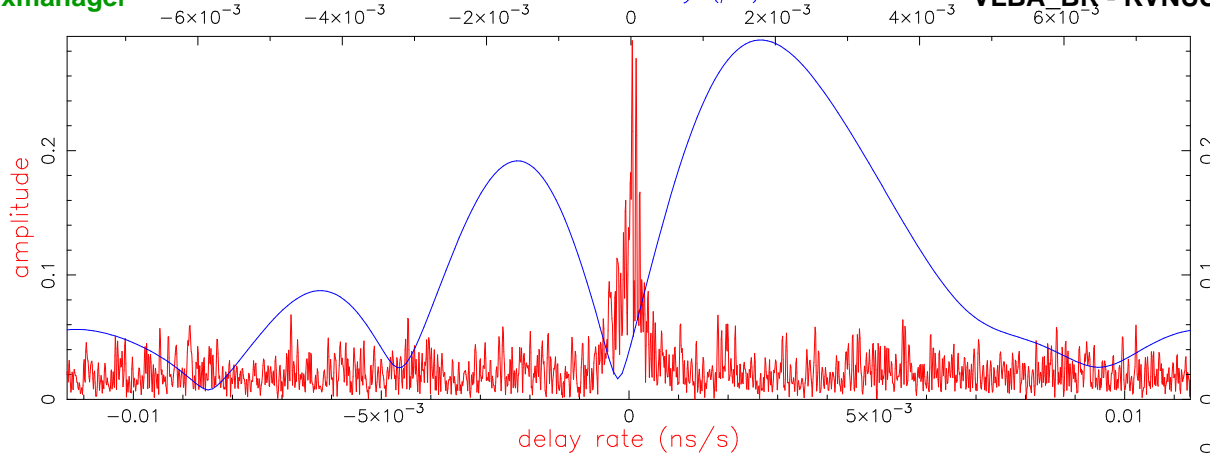
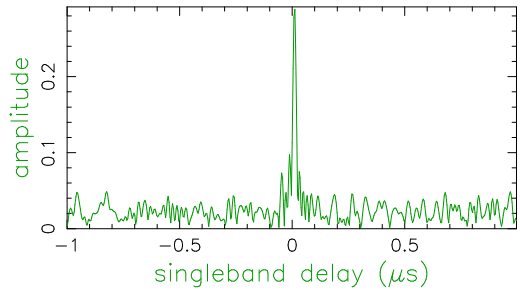


multiband delay (μ s)

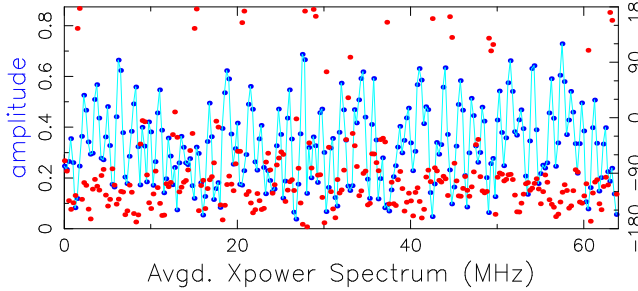


Fringe quality 7

SNR 16.3
 Int time 418.452
 Amp 0.292
 Phase -16.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.010425
 MBD 0.001709
 Fringe rate (Hz) 0.005287
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

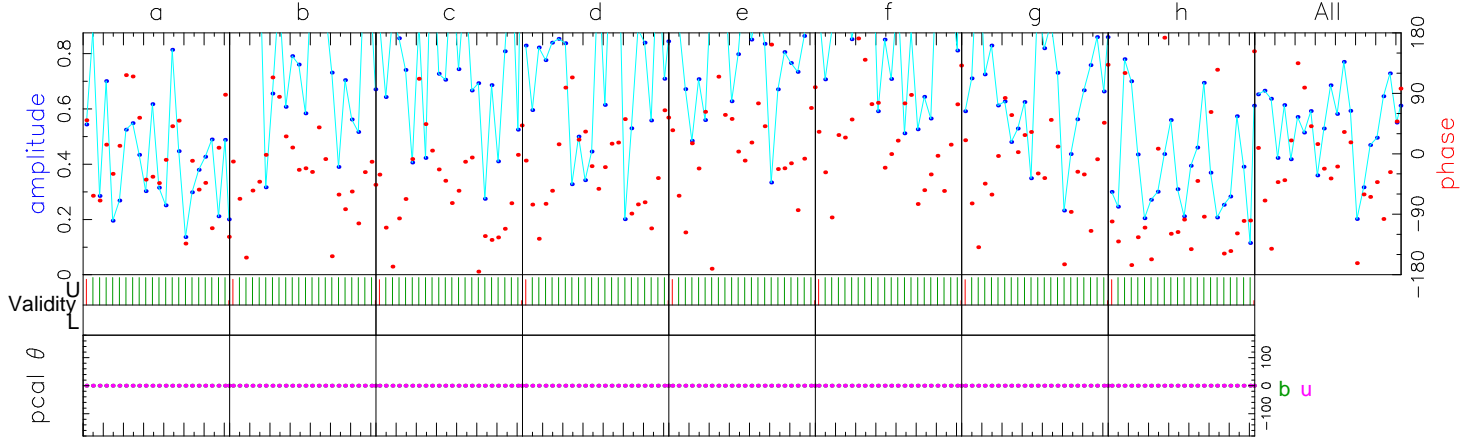


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133848
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
b:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:u	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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	1.8	-27.1	-58.8	-26.2	21.0	22.7	-17.9	-133.1		
Sband delay (usec)	0.2	0.5	0.4	0.4	0.4	0.5	0.4	0.2		
Phase delay (usec)	257.3	259.4	260.7	259.6	259.7	260.1	259.1	256.7		
Delay rate (us/s)		-1.19278794165E+00								
Total phase (deg)			276.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode:	MANUAL, MANUAL		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							
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							
simultaneous interpolator										

b: az 293.2 el 60.3 pa 77.2 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 10842.344 145.376 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bu.W.10.1X1QEV

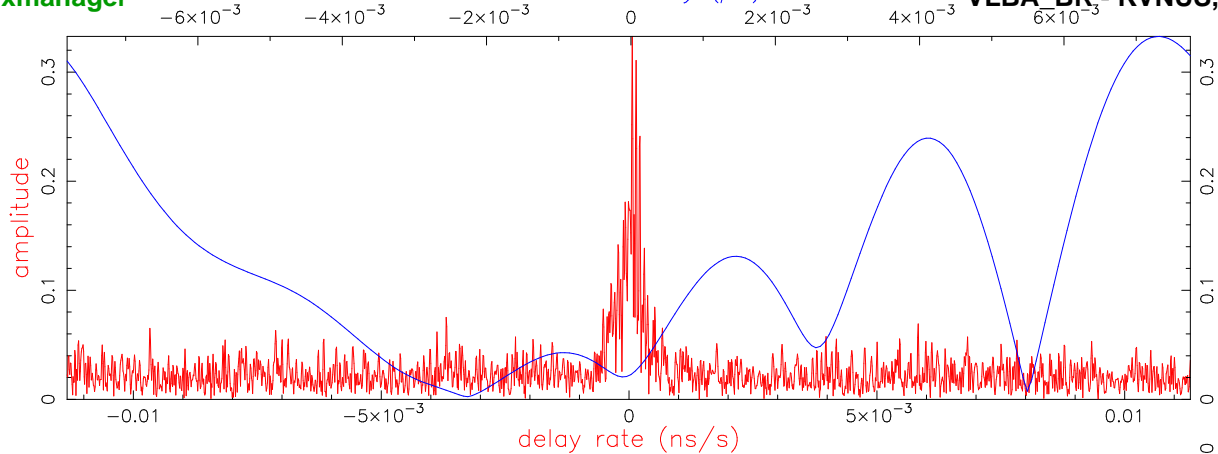
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, bu

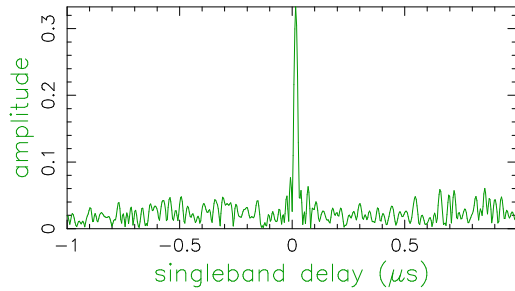
VLBA_BR- KVNUS, fgroup W, pol RR

multiband delay (μ s)

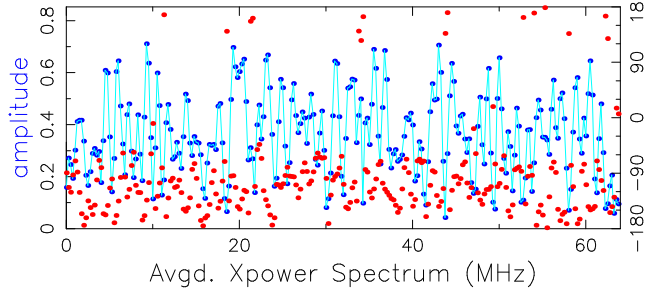


Fringe quality 7

SNR 18.6
 Int time 418.452
 Amp 0.333
 Phase -20.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.015806
 MBD 0.007320
 Fringe rate (Hz) 0.005380
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

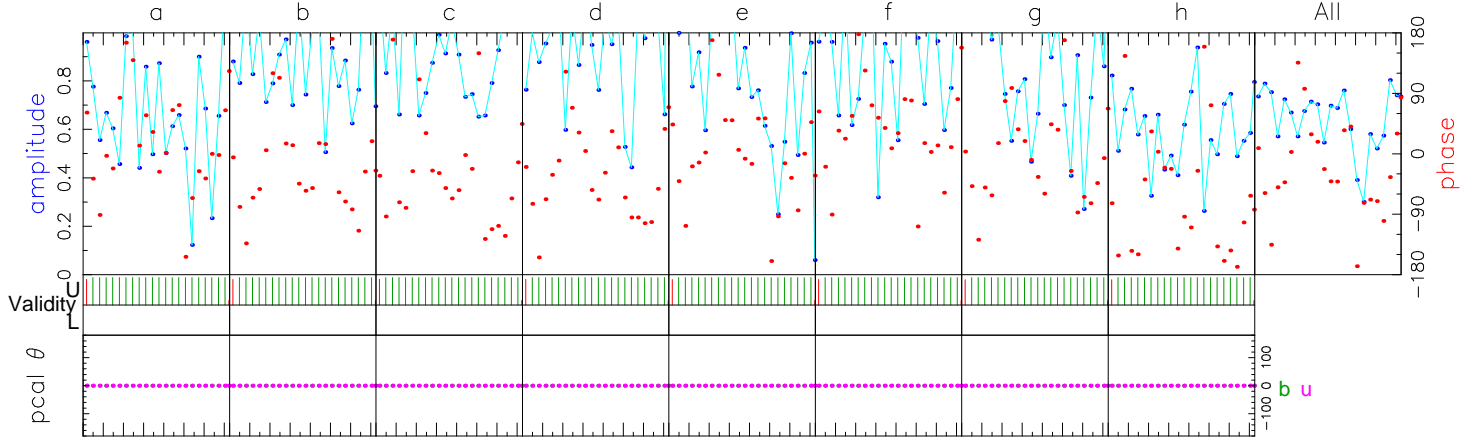


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133852
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	27.2	-36.4	-60.2	-35.9	8.4	39.9	-22.2	-104.1	Phase	-20.7
	0.3	0.5	0.5	0.5	0.4	0.5	0.3	0.3	Ampl.	0.4
	258.5	261.3	261.4	261.4	261.9	261.5	260.3	258.4	Sbd box	261.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.89511756758E+03		Apriori delay (usec)		3.89509462286E+03		Resid mbdelay (usec)		7.31971E-03	+/- 5.8E-05
Sband delay (usec)	3.89511042911E+03		Apriori clock (usec)		-1.7752867E+01		Resid sbdelay (usec)		1.58063E-02	+/- 4.6E-04
Phase delay (usec)	3.89509462220E+03		Apriori clockrate (us/s)		-1.2269999E-06		Resid phdelay (usec)		-6.66449E-07	+/- 2.0E-07
Delay rate (us/s)	-1.19278794057E+00		Apriori rate (us/s)		-1.19278800303E+00		Resid rate (us/s)		6.24523E-08	+/- 8.2E-10
Total phase (deg)	272.1		Apriori accel (us/s/s)		-6.47365586411E-06		Resid phase (deg)		-20.7	+/- 6.2

	RMS	Theor.	Amplitude	0.333 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	69.5	14.8	Search (2048X32)	0.319	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	100.0	25.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	51.3	8.7	Inc. seg. avg.	0.621	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	41.6	15.2	Inc. frq. avg.	0.427	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

b: az 293.2 el 60.3 pa 77.2 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 10842.344 145.376 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bu.W.30.1X1QEV

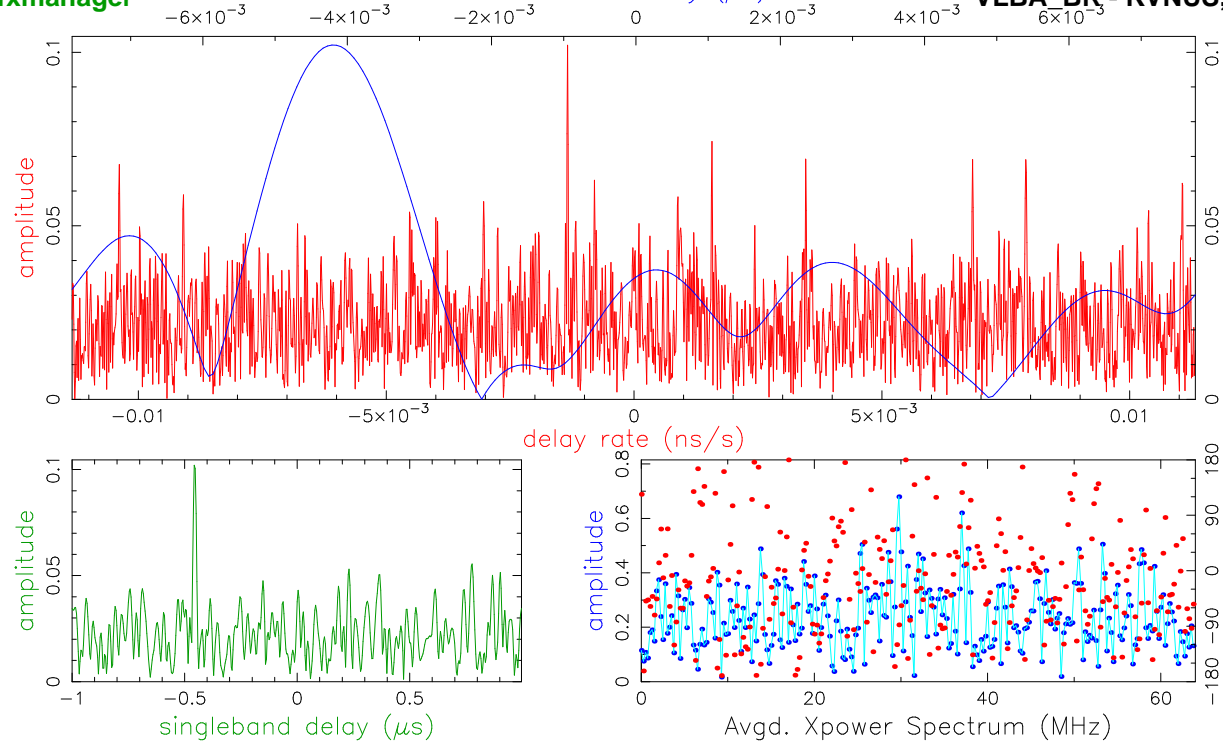
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, bu

VLBA_BR - KVNUS, fgroup W, pol LR

multiband delay (μ s)

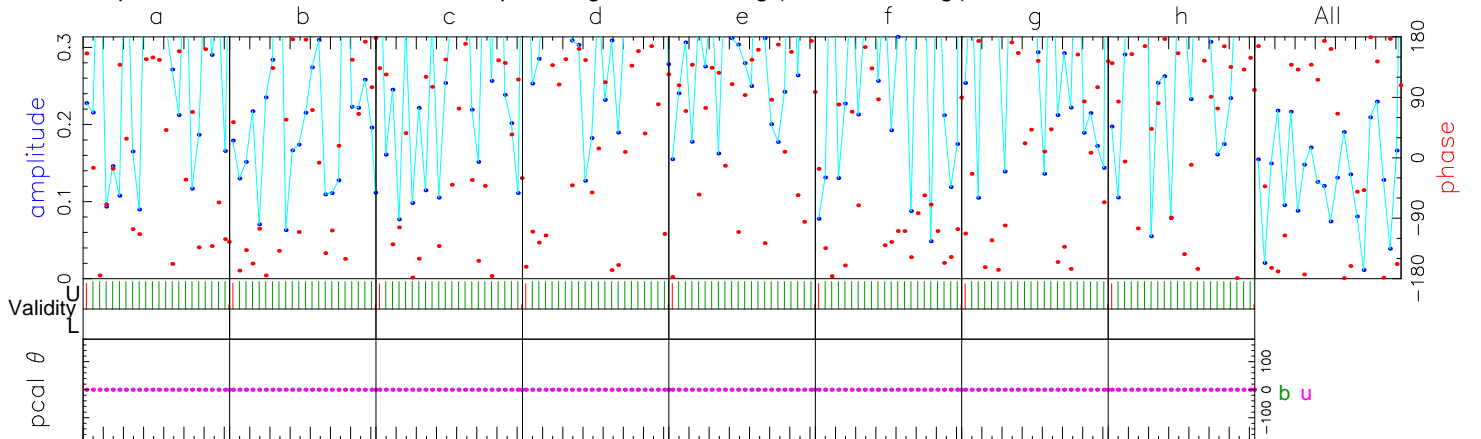


Fringe quality 0

SNR 5.8
 Int time 418.452
 Amp 0.105
 Phase 168.2
 PFD 7.8e-01
 Delays (us)
 SBD -0.455378
 MBD -0.004142
 Fringe rate (Hz)
 -0.115553
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

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

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

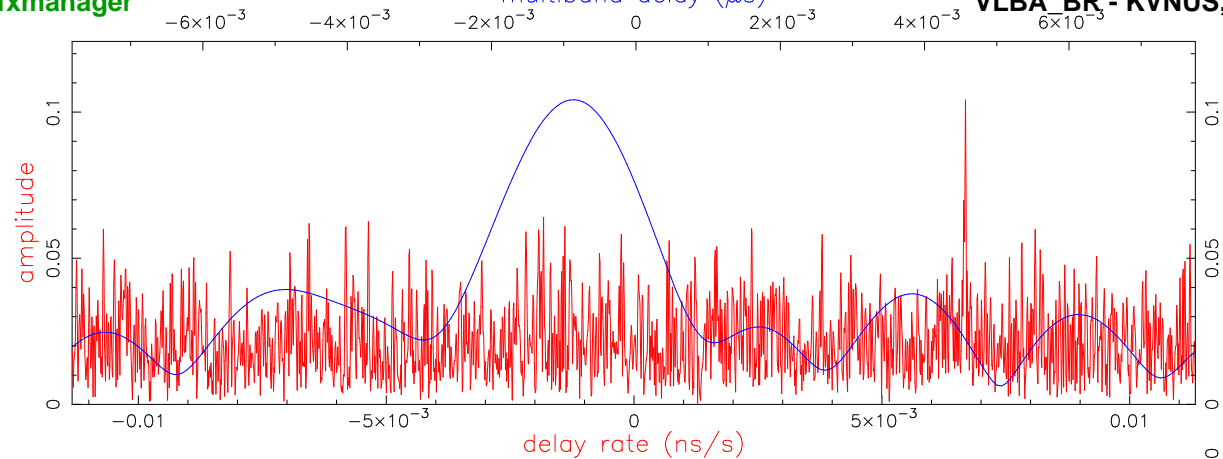


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
b	0	0	0	0	0	0	0	0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
b:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	178.3	-177.7	140.9	166.2	145.8	-139.7	169.4	153.1		
Sband delay (usec)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2		
Phase delay (usec)	386.9	256.6	426.1	415.7	298.7	252.4	66.5	140.3		
Delay rate (us/s)		-1.19278934448E+00								
Total phase (deg)			101.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode:	MANUAL	MANUAL								
Pcal rate:	0.000E+00	0.000E+00								
Bits/sample:	2x2									
Sample rate (MSamp/s):	128									
Data rate (Mb/s):	2048									
nlags:	256									
t_cohere	infinite									
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								

b: az 293.2 el 60.3 pa 77.2 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 10842.344 145.376 simultaneous interpolator

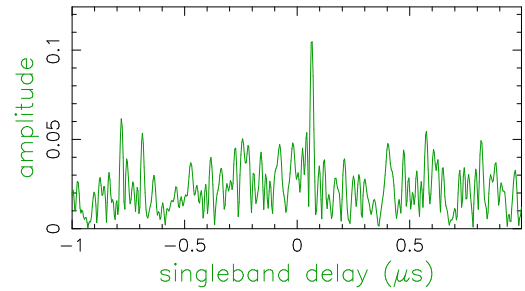
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bu.W.49.1X1QEV

multiband delay (μs)

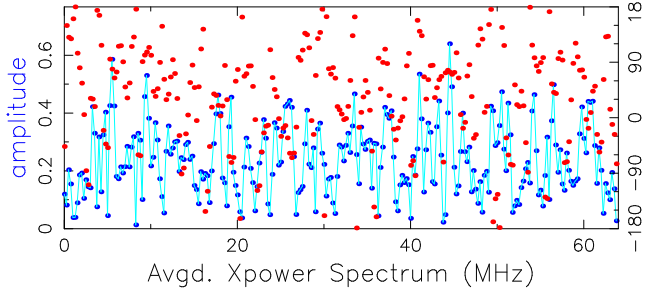


Fringe quality 0

SNR 6.0
Int time 418.452
Amp 0.124
Phase 81.5
PFD 4.1e-01
Delays (us)
SBD 0.064520
MBD -0.000818
Fringe rate (Hz)
0.576769
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

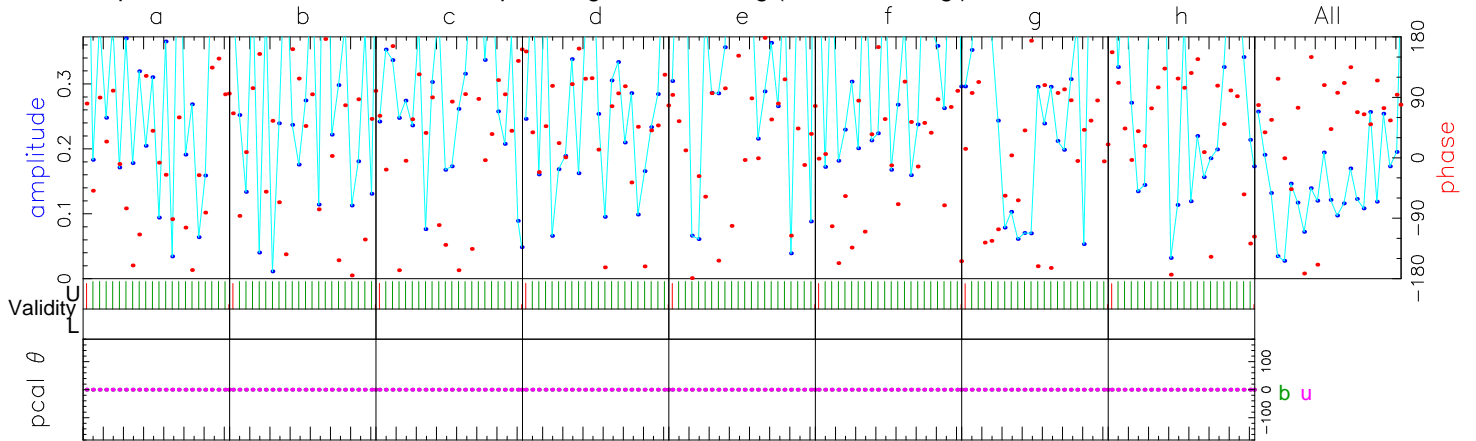


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133901
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'59.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	81.8	140.3	84.8	80.4	59.0	43.7	84.3	96.3	Phase	81.5
	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	Ampl.	0.1
	167.9	309.6	357.5	274.4	106.3	276.3	362.9	273.6	Sbd box	273.5
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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
b	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)	3.89515630509E+03		Apriori delay (usec)		3.89509462286E+03		Resid mbdelay (usec)		-8.17773E-04	+/- 1.8E-04
Sband delay (usec)	3.89515914311E+03		Apriori clock (usec)		-1.7752867E+01		Resid sbdelay (usec)		6.45202E-02	+/- 1.4E-03
Phase delay (usec)	3.89509462549E+03		Apriori clockrate (us/s)		-1.2269999E-06		Resid phdelay (usec)		2.62671E-06	+/- 6.2E-07
Delay rate (us/s)	-1.19278130731E+00		Apriori rate (us/s)		-1.19278800303E+00		Resid rate (us/s)		6.69572E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-6.47365586411E-06		Resid phase (deg)		81.5	+/- 19.1

	RMS	Theor.	Amplitude	0.124 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	55.1	45.8	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	71.6	80.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	30.6	27.0	Inc. seg. avg.	0.128	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.2	47.2	Inc. frq. avg.	0.117	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

b: az 293.2 el 60.3 pa 77.2 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 10842.344 145.376 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/bu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/bu.W.73.1X1QEV

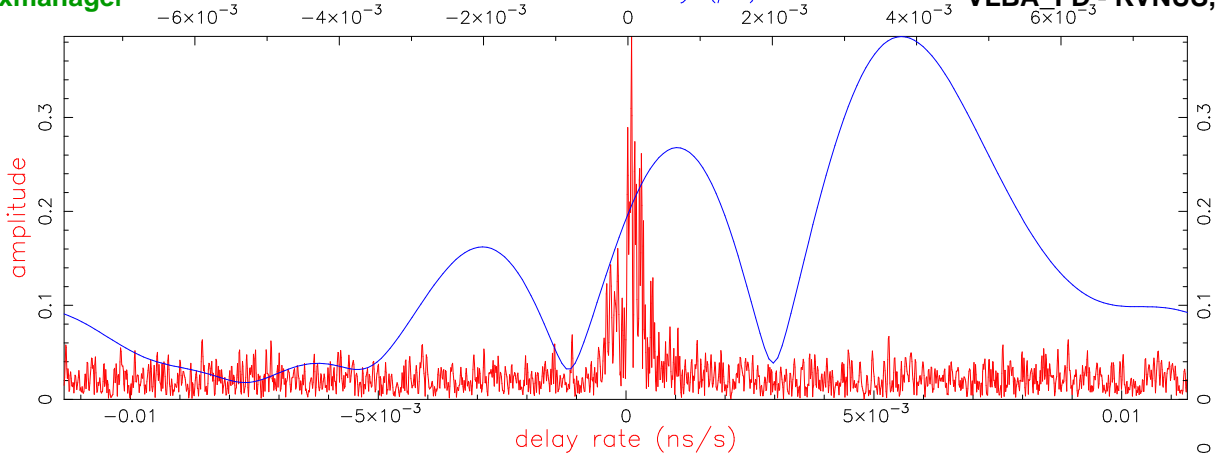
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fu

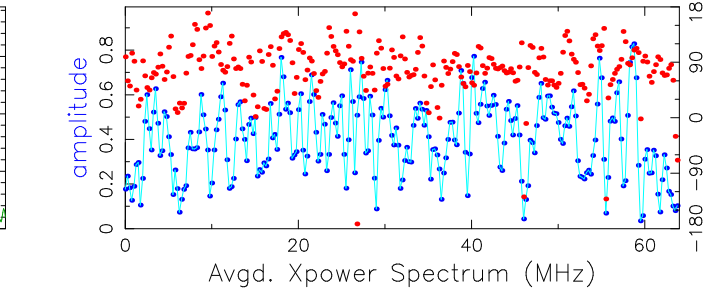
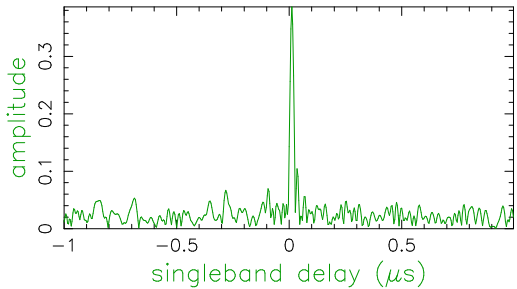
VLBA_FD- KVNUS, fgroup W, pol RR

multiband delay (μ s)



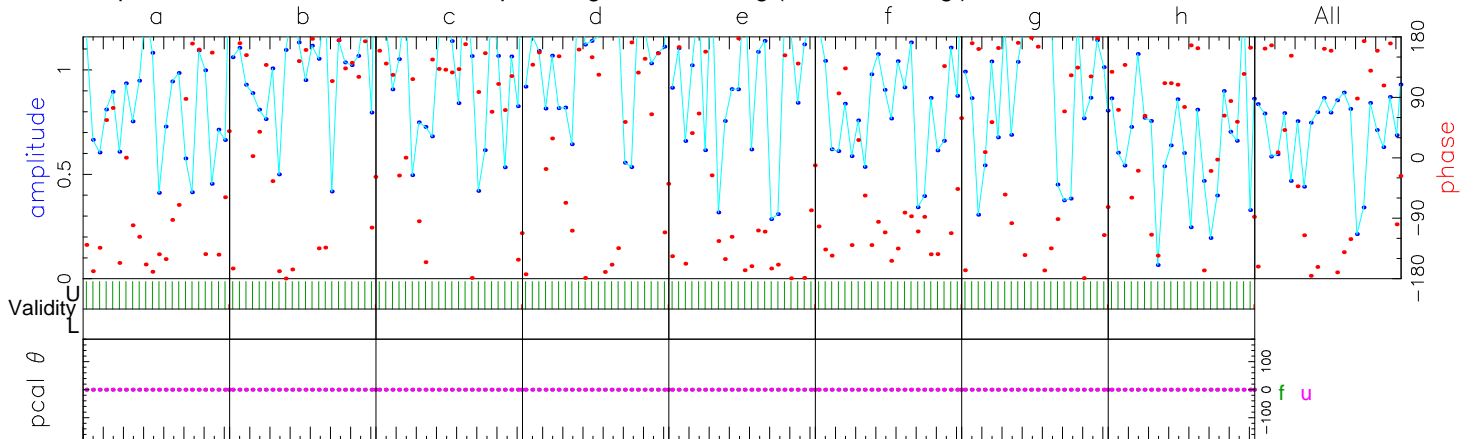
Fringe quality 8

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



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133908
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-143.5	172.2	135.9	165.3	-159.5	-117.9	-174.6	99.1	Phase	179.9
	0.4	0.6	0.6	0.6	0.4	0.5	0.5	0.3	Ampl.	0.5
	258.2	259.8	260.4	260.3	260.6	260.2	259.1	258.0	Sbd box	260.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-8.17520919759E+02			Apriori delay (usec)	-8.17540346167E+02			Resid mbdelay (usec)	3.80141E-03	+/- 5.0E-05
Sband delay (usec)	-8.17528350417E+02			Apriori clock (usec)	-4.5022850E+00			Resid sbdelay (usec)	1.19957E-02	+/- 4.0E-04
Phase delay (usec)	-8.17540340367E+02			Apriori clockrate (us/s)	-1.0670000E-06			Resid phdelay (usec)	5.79984E-06	+/- 1.7E-07
Delay rate (us/s)	-1.46232859472E+00			Apriori rate (us/s)	-1.46232870652E+00			Resid rate (us/s)	1.11798E-07	+/- 7.0E-10
Total phase (deg)		29.1		Apriori accel (us/s/s)	-1.95626858186E-06			Resid phase (deg)	179.9	+/- 5.3

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

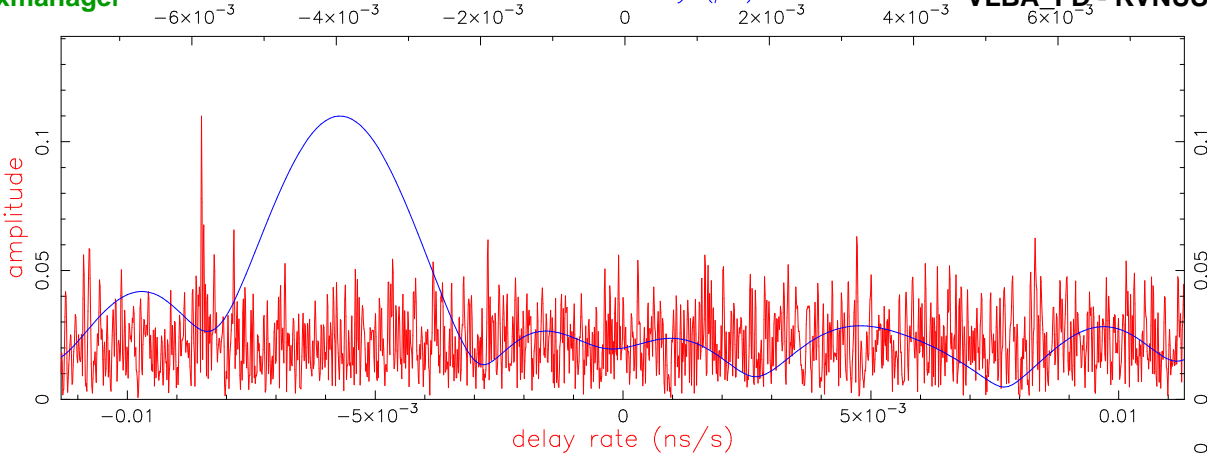
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fu

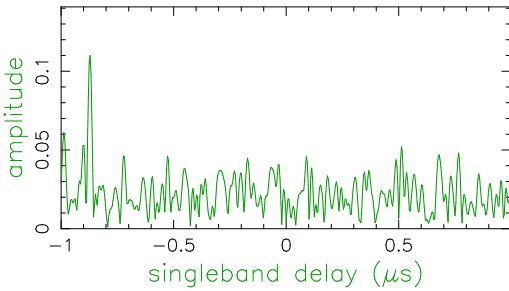
VLBA_FD - KVNUS, fgroup W, pol LR

multiband delay (μ s)

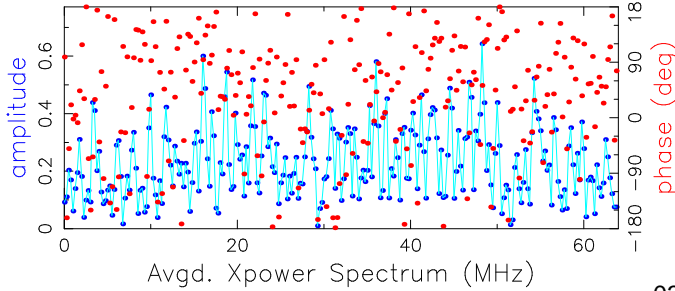


Fringe quality 0

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

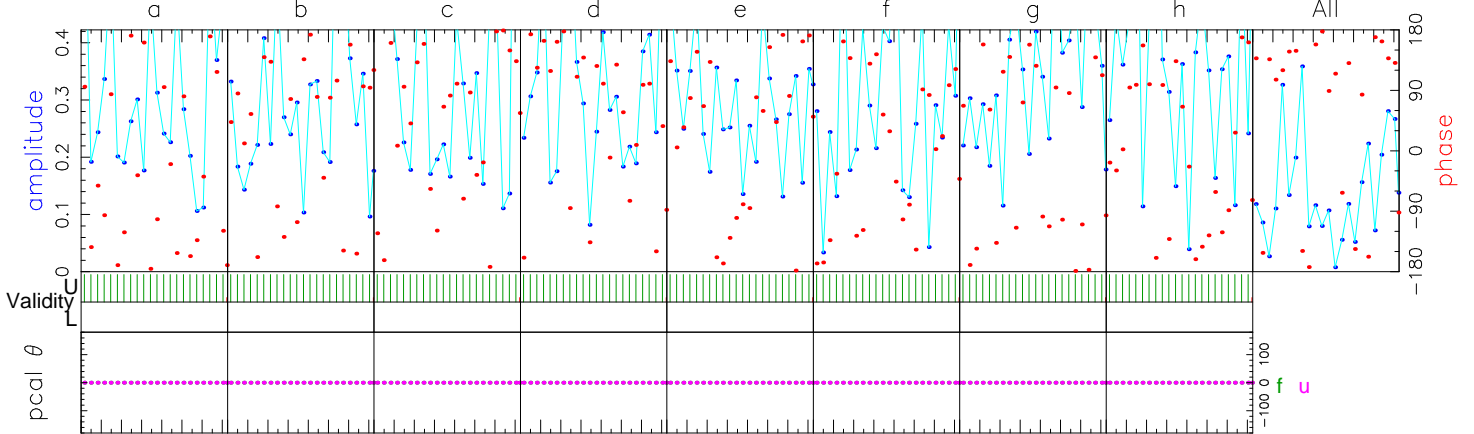


delay rate (ns/s)



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
	-178.2	139.4	154.8	132.2	133.2	131.3	161.3	172.4	Phase	152.8
	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1
	335.6	276.1	50.1	430.8	402.2	481.7	34.6	235.9	Sbd box	33.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

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

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

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

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

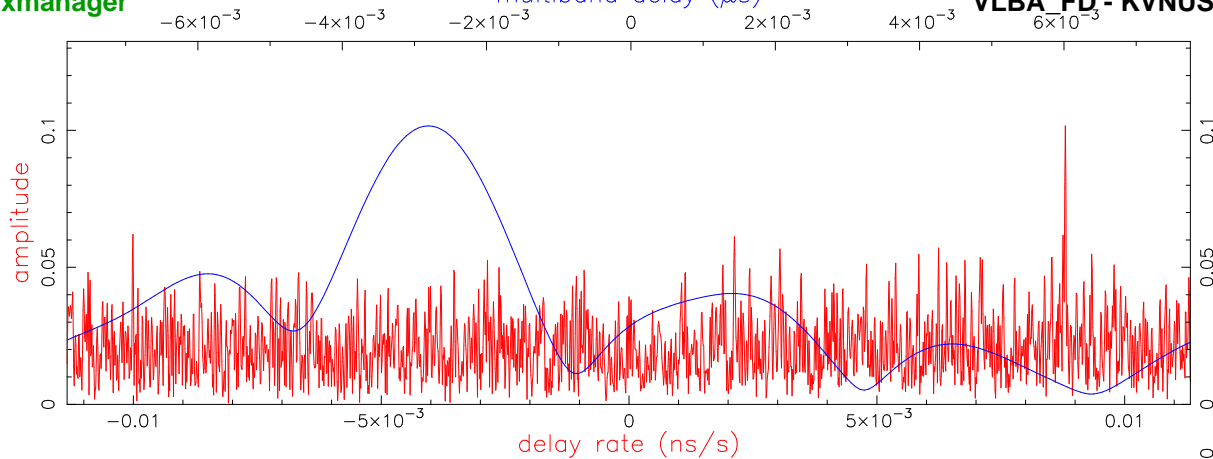
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, fu

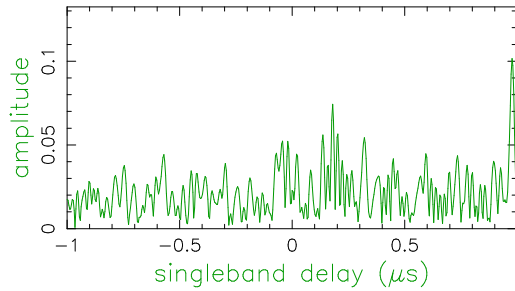
VLBA_FD - KVNUS, fgroup W, pol RL

multiband delay (μ s)

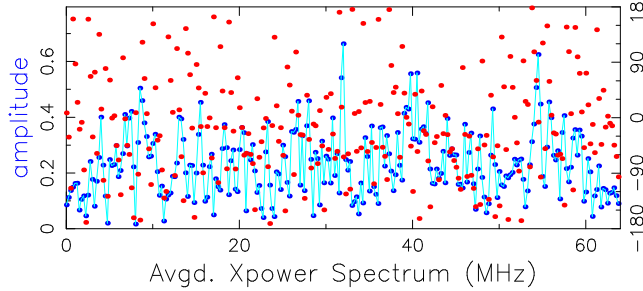


Fringe quality 0

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

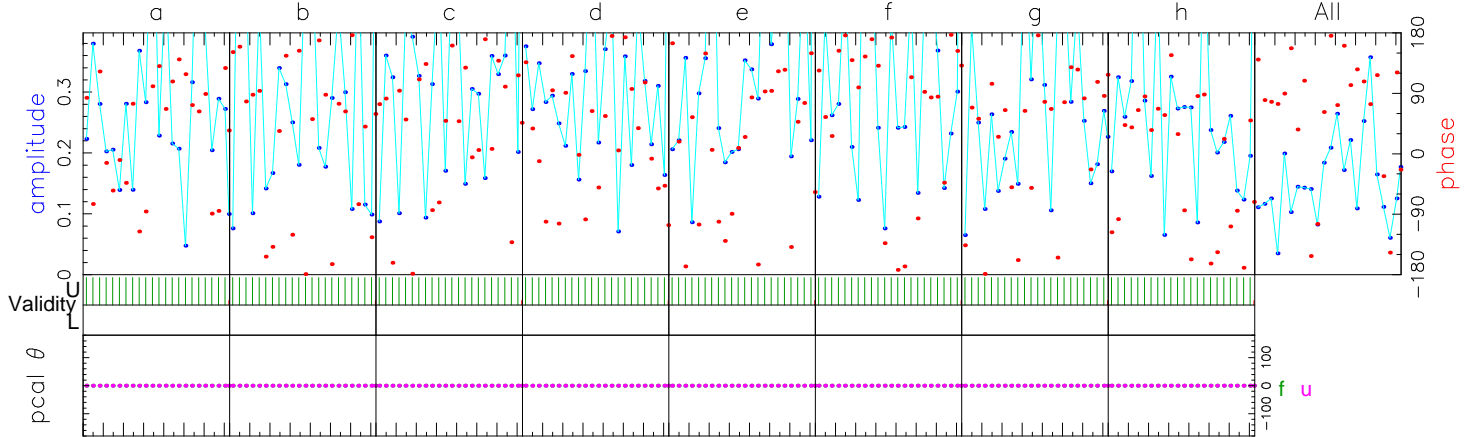


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133916
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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

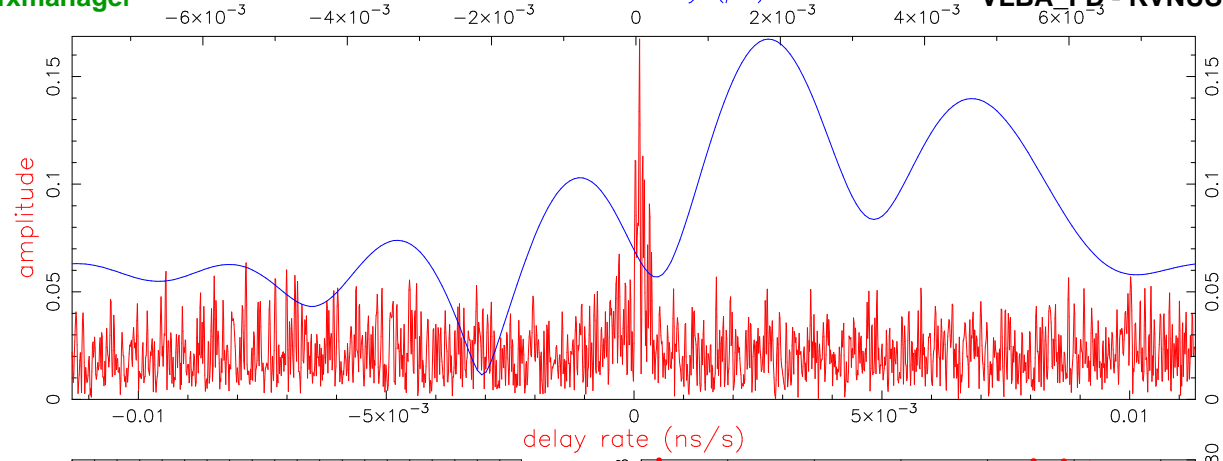


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	75.3	125.1	106.9	64.9	98.1	135.4	95.1	70.7	Phase	104.3
	0.1	0.2	0.1	0.1	0.1	0.3	0.2	0.1	Ampl.	0.1
	329.4	329.6	285.3	312.5	38.5	507.5	504.7	309.5	Sbd box	507.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-8.16558789666E+02			Apriori delay (usec)	-8.17540346167E+02			Resid mbdelay (usec)	-2.81850E-03	+/- 1.9E-04
Sband delay (usec)	-8.16562977917E+02			Apriori clock (usec)	-4.5022850E+00			Resid sbdelay (usec)	9.77368E-01	+/- 1.5E-03
Phase delay (usec)	-8.17540342803E+02			Apriori clockrate (us/s)	-1.0670000E-06			Resid phdelay (usec)	3.36387E-06	+/- 6.5E-07
Delay rate (us/s)	-1.46231989364E+00			Apriori rate (us/s)	-1.46232870652E+00			Resid rate (us/s)	8.81288E-06	+/- 2.7E-09
Total phase (deg)		-46.5		Apriori accel (us/s/s)	-1.95626858186E-06			Resid phase (deg)	104.3	+/- 20.1

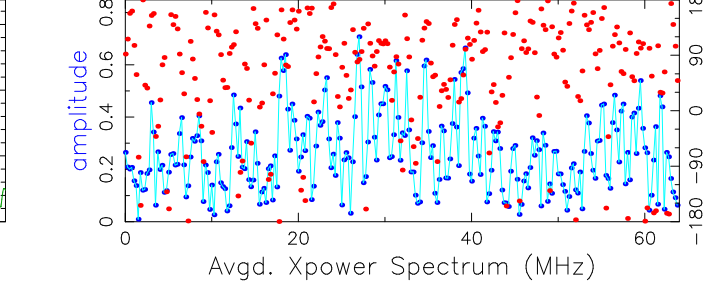
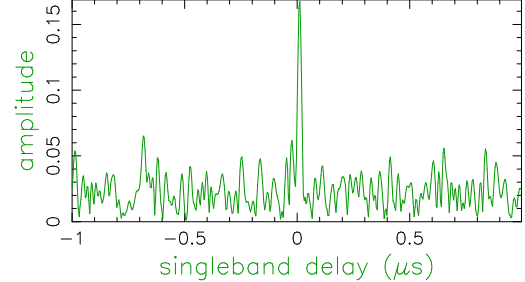
ph/seg (deg) 64.1 48.1 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 88.2 84.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 29.0 28.4 Inc. seg. avg. 0.150 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008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

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

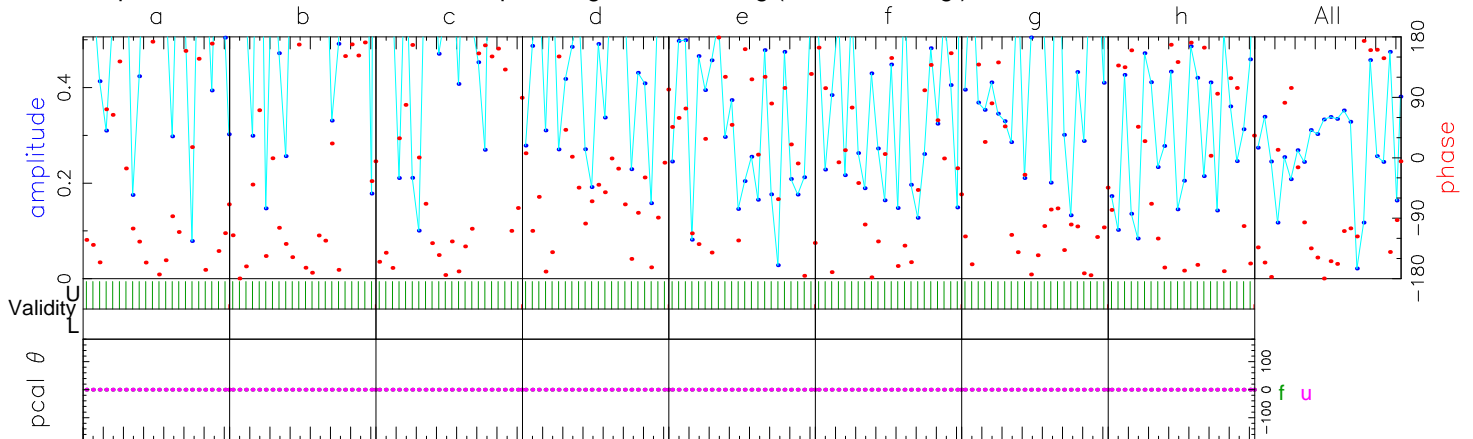
multiband delay (μ s)



Fringe quality 9
SNR 9.5
Int time 419.826
Amp 0.169
Phase -154.5
PFD 1.3e-12
Delays (us)
SBD 0.010533
MBD 0.001833
Fringe rate (Hz) 0.009705
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133905
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



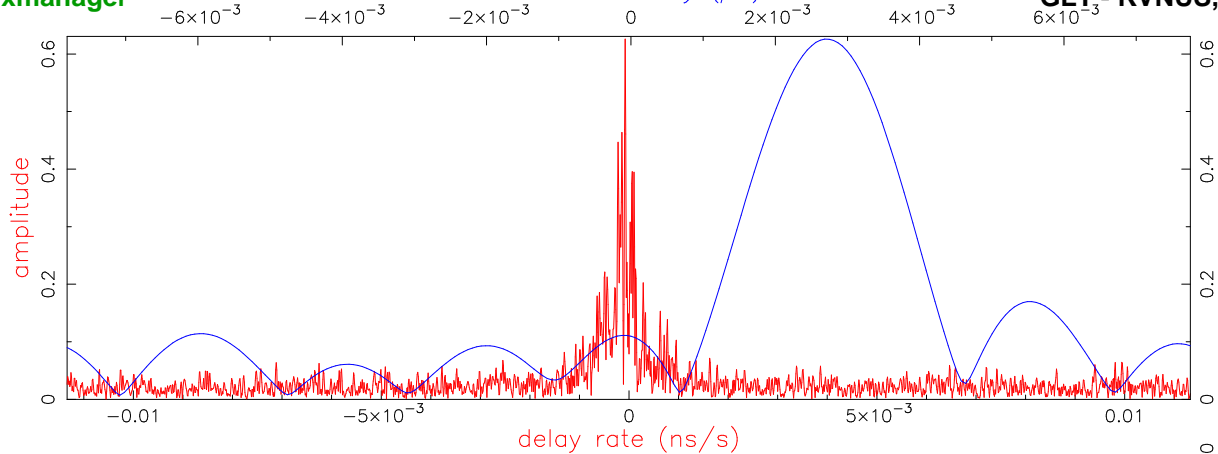
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-155.7	-167.3	-157.0	-53.6	110.3	149.7	-131.6	176.6	Phase	-154.5		
	0.3	0.4	0.4	0.2	0.1	0.1	0.2	0.1	Ampl.	0.2		
	257.9	259.7	259.4	260.2	108.4	286.9	260.0	220.8	Sbd box	259.7		
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used			
f	0	0	0	0	0	0	0	0	PC freqs			
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
u	1000	1000	1000	1000	1000	1000	1000	1000				
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Chan ids			
									Tracks			
Group delay (usec)(sbd)	-8.17522888071E+02		Apriori delay (usec)		-8.17540346167E+02		Resid mbdelay (usec)		1.83310E-03	+/- 1.1E-04		
Sband delay (usec)	-8.17529813667E+02		Apriori clock (usec)		-4.5022850E+00		Resid sbdelay (usec)		1.05325E-02	+/- 9.1E-04		
Phase delay (usec)	-8.17540351149E+02		Apriori clockrate (us/s)		-1.0670000E-06		Resid phdelay (usec)		-4.98162E-06	+/- 3.9E-07		
Delay rate (us/s)	-1.46232859385E+00		Apriori rate (us/s)		-1.46232870652E+00		Resid rate (us/s)		1.12671E-07	+/- 1.6E-09		
Total phase (deg)	-305.3		Apriori accel (us/s/s)		-1.95626858186E-06		Resid phase (deg)		-154.5	+/- 12.1		
	RMS	Theor.	Amplitude	0.169 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	67.3	29.1	Search (2048X32)	0.164		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	86.9	50.7	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	63.1	17.1	Inc. seg. avg.	0.242		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011	0.011	
amp/frq (%)	74.3	29.9	Inc. frq. avg.	0.220		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

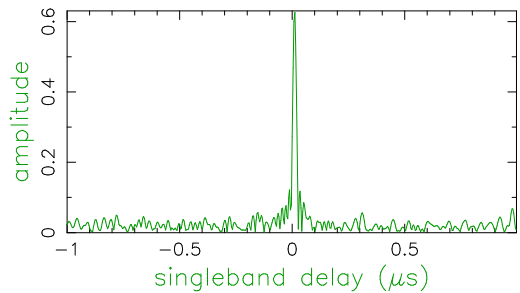
f: az 313.0 el 40.5 pa 88.9 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 13309.604 -756.914 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/fu...1X1QEV Output file: /Exps/c211c/v1/1234/No0120/fu.W.84.1X1QEV

multiband delay (μ s)

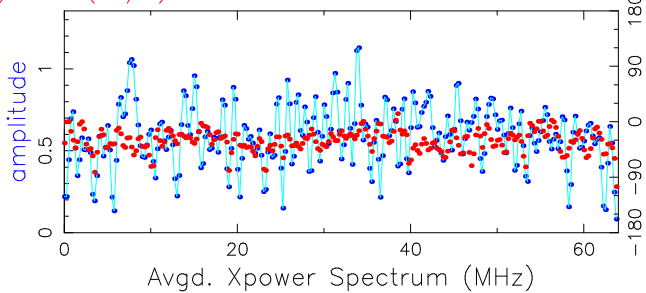


Fringe quality 7

SNR 35.3
Int time 419.824
Amp 0.631
Phase 61.3
PFD 0.0e+00
Delays (us)
SBD 0.010637
MBD 0.002713
Fringe rate (Hz)
-0.007013
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

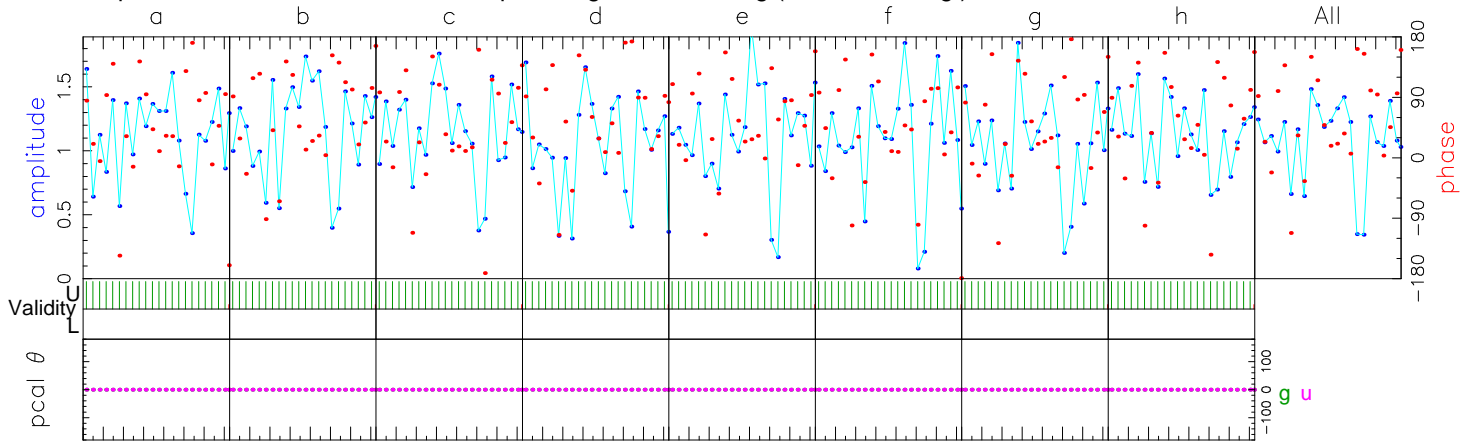


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133909
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	57.2	62.8	63.2	70.8	55.3	60.7	51.5	68.1		
Sband delay (usec)	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6		
Phase delay (usec)	259.7	259.8	259.5	259.8	259.8	259.6	260.0	259.6		
Delay rate (us/s)										
Total phase (deg)			230.5							
Apriori delay (usec)	1.15664517212E+03				1.15662683388E+03				2.71325E-03	+/- 3.1E-05
Apriori clock (usec)	1.15663747038E+03				-1.4324495E+01				1.06365E-02	+/- 2.4E-04
Apriori clockrate (us/s)	1.15662683585E+03				-1.0549999E-06				1.97603E-06	+/- 1.0E-07
Apriori rate (us/s)	-9.37839965041E-01				-9.37839883627E-01				-8.14133E-08	+/- 4.3E-10
Apriori accel (us/s/s)					2.81578622818E-05				61.3	+/- 3.2
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode:	MANUAL	MANUAL			MANUAL					
Pcal rate:	0.000E+00	0.000E+00			0.000E+00					
Bits/sample:	2x2									
Sample rate (MSamp/s):	128									
Data rate (Mb/s):	2048									
PC period (AP's)	5	5								
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								

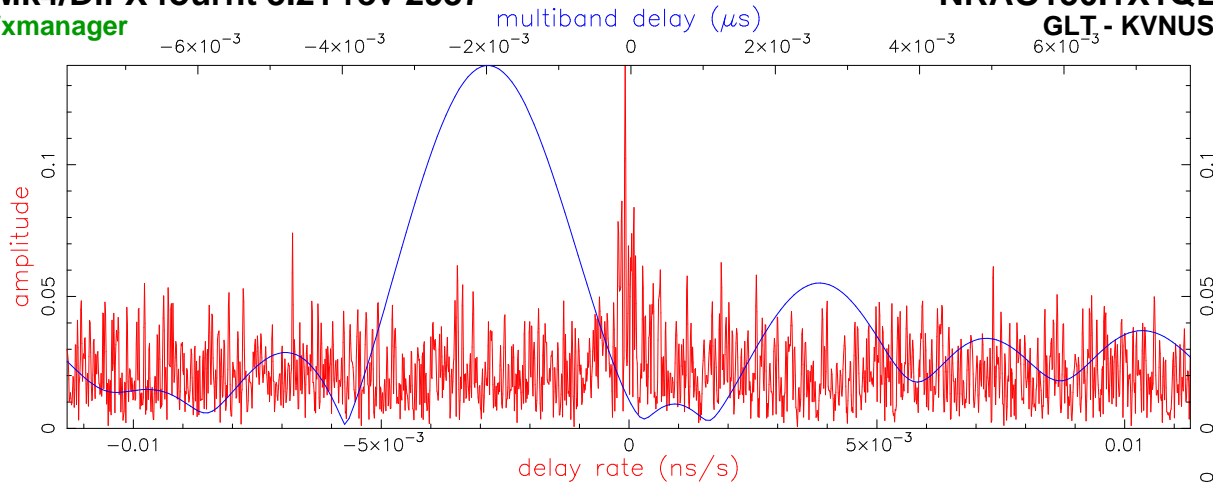
ph/seg (deg) 68.0 7.8 Search (2048X32) 0.590 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 87.3 13.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 7.0 4.6 Inc. seg. avg. 1.076 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 6.6 8.0 Inc. frq. avg. 0.627 Sample rate (MSamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
g: az 292.5 el 47.5 pa 19.9 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 8593.672 4810.188 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/gu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/gu.W.110.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

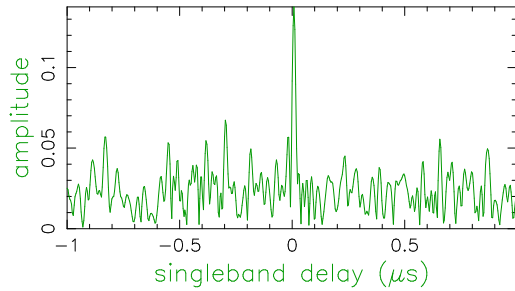
NRAO150.1X1QEV, No0120, gu

GLT - KVNUS, fgroup W, pol LR

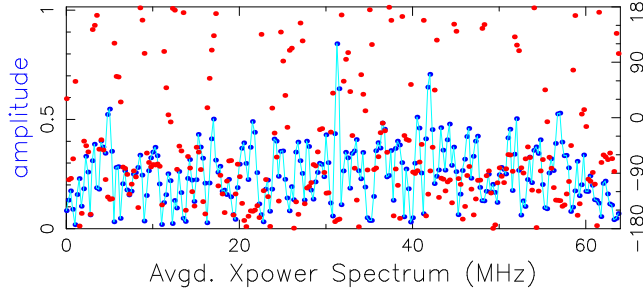


Fringe quality 9

SNR 7.7
 Int time 419.824
 Amp 0.138
 Phase -1.1
 PFD 4.0e-06
 Delays (us)
 SBD 0.007610
 MBD -0.001981
 Fringe rate (Hz)
 -0.007037
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

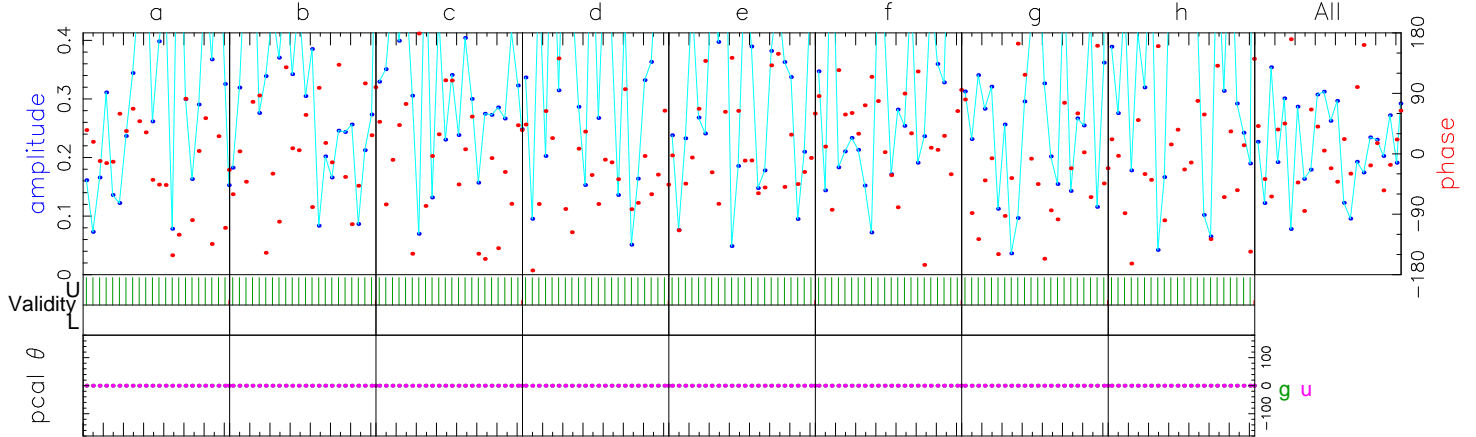


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133913
 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

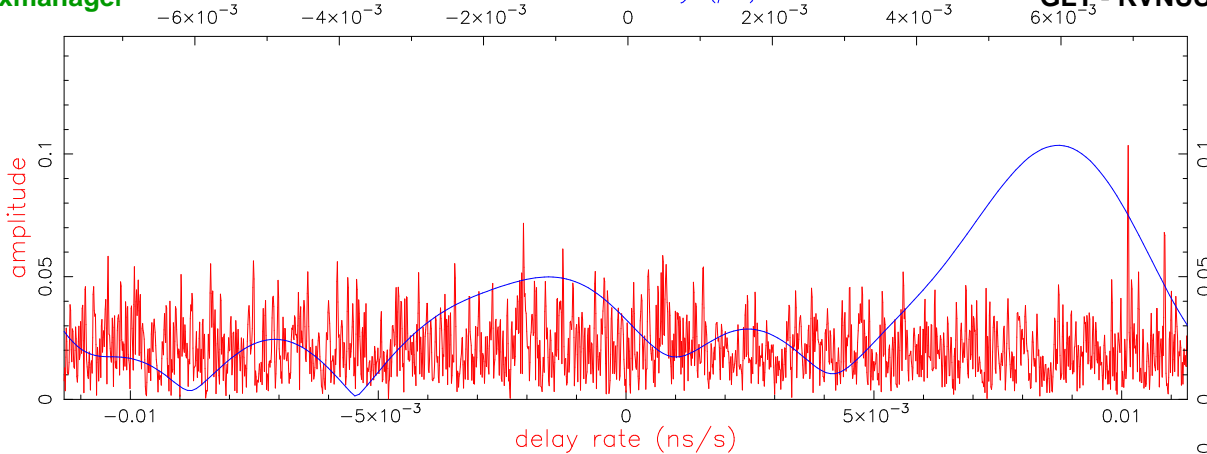


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-0.1	6.5	1.1	-20.7	3.3	27.3	-38.4	2.8	Phase	-1.1
	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	Ampl.	0.1
	23.6	97.3	279.0	259.6	399.5	258.0	131.0	159.3	Sbd box	258.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
g	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)	1.15664047747E+03		Apriori delay (usec)		1.15662683388E+03		Resid mbdelay (usec)		-1.98141E-03	+/- 1.4E-04
Sband delay (usec)	1.15663444413E+03		Apriori clock (usec)		-1.4324495E+01		Resid sbdelay (usec)		7.61025E-03	+/- 1.1E-03
Phase delay (usec)	1.15662683384E+03		Apriori clockrate (us/s)		-1.0549999E-06		Resid phdelay (usec)		-3.61929E-08	+/- 4.8E-07
Delay rate (us/s)	-9.37839965315E-01		Apriori rate (us/s)		-9.37839883627E-01		Resid rate (us/s)		-8.16875E-08	+/- 2.0E-09
Total phase (deg)	168.1		Apriori accel (us/s/s)		2.81578622818E-05		Resid phase (deg)		-1.1	+/- 14.9

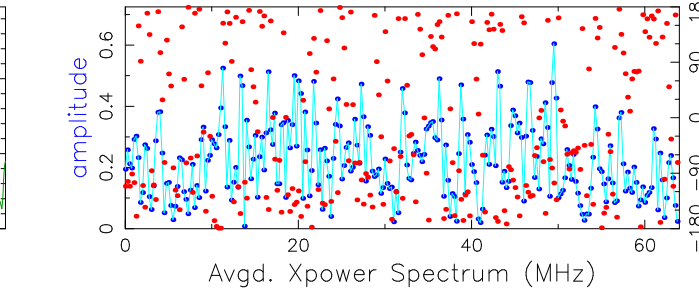
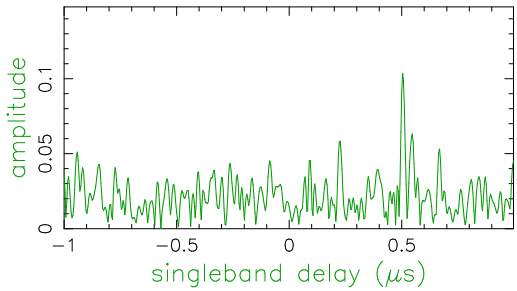
	RMS	Theor.	Amplitude	0.138 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	67.1	35.6	Search (2048X32)	0.132	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	79.7	62.2	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008	
ph/frq (deg)	21.1	21.0	Inc. seg. avg.	0.183	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011	
amp/frq (%)	24.8	36.7	Inc. frq. avg.	0.135	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00	
g: az 292.5 el 47.5 pa 19.9	u: az 50.0 el 42.1 pa -83.3		u, v (fr/asec) 8593.672 4810.188		nlags: 256 t_cohere infinite		
Control file: cf_1234_gmva							simultaneous interpolator
Input file: /Exps/c211c/v1/1234/No0120/gu..1X1QEV							
Output file: /Exps/c211c/v1/1234/No0120/gu.W.129.1X1QEV							

multiband delay (μs)

Fringe quality 0

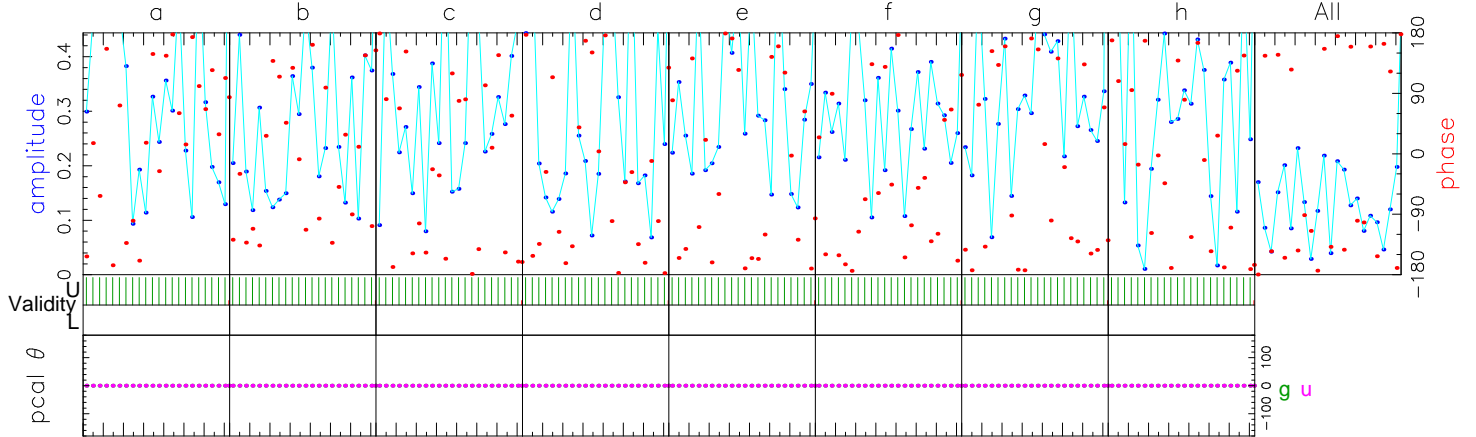


SNR 5.8
Int time 419.824
Amp 0.148
Phase -171.1
PFD 7.8e-01
Delays (us)
SBD 0.504699
MBD 0.005923
Fringe rate (Hz)
0.873726
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



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°57'50.161694"

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
	119.6	-127.8	170.9	-137.3	-177.0	-122.2	-178.3	156.1	Phase	-171.1
	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	Ampl.	0.2
	427.7	72.8	468.4	225.0	91.5	472.5	385.0	440.2	Sbd box	386.2
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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
g	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)	1.15713275650E+03		Apriori delay (usec)		1.15662683388E+03		Resid mbdelay (usec)		5.92262E-03	+/- 1.9E-04
Sband delay (usec)	1.15713153313E+03		Apriori clock (usec)		-1.4324495E+01		Resid sbdelay (usec)		5.04699E-01	+/- 1.5E-03
Phase delay (usec)	1.15662682836E+03		Apriori clockrate (us/s)		-1.0549999E-06		Resid phdelay (usec)		-5.51830E-06	+/- 6.4E-07
Delay rate (us/s)	-9.37829740532E-01		Apriori rate (us/s)		-9.37839883627E-01		Resid rate (us/s)		1.01431E-05	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		2.81578622818E-05		Resid phase (deg)		-171.1	+/- 19.7

	RMS	Theor.	Amplitude	0.148 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	42.0	47.2	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	69.0	82.4	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	44.1	27.9	Inc. seg. avg.	0.139	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	37.5	48.6	Inc. frq. avg.	0.159	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

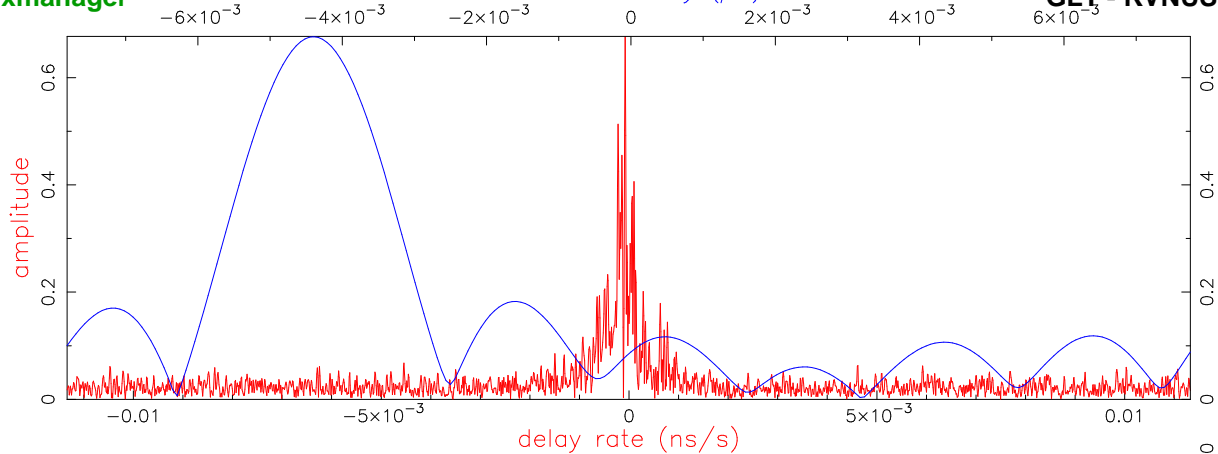
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, gu

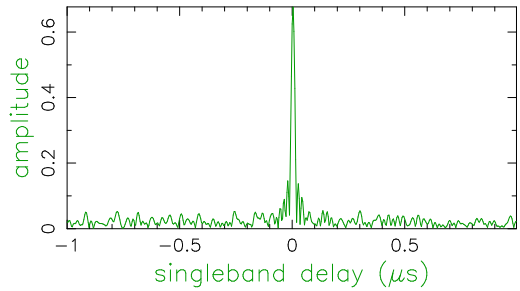
GLT - KVNUS, fgroup W, pol LL

multiband delay (μ s)

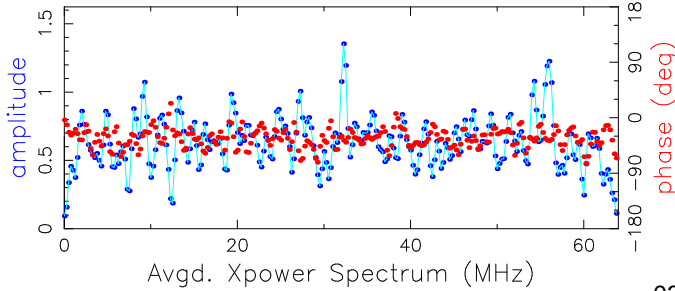


Fringe quality 7

SNR 37.9
 Int time 419.824
 Amp 0.677
 Phase 58.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.003547
 MBD -0.004399
 Fringe rate (Hz)
 -0.007006
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

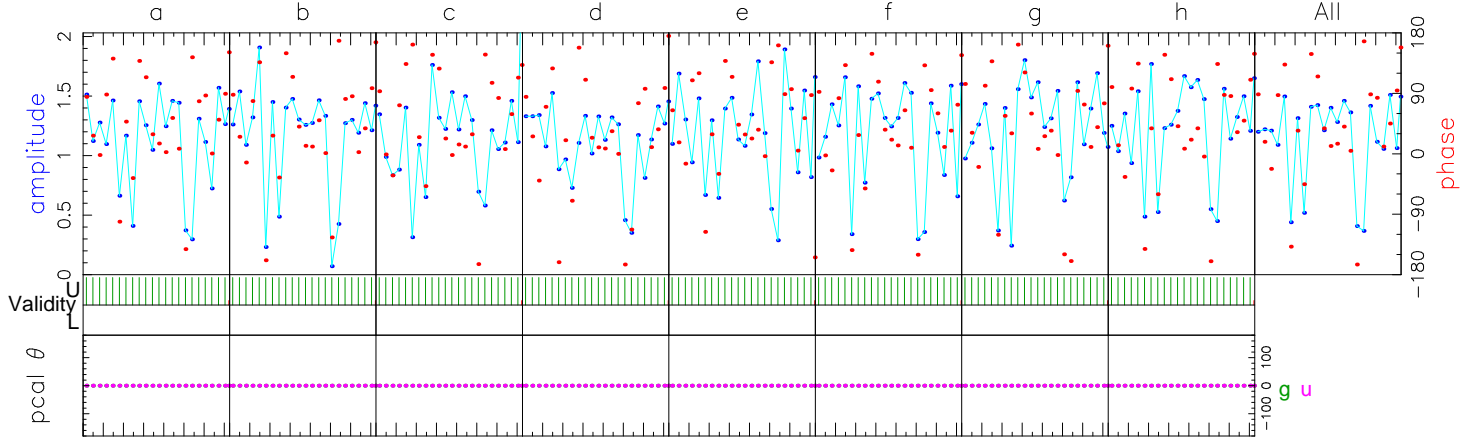


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	58.9	58.3	62.4	50.9	58.5	53.9	62.5	58.5	Phase	58.1
	0.7	0.7	0.6	0.6	0.7	0.7	0.7	0.7	Ampl.	0.7
	258.0	257.8	257.8	257.9	257.9	257.9	258.1	257.7	Sbd box	257.9
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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.15663805975E+03		Apriori delay (usec)		1.15662683388E+03		Resid mbdelay (usec)		-4.39913E-03	+/- 2.9E-05
Sband delay (usec)	1.15663038138E+03		Apriori clock (usec)		-1.4324495E+01		Resid sbdelay (usec)		3.54750E-03	+/- 2.3E-04
Phase delay (usec)	1.15662683575E+03		Apriori clockrate (us/s)		-1.0549999E-06		Resid phdelay (usec)		1.87303E-06	+/- 9.7E-08
Delay rate (us/s)	-9.37839964957E-01		Apriori rate (us/s)		-9.37839883627E-01		Resid rate (us/s)		-8.13297E-08	+/- 4.0E-10
Total phase (deg)	227.3		Apriori accel (us/s/s)		2.81578622818E-05		Resid phase (deg)		58.1	+/- 3.0

	RMS	Theor.	Amplitude	0.677 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	70.5	7.2	Search (2048X32)	0.651	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/seg (%)	86.2	12.6	Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	4.3	4.3	Inc. seg. avg.	1.129	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
amp/frq (%)	9.2	7.5	Inc. frq. avg.	0.676				

g: az 292.5 el 47.5 pa 19.9 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 8593.672 4810.188 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/gu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/gu.W.87.1X1QEV

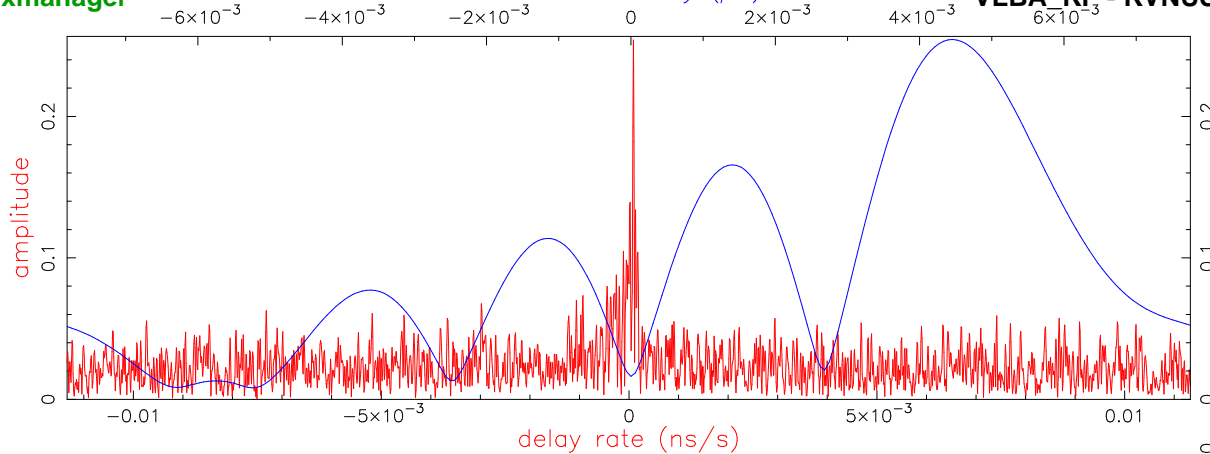
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ku

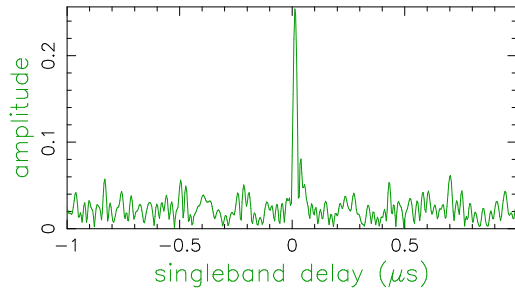
VLBA_KP - KVNUS, fgroup W, pol LL

multiband delay (μ s)

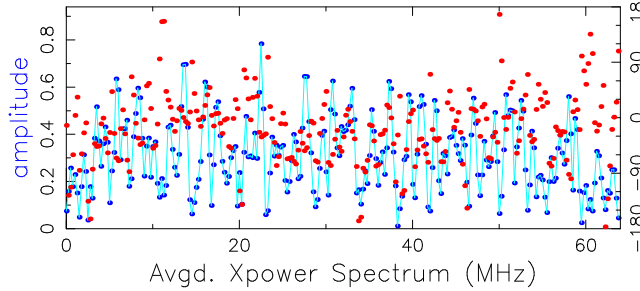


Fringe quality 8

SNR 14.4
 Int time 419.817
 Amp 0.257
 Phase 79.5
 PFD 4.6e-38
 Delays (us)
 SBD 0.013055
 MBD 0.004520
 Fringe rate (Hz) 0.007918
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

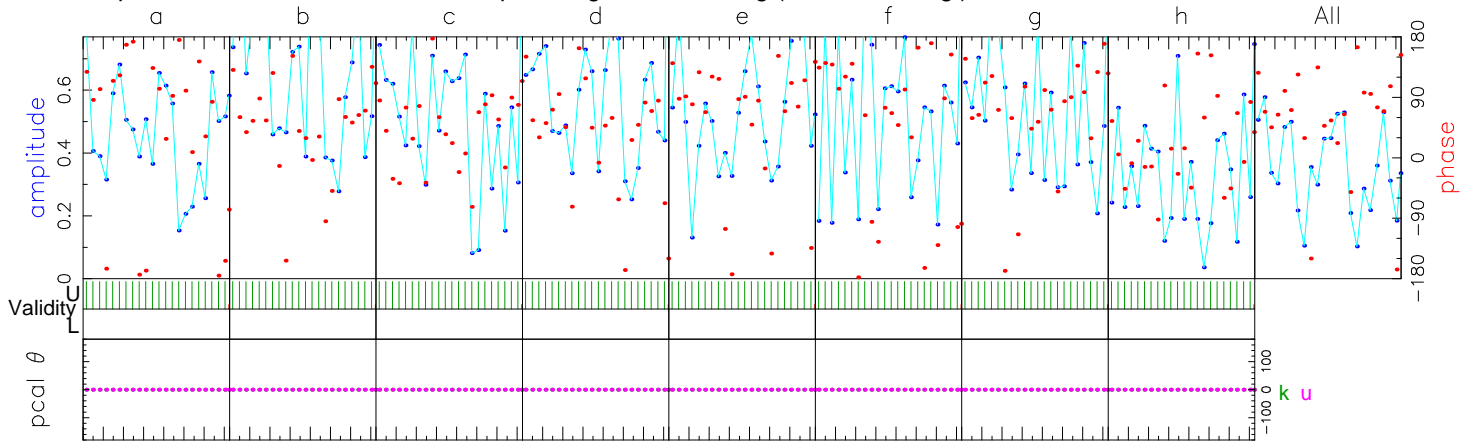


delay rate (ns/s)



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

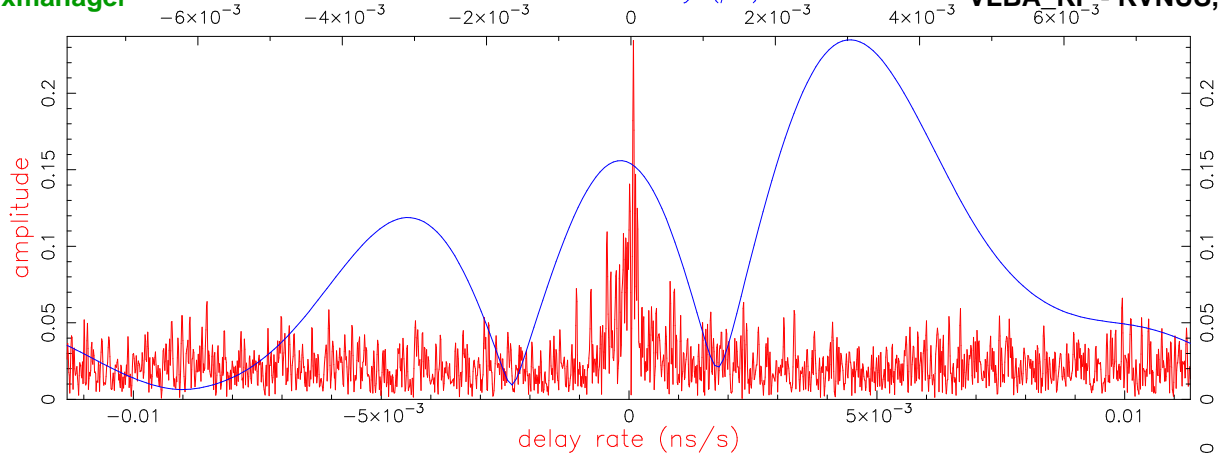
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



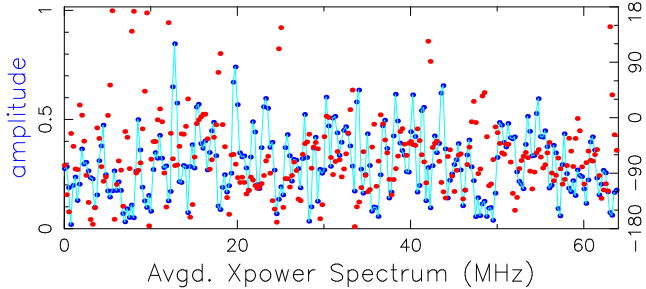
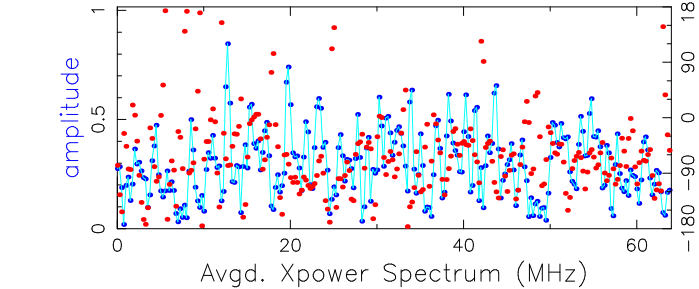
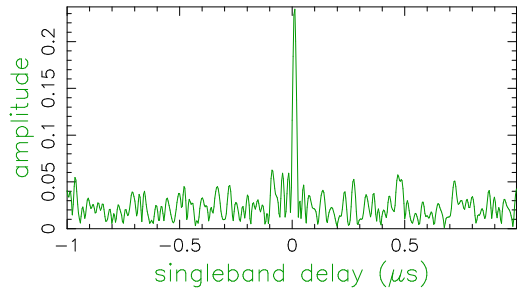
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	128.7	60.0	42.3	63.2	99.7	121.6	95.6	-5.9	Phase	79.5
	0.3	0.4	0.3	0.3	0.4	0.3	0.4	0.2	Ampl.	0.3
	258.7	259.7	260.6	261.1	260.0	261.5	259.8	257.5	Sbd box	260.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ku	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	7.33156649292E+02		Apriori delay (usec)		7.33136504403E+02		Resid mbdelay (usec)		4.51989E-03	+/- 7.6E-05
Sband delay (usec)	7.33149559903E+02		Apriori clock (usec)		-1.4444256E+01		Resid sbdelay (usec)		1.30555E-02	+/- 6.0E-04
Phase delay (usec)	7.33136506966E+02		Apriori clockrate (us/s)		-1.1270000E-06		Resid phdelay (usec)		2.56317E-06	+/- 2.6E-07
Delay rate (us/s)	-1.39540738284E+00		Apriori rate (us/s)		-1.39540747476E+00		Resid rate (us/s)		9.19247E-08	+/- 1.1E-09
Total phase (deg)	255.6		Apriori accel (us/s/s)		-8.52617324538E-06		Resid phase (deg)		79.5	+/- 8.0

ph/seg (deg) 57.6 19.1 Search (2048X32) 0.247 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 67.3 33.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 48.6 11.3 Inc. seg. avg. 0.337 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.4 19.7 Inc. frq. avg. 0.309 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 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 12685.696 -1277.065 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ku..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ku.W.151.1X1QEV

multiband delay (μ s)

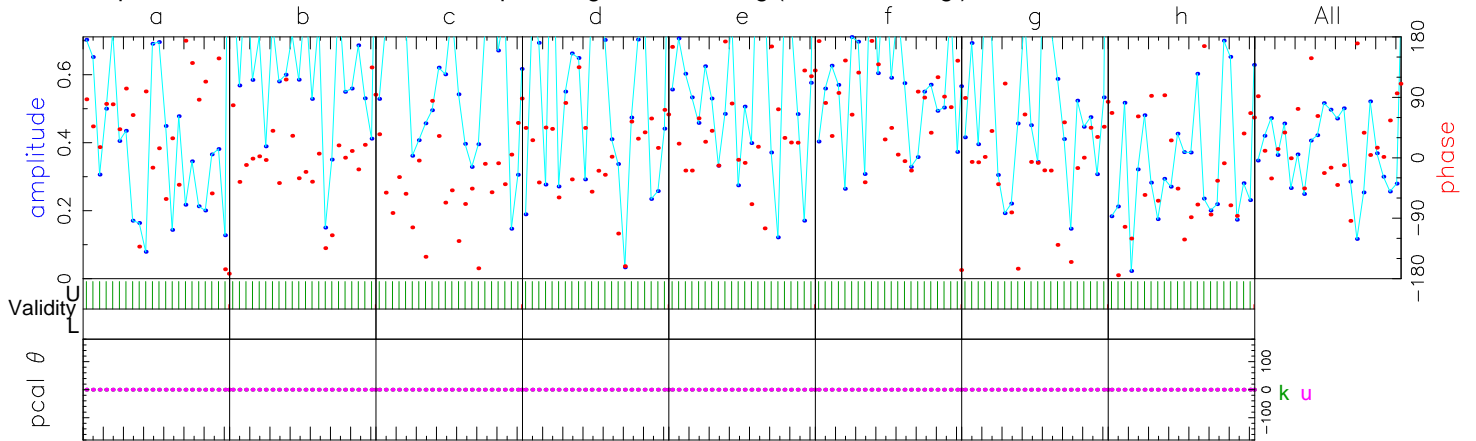


Fringe quality 9
SNR 13.3
Int time 419.816
Amp 0.237
Phase 13.3
PFD 1.5e-31
Delays (us)
SBD 0.010332
MBD 0.002960
Fringe rate (Hz) 0.007840
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133921
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

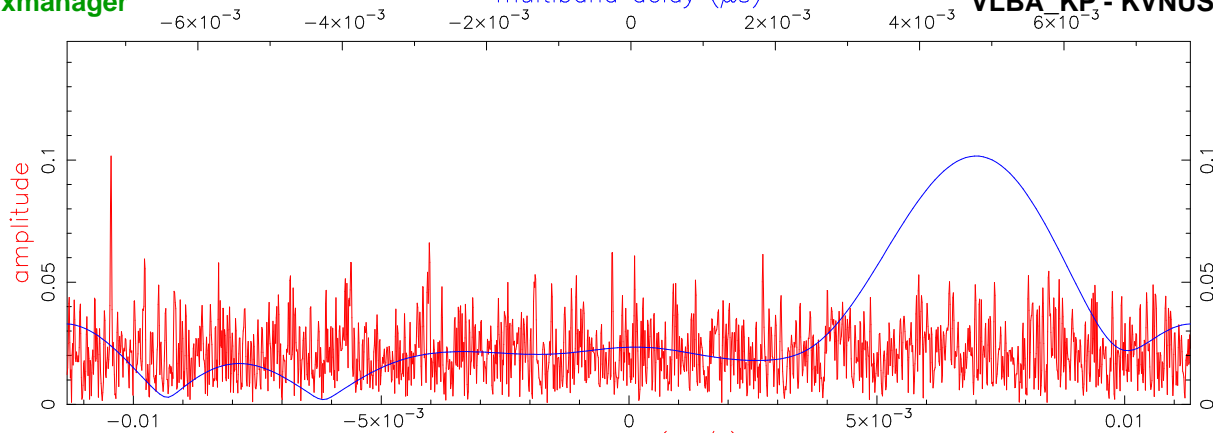
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	55.2	5.8	-42.1	16.5	27.5	78.1	11.2	-47.1	Phase	13.3
	0.2	0.4	0.4	0.3	0.3	0.3	0.3	0.1	Ampl.	0.3
	257.9	259.6	260.0	260.6	260.0	259.4	259.1	257.1	Sbd box	259.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ku	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	7.33139464167E+02		Apriori delay (usec)		7.33136504403E+02		Resid mbdelay (usec)		2.95976E-03	+/- 8.2E-05
Sband delay (usec)	7.33146836903E+02		Apriori clock (usec)		-1.4444256E+01		Resid sbdelay (usec)		1.03325E-02	+/- 6.5E-04
Phase delay (usec)	7.33136504832E+02		Apriori clockrate (us/s)		-1.1270000E-06		Resid phdelay (usec)		4.29600E-07	+/- 2.8E-07
Delay rate (us/s)	-1.39540738375E+00		Apriori rate (us/s)		-1.39540747476E+00		Resid rate (us/s)		9.10149E-08	+/- 1.1E-09
Total phase (deg)	189.5		Apriori accel (us/s/s)		-8.52617324538E-06		Resid phase (deg)		13.3	+/- 8.6

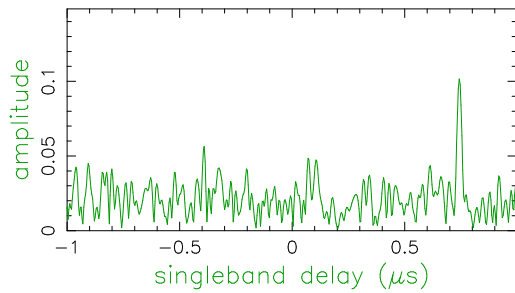
ph/seg (deg) 63.3 20.7 Search (2048X32) 0.230 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 73.6 36.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 46.5 12.2 Inc. seg. avg. 0.350 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 46.4 21.3 Inc. frq. avg. 0.287 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 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 12685.696 -1277.065 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ku..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ku.W.160.1X1QEV

multiband delay (μ s)

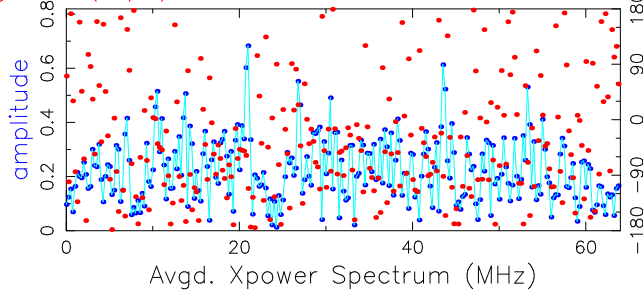


Fringe quality 0

SNR 5.7
 Int time 419.817
 Amp 0.149
 Phase 145.6
 PFD 9.5e-01
 Delays (us)
 SBD 0.742714
 MBD 0.004773
 Fringe rate (Hz)
 -0.901186
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

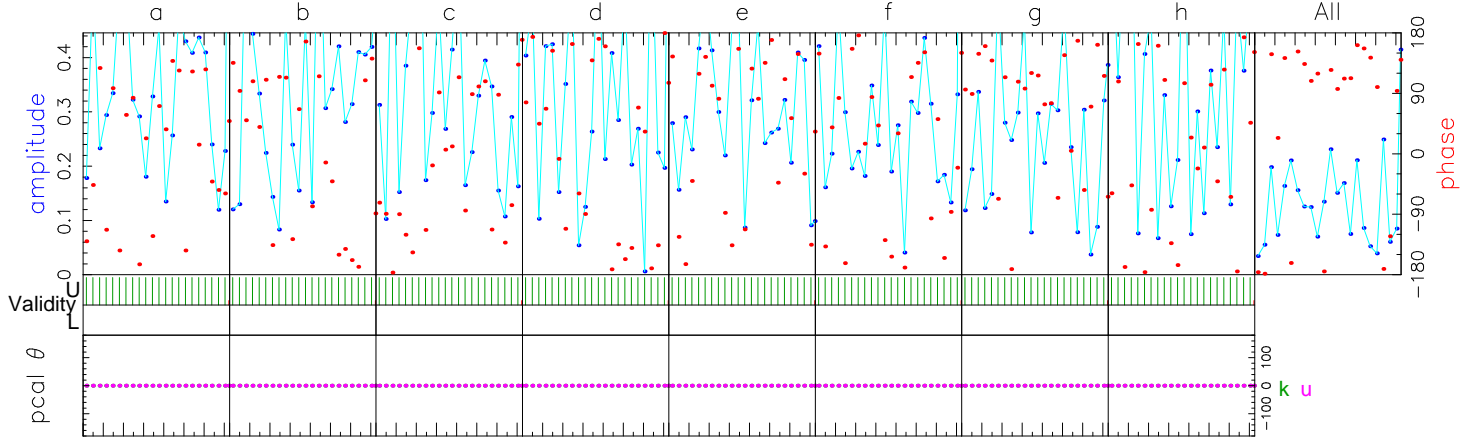


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	0	0	0	0	0	0	0	0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
k:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
ku	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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	7.33875652374E+02					7.33136504403E+02			4.77297E-03	+/- 1.9E-04
Sband delay (usec)	7.33879218653E+02					-1.4444256E+01			7.42714E-01	+/- 1.5E-03
Phase delay (usec)	7.33136509097E+02					-1.1270000E-06			4.69423E-06	+/- 6.5E-07
Delay rate (us/s)	-1.39541793664E+00					-1.39540747476E+00			-1.04619E-05	+/- 2.7E-09
Total phase (deg)			321.7			-8.52617324538E-06			145.6	+/- 20.1
	RMS	Theor.	Amplitude	0.149 +/- 0.026		Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5	
ph/seg (deg)	44.9	48.2	Search (2048X32)	0.100		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000 1.000
amp/seg (%)	72.6	84.1	Interp.	0.000		Bits/sample: 2x2			SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	24.4	28.4	Inc. seg. avg.	0.137		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011
amp/frq (%)	41.8	49.6	Inc. frq. avg.	0.141		Data rate(Mb/s): 2048			nlags: 256	t_cohere infinite
k: az 312.3 el 46.3 pa 94.2			u: az 50.0 el 42.1 pa -83.3			u,v (fr/asec) 12685.696 -1277.065			ion window (TEC)	0.00 0.00
Control file: cf_1234_gmva			Input file: /Exps/c211c/v1/1234/No0120/ku..1X1QEV			Output file: /Exps/c211c/v1/1234/No0120/ku.W.179.1X1QEV				simultaneous interpolator

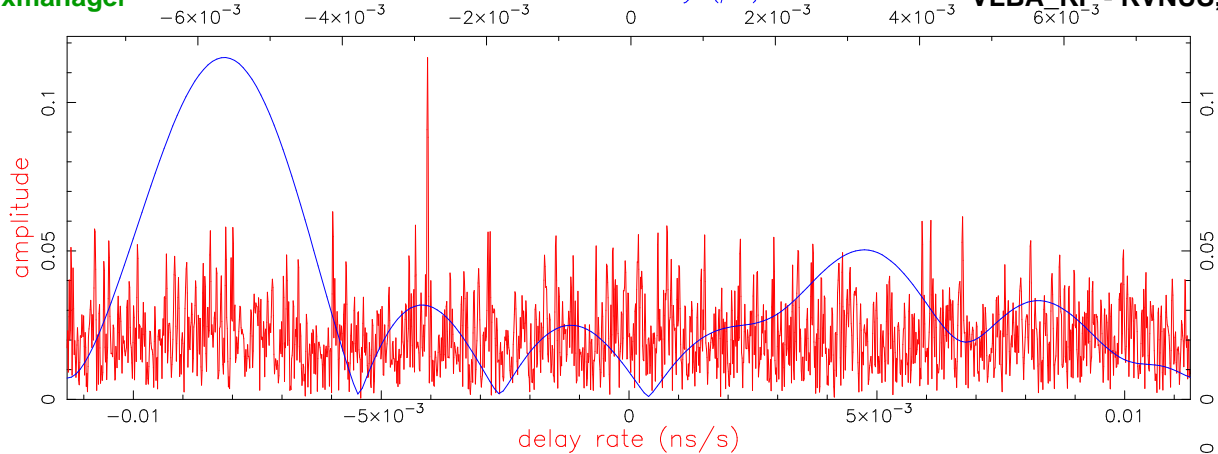
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ku

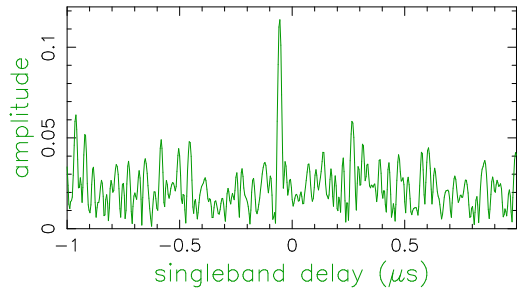
VLBA_KP - KVNUS, fgroup W, pol RL

multiband delay (μ s)

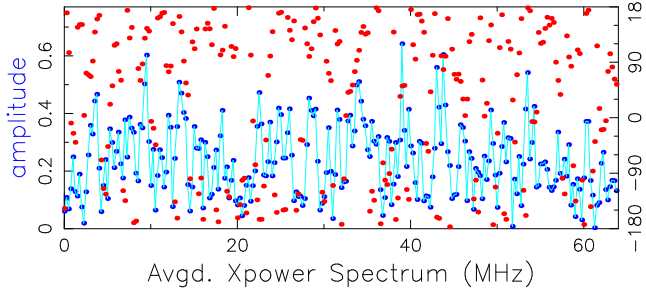


Fringe quality 0

SNR 6.5
 Int time 419.816
 Amp 0.122
 Phase -76.5
 PFD 2.3e-02
 Delays (us)
 SBD -0.055794
 MBD -0.005643
 Fringe rate (Hz)
 -0.350516
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

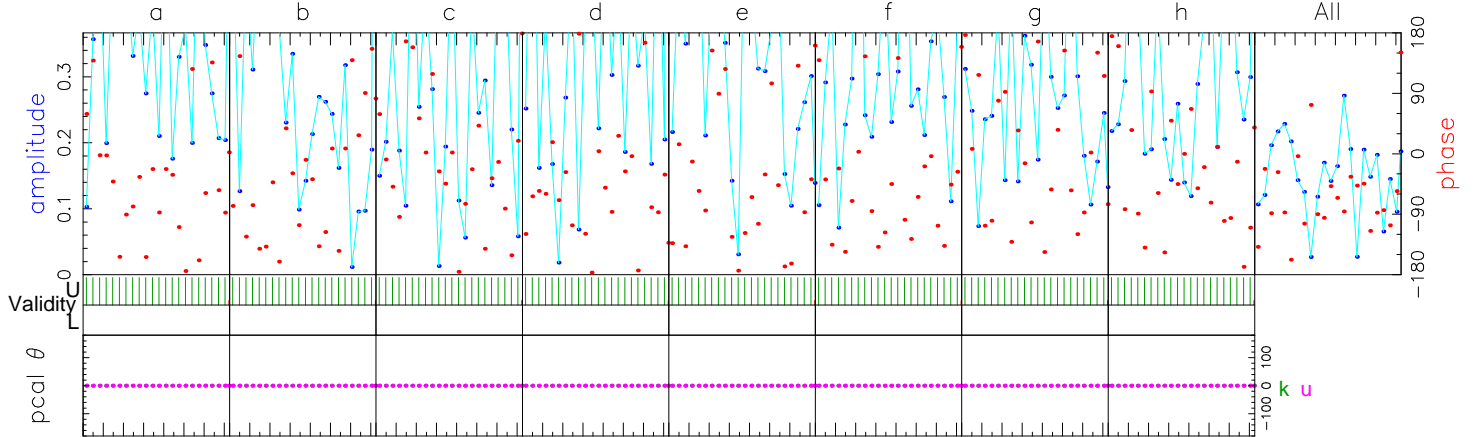


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133929
 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
	-80.7	-95.0	-26.2	-74.7	-78.7	-83.2	-106.7	-64.1	Phase	-76.5
	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
	265.1	503.4	350.3	343.6	146.0	166.9	106.4	420.5	Sbd box	242.7
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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ku	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
k	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)	7.33083986175E+02		Apriori delay (usec)		7.33136504403E+02		Resid mbdelay (usec)		-5.64323E-03	+/- 1.7E-04
Sband delay (usec)	7.33080710403E+02		Apriori clock (usec)		-1.4444256E+01		Resid sbdelay (usec)		-5.57940E-02	+/- 1.3E-03
Phase delay (usec)	7.33136501935E+02		Apriori clockrate (us/s)		-1.1270000E-06		Resid phdelay (usec)		-2.46764E-06	+/- 5.7E-07
Delay rate (us/s)	-1.39541154391E+00		Apriori rate (us/s)		-1.39540747476E+00		Resid rate (us/s)		-4.06915E-06	+/- 2.3E-09
Total phase (deg)	99.6		Apriori accel (us/s/s)		-8.52617324538E-06		Resid phase (deg)		-76.5	+/- 17.7

ph/seg (deg) 50.0 42.3 Search (2048X32) 0.108 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 59.4 73.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 25.8 25.0 Inc. seg. avg. 0.124 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.0 43.6 Inc. frq. avg. 0.117 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 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 12685.696 -1277.065 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ku..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ku.W.199.1X1QEV

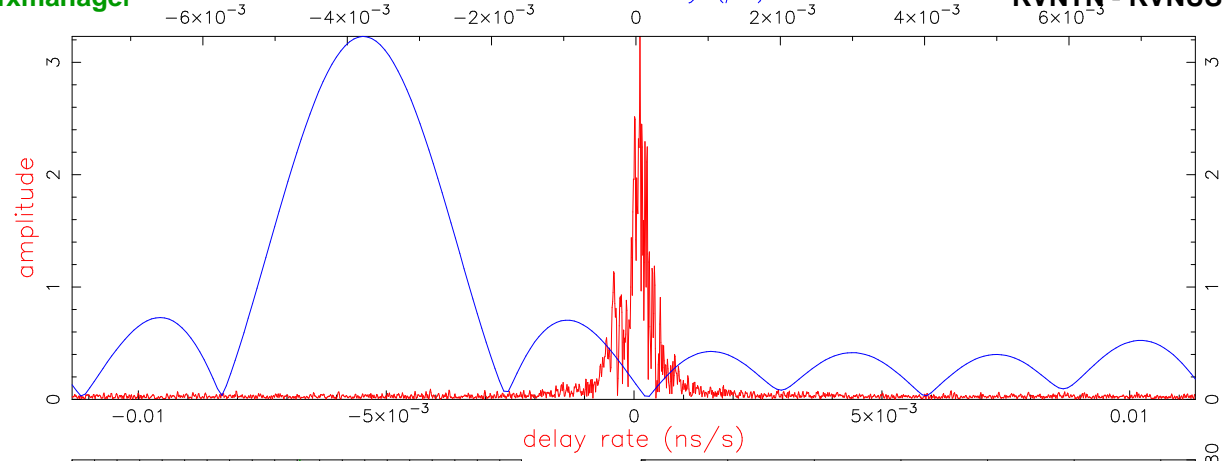
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, tu

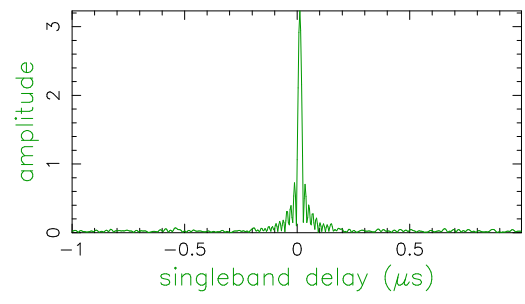
KVNTN - KVNUS, fgroup W, pol LL

multiband delay (μ s)

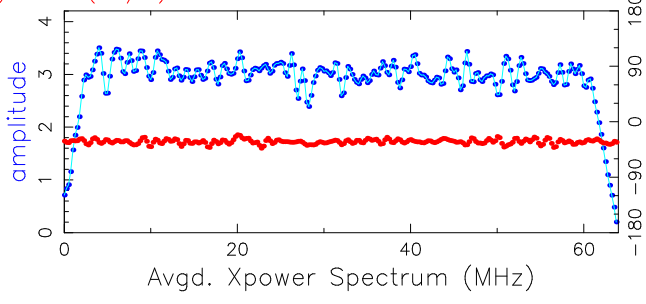


Fringe quality 5

SNR 181.0
 Int time 419.840
 Amp 3.231
 Phase 147.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.011809
 MBD -0.003779
 Fringe rate (Hz)
 0.010223
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

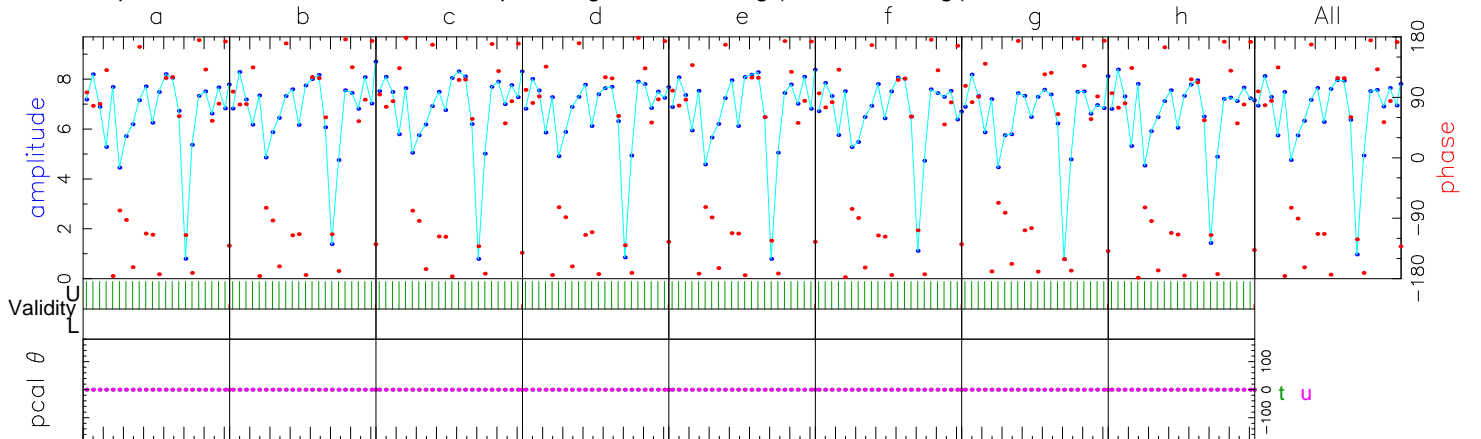


delay rate (ns/s)



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

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



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

Group delay (usec)(sbd)	-9.12515380154E+02	Apriori delay (usec)	-9.12527226260E+02	Resid mbdelay (usec)	-3.77889E-03	+/-	6.0E-06
Sband delay (usec)	-9.12515417510E+02	Apriori clock (usec)	-1.5033060E+01	Resid sbdelay (usec)	1.18088E-02	+/-	4.8E-05
Phase delay (usec)	-9.12527221509E+02	Apriori clockrate (us/s)	-1.1770000E-06	Resid phdelay (usec)	4.75144E-06	+/-	2.0E-08
Delay rate (us/s)	3.62032689460E-02	Apriori rate (us/s)	3.62031502669E-02	Resid rate (us/s)	1.18679E-07	+/-	8.4E-11
Total phase (deg)	50.1	Apriori accel (us/s/s)	1.92716336240E-06	Resid phase (deg)	147.3	+/-	0.6

ph/seg (deg)	69.0	RMS	3.231 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	115.7	Theor.	3.124	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	3.0	Search (2048X32)	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	2.5	Interp.	6.635	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011	
		Inc. seg. avg.	3.233	Data rate(Mb/s):	2048	ion window (TEC)	0.00 0.00	
		Inc. frq. avg.		nlags:	256	t_cohere infinite		

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.243.1X1QEV

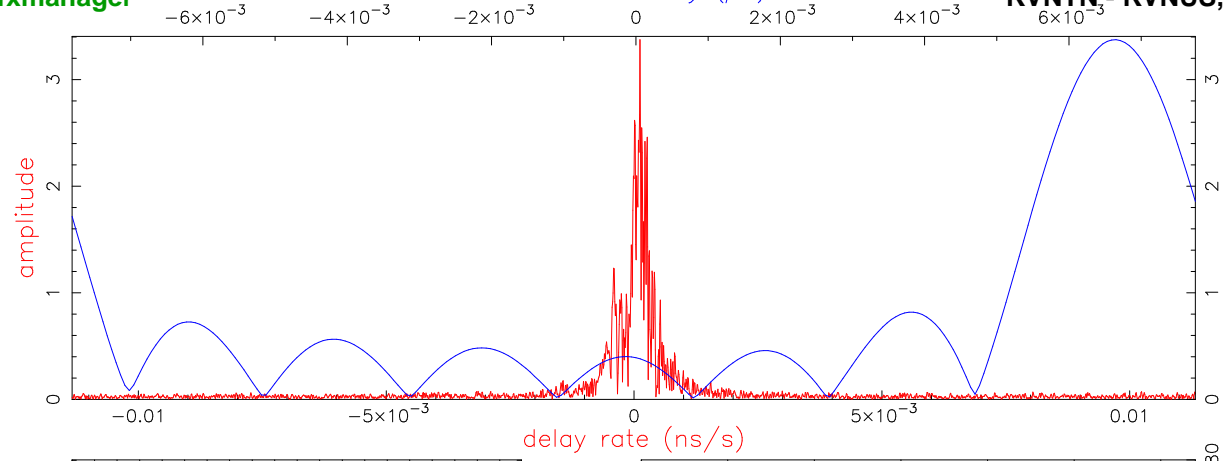
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, tu

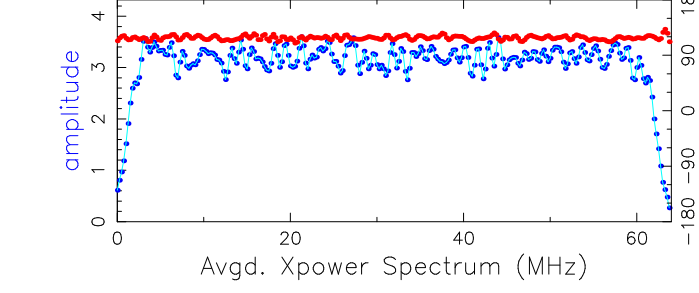
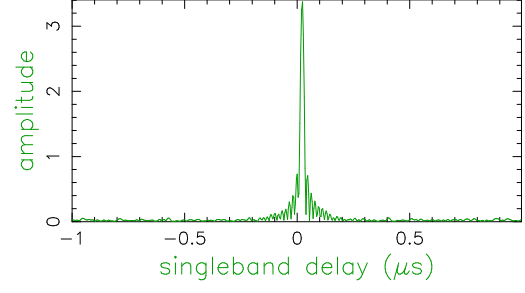
KVNTN- KVNUS, fgroup W, pol RR

multiband delay (μ s)

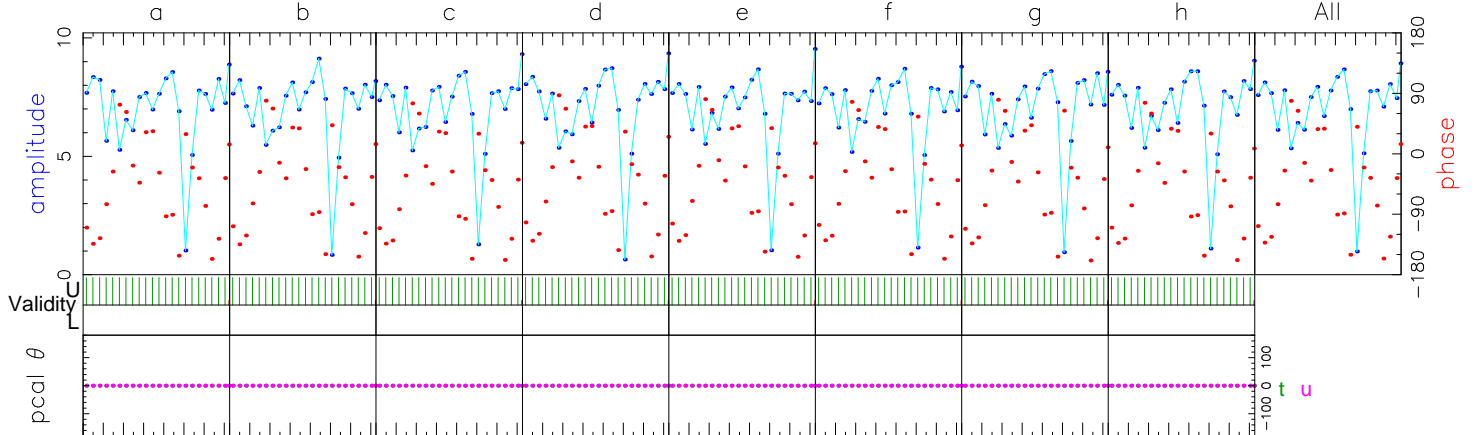


Fringe quality 5

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"



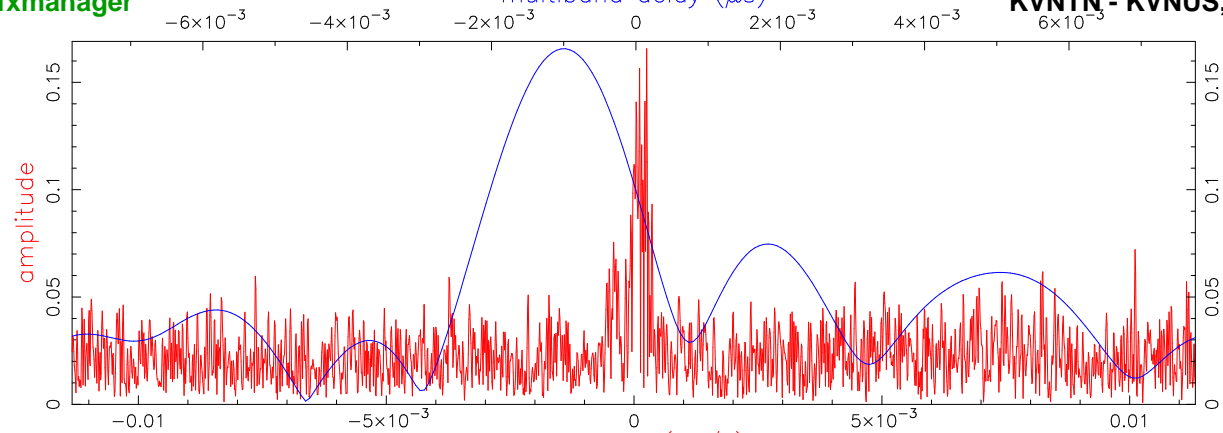
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



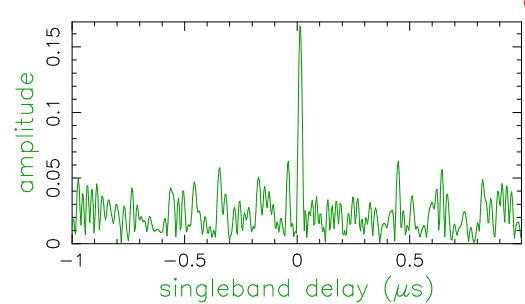
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-63.9	-60.7	-65.4	-60.3	-58.0	-58.7	-64.5	-63.5	Phase	-61.9
	3.4	3.4	3.4	3.4	3.3	3.4	3.3	3.4	Ampl.	3.4
	262.7	262.7	262.6	262.8	262.7	262.7	262.7	262.7	Sbd box	262.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
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	
									Chan ids	
									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)			Apriori accel (us/s/s)		1.92716336240E-06		Resid phase (deg)		-61.9	+/- 0.6

ph/seg (deg) 69.9 1.4 Search (2048X32) 3.213 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 115.1 2.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 3.0 0.8 Inc. seg. avg. 6.982 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 1.3 1.5 Inc. frq. avg. 3.378 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 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.259.1X1QEV

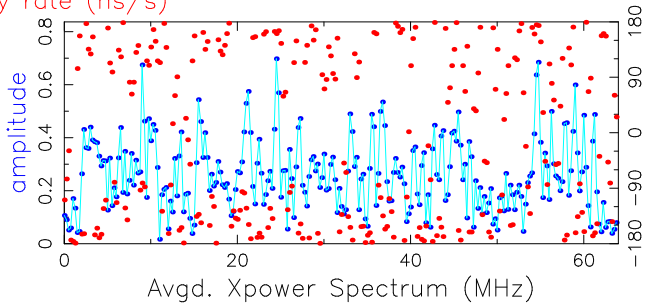
multiband delay (μ s)



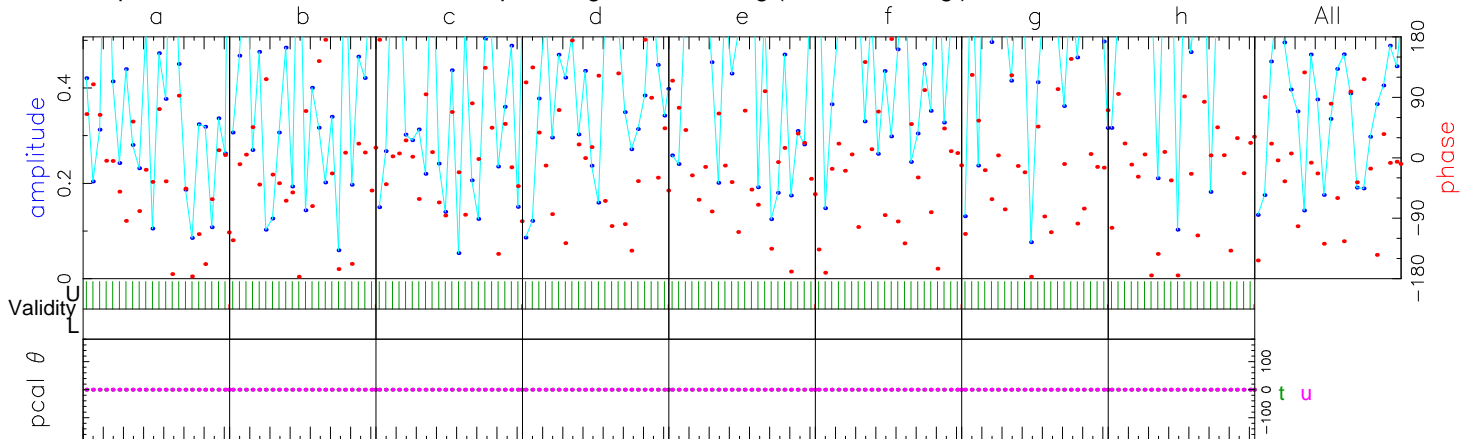
Fringe quality 9
SNR 9.5
Int time 419.840
Amp 0.169
Phase -12.0
PFD 1.1e-12
Delays (us)
SBD 0.013556
MBD -0.001025
Fringe rate (Hz) 0.022269
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133946
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



delay rate (ns/s)



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tu	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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

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)		-109.2	Apriori accel (us/s/s)		1.92716336240E-06	Resid phase (deg)		-12.0	+/-	12.1

ph/seg (deg)	81.2	29.0	Amplitude		0.169 +/- 0.018	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	134.0	50.6	Search (2048X32)		0.157	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	17.9	17.1	Interp.		0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	42.4	29.9	Inc. seg. avg.		0.315	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011		
			Inc. frq. avg.		0.165	Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Mk4/DiFX fourfit 3.21 rev 2937

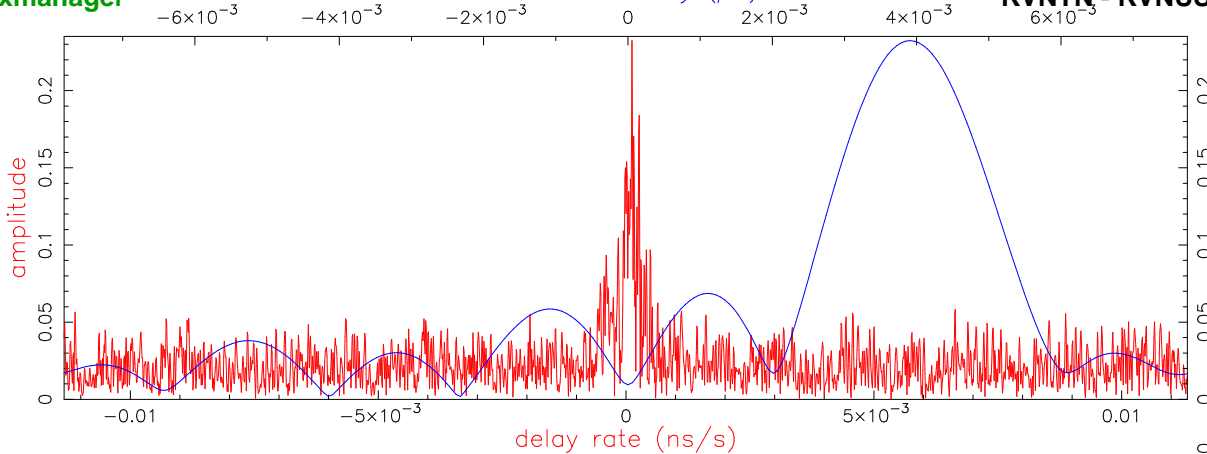
fxmanager

NRAO150.1X1QEV, No0120, tu

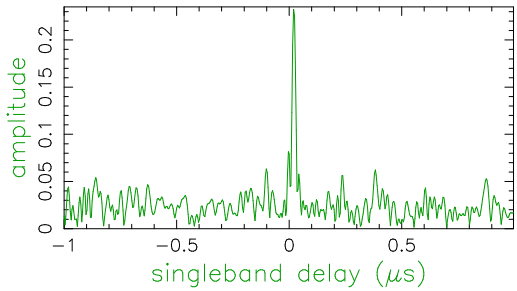
KVNTN - KVNUS, fgroup W, pol RL

multiband delay (μ s)

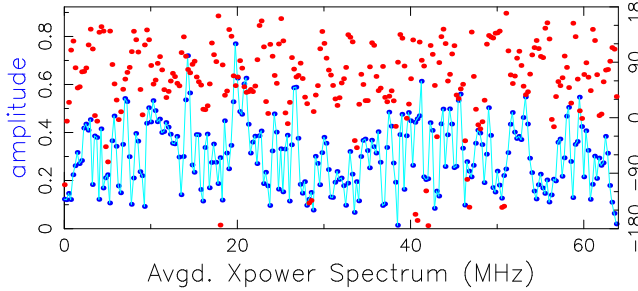
Fringe quality 9



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

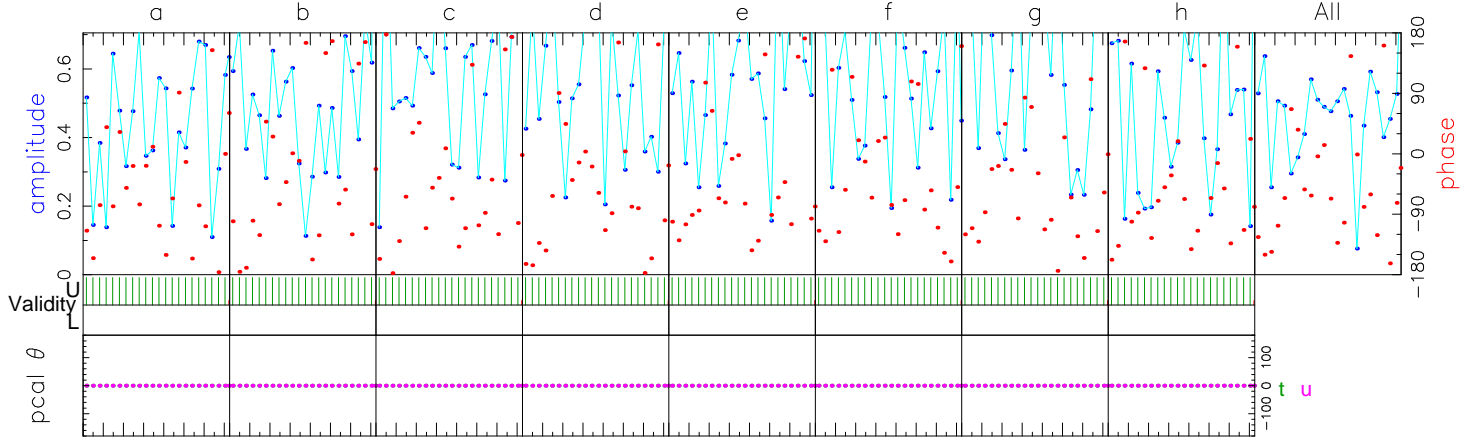


delay rate (ns/s)



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	

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)	-188.4	Apriori accel (us/s/s)	1.92716336240E-06	Resid phase (deg)	-91.2	+/-	8.7

ph/seg (deg)	72.3	Theor.	20.9	Amplitude	0.235 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	109.6	Search (2048X32)	0.230	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	Inc. seg. avg.	0.431	Inc. frq. avg.	0.231	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	12.7	Inc. frq. avg.	0.231			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	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.293.1X1QEV

simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, ul

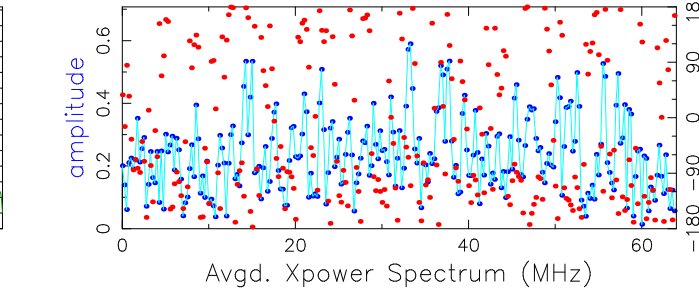
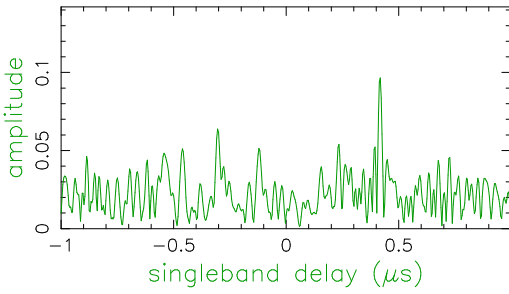
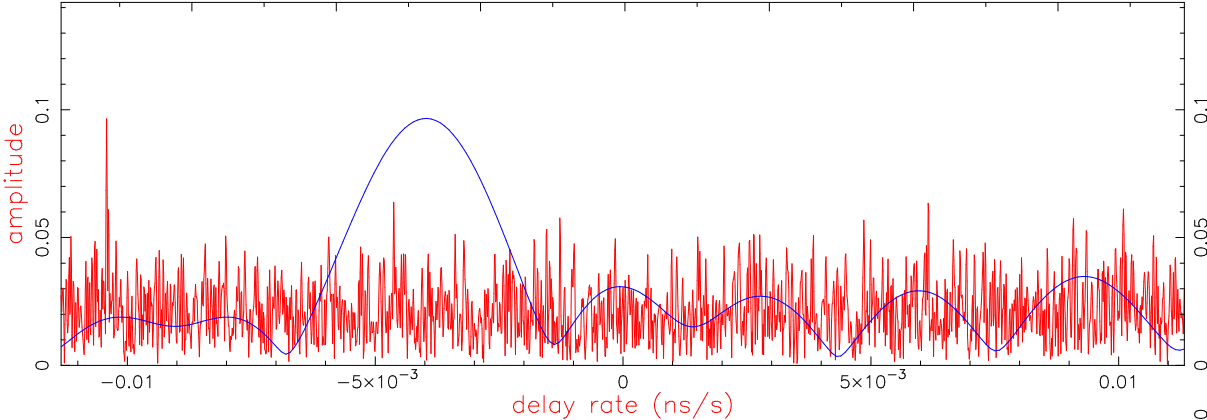
KVNUS - VLBA_LA, fgroup W, pol LL

multiband delay (μ s)

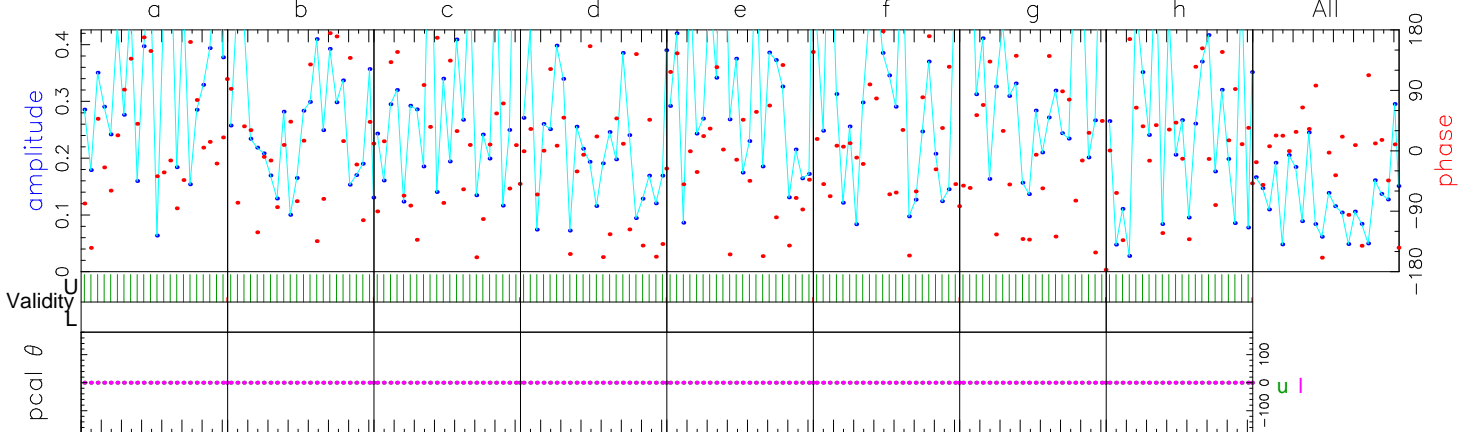
-6×10^{-3} -4×10^{-3} -2×10^{-3} 0 2×10^{-3} 4×10^{-3} 6×10^{-3}

Fringe quality 0

SNR 5.5
 Int time 419.825
 Amp 0.142
 Phase 6.4
 PFD 1.0e+00
 Delays (us)
 SBD 0.416593
 MBD -0.002808
 Fringe rate (Hz)
 -0.898271
 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
7.3	-11.2	5.2	9.4	23.3	-7.9	-20.4	31.0	Phase	6.4
0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2	Ampl.	0.1
496.7	254.8	84.9	85.5	499.6	234.8	430.3	274.8	Sbd box	363.6
U/L 820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l 0	0	0	0	0	0	0	0	PC freqs	
u:l 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:l 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u 1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l 1000	1000	1000	1000	1000	1000	1000	1000		
u W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
								Chan ids	
								Tracks	
Group delay (usec)(sbd)	-4.96454210231E+02		Apriori delay (usec)	-4.96873277638E+02		Resid mbdelay (usec)	-2.80759E-03	+/-	2.0E-04
Sband delay (usec)	-4.96456684888E+02		Apriori clock (usec)	1.7399662E+01		Resid sbdelay (usec)	4.16593E-01	+/-	1.6E-03
Phase delay (usec)	-4.96873277430E+02		Apriori clockrate (us/s)	1.4129999E-06		Resid phdelay (usec)	2.07576E-07	+/-	6.8E-07
Delay rate (us/s)	1.40479849337E+00		Apriori rate (us/s)	1.40480892141E+00		Resid rate (us/s)	-1.04280E-05	+/-	2.8E-09
Total phase (deg)			Apriori accel (us/s/s)	2.43464496617E-06		Resid phase (deg)	6.4	+/-	21.0

ph/seg (deg) 65.9 50.3 Search (2048X32) 0.095 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.7 87.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 18.9 29.7 Inc. seg. avg. 0.139 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 26.7 51.8 Inc. frq. avg. 0.129 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 u: az 50.0 el 42.1 pa -83.3 l: az 309.3 el 45.4 pa 86.6 u,v (fr/asec) -12783.781 378.650 ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ul..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ul.W.246.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

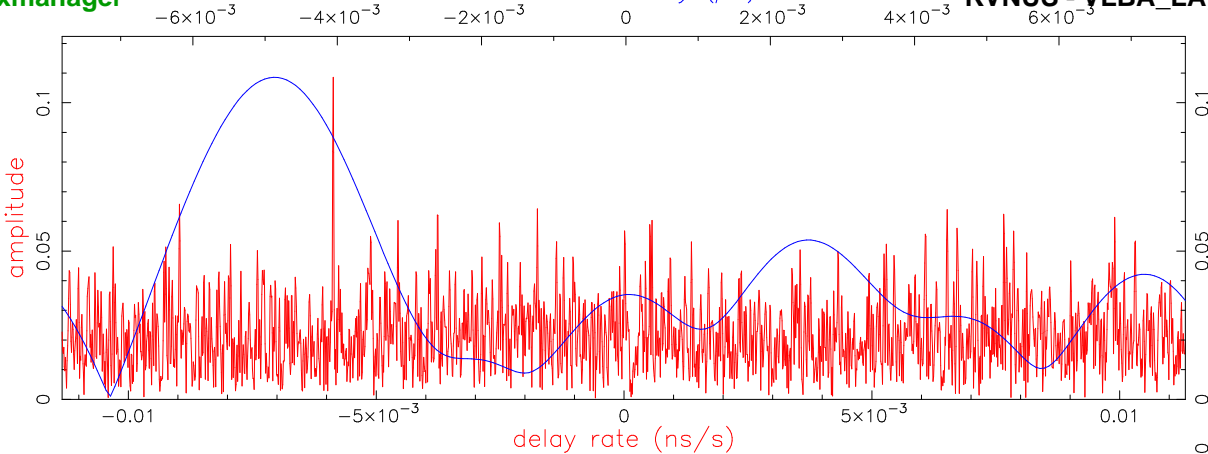
fxmanager

NRAO150.1X1QEV, No0120, ul

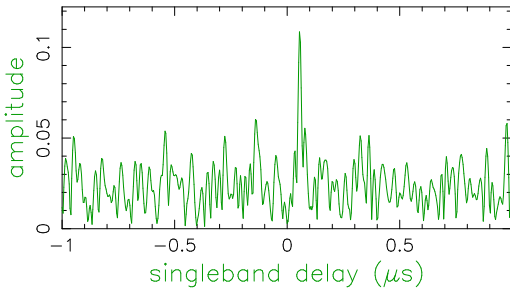
KVNUS - VLBA_LA, fgroup W, pol RR

multiband delay (μ s)

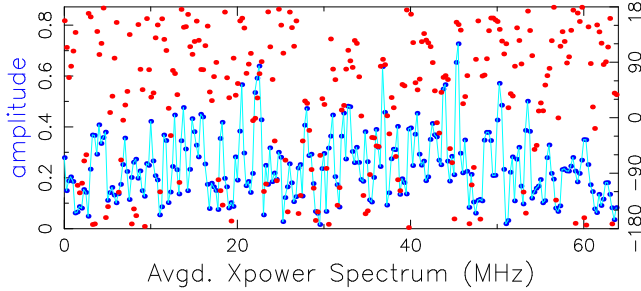
Fringe quality 0



SNR 6.1
 Int time 419.825
 Amp 0.122
 Phase 89.9
 PFD 2.1e-01
 Delays (us)
 SBD 0.055654
 MBD -0.004850
 Fringe rate (Hz)
 -0.506424
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

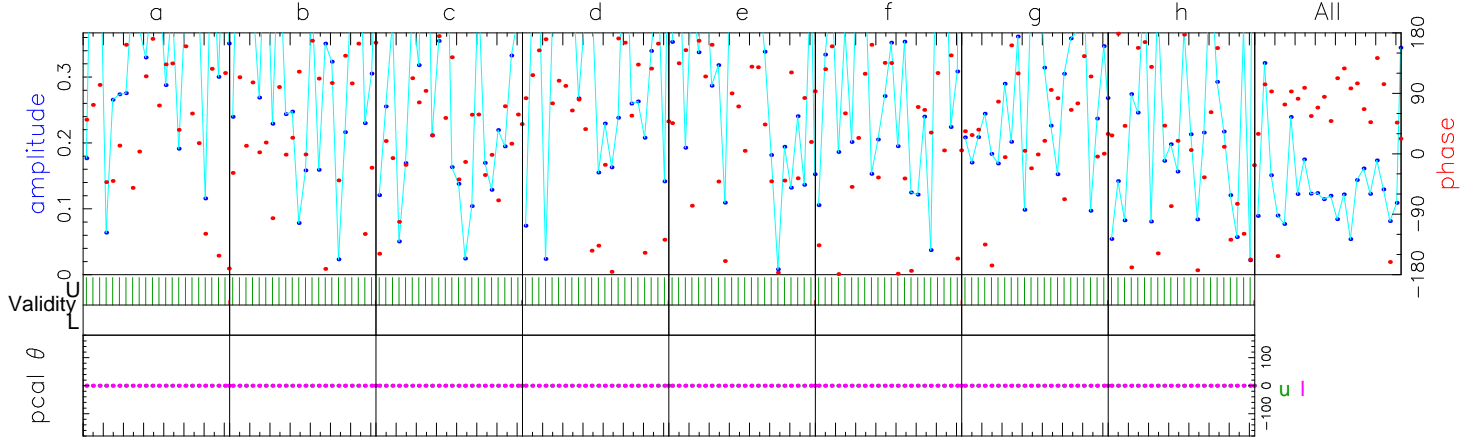


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133944
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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

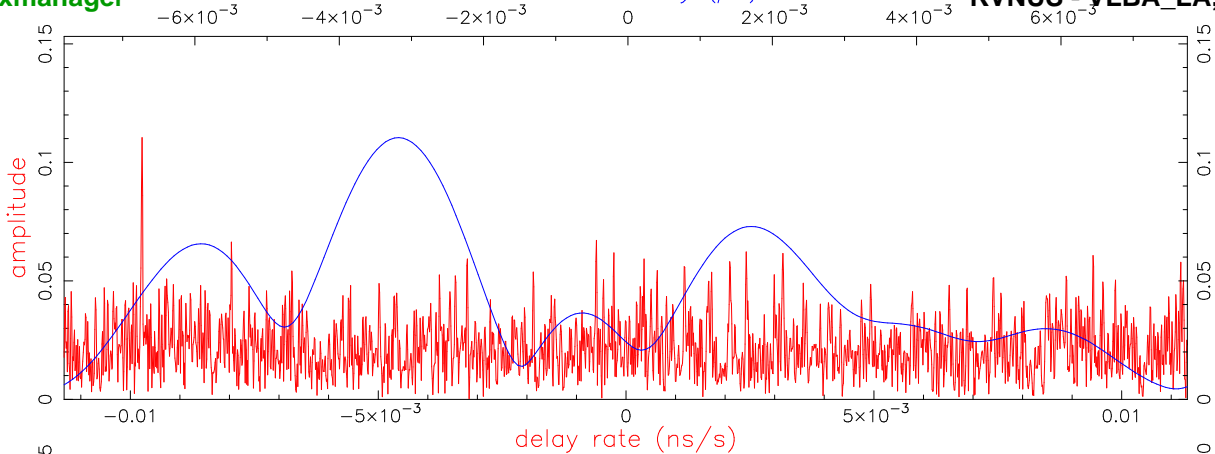


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
l	0	0	0	0	0	0	0	0		
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-4.96815627465E+02									
Sband delay (usec)	-4.96817623388E+02									
Phase delay (usec)	-4.96873274739E+02									
Delay rate (us/s)	1.40480304233E+00									
Total phase (deg)			41.0							
Apriori delay (usec)					-4.96873277638E+02					
Apriori clock (usec)					1.7399662E+01					
Apriori clockrate (us/s)					1.4129999E-06					
Apriori rate (us/s)					1.40480892141E+00					
Apriori accel (us/s/s)					2.43464496617E-06					
Resid mbdelay (usec)									-4.84983E-03	+/- 1.8E-04
Resid sbdelay (usec)									5.56543E-02	+/- 1.4E-03
Resid phdelay (usec)									2.89846E-06	+/- 6.0E-07
Resid rate (us/s)									-5.87908E-06	+/- 2.5E-09
Resid phase (deg)									89.9	+/- 18.7
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				nlags: 256		t_cohere infinite		ion window (TEC)	
									0.00 0.00	

u: az 50.0 el 42.1 pa -83.3 l: az 309.3 el 45.4 pa 86.6 u,v (fr/asec) -12783.781 378.650 simultaneous interpolator

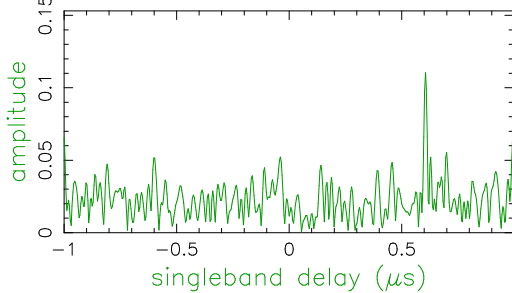
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ul..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ul.W.263.1X1QEV

multiband delay (μs)

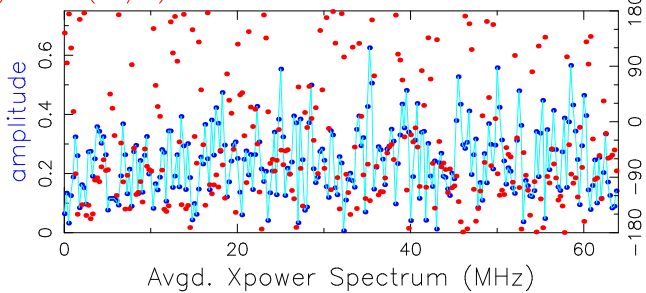


Fringe quality 0

SNR 6.2
Int time 419.825
Amp 0.153
Phase 73.9
PFD 1.5e-01
Delays (us)
SBD 0.605687
MBD -0.003174
Fringe rate (Hz)
-0.841976
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

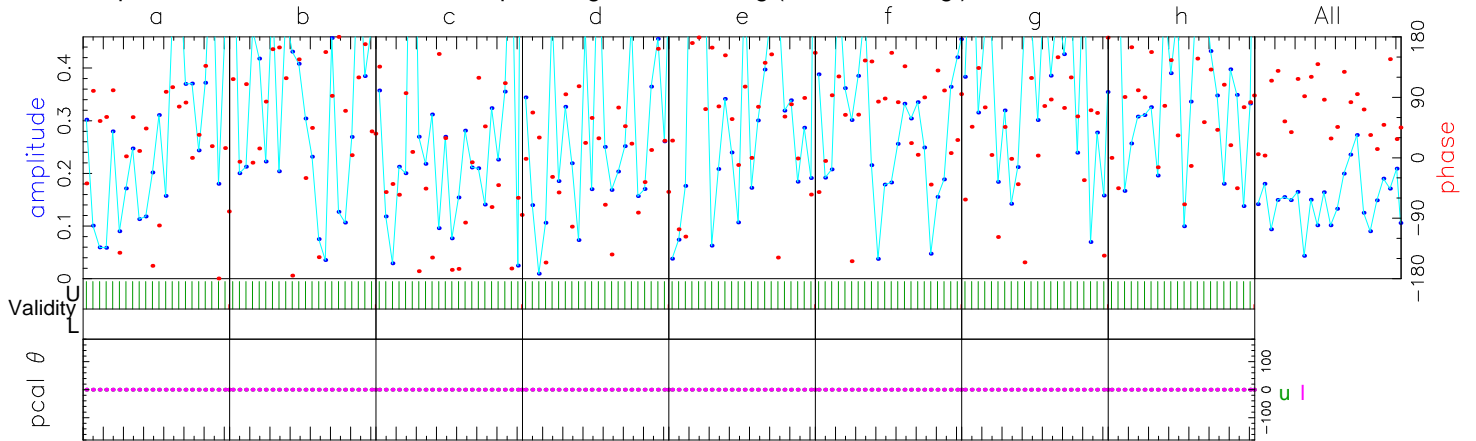


delay rate (ns/s)



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
	54.5	100.1	-63.8	14.5	127.9	81.2	69.3	61.4	Phase	73.9
	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	252.0	411.4	227.9	242.0	411.4	511.6	413.2	246.5	Sbd box	412.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	0	0	0	0	0	0	0	0	PC freqs	
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.96267076164E+02		Apriori delay (usec)		-4.96873277638E+02		Resid mbdelay (usec)		-3.17353E-03	+/- 1.8E-04
Sband delay (usec)	-4.96267590388E+02		Apriori clock (usec)		1.7399662E+01		Resid sbdelay (usec)		6.05687E-01	+/- 1.4E-03
Phase delay (usec)	-4.96873275255E+02		Apriori clockrate (us/s)		1.4129999E-06		Resid phdelay (usec)		2.38255E-06	+/- 6.0E-07
Delay rate (us/s)	1.40479914690E+00		Apriori rate (us/s)		1.40480892141E+00		Resid rate (us/s)		-9.77451E-06	+/- 2.5E-09
Total phase (deg)	25.0		Apriori accel (us/s/s)		2.43464496617E-06		Resid phase (deg)		73.9	+/- 18.5

	RMS	Theor.	Amplitude	0.153 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	44.9	44.4	Search (2048X32)	0.107	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	59.5	77.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	66.7	26.2	Inc. seg. avg.	0.163	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	46.6	45.7	Inc. frq. avg.	0.170	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00	

u: az 50.0 el 42.1 pa -83.3 l: az 309.3 el 45.4 pa 86.6 u,v (fr/asec) -12783.781 378.650 simultaneous interpolator

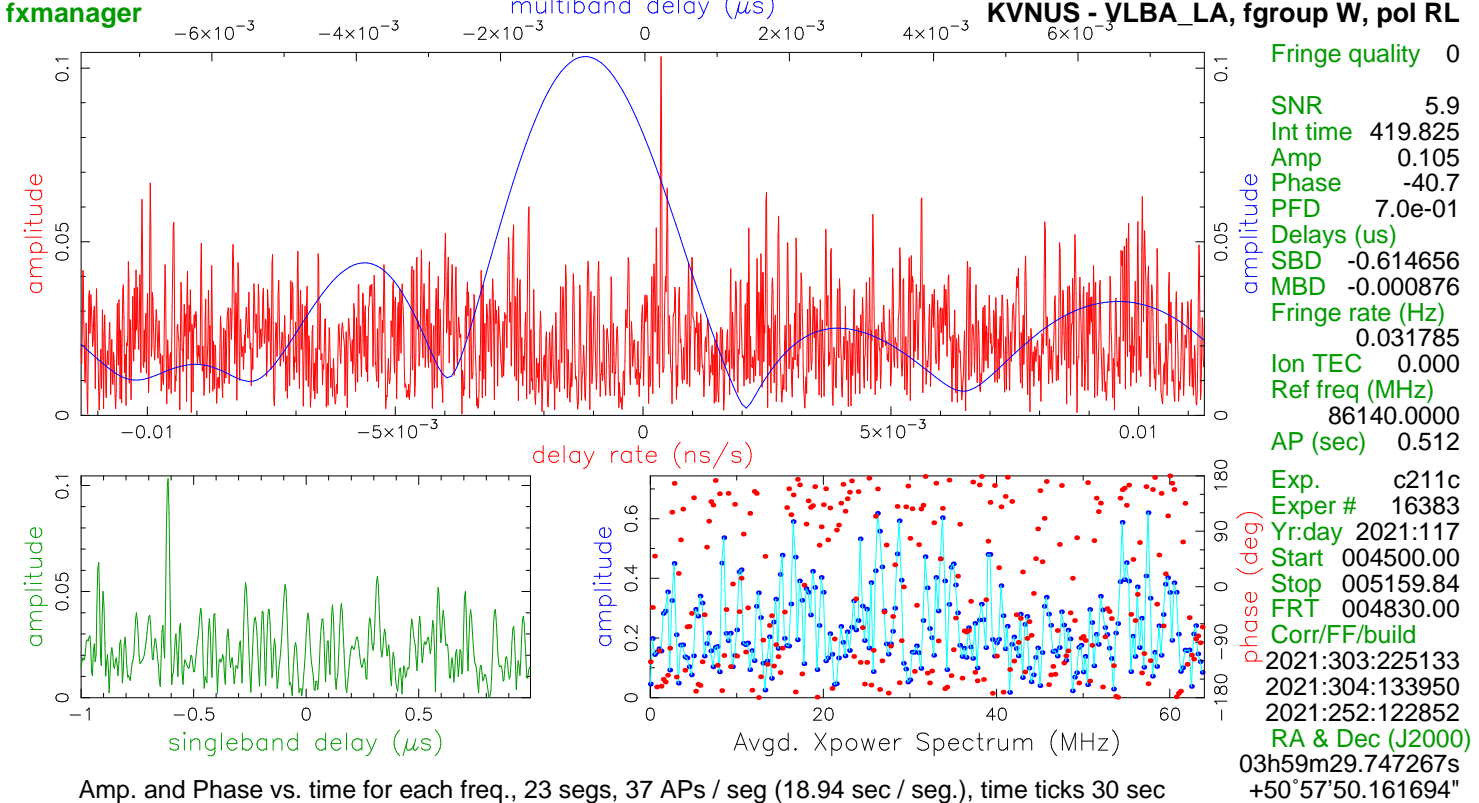
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/ul..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ul.W.280.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

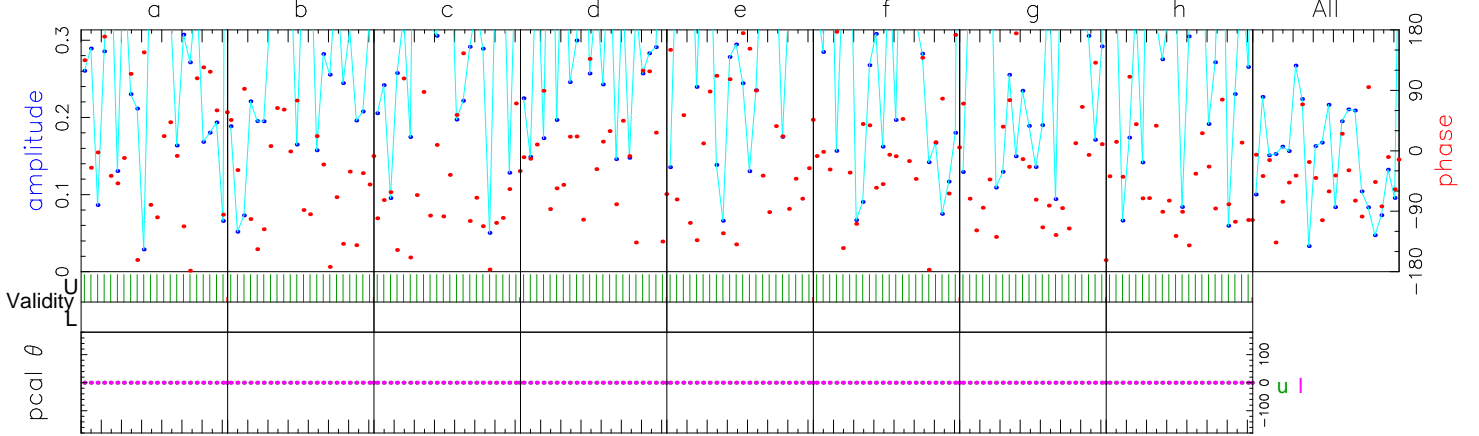
fxmanager

NRAO150.1X1QEV, No0120, ul

KVNUS - VLBA_LA, fgroup W, pol RL



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
0.2		-42.8	-79.4	-25.2	-38.3	-14.3	-58.7	-37.4	Phase	-40.7
0.0		0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
358.1		315.4	31.9	134.1	438.0	290.8	256.8	258.7	Sbd box	99.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	0	0	0	0	0	0	0	0	PC freqs	
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-4.97483528570E+02	Apriori delay (usec)	-4.96873277638E+02	Resid mbdelay (usec)	-8.75933E-04	+/-	1.9E-04
Sband delay (usec)	-4.97487933388E+02	Apriori clock (usec)	1.7399662E+01	Resid sbdelay (usec)	-6.14656E-01	+/-	1.5E-03
Phase delay (usec)	-4.96873278951E+02	Apriori clockrate (us/s)	1.4129999E-06	Resid phdelay (usec)	-1.31332E-06	+/-	6.3E-07
Delay rate (us/s)	1.40480929040E+00	Apriori rate (us/s)	1.40480892141E+00	Resid rate (us/s)	3.68994E-07	+/-	2.6E-09
Total phase (deg)	-89.6	Apriori accel (us/s/s)	2.43464496617E-06	Resid phase (deg)	-40.7	+/-	19.6

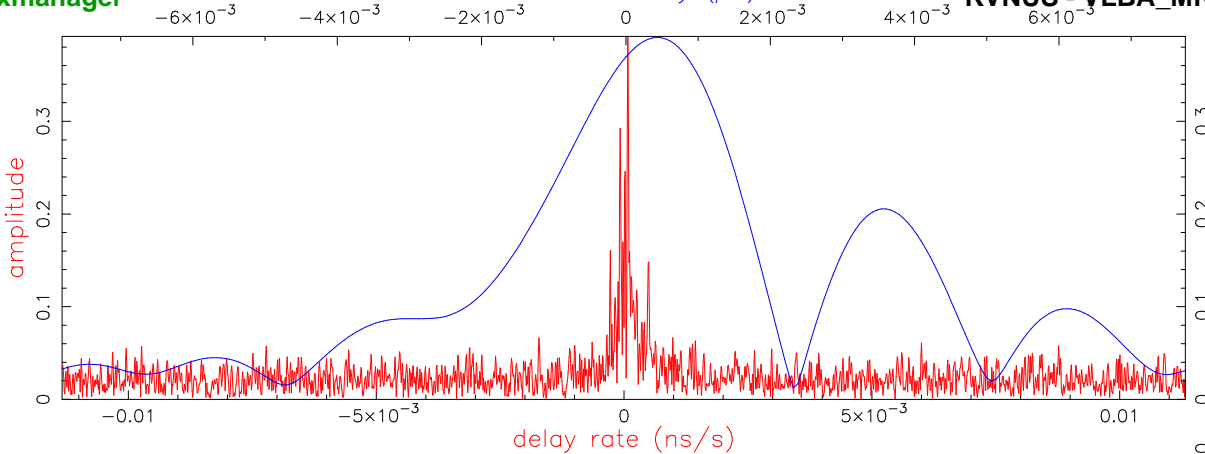
ph/seg (deg)	51.9	Theor.	46.9	Amplitude	0.105 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	77.2		81.9	Search (2048X32)	0.099	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	27.3		27.7	Inc. seg. avg.	0.112	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	34.5		48.3	Inc. frq. avg.	0.100	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
u:	az 50.0 el 42.1 pa -83.3	l:	az 309.3 el 45.4 pa 86.6	u,v (fr/asec)	-12783.781 378.650	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/ul..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/ul.W.295.1X1QEV

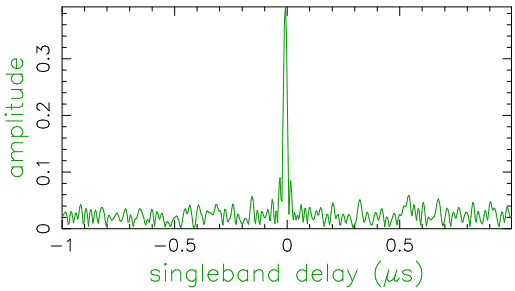
simultaneous interpolator

multiband delay (μ s)

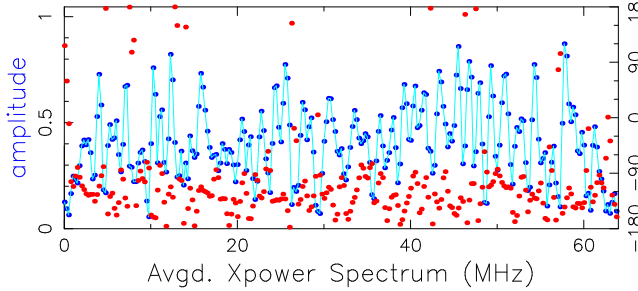
Fringe quality 8



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

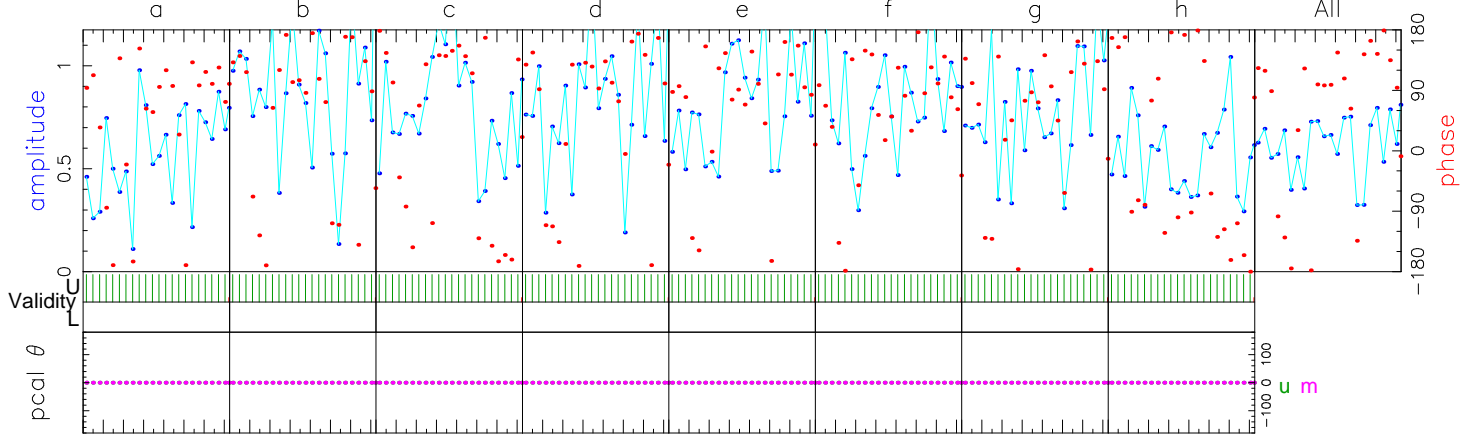


delay rate (ns/s)



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

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



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

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

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

u: az 50.0 el 42.1 pa -83.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8089.770 5325.653 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/um..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/um.W.242.1X1QEV

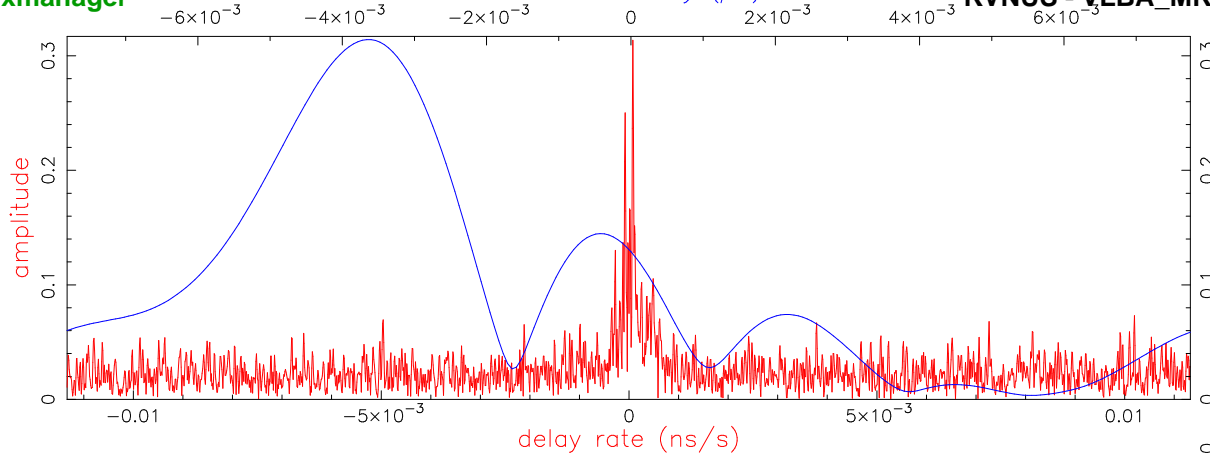
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, um

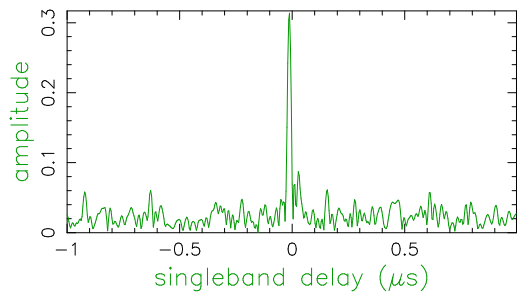
KVNUS - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)

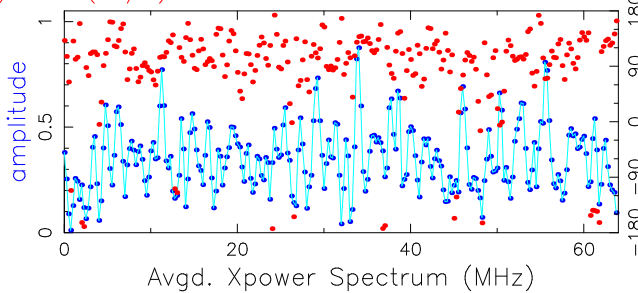


Fringe quality 8

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

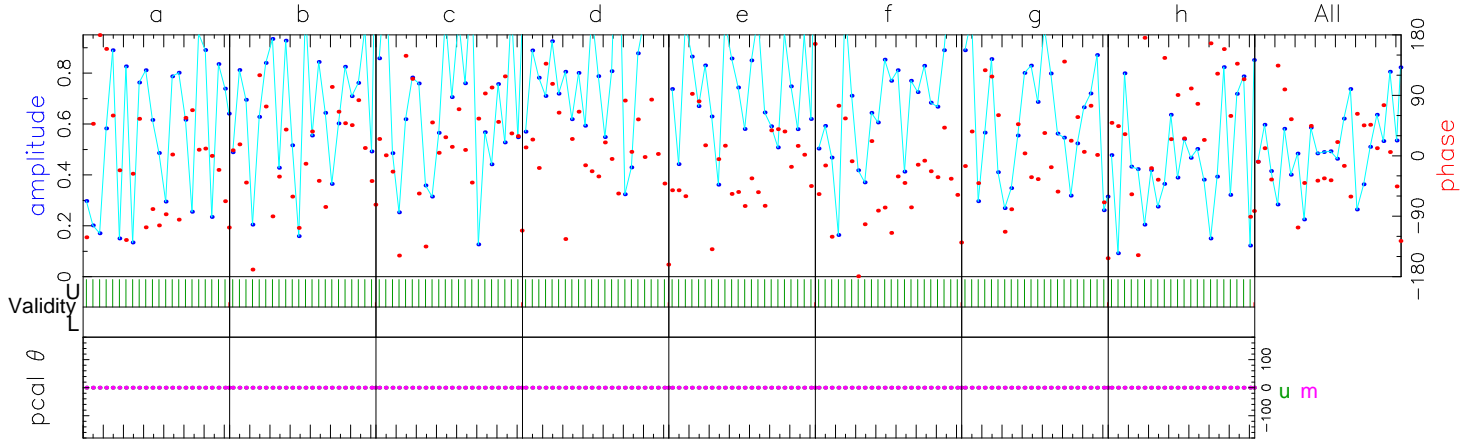


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-29.5	10.5	30.1	9.6	-18.4	-36.1	15.1	80.2	Phase	2.5
	0.2	0.4	0.4	0.5	0.5	0.4	0.4	0.2	Ampl.	0.4
	256.2	253.4	253.6	253.7	253.5	253.3	254.7	256.9	Sbd box	253.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-3.51584272499E+03	Apriori delay (usec)	-3.51582338068E+03	Resid mbdelay (usec)	-3.71931E-03	+/-	6.1E-05
Sband delay (usec)	-3.51583640843E+03	Apriori clock (usec)	-9.5227051E-01	Resid sbdelay (usec)	-1.30277E-02	+/-	4.9E-04
Phase delay (usec)	-3.51582338060E+03	Apriori clockrate (us/s)	8.0900000E-07	Resid phdelay (usec)	8.10145E-08	+/-	2.1E-07
Delay rate (us/s)	8.97803424606E-01	Apriori rate (us/s)	8.97803345015E-01	Resid rate (us/s)	7.95916E-08	+/-	8.6E-10
Total phase (deg)	-1.7	Apriori accel (us/s/s)	3.99124908248E-05	Resid phase (deg)	2.5	+/-	6.5

ph/seg (deg)	57.5	Theor.	15.5	Search (2048X32)	0.307	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	73.2		27.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	40.9		9.1	Inc. seg. avg.	0.483	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	35.2		15.9	Inc. frq. avg.	0.355	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

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

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/um..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/um.W.260.1X1QEV

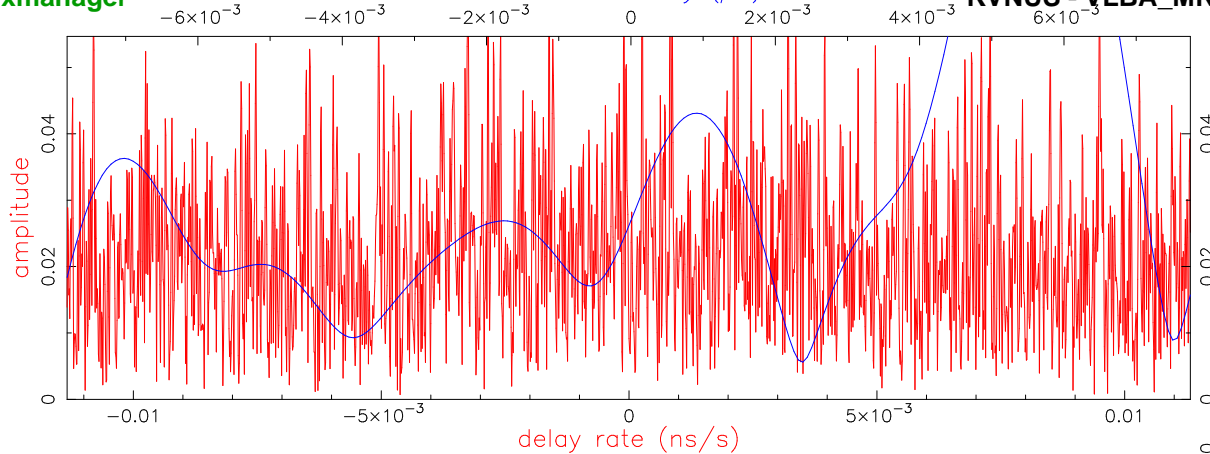
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, um

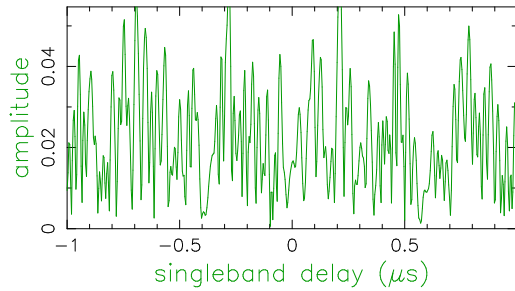
KVNUS - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

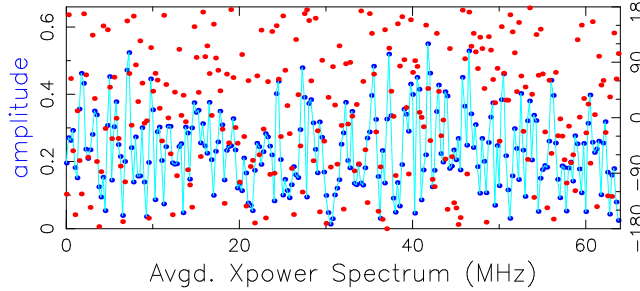


Fringe quality 0

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

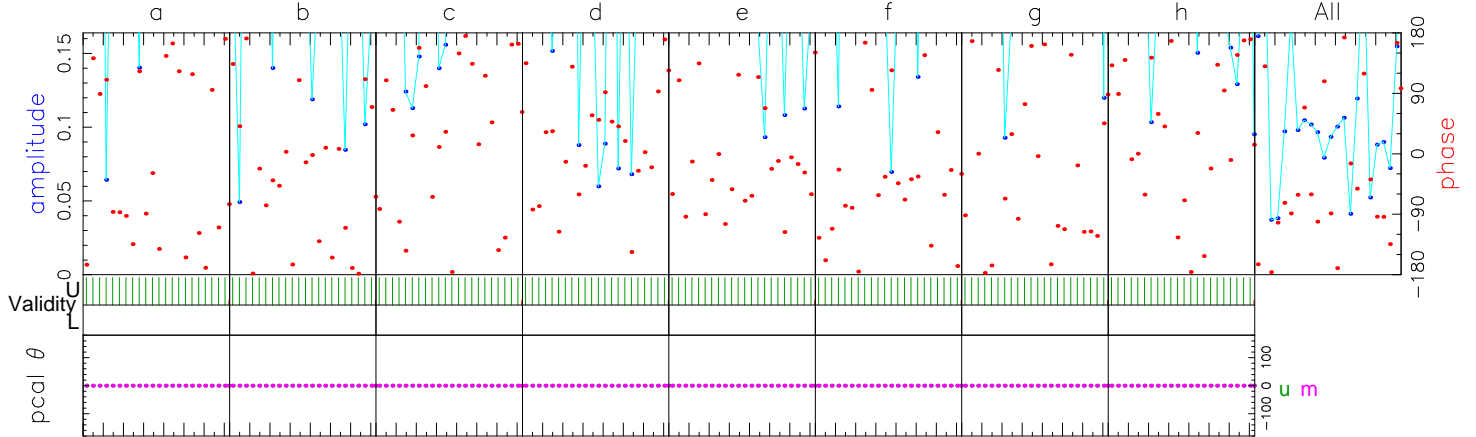


delay rate (ns/s)



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

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



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

ph/seg (deg) 76.4 123.2 Search (2048X32) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 224.9 215.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 99.0 72.7 Inc. seg. avg. 0.045 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 200.1 126.8 Inc. frq. avg. 0.083 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 u: az 50.0 el 42.1 pa -83.3 m: az 347.6 el 57.7 pa 160.9 u,v (fr/asec) -8089.770 5325.653 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/um..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/um.W.278.1X1QEV

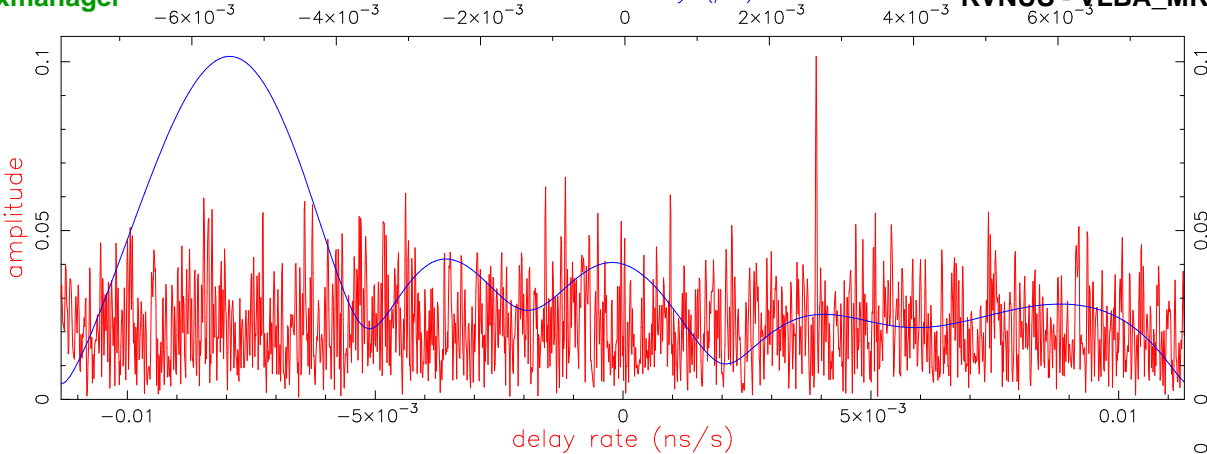
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, um

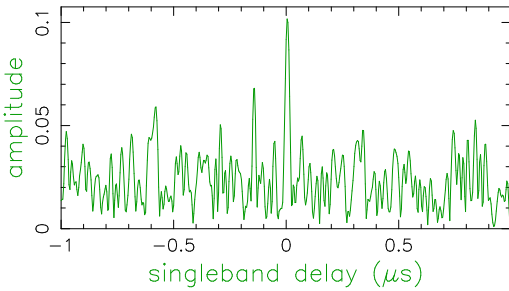
KVNUS - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

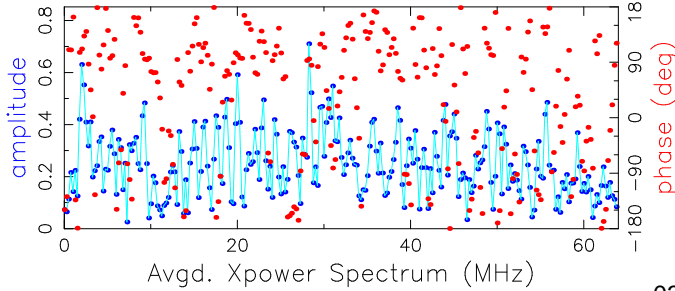


Fringe quality 0

SNR 5.7
 Int time 419.820
 Amp 0.108
 Phase -124.3
 PFD 9.1e-01
 Delays (us)
 SBD 0.005315
 MBD -0.005506
 Fringe rate (Hz)
 0.335920
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

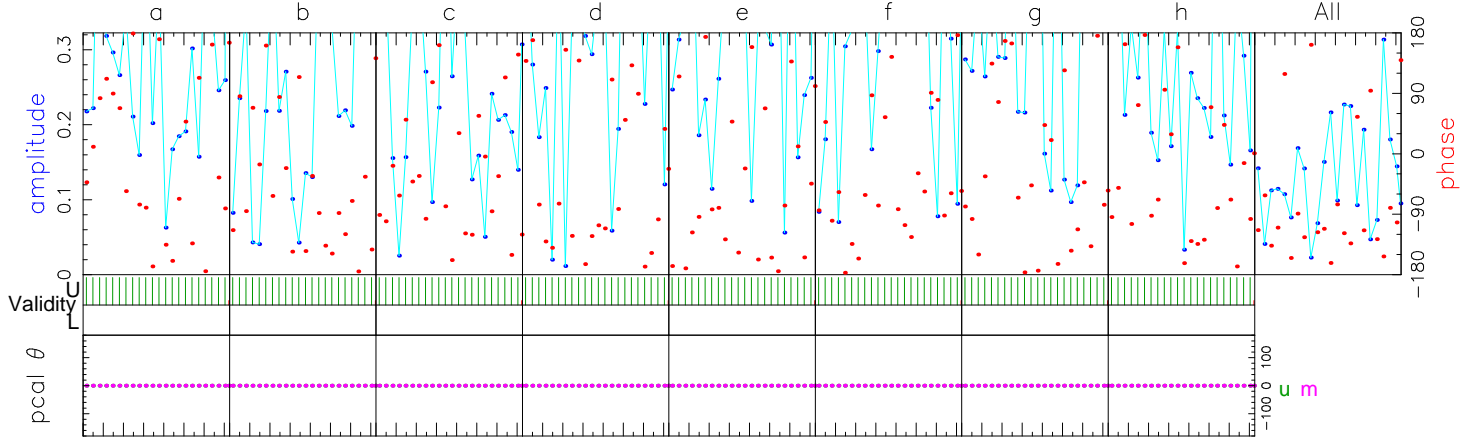


delay rate (ns/s)



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
	-176.5	-110.6	-77.8	-152.3	-158.5	-95.7	-140.1	-106.1	Phase	-124.3
	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	Ampl.	0.1
	350.4	431.9	463.5	474.4	479.2	473.2	107.7	219.2	Sbd box	258.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

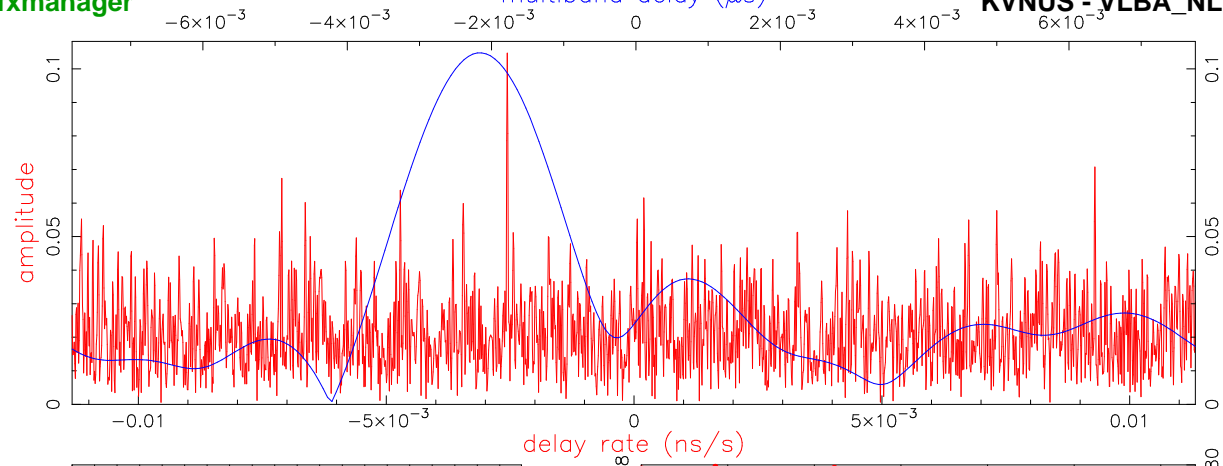
Group delay (usec)(sbd)	-3.51581326164E+03	Apriori delay (usec)	-3.51582338068E+03	Resid mbdelay (usec)	-5.50596E-03	+/-	1.9E-04
Sband delay (usec)	-3.51581806568E+03	Apriori clock (usec)	-9.5227051E-01	Resid sbdelay (usec)	5.31500E-03	+/-	1.5E-03
Phase delay (usec)	-3.51582338469E+03	Apriori clockrate (us/s)	8.0900000E-07	Resid phdelay (usec)	-4.00851E-06	+/-	6.4E-07
Delay rate (us/s)	8.97807244711E-01	Apriori rate (us/s)	8.97803345015E-01	Resid rate (us/s)	3.89970E-06	+/-	2.7E-09
Total phase (deg)	-128.5	Apriori accel (us/s/s)	3.99124908248E-05	Resid phase (deg)	-124.3	+/-	20.0

ph/seg (deg)	62.6	Theor.	47.9	Amplitude	0.108 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	74.9		83.6	Search (2048X32)	0.099	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	37.5		28.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	37.1		49.3	Inc. seg. avg.	0.104	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.109	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

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

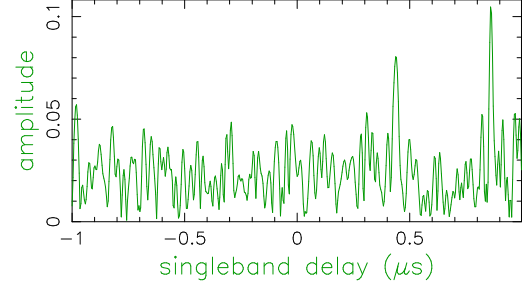
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/um..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/um.W.294.1X1QEV

multiband delay (μ s)

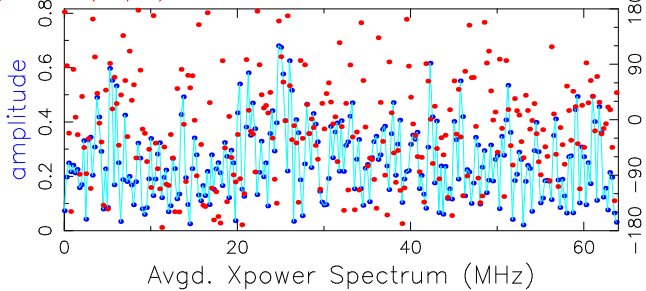


Fringe quality 0

SNR 5.9
Int time 419.826
Amp 0.108
Phase -153.8
PFD 5.3e-01
Delays (us)
SBD 0.860720
MBD -0.002112
Fringe rate (Hz)
-0.220389
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

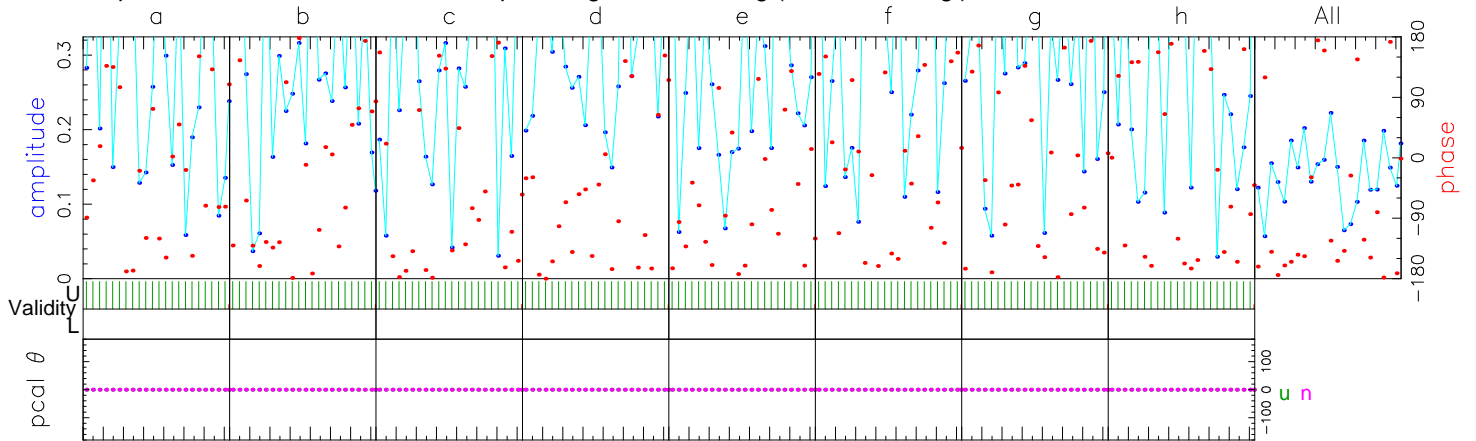


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133940
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
	-165.7	-155.9	-152.2	-143.4	-127.8	-165.4	-159.9	-163.3	Phase	-153.8
	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	435.1	138.6	309.8	478.4	369.3	245.3	238.6	475.7	Sbd box	477.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	9.50431337071E+02	Apriori delay (usec)	9.49574074012E+02	Resid mbdelay (usec)	-2.11194E-03	+/-	1.8E-04
Sband delay (usec)	9.50434794262E+02	Apriori clock (usec)	9.2794228E+00	Resid sbdelay (usec)	8.60720E-01	+/-	1.5E-03
Phase delay (usec)	9.49574069052E+02	Apriori clockrate (us/s)	8.2699998E-07	Resid phdelay (usec)	-4.95983E-06	+/-	6.2E-07
Delay rate (us/s)	1.41809975316E+00	Apriori rate (us/s)	1.41810231166E+00	Resid rate (us/s)	-2.55850E-06	+/-	2.6E-09
Total phase (deg)	110.9	Apriori accel (us/s/s)	-1.24389265175E-05	Resid phase (deg)	-153.8	+/-	19.3

ph/seg (deg)	52.1	Theor.	46.3	Amplitude	0.108 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	51.3		80.8	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	14.1		27.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	35.7		47.7	Inc. seg. avg.	0.107	Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
				Inc. frq. avg.	0.098	Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
						nlags: 256	t_cohere infinite
							ion window (TEC) 0.00 0.00

u: az 50.0 el 42.1 pa -83.3 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) -12936.124 -1517.105 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/un..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/un.W.248.1X1QEV

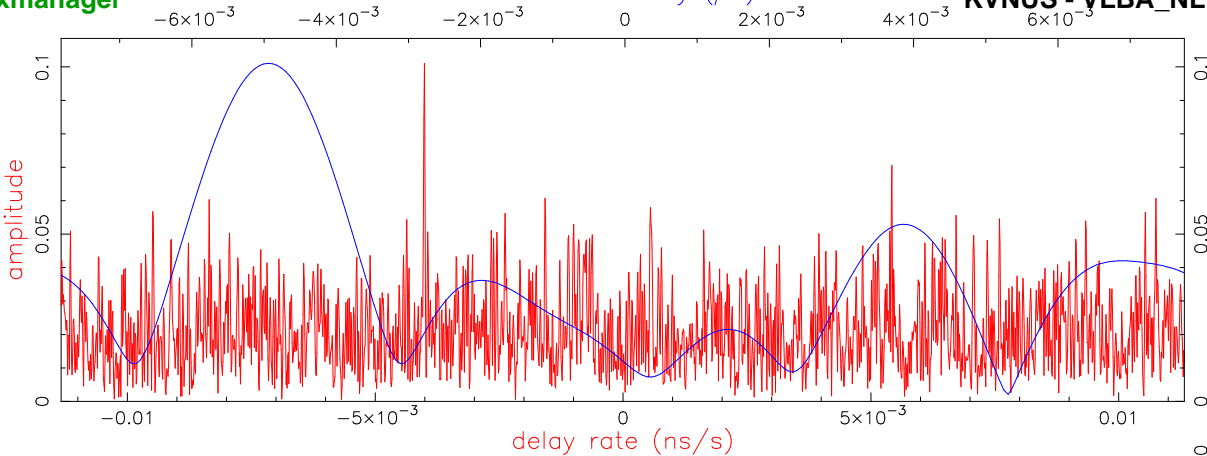
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, un

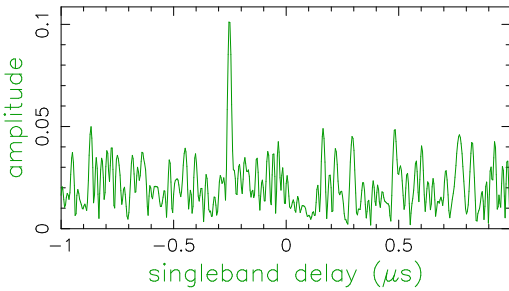
KVNUS - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

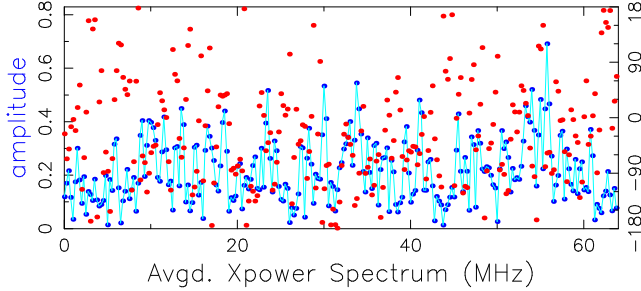


Fringe quality 0

SNR 5.8
 Int time 419.826
 Amp 0.109
 Phase -11.4
 PFD 8.6e-01
 Delays (us)
 SBD -0.252023
 MBD -0.004966
 Fringe rate (Hz)
 -0.346157
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

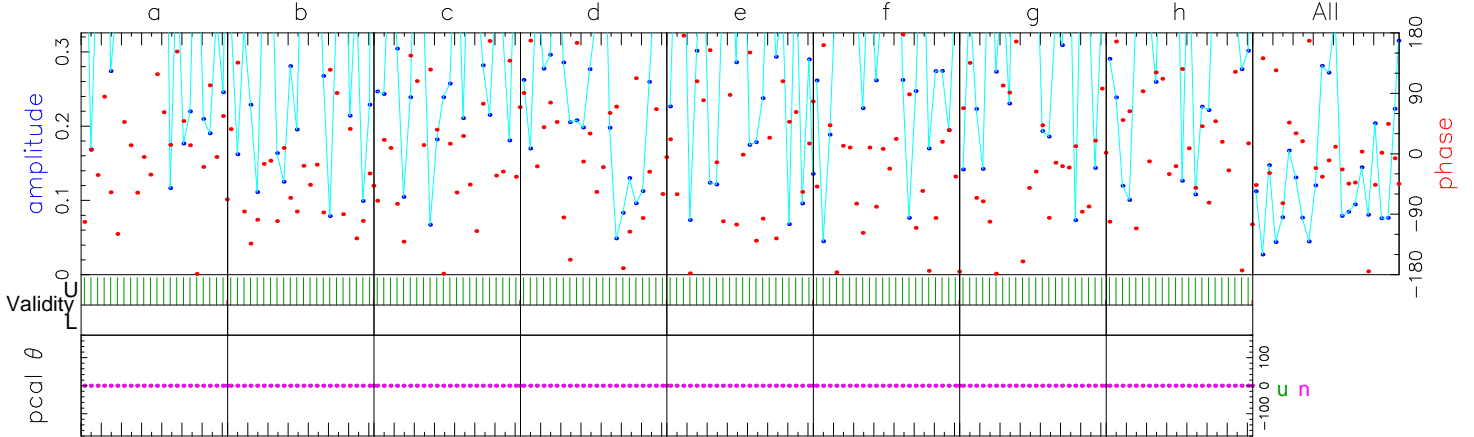


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133944
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



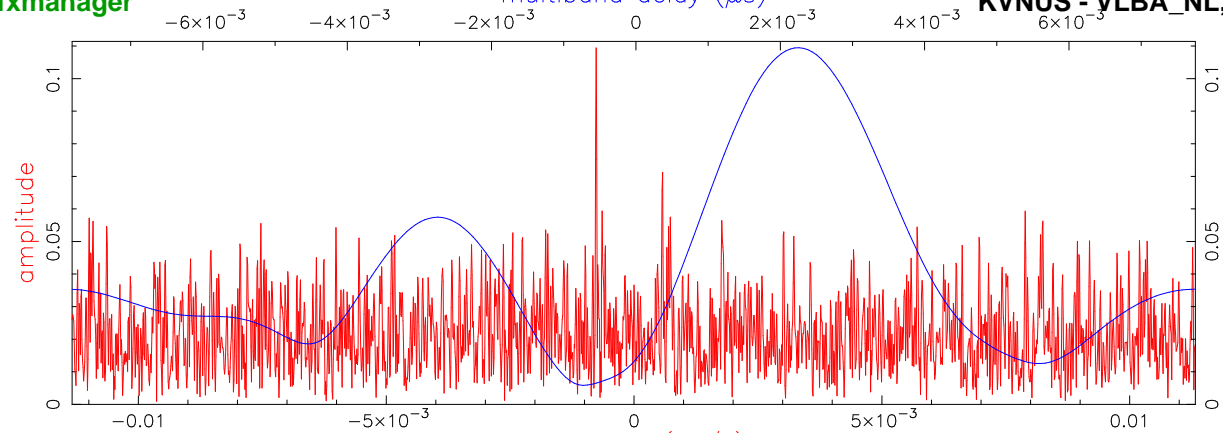
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
n	0	0	0	0	0	0	0	0		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000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

Group delay (usec)(sbd) 9.49319108426E+02 Apriori delay (usec) 9.49574074012E+02 Resid mbdelay (usec) -4.96559E-03 +/- 1.9E-04
 Sband delay (usec) 9.49322051262E+02 Apriori clock (usec) 9.2794228E+00 Resid sbdelay (usec) -2.52023E-01 +/- 1.5E-03
 Phase delay (usec) 9.49574073644E+02 Apriori clockrate (us/s) 8.2699998E-07 Resid phdelay (usec) -3.68231E-07 +/- 6.4E-07
 Delay rate (us/s) 1.41809829313E+00 Apriori rate (us/s) 1.41810231166E+00 Resid rate (us/s) -4.01853E-06 +/- 2.6E-09
 Total phase (deg) 253.3 Apriori accel (us/s/s) -1.24389265175E-05 Resid phase (deg) -11.4 +/- 19.9

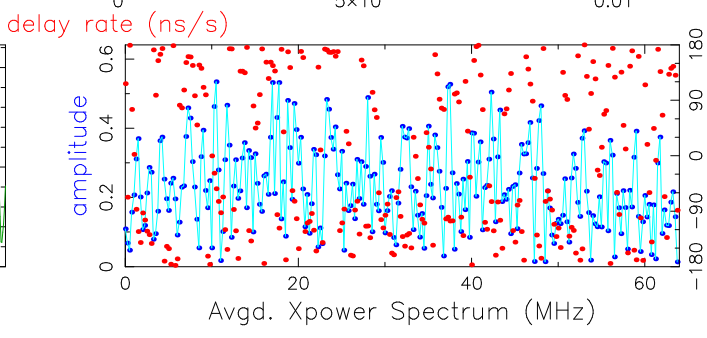
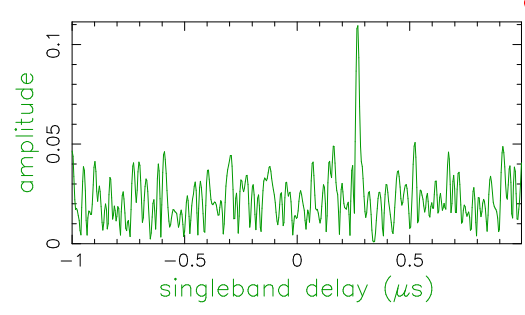
RMS Theor. Amplitude 0.109 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 73.8 47.6 Search (2048X32) 0.099 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 87.4 83.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 36.8 28.1 Inc. seg. avg. 0.105 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 39.7 49.0 Inc. frq. avg. 0.107 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 50.0 el 42.1 pa -83.3 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) -12936.124 -1517.105 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/un..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/un.W.264.1X1QEV

multiband delay (μ s)

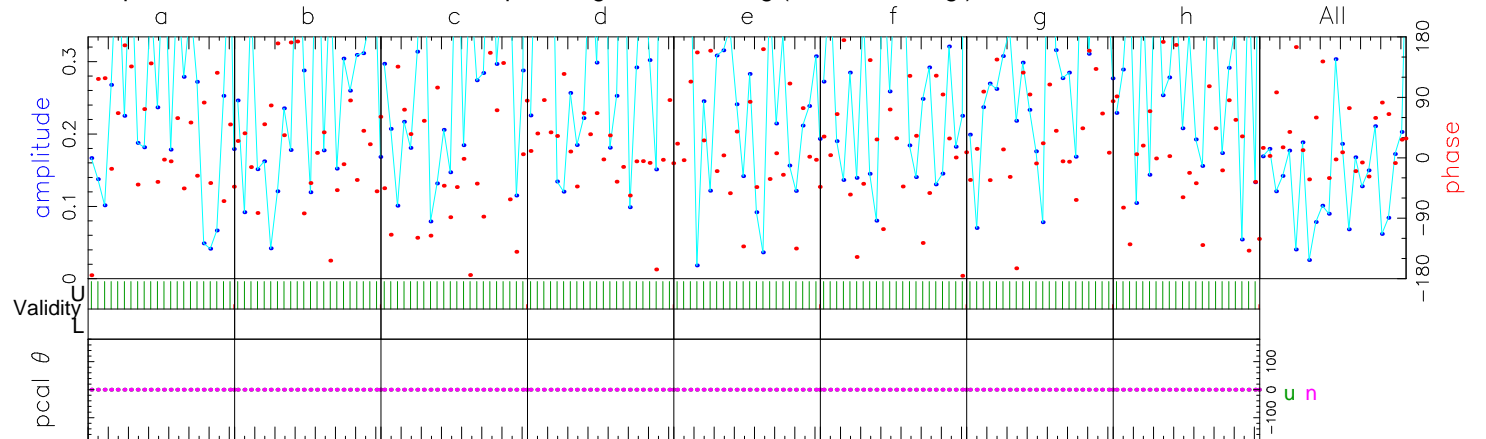


Fringe quality 0
SNR 6.2
Int time 419.826
Amp 0.111
Phase 19.1
PFD 1.2e-01
Delays (us)
SBD 0.267856
MBD 0.002204
Fringe rate (Hz)
-0.065643
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133947
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
	43.1	-0.9	-30.6	20.6	9.9	-3.4	55.6	10.5	Phase	19.1
	0.1	0.1	0.0	0.3	0.1	0.1	0.1	0.1	Ampl.	0.1
	493.0	131.9	500.4	326.2	432.1	25.6	389.6	39.4	Sbd box	325.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.49841902973E+02		Apriori delay (usec)		9.49574074012E+02		Resid mbdelay (usec)		2.20396E-03	+/- 1.7E-04
Sband delay (usec)	9.49841930262E+02		Apriori clock (usec)		9.27942228E+00		Resid sbdelay (usec)		2.67856E-01	+/- 1.4E-03
Phase delay (usec)	9.49574074627E+02		Apriori clockrate (us/s)		8.2699998E-07		Resid phdelay (usec)		6.14673E-07	+/- 5.9E-07
Delay rate (us/s)	1.41810154961E+00		Apriori rate (us/s)		1.41810231166E+00		Resid rate (us/s)		-7.62052E-07	+/- 2.4E-09
Total phase (deg)	283.8		Apriori accel (us/s/s)		-1.24389265175E-05		Resid phase (deg)		19.1	+/- 18.4

	RMS	Theor.	Amplitude	0.111 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	54.9	44.1	Search (2048X32)	0.107	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	66.9	77.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	30.1	26.0	Inc. seg. avg.	0.109	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	63.7	45.4	Inc. frq. avg.	0.106	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

u: az 50.0 el 42.1 pa -83.3 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) -12936.124 -1517.105 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/un..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/un.W.281.1X1QEV

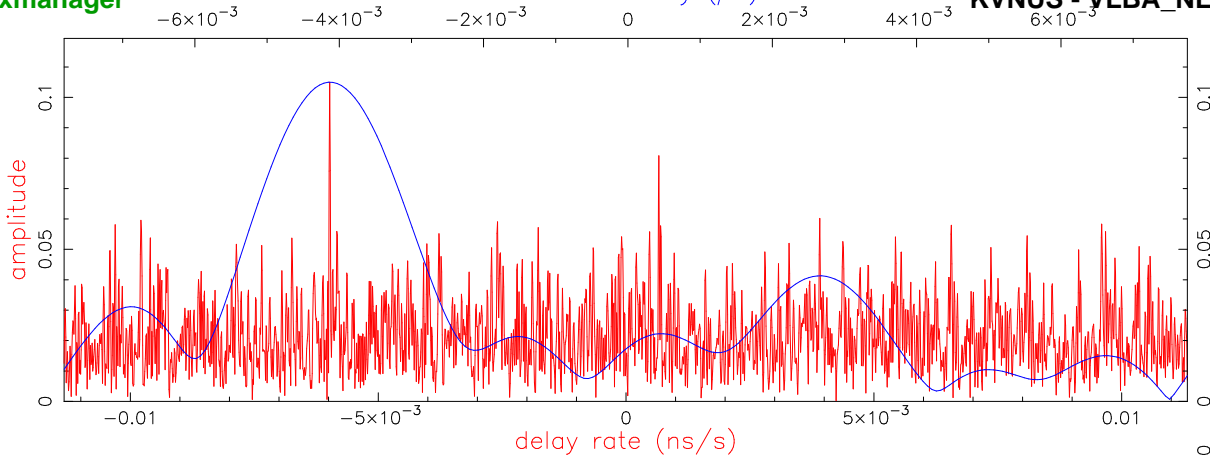
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, un

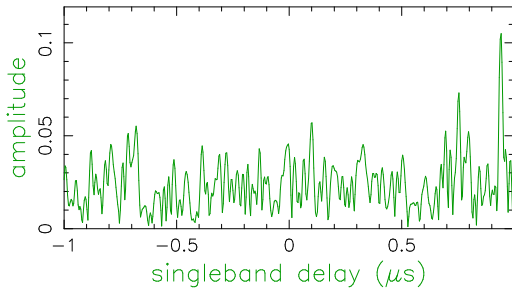
KVNUS - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

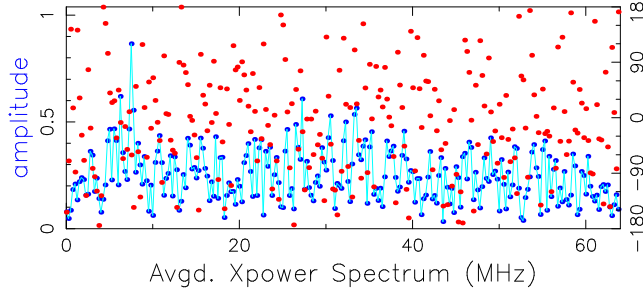


Fringe quality 0

SNR 5.9
 Int time 419.826
 Amp 0.119
 Phase 71.5
 PFD 5.0e-01
 Delays (us)
 SBD 0.940048
 MBD -0.004143
 Fringe rate (Hz)
 -0.516179
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

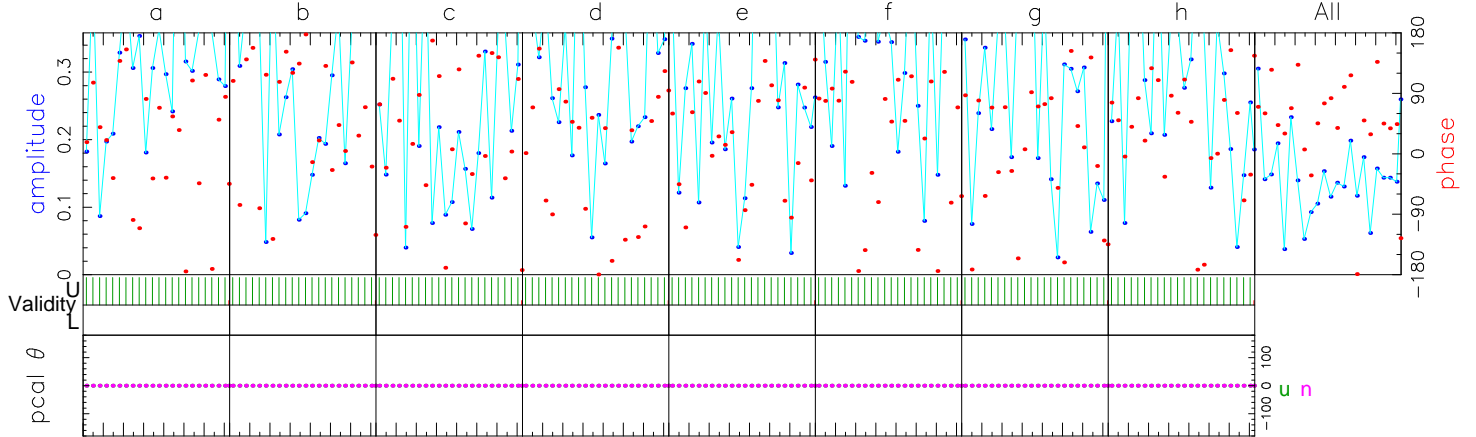


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133951
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
n	0	0	0	0	0	0	0	0		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	9.50507431370E+02	Apriori delay (usec)	9.49574074012E+02	Resid mbdelay (usec)	-4.14264E-03	+/-	1.8E-04
Sband delay (usec)	9.50514122012E+02	Apriori clock (usec)	9.2794228E+00	Resid sbdelay (usec)	9.40048E-01	+/-	1.4E-03
Phase delay (usec)	9.49574076317E+02	Apriori clockrate (us/s)	8.2699998E-07	Resid phdelay (usec)	2.30496E-06	+/-	6.2E-07
Delay rate (us/s)	1.41809631934E+00	Apriori rate (us/s)	1.41810231166E+00	Resid rate (us/s)	-5.99232E-06	+/-	2.6E-09
Total phase (deg)	336.2	Apriori accel (us/s/s)	-1.24389265175E-05	Resid phase (deg)	71.5	+/-	19.3

ph/seg (deg)	49.5	RMS	46.2	Theor.	46.2	Amplitude	0.119 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	64.8					Search (2048X32)	0.101	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008
ph/frq (deg)	14.8					Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	31.2					Inc. seg. avg.	0.121	Sample rate (MSamp/s):	128			ion window (TEC)	0.00	0.00
						Inc. frq. avg.	0.109	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite	

u: az 50.0 el 42.1 pa -83.3 n: az 307.6 el 40.1 pa 70.0 u,v (fr/asec) -12936.124 -1517.105 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/un..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/un.W.298.1X1QEV

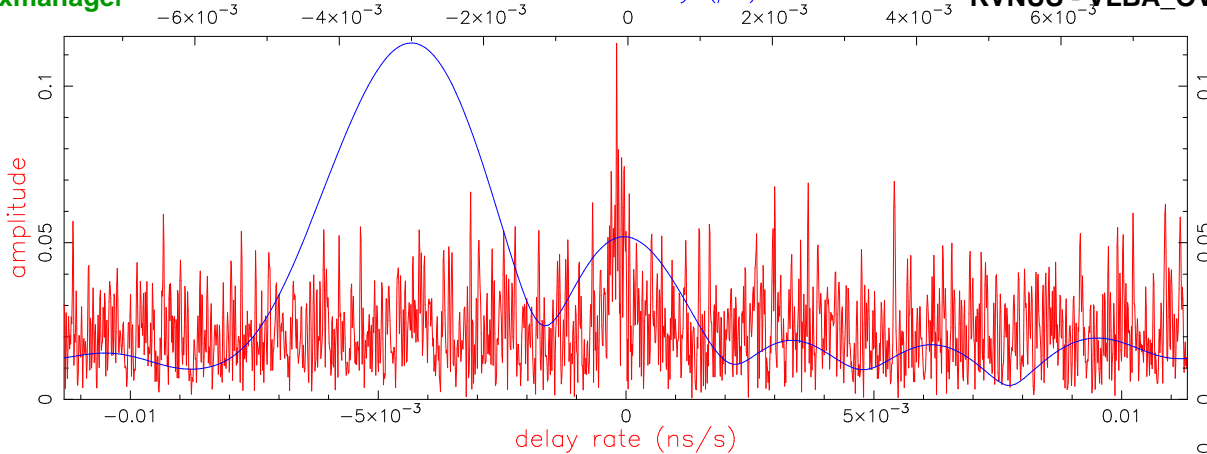
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, uo

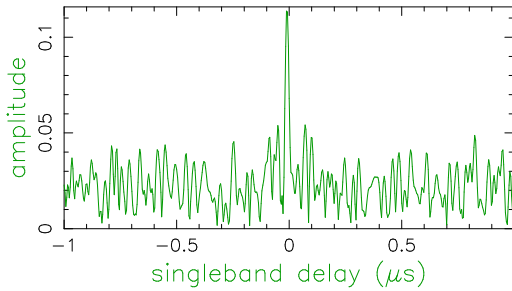
KVNUS - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

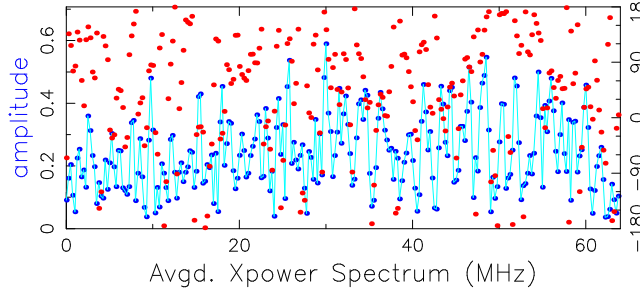


Fringe quality 0

SNR 6.5
Int time 419.823
Amp 0.116
Phase 0.8
PFD 2.3e-02
Delays (us)
SBD -0.009883
MBD -0.002943
Fringe rate (Hz)
-0.016508
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

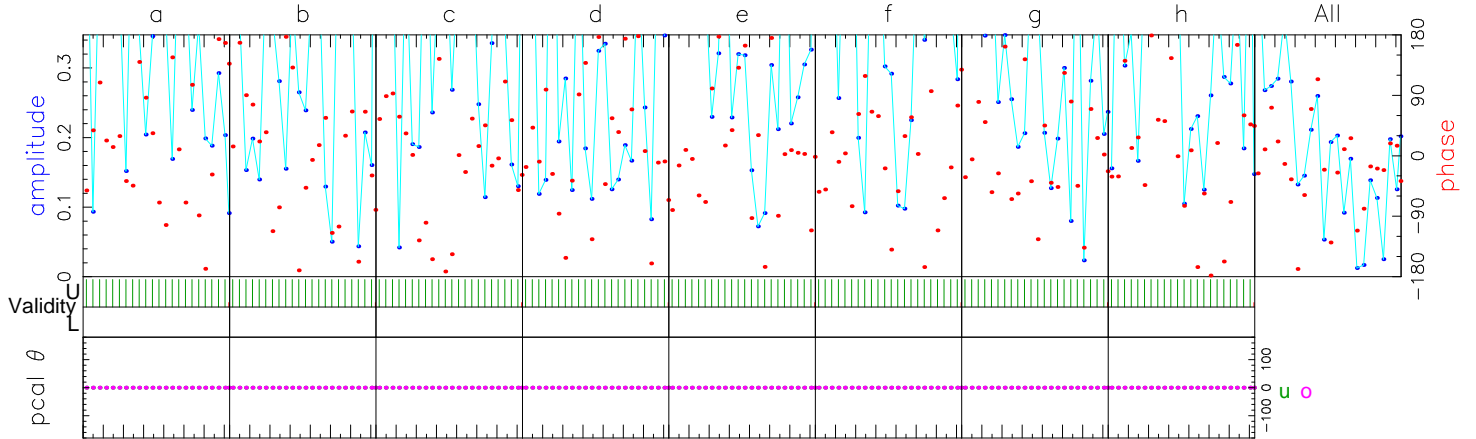


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133940
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
	-12.4	16.8	45.9	-1.1	-23.7	-8.3	-14.0	30.4	Phase	0.8
	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
	54.1	86.4	300.6	59.0	255.0	253.2	398.9	221.5	Sbd box	254.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-2.56846742157E+03	Apriori delay (usec)	-2.56846447894E+03	Resid mbdelay (usec)	-2.94263E-03	+/-	1.7E-04
Sband delay (usec)	-2.56847436194E+03	Apriori clock (usec)	1.1008455E+01	Resid sbdelay (usec)	-9.88300E-03	+/-	1.3E-03
Phase delay (usec)	-2.56846447891E+03	Apriori clockrate (us/s)	7.6699996E-07	Resid phdelay (usec)	2.64492E-08	+/-	5.7E-07
Delay rate (us/s)	1.29795245085E+00	Apriori rate (us/s)	1.29795264248E+00	Resid rate (us/s)	-1.91638E-07	+/-	2.3E-09
Total phase (deg)	-76.8	Apriori accel (us/s/s)	1.16307621814E-05	Resid phase (deg)	0.8	+/-	17.6

ph/seg (deg)	RMS 66.1	Theor. 42.3	Amplitude Search (2048X32)	0.116 +/- 0.018	0.110	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	115.8	73.9	Interp.	0.000	0.110	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	26.6	25.0	Inc. seg. avg.	0.145	0.145	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	25.3	43.6	Inc. frq. avg.	0.112	0.112	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 50.0 el 42.1 pa -83.3 o: az 308.0 el 53.8 pa 92.9 u,v (fr/asec) -11790.561 1145.499 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/uo..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/uo.W.245.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

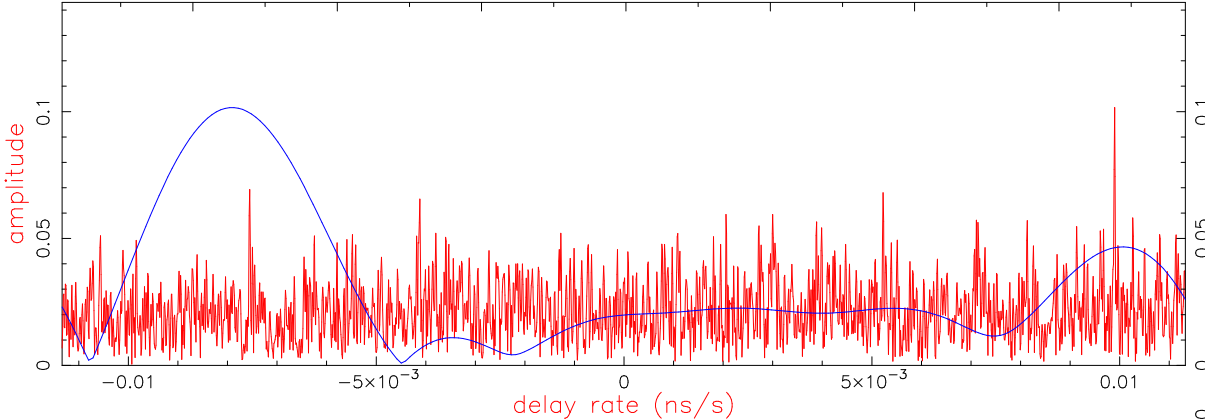
NRAO150.1X1QEV, No0120, uo

KVNUS - VLBA_OV, fgroup W, pol RR

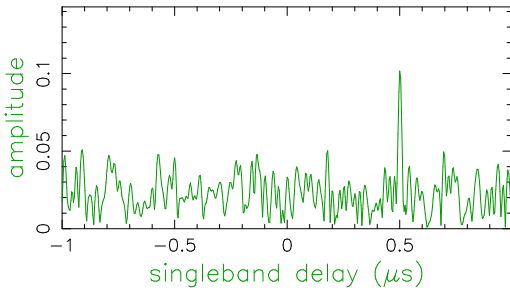
multiband delay (μ s)

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

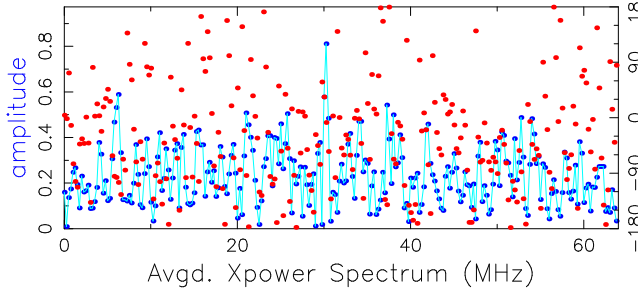
Fringe quality 0



SNR 5.7
 Int time 419.823
 Amp 0.143
 Phase 21.3
 PFD 9.3e-01
 Delays (us)
 SBD 0.500932
 MBD -0.005449
 Fringe rate (Hz)
 0.853727
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

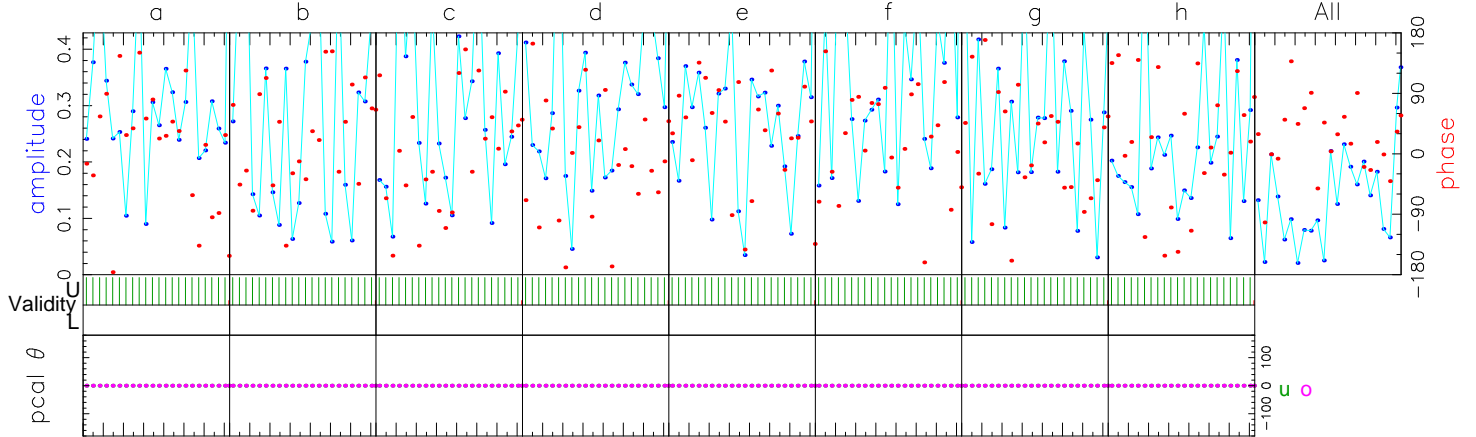


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133944
 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
	41.4	8.5	24.7	-19.8	56.9	31.1	4.4	29.1	Phase	21.3
	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.0	Ampl.	0.1
	387.1	153.0	265.9	301.1	472.0	487.3	485.9	229.4	Sbd box	385.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.56796992745E+03		Apriori delay (usec)		-2.56846447894E+03		Resid mbdelay (usec)		-5.44851E-03	+/- 1.9E-04
Sband delay (usec)	-2.56796354744E+03		Apriori clock (usec)		1.1008455E+01		Resid sbdelay (usec)		5.00932E-01	+/- 1.5E-03
Phase delay (usec)	-2.56846447825E+03		Apriori clockrate (us/s)		7.6699996E-07		Resid phdelay (usec)		6.86133E-07	+/- 6.5E-07
Delay rate (us/s)	1.29796255341E+00		Apriori rate (us/s)		1.29795264248E+00		Resid rate (us/s)		9.91093E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		1.16307621814E-05		Resid phase (deg)		21.3	+/- 20.0

	RMS	Theor.	Amplitude	0.143 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	51.7	48.0	Search (2048X32)	0.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	79.8	83.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	25.8	28.3	Inc. seg. avg.	0.137	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	34.0	49.4	Inc. frq. avg.	0.138	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

u: az 50.0 el 42.1 pa -83.3 o: az 308.0 el 53.8 pa 92.9 u,v (fr/asec) -11790.561 1145.499 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/uo..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/uo.W.262.1X1QEV

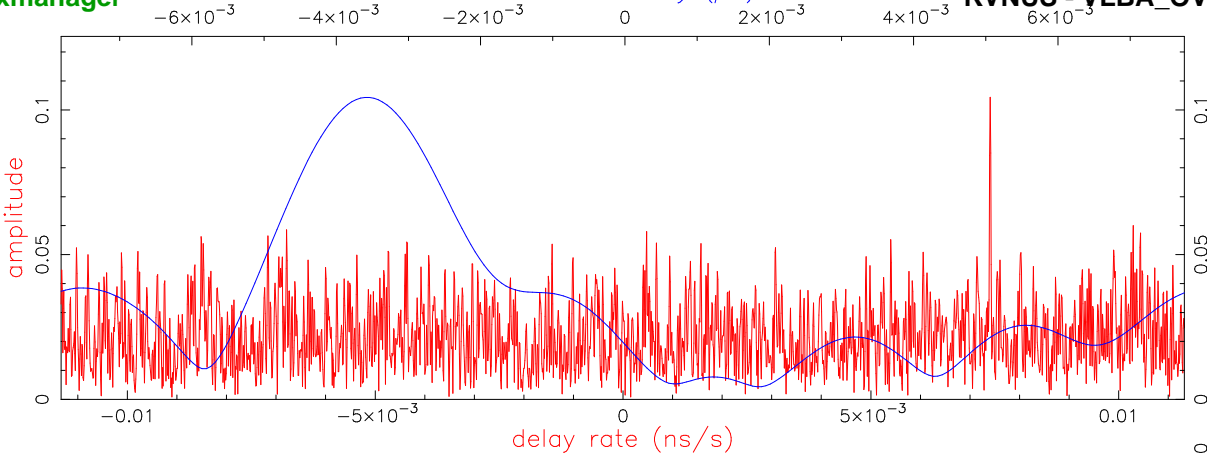
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, uo

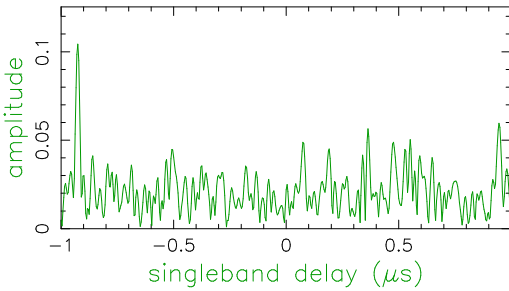
KVNUS - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

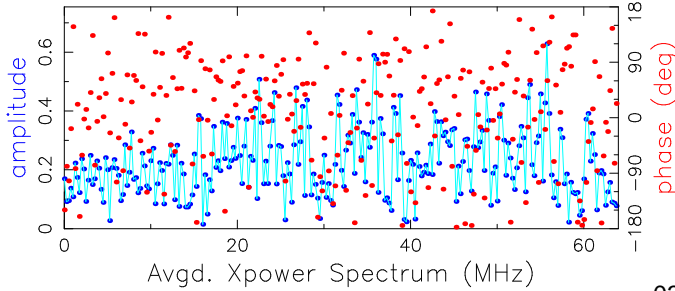


Fringe quality 0

SNR 5.9
 Int time 419.823
 Amp 0.125
 Phase -152.5
 PFD 7.1e-01
 Delays (us)
 SBD -0.926213
 MBD -0.003588
 Fringe rate (Hz)
 0.639296
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

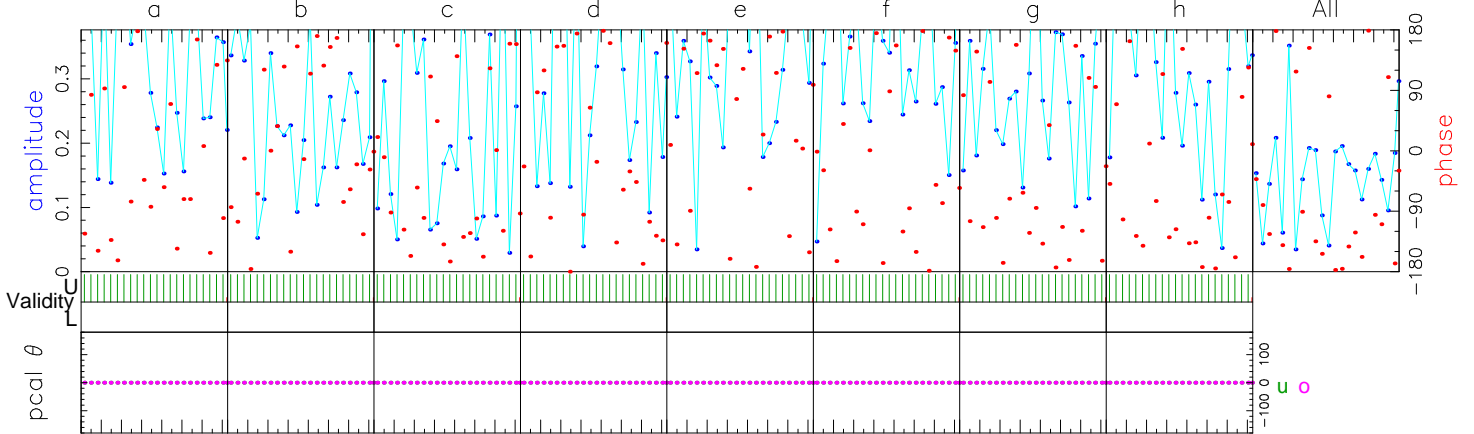


delay rate (ns/s)



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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
o	0	0	0	0	0	0	0	0		
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-2.56938994146E+03	Apriori delay (usec)	-2.56846447894E+03	Resid mbdelay (usec)	-3.58752E-03	+/-	1.9E-04
Sband delay (usec)	-2.56939069169E+03	Apriori clock (usec)	1.1008455E+01	Resid sbdelay (usec)	-9.26213E-01	+/-	1.5E-03
Phase delay (usec)	-2.56846448385E+03	Apriori clockrate (us/s)	7.6699996E-07	Resid phdelay (usec)	-4.91720E-06	+/-	6.3E-07
Delay rate (us/s)	1.29796006408E+00	Apriori rate (us/s)	1.29795264248E+00	Resid rate (us/s)	7.42159E-06	+/-	2.6E-09
Total phase (deg)	-230.1	Apriori accel (us/s/s)	1.16307621814E-05	Resid phase (deg)	-152.5	+/-	19.6

ph/seg (deg)	56.7	Theor.	47.0	Amplitude	0.125 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	79.2		82.0	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	37.8		27.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	41.5		48.3	Inc. seg. avg.	0.133	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.123	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

u: az 50.0 el 42.1 pa -83.3

o: az 308.0 el 53.8 pa 92.9

u,v (fr/asec) -11790.561 1145.499

simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/uo..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/uo.W.279.1X1QEV

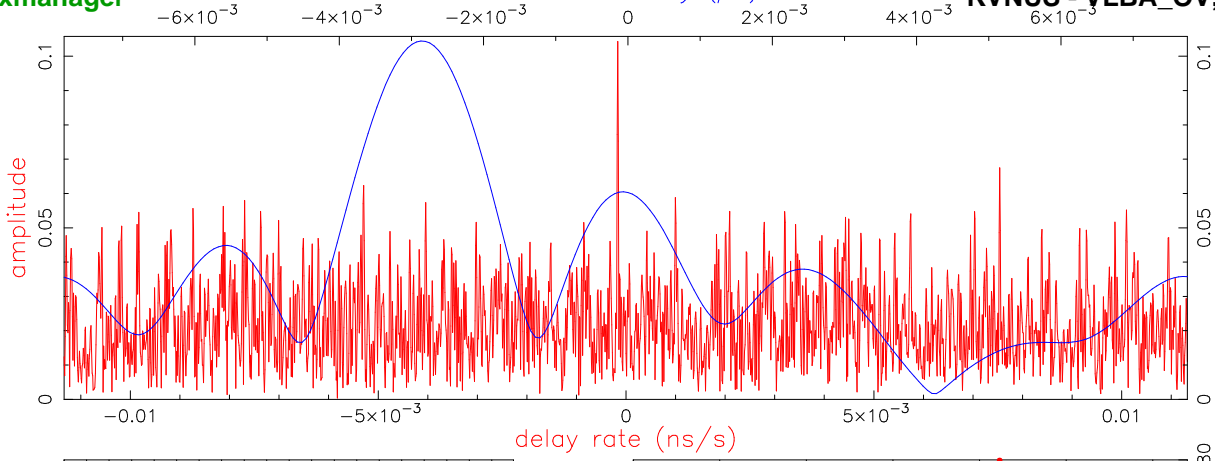
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

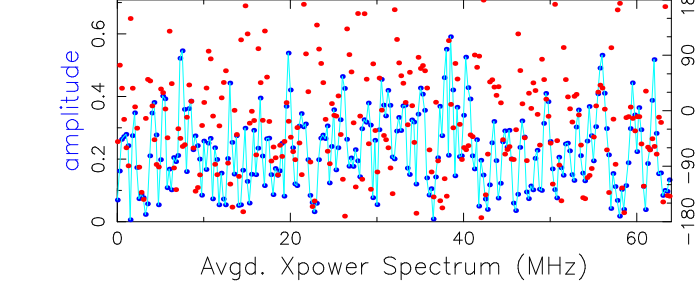
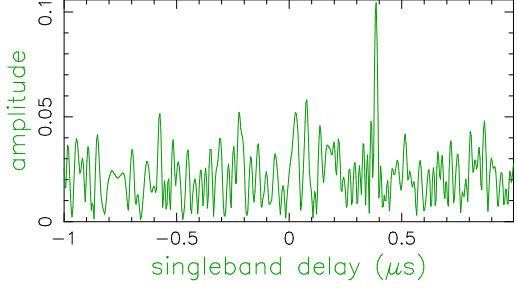
NRAO150.1X1QEV, No0120, uo

KVNUS - VLBA_OV, fgroup W, pol RL

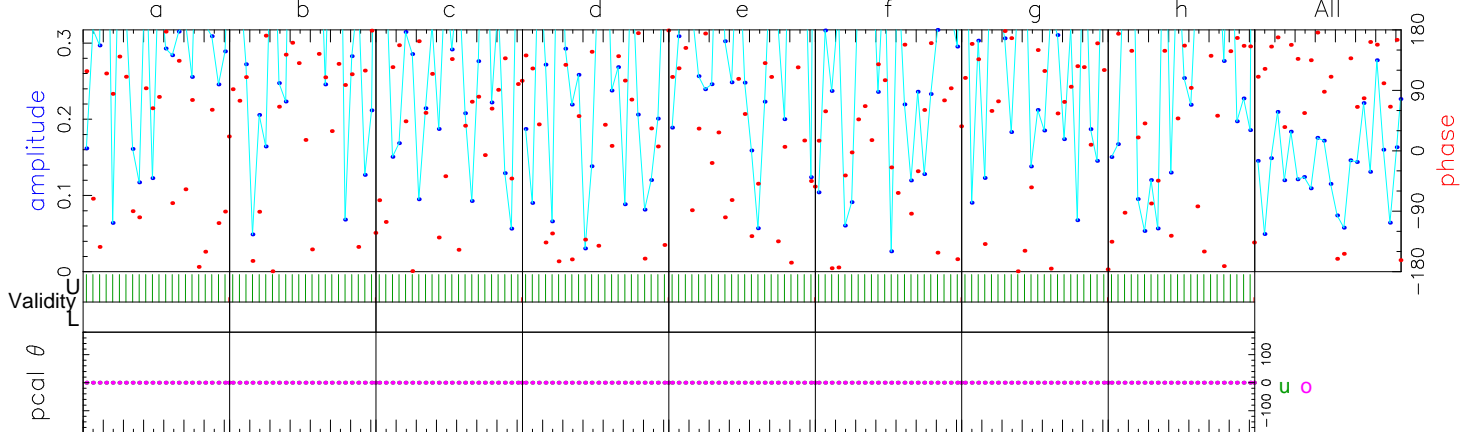
multiband delay (μ s)



Fringe quality 0
 SNR 5.9
 Int time 419.823
 Amp 0.106
 Phase 130.2
 PFD 5.5e-01
 Delays (us)
 SBD 0.385419
 MBD -0.002900
 Fringe rate (Hz)
 -0.014287
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133950
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
o	0	0	0	0	0	0	0	0		
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-2.56807675411E+03									
Sband delay (usec)	-2.56807906044E+03									
Phase delay (usec)	-2.56846447474E+03									
Delay rate (us/s)	1.29795247662E+00									
Total phase (deg)			52.6							
Apriori delay (usec)					-2.56846447894E+03					
Apriori clock (usec)					1.1008455E+01					
Apriori clockrate (us/s)					7.6699996E-07					
Apriori rate (us/s)					1.29795264248E+00					
Apriori accel (us/s/s)					1.16307621814E-05					
Resid mbdelay (usec)									-2.90018E-03	+/- 1.8E-04
Resid sbdelay (usec)									3.85419E-01	+/- 1.5E-03
Resid phdelay (usec)									4.19935E-06	+/- 6.2E-07
Resid rate (us/s)									-1.65863E-07	+/- 2.6E-09
Resid phase (deg)									130.2	+/- 19.3
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		nlags: 256		t_cohere infinite		ion window (TEC)		0.00	
u:	az 50.0 el 42.1 pa -83.3		o: az 308.0 el 53.8 pa 92.9		u, v (fr/asec) -11790.561 1145.499		simultaneous interpolator			

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/uo..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/uo.W.296.1X1QEV

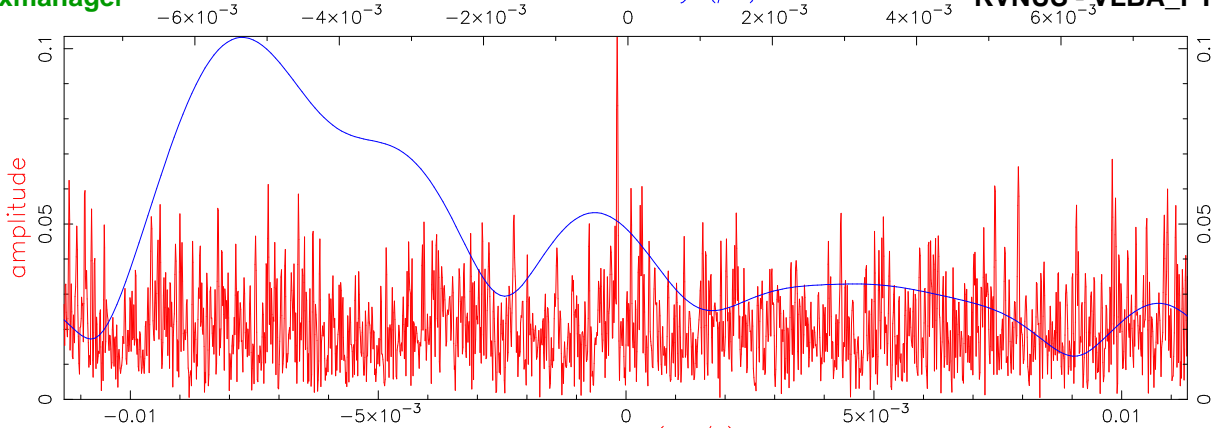
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

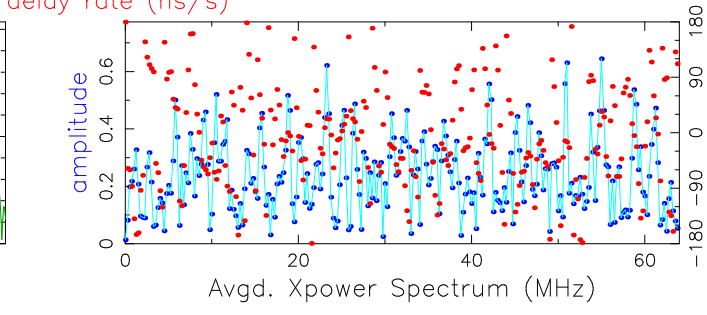
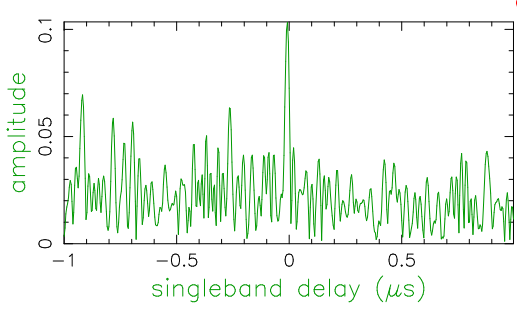
NRAO150.1X1QEV, No0120, up

KVNUS - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

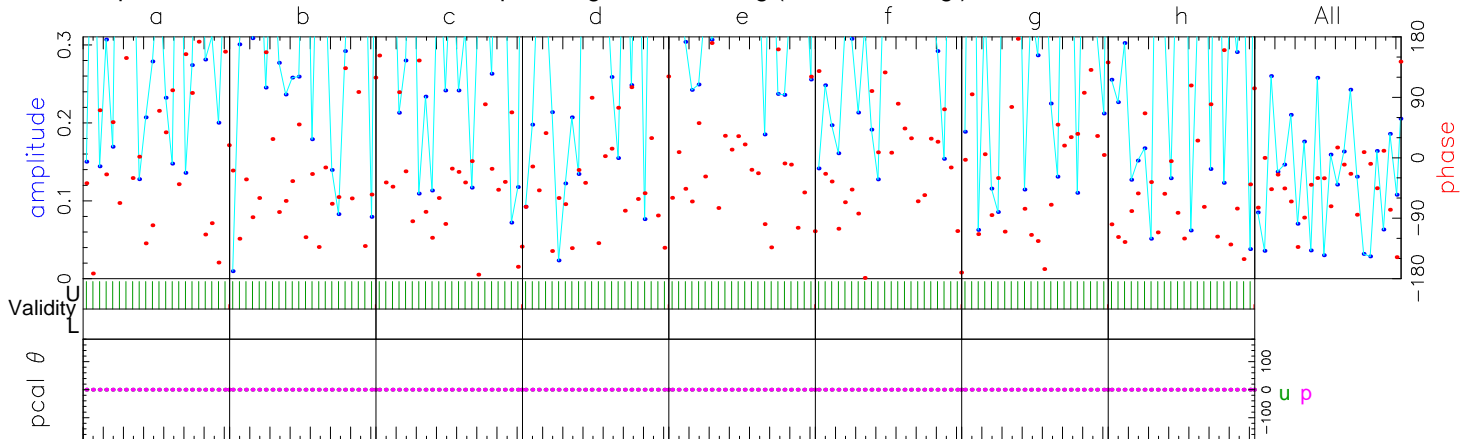


Fringe quality 0
 SNR 5.8
 Int time 419.825
 Amp 0.103
 Phase -48.8
 PFD 8.1e-01
 Delays (us)
 SBD -0.008606
 MBD -0.005365
 Fringe rate (Hz)
 -0.015068
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133941
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

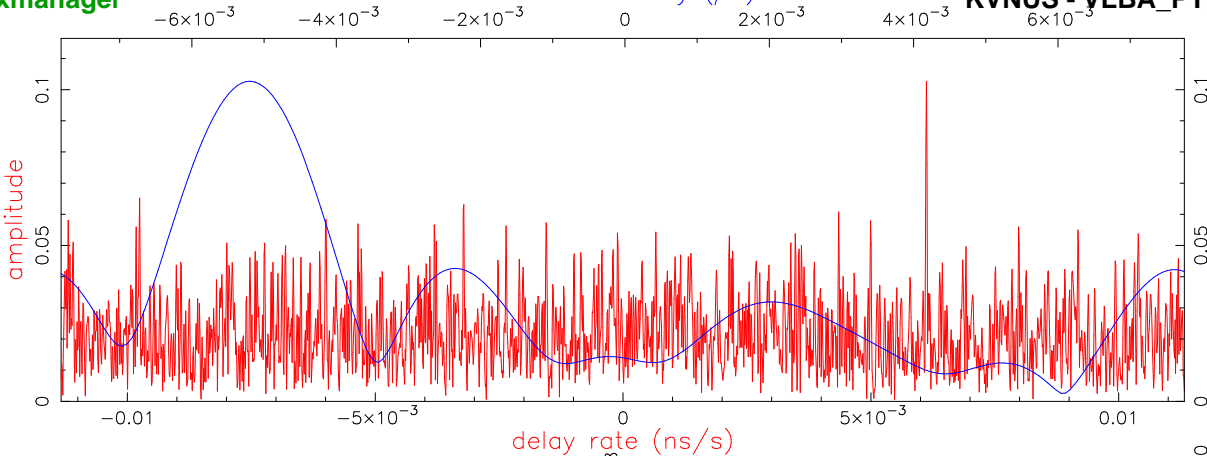
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-95.6	-70.7	-49.2	-41.6	-24.7	-6.9	72.4	-100.1	Phase	-48.8
	0.0	0.1	0.2	0.1	0.2	0.1	0.1	0.2	Ampl.	0.1
	22.0	373.3	256.0	271.4	254.6	56.2	24.7	254.3	Sbd box	254.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
u:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.67864228576E+02		Apriori delay (usec)		-5.67858864047E+02		Resid mbdelay (usec)		-5.36453E-03	+/- 1.9E-04
Sband delay (usec)	-5.67867470047E+02		Apriori clock (usec)		9.2321873E+00		Resid sbdelay (usec)		-8.60600E-03	+/- 1.5E-03
Phase delay (usec)	-5.67858865621E+02		Apriori clockrate (us/s)		1.2470000E-06		Resid phdelay (usec)		-1.57428E-06	+/- 6.4E-07
Delay rate (us/s)	1.40417003054E+00		Apriori rate (us/s)		1.40417020546E+00		Resid rate (us/s)		-1.74927E-07	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		4.6124311157E-06		Resid phase (deg)		-48.8	+/- 19.8

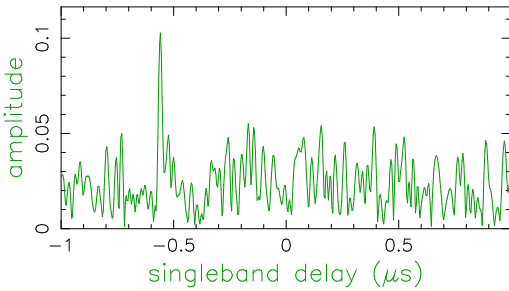
ph/seg (deg) 45.0 47.4 Search (2048X32) 0.102 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.6 82.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 61.1 27.9 Inc. seg. avg. 0.097 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 57.0 48.8 Inc. frq. avg. 0.121 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 u: az 50.0 el 42.1 pa -83.3 p: az 310.4 el 45.6 pa 88.4 u,v (fr/asec) -12773.518 707.114 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/up..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/up.W.252.1X1QEV

multiband delay (μ s)

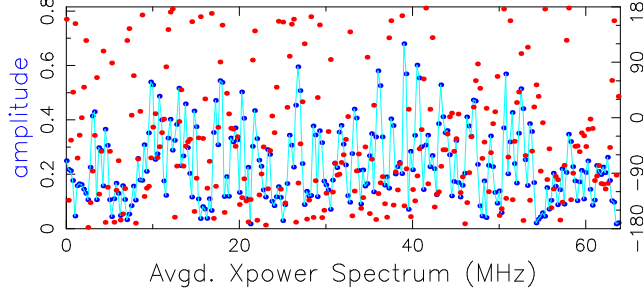


Fringe quality 0

SNR 5.8
Int time 419.825
Amp 0.116
Phase -1.4
PFD 8.7e-01
Delays (us)
SBD -0.559274
MBD -0.005214
Fringe rate (Hz)
0.528325
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

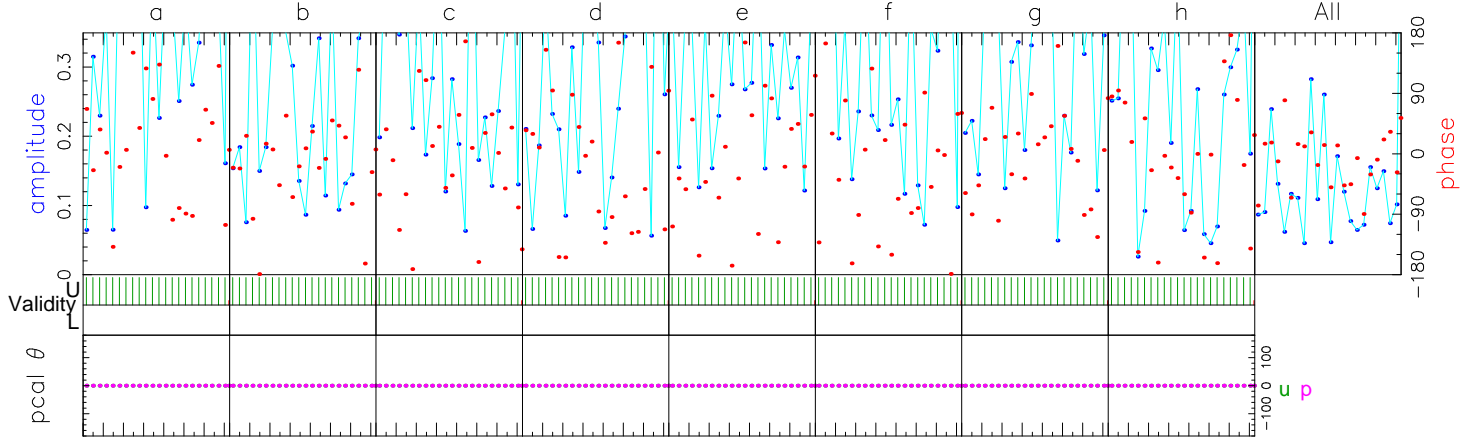


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133944
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'59.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
p	0	0	0	0	0	0	0	0		
u:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-5.68410953155E+02				-5.67858864047E+02				-5.21411E-03	+/- 1.9E-04
Sband delay (usec)	-5.68418138297E+02				9.2321873E+00				-5.59274E-01	+/- 1.5E-03
Phase delay (usec)	-5.67858864092E+02				1.2470000E-06				-4.45207E-08	+/- 6.4E-07
Delay rate (us/s)	1.40417633880E+00				1.40417020546E+00				6.13333E-06	+/- 2.6E-09
Total phase (deg)			-199.0		4.6124311157E-06				-1.4	+/- 19.9
	RMS	Theor.	Amplitude	0.116 +/- 0.020	Pcal mode: MANUAL, MANUAL				PC period (AP's) 5, 5	
ph/seg (deg)	40.9	47.6	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				sb window (us)	-1.000 1.000
amp/seg (%)	74.2	83.2	Interp.	0.000	Bits/sample: 2x2				mb window (us)	-0.008 0.008
ph/frq (deg)	25.6	28.1	Inc. seg. avg.	0.105	Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011
amp/frq (%)	34.0	49.0	Inc. frq. avg.	0.110	Data rate(Mb/s): 2048				ion window (TEC)	0.00 0.00
u: az 50.0 el 42.1 pa -83.3										
p: az 310.4 el 45.6 pa 88.4										
u,v (fr/asec) -12773.518 707.114										
Control file: cf_1234_gmva	Input file: /Exps/c211c/v1/1234/No0120/up..1X1QEV	Output file: /Exps/c211c/v1/1234/No0120/up.W.268.1X1QEV								simultaneous interpolator

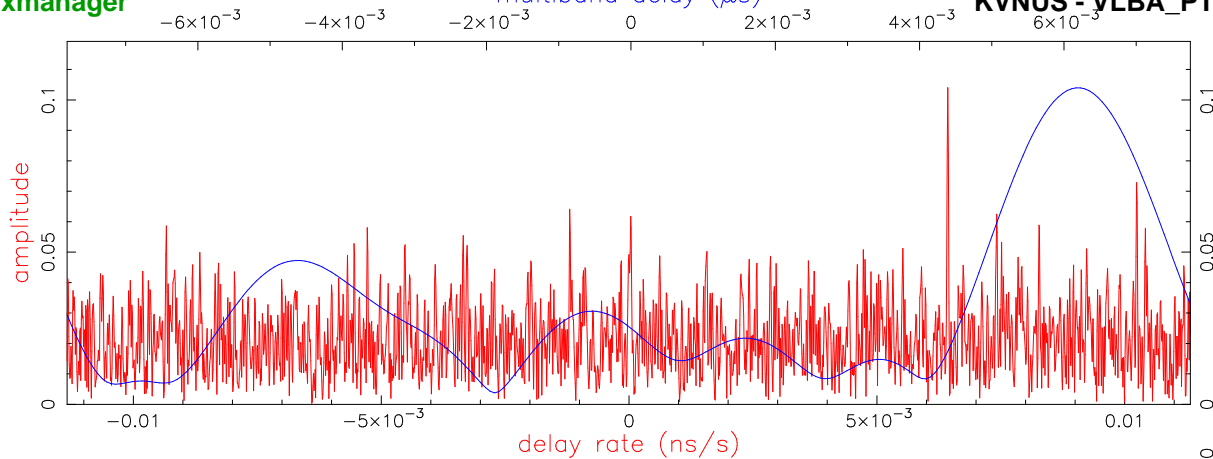
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, up

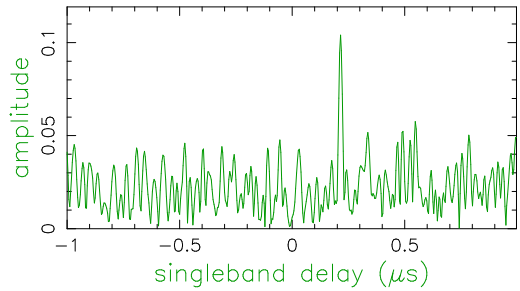
KVNUS - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

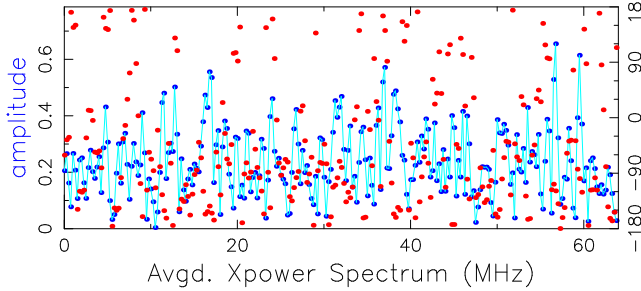


Fringe quality 0

SNR 5.8
 Int time 419.825
 Amp 0.119
 Phase 129.7
 PFD 7.6e-01
 Delays (us)
 SBD 0.214981
 MBD 0.006196
 Fringe rate (Hz)
 0.555252
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

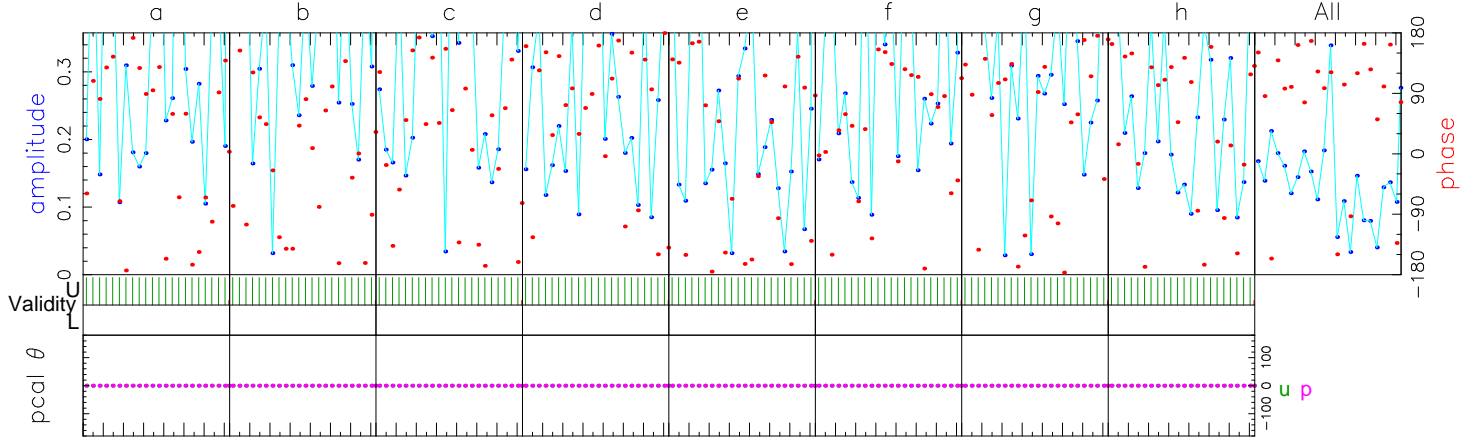


delay rate (ns/s)



Exp. c211c
 Yr:day 16383
 Start 2021:117
 Stop 2021:117
 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			
u	1000	1000	1000	1000	1000	1000	1000	1000			
p	0	0	0	0	0	0	0	0			
u:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
u:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
u	1000	1000	1000	1000	1000	1000	1000	1000			
p	1000	1000	1000	1000	1000	1000	1000	1000			
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)	-5.67649543229E+02								6.19582E-03	+/- 1.9E-04	
Sband delay (usec)	-5.67643882547E+02								2.14981E-01	+/- 1.5E-03	
Phase delay (usec)	-5.67858859866E+02								4.18100E-06	+/- 6.3E-07	
Delay rate (us/s)	1.40417665139E+00								6.44592E-06	+/- 2.6E-09	
Total phase (deg)			-68.0						129.7	+/- 19.7	
			Apriori delay (usec)		-5.67858864047E+02				Resid mbdelay (usec)		
			Apriori clock (usec)		0.102				Resid sbdelay (usec)		
			Apriori clockrate (us/s)		1.2470000E-06				Resid phdelay (usec)		
			Apriori rate (us/s)		1.40417020546E+00				Resid rate (us/s)		
			Apriori accel (us/s/s)		4.6124311157E-06				Resid phase (deg)		
ph/seg (deg)	52.9	47.1	Search (2048X32)	0.119 +/- 0.020					PCal mode: MANUAL, MANUAL		
amp/seg (%)	70.5	82.3	Interp.	0.000					PCal rate: 0.000E+00, 0.000E+00 (us/s)		
ph/frq (deg)	29.4	27.8	Inc. seg. avg.	0.118					SampCntNorm: enabled		
amp/frq (%)	31.9	48.5	Inc. frq. avg.	0.116					Sample rate(MISamp/s): 128		
									Data rate(Mb/s): 2048		
									nlags: 256		
									t_cohere infinite		
u: az 50.0 el 42.1 pa -83.3			p: az 310.4 el 45.6 pa 88.4						ion window (TEC)	0.00	0.00
											simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/up..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/up.W.286.1X1QEV

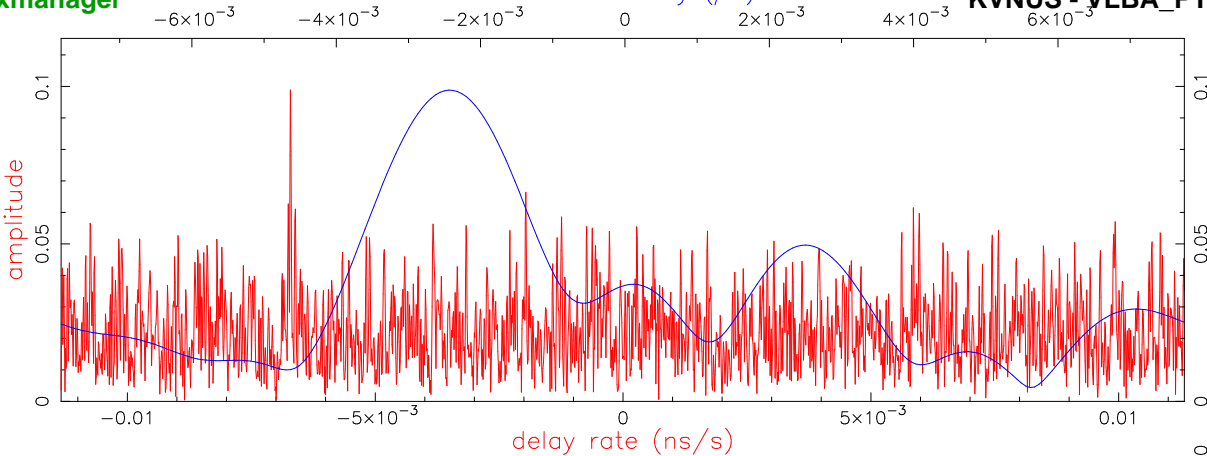
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, up

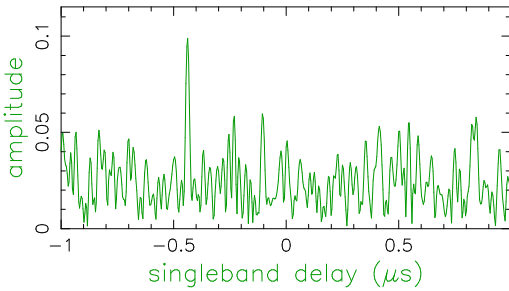
KVNUS - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

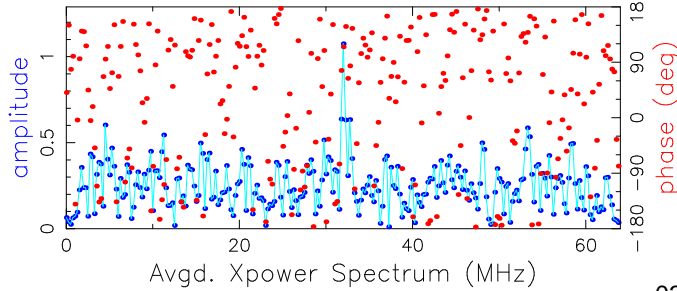


Fringe quality 0

SNR 5.6
Int time 419.825
Amp 0.115
Phase 139.8
PFD 1.0e+00
Delays (us)
SBD -0.438441
MBD -0.002439
Fringe rate (Hz)
-0.579006
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

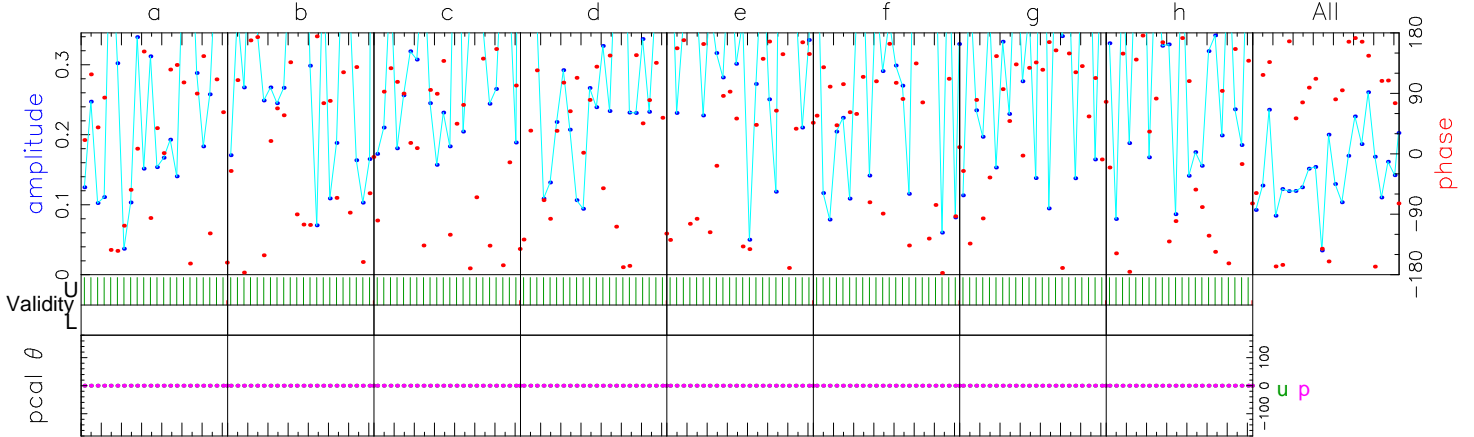


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:117
Start 004500.00
Stop 005159.84
FRT 004830.00
Corr/FF/build
2021:303:225133
2021:304:133951
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0			
u	1000	1000	1000	1000	1000	1000	1000	1000			
p	0	0	0	0	0	0	0	0			
u:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC freqs	
u:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
u	1000	1000	1000	1000	1000	1000	1000	1000		Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
u	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)	-5.68298803105E+02				-5.67858864047E+02				Resid mbdelay (usec)	-2.43906E-03	+/- 2.0E-04
Sband delay (usec)	-5.68297305047E+02				9.2321873E+00				Resid sbdelay (usec)	-4.38441E-01	+/- 1.5E-03
Phase delay (usec)	-5.67858859538E+02				1.2470000E-06				Resid phdelay (usec)	4.50894E-06	+/- 6.6E-07
Delay rate (us/s)	1.40416348378E+00				1.40417020546E+00				Resid rate (us/s)	-6.72169E-06	+/- 2.7E-09
Total phase (deg)			-57.8		4.6124311157E-06				Resid phase (deg)	139.8	+/- 20.6

	RMS	Theor.	Amplitude	0.115 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	59.1	49.4	Search (2048X32)	0.097	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	70.9	86.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	29.6	29.1	Inc. seg. avg.	0.124	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	39.0	50.8	Inc. frq. avg.	0.113	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 50.0 el 42.1 pa -83.3 p: az 310.4 el 45.6 pa 88.4 u,v (fr/asec) -12773.518 707.114 simultaneous interpolator

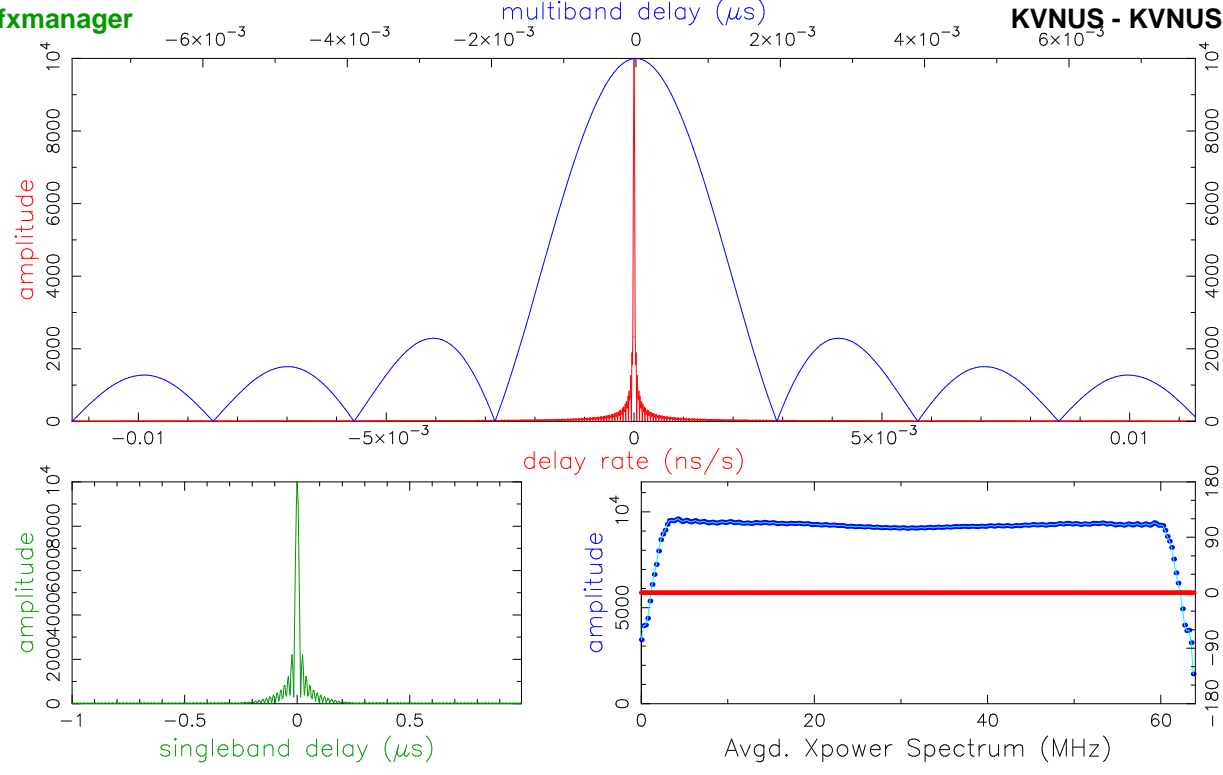
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/up..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/up.W.300.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, uu

KVNU5 - KVNU5, fgroup W, pol LL

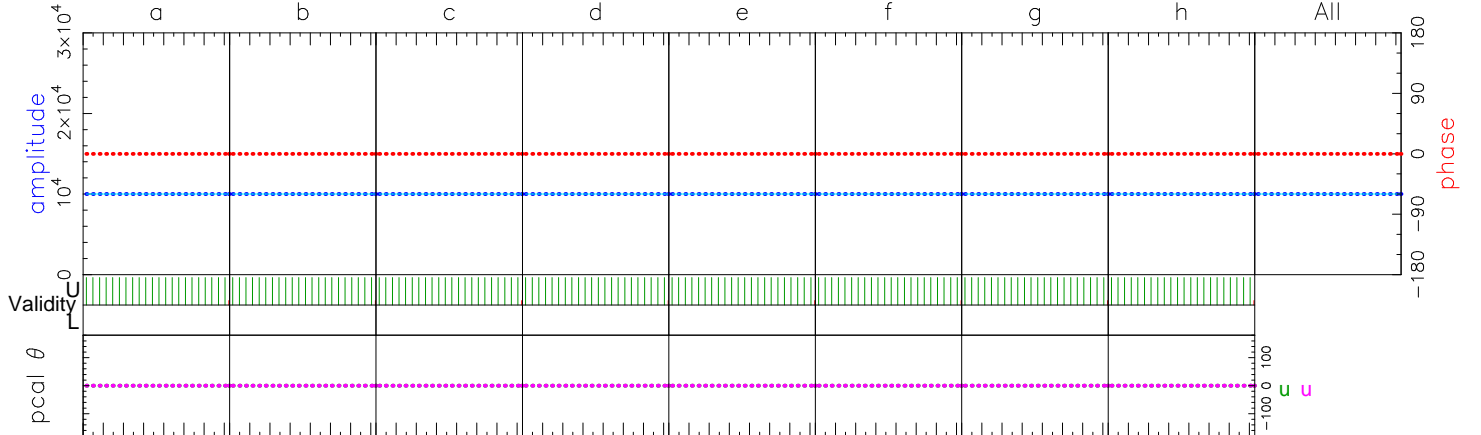


Fringe quality 9

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
 2021:304:133941
 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
u	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0.0	0.0
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0.0	0.0
u	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
u	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

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

ph/seg (deg) 0.0 0.0 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
 u: az 50.0 el 42.1 pa -83.3 u: az 50.0 el 42.1 pa -83.3 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
 simultaneous interpolator

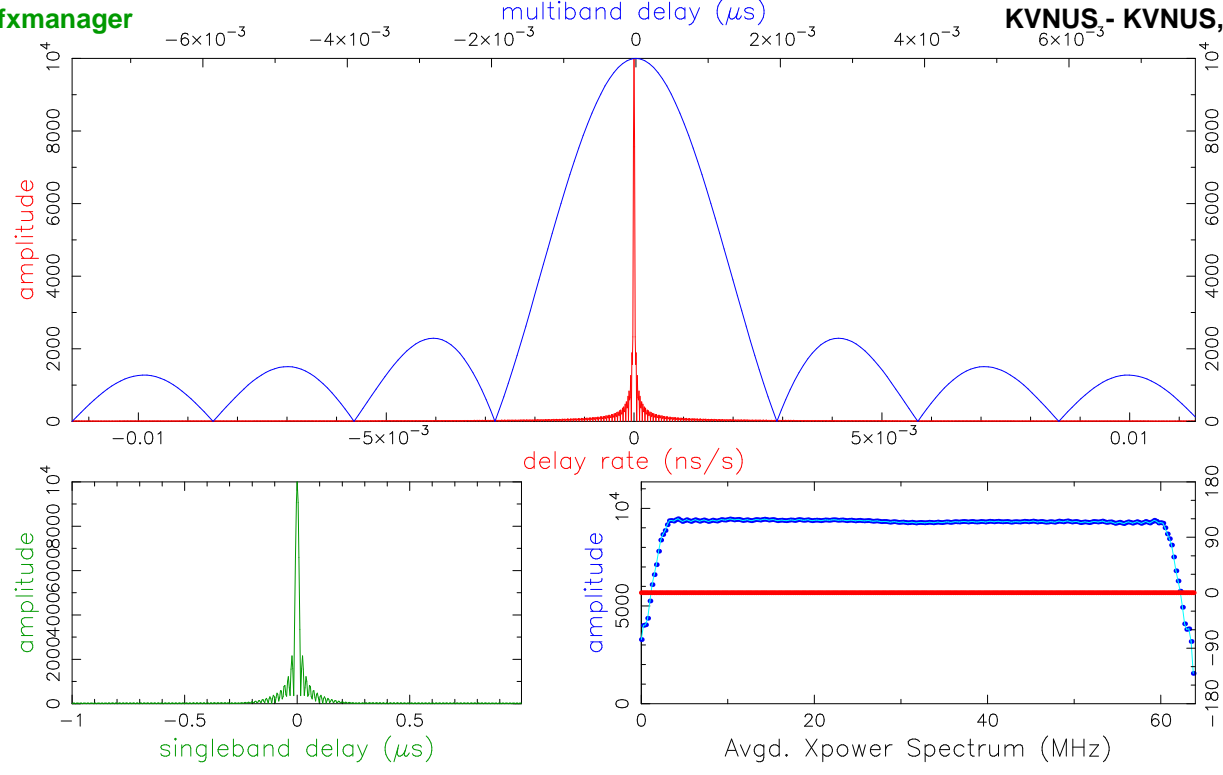
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/uu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/uu.W.251.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, uu

KVNUS- KVNUS, fgroup W, pol RR

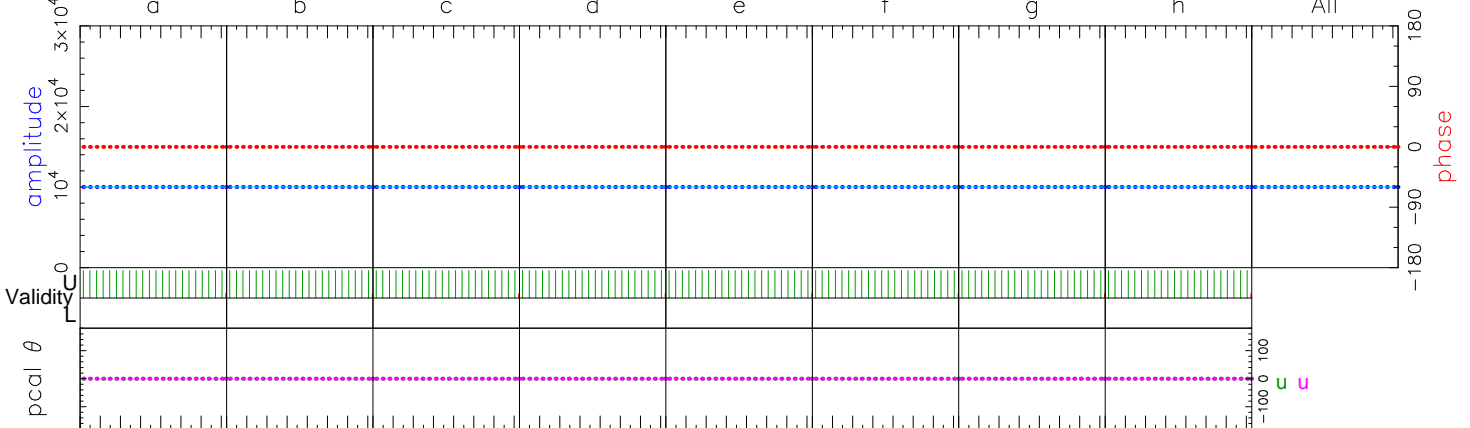


Fringe quality 9

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

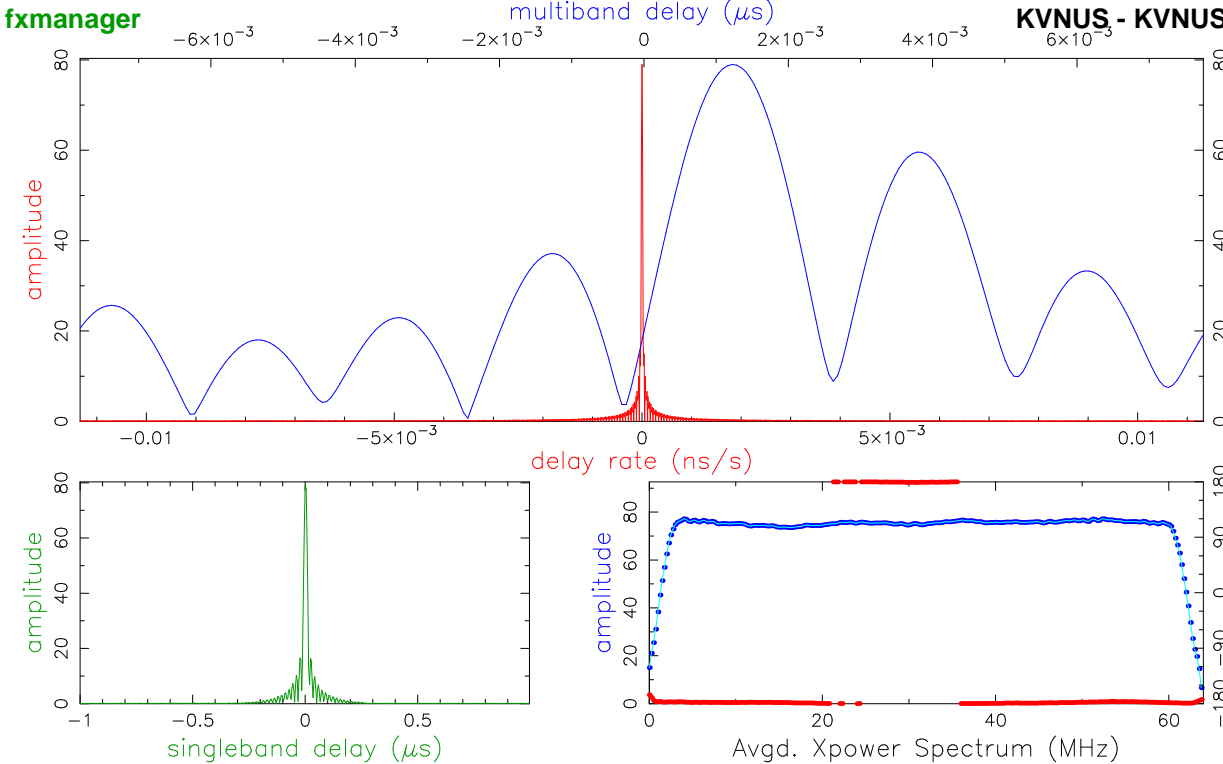
Exp. c211c
 Yr:day 16383
 Start 2021:117
 Stop 2021:117
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133944
 2021:252:122852
 RA & Dec (J2000) 03h59m29.747267s +50°57'50.161694"

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



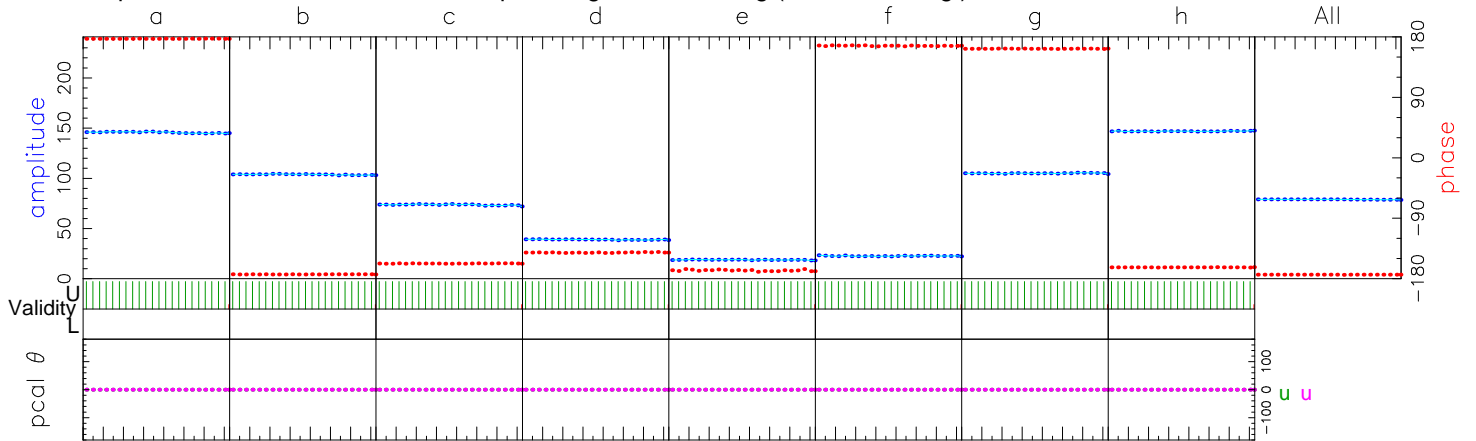
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	10000.0	10000.0
u	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	257.0	257.0
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	10000.0	10000.0
u	1000	1000	1000	1000	1000	1000	1000	1000	257.0	257.0
u	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	10000.0	10000.0
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	257.0	257.0
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
 u: az 50.0 el 42.1 pa -83.3 u: az 50.0 el 42.1 pa -83.3 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/uu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/uu.W.269.1X1QEV simultaneous interpolator



Fringe quality 6
SNR 4501.5
Int time 419.840
Amp 80.338
Phase -173.9
PFD 0.0e+00
Delays (us)
SBD 0.001654
MBD 0.001223
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

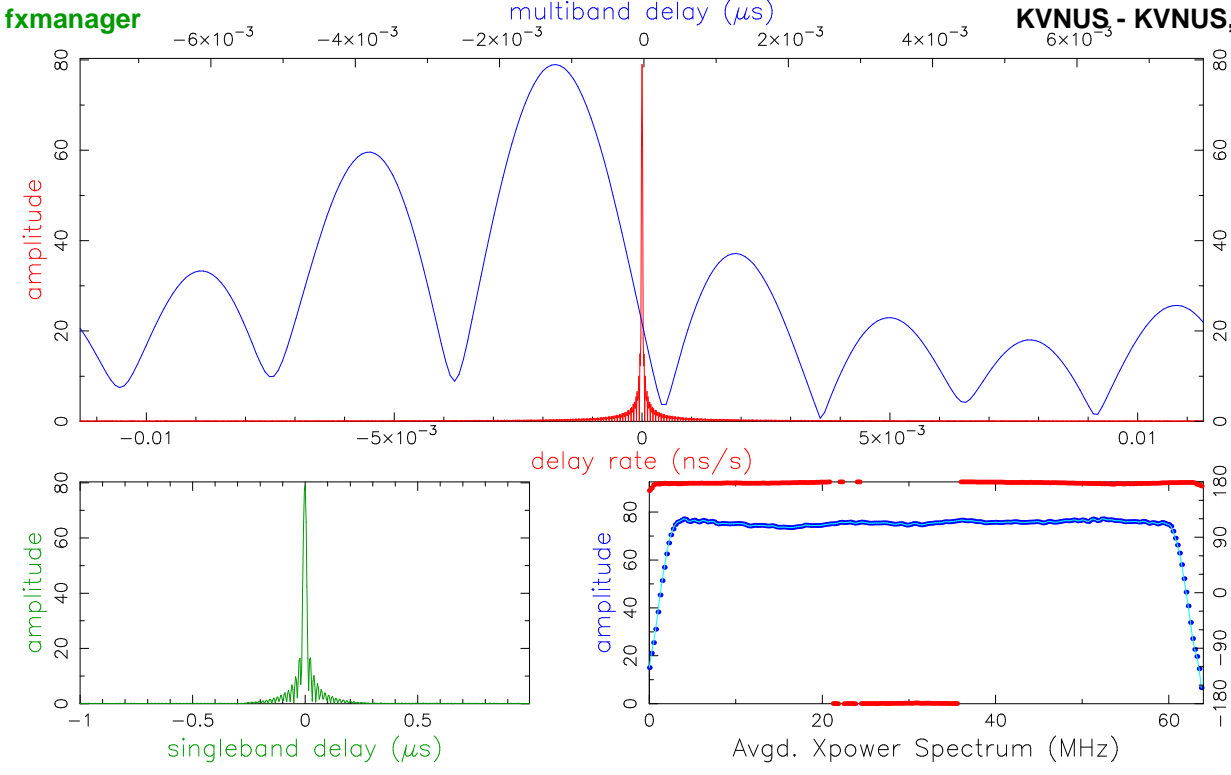


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	177.1	-173.4	-157.3	-141.0	-167.5	166.6	162.2	-163.0	Phase	-173.9
	145.8	103.9	73.7	39.0	18.8	22.7	105.1	147.0	Ampl.	82.0
	257.4	257.5	257.6	257.1	256.2	257.7	257.6	257.7	Sbd box	257.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.22306250000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.22306E-03	+/-	2.4E-07
Sband delay (usec)	1.65375000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.65375E-03	+/-	1.9E-06
Phase delay (usec)	-5.60789880284E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.60790E-06	+/-	8.2E-10
Delay rate (us/s)	8.50269143501E-12	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	8.50269E-12	+/-	3.4E-12
Total phase (deg)	-173.9	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-173.9	+/-	0.0

ph/seg (deg)	0.1	Theor.	Amplitude	80.338 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	1.7	0.1	Search (2048X32)	76.229	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	20.6	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	60.2	0.1	Inc. seg. avg.	78.985	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
			Inc. frq. avg.	82.007	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

u: az 50.0 el 42.1 pa -83.3 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/uu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/uu.W.287.1X1QEV

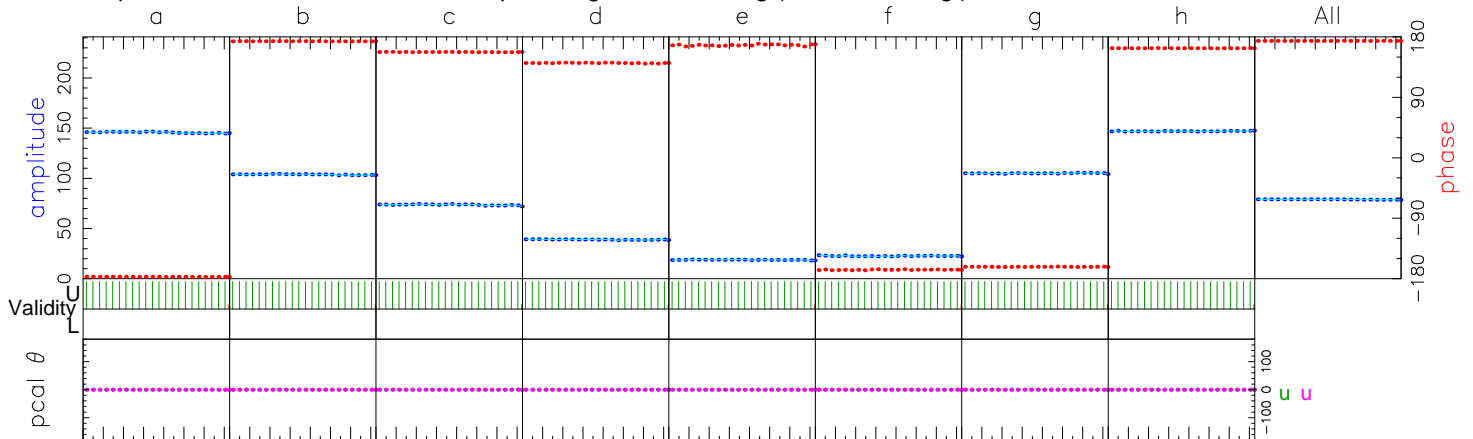


Fringe quality 6

SNR 4501.5
Int time 419.840
Amp 80.338
Phase 173.9
PFD 0.0e+00
Delays (us)
SBD -0.001654
MBD -0.001223
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
2021:304:133951
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
	-177.1	173.4	157.3	141.0	167.5	-166.6	-162.2	163.0	Phase	173.9
	145.8	103.9	73.7	39.0	18.8	22.7	105.1	147.0	Ampl.	82.0
	256.6	256.5	256.4	256.9	257.8	256.3	256.4	256.3	Sbd box	256.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	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)	-1.22306250000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-1.22306E-03	+/- 2.4E-07
Sband delay (usec)	-1.65375000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.65375E-03	+/- 1.9E-06
Phase delay (usec)	5.60789880292E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		5.60790E-06	+/- 8.2E-10
Delay rate (us/s)	-8.50269143501E-12		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-8.50269E-12	+/- 3.4E-12
Total phase (deg)	173.9		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		173.9	+/- 0.0

ph/seg (deg) 0.1 0.1 Amplitude 80.338 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.7 0.1 Search (2048X32) 76.229 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 20.6 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 60.2 0.1 Inc. seg. avg. 78.985 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 u: az 50.0 el 42.1 pa -83.3 u: az 50.0 el 42.1 pa -83.3 u,v (fr/asec) 0.000 0.000 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/uu..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/uu.W.302.1X1QEV simultaneous interpolator

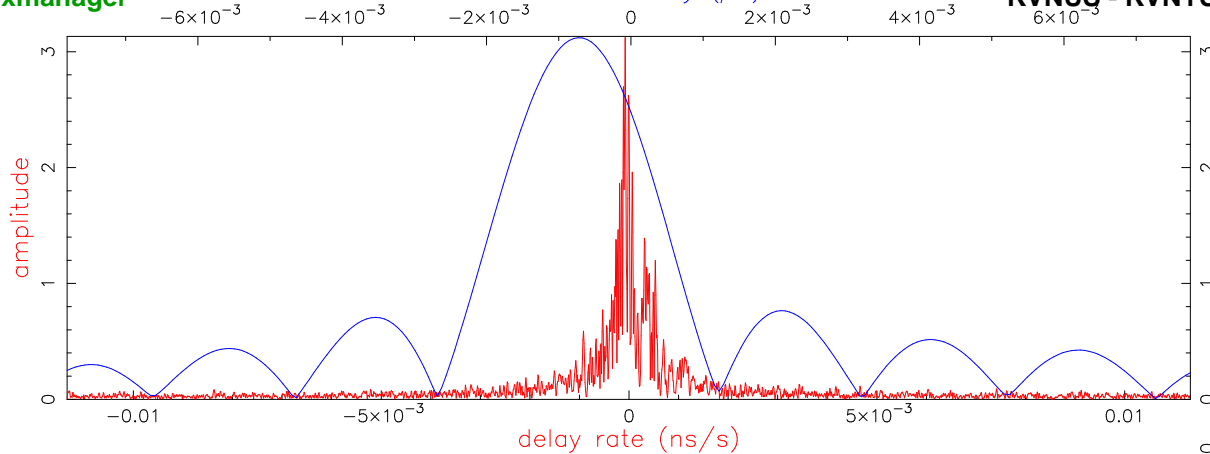
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, uy

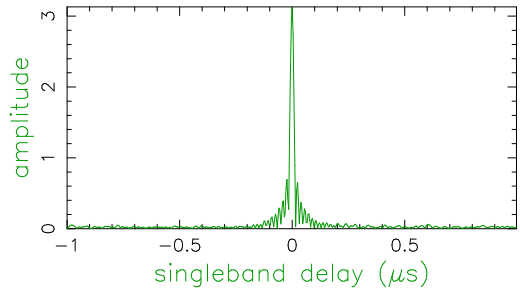
KVNU\$ - KVNY\$, fgroup W, pol LL

multiband delay (μ s)

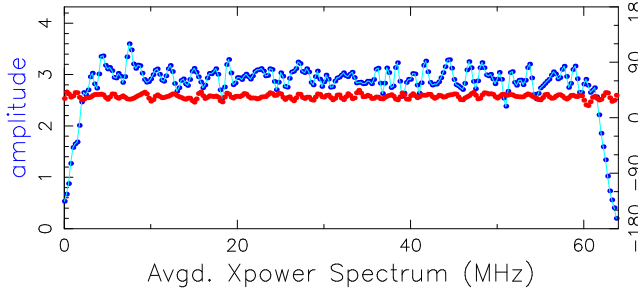


Fringe quality 5

SNR 168.8
 Int time 388.403
 Amp 3.132
 Phase 34.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.000702
 MBD -0.000718
 Fringe rate (Hz)
 -0.006378
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

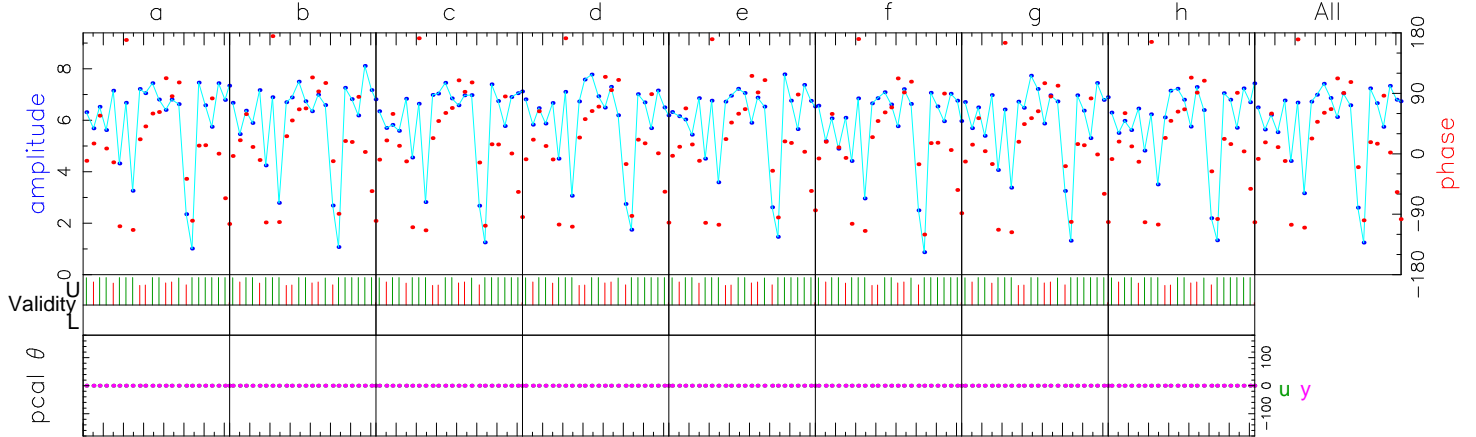


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133941
 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	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 5.88687086405E+01 Apriori delay (usec) 5.88694269579E+01 Resid mbdelay (usec) -7.18317E-04 +/- 6.4E-06
 Sband delay (usec) 5.88687244579E+01 Apriori clock (usec) 1.4061255E+01 Resid sbdelay (usec) -7.02500E-04 +/- 5.1E-05
 Phase delay (usec) 5.88694280775E+01 Apriori clockrate (us/s) 1.1270000E-06 Resid phdelay (usec) 1.11963E-06 +/- 2.2E-08
 Delay rate (us/s) 5.02204783489E-03 Apriori rate (us/s) 5.02212187916E-03 Resid rate (us/s) -7.40443E-08 +/- 9.7E-11
 Total phase (deg) 192.5 Apriori accel (us/s/s) -2.72020145876E-06 Resid phase (deg) 34.7 +/- 0.7

RMS Theor. Amplitude 3.132 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 74.2 1.6 Search (2048X32) 2.961 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 102.8 2.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 2.9 1.0 Inc. seg. avg. 5.923 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 2.3 1.7 Inc. frq. avg. 3.124 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

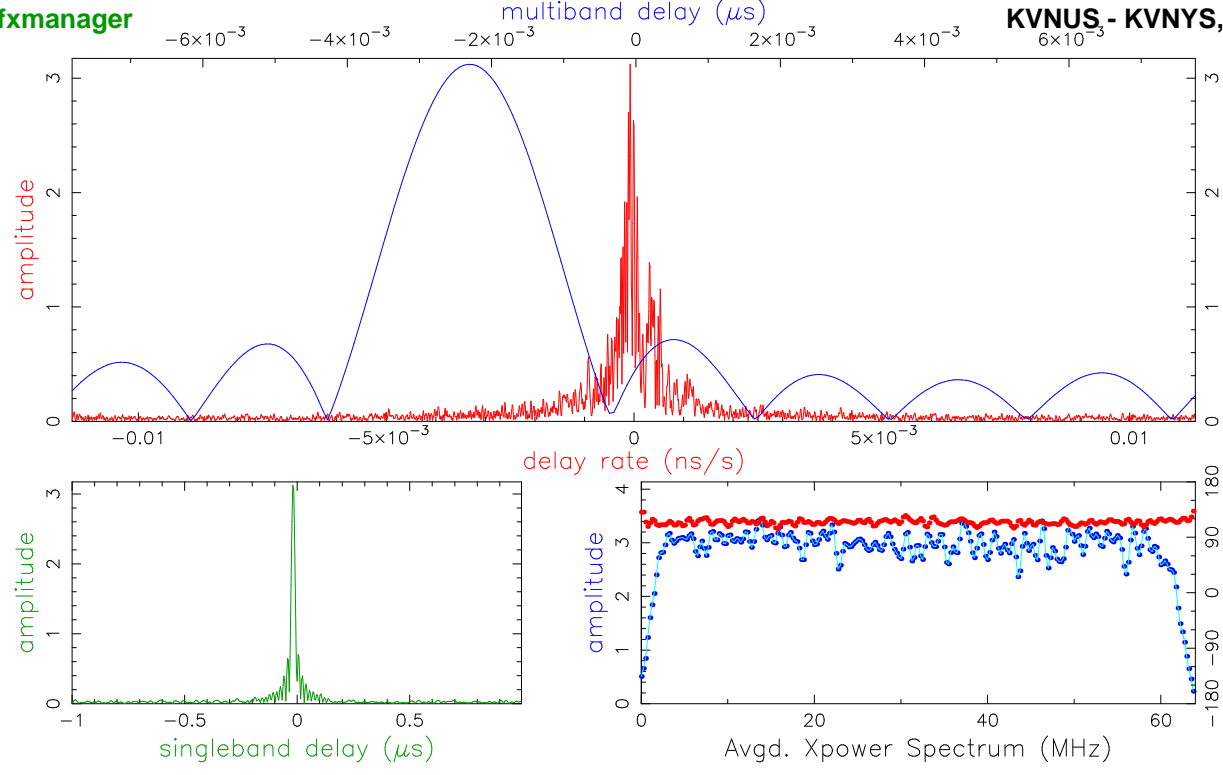
u: az 50.0 el 42.1 pa -83.3 y: az 51.1 el 41.9 pa -79.5 u,v (fr/asec) -51.237 -421.161 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/uy..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/uy.W.250.1X1QEV

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QE, No0120, uy

KVNU₃ - KVNY₅, fgroup W, pol RR

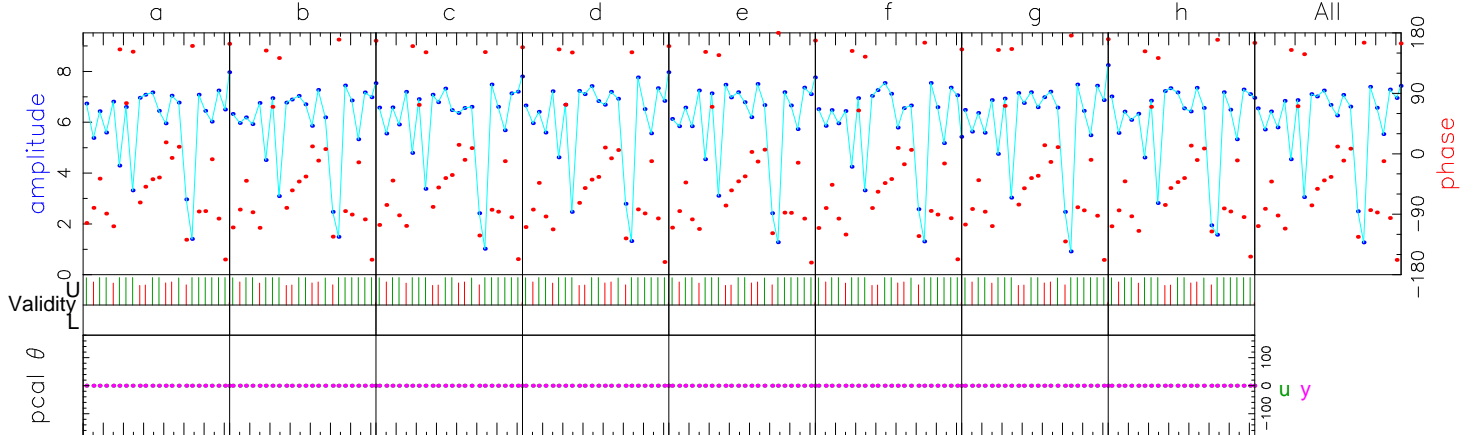


Fringe quality 5

SNR 171.0
 Int time 388.403
 Amp 3.173
 Phase -66.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.017935
 MBD -0.002303
 Fringe rate (Hz)
 -0.006369
 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
 2021:304:133944
 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
	-63.9	-67.6	-65.1	-65.6	-67.5	-69.3	-63.0	-65.5	Phase	-66.0
	3.0	3.1	3.1	3.2	3.2	3.2	3.1	3.1	Ampl.	3.1
	252.5	252.4	252.4	252.5	252.3	252.4	252.4	252.4	Sbd box	252.4
U/L	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	5.88514987968E+01		Apriori delay (usec)		5.88694269579E+01		Resid mbdelay (usec)		-2.30316E-03	+/- 6.3E-06
Sband delay (usec)	5.88514919579E+01		Apriori clock (usec)		1.4061255E+01		Resid sbdelay (usec)		-1.79350E-02	+/- 5.0E-05
Phase delay (usec)	5.88694248307E+01		Apriori clockrate (us/s)		1.1270000E-06		Resid phdelay (usec)		-2.12719E-06	+/- 2.2E-08
Delay rate (us/s)	5.02204794684E-03		Apriori rate (us/s)		5.02212187916E-03		Resid rate (us/s)		-7.39323E-08	+/- 9.5E-11
Total phase (deg)	91.8		Apriori accel (us/s/s)		-2.72020145876E-06		Resid phase (deg)		-66.0	+/- 0.7

ph/seg (deg) 74.0 1.6 Search (2048X32) 2.982 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 102.0 2.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 2.3 0.9 Inc. seg. avg. 5.971 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.2 1.7 Inc. frq. avg. 3.124 Sample rate(MISamp/s): 128 Resid rate (us/s) dr window (ns/s) -0.011 0.011
 u: az 50.0 el 42.1 pa -83.3 y: az 51.1 el 41.9 pa -79.5 u,v (fr/asec) -51.237 -421.161 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/uy..1X1QE V Output file: /Exps/c211c/v1/1234/No0120/uy.W.266.1X1QE V simultaneous interpolator

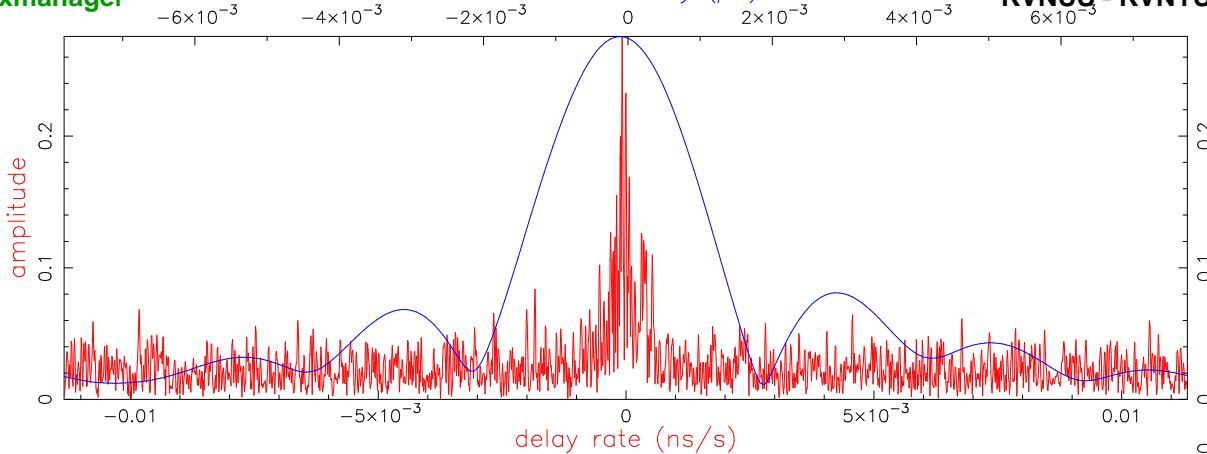
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, uy

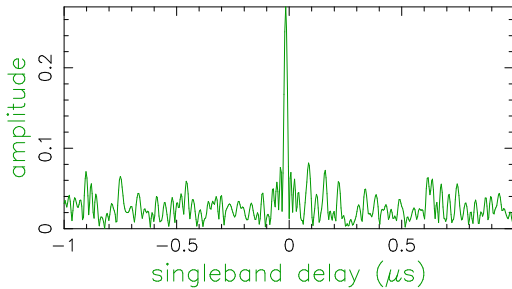
KVNU₃ - KVNY₅, fgroup W, pol LR

multiband delay (μ s)

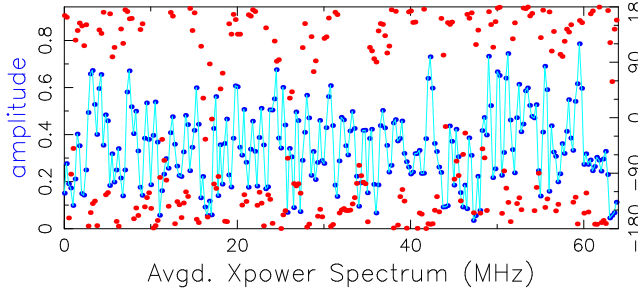


Fringe quality 9

SNR 14.9
 Int time 388.403
 Amp 0.276
 Phase 9.6
 PFD 3.6e-41
 Delays (us)
 SBD -0.015482
 MBD -0.000108
 Fringe rate (Hz)
 -0.006283
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

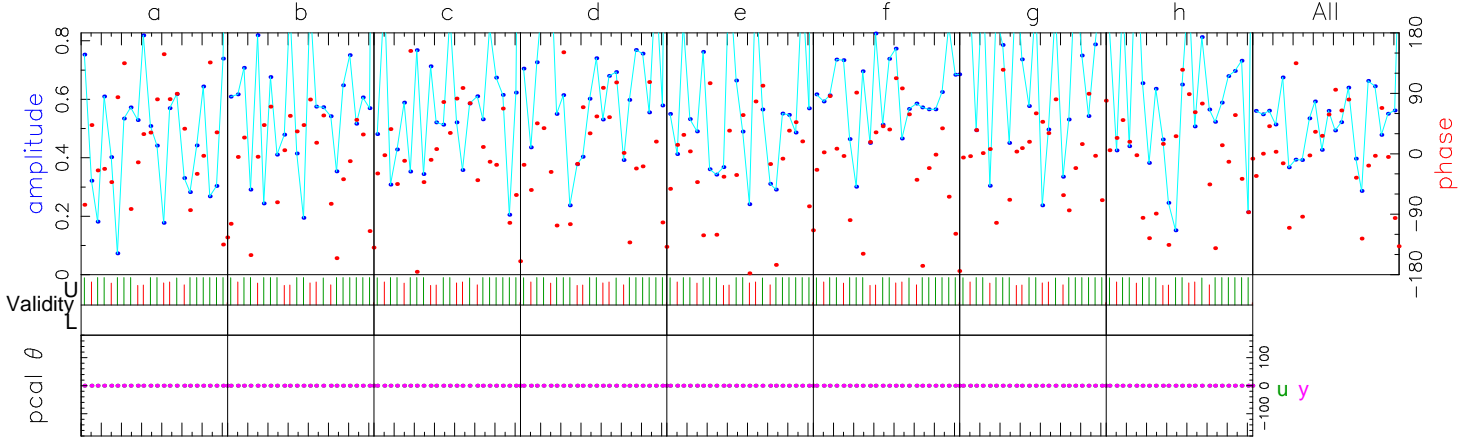


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133948
 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	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0				
u	1000	1000	1000	1000	1000	1000	1000	1000	APs used			
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
y	1000	1000	1000	1000	1000	1000	1000	1000				
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Tracks			
Group delay (usec)(sbd)	5.88536935468E+01		Apriori delay (usec)		5.88694269579E+01		Resid mbdelay (usec)		-1.08411E-04	+/- 7.3E-05		
Sband delay (usec)	5.88539447079E+01		Apriori clock (usec)		1.4061255E+01		Resid sbdelay (usec)		-1.54822E-02	+/- 5.8E-04		
Phase delay (usec)	5.88694272678E+01		Apriori clockrate (us/s)		1.1270000E-06		Resid phdelay (usec)		3.09910E-07	+/- 2.5E-07		
Delay rate (us/s)	5.02204894237E-03		Apriori rate (us/s)		5.02212187916E-03		Resid rate (us/s)		-7.29368E-08	+/- 1.1E-09		
Total phase (deg)			Apriori accel (us/s/s)		-2.72020145876E-06		Resid phase (deg)		9.6	+/- 7.7		
RMS	Theor.	Amplitude	0.276 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5					
ph/seg (deg)	69.1	17.9	Search (2048X32)		0.260		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
amp/seg (%)	95.9	31.2	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
ph/frq (deg)	4.9	10.9	Inc. seg. avg.		0.492		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011	
amp/frq (%)	26.0	19.0	Inc. frq. avg.		0.272		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

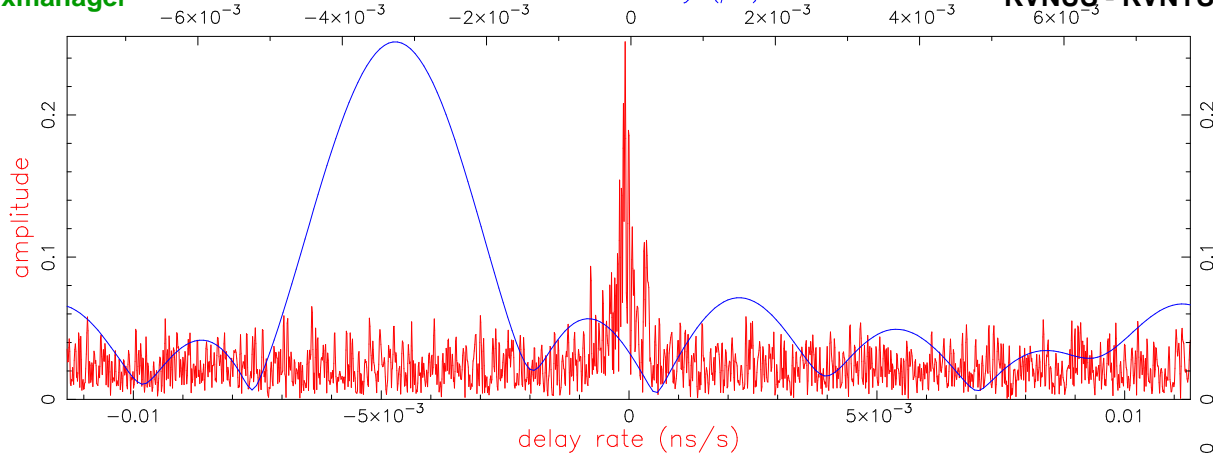
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1QEV, No0120, uy

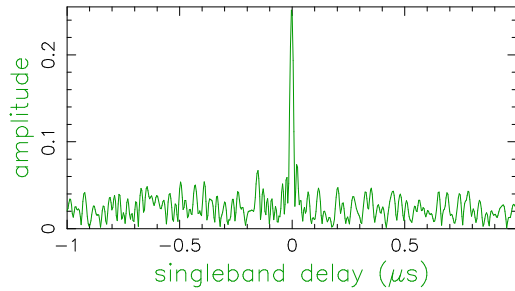
KVNU5 - KVNY5, fgroup W, pol RL

multiband delay (μ s)

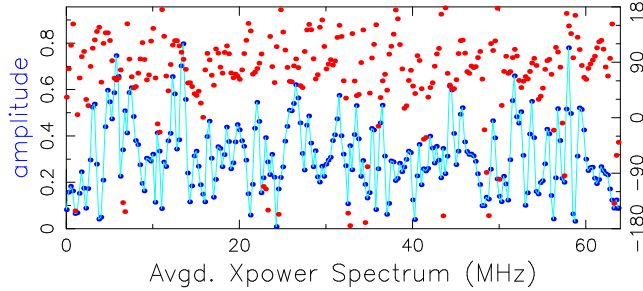


Fringe quality 9

SNR 13.8
 Int time 388.403
 Amp 0.255
 Phase 101.2
 PFD 2.8e-34
 Delays (us)
 SBD -0.002399
 MBD -0.003272
 Fringe rate (Hz)
 -0.006377
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

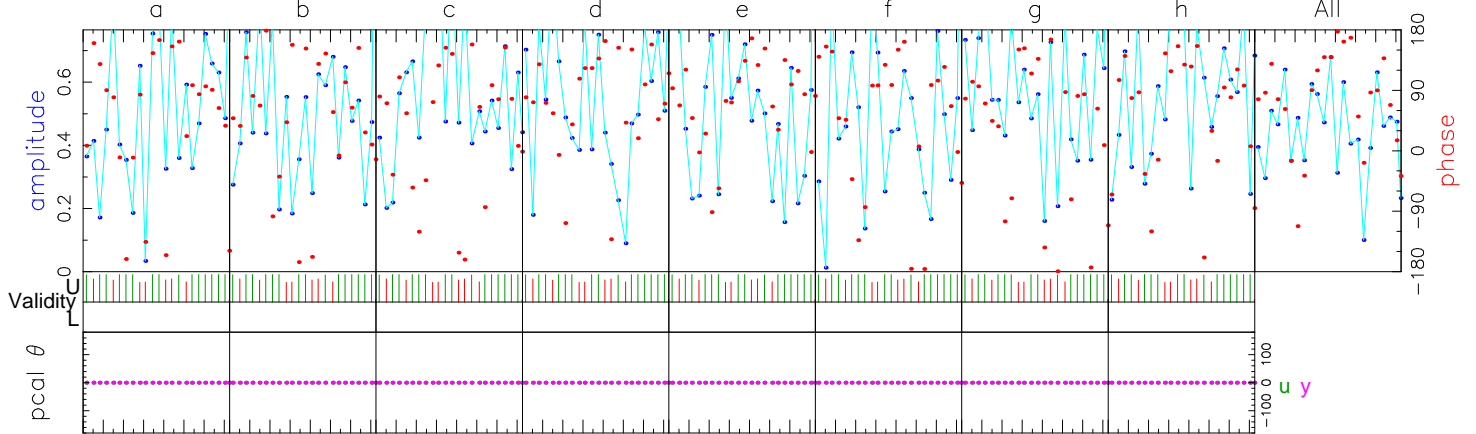


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:117
 Start 004500.00
 Stop 005159.84
 FRT 004830.00
 Corr/FF/build
 2021:303:225133
 2021:304:133951
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'59.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	767/0	767/0	767/0	767/0	767/0	767/0	767/0	767/0				
u	1000	1000	1000	1000	1000	1000	1000	1000				
y	1000	1000	1000	1000	1000	1000	1000	1000				
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
u	1000	1000	1000	1000	1000	1000	1000	1000				
y	1000	1000	1000	1000	1000	1000	1000	1000				
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL				
Group delay (usec)(sbd)	5.88661548593E+01		Apriori delay (usec)		5.88694269579E+01		Resid mbdelay (usec)		-3.27210E-03	+/- 7.9E-05		
Sband delay (usec)	5.88670274579E+01		Apriori clock (usec)		1.4061255E+01		Resid sbdelay (usec)		-2.39950E-03	+/- 6.3E-04		
Phase delay (usec)	5.88694302223E+01		Apriori clockrate (us/s)		1.1270000E-06		Resid phdelay (usec)		3.26444E-06	+/- 2.7E-07		
Delay rate (us/s)	5.02204785190E-03		Apriori rate (us/s)		5.02212187916E-03		Resid rate (us/s)		-7.40273E-08	+/- 1.2E-09		
Total phase (deg)	259.0		Apriori accel (us/s/s)		-2.72020145876E-06		Resid phase (deg)		101.2	+/- 8.3		
ph/seg (deg)	RMS	Theor.	Amplitude		0.255 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	70.1	19.3	Search (2048X32)		0.242		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	93.6	33.7	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	10.9	11.8	Inc. seg. avg.		0.429		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011	
	18.9	20.6	Inc. frq. avg.		0.250		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 50.0 el 42.1 pa -83.3 y: az 51.1 el 41.9 pa -79.5 u,v (fr/asec) -51.237 -421.161 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0120/uy..1X1QEV Output file: /Exps/c211c/v1/1234/No0120/uy.W.299.1X1QEV