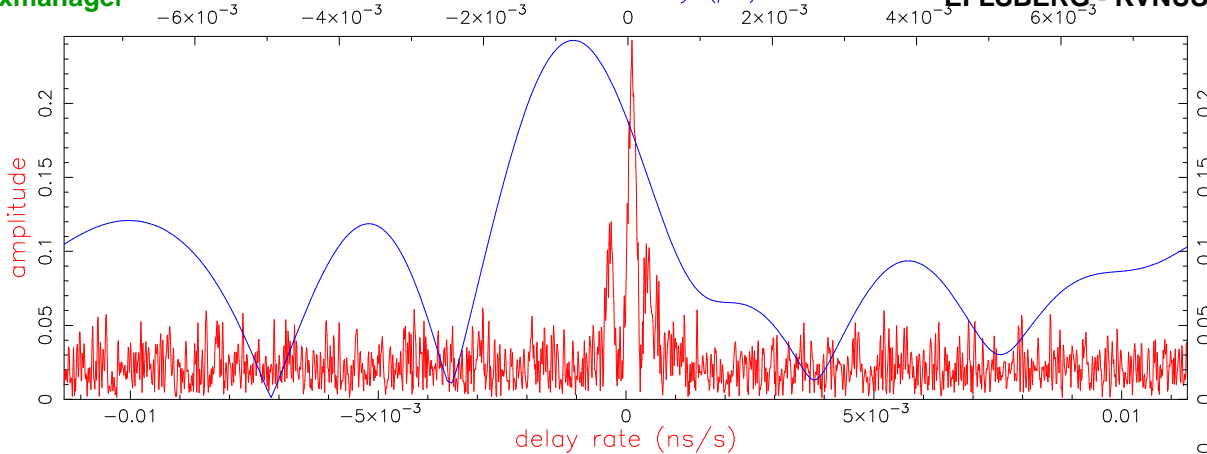
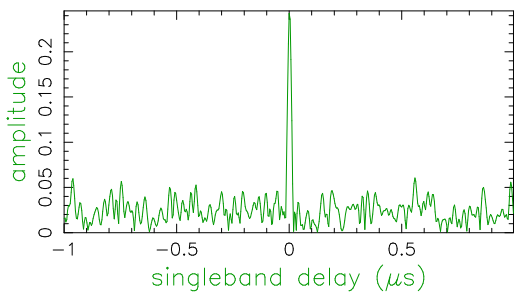


multiband delay (μ s)

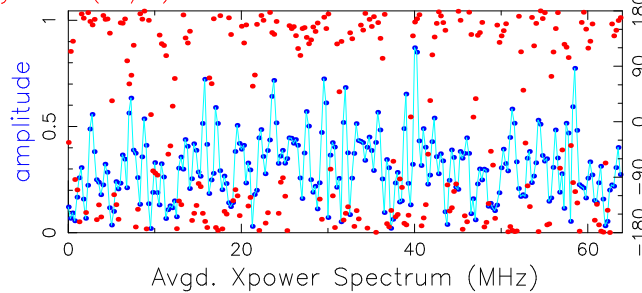


Fringe quality 9

SNR 13.7
Int time 419.817
Amp 0.245
Phase -158.2
PFD 3.3e-34
Delays (us)
SBD 0.001348
MBD -0.000729
Fringe rate (Hz)
0.010177
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

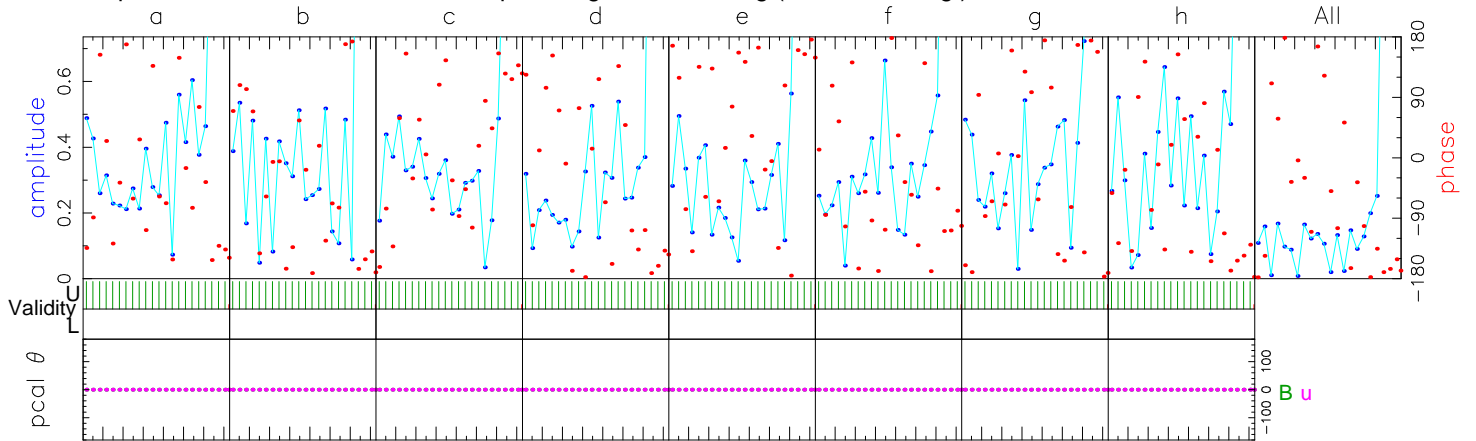


delay rate (ns/s)



Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 094501.00
Stop 095200.84
FRT 094831.00
Corr/FF/build
2021:286:231157
2021:287:012700
2021:252:122852
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-122.6	-155.2	124.6	-160.7	164.6	-102.2	-179.0	-140.9	Phase	-158.2		
	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.3	Ampl.	0.3		
	256.2	257.8	258.2	258.3	258.2	257.6	257.4	256.1	Sbd box	257.3		
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	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)	7.45342127137E+03		Apriori delay (usec)		7.45342200005E+03		Resid mbdelay (usec)		-7.28685E-04	+/- 7.9E-05		
Sband delay (usec)	7.45342334755E+03		Apriori clock (usec)		-3.6582653E+01		Resid sbdelay (usec)		1.34750E-03	+/- 6.3E-04		
Phase delay (usec)	7.45342199495E+03		Apriori clockrate (us/s)		-1.1270000E-06		Resid phdelay (usec)		-5.10184E-06	+/- 2.7E-07		
Delay rate (us/s)	1.43712698736E+00		Apriori rate (us/s)		1.43712686922E+00		Resid rate (us/s)		1.18141E-07	+/- 1.1E-09		
Total phase (deg)			Apriori accel (us/s/s)		-2.55461488592E-05		Resid phase (deg)		-158.2	+/- 8.3		
	RMS	Theor.	Amplitude	0.245 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	82.7	20.0	Search (2048X32)	0.233		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	192.3	34.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	45.6	11.8	Inc. seg. avg.	0.284		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011	0.011	
amp/frq (%)	33.4	20.6	Inc. frq. avg.	0.292		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

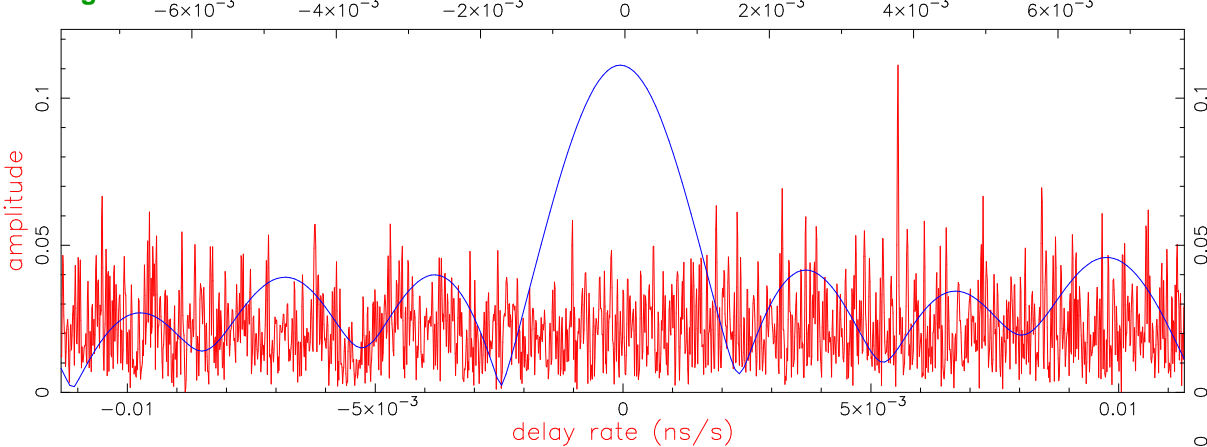
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, Bu

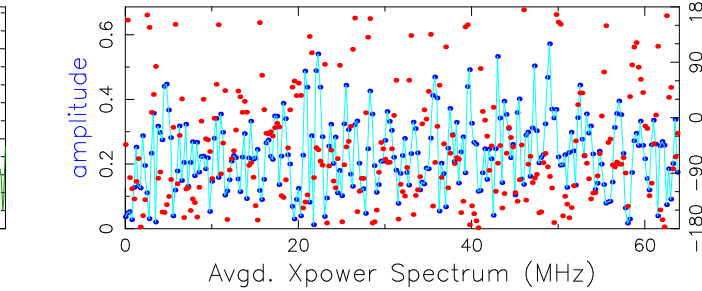
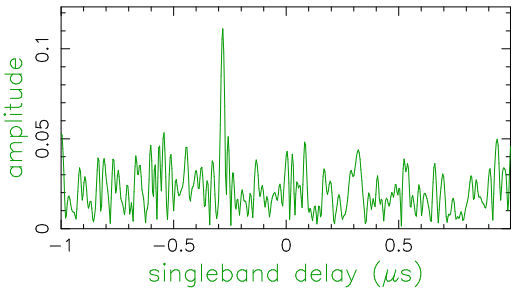
EFLSBERG - KVNUS, fgroup W, pol LR

multiband delay (μs)



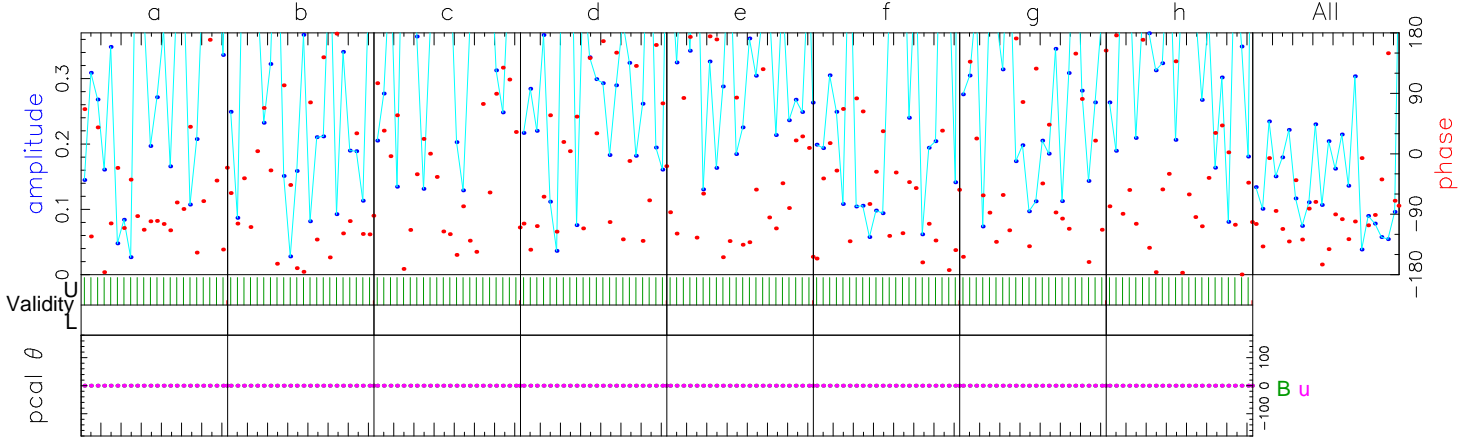
Fringe quality 0

SNR 6.2
 Int time 419.817
 Amp 0.123
 Phase -97.2
 PFD 1.1e-01
 Delays (us)
 SBD -0.281980
 MBD -0.000061
 Fringe rate (Hz)
 0.478679
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012703
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-96.6	-114.0	-78.6	-73.3	-114.0	-73.5	-124.4	-95.6	Phase	-97.2
	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	183.6	447.0	327.2	257.8	507.0	361.7	278.0	185.3	Sbd box	184.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	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	
									Tracks	
Group delay (usec)(sbd)	7.45314068863E+03		Apriori delay (usec)		7.45342200005E+03		Resid mbdelay (usec)		-6.14205E-05	+/- 1.7E-04
Sband delay (usec)	7.45314002055E+03		Apriori clock (usec)		-3.6582653E+01		Resid sbdelay (usec)		-2.81980E-01	+/- 1.4E-03
Phase delay (usec)	7.45342199692E+03		Apriori clockrate (us/s)		-1.1270000E-06		Resid phdelay (usec)		-3.13471E-06	+/- 5.9E-07
Delay rate (us/s)	1.43713242621E+00		Apriori rate (us/s)		1.43712686922E+00		Resid rate (us/s)		5.55698E-06	+/- 2.4E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.55461488592E-05		Resid phase (deg)		-97.2	+/- 18.3

	RMS	Theor.	Amplitude	0.123 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	47.3	44.0	Search (2048X32)	0.107	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	71.4	76.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	21.6	25.9	Inc. seg. avg.	0.122	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	36.8	45.3	Inc. frq. avg.	0.116	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

B: az 88.7 el 58.2 pa -58.1 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) -11054.271 -394.120 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/Bu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/Bu.W.45.1W6A0V

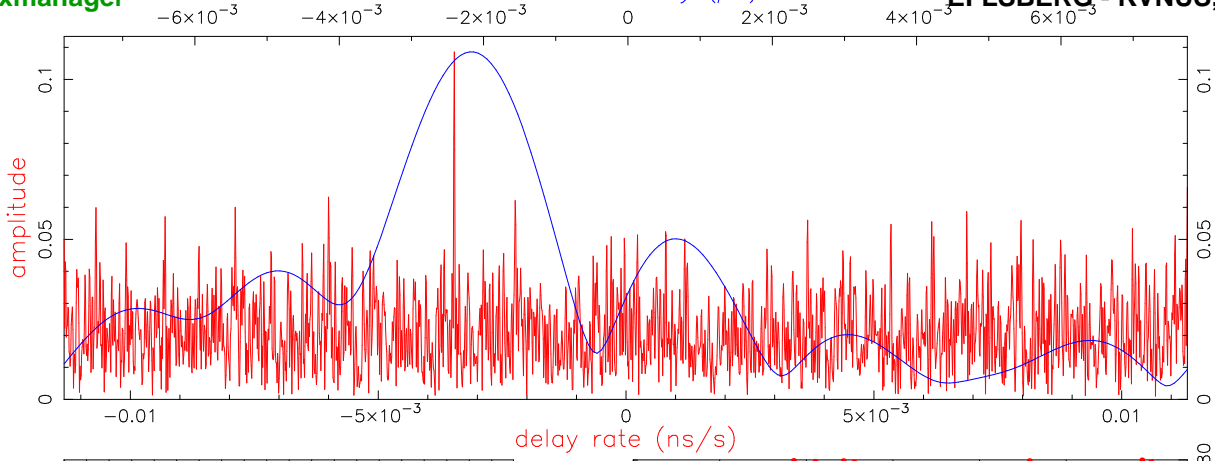
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, Bu

EFLSBERG - KVNUS, fgroup W, pol RL

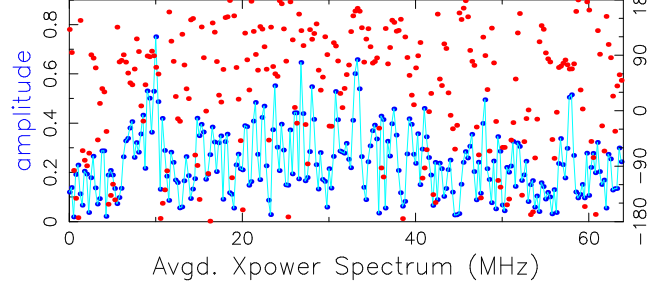
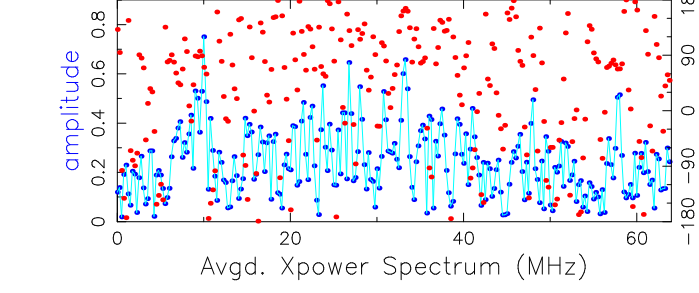
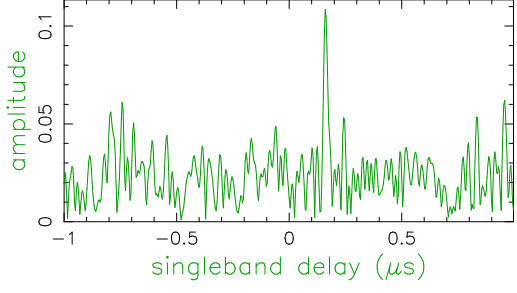
multiband delay (μ s)



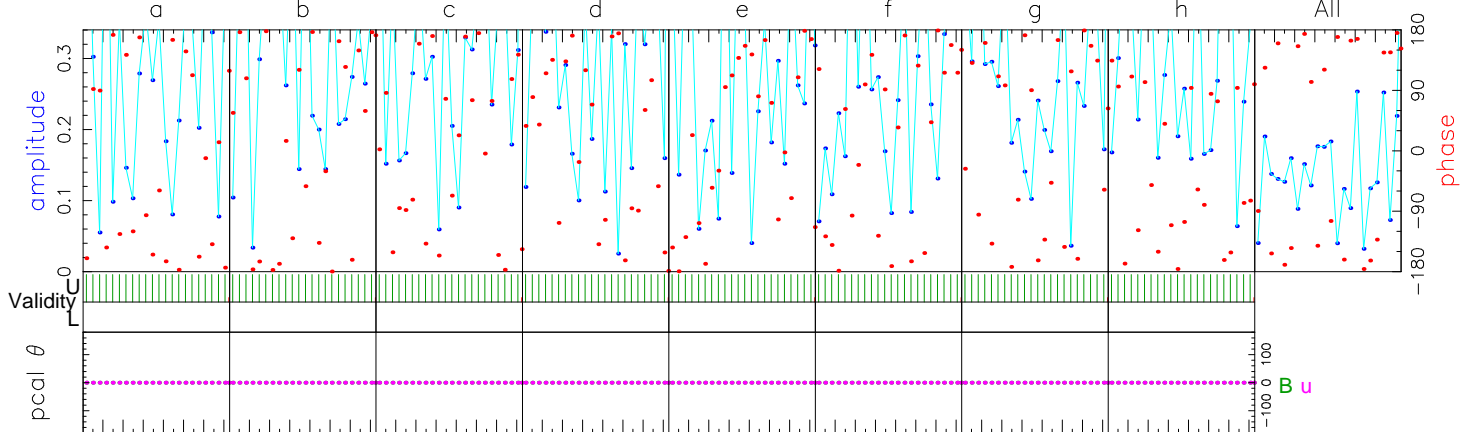
Fringe quality 0

SNR 6.1
Int time 419.817
Amp 0.113
Phase 175.8
PFD 2.3e-01
Delays (us)
SBD 0.161180
MBD -0.002132
Fringe rate (Hz)
-0.299112
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 094501.00
Stop 095200.84
FRT 094831.00
Corr/FF/build
2021:286:231157
2021:287:012707
2021:252:122852
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"



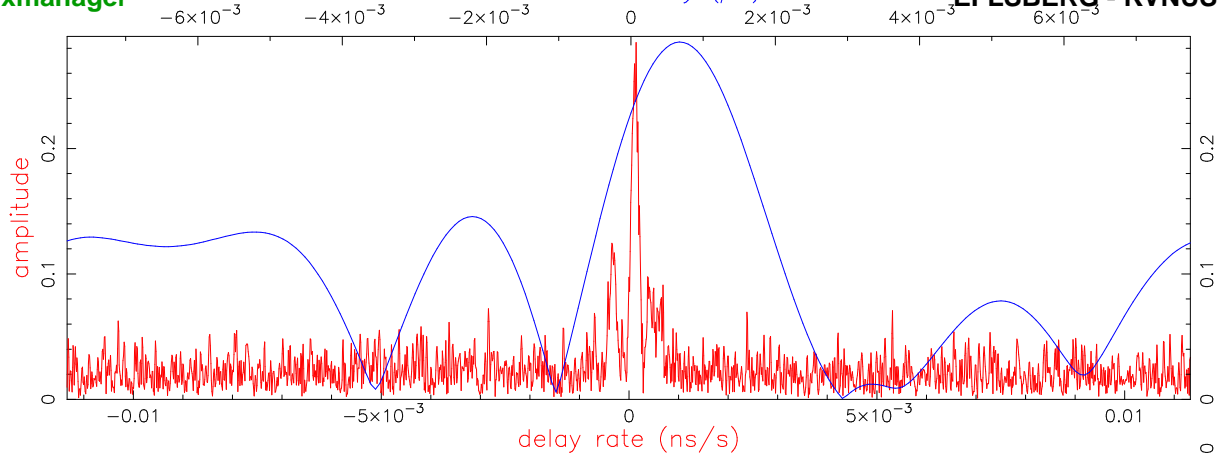
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-162.5	178.8	168.5	135.2	164.7	153.5	-172.9	-155.6	Phase	175.8
	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	298.9	299.6	403.8	103.8	239.5	2.2	419.8	67.4	Sbd box	298.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	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	PC amp	
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)	7.45357611769E+03		Apriori delay (usec)		7.45342200005E+03		Resid mbdelay (usec)		-2.13236E-03	+/- 1.8E-04
Sband delay (usec)	7.45358318030E+03		Apriori clock (usec)		-3.6582653E+01		Resid sbdelay (usec)		1.61180E-01	+/- 1.4E-03
Phase delay (usec)	7.45342200572E+03		Apriori clockrate (us/s)		-1.1270000E-06		Resid phdelay (usec)		5.66871E-06	+/- 6.0E-07
Delay rate (us/s)	1.43712339683E+00		Apriori rate (us/s)		1.43712686922E+00		Resid rate (us/s)		-3.47239E-06	+/- 2.5E-09
Total phase (deg)	206.2		Apriori accel (us/s/s)		-2.55461488592E-05		Resid phase (deg)		175.8	+/- 18.7

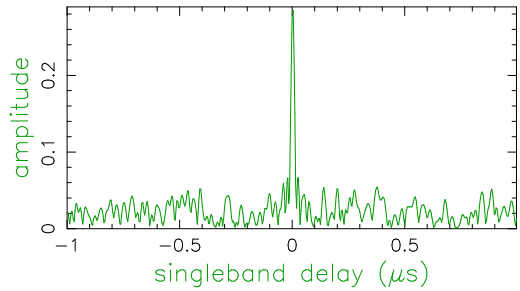
ph/seg (deg) 41.2 45.0 Search (2048X32) 0.104 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 66.5 78.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 25.0 26.5 Inc. seg. avg. 0.110 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.4 46.3 Inc. frq. avg. 0.108 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 B: az 88.7 el 58.2 pa -58.1 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) -11054.271 -394.120 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/Bu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/Bu.W.61.1W6A0V

multiband delay (μ s)

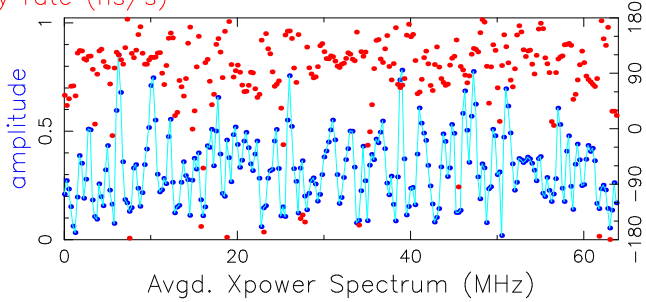


Fringe quality 8

SNR 16.2
Int time 419.817
Amp 0.289
Phase 126.7
PFD 0.0e+00
Delays (us)
SBD 0.002253
MBD 0.000615
Fringe rate (Hz)
0.012009
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

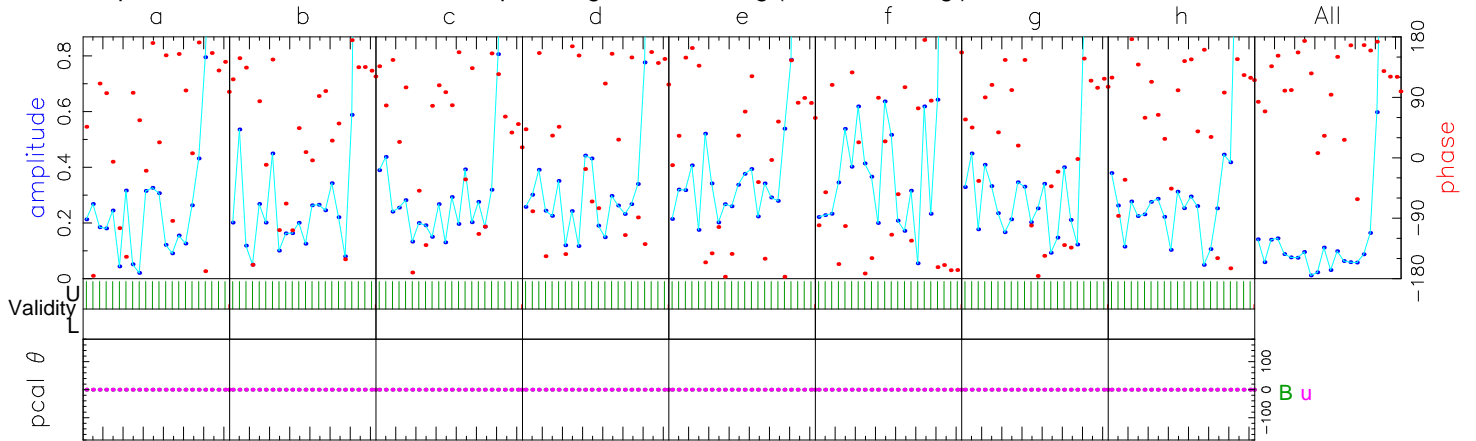


delay rate (ns/s)



Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 094501.00
Stop 095200.84
FRT 094831.00
Corr/FF/build
2021:286:231157
2021:287:012656
2021:252:122852
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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



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

Group delay (usec)(sbd)	7.45342261511E+03	Apriori delay (usec)	7.45342200005E+03	Resid mbdelay (usec)	6.15063E-04	+/-	6.7E-05
Sband delay (usec)	7.45342425280E+03	Apriori clock (usec)	-3.6582653E+01	Resid sbdelay (usec)	2.25275E-03	+/-	5.3E-04
Phase delay (usec)	7.45342200414E+03	Apriori clockrate (us/s)	-1.1270000E-06	Resid phdelay (usec)	4.08588E-06	+/-	2.3E-07
Delay rate (us/s)	1.43712700863E+00	Apriori rate (us/s)	1.43712686922E+00	Resid rate (us/s)	1.39409E-07	+/-	9.4E-10
Total phase (deg)	157.1	Apriori accel (us/s/s)	-2.55461488592E-05	Resid phase (deg)	126.7	+/-	7.1

ph/seg (deg)	60.6	RMS	16.9	Theor.	2048X32	Amplitude	0.289 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	182.6	Search	0.271	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	41.8	Inc. seg. avg.	0.307	Inc. frq. avg.	0.347	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	26.2	Inc. frq. avg.	0.347	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite
									ion window (TEC)	0.00	0.00

B: az 88.7 el 58.2 pa -58.1 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) -11054.271 -394.120 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/Bu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/Bu.W.6.1W6A0V

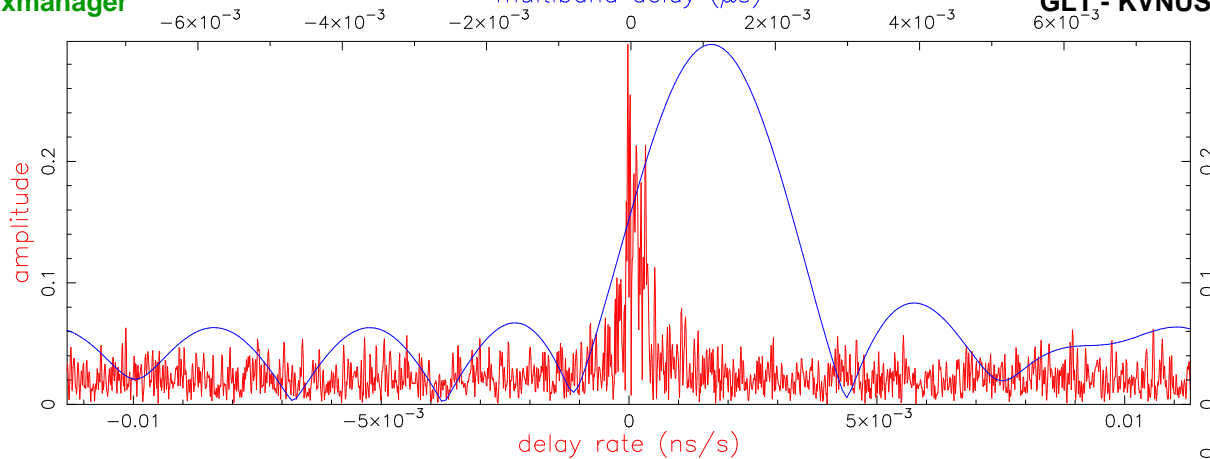
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, gu

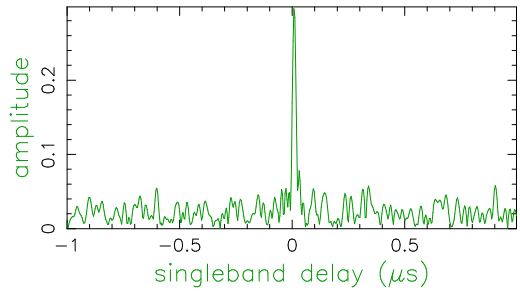
GLT - KVNUS, fgroup W, pol RR

multiband delay (μ s)

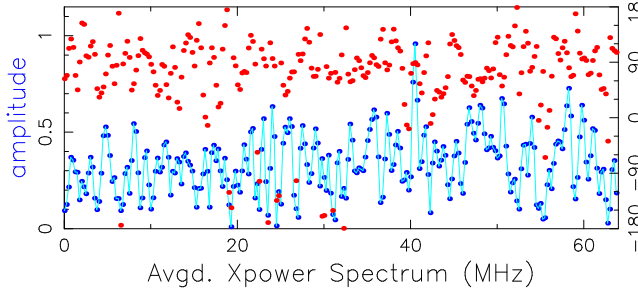


Fringe quality 9

SNR 16.7
 Int time 419.825
 Amp 0.299
 Phase 176.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.008947
 MBD 0.001121
 Fringe rate (Hz)
 -0.002229
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

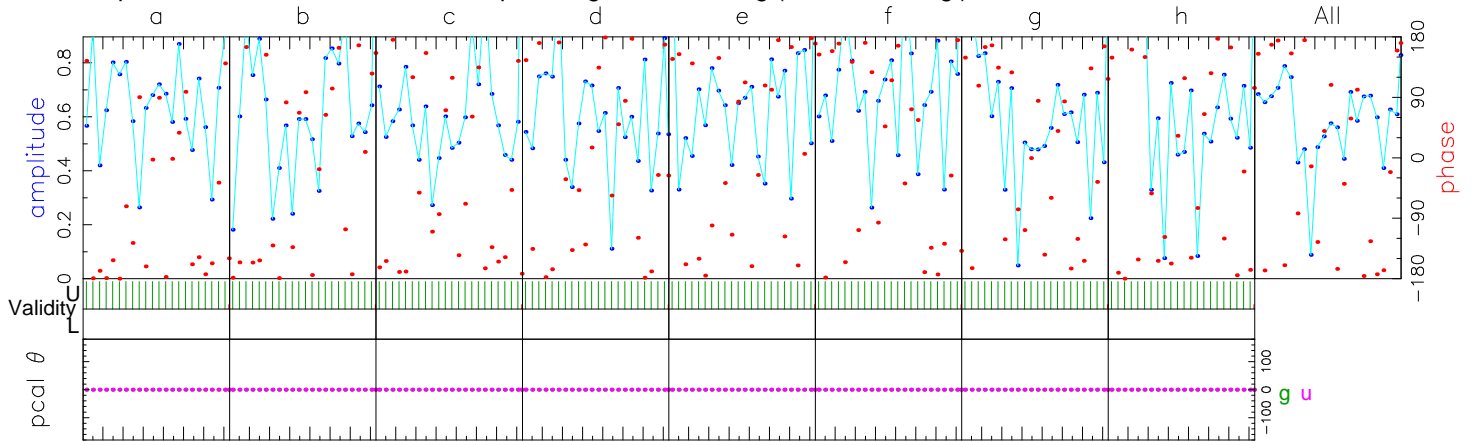


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012700
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-177.5	159.5	-173.7	-176.3	174.3	179.4	163.7	177.6	Phase	176.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.4	Ampl.	0.3
	259.8	259.4	259.2	259.0	260.0	259.0	259.0	259.1	Sbd box	259.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.16045107942E+03		Apriori delay (usec)		1.16043433337E+03		Resid mbdelay (usec)		1.12104E-03	+/- 6.5E-05
Sband delay (usec)	1.16044328012E+03		Apriori clock (usec)		-1.4091295E+01		Resid sbdelay (usec)		8.94675E-03	+/- 5.1E-04
Phase delay (usec)	1.16043433905E+03		Apriori clockrate (us/s)		-1.0670000E-06		Resid phdelay (usec)		5.67655E-06	+/- 2.2E-07
Delay rate (us/s)	1.16362538032E+00		Apriori rate (us/s)		1.16362540619E+00		Resid rate (us/s)		-2.58758E-08	+/- 9.1E-10
Total phase (deg)	347.7		Apriori accel (us/s/s)		2.31124522910E-05		Resid phase (deg)		176.0	+/- 6.8

ph/seg (deg) 79.4 16.4 Search (2048X32) 0.283 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 106.6 28.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 10.4 9.7 Inc. seg. avg. 0.557 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 17.6 16.9 Inc. frq. avg. 0.296 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 51.0 el 33.9 pa -14.2 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) -8869.184 4307.951 ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/gu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/gu.W.26.1W6A0V

Mk4/DiFX fourfit 3.21 rev 2937

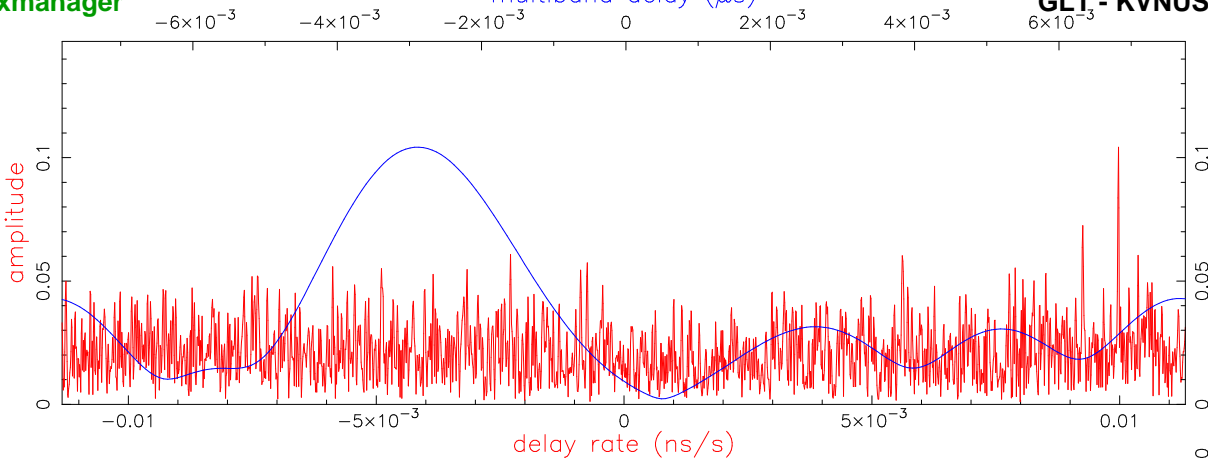
fxmanager

3C84.1W6A0V, No0212, gu

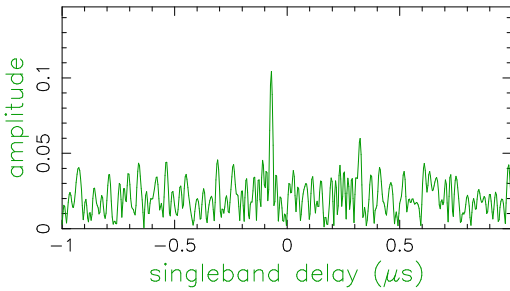
GLT - KVNUS, fgroup W, pol LR

multiband delay (μs)

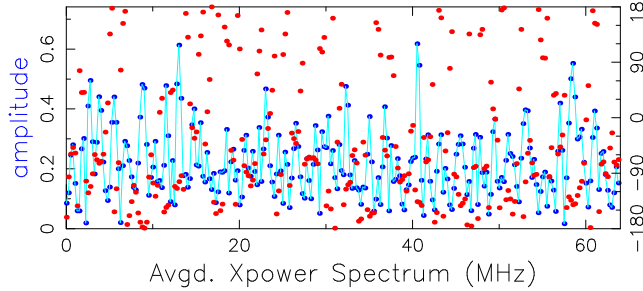
Fringe quality 0



SNR 5.9
 Int time 419.828
 Amp 0.147
 Phase -174.4
 PFD 7.0e-01
 Delays (us)
 SBD -0.070835
 MBD -0.002877
 Fringe rate (Hz)
 0.860157
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

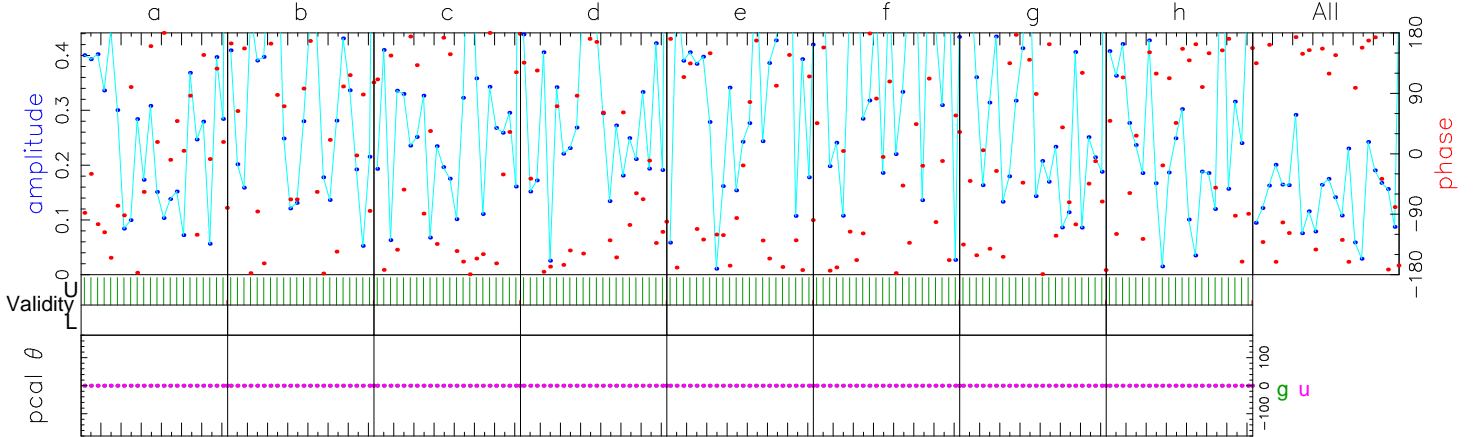


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012703
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-118.2	150.9	-168.1	-168.4	175.8	172.4	-118.0	160.4	Phase	-174.4
	0.1	0.2	0.2	0.2	0.3	0.1	0.1	0.1	Ampl.	0.1
	226.1	419.6	320.9	473.2	239.3	339.7	340.5	361.3	Sbd box	238.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.16036895590E+03		Apriori delay (usec)		1.16043433337E+03		Resid mbdelay (usec)		-2.87748E-03	+/- 1.9E-04
Sband delay (usec)	1.16036349887E+03		Apriori clock (usec)		-1.4091295E+01		Resid sbdelay (usec)		-7.08345E-02	+/- 1.5E-03
Phase delay (usec)	1.16043432775E+03		Apriori clockrate (us/s)		-1.0670000E-06		Resid phdelay (usec)		-5.62535E-06	+/- 6.3E-07
Delay rate (us/s)	1.16363539176E+00		Apriori rate (us/s)		1.16362540619E+00		Resid rate (us/s)		9.98557E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		2.31124522910E-05		Resid phase (deg)		-174.4	+/- 19.6

	RMS	Theor.	Amplitude	0.147 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	53.3	46.9	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	77.0	81.9	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	37.7	27.7	Inc. seg. avg.	0.157	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	45.0	48.3	Inc. frq. avg.	0.148	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

g: az 51.0 el 33.9 pa -14.2 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) -8869.184 4307.951 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/gu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/gu.W.44.1W6A0V

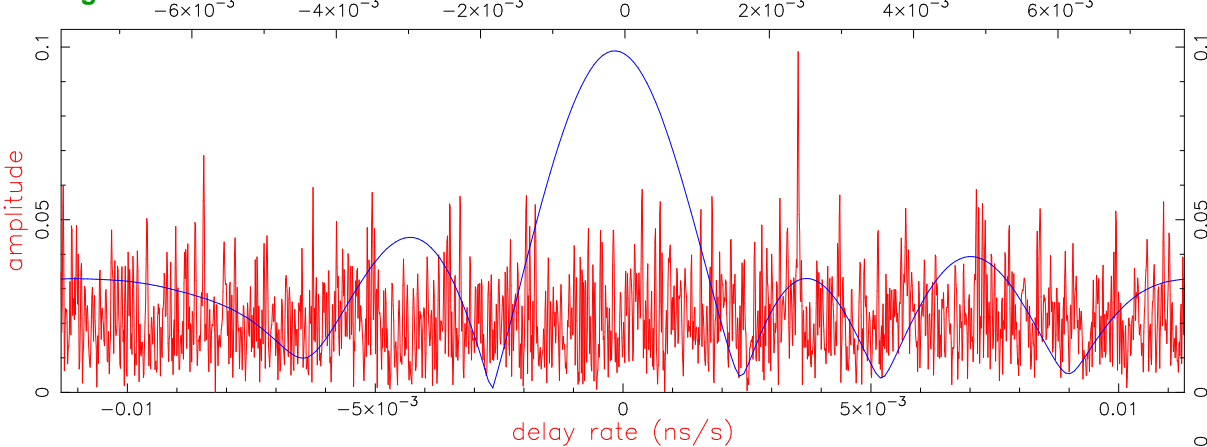
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, gu

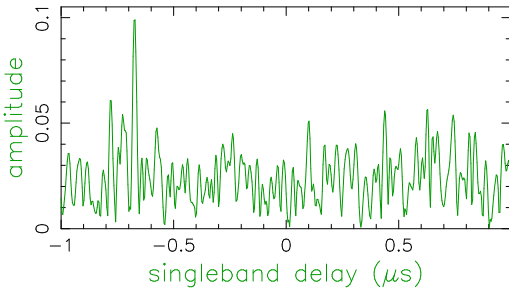
GLT - KVNUS, fgroup W, pol RL

multiband delay (μ s)

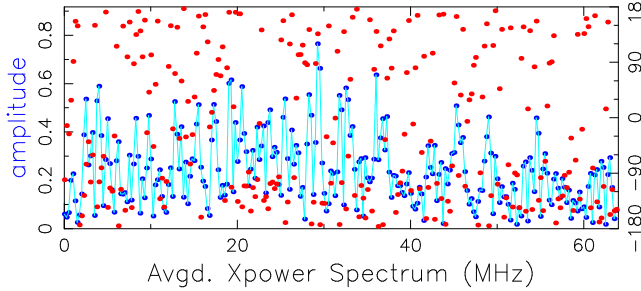


Fringe quality 0

SNR 5.7
 Int time 419.825
 Amp 0.105
 Phase -6.5
 PFD 9.8e-01
 Delays (us)
 SBD -0.673786
 MBD -0.000071
 Fringe rate (Hz)
 0.304953
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

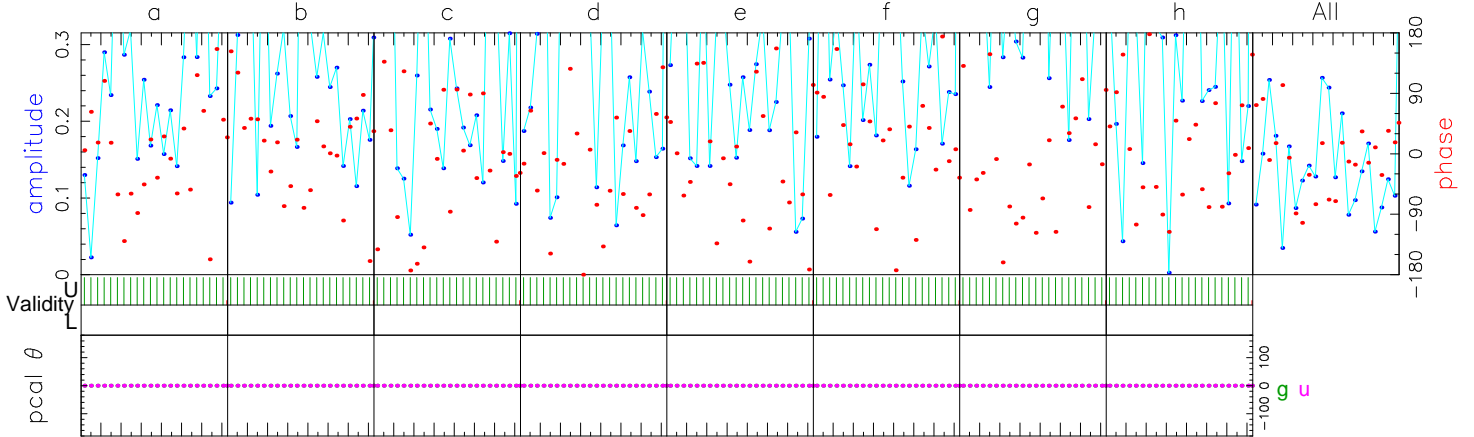


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012707
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-1.1	5.9	-20.2	-17.2	-41.8	34.1	-35.4	-2.6	Phase	-6.5
	0.1	0.2	0.0	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	471.0	144.7	456.3	303.6	283.1	99.2	9.2	367.3	Sbd box	84.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.15976238758E+03		Apriori delay (usec)		1.1604343337E+03		Resid mbdelay (usec)		-7.07965E-05	+/- 1.9E-04
Sband delay (usec)	1.15976054787E+03		Apriori clock (usec)		-1.4091295E+01		Resid sbdelay (usec)		-6.73786E-01	+/- 1.5E-03
Phase delay (usec)	1.16043433316E+03		Apriori clockrate (us/s)		-1.0670000E-06		Resid phdelay (usec)		-2.10708E-07	+/- 6.5E-07
Delay rate (us/s)	1.16362894640E+00		Apriori rate (us/s)		1.16362540619E+00		Resid rate (us/s)		3.54021E-06	+/- 2.7E-09
Total phase (deg)	165.1		Apriori accel (us/s/s)		2.31124522910E-05		Resid phase (deg)		-6.5	+/- 20.3

ph/seg (deg) 52.8 48.6 Search (2048X32) 0.097 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.0 84.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.5 28.7 Inc. seg. avg. 0.108 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.7 50.0 Inc. frq. avg. 0.099 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 g: az 51.0 el 33.9 pa -14.2 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) -8869.184 4307.951 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/gu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/gu.W.58.1W6A0V

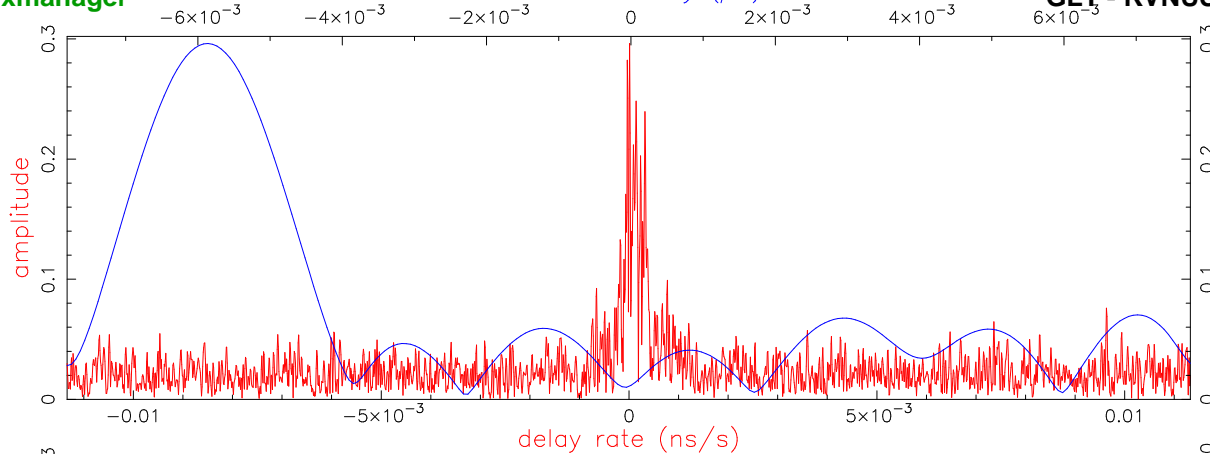
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, gu

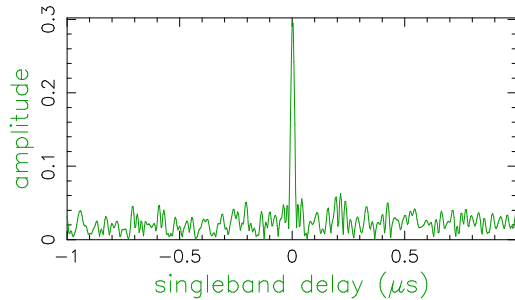
GLT - KVNUS, fgroup W, pol LL

multiband delay (μ s)

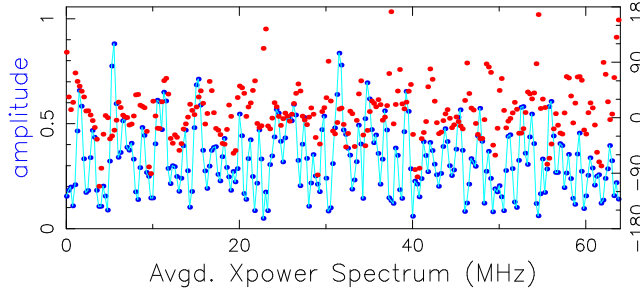


Fringe quality 9

SNR 16.9
Int time 419.828
Amp 0.302
Phase 93.7
PFD 0.0e+00
Delays (us)
SBD 0.001820
MBD -0.005872
Fringe rate (Hz)
0.001150
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

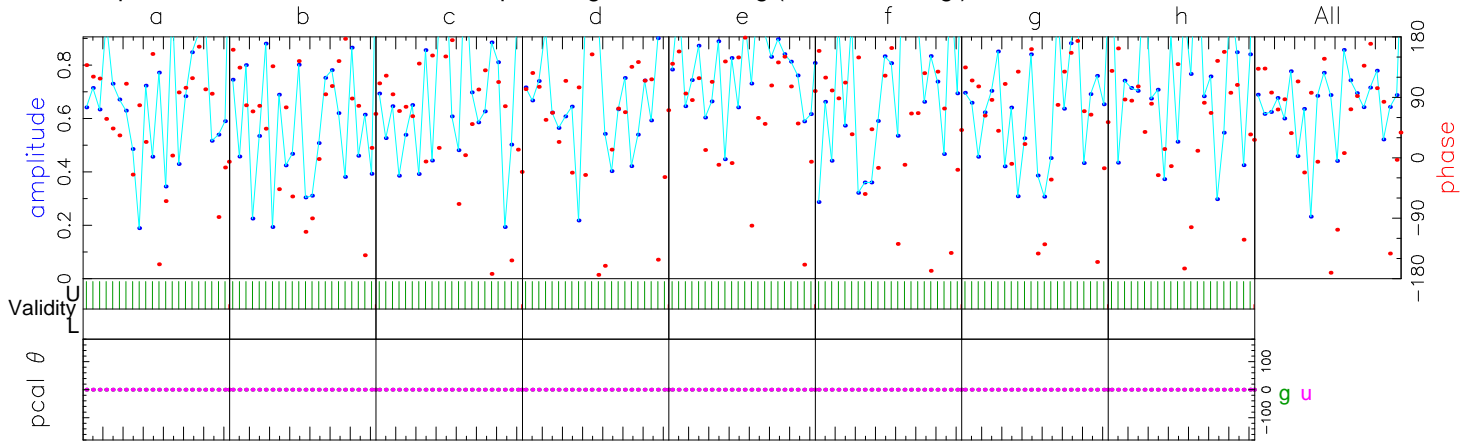


delay rate (ns/s)



Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 094501.00
Stop 095200.84
FRT 094831.00
Corr/FF/build
2021:286:231157
2021:287:012656
2021:252:122852
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0			
g	0	0	0	0	0	0	0	0			
u	1000	1000	1000	1000	1000	1000	1000	1000			
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
g	1000	1000	1000	1000	1000	1000	1000	1000			
u	1000	1000	1000	1000	1000	1000	1000	1000			
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)	86.0	97.1	86.6	97.8	105.8	91.5	103.9	80.2			
Sband delay (usec)	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.3			
Phase delay (usec)	257.9	258.0	256.9	257.5	257.4	258.2	257.1	256.8			
Delay rate (us/s)	0	0	0	0	0	0	0	0			
Total phase (deg)			265.3								
Apriori delay (usec)						1.16043433337E+03			Resid mbdelay (usec)	-5.87224E-03	+/- 6.4E-05
Apriori clock (usec)						-1.4091295E+01			Resid sbdelay (usec)	1.81950E-03	+/- 5.1E-04
Apriori clockrate (us/s)						-1.0670000E-06			Resid phdelay (usec)	3.01999E-06	+/- 2.2E-07
Apriori rate (us/s)						1.16362540619E+00			Resid rate (us/s)	1.33556E-08	+/- 9.0E-10
Apriori accel (us/s/s)						2.31124522910E-05			Resid phase (deg)	93.7	+/- 6.8
PCal mode: MANUAL, MANUAL											
PCal rate: 0.000E+00, 0.000E+00 (us/s)											
Bits/sample: 2x2											
Sample rate(MISamp/s): 128											
Data rate(Mb/s): 2048											
nlags: 256											
t_cohere infinite											
sb window (us)										-1.000	1.000
mb window (us)										-0.008	0.008
dr window (ns/s)										-0.011	0.011
ion window (TEC)										0.00	0.00
PC period (AP's) 5, 5											
SampCntNorm: enabled											
simultaneous interpolator											

ph/seg (deg) 70.1 16.2 Search (2048X32) 0.292 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 123.1 28.3 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 9.8 9.6 Inc. seg. avg. 0.623 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 13.4 16.7 Inc. frq. avg. 0.296 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 51.0 el 33.9 pa -14.2 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) -8869.184 4307.951 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/gu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/gu.W.7.1W6A0V

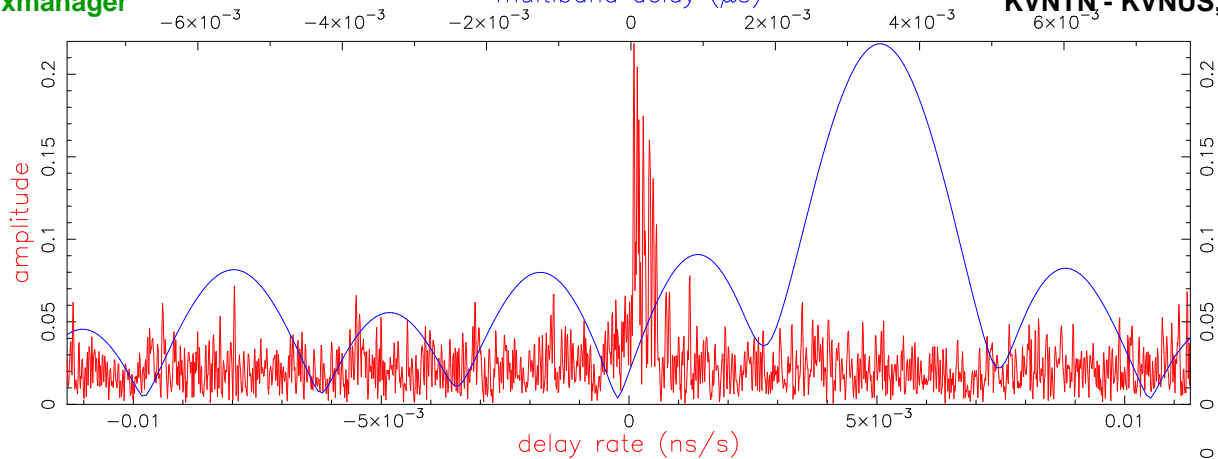
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, tu

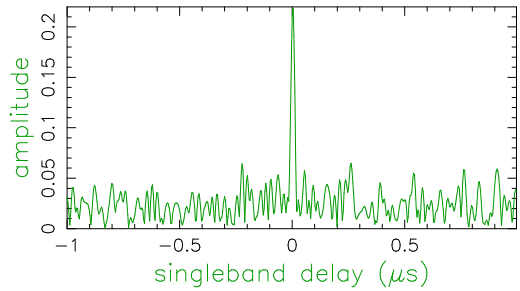
KVNTN - KVNUS, fgroup W, pol LR

multiband delay (μ s)

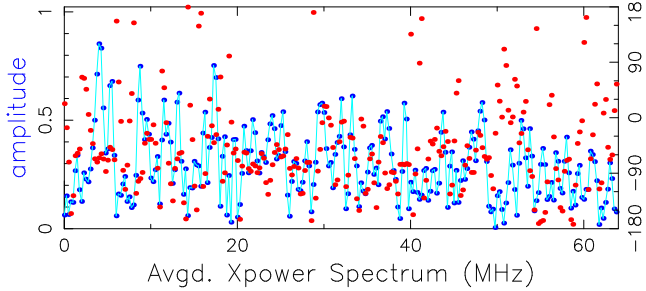


Fringe quality 9

SNR 12.3
 Int time 419.840
 Amp 0.220
 Phase -68.5
 PFD 3.7e-26
 Delays (us)
 SBD 0.002808
 MBD 0.003453
 Fringe rate (Hz) 0.008906
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

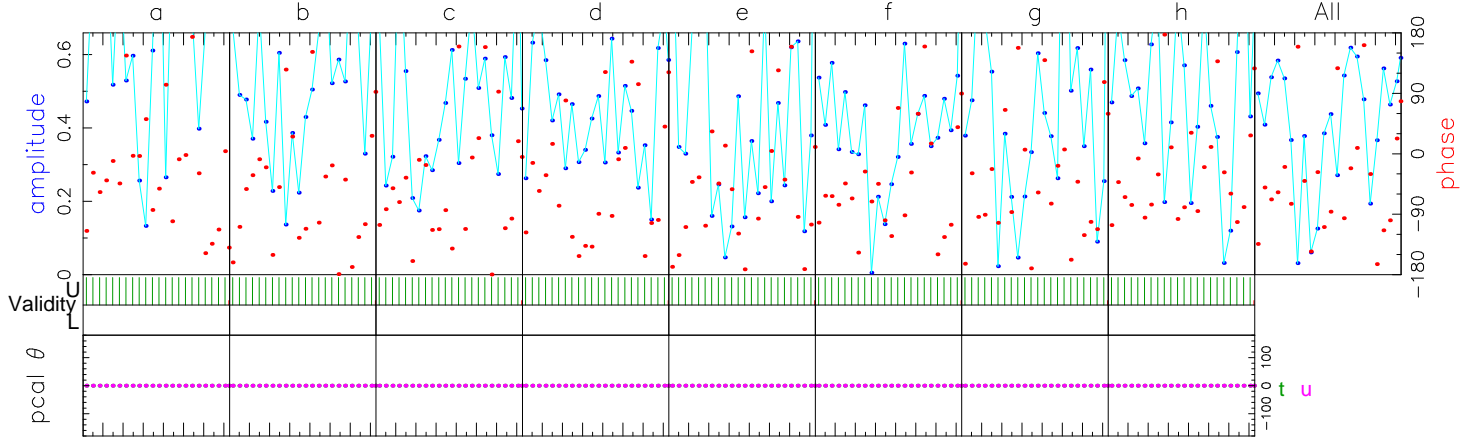


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012720
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-53.0	-79.1	-78.4	-68.4	-102.6	-70.2	-61.1	-58.5	Phase	-68.5
	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.3	Ampl.	0.2
	258.0	256.9	257.1	157.9	257.0	33.8	258.3	258.3	Sbd box	257.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	2.30079333470E+02	Apriori delay (usec)	2.30075880227E+02	Resid mbdelay (usec)	3.45324E-03	+/-	8.8E-05
Sband delay (usec)	2.30078687977E+02	Apriori clock (usec)	-1.4789515E+01	Resid sbdelay (usec)	2.80775E-03	+/-	7.0E-04
Phase delay (usec)	2.30075878018E+02	Apriori clockrate (us/s)	-1.3269999E-06	Resid phdelay (usec)	-2.20976E-06	+/-	3.0E-07
Delay rate (us/s)	-1.49217568389E-02	Apriori rate (us/s)	-1.49218602252E-02	Resid rate (us/s)	1.03386E-07	+/-	1.2E-09
Total phase (deg)		Apriori accel (us/s/s)	-3.73135450184E-06	Resid phase (deg)	-68.5	+/-	9.3

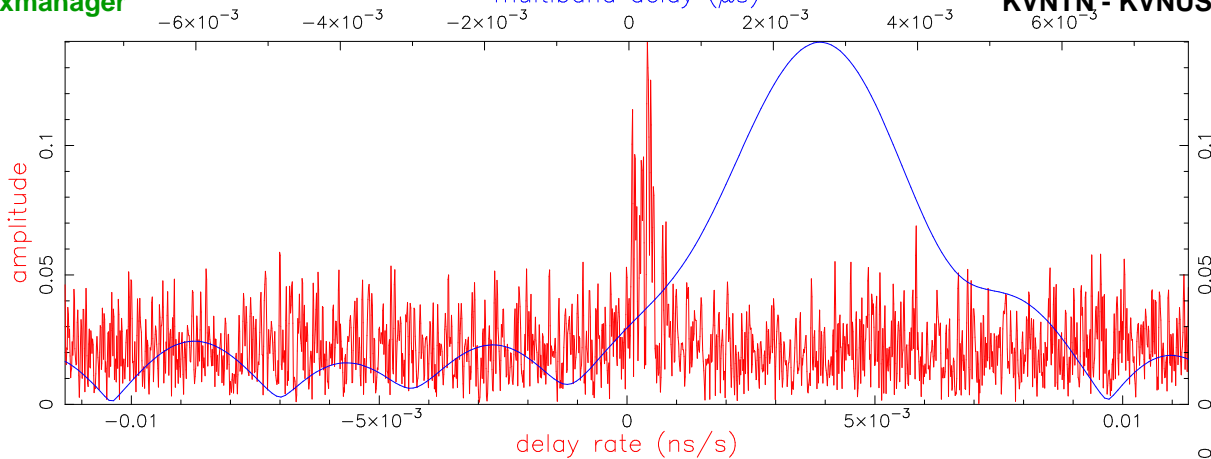
ph/seg (deg)	71.4	Theor.	22.3	Amplitude	0.220 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	115.4		38.9	Search (2048X32)	0.212	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	17.2		13.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	34.9		23.0	Inc. seg. avg.	0.380	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.220	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

t: az 301.8 el 31.9 pa 71.8 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) 107.462 -476.308 simultaneous interpolator

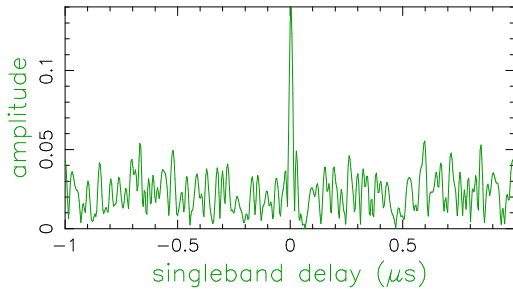
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/tu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/tu.W.116.1W6A0V

multiband delay (μ s)

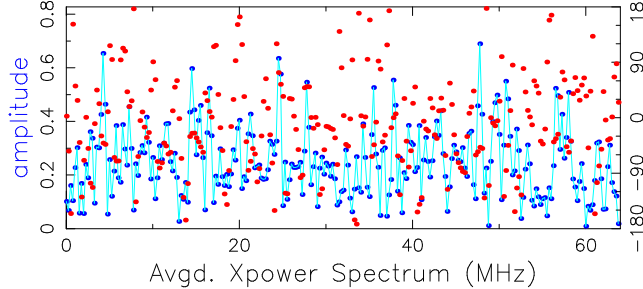
Fringe quality 9



SNR 7.9
Int time 419.840
Amp 0.140
Phase -11.8
PFD 1.4e-06
Delays (us)
SBD 0.003371
MBD 0.002622
Fringe rate (Hz) 0.035592
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

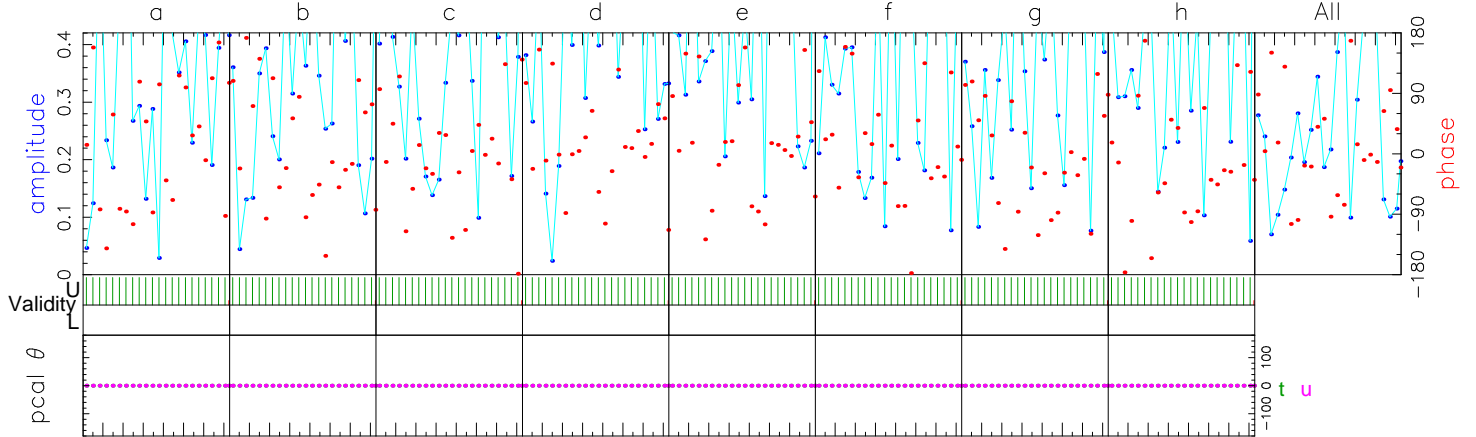


delay rate (ns/s)



Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 094501.00
Stop 095200.84
FRT 094831.00
Corr/FF/build
2021:286:231157
2021:287:012724
2021:252:122852
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-65.9	-22.7	-0.3	9.9	3.8	-6.0	-21.5	-41.5	Phase	-11.8
	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	Ampl.	0.1
	334.0	306.4	428.7	258.5	258.5	364.3	153.0	255.8	Sbd box	257.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

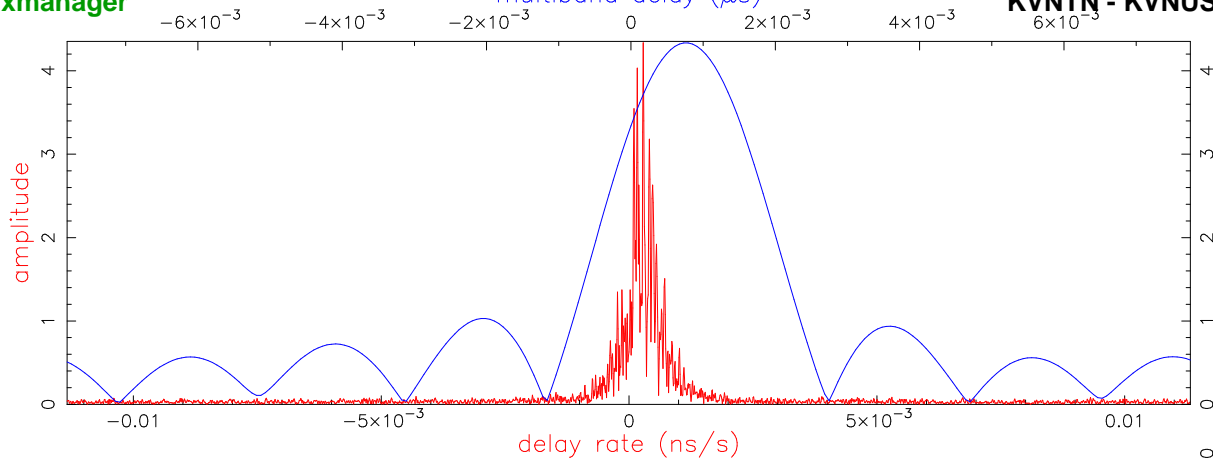
Group delay (usec)(sbd)	2.30078502333E+02	Apriori delay (usec)	2.30075880227E+02	Resid mbdelay (usec)	2.62211E-03	+/-	1.4E-04
Sband delay (usec)	2.30079250977E+02	Apriori clock (usec)	-1.4789515E+01	Resid sbdelay (usec)	3.37075E-03	+/-	1.1E-03
Phase delay (usec)	2.30075879847E+02	Apriori clockrate (us/s)	-1.3269999E-06	Resid phdelay (usec)	-3.80851E-07	+/-	4.7E-07
Delay rate (us/s)	-1.49214470341E-02	Apriori rate (us/s)	-1.49218602252E-02	Resid rate (us/s)	4.13191E-07	+/-	1.9E-09
Total phase (deg)	104.4	Apriori accel (us/s/s)	-3.73135450184E-06	Resid phase (deg)	-11.8	+/-	14.6

ph/seg (deg)	81.2	Theor.	35.0	Amplitude	0.140 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	131.3	Search (2048X32)	0.135	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	28.6	Inc. seg. avg.	0.216	Inc. frq. avg.	0.142	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	33.6	Inc. frq. avg.	0.142			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

t: az 301.8 el 31.9 pa 71.8 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) 107.462 -476.308 simultaneous interpolator

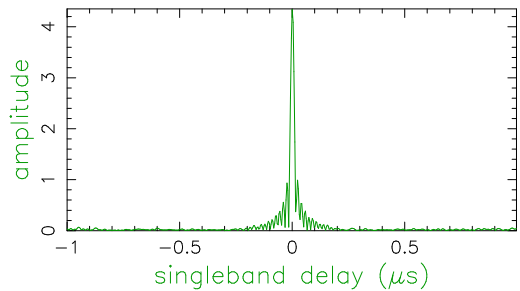
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/tu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/tu.W.137.1W6A0V

multiband delay (μ s)

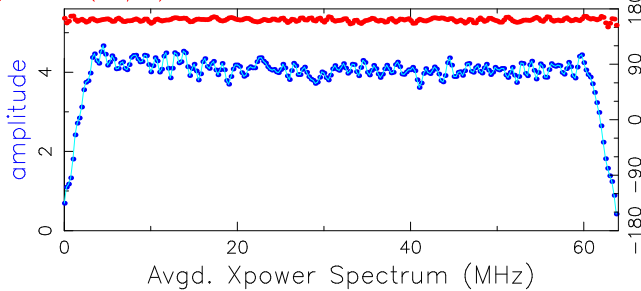


Fringe quality 5

SNR 243.9
Int time 419.840
Amp 4.353
Phase 162.1
PFD 0.0e+00
Delays (us)
SBD 0.000775
MBD 0.000764
Fringe rate (Hz)
0.025032
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

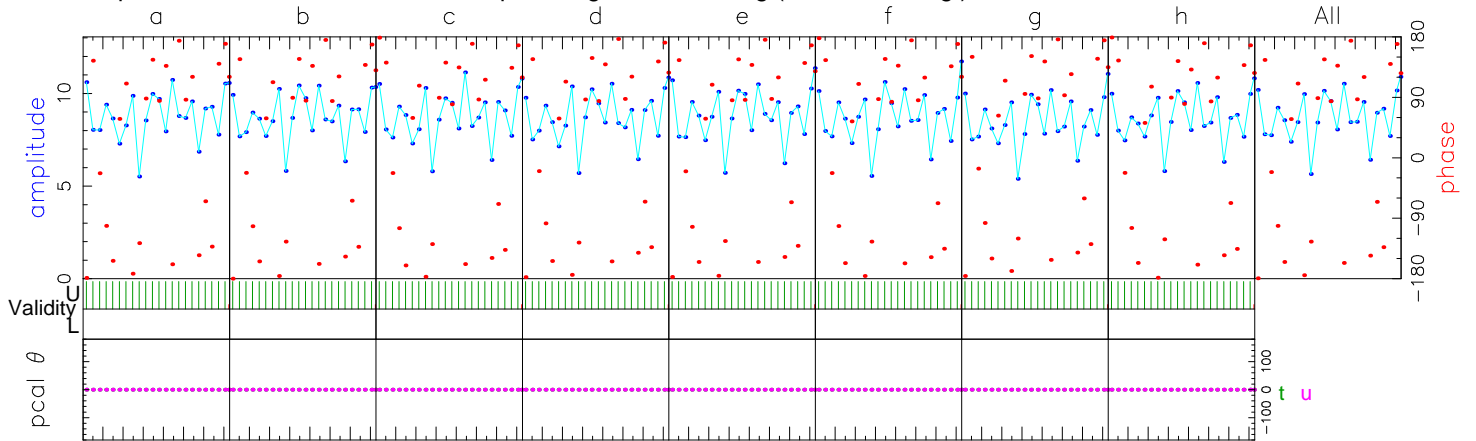


delay rate (ns/s)



Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 094501.00
Stop 095200.84
FRT 094831.00
Corr/FF/build
2021:286:231157
2021:287:012713
2021:252:122852
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	162.7	161.6	159.3	164.6	162.1	160.9	166.6	158.5	Phase	162.1
	4.4	4.4	4.4	4.3	4.4	4.3	4.3	4.3	Ampl.	4.3
	257.2	257.2	257.2	257.3	257.1	257.3	257.3	257.1	Sbd box	257.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	2.30076643759E+02	Apriori delay (usec)	2.30075880227E+02	Resid mbdelay (usec)	7.63531E-04	+/-	4.5E-06
Sband delay (usec)	2.30076654727E+02	Apriori clock (usec)	-1.4789515E+01	Resid sbdelay (usec)	7.74500E-04	+/-	3.5E-05
Phase delay (usec)	2.30075885453E+02	Apriori clockrate (us/s)	-1.3269999E-06	Resid phdelay (usec)	5.22567E-06	+/-	1.5E-08
Delay rate (us/s)	-1.49215696295E-02	Apriori rate (us/s)	-1.49218602252E-02	Resid rate (us/s)	2.90596E-07	+/-	6.3E-11
Total phase (deg)	278.3	Apriori accel (us/s/s)	-3.73135450184E-06	Resid phase (deg)	162.1	+/-	0.5

ph/seg (deg)	RMS 70.2	Theor. 1.1	Amplitude Search (2048X32)	4.353 +/- 0.018	4.144	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	103.5	2.0	Interp.	0.000	4.144	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	2.9	0.7	Inc. seg. avg.	8.683	4.144	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	1.3	1.2	Inc. frq. avg.	4.341	4.144	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

t: az 301.8 el 31.9 pa 71.8 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) 107.462 -476.308 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/tu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/tu.W.80.1W6A0V

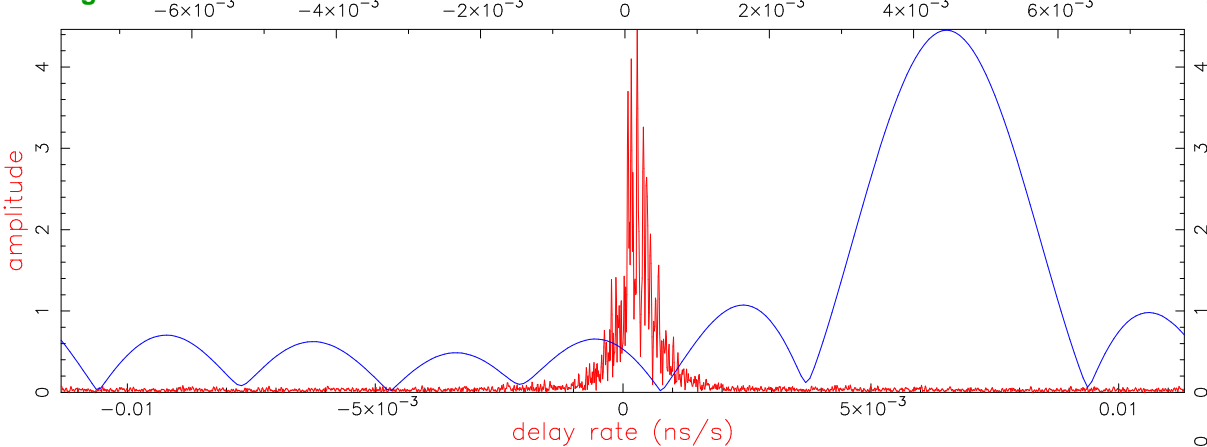
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, tu

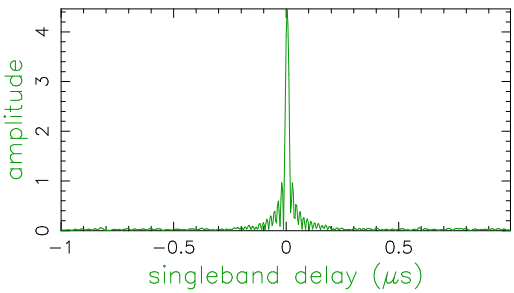
KVNTN- KVNUS, fgroup W, pol RR

multiband delay (μ s)

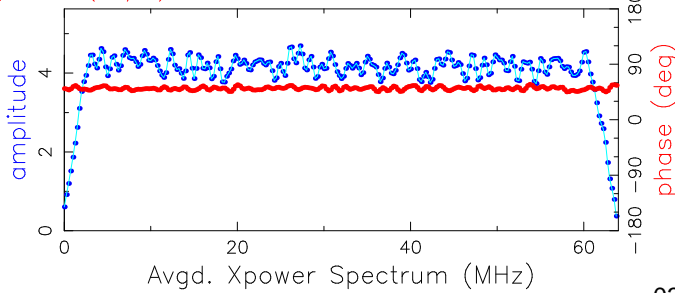


Fringe quality 5

SNR 250.0
 Int time 419.840
 Amp 4.463
 Phase 51.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.004485
 MBD 0.004456
 Fringe rate (Hz) 0.025035
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

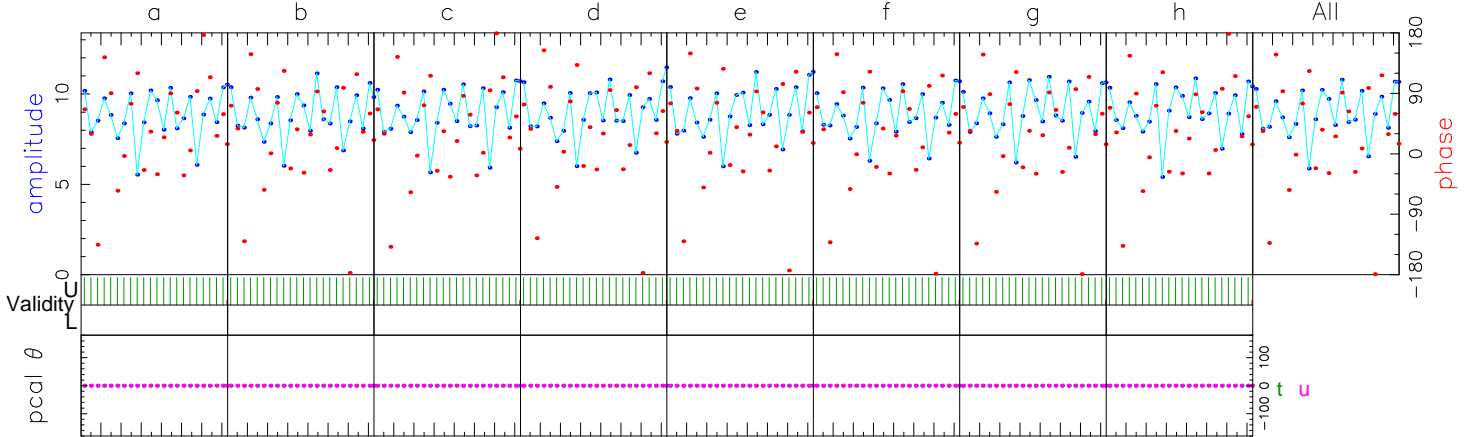


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012716
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



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

Group delay (usec)(sbd)	2.30080336196E+02	Apriori delay (usec)	2.30075880227E+02	Resid mbdelay (usec)	4.45597E-03	+/-	4.3E-06
Sband delay (usec)	2.30080364977E+02	Apriori clock (usec)	-1.4789515E+01	Resid sbdelay (usec)	4.48475E-03	+/-	3.4E-05
Phase delay (usec)	2.30075881874E+02	Apriori clockrate (us/s)	-1.3269999E-06	Resid phdelay (usec)	1.64624E-06	+/-	1.5E-08
Delay rate (us/s)	-1.49215695884E-02	Apriori rate (us/s)	-1.49218602252E-02	Resid rate (us/s)	2.90637E-07	+/-	6.1E-11
Total phase (deg)	167.3	Apriori accel (us/s/s)	-3.73135450184E-06	Resid phase (deg)	51.1	+/-	0.5

ph/seg (deg)	RMS 70.0	Theor. 1.1	Amplitude 4.463 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	103.8	1.9	Search (2048X32) 4.337	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	3.2	0.6	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	1.3	1.1	Inc. seg. avg. 8.917	Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 4.459	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite
						ion window (TEC) 0.00 0.00

t: az 301.8 el 31.9 pa 71.8

u: az 301.4 el 31.1 pa 67.7

u,v (fr/asec) 107.462 -476.308

simultaneous interpolator

Control file: cf_1234_gmva

Input file: /Exps/c211a/v2/1234/No0212/tu...1W6A0V

Output file: /Exps/c211a/v2/1234/No0212/tu.W.95.1W6A0V

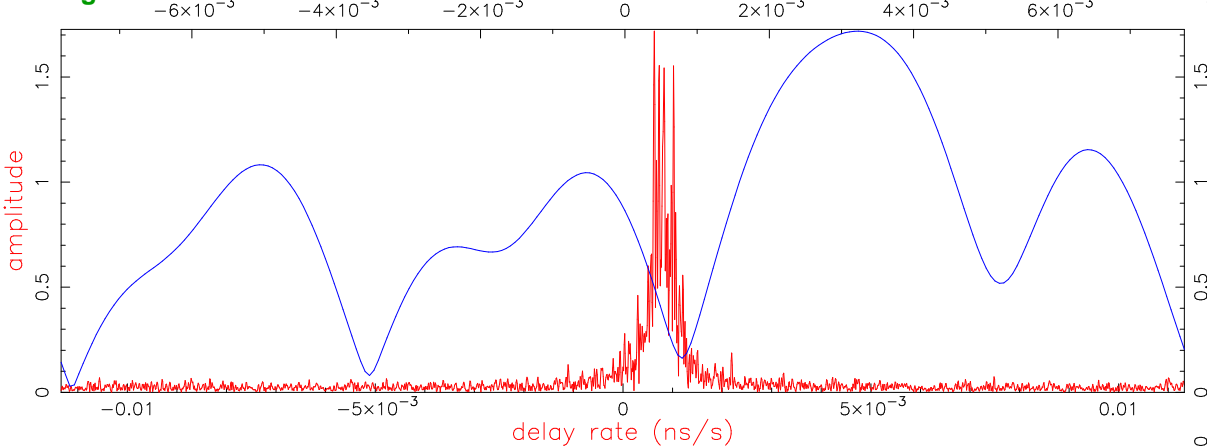
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, uN

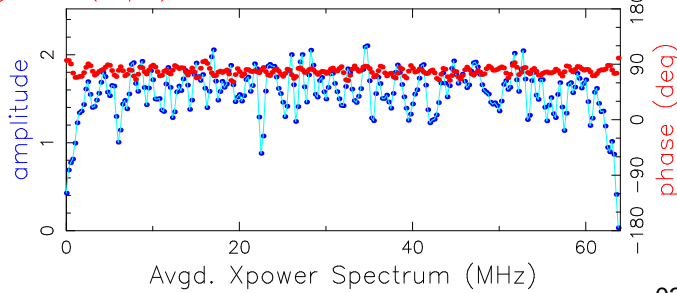
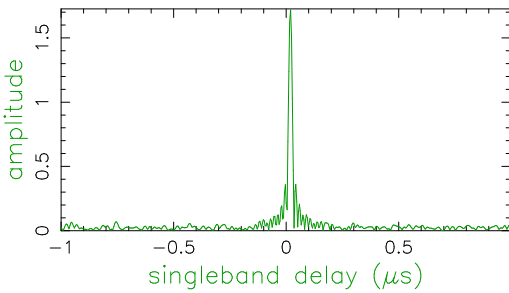
KVNUS - NOEMA, fgroup W, pol RR

multiband delay (μ s)



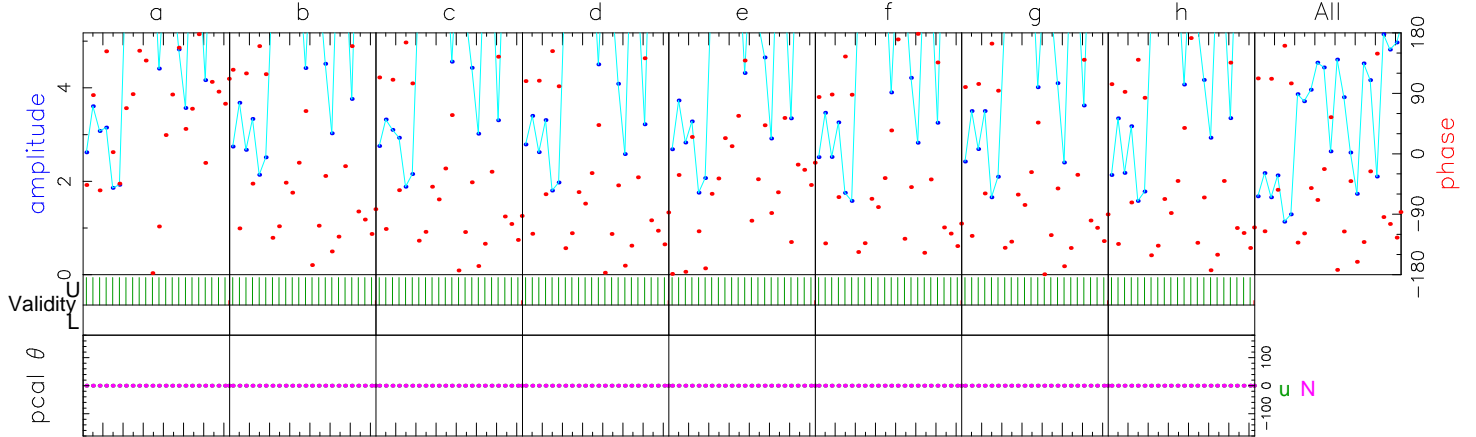
Fringe quality 1

SNR 96.6
 Int time 419.822
 Amp 1.727
 Phase -102.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.018756
 MBD 0.003218
 Fringe rate (Hz)
 0.054796
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012718
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	98.6	-96.2	-102.6	-109.0	-25.0	-115.0	-107.5	-119.5	Phase	-102.4
	2.7	2.8	2.7	2.7	2.6	2.6	2.6	2.6	Ampl.	2.7
	261.7	261.8	261.8	261.6	261.8	261.9	261.8	261.8	Sbd box	261.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	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	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.22863231734E+03		Apriori delay (usec)		-7.22865116011E+03		Resid mbdelay (usec)		3.21777E-03 +/- 1.1E-05	
Sband delay (usec)	-7.22863240436E+03		Apriori clock (usec)		2.7822084E+01		Resid sbdelay (usec)		1.87558E-02 +/- 8.9E-05	
Phase delay (usec)	-7.22865116341E+03		Apriori clockrate (us/s)		6.8870001E-06		Resid phdelay (usec)		-3.30311E-06 +/- 3.8E-08	
Delay rate (us/s)	-1.50812485498E+00		Apriori rate (us/s)		-1.50812549111E+00		Resid rate (us/s)		6.36131E-07 +/- 1.6E-10	
Total phase (deg)			Apriori accel (us/s/s)		2.94859239691E-05		Resid phase (deg)		-102.4 +/- 1.2	

	RMS	Theor.	Amplitude	1.727 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	80.9	2.8	Search (2048X32)	1.628	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	118.1	5.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	72.8	1.7	Inc. seg. avg.	3.275	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	54.5	2.9	Inc. frq. avg.	2.663	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

u: az 301.4 el 31.1 pa 67.7 N: az 78.8 el 56.9 pa -69.1 u,v (fr/asec) 11604.557 1121.214 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uN..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uN.W.106.1W6A0V

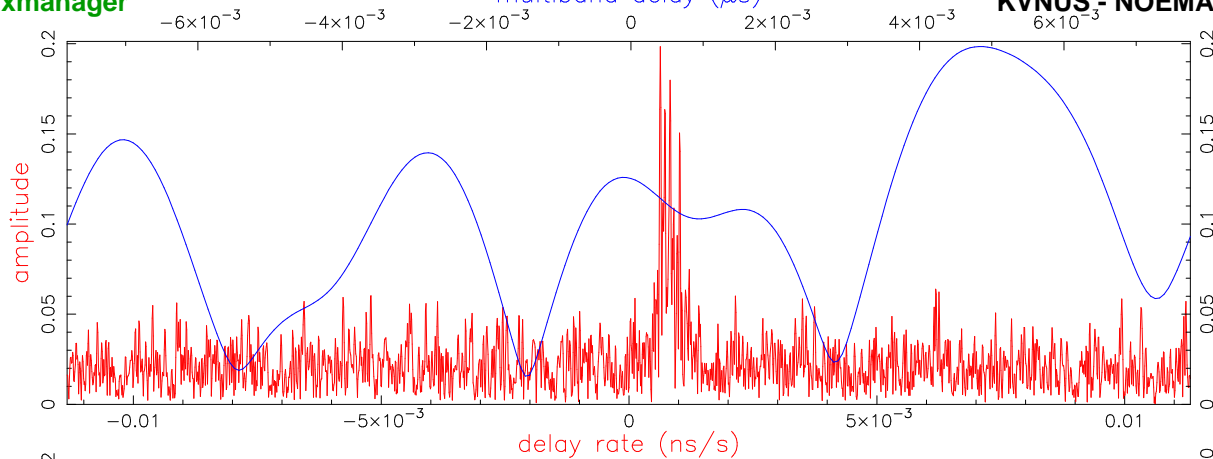
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, uN

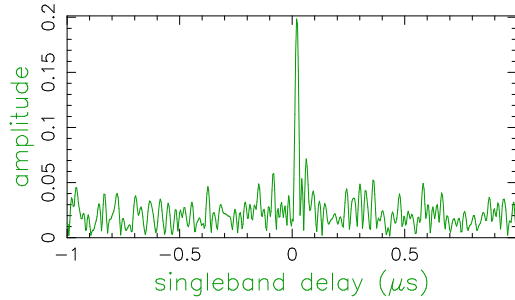
KVNUS- NOEMA, fgroup W, pol LR

multiband delay (μ s)

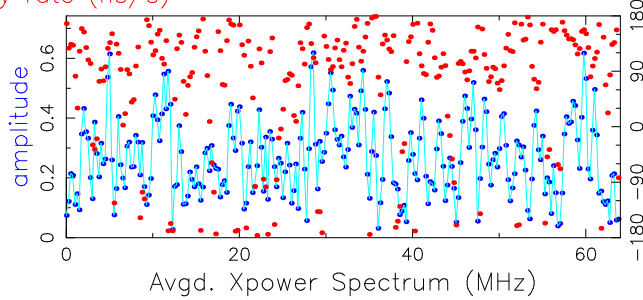


Fringe quality 9

SNR 11.3
 Int time 419.822
 Amp 0.201
 Phase -46.9
 PFD 9.3e-21
 Delays (us)
 SBD 0.020964
 MBD 0.004856
 Fringe rate (Hz)
 0.054668
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

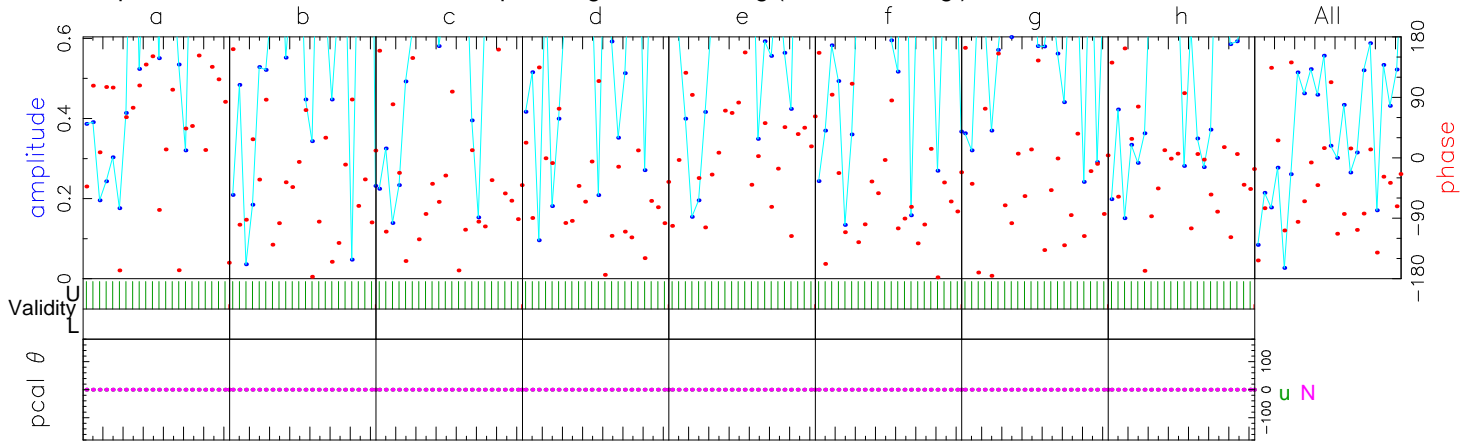


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012722
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



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

Group delay (usec)(sbd)	-7.22863067925E+03	Apriori delay (usec)	-7.22865116011E+03	Resid mbdelay (usec)	4.85586E-03	+/-	9.6E-05
Sband delay (usec)	-7.22863019561E+03	Apriori clock (usec)	2.7822084E+01	Resid sbdelay (usec)	2.09645E-02	+/-	7.6E-04
Phase delay (usec)	-7.22865116162E+03	Apriori clockrate (us/s)	6.8870001E-06	Resid phdelay (usec)	-1.51323E-06	+/-	3.3E-07
Delay rate (us/s)	-1.50812485647E+00	Apriori rate (us/s)	-1.50812549111E+00	Resid rate (us/s)	6.34644E-07	+/-	1.4E-09
Total phase (deg)	-22.3	Apriori accel (us/s/s)	2.94859239691E-05	Resid phase (deg)	-46.9	+/-	10.2

ph/seg (deg)	80.5	Theor.	24.4	Search (2048X32)	0.190	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	114.8		42.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	66.9		14.4	Inc. seg. avg.	0.335	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	64.4		25.1	Inc. frq. avg.	0.312	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 301.4 el 31.1 pa 67.7 N: az 78.8 el 56.9 pa -69.1 u,v (fr/asec) 11604.557 1121.214 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uN..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uN.W.128.1W6A0V

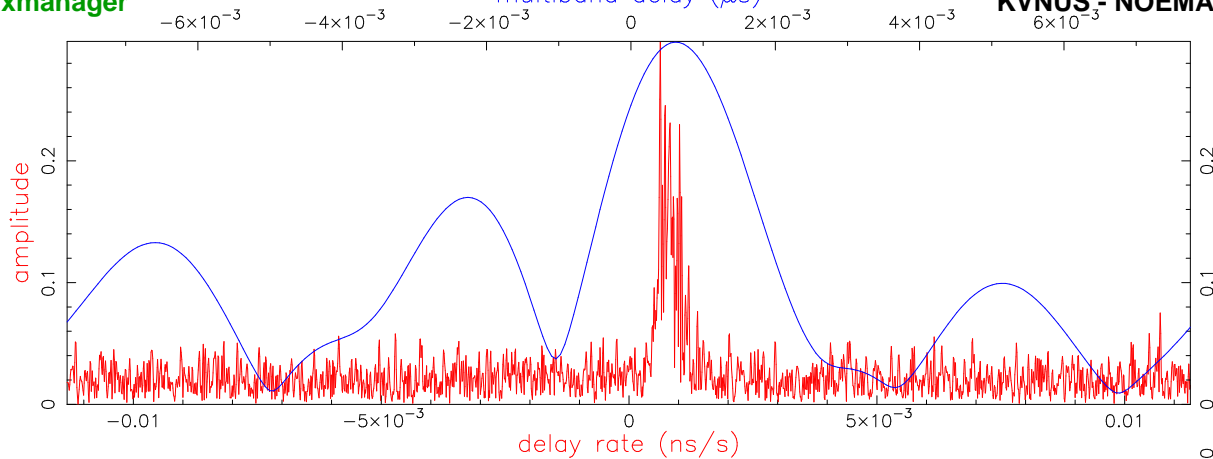
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, uN

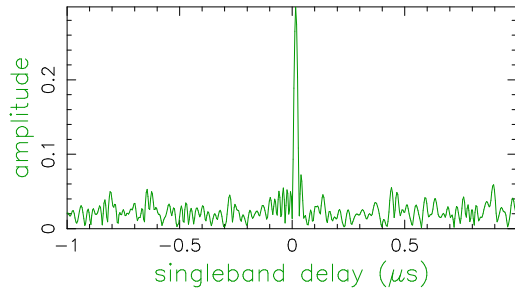
KVNUS- NOEMA, fgroup W, pol RL

multiband delay (μ s)

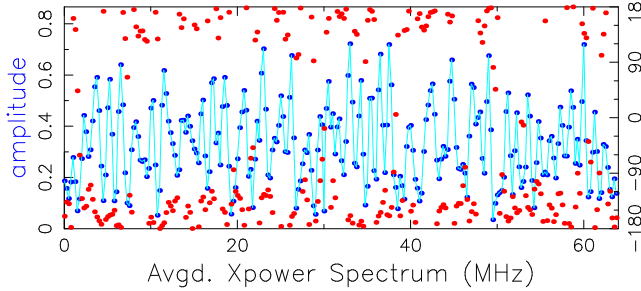


Fringe quality 8

SNR 16.7
 Int time 419.822
 Amp 0.298
 Phase 10.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.015952
 MBD 0.000619
 Fringe rate (Hz)
 0.054818
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

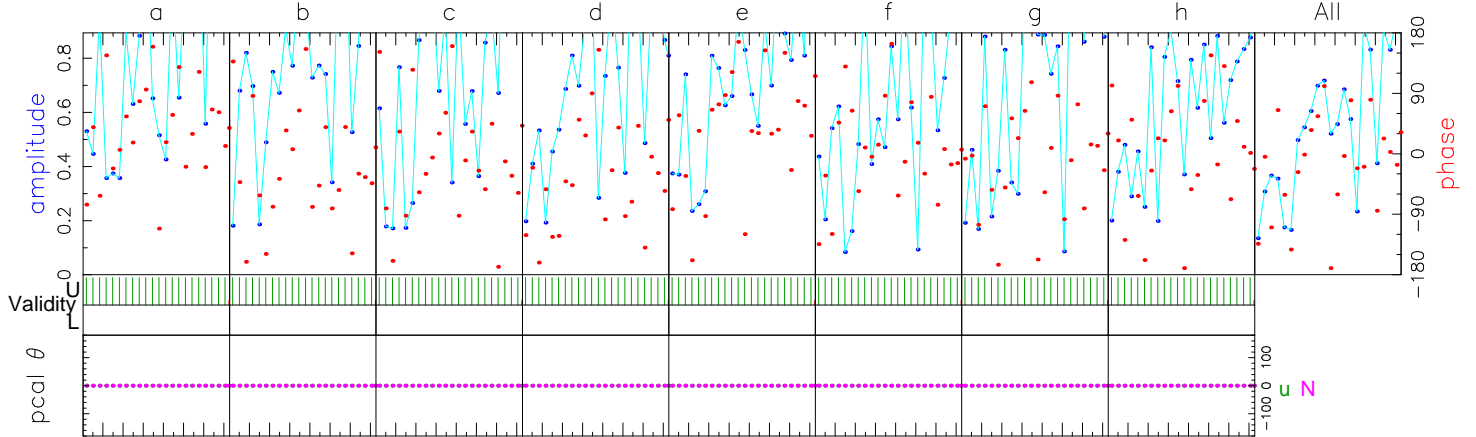


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012726
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



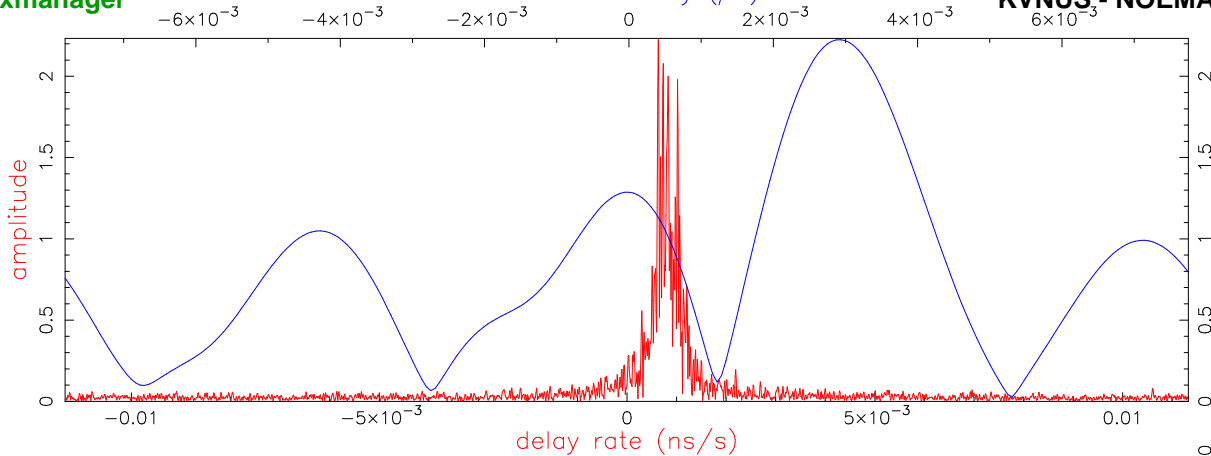
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0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

Group delay (usec)(sbd)	-7.22863491650E+03	Apriori delay (usec)	-7.22865116011E+03	Resid mbdelay (usec)	6.18611E-04	+/-	6.5E-05
Sband delay (usec)	-7.22863520836E+03	Apriori clock (usec)	2.7822084E+01	Resid sbdelay (usec)	1.59518E-02	+/-	5.2E-04
Phase delay (usec)	-7.22865115977E+03	Apriori clockrate (us/s)	6.8870001E-06	Resid phdelay (usec)	3.34880E-07	+/-	2.2E-07
Delay rate (us/s)	-1.50812485473E+00	Apriori rate (us/s)	-1.50812549111E+00	Resid rate (us/s)	6.36378E-07	+/-	9.1E-10
Total phase (deg)	-325.0	Apriori accel (us/s/s)	2.94859239691E-05	Resid phase (deg)	10.4	+/-	6.9

ph/seg (deg)	79.0	RMS	16.5	Theor.	17.0	Amplitude	0.298 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	120.3	Search (2048X32)	0.280	Inc. seg. avg.	0.529	Inc. frq. avg.	0.344	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	36.2	Interp.	0.000	Inc. frq. avg.	0.344	Bits/sample: 2x2	SampCntNorm: enabled	Sample rate(MISamp/s): 128	mb window (us)	-0.008 0.008
amp/frq (%)	25.7	Search (2048X32)	0.280	Inc. frq. avg.	0.344	Sample rate(MISamp/s): 128	Data rate(Mb/s): 2048	Data rate(Mb/s): 2048	dr window (ns/s)	-0.011 0.011
u: az 301.4 el 31.1 pa 67.7	N: az 78.8 el 56.9 pa -69.1	u,v (fr/asec)	11604.557 1121.214	simultaneous interpolator					ion window (TEC)	0.00 0.00

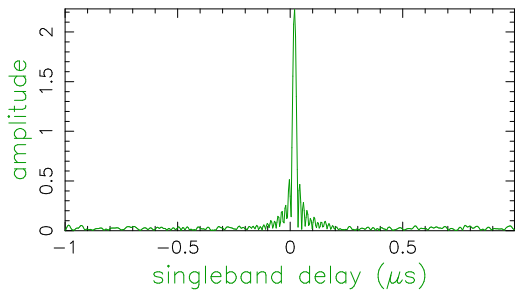
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uN..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uN.W.148.1W6A0V

multiband delay (μ s)

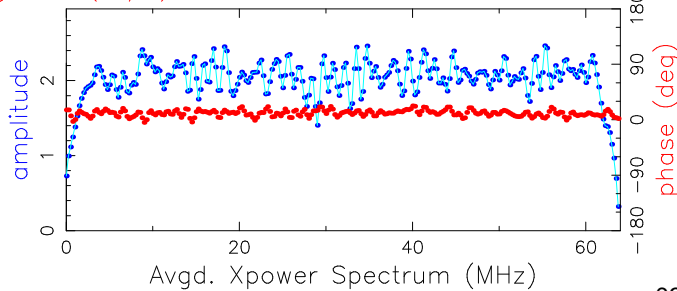


Fringe quality 2

SNR 125.0
Int time 419.822
Amp 2.233
Phase -164.7
PFD 0.0e+00
Delays (us)
SBD 0.018933
MBD 0.002914
Fringe rate (Hz)
0.054747
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

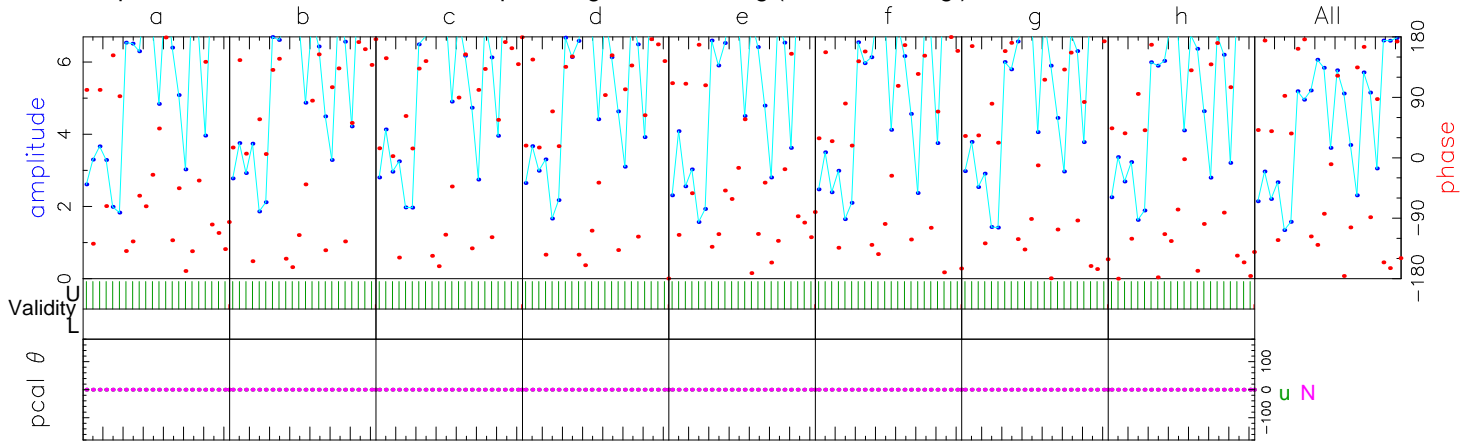


delay rate (ns/s)



Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 094501.00
Stop 095200.84
FRT 094831.00
Corr/FF/build
2021:286:231157
2021:287:012713
2021:252:122852
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-110.5	161.8	163.7	165.5	-96.0	-179.0	-168.4	-156.3	Phase	-164.7
	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7	Ampl.	2.8
	261.7	261.8	261.9	261.8	261.8	262.0	262.0	261.9	Sbd box	261.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	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)	-7.22863262096E+03	Apriori delay (usec)	-7.22865116011E+03	Resid mbdelay (usec)	2.91414E-03	+/-	8.7E-06
Sband delay (usec)	-7.22863222736E+03	Apriori clock (usec)	2.7822084E+01	Resid sbdelay (usec)	1.89328E-02	+/-	6.9E-05
Phase delay (usec)	-7.22865116542E+03	Apriori clockrate (us/s)	6.8870001E-06	Resid phdelay (usec)	-5.31135E-06	+/-	3.0E-08
Delay rate (us/s)	-1.50812485555E+00	Apriori rate (us/s)	-1.50812549111E+00	Resid rate (us/s)	6.35556E-07	+/-	1.2E-10
Total phase (deg)	-140.1	Apriori accel (us/s/s)	2.94859239691E-05	Resid phase (deg)	-164.7	+/-	0.9

ph/seg (deg)	83.3	2.2	Search (2048X32)	2.110	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	121.4	3.8	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	42.7	1.3	Inc. seg. avg.	4.317	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	24.2	2.3	Inc. frq. avg.	2.769	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

u: az 301.4 el 31.1 pa 67.7 N: az 78.8 el 56.9 pa -69.1 u,v (fr/asec) 11604.557 1121.214 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uN..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uN.W.83.1W6A0V

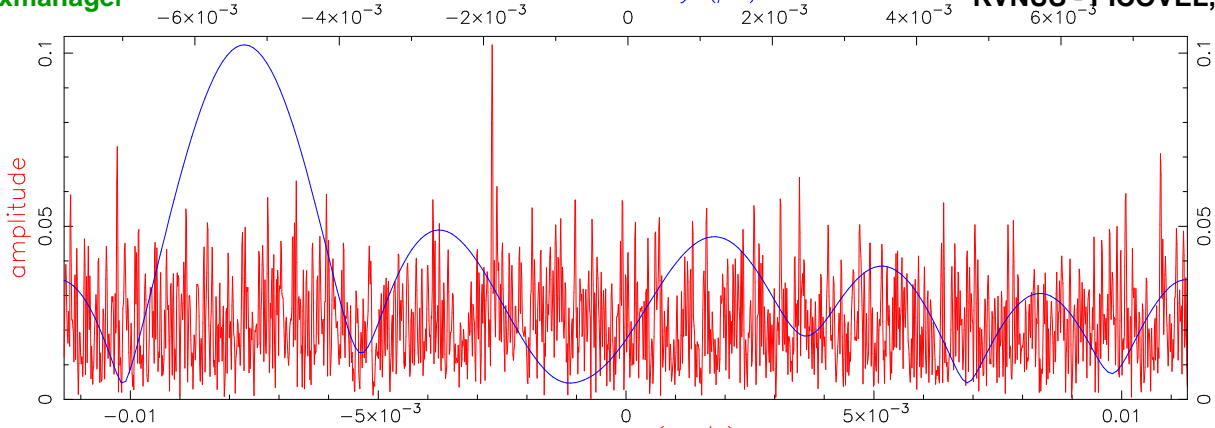
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, uP

KVNUS - PICOVEL, fgroup W, pol RR

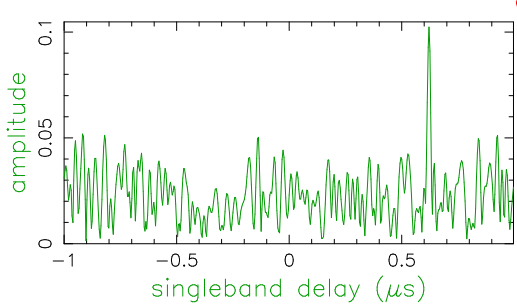
multiband delay (μ s)



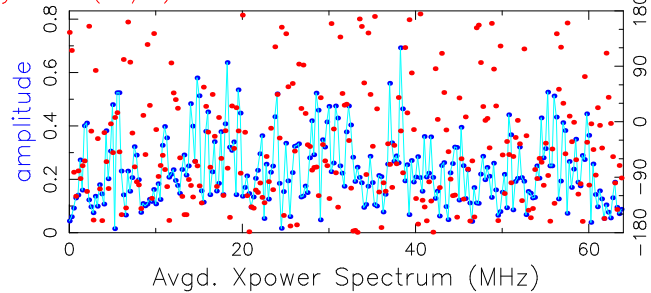
Fringe quality 0

SNR 5.7
Int time 419.824
Amp 0.105
Phase -58.9
PFD 9.1e-01
Delays (us)
SBD 0.620962
MBD -0.005315
Fringe rate (Hz)
-0.232582
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

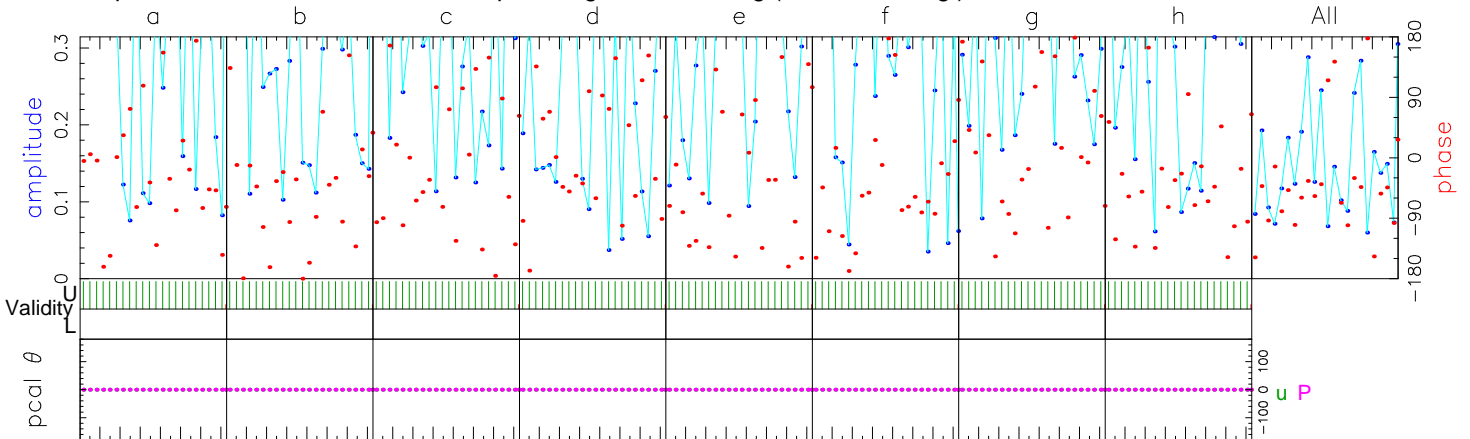
Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 094501.00
Stop 095200.84
FRT 094831.00
Corr/FF/build
2021:286:231157
2021:287:012718
2021:252:122852
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"



delay rate (ns/s)



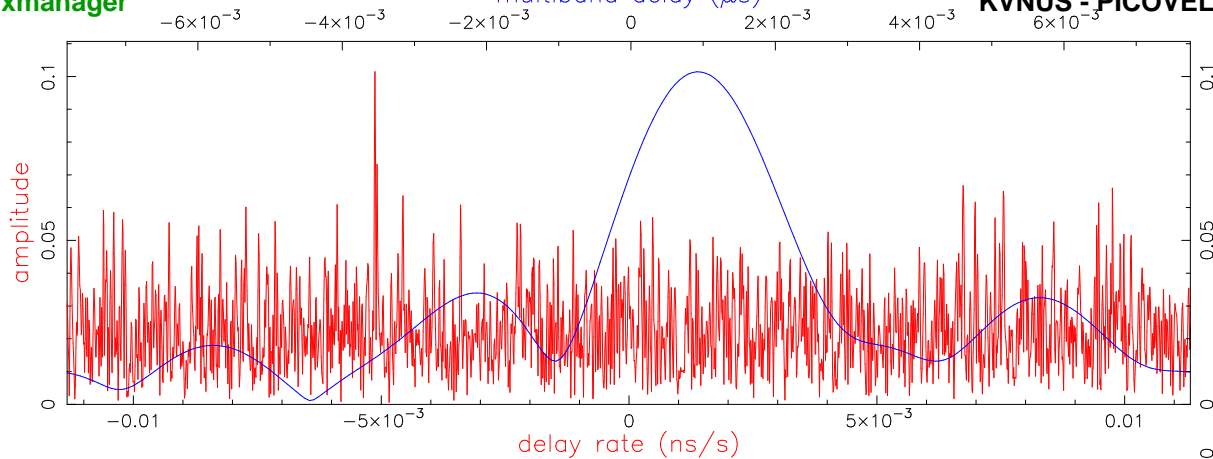
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-5.24785560025E+03									
Sband delay (usec)	-5.24785432374E+03									
Phase delay (usec)	-5.24847528739E+03									
Delay rate (us/s)	-1.67650598764E+00									
Total phase (deg)			-92.2							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

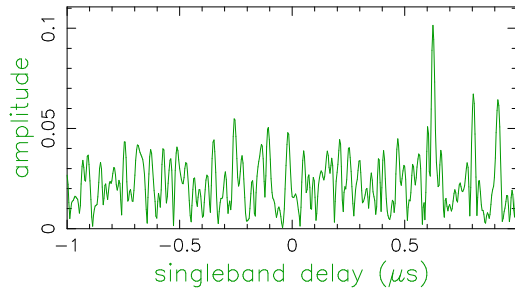
ph/seg (deg) 66.8 47.9 Search (2048X32) 0.105 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 80.9 83.6 Interp. 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 29.8 28.2 Inc. seg. avg. 0.112 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 43.9 49.3 Inc. frq. avg. 0.099 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
u: az 301.4 el 31.1 pa 67.7 P: az 66.1 el 47.9 pa -77.7 u,v (fr/asec) 12886.266 1551.649 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uP..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uP.W.105.1W6A0V

multiband delay (μ s)

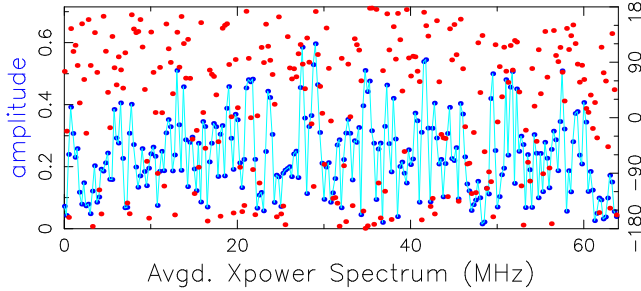


Fringe quality 0

SNR 5.7
Int time 419.824
Amp 0.111
Phase 114.7
PFD 9.5e-01
Delays (us)
SBD 0.625481
MBD 0.000939
Fringe rate (Hz)
-0.442573
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

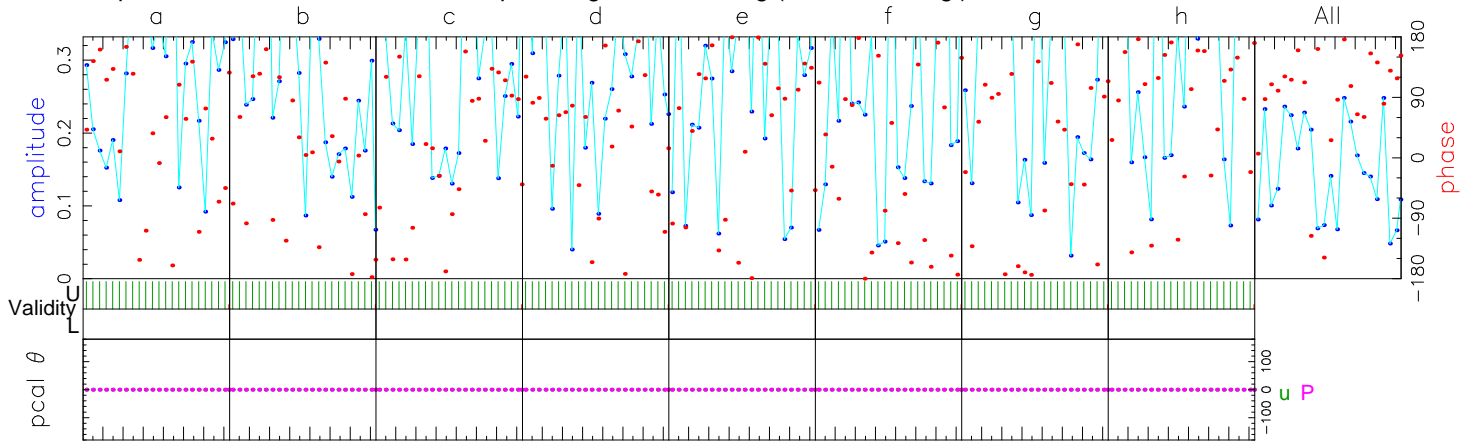


delay rate (ns/s)



Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 094501.00
Stop 095200.84
FRT 094831.00
Corr/FF/build
2021:286:231157
2021:287:012725
2021:252:122852
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		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
Group delay (usec)(sbd)	-5.24784934615E+03								9.39349E-04	+/- 1.9E-04
Sband delay (usec)	-5.24784980399E+03								6.25481E-01	+/- 1.5E-03
Phase delay (usec)	-5.24847528179E+03								3.69992E-06	+/- 6.5E-07
Delay rate (us/s)	-1.67650842543E+00								-5.13784E-06	+/- 2.7E-09
Total phase (deg)			81.5						114.7	+/- 20.1
Apriori delay (usec)					-5.24847528549E+03					
Apriori clock (usec)					0.100					
Apriori clockrate (us/s)					1.7269999E-06					
Apriori rate (us/s)					-1.67650328759E+00					
Apriori accel (us/s/s)					2.63701384879E-05					
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
PC period (AP's) 5, 5										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00
ph/seg (deg)	54.2	48.3		Search (2048X32)	0.111 +/- 0.019					
amp/seg (%)	82.8	84.3		Interp.	0.000					
ph/frq (deg)	17.7	28.5		Inc. seg. avg.	0.122					
amp/frq (%)	38.4	49.7		Inc. frq. avg.	0.102					
u: az 301.4 el 31.1 pa 67.7				P: az 66.1 el 47.9 pa -77.7						
				u,v (fr/asec) 12886.266 1551.649						
Control file: cf_1234_gmva				Input file: /Exps/c211a/v2/1234/No0212/uP..1W6A0V						simultaneous interpolator
				Output file: /Exps/c211a/v2/1234/No0212/uP.W.141.1W6A0V						

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

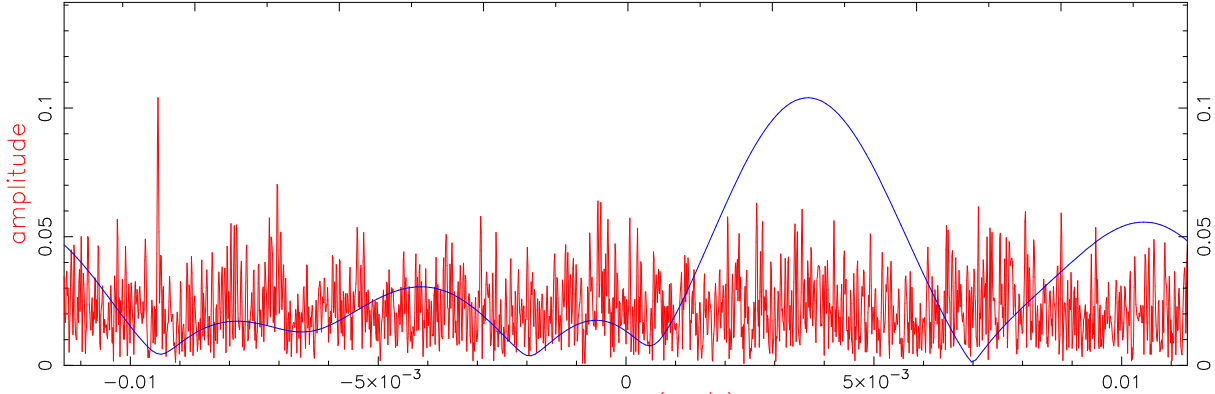
3C84.1W6A0V, No0212, uP

KVNUS - PICOVEL, fgroup W, pol LL

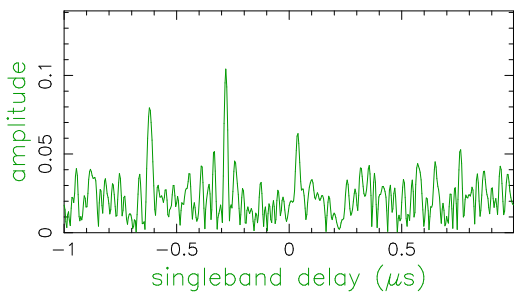
multiband delay (μ s)

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

Fringe quality 0

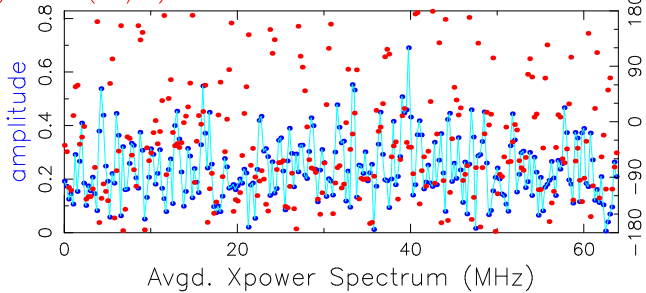


SNR 5.8
Int time 419.824
Amp 0.141
Phase -99.5
PFD 7.6e-01
Delays (us)
SBD -0.281505
MBD 0.002498
Fringe rate (Hz)
-0.814312
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



singleband delay (μ s)

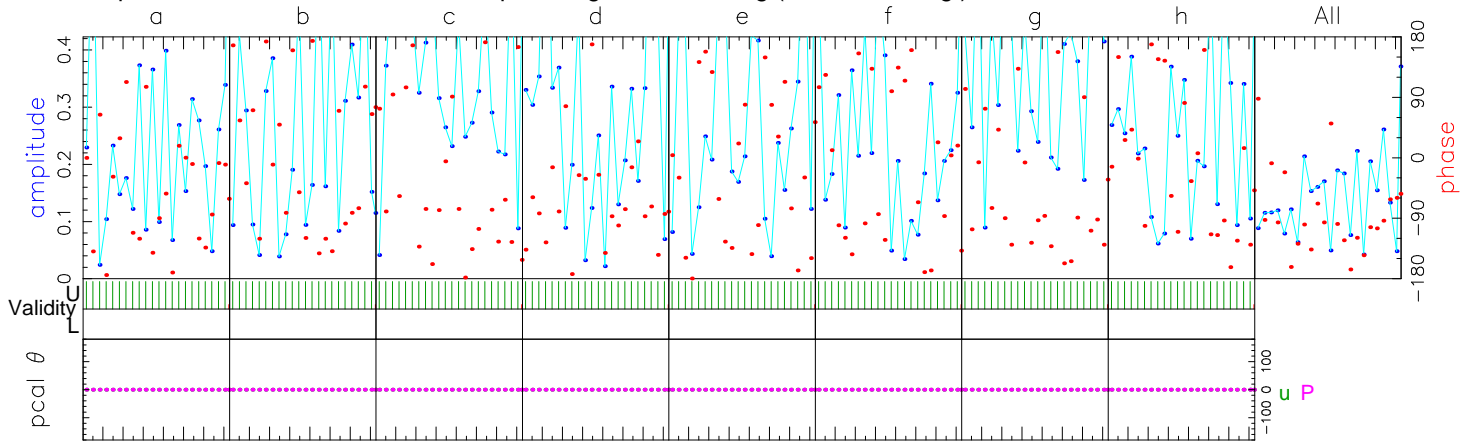
delay rate (ns/s)



Avgd. Xpower Spectrum (MHz)

Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 094501.00
Stop 095200.84
FRT 094831.00
Corr/FF/build
2021:286:231157
2021:287:012713
2021:252:122852
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-71.7	-112.7	-127.1	-81.9	-104.4	-138.3	-97.9	-73.5	Phase	-99.5
	0.1	0.1	0.2	0.3	0.1	0.1	0.3	0.1	Ampl.	0.1
	266.8	97.4	424.9	184.5	348.1	15.3	185.1	212.4	Sbd box	184.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
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	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.24875403755E+03		Apriori delay (usec)		-5.24847528549E+03		Resid mbdelay (usec)		2.49794E-03	+/- 1.9E-04
Sband delay (usec)	-5.24875678999E+03		Apriori clock (usec)		1.5478239E+01		Resid sbdelay (usec)		-2.81505E-01	+/- 1.5E-03
Phase delay (usec)	-5.24847528870E+03		Apriori clockrate (us/s)		1.7269999E-06		Resid phdelay (usec)		-3.20768E-06	+/- 6.3E-07
Delay rate (us/s)	-1.67651274095E+00		Apriori rate (us/s)		-1.67650328759E+00		Resid rate (us/s)		-9.45336E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		2.63701384879E-05		Resid phase (deg)		-99.5	+/- 19.7

	RMS	Theor.	Amplitude	0.141 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	61.9	47.1	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	68.9	82.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	26.5	27.8	Inc. seg. avg.	0.138	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	52.1	48.5	Inc. frq. avg.	0.135	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

u: az 301.4 el 31.1 pa 67.7 P: az 66.1 el 47.9 pa -77.7 u,v (fr/asec) 12886.266 1551.649 simultaneous interpolator

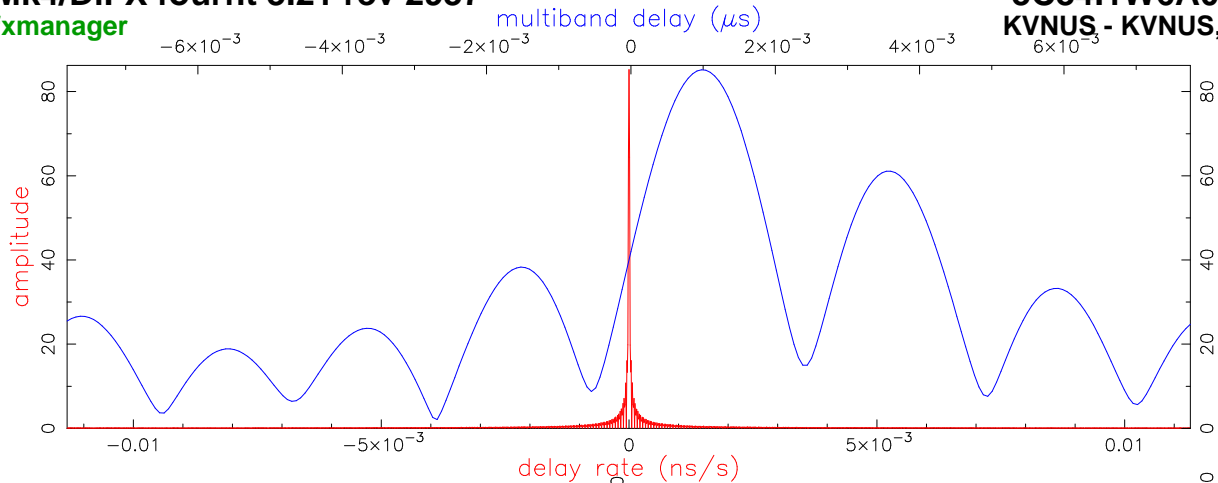
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uP..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uP.W.84.1W6A0V

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

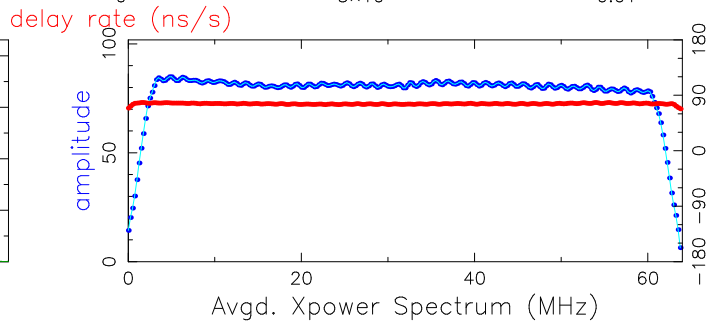
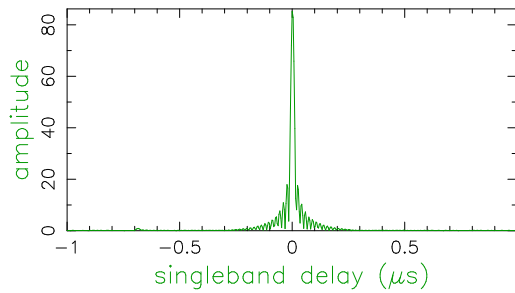
3C84.1W6A0V, No0212, uu

KVNUS - KVNUS, fgroup W, pol LR



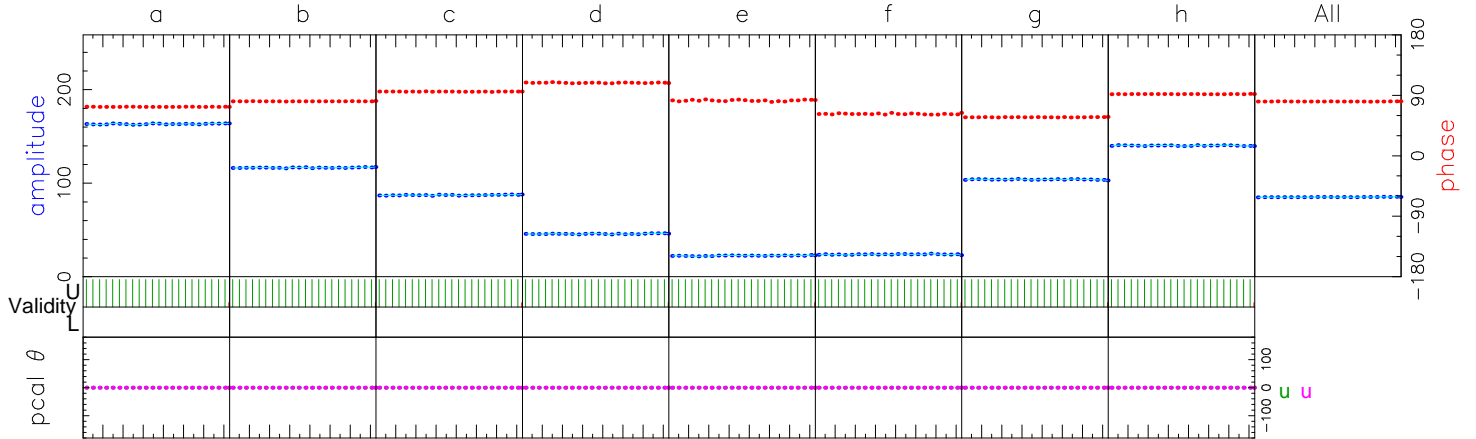
Fringe quality 6

SNR 4831.4
 Int time 419.840
 Amp 86.225
 Phase 80.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.001392
 MBD 0.000986
 Fringe rate (Hz)
 -0.000001
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012721
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.85500000000E-04		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		9.85500E-04	+/- 2.2E-07
Sband delay (usec)	1.39200000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		1.39200E-03	+/- 1.8E-06
Phase delay (usec)	2.60462237156E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		2.60462E-06	+/- 7.6E-10
Delay rate (us/s)	-8.50269143501E-12		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-8.50269E-12	+/- 3.2E-12
Total phase (deg)			80.8		Apriori accel (us/s/s)		0.00000000000E+00		80.8	+/- 0.0

ph/seg (deg) 0.1 0.1
 amp/seg (%) 1.2 0.1
 ph/frq (deg) 18.6 0.0
 amp/frq (%) 57.5 0.1

RMS Theor. Amplitude 86.225 +/- 0.018
 Search (2048X32) 85.189
 Interp. 0.000
 Inc. seg. avg. 85.199
 Inc. frq. avg. 87.961

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

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

u: az 301.4 el 31.1 pa 67.7 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uu.W.118.1W6A0V

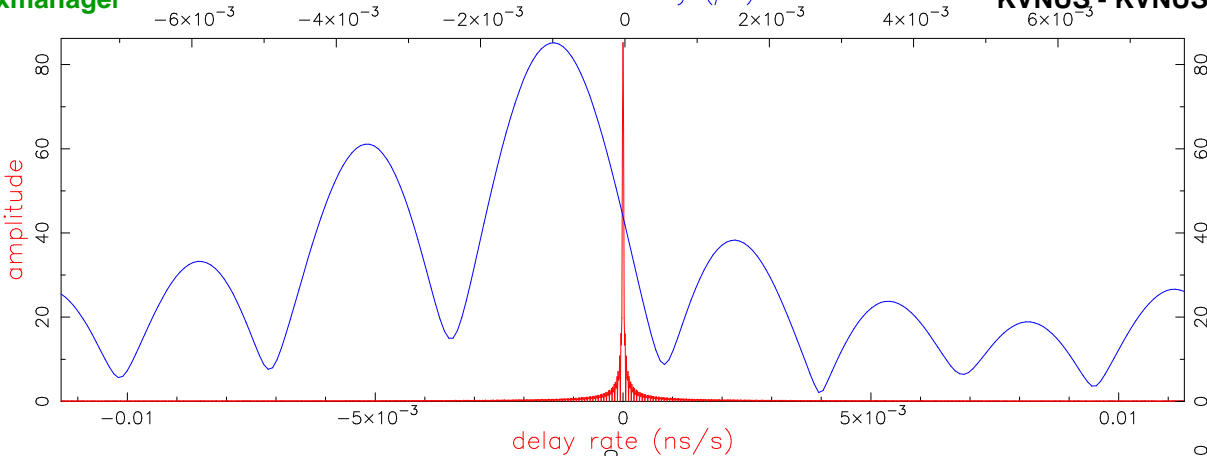
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, uu

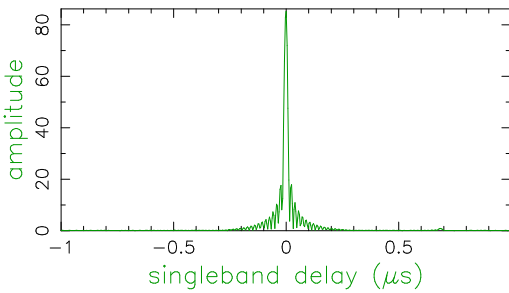
KVNUS - KVNUS, fgroup W, pol RL

multiband delay (μ s)

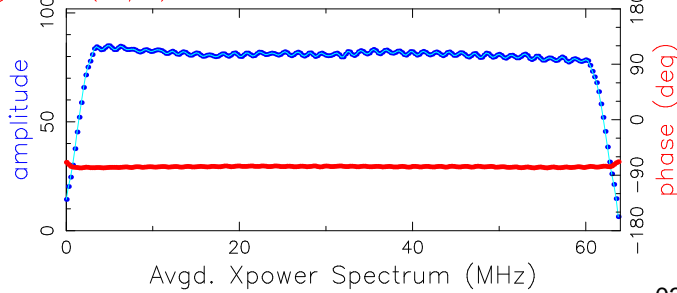


Fringe quality 6

SNR 4831.4
 Int time 419.840
 Amp 86.225
 Phase -80.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.001392
 MBD -0.000986
 Fringe rate (Hz) 0.000001
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

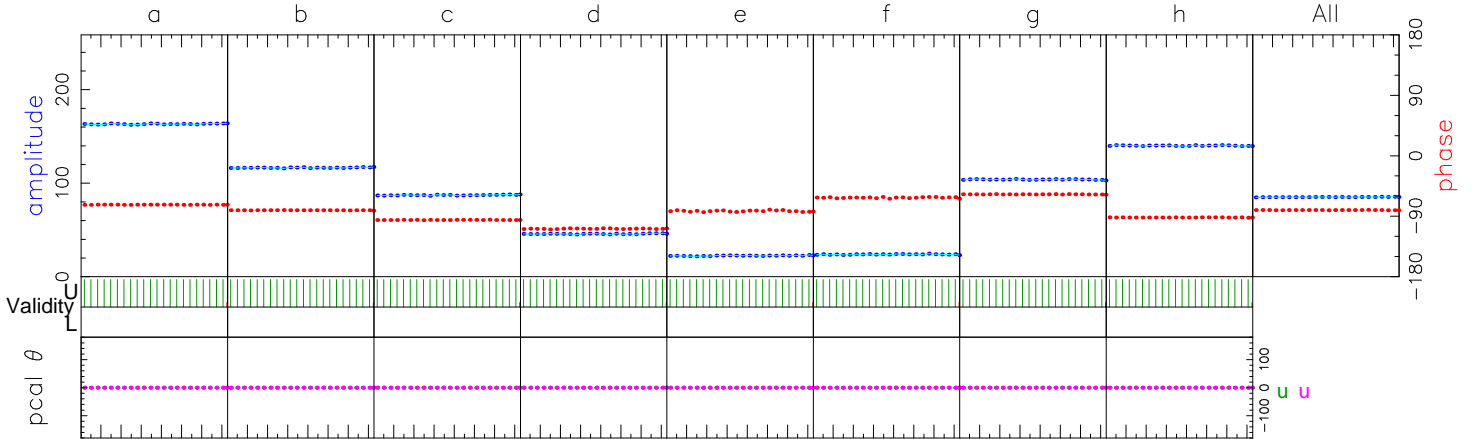


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012725
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-72.8	-81.0	-95.5	-108.6	-82.2	-62.2	-57.4	-91.8	Phase	-80.8
	163.3	116.6	87.3	45.9	22.5	23.9	104.0	140.2	Ampl.	88.0
	256.6	256.6	256.5	256.8	257.6	256.5	256.5	256.3	Sbd box	256.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-9.85500000000E-04	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-9.85500E-04	+/-	2.2E-07
Sband delay (usec)	-1.39200000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.39200E-03	+/-	1.8E-06
Phase delay (usec)	-2.60462237151E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.60462E-06	+/-	7.6E-10
Delay rate (us/s)	8.50269143501E-12	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	8.50269E-12	+/-	3.2E-12
Total phase (deg)	-80.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-80.8	+/-	0.0

ph/seg (deg)	0.1	Theor.	0.1	Amplitude	86.225 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	1.2		0.1	Search (2048X32)	85.189	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	18.6		0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	57.5		0.1	Inc. seg. avg.	85.199	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011		
				Inc. frq. avg.	87.961	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 301.4 el 31.1 pa 67.7 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

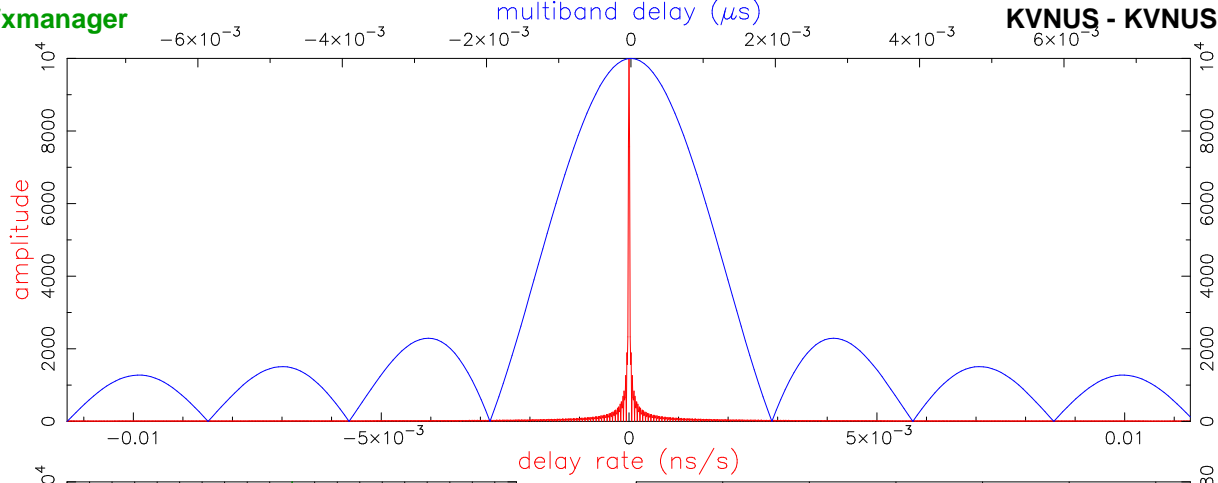
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uu.W.139.1W6A0V

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

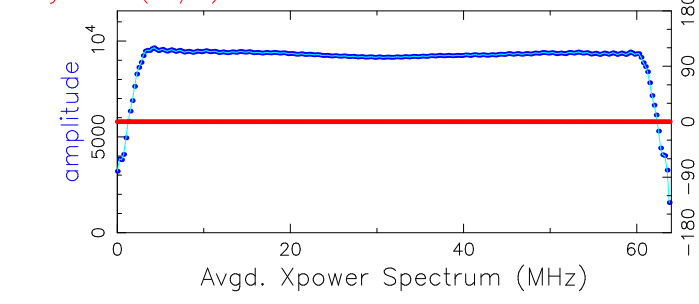
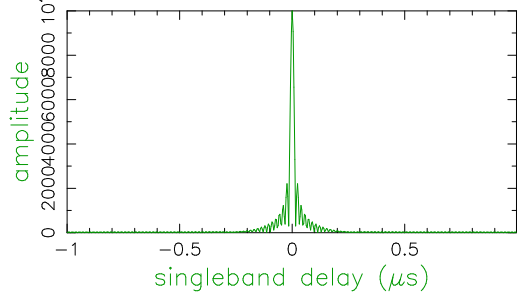
3C84.1W6A0V, No0212, uu

KVNU5 - KVNU5, fgroup W, pol LL



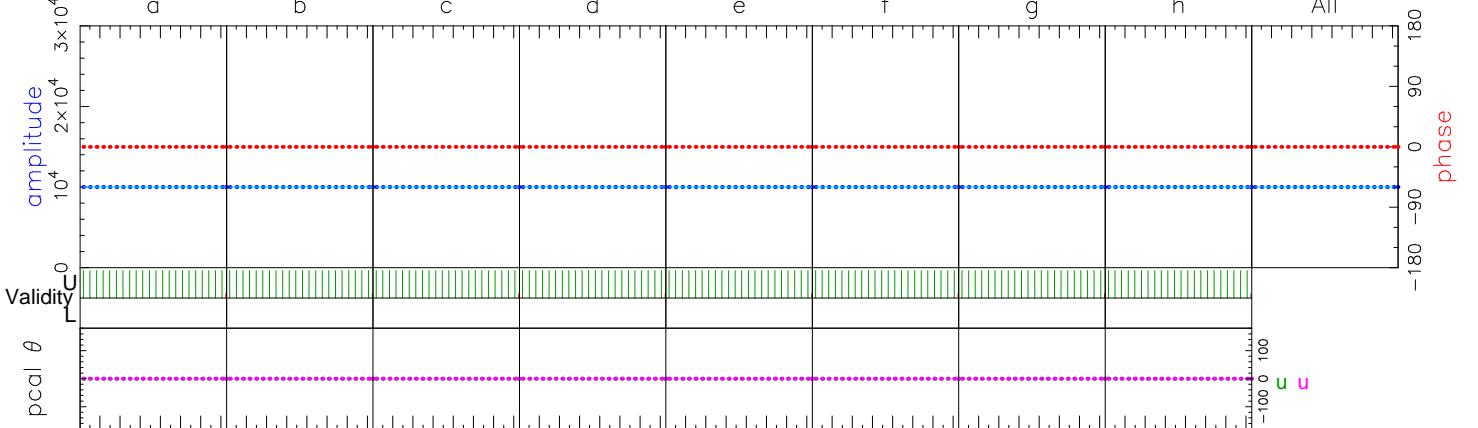
Fringe quality 9

SNR 560324.4
 Int time 419.840
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012713
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

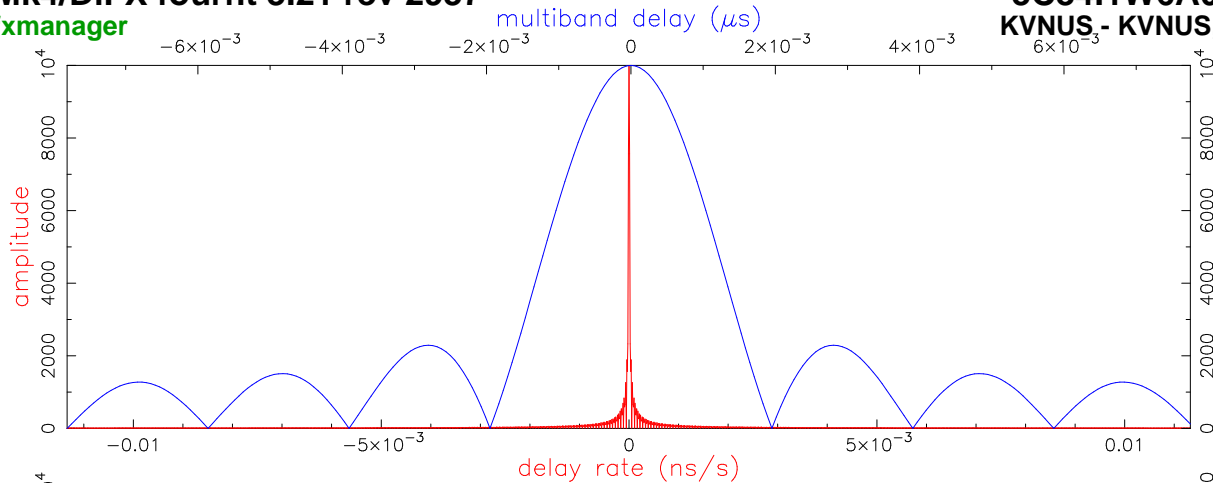
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



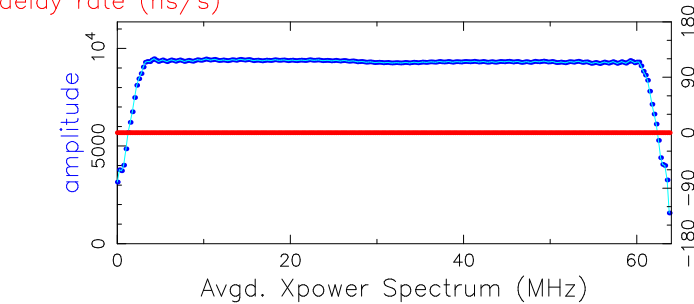
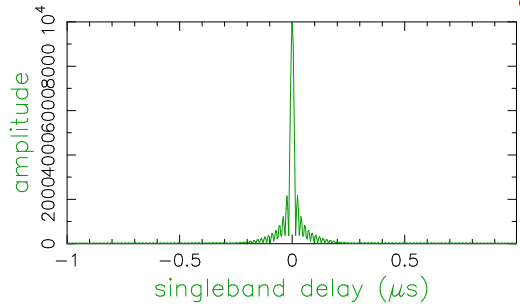
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		
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		
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		
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		
Total phase (deg)			0.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
ion window (TEC)										
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								

u: az 301.4 el 31.1 pa 67.7 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

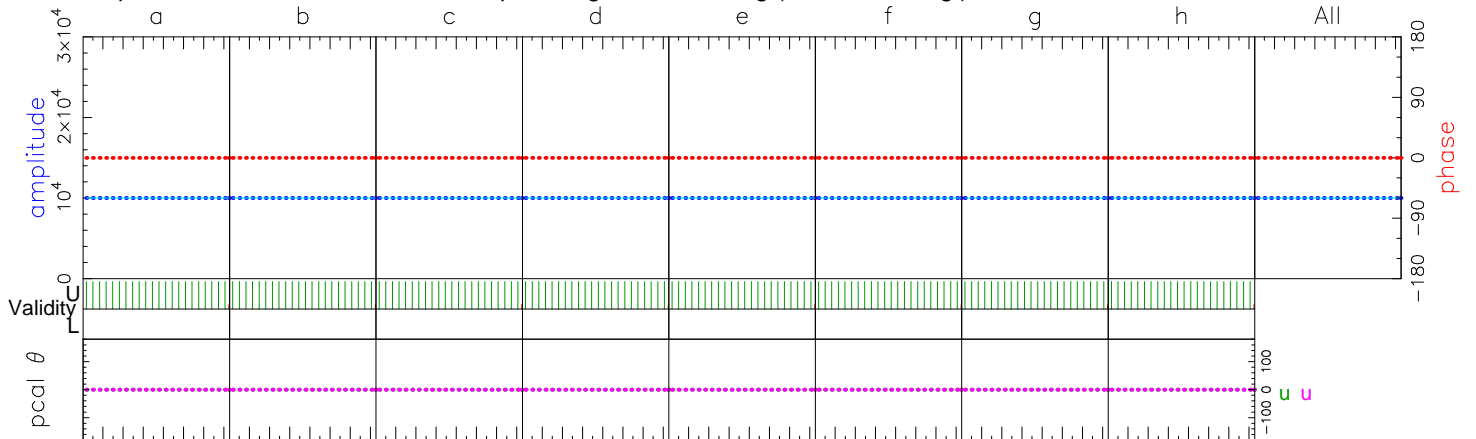
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uu.W.86.1W6A0V



Fringe quality 9
SNR 560324.4
Int time 419.840
Amp 10000.000
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211a
Yr:day 16383
Start 2021:114
Stop 2021:114
FRT 094501.00
2021:286:231157
2021:287:012717
2021:252:122852
RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"



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



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

RMS Theor. Amplitude 10000.000 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 u: az 301.4 el 31.1 pa 67.7 u: az 301.4 el 31.1 pa 67.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uu..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uu.W.98.1W6A0V

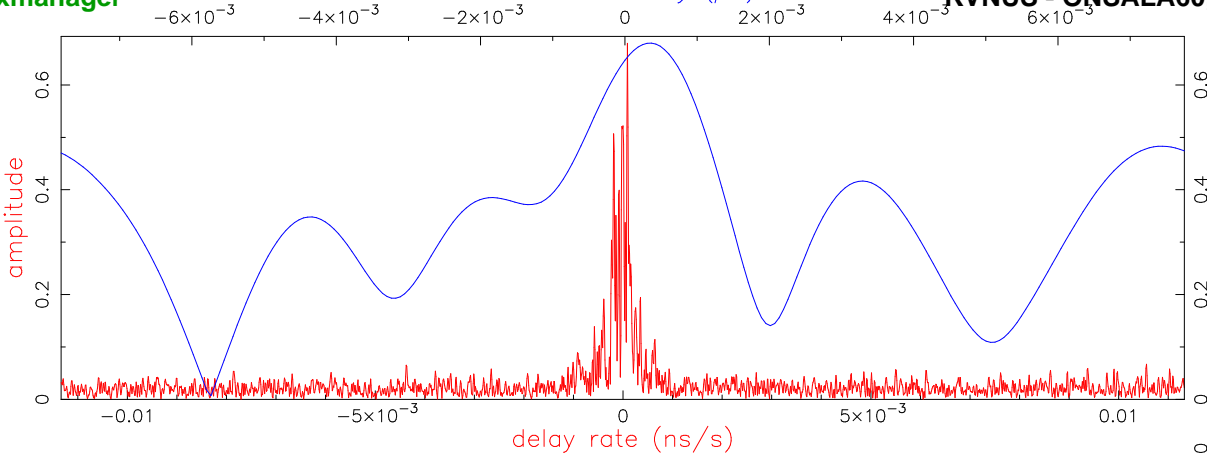
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, uX

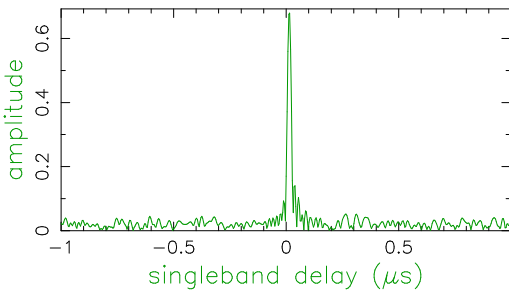
KVNUS - ONSALA60, fgroup W, pol RR

multiband delay (μ s)

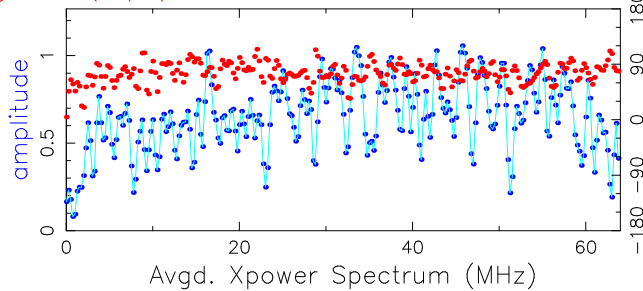


Fringe quality 3

SNR 38.8
 Int time 419.793
 Amp 0.693
 Phase -129.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.013798
 MBD 0.000296
 Fringe rate (Hz)
 0.007711
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

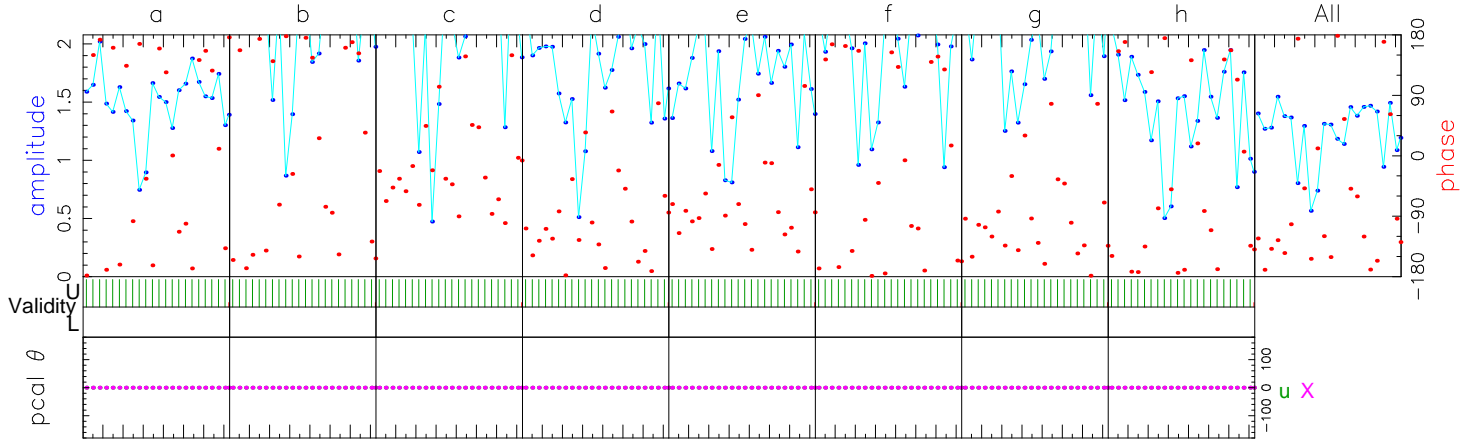


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012718
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	179.4	-160.5	-32.4	-111.3	-82.2	-175.5	-104.9	-168.0	Phase	-129.4
u	0.9	1.2	1.2	0.9	0.9	1.2	1.2	0.8	Ampl.	1.0
X	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	260.5
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.90768293639E+03								Resid mbdelay (usec)	2.95702E-04 +/- 2.8E-05
Sband delay (usec)	-7.90768505910E+03								Resid sbdelay (usec)	1.37980E-02 +/- 2.2E-04
Phase delay (usec)	-7.90769886127E+03								Resid phdelay (usec)	-4.17351E-06 +/- 9.5E-08
Delay rate (us/s)	-1.31796268563E+00								Resid rate (us/s)	8.95149E-08 +/- 3.9E-10
Total phase (deg)			-327.5						Resid phase (deg)	-129.4 +/- 3.0
									PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	71.7	7.1	Search (2048X32)	0.669					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	87.4	12.4	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	57.4	4.2	Inc. seg. avg.	1.232					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	53.4	7.3	Inc. frq. avg.	1.025					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
u: az 301.4 el 31.1 pa 67.7			X: az 104.9 el 60.4 pa -43.8						nlags: 256	t_cohere infinite
Control file: cf_1234_gmva			Input file: /Exps/c211a/v2/1234/No0212/uX..1W6A0V							simultaneous interpolator
			Output file: /Exps/c211a/v2/1234/No0212/uX.W.109.1W6A0V							

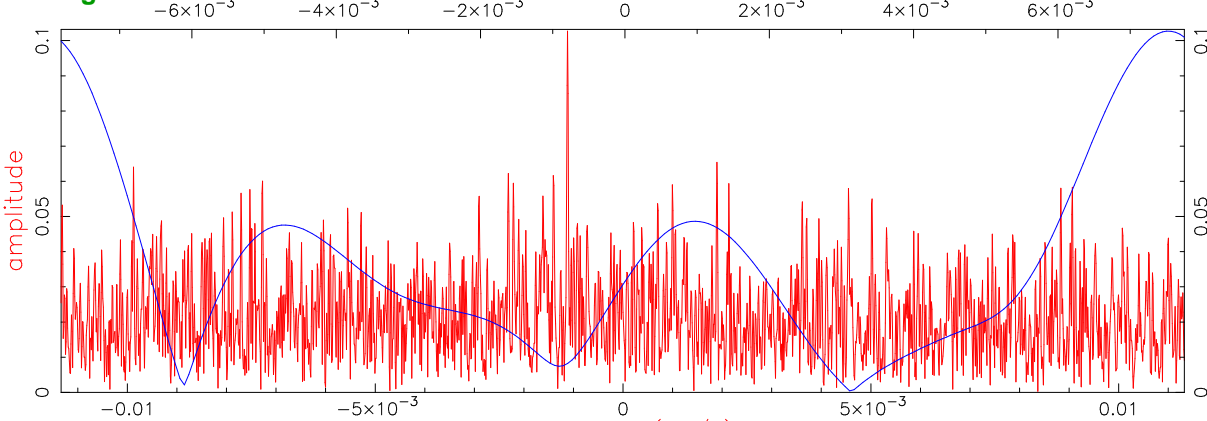
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, uX

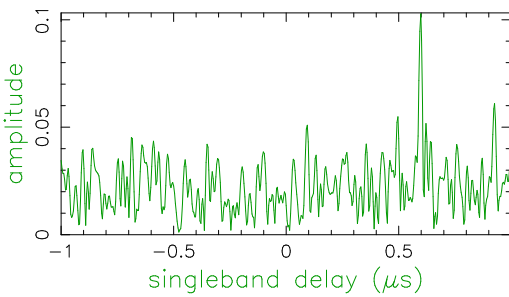
KVNUS - ONSALA60, fgroup W, pol LR

multiband delay (μ s)

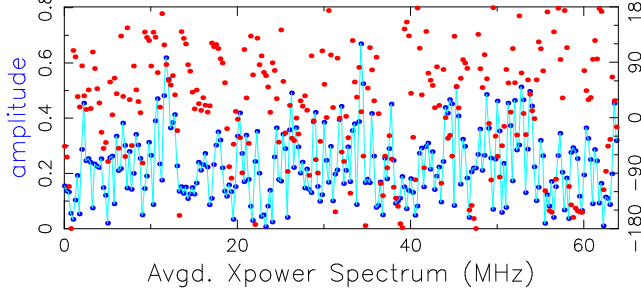


Fringe quality 0

SNR 5.8
 Int time 419.793
 Amp 0.103
 Phase 175.6
 PFD 8.8e-01
 Delays (us)
 SBD 0.597330
 MBD -0.008105
 Fringe rate (Hz)
 -0.096348
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

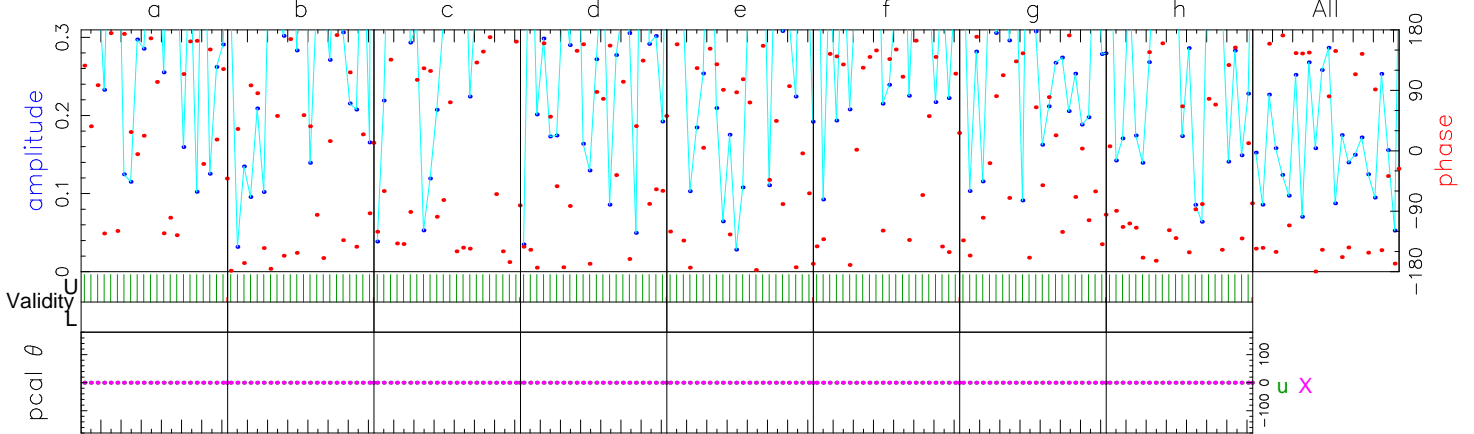


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012722
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



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

Group delay (usec)(sbd) -7.90709758700E+03 Apriori delay (usec) -7.90769885710E+03 Resid mbdelay (usec) -8.10491E-03 +/- 1.9E-04
 Sband delay (usec) -7.90710152710E+03 Apriori clock (usec) -4.1881496E+01 Resid sbdelay (usec) 5.97330E-01 +/- 1.5E-03
 Phase delay (usec) -7.90769885143E+03 Apriori clockrate (us/s) 5.9899996E-07 Resid phdelay (usec) 5.66286E-06 +/- 6.4E-07
 Delay rate (us/s) -1.31796389365E+00 Apriori rate (us/s) -1.31796277515E+00 Resid rate (us/s) -1.11850E-06 +/- 2.6E-09
 Total phase (deg) -22.5 Apriori accel (us/s/s) 2.22537044975E-05 Resid phase (deg) 175.6 +/- 19.9

RMS Theor. Amplitude 0.103 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 54.7 47.7 Search (2048X32) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 89.5 83.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 26.1 28.1 Inc. seg. avg. 0.121 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 60.7 49.1 Inc. frq. avg. 0.099 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

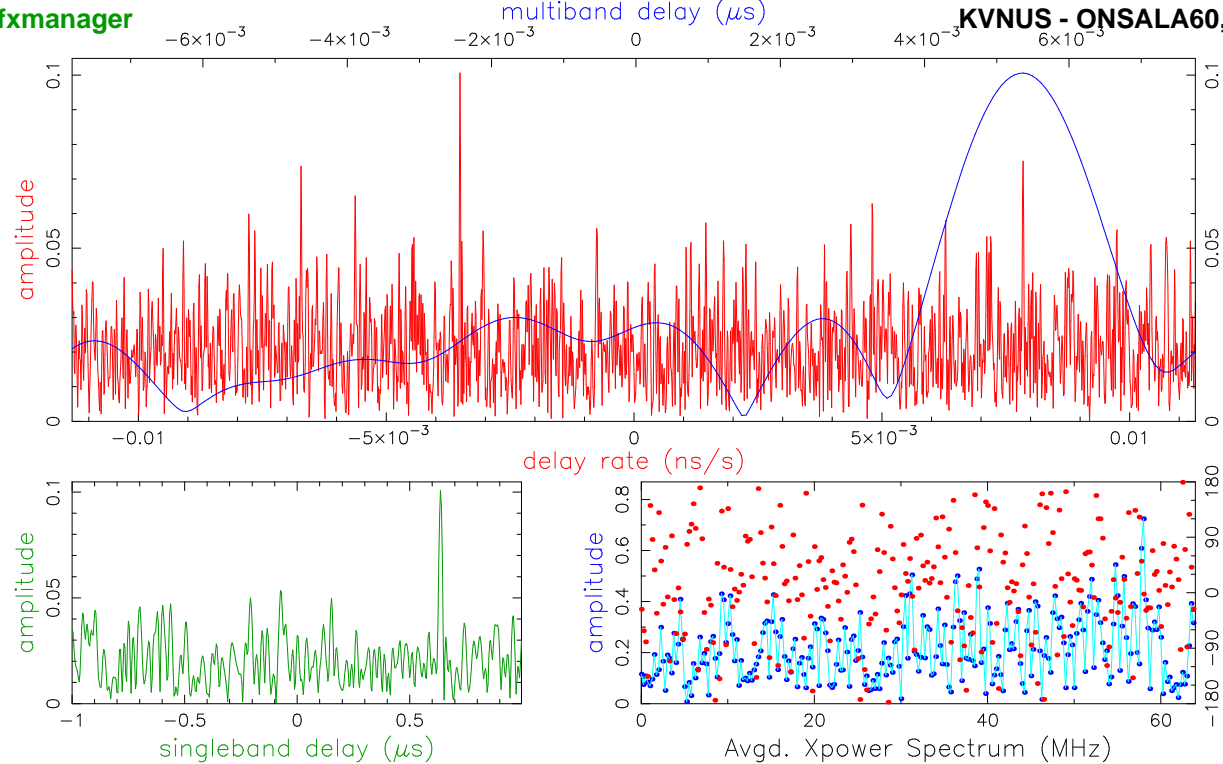
u: az 301.4 el 31.1 pa 67.7 X: az 104.9 el 60.4 pa -43.8 u,v (fr/asec) 10136.545 -293.425 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uX..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uX.W.127.1W6A0V

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

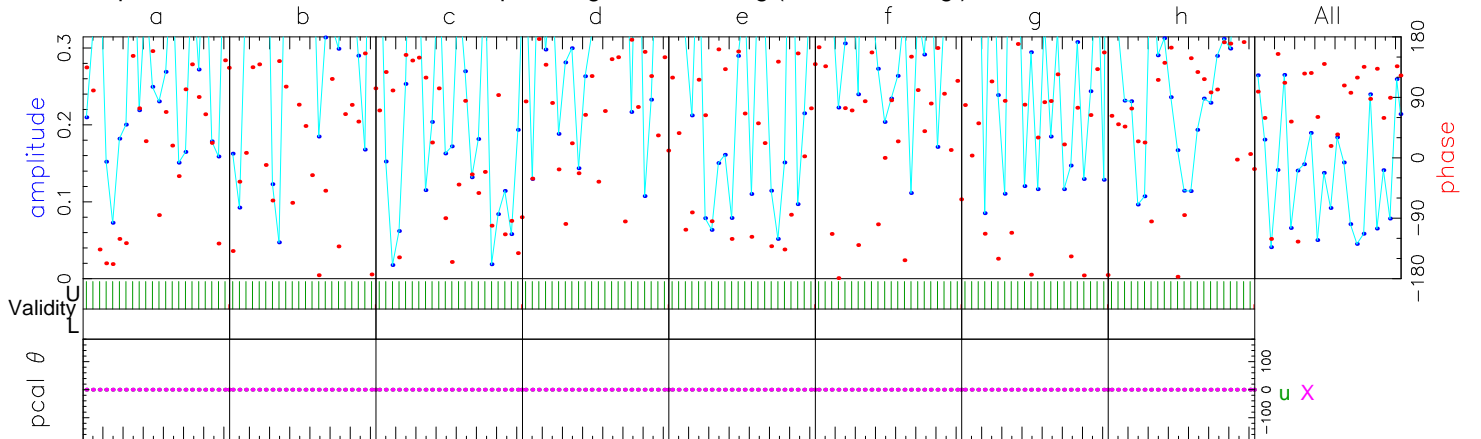
3C84.1W6A0V, No0212, uX

KVNUS - ONSALA60, fgroup W, pol RL



Fringe quality 0
 SNR 5.6
 Int time 419.793
 Amp 0.105
 Phase 104.5
 PFD 9.8e-01
 Delays (us)
 SBD 0.637193
 MBD 0.005368
 Fringe rate (Hz)
 -0.303208
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Yr:day 16383
 Start 2021:094501.00
 Stop 2021:095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012725
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	120.7	85.8	113.6	102.1	87.6	105.5	114.5	98.7	Phase	104.5
	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	71.9	238.2	351.1	313.9	274.0	38.7	6.2	215.5	Sbd box	420.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
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)	-7.90706848903E+03		Apriori delay (usec)		-7.90769885710E+03		Resid mbdelay (usec)		5.36807E-03	+/- 1.9E-04
Sband delay (usec)	-7.90706166435E+03		Apriori clock (usec)		-4.1881496E+01		Resid sbdelay (usec)		6.37193E-01	+/- 1.5E-03
Phase delay (usec)	-7.90769885373E+03		Apriori clockrate (us/s)		5.9899996E-07		Resid phdelay (usec)		3.36866E-06	+/- 6.5E-07
Delay rate (us/s)	-1.31796629510E+00		Apriori rate (us/s)		-1.31796277515E+00		Resid rate (us/s)		-3.51995E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		2.22537044975E-05		Resid phase (deg)		104.5	+/- 20.3

ph/seg (deg) 54.0 48.7 Search (2048X32) 0.097 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 81.0 85.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 13.7 28.7 Inc. seg. avg. 0.105 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.6 50.1 Inc. frq. avg. 0.095 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 301.4 el 31.1 pa 67.7 X: az 104.9 el 60.4 pa -43.8 u,v (fr/asec) 10136.545 -293.425 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uX..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uX.W.144.1W6A0V

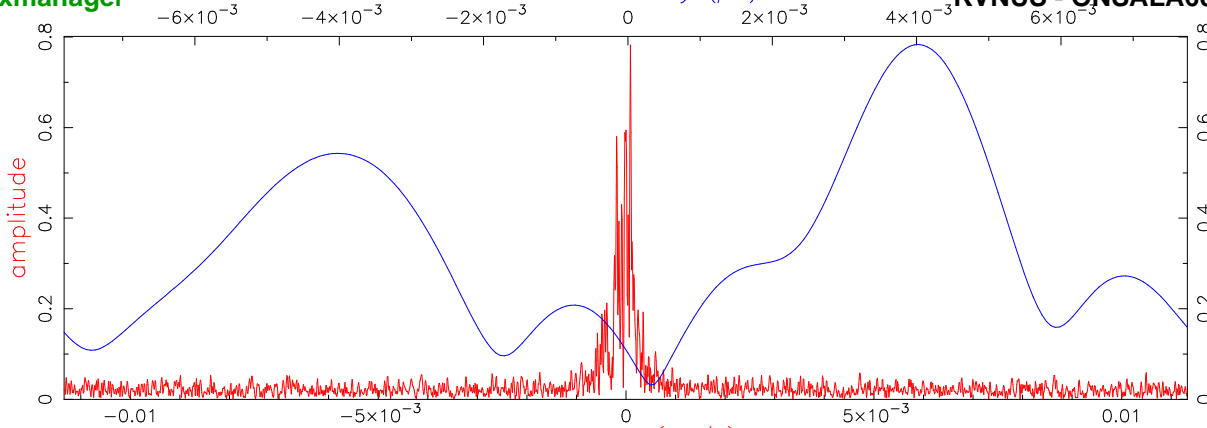
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, uX

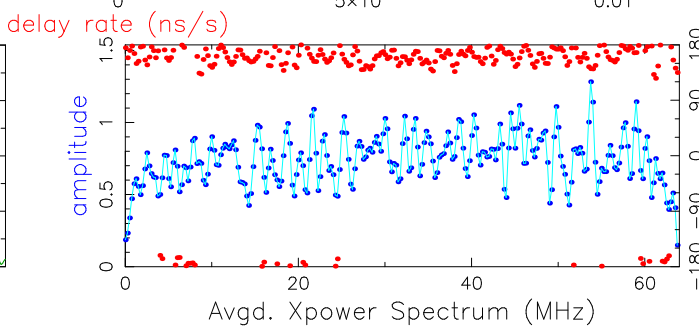
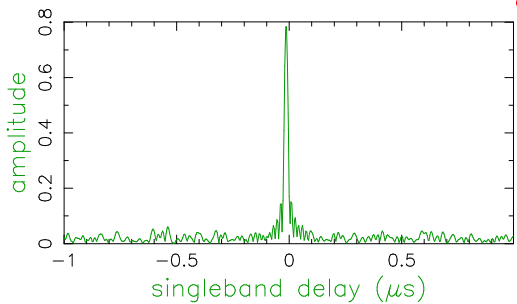
KVNUS - ONSALA60, fgroup W, pol LL

multiband delay (μ s)



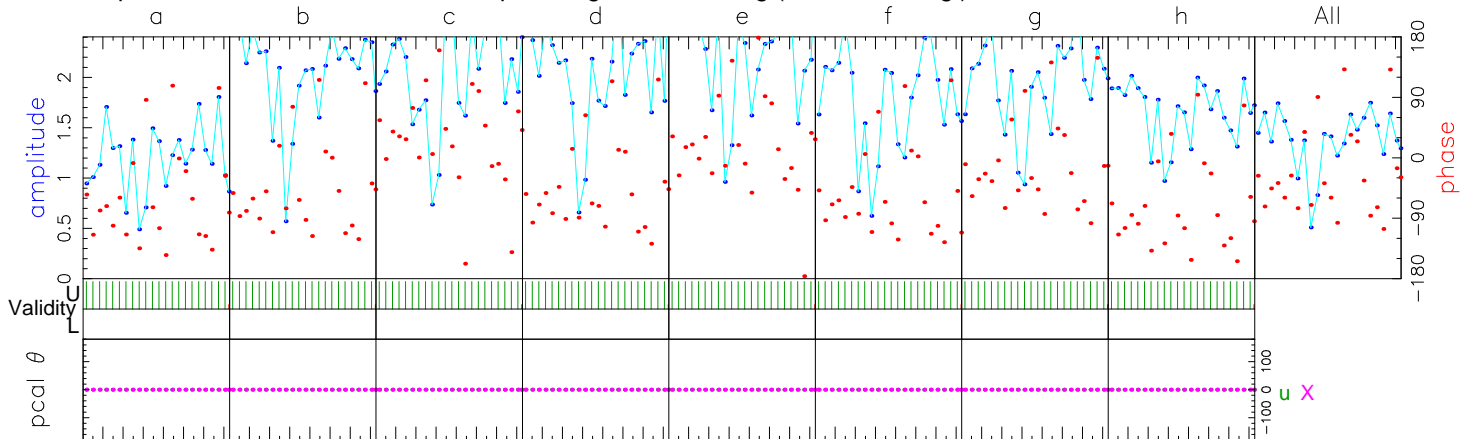
Fringe quality 3

SNR 44.9
 Int time 419.793
 Amp 0.801
 Phase -40.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.013635
 MBD 0.004081
 Fringe rate (Hz)
 0.007806
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012714
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

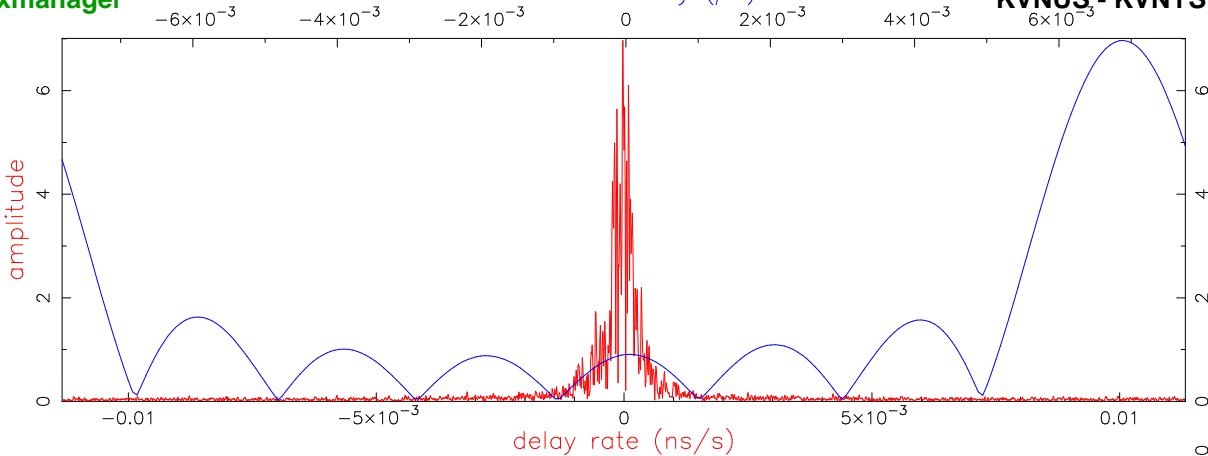
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



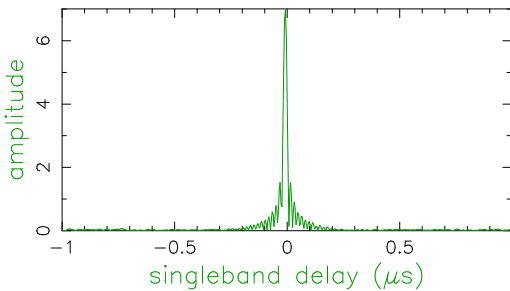
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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)	-7.90771040111E+03								4.08098E-03	+/- 2.4E-05
Sband delay (usec)	-7.90771249235E+03								-1.36352E-02	+/- 1.9E-04
Phase delay (usec)	-7.90769885841E+03								-1.31095E-06	+/- 8.2E-08
Delay rate (us/s)	-1.31796268453E+00								9.06238E-08	+/- 3.4E-10
Total phase (deg)			-238.7						-40.7	+/- 2.6
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
ph/seg (deg)	69.8	6.1								
amp/seg (%)	81.5	10.7								
ph/frq (deg)	49.4	3.6								
amp/frq (%)	40.8	6.3								
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.801 +/- 0.018										
0.771										
0.000										
1.379										
1.057										
Pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
0.000E+00, 0.000E+00 (us/s)										
SampCntNorm: enabled										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
simultaneous interpolator										

multiband delay (μ s)

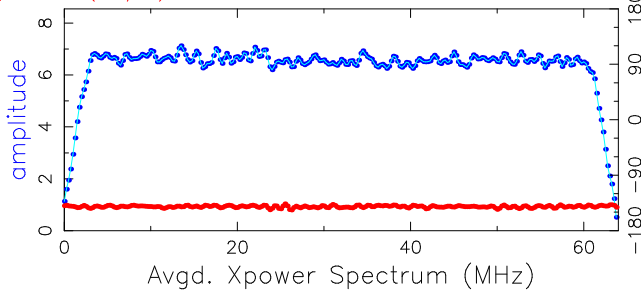
Fringe quality 5



SNR 392.7
Int time 419.840
Amp 7.009
Phase 38.9
PFD 0.0e+00
Delays (us)
SBD -0.008770
MBD 0.006880
Fringe rate (Hz)
-0.002179
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

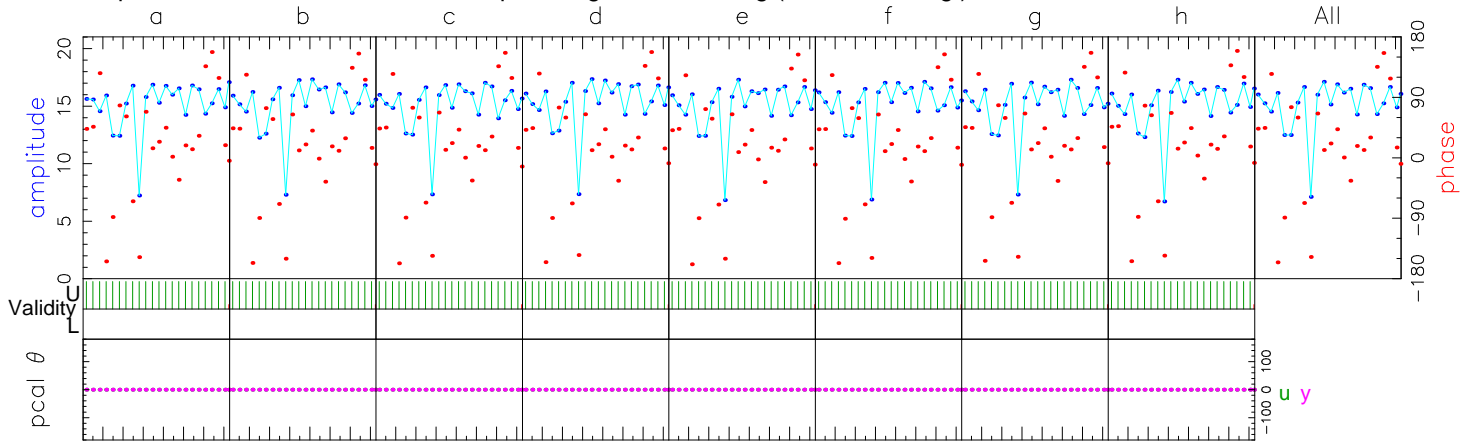


delay rate (ns/s)



Exp. c211a
Yr:day 16383
Yr:day 2021:114
Start 094501.00
Stop 095200.84
FRT 094831.00
Corr/FF/build
2021:286:231157
2021:287:012717
2021:252:122852
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-8.16586736901E+02								6.88011E-03	+/- 2.8E-06
Sband delay (usec)	-8.16586762007E+02								-8.77000E-03	+/- 2.2E-05
Phase delay (usec)	-8.16577990753E+02								1.25349E-06	+/- 9.4E-09
Delay rate (us/s)	-3.18025243774E-02								-2.52948E-08	+/- 3.9E-11
Total phase (deg)			-44.4						38.9	+/- 0.3
ph/seg (deg)	77.9	0.7								
amp/seg (%)	119.8	1.2								
ph/frq (deg)	1.6	0.4								
amp/frq (%)	0.8	0.7								
u: az 301.4 el 31.1 pa 67.7										
y: az 299.6 el 33.7 pa 66.8										
u,v (fr/asec) 248.287 -30.198										
Control file: cf_1234_gmva	Input file: /Exps/c211a/v2/1234/No0212/uy..1W6A0V								Output file: /Exps/c211a/v2/1234/No0212/uy.W.103.1W6A0V	

RMS Theor. Amplitude 7.009 +/- 0.018
Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
Data rate(Mb/s): 2048 nlags: 256 t_coherence infinite ion window (TEC) 0.00 0.00
simultaneous interpolator

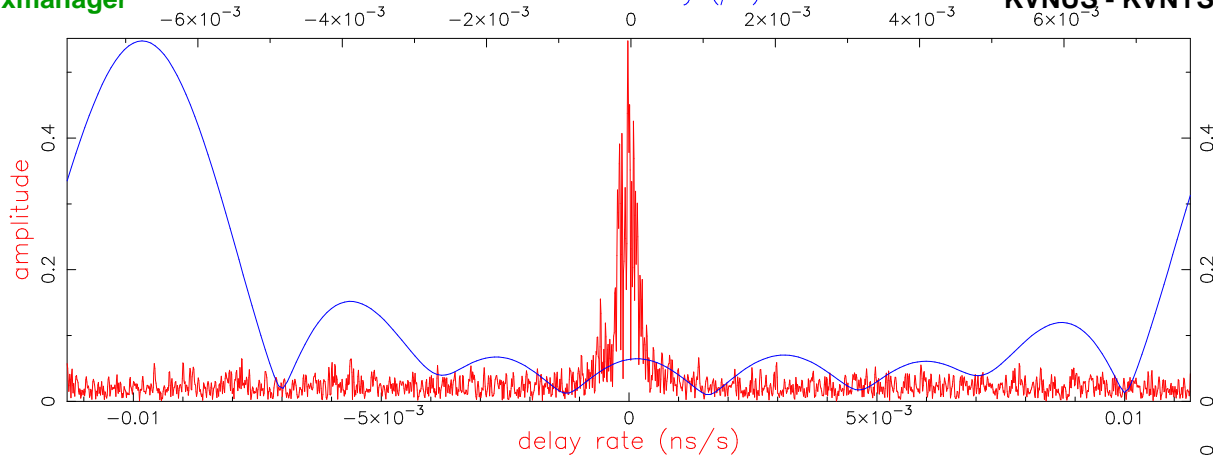
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, uy

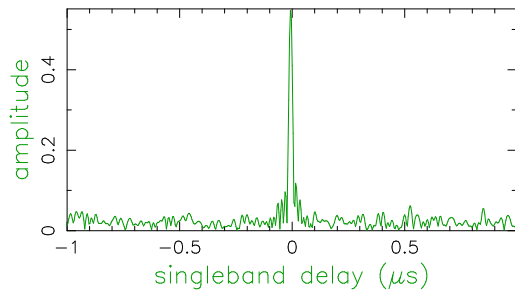
KVNU\$ - KVNYS, fgroup W, pol LR

multiband delay (μ s)

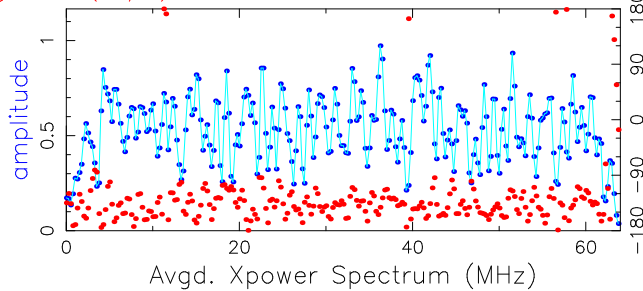


Fringe quality 7

SNR 30.9
 Int time 419.840
 Amp 0.551
 Phase -138.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.006755
 MBD -0.006770
 Fringe rate (Hz)
 -0.002224
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

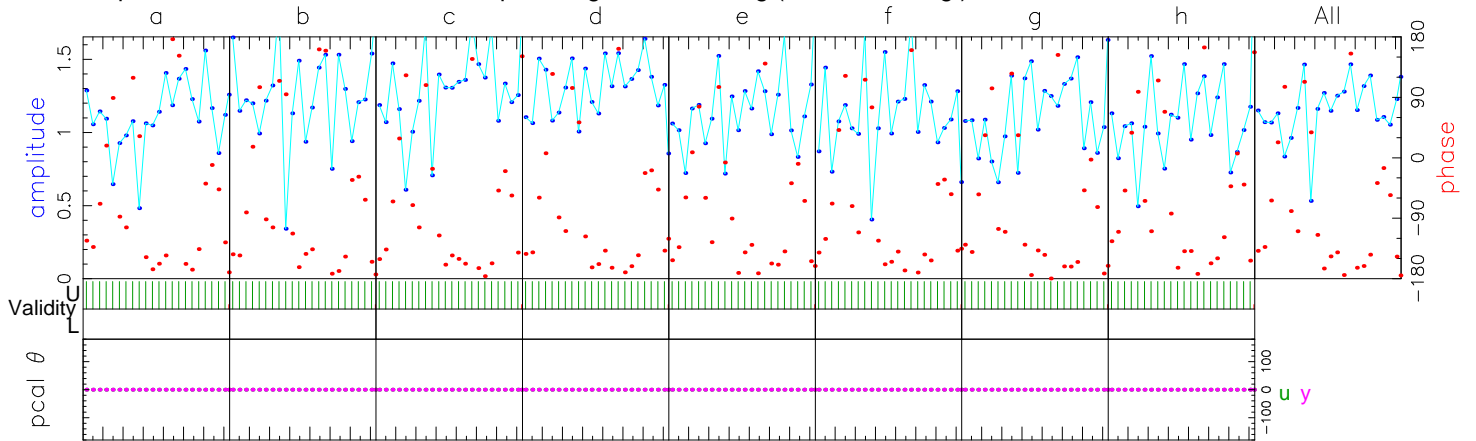


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012721
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-133.9	-145.1	-138.0	-132.1	-134.5	-143.9	-149.7	-128.4	Phase	-138.6
	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.5	Ampl.	0.5
	254.9	255.6	255.0	255.2	255.7	255.2	255.2	255.5	Sbd box	255.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-8.16584761963E+02			Apriori delay (usec)	-8.16577992007E+02			Resid mbdelay (usec)	-6.76996E-03	+/- 3.5E-05
Sband delay (usec)	-8.16584747007E+02			Apriori clock (usec)	1.3812653E+01			Resid sbdelay (usec)	-6.75500E-03	+/- 2.8E-04
Phase delay (usec)	-8.16577996474E+02			Apriori clockrate (us/s)	1.1270000E-06			Resid phdelay (usec)	-4.46788E-06	+/- 1.2E-07
Delay rate (us/s)	-3.18025249046E-02			Apriori rate (us/s)	-3.18024990826E-02			Resid rate (us/s)	-2.58220E-08	+/- 4.9E-10
Total phase (deg)		-221.9		Apriori accel (us/s/s)	2.29644046101E-06			Resid phase (deg)	-138.6	+/- 3.7

ph/seg (deg) 77.5 8.9 Search (2048X32) 0.533 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 114.7 15.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 8.0 5.2 Inc. seg. avg. 1.138 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 8.2 9.2 Inc. frq. avg. 0.549 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 301.4 el 31.1 pa 67.7 y: az 299.6 el 33.7 pa 66.8 u,v (fr/asec) 248.287 -30.198 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uy..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uy.W.121.1W6A0V

Mk4/DiFX fourfit 3.21 rev 2937

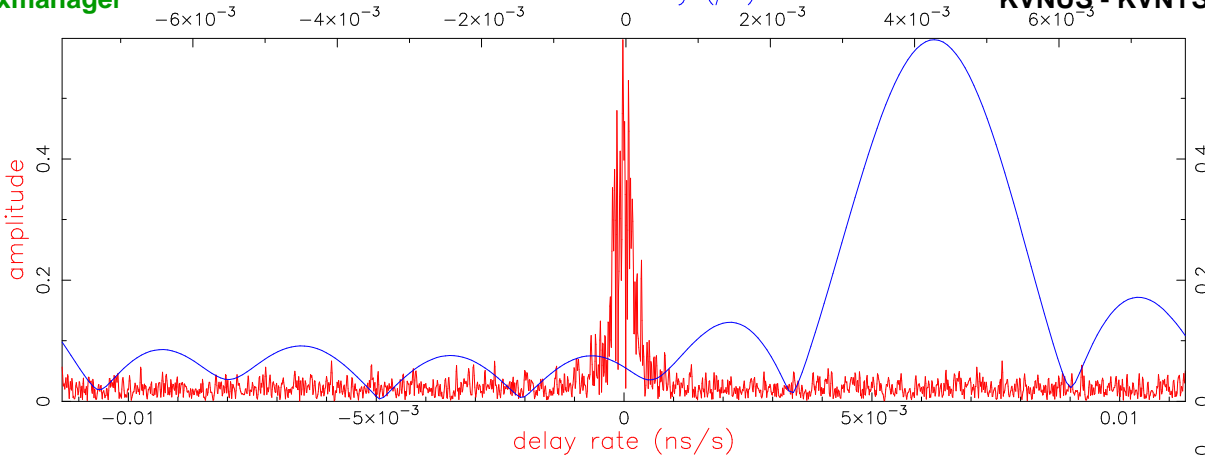
fxmanager

3C84.1W6A0V, No0212, uy

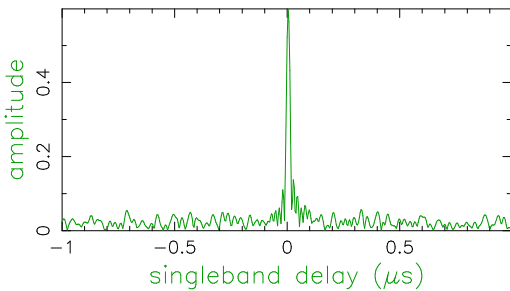
KVNU₃ - KVNYS, fgroup W, pol RL

multiband delay (μ s)

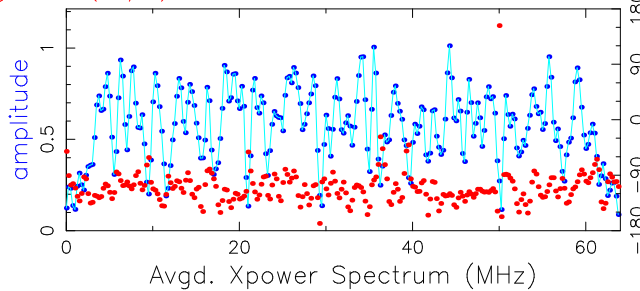
Fringe quality 7



SNR 33.6
 Int time 419.840
 Amp 0.599
 Phase -107.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.004669
 MBD 0.004275
 Fringe rate (Hz)
 -0.002202
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

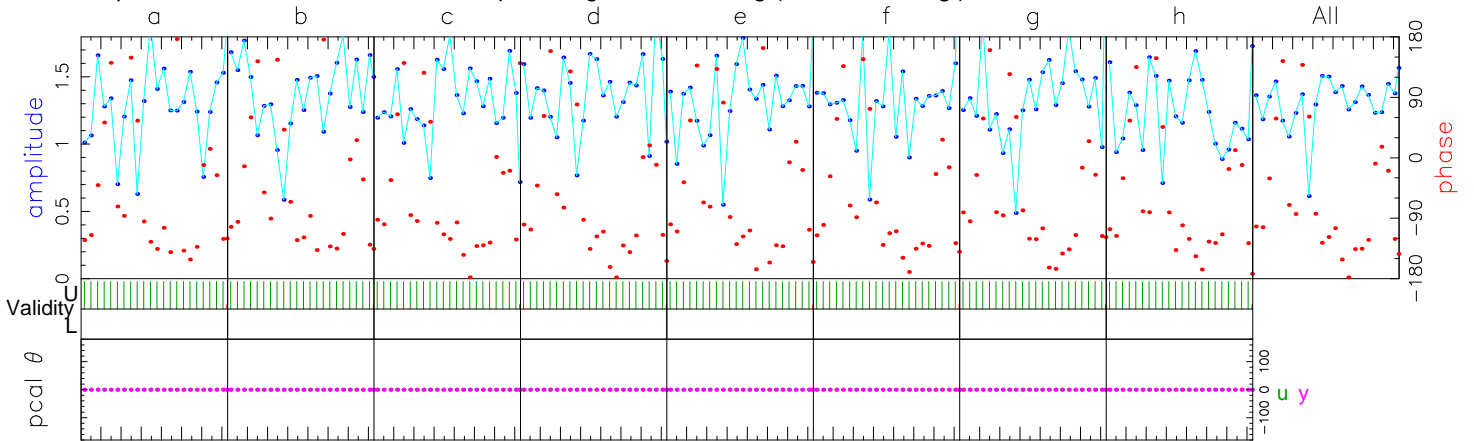


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012725
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-116.9	-96.9	-104.5	-106.1	-111.7	-110.6	-103.6	-110.1	Phase	-107.4
	0.6	0.6	0.7	0.6	0.5	0.6	0.6	0.6	Ampl.	0.6
	258.4	258.0	258.5	258.2	258.1	258.1	258.0	258.2	Sbd box	258.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-8.16573717307E+02		Apriori delay (usec)		-8.16577992007E+02		Resid mbdelay (usec)		4.27470E-03	+/- 3.2E-05
Sband delay (usec)	-8.16573323007E+02		Apriori clock (usec)		1.3812653E+01		Resid sbdelay (usec)		4.66900E-03	+/- 2.6E-04
Phase delay (usec)	-8.16577995468E+02		Apriori clockrate (us/s)		1.1270000E-06		Resid phdelay (usec)		-3.46176E-06	+/- 1.1E-07
Delay rate (us/s)	-3.18025246438E-02		Apriori rate (us/s)		-3.18024990826E-02		Resid rate (us/s)		-2.55612E-08	+/- 4.5E-10
Total phase (deg)			Apriori accel (us/s/s)		2.29644046101E-06		Resid phase (deg)		-107.4	+/- 3.4

	RMS	Theor.	Amplitude	0.599 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	77.1	8.2	Search (2048X32)	0.581	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	121.4	14.3	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	6.6	4.8	Inc. seg. avg.	1.288	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	7.2	8.4	Inc. frq. avg.	0.598	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

u: az 301.4 el 31.1 pa 67.7 y: az 299.6 el 33.7 pa 66.8 u,v (fr/asec) 248.287 -30.198 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uy..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uy.W.143.1W6A0V

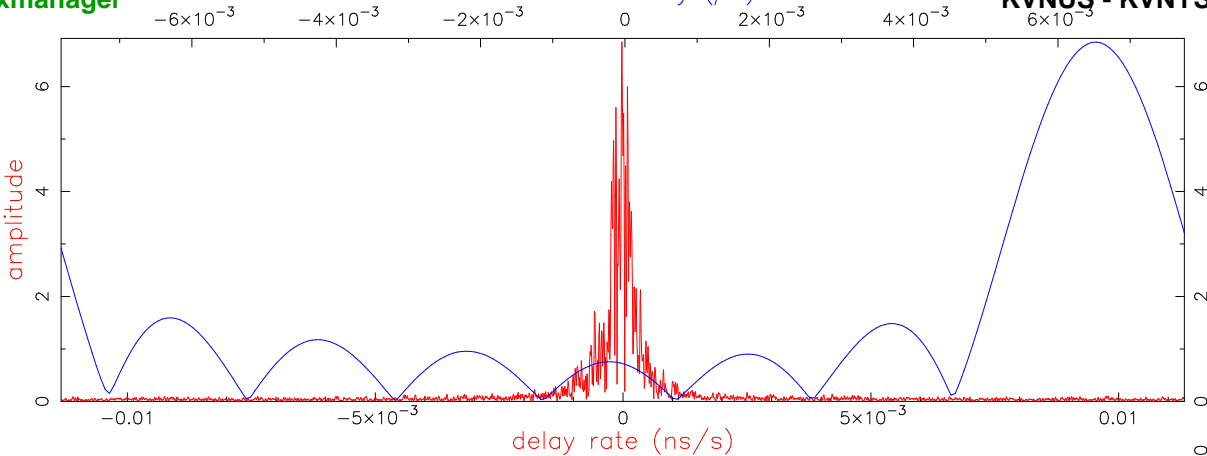
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, uy

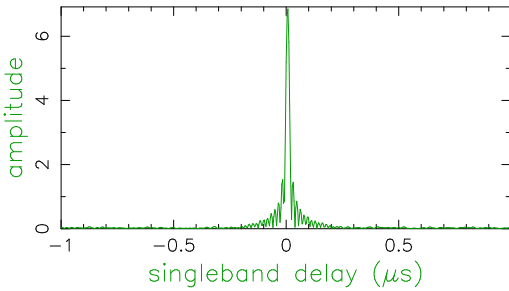
KVNU\$ - KVNY\$, fgroup W, pol LL

multiband delay (μ s)

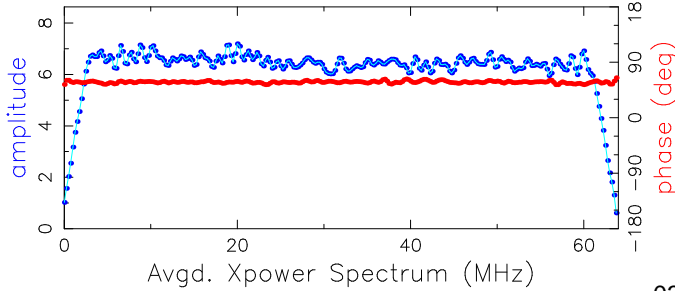


Fringe quality 5

SNR 387.7
 Int time 419.840
 Amp 6.919
 Phase 58.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.006539
 MBD 0.006520
 Fringe rate (Hz)
 -0.002177
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

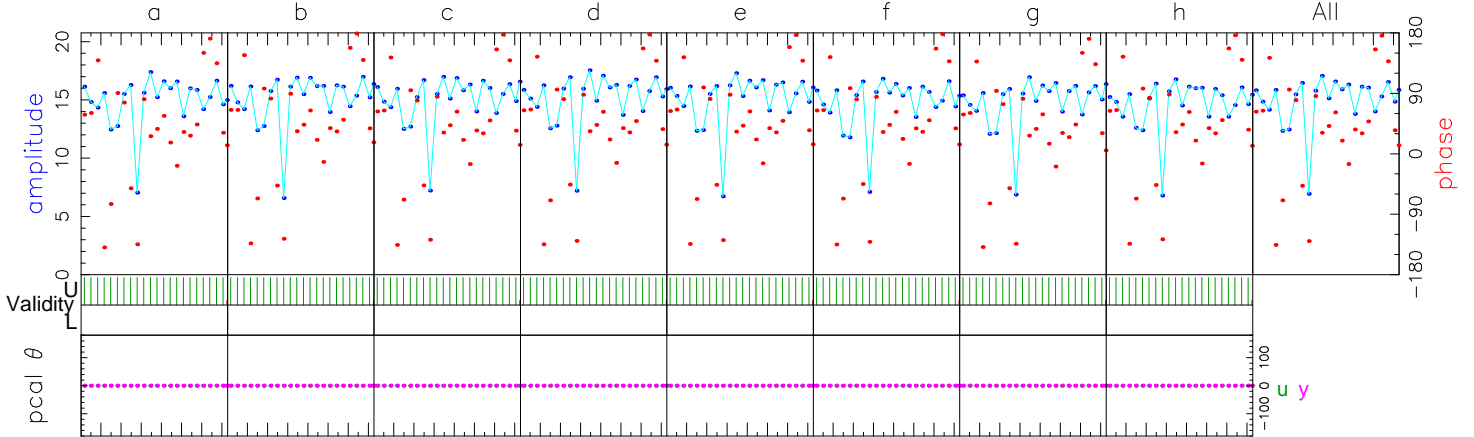


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094501.00
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012713
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



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

Group delay (usec)(sbd)	-8.16571472151E+02	Apriori delay (usec)	-8.16577992007E+02	Resid mbdelay (usec)	6.51986E-03	+/-	2.8E-06
Sband delay (usec)	-8.16571453507E+02	Apriori clock (usec)	1.3812653E+01	Resid sbdelay (usec)	6.53850E-03	+/-	2.2E-05
Phase delay (usec)	-8.16577990126E+02	Apriori clockrate (us/s)	1.1270000E-06	Resid phdelay (usec)	1.88085E-06	+/-	9.5E-09
Delay rate (us/s)	-3.18025243540E-02	Apriori rate (us/s)	-3.18024990826E-02	Resid rate (us/s)	-2.52714E-08	+/-	3.9E-11
Total phase (deg)	-25.0	Apriori accel (us/s/s)	2.29644046101E-06	Resid phase (deg)	58.3	+/-	0.3

ph/seg (deg)	77.8	RMS	77.8	Theor.	0.7	Amplitude	6.919 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	119.5		119.5		1.2	Search (2048X32)	6.632	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	2.9		2.9		0.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	1.6		1.6		0.7	Inc. seg. avg.	14.907	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Inc. frq. avg.	6.855	Data rate(Mb/s):	2048	ion window (TEC)	0.00 0.00	

u: az 301.4 el 31.1 pa 67.7 y: az 299.6 el 33.7 pa 66.8 u,v (fr/asec) 248.287 -30.198 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uy..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uy.W.87.1W6A0V

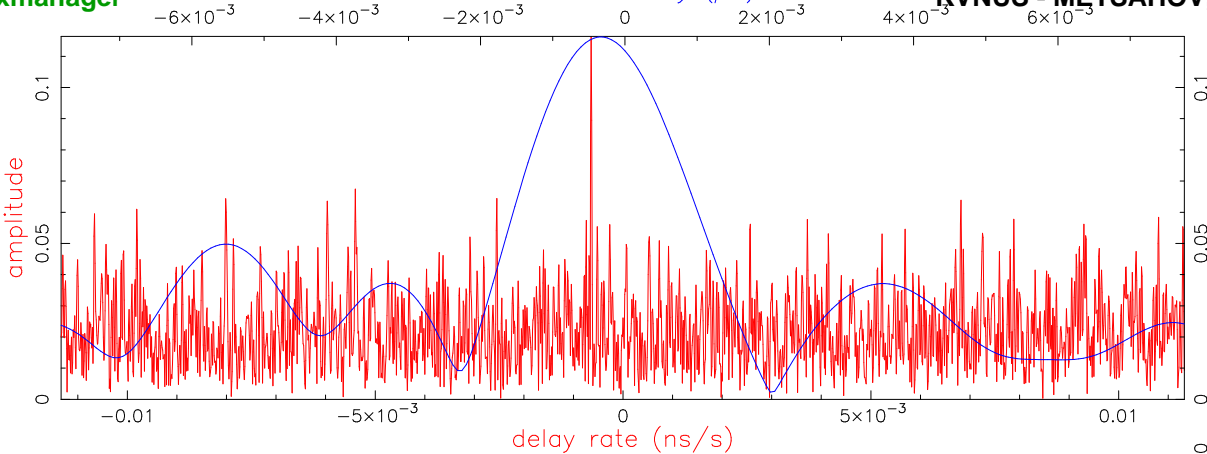
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, uZ

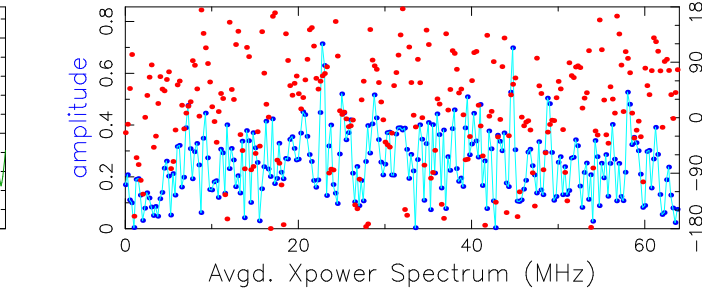
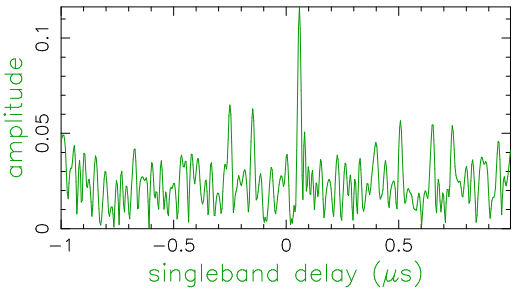
KVNUS - METSAHOV, fgroup W, pol RR

multiband delay (μ s)



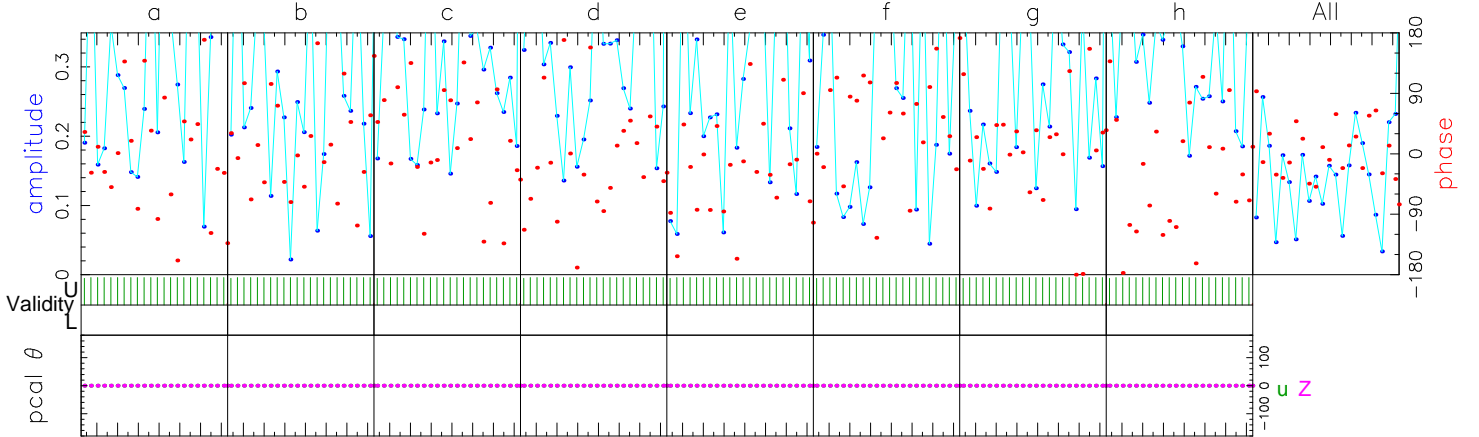
Fringe quality 0

SNR 6.4
 Int time 405.565
 Amp 0.116
 Phase 2.6
 PFD 4.2e-02
 Delays (us)
 SBD 0.058709
 MBD -0.000331
 Fringe rate (Hz)
 -0.055021
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094514.31
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012720
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-8.60765032085E+03									
Sband delay (usec)	-8.60765378143E+03									
Phase delay (usec)	-8.60771249010E+03									
Delay rate (us/s)	-1.18145594645E+00									
Total phase (deg)			-323.1							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
u Z										

	RMS	Theor.	Amplitude	0.116 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	39.3	42.9	Search (2048X32)	0.111	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	60.0	74.9	Interp.	0.000	SampCntNorm: enabled		dr window (ns/s)	-0.011	0.011
ph/frq (deg)	37.8	25.3	Inc. seg. avg.	0.111	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	29.9	44.2	Inc. frq. avg.	0.119	Data rate(Mb/s): 2048				

u: az 301.4 el 31.1 pa 67.7 Z: az 125.8 el 65.0 pa -32.6 u,v (fr/asec) 9095.872 -304.431 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uZ..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uZ.W.111.1W6A0V

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

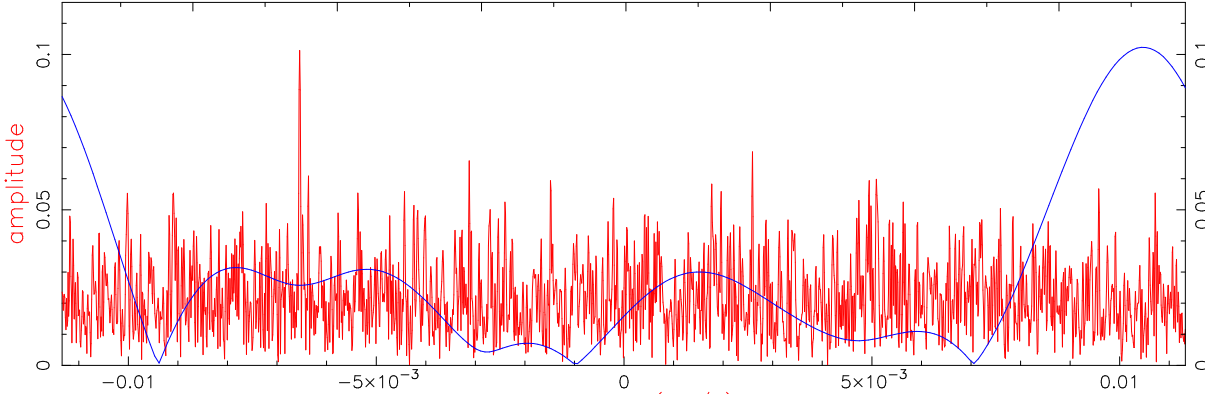
3C84.1W6A0V, No0212, uZ

KVNUS - METSAHOV, fgroup W, pol LR

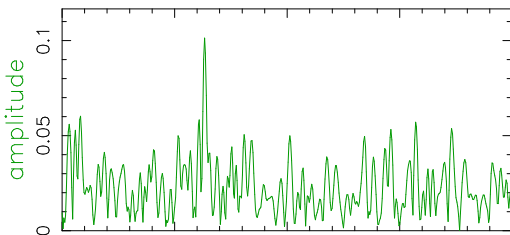
multiband delay (μ s)

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

Fringe quality 0

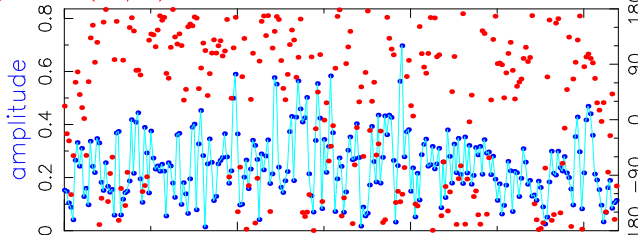


SNR 5.6
 Int time 405.565
 Amp 0.117
 Phase -35.5
 PFD 1.0e+00
 Delays (us)
 SBD -0.366895
 MBD -0.008301
 Fringe rate (Hz)
 -0.564312
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



singleband delay (μ s)

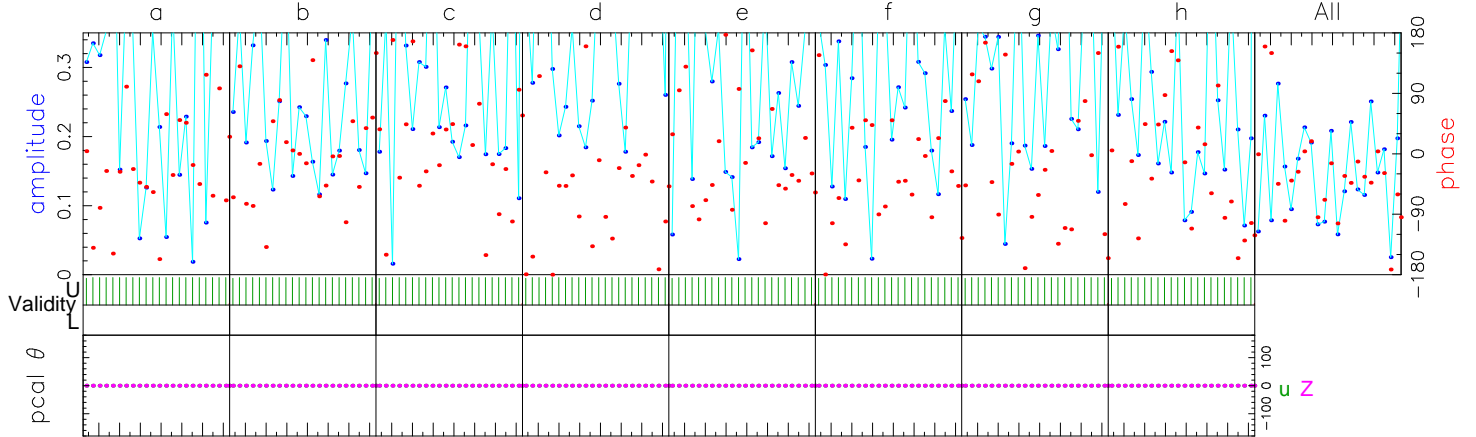
delay rate (ns/s)



Avgd. Xpower Spectrum (MHz)

Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094514.31
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012723
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-44.6	-3.4	-5.3	-68.3	-29.5	-41.2	-61.7	-35.6	Phase	-35.5
	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	270.3	245.3	491.0	403.8	151.6	375.5	140.5	7.4	Sbd box	163.1
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	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	

Group delay (usec)(sbd)	-8.60808016597E+03	Apriori delay (usec)	-8.60771249018E+03	Resid mbdelay (usec)	-8.30078E-03	+/-	1.9E-04
Sband delay (usec)	-8.60807938568E+03	Apriori clock (usec)	1.5235224E+01	Resid sbdelay (usec)	-3.66895E-01	+/-	1.5E-03
Phase delay (usec)	-8.60771249133E+03	Apriori clockrate (us/s)	1.1110000E-06	Resid phdelay (usec)	-1.14624E-06	+/-	6.6E-07
Delay rate (us/s)	-1.18146185881E+00	Apriori rate (us/s)	-1.18145530770E+00	Resid rate (us/s)	-6.55110E-06	+/-	2.8E-09
Total phase (deg)	-1.2	Apriori accel (us/s/s)	2.43629901089E-05	Resid phase (deg)	-35.5	+/-	20.5

ph/seg (deg)	67.0	Theor.	49.2	Amplitude	0.117 +/- 0.021	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	83.7		85.9	Search (2048X32)	0.099	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	25.4		29.0	Inc. seg. avg.	0.126	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	25.3		50.7	Inc. frq. avg.	0.112	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 301.4 el 31.1 pa 67.7 Z: az 125.8 el 65.0 pa -32.6 u,v (fr/asec) 9095.872 -304.431 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uZ..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uZ.W.131.1W6A0V

Mk4/DiFX fourfit 3.21 rev 2937

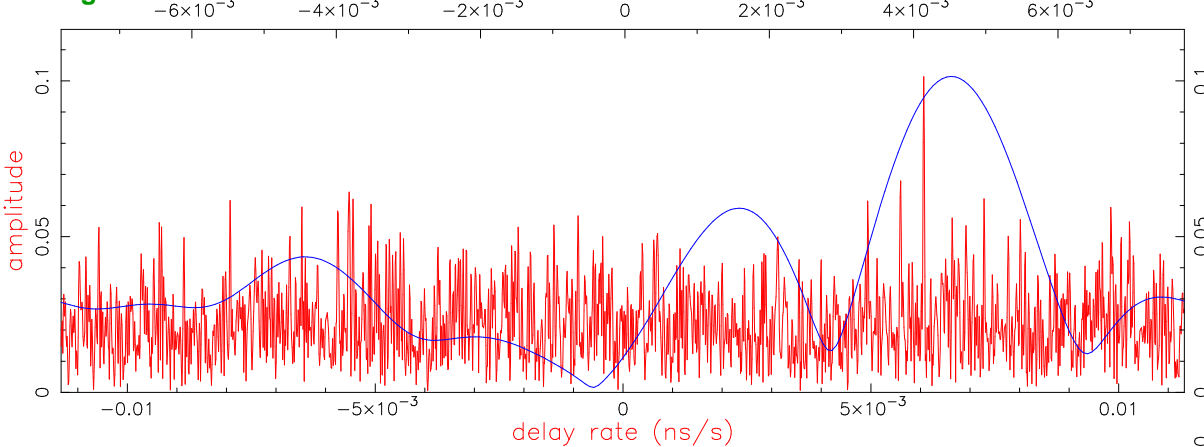
fxmanager

3C84.1W6A0V, No0212, uZ

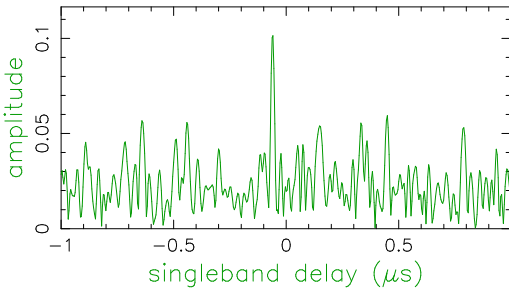
KVNUS - METSAHOV, fgroup W, pol RL

multiband delay (μs)

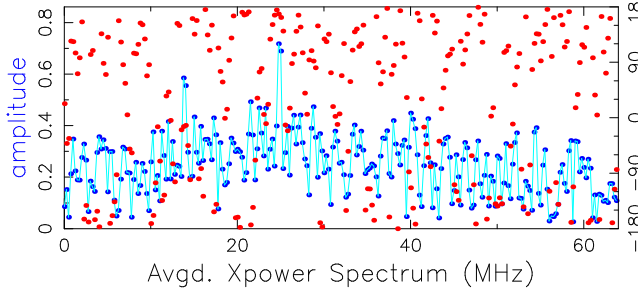
Fringe quality 0



SNR 5.7
 Int time 405.565
 Amp 0.117
 Phase 113.1
 PFD 9.6e-01
 Delays (us)
 SBD -0.060325
 MBD 0.004477
 Fringe rate (Hz)
 0.523340
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

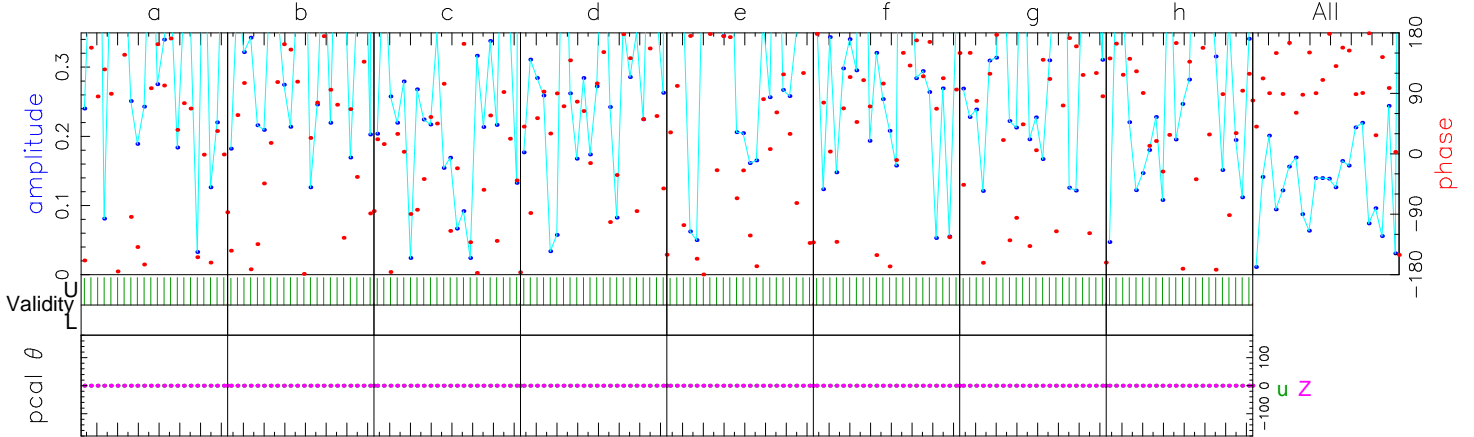


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094514.31
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012727
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-8.60777051285E+03	Apriori delay (usec)	-8.60771249018E+03	Resid mbdelay (usec)	4.47734E-03	+/-	1.9E-04
Sband delay (usec)	-8.60777281568E+03	Apriori clock (usec)	1.5235224E+01	Resid sbdelay (usec)	-6.03255E-02	+/-	1.5E-03
Phase delay (usec)	-8.60771248654E+03	Apriori clockrate (us/s)	1.1110000E-06	Resid phdelay (usec)	3.64842E-06	+/-	6.5E-07
Delay rate (us/s)	-1.18144923224E+00	Apriori rate (us/s)	-1.18145530770E+00	Resid rate (us/s)	6.07546E-06	+/-	2.8E-09
Total phase (deg)	-212.5	Apriori accel (us/s/s)	2.43629901089E-05	Resid phase (deg)	113.1	+/-	20.2

ph/seg (deg)	47.9	Theor.	48.3	Amplitude	0.117 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	70.3		84.3	Search (2048X32)	0.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	39.2		28.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	45.0		49.7	Inc. seg. avg.	0.109	Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
				Inc. frq. avg.	0.114	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 301.4 el 31.1 pa 67.7 Z: az 125.8 el 65.0 pa -32.6 u,v (fr/asec) 9095.872 -304.431 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uZ..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uZ.W.151.1W6A0V

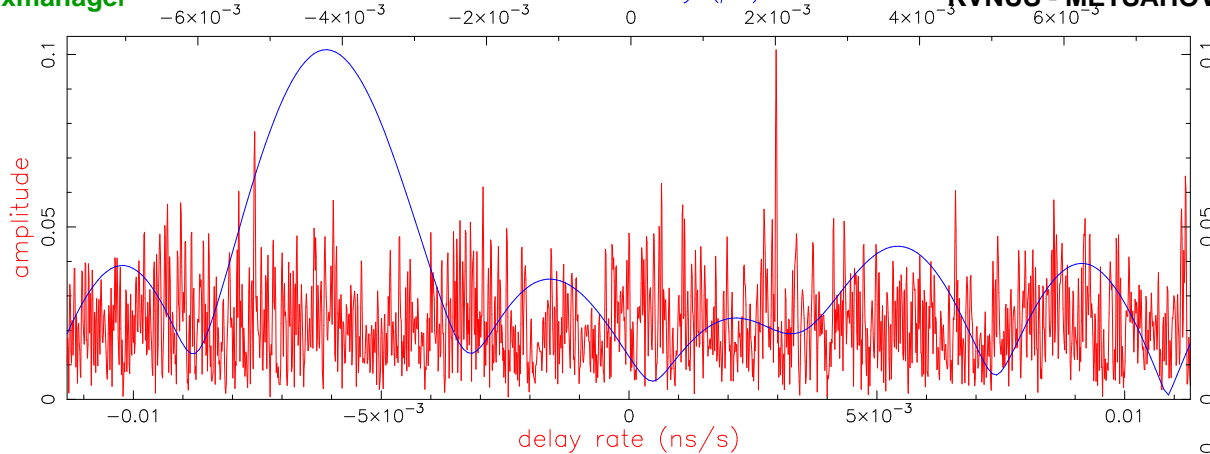
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1W6A0V, No0212, uZ

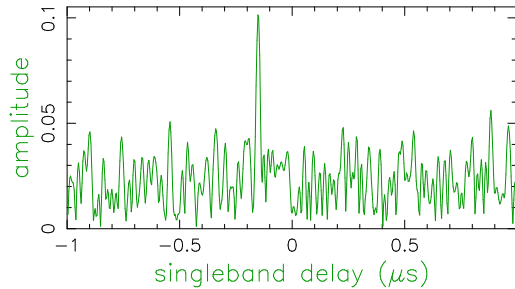
KVNUS - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

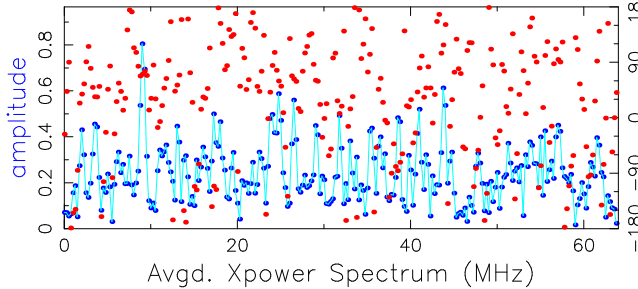


Fringe quality 0

SNR 5.6
 Int time 405.565
 Amp 0.105
 Phase 172.5
 PFD 9.9e-01
 Delays (us)
 SBD -0.150966
 MBD -0.004237
 Fringe rate (Hz)
 0.255607
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

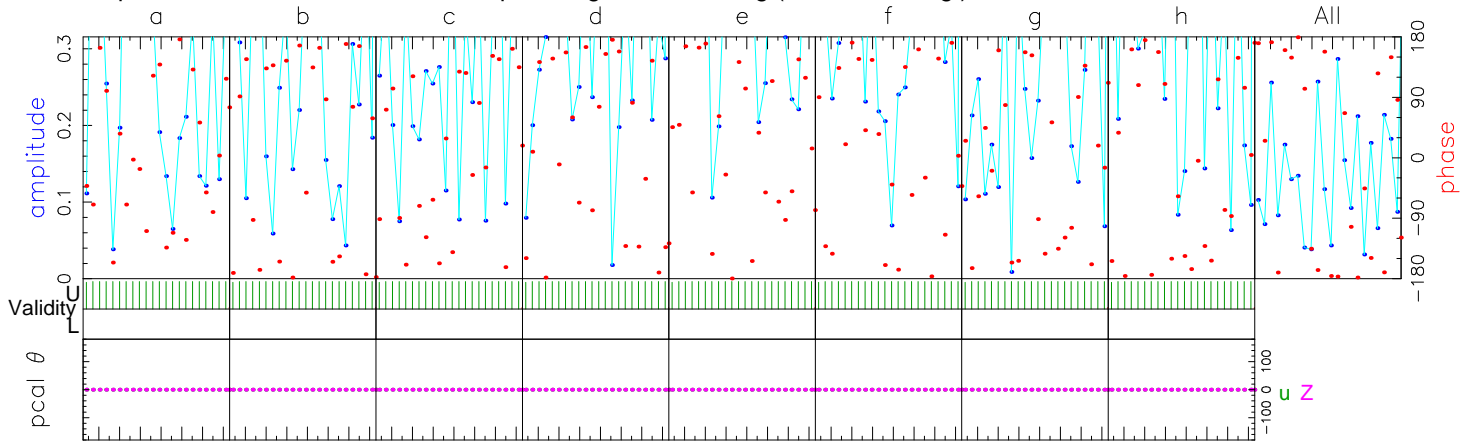


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 094514.31
 Stop 095200.84
 FRT 094831.00
 Corr/FF/build
 2021:286:231157
 2021:287:012716
 2021:252:122852
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
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)	-8.60785735223E+03	Apriori delay (usec)	-8.60771249018E+03	Resid mbdelay (usec)	-4.23704E-03	+/-	1.9E-04
Sband delay (usec)	-8.60786345618E+03	Apriori clock (usec)	1.5235224E+01	Resid sbdelay (usec)	-1.50966E-01	+/-	1.5E-03
Phase delay (usec)	-8.60771248462E+03	Apriori clockrate (us/s)	1.1110000E-06	Resid phdelay (usec)	5.56339E-06	+/-	6.6E-07
Delay rate (us/s)	-1.18145234036E+00	Apriori rate (us/s)	-1.18145530770E+00	Resid rate (us/s)	2.96734E-06	+/-	2.8E-09
Total phase (deg)	-153.1	Apriori accel (us/s/s)	2.43629901089E-05	Resid phase (deg)	172.5	+/-	20.3

ph/seg (deg)	61.1	Theor.	48.8	Amplitude	0.105 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	80.8		85.1	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	40.2		28.8	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	48.5		50.2	Inc. seg. avg.	0.102	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
				Inc. frq. avg.	0.099	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

u: az 301.4 el 31.1 pa 67.7 Z: az 125.8 el 65.0 pa -32.6 u,v (fr/asec) 9095.872 -304.431 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0212/uZ..1W6A0V Output file: /Exps/c211a/v2/1234/No0212/uZ.W.92.1W6A0V