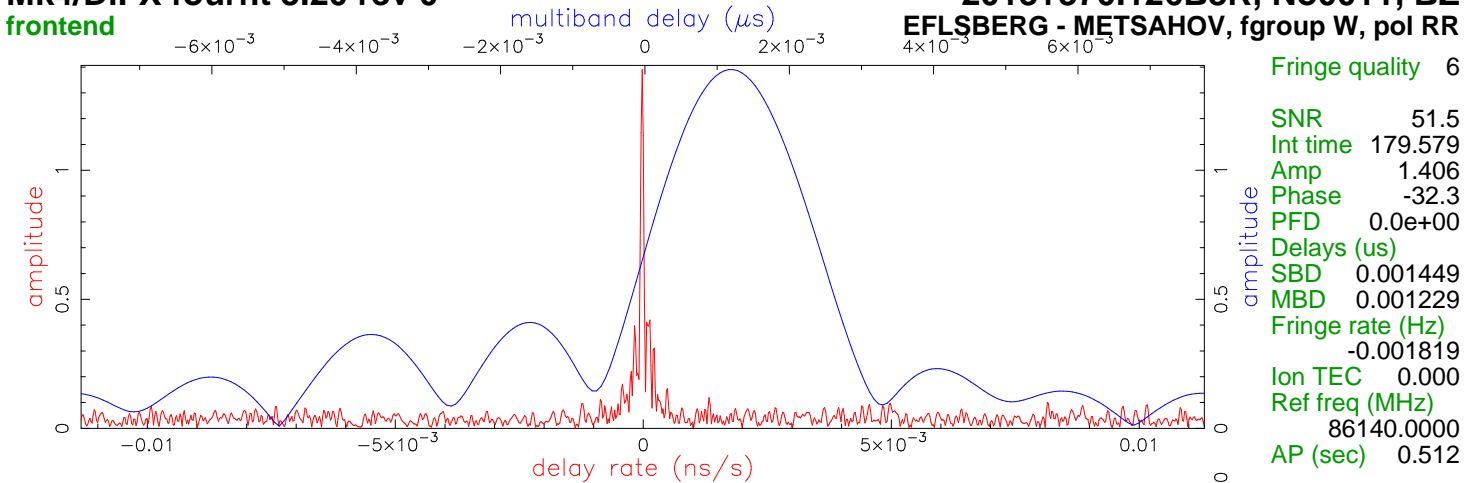


Mk4/DiFX fourfit 3.20 rev 0

frontend

2013+370.126B8R, No0011, BZ

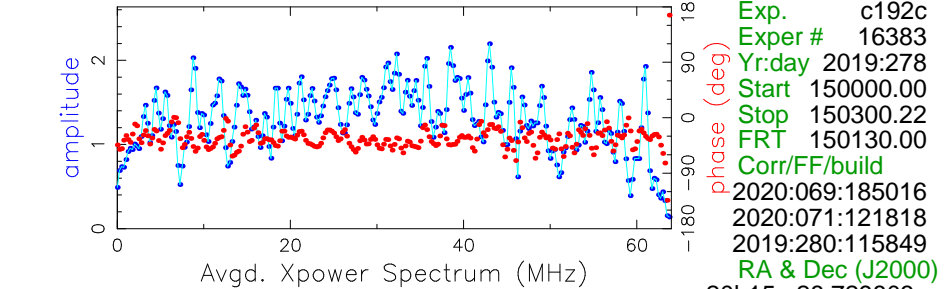
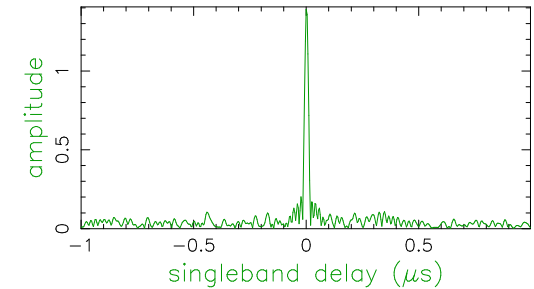
EFLSBERG - METSAHOV, fgroup W, pol RR



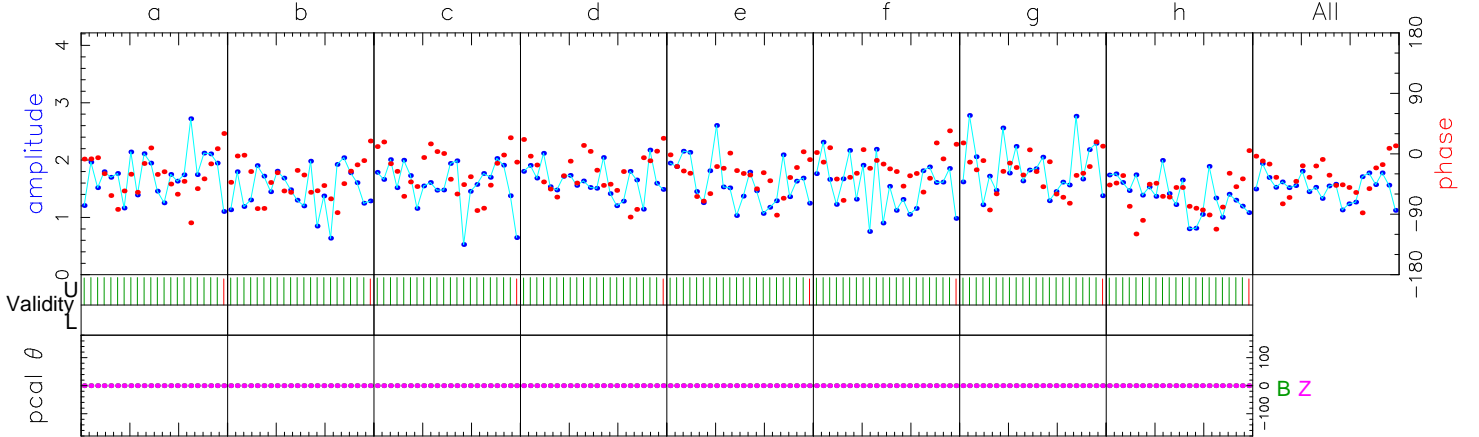
Fringe quality 6

SNR 51.5  
 Int time 179.579  
 Amp 1.406  
 Phase -32.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.001449  
 MBD 0.001229  
 Fringe rate (Hz)  
 -0.001819  
 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
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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-1.90284180184E+03	Apriori delay (usec)	-1.90284303082E+03	Resid mbdelay (usec)	1.22898E-03	+/-	2.1E-05
Sband delay (usec)	-1.90284158132E+03	Apriori clock (usec)	1.6623230E+01	Resid sbdelay (usec)	1.44950E-03	+/-	1.7E-04
Phase delay (usec)	-1.90284303187E+03	Apriori clockrate (us/s)	-2.1629280E-07	Resid phdelay (usec)	-1.04297E-06	+/-	7.2E-08
Delay rate (us/s)	2.68054776573E-01	Apriori rate (us/s)	2.68054797695E-01	Resid rate (us/s)	-2.11221E-08	+/-	6.9E-10
Total phase (deg)	-275.4	Apriori accel (us/s/s)	3.63413276450E-06	Resid phase (deg)	-32.3	+/-	2.2

ph/seg (deg)	25.4	Theor.	5.2	Amplitude	1.406 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	17.5		9.1	Search (1024X32)	1.363	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	14.8		3.1	Inc. seg. avg.	1.528	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	8.9		5.5	Inc. frq. avg.	1.420	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

B: az 84.9 el 47.2 pa -52.7 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) -1927.128 -450.431 simultaneous interpolator

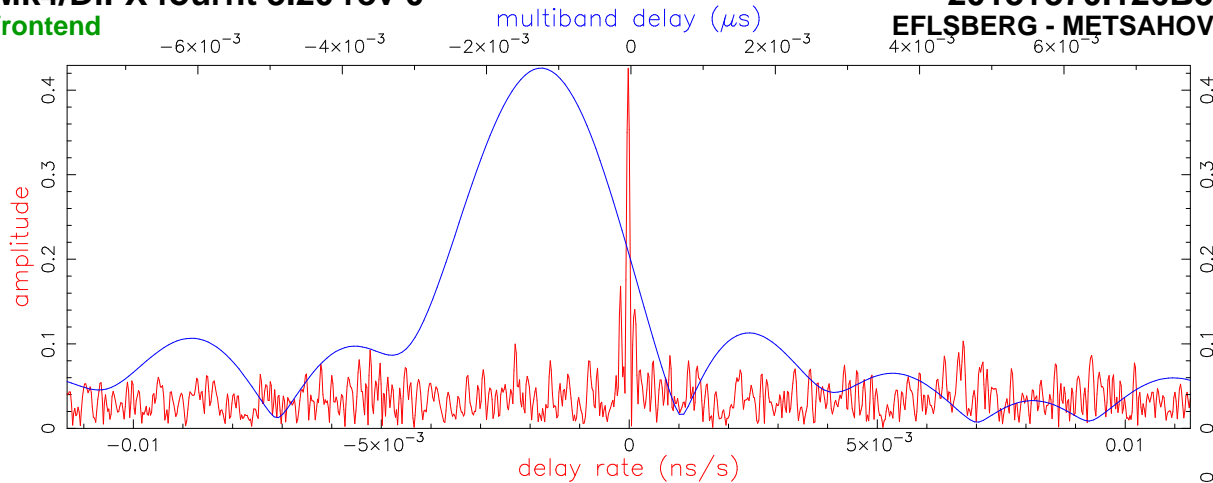
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/BZ..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/BZ.W.21.126B8R

# Mk4/DiFX fourfit 3.20 rev 0

frontend

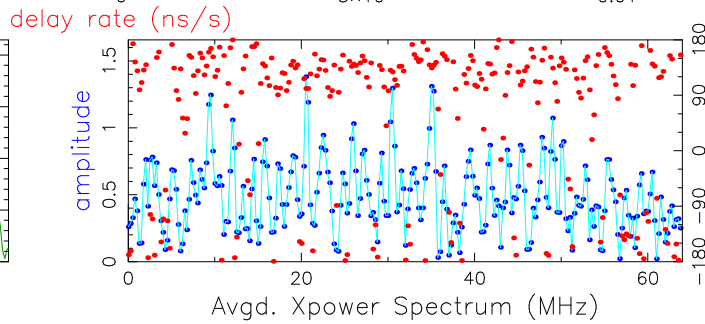
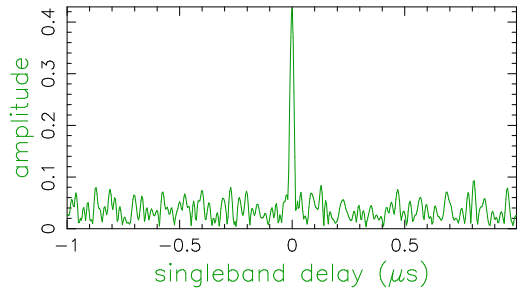
## 2013+370.126B8R, No0011, BZ

EFLSBERG - METSAHOV, fgroup W, pol LR



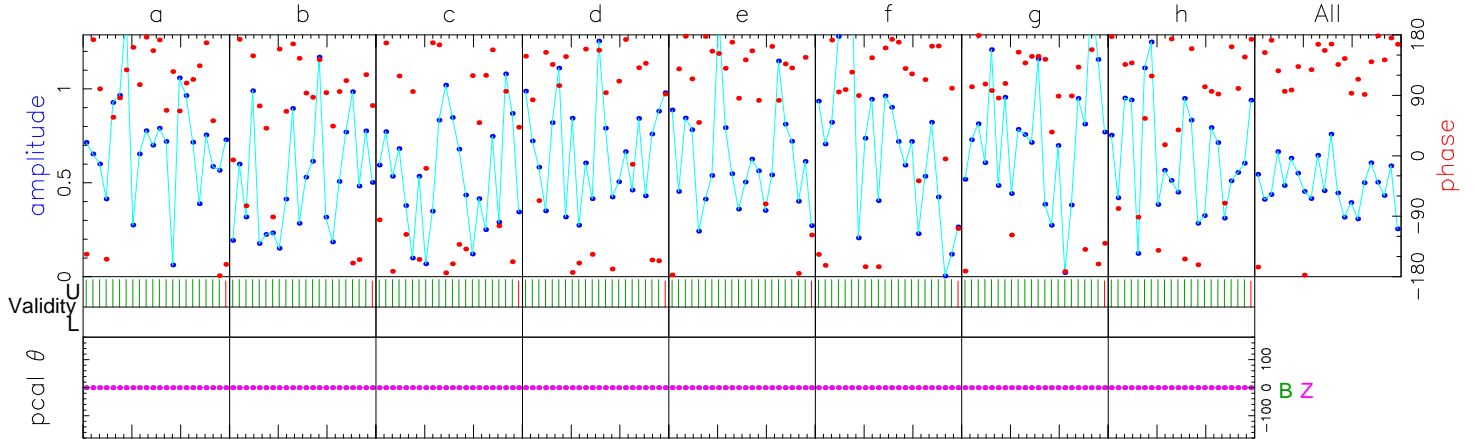
Fringe quality 9

SNR 15.7  
 Int time 179.579  
 Amp 0.429  
 Phase 144.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001186  
 MBD -0.001278  
 Fringe rate (Hz)  
 -0.001707  
 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



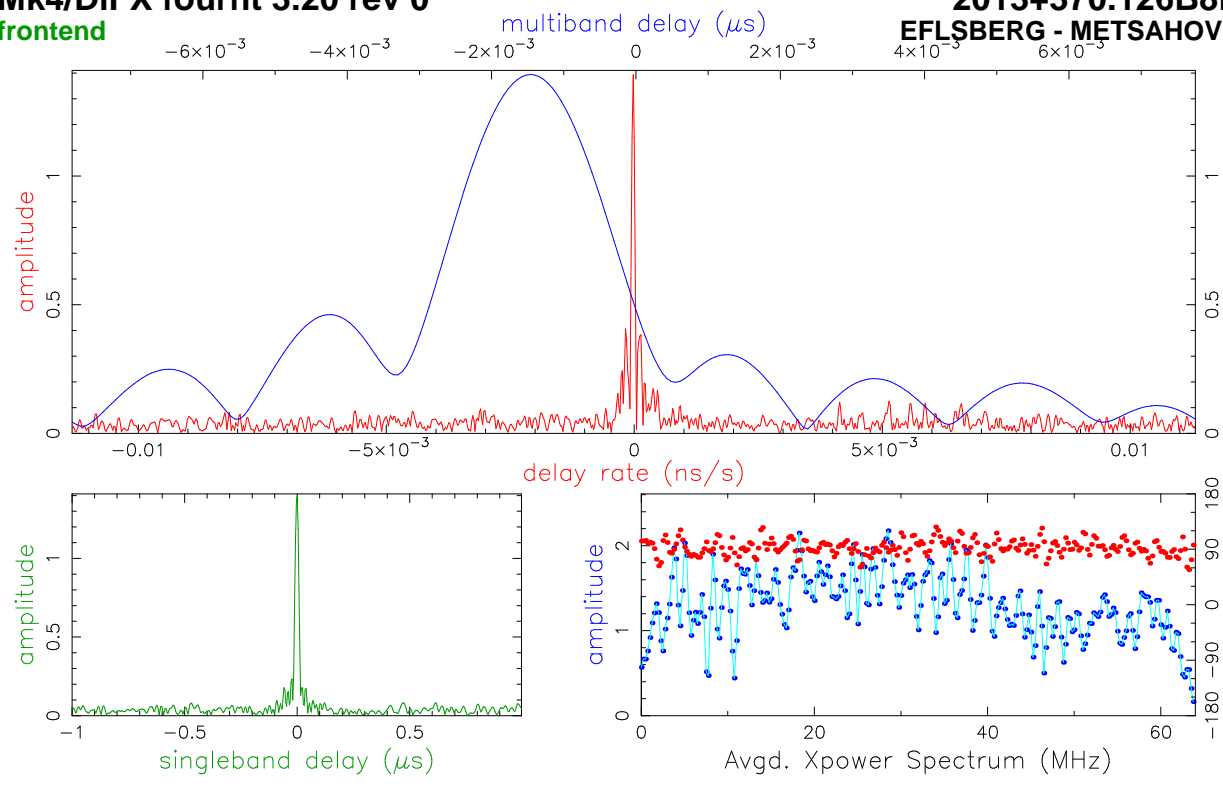
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0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

Group delay (usec)(sbd)	-1.90284430931E+03	Apriori delay (usec)	-1.90284303082E+03	Resid mbdelay (usec)	-1.27849E-03	+/-	6.9E-05
Sband delay (usec)	-1.90284421682E+03	Apriori clock (usec)	1.6623230E+01	Resid sbdelay (usec)	-1.18600E-03	+/-	5.5E-04
Phase delay (usec)	-1.90284302616E+03	Apriori clockrate (us/s)	-2.1629280E-07	Resid phdelay (usec)	4.65779E-06	+/-	2.3E-07
Delay rate (us/s)	2.68054777883E-01	Apriori rate (us/s)	2.68054797695E-01	Resid rate (us/s)	-1.98127E-08	+/-	2.3E-09
Total phase (deg)	-98.6	Apriori accel (us/s/s)	3.63413276450E-06	Resid phase (deg)	144.4	+/-	7.3

ph/seg (deg)	RMS 30.3	Theor. 17.1	Amplitude Search (1024X32)	0.429 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	31.9	29.8	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	16.2	10.3	Inc. seg. avg.	0.472	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	18.2	18.0	Inc. frq. avg.	0.430	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 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) -1927.128 -450.431 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/BZ..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/BZ.W.38.126B8R

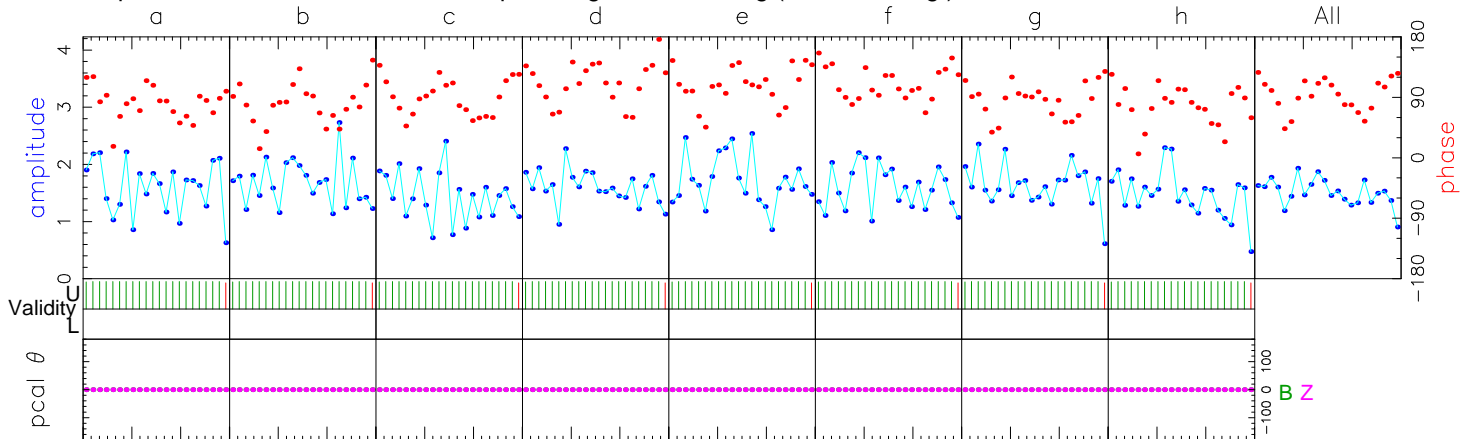


Fringe quality 6

SNR 51.7  
 Int time 179.579  
 Amp 1.411  
 Phase 94.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001433  
 MBD -0.001499  
 Fringe rate (Hz)  
 -0.001942  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

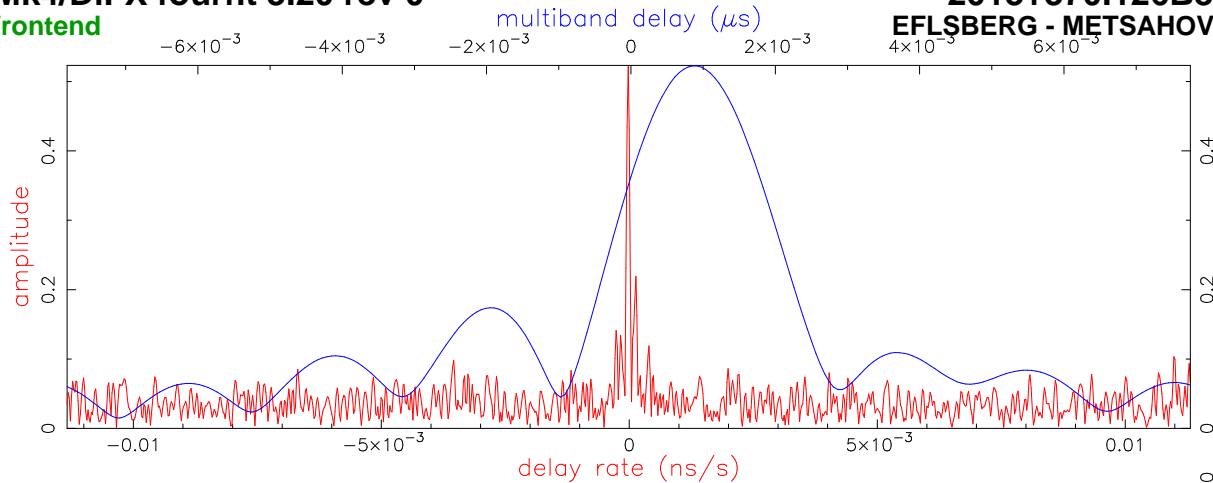
Exp. c192c  
 Exper # 16383  
 Yr:day 2019:278  
 Start 150000.00  
 Stop 150300.22  
 FRT 150130.00  
 Corr/FF/build  
 2020:069:185016  
 2020:071:121816  
 2019:280:115849  
 RA & Dec (J2000)  
 20h15m28.729803s  
 +37°10'59.514664"

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



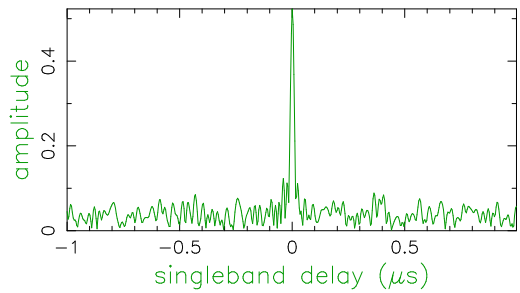
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-1.90284453018E+03									
Sband delay (usec)	-1.90284446407E+03									
Phase delay (usec)	-1.90284302778E+03									
Delay rate (us/s)	2.68054775155E-01									
Total phase (deg)			-148.7							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)									94.3	+/- 2.2
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

ph/seg (deg) 23.9 5.2 Search (1024X32) 1.394 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 17.7 9.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 15.8 3.1 Inc. seg. avg. 1.507 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 6.2 5.5 Inc. frq. avg. 1.433 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 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) -1927.128 -450.431 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/BZ..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/BZ.W.4.126B8R

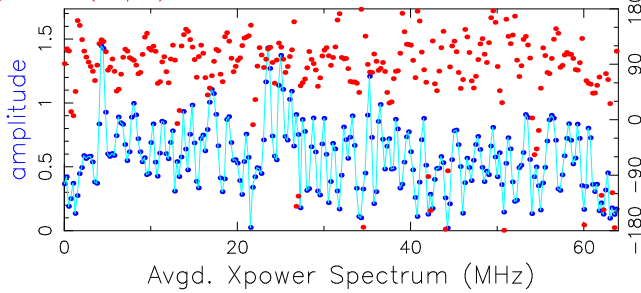


Fringe quality 9

SNR 19.2  
 Int time 179.579  
 Amp 0.523  
 Phase 93.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000433  
 MBD 0.000893  
 Fringe rate (Hz)  
 -0.002158  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

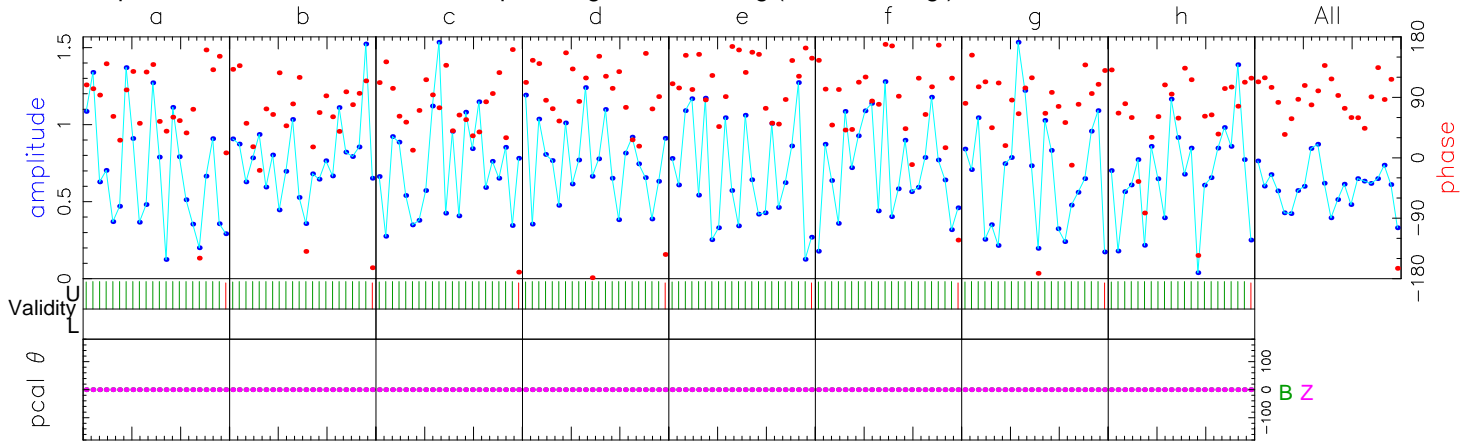


delay rate (ns/s)



Exp. c192c  
 Exper # 16383  
 Yr:day 2019:278  
 Start 150000.00  
 Stop 150300.22  
 FRT 150130.00  
 Corr/FF/build  
 2020:069:185016  
 2020:071:121822  
 2019:280:115849  
 RA & Dec (J2000)  
 20h15m28.729803s  
 +37°10'59.514664"

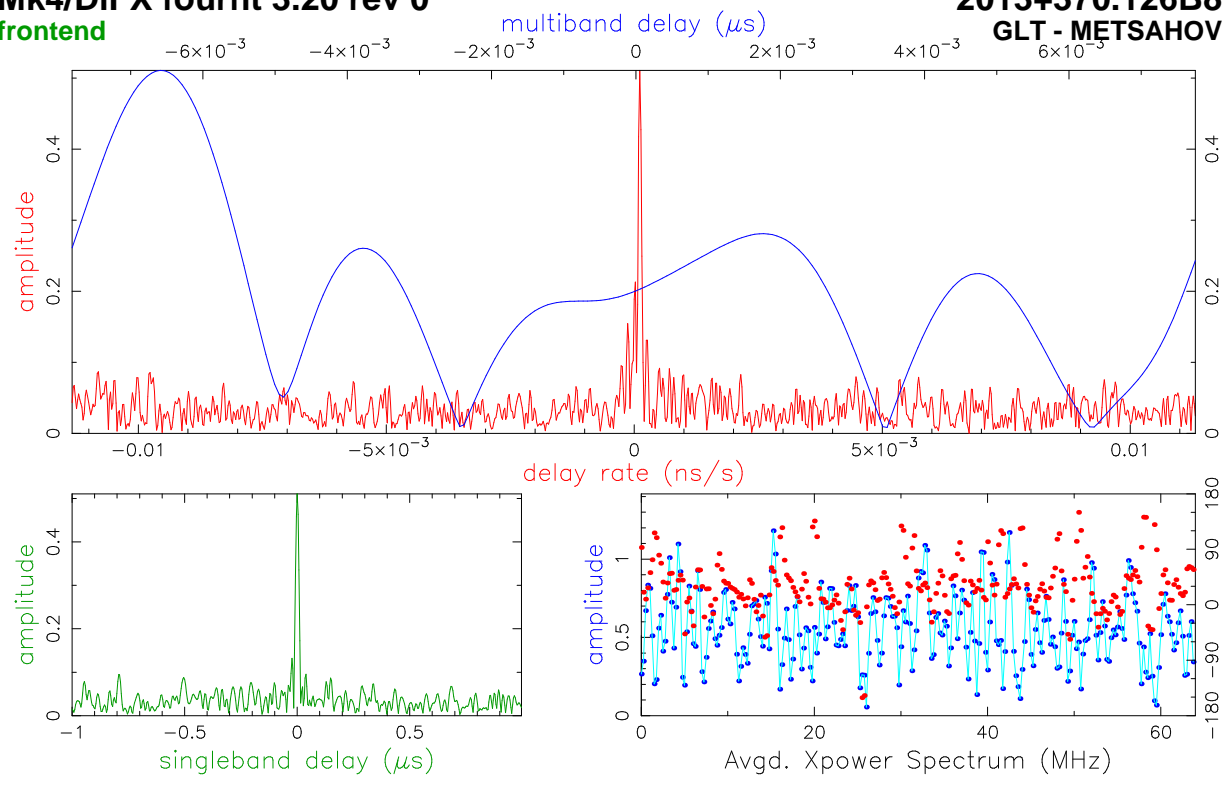
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
99.0	80.4	77.3	112.5	114.0	93.1	90.4	80.8	80.8	Phase	93.5
0.5	0.5	0.6	0.5	0.6	0.5	0.6	0.5	0.5	Ampl.	0.5
257.4	257.1	257.0	257.0	257.0	257.0	257.2	256.9	256.4	Sbd box	257.1
U/L 352/0	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	1000	PC freqs	
Z 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Z 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z 0:0	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	1000	PC amp	
Z 1000	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.90284213797E+03		Apriori delay (usec)	-1.90284303082E+03	Resid mbdelay (usec)	8.92857E-04	+/-	5.7E-05		
Sband delay (usec)	-1.90284259782E+03		Apriori clock (usec)	1.6623230E+01	Resid sbdelay (usec)	4.33000E-04	+/-	4.5E-04		
Phase delay (usec)	-1.90284302781E+03		Apriori clockrate (us/s)	-2.1629280E-07	Resid phdelay (usec)	3.01455E-06	+/-	1.9E-07		
Delay rate (us/s)	2.68054772641E-01		Apriori rate (us/s)	2.68054797695E-01	Resid rate (us/s)	-2.50546E-08	+/-	1.9E-09		
Total phase (deg)		-149.5	Apriori accel (us/s/s)	3.63413276450E-06	Resid phase (deg)	93.5	+/-	6.0		

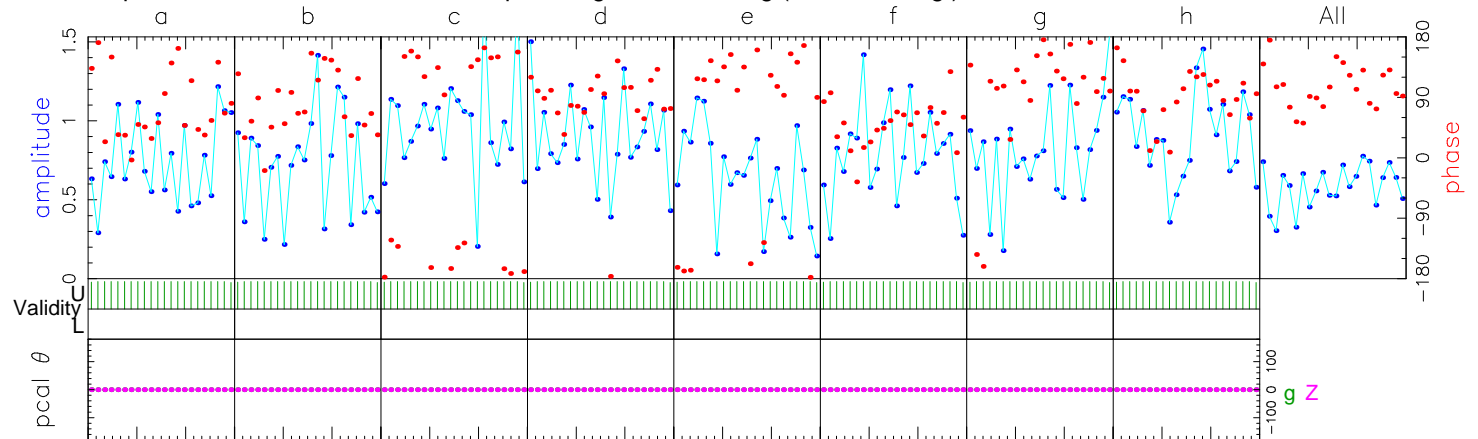
ph/seg (deg) RMS Theor. Amplitude 0.523 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 34.6 14.0 Search (1024X32) 0.519 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 29.4 24.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 15.4 8.5 Inc. seg. avg. 0.583 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 6.0 14.7 Inc. frq. avg. 0.532 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 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) -1927.128 -450.431 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/BZ..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/BZ.W.57.126B8R

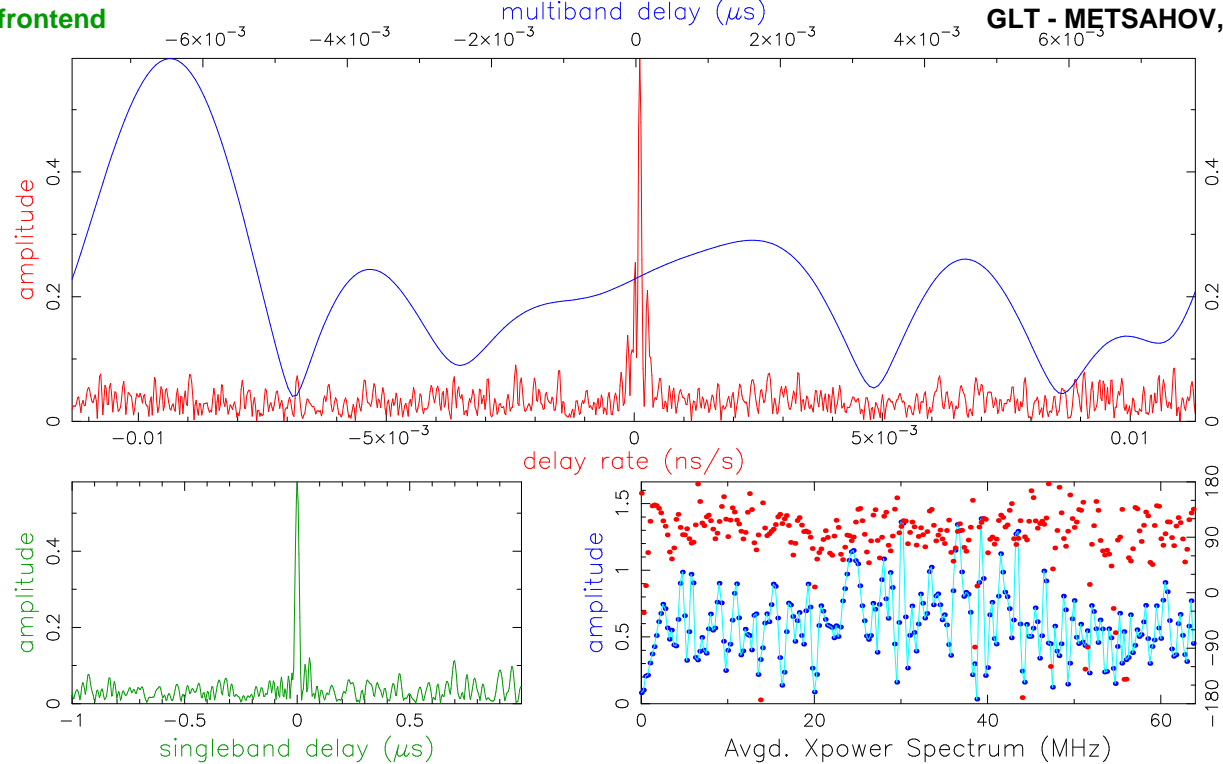


Fringe quality 8  
 SNR 18.7  
 Int time 179.620  
 Amp 0.511  
 Phase 106.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000101  
 MBD -0.006581  
 Fringe rate (Hz)  
 0.009717  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c192c  
 Exper # 16383  
 Yr:day 2019:278  
 Start 150000.00  
 Stop 150300.22  
 FRT 150130.00  
 Corr/FF/build  
 2020:069:185016  
 2020:071:121817  
 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

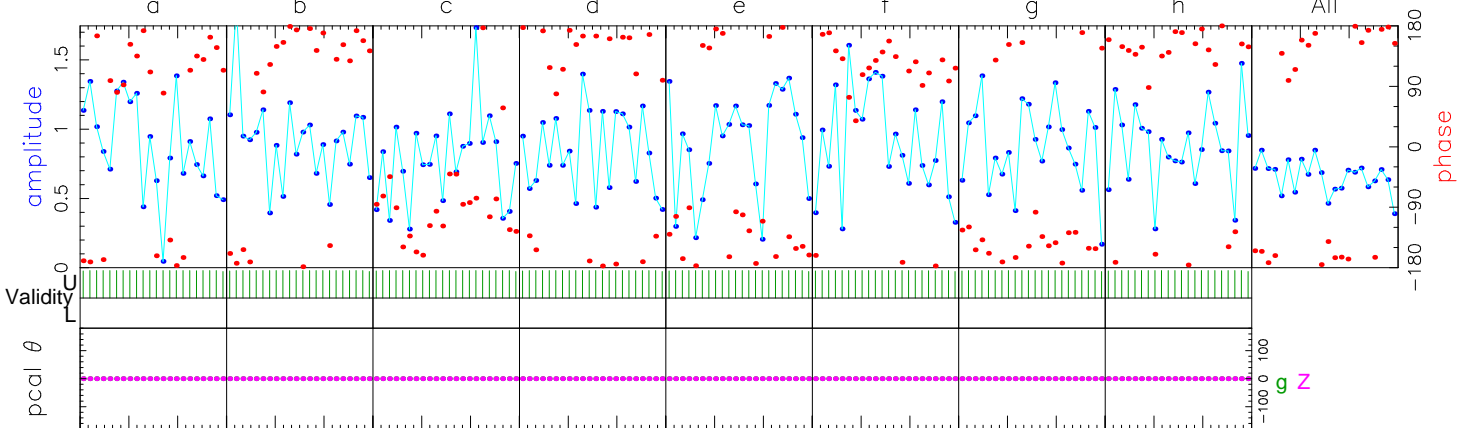


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	68.3	91.9	173.5	93.4	147.2	47.0	129.4	96.9	Phase	106.0		
	0.5	0.6	0.8	0.8	0.5	0.7	0.6	0.7	Ampl.	0.6		
	258.3	256.9	256.8	256.3	255.9	256.1	256.9	257.3	Sbd box	257.0		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
g	0	0	0	0	0	0	0	0	PC freqs			
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
g:Z	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			
Z	1000	1000	1000	1000	1000	1000	1000	1000				
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec)(sbd)	-7.79889625235E+03		Apriori delay (usec)		-7.79888967138E+03		Resid mbdelay (usec)		-6.58097E-03	+/- 5.8E-05		
Sband delay (usec)	-7.79888957013E+03		Apriori clock (usec)		1.1183094E+08		Resid sbdelay (usec)		1.01250E-04	+/- 4.6E-04		
Phase delay (usec)	-7.7988896796E+03		Apriori clockrate (us/s)		5.8707190E-08		Resid phdelay (usec)		3.41813E-06	+/- 2.0E-07		
Delay rate (us/s)	-1.87940108714E-01		Apriori rate (us/s)		-1.87940221519E-01		Resid rate (us/s)		1.2805E-07	+/- 1.9E-09		
Total phase (deg)			Apriori accel (us/s/s)		4.86517654216E-05		Resid phase (deg)		106.0	+/- 6.1		
	RMS	Theor.	Amplitude	0.511 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	30.9	14.4	Search (1024X32)	0.496		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	29.7	25.1	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	45.0	8.7	Inc. seg. avg.	0.568		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	34.6	15.1	Inc. frq. avg.	0.646		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	Z: az 113.3 el 55.6 pa -34.9		u,v (fr/asec) 1390.429 3638.691						simultaneous interpolator			
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/gZ..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/gZ.W.19.126B8R												



Fringe quality 8  
 SNR 21.3  
 Int time 179.624  
 Amp 0.582  
 Phase 175.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000252  
 MBD -0.006460  
 Fringe rate (Hz)  
 0.009725  
 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



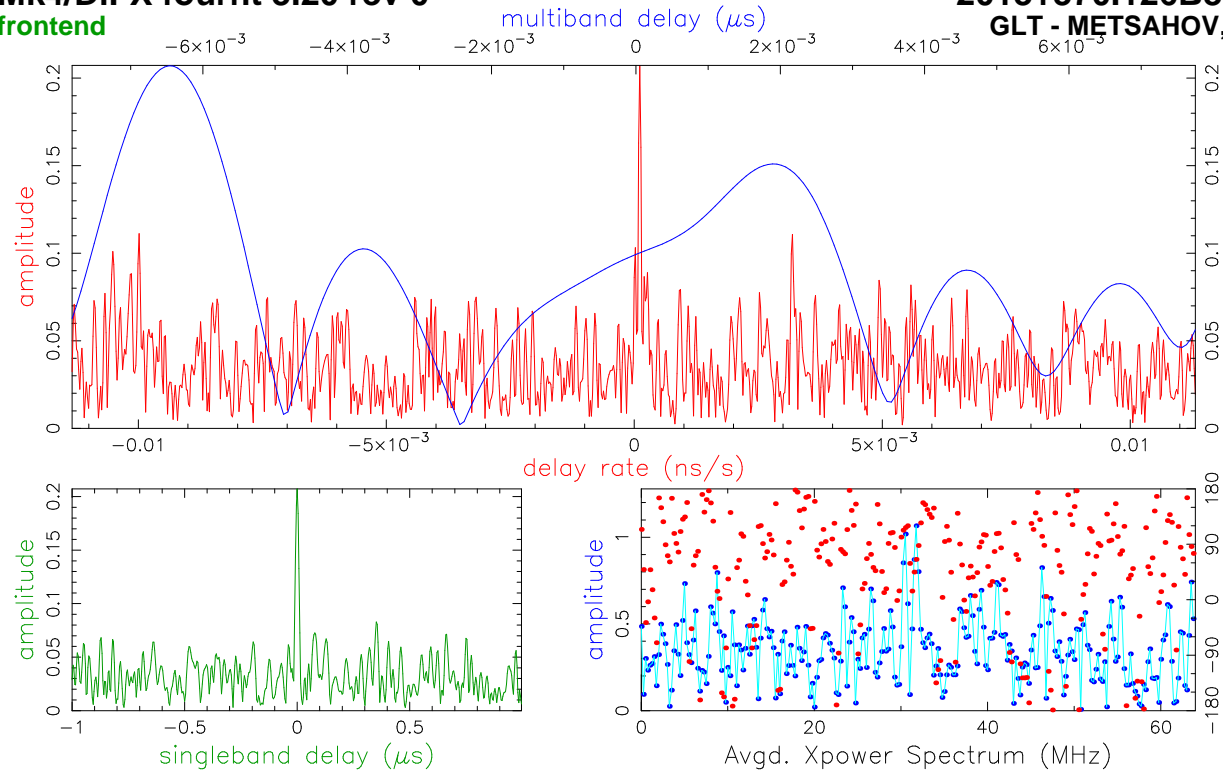
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.79889613157E+03				-7.79888967138E+03					
Sband delay (usec)	-7.79888992338E+03				1.1183094E+08					
Phase delay (usec)	-7.79888966573E+03				5.8707190E-08					
Delay rate (us/s)	-1.87940108619E-01				-1.87940221519E-01					
Total phase (deg)			69.9		4.86517654216E-05					
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)									175.2	+/- 5.1E-05
Pcal mode:	MANUAL	MANUAL			MANUAL					
Pcal rate:	0.000E+00	0.000E+00			0.000E+00					
Bits/sample:	2x2									
Sample rate (MSamp/s):	128									
Data rate (Mb/s):	2048									
nlags:	256									
t_cohere	infinite									
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								
g: az 40.4 el 27.4 pa -11.0			Z: az 113.3 el 55.6 pa -34.9			u,v (fr/asec) 1390.429 3638.691				simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c192c/v1_CygA2/1234/No0011/gZ..126B8R			Output file: /Exps/c192c/v1_CygA2/1234/No0011/gZ.W.43.126B8R				

Mk4/DiFX fourfit 3.20 rev 0

frontend

2013+370.126B8R, No0011, gZ

GLT - METSAHOV, fgroup W, pol LR

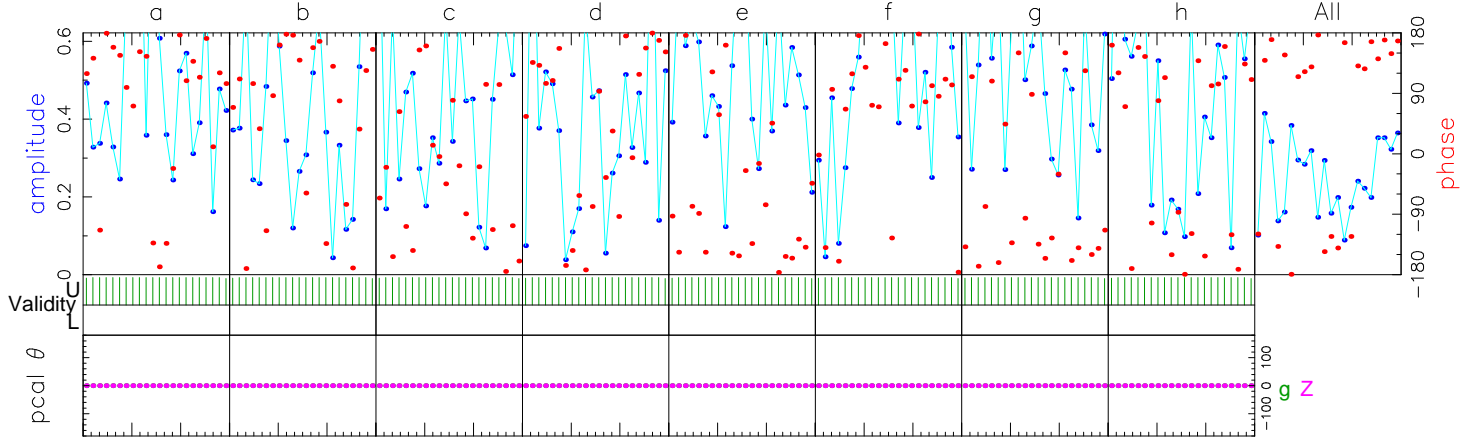


Fringe quality 9

SNR 7.6  
 Int time 179.620  
 Amp 0.207  
 Phase 162.2  
 PFD 4.9e-06  
 Delays (us)  
 SBD -0.000415  
 MBD -0.006465  
 Fringe rate (Hz) 0.010039  
 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  
 2020:071:121822  
 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



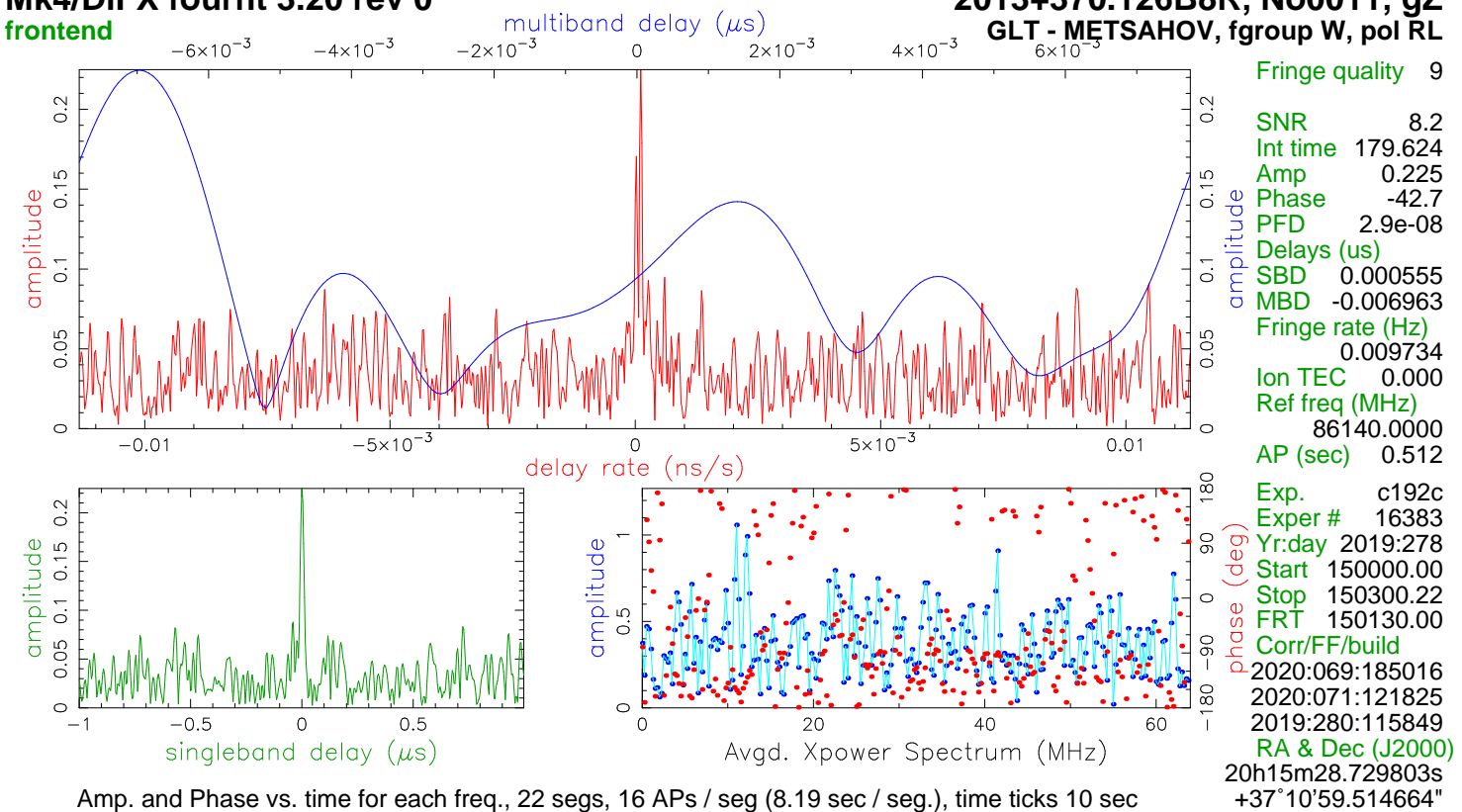
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
g	0	0	0	0	0	0	0	0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000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

Group delay (usec)(sbd)	-7.79889613657E+03	Apriori delay (usec)	-7.79888967138E+03	Resid mbdelay (usec)	-6.46519E-03	+/-	1.4E-04
Sband delay (usec)	-7.79889008638E+03	Apriori clock (usec)	1.1183094E+00	Resid sbdelay (usec)	-4.15000E-04	+/-	1.1E-03
Phase delay (usec)	-7.79888966615E+03	Apriori clockrate (us/s)	5.8707190E-08	Resid phdelay (usec)	5.23155E-06	+/-	4.9E-07
Delay rate (us/s)	-1.87940104980E-01	Apriori rate (us/s)	-1.87940221519E-01	Resid rate (us/s)	1.16539E-07	+/-	4.7E-09
Total phase (deg)		Apriori accel (us/s/s)	4.86517654216E-05	Resid phase (deg)	162.2	+/-	15.1

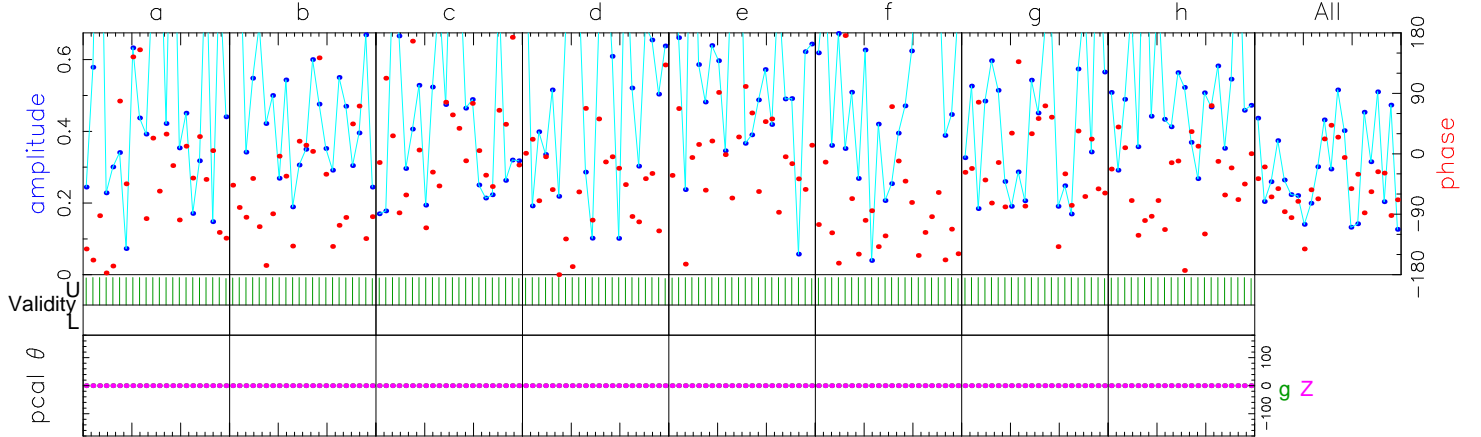
ph/seg (deg)	RMS 40.6	Theor. 35.4	Amplitude Search (1024X32)	0.207 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	51.0	61.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	53.7	21.3	Inc. seg. avg.	0.212	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	45.3	37.2	Inc. frq. avg.	0.259	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
					nlags: 256	t_cohere infinite

g: az 40.4 el 27.4 pa -11.0      Z: az 113.3 el 55.6 pa -34.9      u,v (fr/asec) 1390.429 3638.691      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps/c192c/v1\_CygA2/1234/No0011/gZ..126B8R    Output file: /Exps/c192c/v1\_CygA2/1234/No0011/gZ.W.59.126B8R

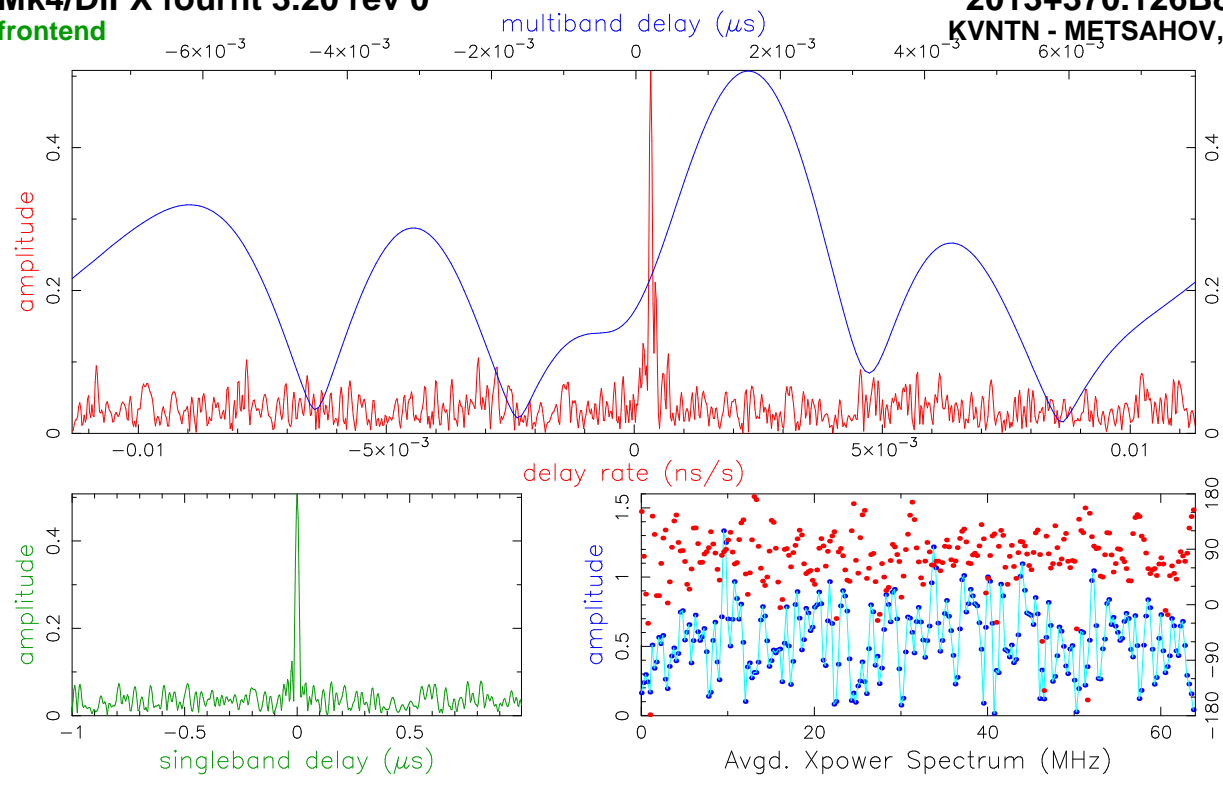


Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



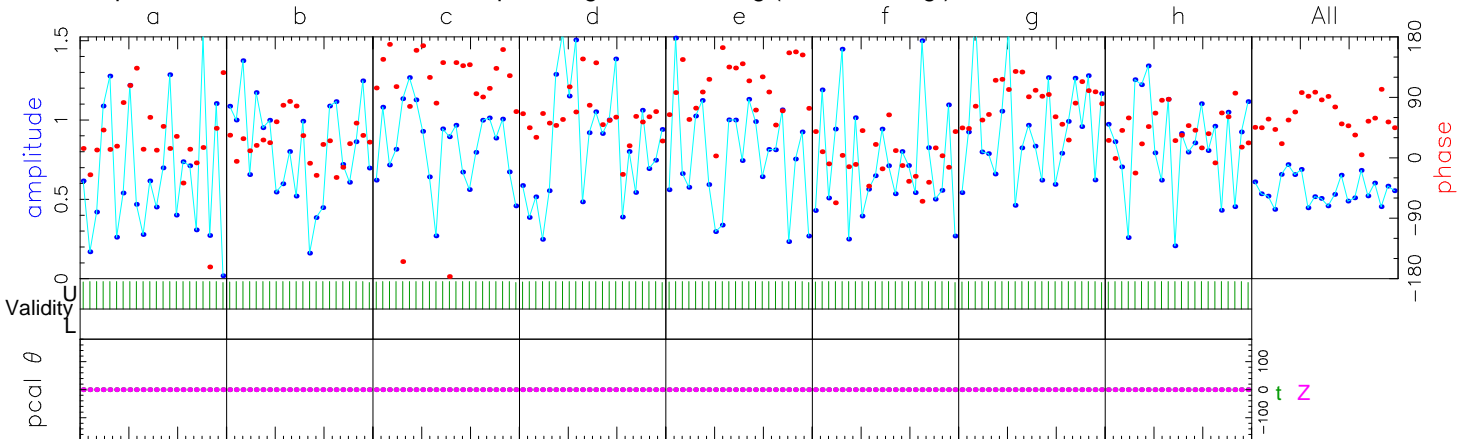
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-64.8	-70.8	17.8	-43.9	-0.6	-104.7	-14.7	-51.2	Phase	-42.7		
	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.3	Ampl.	0.3		
	261.0	405.0	255.3	120.6	256.1	257.1	256.1	257.7	Sbd box	257.1		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
g	0	0	0	0	0	0	0	0	PC freqs			
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
g:Z	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			
Z	1000	1000	1000	1000	1000	1000	1000	1000				
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec)(sbd)	-7.79889663485E+03		Apriori delay (usec)		-7.79888967138E+03		Resid mbdelay (usec)		-6.96347E-03	+/- 1.3E-04		
Sband delay (usec)	-7.79888911638E+03		Apriori clock (usec)		1.1183094E+00		Resid sbdelay (usec)		5.55000E-04	+/- 1.0E-03		
Phase delay (usec)	-7.79888967276E+03		Apriori clockrate (us/s)		5.8707190E-08		Resid phdelay (usec)		-1.37743E-06	+/- 4.5E-07		
Delay rate (us/s)	-1.87940108513E-01		Apriori rate (us/s)		-1.87940221519E-01		Resid rate (us/s)		1.13006E-07	+/- 4.3E-09		
Total phase (deg)			Apriori accel (us/s/s)		4.86517654216E-05		Resid phase (deg)		-42.7	+/- 13.9		
	RMS	Theor.	Amplitude	0.225 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	42.9	32.6	Search (1024X32)	0.222		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	65.4	56.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	43.6	19.7	Inc. seg. avg.	0.259		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	40.9	34.3	Inc. frq. avg.	0.272		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	Z: az 113.3 el 55.6 pa -34.9		u, v (fr/asec) 1390.429 3638.691						simultaneous interpolator			
Control file: cf_1234_gmva Input file: /Exps/c192c/v1_CygA2/1234/No0011/gZ..126B8R Output file: /Exps/c192c/v1_CygA2/1234/No0011/gZ.W.76.126B8R												





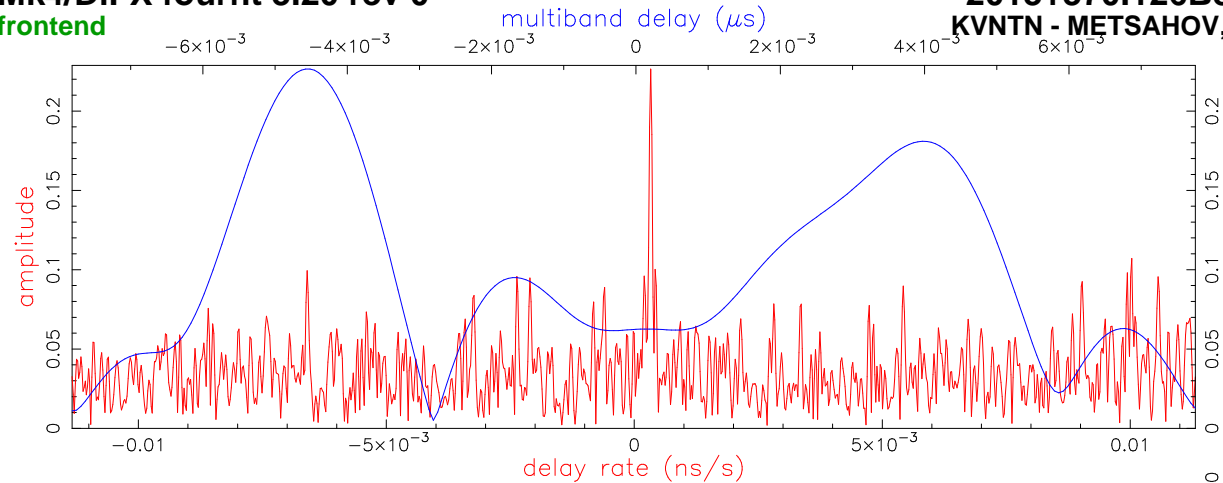
Fringe quality 8  
 SNR 18.6  
 Int time 179.729  
 Amp 0.508  
 Phase 58.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000439  
 MBD 0.001551  
 Fringe rate (Hz) 0.027971  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c192c  
 Exper # 16383  
 Yr:day 2019:278  
 Start 150000.00  
 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



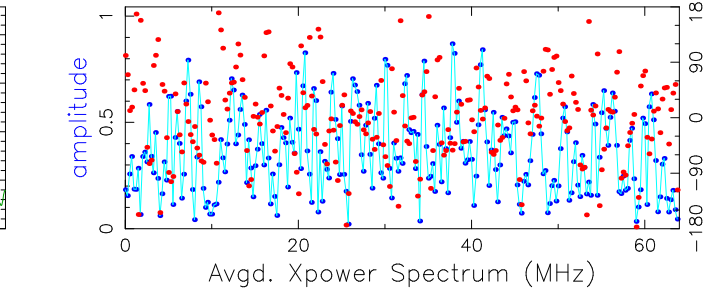
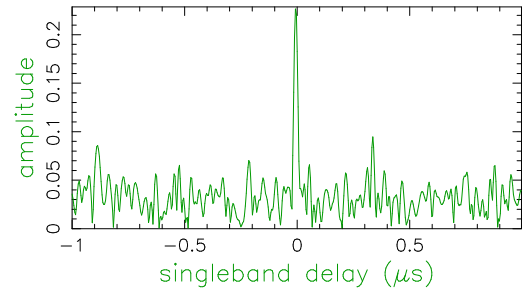
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
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) 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 ion window (TEC) 0.00 0.00  
 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



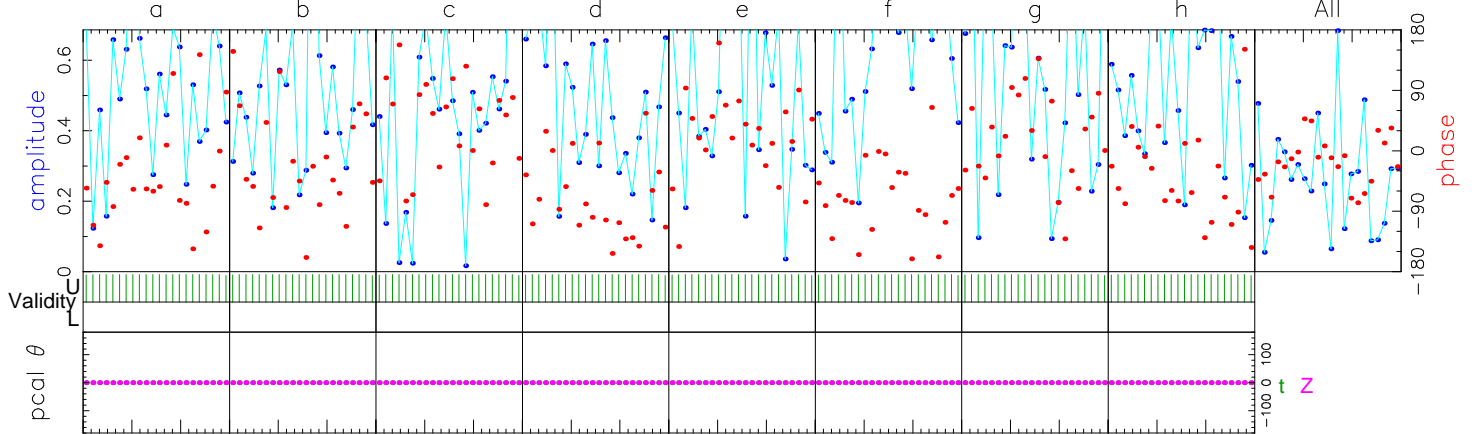
Fringe quality 9

SNR 8.4  
Int time 179.729  
Amp 0.229  
Phase -20.0  
PFD 9.1e-09  
Delays (us)  
SBD -0.006442  
MBD -0.004510  
Fringe rate (Hz)  
0.028570  
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  
2020:071:121832  
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		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

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)	-292.1	Apriori accel (us/s/s)	-1.42858636408E-06	Resid phase (deg)	-20.0	+/-	13.7

ph/seg (deg)	35.8	Theor.	32.1	Amplitude	0.229 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	70.0	Search (1024X32)	0.222	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	50.6	Inc. seg. avg.	0.235	Inc. seg. avg.	0.235	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	43.8	Inc. frq. avg.	0.299	Inc. frq. avg.	0.299	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

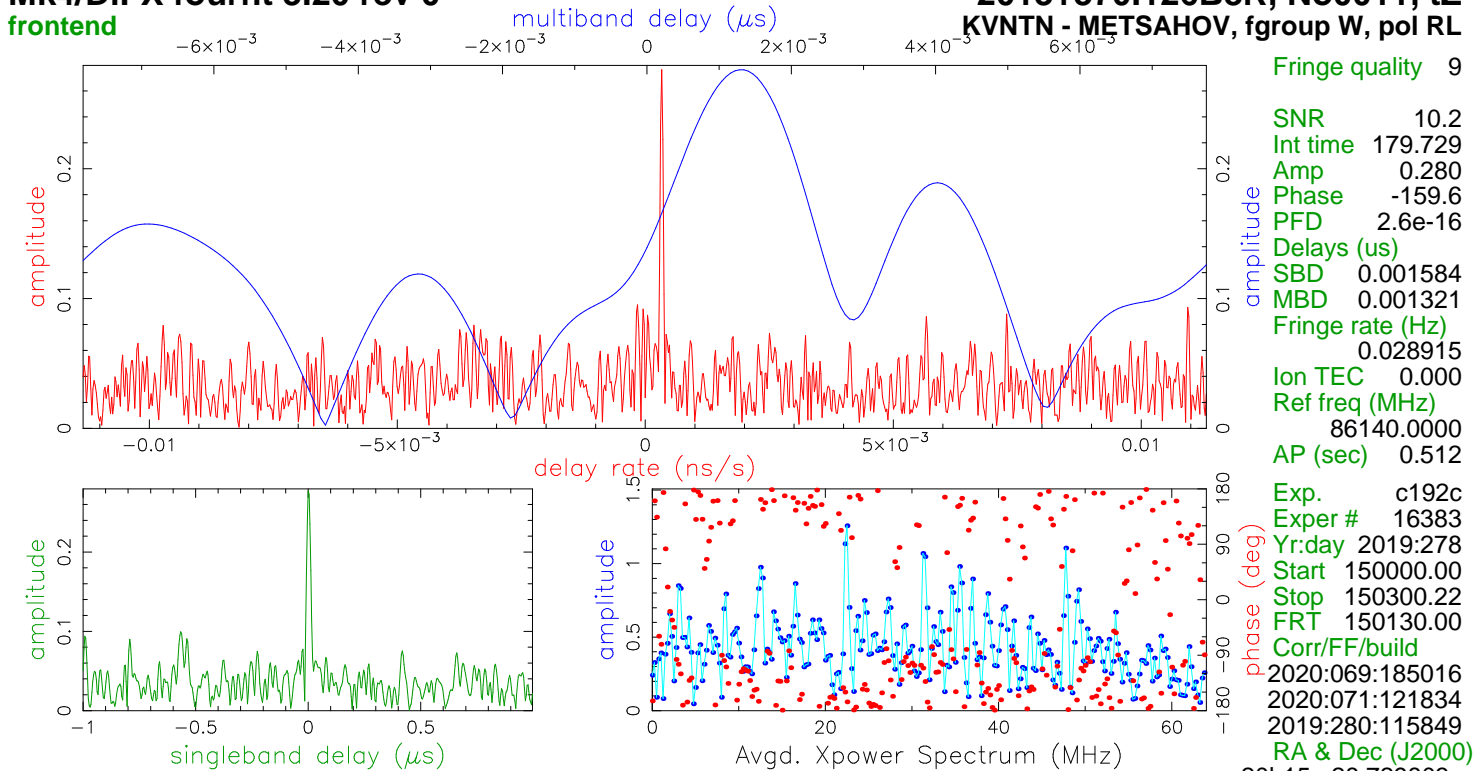
t: az 293.0 el 40.6 pa 75.1 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) 9406.833 -2393.717 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/tZ...126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/tZ.W.122.126B8R

Mk4/DiFX fourfit 3.20 rev 0

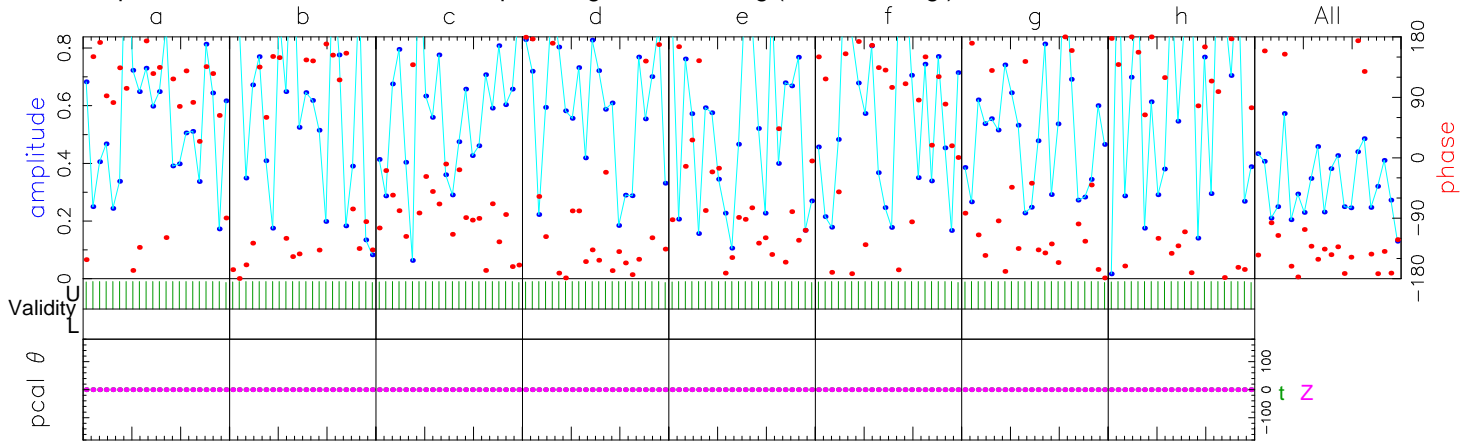
frontend

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

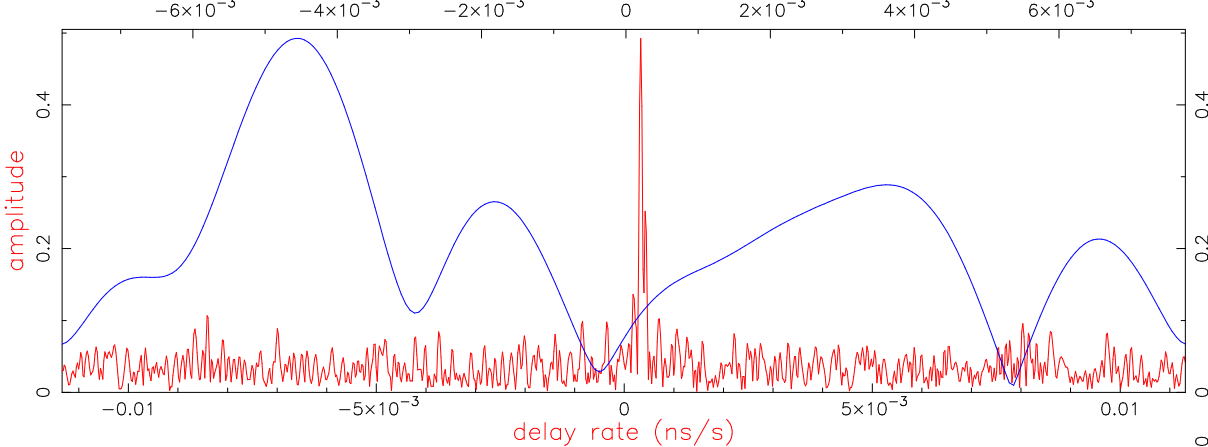
amp/frq (%) 41.8 27.6 Inc. frq. avg. 0.363 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011

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

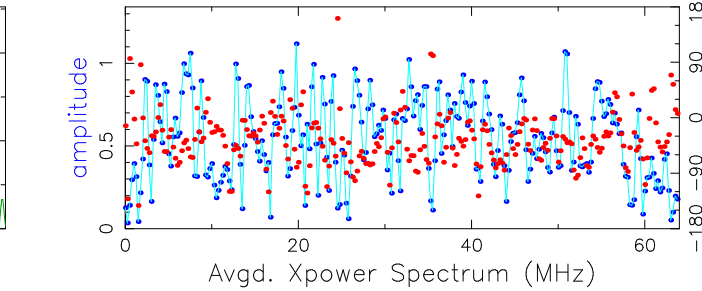
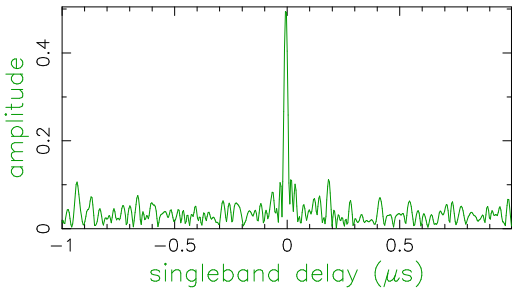
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/tZ...126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/tZ.W.143.126B8R

multiband delay ( $\mu\text{s}$ )

Fringe quality 8

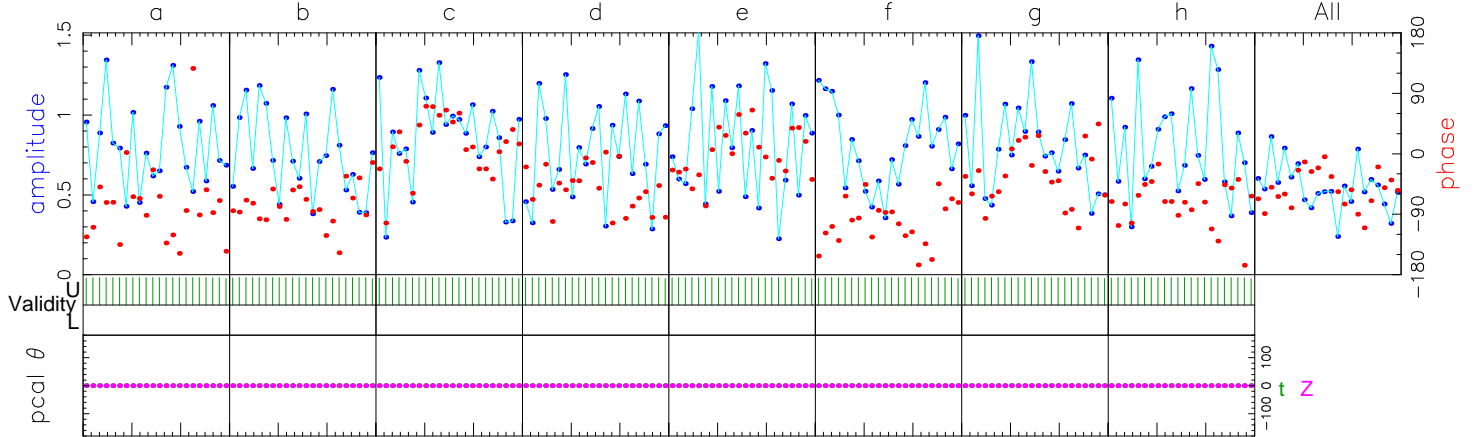


SNR 18.5  
Int time 179.729  
Amp 0.505  
Phase -53.8  
PFD 0.0e+00  
Delays (us)  
SBD -0.005950  
MBD -0.004592  
Fringe rate (Hz) 0.028232  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512



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



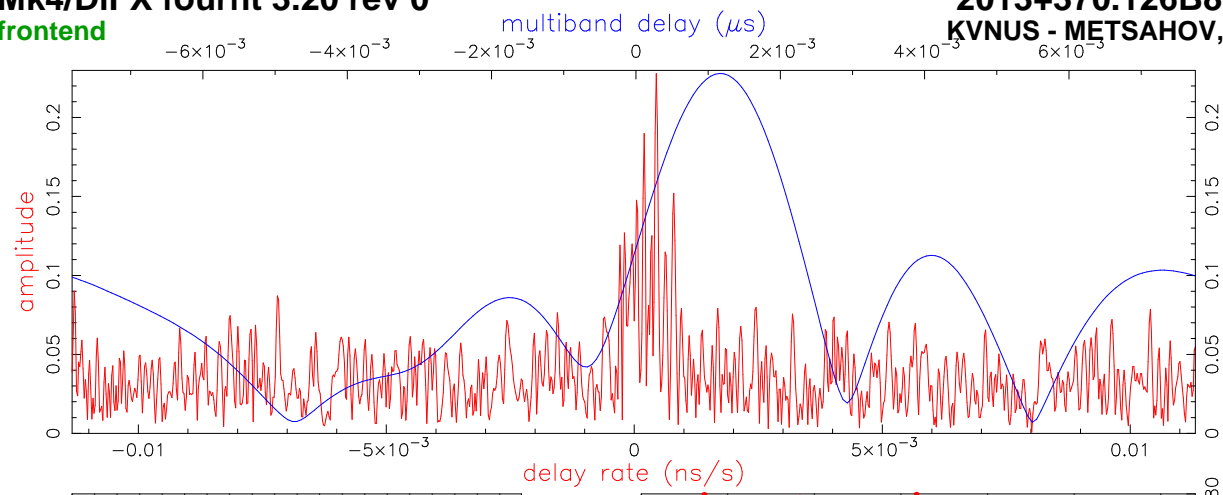
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-92.2	-79.8	20.7	-52.7	-0.2	-107.1	-28.8	-74.6	Phase	-53.8
	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.7	Ampl.	0.7
	257.4	255.8	255.4	254.7	254.8	255.1	254.9	255.1	Sbd box	255.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

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		25.3	Search (1024X32)	0.480	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	49.1		8.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	31.4		15.3	Inc. seg. avg.	0.534	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.654	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

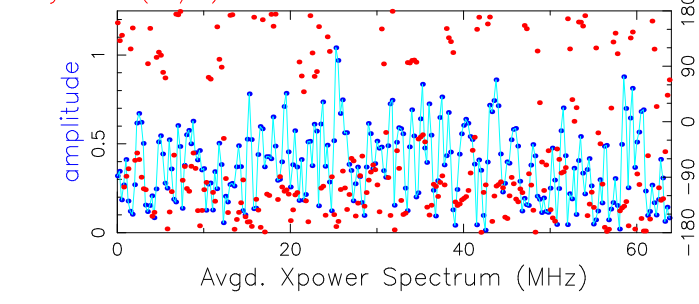
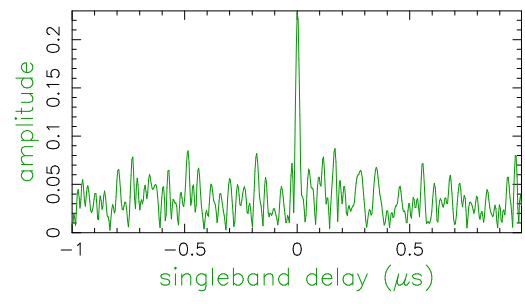
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/tZ...126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/tZ.W.83.126B8R



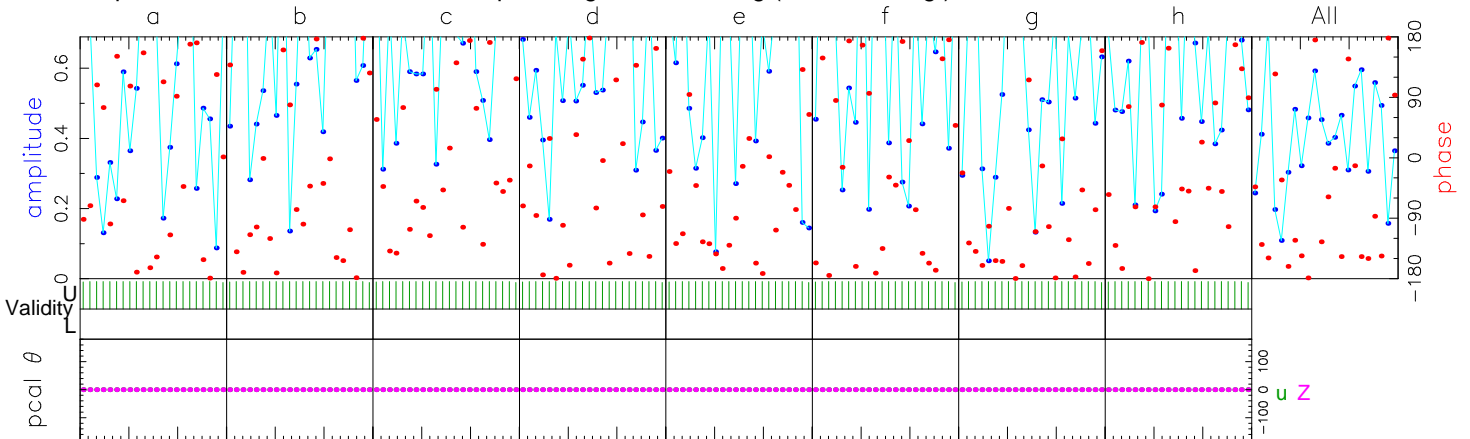
Fringe quality 9

SNR 8.4  
 Int time 179.729  
 Amp 0.230  
 Phase -137.7  
 PFD 6.7e-09  
 Delays (us)  
 SBD 0.001185  
 MBD 0.001179  
 Fringe rate (Hz) 0.037319  
 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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-4.18563169816E+03	-4.18563169168E+03	-4.18563288162E+03	-1.30615856967E+00						
Sband delay (usec)										
Phase delay (usec)										
Delay rate (us/s)										
Total phase (deg)			-152.3							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

ph/seg (deg) 66.9 31.9 Search (1024X32) 0.217 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 100.7 55.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 35.3 19.2 Inc. seg. avg. 0.351 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 43.3 33.6 Inc. frq. avg. 0.246 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 u: az 292.1 el 39.3 pa 71.1 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) 9395.502 -1917.946 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/uZ..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/uZ.W.111.126B8R

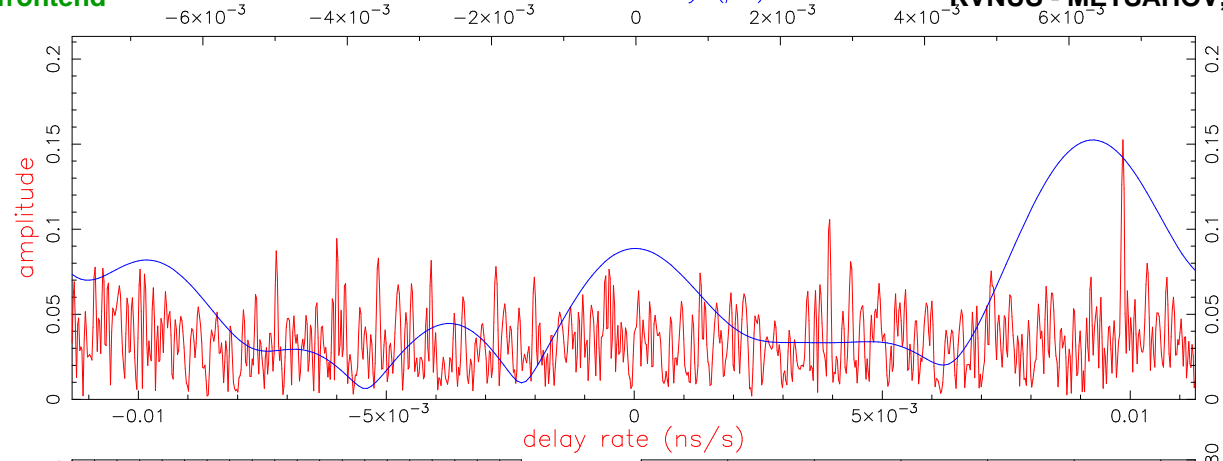
Mk4/DiFX fourfit 3.20 rev 0

frontend

2013+370.126B8R, No0011, uZ

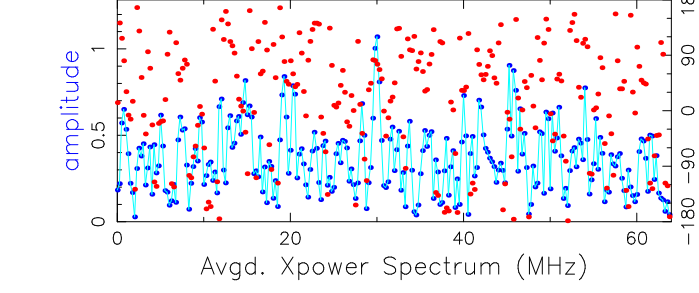
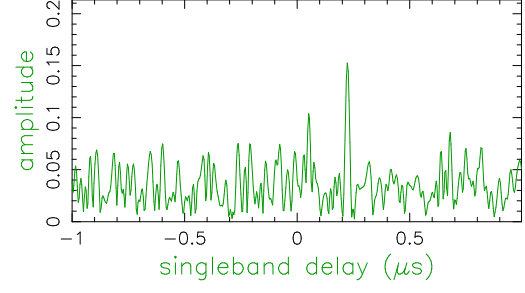
KVNUS - METSAHOV, fgroup W, pol LR

multiband delay ( $\mu\text{s}$ )



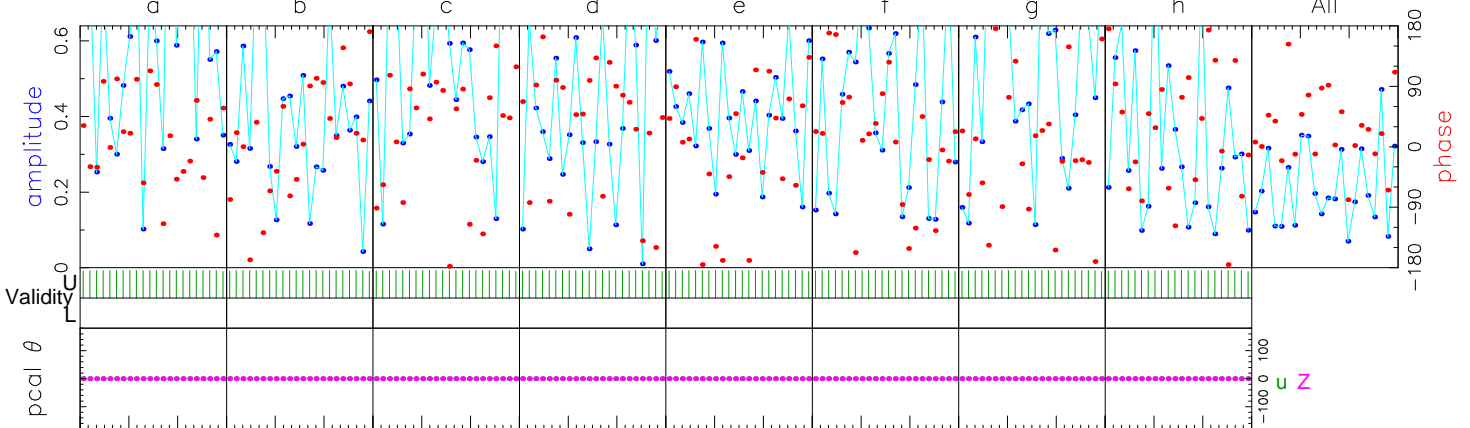
Fringe quality 0

SNR 5.6  
Int time 179.729  
Amp 0.213  
Phase 38.0  
PFD 9.3e-01  
Delays (us)  
SBD 0.223300  
MBD 0.006353  
Fringe rate (Hz) 0.850455  
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  
2020:071:121833  
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		
u	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-4.18540777423E+03								6.35296E-03	+/- 1.9E-04
Sband delay (usec)	-4.18540957768E+03								2.23300E-01	+/- 1.5E-03
Phase delay (usec)	-4.18563287596E+03								1.22580E-06	+/- 6.6E-07
Delay rate (us/s)	-1.30614912996E+00								9.87294E-06	+/- 6.3E-09
Total phase (deg)			23.5						38.0	+/- 20.5
ph/seg (deg)	54.7	48.0								
amp/seg (%)	79.5	83.8								
ph/frq (deg)	38.1	28.9								
amp/frq (%)	60.0	50.5								
u: az 292.1 el 39.3 pa 71.1	Z: az 113.3 el 55.6 pa -34.9	u, v (fr/asec) 9395.502 -1917.946							simultaneous interpolator	

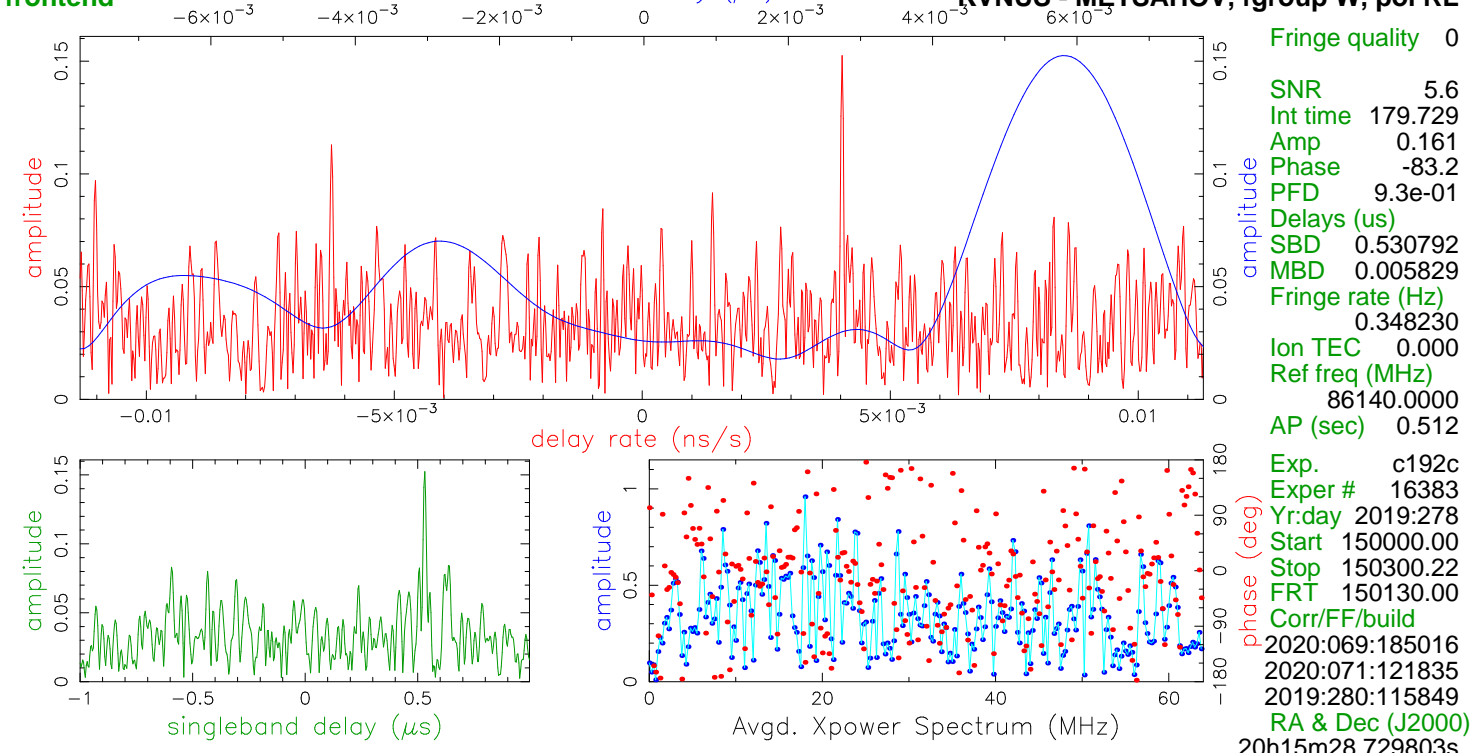
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/uZ..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/uZ.W.130.126B8R

Mk4/DiFX fourfit 3.20 rev 0

frontend

2013+370.126B8R, No0011, uZ

KVNUS - METSAHOV, fgroup W, pol RL



Fringe quality 0

SNR 5.6

Int time 179.729

Amp 0.161

Phase -83.2

PFD 9.3e-01

Delays (us)

SBD 0.530792

MBD 0.005829

Fringe rate (Hz)

0.348230

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

2020:071:121835

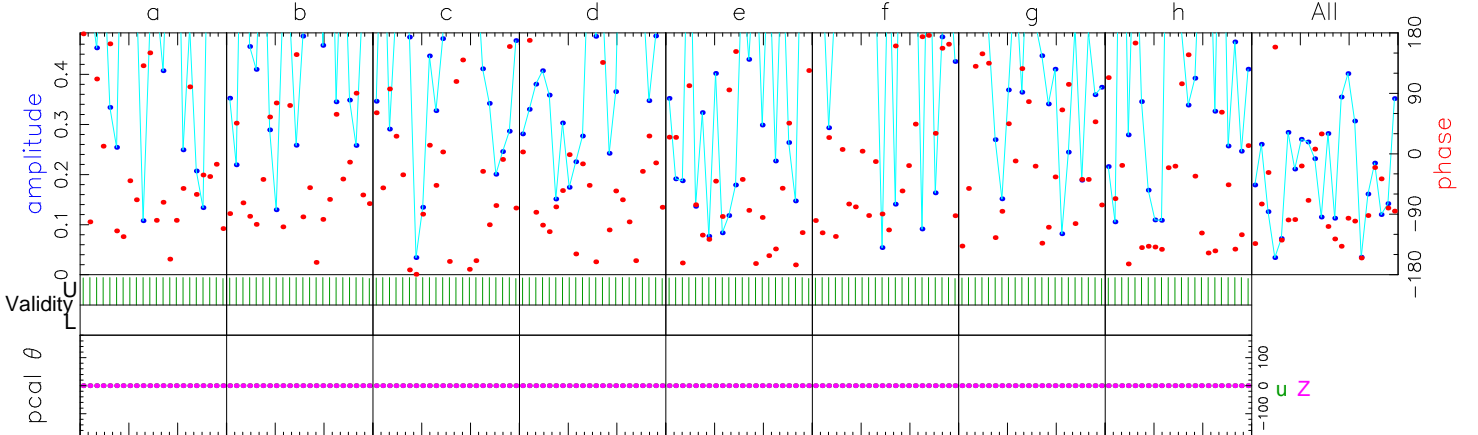
2019:280:115849

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
	-94.5	-67.3	-99.8	-79.8	-117.6	-75.3	-75.1	-90.1		-83.2
	0.3	0.3	0.1	0.2	0.1	0.2	0.1	0.1		0.1
	392.2	329.8	267.1	392.9	364.1	189.6	138.0	456.7		392.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
Z	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
u	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks
										Tracks
Group delay (usec)(sbd)	-4.18509579863E+03		Apriori delay (usec)		-4.18563287718E+03		Resid mbdelay (usec)		5.82855E-03	+/- 1.9E-04
Sband delay (usec)	-4.18510208468E+03		Apriori clock (usec)		8.3304033E+07		Resid sbdelay (usec)		5.30792E-01	+/- 1.5E-03
Phase delay (usec)	-4.18563287986E+03		Apriori clockrate (us/s)		3.8370717E-07		Resid phdelay (usec)		-2.68250E-06	+/- 6.6E-07
Delay rate (us/s)	-1.30615496029E+00		Apriori rate (us/s)		-1.30615900290E+00		Resid rate (us/s)		4.04261E-06	+/- 6.3E-09
Total phase (deg)			Apriori accel (us/s/s)		2.70517219807E-06		Resid phase (deg)		-83.2	+/- 20.5

ph/seg (deg) 54.2 48.0 Search (1024X32) 0.145 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

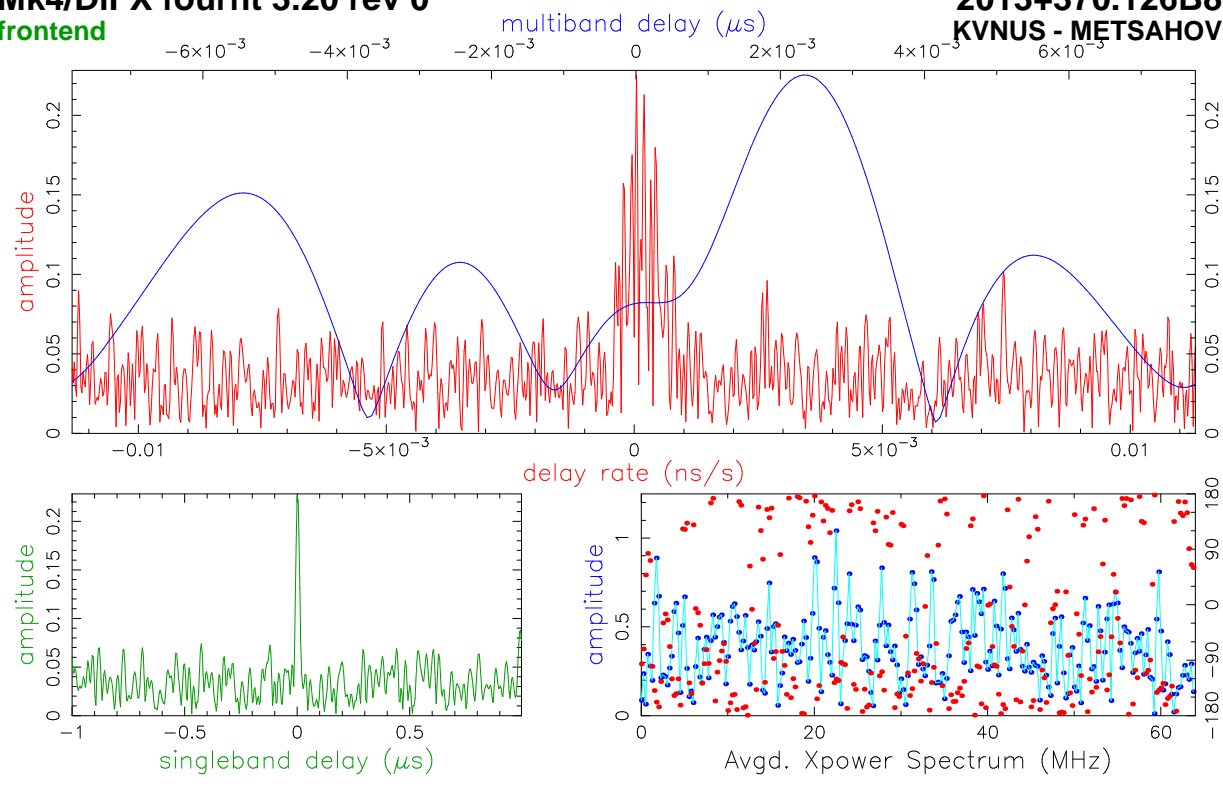
amp/seg (%) 75.5 83.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 18.4 29.0 Inc. seg. avg. 0.161 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 59.7 50.5 Inc. frq. avg. 0.147 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011

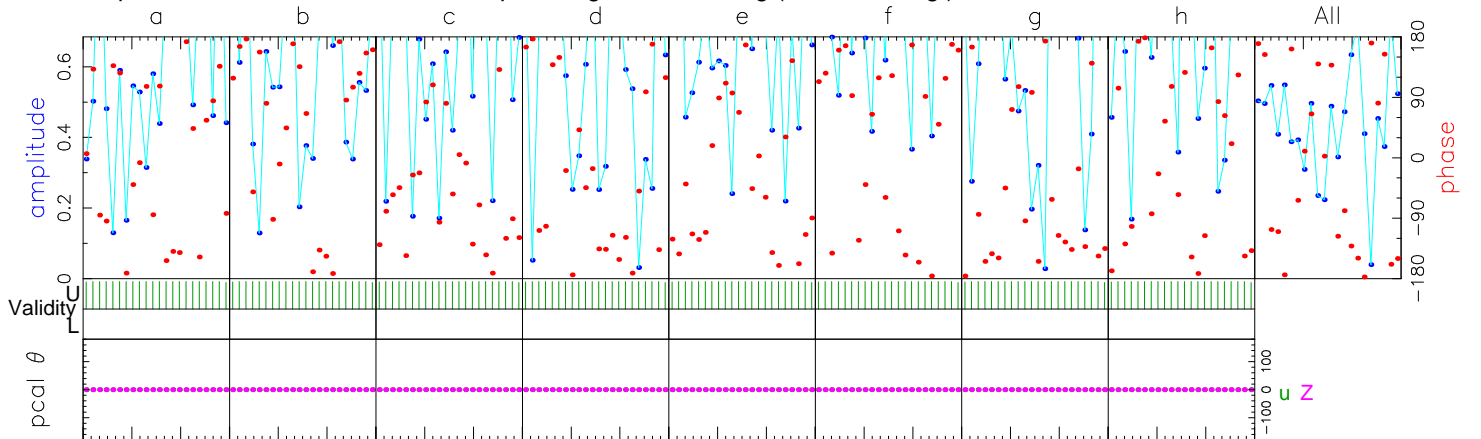
u: az 292.1 el 39.3 pa 71.1 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) 9395.502 -1917.946 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/uZ..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/uZ.W.150.126B8R



Fringe quality 9  
 SNR 8.4  
 Int time 179.729  
 Amp 0.228  
 Phase -163.0  
 PFD 1.0e-08  
 Delays (us)  
 SBD 0.001602  
 MBD 0.002395  
 Fringe rate (Hz) 0.003857  
 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  
 2020:071:121828  
 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		
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.18563048227E+03				-4.18563287718E+03				Resid mbdelay (usec)	2.39491E-03 +/- 1.3E-04
Sband delay (usec)	-4.18563127543E+03					8.3304033E-07			Resid sbdelay (usec)	1.60175E-03 +/- 1.0E-03
Phase delay (usec)	-4.18563288244E+03					3.8370717E-07			Resid phdelay (usec)	-5.25770E-03 +/- 4.4E-07
Delay rate (us/s)	-1.30615895813E+00					-1.30615900290E+00			Resid rate (us/s)	4.47766E-08 +/- 4.2E-09
Total phase (deg)		-177.6				2.70517219807E-06			Resid phase (deg)	-163.0 +/- 13.7
	RMS	Theor.	Amplitude	0.228 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	76.4	32.1	Search (1024X32)	0.224					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	116.8	56.1	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	47.2	19.4	Inc. seg. avg.	0.383					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	50.3	33.8	Inc. frq. avg.	0.278					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
u: az 292.1 el 39.3 pa 71.1			Z: az 113.3 el 55.6 pa -34.9			u,v (fr/asec) 9395.502 -1917.946				simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c192c/v1_CygA2/1234/No0011/uZ..126B8R			Output file: /Exps/c192c/v1_CygA2/1234/No0011/uZ.W.91.126B8R				

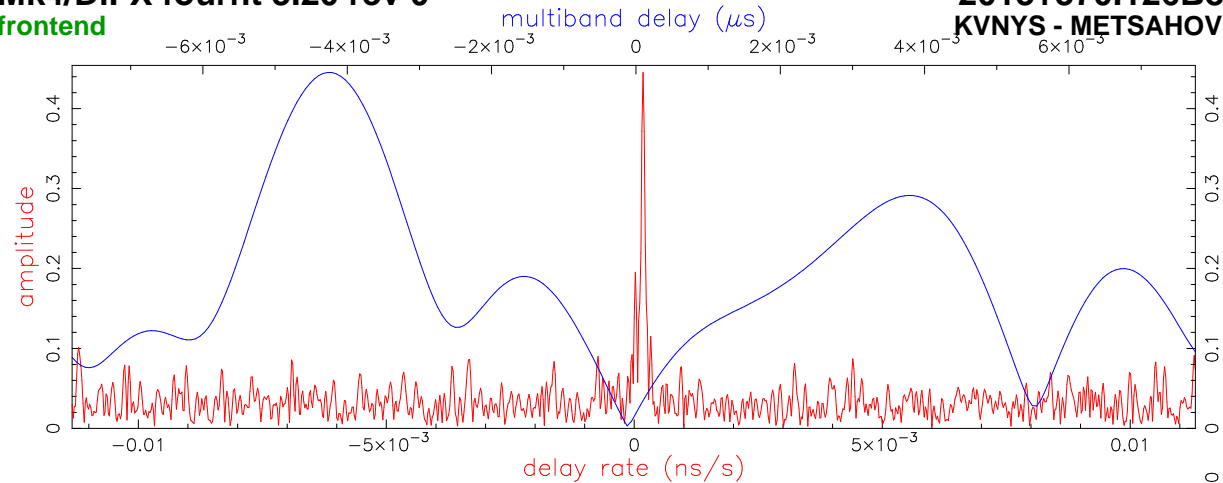


Mk4/DiFX fourfit 3.20 rev 0

frontend

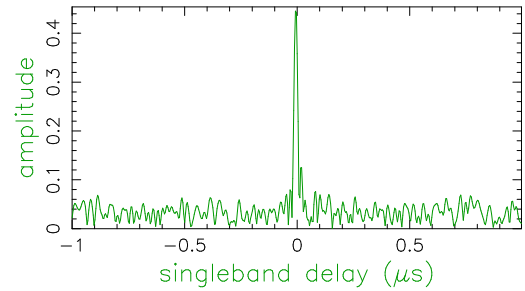
2013+370.126B8R, No0011, yZ

KVNYS - METSAHOV, fgroup W, pol LL

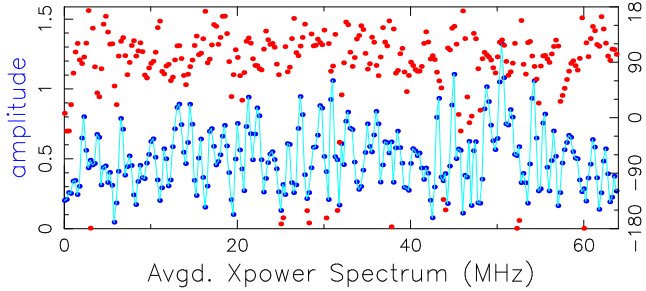


Fringe quality 8

SNR 16.6  
 Int time 179.729  
 Amp 0.454  
 Phase 84.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006023  
 MBD -0.004220  
 Fringe rate (Hz)  
 0.015822  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

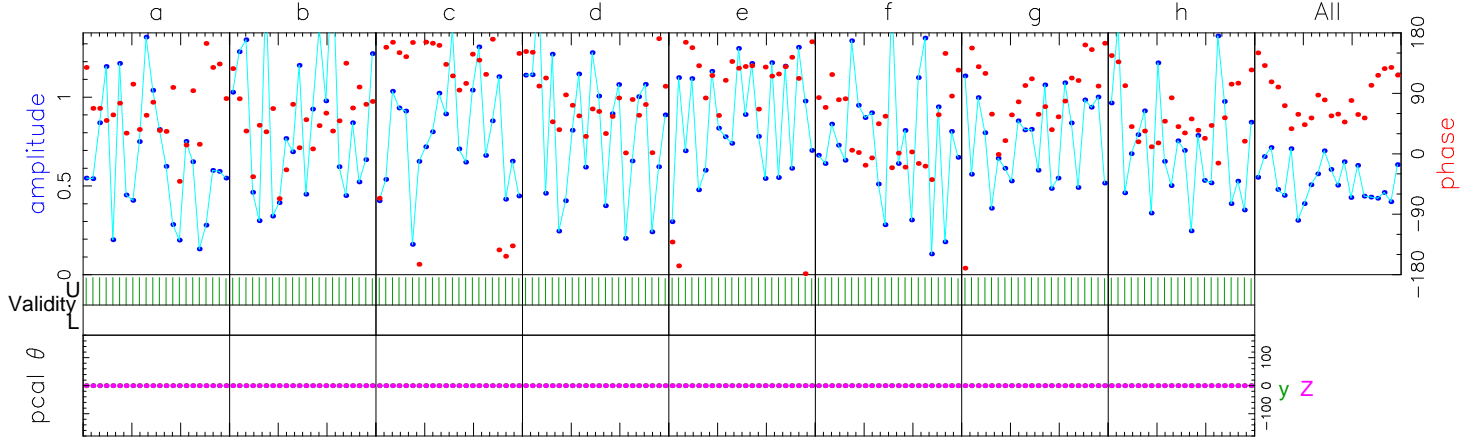


delay rate (ns/s)



Exp. c192c  
 Exper # 16383  
 Yr:day 2019:278  
 Start 150000.00  
 Stop 150300.22  
 FRT 150130.00  
 Corr/FF/build  
 2020:069:185016  
 2020:071:121838  
 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		
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-3.46942742335E+03				-3.46942320352E+03				Resid mbdelay (usec)	-4.21982E-03 +/- 6.5E-05
Sband delay (usec)	-3.46942922677E+03				2.9053318E+01				Resid sbdelay (usec)	-6.02325E-03 +/- 5.2E-04
Phase delay (usec)	-3.46942320081E+03				8.3707184E-08				Resid phdelay (usec)	2.71158E-06 +/- 2.2E-07
Delay rate (us/s)	-1.26513966948E+00				-1.26513985316E+00				Resid rate (us/s)	1.83681E-07 +/- 2.1E-09
Total phase (deg)			-186.5		9.39358477530E-07				Resid phase (deg)	84.1 +/- 6.9
	RMS	Theor.	Amplitude	0.454 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	32.7	16.1	Search (1024X32)	0.434					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	29.7	28.2	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	48.0	9.7	Inc. seg. avg.	0.509					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	35.5	17.0	Inc. frq. avg.	0.583					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

y: az 289.7 el 41.8 pa 69.5      Z: az 113.3 el 55.6 pa -34.9      u,v (fr/asec) 9099.431 -1822.069      simultaneous interpolator

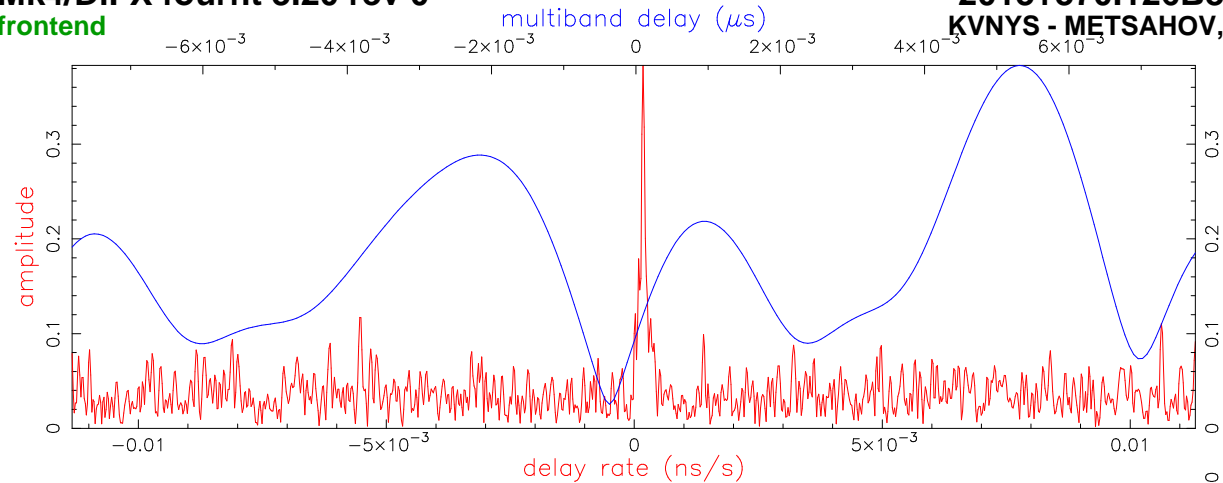
Control file: cf\_1234\_gmva    Input file: /Exps/c192c/v1\_CygA2/1234/No0011/yZ..126B8R    Output file: /Exps/c192c/v1\_CygA2/1234/No0011/yZ.W.159.126B8R

Mk4/DiFX fourfit 3.20 rev 0

frontend

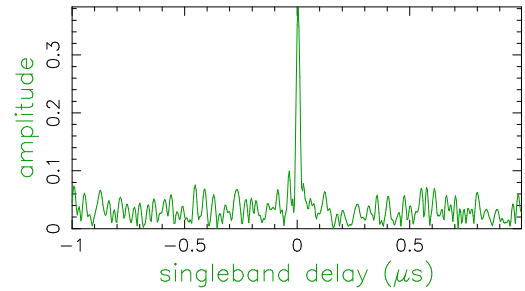
2013+370.126B8R, No0011, yZ

KVNYS - METSAHOV, fgroup W, pol RR

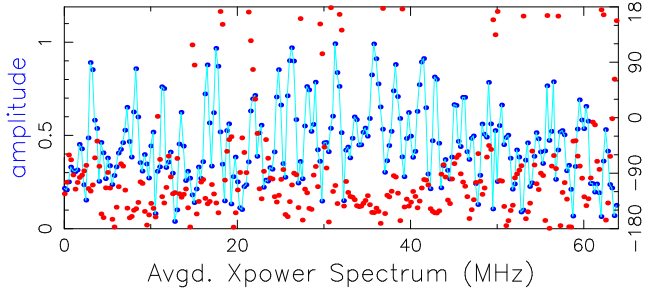


Fringe quality 9

SNR 14.0  
 Int time 179.729  
 Amp 0.383  
 Phase -142.0  
 PFD 2.4e-36  
 Delays (us)  
 SBD 0.003778  
 MBD 0.005316  
 Fringe rate (Hz) 0.015502  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

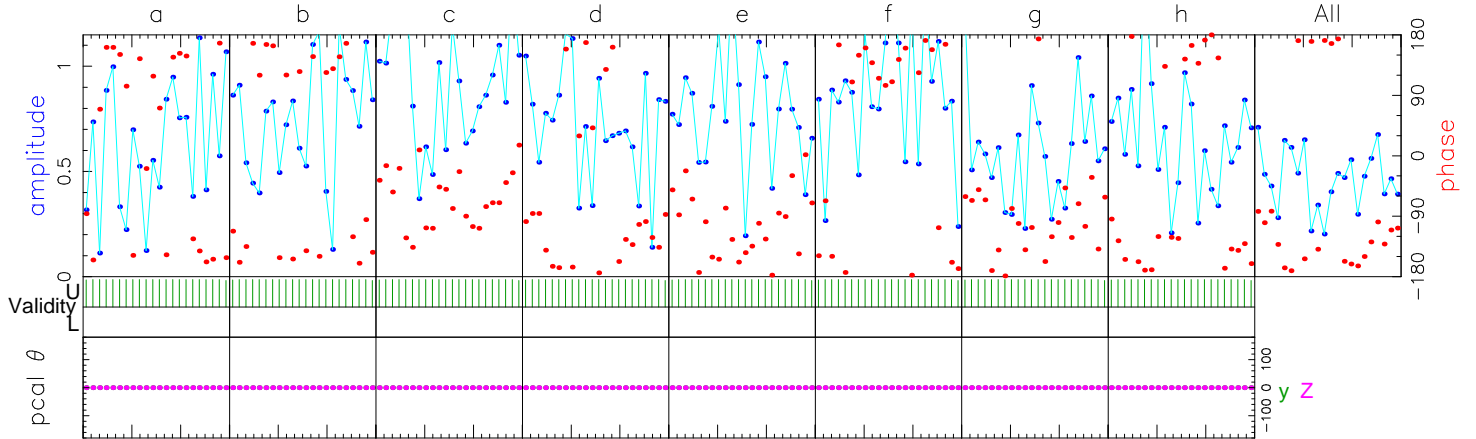


delay rate (ns/s)



Exp. c192c  
 Exper # 16383  
 Yr:day 2019:278  
 Start 150000.00  
 Stop 150300.22  
 FRT 150130.00  
 Corr/FF/build  
 2020:069:185016  
 2020:071:121840  
 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
	179.5	-171.7	-58.7	-145.4	-104.9	161.3	-96.6	-164.6	Phase	-142.0
	0.5	0.6	0.7	0.5	0.6	0.7	0.4	0.6	Ampl.	0.5
	259.6	257.7	258.1	257.0	256.8	257.1	256.8	258.2	Sbd box	258.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-3.46941788756E+03	Apriori delay (usec)	-3.46942320352E+03	Resid mbdelay (usec)	5.31596E-03	+/-	7.7E-05
Sband delay (usec)	-3.46941942602E+03	Apriori clock (usec)	2.9053318E+01	Resid sbdelay (usec)	3.77750E-03	+/-	6.1E-04
Phase delay (usec)	-3.46942320810E+03	Apriori clockrate (us/s)	8.3707184E-08	Resid phdelay (usec)	-4.57941E-06	+/-	2.6E-07
Delay rate (us/s)	-1.26513967319E+00	Apriori rate (us/s)	-1.26513985316E+00	Resid rate (us/s)	1.79965E-07	+/-	2.5E-09
Total phase (deg)	-52.6	Apriori accel (us/s/s)	9.39358477530E-07	Resid phase (deg)	-142.0	+/-	8.2

ph/seg (deg)	RMS 35.2	Theor. 19.1	Amplitude Search (1024X32)	0.383 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	42.8	33.4	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)	52.4	11.5	Inc. seg. avg.	0.442	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	51.9	20.1	Inc. frq. avg.	0.548	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

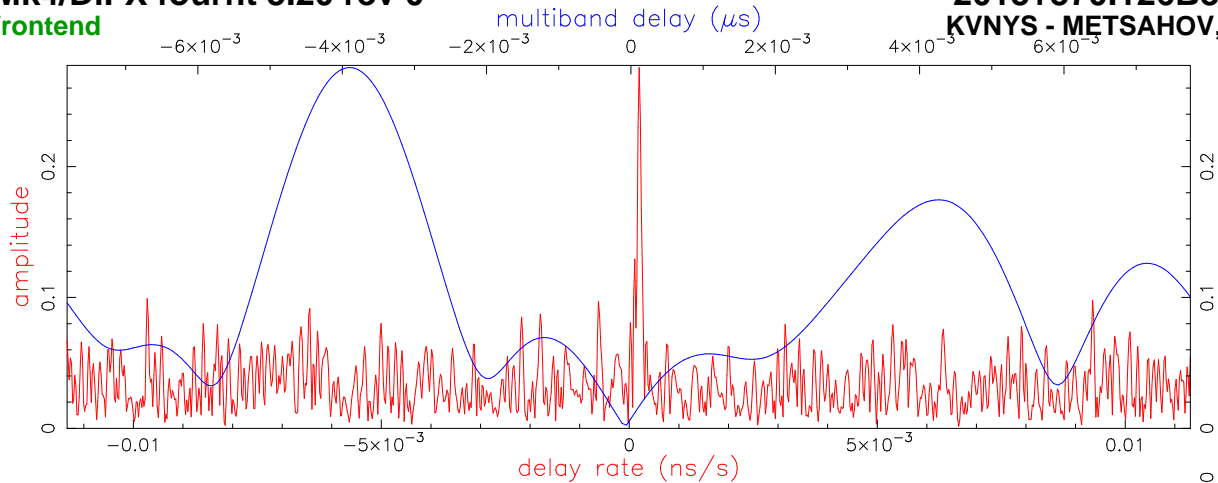
y: az 289.7 el 41.8 pa 69.5 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) 9099.431 -1822.069 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/yZ..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/yZ.W.165.126B8R

Mk4/DiFX fourfit 3.20 rev 0

frontend

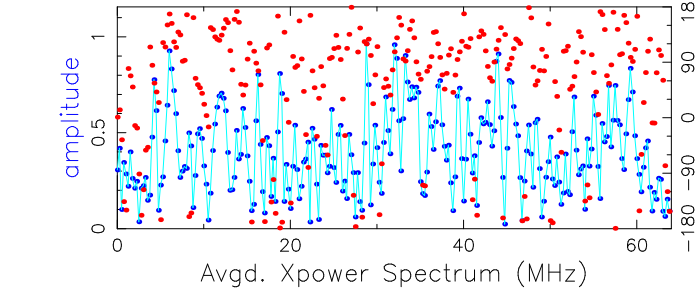
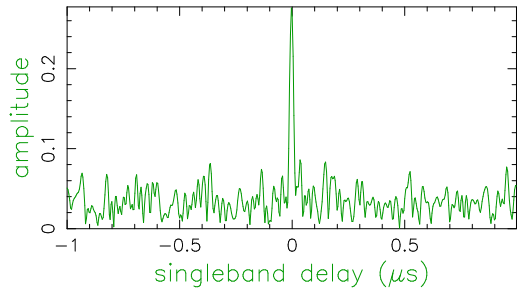
2013+370.126B8R, No0011, yZ

KVNYS - METSAHOV, fgroup W, pol LR



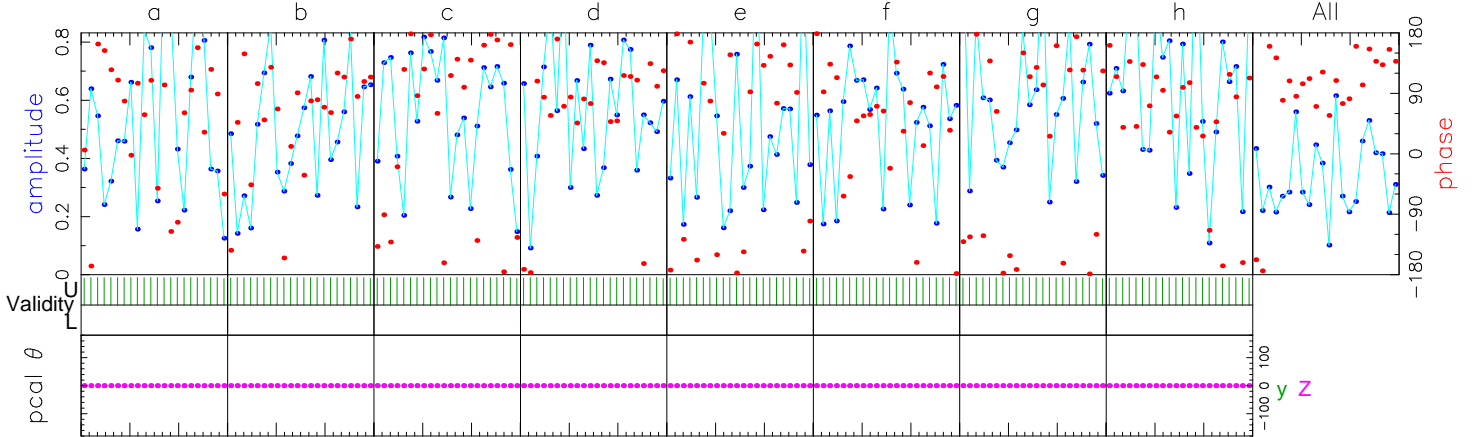
Fringe quality 9

SNR 10.2  
 Int time 179.729  
 Amp 0.277  
 Phase 121.3  
 PFD 6.1e-16  
 Delays (us)  
 SBD -0.002858  
 MBD -0.003888  
 Fringe rate (Hz)  
 0.016307  
 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  
 2020:071:121842  
 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



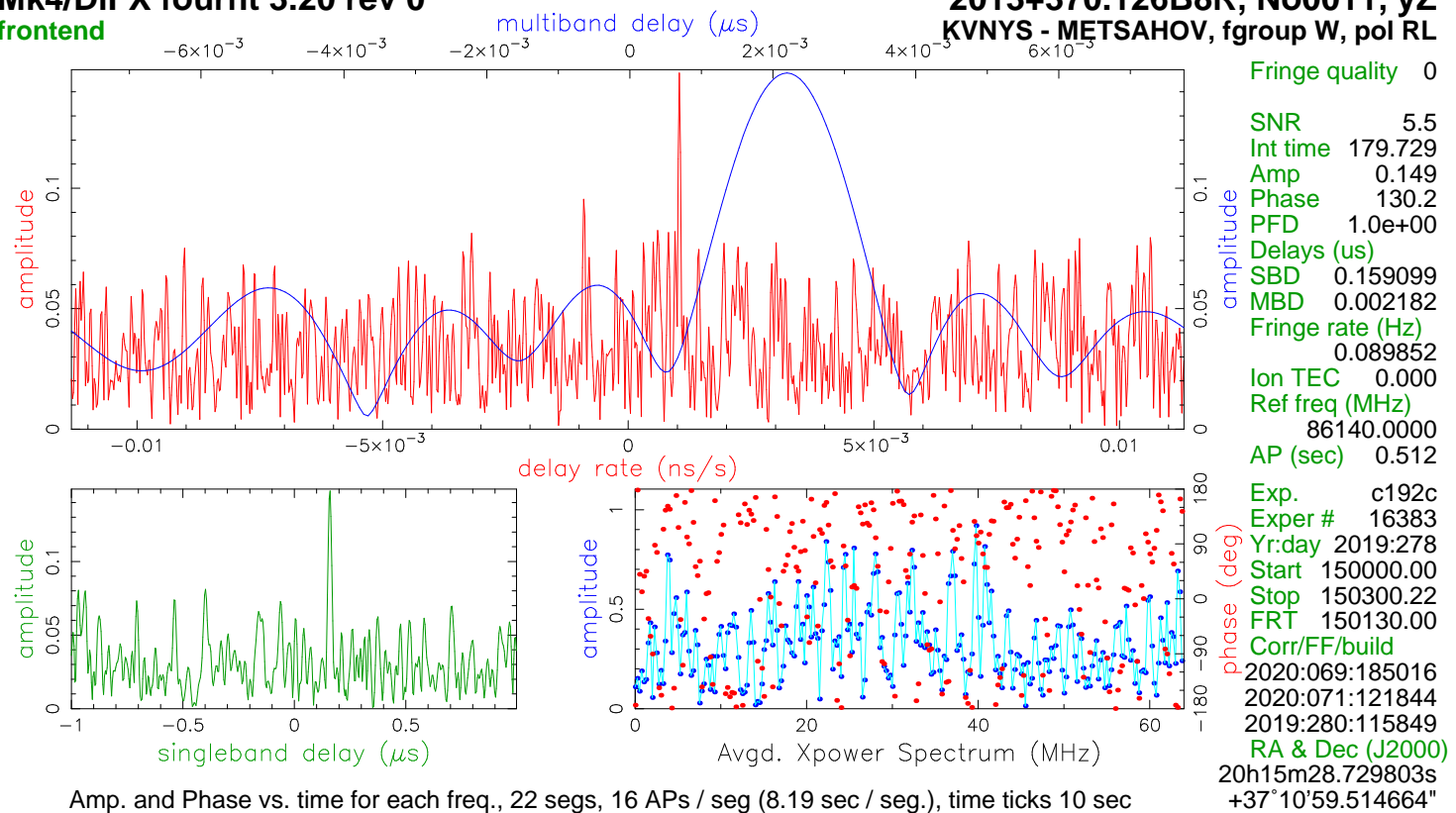
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	106.3	98.4	170.3	99.1	158.4	69.4	163.0	91.6	Phase	121.3
	0.2	0.3	0.3	0.4	0.3	0.2	0.4	0.4	Ampl.	0.3
	258.3	254.8	254.9	256.6	255.0	502.1	255.0	256.1	Sbd box	256.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-3.46942709148E+03	Apriori delay (usec)	-3.46942320352E+03	Resid mbdelay (usec)	-3.88796E-03	+/-	1.1E-04
Sband delay (usec)	-3.46942606177E+03	Apriori clock (usec)	2.9053318E+01	Resid sbdelay (usec)	-2.85825E-03	+/-	8.5E-04
Phase delay (usec)	-3.46942319961E+03	Apriori clockrate (us/s)	8.3707184E-08	Resid phdelay (usec)	3.91247E-06	+/-	3.6E-07
Delay rate (us/s)	-1.26513966385E+00	Apriori rate (us/s)	-1.26513985316E+00	Resid rate (us/s)	1.89307E-07	+/-	3.5E-09
Total phase (deg)	-149.2	Apriori accel (us/s/s)	9.39358477530E-07	Resid phase (deg)	121.3	+/-	11.3

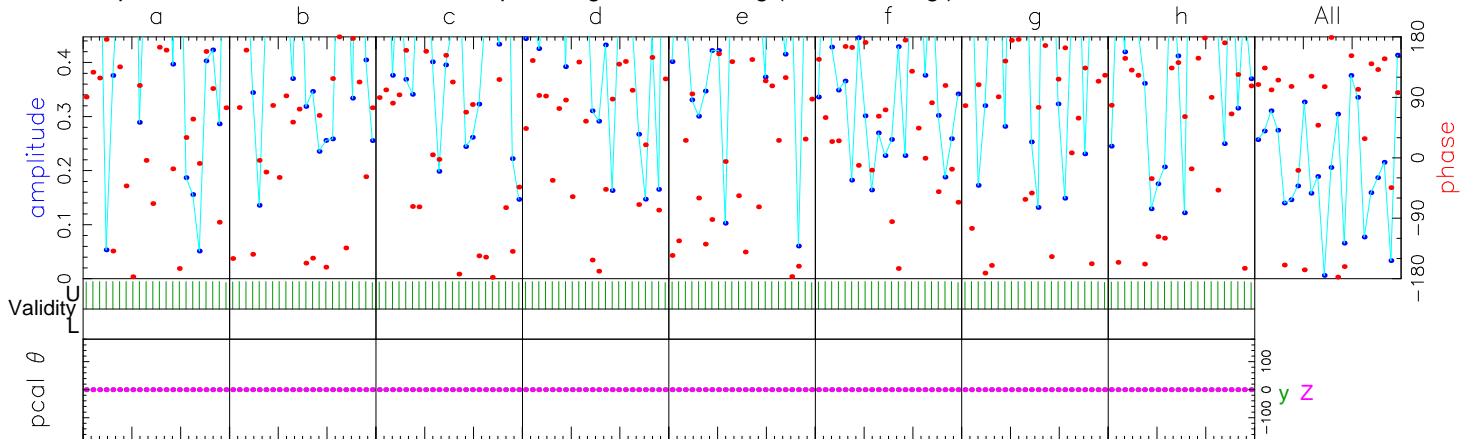
ph/seg (deg)	RMS 37.9	Theor. 26.4	Amplitude Search (1024X32)	0.277 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	51.4	46.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	41.5	15.9	Inc. seg. avg.	0.306	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	36.5	27.8	Inc. frq. avg.	0.324	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

y: az 289.7 el 41.8 pa 69.5      Z: az 113.3 el 55.6 pa -34.9      u,v (fr/asec) 9099.431 -1822.069      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps/c192c/v1\_CygA2/1234/No0011/yZ..126B8R    Output file: /Exps/c192c/v1\_CygA2/1234/No0011/yZ.W.170.126B8R



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
	142.4	125.2	148.6	102.3	150.0	63.5	153.6	136.9	Phase	130.2
	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	Ampl.	0.1
	230.3	294.8	468.6	386.4	293.3	16.0	9.4	370.7	Sbd box	297.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	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)	-3.46926477157E+03		Apriori delay (usec)		-3.46942320352E+03		Resid mbdelay (usec)		2.18196E-03	+/- 2.0E-04
Sband delay (usec)	-3.46926410452E+03		Apriori clock (usec)		2.9053318E+01		Resid sbdelay (usec)		1.59099E-01	+/- 1.6E-03
Phase delay (usec)	-3.46942319933E+03		Apriori clockrate (us/s)		8.3707184E-08		Resid phdelay (usec)		4.19846E-06	+/- 6.8E-07
Delay rate (us/s)	-1.26513881007E+00		Apriori rate (us/s)		-1.26513985316E+00		Resid rate (us/s)		1.04309E-06	+/- 6.5E-09
Total phase (deg)			Apriori accel (us/s/s)		9.39358477530E-07		Resid phase (deg)		130.2	+/- 21.0

ph/seg (deg) 65.4 49.3 Search (1024X32) 0.144 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

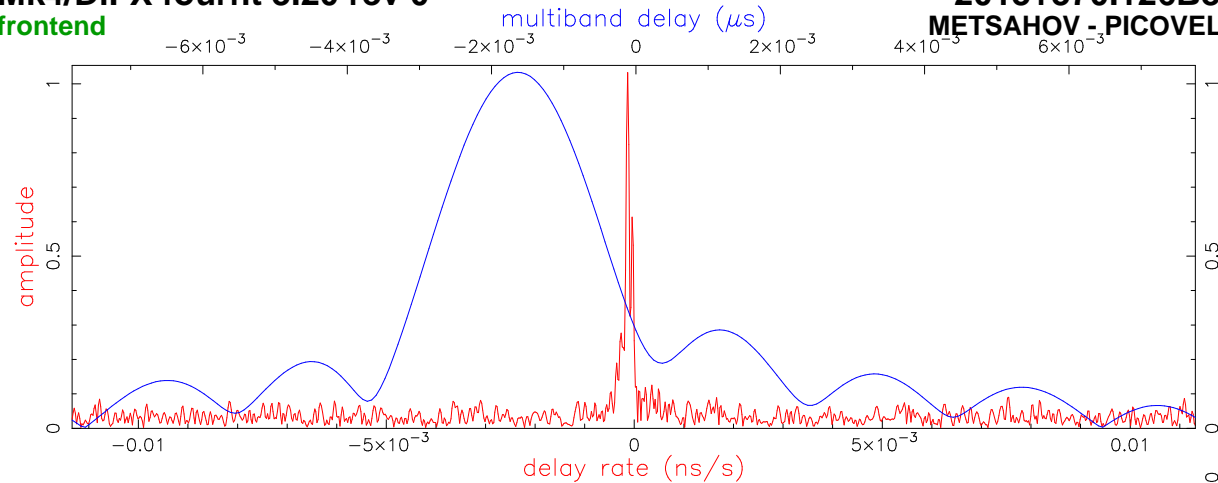
amp/seg (%) 83.4 86.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 33.5 29.7 Inc. seg. avg. 0.154 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 30.6 51.9 Inc. frq. avg. 0.146 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011

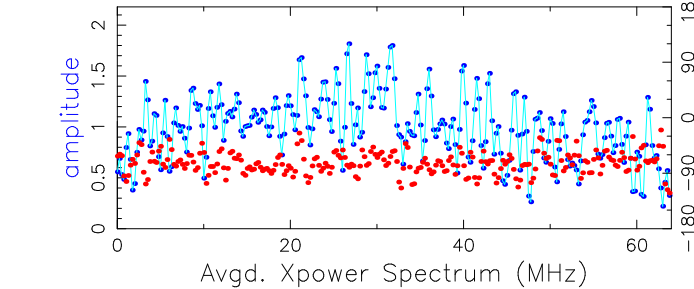
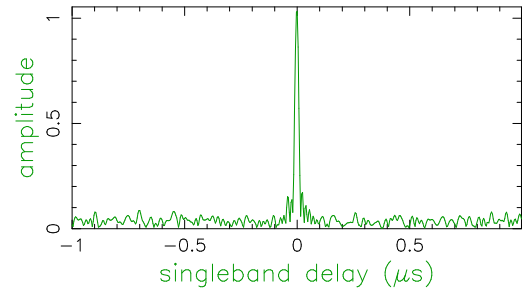
y: az 289.7 el 41.8 pa 69.5 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) 9099.431 -1822.069 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/yZ..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/yZ.W.175.126B8R



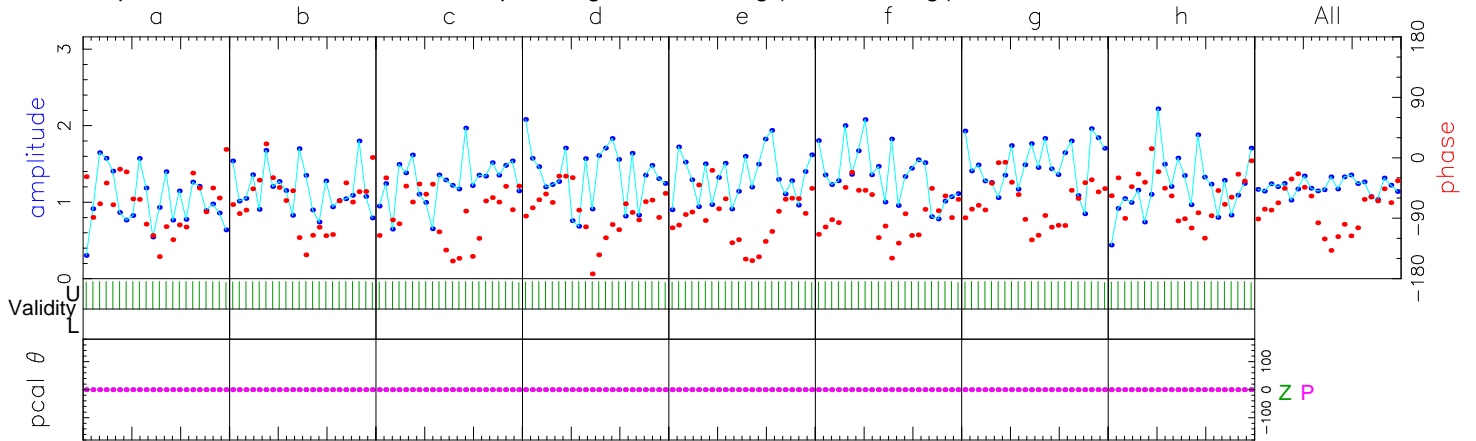
Fringe quality 7

SNR 38.6  
Int time 179.539  
Amp 1.054  
Phase -74.8  
PFD 0.0e+00  
Delays (us)  
SBD -0.001847  
MBD -0.001677  
Fringe rate (Hz)  
-0.011974  
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  
2020:071:121838  
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
	-68.0	-65.9	-81.2	-80.3	-92.3	-83.7	-67.7	-54.8	Phase	-74.8
	0.8	0.9	1.0	1.1	1.1	1.1	1.3	1.0	Ampl.	1.1
	256.2	256.6	256.3	256.3	256.5	256.7	257.1	256.0	Sbd box	256.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.78597274387E+03		Apriori delay (usec)		4.78597442082E+03		Resid mbdelay (usec)		-1.67695E-03	+/- 2.8E-05
Sband delay (usec)	4.78597257382E+03		Apriori clock (usec)		3.2229471E-01		Resid sbdelay (usec)		-1.84700E-03	+/- 2.2E-04
Phase delay (usec)	4.78597441841E+03		Apriori clockrate (us/s)		3.6929281E-07		Resid phdelay (usec)		-2.41049E-06	+/- 9.6E-08
Delay rate (us/s)	-5.18012677047E-01		Apriori rate (us/s)		-5.18012538038E-01		Resid rate (us/s)		-1.39009E-07	+/- 9.2E-10
Total phase (deg)	144.7		Apriori accel (us/s/s)		-7.32943657118E-06		Resid phase (deg)		-74.8	+/- 3.0

RMS Theor. Amplitude 1.054 +/- 0.027  
 ph/seg (deg) 31.3 7.0 Search (1024X32) 1.004  
 amp/seg (%) 16.9 12.1 Interp. 0.000  
 ph/frq (deg) 13.1 4.2 Inc. seg. avg. 1.197  
 amp/frq (%) 12.6 7.3 Inc. frq. avg. 1.051  
 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

Z: az 113.3 el 55.6 pa -34.9 P: az 67.5 el 36.7 pa -68.0 u,v (fr/asec) 3725.001 1411.618 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZP..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZP.W.162.126B8R

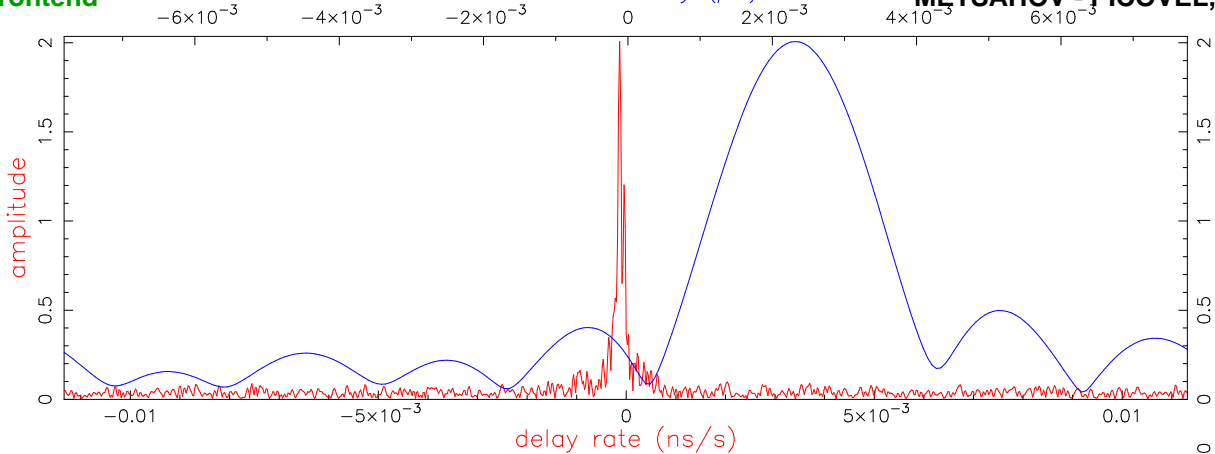
Mk4/DiFX fourfit 3.20 rev 0

frontend

2013+370.126B8R, No0011, ZP

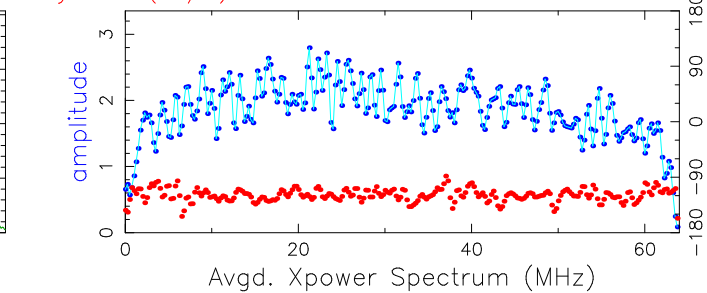
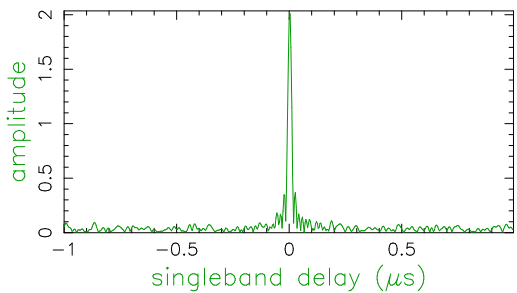
MEṬSAHOV - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)



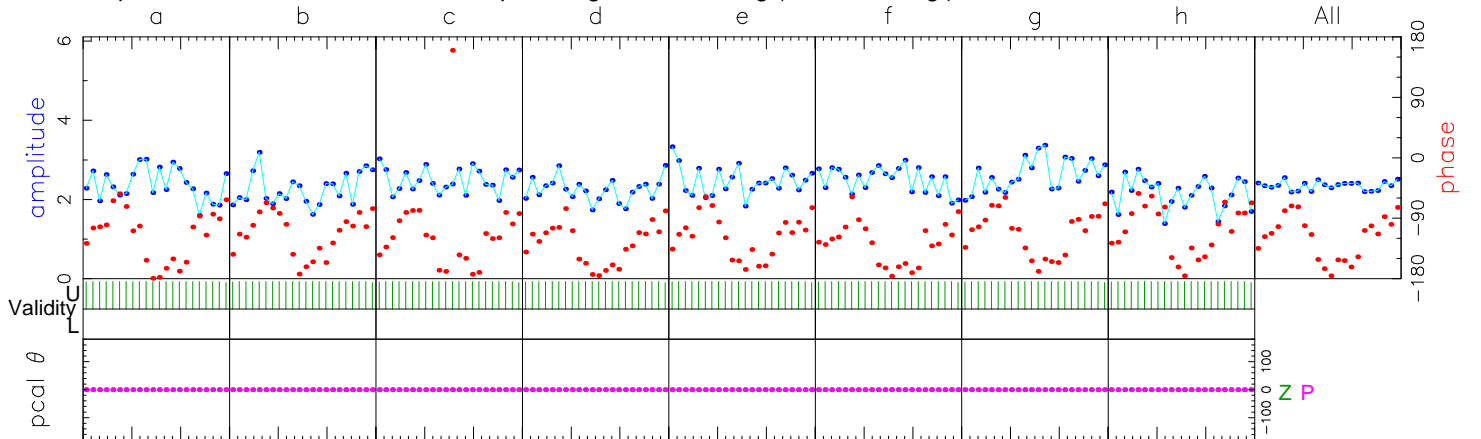
Fringe quality 7

SNR 74.6  
 Int time 179.539  
 Amp 2.036  
 Phase -117.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.002329  
 MBD 0.002288  
 Fringe rate (Hz)  
 -0.011960  
 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  
 2020:071:121840  
 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

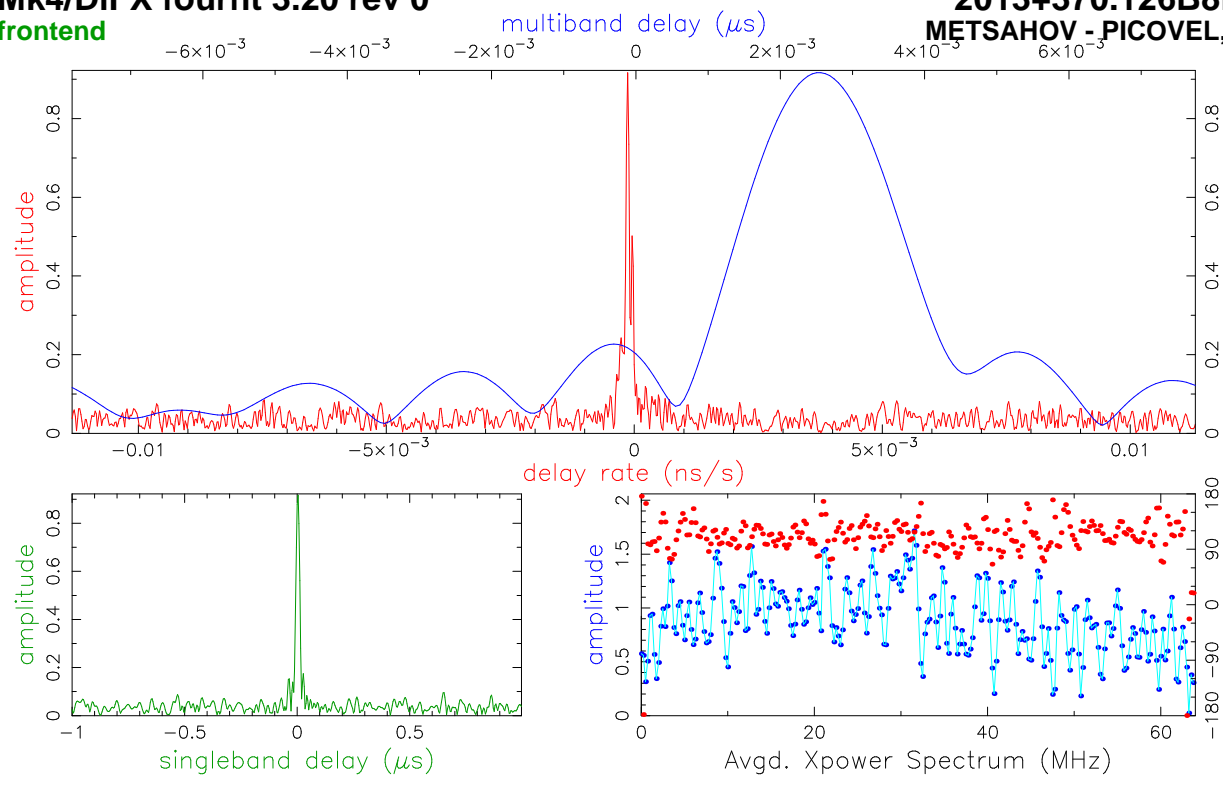


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-116.8	-110.9	-124.2	-125.4	-116.6	-129.1	-112.4	-105.3	Phase	-117.9
	1.9	2.0	2.1	2.0	2.2	2.2	2.2	1.8	Ampl.	2.0
	257.2	257.3	257.3	257.5	257.7	257.3	258.0	257.2	Sbd box	257.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 4.78597670834E+03 Apriori delay (usec) 4.78597442082E+03 Resid mbdelay (usec) 2.28751E-03 +/- 1.5E-05  
 Sband delay (usec) 4.78597675007E+03 Apriori clock (usec) 3.2229471E-01 Resid sbdelay (usec) 2.32925E-03 +/- 1.2E-04  
 Phase delay (usec) 4.78597441702E+03 Apriori clockrate (us/s) 3.6929281E-07 Resid phdelay (usec) -3.80045E-06 +/- 5.0E-08  
 Delay rate (us/s) -5.18012676880E-01 Apriori rate (us/s) -5.18012538038E-01 Resid rate (us/s) -1.38842E-07 +/- 4.8E-10  
 Total phase (deg) 101.6 Apriori accel (us/s/s) -7.32943657118E-06 Resid phase (deg) -117.9 +/- 1.5

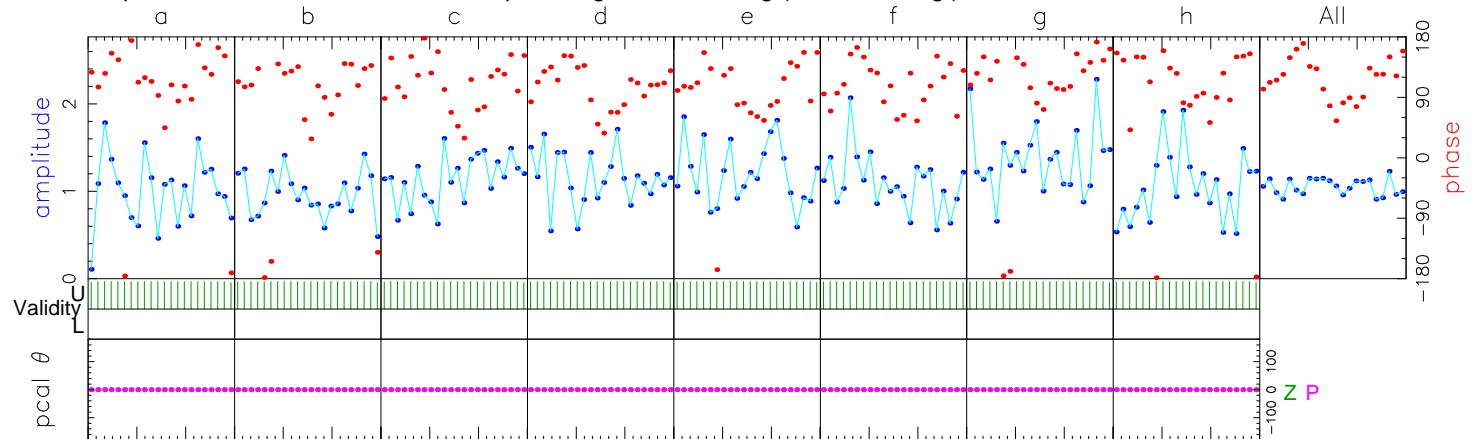
RMS Theor. Amplitude 2.036 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 31.6 3.6 Search (1024X32) 1.962 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 16.3 6.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 8.8 2.2 Inc. seg. avg. 2.346 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 7.3 3.8 Inc. frq. avg. 2.022 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

Z: az 113.3 el 55.6 pa -34.9 P: az 67.5 el 36.7 pa -68.0 u,v (fr/asec) 3725.001 1411.618 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZP..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZP.W.166.126B8R



Fringe quality 7  
 SNR 33.8  
 Int time 179.539  
 Amp 0.922  
 Phase 117.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.002881  
 MBD 0.002517  
 Fringe rate (Hz)  
 -0.011907  
 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  
 2020:071:121842  
 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
	130.2	122.3	110.7	103.9	108.5	109.2	132.4	125.0	Phase	117.7
	0.8	0.8	0.9	1.0	1.0	0.9	1.2	0.8	Ampl.	0.9
	258.0	257.4	257.4	257.5	257.7	257.4	258.1	257.0	Sbd box	257.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	4.78597693737E+03		Apriori delay (usec)		4.78597442082E+03		Resid mbdelay (usec)		2.51655E-03	+/- 3.2E-05
Sband delay (usec)	4.78597730232E+03		Apriori clock (usec)		3.2229471E-01		Resid sbdelay (usec)		2.88150E-03	+/- 2.5E-04
Phase delay (usec)	4.78597442462E+03		Apriori clockrate (us/s)		3.6929281E-07		Resid phdelay (usec)		3.79544E-06	+/- 1.1E-07
Delay rate (us/s)	-5.18012676268E-01		Apriori rate (us/s)		-5.18012538038E-01		Resid rate (us/s)		-1.38230E-07	+/- 1.1E-09
Total phase (deg)	337.2		Apriori accel (us/s/s)		-7.32943657118E-06		Resid phase (deg)		117.7	+/- 3.4

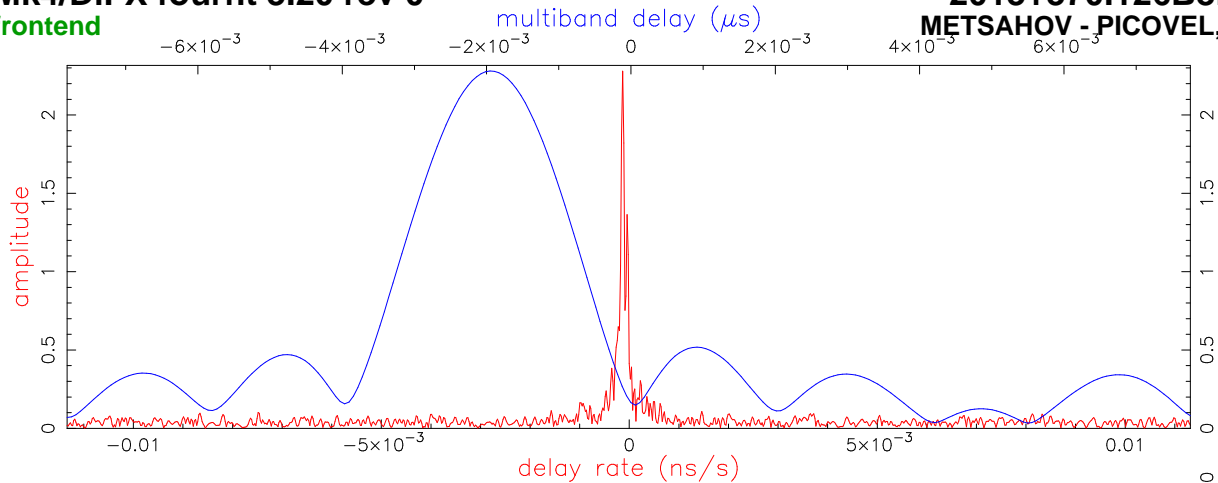
ph/seg (deg) 30.1 8.0 Search (1024X32) 0.900 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 17.5 13.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 11.9 4.8 Inc. seg. avg. 1.046 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 12.8 8.4 Inc. frq. avg. 0.929 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 Z: az 113.3 el 55.6 pa -34.9 P: az 67.5 el 36.7 pa -68.0 u,v (fr/asec) 3725.001 1411.618 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZP..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZP.W.171.126B8R

Mk4/DiFX fourfit 3.20 rev 0

frontend

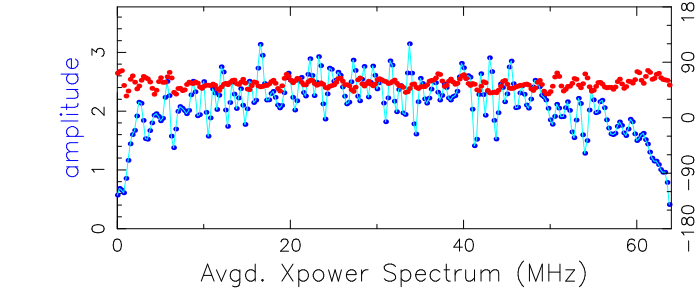
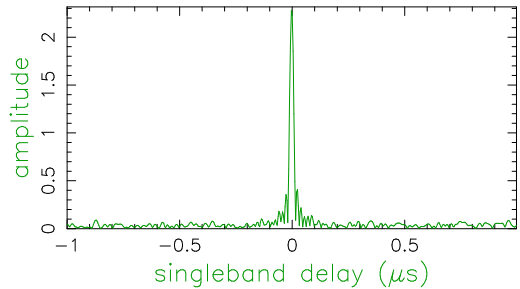
2013+370.126B8R, No0011, ZP

MEṬSAHOV - PICOVEL, fgroup W, pol RL



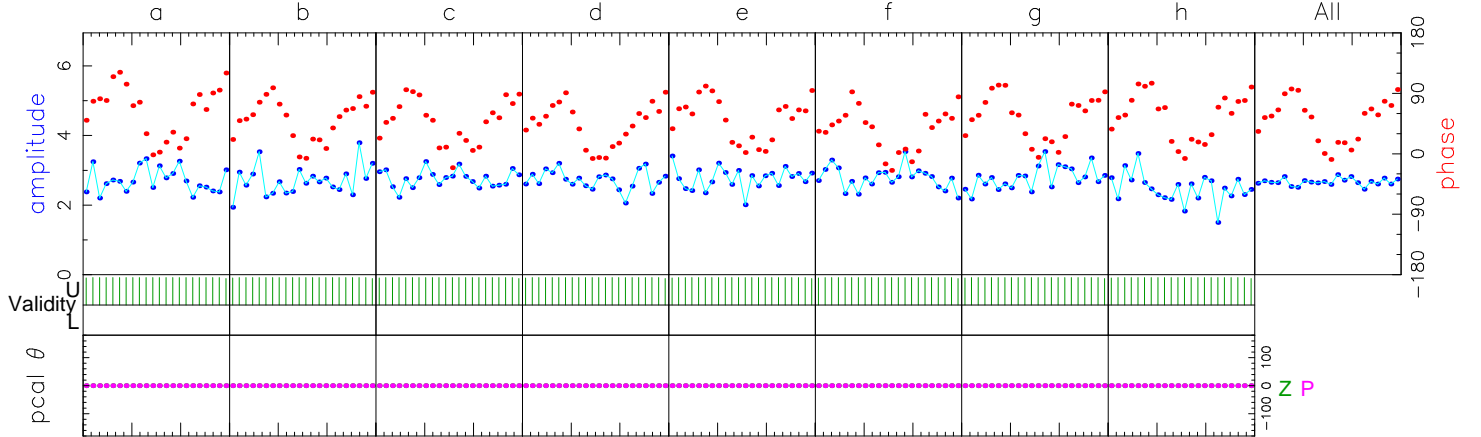
Fringe quality 7

SNR 84.9  
Int time 179.539  
Amp 2.317  
Phase 50.7  
PFD 0.0e+00  
Delays (us)  
SBD -0.002230  
MBD -0.001904  
Fringe rate (Hz)  
-0.011967  
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  
2020:071:121845  
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		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	4.78597251693E+03					4.78597442082E+03			Resid mbdelay (usec)	-1.90389E-03 +/- 1.3E-05
Sband delay (usec)	4.78597219132E+03					3.2229471E-01			Resid sbdelay (usec)	-2.22950E-03 +/- 1.0E-04
Phase delay (usec)	4.78597442246E+03					3.6929281E-07			Resid phdelay (usec)	1.63370E-06 +/- 4.4E-08
Delay rate (us/s)	-5.18012676967E-01					-5.18012538038E-01			Resid rate (us/s)	-1.38928E-07 +/- 4.2E-10
Total phase (deg)			270.2			-7.32943657118E-06			Resid phase (deg)	50.7 +/- 1.4
ph/seg (deg)	31.7	3.2							PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	15.8	5.5							PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	9.6	1.9							Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%)	5.0	3.3							Sample rate(MISamp/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

Z: az 113.3 el 55.6 pa -34.9 P: az 67.5 el 36.7 pa -68.0 u,v (fr/asec) 3725.001 1411.618 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZP..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZP.W.178.126B8R

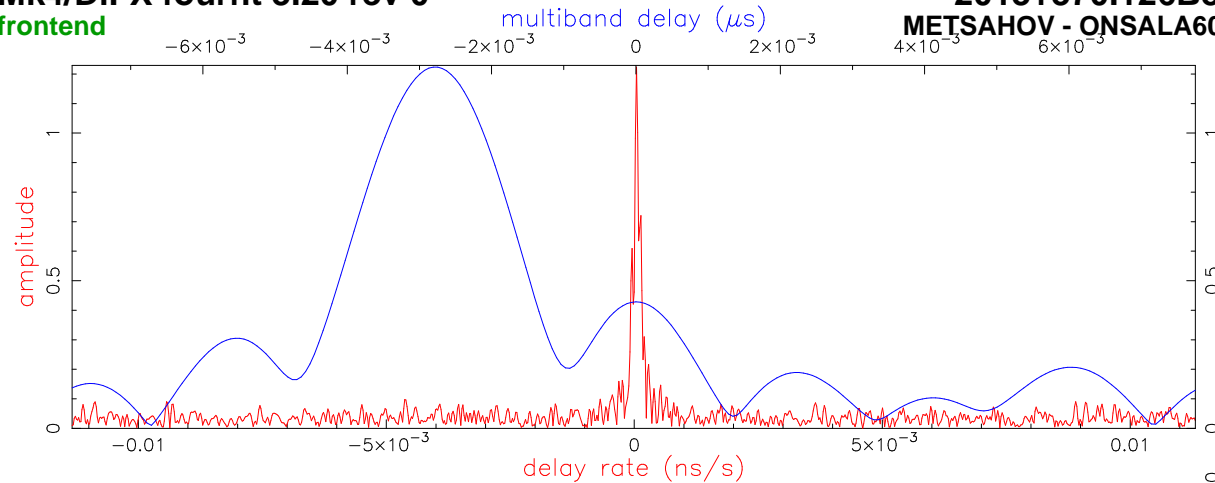


Mk4/DiFX fourfit 3.20 rev 0

frontend

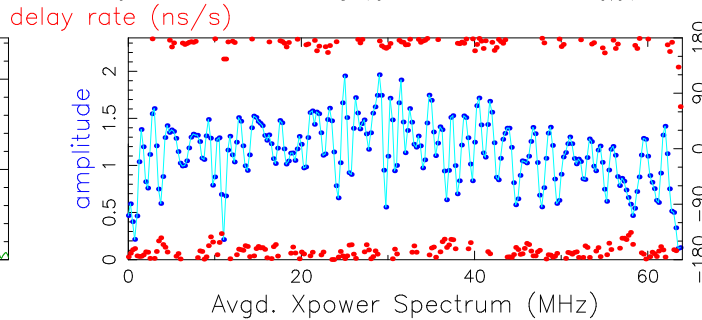
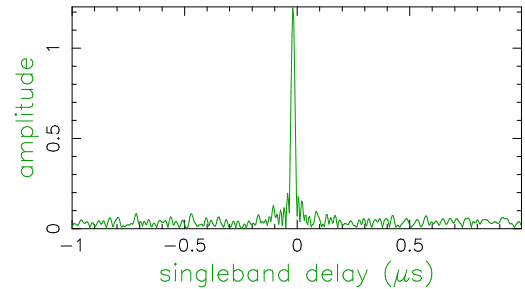
2013+370.126B8R, No0011, ZX

METSAHOV - ONSALA60, fgroup W, pol LL



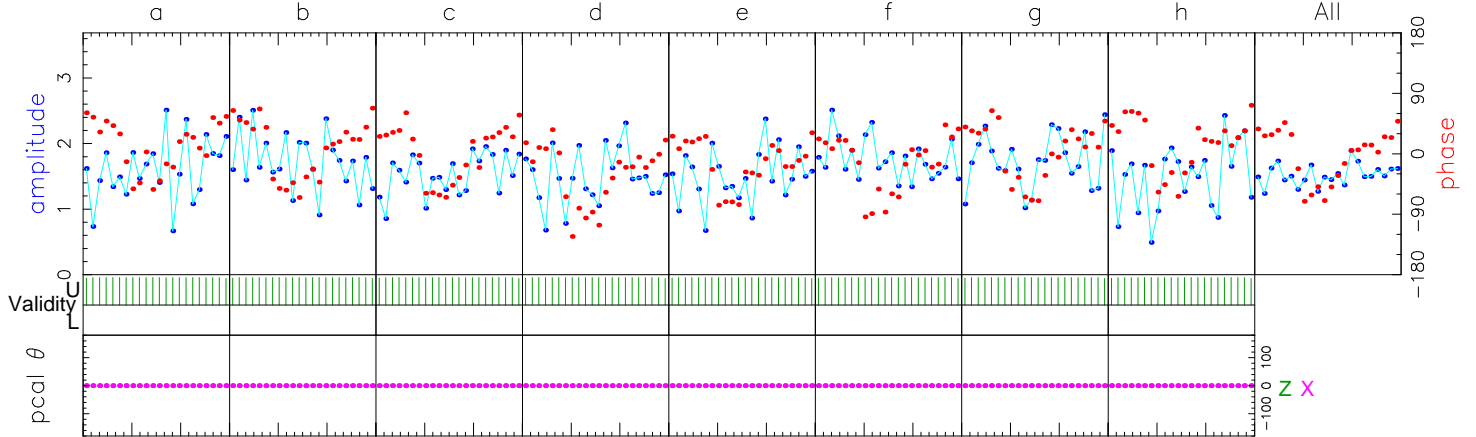
Fringe quality 7

SNR 45.1  
 Int time 179.688  
 Amp 1.229  
 Phase 1.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.018644  
 MBD -0.002763  
 Fringe rate (Hz)  
 0.004164  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



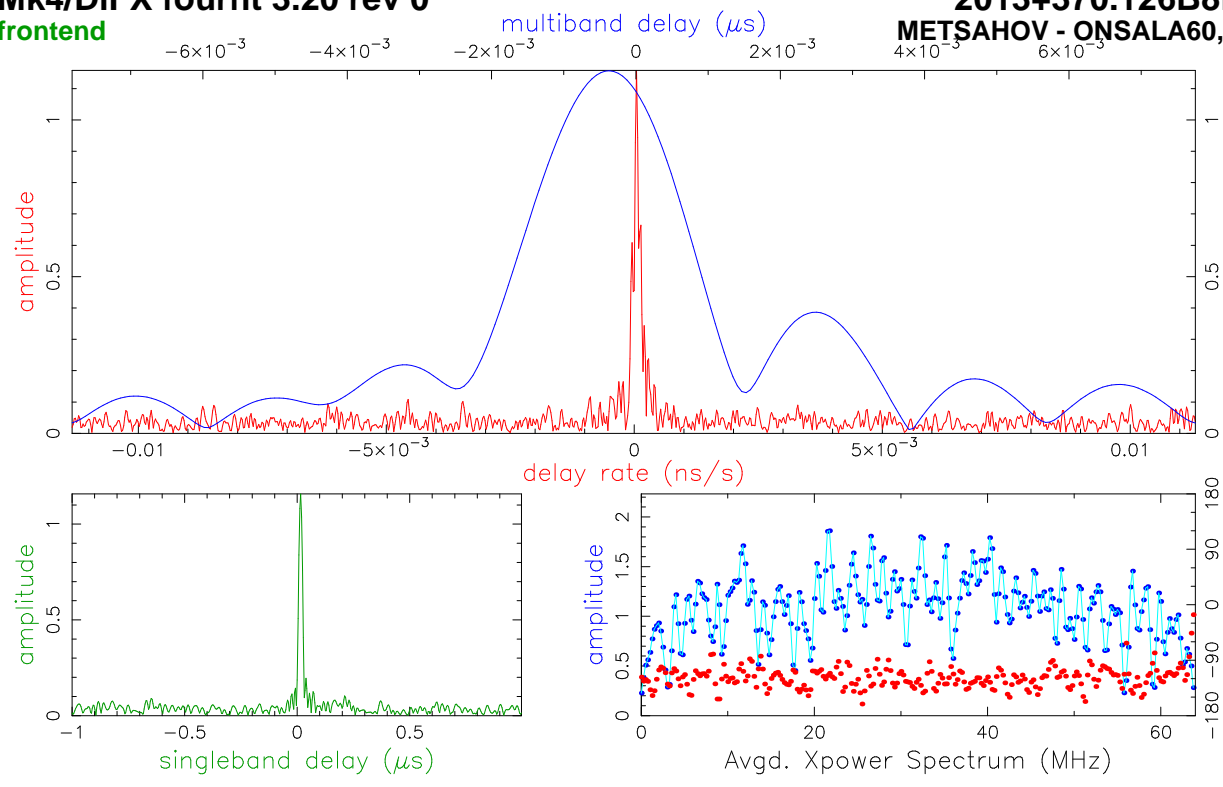
Exp. c192c  
 Exper # 16383  
 Yr:day 2019:278  
 Start 150000.00  
 Stop 150300.22  
 FRT 150130.00  
 Corr/FF/build  
 2020:069:185016  
 2020:071:121838  
 2019:280:115849  
 RA & Dec (J2000)  
 20h15m28.729803s  
 +37°10'59.514664"

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



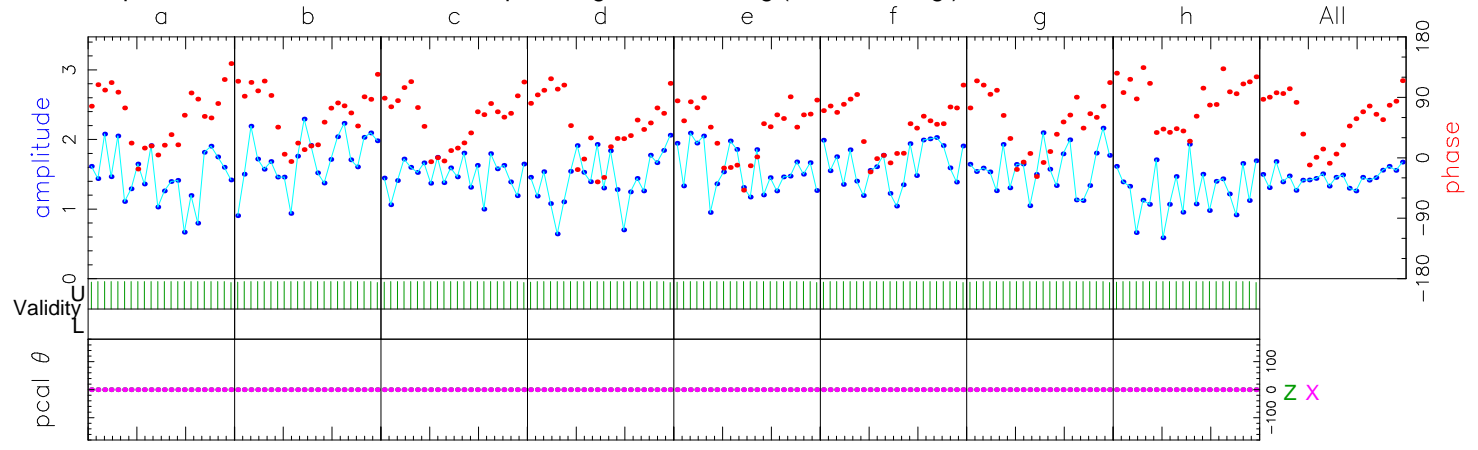
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	13.2	10.4	6.9	-25.3	-11.9	-11.9	8.3	17.9	Phase	1.3
	1.3	1.3	1.2	1.1	1.3	1.3	1.4	1.2	Ampl.	1.3
	252.3	252.1	251.9	252.2	252.7	252.0	252.7	252.6	Sbd box	252.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.19328428279E+03		Apriori delay (usec)		1.19330267059E+03		Resid mbdelay (usec)		-2.76281E-03	+/- 2.4E-05
Sband delay (usec)	1.19328402684E+03		Apriori clock (usec)		-3.2213955E+01		Resid sbdelay (usec)		-1.86437E-02	+/- 1.9E-04
Phase delay (usec)	1.19330267063E+03		Apriori clockrate (us/s)		-5.1170721E-07		Resid phdelay (usec)		4.09029E-08	+/- 8.2E-08
Delay rate (us/s)	-1.33330659575E-01		Apriori rate (us/s)		-1.33330707920E-01		Resid rate (us/s)		4.83449E-08	+/- 7.9E-10
Total phase (deg)	17.4		Apriori accel (us/s/s)		-4.76877564194E-06		Resid phase (deg)		1.3	+/- 2.5

ph/seg (deg) 37.8 6.0 Search (1024X32) 1.203 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 27.1 10.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 16.5 3.6 Inc. seg. avg. 1.516 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 6.7 6.3 Inc. frq. avg. 1.258 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 Z: az 113.3 el 55.6 pa -34.9 X: az 96.8 el 50.1 pa -42.1 u,v (fr/asec) 956.005 -109.933 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZX..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZX.W.161.126B8R



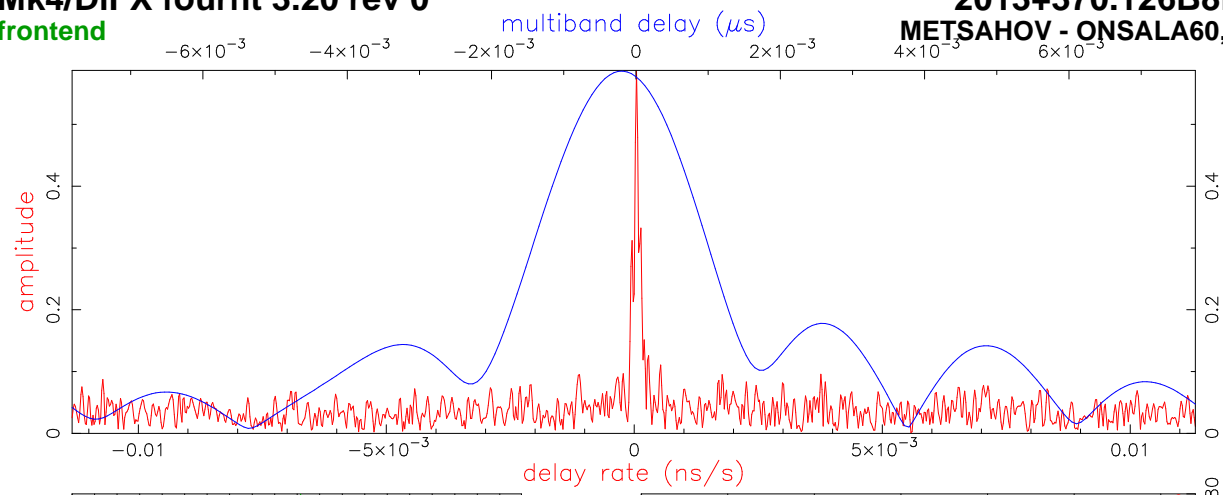
Fringe quality 7  
SNR 42.5  
Int time 179.688  
Amp 1.158  
Phase 59.4  
PFD 0.0e+00  
Delays (us)  
SBD 0.015175  
MBD -0.000387  
Fringe rate (Hz) 0.004190  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. c192c  
Exper # 16383  
Yr:day 2019:278  
Start 150000.00  
Stop 150300.22  
FRT 150130.00  
Corr/FF/build  
2020:069:185016  
2020:071:121840  
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

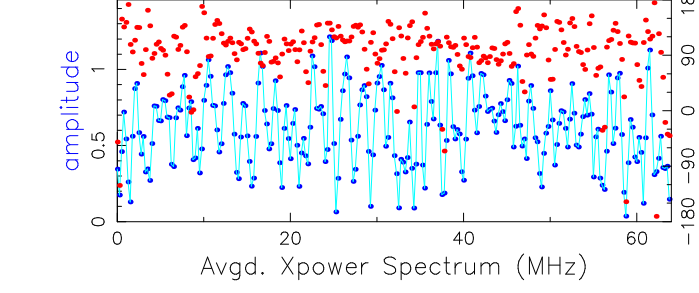
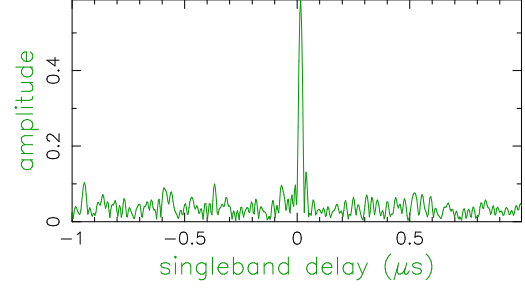


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	65.1	68.1	58.7	48.3	45.6	51.5	53.5	87.7	Phase	59.4
	1.1	1.4	1.2	1.0	1.2	1.4	1.2	1.0	Ampl.	1.2
	260.4	260.7	260.7	261.0	260.9	260.9	261.5	261.4	Sbd box	260.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.19331790907E+03		Apriori delay (usec)		1.19330267059E+03		Resid mbdelay (usec)		-3.86526E-04	+/- 2.6E-05
Sband delay (usec)	1.19331784534E+03		Apriori clock (usec)		-3.2213955E+01		Resid sbdelay (usec)		1.51748E-02	+/- 2.0E-04
Phase delay (usec)	1.19330267251E+03		Apriori clockrate (us/s)		-5.1170721E-07		Resid phdelay (usec)		1.91539E-06	+/- 8.7E-08
Delay rate (us/s)	-1.33330659273E-01		Apriori rate (us/s)		-1.33330707920E-01		Resid rate (us/s)		4.86467E-08	+/- 8.4E-10
Total phase (deg)			Apriori accel (us/s/s)		-4.76877564194E-06		Resid phase (deg)		59.4	+/- 2.7

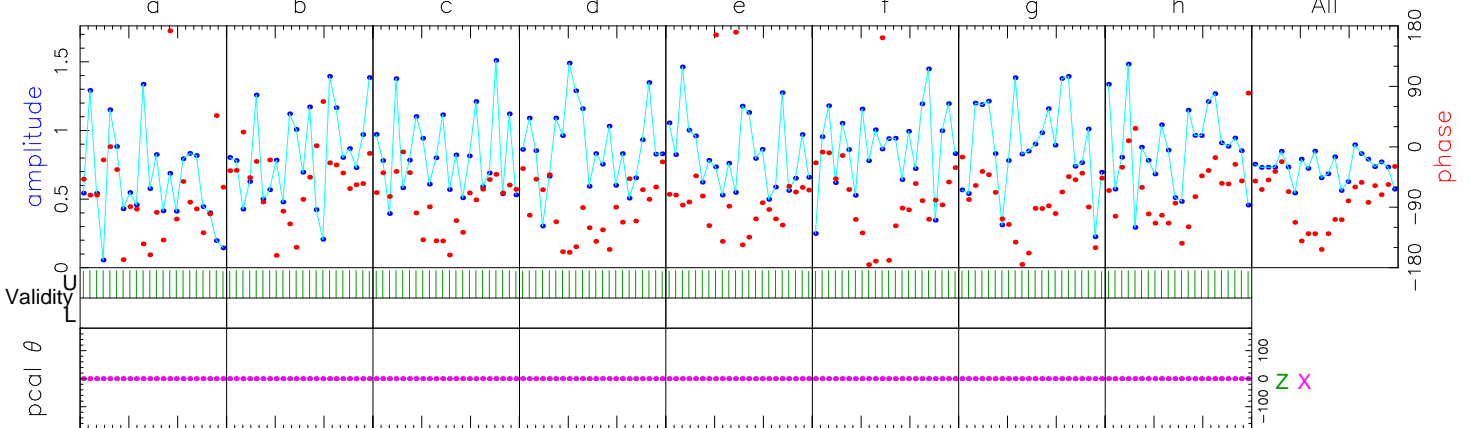
ph/seg (deg) 37.9 6.3 Search (1024X32) 1.141 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 27.4 11.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 14.8 3.8 Inc. seg. avg. 1.444 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 10.6 6.7 Inc. frq. avg. 1.181 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
Z: az 113.3 el 55.6 pa -34.9 X: az 96.8 el 50.1 pa -42.1 u,v (fr/asec) 956.005 -109.933 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZX..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZX.W.168.126B8R



Fringe quality 9  
SNR 21.5  
Int time 179.688  
Amp 0.588  
Phase -79.4  
PFD 0.0e+00  
Delays (us)  
SBD 0.015033  
MBD -0.000214  
Fringe rate (Hz) 0.004220  
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  
2020:071:121842  
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
	-90.0	-48.2	-76.5	-100.7	-96.5	-85.3	-78.5	-60.1	Phase	-79.4
	0.4	0.6	0.7	0.7	0.7	0.5	0.7	0.6	Ampl.	0.6
	259.6	261.1	260.9	260.6	261.0	260.8	261.4	261.0	Sbd box	260.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.19331808188E+03		Apriori delay (usec)		1.19330267059E+03		Resid mbdelay (usec)		-2.13713E-04	+/- 5.0E-05
Sband delay (usec)	1.19331770334E+03		Apriori clock (usec)		-3.2213955E+01		Resid sbdelay (usec)		1.50327E-02	+/- 4.0E-04
Phase delay (usec)	1.19330266803E+03		Apriori clockrate (us/s)		-5.1170721E-07		Resid phdelay (usec)		-2.56101E-06	+/- 1.7E-07
Delay rate (us/s)	-1.33330658931E-01		Apriori rate (us/s)		-1.33330707920E-01		Resid rate (us/s)		4.89897E-08	+/- 1.6E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.76877564194E-06		Resid phase (deg)		-79.4	+/- 5.3

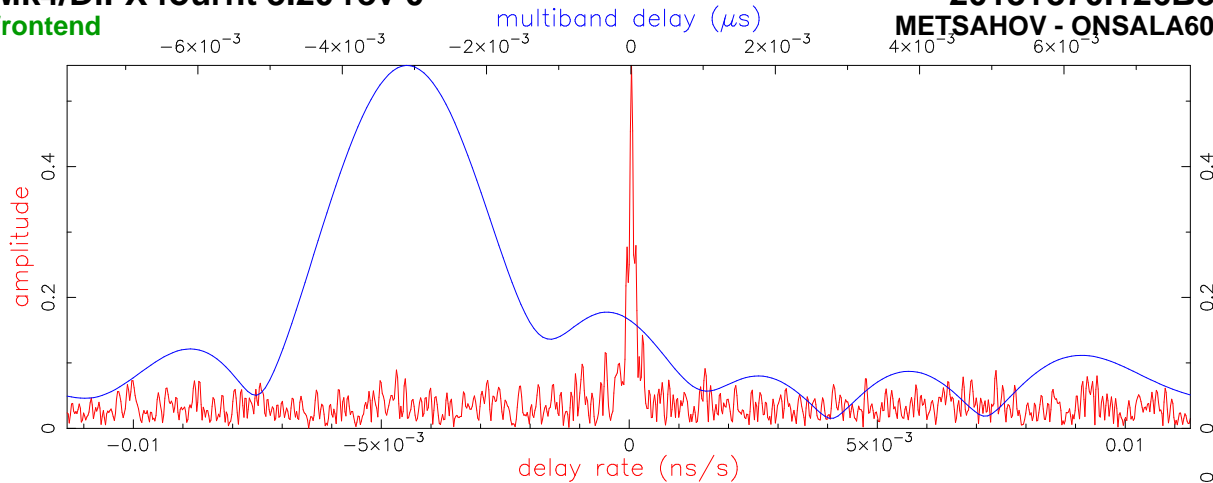
ph/seg (deg) 37.7 12.5 Search (1024X32) 0.571 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 29.3 21.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 19.3 7.5 Inc. seg. avg. 0.716 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 15.6 13.1 Inc. frq. avg. 0.607 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
Z: az 113.3 el 55.6 pa -34.9 X: az 96.8 el 50.1 pa -42.1 u,v (fr/asec) 956.005 -109.933 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZX..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZX.W.173.126B8R

Mk4/DiFX fourfit 3.20 rev 0

frontend

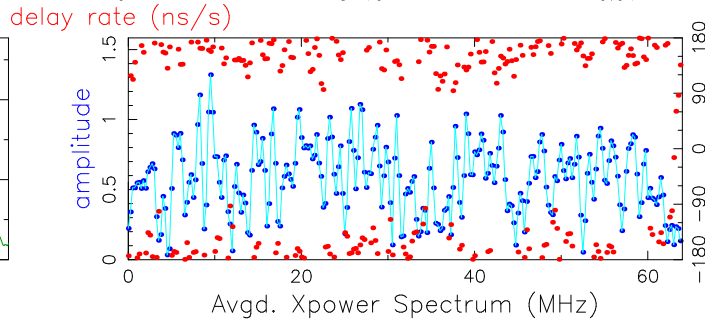
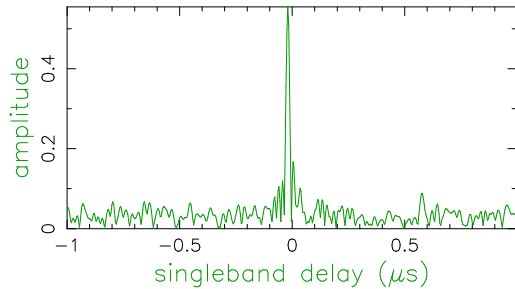
2013+370.126B8R, No0011, ZX

METSAHOV - ONSALA60, fgroup W, pol RL



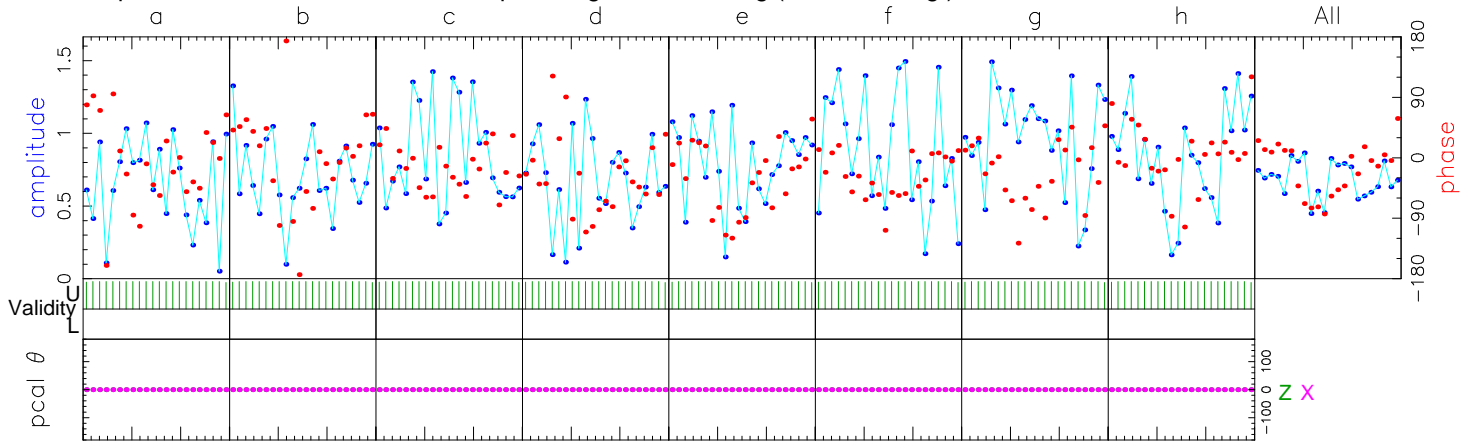
Fringe quality 9

SNR 20.3  
 Int time 179.688  
 Amp 0.555  
 Phase -15.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.019337  
 MBD -0.003094  
 Fringe rate (Hz)  
 0.004156  
 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  
 2020:071:121844  
 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

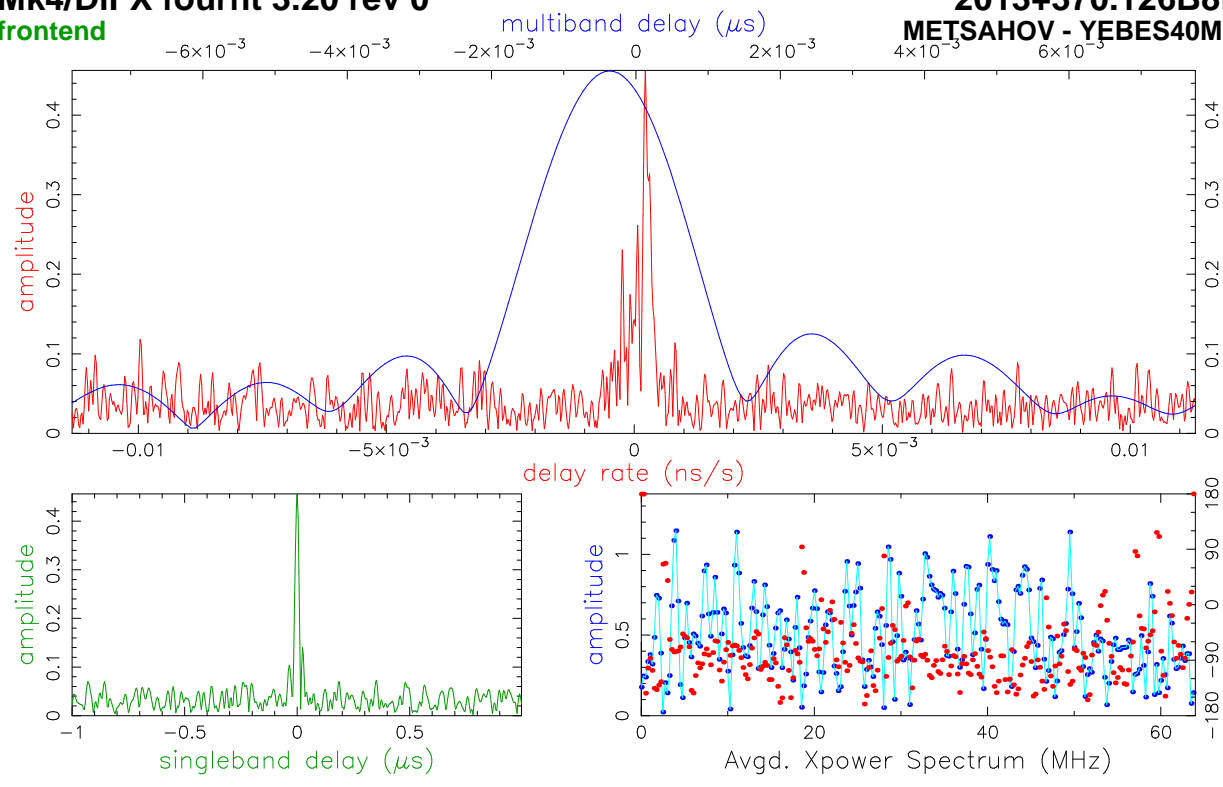


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-2.0	8.2	-16.9	-42.0	-22.9	-26.4	-19.9	11.6		-15.1
	0.4	0.4	0.7	0.5	0.5	0.8	0.7	0.6		0.6
	251.9	252.4	252.0	251.7	252.6	251.6	252.6	252.6		252.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 1.19328395163E+03 Apriori delay (usec) 1.19330267059E+03 Resid mbdelay (usec) -3.09396E-03 +/- 5.3E-05  
 Sband delay (usec) 1.1932833334E+03 Apriori clock (usec) -3.2213955E+01 Resid sbdelay (usec) -1.93372E-02 +/- 4.2E-04  
 Phase delay (usec) 1.19330267011E+03 Apriori clockrate (us/s) -5.1170721E-07 Resid phdelay (usec) -4.85378E-07 +/- 1.8E-07  
 Delay rate (us/s) -1.33330659677E-01 Apriori rate (us/s) -1.33330707920E-01 Resid rate (us/s) 4.82429E-08 +/- 1.7E-09  
 Total phase (deg) 1.1 Apriori accel (us/s/s) -4.76877564194E-06 Resid phase (deg) -15.1 +/- 5.6

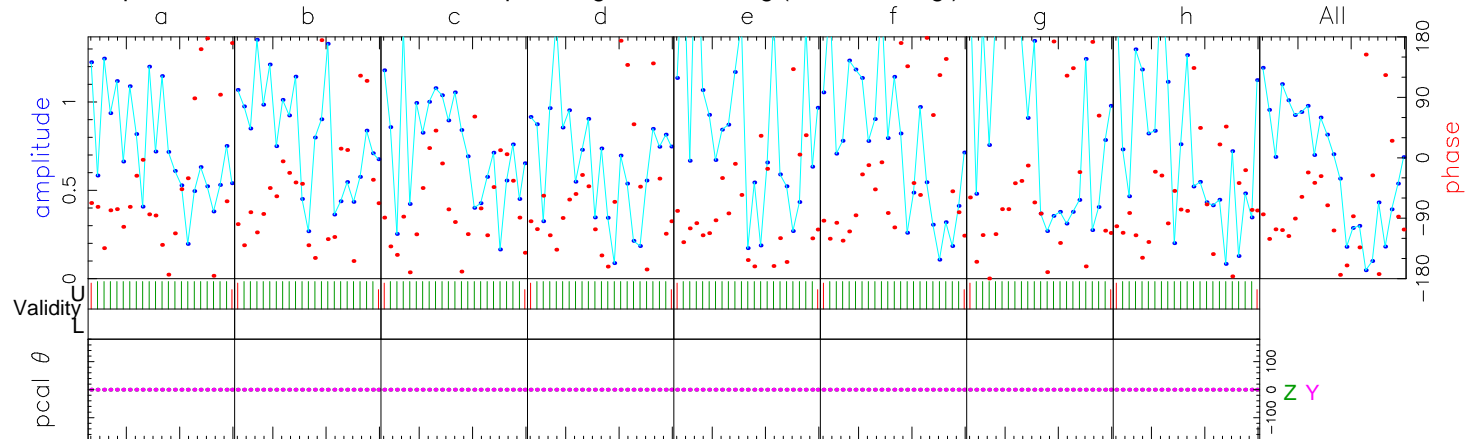
RMS Theor. Amplitude 0.555 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 37.9 13.2 Search (1024X32) 0.544 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 32.1 23.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 19.9 8.0 Inc. seg. avg. 0.669 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 24.3 13.9 Inc. frq. avg. 0.572 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

Z: az 113.3 el 55.6 pa -34.9 X: az 96.8 el 50.1 pa -42.1 u,v (fr/asec) 956.005 -109.933 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZX..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZX.W.177.126B8R



Fringe quality 9  
 SNR 15.9  
 Int time 162.301  
 Amp 0.456  
 Phase -88.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000498  
 MBD -0.000376  
 Fringe rate (Hz) 0.018552  
 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  
 2020:071:121838  
 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
	-96.0	-81.1	-74.7	-104.5	-92.3	-83.1	-88.3	-86.8	Phase	-88.3
	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	Ampl.	0.5
	256.4	257.5	256.4	256.9	257.1	256.7	257.3	256.2	Sbd box	256.9
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	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)	4.35063364880E+03		Apriori delay (usec)		4.35063402439E+03		Resid mbdelay (usec)		-3.75588E-04	+/- 6.8E-05
Sband delay (usec)	4.35063352689E+03		Apriori clock (usec)		-9.4923792E+00		Resid sbdelay (usec)		-4.97500E-04	+/- 5.4E-04
Phase delay (usec)	4.35063402154E+03		Apriori clockrate (us/s)		-2.0370720E-07		Resid phdelay (usec)		-2.84864E-06	+/- 2.3E-07
Delay rate (us/s)	-4.72642781995E-01		Apriori rate (us/s)		-4.72642997370E-01		Resid rate (us/s)		2.15375E-07	+/- 2.5E-09
Total phase (deg)	221.5		Apriori accel (us/s/s)		-8.26677588646E-06		Resid phase (deg)		-88.3	+/- 7.2

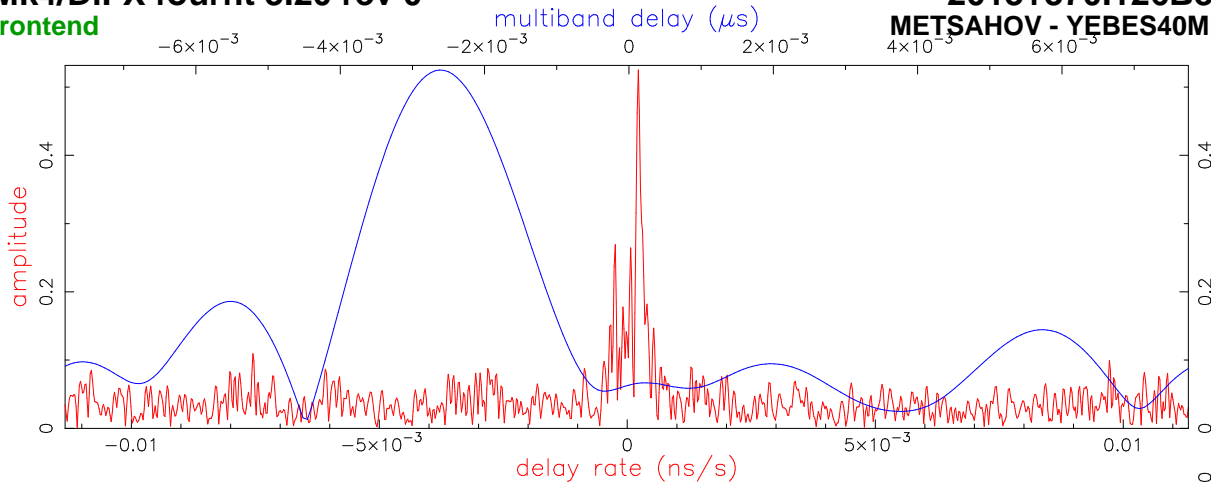
ph/seg (deg) 62.9 17.3 Search (1024X32) 0.449 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 83.5 30.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 10.0 10.2 Inc. seg. avg. 0.607 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 11.9 17.8 Inc. frq. avg. 0.453 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 Z: az 113.3 el 55.6 pa -34.9 Y: az 70.1 el 38.2 pa -64.0 u,v (fr/asec) 3397.228 1027.040 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZY..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZY.W.160.126B8R

Mk4/DiFX fourfit 3.20 rev 0

frontend

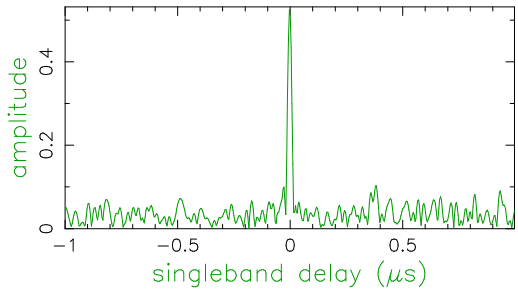
2013+370.126B8R, No0011, ZY

METSAHOV - YEBES40M, fgroup W, pol RR

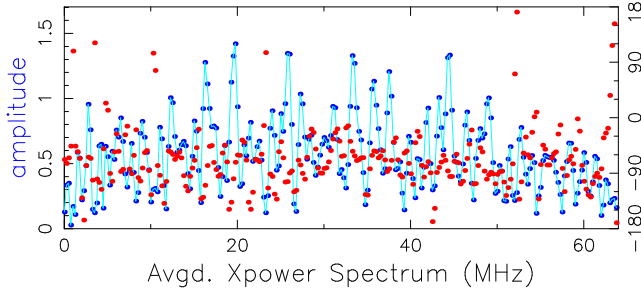


Fringe quality 9

SNR 18.5  
 Int time 162.301  
 Amp 0.532  
 Phase -72.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002325  
 MBD -0.002591  
 Fringe rate (Hz)  
 0.018496  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

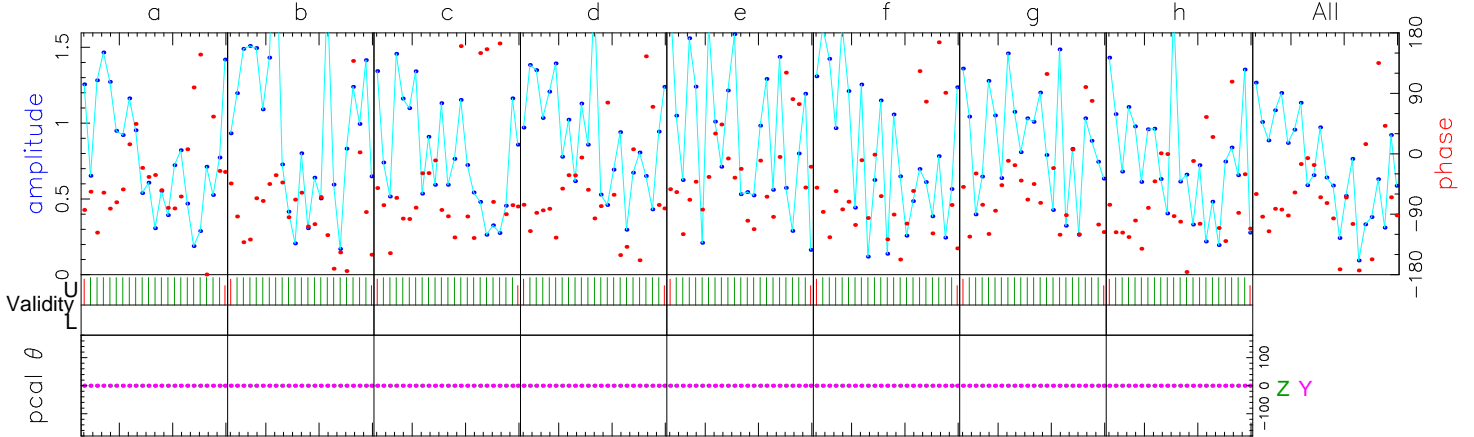


delay rate (ns/s)



Exp. c192c  
 Exper # 16383  
 Yr:day 2019:278  
 Start 150016.89  
 Stop 150259.71  
 FRT 150130.00  
 Corr/FF/build  
 2020:069:185016  
 2020:071:121840  
 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
	-52.0	-86.7	-86.6	-82.1	-36.5	-83.4	-63.7	-88.0	Phase	-72.2
	0.5	0.6	0.6	0.6	0.7	0.5	0.5	0.5	Ampl.	0.5
	255.5	256.2	256.7	256.6	256.2	256.0	256.3	255.9	Sbd box	256.4
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	4.35063143346E+03	Apriori delay (usec)	4.35063402439E+03	Resid mbdelay (usec)	-2.59093E-03	+/-	5.9E-05
Sband delay (usec)	4.35063169964E+03	Apriori clock (usec)	-9.4923792E+00	Resid sbdelay (usec)	-2.32475E-03	+/-	4.6E-04
Phase delay (usec)	4.35063402206E+03	Apriori clockrate (us/s)	-2.0370720E-07	Resid phdelay (usec)	-2.32934E-06	+/-	2.0E-07
Delay rate (us/s)	-4.72642782650E-01	Apriori rate (us/s)	-4.72642997370E-01	Resid rate (us/s)	2.14720E-07	+/-	2.1E-09
Total phase (deg)		Apriori accel (us/s/s)	-8.26677588646E-06	Resid phase (deg)	-72.2	+/-	6.2

ph/seg (deg)	62.0	Theor.	14.8	Amplitude	0.532 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	69.6	Search (1024X32)	0.512	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	21.0	Inc. seg. avg.	0.700	Inc. frq. avg.	0.548	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	14.0	Inc. frq. avg.	0.548			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

Z: az 113.3 el 55.6 pa -34.9 Y: az 70.1 el 38.2 pa -64.0 u,v (fr/asec) 3397.228 1027.040 simultaneous interpolator

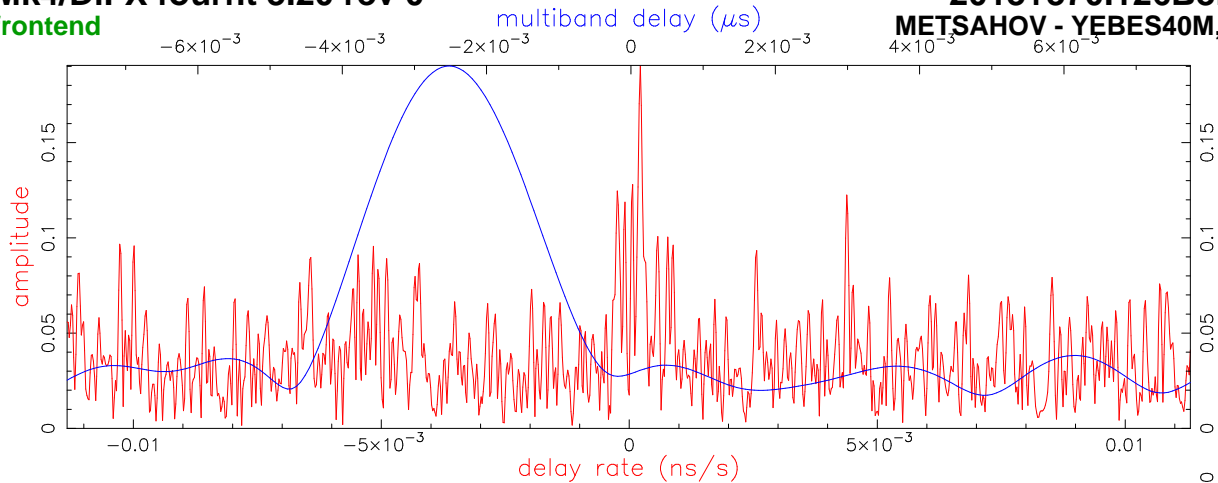
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZY..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZY.W.164.126B8R

# Mk4/DiFX fourfit 3.20 rev 0

frontend

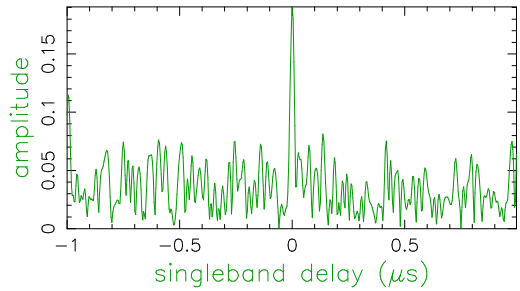
# 2013+370.126B8R, No0011, ZY

METSAHOV - YEBES40M, fgroup W, pol LR

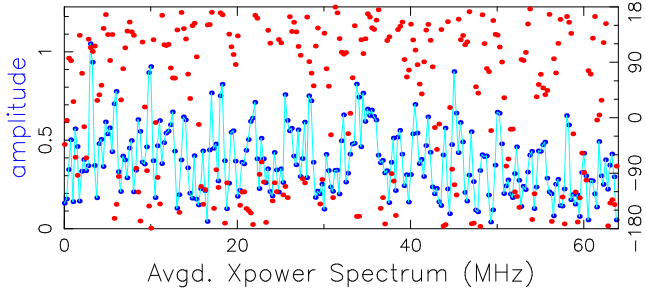


Fringe quality 0

SNR 6.6  
 Int time 162.301  
 Amp 0.191  
 Phase -171.7  
 PFD 4.6e-03  
 Delays (us)  
 SBD 0.000560  
 MBD -0.002515  
 Fringe rate (Hz)  
 0.018890  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

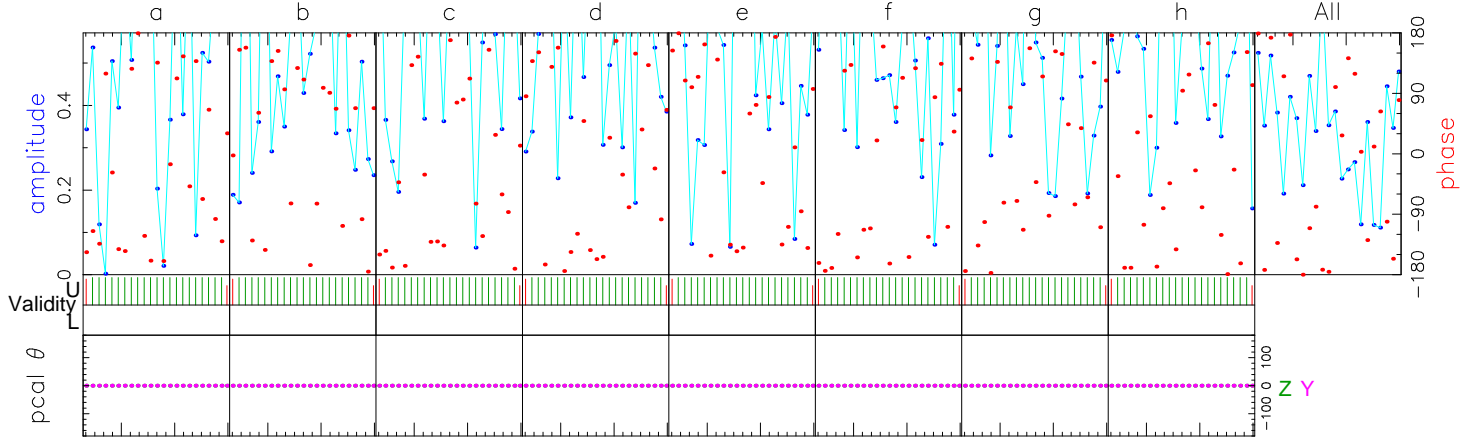


delay rate (ns/s)



Exp. c192c  
 Exper # 16383  
 Yr:day 2019:278  
 Start 150016.89  
 Stop 150259.71  
 FRT 150130.00  
 Corr/FF/build  
 2020:069:185016  
 2020:071:121842  
 2019:280:115849  
 RA & Dec (J2000)  
 20h15m28.729803s  
 +37°10'59.514664"

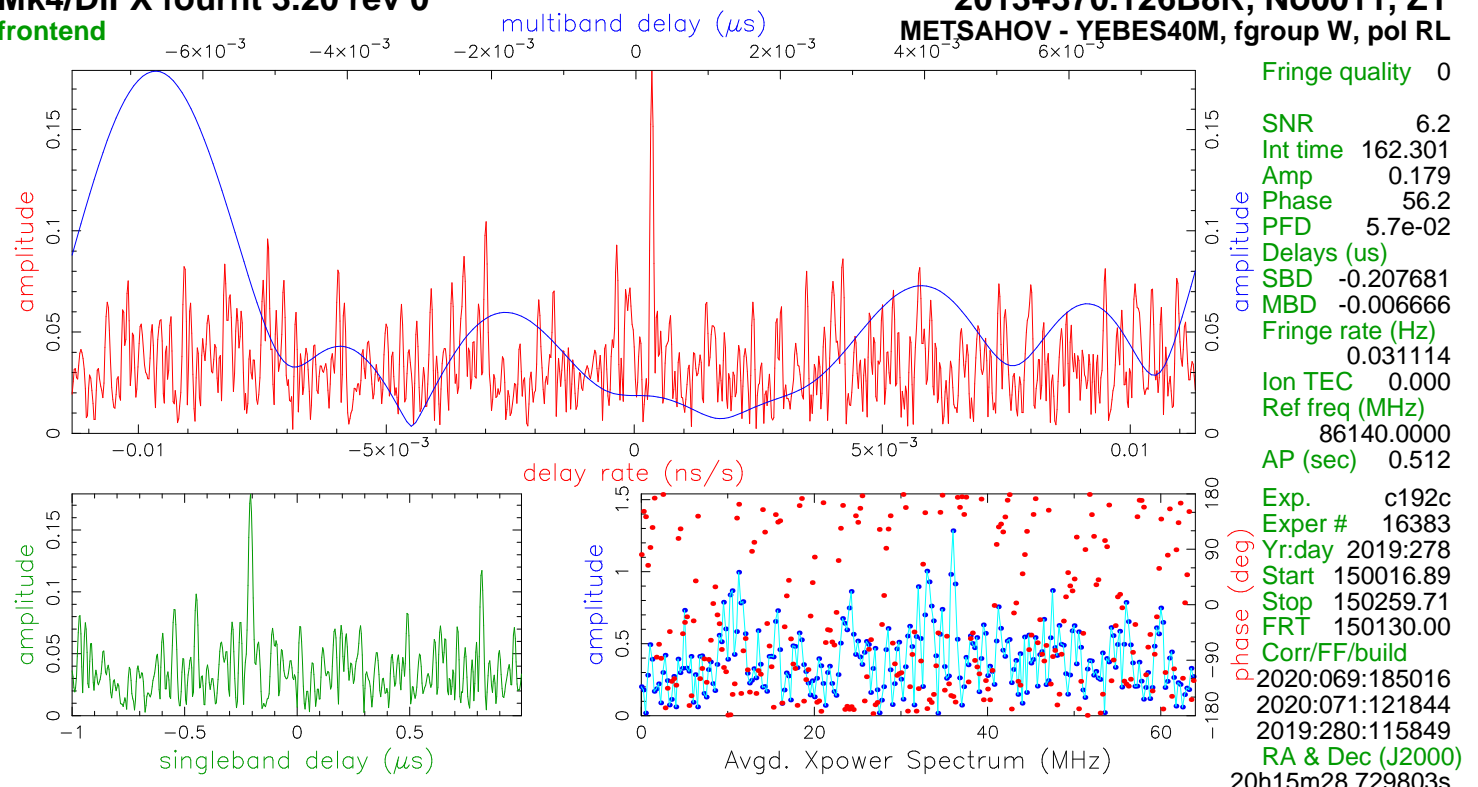
Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



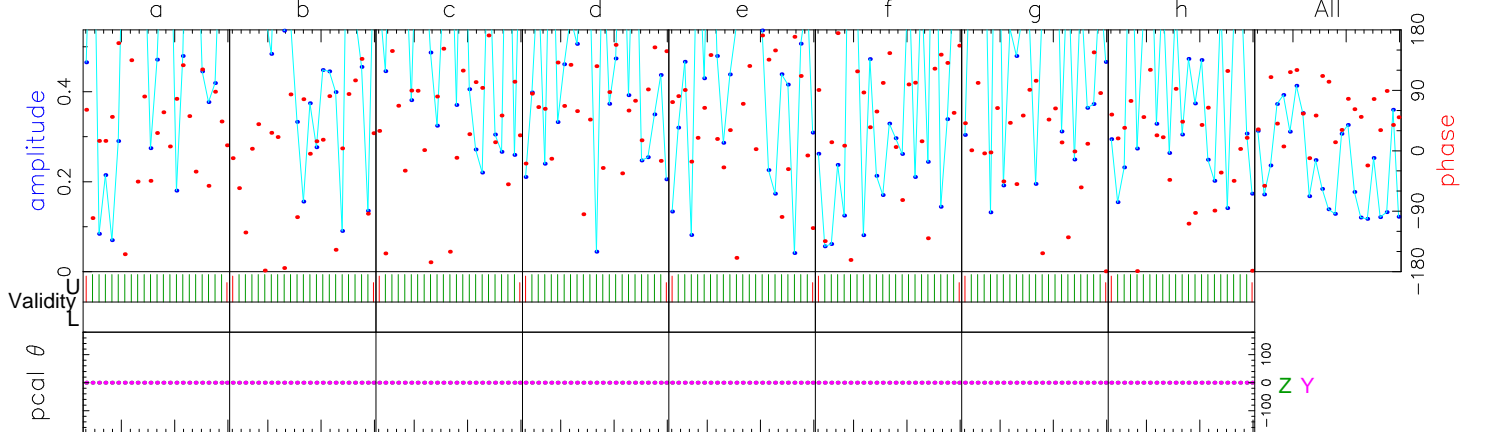
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-138.2	163.7	-172.7	-177.5	175.3	-175.6	-157.8	-153.6	Phase	-171.7
	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	Ampl.	0.2
	408.7	207.3	2.2	137.2	120.2	30.2	330.1	67.1	Sbd box	257.1
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	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)	4.35063150961E+03		Apriori delay (usec)		4.35063402439E+03		Resid mbdelay (usec)		-2.51478E-03	+/- 1.6E-04
Sband delay (usec)	4.35063458464E+03		Apriori clock (usec)		-9.4923792E+00		Resid sbdelay (usec)		5.60250E-04	+/- 1.3E-03
Phase delay (usec)	4.35063401885E+03		Apriori clockrate (us/s)		-2.0370720E-07		Resid phdelay (usec)		-5.53626E-06	+/- 5.6E-07
Delay rate (us/s)	-4.72642778079E-01		Apriori rate (us/s)		-4.72642997370E-01		Resid rate (us/s)		2.19291E-07	+/- 5.9E-09
Total phase (deg)	138.2		Apriori accel (us/s/s)		-8.26677588646E-06		Resid phase (deg)		-171.7	+/- 17.3

ph/seg (deg) 82.4 41.4 Amplitude 0.191 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 108.6 72.3 Search (1024X32) 0.189 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 20.3 24.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 26.1 42.6 Inc. seg. avg. 0.271 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 Z: az 113.3 el 55.6 pa -34.9 Y: az 70.1 el 38.2 pa -64.0 u,v (fr/asec) 3397.228 1027.040 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZY..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZY.W.169.126B8R



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



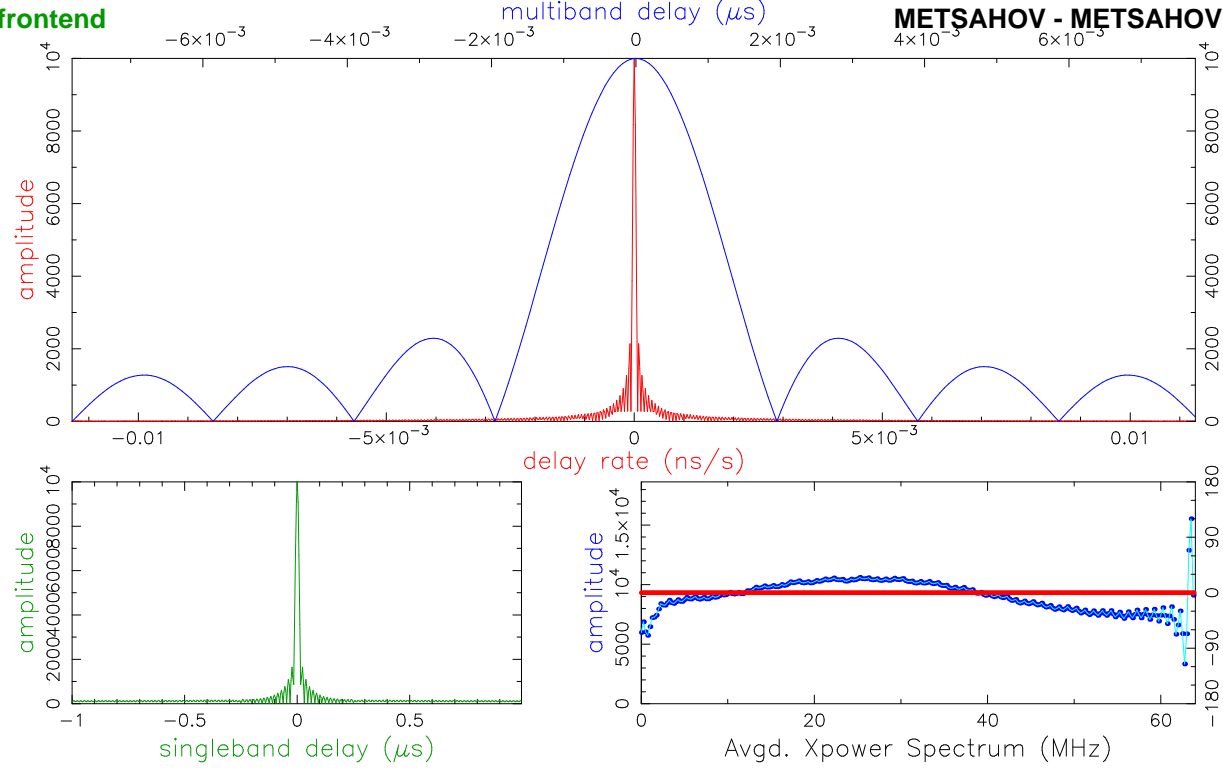
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	42.9	38.5	86.4	47.1	68.4	111.6	41.6	33.9	Phase	56.2
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	158.6	143.6	318.0	213.3	142.3	96.6	202.8	426.6	Sbd box	203.8
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	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)	4.35042423323E+03		Apriori delay (usec)		4.35063402439E+03		Resid mbdelay (usec)		-6.66616E-03	+/- 1.7E-04
Sband delay (usec)	4.35042634314E+03		Apriori clock (usec)		-9.4923792E+00		Resid sbdelay (usec)		-2.07681E-01	+/- 1.4E-03
Phase delay (usec)	4.35063402620E+03		Apriori clockrate (us/s)		-2.0370720E-07		Resid phdelay (usec)		1.81335E-06	+/- 5.9E-07
Delay rate (us/s)	-4.72642636167E-01		Apriori rate (us/s)		-4.72642997370E-01		Resid rate (us/s)		3.61203E-07	+/- 6.3E-09
Total phase (deg)	6.1		Apriori accel (us/s/s)		-8.26677588646E-06		Resid phase (deg)		56.2	+/- 18.4

RMS Theor. Amplitude 0.179 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 45.6 44.0 Search (1024X32) 0.175 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 64.9 76.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 30.0 26.0 Inc. seg. avg. 0.185 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 17.9 45.3 Inc. frq. avg. 0.179 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Z: az 113.3 el 55.6 pa -34.9 Y: az 70.1 el 38.2 pa -64.0 u,v (fr/asec) 3397.228 1027.040 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZY..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZY.W.174.126B8R



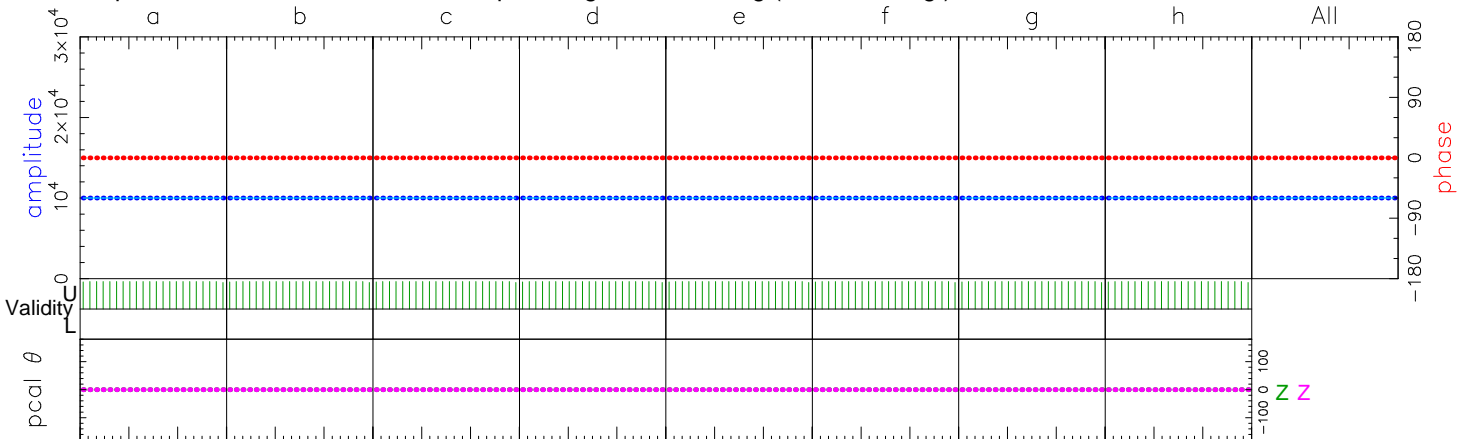
Mk4/DiFX fourfit 3.20 rev 0  
frontend

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



Fringe quality 9  
SNR 366612.4  
Int time 179.729  
Amp 10000.000  
Phase -0.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD 0.000000  
Fringe rate (Hz) 0.000000  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. c192c  
Exper # 16383  
Yr:day 2019:278  
Start 150000.00  
Stop 150300.22  
FRT 150130.00  
Corr/FF/build  
2020:069:185016  
2020:071:121838  
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

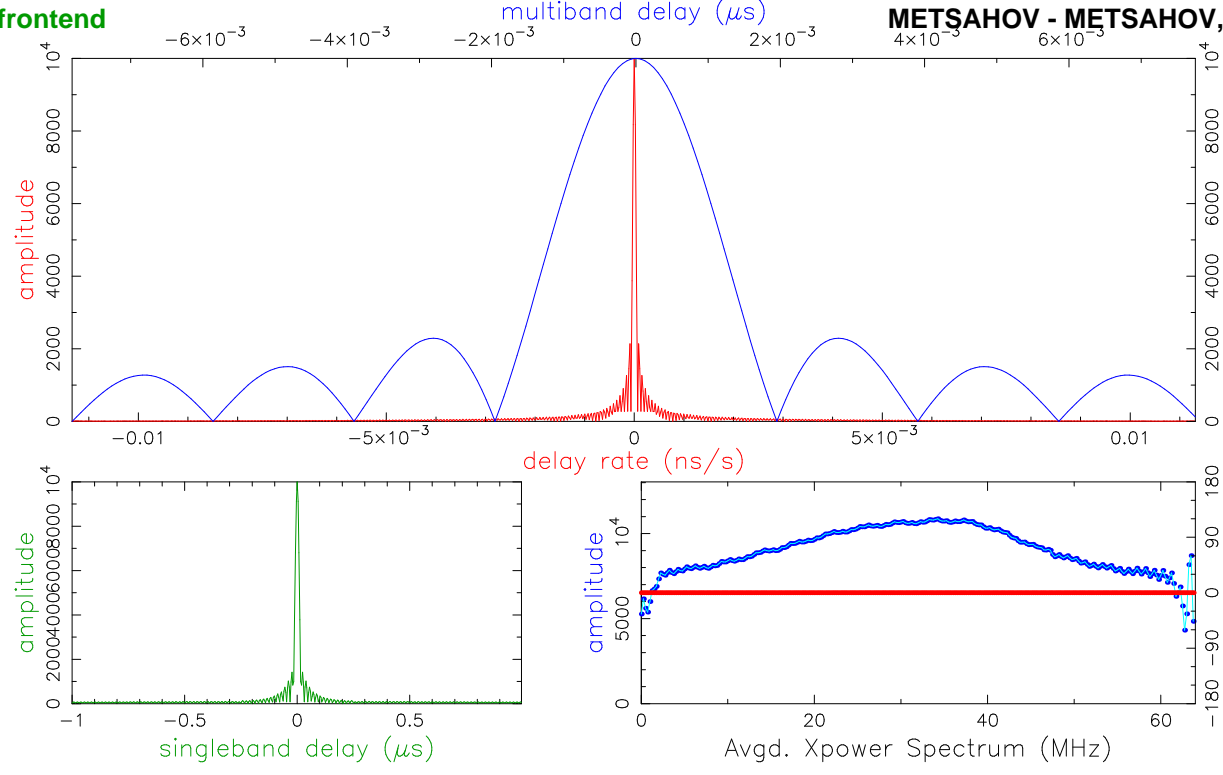


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000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

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09  
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08  
 Phase delay (usec) -1.08937980994E-19 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -1.08938E-19 +/- 1.0E-11  
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 9.7E-14  
 Total phase (deg) -0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) -0.0 +/- 0.0

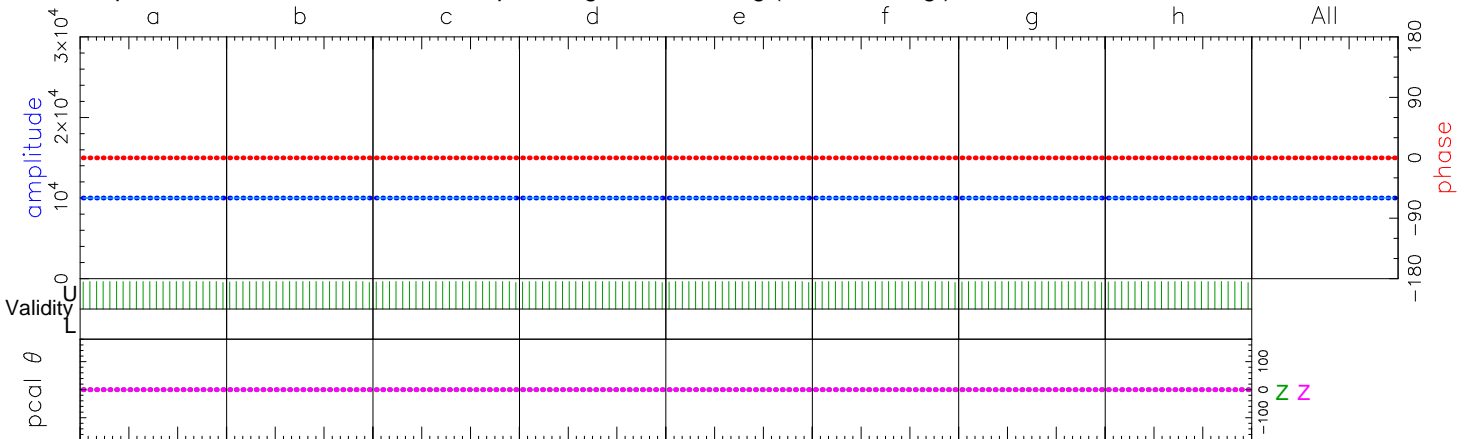
RMS Theor. Amplitude 10000.000 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.0 0.0 Search (1024X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

Z: az 113.3 el 55.6 pa -34.9 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZZ..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZZ.W.163.126B8R



Fringe quality 9  
SNR 366612.4  
Int time 179.729  
Amp 10000.000  
Phase 0.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD 0.000000  
Fringe rate (Hz) 0.000000  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. c192c  
Yr:day 16383  
Start 150000.00  
Stop 150300.22  
FRT 150130.00  
Corr/FF/build  
2020:069:185016  
2020:071:121840  
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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09  
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08  
 Phase delay (usec) 1.60808420436E-20 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 1.60808E-20 +/- 1.0E-11  
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 9.7E-14  
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 10000.000 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.0 0.0 Search (1024X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

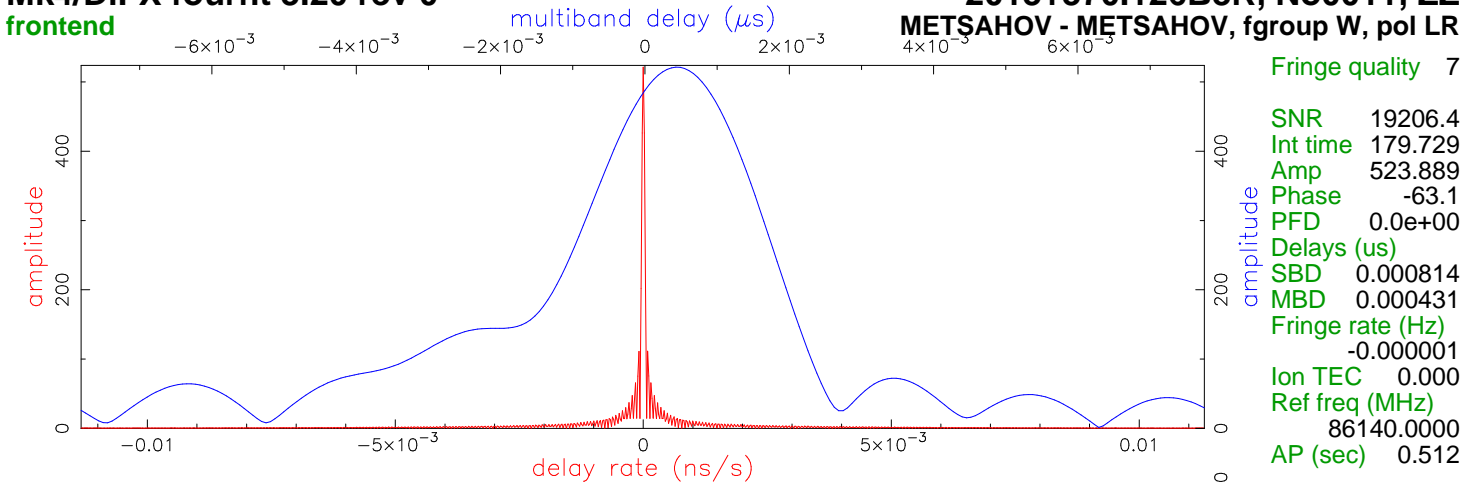
Z: az 113.3 el 55.6 pa -34.9 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZZ..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZZ.W.167.126B8R

Mk4/DiFX fourfit 3.20 rev 0

frontend

2013+370.126B8R, No0011, ZZ

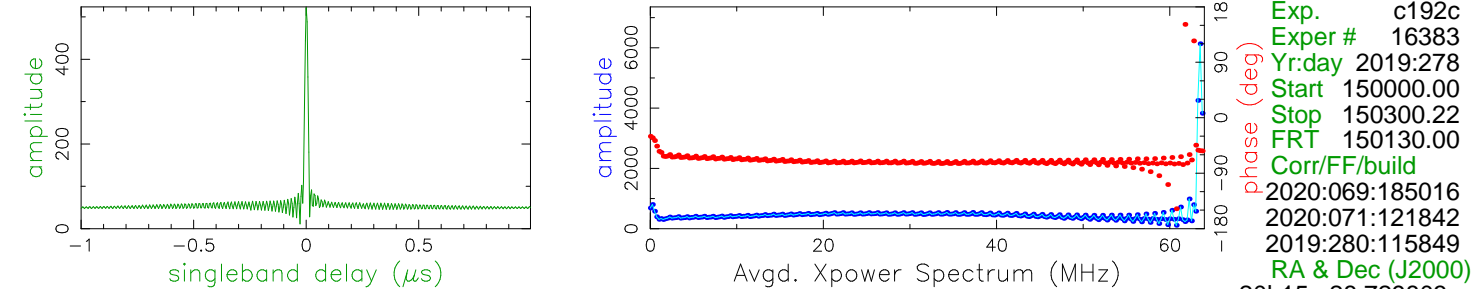
METSAHOV - METSAHOV, fgroup W, pol LR



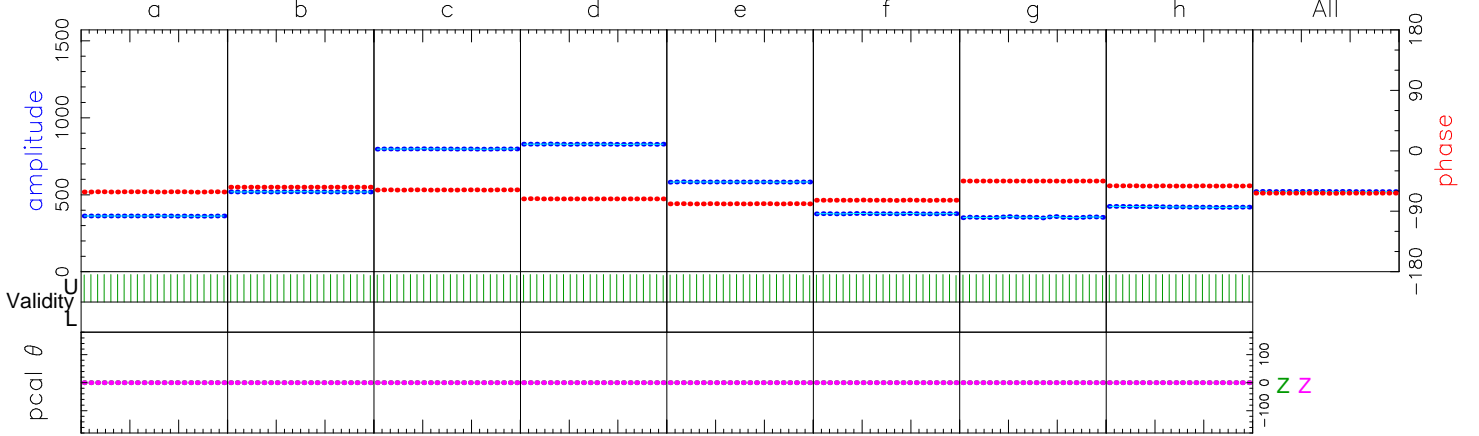
Fringe quality 7

SNR 19206.4  
 Int time 179.729  
 Amp 523.889  
 Phase -63.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000814  
 MBD 0.000431  
 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  
 2020:071:121842  
 2019:280:115849  
 RA & Dec (J2000)  
 20h15m28.729803s  
 +37°10'59.514664"



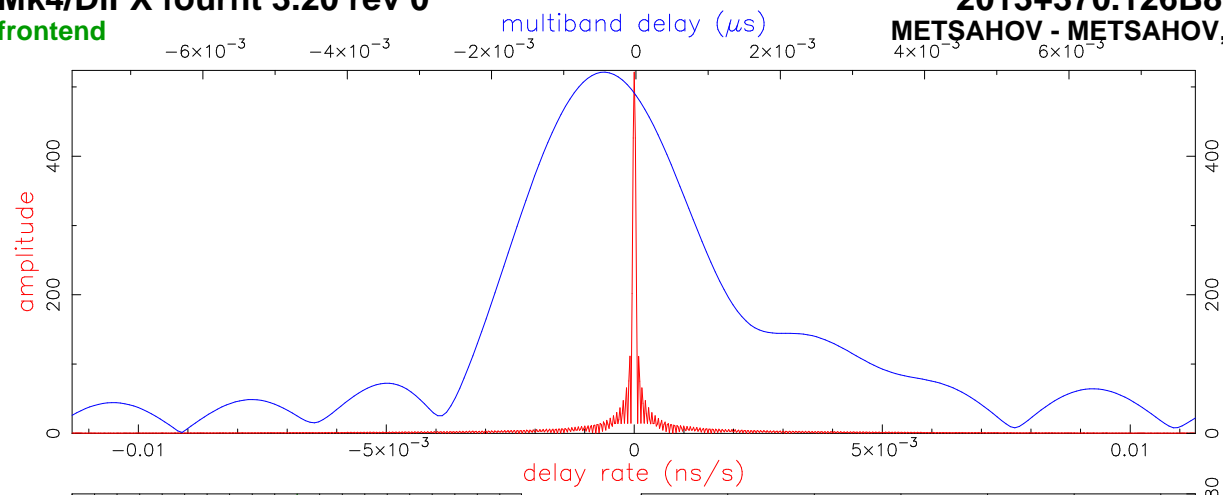
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-61.1	-54.1	-58.3	-71.5	-78.9	-73.6	-45.1	-52.3	Phase	-63.1
	362.2	518.7	797.4	828.6	583.1	377.0	354.2	421.2	Ampl.	530.3
	257.7	257.1	257.4	256.9	257.3	257.1	257.2	256.9	Sbd box	257.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	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)	4.31375000000E-04		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		4.31375E-04	+/- 5.7E-08
Sband delay (usec)	8.14000000000E-04		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		8.14000E-04	+/- 4.5E-07
Phase delay (usec)	-2.03398512156E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-2.03399E-06	+/- 1.9E-10
Delay rate (us/s)	-7.08557619584E-12		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-7.08558E-12	+/- 1.8E-12
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-63.1	+/- 0.0

ph/seg (deg) 0.1 0.0      Search (1024X32) 521.044      Pcal mode: MANUAL, MANUAL      PC period (AP's) 5, 5  
 amp/seg (%) 0.5 0.0      Interp. 0.000      Pcal rate: 0.000E+00, 0.000E+00 (us/s)      sb window (us) -1.000 1.000  
 ph/frq (deg) 12.8 0.0      Inc. seg. avg. 521.385      Bits/sample: 2x2      SampCntNorm: enabled      mb window (us) -0.008 0.008  
 amp/frq (%) 34.3 0.0      Inc. frq. avg. 530.304      Sample rate(MISamp/s): 128      Data rate(Mb/s): 2048      nlags: 256      t\_cohere infinite      dr window (ns/s) -0.011 0.011  
 Z: az 113.3 el 55.6 pa -34.9      Z: az 113.3 el 55.6 pa -34.9      u,v (fr/asec) 0.000 0.000      ion window (TEC) 0.00 0.00      simultaneous interpolator

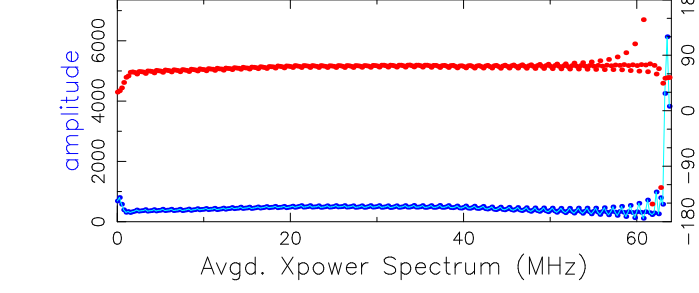
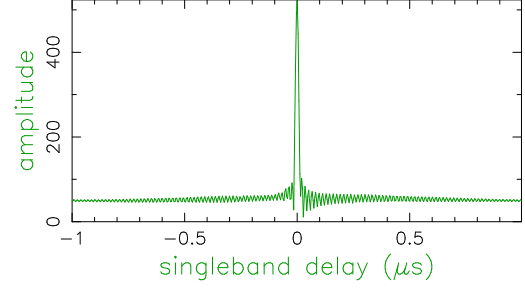
Control file: cf\_1234\_gmva    Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZZ..126B8R    Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZZ.W.172.126B8R



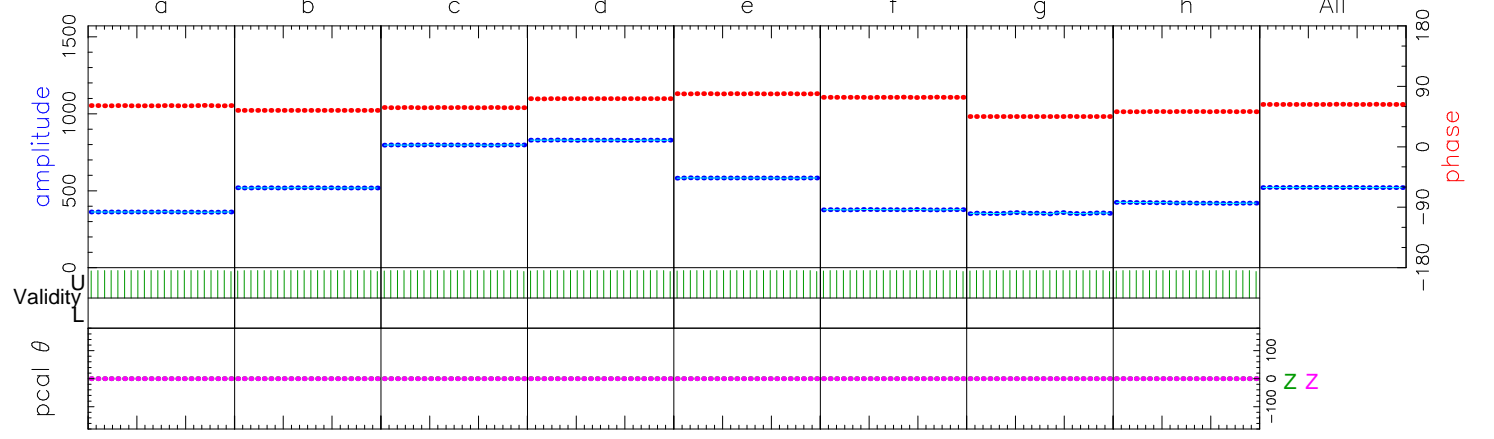
Fringe quality 7

SNR 19206.4  
 Int time 179.729  
 Amp 523.889  
 Phase 63.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000814  
 MBD -0.000431  
 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  
 2020:071:121844  
 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
	61.1	54.1	58.3	71.5	78.9	73.6	45.1	52.3	Phase	63.1
	362.2	518.7	797.4	828.6	583.1	377.0	354.2	421.2	Ampl.	530.3
	256.3	256.9	256.6	257.1	256.7	256.9	256.8	257.1	Sbd box	256.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.31375000000E-04		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-4.31375E-04	+/- 5.7E-08
Sband delay (usec)	-8.14000000000E-04		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-8.14000E-04	+/- 4.5E-07
Phase delay (usec)	2.03398512153E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		2.03399E-06	+/- 1.9E-10
Delay rate (us/s)	7.08557619584E-12		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		7.08558E-12	+/- 1.8E-12
Total phase (deg)	63.1		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		63.1	+/- 0.0

ph/seg (deg) 0.1 0.0 Theor. Amplitude 523.889 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.5 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 12.8 0.0 Inc. seg. avg. 521.385 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 34.3 0.0 Inc. frq. avg. 530.304 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 Z: az 113.3 el 55.6 pa -34.9 Z: az 113.3 el 55.6 pa -34.9 u,v (fr/asec) 0.000 0.000 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v1\_CygA2/1234/No0011/ZZ..126B8R Output file: /Exps/c192c/v1\_CygA2/1234/No0011/ZZ.W.176.126B8R simultaneous interpolator