

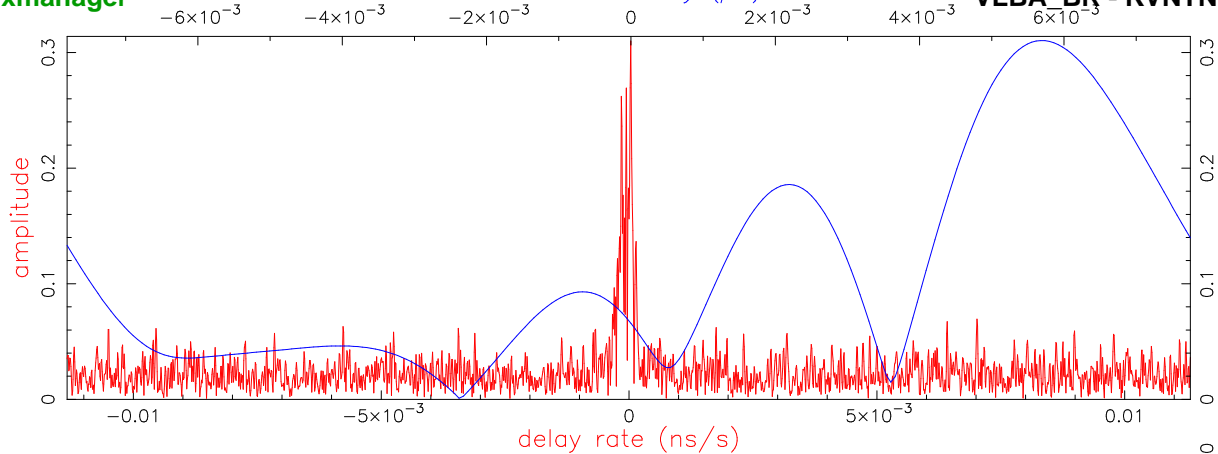
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, bt

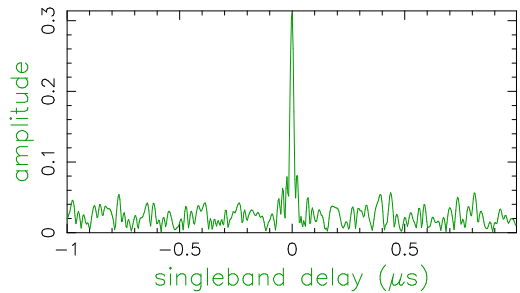
VLBA_BR - KVNTN, fgroup W, pol LL

multiband delay (μ s)

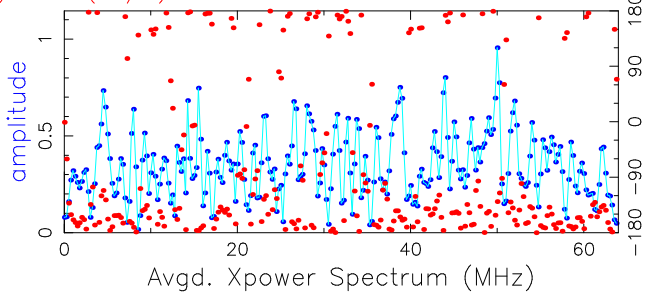


Fringe quality 7

SNR 17.6
 Int time 418.452
 Amp 0.314
 Phase 120.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.001411
 MBD 0.005621
 Fringe rate (Hz)
 0.002935
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

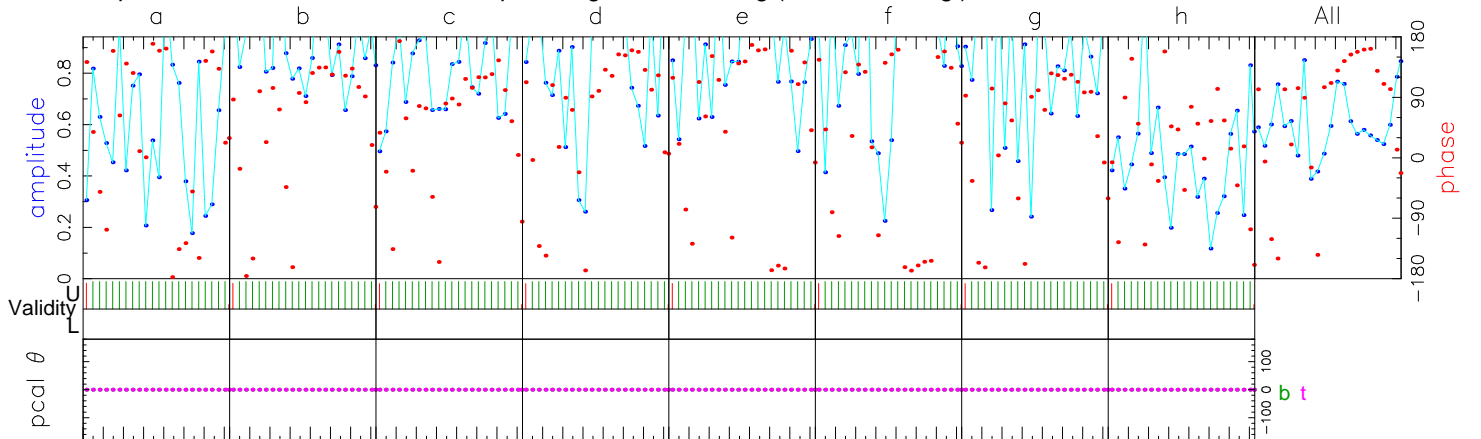


delay rate (ns/s)



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°57'50.161694"

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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
b:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:t	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	4.80762747056E+03		Apriori delay (usec)		4.80762184912E+03		Resid mbdelay (usec)		5.62144E-03	+/- 6.2E-05
Sband delay (usec)	4.80762043787E+03		Apriori clock (usec)		-2.7198067E+08		Resid sbdelay (usec)		-1.41125E-03	+/- 4.9E-04
Phase delay (usec)	4.80762185302E+03		Apriori clockrate (us/s)		-4.9999999E-08		Resid phdelay (usec)		3.89865E-06	+/- 2.1E-07
Delay rate (us/s)	-1.22899111922E+00		Apriori rate (us/s)		-1.22899115329E+00		Resid rate (us/s)		3.40717E-08	+/- 8.7E-10
Total phase (deg)	150.9		Apriori accel (us/s/s)		-8.40081922651E-06		Resid phase (deg)		120.9	+/- 6.5

ph/seg (deg) 67.2 15.6 Theor. Amplitude 0.314 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 98.9 27.3 Search (2048X32) 0.308 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 59.1 9.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 48.6 16.1 Inc. seg. avg. 0.579 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 293.2 el 60.3 pa 77.2 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 11167.241 134.959 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bt.W.16.1X1QEV

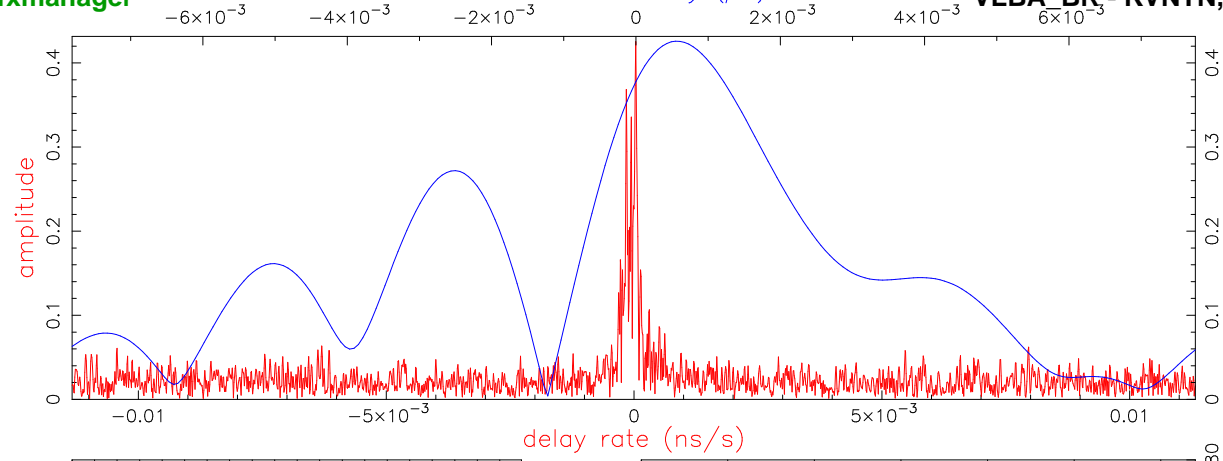
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, bt

VLBA_BR - KVNTN, fgroup W, pol RR

multiband delay (μ s)



Fringe quality 6

SNR 24.1

Int time 418.452

Amp 0.432

Phase -26.2

PFD 0.0e+00

Delays (us)

SBD -0.006298

MBD 0.000635

Fringe rate (Hz)

0.003059

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

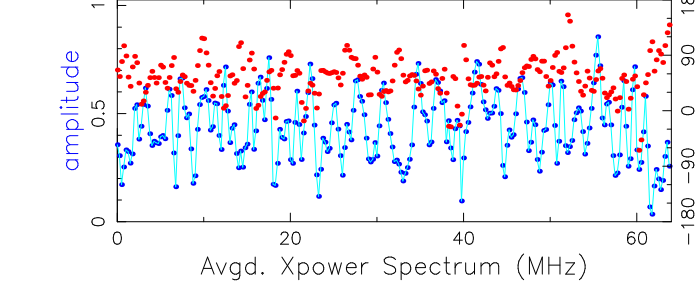
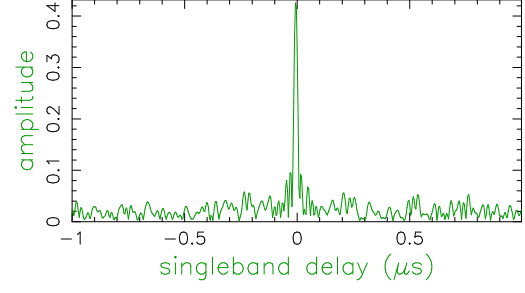
2021:304:133853

2021:252:122852

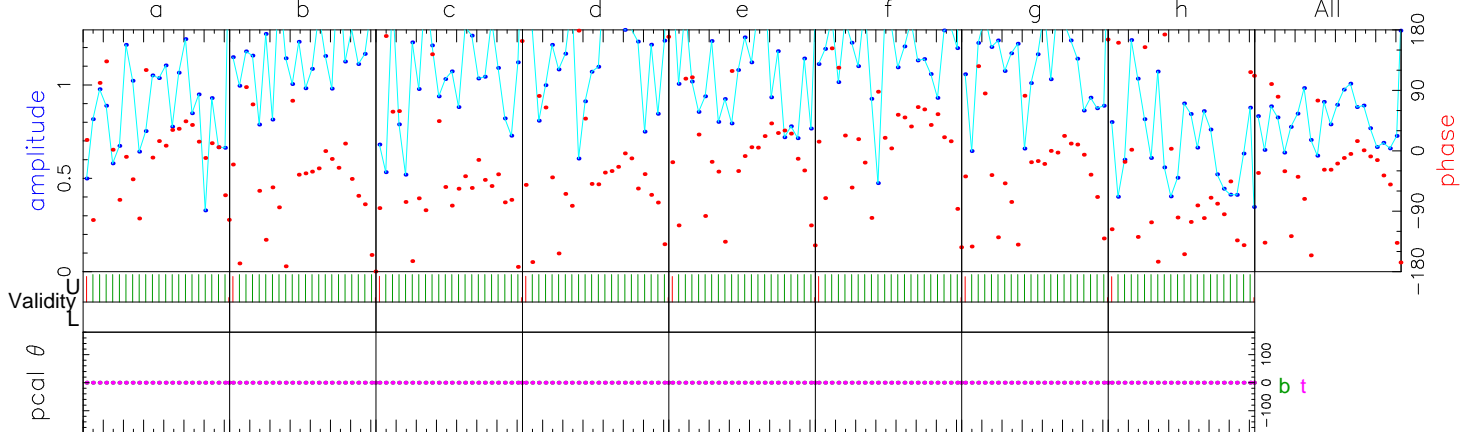
RA & Dec (J2000)

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		255.4
b	0	0	0	0	0	0	0	0	PC freqs	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:t	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	
t	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.80762248368E+03				4.80762184912E+03				Resid mbdelay (usec)	6.34560E-04 +/- 4.5E-05
Sband delay (usec)	4.80761555112E+03				-2.7198067E+00				Resid sbdelay (usec)	-6.29800E-03 +/- 3.6E-04
Phase delay (usec)	4.80762184828E+03				-4.9999999E-08				Resid phdelay (usec)	-8.44185E-07 +/- 1.5E-07
Delay rate (us/s)	-1.22899111779E+00				-1.22899115329E+00				Resid rate (us/s)	3.55065E-08 +/- 6.3E-10
Total phase (deg)			3.8		-8.40081922651E-06				Resid phase (deg)	-26.2 +/- 4.7

ph/seg (deg) 66.8 11.4 Amplitude 0.432 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 91.0 19.9 Search (2048X32) 0.423 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 48.7 6.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 32.8 11.7 Inc. seg. avg. 0.789 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011

b: az 293.2 el 60.3 pa 77.2 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 11167.241 134.959 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bt.W.32.1X1QEV simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

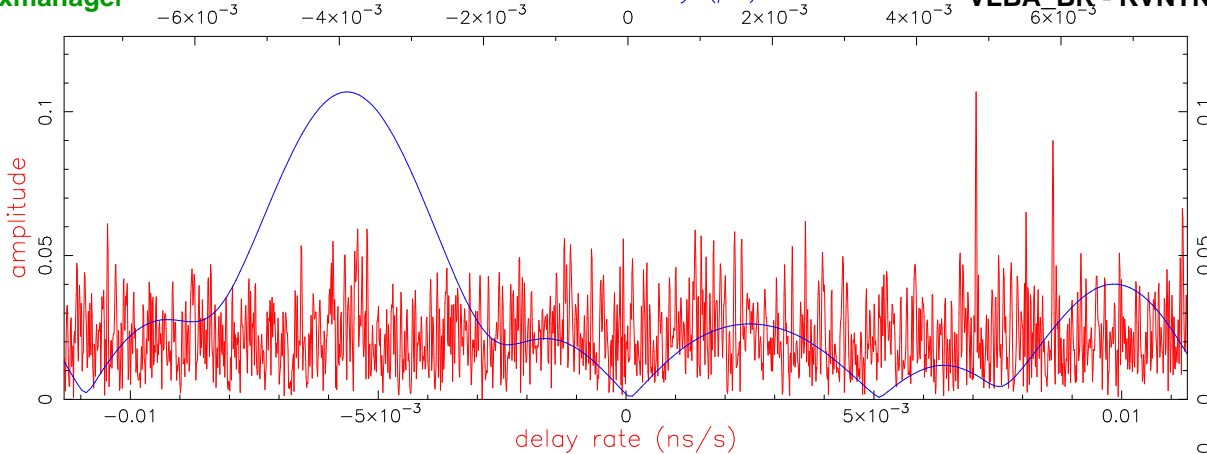
fxmanager

NRAO150.1X1QEV, No0120, bt

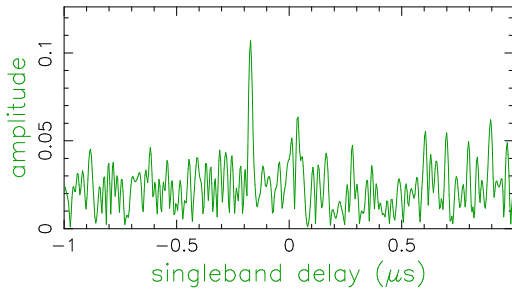
VLBA_BR - KVNTN, fgroup W, pol LR

multiband delay (μ s)

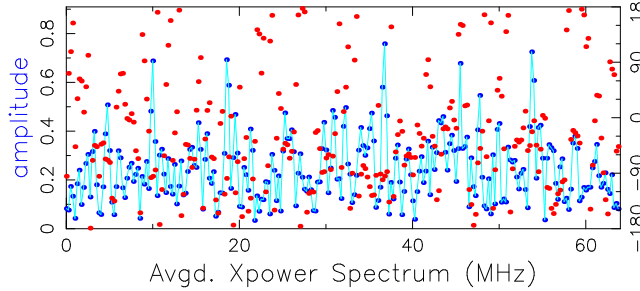
Fringe quality 0



SNR 6.0
 Int time 418.452
 Amp 0.126
 Phase 158.7
 PFD 4.3e-01
 Delays (us)
 SBD -0.172226
 MBD -0.003890
 Fringe rate (Hz)
 0.609052
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

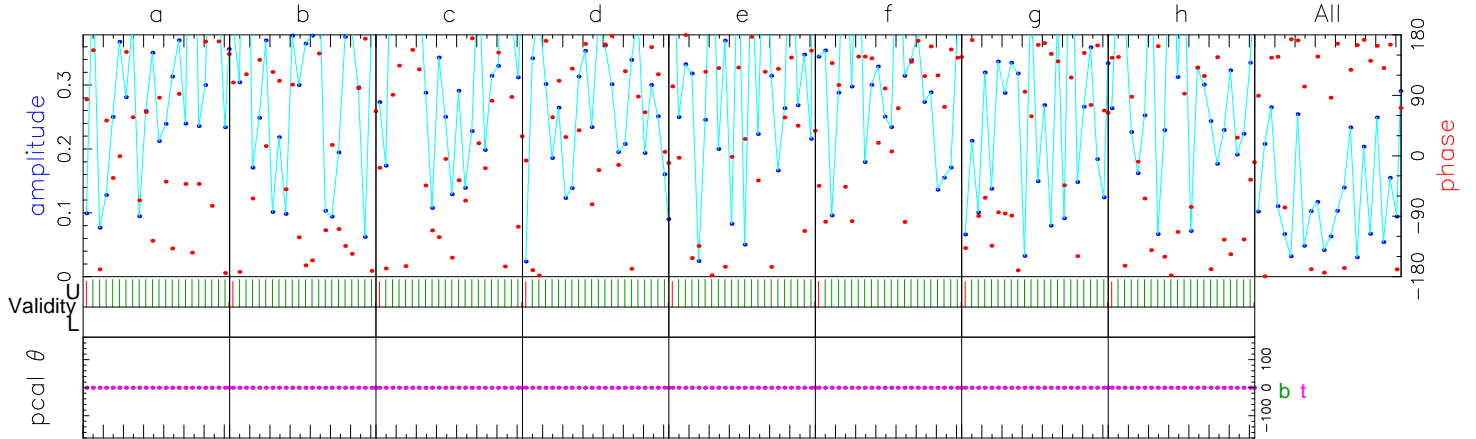


delay rate (ns/s)



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
	-153.5	162.6	150.3	139.0	149.2	135.4	165.1	-177.0	Phase	158.7
	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	Ampl.	0.1
	14.1	333.0	448.7	23.9	411.9	447.3	483.6	435.9	Sbd box	212.9
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	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:t	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	
t	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.80744608446E+03					4.80762184912E+03			Resid mbdelay (usec)	-3.88967E-03 +/- 1.8E-04
Sband delay (usec)	4.80744962287E+03					-2.7198067E+08			Resid sbdelay (usec)	-1.72226E-01 +/- 1.4E-03
Phase delay (usec)	4.80762185424E+03					-4.9999999E-08			Resid phdelay (usec)	5.11882E-06 +/- 6.2E-07
Delay rate (us/s)	-1.22898408280E+00					-1.22899115329E+00			Resid rate (us/s)	7.07049E-06 +/- 2.5E-09
Total phase (deg)			188.8			-8.40081922651E-06			Resid phase (deg)	158.7 +/- 19.1
	RMS	Theor.	Amplitude	0.126 +/- 0.021					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	41.0	45.9	Search (2048X32)	0.102					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	74.1	80.1	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	25.9	27.1	Inc. seg. avg.	0.112					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	35.0	47.3	Inc. frq. avg.	0.120					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite
b: az 293.2 el 60.3 pa 77.2			t: az 48.3 el 38.9 pa -82.3						u,v (fr/asec) 11167.241 134.959	simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bt.W.50.1X1QEV

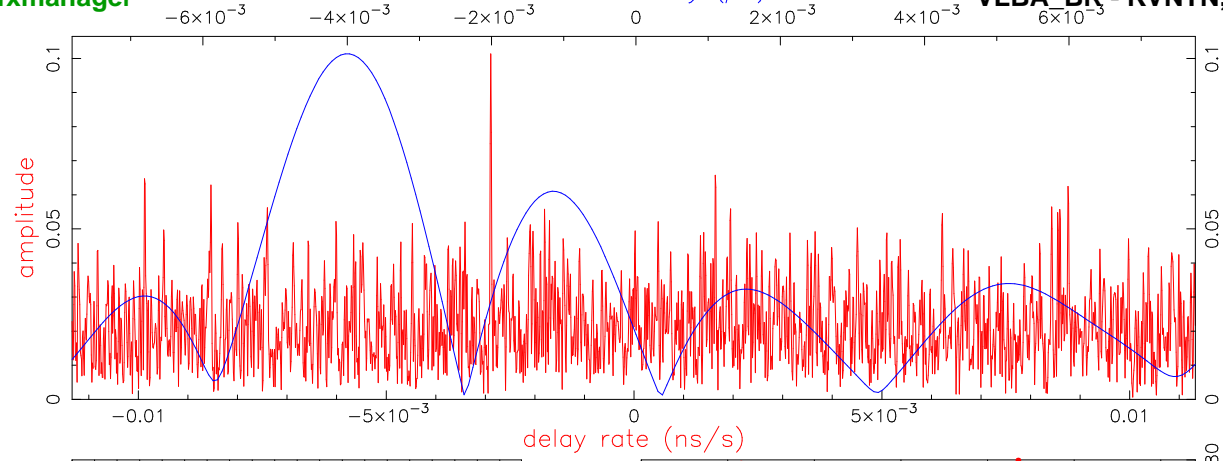
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

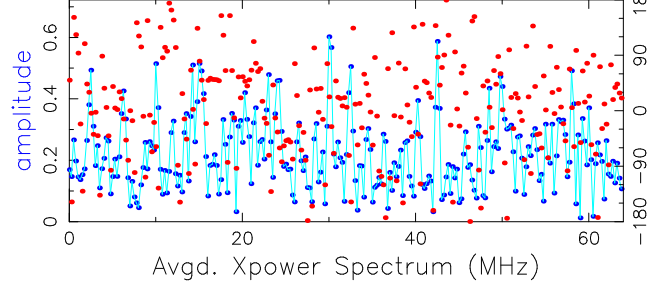
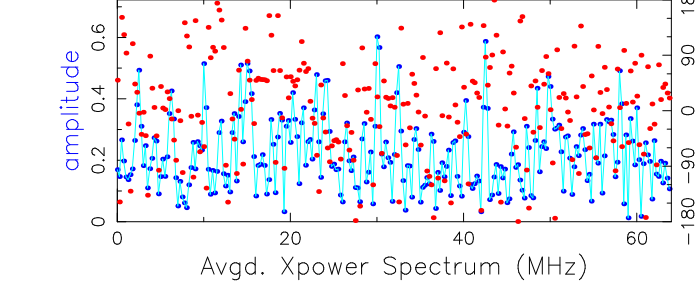
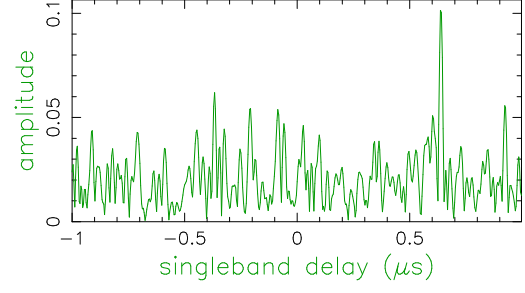
NRAO150.1X1QEV, No0120, bt

VLBA_BR - KVNTN, fgroup W, pol RL

multiband delay (μ s)

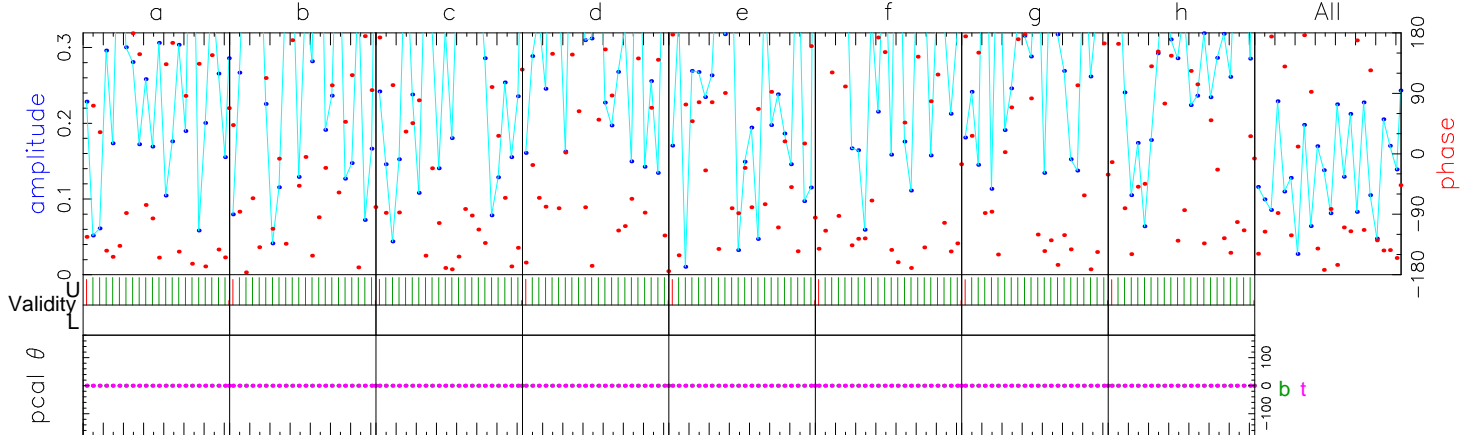


Fringe quality 0
 SNR 5.8
 Int time 418.452
 Amp 0.106
 Phase -143.3
 PFD 8.2e-01
 Delays (us)
 SBD 0.638484
 MBD -0.003973
 Fringe rate (Hz)
 -0.249254
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133900
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



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
	-157.0	-120.4	-118.4	-168.9	-100.0	-165.5	-144.2	-131.8	Phase	-143.3
	0.2	0.1	0.1	0.1	0.0	0.2	0.2	0.1	Ampl.	0.1
	420.6	279.7	262.8	217.1	341.7	420.8	163.2	163.3	Sbd box	420.5
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	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:t	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	
t	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.80825850130E+03		Apriori delay (usec)		4.80762184912E+03		Resid mbdelay (usec)		-3.97282E-03	+/- 1.9E-04
Sband delay (usec)	4.80826033362E+03		Apriori clock (usec)		-2.7198067E+00		Resid sbdelay (usec)		6.38484E-01	+/- 1.5E-03
Phase delay (usec)	4.80762184450E+03		Apriori clockrate (us/s)		-4.9999999E-08		Resid phdelay (usec)		-4.62136E-06	+/- 6.4E-07
Delay rate (us/s)	-1.22899404689E+00		Apriori rate (us/s)		-1.22899115329E+00		Resid rate (us/s)		-2.89360E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		-8.40081922651E-06		Resid phase (deg)		-143.3	+/- 19.8

ph/seg (deg) 58.3 47.4 Search (2048X32) 0.097 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 66.4 82.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 27.4 28.0 Inc. seg. avg. 0.105 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.0 48.8 Inc. frq. avg. 0.099 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 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 11167.241 134.959 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bt.W.66.1X1QEV simultaneous interpolator

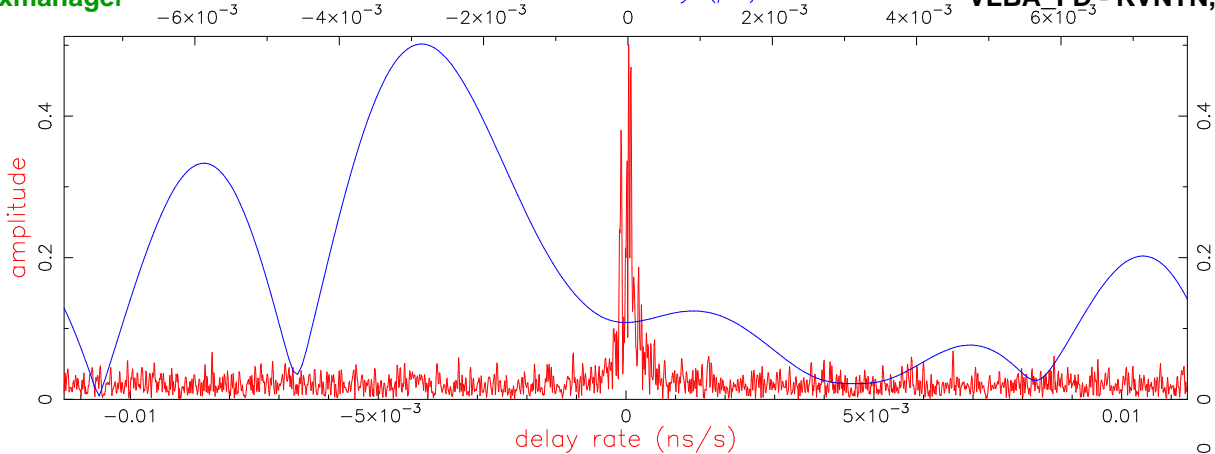
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ft

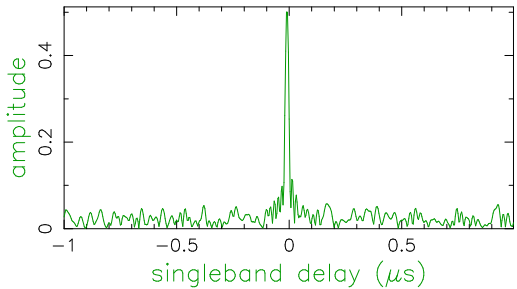
VLBA_FD - KVNTN, fgroup W, pol RR

multiband delay (μ s)

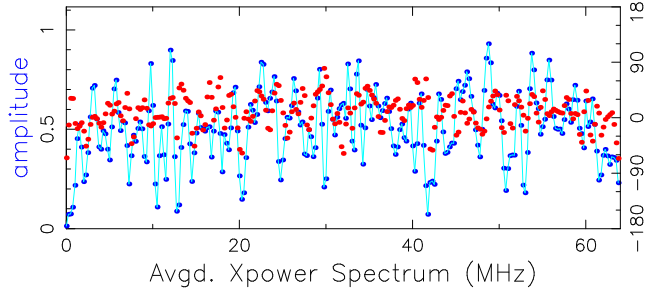


Fringe quality 4

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

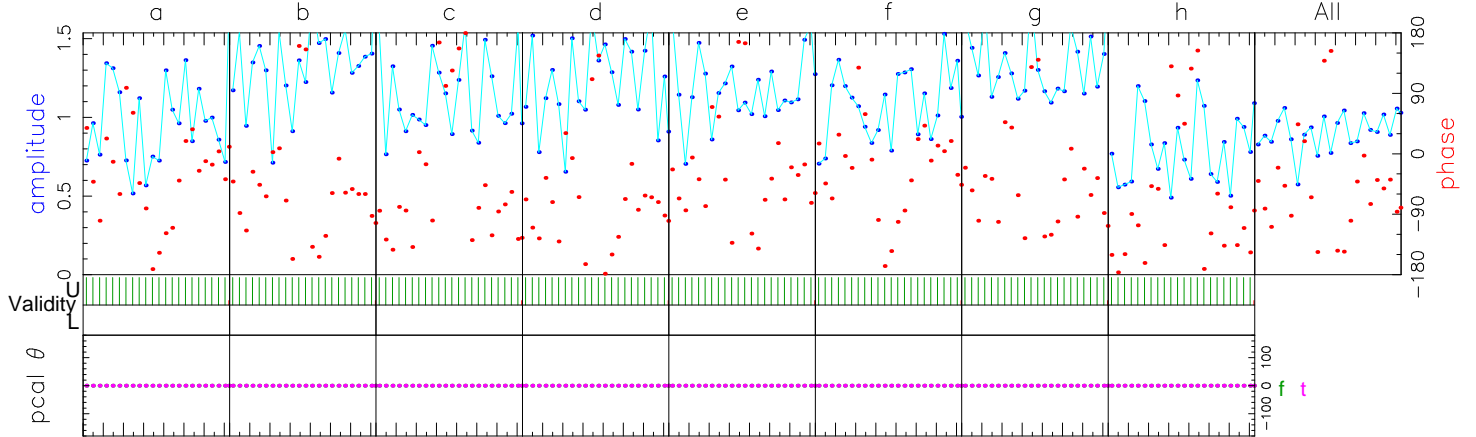


delay rate (ns/s)



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	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	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

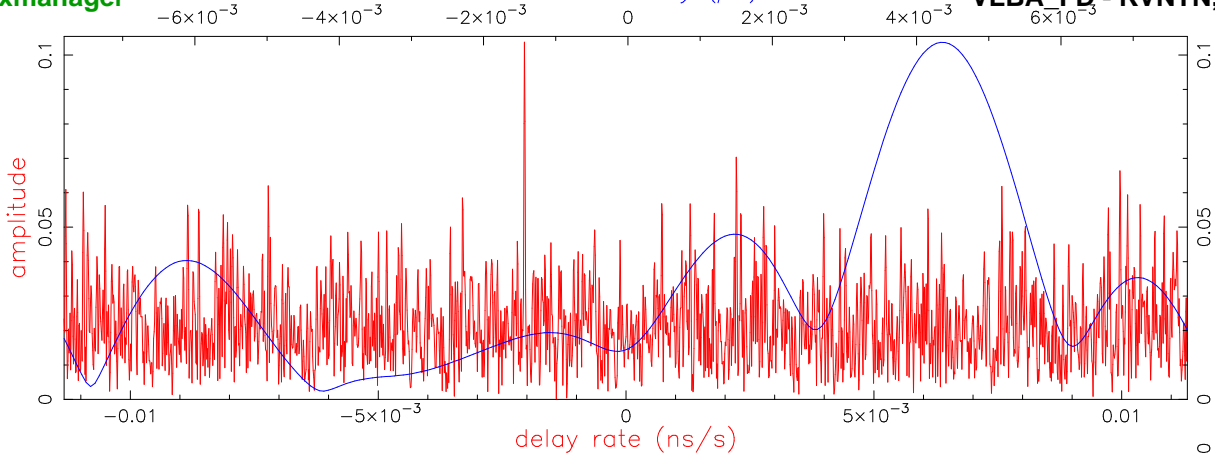
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ft

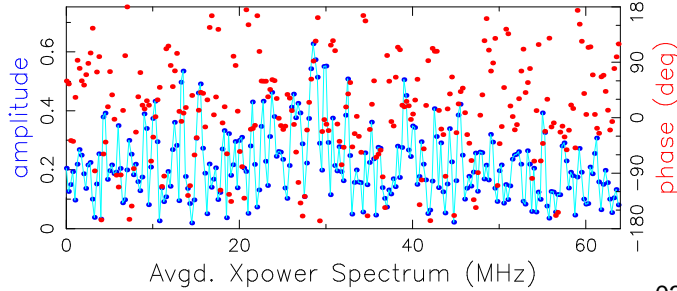
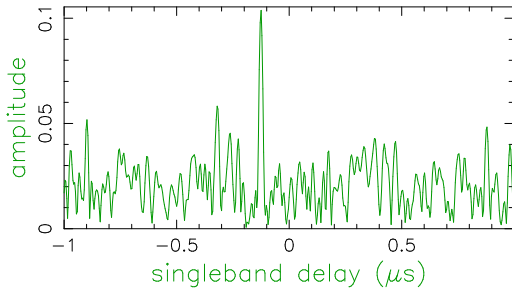
VLBA_FD - KVNTN, fgroup W, pol LR

multiband delay (μ s)



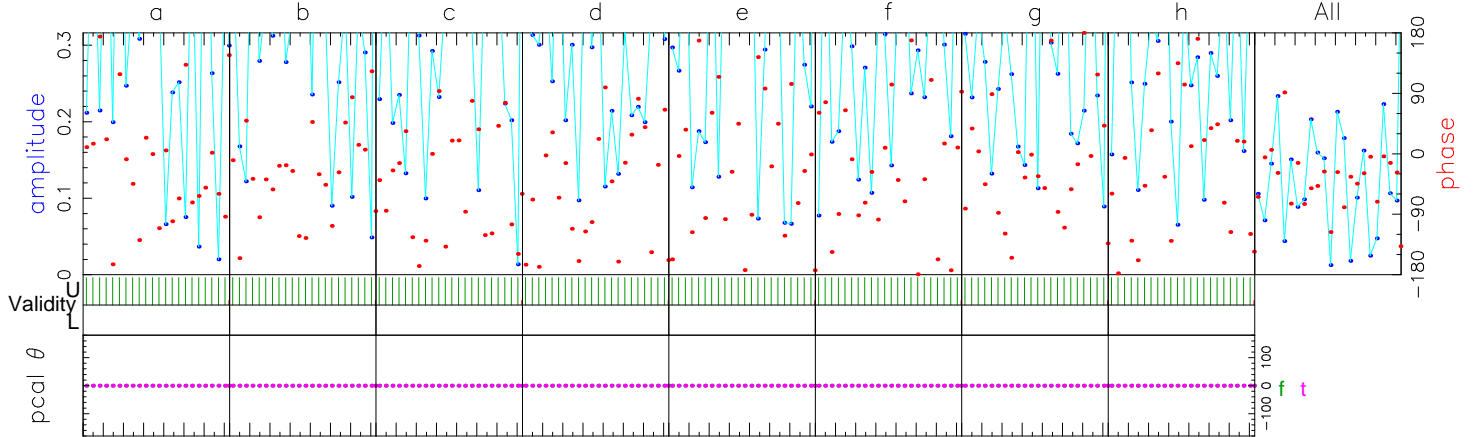
Fringe quality 0

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

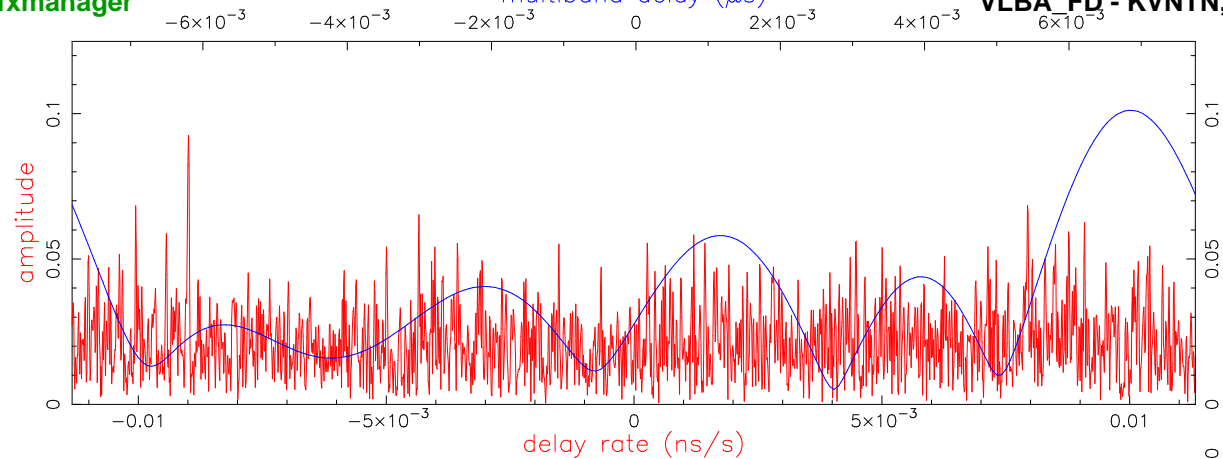
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ft

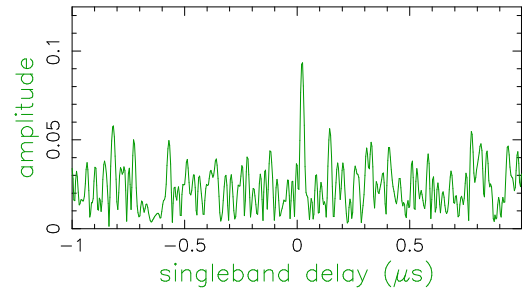
VLBA_FD - KVNTN, fgroup W, pol RL

multiband delay (μ s)

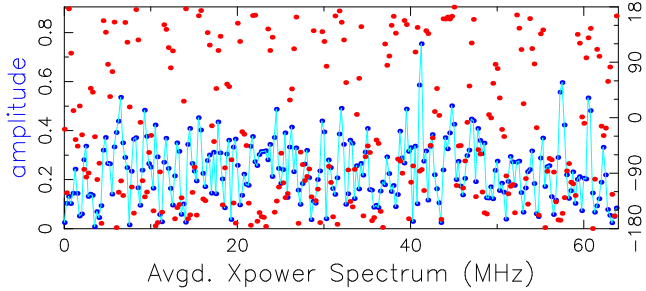


Fringe quality 0

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

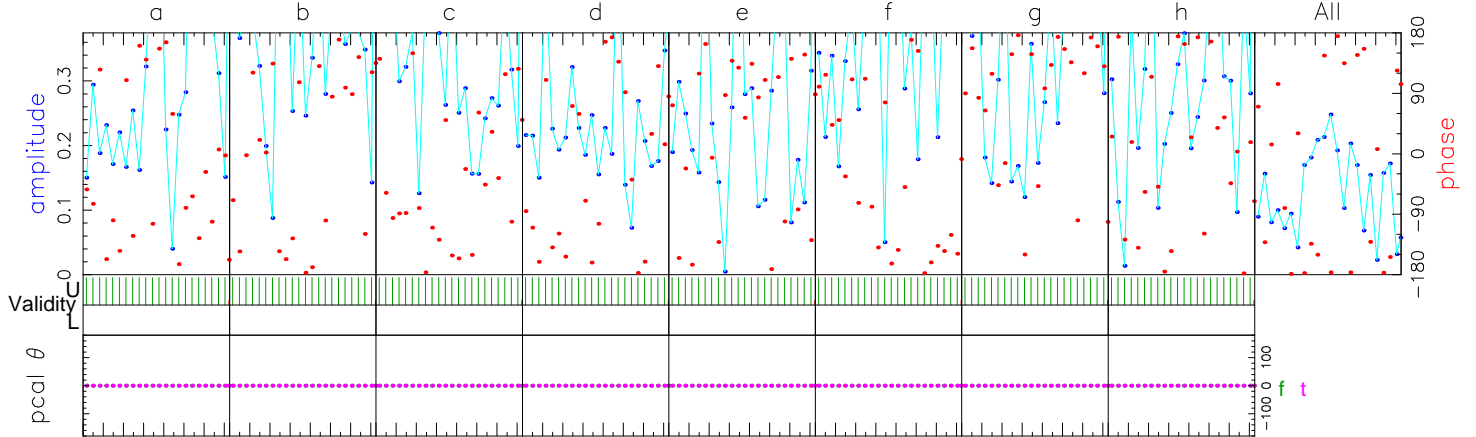


delay rate (ns/s)



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

	RMS	Theor.	Amplitude	0.125 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	75.8	51.7	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	78.0	90.2	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	46.6	30.5	Inc. seg. avg.	0.124	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	50.7	53.2	Inc. frq. avg.	0.137	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.141.1X1QEV

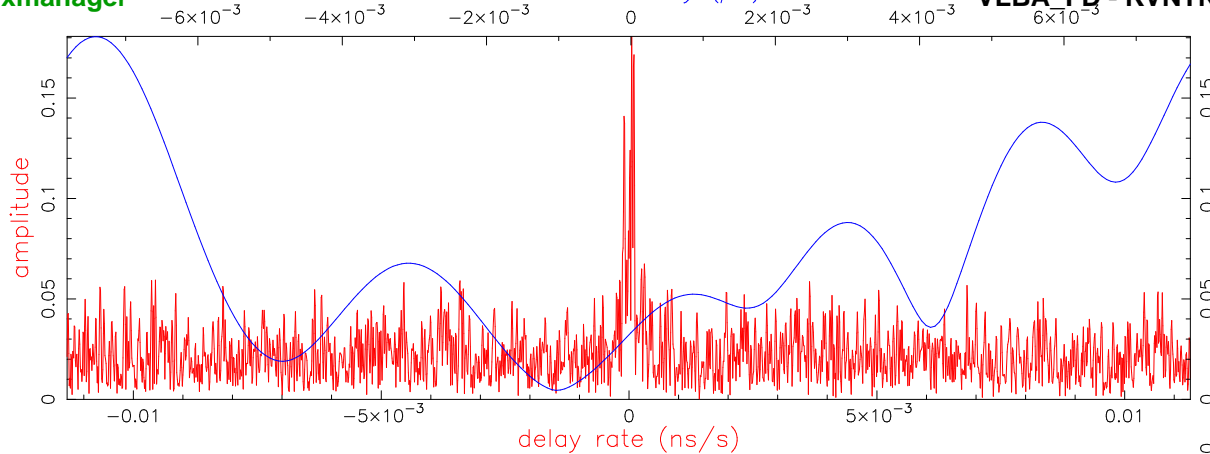
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ft

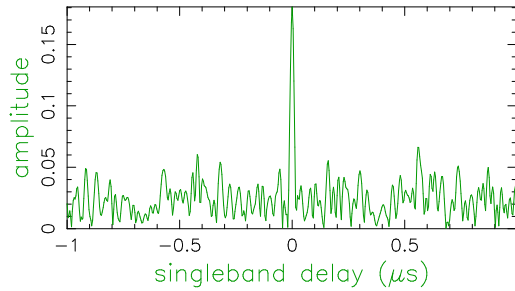
VLBA_FD - KVNTN, fgroup W, pol LL

multiband delay (μ s)

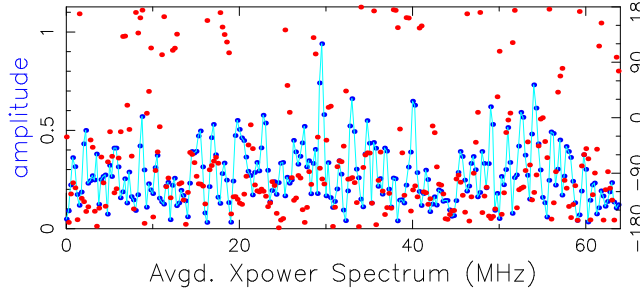


Fringe quality 9

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

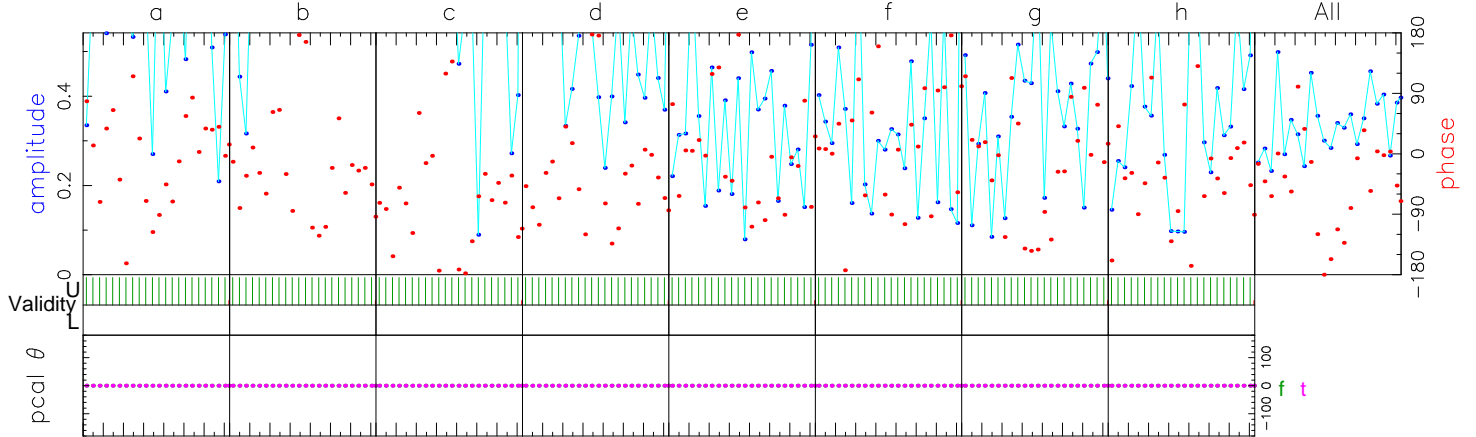


delay rate (ns/s)



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

ph/seg (deg) 66.2 27.1 Search (2048X32) 0.179 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 94.8 47.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 49.9 16.0 Inc. seg. avg. 0.303 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 66.6 27.9 Inc. frq. avg. 0.212 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.81.1X1QEV

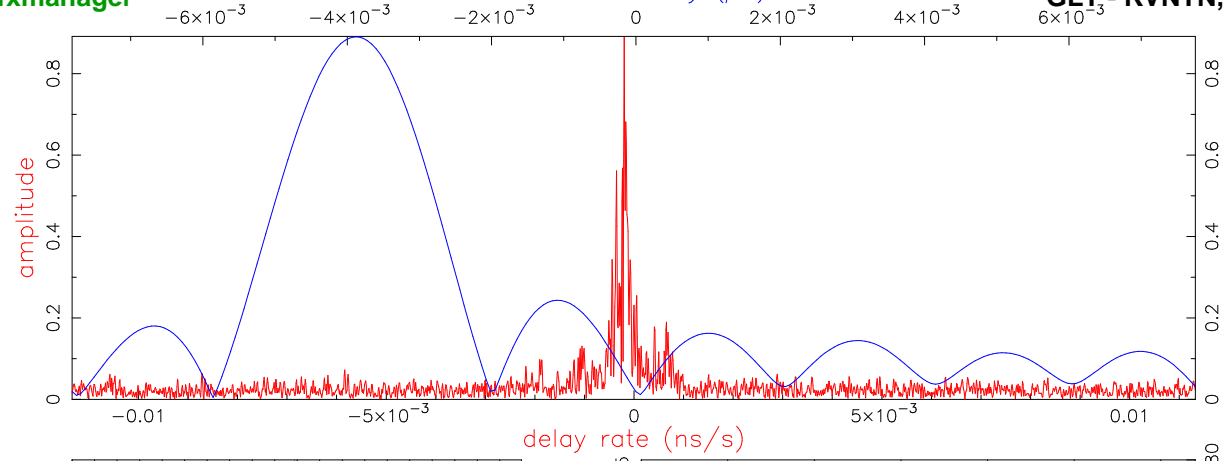
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, gt

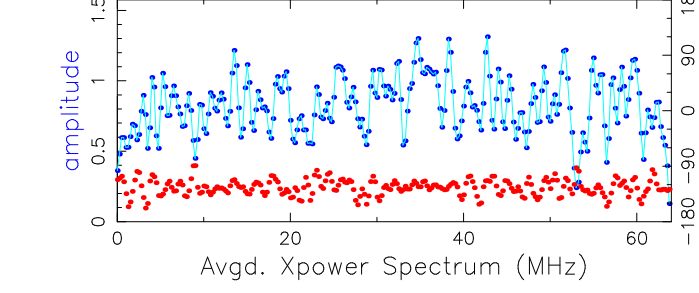
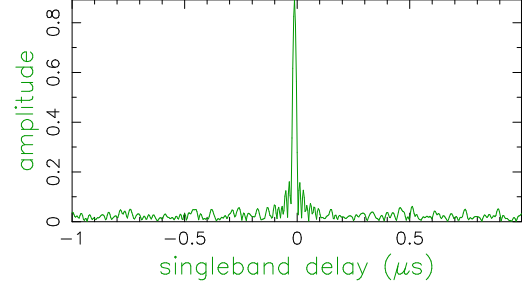
GLT - KVNTN, fgroup W, pol RR

multiband delay (μ s)



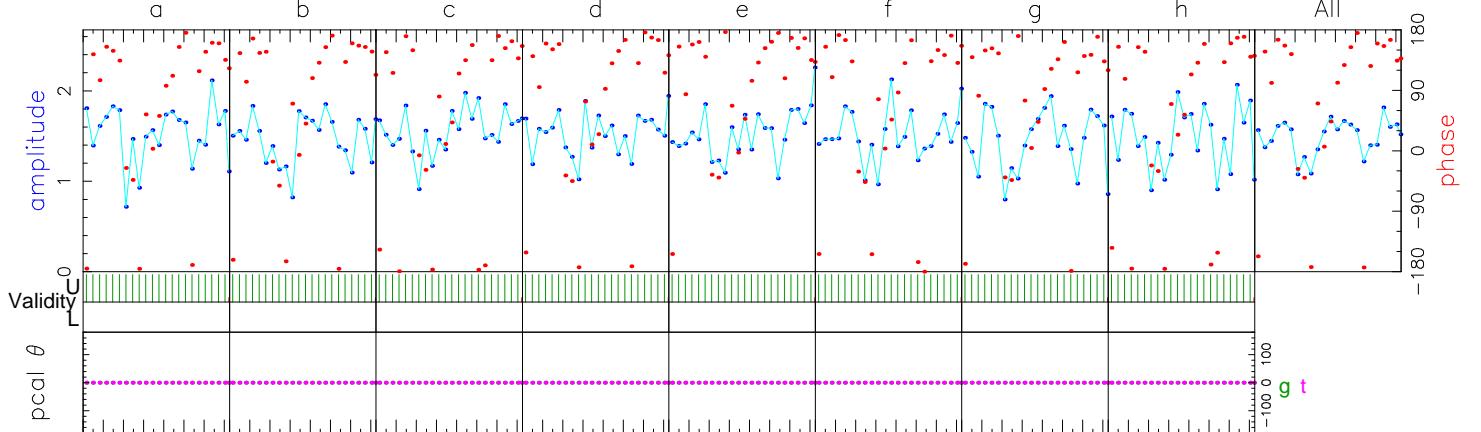
Fringe quality 5

SNR 50.0
 Int time 419.824
 Amp 0.892
 Phase 141.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.012111
 MBD -0.003878
 Fringe rate (Hz)
 -0.017221
 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
 2021:304:133911
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0				
g	0	0	0	0	0	0	0	0	PC freqs			
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
g:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
g:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
t	1000	1000	1000	1000	1000	1000	1000	1000				
g	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)	2.06913455693E+03				2.06915406014E+03				Resid mbdelay (usec)	-3.87820E-03 +/- 2.2E-05		
Sband delay (usec)	2.06914194939E+03				7.0856476E-01				Resid sbdelay (usec)	-1.21108E-02 +/- 1.7E-04		
Phase delay (usec)	2.06915406469E+03				1.2200000E-07				Resid phdelay (usec)	4.54961E-06 +/- 7.4E-08		
Delay rate (us/s)	-9.74043233817E-01				-9.74043033894E-01				Resid rate (us/s)	-1.99922E-07 +/- 3.1E-10		
Total phase (deg)			47.6		2.62306989194E-05				Resid phase (deg)	141.1 +/- 2.3		
	RMS	Theor.	Amplitude	0.892 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	69.8	5.5	Search (2048X32)	0.880					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
amp/seg (%)	70.5	9.6	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
ph/frq (deg)	5.6	3.2	Inc. seg. avg.	1.483					Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011	
amp/frq (%)	5.5	5.7	Inc. frq. avg.	0.893					Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00
g: az 292.5 el 47.5 pa 19.9			t: az 48.3 el 38.9 pa -82.3						u,v (fr/asec) 8918.569 4799.770		simultaneous interpolator	

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/gt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/gt.W.116.1X1QEV

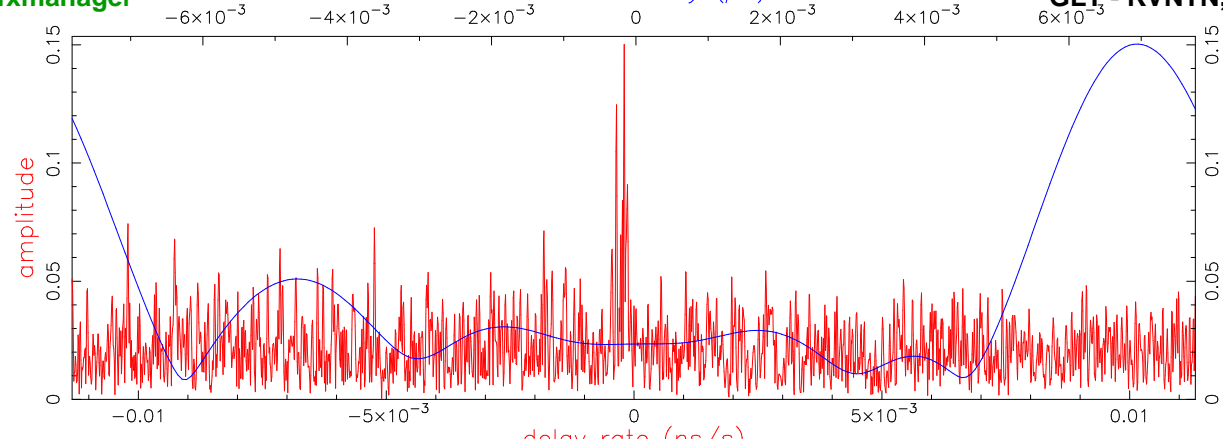
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

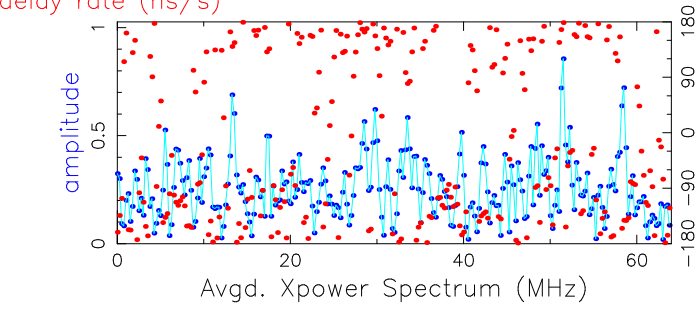
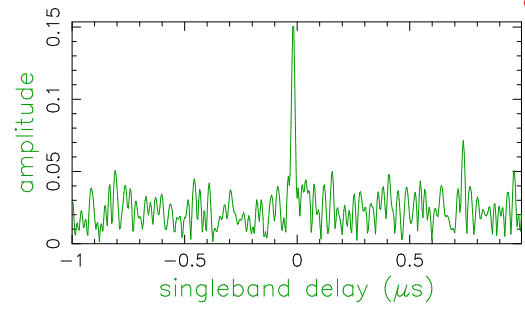
NRAO150.1X1QEV, No0120, gt

GLT - KVNTN, fgroup W, pol LR

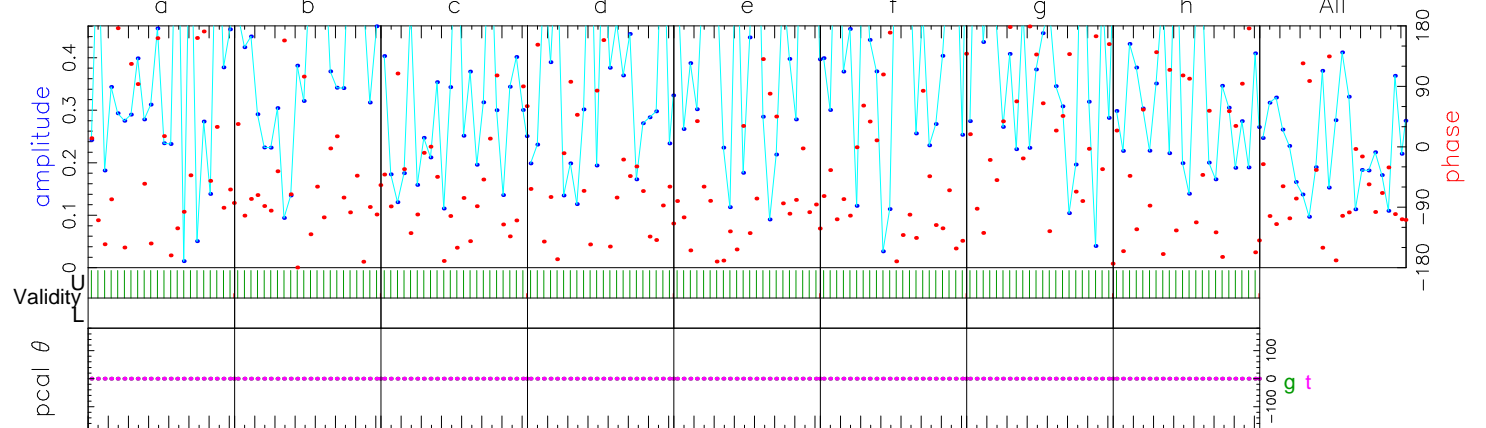
multiband delay (μ s)



Fringe quality 9
 SNR 8.6
 Int time 419.824
 Amp 0.154
 Phase -94.7
 PFD 2.8e-09
 Delays (us)
 SBD -0.017617
 MBD 0.007001
 Fringe rate (Hz)
 -0.017144
 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
 2021:304:133914
 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
	-101.4	-83.2	-87.6	-112.0	-92.4	-104.3	-48.0	-143.7	Phase	-94.7
	0.1	0.2	0.1	0.2	0.3	0.2	0.1	0.1	Ampl.	0.2
	195.6	251.7	46.4	252.7	251.7	21.9	507.9	400.7	Sbd box	252.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	1000	1000	1000	1000	1000	1000	1000	1000		
g	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)	2.06912981093E+03		Apriori delay (usec)		2.06915406014E+03		Resid mbdelay (usec)		7.00080E-03	+/- 1.3E-04
Sband delay (usec)	2.06913644314E+03		Apriori clock (usec)		7.0856476E-01		Resid sbdelay (usec)		-1.76170E-02	+/- 1.0E-03
Phase delay (usec)	2.06915405708E+03		Apriori clockrate (us/s)		1.2200000E-07		Resid phdelay (usec)		-3.05307E-06	+/- 4.3E-07
Delay rate (us/s)	-9.74043232915E-01		Apriori rate (us/s)		-9.74043033894E-01		Resid rate (us/s)		-1.99021E-07	+/- 1.8E-09
Total phase (deg)	171.8		Apriori accel (us/s/s)		2.62306989194E-05		Resid phase (deg)		-94.7	+/- 13.3

ph/seg (deg) 69.0 31.9 Amplitude 0.154 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 77.0 55.7 Search (2048X32) 0.148 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 29.5 18.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.2 32.9 Inc. seg. avg. 0.200 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 g: az 292.5 el 47.5 pa 19.9 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 8918.569 4799.770 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/gt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/gt.W.132.1X1QEV

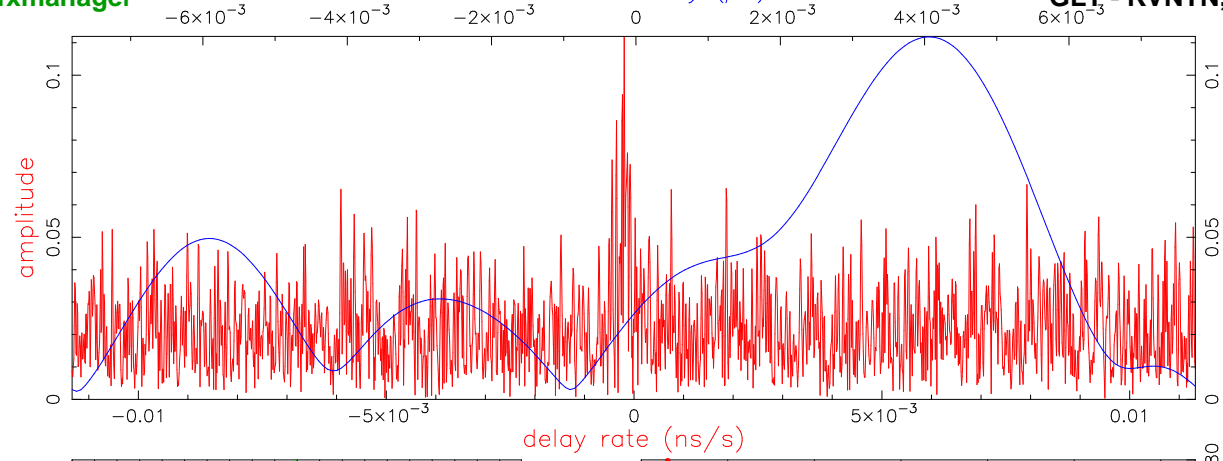
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

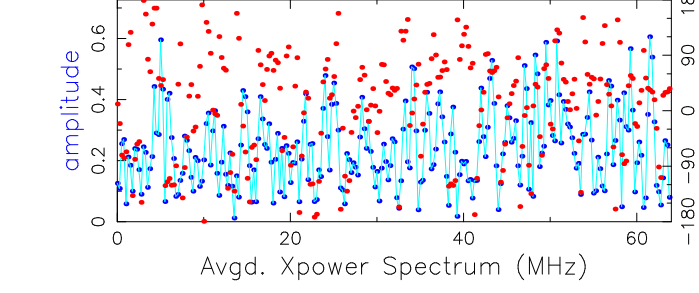
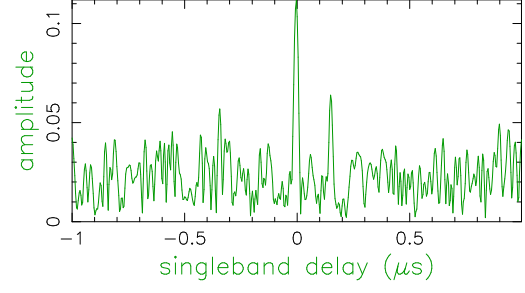
NRAO150.1X1QEV, No0120, gt

GLT - KVNTN, fgroup W, pol RL

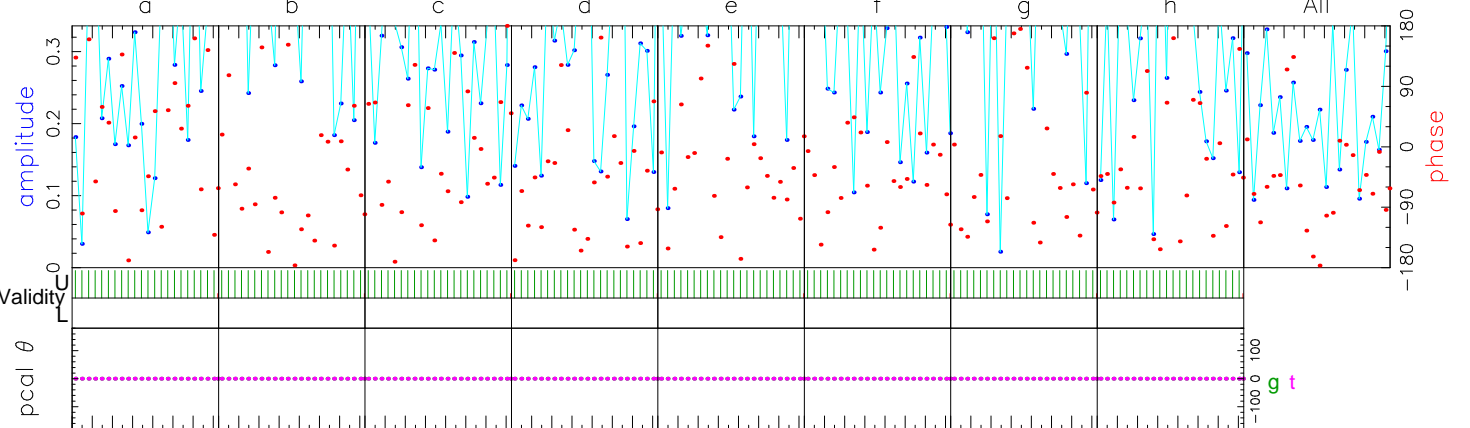
multiband delay (μ s)



Fringe quality 0
 SNR 6.3
 Int time 419.824
 Amp 0.112
 Phase -61.2
 PFD 9.1e-02
 Delays (us)
 SBD -0.004484
 MBD 0.004067
 Fringe rate (Hz)
 -0.017255
 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
 2021:304:133917
 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
123.8	-84.3	-25.6	-60.3	-44.9	-37.2	-91.3	-71.1	-71.1	Phase	-61.2
0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.1	0.1	Ampl.	0.1
408.3	487.3	174.9	17.9	255.2	256.1	256.3	482.3	482.3	Sbd box	255.9
U/L 820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g 0	0	0	0	0	0	0	0	0	PC freqs	
t 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:t 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:t 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t 1000	1000	1000	1000	1000	1000	1000	1000	1000		
g 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)	2.06914250246E+03		Apriori delay (usec)	2.06915406014E+03		Resid mbdelay (usec)	4.06733E-03		+/-	1.7E-04
Sband delay (usec)	2.06914957639E+03		Apriori clock (usec)	7.0856476E-01		Resid sbdelay (usec)	-4.48375E-03		+/-	1.4E-03
Phase delay (usec)	2.06915405817E+03		Apriori clockrate (us/s)	1.2200000E-07		Resid phdelay (usec)	-1.97228E-06		+/-	5.9E-07
Delay rate (us/s)	-9.74043234204E-01		Apriori rate (us/s)	-9.74043033894E-01		Resid rate (us/s)	-2.00310E-07		+/-	2.4E-09
Total phase (deg)		205.3	Apriori accel (us/s/s)	2.62306989194E-05		Resid phase (deg)	-61.2		+/-	18.3

ph/seg (deg) 71.6 43.8 Search (2048X32) 0.109 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 116.0 76.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 75.6 25.8 Inc. seg. avg. 0.166 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 62.8 45.1 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
 g: az 292.5 el 47.5 pa 19.9 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 8918.569 4799.770 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/gt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/gt.W.150.1X1QEV simultaneous interpolator

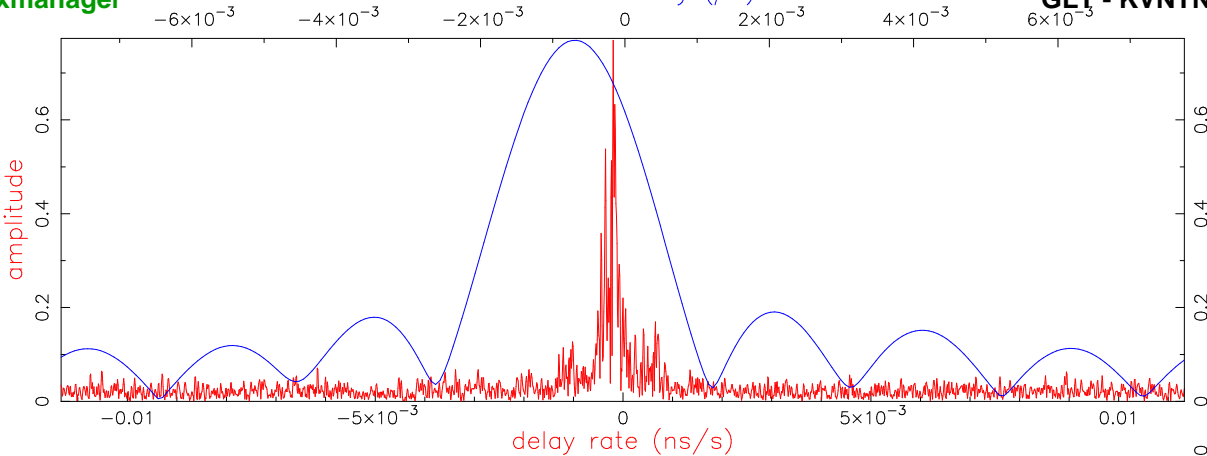
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, gt

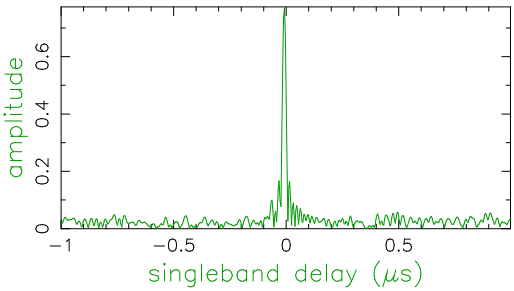
GLT - KVNTN, fgroup W, pol LL

multiband delay (μ s)

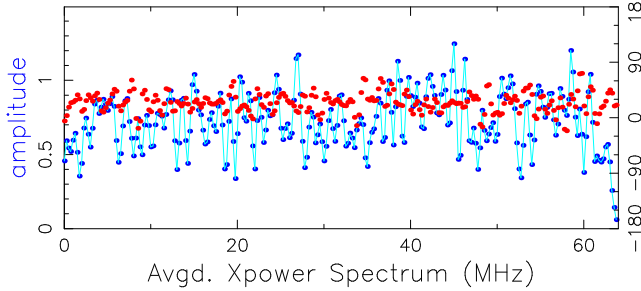


Fringe quality 7

SNR 43.3
 Int time 419.824
 Amp 0.774
 Phase -67.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.008698
 MBD -0.000691
 Fringe rate (Hz)
 -0.017187
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

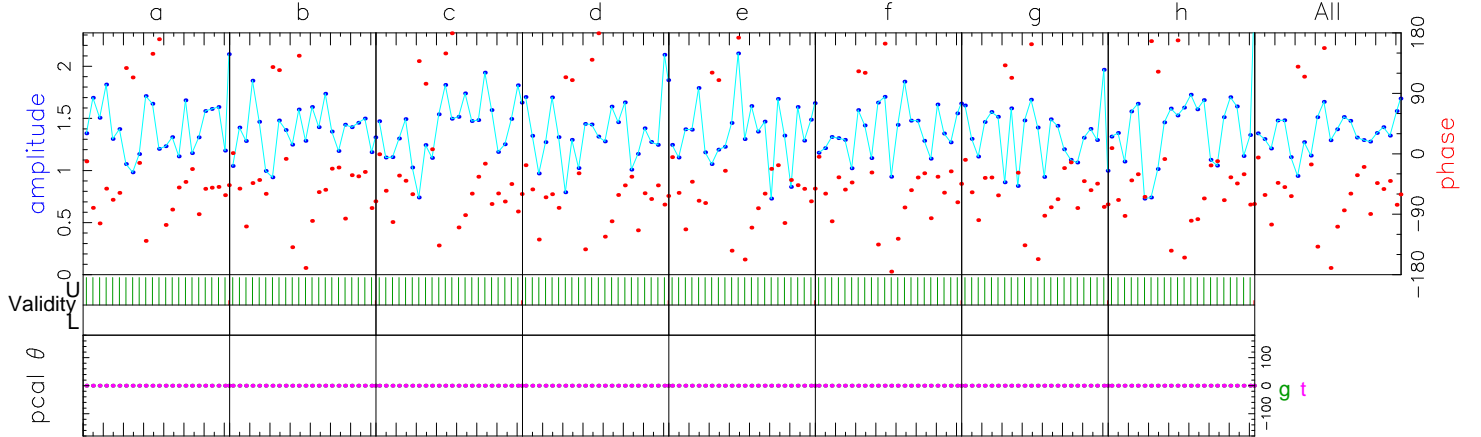


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-68.8	-57.9	-66.3	-77.0	-74.2	-67.0	-65.0	-65.4	Phase	-67.8
	0.8	0.7	0.8	0.8	0.8	0.7	0.8	0.8	Ampl.	0.8
	254.7	254.8	255.1	254.7	254.9	254.6	254.9	254.6	Sbd box	254.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 2.06913774371E+03 Apriori delay (usec) 2.06915406014E+03 Resid mbdelay (usec) -6.91423E-04 +/- 2.5E-05
 Sband delay (usec) 2.06914536264E+03 Apriori clock (usec) 7.0856476E-01 Resid sbdelay (usec) -8.69750E-03 +/- 2.0E-04
 Phase delay (usec) 2.06915405795E+03 Apriori clockrate (us/s) 1.2200000E-07 Resid phdelay (usec) -2.18573E-06 +/- 8.5E-08
 Delay rate (us/s) -9.74043233422E-01 Apriori rate (us/s) -9.74043033894E-01 Resid rate (us/s) -1.99528E-07 +/- 3.5E-10
 Total phase (deg) 198.7 Apriori accel (us/s/s) 2.62306989194E-05 Resid phase (deg) -67.8 +/- 2.6

RMS Theor. Amplitude 0.774 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 69.9 6.3 Search (2048X32) 0.754 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 77.8 11.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 6.3 3.7 Inc. seg. avg. 1.346 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 4.5 6.5 Inc. frq. avg. 0.772 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

g: az 292.5 el 47.5 pa 19.9 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 8918.569 4799.770 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/gt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/gt.W.96.1X1QEV

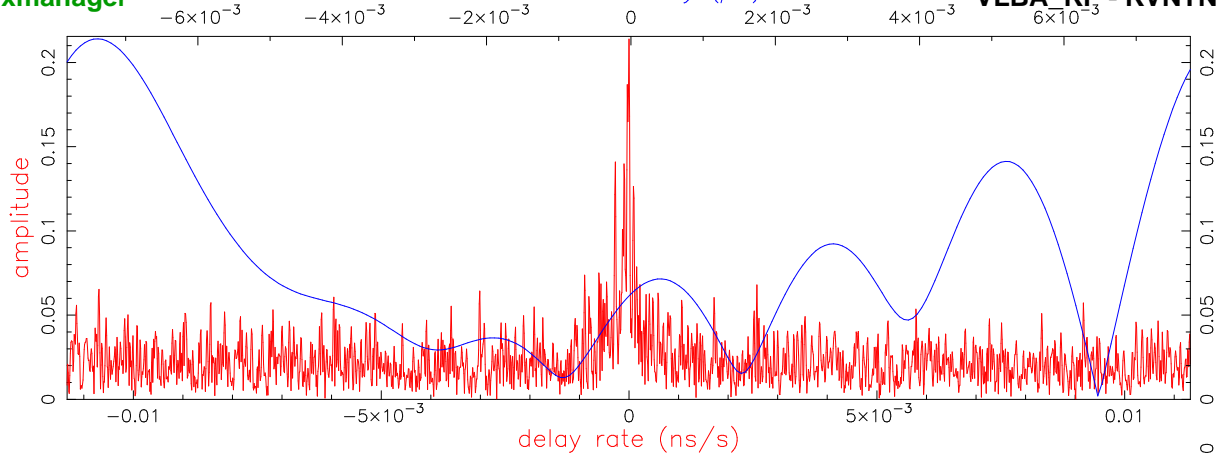
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, kt

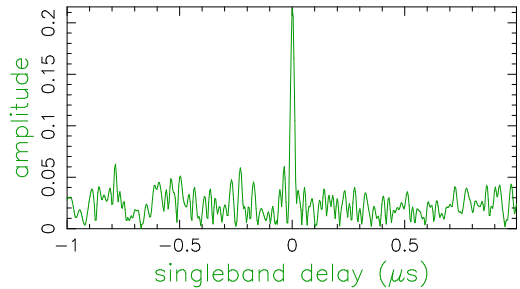
VLBA_KP - KVNTN, fgroup W, pol LL

multiband delay (μ s)

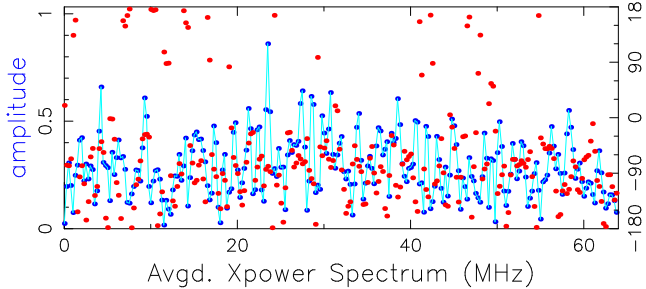


Fringe quality 9

SNR 12.1
Int time 419.817
Amp 0.215
Phase 7.7
PFD 7.5e-25
Delays (us)
SBD 0.001151
MBD -0.007341
Fringe rate (Hz) 0.000374
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

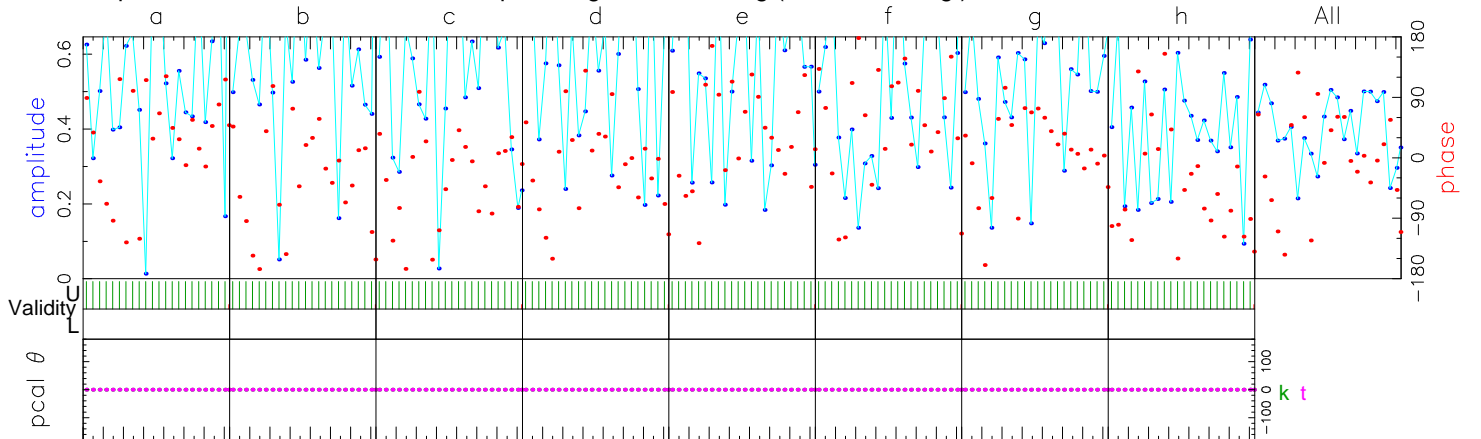


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133907
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	0	0	0	0	0	0	0	0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
k:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	42.6	-19.6	-19.2	-9.7	39.6	62.6	21.4	-79.4		
Sband delay (usec)	0.3	0.2	0.3	0.3	0.2	0.2	0.4	0.2		
Phase delay (usec)	255.5	257.0	257.8	257.5	258.3	257.1	257.2	255.5		
Delay rate (us/s)		-1.43161062069E+00				-1.43161062503E+00				
Total phase (deg)			281.0							
Apriori delay (usec)		1.64567201419E+03			1.64566373066E+03					
Apriori clock (usec)		1.64566488191E+03			5.8880424E-01					
Apriori clockrate (us/s)		1.64566373091E+03			4.9999999E-08					
Apriori rate (us/s)		-1.43161062069E+00			-1.43161062503E+00					
Apriori accel (us/s/s)					-1.04533366078E-05					
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										

	RMS	Theor.	Amplitude	0.215 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	69.7	22.8	Search (2048X32)	0.207	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	96.2	39.7	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	49.6	13.4	Inc. seg. avg.	0.373	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	34.4	23.4	Inc. frq. avg.	0.266	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

k: az 312.3 el 46.3 pa 94.2 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 13010.593 -1287.483 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/kt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/kt.W.100.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

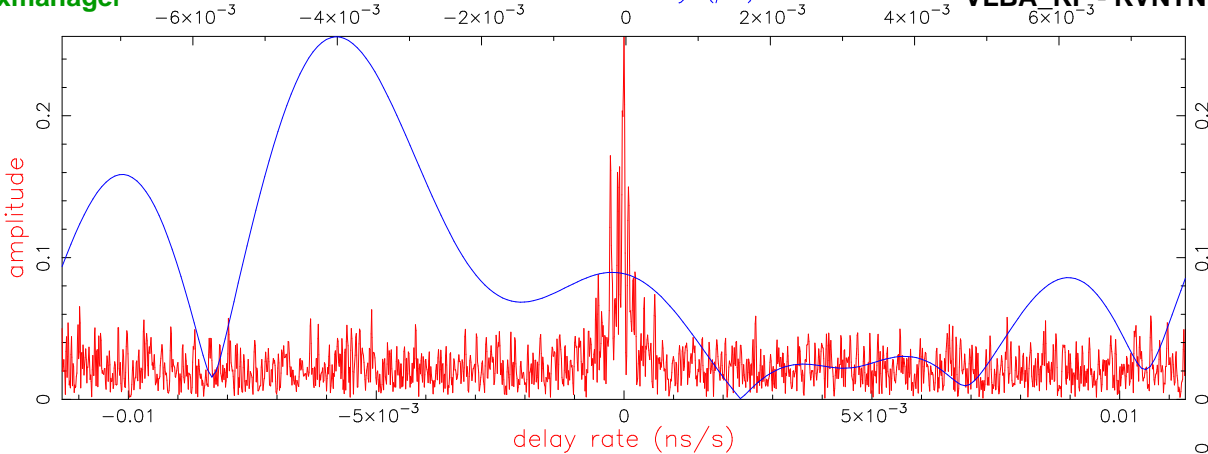
fxmanager

NRAO150.1X1QEV, No0120, kt

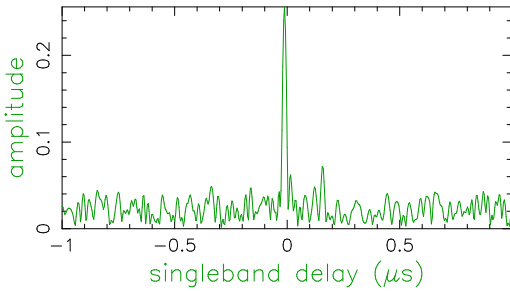
VLBA_KP - KVNTN, fgroup W, pol RR

multiband delay (μ s)

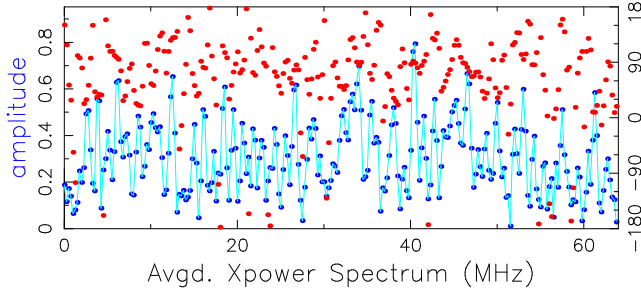
Fringe quality 8



SNR 14.3
Int time 419.816
Amp 0.256
Phase -9.9
PFD 7.0e-38
Delays (us)
SBD -0.012223
MBD -0.004035
Fringe rate (Hz) 0.000378
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

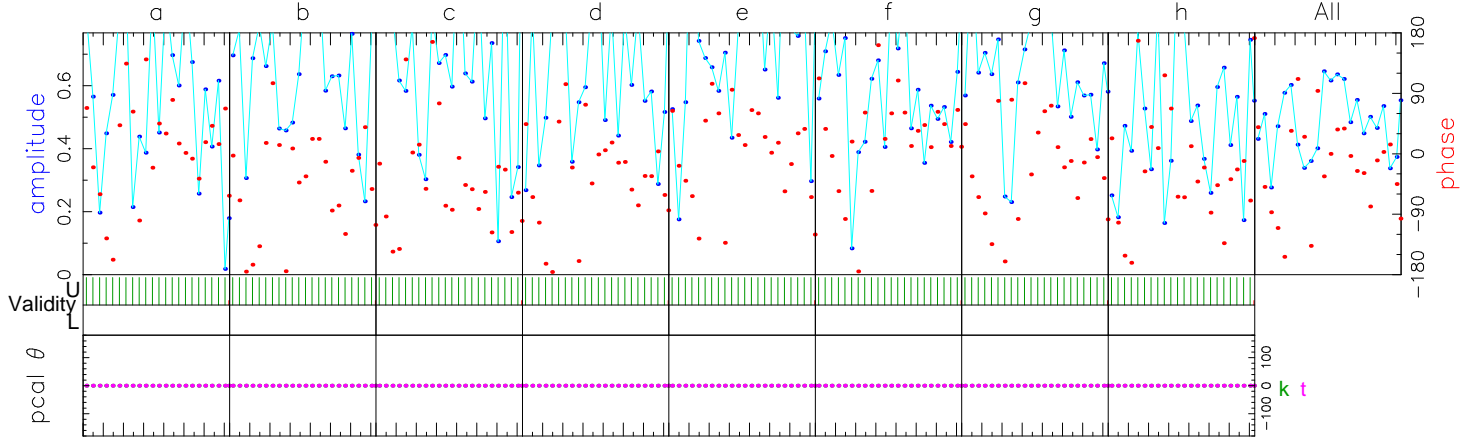


delay rate (ns/s)



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
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	0	0	0	0	0	0	0	0	PC freqs	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	1000	1000	1000	1000	1000	1000	1000	1000		
k	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)	1.64564407066E+03				1.64566373066E+03				Resid mbdelay (usec)	-4.03500E-03 +/- 7.6E-05
Sband delay (usec)	1.64565150791E+03				5.8880424E-01				Resid sbdelay (usec)	-1.22228E-02 +/- 6.0E-04
Phase delay (usec)	1.64566373034E+03				4.9999999E-08				Resid phdelay (usec)	-3.18791E-07 +/- 2.6E-07
Delay rate (us/s)	-1.43161062064E+00				-1.43161062503E+00				Resid rate (us/s)	4.39306E-09 +/- 1.1E-09
Total phase (deg)			263.5		-1.04533366078E-05				Resid phase (deg)	-9.9 +/- 8.0
	RMS	Theor.	Amplitude	0.256 +/- 0.018	Pcal mode: MANUAL, MANUAL				PC period (AP's) 5, 5	
ph/seg (deg)	66.8	19.2	Search (2048X32)	0.247	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				sb window (us)	-1.000 1.000
amp/seg (%)	97.7	33.4	Interp.	0.000	Bits/sample: 2x2				mb window (us)	-0.008 0.008
ph/frq (deg)	39.6	11.3	Inc. seg. avg.	0.457	Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011
amp/frq (%)	26.4	19.7	Inc. frq. avg.	0.302	Data rate(Mb/s): 2048				ion window (TEC)	0.00 0.00
					nlags: 256				t_cohere infinite	

k: az 312.3 el 46.3 pa 94.2 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 13010.593 -1287.483 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/kt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/kt.W.122.1X1QEV

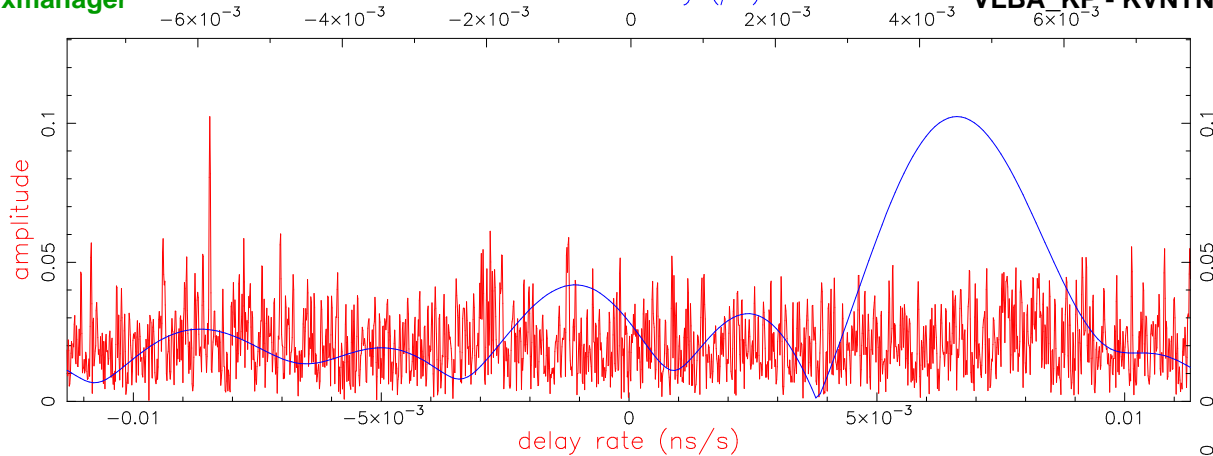
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, kt

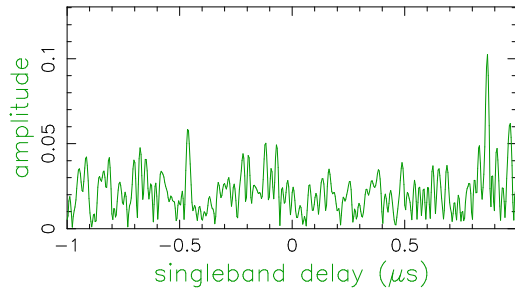
VLBA_KP - KVNTN, fgroup W, pol LR

multiband delay (μ s)

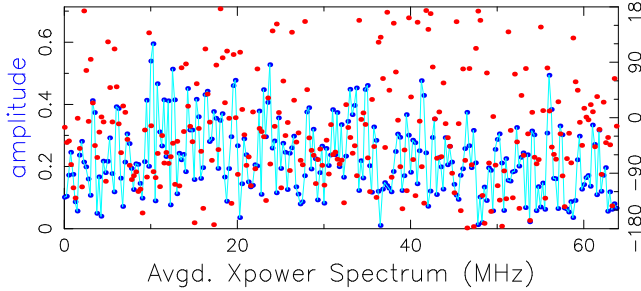


Fringe quality 0

SNR 5.7
 Int time 419.817
 Amp 0.130
 Phase 170.6
 PFD 9.0e-01
 Delays (us)
 SBD 0.866775
 MBD 0.004518
 Fringe rate (Hz)
 -0.729885
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

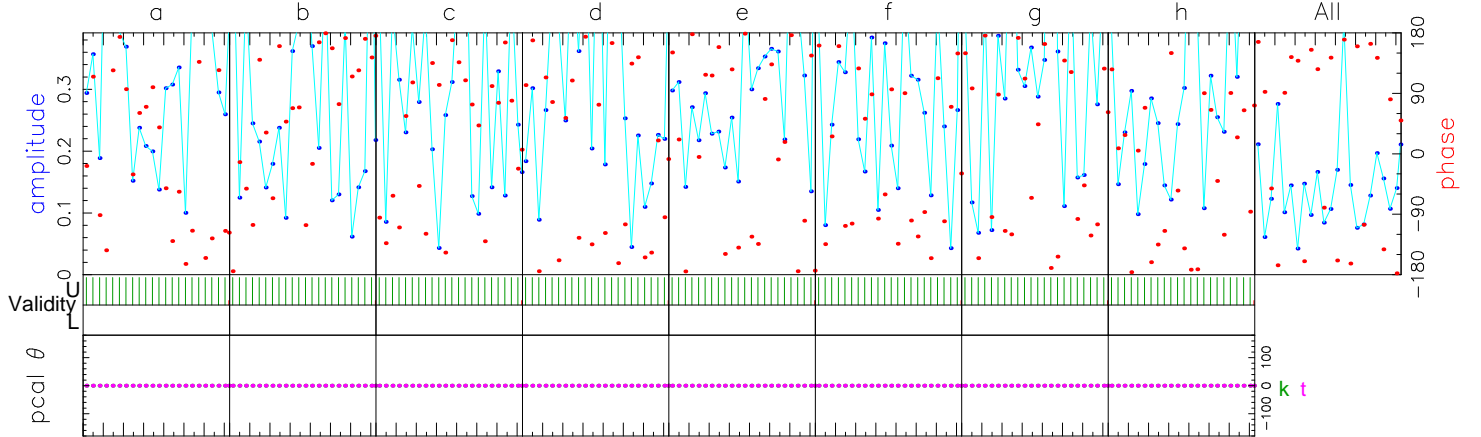


delay rate (ns/s)



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
	-170.1	164.2	153.8	157.5	166.3	-169.6	-177.8	147.4	Phase	170.6
	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	Ampl.	0.1
	14.9	474.8	415.9	334.8	475.2	239.3	478.4	120.8	Sbd box	478.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	1000	1000	1000	1000	1000	1000	1000	1000		
k	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)		1.64652762387E+03		Apriori delay (usec)	1.64566373066E+03		Resid mbdelay (usec)	4.51820E-03	+/-	1.9E-04
Sband delay (usec)		1.64653050566E+03		Apriori clock (usec)	5.8880424E-01		Resid sbdelay (usec)	8.66775E-01	+/-	1.5E-03
Phase delay (usec)		1.64566373616E+03		Apriori clockrate (us/s)	4.9999999E-08		Resid phdelay (usec)	5.50099E-06	+/-	6.4E-07
Delay rate (us/s)		-1.43161909827E+00		Apriori rate (us/s)	-1.43161062503E+00		Resid rate (us/s)	-8.47325E-06	+/-	2.7E-09
Total phase (deg)			83.9	Apriori accel (us/s/s)	-1.04533366078E-05		Resid phase (deg)	170.6	+/-	19.9

ph/seg (deg) 57.0 47.8 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 86.3 83.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 18.0 28.2 Inc. seg. avg. 0.136 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 44.0 49.2 Inc. frq. avg. 0.120 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 312.3 el 46.3 pa 94.2 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 13010.593 -1287.483 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/kt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/kt.W.139.1X1QEV

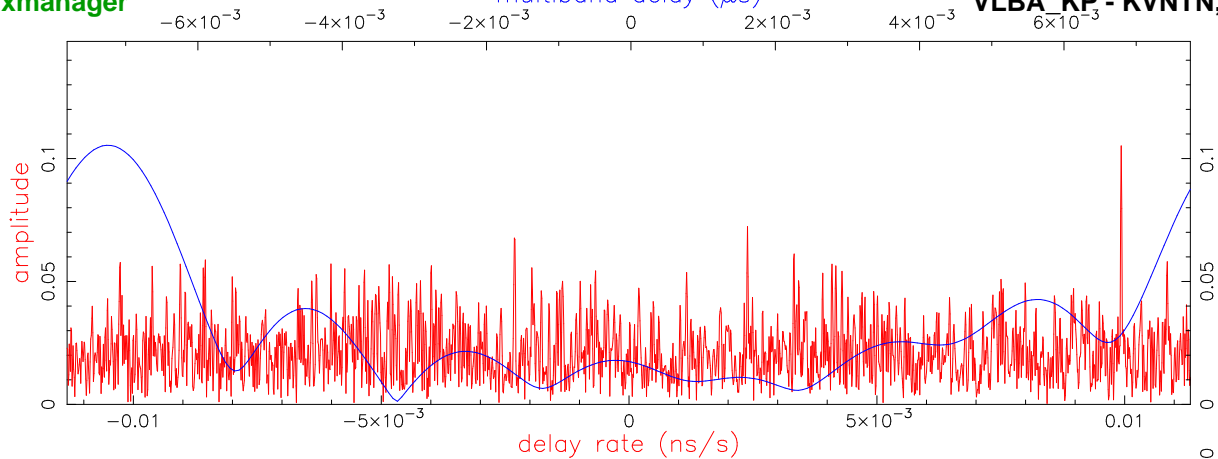
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, kt

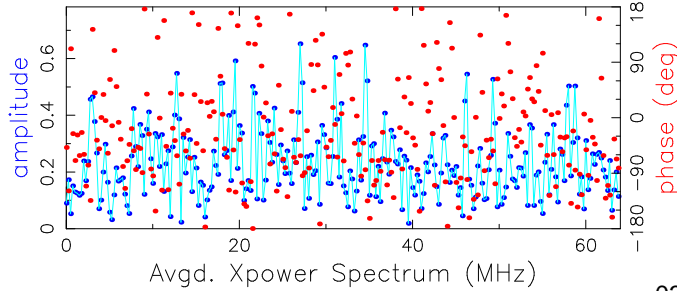
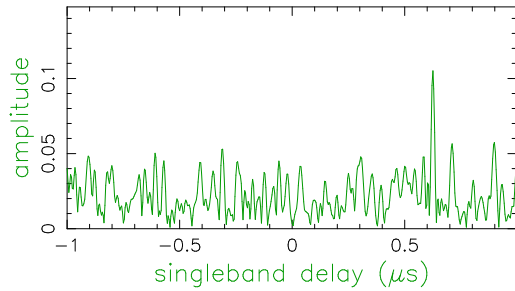
VLBA_KP - KVNTN, fgroup W, pol RL

multiband delay (μ s)



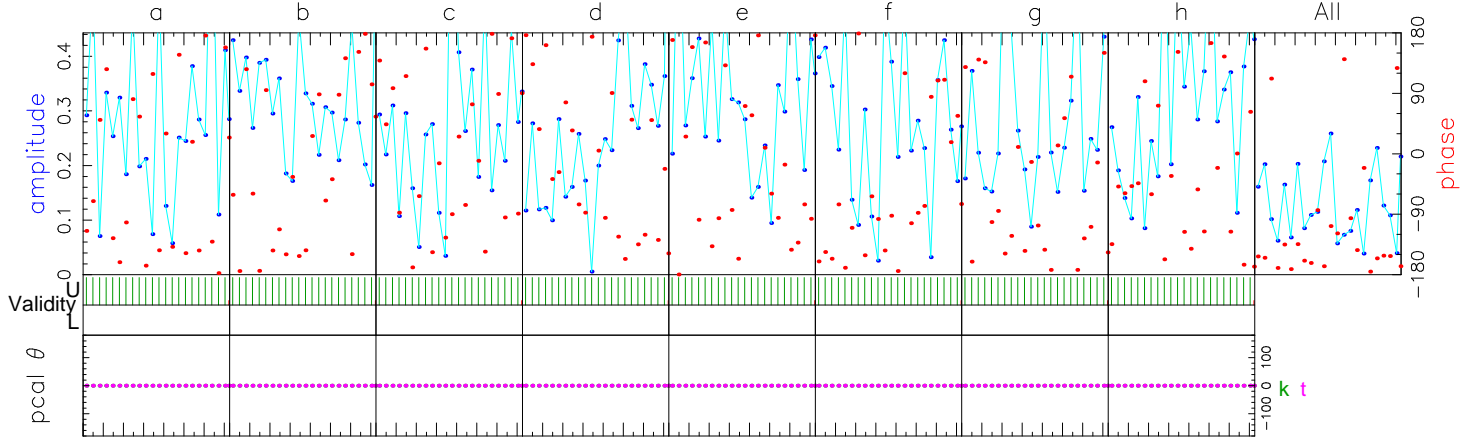
Fringe quality 0

SNR 5.9
 Int time 419.816
 Amp 0.148
 Phase -149.4
 PFD 6.2e-01
 Delays (us)
 SBD 0.624773
 MBD 0.008301
 Fringe rate (Hz)
 0.856939
 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
 2021:304:133920
 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
	-158.1	-162.7	-161.8	-103.5	-141.0	-154.6	-155.7	-138.1	Phase	-149.4
	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	Ampl.	0.1
	105.4	331.8	192.2	114.7	59.1	385.3	417.5	72.6	Sbd box	416.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.64628140644E+03		Apriori delay (usec)		1.64566373066E+03		Resid mbdelay (usec)		8.30078E-03	+/- 1.8E-04
Sband delay (usec)	1.64628850366E+03		Apriori clock (usec)		5.8880424E-01		Resid sbdelay (usec)		6.24773E-01	+/- 1.5E-03
Phase delay (usec)	1.64566372584E+03		Apriori clockrate (us/s)		4.9999999E-08		Resid phdelay (usec)		-4.81900E-06	+/- 6.3E-07
Delay rate (us/s)	-1.43160067682E+00		Apriori rate (us/s)		-1.43161062503E+00		Resid rate (us/s)		9.94821E-06	+/- 2.6E-09
Total phase (deg)	123.9		Apriori accel (us/s/s)		-1.04533366078E-05		Resid phase (deg)		-149.4	+/- 19.4

ph/seg (deg) 47.8 46.6 Amplitude 0.148 +/- 0.025 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 63.8 81.4 Search (2048X32) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.6 27.5 Inc. seg. avg. 0.134 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.9 48.0 Inc. frq. avg. 0.136 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 312.3 el 46.3 pa 94.2 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 13010.593 -1287.483 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/kt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/kt.W.159.1X1QEV

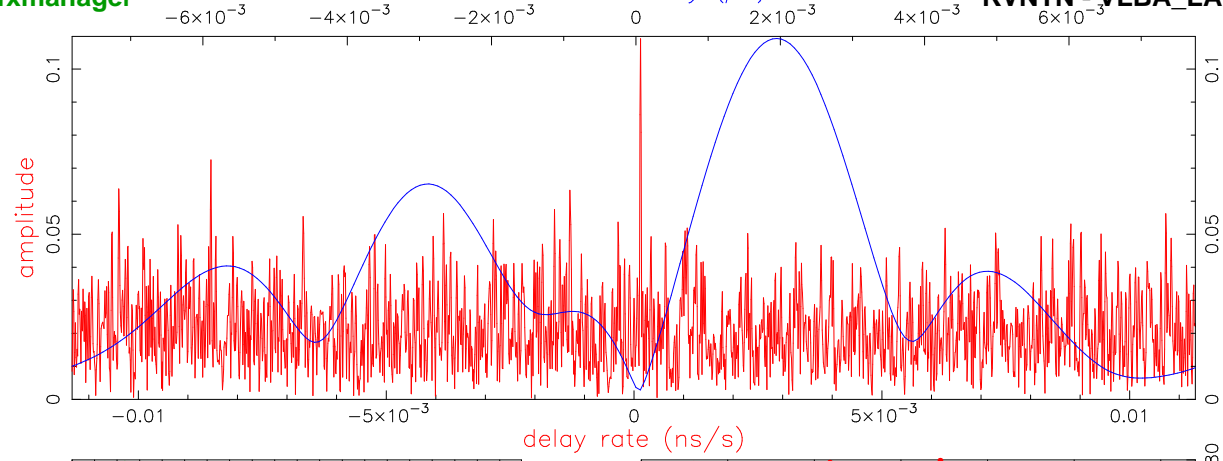
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

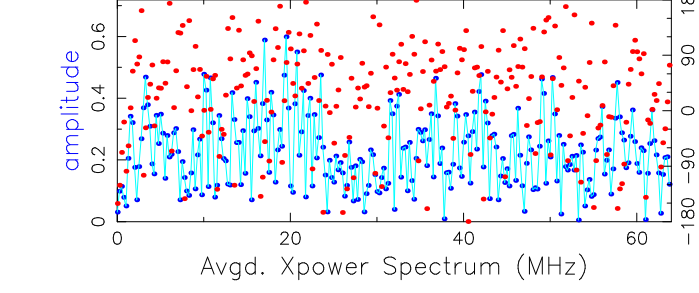
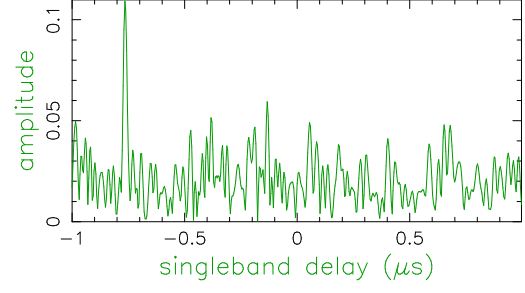
NRAO150.1X1QEV, No0120, tl

KVNTN - VLBA_LA, fgroup W, pol LL

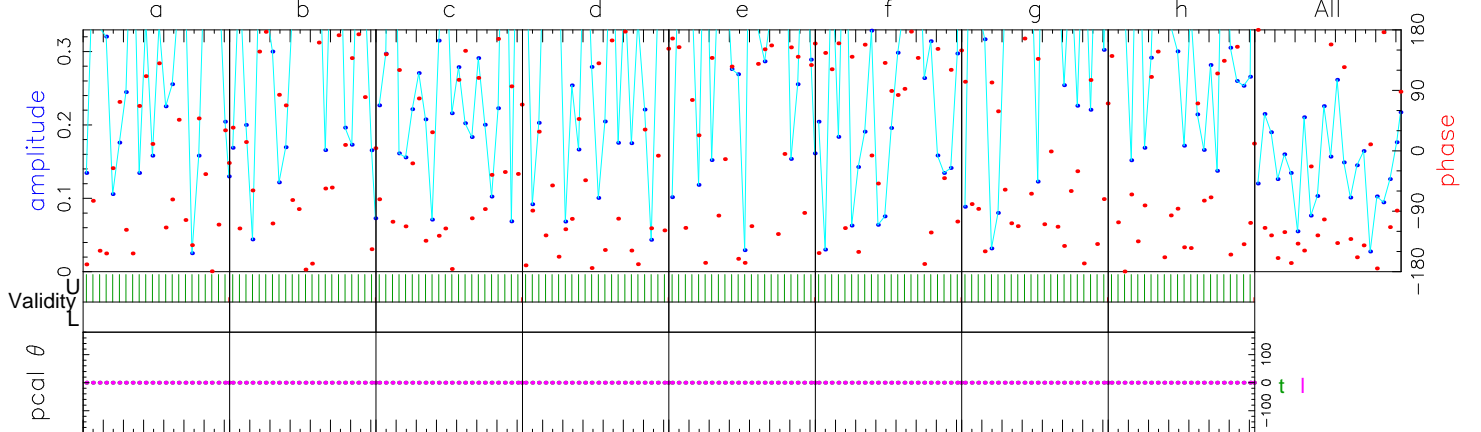
multiband delay (μ s)



Fringe quality 0
 SNR 6.2
 Int time 419.825
 Amp 0.110
 Phase -140.9
 PFD 1.8e-01
 Delays (us)
 SBD -0.764587
 MBD 0.001983
 Fringe rate (Hz)
 0.011437
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133924
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-124.1	-159.5	-100.9	-134.7	-163.3	165.0	-103.4	-155.4	Phase	-140.9
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	441.0	266.8	312.9	243.0	279.7	477.4	61.2	60.5	Sbd box	61.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	0	0	0	0	0	0	0	0	PC freqs	
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.41016414591E+03		Apriori delay (usec)		-1.40940050390E+03		Resid mbdelay (usec)		1.98299E-03	+/- 1.8E-04
Sband delay (usec)	-1.41016509115E+03		Apriori clock (usec)		2.3666019E+00		Resid sbdelay (usec)		-7.64587E-01	+/- 1.4E-03
Phase delay (usec)	-1.40940050844E+03		Apriori clockrate (us/s)		2.3600002E-07		Resid phdelay (usec)		-4.54238E-06	+/- 6.0E-07
Delay rate (us/s)	1.44101220445E+00		Apriori rate (us/s)		1.44101207167E+00		Resid rate (us/s)		1.32776E-07	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		4.36180832856E-06		Resid phase (deg)		-140.9	+/- 18.6

ph/seg (deg) 53.9 44.6 Search (2048X32) 0.109 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 59.1 77.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 34.9 26.3 Inc. seg. avg. 0.109 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.0 45.9 Inc. frq. avg. 0.114 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 48.3 el 38.9 pa -82.3 l: az 309.3 el 45.4 pa 86.6 u,v (fr/asec) -13108.677 389.067 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tl..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tl.W.177.1X1QEV

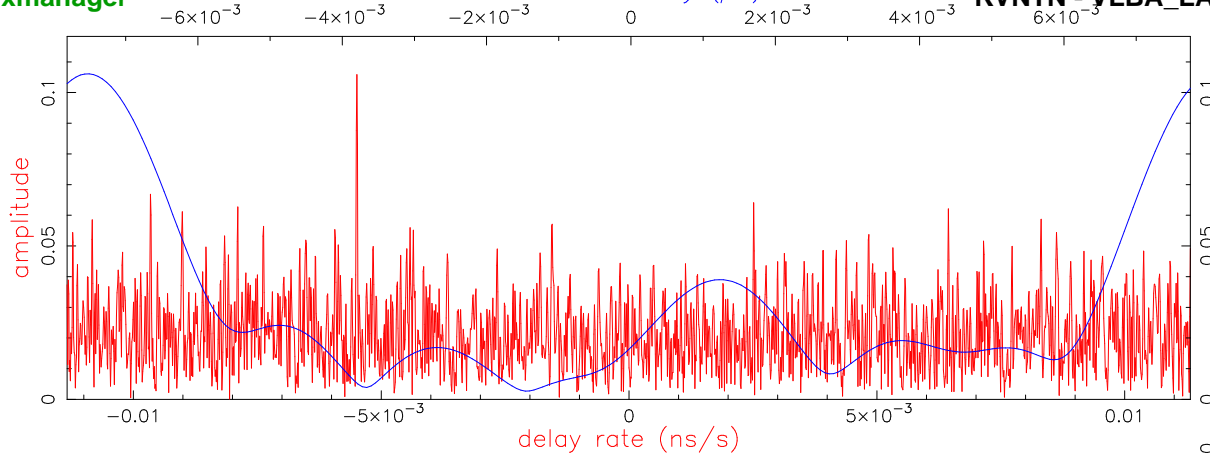
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, tl

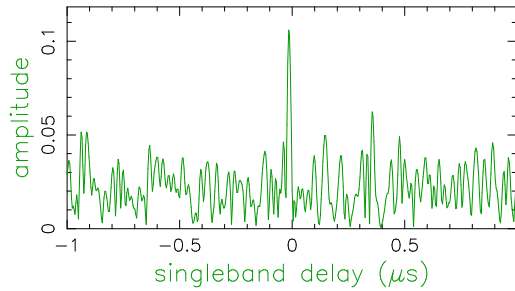
KVNTN - VLBA_LA, fgroup W, pol LR

multiband delay (μ s)

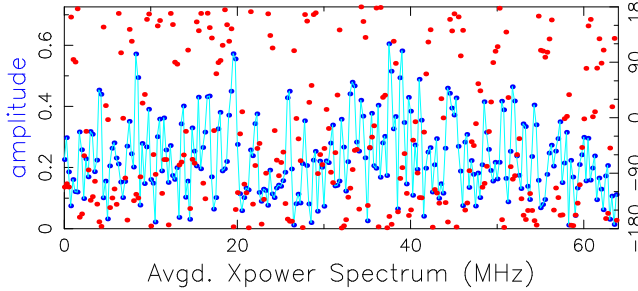


Fringe quality 0

SNR 6.0
 Int time 419.825
 Amp 0.118
 Phase 129.1
 PFD 3.9e-01
 Delays (us)
 SBD -0.014227
 MBD -0.007447
 Fringe rate (Hz)
 -0.474062
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

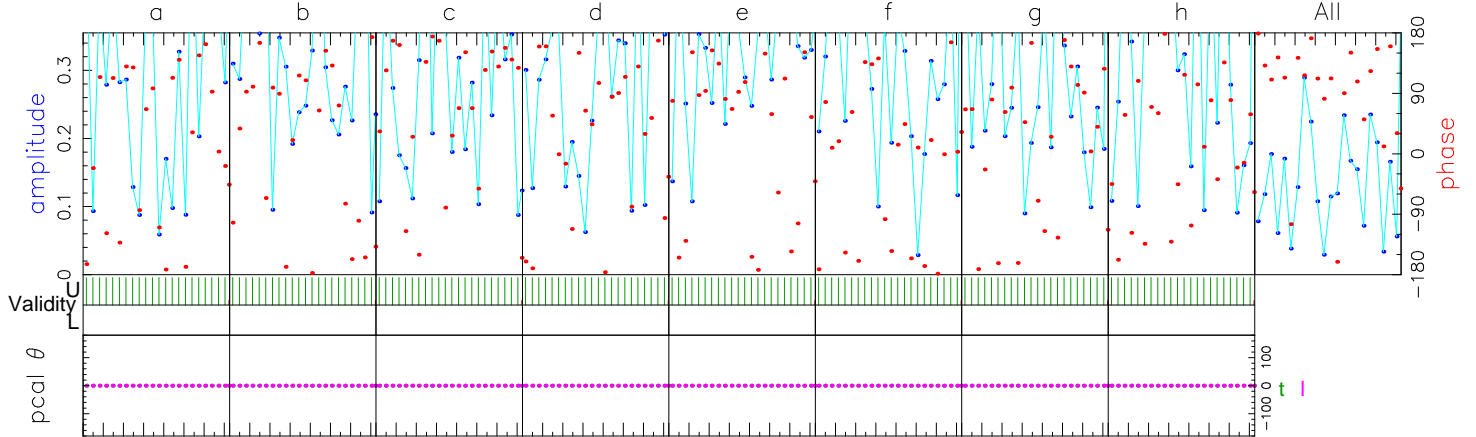


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133933
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
l	0	0	0	0	0	0	0	0		
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.40940795127E+03									
Sband delay (usec)	-1.40941473090E+03									
Phase delay (usec)	-1.40940049973E+03									
Delay rate (us/s)	1.44100656828E+00									
Total phase (deg)			-16.9							
Apriori delay (usec)					-1.40940050390E+03					
Apriori clock (usec)					2.3666019E+00					
Apriori clockrate (us/s)					2.3600002E-07					
Apriori rate (us/s)					1.44101207167E+00					
Apriori accel (us/s/s)					4.36180832856E-06					
Resid mbdelay (usec)									-7.44737E-03	+/- 1.8E-04
Resid sbdelay (usec)									-1.42270E-02	+/- 1.4E-03
Resid phdelay (usec)									4.16451E-06	+/- 6.2E-07
Resid rate (us/s)									-5.50339E-06	+/- 2.5E-09
Resid phase (deg)									129.1	+/- 19.1
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 (MSamp/s):	128									
Data rate (Mb/s):	2048		nlags: 256 t_cohere infinite							
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								

ph/seg (deg) 55.4 45.8 Search (2048X32) 0.105 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.0 79.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 20.1 27.0 Inc. seg. avg. 0.114 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.2 47.1 Inc. frq. avg. 0.109 Sample rate (MSamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 48.3 el 38.9 pa -82.3 l: az 309.3 el 45.4 pa 86.6 u,v (fr/asec) -13108.677 389.067 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tl..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tl.W.218.1X1QEV

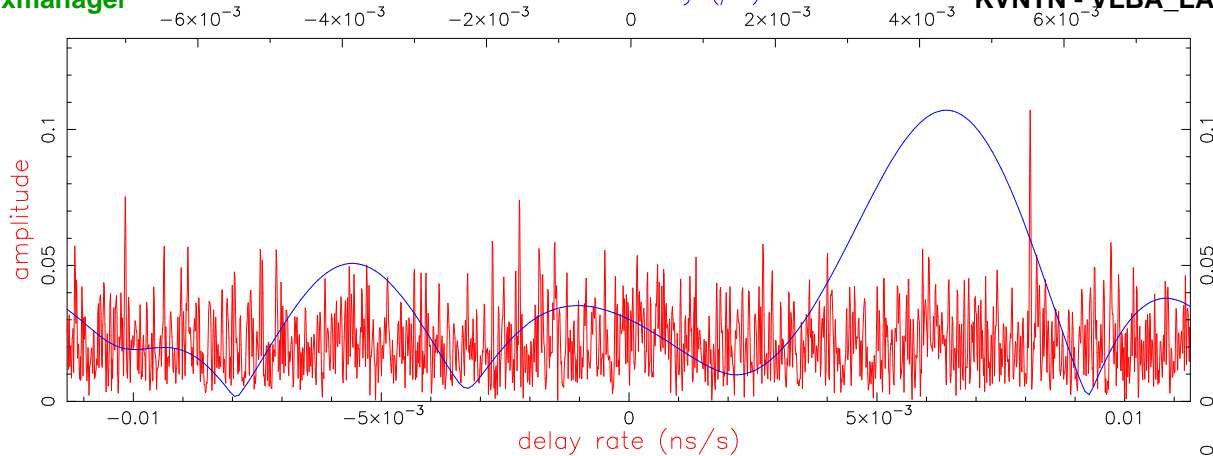
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, tl

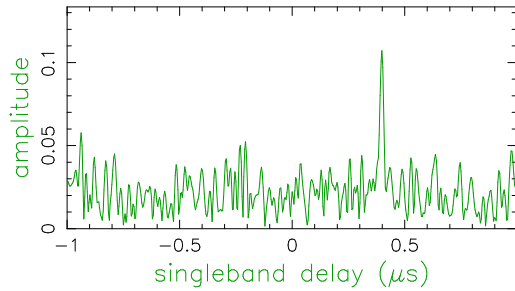
KVNTN - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

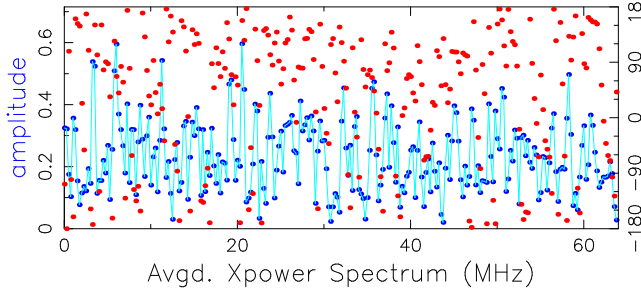


Fringe quality 0

SNR 6.0
 Int time 419.825
 Amp 0.134
 Phase -26.7
 PFD 3.9e-01
 Delays (us)
 SBD 0.398050
 MBD 0.004372
 Fringe rate (Hz)
 0.697852
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

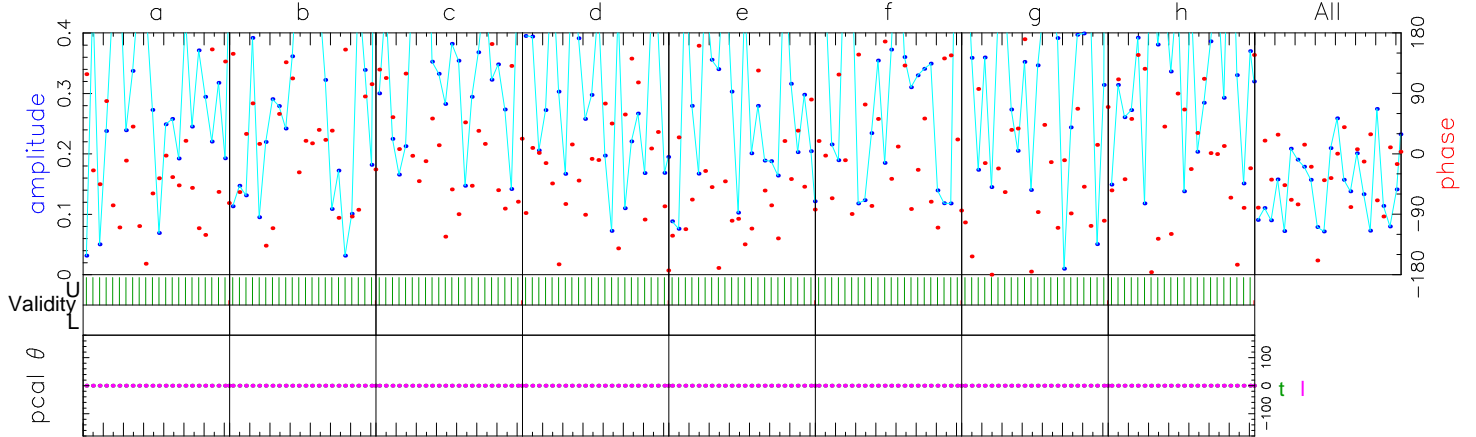


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-64.6	22.9	-10.2	-20.9	-67.8	-7.0	-57.9	3.6	Phase	-26.7
	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	Ampl.	0.1
	34.6	18.0	269.2	41.1	147.7	358.5	59.5	136.1	Sbd box	358.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	0	0	0	0	0	0	0	0	PC freqs	
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.40900550679E+03	Apriori delay (usec)	-1.40940050390E+03	Resid mbdelay (usec)	4.37210E-03	+/-	1.8E-04
Sband delay (usec)	-1.40900245390E+03	Apriori clock (usec)	2.3666019E+00	Resid sbdelay (usec)	3.98050E-01	+/-	1.4E-03
Phase delay (usec)	-1.40940050476E+03	Apriori clockrate (us/s)	2.3600002E-07	Resid phdelay (usec)	-8.60469E-07	+/-	6.2E-07
Delay rate (us/s)	1.44102017305E+00	Apriori rate (us/s)	1.44101207167E+00	Resid rate (us/s)	8.10137E-06	+/-	2.5E-09
Total phase (deg)	-172.8	Apriori accel (us/s/s)	4.36180832856E-06	Resid phase (deg)	-26.7	+/-	19.1

ph/seg (deg)	48.5	Theor.	45.7	Amplitude	0.134 +/- 0.022	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	66.1		79.8	Search (2048X32)	0.104	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	36.9		27.0	Inc. seg. avg.	0.137	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	30.9		47.1	Inc. frq. avg.	0.140	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	

t: az 48.3 el 38.9 pa -82.3 l: az 309.3 el 45.4 pa 86.6 u,v (fr/asec) -13108.677 389.067 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tl..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tl.W.237.1X1QEV

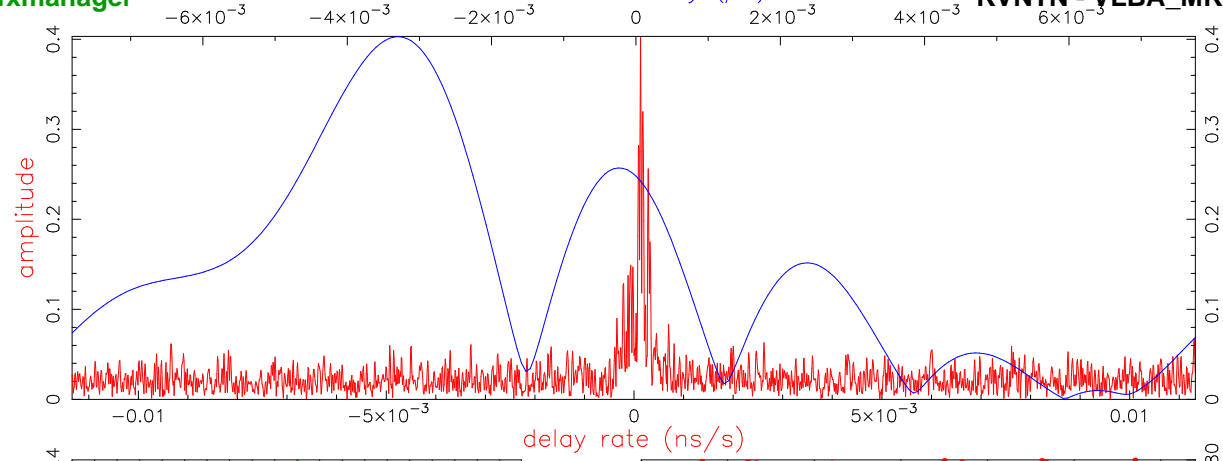
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, tm

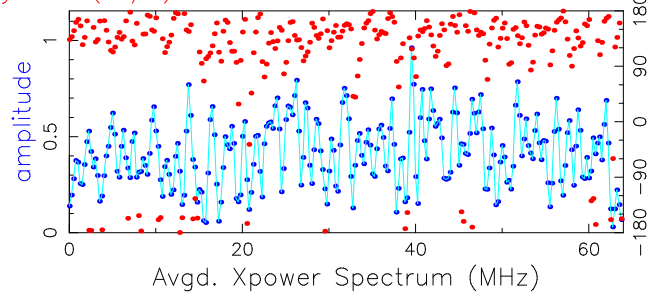
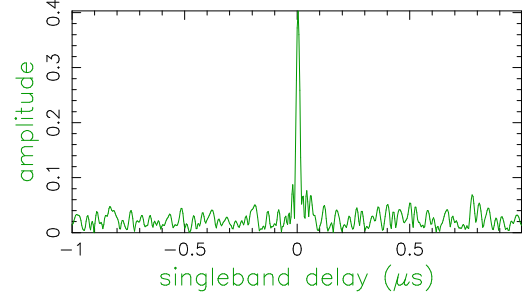
KVNTN - VLBA_MK, fgroup W, pol LL

multiband delay (μ s)



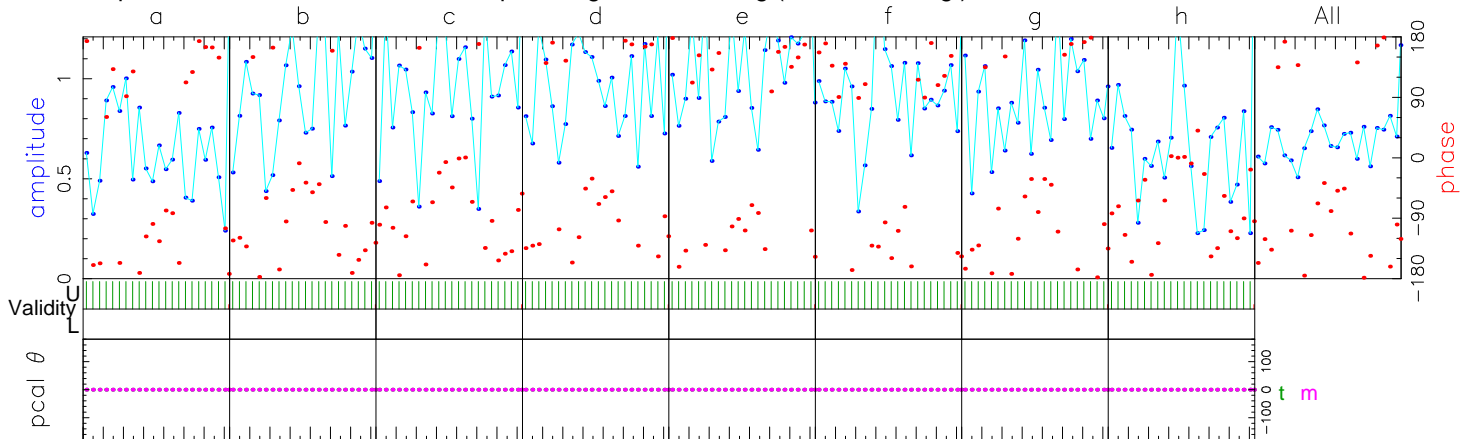
Fringe quality 8

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



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

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

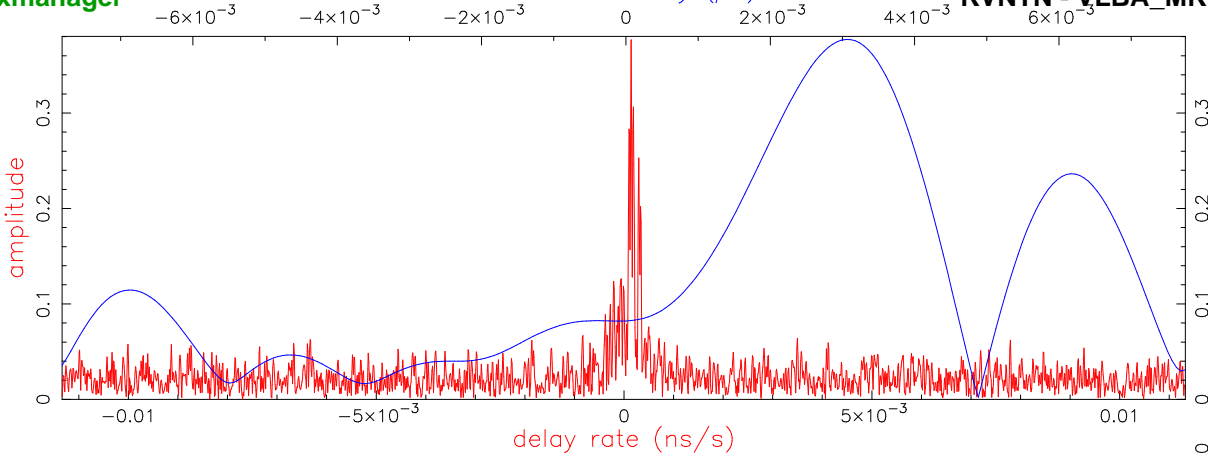


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	177.7	-115.7	-89.0	-132.7	-165.3	174.1	-141.1	-73.0	Phase	-137.0
	0.4	0.6	0.5	0.5	0.6	0.5	0.5	0.4	Ampl.	0.5
	260.1	258.1	257.7	257.8	257.9	257.2	258.8	259.9	Sbd box	257.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.42835392189E+03		Apriori delay (usec)		-4.42835060694E+03		Resid mbdelay (usec)		-3.31495E-03	+/- 4.8E-05
Sband delay (usec)	-4.42834703844E+03		Apriori clock (usec)		-1.5985331E+01		Resid sbdelay (usec)		3.56850E-03	+/- 3.8E-04
Phase delay (usec)	-4.42835061136E+03		Apriori clockrate (us/s)		-3.6799998E-07		Resid phdelay (usec)		-4.41705E-06	+/- 1.6E-07
Delay rate (us/s)	9.34006633471E-01		Apriori rate (us/s)		9.34006495281E-01		Resid rate (us/s)		1.38189E-07	+/- 6.7E-10
Total phase (deg)			Apriori accel (us/s/s)		4.18396541872E-05		Resid phase (deg)		-137.0	+/- 5.1

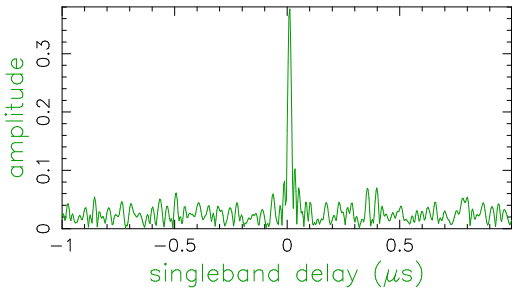
ph/seg (deg) 56.7 12.2 Search (2048X32) 0.369 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.3 21.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.0 7.2 Inc. seg. avg. 0.676 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.4 12.5 Inc. frq. avg. 0.497 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 48.3 el 38.9 pa -82.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8414.666 5336.071 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tm.W.178.1X1QEV

multiband delay (μ s)

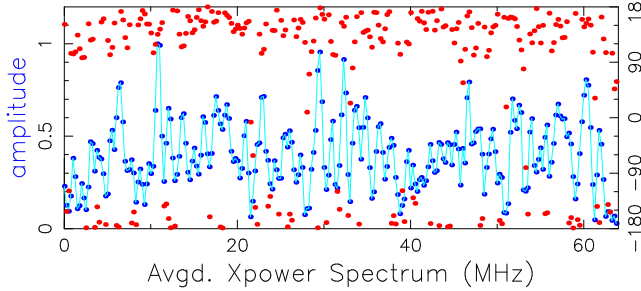
Fringe quality 8



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

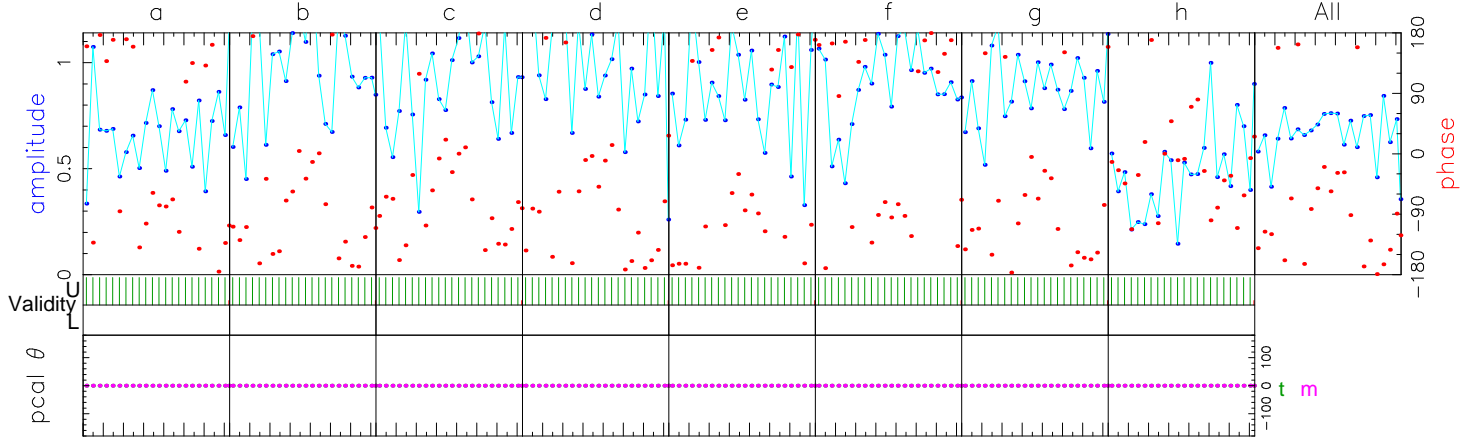


delay rate (ns/s)



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

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



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

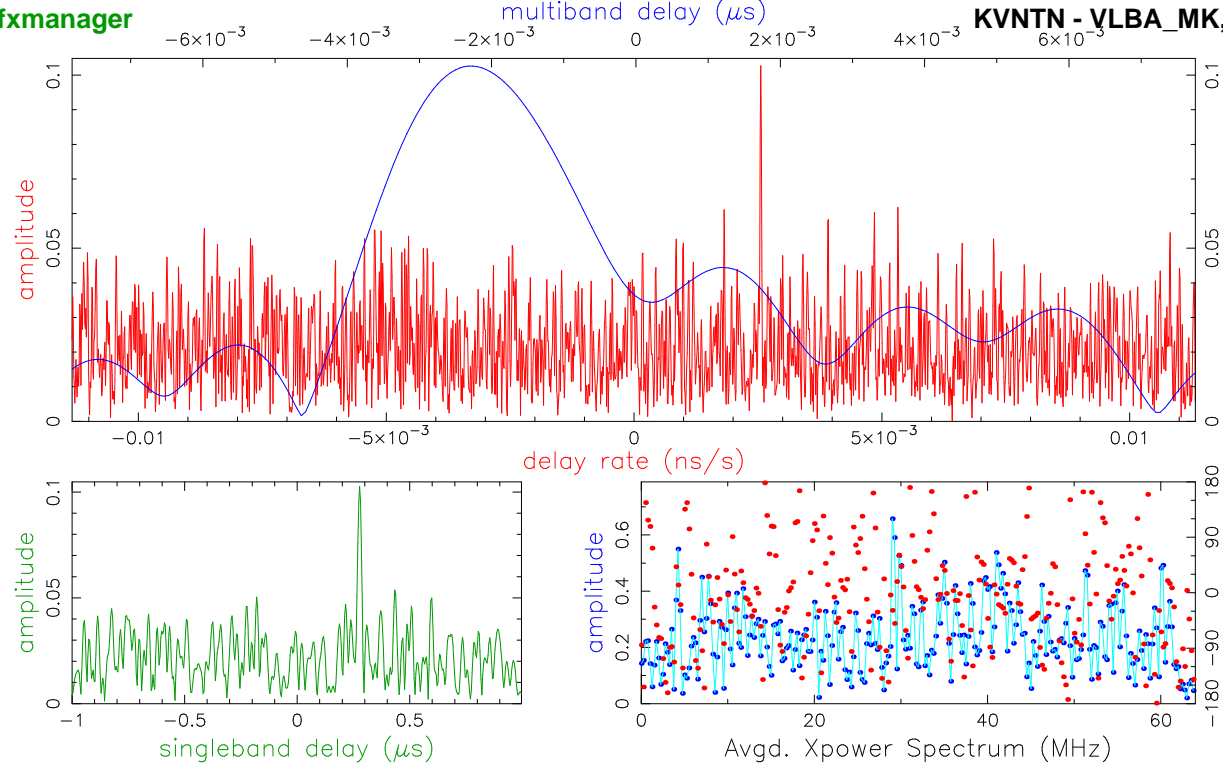
ph/seg (deg) 57.5 12.9 Search (2048X32) 0.349 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 81.5 22.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 45.0 7.6 Inc. seg. avg. 0.656 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 28.0 13.3 Inc. frq. avg. 0.448 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
t: az 48.3 el 38.9 pa -82.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8414.666 5336.071 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tm.W.198.1X1QEV simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, tm

KVNTN - VLBA_MK, fgroup W, pol LR

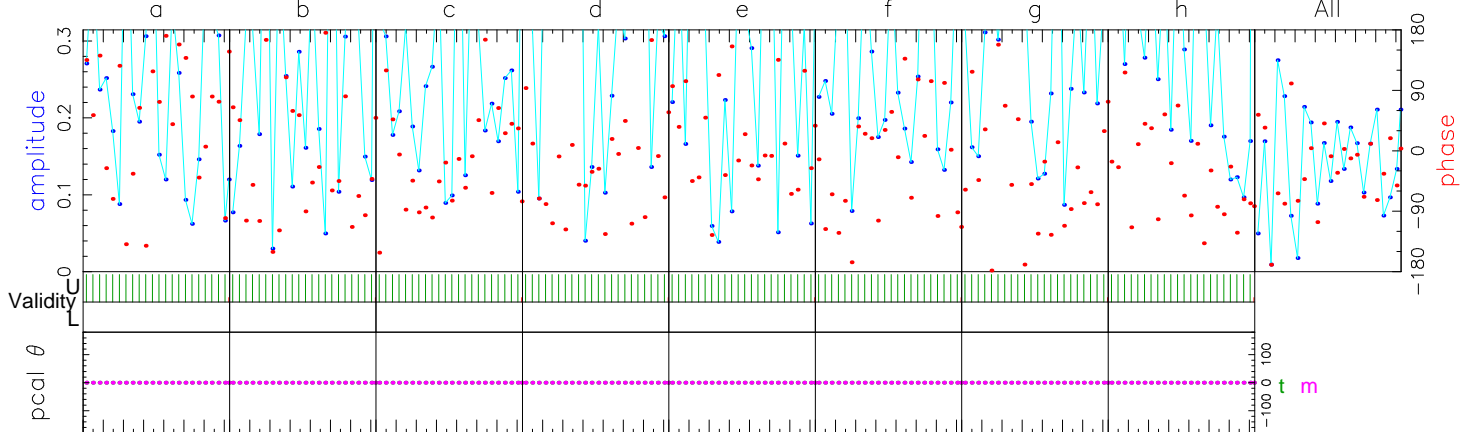


Fringe quality 0

SNR 5.8
 Int time 419.820
 Amp 0.105
 Phase -24.3
 PFD 8.9e-01
 Delays (us)
 SBD 0.277367
 MBD -0.002287
 Fringe rate (Hz) 0.220641
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133933
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

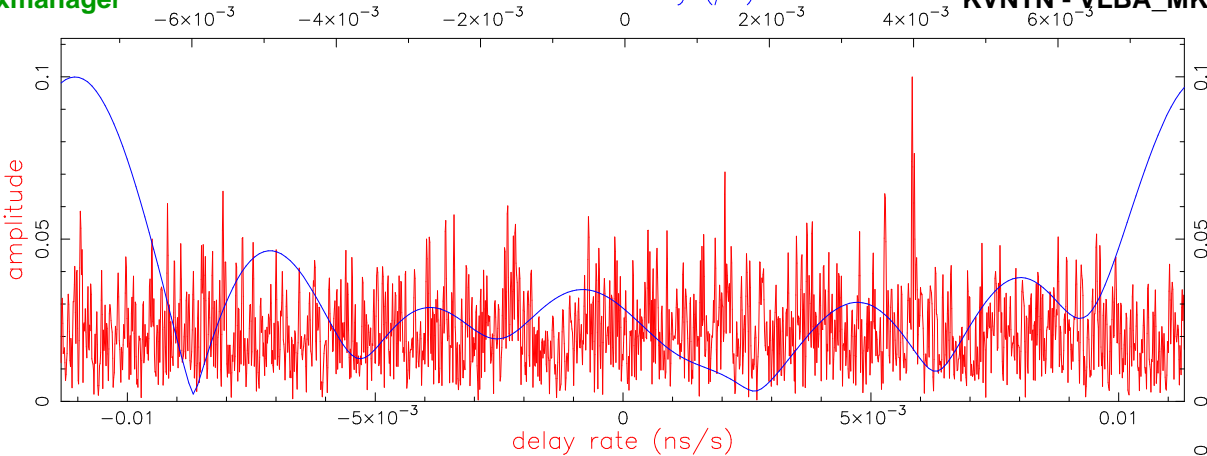
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



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

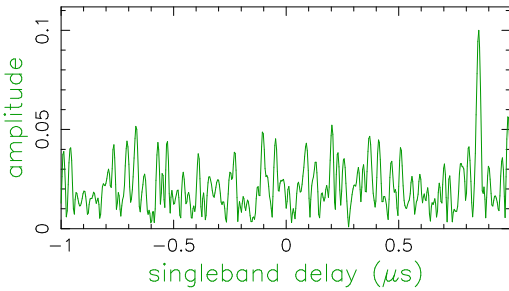
ph/seg (deg) 58.2 47.8 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 76.2 83.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 53.2 28.2 Inc. seg. avg. 0.106 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 46.9 49.2 Inc. frq. avg. 0.116 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 48.3 el 38.9 pa -82.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8414.666 5336.071 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tm..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tm.W.217.1X1QEV simultaneous interpolator

multiband delay (μ s)

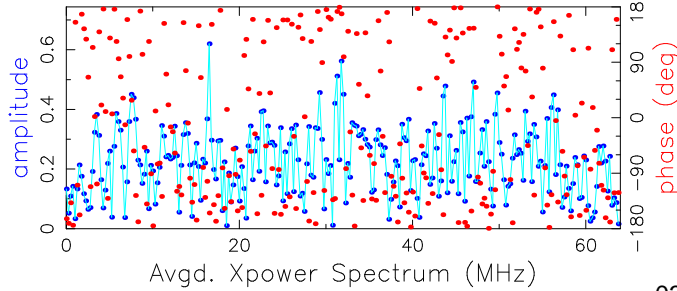


Fringe quality 0

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

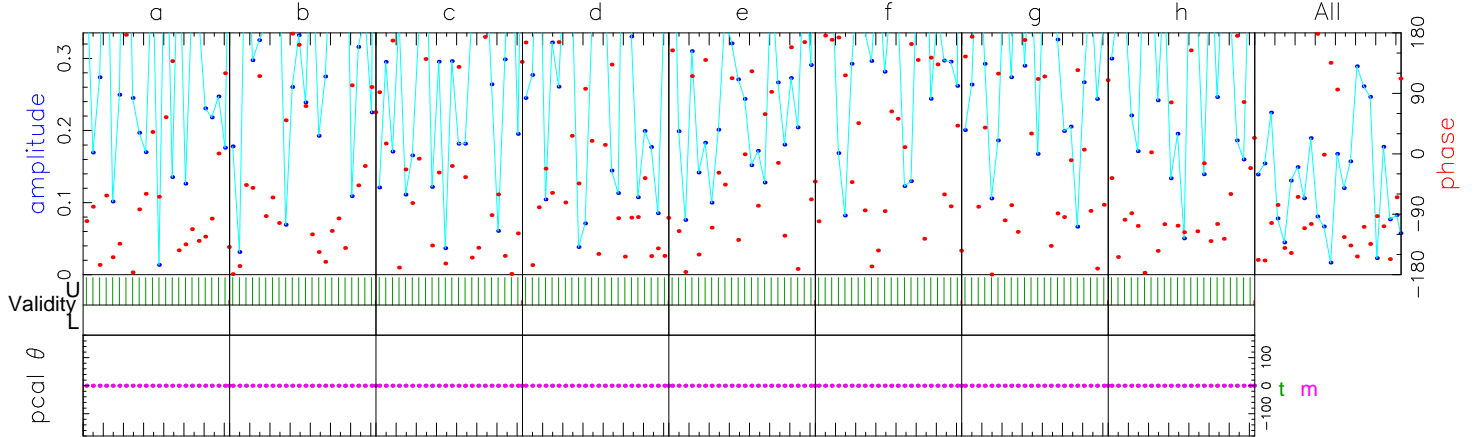


delay rate (ns/s)



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

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



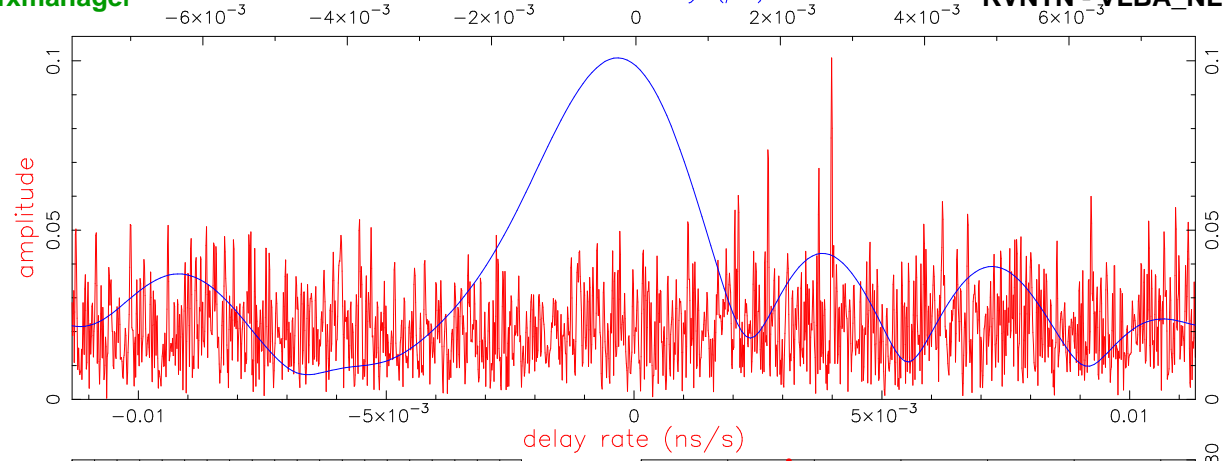
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-123.6	-109.3	-149.2	-113.9	173.7	-161.6	-113.8	-108.7	Phase	-125.9
	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	340.8	119.6	293.8	224.1	43.4	225.6	363.0	476.6	Sbd box	475.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.42749886413E+03			Apriori delay (usec)	-4.42835060694E+03			Resid mbdelay (usec)	7.99281E-03	+/- 1.9E-04
Sband delay (usec)	-4.42749549869E+03			Apriori clock (usec)	-1.5985331E+01			Resid sbdelay (usec)	8.55108E-01	+/- 1.5E-03
Phase delay (usec)	-4.42835061100E+03			Apriori clockrate (us/s)	-3.6799998E-07			Resid phdelay (usec)	-4.06111E-06	+/- 6.6E-07
Delay rate (us/s)	9.34012337765E-01			Apriori rate (us/s)	9.34006495281E-01			Resid rate (us/s)	5.84248E-06	+/- 2.7E-09
Total phase (deg)		-227.3		Apriori accel (us/s/s)	4.18396541872E-05			Resid phase (deg)	-125.9	+/- 20.4

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

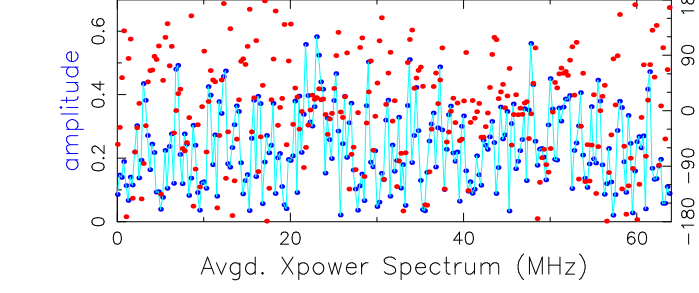
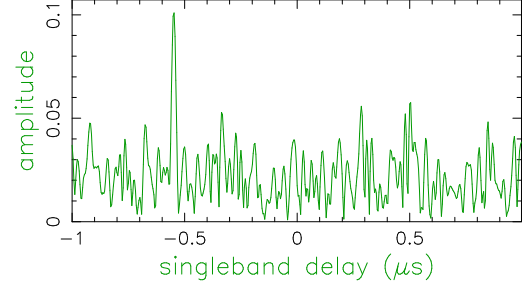
t: az 48.3 el 38.9 pa -82.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8414.666 5336.071 simultaneous interpolator

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

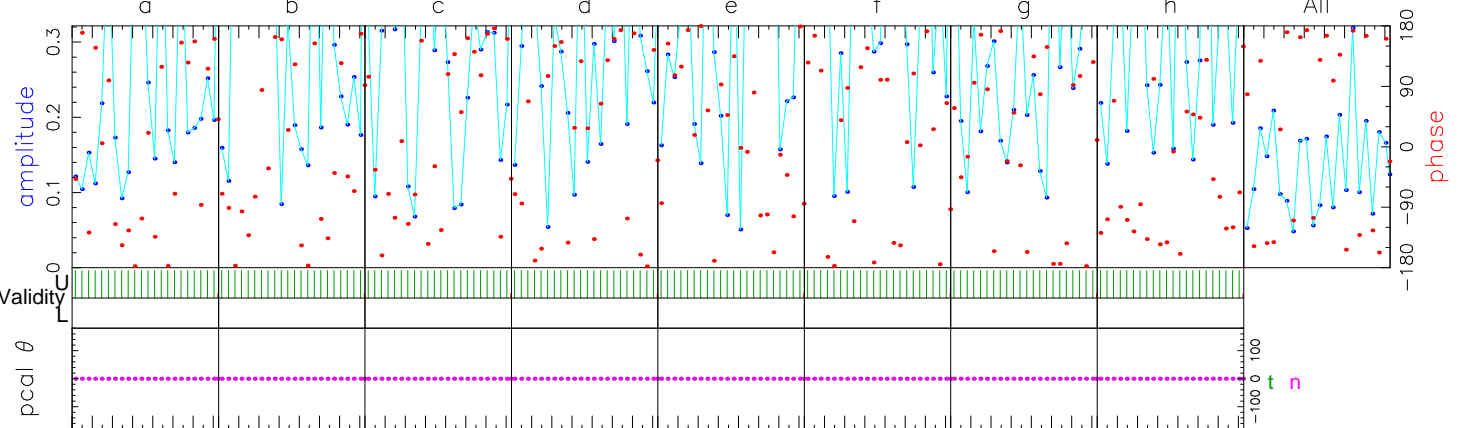
multiband delay (μ s)



Fringe quality 0
SNR 5.7
Int time 419.826
Amp 0.107
Phase 175.8
PFD 9.4e-01
Delays (us)
SBD -0.548370
MBD -0.000224
Fringe rate (Hz) 0.344052
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
2021:304:133926
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	0	0	0	0	0	0	0	0		
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tn	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		3.64997486937E+01			3.70468477519E+01				-2.24058E-04	+/- 1.9E-04
Sband delay (usec)		3.64984780019E+01			-5.7536373E+00				-5.48370E-01	+/- 1.5E-03
Phase delay (usec)		3.70468534205E+01			-3.4999998E-07				5.66860E-06	+/- 6.5E-07
Delay rate (us/s)		1.45430945603E+00			1.45430546193E+00				3.99410E-06	+/- 2.7E-09
Total phase (deg)			343.3						175.8	+/- 20.1
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Pcal mode:									MANUAL, MANUAL	PC period (AP's) 5, 5
Pcal rate:									0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
Bits/sample:									2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
Sample rate (MSamp/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

ph/seg (deg) 57.5 48.2 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 72.6 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) 35.3 28.4 Inc. seg. avg. 0.106 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 34.6 49.6 Inc. frq. avg. 0.109 Sample rate (MSamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
t: az 48.3 el 38.9 pa -82.3 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) -13261.021 -1506.688 ion window (TEC) 0.00 0.00 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tn..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tn.W.181.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

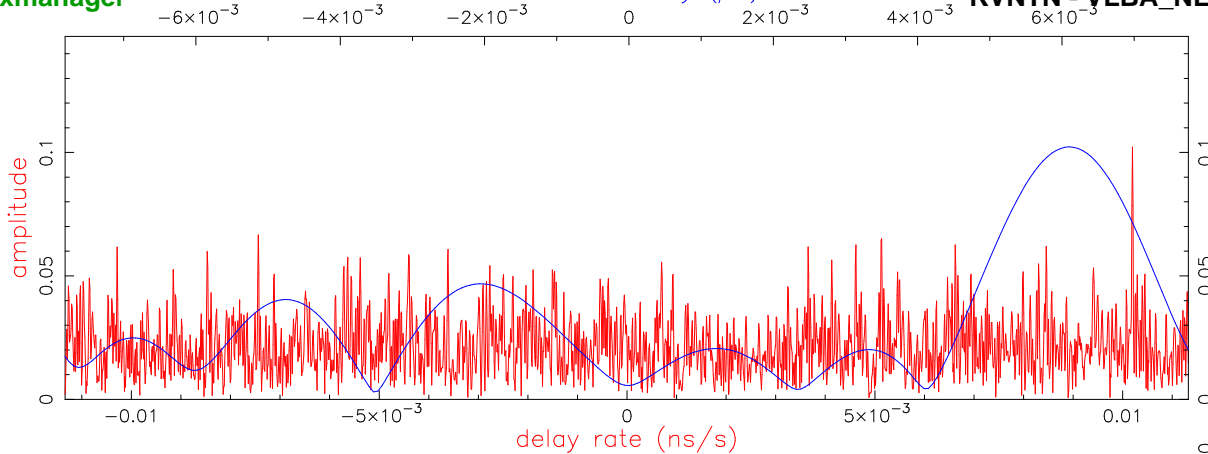
fxmanager

NRAO150.1X1QEV, No0120, tn

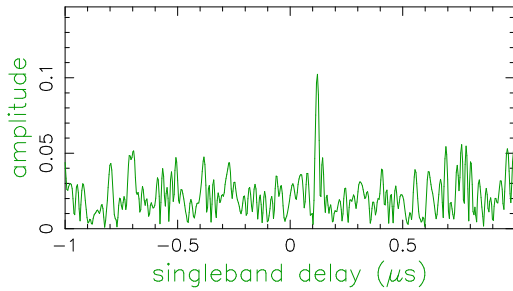
KVNTN - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

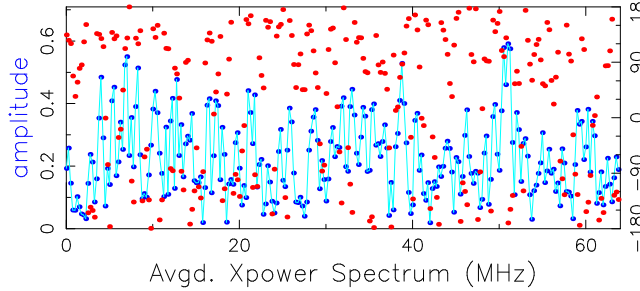
Fringe quality 0



SNR 5.7
 Int time 419.826
 Amp 0.147
 Phase 19.9
 PFD 8.9e-01
 Delays (us)
 SBD 0.120319
 MBD 0.006081
 Fringe rate (Hz)
 0.879932
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

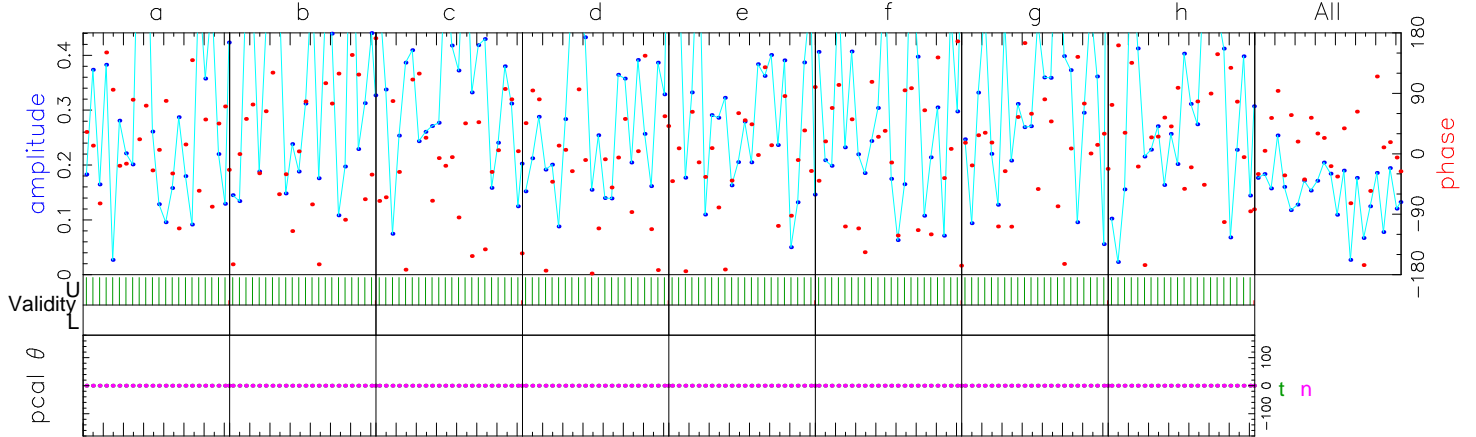


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	0	0	0	0	0	0	0	0		
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tn	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	3.71623040379E+01	Apriori delay (usec)		3.70468477519E+01	Resid mbdelay (usec)		6.08129E-03	+/-	1.9E-04
Sband delay (usec)	3.71671670019E+01	Apriori clock (usec)		-5.7536373E+00	Resid sbdelay (usec)		1.20319E-01	+/-	1.5E-03
Phase delay (usec)	3.70468483938E+01	Apriori clockrate (us/s)		-3.4999998E-07	Resid phdelay (usec)		6.41835E-07	+/-	6.4E-07
Delay rate (us/s)	1.45431567707E+00	Apriori rate (us/s)		1.45430546193E+00	Resid rate (us/s)		1.02151E-05	+/-	2.7E-09
Total phase (deg)	187.4	Apriori accel (us/s/s)		-1.05117631551E-05	Resid phase (deg)		19.9	+/-	19.9

ph/seg (deg)	59.9	Theor.	47.8	Amplitude	0.147 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	68.1	Search (2048X32)	0.099	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	28.3	Inc. seg. avg.	0.161	Inc. frq. avg.	0.140	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	34.6	Inc. frq. avg.	0.140			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

t: az 48.3 el 38.9 pa -82.3 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) -13261.021 -1506.688 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tn..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tn.W.202.1X1QEV

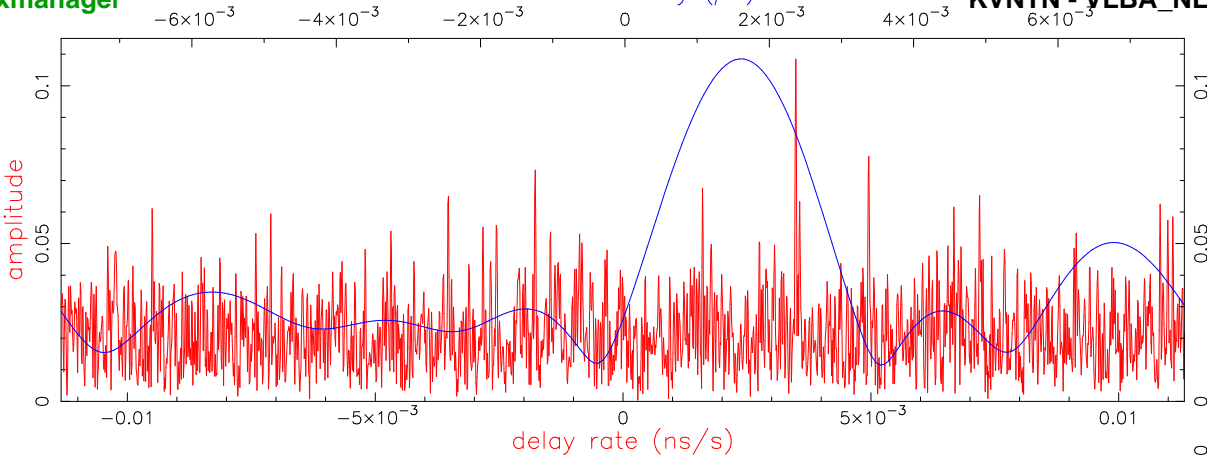
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, tn

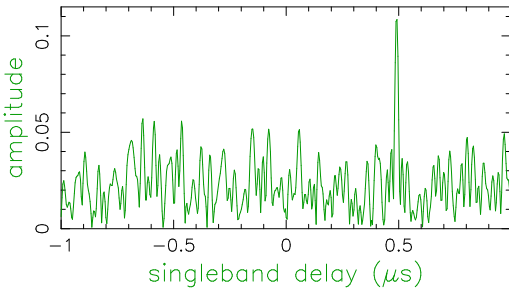
KVNTN - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

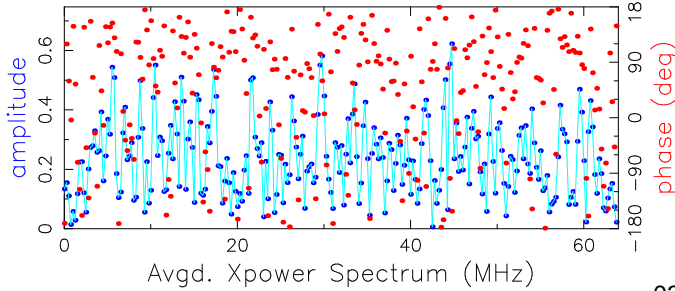


Fringe quality 0

SNR 6.2
Int time 419.826
Amp 0.115
Phase -23.6
PFD 1.4e-01
Delays (us)
SBD 0.490423
MBD 0.001556
Fringe rate (Hz) 0.300688
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

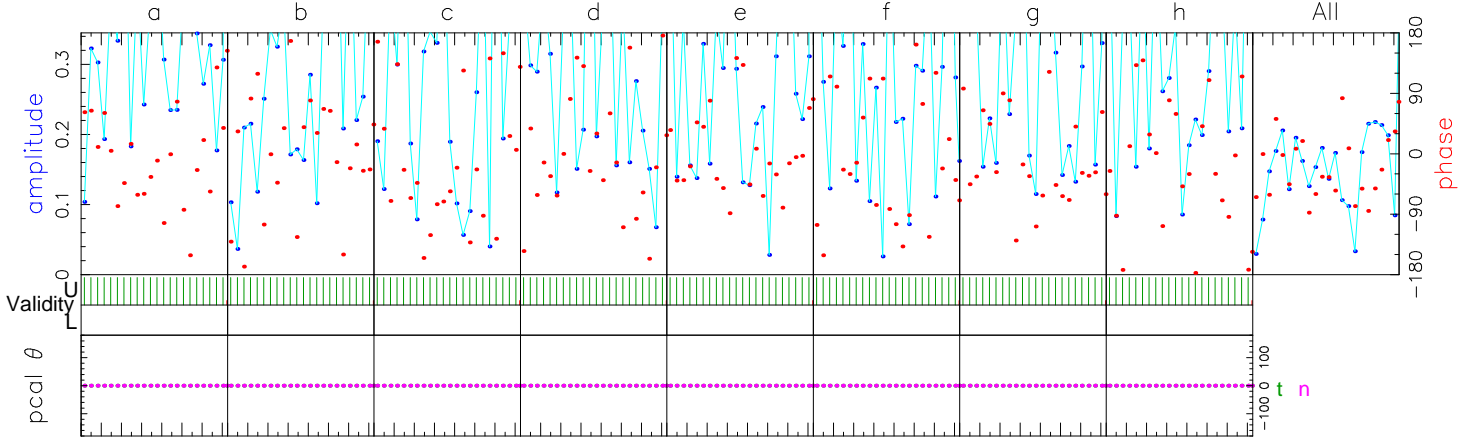


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133934
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
	-24.7	9.3	-78.1	-19.6	-16.3	-50.1	-10.7	0.8	Phase	-23.6
	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	Ampl.	0.1
	63.8	215.7	384.7	454.5	382.2	109.0	137.1	353.9	Sbd box	382.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 3.75327791886E+01 Apriori delay (usec) 3.70468477519E+01 Resid mbdelay (usec) 1.55644E-03 +/- 1.8E-04
 Sband delay (usec) 3.75372705019E+01 Apriori clock (usec) -5.7536373E+00 Resid sbdelay (usec) 4.90423E-01 +/- 1.4E-03
 Phase delay (usec) 3.70468469895E+01 Apriori clockrate (us/s) -3.4999998E-07 Resid phdelay (usec) -7.62405E-07 +/- 6.0E-07
 Delay rate (us/s) 1.45430895262E+00 Apriori rate (us/s) 1.45430546193E+00 Resid rate (us/s) 3.49069E-06 +/- 2.5E-09
 Total phase (deg) 143.9 Apriori accel (us/s/s) -1.05117631551E-05 Resid phase (deg) -23.6 +/- 18.5

RMS Theor. Amplitude 0.115 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 46.1 44.3 Search (2048X32) 0.106 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 62.3 77.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 30.5 26.2 Inc. seg. avg. 0.119 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 36.4 45.6 Inc. frq. avg. 0.113 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

t: az 48.3 el 38.9 pa -82.3 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) -13261.021 -1506.688 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tn..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tn.W221.1X1QEV

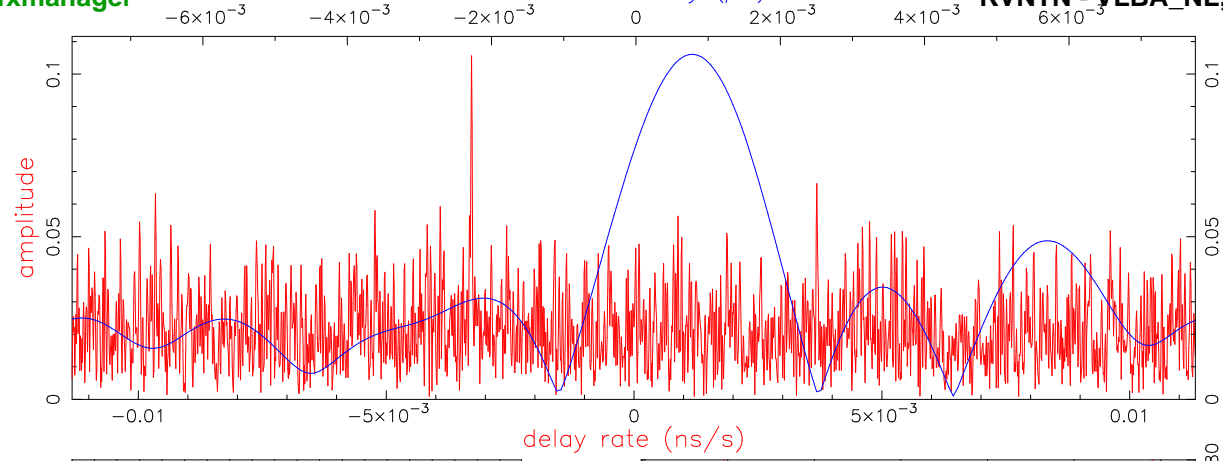
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

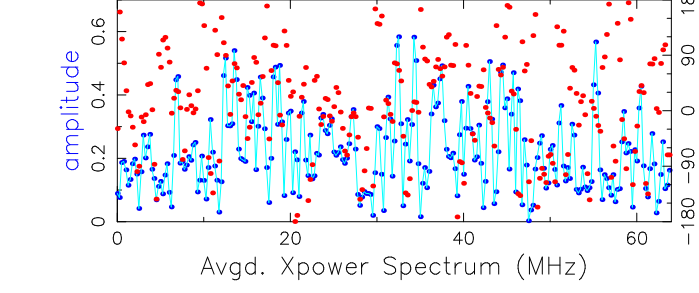
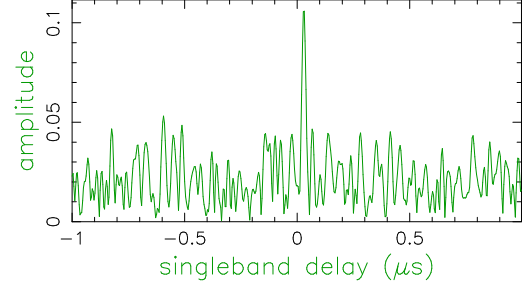
NRAO150.1X1QEV, No0120, tn

KVNTN - VLBA_NL, fgroup W, pol RL

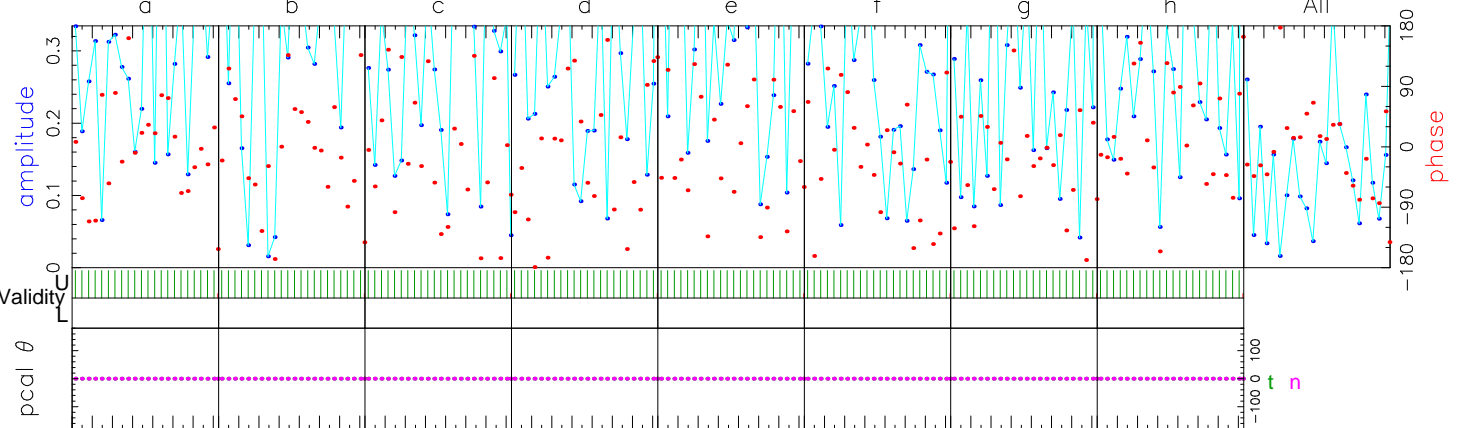
multiband delay (μ s)



Fringe quality 0
 SNR 6.0
 Int time 419.826
 Amp 0.112
 Phase -2.9
 PFD 3.3e-01
 Delays (us)
 SBD 0.029367
 MBD 0.000880
 Fringe rate (Hz)
 -0.282423
 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
 2021:304:133937
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	0	0	0	0	0	0	0	0		
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tn	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	3.70789781543E+01									
Sband delay (usec)	3.70762142519E+01									
Phase delay (usec)	3.70468476587E+01									
Delay rate (us/s)	1.45430218328E+00									
Total phase (deg)		164.6								
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
t n										
Amplitude	0.112 +/- 0.018									
Search (2048X32)	0.105									
Interp.	0.000									
Inc. seg. avg.	0.109									
Inc. frq. avg.	0.105									
PC period (AP's) 5, 5										
SampCntNorm: enabled										
nlags: 256 t_cohere infinite										
simultaneous interpolator										

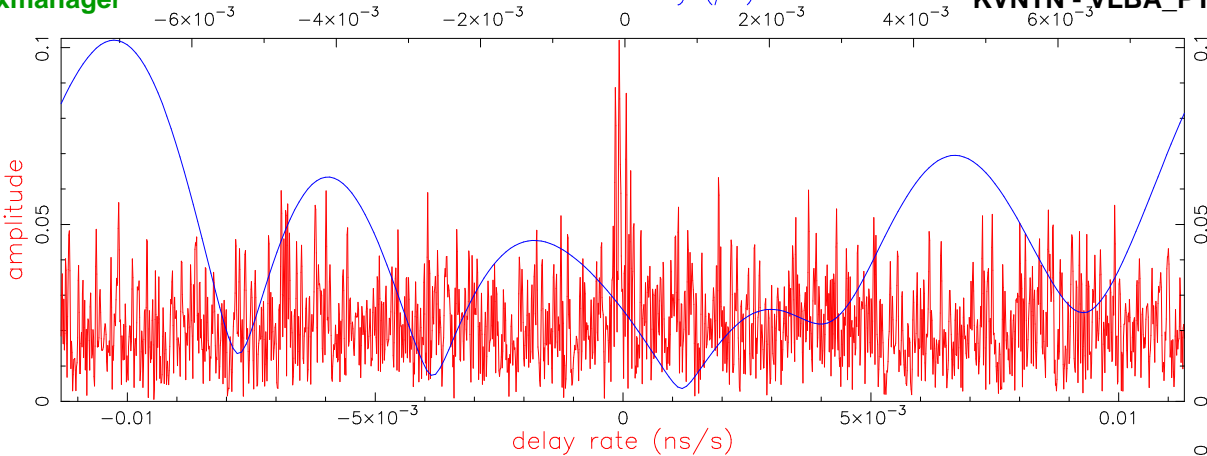
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, tp

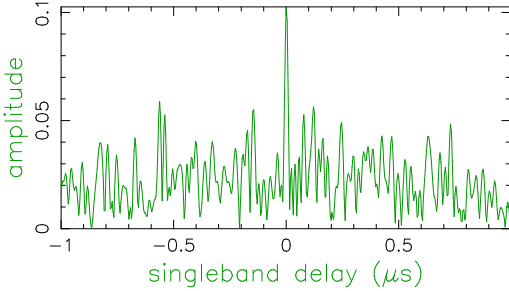
KVNTN - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

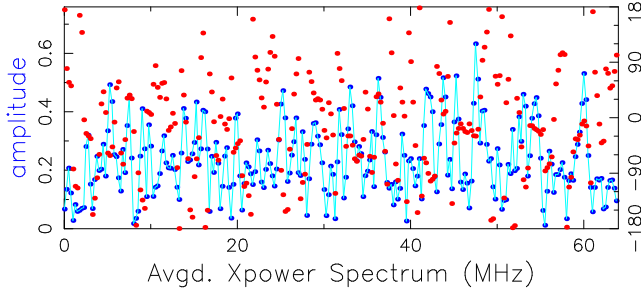


Fringe quality 0

SNR 5.7
Int time 419.825
Amp 0.103
Phase 78.6
PFD 8.9e-01
Delays (us)
SBD 0.000889
MBD -0.007042
Fringe rate (Hz)
-0.006563
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

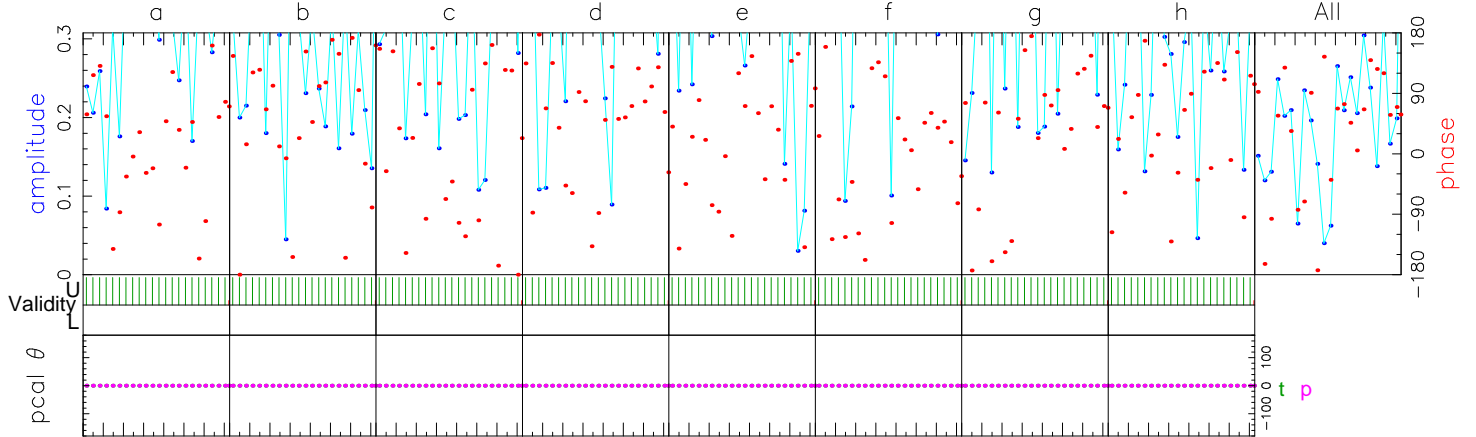


delay rate (ns/s)



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

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



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

Group delay (usec)(sbd)	-1.48037750706E+03	Apriori delay (usec)	-1.48038609031E+03	Resid mbdelay (usec)	-7.04175E-03	+/-	1.9E-04
Sband delay (usec)	-1.48038520106E+03	Apriori clock (usec)	-5.8008728E+08	Resid sbdelay (usec)	8.89250E-04	+/-	1.5E-03
Phase delay (usec)	-1.48038608777E+03	Apriori clockrate (us/s)	6.9999995E-08	Resid phdelay (usec)	2.53461E-06	+/-	6.4E-07
Delay rate (us/s)	1.44037327954E+00	Apriori rate (us/s)	1.44037335573E+00	Resid rate (us/s)	-7.61905E-08	+/-	2.7E-09
Total phase (deg)	-216.3	Apriori accel (us/s/s)	6.53959447397E-06	Resid phase (deg)	78.6	+/-	19.9

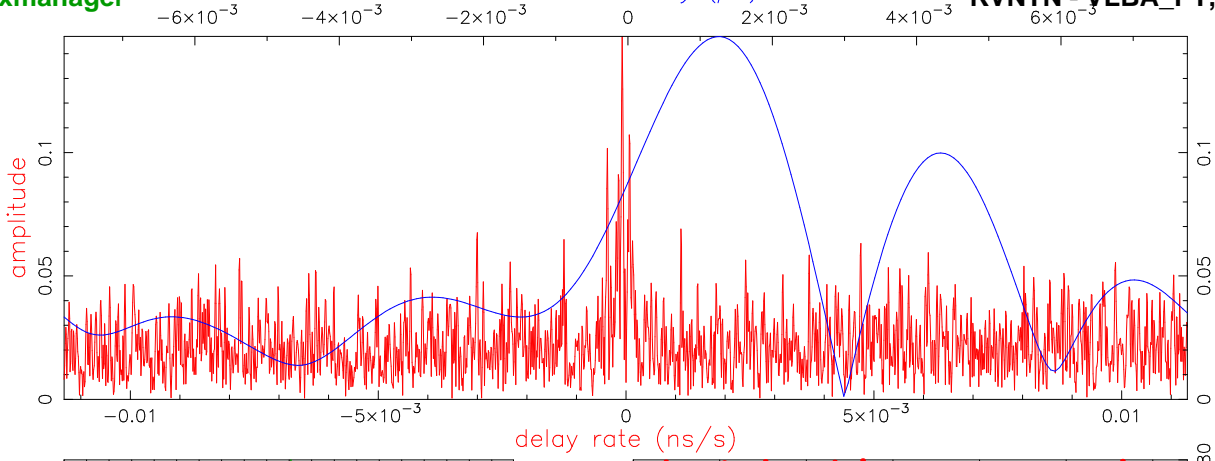
ph/seg (deg)	80.4	Theor.	47.8	Amplitude	0.103 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	113.2	Search (2048X32)	0.099	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	53.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	48.5	Inc. seg. avg.	0.140	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011		
		Inc. frq. avg.	0.123	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

t: az 48.3 el 38.9 pa -82.3 p: az 310.4 el 45.6 pa 88.4 u,v (fr/asec) -13098.415 717.532 simultaneous interpolator

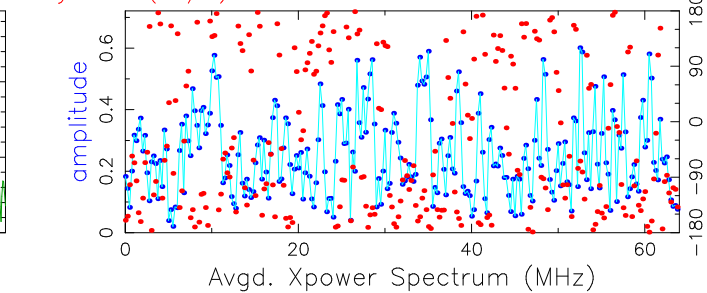
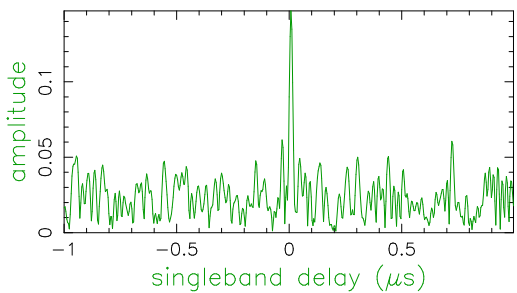
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tp..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tp.W.232.1X1QEV

multiband delay (μ s)

Fringe quality 9

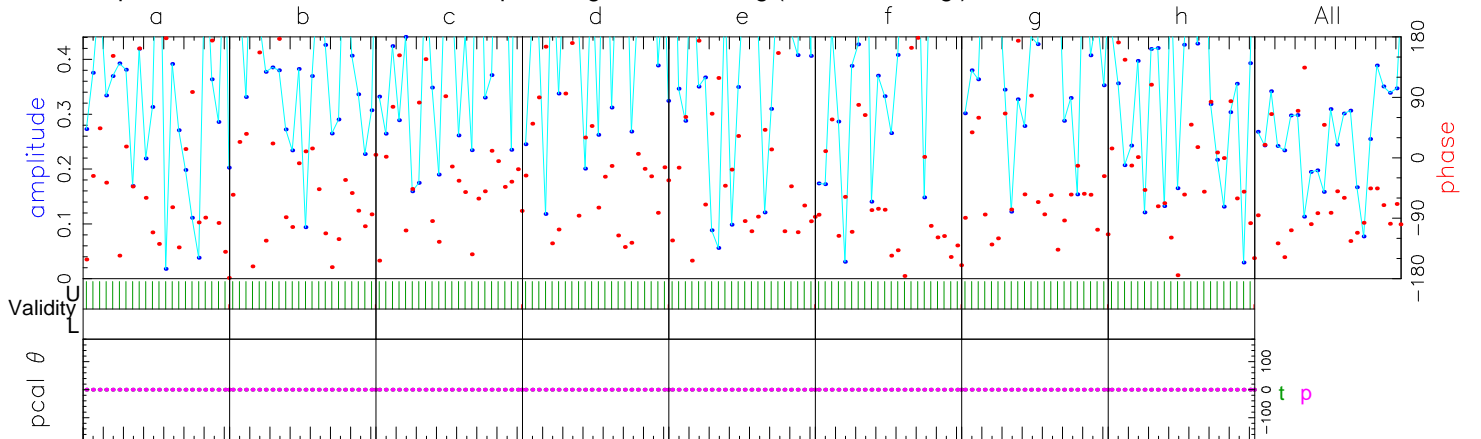


SNR 8.2
Int time 419.825
Amp 0.147
Phase -75.2
PFD 6.1e-08
Delays (us)
SBD 0.008133
MBD 0.001267
Fringe rate (Hz)
-0.006786
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133939
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
	-111.6	-68.1	-33.9	-42.9	-90.4	-139.4	-78.3	-22.8	Phase	-75.2
	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	Ampl.	0.2
	458.8	260.3	258.9	129.2	258.9	259.1	259.8	177.6	Sbd box	259.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
t:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
t	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)	-1.48038482287E+03		Apriori delay (usec)		-1.48038609031E+03		Resid mbdelay (usec)		1.26743E-03	+/- 1.3E-04
Sband delay (usec)	-1.48037795706E+03		Apriori clock (usec)		-5.8008728E+00		Resid sbdelay (usec)		8.13325E-03	+/- 1.0E-03
Phase delay (usec)	-1.48038609273E+03		Apriori clockrate (us/s)		6.9999995E-08		Resid phdelay (usec)		-2.42608E-06	+/- 4.5E-07
Delay rate (us/s)	1.44037327695E+00		Apriori rate (us/s)		1.44037335573E+00		Resid rate (us/s)		-7.87838E-08	+/- 1.9E-09
Total phase (deg)			Apriori accel (us/s/s)		6.53959447397E-06		Resid phase (deg)		-75.2	+/- 13.9

	RMS	Theor.	Amplitude	0.147 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	68.9	33.4	Search (2048X32)	0.144	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	94.4	58.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	43.3	19.7	Inc. seg. avg.	0.222	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	35.0	34.3	Inc. frq. avg.	0.170	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

t: az 48.3 el 38.9 pa -82.3 p: az 310.4 el 45.6 pa 88.4 u,v (fr/asec) -13098.415 717.532 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tp..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tp.W.241.1X1QEV

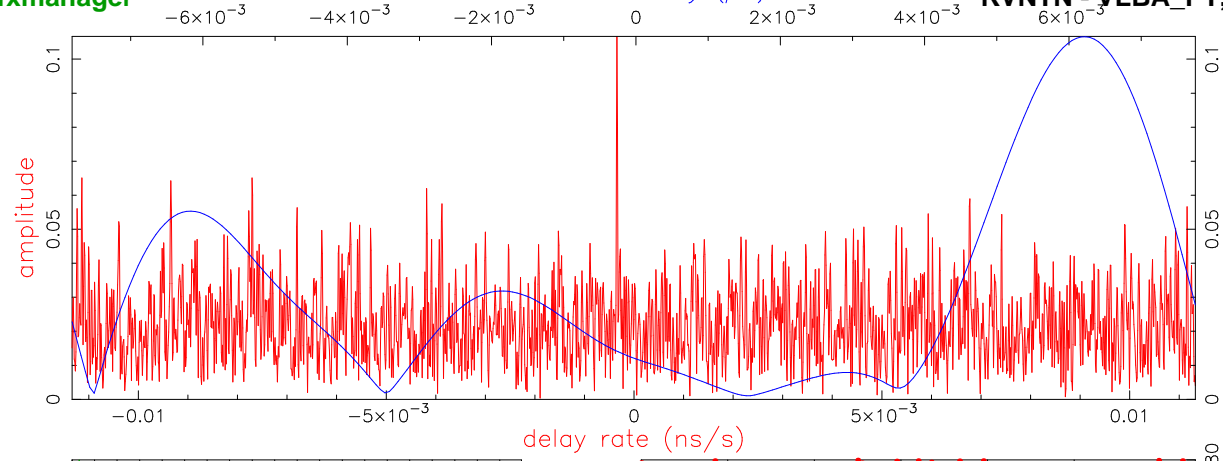
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

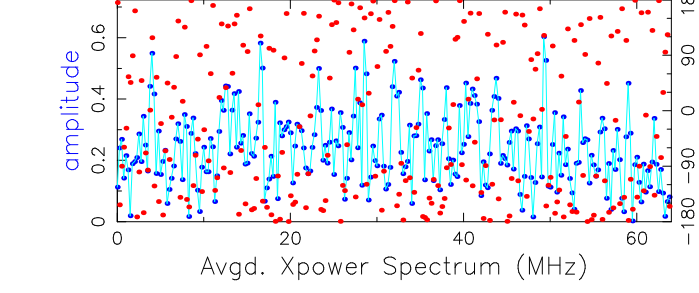
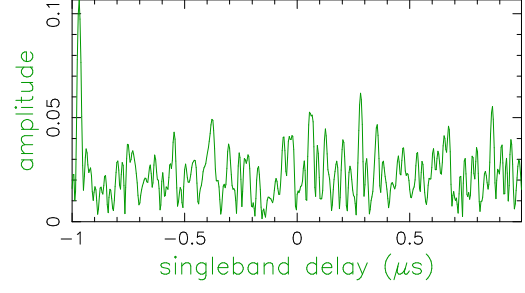
NRAO150.1X1QEV, No0120, tp

KVNTN - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

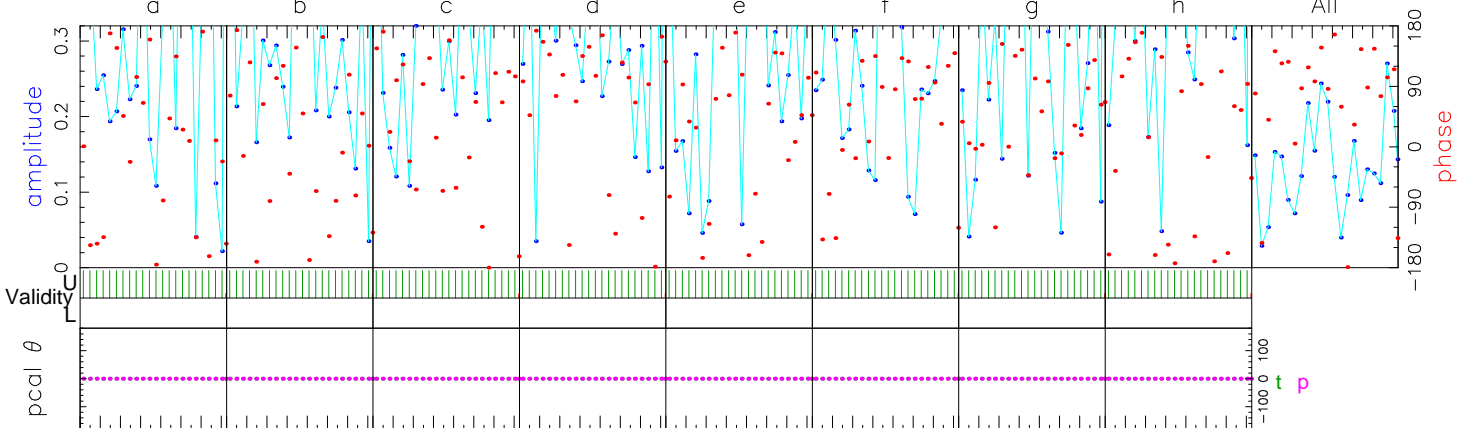


Fringe quality 0
 SNR 6.0
 Int time 419.825
 Amp 0.107
 Phase 110.1
 PFD 4.5e-01
 Delays (us)
 SBD -0.969105
 MBD 0.006200
 Fringe rate (Hz)
 -0.029859
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133943
 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			
t	1000	1000	1000	1000	1000	1000	1000	1000			
p	0	0	0	0	0	0	0	0			
t:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
tp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
t	1000	1000	1000	1000	1000	1000	1000	1000			
p	1000	1000	1000	1000	1000	1000	1000	1000			
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)	-1.48134864023E+03				-1.48038609031E+03				6.20008E-03	+/- 1.8E-04	
Sband delay (usec)	-1.48135519581E+03				-5.8008728E+00				-9.69105E-01	+/- 1.4E-03	
Phase delay (usec)	-1.48038608676E+03				6.9999995E-08				3.54998E-06	+/- 6.2E-07	
Delay rate (us/s)	1.44037300910E+00				1.44037335573E+00				-3.46631E-07	+/- 2.6E-09	
Total phase (deg)			-184.8		6.53959447397E-06				110.1	+/- 19.2	
	RMS	Theor.	Amplitude	0.107 +/- 0.018	Pcal mode: MANUAL, MANUAL				PC period (AP's) 5, 5		
ph/seg (deg)	50.2	46.0	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				sb window (us)	-1.000 1.000	
amp/seg (%)	65.8	80.3	Interp.	0.000	Bits/sample: 2x2				SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	24.2	27.1	Inc. seg. avg.	0.104	Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011	
amp/frq (%)	43.4	47.3	Inc. frq. avg.	0.103	Data rate(Mb/s): 2048				nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 48.3 el 38.9 pa -82.3 p: az 310.4 el 45.6 pa 88.4 u,v (fr/asec) -13098.415 717.532 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tp..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tp.W.258.1X1QEV

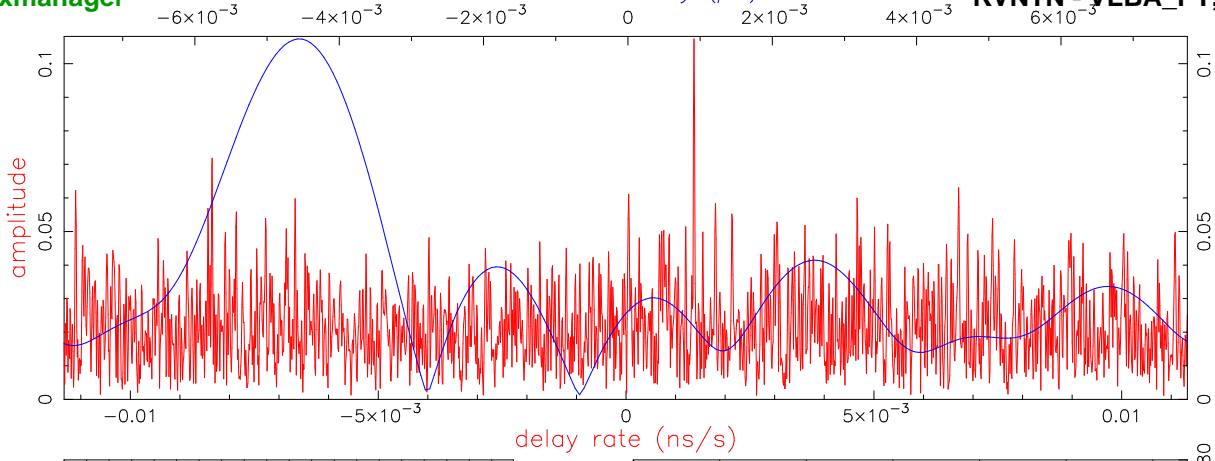
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

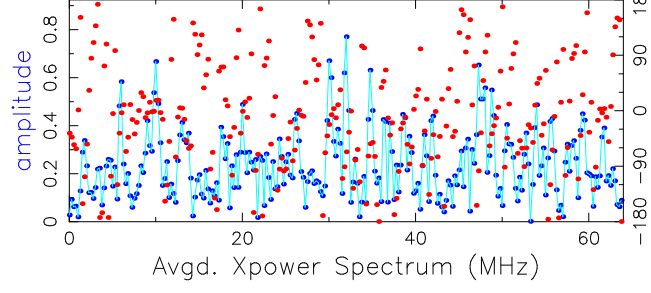
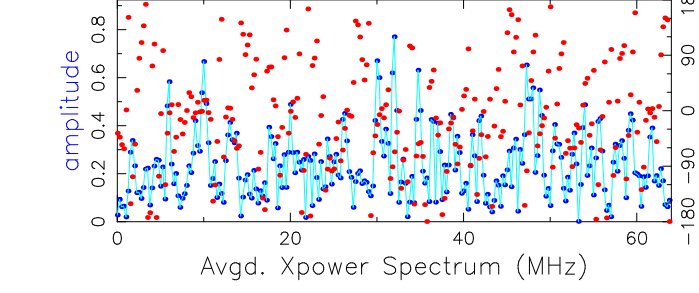
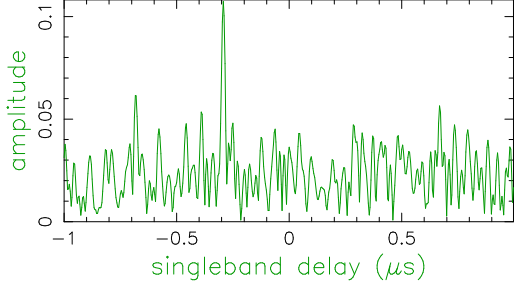
NRAO150.1X1QEV, No0120, tp

KVNTN - VLBA_PT, fgroup W, pol RL

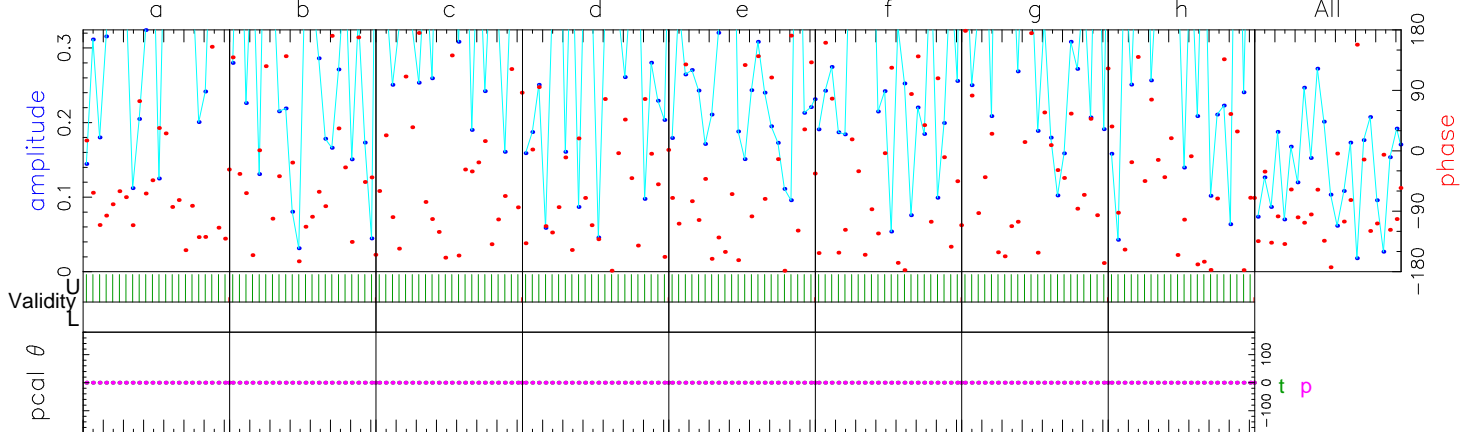
multiband delay (μs)



Fringe quality 0
 SNR 6.0
 Int time 419.825
 Amp 0.108
 Phase -93.7
 PFD 3.6e-01
 Delays (us)
 SBD -0.292567
 MBD -0.004548
 Fringe rate (Hz) 0.118899
 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
 2021:304:133946
 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
	-82.3	-98.0	-101.8	-85.0	-118.8	-114.2	-100.9	-48.3	Phase	-93.7
	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	181.9	319.2	56.9	12.3	114.7	259.4	475.5	116.5	Sbd box	182.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
t:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.48067188814E+03		Apriori delay (usec)		-1.48038609031E+03		Resid mbdelay (usec)		-4.54783E-03	+/- 1.8E-04
Sband delay (usec)	-1.48067865706E+03		Apriori clock (usec)		-5.8008728E+08		Resid sbdelay (usec)		-2.92567E-01	+/- 1.4E-03
Phase delay (usec)	-1.48038609333E+03		Apriori clockrate (us/s)		6.9999995E-08		Resid phdelay (usec)		-3.02199E-06	+/- 6.1E-07
Delay rate (us/s)	1.44037473603E+00		Apriori rate (us/s)		1.44037335573E+00		Resid rate (us/s)		1.38030E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		6.53959447397E-06		Resid phase (deg)		-93.7	+/- 19.0

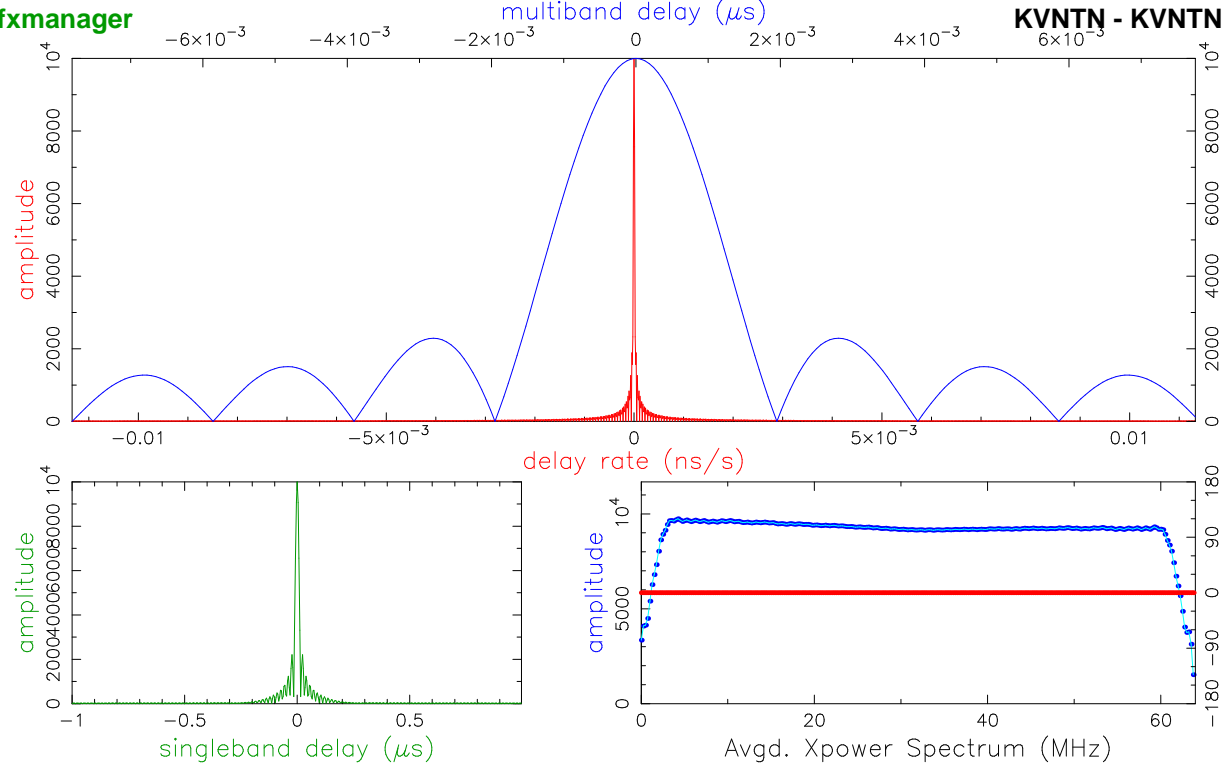
ph/seg (deg) 50.5 45.6 Search (2048X32) 0.104 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 67.5 79.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.0 26.9 Inc. seg. avg. 0.105 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.1 47.0 Inc. frq. avg. 0.103 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 48.3 el 38.9 pa -82.3 p: az 310.4 el 45.6 pa 88.4 u,v (fr/asec) -13098.415 717.532 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tp..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tp.W.275.1X1QEV simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, tt

KVNTN - KVNTN, fgroup W, pol LL

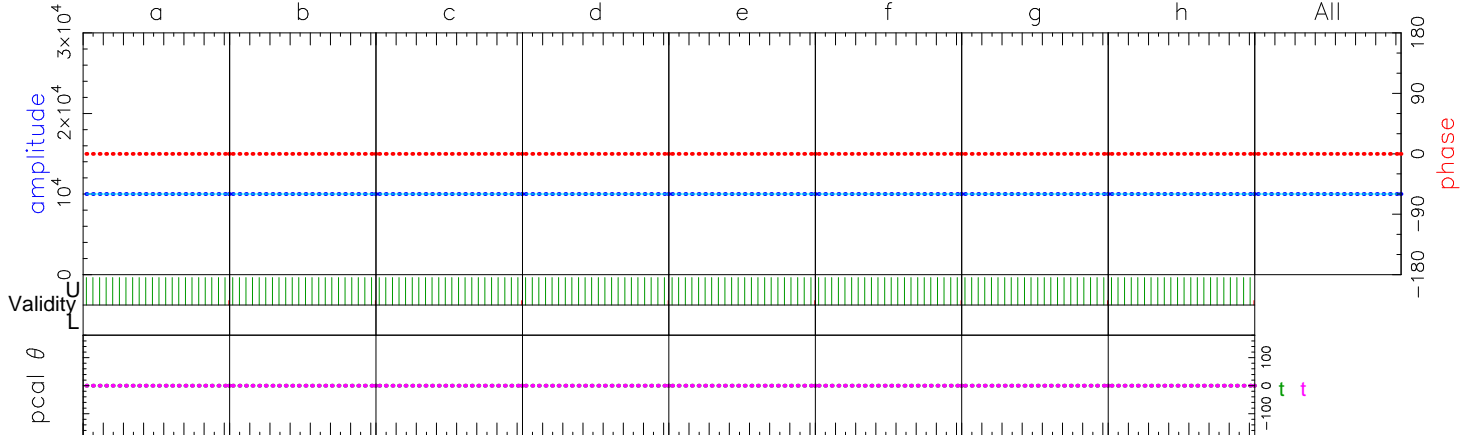


Fringe quality 9

SNR 560324.4
 Int time 419.840
 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
 2021:304:133938
 2021:252:122852
 RA & Dec (J2000) 03h59m29.747267s +50°57'50.161694"

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

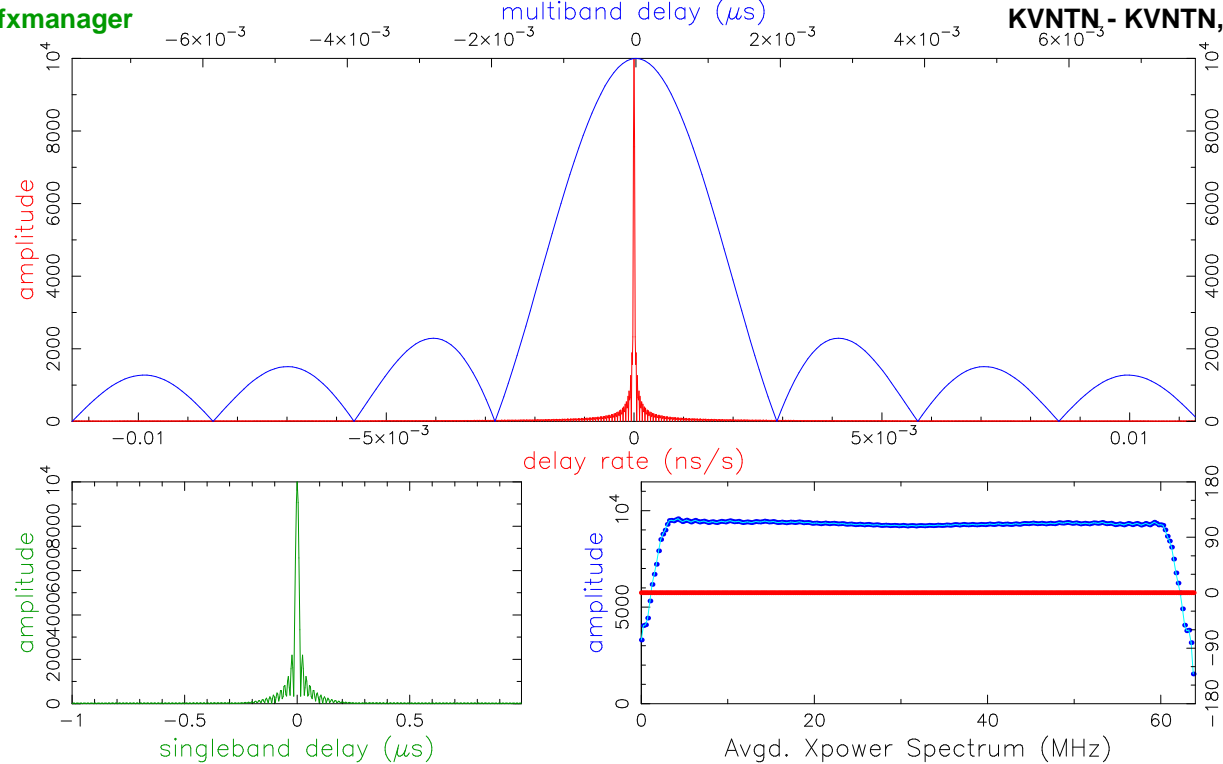


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	10000.0	10000.0
t	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 0.00000000000E+00 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 1.9E-09
 Sband delay (usec) 0.00000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-08
 Phase delay (usec) 0.00000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.6E-12
 Delay rate (us/s) 0.00000000000E+00 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.7E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 0.0 +/- 0.0

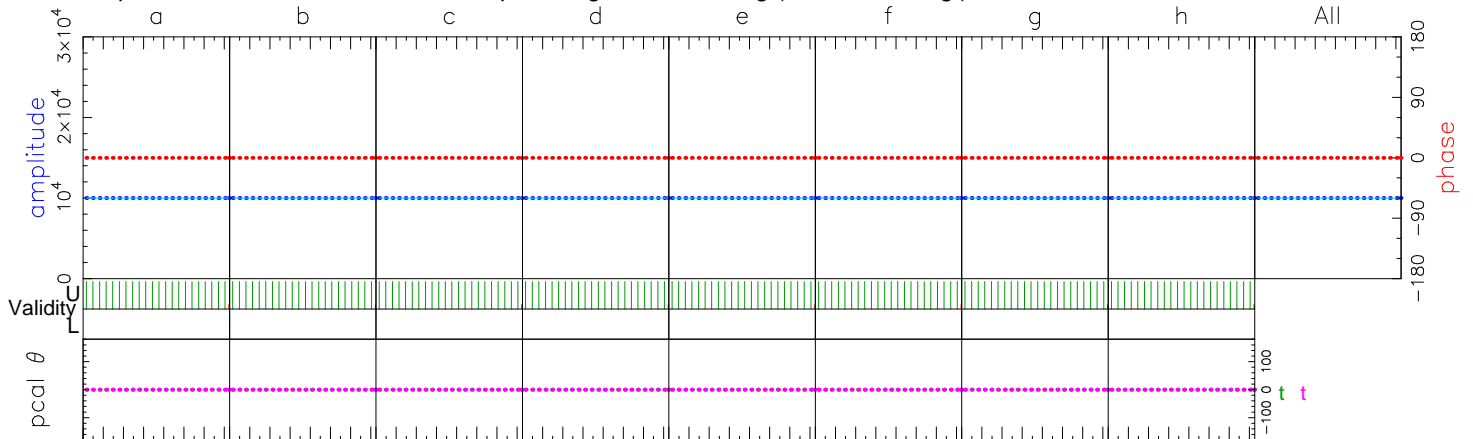
ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (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
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

t: az 48.3 el 38.9 pa -82.3 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tt.1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tt.W.240.1X1QEV



Fringe quality 9
SNR 560324.4
Int time 419.840
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
Yr:day 16383
Start 2021:117
Stop 2021:117
FRT 004500.00
2021:303:225133
2021:304:133941
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

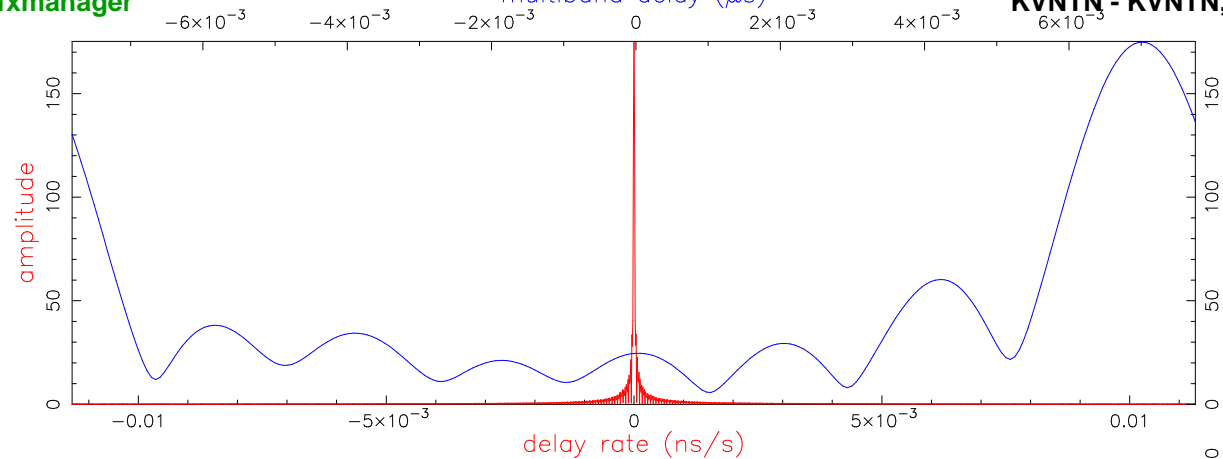
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



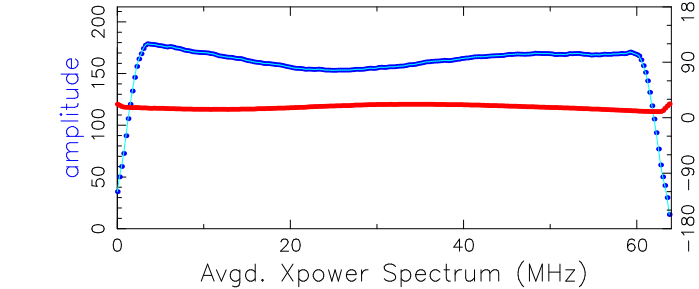
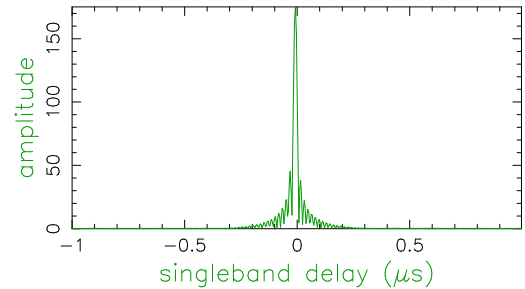
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	10000.0	10000.0
t	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	10000.0	10000.0
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	10000.0	10000.0
t	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
t	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 1.9E-09
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 1.5E-08
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 6.6E-12
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 2.7E-14
Total phase (deg)			0.0						0.0	+/- 0.0

ph/seg (deg) 0.0 0.0 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
 t: az 48.3 el 38.9 pa -82.3 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tt.1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tt.W.256.1X1QEV simultaneous interpolator

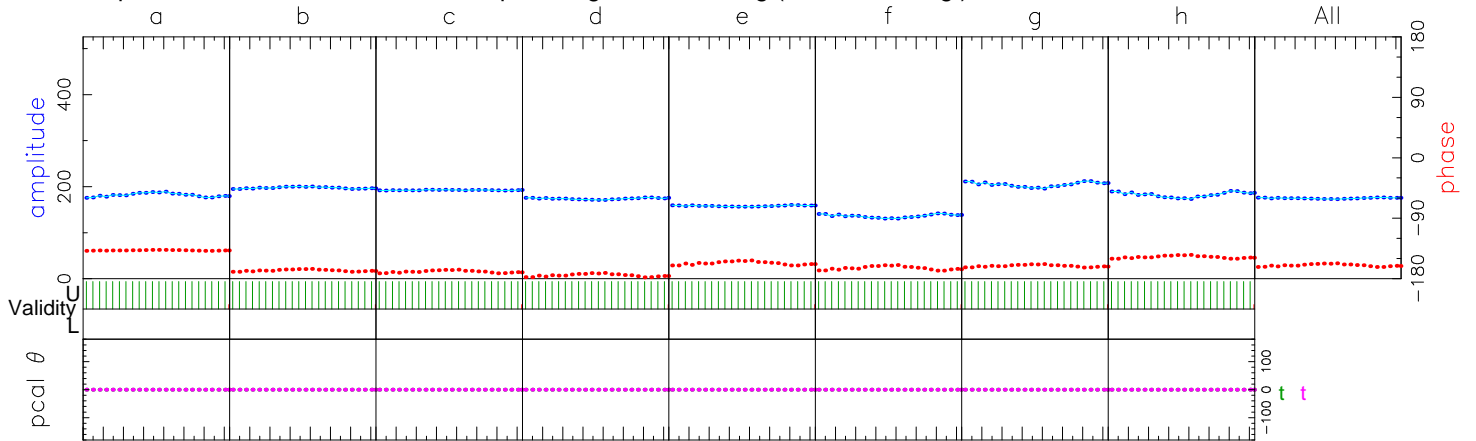
multiband delay (μ s)



Fringe quality 8
SNR 9816.0
Int time 419.840
Amp 175.185
Phase -160.0
PFD 0.0e+00
Delays (us)
SBD -0.008353
MBD 0.007008
Fringe rate (Hz)
-0.000001
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133945
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-8.617375000000E-03	-8.352750000000E-03	-8.113369219133E-11	-174.9	-156.9	-164.2	-160.9	-147.7	7.00762E-03	+/- 1.1E-07
Sband delay (usec)	-8.352750000000E-03	-8.352750000000E-03	-1.13369219133E-11	172.513	158.1	136.2	204.7	182.6	-8.35275E-03	+/- 8.8E-07
Phase delay (usec)	-5.15806734170E-06	-5.15806734170E-06	-5.15806734170E-06	174.937	173.9	132.6	204.7	182.6	-5.15807E-06	+/- 3.8E-10
Delay rate (us/s)	-1.13369219133E-11	-1.13369219133E-11	-1.13369219133E-11	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	-1.13369E-11	+/- 1.6E-12
Total phase (deg)			-160.0	175.185 +/- 0.018	172.513	136.2	204.7	182.6	-160.0	+/- 0.0

ph/seg (deg) 1.7 0.0
amp/seg (%) 0.6 0.0
ph/frq (deg) 13.2 0.0
amp/frq (%) 12.1 0.0
t: az 48.3 el 38.9 pa -82.3
Control file: cf_1234_gmva

Search (2048X32) 172.513
Inc. seg. avg. 174.937
Inc. frq. avg. 178.424
u,v (fr/asec) 0.000 0.000
Input file: /Exps/c211c/v1/1234/No0120/tt..1X1QEV

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
SampCntNorm: enabled
nlags: 256 t_cohere infinite
simultaneous interpolator

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

Output file: /Exps/c211c/v1/1234/No0120/tt.W.272.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

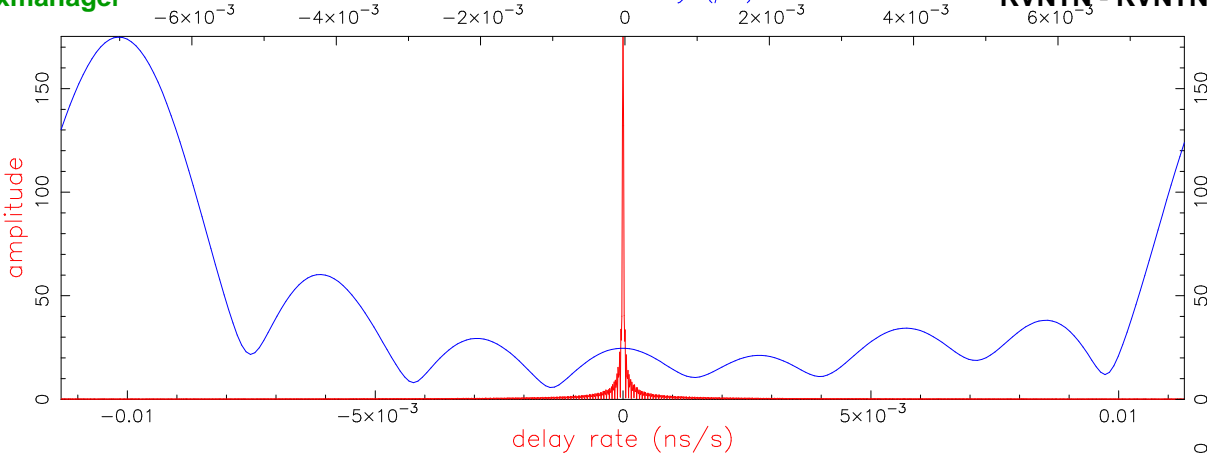
fxmanager

NRAO150.1X1QEV, No0120, tt

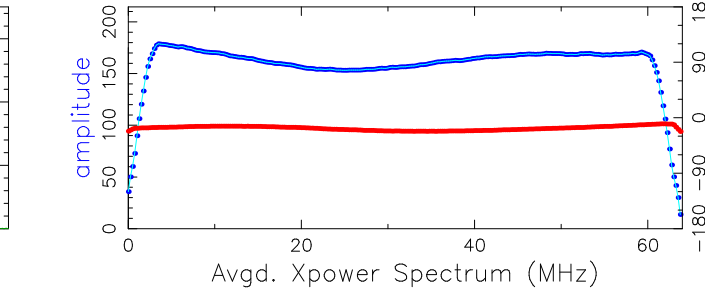
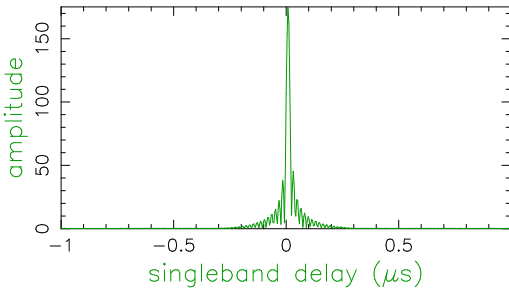
KVNTN - KVNTN, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 8

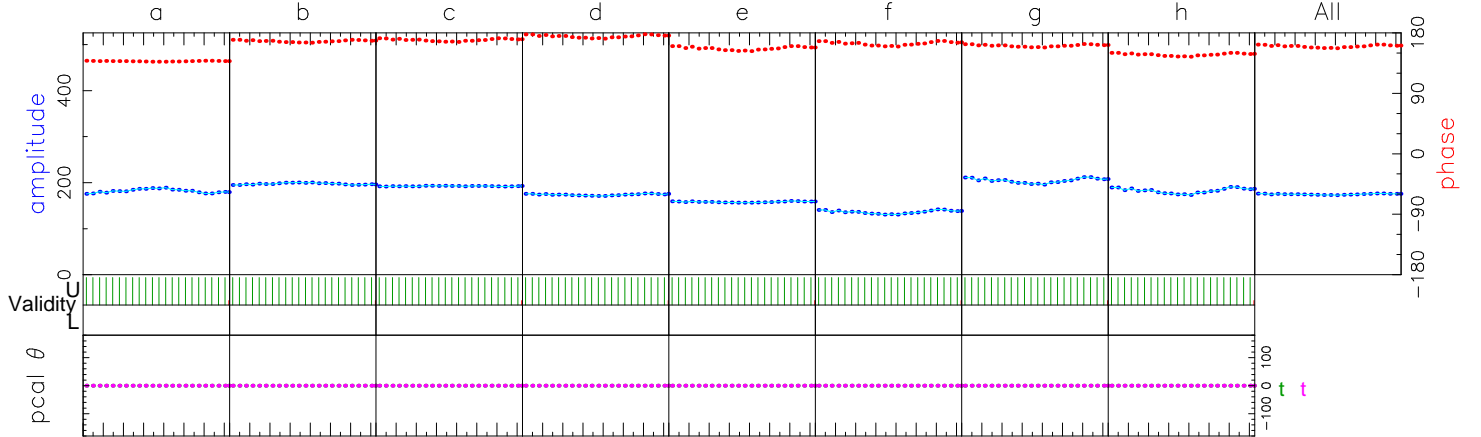


SNR 9816.0
 Int time 419.840
 Amp 175.185
 Phase 160.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.008353
 MBD -0.007008
 Fringe rate (Hz)
 0.000001
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133948
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	8.617375000000E-03								Resid mbdelay (usec)	-7.00762E-03 +/- 1.1E-07
Sband delay (usec)	8.352750000000E-03								Resid sbdelay (usec)	8.35275E-03 +/- 8.8E-07
Phase delay (usec)	5.15806734168E-06								Resid phdelay (usec)	5.15807E-06 +/- 3.8E-10
Delay rate (us/s)	1.13369219133E-11								Resid rate (us/s)	1.13369E-11 +/- 1.6E-12
Total phase (deg)		160.0							Resid phase (deg)	160.0 +/- 0.0

ph/seg (deg) 1.7 0.0
 amp/seg (%) 0.6 0.0
 ph/frq (deg) 13.2 0.0
 amp/frq (%) 12.1 0.0

RMS Theor. Amplitude 175.185 +/- 0.018
 Search (2048X32) 172.513
 Interp. 0.000
 Inc. seg. avg. 174.937
 Inc. frq. avg. 178.424

Group delay (usec)(sbd) 8.617375000000E-03 Apriori delay (usec) 0.000000000000E+00 Resid mbdelay (usec) -7.00762E-03 +/- 1.1E-07
 Sband delay (usec) 8.352750000000E-03 Apriori clock (usec) 0.000000000000E+00 Resid sbdelay (usec) 8.35275E-03 +/- 8.8E-07
 Phase delay (usec) 5.15806734168E-06 Apriori clockrate (us/s) 0.000000000000E+00 Resid phdelay (usec) 5.15807E-06 +/- 3.8E-10
 Delay rate (us/s) 1.13369219133E-11 Apriori rate (us/s) 0.000000000000E+00 Resid rate (us/s) 1.13369E-11 +/- 1.6E-12
 Total phase (deg) 160.0 Apriori accel (us/s/s) 0.000000000000E+00 Resid phase (deg) 160.0 +/- 0.0

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

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

t: az 48.3 el 38.9 pa -82.3 t: az 48.3 el 38.9 pa -82.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tt..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tt.W.289.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

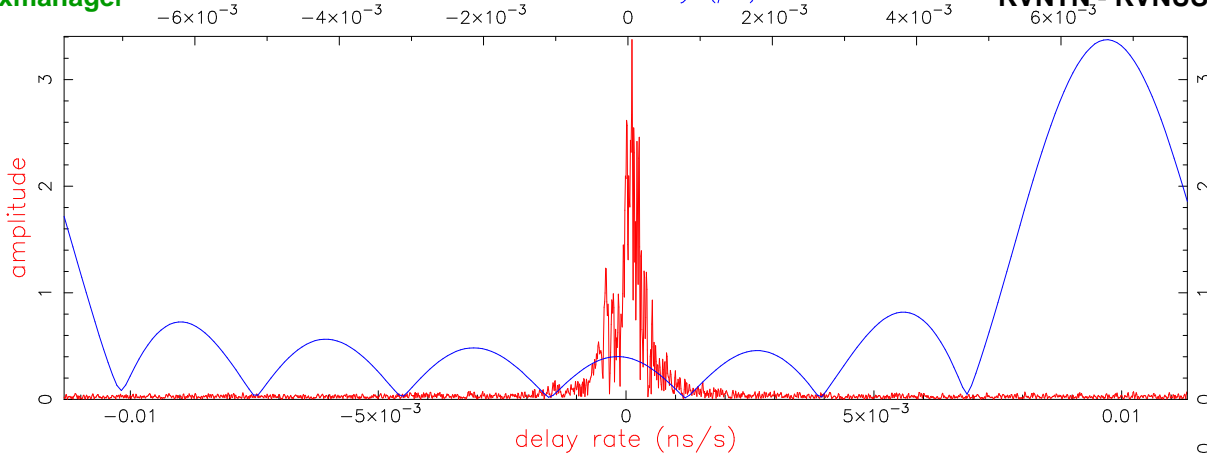
fxmanager

NRAO150.1X1QEV, No0120, tu

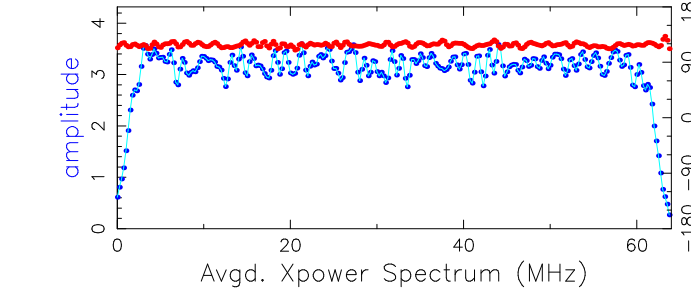
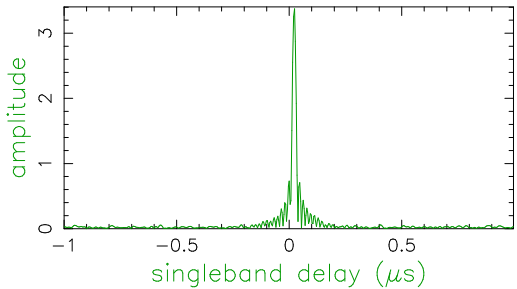
KVNTN- KVNUS, fgroup W, pol RR

multiband delay (μ s)

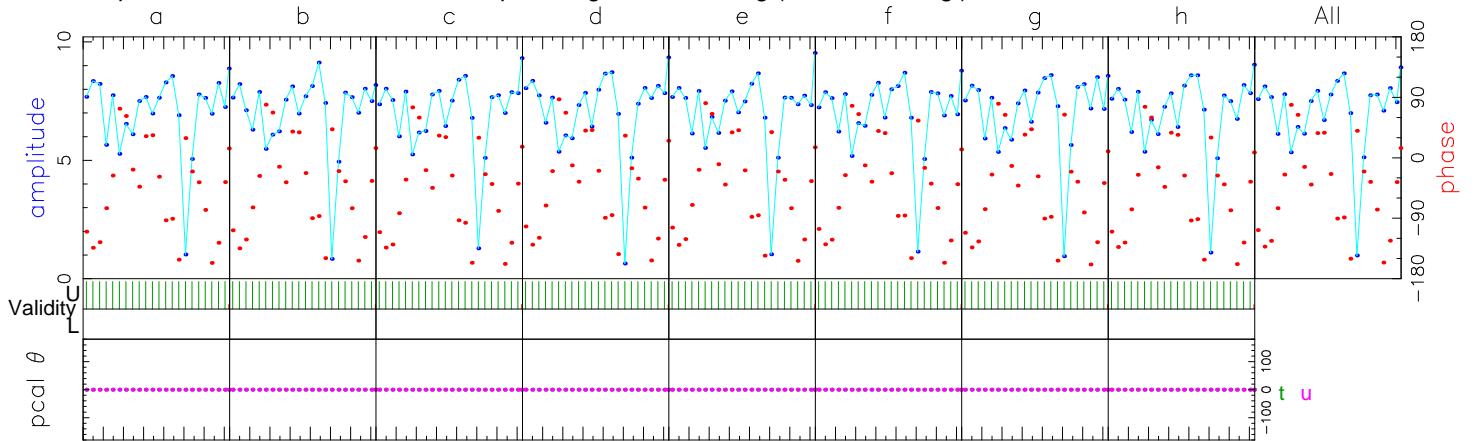
Fringe quality 5



SNR 190.8
 Int time 419.840
 Amp 3.405
 Phase -61.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.022230
 MBD 0.006634
 Fringe rate (Hz)
 0.010232
 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
 2021:304:133943
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-9.12504967248E+02	Apriori delay (usec)	-9.12527226260E+02	Resid mbdelay (usec)	6.63401E-03	+/-	5.7E-06
Sband delay (usec)	-9.12504996760E+02	Apriori clock (usec)	-1.5033060E+01	Resid sbdelay (usec)	2.22295E-02	+/-	4.5E-05
Phase delay (usec)	-9.12527228256E+02	Apriori clockrate (us/s)	-1.1770000E-06	Resid phdelay (usec)	-1.99549E-06	+/-	1.9E-08
Delay rate (us/s)	3.62032690509E-02	Apriori rate (us/s)	3.62031502669E-02	Resid rate (us/s)	1.18784E-07	+/-	8.0E-11
Total phase (deg)	-159.1	Apriori accel (us/s/s)	1.92716336240E-06	Resid phase (deg)	-61.9	+/-	0.6

ph/seg (deg)	69.9	RMS	1.4	Theor.	3.405 +/- 0.018	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	115.1	Search (2048X32)	3.213	Search	3.213	PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	3.0	Interp.	0.000	Inc. seg. avg.	6.982	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	1.3	Inc. frq. avg.	3.378	Inc. frq. avg.	3.378	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
t: az 48.3 el 38.9 pa -82.3		u: az 50.0 el 42.1 pa -83.3		u, v (fr/asec)	-324.897 10.417	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/tu...1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tu.W.259.1X1QEV simultaneous interpolator

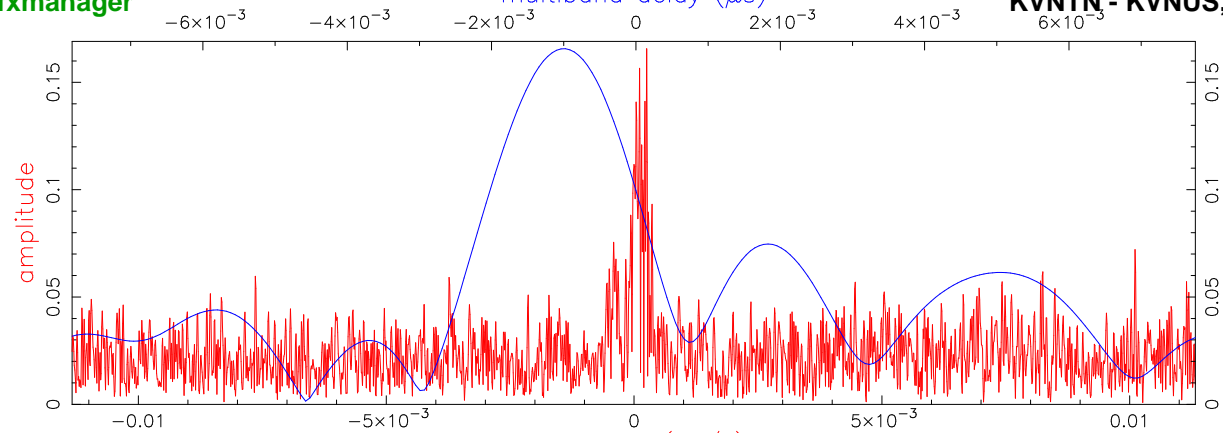
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, tu

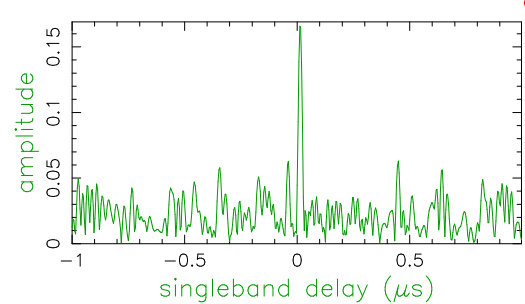
KVNTN - KVNUS, fgroup W, pol LR

multiband delay (μ s)

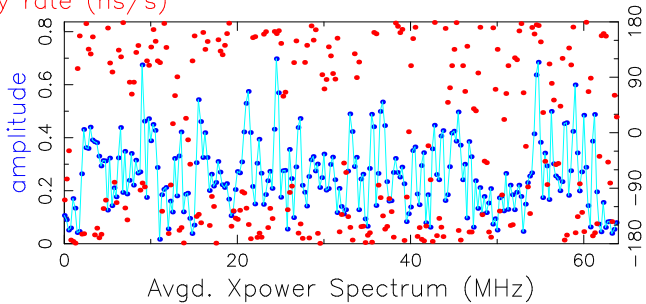


Fringe quality 9

SNR 9.5
 Int time 419.840
 Amp 0.169
 Phase -12.0
 PFD 1.1e-12
 Delays (us)
 SBD 0.013556
 MBD -0.001025
 Fringe rate (Hz)
 0.022269
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

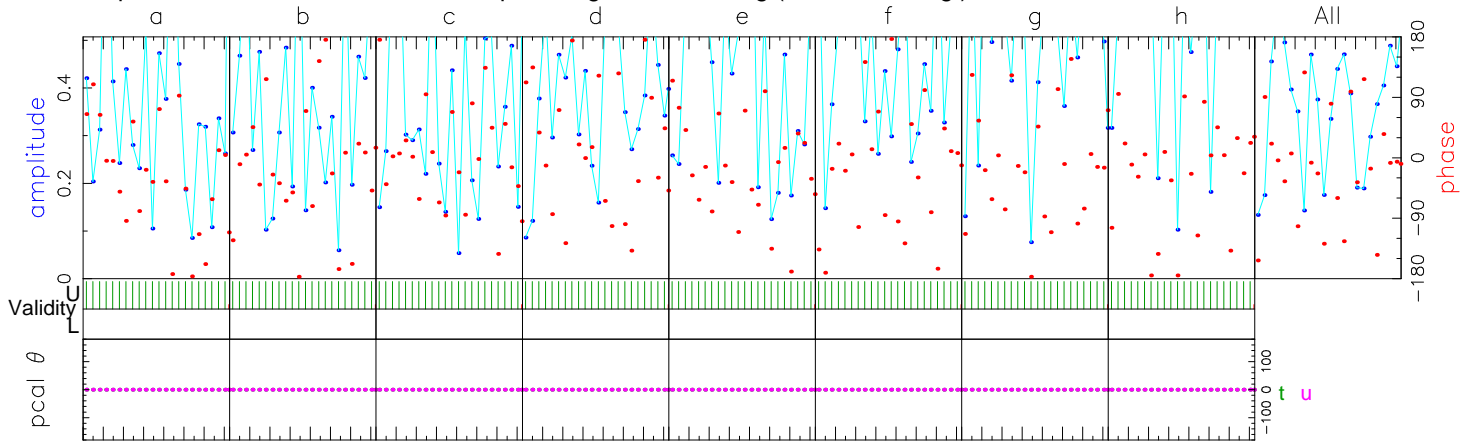


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133946
 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
	-5.9	-25.2	5.5	-13.8	-13.1	-40.9	-26.9	6.8	Phase	-12.0
	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.3	Ampl.	0.2
	28.1	261.2	260.8	497.2	260.3	444.5	260.8	260.3	Sbd box	260.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-9.12512625820E+02		Apriori delay (usec)		-9.12527226260E+02		Resid mbdelay (usec)		-1.02456E-03	+/- 1.1E-04
Sband delay (usec)	-9.12513670260E+02		Apriori clock (usec)		-1.5033060E+01		Resid sbdelay (usec)		1.35560E-02	+/- 9.1E-04
Phase delay (usec)	-9.12527226647E+02		Apriori clockrate (us/s)		-1.1770000E-06		Resid phdelay (usec)		-3.86286E-07	+/- 3.9E-07
Delay rate (us/s)	3.62034087834E-02		Apriori rate (us/s)		3.62031502669E-02		Resid rate (us/s)		2.58517E-07	+/- 1.6E-09
Total phase (deg)			Apriori accel (us/s/s)		1.92716336240E-06		Resid phase (deg)		-12.0	+/- 12.1

ph/seg (deg) 81.2 29.0 Search (2048X32) 0.157 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 134.0 50.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.9 17.1 Inc. seg. avg. 0.315 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 42.4 29.9 Inc. frq. avg. 0.165 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 48.3 el 38.9 pa -82.3 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) -324.897 10.417 ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tu.W.276.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

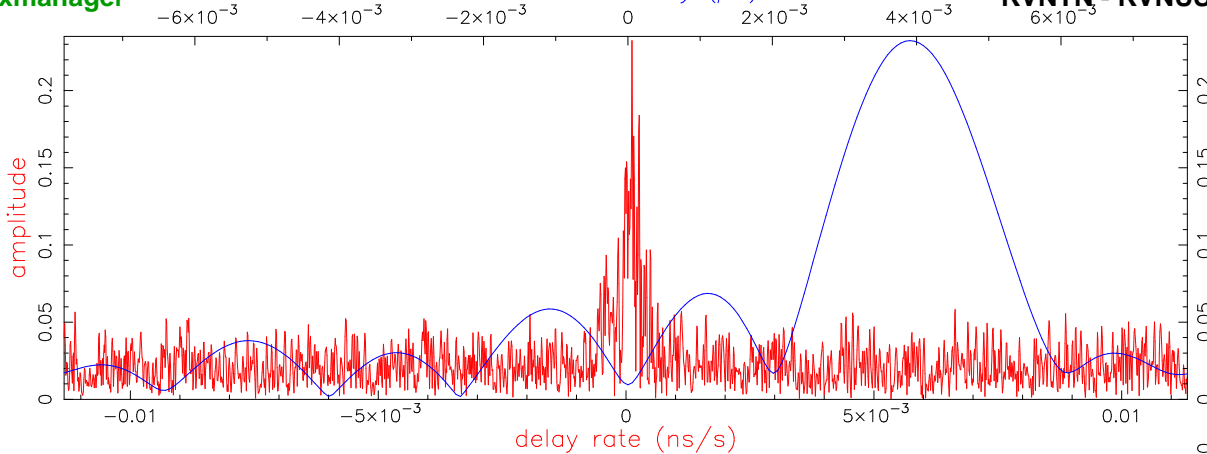
fxmanager

NRAO150.1X1QEV, No0120, tu

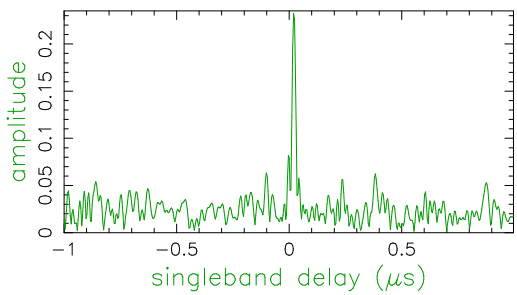
KVNTN - KVNUS, fgroup W, pol RL

multiband delay (μ s)

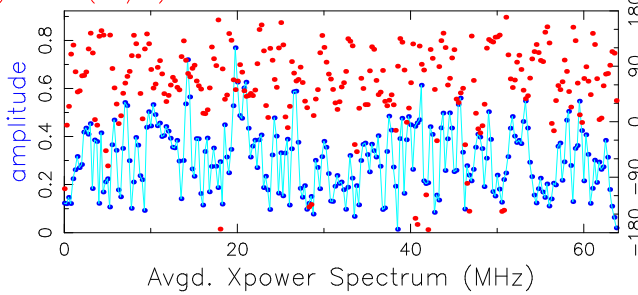
Fringe quality 9



SNR 13.2
Int time 419.840
Amp 0.235
Phase -91.2
PFD 6.8e-31
Delays (us)
SBD 0.020868
MBD 0.003922
Fringe rate (Hz)
0.010374
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

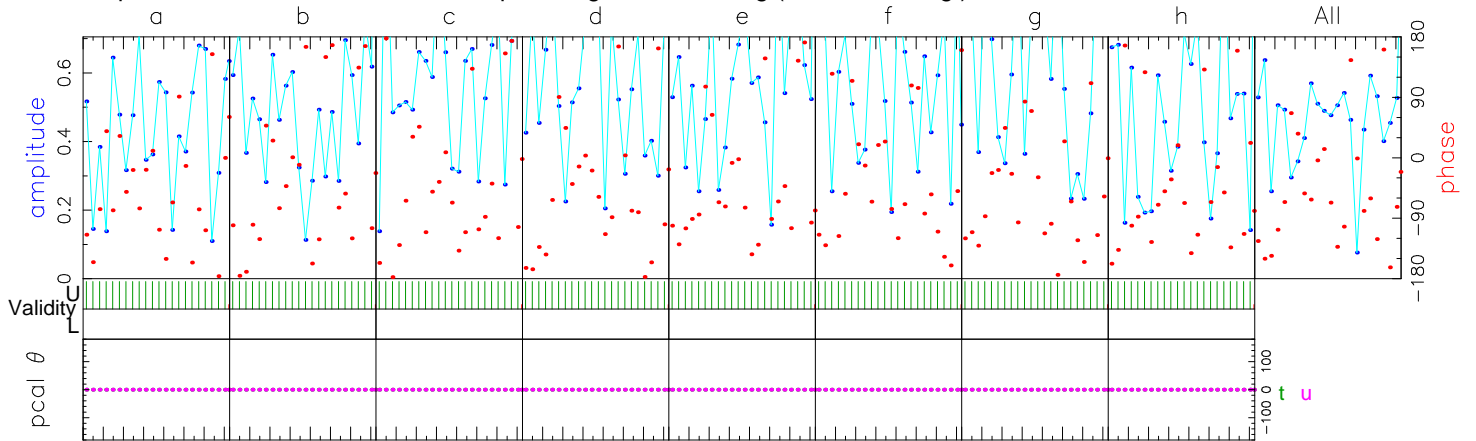


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133950
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-72.5	-109.9	-100.9	-86.1	-96.6	-84.2	-82.2	-100.7	Phase	-91.2
	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	Ampl.	0.2
	261.7	262.4	262.2	262.6	262.3	262.8	262.6	262.0	Sbd box	262.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	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)	-9.12507679623E+02		Apriori delay (usec)		-9.12527226260E+02		Resid mbdelay (usec)		3.92164E-03	+/- 8.2E-05
Sband delay (usec)	-9.12506358260E+02		Apriori clock (usec)		-1.5033060E+01		Resid sbdelay (usec)		2.08680E-02	+/- 6.5E-04
Phase delay (usec)	-9.12527229201E+02		Apriori clockrate (us/s)		-1.1770000E-06		Resid phdelay (usec)		-2.94081E-06	+/- 2.8E-07
Delay rate (us/s)	3.62032706969E-02		Apriori rate (us/s)		3.62031502669E-02		Resid rate (us/s)		1.20430E-07	+/- 1.2E-09
Total phase (deg)			Apriori accel (us/s/s)		1.92716336240E-06		Resid phase (deg)		-91.2	+/- 8.7

ph/seg (deg) 72.3 20.9 Search (2048X32) 0.230 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 109.6 36.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 13.3 12.3 Inc. seg. avg. 0.431 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 12.7 21.5 Inc. frq. avg. 0.231 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
t: az 48.3 el 38.9 pa -82.3 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) -324.897 10.417 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/tu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/tu.W.293.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

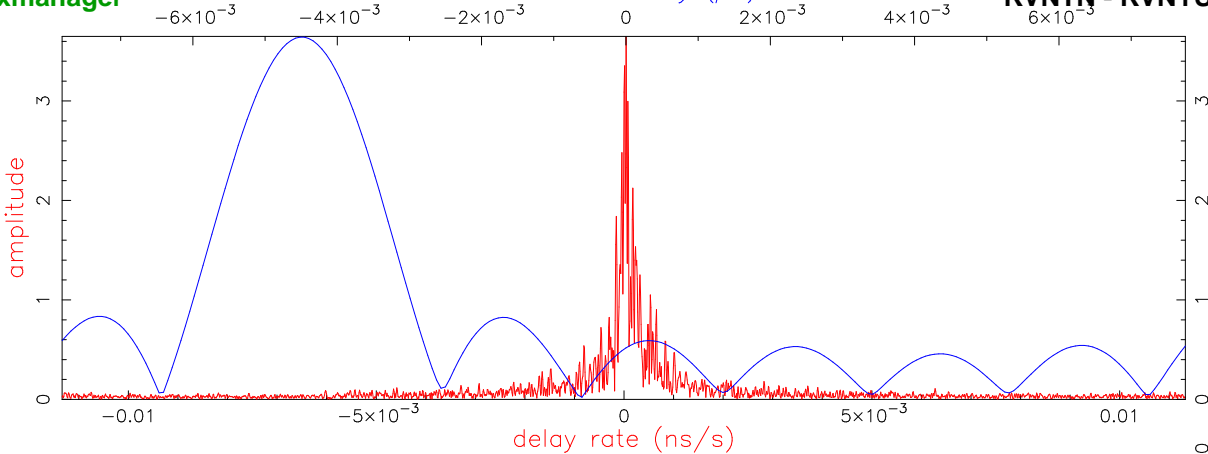
fxmanager

NRAO150.1X1QEV, No0120, ty

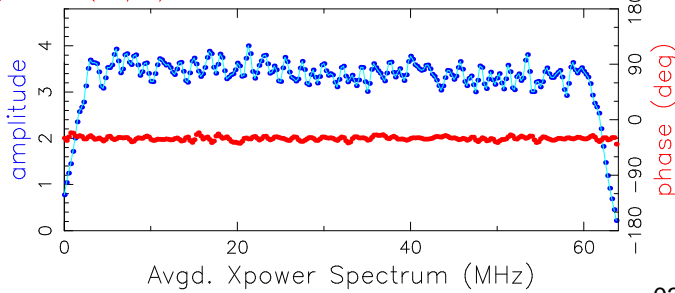
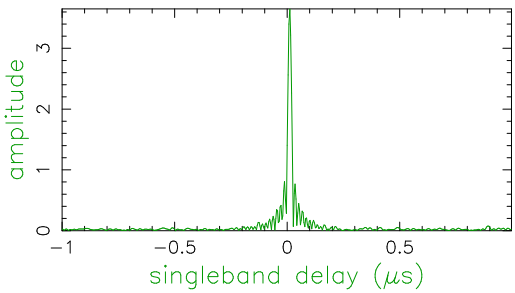
KVNTN - KVNYs, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 5

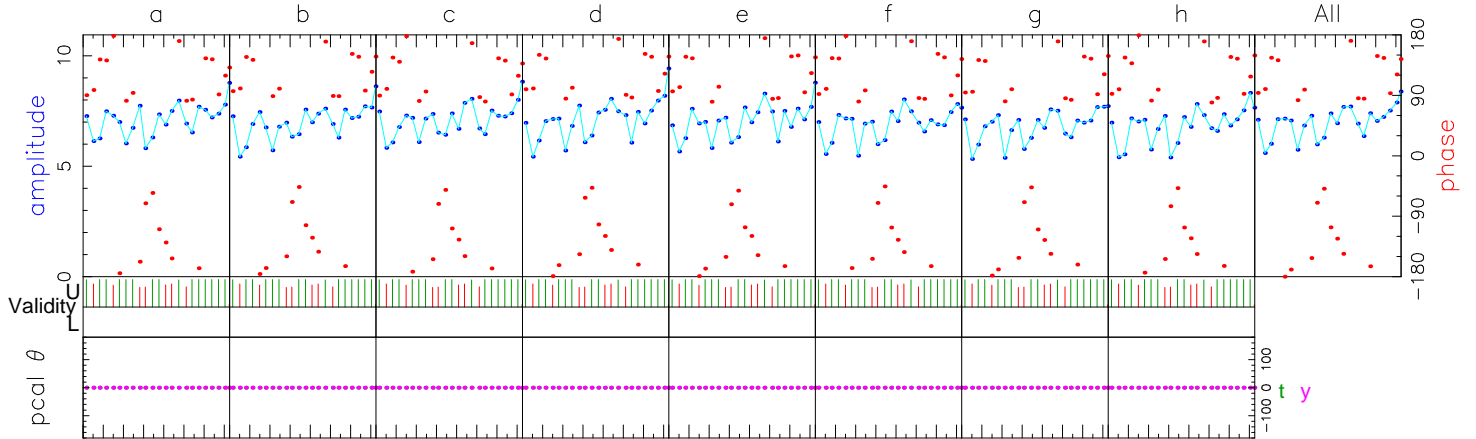


SNR 196.7
 Int time 388.403
 Amp 3.650
 Phase 150.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.011179
 MBD -0.004491
 Fringe rate (Hz)
 0.003831
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-8.53646664983E+02									
Sband delay (usec)	-8.53646620052E+02									
Phase delay (usec)	-8.53657794456E+02									
Delay rate (us/s)	4.12253166158E-02									
Total phase (deg)			-149.2							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
Tracks										
Chan ids										
Tracks										
Chan ids										
Tracks										
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								
simultaneous interpolator										

t: az 48.3 el 38.9 pa -82.3 y: az 51.1 el 41.9 pa -79.5 u,v (fr/asec) -376.134 -410.743 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ty..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ty.W.244.1X1QEV

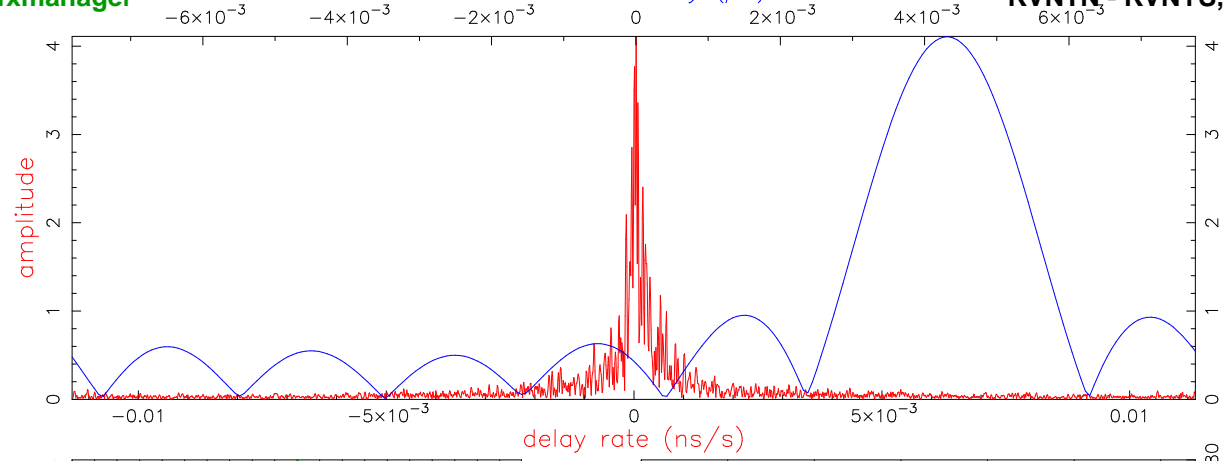
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

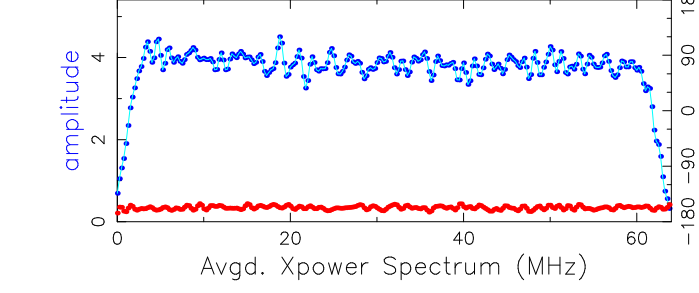
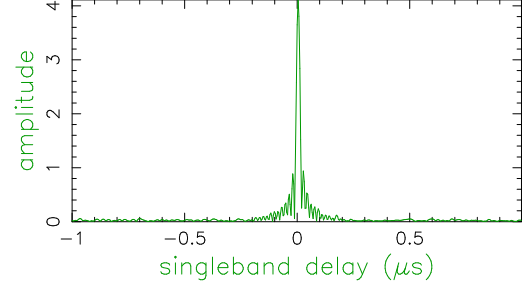
NRAO150.1X1QEV, No0120, ty

KVNTN - KVNYs, fgroup W, pol RR

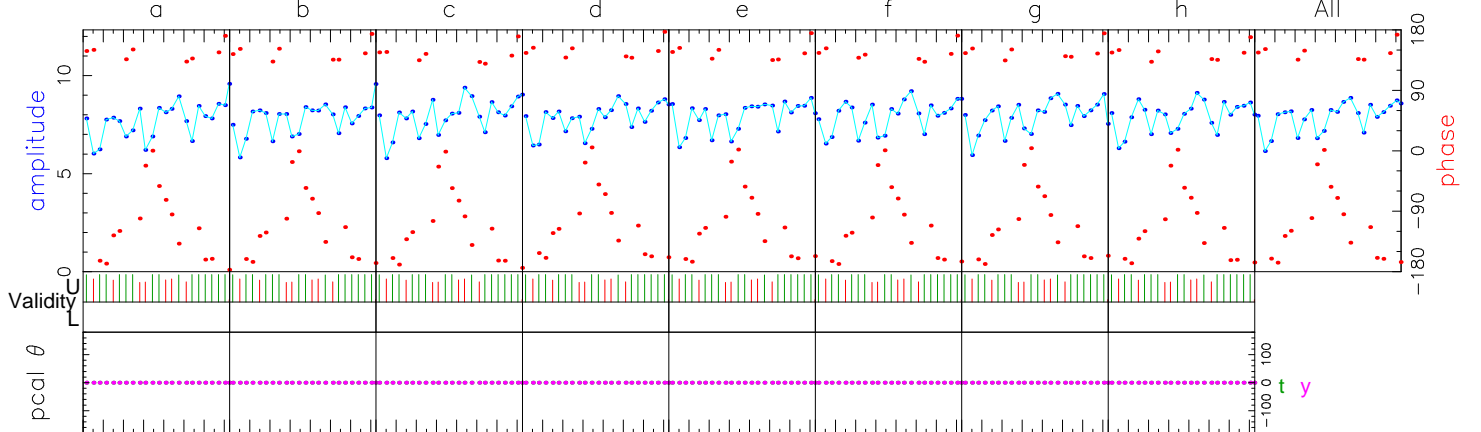
multiband delay (μ s)



Fringe quality 5
 SNR 221.6
 Int time 388.403
 Amp 4.111
 Phase -157.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.004329
 MBD 0.004311
 Fringe rate (Hz) 0.003831
 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
 2021:304:133943
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0		258.1
t	1000	1000	1000	1000	1000	1000	1000	1000		4.1
y	1000	1000	1000	1000	1000	1000	1000	1000		4.1
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		258.1
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		4.1
t	1000	1000	1000	1000	1000	1000	1000	1000		258.1
y	1000	1000	1000	1000	1000	1000	1000	1000		4.1
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		258.1
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		4.1
Group delay (usec)(sbd)	-8.53653488420E+02	-8.53653469802E+02	-8.53653488420E+02	-8.53653469802E+02	-8.53653488420E+02	-8.53653469802E+02	-8.53653488420E+02	-8.53653469802E+02		4.1
Sband delay (usec)	-8.53653469802E+02	-8.53653488420E+02	-8.53653469802E+02	-8.53653488420E+02	-8.53653469802E+02	-8.53653488420E+02	-8.53653469802E+02	-8.53653488420E+02		4.1
Phase delay (usec)	-8.53657804372E+02	-8.53657804372E+02	-8.53657804372E+02	-8.53657804372E+02	-8.53657804372E+02	-8.53657804372E+02	-8.53657804372E+02	-8.53657804372E+02		4.1
Delay rate (us/s)	4.12253166144E-02	4.12253166144E-02	4.12253166144E-02	4.12253166144E-02	4.12253166144E-02	4.12253166144E-02	4.12253166144E-02	4.12253166144E-02		4.1
Total phase (deg)			-96.7							-157.2
Apriori delay (usec)										-157.2
Apriori clock (usec)										4.1
Apriori clockrate (us/s)										4.1
Apriori rate (us/s)										4.2
Apriori accel (us/s/s)										4.2
Resid mbdelay (usec)										258.1
Resid sbdelay (usec)										258.0
Resid phdelay (usec)										258.2
Resid rate (us/s)										258.2
Resid phase (deg)										258.1

ph/seg (deg) 66.5 1.2 Search (2048X32) 4.083 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 92.9 2.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 1.5 0.7 Inc. seg. avg. 7.860 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 1.1 1.3 Inc. frq. avg. 4.107 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 48.3 el 38.9 pa -82.3 y: az 51.1 el 41.9 pa -79.5 u,v (fr/asec) -376.134 -410.743 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ty..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ty.W.261.1X1QEV simultaneous interpolator

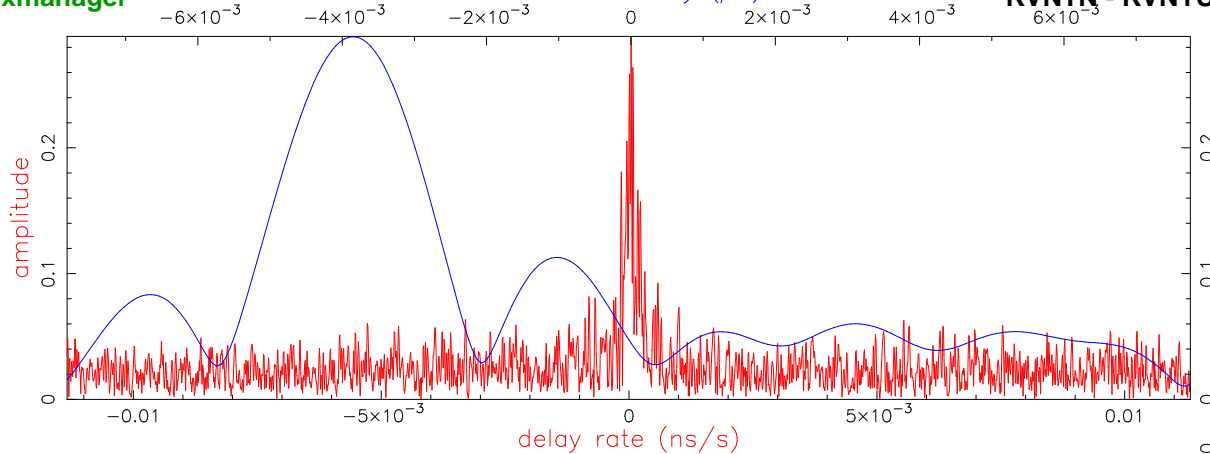
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ty

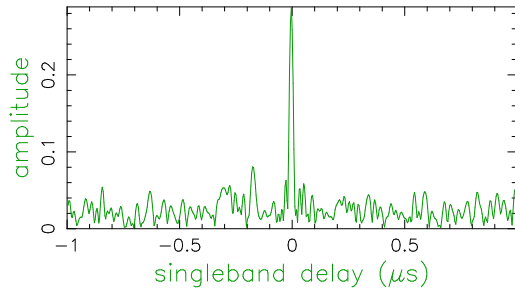
KVNTN - KVNYS, fgroup W, pol LR

multiband delay (μ s)

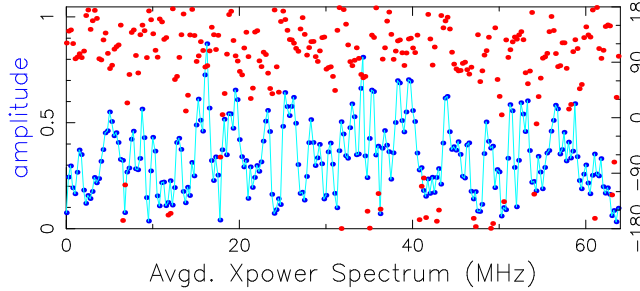


Fringe quality 9

SNR 15.6
Int time 388.403
Amp 0.289
Phase 111.2
PFD 1.4e-45
Delays (us)
SBD -0.004296
MBD -0.003850
Fringe rate (Hz) 0.003751
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

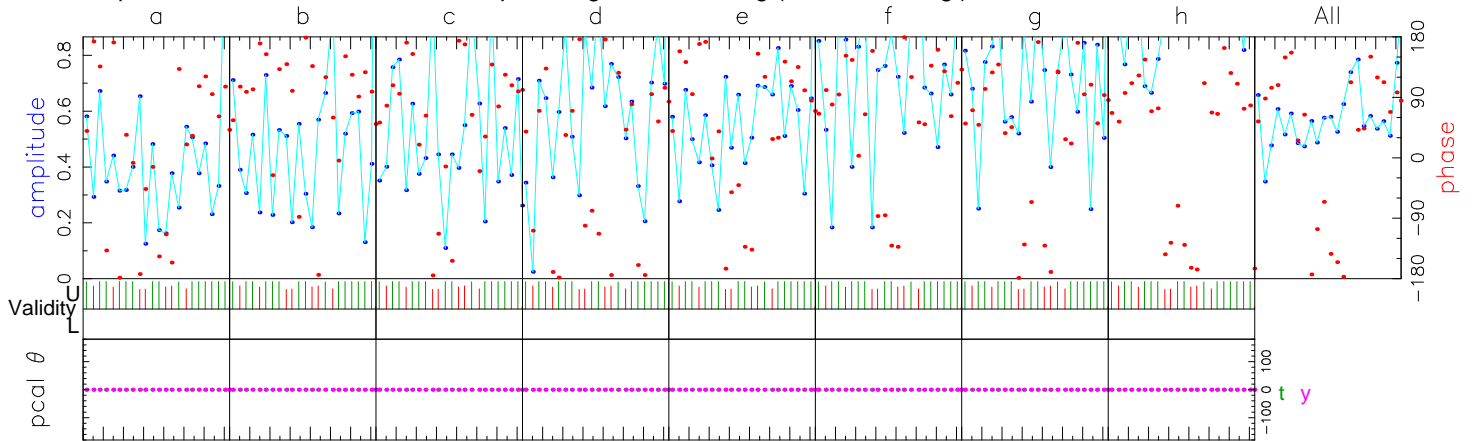


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-8.53661649014E+02	Apriori delay (usec)	-8.53657799302E+02	Resid mbdelay (usec)	-3.84971E-03	+/-	7.0E-05
Sband delay (usec)	-8.53662095302E+02	Apriori clock (usec)	-9.7180557E-01	Resid sbdelay (usec)	-4.29600E-03	+/-	5.5E-04
Phase delay (usec)	-8.53657795718E+02	Apriori clockrate (us/s)	-4.9999999E-08	Resid phdelay (usec)	3.58464E-06	+/-	2.4E-07
Delay rate (us/s)	4.12253156897E-02	Apriori rate (us/s)	4.12252721460E-02	Resid rate (us/s)	4.35437E-08	+/-	1.0E-09
Total phase (deg)	-188.3	Apriori accel (us/s/s)	-7.93038096360E-07	Resid phase (deg)	111.2	+/-	7.4

ph/seg (deg)	RMS 70.1	Theor. 17.1	Amplitude Search (2048X32)	0.289 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	104.5	29.8	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	6.7	10.4	Inc. seg. avg.	0.547	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	34.2	18.2	Inc. frq. avg.	0.285	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

t: az 48.3 el 38.9 pa -82.3 y: az 51.1 el 41.9 pa -79.5 u,v (fr/asec) -376.134 -410.743 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ty..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ty.W.277.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

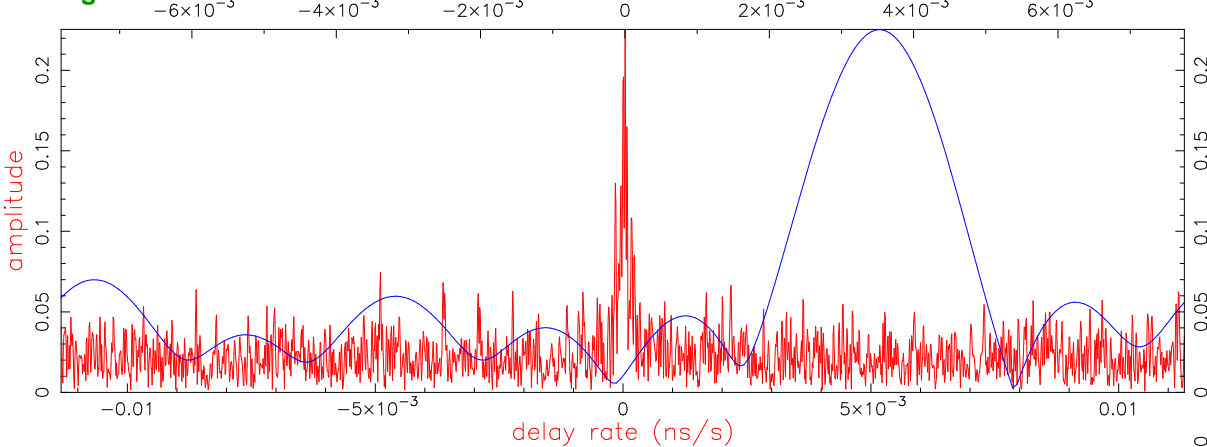
fxmanager

NRAO150.1X1QEV, No0120, ty

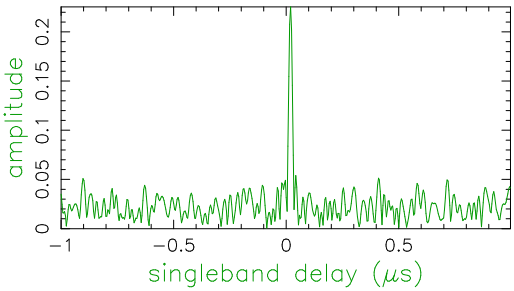
KVNTN - KVNYS, fgroup W, pol RL

multiband delay (μ s)

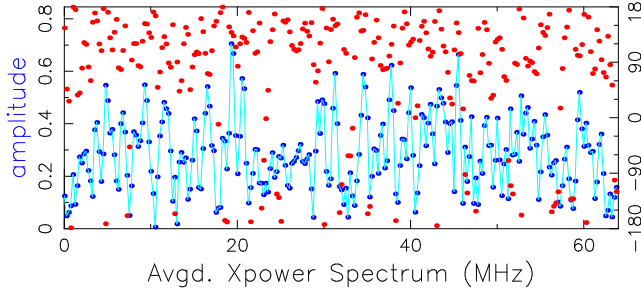
Fringe quality 9



SNR 12.1
Int time 388.403
Amp 0.225
Phase -50.9
PFD 3.0e-25
Delays (us)
SBD 0.019265
MBD 0.003521
Fringe rate (Hz) 0.003996
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

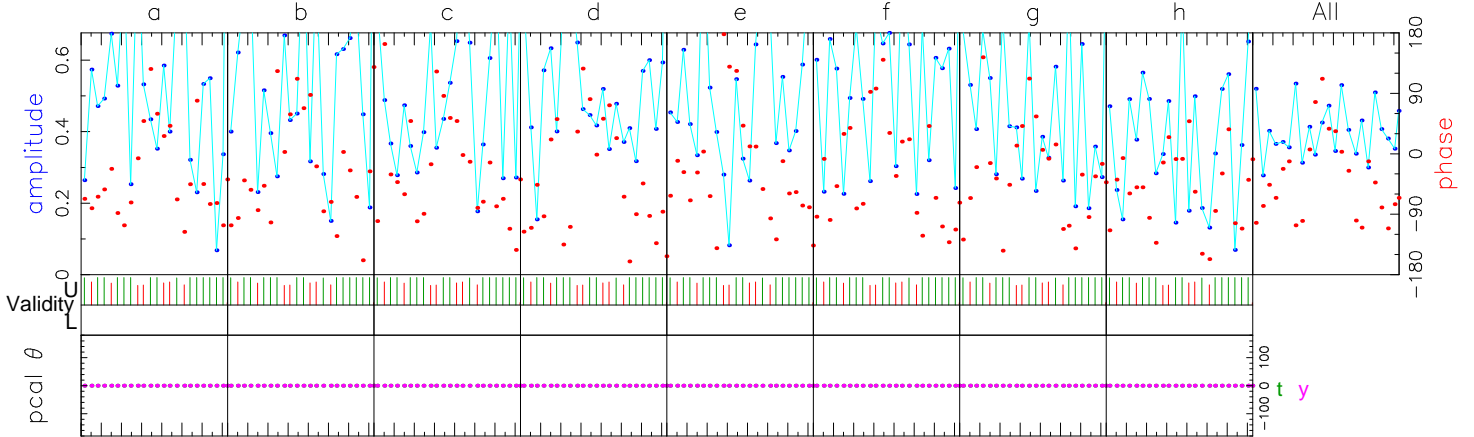


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133950
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-54.1	-41.3	-43.6	-77.6	-48.4	-54.4	-49.4	-46.6	Phase	-50.9
	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.3	Ampl.	0.2
	261.5	261.2	262.5	75.4	262.3	261.4	439.8	262.2	Sbd box	261.9
U/L	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.53638653451E+02		Apriori delay (usec)		-8.53657799302E+02		Resid mbdelay (usec)		3.52085E-03	+/- 8.9E-05
Sband delay (usec)	-8.53638534052E+02		Apriori clock (usec)		-9.7180557E-01		Resid sbdelay (usec)		1.92652E-02	+/- 7.1E-04
Phase delay (usec)	-8.53657800944E+02		Apriori clockrate (us/s)		-4.9999999E-08		Resid phdelay (usec)		-1.64140E-06	+/- 3.0E-07
Delay rate (us/s)	4.12253185332E-02		Apriori rate (us/s)		4.12252721460E-02		Resid rate (us/s)		4.63871E-08	+/- 1.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-7.93038096360E-07		Resid phase (deg)		-50.9	+/- 9.4

	RMS	Theor.	Amplitude	0.225 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	62.5	21.9	Search (2048X32)	0.221	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000	
amp/seg (%)	84.8	38.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	12.3	13.3	Inc. seg. avg.	0.373	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	23.0	23.3	Inc. frq. avg.	0.222	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00	

t: az 48.3 el 38.9 pa -82.3 y: az 51.1 el 41.9 pa -79.5 u,v (fr/asec) -376.134 -410.743 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ty..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ty.W.292.1X1QEV