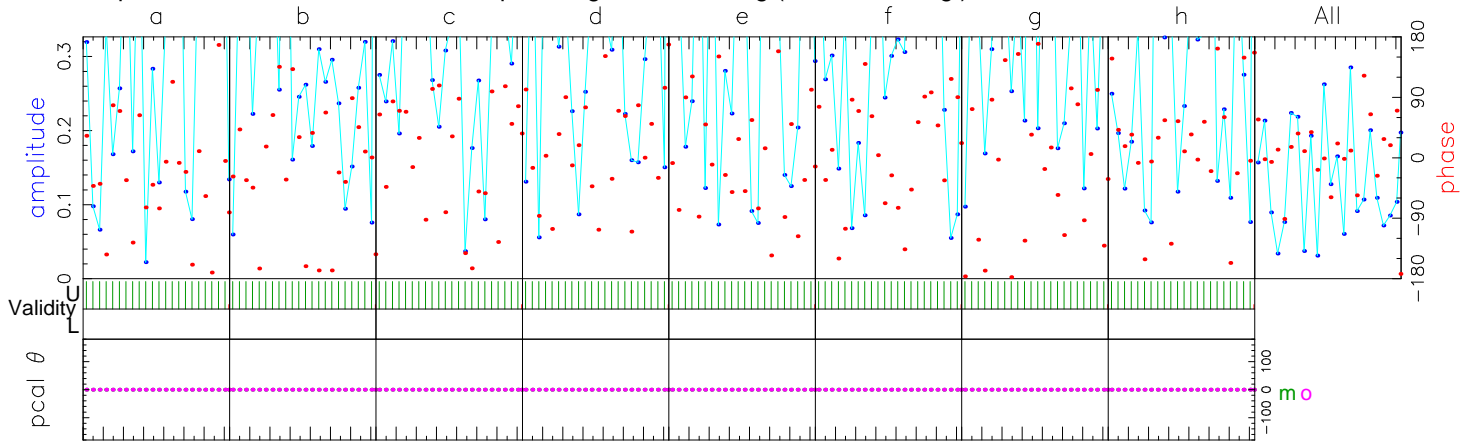


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133928
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-11.1	16.5	54.5	13.0	-24.0	19.9	50.2	22.7	Phase	16.7
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	465.7	497.6	39.3	405.8	122.2	375.9	41.3	456.2	Sbd box	407.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	9.47939071787E+02	Apriori delay (usec)	9.47358901742E+02	Resid mbdelay (usec)	2.04504E-03	+/-	1.8E-04
Sband delay (usec)	9.47946446742E+02	Apriori clock (usec)	1.1960726E+01	Resid sbdelay (usec)	5.87545E-01	+/-	1.4E-03
Phase delay (usec)	9.47358902279E+02	Apriori clockrate (us/s)	-4.2000013E-08	Resid phdelay (usec)	5.36918E-07	+/-	6.2E-07
Delay rate (us/s)	4.00152006305E-01	Apriori rate (us/s)	4.00149297469E-01	Resid rate (us/s)	2.70884E-06	+/-	2.6E-09
Total phase (deg)	303.2	Apriori accel (us/s/s)	-2.82817286434E-05	Resid phase (deg)	16.7	+/-	19.2

ph/seg (deg)	47.9	RMS	46.1	Theor.	47.9	Amplitude	0.109 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	74.6	47.9	46.1	46.1	47.9	Search (2048X32)	0.102	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	29.0	22.2	47.5	47.5	29.0	Interp.	0.000	Bits/sample:	2x2			dr window (ns/s)	-0.011	0.011
amp/frq (%)	22.2	22.2	47.5	47.5	22.2	Inc. seg. avg.	0.104	Sample rate (MSamp/s):	128			ion window (TEC)	0.00	0.00
						Inc. frq. avg.	0.104	Data rate (Mb/s):	2048					
m: az 347.6 el 57.7 pa 160.9														
o: az 308.0 el 53.8 pa 92.9														
u,v (fr/asec)	-3700.791	-4180.155												simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mo..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mo.W.192.1X1QEV

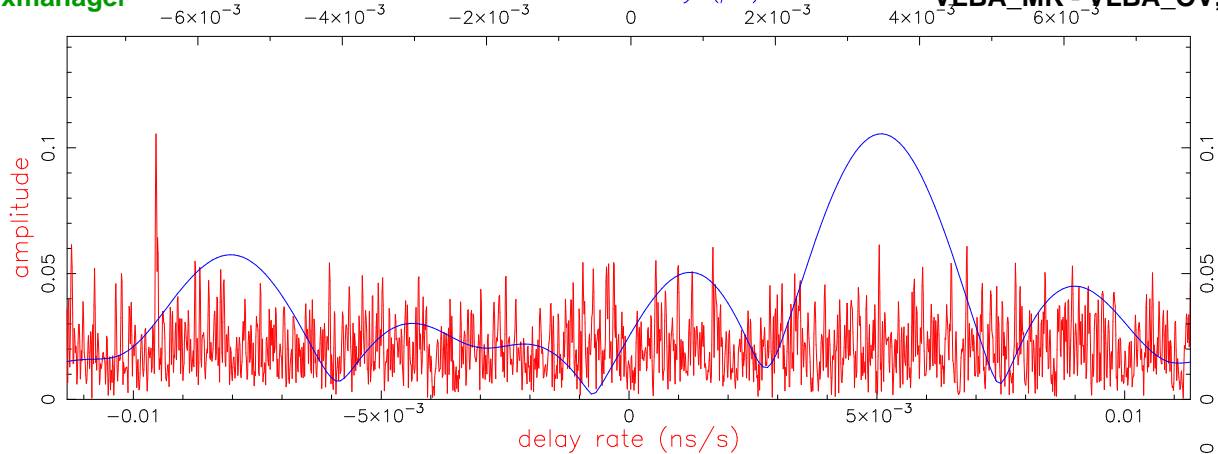
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, mo

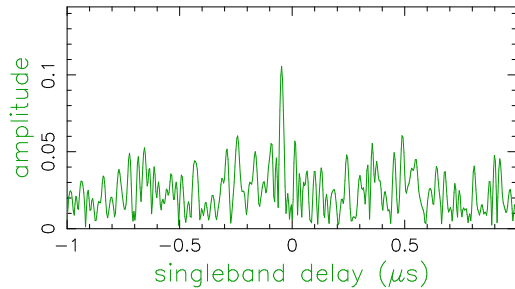
VLBA_MK - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

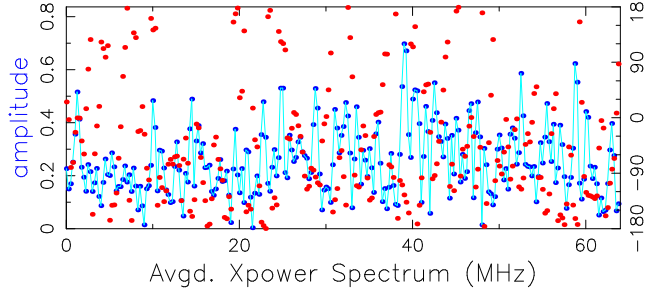


Fringe quality 0

SNR 5.9
Int time 419.820
Amp 0.144
Phase 27.7
PFD 5.6e-01
Delays (us)
SBD -0.047475
MBD 0.003444
Fringe rate (Hz)
-0.822832
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

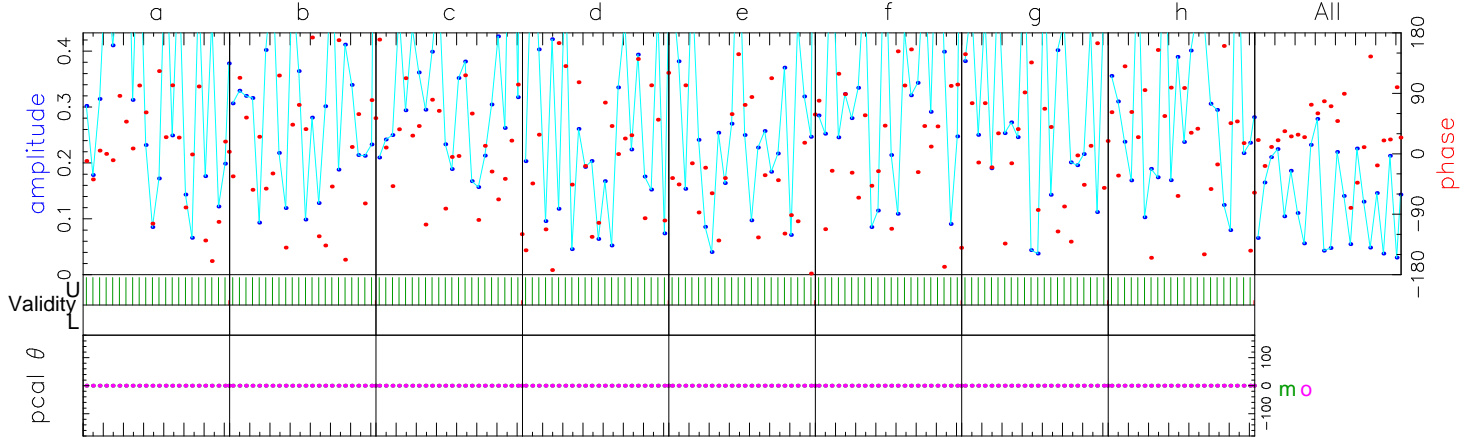


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133931
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	39.6	1.0	21.6	54.7	-49.8	42.0	24.9	39.5	Phase	27.7
	0.3	0.1	0.2	0.1	0.1	0.2	0.2	0.2	Ampl.	0.1
	246.2	318.7	442.3	328.4	24.3	333.7	372.3	120.7	Sbd box	244.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

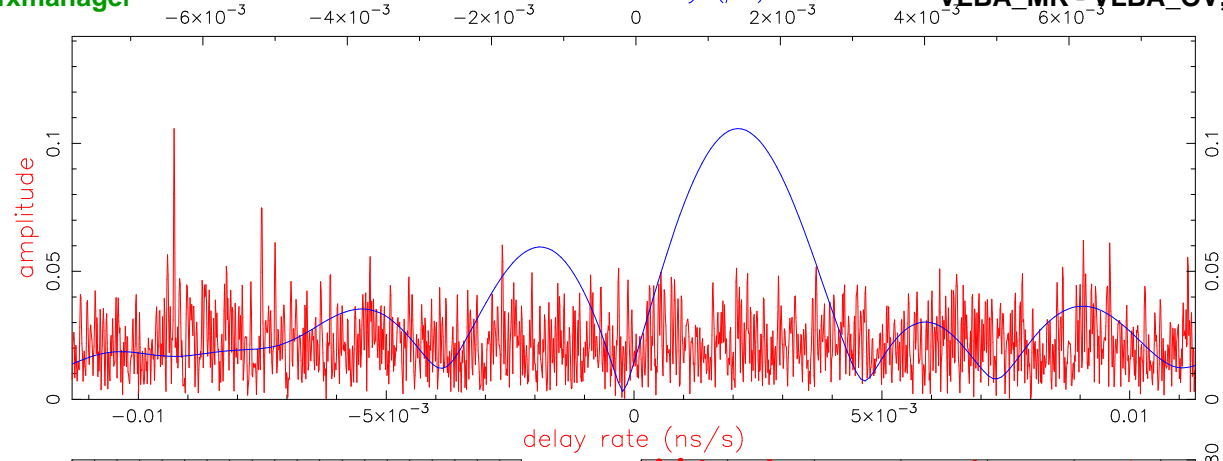
Group delay (usec)(sbd)	9.47315470315E+02	Apriori delay (usec)	9.47358901742E+02	Resid mbdelay (usec)	3.44357E-03	+/-	1.8E-04
Sband delay (usec)	9.47311426992E+02	Apriori clock (usec)	1.1960726E+01	Resid sbdelay (usec)	-4.74747E-02	+/-	1.5E-03
Phase delay (usec)	9.47358902637E+02	Apriori clockrate (us/s)	-4.2000013E-08	Resid phdelay (usec)	8.94552E-07	+/-	6.2E-07
Delay rate (us/s)	4.00139745211E-01	Apriori rate (us/s)	4.00149297469E-01	Resid rate (us/s)	-9.55226E-06	+/-	2.6E-09
Total phase (deg)	314.3	Apriori accel (us/s/s)	-2.82817286434E-05	Resid phase (deg)	27.7	+/-	19.3

ph/seg (deg)	48.5	Theor.	46.4	Amplitude	0.144 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	78.2		81.0	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	36.5		27.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	43.8		47.8	Inc. seg. avg.	0.139	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.141	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

m: az 347.6 el 57.7 pa 160.9 o: az 308.0 el 53.8 pa 92.9 u,v (fr/asec) -3700.791 -4180.155 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mo..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mo.W.209.1X1QEV

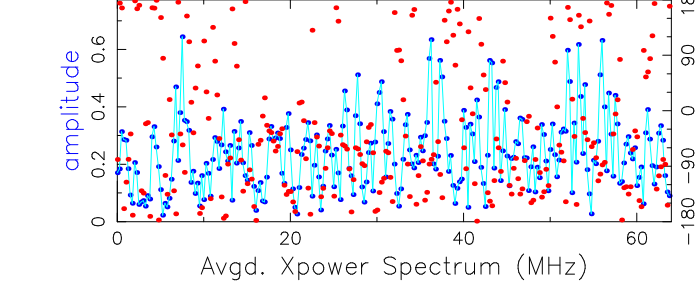
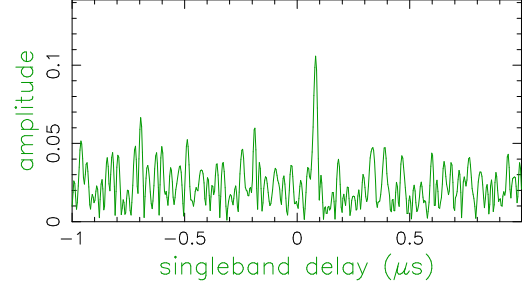
multiband delay (μ s)



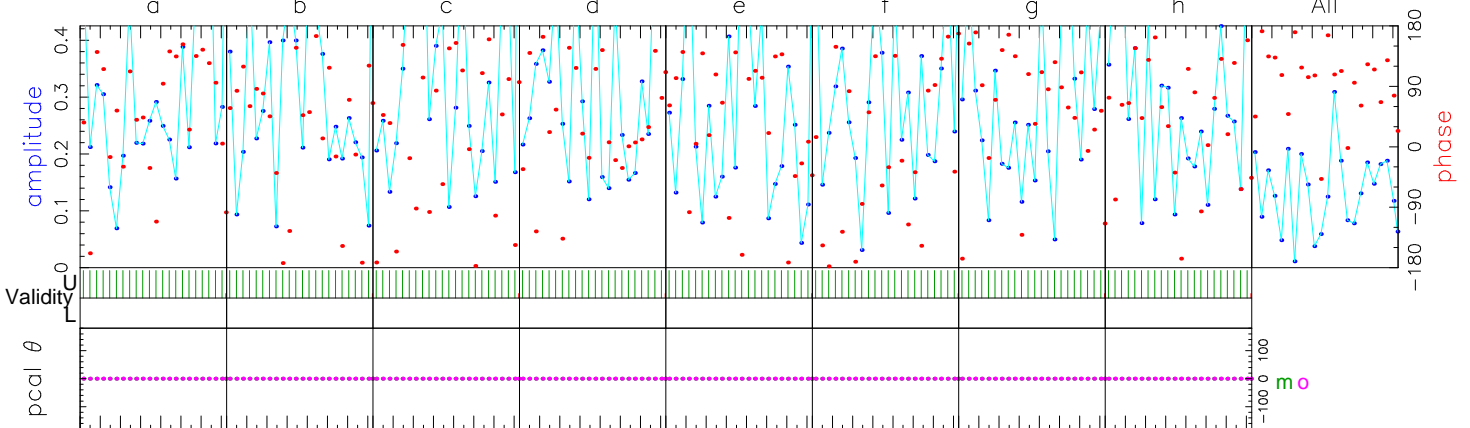
Fringe quality 0

SNR 5.9
Int time 419.820
Amp 0.142
Phase 101.2
PFD 5.5e-01
Delays (us)
SBD 0.081931
MBD 0.001411
Fringe rate (Hz)
-0.800299
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133935
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	110.6	83.6	106.2	73.1	136.2	153.2	91.6	95.4	Phase	101.2
	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	197.3	496.0	489.8	332.2	94.8	19.8	278.7	74.8	Sbd box	278.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.47438438139E+02		Apriori delay (usec)		9.47358901742E+02		Resid mbdelay (usec)		1.41140E-03	+/- 1.8E-04
Sband delay (usec)	9.47440832242E+02		Apriori clock (usec)		1.1960726E+01		Resid sbdelay (usec)		8.19305E-02	+/- 1.5E-03
Phase delay (usec)	9.47358905006E+02		Apriori clockrate (us/s)		-4.2000013E-08		Resid phdelay (usec)		3.26386E-06	+/- 6.2E-07
Delay rate (us/s)	4.00140006787E-01		Apriori rate (us/s)		4.00149297469E-01		Resid rate (us/s)		-9.29068E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.82817286434E-05		Resid phase (deg)		101.2	+/- 19.3

ph/seg (deg) 52.6 46.4 Amplitude 0.142 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 71.4 80.9 Search (2048X32) 0.104 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 29.6 27.4 Inc. seg. avg. 0.139 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.3 47.7 Inc. frq. avg. 0.137 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 347.6 el 57.7 pa 160.9 o: az 308.0 el 53.8 pa 92.9 u,v (fr/asec) -3700.791 -4180.155 ion window (TEC) 0.00 0.00
 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mo..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mo.W.231.1X1QEV

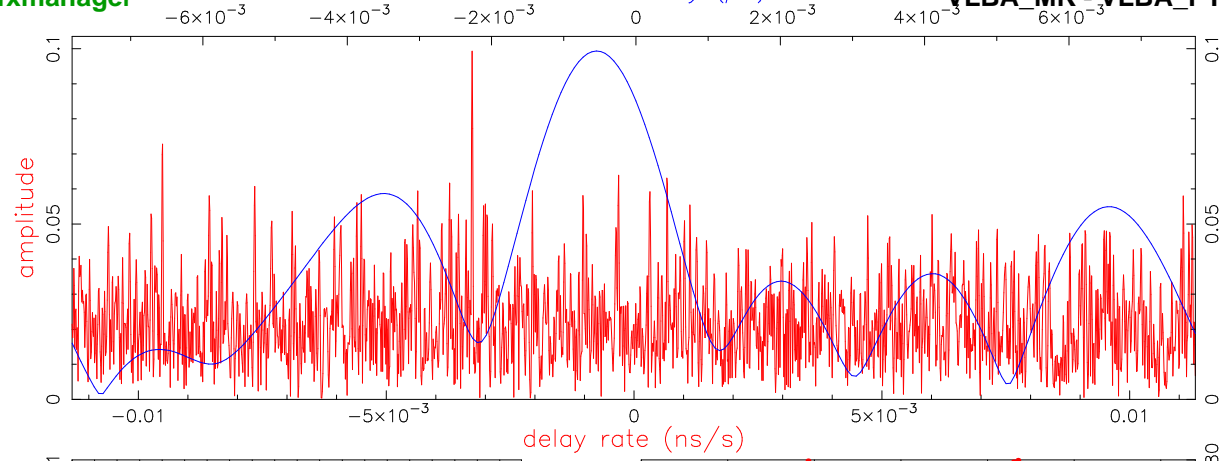
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, mp

VLBA_MK - VLBA_PT, fgroup W, pol LL

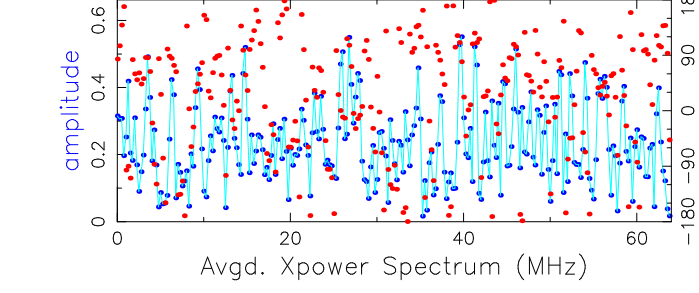
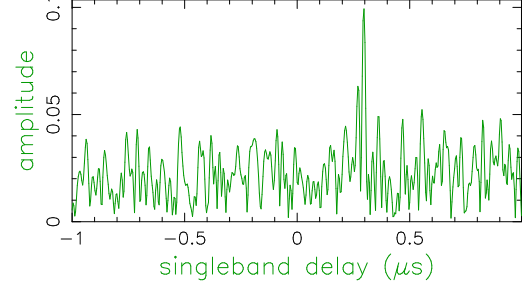
multiband delay (μ s)



Fringe quality 0

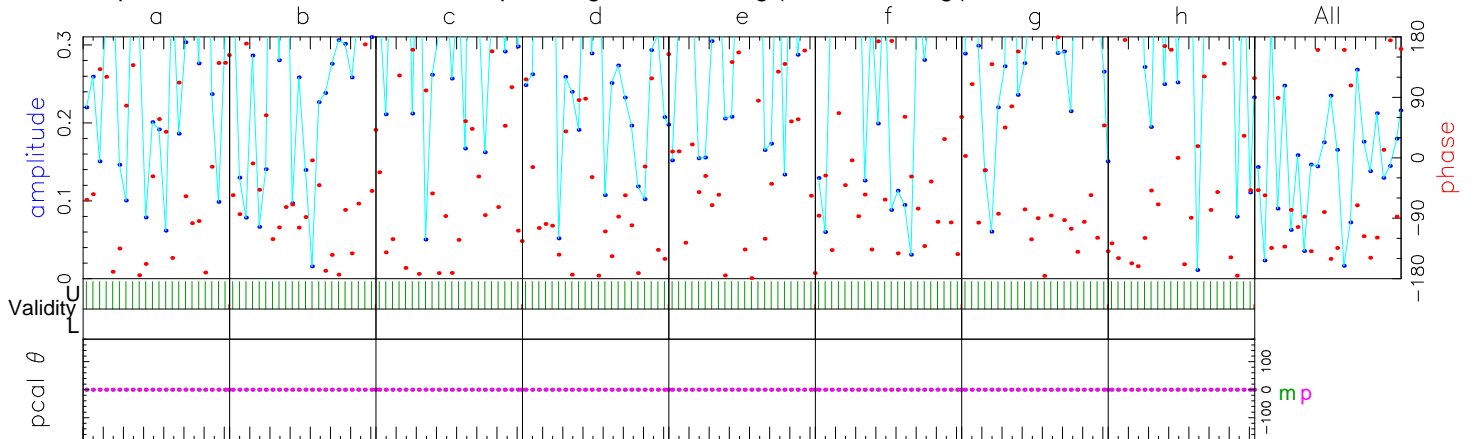
SNR 5.6
 Int time 419.820
 Amp 0.104
 Phase -121.1
 PFD 9.9e-01
 Delays (us)
 SBD 0.295900
 MBD -0.000580
 Fringe rate (Hz)
 -0.282084
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133923
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-164.0	-98.9	-147.0	-123.0	-97.1	-82.3	-109.2	-142.5	Phase	-121.1
	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.2	Ampl.	0.1
	7.7	332.5	490.4	224.5	151.0	74.7	140.6	333.1	Sbd box	332.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	2.94826081166E+03		Apriori delay (usec)		2.94796451663E+03		Resid mbdelay (usec)		-5.79973E-04	+/- 1.9E-04
Sband delay (usec)	2.94826041688E+03		Apriori clock (usec)		1.0184458E+01		Resid sbdelay (usec)		2.95900E-01	+/- 1.5E-03
Phase delay (usec)	2.94796451273E+03		Apriori clockrate (us/s)		4.3800001E-07		Resid phdelay (usec)		-3.90480E-06	+/- 6.6E-07
Delay rate (us/s)	5.06363585731E-01		Apriori rate (us/s)		5.06366860450E-01		Resid rate (us/s)		-3.27472E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.53000597132E-05		Resid phase (deg)		-121.1	+/- 20.5

ph/seg (deg) 65.6 49.0 Search (2048X32) 0.096 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 92.8 85.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 30.8 28.9 Inc. seg. avg. 0.114 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 53.0 50.5 Inc. frq. avg. 0.102 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 347.6 el 57.7 pa 160.9 p: az 310.4 el 45.6 pa 88.4 u,v (fr/asec) -4683.749 -4618.539 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mp..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mp.W.165.1X1QEV

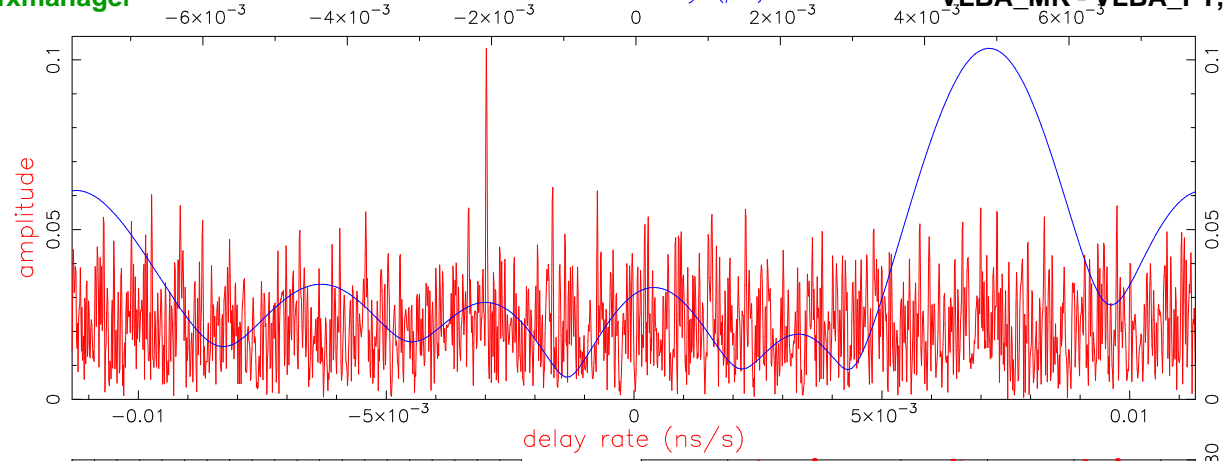
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

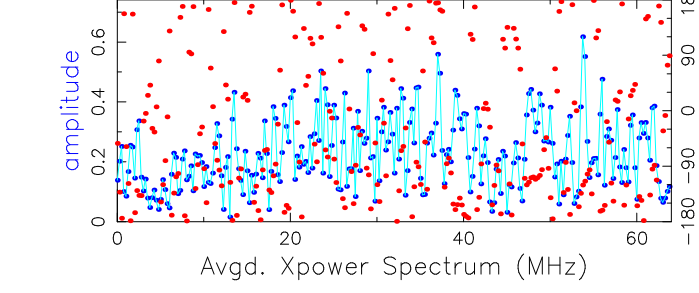
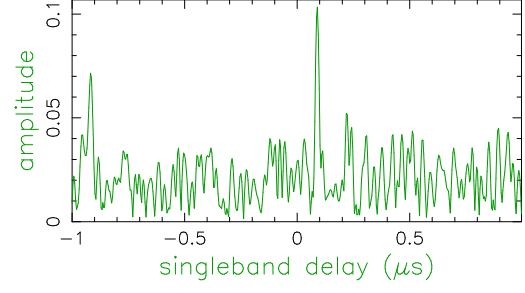
NRAO150.1X1QEV, No0120, mp

VLBA_MK - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

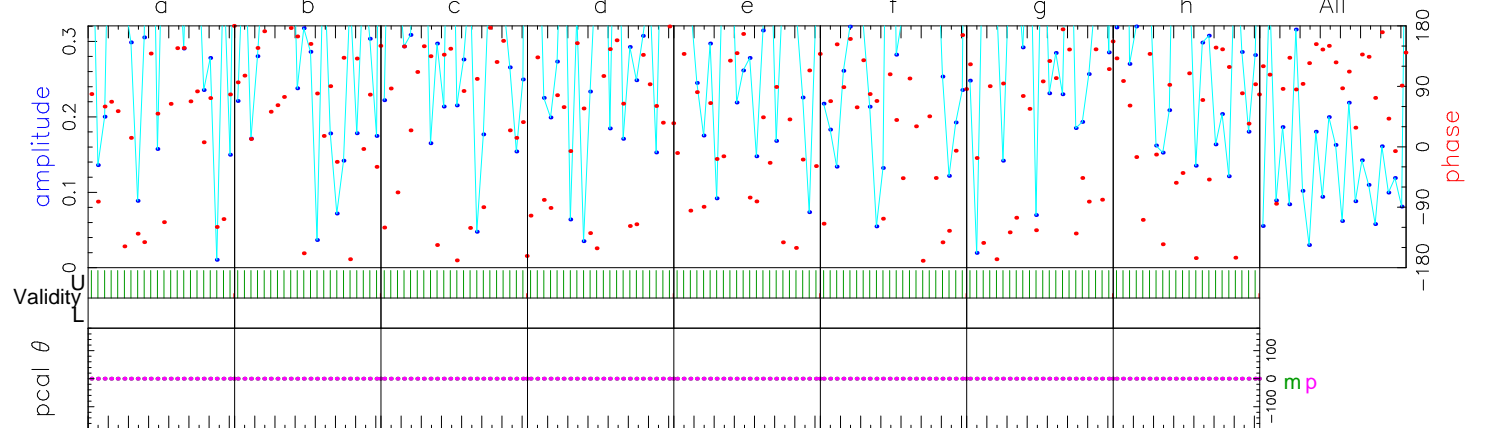


Fringe quality 0
 SNR 5.8
 Int time 419.820
 Amp 0.107
 Phase 112.3
 PFD 7.7e-01
 Delays (us)
 SBD 0.088914
 MBD 0.004856
 Fringe rate (Hz)
 -0.257272
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133927
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

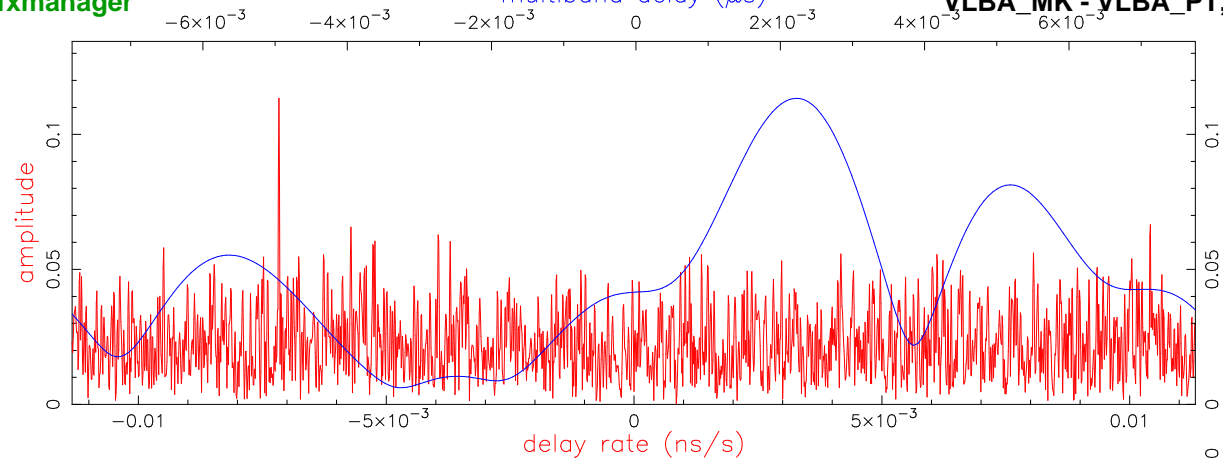
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	91.4	106.0	139.7	136.3	27.9	84.7	153.0	93.1	Phase	112.3
	0.2	0.1	0.2	0.1	0.0	0.1	0.1	0.1	Ampl.	0.1
	398.7	421.1	216.4	412.8	460.8	409.0	144.3	129.2	Sbd box	279.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	2.94804749728E+03		Apriori delay (usec)		2.94796451663E+03		Resid mbdelay (usec)		4.85565E-03	+/- 1.9E-04
Sband delay (usec)	2.94805343113E+03		Apriori clock (usec)		1.0184458E+01		Resid sbdelay (usec)		8.89145E-02	+/- 1.5E-03
Phase delay (usec)	2.94796452025E+03		Apriori clockrate (us/s)		4.3800001E-07		Resid phdelay (usec)		3.62103E-06	+/- 6.3E-07
Delay rate (us/s)	5.06363873781E-01		Apriori rate (us/s)		5.06366860450E-01		Resid rate (us/s)		-2.98667E-06	+/- 2.6E-09
Total phase (deg)	278.8		Apriori accel (us/s/s)		-3.53000597132E-05		Resid phase (deg)		112.3	+/- 19.7

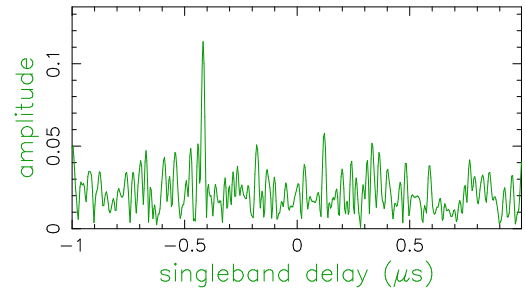
ph/seg (deg) 54.8 47.2 Search (2048X32) 0.107 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 90.8 82.4 Interp. 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 44.2 27.8 Inc. seg. avg. 0.107 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.9 48.6 Inc. frq. avg. 0.109 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 347.6 el 57.7 pa 160.9 p: az 310.4 el 45.6 pa 88.4 u,v (fr/asec) -4683.749 -4618.539 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mp..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mp.W.186.1X1QEV

multiband delay (μ s)

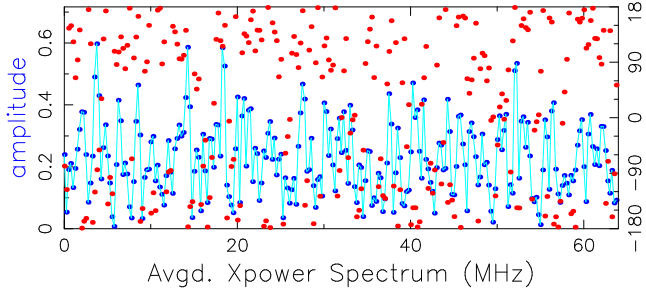


Fringe quality 0

SNR 6.4
Int time 419.820
Amp 0.134
Phase -6.3
PFD 5.6e-02
Delays (us)
SBD -0.418171
MBD 0.002210
Fringe rate (Hz)
-0.617492
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

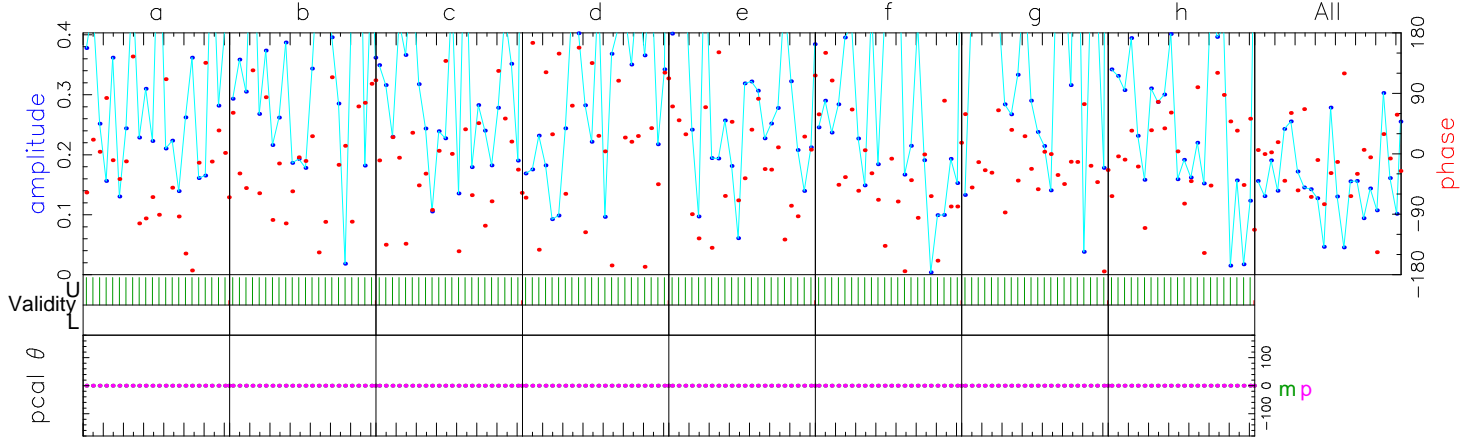


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133930
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



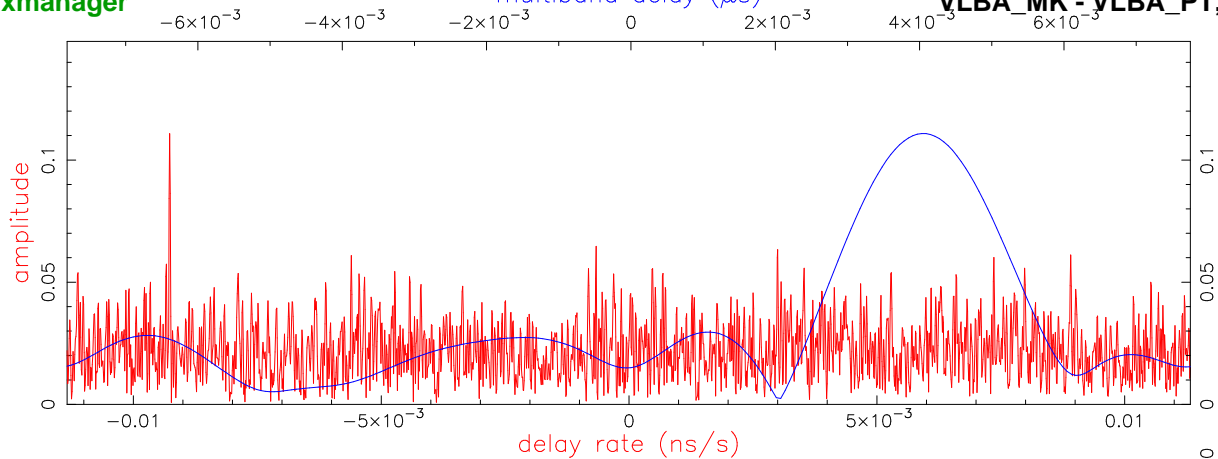
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-37.7	17.3	-1.9	77.7	11.1	-44.9	-19.6	21.7	Phase	-6.3
	0.1	0.1	0.2	0.1	0.1	0.1	0.4	0.1	Ampl.	0.1
	133.0	408.2	83.3	275.6	252.1	363.7	150.0	473.7	Sbd box	149.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	2.94754485128E+03	Apriori delay (usec)	2.94796451663E+03	Resid mbdelay (usec)	2.20965E-03	+/-	1.7E-04
Sband delay (usec)	2.94754634613E+03	Apriori clock (usec)	1.0184458E+01	Resid sbdelay (usec)	-4.18171E-01	+/-	1.4E-03
Phase delay (usec)	2.94796451643E+03	Apriori clockrate (us/s)	4.3800001E-07	Resid phdelay (usec)	-2.03151E-07	+/-	5.8E-07
Delay rate (us/s)	5.06359691980E-01	Apriori rate (us/s)	5.06366860450E-01	Resid rate (us/s)	-7.16847E-06	+/-	2.4E-09
Total phase (deg)	160.2	Apriori accel (us/s/s)	-3.53000597132E-05	Resid phase (deg)	-6.3	+/-	18.0

ph/seg (deg)	55.2	Theor.	43.2	Amplitude	0.134 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	68.7		75.5	Search (2048X32)	0.104	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	43.5		25.5	Inc. seg. avg.	0.144	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	68.4		44.5	Inc. frq. avg.	0.142	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

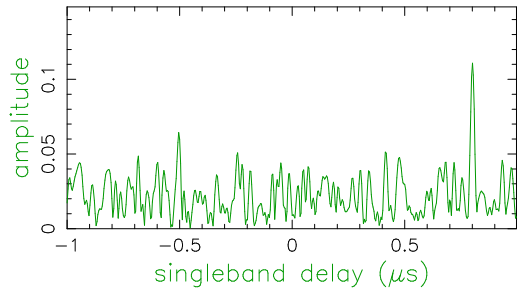
m: az 347.6 el 57.7 pa 160.9 p: az 310.4 el 45.6 pa 88.4 u,v (fr/asec) -4683.749 -4618.539 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mp..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mp.W.206.1X1QEV

multiband delay (μ s)

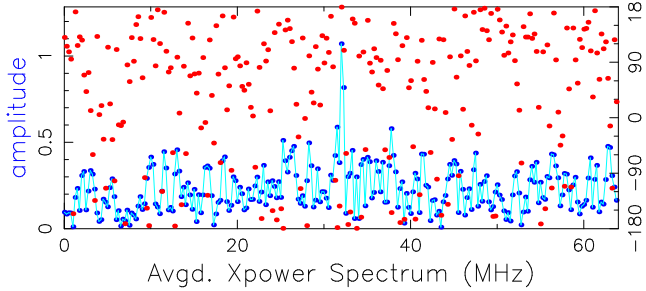


Fringe quality 0

SNR 6.2
Int time 419.820
Amp 0.149
Phase -55.5
PFD 1.3e-01
Delays (us)
SBD 0.800955
MBD 0.004055
Fringe rate (Hz)
-0.799538
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

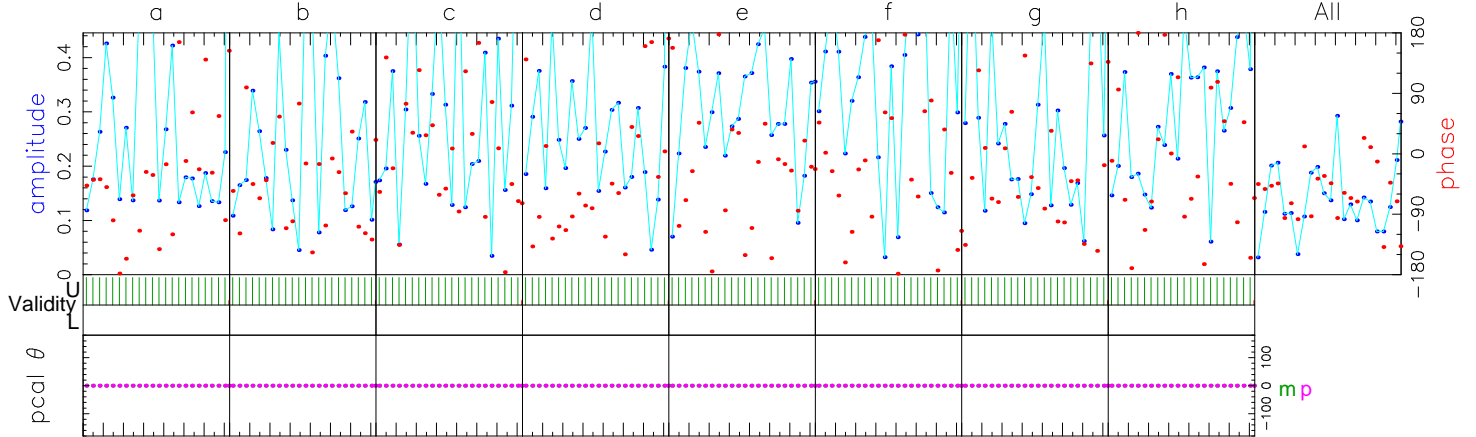


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133935
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-65.3	-56.2	-33.3	-82.3	-37.3	-34.4	-71.0	-69.4	Phase	-55.5
	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	Ampl.	0.1
	459.9	98.0	22.7	82.1	235.6	129.1	479.4	442.1	Sbd box	462.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	2.94876544623E+03	Apriori delay (usec)	2.94796451663E+03	Resid mbdelay (usec)	4.05459E-03	+/-	1.7E-04
Sband delay (usec)	2.94876547113E+03	Apriori clock (usec)	1.0184458E+01	Resid sbdelay (usec)	8.00955E-01	+/-	1.4E-03
Phase delay (usec)	2.94796451484E+03	Apriori clockrate (us/s)	4.3800001E-07	Resid phdelay (usec)	-1.78980E-06	+/-	5.9E-07
Delay rate (us/s)	5.06357578608E-01	Apriori rate (us/s)	5.06366860450E-01	Resid rate (us/s)	-9.28184E-06	+/-	2.5E-09
Total phase (deg)	111.0	Apriori accel (us/s/s)	-3.53000597132E-05	Resid phase (deg)	-55.5	+/-	18.4

ph/seg (deg)	RMS 39.0	Theor. 44.2	Amplitude Search (2048X32)	0.149 +/- 0.024	0.106	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	59.6	77.2	Interp.	0.000	0.106	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	20.5	26.1	Inc. seg. avg.	0.142	0.142	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	21.1	45.5	Inc. frq. avg.	0.142	0.142	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

m: az 347.6 el 57.7 pa 160.9 p: az 310.4 el 45.6 pa 88.4 u,v (fr/asec) -4683.749 -4618.539 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/mp..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/mp.W.224.1X1QEV

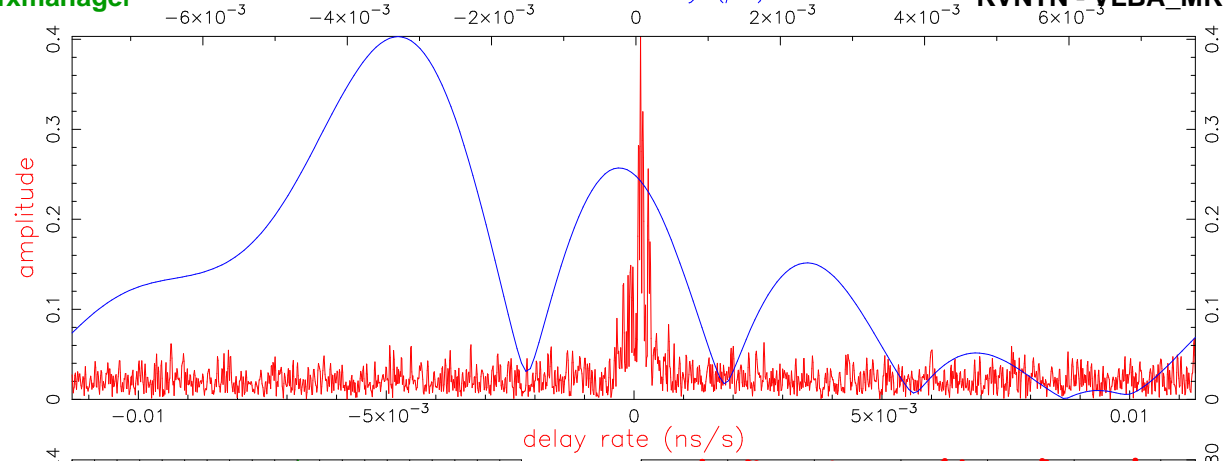
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, tm

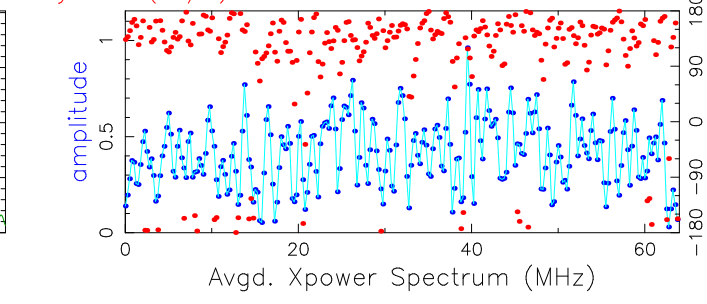
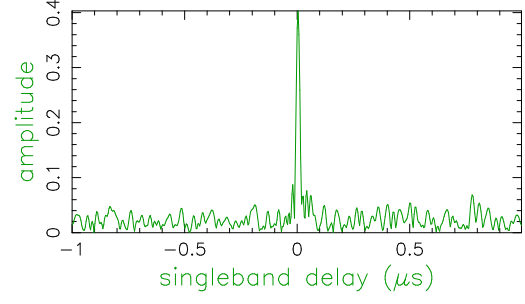
KVNTN - VLBA_MK, fgroup W, pol LL

multiband delay (μ s)



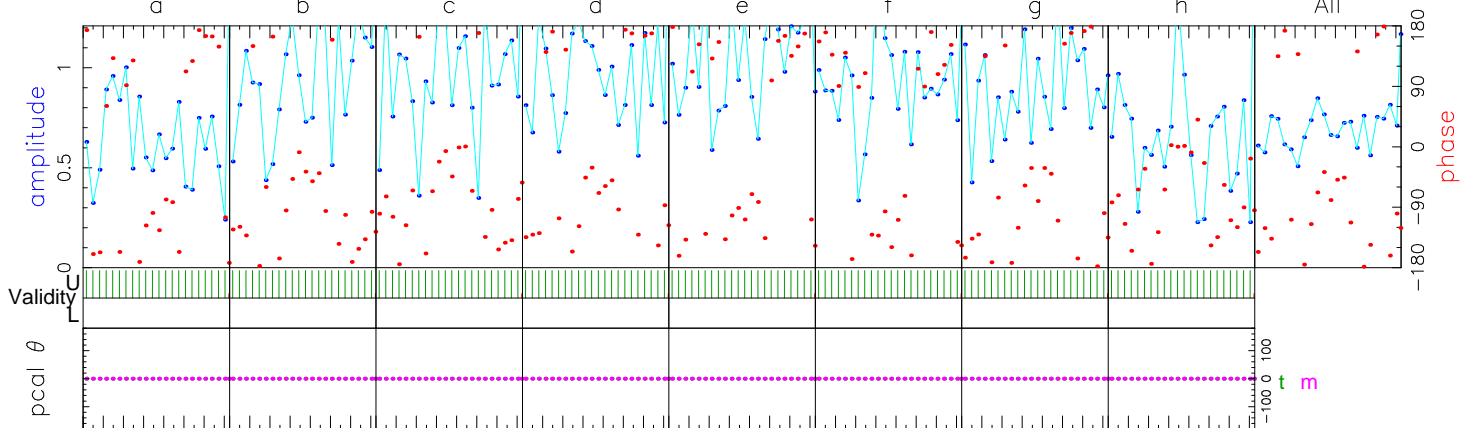
Fringe quality 8

SNR 22.6
 Int time 419.820
 Amp 0.403
 Phase -137.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.003569
 MBD -0.003315
 Fringe rate (Hz)
 0.011904
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133924
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
m	0	0	0	0	0	0	0	0		
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:m	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		
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-4.42835392189E+03	Apriori delay (usec)	-4.42835060694E+03	Resid mbdelay (usec)	-3.31495E-03	+/-	4.8E-05
Sband delay (usec)	-4.42834703844E+03	Apriori clock (usec)	-1.5985331E+01	Resid sbdelay (usec)	3.56850E-03	+/-	3.8E-04
Phase delay (usec)	-4.42835061136E+03	Apriori clockrate (us/s)	-3.6799998E-07	Resid phdelay (usec)	-4.41705E-06	+/-	1.6E-07
Delay rate (us/s)	9.34006633471E-01	Apriori rate (us/s)	9.34006495281E-01	Resid rate (us/s)	1.38189E-07	+/-	6.7E-10
Total phase (deg)		Apriori accel (us/s/s)	4.18396541872E-05	Resid phase (deg)	-137.0	+/-	5.1

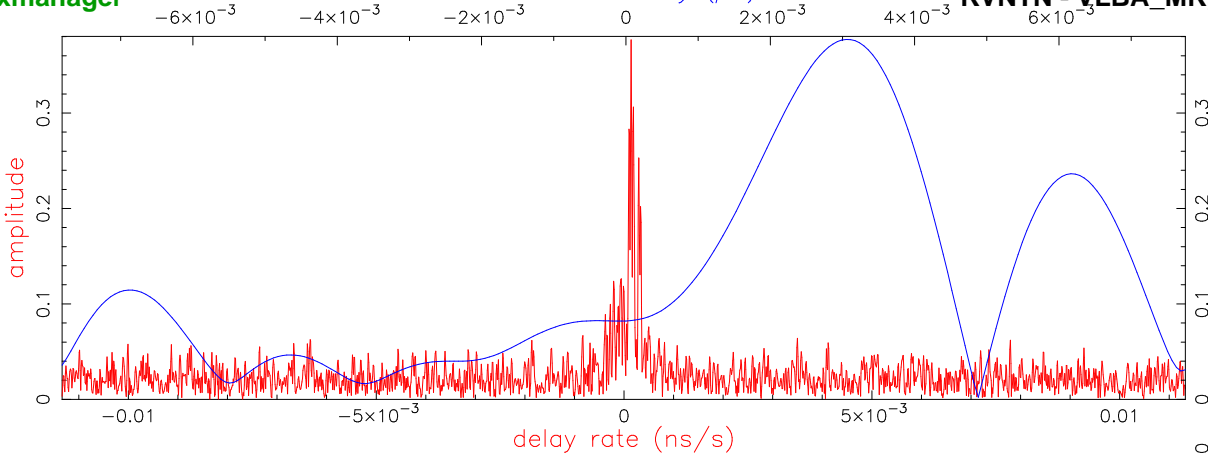
ph/seg (deg)	56.7	Theor.	12.2	Amplitude	0.403 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	75.3		21.2	Search (2048X32)	0.369	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	45.0		7.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	32.4		12.5	Inc. seg. avg.	0.676	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.497	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 48.3 el 38.9 pa -82.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8414.666 5336.071 simultaneous interpolator

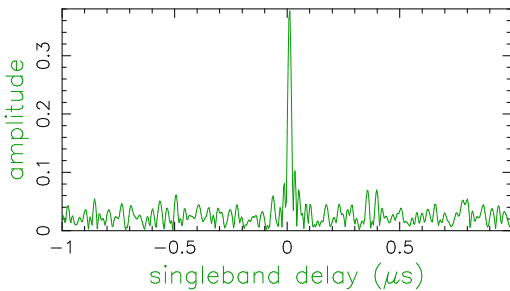
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tm.W.178.1X1QEV

multiband delay (μ s)

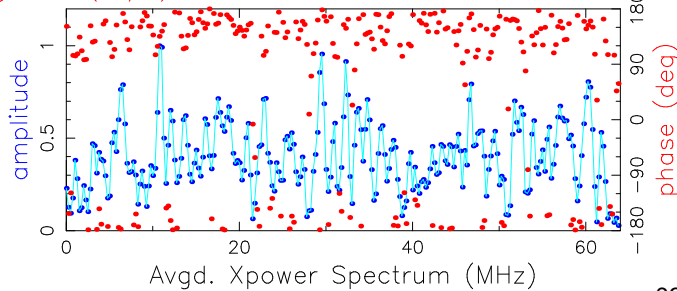
Fringe quality 8



SNR 21.3
Int time 419.820
Amp 0.380
Phase -118.4
PFD 0.0e+00
Delays (us)
SBD 0.010500
MBD 0.003005
Fringe rate (Hz)
0.011966
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

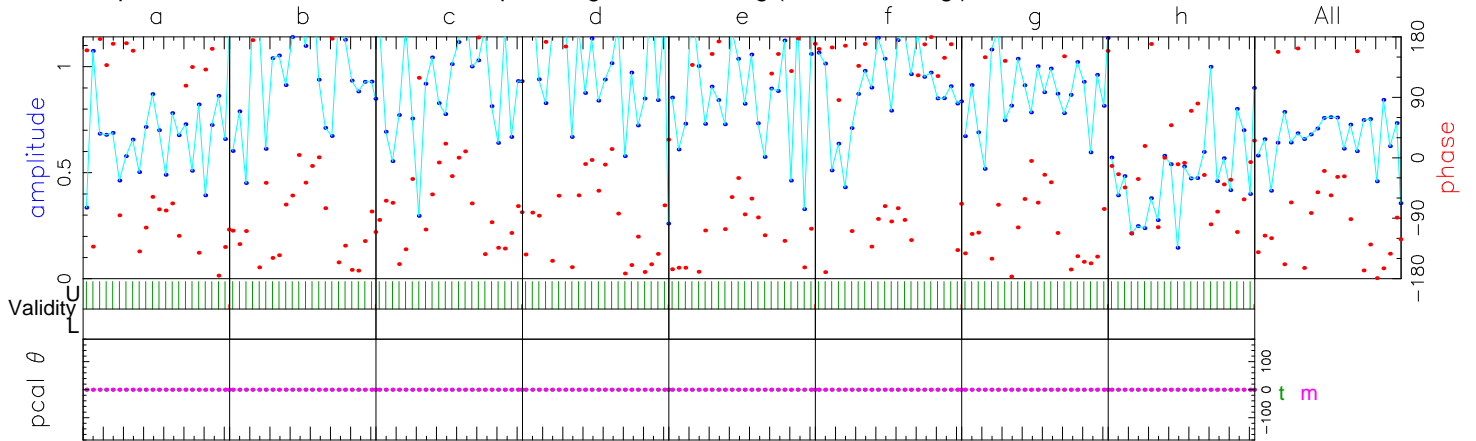


delay rate (ns/s)



Exp. c211c
Yr:day 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133929
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-150.9	-109.0	-81.1	-104.6	-145.9	-160.7	-119.3	-35.6	Phase	-118.4
	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.3	Ampl.	0.4
	261.6	259.6	259.4	259.6	259.2	259.6	260.3	262.4	Sbd box	259.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.42834760153E+03		Apriori delay (usec)		-4.42835060694E+03		Resid mbdelay (usec)		3.00541E-03	+/- 5.1E-05
Sband delay (usec)	-4.42834010719E+03		Apriori clock (usec)		-1.5985331E+01		Resid sbdelay (usec)		1.04998E-02	+/- 4.0E-04
Phase delay (usec)	-4.42835061076E+03		Apriori clockrate (us/s)		-3.6799998E-07		Resid phdelay (usec)		-3.81798E-06	+/- 1.7E-07
Delay rate (us/s)	9.34006634200E-01		Apriori rate (us/s)		9.34006495281E-01		Resid rate (us/s)		1.38918E-07	+/- 7.2E-10
Total phase (deg)			Apriori accel (us/s/s)		4.18396541872E-05		Resid phase (deg)		-118.4	+/- 5.4

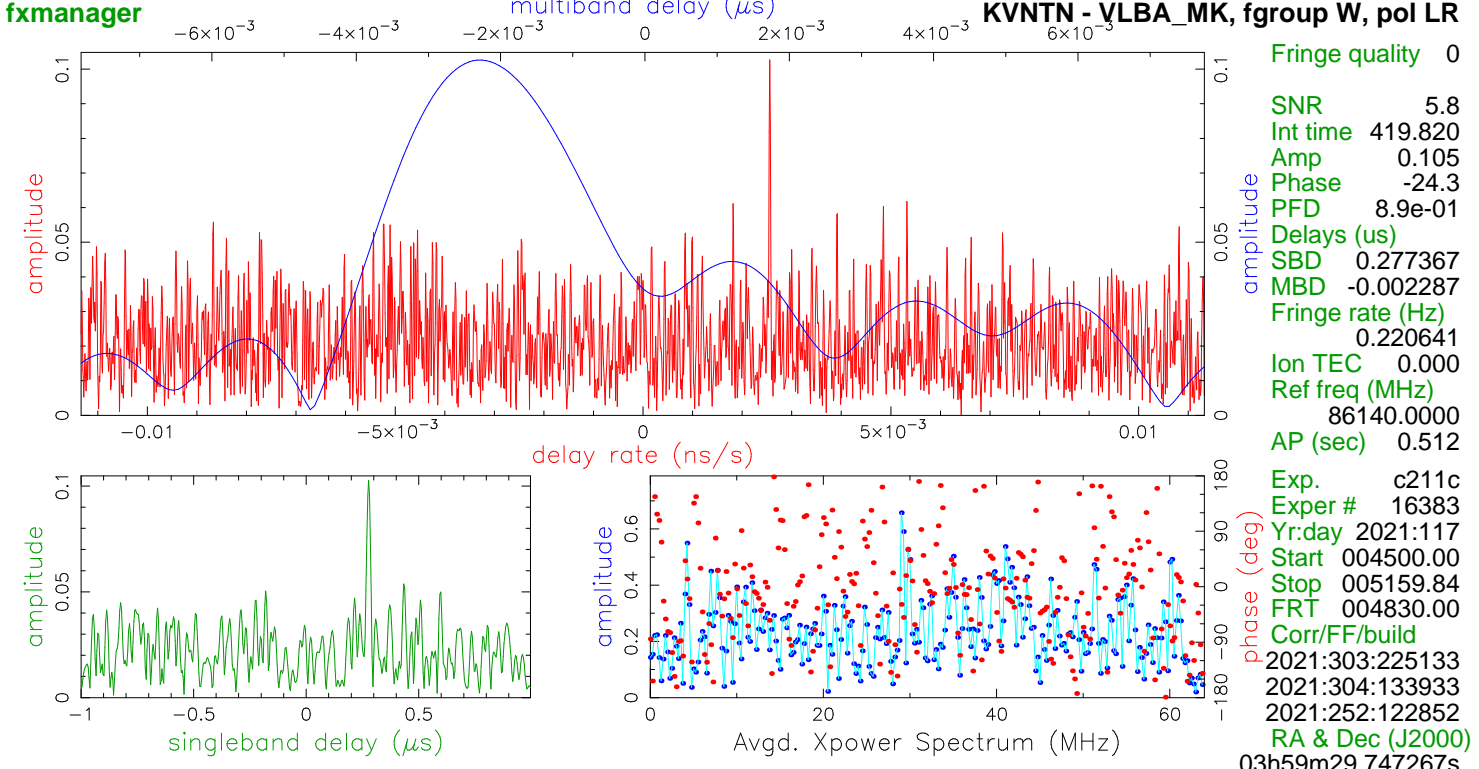
ph/seg (deg) 57.5 12.9 Search (2048X32) 0.349 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 81.5 22.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 45.0 7.6 Inc. seg. avg. 0.656 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 28.0 13.3 Inc. frq. avg. 0.448 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 48.3 el 38.9 pa -82.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8414.666 5336.071 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tm.W.198.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

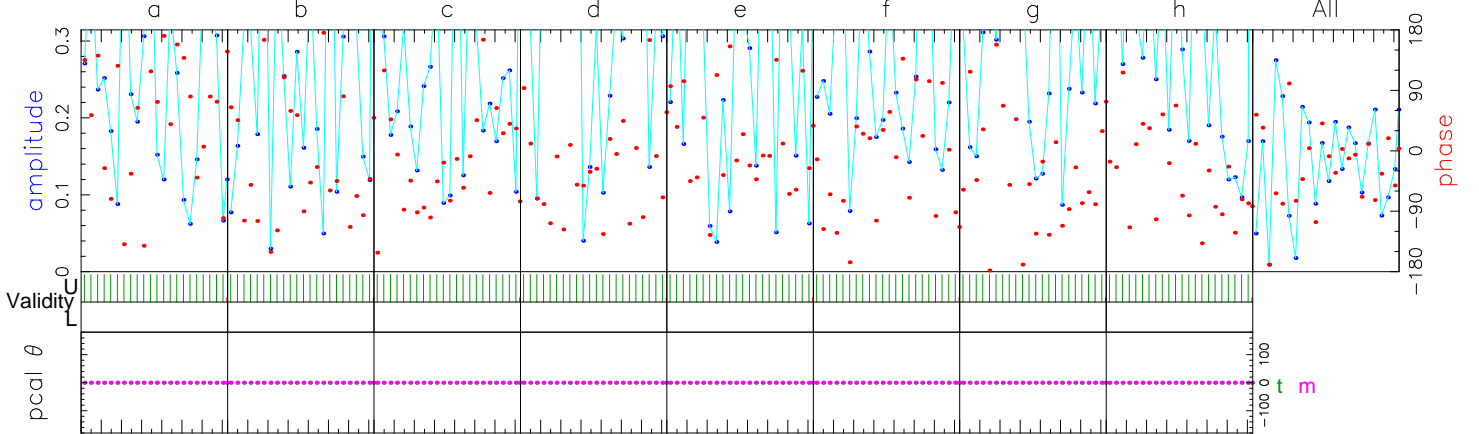
fxmanager

NRAO150.1X1QEV, No0120, tm

KVNTN - VLBA_MK, fgroup W, pol LR



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
90.9	-75.9	-25.4	-40.5	-4.3	-6.7	-30.3	-29.2	-29.2	Phase	-24.3
0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1
458.3	45.4	409.3	304.1	327.6	476.8	276.7	38.7	38.7	Sbd box	328.0
U/L 820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m 0	0	0	0	0	0	0	0	0	PC freqs	
t:m 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:m 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m 1000	1000	1000	1000	1000	1000	1000	1000	1000		
t W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids	
m W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.42807164440E+03		Apriori delay (usec)	-4.42835060694E+03		Resid mbdelay (usec)	-2.28747E-03		+/-	1.9E-04
Sband delay (usec)	-4.42807323994E+03		Apriori clock (usec)	-1.5985331E+01		Resid sbdelay (usec)	2.77367E-01		+/-	1.5E-03
Phase delay (usec)	-4.42835060772E+03		Apriori clockrate (us/s)	-3.6799998E-07		Resid phdelay (usec)	-7.84437E-07		+/-	6.4E-07
Delay rate (us/s)	9.34009056705E-01		Apriori rate (us/s)	9.34006495281E-01		Resid rate (us/s)	2.56142E-06		+/-	2.7E-09
Total phase (deg)		-125.7	Apriori accel (us/s/s)	4.18396541872E-05		Resid phase (deg)	-24.3		+/-	19.9

ph/seg (deg) 58.2 47.8 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 76.2 83.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 53.2 28.2 Inc. seg. avg. 0.106 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 46.9 49.2 Inc. frq. avg. 0.116 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011

t: az 48.3 el 38.9 pa -82.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8414.666 5336.071 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tm.W.217.1X1QEV

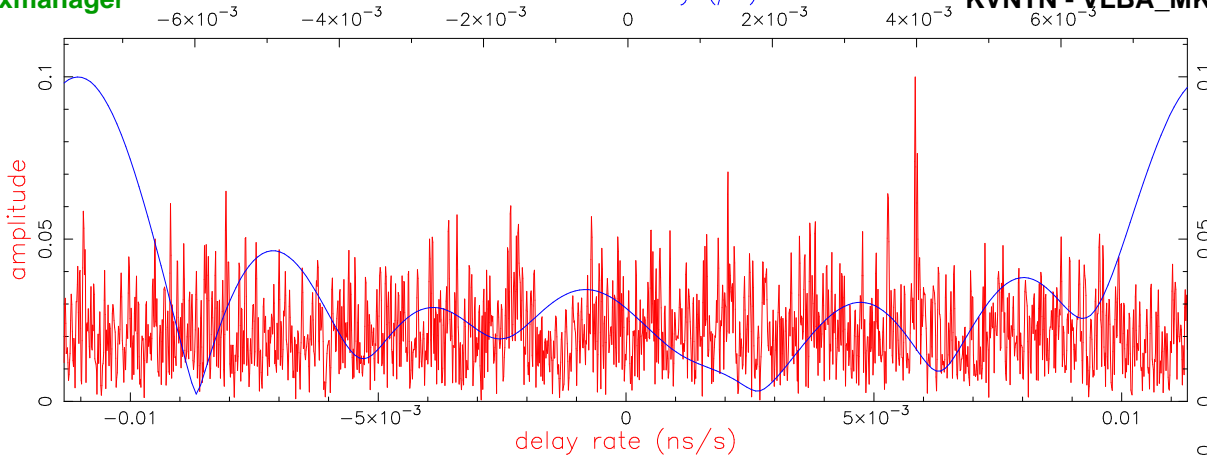
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, tm

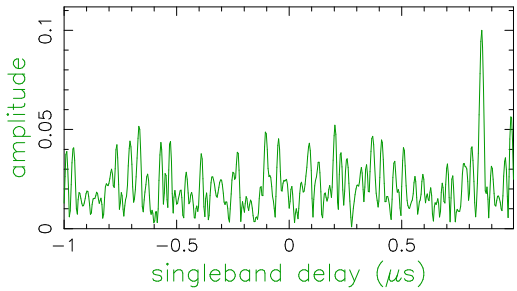
KVNTN - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

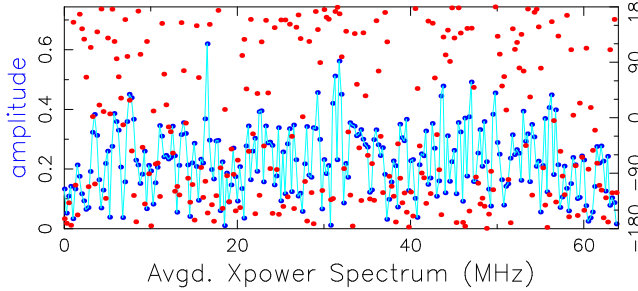


Fringe quality 0

SNR 5.6
 Int time 419.820
 Amp 0.112
 Phase -125.9
 PFD 9.9e-01
 Delays (us)
 SBD 0.855108
 MBD 0.007993
 Fringe rate (Hz)
 0.503272
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

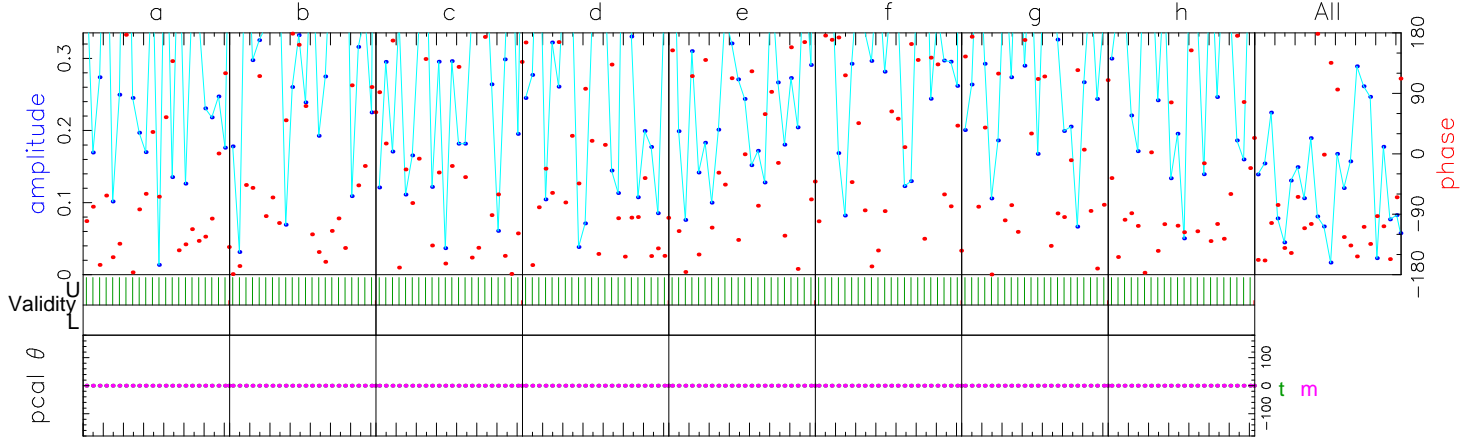


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133936
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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

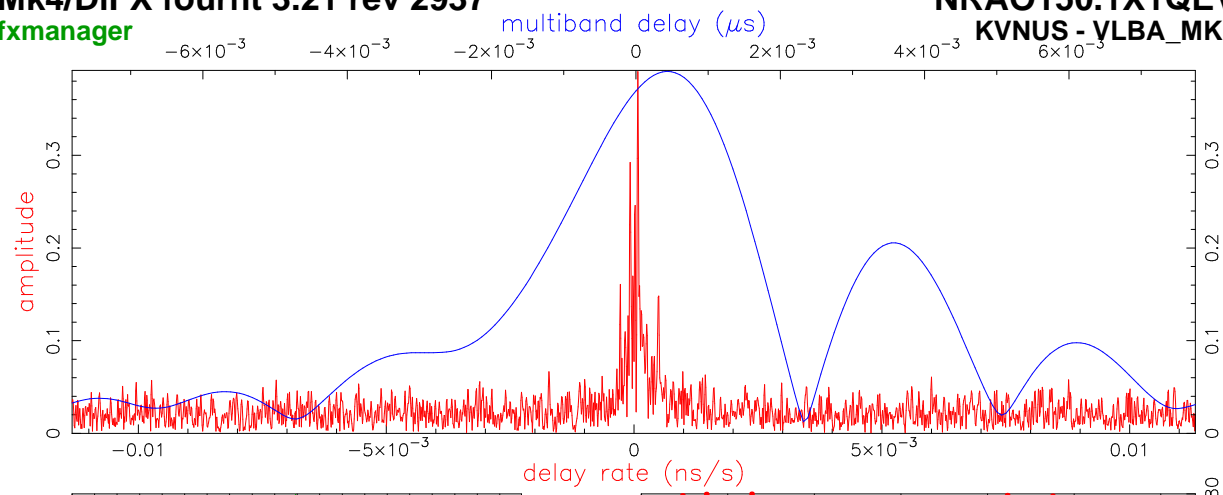


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-123.6	-109.3	-149.2	-113.9	173.7	-161.6	-113.8	-108.7	Phase	-125.9
	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	340.8	119.6	293.8	224.1	43.4	225.6	363.0	476.6	Sbd box	475.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.42749886413E+03		Apriori delay (usec)		-4.42835060694E+03		Resid mbdelay (usec)		7.99281E-03	+/- 1.9E-04
Sband delay (usec)	-4.42749549869E+03		Apriori clock (usec)		-1.5985331E+01		Resid sbdelay (usec)		8.55108E-01	+/- 1.5E-03
Phase delay (usec)	-4.42835061100E+03		Apriori clockrate (us/s)		-3.6799998E-07		Resid phdelay (usec)		-4.06111E-06	+/- 6.6E-07
Delay rate (us/s)	9.34012337765E-01		Apriori rate (us/s)		9.34006495281E-01		Resid rate (us/s)		5.84248E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		4.18396541872E-05		Resid phase (deg)		-125.9	+/- 20.4

	RMS	Theor.	Amplitude	0.112 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	55.2	49.0	Search (2048X32)	0.097	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	81.7	85.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	32.5	28.9	Inc. seg. avg.	0.111	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	31.7	50.5	Inc. frq. avg.	0.108	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

t: az 48.3 el 38.9 pa -82.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8414.666 5336.071 simultaneous interpolator

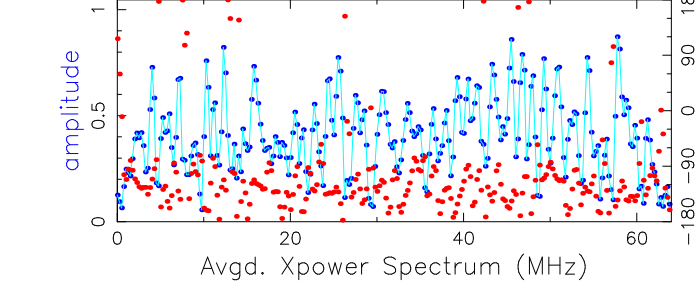
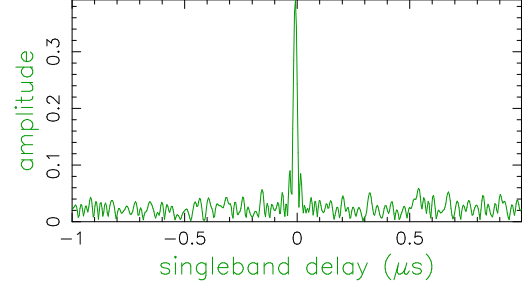
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tm.W.235.1X1QEV



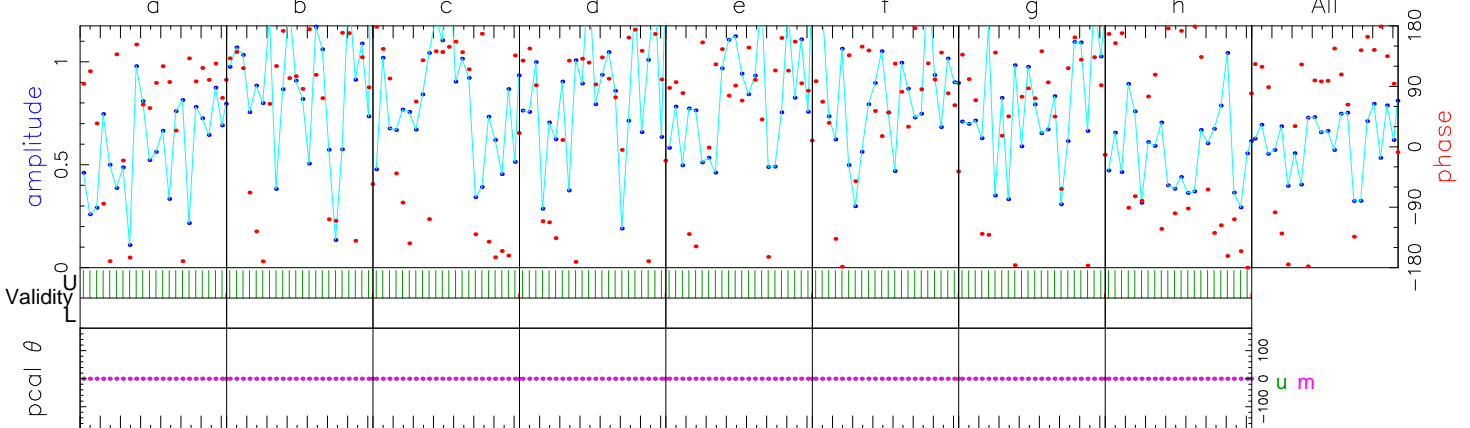
Fringe quality 8

SNR 21.9
Int time 419.820
Amp 0.392
Phase 129.5
PFD 0.0e+00
Delays (us)
SBD -0.008551
MBD 0.000399
Fringe rate (Hz)
0.006856
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133940
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
m	0	0	0	0	0	0	0	0		
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:m	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		
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-3.51583860717E+03	Apriori delay (usec)	-3.51582338068E+03	Resid mbdelay (usec)	3.98505E-04	+/-	4.9E-05
Sband delay (usec)	-3.51583193168E+03	Apriori clock (usec)	-9.5227051E-01	Resid sbdelay (usec)	-8.55100E-03	+/-	3.9E-04
Phase delay (usec)	-3.51582337650E+03	Apriori clockrate (us/s)	8.0900000E-07	Resid phdelay (usec)	4.17506E-06	+/-	1.7E-07
Delay rate (us/s)	8.97803424605E-01	Apriori rate (us/s)	8.97803345015E-01	Resid rate (us/s)	7.95909E-08	+/-	6.9E-10
Total phase (deg)	125.3	Apriori accel (us/s/s)	3.99124908248E-05	Resid phase (deg)	129.5	+/-	5.2

ph/seg (deg)	RMS 56.7	Theor. 12.5	Amplitude Search (2048X32)	0.392 +/- 0.018	0.385	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	66.8	21.9	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	41.7	7.4	Inc. seg. avg.	0.598	0.598	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	27.4	12.9	Inc. frq. avg.	0.453	0.453	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 50.0 el 42.1 pa -83.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8089.770 5325.653 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/um..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/um.W.242.1X1QEV

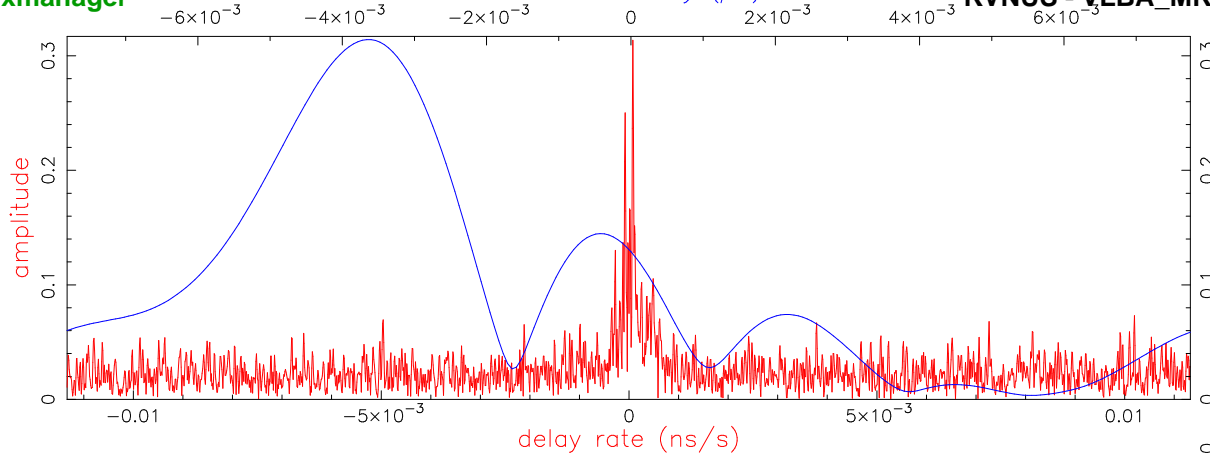
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, um

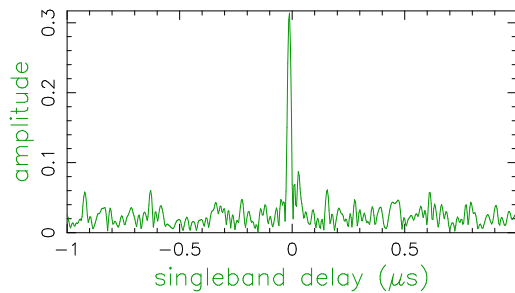
KVNUS - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)

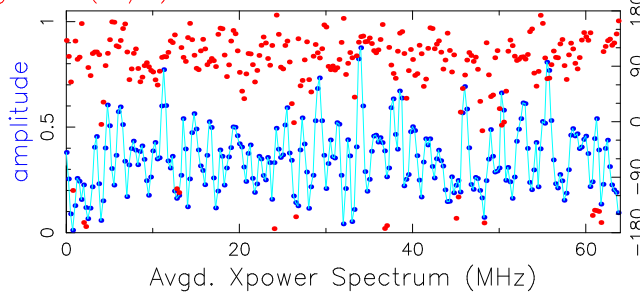


Fringe quality 8

SNR 17.8
 Int time 419.820
 Amp 0.317
 Phase 2.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.013028
 MBD -0.003719
 Fringe rate (Hz)
 0.006856
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

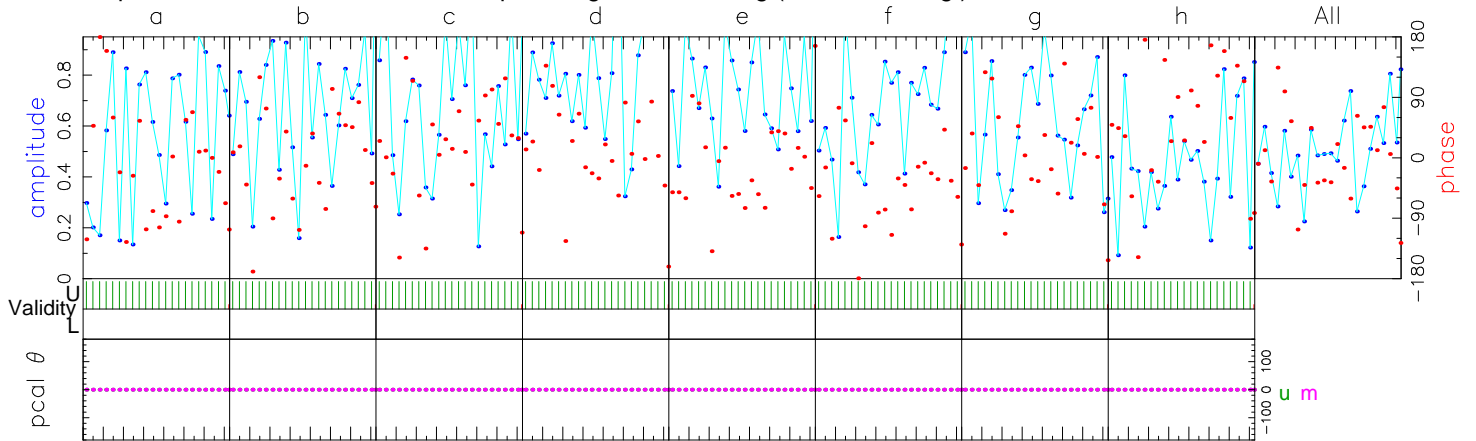


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133943
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-29.5	10.5	30.1	9.6	-18.4	-36.1	15.1	80.2		2.5
	0.2	0.4	0.4	0.5	0.5	0.4	0.4	0.2		0.4
	256.2	253.4	253.6	253.7	253.5	253.3	254.7	256.9		253.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
m	0	0	0	0	0	0	0	0		
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:m	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		
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-3.51584272499E+03		Apriori delay (usec)		-3.51582338068E+03		Resid mbdelay (usec)		-3.71931E-03	+/- 6.1E-05
Sband delay (usec)	-3.51583640843E+03		Apriori clock (usec)		-9.5227051E-01		Resid sbdelay (usec)		-1.30277E-02	+/- 4.9E-04
Phase delay (usec)	-3.51582338060E+03		Apriori clockrate (us/s)		8.0900000E-07		Resid phdelay (usec)		8.10145E-08	+/- 2.1E-07
Delay rate (us/s)	8.97803424606E-01		Apriori rate (us/s)		8.97803345015E-01		Resid rate (us/s)		7.95916E-08	+/- 8.6E-10
Total phase (deg)			Apriori accel (us/s/s)		3.99124908248E-05		Resid phase (deg)		2.5	+/- 6.5

ph/seg (deg) 57.5 15.5 Search (2048X32) 0.307 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.2 27.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 40.9 9.1 Inc. seg. avg. 0.483 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.2 15.9 Inc. frq. avg. 0.355 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 50.0 el 42.1 pa -83.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8089.770 5325.653 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/um..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/um.W.260.1X1QEV

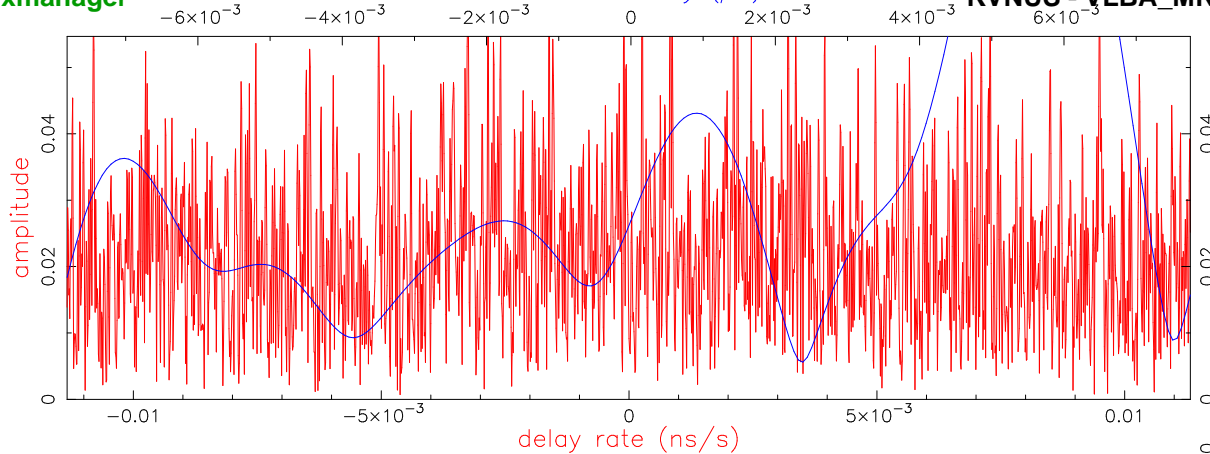
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, um

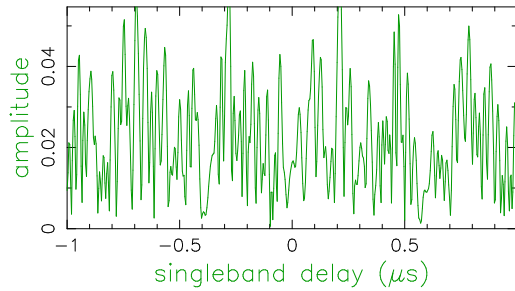
KVNUS - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

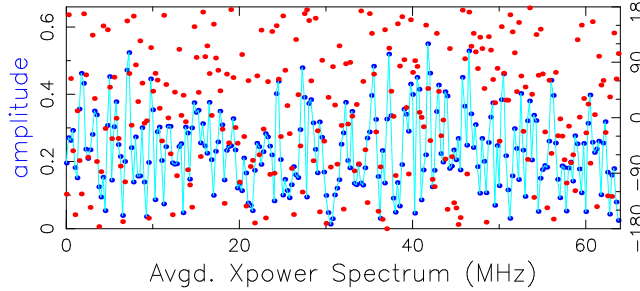


Fringe quality 0

SNR 2.2
 Int time 419.820
 Amp 0.055
 Phase -144.4
 PFD 1.0e+00
 Delays (us)
 SBD 0.878906
 MBD -0.007324
 Fringe rate (Hz)
 -0.830747
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

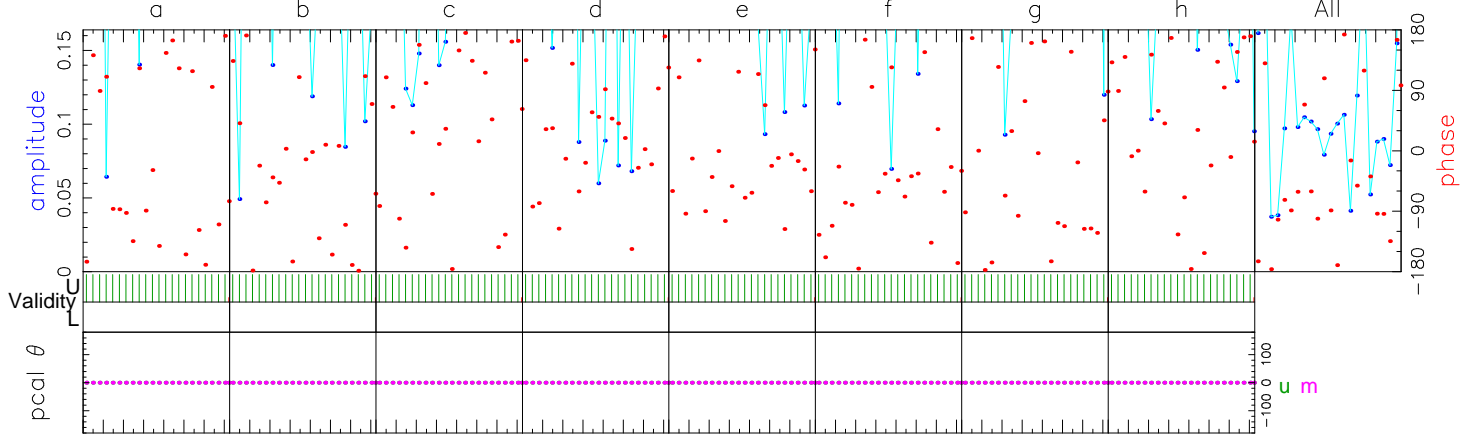


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133947
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-171.1	-133.6	137.1	29.1	-40.8	-81.4	-150.5	132.0	Phase	-144.4
	0.2	0.0	0.2	0.1	0.2	0.2	0.2	0.1	Ampl.	0.1
	285.1	130.7	75.3	344.7	79.8	353.7	482.4	166.5	Sbd box	482.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.51494007990E+03		Apriori delay (usec)		-3.51582338068E+03		Resid mbdelay (usec)		-7.32422E-03	+/- 4.9E-04
Sband delay (usec)	-3.51494447443E+03		Apriori clock (usec)		-9.5227051E-01		Resid sbdelay (usec)		8.78906E-01	+/- 3.9E-03
Phase delay (usec)	-3.51582338533E+03		Apriori clockrate (us/s)		8.0900000E-07		Resid phdelay (usec)		-4.65594E-06	+/- 1.7E-06
Delay rate (us/s)	8.97793700867E-01		Apriori rate (us/s)		8.97803345015E-01		Resid rate (us/s)		-9.64415E-06	+/- 6.8E-09
Total phase (deg)			Apriori accel (us/s/s)		3.99124908248E-05		Resid phase (deg)		-144.4	+/- 51.4

	RMS	Theor.	Amplitude	0.055 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	76.4	123.2	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/seg (%)	224.9	215.1	Interp.	0.000	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	99.0	72.7	Inc. seg. avg.	0.045	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	200.1	126.8	Inc. frq. avg.	0.083					

u: az 50.0 el 42.1 pa -83.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8089.770 5325.653 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/um..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/um.W.278.1X1QEV

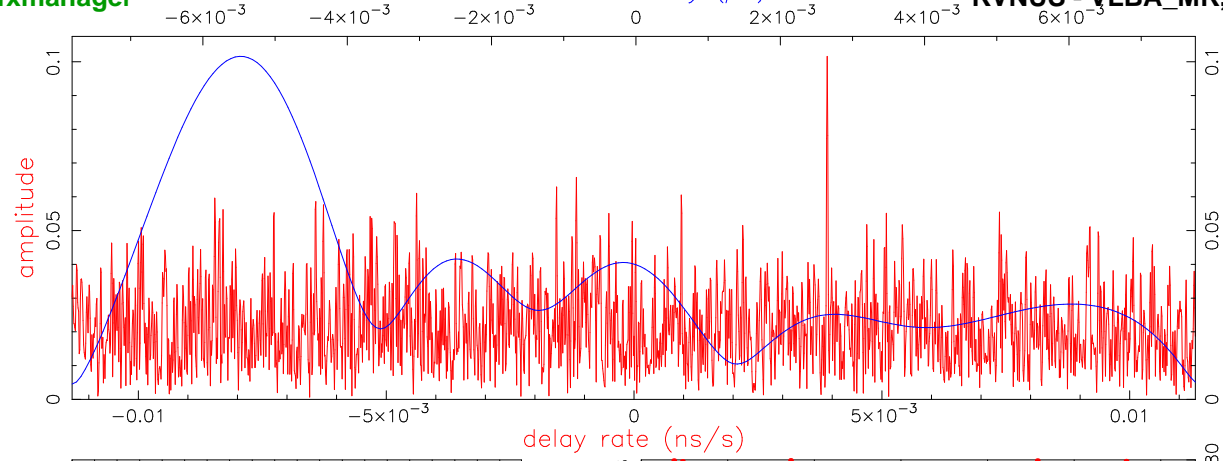
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

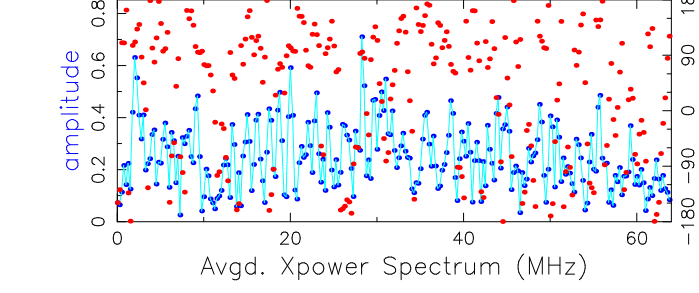
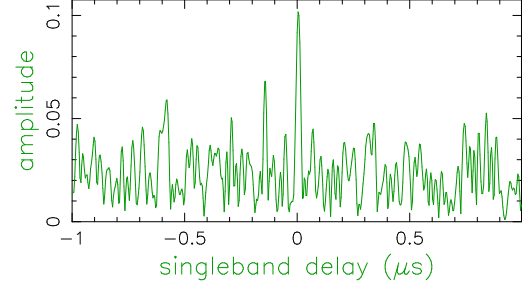
NRAO150.1X1QEV, No0120, um

KVNUS - VLBA_MK, fgroup W, pol RL

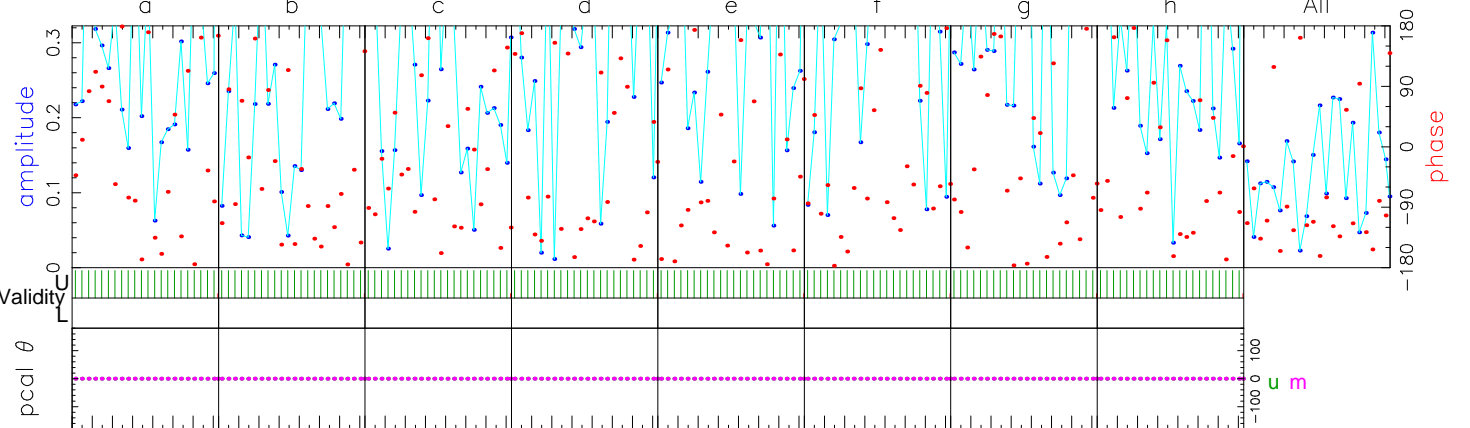
multiband delay (μ s)



Fringe quality 0
 SNR 5.7
 Int time 419.820
 Amp 0.108
 Phase -124.3
 PFD 9.1e-01
 Delays (us)
 SBD 0.005315
 MBD -0.005506
 Fringe rate (Hz)
 0.335920
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133950
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

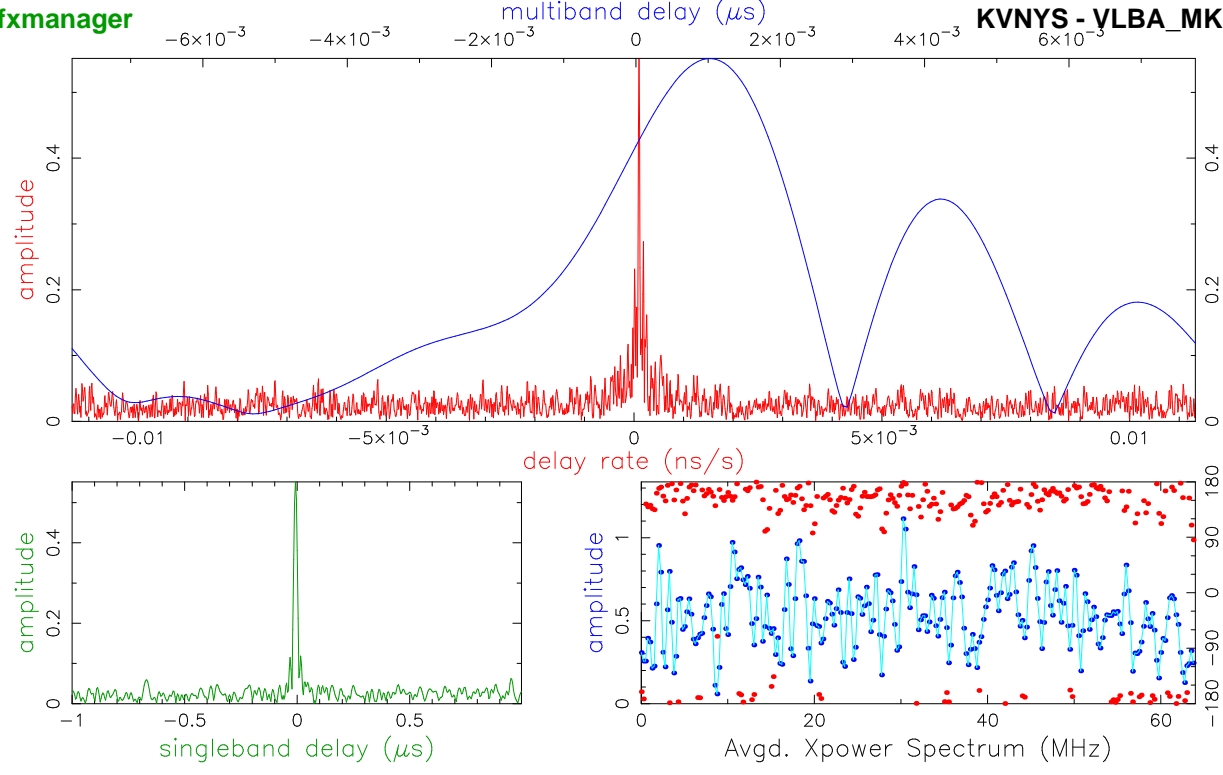


Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



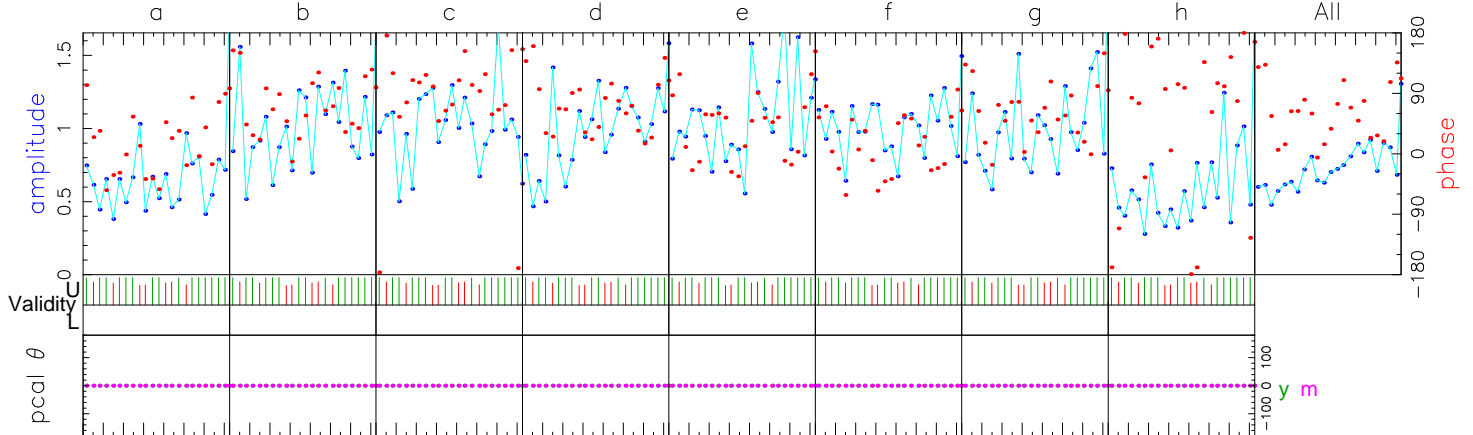
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-176.5	-110.6	-77.8	-152.3	-158.5	-95.7	-140.1	-106.1	Phase	-124.3
	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	Ampl.	0.1
	350.4	431.9	463.5	474.4	479.2	473.2	107.7	219.2	Sbd box	258.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.51581326164E+03		Apriori delay (usec)		-3.51582338068E+03		Resid mbdelay (usec)		-5.50596E-03	+/- 1.9E-04
Sband delay (usec)	-3.51581806568E+03		Apriori clock (usec)		-9.5227051E-01		Resid sbdelay (usec)		5.31500E-03	+/- 1.5E-03
Phase delay (usec)	-3.51582338469E+03		Apriori clockrate (us/s)		8.0900000E-07		Resid phdelay (usec)		-4.00851E-06	+/- 6.4E-07
Delay rate (us/s)	8.97807244711E-01		Apriori rate (us/s)		8.97803345015E-01		Resid rate (us/s)		3.89970E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		3.99124908248E-05		Resid phase (deg)		-124.3	+/- 20.0

ph/seg (deg) 62.6 47.9 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.9 83.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.5 28.3 Inc. seg. avg. 0.104 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 37.1 49.3 Inc. frq. avg. 0.109 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 50.0 el 42.1 pa -83.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8089.770 5325.653 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/um..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/um.W.294.1X1QEV



Fringe quality 5
SNR 29.7
Int time 388.382
Amp 0.552
Phase 60.6
PFD 0.0e+00
Delays (us)
SBD -0.007541
MBD 0.001040
Fringe rate (Hz)
0.008138
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133942
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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

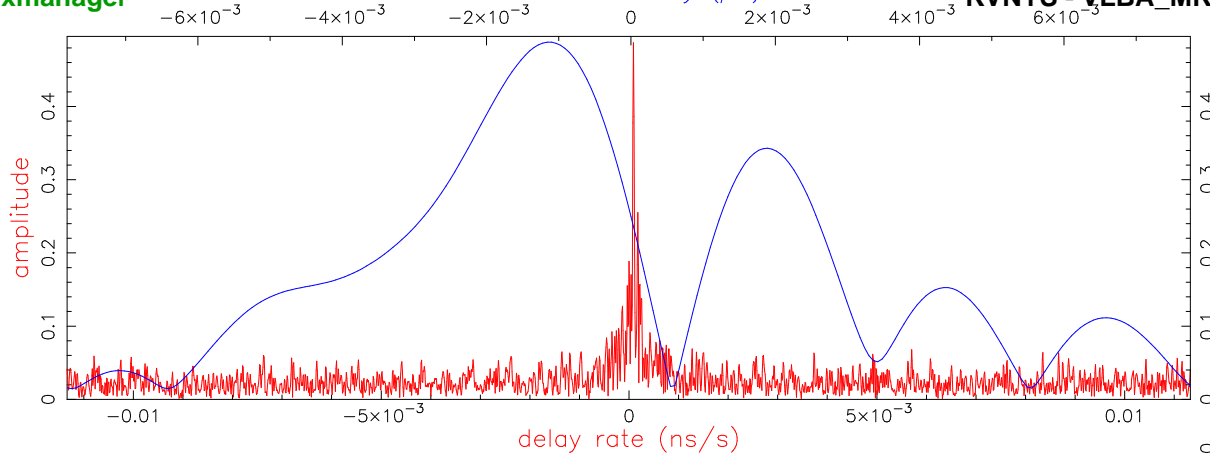


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
m	0	0	0	0	0	0	0	0		
y:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-3.57470739233E+03	Apriori delay (usec)	-3.57469280764E+03	Resid mbdelay (usec)	1.04031E-03	+/-	3.7E-05
Sband delay (usec)	-3.57470034864E+03	Apriori clock (usec)	-1.5013525E+01	Resid sbdelay (usec)	-7.54100E-03	+/-	2.9E-04
Phase delay (usec)	-3.57469280568E+03	Apriori clockrate (us/s)	-3.1799999E-07	Resid phdelay (usec)	1.95531E-06	+/-	1.2E-07
Delay rate (us/s)	8.92781317609E-01	Apriori rate (us/s)	8.92781223135E-01	Resid rate (us/s)	9.44734E-08	+/-	5.5E-10
Total phase (deg)	-101.3	Apriori accel (us/s/s)	4.26326922836E-05	Resid phase (deg)	60.6	+/-	3.9

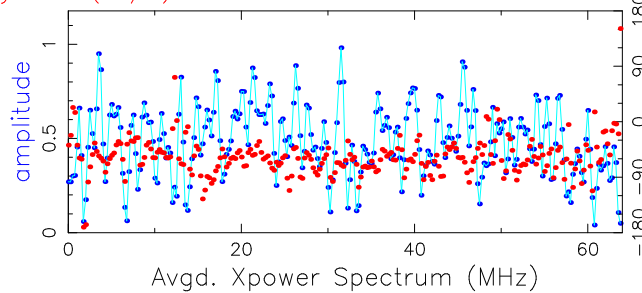
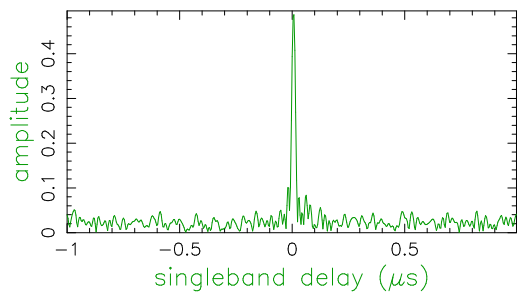
ph/seg (deg)	41.2	RMS	41.2	Theor.	8.9	Amplitude	0.552 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	37.5	Search (2048X32)	0.524	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	44.9	Inc. seg. avg.	0.706	Inc. frq. avg.	0.662	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	36.5	Inc. frq. avg.	0.662	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite
y: az 51.1 el 41.9 pa -79.5		m: az 347.6 el 57.7 pa 160.9		u, v (fr/asec)	-8038.532 5746.814	ion window (TEC)	0.00	0.00			

multiband delay (μ s)



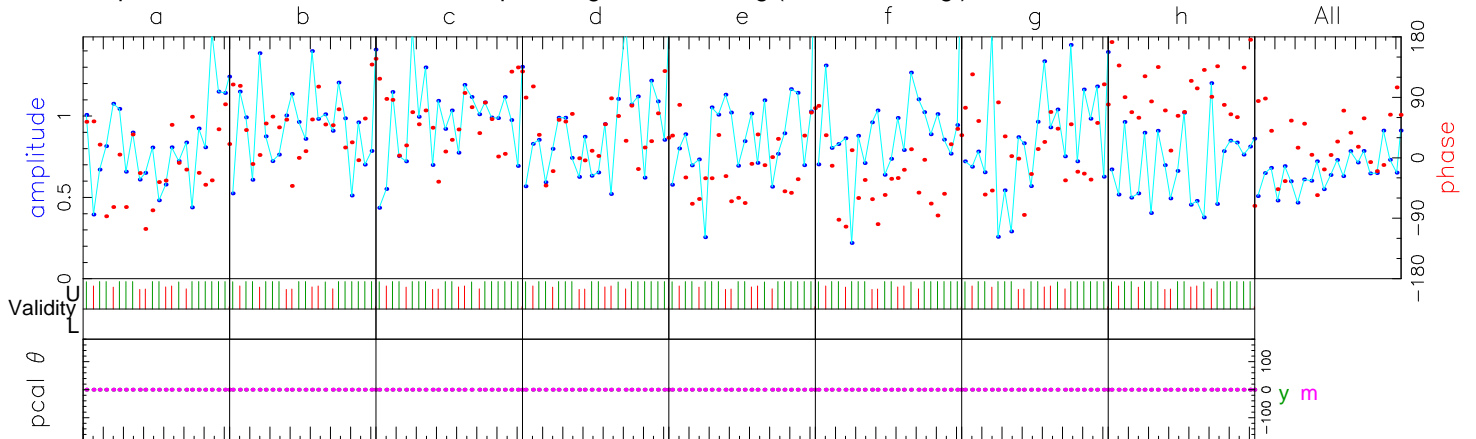
Fringe quality 7

SNR 26.7
Int time 388.382
Amp 0.496
Phase 25.6
PFD 0.0e+00
Delays (us)
SBD 0.006091
MBD -0.001202
Fringe rate (Hz)
0.008031
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133945
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-7.9	44.0	55.6	41.1	-15.8	-30.5	16.9	98.5		Phase
	0.5	0.7	0.7	0.7	0.6	0.6	0.6	0.5		Ampl.
	260.4	258.5	258.3	258.3	258.4	258.3	259.1	260.5		Sbd box
U/L	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0		APs used
y	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
m	0	0	0	0	0	0	0	0		PC freqs
y:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
y:m	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
m	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Tracks
Group delay (usec)(sbd)	-3.57469401003E+03		Apriori delay (usec)		-3.57469280764E+03		Resid mbdelay (usec)		-1.20239E-03	+/- 4.1E-05
Sband delay (usec)	-3.57468671639E+03		Apriori clock (usec)		-1.5013525E+01		Resid sbdelay (usec)		6.09125E-03	+/- 3.2E-04
Phase delay (usec)	-3.57469280681E+03		Apriori clockrate (us/s)		-3.1799999E-07		Resid phdelay (usec)		8.24647E-07	+/- 1.4E-07
Delay rate (us/s)	8.92781316365E-01		Apriori rate (us/s)		8.92781223135E-01		Resid rate (us/s)		9.32299E-08	+/- 6.1E-10
Total phase (deg)			Apriori accel (us/s/s)		4.26326922836E-05		Resid phase (deg)		25.6	+/- 4.3

ph/seg (deg) 43.8 9.9 Search (2048X32) 0.463 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 38.6 17.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 46.3 6.1 Inc. seg. avg. 0.645 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 28.7 10.6 Inc. frq. avg. 0.616 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 51.1 el 41.9 pa -79.5 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8038.532 5746.814 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ym..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ym.W.273.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

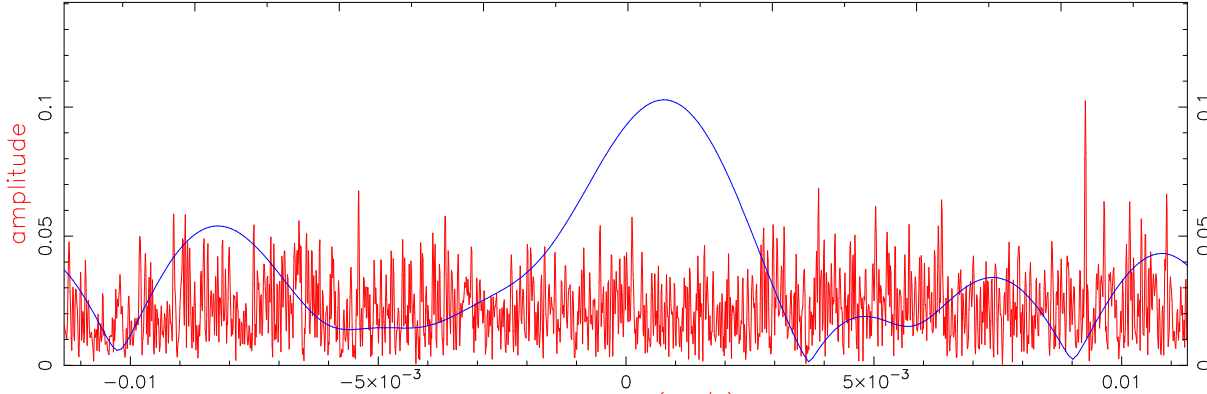
NRAO150.1X1QEV, No0120, ym

KVNYS - VLBA_MK, fgroup W, pol LR

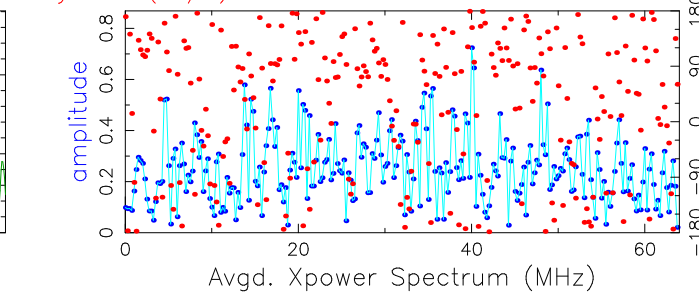
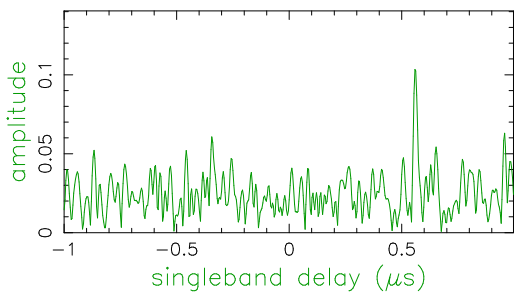
multiband delay (μ s)

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

Fringe quality 0

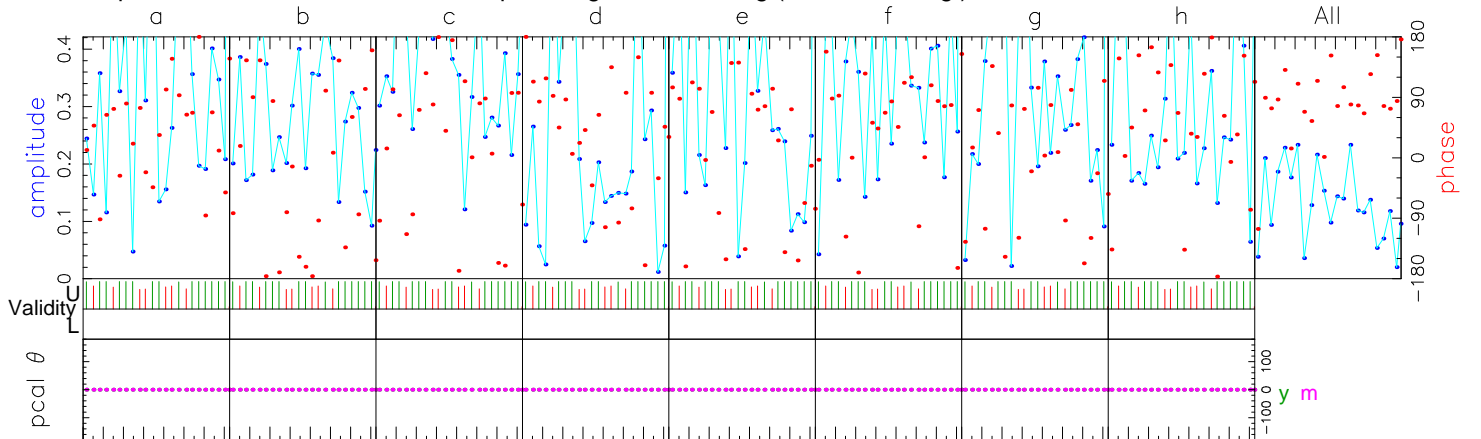


SNR 5.7
 Int time 388.382
 Amp 0.140
 Phase 87.5
 PFD 9.8e-01
 Delays (us)
 SBD 0.560284
 MBD 0.000390
 Fringe rate (Hz)
 0.799100
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133949
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
Group delay (usec)(sbd)	43.1	169.7	102.8	81.2	97.9	91.9	43.8	95.9	Phase	87.5
Sband delay (usec)	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	Ampl.	0.1
Phase delay (usec)	169.2	357.1	481.9	113.8	259.2	415.1	106.1	398.6	Sbd box	400.4
Delay rate (us/s)	U/L 767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0	APs used	
	y 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
	m 0	0	0	0	0	0	0	0	PC freqs	
	y:m 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
	y:m 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	
	m 1000	1000	1000	1000	1000	1000	1000	1000		
	y W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
	m W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-3.57412991770E+03	Apriori delay (usec)	-3.57469280764E+03	Resid mbdelay (usec)	3.89937E-04	+/-	1.9E-04
Sband delay (usec)	-3.57413252389E+03	Apriori clock (usec)	-1.5013525E+01	Resid sbdelay (usec)	5.60284E-01	+/-	1.5E-03
Phase delay (usec)	-3.57469280482E+03	Apriori clockrate (us/s)	-3.1799999E-07	Resid phdelay (usec)	2.82098E-06	+/-	6.5E-07
Delay rate (us/s)	8.92790499895E-01	Apriori rate (us/s)	8.92781223135E-01	Resid rate (us/s)	9.27676E-06	+/-	2.9E-09
Total phase (deg)	-74.4	Apriori accel (us/s/s)	4.26326922836E-05	Resid phase (deg)	87.5	+/-	20.3

ph/seg (deg)	RMS 52.3	Theor. 47.0	Amplitude Search (2048X32)	0.140 +/- 0.025	0.102	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	67.2	82.1	Interp.	0.000	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	43.0	28.7	Inc. seg. avg.	0.129	0.102	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.7	50.0	Inc. frq. avg.	0.141	0.141	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

y: az 51.1 el 41.9 pa -79.5 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8038.532 5746.814 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ym..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ym.W.290.1X1QEV

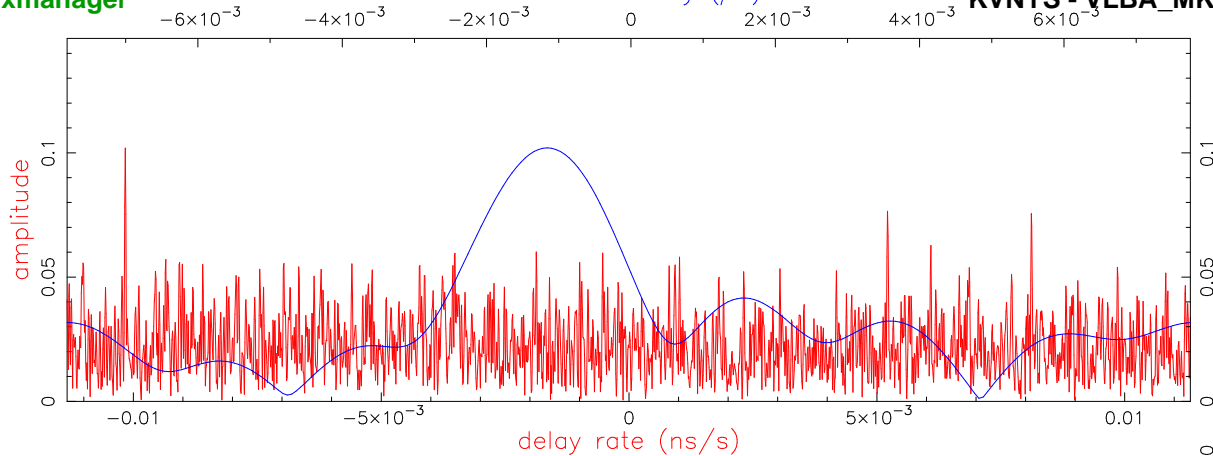
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ym

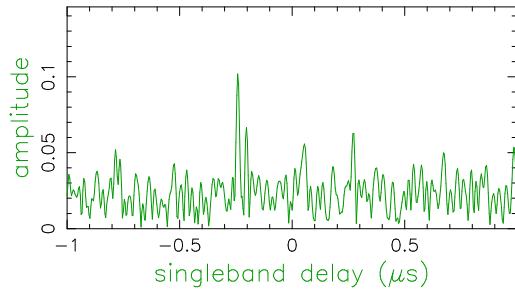
KVNYS - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

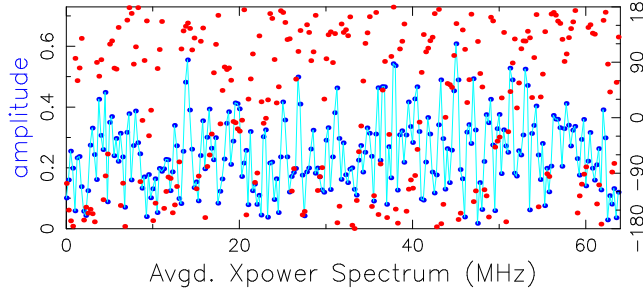


Fringe quality 0

SNR 5.5
 Int time 388.382
 Amp 0.146
 Phase -95.4
 PFD 1.0e+00
 Delays (us)
 SBD -0.241532
 MBD -0.001128
 Fringe rate (Hz)
 -0.876541
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

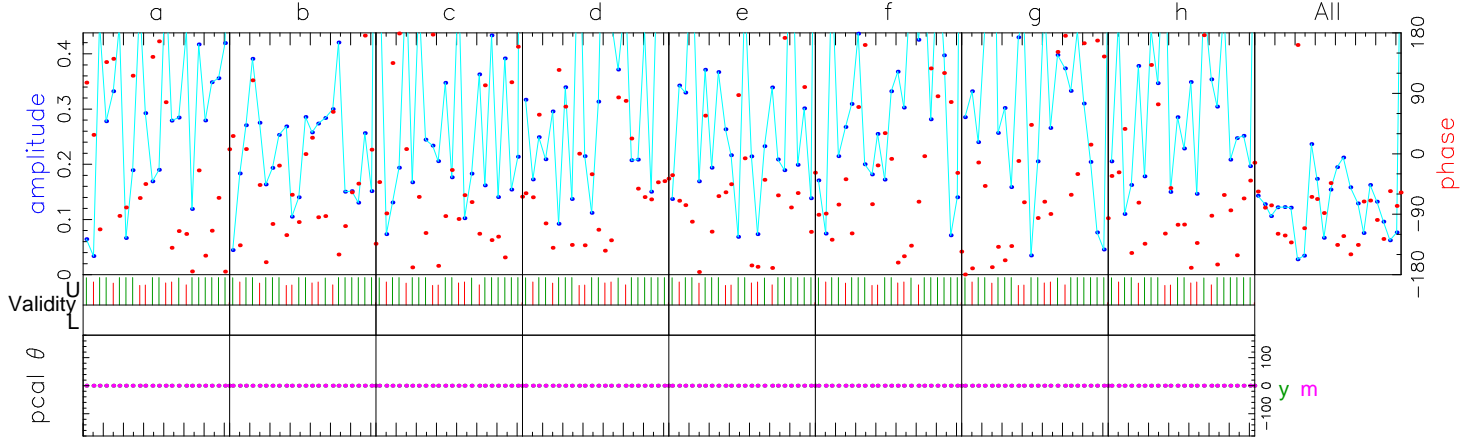


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133952
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-124.4	-77.1	-103.1	-58.9	-73.4	-99.4	-115.3	-107.9	Phase	-95.4
	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	Ampl.	0.1
	329.0	65.3	271.9	444.2	462.5	282.4	101.5	168.0	Sbd box	195.2
U/L	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
y:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-3.57492831020E+03	Apriori delay (usec)	-3.57469280764E+03	Resid mbdelay (usec)	-1.12756E-03	+/-	2.0E-04
Sband delay (usec)	-3.57493433939E+03	Apriori clock (usec)	-1.5013525E+01	Resid sbdelay (usec)	-2.41532E-01	+/-	1.6E-03
Phase delay (usec)	-3.57469281071E+03	Apriori clockrate (us/s)	-3.1799999E-07	Resid phdelay (usec)	-3.07703E-06	+/-	6.7E-07
Delay rate (us/s)	8.92771047360E-01	Apriori rate (us/s)	8.92781223135E-01	Resid rate (us/s)	-1.01758E-05	+/-	3.0E-09
Total phase (deg)	-257.3	Apriori accel (us/s/s)	4.26326922836E-05	Resid phase (deg)	-95.4	+/-	20.8

ph/seg (deg)	38.0	Theor.	48.2	Amplitude	0.146 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	63.6	Search (2048X32)	0.100	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	24.6	Inc. seg. avg.	0.127	Inc. frq. avg.	0.139	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	35.3	Inc. frq. avg.	0.139			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 51.1 el 41.9 pa -79.5 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8038.532 5746.814 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ym..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ym.W.305.1X1QEV