

Mk4/DiFX fourfit 3.21 rev 2937

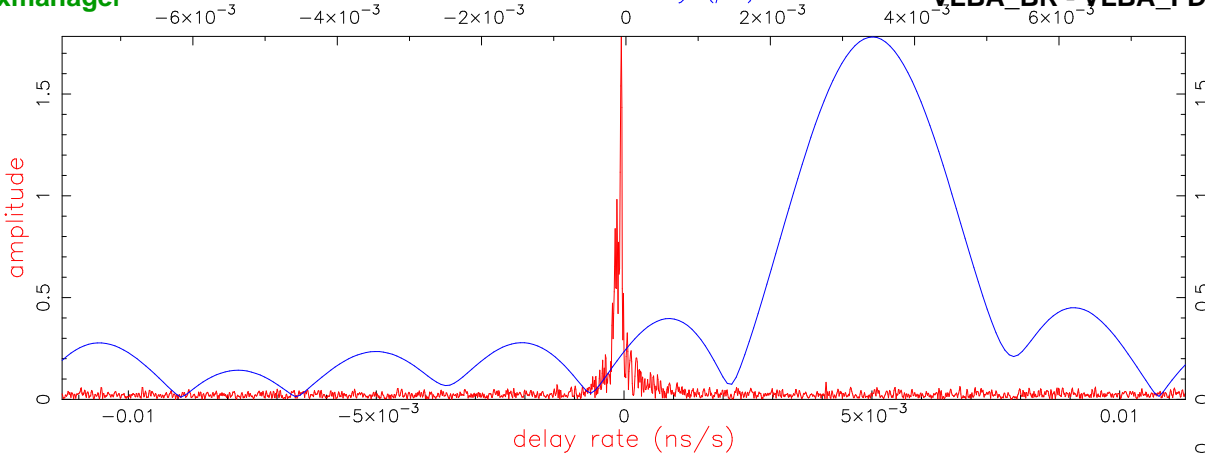
fxmanager

NRAO150.1X1QEV, No0120, bf

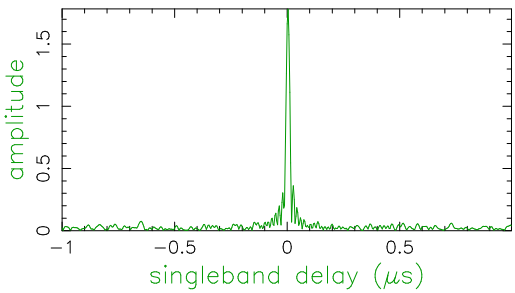
VLBA_BR - VLBA_FD, fgroup W, pol RR

multiband delay (μ s)

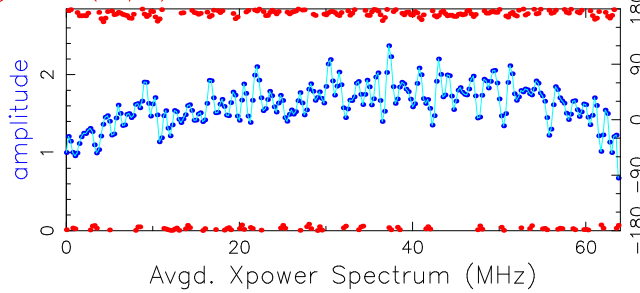
Fringe quality 5



SNR 99.8
Int time 418.452
Amp 1.783
Phase 175.5
PFD 0.0e+00
Delays (us)
SBD 0.003367
MBD 0.003401
Fringe rate (Hz)
-0.004704
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

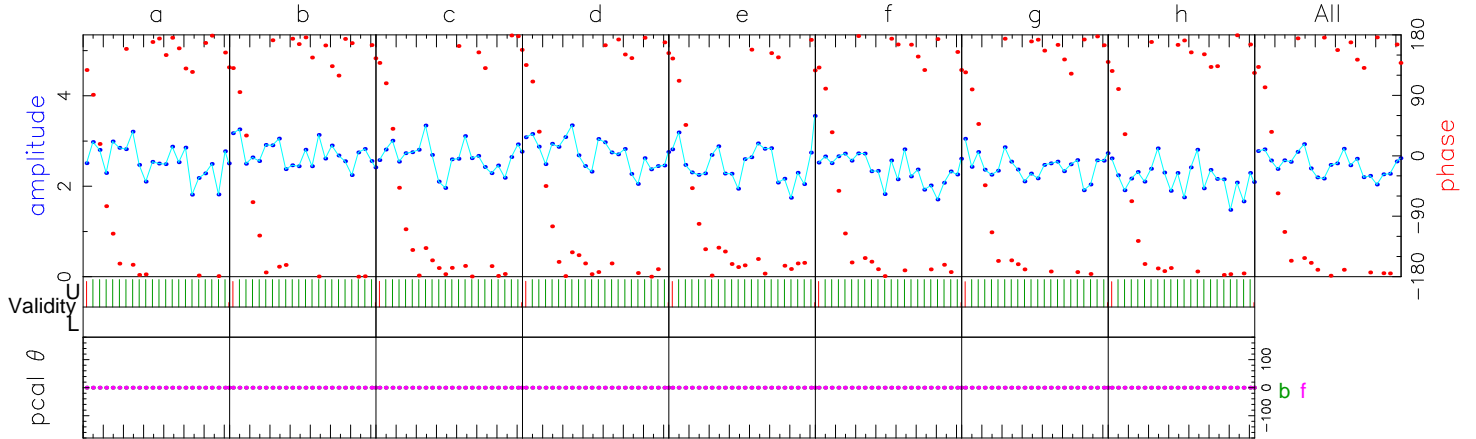


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133851
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			
b	0	0	0	0	0	0	0	0			
f	0	0	0	0	0	0	0	0			
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
b	1000	1000	1000	1000	1000	1000	1000	1000			
f	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	
Group delay (usec)(sbd)	4.71263836964E+03				4.71263496903E+03				3.40061E-03	+/- 1.1E-05	
Sband delay (usec)	4.71263833578E+03				-1.3250582E+01				3.36675E-03	+/- 8.6E-05	
Phase delay (usec)	4.71263497469E+03				-1.6000000E-07				5.65797E-06	+/- 3.7E-08	
Delay rate (us/s)	2.69540648890E-01				2.69540703494E-01				-5.46043E-08	+/- 1.5E-10	
Total phase (deg)			259.0		-4.51738728225E-06				175.5	+/- 1.1	
	RMS	Theor.	Amplitude	1.783 +/- 0.018	Pcal mode: MANUAL, MANUAL				PC period (AP's) 5, 5		
ph/seg (deg)	50.1	2.8	Search (2048X32)	1.774	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				sb window (us)	-1.000 1.000	
amp/seg (%)	41.4	4.8	Interp.	0.000	Bits/sample: 2x2				SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	8.1	1.6	Inc. seg. avg.	2.478	Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011	
amp/frq (%)	6.9	2.8	Inc. frq. avg.	1.793	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 f: az 313.0 el 40.5 pa 88.9 u,v (fr/asec) -2467.260 902.290 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bf..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bf.W.23.1X1QEV

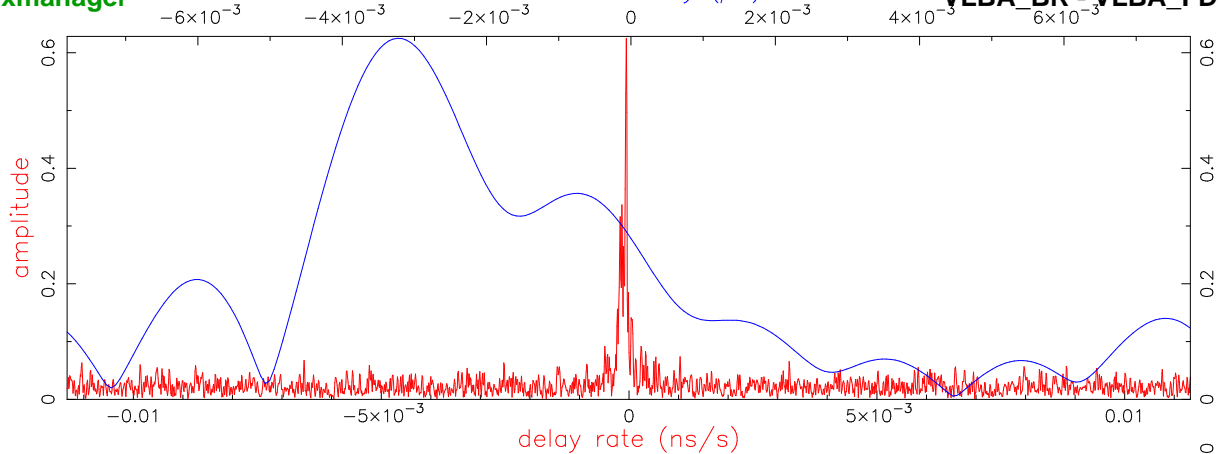
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, bf

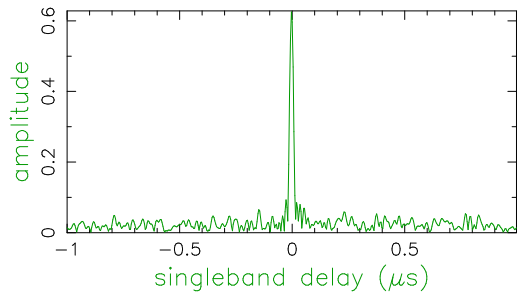
VLBA_BR - VLBA_FD, fgroup W, pol LL

multiband delay (μ s)

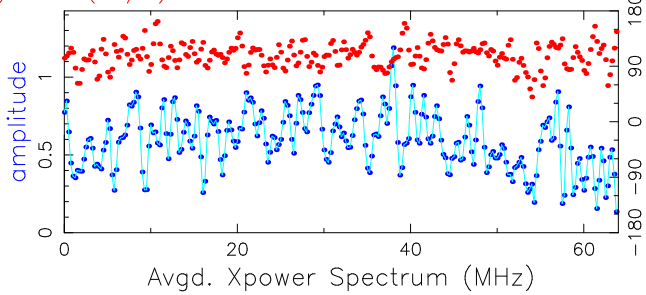


Fringe quality 3

SNR 35.1
 Int time 418.452
 Amp 0.628
 Phase 109.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.002956
 MBD -0.003201
 Fringe rate (Hz)
 -0.004752
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

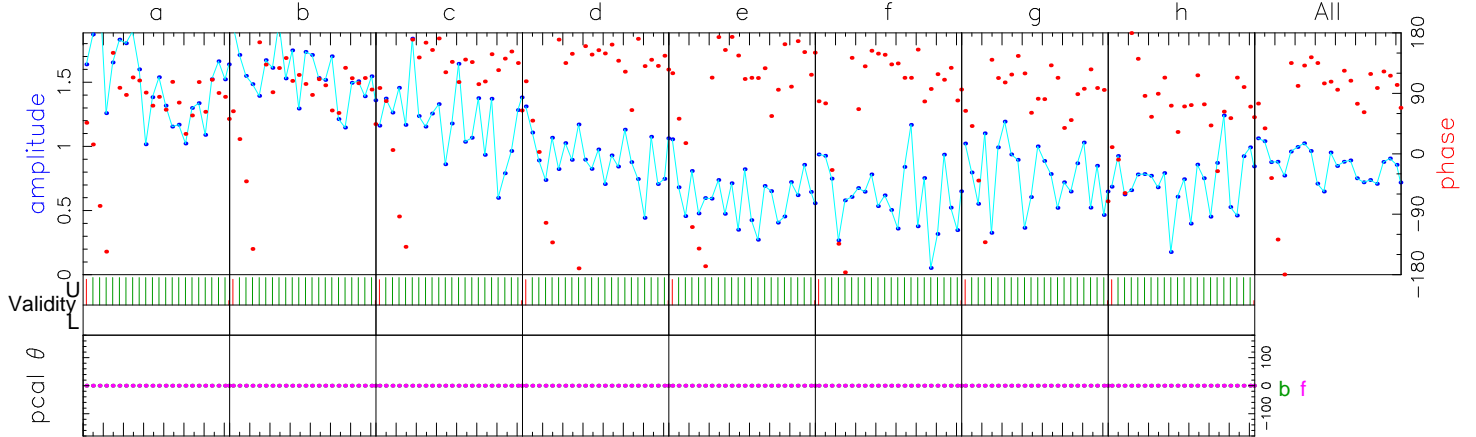


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133847
 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
	85.0	103.3	137.8	143.6	134.4	115.2	96.3	69.3	Phase	109.3
	1.0	1.1	0.8	0.6	0.4	0.5	0.5	0.5	Ampl.	0.7
	256.1	256.7	256.5	256.3	255.3	256.0	255.8	255.2	Sbd box	256.2
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	
f	0	0	0	0	0	0	0	0	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	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	
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	4.71263176789E+03	Apriori delay (usec)		4.71263496903E+03	Resid mbdelay (usec)		-3.20114E-03	+/-	3.1E-05	
Sband delay (usec)	4.71263201353E+03	Apriori clock (usec)		-1.3250582E+01	Resid sbdelay (usec)		-2.95550E-03	+/-	2.5E-04	
Phase delay (usec)	4.71263497255E+03	Apriori clockrate (us/s)		-1.6000000E-07	Resid phdelay (usec)		3.52461E-06	+/-	1.1E-07	
Delay rate (us/s)	2.69540648330E-01	Apriori rate (us/s)		2.69540703494E-01	Resid rate (us/s)		-5.51640E-08	+/-	4.3E-10	
Total phase (deg)		192.9	Apriori accel (us/s/s)		-4.51738728225E-06	Resid phase (deg)		109.3	+/-	3.3

	RMS	Theor.	Amplitude	0.628 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	50.0	7.8	Search (2048X32)	0.612	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	41.9	13.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	29.0	4.6	Inc. seg. avg.	0.857	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	42.2	8.0	Inc. frq. avg.	0.681	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

b: az 293.2 el 60.3 pa 77.2 f: az 313.0 el 40.5 pa 88.9 u,v (fr/asec) -2467.260 902.290 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bf..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bf.W.3.1X1QEV

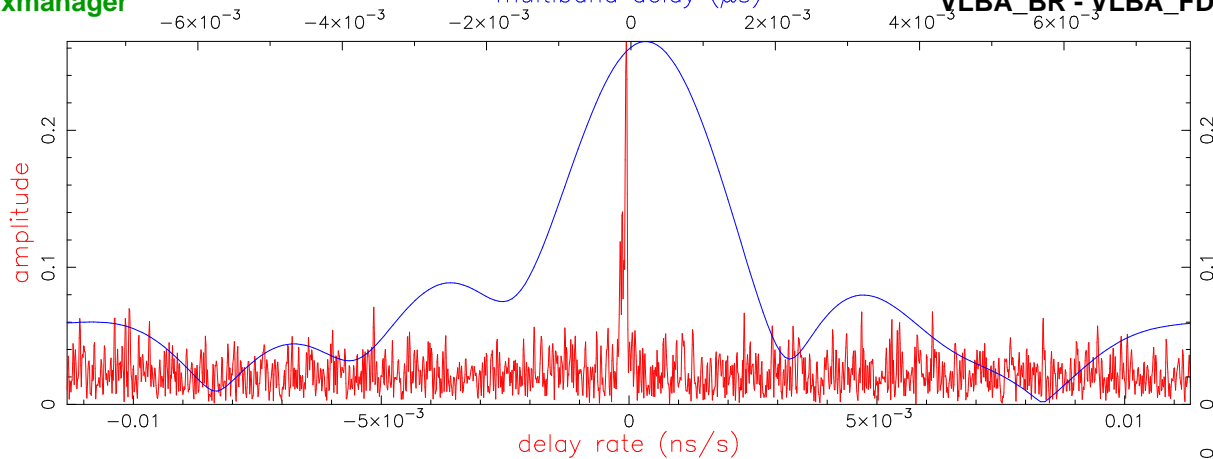
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, bf

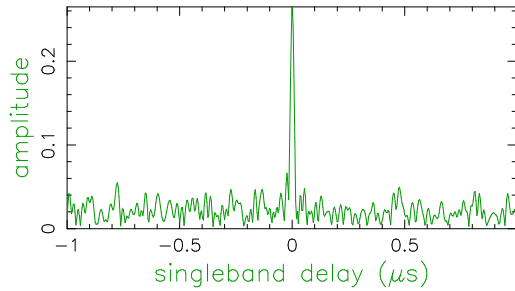
VLBA_BR - VLBA_FD, fgroup W, pol LR

multiband delay (μ s)

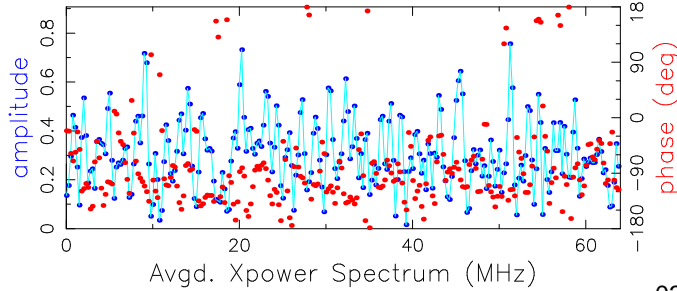


Fringe quality 8

SNR 14.8
 Int time 418.452
 Amp 0.265
 Phase -103.7
 PFD 7.3e-41
 Delays (us)
 SBD 0.000168
 MBD 0.000210
 Fringe rate (Hz)
 -0.004985
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

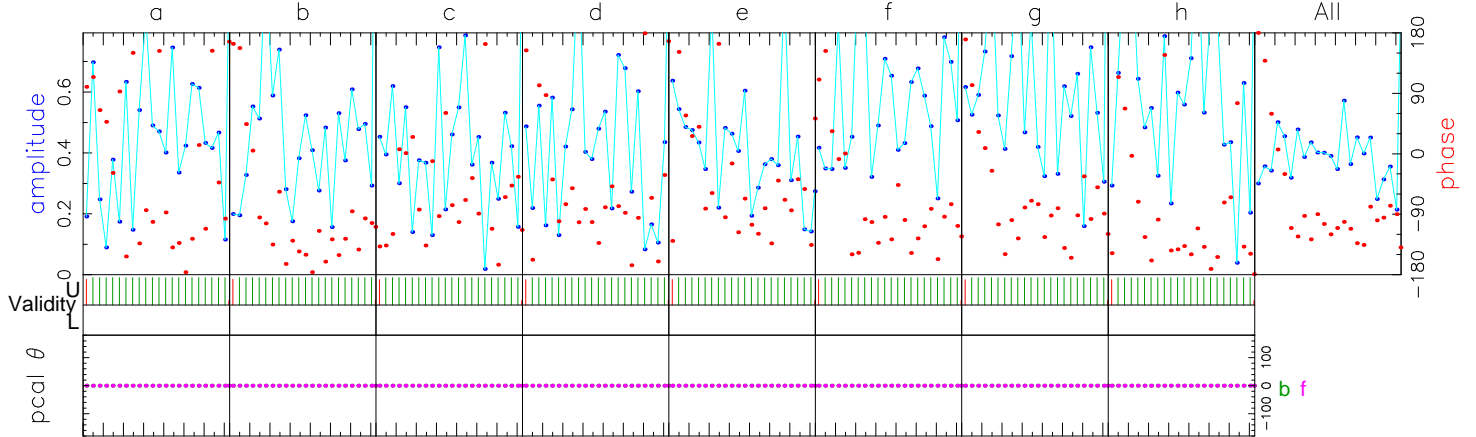


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133856
 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
	-133.5	-119.3	-82.3	-91.9	-71.9	-106.8	-90.7	-139.4	Phase	-103.7
	0.2	0.3	0.3	0.3	0.2	0.4	0.4	0.3	Ampl.	0.3
	257.1	257.4	257.3	256.6	256.8	256.9	256.8	255.9	Sbd box	257.0
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	
f	0	0	0	0	0	0	0	0	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	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	
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	4.71263517892E+03		Apriori delay (usec)		4.71263496903E+03		Resid mbdelay (usec)		2.09889E-04	+/- 7.3E-05
Sband delay (usec)	4.71263513678E+03		Apriori clock (usec)		-1.3250582E+01		Resid sbdelay (usec)		1.67750E-04	+/- 5.8E-04
Phase delay (usec)	4.71263496568E+03		Apriori clockrate (us/s)		-1.6000000E-07		Resid phdelay (usec)		-3.34544E-06	+/- 2.5E-07
Delay rate (us/s)	2.69540645621E-01		Apriori rate (us/s)		2.69540703494E-01		Resid rate (us/s)		-5.78729E-08	+/- 1.0E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.51738728225E-06		Resid phase (deg)		-103.7	+/- 7.7

ph/seg (deg) 55.9 18.5 Search (2048X32) 0.259 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.1 32.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.4 10.9 Inc. seg. avg. 0.370 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 24.7 19.1 Inc. frq. avg. 0.279 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 f: az 313.0 el 40.5 pa 88.9 u,v (fr/asec) -2467.260 902.290 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bf..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bf.W.48.1X1QEV

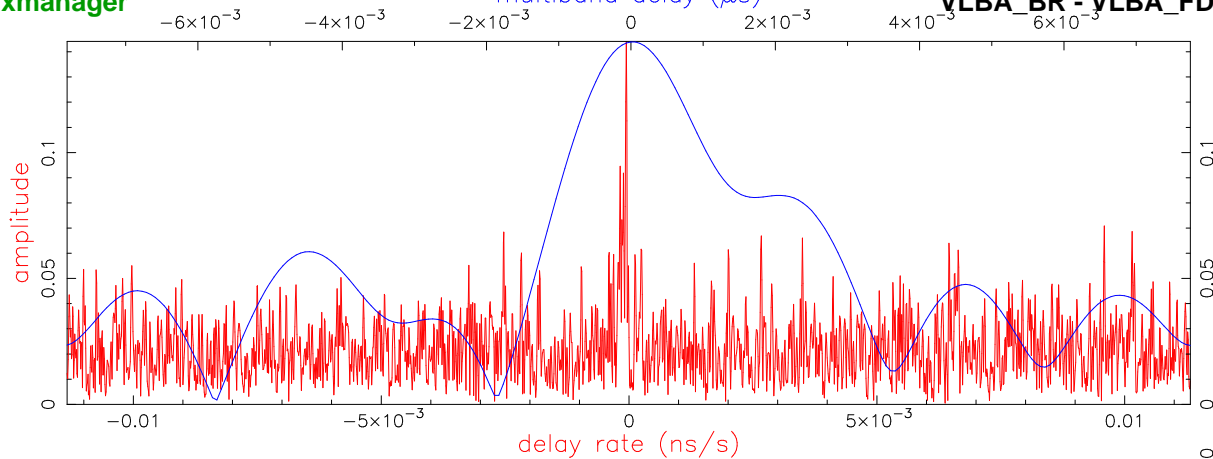
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, bf

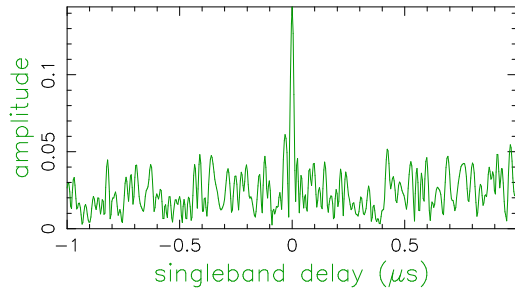
VLBA_BR - VLBA_FD, fgroup W, pol RL

multiband delay (μ s)

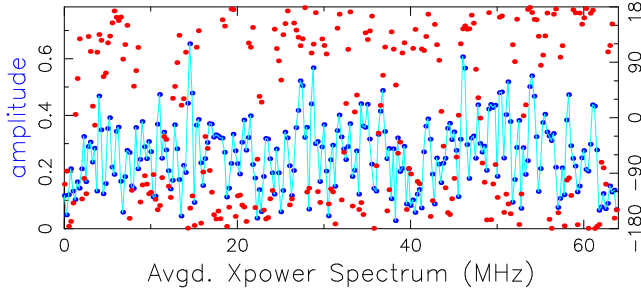


Fringe quality 9

SNR 8.1
 Int time 418.452
 Amp 0.144
 Phase 171.1
 PFD 2.6e-07
 Delays (us)
 SBD -0.000430
 MBD 0.000015
 Fringe rate (Hz)
 -0.004763
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

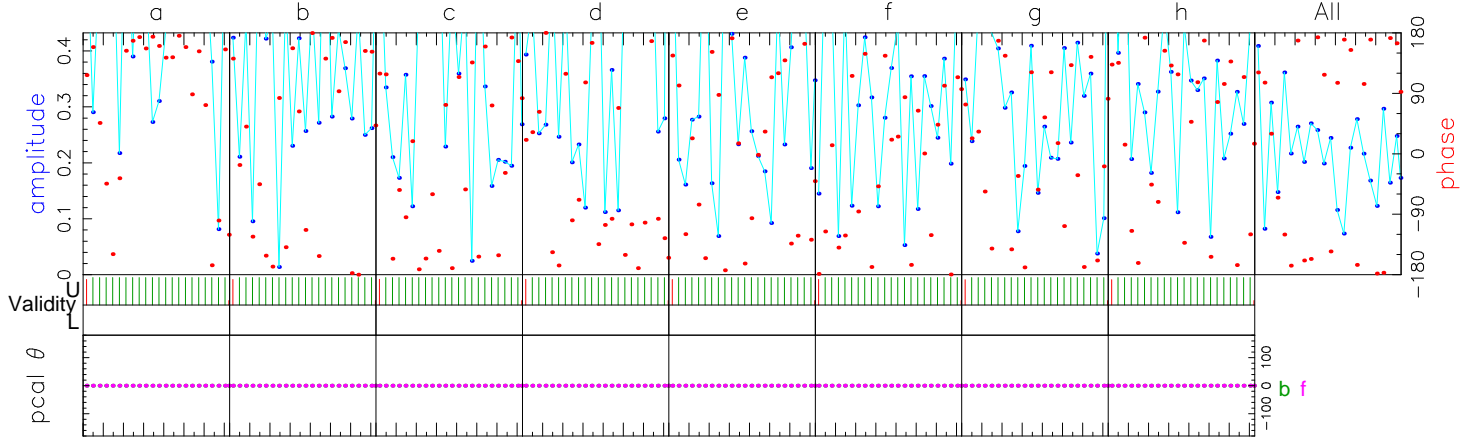


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133900
 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
	152.2	168.5	-171.8	-150.7	-173.9	144.8	149.9	145.9	Phase	171.1
	0.3	0.2	0.2	0.2	0.2	0.0	0.0	0.1	Ampl.	0.1
	256.9	258.3	290.7	256.7	257.0	267.2	426.8	363.4	Sbd box	256.9
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	
f	0	0	0	0	0	0	0	0	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	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	
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.71263498398E+03		Apriori delay (usec)		4.71263496903E+03		Resid mbdelay (usec)		1.49519E-05	+/- 1.3E-04
Sband delay (usec)	4.71263453928E+03		Apriori clock (usec)		-1.3250582E+01		Resid sbdelay (usec)		-4.29750E-04	+/- 1.1E-03
Phase delay (usec)	4.71263497455E+03		Apriori clockrate (us/s)		-1.6000000E-07		Resid phdelay (usec)		5.51853E-06	+/- 4.6E-07
Delay rate (us/s)	2.69540648206E-01		Apriori rate (us/s)		2.69540703494E-01		Resid rate (us/s)		-5.52880E-08	+/- 1.9E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.51738728225E-06		Resid phase (deg)		171.1	+/- 14.2

	RMS	Theor.	Amplitude	0.144 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	54.2	34.1	Search (2048X32)	0.144	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	78.1	59.5	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	26.2	20.1	Inc. seg. avg.	0.187	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	60.2	35.1	Inc. frq. avg.	0.146	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

b: az 293.2 el 60.3 pa 77.2 f: az 313.0 el 40.5 pa 88.9 u,v (fr/asec) -2467.260 902.290 simultaneous interpolator

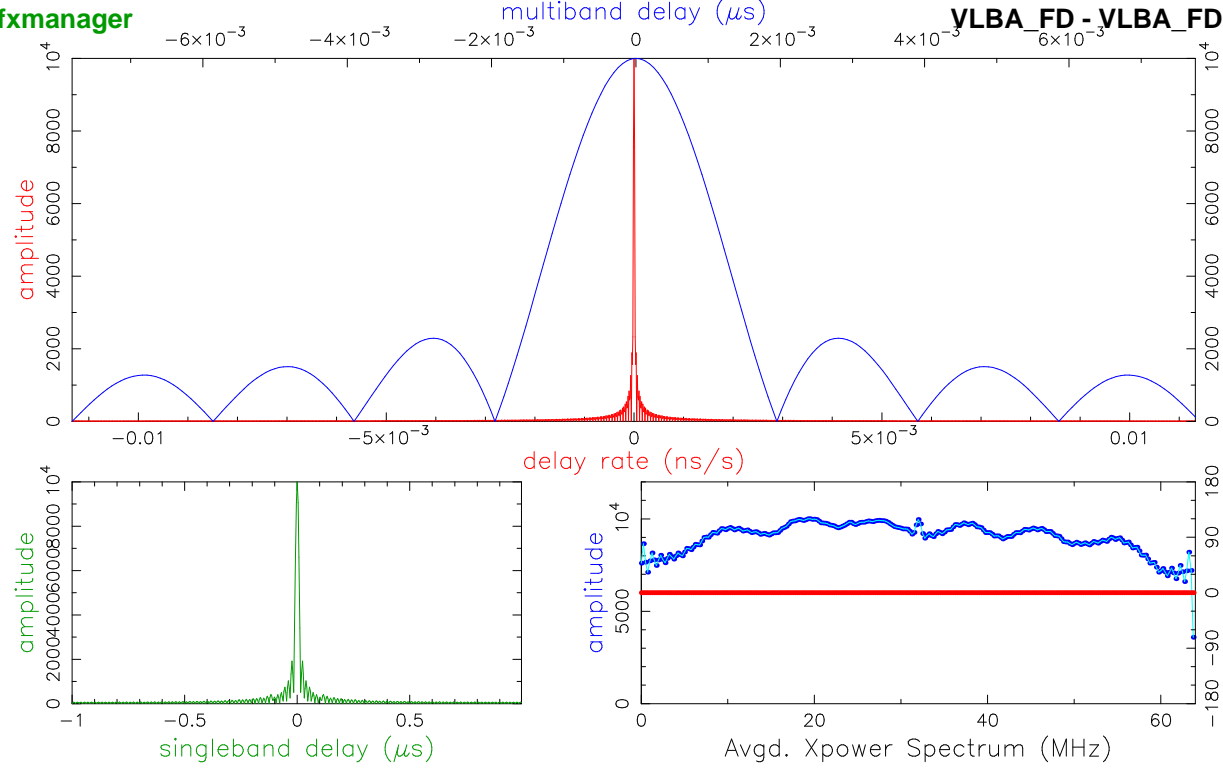
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bf..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bf.W.67.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

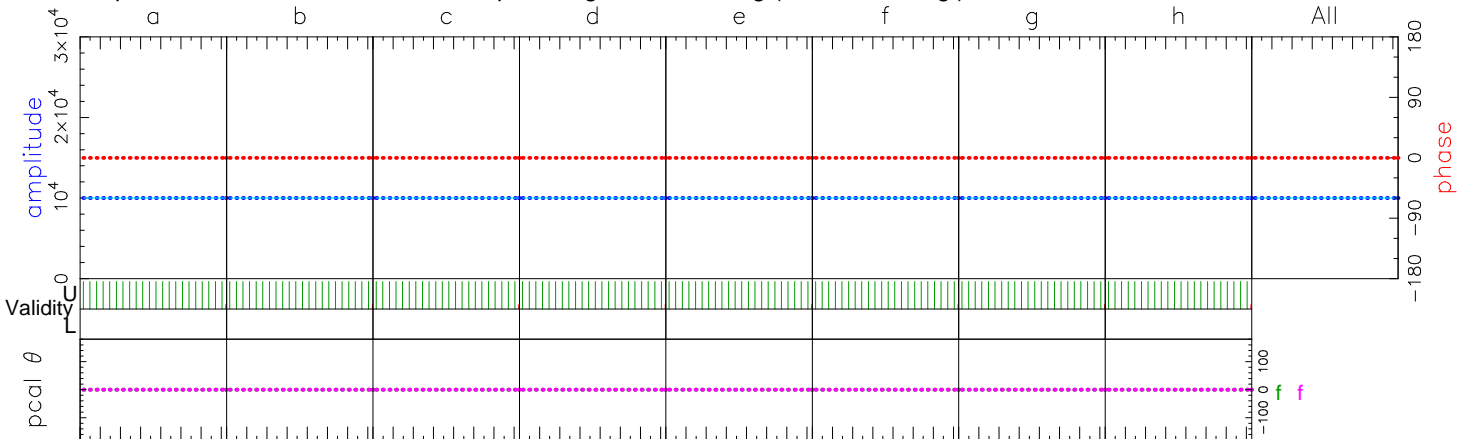
NRAO150.1X1QEV, No0120, ff

VLBA_FD - VLBA_FD, fgroup W, pol LL



Fringe quality 9
 SNR 560315.2
 Int time 419.826
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 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°57'50.161694"

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

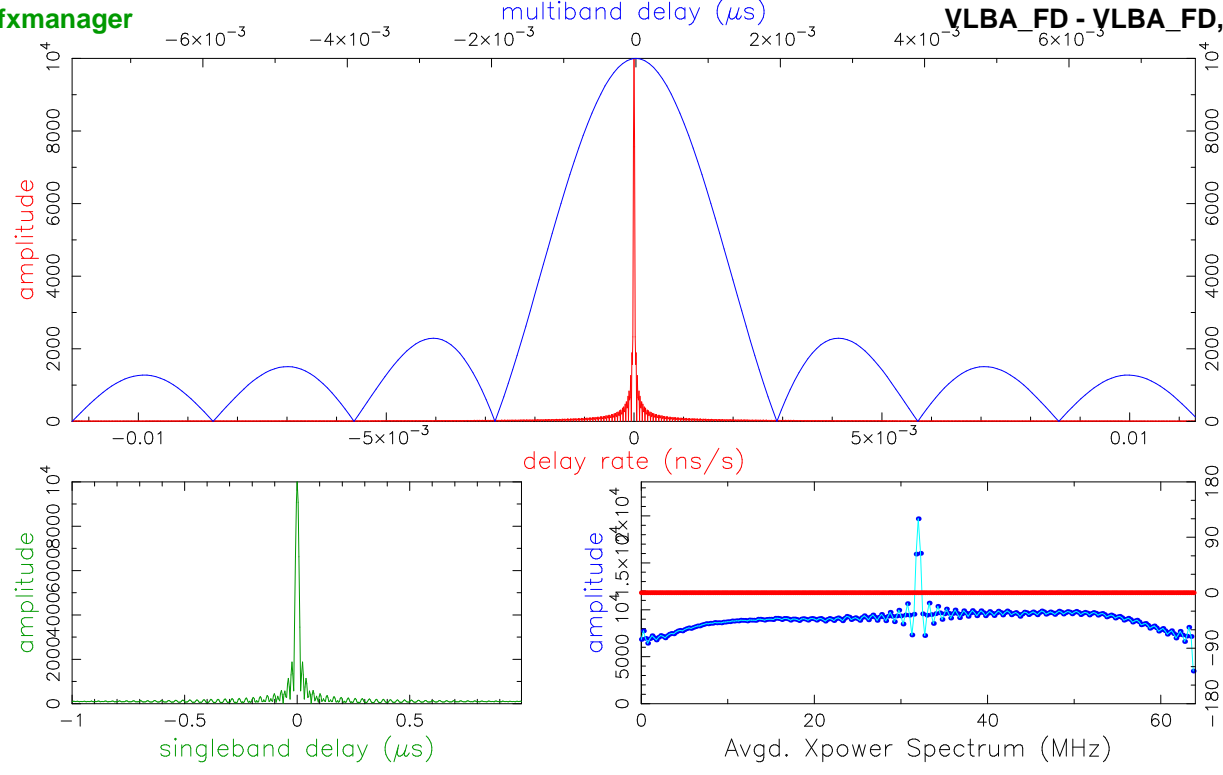


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
f	0	0	0	0	0	0	0	0	Ampl.	10000.0
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC phase	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	1.9E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.5E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	6.6E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

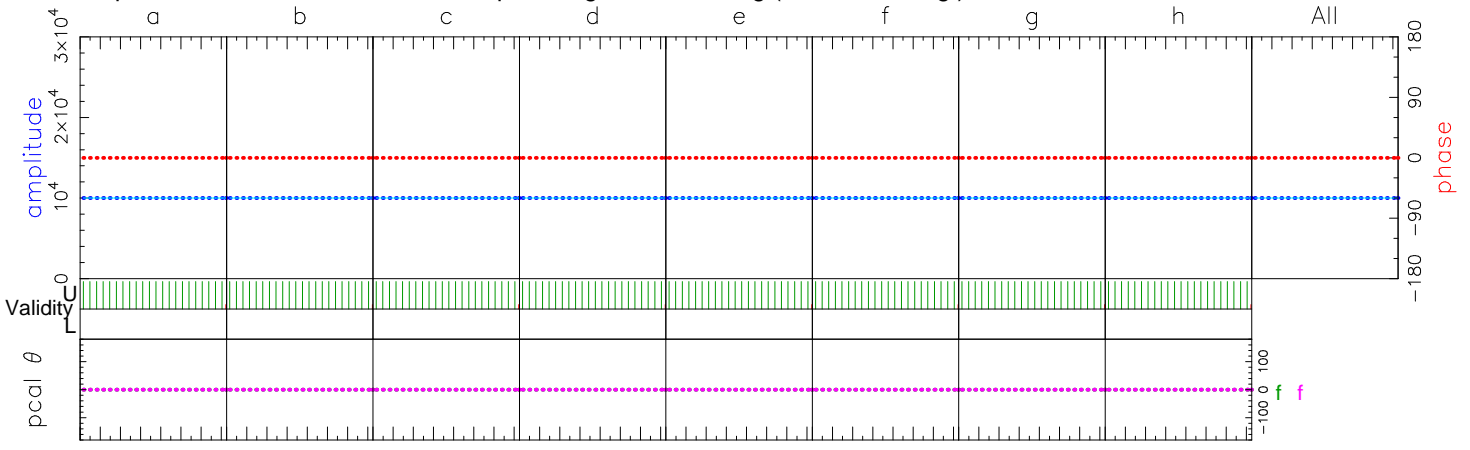
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.000 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb 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
 f: az 313.0 el 40.5 pa 88.9 f: az 313.0 el 40.5 pa 88.9 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
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ff..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ff.W.11.1X1QEV



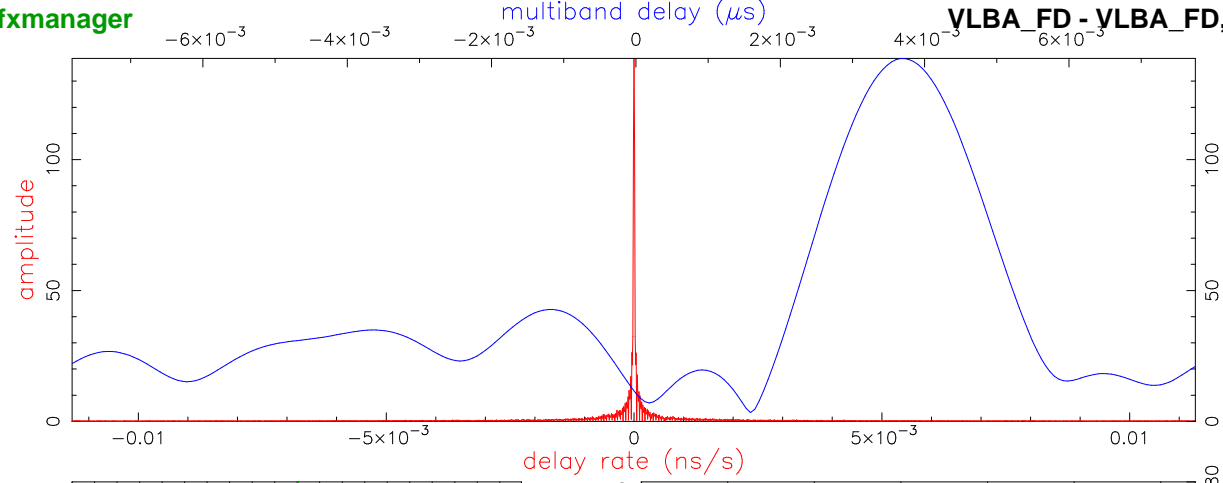
Fringe quality 9
SNR 560315.2
Int time 419.826
Amp 10000.000
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133853
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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

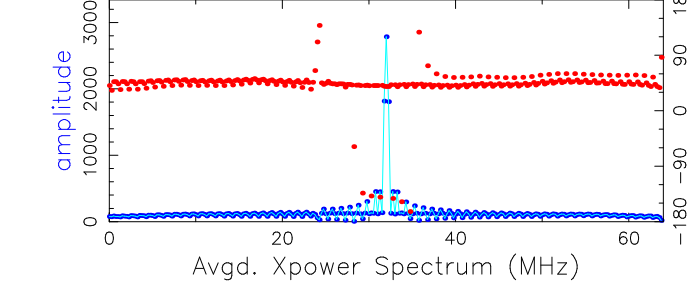
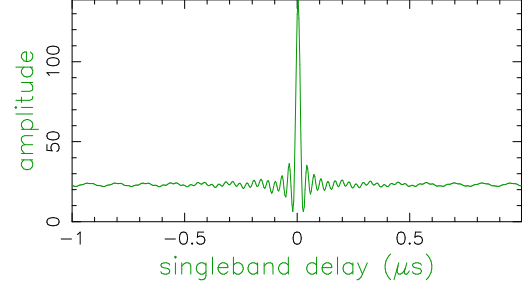


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
f	0	0	0	0	0	0	0	0	Ampl.	10000.0
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									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		+/- 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		+/- 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		+/- 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		+/- 2.7E-14
Total phase (deg)			0.0							+/- 0.0

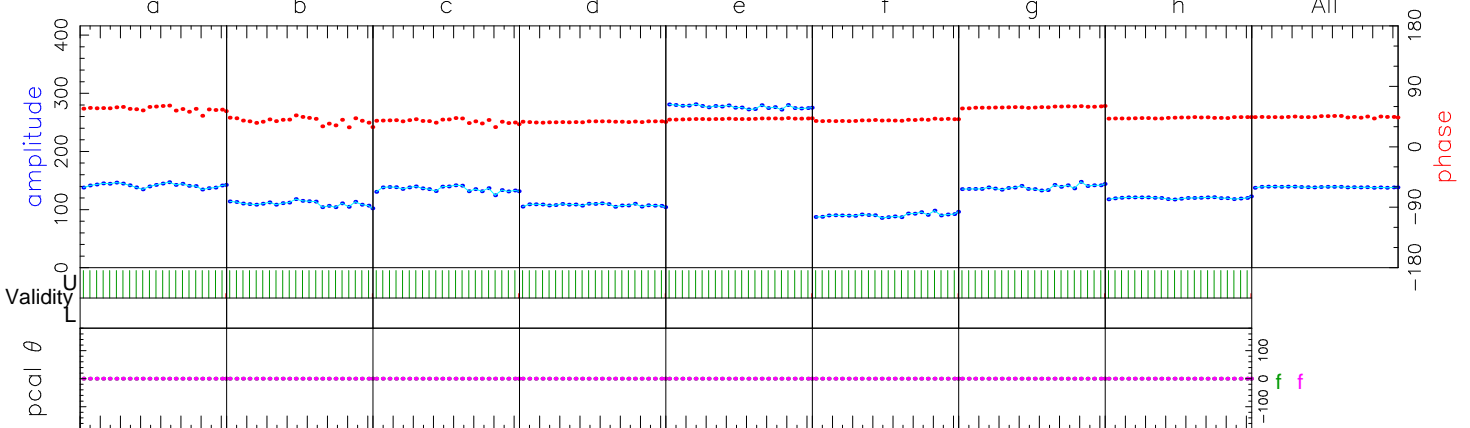
RMS Theor. Amplitude 10000.000 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 f: az 313.0 el 40.5 pa 88.9 f: az 313.0 el 40.5 pa 88.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ff..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ff.W.36.1X1QEV



Fringe quality 8
SNR 7771.5
Int time 419.826
Amp 138.699
Phase 44.5
PFD 0.0e+00
Delays (us)
SBD 0.003686
MBD 0.003695
Fringe rate (Hz)
-0.000018
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
2021:304:133857
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



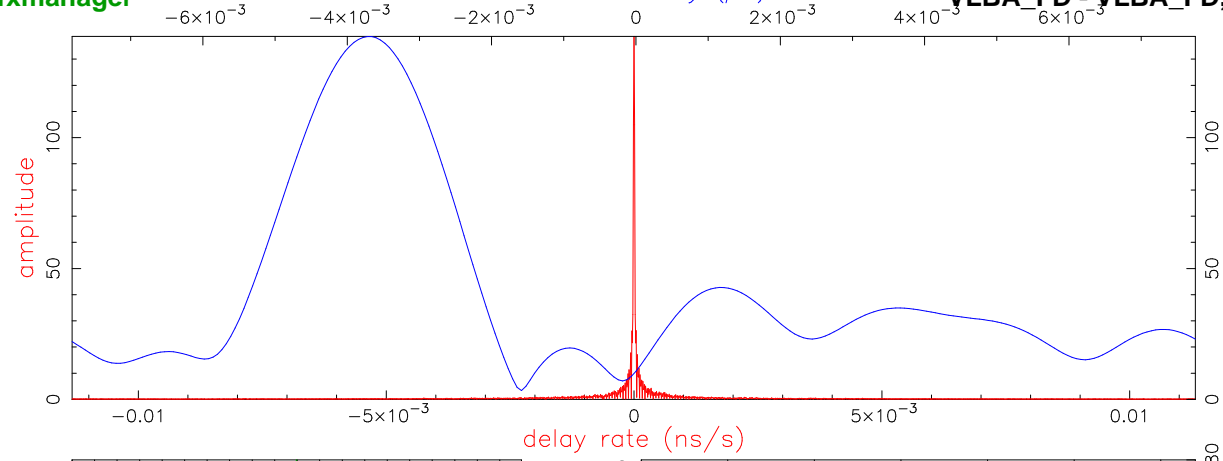
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



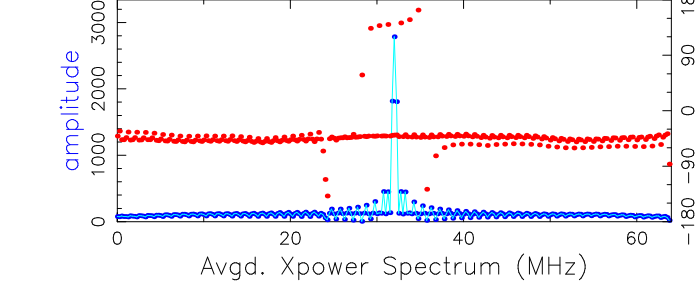
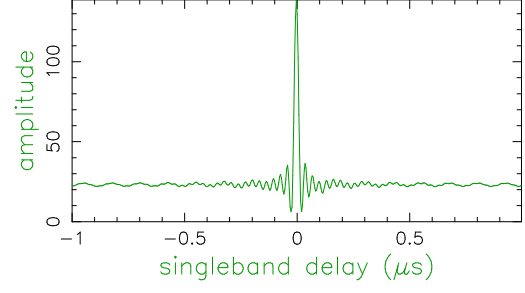
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
f	0	0	0	0	0	0	0	0		
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	3.69490625000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		3.69491E-03	+/- 1.4E-07
Sband delay (usec)	3.68550000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		3.68550E-03	+/- 1.1E-06
Phase delay (usec)	1.43341954853E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		1.43342E-06	+/- 4.8E-10
Delay rate (us/s)	-2.10441613017E-10		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-2.10442E-10	+/- 2.0E-12
Total phase (deg)	44.5		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		44.5	+/- 0.0

ph/seg (deg) 0.9 0.0 Search (2048X32) 136.389 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 0.5 0.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 9.3 0.0 Inc. seg. avg. 138.681 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 39.1 0.0 Inc. frq. avg. 139.971 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
f: az 313.0 el 40.5 pa 88.9 f: az 313.0 el 40.5 pa 88.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ff..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ff.W.57.1X1QEV

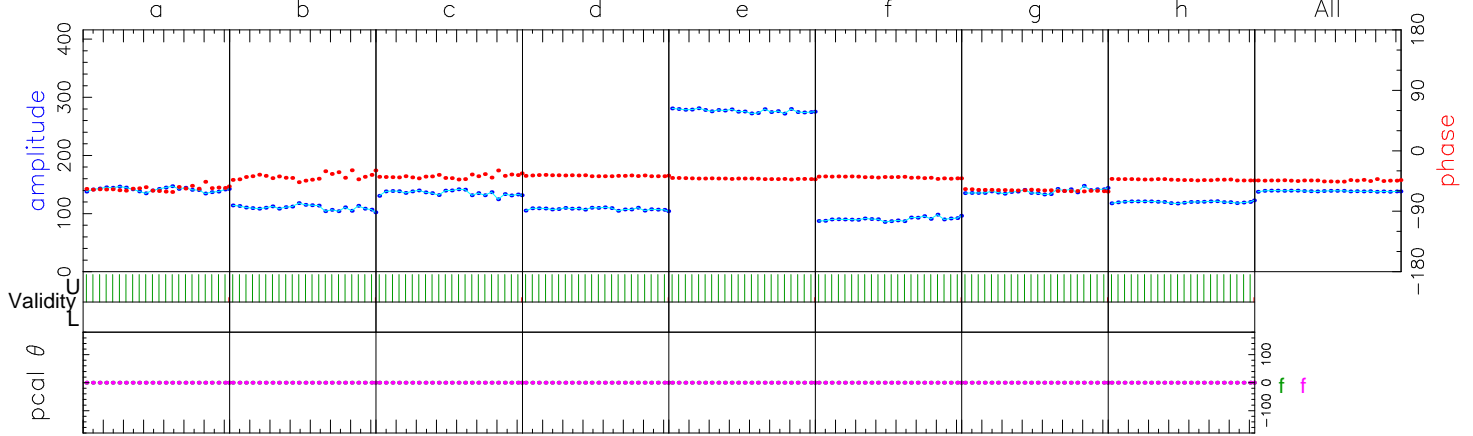
multiband delay (μ s)



Fringe quality 8
SNR 7771.5
Int time 419.826
Amp 138.699
Phase -44.5
PFD 0.0e+00
Delays (us)
SBD -0.003686
MBD -0.003695
Fringe rate (Hz) 0.000018
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"



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
	-56.5	-38.9	-38.2	-37.1	-41.5	-39.5	-58.9	-43.0	Phase	-44.5
	141.3	110.1	135.4	108.0	276.8	90.5	138.0	119.8	Ampl.	140.0
	256.5	256.1	256.3	255.9	255.9	256.0	256.2	255.9	Sbd box	256.1
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	
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:f	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	
f	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.69490625000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-3.69491E-03	+/- 1.4E-07
Sband delay (usec)	-3.68550000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-3.68550E-03	+/- 1.1E-06
Phase delay (usec)	-1.43341954870E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-1.43342E-06	+/- 4.8E-10
Delay rate (us/s)	2.10441613017E-10		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		2.10442E-10	+/- 2.0E-12
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-44.5	+/- 0.0

RMS Theor. Amplitude 138.699 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.9 0.0 Search (2048X32) 136.389 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.5 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 9.3 0.0 Inc. seg. avg. 138.681 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 39.1 0.0 Inc. frq. avg. 139.971 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 f: az 313.0 el 40.5 pa 88.9 f: az 313.0 el 40.5 pa 88.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ff..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ff.W.72.1X1QEV

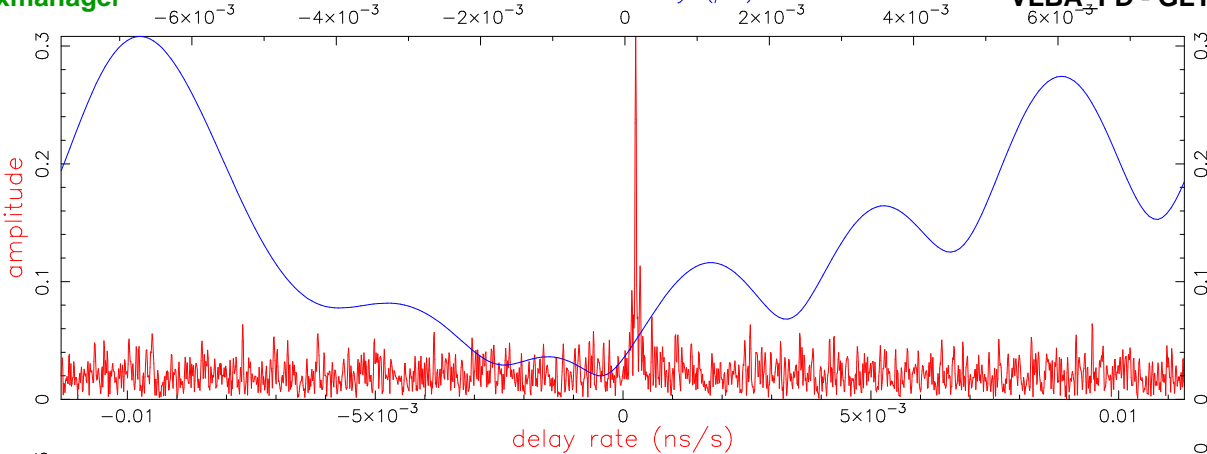
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fg

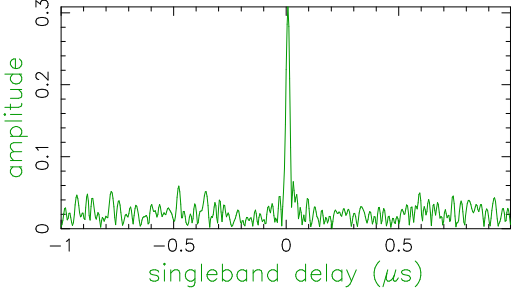
VLBA_FD - GLT, fgroup W, pol LL

multiband delay (μ s)

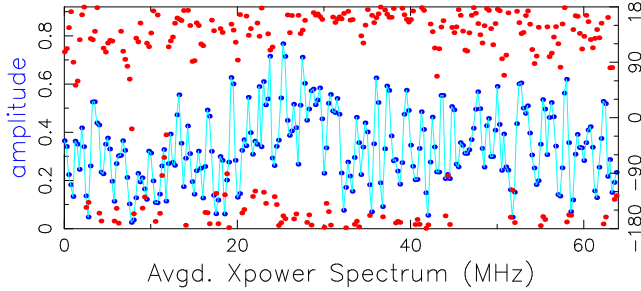


Fringe quality 7

SNR 17.3
Int time 419.824
Amp 0.308
Phase -33.4
PFD 0.0e+00
Delays (us)
SBD 0.007732
MBD -0.006723
Fringe rate (Hz)
0.022081
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

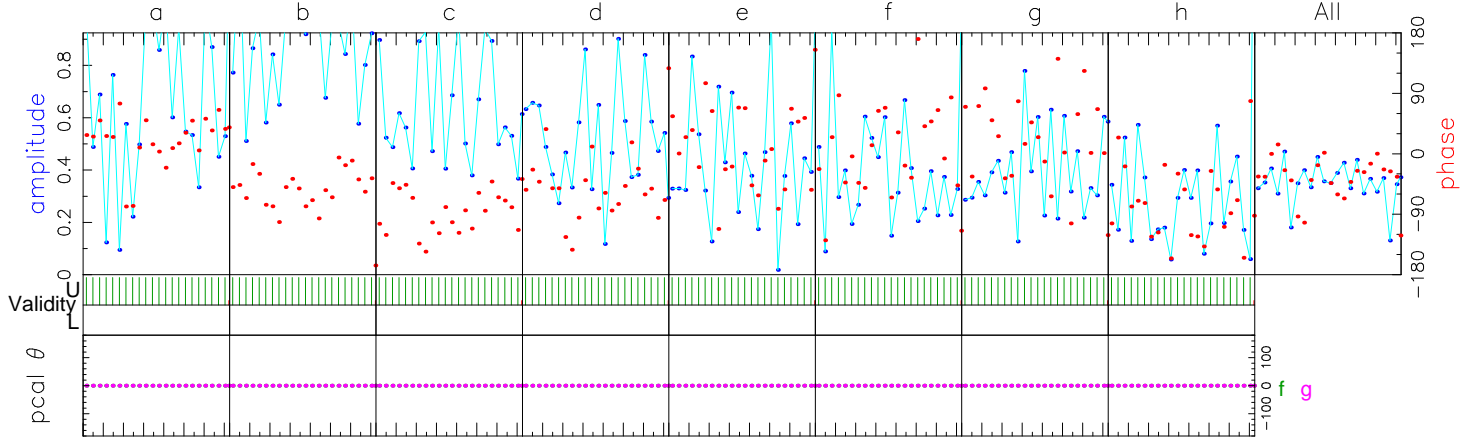


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133849
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	Phase	-33.4
g	0	0	0	0	0	0	0	0	Ampl.	0.4
f:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	259.0
fg	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC phase	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	-1.97415827835E+03	Apriori delay (usec)	-1.97416718004E+03	Resid mbdelay (usec)	-6.72331E-03	+/-	6.3E-05
Sband delay (usec)	-1.97415944779E+03	Apriori clock (usec)	9.8222103E+00	Resid sbdelay (usec)	7.73225E-03	+/-	5.0E-04
Phase delay (usec)	-1.97416718112E+03	Apriori clockrate (us/s)	-1.2000004E-08	Resid phdelay (usec)	-1.07608E-06	+/-	2.1E-07
Delay rate (us/s)	-5.24488566557E-01	Apriori rate (us/s)	-5.24488822893E-01	Resid rate (us/s)	2.56336E-07	+/-	8.8E-10
Total phase (deg)	-353.4	Apriori accel (us/s/s)	-3.01141308637E-05	Resid phase (deg)	-33.4	+/-	6.6

ph/seg (deg)	28.7	Theor.	15.9	Amplitude	0.308 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	28.4	Search (2048X32)	0.304	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	49.7	Inc. seg. avg.	0.338	Inc. frq. avg.	0.408	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	71.3	Inc. frq. avg.	0.408			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 313.0 el 40.5 pa 88.9

g: az 292.5 el 47.5 pa 19.9

u,v (fr/asec) 4715.932 -5567.101

simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fg..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fg.W.15.1X1QEV

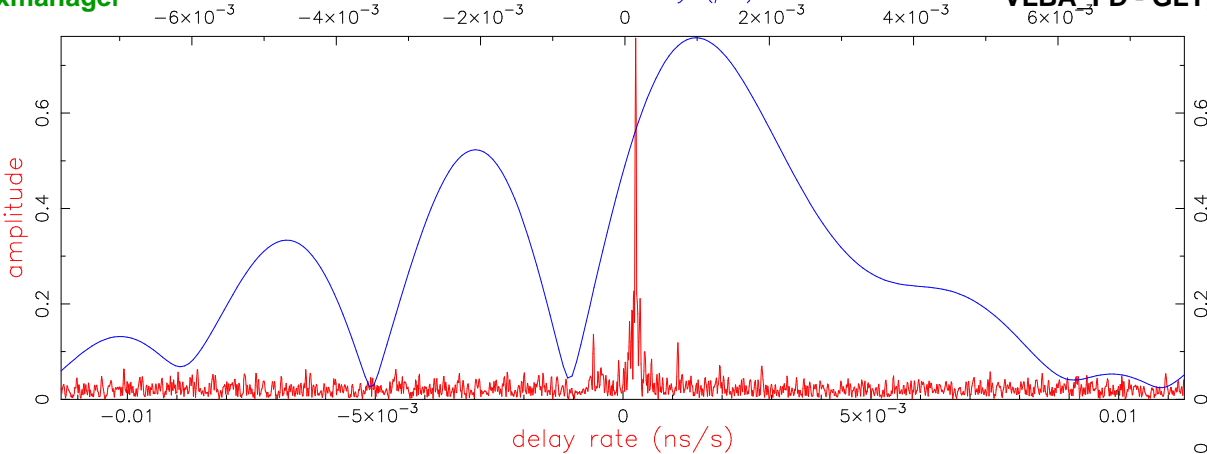
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fg

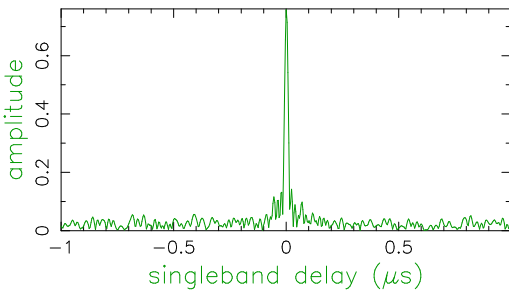
VLBA_FD - GLT, fgroup W, pol RR

multiband delay (μ s)

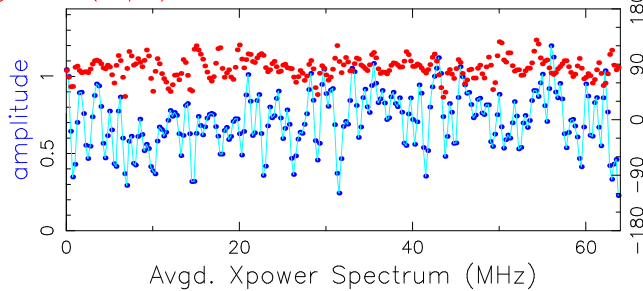


Fringe quality 5

SNR 42.6
 Int time 419.824
 Amp 0.761
 Phase 82.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.000828
 MBD 0.001032
 Fringe rate (Hz) 0.022103
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

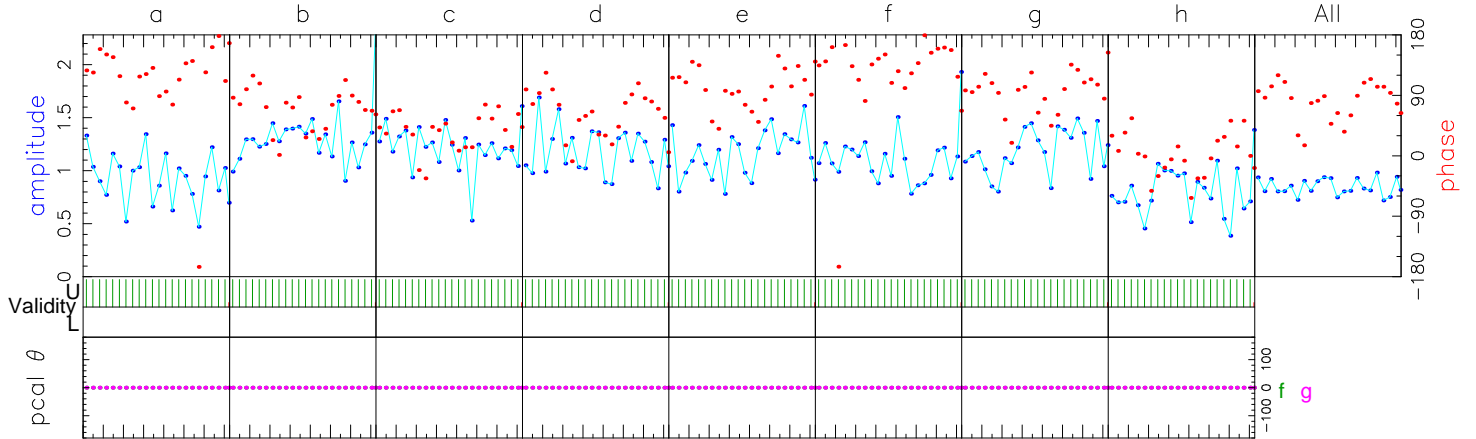


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133853
 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		
f	0	0	0	0	0	0	0	0	125.5	82.5
g	0	0	0	0	0	0	0	0	69.4	1.0
f:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	37.0	257.2
fg	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	67.3	
f	1000	1000	1000	1000	1000	1000	1000	1000	101.4	
g	1000	1000	1000	1000	1000	1000	1000	1000	1.1	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	1.0	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	1.1	
									1.1	
									257.5	
									257.6	
									257.5	
									256.7	
									255.1	

Group delay (usec)(sbd) -1.97416614842E+03 Apriori delay (usec) -1.97416718004E+03 Resid mbdelay (usec) 1.03163E-03 +/- 2.5E-05
 Sband delay (usec) -1.97416635179E+03 Apriori clock (usec) 9.8222103E+00 Resid sbdelay (usec) 8.28250E-04 +/- 2.0E-04
 Phase delay (usec) -1.97416717739E+03 Apriori clockrate (us/s) -1.2000004E-08 Resid phdelay (usec) 2.65881E-06 +/- 8.7E-08
 Delay rate (us/s) -5.24488566296E-01 Apriori rate (us/s) -5.24488822893E-01 Resid rate (us/s) 2.56596E-07 +/- 3.6E-10
 Total phase (deg) -237.6 Apriori accel (us/s/s) -3.01141308637E-05 Resid phase (deg) 82.5 +/- 2.7

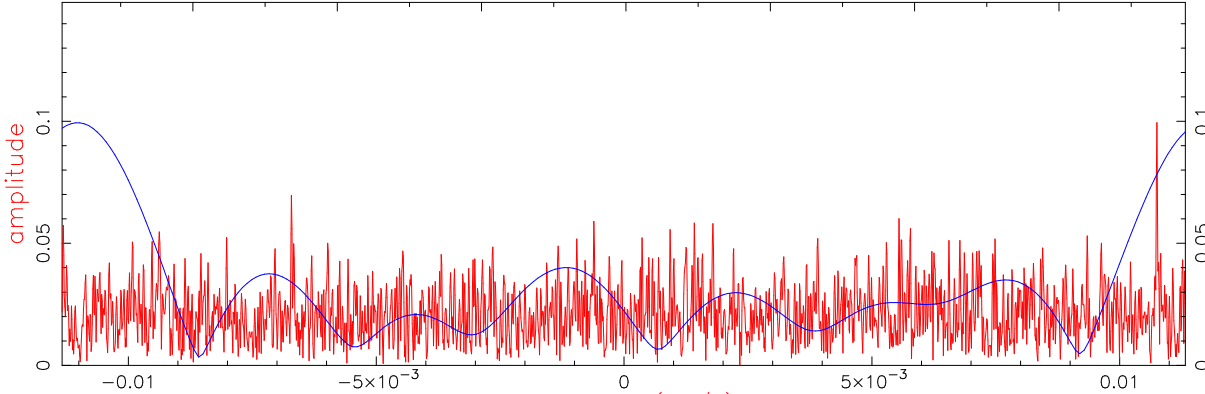
RMS Theor. Amplitude 0.761 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 27.7 6.4 Search (2048X32) 0.745 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 15.4 11.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 49.2 3.8 Inc. seg. avg. 0.844 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 32.5 6.6 Inc. frq. avg. 0.967 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 313.0 el 40.5 pa 88.9 g: az 292.5 el 47.5 pa 19.9 u,v (fr/asec) 4715.932 -5567.101 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fg..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fg.W.35.1X1QEV

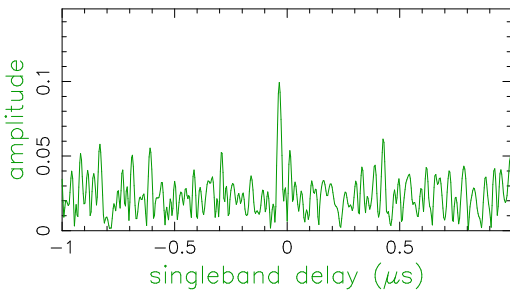
multiband delay (μ s)

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

Fringe quality 0

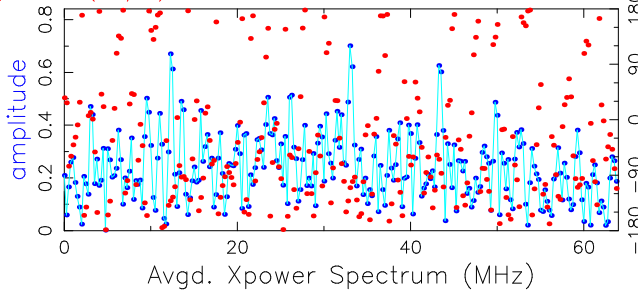


SNR 5.6
 Int time 419.824
 Amp 0.149
 Phase 125.1
 PFD 1.0e+00
 Delays (us)
 SBD -0.035048
 MBD 0.008027
 Fringe rate (Hz)
 0.926994
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



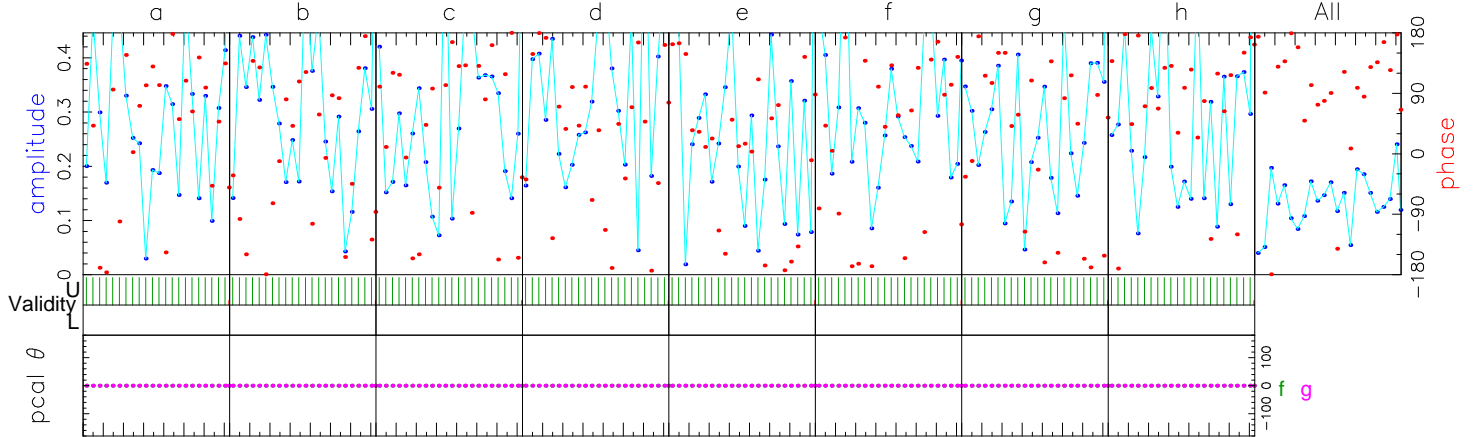
singleband delay (μ s)

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
	113.4	149.6	136.6	102.4	93.0	148.8	119.4	122.2	Phase	125.1
	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2	Ampl.	0.1
	13.2	131.1	473.2	99.2	64.0	492.7	300.7	261.8	Sbd box	248.0
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	
g	0	0	0	0	0	0	0	0	PC freqs	
f,g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fg	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-1.97420602829E+03	Apriori delay (usec)	-1.97416718004E+03	Resid mbdelay (usec)	8.02675E-03	+/-	1.9E-04
Sband delay (usec)	-1.97420222754E+03	Apriori clock (usec)	9.8222103E+00	Resid sbdelay (usec)	-3.50475E-02	+/-	1.5E-03
Phase delay (usec)	-1.97416717601E+03	Apriori clockrate (us/s)	-1.2000004E-08	Resid phdelay (usec)	4.03259E-06	+/-	6.6E-07
Delay rate (us/s)	-5.24478061410E-01	Apriori rate (us/s)	-5.24488822893E-01	Resid rate (us/s)	1.07615E-05	+/-	2.7E-09
Total phase (deg)	-195.0	Apriori accel (us/s/s)	-3.01141308637E-05	Resid phase (deg)	125.1	+/-	20.6

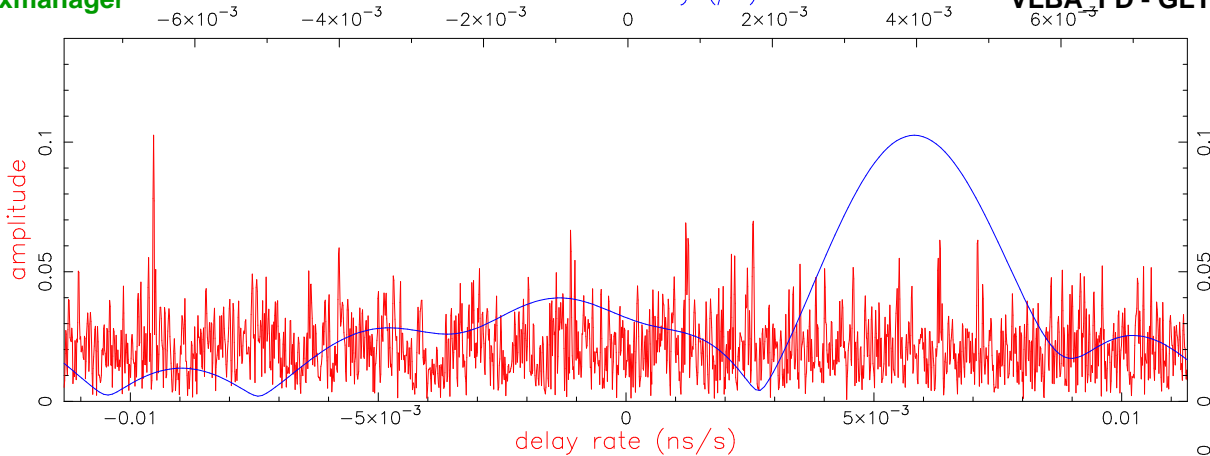
ph/seg (deg)	RMS 49.0	Theor. 49.3	Amplitude Search (2048X32)	0.149 +/- 0.027	0.098	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	61.0	86.1	Interp.	0.000	0.008	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
ph/frq (deg)	22.4	29.1	Inc. seg. avg.	0.148	0.138	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
amp/frq (%)	35.9	50.8	Inc. frq. avg.	0.138	0.138	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011		
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

f: az 313.0 el 40.5 pa 88.9 g: az 292.5 el 47.5 pa 19.9 u,v (fr/asec) 4715.932 -5567.101 simultaneous interpolator

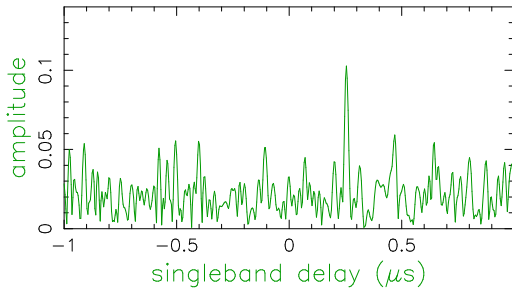
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fg..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fg.W.54.1X1QEV

multiband delay (μ s)

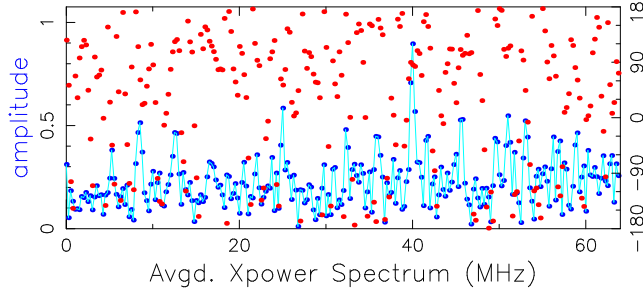
Fringe quality 0



SNR 5.7
 Int time 419.824
 Amp 0.140
 Phase 109.3
 PFD 8.9e-01
 Delays (us)
 SBD 0.253994
 MBD 0.003966
 Fringe rate (Hz)
 -0.822028
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

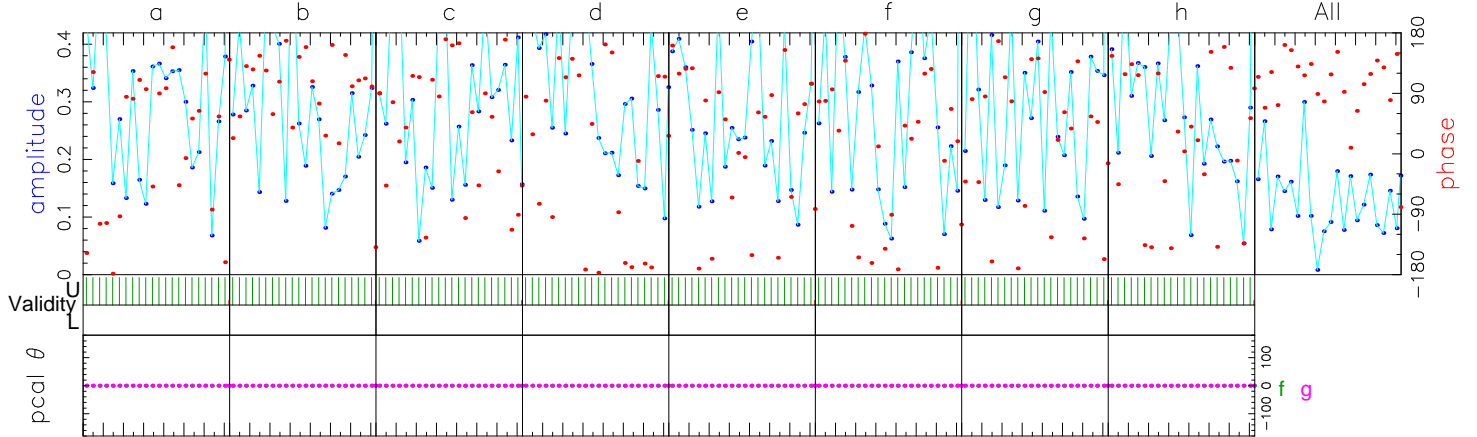


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133901
 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



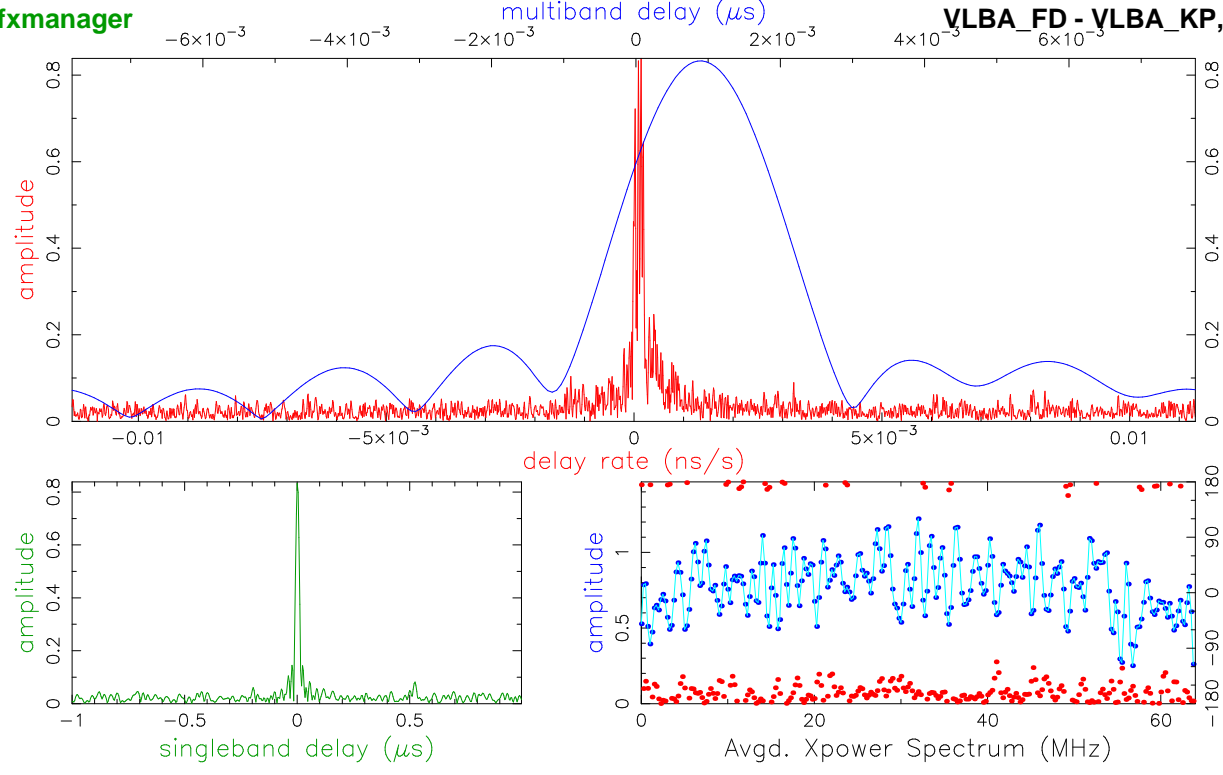
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	139.5	98.0	83.4	140.1	107.3	107.5	89.4	118.2	Phase	109.3
	0.1	0.3	0.1	0.2	0.2	0.1	0.1	0.1	Ampl.	0.1
	450.3	322.2	93.3	448.1	69.9	71.9	154.7	81.1	Sbd box	322.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
f:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fg	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	
g	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.97391321362E+03	Apriori delay (usec)	-1.97416718004E+03	Resid mbdelay (usec)	3.96643E-03	+/-	1.9E-04
Sband delay (usec)	-1.97391318554E+03	Apriori clock (usec)	9.8222103E+00	Resid sbdelay (usec)	2.53994E-01	+/-	1.5E-03
Phase delay (usec)	-1.97416717652E+03	Apriori clockrate (us/s)	-1.2000004E-08	Resid phdelay (usec)	3.52389E-06	+/-	6.4E-07
Delay rate (us/s)	-5.24498365820E-01	Apriori rate (us/s)	-5.24488822893E-01	Resid rate (us/s)	-9.54293E-06	+/-	2.7E-09
Total phase (deg)	-210.8	Apriori accel (us/s/s)	-3.01141308637E-05	Resid phase (deg)	109.3	+/-	19.9

ph/seg (deg)	RMS 38.7	Theor. 47.8	Amplitude Search (2048X32)	0.140 +/- 0.024	0.101	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	68.9	83.4	Interp.	0.000	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	22.9	28.2	Inc. seg. avg.	0.132	0.132	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	46.0	49.2	Inc. frq. avg.	0.132	0.132	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

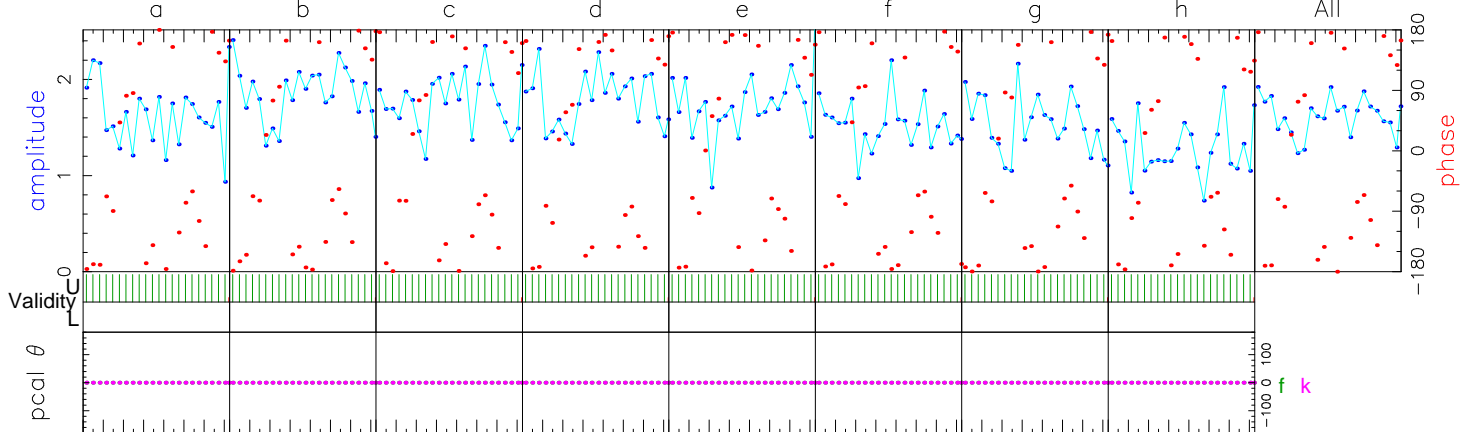
f: az 313.0 el 40.5 pa 88.9 g: az 292.5 el 47.5 pa 19.9 u,v (fr/asec) 4715.932 -5567.101 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fg..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fg.W.78.1X1QEV



Fringe quality 7
SNR 47.0
Int time 419.816
Amp 0.839
Phase -163.6
PFD 0.0e+00
Delays (us)
SBD 0.001088
MBD 0.000920
Fringe rate (Hz) 0.007402
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"

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
	-164.3	-155.9	-162.6	-171.1	-166.2	-160.6	-155.8	-173.8	Phase	-163.6
	0.9	1.0	0.8	1.0	0.9	0.8	0.7	0.6	Ampl.	0.8
	257.4	257.1	257.3	257.3	257.4	257.2	257.4	257.0	Sbd box	257.3
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	
k	0	0	0	0	0	0	0	0	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.55067593009E+03		Apriori delay (usec)		-1.55067685057E+03		Resid mbdelay (usec)		9.20483E-04	+/- 2.3E-05
Sband delay (usec)	-1.55067576282E+03		Apriori clock (usec)		9.9419708E+00		Resid sbdelay (usec)		1.08775E-03	+/- 1.8E-04
Phase delay (usec)	-1.55067685585E+03		Apriori clockrate (us/s)		5.9999999E-08		Resid phdelay (usec)		-5.27584E-06	+/- 7.9E-08
Delay rate (us/s)	-6.69211458308E-02		Apriori rate (us/s)		-6.69212317576E-02		Resid rate (us/s)		8.59268E-08	+/- 3.2E-10
Total phase (deg)			Apriori accel (us/s/s)		6.56990466352E-06		Resid phase (deg)		-163.6	+/- 2.4

ph/seg (deg) 70.1 5.8 Search (2048X32) 0.814 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 95.5 10.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 7.1 3.4 Inc. seg. avg. 1.607 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 15.5 6.0 Inc. frq. avg. 0.836 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
f: az 313.0 el 40.5 pa 88.9 k: az 312.3 el 46.3 pa 94.2 u,v (fr/asec) 623.908 520.151 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fk..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fk.W.29.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

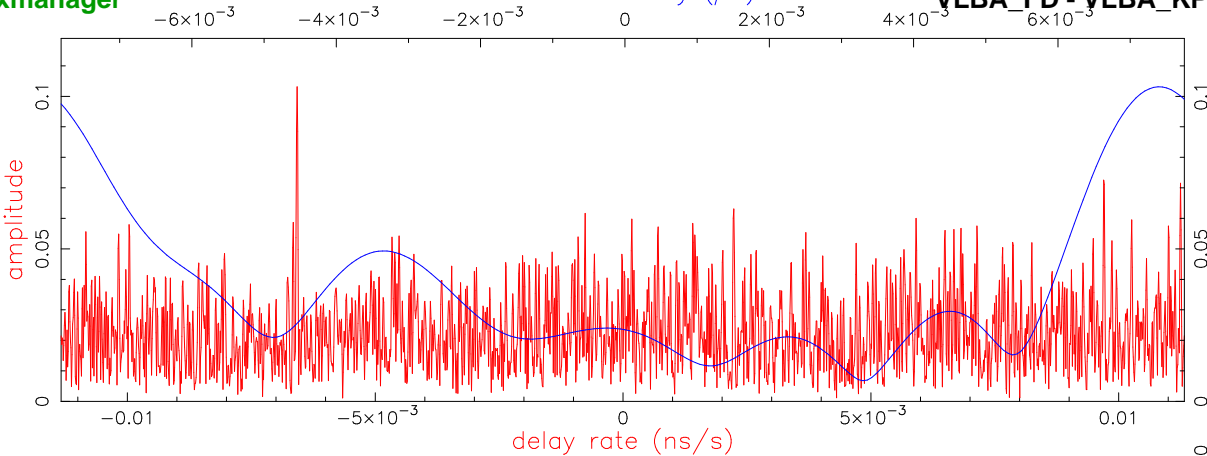
fxmanager

NRAO150.1X1QEV, No0120, fk

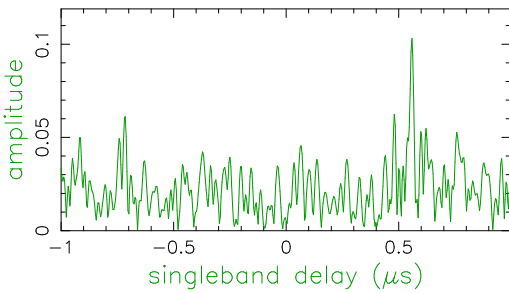
VLBA_FD - VLBA_KP, fgroup W, pol LR

multiband delay (μ s)

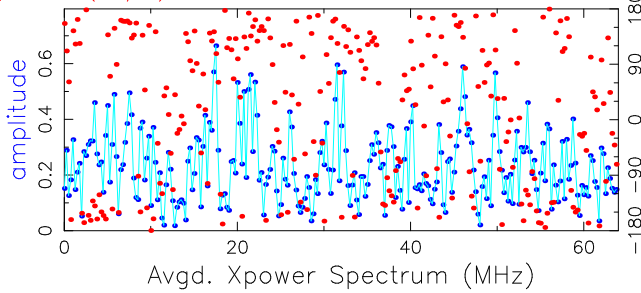
Fringe quality 0



SNR 5.8
 Int time 419.816
 Amp 0.119
 Phase -164.3
 PFD 8.5e-01
 Delays (us)
 SBD 0.558405
 MBD -0.008220
 Fringe rate (Hz)
 -0.567395
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

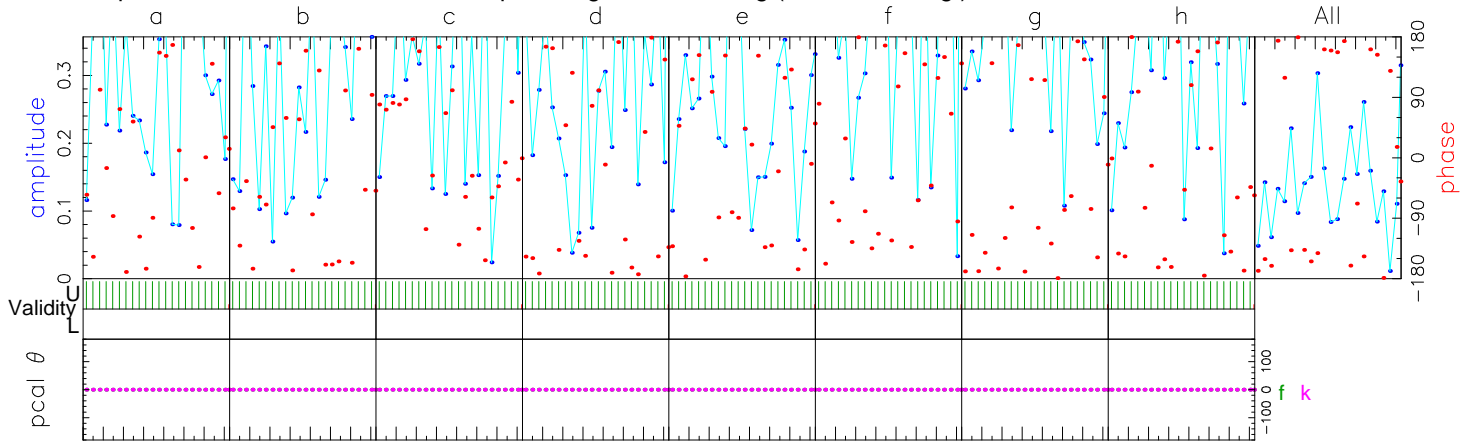


delay rate (ns/s)



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
	-123.3	-147.2	109.7	-171.8	-150.6	174.7	-162.1	-149.1	Phase	-164.3
	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	Ampl.	0.1
	455.4	372.3	184.2	399.8	389.3	398.3	400.4	77.1	Sbd box	400.0
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	
k	0	0	0	0	0	0	0	0	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.55012257041E+03			Apriori delay (usec)	-1.55067685057E+03			Resid mbdelay (usec)	-8.21984E-03	+/- 1.9E-04
Sband delay (usec)	-1.55011844607E+03			Apriori clock (usec)	9.9419708E+00			Resid sbdelay (usec)	5.58405E-01	+/- 1.5E-03
Phase delay (usec)	-1.55067685587E+03			Apriori clockrate (us/s)	5.9999999E-08			Resid phdelay (usec)	-5.29924E-06	+/- 6.4E-07
Delay rate (us/s)	-6.69278186523E-02			Apriori rate (us/s)	-6.69212317576E-02			Resid rate (us/s)	-6.58689E-06	+/- 2.6E-09
Total phase (deg)		-131.2		Apriori accel (us/s/s)	6.56990466352E-06			Resid phase (deg)	-164.3	+/- 19.8

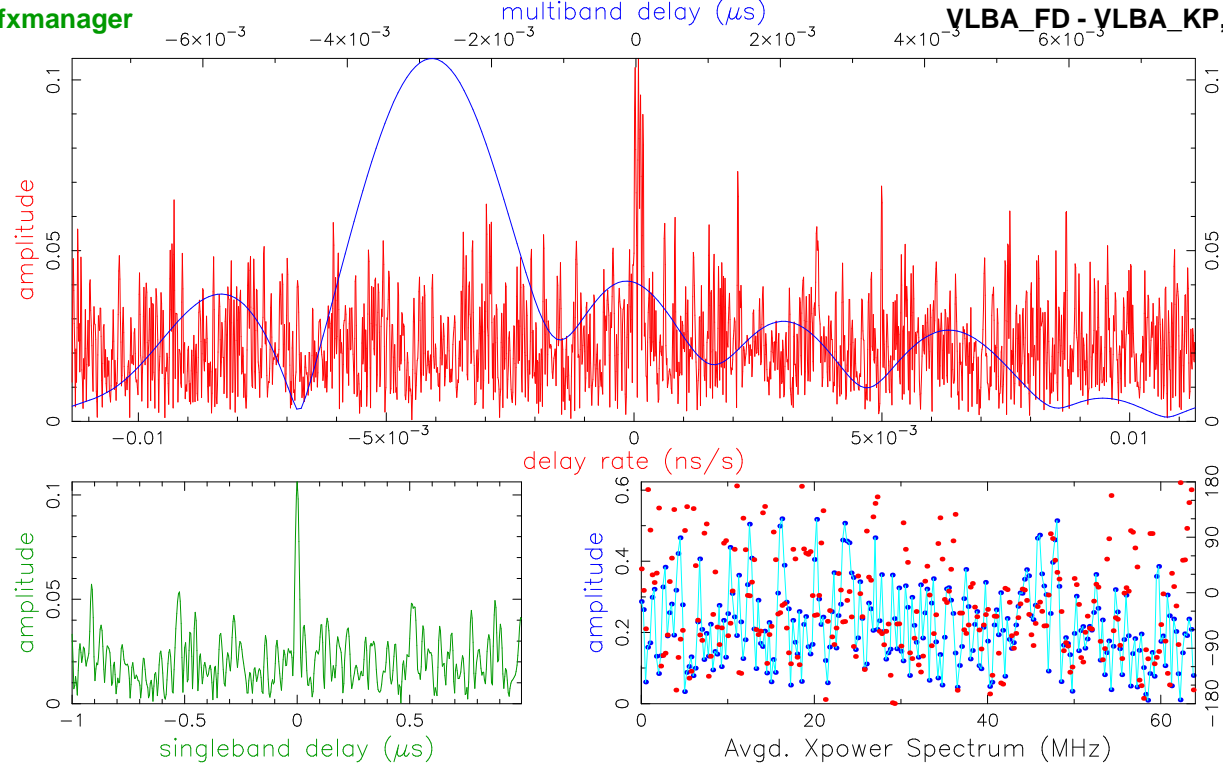
ph/seg (deg) 54.4 47.5 Amplitude 0.119 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.2 83.0 Interp. 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 41.4 28.0 Inc. seg. avg. 0.119 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 57.4 48.9 Inc. frq. avg. 0.116 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 313.0 el 40.5 pa 88.9 k: az 312.3 el 46.3 pa 94.2 u,v (fr/asec) 623.908 520.151 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fk..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fk.W.52.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

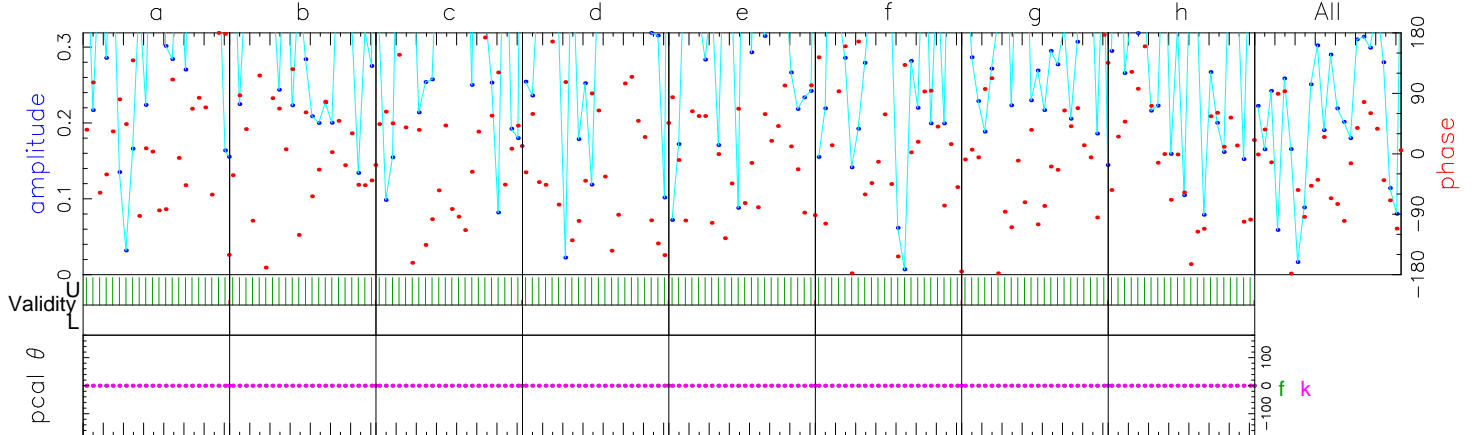
NRAO150.1X1QEV, No0120, fk

VLBA_FD - VLBA_KP, fgroup W, pol RL



Fringe quality 0
 SNR 6.0
 Int time 419.817
 Amp 0.106
 Phase -3.4
 PFD 4.9e-01
 Delays (us)
 SBD -0.000246
 MBD -0.002833
 Fringe rate (Hz)
 0.007721
 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"

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
	3.4	15.4	-22.9	-43.0	-16.9	12.2	-17.3	18.2	Phase	-3.4
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	183.5	289.2	319.1	372.5	302.4	314.1	212.2	390.2	Sbd box	256.9
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	
k	0	0	0	0	0	0	0	0	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.55067968349E+03		Apriori delay (usec)		-1.55067685057E+03		Resid mbdelay (usec)		-2.83292E-03	+/- 1.8E-04
Sband delay (usec)	-1.55067709607E+03		Apriori clock (usec)		9.9419708E+00		Resid sbdelay (usec)		-2.45500E-04	+/- 1.4E-03
Phase delay (usec)	-1.55067685068E+03		Apriori clockrate (us/s)		5.9999999E-08		Resid phdelay (usec)		-1.10679E-07	+/- 6.2E-07
Delay rate (us/s)	-6.69211421279E-02		Apriori rate (us/s)		-6.69212317576E-02		Resid rate (us/s)		8.96297E-08	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		6.56990466352E-06		Resid phase (deg)		-3.4	+/- 19.2

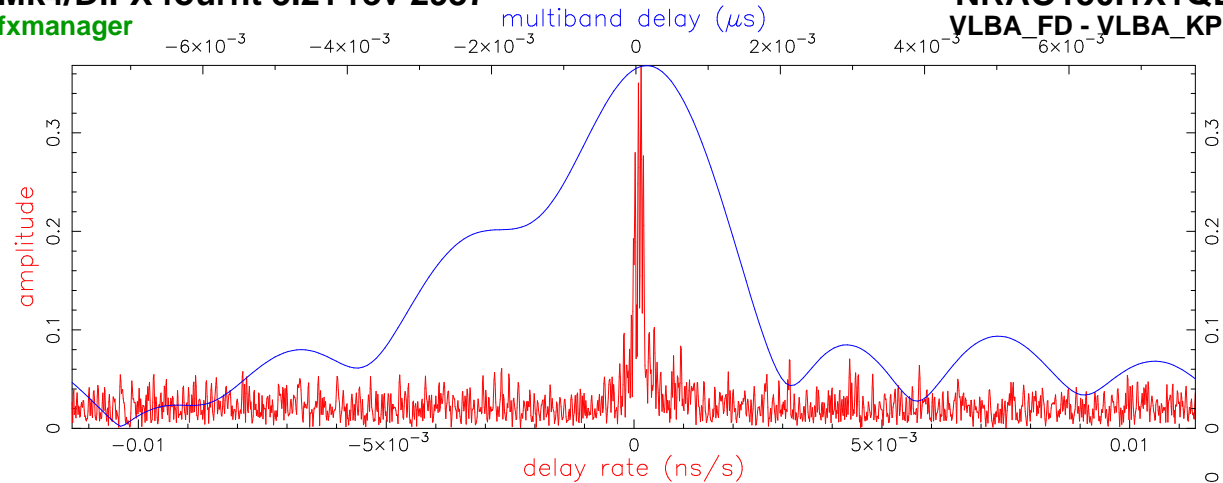
ph/seg (deg) 71.9 46.1 Search (2048X32) 0.105 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 131.4 80.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.9 27.2 Inc. seg. avg. 0.159 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 24.5 47.5 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
 f: az 313.0 el 40.5 pa 88.9 k: az 312.3 el 46.3 pa 94.2 u,v (fr/asec) 623.908 520.151 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fk..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fk.W.71.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

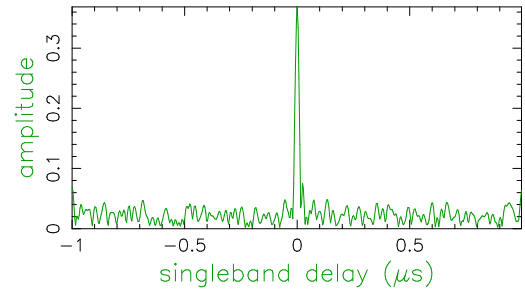
NRAO150.1X1QEV, No0120, fk

VLBA_FD - VLBA_KP, fgroup W, pol LL

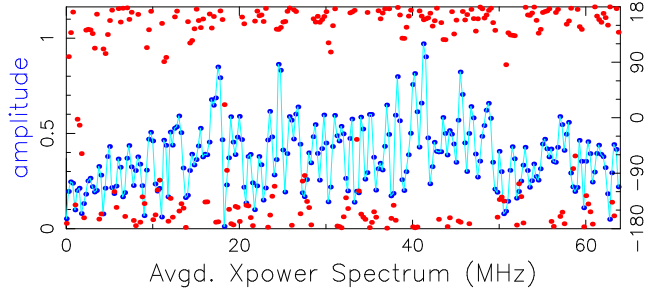


Fringe quality 8

SNR 20.6
 Int time 419.817
 Amp 0.369
 Phase 170.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.000295
 MBD 0.000145
 Fringe rate (Hz)
 0.012036
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

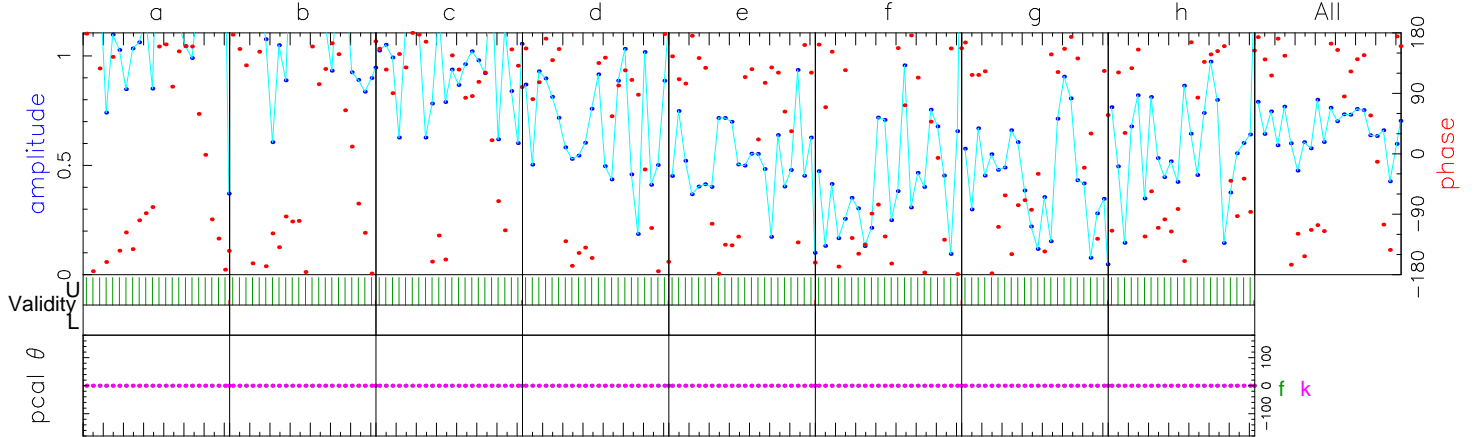


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133848
 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
	-173.1	178.6	145.4	154.3	149.2	175.0	179.0	-156.5	Phase	170.5
	0.6	0.7	0.5	0.4	0.3	0.1	0.2	0.2	Ampl.	0.4
	257.4	256.5	256.8	256.7	257.5	392.8	257.6	256.8	Sbd box	256.9
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	
k	0	0	0	0	0	0	0	0	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

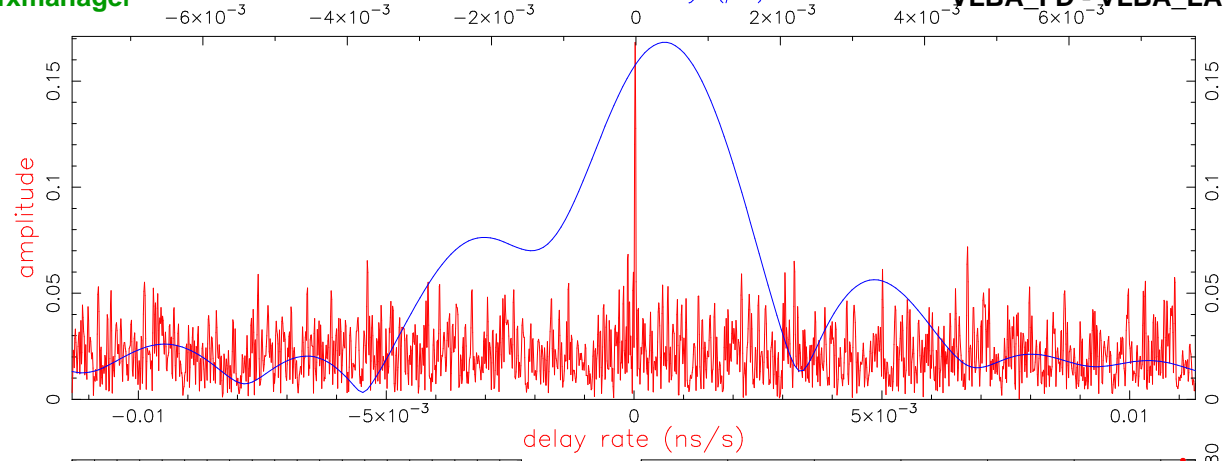
Group delay (usec)(sbd)	-1.55067670576E+03	Apriori delay (usec)	-1.55067685057E+03	Resid mbdelay (usec)	1.44813E-04	+/-	5.3E-05
Sband delay (usec)	-1.55067714582E+03	Apriori clock (usec)	9.9419708E+00	Resid sbdelay (usec)	-2.95250E-04	+/-	4.2E-04
Phase delay (usec)	-1.55067684507E+03	Apriori clockrate (us/s)	5.9999999E-08	Resid phdelay (usec)	5.49818E-06	+/-	1.8E-07
Delay rate (us/s)	-6.69210920335E-02	Apriori rate (us/s)	-6.69212317576E-02	Resid rate (us/s)	1.39724E-07	+/-	7.4E-10
Total phase (deg)	-156.4	Apriori accel (us/s/s)	6.56990466352E-06	Resid phase (deg)	170.5	+/-	5.5

ph/seg (deg)	65.4	RMS	13.3	Theor.	0.369 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	84.4	Search (2048X32)	0.352	Amplitude		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	21.8	Interp.	0.000	Search		Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	52.4	Inc. seg. avg.	0.647	Inc. seg. avg.		Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.385	Inc. frq. avg.		Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

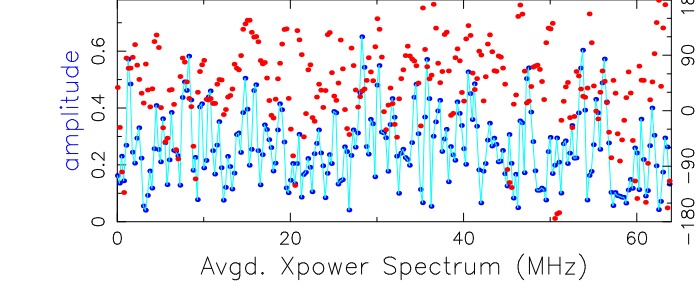
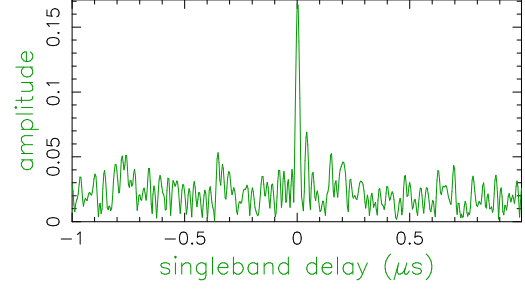
f: az 313.0 el 40.5 pa 88.9 k: az 312.3 el 46.3 pa 94.2 u,v (fr/asec) 623.908 520.151 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fk..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fk.W.9.1X1QEV

multiband delay (μ s)

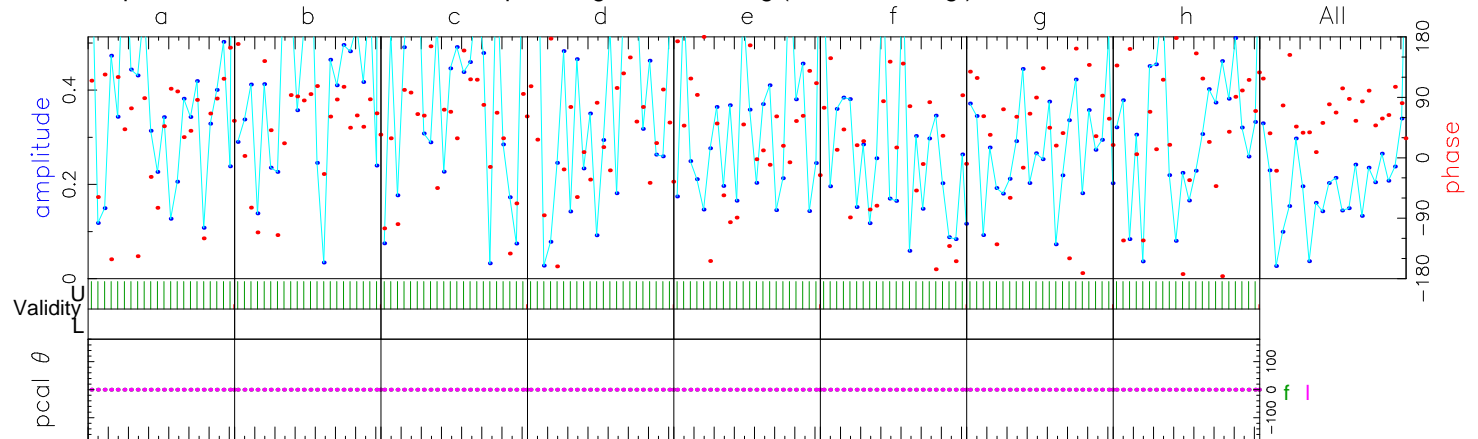


Fringe quality 9
SNR 9.6
Int time 419.825
Amp 0.171
Phase 70.6
PFD 3.8e-13
Delays (us)
SBD 0.001737
MBD 0.000417
Fringe rate (Hz) 0.001530
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211c
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133849
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



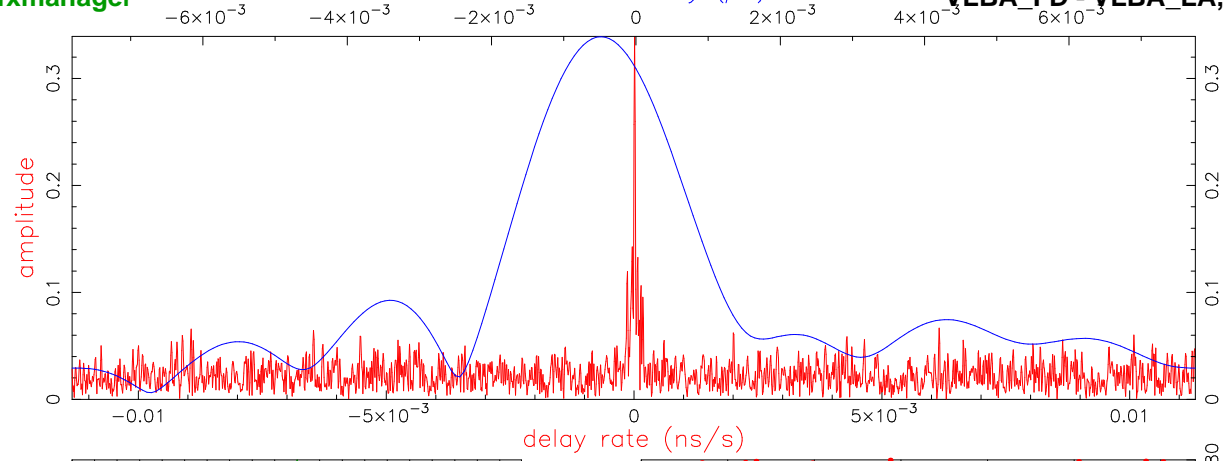
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	85.4	73.1	79.0	37.1	40.6	67.3	84.1	86.9	Phase	70.6
	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	Ampl.	0.2
	258.1	256.9	258.4	257.8	152.0	266.3	255.3	258.8	Sbd box	257.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
l	0	0	0	0	0	0	0	0	PC freqs	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.31441320694E+03	Apriori delay (usec)	-1.31441362380E+03	Resid mbdelay (usec)	4.16863E-04	+/-	1.1E-04
Sband delay (usec)	-1.31441188630E+03	Apriori clock (usec)	1.2897377E+01	Resid sbdelay (usec)	1.73750E-03	+/-	9.0E-04
Phase delay (usec)	-1.31441362153E+03	Apriori clockrate (us/s)	3.4600000E-07	Resid phdelay (usec)	2.27571E-06	+/-	3.9E-07
Delay rate (us/s)	-5.75197673520E-02	Apriori rate (us/s)	-5.75197851127E-02	Resid rate (us/s)	1.77607E-08	+/-	1.6E-09
Total phase (deg)	-129.1	Apriori accel (us/s/s)	4.78376384308E-07	Resid phase (deg)	70.6	+/-	12.0

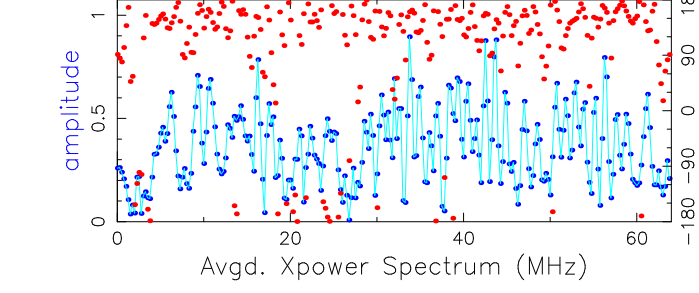
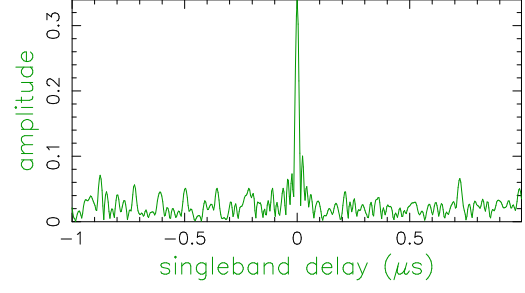
ph/seg (deg)	37.0	Theor.	Amplitude	0.171 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	55.2	28.7	Search (2048X32)	0.161	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	21.5	16.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	35.9	29.5	Inc. seg. avg.	0.175	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.	0.169	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 313.0 el 40.5 pa 88.9 l: az 309.3 el 45.4 pa 86.6 u,v (fr/asec) 525.824 -378.264 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fl..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fl.W.17.1X1QEV

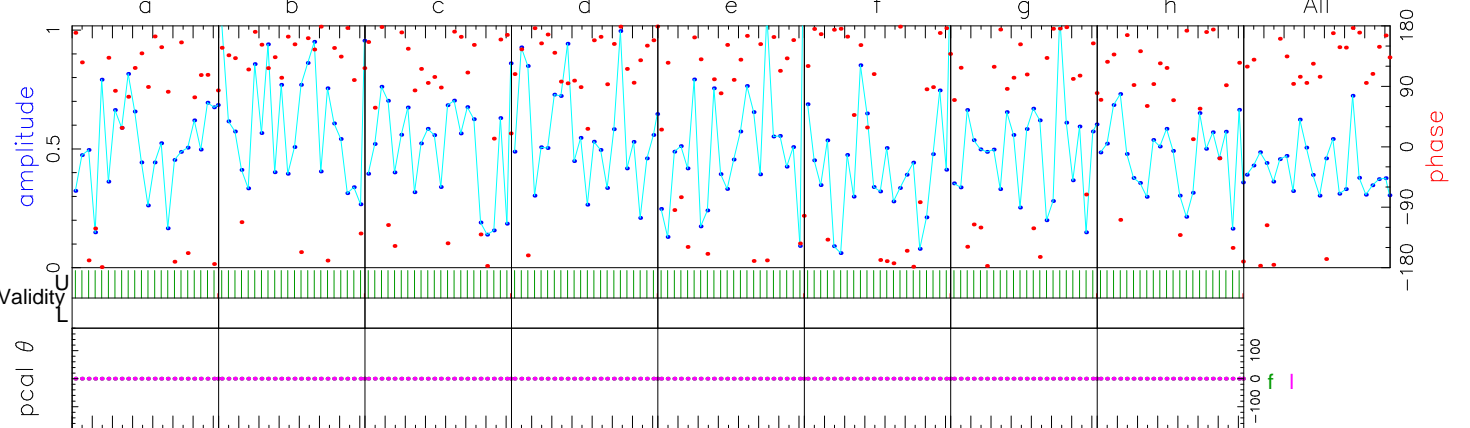
multiband delay (μ s)



Fringe quality 9
 SNR 19.0
 Int time 419.825
 Amp 0.339
 Phase 146.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.000393
 MBD -0.000498
 Fringe rate (Hz) 0.001364
 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
 2021:304:133854
 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		
f	0	0	0	0	0	0	0	0		
l	0	0	0	0	0	0	0	0		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.31441412151E+03				-1.31441362380E+03					
Sband delay (usec)	-1.31441401705E+03				1.2897377E+01					
Phase delay (usec)	-1.31441361909E+03				3.4600000E-07					
Delay rate (us/s)	-5.75197692772E-02				-5.75197851127E-02					
Total phase (deg)			-53.3		4.78376384308E-07					
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)										
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								
pcal θ										
Tracks										
Chan ids										
Tracks										
Chan ids										
Tracks										
RMS	37.8	14.5								
Theor.										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
ph/seg (deg)	37.8	14.5								
amp/seg (%)	39.4	25.2								
ph/frq (deg)	15.9	8.5								
amp/frq (%)	24.4	14.9								
f: az 313.0 el 40.5 pa 88.9										
l: az 309.3 el 45.4 pa 86.6										
u,v (fr/asec) 525.824 -378.264										
Control file: cf_1234_gmva										
Input file: /Exps/c211c/v1/1234/No0120/fl..1X1QEV										
Output file: /Exps/c211c/v1/1234/No0120/fl.W.39.1X1QEV										

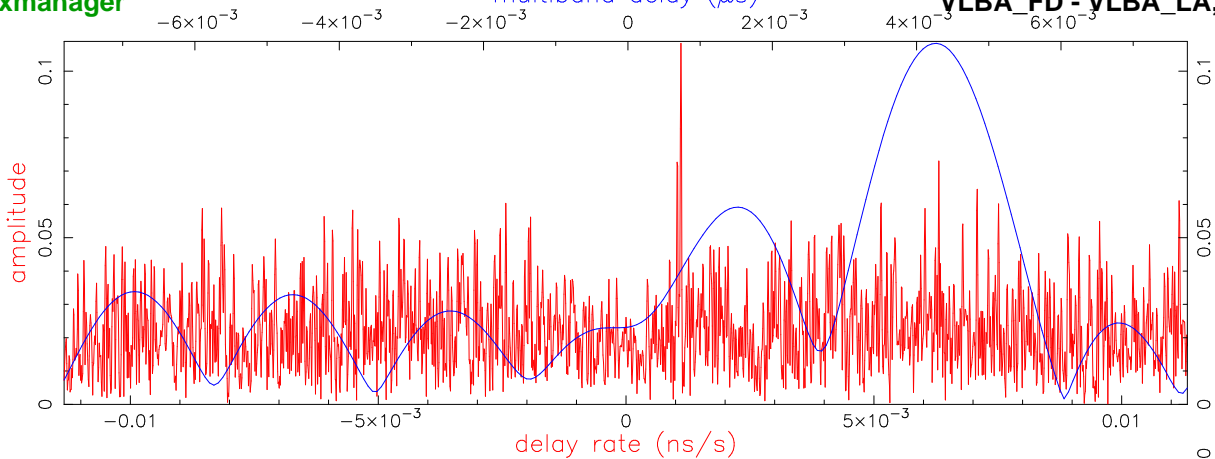
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fl

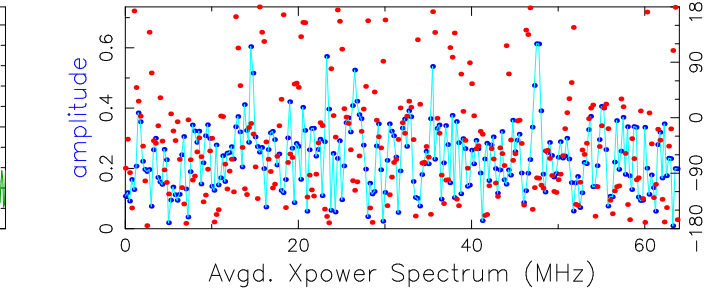
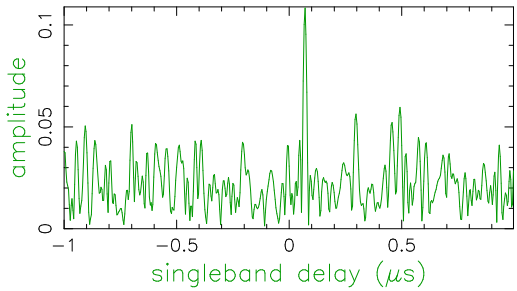
VLBA_FD - VLBA_LA, fgroup W, pol LR

multiband delay (μ s)



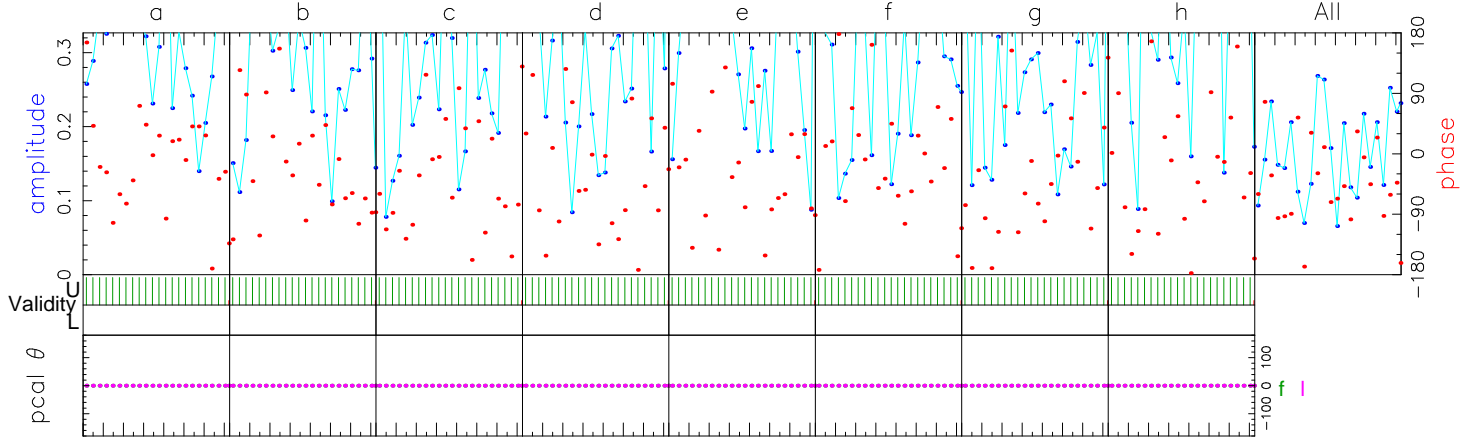
Fringe quality 0

SNR 6.1
 Int time 419.825
 Amp 0.109
 Phase -37.9
 PFD 2.7e-01
 Delays (us)
 SBD 0.069834
 MBD 0.004252
 Fringe rate (Hz)
 0.095714
 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
 2021:304:133858
 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
	-21.3	-47.6	-69.3	-59.9	-22.3	-14.2	-62.6	-30.6	Phase	-37.9
	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	274.1	412.1	22.3	333.7	343.9	486.3	58.0	381.4	Sbd box	274.9
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	
l	0	0	0	0	0	0	0	0	PC freqs	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.31434687141E+03		Apriori delay (usec)		-1.31441362380E+03		Resid mbdelay (usec)		4.25240E-03	+/- 1.8E-04
Sband delay (usec)	-1.31434378955E+03		Apriori clock (usec)		1.2897377E+01		Resid sbdelay (usec)		6.98342E-02	+/- 1.4E-03
Phase delay (usec)	-1.31441362503E+03		Apriori clockrate (us/s)		3.4600000E-07		Resid phdelay (usec)		-1.22271E-06	+/- 6.1E-07
Delay rate (us/s)	-5.75186739668E-02		Apriori rate (us/s)		-5.75197851127E-02		Resid rate (us/s)		1.11115E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		4.78376384308E-07		Resid phase (deg)		-37.9	+/- 18.8

	RMS	Theor.	Amplitude	0.109 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	58.9	45.2	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	77.3	78.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	23.5	26.7	Inc. seg. avg.	0.127	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	33.3	46.5	Inc. frq. avg.	0.104	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 313.0 el 40.5 pa 88.9 l: az 309.3 el 45.4 pa 86.6 u,v (fr/asec) 525.824 -378.264 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fl..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fl.W.59.1X1QEV

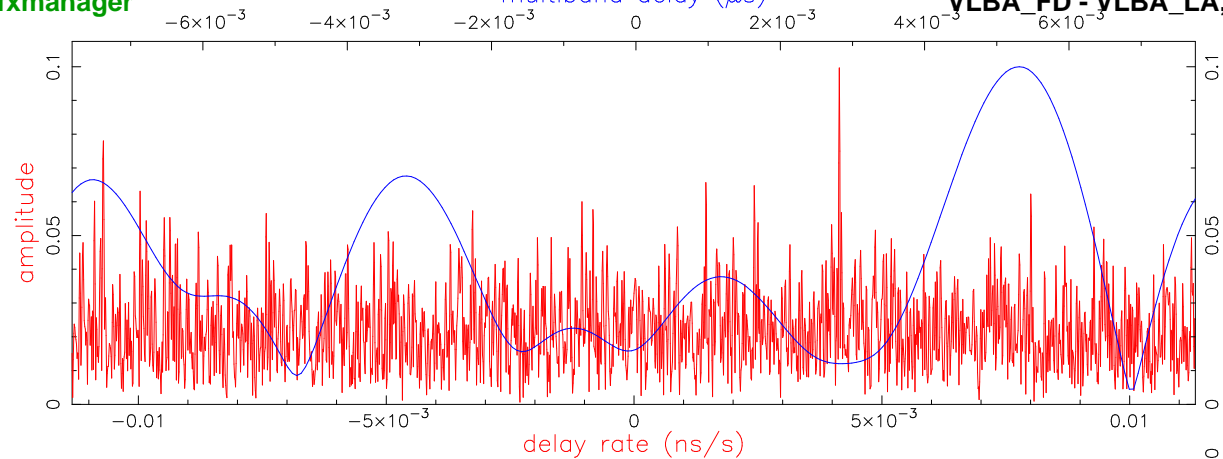
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fl

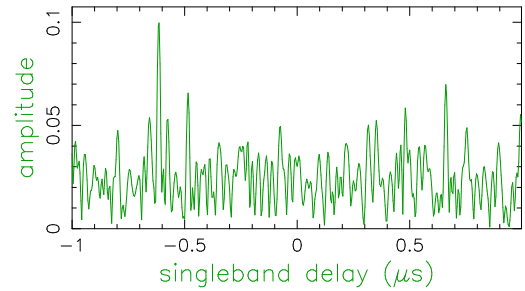
VLBA_FD - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

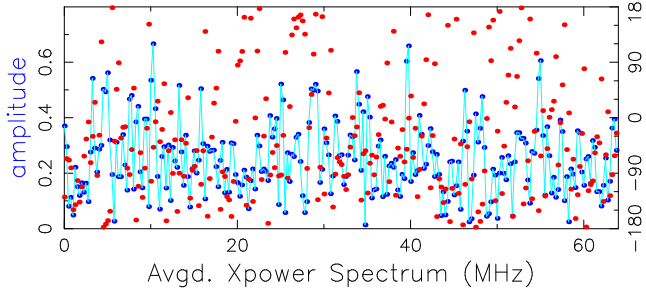


Fringe quality 0

SNR 5.7
Int time 419.825
Amp 0.107
Phase -26.0
PFD 9.5e-01
Delays (us)
SBD -0.614911
MBD 0.005224
Fringe rate (Hz)
0.357608
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

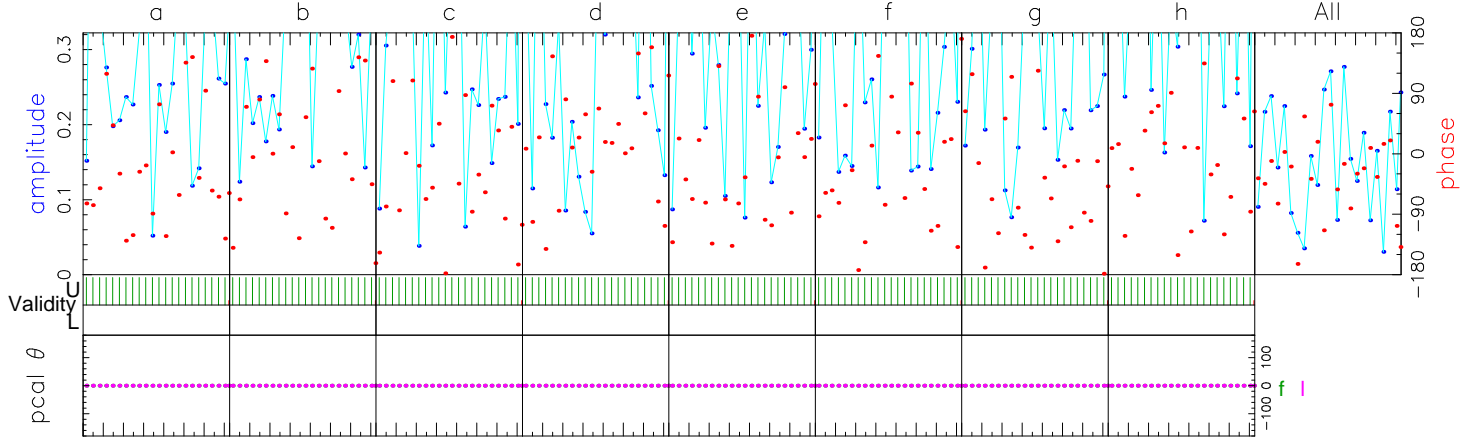


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133902
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



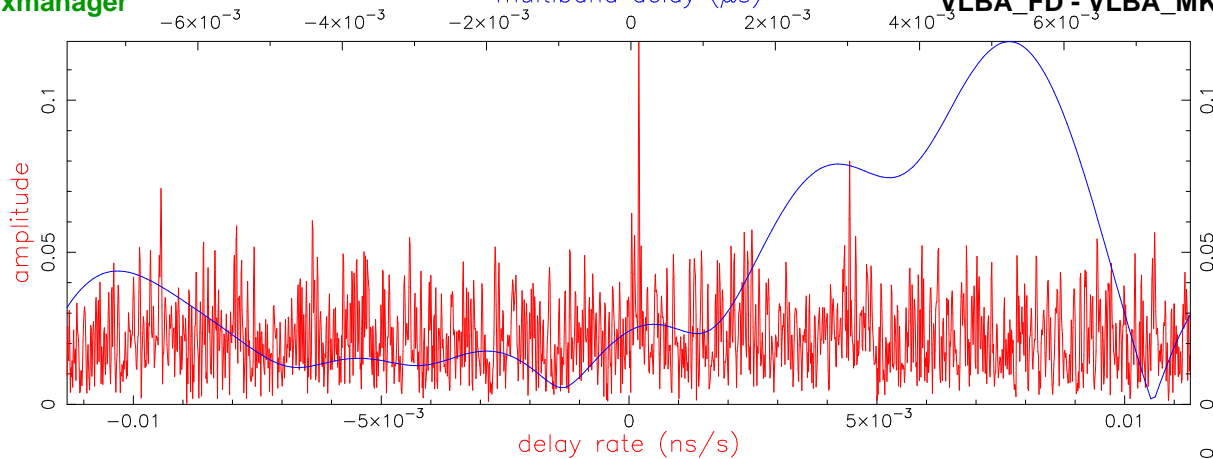
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-54.1	-19.8	-33.2	29.9	-48.7	-47.1	-83.9	5.4	Phase	-26.0
	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	Ampl.	0.1
	440.0	375.1	380.9	426.6	470.5	382.5	352.9	100.5	Sbd box	99.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
l	0	0	0	0	0	0	0	0	PC freqs	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.31503339970E+03		Apriori delay (usec)		-1.31441362380E+03		Resid mbdelay (usec)		5.22411E-03	+/- 1.9E-04
Sband delay (usec)	-1.31502853480E+03		Apriori clock (usec)		1.2897377E+01		Resid sbdelay (usec)		-6.14911E-01	+/- 1.5E-03
Phase delay (usec)	-1.31441362464E+03		Apriori clockrate (us/s)		3.4600000E-07		Resid phdelay (usec)		-8.37943E-07	+/- 6.5E-07
Delay rate (us/s)	-5.75156336410E-02		Apriori rate (us/s)		-5.75197851127E-02		Resid rate (us/s)		4.15147E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		4.78376384308E-07		Resid phase (deg)		-26.0	+/- 20.1

	RMS	Theor.	Amplitude	0.107 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	54.9	48.2	Search (2048X32)	0.099	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	88.3	84.2	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	39.4	28.5	Inc. seg. avg.	0.118	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	48.9	49.7	Inc. frq. avg.	0.117	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

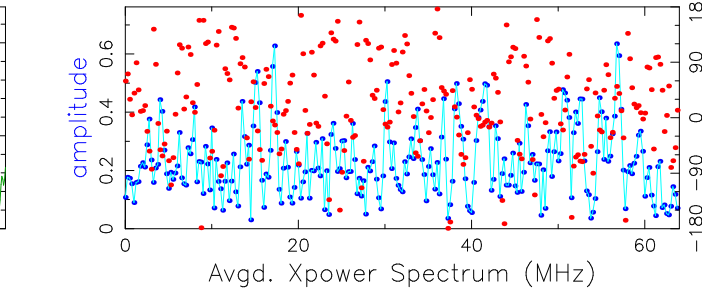
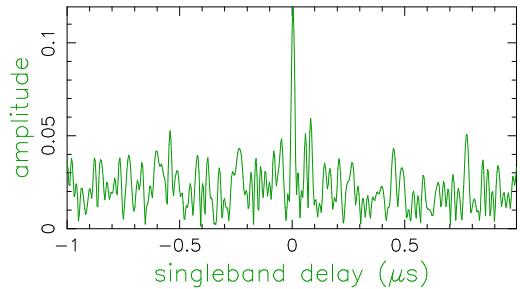
f: az 313.0 el 40.5 pa 88.9 l: az 309.3 el 45.4 pa 86.6 u,v (fr/asec) 525.824 -378.264 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fl..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fl.W.79.1X1QEV

multiband delay (μ s)

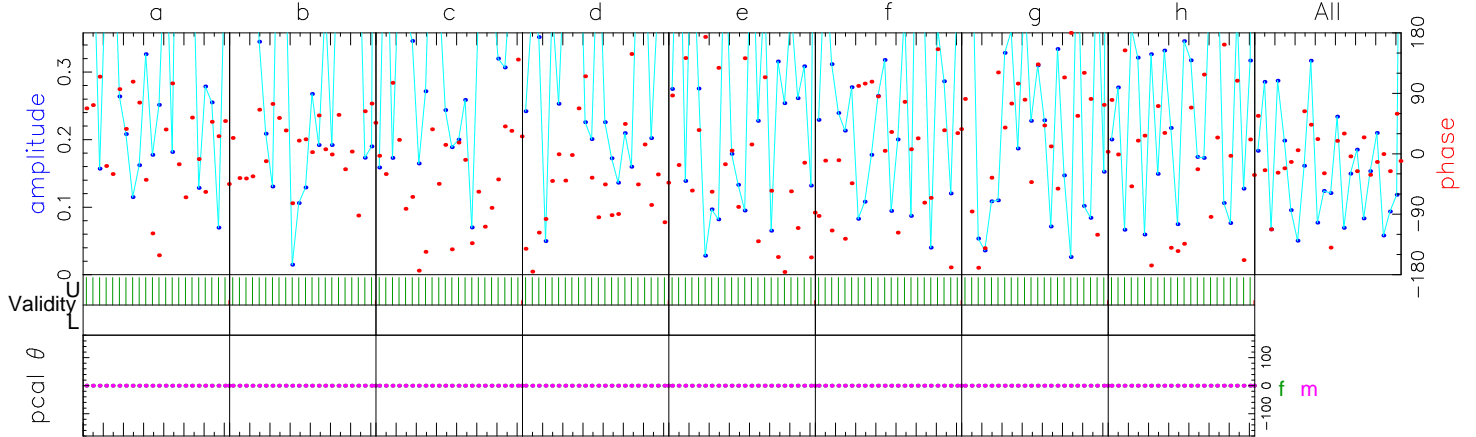


Fringe quality 0
SNR 6.7
Int time 419.820
Amp 0.119
Phase -0.6
PFD 6.5e-03
Delays (us)
SBD 0.003669
MBD 0.005235
Fringe rate (Hz) 0.016861
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133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

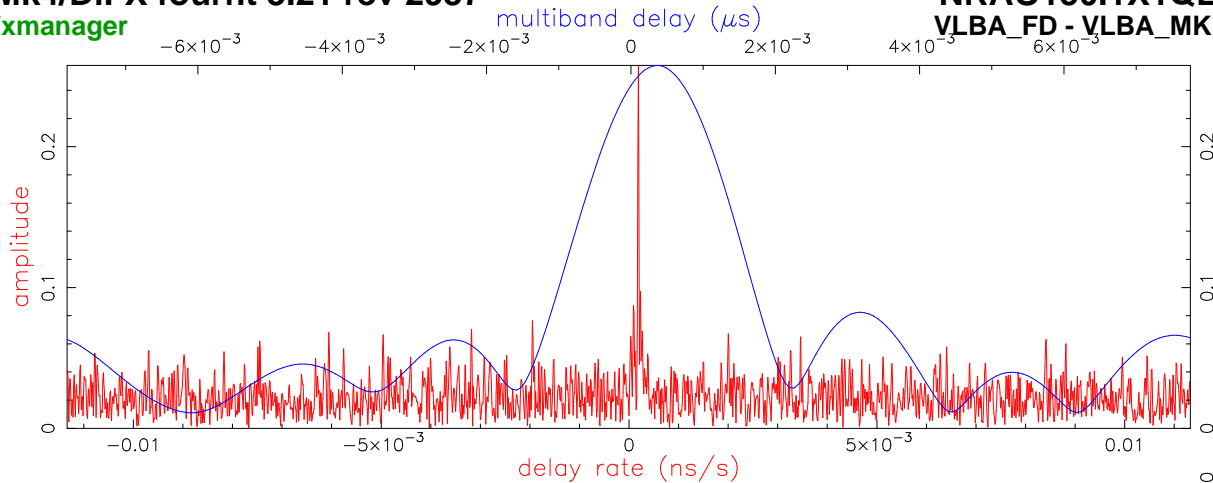


Avgd. Xpower Spectrum (MHz)

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

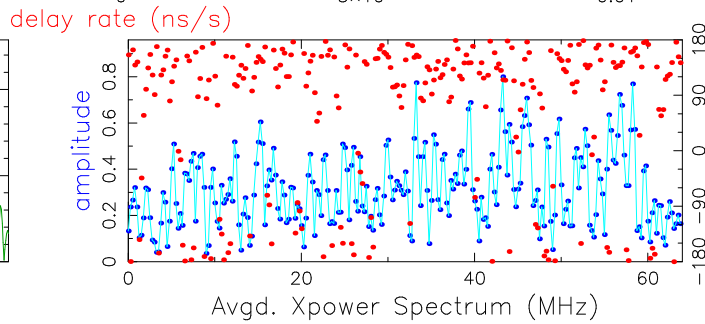
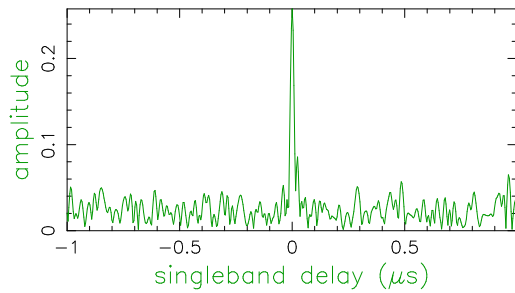


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
f	0	0	0	0	0	0	0	0	Ampl.	0.1
m	0	0	0	0	0	0	0	0	Sbd box	257.9
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
f	1000	1000	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							



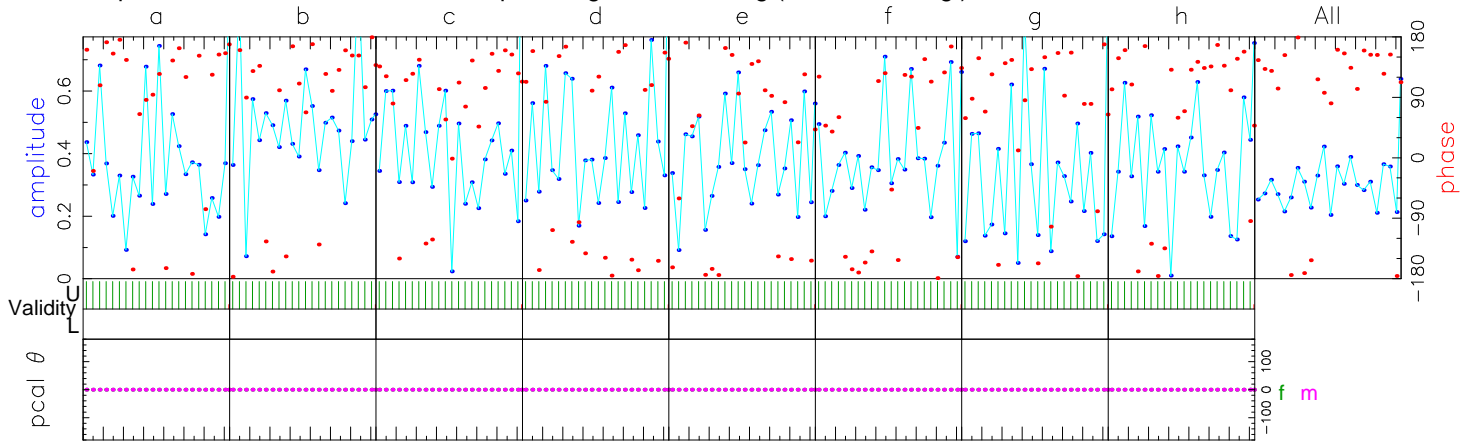
Fringe quality 9

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°57'50.161694"

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			
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		
									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	
	RMS	Theor.	Amplitude	0.258 +/- 0.018	Pcal mode: MANUAL, MANUAL				PC period (AP's) 5, 5		
ph/seg (deg)	32.1	19.0	Search (2048X32)	0.241	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				sb window (us)	-1.000 1.000	
amp/seg (%)	30.7	33.2	Interp.	0.000	Bits/sample: 2x2				SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	15.2	11.2	Inc. seg. avg.	0.284	Sample rate(MISamp/s): 128					dr window (ns/s)	-0.011 0.011
amp/frq (%)	19.2	19.6	Inc. frq. avg.	0.260	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

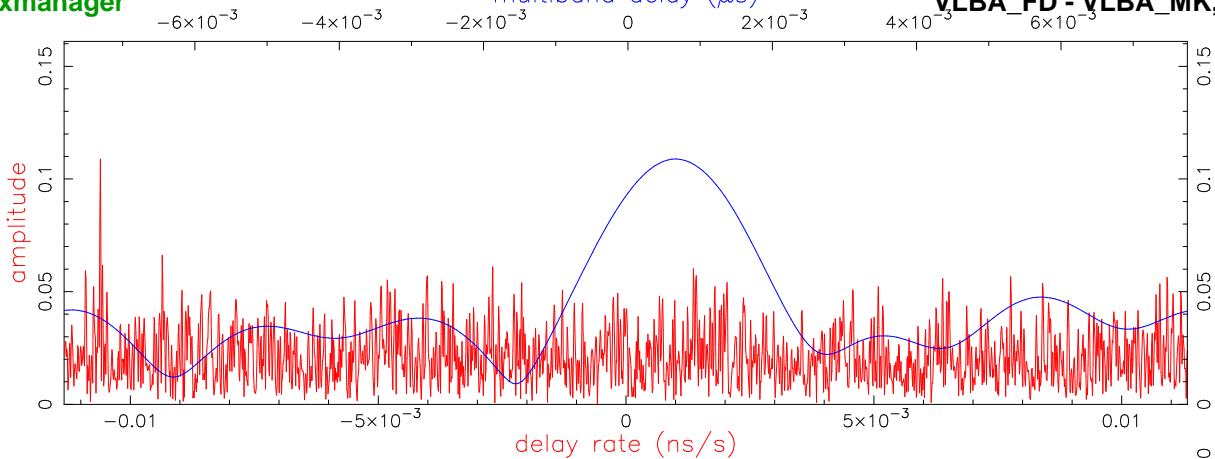
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fm

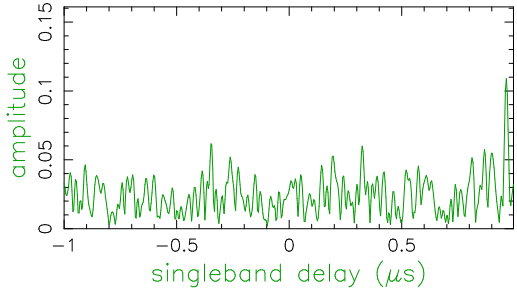
VLBA_FD - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

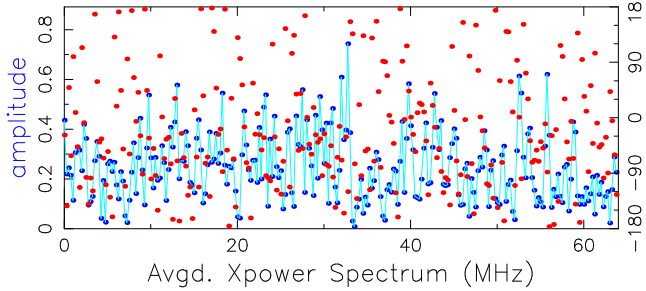


Fringe quality 0

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

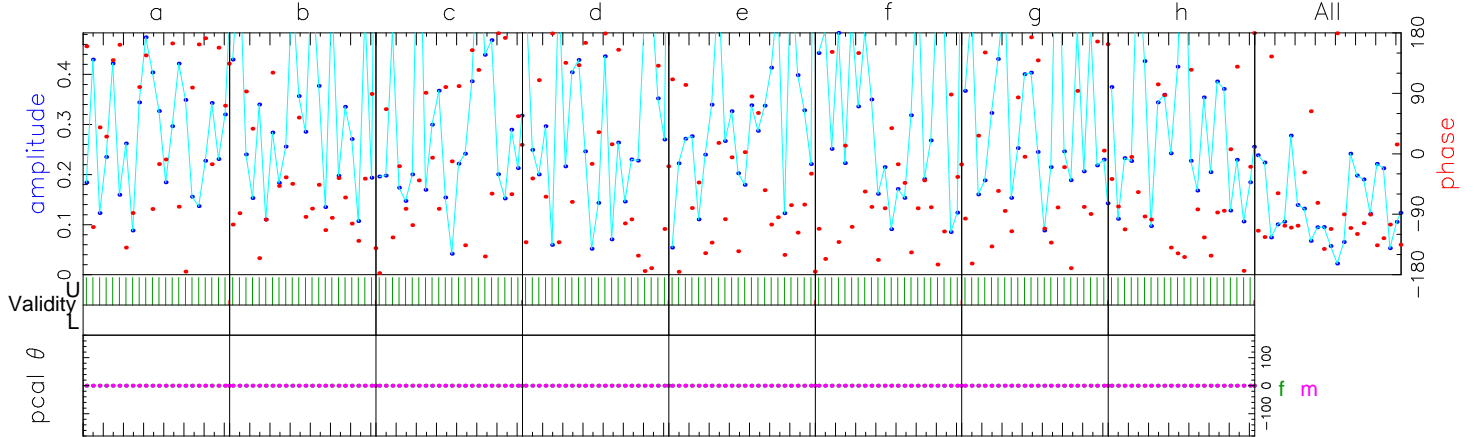


delay rate (ns/s)



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	dr window (ns/s)	-0.011 0.011	
						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.55.1X1QEV

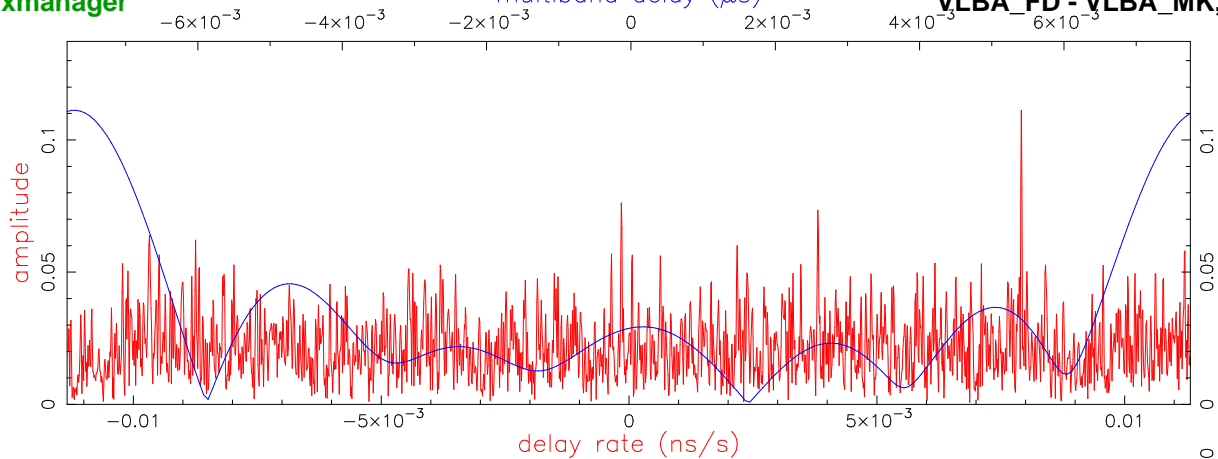
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fm

VLBA_FD - VLBA_MK, fgroup W, pol RL

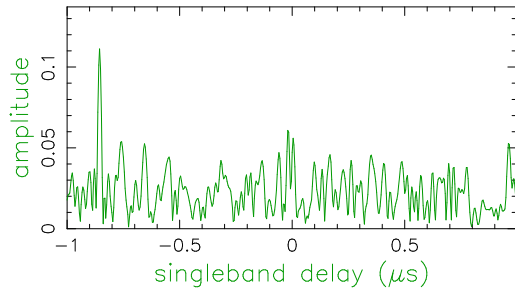
multiband delay (μ s)



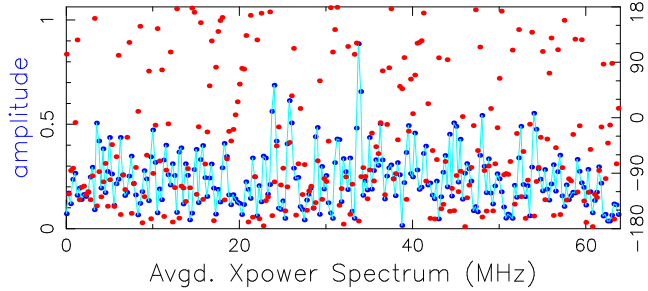
Fringe quality 0

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

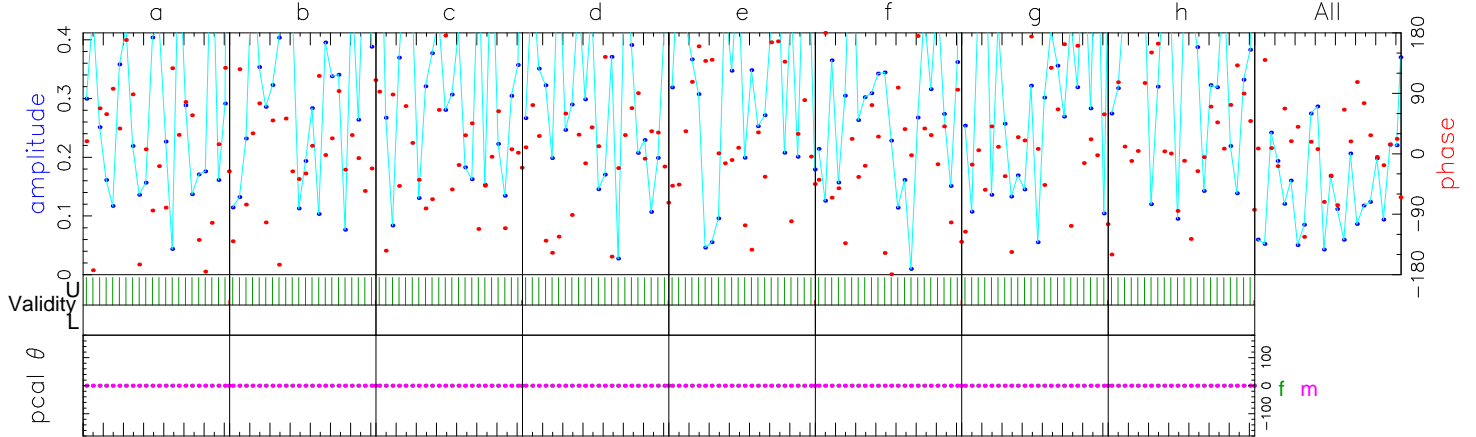
Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133901
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



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)	sb window (us)	-1.000	1.000	
ph/frq (deg)	13.5	Inc. seg. avg.	0.139	Inc. frq. avg.	0.127	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	38.8	Inc. frq. avg.	0.127	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite

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

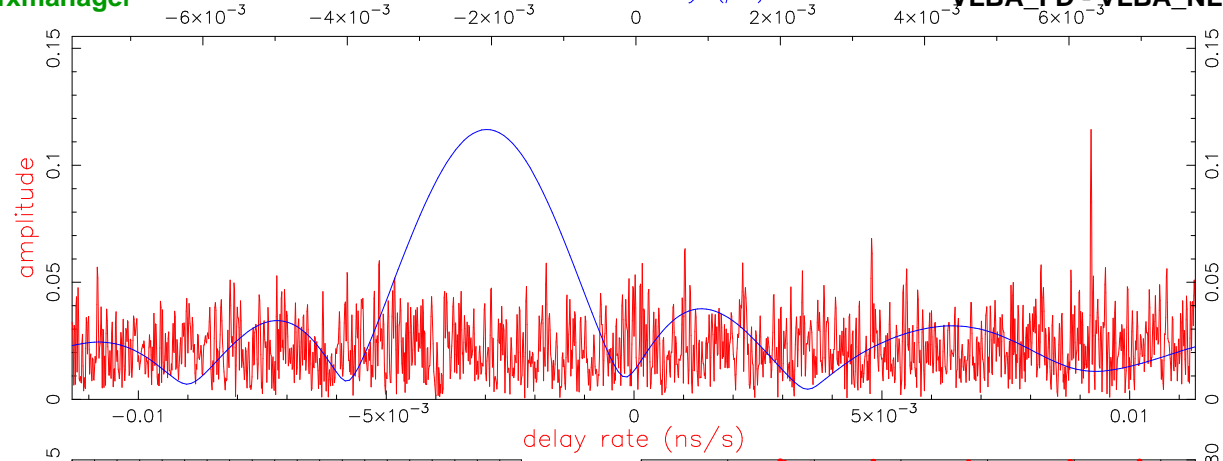
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fn

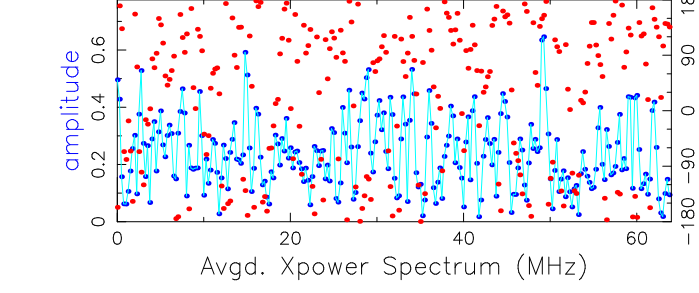
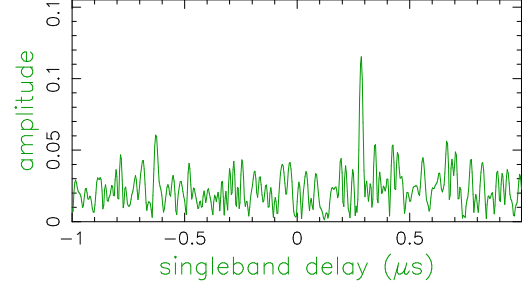
VLBA_FD - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)



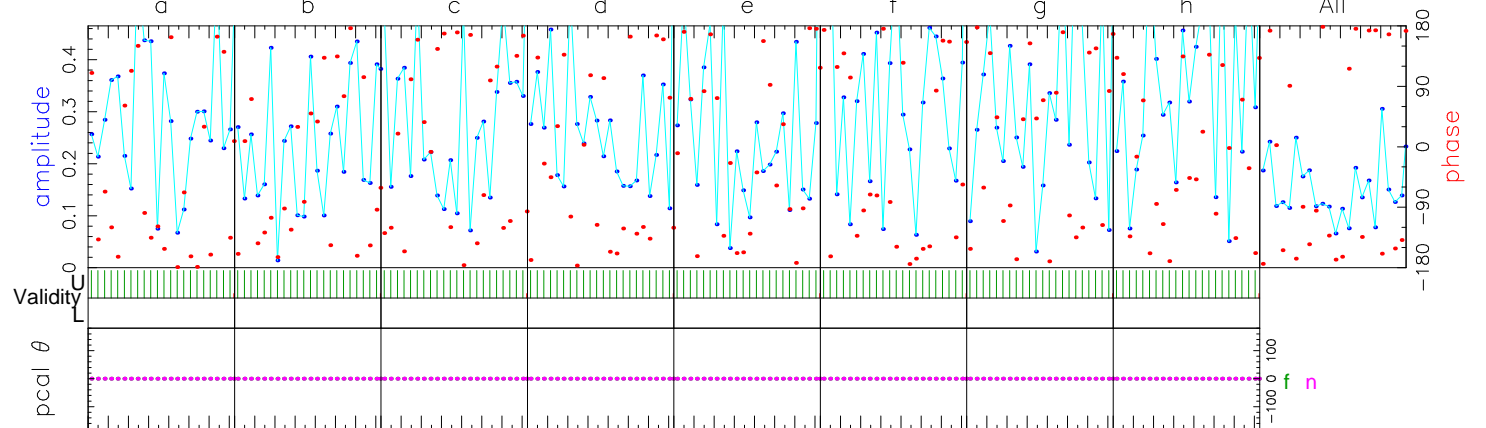
Fringe quality 0

SNR 6.5
 Int time 419.826
 Amp 0.155
 Phase -163.6
 PFD 2.2e-02
 Delays (us)
 SBD 0.284122
 MBD -0.002070
 Fringe rate (Hz) 0.795840
 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"

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
	-166.3	-154.3	-165.8	-155.7	174.7	-158.0	-161.1	-169.3	Phase	-163.6
	0.2	0.1	0.2	0.1	0.1	0.3	0.2	0.1	Ampl.	0.1
	120.8	298.0	207.2	504.1	372.2	330.2	437.1	187.3	Sbd box	329.7
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	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 1.32312907659E+02 Apriori delay (usec) 1.32033727845E+02 Resid mbdelay (usec) -2.07019E-03 +/- 1.7E-04
 Sband delay (usec) 1.32317850345E+02 Apriori clock (usec) 4.7771378E+00 Resid sbdelay (usec) 2.84122E-01 +/- 1.3E-03
 Phase delay (usec) 1.32033722569E+02 Apriori clockrate (us/s) -2.4000000E-07 Resid phdelay (usec) -5.27602E-06 +/- 5.7E-07
 Delay rate (us/s) -4.42171559406E-02 Apriori rate (us/s) -4.42263948595E-02 Resid rate (us/s) 9.23892E-06 +/- 2.3E-09
 Total phase (deg) -49.6 Apriori accel (us/s/s) -1.43951950994E-05 Resid phase (deg) -163.6 +/- 17.6

RMS Theor. Amplitude 0.155 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 52.9 42.3 Search (2048X32) 0.106 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 58.5 73.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 10.8 24.9 Inc. seg. avg. 0.159 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 38.0 43.5 Inc. frq. avg. 0.142 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 313.0 el 40.5 pa 88.9 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) 373.480 -2274.019 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fn..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fn.W.12.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

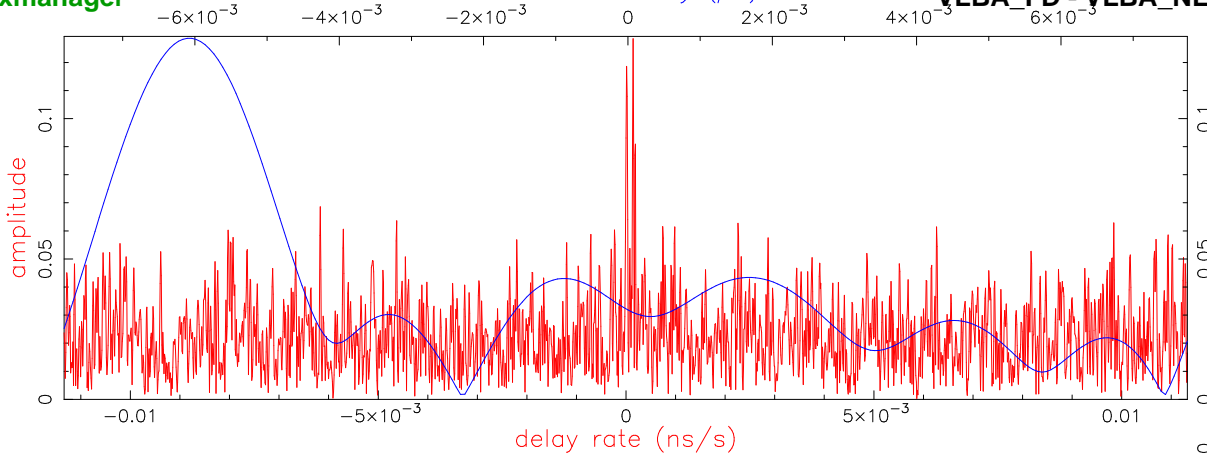
fxmanager

NRAO150.1X1QEV, No0120, fn

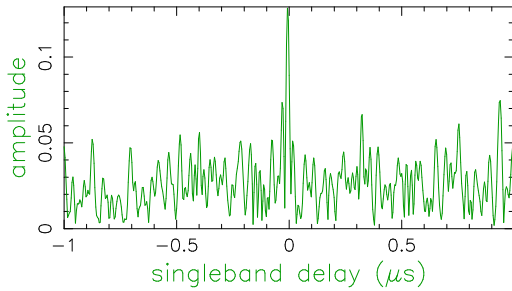
VLBA_FD - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

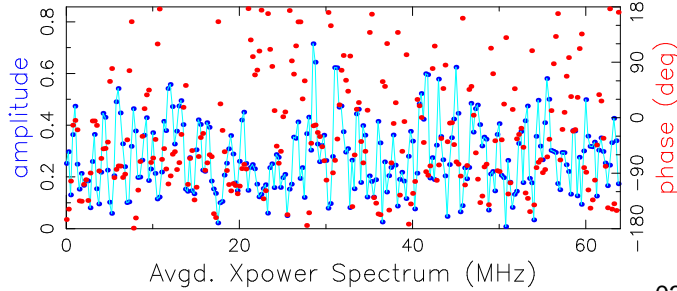
Fringe quality 0



SNR 7.2
 Int time 419.826
 Amp 0.129
 Phase -75.1
 PFD 1.4e-04
 Delays (us)
 SBD -0.006881
 MBD -0.006009
 Fringe rate (Hz)
 0.012522
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

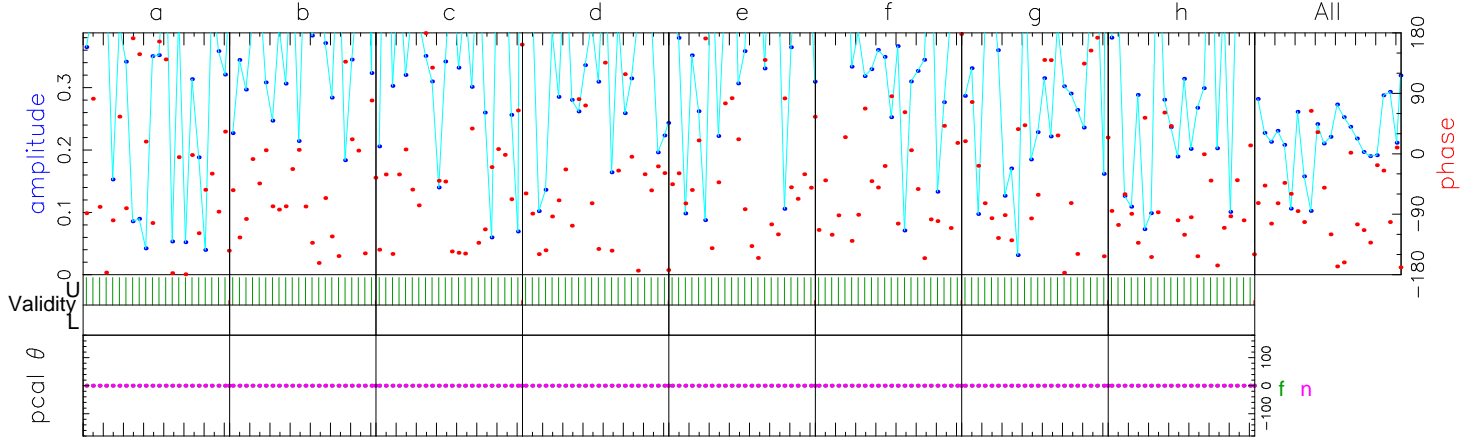


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133853
 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



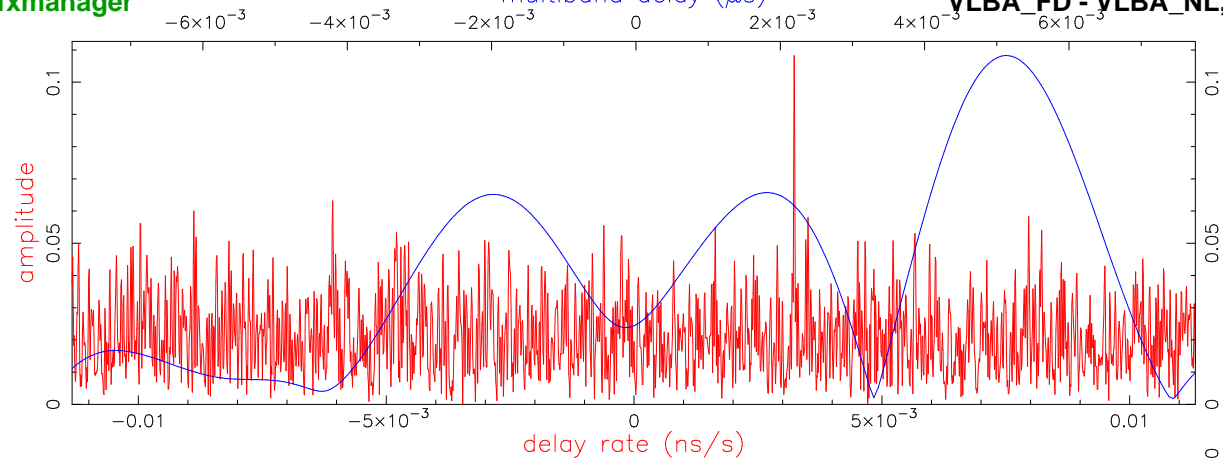
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-82.9	-75.6	-71.4	-64.8	-71.4	-65.5	-150.2	-82.0	Phase	-75.1
	0.0	0.2	0.1	0.1	0.1	0.2	0.0	0.2	Ampl.	0.1
	472.0	254.7	224.0	425.5	256.0	255.9	497.2	26.1	Sbd box	255.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.32027718751E+02	Apriori delay (usec)		1.32033727845E+02	Resid mbdelay (usec)		-6.00909E-03	+/-	1.5E-04	
Sband delay (usec)	1.32026846595E+02	Apriori clock (usec)		4.7771378E+00	Resid sbdelay (usec)		-6.88125E-03	+/-	1.2E-03	
Phase delay (usec)	1.32033725422E+02	Apriori clockrate (us/s)		-2.4000000E-07	Resid phdelay (usec)		-2.42295E-06	+/-	5.1E-07	
Delay rate (us/s)	-4.42262494911E-02	Apriori rate (us/s)		-4.42263948595E-02	Resid rate (us/s)		1.45368E-07	+/-	2.1E-09	
Total phase (deg)		38.8	Apriori accel (us/s/s)		-1.43951950994E-05	Resid phase (deg)		-75.1	+/-	15.8

ph/seg (deg)	60.0	Theor. 37.9	Amplitude	0.129 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	79.7	66.2	Search (2048X32)	0.125	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	31.5	22.4	Inc. seg. avg.	0.180	Bits/sample: 2x2	Sample rate (MSamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	42.0	39.1	Inc. frq. avg.	0.124	Data rate (Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

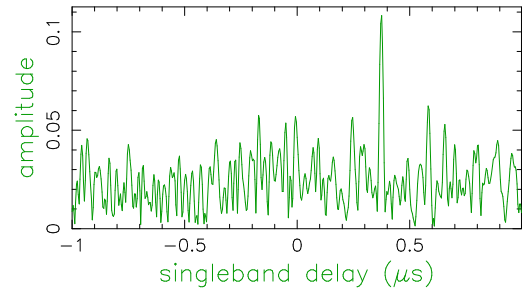
f: az 313.0 el 40.5 pa 88.9 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) 373.480 -2274.019 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fn..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fn.W.33.1X1QEV

multiband delay (μ s)

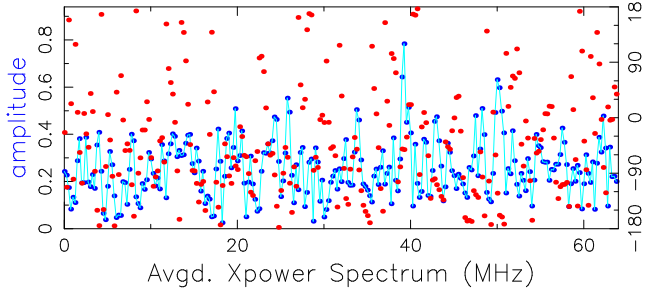


Fringe quality 0

SNR 6.1
Int time 419.826
Amp 0.113
Phase -142.0
PFD 2.4e-01
Delays (us)
SBD 0.373942
MBD 0.005099
Fringe rate (Hz)
0.278637
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

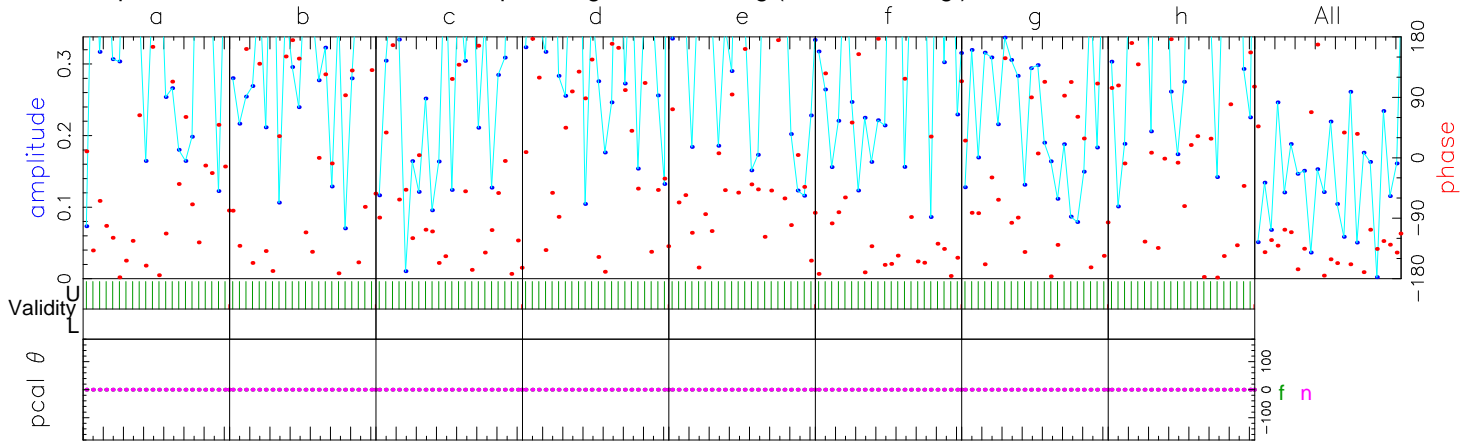


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133856
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
	-117.3	-171.0	-138.4	150.0	-84.3	-148.0	-132.3	-157.2	Phase	-142.0
	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
	135.9	310.5	355.4	435.3	462.8	351.4	122.1	7.5	Sbd box	352.7
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	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.32413826498E+02	Apriori delay (usec)	1.32033727845E+02	Resid mbdelay (usec)	5.09865E-03	+/-	1.8E-04
Sband delay (usec)	1.32407669345E+02	Apriori clock (usec)	4.7771378E+00	Resid sbdelay (usec)	3.73942E-01	+/-	1.4E-03
Phase delay (usec)	1.32033723265E+02	Apriori clockrate (us/s)	-2.4000000E-07	Resid phdelay (usec)	-4.57957E-06	+/-	6.1E-07
Delay rate (us/s)	-4.42231601615E-02	Apriori rate (us/s)	-4.42263948595E-02	Resid rate (us/s)	3.23470E-06	+/-	2.5E-09
Total phase (deg)	-28.1	Apriori accel (us/s/s)	-1.43951950994E-05	Resid phase (deg)	-142.0	+/-	18.8

ph/seg (deg)	RMS 75.4	Theor. 45.0	Amplitude Search (2048X32)	0.113 +/- 0.018	0.106	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	70.3	78.6	Interp.	0.000	0.106	PCal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	40.4	26.6	Inc. seg. avg.	0.108	0.108	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	53.6	46.3	Inc. frq. avg.	0.122	0.122	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
f: az 313.0 el 40.5 pa 88.9			n: az 307.6 el 40.1 pa 70.0			Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		
Control file: cf_1234_gmva			Input file: /Exps/c211c/v1/1234/No0120/fn..1X1QEV							simultaneous interpolator
			Output file: /Exps/c211c/v1/1234/No0120/fn.W.51.1X1QEV							

Mk4/DiFX fourfit 3.21 rev 2937

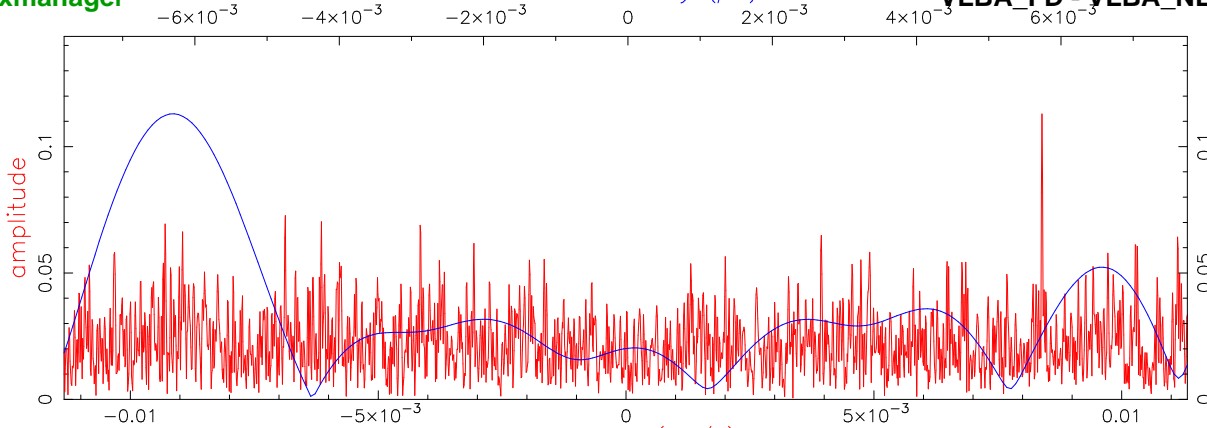
fxmanager

NRAO150.1X1QEV, No0120, fn

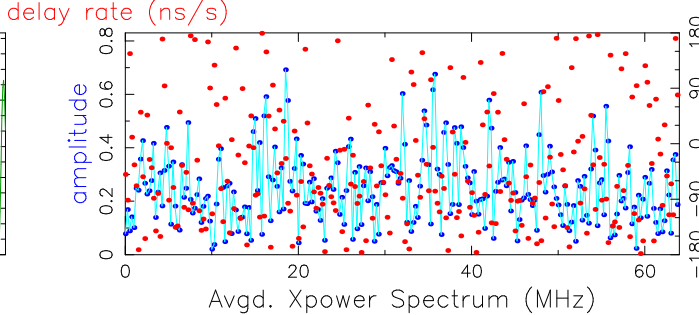
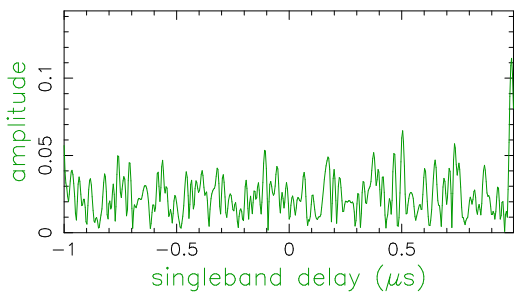
VLBA_FD - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

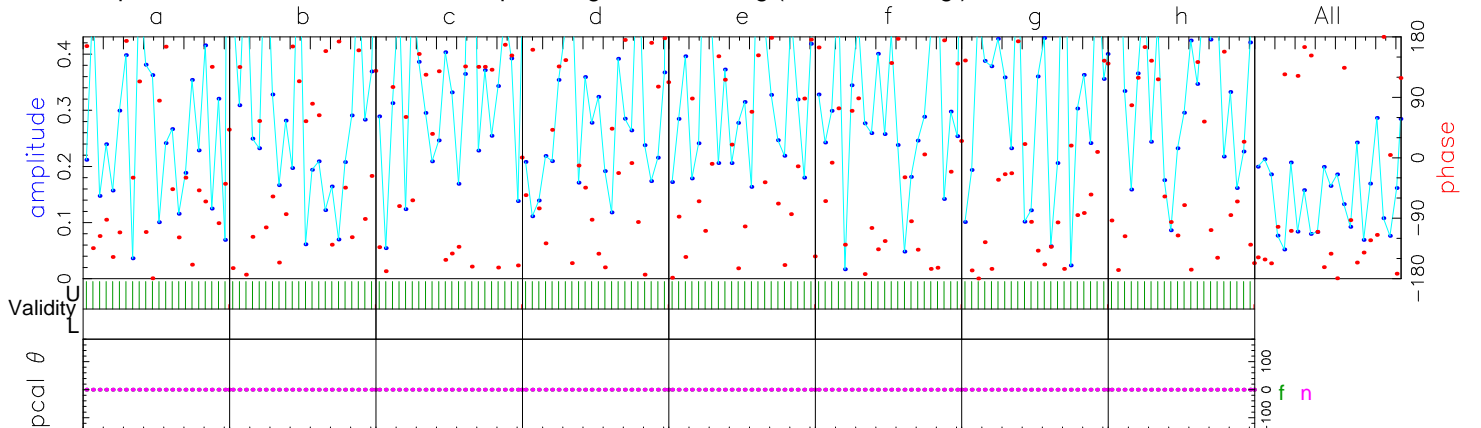


SNR 6.3
 Int time 419.826
 Amp 0.144
 Phase -153.6
 PFD 5.8e-02
 Delays (us)
 SBD 0.987460
 MBD -0.006337
 Fringe rate (Hz)
 0.723966
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133900
 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

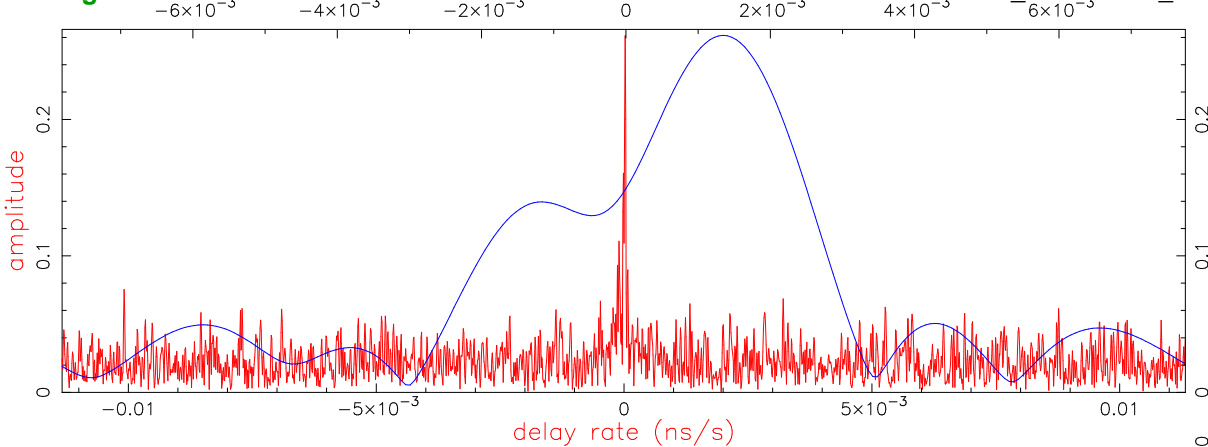


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-133.0	-159.2	177.6	-144.6	-129.4	176.1	-131.1	-156.2	Phase	-153.6		
	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	Ampl.	0.1		
	107.8	322.5	509.9	364.9	335.7	227.8	260.3	301.4	Sbd box	509.8		
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used			
f	0	0	0	0	0	0	0	0	PC freqs			
n	0	0	0	0	0	0	0	0	PC freqs			
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
n	1000	1000	1000	1000	1000	1000	1000	1000				
f	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)	1.3302739803E+02		Apriori delay (usec)		1.32033727845E+02		Resid mbdelay (usec)		-6.33704E-03	+/- 1.7E-04		
Sband delay (usec)	1.33021188095E+02		Apriori clock (usec)		4.7771378E+00		Resid sbdelay (usec)		9.87460E-01	+/- 1.4E-03		
Phase delay (usec)	1.32033722893E+02		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		-4.95194E-06	+/- 5.8E-07		
Delay rate (us/s)	-4.42179903302E-02		Apriori rate (us/s)		-4.42263948595E-02		Resid rate (us/s)		8.40453E-06	+/- 2.4E-09		
Total phase (deg)			Apriori accel (us/s/s)		-1.43951950994E-05		Resid phase (deg)		-153.6	+/- 18.1		
RMS	54.1	43.3	Amplitude		0.144 +/- 0.023		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	64.4	75.6	Search (2048X32)		0.108		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
amp/seg (%)	23.7	25.5	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
ph/frq (deg)	30.1	44.6	Inc. seg. avg.		0.146		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011		
amp/frq (%)			Inc. frq. avg.		0.139		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

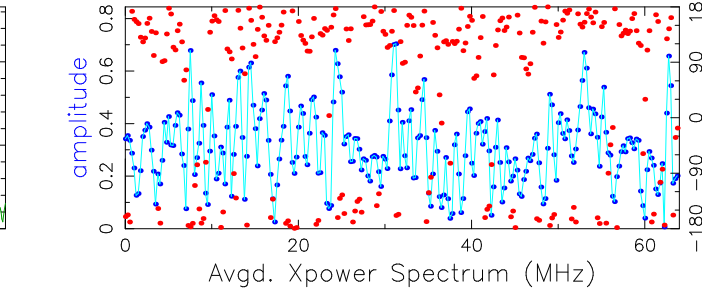
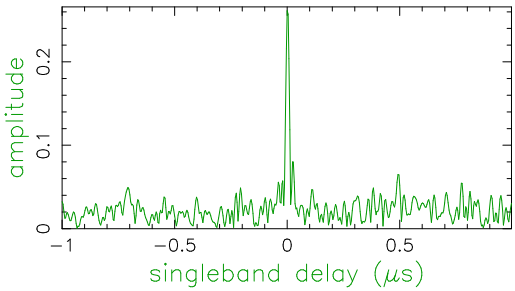
f: az 313.0 el 40.5 pa 88.9 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) 373.480 -2274.019 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fn..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fn.W0.1X1QEV

multiband delay (μ s)

Fringe quality 7

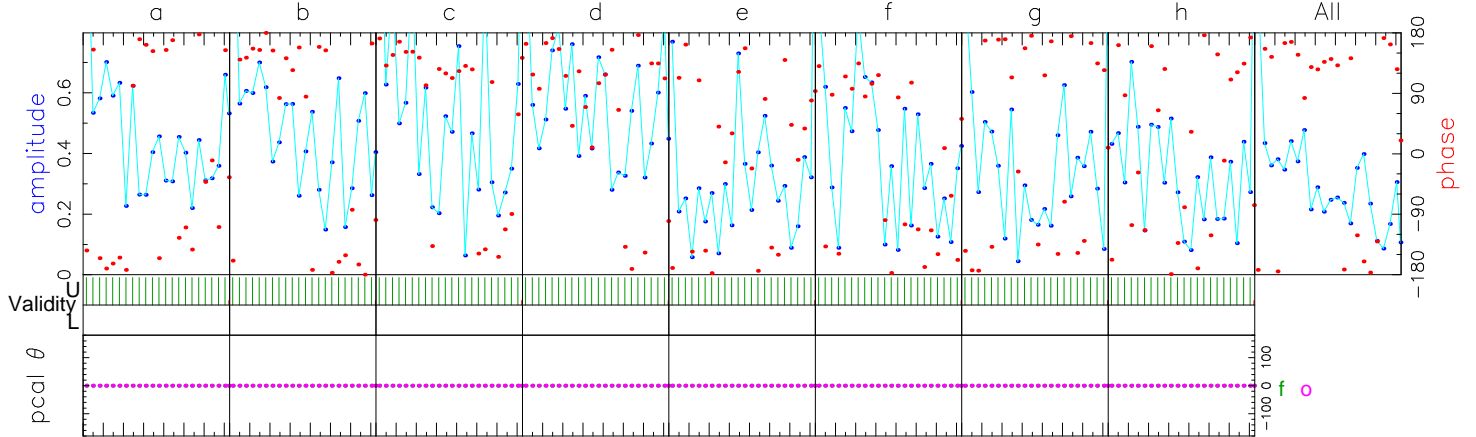


SNR 14.9
Int time 419.823
Amp 0.266
Phase 161.4
PFD 2.1e-41
Delays (us)
SBD 0.001641
MBD 0.001394
Fringe rate (Hz) 0.001585
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



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"

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
	-166.7	166.8	150.2	132.9	134.9	147.4	-170.4	178.0	Phase	161.4
	0.3	0.4	0.4	0.4	0.1	0.2	0.3	0.1	Ampl.	0.3
	257.5	257.4	257.2	257.4	55.4	257.1	257.3	138.4	Sbd box	257.4
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	
o	0	0	0	0	0	0	0	0	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-3.38600343152E+03	Apriori delay (usec)	-3.38600482510E+03	Resid mbdelay (usec)	1.39358E-03	+/-	7.3E-05
Sband delay (usec)	-3.38600318385E+03	Apriori clock (usec)	6.5061703E+00	Resid sbdelay (usec)	1.64125E-03	+/-	5.8E-04
Phase delay (usec)	-3.38600481990E+03	Apriori clockrate (us/s)	-3.0000002E-07	Resid phdelay (usec)	5.20546E-06	+/-	2.5E-07
Delay rate (us/s)	-1.64376045638E-01	Apriori rate (us/s)	-1.64376064037E-01	Resid rate (us/s)	1.83984E-08	+/-	1.0E-09
Total phase (deg)	-67.0	Apriori accel (us/s/s)	9.67449359957E-06	Resid phase (deg)	161.4	+/-	7.7

ph/seg (deg)	RMS 37.1	Theor. 18.4	Amplitude Search (2048X32)	0.266 +/- 0.018	0.252	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	68.2	32.2	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	25.7	10.9	Inc. seg. avg.	0.303	0.303	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	41.4	19.0	Inc. frq. avg.	0.277	0.277	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011	
f: az 313.0 el 40.5 pa 88.9	o: az 308.0 el 53.8 pa 92.9	u, v (fr/asec)	1519.044 388.585	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/fo..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fo.W.18.1X1QEV simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

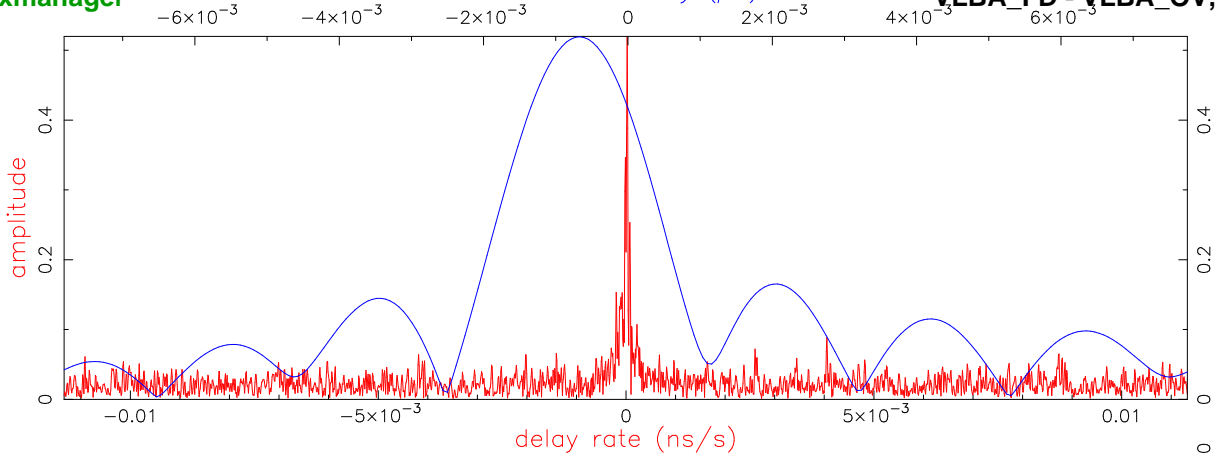
fxmanager

NRAO150.1X1QEV, No0120, fo

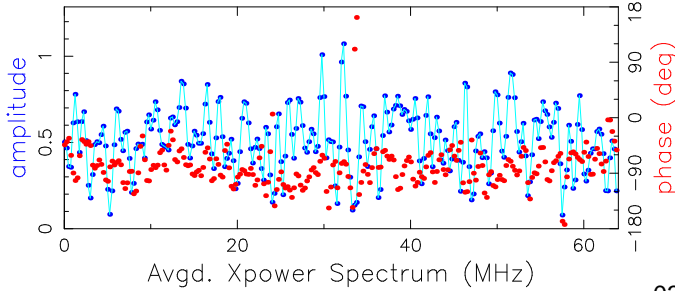
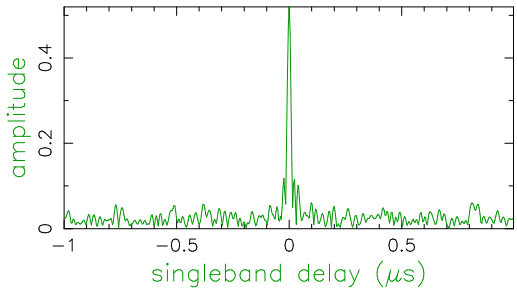
VLBA_FD - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 7

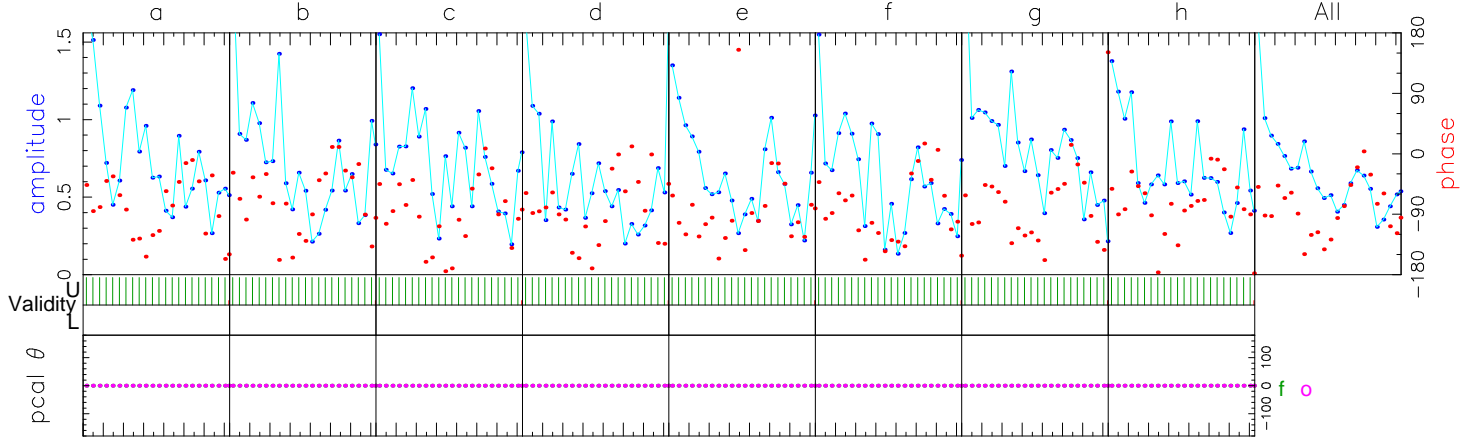


SNR 29.1
 Int time 419.823
 Amp 0.520
 Phase -78.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.000470
 MBD -0.000685
 Fringe rate (Hz) 0.001695
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



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°57'50.161694"

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
	-80.6	-65.1	-80.8	-88.1	-90.2	-73.2	-79.5	-70.9	Phase	-78.4
	0.6	0.5	0.5	0.4	0.5	0.5	0.6	0.6	Ampl.	0.5
	257.5	256.8	257.1	256.6	256.9	256.5	256.8	256.9	Sbd box	256.9
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	
o	0	0	0	0	0	0	0	0	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-3.38600551015E+03		Apriori delay (usec)		-3.38600482510E+03		Resid mbdelay (usec)		-6.85043E-04	+/- 3.7E-05
Sband delay (usec)	-3.38600529510E+03		Apriori clock (usec)		6.5061703E+00		Resid sbdelay (usec)		-4.70000E-04	+/- 3.0E-04
Phase delay (usec)	-3.38600482763E+03		Apriori clockrate (us/s)		-3.0000002E-07		Resid phdelay (usec)		-2.52925E-06	+/- 1.3E-07
Delay rate (us/s)	-1.64376044356E-01		Apriori rate (us/s)		-1.64376064037E-01		Resid rate (us/s)		1.96809E-08	+/- 5.2E-10
Total phase (deg)			Apriori accel (us/s/s)		9.67449359957E-06		Resid phase (deg)		-78.4	+/- 3.9

RMS Theor. Amplitude 0.520 +/- 0.018
 ph/seg (deg) 39.3 9.4 Search (2048X32) 0.503
 amp/seg (%) 59.8 16.5 Interp. 0.000
 ph/frq (deg) 9.1 5.6 Inc. seg. avg. 0.652
 amp/frq (%) 13.2 9.7 Inc. frq. avg. 0.521

Group delay (usec)(sbd) -3.38600551015E+03
 Sband delay (usec) -3.38600529510E+03
 Phase delay (usec) -3.38600482763E+03
 Delay rate (us/s) -1.64376044356E-01
 Total phase (deg) -306.8

Apriori delay (usec) -3.38600482510E+03
 Apriori clock (usec) 6.5061703E+00
 Apriori clockrate (us/s) -3.0000002E-07
 Apriori rate (us/s) -1.64376064037E-01
 Apriori accel (us/s/s) 9.67449359957E-06

Resid mbdelay (usec) -6.85043E-04
 Resid sbdelay (usec) -4.70000E-04
 Resid phdelay (usec) -2.52925E-06
 Resid rate (us/s) 1.96809E-08
 Resid phase (deg) -78.4

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 PCal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Sample rate(MISamp/s): 128
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

f: az 313.0 el 40.5 pa 88.9 o: az 308.0 el 53.8 pa 92.9 u,v (fr/asec) 1519.044 388.585 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fo..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fo.W.38.1X1QEV

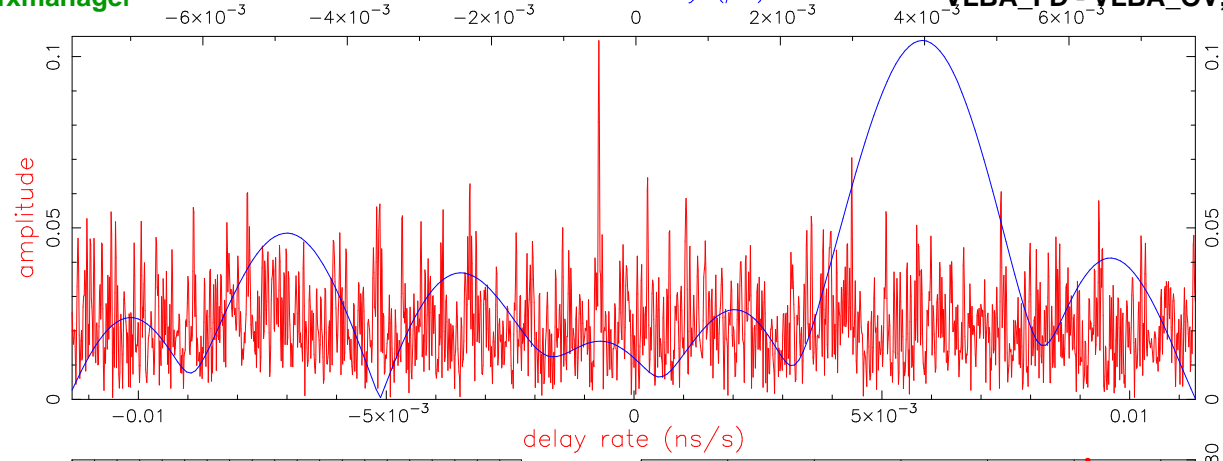
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

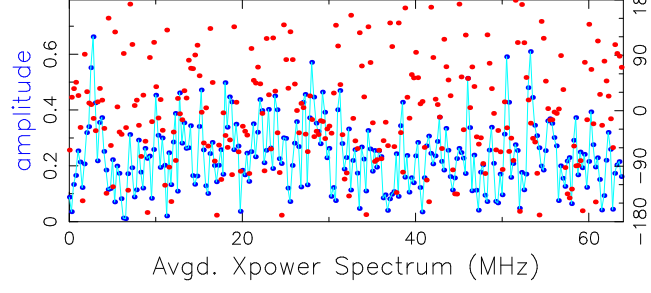
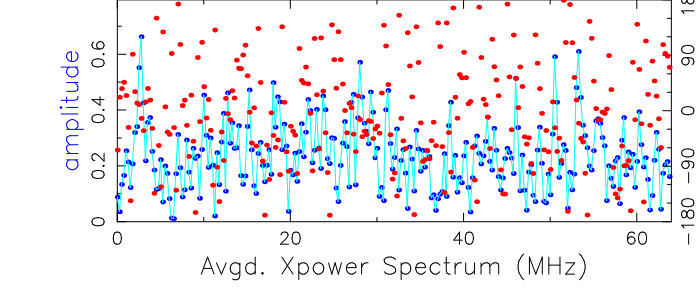
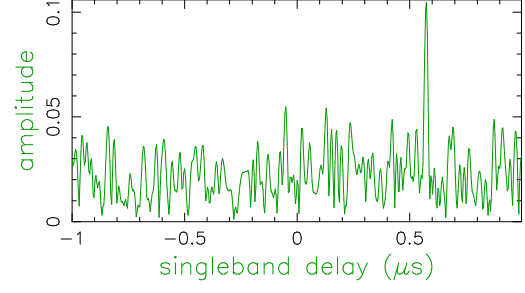
NRAO150.1X1QEV, No0120, fo

VLBA_FD - VLBA_OV, fgroup W, pol LR

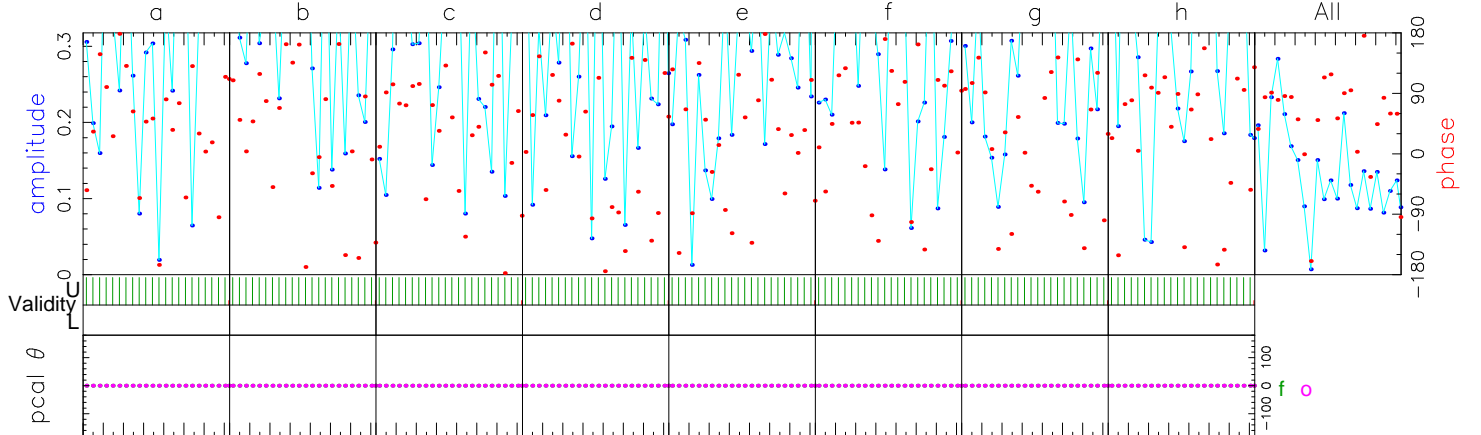
multiband delay (μ s)



Fringe quality 0
 SNR 5.9
 Int time 419.823
 Amp 0.106
 Phase 72.2
 PFD 5.5e-01
 Delays (us)
 SBD 0.572956
 MBD 0.003941
 Fringe rate (Hz)
 -0.061125
 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
 2021:304:133857
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



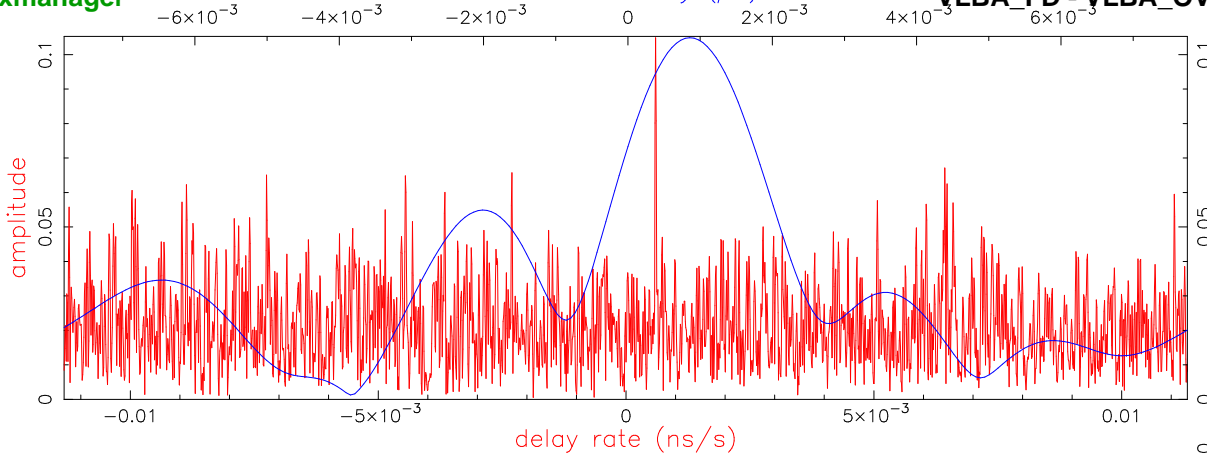
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



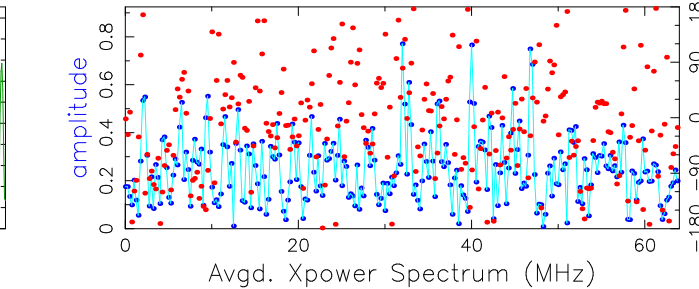
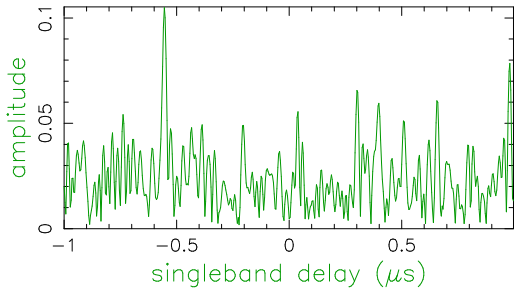
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	56.8	91.1	68.8	92.1	63.5	71.5	51.2	76.3	Phase	72.2
	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.2	Ampl.	0.1
	402.2	486.1	366.0	301.7	447.2	67.0	251.0	380.8	Sbd box	403.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.38543838453E+03		Apriori delay (usec)		-3.38600482510E+03		Resid mbdelay (usec)		3.94057E-03	+/- 1.8E-04
Sband delay (usec)	-3.38543186935E+03		Apriori clock (usec)		6.5061703E+00		Resid sbdelay (usec)		5.72956E-01	+/- 1.5E-03
Phase delay (usec)	-3.38600482278E+03		Apriori clockrate (us/s)		-3.0000002E-07		Resid phdelay (usec)		2.32730E-06	+/- 6.2E-07
Delay rate (us/s)	-1.64376773639E-01		Apriori rate (us/s)		-1.64376064037E-01		Resid rate (us/s)		-7.09603E-07	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		9.67449359957E-06		Resid phase (deg)		72.2	+/- 19.3

ph/seg (deg) 53.1 46.4 Search (2048X32) 0.101 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.4 81.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 16.0 27.4 Inc. seg. avg. 0.100 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.4 47.7 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
 f: az 313.0 el 40.5 pa 88.9 o: az 308.0 el 53.8 pa 92.9 u,v (fr/asec) 1519.044 388.585 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fo..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fo.W.58.1X1QEV simultaneous interpolator

multiband delay (μ s)



Fringe quality 0
SNR 5.9
Int time 419.823
Amp 0.105
Phase 77.7
PFD 6.2e-01
Delays (us)
SBD -0.553949
MBD 0.000875
Fringe rate (Hz)
0.051394
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"

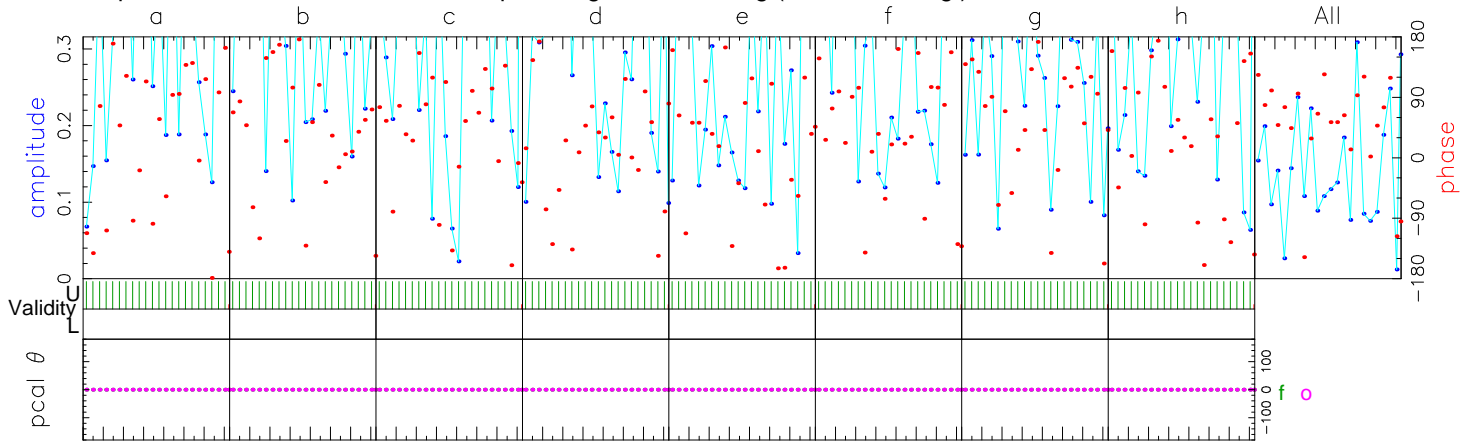


amplitude

amplitude

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

Group delay (usec)(sbd)	-3.38656644990E+03	Apriori delay (usec)	-3.38600482510E+03	Resid mbdelay (usec)	8.75207E-04	+/-	1.8E-04
Sband delay (usec)	-3.38655877460E+03	Apriori clock (usec)	6.5061703E+00	Resid sbdelay (usec)	-5.53949E-01	+/-	1.5E-03
Phase delay (usec)	-3.38600482260E+03	Apriori clockrate (us/s)	-3.0000002E-07	Resid phdelay (usec)	2.50420E-06	+/-	6.3E-07
Delay rate (us/s)	-1.64375467407E-01	Apriori rate (us/s)	-1.64376064037E-01	Resid rate (us/s)	5.96630E-07	+/-	2.6E-09
Total phase (deg)	-150.7	Apriori accel (us/s/s)	9.67449359957E-06	Resid phase (deg)	77.7	+/-	19.4

ph/seg (deg)	58.6	RMS	46.6	Theor.	58.6	Amplitude	0.105 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	76.7	Search (2048X32)	0.101	Apriori	0.101	Search	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	28.5	Interp.	0.000	Apriori clockrate	0.105	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	34.7	Inc. seg. avg.	0.105	Apriori rate	0.103	Inc. seg. avg.	0.105	Sample rate (MSamp/s): 128	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.103			Inc. frq. avg.	0.103	Data rate (Mb/s): 2048	ion window (TEC)	0.00 0.00	

f: az 313.0 el 40.5 pa 88.9 o: az 308.0 el 53.8 pa 92.9 u,v (fr/asec) 1519.044 388.585 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fo..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fo.W.77.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

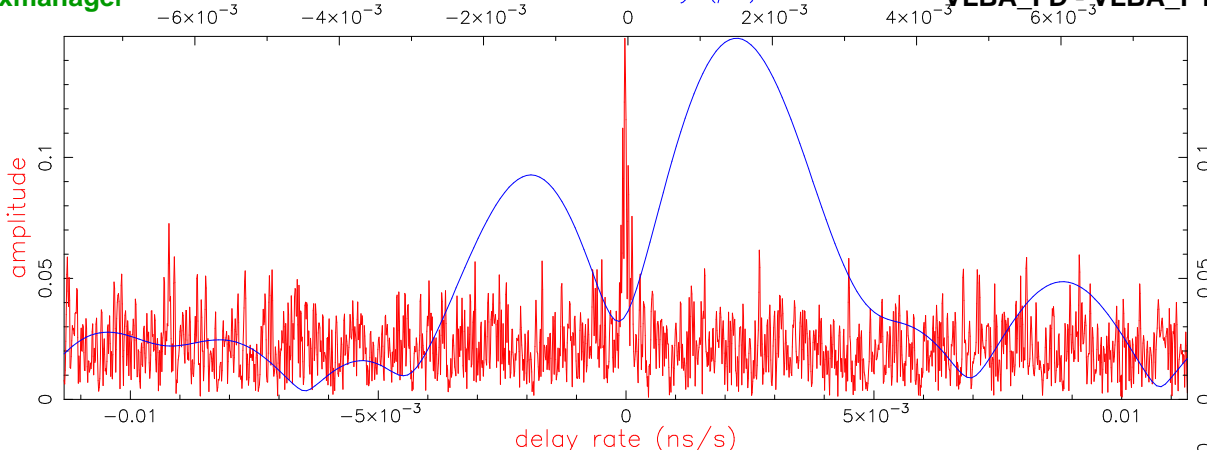
fxmanager

NRAO150.1X1QEV, No0120, fp

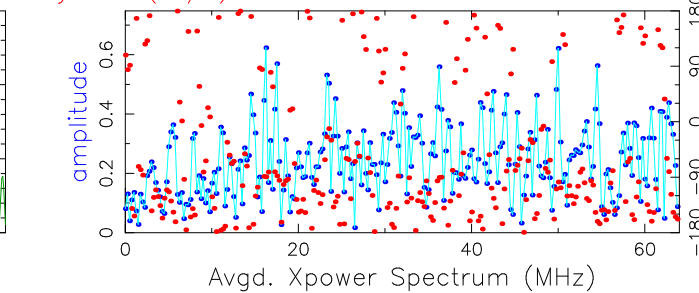
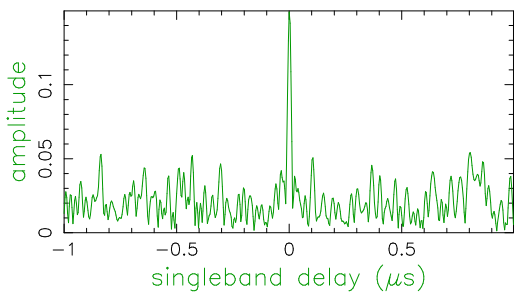
VLBA_FD - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 9

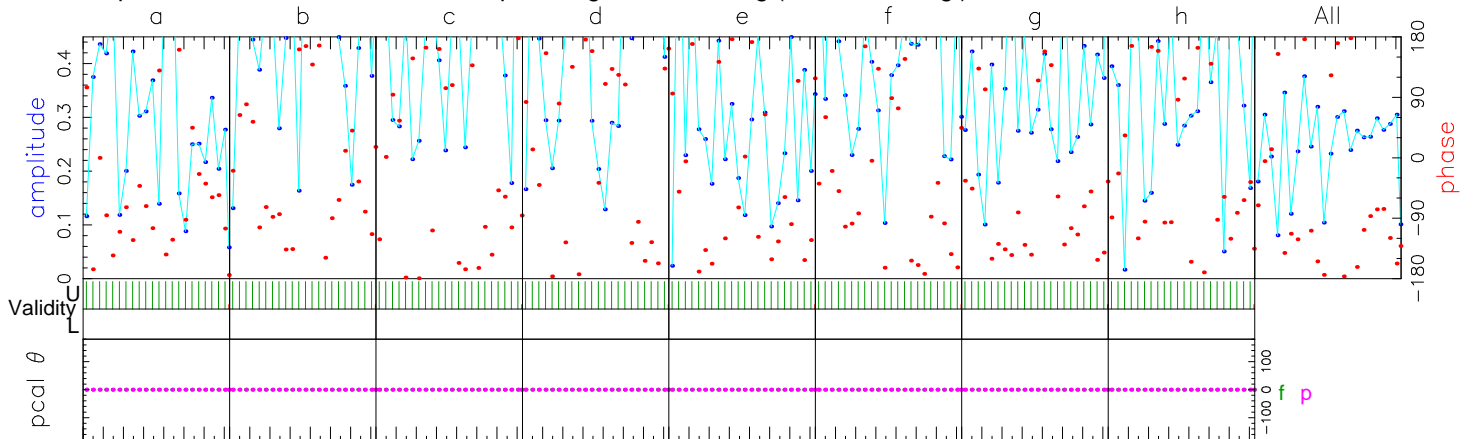


SNR 8.4
 Int time 419.825
 Amp 0.150
 Phase -135.8
 PFD 1.6e-08
 Delays (us)
 SBD 0.000887
 MBD 0.001517
 Fringe rate (Hz)
 -0.001778
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133850
 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



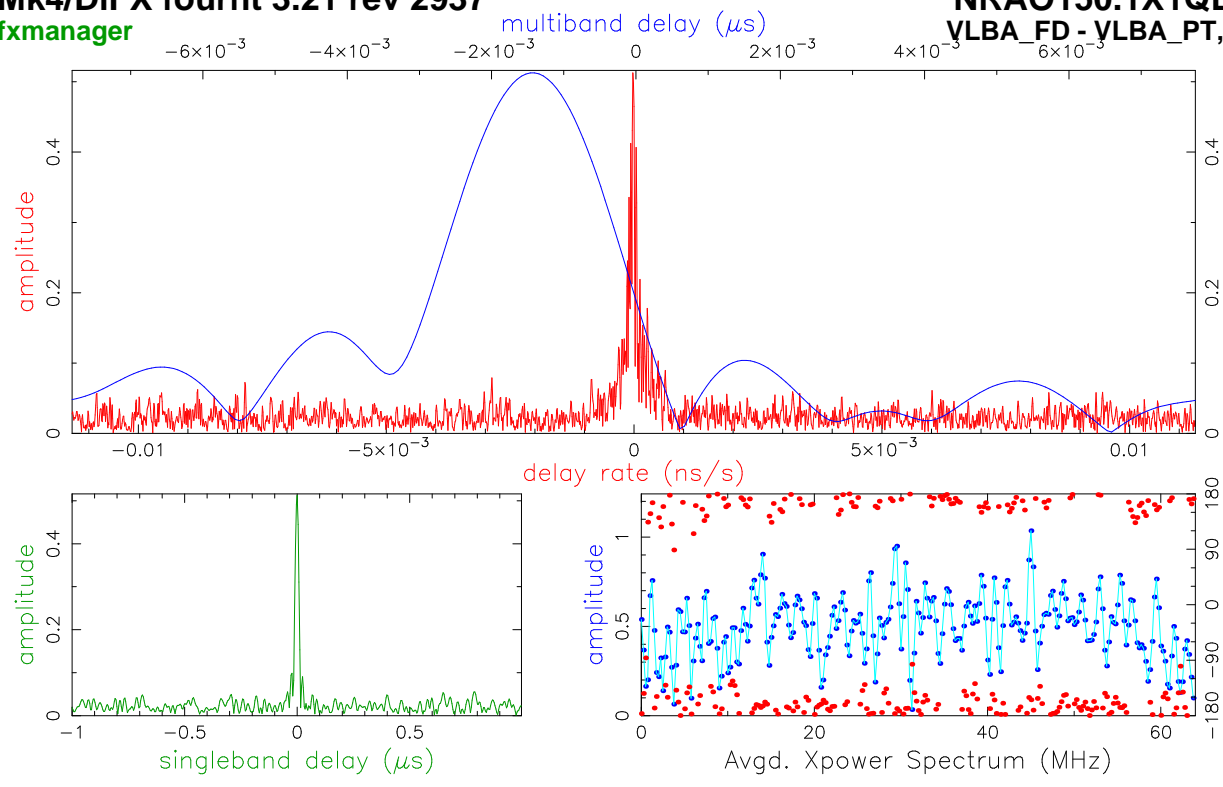
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-100.2	-118.1	-161.1	177.2	-137.9	-100.4	-127.0	-131.5	Phase	-135.8
	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	Ampl.	0.2
	256.4	49.0	256.8	256.6	206.1	488.0	256.2	258.6	Sbd box	257.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.38539769280E+03	Apriori delay (usec)	-1.38539921021E+03	Resid mbdelay (usec)	1.51742E-03	+/-	1.3E-04
Sband delay (usec)	-1.38539832296E+03	Apriori clock (usec)	4.7299023E+00	Resid sbdelay (usec)	8.87250E-04	+/-	1.0E-03
Phase delay (usec)	-1.38539921459E+03	Apriori clockrate (us/s)	1.8000000E-07	Resid phdelay (usec)	-4.37890E-06	+/-	4.4E-07
Delay rate (us/s)	-5.81585216949E-02	Apriori rate (us/s)	-5.81585010560E-02	Resid rate (us/s)	-2.06389E-08	+/-	1.8E-09
Total phase (deg)	-124.2	Apriori accel (us/s/s)	2.65616252971E-06	Resid phase (deg)	-135.8	+/-	13.6

ph/seg (deg)	61.0	Theor.	32.7	Amplitude	0.150 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	85.1		57.1	Search (2048X32)	0.149	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	31.1		19.3	Inc. seg. avg.	0.218	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	29.3		33.7	Inc. frq. avg.	0.159	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 313.0 el 40.5 pa 88.9 p: az 310.4 el 45.6 pa 88.4 u,v (fr/asec) 536.086 -49.800 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fp..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fp.W.20.1X1QEV

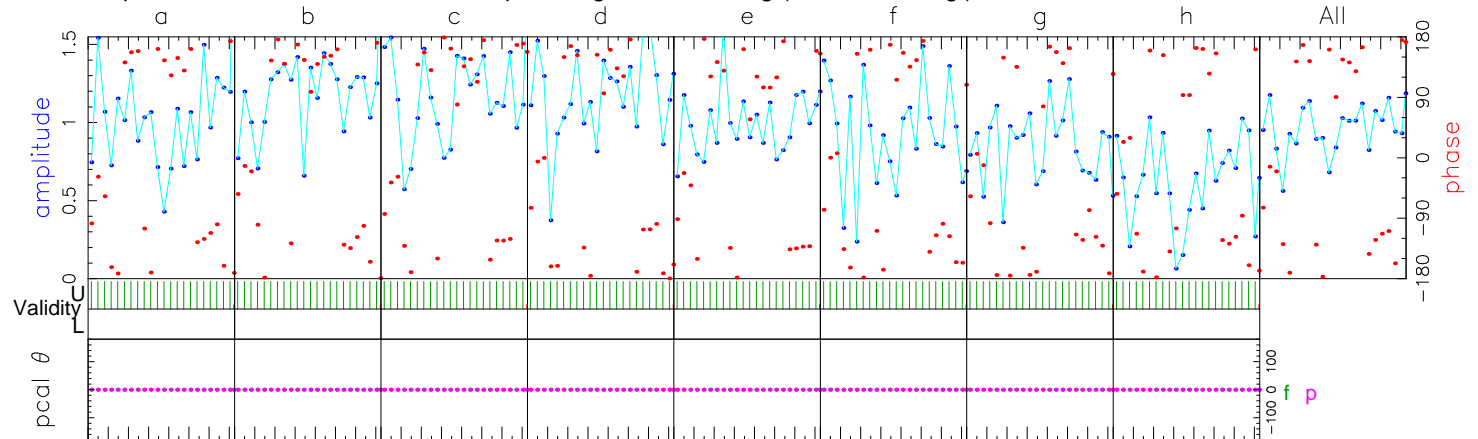


Fringe quality 7

SNR 28.9
Int time 419.825
Amp 0.516
Phase -171.3
PFD 0.0e+00
Delays (us)
SBD -0.001050
MBD -0.001458
Fringe rate (Hz)
-0.001750
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
2021:304:133854
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		
	-160.9	-176.0	-178.7	-172.6	169.5	-160.2	-164.0	-165.0	Phase	-171.3		
	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.3	Ampl.	0.5		
	256.9	256.2	256.5	256.4	256.8	257.3	257.2	256.4	Sbd box	256.7		
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			
p	0	0	0	0	0	0	0	0	PC freqs			
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
fp	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			
p	1000	1000	1000	1000	1000	1000	1000	1000				
f	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)	-1.38540066845E+03		Apriori delay (usec)		-1.38539921021E+03		Resid mbdelay (usec)		-1.45824E-03	+/- 3.8E-05		
Sband delay (usec)	-1.38540025996E+03		Apriori clock (usec)		4.7299023E+00		Resid sbdelay (usec)		-1.04975E-03	+/- 3.0E-04		
Phase delay (usec)	-1.38539921574E+03		Apriori clockrate (us/s)		1.8000000E-07		Resid phdelay (usec)		-5.52313E-06	+/- 1.3E-07		
Delay rate (us/s)	-5.81585213703E-02		Apriori rate (us/s)		-5.81585010560E-02		Resid rate (us/s)		-2.03143E-08	+/- 5.3E-10		
Total phase (deg)			Apriori accel (us/s/s)		2.65616252971E-06		Resid phase (deg)		-171.3	+/- 4.0		
	RMS	Theor.	Amplitude	0.516 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	65.5	9.5	Search (2048X32)	0.511		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	90.0	16.6	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	11.3	5.6	Inc. seg. avg.	0.943		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	18.0	9.8	Inc. frq. avg.	0.518		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
f: az 313.0 el 40.5 pa 88.9	p: az 310.4 el 45.6 pa 88.4		u,v (fr/asec) 536.086 -49.800						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c211c/v1/1234/No0120/fp..1X1QEV		Output file: /Exps/c211c/v1/1234/No0120/fp.W.40.1X1QEV									

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

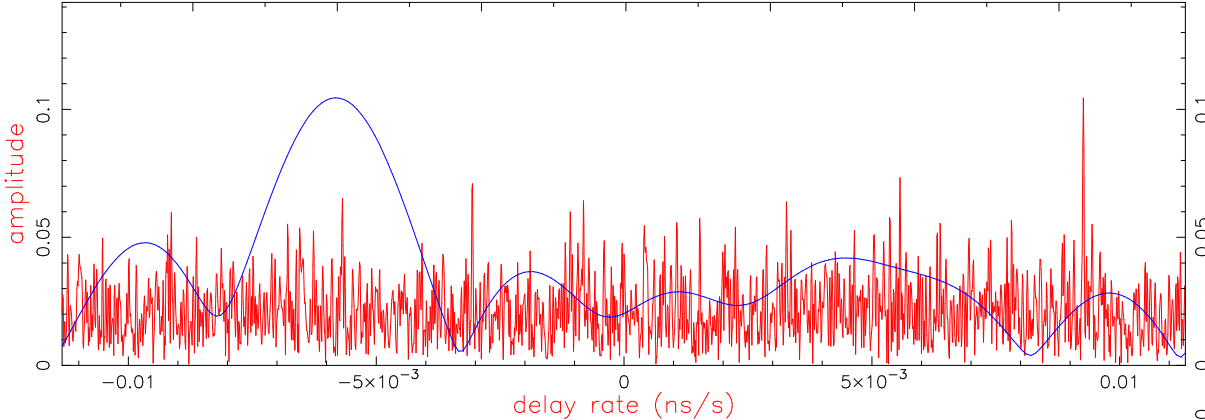
NRAO150.1X1QEV, No0120, fp

VLBA_FD - VLBA_PT, fgroup W, pol LR

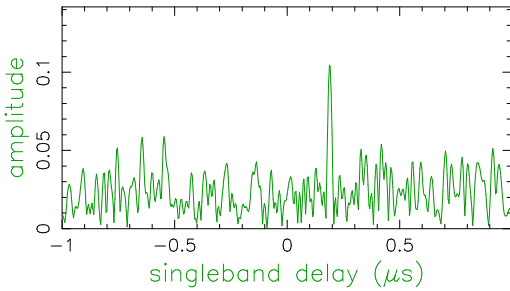
multiband delay (μ s)

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

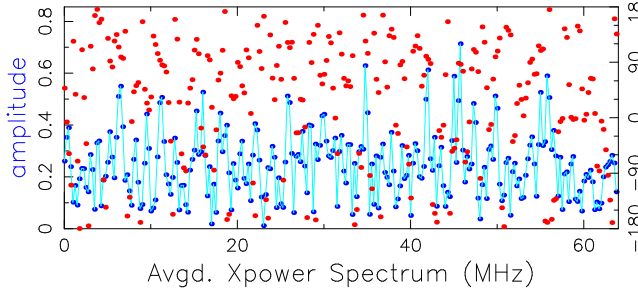
Fringe quality 0



SNR 5.9
Int time 419.825
Amp 0.142
Phase 156.8
PFD 5.5e-01
Delays (us)
SBD 0.189149
MBD -0.003977
Fringe rate (Hz)
0.799750
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

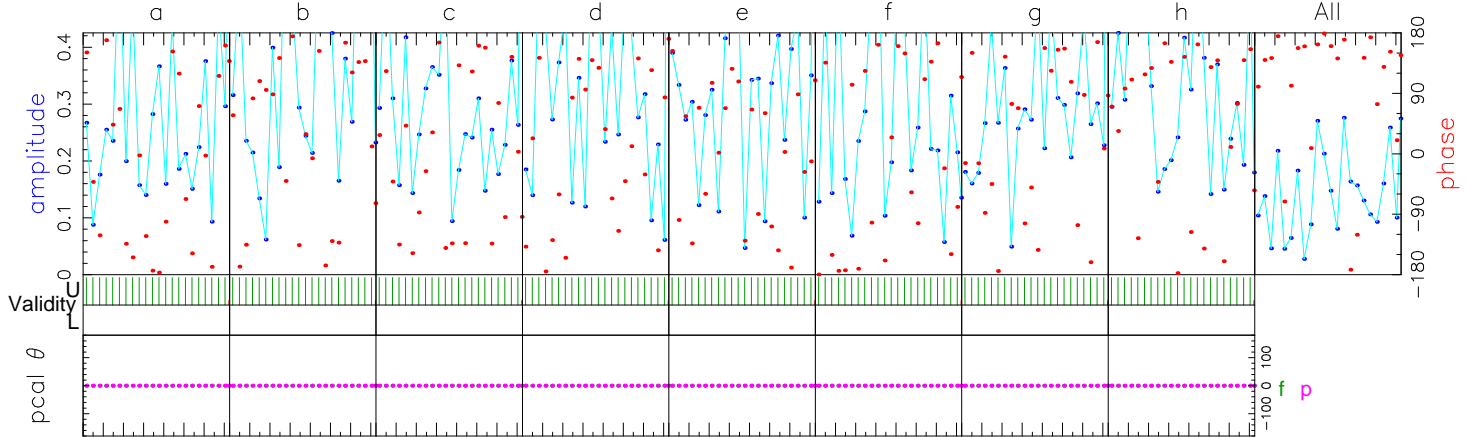


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133858
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		
f	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-1.38521568705E+03	Apriori delay (usec)	-1.38539921021E+03	Resid mbdelay (usec)	-3.97683E-03	+/-	1.8E-04
Sband delay (usec)	-1.38521006121E+03	Apriori clock (usec)	4.7299023E+00	Resid sbdelay (usec)	1.89149E-01	+/-	1.5E-03
Phase delay (usec)	-1.38539920516E+03	Apriori clockrate (us/s)	1.8000000E-07	Resid phdelay (usec)	5.05555E-06	+/-	6.2E-07
Delay rate (us/s)	-5.81492167469E-02	Apriori rate (us/s)	-5.81585010560E-02	Resid rate (us/s)	9.28431E-06	+/-	2.6E-09
Total phase (deg)	-191.7	Apriori accel (us/s/s)	2.65616252971E-06	Resid phase (deg)	156.8	+/-	19.3

ph/seg (deg)	RMS 60.9	Theor. 46.4	Amplitude Search (2048X32)	0.142 +/- 0.024	0.099	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	75.8	80.9	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)	22.0	27.3	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 (%)	48.8	47.7	Inc. frq. avg.	0.131	0.131	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 313.0 el 40.5 pa 88.9 p: az 310.4 el 45.6 pa 88.4 u,v (fr/asec) 536.086 -49.800 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fp..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fp.W.60.1X1QEV

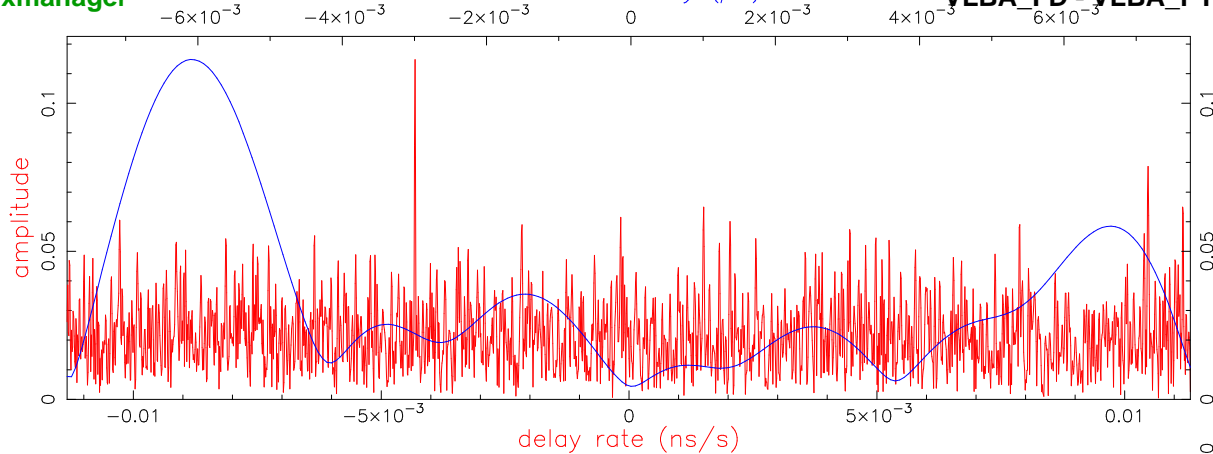
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fp

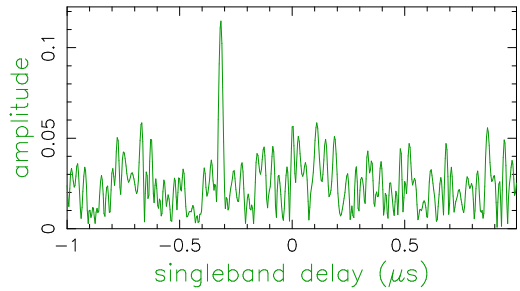
VLBA_FD - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

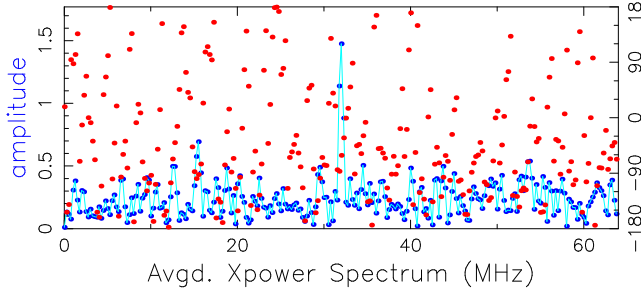


Fringe quality 0

SNR 6.5
Int time 419.825
Amp 0.123
Phase -63.4
PFD 2.8e-02
Delays (us)
SBD -0.317462
MBD -0.006111
Fringe rate (Hz)
-0.372928
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

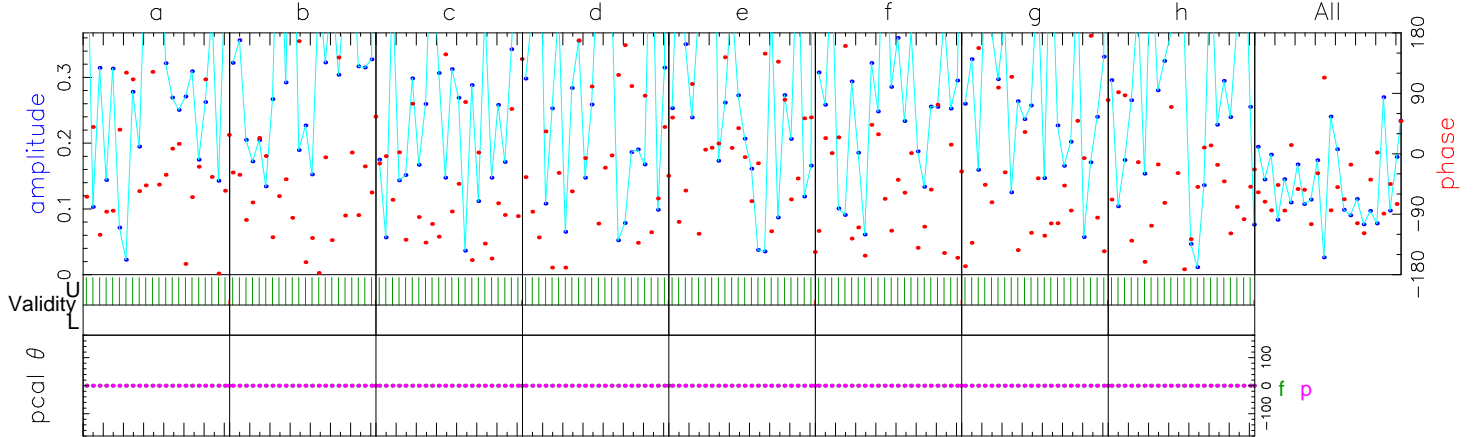


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133902
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
	-46.6	-71.3	-97.3	-74.6	-15.1	-54.2	-87.9	-58.7	Phase	-63.4
	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	67.4	264.6	211.9	424.3	151.5	173.4	178.3	112.2	Sbd box	175.7
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	
p	0	0	0	0	0	0	0	0	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.38571782129E+03	Apriori delay (usec)	-1.38539921021E+03	Resid mbdelay (usec)	-6.11107E-03	+/-	1.7E-04
Sband delay (usec)	-1.38571667196E+03	Apriori clock (usec)	4.7299023E+00	Resid sbdelay (usec)	-3.17462E-01	+/-	1.3E-03
Phase delay (usec)	-1.38539921226E+03	Apriori clockrate (us/s)	1.8000000E-07	Resid phdelay (usec)	-2.04470E-06	+/-	5.7E-07
Delay rate (us/s)	-5.81628303799E-02	Apriori rate (us/s)	-5.81585010560E-02	Resid rate (us/s)	-4.32932E-06	+/-	2.4E-09
Total phase (deg)	-51.8	Apriori accel (us/s/s)	2.65616252971E-06	Resid phase (deg)	-63.4	+/-	17.7

ph/seg (deg)	50.7	Theor.	42.5	Amplitude	0.123 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	53.3	Search (2048X32)	0.111	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	27.8	Inc. seg. avg.	0.114	Inc. frq. avg.	0.121	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	20.9	Inc. frq. avg.	0.121			Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011		
f: az 313.0 el 40.5 pa 88.9		p: az 310.4 el 45.6 pa 88.4		u,v (fr/asec)	536.086 -49.800	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/fp..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fp.W.80.1X1QEV

simultaneous interpolator

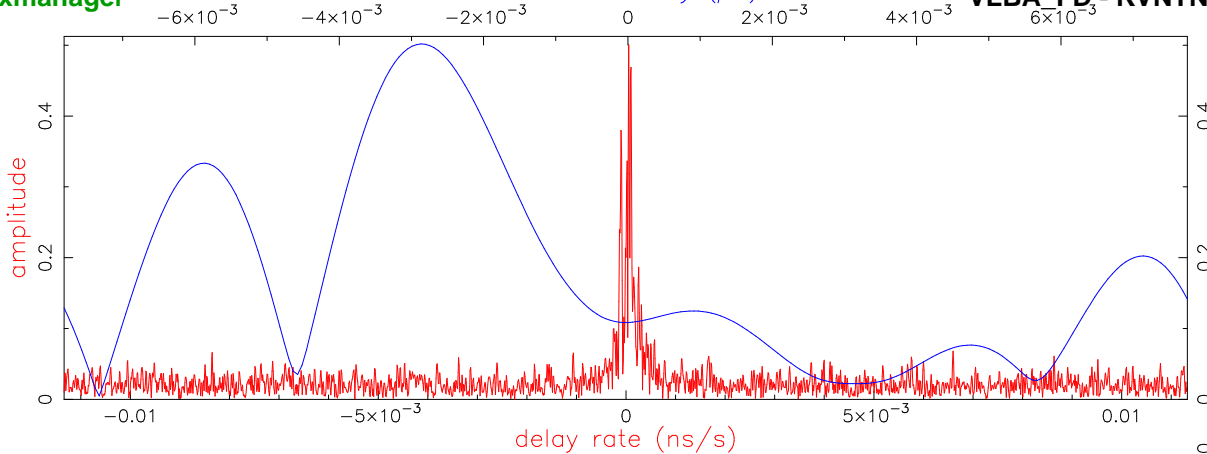
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ft

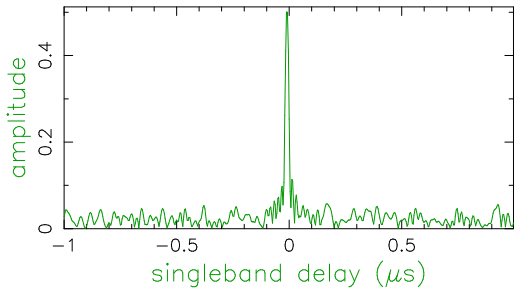
VLBA_FD - KVNTN, fgroup W, pol RR

multiband delay (μ s)

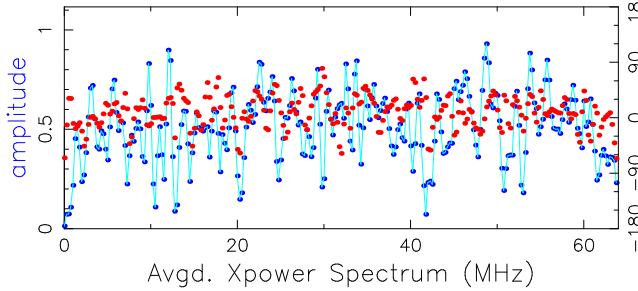


Fringe quality 4

SNR 28.7
 Int time 419.826
 Amp 0.512
 Phase -69.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.009784
 MBD -0.002776
 Fringe rate (Hz)
 0.004612
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

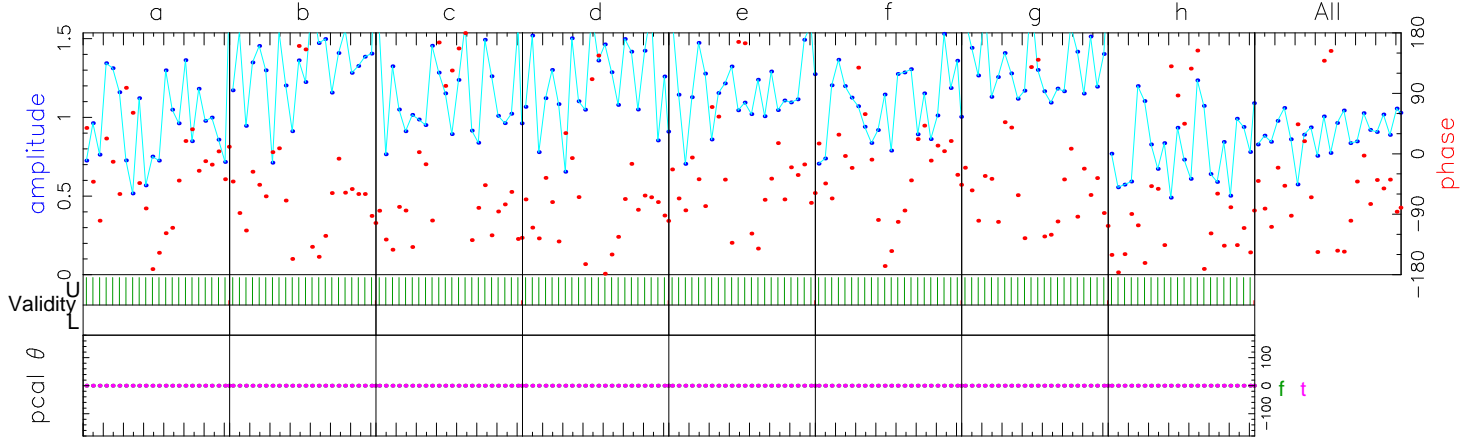


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133908
 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
	-27.8	-76.1	-112.2	-88.7	-51.8	-17.7	-59.3	-139.6	Phase	-69.3
	0.5	0.8	0.6	0.6	0.6	0.6	0.7	0.4	Ampl.	0.6
	253.0	254.1	254.9	254.6	254.5	254.7	253.9	252.1	Sbd box	254.5
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	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ft	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.49841041724E+01		Apriori delay (usec)		9.49868800930E+01		Resid mbdelay (usec)		-2.77592E-03	+/- 3.8E-05
Sband delay (usec)	9.49770958430E+01		Apriori clock (usec)		1.0530775E+01		Resid sbdelay (usec)		-9.78425E-03	+/- 3.0E-04
Phase delay (usec)	9.49868778582E+01		Apriori clockrate (us/s)		1.0999999E-07		Resid phdelay (usec)		-2.23485E-06	+/- 1.3E-07
Delay rate (us/s)	-1.49853180324E+00		Apriori rate (us/s)		-1.49853185679E+00		Resid rate (us/s)		5.35436E-08	+/- 5.3E-10
Total phase (deg)	237.1		Apriori accel (us/s/s)		-3.88343194426E-06		Resid phase (deg)		-69.3	+/- 4.0

ph/seg (deg) 65.3 9.6 Search (2048X32) 0.494 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 79.9 16.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 44.7 5.6 Inc. seg. avg. 0.893 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 27.2 9.9 Inc. frq. avg. 0.608 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 313.0 el 40.5 pa 88.9 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 13634.501 -767.331 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ft..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ft.W.101.1X1QEV simultaneous interpolator

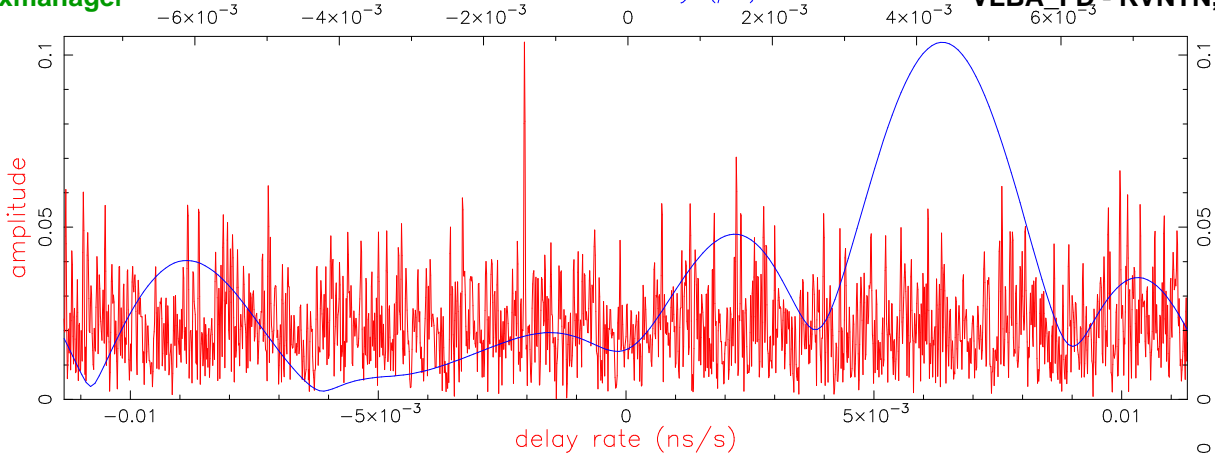
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ft

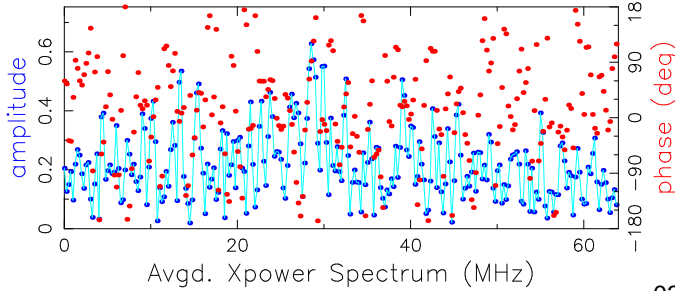
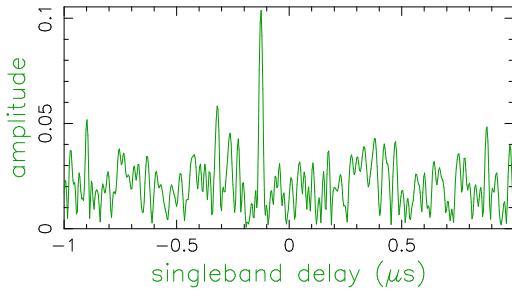
VLBA_FD - KVNTN, fgroup W, pol LR

multiband delay (μ s)



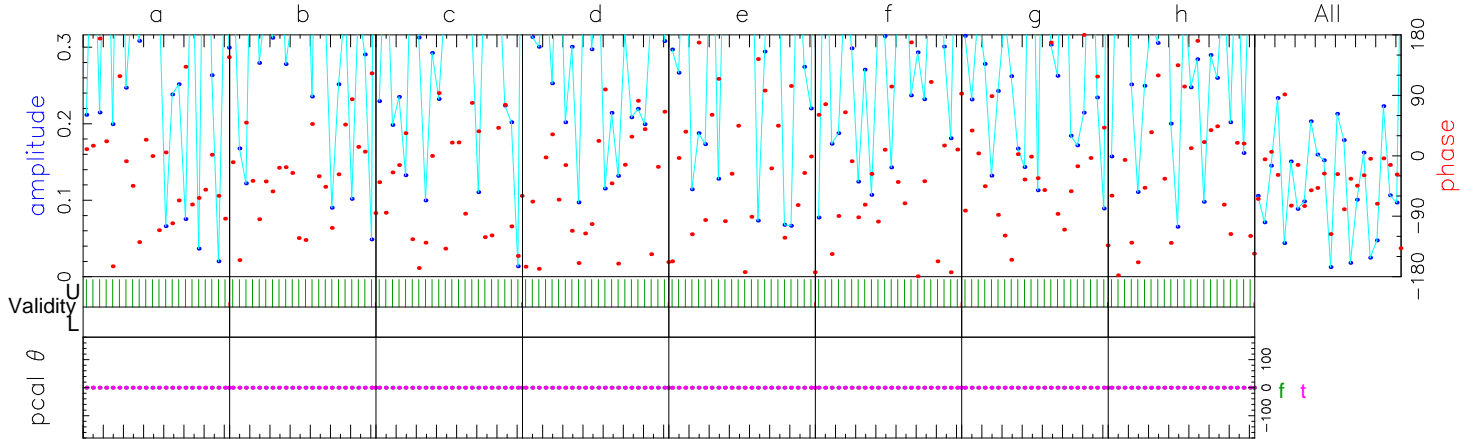
Fringe quality 0

SNR 5.8
 Int time 419.826
 Amp 0.105
 Phase -36.9
 PFD 7.6e-01
 Delays (us)
 SBD -0.125693
 MBD 0.004354
 Fringe rate (Hz)
 -0.176344
 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
 2021:304:133912
 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
	-32.8	-33.2	-59.5	-49.7	-18.3	-18.7	-50.8	-23.3	Phase	-36.9
	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.1	Ampl.	0.1
	31.0	224.9	309.9	355.4	295.2	79.4	155.4	449.6	Sbd box	224.8
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	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ft	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	
t	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.48662339382E+01		Apriori delay (usec)		9.49868800930E+01		Resid mbdelay (usec)		4.35385E-03	+/- 1.9E-04
Sband delay (usec)	9.48611868430E+01		Apriori clock (usec)		1.0530775E+01		Resid sbdelay (usec)		-1.25693E-01	+/- 1.5E-03
Phase delay (usec)	9.49868789026E+01		Apriori clockrate (us/s)		1.0999999E-07		Resid phdelay (usec)		-1.19040E-06	+/- 6.3E-07
Delay rate (us/s)	-1.49853390397E+00		Apriori rate (us/s)		-1.49853185679E+00		Resid rate (us/s)		-2.04718E-06	+/- 2.6E-09
Total phase (deg)	269.5		Apriori accel (us/s/s)		-3.88343194426E-06		Resid phase (deg)		-36.9	+/- 19.7

ph/seg (deg) 41.3 47.1 Search (2048X32) 0.102 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 69.5 82.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.1 27.8 Inc. seg. avg. 0.092 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.6 48.5 Inc. frq. avg. 0.097 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 313.0 el 40.5 pa 88.9 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 13634.501 -767.331 ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ft..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ft.W.121.1X1QEV

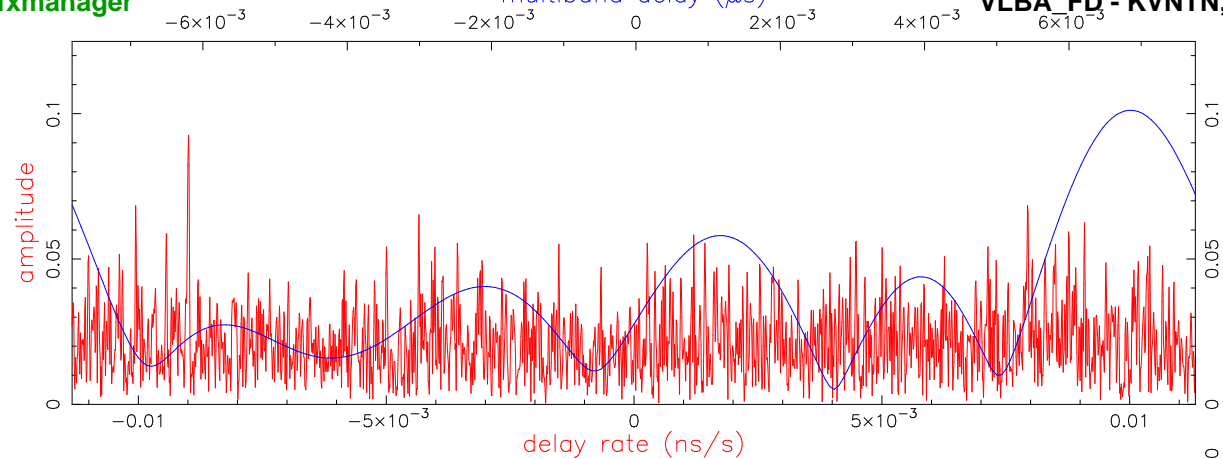
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ft

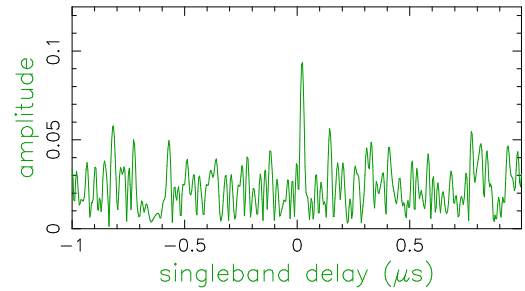
VLBA_FD - KVNTN, fgroup W, pol RL

multiband delay (μ s)

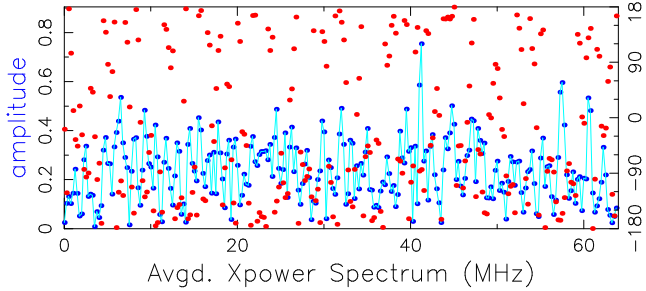


Fringe quality 0

SNR 5.3
 Int time 419.826
 Amp 0.125
 Phase -178.0
 PFD 1.0e+00
 Delays (us)
 SBD 0.021710
 MBD -0.008301
 Fringe rate (Hz)
 -0.775408
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

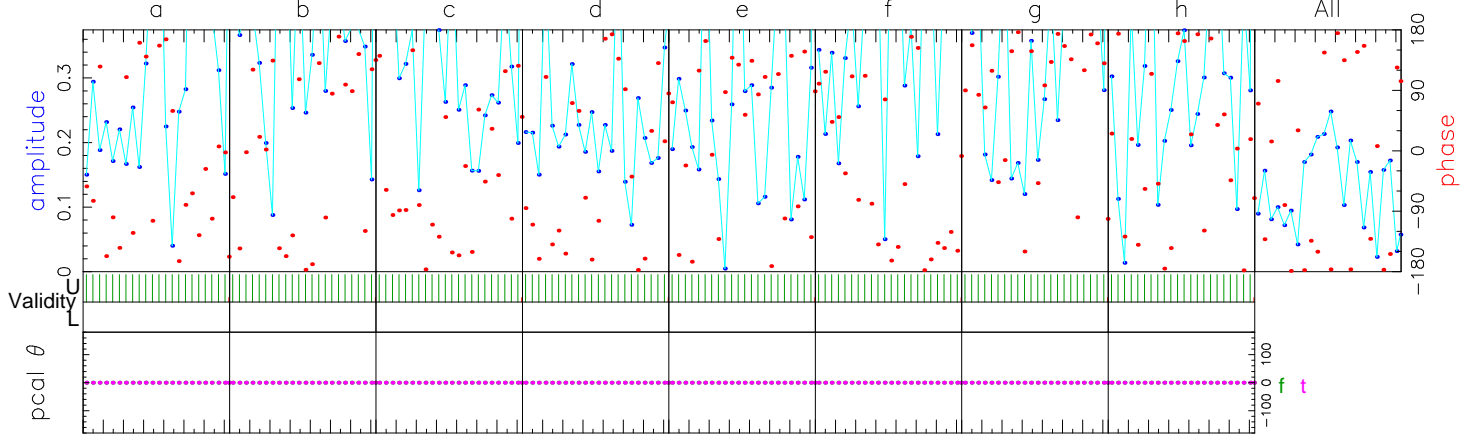


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133916
 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
	-116.1	161.4	-119.4	163.0	151.3	-158.1	142.7	136.1	Phase	-178.0
	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.0	Ampl.	0.1
	334.7	217.0	500.9	347.3	496.8	264.6	261.3	136.5	Sbd box	262.6
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	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ft	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	
t	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.50098293118E+01		Apriori delay (usec)		9.49868800930E+01		Resid mbdelay (usec)		-8.30078E-03	+/- 2.0E-04
Sband delay (usec)	9.50085898430E+01		Apriori clock (usec)		1.0530775E+01		Resid sbdelay (usec)		2.17097E-02	+/- 1.6E-03
Phase delay (usec)	9.49868743523E+01		Apriori clockrate (us/s)		1.0999999E-07		Resid phdelay (usec)		-5.74072E-06	+/- 6.9E-07
Delay rate (us/s)	-1.49854085851E+00		Apriori rate (us/s)		-1.49853185679E+00		Resid rate (us/s)		-9.00172E-06	+/- 2.9E-09
Total phase (deg)	128.4		Apriori accel (us/s/s)		-3.88343194426E-06		Resid phase (deg)		-178.0	+/- 21.5

ph/seg (deg) 75.8 51.7 Search (2048X32) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 78.0 90.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.6 30.5 Inc. seg. avg. 0.124 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 50.7 53.2 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
 f: az 313.0 el 40.5 pa 88.9 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 13634.501 -767.331 ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ft..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ft.W.141.1X1QEV

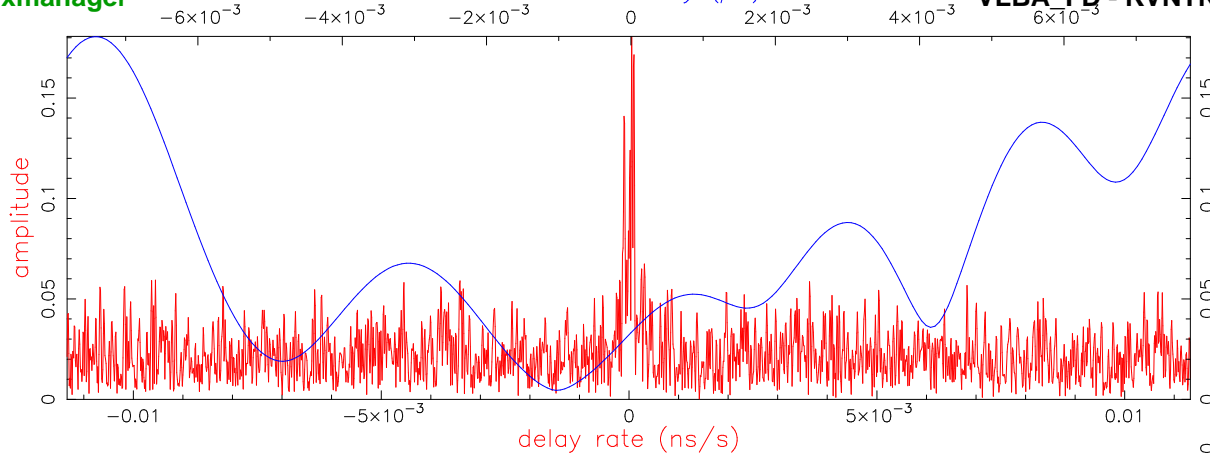
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ft

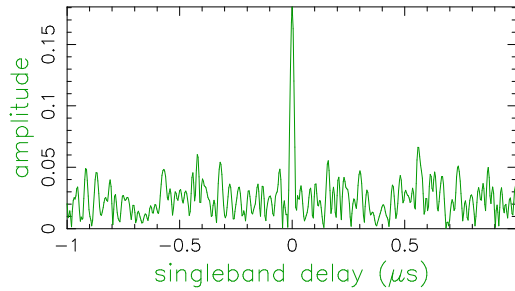
VLBA_FD - KVNTN, fgroup W, pol LL

multiband delay (μ s)

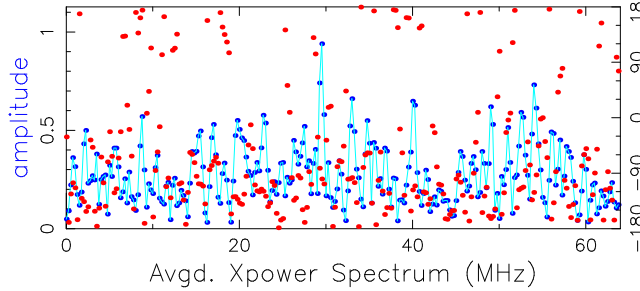


Fringe quality 9

SNR 10.1
 Int time 419.826
 Amp 0.181
 Phase -36.8
 PFD 1.9e-15
 Delays (us)
 SBD -0.000340
 MBD -0.007435
 Fringe rate (Hz)
 0.004689
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

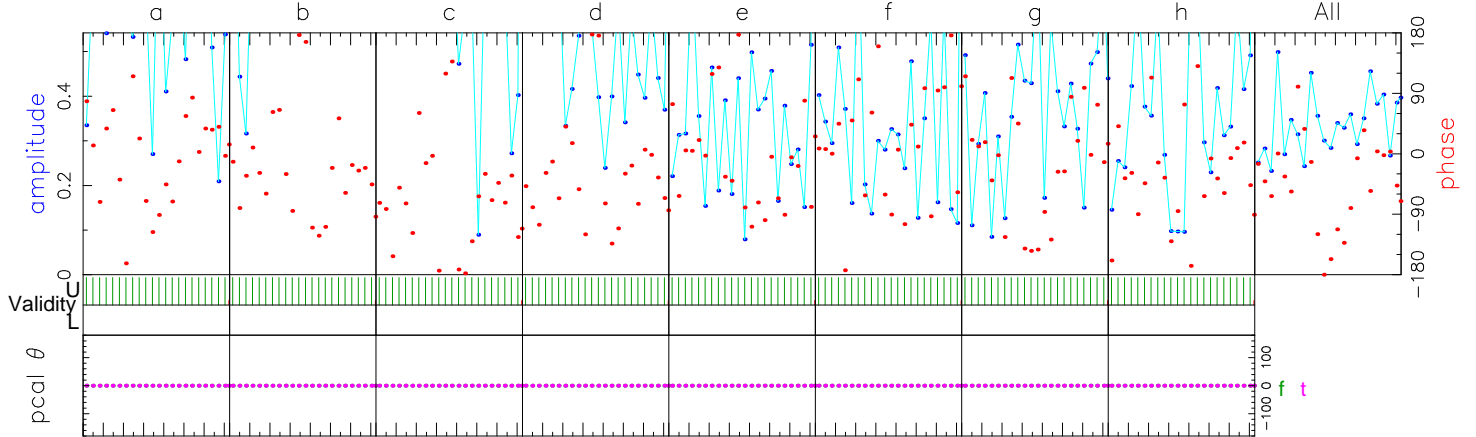


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133904
 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
	7.6	-40.7	-91.2	-60.1	-36.6	49.2	8.6	-34.2	Phase	-36.8
	0.3	0.4	0.2	0.3	0.1	0.1	0.1	0.2	Ampl.	0.2
	255.4	256.5	257.9	257.7	487.0	1.7	443.5	255.0	Sbd box	256.9
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	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ft	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	
t	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.49794455474E+01		Apriori delay (usec)		9.49868800930E+01		Resid mbdelay (usec)		-7.43455E-03	+/- 1.1E-04
Sband delay (usec)	9.49865403430E+01		Apriori clock (usec)		1.0530775E+01		Resid sbdelay (usec)		-3.39750E-04	+/- 8.5E-04
Phase delay (usec)	9.49868789056E+01		Apriori clockrate (us/s)		1.0999999E-07		Resid phdelay (usec)		-1.18740E-06	+/- 3.7E-07
Delay rate (us/s)	-1.49853180235E+00		Apriori rate (us/s)		-1.49853185679E+00		Resid rate (us/s)		5.44399E-08	+/- 1.5E-09
Total phase (deg)	269.6		Apriori accel (us/s/s)		-3.88343194426E-06		Resid phase (deg)		-36.8	+/- 11.3

	RMS	Theor.	Amplitude	0.181 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	66.2	27.1	Search (2048X32)	0.179	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	94.8	47.4	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	49.9	16.0	Inc. seg. avg.	0.303	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	66.6	27.9	Inc. frq. avg.	0.212	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 313.0 el 40.5 pa 88.9 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 13634.501 -767.331 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ft..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ft.W.81.1X1QEV

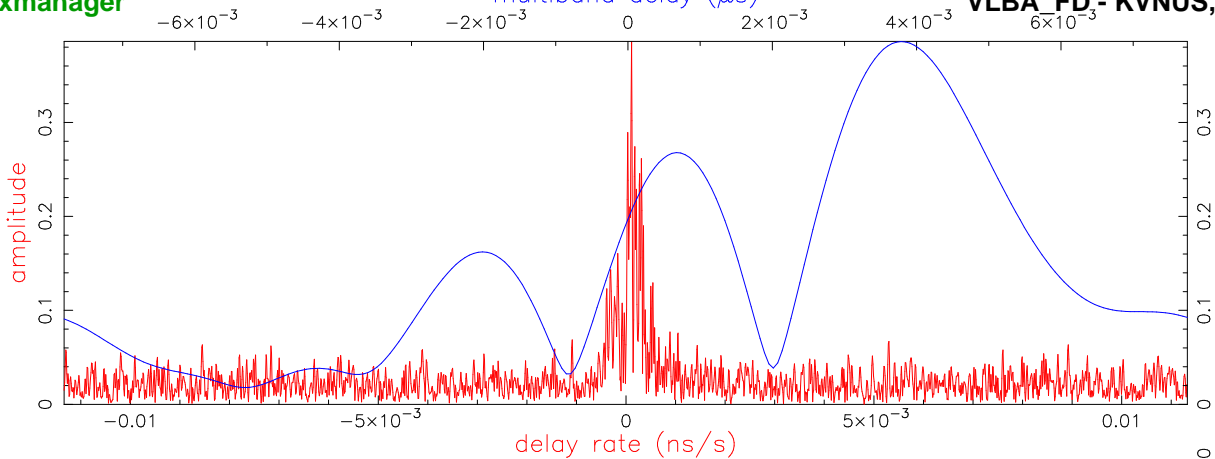
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fu

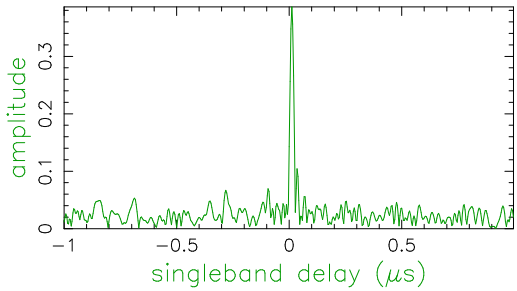
VLBA_FD- KVNUS, fgroup W, pol RR

multiband delay (μ s)

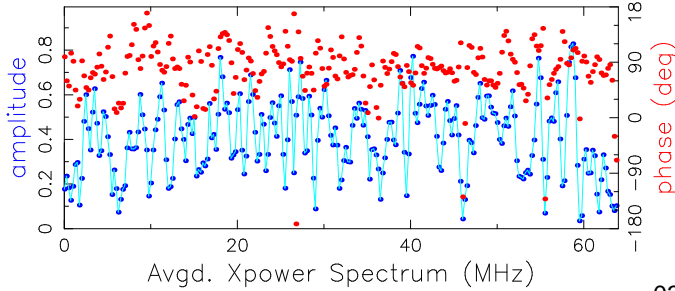


Fringe quality 8

SNR 21.6
 Int time 419.826
 Amp 0.386
 Phase 179.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.011996
 MBD 0.003801
 Fringe rate (Hz)
 0.009630
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

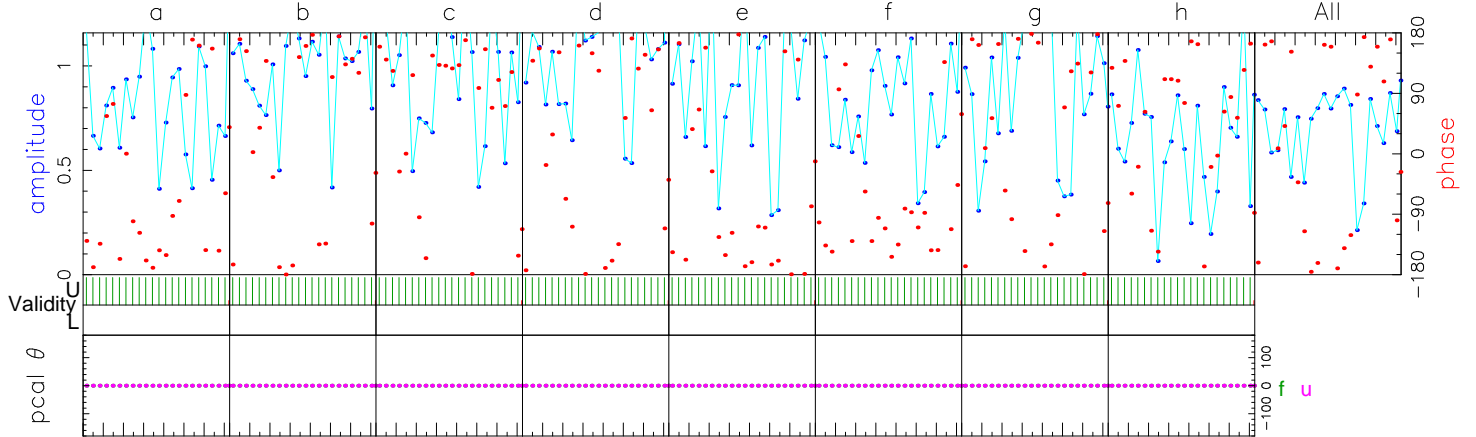


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133908
 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
	-143.5	172.2	135.9	165.3	-159.5	-117.9	-174.6	99.1	Phase	179.9
	0.4	0.6	0.6	0.6	0.4	0.5	0.5	0.3	Ampl.	0.5
	258.2	259.8	260.4	260.3	260.6	260.2	259.1	258.0	Sbd box	260.1
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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-8.17520919759E+02		Apriori delay (usec)	-8.17540346167E+02	Resid mbdelay (usec)	3.80141E-03	+/-	5.0E-05		
Sband delay (usec)	-8.17528350417E+02		Apriori clock (usec)	-4.5022850E+00	Resid sbdelay (usec)	1.19957E-02	+/-	4.0E-04		
Phase delay (usec)	-8.17540340367E+02		Apriori clockrate (us/s)	-1.0670000E-06	Resid phdelay (usec)	5.79984E-06	+/-	1.7E-07		
Delay rate (us/s)	-1.46232859472E+00		Apriori rate (us/s)	-1.46232870652E+00	Resid rate (us/s)	1.11798E-07	+/-	7.0E-10		
Total phase (deg)		29.1	Apriori accel (us/s/s)	-1.95626858186E-06	Resid phase (deg)	179.9	+/-	5.3		

ph/seg (deg) 69.4 12.7 Search (2048X32) 0.382 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 93.6 22.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 49.0 7.5 Inc. seg. avg. 0.682 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 36.4 13.1 Inc. frq. avg. 0.482 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 313.0 el 40.5 pa 88.9 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 13309.604 -756.914 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fu.W.104.1X1QEV

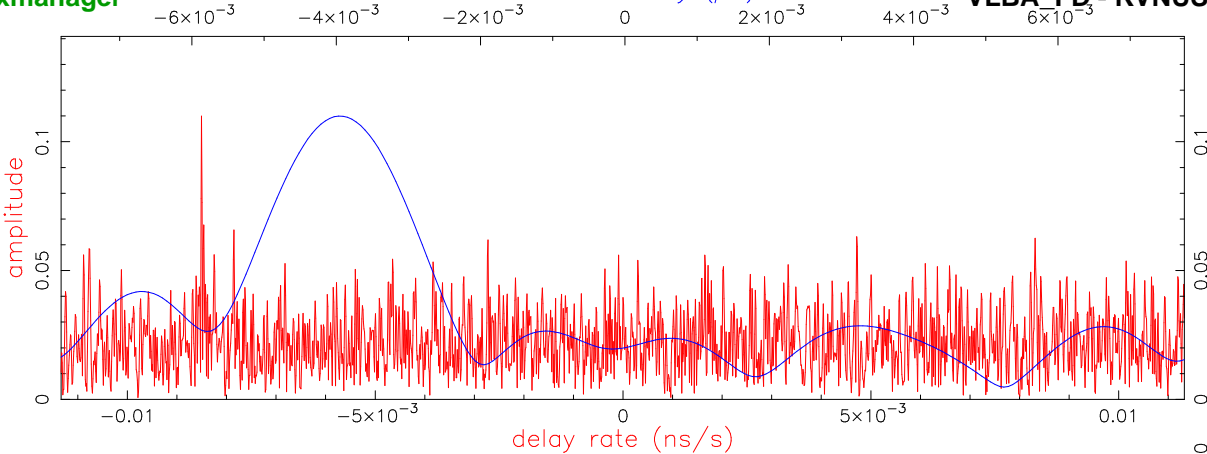
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fu

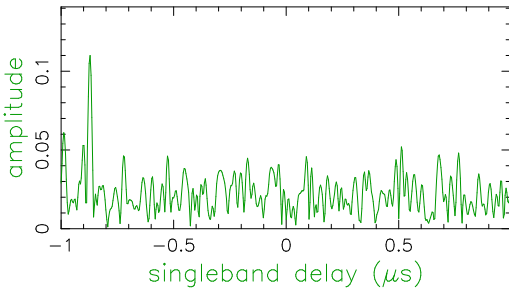
VLBA_FD - KVNUS, fgroup W, pol LR

multiband delay (μs)

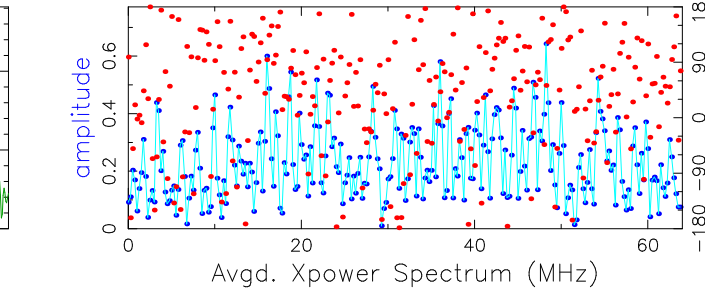


Fringe quality 0

SNR 6.2
 Int time 419.826
 Amp 0.141
 Phase 152.8
 PFD 1.5e-01
 Delays (us)
 SBD -0.871921
 MBD -0.003955
 Fringe rate (Hz)
 -0.733727
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

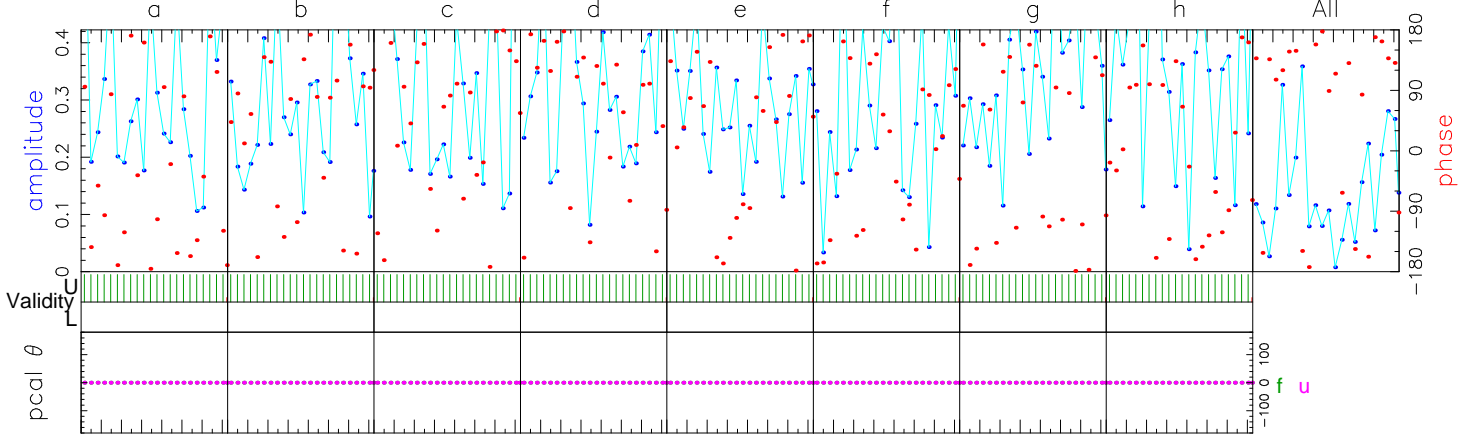


singleband delay (μs)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133912
 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
	-178.2	139.4	154.8	132.2	133.2	131.3	161.3	172.4	Phase	152.8
	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1
	335.6	276.1	50.1	430.8	402.2	481.7	34.6	235.9	Sbd box	33.8
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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-8.18419301159E+02	Apriori delay (usec)	-8.17540346167E+02	Resid mbdelay (usec)	-3.95499E-03	+/-	1.8E-04
Sband delay (usec)	-8.18412267417E+02	Apriori clock (usec)	-4.5022850E+00	Resid sbdelay (usec)	-8.71921E-01	+/-	1.4E-03
Phase delay (usec)	-8.17540341241E+02	Apriori clockrate (us/s)	-1.0670000E-06	Resid phdelay (usec)	4.92656E-06	+/-	6.0E-07
Delay rate (us/s)	-1.46233722436E+00	Apriori rate (us/s)	-1.46232870652E+00	Resid rate (us/s)	-8.51784E-06	+/-	2.5E-09
Total phase (deg)	2.0	Apriori accel (us/s/s)	-1.95626858186E-06	Resid phase (deg)	152.8	+/-	18.5

ph/seg (deg)	49.0	Theor.	44.4	Amplitude	0.141 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	90.7	Search (2048X32)	0.102	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	21.4	Inc. seg. avg.	0.142	Inc. frq. avg.	0.133	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	33.6	Inc. frq. avg.	0.133			Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
						nlags: 256	t_cohere infinite

f: az 313.0 el 40.5 pa 88.9 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 13309.604 -756.914 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fu.W.120.1X1QEV

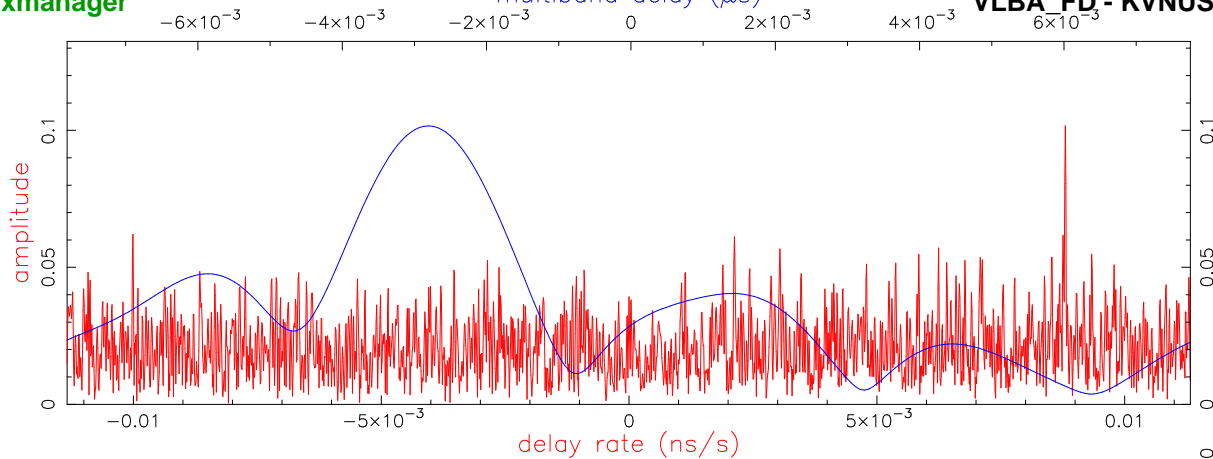
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fu

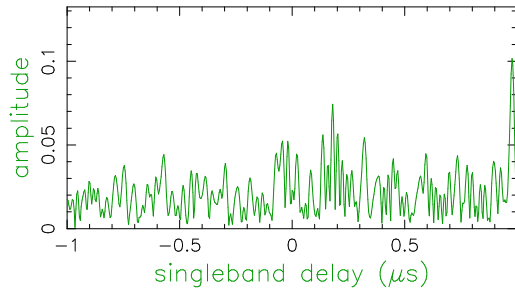
VLBA_FD - KVNUS, fgroup W, pol RL

multiband delay (μs)

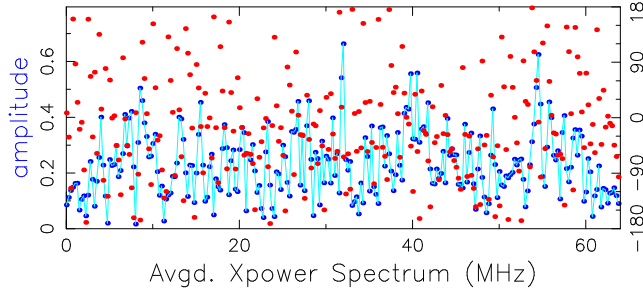


Fringe quality 0

SNR 5.7
 Int time 419.826
 Amp 0.132
 Phase 104.3
 PFD 9.4e-01
 Delays (us)
 SBD 0.977368
 MBD -0.002818
 Fringe rate (Hz)
 0.759141
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

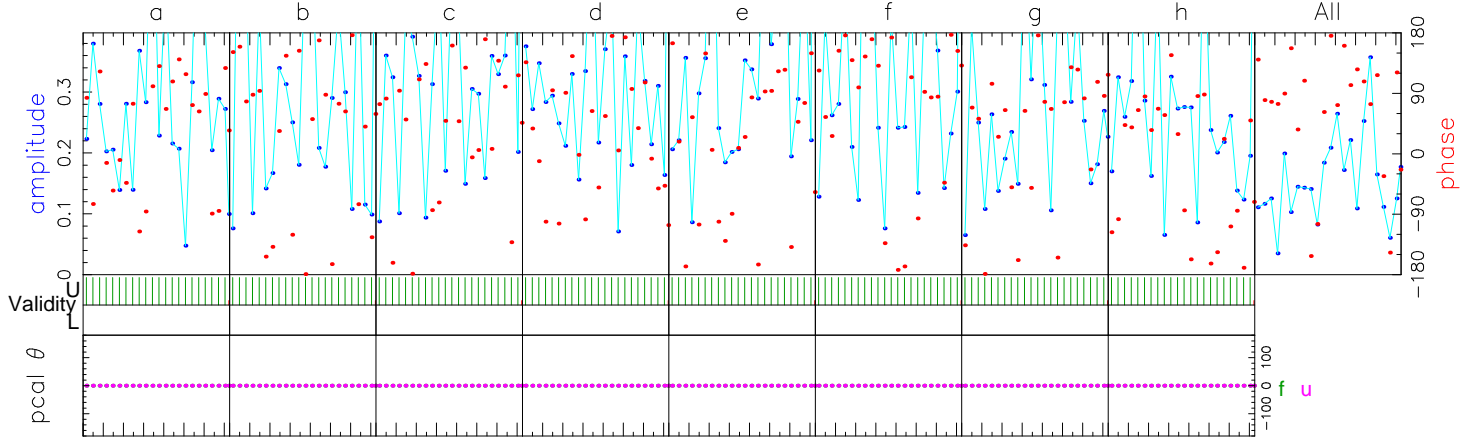


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133916
 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

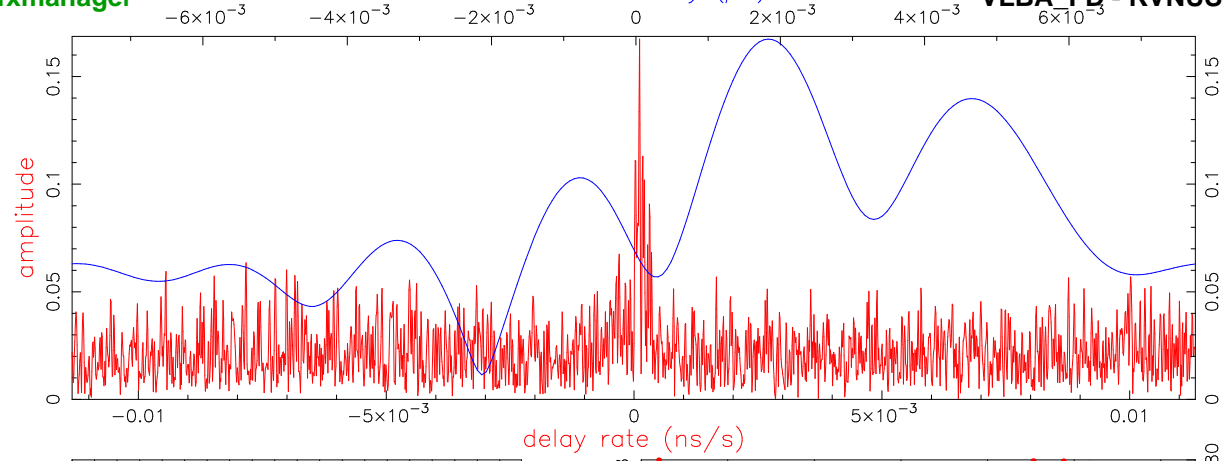


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	75.3	125.1	106.9	64.9	98.1	135.4	95.1	70.7	Phase	104.3
	0.1	0.2	0.1	0.1	0.1	0.3	0.2	0.1	Ampl.	0.1
	329.4	329.6	285.3	312.5	38.5	507.5	504.7	309.5	Sbd box	507.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.16558789666E+02		Apriori delay (usec)		-8.17540346167E+02		Resid mbdelay (usec)		-2.81850E-03	+/- 1.9E-04
Sband delay (usec)	-8.16562977917E+02		Apriori clock (usec)		-4.5022850E+00		Resid sbdelay (usec)		9.77368E-01	+/- 1.5E-03
Phase delay (usec)	-8.17540342803E+02		Apriori clockrate (us/s)		-1.0670000E-06		Resid phdelay (usec)		3.36387E-06	+/- 6.5E-07
Delay rate (us/s)	-1.46231989364E+00		Apriori rate (us/s)		-1.46232870652E+00		Resid rate (us/s)		8.81288E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.95626858186E-06		Resid phase (deg)		104.3	+/- 20.1

ph/seg (deg) 64.1 48.1 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 88.2 84.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 29.0 28.4 Inc. seg. avg. 0.150 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 47.8 49.5 Inc. frq. avg. 0.129 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 313.0 el 40.5 pa 88.9 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 13309.604 -756.914 ion window (TEC) 0.00 0.00
 simultaneous interpolator

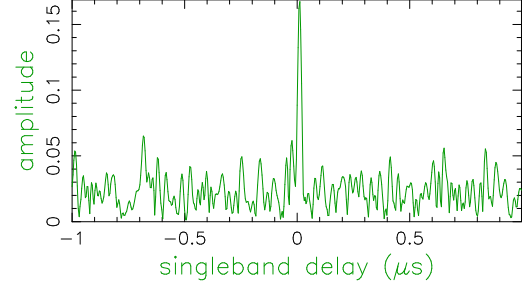
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fu.W.140.1X1QEV

multiband delay (μ s)

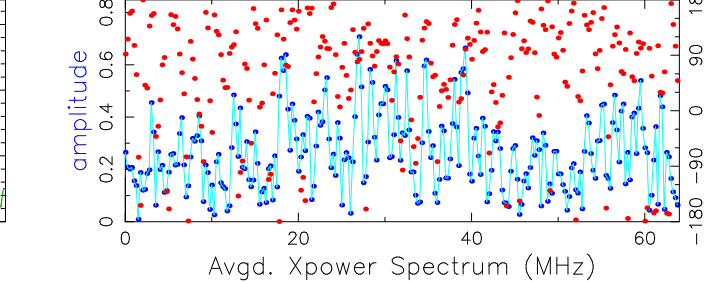


Fringe quality 9

SNR 9.5
Int time 419.826
Amp 0.169
Phase -154.5
PFD 1.3e-12
Delays (us)
SBD 0.010533
MBD 0.001833
Fringe rate (Hz)
0.009705
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



singleband delay (μ s)

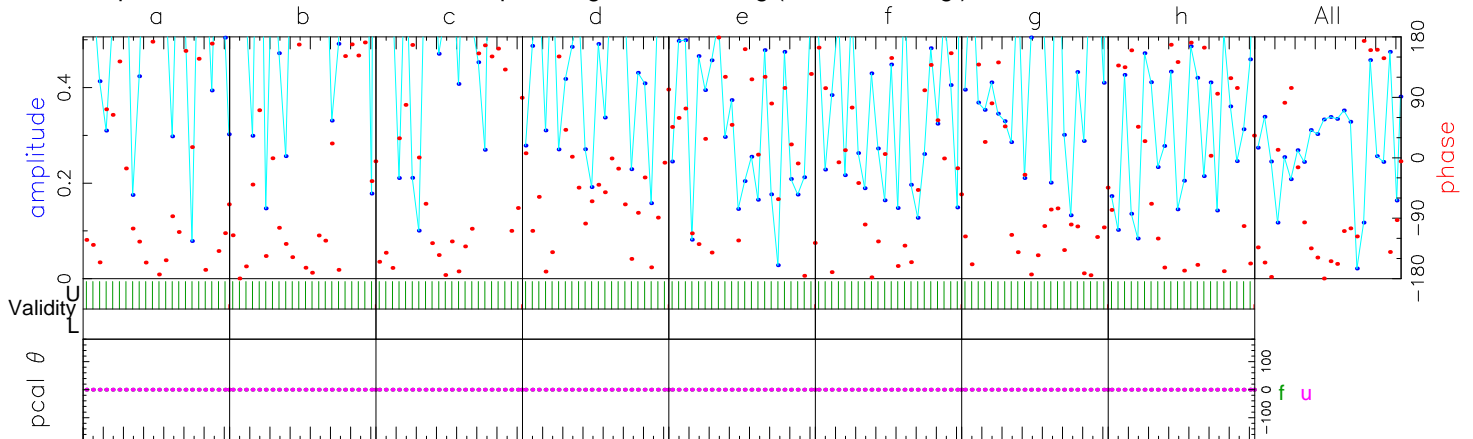


delay rate (ns/s)

Avgd. Xpower Spectrum (MHz)

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
	-155.7	-167.3	-157.0	-53.6	110.3	149.7	-131.6	176.6	Phase	-154.5
	0.3	0.4	0.4	0.2	0.1	0.1	0.2	0.1	Ampl.	0.2
	257.9	259.7	259.4	260.2	108.4	286.9	260.0	220.8	Sbd box	259.7
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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-8.17522888071E+02	Apriori delay (usec)	-8.17540346167E+02	Resid mbdelay (usec)	1.83310E-03	+/-	1.1E-04
Sband delay (usec)	-8.17529813667E+02	Apriori clock (usec)	-4.5022850E+00	Resid sbdelay (usec)	1.05325E-02	+/-	9.1E-04
Phase delay (usec)	-8.17540351149E+02	Apriori clockrate (us/s)	-1.0670000E-06	Resid phdelay (usec)	-4.98162E-06	+/-	3.9E-07
Delay rate (us/s)	-1.46232859385E+00	Apriori rate (us/s)	-1.46232870652E+00	Resid rate (us/s)	1.12671E-07	+/-	1.6E-09
Total phase (deg)	-305.3	Apriori accel (us/s/s)	-1.95626858186E-06	Resid phase (deg)	-154.5	+/-	12.1

ph/seg (deg)	67.3	Theor.	29.1	Amplitude	0.169 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	86.9		50.7	Search (2048X32)	0.164	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	63.1		17.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	74.3		29.9	Inc. seg. avg.	0.242	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.220	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 313.0 el 40.5 pa 88.9 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 13309.604 -756.914 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fu...1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fu.W.84.1X1QEV

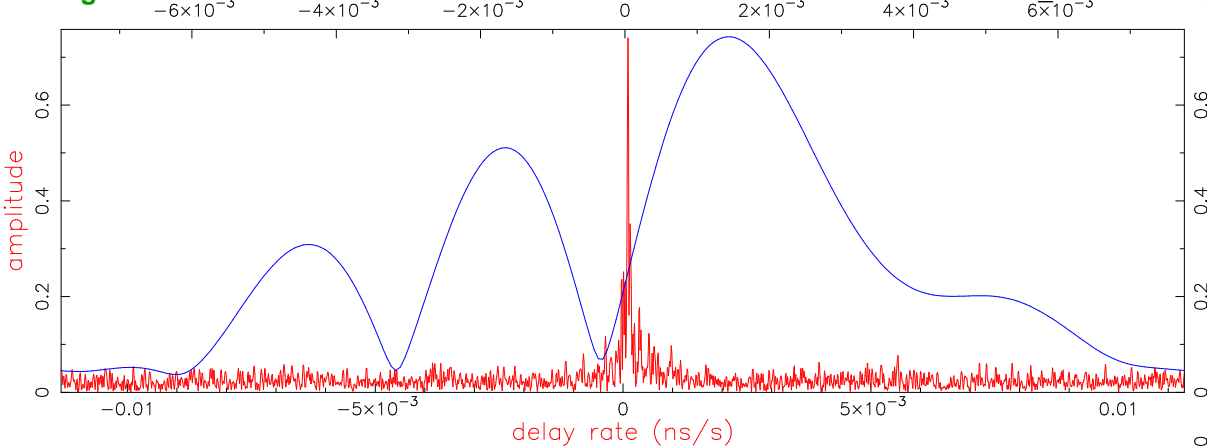
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fy

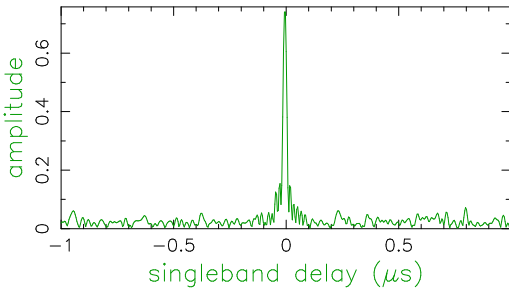
VLBA_FD - KVNYS, fgroup W, pol RR

multiband delay (μ s)

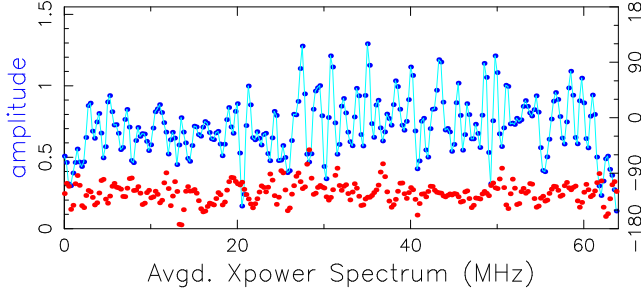


Fringe quality 5

SNR 40.9
 Int time 388.389
 Amp 0.758
 Phase 153.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.005858
 MBD 0.001542
 Fringe rate (Hz) 0.008405
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

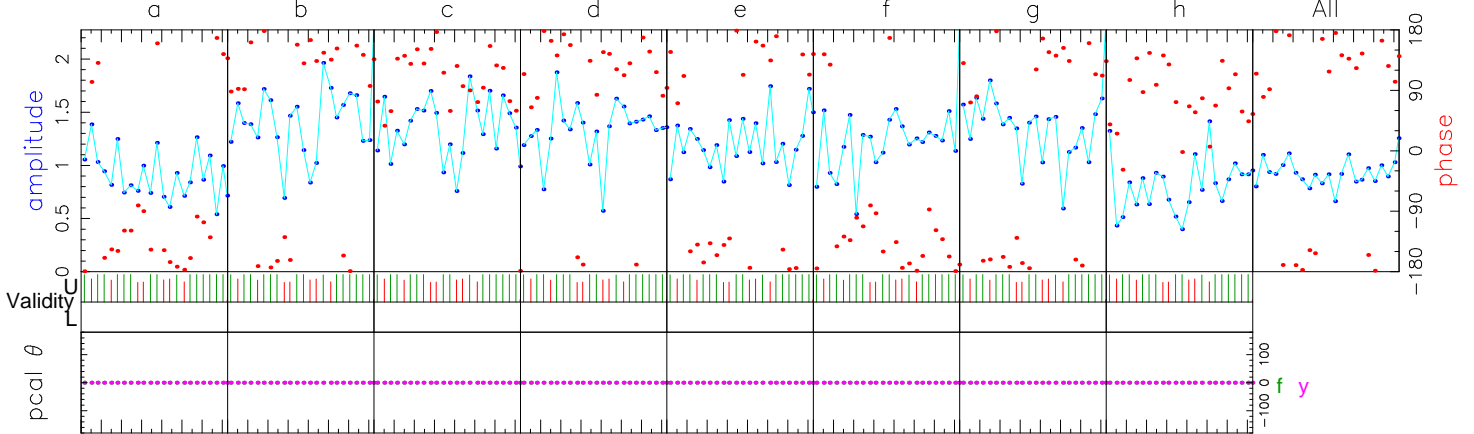


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133908
 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		
f	0	0	0	0	0	0	0	0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
f:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.58669377529E+02				-7.58670919209E+02				1.54168E-03	+/- 2.7E-05
Sband delay (usec)	-7.58676777459E+02				9.5589695E+00				-5.85825E-03	+/- 2.1E-04
Phase delay (usec)	-7.58670914254E+02				5.9999999E-08				4.95549E-06	+/- 9.0E-08
Delay rate (us/s)	-1.45730648707E+00				-1.45730658464E+00				9.75698E-08	+/- 4.0E-10
Total phase (deg)			-199.4		-4.67647004062E-06				153.7	+/- 2.8
pcal mode:	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)				sb window (us) -1.000 1.000	
Bits/sample:	2x2				2x2				SampCntNorm: enabled mb window (us) -0.008 0.008	
Sample rate (MSamp/s):	128				128				dr window (ns/s) -0.011 0.011	
Data rate (Mb/s):	2048				2048				ion window (TEC) 0.00 0.00	
nlags:	256				256				t_cohere infinite	

ph/seg (deg) 37.2 6.5 Search (2048X32) 0.734 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 26.3 11.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 48.5 4.0 Inc. seg. avg. 0.920 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.8 6.9 Inc. frq. avg. 0.929 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 y: az 51.1 el 41.9 pa -79.5 u,v (fr/asec) 13258.367 -1178.075 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fy..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fy.W.103.1X1QEV

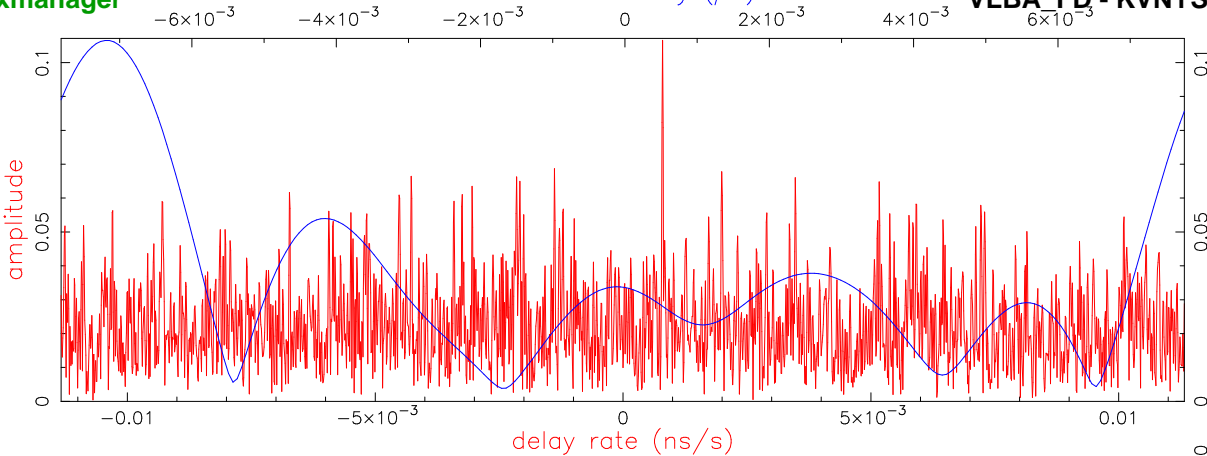
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fy

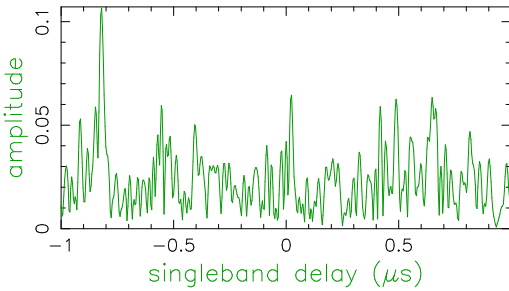
VLBA_FD - KVNYS, fgroup W, pol LR

multiband delay (μ s)

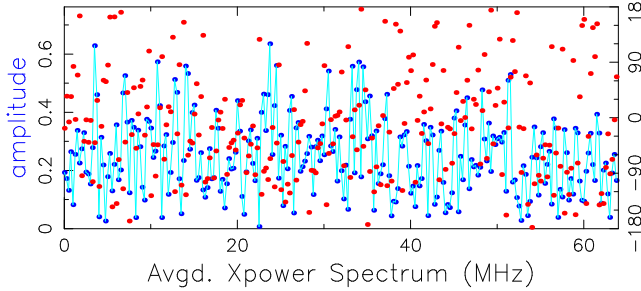


Fringe quality 0

SNR 5.8
Int time 388.389
Amp 0.107
Phase -51.9
PFD 8.7e-01
Delays (us)
SBD -0.821226
MBD -0.007187
Fringe rate (Hz)
0.068966
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

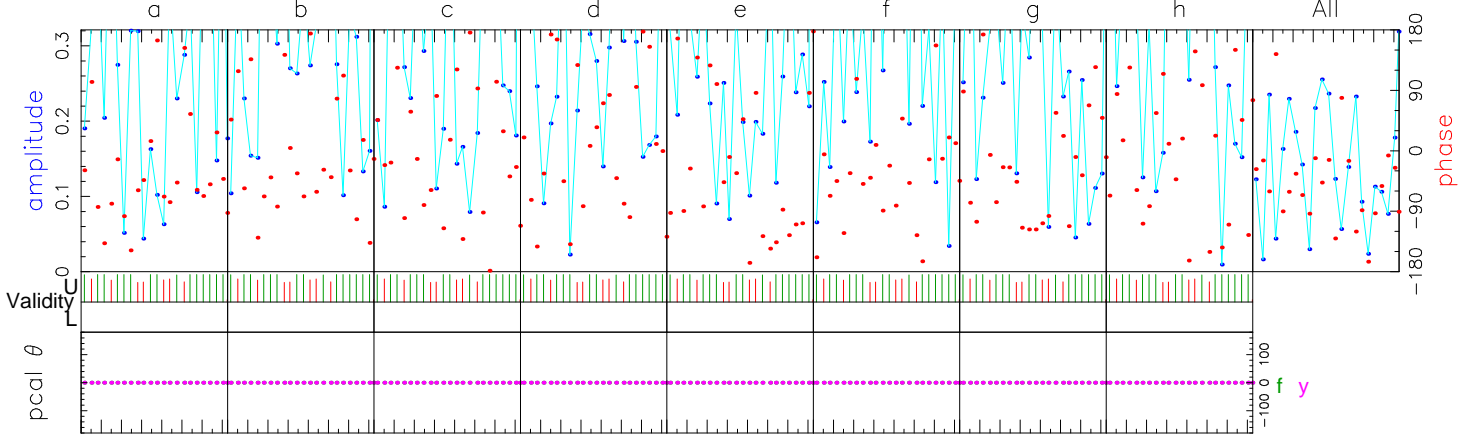


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133912
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
	-57.5	-52.4	-12.4	-36.1	-104.8	-34.8	-66.1	-34.9	Phase	-51.9
	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	44.3	40.6	370.4	443.4	427.9	46.0	399.9	58.9	Sbd box	46.8
U/L	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:y	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.59490606079E+02		Apriori delay (usec)	-7.58670919209E+02	Resid mbdelay (usec)	-7.18687E-03	+/-	1.9E-04		
Sband delay (usec)	-7.59492144959E+02		Apriori clock (usec)	9.5589695E+00	Resid sbdelay (usec)	-8.21226E-01	+/-	1.5E-03		
Phase delay (usec)	-7.58670920883E+02		Apriori clockrate (us/s)	5.9999999E-08	Resid phdelay (usec)	-1.67361E-06	+/-	6.4E-07		
Delay rate (us/s)	-1.45730578401E+00		Apriori rate (us/s)	-1.45730658464E+00	Resid rate (us/s)	8.00630E-07	+/-	2.8E-09		
Total phase (deg)		-45.0	Apriori accel (us/s/s)	-4.67647004062E-06	Resid phase (deg)	-51.9	+/-	19.9		

	RMS	Theor.	Amplitude	0.107 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	61.3	46.1	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	76.3	80.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	30.1	28.1	Inc. seg. avg.	0.103	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	40.2	49.1	Inc. frq. avg.	0.104	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

f: az 313.0 el 40.5 pa 88.9 y: az 51.1 el 41.9 pa -79.5 u,v (fr/asec) 13258.367 -1178.075 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fy..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fy.W.124.1X1QEV

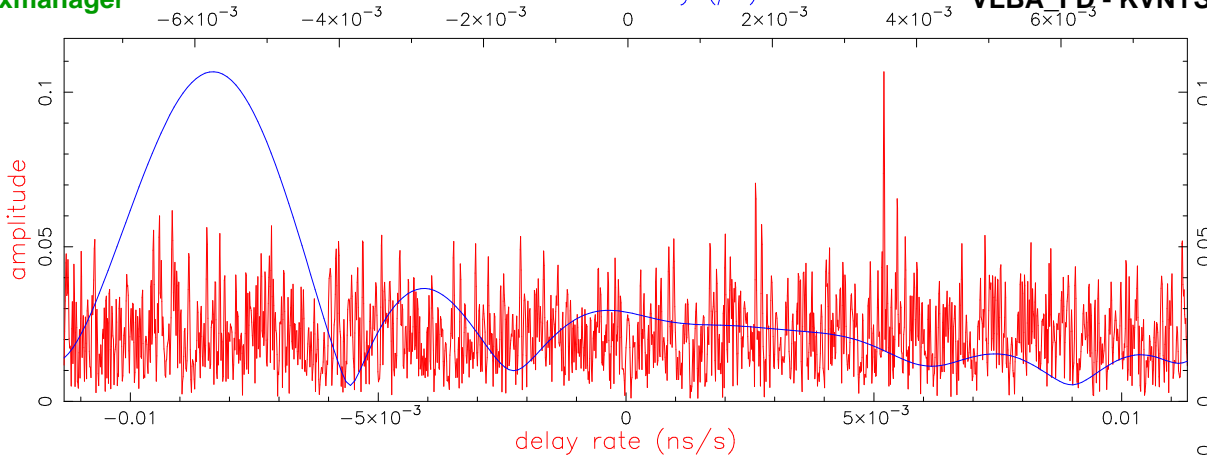
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fy

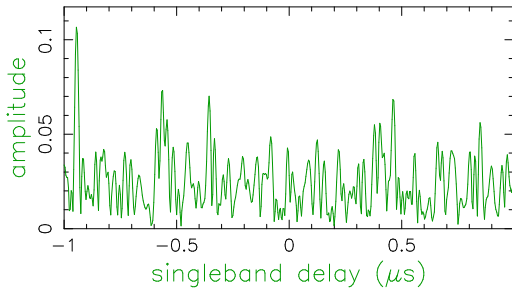
VLBA_FD - KVNYS, fgroup W, pol RL

multiband delay (μ s)

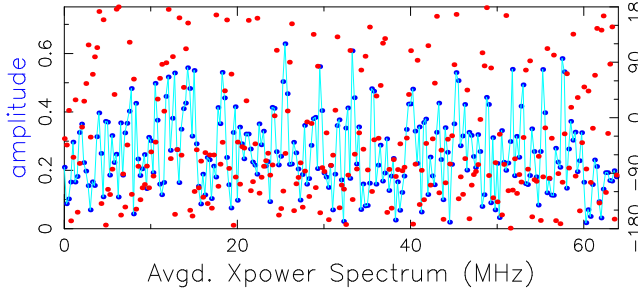


Fringe quality 0

SNR 5.8
 Int time 388.389
 Amp 0.117
 Phase -116.2
 PFD 8.2e-01
 Delays (us)
 SBD -0.944089
 MBD -0.005724
 Fringe rate (Hz)
 0.448559
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

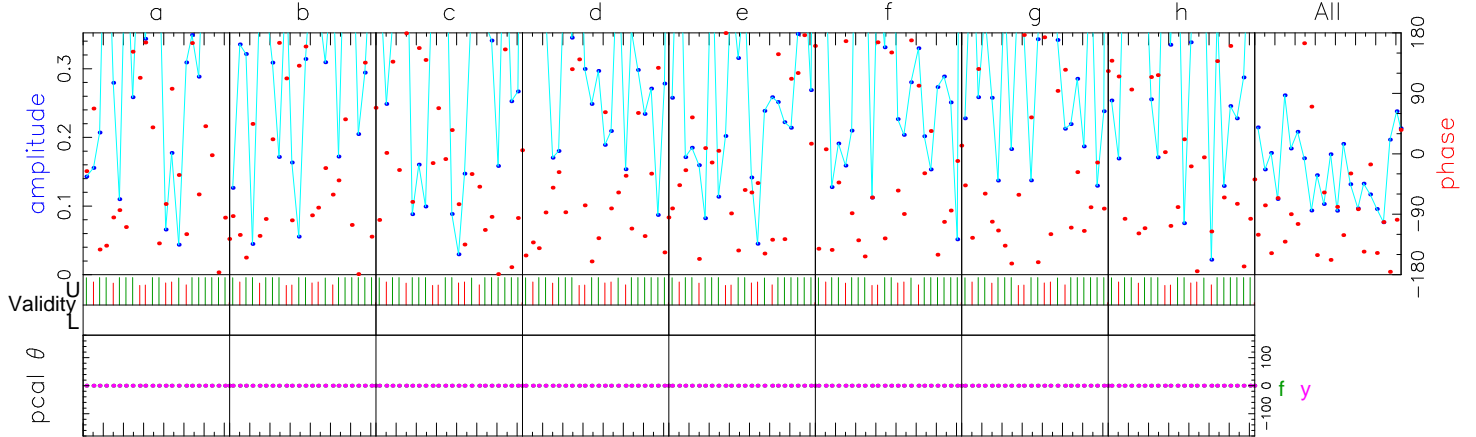


delay rate (ns/s)



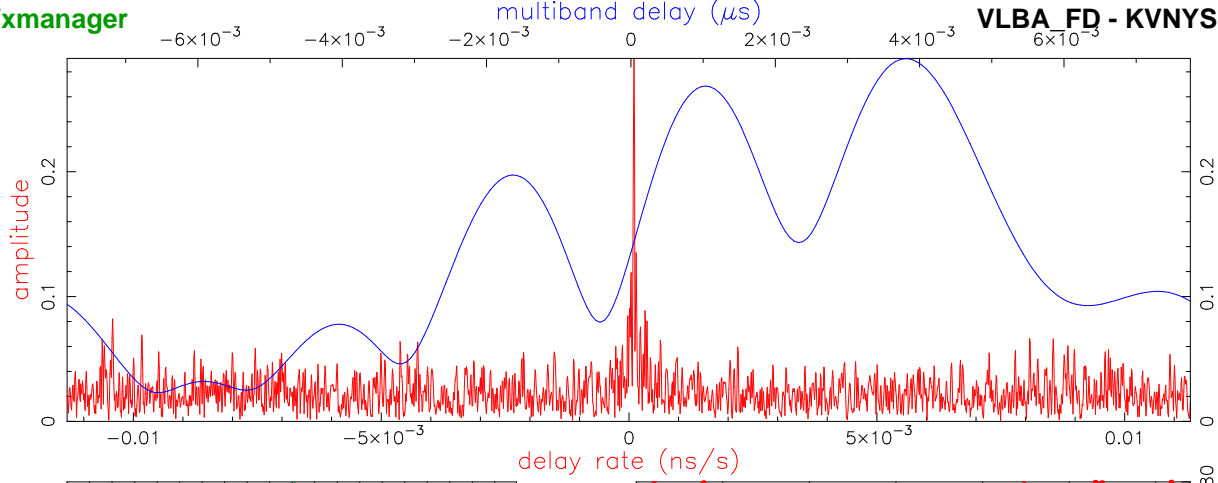
Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133917
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'59.161694"

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

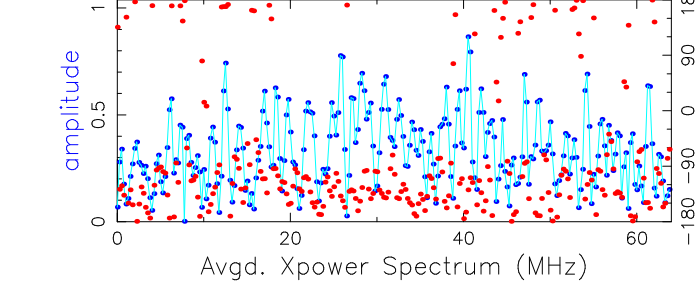
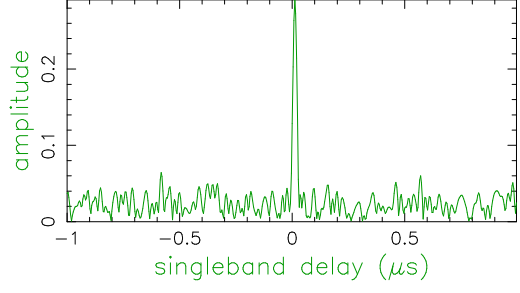


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-133.6	-111.3	-85.2	-116.8	-90.1	-134.6	-118.6	-113.7	Phase	-116.2
	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	Ampl.	0.1
	237.5	112.3	386.1	47.3	57.2	325.3	141.6	361.4	Sbd box	15.3
U/L	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:y	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.59614142719E+02					-7.58670919209E+02			Resid mbdelay (usec)	-5.72351E-03 +/- 1.9E-04
Sband delay (usec)	-7.59615007709E+02					9.5589695E+00			Resid sbdelay (usec)	-9.44089E-01 +/- 1.5E-03
Phase delay (usec)	-7.58670922958E+02					5.9999999E-08			Resid phdelay (usec)	-3.74821E-06 +/- 6.4E-07
Delay rate (us/s)	-1.45730137732E+00					-1.45730658464E+00			Resid rate (us/s)	5.20732E-06 +/- 2.8E-09
Total phase (deg)			-109.3			-4.67647004062E-06			Resid phase (deg)	-116.2 +/- 19.8
	RMS	Theor.	Amplitude	0.117 +/- 0.020					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	57.2	45.9	Search (2048X32)	0.101					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	64.0	80.1	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	19.7	28.0	Inc. seg. avg.	0.125					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	33.7	48.8	Inc. frq. avg.	0.108					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite
f: az 313.0 el 40.5 pa 88.9			y: az 51.1 el 41.9 pa -79.5			u, v (fr/asec) 13258.367 -1178.075				simultaneous interpolator

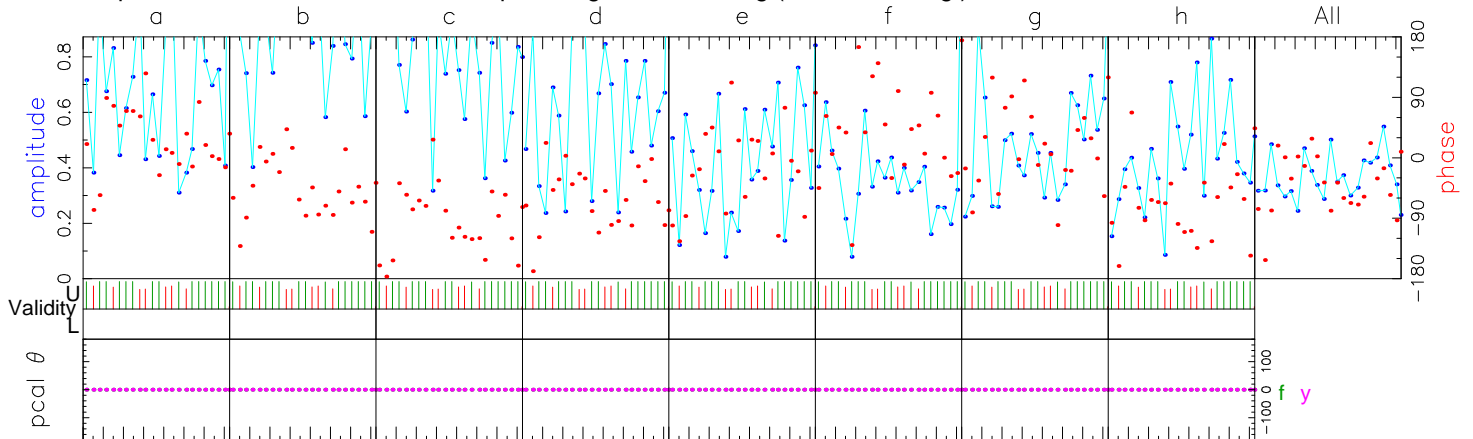
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fy..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fy.W.143.1X1QEV



Fringe quality 7
SNR 15.7
Int time 388.389
Amp 0.291
Phase -39.1
PFD 0.0e+00
Delays (us)
SBD 0.012145
MBD 0.003831
Fringe rate (Hz) 0.008413
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
2021:304:133904
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		
f	0	0	0	0	0	0	0	0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
f:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-7.58651463185E+02				-7.58670919209E+02				3.83102E-03	+/- 6.9E-05
Sband delay (usec)	-7.58658773709E+02				9.5589695E+00				1.21455E-02	+/- 5.5E-04
Phase delay (usec)	-7.58670920471E+02				5.9999999E-08				-1.26129E-06	+/- 2.4E-07
Delay rate (us/s)	-1.45730648697E+00				-1.45730658464E+00				9.76662E-08	+/- 1.0E-09
Total phase (deg)			-32.2		-4.67647004062E-06				-39.1	+/- 7.3
	RMS	Theor.	Amplitude	0.291 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	42.2	17.0	Search (2048X32)	0.286	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	40.1	29.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	54.2	10.3	Inc. seg. avg.	0.359	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	68.7	18.0	Inc. frq. avg.	0.402	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 313.0 el 40.5 pa 88.9 y: az 51.1 el 41.9 pa -79.5 u,v (fr/asec) 13258.367 -1178.075 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fy..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fy.W.83.1X1QEV