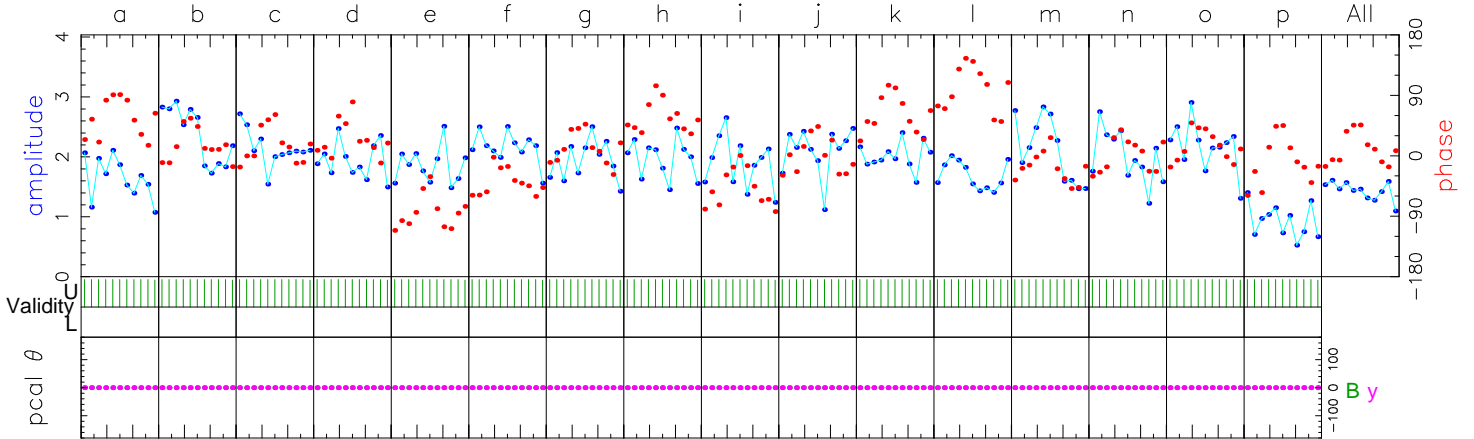


Fringe quality 5

SNR 49.3  
 Int time 179.778  
 Amp 1.346  
 Phase 9.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.003163  
 MBD 0.002635  
 Fringe rate (Hz)  
 -0.017384  
 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  
 2020:076:014755  
 2020:086:043717  
 2020:014:135814  
 RA & Dec (J2000)  
 20h15m28.729803s  
 +37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



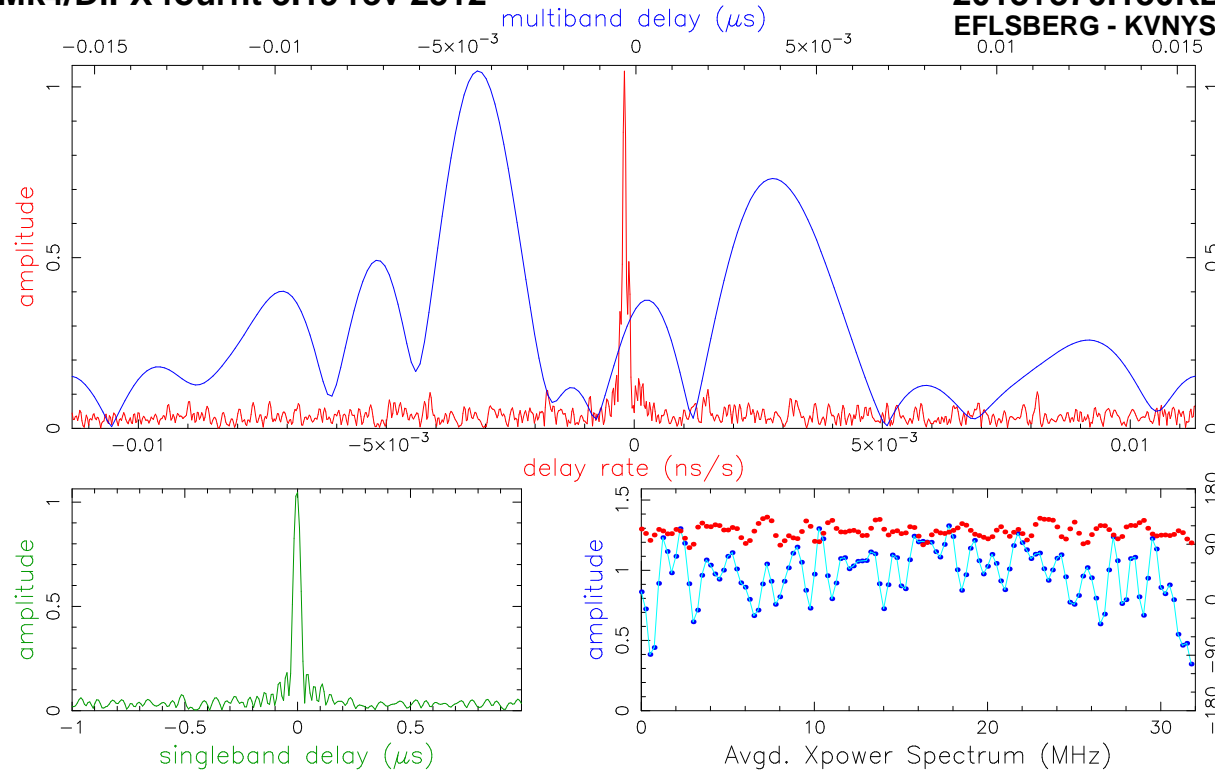
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		129.4
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks

Group delay (usec)(sbd)	1.56658280800E+03	Apriori delay (usec)	1.56658017270E+03	Resid mbdelay (usec)	2.63530E-03	+/-	2.2E-05
Sband delay (usec)	1.56658333620E+03	Apriori clock (usec)	-1.2430088E+01	Resid sbdelay (usec)	3.16350E-03	+/-	3.5E-04
Phase delay (usec)	1.56658017300E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	2.97490E-07	+/-	7.5E-08
Delay rate (us/s)	1.53319444905E+00	Apriori rate (us/s)	1.53319465085E+00	Resid rate (us/s)	-2.01809E-07	+/-	7.2E-10
Total phase (deg)	36.8	Apriori accel (us/s/s)	2.69477428697E-06	Resid phase (deg)	9.2	+/-	2.3

ph/seg (deg)	RMS 22.5	Theor. 3.9	Amplitude Search (1024X64)	1.346 +/- 0.027	1.294	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	12.8	6.7	Interp.	0.000	1.294	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	47.4	4.6	Inc. seg. avg.	1.433	1.433	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	38.4	8.1	Inc. frq. avg.	1.749	1.749	Sample rate(MSamp/s): 64	mb window (us) -0.016 0.016
						Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
						nlags: 128	t_cohere infinite
							ion window (TEC) 0.00 0.00

B: az 84.9 el 47.2 pa -52.7 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) -11026.559 1371.638 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/By..130KBL Output file: /Exps/c192c/v2/1234/No0011/By.W.17.130KBL

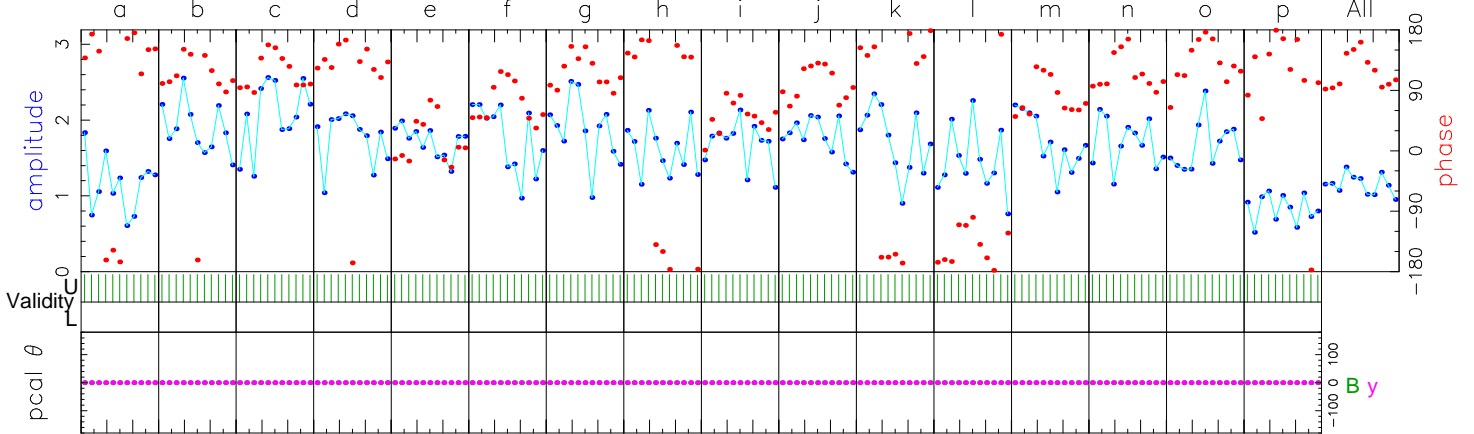


Fringe quality 5

SNR 39.0  
 Int time 179.778  
 Amp 1.063  
 Phase 118.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.003181  
 MBD -0.004399  
 Fringe rate (Hz)  
 -0.017466  
 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  
 2020:076:014755  
 2020:086:043719  
 2020:014:135814  
 RA & Dec (J2000)  
 20h15m28.729803s  
 +37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec

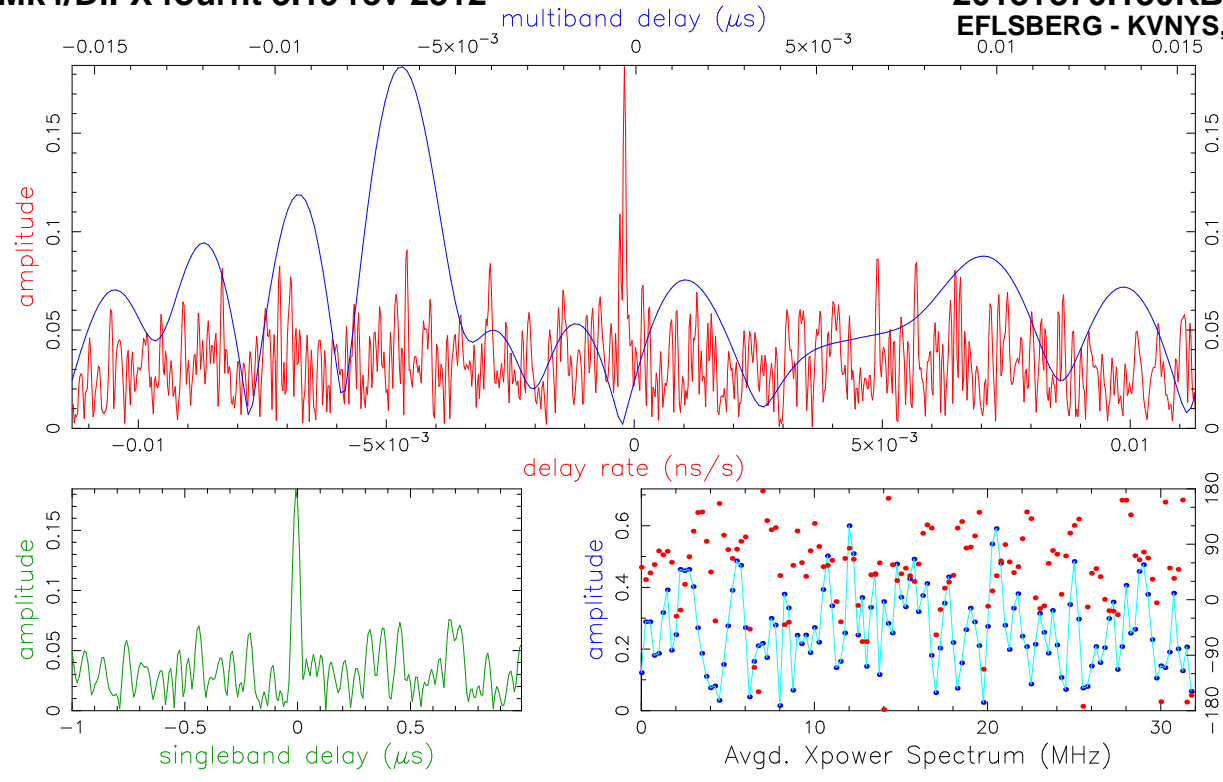


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All			
	163.9	122.2	119.4	141.7	13.8	70.6	118.3	165.4	51.2	100.4	168.4	-145.1	77.7	114.6	132.7	128.2		Phase 118.0			
	1.0	1.7	1.9	1.6	1.4	1.5	1.7	1.4	1.5	1.6	1.5	1.3	1.5	1.5	1.4	0.6		Ampl. 1.5			
	127.1	128.3	128.7	128.9	128.9	128.9	128.8	128.7	129.2	129.0	129.0	128.6	128.3	128.9	128.0	129.3		Sbd box 128.6			
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000		PC freqs			
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase			
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000		PC amp			
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000					
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids			
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks			
																		Chan ids			
																		Tracks			
Group delay (usec)(sbd)		1.56657577410E+03								1.56658017270E+03								Resid mbdelay (usec)	-4.39860E-03	+/-	2.8E-05
Sband delay (usec)		1.56657699120E+03								-1.2430088E+01								Resid sbdelay (usec)	-3.18150E-03	+/-	4.4E-04
Phase delay (usec)		1.56658017651E+03								-2.9999999E-07								Resid phdelay (usec)	3.80561E-06	+/-	9.5E-08
Delay rate (us/s)		1.53319444809E+00								1.53319465085E+00								Resid rate (us/s)	-2.02765E-07	+/-	9.1E-10
Total phase (deg)				145.6						2.69477428697E-06								Resid phase (deg)	118.0	+/-	2.9

ph/seg (deg) RMS Theor. Amplitude 1.063 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 24.5 4.9 Search (1024X64) 1.038 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 14.7 8.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 51.2 5.9 Inc. seg. avg. 1.151 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 45.8 10.3 Inc. frq. avg. 1.453 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 84.9 el 47.2 pa -52.7 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) -11026.559 1371.638 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/By..130KBL Output file: /Exps/c192c/v2/1234/No0011/By.W.32.130KBL

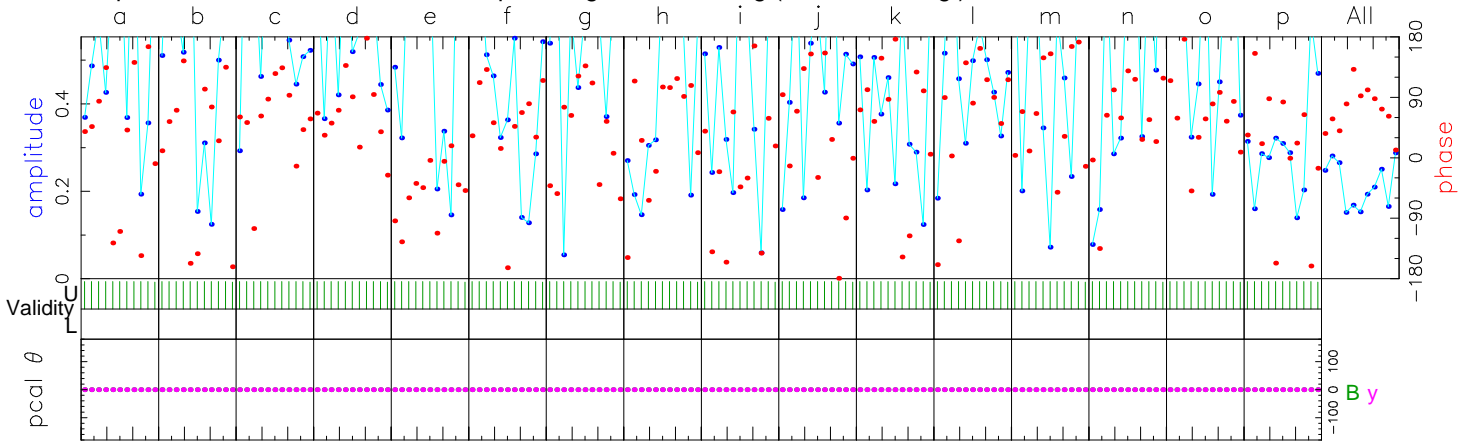


Fringe quality 0

SNR 6.8  
 Int time 179.778  
 Amp 0.185  
 Phase 64.7  
 PFD 1.9e-03  
 Delays (us)  
 SBD -0.006215  
 MBD -0.006519  
 Fringe rate (Hz)  
 -0.017568  
 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  
 2020:076:014755  
 2020:086:043721  
 2020:014:135814  
 RA & Dec (J2000)  
 20h15m28.729803s  
 +37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	119.9	107.9	78.0	72.9	-45.8	76.9	12.8	90.0	-3.5	38.2	102.5	100.6	27.2	87.9	69.9	54.0	Phase	64.7
B	0.1	0.2	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.4	0.4	0.1	Ampl.	0.2
y	84.3	33.1	128.4	128.8	127.5	72.4	244.4	12.8	130.7	7.2	187.8	110.8	55.9	128.4	128.3	191.4	Sbd box	128.2
B	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	1.56657365397E+03			Apriori delay (usec)			1.56658017270E+03			Resid mbdelay (usec)			-6.51873E-03			+/-	1.6E-04	
Sband delay (usec)	1.56657395770E+03			Apriori clock (usec)			-1.2430088E+01			Resid sbdelay (usec)			-6.21500E-03			+/-	2.5E-03	
Phase delay (usec)	1.56658017479E+03			Apriori clockrate (us/s)			-2.9999999E-07			Resid phdelay (usec)			2.08727E-06			+/-	5.5E-07	
Delay rate (us/s)	1.53319444690E+00			Apriori rate (us/s)			1.53319465085E+00			Resid rate (us/s)			-2.03953E-07			+/-	5.2E-09	
Total phase (deg)	92.3			Apriori accel (us/s/s)			2.69477428697E-06			Resid phase (deg)			64.7			+/-	16.9	

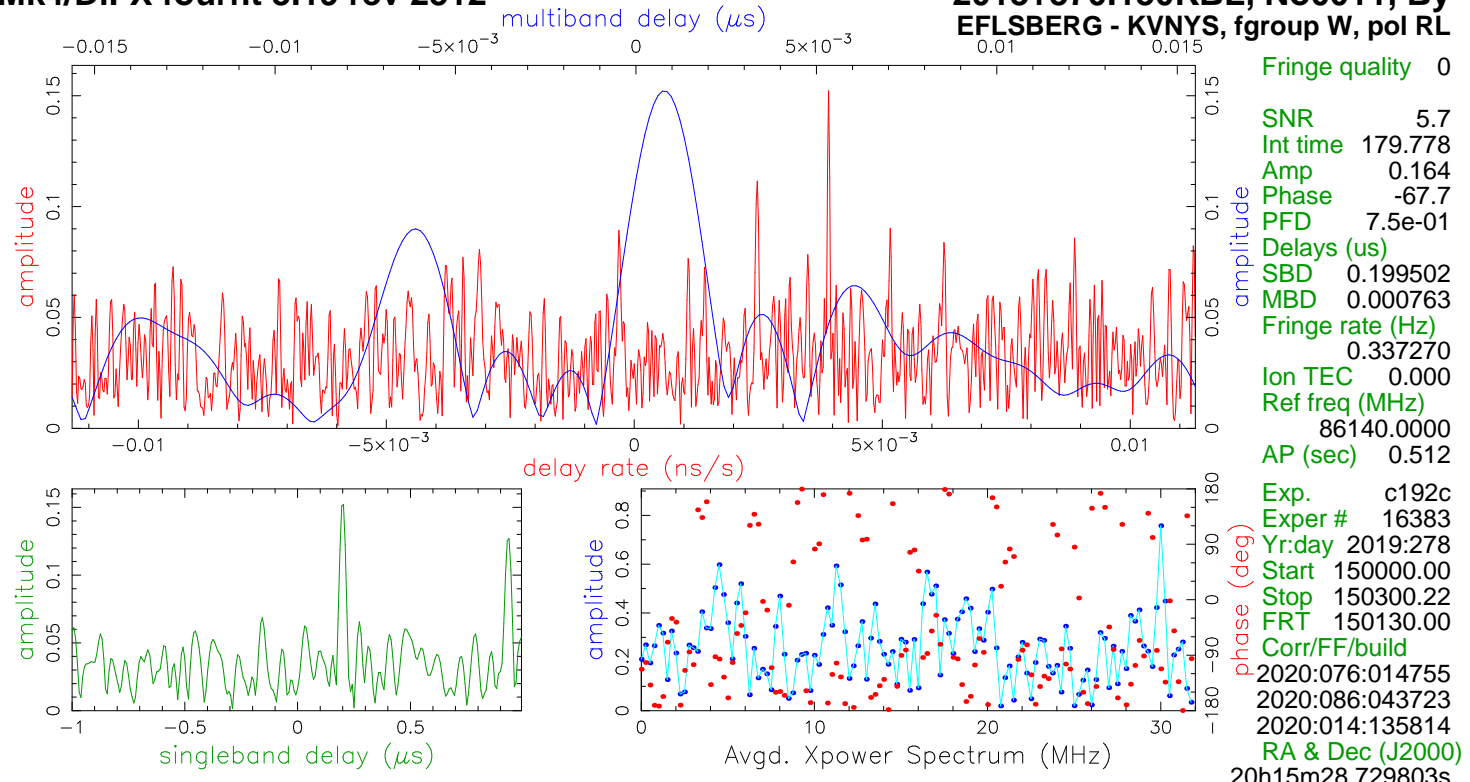
ph/seg (deg) RMS Theor. Amplitude 0.185 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 32.5 28.1 Search (1024X64) 0.180 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 31.9 49.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 47.1 33.9 Inc. seg. avg. 0.193 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 73.4 59.1 Inc. frq. avg. 0.215 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 84.9 el 47.2 pa -52.7 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) -11026.559 1371.638 simultaneous interpolator

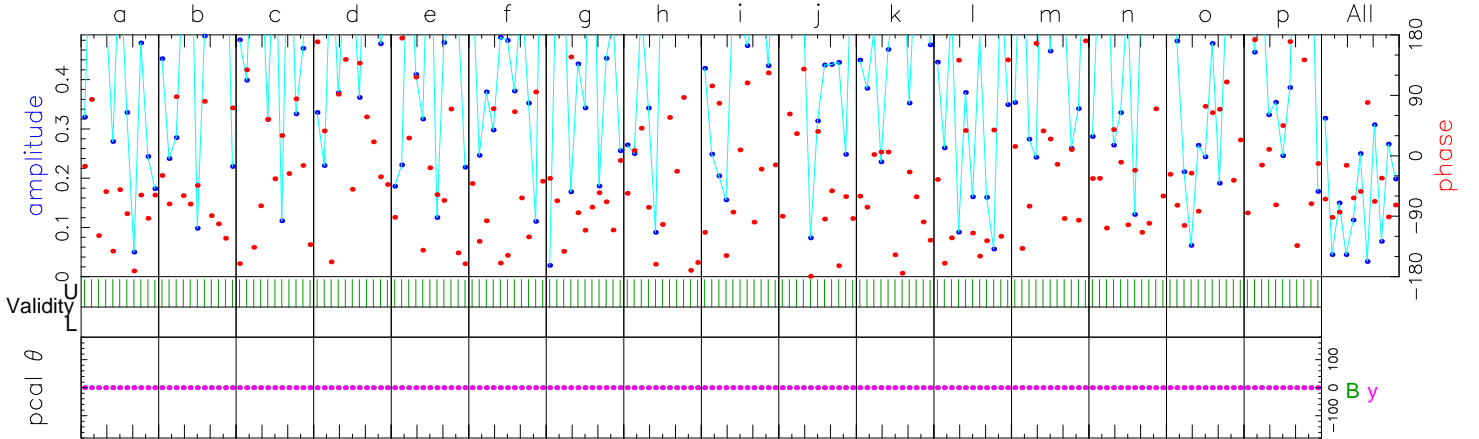
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/By..130KBL Output file: /Exps/c192c/v2/1234/No0011/By.W.46.130KBL

Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130KBL, No0011, By  
EFLSBERG - KVNYS, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec

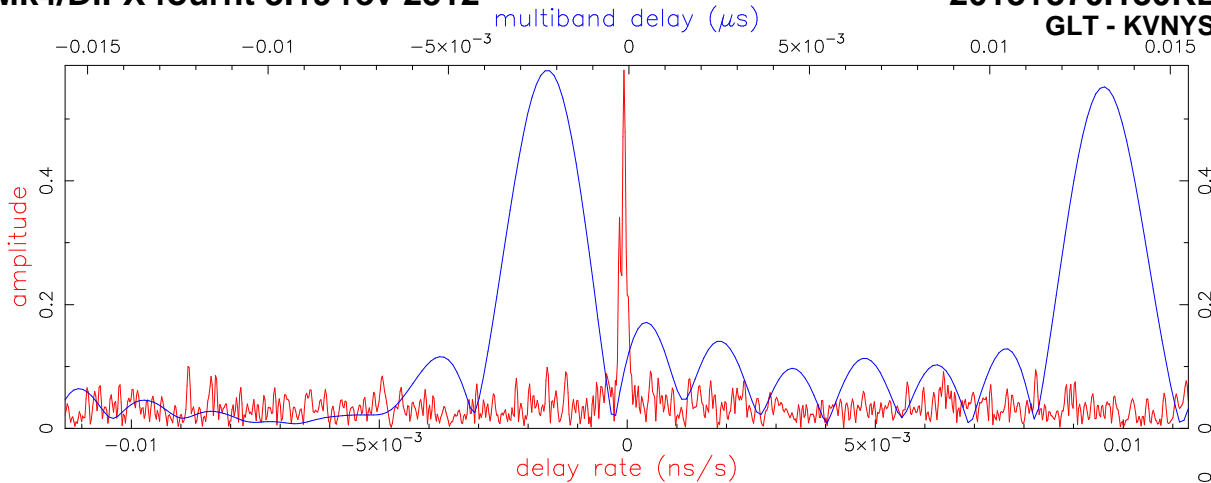


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-67.3	-75.7	-75.0	45.6	-29.8	-75.6	-88.3	-15.2	-30.7	-70.5	-79.8	-128.6	-47.1	-66.6	-4.1	-100.7	Phase	-67.7
	0.2	0.3	0.2	0.1	0.1	0.2	0.3	0.1	0.1	0.2	0.3	0.2	0.1	0.3	0.2	0.2	Ampl.	0.2
	160.7	178.1	249.3	18.3	75.5	173.4	141.6	58.2	3.2	248.5	163.7	62.5	71.2	121.1	152.9	78.1	Sbd box	154.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)		1.56676843536E+03								1.56658017270E+03							Resid mbdelay (usec)	7.62663E-04 +/- 1.9E-04
Sband delay (usec)		1.56677967520E+03								-1.2430088E+01							Resid sbdelay (usec)	1.99502E-01 +/- 3.0E-03
Phase delay (usec)		1.56658017052E+03								-2.9999999E-07							Resid phdelay (usec)	-2.18318E-06 +/- 6.5E-07
Delay rate (us/s)		1.53319856622E+00								1.53319465085E+00							Resid rate (us/s)	3.91537E-06 +/- 6.2E-09
Total phase (deg)										2.69477428697E-06							Resid phase (deg)	-67.7 +/- 20.1

	RMS	Theor.	Amplitude	0.164 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	49.9	33.3	Search (1024X64)	0.149	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	68.0	58.1	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.016 0.016
ph/frq (deg)	45.1	40.1	Inc. seg. avg.	0.147	Sample rate(MSamp/s): 64	dr window (ns/s) -0.011 0.011
amp/frq (%)	54.0	70.0	Inc. frq. avg.	0.154	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
					nlags: 128	t_cohere infinite

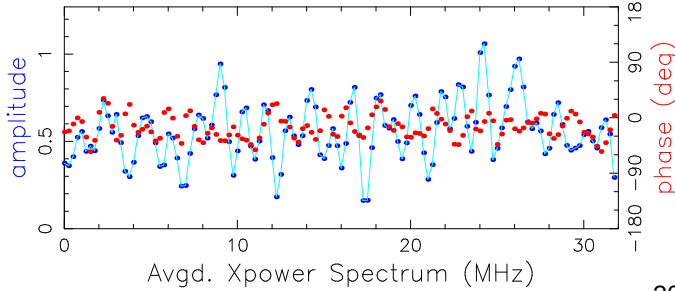
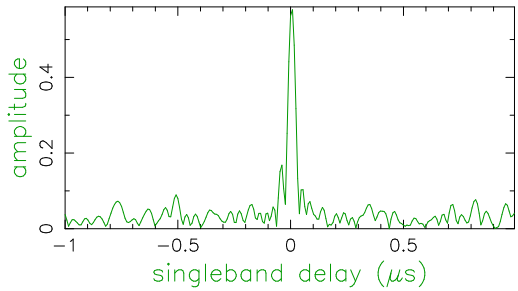
B: az 84.9 el 47.2 pa -52.7 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) -11026.559 1371.638 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/By..130KBL Output file: /Exps/c192c/v2/1234/No0011/By.W.59.130KBL



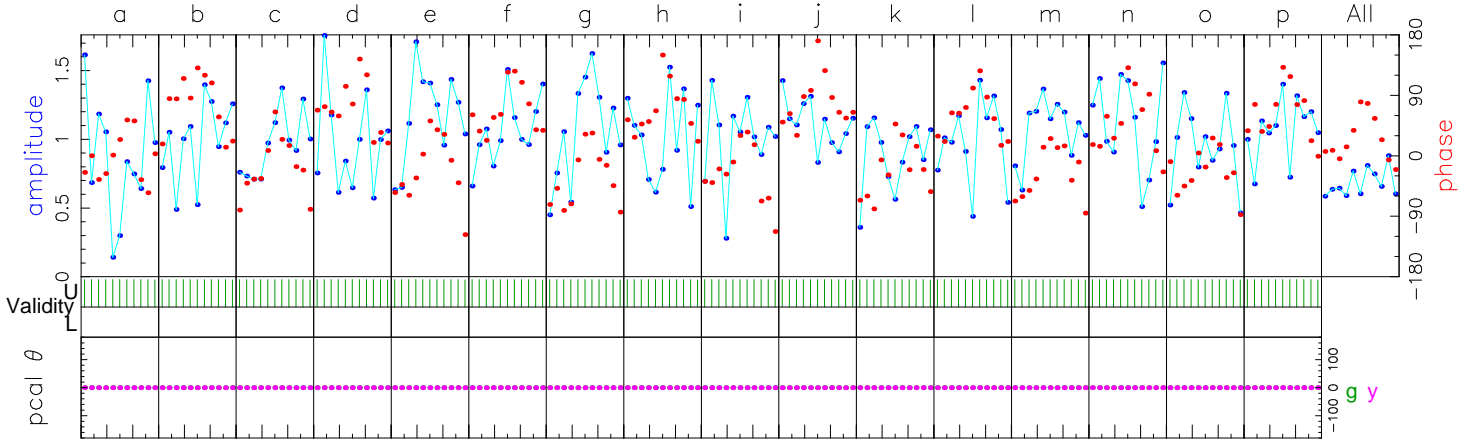
Fringe quality 7

SNR 21.5  
Int time 179.866  
Amp 0.587  
Phase 24.9  
PFD 0.0e+00  
Delays (us)  
SBD 0.004957  
MBD -0.002254  
Fringe rate (Hz)  
-0.005899  
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  
2020:076:014755  
2020:086:043717  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-14.0	77.1	-12.7	73.8	-14.4	69.0	-21.5	67.4	-23.0	77.2	-24.7	61.5	-19.8	43.8	-24.2	62.9		Phase	24.9				
	0.7	0.8	0.7	0.8	0.8	0.9	0.8	0.7	0.8	0.7	0.8	0.9	0.7	0.8	0.8	0.8		Ampl.	0.8				
	129.5	128.9	129.5	129.1	129.6	129.7	130.2	128.7	129.9	129.3	130.2	129.7	130.0	130.3	129.2	129.7		Sbd box	129.6				
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	0	0	0	0	0	0	0	0		PC freqs					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase					
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000							
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-4.32946872172E+03															Apriori delay (usec)	-4.32946646785E+03	Resid mbdelay (usec)	-2.25387E-03	+/-	5.0E-05
Sband delay (usec)			-4.32946151085E+03															Apriori clock (usec)	-2.7935009E+01	Resid sbdelay (usec)	4.95700E-03	+/-	8.0E-04
Phase delay (usec)			-4.32946646705E+03															Apriori clockrate (us/s)	-2.4999994E-08	Resid phdelay (usec)	8.04451E-07	+/-	1.7E-07
Delay rate (us/s)			1.07719956316E+00															Apriori rate (us/s)	1.07719963164E+00	Resid rate (us/s)	-6.84835E-08	+/-	1.7E-09
Total phase (deg)																		Apriori accel (us/s/s)	4.77124069441E-05	Resid phase (deg)	24.9	+/-	5.3

ph/seg (deg) 32.4 8.8  
amp/seg (%) 23.4 15.4  
ph/frq (deg) 46.7 10.7  
amp/frq (%) 37.8 18.6

RMS Theor. Amplitude 0.587 +/- 0.027  
Search (1024X64) 0.568  
Interp. 0.000  
Inc. seg. avg. 0.676  
Inc. frq. avg. 0.787

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) -0.016 0.016  
Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011  
Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00

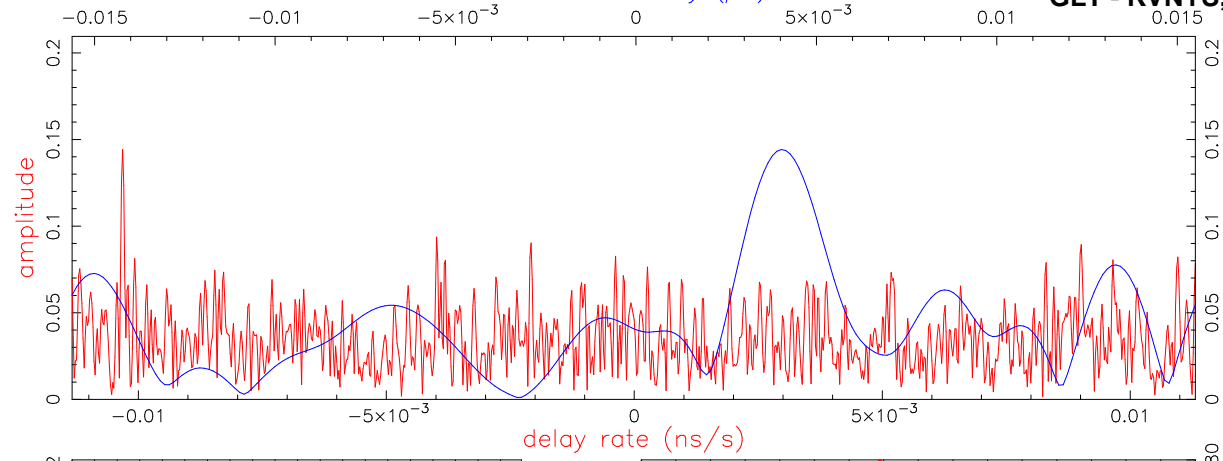
g: az 40.4 el 27.4 pa -11.0 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) -7709.002 5460.760 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/gy..130KBL Output file: /Exps/c192c/v2/1234/No0011/gy.W.11.130KBL

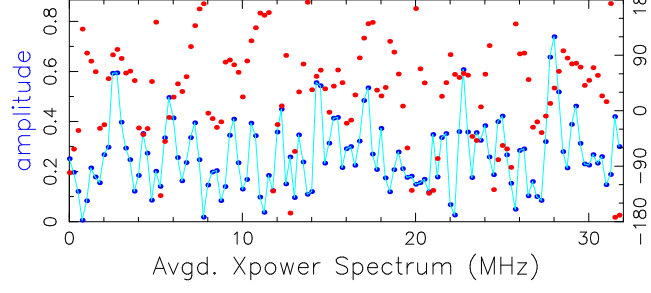
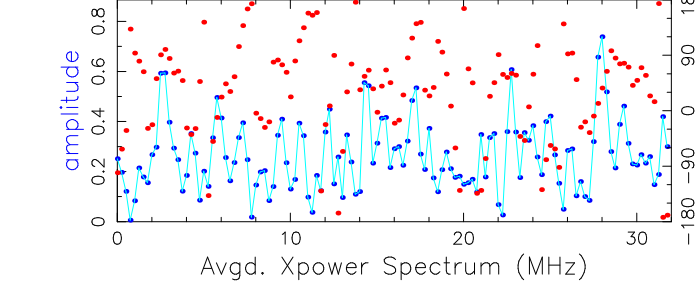
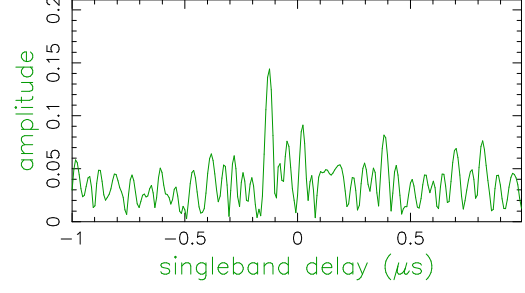




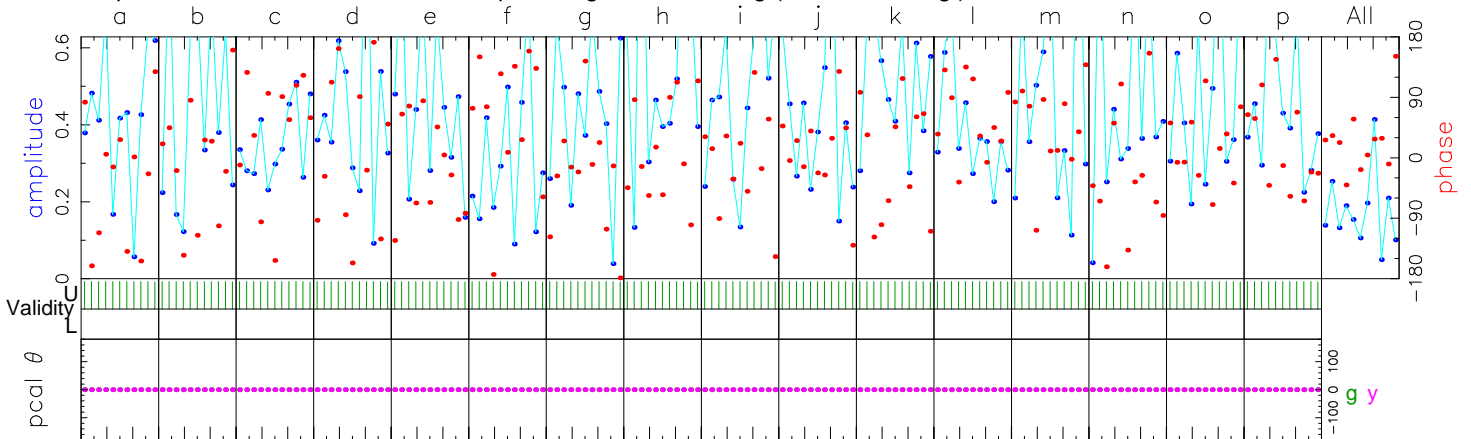
multiband delay ( $\mu$ s)



Fringe quality 0  
SNR 5.3  
Int time 179.866  
Amp 0.209  
Phase 17.3  
PFD 1.0e+00  
Delays (us)  
SBD -0.126603  
MBD 0.004026  
Fringe rate (Hz)  
-0.890939  
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  
2020:076:014755  
2020:086:043720  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

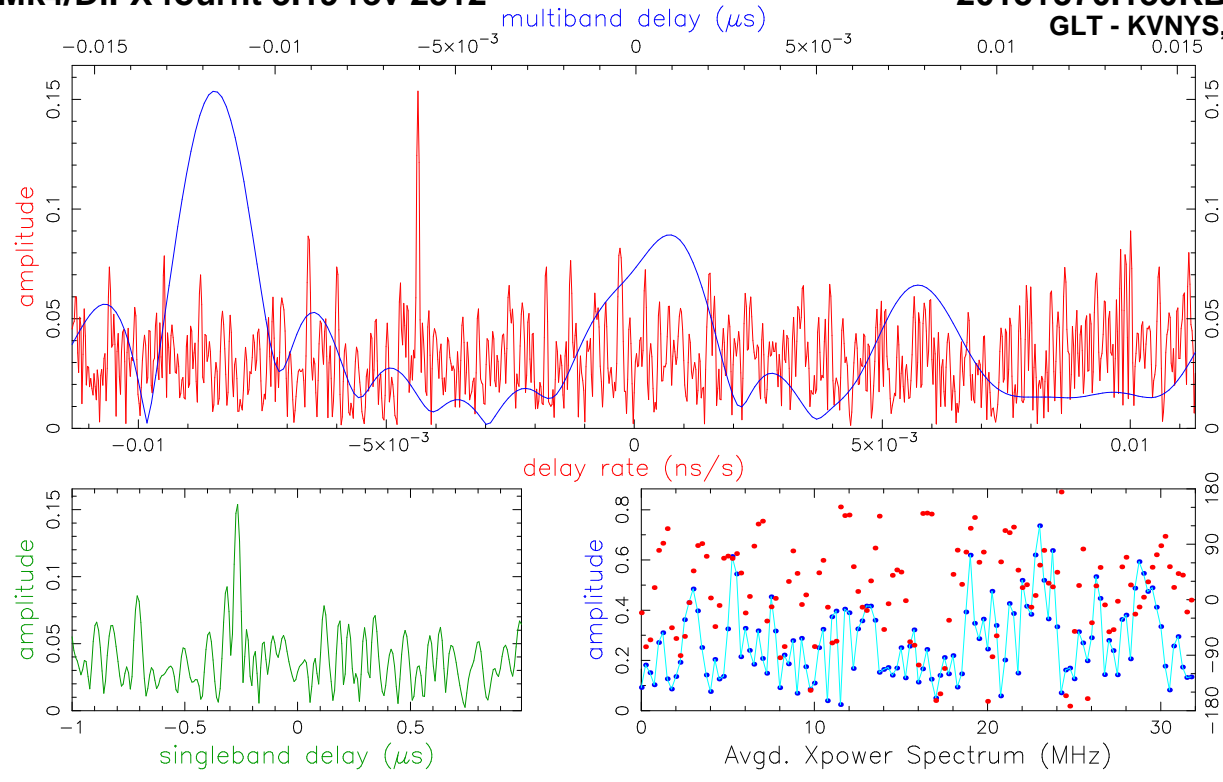


Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-41.7	14.3	82.4	-71.8	14.1	95.2	-21.2	-13.8	0.2	15.1	7.3	71.6	57.3	-70.1	11.1	17.3	Phase	17.3				
	0.0	0.3	0.2	0.1	0.2	0.2	0.2	0.4	0.3	0.5	0.1	0.3	0.5	0.2	0.5	0.3	Ampl.	0.2				
	71.1	46.4	123.5	82.8	233.2	230.3	175.9	160.2	90.0	214.7	202.6	251.9	5.2	31.9	113.0	119.9	Sbd box	112.8				
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	0	0	0	0	0	0	0	0	PC freqs					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-4.32958744151E+03														Apriori delay (usec)	-4.3294664785E+03	Resid mbdelay (usec)	4.02634E-03	+/-	2.0E-04
Sband delay (usec)			-4.32959307135E+03														Apriori clock (usec)	-2.7935009E+01	Resid sbdelay (usec)	-1.26603E-01	+/-	3.2E-03
Phase delay (usec)			-4.32946646730E+03														Apriori clockrate (us/s)	-2.4999994E-08	Resid phdelay (usec)	5.57554E-07	+/-	7.0E-07
Delay rate (us/s)			1.07718928872E+00														Apriori rate (us/s)	1.07719963164E+00	Resid rate (us/s)	-1.03429E-05	+/-	6.7E-09
Total phase (deg)																	Apriori accel (us/s/s)	4.77124069441E-05	Resid phase (deg)	17.3	+/-	21.6

ph/seg (deg) 48.0 35.8 Search (1024X64) 0.143 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 67.8 62.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 51.3 43.2 Inc. seg. avg. 0.214 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
amp/frq (%) 68.4 75.3 Inc. frq. avg. 0.213 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite dr window (ns/s) -0.011 0.011  
g: az 40.4 el 27.4 pa -11.0 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) -7709.002 5460.760 ion window (TEC) 0.00 0.00 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/gy..130KBL Output file: /Exps/c192c/v2/1234/No0011/gy.W.38.130KBL

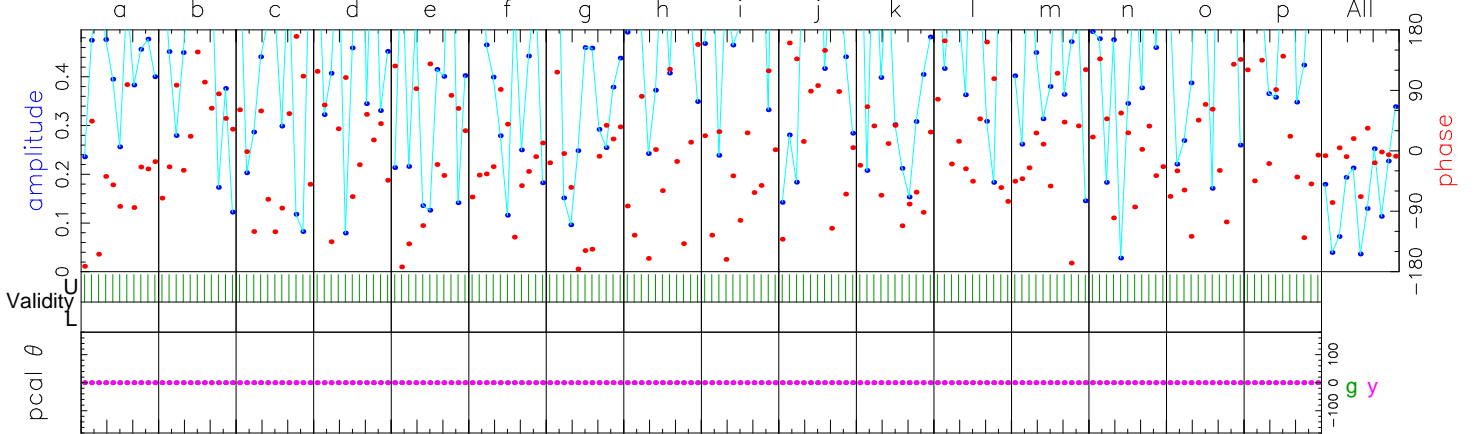


Fringe quality 0

SNR 5.7  
Int time 179.870  
Amp 0.165  
Phase -4.5  
PFD 7.7e-01  
Delays (us)  
SBD -0.268058  
MBD -0.011670  
Fringe rate (Hz)  
-0.377252  
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  
2020:076:014755  
2020:086:043724  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec

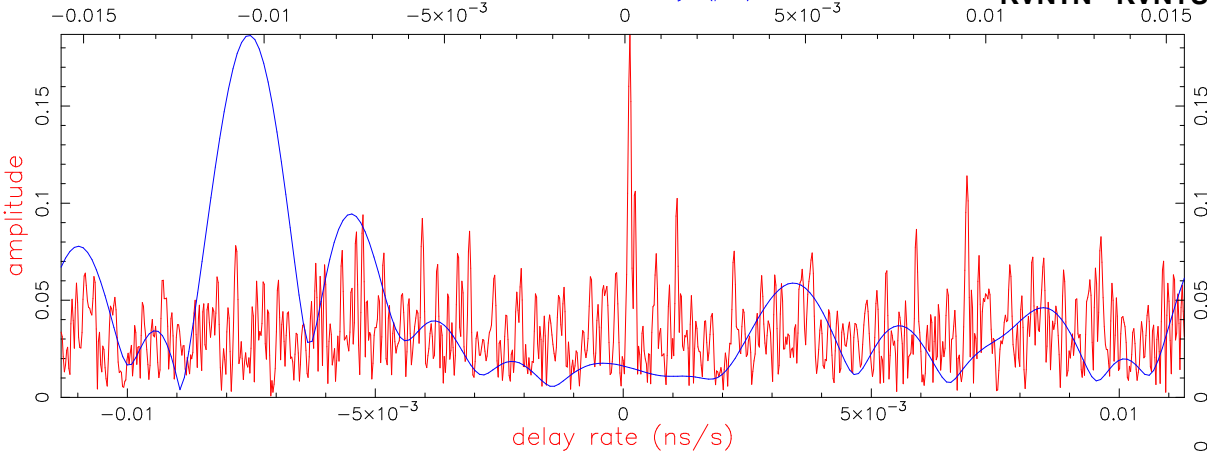


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-39.6	42.6	-20.1	11.9	83.7	-39.2	30.7	-58.8	-39.4	91.2	-10.1	-13.7	14.0	-5.6	-18.8	6.4	Phase	-4.5
	0.2	0.2	0.1	0.3	0.1	0.4	0.1	0.1	0.3	0.2	0.3	0.2	0.2	0.3	0.1	0.2	Ampl.	0.2
	153.7	247.8	160.9	24.2	234.2	94.7	144.5	207.3	144.8	115.0	115.1	203.9	199.0	36.8	213.1	66.5	Sbd box	94.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	0	0	0	0	0	0	0	0	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-4.32972813750E+03			Apriori delay (usec)			-4.32946646785E+03			Resid mbdelay (usec)			-1.16696E-02			+/- 1.9E-04		
Sband delay (usec)	-4.32973452585E+03			Apriori clock (usec)			-2.7935009E+01			Resid sbdelay (usec)			-2.68058E-01			+/- 3.0E-03		
Phase delay (usec)	-4.32946646800E+03			Apriori clockrate (us/s)			-2.4999994E-08			Resid phdelay (usec)			-1.44403E-07			+/- 6.5E-07		
Delay rate (us/s)	1.07719525212E+00			Apriori rate (us/s)			1.07719963164E+00			Resid rate (us/s)			-4.37952E-06			+/- 6.2E-09		
Total phase (deg)	-199.2			Apriori accel (us/s/s)			4.77124069441E-05			Resid phase (deg)			-4.5			+/- 20.1		

ph/seg (deg) RMS Theor. Amplitude 0.165 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 58.1 58.2 Search (1024X64) 0.151 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 45.0 40.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 52.0 70.1 Inc. seg. avg. 0.148 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
 g: az 40.4 el 27.4 pa -11.0 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) -7709.002 5460.760 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/gy..130KBL Output file: /Exps/c192c/v2/1234/No0011/gy.W.64.130KBL simultaneous interpolator

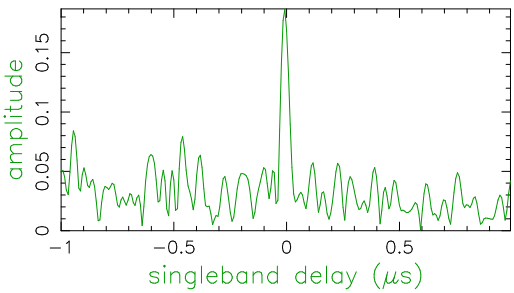


multiband delay ( $\mu$ s)

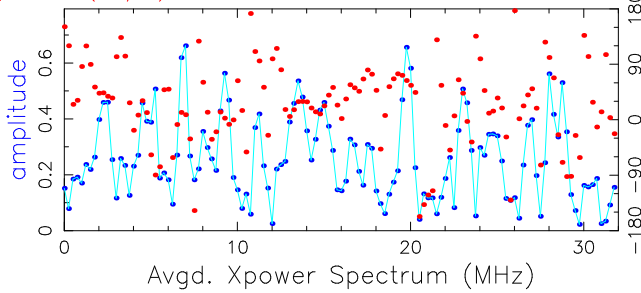


Fringe quality 0

SNR 6.9  
Int time 179.969  
Amp 0.187  
Phase 39.8  
PFD 1.0e-03  
Delays (us)  
SBD -0.009155  
MBD -0.010413  
Fringe rate (Hz)  
0.011860  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

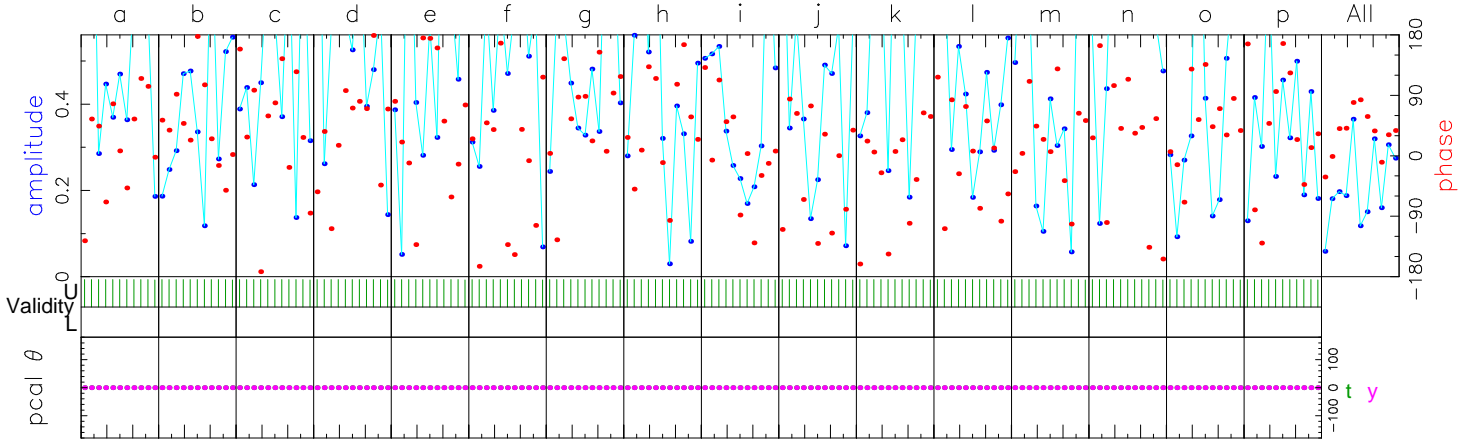


delay rate (ns/s)



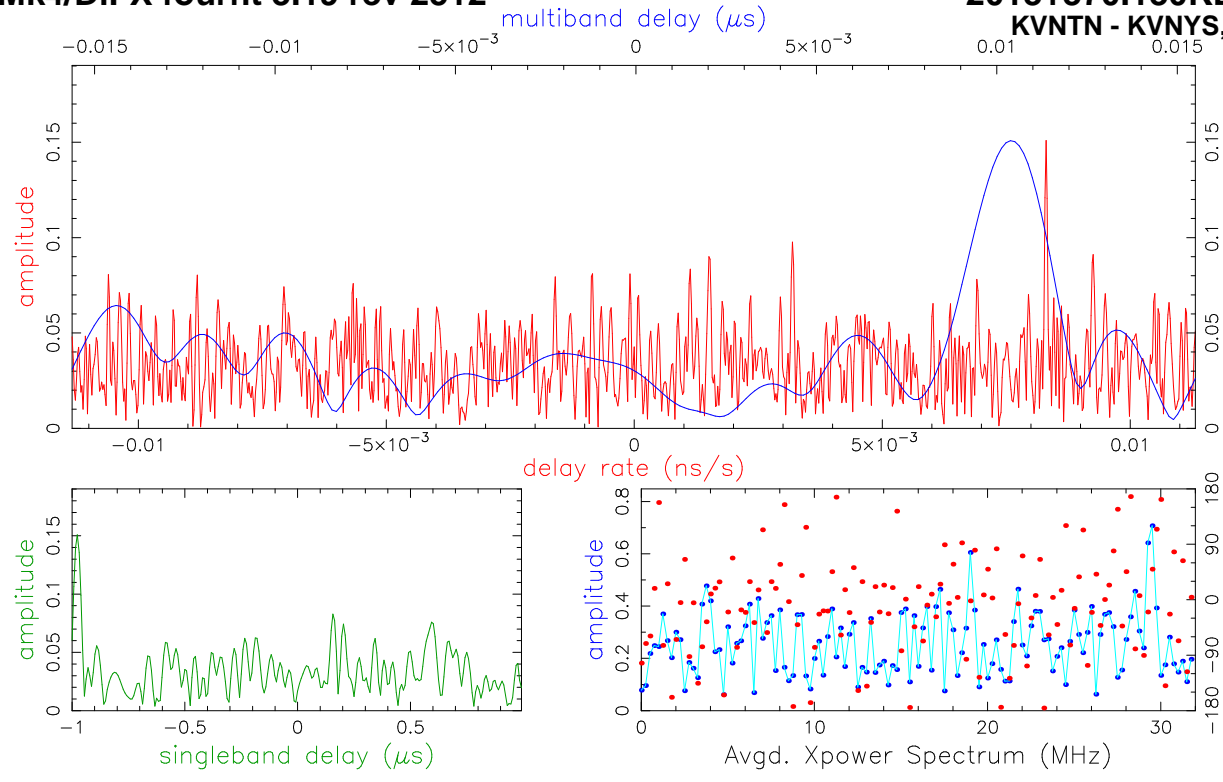
Exp. c192c  
Exper # 16383  
Yr:day 2019:278  
Start 150000.00  
Stop 150300.22  
FRT 150130.00  
Corr/FF/build  
2020:076:014755  
2020:086:043730  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000			
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
Group delay (usec)(sbd)			-3.36168272612E+02																
Sband delay (usec)			-3.36167013847E+02																
Phase delay (usec)			-3.36157858063E+02																
Delay rate (us/s)			-4.30906175216E-02																
Total phase (deg)					38.3														
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(MSamp/s): 64																			
Data rate(Mb/s): 2048																			
nlags: 128																			
t_cohere infinite																			
ion window (TEC)																			
sb window (us)																			
mb window (us)																			
dr window (ns/s)																			
ion window (TEC)																			

ph/seg (deg) 34.5 27.7 Search (1024X64) 0.182 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 49.6 48.4 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 28.3 33.4 Inc. seg. avg. 0.189 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
amp/frq (%) 47.0 58.3 Inc. frq. avg. 0.175 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite dr window (ns/s) -0.011 0.011  
t: az 293.0 el 40.6 pa 75.1 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) 307.402 -571.647 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/ty..130KBL Output file: /Exps/c192c/v2/1234/No0011/ty.W.105.130KBL

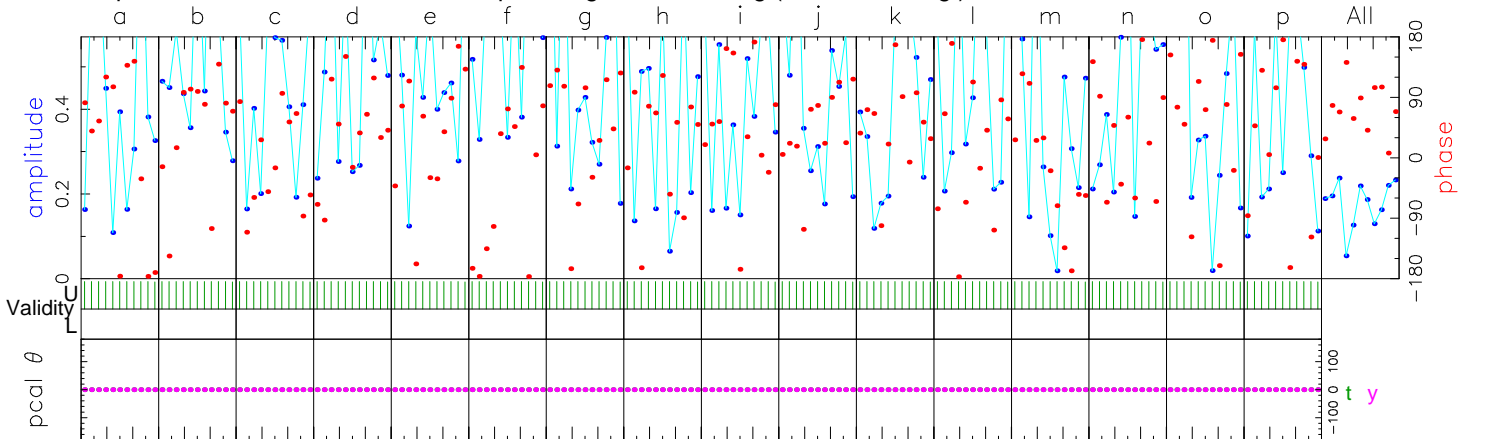


Fringe quality 0

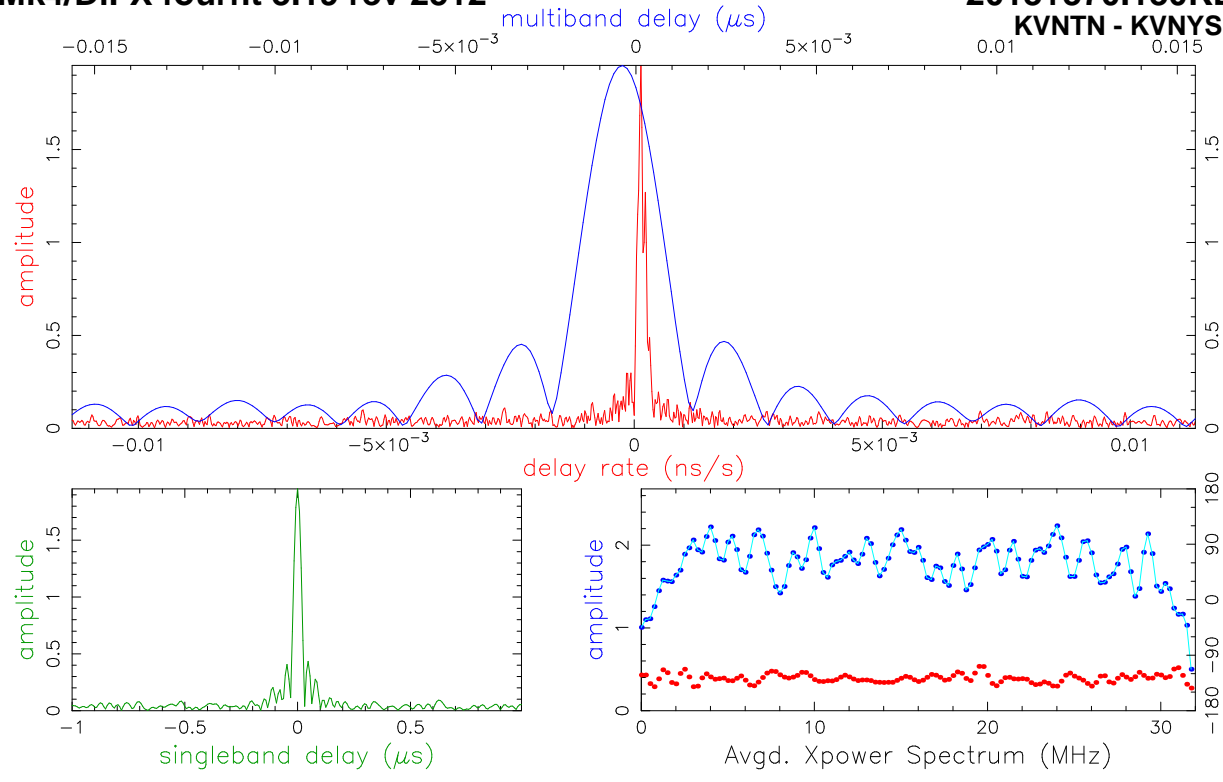
SNR 5.5  
Int time 179.969  
Amp 0.190  
Phase 65.4  
PFD 9.7e-01  
Delays (us)  
SBD -0.977218  
MBD 0.010403  
Fringe rate (Hz) 0.715644  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512

Exp. c192c  
Exper # 16383  
Yr:day 2019:278  
Start 150000.00  
Stop 150300.22  
FRT 150130.00  
Corr/FF/build  
2020:076:014755  
2020:086:043733  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
Group delay (usec)(sbd)			-3.37147456260E+02															
Sband delay (usec)			-3.37135077347E+02															
Phase delay (usec)			-3.36157857239E+02															
Delay rate (us/s)			-4.30824472925E-02															
Total phase (deg)				63.9														
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		
PCal mode: MANUAL, MANUAL																		
PCal rate: 0.000E+00, 0.000E+00 (us/s)																		
Bits/sample: 2x2																		
Sample rate(MSamp/s): 64																		
Data rate(Mb/s): 2048																		
nlags: 128																		
t_cohere infinite																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		
pcal $\theta$																		
Tracks																		
Chan ids																		
Tracks																		
Chan ids																		
Tracks																		
pcal mode: MANUAL, MANUAL																		
PC period (AP's) 5, 5																		
Search (1024X64)																		
Interp.																		
Inc. seg. avg.																		
Inc. frq. avg.																		
0.190 +/- 0.034																		
0.147																		
0.000																		
0.190																		
0.182																		
PCal rate: 0.000E+00, 0.000E+00 (us/s)																		
SampCntNorm: enabled																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		
0.000 1.000																		
-1.000 0.016																		
-0.011 0.011																		
0.00 0.00																		

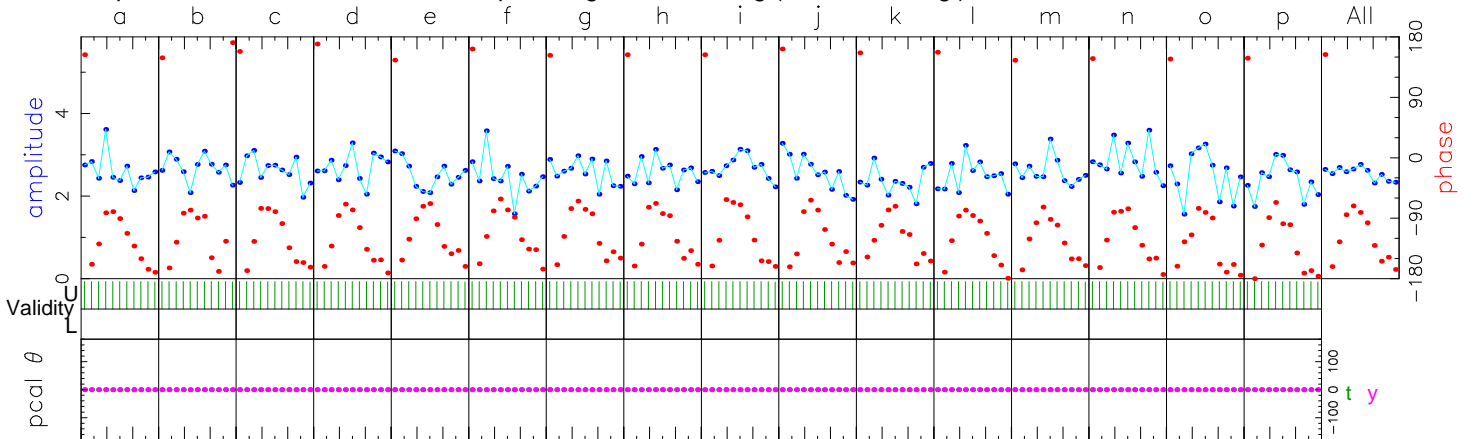


Fringe quality 6

SNR 71.6  
Int time 179.969  
Amp 1.952  
Phase -127.7  
PFD 0.0e+00  
Delays (us)  
SBD -0.000384  
MBD -0.000381  
Fringe rate (Hz) 0.012305  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512

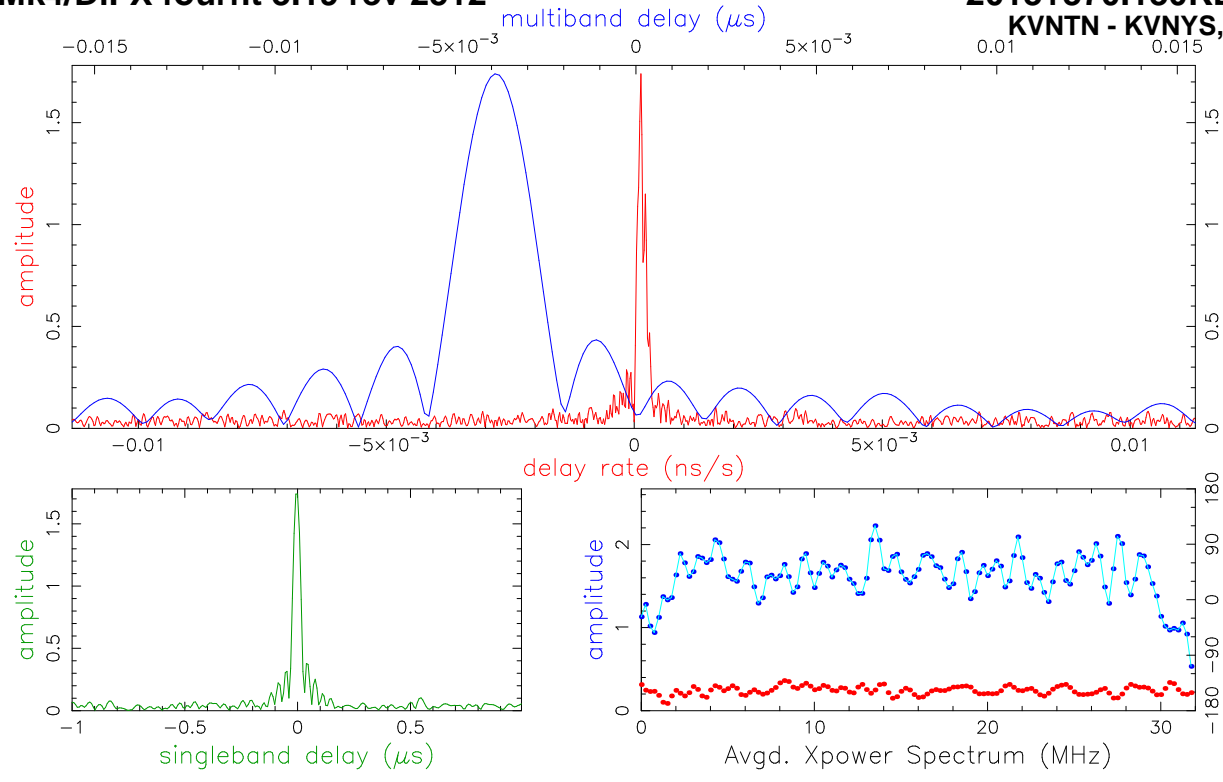
Exp. c192c  
Exper # 16383  
Yr:day 2019:278  
Start 150000.00  
Stop 150300.22  
FRT 150130.00  
Corr/FF/build  
2020:076:014755  
2020:086:043726  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-132.7	-132.0	-128.7	-130.7	-129.4	-122.2	-120.5	-122.3	-120.4	-128.9	-127.0	-125.6	-128.9	-127.8	-133.8	-132.8		Phase	-127.7				
	2.0	2.0	2.0	2.1	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.1	1.8	1.7		Ampl.	2.0				
	129.0	128.9	129.1	129.0	128.8	128.8	129.1	128.8	129.0	128.8	128.8	129.0	128.9	129.0	128.9	129.2		Sbd box	129.0				
UL	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000		PC freqs					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase					
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000		PC amp					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-3.36158240643E+02															Apriori delay (usec)	-3.36157859347E+02	Resid mbdelay (usec)	-3.81296E-04	+/-	1.5E-05
Sband delay (usec)			-3.36158243847E+02															Apriori clock (usec)	-1.4599724E+00	Resid sbdelay (usec)	-3.84500E-04	+/-	2.4E-04
Phase delay (usec)			-3.36157863466E+02															Apriori clockrate (us/s)	1.0000001E-07	Resid phdelay (usec)	-4.11907E-06	+/-	5.2E-08
Delay rate (us/s)			-4.30906123590E-02															Apriori rate (us/s)	-4.30907552085E-02	Resid rate (us/s)	1.42849E-07	+/-	5.0E-10
Total phase (deg)																		Apriori accel (us/s/s)	-2.367944844161E-06	Resid phase (deg)	-127.7	+/-	1.6

ph/seg (deg) 40.5 2.7 Search (1024X64) 1.876 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 31.6 4.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 4.6 3.2 Inc. seg. avg. 2.549 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
amp/frq (%) 5.1 5.6 Inc. frq. avg. 1.954 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite dr window (ns/s) -0.011 0.011  
t: az 293.0 el 40.6 pa 75.1 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) 307.402 -571.647 ion window (TEC) 0.00 0.00 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/ty..130KBL Output file: /Exps/c192c/v2/1234/No0011/ty.W.76.130KBL

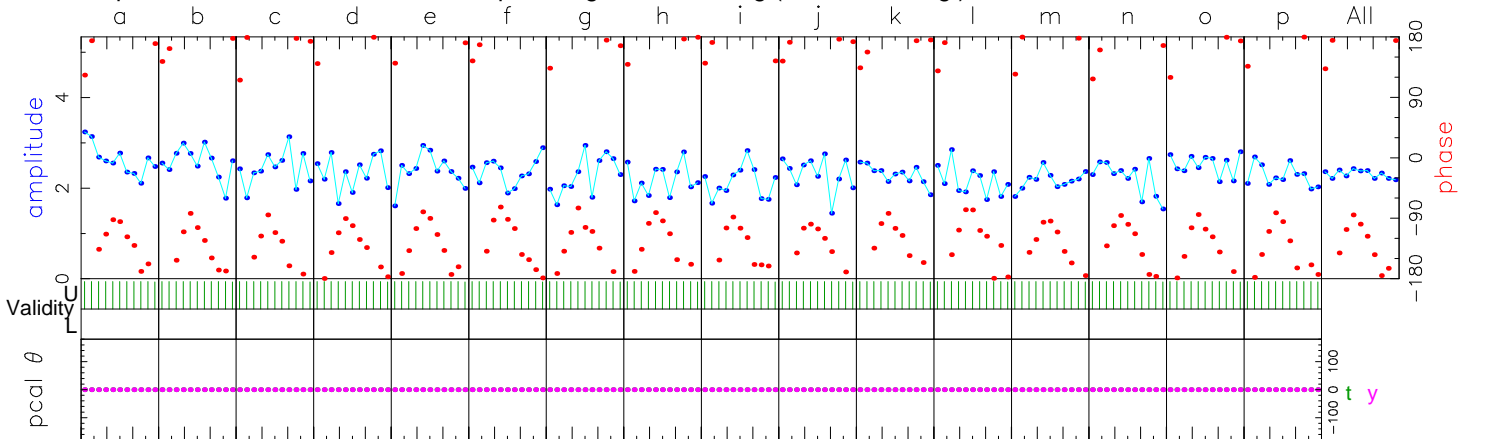


Fringe quality 6

SNR 65.3  
Int time 179.969  
Amp 1.781  
Phase -146.6  
PFD 0.0e+00  
Delays (us)  
SBD -0.003879  
MBD -0.003881  
Fringe rate (Hz) 0.012335  
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  
2020:076:014755  
2020:086:043728  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All							
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	128.7	128.5							
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	128.7	128.5							
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	128.7	128.5							
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	128.7	128.5							
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	128.7	128.5							
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	128.7	128.5							
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	Tracks							
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	Tracks							
Group delay (usec)(sbd)			-3.36161740049E+02														-3.36157859347E+02		Apriori delay (usec)	-3.36157859347E+02	Resid mbdelay (usec)	-3.88070E-03	+/-	1.7E-05	
Sband delay (usec)			-3.36161738347E+02															-1.4599724E+00		Apriori clock (usec)	-1.4599724E+00	Resid sbdelay (usec)	-3.87900E-03	+/-	2.6E-04
Phase delay (usec)			-3.36157864074E+02															1.0000001E-07		Apriori clockrate (us/s)	1.0000001E-07	Resid phdelay (usec)	-4.72687E-06	+/-	5.7E-08
Delay rate (us/s)			-4.30906120076E-02															-4.30907552085E-02		Apriori rate (us/s)	-4.30907552085E-02	Resid rate (us/s)	1.43201E-07	+/-	5.4E-10
Total phase (deg)																		-2.36794484161E-06		Apriori accel (us/s/s)	-2.36794484161E-06	Resid phase (deg)	-146.6	+/-	1.8

ph/seg (deg) 41.9 2.9  
amp/seg (%) 30.1 5.1  
ph/frq (deg) 3.9 3.5  
amp/frq (%) 7.8 6.1

RMS Theor. Amplitude 1.781 +/- 0.027  
Search (1024X64) 1.676  
Interp. 0.000  
Inc. seg. avg. 2.307  
Inc. frq. avg. 1.740

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
PCal rate: 0.000E+00, 0.000E+00 (us/s)  
Bits/sample: 2x2 SampCntNorm: enabled  
Sample rate(MSamp/s): 64  
Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite

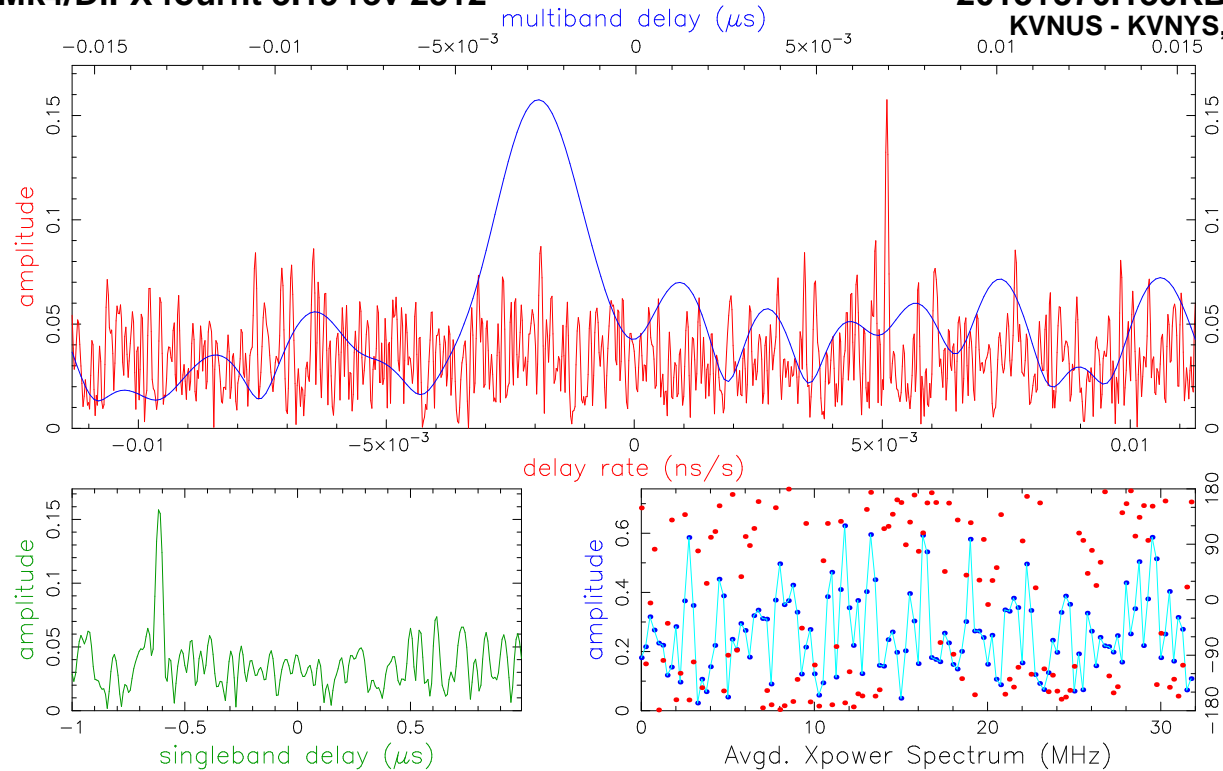
sb window (us) -1.000 1.000  
mb window (us) -0.016 0.016  
dr window (ns/s) -0.011 0.011  
ion window (TEC) 0.00 0.00

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

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/ty..130KBL Output file: /Exps/c192c/v2/1234/No0011/ty.W.90.130KBL

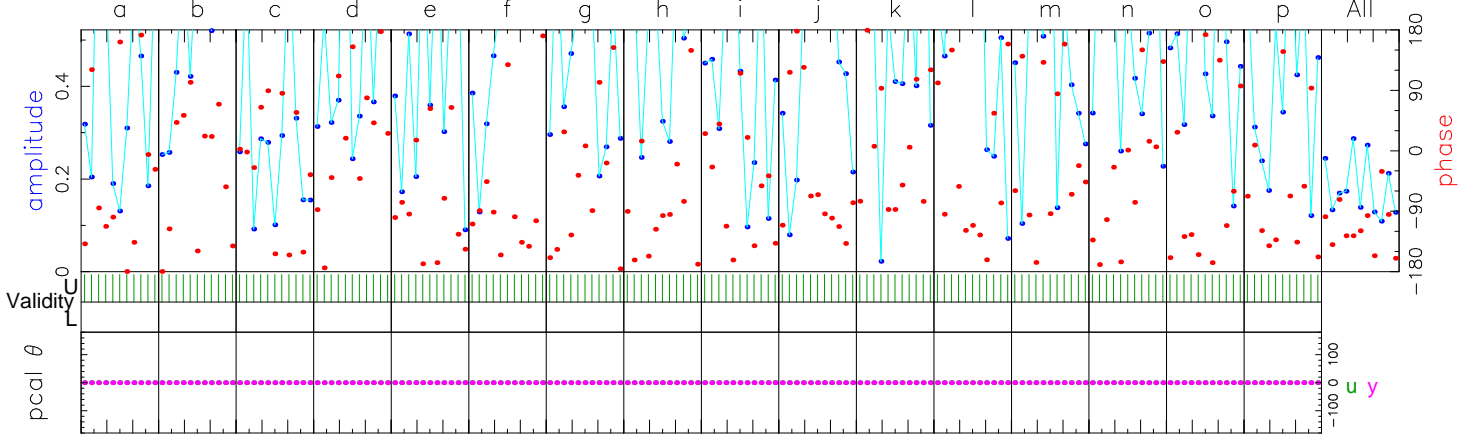
Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130KBL, No0011, uy  
KVNUS - KVNYS, fgroup W, pol LR



Fringe quality 0  
SNR 5.9  
Int time 179.956  
Amp 0.174  
Phase -110.9  
PFD 4.4e-01  
Delays (us)  
SBD -0.614100  
MBD -0.002688  
Fringe rate (Hz) 0.439832  
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 2020:076:014755  
2020:086:043733  
2020:014:135814  
RA & Dec (J2000) 20h15m28.729803s +37°10'59.514664"

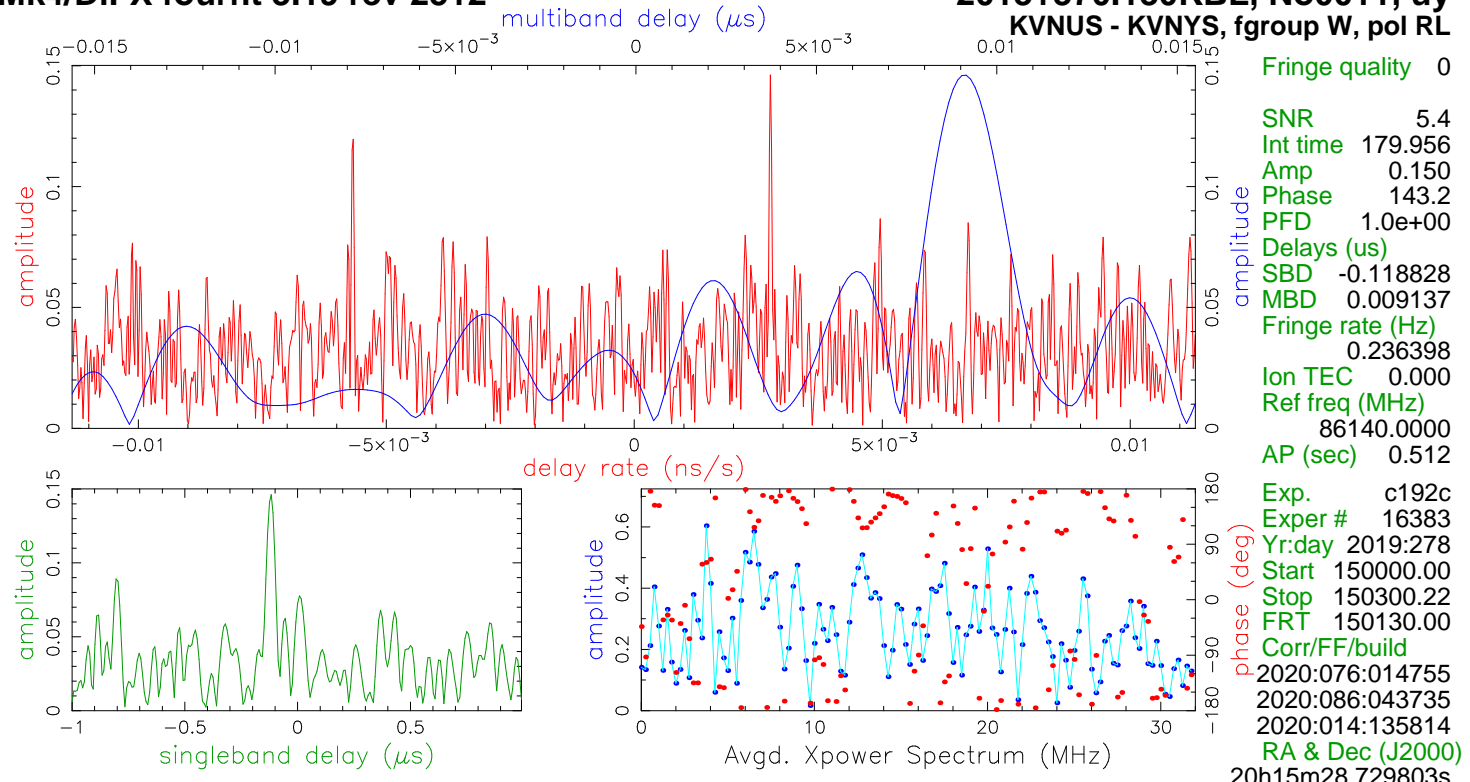
Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)		-7.16837361657E+02																
Sband delay (usec)		-7.16823773657E+02																
Phase delay (usec)		-7.16209677232E+02																
Delay rate (us/s)		-4.10140437367E-02																
Total phase (deg)					-214.8													
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		
PCal mode: MANUAL, MANUAL																		
PCal rate: 0.000E+00, 0.000E+00 (us/s)																		
Bits/sample: 2x2																		
Sample rate(MISamp/s): 64																		
Data rate(Mb/s): 2048																		
nlags: 128																		
t_cohere infinite																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		
simultaneous interpolator																		

u: az 292.1 el 39.3 pa 71.1 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) 296.071 -95.876 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/uy..130KBL Output file: /Exps/c192c/v2/1234/No0011/uy.W.130KBL





Fringe quality 0

SNR 5.4

Int time 179.956

Amp 0.150

Phase 143.2

PFD 1.0e+00

Delays (us)

SBD -0.118828

MBD 0.009137

Fringe rate (Hz) 0.236398

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

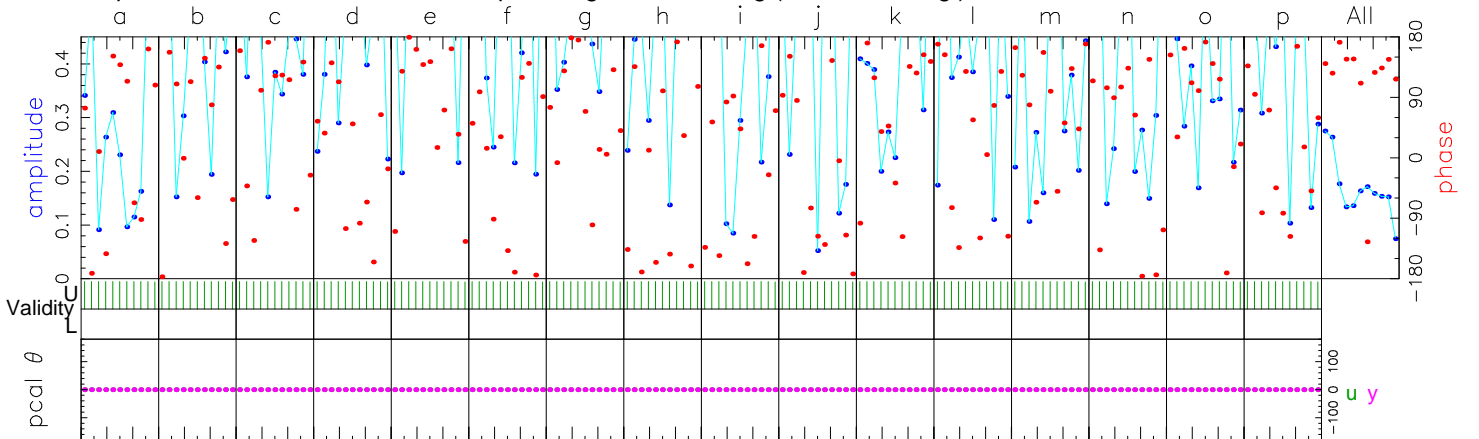
Corr/FF/build 2020:076:014755

2020:086:043735

2020:014:135814

RA & Dec (J2000) 20h15m28.729803s +37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
151.5	175.8	165.9	70.0	160.8	102.4	87.8	146.5	-173.1	-179.8	149.8	162.9	113.7	156.1	140.0	77.7		Phase	143.2	
0.2	0.2	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.1		Ampl.	0.1	
182.6	171.8	131.4	84.8	116.4	111.9	16.2	87.6	21.3	29.0	47.9	105.9	147.4	63.6	59.7	120.5		Sbd box	113.8	
UL	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		APs used		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC amp		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Tracks		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
Group delay (usec)(sbd)	-7.16325536345E+02			Apriori delay (usec)			-7.16209673657E+02			Resid mbdelay (usec)			9.13731E-03			+/- 2.0E-04			
Sband delay (usec)	-7.16328501657E+02			Apriori clock (usec)			-2.0722914E+01			Resid sbdelay (usec)			-1.18828E-01			+/- 3.2E-03			
Phase delay (usec)	-7.16209669041E+02			Apriori clockrate (us/s)			2.9999999E-07			Resid phdelay (usec)			4.61672E-06			+/- 6.9E-07			
Delay rate (us/s)	-4.10164054032E-02			Apriori rate (us/s)			-4.10191497446E-02			Resid rate (us/s)			2.74434E-06			+/- 6.6E-09			
Total phase (deg)	39.2			Apriori accel (us/s/s)			1.76581372054E-06			Resid phase (deg)			143.2			+/- 21.3			

ph/seg (deg) 32.6 35.3 Search (1024X64) 0.145 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 39.9 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) 38.8 42.6 Inc. seg. avg. 0.146 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 49.6 74.4 Inc. frq. avg. 0.137 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite dr window (ns/s) -0.011 0.011

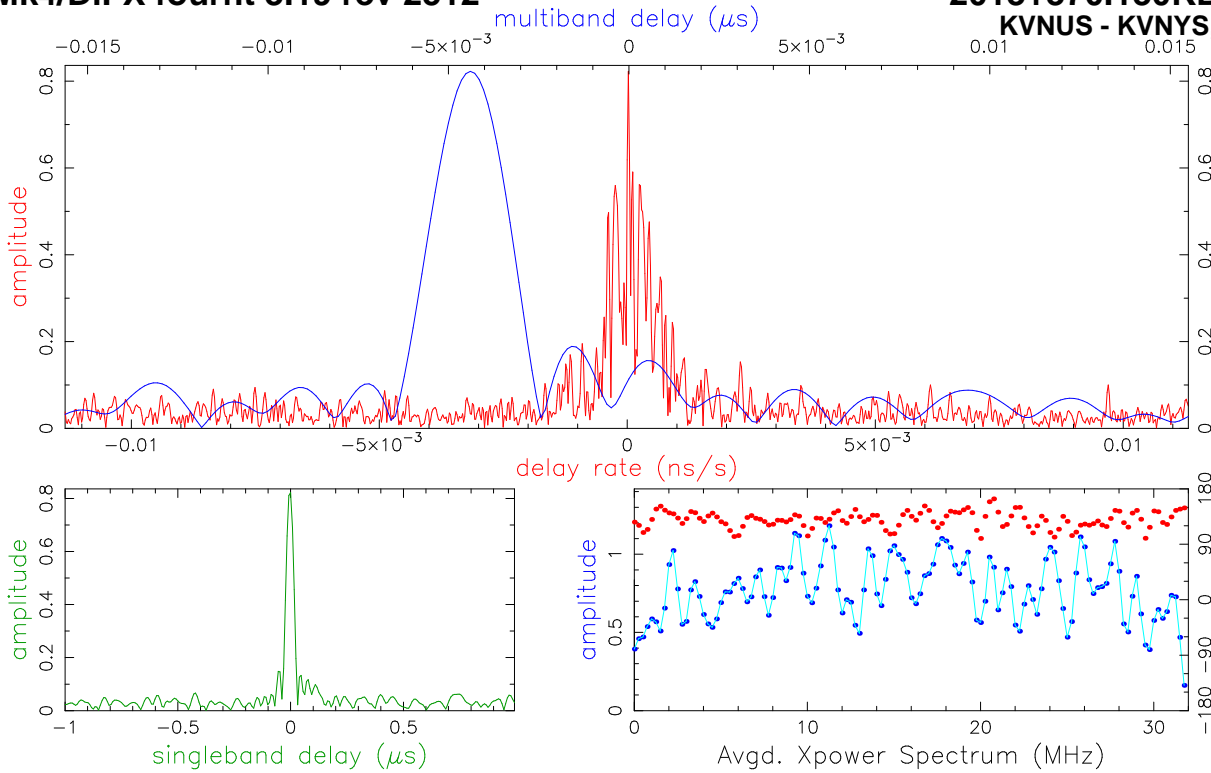
u: az 292.1 el 39.3 pa 71.1 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) 296.071 -95.876 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/uy..130KBL Output file: /Exps/c192c/v2/1234/No0011/uy.W.147.130KBL



Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130KBL, No0011, uy  
KVNUS - KVNYS, fgroup W, pol RR

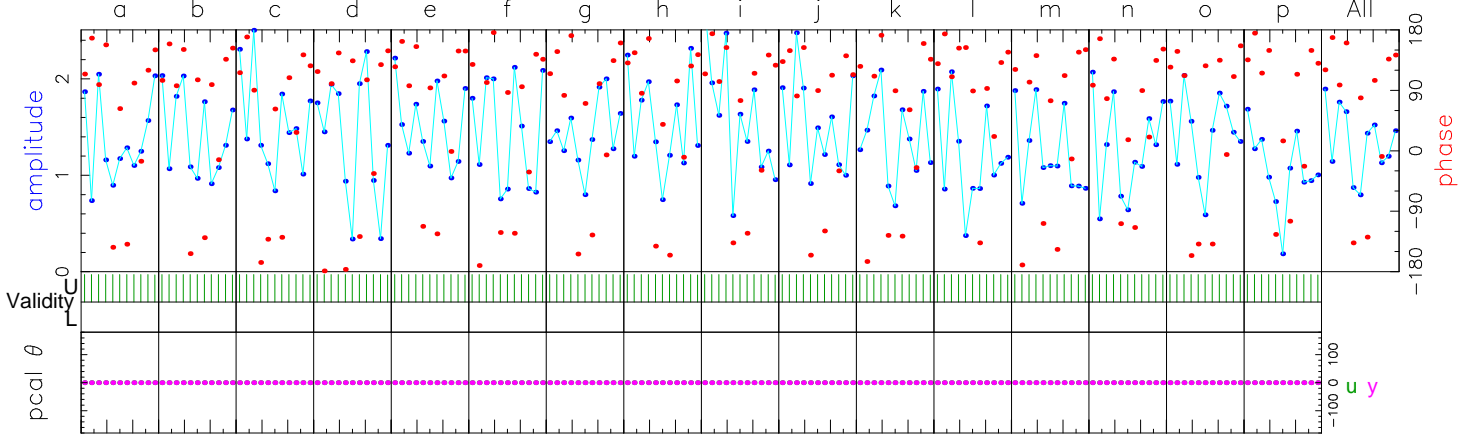


Fringe quality 7

SNR 30.7  
Int time 179.956  
Amp 0.836  
Phase 136.4  
PFD 0.0e+00  
Delays (us)  
SBD -0.003307  
MBD -0.004381  
Fringe rate (Hz) 0.001240  
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  
2020:076:014755  
2020:086:043729  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000							
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000							
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0							
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0							
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000							
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000							
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-7.16214054920E+02															Apriori delay (usec)	-7.16209673657E+02	Resid mbdelay (usec)	-4.38126E-03	+/-	3.5E-05
Sband delay (usec)			-7.16212980657E+02															Apriori clock (usec)	-2.0722914E+01	Resid sbdelay (usec)	-3.30700E-03	+/-	5.6E-04
Phase delay (usec)			-7.16209669260E+02															Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	4.39723E-06	+/-	1.2E-07
Delay rate (us/s)			-4.10191353453E-02															Apriori rate (us/s)	-4.10191497446E-02	Resid rate (us/s)	1.43993E-08	+/-	1.2E-09
Total phase (deg)					32.4													Apriori accel (us/s/s)	1.76581372054E-06	Resid phase (deg)	136.4	+/-	3.7

ph/seg (deg) 64.1 6.2  
amp/seg (%) 73.8 10.8  
ph/frq (deg) 11.0 7.5  
amp/frq (%) 13.7 13.0

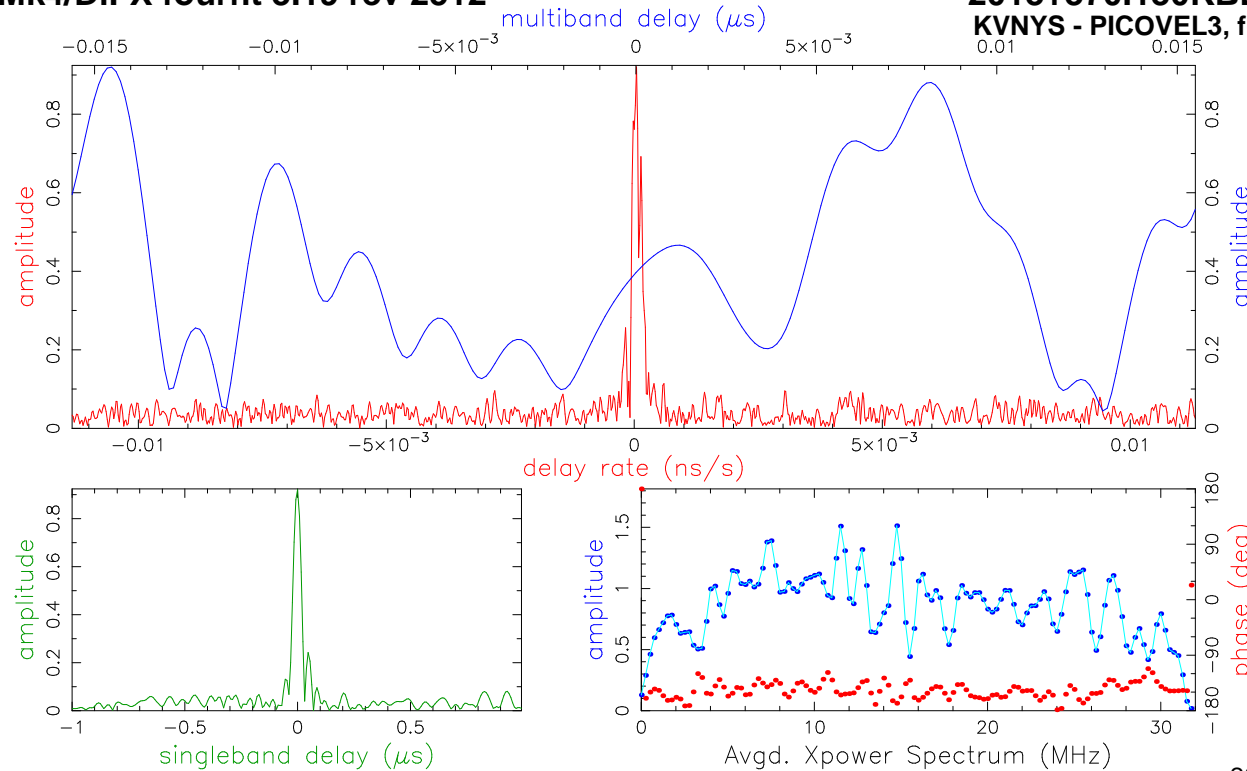
RMS Theor. Amplitude 0.836 +/- 0.027  
Search (1024X64) 0.794  
Interp. 0.000  
Inc. seg. avg. 1.345  
Inc. frq. avg. 0.828

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
PCal rate: 0.000E+00, 0.000E+00 (us/s)  
Bits/sample: 2x2 SampCntNorm: enabled  
Sample rate(MSamp/s): 64  
Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite

sb window (us) -1.000 1.000  
mb window (us) -0.016 0.016  
dr window (ns/s) -0.011 0.011  
ion window (TEC) 0.00 0.00

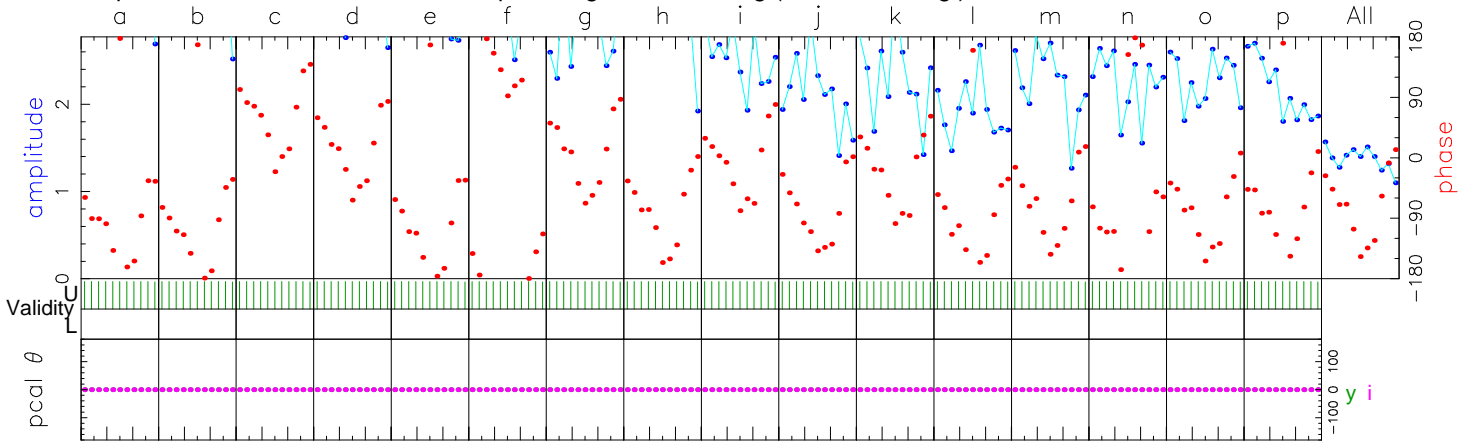
u: az 292.1 el 39.3 pa 71.1 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) 296.071 -95.876 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/uy..130KBL Output file: /Exps/c192c/v2/1234/No0011/uy.W.98.130KBL



Fringe quality 3  
 SNR 33.9  
 Int time 179.972  
 Amp 0.924  
 Phase -73.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001746  
 MBD -0.014573  
 Fringe rate (Hz) 0.003380  
 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  
 2020:076:014755  
 2020:086:043730  
 2020:014:135814  
 RA & Dec (J2000)  
 20h15m28.729803s  
 +37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec

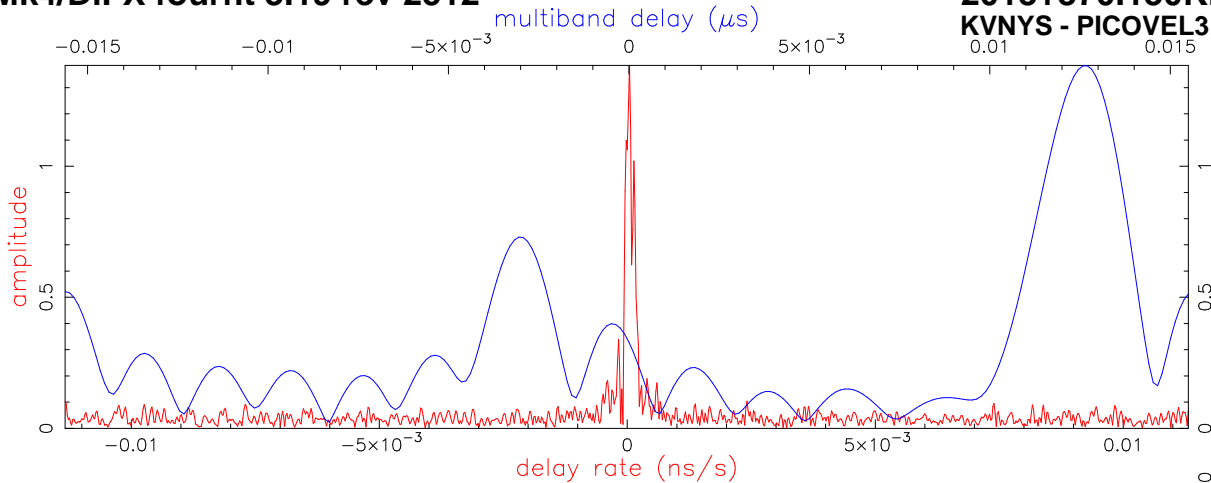


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-102.1	-113.4	65.9	13.7	-114.0	168.1	5.1	-81.8	-4.9	-83.0	-22.7	-105.8	-69.8	-116.8	-75.6	-79.2		Phase	-73.1
	2.3	2.4	2.4	2.2	2.0	2.1	1.9	2.1	1.7	1.5	1.4	1.3	1.4	1.5	1.6	1.4		Ampl.	1.8
	129.1	128.8	128.6	128.6	128.2	128.2	127.9	128.3	128.2	128.0	128.5	128.0	128.4	128.0	129.1	129.2		Sbd box	128.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
y:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
y:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
i	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
																		Chan ids	
																		Tracks	
Group delay (usec)(sbd)			1.31693584418E+03					Apriori delay (usec)	1.31695041730E+03				Resid mbdelay (usec)	-1.45731E-02				+/-	3.2E-05
Sband delay (usec)			1.31694867130E+03					Apriori clock (usec)	2.9774612E+01				Resid sbdelay (usec)	-1.74600E-03				+/-	5.1E-04
Phase delay (usec)			1.31695041494E+03					Apriori clockrate (us/s)	4.5300000E-07				Resid phdelay (usec)	-2.35633E-06				+/-	1.1E-07
Delay rate (us/s)			-1.78315235196E+00					Apriori rate (us/s)	-1.78315239120E+00				Resid rate (us/s)	3.92399E-08				+/-	1.0E-09
Total phase (deg)				267.5				Apriori accel (us/s/s)	-6.39007809365E-06				Resid phase (deg)	-73.1				+/-	3.4

ph/seg (deg) 49.9 5.6 Theor. Amplitude 0.924 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 50.5 9.8 Search (1024X64) 0.909 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 66.3 6.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 105.9 11.8 Inc. seg. avg. 1.367 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
 y: az 289.7 el 41.8 pa 69.5 i: az 67.5 el 36.7 pa -68.0 u,v (fr/asec) 12824.432 -410.452 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yi..130KBL Output file: /Exps/c192c/v2/1234/No0011/yi.W.104.130KBL simultaneous interpolator

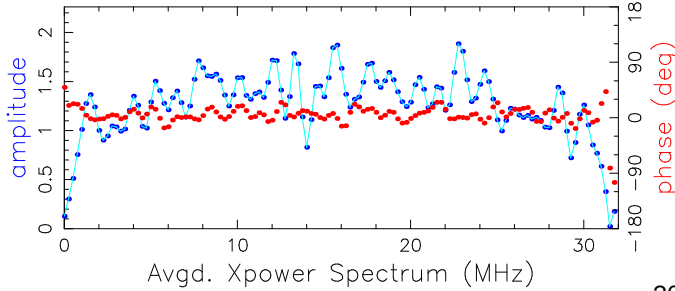
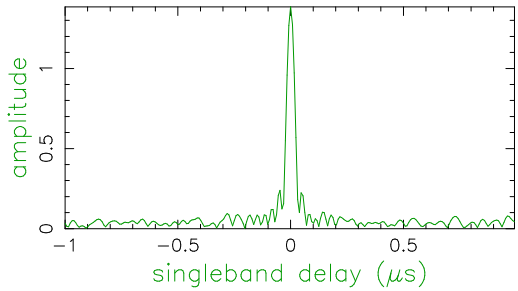
Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130KBL, No0011, yi  
KVNS - PICOVEL3, fgroup W, pol RR



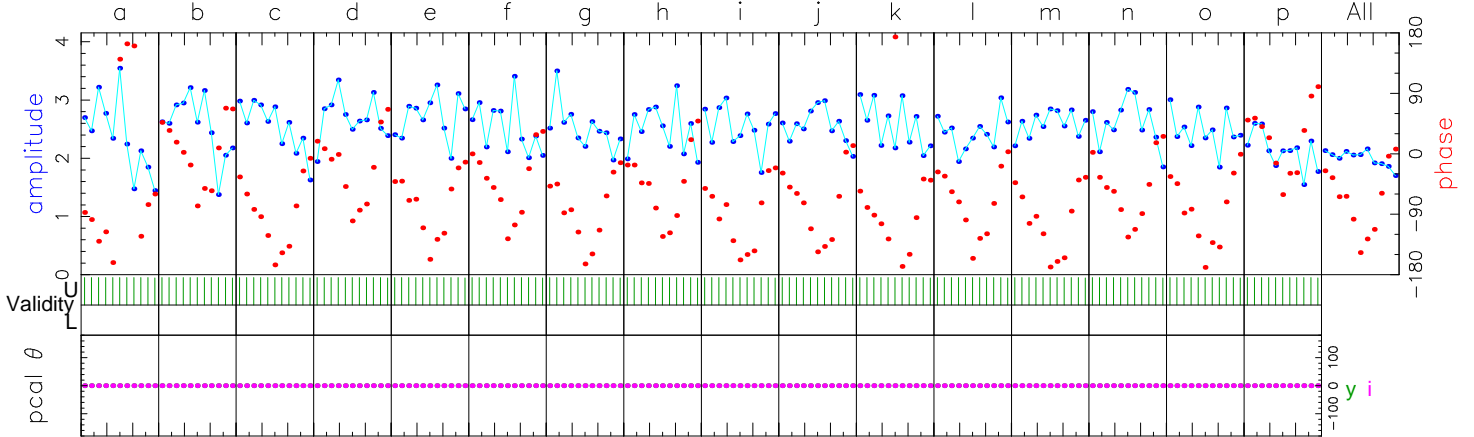
Fringe quality 2

SNR 50.8  
Int time 179.972  
Amp 1.385  
Phase -67.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000103  
MBD 0.012642  
Fringe rate (Hz)  
0.003448  
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  
2020:076:014755  
2020:086:043732  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

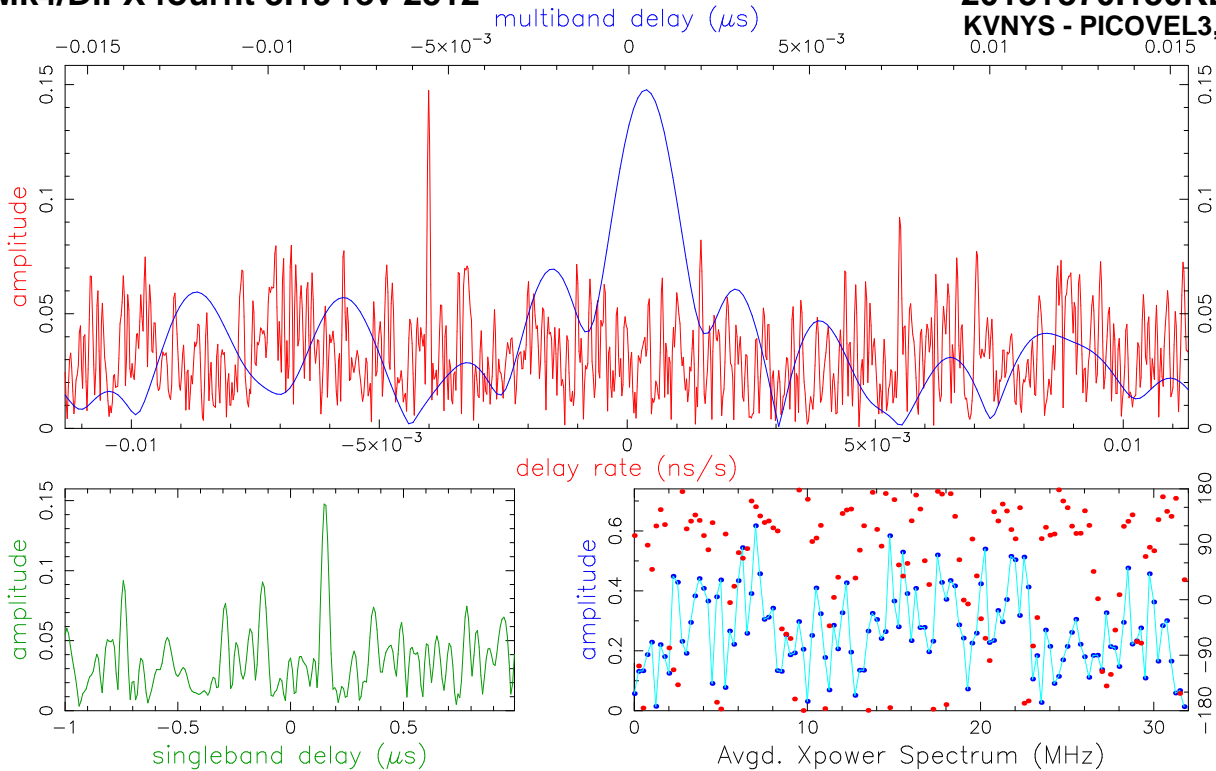
Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-134.4	1.5	-89.6	-18.4	-74.1	-42.5	-80.5	-50.9	-88.5	-77.0	-101.8	-66.0	-97.8	-56.6	-80.5	25.0		Phase -67.0					
	1.6	1.8	1.7	1.8	1.9	1.7	1.8	1.7	1.8	1.7	1.8	1.7	1.8	1.8	1.7	1.5		Ampl. 1.7					
	130.7	130.0	129.4	129.2	129.0	129.1	129.0	129.5	128.9	128.8	129.1	129.4	129.0	129.0	129.7	130.1		Sbd box 129.0					
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
y:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase					
y:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
i	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			1.31696305971E+03															Apriori delay (usec)	1.31695041730E+03	Resid mbdelay (usec)	1.26424E-02	+/-	2.1E-05
Sband delay (usec)			1.31695052030E+03															Apriori clock (usec)	2.9774612E+01	Resid sbdelay (usec)	1.03000E-04	+/-	3.4E-04
Phase delay (usec)			1.31695041514E+03															Apriori clockrate (us/s)	4.5300000E-07	Resid phdelay (usec)	-2.16197E-06	+/-	7.3E-08
Delay rate (us/s)			-1.78315235117E+00															Apriori rate (us/s)	-1.78315239120E+00	Resid rate (us/s)	4.00264E-08	+/-	7.0E-10
Total phase (deg)				273.6														Apriori accel (us/s/s)	-6.39007809365E-06	Resid phase (deg)	-67.0	+/-	2.3

ph/seg (deg) 47.9 3.7 Search (1024X64) 1.373 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 45.4 6.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 42.0 4.5 Inc. seg. avg. 1.995 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 25.8 7.9 Inc. frq. avg. 1.720 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 y: az 289.7 el 41.8 pa 69.5 i: az 67.5 el 36.7 pa -68.0 u,v (fr/asec) 12824.432 -410.452 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yi..130KBL Output file: /Exps/c192c/v2/1234/No0011/yi.W.123.130KBL



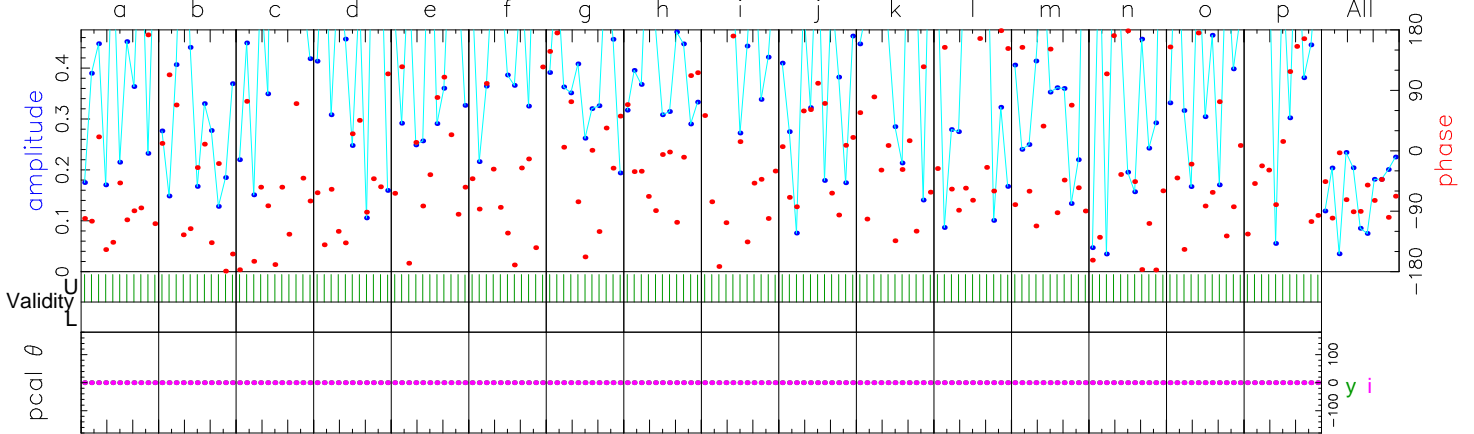


Fringe quality 0

SNR 5.5  
Int time 179.972  
Amp 0.158  
Phase -74.5  
PFD 9.8e-01  
Delays (us)  
SBD 0.152068  
MBD 0.000407  
Fringe rate (Hz)  
-0.345596  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

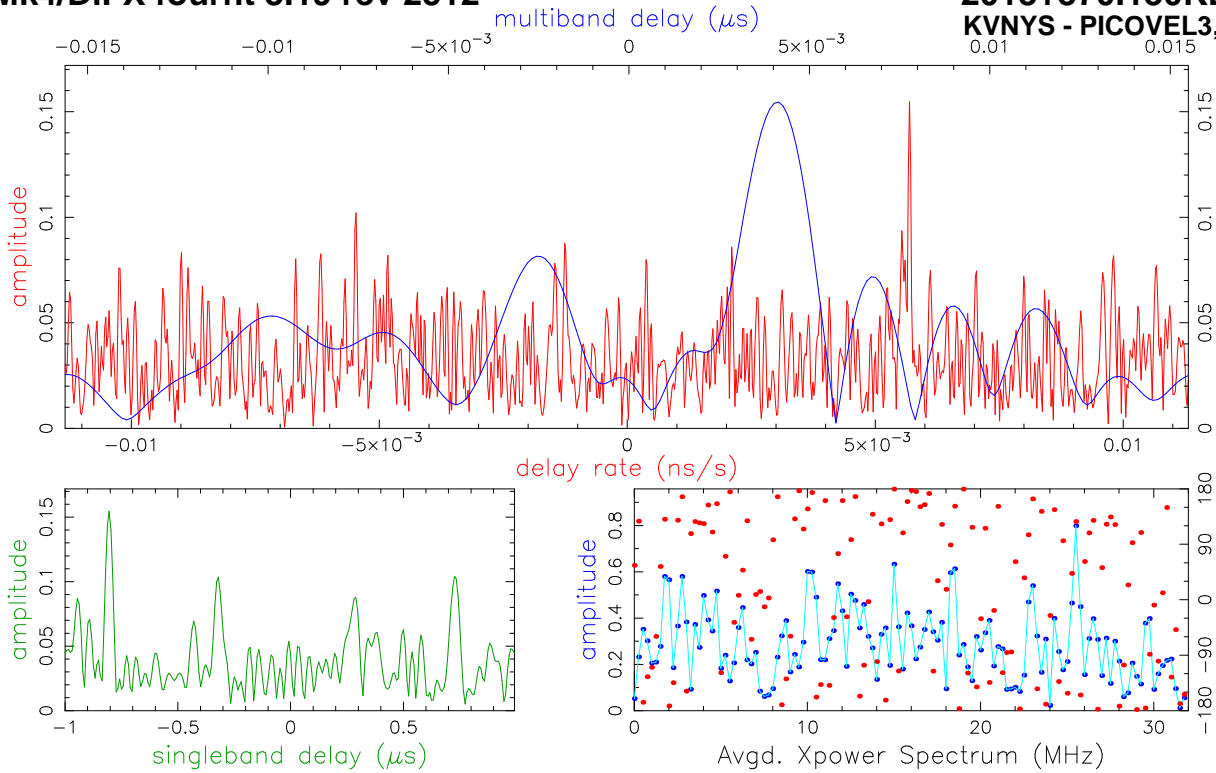
Exp. c192c  
Exper # 16383  
Yr:day 2019:278  
Start 150000.00  
Stop 150300.22  
FRT 150130.00  
Corr/FF/build  
2020:076:014755  
2020:086:043736  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



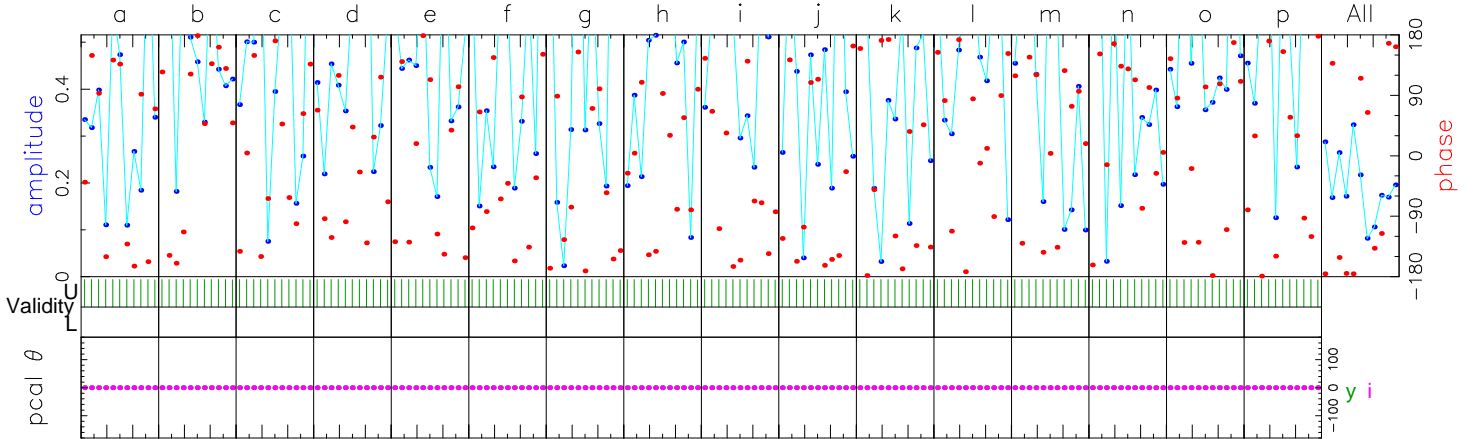
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-101.6	-114.2	-104.3	-72.9	-39.0	-82.5	14.4	-36.0	-85.1	19.8	-24.8	-68.0	-77.0	-121.1	-90.7	-87.1	Phase	-74.5				
	0.3	0.1	0.2	0.3	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2				
	191.6	231.7	239.4	134.8	111.9	13.6	180.2	28.0	197.4	35.2	59.6	52.9	138.6	208.4	139.3	54.9	Sbd box	148.5				
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
y:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
i	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			1.31710707413E+03														Apriori delay (usec)	1.31695041730E+03	Resid mbdelay (usec)	4.06826E-04	+/-	2.0E-04
Sband delay (usec)			1.31710248580E+03														Apriori clock (usec)	2.9774612E+01	Resid sbdelay (usec)	1.52068E-01	+/-	3.1E-03
Phase delay (usec)			1.31695041490E+03														Apriori clockrate (us/s)	4.5300000E-07	Resid phdelay (usec)	-2.40207E-06	+/-	6.7E-07
Delay rate (us/s)			-1.78315640323E+00														Apriori rate (us/s)	-1.78315239120E+00	Resid rate (us/s)	-4.01203E-06	+/-	6.4E-09
Total phase (deg)				266.1													Apriori accel (us/s/s)	-6.39007809365E-06	Resid phase (deg)	-74.5	+/-	20.8

ph/seg (deg) RMS Theor. Amplitude 0.158 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 43.5 60.1 Search (1024X64) 0.145 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 44.7 41.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 41.8 72.5 Inc. seg. avg. 0.142 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
 y: az 289.7 el 41.8 pa 69.5 i: az 67.5 el 36.7 pa -68.0 u,v (fr/asec) 12824.432 -410.452 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yi..130KBL Output file: /Exps/c192c/v2/1234/No0011/yi.W.149.130KBL simultaneous interpolator



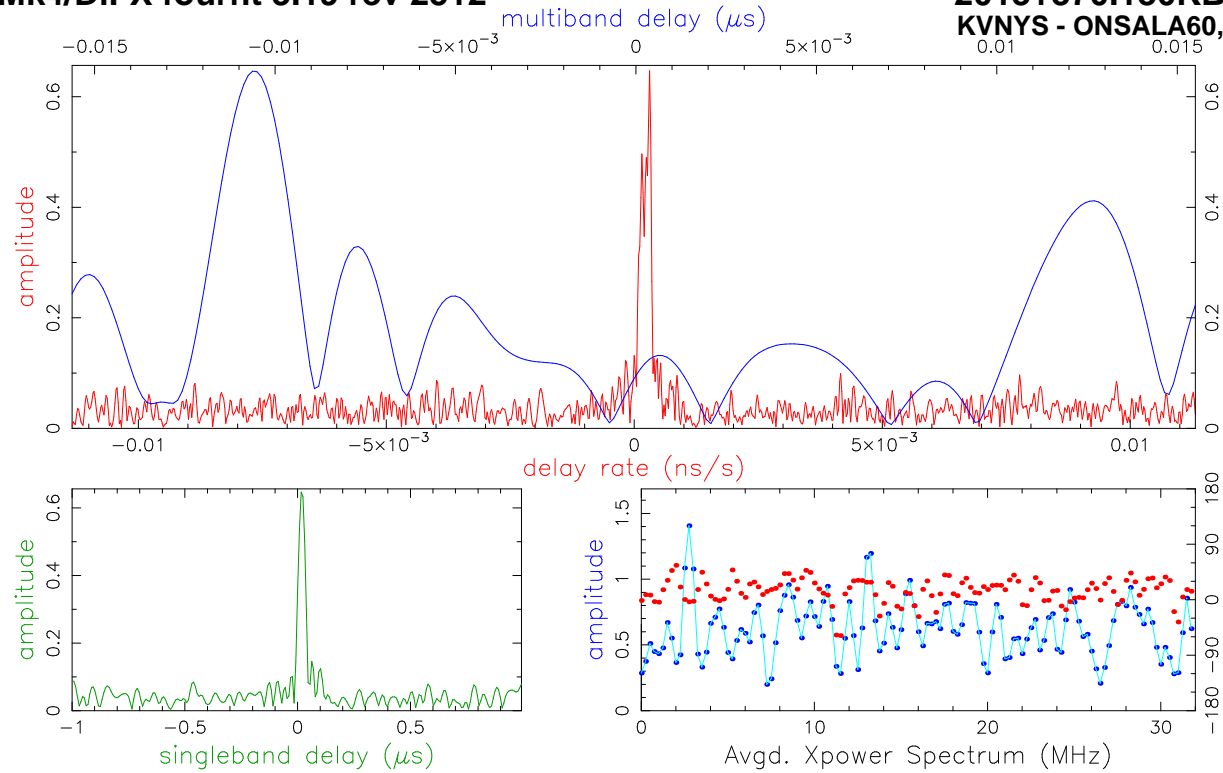
Fringe quality 0  
SNR 5.7  
Int time 179.972  
Amp 0.172  
Phase 177.9  
PFD 8.2e-01  
Delays (us)  
SBD -0.805167  
MBD 0.004114  
Fringe rate (Hz) 0.490290  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. c192c  
Exper # 16383  
Yr:day 2019:278  
Start 150000.00  
Stop 150300.22  
FRT 150130.00  
Corr/FF/build 2020:076:014755  
2020:086:043737  
2020:014:135814  
RA & Dec (J2000) 20h15m28.729803s +37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	151.7	155.7	170.4	-65.5	-168.9	-117.1	-179.4	65.0	-119.6	-176.7	-173.0	135.5	142.5	156.0	176.5	-165.7	Phase	177.9	
	0.2	0.3	0.1	0.1	0.2	0.2	0.3	0.1	0.2	0.3	0.3	0.1	0.1	0.2	0.3	0.2	Ampl.	0.2	
	123.6	169.5	58.1	8.9	252.0	163.4	26.5	1.5	238.7	101.1	113.5	181.5	136.8	53.3	27.1	19.9	Sbd box	25.9	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
yi	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC		
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids		
i	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks		
																	Chan ids		
																	Tracks		
Group delay (usec)(sbd)			1.31614203137E+03									1.31695041730E+03					Resid mbdelay (usec)	4.11407E-03	+/- 1.9E-04
Sband delay (usec)			1.31614524980E+03									2.9774612E+01					Resid sbdelay (usec)	-8.05167E-01	+/- 3.0E-03
Phase delay (usec)			1.31695042304E+03									4.5300000E-07					Resid phdelay (usec)	5.73648E-06	+/- 6.5E-07
Delay rate (us/s)			-1.78314669942E+00									-1.78315239120E+00					Resid rate (us/s)	5.69178E-06	+/- 6.3E-09
Total phase (deg)				158.5								-6.39007809365E-06					Resid phase (deg)	177.9	+/- 20.2

ph/seg (deg) 48.9 33.5  
amp/seg (%) 52.6 58.4  
ph/frq (deg) 53.3 40.4  
amp/frq (%) 48.6 70.5  
y: az 289.7 el 41.8 pa 69.5 i: az 67.5 el 36.7 pa -68.0 u,v (fr/asec) 12824.432 -410.452  
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) -0.016 0.016  
Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00  
simultaneous interpolator

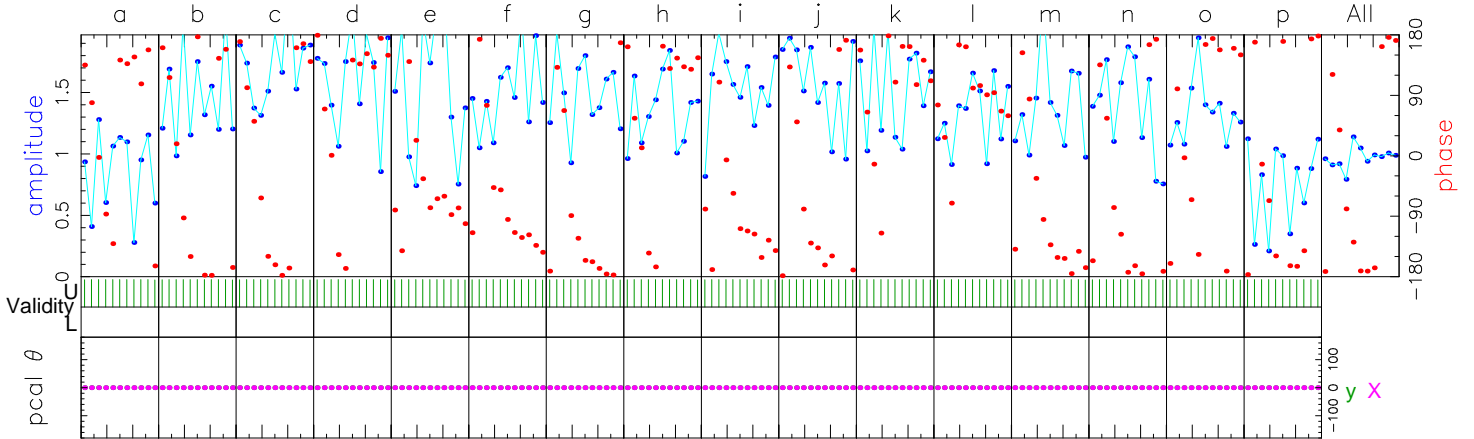


Fringe quality 5

SNR 24.1  
Int time 179.778  
Amp 0.657  
Phase -176.3  
PFD 0.0e+00  
Delays (us)  
SBD 0.018692  
MBD -0.010558  
Fringe rate (Hz)  
0.025915  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

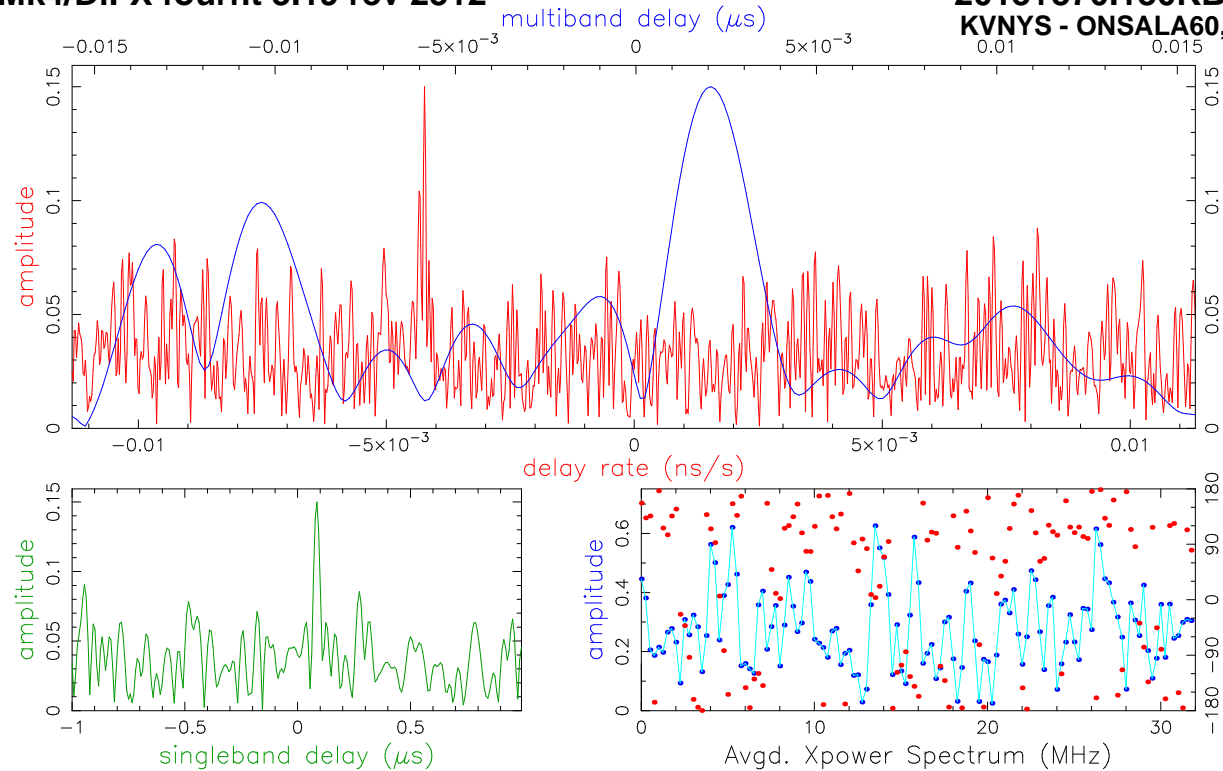
Exp. c192c  
Exper # 16383  
Yr:day 2019:278  
Start 150000.00  
Stop 150300.22  
FRT 150130.00  
Corr/FF/build  
2020:076:014755  
2020:086:043731  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks
Group delay (usec)(sbd)		-2.27609984080E+03																
Sband delay (usec)		-2.27610184143E+03																
Phase delay (usec)		-2.27612053861E+03																
Delay rate (us/s)		-1.39847026023E+00																
Total phase (deg)					-70.7													
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)																		
PCal mode: MANUAL, MANUAL																		
PCal rate: 0.000E+00, 0.000E+00 (us/s)																		
Bits/sample: 2x2																		
Sample rate(MISamp/s): 64																		
Data rate(Mb/s): 2048																		
nlags: 128																		
t_cohere infinite																		
ion window (TEC)																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		

ph/seg (deg) 58.5 7.9 Search (1024X64) 0.616 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 49.5 13.8 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 48.3 9.5 Inc. seg. avg. 0.962 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
amp/frq (%) 47.3 16.6 Inc. frq. avg. 0.887 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite dr window (ns/s) -0.011 0.011  
y: az 289.7 el 41.8 pa 69.5 X: az 96.8 el 50.1 pa -42.1 u,v (fr/asec) 10055.436 -1932.002 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yX..130KBL Output file: /Exps/c192c/v2/1234/No0011/yX.W.112.130KBL

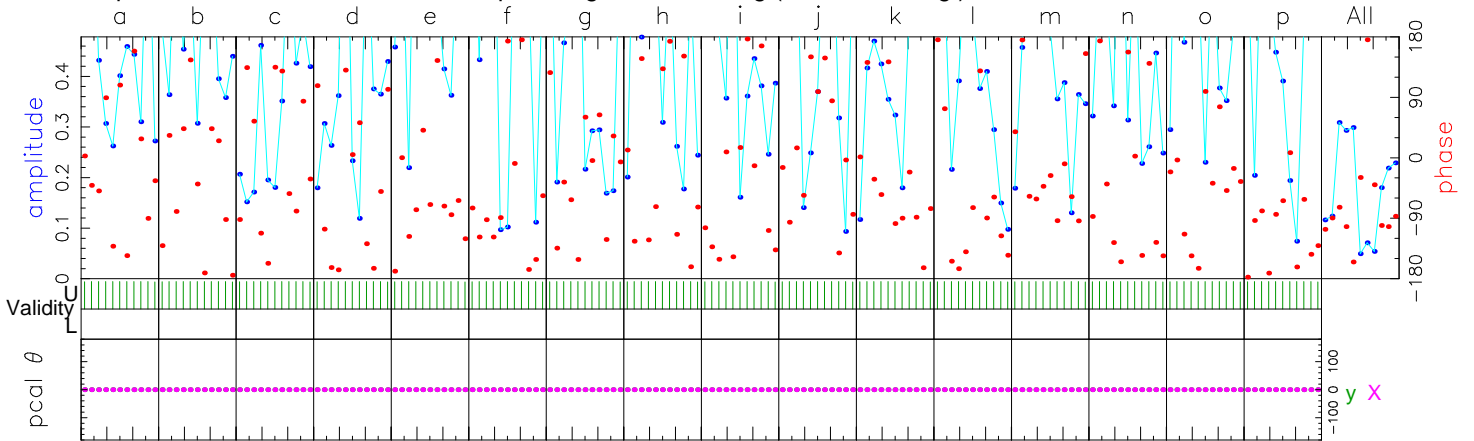


Fringe quality 0

SNR 5.5  
Int time 179.778  
Amp 0.159  
Phase -101.7  
PFD 9.8e-01  
Delays (us)  
SBD 0.084690  
MBD 0.002070  
Fringe rate (Hz)  
-0.363997  
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  
2020:076:014755  
2020:086:043733  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-57.6	-101.3	-75.2	179.6	-73.9	-103.2	-40.0	-144.0	-132.6	23.8	-83.4	-146.1	-59.6	-136.7	-43.5	-115.3	Phase	-101.7				
	0.1	0.0	0.1	0.2	0.3	0.4	0.1	0.3	0.3	0.1	0.3	0.2	0.3	0.2	0.2	0.3	Ampl.	0.2				
	7.9	74.8	251.0	61.0	211.7	139.1	129.7	165.4	234.5	69.4	237.4	116.9	77.0	164.0	3.7	139.2	Sbd box	139.8				
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-2.27602471270E+03														Apriori delay (usec)	-2.27612053293E+03	Resid mbdelay (usec)	2.07024E-03	+/-	2.0E-04
Sband delay (usec)			-2.27603584293E+03														Apriori clock (usec)	-3.1606369E+00	Resid sbdelay (usec)	8.46900E-02	+/-	3.1E-03
Phase delay (usec)			-2.27612053621E+03														Apriori clockrate (us/s)	-4.2800003E-07	Resid phdelay (usec)	-3.27859E-06	+/-	6.7E-07
Delay rate (us/s)			-1.39847478672E+00														Apriori rate (us/s)	-1.39847056108E+00	Resid rate (us/s)	-4.22564E-06	+/-	6.4E-09
Total phase (deg)					-356.1												Apriori accel (us/s/s)	-3.82941716441E-06	Resid phase (deg)	-101.7	+/-	20.8

ph/seg (deg) 42.6 34.4  
amp/seg (%) 65.6 60.1  
ph/frq (deg) 54.0 41.5  
amp/frq (%) 71.7 72.5

RMS Theor. Amplitude 0.159 +/- 0.029  
Search (1024X64) 0.148  
Interp. 0.000  
Inc. seg. avg. 0.159  
Inc. frq. avg. 0.163

y: az 289.7 el 41.8 pa 69.5  
X: az 96.8 el 50.1 pa -42.1  
u,v (fr/asec) 10055.436 -1932.002

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yX..130KBL Output file: /Exps/c192c/v2/1234/No0011/yX.W.131.130KBL

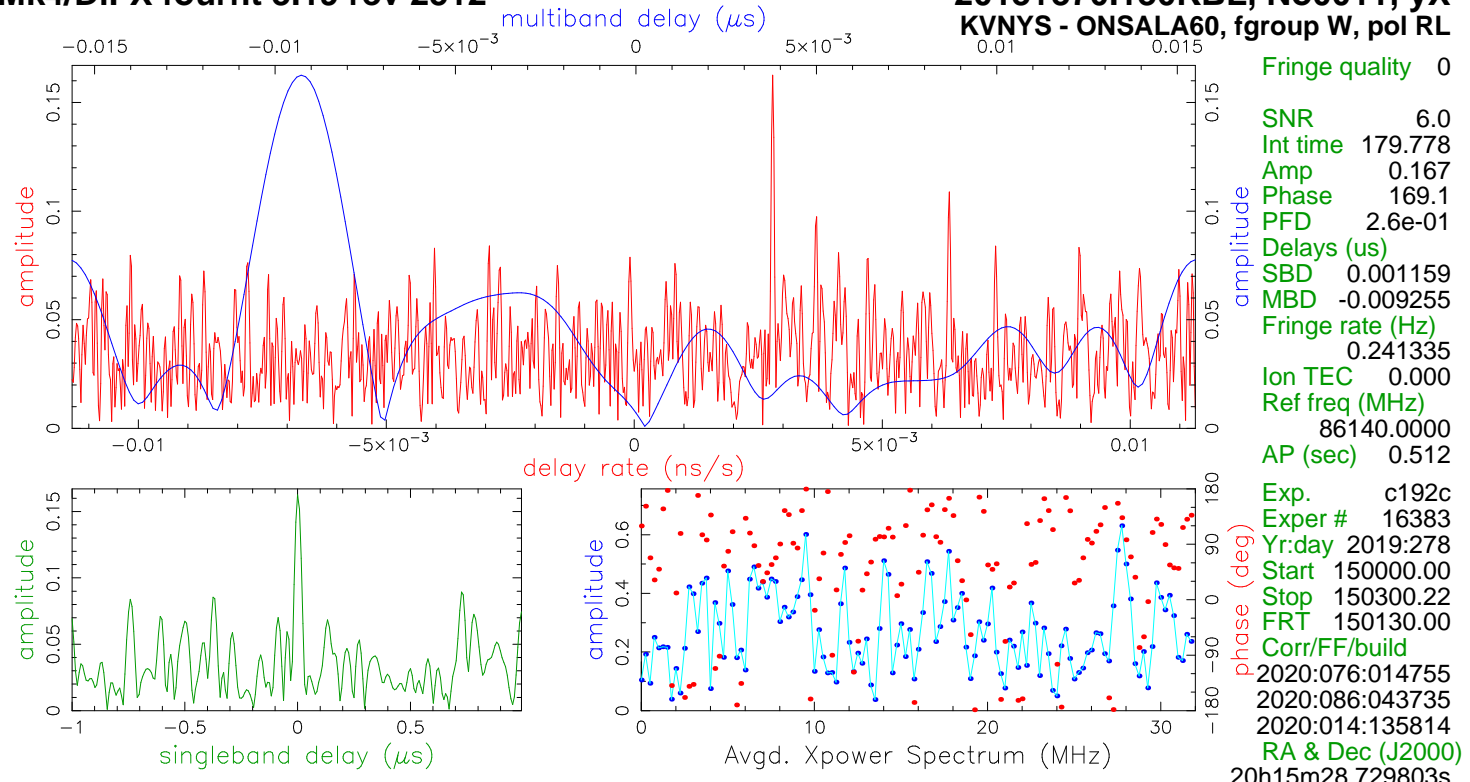
PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
PCal rate: 0.000E+00, 0.000E+00 (us/s)  
Bits/sample: 2x2 SampCntNorm: enabled  
Sample rate(MSamp/s): 64  
Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite

sb window (us) -1.000 1.000  
mb window (us) -0.016 0.016  
dr window (ns/s) -0.011 0.011  
ion window (TEC) 0.00 0.00

simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130KBL, No0011, yX  
KVNYS - ONSALA60, fgroup W, pol RL



Fringe quality 0

SNR 6.0

Int time 179.778

Amp 0.167

Phase 169.1

PFD 2.6e-01

Delays (us)

SBD 0.001159

MBD -0.009255

Fringe rate (Hz) 0.241335

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

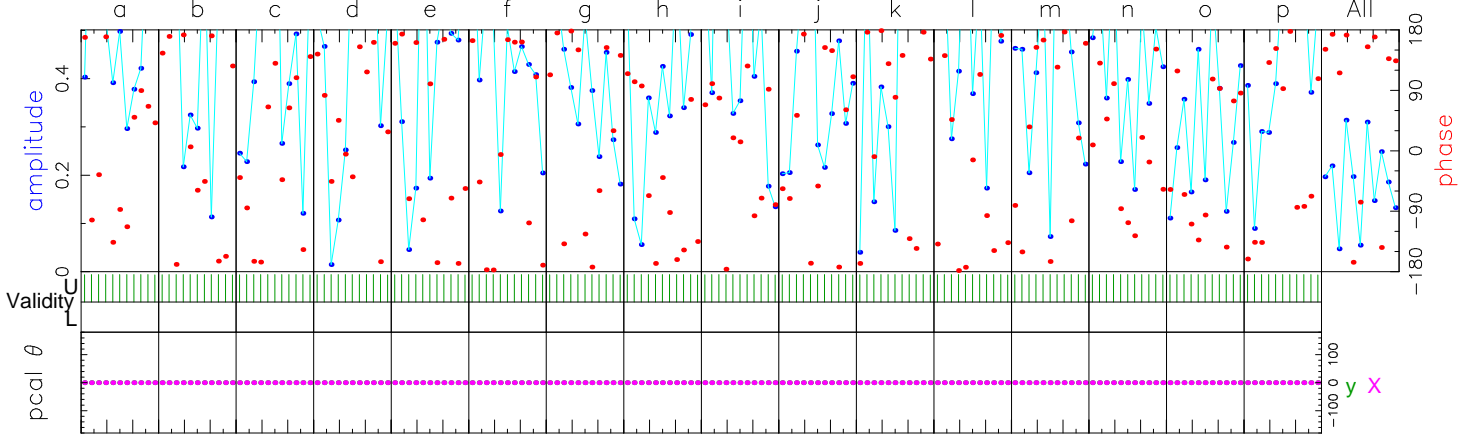
Corr/FF/build 2020:076:014755

2020:086:043735

2020:014:135814

RA & Dec (J2000) 20h15m28.729803s +37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-71.9	-175.3	134.5	118.4	-143.8	176.4	175.4	-152.0	86.2	166.0	170.1	-176.3	174.5	48.2	125.6	-170.2		Phase 169.1					
	0.0	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.1	0.1	0.2		Ampl. 0.2					
	84.0	46.4	198.3	108.3	134.6	238.5	70.2	235.0	191.9	177.7	129.1	130.4	26.1	139.6	85.4	110.5		Sbd box 129.1					
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase					
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-2.27612978828E+03															Apriori delay (usec)	-2.27612053293E+03	Resid mbdelay (usec)	-9.25535E-03	+/-	1.8E-04
Sband delay (usec)			-2.27611937343E+03															Apriori clock (usec)	-3.1606369E+00	Resid sbdelay (usec)	1.15950E-03	+/-	2.9E-03
Phase delay (usec)			-2.27612052748E+03															Apriori clockrate (us/s)	-4.2800003E-07	Resid phdelay (usec)	5.45243E-06	+/-	6.2E-07
Delay rate (us/s)			-1.39846775941E+00															Apriori rate (us/s)	-1.39847056108E+00	Resid rate (us/s)	2.80167E-06	+/-	5.9E-09
Total phase (deg)					-85.3													Apriori accel (us/s/s)	-3.82941716441E-06	Resid phase (deg)	169.1	+/-	19.2

ph/seg (deg) 44.3 31.8 Search (1024X64) 0.154 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 53.7 55.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

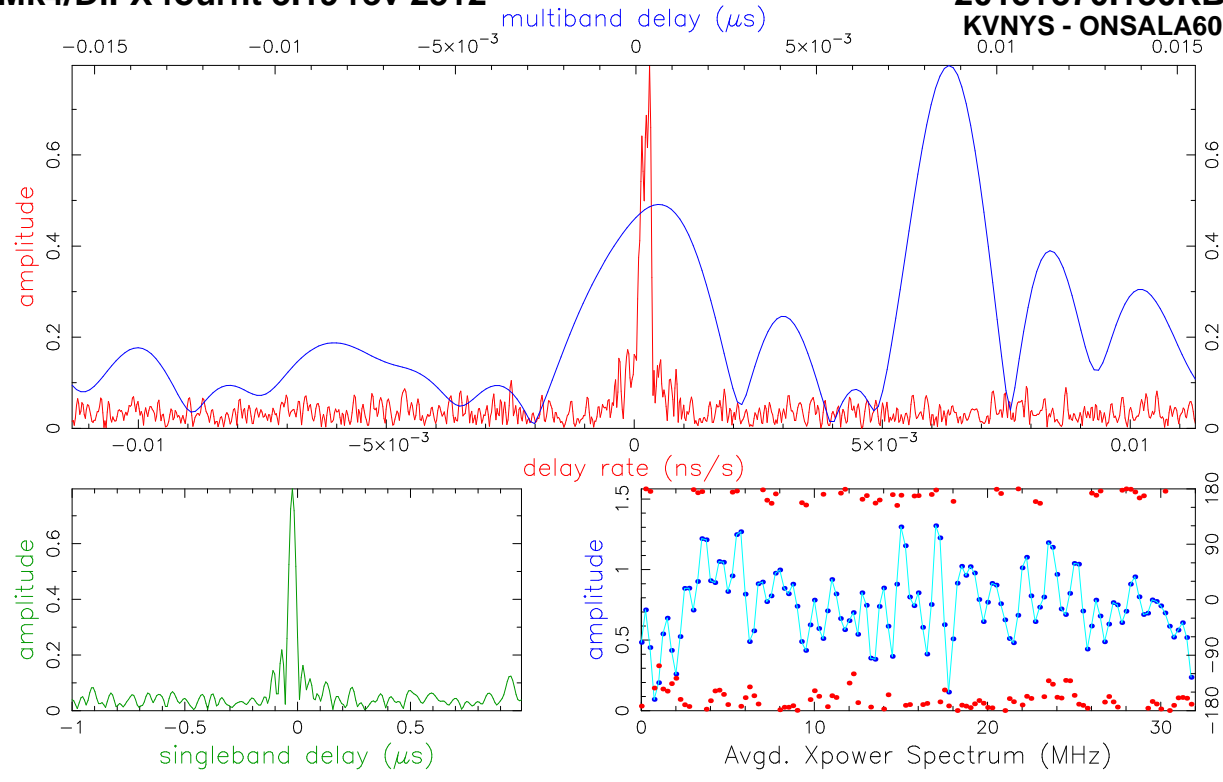
ph/frq (deg) 57.4 38.4 Inc. seg. avg. 0.166 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 59.7 67.0 Inc. frq. avg. 0.168 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite dr window (ns/s) -0.011 0.011

y: az 289.7 el 41.8 pa 69.5 X: az 96.8 el 50.1 pa -42.1 u,v (fr/asec) 10055.436 -1932.002 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yX..130KBL Output file: /Exps/c192c/v2/1234/No0011/yX.W.146.130KBL



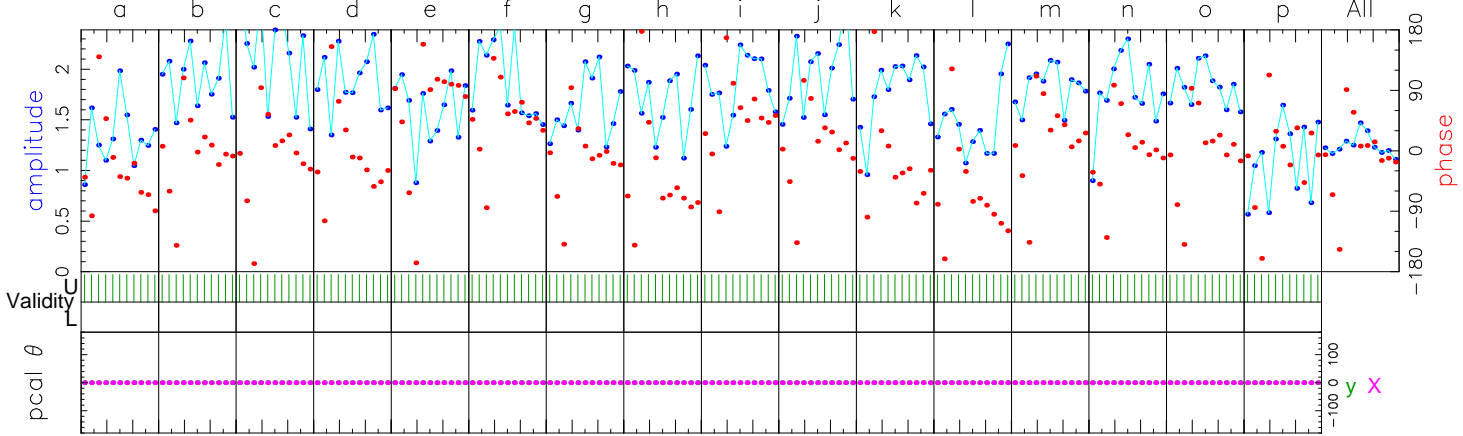


Fringe quality 5

SNR 29.2  
Int time 179.778  
Amp 0.796  
Phase 2.0  
PFD 0.0e+00  
Delays (us)  
SBD -0.023640  
MBD 0.008675  
Fringe rate (Hz) 0.025935  
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  
2020:076:014755  
2020:086:043729  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec

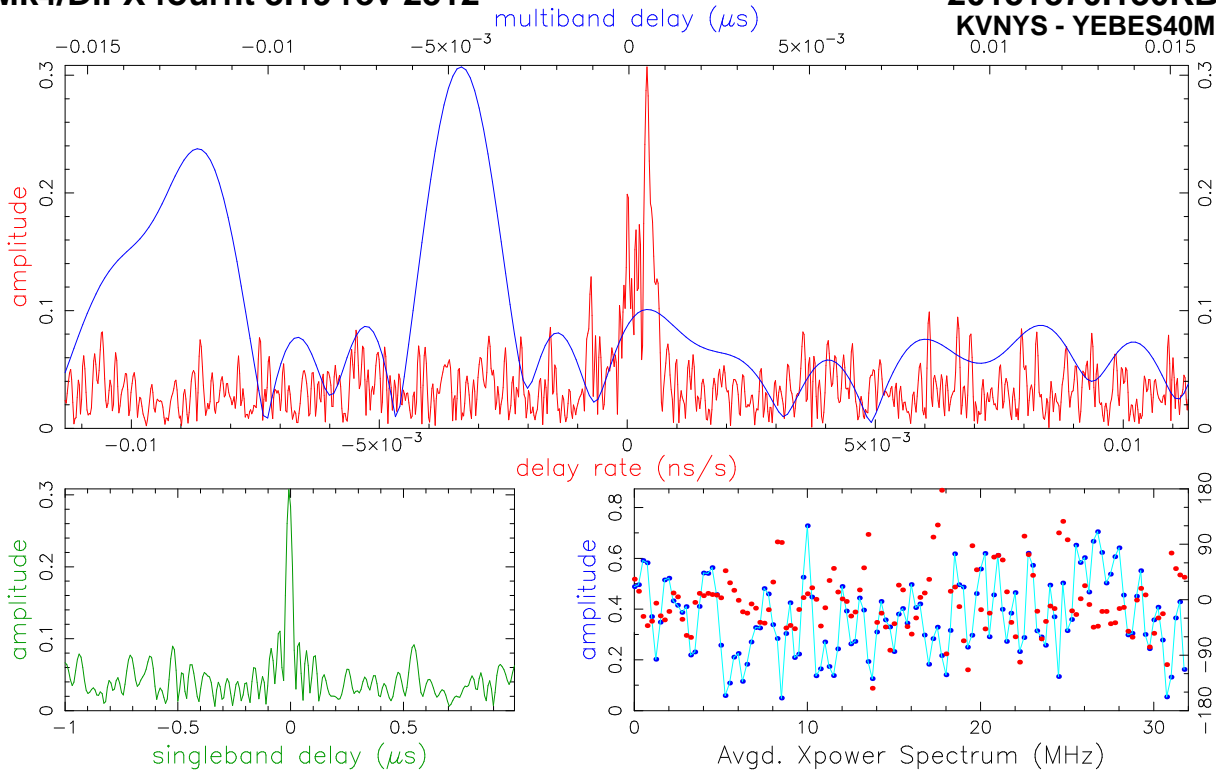


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-47.4	3.5	6.2	-22.8	96.7	56.3	-7.1	-72.2	50.0	14.8	-38.2	-92.9	33.1	8.8	8.1	-8.7		Phase	2.0
	0.9	1.3	1.3	1.1	1.0	1.2	1.1	1.1	1.2	1.2	1.2	0.9	1.1	1.1	1.1	0.7		Ampl.	1.1
	127.3	126.1	125.9	125.6	125.5	125.7	125.1	125.9	125.9	125.6	125.3	125.7	126.0	126.1	126.1	125.9		Sbd box	126.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	

Group delay (usec)(sbd) -2.27614310808E+03 Apriori delay (usec) -2.27612053293E+03 Resid mbdelay (usec) 8.67485E-03 +/- 3.7E-05  
 Sband delay (usec) -2.27614417293E+03 Apriori clock (usec) -3.1606369E+00 Resid sbdelay (usec) -2.36400E-02 +/- 5.9E-04  
 Phase delay (usec) -2.27612053287E+03 Apriori clockrate (us/s) -4.2800003E-07 Resid phdelay (usec) 6.42361E-08 +/- 1.3E-07  
 Delay rate (us/s) -1.39847026000E+00 Apriori rate (us/s) -1.39847056108E+00 Resid rate (us/s) 3.01076E-07 +/- 1.2E-09  
 Total phase (deg) -252.4 Apriori accel (us/s/s) -3.82941716441E-06 Resid phase (deg) 2.0 +/- 3.9

RMS Theor. Amplitude 0.796 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 59.4 6.5 Search (1024X64) 0.761 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 58.1 11.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 ph/frq (deg) 49.9 7.9 Inc. seg. avg. 1.240 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 42.1 13.7 Inc. frq. avg. 1.080 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00

y: az 289.7 el 41.8 pa 69.5 X: az 96.8 el 50.1 pa -42.1 u,v (fr/asec) 10055.436 -1932.002 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yX..130KBL Output file: /Exps/c192c/v2/1234/No0011/yX.W.99.130KBL

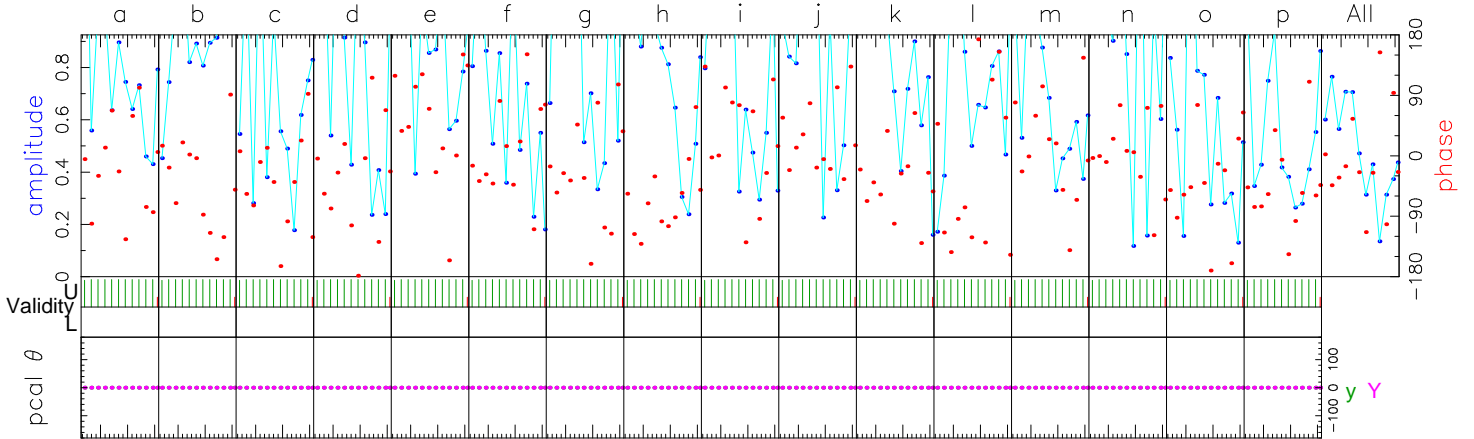


Fringe quality 9

SNR 10.7  
Int time 162.348  
Amp 0.308  
Phase -17.1  
PFD 1.5e-18  
Delays (us)  
SBD -0.006468  
MBD -0.004647  
Fringe rate (Hz)  
0.034130  
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  
2020:076:014755  
2020:086:043731  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 28 APs / seg (14.34 sec / seg.), time ticks 10 sec

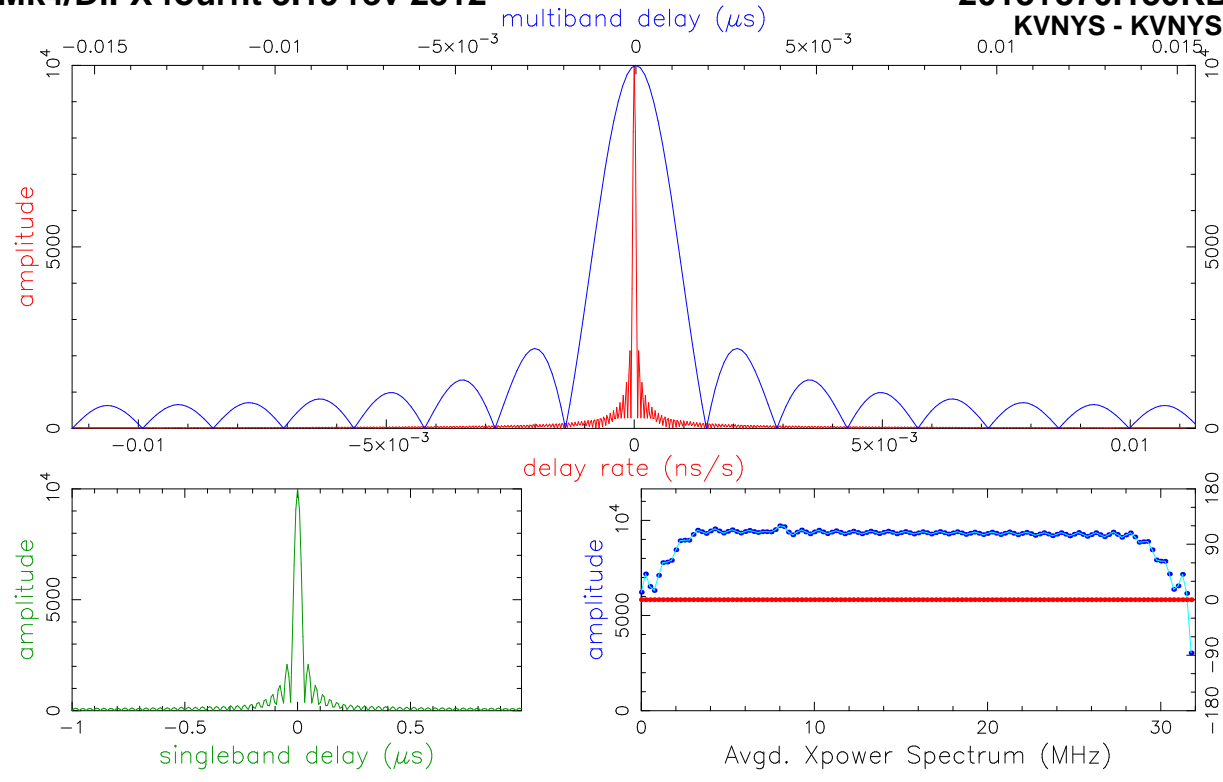


86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
-11.1	-46.9	-28.7	-32.1	66.5	-9.9	-32.2	-80.2	64.0	22.5	-33.6	-140.2	30.9	2.1	-39.0	-44.6	Phase	-17.1
0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.6	0.4	0.6	0.6	0.4	0.3	0.6	0.4	0.3	Ampl.	0.4
128.7	128.8	127.7	127.8	128.0	89.3	127.9	127.8	38.5	127.8	128.0	126.6	4.7	127.9	173.2	128.8	Sbd box	128.2
U/L 318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
y 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Y 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Y 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
Y 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
Y W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
y W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
Y W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Group delay (usec)(sbd)	8.81206173804E+02		Apriori delay (usec)		8.81210820863E+02		Resid mbdelay (usec)		-4.64706E-03		+/- 1.0E-04						
Sband delay (usec)	8.81204352863E+02		Apriori clock (usec)		1.9560938E+01		Resid sbdelay (usec)		-6.46800E-03		+/- 1.6E-03						
Phase delay (usec)	8.81210820311E+02		Apriori clockrate (us/s)		-1.2000001E-07		Resid phdelay (usec)		-5.52884E-07		+/- 3.4E-07						
Delay rate (us/s)	-1.73778245431E+00		Apriori rate (us/s)		-1.73778285053E+00		Resid rate (us/s)		3.96216E-07		+/- 3.7E-09						
Total phase (deg)	22.2		Apriori accel (us/s/s)		-7.32741740893E-06		Resid phase (deg)		-17.1		+/- 10.7						

ph/seg (deg) RMS Theor. Amplitude 0.308 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 75.5 18.5 Search (1024X64) 0.301 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 83.9 32.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 53.5 21.3 Inc. seg. avg. 0.464 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 51.8 37.2 Inc. frq. avg. 0.410 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00

y: az 289.7 el 41.8 pa 69.5 Y: az 70.1 el 38.2 pa -64.0 u,v (fr/asec) 12496.659 -795.029 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yY..130KBL Output file: /Exps/c192c/v2/1234/No0011/yY.W.116.130KBL

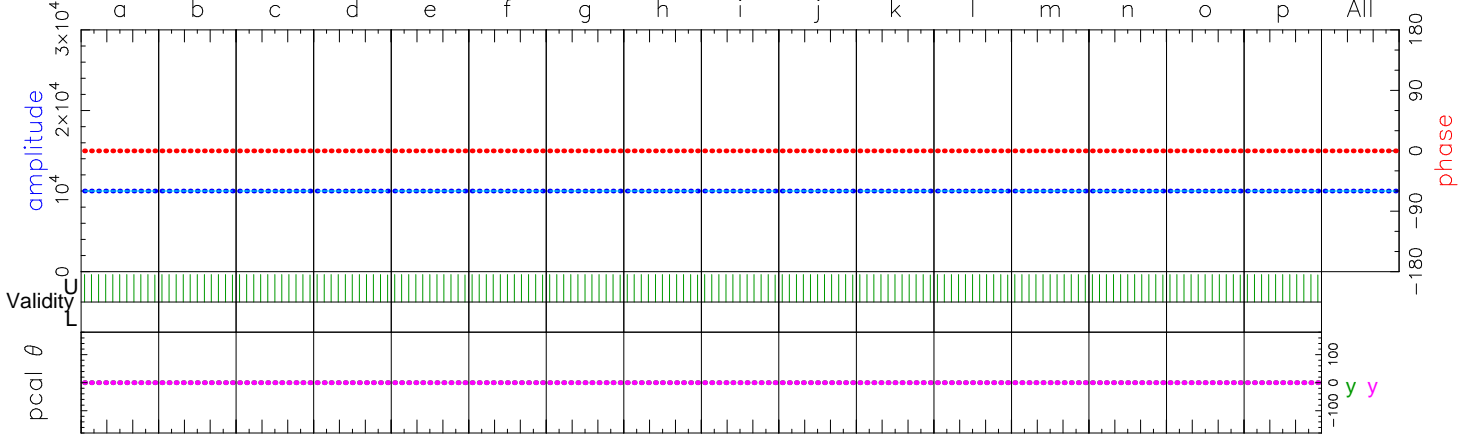


Fringe quality 9

SNR 366872.8  
Int time 179.985  
Amp 10000.001  
Phase 0.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD 0.000000  
Fringe rate (Hz)  
0.000000  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. c192c  
Yr:day 16383  
Start 2019:278  
Stop 2019:278  
FRT 150130.00  
Corr/FF/build  
2020:076:014755  
2020:086:043732  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec

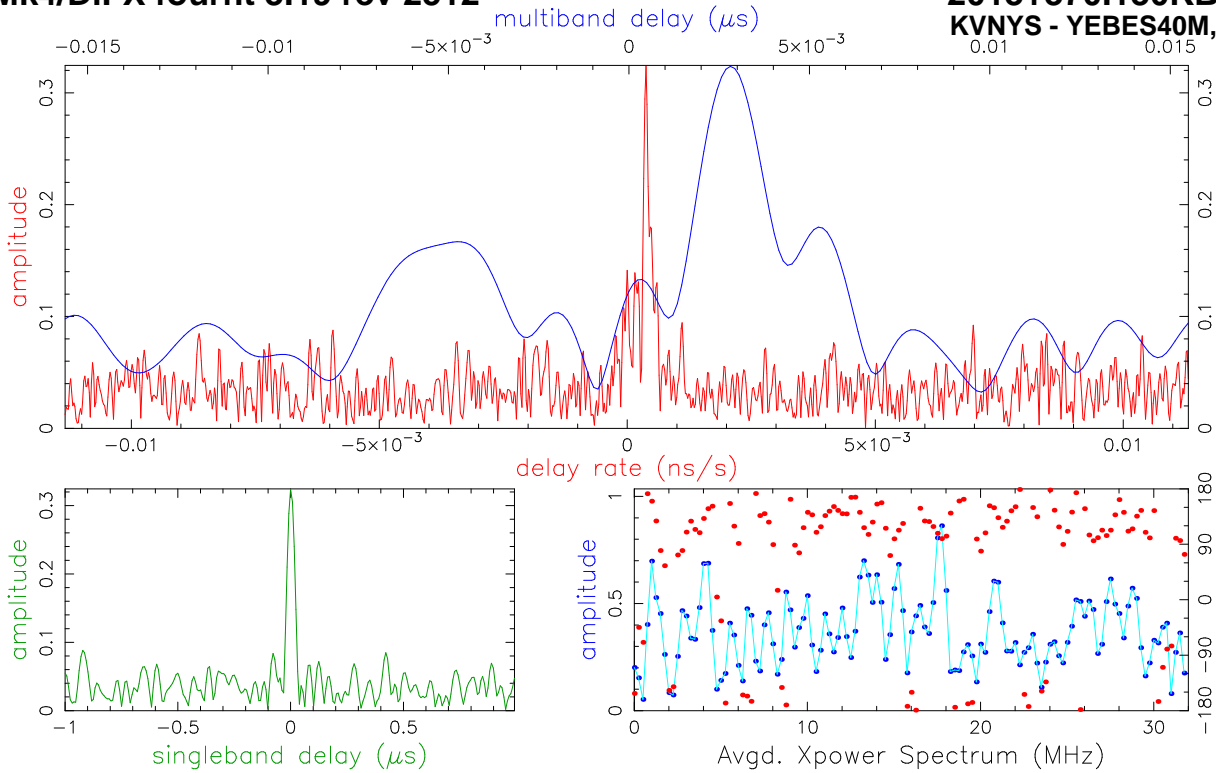


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
Group delay (usec)(sbd)	0.0000000000E+00			Apriori delay (usec)			0.0000000000E+00			Resid mbdelay (usec)			0.00000E+00			+/-	2.9E-09	
Sband delay (usec)	0.0000000000E+00			Apriori clock (usec)			0.0000000E+00			Resid sbdelay (usec)			0.00000E+00			+/-	4.7E-08	
Phase delay (usec)	2.90638577678E-20			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			2.90639E-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	

ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.001 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (1024X64) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011  
 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yy..130KBL Output file: /Exps/c192c/v2/1234/No0011/yy.W.119.130KBL simultaneous interpolator

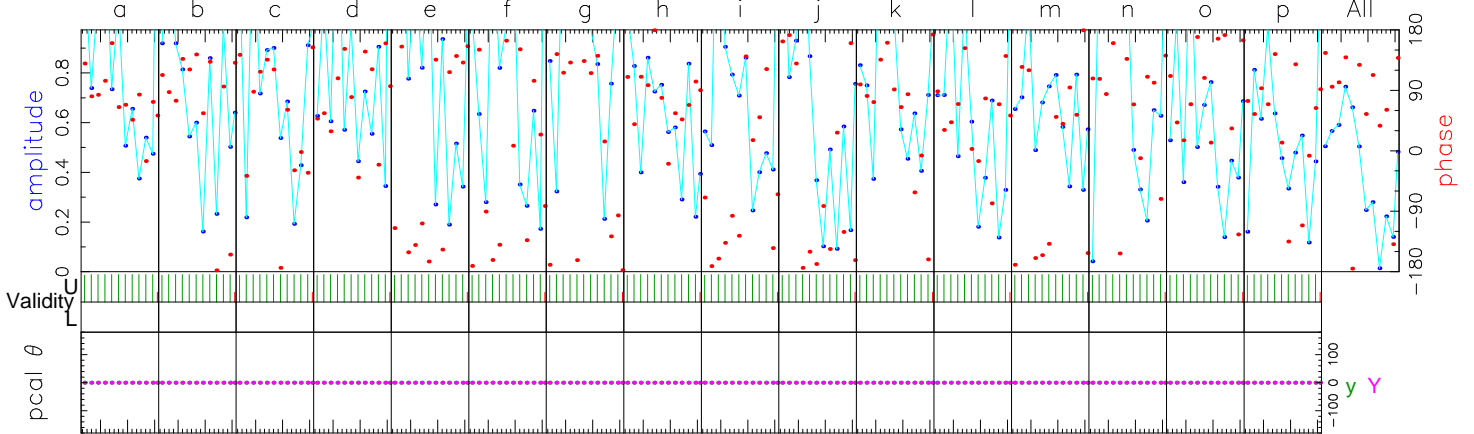
Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130KBL, No0011, yY  
KVNS - YEBES40M, fgroup W, pol RR



Fringe quality 9  
SNR 11.3  
Int time 162.348  
Amp 0.324  
Phase 126.7  
PFD 3.1e-21  
Delays (us)  
SBD 0.001271  
MBD 0.002828  
Fringe rate (Hz) 0.033245  
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  
2020:076:014755  
2020:086:043733  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 28 APs / seg (14.34 sec / seg.), time ticks 10 sec

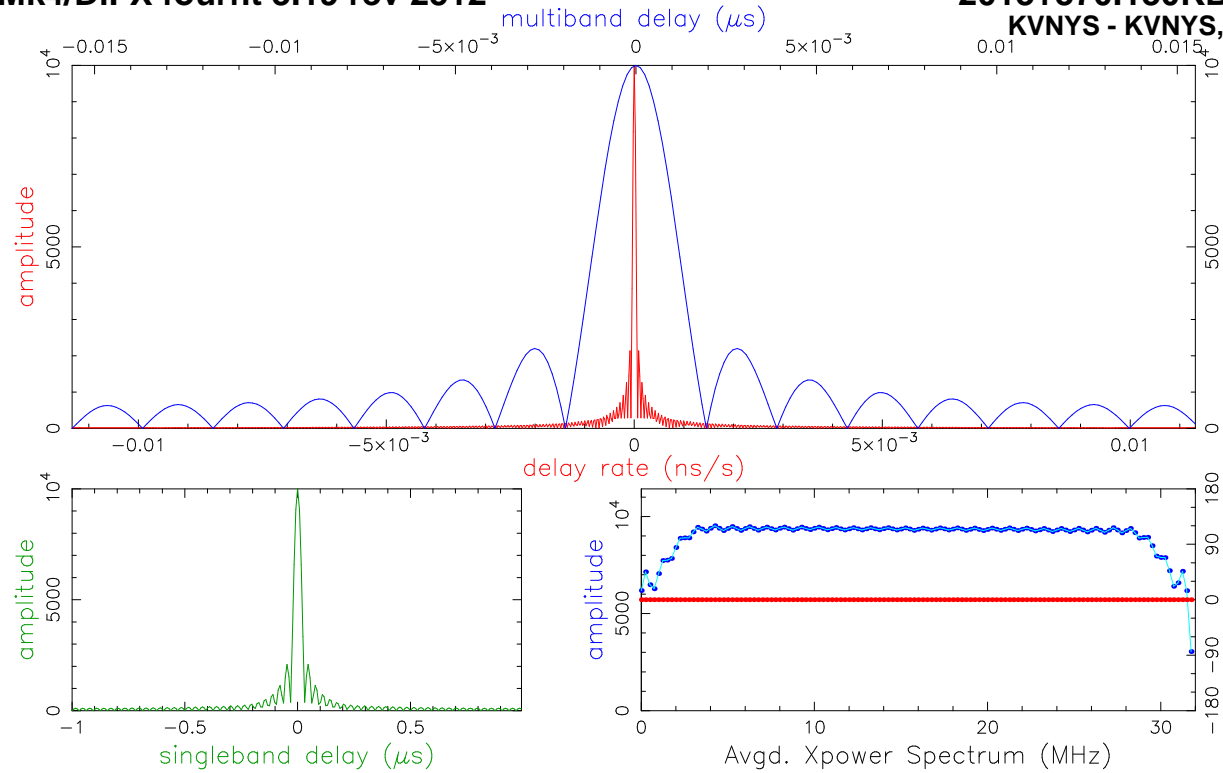


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0			
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
																			Chan ids
																			Tracks
Group delay (usec)(sbd)	8.81213648910E+02			Apriori delay (usec)			8.81210820863E+02			Resid mbdelay (usec)			2.82805E-03			+/-	9.5E-05		
Sband delay (usec)	8.81212091863E+02			Apriori clock (usec)			1.9560938E+01			Resid sbdelay (usec)			1.27100E-03			+/-	1.5E-03		
Phase delay (usec)	8.81210824949E+02			Apriori clockrate (us/s)			-1.2000001E-07			Resid phdelay (usec)			4.08539E-06			+/-	3.3E-07		
Delay rate (us/s)	-1.73778246459E+00			Apriori rate (us/s)			-1.73778285053E+00			Resid rate (us/s)			3.85943E-07			+/-	3.5E-09		
Total phase (deg)	166.0			Apriori accel (us/s/s)			-7.32741740893E-06			Resid phase (deg)			126.7			+/-	10.1		

ph/seg (deg) 53.3 17.6 Search (1024X64) 0.315 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 73.3 30.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 50.7 20.3 Inc. seg. avg. 0.391 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
amp/frq (%) 60.2 35.4 Inc. frq. avg. 0.437 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite dr window (ns/s) -0.011 0.011  
y: az 289.7 el 41.8 pa 69.5 Y: az 70.1 el 38.2 pa -64.0 u,v (fr/asec) 12496.659 -795.029 ion window (TEC) 0.00 0.00 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yY..130KBL Output file: /Exps/c192c/v2/1234/No0011/yY.W.129.130KBL

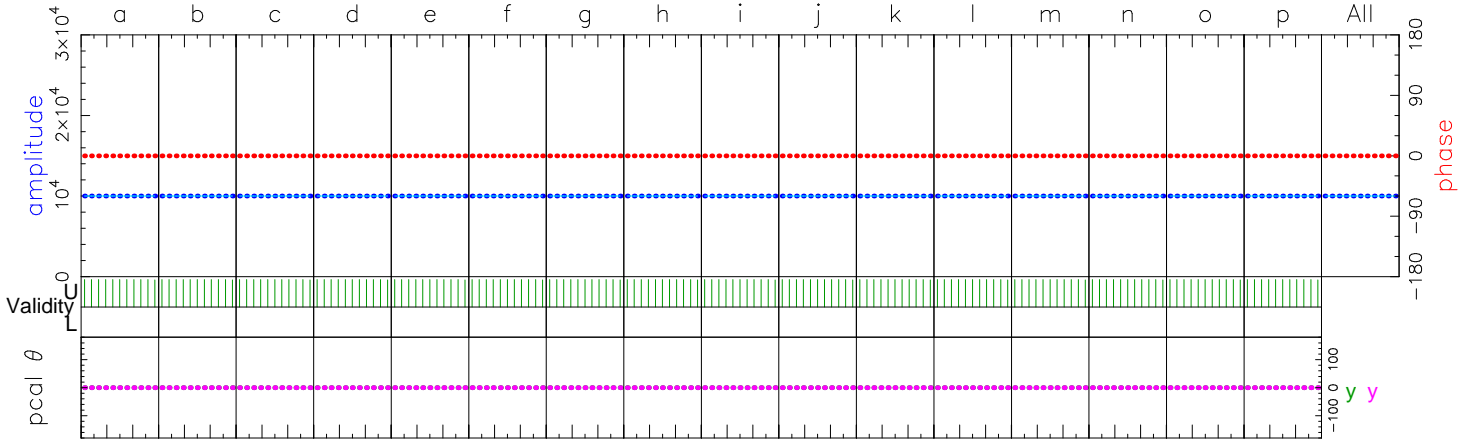
Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130KBL, No0011, yy  
KVNYS - KVNYS, fgroup W, pol RR



Fringe quality 9  
SNR 366872.8  
Int time 179.985  
Amp 10000.001  
Phase -0.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD 0.000000  
Fringe rate (Hz)  
0.000000  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c192c  
Yr:day 16383  
Start 2019:278  
Stop 2019:278  
FRT 150130.00  
Corr/FF/build  
2020:076:014755  
2020:086:043734  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

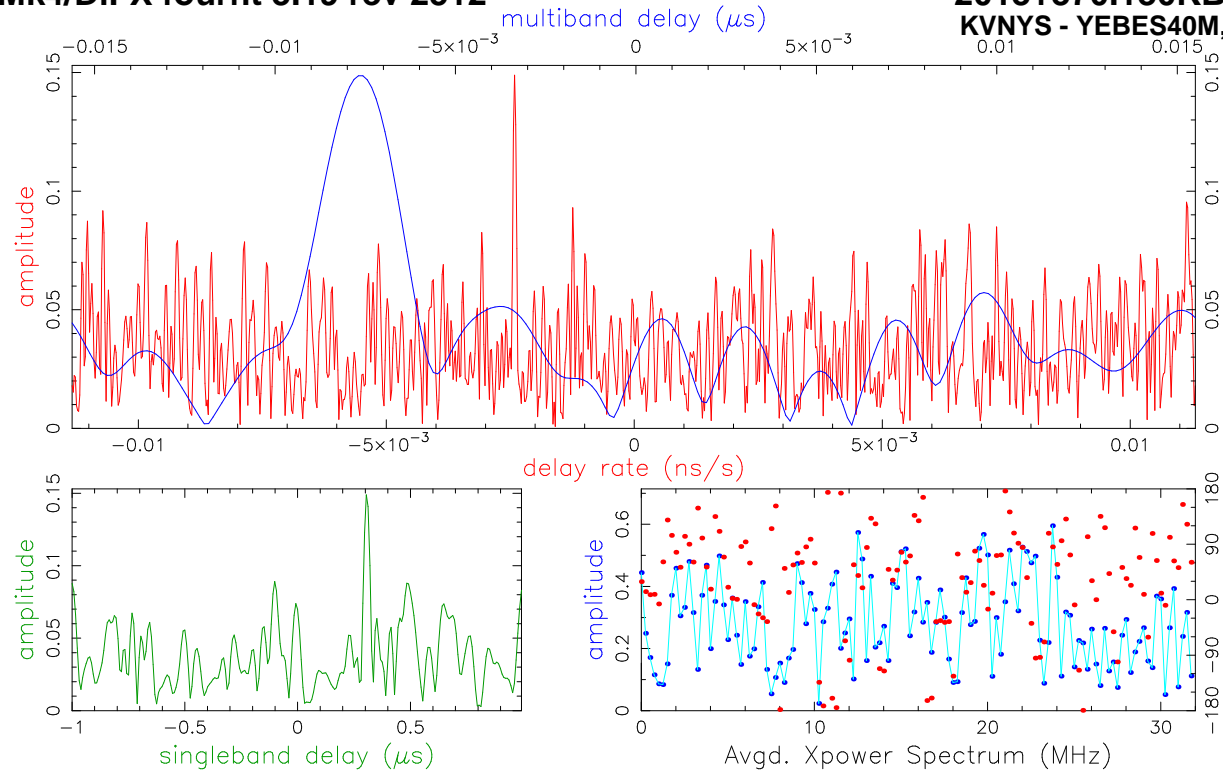
Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000		
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)	0.0000000000E+00			Apriori delay (usec)			0.0000000000E+00			Resid mbdelay (usec)			0.00000E+00			+/-	2.9E-09	
Sband delay (usec)	0.0000000000E+00			Apriori clock (usec)			0.0000000E+00			Resid sbdelay (usec)			0.00000E+00			+/-	4.7E-08	
Phase delay (usec)	-5.78995085951E-20			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			-5.78995E-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	

ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.001 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (1024X64) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011  
 Inc. frq. avg. 10000.001 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00  
 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yy..130KBL Output file: /Exps/c192c/v2/1234/No0011/yy.W.134.130KBL



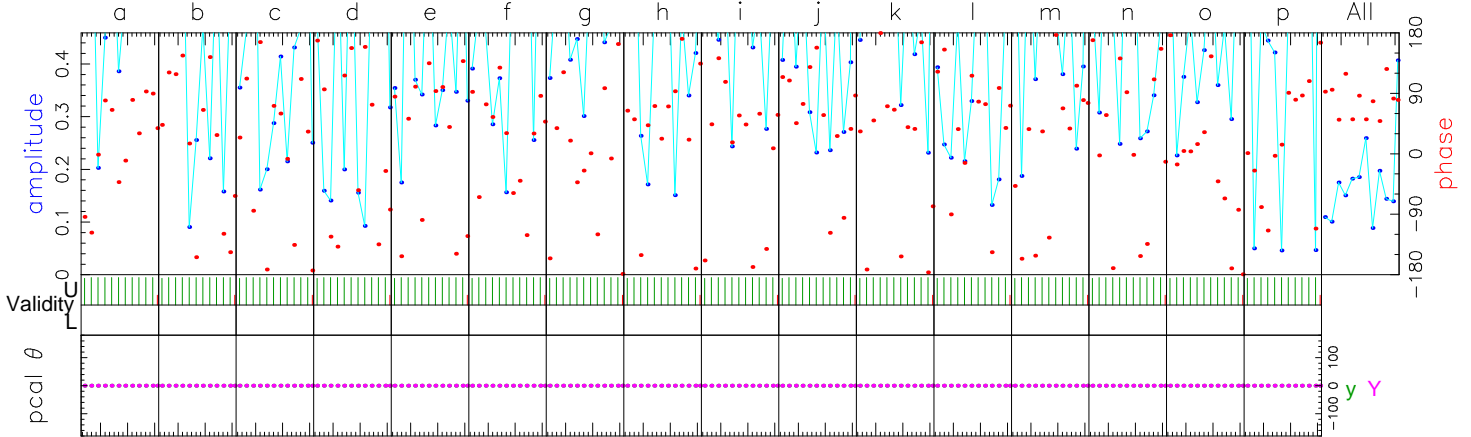


Fringe quality 0

SNR 5.2  
Int time 162.348  
Amp 0.153  
Phase 75.6  
PFD 1.0e+00  
Delays (us)  
SBD 0.306821  
MBD -0.007627  
Fringe rate (Hz)  
-0.207727  
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  
2020:076:014755  
2020:086:043735  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 28 APs / seg (14.34 sec / seg.), time ticks 10 sec

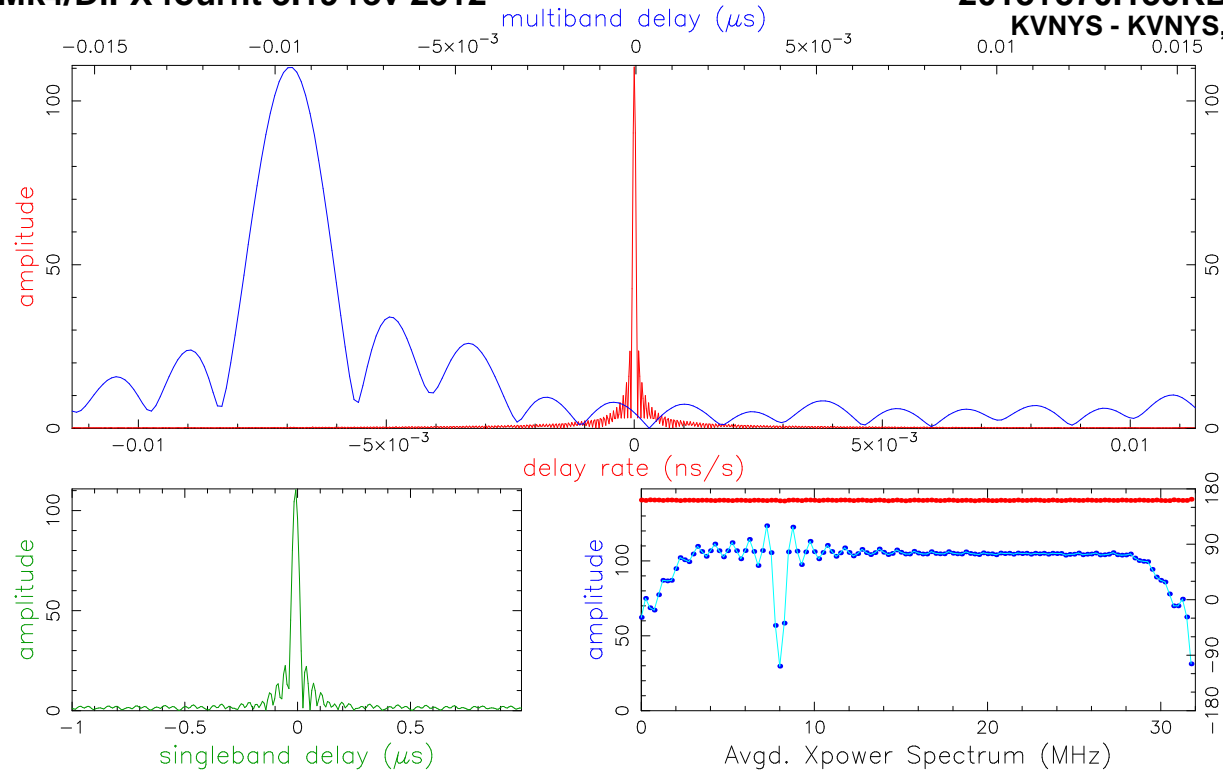


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All			
	42.9	102.1	55.9	-170.7	105.3	29.1	30.0	74.6	77.0	79.1	95.3	74.7	52.4	95.8	-62.0	72.2		Phase	75.6		
	0.3	0.2	0.1	0.1	0.3	0.1	0.0	0.3	0.2	0.3	0.2	0.3	0.1	0.1	0.1	0.2		Ampl.	0.1		
	72.2	11.9	72.8	52.2	131.3	40.7	229.3	96.5	255.5	75.0	20.2	222.5	205.3	86.5	78.2	94.7		Sbd box	168.3		
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		APs used			
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs			
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs			
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase			
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000		PC amp			
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp			
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids			
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks			
																		Chan ids			
																		Tracks			
Group delay (usec)(sbd)			8.81515694262E+02								8.81210820863E+02							Resid mbdelay (usec)	-7.62660E-03	+/-	2.1E-04
Sband delay (usec)			8.81517641363E+02								1.9560938E+01							Resid sbdelay (usec)	3.06821E-01	+/-	3.3E-03
Phase delay (usec)			8.81210823302E+02								-1.2000001E-07							Resid phdelay (usec)	2.43896E-06	+/-	7.1E-07
Delay rate (us/s)			-1.73778526204E+00								-1.73778285053E+00							Resid rate (us/s)	-2.41151E-06	+/-	7.5E-09
Total phase (deg)				114.9							-7.32741740893E-06							Resid phase (deg)	75.6	+/-	21.9

ph/seg (deg) 26.3 37.9 Search (1024X64) 0.146 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 43.4 66.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 53.8 43.8 Inc. seg. avg. 0.138 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 56.6 76.4 Inc. frq. avg. 0.139 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 y: az 289.7 el 41.8 pa 69.5 Y: az 70.1 el 38.2 pa -64.0 u,v (fr/asec) 12496.659 -795.029 ion window (TEC) 0.00 0.00 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yY..130KBL Output file: /Exps/c192c/v2/1234/No0011/yY.W.144.130KBL

Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130KBL, No0011, yy  
KVNYS - KVNYS, fgroup W, pol LR

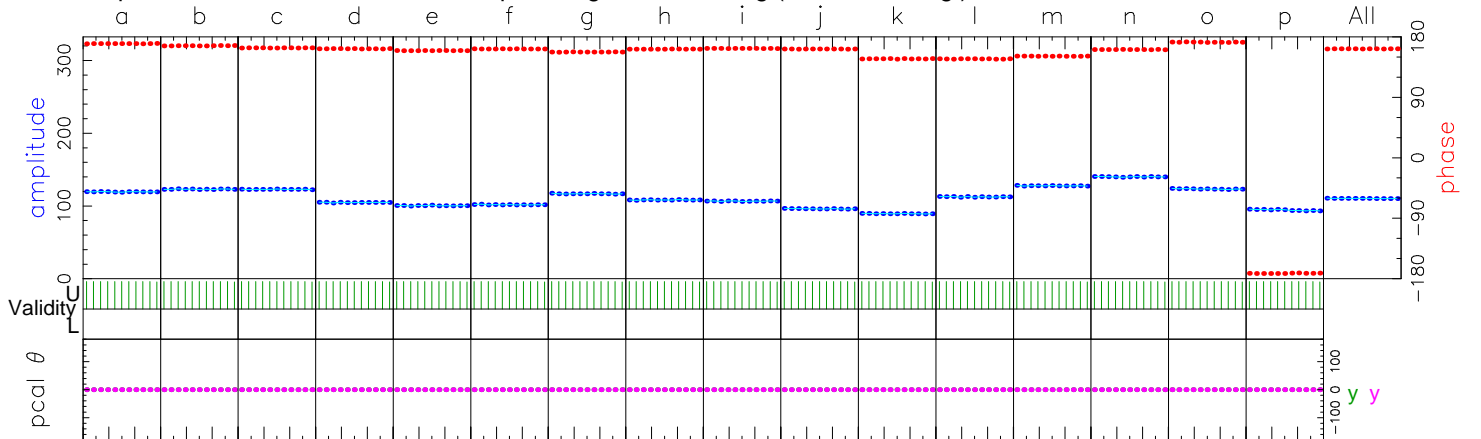


Fringe quality 9

SNR 4067.9  
Int time 179.985  
Amp 110.880  
Phase 162.0  
PFD 0.0e+00  
Delays (us)  
SBD -0.009487  
MBD -0.009580  
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  
2020:076:014755  
2020:086:043736  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec

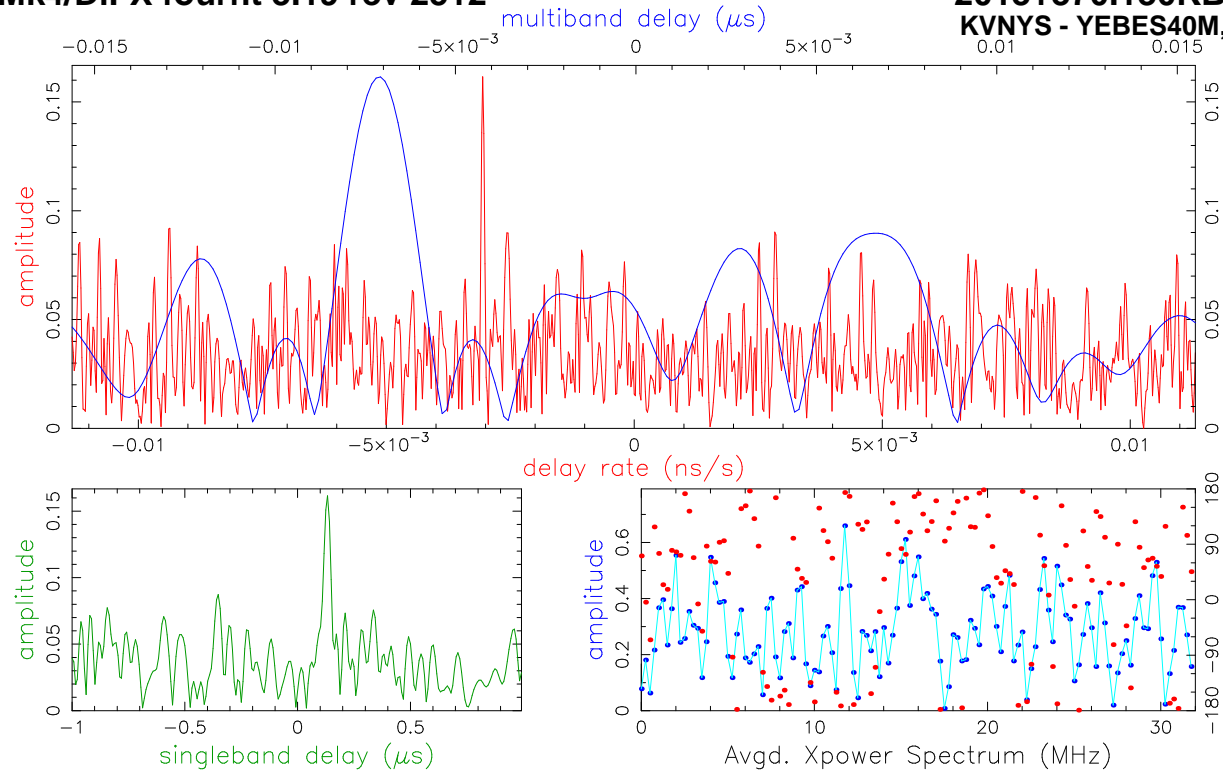


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
169.9	166.7	163.5	162.2	159.4	162.0	157.3	161.7	162.6	161.8	147.2	147.1	151.2	151.2	161.0	172.0	-171.9	Phase	162.0
119.5	123.0	122.9	104.9	100.5	101.8	116.9	108.3	106.7	96.3	89.5	112.6	127.8	140.2	123.5	94.5		Ampl.	111.8
127.7	127.8	127.7	127.8	127.8	127.7	127.8	127.8	127.8	127.9	127.6	127.7	127.8	127.8	127.9	127.8		Sbd box	127.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000		PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000		PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	

Group delay (usec)(sbd) -9.57965625000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -9.57966E-03 +/- 2.7E-07  
 Sband delay (usec) -9.48650000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -9.48650E-03 +/- 4.2E-06  
 Phase delay (usec) 5.22491912474E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 5.22492E-06 +/- 9.1E-10  
 Delay rate (us/s) 9.91980667418E-12 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 9.91981E-12 +/- 8.7E-12  
 Total phase (deg) 162.0 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 162.0 +/- 0.0

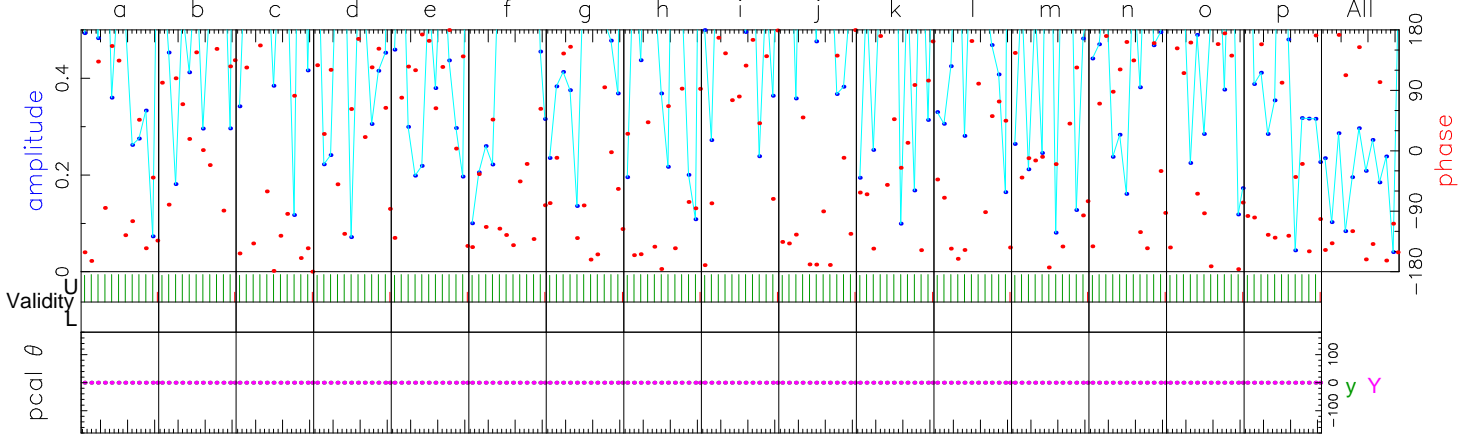
RMS Theor. Amplitude 110.880 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.1 0.0 Search (1024X64) 108.733 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 0.5 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 ph/frq (deg) 10.2 0.1 Inc. seg. avg. 110.395 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 12.1 0.1 Inc. frq. avg. 111.810 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00

y: az 289.7 el 41.8 pa 69.5 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yy..130KBL Output file: /Exps/c192c/v2/1234/No0011/yy.W.150.130KBL



Fringe quality 0  
SNR 5.6  
Int time 162.348  
Amp 0.167  
Phase -168.1  
PFD 8.8e-01  
Delays (us)  
SBD 0.131784  
MBD -0.007125  
Fringe rate (Hz)  
-0.263793  
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  
2020:076:014755  
2020:086:043737  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 28 APs / seg (14.34 sec / seg.), time ticks 10 sec

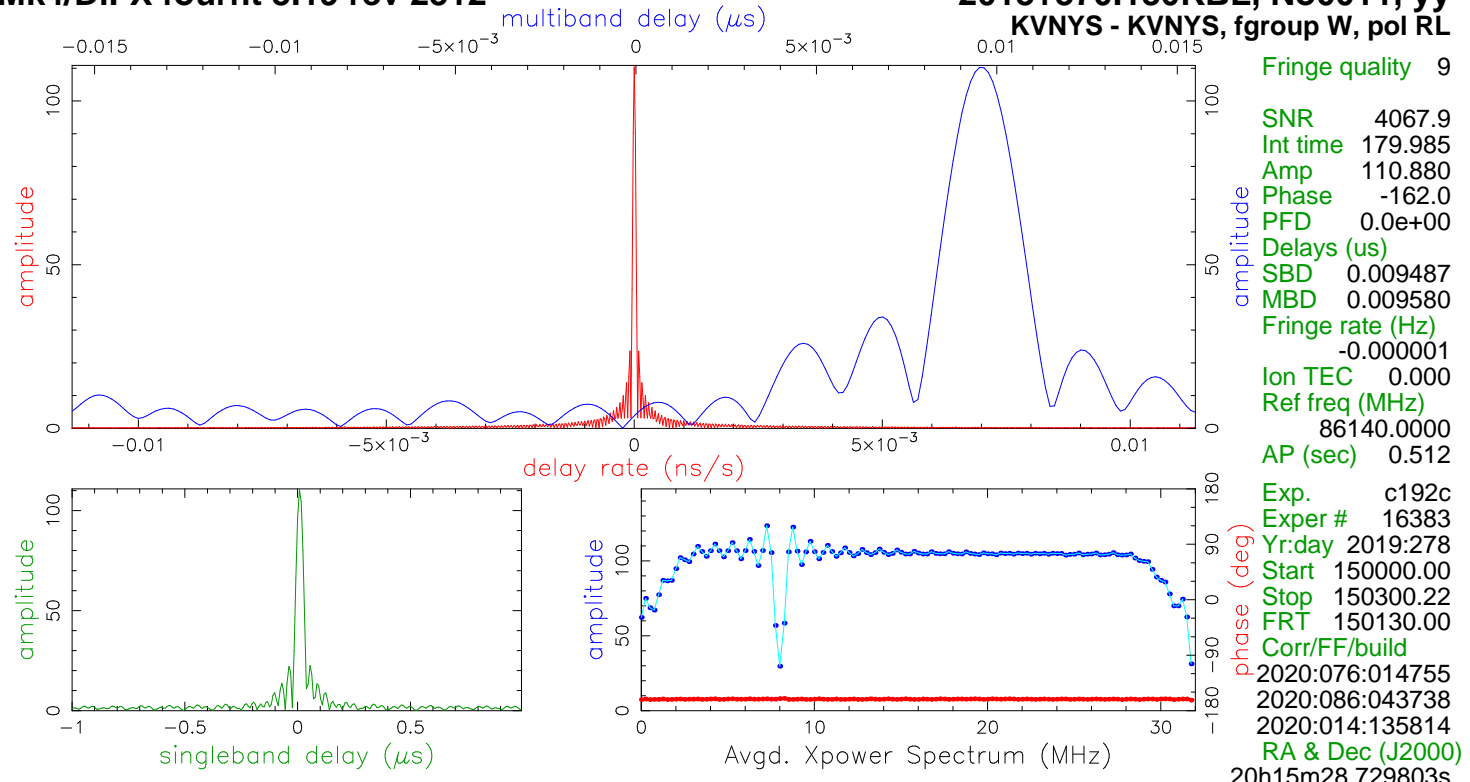


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-153.8	113.5	-152.8	138.3	136.2	-95.7	-130.5	-178.3	141.8	-145.6	-19.1	-163.3	-81.8	176.0	168.9	-141.9	Phase	-168.1	
	0.3	0.1	0.4	0.1	0.3	0.3	0.2	0.2	0.3	0.4	0.1	0.2	0.1	0.2	0.4	0.2	Ampl.	0.2	
	195.7	18.7	145.1	56.9	199.9	187.8	20.8	125.2	146.1	146.4	45.4	181.9	253.9	54.6	145.1	88.7	Sbd box	145.9	
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks		
																	Chan ids		
																	Tracks		
Group delay (usec)(sbd)			8.81328696171E+02						Apriori delay (usec)	8.81210820863E+02							Resid mbdelay (usec)	-7.12469E-03	+/- 1.9E-04
Sband delay (usec)			8.81342604363E+02						Apriori clock (usec)	1.9560938E+01							Resid sbdelay (usec)	1.31784E-01	+/- 3.1E-03
Phase delay (usec)			8.81210815442E+02						Apriori clockrate (us/s)	-1.2000001E-07							Resid phdelay (usec)	-5.42109E-06	+/- 6.6E-07
Delay rate (us/s)			-1.73778591291E+00						Apriori rate (us/s)	-1.73778285053E+00							Resid rate (us/s)	-3.06238E-06	+/- 7.0E-09
Total phase (deg)									Apriori accel (us/s/s)	-7.32741740893E-06							Resid phase (deg)	-168.1	+/- 20.3

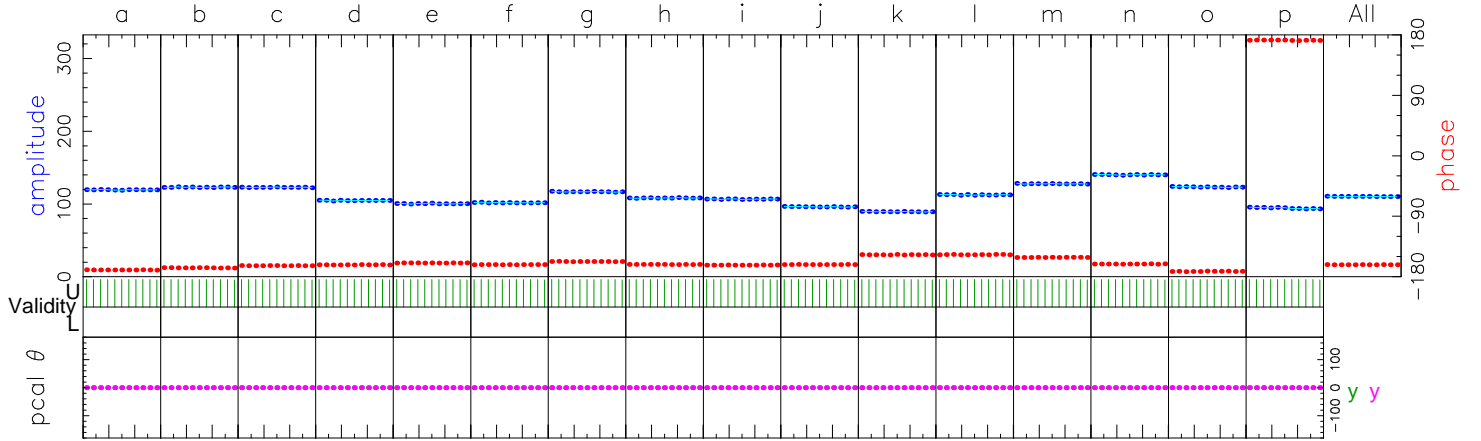
ph/seg (deg) RMS Theor. Amplitude 0.167 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 46.5 35.2 Search (1024X64) 0.158 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 65.9 61.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 61.8 40.6 Inc. seg. avg. 0.178 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 70.4 70.9 Inc. frq. avg. 0.178 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00  
 y: az 289.7 el 41.8 pa 69.5 Y: az 70.1 el 38.2 pa -64.0 u,v (fr/asec) 12496.659 -795.029 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yY...130KBL Output file: /Exps/c192c/v2/1234/No0011/yY.W.157.130KBL

Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130KBL, No0011, yy  
KVNYS - KVNYS, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-169.9	-166.7	-163.5	-162.2	-159.4	-162.0	-157.3	-161.7	-162.6	-161.8	-147.2	-147.1	-151.2	-161.0	-172.0	171.9	Phase	-162.0
	119.5	123.0	122.9	104.9	100.5	101.8	116.9	108.3	106.7	96.3	89.5	112.6	127.8	140.2	123.5	94.5	Ampl.	111.8
	130.3	130.2	130.3	130.2	130.2	130.3	130.2	130.2	130.1	130.4	130.3	130.2	130.2	130.1	130.1	130.2	Sbd box	130.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	9.579656250000E-03			Apriori delay (usec)			0.000000000000E+00			Resid mbdelay (usec)			9.57966E-03			+/- 2.7E-07		
Sband delay (usec)	9.486500000000E-03			Apriori clock (usec)			0.0000000E+00			Resid sbdelay (usec)			9.48650E-03			+/- 4.2E-06		
Phase delay (usec)	-5.22491912457E-06			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			-5.22492E-06			+/- 9.1E-10		
Delay rate (us/s)	-9.91980667418E-12			Apriori rate (us/s)			0.000000000000E+00			Resid rate (us/s)			-9.91981E-12			+/- 8.7E-12		
Total phase (deg)	-162.0			Apriori accel (us/s/s)			0.000000000000E+00			Resid phase (deg)			-162.0			+/- 0.0		

ph/seg (deg) 0.1 0.0 Theor. Amplitude 110.880 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.5 0.1 Search (1024X64) 108.733 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 10.2 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 12.1 0.1 Inc. seg. avg. 110.395 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011  
 y: az 289.7 el 41.8 pa 69.5 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c192c/v2/1234/No0011/yy..130KBL Output file: /Exps/c192c/v2/1234/No0011/yy.W.161.130KBL simultaneous interpolator

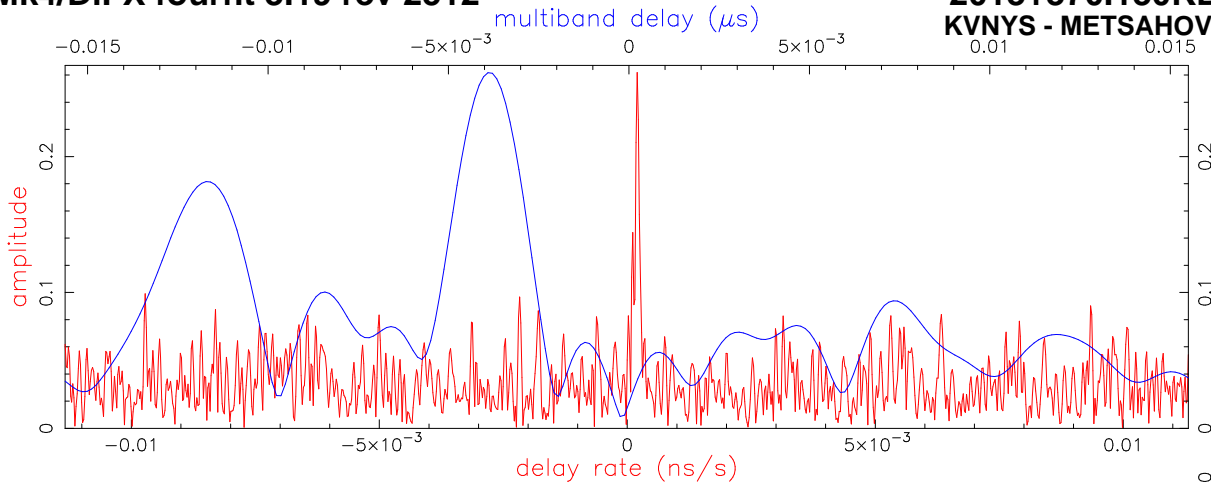






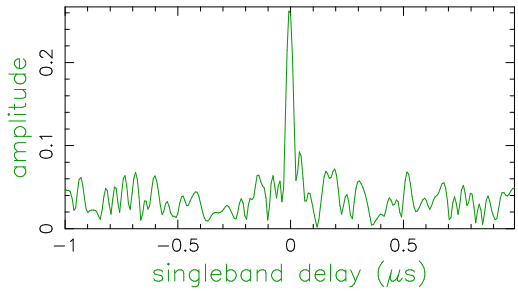
Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130KBL, No0011, yZ  
KVNS - METSAHOV, fgroup W, pol LR

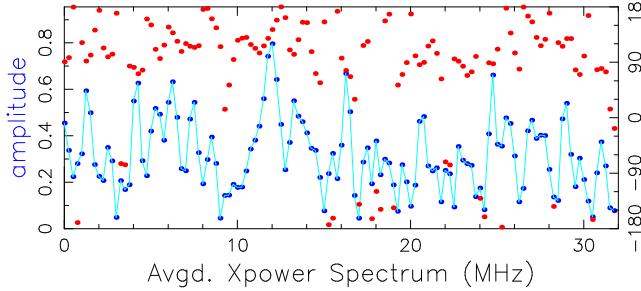


Fringe quality 9

SNR 9.8  
Int time 179.730  
Amp 0.267  
Phase 115.6  
PFD 2.5e-14  
Delays (us)  
SBD -0.004369  
MBD -0.003842  
Fringe rate (Hz)  
0.016350  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

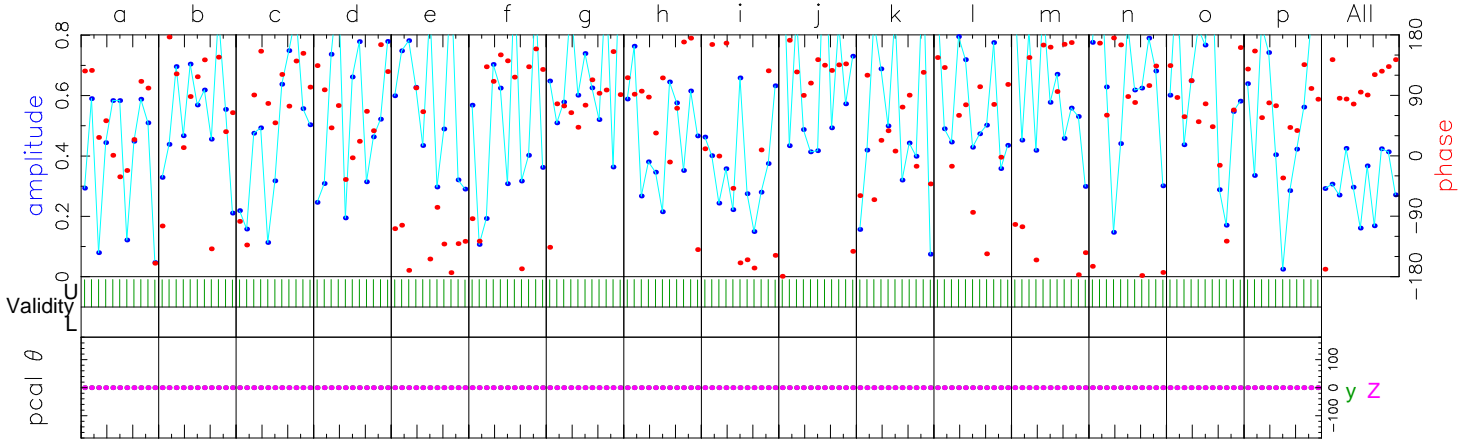


delay rate (ns/s)



Exp. c192c  
Exper # 16383  
Yr:day 2019:278  
Start 150000.00  
Stop 150300.22  
FRT 150130.00  
Corr/FF/build  
2020:076:014755  
2020:086:043738  
2020:014:135814  
RA & Dec (J2000)  
20h15m28.729803s  
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



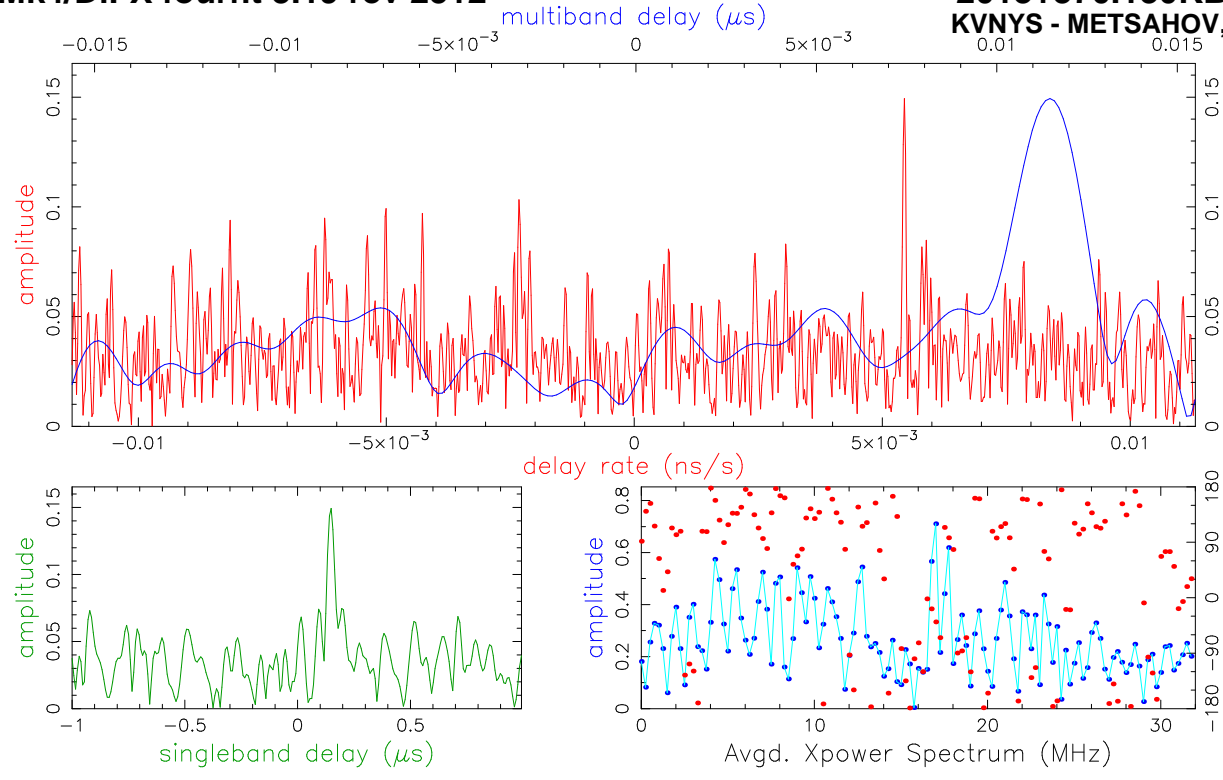
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		APs used
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
Z	1000	1000	1000	1000	1000	1000	1000	1000	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	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	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	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL			Chan ids
W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR			Tracks
Group delay (usec)(sbd)	-3.46942704564E+03			Apriori delay (usec)			-3.46942320352E+03			Resid mbdelay (usec)			-3.84212E-03			+/-	1.1E-04	
Sband delay (usec)	-3.46942757252E+03			Apriori clock (usec)			2.9053318E+01			Resid sbdelay (usec)			-4.36900E-03			+/-	1.8E-03	
Phase delay (usec)	-3.46942319979E+03			Apriori clockrate (us/s)			8.3707184E-08			Resid phdelay (usec)			3.72932E-06			+/-	3.8E-07	
Delay rate (us/s)	-1.26513966335E+00			Apriori rate (us/s)			-1.26513985316E+00			Resid rate (us/s)			1.89806E-07			+/-	3.6E-09	
Total phase (deg)	-154.9			Apriori accel (us/s/s)			9.39358477530E-07			Resid phase (deg)			115.6			+/-	11.7	

ph/seg (deg) 33.1 19.4 Search (1024X64) 0.255 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 36.7 33.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 50.8 23.4 Inc. seg. avg. 0.292 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
amp/frq (%) 56.0 40.9 Inc. frq. avg. 0.329 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 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/v2/1234/No0011/yZ..130KBL Output file: /Exps/c192c/v2/1234/No0011/yZ.W.163.130KBL

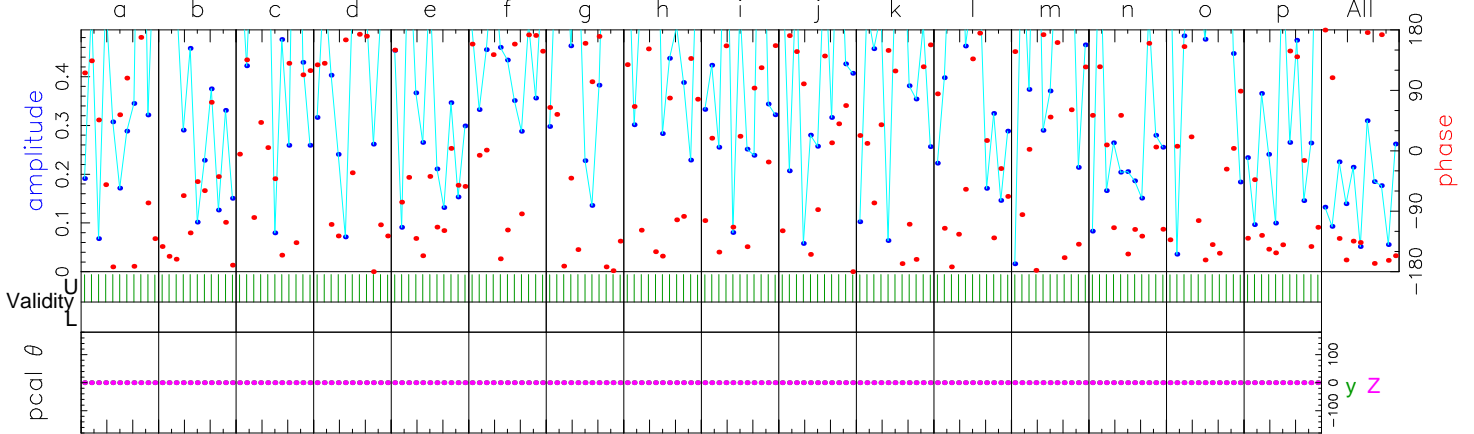
Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130KBL, No0011, yZ  
KVNS - METSAHOV, fgroup W, pol RL



Fringe quality 0  
SNR 5.5  
Int time 179.730  
Amp 0.165  
Phase -164.8  
PFD 9.9e-01  
Delays (us)  
SBD 0.146439  
MBD 0.011480  
Fringe rate (Hz) 0.469524  
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 2020:076:014755  
2020:086:043740  
2020:014:135814  
RA & Dec (J2000) 20h15m28.729803s +37°10'59.514664"

Amp. and Phase vs. time for each freq., 11 segs, 32 APs / seg (16.38 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-177.1	-129.9	-124.7	-152.8	-69.6	173.9	-172.2	169.0	130.6	141.2	154.8	-142.9	167.6	166.4	-108.2	-141.0	Phase	-164.8				
	0.2	0.2	0.0	0.3	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.3	0.2	0.1	0.2	0.3	Ampl.	0.2				
	202.5	94.7	181.5	131.0	215.7	56.6	9.3	163.5	1.4	92.4	16.4	97.1	135.7	237.6	82.7	184.2	Sbd box	147.7				
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp					
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks					
z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
Group delay (usec)(sbd)			-3.46928672337E+03														Apriori delay (usec)	-3.46942320352E+03	Resid mbdelay (usec)	1.14802E-02	+/-	2.0E-04
Sband delay (usec)			-3.46927676452E+03														Apriori clock (usec)	2.9053318E+01	Resid sbdelay (usec)	1.46439E-01	+/-	3.1E-03
Phase delay (usec)			-3.46942320884E+03														Apriori clockrate (us/s)	8.3707184E-08	Resid phdelay (usec)	-5.31386E-06	+/-	6.7E-07
Delay rate (us/s)			-1.26513440246E+00														Apriori rate (us/s)	-1.26513985316E+00	Resid rate (us/s)	5.45070E-06	+/-	6.5E-09
Total phase (deg)					-75.3												Apriori accel (us/s/s)	9.39358477530E-07	Resid phase (deg)	-164.8	+/-	20.8

ph/seg (deg) RMS Theor. Amplitude 0.165 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 32.5 34.5 Search (1024X64) 0.145 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 53.9 60.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016  
 amp/frq (%) 44.7 41.7 Inc. seg. avg. 0.156 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 53.2 72.7 Inc. frq. avg. 0.162 Data rate(Mb/s): 2048 nlags: 128 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/v2/1234/No0011/yZ..130KBL Output file: /Exps/c192c/v2/1234/No0011/yZ.W.170.130KBL