

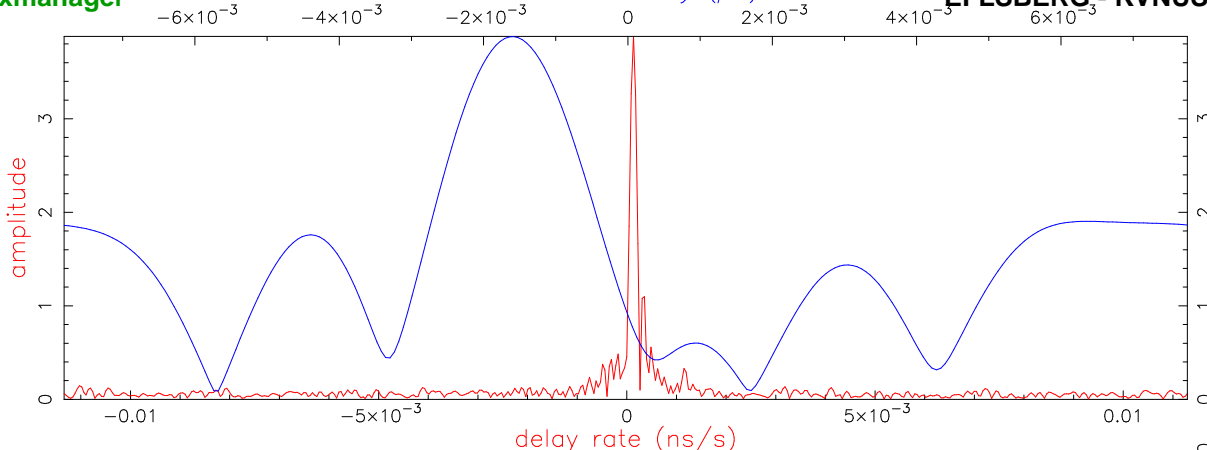
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, Bu

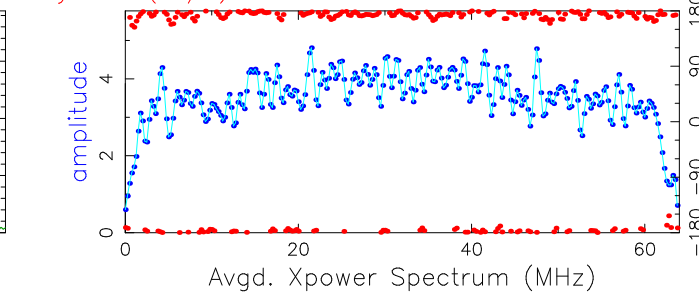
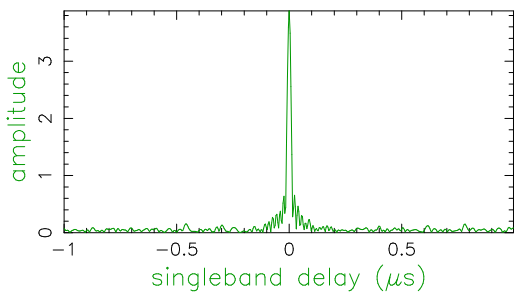
EFLSBERG₃- KVNUS, fgroup W, pol RR

multiband delay (μ s)



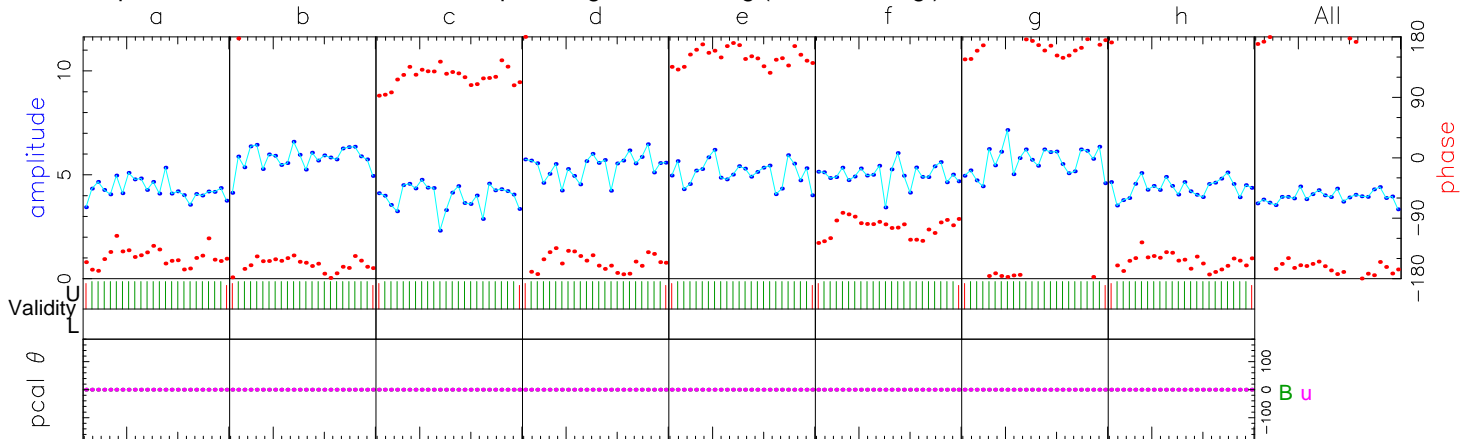
Fringe quality 6

SNR 98.0
 Int time 85.236
 Amp 3.881
 Phase -168.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.000304
 MBD -0.001608
 Fringe rate (Hz)
 0.011242
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:113957
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-147.1	-159.6	120.7	-156.1	150.2	-103.3	169.4	-155.0	Phase	-168.6
	4.2	5.7	3.9	5.3	5.0	4.9	5.5	4.3	Ampl.	4.8
	255.2	256.9	257.7	257.6	258.0	257.7	257.4	256.0	Sbd box	256.9
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.89956390675E+03		Apriori delay (usec)		-2.89956229851E+03		Resid mbdelay (usec)		-1.60824E-03	+/- 1.1E-05
Sband delay (usec)	-2.89956260201E+03		Apriori clock (usec)		-3.6760300E+01		Resid sbdelay (usec)		-3.03500E-04	+/- 8.8E-05
Phase delay (usec)	-2.89956230394E+03		Apriori clockrate (us/s)		-1.1270000E-06		Resid phdelay (usec)		-5.43555E-06	+/- 3.8E-08
Delay rate (us/s)	1.16425288722E+00		Apriori rate (us/s)		1.16425275671E+00		Resid rate (us/s)		1.30511E-07	+/- 7.6E-10
Total phase (deg)			Apriori accel (us/s/s)		3.19499353435E-05		Resid phase (deg)		-168.6	+/- 1.2

ph/seg (deg) 11.1 2.9 Search (512X32) 3.849 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 7.0 5.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.3 1.7 Inc. seg. avg. 3.948 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 29.4 2.9 Inc. frq. avg. 4.835 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 57.0 el 42.6 pa -58.1 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) -10550.339 4261.899 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/Bu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/Bu.W.10.1WZMQH

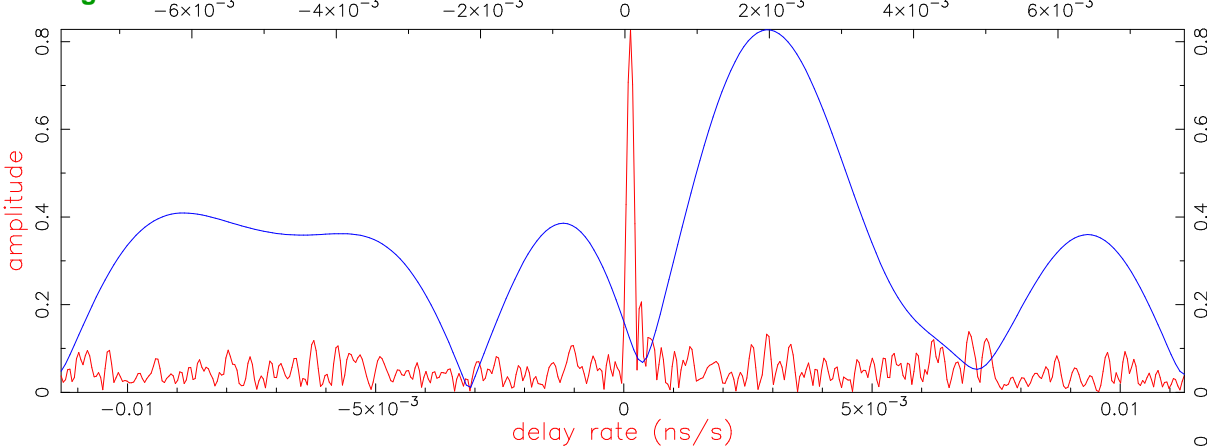
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, Bu

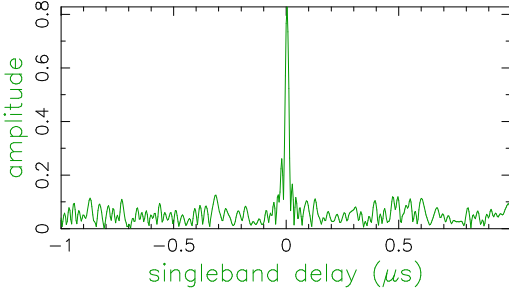
EFLSBERG - KVNUS, fgroup W, pol LR

multiband delay (μ s)

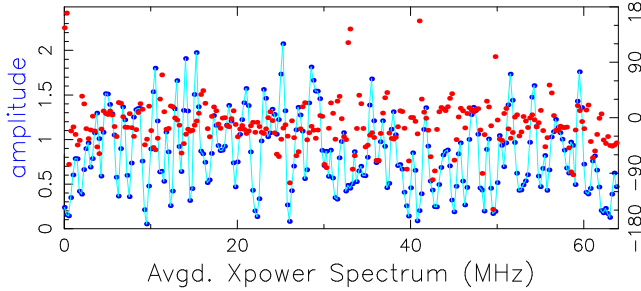


Fringe quality 8

SNR 20.9
 Int time 85.236
 Amp 0.828
 Phase 5.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.003487
 MBD 0.001968
 Fringe rate (Hz)
 0.011403
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

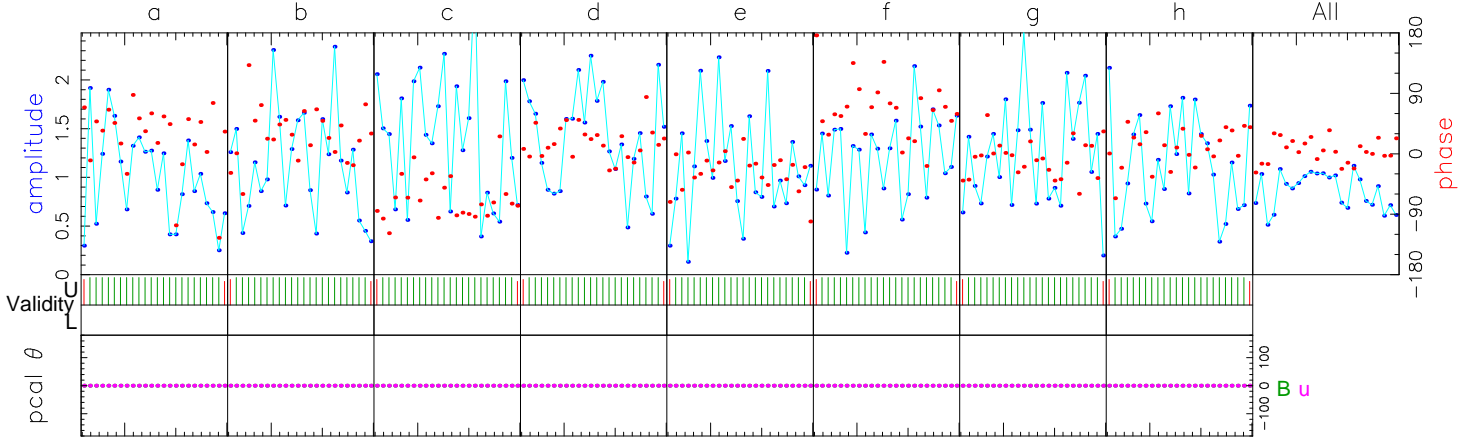


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:113959
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	37.1	24.3	-69.3	17.4	-28.7	66.1	-8.9	13.6		5.1
	0.8	1.0	1.2	1.3	1.0	1.0	1.1	1.0	Ampl.	1.0
	256.8	257.8	258.3	258.6	258.7	258.8	257.9	257.0	Sbd box	257.9
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	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)	-2.89956033071E+03		Apriori delay (usec)		-2.89956229851E+03		Resid mbdelay (usec)		1.96779E-03	+/- 5.2E-05
Sband delay (usec)	-2.89955881151E+03		Apriori clock (usec)		-3.6760300E+01		Resid sbdelay (usec)		3.48700E-03	+/- 4.1E-04
Phase delay (usec)	-2.89956229834E+03		Apriori clockrate (us/s)		-1.1270000E-06		Resid phdelay (usec)		1.64933E-07	+/- 1.8E-07
Delay rate (us/s)	1.16425288908E+00		Apriori rate (us/s)		1.16425275671E+00		Resid rate (us/s)		1.32376E-07	+/- 3.6E-09
Total phase (deg)			Apriori accel (us/s/s)		3.19499353435E-05		Resid phase (deg)		5.1	+/- 5.5

	RMS	Theor.	Amplitude	0.828 +/- 0.040	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	17.6	13.4	Search (512X32)	0.826	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	22.0	23.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	45.1	7.8	Inc. seg. avg.	0.844	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	32.5	13.5	Inc. frq. avg.	1.045	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

B: az 57.0 el 42.6 pa -58.1 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) -10550.339 4261.899 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/Bu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/Bu.W.15.1WZMQH

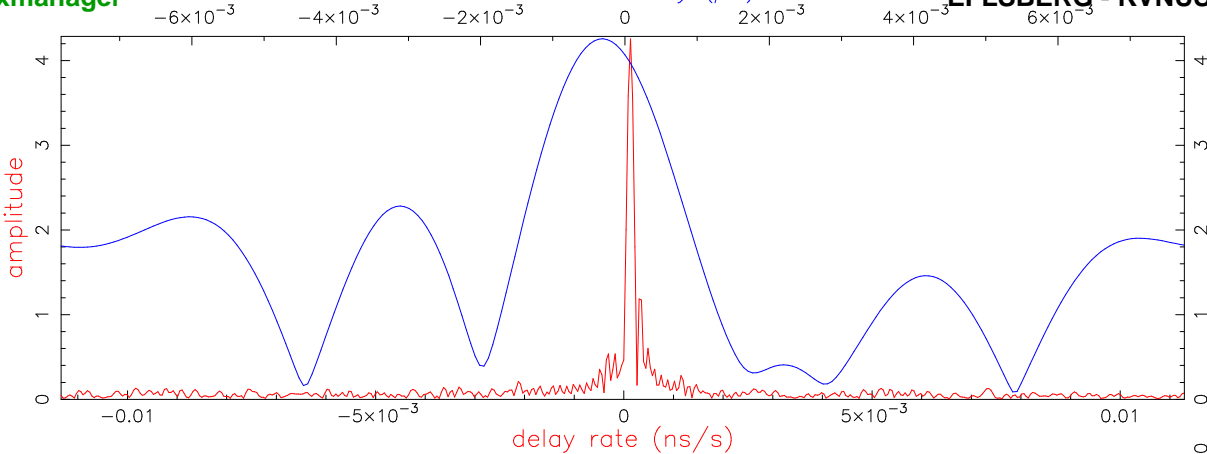
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, Bu

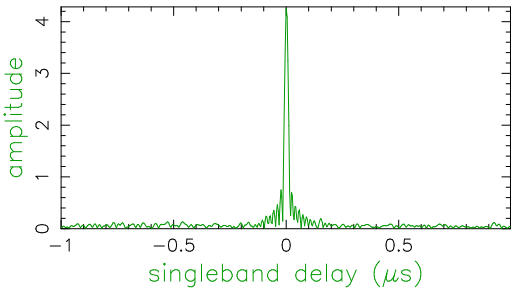
EFLSBERG - KVNUS, fgroup W, pol LL

multiband delay (μ s)

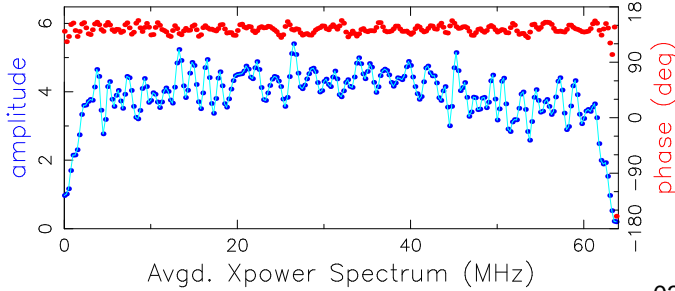


Fringe quality 6

SNR 108.2
 Int time 85.236
 Amp 4.285
 Phase 159.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.001089
 MBD -0.000285
 Fringe rate (Hz)
 0.011383
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

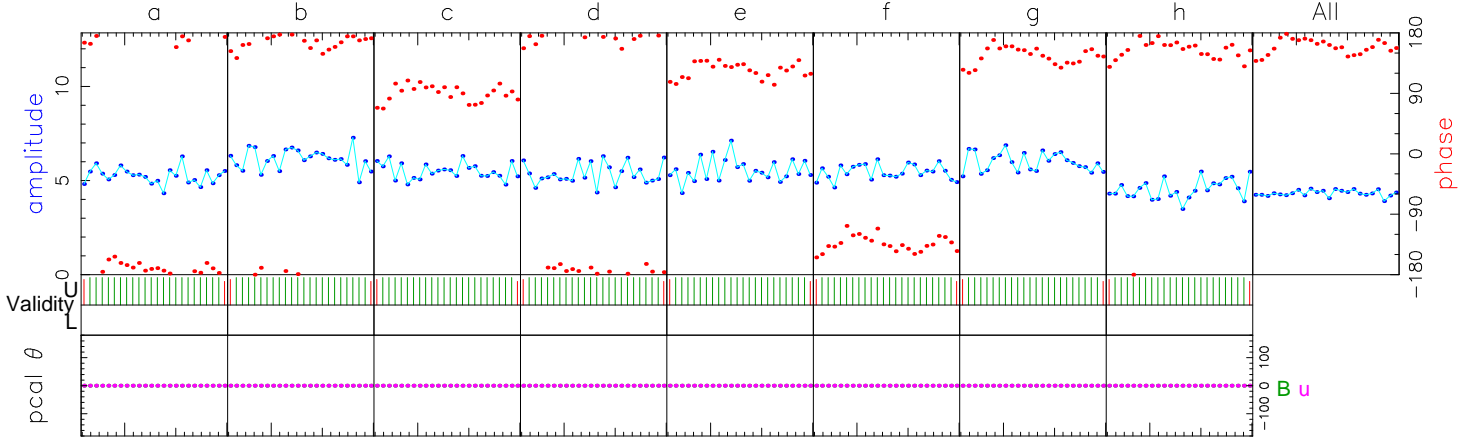


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:113956
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-175.5	168.5	89.7	179.5	124.2	-133.3	145.0	155.1	Phase	159.2
	5.1	6.0	5.4	5.3	5.5	5.3	5.8	4.4	Ampl.	5.4
	256.1	257.2	257.9	258.1	258.1	258.0	257.5	256.3	Sbd box	257.3
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	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	
									Tracks	
Group delay (usec)(sbd)	-2.89956258325E+03		Apriori delay (usec)		-2.89956229851E+03		Resid mbdelay (usec)		-2.84740E-04	+/- 1.0E-05
Sband delay (usec)	-2.89956120951E+03		Apriori clock (usec)		-3.6760300E+01		Resid sbdelay (usec)		1.08900E-03	+/- 8.0E-05
Phase delay (usec)	-2.89956229337E+03		Apriori clockrate (us/s)		-1.1270000E-06		Resid phdelay (usec)		5.13448E-06	+/- 3.4E-08
Delay rate (us/s)	1.16425288885E+00		Apriori rate (us/s)		1.16425275671E+00		Resid rate (us/s)		1.32140E-07	+/- 6.9E-10
Total phase (deg)			Apriori accel (us/s/s)		3.19499353435E-05		Resid phase (deg)		159.2	+/- 1.1

RMS Theor. Amplitude 4.285 +/- 0.040 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 10.8 2.6 Search (512X32) 4.181 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 3.9 4.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 44.7 1.5 Inc. seg. avg. 4.327 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 27.3 2.6 Inc. frq. avg. 5.364 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 57.0 el 42.6 pa -58.1 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) -10550.339 4261.899 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/Bu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/Bu.W.2.1WZMQH

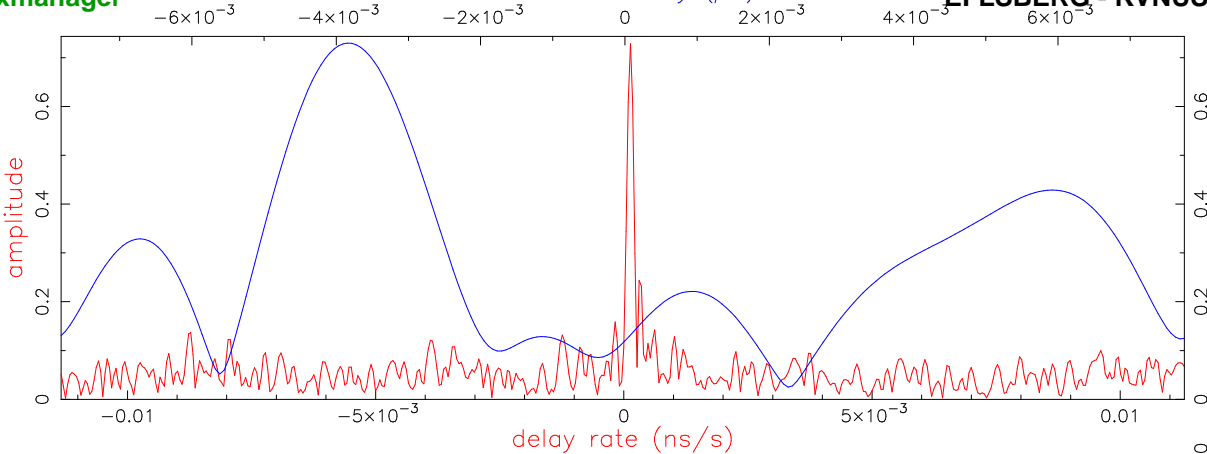
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, Bu

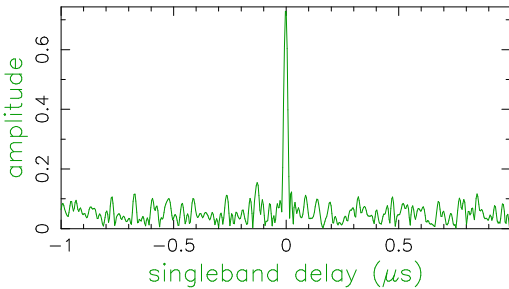
EFLSBERG - KVNUS, fgroup W, pol RL

multiband delay (μ s)

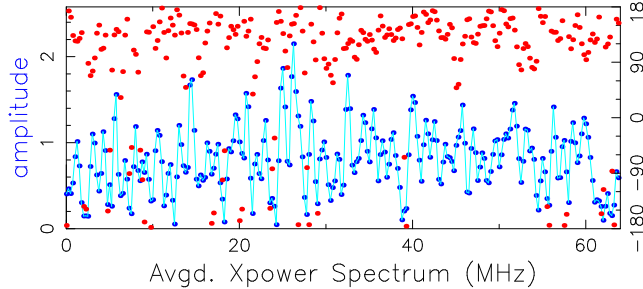


Fringe quality 8

SNR 18.8
 Int time 85.236
 Amp 0.744
 Phase 158.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.002014
 MBD -0.003766
 Fringe rate (Hz)
 0.011079
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

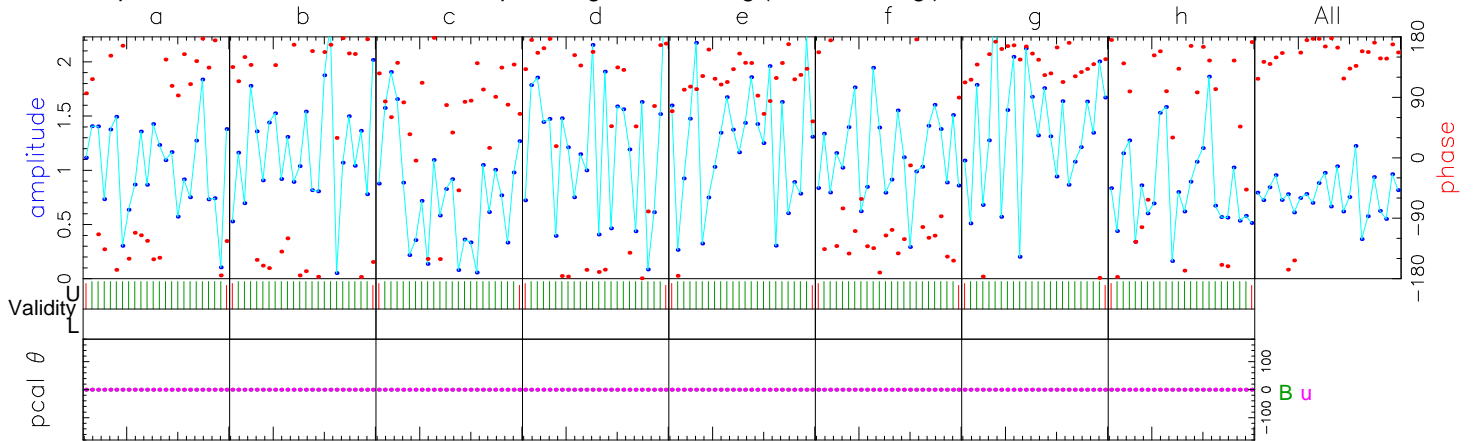


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114000
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	178.9	174.1	96.2	164.5	114.6	-130.7	149.1	148.0	Phase	158.0
	0.7	1.0	0.5	1.0	1.1	0.9	1.3	0.6	Ampl.	0.9
	254.4	256.1	257.6	257.1	257.3	256.9	256.7	254.5	Sbd box	256.5
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	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	Manl 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)	-2.89956606500E+03		Apriori delay (usec)		-2.89956229851E+03		Resid mbdelay (usec)		-3.76649E-03	+/- 5.8E-05
Sband delay (usec)	-2.89956431226E+03		Apriori clock (usec)		-3.6760300E+01		Resid sbdelay (usec)		-2.01375E-03	+/- 4.6E-04
Phase delay (usec)	-2.89956229341E+03		Apriori clockrate (us/s)		-1.1270000E-06		Resid phdelay (usec)		5.09584E-06	+/- 2.0E-07
Delay rate (us/s)	1.16425288532E+00		Apriori rate (us/s)		1.16425275671E+00		Resid rate (us/s)		1.28615E-07	+/- 4.0E-09
Total phase (deg)	16.4		Apriori accel (us/s/s)		3.19499353435E-05		Resid phase (deg)		158.0	+/- 6.1

	RMS	Theor.	Amplitude	0.744 +/- 0.040	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	21.1	15.0	Search (512X32)	0.726	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	24.7	26.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	44.2	8.6	Inc. seg. avg.	0.751	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	39.8	15.1	Inc. frq. avg.	0.885	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

B: az 57.0 el 42.6 pa -58.1 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) -10550.339 4261.899 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/Bu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/Bu.W.25.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

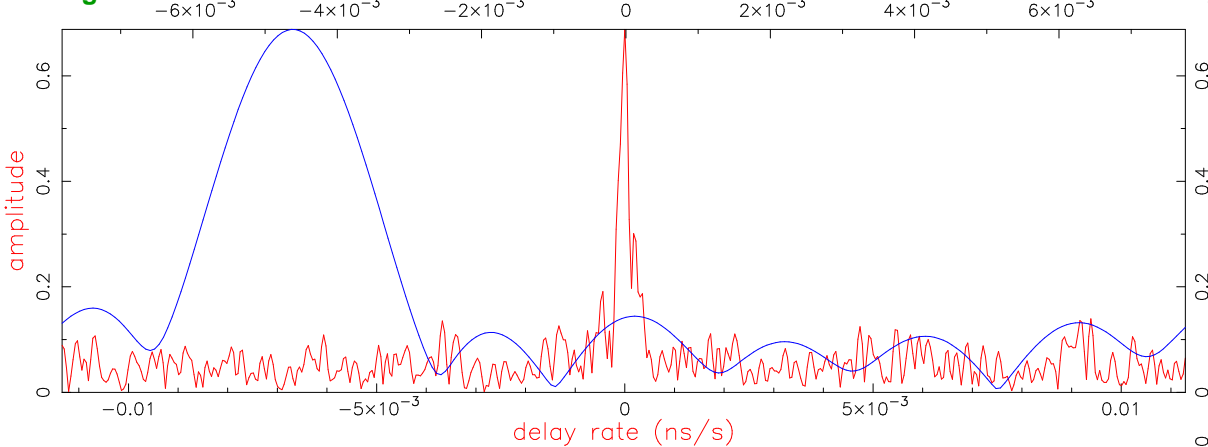
fxmanager

NRAO150.1WZMQH, No0029, gu

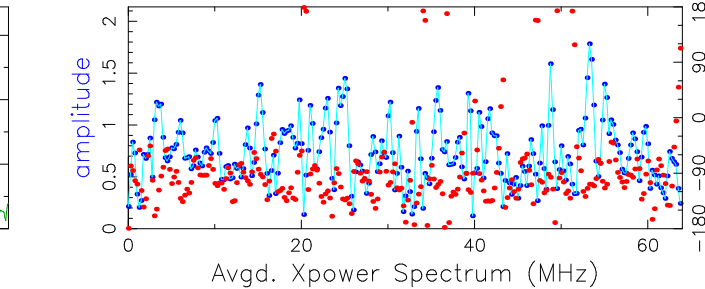
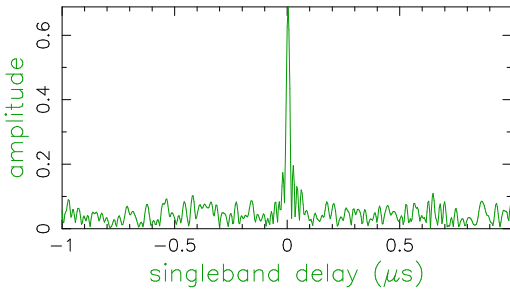
GLT - KVNUS, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

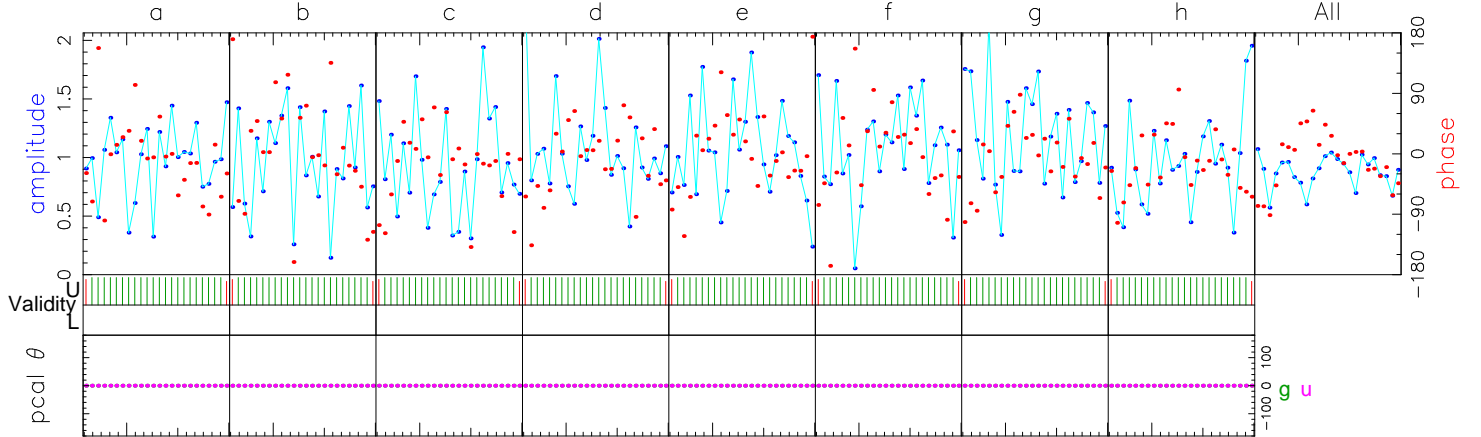


SNR 17.4
 Int time 85.236
 Amp 0.688
 Phase -8.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.003789
 MBD -0.004616
 Fringe rate (Hz) 0.000335
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:113958
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-15.9	4.7	-10.7	-11.3	-4.2	0.2	-4.5	-18.1	Phase	-8.0
	0.7	0.5	0.6	0.7	0.8	0.7	0.9	0.7	Ampl.	0.7
	258.1	257.7	257.7	257.7	258.1	257.9	258.2	258.3	Sbd box	258.0
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.13337612368E+03		Apriori delay (usec)		-4.13338713268E+03		Resid mbdelay (usec)		-4.61600E-03	+/- 6.2E-05
Sband delay (usec)	-4.13338334343E+03		Apriori clock (usec)		-1.4260881E+01		Resid sbdelay (usec)		3.78925E-03	+/- 5.0E-04
Phase delay (usec)	-4.13338713294E+03		Apriori clockrate (us/s)		-1.0549999E-06		Resid phdelay (usec)		-2.56470E-07	+/- 2.1E-07
Delay rate (us/s)	6.57885893947E-01		Apriori rate (us/s)		6.57885890055E-01		Resid rate (us/s)		3.89140E-09	+/- 4.3E-09
Total phase (deg)			Apriori accel (us/s/s)		5.62879697318E-05		Resid phase (deg)		-8.0	+/- 6.6

ph/seg (deg) 41.0 16.2 Theor. Amplitude 0.688 +/- 0.040 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 33.5 28.2 Search (512X32) 0.673 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 8.6 9.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 16.2 16.3 Inc. seg. avg. 0.843 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 20.3 el 38.6 pa -7.6 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) -5903.201 7703.851 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/gu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/gu.W.12.1WZMQH

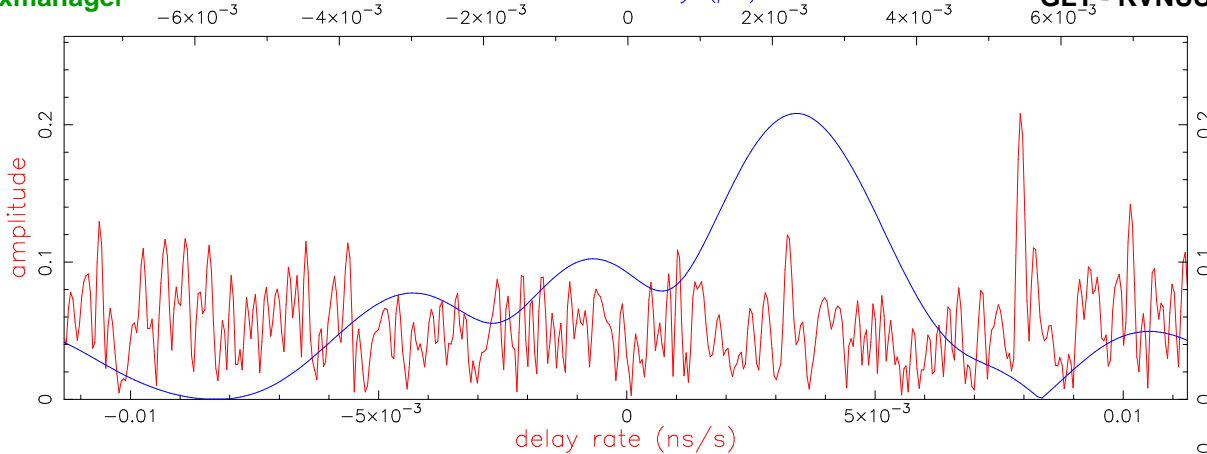
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, gu

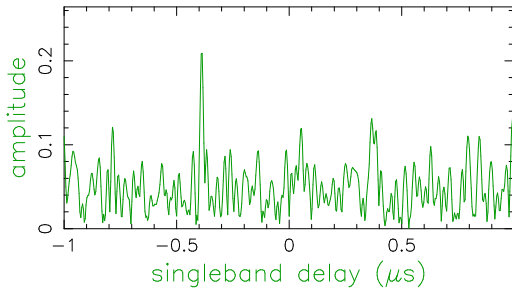
GLT - KVNUS, fgroup W, pol LR

multiband delay (μ s)

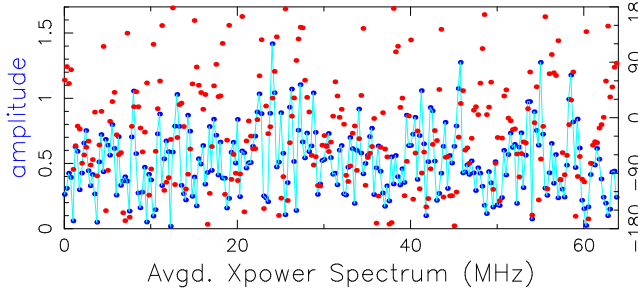


Fringe quality 0

SNR 5.4
 Int time 85.236
 Amp 0.264
 Phase 145.0
 PFD 9.8e-01
 Delays (us)
 SBD -0.388606
 MBD 0.002368
 Fringe rate (Hz)
 0.685561
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

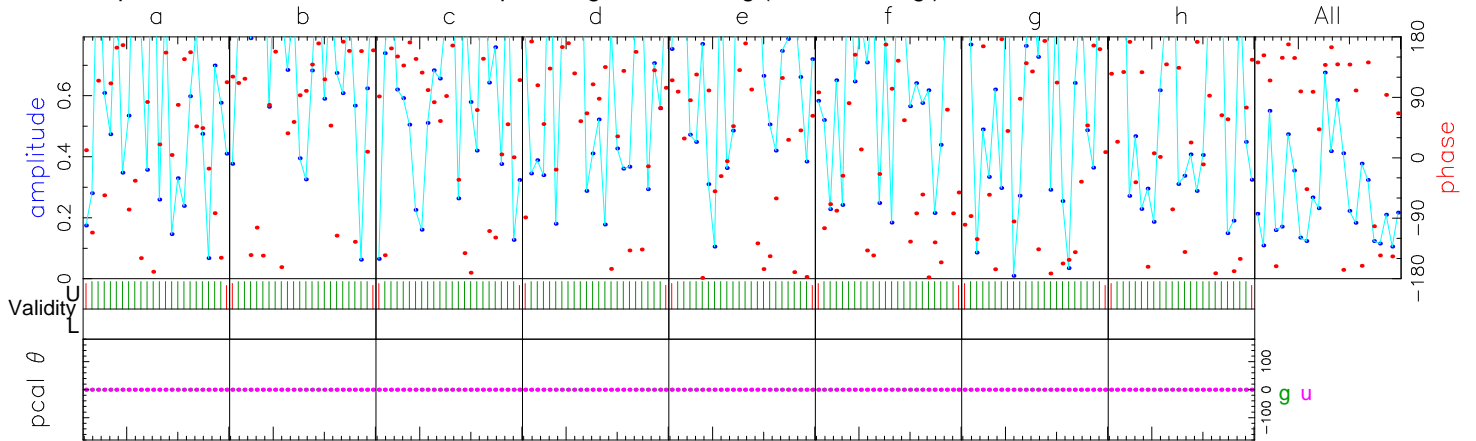


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:113959
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0				
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)	-4.13377538978E+03					-4.13338713268E+03			2.36791E-03	+/- 2.0E-04		
Sband delay (usec)	-4.13377573893E+03					-1.4260881E+01			-3.88606E-01	+/- 1.6E-03		
Phase delay (usec)	-4.13338712801E+03					-1.0549999E-06			4.67448E-06	+/- 6.8E-07		
Delay rate (us/s)	6.57893848745E-01					6.57885890055E-01			7.95869E-06	+/- 1.4E-08		
Total phase (deg)			-74.4			5.62879697318E-05			145.0	+/- 21.2		
	RMS	Theor.	Amplitude	0.264 +/- 0.049		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	60.0	52.0	Search (512X32)	0.207		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	82.2	90.7	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	44.6	30.0	Inc. seg. avg.	0.247		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011	0.011	
amp/frq (%)	41.0	52.4	Inc. frq. avg.	0.255		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
g: az 20.3 el 38.6 pa -7.6			u: az 310.3 el 55.4 pa 98.7			u,v (fr/asec) -5903.201 7703.851						simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c211c/v1/1234/No0029/gu..1WZMQH			Output file: /Exps/c211c/v1/1234/No0029/gu.W.17.1WZMQH						

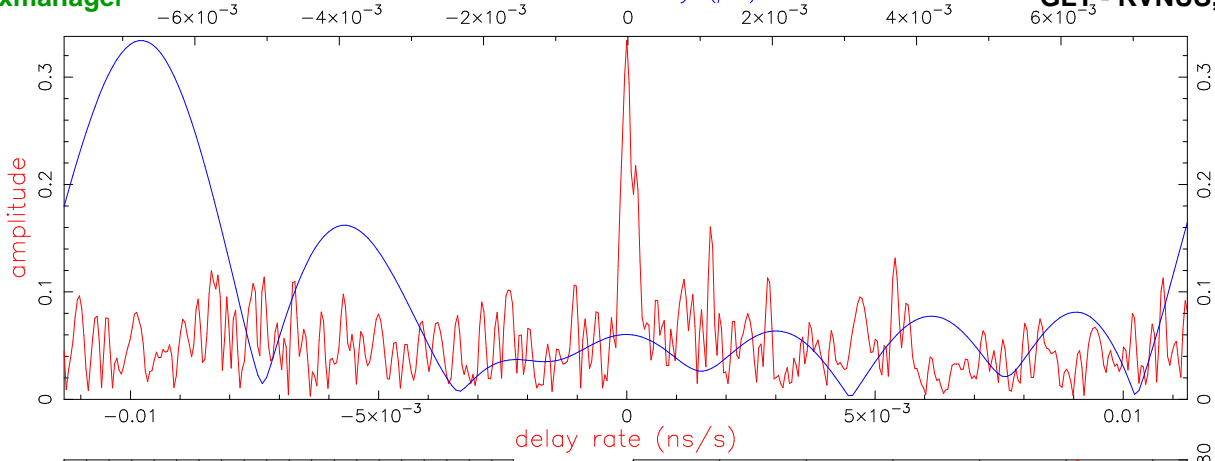
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

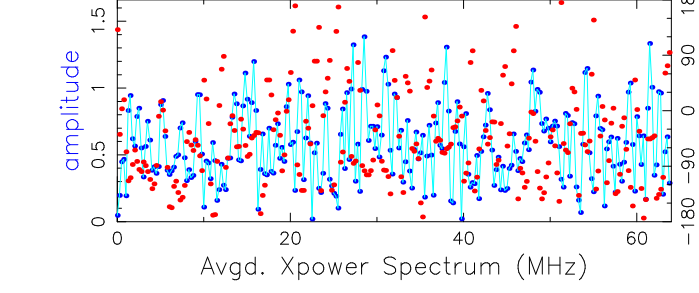
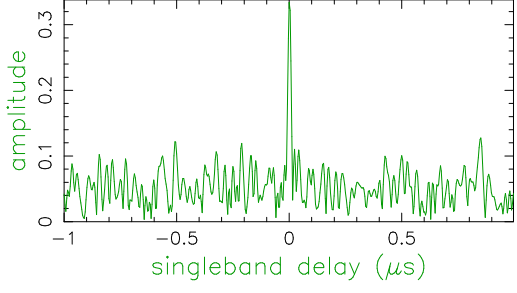
NRAO150.1WZMQH, No0029, gu

GLT - KVNUS, fgroup W, pol RL

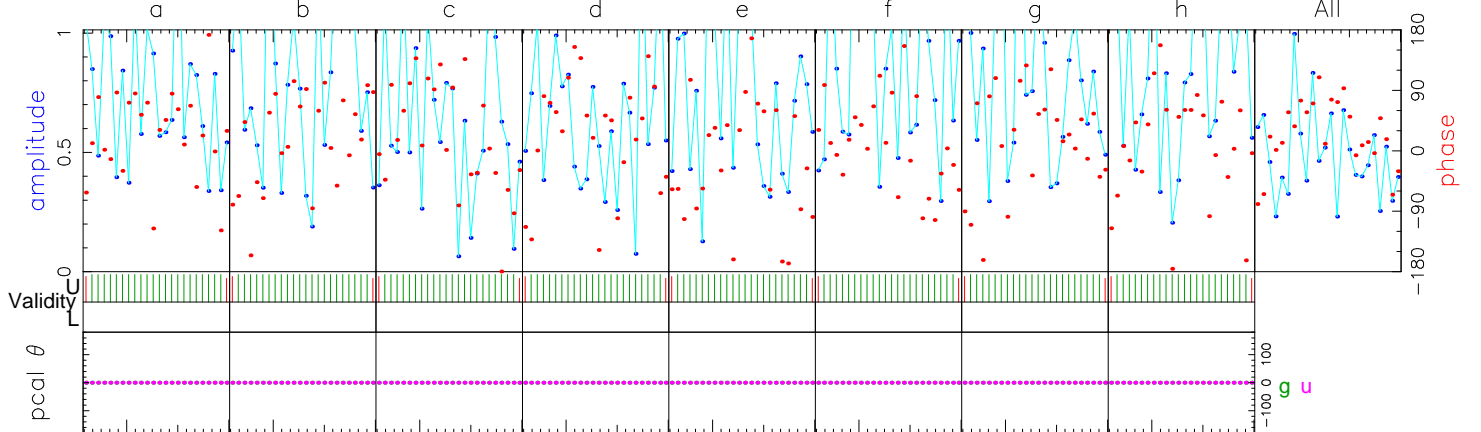
multiband delay (μ s)



Fringe quality 9
 SNR 8.5
 Int time 85.236
 Amp 0.338
 Phase 30.9
 PFD 1.3e-09
 Delays (us)
 SBD 0.001281
 MBD -0.006723
 Fringe rate (Hz) -0.000134
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114000
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	28.6	34.1	47.7	44.0	10.9	11.0	41.1	35.5	Phase	30.9
	0.4	0.4	0.3	0.3	0.2	0.4	0.4	0.4	Ampl.	0.3
	315.7	256.9	417.0	69.8	103.8	257.6	258.0	302.3	Sbd box	257.3
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	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)	-4.13337823065E+03		Apriori delay (usec)		-4.13338713268E+03		Resid mbdelay (usec)		-6.72297E-03	+/- 1.3E-04
Sband delay (usec)	-4.13338585118E+03		Apriori clock (usec)		-1.4260881E+01		Resid sbdelay (usec)		1.28150E-03	+/- 1.0E-03
Phase delay (usec)	-4.13338713169E+03		Apriori clockrate (us/s)		-1.0549999E-06		Resid phdelay (usec)		9.97629E-07	+/- 4.3E-07
Delay rate (us/s)	6.57885888505E-01		Apriori rate (us/s)		6.57885890055E-01		Resid rate (us/s)		-1.55032E-09	+/- 8.8E-09
Total phase (deg)			Apriori accel (us/s/s)		5.62879697318E-05		Resid phase (deg)		30.9	+/- 13.4

ph/seg (deg) 49.2 32.9 Search (512X32) 0.333 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 71.0 57.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 15.2 19.0 Inc. seg. avg. 0.423 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 23.8 33.2 Inc. frq. avg. 0.324 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 20.3 el 38.6 pa -7.6 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) -5903.201 7703.851 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/gu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/gu.W.30.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

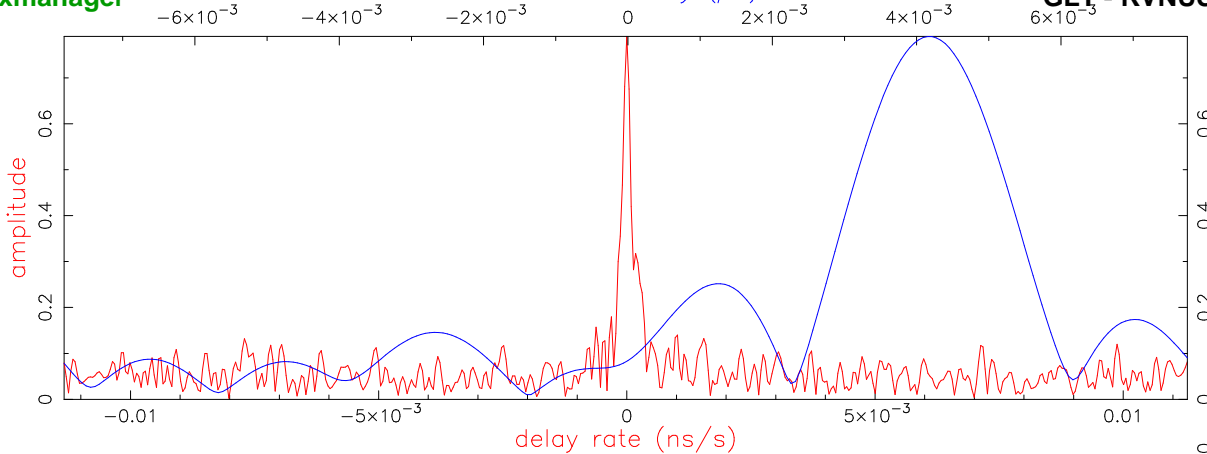
fxmanager

NRAO150.1WZMQH, No0029, gu

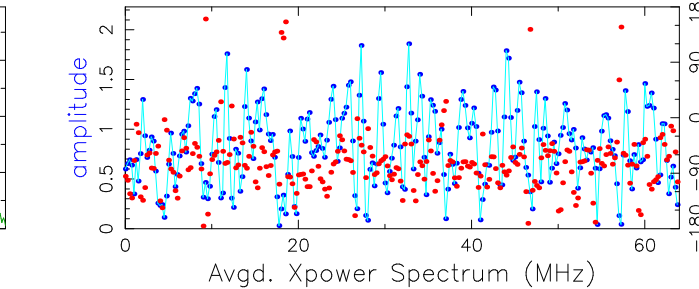
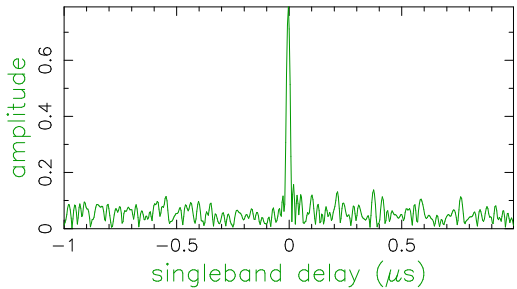
GLT - KVNUS, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 9

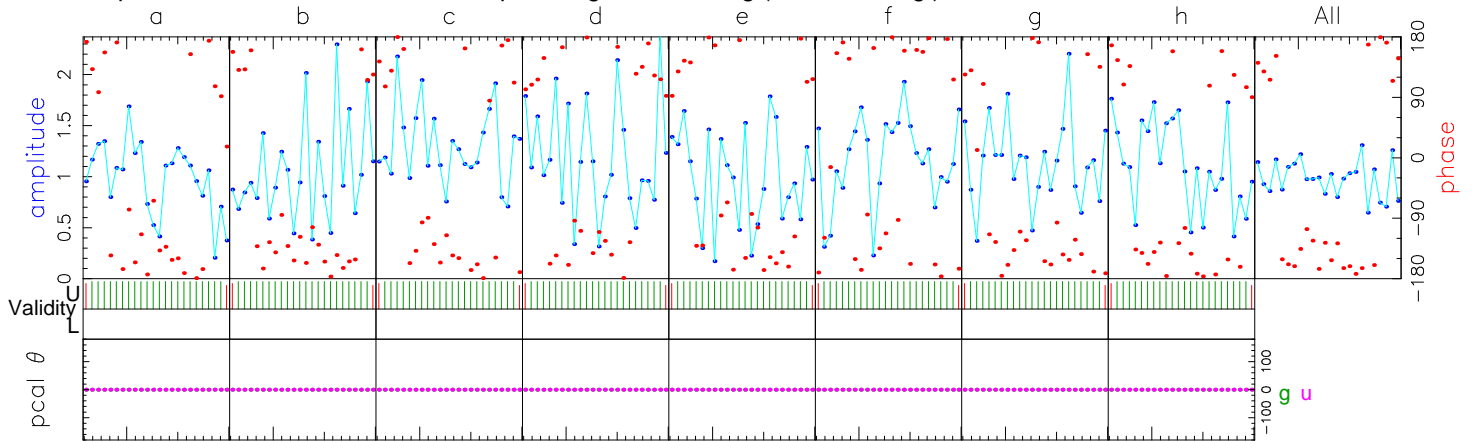


SNR 19.9
 Int time 85.236
 Amp 0.790
 Phase -171.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.004098
 MBD 0.004175
 Fringe rate (Hz) 0.000603
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:113957
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

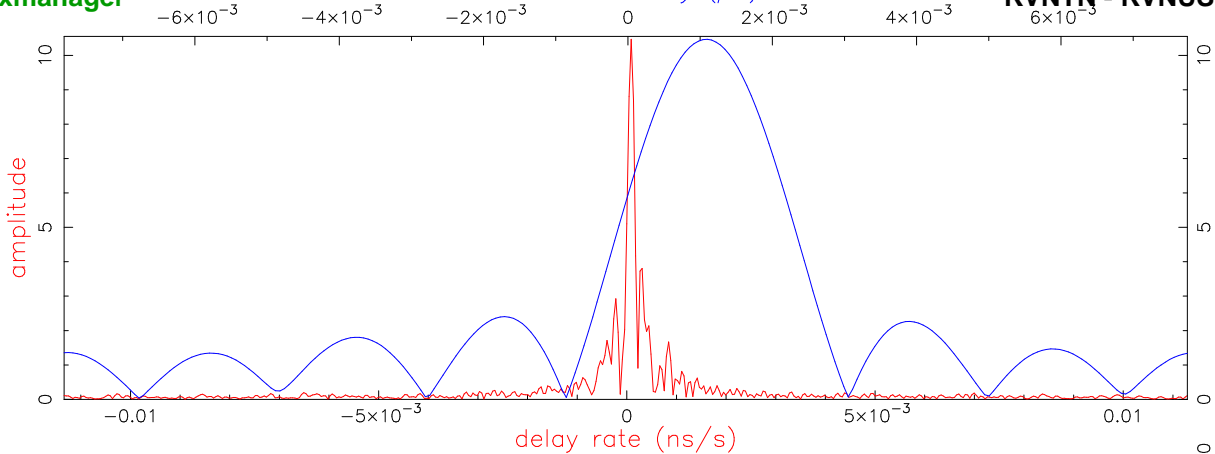
Group delay (usec)(sbd)	-4.13339858225E+03	Apriori delay (usec)	-4.13338713268E+03	Resid mbdelay (usec)	4.17544E-03	+/-	5.4E-05
Sband delay (usec)	-4.13339123043E+03	Apriori clock (usec)	-1.4260881E+01	Resid sbdelay (usec)	-4.09775E-03	+/-	4.3E-04
Phase delay (usec)	-4.13338713821E+03	Apriori clockrate (us/s)	-1.0549999E-06	Resid phdelay (usec)	-5.52464E-06	+/-	1.9E-07
Delay rate (us/s)	6.57885897056E-01	Apriori rate (us/s)	6.57885890055E-01	Resid rate (us/s)	7.00055E-09	+/-	3.8E-09
Total phase (deg)	-30.7	Apriori accel (us/s/s)	5.62879697318E-05	Resid phase (deg)	-171.3	+/-	5.7

ph/seg (deg)	37.4	Theor.	14.1	Amplitude	0.790 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	32.9		24.6	Search (512X32)	0.772	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	10.6		8.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	12.4		14.2	Inc. seg. avg.	0.955	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.792	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

g: az 20.3 el 38.6 pa -7.6 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) -5903.201 7703.851 simultaneous interpolator

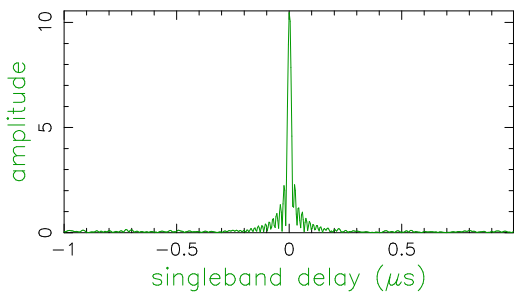
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/gu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/gu.W.7.1WZMQH

multiband delay (μ s)

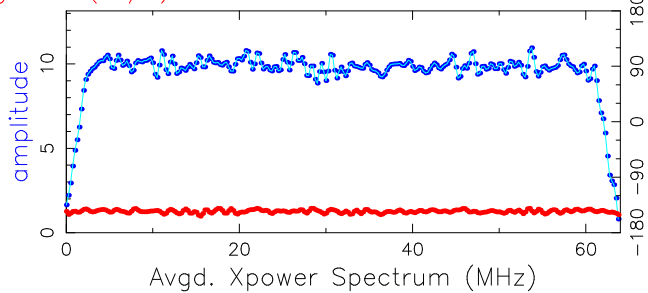


Fringe quality 7

SNR 266.4
Int time 85.236
Amp 10.552
Phase -144.9
PFD 0.0e+00
Delays (us)
SBD 0.001139
MBD 0.001087
Fringe rate (Hz)
0.007388
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

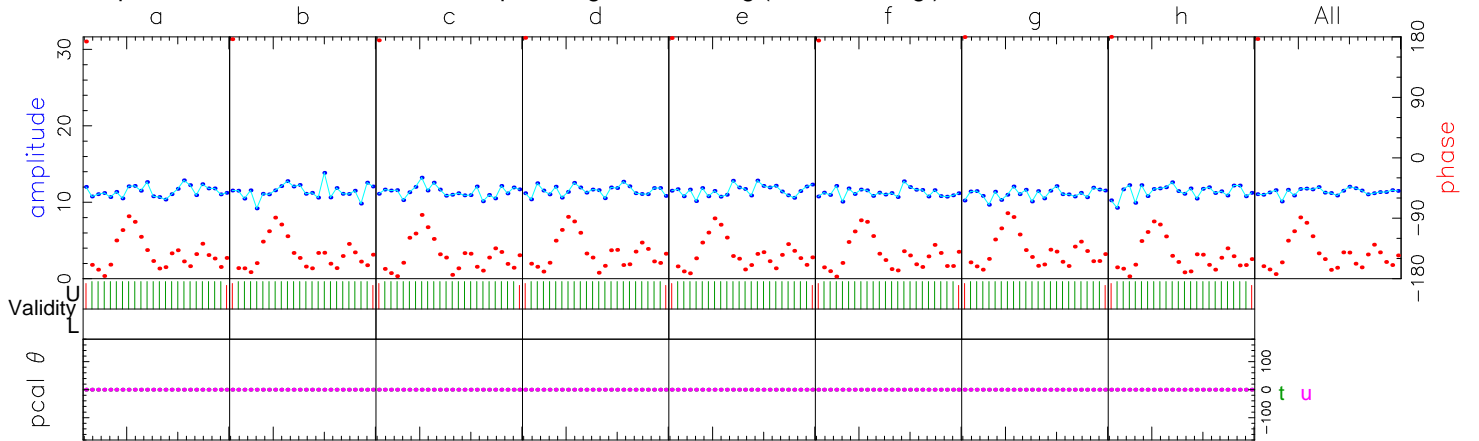


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 080534.34
Stop 080659.84
FRT 080330.00
Corr/FF/build
2021:302:193655
2021:303:114005
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	3.43548629021E+01		Apriori delay (usec)		3.43537757184E+01		Resid mbdelay (usec)		1.08718E-03	+/- 4.1E-06
Sband delay (usec)	3.43549147184E+01		Apriori clock (usec)		-1.4962090E+01		Resid sbdelay (usec)		1.13900E-03	+/- 3.2E-05
Phase delay (usec)	3.43537710469E+01		Apriori clockrate (us/s)		-1.1770000E-02		Resid phdelay (usec)		-4.67151E-06	+/- 1.4E-08
Delay rate (us/s)	1.38998257826E-02		Apriori rate (us/s)		1.38997400103E-02		Resid rate (us/s)		8.57723E-08	+/- 2.8E-10
Total phase (deg)			Apriori accel (us/s/s)		-3.10747975087E-06		Resid phase (deg)		-144.9	+/- 0.4

	RMS	Theor.	Amplitude	10.552 +/- 0.040	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	23.3	1.1	Search (512X32)	10.390	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	8.8	1.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	2.4	0.6	Inc. seg. avg.	11.378	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	1.6	1.1	Inc. frq. avg.	10.474	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

t: az 313.4 el 55.6 pa 105.4 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) -131.175 -481.265 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/tu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/tu.W.57.1WZMQH

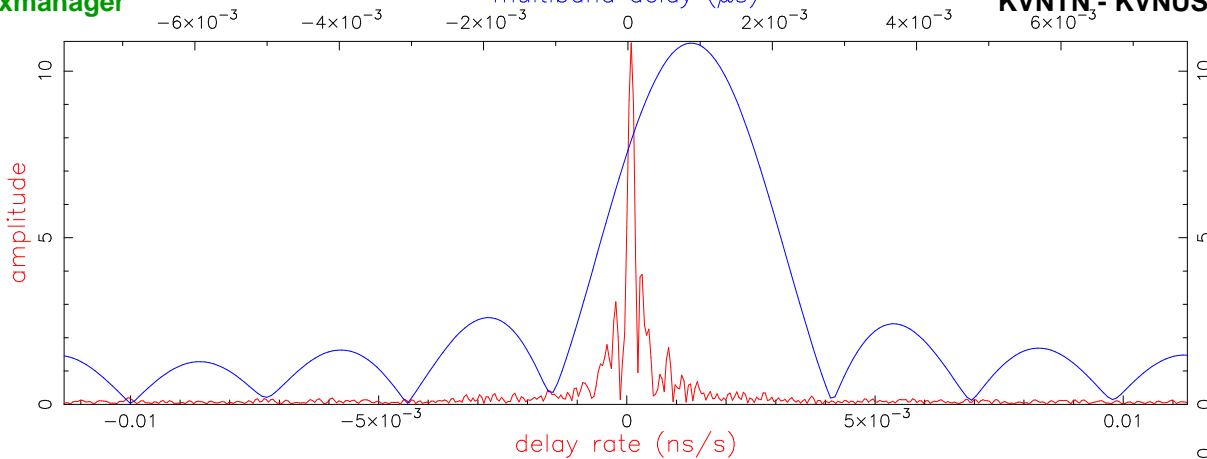
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, tu

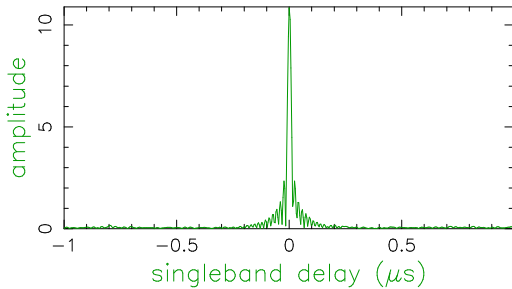
KVNTN- KVNUS, fgroup W, pol RR

multiband delay (μ s)

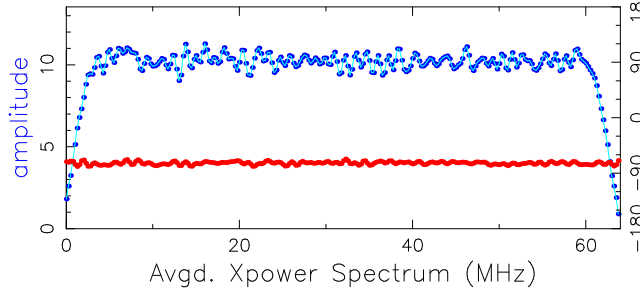


Fringe quality 7

SNR 275.0
 Int time 85.236
 Amp 10.893
 Phase -74.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.000845
 MBD 0.000878
 Fringe rate (Hz)
 0.007380
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

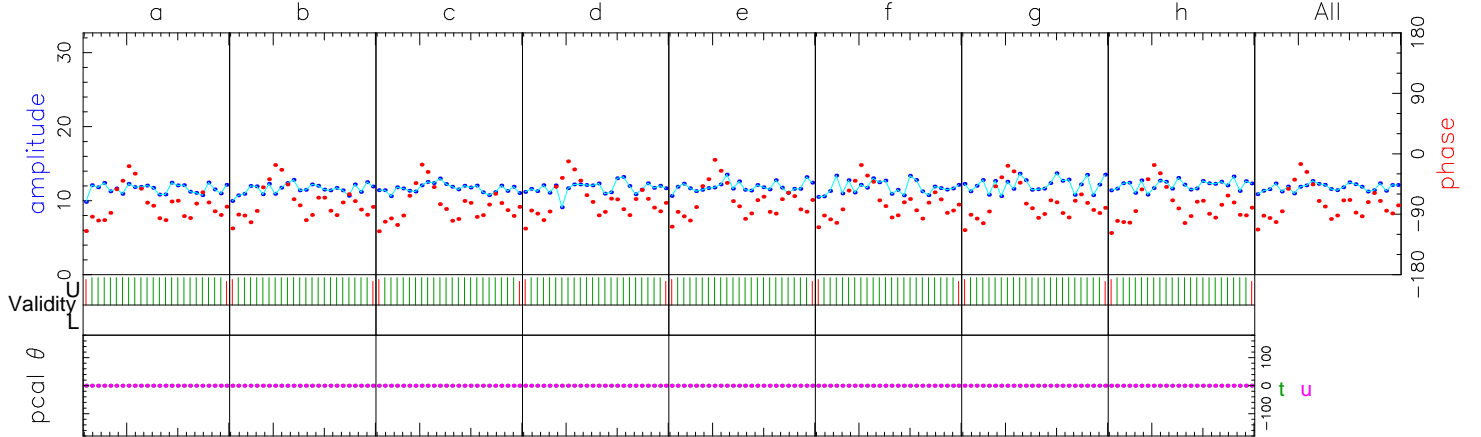


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114006
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-75.8	-73.1	-77.5	-70.4	-71.0	-73.6	-74.5	-76.9	Phase	-74.1
	10.7	10.7	10.7	10.8	10.9	10.9	11.1	11.1	Ampl.	10.9
	257.2	257.2	257.1	257.3	257.2	257.3	257.2	257.1	Sbd box	257.2
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	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	PC amp	
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)	3.43546538396E+01		Apriori delay (usec)		3.43537757184E+01		Resid mbdelay (usec)		8.78121E-04	+/- 3.9E-06
Sband delay (usec)	3.43546209684E+01		Apriori clock (usec)		-1.4962090E+01		Resid sbdelay (usec)		8.45250E-04	+/- 3.1E-05
Phase delay (usec)	3.43537733285E+01		Apriori clockrate (us/s)		-1.1770000E-06		Resid phdelay (usec)		-2.38991E-06	+/- 1.3E-08
Delay rate (us/s)	1.38998256806E-02		Apriori rate (us/s)		1.38997400103E-02		Resid rate (us/s)		8.56703E-08	+/- 2.7E-10
Total phase (deg)			Apriori accel (us/s/s)		-3.10747975087E-06		Resid phase (deg)		-74.1	+/- 0.4

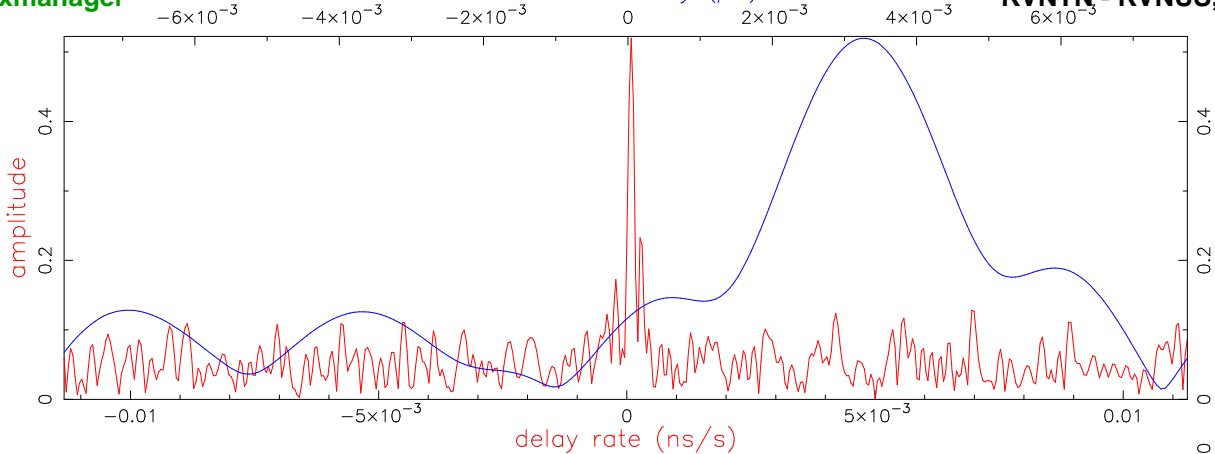
	RMS	Theor.	Amplitude	10.893 +/- 0.040	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	23.7	1.0	Search (512X32)	10.793	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	9.5	1.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	2.8	0.6	Inc. seg. avg.	11.805	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	1.6	1.0	Inc. frq. avg.	10.854	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

t: az 313.4 el 55.6 pa 105.4 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) -131.175 -481.265 simultaneous interpolator

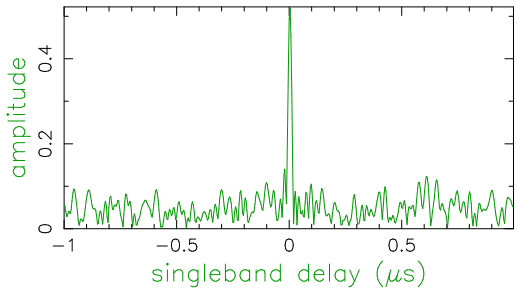
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/tu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/tu.W.62.1WZMQH

multiband delay (μ s)

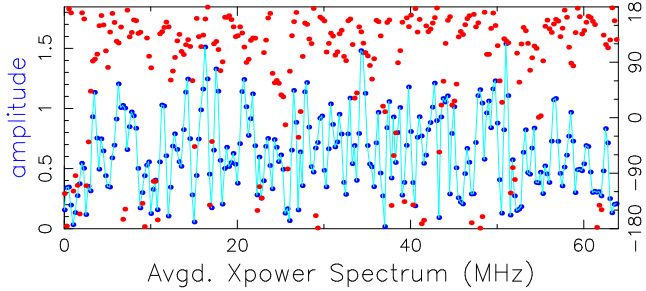
Fringe quality 9



SNR 13.2
Int time 85.236
Amp 0.522
Phase 134.0
PFD 1.4e-31
Delays (us)
SBD 0.002997
MBD 0.003261
Fringe rate (Hz)
0.007267
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

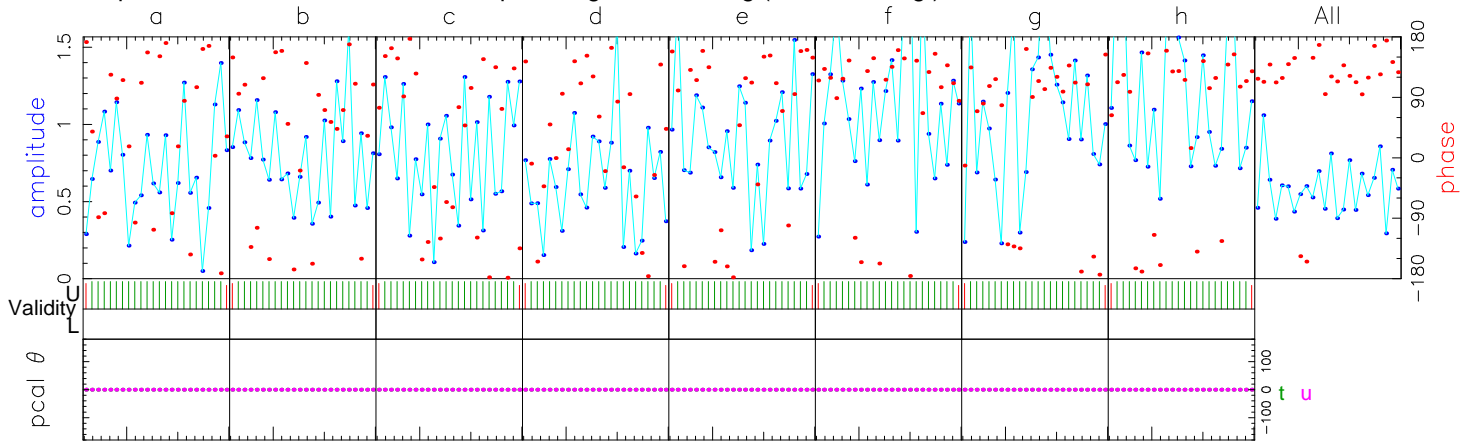


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 080534.34
Stop 080659.84
FRT 080330.00
Corr/FF/build
2021:302:193655
2021:303:114007
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	132.3	127.7	164.5	98.8	134.9	133.8	130.6	138.4	Phase	134.0
	0.2	0.4	0.4	0.3	0.6	0.9	0.7	0.9	Ampl.	0.5
	126.3	412.1	128.5	93.6	258.2	257.9	258.0	257.2	Sbd box	257.8
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	3.43570363083E+01	Apriori delay (usec)	3.43537757184E+01	Resid mbdelay (usec)	3.26059E-03	+/-	8.2E-05
Sband delay (usec)	3.43567729684E+01	Apriori clock (usec)	-1.4962090E+01	Resid sbdelay (usec)	2.99725E-03	+/-	6.5E-04
Phase delay (usec)	3.43537800410E+01	Apriori clockrate (us/s)	-1.1770000E-02	Resid phdelay (usec)	4.32259E-06	+/-	2.8E-07
Delay rate (us/s)	1.38998243684E-02	Apriori rate (us/s)	1.38997400103E-02	Resid rate (us/s)	8.43580E-08	+/-	5.7E-09
Total phase (deg)	220.6	Apriori accel (us/s/s)	-3.10747975087E-06	Resid phase (deg)	134.0	+/-	8.7

ph/seg (deg)	RMS 30.3	Theor. 21.3	Amplitude 0.522 +/- 0.040	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	35.2	37.1	Search (512X32)	0.515	Pcal rate: 0.000E+00, 0.000E+00 (us/s)
ph/frq (deg)	19.4	12.3	Interp. 0.000	0.000	Bits/sample: 2x2
amp/frq (%)	50.6	21.4	Inc. seg. avg. 0.554	0.521	SampCntNorm: enabled
			Inc. frq. avg. 0.521	0.521	Sample rate(MISamp/s): 128
					Data rate(Mb/s): 2048
					nlags: 256 t_cohere infinite
					ion window (TEC) 0.00 0.00

t: az 313.4 el 55.6 pa 105.4 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) -131.175 -481.265 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/tu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/tu.W.67.1WZMQH

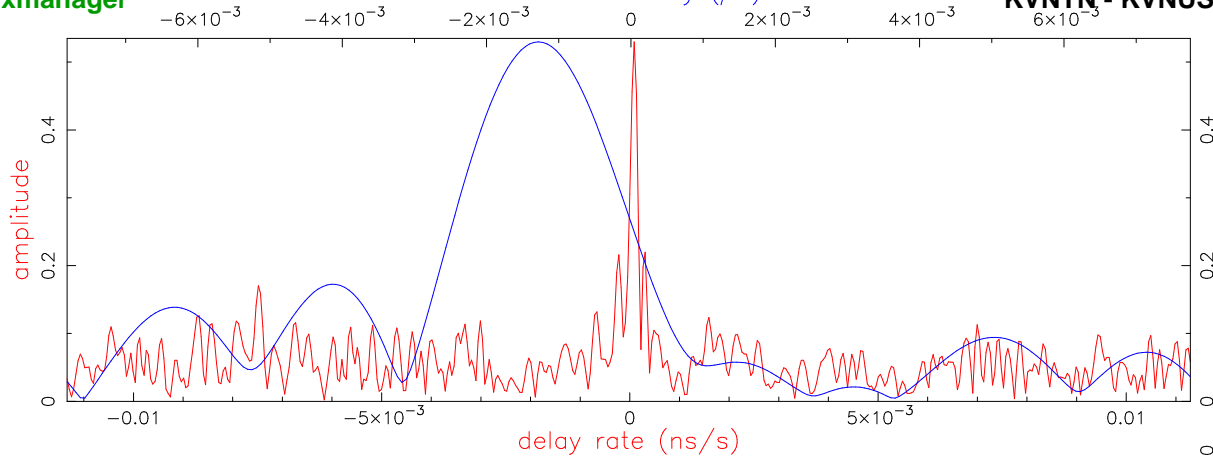
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, tu

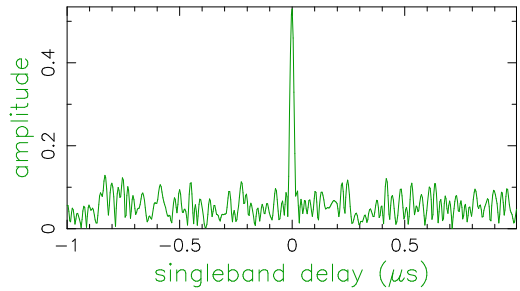
KVNTN - KVNUS, fgroup W, pol RL

multiband delay (μ s)

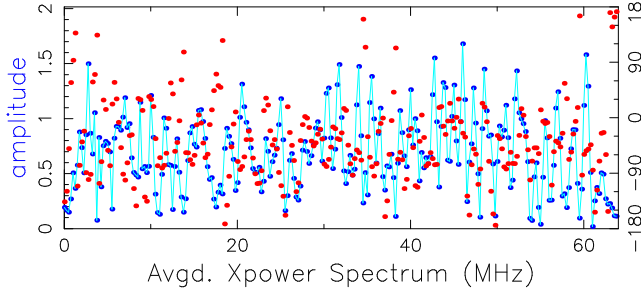


Fringe quality 9

SNR 13.5
 Int time 85.236
 Amp 0.535
 Phase -45.8
 PFD 2.1e-33
 Delays (us)
 SBD -0.001341
 MBD -0.001300
 Fringe rate (Hz) 0.007318
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

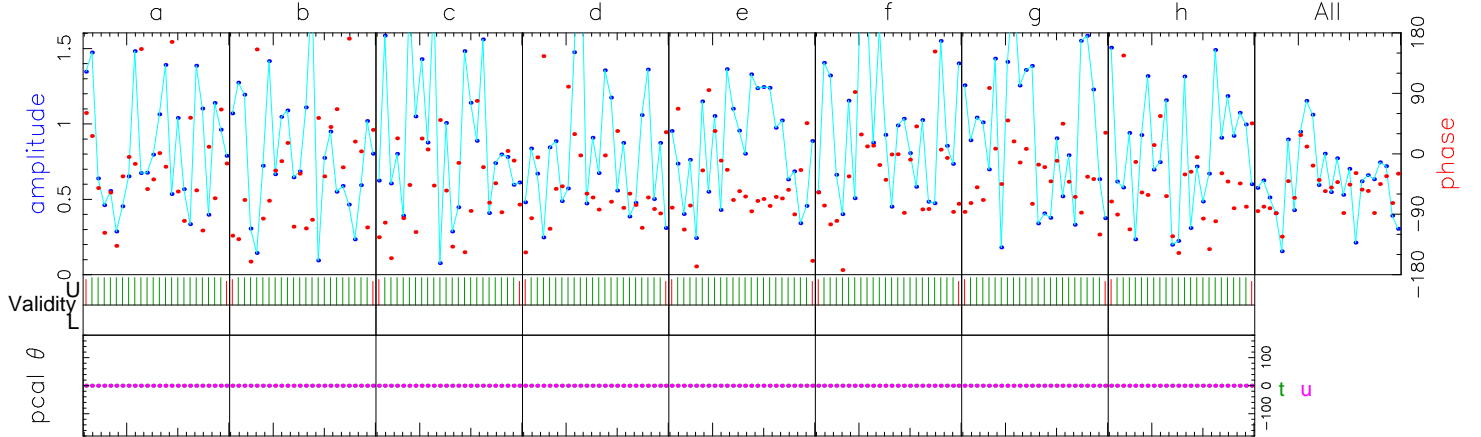


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114008
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-27.4	-64.3	-54.6	-49.4	-57.7	-30.2	-28.3	-60.2	Phase	-45.8		
	0.5	0.4	0.5	0.5	0.6	0.6	0.7	0.6	Ampl.	0.5		
	256.4	255.8	256.9	257.7	257.2	257.0	256.0	256.1	Sbd box	256.7		
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	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	PC amp			
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec)(sbd)	3.43524761208E+01		Apriori delay (usec)		3.43537757184E+01		Resid mbdelay (usec)		-1.29960E-03	+/- 8.0E-05		
Sband delay (usec)	3.43524349684E+01		Apriori clock (usec)		-1.4962090E+01		Resid sbdelay (usec)		-1.34075E-03	+/- 6.4E-04		
Phase delay (usec)	3.43537742412E+01		Apriori clockrate (us/s)		-1.1770000E-02		Resid phdelay (usec)		-1.47720E-06	+/- 2.7E-07		
Delay rate (us/s)	1.38998249692E-02		Apriori rate (us/s)		1.38997400103E-02		Resid rate (us/s)		8.49589E-08	+/- 5.5E-09		
Total phase (deg)			Apriori accel (us/s/s)		-3.10747975087E-06		Resid phase (deg)		-45.8	+/- 8.5		
	RMS	Theor.	Amplitude	0.535 +/- 0.040		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	33.5	20.8	Search (512X32)	0.521		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	48.2	36.3	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	16.7	12.0	Inc. seg. avg.	0.589		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	13.8	20.9	Inc. frq. avg.	0.535		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

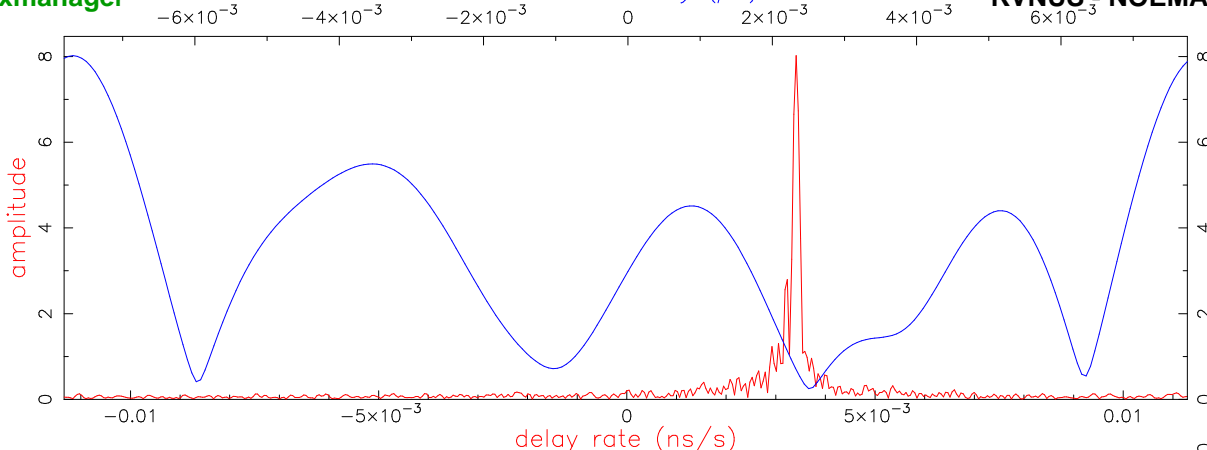
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uN

KVNUS - NOEMA, fgroup W, pol RR

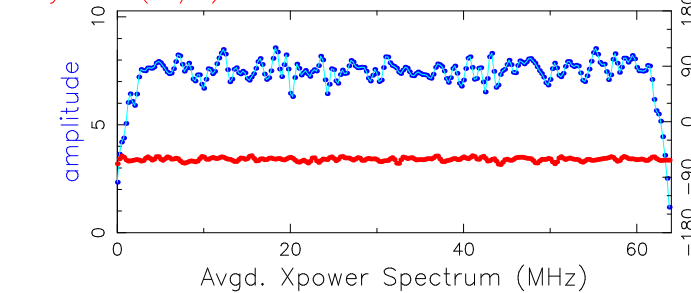
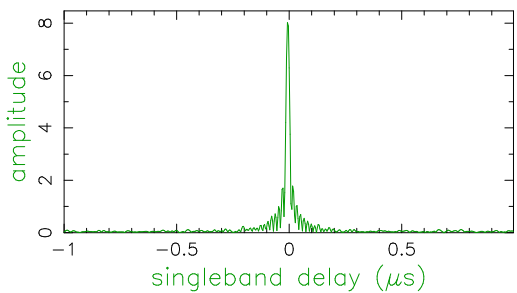
multiband delay (μ s)



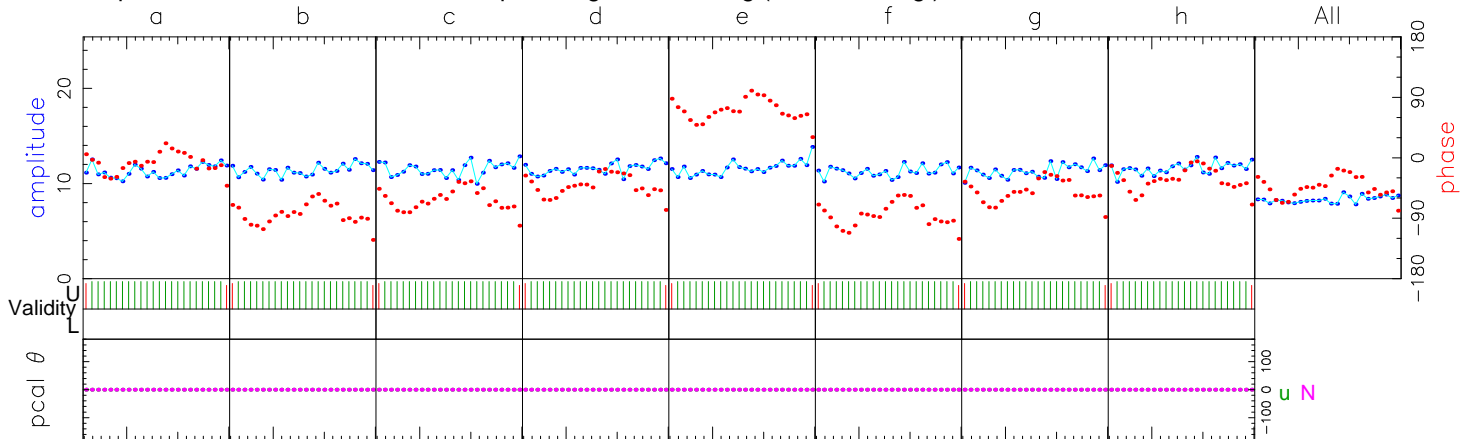
Fringe quality 5

SNR 206.0
 Int time 85.236
 Amp 8.470
 Phase -43.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.006180
 MBD -0.007686
 Fringe rate (Hz)
 0.293376
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114012
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec

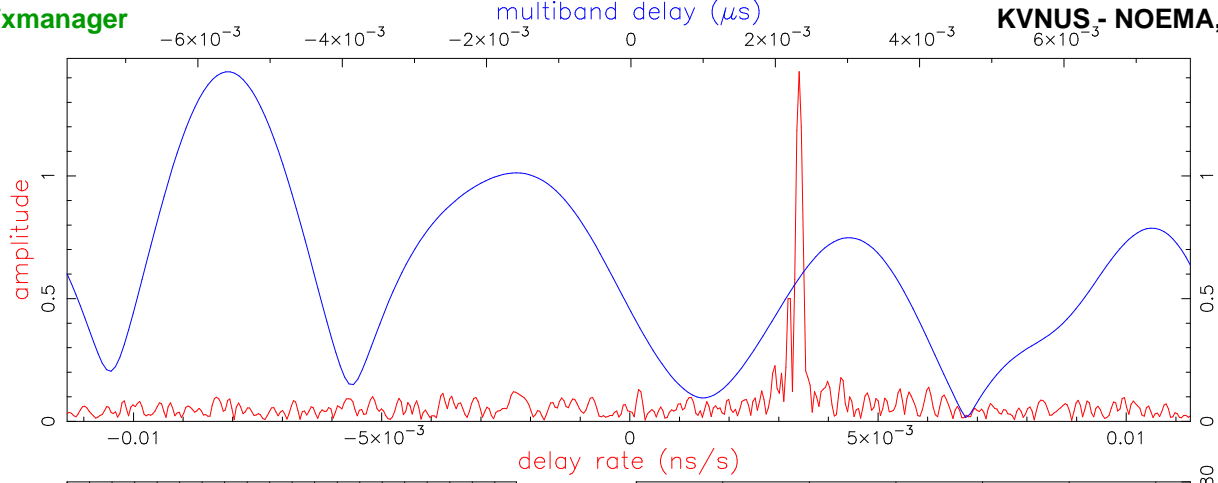


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-7.7	-83.9	-62.9	-41.6	70.1	-85.4	-50.3	-32.3	Phase	-43.6
	11.4	11.4	11.5	11.6	11.6	11.2	11.3	11.6	Ampl.	11.4
	255.3	255.4	255.5	255.3	255.4	255.6	255.5	255.4	Sbd box	255.4
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	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	

Group delay (usec)(sbd) 3.97915678337E+03 Apriori delay (usec) 3.97916446897E+03 Resid mbdelay (usec) -7.68560E-03 +/- 5.3E-06
 Sband delay (usec) 3.97915828872E+03 Apriori clock (usec) 2.7943050E+01 Resid sbdelay (usec) -6.18025E-03 +/- 4.2E-05
 Phase delay (usec) 3.97916446757E+03 Apriori clockrate (us/s) 5.5160000E-06 Resid phdelay (usec) -1.40615E-06 +/- 1.8E-08
 Delay rate (us/s) -1.23917905373E+00 Apriori rate (us/s) -1.23918245953E+00 Resid rate (us/s) 3.40580E-06 +/- 3.6E-10
 Total phase (deg) 85.0 Apriori accel (us/s/s) -3.16687894598E-05 Resid phase (deg) -43.6 +/- 0.6

RMS Theor. Amplitude 8.470 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 15.6 1.4 Search (512X32) 7.946 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 4.7 2.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 55.0 0.8 Inc. seg. avg. 8.641 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 35.2 1.4 Inc. frq. avg. 11.444 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

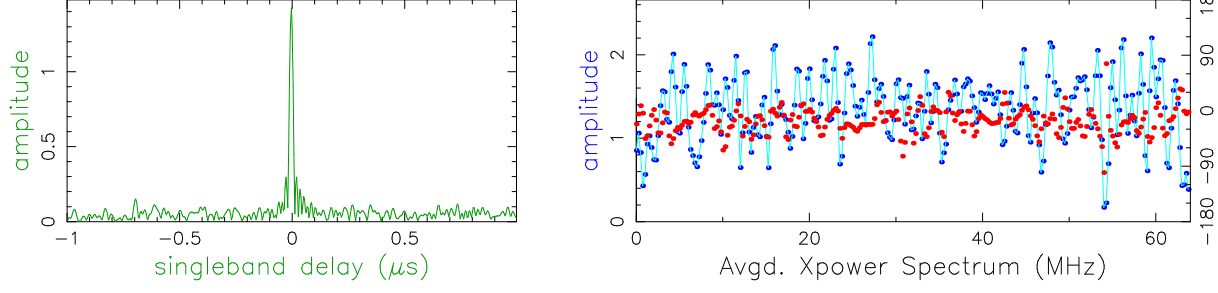
u: az 310.3 el 55.4 pa 98.7 N: az 52.5 el 38.7 pa -64.5 u,v (fr/asec) 11232.001 -3855.264 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uN..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uN.W.104.1WZMQH



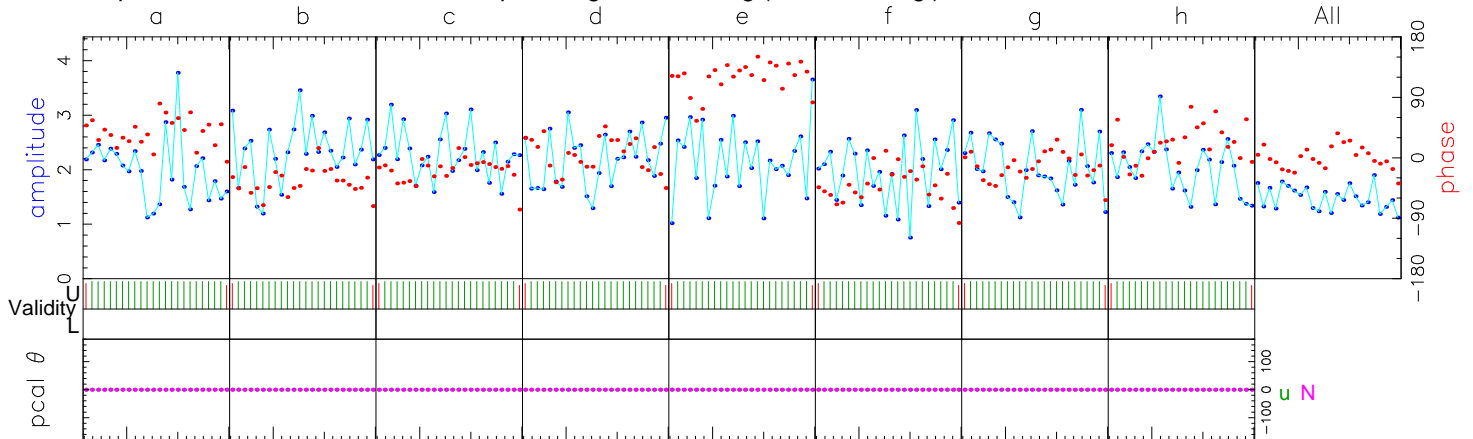
Fringe quality 5

SNR 36.0
Int time 85.236
Amp 1.479
Phase 0.4
PFD 0.0e+00
Delays (us)
SBD -0.004078
MBD -0.005587
Fringe rate (Hz)
0.293091
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 080534.34
Stop 080659.84
FRT 080330.00
Corr/FF/build
2021:302:193655
2021:303:114014
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	39.2	-34.3	-18.5	4.9	118.3	-42.0	-12.9	18.9		Phase
	2.0	2.3	2.3	2.1	2.1	1.9	2.0	1.9		Ampl.
	255.7	256.2	255.8	255.8	256.0	255.9	256.2	256.0		Sbd box
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0		APs used
u	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
N	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
u	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
N	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Tracks
Group delay (usec)(sbd)	3.97915888237E+03		Apriori delay (usec)		3.97916446897E+03		Resid mbdelay (usec)		-5.58660E-03	+/- 3.0E-05
Sband delay (usec)	3.97916039047E+03		Apriori clock (usec)		2.7943050E+01		Resid sbdelay (usec)		-4.07850E-03	+/- 2.4E-04
Phase delay (usec)	3.97916446898E+03		Apriori clockrate (us/s)		5.5160000E-06		Resid phdelay (usec)		1.17531E-08	+/- 1.0E-07
Delay rate (us/s)	-1.23917905704E+00		Apriori rate (us/s)		-1.23918245953E+00		Resid rate (us/s)		3.40249E-06	+/- 2.1E-09
Total phase (deg)	129.0		Apriori accel (us/s/s)		-3.16687894598E-05		Resid phase (deg)		0.4	+/- 3.2
	RMS	Theor.	Amplitude	1.479 +/- 0.041		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	17.0	7.8	Search (512X32)	1.379		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000		
amp/seg (%)	15.4	13.6	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled mb window (us) -0.008 0.008		
ph/frq (deg)	56.7	4.5	Inc. seg. avg.	1.530		Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011		
amp/frq (%)	40.5	7.9	Inc. frq. avg.	2.052		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00		
u: az 310.3 el 55.4 pa 98.7 N: az 52.5 el 38.7 pa -64.5 u,v (fr/asec) 11232.001 -3855.264 simultaneous interpolator										
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uN..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uN.W.126.1WZMQH										

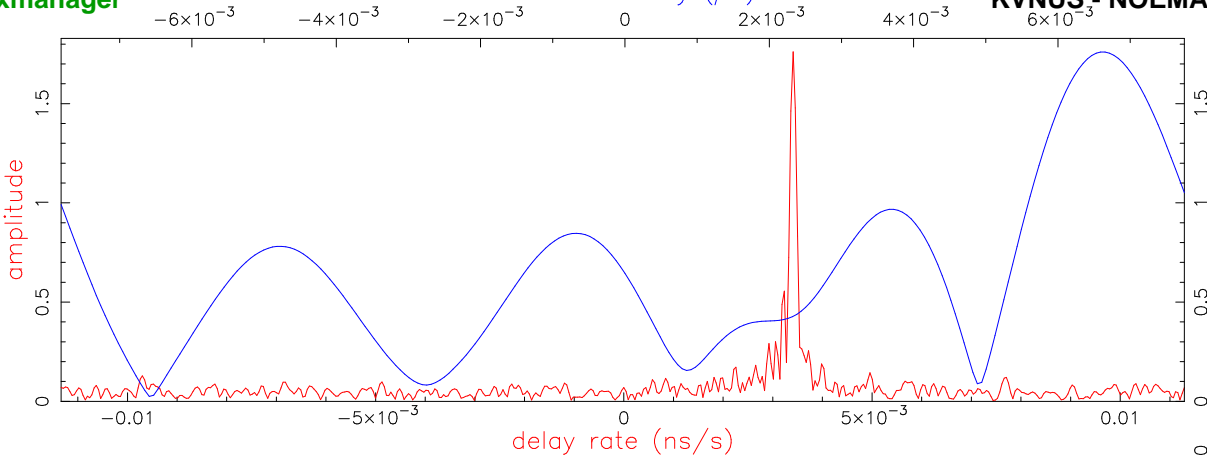
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uN

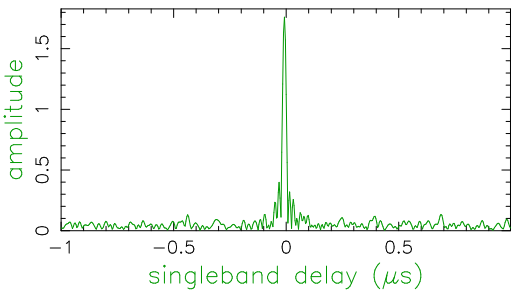
KVNUS- NOEMA, fgroup W, pol RL

multiband delay (μ s)

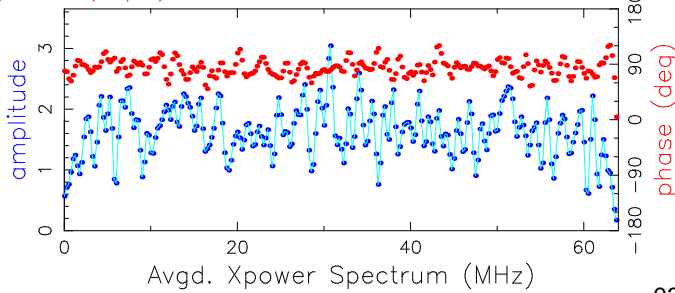


Fringe quality 6

SNR 44.5
 Int time 85.236
 Amp 1.829
 Phase -85.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.008149
 MBD 0.006623
 Fringe rate (Hz)
 0.293135
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

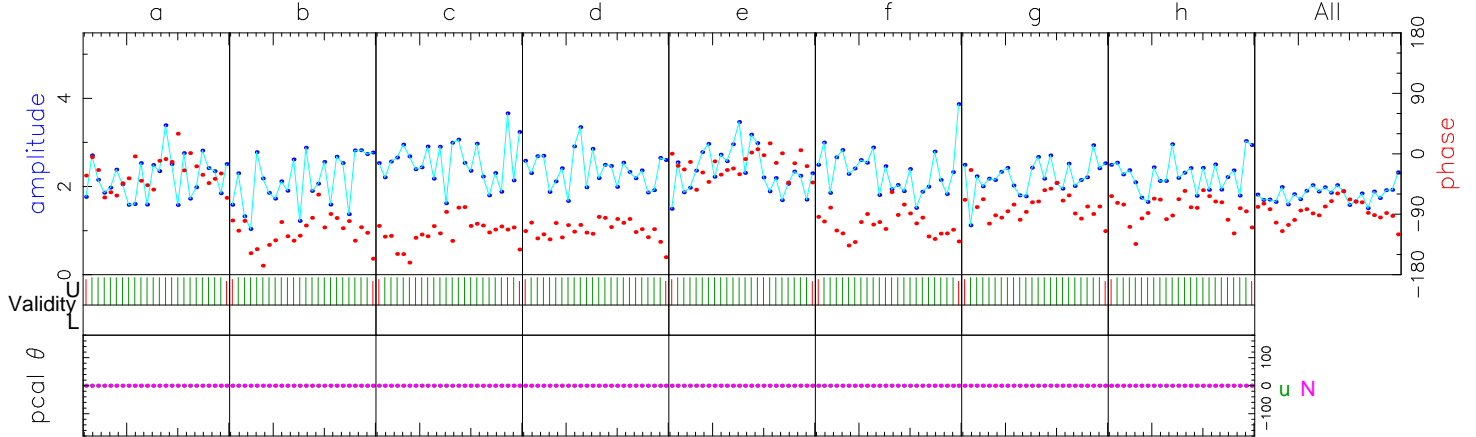


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114015
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-30.3	-116.7	-117.6	-113.6	-17.7	-106.8	-77.8	-83.0	Phase	-85.6
	2.1	2.1	2.5	2.4	2.4	2.3	2.2	2.2	Ampl.	2.3
	254.9	254.7	254.9	254.9	254.8	254.9	254.8	254.9	Sbd box	254.9
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.97915546675E+03		Apriori delay (usec)		3.97916446897E+03		Resid mbdelay (usec)		6.62277E-03	+/- 2.4E-05
Sband delay (usec)	3.97915631972E+03		Apriori clock (usec)		2.7943050E+01		Resid sbdelay (usec)		-8.14925E-03	+/- 1.9E-04
Phase delay (usec)	3.97916446621E+03		Apriori clockrate (us/s)		5.5160000E-06		Resid phdelay (usec)		-2.76145E-06	+/- 8.3E-08
Delay rate (us/s)	-1.23917905653E+00		Apriori rate (us/s)		-1.23918245953E+00		Resid rate (us/s)		3.40300E-06	+/- 1.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.16687894598E-05		Resid phase (deg)		-85.6	+/- 2.6

ph/seg (deg) 15.5 6.3 Theor. Amplitude 1.829 +/- 0.041 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 10.5 11.0 Interp. 1.708 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 42.8 3.6 Inc. seg. avg. 1.888 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 25.1 6.4 Inc. frq. avg. 2.263 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 310.3 el 55.4 pa 98.7 N: az 52.5 el 38.7 pa -64.5 u,v (fr/asec) 11232.001 -3855.264 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uN..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uN.W.138.1WZMQH

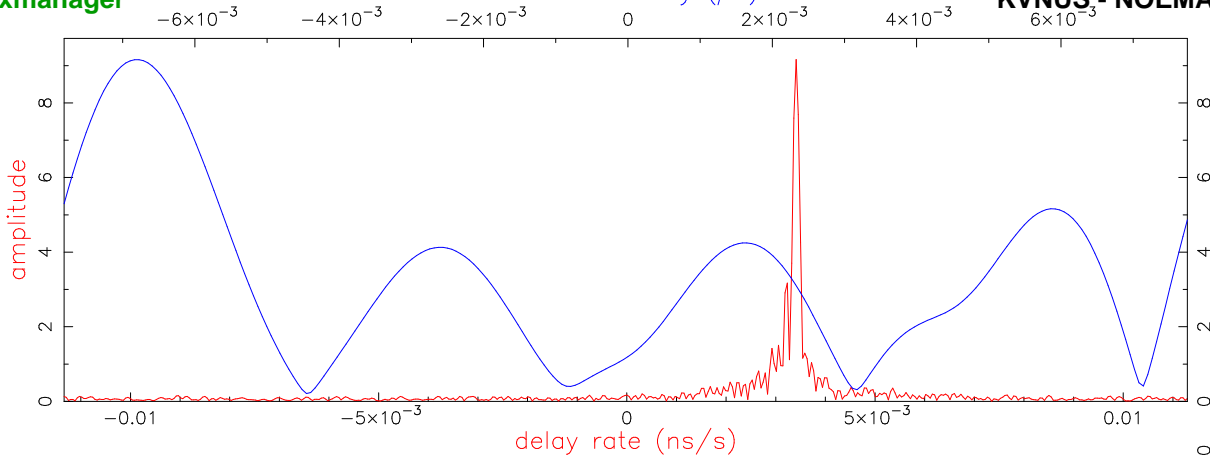
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uN

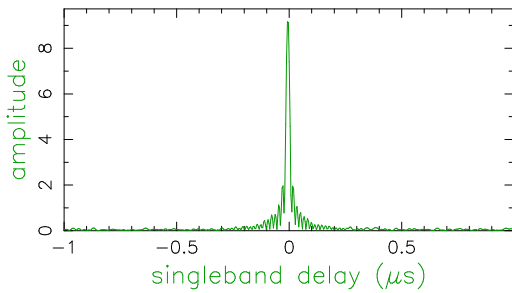
KVNUS - NOEMA, fgroup W, pol LL

multiband delay (μ s)

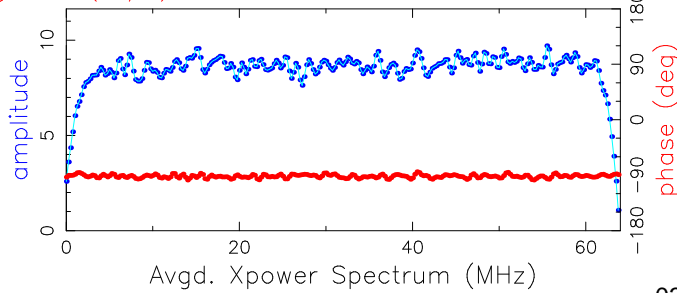


Fringe quality 5

SNR 236.7
 Int time 85.236
 Amp 9.731
 Phase -81.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.005925
 MBD -0.006797
 Fringe rate (Hz)
 0.293270
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

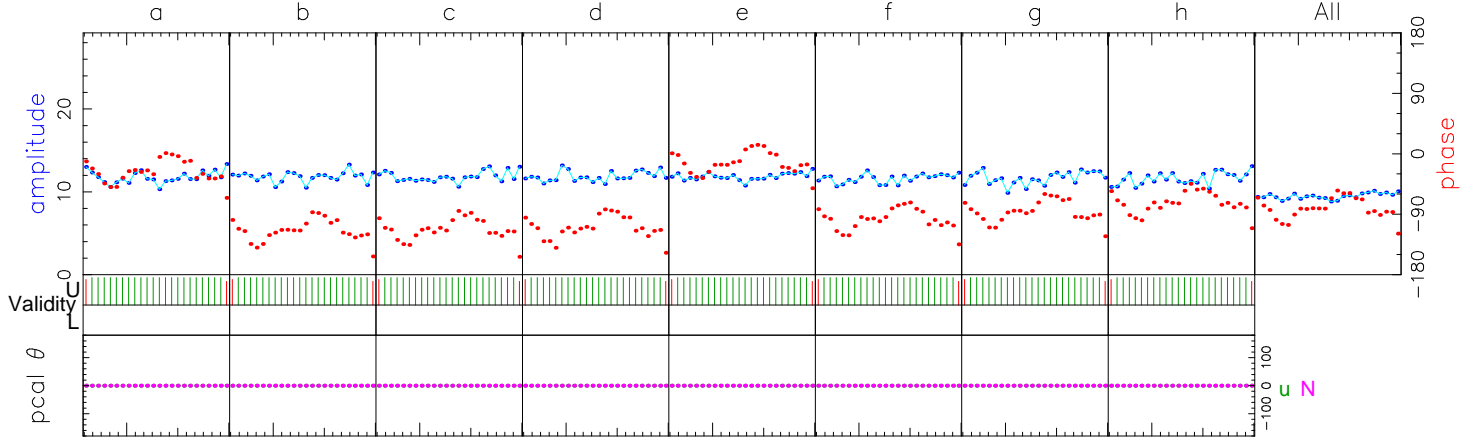


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114010
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-26.7	-114.6	-112.6	-109.7	-13.5	-97.4	-86.1	-73.2	Phase	-81.6
	11.7	11.8	11.9	11.9	11.8	11.6	11.7	11.6	Ampl.	11.8
	255.4	255.4	255.6	255.5	255.4	255.6	255.6	255.5	Sbd box	255.5
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	3.97915767193E+03	Apriori delay (usec)	3.97916446897E+03	Resid mbdelay (usec)	-6.79704E-03	+/-	4.6E-06
Sband delay (usec)	3.97915854372E+03	Apriori clock (usec)	2.7943050E+01	Resid sbdelay (usec)	-5.92525E-03	+/-	3.6E-05
Phase delay (usec)	3.97916446634E+03	Apriori clockrate (us/s)	5.5160000E-06	Resid phdelay (usec)	-2.63076E-06	+/-	1.6E-08
Delay rate (us/s)	-1.23917905497E+00	Apriori rate (us/s)	-1.23918245953E+00	Resid rate (us/s)	3.40457E-06	+/-	3.2E-10
Total phase (deg)	47.0	Apriori accel (us/s/s)	-3.16687894598E-05	Resid phase (deg)	-81.6	+/-	0.5

ph/seg (deg)	15.3	Theor.	1.2	Amplitude	9.731 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	3.9		2.1	Search (512X32)	9.077	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	42.5		0.7	Inc. seg. avg.	9.852	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	20.9		1.2	Inc. frq. avg.	11.765	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

u: az 310.3 el 55.4 pa 98.7 N: az 52.5 el 38.7 pa -64.5 u,v (fr/asec) 11232.001 -3855.264 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uN..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uN.W.93.1WZMQH

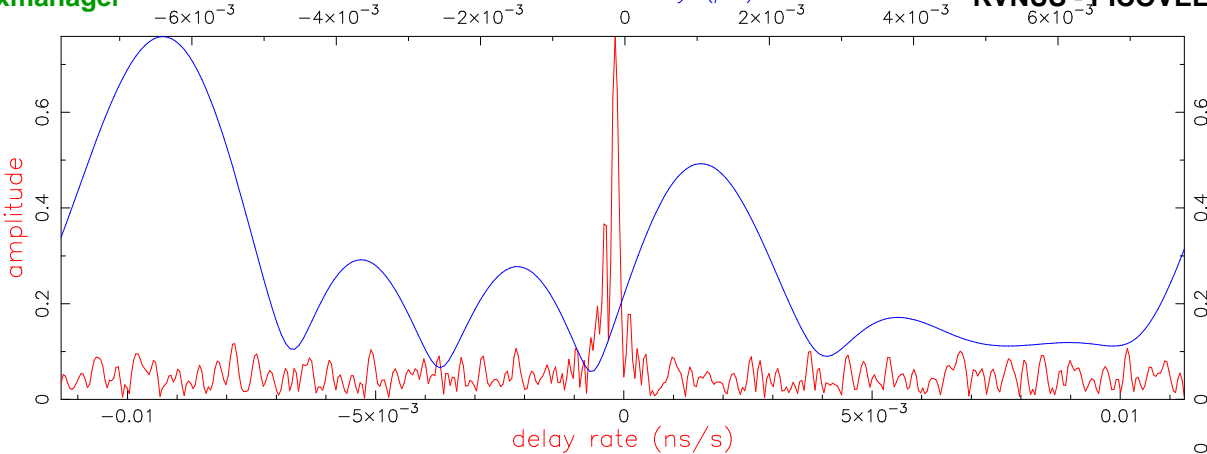
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uP

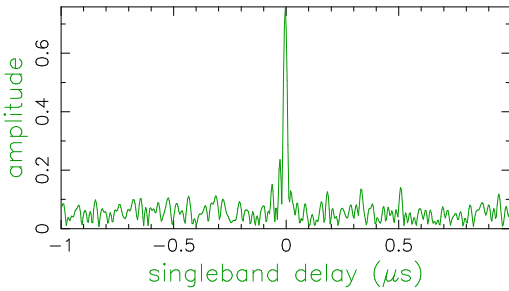
KVNUS - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

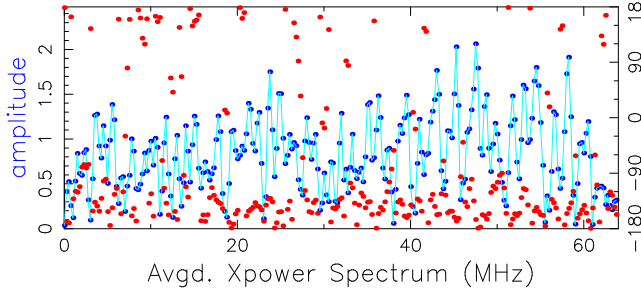


Fringe quality 8

SNR 19.2
 Int time 85.236
 Amp 0.759
 Phase -124.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.004156
 MBD -0.006402
 Fringe rate (Hz)
 -0.016842
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

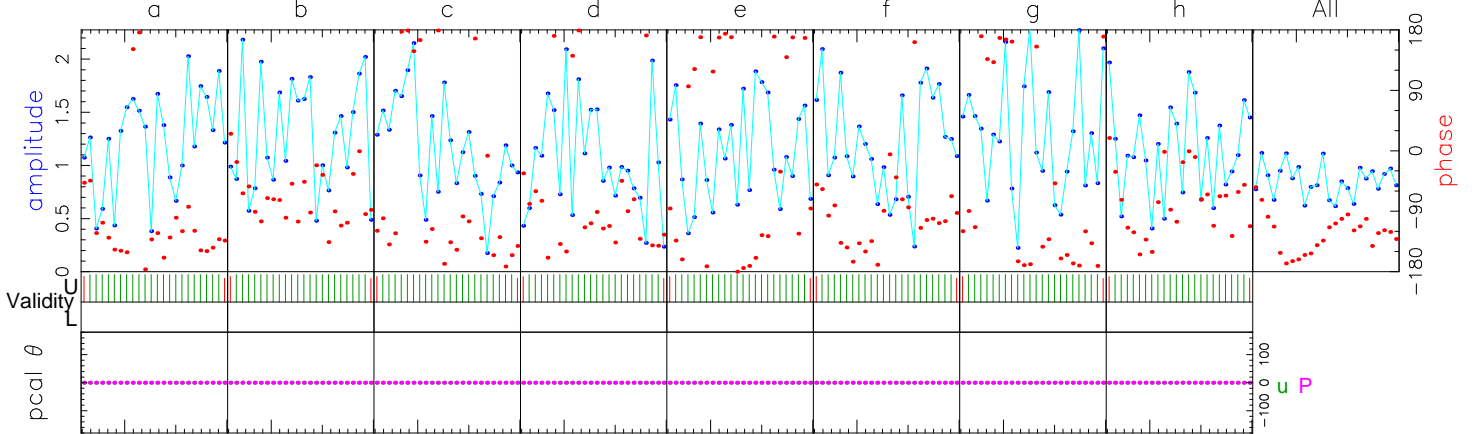


delay rate (ns/s)



Exp. c211c
 Yr:day 16383
 Start 2021:116
 Stop 2021:116
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114011
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-135.2	-71.1	-149.8	-124.8	-165.2	-101.8	-163.9	-70.2	Phase	-124.1
	1.0	1.0	1.0	0.8	0.9	1.0	1.0	0.8	Ampl.	0.9
	256.0	255.7	255.8	256.0	256.6	256.0	256.8	256.0	Sbd box	255.9
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	7.11619263827E+03		Apriori delay (usec)		7.11619903998E+03		Resid mbdelay (usec)		-6.40171E-03	+/- 5.7E-05
Sband delay (usec)	7.11619488373E+03		Apriori clock (usec)		1.5736786E+01		Resid sbdelay (usec)		-4.15625E-03	+/- 4.5E-04
Phase delay (usec)	7.11619903598E+03		Apriori clockrate (us/s)		1.7269999E-06		Resid phdelay (usec)		-4.00309E-06	+/- 1.9E-07
Delay rate (us/s)	-1.33586648350E+00		Apriori rate (us/s)		-1.33586628799E+00		Resid rate (us/s)		-1.95517E-07	+/- 3.9E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.96546850921E-05		Resid phase (deg)		-124.1	+/- 6.0

ph/seg (deg) 27.9 14.7 Search (512X32) 0.734 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 23.5 25.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 41.4 8.5 Inc. seg. avg. 0.832 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 26.2 14.8 Inc. frq. avg. 0.920 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 310.3 el 55.4 pa 98.7 P: az 45.7 el 28.4 pa -65.9 u,v (fr/asec) 12097.616 -4081.910 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uP..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uP.W.102.1WZMQH

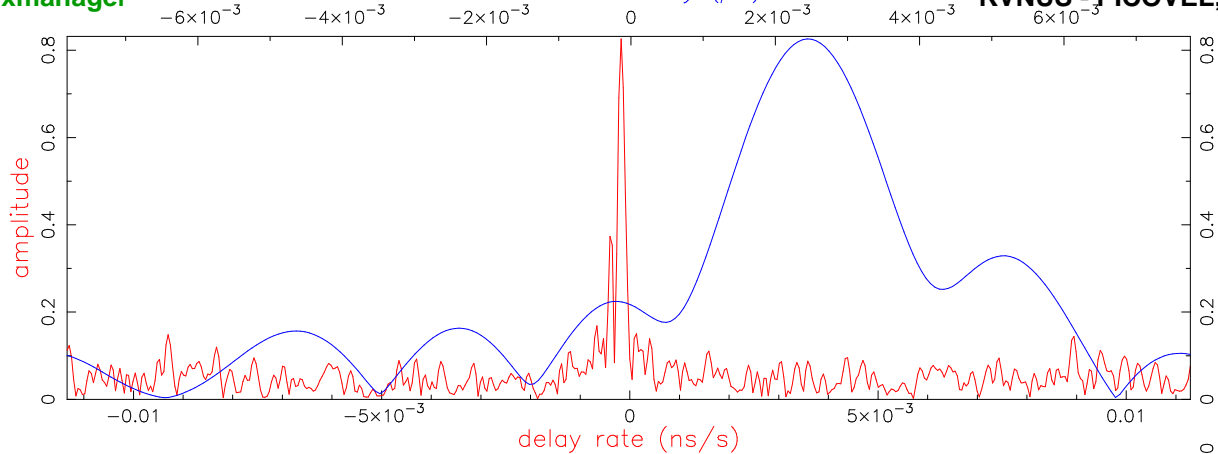
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uP

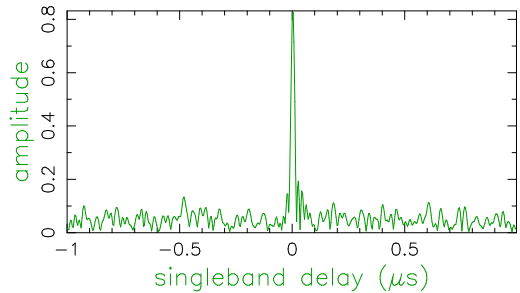
KVNUS - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

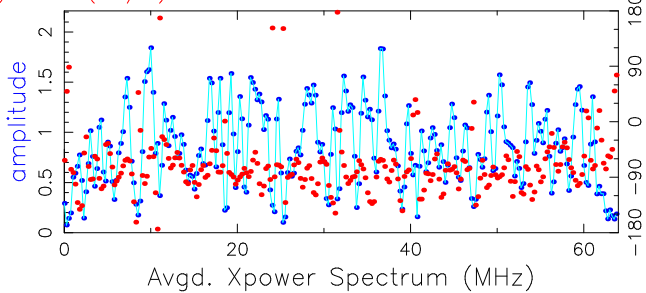


Fringe quality 8

SNR 21.0
 Int time 85.236
 Amp 0.832
 Phase -76.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.002825
 MBD 0.002447
 Fringe rate (Hz)
 -0.016399
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

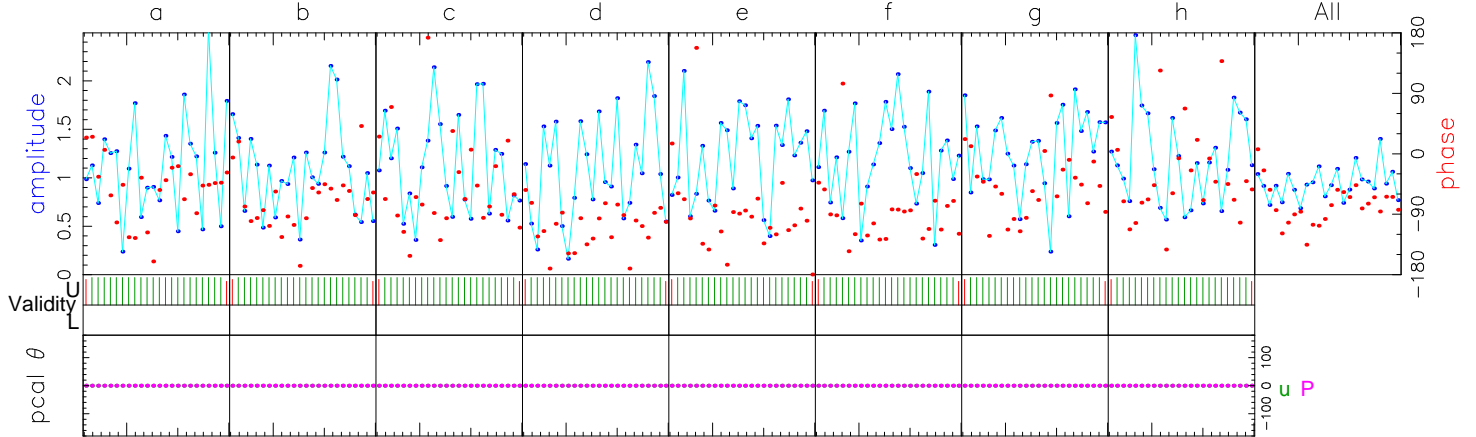


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114013
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-53.1	-67.0	-72.2	-105.6	-99.5	-97.4	-50.9	-53.1	Phase	-76.0
	0.8	0.9	0.7	1.0	1.0	1.0	1.0	0.8	Ampl.	0.9
	257.5	257.7	257.5	257.1	258.0	257.7	258.2	257.7	Sbd box	257.7
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	7.11620148721E+03		Apriori delay (usec)		7.11619903998E+03		Resid mbdelay (usec)		2.44723E-03	+/- 5.2E-05
Sband delay (usec)	7.11620186473E+03		Apriori clock (usec)		1.5736786E+01		Resid sbdelay (usec)		2.82475E-03	+/- 4.1E-04
Phase delay (usec)	7.11619903753E+03		Apriori clockrate (us/s)		1.7269999E-06		Resid phdelay (usec)		-2.45158E-06	+/- 1.8E-07
Delay rate (us/s)	-1.33586647836E+00		Apriori rate (us/s)		-1.33586628799E+00		Resid rate (us/s)		-1.90375E-07	+/- 3.6E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.96546850921E-05		Resid phase (deg)		-76.0	+/- 5.5

ph/seg (deg) 29.4 13.4 Search (512X32) 0.814 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 23.5 23.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.7 7.7 Inc. seg. avg. 0.918 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 15.4 13.5 Inc. frq. avg. 0.882 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 310.3 el 55.4 pa 98.7 P: az 45.7 el 28.4 pa -65.9 u,v (fr/asec) 12097.616 -4081.910 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uP..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uP.W.117.1WZMQH

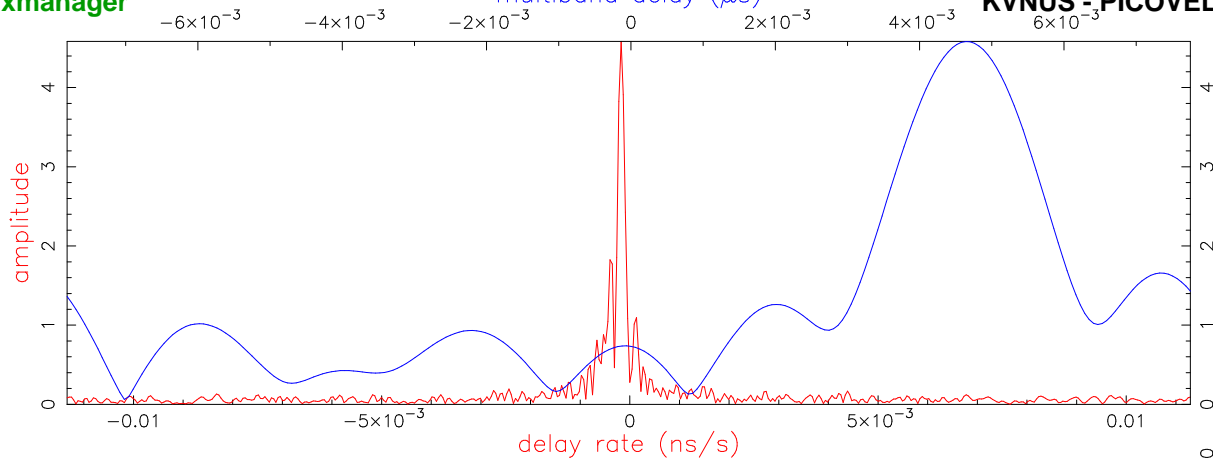
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uP

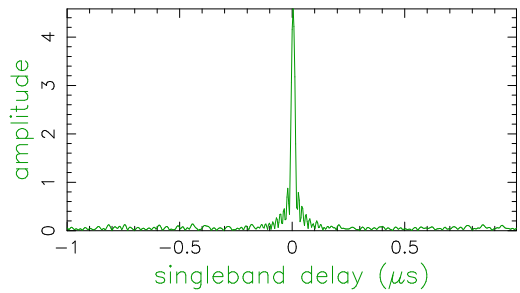
KVNUS - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

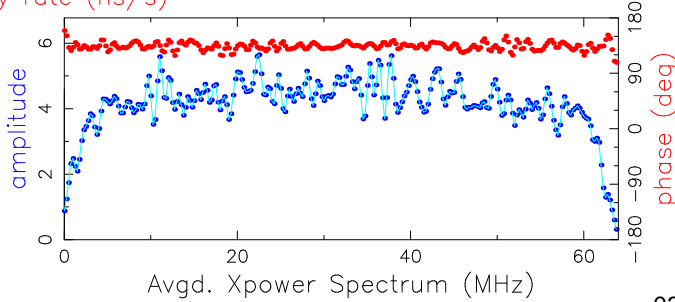


Fringe quality 6

SNR 115.7
 Int time 85.236
 Amp 4.583
 Phase 127.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.004068
 MBD 0.004655
 Fringe rate (Hz)
 -0.016582
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

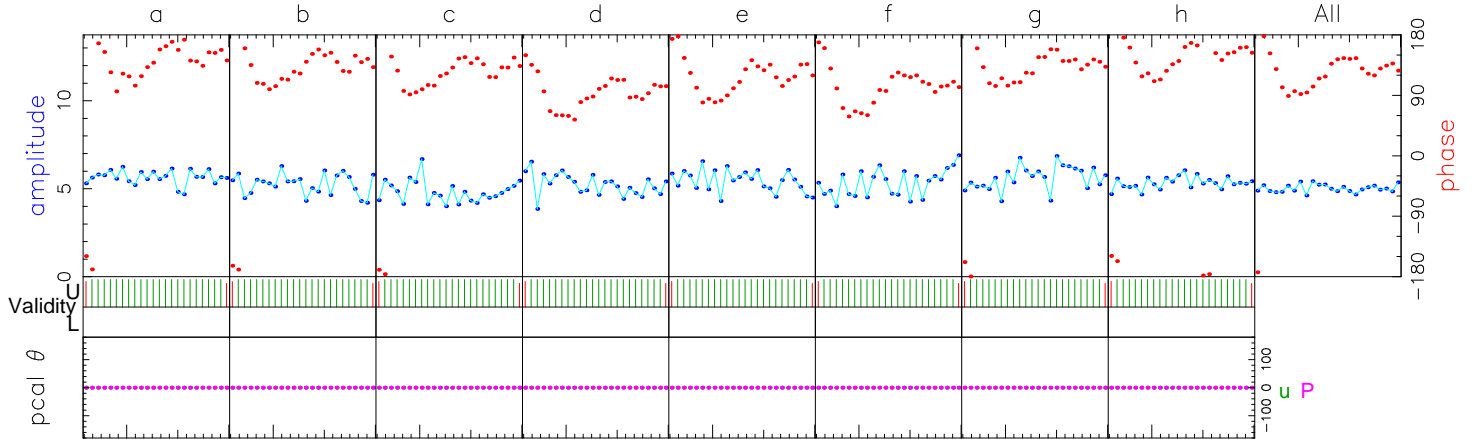


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114010
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	145.9	135.6	128.0	93.9	118.3	102.6	135.9	153.7	Phase	127.2
u	5.1	4.8	4.4	4.8	4.9	4.8	5.2	4.8	Ampl.	4.9
P	258.0	258.1	257.4	258.0	258.1	258.0	258.5	258.3	Sbd box	258.0
u:P	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u:P	1000	1000	1000	1000	1000	1000	1000	1000	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	

Group delay (usec)(sbd)	7.11620369487E+03	Apriori delay (usec)	7.11619903998E+03	Resid mbdelay (usec)	4.65488E-03	+/-	9.4E-06
Sband delay (usec)	7.11620310823E+03	Apriori clock (usec)	1.5736786E+01	Resid sbdelay (usec)	4.06825E-03	+/-	7.4E-05
Phase delay (usec)	7.11619904408E+03	Apriori clockrate (us/s)	1.7269999E-06	Resid phdelay (usec)	4.10124E-06	+/-	3.2E-08
Delay rate (us/s)	-1.33586648048E+00	Apriori rate (us/s)	-1.33586628799E+00	Resid rate (us/s)	-1.92495E-07	+/-	6.5E-10
Total phase (deg)	236.7	Apriori accel (us/s/s)	-3.96546850921E-05	Resid phase (deg)	127.2	+/-	1.0

ph/seg (deg)	24.5	RMS	2.4	Theor.	2.4	Amplitude	4.583 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	10.6	Search (512X32)	4.386	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	Bits/sample:	2x2	SampCntNorm:	enabled
ph/frq (deg)	22.3	Inc. seg. avg.	5.017	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	Data rate (Mb/s):	2048	nlags:	256
amp/frq (%)	7.8	Inc. frq. avg.	4.853	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00				

u: az 310.3 el 55.4 pa 98.7 P: az 45.7 el 28.4 pa -65.9 u,v (fr/asec) 12097.616 -4081.910 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uP..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uP.W.91.1WZMQH

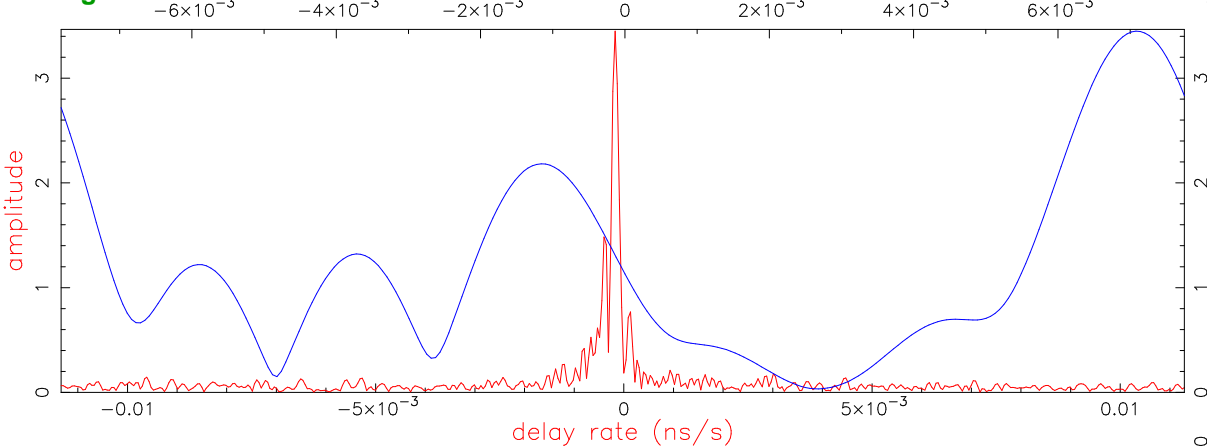
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uP

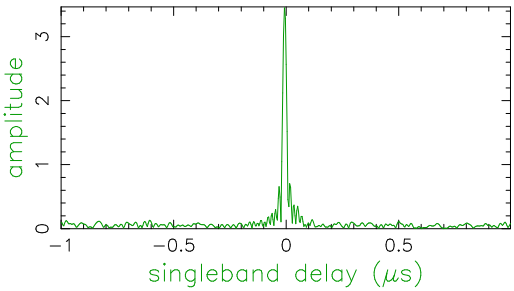
KVNUS - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

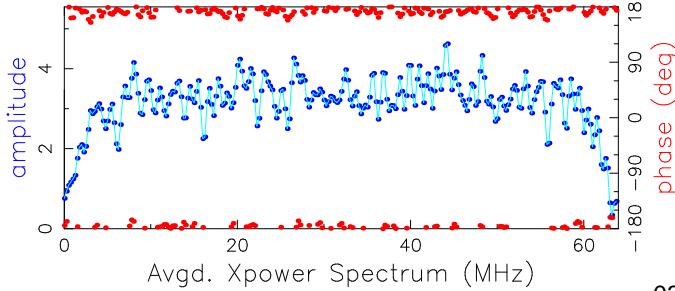


Fringe quality 4

SNR 87.5
Int time 85.236
Amp 3.466
Phase 14.4
PFD 0.0e+00
Delays (us)
SBD -0.006911
MBD 0.007102
Fringe rate (Hz)
-0.016580
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

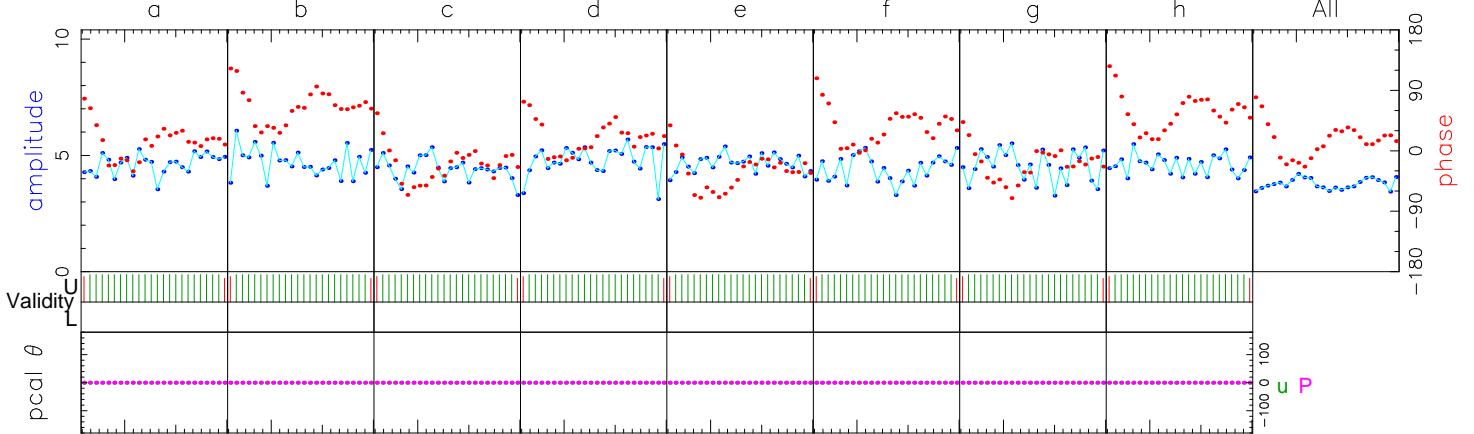


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 080534.34
Stop 080659.84
FRT 080330.00
Corr/FF/build
2021:302:193655
2021:303:114010
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0		
u	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
P	1000	1000	1000	1000	1000	1000	1000	1000	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	
									Tracks	
Group delay (usec)(sbd)	12.9	65.8	-20.9	19.4	-32.4	35.2	-21.5	56.6	7.10179E-03	+/- 1.2E-05
Sband delay (usec)	4.2	4.3	4.0	4.4	4.2	4.0	4.2	4.1	-6.91075E-03	+/- 9.8E-05
Phase delay (usec)	255.5	255.3	255.2	255.3	255.9	255.4	255.9	255.8	4.64235E-07	+/- 4.2E-08
Delay rate (us/s)			-1.33586648047E+00						-1.92481E-07	+/- 8.6E-10
Total phase (deg)			123.9						14.4	+/- 1.3
				Apriori delay (usec)	7.11619903998E+03				Resid mbdelay (usec)	
				Apriori clock (usec)	1.5736786E+01				Resid sbdelay (usec)	
				Apriori clockrate (us/s)	1.7269999E-06				Resid phdelay (usec)	
				Apriori rate (us/s)	-1.33586628799E+00				Resid rate (us/s)	
				Apriori accel (us/s/s)	-3.96546850921E-05				Resid phase (deg)	
ph/seg (deg)	24.8	3.2	Search (512X32)	3.305					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	11.1	5.6	Interp.	0.000					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	40.0	1.9	Inc. seg. avg.	3.775					Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	21.0	3.2	Inc. frq. avg.	4.175					Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
									Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
									nlags: 256	t_cohere infinite
										ion window (TEC) 0.00 0.00

u: az 310.3 el 55.4 pa 98.7 P: az 45.7 el 28.4 pa -65.9 u,v (fr/asec) 12097.616 -4081.910 simultaneous interpolator

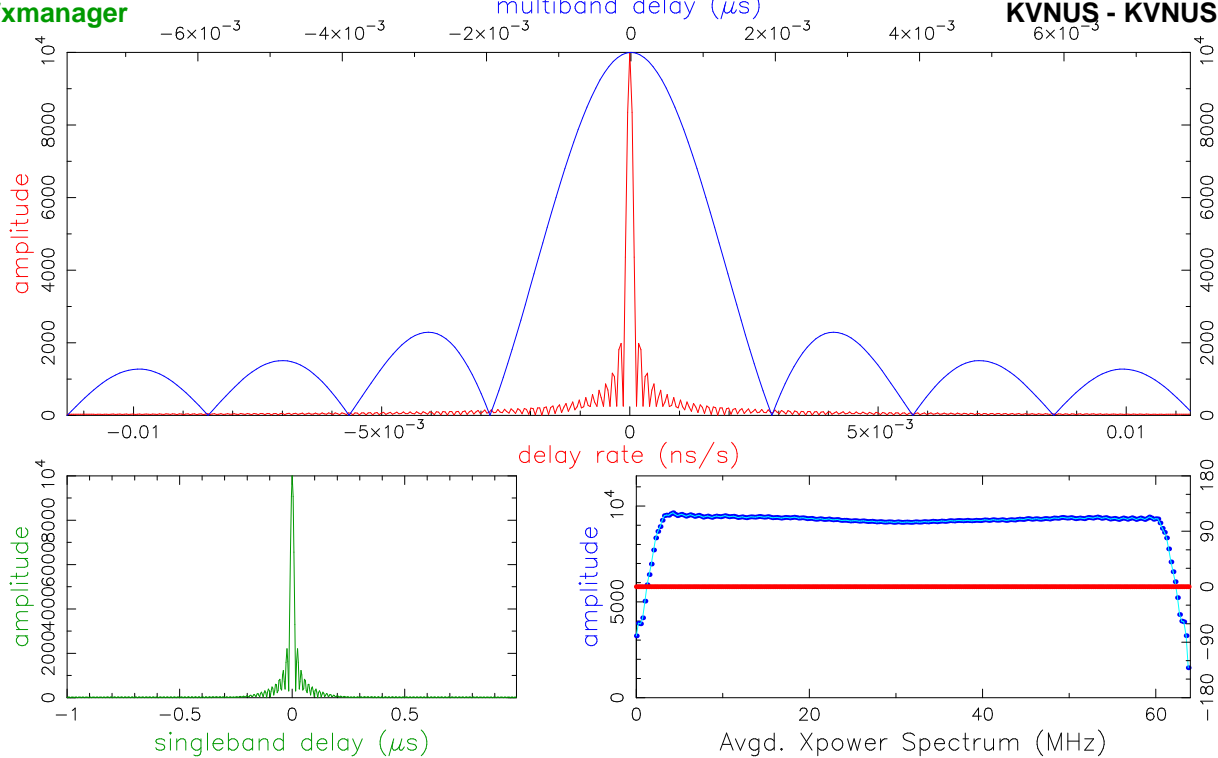
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uP..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uP.W.95.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uu

KVNU₃ - KVNU₅, fgroup W, pol LL

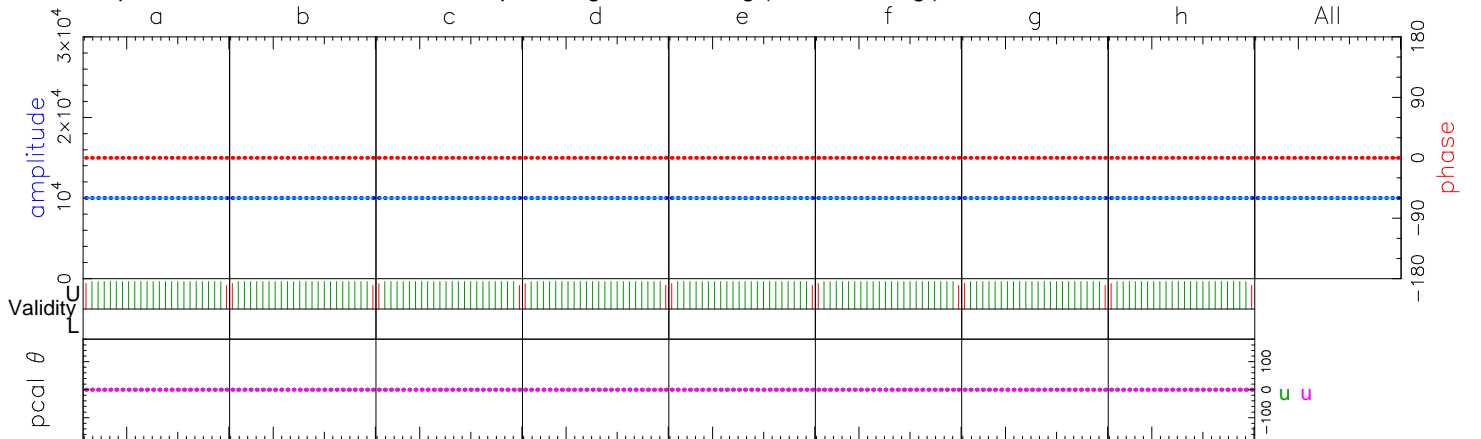


Fringe quality 9

SNR 252469.8
 Int time 85.236
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Yr:day 16383
 Start 2021:116
 Stop 080534.34
 FRT 080659.84
 Corr/FF/build 080330.00
 2021:302:193655
 2021:303:114012
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	10000.0	10000.0
u	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0.0	0.0
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0.0	0.0
u	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
u	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 4.3E-09
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 3.4E-08
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 1.5E-11
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 3.0E-13
Total phase (deg)			0.0						0.0	+/- 0.0

RMS Theor. Amplitude 10000.000 +/- 0.040 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (512X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 310.3 el 55.4 pa 98.7 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

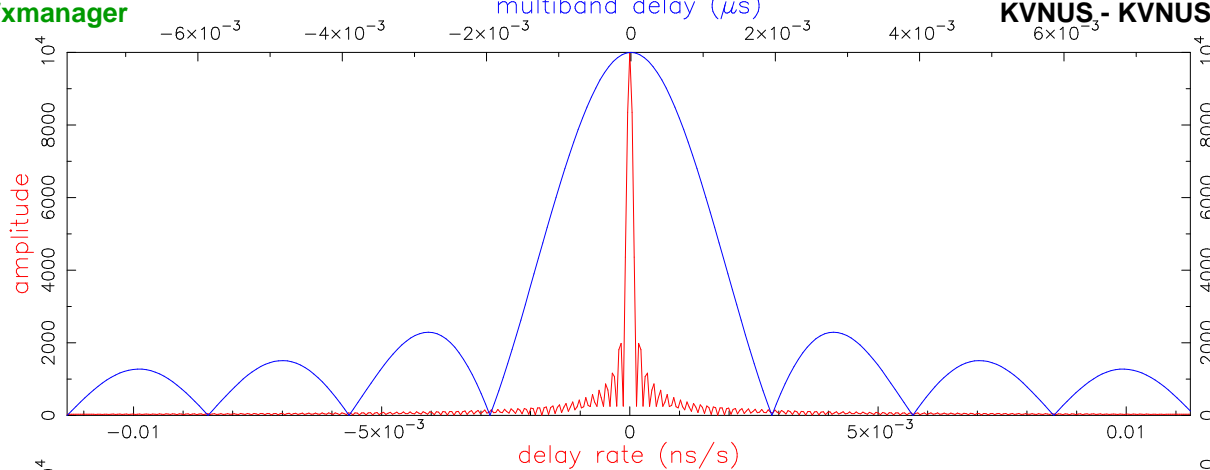
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uu.W.107.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

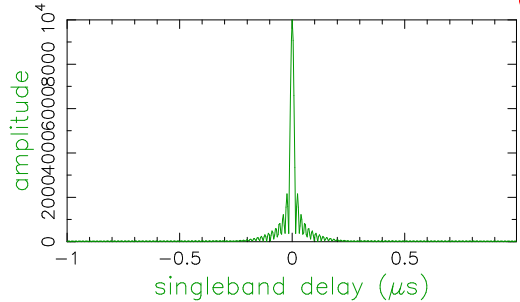
NRAO150.1WZMQH, No0029, uu

KVNUS₃- KVNUS, fgroup W, pol RR

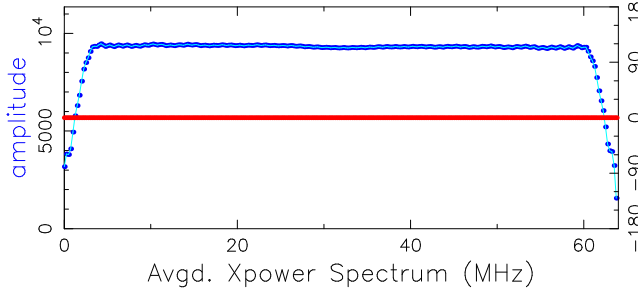


Fringe quality 9

SNR 252469.8
 Int time 85.236
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

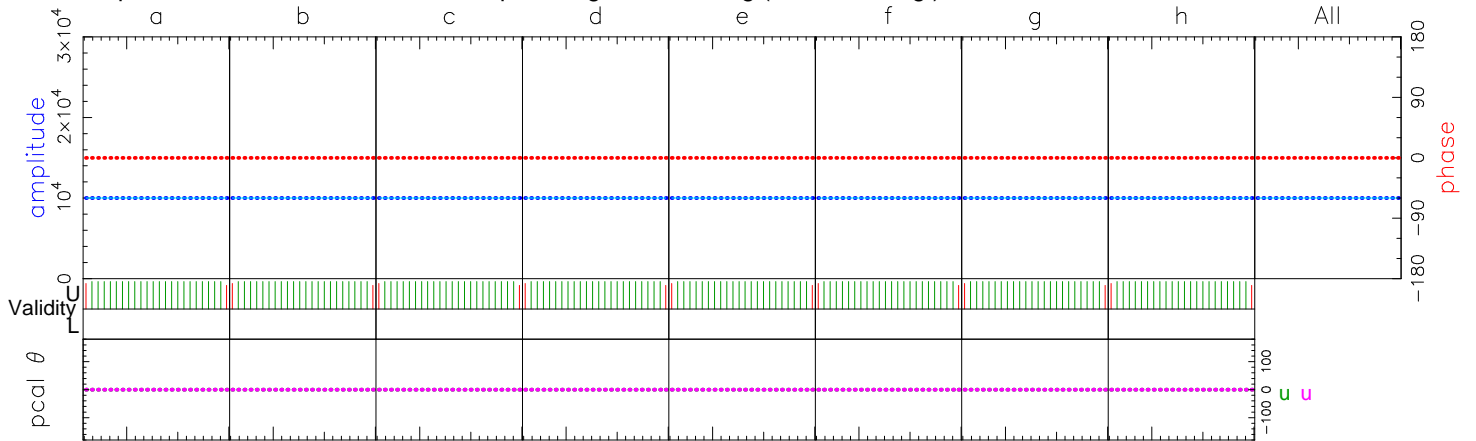


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114013
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



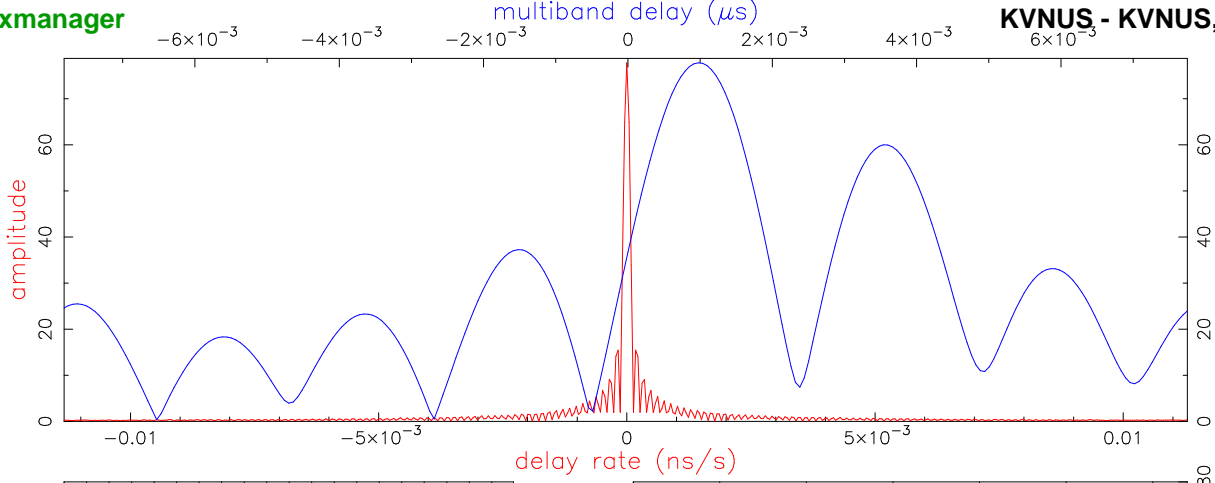
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	Ampl.	10000.0
u	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
u	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	4.3E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	3.4E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	1.5E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	3.0E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

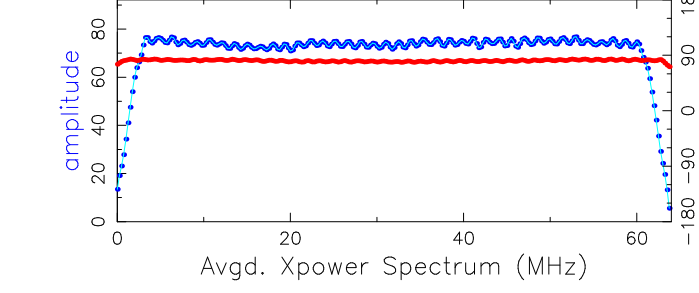
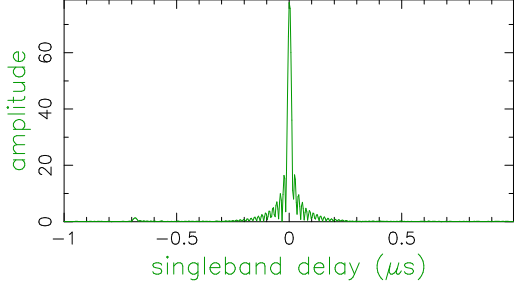
	RMS	Theor.	Amplitude	10000.000 +/- 0.040	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	0.0	0.0	Search (512X32)	10000.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.000	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 310.3 el 55.4 pa 98.7 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

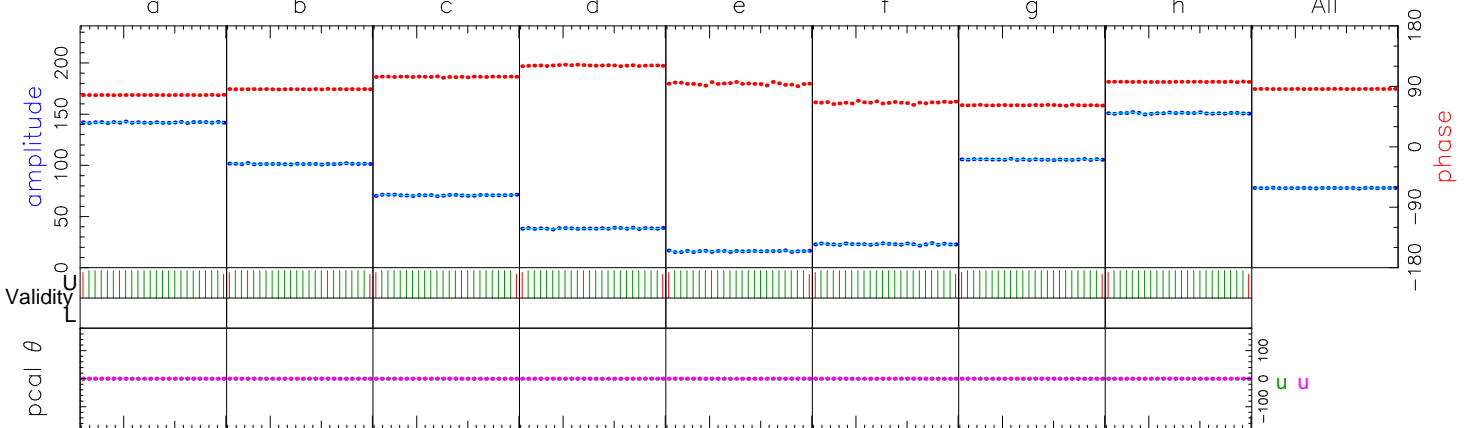
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uu.W.121.1WZMQH



Fringe quality 6
SNR 1988.7
Int time 85.236
Amp 78.771
Phase 86.0
PFD 0.0e+00
Delays (us)
SBD 0.001390
MBD 0.000977
Fringe rate (Hz) 0.000001
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 080534.34
Stop 080659.84
FRT 080330.00
Corr/FF/build
2021:302:193655
2021:303:114015
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0		
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)	9.76750000000E-04		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		9.76750E-04	+/- 5.5E-07
Sband delay (usec)	1.39025000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		1.39025E-03	+/- 4.3E-06
Phase delay (usec)	2.77247442295E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		2.77247E-06	+/- 1.9E-09
Delay rate (us/s)	1.41711523917E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		1.41712E-11	+/- 3.8E-11
Total phase (deg)			86.0		Apriori accel (us/s/s)		0.00000000000E+00		86.0	+/- 0.1

ph/seg (deg) 0.1 0.1 Amplitude 78.771 +/- 0.040 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 1.2 0.2 Search (512X32) 77.831 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 21.6 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 62.1 0.1 Inc. seg. avg. 77.831 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
u: az 310.3 el 55.4 pa 98.7 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) 0.000 0.000 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uu.W.136.1WZMQH simultaneous interpolator

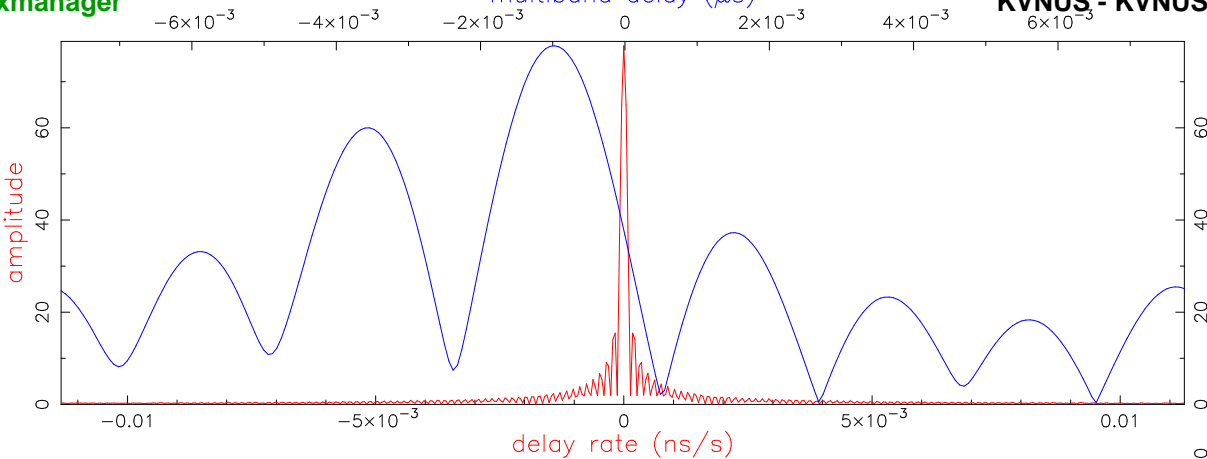
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uu

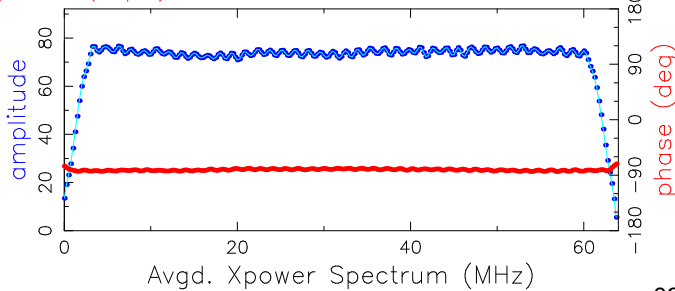
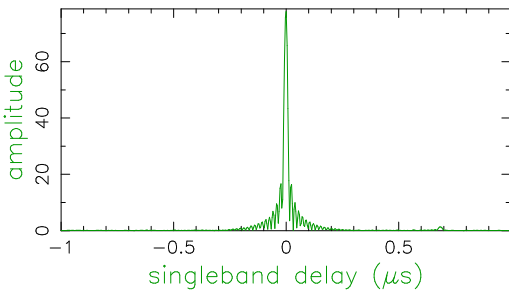
KVNUS - KVNUS, fgroup W, pol RL

multiband delay (μ s)



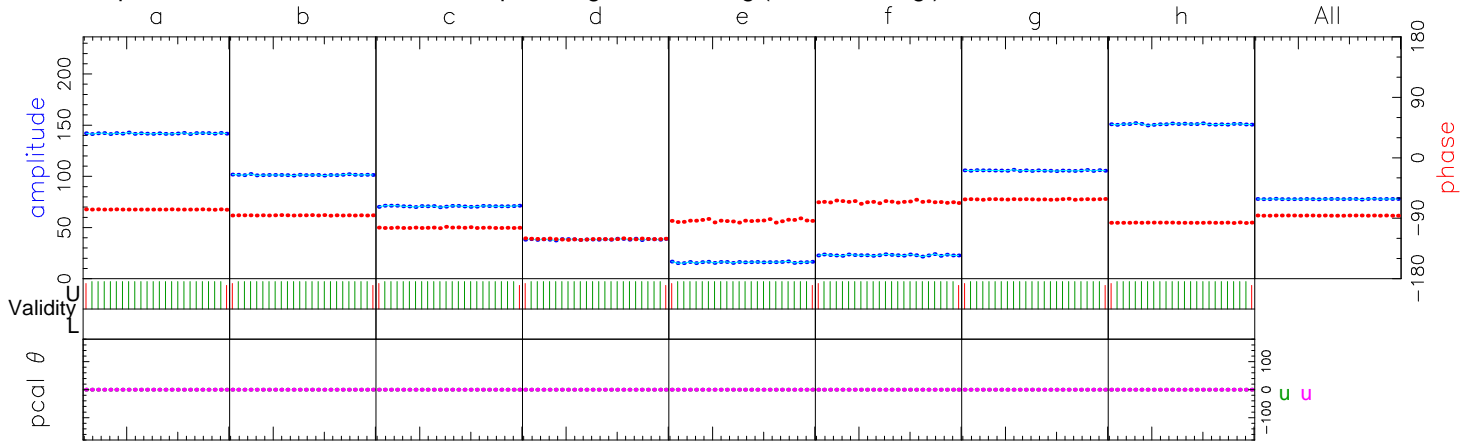
Fringe quality 6

SNR 1988.7
 Int time 85.236
 Amp 78.771
 Phase -86.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.001390
 MBD -0.000977
 Fringe rate (Hz)
 -0.000001
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114017
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-77.0	-85.7	-104.1	-120.9	-93.7	-65.7	-61.8	-96.6		-86.0
	141.9	101.4	70.8	38.4	16.1	23.0	105.7	151.0	Ampl.	81.0
	256.6	256.5	256.4	257.1	258.0	256.3	256.5	256.3	Sbd box	256.6
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-9.76750000000E-04		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-9.76750E-04	+/- 5.5E-07
Sband delay (usec)	-1.39025000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.39025E-03	+/- 4.3E-06
Phase delay (usec)	-2.77247442296E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-2.77247E-06	+/- 1.9E-09
Delay rate (us/s)	-1.41711523917E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-1.41712E-11	+/- 3.8E-11
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-86.0	+/- 0.1

ph/seg (deg) 0.1 0.1 Search (512X32) 77.831 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.2 0.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.6 0.1 Inc. seg. avg. 77.831 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 62.1 0.1 Inc. frq. avg. 81.032 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 310.3 el 55.4 pa 98.7 u: az 310.3 el 55.4 pa 98.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uu..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uu.W.151.1WZMQH

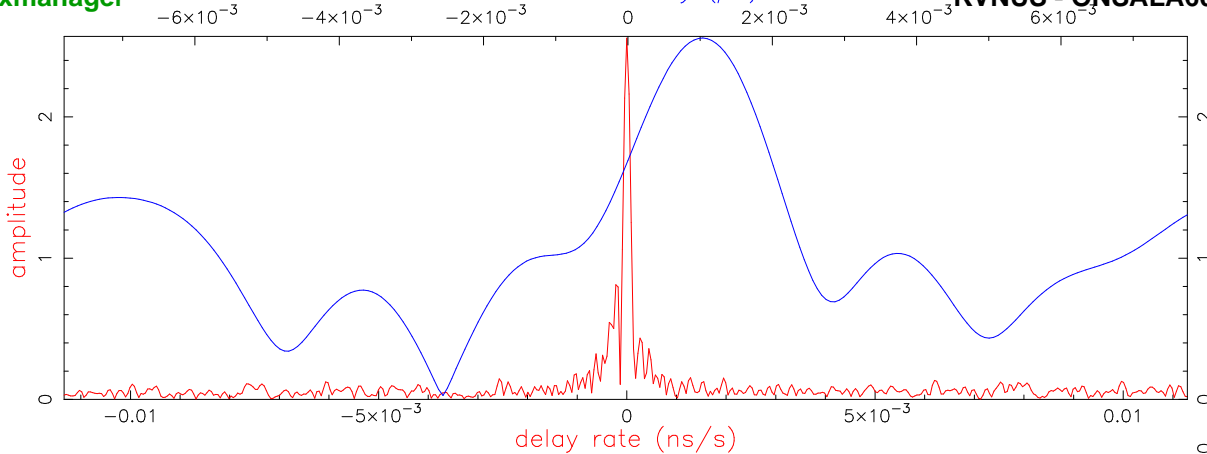
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uX

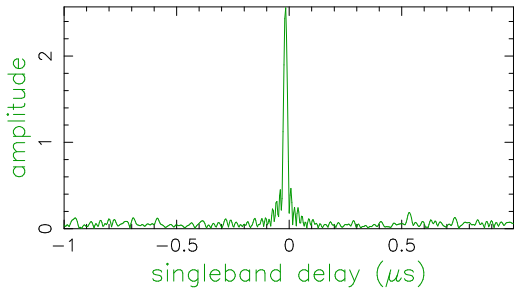
KVNUS - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

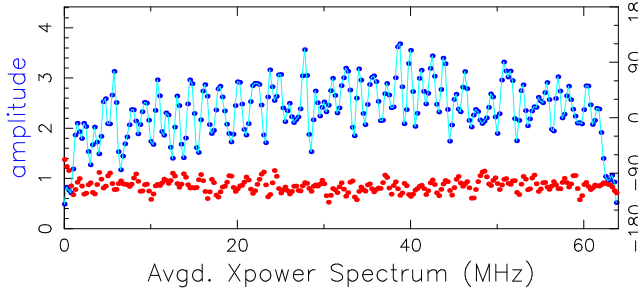


Fringe quality 5

SNR 64.9
 Int time 85.236
 Amp 2.570
 Phase 47.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.016517
 MBD 0.001005
 Fringe rate (Hz)
 -0.000683
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

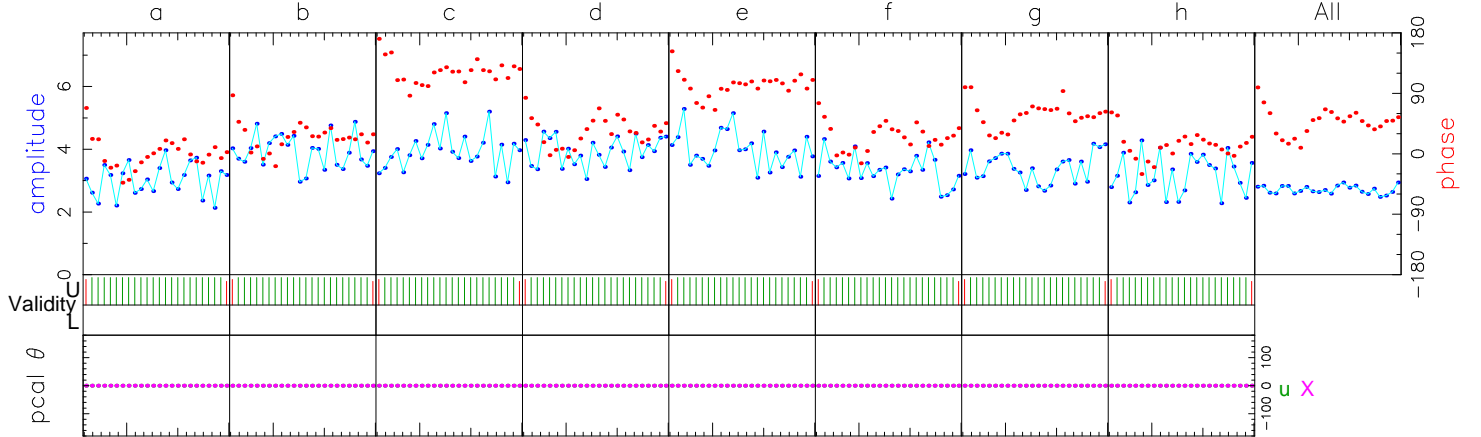


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114014
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-1.4	23.9	121.7	32.7	102.1	25.2	58.3	11.1		47.2
	2.8	3.7	3.8	3.7	3.8	3.1	3.2	3.0		3.4
	254.7	252.9	252.3	252.2	252.3	252.1	252.1	252.7		252.8
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:X	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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.31080429247E+03	Apriori delay (usec)	1.31081891266E+03	Resid mbdelay (usec)	1.00481E-03	+/-	1.7E-05
Sband delay (usec)	1.31080239566E+03	Apriori clock (usec)	-4.1781769E+01	Resid sbdelay (usec)	-1.65170E-02	+/-	1.3E-04
Phase delay (usec)	1.31081891418E+03	Apriori clockrate (us/s)	5.9899996E-07	Resid phdelay (usec)	1.52075E-06	+/-	5.7E-08
Delay rate (us/s)	-1.06007959159E+00	Apriori rate (us/s)	-1.06007958365E+00	Resid rate (us/s)	-7.93301E-09	+/-	1.2E-09
Total phase (deg)		Apriori accel (us/s/s)	-3.01162186625E-05	Resid phase (deg)	47.2	+/-	1.8

ph/seg (deg)	RMS 19.4	Theor. 4.3	Amplitude 2.570 +/- 0.040	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	7.4	7.5	Search (512X32) 2.542	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	47.6	2.5	Inc. seg. avg. 2.704	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	34.9	4.4	Inc. frq. avg. 3.384	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

u: az 310.3 el 55.4 pa 98.7 X: az 65.8 el 48.5 pa -51.7 u,v (fr/asec) 9605.960 -4468.924 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uX..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uX.W.123.1WZMQH

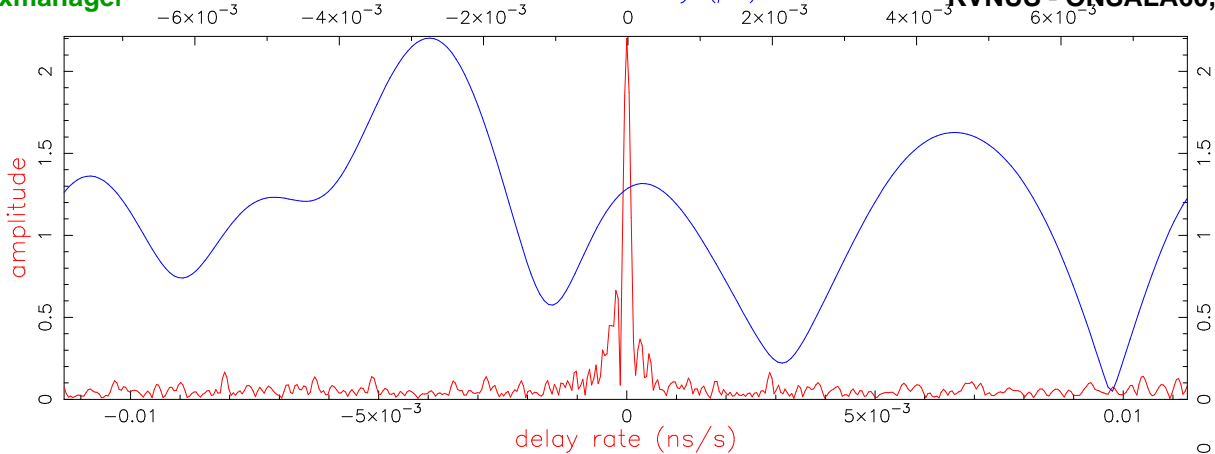
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uX

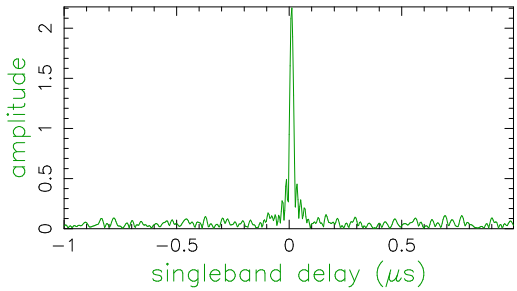
KVNUS - ONSALA60, fgroup W, pol RR

multiband delay (μ s)

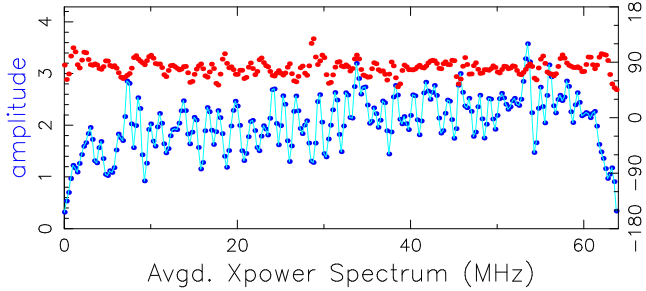


Fringe quality 4

SNR 55.9
Int time 85.236
Amp 2.213
Phase -123.4
PFD 0.0e+00
Delays (us)
SBD 0.010804
MBD -0.002781
Fringe rate (Hz)
-0.000501
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

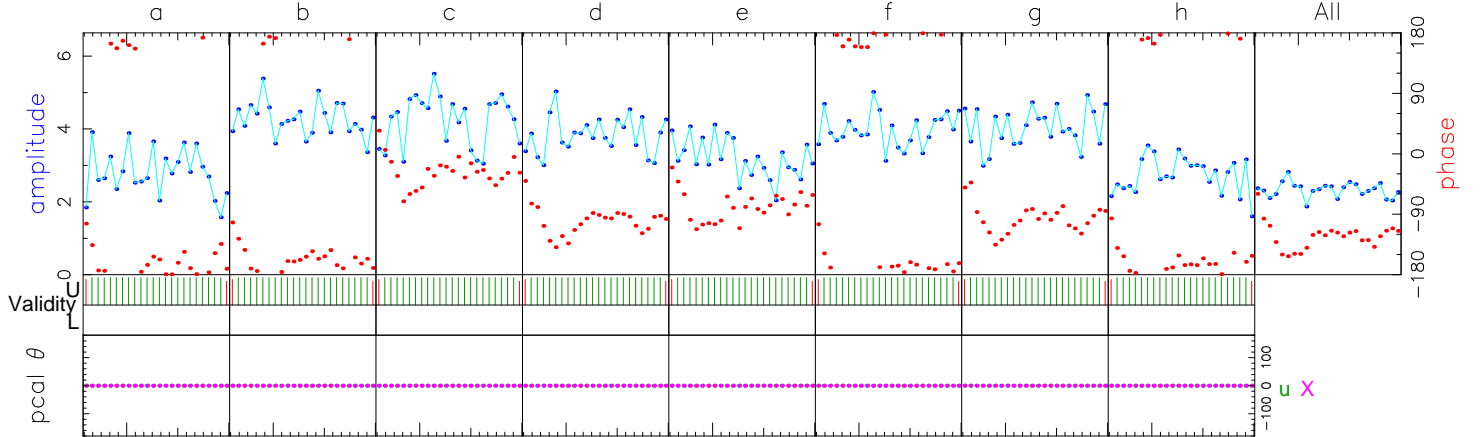


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 080534.34
Stop 080659.84
FRT 080330.00
Corr/FF/build
2021:302:193655
2021:303:114016
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-171.2	-161.8	-28.5	-101.1	-79.1	-174.5	-95.7	-167.3	Phase	-123.4
	2.6	4.0	4.0	3.6	3.0	3.8	3.8	2.6	Ampl.	3.4
	261.4	260.2	259.6	259.2	258.8	259.5	259.4	259.5	Sbd box	259.8
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.31083175684E+03		Apriori delay (usec)		1.31081891266E+03		Resid mbdelay (usec)		-2.78081E-03	+/- 1.9E-05
Sband delay (usec)	1.31082971616E+03		Apriori clock (usec)		-4.1781769E+01		Resid sbdelay (usec)		1.08035E-02	+/- 1.5E-04
Phase delay (usec)	1.31081890868E+03		Apriori clockrate (us/s)		5.9899996E-07		Resid phdelay (usec)		-3.98078E-06	+/- 6.6E-08
Delay rate (us/s)	-1.06007958947E+00		Apriori rate (us/s)		-1.06007958365E+00		Resid rate (us/s)		-5.81868E-09	+/- 1.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.01162186625E-05		Resid phase (deg)		-123.4	+/- 2.1

ph/seg (deg) 19.3 5.0 Search (512X32) 2.169 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 10.6 8.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 58.5 2.9 Inc. seg. avg. 2.322 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 60.0 5.1 Inc. frq. avg. 3.413 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 310.3 el 55.4 pa 98.7 X: az 65.8 el 48.5 pa -51.7 u,v (fr/asec) 9605.960 -4468.924 simultaneous interpolator

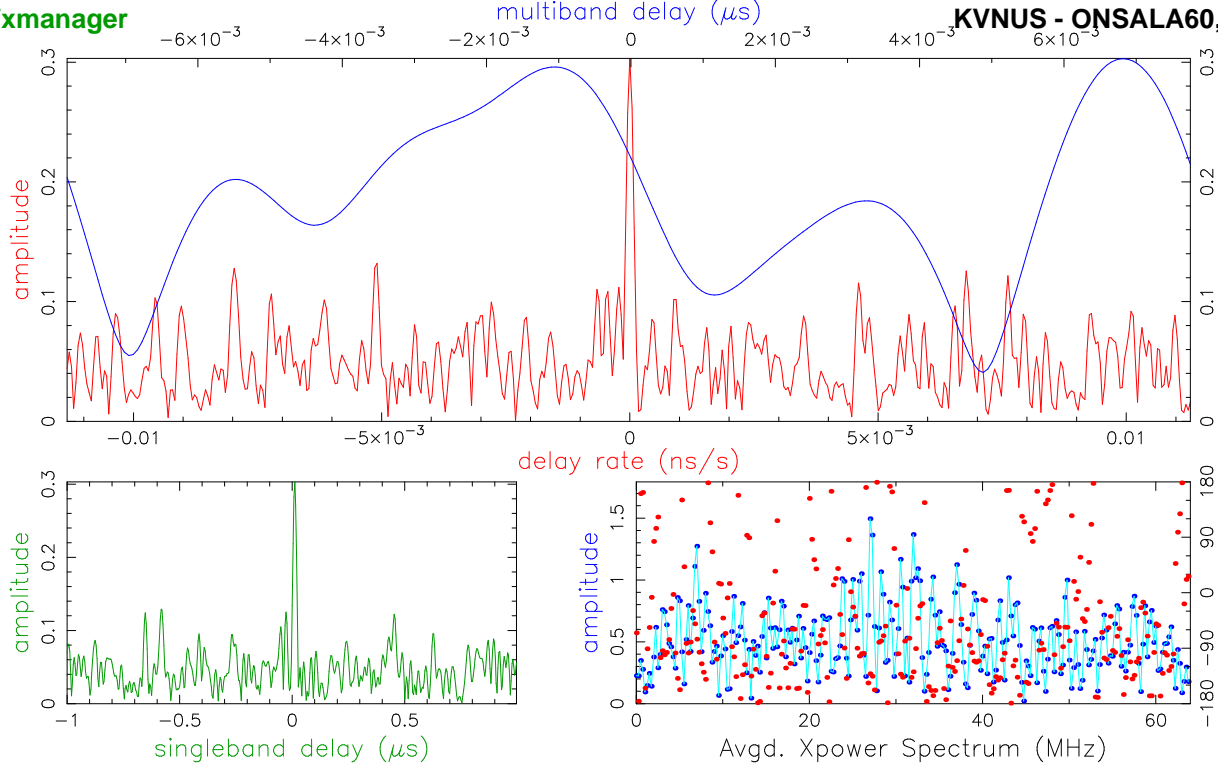
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uX..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uX.W.141.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

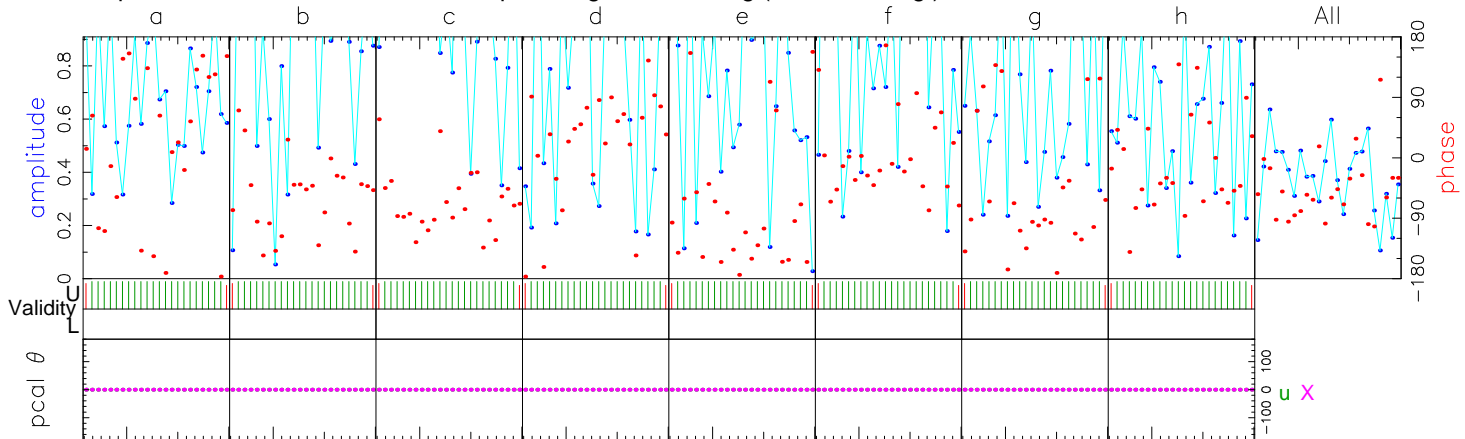
NRAO150.1WZMQH, No0029, uX

KVNUS - ONSALA60, fgroup W, pol LR



Fringe quality 9
 SNR 7.7
 Int time 85.236
 Amp 0.303
 Phase -53.2
 PFD 1.6e-06
 Delays (us)
 SBD 0.011320
 MBD 0.006813
 Fringe rate (Hz)
 -0.001108
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114017
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	127.1	-46.1	-76.8	47.5	-126.9	-13.2	-105.9	-33.8	Phase	-53.2
	0.2	0.7	0.9	0.6	0.5	0.6	0.4	0.4	Ampl.	0.5
	77.8	260.6	260.1	258.8	258.9	260.7	259.8	260.8	Sbd box	259.9
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.31082572522E+03		Apriori delay (usec)		1.31081891266E+03		Resid mbdelay (usec)		6.81256E-03	+/- 1.4E-04
Sband delay (usec)	1.31083023291E+03		Apriori clock (usec)		-4.1781769E+01		Resid sbdelay (usec)		1.13203E-02	+/- 1.1E-03
Phase delay (usec)	1.31081891094E+03		Apriori clockrate (us/s)		5.9899996E-07		Resid phdelay (usec)		-1.71581E-06	+/- 4.8E-07
Delay rate (us/s)	-1.06007959652E+00		Apriori rate (us/s)		-1.06007958365E+00		Resid rate (us/s)		-1.28674E-08	+/- 9.8E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.01162186625E-05		Resid phase (deg)		-53.2	+/- 15.0

ph/seg (deg) 49.6 36.7 Search (512X32) 0.299 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 51.8 64.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 94.2 21.2 Inc. seg. avg. 0.319 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 100.2 37.0 Inc. frq. avg. 0.491 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 310.3 el 55.4 pa 98.7 X: az 65.8 el 48.5 pa -51.7 u,v (fr/asec) 9605.960 -4468.924 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uX..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uX.W.152.1WZMQH

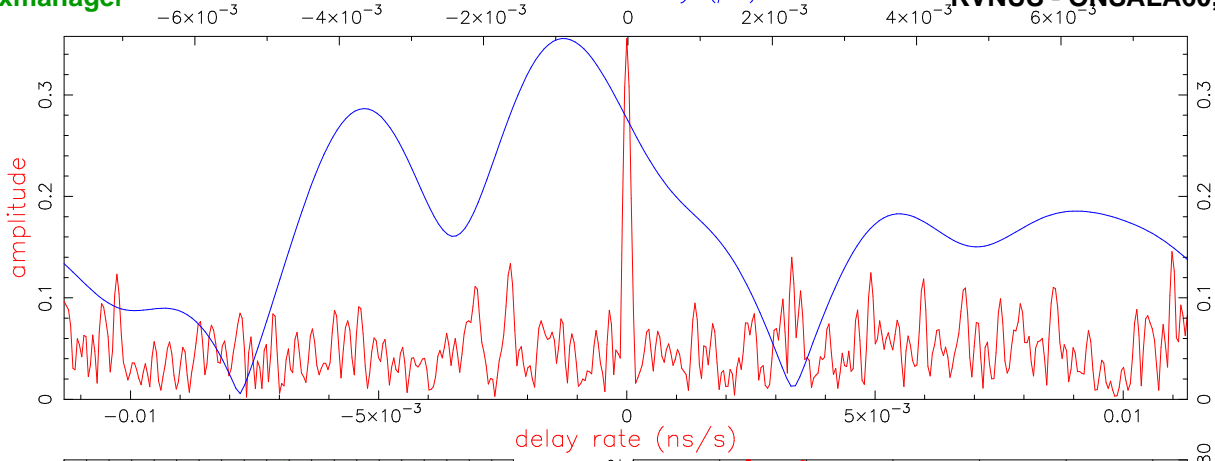
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uX

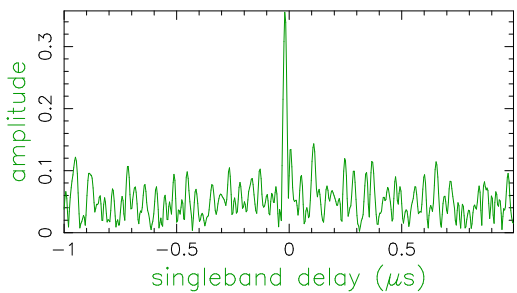
KVNUS - ONSALA60, fgroup W, pol RL

multiband delay (μs)

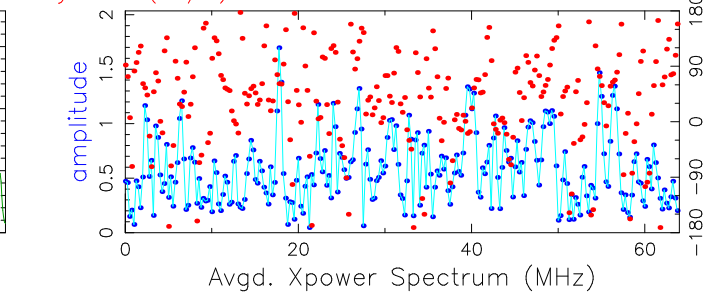


Fringe quality 9

SNR 9.0
 Int time 85.236
 Amp 0.358
 Phase -149.6
 PFD 1.7e-11
 Delays (us)
 SBD -0.018544
 MBD -0.000865
 Fringe rate (Hz)
 -0.000787
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

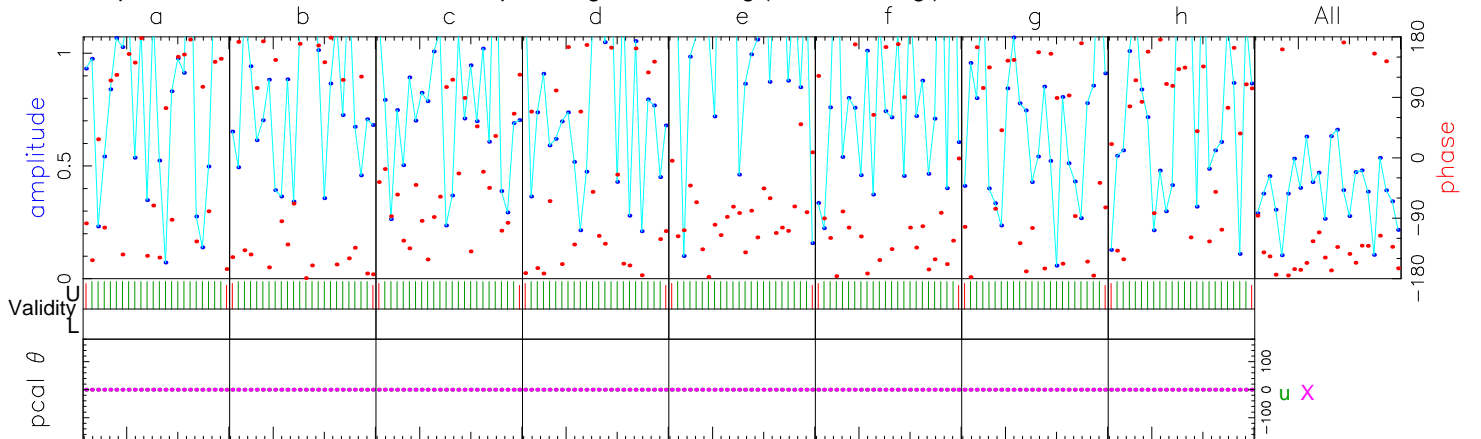


singleband delay (μs)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114018
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec

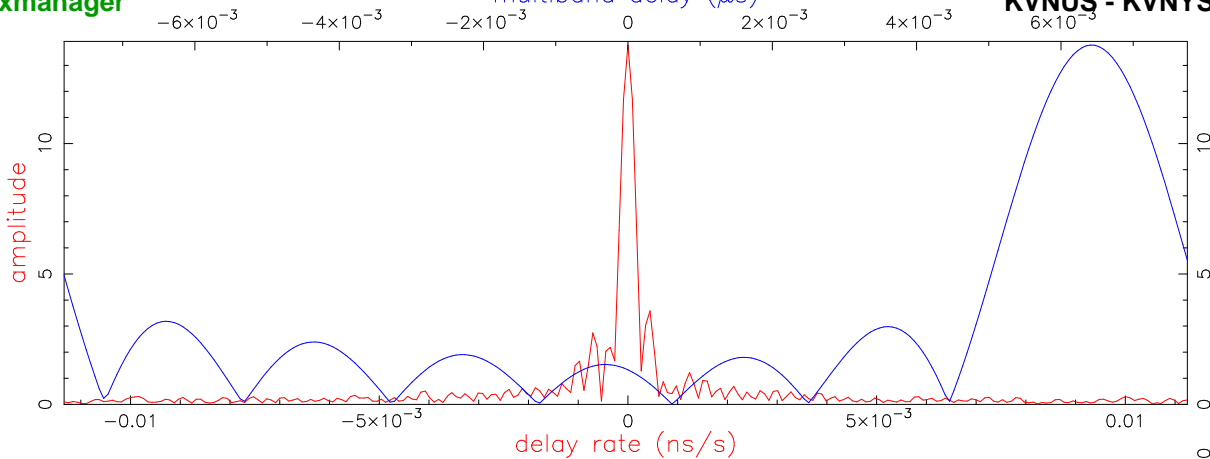


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-178.0	-169.3	-46.5	-163.8	-89.3	-138.4	-174.1	133.7	Phase	-149.6
	0.5	0.7	0.3	0.4	0.8	0.6	0.3	0.4	Ampl.	0.5
	252.3	251.9	250.4	251.9	252.1	251.3	252.2	252.5	Sbd box	252.3
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)		1.31080242256E+03		Apriori delay (usec)	1.31081891266E+03		Resid mbdelay (usec)	-8.65094E-04		+/- 1.2E-04
Sband delay (usec)		1.31080036916E+03		Apriori clock (usec)	-4.1781769E+01		Resid sbdelay (usec)	-1.85435E-02		+/- 9.5E-04
Phase delay (usec)		1.31081890783E+03		Apriori clockrate (us/s)	5.9899996E-07		Resid phdelay (usec)	-4.82292E-06		+/- 4.1E-07
Delay rate (us/s)		-1.06007959279E+00		Apriori rate (us/s)	-1.06007958365E+00		Resid rate (us/s)	-9.13189E-09		+/- 8.3E-09
Total phase (deg)			-100.5	Apriori accel (us/s/s)	-3.01162186625E-05		Resid phase (deg)	-149.6		+/- 12.7

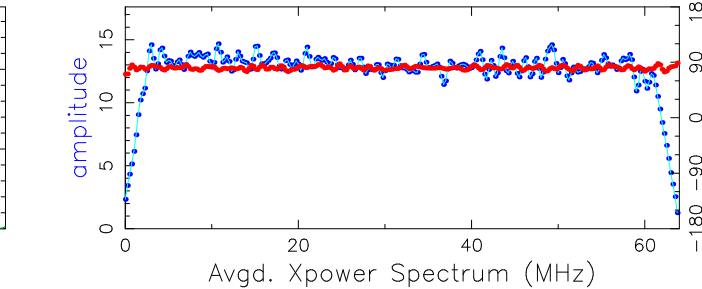
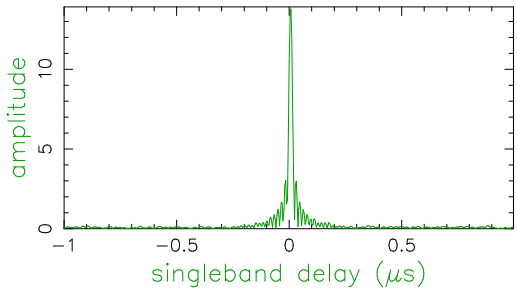
ph/seg (deg) 30.6 31.1 Amplitude 0.358 +/- 0.040 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 41.8 54.3 Search (512X32) 0.352 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 60.9 17.9 Inc. seg. avg. 0.348 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 64.4 31.3 Inc. frq. avg. 0.488 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 310.3 el 55.4 pa 98.7 X: az 65.8 el 48.5 pa -51.7 u,v (fr/asec) 9605.960 -4468.924 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uX..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uX.W.154.1WZMQH

multiband delay (μ s)

Fringe quality 9

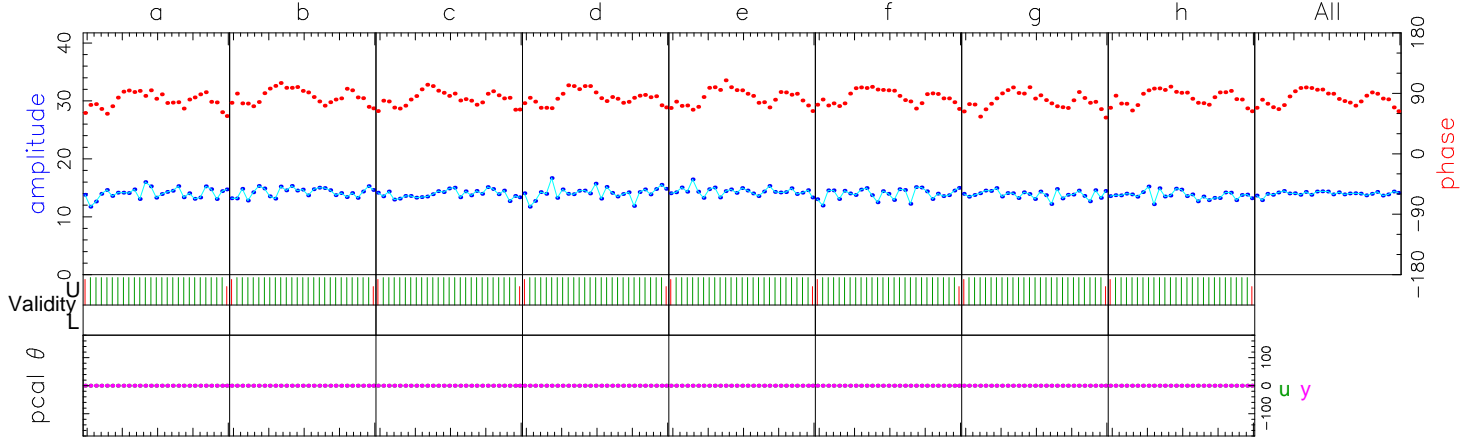


SNR 243.3
Int time 40.852
Amp 13.919
Phase 82.6
PFD 0.0e+00
Delays (us)
SBD 0.006546
MBD 0.006422
Fringe rate (Hz)
0.001863
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 080618.88
Stop 080659.84
FRT 080330.00
Corr/FF/build
2021:302:193655
2021:303:114012
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-5.45895781031E+02	Apriori delay (usec)	-5.45902203343E+02	Resid mbdelay (usec)	6.42231E-03	+/-	4.5E-06
Sband delay (usec)	-5.45895657593E+02	Apriori clock (usec)	1.3993299E+01	Resid sbdelay (usec)	6.54575E-03	+/-	3.5E-05
Phase delay (usec)	-5.45902200680E+02	Apriori clockrate (us/s)	1.1270000E-06	Resid phdelay (usec)	2.66311E-06	+/-	1.5E-08
Delay rate (us/s)	-3.70207507019E-02	Apriori rate (us/s)	-3.70207723327E-02	Resid rate (us/s)	2.16308E-08	+/-	6.4E-10
Total phase (deg)	-204.0	Apriori accel (us/s/s)	4.95291990318E-07	Resid phase (deg)	82.6	+/-	0.5

ph/seg (deg)	10.3	RMS	10.3	Theor.	1.2	Amplitude	13.919 +/- 0.057	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	2.4	Search (256X32)	13.612	Apriori delay (usec)	-5.45895781031E+02	Apriori clock (usec)	1.3993299E+01	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	2.7	Inc. seg. avg.	14.005	Apriori clockrate (us/s)	1.1270000E-06	Apriori rate (us/s)	-3.70207723327E-02	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	1.7	Inc. frq. avg.	13.791	Apriori accel (us/s/s)	4.95291990318E-07	Resid mbdelay (usec)	6.42231E-03	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Resid sbdelay (usec)	6.54575E-03	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

u: az 310.3 el 55.4 pa 98.7 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) 338.302 -112.742 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uy..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uy.W.105.1WZMQH

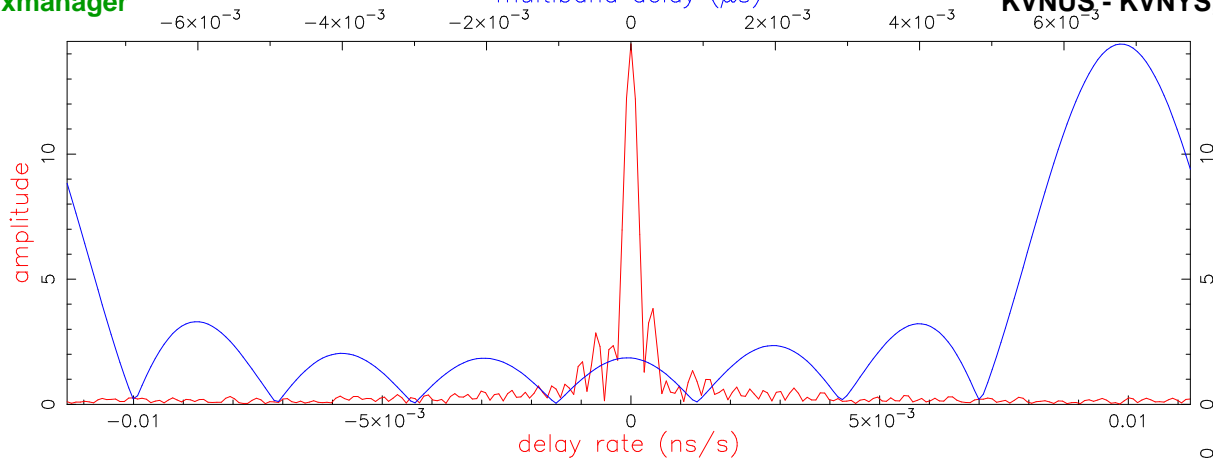
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uy

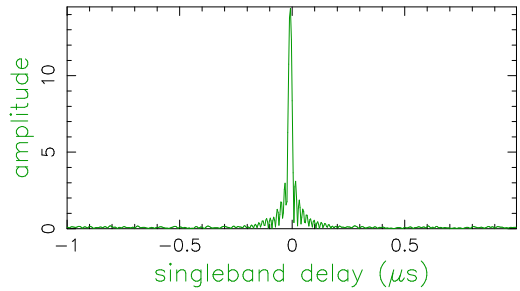
KVNU5 - KVNY5, fgroup W, pol RR

multiband delay (μ s)

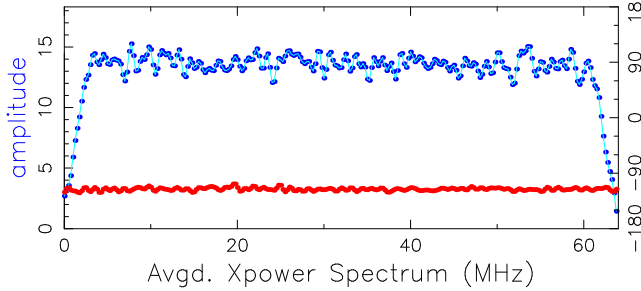


Fringe quality 9

SNR 253.5
 Int time 40.852
 Amp 14.502
 Phase 63.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.008886
 MBD 0.006791
 Fringe rate (Hz)
 0.001857
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

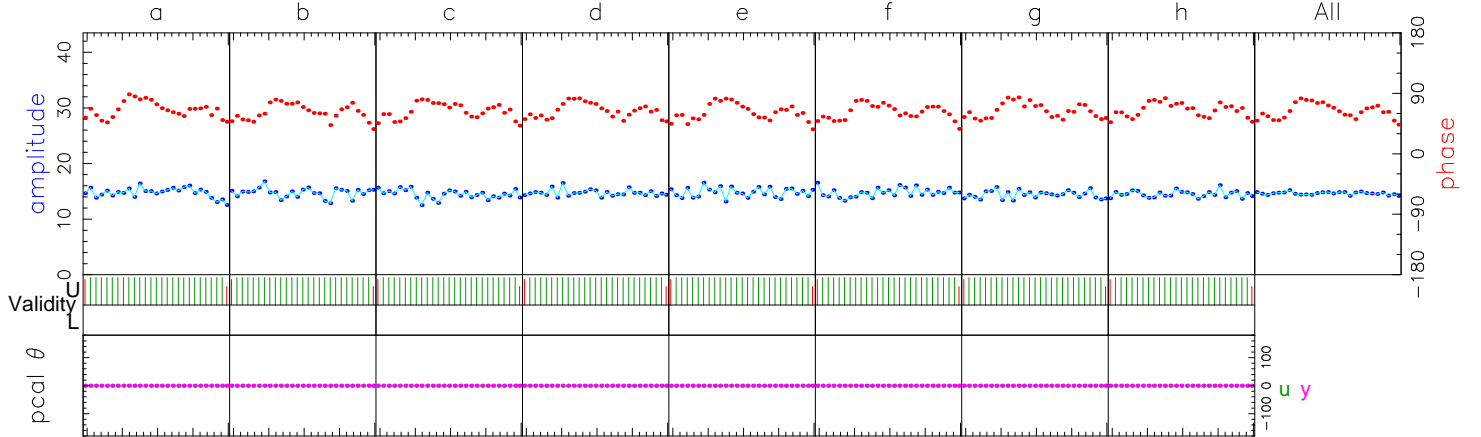


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080618.88
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114014
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	86.5	63.6
u	1000	1000	1000	1000	1000	1000	1000	1000	14.3	14.4
y	1000	1000	1000	1000	1000	1000	1000	1000	254.7	254.7
u:y	0:0	0:0	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	0:0	0:0
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		-5.45911036937E+02			-5.45902203343E+02				6.79141E-03	+/- 4.3E-06
Sband delay (usec)		-5.45911089093E+02			1.3993299E+01				-8.88575E-03	+/- 3.4E-05
Phase delay (usec)		-5.45902201292E+02			1.1270000E-06				2.05157E-06	+/- 1.5E-08
Delay rate (us/s)		-3.70207507756E-02			-3.70207723327E-02				2.15572E-08	+/- 6.2E-10
Total phase (deg)			-222.9		4.95291990318E-07				63.6	+/- 0.5
	RMS	Theor.	Amplitude	14.502 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	10.6	1.2	Search (256X32)	14.255	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	1.9	2.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	1.7	0.6	Inc. seg. avg.	14.643	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	1.1	1.1	Inc. frq. avg.	14.403	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

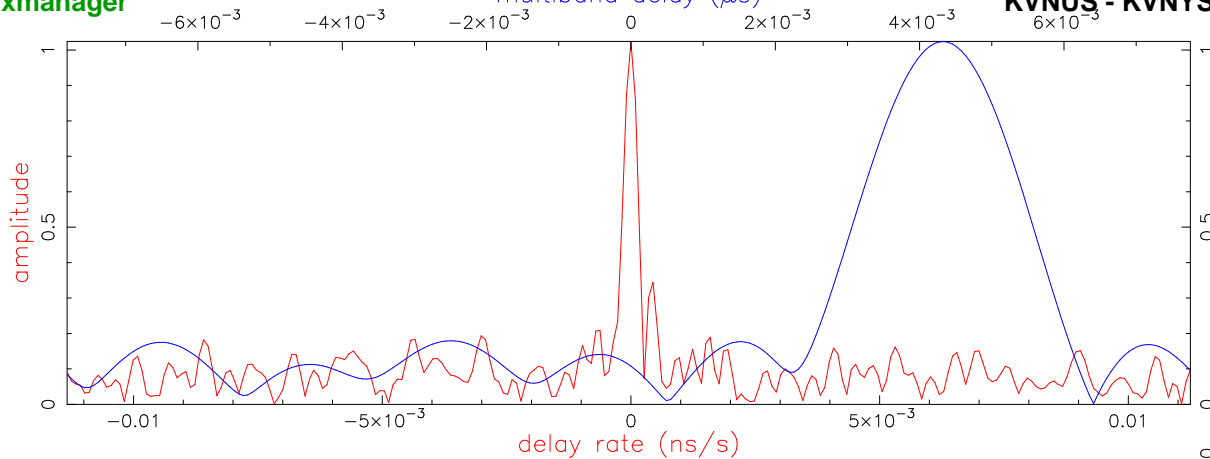
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uy

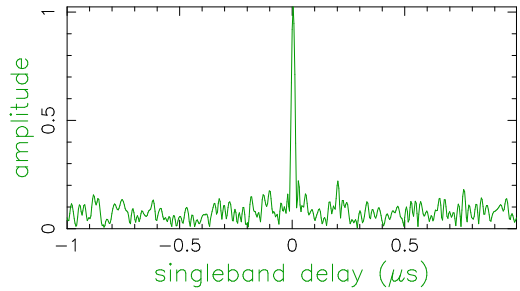
KVNU\$ - KVNY\$, fgroup W, pol RL

multiband delay (μ s)

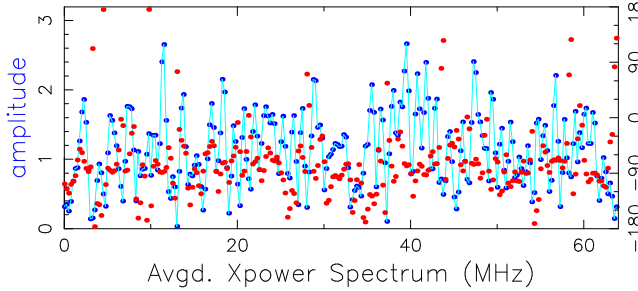


Fringe quality 9

SNR 17.9
 Int time 40.852
 Amp 1.024
 Phase -83.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.004208
 MBD 0.004322
 Fringe rate (Hz)
 0.001272
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

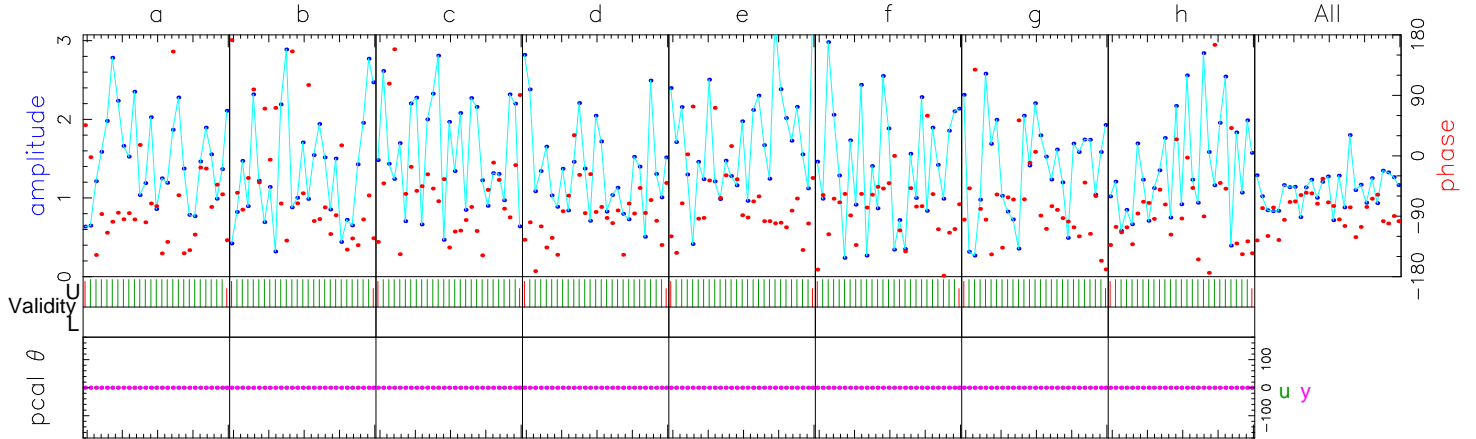


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080618.88
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114016
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-89.0	-87.3	-72.3	-88.1	-77.5	-79.7	-87.4	-87.6	Phase	-83.2
	1.1	0.8	1.0	1.1	1.3	1.1	1.0	0.9	Ampl.	1.0
	258.1	257.5	258.1	258.0	258.2	258.5	258.4	257.9	Sbd box	258.1
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.45897880968E+02		Apriori delay (usec)		-5.45902203343E+02		Resid mbdelay (usec)		4.32238E-03	+/- 6.1E-05
Sband delay (usec)	-5.45897995343E+02		Apriori clock (usec)		1.3993299E+01		Resid sbdelay (usec)		4.20800E-03	+/- 4.8E-04
Phase delay (usec)	-5.45902206027E+02		Apriori clockrate (us/s)		1.1270000E-06		Resid phdelay (usec)		-2.68333E-06	+/- 2.1E-07
Delay rate (us/s)	-3.70207575664E-02		Apriori rate (us/s)		-3.70207723327E-02		Resid rate (us/s)		1.47663E-08	+/- 8.7E-09
Total phase (deg)			Apriori accel (us/s/s)		4.95291990318E-07		Resid phase (deg)		-83.2	+/- 6.4

	RMS	Theor.	Amplitude	1.024 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	23.5	16.6	Search (256X32)	1.017	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	23.8	29.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	6.8	9.1	Inc. seg. avg.	1.067	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	14.5	15.8	Inc. frq. avg.	1.017	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

u: az 310.3 el 55.4 pa 98.7 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) 338.302 -112.742 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uy..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uy.W.144.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

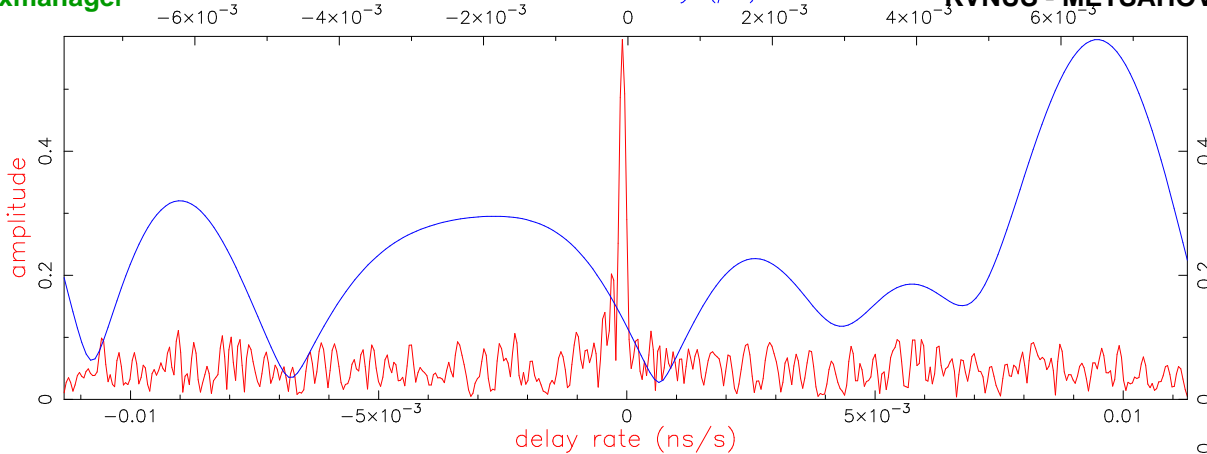
fxmanager

NRAO150.1WZMQH, No0029, uZ

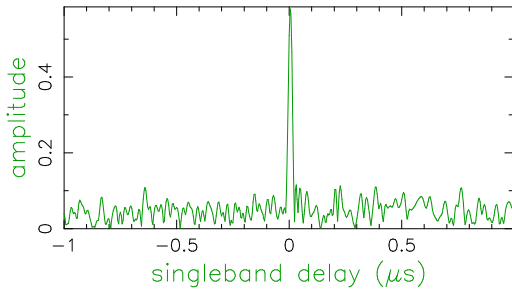
KVNUS - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

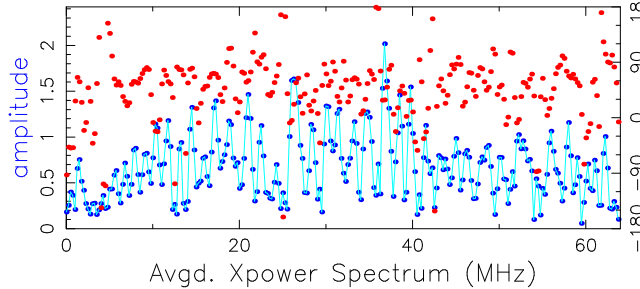
Fringe quality 8



SNR 14.8
 Int time 85.187
 Amp 0.585
 Phase 36.6
 PFD 3.7e-41
 Delays (us)
 SBD 0.005233
 MBD 0.006513
 Fringe rate (Hz)
 -0.005891
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

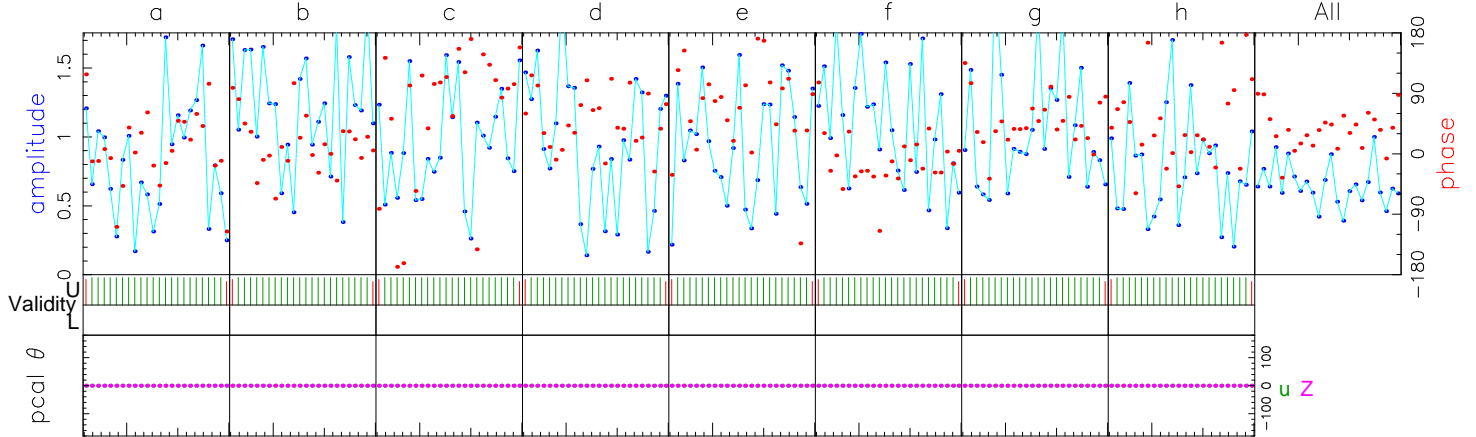


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114012
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0		
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-2.17319721064E+02	Apriori delay (usec)	-2.17326234005E+02	Resid mbdelay (usec)	6.51294E-03	+/-	7.3E-05
Sband delay (usec)	-2.17321000755E+02	Apriori clock (usec)	1.5413208E+01	Resid sbdelay (usec)	5.23325E-03	+/-	5.8E-04
Phase delay (usec)	-2.17326232824E+02	Apriori clockrate (us/s)	1.1110000E-06	Resid phdelay (usec)	1.18102E-06	+/-	2.5E-07
Delay rate (us/s)	-9.78986224340E-01	Apriori rate (us/s)	-9.78986155953E-01	Resid rate (us/s)	-6.83871E-08	+/-	5.1E-09
Total phase (deg)	-250.4	Apriori accel (us/s/s)	-2.39311466803E-05	Resid phase (deg)	36.6	+/-	7.8

ph/seg (deg)	29.1	Theor.	19.0	Amplitude	0.585 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	27.9		33.2	Search (512X32)	0.556	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	48.0		11.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	38.1		19.2	Inc. seg. avg.	0.620	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.724	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 310.3 el 55.4 pa 98.7 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8878.187 -4004.400 simultaneous interpolator

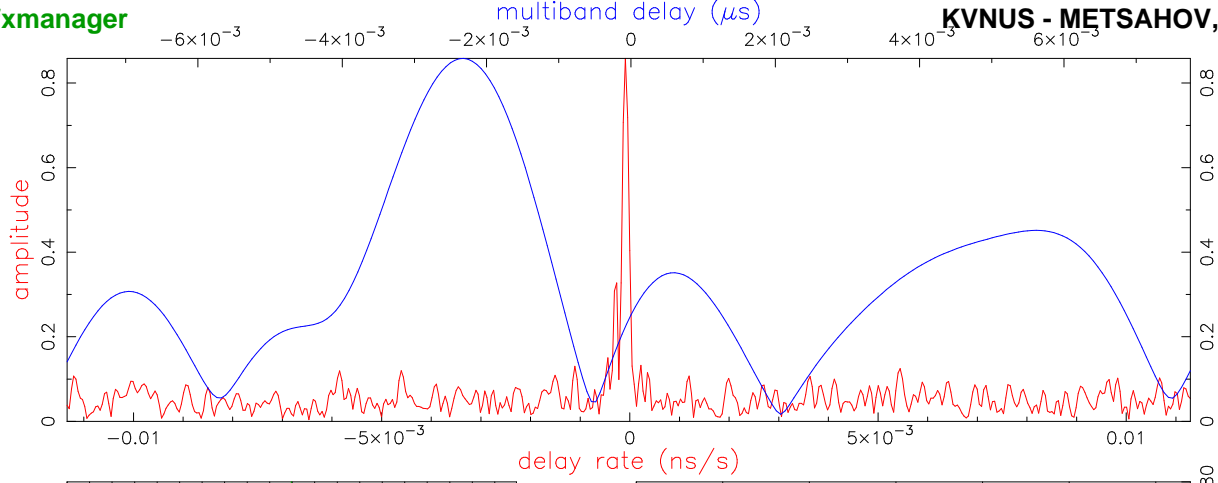
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uZ.W.109.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uZ

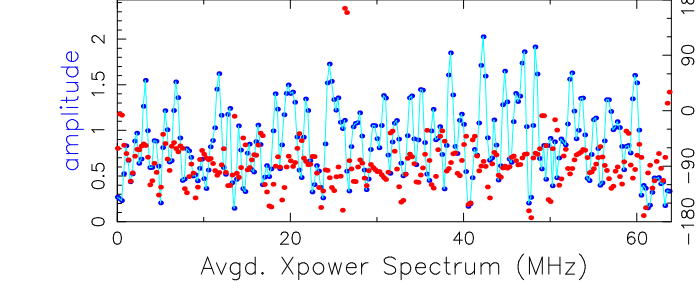
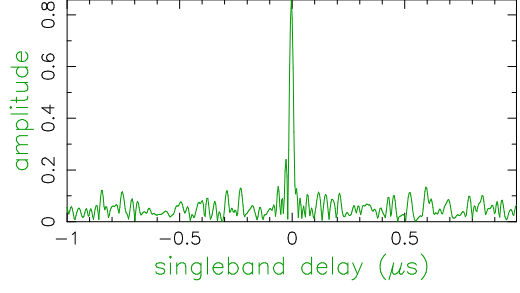
KVNUS - METSAHOV, fgroup W, pol RR



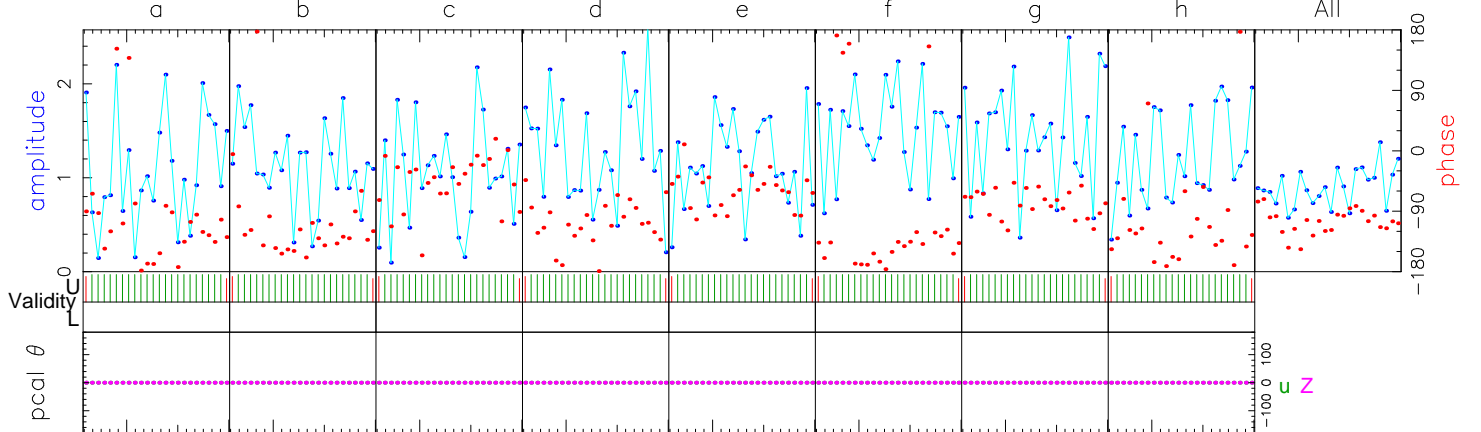
Fringe quality 8

SNR 21.7
 Int time 85.187
 Amp 0.858
 Phase -104.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.003781
 MBD -0.002329
 Fringe rate (Hz)
 -0.006357
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114013
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-130.7	-124.5	-37.4	-106.4	-60.8	-152.6	-77.5	-128.8	Phase	-104.9		
	0.8	1.0	0.8	1.1	1.0	1.4	1.4	1.0	Ampl.	1.1		
	257.4	255.7	255.7	255.6	255.4	255.6	255.6	255.9	Sbd box	256.0		
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used			
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
u:Z	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			
Z	1000	1000	1000	1000	1000	1000	1000	1000				
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Chan ids			
									Tracks			
Group delay (usec)(sbd)	-2.17328562564E+02					-2.17326234005E+02			Resid mbdelay (usec)	-2.32856E-03 +/- 5.0E-05		
Sband delay (usec)	-2.17330015255E+02					1.5413208E+01			Resid sbdelay (usec)	-3.78125E-03 +/- 4.0E-04		
Phase delay (usec)	-2.17326237387E+02					1.1110000E-06			Resid phdelay (usec)	-3.38188E-06 +/- 1.7E-07		
Delay rate (us/s)	-9.78986229748E-01					-9.78986155953E-01			Resid rate (us/s)	-7.37949E-08 +/- 3.5E-09		
Total phase (deg)			-31.9			-2.39311466803E-05			Resid phase (deg)	-104.9 +/- 5.3		
	RMS	Theor.	Amplitude	0.858 +/- 0.040					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	18.4	13.0	Search (512X32)	0.837					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
amp/seg (%)	23.9	22.6	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
ph/frq (deg)	43.1	7.5	Inc. seg. avg.	0.879					Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011	
amp/frq (%)	32.7	13.1	Inc. frq. avg.	1.052					Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

u: az 310.3 el 55.4 pa 98.7 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8878.187 -4004.400 simultaneous interpolator

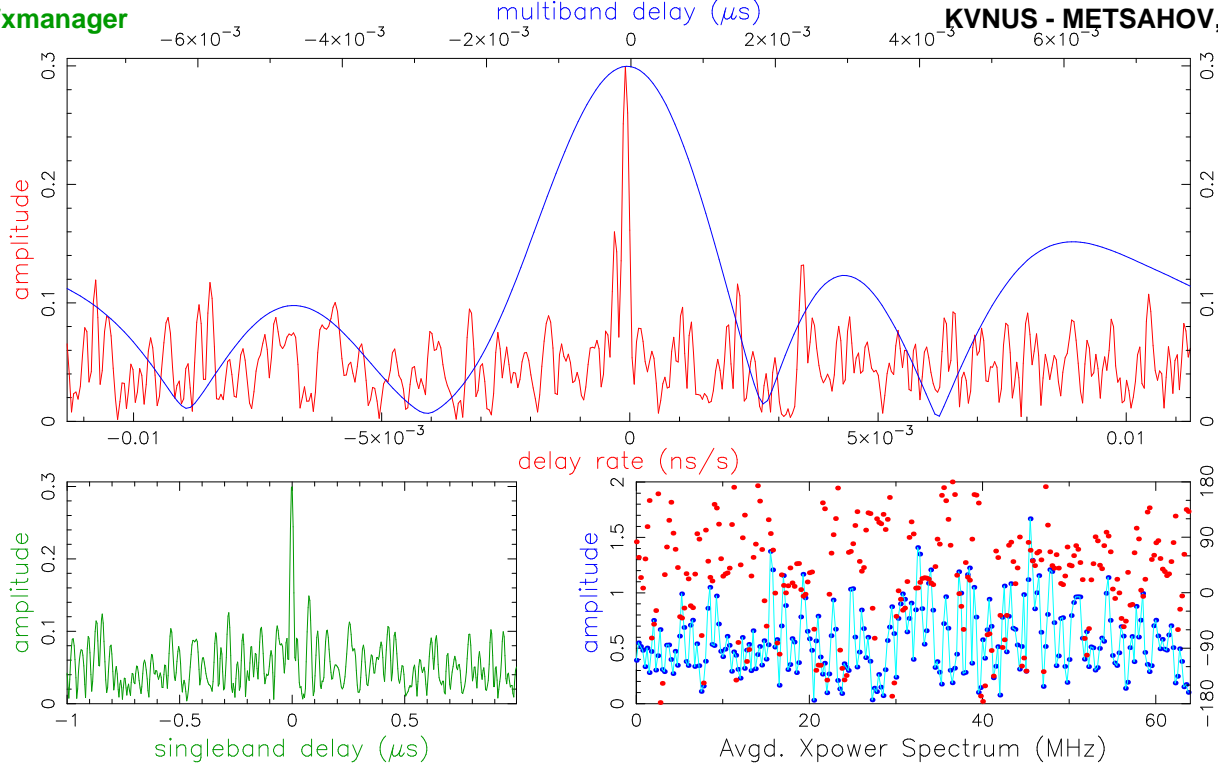
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uZ.W.116.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

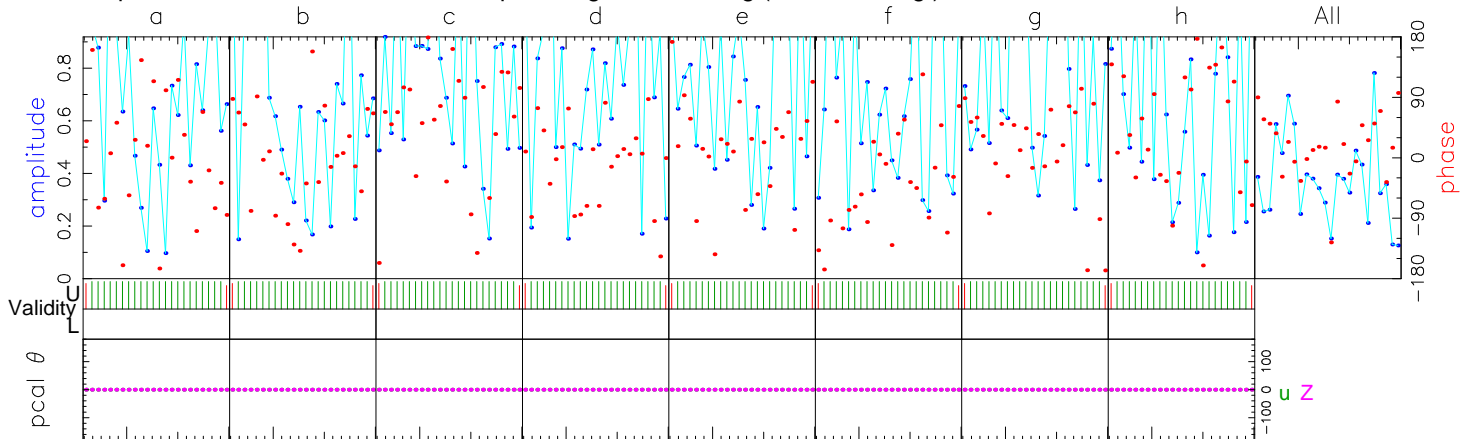
NRAO150.1WZMQH, No0029, uZ

KVNUS - METSAHOV, fgroup W, pol LR



Fringe quality 9
 SNR 7.7
 Int time 85.187
 Amp 0.306
 Phase 22.3
 PFD 8.7e-07
 Delays (us)
 SBD -0.001888
 MBD -0.000106
 Fringe rate (Hz)
 -0.006007
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114014
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-10.4	14.1	82.7	2.7	35.3	-38.3	38.5	26.9	Phase	22.3
	0.2	0.3	0.4	0.4	0.4	0.3	0.6	0.2	Ampl.	0.3
	27.6	323.1	342.7	256.0	256.7	421.0	256.4	200.8	Sbd box	256.5
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.17326339751E+02		Apriori delay (usec)		-2.17326234005E+02		Resid mbdelay (usec)		-1.05746E-04	+/- 1.4E-04
Sband delay (usec)	-2.17328122255E+02		Apriori clock (usec)		1.5413208E+01		Resid sbdelay (usec)		-1.88825E-03	+/- 1.1E-03
Phase delay (usec)	-2.17326233287E+02		Apriori clockrate (us/s)		1.1110000E-06		Resid phdelay (usec)		7.18568E-07	+/- 4.8E-07
Delay rate (us/s)	-9.78986225684E-01		Apriori rate (us/s)		-9.78986155953E-01		Resid rate (us/s)		-6.97306E-08	+/- 9.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.39311466803E-05		Resid phase (deg)		22.3	+/- 14.8

ph/seg (deg) 47.8 36.3 Search (512X32) 0.289 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.0 63.4 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 21.0 Inc. seg. avg. 0.314 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.5 36.6 Inc. frq. avg. 0.332 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 310.3 el 55.4 pa 98.7 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8878.187 -4004.400 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uZ.W.128.1WZMQH

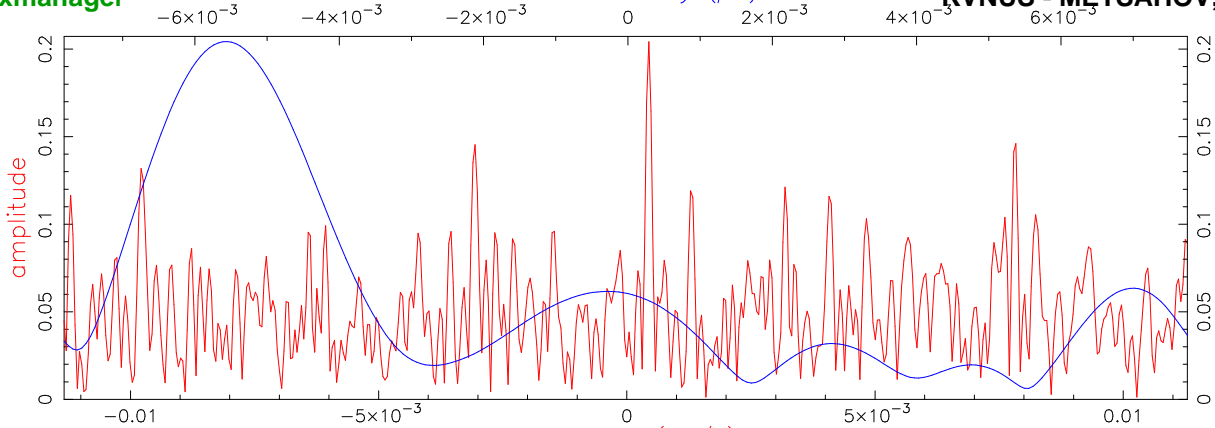
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uZ

KVNUS - METSAHOV, fgroup W, pol RL

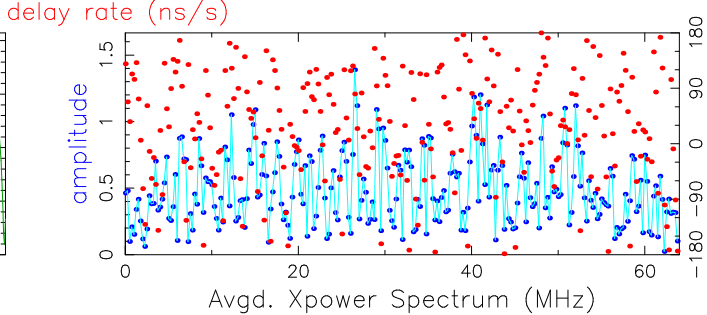
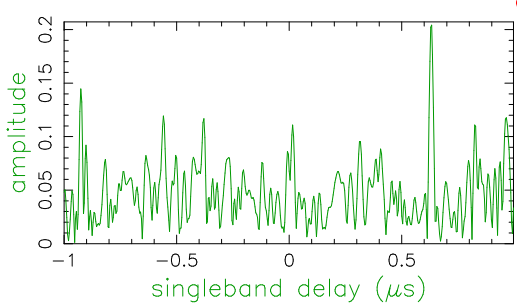
multiband delay (μ s)



Fringe quality 0

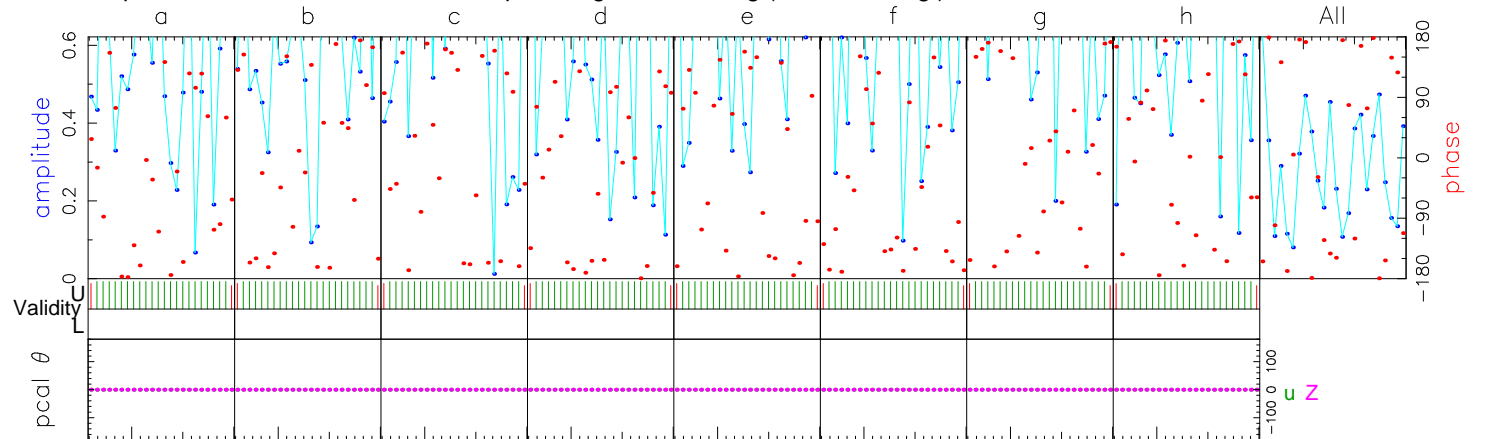
SNR 5.2
 Int time 85.187
 Amp 0.207
 Phase -169.8
 PFD 1.0e+00
 Delays (us)
 SBD 0.631118
 MBD -0.005616
 Fringe rate (Hz)
 0.037907
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114016
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-147.1	171.6	-168.4	157.1	-166.7	-147.7	-160.6	172.4	Phase	-169.8
	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	Ampl.	0.2
	268.7	79.1	284.5	295.7	417.8	10.6	20.3	98.2	Sbd box	418.6
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.16691224587E+02		Apriori delay (usec)		-2.17326234005E+02		Resid mbdelay (usec)		-5.61558E-03	+/- 2.1E-04
Sband delay (usec)	-2.16695116255E+02		Apriori clock (usec)		1.5413208E+01		Resid sbdelay (usec)		6.31118E-01	+/- 1.6E-03
Phase delay (usec)	-2.17326239482E+02		Apriori clockrate (us/s)		1.1110000E-06		Resid phdelay (usec)		-5.47641E-06	+/- 7.1E-07
Delay rate (us/s)	-9.78985715888E-01		Apriori rate (us/s)		-9.78986155953E-01		Resid rate (us/s)		4.40065E-07	+/- 1.4E-08
Total phase (deg)			Apriori accel (us/s/s)		-2.39311466803E-05		Resid phase (deg)		-169.8	+/- 21.9

ph/seg (deg) 64.9 53.7 Search (512X32) 0.202 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 78.6 93.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.8 31.0 Inc. seg. avg. 0.200 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.8 54.1 Inc. frq. avg. 0.187 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 310.3 el 55.4 pa 98.7 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8878.187 -4004.400 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uZ.W.145.1WZMQH