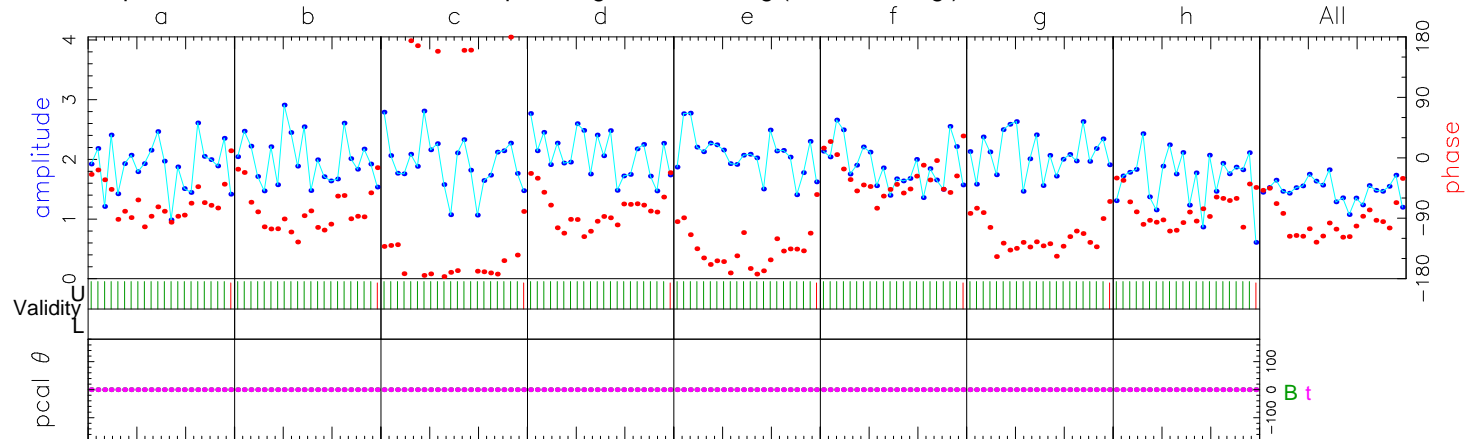


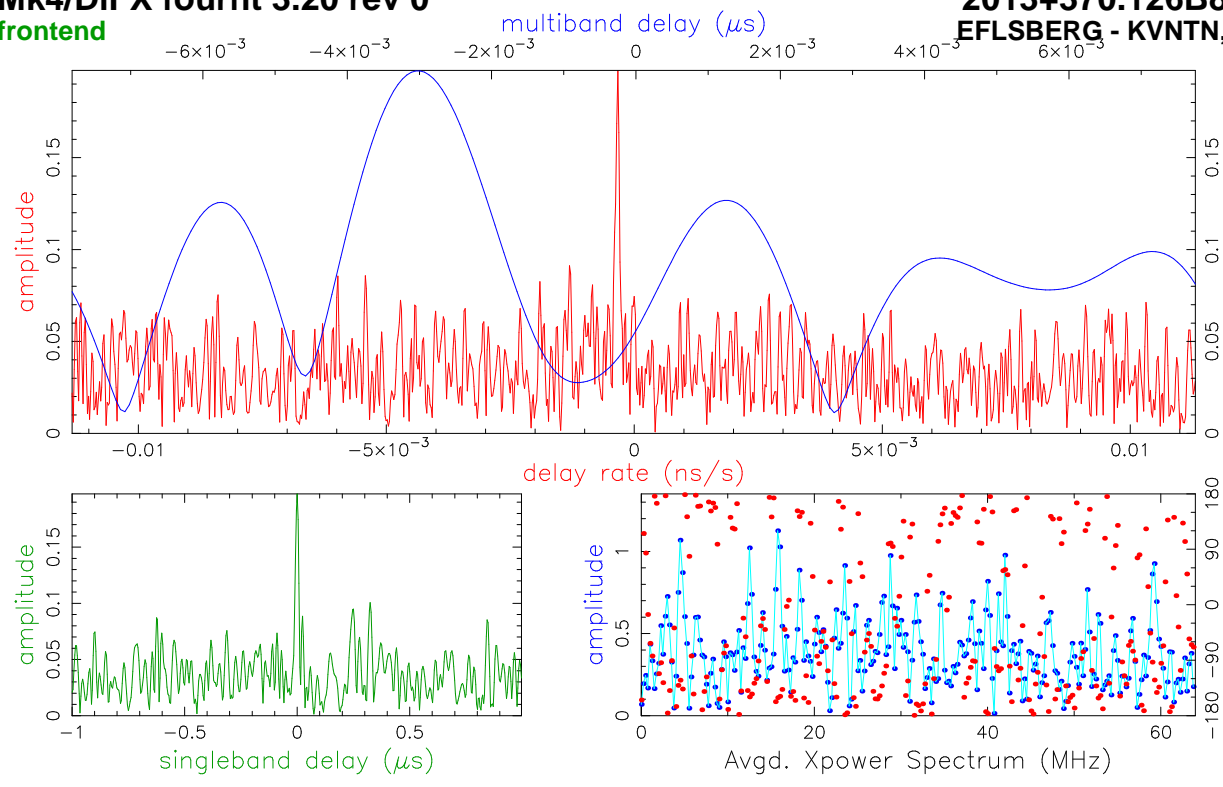
Fringe quality 4
SNR 49.5
Int time 179.778
Amp 1.351
Phase -93.5
PFD 0.0e+00
Delays (us)
SBD 0.000604
MBD -0.000444
Fringe rate (Hz)
-0.029819
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192c
Exper # 16383
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121818
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



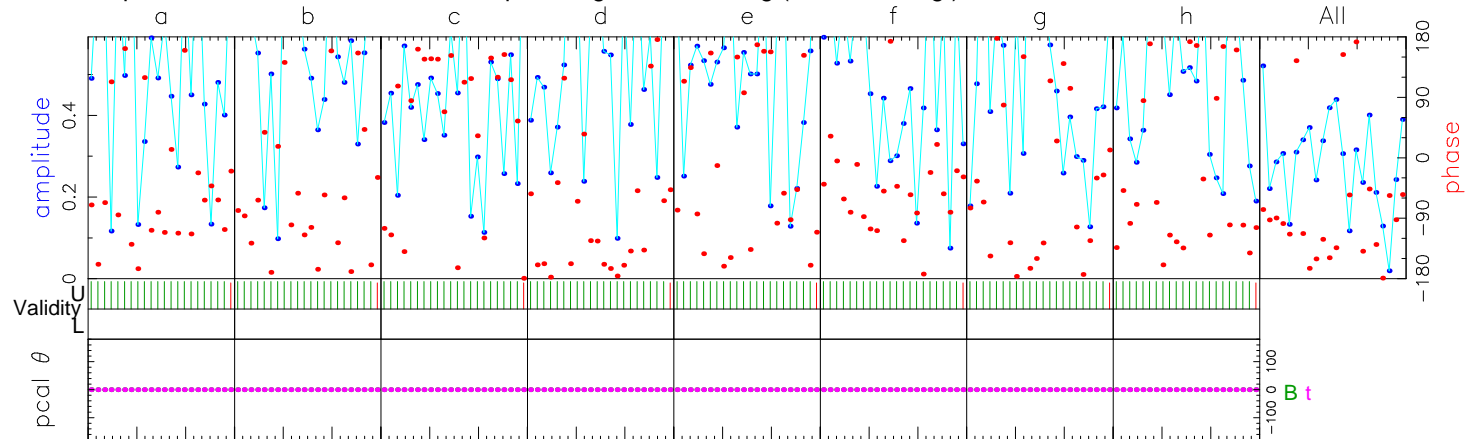
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-64.3	-80.3	-168.0	-77.0	-135.8	-28.2	-117.1	-78.3	Phase	-93.5
	1.7	1.7	1.7	1.9	1.9	1.7	1.9	1.5	Ampl.	1.8
	255.6	257.4	257.8	257.9	258.1	258.0	257.8	256.2	Sbd box	257.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.90273758847E+03		Apriori delay (usec)		1.90273803205E+03		Resid mbdelay (usec)		-4.43576E-04	+/- 2.2E-05
Sband delay (usec)	1.90273863605E+03		Apriori clock (usec)		-1.0970116E+01		Resid sbdelay (usec)		6.04000E-04	+/- 1.7E-04
Phase delay (usec)	1.90273802903E+03		Apriori clockrate (us/s)		-3.9999999E-07		Resid phdelay (usec)		-3.01570E-06	+/- 7.5E-08
Delay rate (us/s)	1.57628505989E+00		Apriori rate (us/s)		1.57628540606E+00		Resid rate (us/s)		-3.46170E-07	+/- 7.2E-10
Total phase (deg)			Apriori accel (us/s/s)		5.06271912858E-06		Resid phase (deg)		-93.5	+/- 2.3

ph/seg (deg) 25.9 5.4 Amplitude 1.351 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 16.7 9.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 47.8 3.3 Inc. seg. avg. 1.481 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 31.5 5.7 Inc. frq. avg. 1.758 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 84.9 el 47.2 pa -52.7 t: az 293.0 el 40.6 pa 75.1 u,v (fr/asec) -11333.961 1943.286 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/Bt..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/Bt.W.25.126B8R

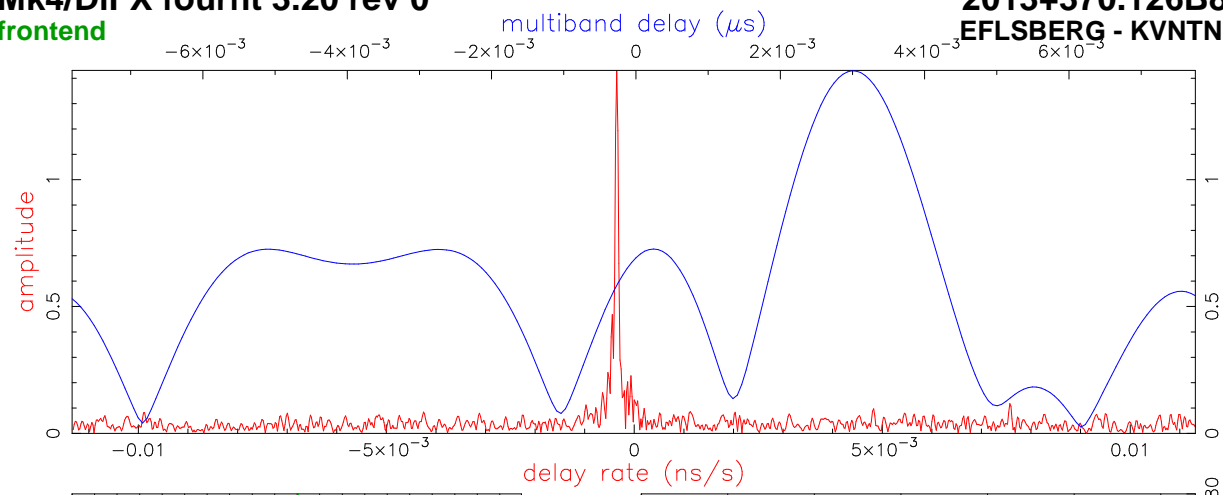


Fringe quality 9
 SNR 7.2
 Int time 179.778
 Amp 0.197
 Phase -121.2
 PFD 7.1e-05
 Delays (us)
 SBD -0.000347
 MBD -0.003031
 Fringe rate (Hz)
 -0.029543
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c192c
 Exper # 16383
 Yr:day 2019:278
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2020:069:185016
 2020:071:121820
 2019:280:115849
 RA & Dec (J2000)
 20h15m28.729803s
 +37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



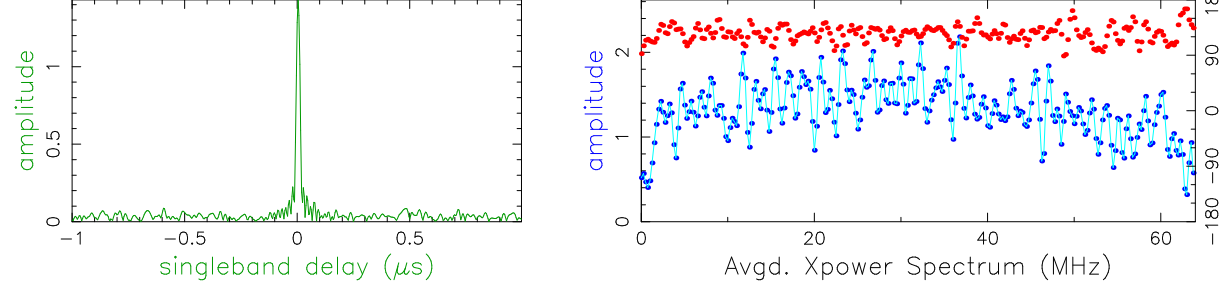
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-95.3	-110.2	148.0	-126.2	-146.2	-46.8	-140.9	-127.2	Phase	-121.2	
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	Ampl.	0.3	
	255.7	256.7	257.0	256.3	47.3	257.3	330.9	258.0	Sbd box	256.9	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
t	1000	1000	1000	1000	1000	1000	1000	1000			
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Chan ids		
									Tracks		
Group delay (usec)(sbd)	1.90273500060E+03		Apriori delay (usec)		1.90273803205E+03		Resid mbdelay (usec)		-3.03145E-03	+/- 1.5E-04	
Sband delay (usec)	1.90273768480E+03		Apriori clock (usec)		-1.0970116E+01		Resid sbdelay (usec)		-3.47250E-04	+/- 1.2E-03	
Phase delay (usec)	1.90273802814E+03		Apriori clockrate (us/s)		-3.9999999E-07		Resid phdelay (usec)		-3.90781E-06	+/- 5.1E-07	
Delay rate (us/s)	1.57628506310E+00		Apriori rate (us/s)		1.57628540606E+00		Resid rate (us/s)		-3.42960E-07	+/- 4.9E-09	
Total phase (deg)			Apriori accel (us/s/s)		5.06271912858E-06		Resid phase (deg)		-121.2	+/- 15.8	
	RMS	Theor.	Amplitude	0.197 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	48.5	37.1	Search (1024X32)	0.189		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	74.1	64.8	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	51.1	22.4	Inc. seg. avg.	0.236		Sample rate(MISamp/s): 128		Data rate(Mb/s): 2048		dr window (ns/s)	-0.011 0.011
amp/frq (%)	44.9	39.1	Inc. frq. avg.	0.253		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
B: az 84.9 el 47.2 pa -52.7		t: az 293.0 el 40.6 pa 75.1		u, v (fr/asec) -11333.961 1943.286		simultaneous interpolator					
Control file: cf_1234_gmva		Input file: /Exps/c192c/v1_CygA2/1234/No0011/Bt..126B8R		Output file: /Exps/c192c/v1_CygA2/1234/No0011/Bt.W.44.126B8R							



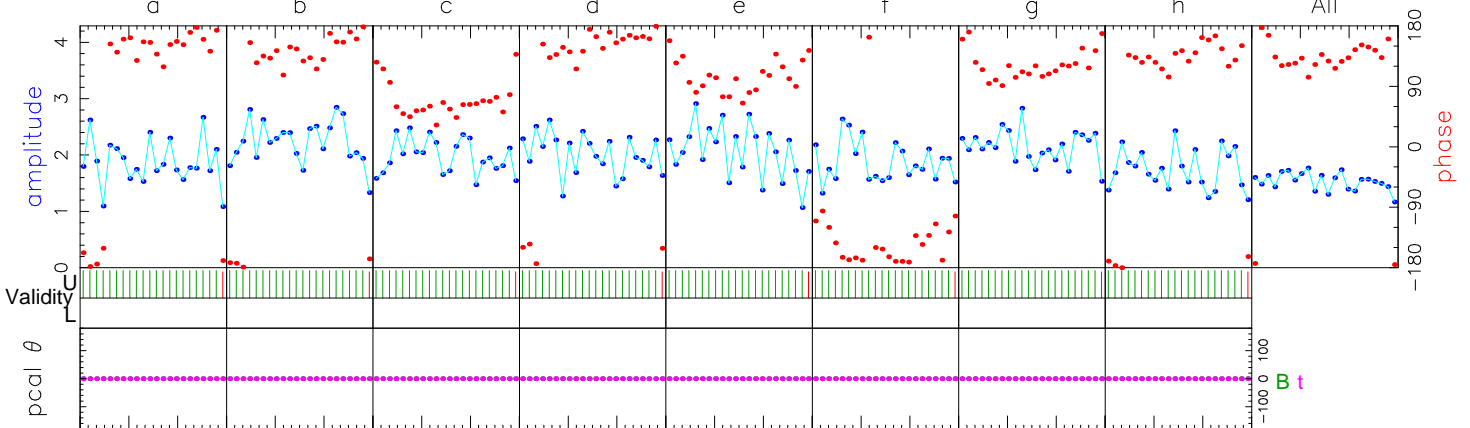
Fringe quality 5

SNR 52.4
Int time 179.778
Amp 1.431
Phase 139.4
PFD 0.0e+00
Delays (us)
SBD 0.004277
MBD 0.003019
Fringe rate (Hz)
-0.029917
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121816
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.90274105154E+03	Apriori delay (usec)	1.90273803205E+03	Resid mbdelay (usec)	3.01949E-03	+/-	2.1E-05
Sband delay (usec)	1.90274230930E+03	Apriori clock (usec)	-1.0970116E+01	Resid sbdelay (usec)	4.27725E-03	+/-	1.6E-04
Phase delay (usec)	1.90273803655E+03	Apriori clockrate (us/s)	-3.9999999E-07	Resid phdelay (usec)	4.49643E-06	+/-	7.0E-08
Delay rate (us/s)	1.57628505875E+00	Apriori rate (us/s)	1.57628540606E+00	Resid rate (us/s)	-3.47312E-07	+/-	6.8E-10
Total phase (deg)	168.5	Apriori accel (us/s/s)	5.06271912858E-06	Resid phase (deg)	139.4	+/-	2.2

ph/seg (deg)	21.8	Theor.	5.1	Amplitude	1.431 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	12.9		8.9	Search (1024X32)	1.390	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	47.1		3.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	30.0		5.4	Inc. seg. avg.	1.530	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	1.834	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 84.9 el 47.2 pa -52.7 t: az 293.0 el 40.6 pa 75.1 u,v (fr/asec) -11333.961 1943.286 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/Bt..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/Bt.W.5.126B8R

Mk4/DiFX fourfit 3.20 rev 0

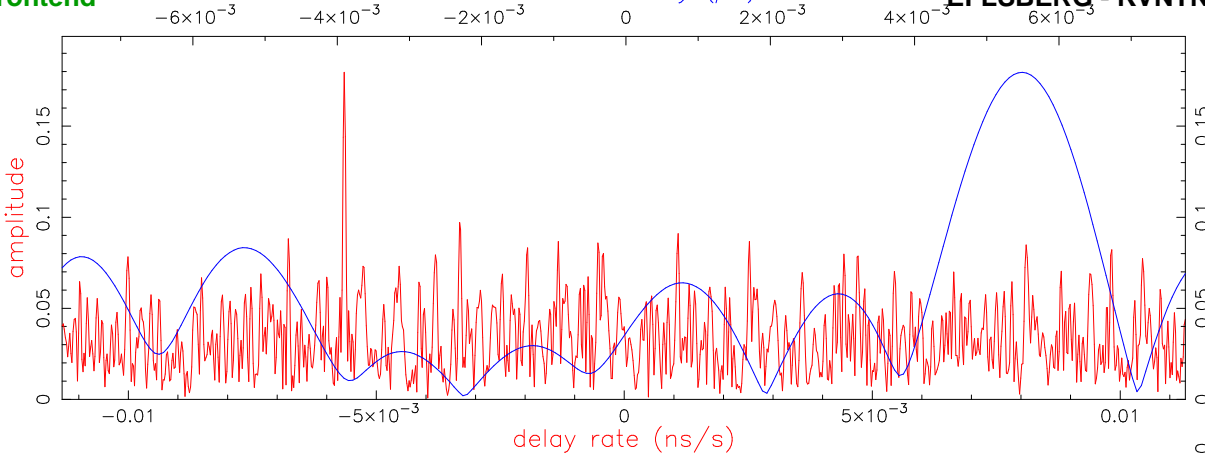
frontend

2013+370.126B8R, No0011, Bt

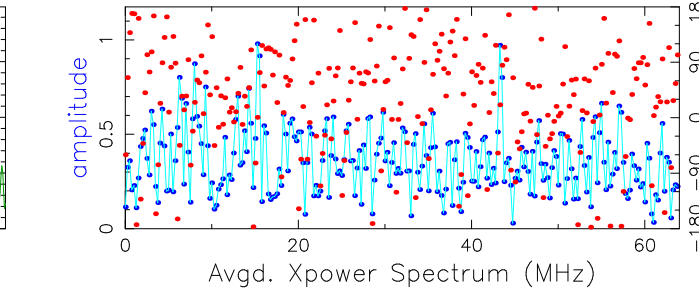
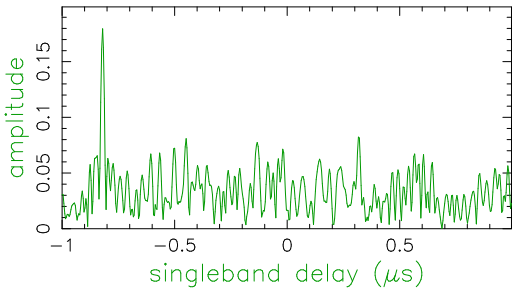
EFLSBERG - KVNTN, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

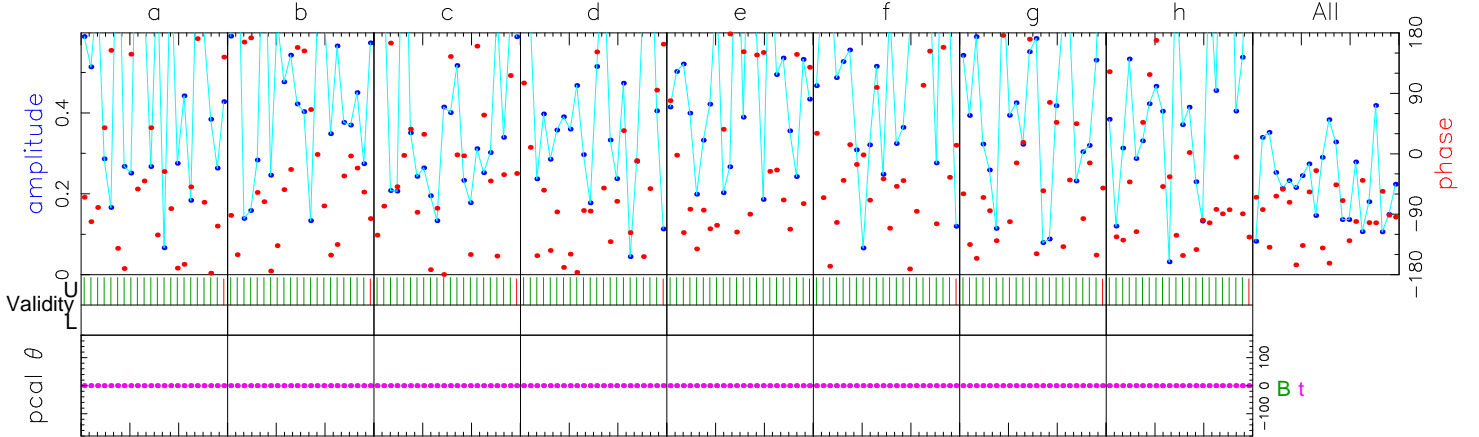


SNR 6.6
Int time 179.778
Amp 0.199
Phase -96.4
PFD 6.5e-03
Delays (us)
SBD -0.820240
MBD 0.005489
Fringe rate (Hz)
-0.486627
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c192c
Exper # 16383
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121823
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		1.90191539589E+03			1.90273803205E+03				5.48884E-03	+/- 1.6E-04
Sband delay (usec)		1.90191779205E+03			-1.0970116E+01				-8.20240E-01	+/- 1.3E-03
Phase delay (usec)		1.90273802894E+03			-3.9999999E-07				-3.10778E-06	+/- 5.6E-07
Delay rate (us/s)		1.57627975681E+00			1.57628540606E+00				-5.64925E-06	+/- 5.4E-09
Total phase (deg)			-67.3		5.06271912858E-06				-96.4	+/- 17.4
	RMS	Theor.	Amplitude	0.199 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			sb window (us)	-1.000 1.000
ph/seg (deg)	40.1	40.8	Search (1024X32)	0.176	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				mb window (us)	-0.008 0.008
amp/seg (%)	59.4	71.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled			dr window (ns/s)	-0.011 0.011
ph/frq (deg)	18.4	24.6	Inc. seg. avg.	0.205	Sample rate(MISamp/s): 128				ion window (TEC)	0.00 0.00
amp/frq (%)	40.4	43.0	Inc. frq. avg.	0.186	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite			

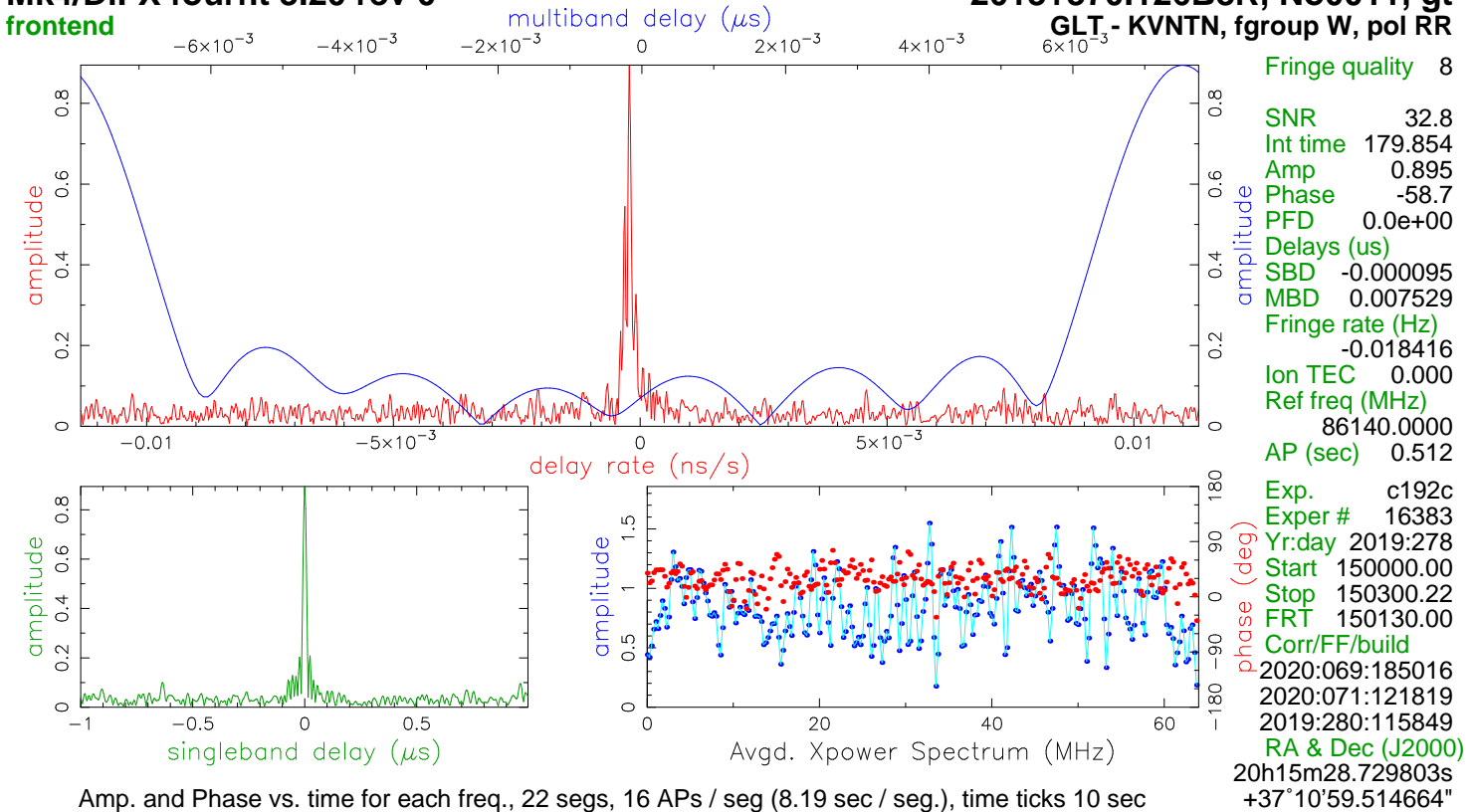
B: az 84.9 el 47.2 pa -52.7 t: az 293.0 el 40.6 pa 75.1 u,v (fr/asec) -11333.961 1943.286 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/Bt..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/Bt.W.63.126B8R

Mk4/DiFX fourfit 3.20 rev 0

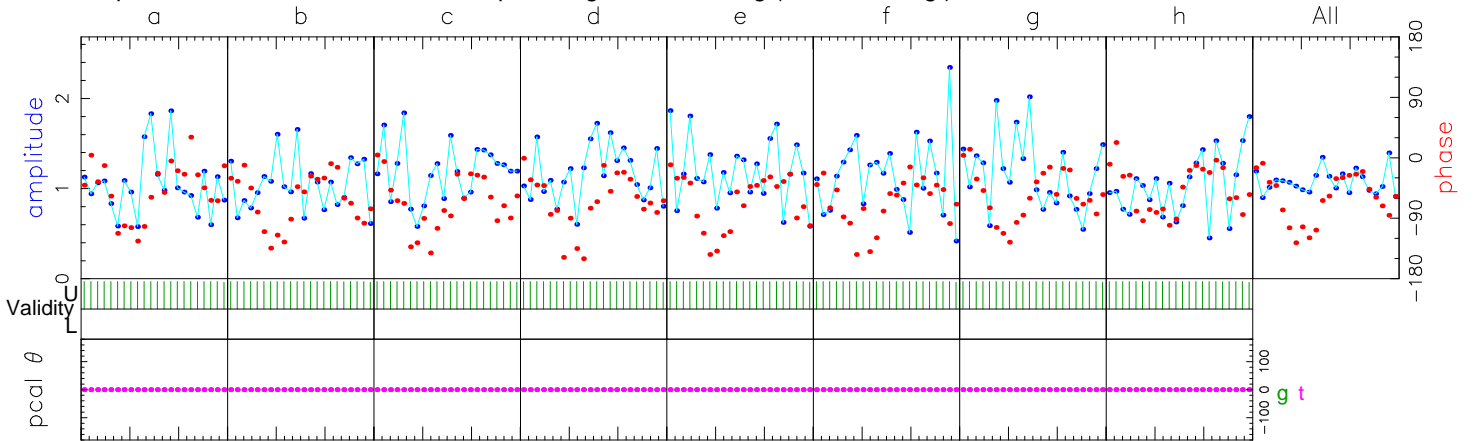
frontend

2013+370.126B8R, No0011, gt

GLT - KVNTN, fgroup W, pol RR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-44.6	-64.5	-62.9	-60.2	-60.4	-71.0	-57.7	-45.8	Phase	-58.7
	0.8	0.8	1.0	0.9	0.9	0.9	0.9	0.9	Ampl.	0.9
	256.7	257.1	256.6	257.1	257.2	257.2	257.1	257.0	Sbd box	257.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-3.99330107982E+03		Apriori delay (usec)	-3.99330860851E+03		Resid mbdelay (usec)	7.52869E-03	+/-	3.3E-05	
Sband delay (usec)	-3.99330870351E+03		Apriori clock (usec)	-2.6475037E+01		Resid sbdelay (usec)	-9.50000E-05	+/-	2.6E-04	
Phase delay (usec)	-3.99330861040E+03		Apriori clockrate (us/s)	-1.2500000E-07		Resid phdelay (usec)	-1.89214E-06	+/-	1.1E-07	
Delay rate (us/s)	1.12029017306E+00		Apriori rate (us/s)	1.12029038685E+00		Resid rate (us/s)	-2.13787E-07	+/-	1.1E-09	
Total phase (deg)		-251.9	Apriori accel (us/s/s)	5.00803517857E-05		Resid phase (deg)	-58.7	+/-	3.5	

ph/seg (deg) 34.8 8.2 Amplitude 0.895 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 25.1 14.3 Search (1024X32) 0.852 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 9.8 4.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 5.7 8.6 Inc. seg. avg. 1.068 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011

g: az 40.4 el 27.4 pa -11.0 t: az 293.0 el 40.6 pa 75.1 u,v (fr/asec) -8016.404 6032.408 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/gt..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/gt.W.30.126B8R simultaneous interpolator

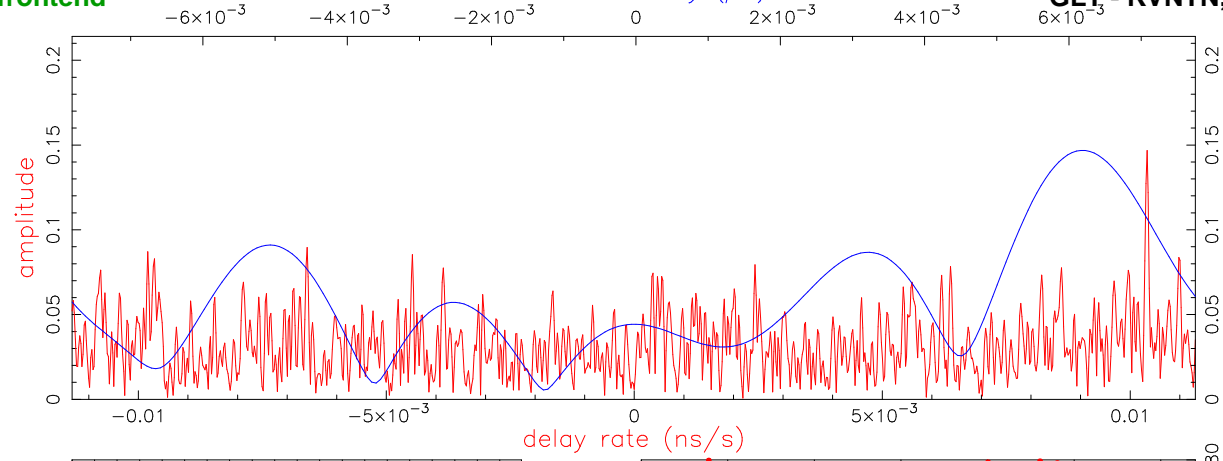
Mk4/DiFX fourfit 3.20 rev 0

frontend

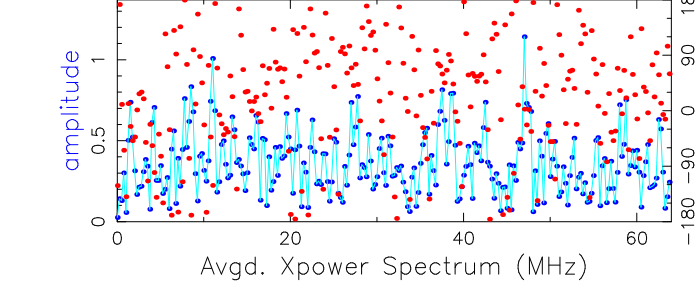
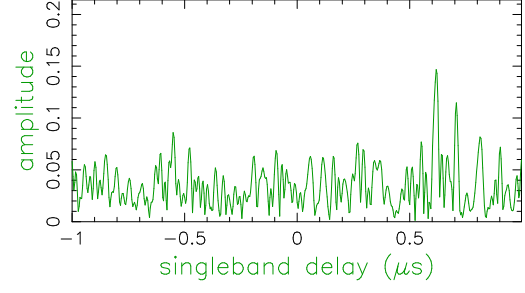
2013+370.126B8R, No0011, gt

GLT - KVNTN, fgroup W, pol LR

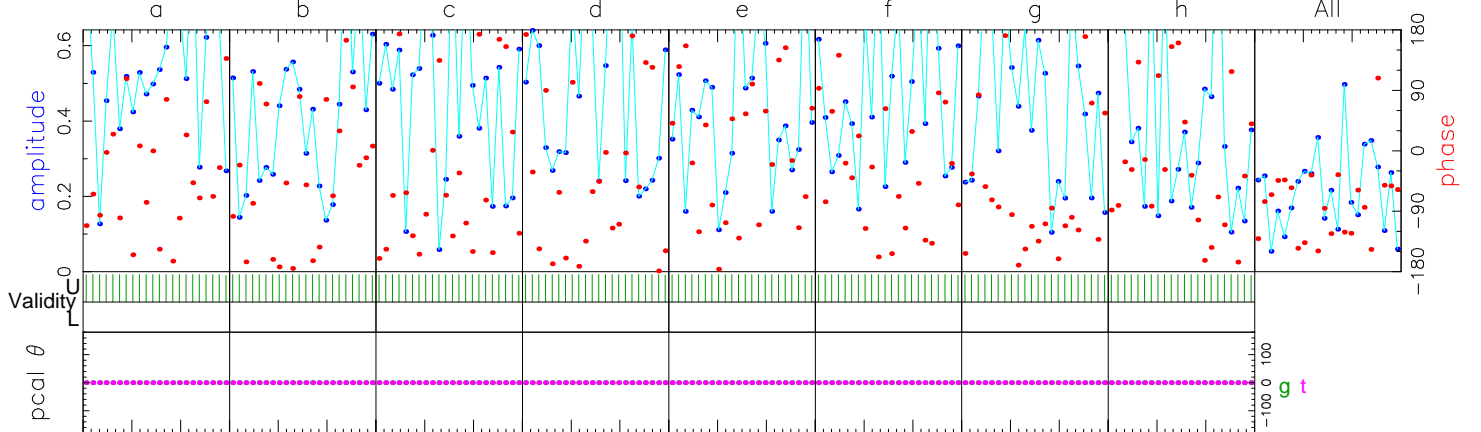
multiband delay (μs)



Fringe quality 0
 SNR 5.4
 Int time 179.850
 Amp 0.214
 Phase -101.6
 PFD 1.0e+00
 Delays (us)
 SBD 0.618460
 MBD 0.006220
 Fringe rate (Hz) 0.892685
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c192c
 Exper # 16383
 Yr:day 2019:278
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2020:069:185016
 2020:071:121821
 2019:280:115849
 RA & Dec (J2000)
 20h15m28.729803s
 +37°10'59.514664"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
g	0	0	0	0	0	0	0	0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
g:t	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-3.99269301315E+03									
Sband delay (usec)	-3.99269014801E+03									
Phase delay (usec)	-3.99330861178E+03									
Delay rate (us/s)	1.12030075004E+00									
Total phase (deg)			-294.9							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

ph/seg (deg) 52.6 49.6 Search (1024X32) 0.145 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 86.3 86.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.8 29.9 Inc. seg. avg. 0.230 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 65.5 52.2 Inc. frq. avg. 0.215 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 40.4 el 27.4 pa -11.0 t: az 293.0 el 40.6 pa 75.1 u,v (fr/asec) -8016.404 6032.408 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/gt..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/gt.W.46.126B8R

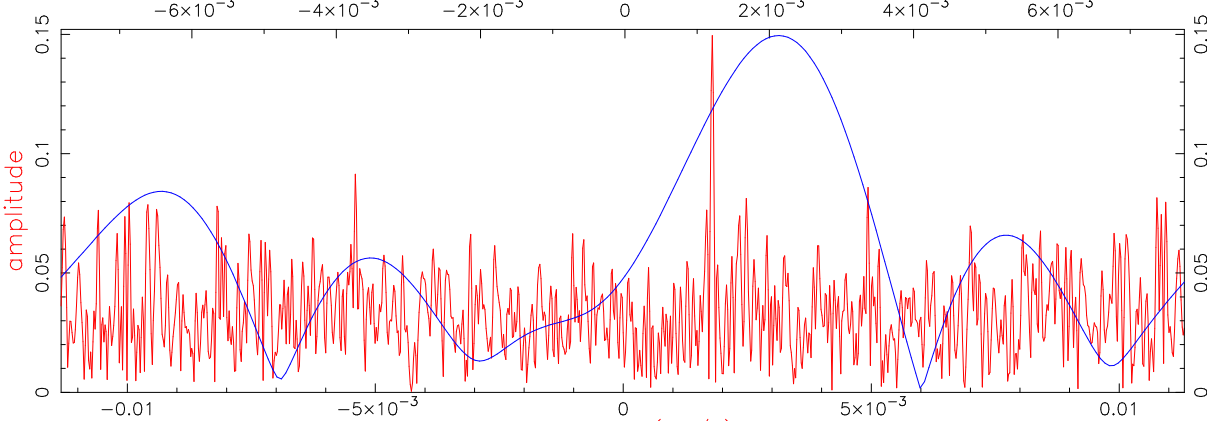
Mk4/DiFX fourfit 3.20 rev 0

frontend

2013+370.126B8R, No0011, gt

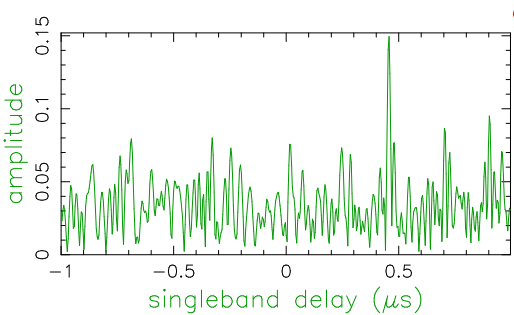
GLT - KVNTN, fgroup W, pol RL

multiband delay (μs)

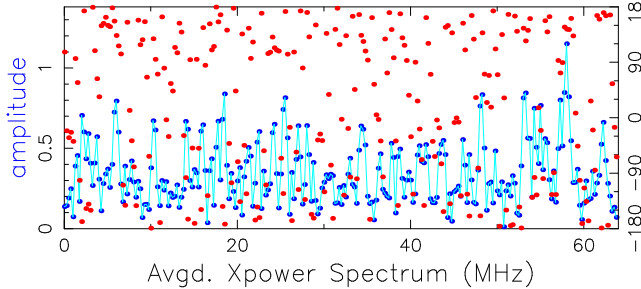


Fringe quality 0

SNR 5.5
 Int time 179.854
 Amp 0.152
 Phase -9.8
 PFD 9.8e-01
 Delays (us)
 SBD 0.456086
 MBD 0.002108
 Fringe rate (Hz)
 0.154063
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

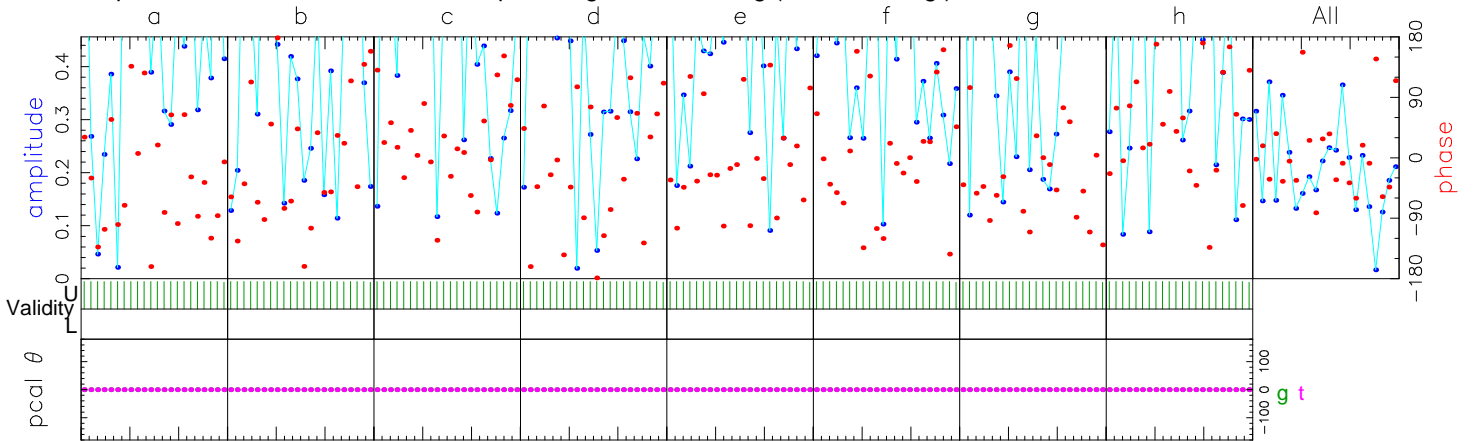


delay rate (ns/s)



Exp. c192c
 Exper # 16383
 Yr:day 2019:278
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2020:069:185016
 2020:071:121823
 2019:280:115849
 RA & Dec (J2000)
 20h15m28.729803s
 +37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
g	0	0	0	0	0	0	0	0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
g:t	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-3.99285337561E+03	Apriori delay (usec)	-3.99330860851E+03	Resid mbdelay (usec)	2.10790E-03	+/-	2.0E-04
Sband delay (usec)	-3.99285252301E+03	Apriori clock (usec)	-2.6475037E+01	Resid sbdelay (usec)	4.56086E-01	+/-	1.6E-03
Phase delay (usec)	-3.99330860882E+03	Apriori clockrate (us/s)	-1.2500000E-07	Resid phdelay (usec)	-3.15716E-07	+/-	6.7E-07
Delay rate (us/s)	1.12029217537E+00	Apriori rate (us/s)	1.12029038685E+00	Resid rate (us/s)	1.78852E-06	+/-	6.4E-09
Total phase (deg)	-203.0	Apriori accel (us/s/s)	5.00803517857E-05	Resid phase (deg)	-9.8	+/-	20.8

ph/seg (deg)	64.1	Theor.	48.7	Amplitude	0.152 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	68.1		85.0	Search (1024X32)	0.147	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	42.2		29.4	Inc. seg. avg.	0.154	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	54.8		51.2	Inc. frq. avg.	0.159	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

g: az 40.4 el 27.4 pa -11.0 t: az 293.0 el 40.6 pa 75.1 u,v (fr/asec) -8016.404 6032.408 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/gt..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/gt.W.68.126B8R

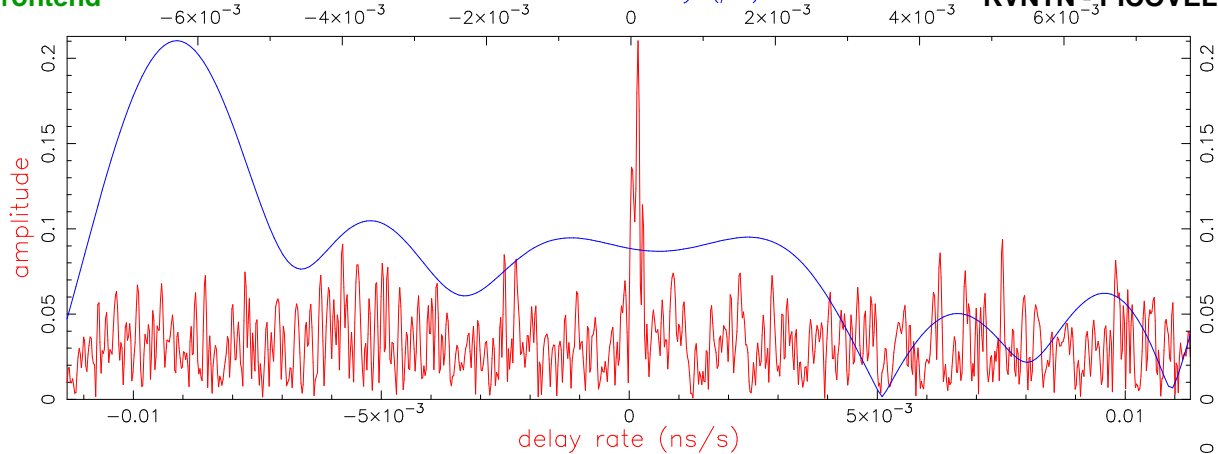
Mk4/DiFX fourfit 3.20 rev 0

frontend

2013+370.126B8R, No0011, tP

KVNTN - PICOVEL, fgroup W, pol LL

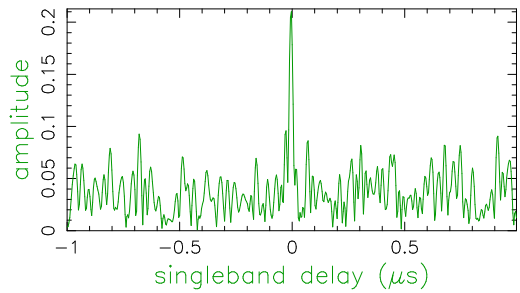
multiband delay (μ s)



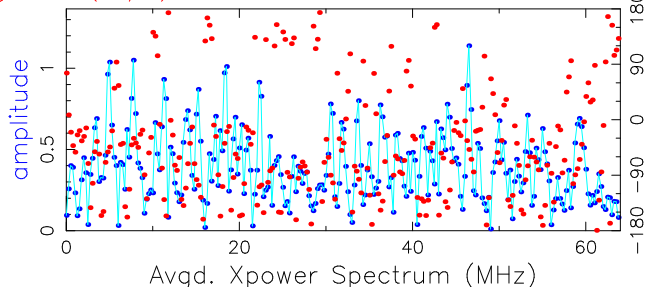
Fringe quality 9

SNR 7.8
Int time 179.766
Amp 0.213
Phase -60.6
PFD 1.0e-06
Delays (us)
SBD -0.005317
MBD -0.006323
Fringe rate (Hz) 0.015782
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

delay rate (ns/s)

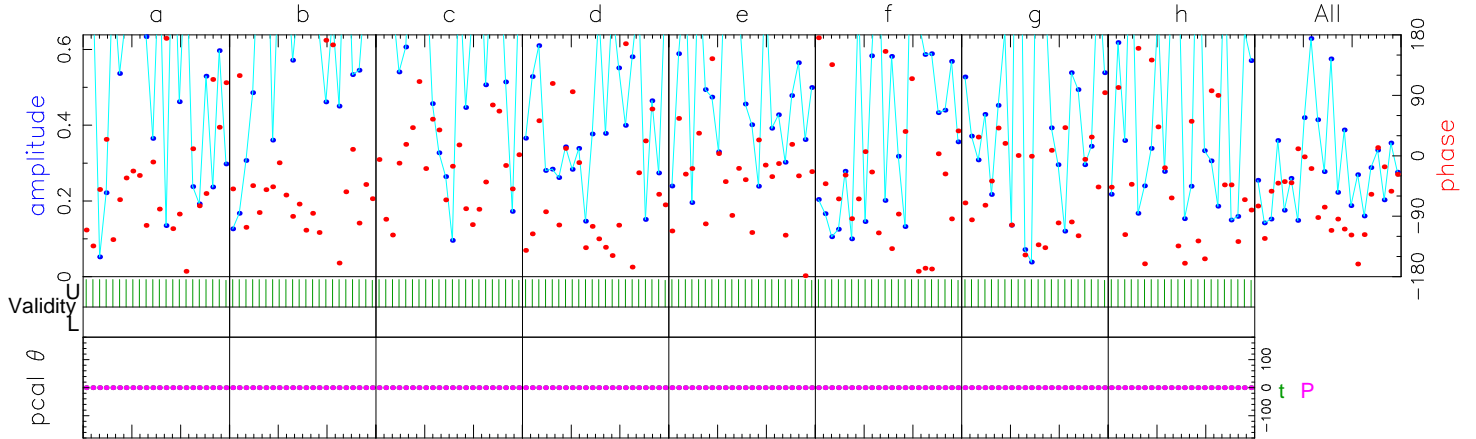


singleband delay (μ s)



Exp. c192c
Exper # 16383
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121818
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	9.80387034662E+02	Apriori delay (usec)	9.80393357952E+02	Resid mbdelay (usec)	-6.32329E-03	+/-	1.4E-04
Sband delay (usec)	9.80388040952E+02	Apriori clock (usec)	2.7915640E+01	Resid sbdelay (usec)	-5.31700E-03	+/-	1.1E-03
Phase delay (usec)	9.80393355997E+02	Apriori clockrate (us/s)	5.5299997E-07	Resid phdelay (usec)	-1.95457E-06	+/-	4.7E-07
Delay rate (us/s)	-1.82624296319E+00	Apriori rate (us/s)	-1.82624314641E+00	Resid rate (us/s)	1.83213E-07	+/-	4.6E-09
Total phase (deg)	246.8	Apriori accel (us/s/s)	-8.75802293526E-06	Resid phase (deg)	-60.6	+/-	14.7

ph/seg (deg)	46.7	Theor.	34.4	Amplitude	0.213 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	71.8		60.1	Search (1024X32)	0.207	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	40.3		20.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	51.0		36.2	Inc. seg. avg.	0.250	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.235	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

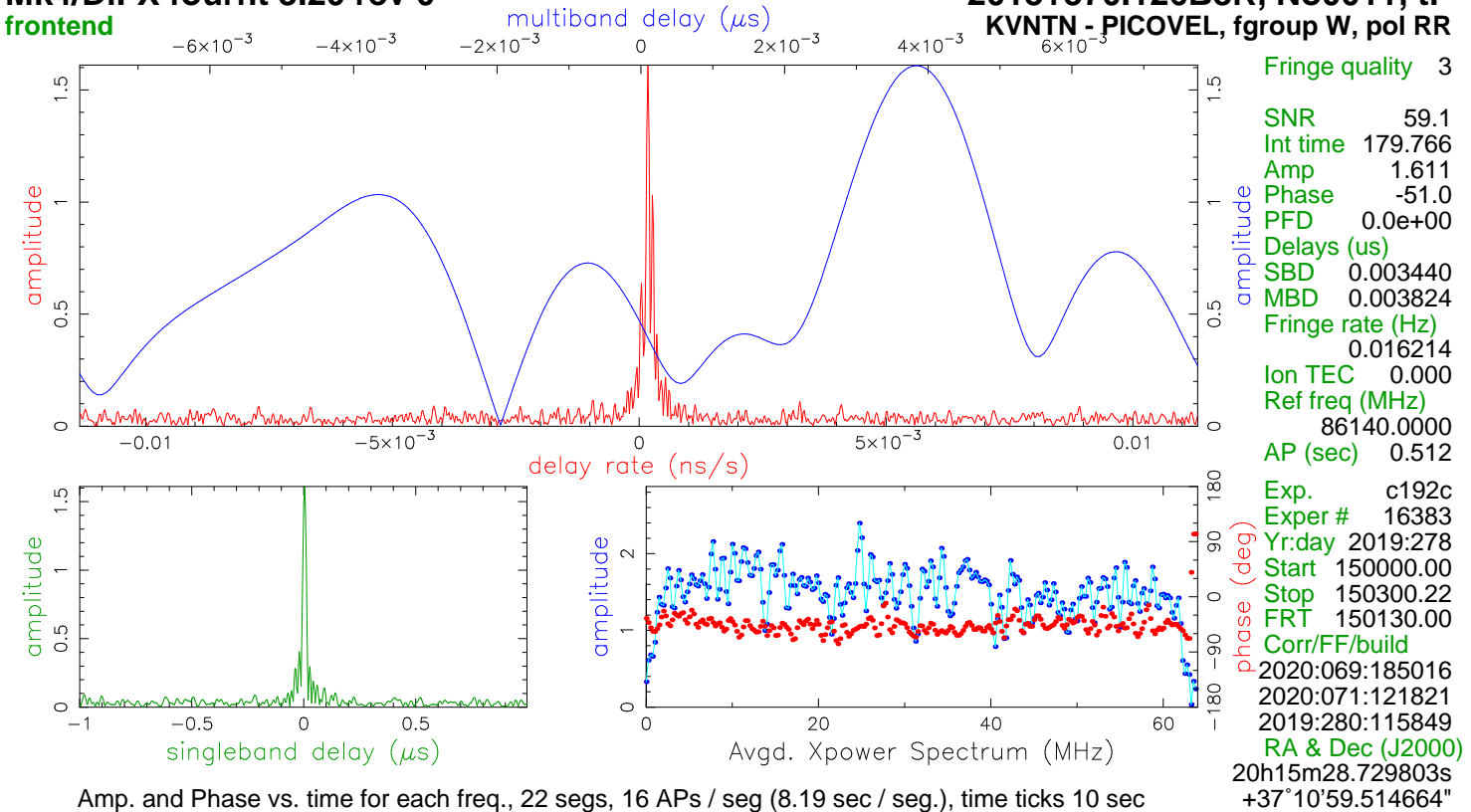
t: az 293.0 el 40.6 pa 75.1 P: az 67.5 el 36.7 pa -68.0 u,v (fr/asec) 13131.834 -982.099 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tP..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tP.W.24.126B8R

Mk4/DiFX fourfit 3.20 rev 0

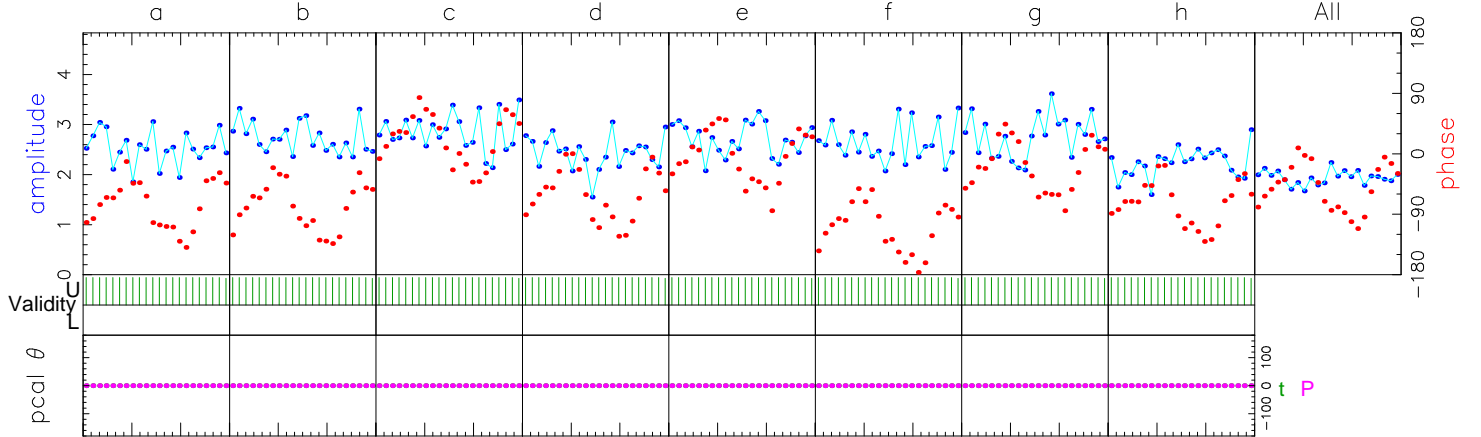
frontend

2013+370.126B8R, No0011, tP

KVNTN - PICOVEL, fgroup W, pol RR

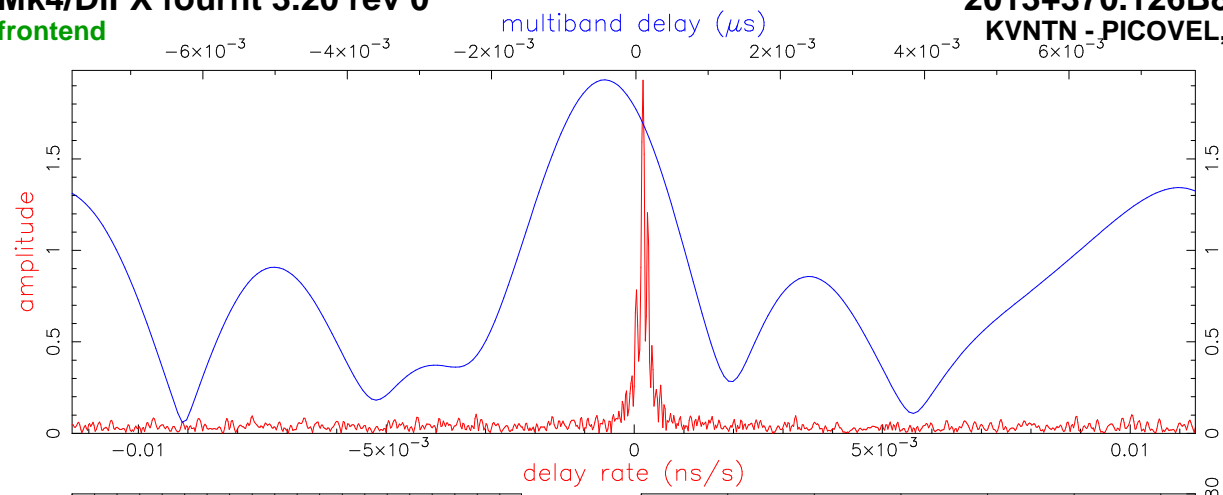


Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

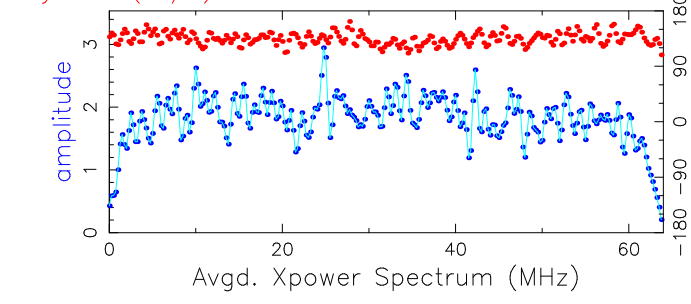
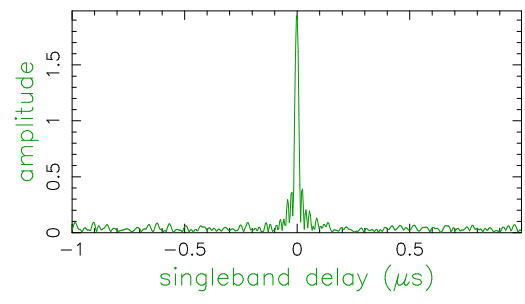


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-75.1	-78.2	22.4	-60.5	-5.4	-109.8	-22.3	-75.3		Phase -51.0
	2.1	2.3	2.3	2.0	2.2	2.2	1.9	1.9		Ampl. 2.1
	259.1	257.2	257.2	256.7	257.0	256.9	257.4	257.3		Sbd box 257.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		APs used
t	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
P	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
t	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Chan ids
										Tracks
Group delay (usec)(sbd)	9.80397182068E+02		Apriori delay (usec)		9.80393357952E+02		Resid mbdelay (usec)		3.82412E-03	+/- 1.8E-05
Sband delay (usec)	9.80396797702E+02		Apriori clock (usec)		2.7915640E+01		Resid sbdelay (usec)		3.43975E-03	+/- 1.5E-04
Phase delay (usec)	9.80393356308E+02		Apriori clockrate (us/s)		5.5299997E-07		Resid phdelay (usec)		-1.64387E-06	+/- 6.3E-08
Delay rate (us/s)	-1.82624295818E+00		Apriori rate (us/s)		-1.82624314641E+00		Resid rate (us/s)		1.88228E-07	+/- 6.0E-10
Total phase (deg)	256.5		Apriori accel (us/s/s)		-8.75802293526E-06		Resid phase (deg)		-51.0	+/- 1.9

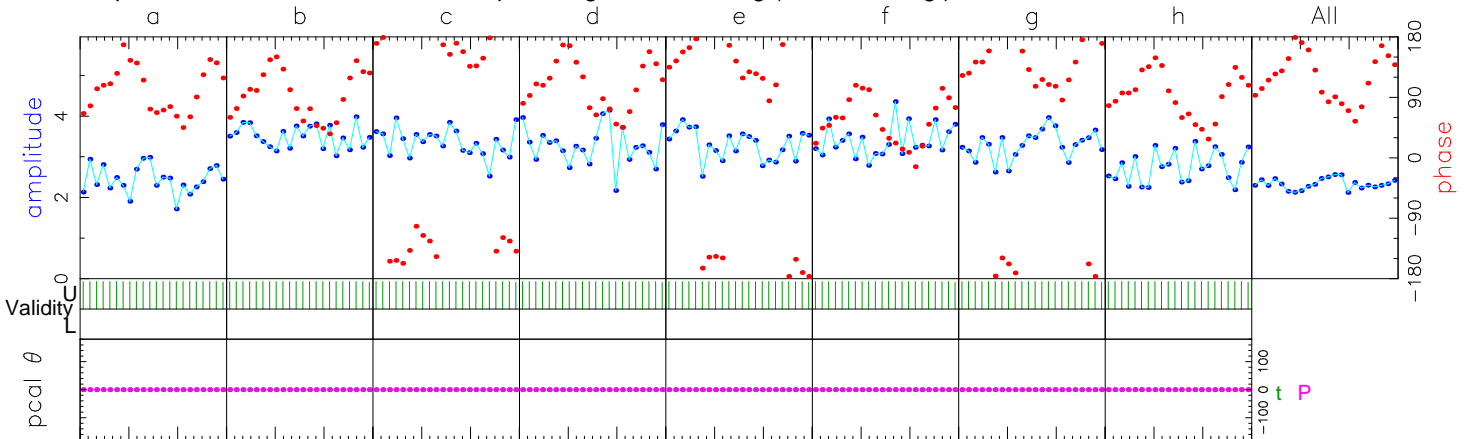
ph/seg (deg) 34.7 4.6 Search (1024X32) 1.521 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 22.1 7.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 47.9 2.7 Inc. seg. avg. 1.935 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 34.0 4.8 Inc. frq. avg. 2.139 Data rate (Mbit/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
t: az 293.0 el 40.6 pa 75.1 P: az 67.5 el 36.7 pa -68.0 u,v (fr/asec) 13131.834 -982.099 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tP..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tP.W.48.126B8R



Fringe quality 4
SNR 72.7
Int time 179.766
Amp 1.984
Phase 118.1
PFD 0.0e+00
Delays (us)
SBD -0.001776
MBD -0.000381
Fringe rate (Hz) 0.016150
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192c
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121826
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

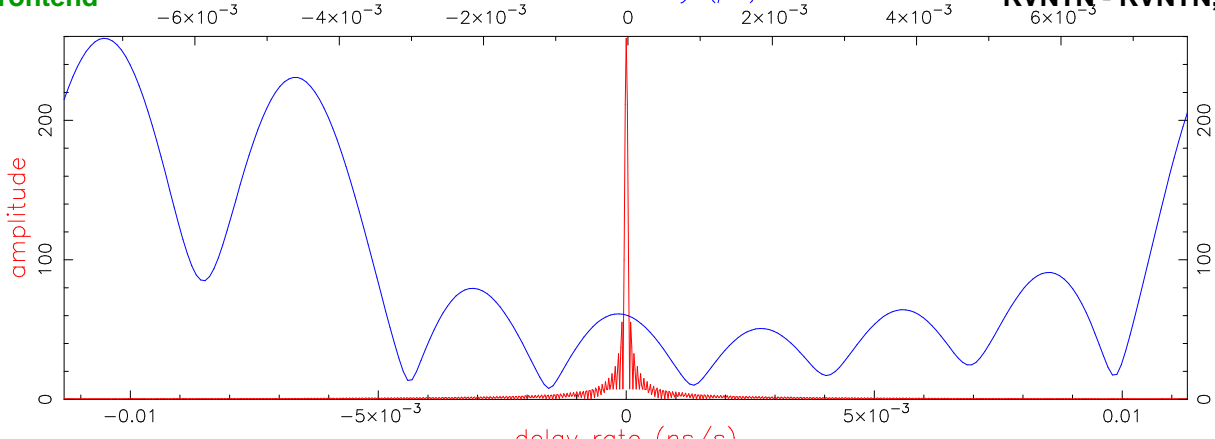


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		9.80392976912E+02			9.80393357952E+02					
Sband delay (usec)		9.80391581702E+02			2.7915640E+01					
Phase delay (usec)		9.80393361759E+02			5.5299997E-07					
Delay rate (us/s)		-1.82624295892E+00			-1.82624314641E+00					
Total phase (deg)			65.5							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

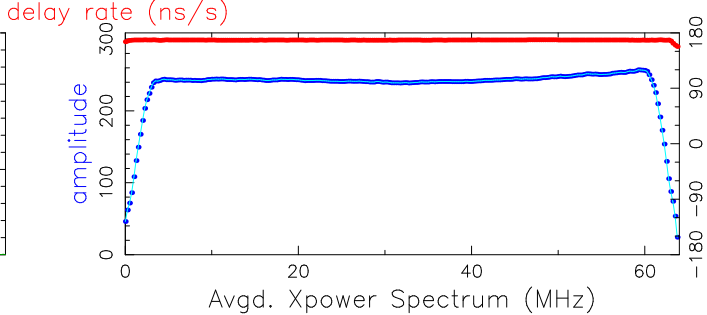
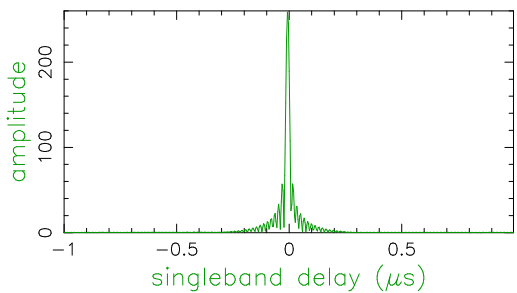
t: az 293.0 el 40.6 pa 75.1 P: az 67.5 el 36.7 pa -68.0 u,v (fr/asec) 13131.834 -982.099
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tP..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tP.W.79.126B8R

multiband delay (μ s)

Fringe quality 5

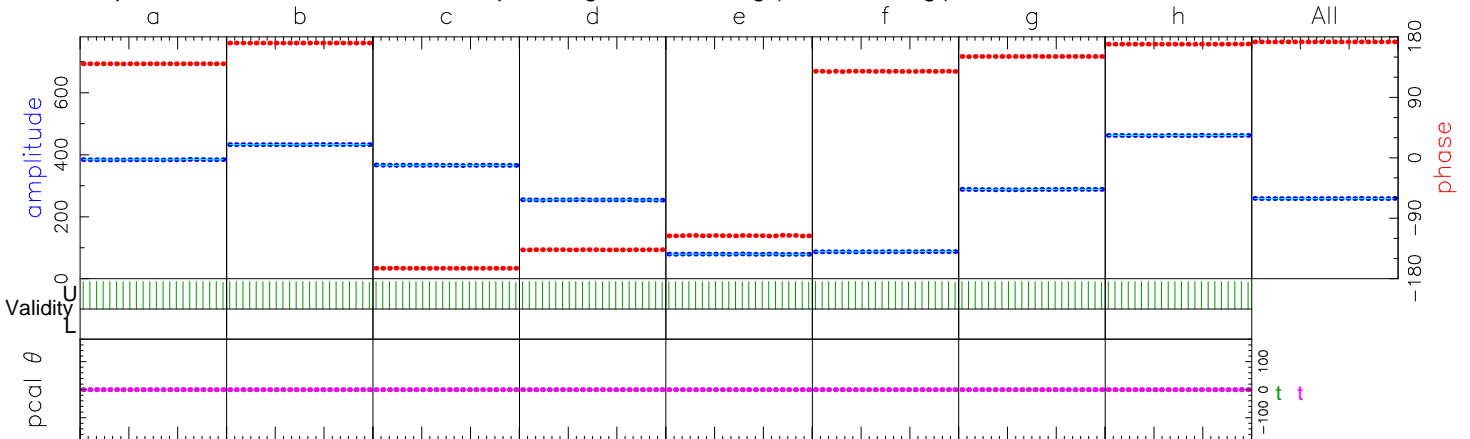


SNR 9544.1
 Int time 179.969
 Amp 260.159
 Phase 172.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.006891
 MBD -0.007259
 Fringe rate (Hz)
 -0.000001
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c192c
 Exper # 16383
 Yr:day 2019:278
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2020:069:185016
 2020:071:121831
 2019:280:115849
 RA & Dec (J2000)
 20h15m28.729803s
 +37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
t	1000	1000	1000	1000	1000	1000	1000	1000			
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
Group delay (usec)(sbd)	-7.25921875000E-03										
Sband delay (usec)	-6.89125000000E-03										
Phase delay (usec)	5.56350225240E-06										
Delay rate (us/s)	-1.27540371525E-11										
Total phase (deg)			172.5								
			Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-7.25922E-03	+/- 1.1E-07	
			Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-6.89125E-03	+/- 9.0E-07	
			Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		5.56350E-06	+/- 3.9E-10	
			Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-1.27540E-11	+/- 3.7E-12	
			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		172.5	+/- 0.0	
ph/seg (deg)	0.0	0.0	Amplitude	260.159 +/- 0.027		Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	0.5	0.0	Search (1024X32)	258.057		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	44.2	0.0	Interp.	0.000		Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	54.4	0.0	Inc. seg. avg.	258.782		Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011		
			Inc. frq. avg.	294.180		Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
t: az 293.0 el 40.6 pa 75.1			t: az 293.0 el 40.6 pa 75.1			u, v (fr/asec) 0.000	0.000			simultaneous interpolator	
Control file: cf_1234_gmva			Input file: /Exps/c192c/v1_CygA2/1234/No0011/tt..126B8R			Output file: /Exps/c192c/v1_CygA2/1234/No0011/tt.W.112.126B8R					

Mk4/DiFX fourfit 3.20 rev 0

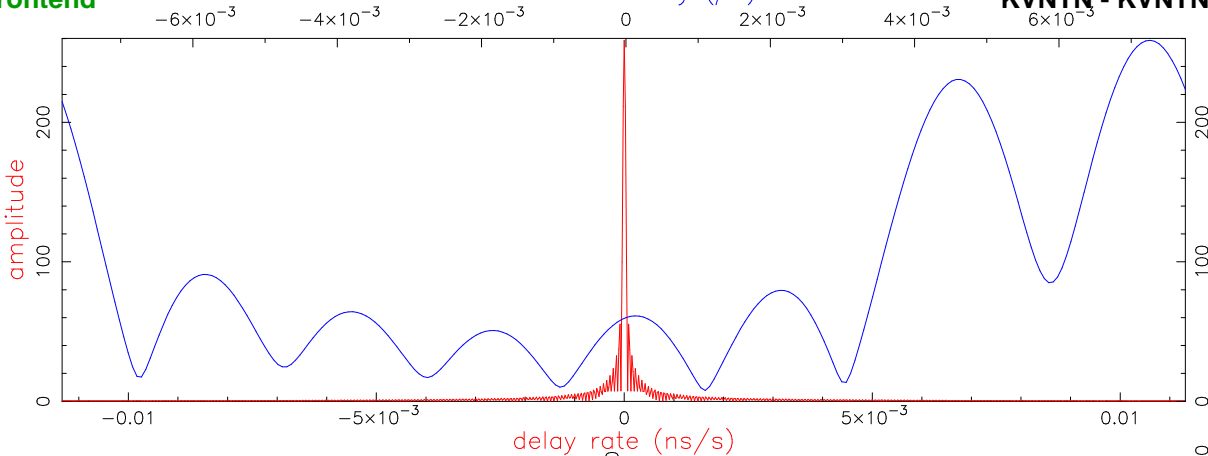
frontend

2013+370.126B8R, No0011, tt

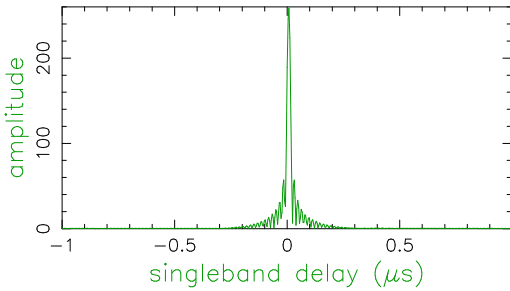
KVNTN - KVNTN, fgroup W, pol RL

multiband delay (μ s)

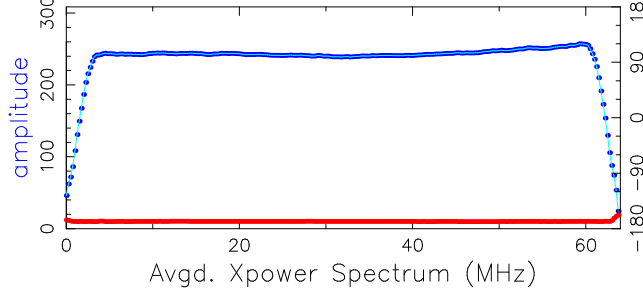
Fringe quality 5



SNR 9544.1
 Int time 179.969
 Amp 260.159
 Phase -172.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.006891
 MBD 0.007259
 Fringe rate (Hz) 0.000001
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

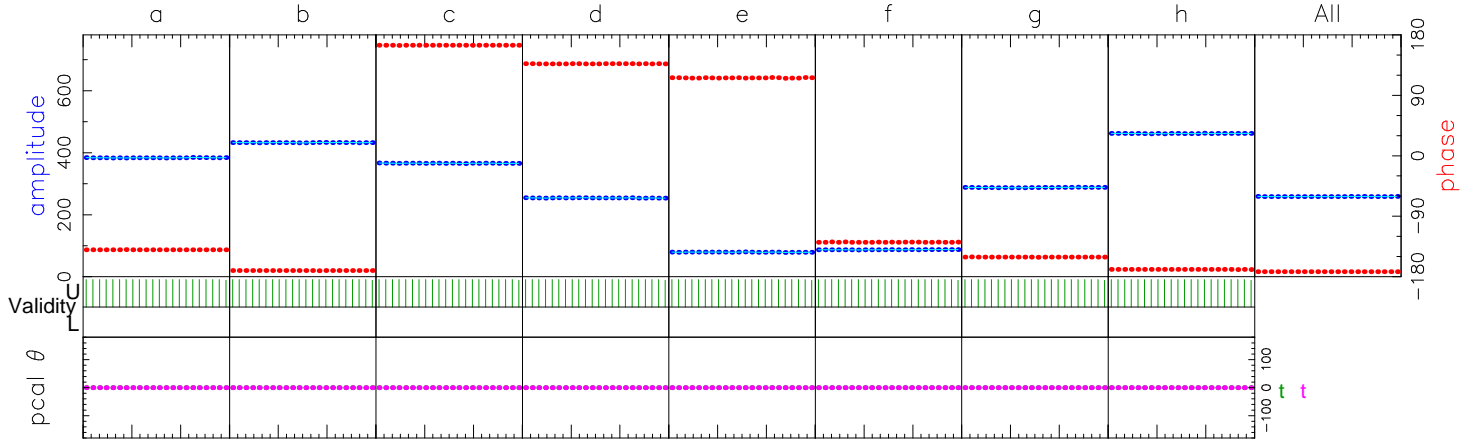


delay rate (ns/s)



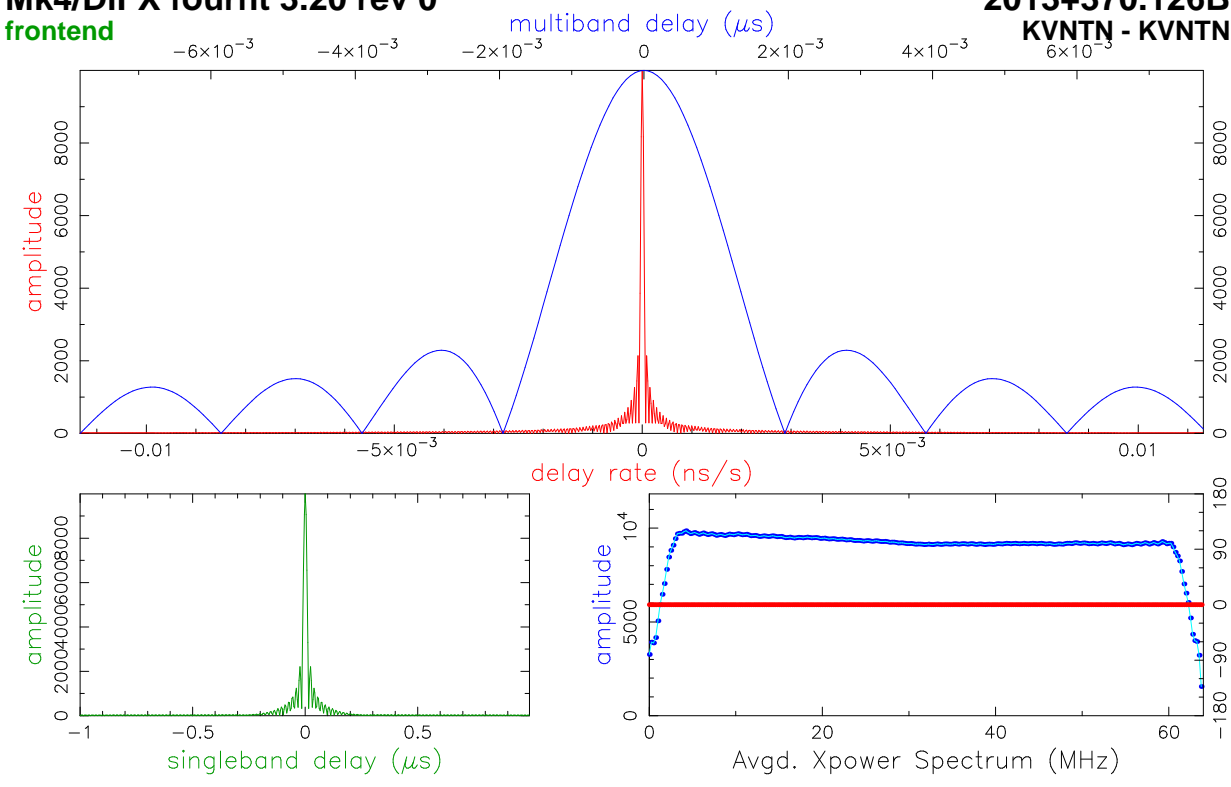
Exp. c192c
 Yr:day 16383
 Start 2019:278
 Stop 2019:278
 FRT 150130.00
 Corr/FF/build
 2020:069:185016
 2020:071:121833
 2019:280:115849
 RA & Dec (J2000)
 20h15m28.729803s
 +37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



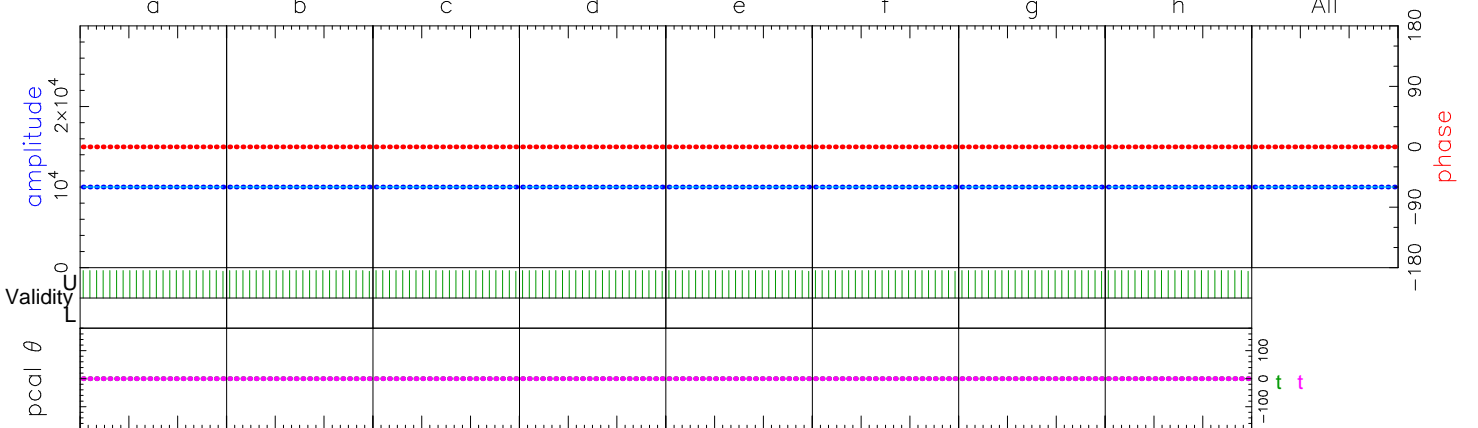
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0				
t	1000	1000	1000	1000	1000	1000	1000	1000				
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
t	1000	1000	1000	1000	1000	1000	1000	1000				
t	1000	1000	1000	1000	1000	1000	1000	1000				
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL				
Group delay (usec)(sbd)	7.25921875000E-03								7.25922E-03	+/- 1.1E-07		
Sband delay (usec)	6.89125000000E-03								6.89125E-03	+/- 9.0E-07		
Phase delay (usec)	-5.56350225231E-06								-5.56350E-06	+/- 3.9E-10		
Delay rate (us/s)	1.27540371525E-11								1.27540E-11	+/- 3.7E-12		
Total phase (deg)			-172.5						-172.5	+/- 0.0		
	RMS	Theor.	Amplitude	260.159 +/- 0.027					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	0.0	0.0	Search (1024X32)	258.057					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
amp/seg (%)	0.5	0.0	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
ph/frq (deg)	44.2	0.0	Inc. seg. avg.	258.782					Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011	
amp/frq (%)	54.4	0.0	Inc. frq. avg.	294.180					Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

t: az 293.0 el 40.6 pa 75.1 t: az 293.0 el 40.6 pa 75.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tt..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tt.W.131.126B8R



Fringe quality 9
SNR 366857.1
Int time 179.969
Amp 9999.999
Phase -0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192c
Yr:day 16383
Start 2019:278
Stop 2019:278
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121824
2019:280:115849
RA & Dec (J2000) 20h15m28.729803s +37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		
Phase delay (usec)	-3.79046301738E-20	-3.79046301738E-20	-3.79046301738E-20	-3.79046301738E-20	-3.79046301738E-20	-3.79046301738E-20	-3.79046301738E-20	-3.79046301738E-20		
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		
Total phase (deg)			-0.0							
RMS										
Theor.										
Amplitude										
Search (1024X32)										
9999.999										
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)										
simultaneous interpolator										

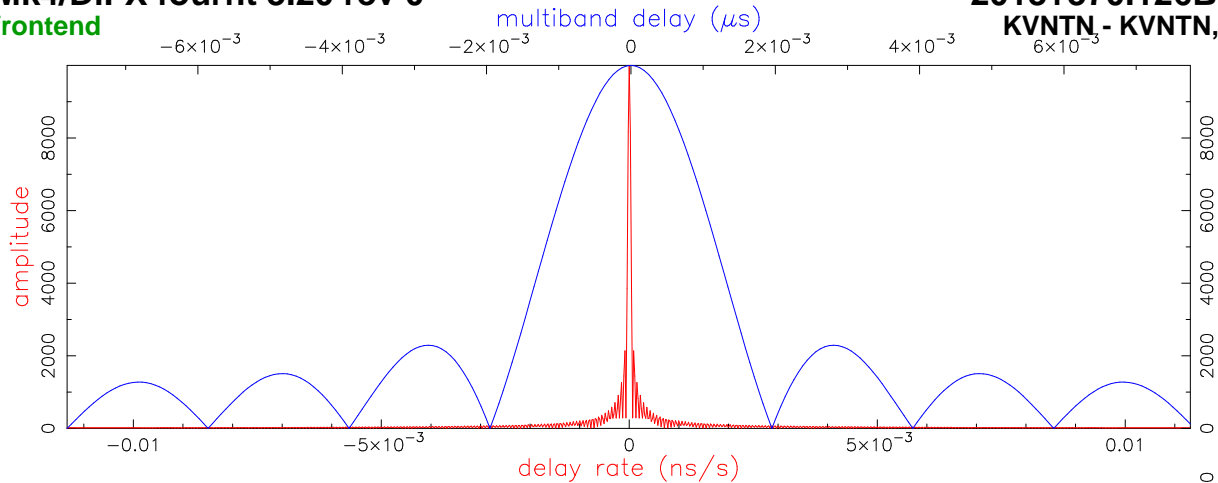
ph/seg (deg) 0.0 0.0
amp/seg (%) 0.0 0.0
ph/frq (deg) 0.0 0.0
amp/frq (%) 0.0 0.0
t: az 293.0 el 40.6 pa 75.1
Control file: cf_1234_gmva

Search (1024X32) 9999.999
Inc. seg. avg. 10000.000
Inc. frq. avg. 9999.999
u,v (fr/asec) 0.000 0.000
Input file: /Exps/c192c/v1_CygA2/1234/No0011/tt..126B8R

PCal mode: MANUAL, MANUAL
PCal rate: 0.000E+00, 0.000E+00 (us/s)
Sample rate(MISamp/s): 128
Data rate(Mb/s): 2048
nlags: 256 t_cohere infinite
Output file: /Exps/c192c/v1_CygA2/1234/No0011/tt.W.74.126B8R

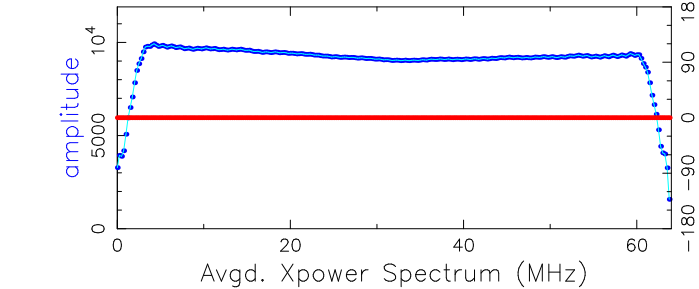
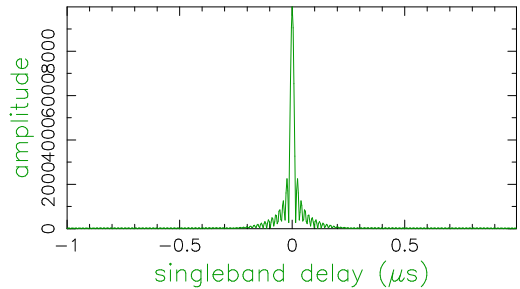
Mk4/DiFX fourfit 3.20 rev 0
frontend

2013+370.126B8R, No0011, tt
KVNTN - KVNTN, fgroup W, pol RR



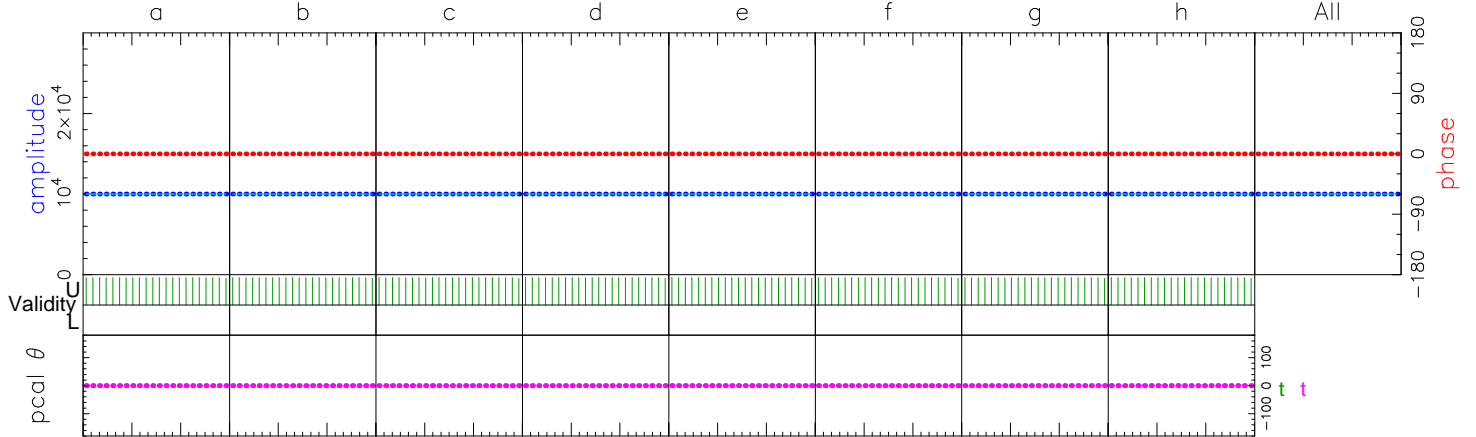
Fringe quality 9

SNR 366857.1
Int time 179.969
Amp 9999.999
Phase -0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



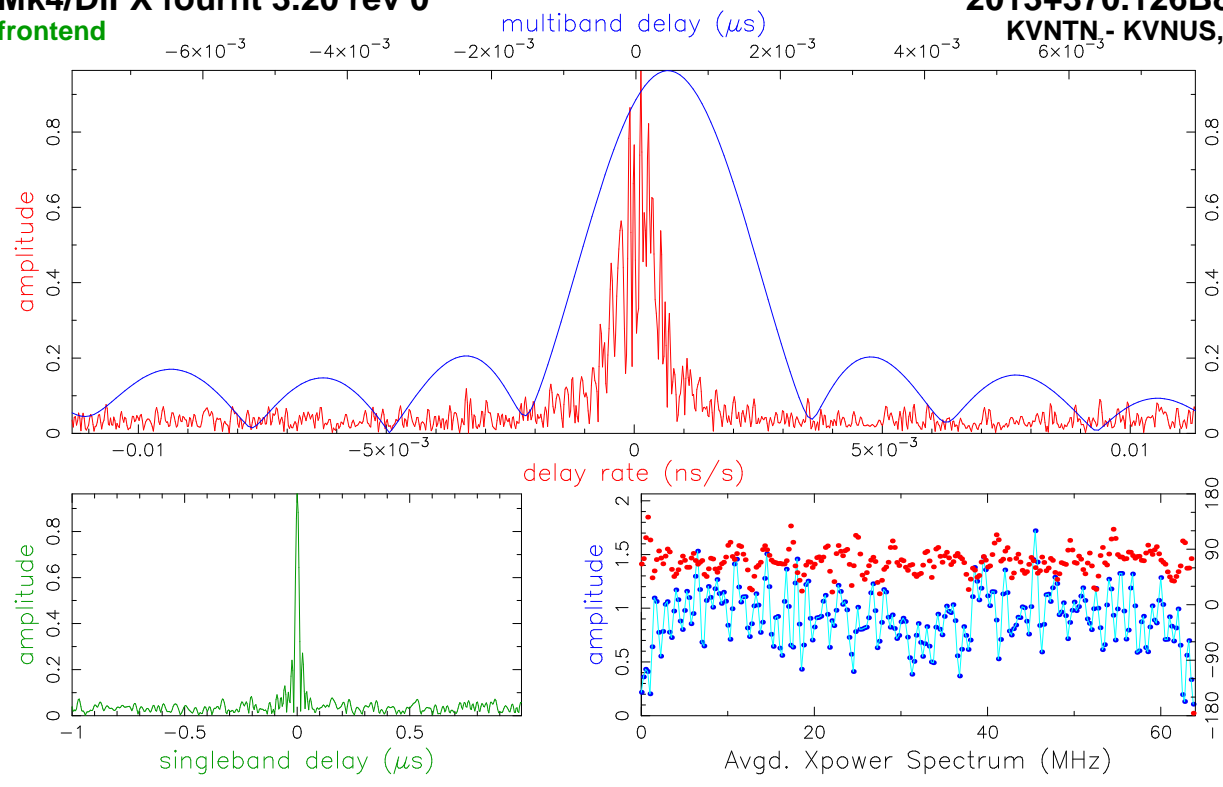
Exp. c192c
Yr:day 16383
Start 2019:278
Stop 2019:278
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121828
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		
Phase delay (usec)	-8.34806201607E-21	-8.34806201607E-21	-8.34806201607E-21	-8.34806201607E-21	-8.34806201607E-21	-8.34806201607E-21	-8.34806201607E-21	-8.34806201607E-21		
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		
Total phase (deg)			-0.0							
RMS										
Theor.										
Amplitude										
Search (1024X32)										
9999.999 +/- 0.027										
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)										
simultaneous interpolator										

t: az 293.0 el 40.6 pa 75.1 t: az 293.0 el 40.6 pa 75.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tt..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tt.W.87.126B8R

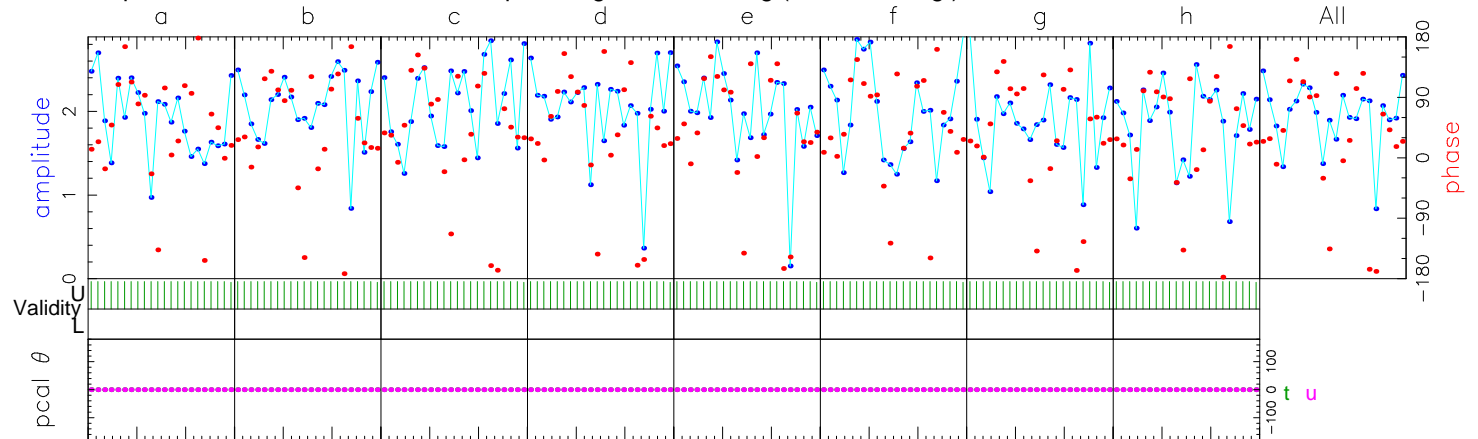


Fringe quality 7

SNR 35.3
Int time 179.956
Amp 0.964
Phase 68.2
PFD 0.0e+00
Delays (us)
SBD 0.000288
MBD 0.000440
Fringe rate (Hz) 0.011444
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192c
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121830
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

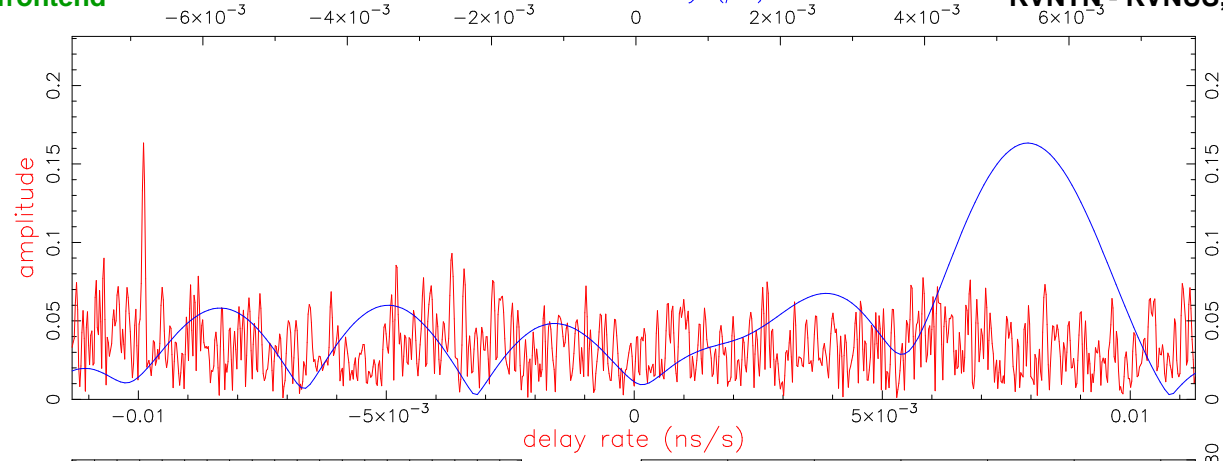


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.80052254452E+02					3.80051814310E+02			Resid mbdelay (usec)	4.40142E-04 +/- 3.1E-05
Sband delay (usec)	3.80052102060E+02					1.9262941E+01			Resid sbdelay (usec)	2.87750E-04 +/- 2.4E-04
Phase delay (usec)	3.80051816511E+02					-1.9999998E-07			Resid phdelay (usec)	2.20063E-06 +/- 1.0E-07
Delay rate (us/s)	-2.07147260932E-03					-2.07160546387E-03			Resid rate (us/s)	1.32855E-07 +/- 1.0E-09
Total phase (deg)		170.7				-4.13375856215E-06			Resid phase (deg)	68.2 +/- 3.2
	RMS	Theor.	Amplitude	0.964 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	69.7	7.6	Search (1024X32)	0.960					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	109.4	13.3	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	6.1	4.6	Inc. seg. avg.	1.933					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	5.6	8.0	Inc. frq. avg.	0.964					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

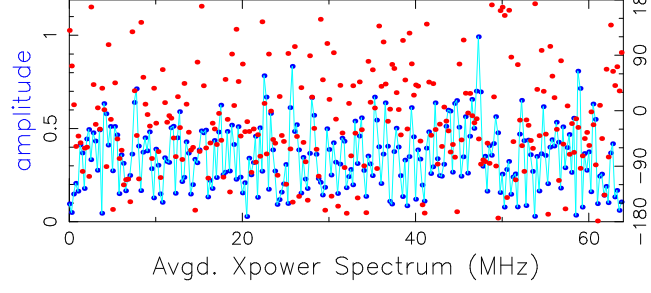
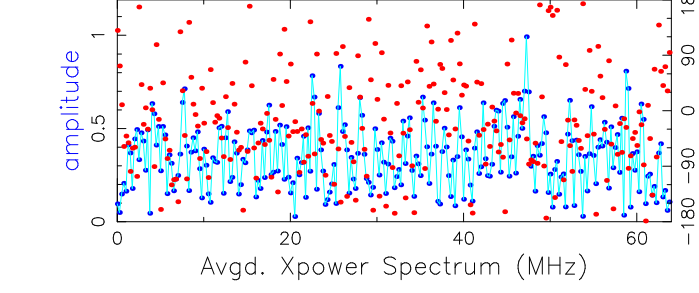
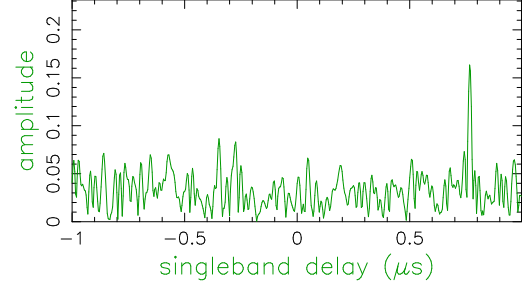
t: az 293.0 el 40.6 pa 75.1 u: az 292.1 el 39.3 pa 71.1 u,v (fr/asec) 11.332 -475.771 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tu...126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tu.W.105.126B8R

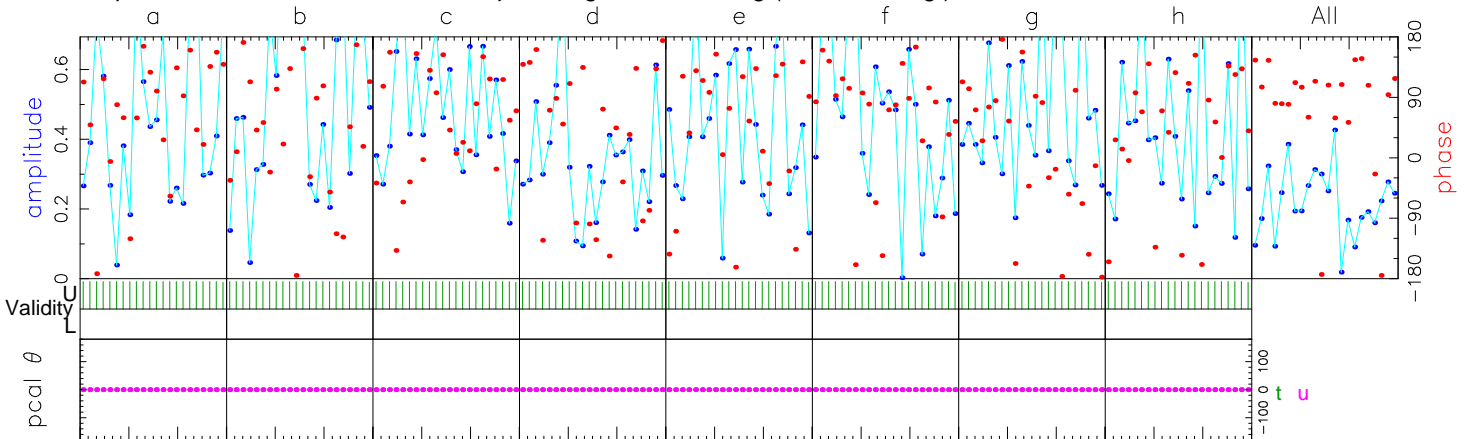
multiband delay (μ s)



Fringe quality 0
SNR 6.1
Int time 179.956
Amp 0.231
Phase 105.1
PFD 1.6e-01
Delays (us)
SBD 0.766882
MBD 0.005417
Fringe rate (Hz)
-0.853904
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192c
Yr:day 16383
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121832
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



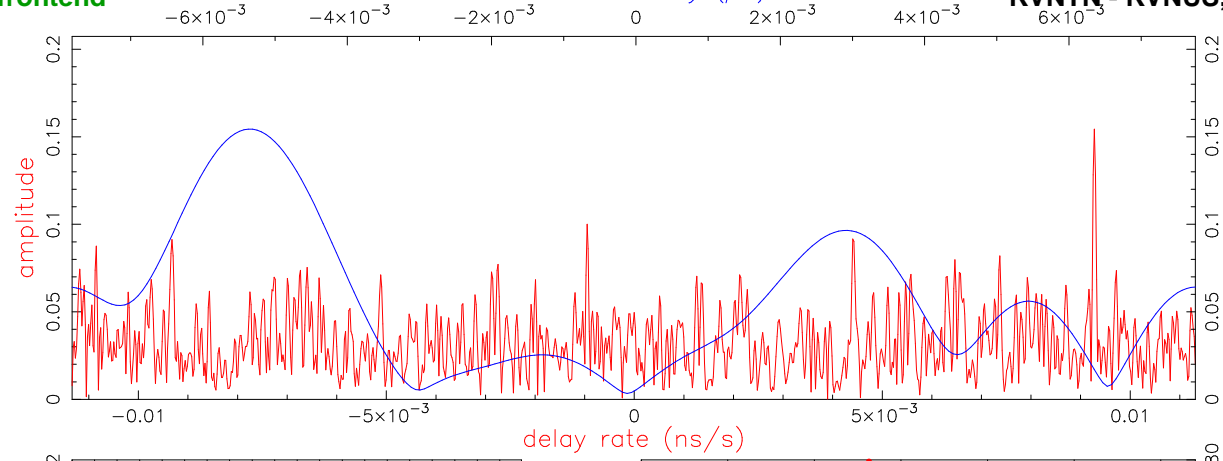
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	3.80822855817E+02		Apriori delay (usec)		3.80051814310E+02		Resid mbdelay (usec)		5.41651E-03	+/- 1.8E-04
Sband delay (usec)	3.80818696060E+02		Apriori clock (usec)		1.9262941E+01		Resid sbdelay (usec)		7.66882E-01	+/- 1.4E-03
Phase delay (usec)	3.80051817699E+02		Apriori clockrate (us/s)		-1.9999998E-07		Resid phdelay (usec)		3.38847E-06	+/- 6.1E-07
Delay rate (us/s)	-2.08151844147E-03		Apriori rate (us/s)		-2.07160546387E-03		Resid rate (us/s)		-9.91298E-06	+/- 5.9E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.13375856215E-06		Resid phase (deg)		105.1	+/- 18.9
ph/seg (deg)	RMS 45.5	Theor. 44.4	Amplitude Search (1024X32) 0.158		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
amp/seg (%)	66.9	77.4	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)	21.5	26.8	Inc. seg. avg. 0.236		Bits/sample: 2x2		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
amp/frq (%)	38.6	46.7	Inc. frq. avg. 0.216		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00

t: az 293.0 el 40.6 pa 75.1 u: az 292.1 el 39.3 pa 71.1 u,v (fr/asec) 11.332 -475.771 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tu...126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tu.W.127.126B8R

Mk4/DiFX fourfit 3.20 rev 0
frontend

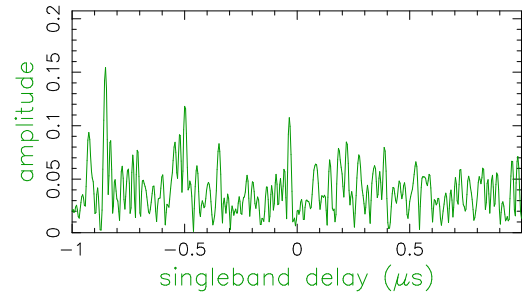
2013+370.126B8R, No0011, tu
KVNTN - KVNUS, fgroup W, pol RL

multiband delay (μs)

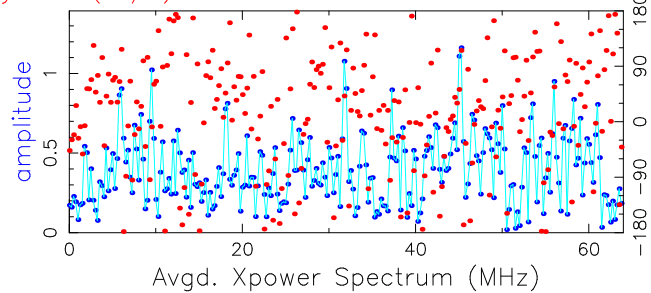


Fringe quality 0

SNR 5.7
Int time 179.956
Amp 0.207
Phase 12.9
PFD 8.2e-01
Delays (us)
SBD -0.851967
MBD -0.005346
Fringe rate (Hz)
0.800840
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

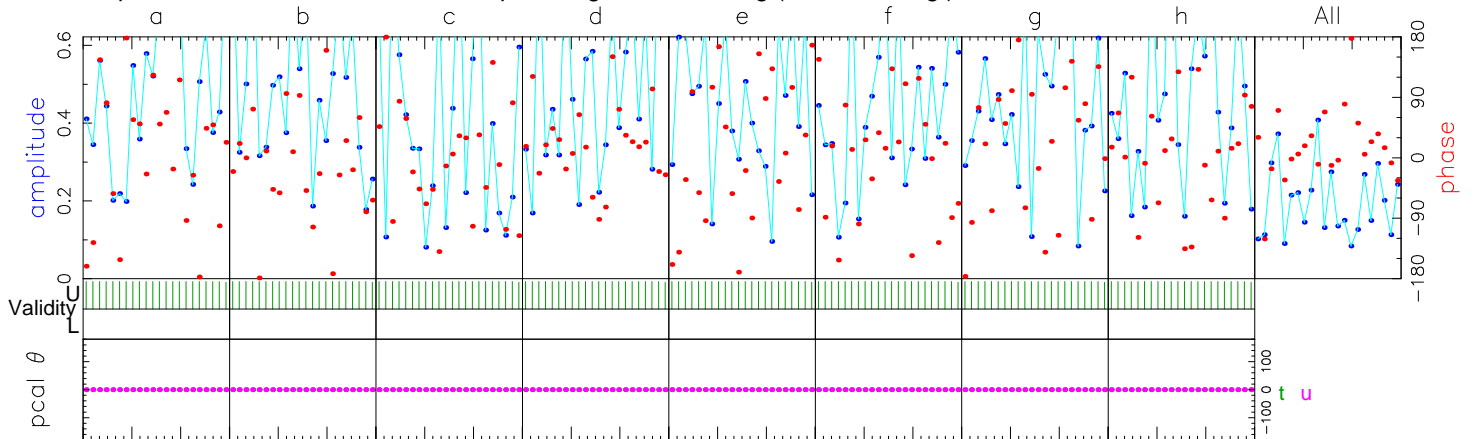


delay rate (ns/s)



Exp. c192c
Exper # 16383
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121835
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	61.9	-2.4	-4.8	7.0	-28.5	8.7	92.4	19.7	Phase	12.9
	0.2	0.3	0.2	0.5	0.1	0.2	0.1	0.3	Ampl.	0.2
	262.3	38.2	120.0	39.2	409.2	399.1	468.1	248.9	Sbd box	38.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.79202718632E+02		Apriori delay (usec)		3.80051814310E+02		Resid mbdelay (usec)		-5.34568E-03	+/- 1.9E-04
Sband delay (usec)	3.79199847310E+02		Apriori clock (usec)		1.9262941E+01		Resid sbdelay (usec)		-8.51967E-01	+/- 1.5E-03
Phase delay (usec)	3.80051814727E+02		Apriori clockrate (us/s)		-1.9999998E-07		Resid phdelay (usec)		4.17136E-07	+/- 6.5E-07
Delay rate (us/s)	-2.06230850344E-03		Apriori rate (us/s)		-2.07160546387E-03		Resid rate (us/s)		9.29696E-06	+/- 6.3E-09
Total phase (deg)	115.4		Apriori accel (us/s/s)		-4.13375856215E-06		Resid phase (deg)		12.9	+/- 20.2

ph/seg (deg) 54.8 47.4 Search (1024X32) 0.150 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 64.7 82.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 43.0 28.6 Inc. seg. avg. 0.198 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 58.7 49.9 Inc. frq. avg. 0.204 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
t: az 293.0 el 40.6 pa 75.1 u: az 292.1 el 39.3 pa 71.1 u,v (fr/asec) 11.332 -475.771 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tu...126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tu.W.148.126B8R

Mk4/DiFX fourfit 3.20 rev 0

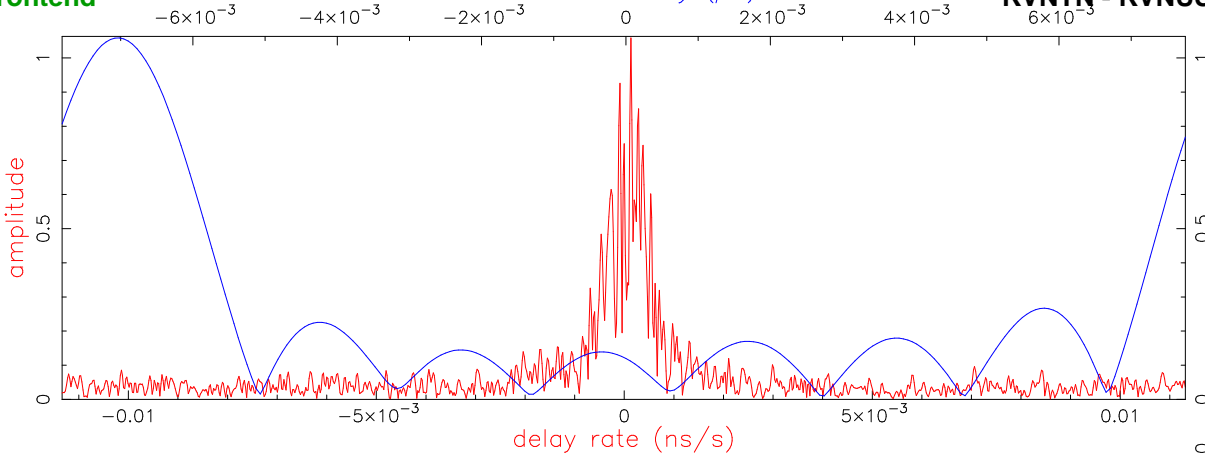
frontend

2013+370.126B8R, No0011, tu

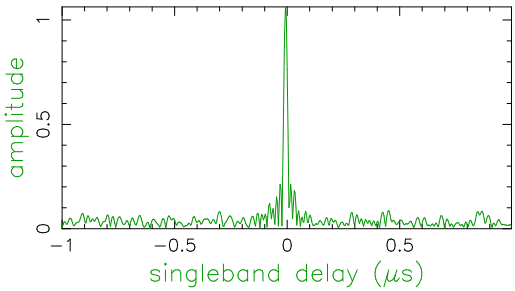
KVNTN - KVNUS, fgroup W, pol LL

multiband delay (μs)

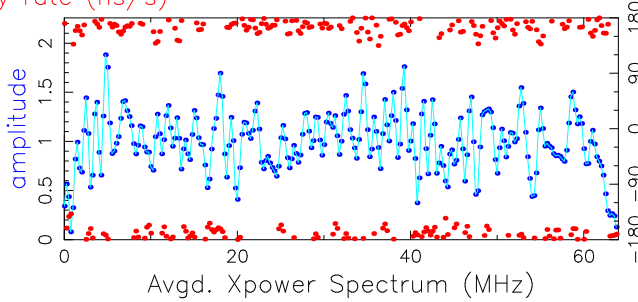
Fringe quality 7



SNR 39.0
Int time 179.956
Amp 1.063
Phase 175.4
PFD 0.0e+00
Delays (us)
SBD -0.007010
MBD -0.007044
Fringe rate (Hz)
0.011502
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

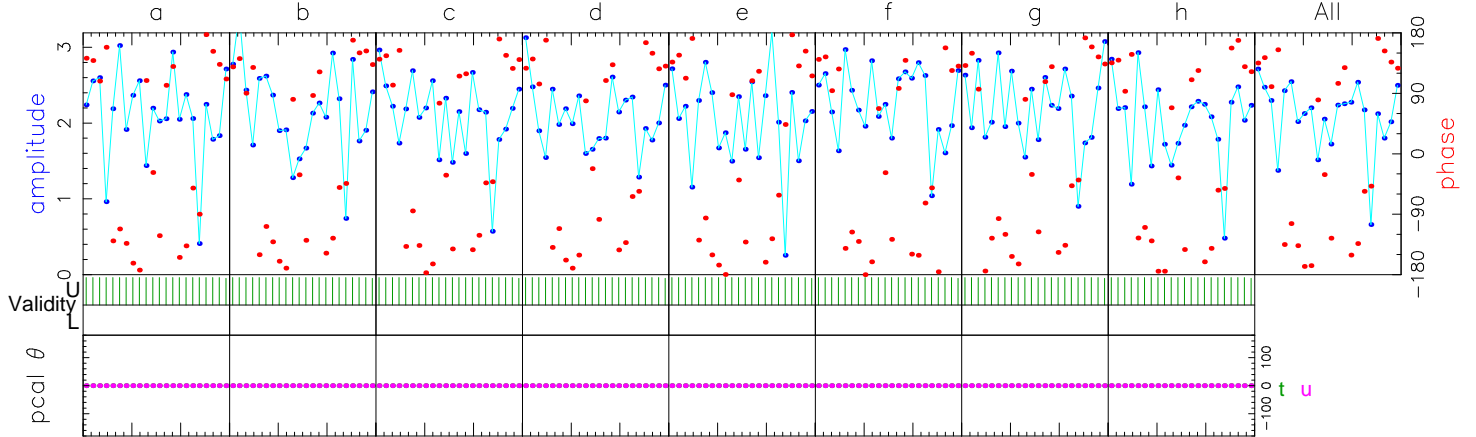


delay rate (ns/s)



Exp. c192c
Exper # 16383
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121827
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	3.80044770639E+02									
Sband delay (usec)	3.80044803810E+02									
Phase delay (usec)	3.80051819966E+02									
Delay rate (us/s)	-2.07147194044E-03									
Total phase (deg)			277.9							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
Amplitude										
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
1.063 +/- 0.027										
1.036										
0.000										
2.077										
1.058										
3.80051814310E+02										
1.9262941E+01										
-1.9999998E-07										
-2.07160546387E-03										
-4.13375856215E-06										
-7.04367E-03										
-7.01050E-03										
5.65617E-06										
1.33523E-07										
175.4										
+/- 2.8E-05										
+/- 2.2E-04										
+/- 9.5E-08										
+/- 9.1E-10										
+/- 2.9										
ph/seg (deg)	69.9	6.9								
amp/seg (%)	105.7	12.0								
ph/frq (deg)	3.7	4.2								
amp/frq (%)	4.0	7.3								
t: az 293.0 el 40.6 pa 75.1										
u: az 292.1 el 39.3 pa 71.1										
u,v (fr/asec) 11.332 -475.771										
Control file: cf_1234_gmva										
Input file: /Exps/c192c/v1_CygA2/1234/No0011/tu..126B8R										
Output file: /Exps/c192c/v1_CygA2/1234/No0011/tu.W.81.126B8R										

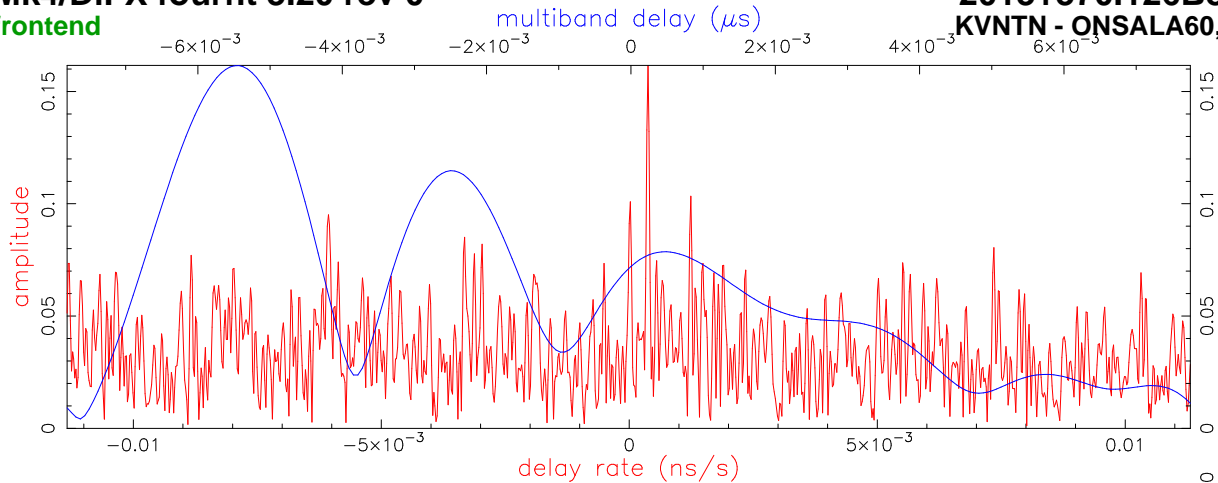
simultaneous interpolator

Mk4/DiFX fourfit 3.20 rev 0

frontend

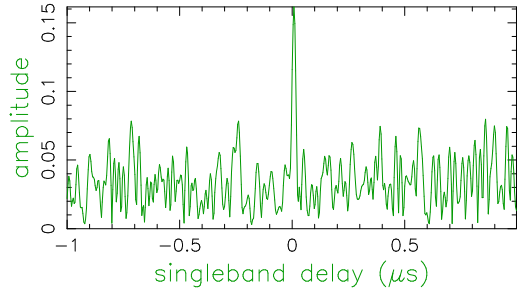
2013+370.126B8R, No0011, tX

KVNTN - ONSALA60, fgroup W, pol LR

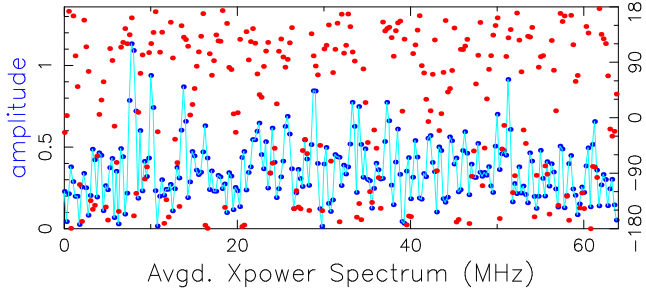


Fringe quality 0

SNR 5.9
 Int time 179.778
 Amp 0.162
 Phase -72.7
 PFD 3.3e-01
 Delays (us)
 SBD 0.007911
 MBD -0.005458
 Fringe rate (Hz)
 0.031703
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

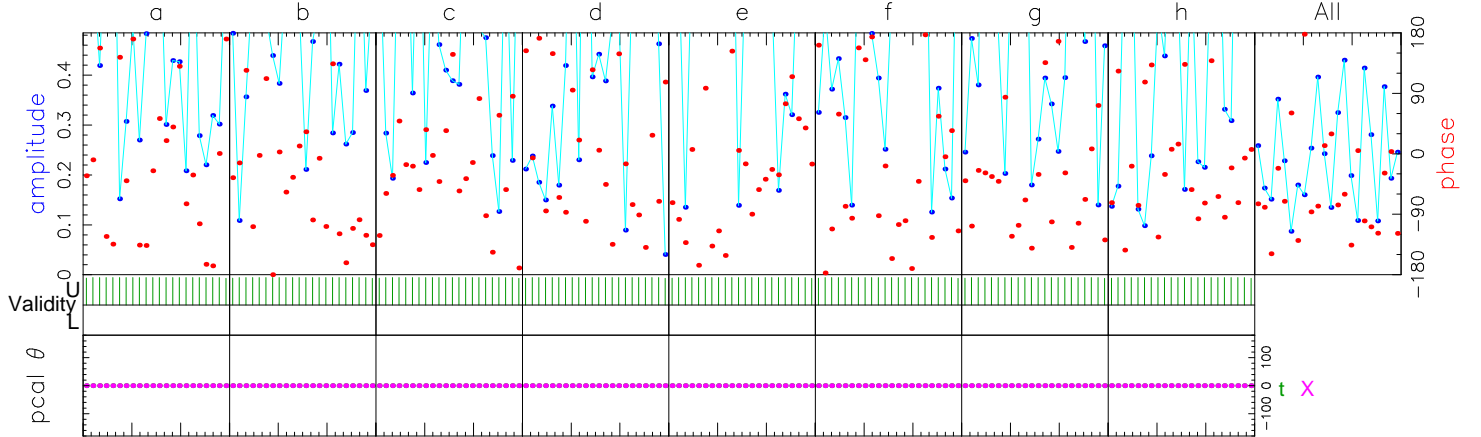


delay rate (ns/s)



Exp. c192c
 Exper # 16383
 Yr:day 2019:278
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2020:069:185016
 2020:071:121831
 2019:280:115849
 RA & Dec (J2000)
 20h15m28.729803s
 +37°10'59.514664"

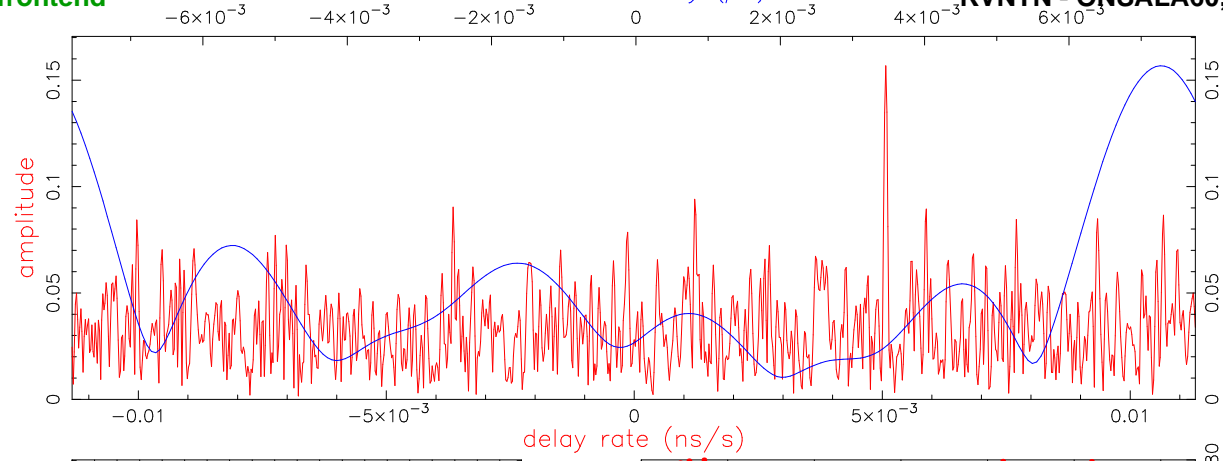
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



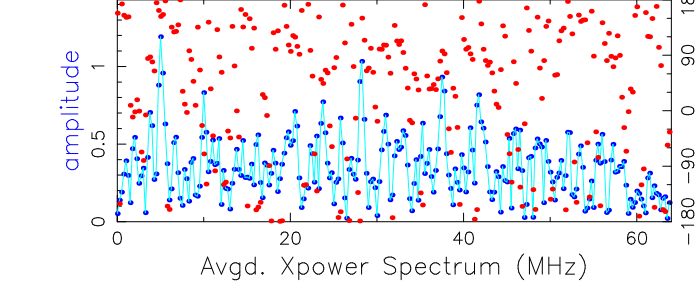
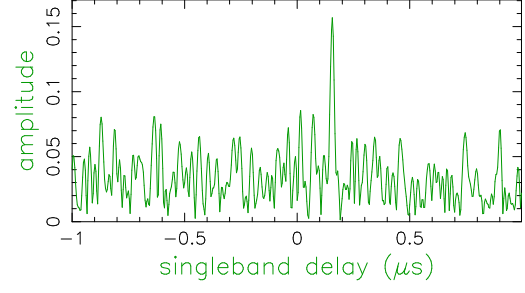
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-94.6	-78.2	-29.7	-97.3	-47.3	-144.7	-74.5	-45.2	Phase	-72.7
	0.1	0.2	0.2	0.1	0.2	0.2	0.3	0.2	Ampl.	0.2
	150.9	257.2	24.8	421.3	362.3	257.0	259.5	259.3	Sbd box	259.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.61226822518E+03		Apriori delay (usec)		-2.61227839228E+03		Resid mbdelay (usec)		-5.45791E-03	+/- 1.8E-04
Sband delay (usec)	-2.61227048153E+03		Apriori clock (usec)		-4.6206093E+00		Resid sbdelay (usec)		7.91075E-03	+/- 1.5E-03
Phase delay (usec)	-2.61227839462E+03		Apriori clockrate (us/s)		-3.2800002E-07		Resid phdelay (usec)		-2.34519E-06	+/- 6.2E-07
Delay rate (us/s)	-1.44156094825E+00		Apriori rate (us/s)		-1.44156131629E+00		Resid rate (us/s)		3.68036E-07	+/- 6.0E-09
Total phase (deg)			Apriori accel (us/s/s)		-6.19736200602E-06		Resid phase (deg)		-72.7	+/- 19.3

ph/seg (deg) 61.6 45.4 Search (1024X32) 0.154 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 79.8 79.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.9 27.4 Inc. seg. avg. 0.183 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.7 47.8 Inc. frq. avg. 0.177 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 293.0 el 40.6 pa 75.1 X: az 96.8 el 50.1 pa -42.1 u,v (fr/asec) 10362.838 -2503.650 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tX..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tX.W.118.126B8R

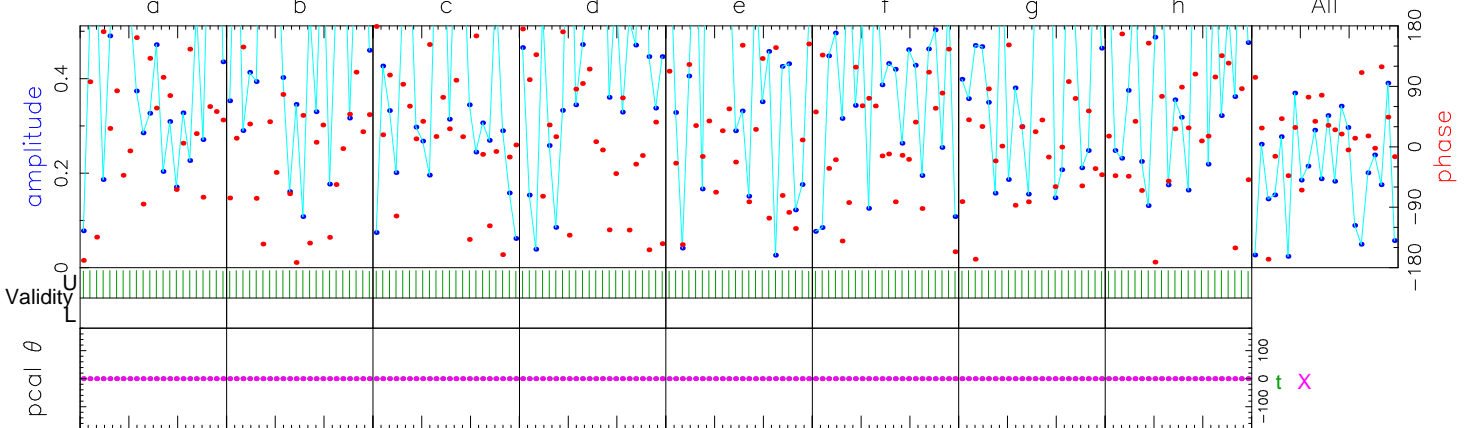
multiband delay (μs)



Fringe quality 0
SNR 5.8
Int time 179.778
Amp 0.171
Phase 29.4
PFD 6.7e-01
Delays (us)
SBD 0.155857
MBD 0.007283
Fringe rate (Hz)
0.436624
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192c
Yr:day 16383
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121834
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

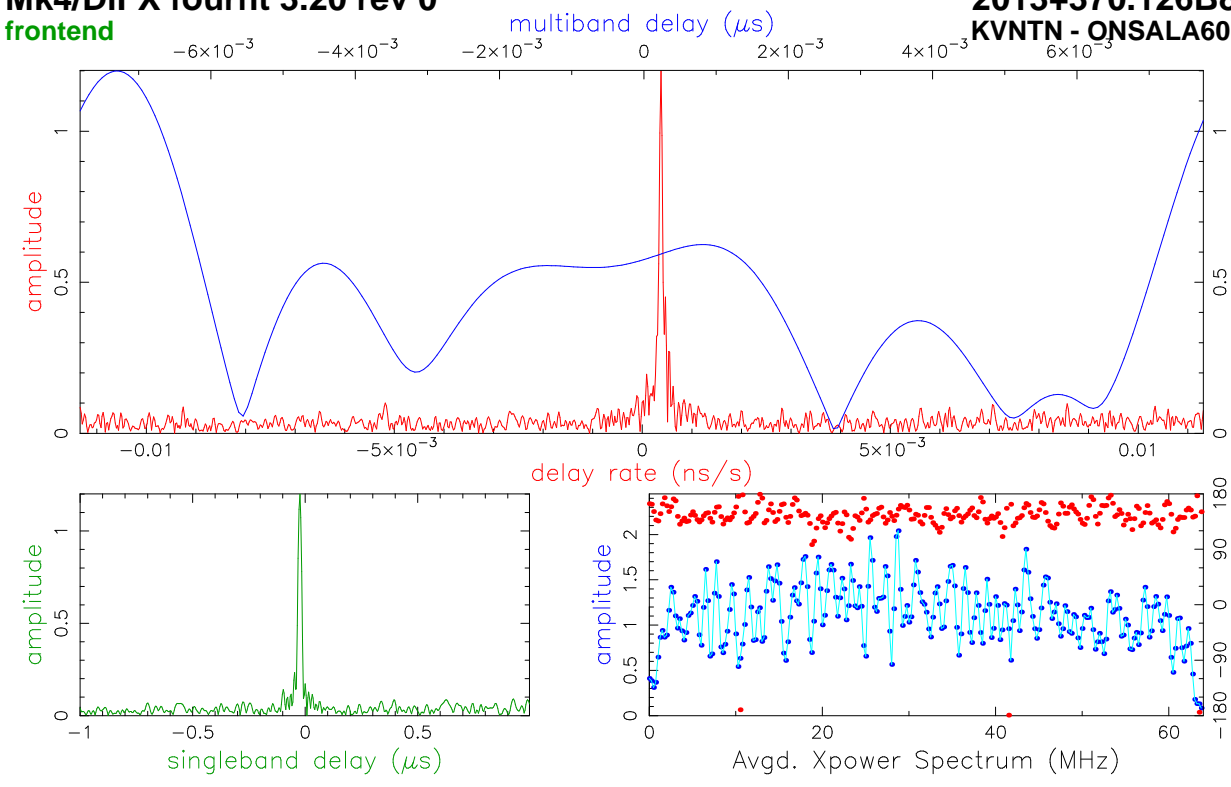


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
t:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-2.61211485956E+03				-2.61227839228E+03				7.28271E-03	+/- 1.9E-04
Sband delay (usec)	-2.61212253503E+03				-4.6206093E+07				1.55857E-01	+/- 1.5E-03
Phase delay (usec)	-2.61227839133E+03				-3.2800002E-07				9.46811E-07	+/- 6.4E-07
Delay rate (us/s)	-1.44155624751E+00				-1.44156131629E+00				5.06878E-06	+/- 6.2E-09
Total phase (deg)			-226.5		-6.19736200602E-06				29.4	+/- 19.9
Apriori delay (usec)					0.155					
Apriori clock (usec)					0.155					
Apriori clockrate (us/s)					0.000					
Apriori rate (us/s)					0.167					
Apriori accel (us/s/s)					0.166					
Pcal mode:					MANUAL, MANUAL					
Pcal rate:					0.000E+00, 0.000E+00 (us/s)					
Bits/sample:					2x2					
Sample rate (MSamp/s):					128					
Data rate (Mb/s):					2048					
PC period (AP's)					5, 5					
sb window (us)					-1.000					1.000
mb window (us)					-0.008					0.008
dr window (ns/s)					-0.011					0.011
ion window (TEC)					0.00					0.00

ph/seg (deg) 57.2 46.7 Search (1024X32) 0.155 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 74.3 81.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 31.1 28.2 Inc. seg. avg. 0.167 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 31.2 49.2 Inc. frq. avg. 0.166 Sample rate (MSamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
t: az 293.0 el 40.6 pa 75.1 X: az 96.8 el 50.1 pa -42.1 u,v (fr/asec) 10362.838 -2503.650 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tX..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tX.W.142.126B8R

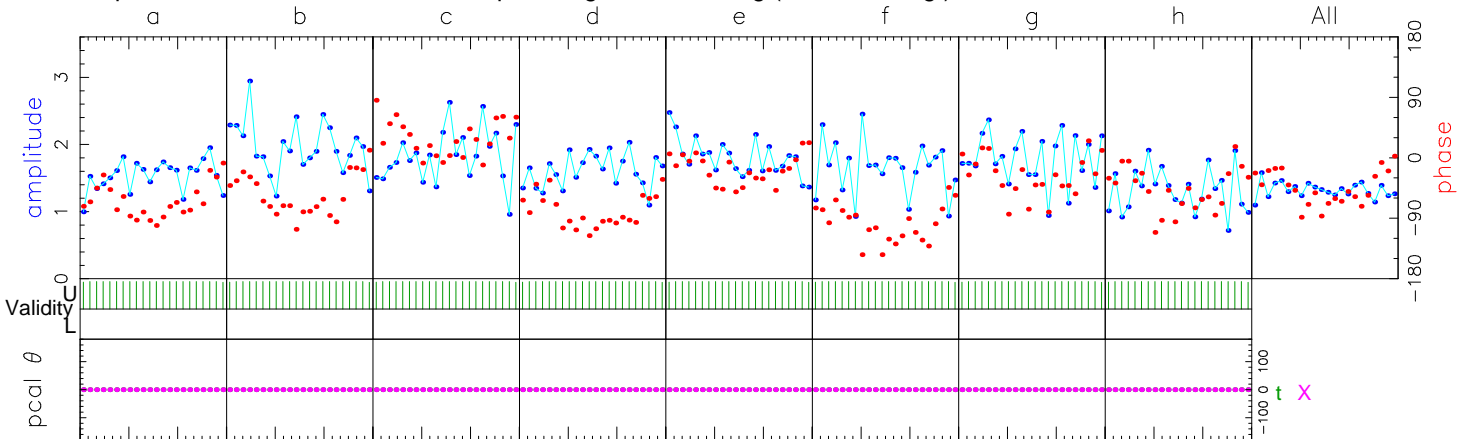
Mk4/DiFX fourfit 3.20 rev 0
frontend

2013+370.126B8R, No0011, tX
KVNTN - ONSALA60, fgroup W, pol LL



Fringe quality 5
SNR 44.0
Int time 179.778
Amp 1.201
Phase -44.9
PFD 0.0e+00
Delays (us)
SBD -0.023881
MBD -0.007312
Fringe rate (Hz) 0.032237
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192c
Exper # 16383
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121827
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

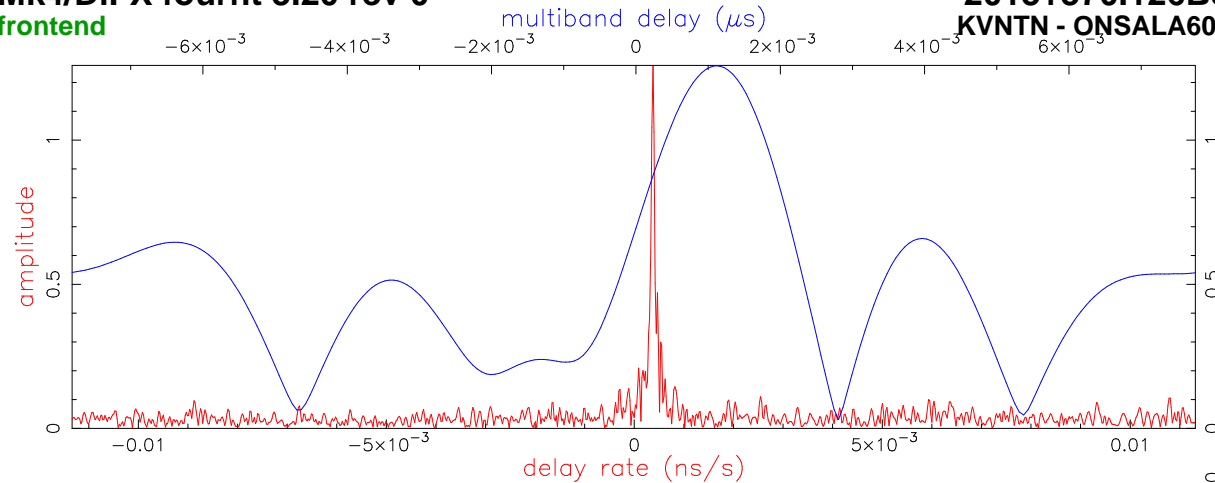


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
t:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-2.61230132940E+03									
Sband delay (usec)	-2.61230227328E+03									
Phase delay (usec)	-2.61227839373E+03									
Delay rate (us/s)	-1.44156094205E+00									
Total phase (deg)			-300.8							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
PC period (AP's) 5, 5										
SampCntNorm: enabled										
nlags: 256 t_cohere infinite										
simultaneous interpolator										

ph/seg (deg) 25.3 6.1 Search (1024X32) 1.192 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 13.6 10.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 43.6 3.7 Inc. seg. avg. 1.316 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 29.9 6.4 Inc. frq. avg. 1.508 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
t: az 293.0 el 40.6 pa 75.1 X: az 96.8 el 50.1 pa -42.1 u,v (fr/asec) 10362.838 -2503.650 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tX..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tX.W.80.126B8R

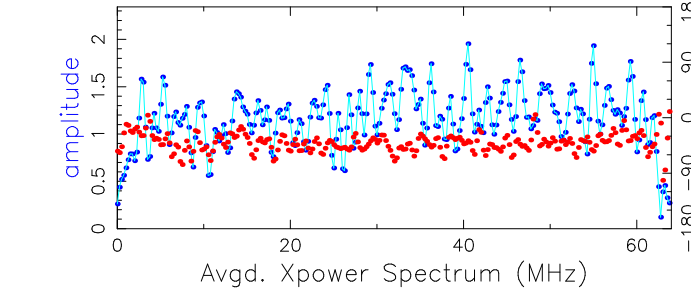
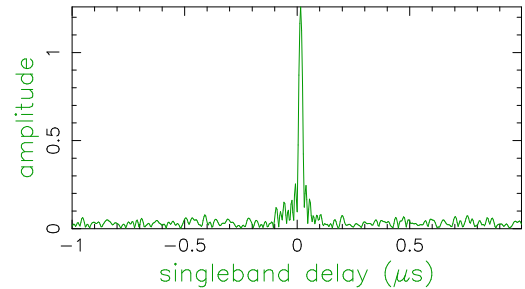
Mk4/DiFX fourfit 3.20 rev 0
frontend

2013+370.126B8R, No0011, tX
KVNTN - ONSALA60, fgroup W, pol RR



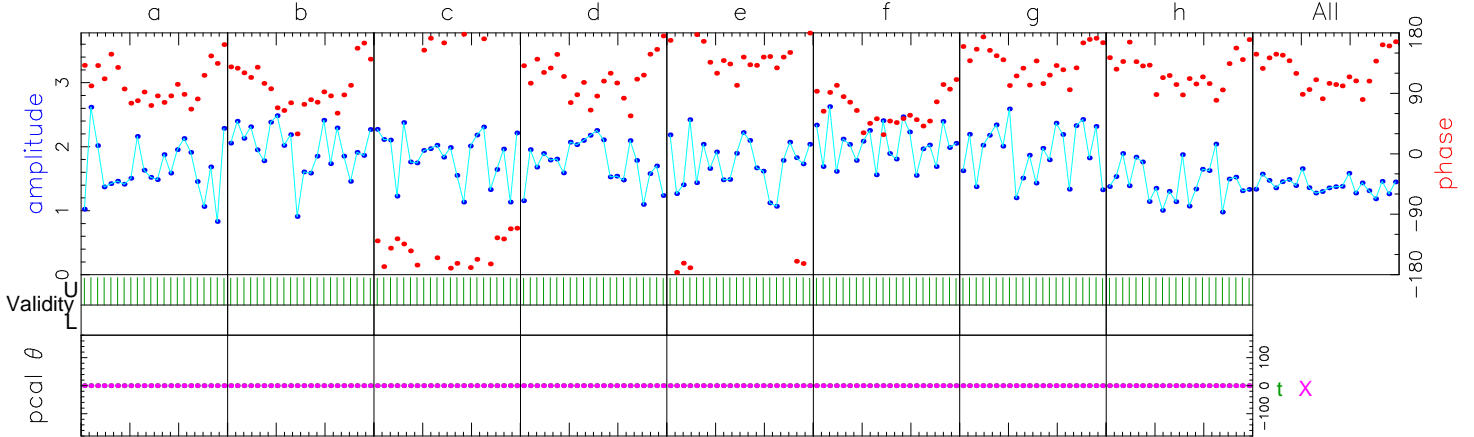
Fringe quality 5

SNR 46.2
Int time 179.778
Amp 1.260
Phase 122.2
PFD 0.0e+00
Delays (us)
SBD 0.015275
MBD 0.001107
Fringe rate (Hz)
0.032139
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



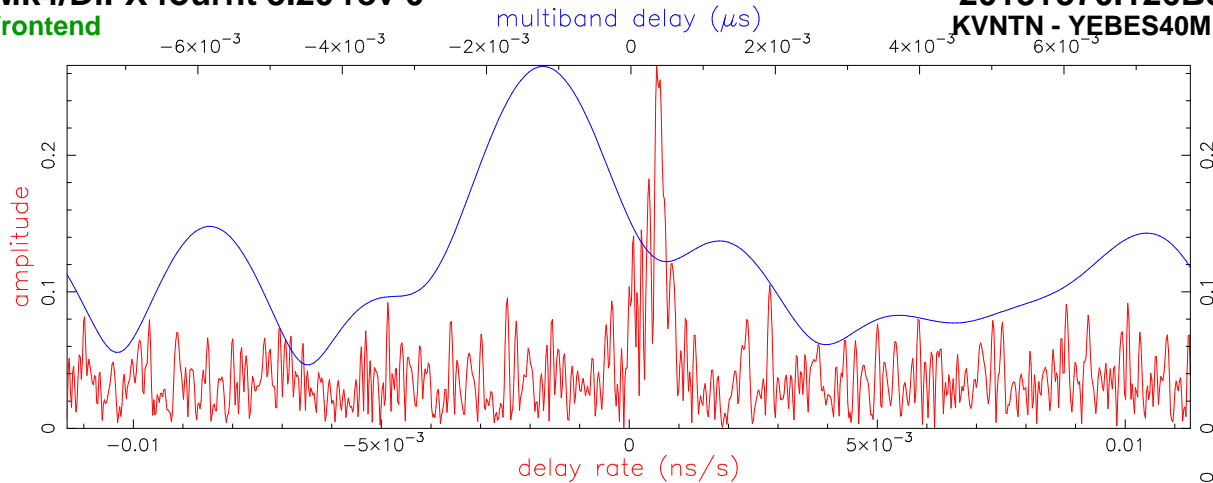
Exp. c192c
Exper # 16383
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121829
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



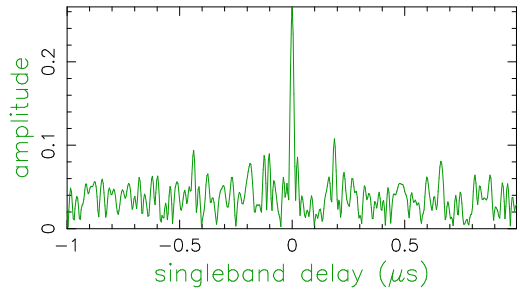
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	103.3	100.4	-155.9	109.8	155.3	66.7	138.0	121.9	Phase	122.2
	1.5	1.7	1.7	1.5	1.6	1.8	1.8	1.3	Ampl.	1.6
	262.0	260.9	260.4	260.0	259.8	260.4	260.6	261.6	Sbd box	260.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-2.61226166037E+03		Apriori delay (usec)		-2.61227839228E+03		Resid mbdelay (usec)		1.10691E-03	+/- 2.4E-05
Sband delay (usec)	-2.61226311753E+03		Apriori clock (usec)		-4.6206093E+00		Resid sbdelay (usec)		1.52748E-02	+/- 1.9E-04
Phase delay (usec)	-2.61227838834E+03		Apriori clockrate (us/s)		-3.2800002E-07		Resid phdelay (usec)		3.94176E-06	+/- 8.0E-08
Delay rate (us/s)	-1.44156094319E+00		Apriori rate (us/s)		-1.44156131629E+00		Resid rate (us/s)		3.73098E-07	+/- 7.7E-10
Total phase (deg)			Apriori accel (us/s/s)		-6.19736200602E-06		Resid phase (deg)		122.2	+/- 2.5

ph/seg (deg) 26.0 5.8 Search (1024X32) 1.240 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 14.2 10.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 44.9 3.5 Inc. seg. avg. 1.391 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 30.3 6.1 Inc. frq. avg. 1.604 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
t: az 293.0 el 40.6 pa 75.1 X: az 96.8 el 50.1 pa -42.1 u,v (fr/asec) 10362.838 -2503.650 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tX..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tX.W.96.126B8R

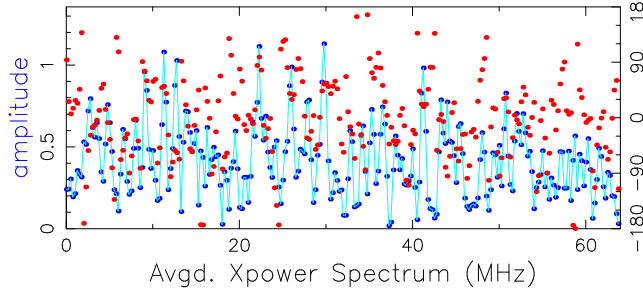


Fringe quality 9

SNR 9.3
 Int time 162.348
 Amp 0.266
 Phase 13.5
 PFD 4.2e-12
 Delays (us)
 SBD -0.000528
 MBD -0.001225
 Fringe rate (Hz)
 0.047107
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

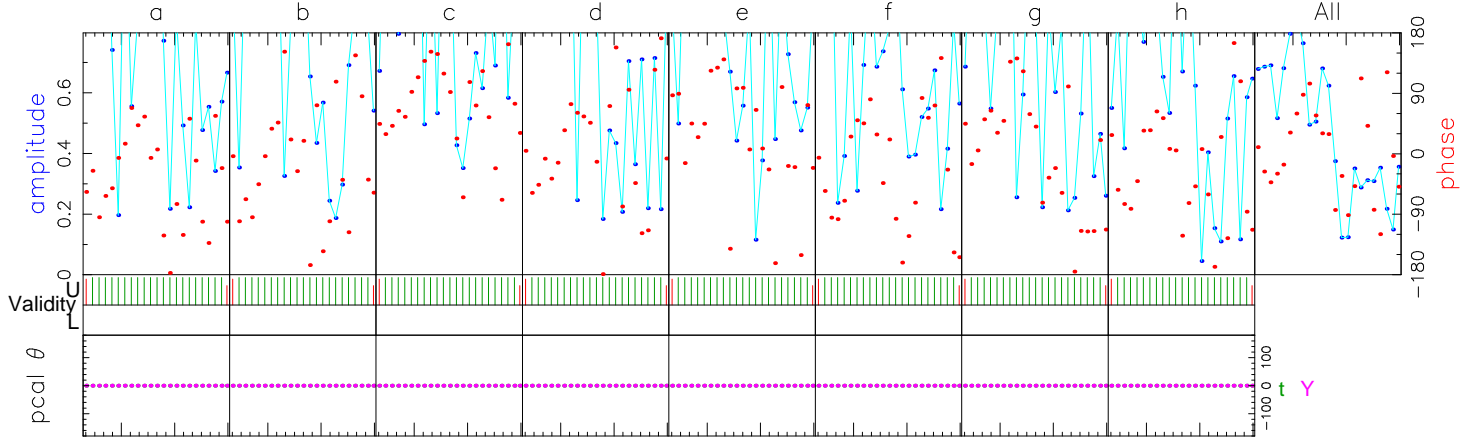


delay rate (ns/s)



Exp. c192c
 Exper # 16383
 Yr:day 2019:278
 Start 150016.89
 Stop 150259.71
 FRT 150130.00
 Corr/FF/build
 2020:069:185016
 2020:071:121830
 2019:280:115849
 RA & Dec (J2000)
 20h15m28.729803s
 +37°10'59.514664"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

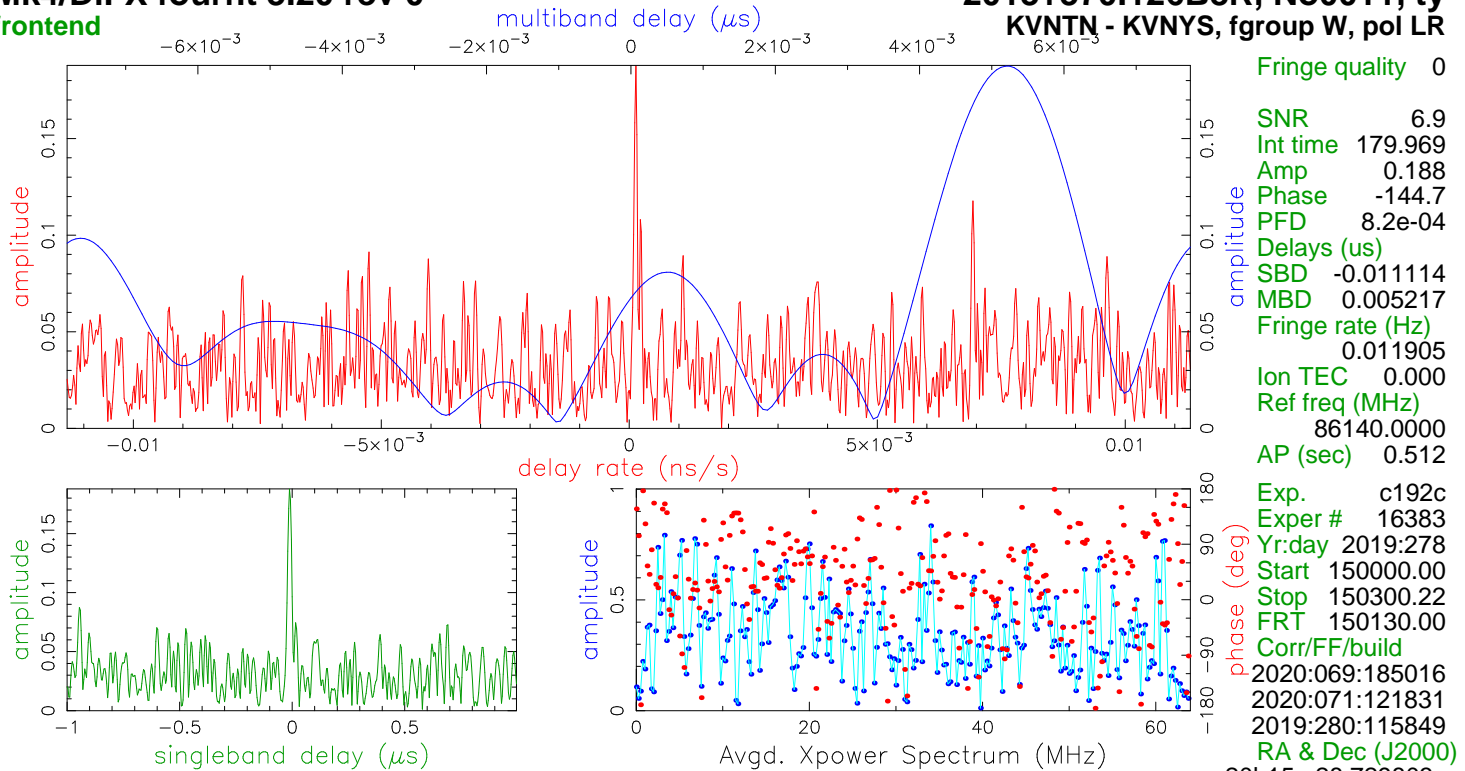


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-27.2	-18.8	80.0	12.5	52.2	-23.0	28.2	-34.2	Phase	13.5		
	0.4	0.3	0.6	0.4	0.4	0.2	0.3	0.3	Ampl.	0.3		
	257.9	255.2	256.5	255.8	256.2	255.6	256.4	258.0	Sbd box	256.9		
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used			
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
t:Y	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			
Y	1000	1000	1000	1000	1000	1000	1000	1000				
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Tracks			
Group delay (usec)(sbd)	5.45051736904E+02		Apriori delay (usec)		5.45052961516E+02		Resid mbdelay (usec)		-1.22461E-03	+/- 1.2E-04		
Sband delay (usec)	5.45052433266E+02		Apriori clock (usec)		1.8100965E+01		Resid sbdelay (usec)		-5.28250E-04	+/- 9.3E-04		
Phase delay (usec)	5.45052961950E+02		Apriori clockrate (us/s)		-2.0000006E-08		Resid phdelay (usec)		4.34290E-07	+/- 4.0E-07		
Delay rate (us/s)	-1.78087305887E+00		Apriori rate (us/s)		-1.78087360574E+00		Resid rate (us/s)		5.46866E-07	+/- 4.2E-09		
Total phase (deg)	51.3		Apriori accel (us/s/s)		-9.69536225054E-06		Resid phase (deg)		13.5	+/- 12.4		
RMS	68.0	29.7	Amplitude		0.266 +/- 0.029		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	116.0	51.8	Search (1024X32)		0.258		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
amp/seg (%)	68.0	29.7	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
ph/frq (deg)	45.5	17.5	Inc. seg. avg.		0.421		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011	
amp/frq (%)	50.8	30.6	Inc. frq. avg.		0.339		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 293.0 el 40.6 pa 75.1 Y: az 70.1 el 38.2 pa -64.0 u,v (fr/asec) 12804.061 -1366.677 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tY..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tY.W.109.126B8R

Mk4/DiFX fourfit 3.20 rev 0
frontend

2013+370.126B8R, No0011, ty
KVNTN - KVNYS, fgroup W, pol LR



Fringe quality 0

SNR 6.9

Int time 179.969

Amp 0.188

Phase -144.7

PFD 8.2e-04

Delays (us)

SBD -0.011114

MBD 0.005217

Fringe rate (Hz)

0.011905

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192c

Exper # 16383

Yr:day 2019:278

Start 150000.00

Stop 150300.22

FRT 150130.00

Corr/FF/build

2020:069:185016

2020:071:121831

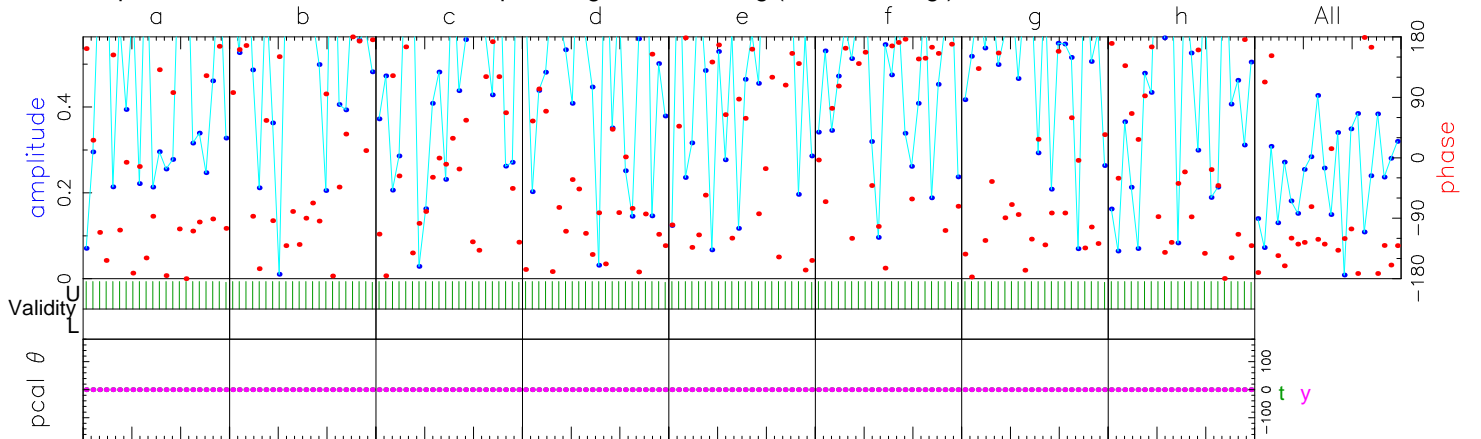
2019:280:115849

RA & Dec (J2000)

20h15m28.729803s

+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-142.6	-145.6	-148.1	-112.4	174.6	175.6	-124.9	-135.6	Phase	-144.7
	0.3	0.2	0.1	0.2	0.1	0.2	0.3	0.2	Ampl.	0.2
	253.5	373.5	13.0	167.3	500.9	16.8	185.0	314.8	Sbd box	254.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.36168267737E+02		Apriori delay (usec)		-3.36157859347E+02		Resid mbdelay (usec)		5.21661E-03	+/- 1.6E-04
Sband delay (usec)	-3.36168973097E+02		Apriori clock (usec)		-1.4599724E+00		Resid sbdelay (usec)		-1.11137E-02	+/- 1.2E-03
Phase delay (usec)	-3.36157864013E+02		Apriori clockrate (us/s)		1.0000001E-07		Resid phdelay (usec)		-4.66527E-06	+/- 5.4E-07
Delay rate (us/s)	-4.30906170029E-02		Apriori rate (us/s)		-4.30907552085E-02		Resid rate (us/s)		1.38206E-07	+/- 5.2E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.367944844161E-06		Resid phase (deg)		-144.7	+/- 16.6

ph/seg (deg) 50.5 39.0 Search (1024X32) 0.183 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 63.7 68.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 28.2 23.5 Inc. seg. avg. 0.195 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 30.6 41.0 Inc. frq. avg. 0.189 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011

t: az 293.0 el 40.6 pa 75.1 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) 307.402 -571.647 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/ty..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/ty.W.117.126B8R

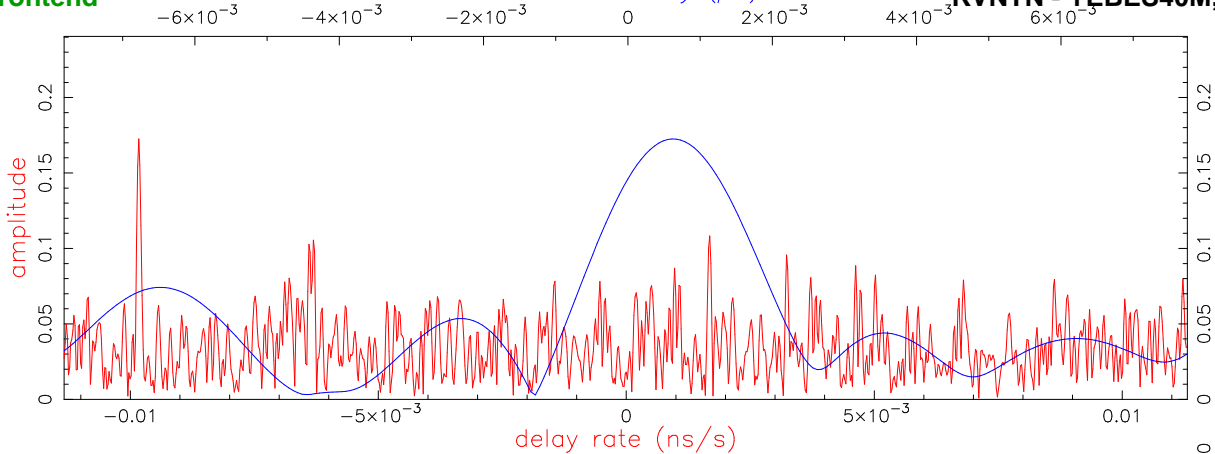
Mk4/DiFX fourfit 3.20 rev 0

frontend

2013+370.126B8R, No0011, tY

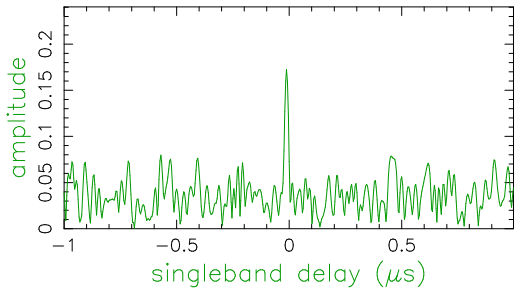
KVNTN - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

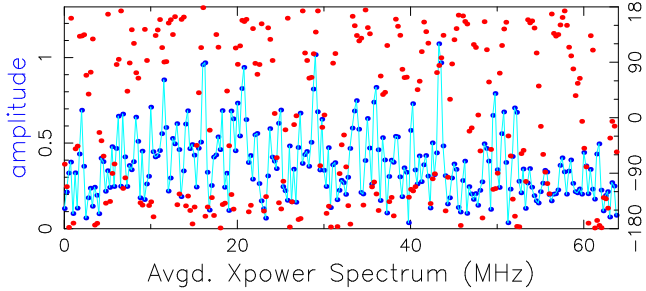


Fringe quality 0

SNR 6.0
 Int time 162.348
 Amp 0.240
 Phase 20.8
 PFD 2.1e-01
 Delays (us)
 SBD -0.011775
 MBD 0.000624
 Fringe rate (Hz)
 -0.847908
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

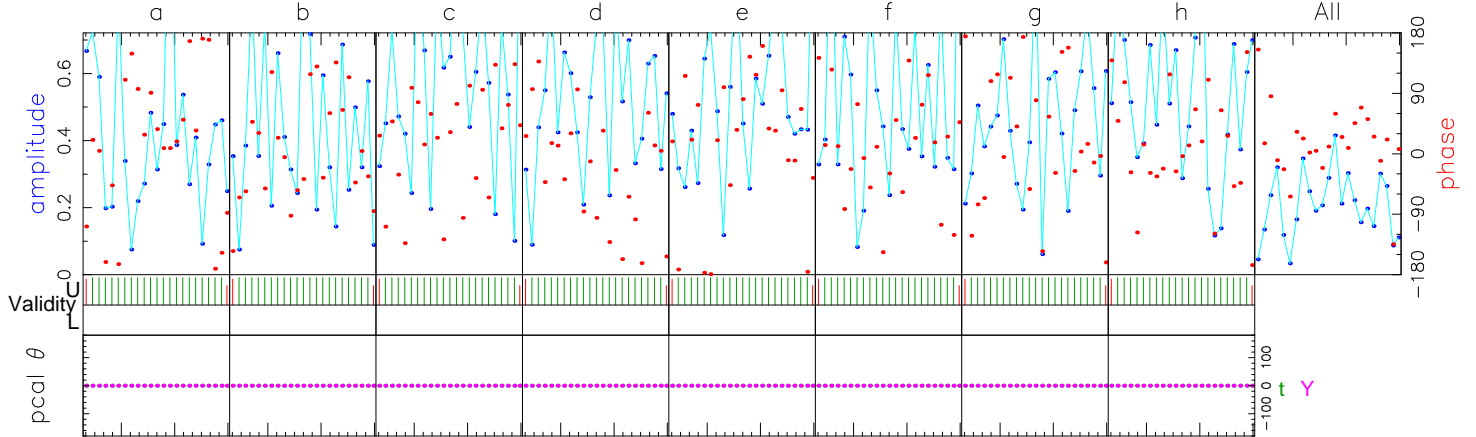


delay rate (ns/s)



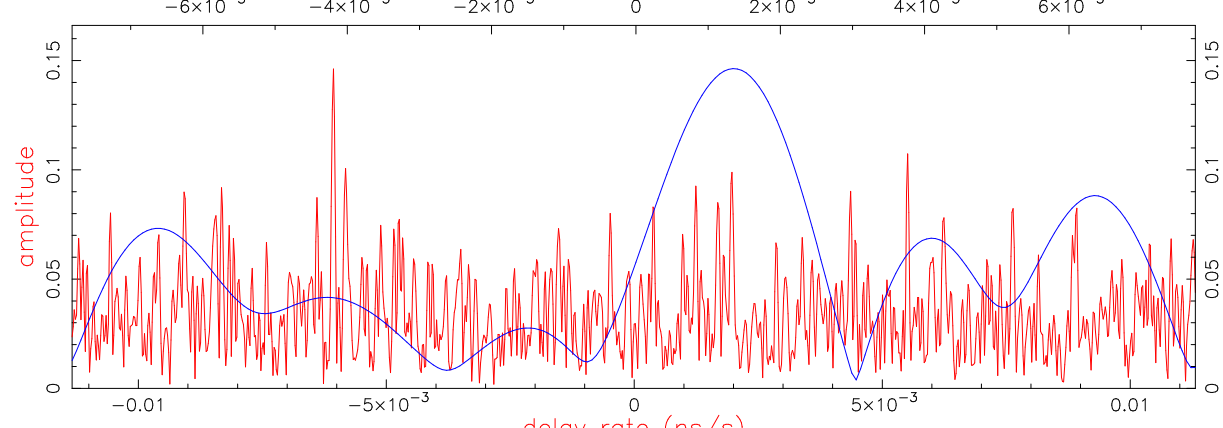
Exp. c192c
 Exper # 16383
 Yr:day 2019:278
 Start 150016.89
 Stop 150259.71
 FRT 150130.00
 Corr/FF/build
 2020:069:185016
 2020:071:121833
 2019:280:115849
 RA & Dec (J2000)
 20h15m28.729803s
 +37°10'59.514664"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

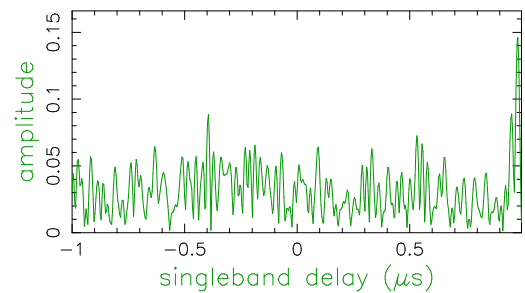


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		5.45037960498E+02			5.45052961516E+02				6.23982E-04	+/- 1.8E-04
Sband delay (usec)		5.45041186266E+02			1.8100965E+01				-1.17752E-02	+/- 1.4E-03
Phase delay (usec)		5.45052962188E+02			-2.0000006E-08				6.71538E-07	+/- 6.1E-07
Delay rate (us/s)		-1.78088344910E+00			-1.78087360574E+00				-9.84337E-06	+/- 6.5E-09
Total phase (deg)			58.6		-9.69536225054E-06				20.8	+/- 19.1
ph/seg (deg)	53.4	45.7		0.167						
amp/seg (%)	58.8	79.8		0.000						
ph/frq (deg)	25.1	27.0		0.220						
amp/frq (%)	28.7	47.0		0.234						
pcal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5							
pcal rate:	0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000		1.000			
Bits/sample:	2x2		SampCntNorm: enabled		mb window (us)		-0.008		0.008	
Sample rate (MSamp/s):	128		dr window (ns/s)		-0.011		0.011			
Data rate (Mb/s):	2048		nlags: 256		t_cohere infinite		ion window (TEC)		0.00	
t: az 293.0 el 40.6 pa 75.1	Y: az 70.1 el 38.2 pa -64.0		u, v (fr/asec) 12804.061 -1366.677						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c192c/v1_CygA2/1234/No0011/tY...126B8R		Output file: /Exps/c192c/v1_CygA2/1234/No0011/tY.W.135.126B8R							

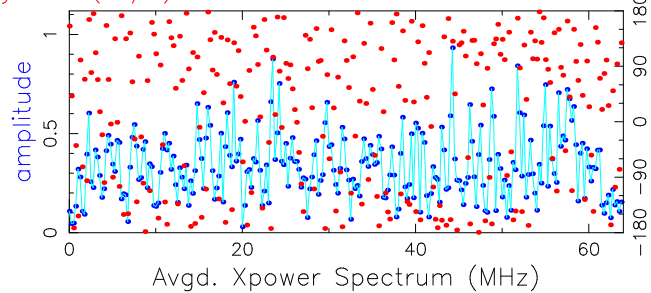
multiband delay (μ s)



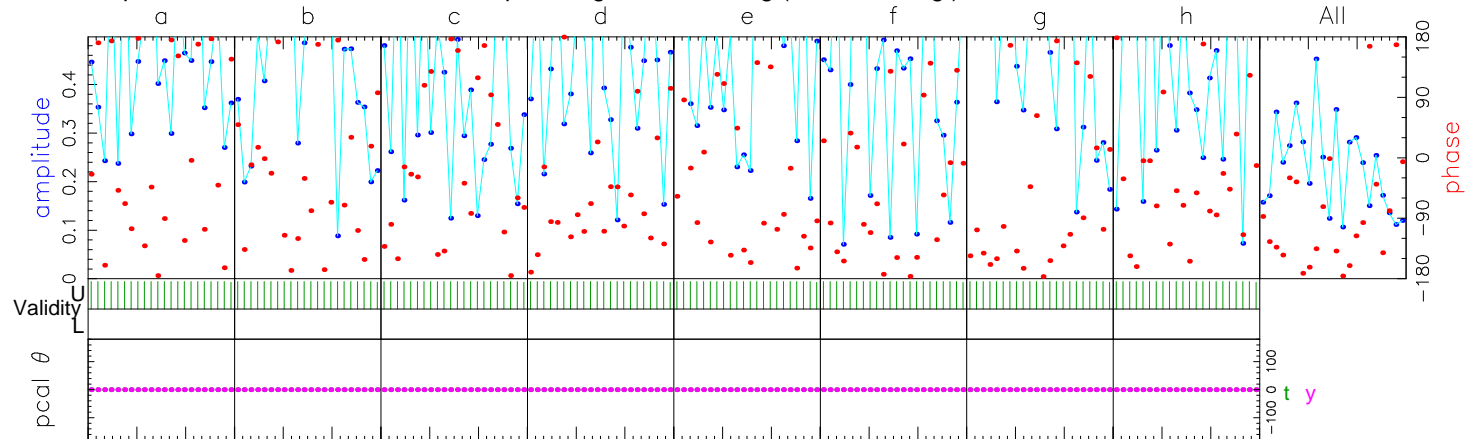
Fringe quality 0
 SNR 5.4
 Int time 179.969
 Amp 0.166
 Phase -116.2
 PFD 1.0e+00
 Delays (us)
 SBD 0.979325
 MBD 0.001297
 Fringe rate (Hz)
 -0.523159
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c192c
 Exper # 16383
 Yr:day 2019:278
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2020:069:185016
 2020:071:121834
 2019:280:115849
 RA & Dec (J2000)
 20h15m28.729803s
 +37°10'59.514664"



delay rate (ns/s)



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-134.6	-95.8	-132.7	-93.0	-121.3	-98.0	-144.1	-63.3	Phase	-116.2
	0.2	0.2	0.1	0.2	0.1	0.1	0.4	0.2	Ampl.	0.2
	509.1	319.2	239.4	294.1	36.1	458.4	507.2	398.7	Sbd box	507.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.35172186858E+02		Apriori delay (usec)		-3.36157859347E+02		Resid mbdelay (usec)		1.29749E-03	+/- 2.0E-04
Sband delay (usec)	-3.35178534347E+02		Apriori clock (usec)		-1.4599724E+00		Resid sbdelay (usec)		9.79325E-01	+/- 1.6E-03
Phase delay (usec)	-3.36157863094E+02		Apriori clockrate (us/s)		1.0000001E-07		Resid phdelay (usec)		-3.74686E-06	+/- 6.8E-07
Delay rate (us/s)	-4.30968285705E-02		Apriori rate (us/s)		-4.30907552085E-02		Resid rate (us/s)		-6.07336E-06	+/- 6.6E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.36794484161E-06		Resid phase (deg)		-116.2	+/- 21.2

ph/seg (deg) 58.3 49.8 Search (1024X32) 0.144 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 84.3 86.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 30.3 30.0 Inc. seg. avg. 0.189 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 56.1 52.4 Inc. frq. avg. 0.162 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 293.0 el 40.6 pa 75.1 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) 307.402 -571.647 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/ty..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/ty.W.141.126B8R

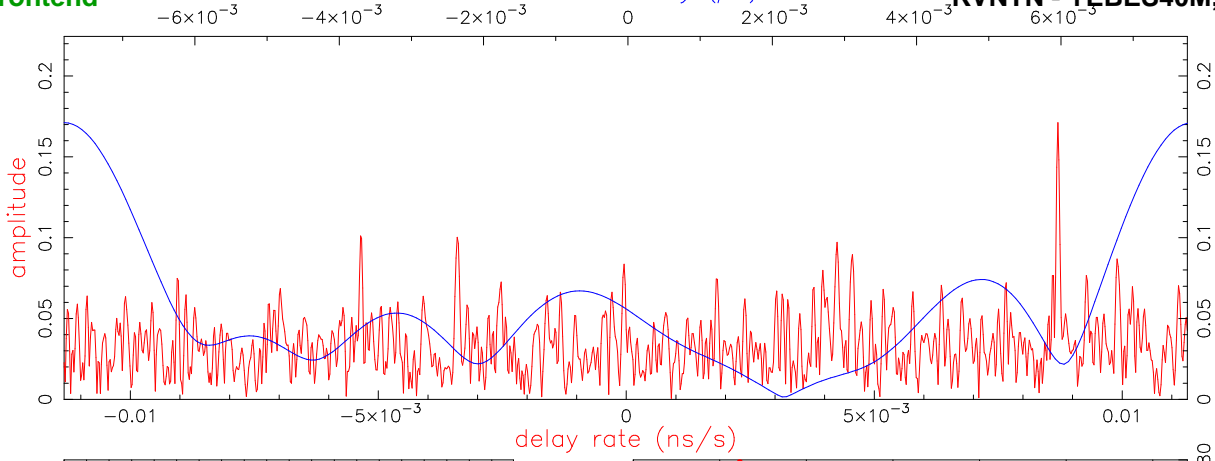
Mk4/DiFX fourfit 3.20 rev 0

frontend

2013+370.126B8R, No0011, tY

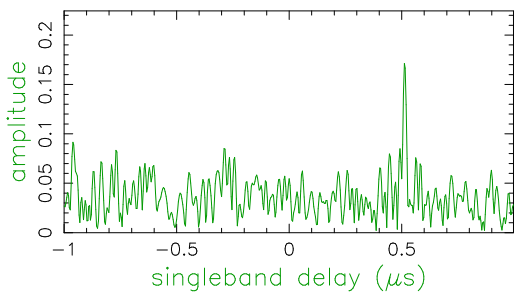
KVNTN - YEBES40M, fgroup W, pol RL

multiband delay (μs)

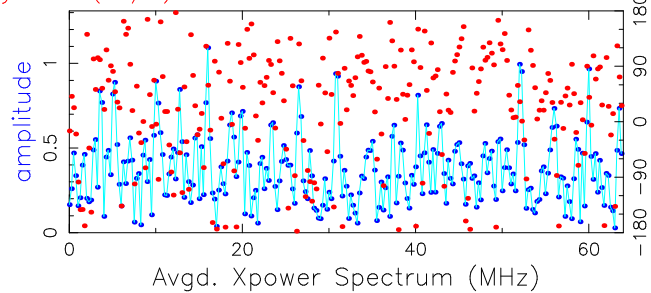


Fringe quality 0

SNR 6.1
Int time 162.348
Amp 0.225
Phase 128.5
PFD 1.7e-01
Delays (us)
SBD 0.513188
MBD 0.007817
Fringe rate (Hz) 0.751080
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

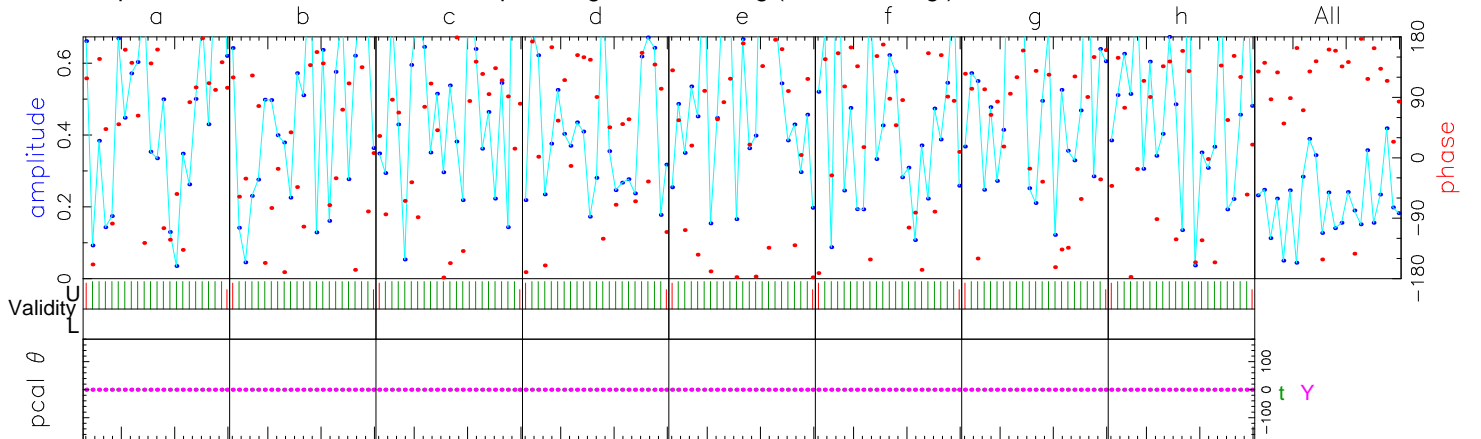


delay rate (ns/s)



Exp. c192c
Exper # 16383
Yr:day 2019:278
Start 150016.89
Stop 150259.71
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121835
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

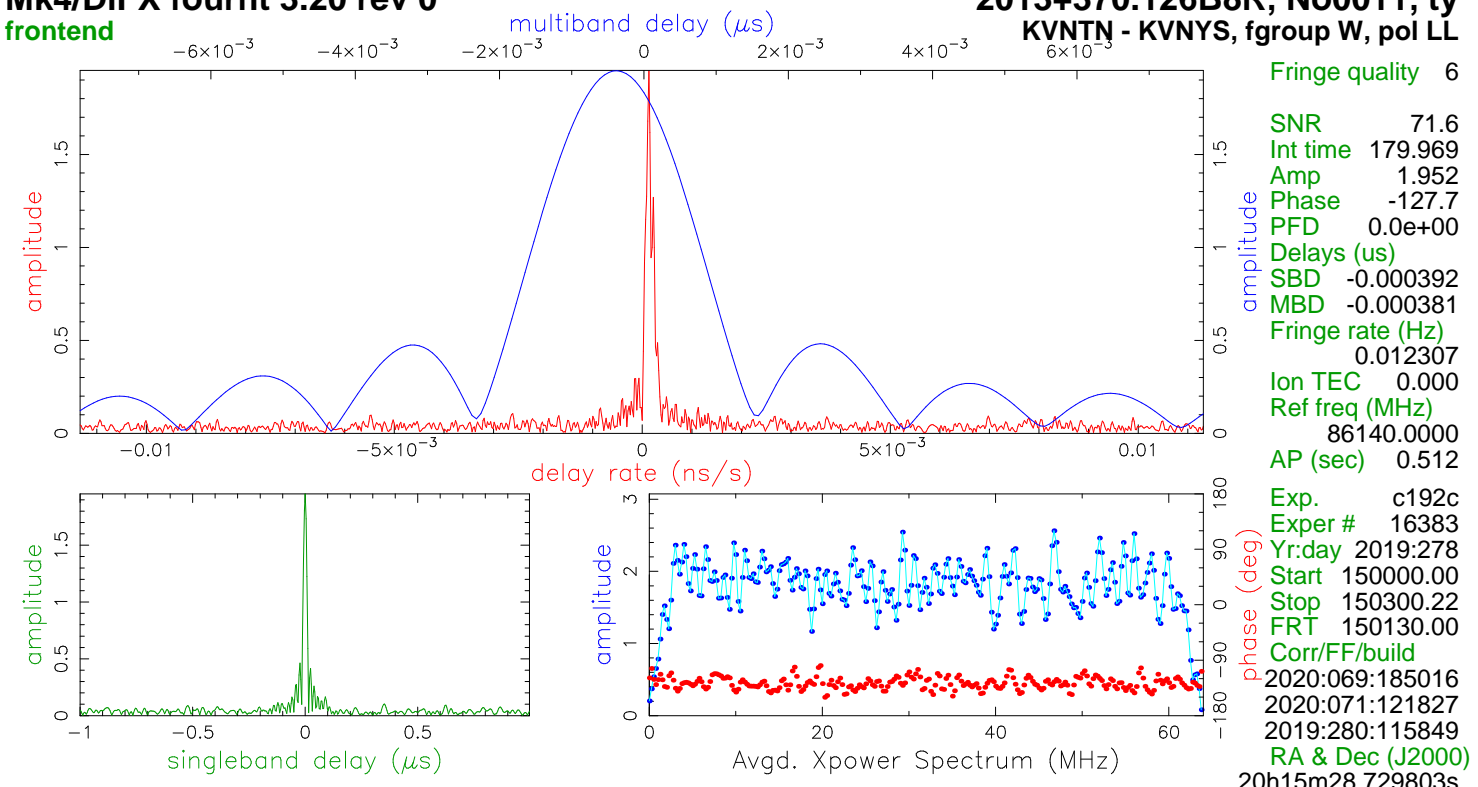


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	5.45560778422E+02	Apriori delay (usec)	5.45052961516E+02	Resid mbdelay (usec)	7.81691E-03	+/-	1.8E-04
Sband delay (usec)	5.45566149016E+02	Apriori clock (usec)	1.8100965E+01	Resid sbdelay (usec)	5.13188E-01	+/-	1.4E-03
Phase delay (usec)	5.45052965659E+02	Apriori clockrate (us/s)	-2.0000006E-08	Resid phdelay (usec)	4.14335E-06	+/-	6.1E-07
Delay rate (us/s)	-1.78086488645E+00	Apriori rate (us/s)	-1.78087360574E+00	Resid rate (us/s)	8.71929E-06	+/-	6.5E-09
Total phase (deg)	166.3	Apriori accel (us/s/s)	-9.69536225054E-06	Resid phase (deg)	128.5	+/-	18.9

ph/seg (deg)	45.6	Theor.	45.4	Amplitude	0.225 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	60.6	Search (1024X32)	0.168	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	23.9	Inc. seg. avg.	0.213	Inc. frq. avg.	0.212	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	40.9	Inc. frq. avg.	0.212			Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
						Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
						nlags: 256	t_cohere infinite
							ion window (TEC) 0.00 0.00

t: az 293.0 el 40.6 pa 75.1 Y: az 70.1 el 38.2 pa -64.0 u,v (fr/asec) 12804.061 -1366.677 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tY..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tY.W.152.126B8R



Fringe quality 6

SNR 71.6

Int time 179.969

Amp 1.952

Phase -127.7

PFD 0.0e+00

Delays (us)

SBD -0.000392

MBD -0.000381

Fringe rate (Hz)

0.012307

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192c

Exper # 16383

Yr:day 2019:278

Start 150000.00

Stop 150300.22

FRT 150130.00

Corr/FF/build

2020:069:185016

2020:071:121827

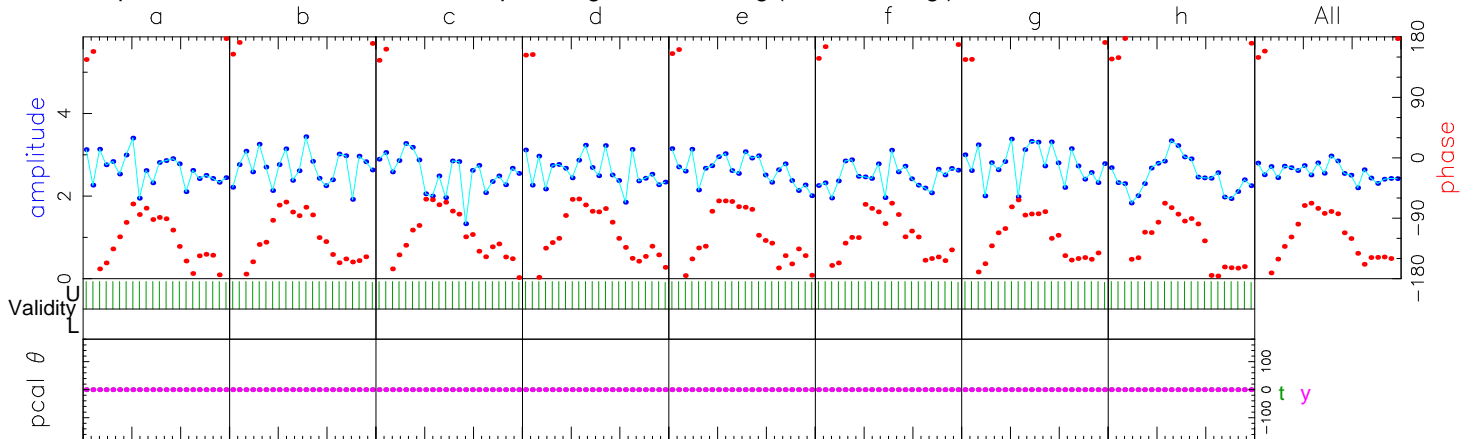
2019:280:115849

RA & Dec (J2000)

20h15m28.729803s

+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0				
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
y	1000	1000	1000	1000	1000	1000	1000	1000				
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec)(sbd)	-3.36158240737E+02				-3.36157859347E+02				Resid mbdelay (usec)	-3.81390E-04 +/- 1.5E-05		
Sband delay (usec)	-3.36158251347E+02				-1.4599724E+00				Resid sbdelay (usec)	-3.92000E-04 +/- 1.2E-04		
Phase delay (usec)	-3.36157863465E+02				1.0000001E-07				Resid phdelay (usec)	-4.11783E-06 +/- 5.2E-08		
Delay rate (us/s)	-4.30906123321E-02				-4.30907552085E-02				Resid rate (us/s)	1.42876E-07 +/- 5.0E-10		
Total phase (deg)			-129.2		-2.367944844161E-06				Resid phase (deg)	-127.7 +/- 1.6		
	RMS	Theor.	Amplitude	1.952 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	41.5	3.8	Search (1024X32)	1.874					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
amp/seg (%)	33.8	6.5	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
ph/frq (deg)	4.3	2.3	Inc. seg. avg.	2.579					Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011	
amp/frq (%)	4.7	3.9	Inc. frq. avg.	1.953					Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

t: az 293.0 el 40.6 pa 75.1 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) 307.402 -571.647 simultaneous interpolator

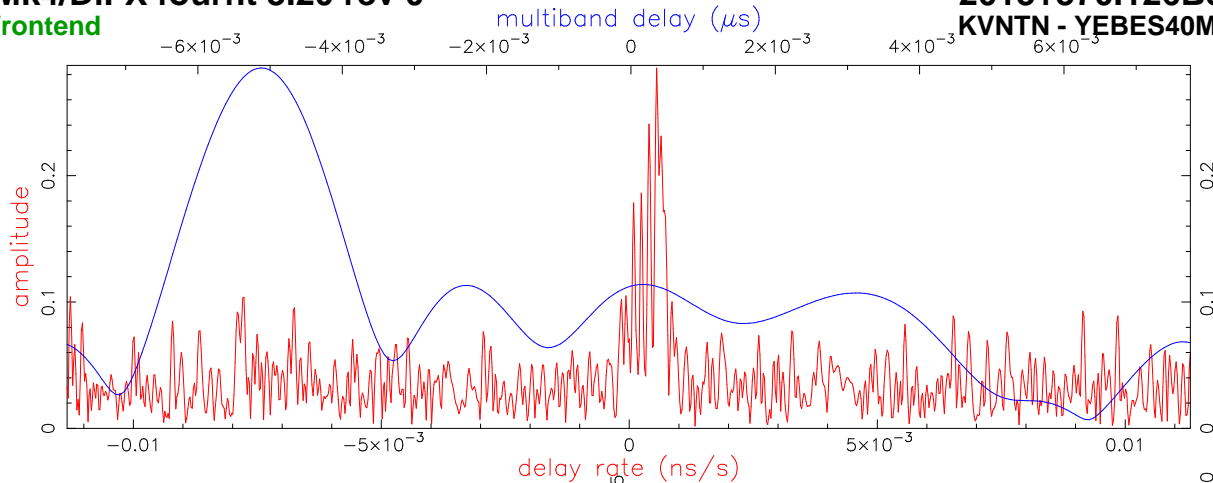
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/ty..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/ty.W.82.126B8R

Mk4/DiFX fourfit 3.20 rev 0

frontend

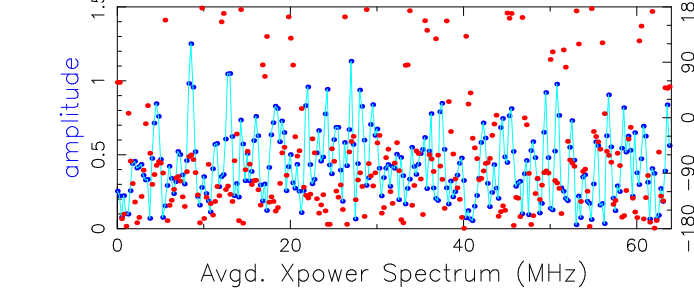
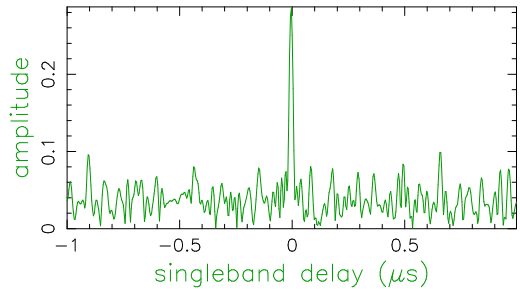
2013+370.126B8R, No0011, tY

KVNTN - YEBES40M, fgroup W, pol LL



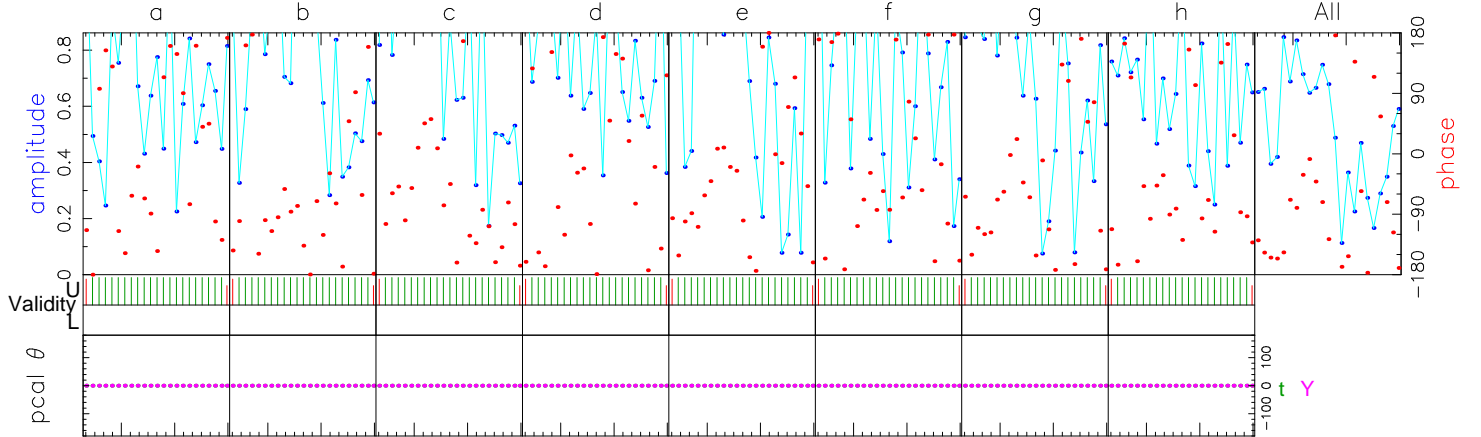
Fringe quality 9

SNR 10.0
 Int time 162.348
 Amp 0.287
 Phase -107.7
 PFD 3.2e-15
 Delays (us)
 SBD -0.005002
 MBD -0.005151
 Fringe rate (Hz)
 0.047440
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c192c
 Exper # 16383
 Yr:day 2019:278
 Start 150016.89
 Stop 150259.71
 FRT 150130.00
 Corr/FF/build
 2020:069:185016
 2020:071:121827
 2019:280:115849
 RA & Dec (J2000)
 20h15m28.729803s
 +37°10'59.514664"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-140.3	-118.9	-64.3	-152.2	-74.5	-126.4	-101.2	-119.6	Phase	-107.7
	0.2	0.5	0.4	0.2	0.4	0.3	0.3	0.3	Ampl.	0.3
	258.2	255.7	255.1	253.6	255.5	255.5	254.5	257.0	Sbd box	255.7
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

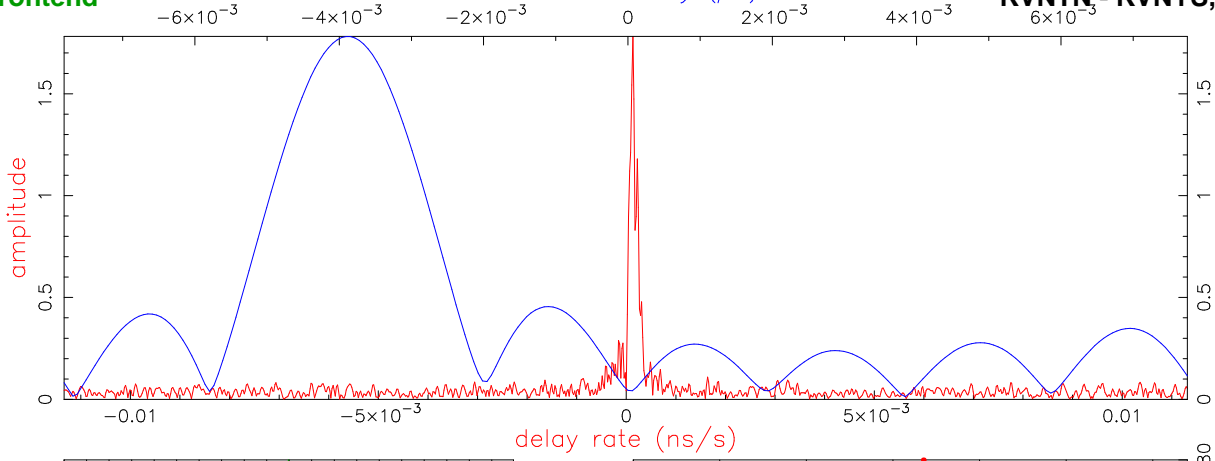
Group delay (usec)(sbd)	5.45047810248E+02	Apriori delay (usec)	5.45052961516E+02	Resid mbdelay (usec)	-5.15127E-03	+/-	1.1E-04
Sband delay (usec)	5.45047959266E+02	Apriori clock (usec)	1.8100965E+01	Resid sbdelay (usec)	-5.00225E-03	+/-	8.6E-04
Phase delay (usec)	5.45052958044E+02	Apriori clockrate (us/s)	-2.0000006E-08	Resid phdelay (usec)	-3.47244E-06	+/-	3.7E-07
Delay rate (us/s)	-1.78087305500E+00	Apriori rate (us/s)	-1.78087360574E+00	Resid rate (us/s)	5.50736E-07	+/-	3.9E-09
Total phase (deg)		Apriori accel (us/s/s)	-9.69536225054E-06	Resid phase (deg)	-107.7	+/-	11.5

ph/seg (deg)	71.0	Theor.	27.5	Amplitude	0.287 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	107.3		48.0	Search (1024X32)	0.278	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	33.4		16.2	Inc. seg. avg.	0.460	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	34.9		28.3	Inc. frq. avg.	0.311	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

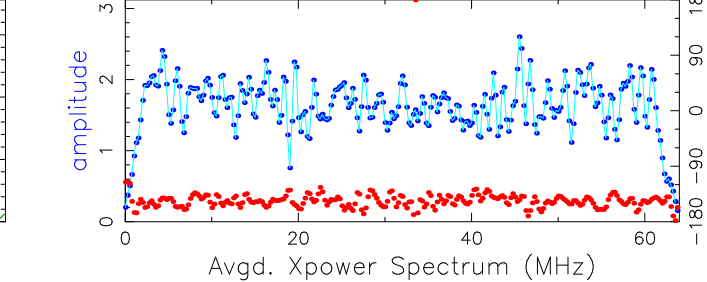
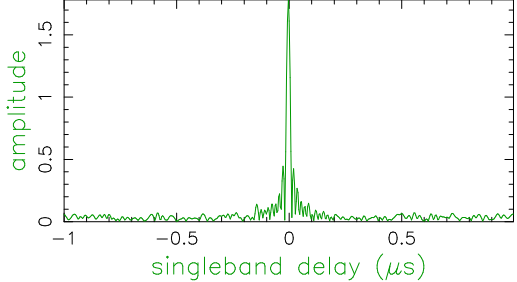
t: az 293.0 el 40.6 pa 75.1 Y: az 70.1 el 38.2 pa -64.0 u,v (fr/asec) 12804.061 -1366.677 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tY..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tY.W.86.126B8R

multiband delay (μ s)

Fringe quality 6

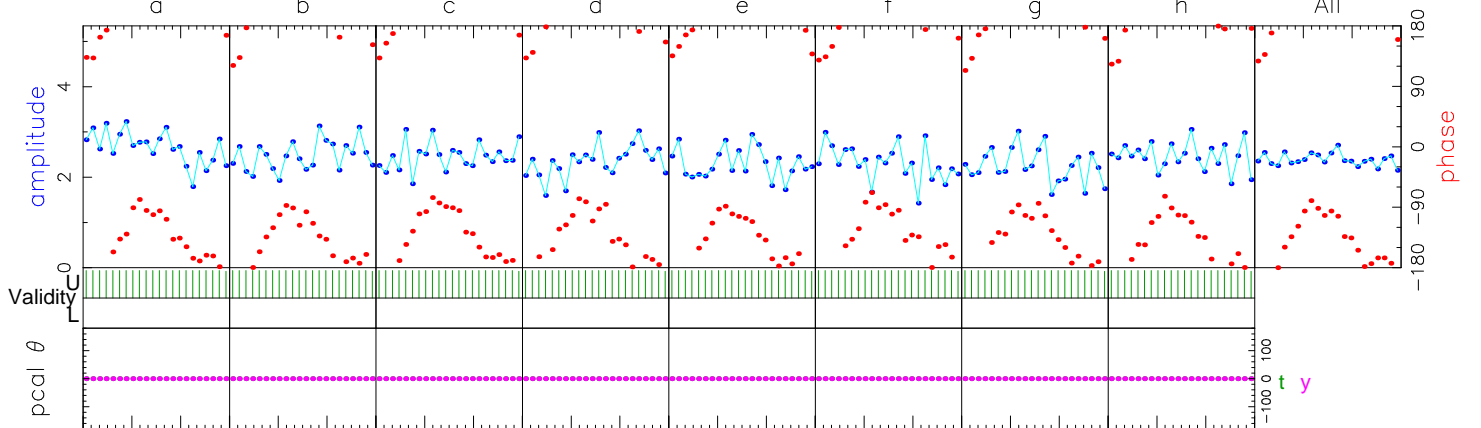


SNR 65.4
Int time 179.969
Amp 1.782
Phase -147.1
PFD 0.0e+00
Delays (us)
SBD -0.003900
MBD -0.003881
Fringe rate (Hz)
0.012337
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

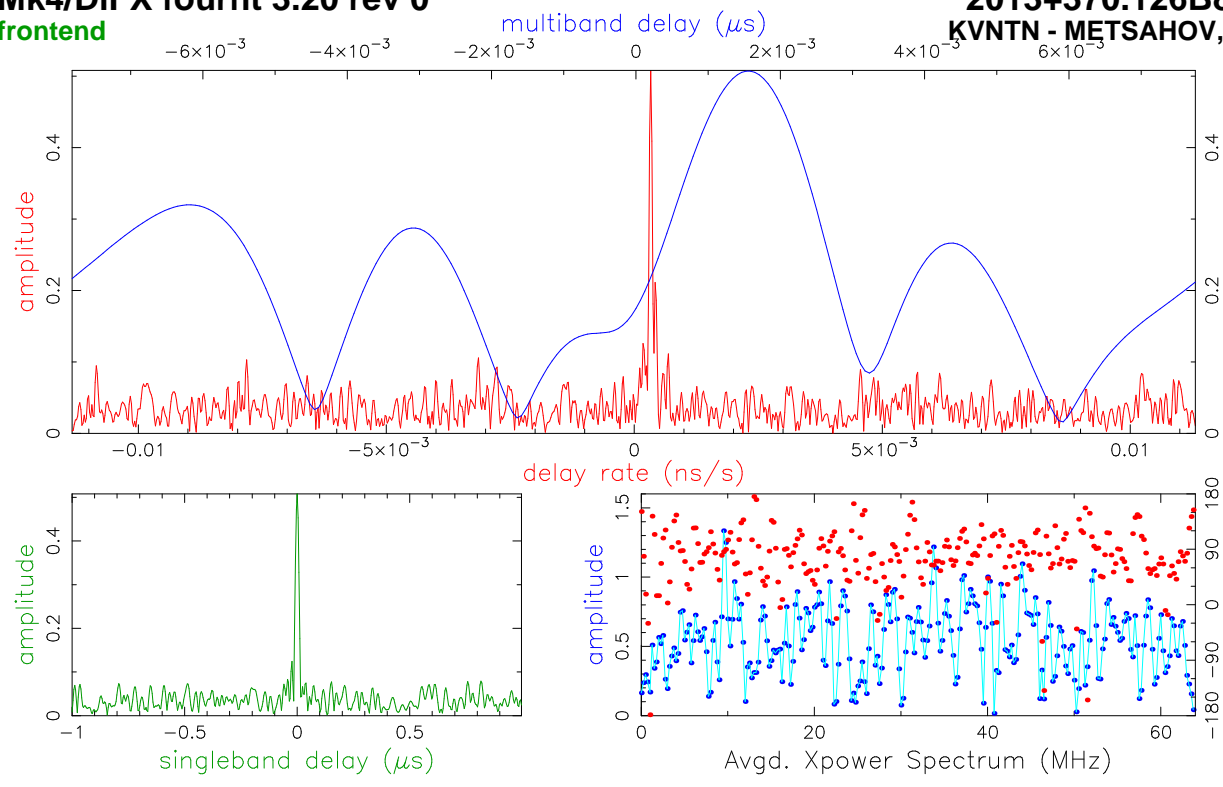


Exp. c192c
Exper # 16383
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121829
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-3.36161740643E+02				-3.36157859347E+02					
Sband delay (usec)	-3.36161759097E+02				-1.4599724E+00					
Phase delay (usec)	-3.36157864092E+02				1.0000001E-07					
Delay rate (us/s)	-4.30906119920E-02				-4.30907552085E-02					
Total phase (deg)			-148.6		-2.36794484161E-06					
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
Validity										
Amplitude										
Phase										
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
1.782 +/- 0.027										
1.717										
0.000										
2.385										
1.783										
PC period (AP's) 5, 5										
simultaneous interpolator										

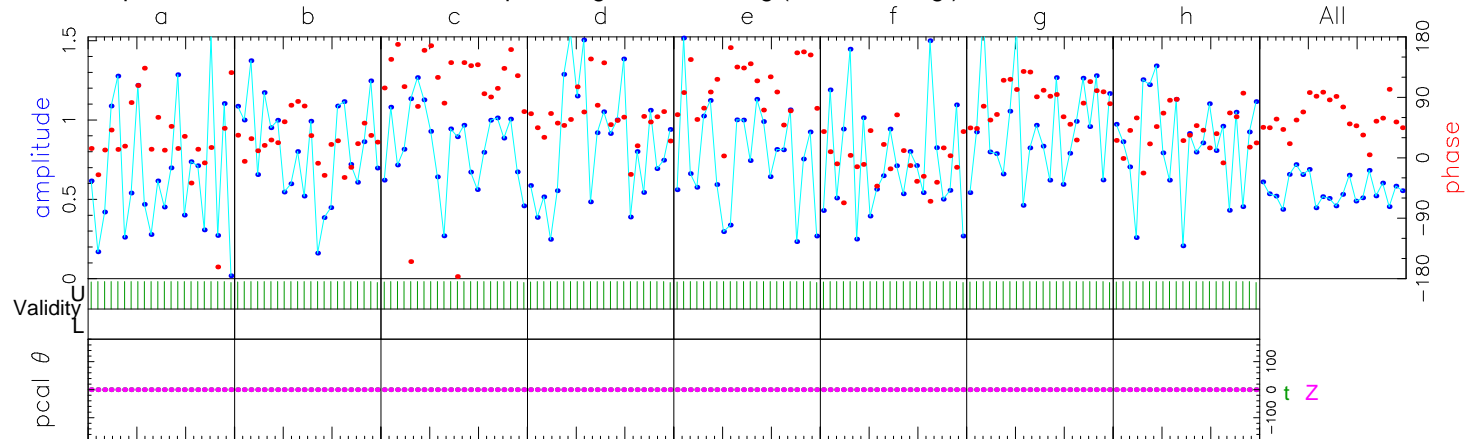


Fringe quality 8

SNR 18.6
Int time 179.729
Amp 0.508
Phase 58.9
PFD 0.0e+00
Delays (us)
SBD -0.000439
MBD 0.001551
Fringe rate (Hz) 0.027971
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121830
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-3.80557951175E+03									
Sband delay (usec)	-3.80558150187E+03									
Phase delay (usec)	-3.80558106097E+03									
Delay rate (us/s)	-1.30823028365E+00									
Total phase (deg)			-213.2							
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										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
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								

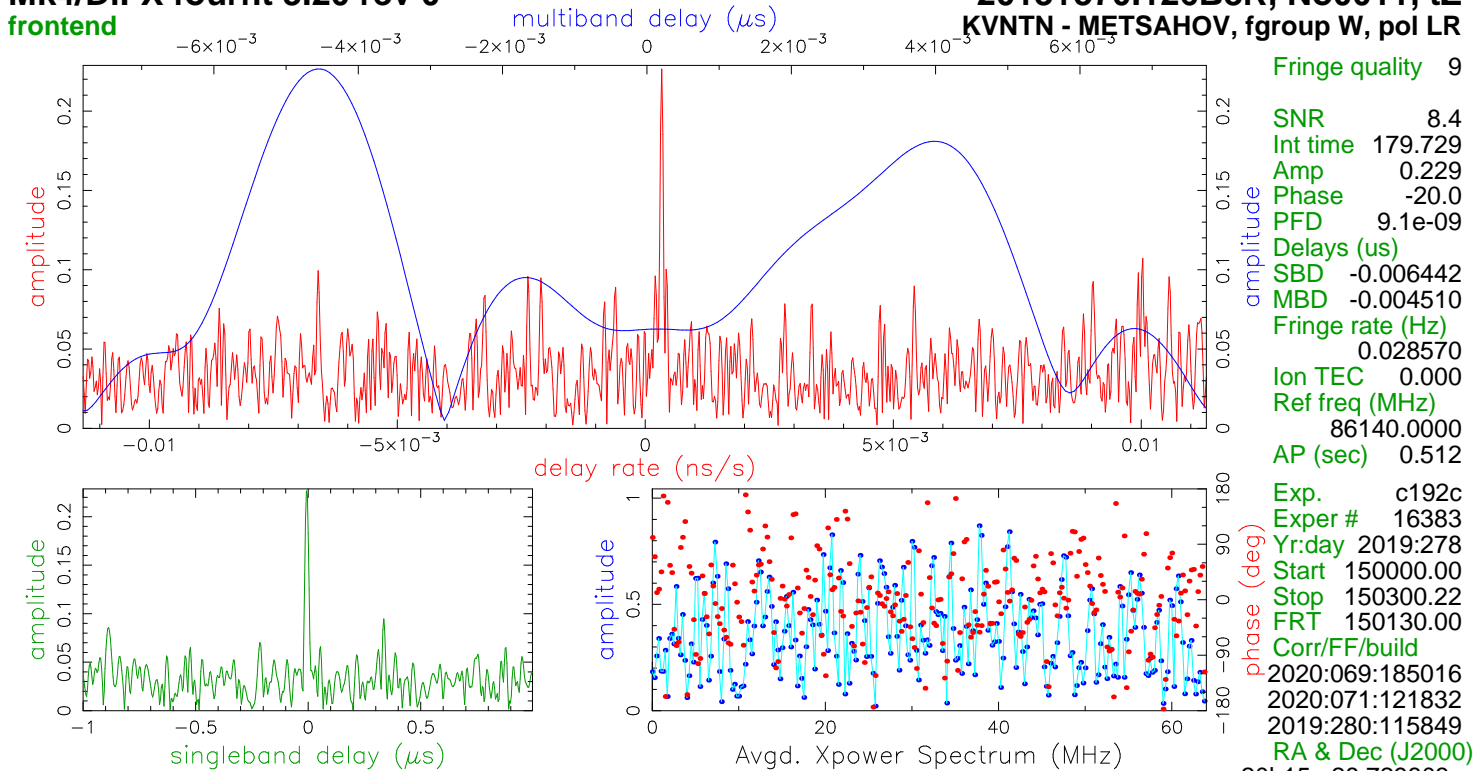
ph/seg (deg) 25.4 14.4 Search (1024X32) 0.493 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 19.5 25.2 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 51.2 8.7 Inc. seg. avg. 0.544 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 40.0 15.2 Inc. frq. avg. 0.681 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
t: az 293.0 el 40.6 pa 75.1 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) 9406.833 -2393.717 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tZ..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tZ.W.103.126B8R

Mk4/DiFX fourfit 3.20 rev 0

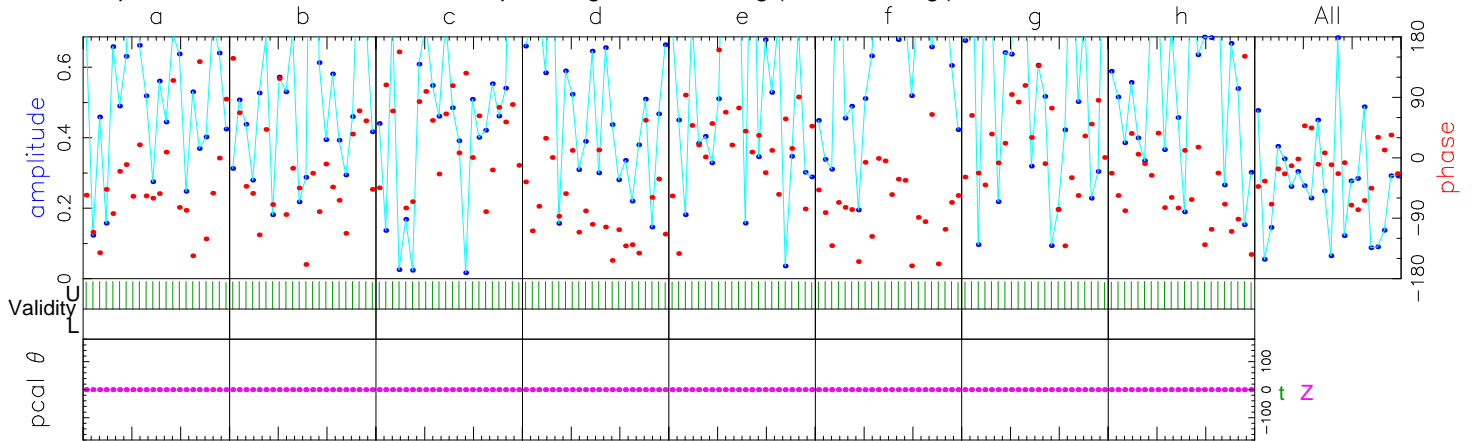
frontend

2013+370.126B8R, No0011, tZ

KVNTN - METSAHOV, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-50.8	-14.9	48.3	-67.2	26.9	-66.7	28.1	-48.7	Phase	-20.0
	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.3	Ampl.	0.3
	256.4	31.5	254.7	255.3	254.6	255.6	255.8	254.6	Sbd box	255.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.80558557250E+03		Apriori delay (usec)		-3.80558106287E+03		Resid mbdelay (usec)		-4.50963E-03	+/- 1.3E-04
Sband delay (usec)	-3.80558750462E+03		Apriori clock (usec)		2.7593346E+01		Resid sbdelay (usec)		-6.44175E-03	+/- 1.0E-03
Phase delay (usec)	-3.80558106352E+03		Apriori clockrate (us/s)		1.8370719E-07		Resid phdelay (usec)		-6.45032E-07	+/- 4.4E-07
Delay rate (us/s)	-1.30823027670E+00		Apriori rate (us/s)		-1.30823060837E+00		Resid rate (us/s)		3.31670E-07	+/- 4.2E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.42858636408E-06		Resid phase (deg)		-20.0	+/- 13.7

	RMS	Theor.	Amplitude	0.229 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	35.8	32.1	Search (1024X32)	0.222	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	70.0	55.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	50.6	19.3	Inc. seg. avg.	0.235	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	43.8	33.7	Inc. frq. avg.	0.299	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

t: az 293.0 el 40.6 pa 75.1 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) 9406.833 -2393.717 simultaneous interpolator

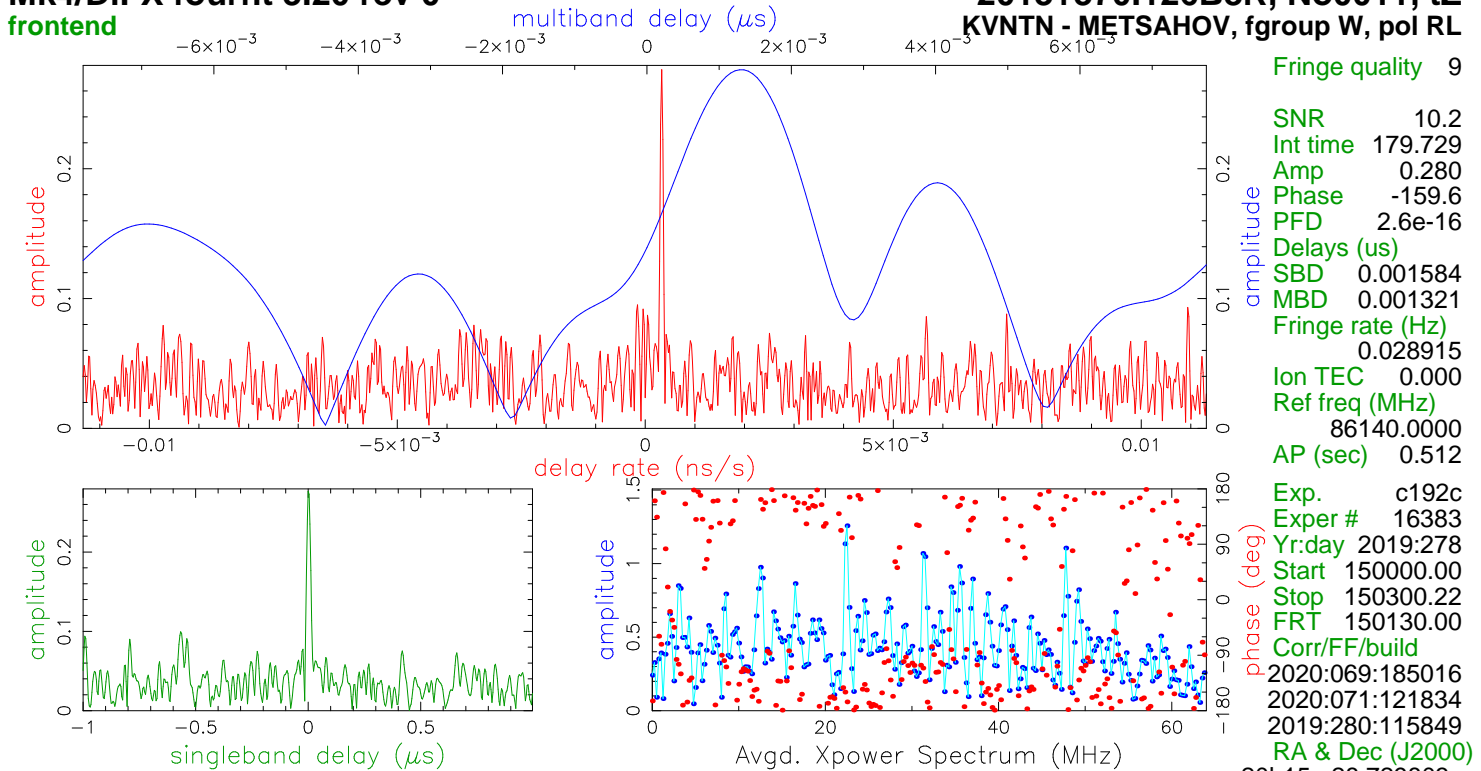
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tZ...126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tZ.W.122.126B8R

Mk4/DiFX fourfit 3.20 rev 0

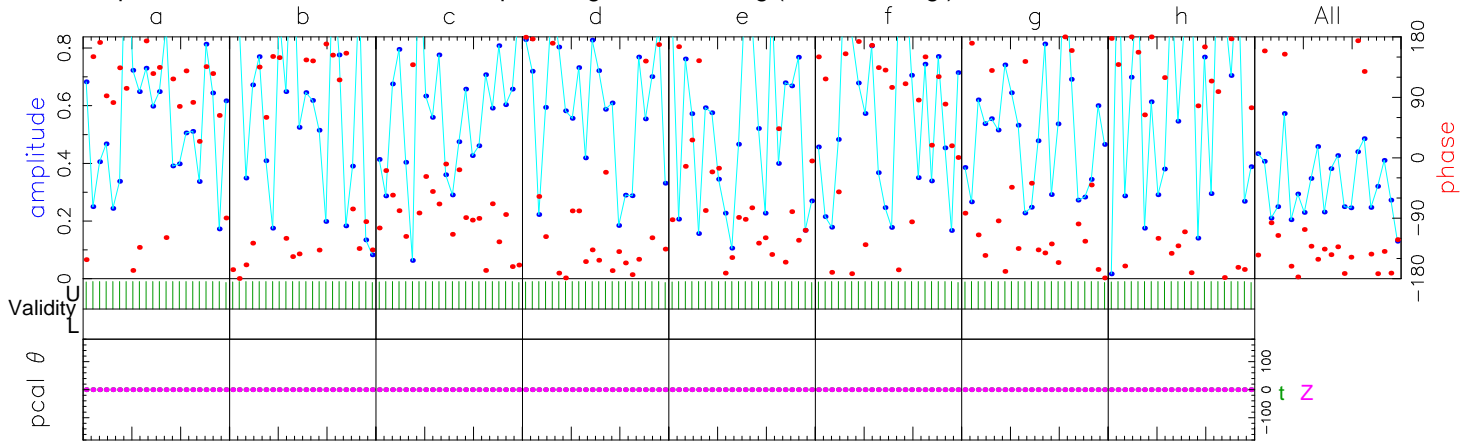
frontend

2013+370.126B8R, No0011, tZ

KVNTN - METSAHOV, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
144.2	-176.4	-89.0	-153.7	-88.6	152.4	-146.4	174.2	174.2	Phase	-159.6
0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.5	0.5	Ampl.	0.4
258.9	256.9	257.7	256.0	257.0	256.9	256.7	258.0	258.0	Sbd box	257.4
U/L 352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Z 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Z 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z 1000	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-3.80557974138E+03		Apriori delay (usec)	-3.80558106287E+03		Resid mbdelay (usec)	1.32149E-03	+/-	1.1E-04	
Sband delay (usec)	-3.80557947862E+03		Apriori clock (usec)	2.7593346E+01		Resid sbdelay (usec)	1.58425E-03	+/-	8.4E-04	
Phase delay (usec)	-3.80558106802E+03		Apriori clockrate (us/s)	1.8370719E-07		Resid phdelay (usec)	-5.14676E-06	+/-	3.6E-07	
Delay rate (us/s)	-1.30823027269E+00		Apriori rate (us/s)	-1.30823060837E+00		Resid rate (us/s)	3.35676E-07	+/-	3.5E-09	
Total phase (deg)		-71.7	Apriori accel (us/s/s)	-1.42858636408E-06		Resid phase (deg)	-159.6	+/-	11.2	

ph/seg (deg) 33.1 26.2 Search (1024X32) 0.271 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 43.4 45.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 52.7 15.8 Inc. seg. avg. 0.299 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

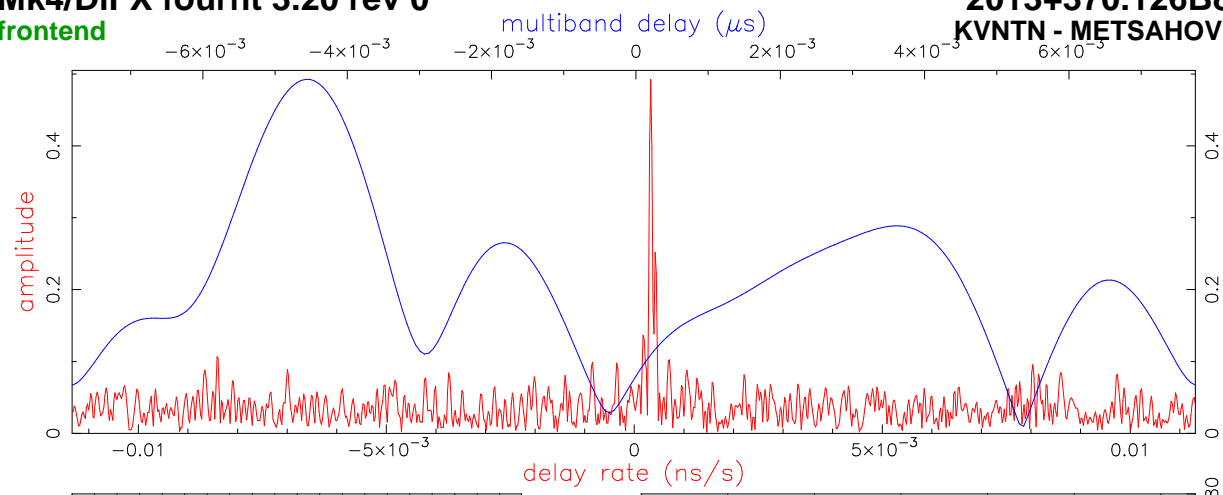
amp/frq (%) 41.8 27.6 Inc. frq. avg. 0.363 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011

t: az 293.0 el 40.6 pa 75.1 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) 9406.833 -2393.717 simultaneous interpolator

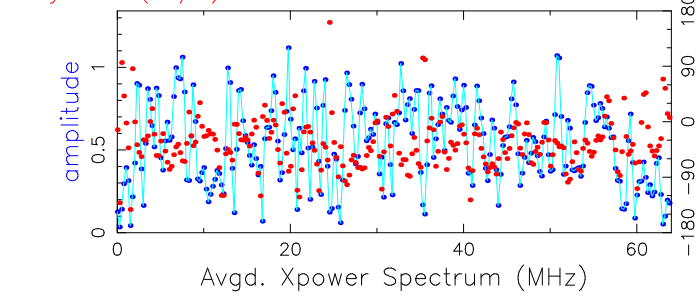
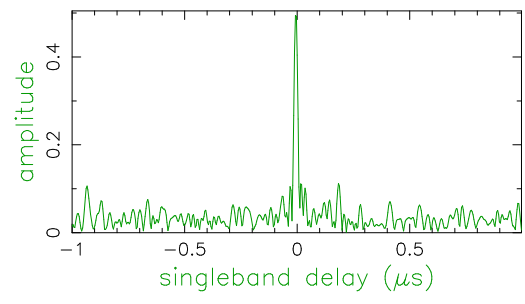
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tZ...126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tZ.W.143.126B8R

Mk4/DiFX fourfit 3.20 rev 0
frontend

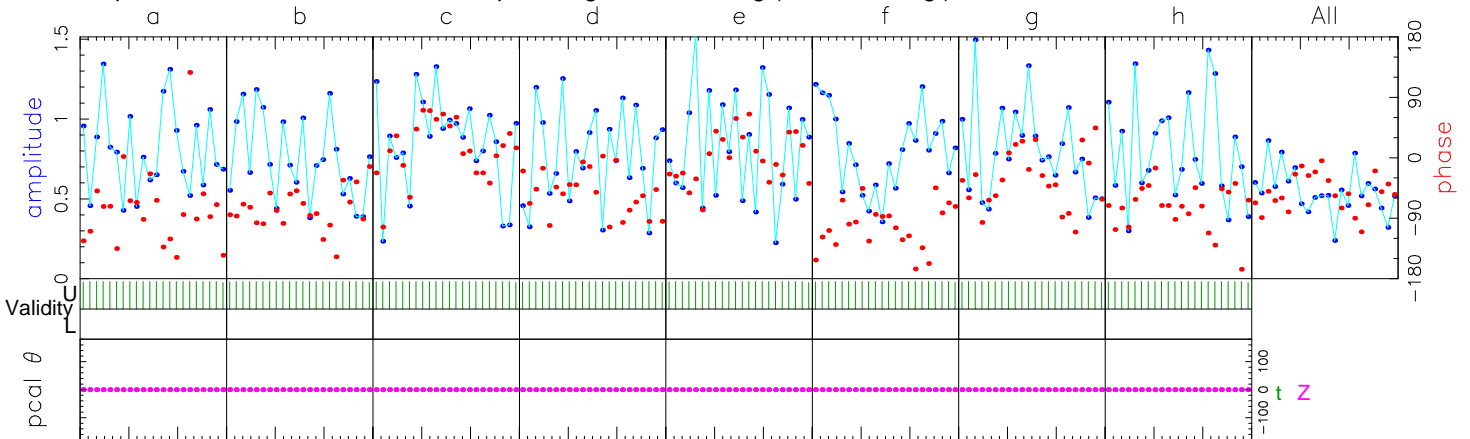
2013+370.126B8R, No0011, tZ
KVNTN - METSAHOV, fgroup W, pol LL



Fringe quality 8
SNR 18.5
Int time 179.729
Amp 0.505
Phase -53.8
PFD 0.0e+00
Delays (us)
SBD -0.005950
MBD -0.004592
Fringe rate (Hz) 0.028232
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192c
Exper # 16383
Yr:day 2019:278
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2020:069:185016
2020:071:121827
2019:280:115849
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-3.80558565516E+03	Apriori delay (usec)	-3.80558106287E+03	Resid mbdelay (usec)	-4.59229E-03	+/-	5.9E-05
Sband delay (usec)	-3.80558701237E+03	Apriori clock (usec)	2.7593346E+01	Resid sbdelay (usec)	-5.94950E-03	+/-	4.7E-04
Phase delay (usec)	-3.80558106461E+03	Apriori clockrate (us/s)	1.8370719E-07	Resid phdelay (usec)	-1.73446E-06	+/-	2.0E-07
Delay rate (us/s)	-1.30823028062E+00	Apriori rate (us/s)	-1.30823060837E+00	Resid rate (us/s)	3.27750E-07	+/-	1.9E-09
Total phase (deg)	-325.8	Apriori accel (us/s/s)	-1.42858636408E-06	Resid phase (deg)	-53.8	+/-	6.2

ph/seg (deg)	27.1	Theor.	14.5	Amplitude	0.505 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	29.6	Search (1024X32)	0.480	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	49.1	Inc. seg. avg.	0.534	Inc. frq. avg.	0.654	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	31.4	Inc. frq. avg.	0.654			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 293.0 el 40.6 pa 75.1 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) 9406.833 -2393.717 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/tZ..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/tZ.W.83.126B8R