

Mk4/DiFX fourfit 3.21 rev 2937

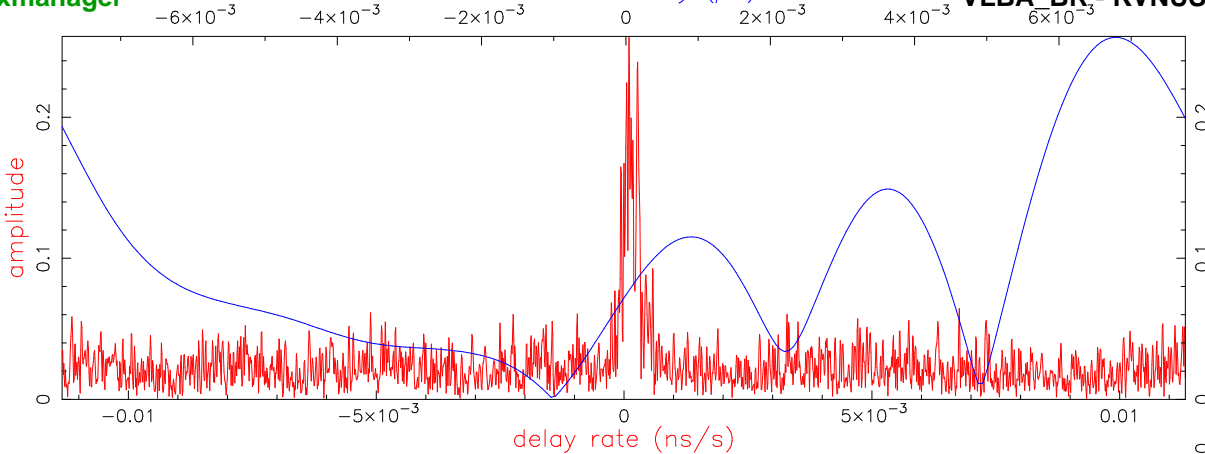
fxmanager

NRAO150.1X1KZS, No0113, bu

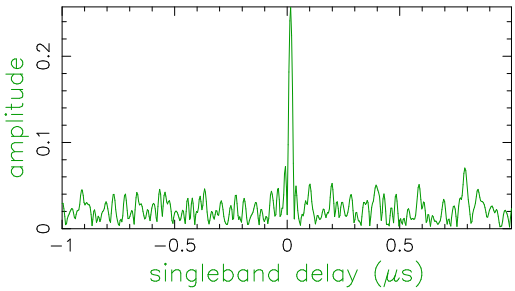
VLBA_BR- KVNUS, fgroup W, pol RR

multiband delay (μ s)

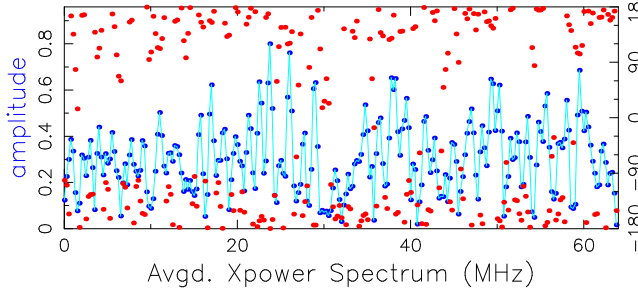
Fringe quality 7



SNR 14.4
 Int time 419.783
 Amp 0.257
 Phase -88.8
 PFD 2.5e-38
 Delays (us)
 SBD 0.014911
 MBD 0.006751
 Fringe rate (Hz)
 0.008485
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

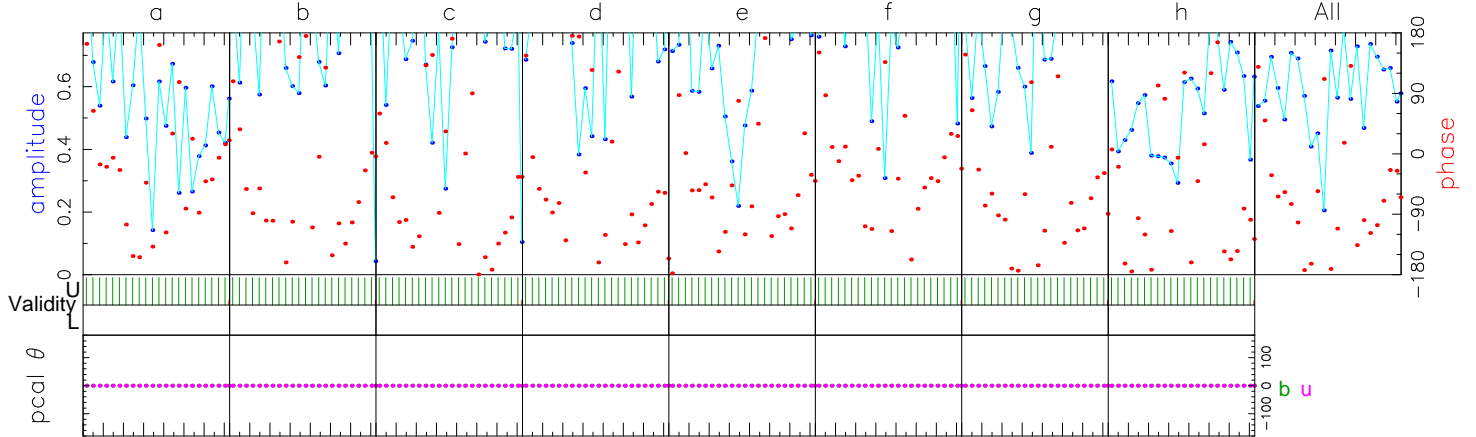


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133045
 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
	-43.2	-108.1	-125.1	-99.8	-72.0	-23.6	-95.3	-149.0	Phase	-88.8
	0.2	0.4	0.3	0.4	0.3	0.4	0.4	0.2	Ampl.	0.3
	258.2	261.0	261.0	261.1	260.9	260.7	260.3	257.9	Sbd box	260.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
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	

Group delay (usec)(sbd)	1.10219056497E+04	Apriori delay (usec)	1.10218832741E+04	Resid mbdelay (usec)	6.75065E-03	+/-	7.5E-05
Sband delay (usec)	1.10218981856E+04	Apriori clock (usec)	-1.7745136E+01	Resid sbdelay (usec)	1.49115E-02	+/-	6.0E-04
Phase delay (usec)	1.10218832712E+04	Apriori clockrate (us/s)	-1.2269999E-06	Resid phdelay (usec)	-2.86389E-06	+/-	2.6E-07
Delay rate (us/s)	-1.02975262778E+00	Apriori rate (us/s)	-1.02975272628E+00	Resid rate (us/s)	9.85016E-08	+/-	1.1E-09
Total phase (deg)	-7.1	Apriori accel (us/s/s)	-4.43700167989E-05	Resid phase (deg)	-88.8	+/-	7.9

ph/seg (deg)	RMS 77.8	Theor. 19.1	Amplitude Search (2048X32)	0.257 +/- 0.018	0.254	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	77.8	19.1	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)	139.9	33.3	Inc. seg. avg.	0.562	0.562	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	44.9	11.2	Inc. frq. avg.	0.309	0.309	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00
	41.4	19.6					t_cohere infinite			

b: az 290.0 el 76.6 pa 94.4 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 9300.053 -3482.556 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/bu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/bu.W.26.1X1KZS

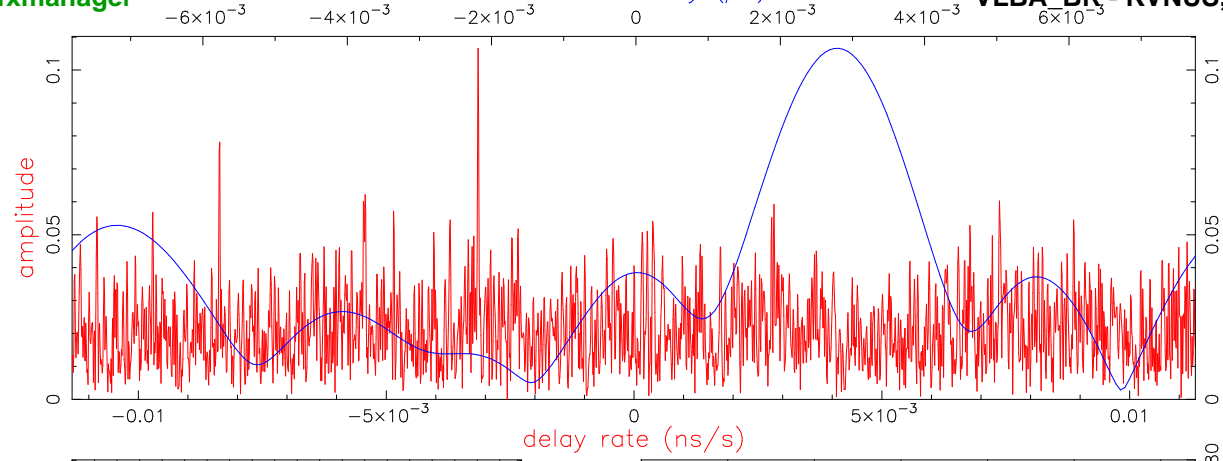
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

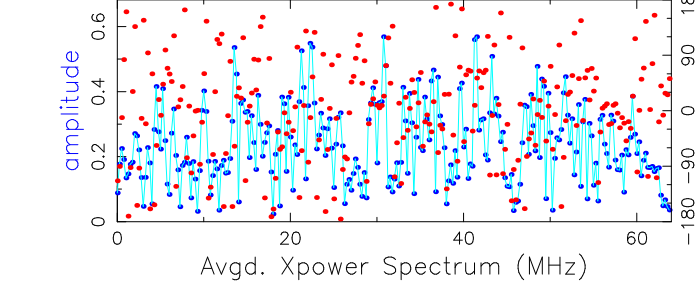
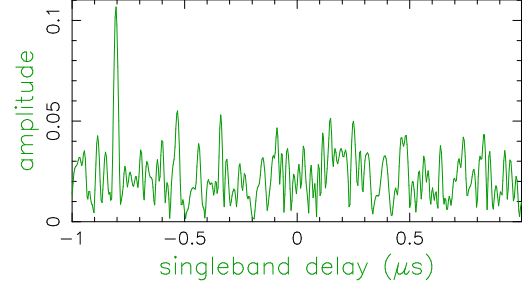
NRAO150.1X1KZS, No0113, bu

VLBA_BR - KVNUS, fgroup W, pol LR

multiband delay (μ s)

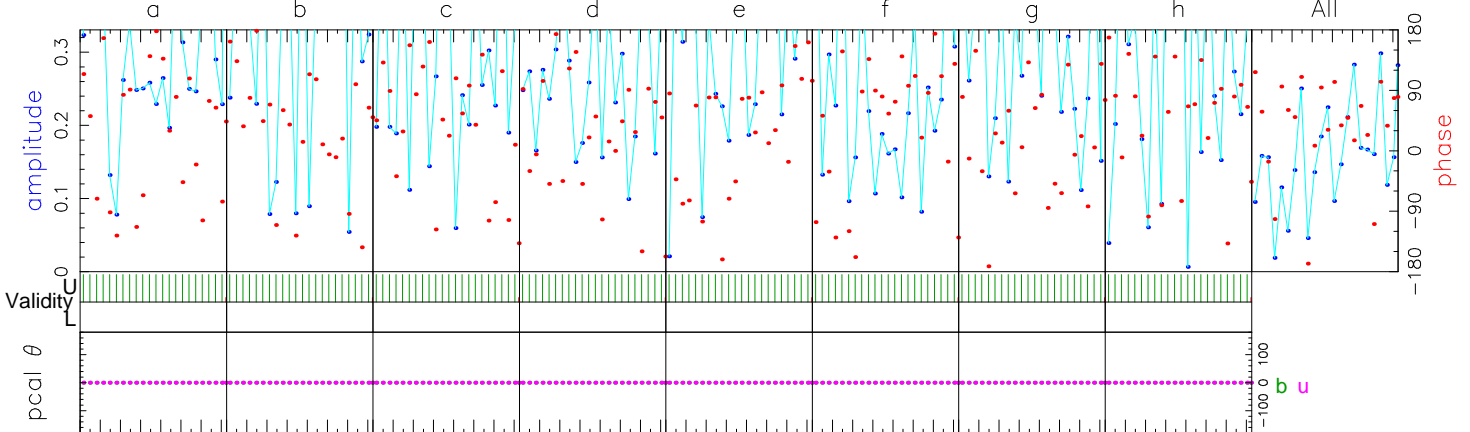


Fringe quality 0
 SNR 6.0
 Int time 419.783
 Amp 0.110
 Phase 59.0
 PFD 4.3e-01
 Delays (us)
 SBD -0.805242
 MBD 0.002779
 Fringe rate (Hz)
 -0.270996
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133049
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



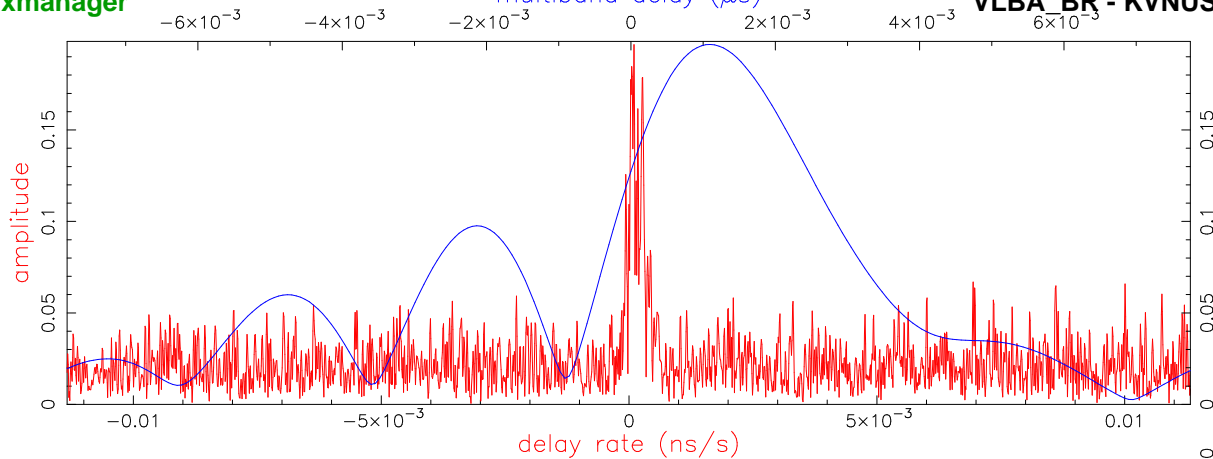
Avgd. Xpower Spectrum (MHz)

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



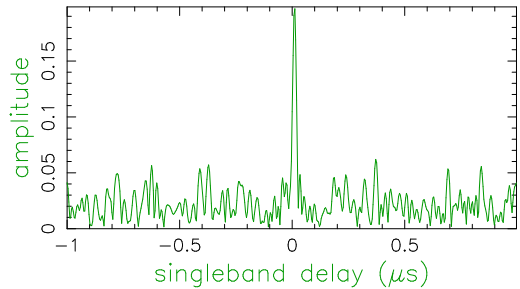
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	76.5	47.3	75.4	42.1	44.4	115.8	14.8	74.7	Phase	59.0		
	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1		
	304.0	51.4	278.1	446.7	168.3	424.5	128.1	105.5	Sbd box	50.9		
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used			
b	0	0	0	0	0	0	0	0	PC freqs			
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	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)	1.10210735534E+04		Apriori delay (usec)		1.10218832741E+04		Resid mbdelay (usec)		2.77939E-03	+/- 1.8E-04		
Sband delay (usec)	1.10210780321E+04		Apriori clock (usec)		-1.7745136E+01		Resid sbdelay (usec)		-8.05242E-01	+/- 1.4E-03		
Phase delay (usec)	1.10218832760E+04		Apriori clockrate (us/s)		-1.2269999E-06		Resid phdelay (usec)		1.90294E-06	+/- 6.2E-07		
Delay rate (us/s)	-1.02975587227E+00		Apriori rate (us/s)		-1.02975272628E+00		Resid rate (us/s)		-3.14599E-06	+/- 2.5E-09		
Total phase (deg)	140.7		Apriori accel (us/s/s)		-4.43700167989E-05		Resid phase (deg)		59.0	+/- 19.2		
	RMS	Theor.	Amplitude	0.110 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	66.4	45.9	Search (2048X32)	0.104		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	79.7	80.2	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	33.3	27.1	Inc. seg. avg.	0.121		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	40.3	47.3	Inc. frq. avg.	0.110		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

multiband delay (μ s)

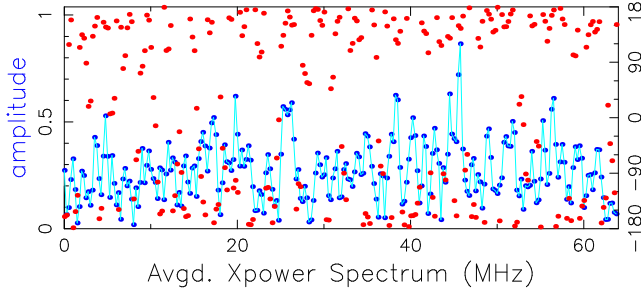


Fringe quality 9

SNR 11.1
Int time 419.783
Amp 0.198
Phase -81.9
PFD 4.9e-20
Delays (us)
SBD 0.010474
MBD 0.001044
Fringe rate (Hz) 0.008649
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

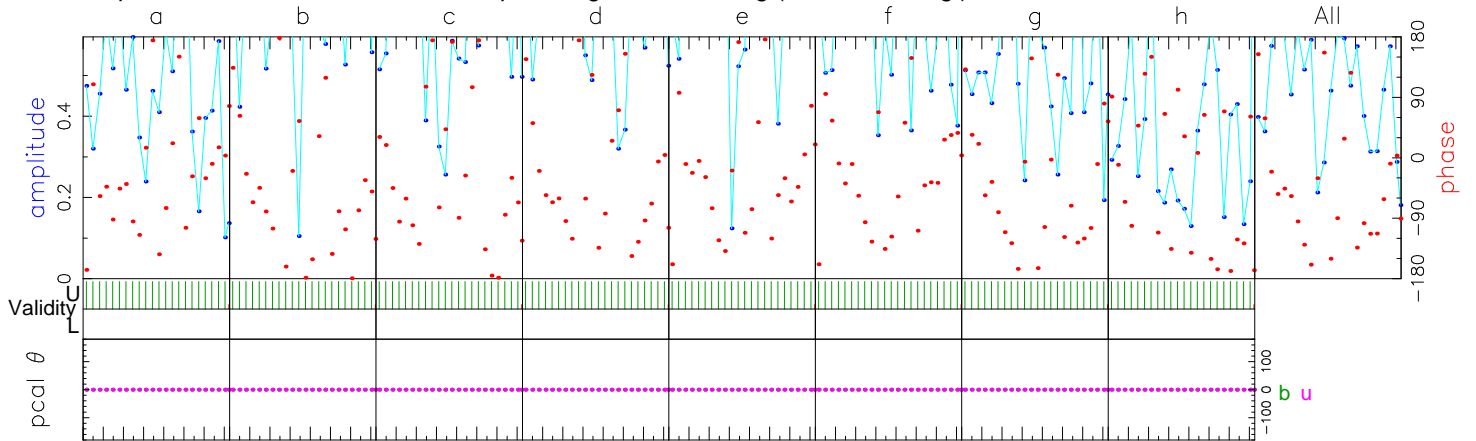


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133042
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
	-66.6	-105.1	-107.8	-81.5	-57.9	-37.5	-102.9	-176.8	Phase	-81.9
	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.1	Ampl.	0.2
	257.2	260.1	260.4	259.8	259.0	260.3	259.2	256.9	Sbd box	259.7
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.10218999433E+04	Apriori delay (usec)	1.10218832741E+04	Resid mbdelay (usec)	1.04427E-03	+/-	9.8E-05
Sband delay (usec)	1.10218937476E+04	Apriori clock (usec)	-1.7745136E+01	Resid sbdelay (usec)	1.04735E-02	+/-	7.7E-04
Phase delay (usec)	1.10218832714E+04	Apriori clockrate (us/s)	-1.2269999E-06	Resid phdelay (usec)	-2.63945E-06	+/-	3.3E-07
Delay rate (us/s)	-1.02975262588E+00	Apriori rate (us/s)	-1.02975272628E+00	Resid rate (us/s)	1.00403E-07	+/-	1.4E-09
Total phase (deg)	-0.1	Apriori accel (us/s/s)	-4.43700167989E-05	Resid phase (deg)	-81.9	+/-	10.3

ph/seg (deg)	RMS 75.2	Theor. 24.7	Amplitude Search (2048X32)	0.198 +/- 0.018	0.196	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	149.0	43.1	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	47.3	14.6	Inc. seg. avg.	0.426	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	35.5	25.4	Inc. frq. avg.	0.222	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00	

b: az 290.0 el 76.6 pa 94.4 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 9300.053 -3482.556 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/bu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/bu.W.5.1X1KZS

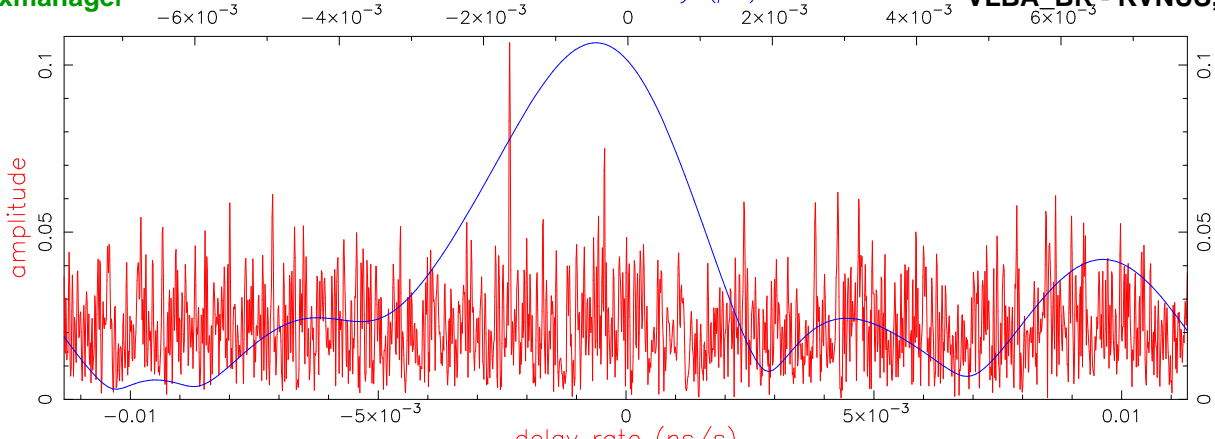
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

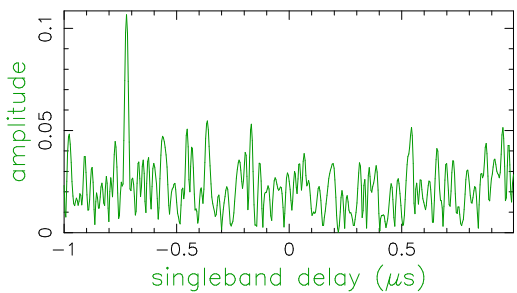
NRAO150.1X1KZS, No0113, bu

VLBA_BR - KVNUS, fgroup W, pol RL

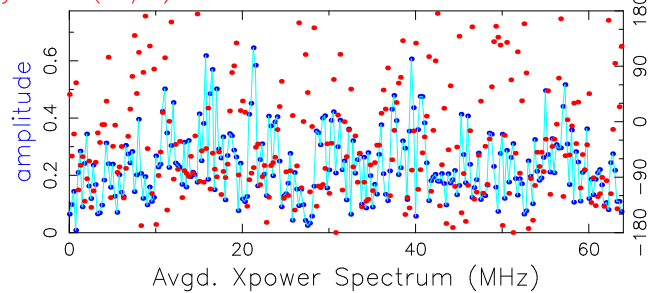
multiband delay (μ s)



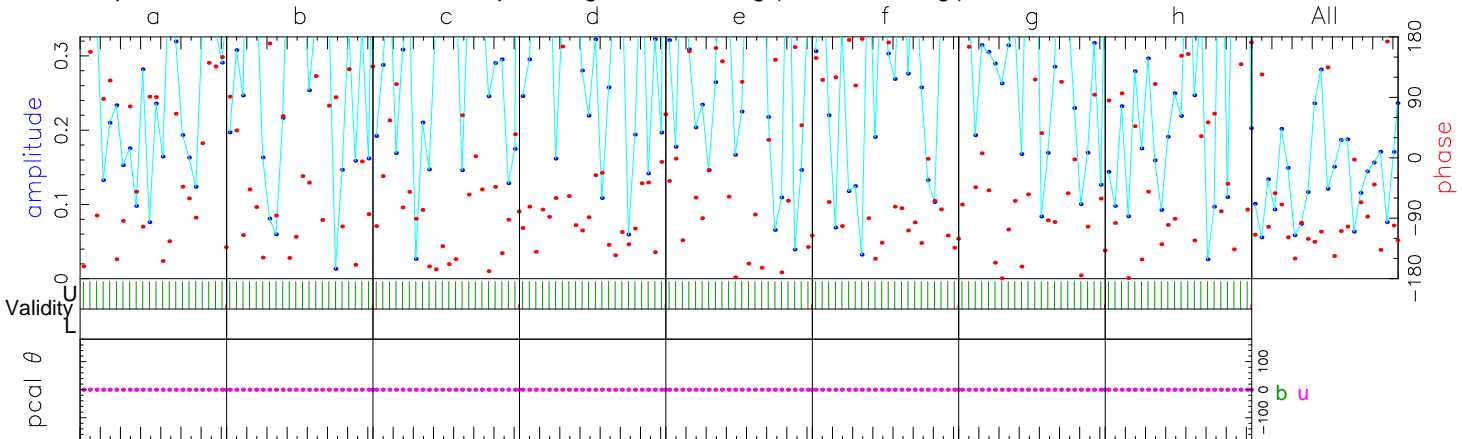
Fringe quality 0
 SNR 6.0
 Int time 419.783
 Amp 0.109
 Phase -107.9
 PFD 4.5e-01
 Delays (us)
 SBD -0.722681
 MBD -0.000445
 Fringe rate (Hz)
 -0.202404
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133053
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'59.161694"



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
	177.6	-82.7	-89.2	-91.5	-128.5	-116.3	-91.5	-122.2	Phase	-107.9
	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
	117.6	60.7	140.1	71.0	209.2	71.9	316.6	236.9	Sbd box	72.0
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.10211640795E+04		Apriori delay (usec)		1.10218832741E+04		Resid mbdelay (usec)		-4.44508E-04	+/- 1.8E-04
Sband delay (usec)	1.10211605931E+04		Apriori clock (usec)		-1.7745136E+01		Resid sbdelay (usec)		-7.22681E-01	+/- 1.4E-03
Phase delay (usec)	1.10218832706E+04		Apriori clockrate (us/s)		-1.2269999E-06		Resid phdelay (usec)		-3.47828E-06	+/- 6.2E-07
Delay rate (us/s)	-1.02975507598E+00		Apriori rate (us/s)		-1.02975272628E+00		Resid rate (us/s)		-2.34971E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.43700167989E-05		Resid phase (deg)		-107.9	+/- 19.2

ph/seg (deg) 53.7 46.0 Search (2048X32) 0.105 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.4 80.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 36.0 27.1 Inc. seg. avg. 0.107 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 51.9 47.3 Inc. frq. avg. 0.108 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 290.0 el 76.6 pa 94.4 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 9300.053 -3482.556 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/bu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/bu.W.65.1X1KZS

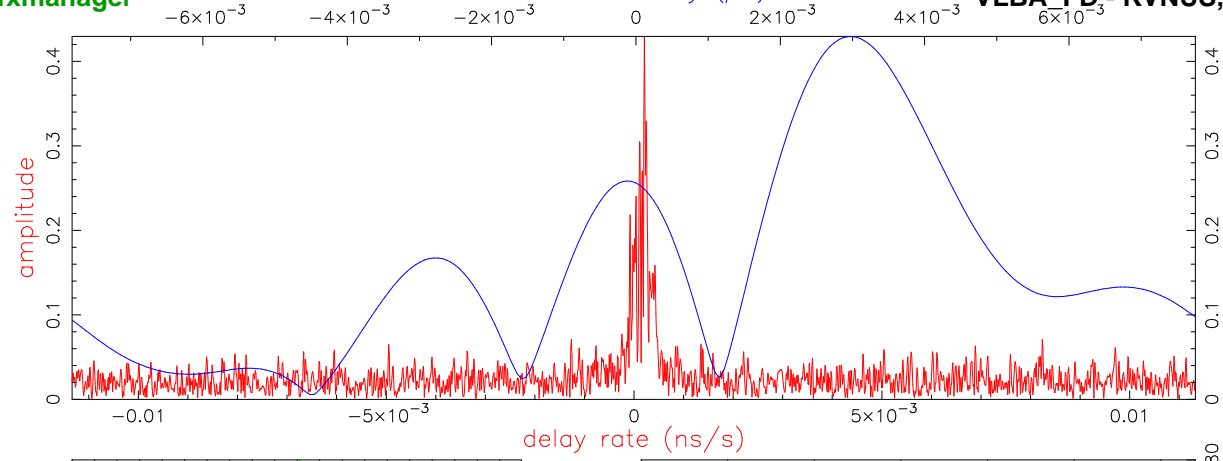
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, fu

VLBA_FD- KVNUS, fgroup W, pol RR

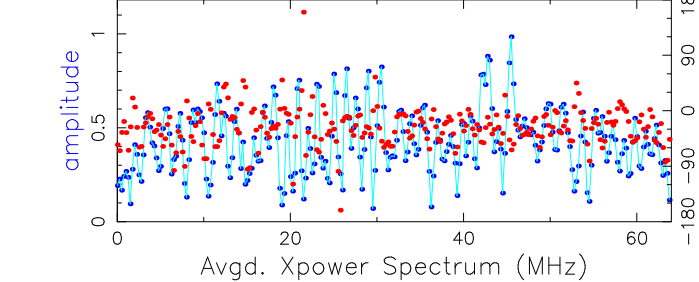
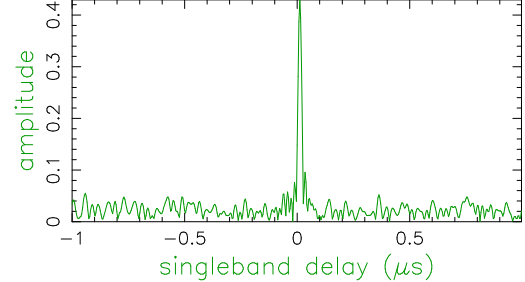
multiband delay (μ s)



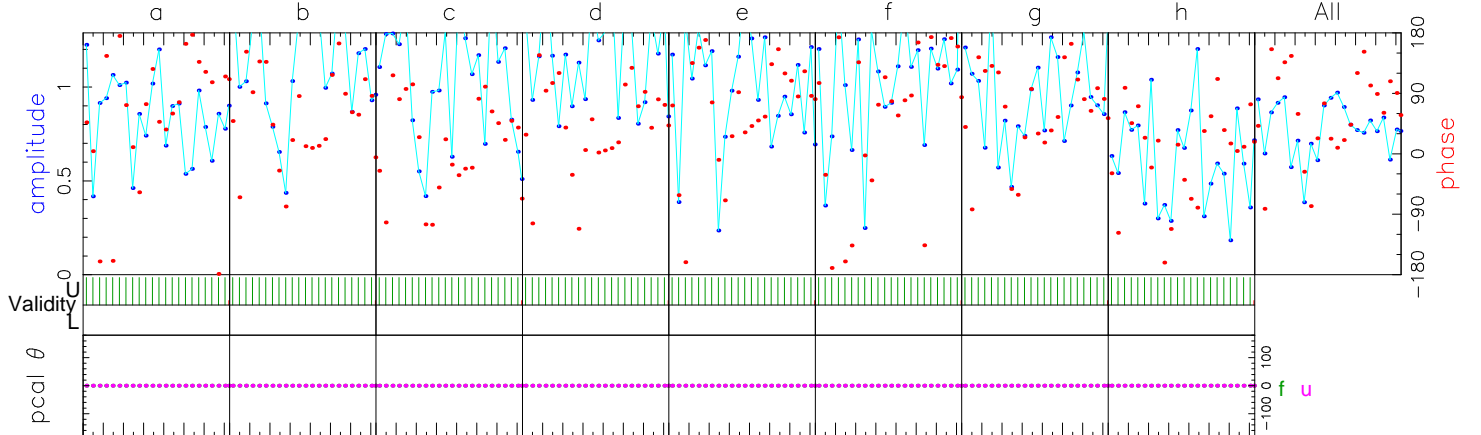
Fringe quality 6

SNR 24.1
 Int time 419.786
 Amp 0.430
 Phase 75.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.011882
 MBD 0.002980
 Fringe rate (Hz) 0.018247
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133103
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



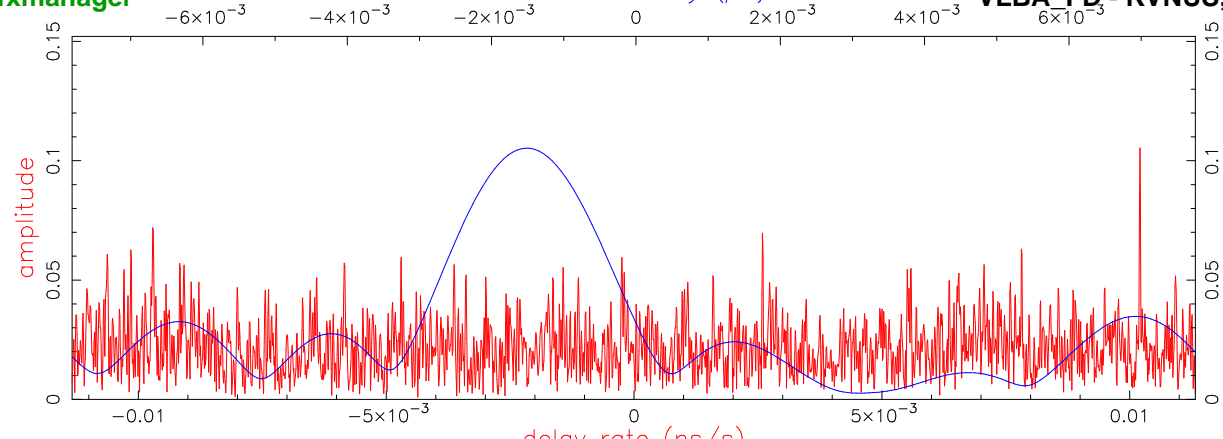
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
f	0	0	0	0	0	0	0	0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	8.03635132991E+03		Apriori delay (usec)		8.03633272466E+03		Resid mbdelay (usec)		2.98025E-03	+/- 4.5E-05
Sband delay (usec)	8.03634460666E+03		Apriori clock (usec)		-4.4955635E+00		Resid sbdelay (usec)		1.18820E-02	+/- 3.6E-04
Phase delay (usec)	8.03633272708E+03		Apriori clockrate (us/s)		-1.0670000E-06		Resid phdelay (usec)		2.41727E-06	+/- 1.5E-07
Delay rate (us/s)	-1.29881555977E+00		Apriori rate (us/s)		-1.29881577160E+00		Resid rate (us/s)		2.11835E-07	+/- 6.3E-10
Total phase (deg)	39.8		Apriori accel (us/s/s)		-4.90363697441E-05		Resid phase (deg)		75.0	+/- 4.8

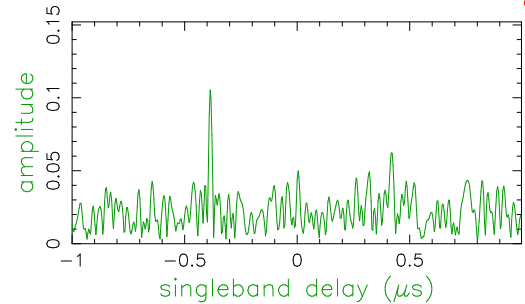
ph/seg (deg) 67.3 11.4 Search (2048X32) 0.424 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 87.9 19.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.4 6.7 Inc. seg. avg. 0.764 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.7 11.8 Inc. frq. avg. 0.522 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 318.0 el 56.5 pa 112.7 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 11745.589 -5267.874 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/fu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/fu.W.109.1X1KZS

multiband delay (μs)

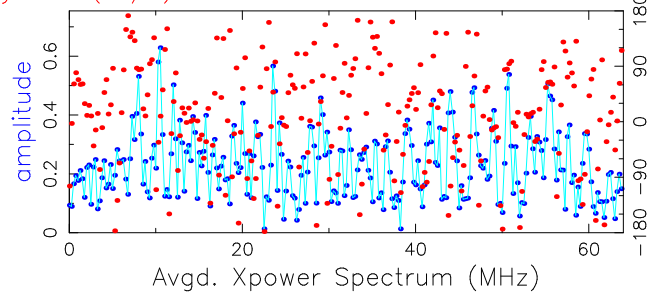


Fringe quality 0

SNR 5.9
Int time 419.786
Amp 0.152
Phase -74.7
PFD 5.1e-01
Delays (us)
SBD -0.385711
MBD -0.001511
Fringe rate (Hz)
0.881033
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

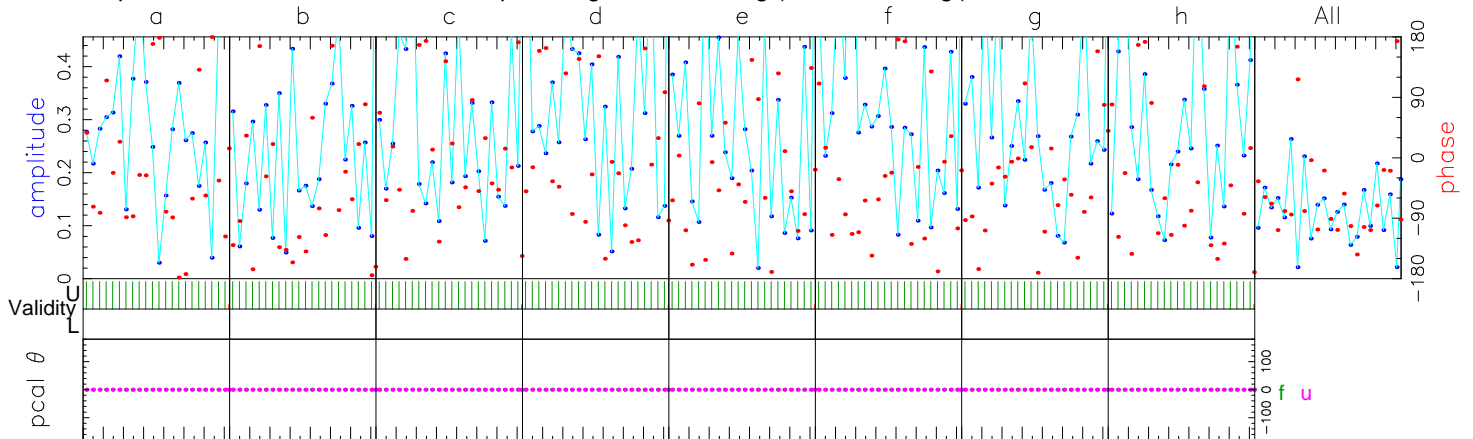


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133108
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-60.4	-116.0	-49.2	-74.7	-74.2	-83.9	-58.2	-84.2	Phase	-74.7
	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	Ampl.	0.1
	276.9	296.4	446.0	491.6	422.5	449.7	169.4	56.8	Sbd box	158.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	8.03594058852E+03		Apriori delay (usec)		8.03633272466E+03		Resid mbdelay (usec)		-1.51114E-03	+/- 1.8E-04
Sband delay (usec)	8.03594701416E+03		Apriori clock (usec)		-4.4955635E+00		Resid sbdelay (usec)		-3.85711E-01	+/- 1.4E-03
Phase delay (usec)	8.03633272225E+03		Apriori clockrate (us/s)		-1.0670000E-06		Resid phdelay (usec)		-2.40862E-06	+/- 6.2E-07
Delay rate (us/s)	-1.29880554368E+00		Apriori rate (us/s)		-1.29881577160E+00		Resid rate (us/s)		1.02279E-05	+/- 2.6E-09
Total phase (deg)	250.2		Apriori accel (us/s/s)		-4.90363697441E-05		Resid phase (deg)		-74.7	+/- 19.3

ph/seg (deg) 55.7 46.2 Search (2048X32) 0.102 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 60.3 80.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 22.4 27.3 Inc. seg. avg. 0.139 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 15.2 47.6 Inc. frq. avg. 0.143 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 318.0 el 56.5 pa 112.7 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 11745.589 -5267.874 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/fu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/fu.W.135.1X1KZS

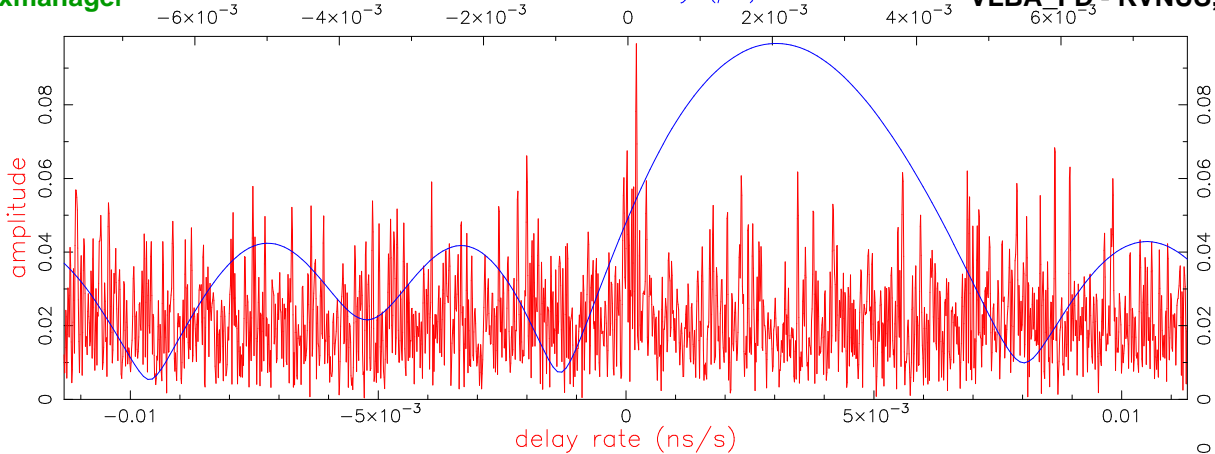
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, fu

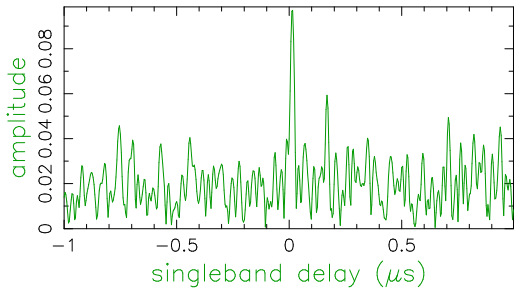
VLBA_FD - KVNUS, fgroup W, pol RL

multiband delay (μ s)



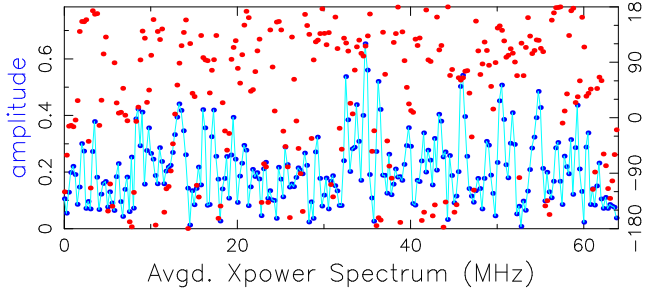
Fringe quality 0

SNR 5.5
 Int time 419.786
 Amp 0.099
 Phase -105.6
 PFD 1.0e+00
 Delays (us)
 SBD 0.013804
 MBD 0.001979
 Fringe rate (Hz) 0.018271
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



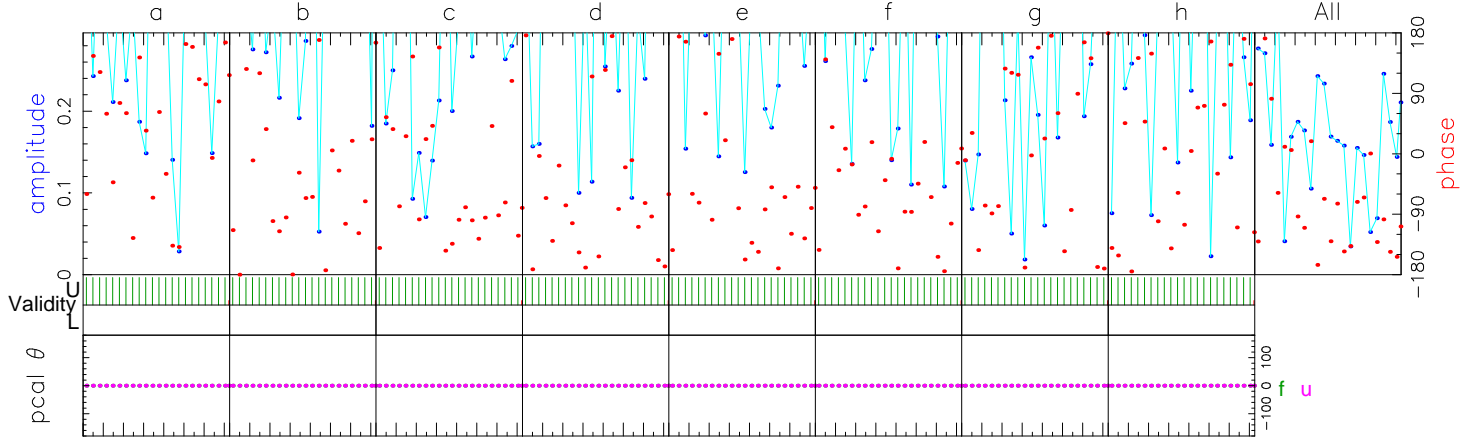
singleband delay (μ s)

delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133112
 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

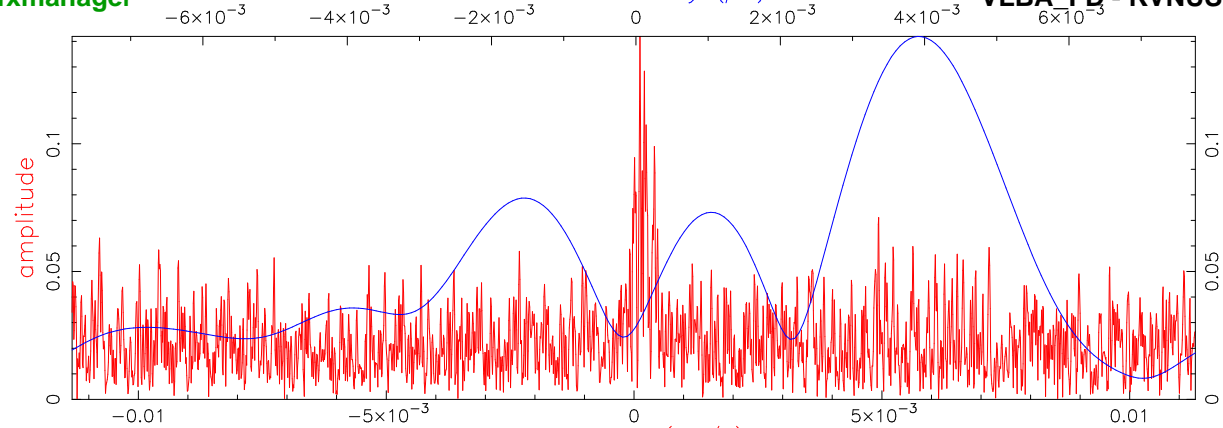


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	108.9	-100.1	-91.5	-115.5	-109.3	-57.9	-148.2	138.0	Phase	-105.6
	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.0	Ampl.	0.1
	329.5	258.6	356.4	260.5	260.5	258.3	215.3	478.1	Sbd box	260.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	8.03635032850E+03		Apriori delay (usec)		8.03633272466E+03		Resid mbdelay (usec)		1.97884E-03	+/- 2.0E-04
Sband delay (usec)	8.03634652866E+03		Apriori clock (usec)		-4.4955635E+00		Resid sbdelay (usec)		1.38040E-02	+/- 1.6E-03
Phase delay (usec)	8.03633272126E+03		Apriori clockrate (us/s)		-1.0670000E-06		Resid phdelay (usec)		-3.40504E-06	+/- 6.7E-07
Delay rate (us/s)	-1.29881555950E+00		Apriori rate (us/s)		-1.29881577160E+00		Resid rate (us/s)		2.12105E-07	+/- 2.8E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.90363697441E-05		Resid phase (deg)		-105.6	+/- 20.7

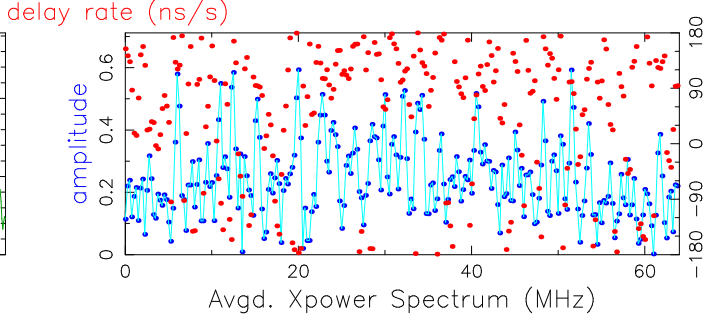
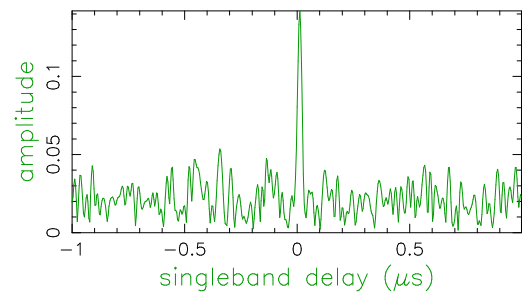
ph/seg (deg) 70.1 49.8 Search (2048X32) 0.096 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 107.7 86.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 80.8 29.3 Inc. seg. avg. 0.124 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 66.8 51.2 Inc. frq. avg. 0.116 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 318.0 el 56.5 pa 112.7 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 11745.589 -5267.874 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/fu...1X1KZS Output file: /Exps/c211c/v1/1234/No0113/fu.W.154.1X1KZS

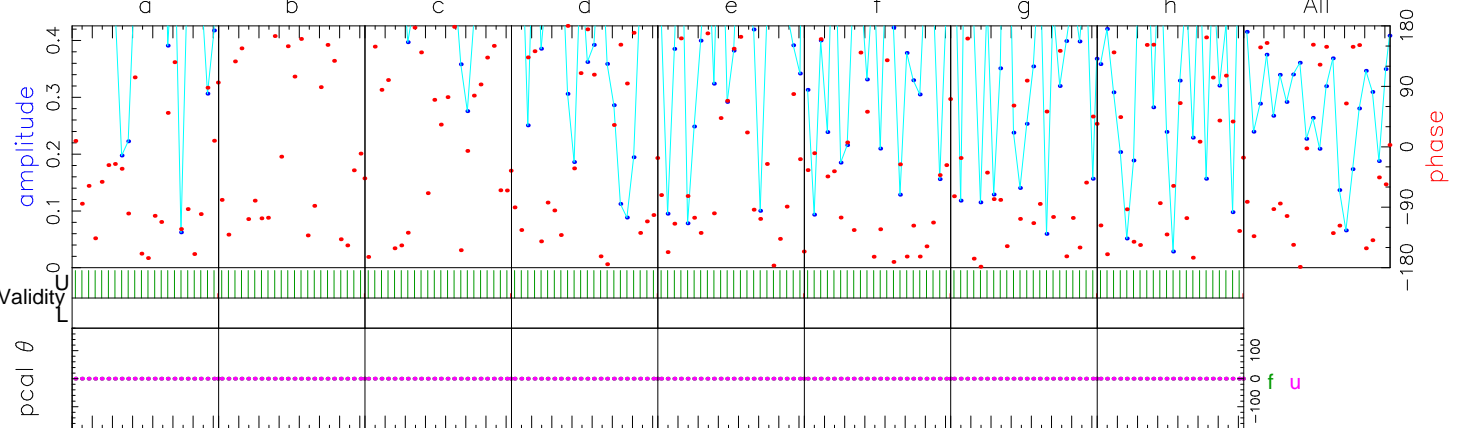
multiband delay (μ s)



Fringe quality 9
SNR 8.0
Int time 419.786
Amp 0.142
Phase -144.7
PFD 6.1e-07
Delays (us)
SBD 0.011612
MBD 0.003914
Fringe rate (Hz) 0.010523
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133059
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
	-93.1	-160.1	144.7	-142.4	-145.5	-131.5	-121.0	-166.8	Phase	-144.7
	0.2	0.3	0.1	0.2	0.1	0.1	0.2	0.1	Ampl.	0.2
	257.7	258.9	99.4	260.2	138.8	484.7	110.2	138.6	Sbd box	260.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
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)	8.03633663892E+03		Apriori delay (usec)		8.03633272466E+03		Resid mbdelay (usec)		3.91426E-03 +/- 1.4E-04	
Sband delay (usec)	8.03634433641E+03		Apriori clock (usec)		-4.4955635E+00		Resid sbdelay (usec)		1.16118E-02 +/- 1.1E-03	
Phase delay (usec)	8.03633272000E+03		Apriori clockrate (us/s)		-1.0670000E-06		Resid phdelay (usec)		-4.66484E-06 +/- 4.6E-07	
Delay rate (us/s)	-1.29881564943E+00		Apriori rate (us/s)		-1.29881577160E+00		Resid rate (us/s)		1.22167E-07 +/- 1.9E-09	
Total phase (deg)	180.2		Apriori accel (us/s/s)		-4.90363697441E-05		Resid phase (deg)		-144.7 +/- 14.4	

ph/seg (deg) 71.3 34.5 Search (2048X32) 0.141 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 114.6 60.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 39.0 20.4 Inc. seg. avg. 0.238 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 42.0 35.6 Inc. frq. avg. 0.157 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
f: az 318.0 el 56.5 pa 112.7 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 11745.589 -5267.874 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/fu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/fu.W.87.1X1KZS

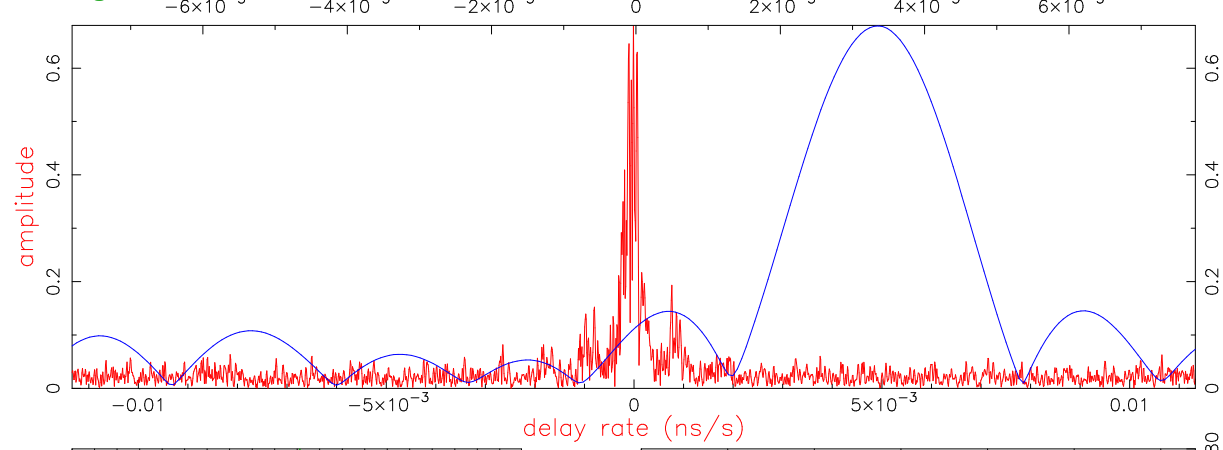
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, gu

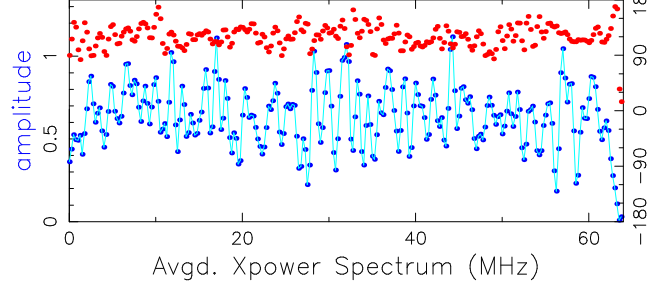
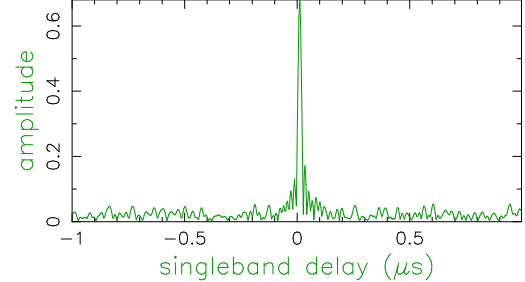
GLT - KVNUS, fgroup W, pol RR

multiband delay (μ s)



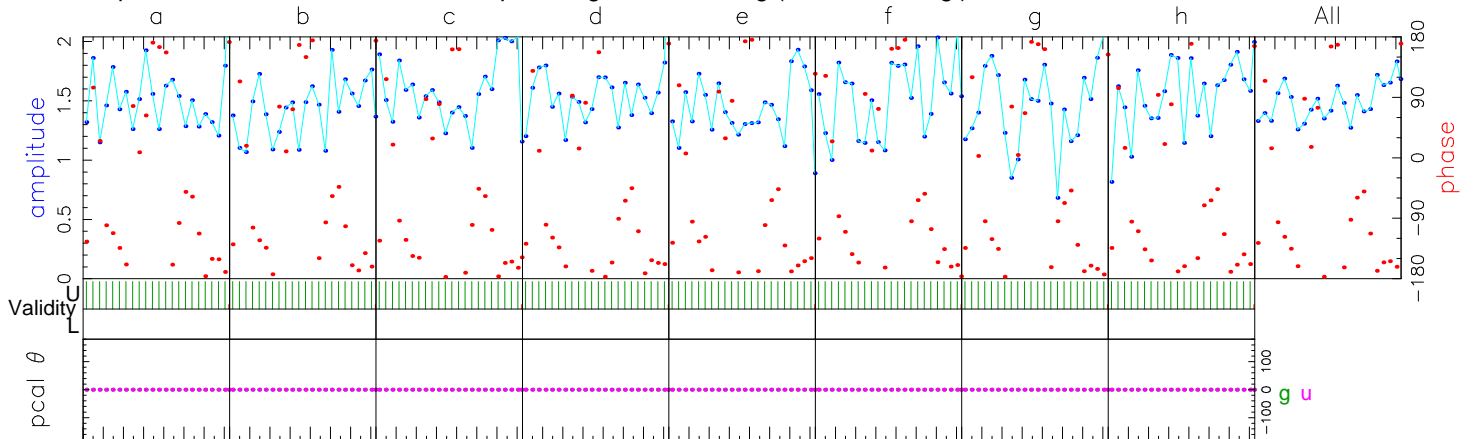
Fringe quality 7

SNR 38.1
 Int time 419.787
 Amp 0.680
 Phase -148.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.011256
 MBD 0.003351
 Fringe rate (Hz)
 -0.000908
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133103
 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
	-151.5	-143.5	-150.7	-146.6	-148.0	-143.4	-156.0	-145.4	Phase	-148.2
	0.6	0.6	0.7	0.7	0.7	0.8	0.7	0.6	Ampl.	0.7
	259.8	259.6	260.0	260.0	260.0	260.0	260.0	259.7	Sbd box	259.9
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	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	7.40842529045E+03		Apriori delay (usec)		7.40840631477E+03		Resid mbdelay (usec)		3.35068E-03	+/- 2.8E-05
Sband delay (usec)	7.40841757077E+03		Apriori clock (usec)		-1.4317850E+01		Resid sbdelay (usec)		1.12560E-02	+/- 2.3E-04
Phase delay (usec)	7.40840630999E+03		Apriori clockrate (us/s)		-1.0549999E-06		Resid phdelay (usec)		-4.77751E-06	+/- 9.7E-08
Delay rate (us/s)	-1.01182289918E+00		Apriori rate (us/s)		-1.01182288864E+00		Resid rate (us/s)		-1.05405E-08	+/- 4.0E-10
Total phase (deg)	195.4		Apriori accel (us/s/s)		-5.08567940248E-06		Resid phase (deg)		-148.2	+/- 3.0

ph/seg (deg) 76.4 7.2 Search (2048X32) 0.677 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 121.2 12.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 4.7 4.3 Inc. seg. avg. 1.478 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.7 7.4 Inc. frq. avg. 0.679 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 g: az 268.5 el 53.4 pa 21.7 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 9197.869 1606.313 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/gu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/gu.W.106.1X1KZS

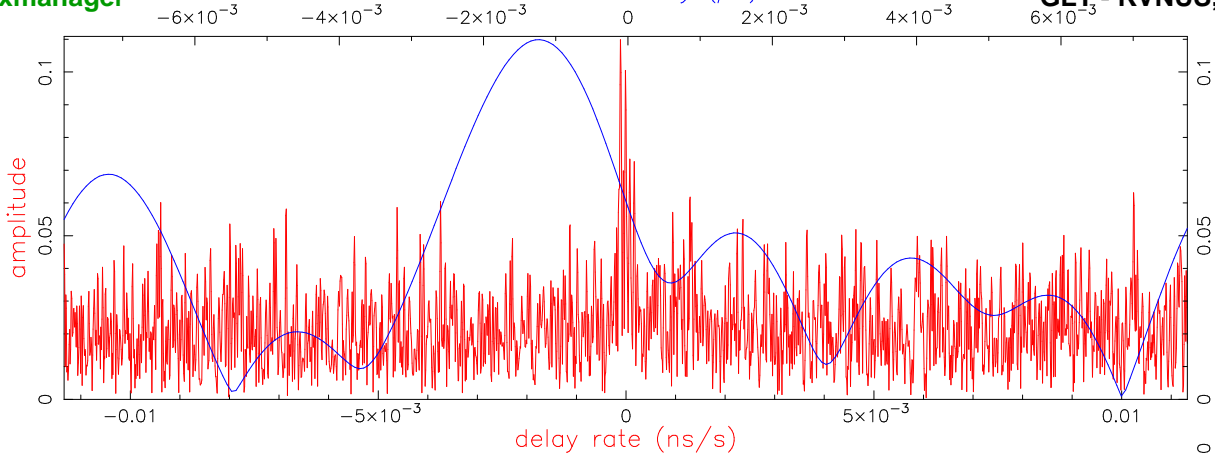
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, gu

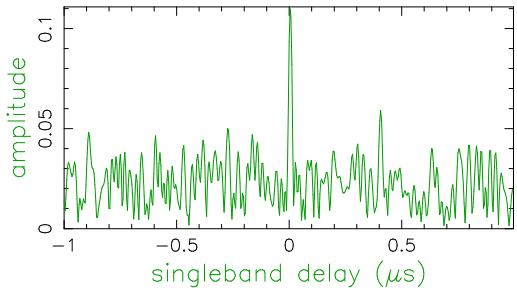
GLT - KVNUS, fgroup W, pol LR

multiband delay (μ s)

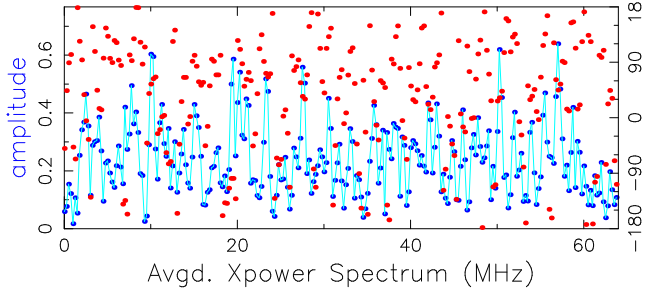


Fringe quality 0

SNR 6.2
Int time 419.787
Amp 0.111
Phase 144.3
PFD 1.3e-01
Delays (us)
SBD 0.005119
MBD -0.001233
Fringe rate (Hz)
-0.009804
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

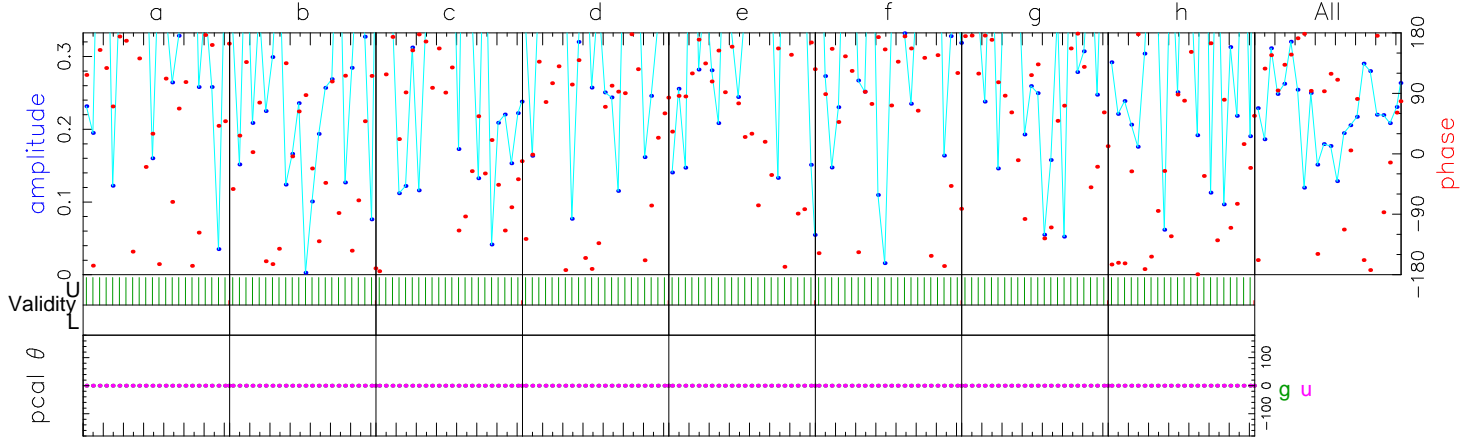


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133106
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

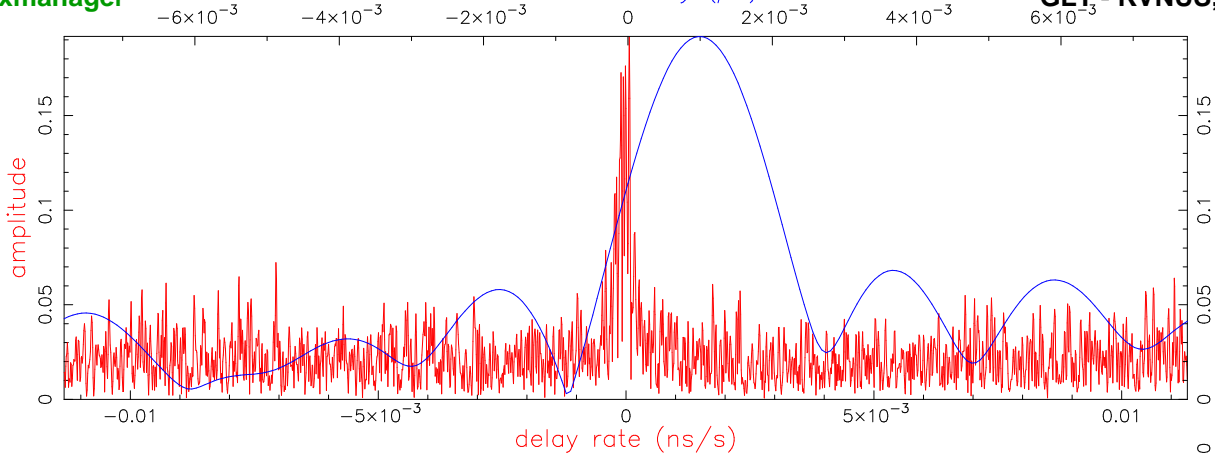
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



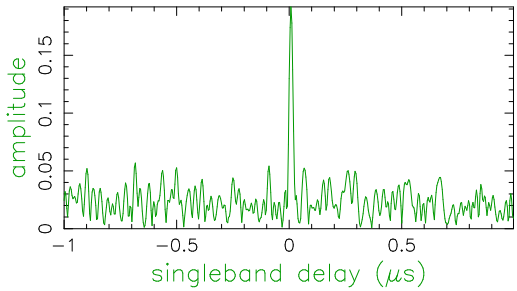
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0			
g	0	0	0	0	0	0	0	0			
u	1000	1000	1000	1000	1000	1000	1000	1000			
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
g	1000	1000	1000	1000	1000	1000	1000	1000			
u	1000	1000	1000	1000	1000	1000	1000	1000			
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)	7.40840508155E+03				7.40840631477E+03						
Sband delay (usec)	7.40841143377E+03				-1.4317850E+01						
Phase delay (usec)	7.40840631942E+03				-1.0549999E-06						
Delay rate (us/s)	-1.01182300245E+00				-1.01182288864E+00						
Total phase (deg)			127.8		-5.08567940248E-06						
				Apriori delay (usec)					Resid mbdelay (usec)	-1.23322E-03	+/- 1.7E-04
				Apriori clock (usec)					Resid sbdelay (usec)	5.11900E-03	+/- 1.4E-03
				Apriori clockrate (us/s)					Resid phdelay (usec)	4.65275E-06	+/- 5.9E-07
				Apriori rate (us/s)					Resid rate (us/s)	-1.13814E-07	+/- 2.5E-09
				Apriori accel (us/s/s)					Resid phase (deg)	144.3	+/- 18.4
ph/seg (deg)	RMS 70.0	Theor. 44.2	Amplitude 0.111 +/- 0.018						PCal mode: MANUAL, MANUAL		
amp/seg (%)	111.1	77.2	Search (2048X32) 0.107						PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	54.2	26.1	Interp. 0.000						Bits/sample: 2x2	mb window (us)	-0.008 0.008
amp/frq (%)	59.9	45.5	Inc. seg. avg. 0.171						Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011
			Inc. frq. avg. 0.115						Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00
g: az 268.5 el 53.4 pa 21.7									nlags: 256	t_cohere infinite	
u: az 44.6 el 26.4 pa -65.9											
u,v (fr/asec) 9197.869 1606.313											

multiband delay (μ s)

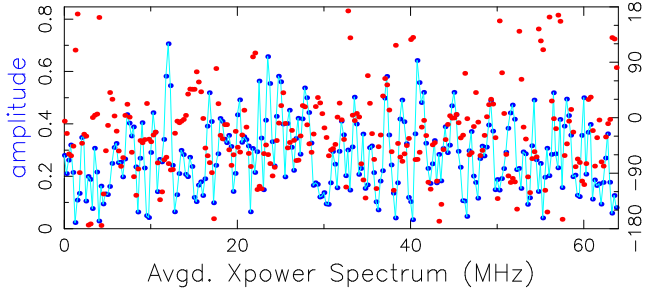
Fringe quality 9



SNR 10.8
 Int time 419.787
 Amp 0.192
 Phase 45.6
 PFD 2.7e-18
 Delays (us)
 SBD 0.008055
 MBD 0.000996
 Fringe rate (Hz)
 0.005574
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

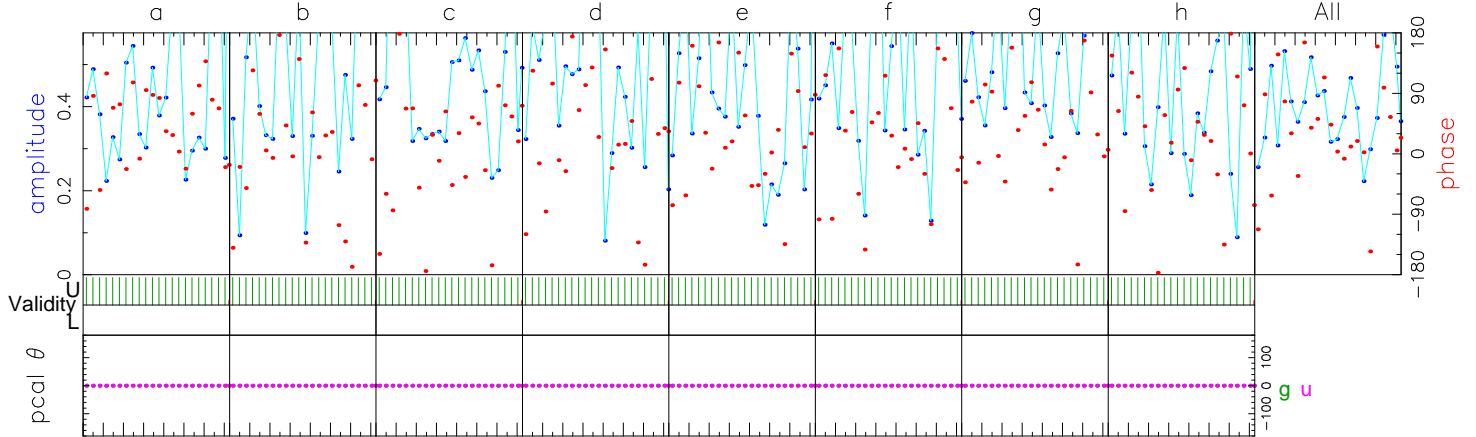


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133110
 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
	51.8	56.1	18.4	59.3	37.7	36.4	39.0	64.8	Phase	45.6
	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.2	Ampl.	0.2
	258.8	480.4	257.8	163.8	471.5	260.0	259.0	261.0	Sbd box	259.1
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	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)	7.40840731036E+03		Apriori delay (usec)		7.40840631477E+03		Resid mbdelay (usec)		9.95589E-04	+/- 1.0E-04
Sband delay (usec)	7.40841436927E+03		Apriori clock (usec)		-1.4317850E+01		Resid sbdelay (usec)		8.05450E-03	+/- 8.0E-04
Phase delay (usec)	7.40840631624E+03		Apriori clockrate (us/s)		-1.0549999E-06		Resid phdelay (usec)		1.46986E-06	+/- 3.4E-07
Delay rate (us/s)	-1.01182282393E+00		Apriori rate (us/s)		-1.01182288864E+00		Resid rate (us/s)		6.47041E-08	+/- 1.4E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.08567940248E-06		Resid phase (deg)		45.6	+/- 10.7

	RMS	Theor.	Amplitude	0.192 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	76.6	25.6	Search (2048X32)	0.190	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	124.5	44.6	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	16.5	15.1	Inc. seg. avg.	0.371	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	24.8	26.3	Inc. frq. avg.	0.191	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

g: az 268.5 el 53.4 pa 21.7 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 9197.869 1606.313 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/gu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/gu.W.143.1X1KZS

Mk4/DiFX fourfit 3.21 rev 2937

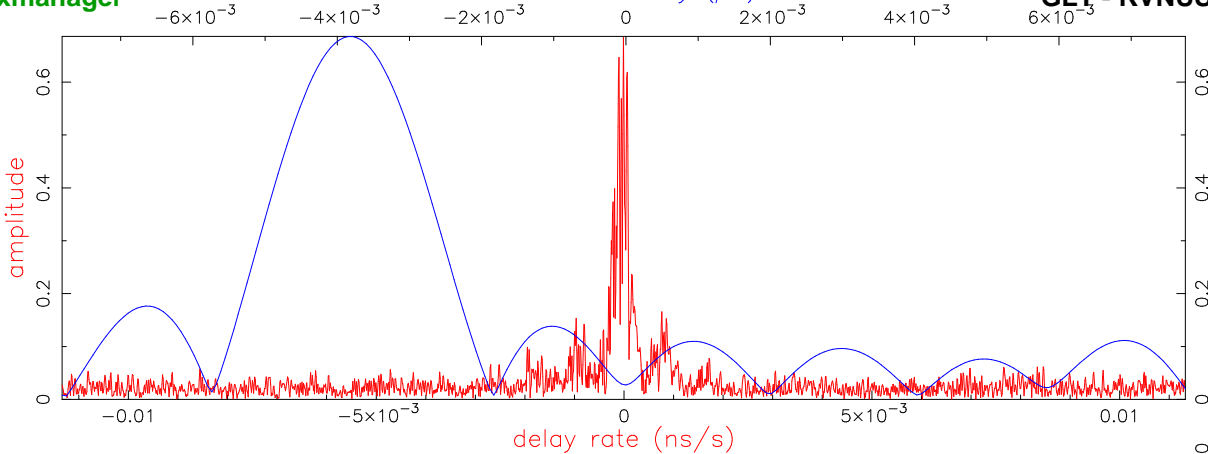
fxmanager

NRAO150.1X1KZS, No0113, gu

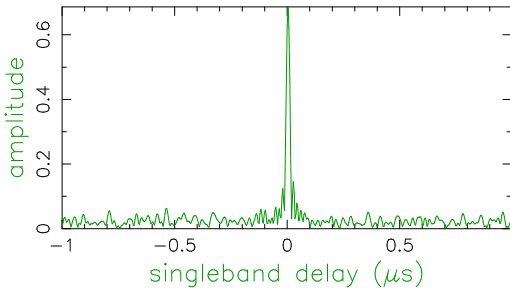
GLT - KVNUS, fgroup W, pol LL

multiband delay (μ s)

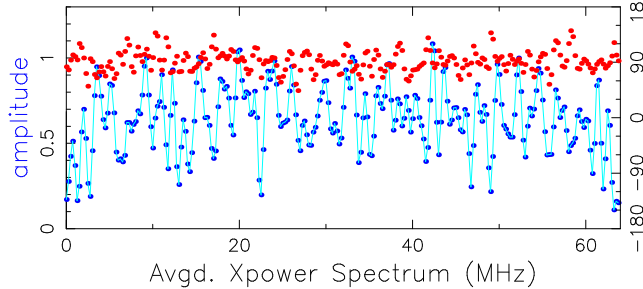
Fringe quality 7



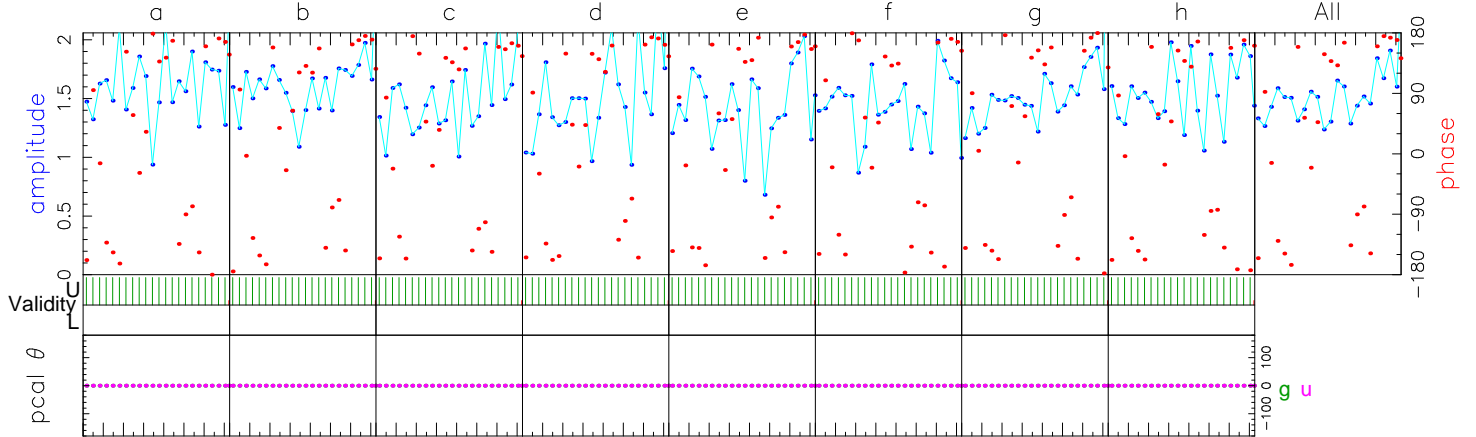
SNR 38.5
 Int time 419.787
 Amp 0.687
 Phase 179.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.003797
 MBD -0.003820
 Fringe rate (Hz)
 -0.000886
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133059
 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
	-174.2	174.7	174.4	178.1	178.1	-176.3	176.1	-178.7	Phase	179.0
	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.7	Ampl.	0.7
	258.0	258.0	257.7	258.0	258.0	257.7	258.1	258.1	Sbd box	258.0
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	

Group delay (usec)(sbd)	7.40840249451E+03	Apriori delay (usec)		7.40840631477E+03	Resid mbdelay (usec)		-3.82026E-03	+/-	2.8E-05	
Sband delay (usec)	7.40841011177E+03	Apriori clock (usec)		-1.4317850E+01	Resid sbdelay (usec)		3.79700E-03	+/-	2.2E-04	
Phase delay (usec)	7.40840632054E+03	Apriori clockrate (us/s)		-1.0549999E-06	Resid phdelay (usec)		5.77108E-06	+/-	9.6E-08	
Delay rate (us/s)	-1.01182289892E+00	Apriori rate (us/s)		-1.01182288864E+00	Resid rate (us/s)		-1.02883E-08	+/-	4.0E-10	
Total phase (deg)	162.5		Apriori accel (us/s/s)		-5.08567940248E-06	Resid phase (deg)		179.0	+/-	3.0

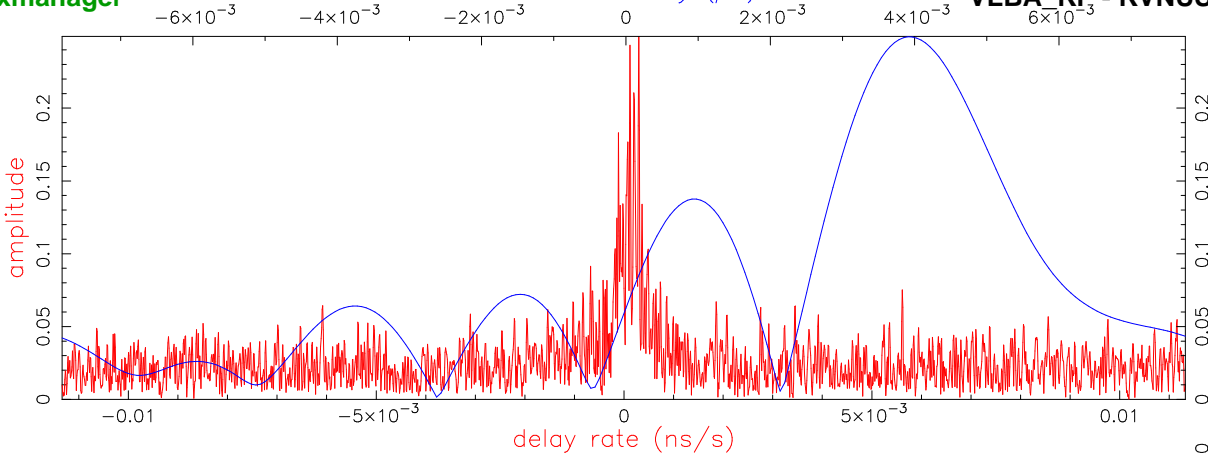
ph/seg (deg)	RMS 75.8	Theor. 7.1	Amplitude Search (2048X32)	0.687 +/- 0.018	0.683	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	122.1	12.5	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	4.5	4.2	Inc. seg. avg.	1.492		Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	3.4	7.4	Inc. frq. avg.	0.686		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

g: az 268.5 el 53.4 pa 21.7 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 9197.869 1606.313 simultaneous interpolator

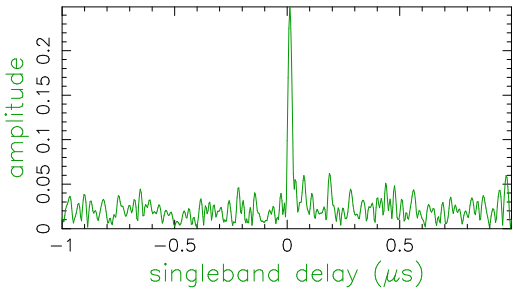
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/gu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/gu.W.89.1X1KZS

multiband delay (μ s)

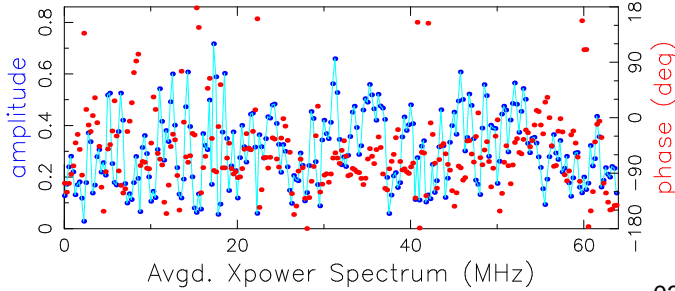
Fringe quality 9



SNR 14.0
Int time 419.785
Amp 0.249
Phase 27.3
PFD 1.6e-35
Delays (us)
SBD 0.012152
MBD 0.003953
Fringe rate (Hz)
0.025838
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

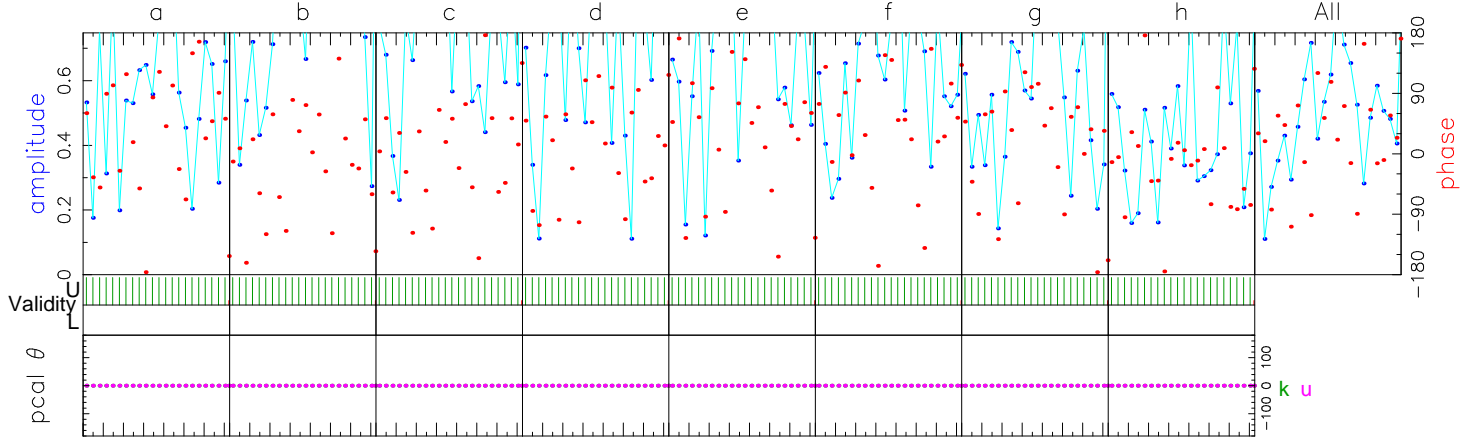


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133111
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
	63.7	2.3	2.3	18.2	61.3	60.2	46.0	-27.1	Phase	27.3
	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	Ampl.	0.3
	257.9	259.8	260.9	260.7	260.2	260.2	259.5	257.5	Sbd box	260.1
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	

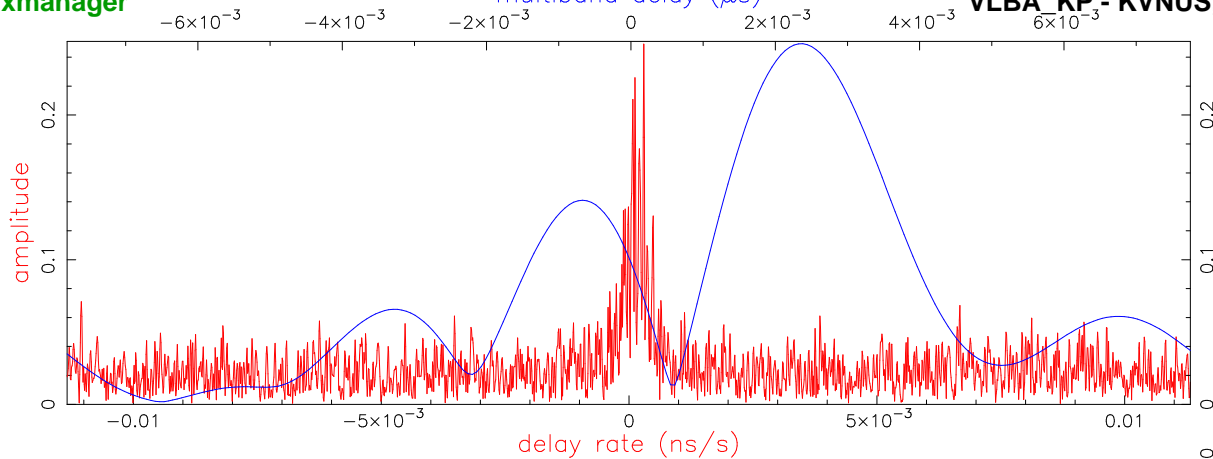
Group delay (usec)(sbd)	9.05199687417E+03	Apriori delay (usec)	9.05197729638E+03	Resid mbdelay (usec)	3.95279E-03	+/-	7.8E-05
Sband delay (usec)	9.05198944838E+03	Apriori clock (usec)	-1.4437157E+01	Resid sbdelay (usec)	1.21520E-02	+/-	6.2E-04
Phase delay (usec)	9.05197729726E+03	Apriori clockrate (us/s)	-1.1270000E-06	Resid phdelay (usec)	8.79070E-07	+/-	2.6E-07
Delay rate (us/s)	-1.19888303171E+00	Apriori rate (us/s)	-1.19888333167E+00	Resid rate (us/s)	2.99953E-07	+/-	1.1E-09
Total phase (deg)	138.9	Apriori accel (us/s/s)	-5.27612422190E-05	Resid phase (deg)	27.3	+/-	8.2

ph/seg (deg)	RMS 70.4	Theor. 19.7	Amplitude Search (2048X32)	0.249 +/- 0.018	0.246	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	121.9	34.3	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)	37.0	11.6	Inc. seg. avg.	0.471	0.471	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	22.8	20.3	Inc. frq. avg.	0.283	0.283	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 320.9 el 61.8 pa 121.8 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 10829.348 -5511.207 simultaneous interpolator

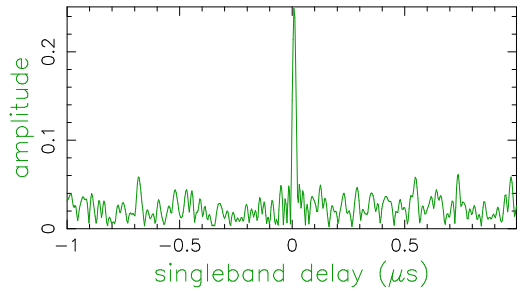
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/ku..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/ku.W.148.1X1KZS

multiband delay (μ s)

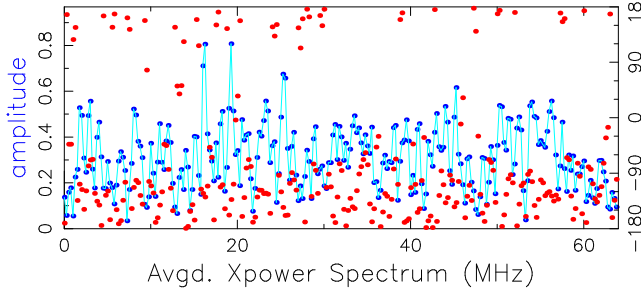


Fringe quality 9

SNR 14.1
Int time 419.785
Amp 0.251
Phase -56.4
PFD 4.3e-36
Delays (us)
SBD 0.008897
MBD 0.002412
Fringe rate (Hz)
0.025841
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

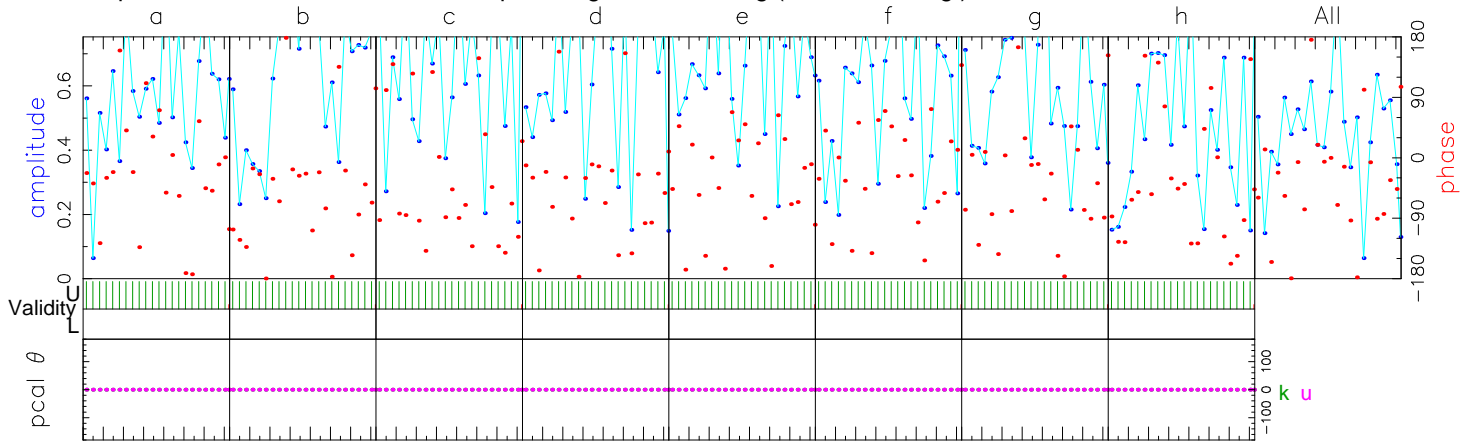


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133115
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
	-19.8	-64.5	-101.0	-64.9	-28.7	-23.2	-62.2	-90.9	Phase	-56.4
	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	Ampl.	0.3
	257.4	259.3	259.6	259.7	260.2	259.7	258.8	257.2	Sbd box	259.3
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	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)	9.05197970880E+03		Apriori delay (usec)		9.05197729638E+03		Resid mbdelay (usec)		2.41242E-03	+/- 7.7E-05
Sband delay (usec)	9.05198619363E+03		Apriori clock (usec)		-1.4437157E+01		Resid sbdelay (usec)		8.89725E-03	+/- 6.1E-04
Phase delay (usec)	9.05197729456E+03		Apriori clockrate (us/s)		-1.1270000E-06		Resid phdelay (usec)		-1.81831E-06	+/- 2.6E-07
Delay rate (us/s)	-1.19888303168E+00		Apriori rate (us/s)		-1.19888333167E+00		Resid rate (us/s)		2.99987E-07	+/- 1.1E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.27612422190E-05		Resid phase (deg)		-56.4	+/- 8.2

	RMS	Theor.	Amplitude	0.251 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	71.6	19.6	Search (2048X32)	0.244	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	108.6	34.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	33.1	11.5	Inc. seg. avg.	0.438	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	24.5	20.1	Inc. frq. avg.	0.275	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

k: az 320.9 el 61.8 pa 121.8 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 10829.348 -5511.207 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/ku..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/ku.W.161.1X1KZS

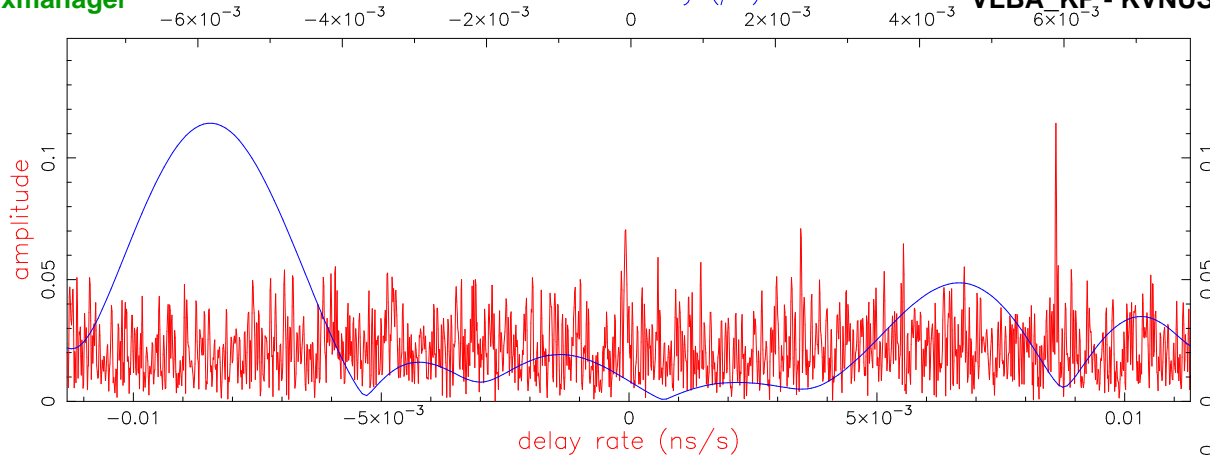
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, ku

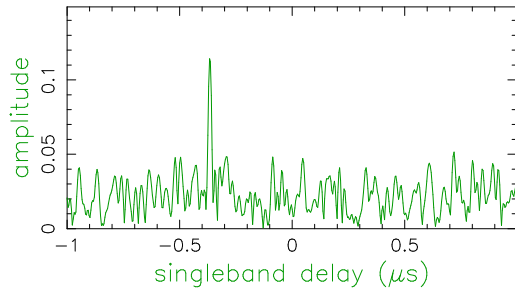
VLBA_KP - KVNUS, fgroup W, pol LR

multiband delay (μ s)

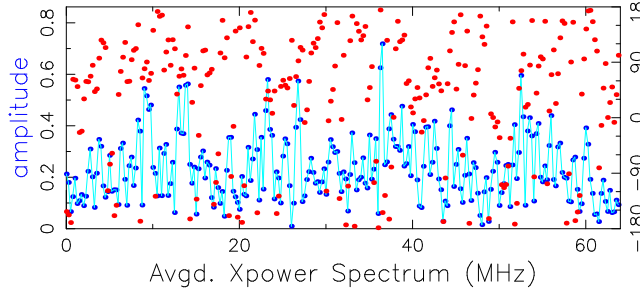


Fringe quality 0

SNR 6.5
 Int time 419.785
 Amp 0.149
 Phase -87.9
 PFD 2.2e-02
 Delays (us)
 SBD -0.365602
 MBD -0.005802
 Fringe rate (Hz) 0.743226
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

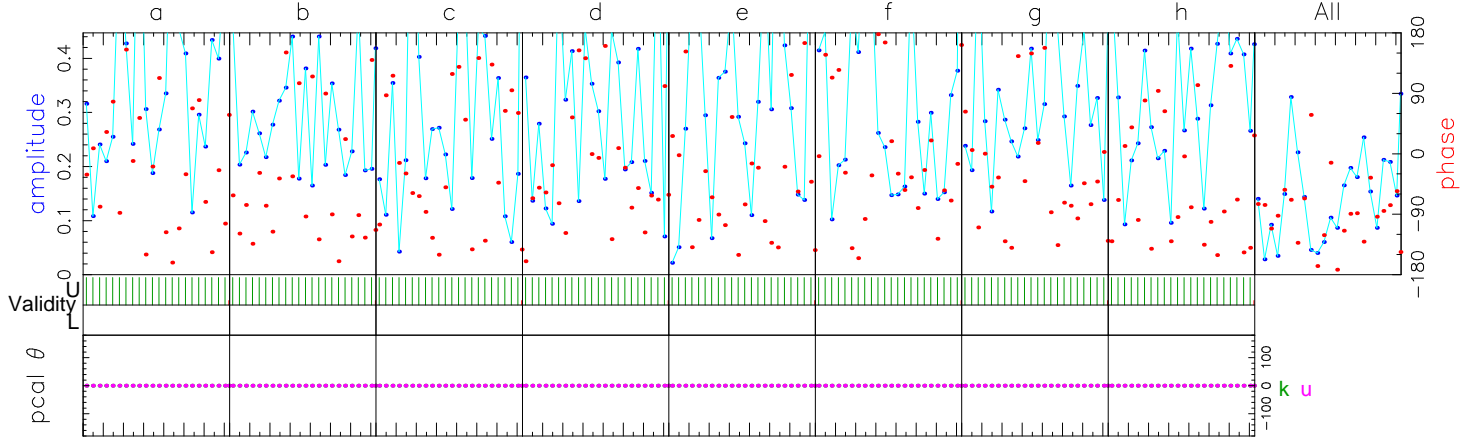


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133119
 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
	-83.2	-98.1	-106.4	-65.9	-94.6	-71.1	-81.4	-110.9	Phase	-87.9
	0.1	0.2	0.0	0.2	0.2	0.1	0.2	0.2	Ampl.	0.1
	299.7	36.5	437.3	289.2	162.8	342.1	380.3	296.2	Sbd box	163.4
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.05161211900E+03		Apriori delay (usec)	9.05197729638E+03	Resid mbdelay (usec)	-5.80238E-03	+/-	1.7E-04		
Sband delay (usec)	9.05161169438E+03		Apriori clock (usec)	-1.4437157E+01	Resid sbdelay (usec)	-3.65602E-01	+/-	1.3E-03		
Phase delay (usec)	9.05197729355E+03		Apriori clockrate (us/s)	-1.1270000E-06	Resid phdelay (usec)	-2.83493E-06	+/-	5.7E-07		
Delay rate (us/s)	-1.19887470355E+00		Apriori rate (us/s)	-1.19888333167E+00	Resid rate (us/s)	8.62811E-06	+/-	2.3E-09		
Total phase (deg)		23.8	Apriori accel (us/s/s)	-5.27612422190E-05	Resid phase (deg)	-87.9	+/-	17.6		

ph/seg (deg) 49.0 42.3 Search (2048X32) 0.107 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 71.0 73.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.6 24.9 Inc. seg. avg. 0.143 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.2 43.5 Inc. frq. avg. 0.139 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 320.9 el 61.8 pa 121.8 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 10829.348 -5511.207 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/ku..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/ku.W.182.1X1KZS

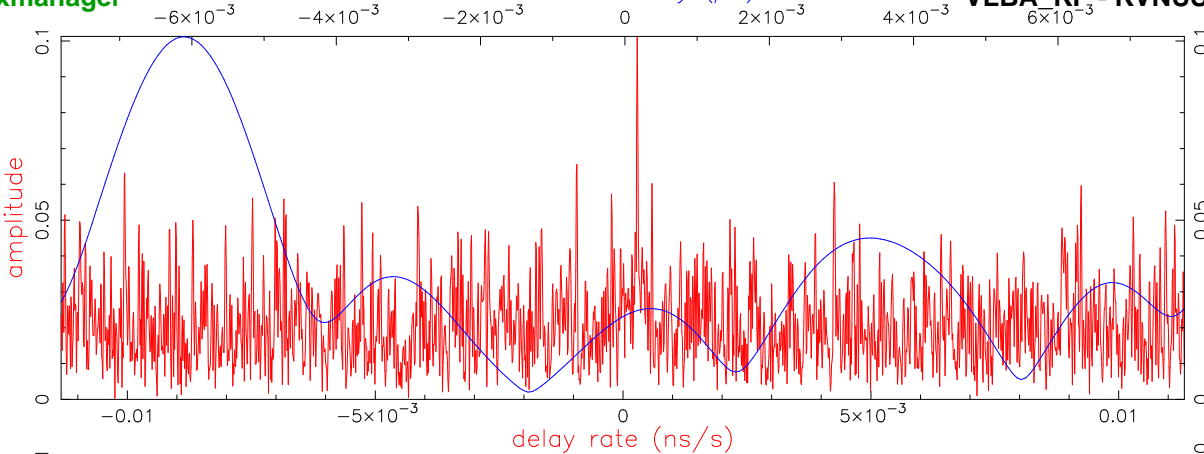
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, ku

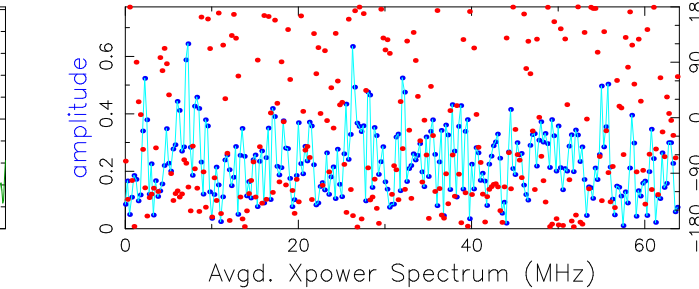
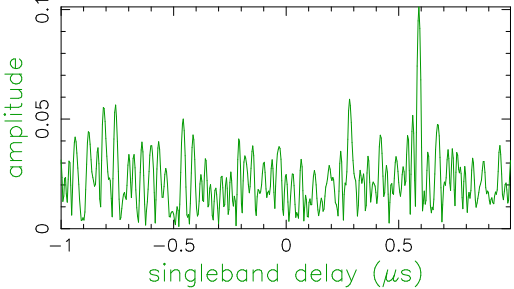
VLBA_KP - KVNUS, fgroup W, pol RL

multiband delay (μs)



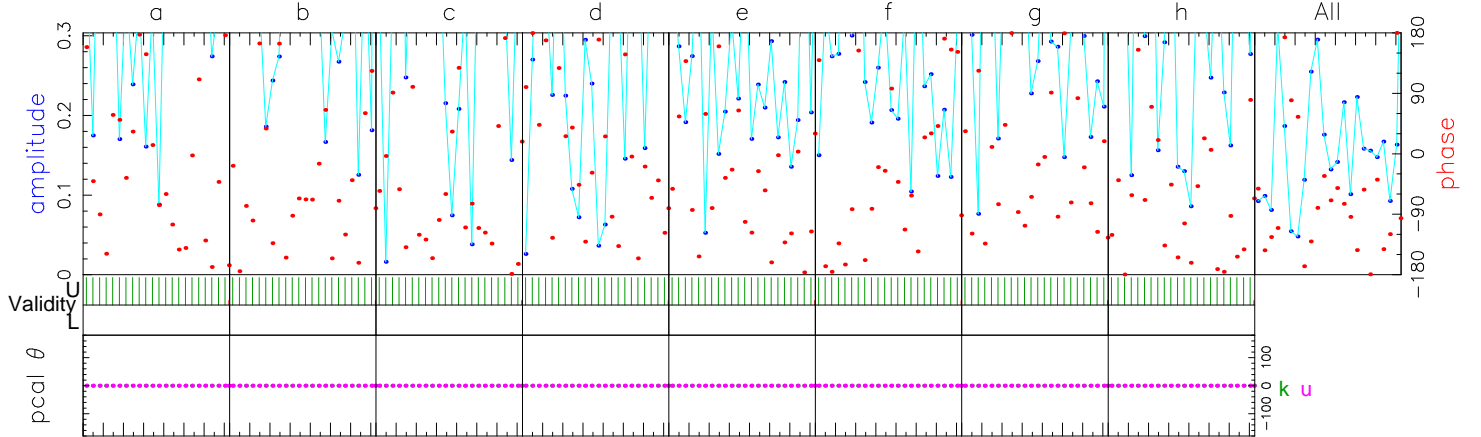
Fringe quality 0

SNR 5.7
 Int time 419.785
 Amp 0.101
 Phase -108.1
 PFD 9.7e-01
 Delays (us)
 SBD 0.589414
 MBD -0.006126
 Fringe rate (Hz)
 0.025055
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133123
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-124.7	-92.5	-121.0	-94.8	-94.9	-154.5	-57.3	-125.3	Phase	-108.1
	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	372.8	407.8	407.8	63.4	203.1	48.6	201.0	23.6	Sbd box	407.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.05256492035E+03		Apriori delay (usec)		9.05197729638E+03		Resid mbdelay (usec)		-6.12603E-03	+/- 1.9E-04
Sband delay (usec)	9.05256670988E+03		Apriori clock (usec)		-1.4437157E+01		Resid sbdelay (usec)		5.89414E-01	+/- 1.5E-03
Phase delay (usec)	9.05197729289E+03		Apriori clockrate (us/s)		-1.1270000E-06		Resid phdelay (usec)		-3.48542E-06	+/- 6.5E-07
Delay rate (us/s)	-1.19888304081E+00		Apriori rate (us/s)		-1.19888333167E+00		Resid rate (us/s)		2.90861E-07	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.27612422190E-05		Resid phase (deg)		-108.1	+/- 20.2

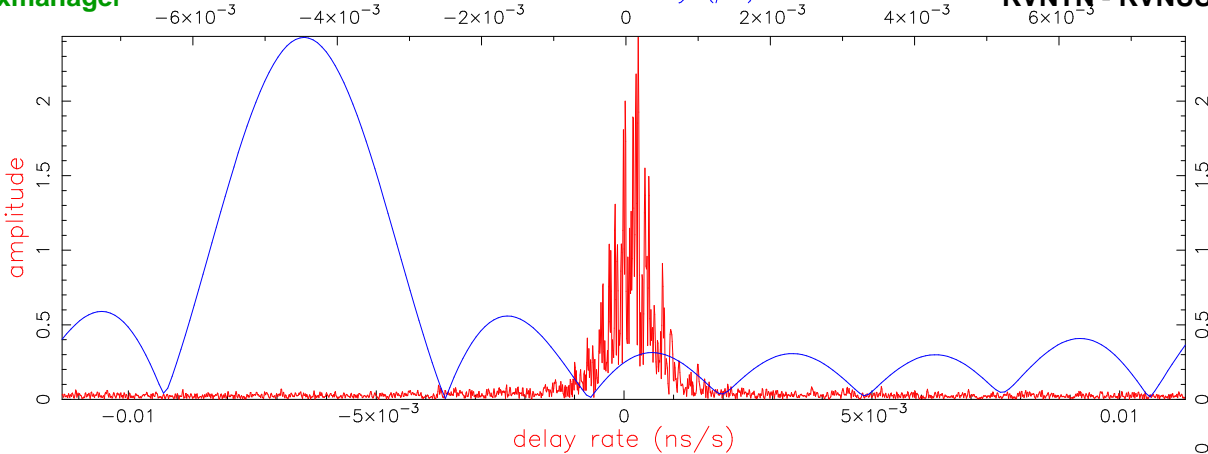
	RMS	Theor.	Amplitude	0.101 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	68.6	48.4	Search (2048X32)	0.097	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/seg (%)	90.9	84.5	Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	31.8	28.6	Inc. seg. avg.	0.116	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00
amp/frq (%)	38.1	49.9	Inc. frq. avg.	0.100					

k: az 320.9 el 61.8 pa 121.8 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 10829.348 -5511.207 simultaneous interpolator

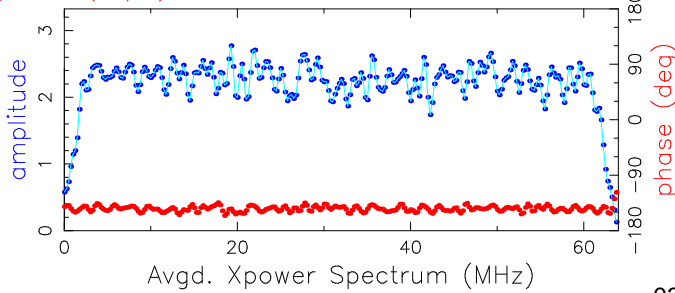
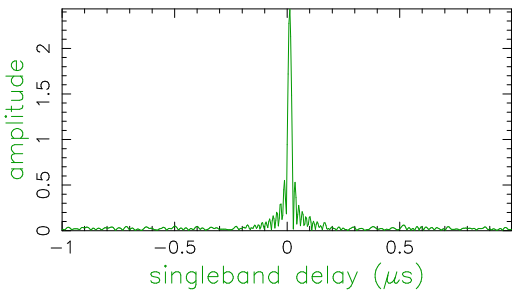
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/ku..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/ku.W.203.1X1KZS

multiband delay (μ s)

Fringe quality 5

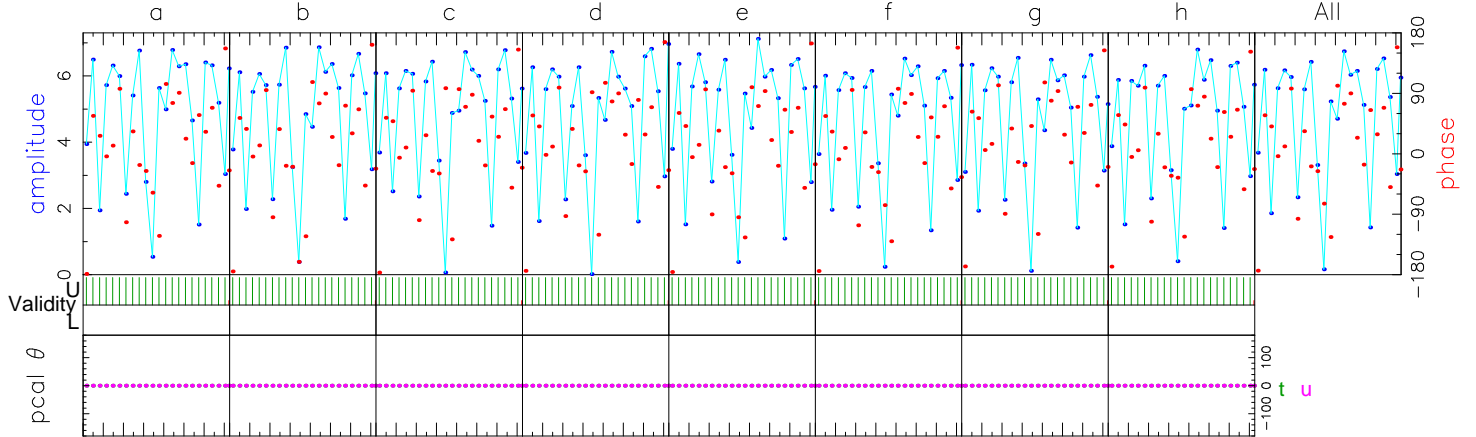


SNR 136.3
Int time 419.804
Amp 2.434
Phase 34.9
PFD 0.0e+00
Delays (us)
SBD 0.011095
MBD -0.004462
Fringe rate (Hz)
0.024792
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133133
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
	36.0	34.9	32.9	36.3	32.7	33.8	39.6	33.0	Phase	34.9
	2.4	2.5	2.5	2.4	2.4	2.4	2.5	2.4	Ampl.	2.4
	259.9	259.8	259.8	259.9	259.7	259.9	259.9	259.7	Sbd box	259.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.09508085252E+03		Apriori delay (usec)		-1.09509201542E+03		Resid mbdelay (usec)		-4.46209E-03	+/- 8.0E-06
Sband delay (usec)	-1.09508092042E+03		Apriori clock (usec)		-1.5025646E+01		Resid sbdelay (usec)		1.10950E-02	+/- 6.3E-05
Phase delay (usec)	-1.09509201430E+03		Apriori clockrate (us/s)		-1.1770000E-06		Resid phdelay (usec)		1.12618E-02	+/- 2.7E-08
Delay rate (us/s)	2.07313327405E-02		Apriori rate (us/s)		2.07310449244E-02		Resid rate (us/s)		2.87816E-07	+/- 1.1E-10
Total phase (deg)			Apriori accel (us/s/s)		2.89789751354E-06		Resid phase (deg)		34.9	+/- 0.8

ph/seg (deg) 75.7 2.0 Search (2048X32) 2.391 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 121.3 3.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 2.6 1.2 Inc. seg. avg. 4.729 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.1 2.1 Inc. frq. avg. 2.429 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 43.1 el 23.2 pa -64.6 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) -183.510 102.244 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/tu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/tu.W.242.1X1KZS simultaneous interpolator

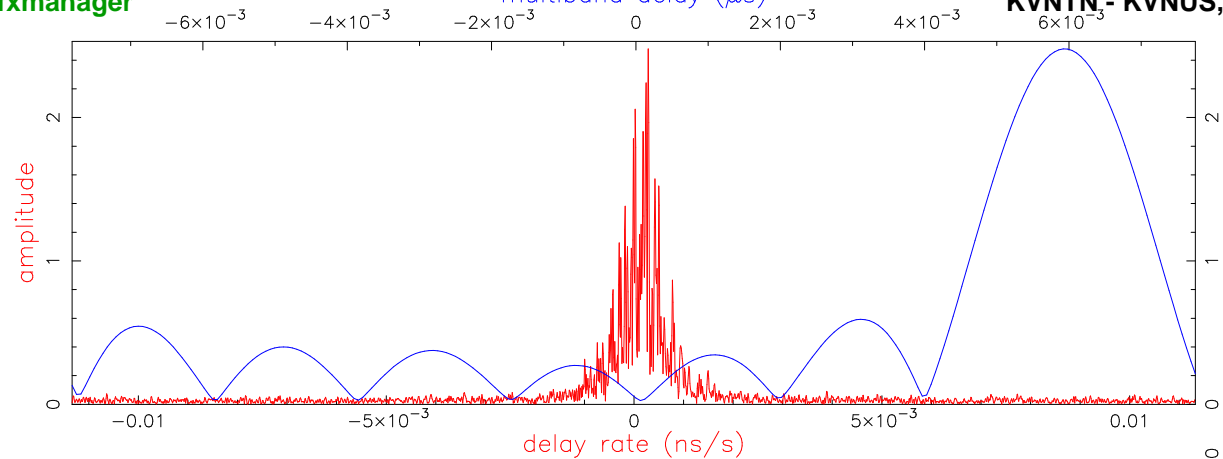
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, tu

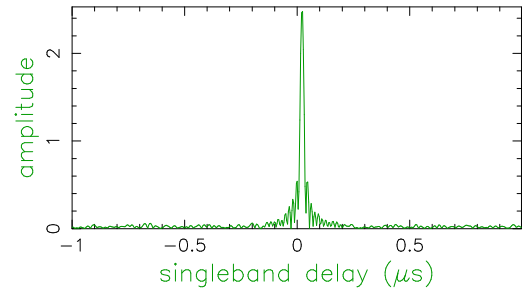
KVNTN- KVNUS, fgroup W, pol RR

multiband delay (μ s)

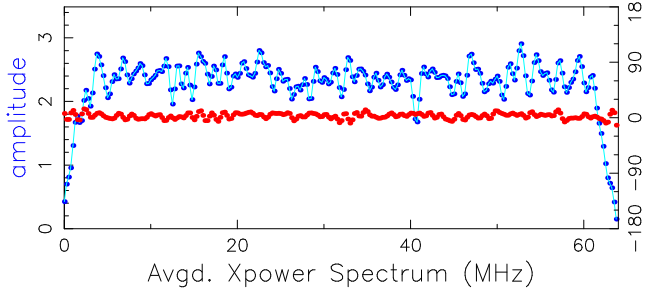


Fringe quality 5

SNR 141.8
Int time 419.804
Amp 2.531
Phase -176.0
PFD 0.0e+00
Delays (us)
SBD 0.021618
MBD 0.005935
Fringe rate (Hz) 0.024778
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

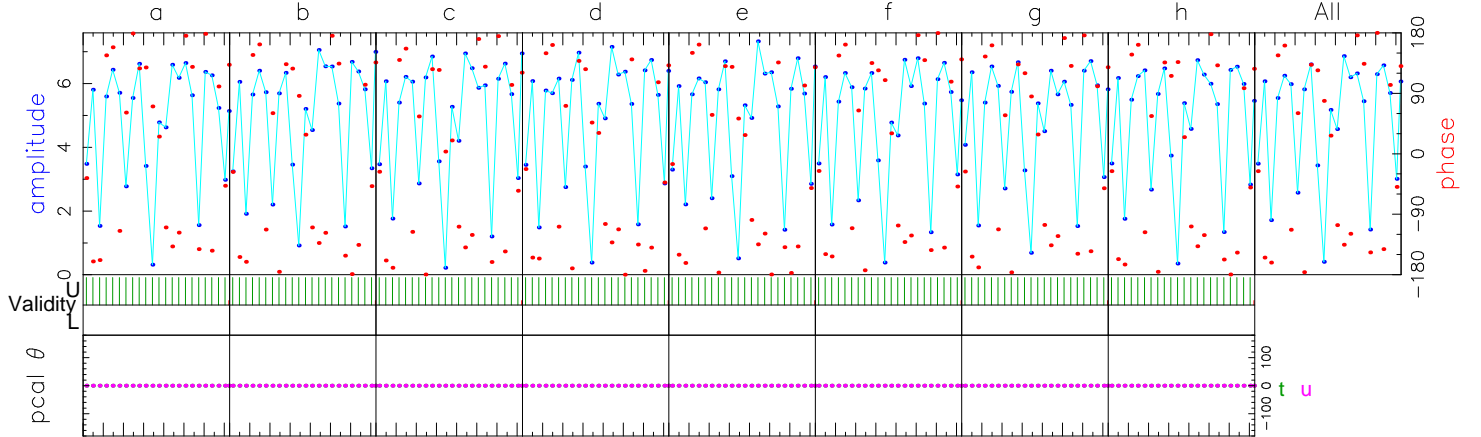


delay rate (ns/s)



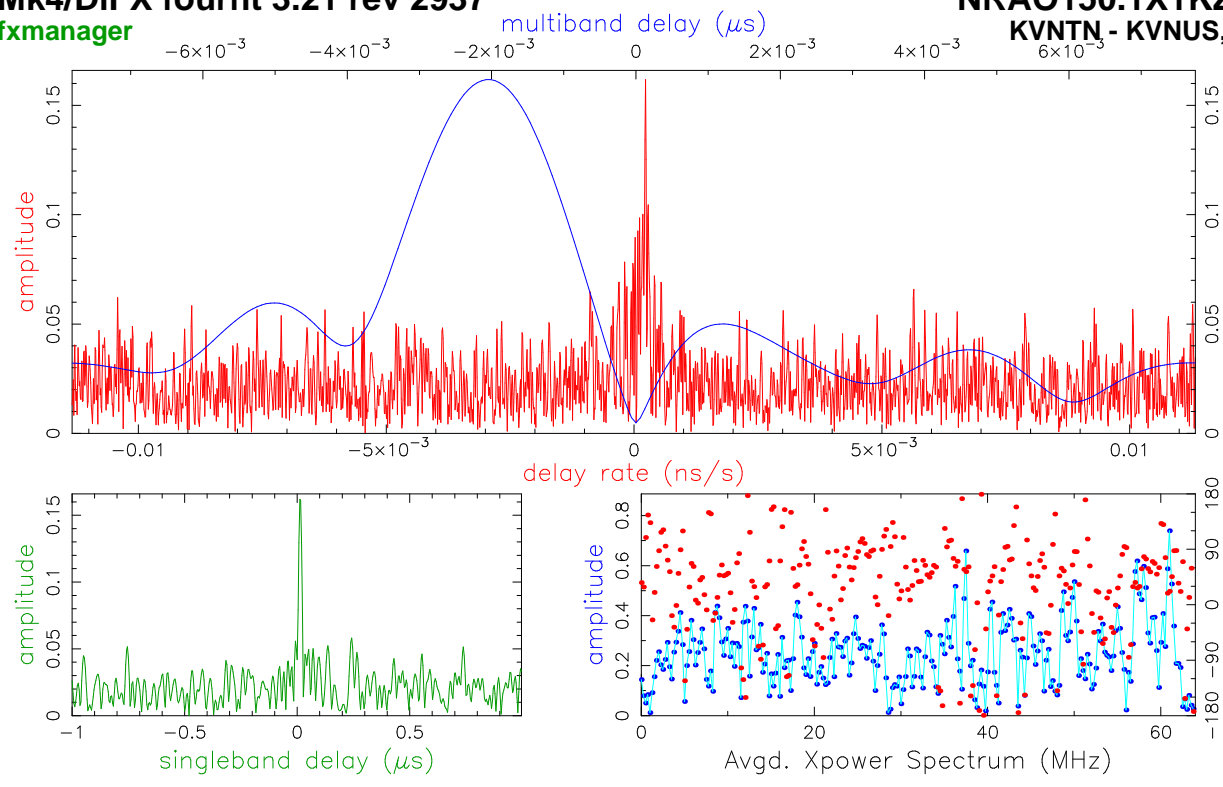
Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133136
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



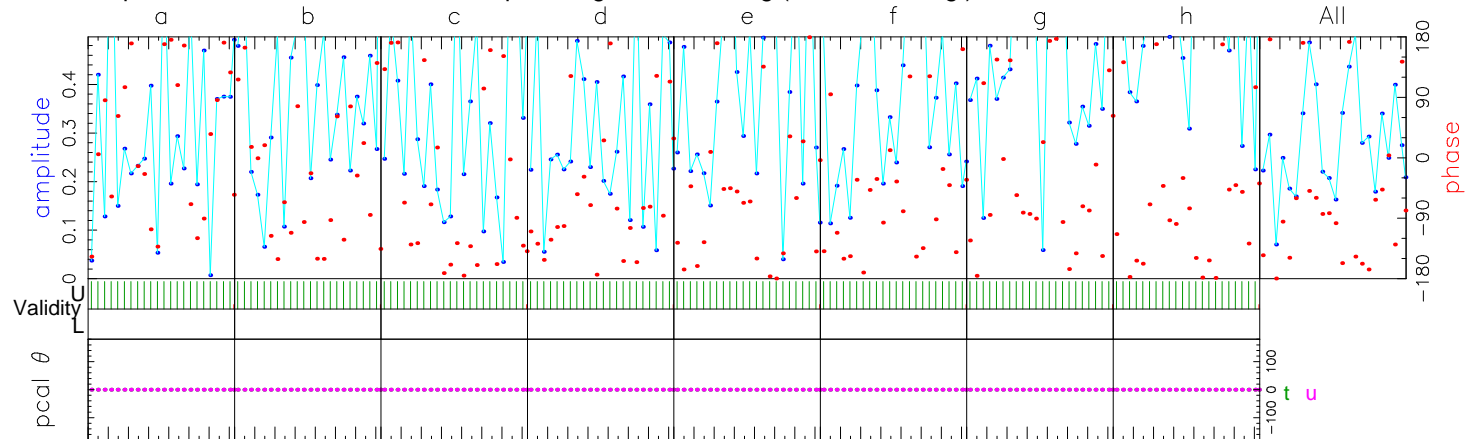
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-178.2	-174.8	179.0	-171.7	-172.7	-173.8	-178.9	-177.1	Phase	-176.0
	2.5	2.5	2.5	2.5	2.5	2.4	2.5	2.5	Ampl.	2.5
	262.5	262.5	262.5	262.7	262.5	262.6	262.5	262.5	Sbd box	262.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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)	-1.09507045502E+03			Apriori delay (usec)	-1.09509201542E+03			Resid mbdelay (usec)	5.93541E-03	+/- 7.7E-06
Sband delay (usec)	-1.09507039742E+03			Apriori clock (usec)	-1.5025646E+01			Resid sbdelay (usec)	2.16180E-02	+/- 6.1E-05
Phase delay (usec)	-1.09509202110E+03			Apriori clockrate (us/s)	-1.1770000E-06			Resid phdelay (usec)	-5.67502E-06	+/- 2.6E-08
Delay rate (us/s)	2.07313325718E-02			Apriori rate (us/s)	2.07310449244E-02			Resid rate (us/s)	2.87647E-07	+/- 1.1E-10
Total phase (deg)		-251.0		Apriori accel (us/s/s)	2.89789751354E-06			Resid phase (deg)	-176.0	+/- 0.8

ph/seg (deg) 74.8 1.9 Search (2048X32) 2.457 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 116.3 3.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 3.5 1.1 Inc. seg. avg. 4.801 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 2.5 2.0 Inc. frq. avg. 2.482 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
t: az 43.1 el 23.2 pa -64.6 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) -183.510 102.244 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/tu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/tu.W.259.1X1KZS simultaneous interpolator



Fringe quality 9
SNR 9.3
Int time 419.804
Amp 0.166
Phase -124.8
PFD 5.5e-12
Delays (us)
SBD 0.013609
MBD -0.002047
Fringe rate (Hz) 0.020262
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133139
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

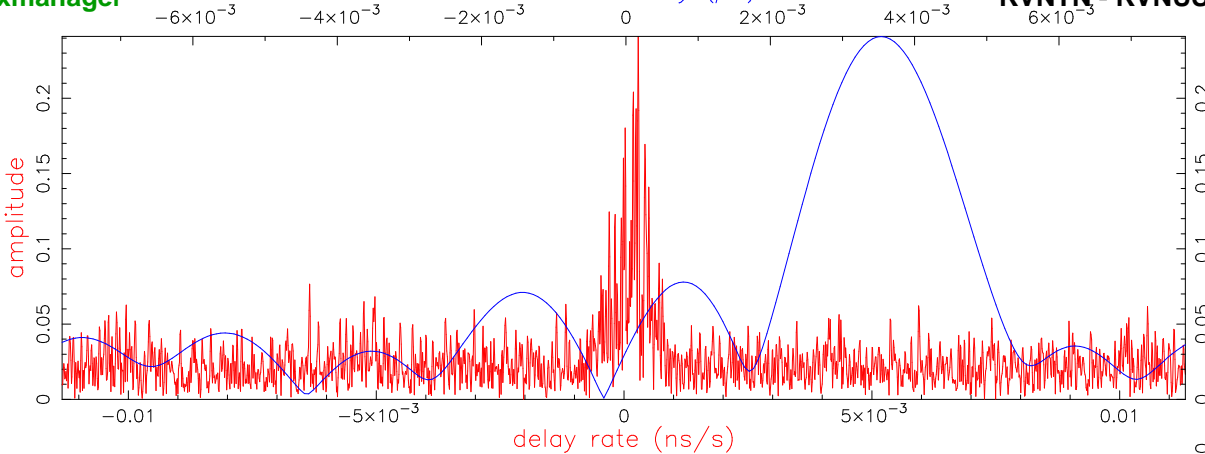


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-131.5	-129.6	-139.1	-114.8	-113.1	-105.8	-124.3	-133.7	Phase	-124.8
	0.0	0.1	0.2	0.2	0.1	0.2	0.2	0.3	Ampl.	0.2
	277.8	439.5	260.8	14.2	278.7	267.1	259.4	260.5	Sbd box	260.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.09507843772E+03		Apriori delay (usec)		-1.09509201542E+03		Resid mbdelay (usec)		-2.04730E-03	+/- 1.2E-04
Sband delay (usec)	-1.09507840592E+03		Apriori clock (usec)		-1.5025646E+01		Resid sbdelay (usec)		1.36095E-02	+/- 9.3E-04
Phase delay (usec)	-1.09509201945E+03		Apriori clockrate (us/s)		-1.1770000E-06		Resid phdelay (usec)		-4.02469E-06	+/- 4.0E-07
Delay rate (us/s)	2.07312801407E-02		Apriori rate (us/s)		2.07310449244E-02		Resid rate (us/s)		2.35216E-07	+/- 1.6E-09
Total phase (deg)			Apriori accel (us/s/s)		2.89789751354E-06		Resid phase (deg)		-124.8	+/- 12.3

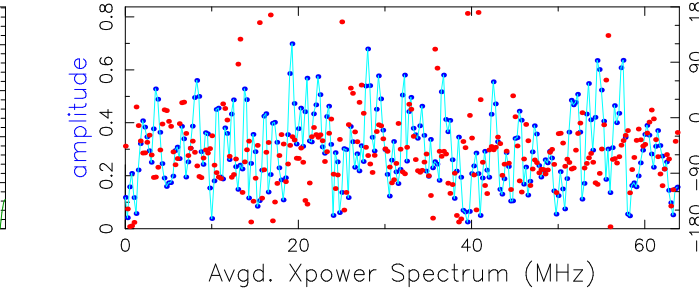
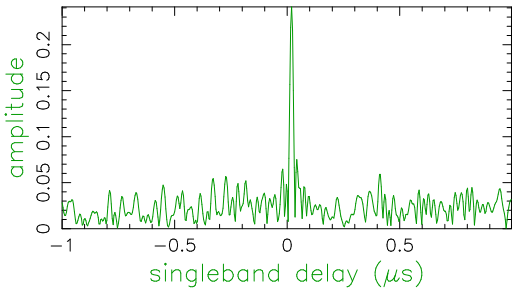
ph/seg (deg) 57.9 29.5 Search (2048X32) 0.158 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 97.6 51.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 12.6 17.4 Inc. seg. avg. 0.253 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 47.6 30.4 Inc. frq. avg. 0.158 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 43.1 el 23.2 pa -64.6 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) -183.510 102.244 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/tu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/tu.W.276.1X1KZS simultaneous interpolator

multiband delay (μ s)

Fringe quality 9

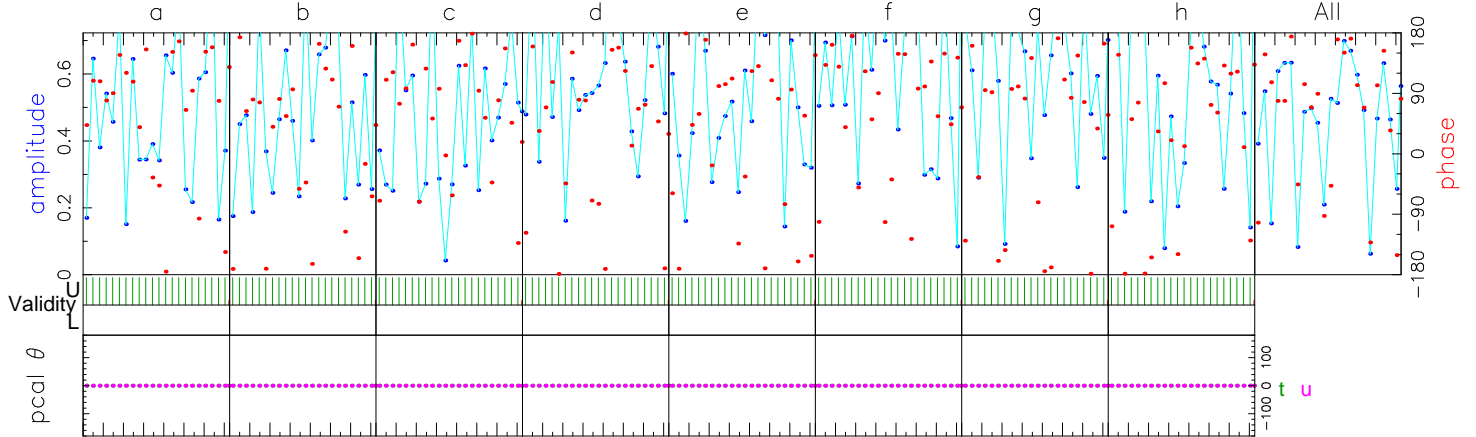


SNR 13.5
Int time 419.804
Amp 0.241
Phase 121.2
PFD 8.4e-33
Delays (us)
SBD 0.019417
MBD 0.003535
Fringe rate (Hz) 0.024807
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133143
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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.09507285527E+03	Apriori delay (usec)	-1.09509201542E+03	Resid mbdelay (usec)	3.53516E-03	+/-	8.0E-05
Sband delay (usec)	-1.09507259842E+03	Apriori clock (usec)	-1.5025646E+01	Resid sbdelay (usec)	1.94170E-02	+/-	6.4E-04
Phase delay (usec)	-1.09509201151E+03	Apriori clockrate (us/s)	-1.1770000E-06	Resid phdelay (usec)	3.90734E-06	+/-	2.7E-07
Delay rate (us/s)	2.07313329112E-02	Apriori rate (us/s)	2.07310449244E-02	Resid rate (us/s)	2.87987E-07	+/-	1.1E-09
Total phase (deg)	46.1	Apriori accel (us/s/s)	2.89789751354E-06	Resid phase (deg)	121.2	+/-	8.5

ph/seg (deg)	80.9	RMS	20.3	Theor.	20.3	Amplitude	0.241 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	118.5	Search (2048X32)	0.238	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	14.2	Inc. seg. avg.	0.432	Inc. frq. avg.	0.241	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	16.7	Inc. frq. avg.	0.241	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

t: az 43.1 el 23.2 pa -64.6 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) -183.510 102.244 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/tu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/tu.W.292.1X1KZS

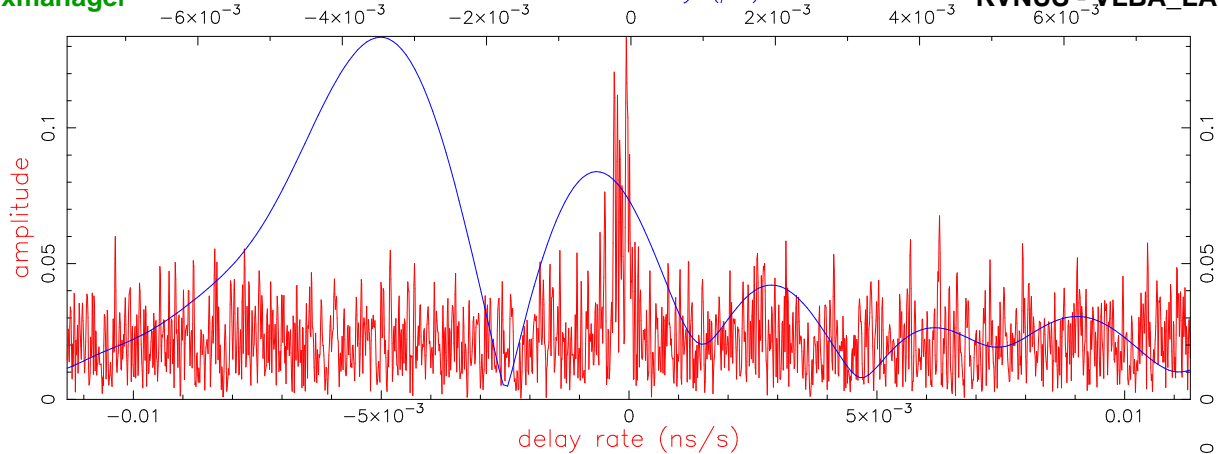
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, ul

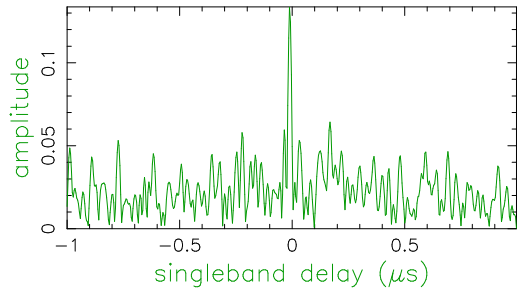
KVNUS - VLBA_LA, fgroup W, pol LL

multiband delay (μ s)

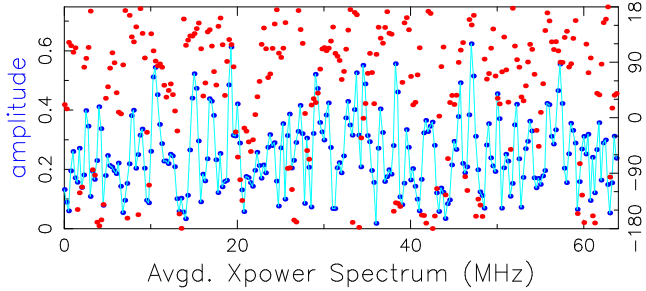


Fringe quality 9

SNR 7.5
 Int time 419.785
 Amp 0.134
 Phase 28.3
 PFD 2.2e-05
 Delays (us)
 SBD -0.011034
 MBD -0.003423
 Fringe rate (Hz)
 -0.005136
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

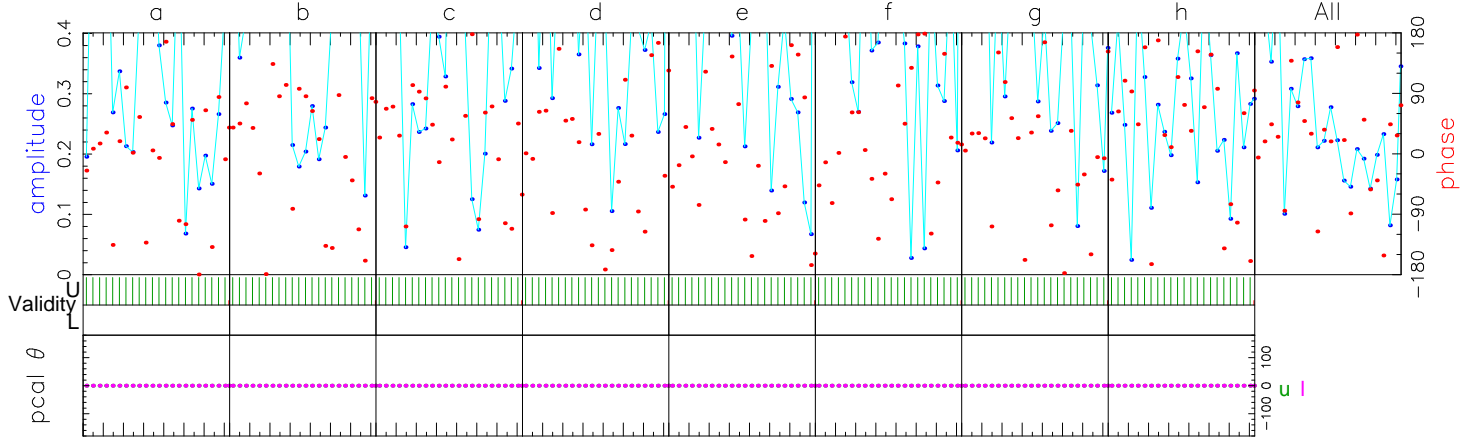


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133133
 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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-8.99166022908E+03	Apriori delay (usec)	-8.99165680572E+03	Resid mbdelay (usec)	-3.42336E-03	+/-	1.4E-04
Sband delay (usec)	-8.99166783997E+03	Apriori clock (usec)	1.7390760E+01	Resid sbdelay (usec)	-1.10343E-02	+/-	1.1E-03
Phase delay (usec)	-8.99165680480E+03	Apriori clockrate (us/s)	1.4129999E-06	Resid phdelay (usec)	9.12931E-07	+/-	4.9E-07
Delay rate (us/s)	1.24435082838E+00	Apriori rate (us/s)	1.24435088801E+00	Resid rate (us/s)	-5.96280E-08	+/-	2.0E-09
Total phase (deg)	-59.7	Apriori accel (us/s/s)	4.76052958785E-05	Resid phase (deg)	28.3	+/-	15.3

ph/seg (deg)	81.6	Theor.	36.7	Amplitude	0.134 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	137.2	Search (2048X32)	0.130	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	40.9	Inc. seg. avg.	0.219	Inc. frq. avg.	0.148	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	31.8	Inc. frq. avg.	0.148			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

u: az 44.6 el 26.4 pa -65.9 l: az 313.0 el 61.6 pa 110.3 u,v (fr/asec) -11250.938 4706.304 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/ul..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/ul.W.243.1X1KZS

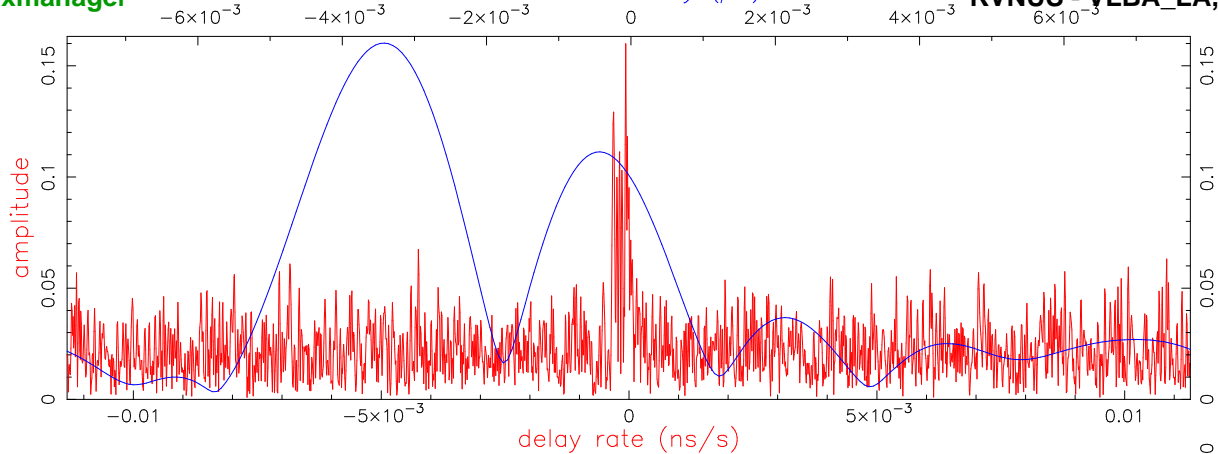
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, ul

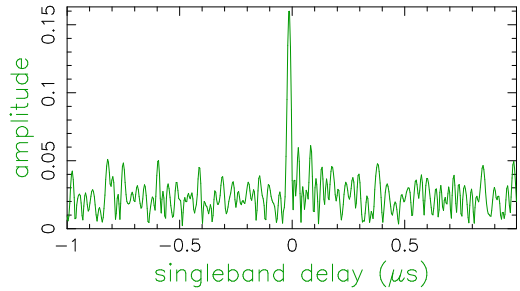
KVNUS - VLBA_LA, fgroup W, pol RR

multiband delay (μ s)

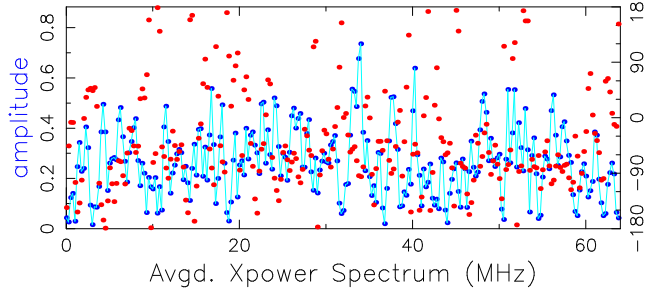


Fringe quality 9

SNR 9.1
 Int time 419.785
 Amp 0.163
 Phase 175.7
 PFD 2.3e-11
 Delays (us)
 SBD -0.013629
 MBD -0.003487
 Fringe rate (Hz)
 -0.005482
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

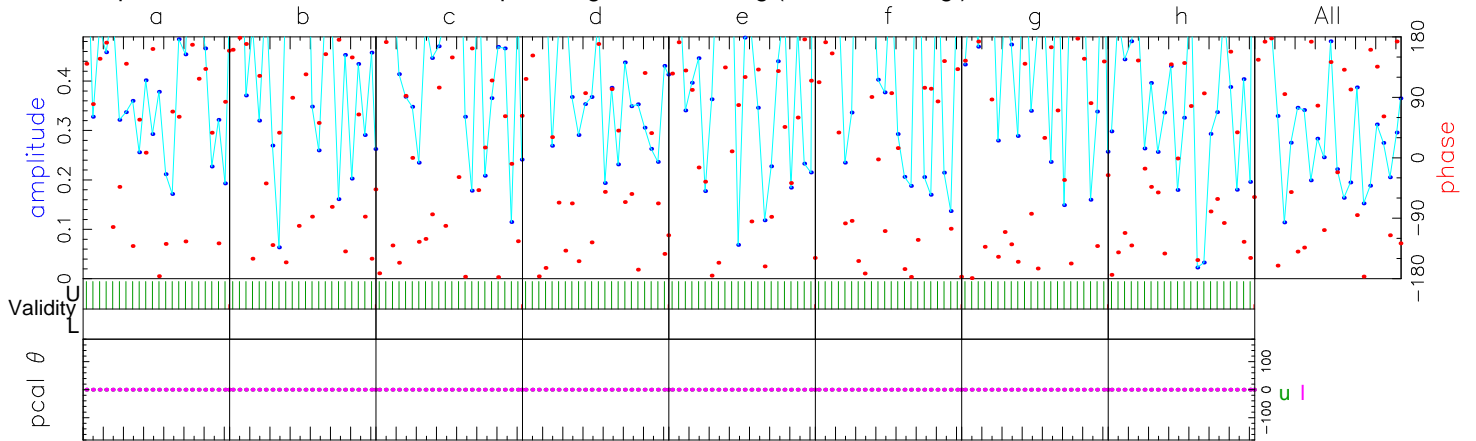


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133137
 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)	-8.99167591787E+03	Apriori delay (usec)	-8.99165680572E+03	Resid mbdelay (usec)	-3.48715E-03	+/-	1.2E-04
Sband delay (usec)	-8.99167043472E+03	Apriori clock (usec)	1.7390760E+01	Resid sbdelay (usec)	-1.36290E-02	+/-	9.4E-04
Phase delay (usec)	-8.99165680005E+03	Apriori clockrate (us/s)	1.4129999E-06	Resid phdelay (usec)	5.66543E-06	+/-	4.0E-07
Delay rate (us/s)	1.24435082437E+00	Apriori rate (us/s)	1.24435088801E+00	Resid rate (us/s)	-6.36349E-08	+/-	1.7E-09
Total phase (deg)		Apriori accel (us/s/s)	4.76052958785E-05	Resid phase (deg)	175.7	+/-	12.5

ph/seg (deg)	RMS 70.7	Theor. 30.0	Amplitude Search (2048X32)	0.163 +/- 0.018	0.157	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	116.7	52.4	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)	35.8	17.7	Inc. seg. avg.	0.267	0.267	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	29.7	30.9	Inc. frq. avg.	0.172	0.172	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 44.6 el 26.4 pa -65.9 l: az 313.0 el 61.6 pa 110.3 u,v (fr/asec) -11250.938 4706.304 simultaneous interpolator

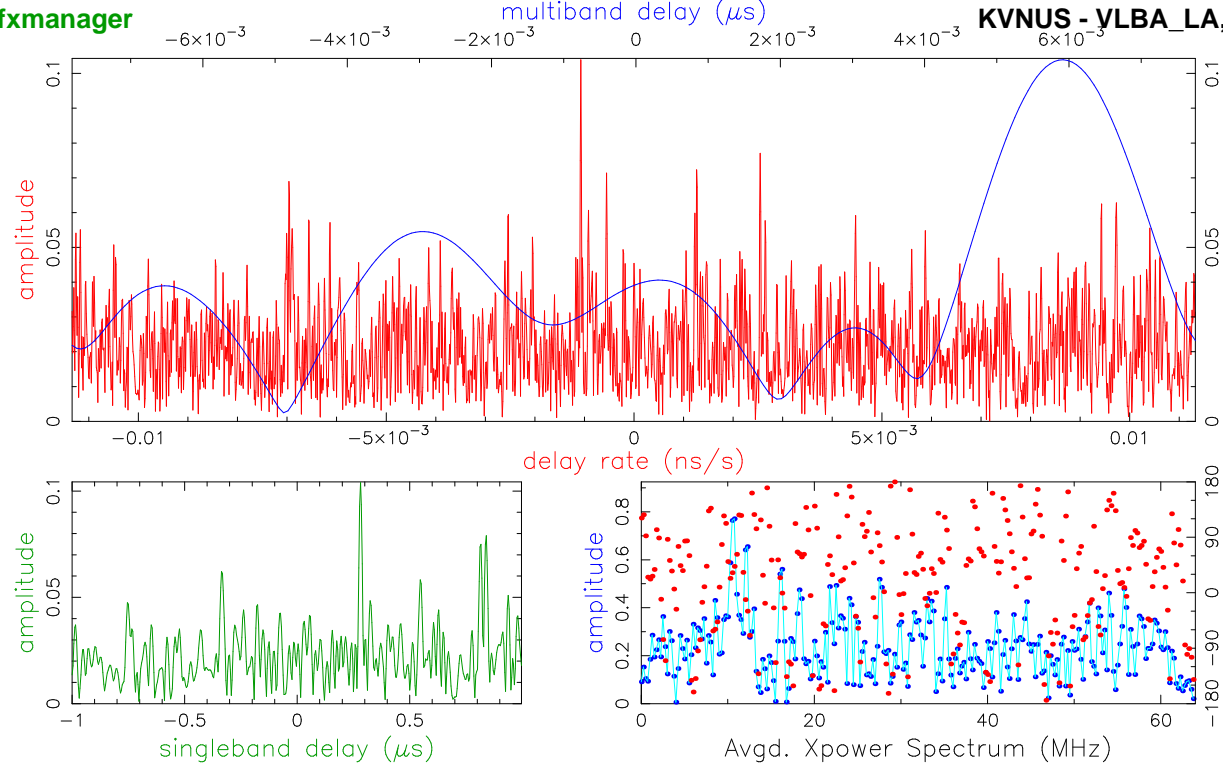
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/ul..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/ul.W.261.1X1KZS

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

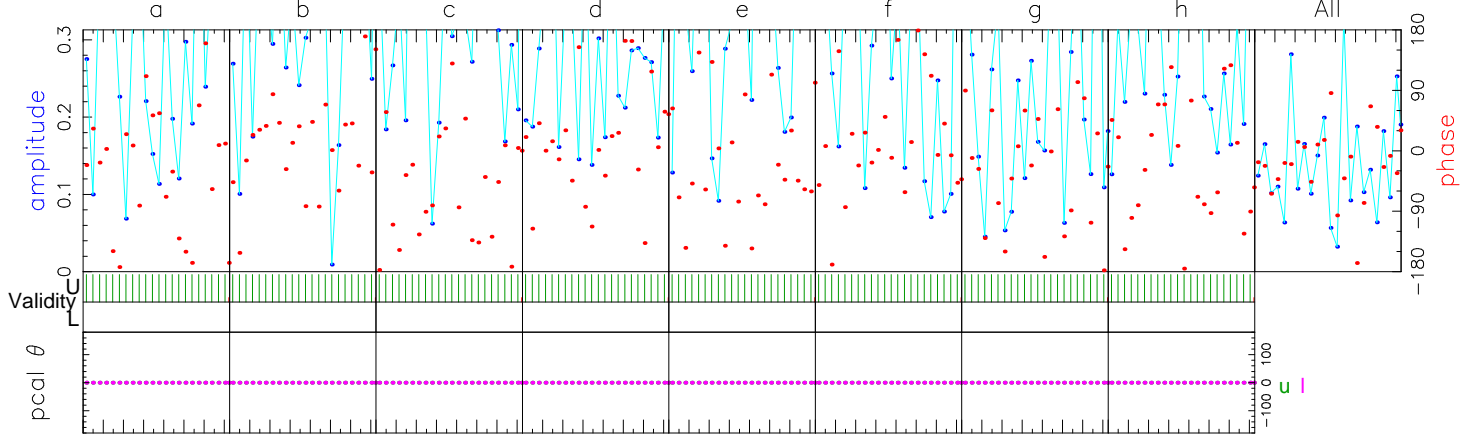
NRAO150.1X1KZS, No0113, ul

KVNUS - VLBA_LA, fgroup W, pol LR



Fringe quality 0
 SNR 5.8
 Int time 419.785
 Amp 0.104
 Phase -18.5
 PFD 7.7e-01
 Delays (us)
 SBD 0.281307
 MBD 0.005912
 Fringe rate (Hz)
 -0.092645
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133140
 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
	-18.2	10.3	-82.1	7.3	-61.4	-14.7	25.4	-36.6	Phase	-18.5
	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
	223.7	328.6	465.3	510.8	328.5	328.1	421.8	305.9	Sbd box	329.0
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	
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)	-8.99136964403E+03		Apriori delay (usec)		-8.99165680572E+03		Resid mbdelay (usec)		5.91169E-03	+/- 1.9E-04
Sband delay (usec)	-8.99137549897E+03		Apriori clock (usec)		1.7390760E+01		Resid sbdelay (usec)		2.81307E-01	+/- 1.5E-03
Phase delay (usec)	-8.99165680631E+03		Apriori clockrate (us/s)		1.4129999E-06		Resid phdelay (usec)		-5.96438E-07	+/- 6.3E-07
Delay rate (us/s)	1.24434981250E+00		Apriori rate (us/s)		1.24435088801E+00		Resid rate (us/s)		-1.07551E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		4.76052958785E-05		Resid phase (deg)		-18.5	+/- 19.7

	RMS	Theor.	Amplitude	0.104 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	52.4	47.2	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	78.7	82.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	40.1	27.8	Inc. seg. avg.	0.106	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	38.3	48.6	Inc. frq. avg.	0.113	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

u: az 44.6 el 26.4 pa -65.9 l: az 313.0 el 61.6 pa 110.3 u,v (fr/asec) -11250.938 4706.304 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/ul..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/ul.W.278.1X1KZS

Mk4/DiFX fourfit 3.21 rev 2937

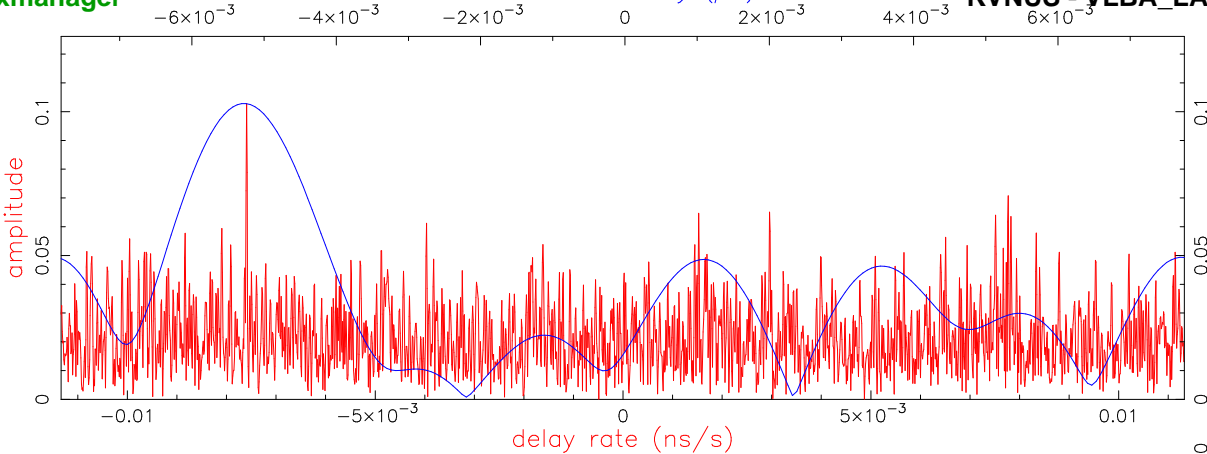
fxmanager

NRAO150.1X1KZS, No0113, ul

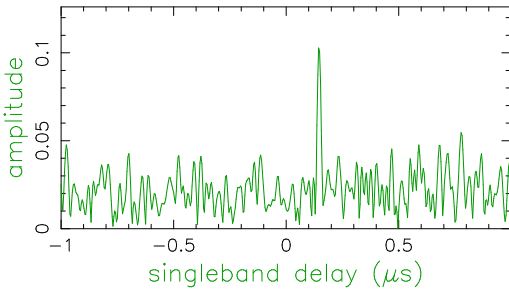
KVNUS - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

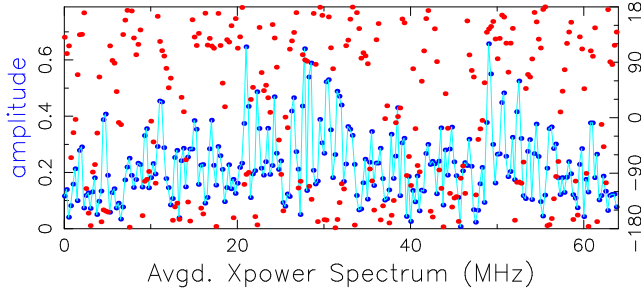
Fringe quality 0



SNR 5.8
 Int time 419.785
 Amp 0.126
 Phase 106.9
 PFD 7.5e-01
 Delays (us)
 SBD 0.146024
 MBD -0.005241
 Fringe rate (Hz)
 -0.655203
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

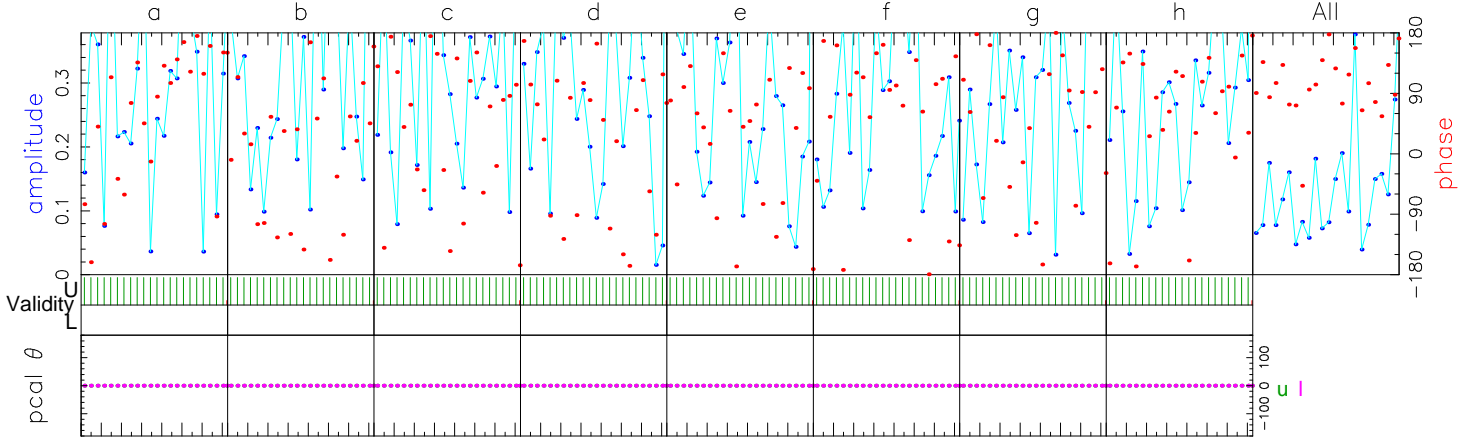


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133143
 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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-8.99150579701E+03	Apriori delay (usec)	-8.99165680572E+03	Resid mbdelay (usec)	-5.24130E-03	+/-	1.9E-04
Sband delay (usec)	-8.99151078172E+03	Apriori clock (usec)	1.7390760E+01	Resid sbdelay (usec)	1.46024E-01	+/-	1.5E-03
Phase delay (usec)	-8.99165680227E+03	Apriori clockrate (us/s)	1.4129999E-06	Resid phdelay (usec)	3.44772E-06	+/-	6.3E-07
Delay rate (us/s)	1.24434328175E+00	Apriori rate (us/s)	1.24435088801E+00	Resid rate (us/s)	-7.60626E-06	+/-	2.6E-09
Total phase (deg)	18.9	Apriori accel (us/s/s)	4.76052958785E-05	Resid phase (deg)	106.9	+/-	19.7

ph/seg (deg)	45.4	Theor.	47.1	Amplitude	0.126 +/- 0.022	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	82.6		82.3	Search (2048X32)	0.100	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	31.8		27.8	Inc. seg. avg.	0.119	Sample rate (MSamp/s):	128	nlags:	256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.3		48.5	Inc. frq. avg.	0.123	Data rate (Mb/s):	2048	t_cohere	infinite	ion window (TEC)	0.00	0.00

u: az 44.6 el 26.4 pa -65.9 l: az 313.0 el 61.6 pa 110.3 u,v (fr/asec) -11250.938 4706.304 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/ul..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/ul.W.294.1X1KZS

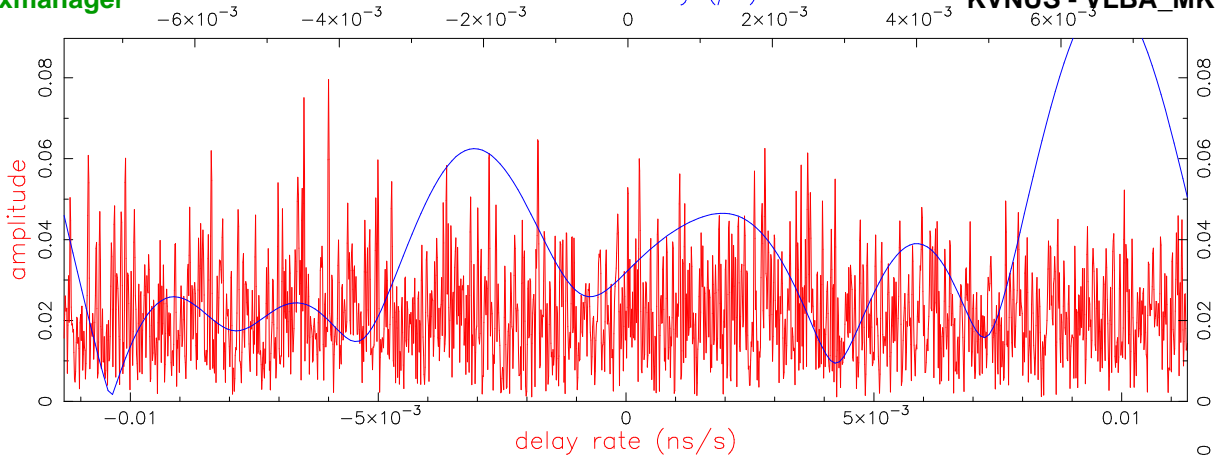
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, um

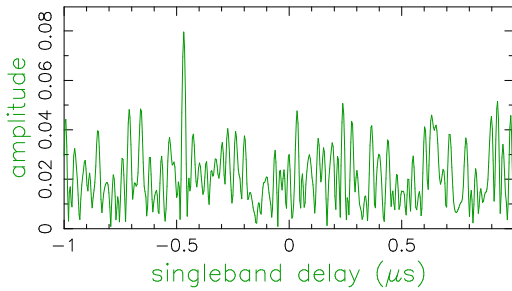
KVNUS - VLBA_MK, fgroup W, pol LL

multiband delay (μ s)

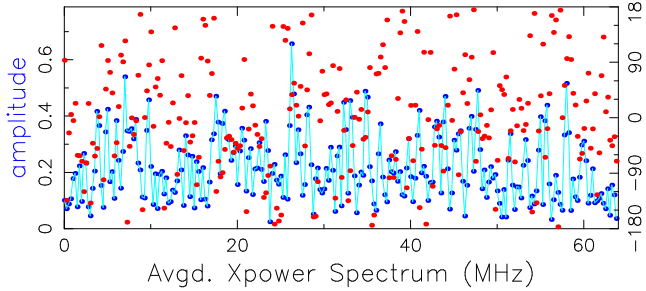


Fringe quality 0

SNR 4.5
 Int time 419.786
 Amp 0.090
 Phase 99.1
 PFD 1.0e+00
 Delays (us)
 SBD -0.468239
 MBD -0.008301
 Fringe rate (Hz)
 -0.517778
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

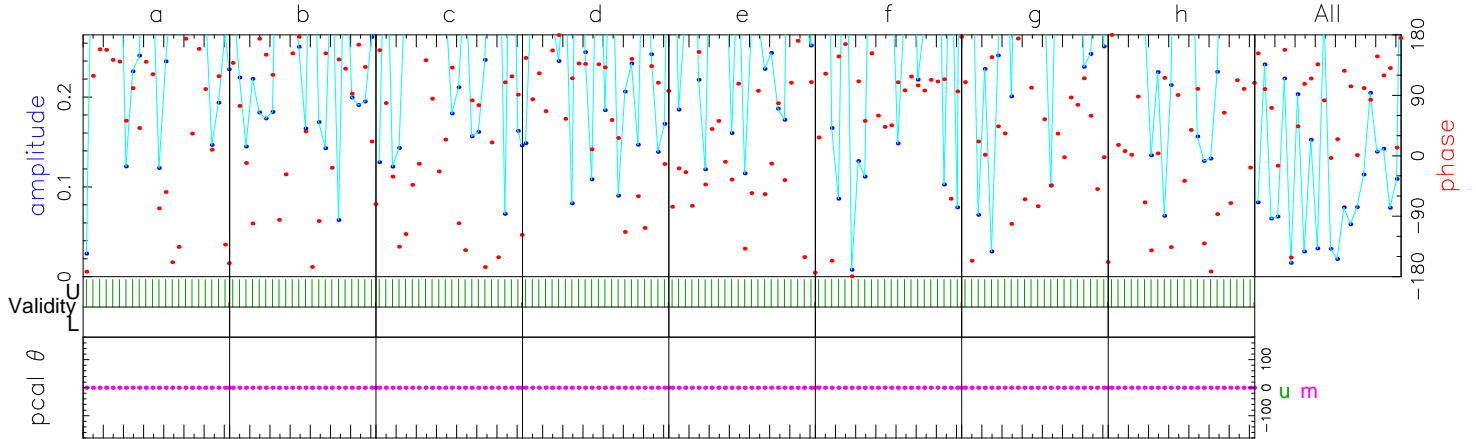


delay rate (ns/s)



Exp. c211c
 Yr:day 16383
 Start 2021:116
 Stop 2021:116
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133134
 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	161.7	97.2	117.4	6.8	104.2	39.7	29.7	Phase	99.1
	0.2	0.1	0.0	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
	137.6	493.0	175.5	136.6	66.9	136.5	222.4	411.8	Sbd box	137.1
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	
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	Manl 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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-8.19734945382E+03	Apriori delay (usec)	-8.19688802804E+03	Resid mbdelay (usec)	-8.30078E-03	+/-	2.4E-04
Sband delay (usec)	-8.19735626654E+03	Apriori clock (usec)	-9.5736694E-01	Resid sbdelay (usec)	-4.68239E-01	+/-	1.9E-03
Phase delay (usec)	-8.19688802484E+03	Apriori clockrate (us/s)	8.0900000E-07	Resid phdelay (usec)	3.19626E-06	+/-	8.3E-07
Delay rate (us/s)	5.62014751637E-01	Apriori rate (us/s)	5.62020762523E-01	Resid rate (us/s)	-6.01089E-06	+/-	3.4E-09
Total phase (deg)	-165.5	Apriori accel (us/s/s)	6.48036898043E-05	Resid phase (deg)	99.1	+/-	25.7

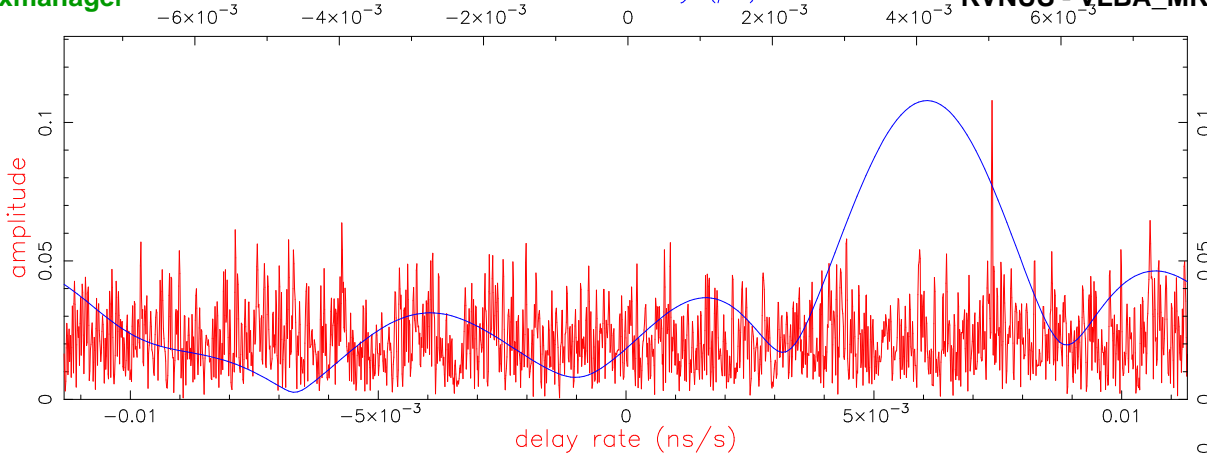
ph/seg (deg)	58.5	Theor.	61.5	Amplitude	0.090 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	109.6	Search (2048X32)	0.098	Search	0.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	62.1	Inc. seg. avg.	0.081	Inc. seg. avg.	0.081	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	82.5	Inc. frq. avg.	0.106	Inc. frq. avg.	0.106	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

u: az 44.6 el 26.4 pa -65.9 m: az 17.8 el 56.5 pa -152.6 u,v (fr/asec) -5014.138 7686.048 simultaneous interpolator

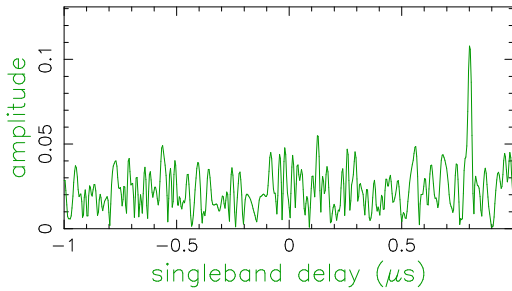
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/um..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/um.W.248.1X1KZS

multiband delay (μs)

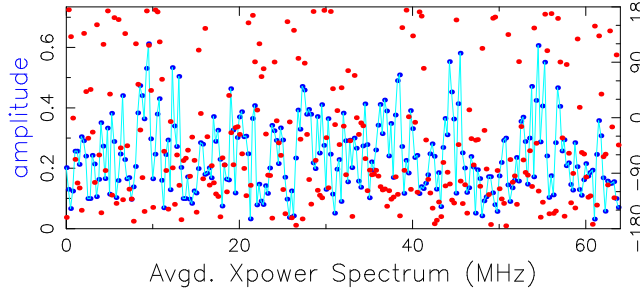
Fringe quality 0



SNR 6.1
Int time 419.786
Amp 0.131
Phase 78.5
PFD 2.2e-01
Delays (us)
SBD 0.802319
MBD 0.004154
Fringe rate (Hz)
0.637428
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

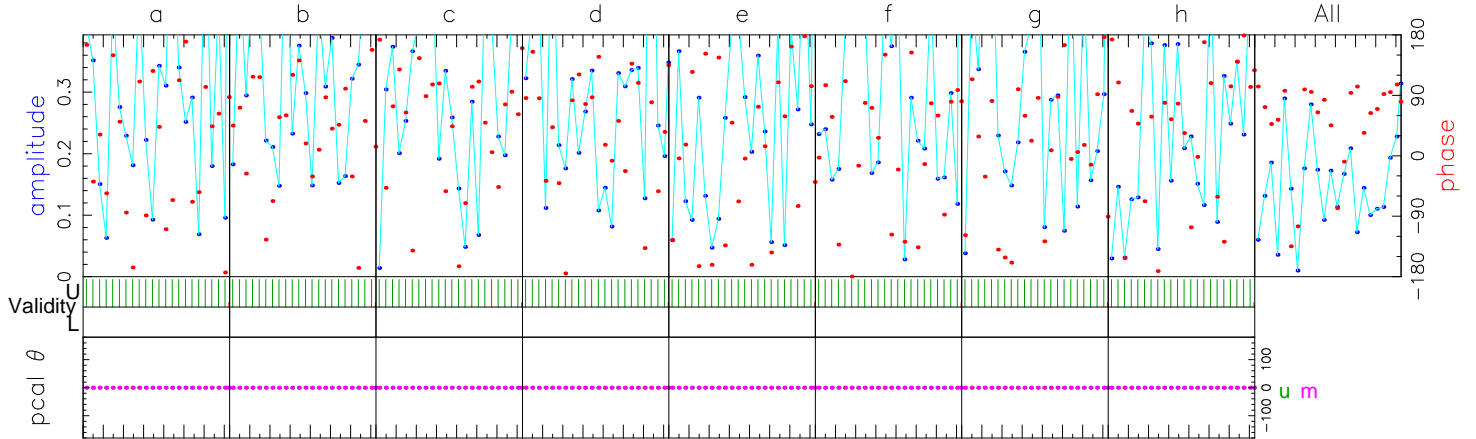


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133137
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
	103.1	69.7	77.3	77.8	129.4	89.8	50.5	97.4	Phase	78.5
	0.1	0.2	0.2	0.2	0.0	0.1	0.2	0.1	Ampl.	0.1
	114.4	506.7	459.4	462.9	430.4	383.1	387.6	154.6	Sbd box	462.4
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.19608699889E+03			Apriori delay (usec)	-8.19688802804E+03			Resid mbdelay (usec)	4.15415E-03	+/- 1.8E-04
Sband delay (usec)	-8.19608570929E+03			Apriori clock (usec)	-9.5736694E-01			Resid sbdelay (usec)	8.02319E-01	+/- 1.4E-03
Phase delay (usec)	-8.19688802551E+03			Apriori clockrate (us/s)	8.0900000E-07			Resid phdelay (usec)	2.53035E-06	+/- 6.0E-07
Delay rate (us/s)	5.62028162432E-01			Apriori rate (us/s)	5.62020762523E-01			Resid rate (us/s)	7.39991E-06	+/- 2.5E-09
Total phase (deg)		-186.2		Apriori accel (us/s/s)	6.48036898043E-05			Resid phase (deg)	78.5	+/- 18.7

	RMS	Theor.	Amplitude	0.131 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	65.0	44.9	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	73.7	78.3	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	27.5	26.5	Inc. seg. avg.	0.135	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	46.5	46.2	Inc. frq. avg.	0.123	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

u: az 44.6 el 26.4 pa -65.9 m: az 17.8 el 56.5 pa -152.6 u,v (fr/asec) -5014.138 7686.048 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/um..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/um.W.265.1X1KZS

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

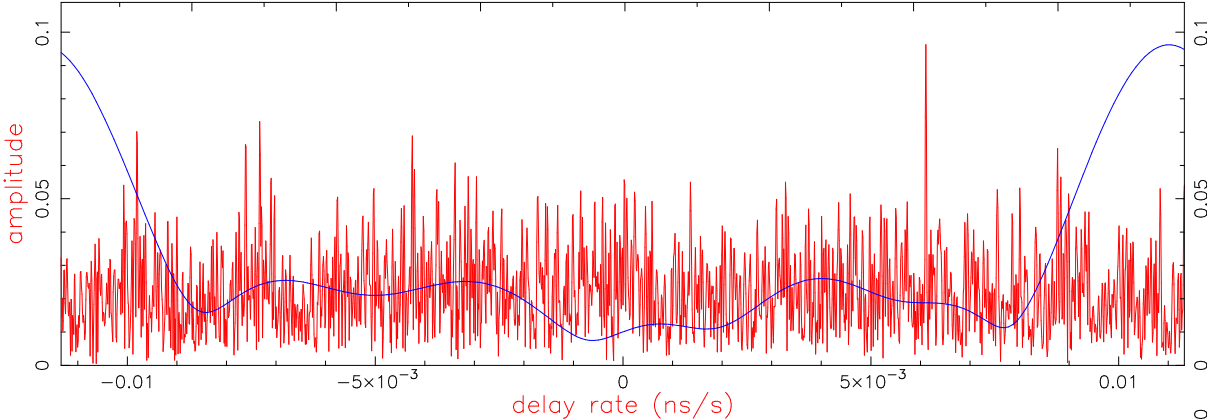
NRAO150.1X1KZS, No0113, um

KVNUS - VLBA_MK, fgroup W, pol LR

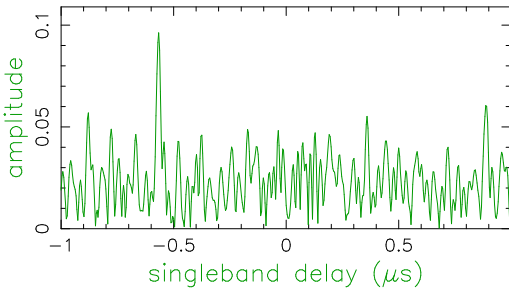
multiband delay (μ s)

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

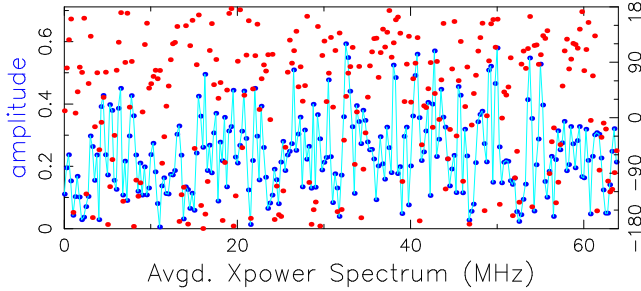
Fringe quality 0



SNR 5.4
Int time 419.786
Amp 0.109
Phase -27.2
PFD 1.0e+00
Delays (us)
SBD -0.566891
MBD 0.007537
Fringe rate (Hz)
0.527493
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

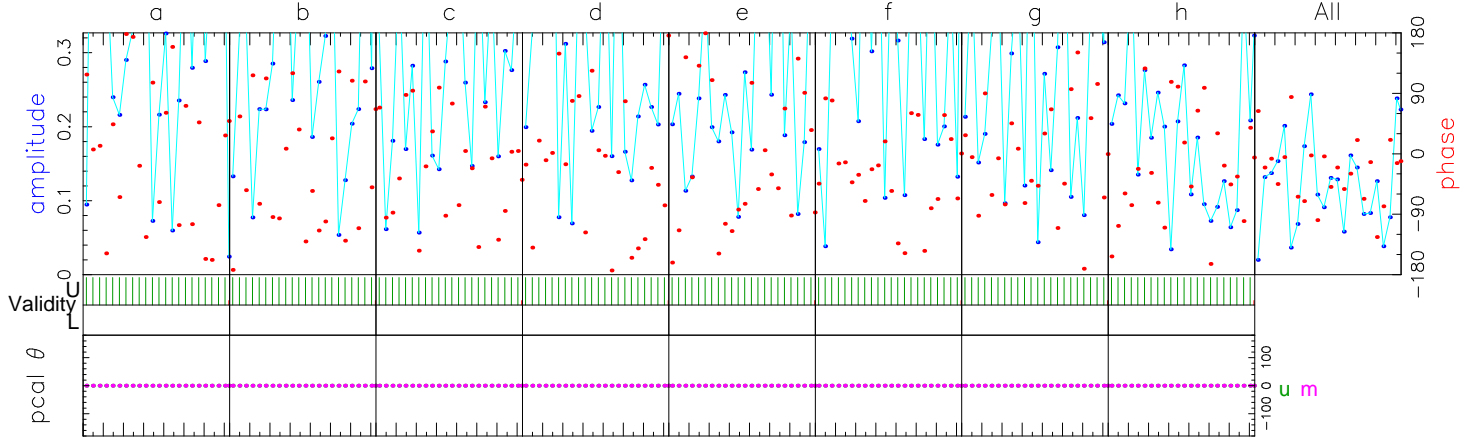


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133141
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
	-28.7	-40.7	-15.4	-24.6	-63.7	-23.5	-8.3	-53.6	Phase	-27.2
	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	Ampl.	0.1
	176.8	262.5	32.1	236.5	202.4	112.1	173.0	349.8	Sbd box	111.9
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)	-8.19745861594E+03		Apriori delay (usec)		-8.19688802804E+03		Resid mbdelay (usec)		7.53710E-03	+/- 2.0E-04
Sband delay (usec)	-8.19745491954E+03		Apriori clock (usec)		-9.5736694E-01		Resid sbdelay (usec)		-5.66891E-01	+/- 1.6E-03
Phase delay (usec)	-8.19688802892E+03		Apriori clockrate (us/s)		8.0900000E-07		Resid phdelay (usec)		-8.78251E-07	+/- 6.8E-07
Delay rate (us/s)	5.62026886190E-01		Apriori rate (us/s)		5.62020762523E-01		Resid rate (us/s)		6.12367E-06	+/- 2.8E-09
Total phase (deg)			Apriori accel (us/s/s)		6.48036898043E-05		Resid phase (deg)		-27.2	+/- 21.2

	RMS	Theor.	Amplitude	0.109 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	48.0	50.9	Search (2048X32)	0.095	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	67.3	88.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	21.3	30.0	Inc. seg. avg.	0.098	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	45.2	52.4	Inc. frq. avg.	0.100	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

u: az 44.6 el 26.4 pa -65.9 m: az 17.8 el 56.5 pa -152.6 u,v (fr/asec) -5014.138 7686.048 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/um..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/um.W.282.1X1KZS

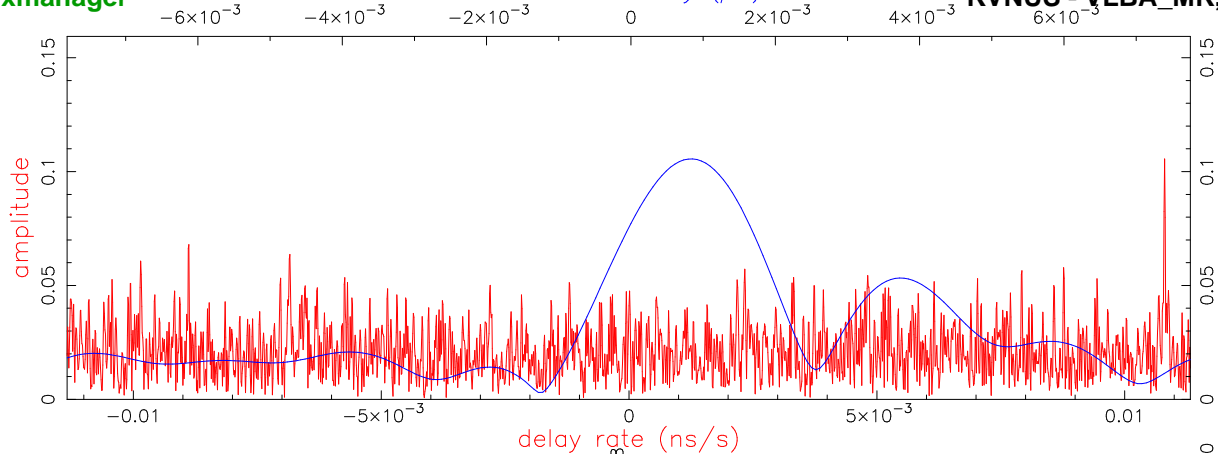
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, um

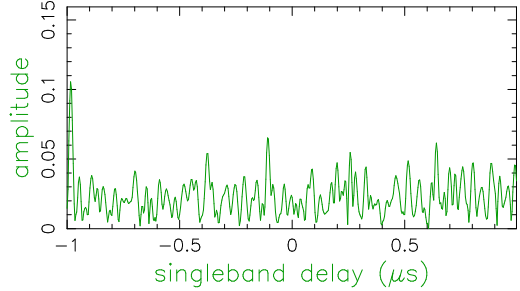
KVNUS - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

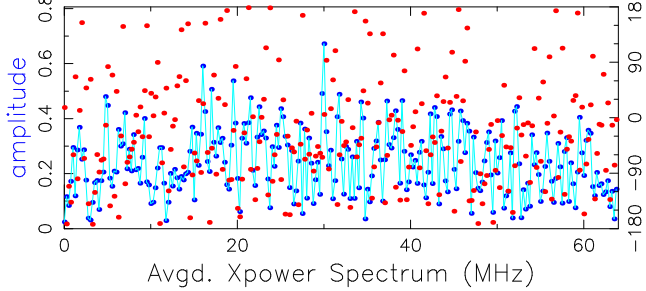


Fringe quality 0

SNR 5.9
 Int time 419.786
 Amp 0.159
 Phase 138.4
 PFD 5.2e-01
 Delays (us)
 SBD -0.983525
 MBD 0.000856
 Fringe rate (Hz)
 0.931992
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

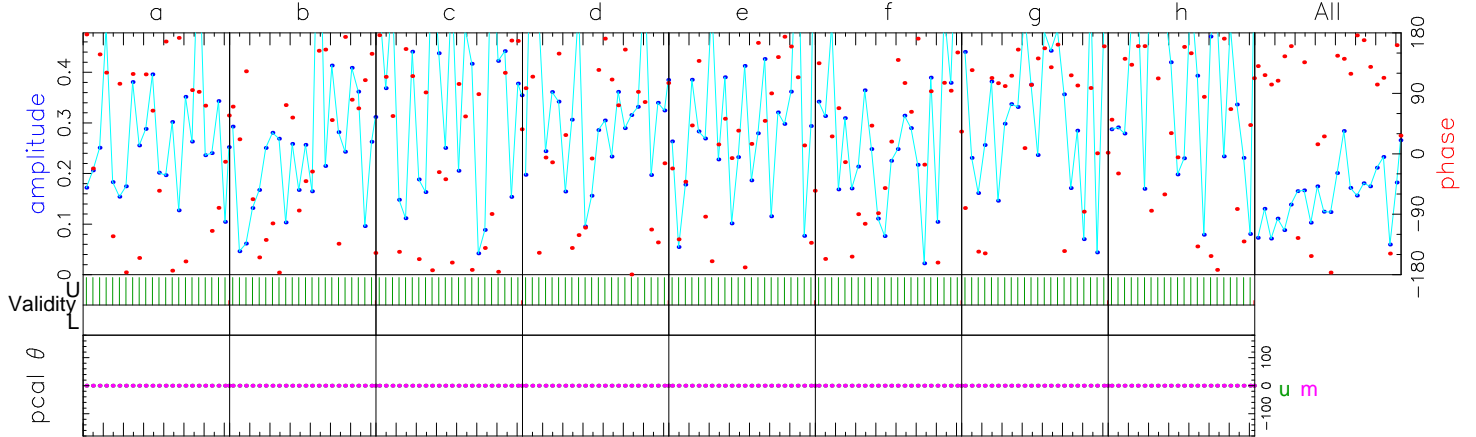


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133144
 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	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-8.19787154664E+03									
Sband delay (usec)	-8.19787155329E+03									
Phase delay (usec)	-8.19688802357E+03									
Delay rate (us/s)	5.62031582031E-01									
Total phase (deg)		-126.2								
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)									138.4	+/- 19.3
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

ph/seg (deg) 52.1 46.2 Search (2048X32) 0.102 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 67.6 80.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.2 27.3 Inc. seg. avg. 0.172 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.1 47.6 Inc. frq. avg. 0.150 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 44.6 el 26.4 pa -65.9 m: az 17.8 el 56.5 pa -152.6 u,v (fr/asec) -5014.138 7686.048 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/No0113/um..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/um.W.298.1X1KZS simultaneous interpolator

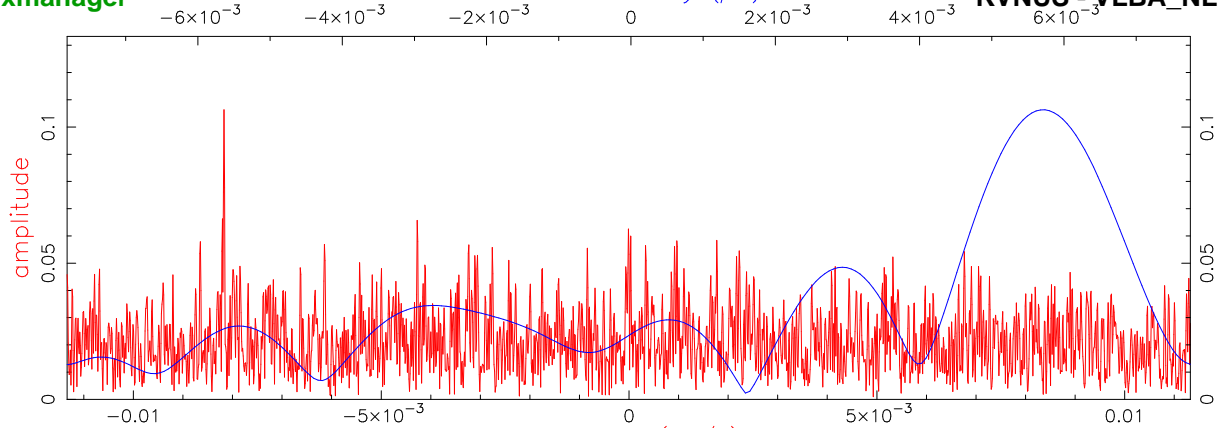
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, un

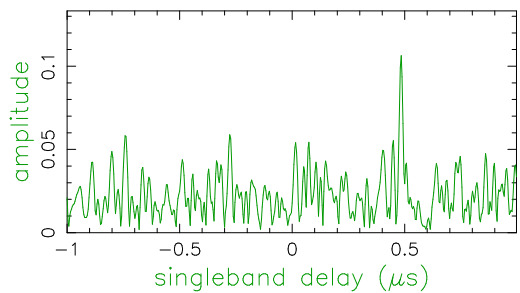
KVNUS - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

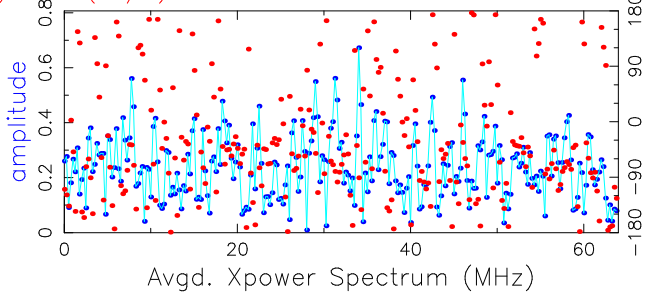


Fringe quality 0

SNR 6.0
 Int time 419.787
 Amp 0.133
 Phase 30.1
 PFD 4.6e-01
 Delays (us)
 SBD 0.483844
 MBD 0.005700
 Fringe rate (Hz)
 -0.704512
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

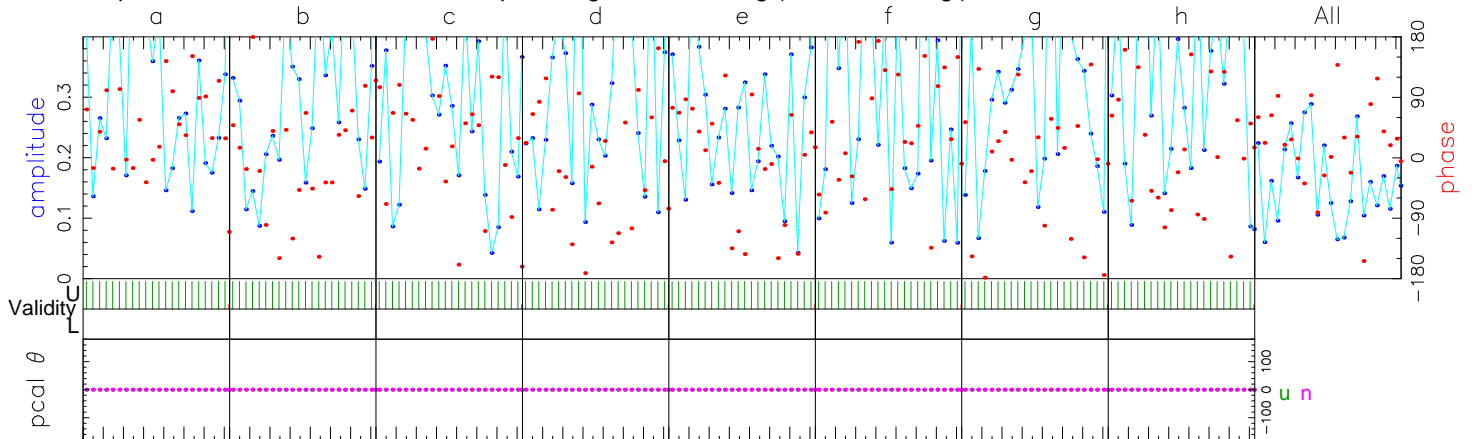


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133134
 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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)	-7.91556380137E+03				-7.91605387614E+03				5.69977E-03	+/- 1.8E-04	
Sband delay (usec)	-7.91557003264E+03				9.2742119E+00				4.83844E-01	+/- 1.4E-03	
Phase delay (usec)	-7.91605387517E+03				8.2699998E-07				9.71288E-07	+/- 6.2E-07	
Delay rate (us/s)	1.34669979227E+00				1.34670797096E+00				-8.17869E-06	+/- 2.6E-09	
Total phase (deg)			-290.5		3.47037191698E-05				30.1	+/- 19.2	
	RMS	Theor.	Amplitude	0.133 +/- 0.022	Pcal mode: MANUAL, MANUAL				PC period (AP's) 5, 5		
ph/seg (deg)	63.1	46.0	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				sb window (us)	-1.000 1.000	
amp/seg (%)	83.6	80.4	Interp.	0.000	Bits/sample: 2x2				SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	25.7	27.2	Inc. seg. avg.	0.154	Sample rate(MISamp/s): 128					dr window (ns/s)	-0.011 0.011
amp/frq (%)	34.6	47.4	Inc. frq. avg.	0.127	Data rate(Mb/s): 2048					ion window (TEC)	0.00 0.00
u: az 44.6 el 26.4 pa -65.9			n: az 302.7 el 56.1 pa 86.9		u,v (fr/asec) -12202.807 3008.940						simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/un..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/un.W.246.1X1KZS

Mk4/DiFX fourfit 3.21 rev 2937

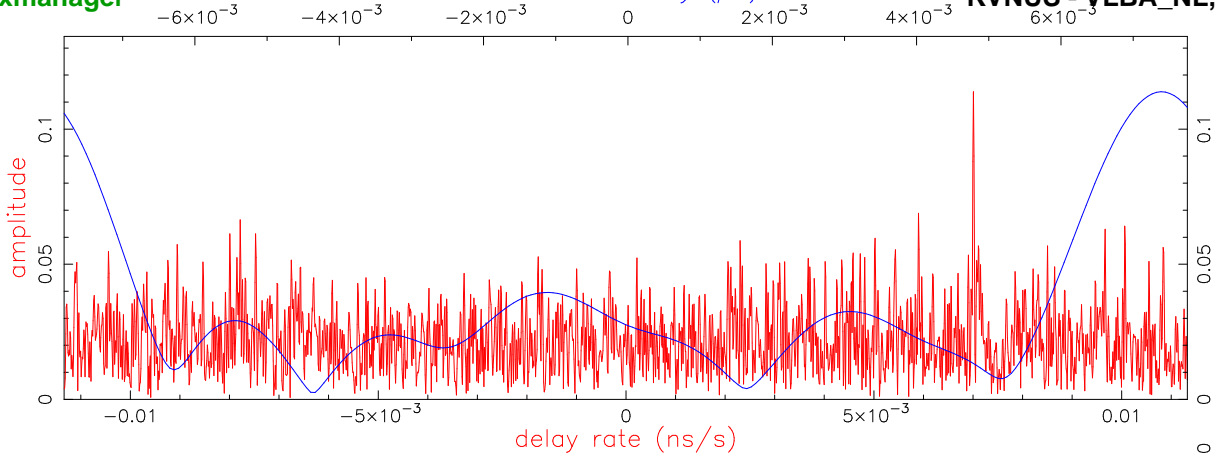
fxmanager

NRAO150.1X1KZS, No0113, un

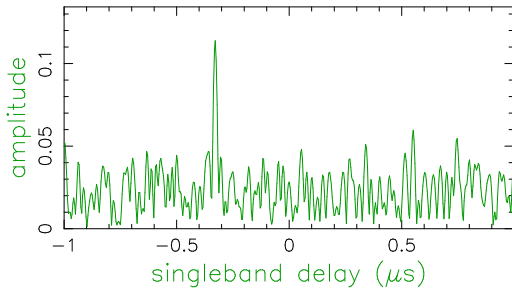
KVNUS - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

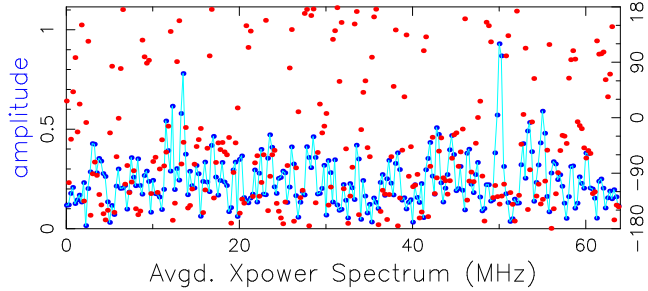
Fringe quality 0



SNR 6.4
Int time 419.787
Amp 0.134
Phase -27.1
PFD 4.3e-02
Delays (us)
SBD -0.328865
MBD 0.007395
Fringe rate (Hz) 0.604405
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

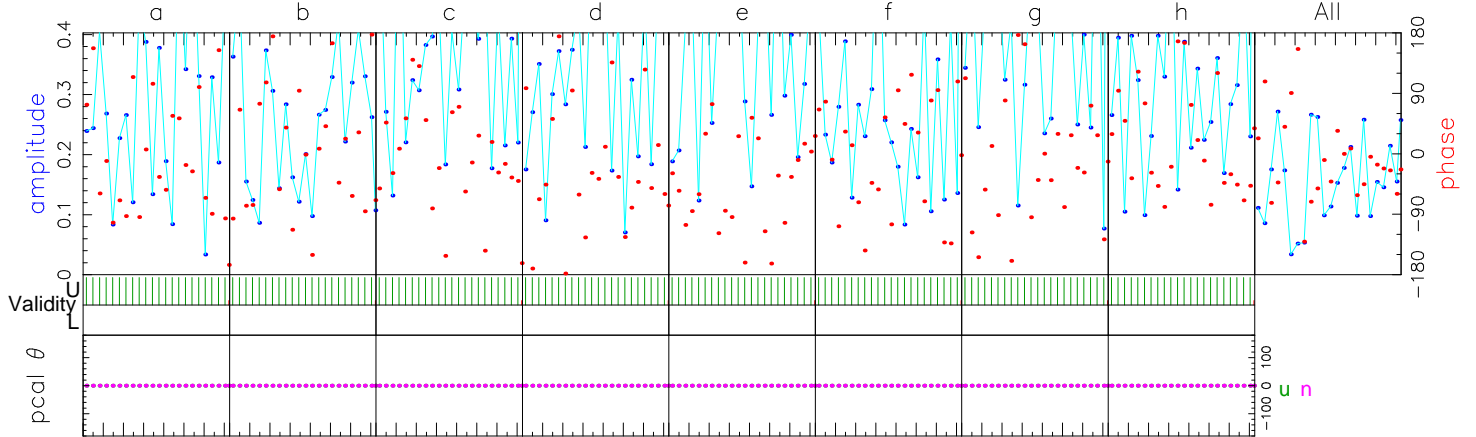


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133138
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-37.2	-1.7	-9.7	-38.1	-46.6	-11.7	-31.7	-16.3	Phase	-27.1
	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	Ampl.	0.1
	472.5	360.5	171.4	159.0	171.1	3.5	84.9	473.2	Sbd box	172.8
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	
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.91639023151E+03		Apriori delay (usec)		-7.91605387614E+03		Resid mbdelay (usec)		7.39463E-03	+/- 1.7E-04
Sband delay (usec)	-7.91638274114E+03		Apriori clock (usec)		9.2742119E+00		Resid sbdelay (usec)		-3.28865E-01	+/- 1.3E-03
Phase delay (usec)	-7.91605387701E+03		Apriori clockrate (us/s)		8.2699998E-07		Resid phdelay (usec)		-8.74058E-07	+/- 5.8E-07
Delay rate (us/s)	1.34671498750E+00		Apriori rate (us/s)		1.34670797096E+00		Resid rate (us/s)		7.01654E-06	+/- 2.4E-09
Total phase (deg)			Apriori accel (us/s/s)		3.47037191698E-05		Resid phase (deg)		-27.1	+/- 17.9

	RMS	Theor.	Amplitude	0.134 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	65.7	43.0	Search (2048X32)	0.111	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	71.3	75.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	17.9	25.3	Inc. seg. avg.	0.141	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	37.5	44.2	Inc. frq. avg.	0.126	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

u: az 44.6 el 26.4 pa -65.9 n: az 302.7 el 56.1 pa 86.9 u,v (fr/asec) -12202.807 3008.940 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/un..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/un.W.267.1X1KZS

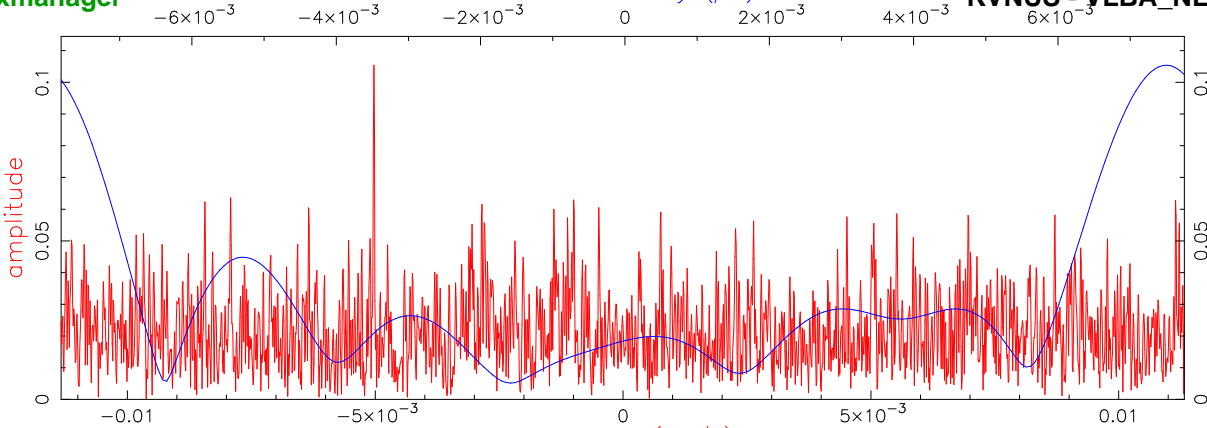
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, un

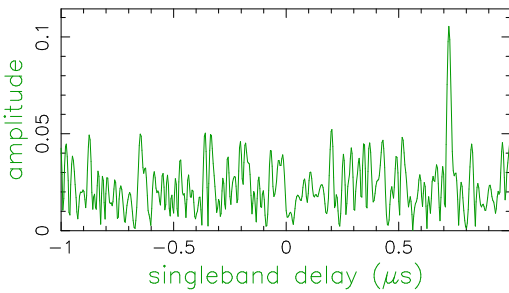
KVNUS - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

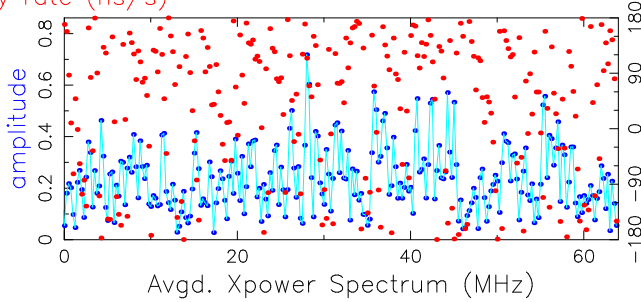


Fringe quality 0

SNR 5.9
 Int time 419.787
 Amp 0.115
 Phase -98.4
 PFD 5.9e-01
 Delays (us)
 SBD 0.722705
 MBD -0.008123
 Fringe rate (Hz)
 -0.433713
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

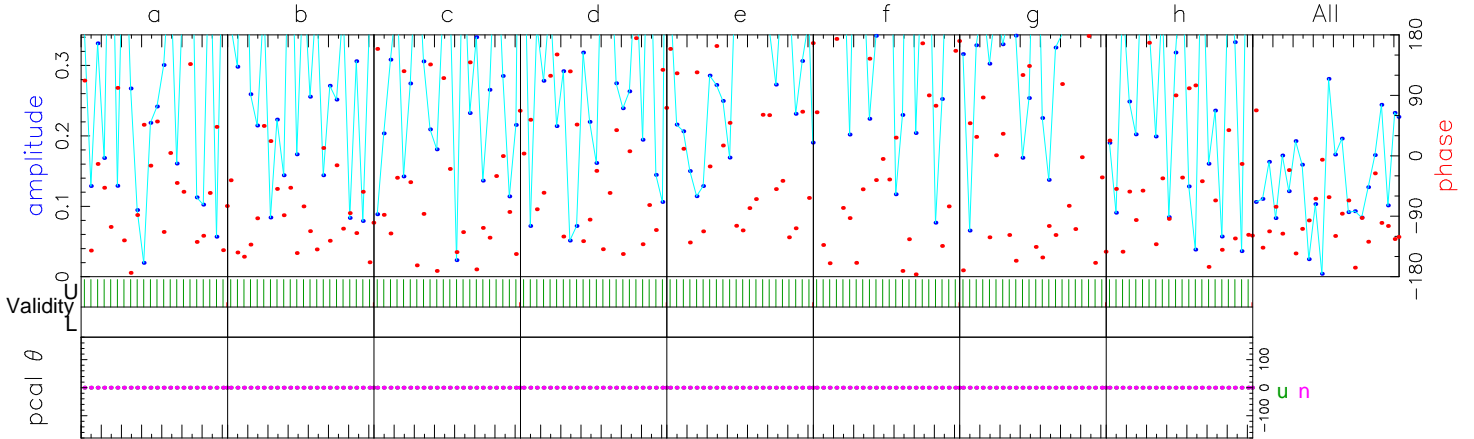


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133141
 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
	-94.0	-98.0	-107.4	-92.1	-67.9	-125.2	-117.8	-75.7	Phase	-98.4
	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	354.0	440.5	59.2	93.3	387.1	184.0	7.9	444.8	Sbd box	442.0
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	
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	

Group delay (usec)(sbd) -7.91532762442E+03 Apriori delay (usec) -7.91605387614E+03 Resid mbdelay (usec) -8.12328E-03 +/- 1.8E-04
 Sband delay (usec) -7.91533117114E+03 Apriori clock (usec) 9.2742119E+00 Resid sbdelay (usec) 7.22705E-01 +/- 1.5E-03
 Phase delay (usec) -7.91605387931E+03 Apriori clockrate (us/s) 8.2699998E-07 Resid phdelay (usec) -3.17172E-06 +/- 6.3E-07
 Delay rate (us/s) 1.34670293598E+00 Apriori rate (us/s) 1.34670797096E+00 Resid rate (us/s) -5.03498E-06 +/- 2.6E-09
 Total phase (deg) -59.0 Apriori accel (us/s/s) 3.47037191698E-05 Resid phase (deg) -98.4 +/- 19.4

RMS Theor. Amplitude 0.115 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 53.1 46.5 Search (2048X32) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 70.7 81.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 21.1 27.4 Inc. seg. avg. 0.113 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 27.0 47.9 Inc. frq. avg. 0.108 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 44.6 el 26.4 pa -65.9 n: az 302.7 el 56.1 pa 86.9 u,v (fr/asec) -12202.807 3008.940 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/un..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/un.W.284.1X1KZS

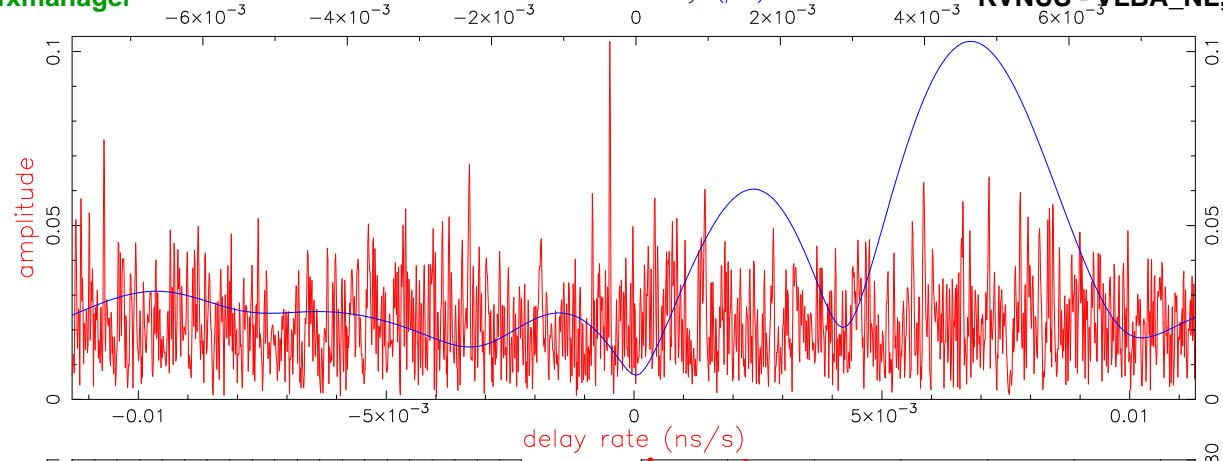
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

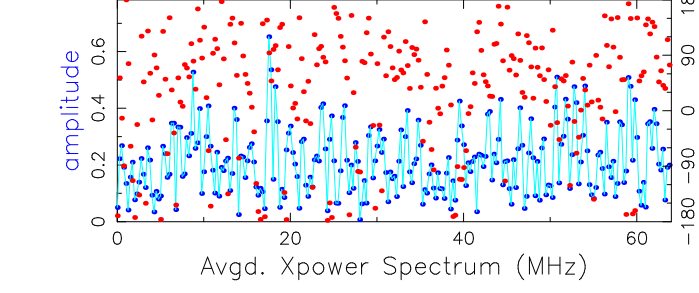
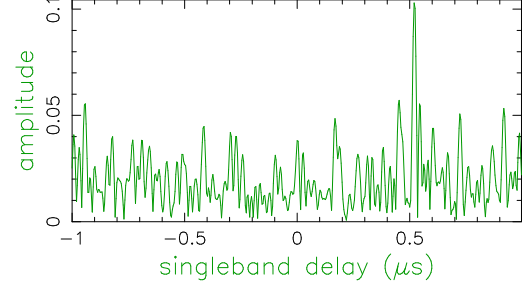
NRAO150.1X1KZS, No0113, un

KVNUS - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

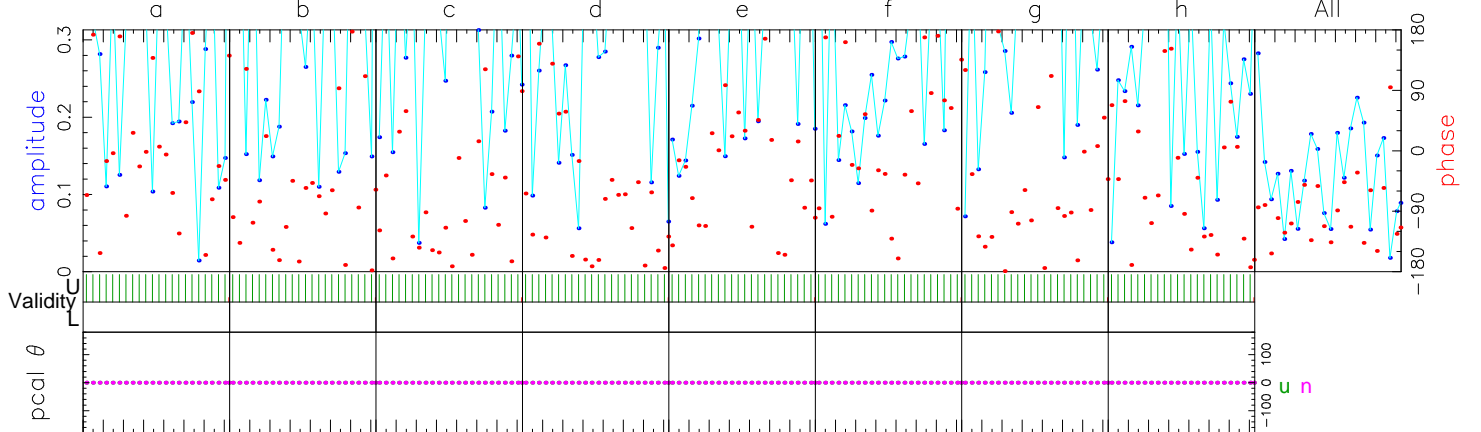


Fringe quality 0
 SNR 5.8
 Int time 419.787
 Amp 0.104
 Phase -92.8
 PFD 7.2e-01
 Delays (us)
 SBD 0.520998
 MBD 0.004670
 Fringe rate (Hz)
 -0.041807
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133144
 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
	-38.8	-104.5	-119.8	-114.5	-46.3	-52.9	-99.5	-102.6	Phase	-92.8
	0.1	0.2	0.1	0.2	0.1	0.0	0.1	0.1	Ampl.	0.1
	270.3	390.3	374.0	395.3	338.7	204.1	47.0	8.8	Sbd box	390.4
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	
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.91553358078E+03		Apriori delay (usec)		-7.91605387614E+03		Resid mbdelay (usec)		4.67036E-03	+/- 1.9E-04
Sband delay (usec)	-7.91553287789E+03		Apriori clock (usec)		9.2742119E+00		Resid sbdelay (usec)		5.20998E-01	+/- 1.5E-03
Phase delay (usec)	-7.91605387913E+03		Apriori clockrate (us/s)		8.2699998E-07		Resid phdelay (usec)		-2.99249E-06	+/- 6.3E-07
Delay rate (us/s)	1.34670748562E+00		Apriori rate (us/s)		1.34670797096E+00		Resid rate (us/s)		-4.85340E-07	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		3.47037191698E-05		Resid phase (deg)		-92.8	+/- 19.6

ph/seg (deg) 50.8 47.0 Search (2048X32) 0.101 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 66.1 82.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 36.9 27.7 Inc. seg. avg. 0.096 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.3 48.4 Inc. frq. avg. 0.105 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 44.6 el 26.4 pa -65.9 n: az 302.7 el 56.1 pa 86.9 u,v (fr/asec) -12202.807 3008.940 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/un..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/un.W.299.1X1KZS

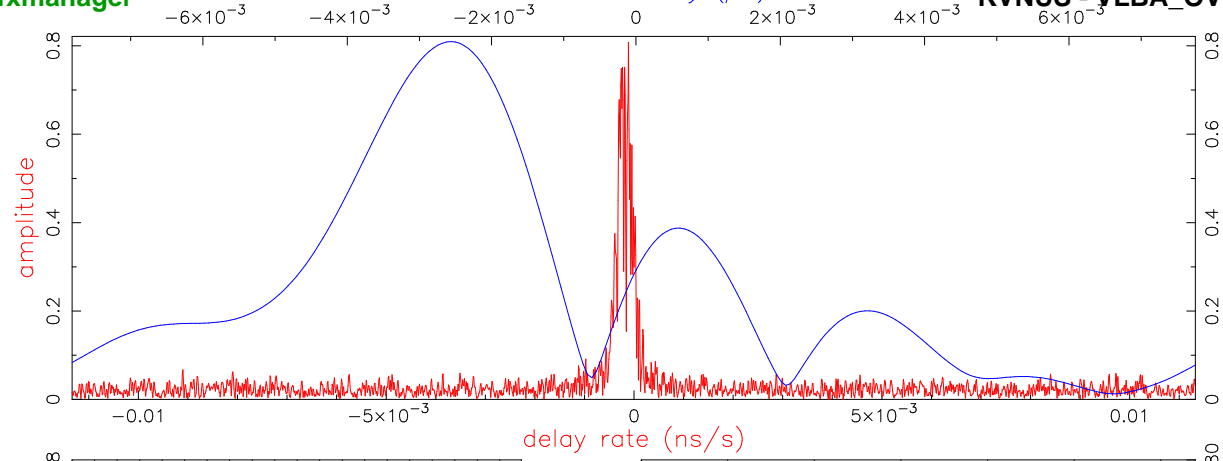
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, uo

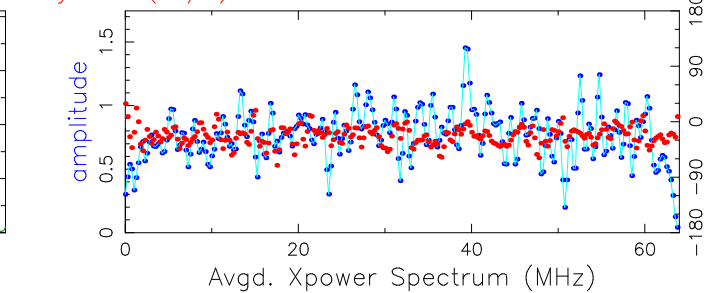
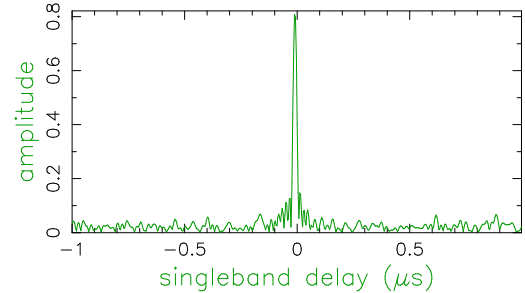
KVNUS - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)



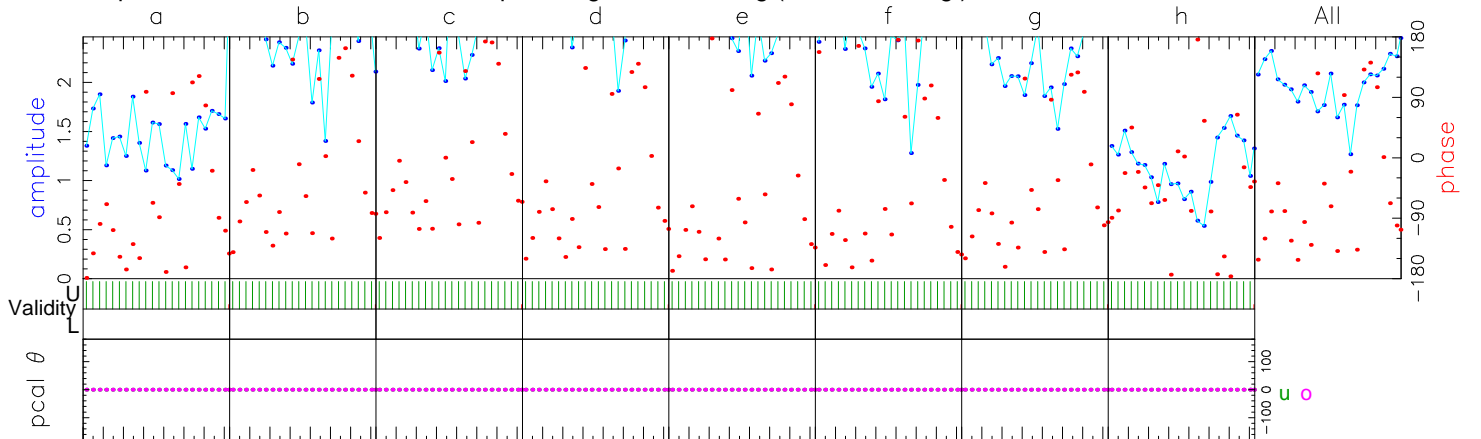
Fringe quality 4

SNR 46.0
 Int time 419.784
 Amp 0.821
 Phase -109.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.010056
 MBD -0.002487
 Fringe rate (Hz)
 -0.009310
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133133
 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
	-130.8	-91.7	-69.1	-111.5	-134.8	-151.1	-107.2	-56.5	Phase	-109.7
	0.7	1.0	1.1	1.1	1.2	0.9	0.9	0.4	Ampl.	0.9
	256.1	254.4	253.9	254.0	254.2	254.3	254.8	256.4	Sbd box	254.4
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	
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	Manl 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)	-1.02341772501E+04	Apriori delay (usec)	-1.02341747632E+04	Resid mbdelay (usec)	-2.48688E-03	+/-	2.4E-05
Sband delay (usec)	-1.02341848190E+04	Apriori clock (usec)	1.1003624E+01	Resid sbdelay (usec)	-1.00557E-02	+/-	1.9E-04
Phase delay (usec)	-1.02341747668E+04	Apriori clockrate (us/s)	7.6699996E-07	Resid phdelay (usec)	-3.53653E-06	+/-	8.0E-08
Delay rate (us/s)	1.09265458743E+00	Apriori rate (us/s)	1.09265469552E+00	Resid rate (us/s)	-1.08085E-07	+/-	3.3E-10
Total phase (deg)	-147.3	Apriori accel (us/s/s)	5.23928233696E-05	Resid phase (deg)	-109.7	+/-	2.5

ph/seg (deg)	RMS 76.2	Theor. 6.0	Amplitude Search (2048X32)	0.821 +/- 0.018	0.795	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	142.2	10.4	Interp.	0.000	0.795	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	35.6	3.5	Inc. seg. avg.	1.953	1.953	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	31.0	6.1	Inc. frq. avg.	0.916	0.916	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

u: az 44.6 el 26.4 pa -65.9 o: az 318.8 el 69.4 pa 122.4 u,v (fr/asec) -9861.668 5044.825 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/uo..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/uo.W.245.1X1KZS

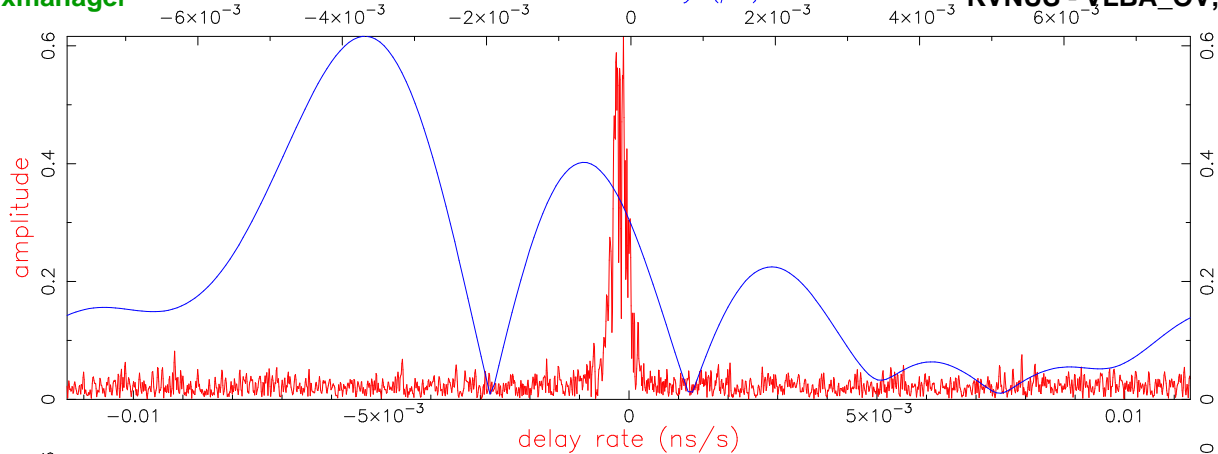
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, uo

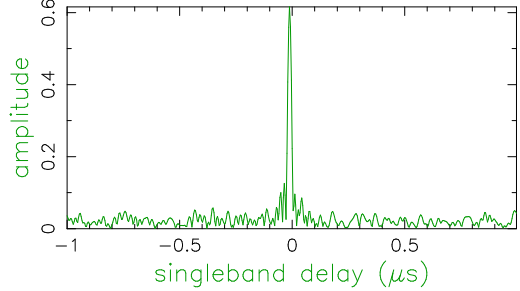
KVNUS - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

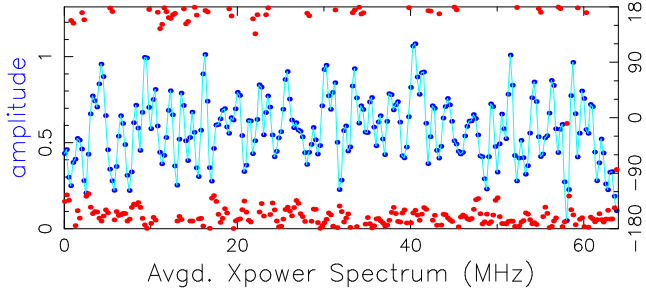


Fringe quality 4

SNR 34.5
 Int time 419.784
 Amp 0.616
 Phase 101.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.011707
 MBD -0.003684
 Fringe rate (Hz)
 -0.009381
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

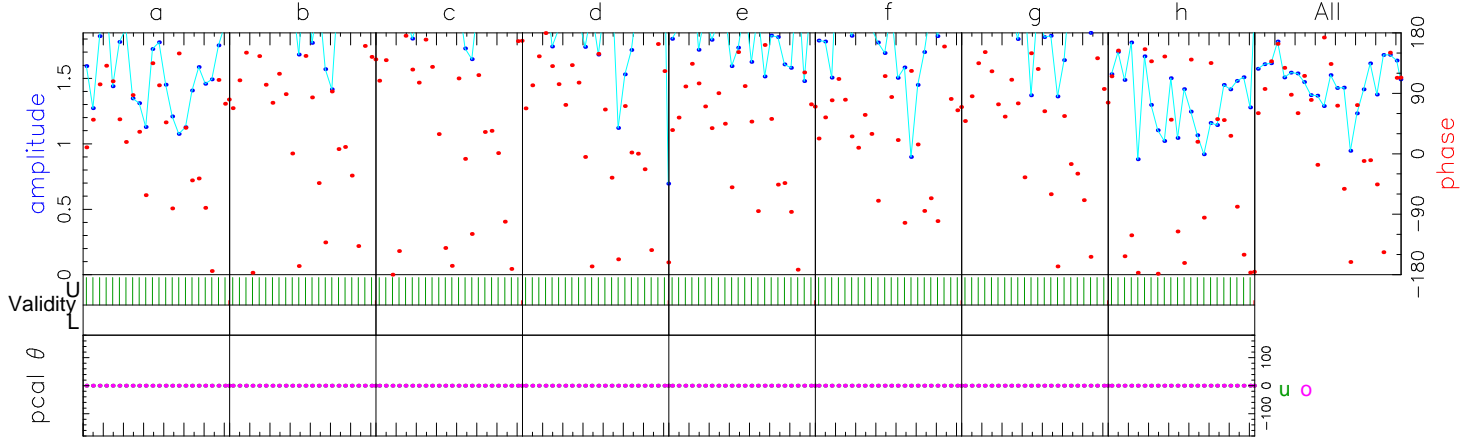


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133137
 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:o	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.02341940723E+04									
Sband delay (usec)	-1.02341864702E+04									
Phase delay (usec)	-1.02341747600E+04									
Delay rate (us/s)	1.09265458662E+00									
Total phase (deg)			63.7							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)									101.3	+/- 3.3
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

ph/seg (deg) 75.5 8.0 Search (2048X32) 0.600 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 143.7 13.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 42.4 4.7 Inc. seg. avg. 1.469 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 26.9 8.2 Inc. frq. avg. 0.745 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 44.6 el 26.4 pa -65.9 o: az 318.8 el 69.4 pa 122.4 u,v (fr/asec) -9861.668 5044.825 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/uo..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/uo.W.262.1X1KZS

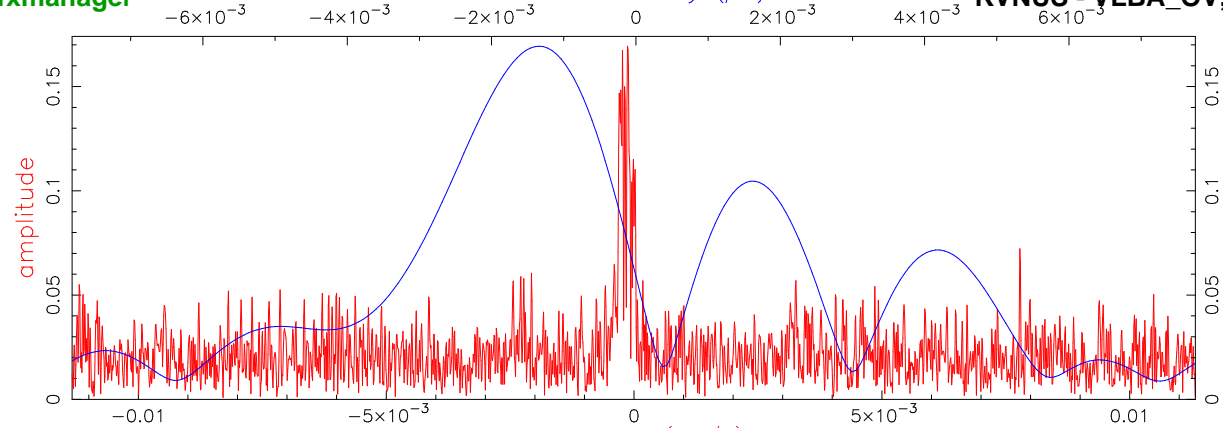
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, uo

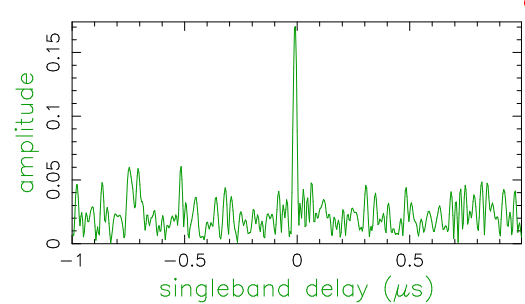
KVNUS - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

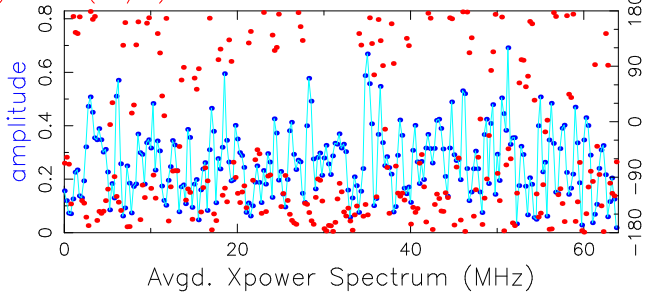


Fringe quality 9

SNR 9.8
 Int time 419.784
 Amp 0.174
 Phase 114.5
 PFD 7.5e-14
 Delays (us)
 SBD -0.009623
 MBD -0.001314
 Fringe rate (Hz)
 -0.011085
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

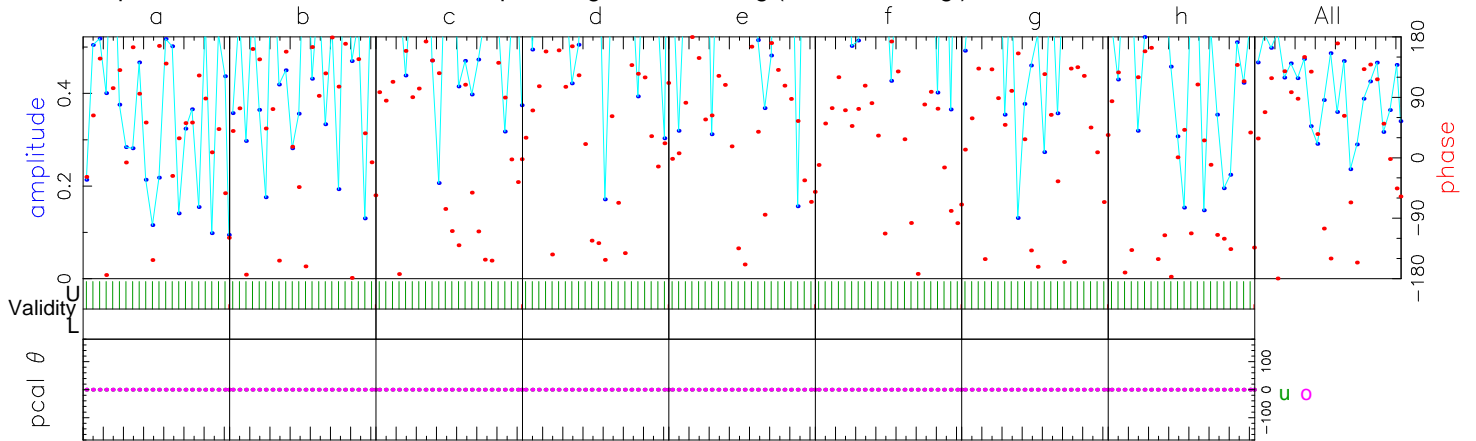


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133140
 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:o	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)	-1.02341917025E+04									
Sband delay (usec)	-1.02341843867E+04									
Phase delay (usec)	-1.02341747595E+04									
Delay rate (us/s)	1.09265456683E+00									
Total phase (deg)			76.9							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
u										
o										
u,v (fr/asec)										

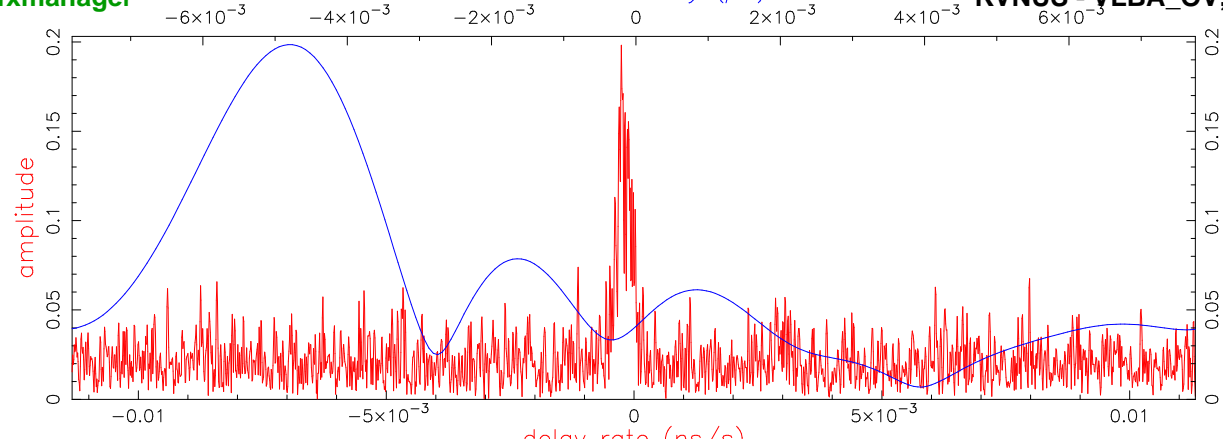
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

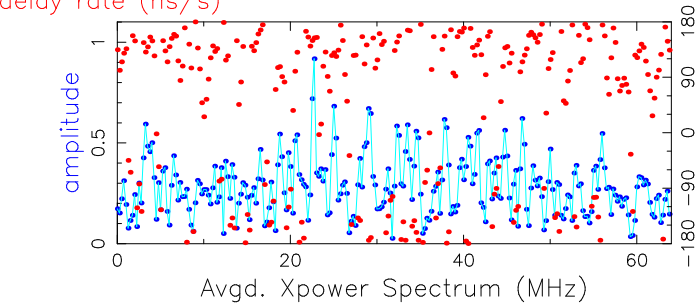
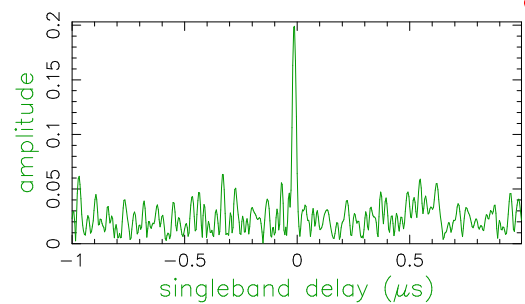
NRAO150.1X1KZS, No0113, uo

KVNUS - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

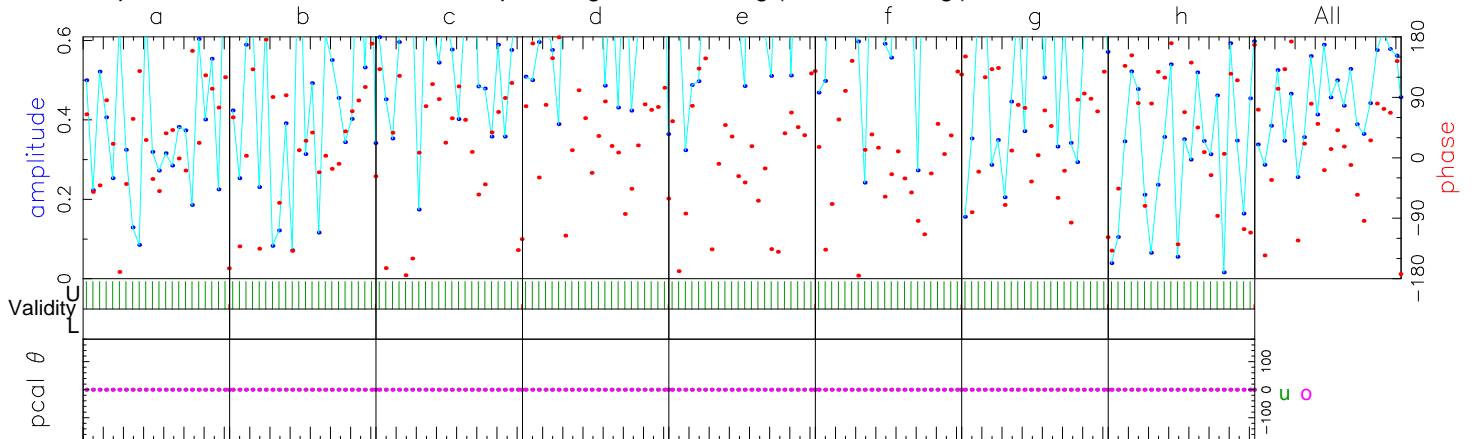


Fringe quality 9
 SNR 11.4
 Int time 419.784
 Amp 0.203
 Phase 49.9
 PFD 2.7e-21
 Delays (us)
 SBD -0.013581
 MBD -0.004719
 Fringe rate (Hz)
 -0.021858
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133143
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
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)	-1.02341951070E+04									
Sband delay (usec)	-1.02341883437E+04									
Phase delay (usec)	-1.02341747616E+04									
Delay rate (us/s)	1.09265444177E+00									
Total phase (deg)			12.3							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
u										
o										
u,v (fr/asec)										

ph/seg (deg) 81.6 24.2 Search (2048X32) 0.196 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 133.5 42.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.4 14.2 Inc. seg. avg. 0.417 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 36.5 24.9 Inc. frq. avg. 0.218 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 44.6 el 26.4 pa -65.9 o: az 318.8 el 69.4 pa 122.4 u,v (fr/asec) -9861.668 5044.825 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/uo..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/uo.W.295.1X1KZS

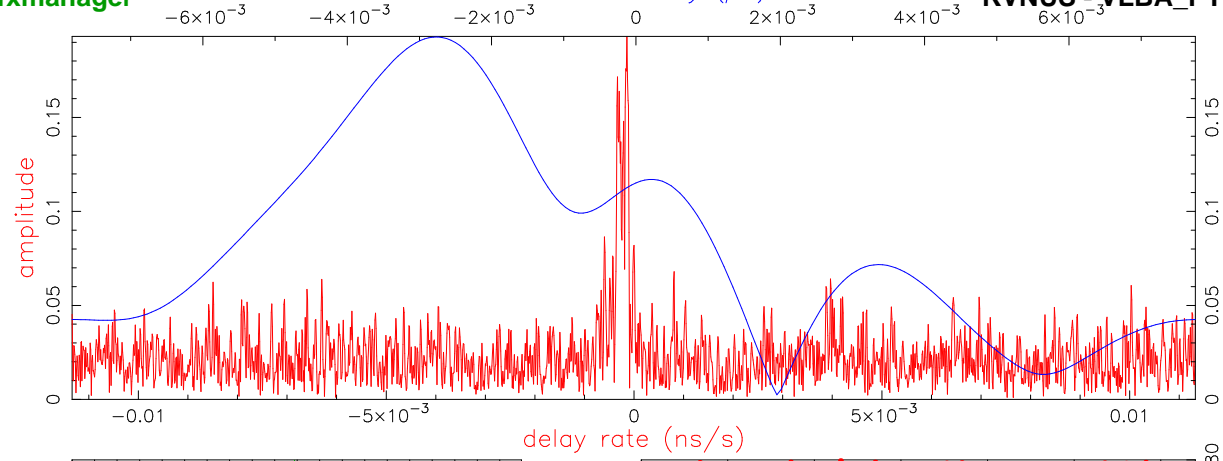
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, up

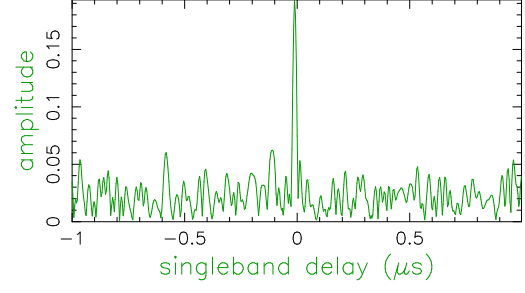
KVNUS - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

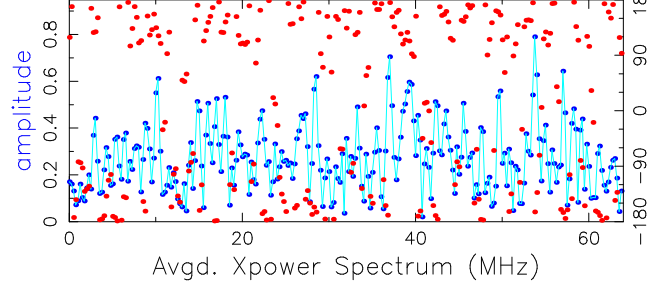


Fringe quality 9

SNR 10.8
 Int time 419.785
 Amp 0.193
 Phase 70.0
 PFD 1.3e-18
 Delays (us)
 SBD -0.011191
 MBD -0.002752
 Fringe rate (Hz)
 -0.012844
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

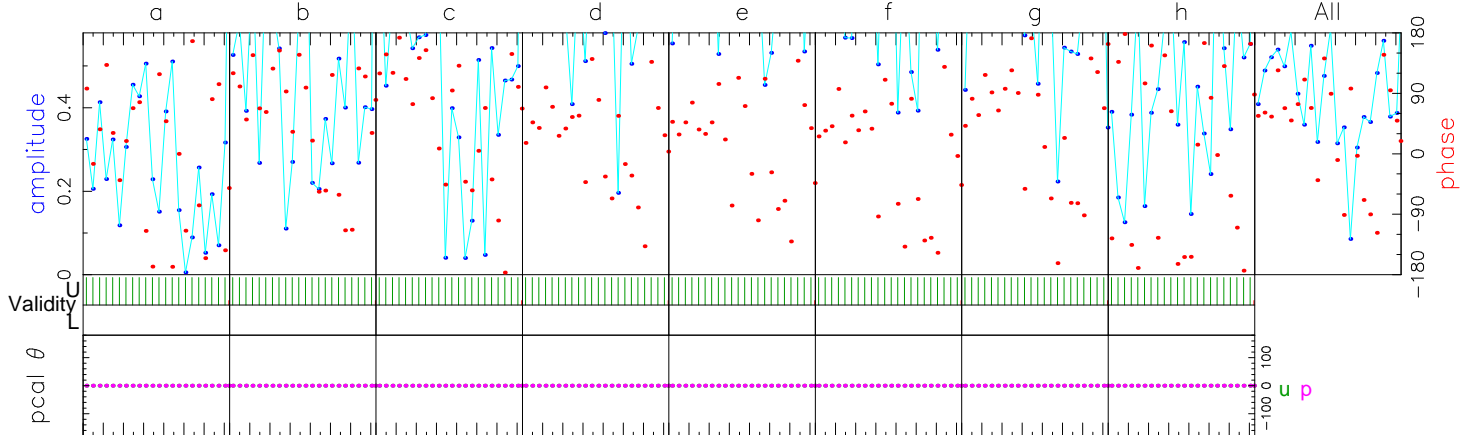


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133133
 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
	69.2	107.4	115.1	37.5	35.6	47.7	82.9	179.4	Phase	70.0
	0.1	0.2	0.3	0.4	0.4	0.3	0.3	0.2	Ampl.	0.2
	205.2	253.7	254.0	253.7	254.6	254.9	254.9	256.9	Sbd box	254.1
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	
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)	-9.01631350640E+03		Apriori delay (usec)		-9.01629512978E+03		Resid mbdelay (usec)		-2.75163E-03	+/- 1.0E-04
Sband delay (usec)	-9.01630632028E+03		Apriori clock (usec)		9.2243328E+00		Resid sbdelay (usec)		-1.11905E-02	+/- 8.0E-04
Phase delay (usec)	-9.01629512752E+03		Apriori clockrate (us/s)		1.2470000E-06		Resid phdelay (usec)		2.25848E-06	+/- 3.4E-07
Delay rate (us/s)	1.23053572537E+00		Apriori rate (us/s)		1.23053587448E+00		Resid rate (us/s)		-1.49109E-07	+/- 1.4E-09
Total phase (deg)			Apriori accel (us/s/s)		4.95366322051E-05		Resid phase (deg)		70.0	+/- 10.6

ph/seg (deg) 80.4 25.4 Search (2048X32) 0.186 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 135.6 44.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.2 15.0 Inc. seg. avg. 0.389 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 62.8 26.1 Inc. frq. avg. 0.246 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 44.6 el 26.4 pa -65.9 p: az 315.8 el 61.6 pa 112.7 u,v (fr/asec) -11122.306 5009.773 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/up..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/up.W.244.1X1KZS

Mk4/DiFX fourfit 3.21 rev 2937

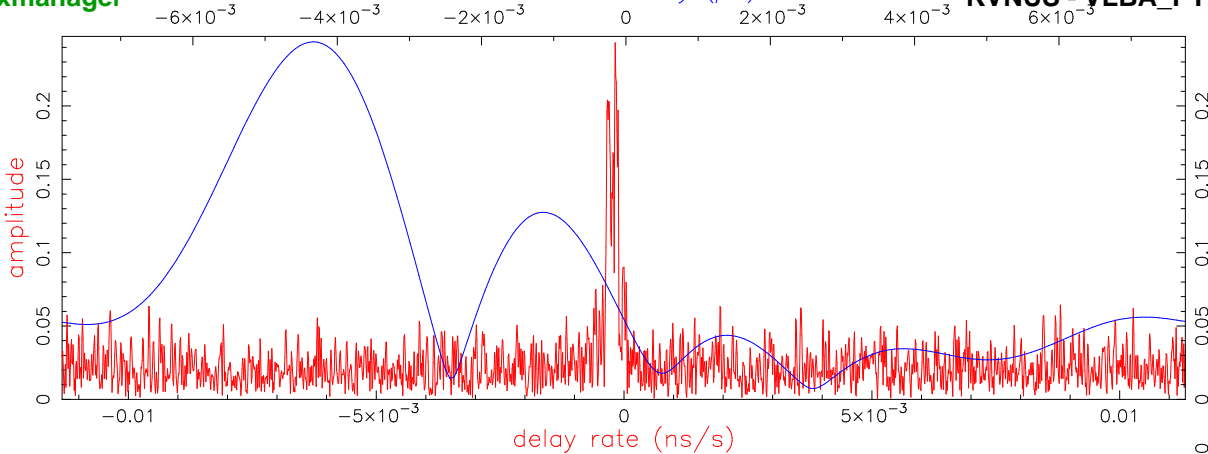
fxmanager

NRAO150.1X1KZS, No0113, up

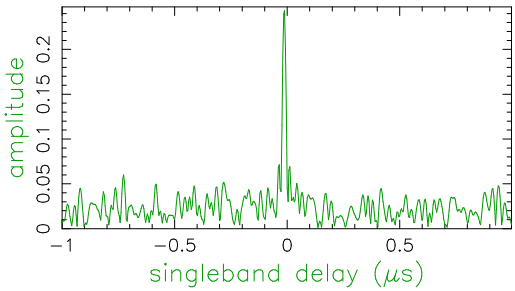
KVNUS - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

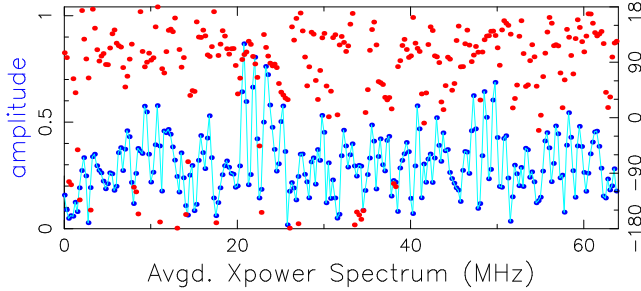
Fringe quality 9



SNR 13.9
 Int time 419.785
 Amp 0.247
 Phase 7.2
 PFD 6.2e-35
 Delays (us)
 SBD -0.013360
 MBD -0.004420
 Fringe rate (Hz)
 -0.015153
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

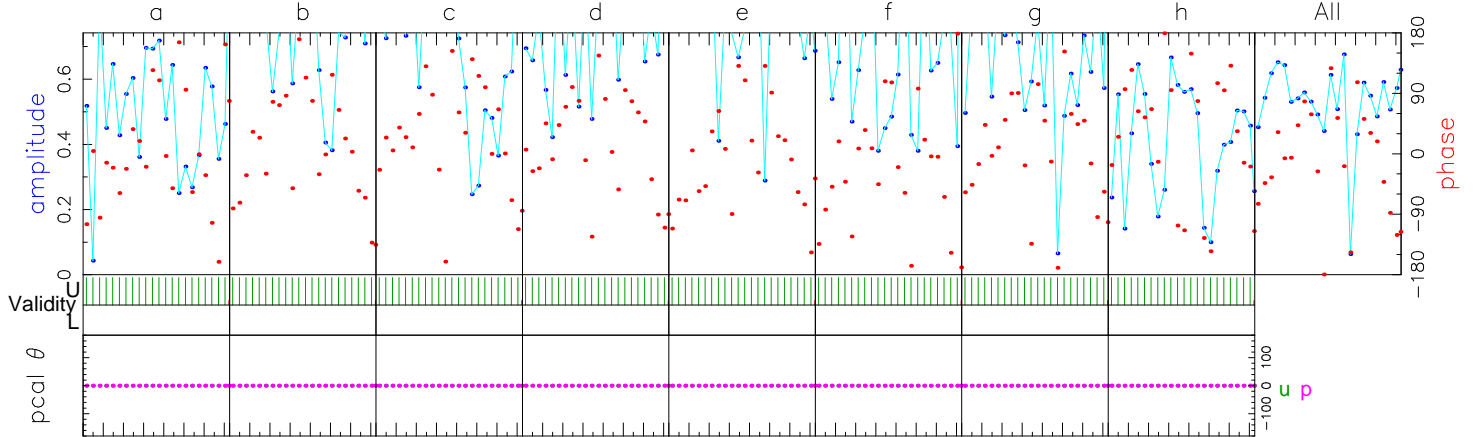


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133136
 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



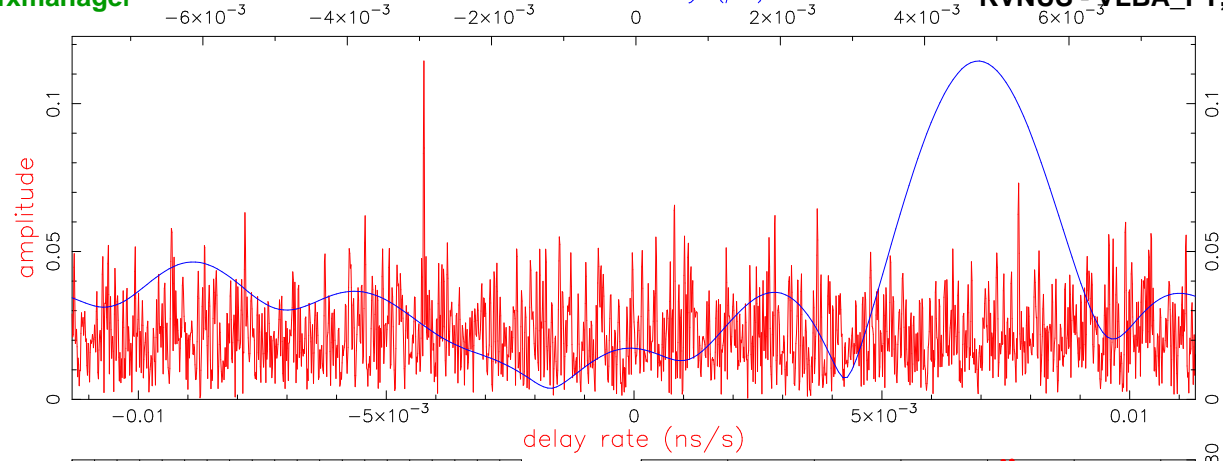
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-29.4	11.1	33.4	29.3	-20.5	-31.4	15.8	71.3	Phase	7.2
	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.2	Ampl.	0.3
	256.1	252.9	253.8	253.2	253.5	253.5	253.8	256.7	Sbd box	253.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-9.01631517512E+03		Apriori delay (usec)		-9.01629512978E+03		Resid mbdelay (usec)		-4.42034E-03	+/- 7.8E-05
Sband delay (usec)	-9.01630848978E+03		Apriori clock (usec)		9.2243328E+00		Resid sbdelay (usec)		-1.33600E-02	+/- 6.2E-04
Phase delay (usec)	-9.01629512955E+03		Apriori clockrate (us/s)		1.2470000E-06		Resid phdelay (usec)		2.30948E-07	+/- 2.7E-07
Delay rate (us/s)	1.23053569857E+00		Apriori rate (us/s)		1.23053587448E+00		Resid rate (us/s)		-1.75906E-07	+/- 1.1E-09
Total phase (deg)			Apriori accel (us/s/s)		4.95366322051E-05		Resid phase (deg)		7.2	+/- 8.3

	RMS	Theor.	Amplitude	0.247 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	78.3	19.8	Search (2048X32)	0.241	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	123.3	34.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	38.7	11.7	Inc. seg. avg.	0.498	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	32.5	20.4	Inc. frq. avg.	0.273	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

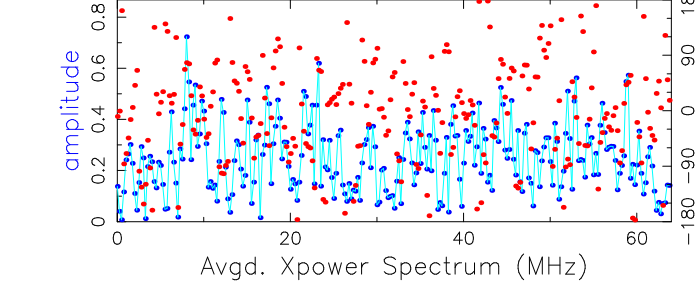
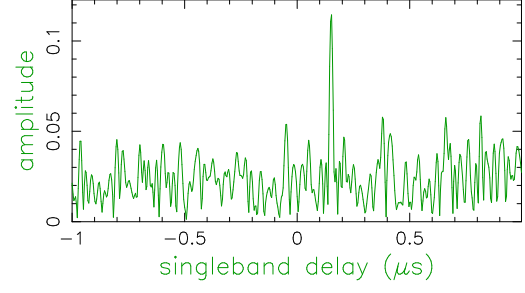
u: az 44.6 el 26.4 pa -65.9 p: az 315.8 el 61.6 pa 112.7 u,v (fr/asec) -11122.306 5009.773 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/up..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/up.W.260.1X1KZS

multiband delay (μ s)

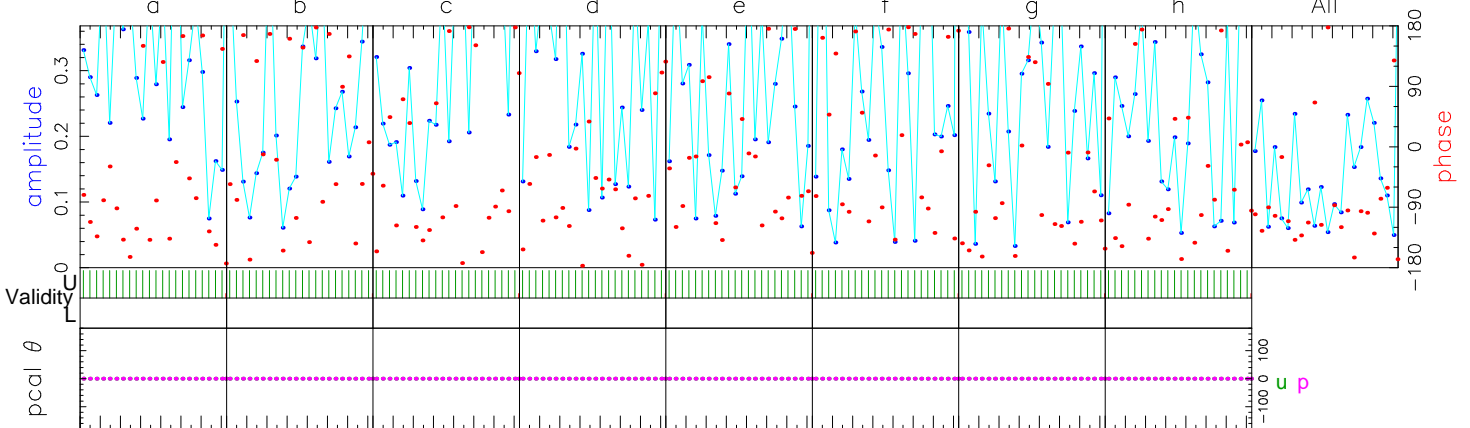


Fringe quality 0
SNR 6.5
Int time 419.785
Amp 0.123
Phase -112.1
PFD 2.4e-02
Delays (us)
SBD 0.151008
MBD 0.004732
Fringe rate (Hz)
-0.366132
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133140
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

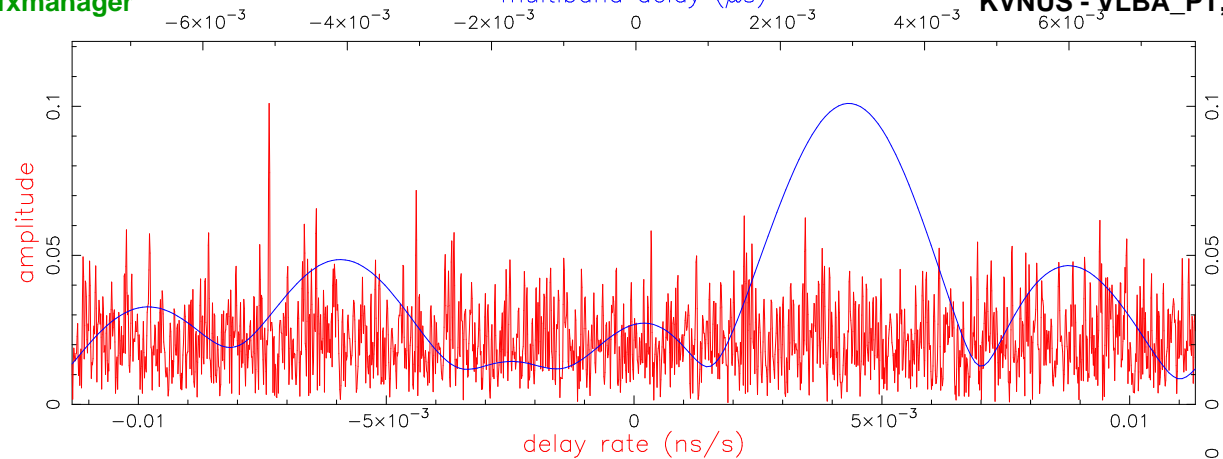
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-115.0	-118.3	-138.7	-76.8	-80.5	-124.2	-127.5	-109.5	Phase	-112.1
	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1
	320.2	463.7	86.9	103.4	33.1	436.9	103.7	54.1	Sbd box	295.7
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	
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	Manl 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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-9.01614977322E+03		Apriori delay (usec)		-9.01629512978E+03		Resid mbdelay (usec)		4.73156E-03	+/- 1.7E-04
Sband delay (usec)	-9.01614412153E+03		Apriori clock (usec)		9.2243328E+00		Resid sbdelay (usec)		1.51008E-01	+/- 1.3E-03
Phase delay (usec)	-9.01629513339E+03		Apriori clockrate (us/s)		1.2470000E-06		Resid phdelay (usec)		-3.61612E-06	+/- 5.7E-07
Delay rate (us/s)	1.23053162405E+00		Apriori rate (us/s)		1.23053587448E+00		Resid rate (us/s)		-4.25042E-06	+/- 2.4E-09
Total phase (deg)			Apriori accel (us/s/s)		4.95366322051E-05		Resid phase (deg)		-112.1	+/- 17.7

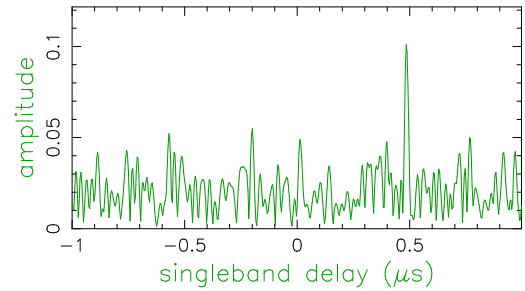
ph/seg (deg) 56.6 42.4 Search (2048X32) 0.111 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 66.8 73.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 23.8 25.0 Inc. seg. avg. 0.117 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 35.7 43.6 Inc. frq. avg. 0.119 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 44.6 el 26.4 pa -65.9 p: az 315.8 el 61.6 pa 112.7 u,v (fr/asec) -11122.306 5009.773 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/up..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/up.W.277.1X1KZS

multiband delay (μs)

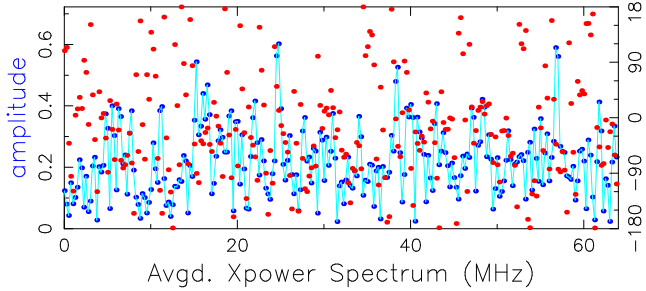


Fringe quality 0

SNR 5.7
Int time 419.785
Amp 0.122
Phase 123.3
PFD 9.5e-01
Delays (us)
SBD 0.485462
MBD 0.002963
Fringe rate (Hz)
-0.635091
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

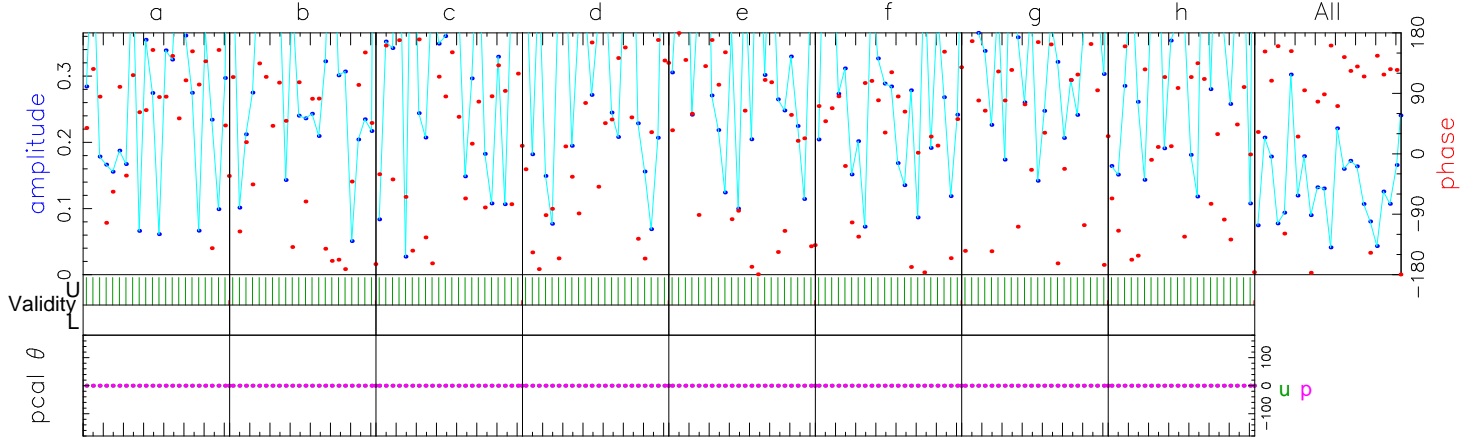


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133143
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



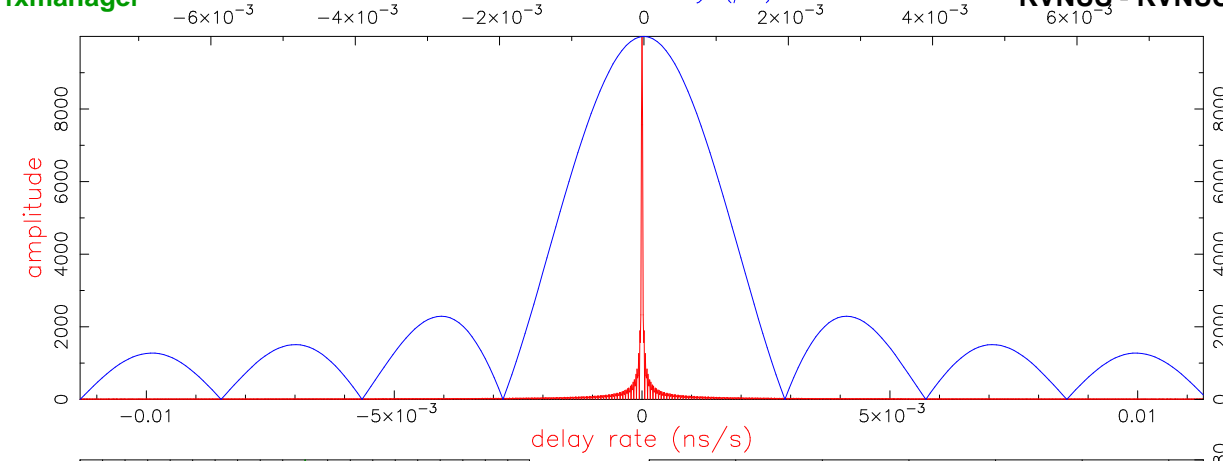
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
p	0	0	0	0	0	0	0	0		
u:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000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

Group delay (usec)(sbd)	-9.01580779134E+03	Apriori delay (usec)	-9.01629512978E+03	Resid mbdelay (usec)	2.96344E-03	+/-	1.9E-04
Sband delay (usec)	-9.01580966803E+03	Apriori clock (usec)	9.2243328E+00	Resid sbdelay (usec)	4.85462E-01	+/-	1.5E-03
Phase delay (usec)	-9.01629512580E+03	Apriori clockrate (us/s)	1.2470000E-06	Resid phdelay (usec)	3.97541E-06	+/-	6.5E-07
Delay rate (us/s)	1.23052850170E+00	Apriori rate (us/s)	1.23053587448E+00	Resid rate (us/s)	-7.37277E-06	+/-	2.7E-09
Total phase (deg)	-49.2	Apriori accel (us/s/s)	4.95366322051E-05	Resid phase (deg)	123.3	+/-	20.1

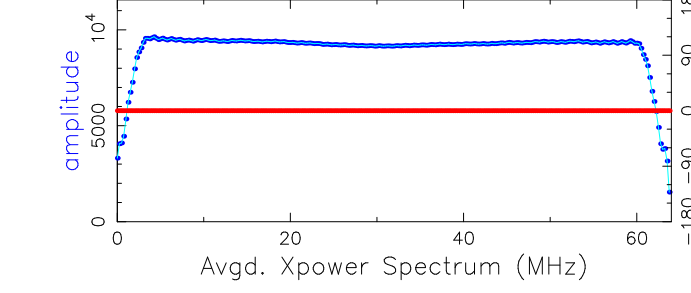
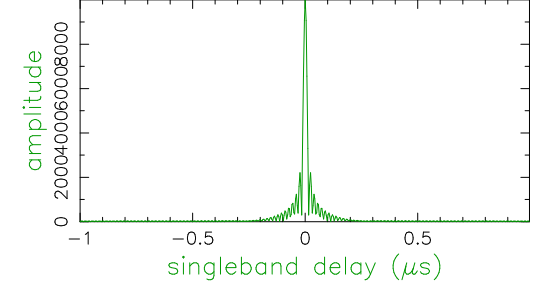
ph/seg (deg)	50.5	Theor.	48.2	Amplitude	0.122 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	68.9		84.2	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	31.2		28.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	42.1		49.7	Inc. seg. avg.	0.120	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.120	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

u: az 44.6 el 26.4 pa -65.9 p: az 315.8 el 61.6 pa 112.7 u,v (fr/asec) -11122.306 5009.773 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/up..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/up.W.293.1X1KZS

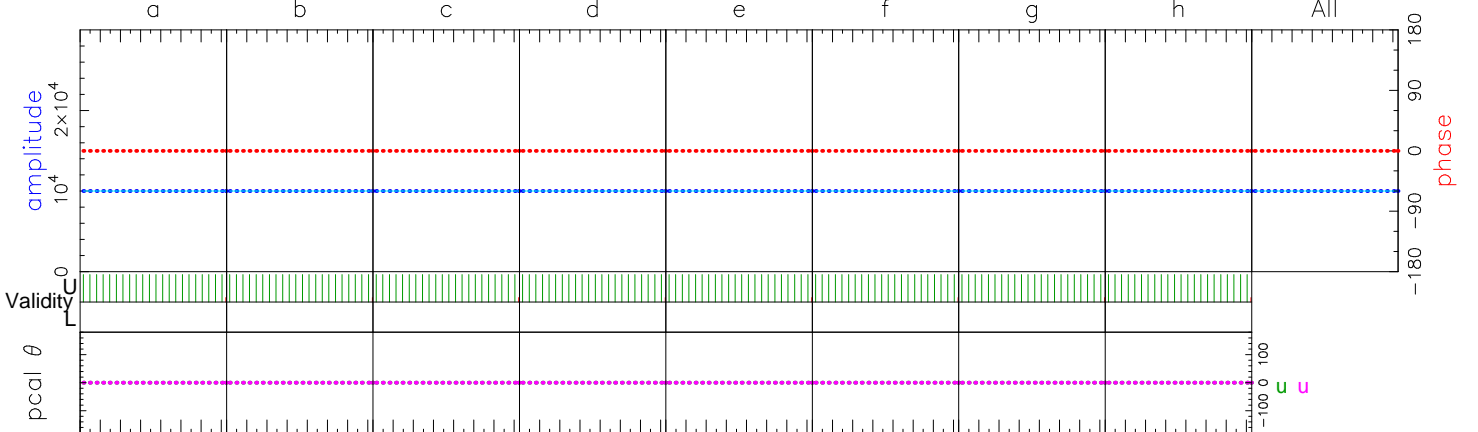
multiband delay (μ s)



Fringe quality 9
SNR 560300.4
Int time 419.804
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211c
Yr:day 16383
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133134
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			
u:u	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			
u	1000	1000	1000	1000	1000	1000	1000	1000			
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00			
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00			
Phase delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00			
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00			
Total phase (deg)			0.0								
			Apriori delay (usec)						Resid mbdelay (usec)	0.00000E+00	+/- 1.9E-09
			Apriori clock (usec)						Resid sbdelay (usec)	0.00000E+00	+/- 1.5E-08
			Apriori clockrate (us/s)						Resid phdelay (usec)	0.00000E+00	+/- 6.6E-12
			Apriori rate (us/s)						Resid rate (us/s)	0.00000E+00	+/- 2.7E-14
			Apriori accel (us/s/s)						Resid phase (deg)	0.0	+/- 0.0

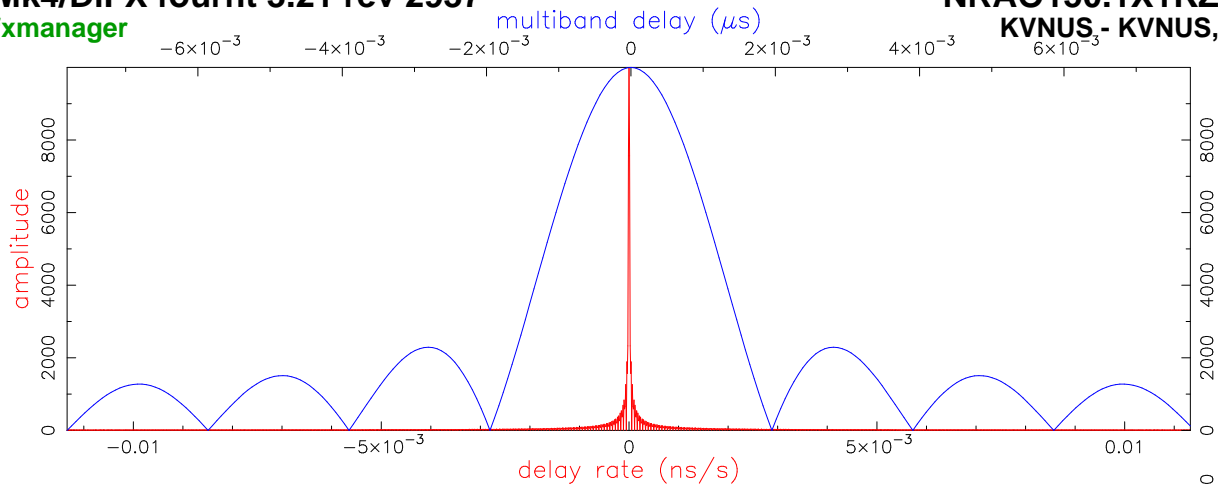
ph/seg (deg) 0.0 0.0 Theor. Amplitude 9999.999 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 u: az 44.6 el 26.4 pa -65.9 u: az 44.6 el 26.4 pa -65.9 u, v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/uu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/uu.W.251.1X1KZS simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

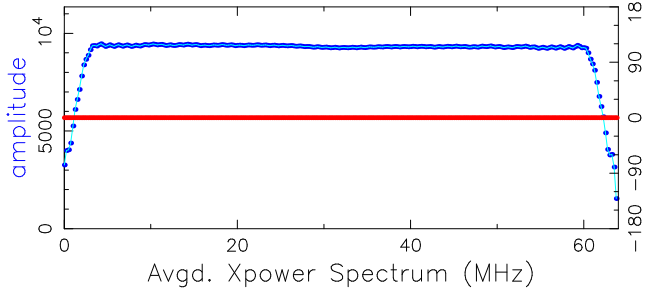
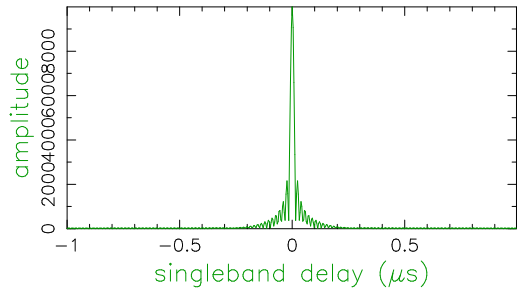
NRAO150.1X1KZS, No0113, uu

KVNUS - KVNUS, fgroup W, pol RR



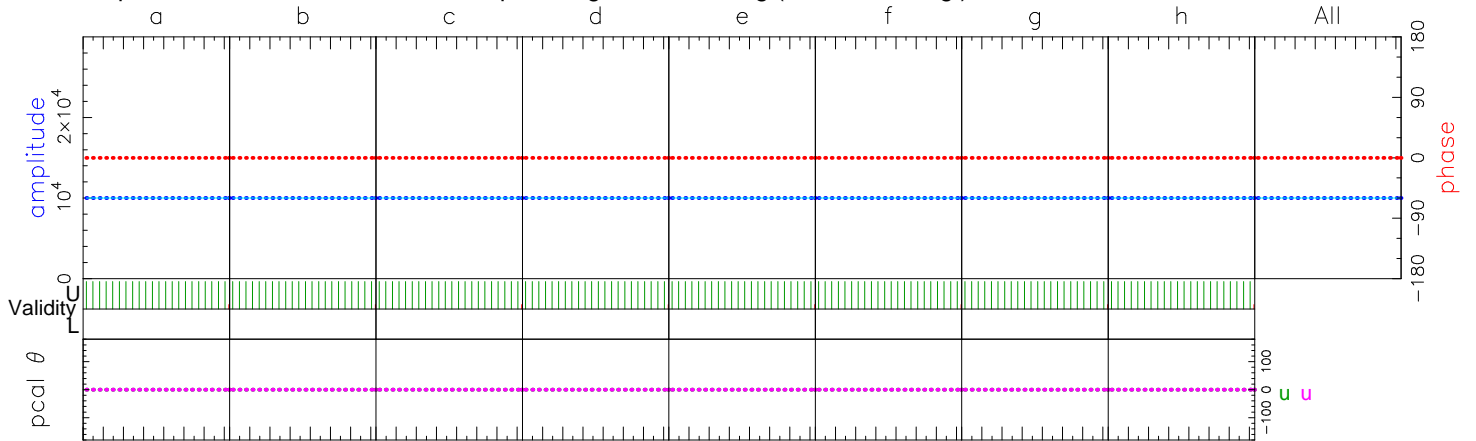
Fringe quality 9

SNR 560300.4
 Int time 419.804
 Amp 9999.999
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Yr:day 16383
 Start 2021:116
 Stop 2021:116
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133137
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

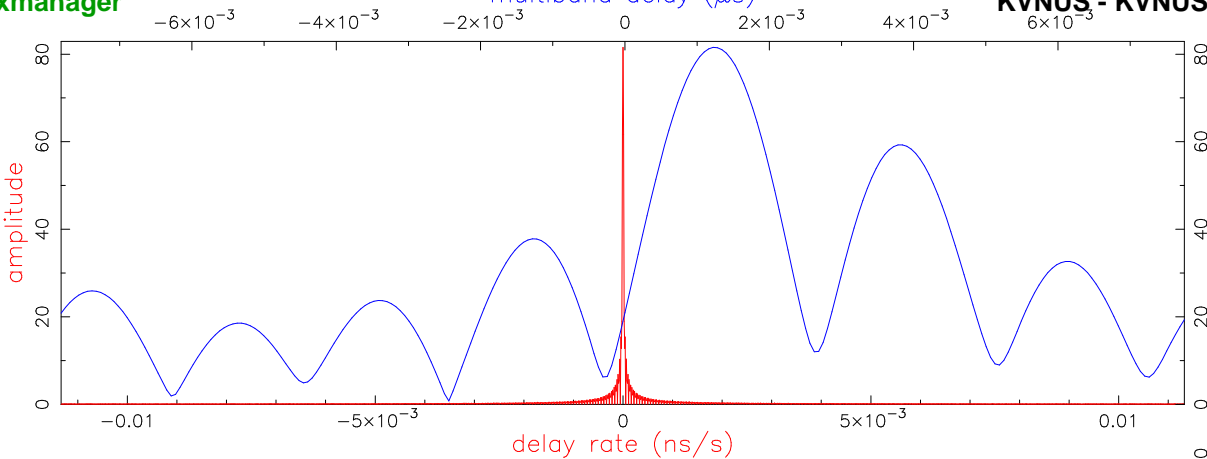
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	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	1000	1000
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.00000E+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	0.00000E+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	0.00000E+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	0.00000E+00	+/- 2.7E-14
Total phase (deg)			0.0						0.0	+/- 0.0

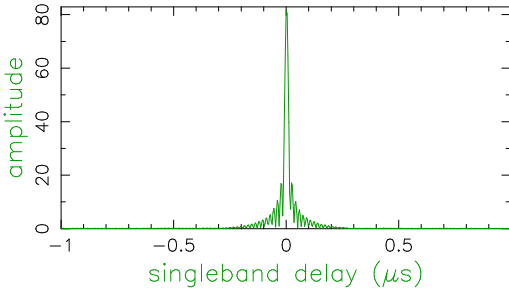
RMS Theor. Amplitude 9999.999 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 u: az 44.6 el 26.4 pa -65.9 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/uu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/uu.W.264.1X1KZS

multiband delay (μ s)

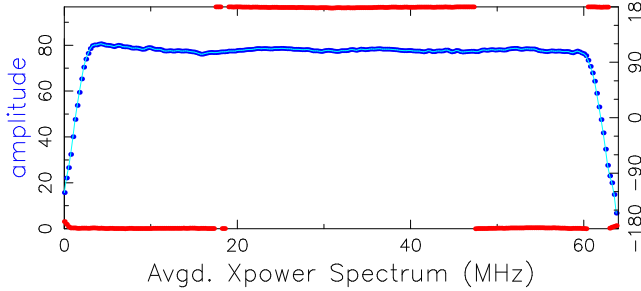


Fringe quality 6

SNR 4646.1
Int time 419.804
Amp 82.922
Phase -175.7
PFD 0.0e+00
Delays (us)
SBD 0.001633
MBD 0.001235
Fringe rate (Hz)
-0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

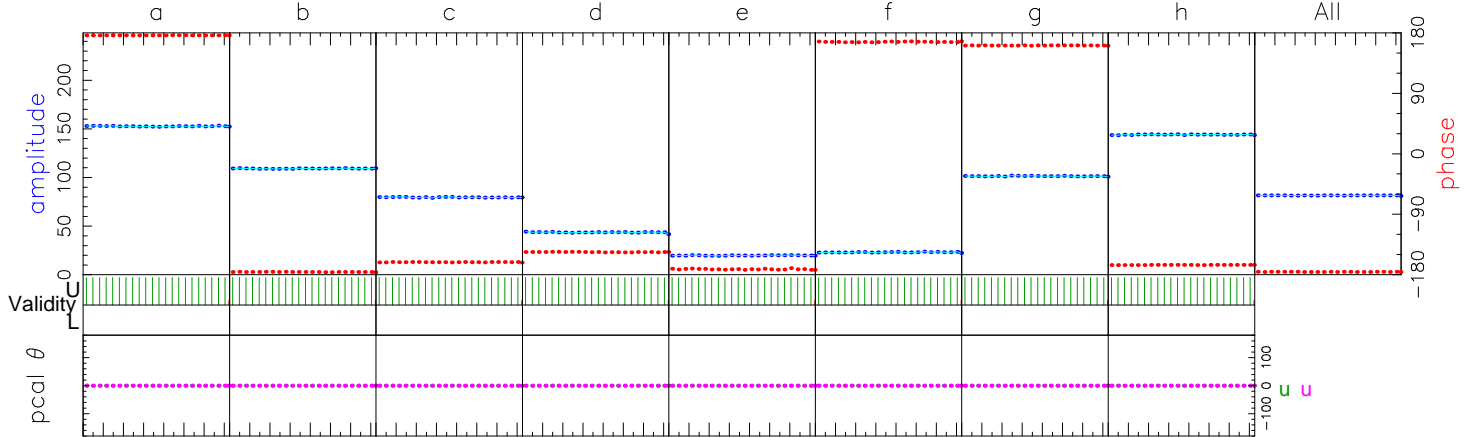


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133140
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	Frq (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		
u:u	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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	1.23456250000E-03								1.23456E-03	+/- 2.3E-07
Sband delay (usec)	1.63300000000E-03								1.63300E-03	+/- 1.9E-06
Phase delay (usec)	-5.66660893609E-06								-5.66661E-06	+/- 8.0E-10
Delay rate (us/s)	-2.83423047834E-12								-2.83423E-12	+/- 3.3E-12
Total phase (deg)			-175.7						-175.7	+/- 0.0
	RMS	Theor.	Amplitude	82.922 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	0.0	0.1	Search (2048X32)	79.029	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	1.6	0.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	18.8	0.0	Inc. seg. avg.	81.559	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	58.4	0.1	Inc. frq. avg.	84.227	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 44.6 el 26.4 pa -65.9 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/uu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/uu.W.281.1X1KZS

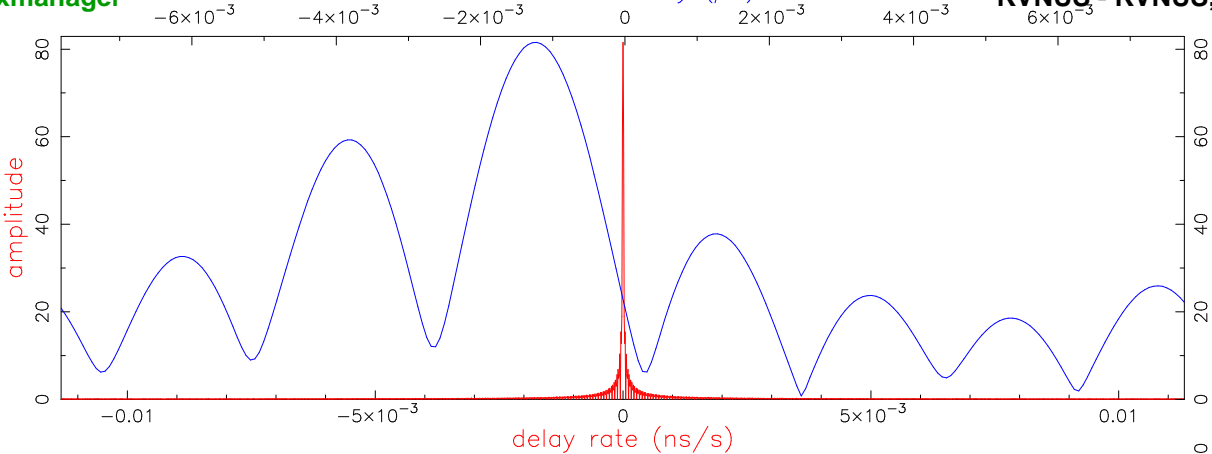
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, uu

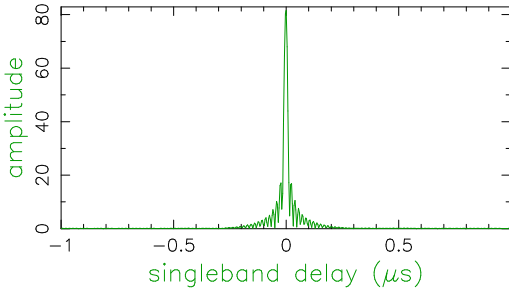
KVNUS - KVNUS, fgroup W, pol RL

multiband delay (μ s)

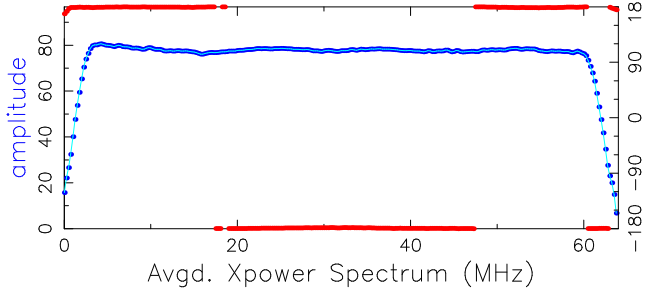


Fringe quality 6

SNR 4646.1
 Int time 419.804
 Amp 82.922
 Phase 175.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.001633
 MBD -0.001235
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

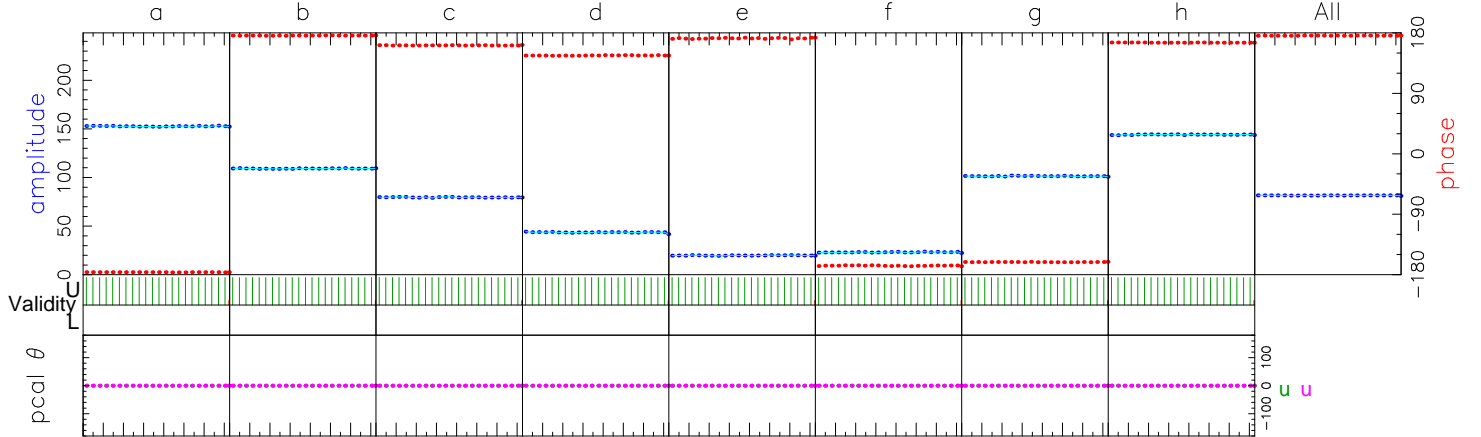


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 230000.00
 Stop 230659.84
 FRT 230330.00
 Corr/FF/build
 2021:303:205431
 2021:304:133144
 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
	-176.2	175.8	161.2	146.3	171.7	-166.4	-161.1	165.4	Phase	175.7
	152.7	109.2	79.7	43.7	19.9	23.2	101.4	144.0	Ampl.	84.2
	256.6	256.5	256.4	256.8	257.6	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		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

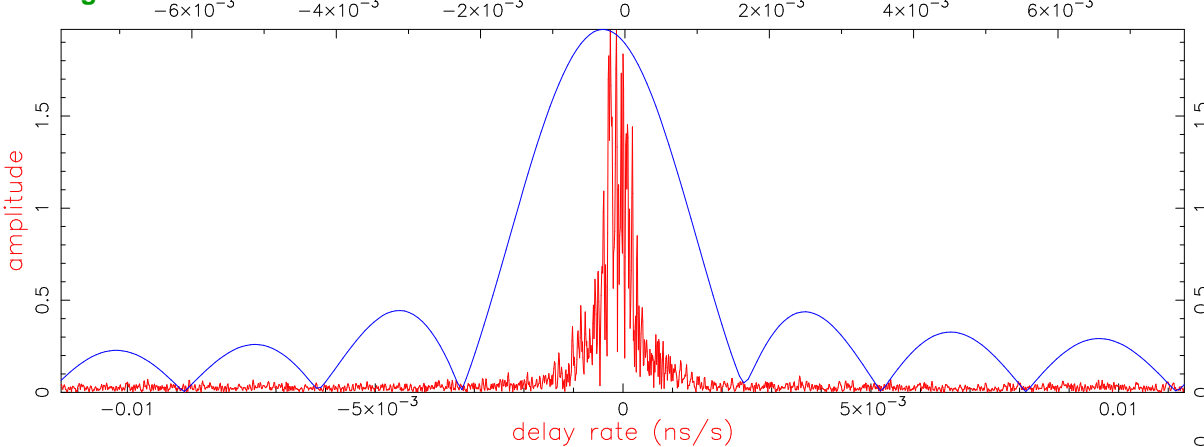
Group delay (usec)(sbd) -1.23456250000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -1.23456E-03 +/- 2.3E-07
 Sband delay (usec) -1.63300000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -1.63300E-03 +/- 1.9E-06
 Phase delay (usec) 5.66660893616E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 5.66661E-06 +/- 8.0E-10
 Delay rate (us/s) 2.83423047834E-12 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 2.83423E-12 +/- 3.3E-12
 Total phase (deg) 175.7 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 175.7 +/- 0.0

RMS Theor. Amplitude 82.922 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.1 Search (2048X32) 79.029 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 1.6 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 18.8 0.0 Inc. seg. avg. 81.559 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 58.4 0.1 Inc. frq. avg. 84.227 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

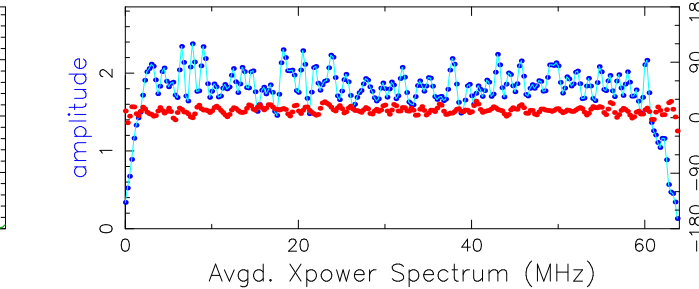
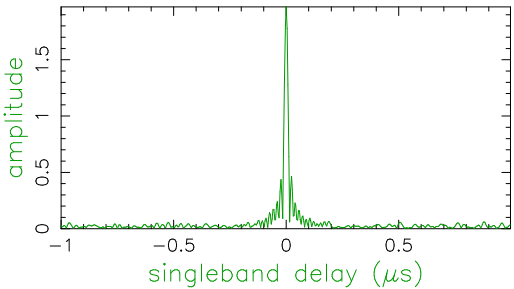
u: az 44.6 el 26.4 pa -65.9 u: az 44.6 el 26.4 pa -65.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/uu..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/uu.W.296.1X1KZS

multiband delay (μ s)

Fringe quality 5

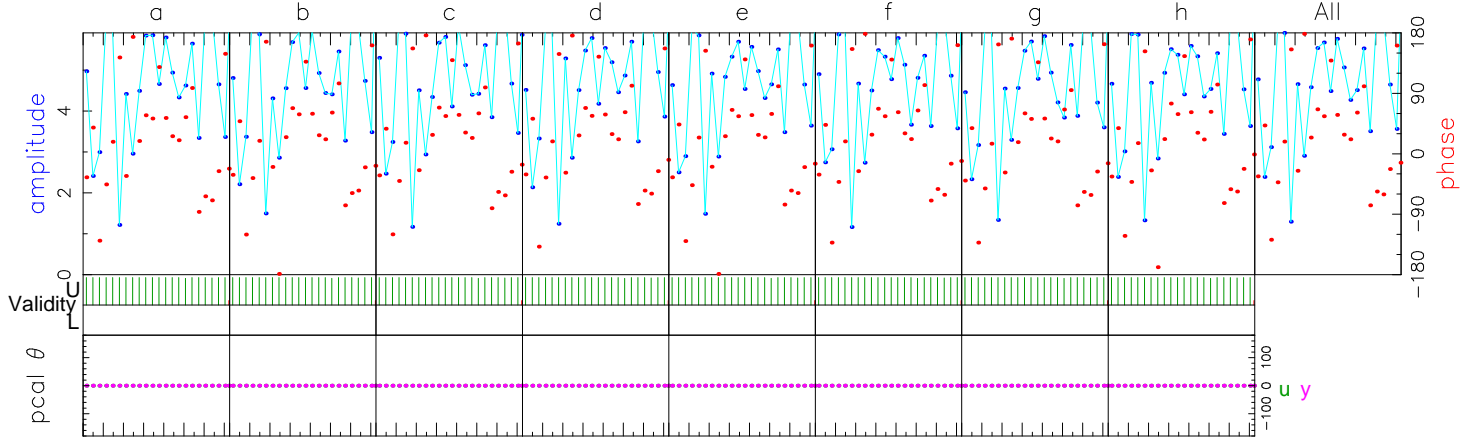


SNR 110.2
Int time 418.901
Amp 1.970
Phase 14.2
PFD 0.0e+00
Delays (us)
SBD -0.000114
MBD -0.000304
Fringe rate (Hz)
-0.022178
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



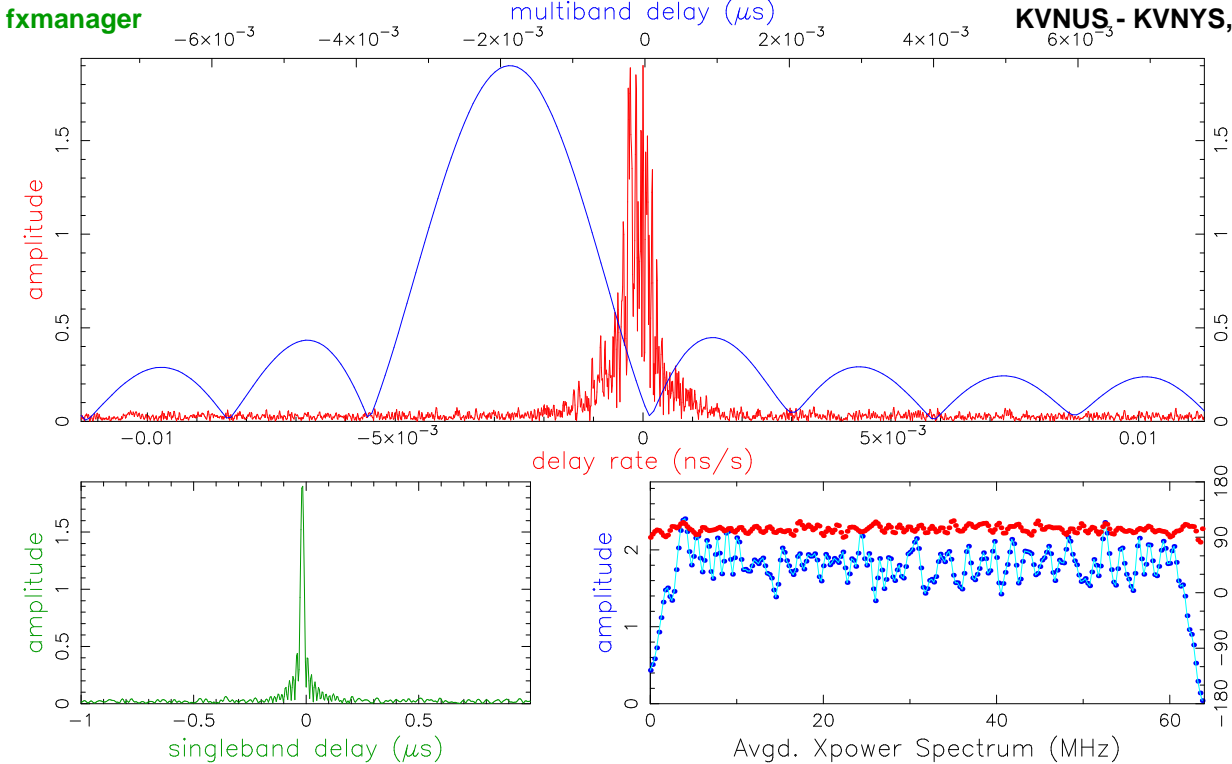
Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133134
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

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



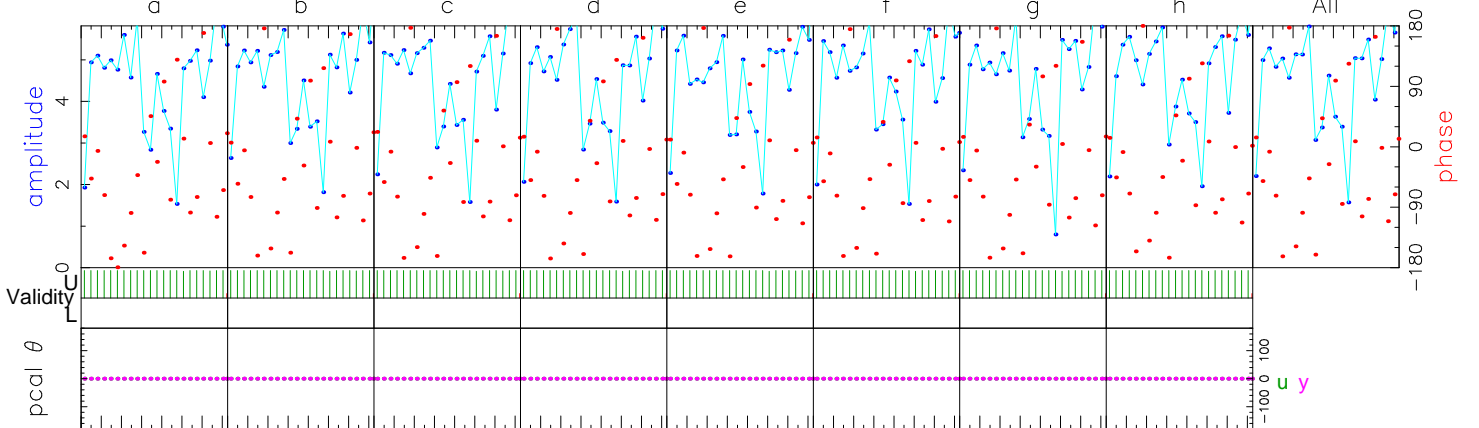
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0				
u	1000	1000	1000	1000	1000	1000	1000	1000	APs used			
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec)(sbd)	-2.47089223888E+01					-2.47086184487E+01			Resid mbdelay (usec)	-3.03940E-04 +/- 9.8E-06		
Sband delay (usec)	-2.47087321987E+01					1.4054155E+01			Resid sbdelay (usec)	-1.13750E-04 +/- 7.8E-05		
Phase delay (usec)	-2.47086179911E+01					1.1270000E-06			Resid phdelay (usec)	4.57644E-07 +/- 3.4E-08		
Delay rate (us/s)	2.10420910031E-02					2.10423484667E-02			Resid rate (us/s)	-2.57464E-07 +/- 1.4E-10		
Total phase (deg)			-127.4			-2.27582863306E-06			Resid phase (deg)	14.2 +/- 1.0		
	RMS	Theor.	Amplitude	1.970 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	81.9	2.5	Search (2048X32)	1.888					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
amp/seg (%)	149.2	4.4	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
ph/frq (deg)	2.7	1.5	Inc. seg. avg.	4.596					Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011	
amp/frq (%)	2.0	2.6	Inc. frq. avg.	1.971					Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

u: az 44.6 el 26.4 pa -65.9 y: az 44.6 el 26.5 pa -62.9 u,v (fr/asec) -194.880 -376.853 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/uy..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/uy.W.249.1X1KZS



Fringe quality 5
SNR 108.6
Int time 418.901
Amp 1.939
Phase -75.3
PFD 0.0e+00
Delays (us)
SBD -0.017399
MBD -0.001873
Fringe rate (Hz) 0.000070
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133137
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
	-73.5	-75.7	-77.0	-74.7	-75.5	-77.3	-76.0	-72.5	Phase	-75.3
	1.8	1.9	1.9	2.0	1.8	1.9	1.9	2.0	Ampl.	1.9
	252.7	252.5	252.5	252.6	252.4	252.6	252.5	252.6	Sbd box	252.5
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	
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	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)	-2.47261166987E+01		Apriori delay (usec)		-2.47086184487E+01		Resid mbdelay (usec)		-1.87325E-03	+/- 1.0E-05
Sband delay (usec)	-2.47260179487E+01		Apriori clock (usec)		1.4054155E+01		Resid sbdelay (usec)		-1.73995E-02	+/- 7.9E-05
Phase delay (usec)	-2.47086208761E+01		Apriori clockrate (us/s)		1.1270000E-06		Resid phdelay (usec)		-2.42734E-06	+/- 3.4E-08
Delay rate (us/s)	2.10423492759E-02		Apriori rate (us/s)		2.10423484667E-02		Resid rate (us/s)		8.09173E-10	+/- 1.4E-10
Total phase (deg)			Apriori accel (us/s/s)		-2.27582863306E-06		Resid phase (deg)		-75.3	+/- 1.1

ph/seg (deg) 82.0 2.5 Search (2048X32) 1.892 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 145.8 4.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 1.8 1.5 Inc. seg. avg. 4.515 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 3.0 2.6 Inc. frq. avg. 1.901 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 44.6 el 26.4 pa -65.9 y: az 44.6 el 26.5 pa -62.9 u,v (fr/asec) -194.880 -376.853 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/uy..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/uy.W.266.1X1KZS

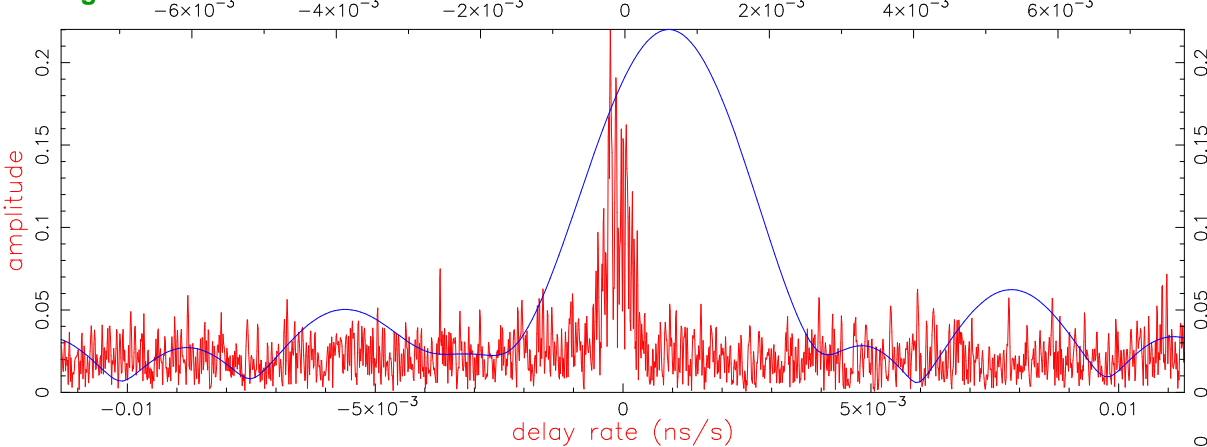
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, uy

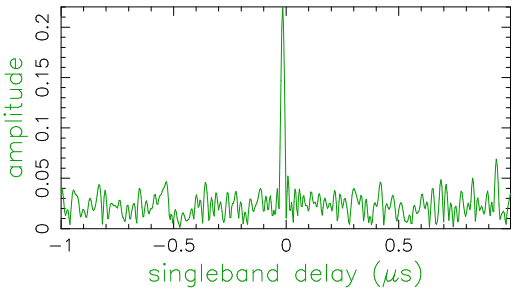
KVNU_S - KVNY_S, fgroup W, pol LR

multiband delay (μ s)

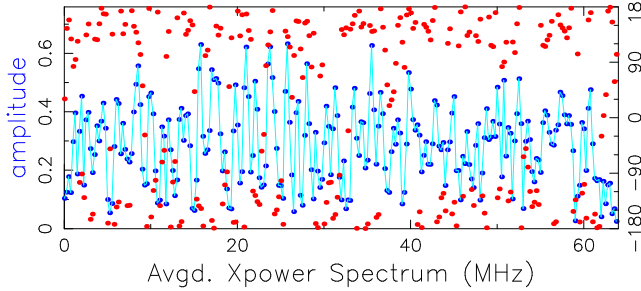


Fringe quality 9

SNR 12.3
Int time 418.901
Amp 0.220
Phase -15.9
PFD 3.6e-26
Delays (us)
SBD -0.015536
MBD 0.000607
Fringe rate (Hz)
-0.022046
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

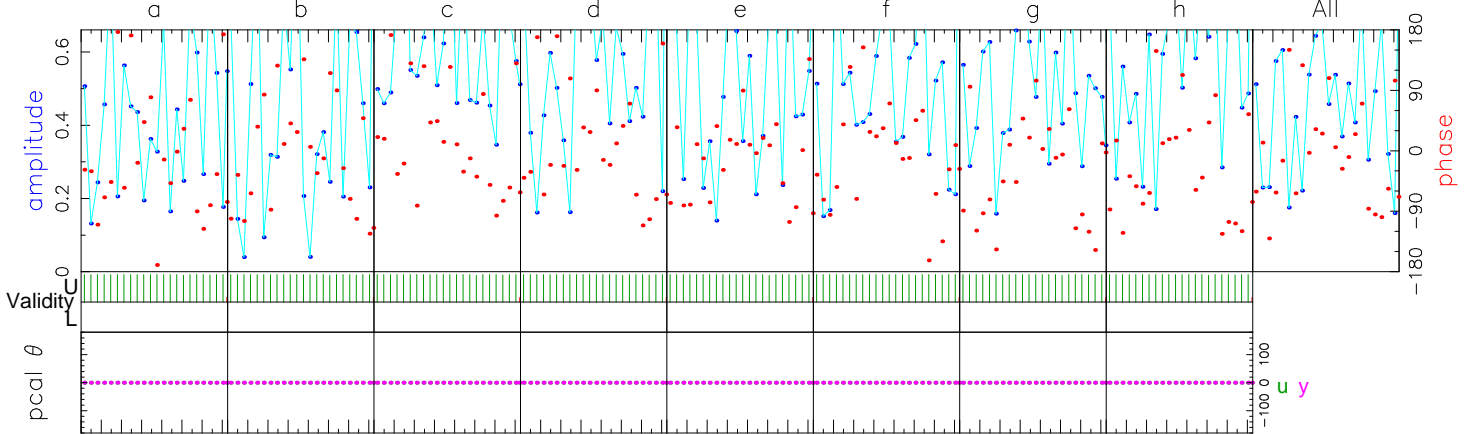


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133141
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
	-45.3	-2.3	-0.0	-18.9	-13.9	8.8	-23.6	-33.1	Phase	-15.9
	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	Ampl.	0.2
	253.1	252.8	252.8	253.4	253.2	252.6	253.0	253.1	Sbd box	253.0
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	
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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.47236360138E+01		Apriori delay (usec)		-2.47086184487E+01		Resid mbdelay (usec)		6.07435E-04 +/- 8.8E-05	
Sband delay (usec)	-2.47241546987E+01		Apriori clock (usec)		1.4054155E+01		Resid sbdelay (usec)		-1.55362E-02 +/- 7.0E-04	
Phase delay (usec)	-2.47086189609E+01		Apriori clockrate (us/s)		1.1270000E-06		Resid phdelay (usec)		-5.12167E-07 +/- 3.0E-07	
Delay rate (us/s)	2.10420925307E-02		Apriori rate (us/s)		2.10423484667E-02		Resid rate (us/s)		-2.55936E-07 +/- 1.2E-09	
Total phase (deg)			Apriori accel (us/s/s)		-2.27582863306E-06		Resid phase (deg)		-15.9 +/- 9.3	

	RMS	Theor.	Amplitude	0.220 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	77.3	22.3	Search (2048X32)	0.216	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	130.5	38.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	19.5	13.2	Inc. seg. avg.	0.417	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011	
amp/frq (%)	18.4	23.0	Inc. frq. avg.	0.223	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC) 0.00 0.00

u: az 44.6 el 26.4 pa -65.9 y: az 44.6 el 26.5 pa -62.9 u,v (fr/asec) -194.880 -376.853 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/uy..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/uy.W.283.1X1KZS

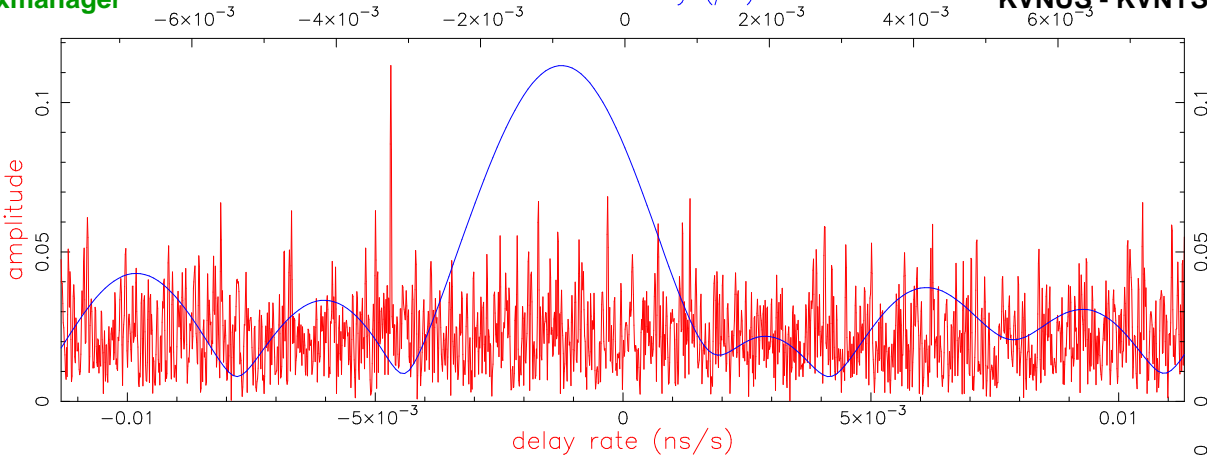
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X1KZS, No0113, uy

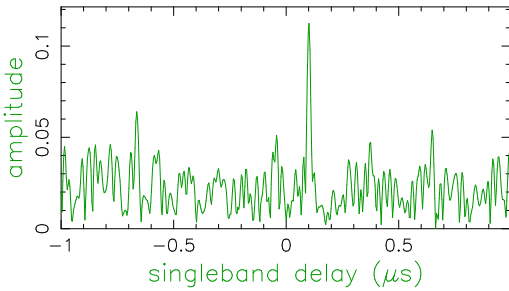
KVNU5 - KVNY5, fgroup W, pol RL

multiband delay (μ s)

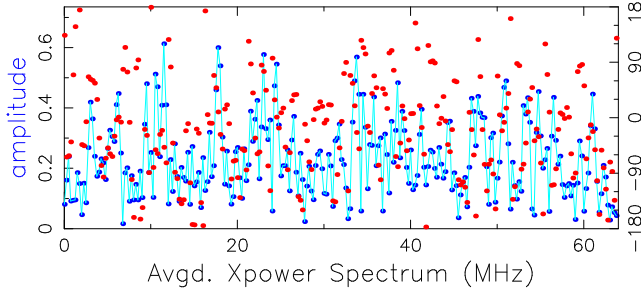


Fringe quality 0

SNR 6.3
Int time 418.901
Amp 0.121
Phase 71.0
PFD 6.5e-02
Delays (us)
SBD 0.100524
MBD -0.000877
Fringe rate (Hz)
-0.403859
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

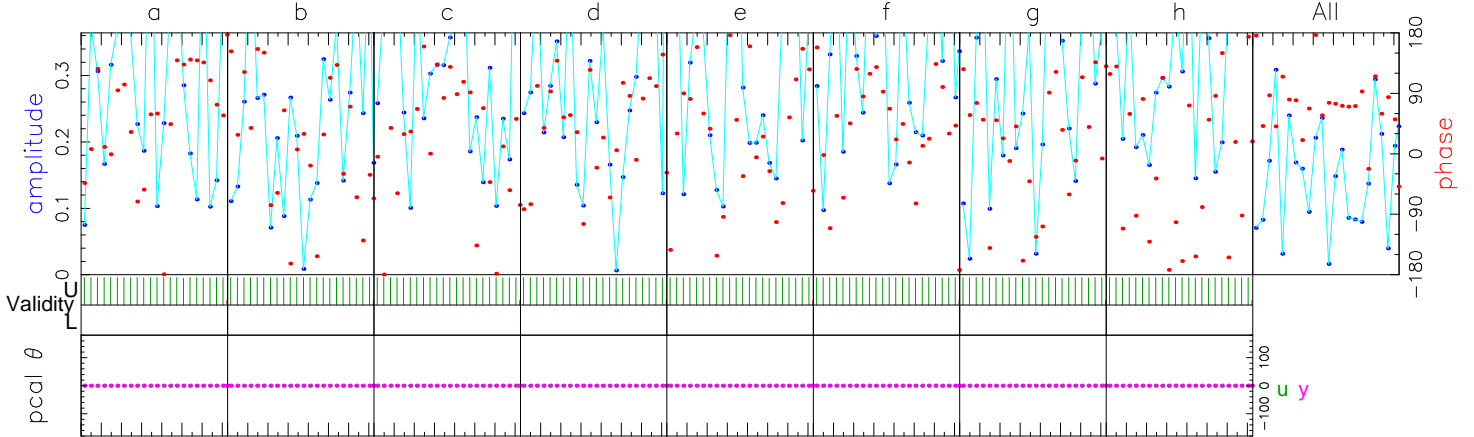


delay rate (ns/s)



Exp. c211c
Yr:day 16383
Yr:day 2021:116
Start 230000.00
Stop 230659.84
FRT 230330.00
Corr/FF/build
2021:303:205431
2021:304:133144
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		
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)	-2.46157449653E+01	Apriori delay (usec)	-2.47086184487E+01	Resid mbdelay (usec)	-8.76517E-04	+/-	1.7E-04
Sband delay (usec)	-2.46080944487E+01	Apriori clock (usec)	1.4054155E+01	Resid sbdelay (usec)	1.00524E-01	+/-	1.4E-03
Phase delay (usec)	-2.47086161602E+01	Apriori clockrate (us/s)	1.1270000E-06	Resid phdelay (usec)	2.28858E-06	+/-	5.8E-07
Delay rate (us/s)	2.10376600692E-02	Apriori rate (us/s)	2.10423484667E-02	Resid rate (us/s)	-4.68840E-06	+/-	2.4E-09
Total phase (deg)	-70.6	Apriori accel (us/s/s)	-2.27582863306E-06	Resid phase (deg)	71.0	+/-	18.1

ph/seg (deg)	44.2	Theor.	43.4	Amplitude	0.121 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	78.1	Search (2048X32)	0.104	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	38.9	Inc. seg. avg.	0.124	Inc. frq. avg.	0.117	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	45.7	Inc. frq. avg.	0.117			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

u: az 44.6 el 26.4 pa -65.9 y: az 44.6 el 26.5 pa -62.9 u,v (fr/asec) -194.880 -376.853 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0113/uy..1X1KZS Output file: /Exps/c211c/v1/1234/No0113/uy.W.300.1X1KZS