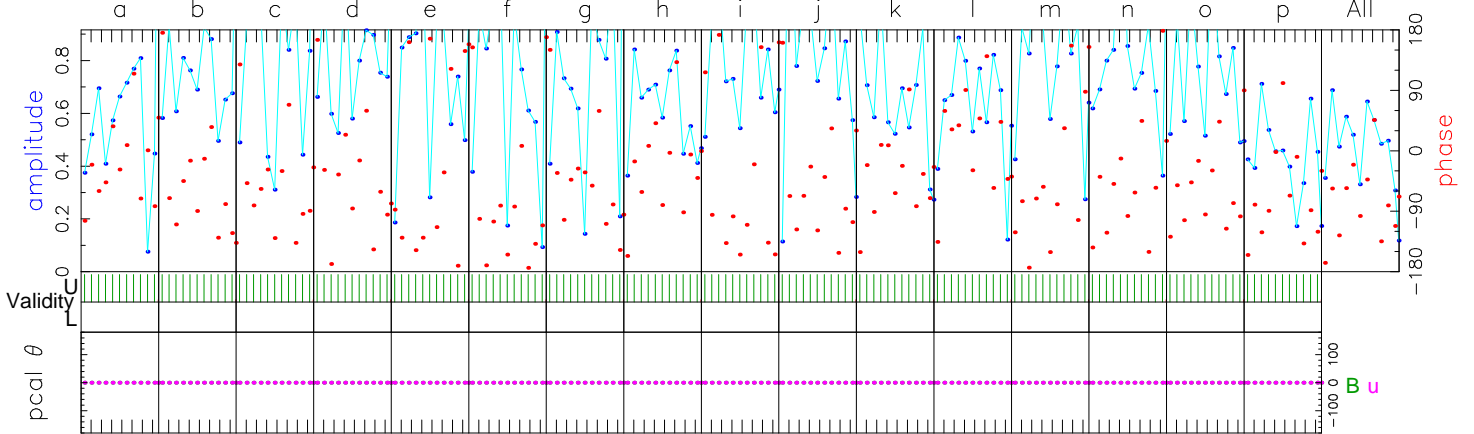


Fringe quality 9

SNR 17.1
Int time 419.814
Amp 0.305
Phase -72.0
PFD 0.0e+00
Delays (us)
SBD -0.010353
MBD -0.009407
Fringe rate (Hz)
-0.018704
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085640
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec

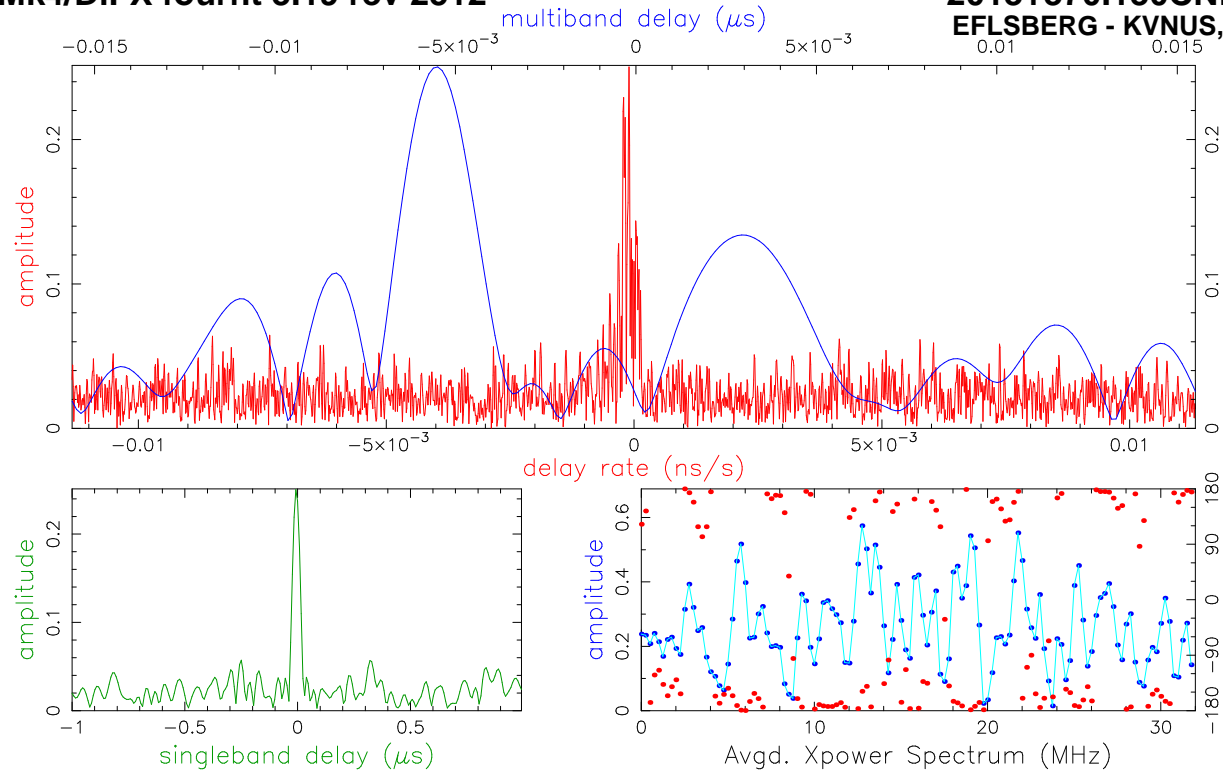


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All			
	-30.2	-66.5	-68.2	-47.3	-148.5	-113.3	-60.6	-19.9	-134.9	-69.9	-40.7	38.5	-93.7	-68.6	-59.1	-98.4		Phase	-72.0		
	0.3	0.4	0.4	0.3	0.5	0.4	0.4	0.3	0.5	0.5	0.4	0.3	0.4	0.4	0.5	0.3		Ampl.	0.4		
	128.1	127.0	127.5	128.1	128.6	128.1	128.3	128.0	127.6	128.1	128.5	128.6	127.6	128.1	127.4	127.4		Sbd box	127.7		
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used			
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs			
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs			
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase			
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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			
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp			
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids			
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks			
																		Chan ids			
																		Tracks			
Group delay (usec)(sbd)		7.71585066131E+03								7.71586006822E+03								Resid mbdelay (usec)	-9.40691E-03	+/-	6.3E-05
Sband delay (usec)		7.71584971522E+03								8.3704338E+00								Resid sbdelay (usec)	-1.03530E-02	+/-	1.0E-03
Phase delay (usec)		7.71586006589E+03								-5.9999998E-07								Resid phdelay (usec)	-2.32312E-06	+/-	2.2E-07
Delay rate (us/s)		1.52685508030E+00								1.52685529744E+00								Resid rate (us/s)	-2.17136E-07	+/-	8.9E-10
Total phase (deg)				27.4						-2.79607759625E-05								Resid phase (deg)	-72.0	+/-	6.7

ph/seg (deg) RMS Theor. Amplitude 0.305 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.7 20.2 Search (2048X64) 0.287 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 47.3 13.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 40.2 23.4 Inc. seg. avg. 0.484 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.387 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 95.8 el 56.2 pa -52.5 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) -11026.923 -200.993 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/Bu..130CNK Output file: /Exps/c192b/v2/1234/No0078/Bu.W.1.130CNK

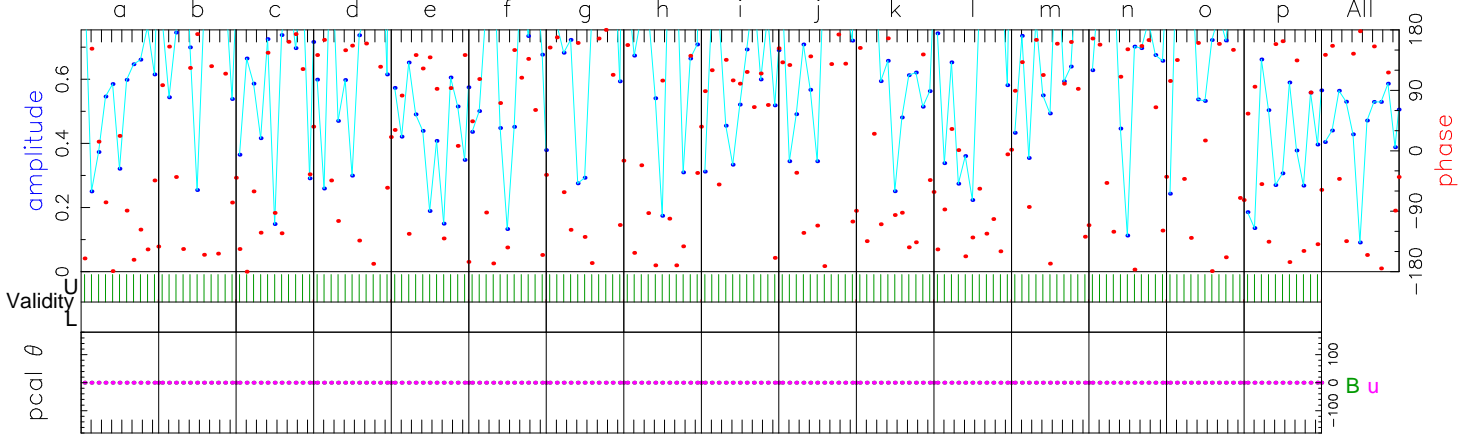


Fringe quality 9

SNR 14.1
Int time 419.814
Amp 0.251
Phase 179.9
PFD 3.0e-36
Delays (us)
SBD -0.006186
MBD -0.005511
Fringe rate (Hz)
-0.008679
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085646
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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	
	-126.1	171.4	-173.4	-175.7	104.2	133.2	-176.2	-138.1	101.4	173.5	-139.0	-100.0	147.6	-179.6	-173.2	-175.3	Phase	179.9	
	0.3	0.4	0.3	0.3	0.2	0.3	0.5	0.3	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.2	Ampl.	0.3	
	128.4	127.6	128.2	128.7	136.2	129.5	127.5	128.9	128.6	128.9	129.0	129.0	127.6	128.3	127.6	130.6	Sbd box	128.2	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used		
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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		
u	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		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks		
																	Chan ids		
																	Tracks		
Group delay (usec)(sbd)		7.71585455738E+03								7.71586006822E+03							Resid mbdelay (usec)	-5.51084E-03	+/- 7.7E-05
Sband delay (usec)		7.71585388222E+03								8.3704338E+00							Resid sbdelay (usec)	-6.18600E-03	+/- 1.2E-03
Phase delay (usec)		7.71586007402E+03								-5.9999998E-07							Resid phdelay (usec)	5.80079E-06	+/- 2.6E-07
Delay rate (us/s)		1.52685519669E+00								1.52685529744E+00							Resid rate (us/s)	-1.00753E-07	+/- 1.1E-09
Total phase (deg)				279.3						-2.79607759625E-05							Resid phase (deg)	179.9	+/- 8.1

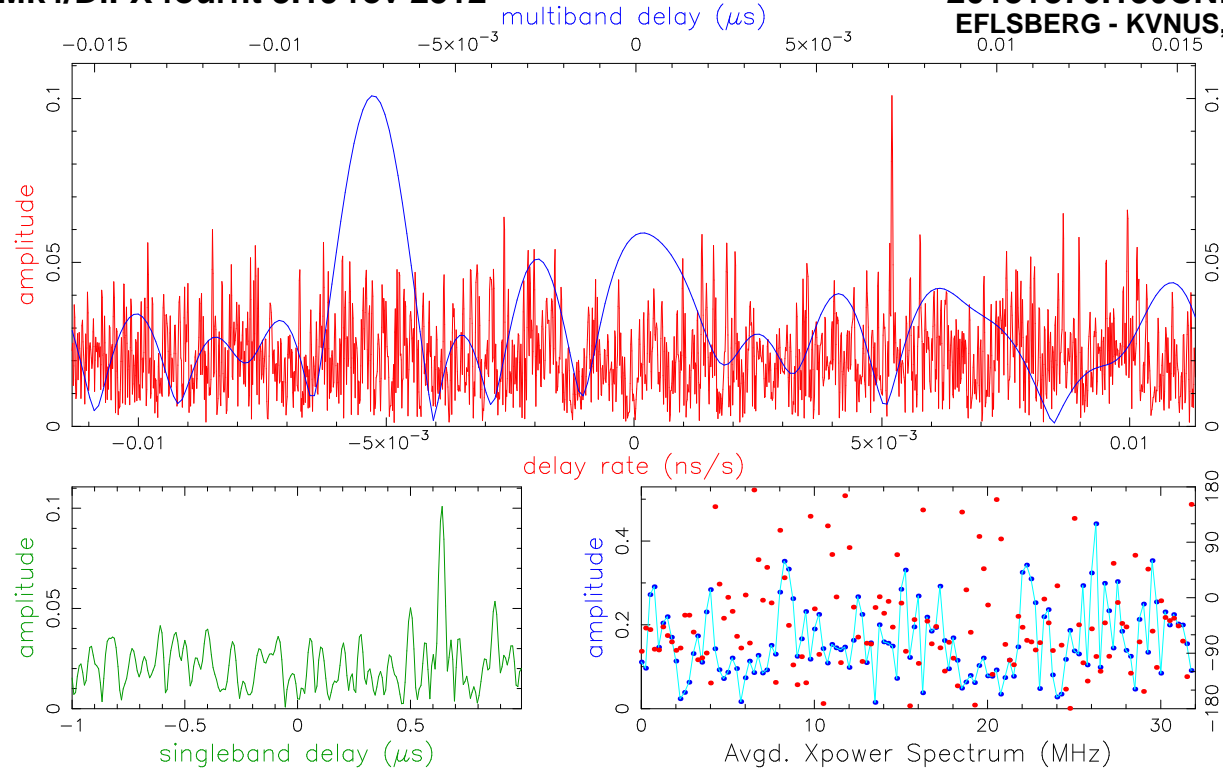
RMS Theor. Amplitude 0.251 +/- 0.018
 ph/seg (deg) 59.8 14.1 Search (2048X64) 0.247
 amp/seg (%) 94.9 24.6 Interp. 0.000
 ph/frq (deg) 44.9 16.3 Inc. seg. avg. 0.438
 amp/frq (%) 41.7 28.4 Inc. frq. avg. 0.310

Group delay (usec)(sbd) 7.71585455738E+03 Apriori delay (usec) 7.71586006822E+03 Resid mbdelay (usec) -5.51084E-03 +/- 7.7E-05
 Sband delay (usec) 7.71585388222E+03 Apriori clock (usec) 8.3704338E+00 Resid sbdelay (usec) -6.18600E-03 +/- 1.2E-03
 Phase delay (usec) 7.71586007402E+03 Apriori clockrate (us/s) -5.9999998E-07 Resid phdelay (usec) 5.80079E-06 +/- 2.6E-07
 Delay rate (us/s) 1.52685519669E+00 Apriori rate (us/s) 1.52685529744E+00 Resid rate (us/s) -1.00753E-07 +/- 1.1E-09
 Total phase (deg) 279.3 Apriori accel (us/s/s) -2.79607759625E-05 Resid phase (deg) 179.9 +/- 8.1

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

B: az 95.8 el 56.2 pa -52.5 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) -11026.923 -200.993 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/Bu..130CNK Output file: /Exps/c192b/v2/1234/No0078/Bu.W.21.130CNK

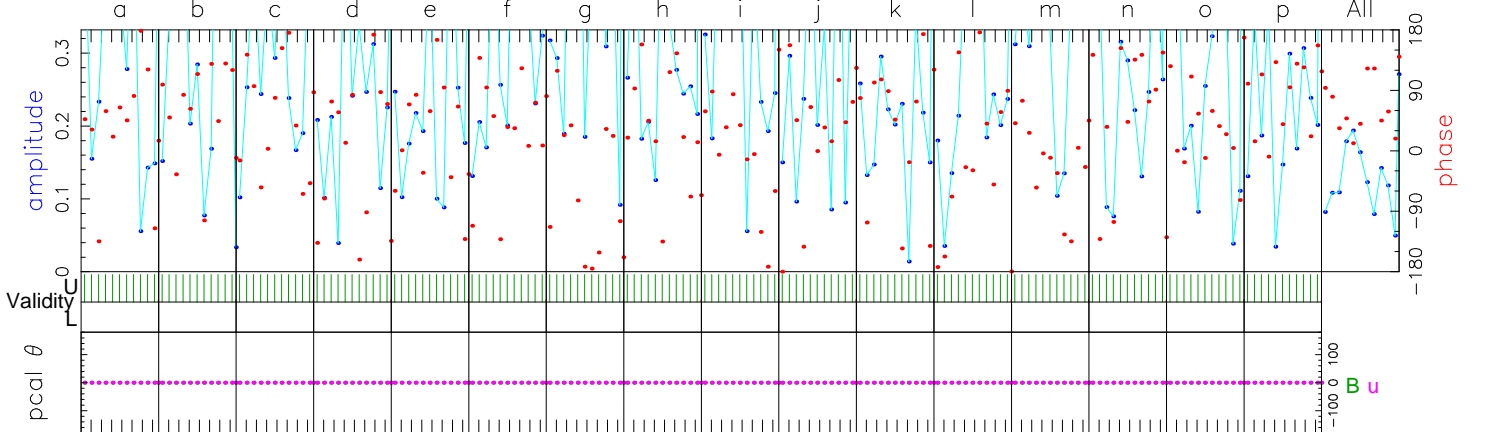


Fringe quality 0

SNR 5.7
Int time 419.814
Amp 0.111
Phase 56.1
PFD 9.7e-01
Delays (us)
SBD 0.639135
MBD -0.007278
Fringe rate (Hz)
0.449182
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085653
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

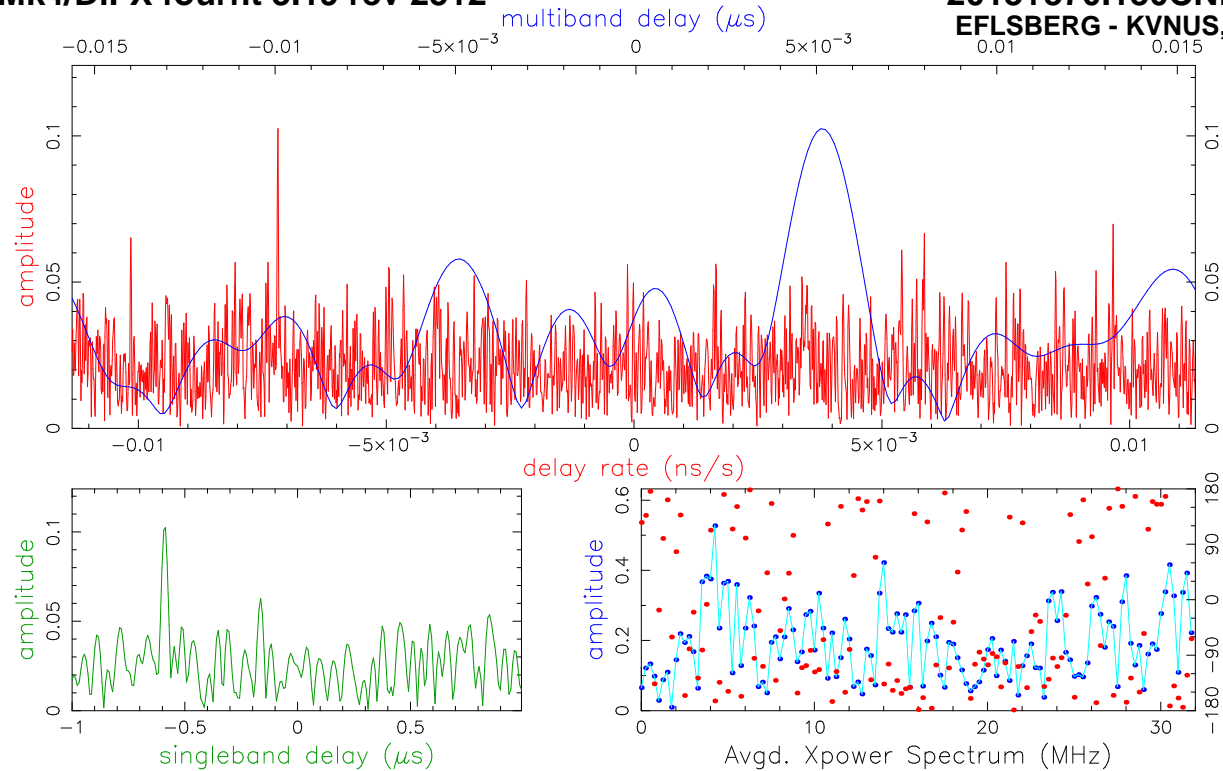
Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



	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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks
																		Chan ids
																		Tracks
Group delay (usec)(sbd)	7.71650903987E+03			Apriori delay (usec)			7.71586006822E+03			Resid mbdelay (usec)			-7.27834E-03			+/-	1.9E-04	
Sband delay (usec)	7.71649920322E+03			Apriori clock (usec)			8.3704338E+00			Resid sbdelay (usec)			6.39135E-01			+/-	3.0E-03	
Phase delay (usec)	7.71586007003E+03			Apriori clockrate (us/s)			-5.9999998E-07			Resid phdelay (usec)			1.80938E-06			+/-	6.5E-07	
Delay rate (us/s)	1.52686051200E+00			Apriori rate (us/s)			1.52685529744E+00			Resid rate (us/s)			5.21456E-06			+/-	2.7E-09	
Total phase (deg)	155.6			Apriori accel (us/s/s)			-2.79607759625E-05			Resid phase (deg)			56.1			+/-	20.2	
ph/seg (deg)	RMS	Theor.	Amplitude	0.111 +/- 0.020			Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5								
amp/seg (%)	37.7	35.0	Search (2048X64)	0.100			Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)			-1.000 1.000					
ph/frq (deg)	48.7	61.0	Interp.	0.000			Bits/sample: 2x2			SampCntNorm: enabled			mb window (us)		-0.016 0.016			
amp/frq (%)	57.1	40.4	Inc. seg. avg.	0.114			Sample rate(MISamp/s): 64			dr window (ns/s)			-0.011 0.011					
	72.5	70.5	Inc. frq. avg.	0.114			Data rate(Mb/s): 2048			nlags: 128 t_cohere infinite			ion window (TEC)		0.00 0.00			

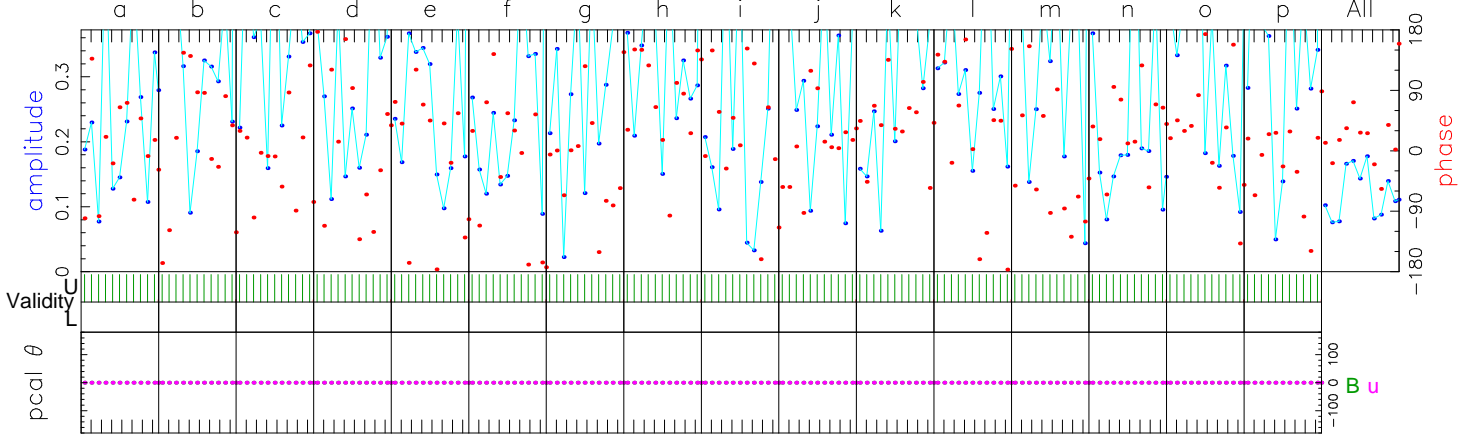
B: az 95.8 el 56.2 pa -52.5 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) -11026.923 -200.993 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/Bu..130CNK Output file: /Exps/c192b/v2/1234/No0078/Bu.W.46.130CNK

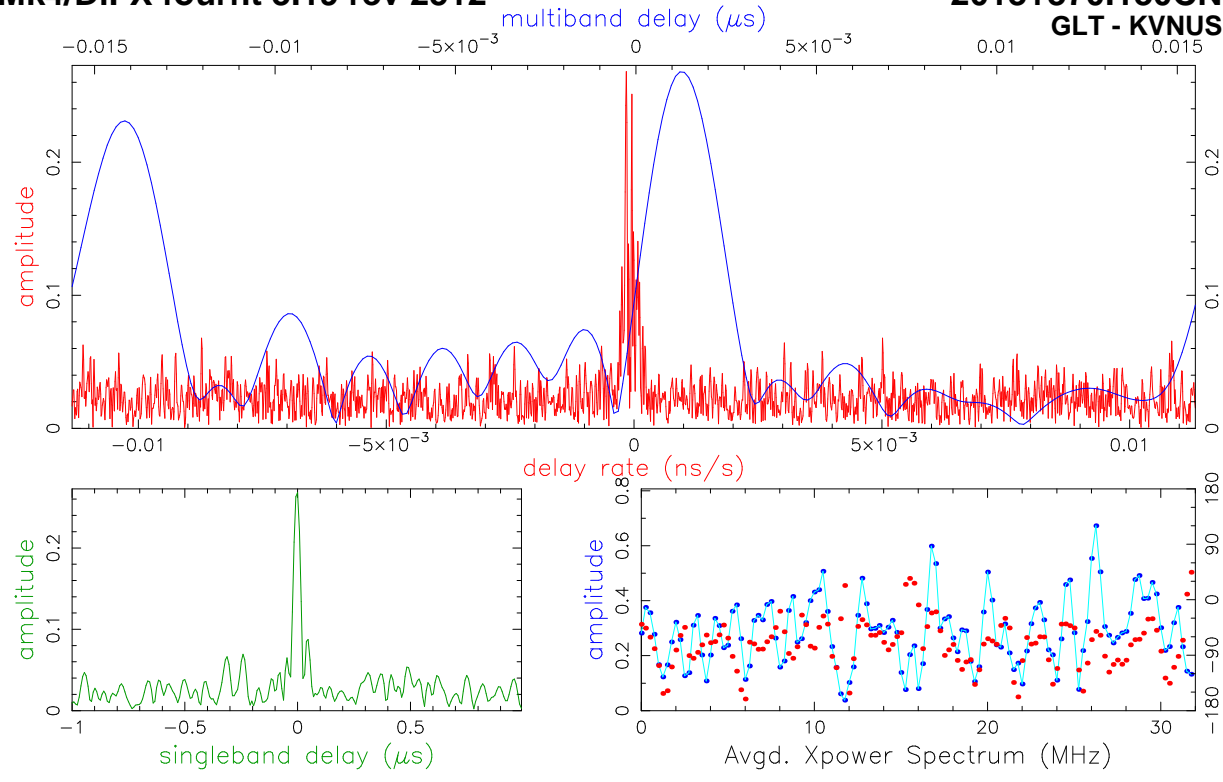


Fringe quality 0
SNR 5.9
Int time 419.814
Amp 0.124
Phase 21.1
PFD 6.9e-01
Delays (us)
SBD -0.589275
MBD 0.005169
Fringe rate (Hz)
-0.619631
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085700
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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
u	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
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks
																		Tracks
Group delay (usec)(sbd)	7.71527148756E+03			Apriori delay (usec)			7.71586006822E+03			Resid mbdelay (usec)			5.16934E-03			+/- 1.8E-04		
Sband delay (usec)	7.71527079372E+03			Apriori clock (usec)			8.3704338E+00			Resid sbdelay (usec)			-5.89275E-01			+/- 2.9E-03		
Phase delay (usec)	7.71586006890E+03			Apriori clockrate (us/s)			-5.9999998E-07			Resid phdelay (usec)			6.80493E-07			+/- 6.3E-07		
Delay rate (us/s)	1.52684810414E+00			Apriori rate (us/s)			1.52685529744E+00			Resid rate (us/s)			-7.19330E-06			+/- 2.6E-09		
Total phase (deg)	120.6			Apriori accel (us/s/s)			-2.79607759625E-05			Resid phase (deg)			21.1			+/- 19.6		
ph/seg (deg)	RMS	Theor.	Amplitude			0.124 +/- 0.021			Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5						
amp/seg (%)	36.1	33.9	Search (2048X64)			0.099			Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)			-1.000 1.000			
ph/frq (deg)	39.2	59.1	Interp.			0.000			Bits/sample: 2x2			SampCntNorm: enabled			mb window (us) -0.016 0.016			
amp/frq (%)	61.1	39.1	Inc. seg. avg.			0.122			Sample rate(MISamp/s): 64			dr window (ns/s)			-0.011 0.011			
	66.5	68.3	Inc. frq. avg.			0.133			Data rate(Mb/s): 2048			nlags: 128 t_cohere infinite			ion window (TEC) 0.00 0.00			

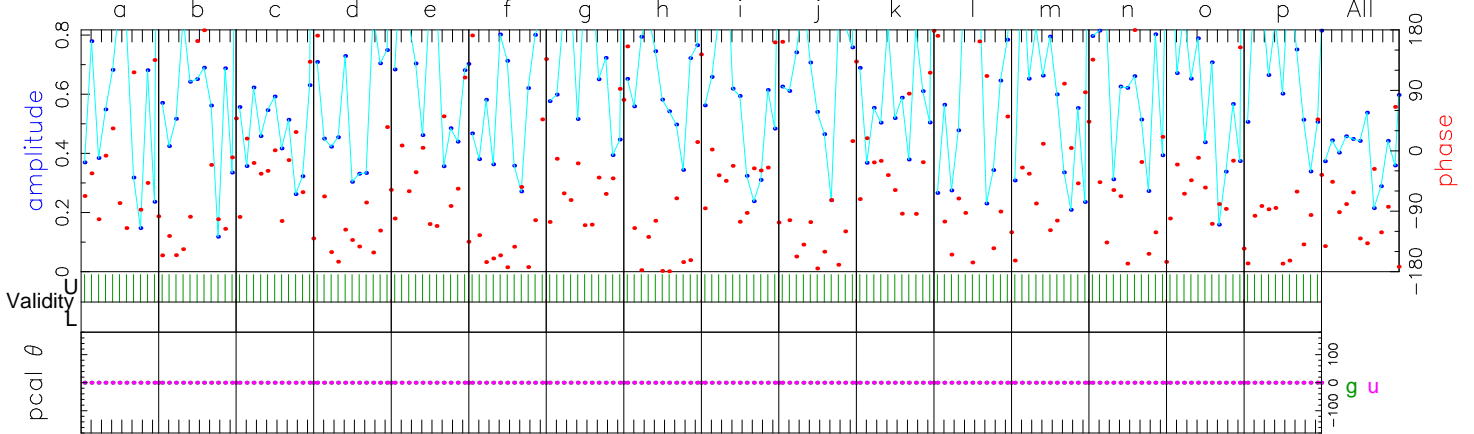


Fringe quality 9

SNR 15.3
Int time 419.602
Amp 0.273
Phase -93.6
PFD 7.6e-44
Delays (us)
SBD -0.003183
MBD 0.001261
Fringe rate (Hz)
-0.012938
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

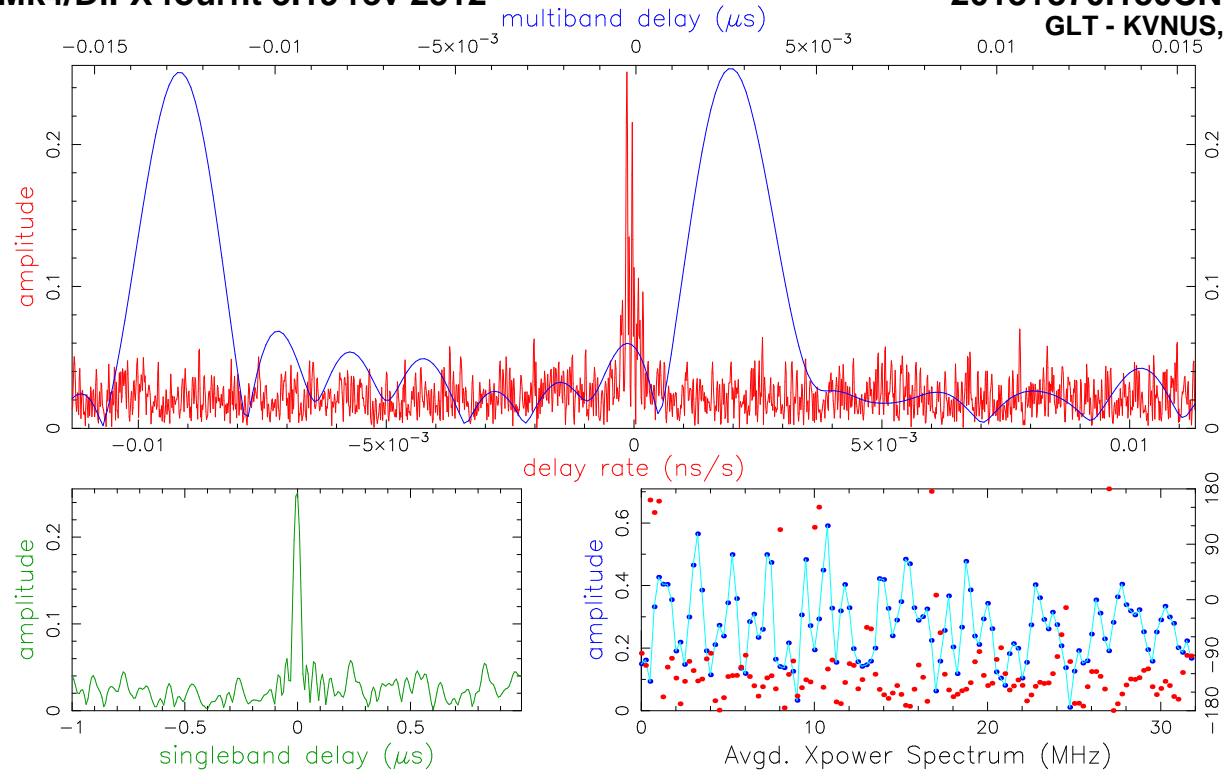
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085643
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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	
	-58.0	-136.5	-31.1	-132.7	-57.4	-157.0	-68.8	-149.9	-47.5	-141.9	-43.3	-136.1	-50.9	-119.6	-63.7	-108.0		Phase	-93.6
	0.3	0.3	0.3	0.3	0.4	0.3	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.5		Ampl.	0.3
	128.0	128.8	127.9	129.2	128.9	127.8	127.8	128.4	128.6	128.3	128.3	123.3	128.2	127.2	128.3	129.2		Sbd box	128.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used	
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		PC freqs	0
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
																		Chan ids	
																		Tracks	
Group delay (usec)(sbd)	5.19581771951E+02			Apriori delay (usec)			5.19580510836E+02			Resid mbdelay (usec)			1.26112E-03			+/- 7.1E-05			
Sband delay (usec)	5.19577327836E+02			Apriori clock (usec)			-7.1552229E+00			Resid sbdelay (usec)			-3.18300E-03			+/- 1.1E-03			
Phase delay (usec)	5.19580507817E+02			Apriori clockrate (us/s)			-3.2499998E-07			Resid phdelay (usec)			-3.01882E-06			+/- 2.4E-07			
Delay rate (us/s)	1.24071224857E+00			Apriori rate (us/s)			1.24071239876E+00			Resid rate (us/s)			-1.50196E-07			+/- 1.0E-09			
Total phase (deg)	-20.4			Apriori accel (us/s/s)			2.39706873565E-05			Resid phase (deg)			-93.6			+/- 7.5			

ph/seg (deg) 60.2 13.0 Search (2048X64) 0.259 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 57.2 22.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.3 15.0 Inc. seg. avg. 0.393 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 42.1 26.2 Inc. frq. avg. 0.350 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 g: az 52.8 el 29.8 pa -13.6 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) -8881.182 4296.872 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/gu..130CNK Output file: /Exps/c192b/v2/1234/No0078/gu.W.13.130CNK

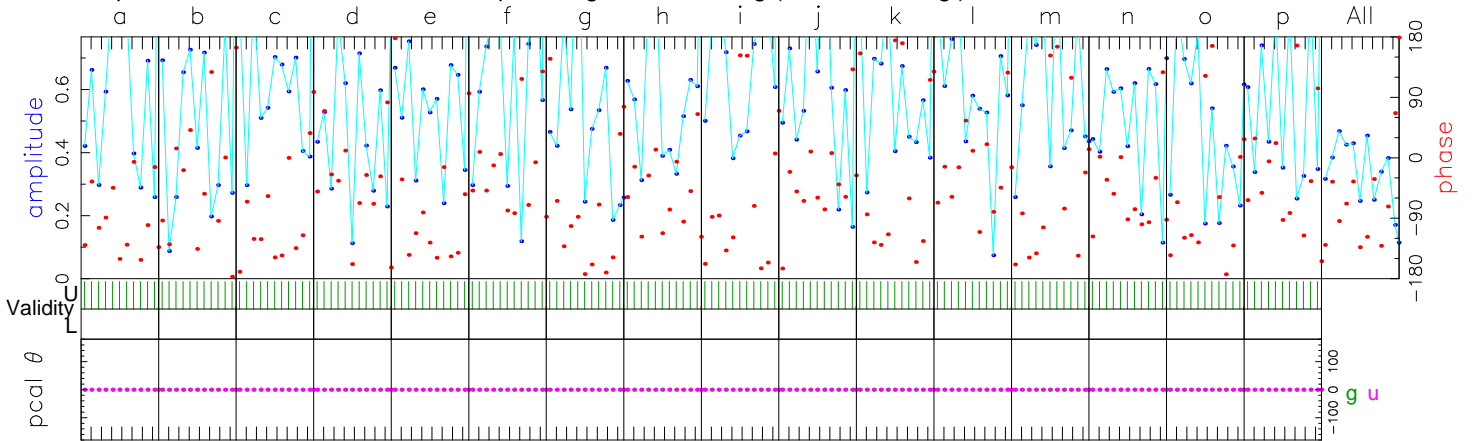


Fringe quality 9

SNR 14.3
Int time 419.569
Amp 0.256
Phase -82.3
PFD 9.6e-38
Delays (us)
SBD -0.003336
MBD -0.012643
Fringe rate (Hz)
-0.012643
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

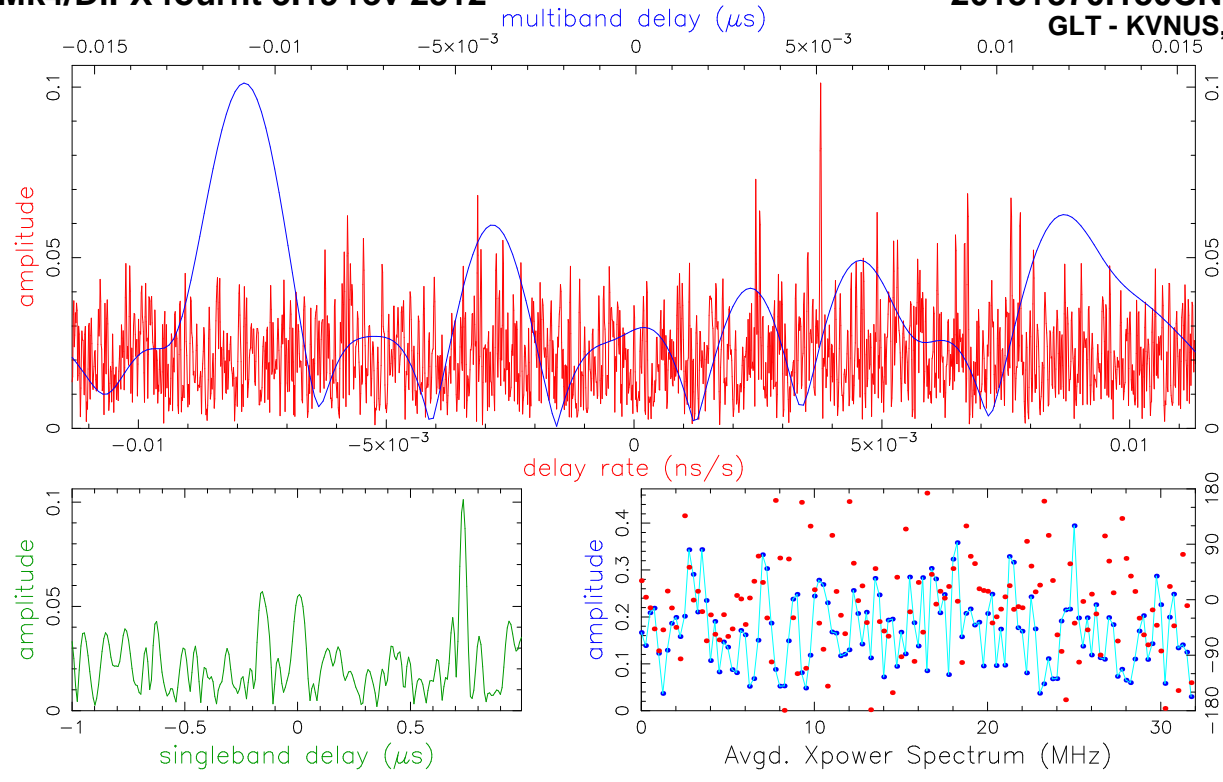
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085648
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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					
	-92.8	-39.1	-122.0	-25.6	-125.3	-30.2	-119.8	-35.8	-127.6	-43.6	-148.8	-26.3	-142.2	-56.7	-121.9	-42.5		Phase	-82.3				
	0.4	0.2	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3		Ampl.	0.3				
	128.9	102.0	129.3	128.3	128.6	128.9	127.8	128.0	128.7	128.9	128.5	129.2	128.9	128.1	128.6	128.0		Sbd box	128.6				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		PC freqs					
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase					
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC					
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			5.1956786769E+02															Apriori delay (usec)	5.19580510836E+02	Resid mbdelay (usec)	-1.26432E-02	+/-	7.5E-05
Sband delay (usec)			5.19577174836E+02															Apriori clock (usec)	-7.1552229E+00	Resid sbdelay (usec)	-3.33600E-03	+/-	1.2E-03
Phase delay (usec)			5.19580508183E+02															Apriori clockrate (us/s)	-3.2499998E-07	Resid phdelay (usec)	-2.65248E-06	+/-	2.6E-07
Delay rate (us/s)			1.24071225199E+00															Apriori rate (us/s)	1.24071239876E+00	Resid rate (us/s)	-1.46777E-07	+/-	1.1E-09
Total phase (deg)					-9.0													Apriori accel (us/s/s)	2.39706873565E-05	Resid phase (deg)	-82.3	+/-	8.0

ph/seg (deg) 59.1 13.9 Search (2048X64) 0.246 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 52.0 24.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 48.8 16.0 Inc. seg. avg. 0.340 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 45.1 27.9 Inc. frq. avg. 0.345 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 g: az 52.8 el 29.8 pa -13.6 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) -8881.182 4296.872 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/gu..130CNK Output file: /Exps/c192b/v2/1234/No0078/gu.W.32.130CNK

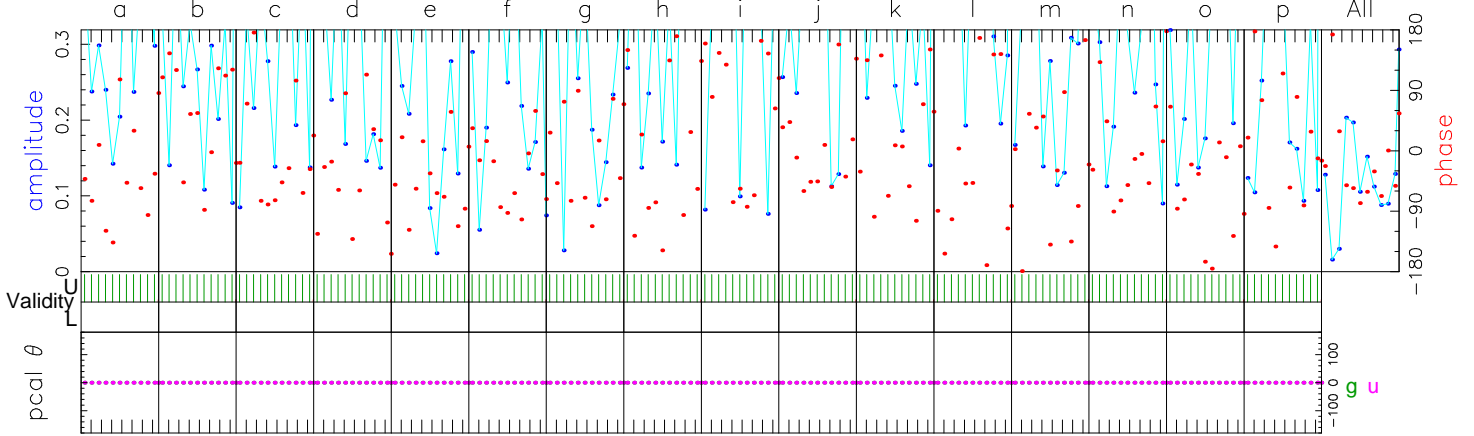


Fringe quality 0

SNR 5.7
Int time 419.602
Amp 0.106
Phase -46.2
PFD 9.6e-01
Delays (us)
SBD 0.732782
MBD -0.010866
Fringe rate (Hz)
0.324311
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085654
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec

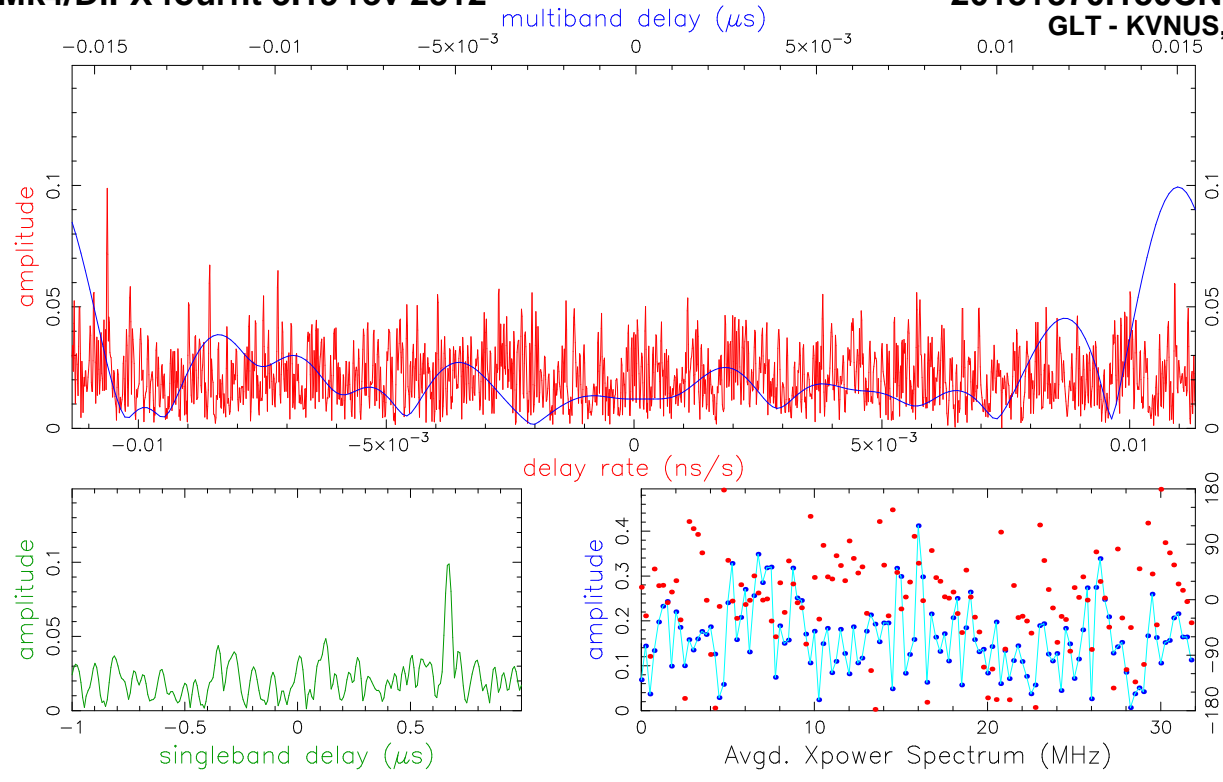


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All		
	-49.0	84.8	-44.5	-84.0	-41.5	-38.2	-33.3	-99.8	168.2	-19.5	-41.4	-120.2	146.2	-33.5	-18.3	-12.3		Phase	-46.2	
	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.3	0.1	0.2	0.0	0.2	0.1	0.0		Ampl.	0.1	
	72.2	208.2	26.2	65.4	39.2	130.3	241.2	140.2	158.2	222.6	205.3	246.3	246.1	191.2	182.2	204.7		Sbd box	222.8	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used		
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		PC freqs		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs		
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase		
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks		
																			Tracks	
Group delay (usec)(sbd)	5.20319644888E+02			Apriori delay (usec)			5.19580510836E+02			Resid mbdelay (usec)			-1.08659E-02			+/- 1.9E-04				
Sband delay (usec)	5.20313293336E+02			Apriori clock (usec)			-7.1552229E+00			Resid sbdelay (usec)			7.32782E-01			+/- 3.0E-03				
Phase delay (usec)	5.19580509345E+02			Apriori clockrate (us/s)			-3.2499998E-07			Resid phdelay (usec)			-1.49081E-06			+/- 6.5E-07				
Delay rate (us/s)	1.24071616369E+00			Apriori rate (us/s)			1.24071239876E+00			Resid rate (us/s)			3.76493E-06			+/- 2.7E-09				
Total phase (deg)	27.0			Apriori accel (us/s/s)			2.39706873565E-05			Resid phase (deg)			-46.2			+/- 20.1				

ph/seg (deg) RMS Theor. Amplitude 0.106 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 52.9 34.9 Search (2048X64) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 58.5 60.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 75.3 40.3 Inc. seg. avg. 0.102 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 76.8 70.3 Inc. frq. avg. 0.121 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

g: az 52.8 el 29.8 pa -13.6 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) -8881.182 4296.872 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/gu..130CNK Output file: /Exps/c192b/v2/1234/No0078/gu.W.48.130CNK

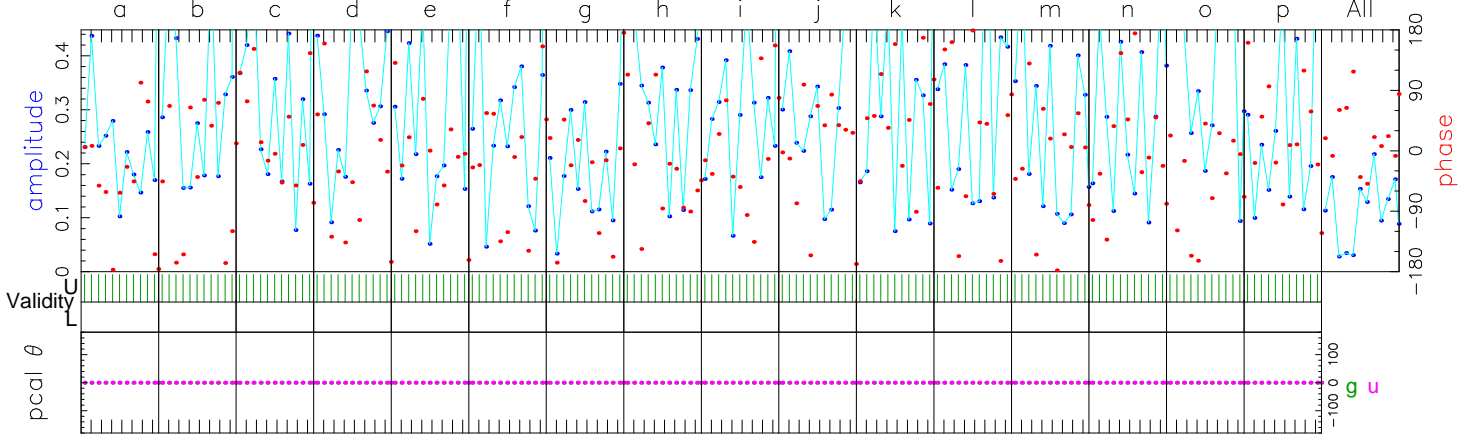


Fringe quality 0

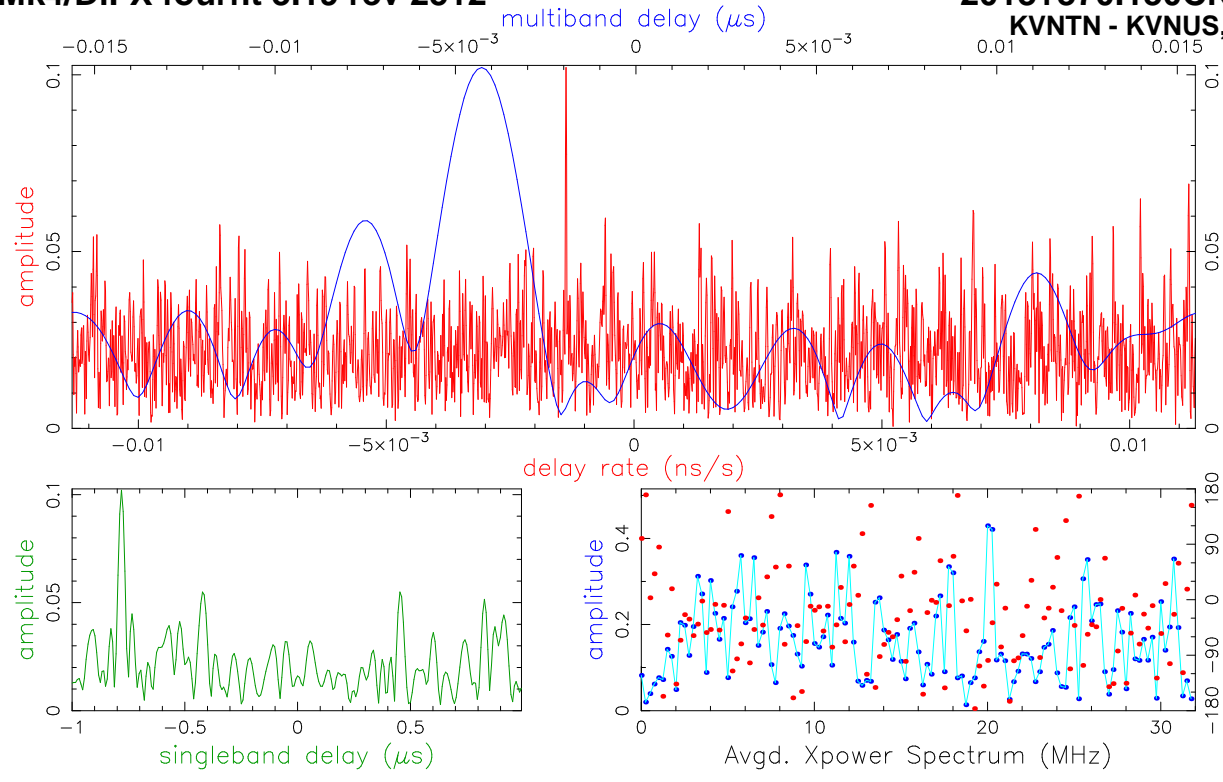
SNR 5.7
Int time 419.569
Amp 0.149
Phase 1.3
PFD 9.8e-01
Delays (us)
SBD 0.668311
MBD -0.016113
Fringe rate (Hz)
-0.916538
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085659
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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																			
	-21.8	53.5	55.0	-20.5	14.9	-17.5	-16.6	-48.0	-30.7	27.9	37.5	64.6	5.0	-21.6	-20.3	-4.9		Phase	1.3																		
	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.3	0.2	0.1	0.2	0.2	0.3	0.2		Ampl.	0.1																		
	184.4	40.4	129.5	207.1	113.9	189.3	150.8	157.8	199.2	230.9	25.2	252.7	227.6	109.4	118.2	212.7		Sbd box	214.5																		
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used																			
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		PC freqs																			
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs																			
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase																			
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC																			
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp																			
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp																			
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids																			
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks																			
																		Chan ids																			
																		Tracks																			
Group delay (usec)(sbd)		5.20251897554E+02					Apriori delay (usec)					5.19580510836E+02					Resid mbdelay (usec)					-1.61133E-02					+/- 1.9E-04										
Sband delay (usec)		5.20248822336E+02					Apriori clock (usec)					-7.1552229E+00					Resid sbdelay (usec)					6.68311E-01					+/- 3.0E-03										
Phase delay (usec)		5.19580510877E+02					Apriori clockrate (us/s)					-3.2499998E-07					Resid phdelay (usec)					4.11312E-08					+/- 6.5E-07										
Delay rate (us/s)		1.24070175866E+00					Apriori rate (us/s)					1.24071239876E+00					Resid rate (us/s)					-1.06401E-05					+/- 2.7E-09										
Total phase (deg)		74.5					Apriori accel (us/s/s)					2.39706873565E-05					Resid phase (deg)					1.3					+/- 20.3										
ph/seg (deg)	RMS	Theor.	Amplitude					0.149 +/- 0.026					Pcal mode: MANUAL, MANUAL					PC period (AP's) 5, 5																			
amp/seg (%)	49.4	35.1	Search (2048X64)					0.097					Pcal rate: 0.000E+00, 0.000E+00 (us/s)					sb window (us)					-1.000 1.000														
ph/frq (deg)	62.3	61.3	Interp.					0.000					Bits/sample: 2x2					SampCntNorm: enabled					mb window (us)					-0.016 0.016									
amp/frq (%)	35.9	40.6	Inc. seg. avg.					0.145					Sample rate(MISamp/s): 64					Data rate(Mb/s): 2048					nlags: 128 t_cohere infinite					dr window (ns/s)					-0.011 0.011				
	44.7	70.8	Inc. frq. avg.					0.134															ion window (TEC)					0.00 0.00									
g: az 52.8 el 29.8 pa -13.6						u: az 297.1 el 28.9 pa 65.2										u,v (fr/asec) -8881.182 4296.872										simultaneous interpolator											
Control file: cf_1234_gmva	Input file: /Exps/c192b/v2/1234/No0078/gu..130CNK										Output file: /Exps/c192b/v2/1234/No0078/gu.W.63.130CNK																										

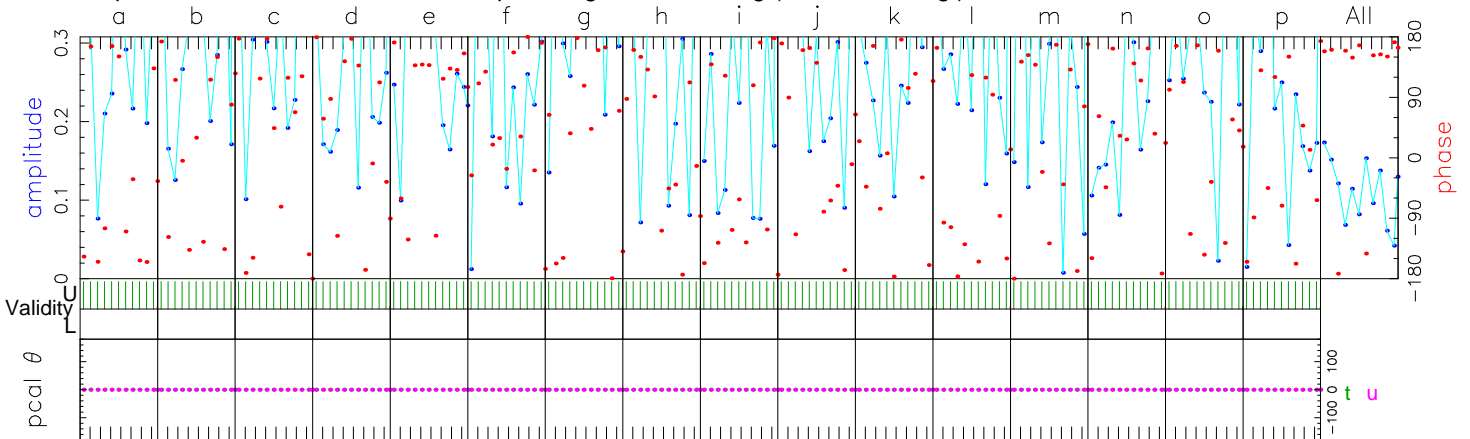


Fringe quality 0

SNR 5.7
Int time 419.817
Amp 0.103
Phase 167.2
PFD 9.3e-01
Delays (us)
SBD -0.781025
MBD -0.004277
Fringe rate (Hz)
-0.118367
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

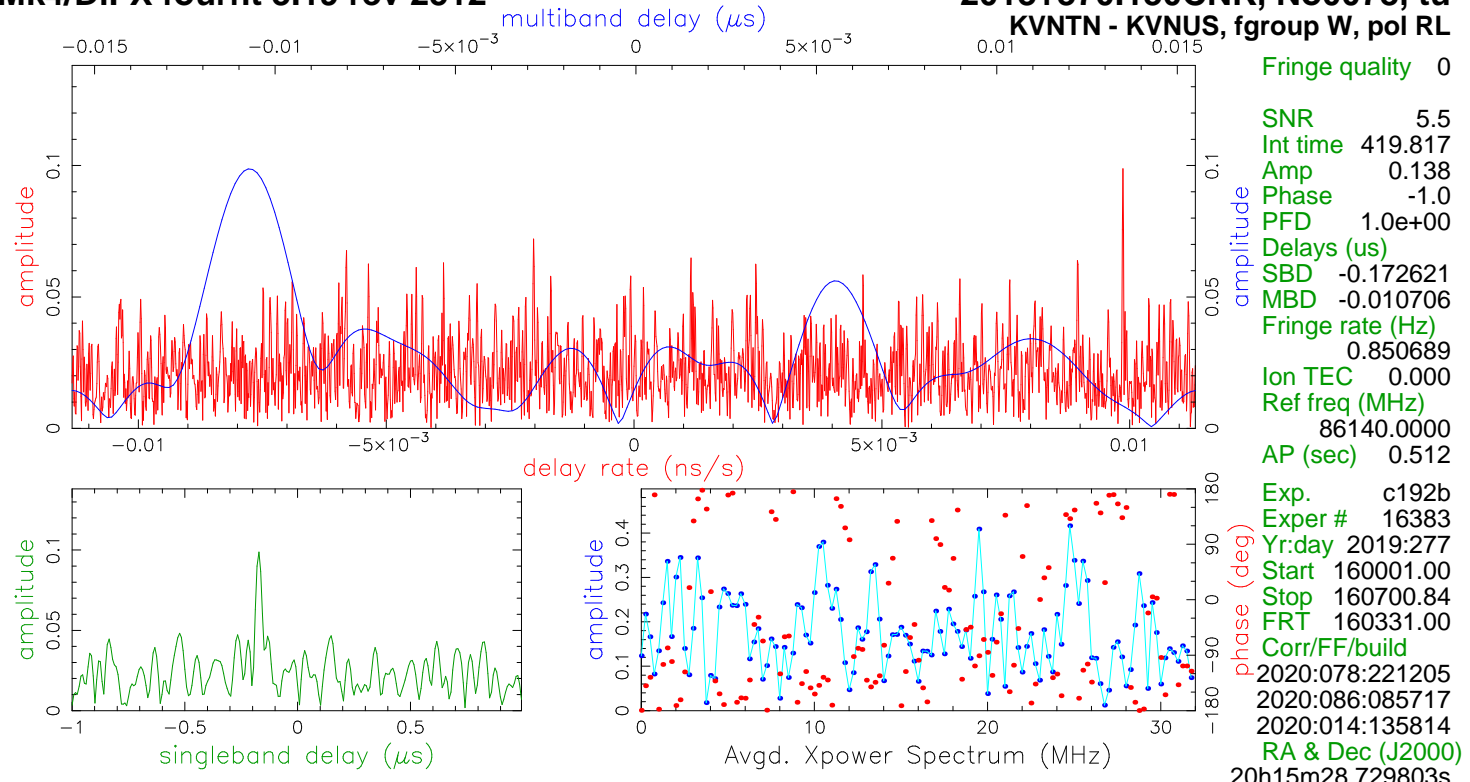
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085711
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec

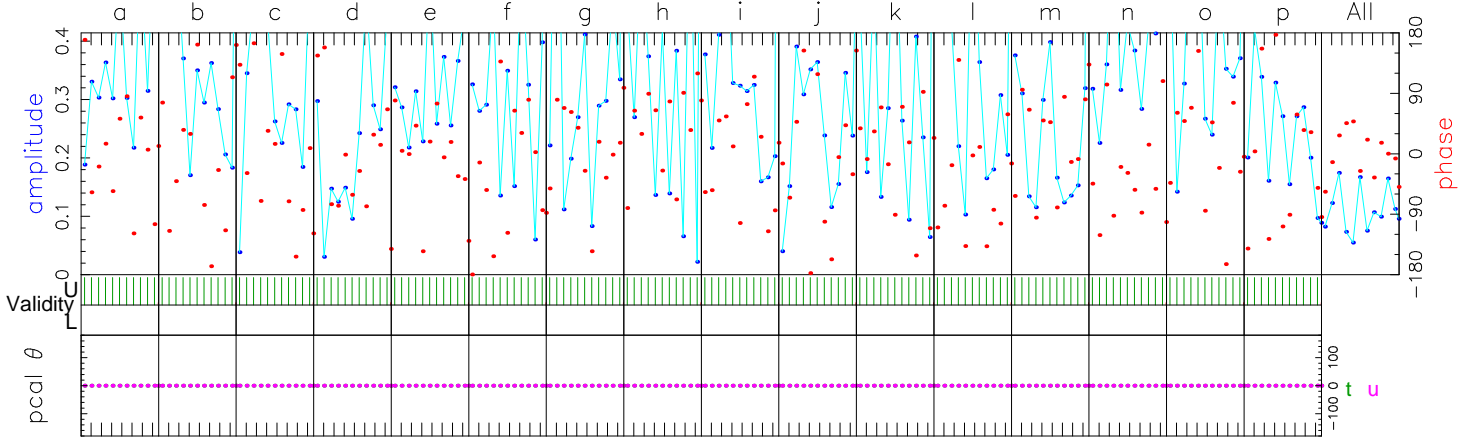


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-169.4	-177.9	155.7	169.2	159.4	94.1	155.0	129.2	-140.9	-167.4	148.8	-161.4	157.7	98.1	157.0	-69.3	Phase	167.2
	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.0	0.0	0.2	0.2	0.1	0.1	0.1	Ampl.	0.1
	153.5	62.4	10.7	81.1	250.6	206.3	29.5	93.8	10.1	42.3	87.8	21.1	75.6	102.0	195.2	179.5	Sbd box	29.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
tu	0:0	0:0	0:0	0:0	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	
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	3.47166960284E+02			Apriori delay (usec)			3.47952486852E+02			Resid mbdelay (usec)			-4.27657E-03			+/- 1.9E-04		
Sband delay (usec)	3.47171461852E+02			Apriori clock (usec)			1.9273479E+01			Resid sbdelay (usec)			-7.81025E-01			+/- 3.0E-03		
Phase delay (usec)	3.47952492245E+02			Apriori clockrate (us/s)			-1.9999998E-07			Resid phdelay (usec)			5.39267E-06			+/- 6.5E-07		
Delay rate (us/s)	-1.62582911298E-02			Apriori rate (us/s)			-1.62569170106E-02			Resid rate (us/s)			-1.37412E-06			+/- 2.7E-09		
Total phase (deg)	245.5			Apriori accel (us/s/s)			-3.96299782620E-06			Resid phase (deg)			167.2			+/- 20.0		

ph/seg (deg) RMS Theor. Amplitude 0.103 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 40.4 60.6 Search (2048X64) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 48.4 40.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 64.1 70.0 Inc. seg. avg. 0.093 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 t: az 297.2 el 30.0 pa 69.0 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) 110.058 -466.771 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/tu...130CNK Output file: /Exps/c192b/v2/1234/No0078/tu.W.102.130CNK simultaneous interpolator



Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec

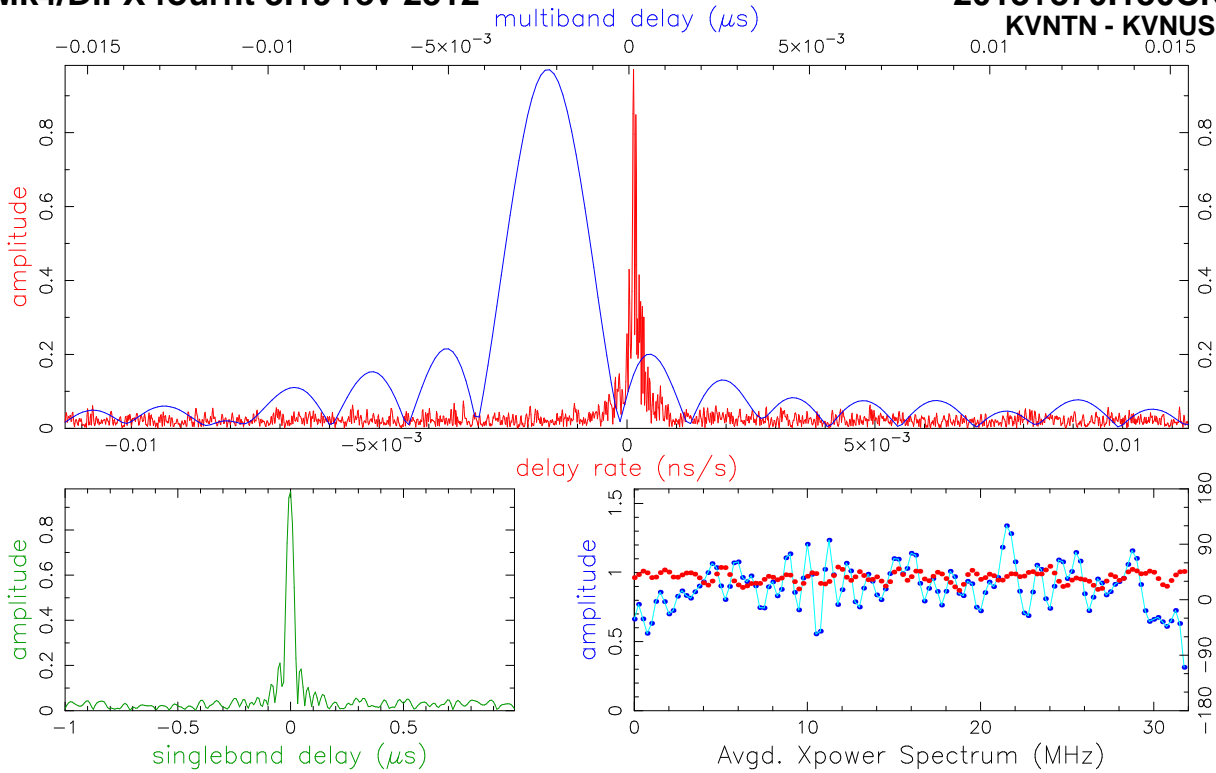


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-2.7	-55.3	-39.6	-11.5	8.4	-75.5	24.6	21.8	17.0	91.5	8.8	-51.4	39.9	-48.1	29.1	-53.0		Phase	-1.0				
	0.2	0.1	0.1	0.1	0.3	0.1	0.3	0.3	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.0		Ampl.	0.1				
	110.4	152.2	238.2	221.0	52.9	160.5	169.0	64.1	154.7	78.9	218.8	30.5	244.5	138.4	173.6	227.1		Sbd box	106.9				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
tu	0:0	0:0	0:0	0:0	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					
tu	0:0	0:0	0:0	0:0	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					
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			3.47785530808E+02															Apriori delay (usec)	3.47952486852E+02	Resid mbdelay (usec)	-1.07060E-02	+/-	1.9E-04
Sband delay (usec)			3.47779866352E+02															Apriori clock (usec)	1.9273479E+01	Resid sbdelay (usec)	-1.72621E-01	+/-	3.1E-03
Phase delay (usec)			3.47952486818E+02															Apriori clockrate (us/s)	-1.9999998E-07	Resid phdelay (usec)	-3.38127E-08	+/-	6.7E-07
Delay rate (us/s)			-1.62470413548E-02															Apriori rate (us/s)	-1.62569170106E-02	Resid rate (us/s)	9.87566E-06	+/-	2.8E-09
Total phase (deg)					77.2													Apriori accel (us/s/s)	-3.96299782620E-06	Resid phase (deg)	-1.0	+/-	20.7

ph/seg (deg) RMS Theor. Amplitude 0.138 +/- 0.025 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 32.1 35.8 Search (2048X64) 0.097 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 41.9 62.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 46.6 41.4 Inc. seg. avg. 0.131 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 68.3 72.2 Inc. frq. avg. 0.132 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

t: az 297.2 el 30.0 pa 69.0 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) 110.058 -466.771 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/tu...130CNK Output file: /Exps/c192b/v2/1234/No0078/tu.W.122.130CNK

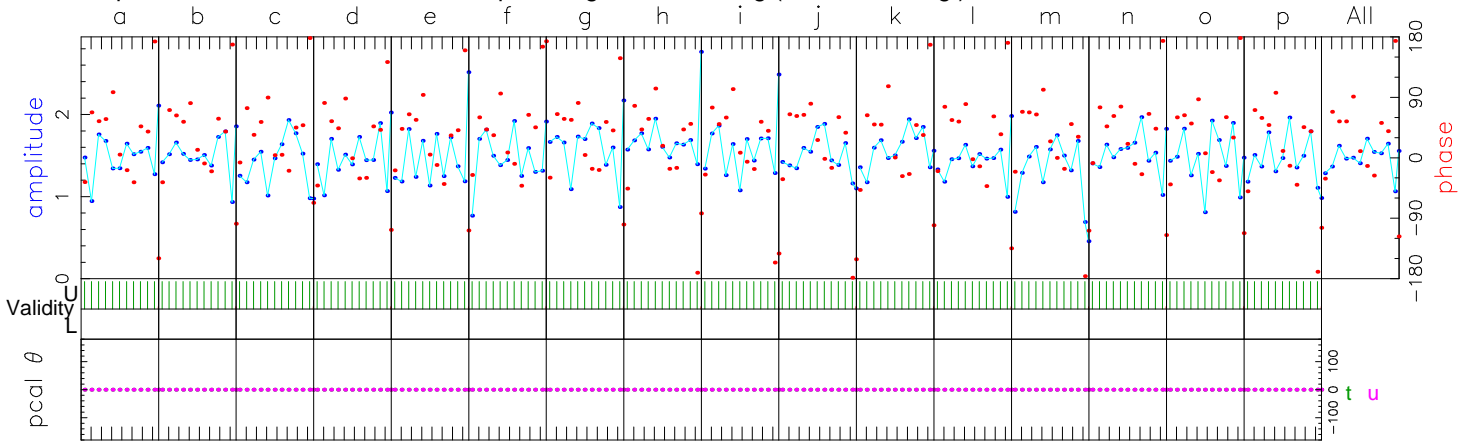


Fringe quality 5

SNR 55.0
Int time 419.817
Amp 0.982
Phase 34.1
PFD 0.0e+00
Delays (us)
SBD -0.002650
MBD -0.002247
Fringe rate (Hz) 0.011259
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

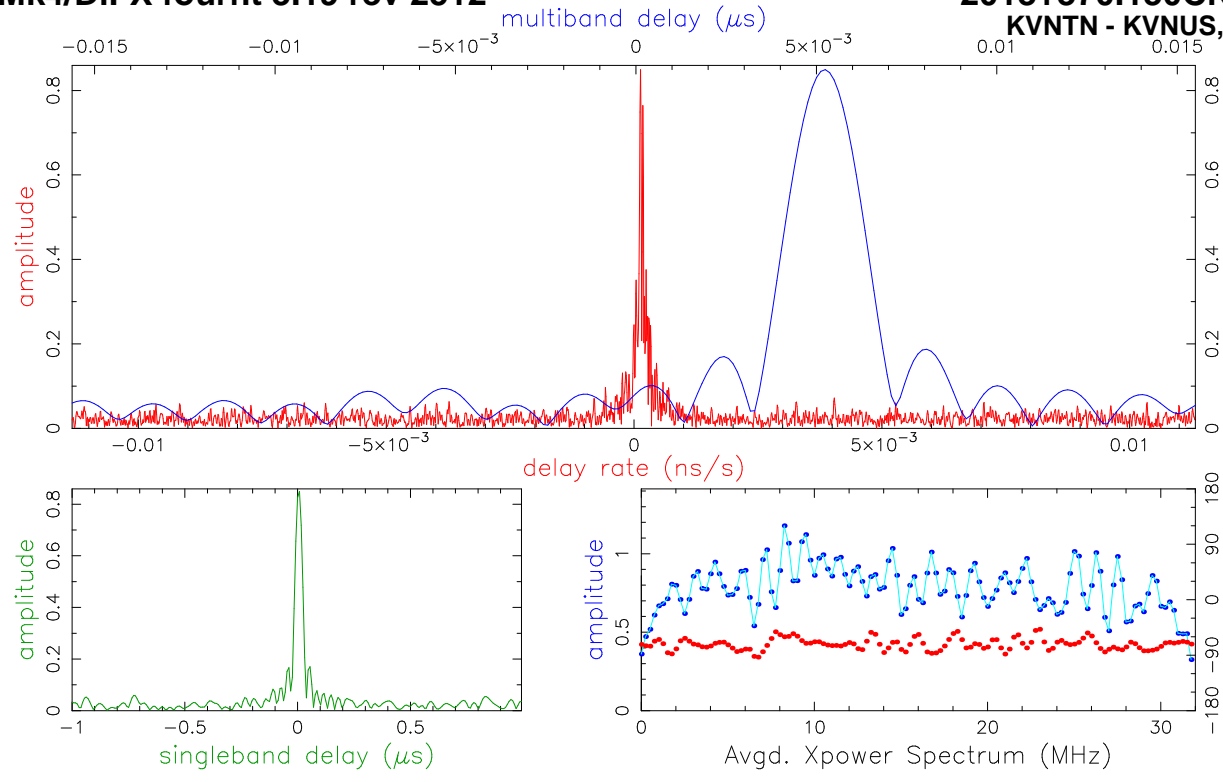
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085700
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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	31.4	37.5	31.1	29.9	34.3	36.9	30.9	37.2	38.7	38.3	27.8	33.7	39.2	36.3	29.7	31.1	34.1	Phase	34.1
t	0.9	1.0	1.0	0.9	0.9	1.0	1.1	1.0	1.0	1.0	0.9	0.9	1.0	1.1	0.9	0.9	0.9	Ampl.	1.0
u	128.9	128.5	128.6	128.5	128.6	128.8	128.7	128.6	129.0	128.5	128.8	128.7	128.6	128.7	128.3	128.9	128.9	Sbd box	128.7
tu	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
tu	0:0	0:0	0:0	0:0	0:0	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	
t	0:0	0:0	0:0	0:0	0:0	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	1000	PC amp	
t	1000	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	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
																		Chan ids	
																		Tracks	
Group delay (usec)(sbd)	3.47950239999E+02			Apriori delay (usec)			3.47952486852E+02			Resid mbdelay (usec)			-2.24685E-03			+/- 2.0E-05			
Sband delay (usec)	3.47949836852E+02			Apriori clock (usec)			1.9273479E+01			Resid sbdelay (usec)			-2.65000E-03			+/- 3.1E-04			
Phase delay (usec)	3.47952487951E+02			Apriori clockrate (us/s)			-1.9999998E-07			Resid phdelay (usec)			1.09854E-06			+/- 6.7E-08			
Delay rate (us/s)	-1.62567863051E-02			Apriori rate (us/s)			-1.62569170106E-02			Resid rate (us/s)			1.30706E-07			+/- 2.8E-10			
Total phase (deg)	112.3			Apriori accel (us/s/s)			-3.96299782620E-06			Resid phase (deg)			34.1			+/- 2.1			

ph/seg (deg) 58.3 3.6 Search (2048X64) 0.950 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 52.2 6.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 3.9 4.2 Inc. seg. avg. 1.461 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 6.5 7.3 Inc. frq. avg. 0.970 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 297.2 el 30.0 pa 69.0 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) 110.058 -466.771 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/tu...130CNK Output file: /Exps/c192b/v2/1234/No0078/tu.W.73.130CNK

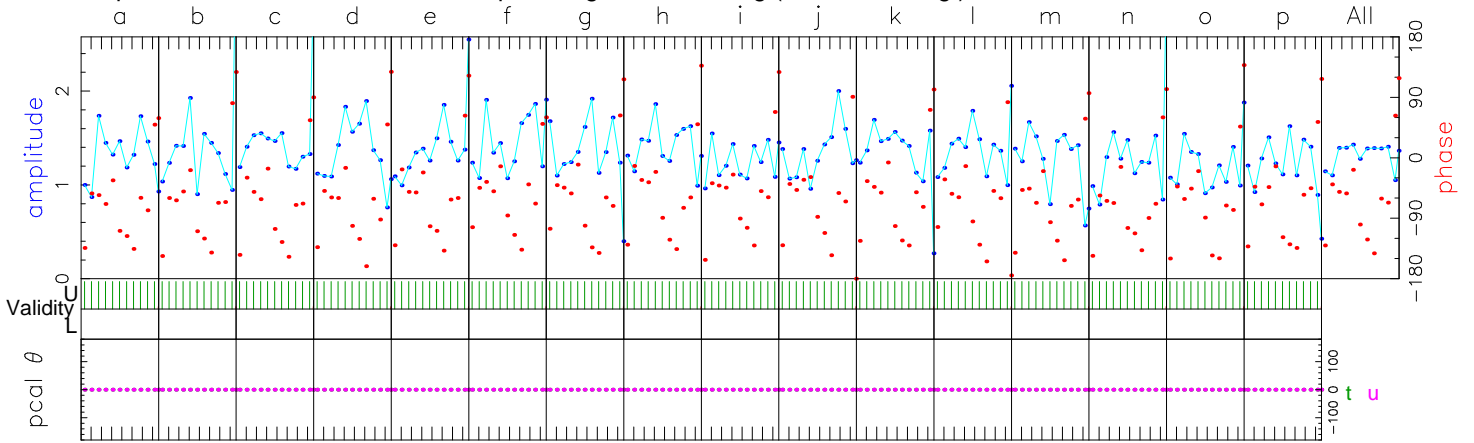


Fringe quality 5

SNR 48.2
Int time 419.817
Amp 0.859
Phase -72.5
PFD 0.0e+00
Delays (us)
SBD 0.005056
MBD 0.005230
Fringe rate (Hz) 0.011344
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

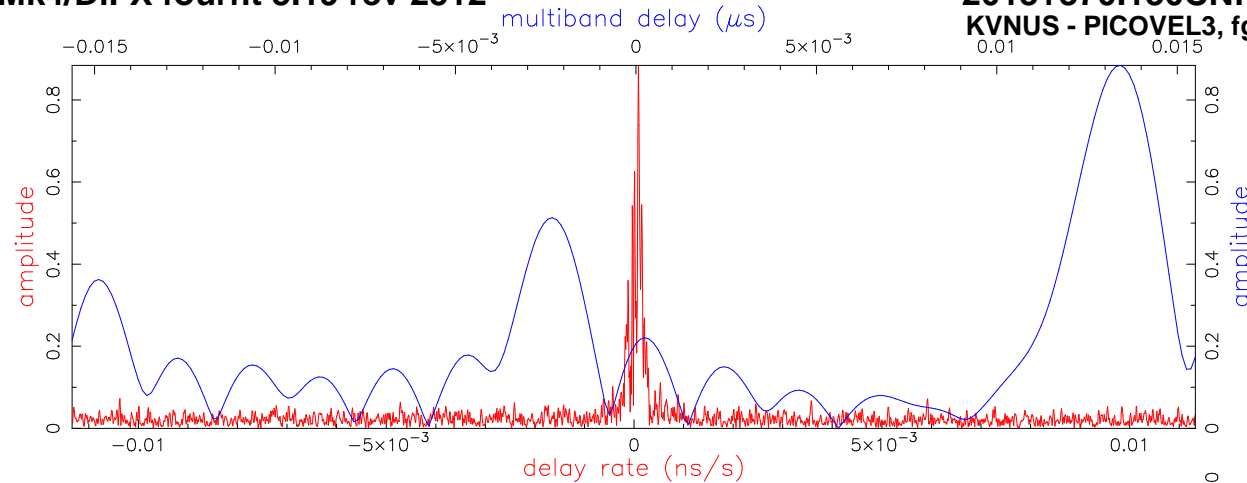
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085706
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



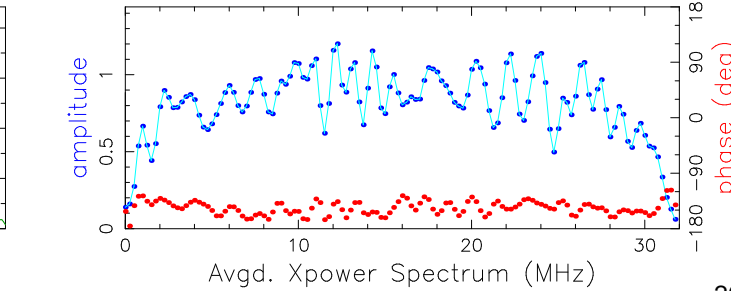
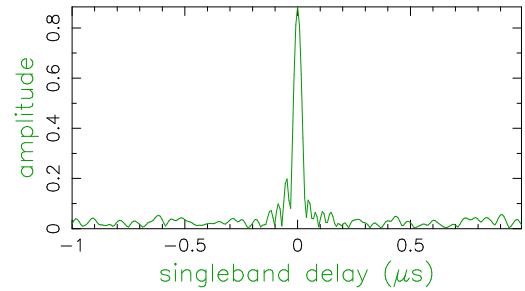
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-76.2	-77.9	-72.6	-83.4	-71.5	-60.0	-75.0	-63.6	-62.7	-73.2	-67.4	-70.4	-79.0	-82.1	-74.4	-72.6		Phase	-72.5
	1.0	0.8	0.8	0.9	0.8	1.0	0.9	0.9	0.8	0.8	0.8	0.9	0.9	0.8	0.7	0.8		Ampl.	0.9
	129.6	129.7	129.7	129.5	129.4	129.8	129.5	129.8	129.7	129.5	129.5	130.1	129.5	129.2	129.5	130.2		Sbd box	129.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
tu	0:0	0:0	0:0	0:0	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	
tu	0:0	0:0	0:0	0:0	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	
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
																		Chan ids	
																		Tracks	
Group delay (usec)(sbd)	3.47957716499E+02			Apriori delay (usec)			3.47952486852E+02			Resid mbdelay (usec)			5.22965E-03			+/- 2.2E-05			
Sband delay (usec)	3.47957543352E+02			Apriori clock (usec)			1.9273479E+01			Resid sbdelay (usec)			5.05650E-03			+/- 3.6E-04			
Phase delay (usec)	3.47952484513E+02			Apriori clockrate (us/s)			-1.9999998E-07			Resid phdelay (usec)			-2.33858E-06			+/- 7.7E-08			
Delay rate (us/s)	-1.62567853145E-02			Apriori rate (us/s)			-1.62569170106E-02			Resid rate (us/s)			1.31696E-07			+/- 3.2E-10			
Total phase (deg)	5.8			Apriori accel (us/s/s)			-3.96299782620E-06			Resid phase (deg)			-72.5			+/- 2.4			

ph/seg (deg) 57.8 4.1 Search (2048X64) 0.835 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 54.4 7.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 6.9 4.8 Inc. seg. avg. 1.304 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 7.7 8.3 Inc. frq. avg. 0.852 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 297.2 el 30.0 pa 69.0 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) 110.058 -466.771 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/tu...130CNK Output file: /Exps/c192b/v2/1234/No0078/tu.W.82.130CNK



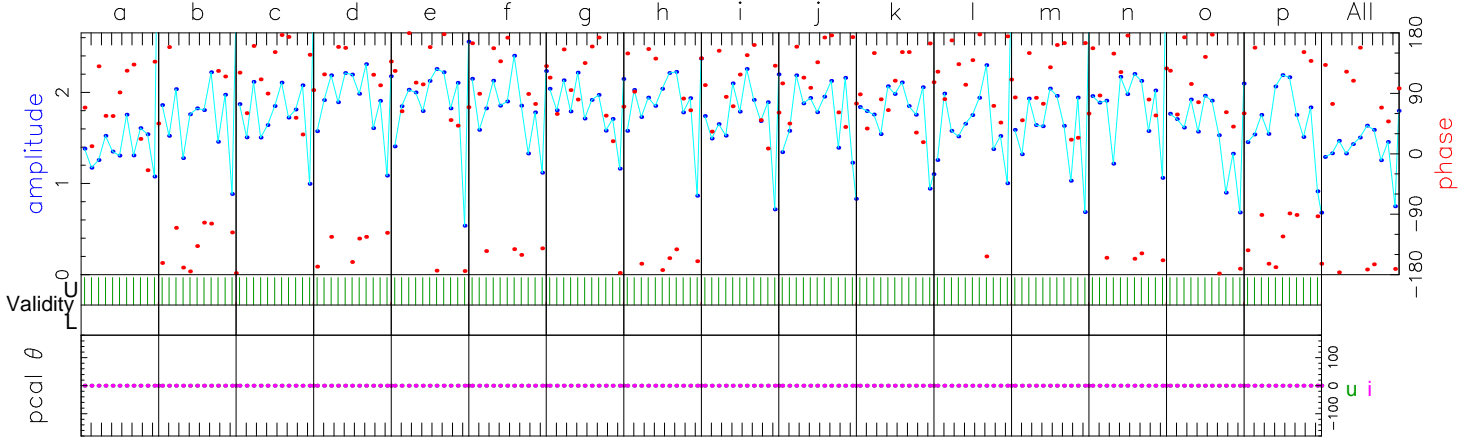
Fringe quality 2

SNR 49.5
Int time 419.824
Amp 0.884
Phase 135.7
PFD 0.0e+00
Delays (us)
SBD -0.000113
MBD 0.013404
Fringe rate (Hz)
0.007593
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



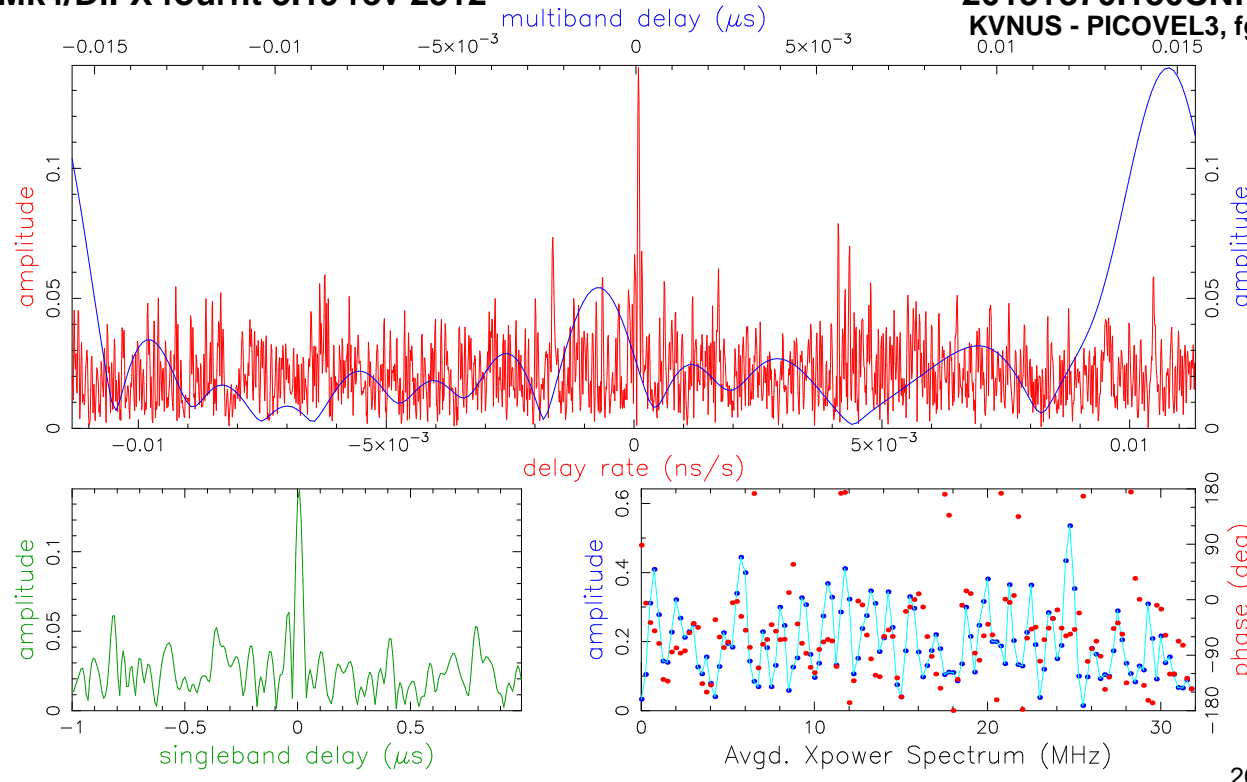
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085715
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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				
73.1	-155.3	118.9	-176.9	125.2	164.6	112.7	157.1	98.0	120.0	92.3	132.5	103.1	153.8	122.5	-143.0		Phase	135.7				
0.9	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.1	1.2	1.2	1.1	1.0	1.1	1.0	1.1		Ampl.	1.1				
130.3	129.8	129.3	129.5	129.1	129.0	129.3	129.0	129.0	128.7	129.0	129.2	129.3	129.0	129.6	129.7		Sbd box	129.0				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
u	1000	1000	1000	1000	1000	1000	1000	1000	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		PC phase					
u: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		ManI PC					
u: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		PC amp					
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids					
u	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					
i	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
Group delay (usec)(sbd)			-5.71642074534E+03														Apriori delay (usec)	-5.71643414957E+03	Resid mbdelay (usec)	1.34042E-02	+/-	2.2E-05
Sband delay (usec)			-5.71643426307E+03														Apriori clock (usec)	8.9654408E+00	Resid sbdelay (usec)	-1.13500E-04	+/-	3.5E-04
Phase delay (usec)			-5.71643414520E+03														Apriori clockrate (us/s)	7.5299998E-07	Resid phdelay (usec)	4.37650E-06	+/-	7.5E-08
Delay rate (us/s)			-1.78152498319E+00														Apriori rate (us/s)	-1.78152507134E+00	Resid rate (us/s)	8.81495E-08	+/-	3.1E-10
Total phase (deg)					-96.2												Apriori accel (us/s/s)	2.89665847016E-05	Resid phase (deg)	135.7	+/-	2.3

ph/seg (deg) 51.0 4.0 Search (2048X64) 0.870 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 60.8 7.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 42.1 4.6 Inc. seg. avg. 1.367 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 28.6 8.1 Inc. frq. avg. 1.119 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
u: az 297.1 el 28.9 pa 65.2 i: az 72.5 el 47.3 pa -73.2 u,v (fr/asec) 12862.933 1432.950 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/ui..130CNK Output file: /Exps/c192b/v2/1234/No0078/ui.W.115.130CNK

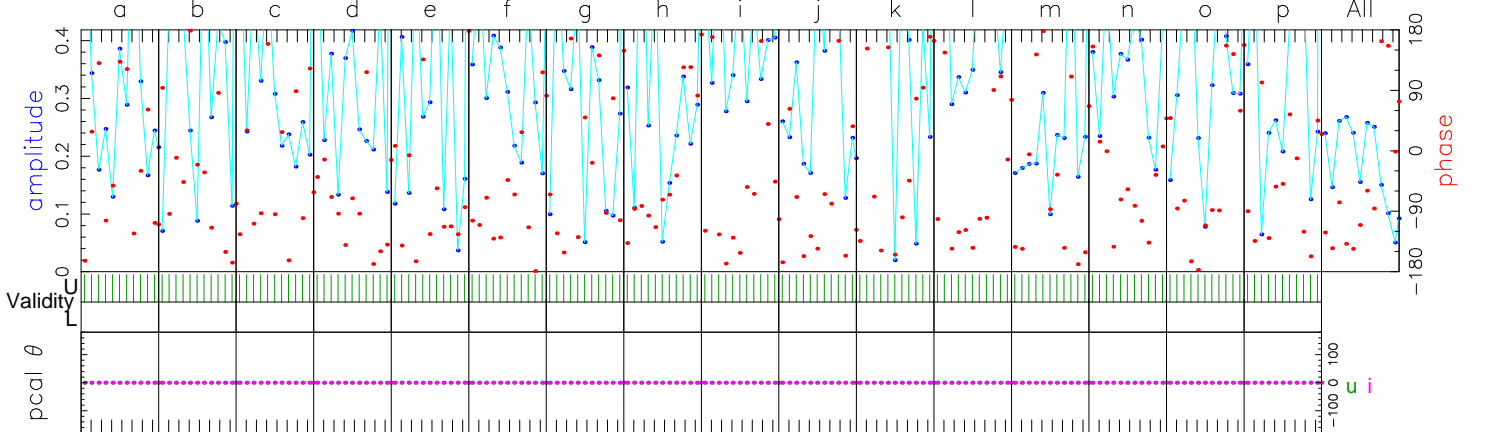


Fringe quality 9

SNR 7.8
Int time 419.824
Amp 0.140
Phase -115.9
PFD 1.8e-06
Delays (us)
SBD 0.005780
MBD 0.014757
Fringe rate (Hz) 0.007588
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085721
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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						
	-148.1	-62.4	-128.6	-91.2	-118.5	-108.0	-135.9	-106.4	-120.0	-116.2	-156.3	-133.9	175.1	-61.2	-132.5	-61.5		Phase -115.9						
	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1		Ampl. 0.1						
	243.9	198.5	112.4	166.8	113.2	131.1	120.8	29.6	244.9	129.0	224.8	197.7	197.3	227.9	131.9	4.0		Sbd box 129.7						
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used						
u	1000	1000	1000	1000	1000	1000	1000	1000	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						
ui	0:0	0:0	0:0	0:0	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						
ui	0:0	0:0	0:0	0:0	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	1000		Chan ids						
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Tracks						
u	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						
Group delay (usec)(sbd)			-5.71641939225E+03															Apriori delay (usec)	-5.71643414957E+03	Resid mbdelay (usec)	1.47573E-02	+/-	1.4E-04	
Sband delay (usec)			-5.71642836907E+03																Apriori clock (usec)	8.9654408E+00	Resid sbdelay (usec)	5.78050E-03	+/-	2.2E-03
Phase delay (usec)			-5.71643415331E+03																Apriori clockrate (us/s)	7.5299998E-07	Resid phdelay (usec)	-3.73887E-06	+/-	4.7E-07
Delay rate (us/s)			-1.78152498325E+00																Apriori rate (us/s)	-1.78152507134E+00	Resid rate (us/s)	8.80836E-08	+/-	1.9E-09
Total phase (deg)																			Apriori accel (us/s/s)	2.89665847016E-05	Resid phase (deg)	-115.9	+/-	14.7

ph/seg (deg) 58.4 25.4
amp/seg (%) 63.7 44.3
ph/frq (deg) 36.0 29.3
amp/frq (%) 30.0 51.1

RMS Theor. Amplitude 0.140 +/- 0.018
Search (2048X64) 0.138
Interp. 0.000
Inc. seg. avg. 0.175
Inc. frq. avg. 0.142

Group delay (usec)(sbd) -5.71641939225E+03
Sband delay (usec) -5.71642836907E+03
Phase delay (usec) -5.71643415331E+03
Delay rate (us/s) -1.78152498325E+00
Total phase (deg) -347.9

Apriori delay (usec) -5.71643414957E+03
Apriori clock (usec) 8.9654408E+00
Apriori clockrate (us/s) 7.5299998E-07
Apriori rate (us/s) -1.78152507134E+00
Apriori accel (us/s/s) 2.89665847016E-05

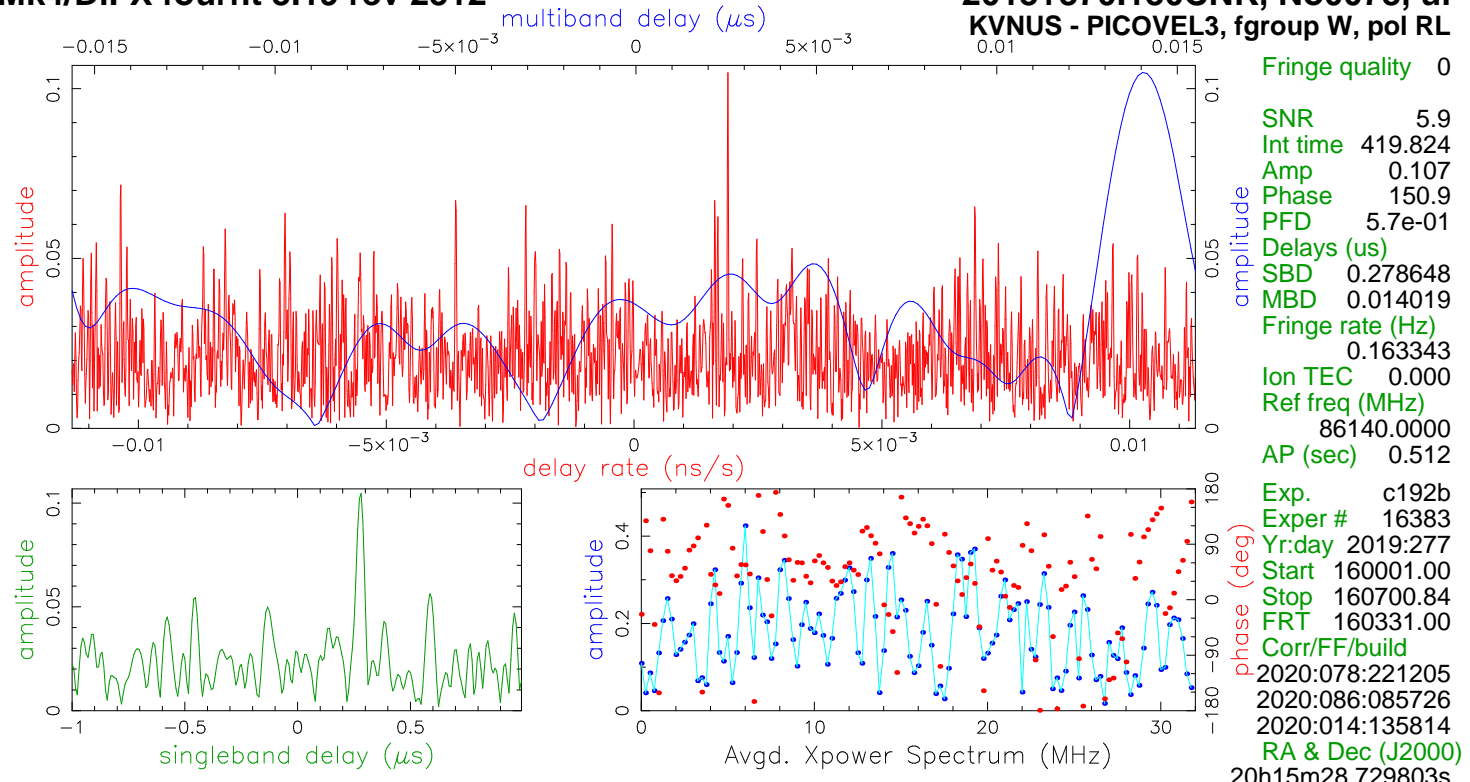
Resid mbdelay (usec) 1.47573E-02
Resid sbdelay (usec) 5.78050E-03
Resid phdelay (usec) -3.73887E-06
Resid rate (us/s) 8.80836E-08
Resid phase (deg) -115.9

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
PCal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MISamp/s): 64
Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite

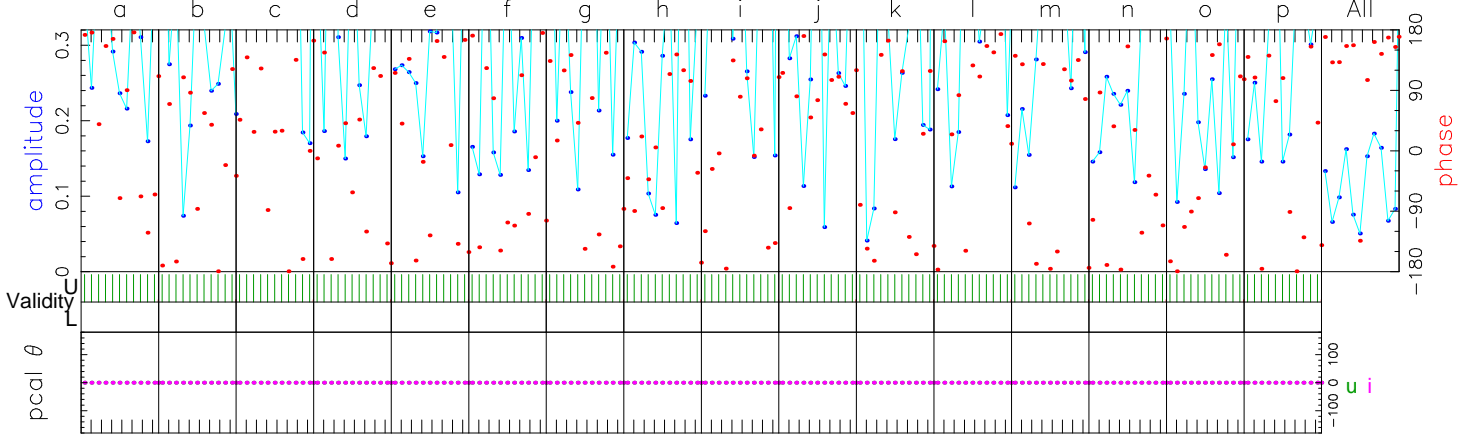
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

u: az 297.1 el 28.9 pa 65.2 i: az 72.5 el 47.3 pa -73.2 u,v (fr/asec) 12862.933 1432.950 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/ui..130CNK Output file: /Exps/c192b/v2/1234/No0078/ui.W.135.130CNK



Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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
	-173.5	149.4	107.2	-151.3	149.8	-176.0	148.5	69.4	145.3	87.3	-161.3	153.5	150.6	-109.6	-164.0	135.4	Phase	150.9
	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.0	0.1	0.3	0.1	0.3	0.2	0.1	0.1	0.1	Ampl.	0.1
	152.2	116.3	54.2	81.8	205.3	65.9	108.2	126.7	244.1	164.6	197.9	254.4	165.4	177.1	159.7	208.0	Sbd box	164.7
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	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	
ui	0:0	0:0	0:0	0:0	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	
ui	0:0	0:0	0:0	0:0	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	1000	Chan ids	
u	1000	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	
i	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Group delay (usec)(sbd)	-5.71617013052E+03			Apriori delay (usec)			-5.71643414957E+03			Resid mbdelay (usec)			1.40191E-02			+/- 1.8E-04		
Sband delay (usec)	-5.71615550207E+03			Apriori clock (usec)			8.9654408E+00			Resid sbdelay (usec)			2.78648E-01			+/- 2.9E-03		
Phase delay (usec)	-5.71643414471E+03			Apriori clockrate (us/s)			7.5299998E-07			Resid phdelay (usec)			4.86715E-06			+/- 6.2E-07		
Delay rate (us/s)	-1.78152317508E+00			Apriori rate (us/s)			-1.78152507134E+00			Resid rate (us/s)			1.89625E-06			+/- 2.6E-09		
Total phase (deg)	-81.0			Apriori accel (us/s/s)			2.89665847016E-05			Resid phase (deg)			150.9			+/- 19.4		

ph/seg (deg) 29.1 33.5 Search (2048X64) 0.107 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

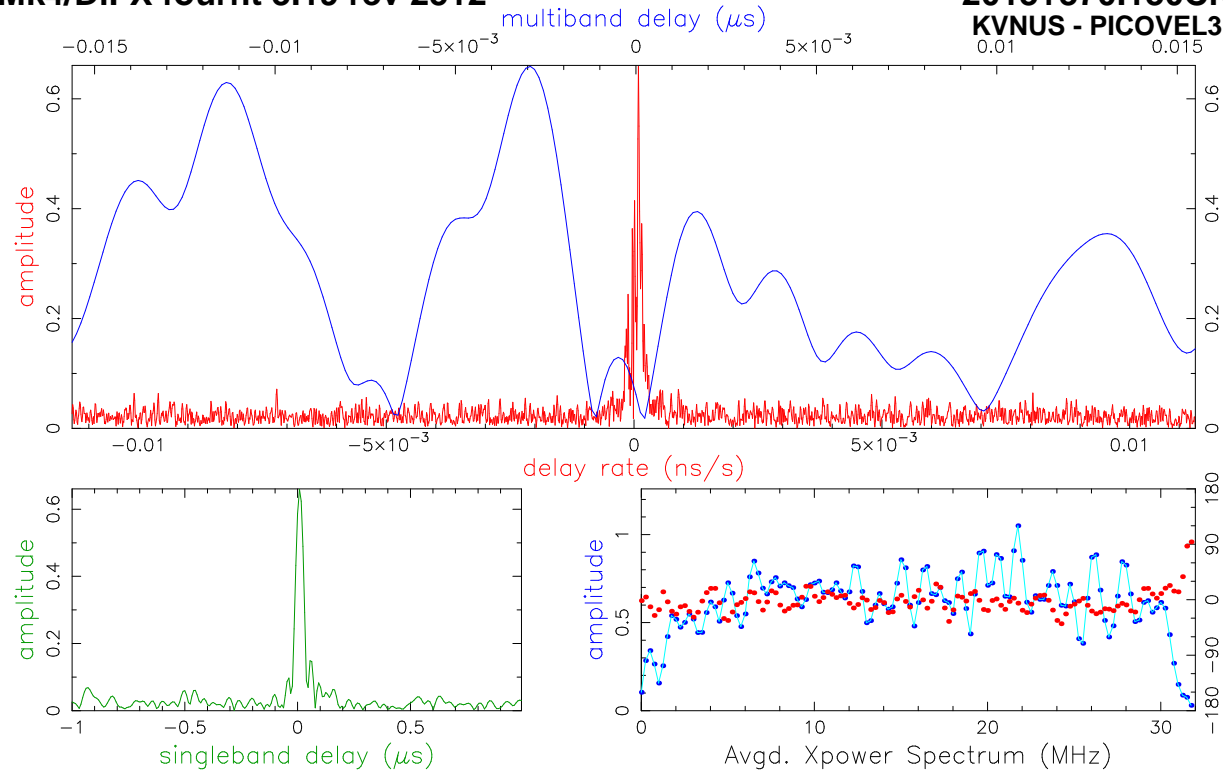
amp/seg (%) 49.4 58.5 Interp. 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 48.4 38.7 Inc. seg. avg. 0.099 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 72.8 67.6 Inc. frq. avg. 0.110 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

u: az 297.1 el 28.9 pa 65.2 i: az 72.5 el 47.3 pa -73.2 u,v (fr/asec) 12862.933 1432.950 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/ui..130CNK Output file: /Exps/c192b/v2/1234/No0078/ui.W.156.130CNK

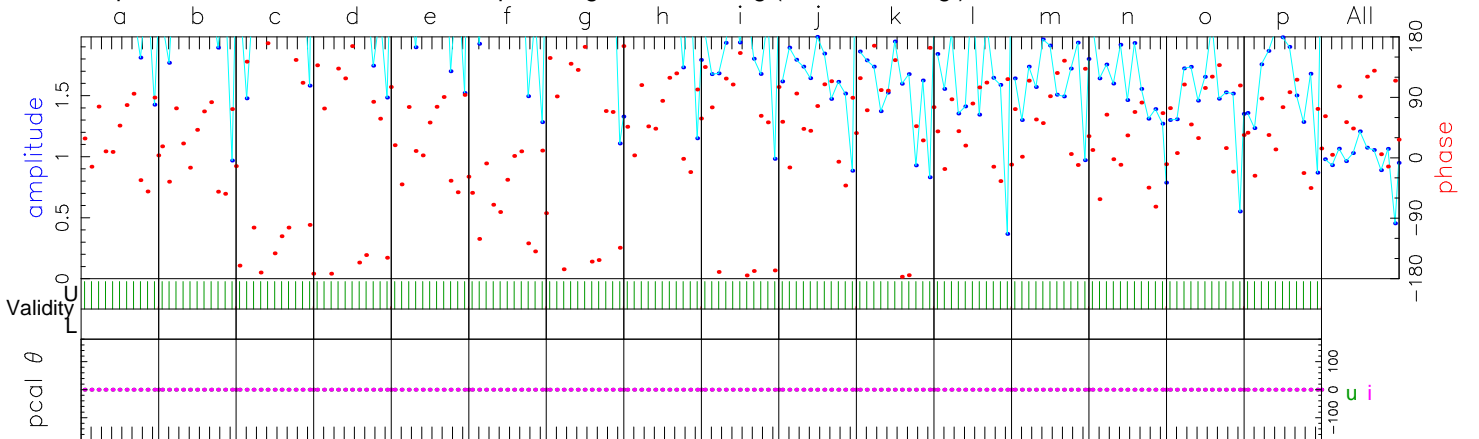


Fringe quality 3

SNR 37.0
Int time 419.824
Amp 0.661
Phase 65.9
PFD 0.0e+00
Delays (us)
SBD 0.009236
MBD -0.002938
Fringe rate (Hz) 0.007572
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

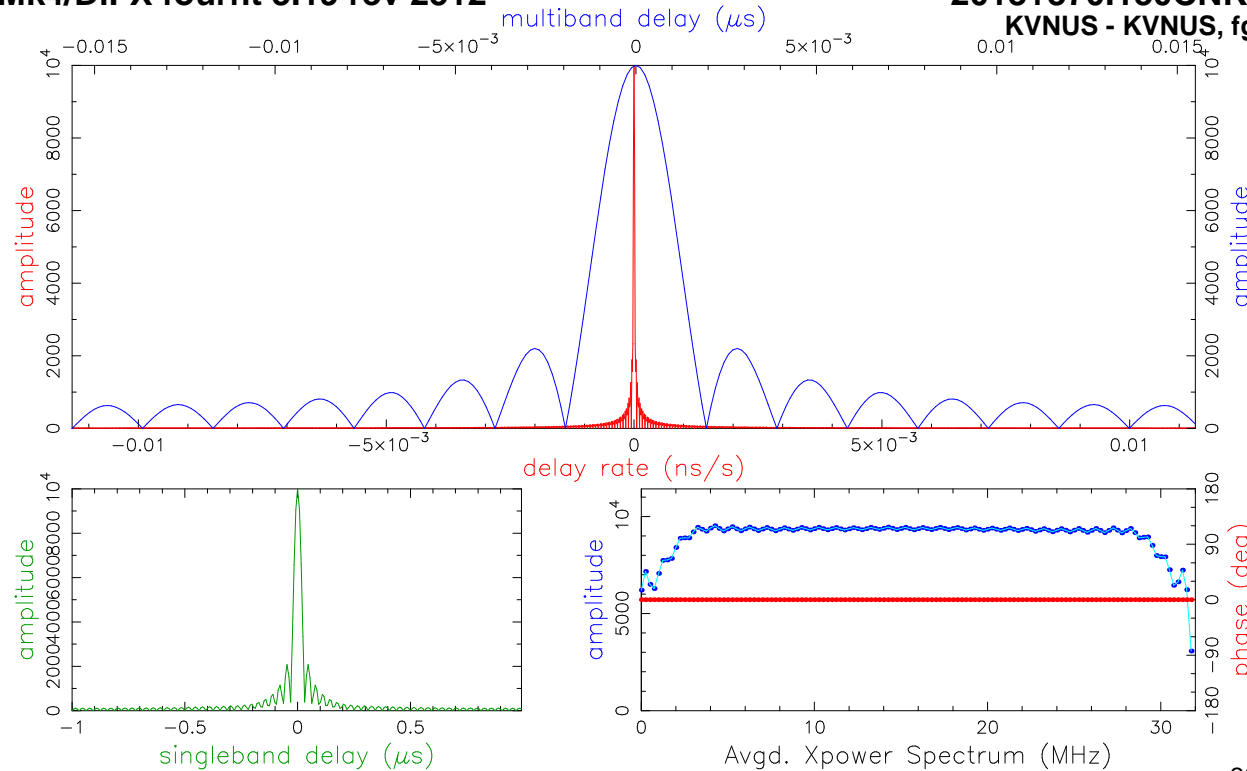
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085709
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



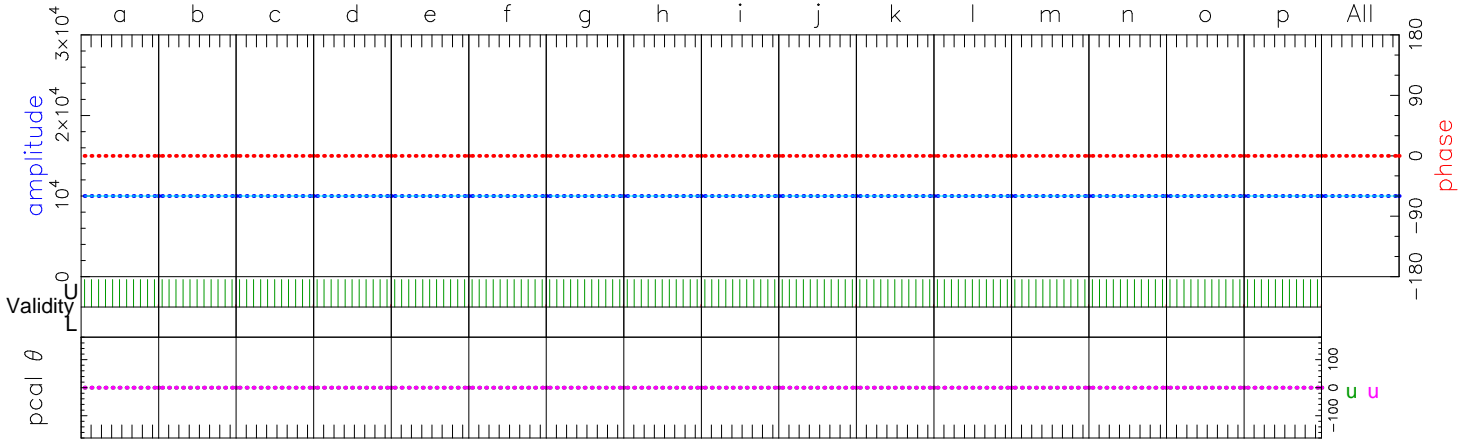
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
u: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		
u: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		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
i	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		
i	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
Group delay (usec)(sbd)		-5.71643708709E+03																
Sband delay (usec)		-5.71642491307E+03																
Phase delay (usec)		-5.71643414745E+03																
Delay rate (us/s)		-1.78152498344E+00																
Total phase (deg)					-166.0													
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		

ph/seg (deg) 48.6 5.4 Search (2048X64) 0.656 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 54.9 9.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 65.2 6.2 Inc. seg. avg. 0.969 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 95.9 10.8 Inc. frq. avg. 1.249 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
u: az 297.1 el 28.9 pa 65.2 i: az 72.5 el 47.3 pa -73.2 u,v (fr/asec) 12862.933 1432.950 ion window (TEC) 0.00 0.00 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/ui..130CNK Output file: /Exps/c192b/v2/1234/No0078/ui.W.92.130CNK



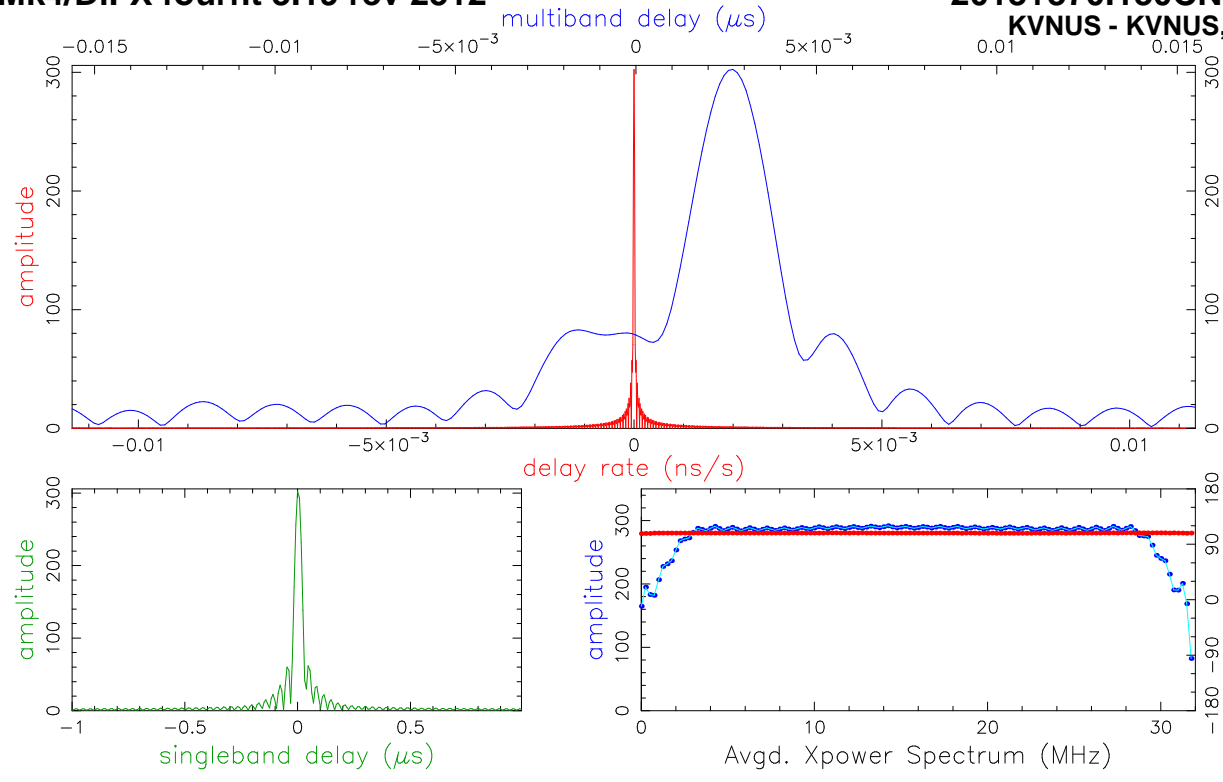
Fringe quality 9
SNR 560324.4
Int time 419.840
Amp 10000.000
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085713
2020:014:135814
RA & Dec (J2000) 20h15m28.729803s +37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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	
0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	-0.0	-0.0	0.0	-0.0	-0.0	0.0		Phase	0.0
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0		Ampl.	10000.0
129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0		Sbd box	129.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
u:u	0:0	0:0	0:0	0:0	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:u	0:0	0:0	0:0	0:0	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	1000		Chan ids	
u	1000	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	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
Group delay (usec)(sbd)	0.0000000000E+00			Apriori delay (usec)			0.0000000000E+00			Resid mbdelay (usec)			0.00000E+00			+/- 1.9E-09			
Sband delay (usec)	0.0000000000E+00			Apriori clock (usec)			0.0000000E+00			Resid sbdelay (usec)			0.00000E+00			+/- 3.1E-08			
Phase delay (usec)	8.38465046900E-22			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			8.38465E-22			+/- 6.6E-12			
Delay rate (us/s)	0.0000000000E+00			Apriori rate (us/s)			0.0000000000E+00			Resid rate (us/s)			0.00000E+00			+/- 2.7E-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 10000.000 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X64) 10000.000 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
 u: az 297.1 el 28.9 pa 65.2 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) 0.000 0.000 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator

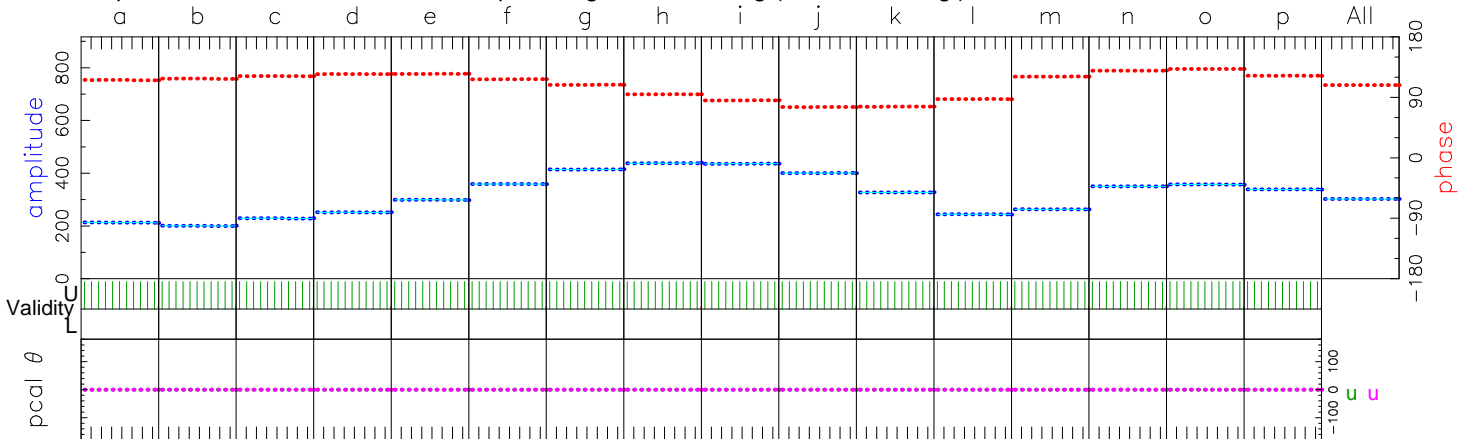


Fringe quality 7

SNR 17134.3
Int time 419.840
Amp 305.792
Phase 108.1
PFD 0.0e+00
Delays (us)
SBD 0.002660
MBD 0.002655
Fringe rate (Hz)
-0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

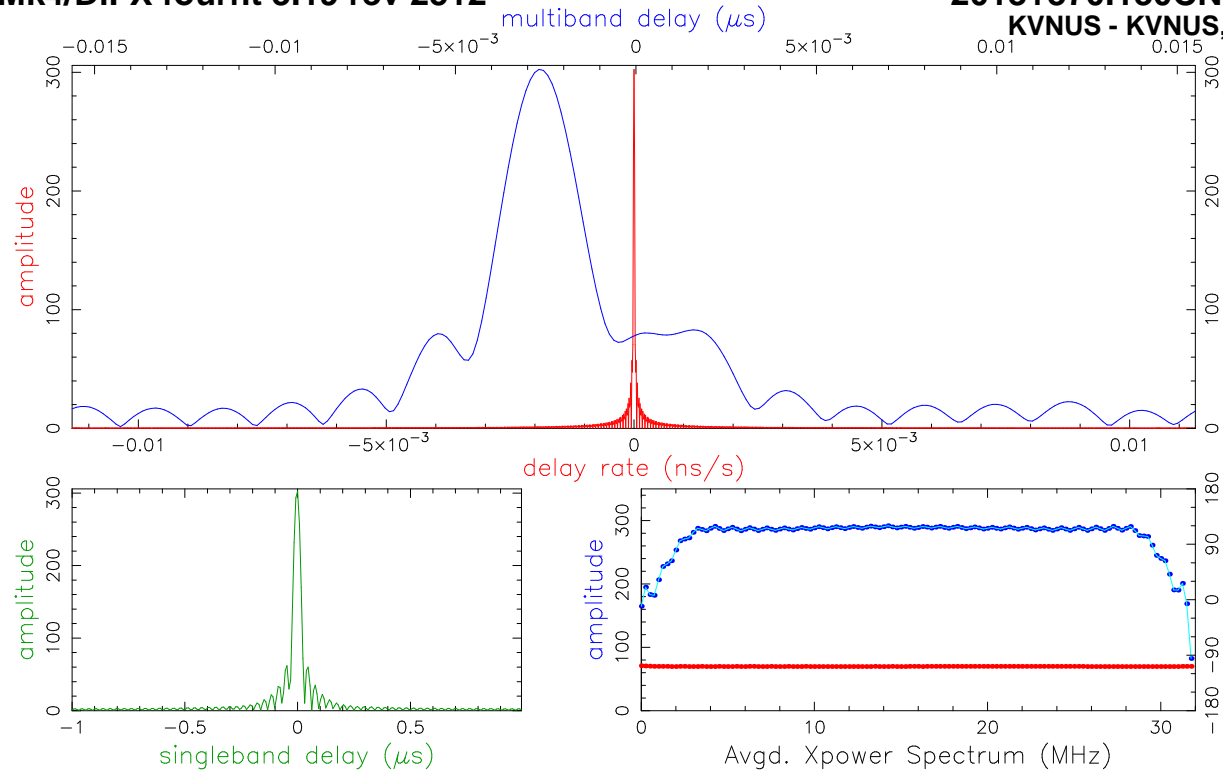
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085719
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	108.1
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	320.2
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	129.3
u:u	0:0	0:0	0:0	0:0	0:0	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	
u:u	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
u																		Tracks	
Group delay (usec)(sbd)	2.654906250000E-03			Apriori delay (usec)			0.000000000000E+00			Resid mbdelay (usec)			2.65491E-03			+/- 6.3E-08			
Sband delay (usec)	2.659500000000E-03			Apriori clock (usec)			0.000000000000E+00			Resid sbdelay (usec)			2.65950E-03			+/- 1.0E-06			
Phase delay (usec)	3.48447086570E-06			Apriori clockrate (us/s)			0.000000000000E+00			Resid phdelay (usec)			3.48447E-06			+/- 2.2E-10			
Delay rate (us/s)	-2.12567285875E-12			Apriori rate (us/s)			0.000000000000E+00			Resid rate (us/s)			-2.12567E-12			+/- 8.9E-13			
Total phase (deg)	108.1			Apriori accel (us/s/s)			0.000000000000E+00			Resid phase (deg)			108.1			+/- 0.0			

ph/seg (deg) 0.0 0.0 Theor. Amplitude 305.792 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.1 0.0 Search (2048X64) 297.419 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 20.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 25.7 0.0 Inc. seg. avg. 302.449 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 u: az 297.1 el 28.9 pa 65.2 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) 0.000 0.000 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uu..130CNK Output file: /Exps/c192b/v2/1234/No0078/uu.W.126.130CNK simultaneous interpolator

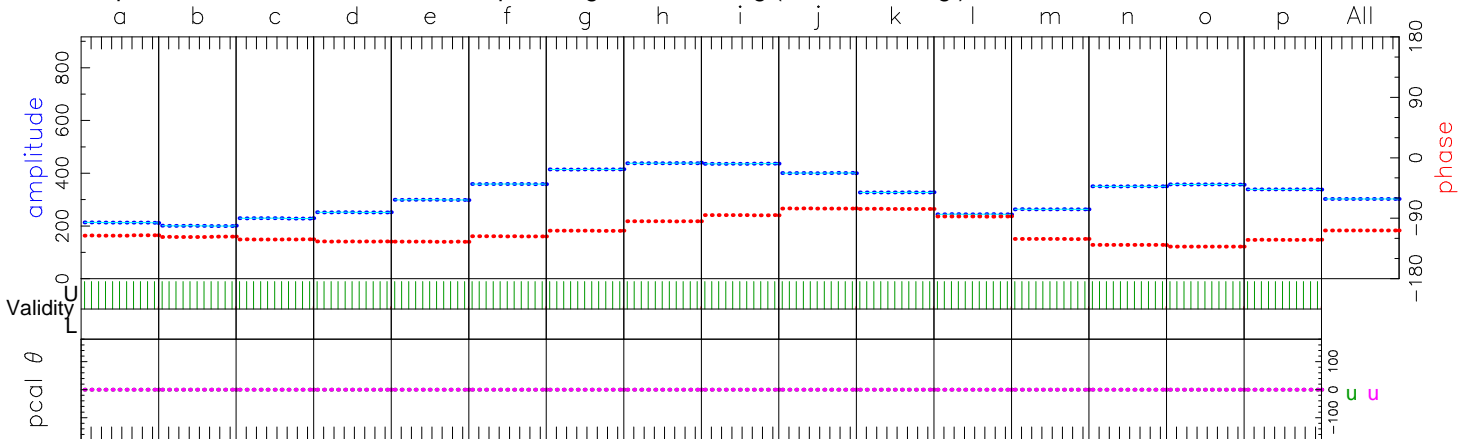


Fringe quality 7

SNR 17134.3
Int time 419.840
Amp 305.792
Phase -108.1
PFD 0.0e+00
Delays (us)
SBD -0.002660
MBD -0.002655
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

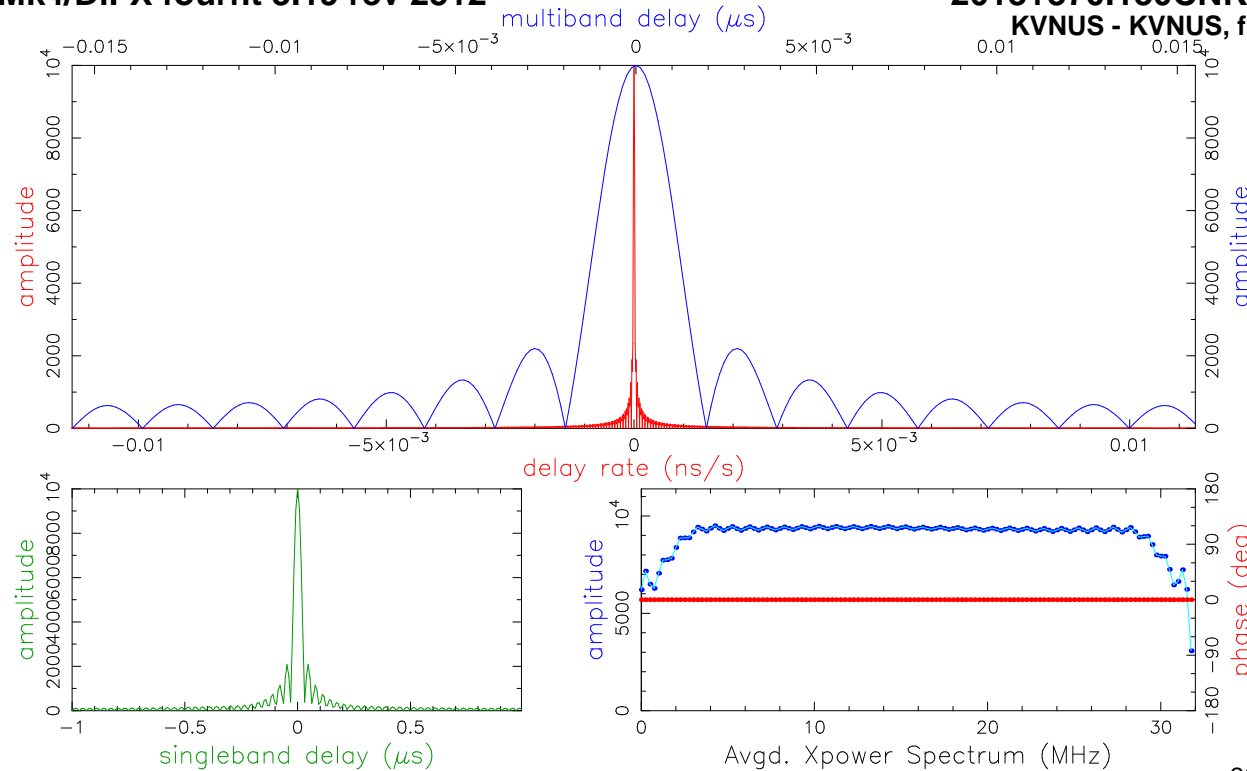
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085725
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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	
-115.6	-117.7	-121.5	-124.6	-124.9	-116.9	-108.5	-94.5	-85.4	-75.5	-76.0	-87.4	-120.8	-129.6	-132.1	-122.0	Phase	-108.1	
213.0	200.5	229.1	251.7	299.4	359.2	414.6	438.2	436.0	400.7	327.2	244.5	263.3	350.3	357.7	338.8	Ampl.	320.2	
128.7	128.6	128.6	128.6	128.7	128.7	128.8	128.8	128.8	128.7	128.6	128.4	128.5	128.6	128.7	128.8	Sbd box	128.7	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase		
u:u	0:0	0:0	0:0	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:u	0:0	0:0	0:0	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		
u	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	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Group delay (usec)(sbd)	-2.65490625000E-03			Apriori delay (usec)			0.0000000000E+00			Resid mbdelay (usec)			-2.65491E-03			+/- 6.3E-08		
Sband delay (usec)	-2.6595000000E-03			Apriori clock (usec)			0.0000000E+00			Resid sbdelay (usec)			-2.65950E-03			+/- 1.0E-06		
Phase delay (usec)	-3.48447086560E-06			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			-3.48447E-06			+/- 2.2E-10		
Delay rate (us/s)	2.12567285875E-12			Apriori rate (us/s)			0.0000000000E+00			Resid rate (us/s)			2.12567E-12			+/- 8.9E-13		
Total phase (deg)	-108.1			Apriori accel (us/s/s)			0.0000000000E+00			Resid phase (deg)			-108.1			+/- 0.0		

ph/seg (deg) 0.0 0.0 Theor. Amplitude 305.792 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.1 0.0 Search (2048X64) 297.419 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 20.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 25.7 0.0 Inc. seg. avg. 302.449 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 u: az 297.1 el 28.9 pa 65.2 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) 0.000 0.000 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uu..130CNK Output file: /Exps/c192b/v2/1234/No0078/uu.W.147.130CNK simultaneous interpolator

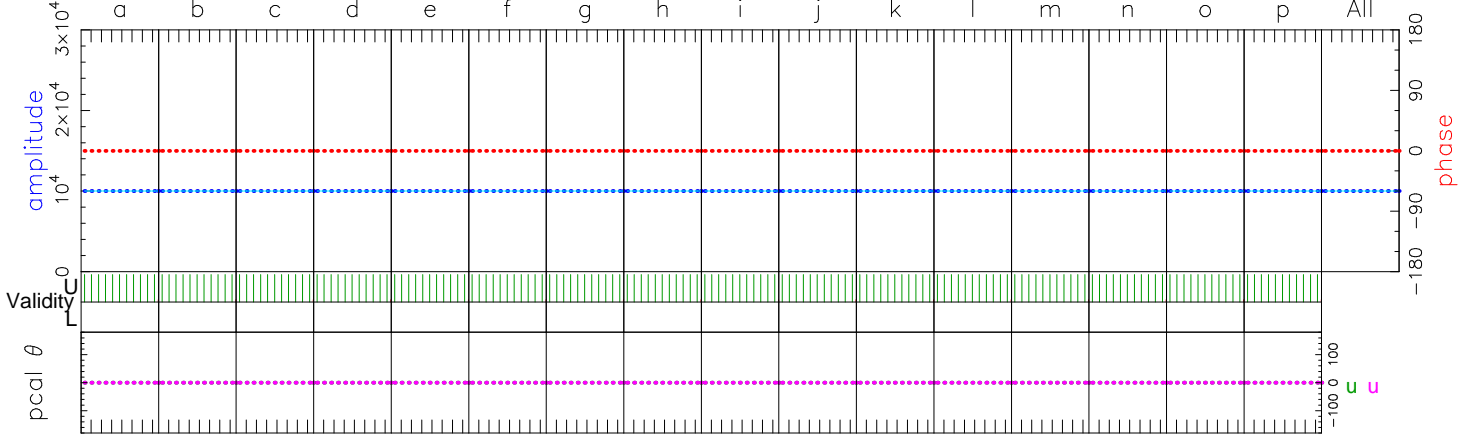


Fringe quality 9

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

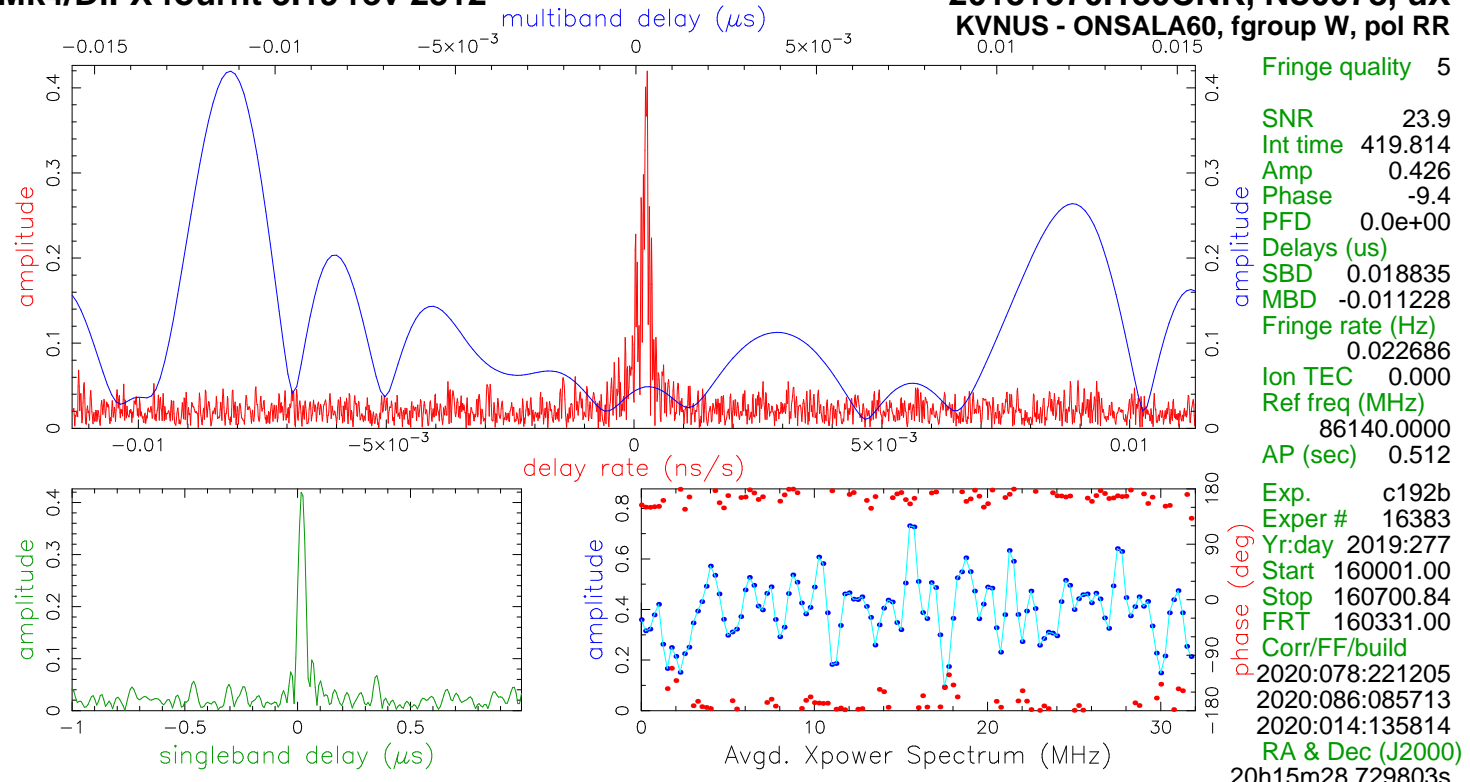
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085707
2020:014:135814
RA & Dec (J2000) 20h15m28.729803s +37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec

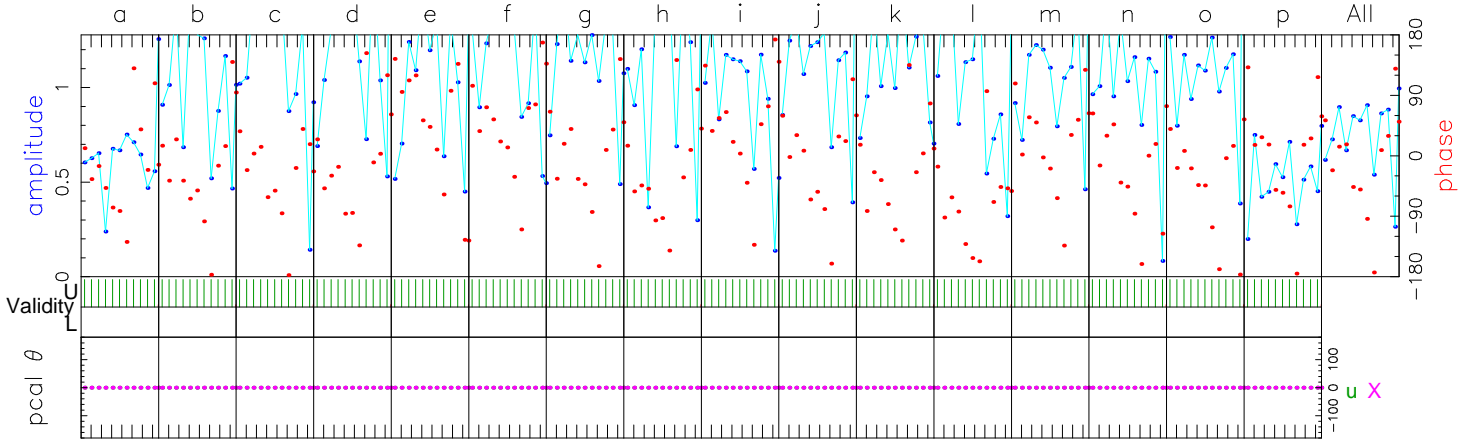


86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	0.0	0.0	-0.0	-0.0	0.0	-0.0	Phase	0.0
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	Sbd box	129.0
U/L 820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
u:u 0:0	0:0	0:0	0:0	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:u 0:0	0:0	0:0	0:0	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	1000	Chan ids	
u 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
u W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
u W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Group delay (usec)(sbd)	0.0000000000E+00		Apriori delay (usec)		0.0000000000E+00		Resid mbdelay (usec)		0.00000E+00		+/- 1.9E-09						
Sband delay (usec)	0.0000000000E+00		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		0.00000E+00		+/- 3.1E-08						
Phase delay (usec)	8.05690842193E-22		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		8.05691E-22		+/- 6.6E-12						
Delay rate (us/s)	0.0000000000E+00		Apriori rate (us/s)		0.0000000000E+00		Resid rate (us/s)		0.00000E+00		+/- 2.7E-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 10000.000 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X64) 10000.000 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
 u: az 297.1 el 28.9 pa 65.2 u: az 297.1 el 28.9 pa 65.2 u,v (fr/asec) 0.000 0.000 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uu..130CNK Output file: /Exps/c192b/v2/1234/No0078/uu.W.84.130CNK simultaneous interpolator



Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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
	-30.2	-29.3	-18.6	-40.6	83.3	47.3	-3.9	-58.2	42.4	-4.6	-46.1	-93.0	30.5	-5.1	-19.2	-1.4	Phase	-9.4
	0.2	0.6	0.7	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.3	Ampl.	0.6
	132.5	132.0	131.0	130.9	131.4	131.3	130.9	130.9	131.2	130.8	130.9	131.3	130.7	131.6	131.7	131.9	Sbd box	131.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	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	
u: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	
u: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	
u	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		
u	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	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-7.96768835012E+03			Apriori delay (usec)			-7.96770837186E+03			Resid mbdelay (usec)			-1.12283E-02			+/- 4.5E-05		
Sband delay (usec)	-7.96768953636E+03			Apriori clock (usec)			-2.3903973E+01			Resid sbdelay (usec)			1.88355E-02			+/- 7.2E-04		
Phase delay (usec)	-7.96770837216E+03			Apriori clockrate (us/s)			-1.2800004E-07			Resid phdelay (usec)			-3.02781E-07			+/- 1.5E-07		
Delay rate (us/s)	-1.40036996979E+00			Apriori rate (us/s)			-1.40037023315E+00			Resid rate (us/s)			2.63357E-07			+/- 6.4E-10		
Total phase (deg)	-64.0			Apriori accel (us/s/s)			2.43926788856E-05			Resid phase (deg)			-9.4			+/- 4.8		

ph/seg (deg) 75.9 8.3 Search (2048X64) 0.412 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

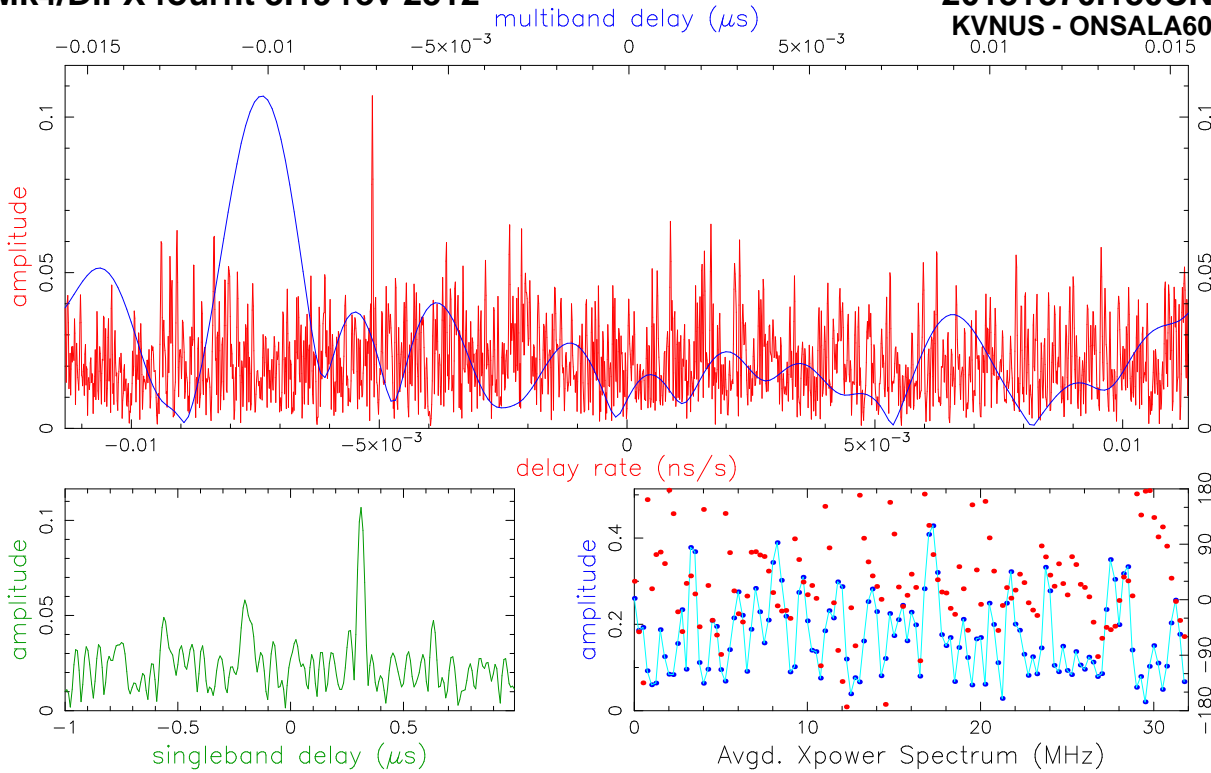
amp/seg (%) 84.7 14.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 45.4 9.6 Inc. seg. avg. 0.726 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 45.3 16.7 Inc. frq. avg. 0.557 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

u: az 297.1 el 28.9 pa 65.2 X: az 111.2 el 57.4 pa -38.7 u,v (fr/asec) 10110.228 -500.167 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uX..130CNK Output file: /Exps/c192b/v2/1234/No0078/uX.W.106.130CNK

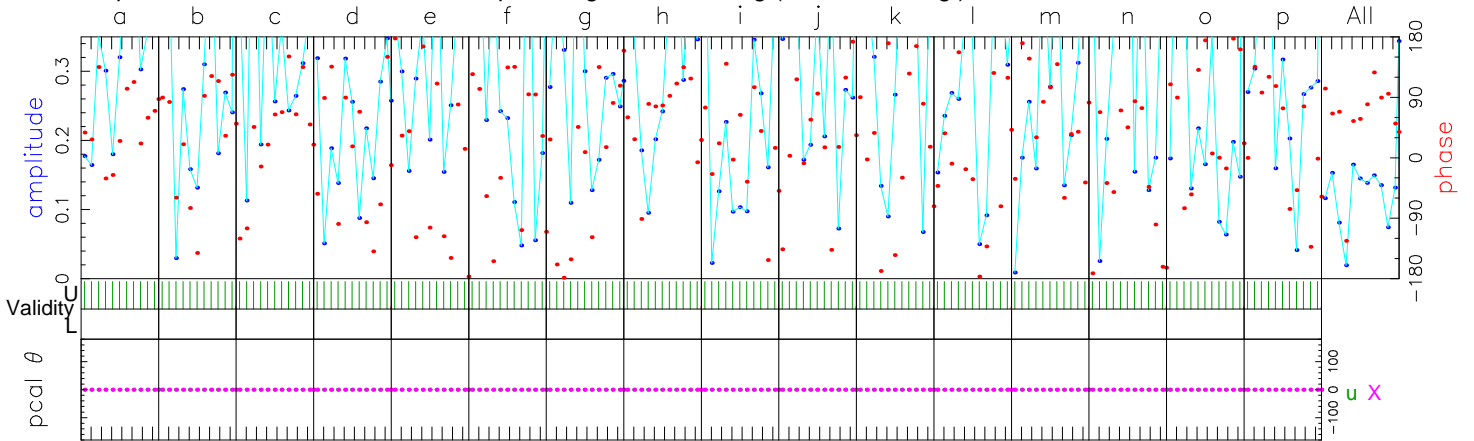


Fringe quality 0

SNR 6.0
Int time 419.814
Amp 0.117
Phase 77.2
PFD 4.1e-01
Delays (us)
SBD 0.311561
MBD -0.010162
Fringe rate (Hz)
-0.443315
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

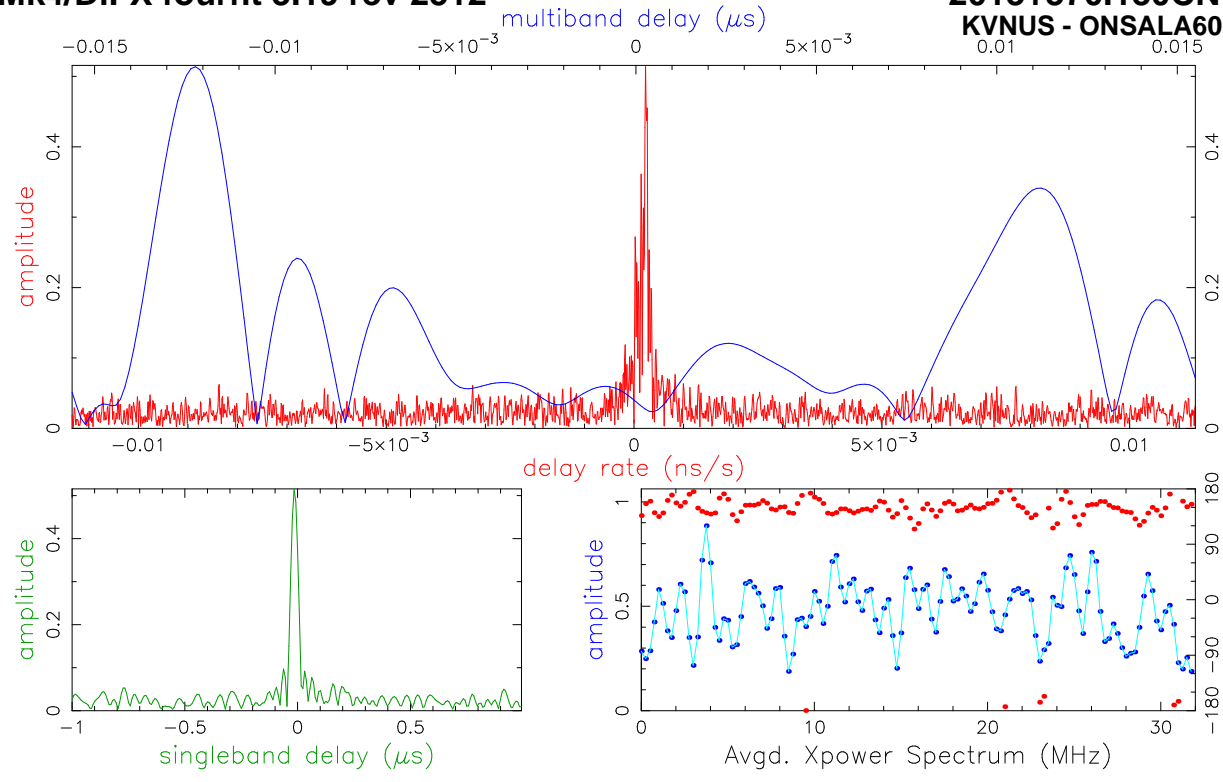
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085724
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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
64.3	87.7	54.9	-89.2	135.0	115.4	79.6	78.6	58.0	95.9	54.7	-8.2	78.8	65.8	81.2	89.5	89.5	Phase	77.2
0.2	0.2	0.2	0.0	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
167.9	171.1	169.0	245.1	116.0	209.5	150.6	175.0	193.5	116.1	150.8	236.4	77.3	35.0	54.8	21.3	21.3	Sbd box	168.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	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 phase	
u: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	
u	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		
u	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	
Group delay (usec)(sbd)	-7.96740603374E+03			Apriori delay (usec)			-7.96770837186E+03			Resid mbdelay (usec)			-1.01619E-02			+/- 1.8E-04		
Sband delay (usec)	-7.96739681086E+03			Apriori clock (usec)			-2.3903973E+01			Resid sbdelay (usec)			3.11561E-01			+/- 2.9E-03		
Phase delay (usec)	-7.96770836937E+03			Apriori clockrate (us/s)			-1.2800004E-07			Resid phdelay (usec)			2.49022E-06			+/- 6.2E-07		
Delay rate (us/s)	-1.40037537960E+00			Apriori rate (us/s)			-1.40037023315E+00			Resid rate (us/s)			-5.14645E-06			+/- 2.5E-09		
Total phase (deg)	22.6			Apriori accel (us/s/s)			2.43926788856E-05			Resid phase (deg)			77.2			+/- 19.1		

ph/seg (deg) 52.8 33.1 Search (2048X64) 0.104 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 44.5 57.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 54.8 38.2 Inc. seg. avg. 0.113 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 57.9 66.8 Inc. frq. avg. 0.106 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 297.1 el 28.9 pa 65.2 X: az 111.2 el 57.4 pa -38.7 u,v (fr/asec) 10110.228 -500.167 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uX..130CNK Output file: /Exps/c192b/v2/1234/No0078/uX.W.143.130CNK simultaneous interpolator

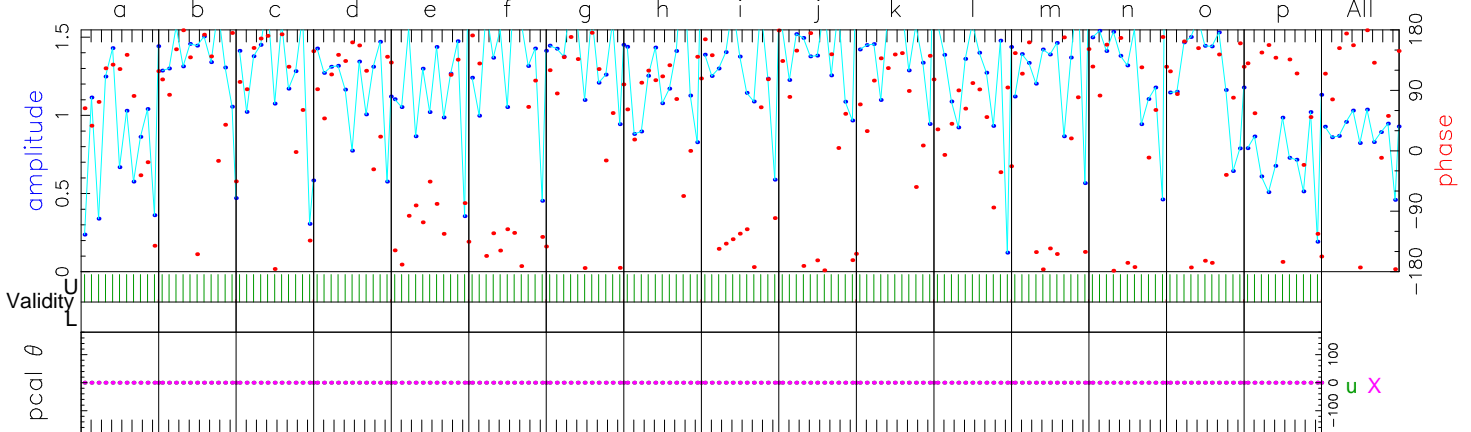


Fringe quality 5

SNR 28.9
Int time 419.814
Amp 0.516
Phase 139.3
PFD 0.0e+00
Delays (us)
SBD -0.014062
MBD -0.012213
Fringe rate (Hz)
0.020104
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

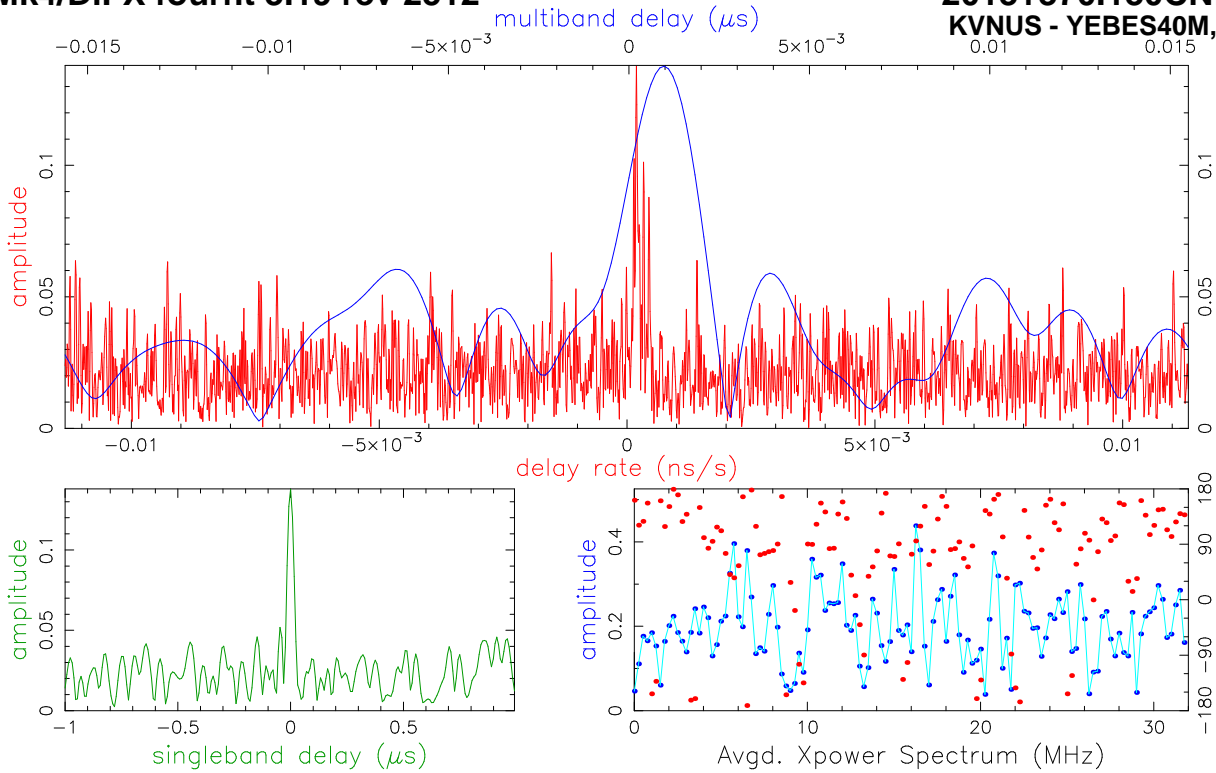
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085708
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000	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		
u: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		
u	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		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	Tracks
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	Tracks
Group delay (usec)(sbd)	-7.96772058472E+03			Apriori delay (usec)			-7.96770837186E+03			Resid mbdelay (usec)			-1.22129E-02			+/-	3.7E-05	
Sband delay (usec)	-7.96772243436E+03			Apriori clock (usec)			-2.3903973E+01			Resid sbdelay (usec)			-1.40625E-02			+/-	6.0E-04	
Phase delay (usec)	-7.96770836736E+03			Apriori clockrate (us/s)			-1.2800004E-07			Resid phdelay (usec)			4.49362E-06			+/-	1.3E-07	
Delay rate (us/s)	-1.40036999976E+00			Apriori rate (us/s)			-1.40037023315E+00			Resid rate (us/s)			2.33385E-07			+/-	5.3E-10	
Total phase (deg)	84.8			Apriori accel (us/s/s)			2.43926788856E-05			Resid phase (deg)			139.3			+/-	4.0	

ph/seg (deg) 61.8 6.9 Search (2048X64) 0.510 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 75.6 12.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 49.5 7.9 Inc. seg. avg. 0.870 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 45.1 13.8 Inc. frq. avg. 0.696 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
u: az 297.1 el 28.9 pa 65.2 X: az 111.2 el 57.4 pa -38.7 u,v (fr/asec) 10110.228 -500.167 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uX..130CNK Output file: /Exps/c192b/v2/1234/No0078/uX.W.89.130CNK

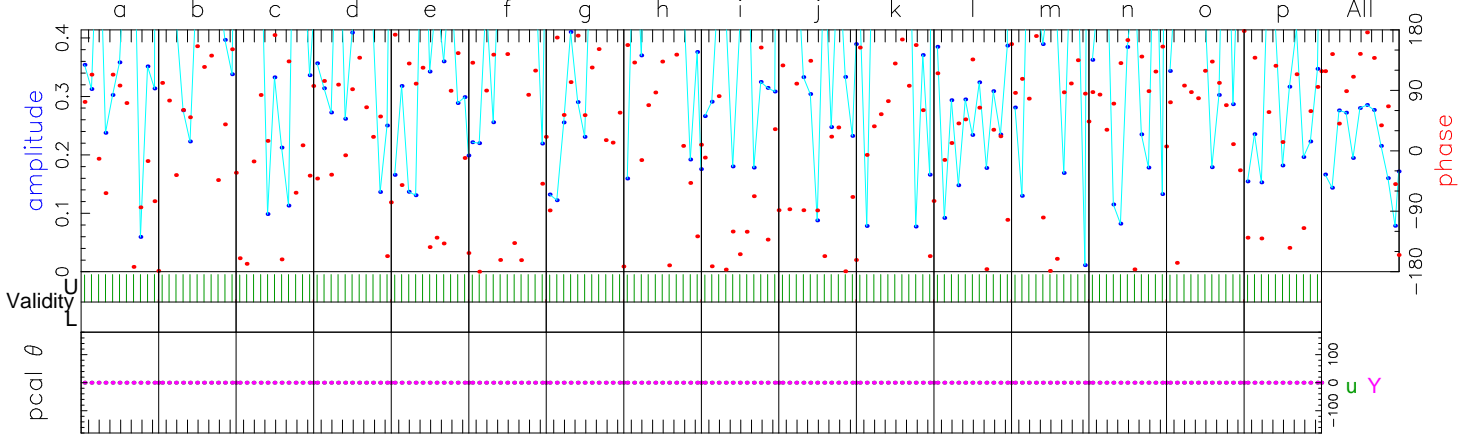


Fringe quality 9

SNR 7.6
Int time 402.170
Amp 0.138
Phase 108.8
PFD 1.2e-05
Delays (us)
SBD -0.001058
MBD 0.000961
Fringe rate (Hz) 0.016309
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

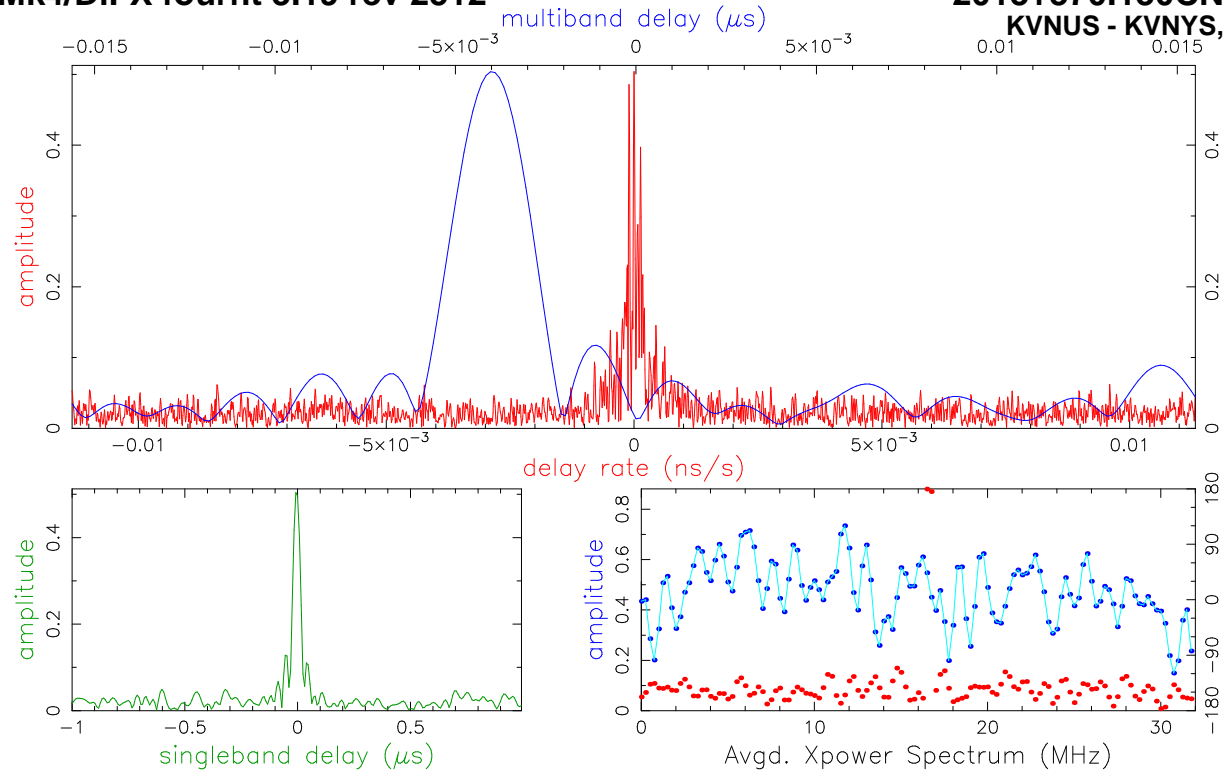
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160017.89
Stop 160700.84
FRT 160331.00
Corr/FF/build 2020:078:221205
2020:086:085712
2020:014:135814
RA & Dec (J2000) 20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 71 APs / seg (36.35 sec / seg.), time ticks 60 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
69.7	93.1	-60.4	70.5	160.9	152.5	89.2	114.0	-152.7	159.7	95.4	60.4	133.1	109.8	83.3	113.4	113.4	Phase	108.8
0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.3	0.1	0.2	0.2	0.3	0.1	0.1	Ampl.	0.2
171.1	123.0	149.6	246.3	55.2	28.0	253.2	130.3	238.3	234.5	128.7	87.2	128.0	219.1	129.3	108.5	108.5	Sbd box	128.9
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
u	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	
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	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	0:0	Mani PC	
u	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	
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)		-6.00137210333E+03		Apriori delay (usec)		-6.00137306407E+03		Resid mbdelay (usec)		9.60734E-04		+/-	1.4E-04					
Sband delay (usec)		-6.00137412207E+03		Apriori clock (usec)		-1.2078590E+00		Resid sbdelay (usec)		-1.05800E-03		+/-	2.3E-03					
Phase delay (usec)		-6.00137306056E+03		Apriori clockrate (us/s)		1.7999998E-07		Resid phdelay (usec)		3.50723E-06		+/-	4.9E-07					
Delay rate (us/s)		-1.74084419877E+00		Apriori rate (us/s)		-1.74084438809E+00		Resid rate (us/s)		1.89327E-07		+/-	2.1E-09					
Total phase (deg)		-157.1		Apriori accel (us/s/s)		2.72275847042E-05		Resid phase (deg)		108.8		+/-	15.1					

ph/seg (deg) 64.3 26.2 Search (2048X64) 0.137 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.0 45.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 61.5 30.3 Inc. seg. avg. 0.193 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 58.1 52.9 Inc. frq. avg. 0.153 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 u: az 297.1 el 28.9 pa 65.2 Y: az 76.3 el 48.4 pa -68.3 u,v (fr/asec) 12566.807 1001.873 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uY..130CNK Output file: /Exps/c192b/v2/1234/No0078/uY.W.103.130CNK

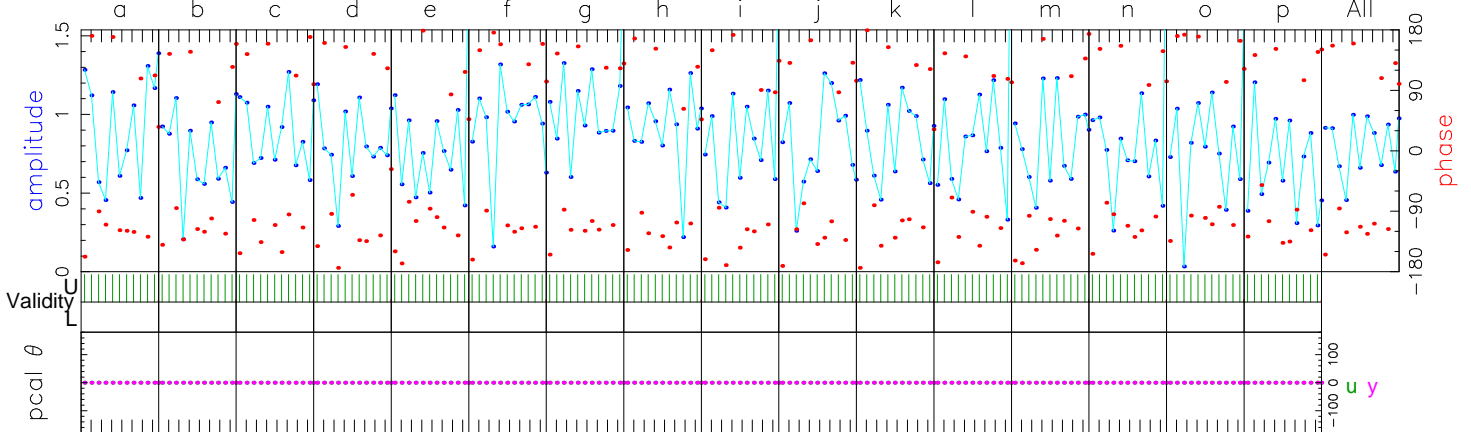


Fringe quality 7

SNR 28.7
Int time 419.840
Amp 0.513
Phase -151.8
PFD 0.0e+00
Delays (us)
SBD -0.004535
MBD -0.003982
Fringe rate (Hz) 0.000188
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085714
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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				
	-156.4	-145.5	-152.8	-156.2	-129.2	-156.9	-150.6	-143.9	-160.0	-161.0	-154.7	-163.0	-153.6	-147.4	-137.8	-159.7	Phase	-151.8				
	0.6	0.4	0.6	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.6	0.4	0.5	0.4	Ampl.	0.5				
	128.0	128.4	128.9	129.0	128.1	128.2	128.4	128.2	128.7	128.3	128.5	128.0	128.4	128.4	128.0	128.7	Sbd box	128.4				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used					
u	1000	1000	1000	1000	1000	1000	1000	1000	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					
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	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	0:0	PC amp					
u	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					
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					
Group delay (usec)(sbd)			-8.46998282671E+02														Apriori delay (usec)	-8.46994300390E+02	Resid mbdelay (usec)	-3.98228E-03	+/-	3.8E-05
Sband delay (usec)			-8.46998835890E+02														Apriori clock (usec)	-2.0751719E+01	Resid sbdelay (usec)	-4.53550E-03	+/-	6.0E-04
Phase delay (usec)			-8.46994305284E+02														Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-4.89441E-06	+/-	1.3E-07
Delay rate (us/s)			-3.36137768094E-02														Apriori rate (us/s)	-3.36137789868E-02	Resid rate (us/s)	2.17740E-09	+/-	5.3E-10
Total phase (deg)					-164.6												Apriori accel (us/s/s)	2.46105573358E-06	Resid phase (deg)	-151.8	+/-	4.0

ph/seg (deg) 54.4 6.9
amp/seg (%) 64.4 12.1
ph/frq (deg) 9.4 8.0
amp/frq (%) 16.4 13.9

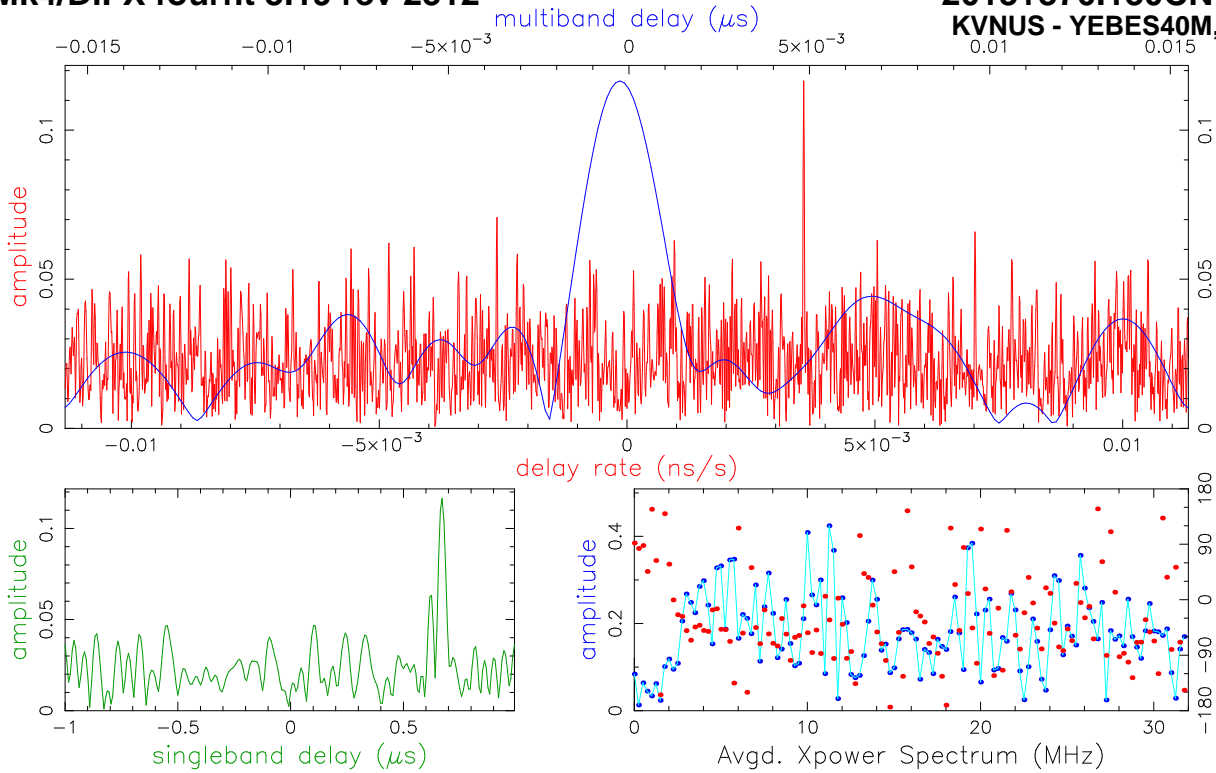
RMS Theor. Amplitude 0.513 +/- 0.018
Search (2048X64) 0.498
Interp. 0.000
Inc. seg. avg. 0.790
Inc. frq. avg. 0.505

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
PCal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MISamp/s): 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 297.1 el 28.9 pa 65.2 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) 245.433 -55.347 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uy..130CNK Output file: /Exps/c192b/v2/1234/No0078/uy.W.109.130CNK

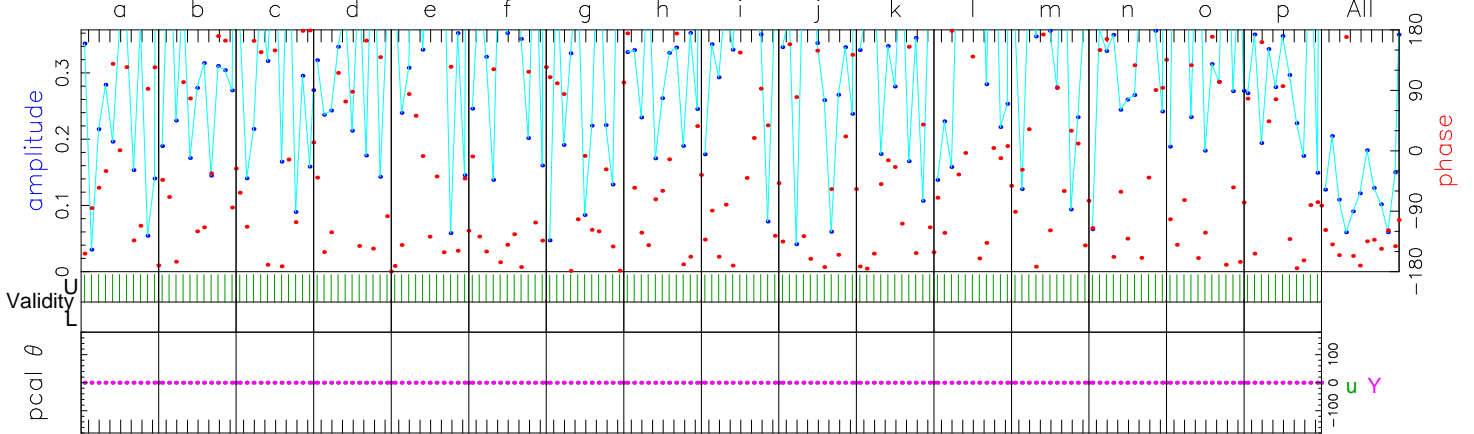


Fringe quality 0

SNR 6.4
Int time 402.170
Amp 0.122
Phase -142.4
PFD 4.0e-02
Delays (us)
SBD 0.670490
MBD -0.000258
Fringe rate (Hz)
0.307103
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

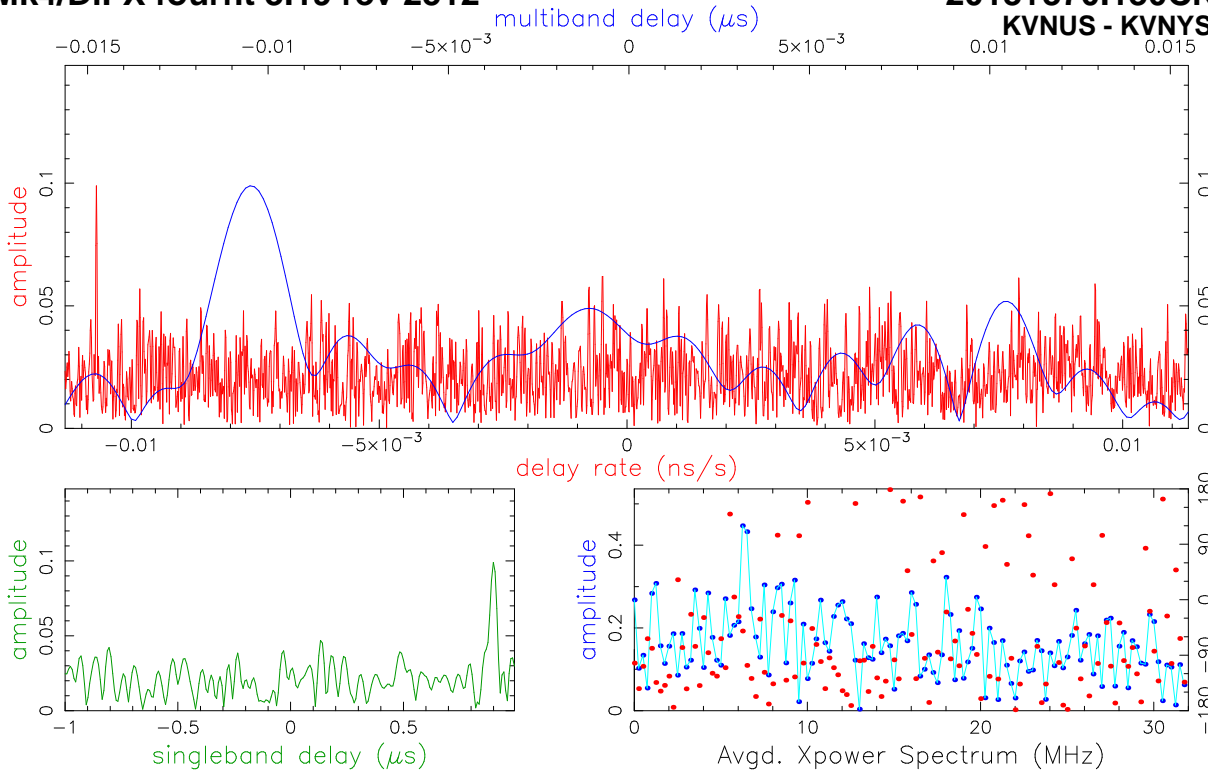
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160017.89
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085718
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 71 APs / seg (36.35 sec / seg.), time ticks 60 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
	-136.2	-123.7	-172.5	-160.5	-122.3	-143.4	-159.7	-119.9	-120.1	-167.8	-128.2	-47.9	-97.1	175.5	-148.0	-175.5	Phase	-142.4
	0.0	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.3	0.1	Ampl.	0.1
	151.1	7.4	44.0	100.4	118.9	216.4	32.9	219.9	143.1	106.4	209.8	205.2	185.9	212.1	213.2	170.9	Sbd box	214.8
UL	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
u	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	
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	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	0:0	ManI PC	
u	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		
u	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)	-6.00071707161E+03			Apriori delay (usec)			-6.00137306407E+03			Resid mbdelay (usec)			-2.57542E-04			+/- 1.7E-04		
Sband delay (usec)	-6.00070257407E+03			Apriori clock (usec)			-1.2078590E+00			Resid sbdelay (usec)			6.70490E-01			+/- 2.7E-03		
Phase delay (usec)	-6.00137306866E+03			Apriori clockrate (us/s)			1.7999998E-07			Resid phdelay (usec)			-4.59240E-06			+/- 5.8E-07		
Delay rate (us/s)	-1.74084082293E+00			Apriori rate (us/s)			-1.74084438809E+00			Resid rate (us/s)			3.56516E-06			+/- 2.5E-09		
Total phase (deg)	-48.3			Apriori accel (us/s/s)			2.72275847042E-05			Resid phase (deg)			-142.4			+/- 17.9		

ph/seg (deg) 21.2 31.0 Amplitude 0.122 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 41.3 54.1 Search (2048X64) 0.115 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 35.9 35.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 57.1 62.4 Inc. seg. avg. 0.111 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 u: az 297.1 el 28.9 pa 65.2 Y: az 76.3 el 48.4 pa -68.3 u,v (fr/asec) 12566.807 1001.873 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uY..130CNK Output file: /Exps/c192b/v2/1234/No0078/uY.W.124.130CNK simultaneous interpolator

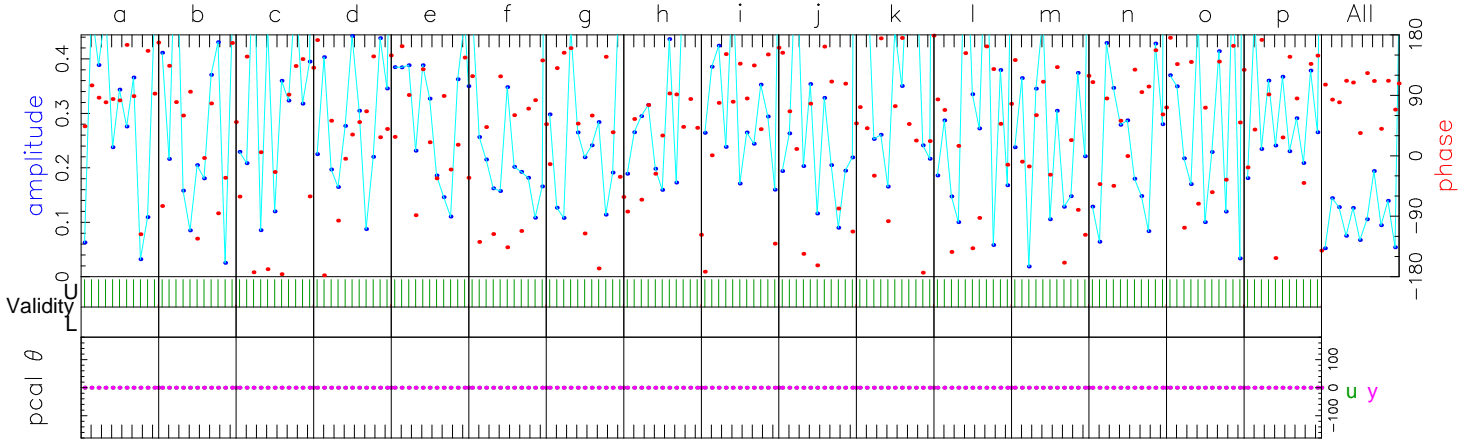


Fringe quality 0

SNR 5.6
Int time 419.840
Amp 0.148
Phase 94.6
PFD 1.0e+00
Delays (us)
SBD 0.899872
MBD -0.010477
Fringe rate (Hz)
-0.923831
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085720
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

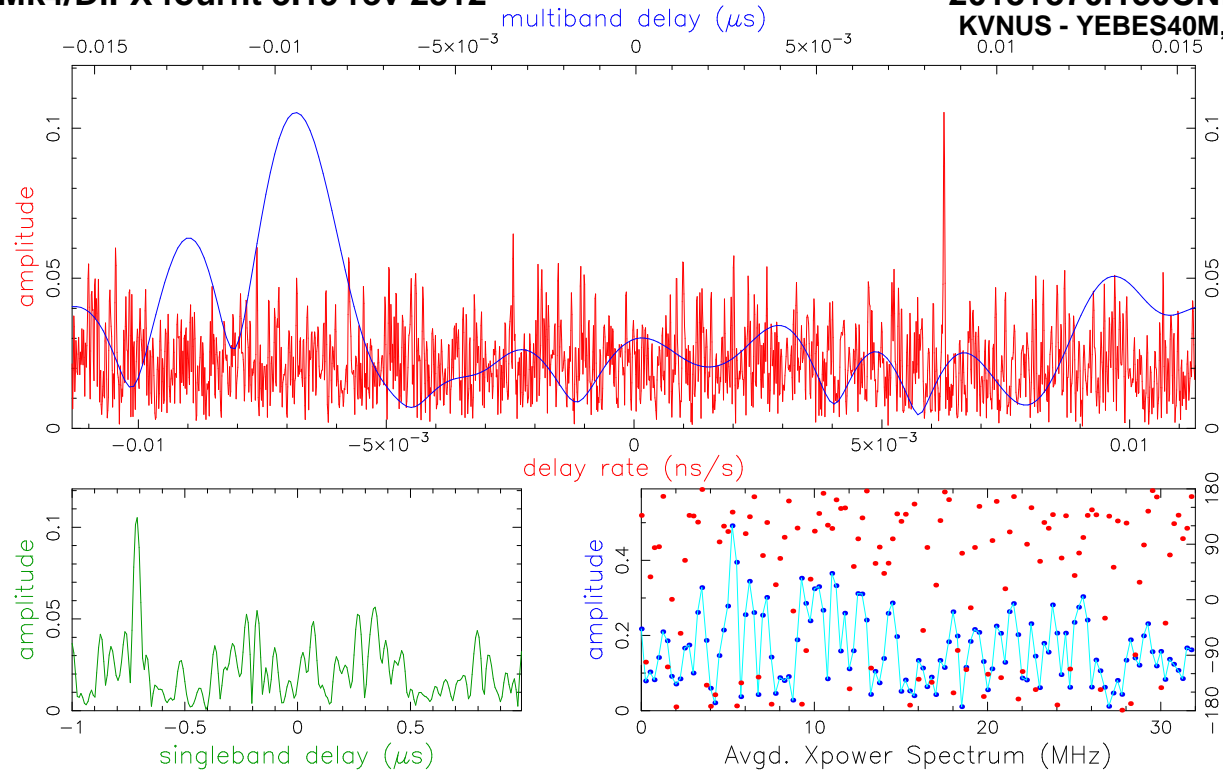
Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



	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	
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	94.6	Phase
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	0.1	Ampl.
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	244.2	Sbd box
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	0:0	0.2	APs used
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	0:0	0.2	PC freqs
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	0.2	PC phase
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	0.2	Mani PC
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		0.0	PC amp
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		0.0	Chan ids
																		0.0	Tracks
																		0.0	Tracks
Group delay (usec)(sbd)			-8.46098527462E+02															-1.04771E-02	+/- 1.9E-04
Sband delay (usec)			-8.46094428390E+02															8.99872E-01	+/- 3.1E-03
Phase delay (usec)			-8.46994297340E+02															3.04974E-06	+/- 6.6E-07
Delay rate (us/s)			-3.36245037539E-02															-1.07248E-05	+/- 2.7E-09
Total phase (deg)					81.8													94.6	+/- 20.6
ph/seg (deg)	RMS	Theor.																	
amp/seg (%)	29.6	35.7																	
ph/frq (deg)	53.6	62.3																	
amp/frq (%)	42.5	41.2																	
	68.5	71.9																	

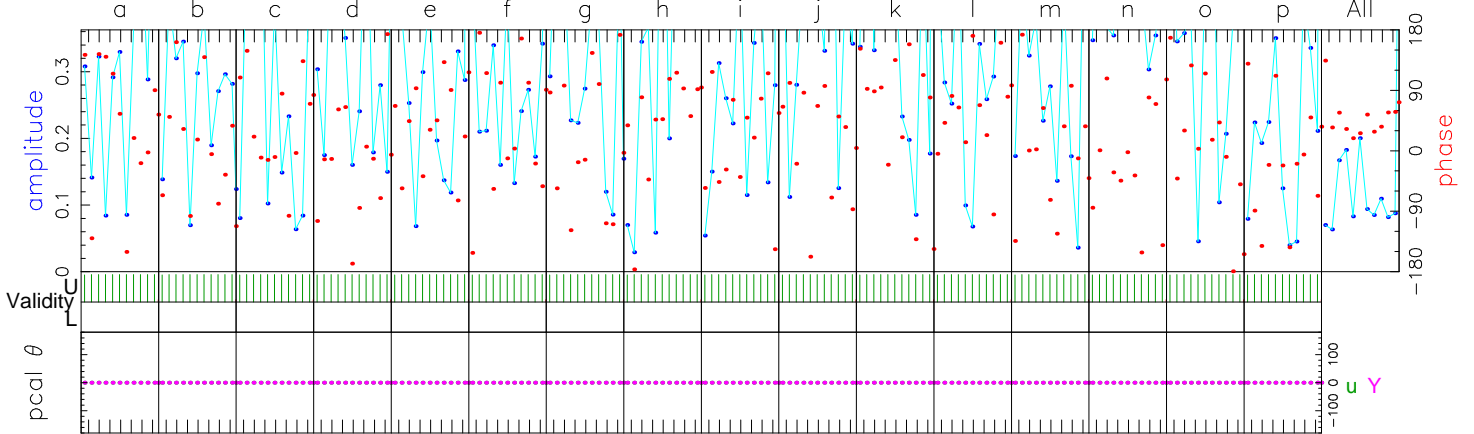
u: az 297.1 el 28.9 pa 65.2 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) 245.433 -55.347 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uy..130CNK Output file: /Exps/c192b/v2/1234/No0078/uy.W.129.130CNK



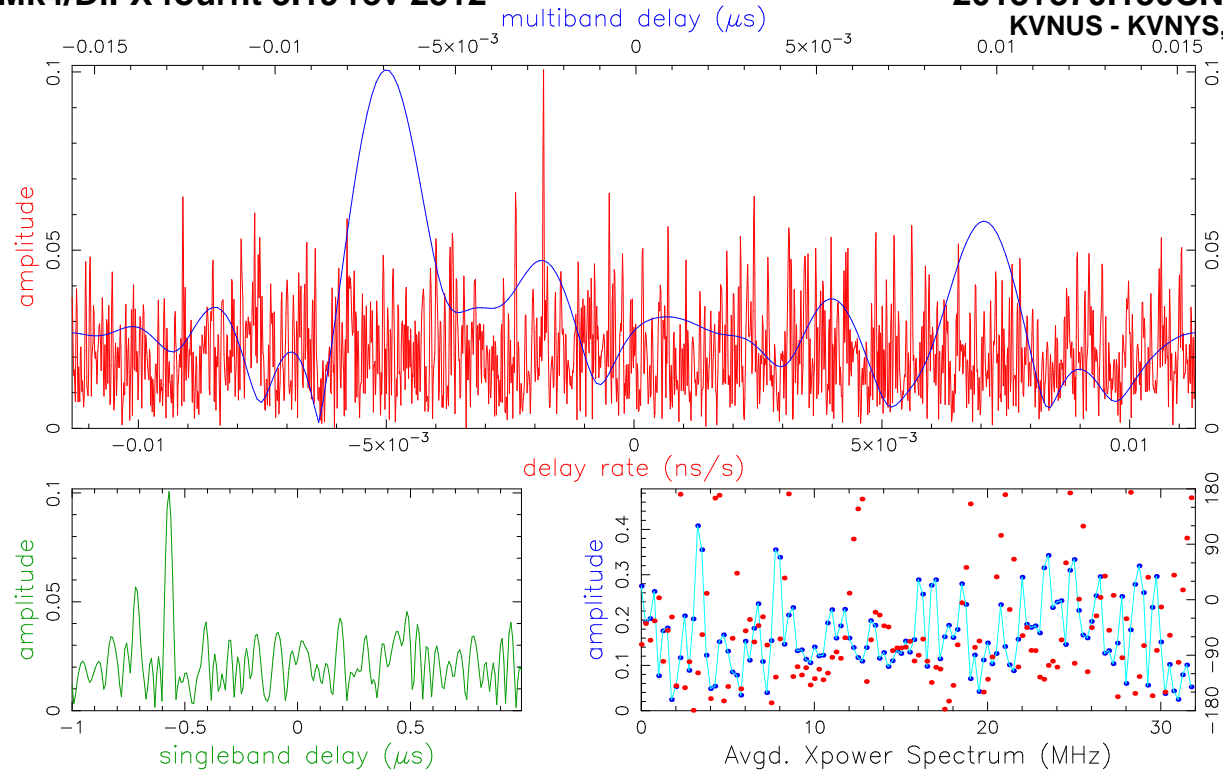
Fringe quality 0
SNR 5.8
Int time 402.170
Amp 0.121
Phase 44.2
PFD 7.5e-01
Delays (us)
SBD -0.713422
MBD -0.009416
Fringe rate (Hz)
0.539617
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160017.89
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085723
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 71 APs / seg (36.35 sec / seg.), time ticks 60 sec



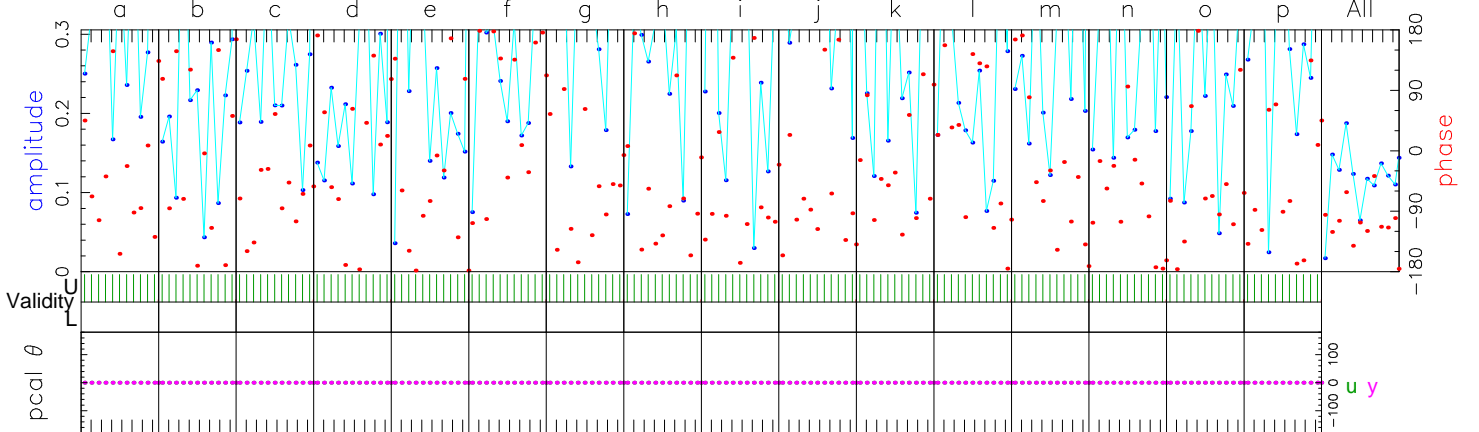
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	69.9	24.6	30.7	-6.8	26.4	-57.8	122.6	74.6	17.4	35.1	98.4	63.7	23.0	-20.7	54.7	-2.0		Phase 44.2					
	0.2	0.1	0.2	0.2	0.2	0.0	0.1	0.3	0.1	0.1	0.3	0.2	0.1	0.2	0.1	0.1		Ampl. 0.1					
	209.2	75.6	94.6	71.2	231.9	124.1	106.7	37.8	75.2	68.5	38.0	41.8	166.2	138.7	243.4	114.8		Sbd box 37.7					
UL	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		APs used					
u	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					
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		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	0:0		PC amp					
u	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					
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)			-6.00210122987E+03															Apriori delay (usec)	-6.00137306407E+03	Resid mbdelay (usec)	-9.41581E-03	+/-	1.9E-04
Sband delay (usec)			-6.00208648557E+03															Apriori clock (usec)	-1.2078590E+00	Resid sbdelay (usec)	-7.13422E-01	+/-	3.0E-03
Phase delay (usec)			-6.00137306264E+03															Apriori clockrate (us/s)	1.7999998E-07	Resid phdelay (usec)	1.42606E-06	+/-	6.3E-07
Delay rate (us/s)			-1.74083812368E+00															Apriori rate (us/s)	-1.74084438809E+00	Resid rate (us/s)	6.26441E-06	+/-	2.7E-09
Total phase (deg)					-221.7													Apriori accel (us/s/s)	2.72275847042E-05	Resid phase (deg)	44.2	+/-	19.7

ph/seg (deg) RMS Theor. Amplitude 0.121 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 30.3 34.0 Search (2048X64) 0.103 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 60.9 59.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 48.3 39.3 Inc. seg. avg. 0.112 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 70.9 68.6 Inc. frq. avg. 0.122 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 u: az 297.1 el 28.9 pa 65.2 Y: az 76.3 el 48.4 pa -68.3 u,v (fr/asec) 12566.807 1001.873 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uY..130CNK Output file: /Exps/c192b/v2/1234/No0078/uY.W.141.130CNK



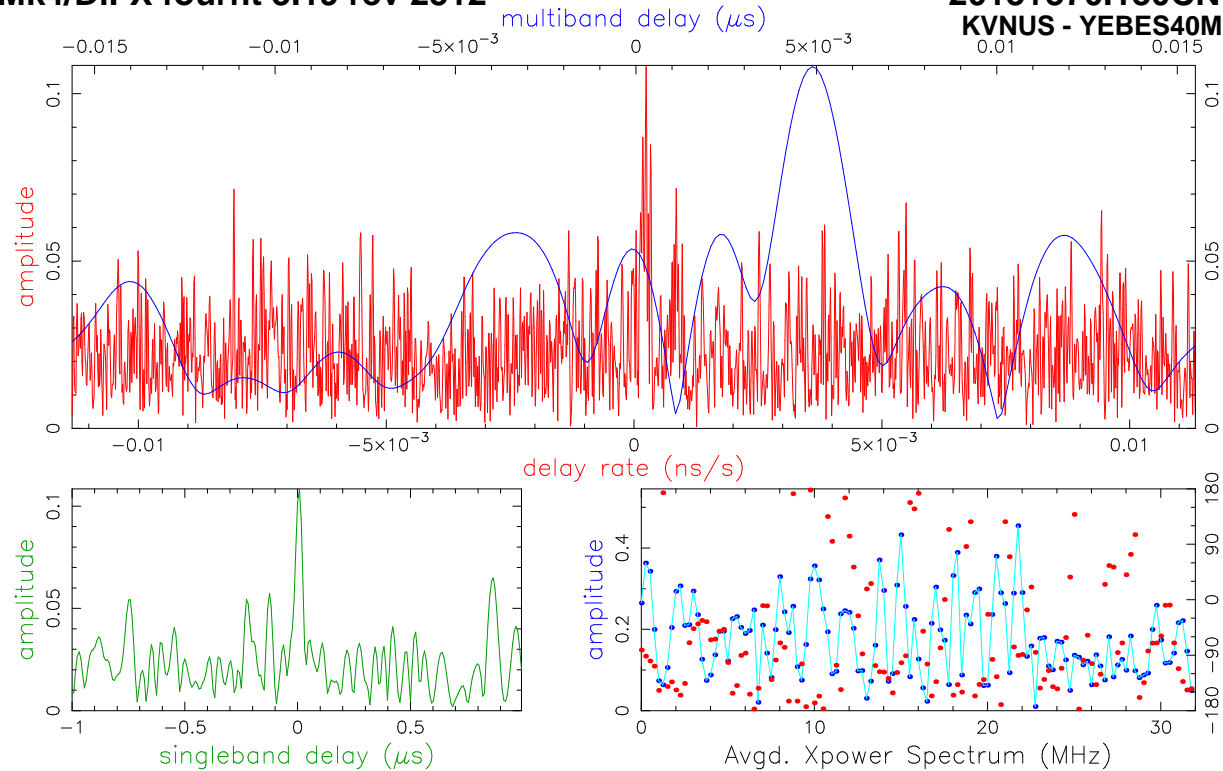
Fringe quality 0
SNR 5.6
Int time 419.840
Amp 0.102
Phase -102.4
PFD 9.8e-01
Delays (us)
SBD -0.571306
MBD -0.006920
Fringe rate (Hz)
-0.157219
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085725
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



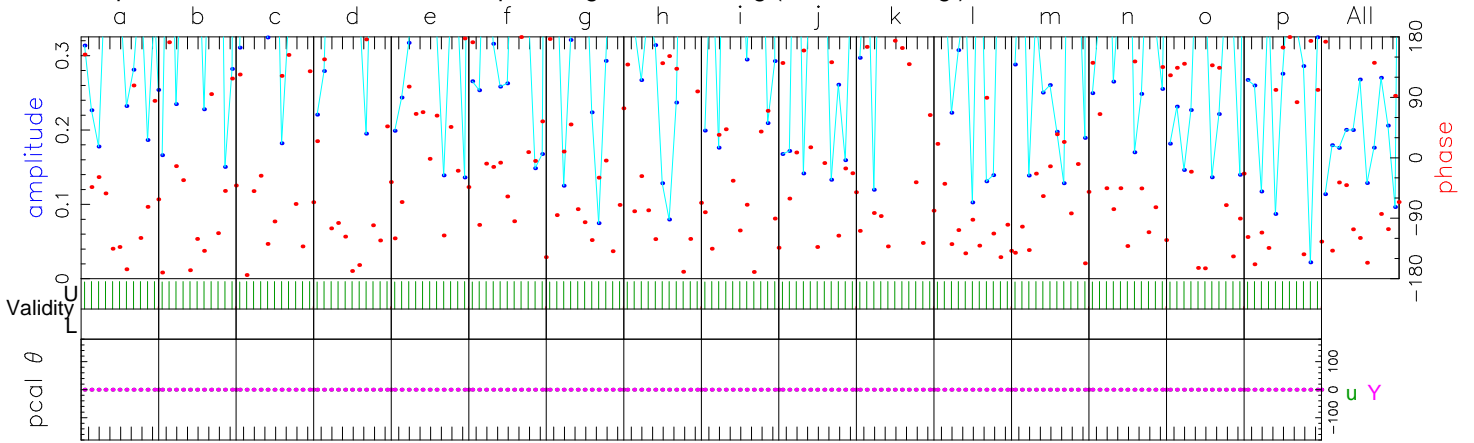
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-89.4	-146.0	-61.2	49.9	-109.3	177.8	-43.1	-130.2	-115.7	-122.4	-35.5	175.1	-76.9	-84.0	-128.0	-102.1		Phase	-102.4				
	0.2	0.1	0.2	0.0	0.1	0.1	0.0	0.2	0.2	0.2	0.2	0.0	0.1	0.2	0.1	0.1		Ampl.	0.1				
	30.8	15.9	124.6	62.9	29.4	15.5	90.2	25.1	36.7	55.7	15.5	34.5	185.1	86.6	223.7	89.4		Sbd box	55.9				
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
u	1000	1000	1000	1000	1000	1000	1000	1000	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					
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		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	0:0		PC amp					
u	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					
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)			-8.47563720758E+02															Apriori delay (usec)	-8.46994300390E+02	Resid mbdelay (usec)	-6.92037E-03	+/-	1.9E-04
Sband delay (usec)			-8.47565605890E+02															Apriori clock (usec)	-2.0751719E+01	Resid sbdelay (usec)	-5.71306E-01	+/-	3.1E-03
Phase delay (usec)			-8.46994303692E+02															Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-3.30249E-06	+/-	6.5E-07
Delay rate (us/s)			-3.36156041434E-02															Apriori rate (us/s)	-3.36137789868E-02	Resid rate (us/s)	-1.82516E-06	+/-	2.7E-09
Total phase (deg)					-115.2													Apriori accel (us/s/s)	2.46105573358E-06	Resid phase (deg)	-102.4	+/-	20.3

ph/seg (deg) 28.1 35.1 Search (2048X64) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 43.9 61.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 60.5 40.6 Inc. seg. avg. 0.098 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 66.6 70.8 Inc. frq. avg. 0.106 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 u: az 297.1 el 28.9 pa 65.2 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) 245.433 -55.347 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uy..130CNK Output file: /Exps/c192b/v2/1234/No0078/uy.W.152.130CNK



Fringe quality 0
SNR 5.9
Int time 402.170
Amp 0.108
Phase -109.7
PFD 5.0e-01
Delays (us)
SBD 0.006305
MBD 0.004889
Fringe rate (Hz) 0.021210
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160017.89
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085707
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

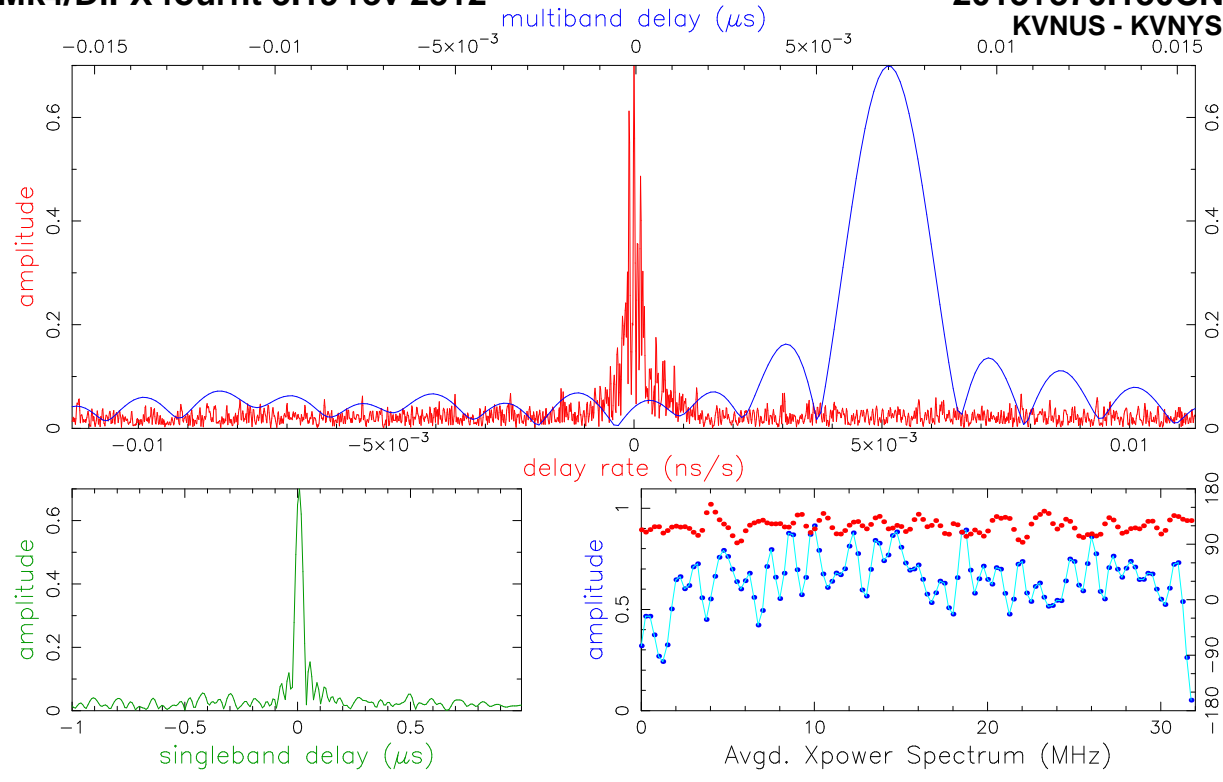
Amp. and Phase vs. time for each freq., 12 segs, 71 APs / seg (36.35 sec / seg.), time ticks 60 sec



	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					
	-126.0	-139.7	-138.8	-121.1	34.1	-51.8	-86.2	-152.1	-57.6	-25.8	-141.5	-111.0	-64.2	-88.2	-164.7	-176.7	Phase	-109.7					
	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	Ampl.	0.1					
	101.3	235.4	137.0	85.4	183.0	239.9	120.5	99.0	62.5	200.7	130.6	48.1	129.9	226.7	113.6	222.5	Sbd box	129.8					
UL	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used						
u	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						
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	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	0:0	PC amp						
u	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						
u	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)			-6.00136817509E+03														Apriori delay (usec)	-6.00137306407E+03	Resid mbdelay (usec)	4.88897E-03	+/-	1.8E-04	
Sband delay (usec)			-6.00136675857E+03															Apriori clock (usec)	-1.2078590E+07	Resid sbdelay (usec)	6.30550E-03	+/-	2.9E-03
Phase delay (usec)			-6.00137306760E+03															Apriori clockrate (us/s)	1.7999998E-07	Resid phdelay (usec)	-3.53700E-06	+/-	6.2E-07
Delay rate (us/s)			-1.74084414187E+00															Apriori rate (us/s)	-1.74084438809E+00	Resid rate (us/s)	2.46227E-07	+/-	2.7E-09
Total phase (deg)																		Apriori accel (us/s/s)	2.72275847042E-05	Resid phase (deg)	-109.7	+/-	19.3

	RMS	Theor.	Amplitude	0.108 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	71.7	33.4	Search (2048X64)	0.106	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	93.5	58.3	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.016 0.016
ph/frq (deg)	59.4	38.5	Inc. seg. avg.	0.159	Sample rate(MISamp/s): 64	dr window (ns/s) -0.011 0.011
amp/frq (%)	60.6	67.3	Inc. frq. avg.	0.133	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

u: az 297.1 el 28.9 pa 65.2 Y: az 76.3 el 48.4 pa -68.3 u,v (fr/asec) 12566.807 1001.873 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uY..130CNK Output file: /Exps/c192b/v2/1234/No0078/uY.W.85.130CNK

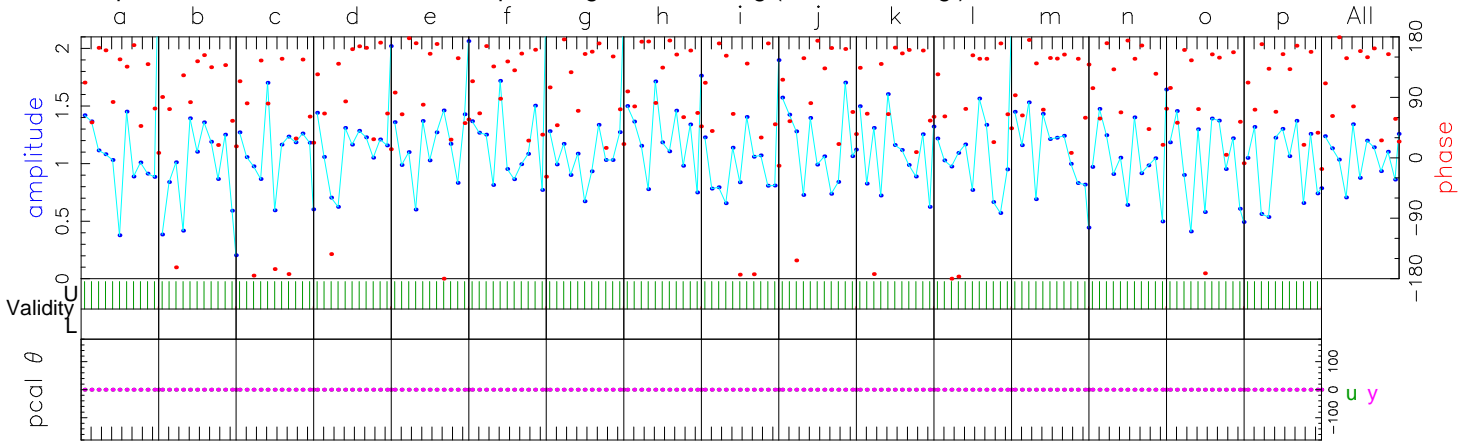


Fringe quality 5

SNR 39.2
Int time 419.840
Amp 0.700
Phase 119.0
PFD 0.0e+00
Delays (us)
SBD 0.006890
MBD 0.006999
Fringe rate (Hz) 0.000079
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085707
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec

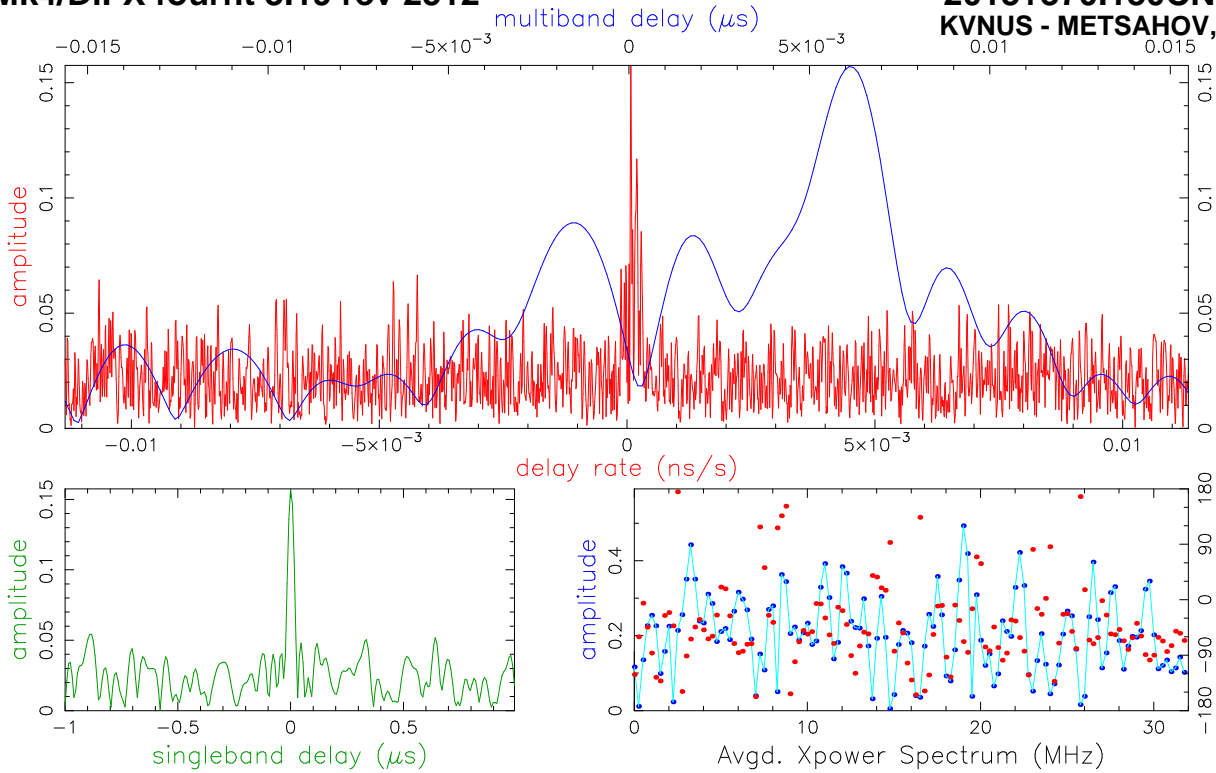


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
Group delay (usec)(sbd)			-8.46987301483E+02															
Sband delay (usec)			-8.46987410890E+02															
Phase delay (usec)			-8.46994296551E+02															
Delay rate (us/s)			-3.36137780742E-02															
Total phase (deg)				106.2														
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		

ph/seg (deg) 50.6 5.1 Search (2048X64) 0.690 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 56.6 8.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 4.9 5.8 Inc. seg. avg. 1.049 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 10.9 10.2 Inc. frq. avg. 0.698 Sample rate(MISamp/s): 64 Resid rate (us/s) 9.12622E-10 +/- 3.9E-10
 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 297.1 el 28.9 pa 65.2 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) 245.433 -55.347 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uy..130CNK Output file: /Exps/c192b/v2/1234/No0078/uy.W.87.130CNK

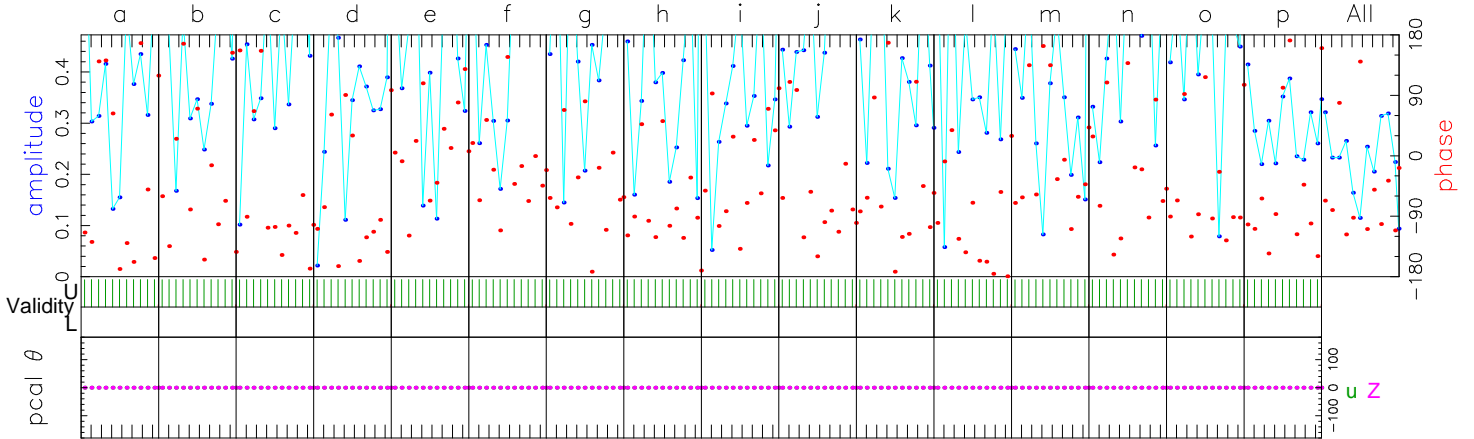


Fringe quality 9

SNR 8.8
Int time 419.369
Amp 0.158
Phase -84.7
PFD 4.3e-10
Delays (us)
SBD 0.001291
MBD 0.006132
Fringe rate (Hz) 0.006941
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085716
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
u	1000	1000	1000	1000	1000	1000	1000	1000	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					
u: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					
u: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					
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
																		Tracks					
Group delay (usec)(sbd)		-8.67256029659E+03																Apriori delay (usec)	-8.67256642884E+03	Resid mbdelay (usec)	6.13225E-03	+/-	1.2E-04
Sband delay (usec)		-8.67256513834E+03																Apriori clock (usec)	8.2706785E+00	Resid sbdelay (usec)	1.29050E-03	+/-	2.0E-03
Phase delay (usec)		-8.67256643157E+03																Apriori clockrate (us/s)	3.8370717E-07	Resid phdelay (usec)	-2.73207E-06	+/-	4.2E-07
Delay rate (us/s)		-1.25488059668E+00																Apriori rate (us/s)	-1.25488067726E+00	Resid rate (us/s)	8.05758E-08	+/-	1.7E-09
Total phase (deg)																		Apriori accel (us/s/s)	2.65639585324E-05	Resid phase (deg)	-84.7	+/-	13.0

ph/seg (deg) 68.4 22.5
amp/seg (%) 65.7 39.3
ph/frq (deg) 46.1 26.0
amp/frq (%) 60.6 45.3

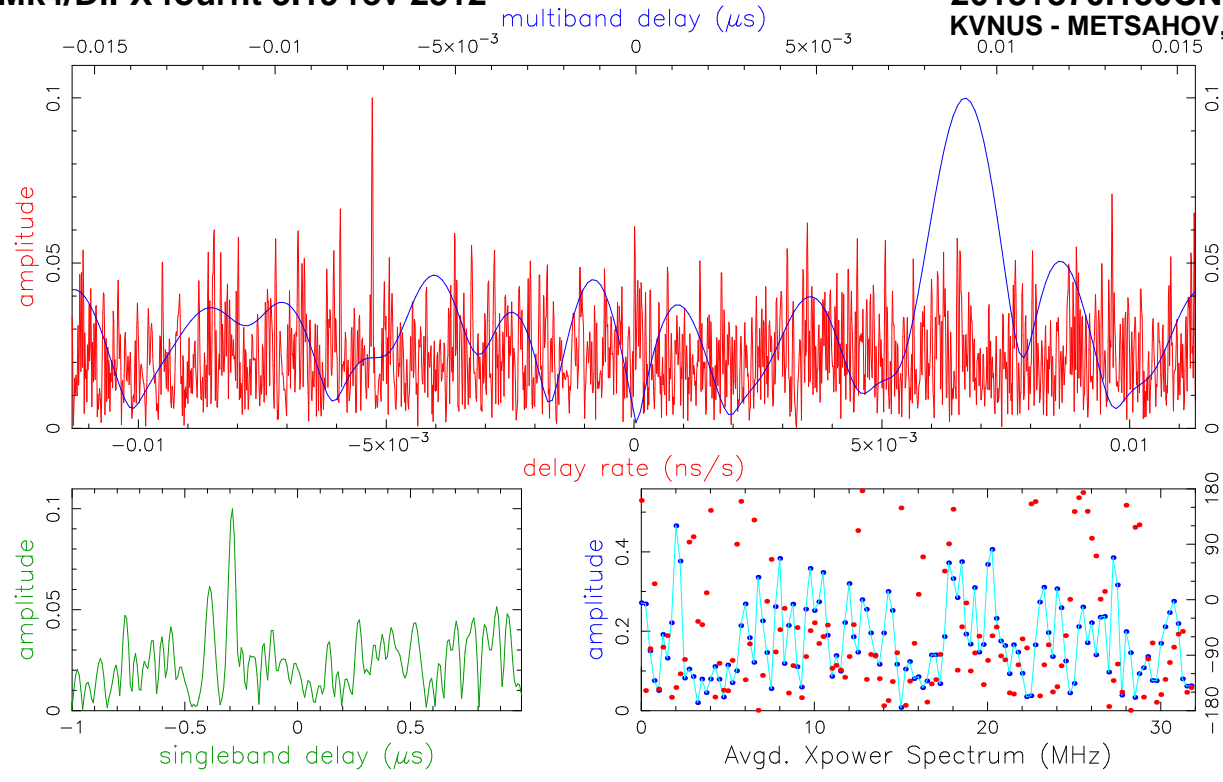
RMS Theor. Amplitude 0.158 +/- 0.018
Search (2048X64) 0.149
Interp. 0.000
Inc. seg. avg. 0.222
Inc. frq. avg. 0.197

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
PCal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MISamp/s): 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

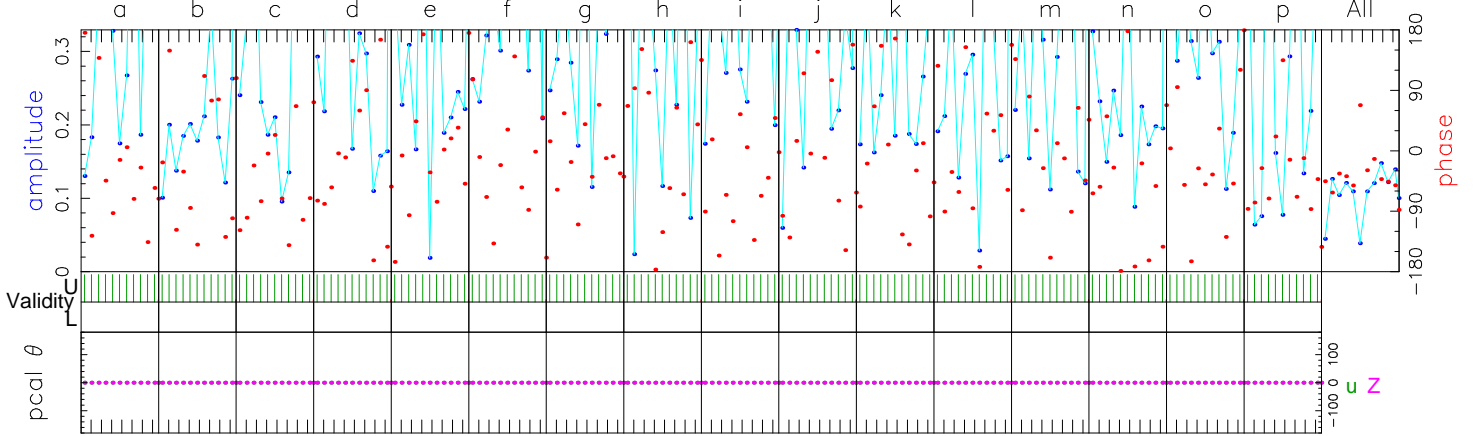
u: az 297.1 el 28.9 pa 65.2 Z: az 131.6 el 61.5 pa -27.8 u,v (fr/asec) 9066.780 -539.272 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uZ..130CNK Output file: /Exps/c192b/v2/1234/No0078/uZ.W.119.130CNK



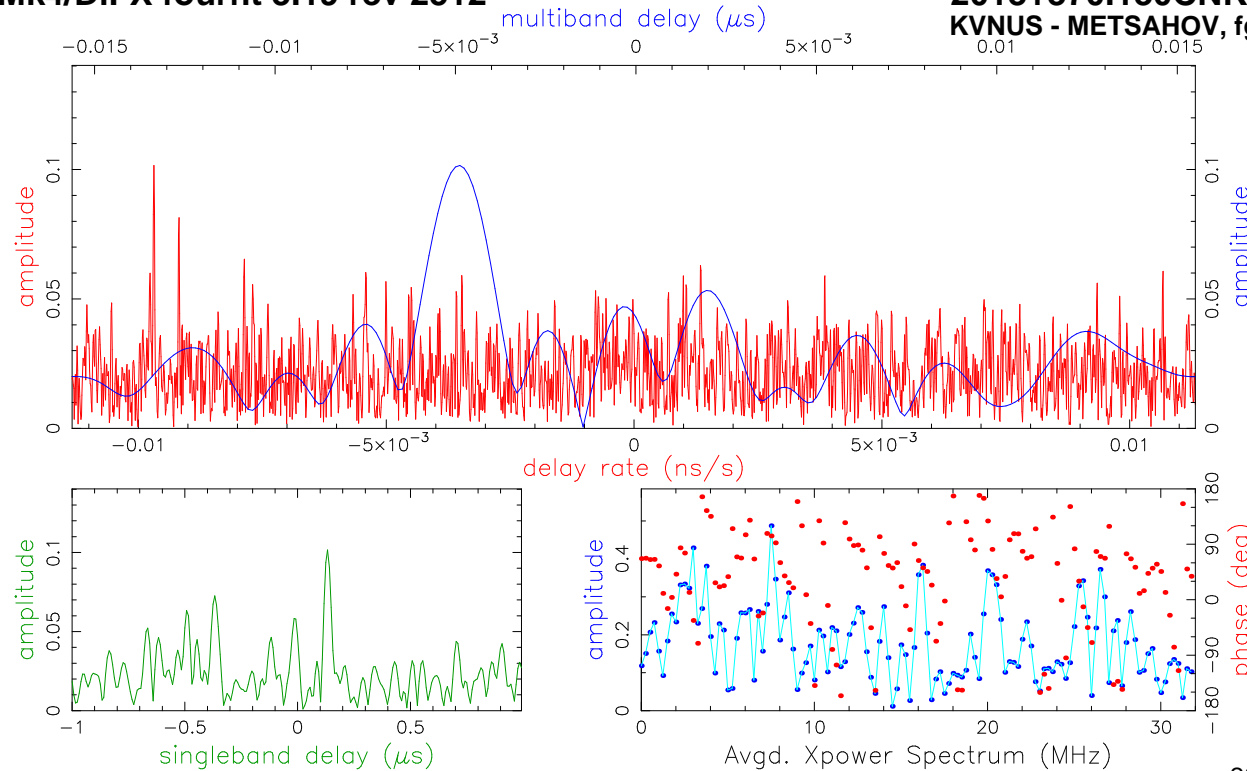
Fringe quality 0
SNR 5.6
Int time 419.369
Amp 0.110
Phase -39.7
PFD 9.9e-01
Delays (us)
SBD -0.290479
MBD 0.009122
Fringe rate (Hz)
-0.456033
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085722
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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					
	-77.9	168.8	-47.9	-27.7	-80.9	-16.2	0.6	63.4	-64.6	-84.9	-63.7	6.4	-21.7	-101.6	-21.5	-59.6		Phase	-39.7				
	0.2	0.0	0.2	0.1	0.1	0.2	0.3	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.3		Ampl.	0.1				
	130.5	105.1	242.1	110.0	218.1	157.3	92.1	31.3	151.0	150.7	202.1	166.2	225.9	206.2	180.4	92.5		Sbd box	91.8				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
u	1000	1000	1000	1000	1000	1000	1000	1000	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					
u: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					
u: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					
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks					
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-8.67286980653E+03															Apriori delay (usec)	-8.67256642884E+03	Resid mbdelay (usec)	9.12231E-03	+/-	1.9E-04
Sband delay (usec)			-8.67285690784E+03															Apriori clock (usec)	8.2706785E+00	Resid sbdelay (usec)	-2.90479E-01	+/-	3.1E-03
Phase delay (usec)			-8.67256643012E+03															Apriori clockrate (us/s)	3.8370717E-07	Resid phdelay (usec)	-1.28125E-06	+/-	6.6E-07
Delay rate (us/s)			-1.25488597135E+00															Apriori rate (us/s)	-1.25488067726E+00	Resid rate (us/s)	-5.29409E-06	+/-	2.7E-09
Total phase (deg)					-104.7													Apriori accel (us/s/s)	2.65639585324E-05	Resid phase (deg)	-39.7	+/-	20.4

ph/seg (deg) RMS Theor. Amplitude 0.110 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 35.0 35.4 Search (2048X64) 0.098 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 33.9 61.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 59.4 40.8 Inc. seg. avg. 0.099 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 75.6 71.3 Inc. frq. avg. 0.108 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 u: az 297.1 el 28.9 pa 65.2 Z: az 131.6 el 61.5 pa -27.8 u,v (fr/asec) 9066.780 -539.272 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uZ..130CNK Output file: /Exps/c192b/v2/1234/No0078/uZ.W.139.130CNK

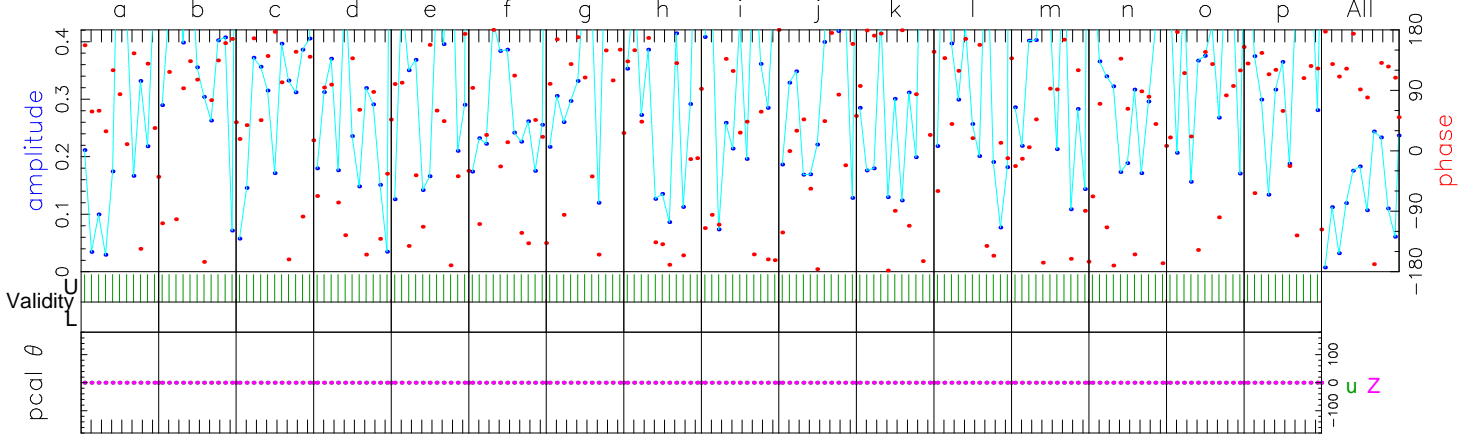


Fringe quality 0

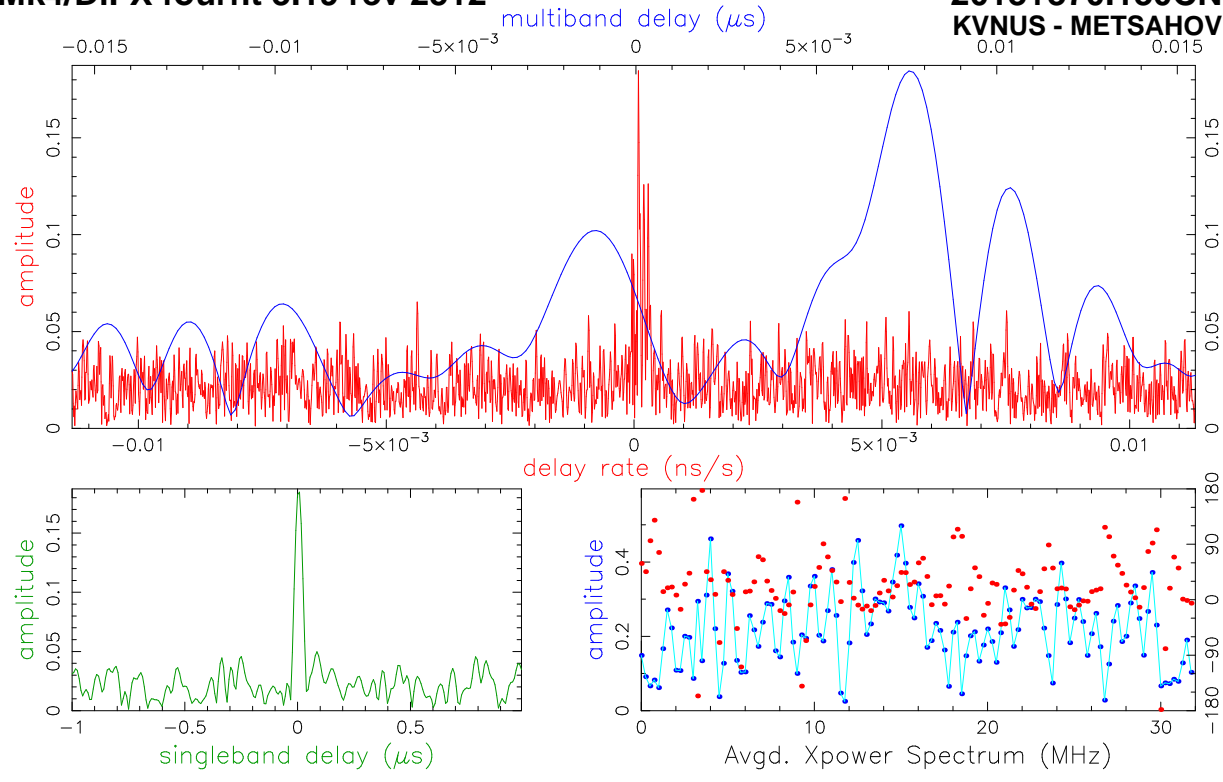
SNR 5.7
Int time 419.369
Amp 0.140
Phase 133.5
PFD 9.5e-01
Delays (us)
SBD 0.132042
MBD -0.004905
Fringe rate (Hz)
-0.835237
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085727
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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
79.3	143.0	141.1	155.3	133.2	0.3	135.7	124.2	-159.8	63.7	-178.9	149.6	106.5	149.7	114.0	126.0	126.0	Phase	133.5
0.2	0.3	0.2	0.1	0.1	0.0	0.3	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.3	0.3	0.3	Ampl.	0.1
128.0	125.9	129.1	239.6	219.7	113.1	144.9	232.6	223.1	129.4	170.0	55.8	141.0	43.6	82.3	81.2	81.2	Sbd box	145.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	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	
u: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	
u: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	
u	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	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-8.67244633396E+03			Apriori delay (usec)			-8.67256642884E+03			Resid mbdelay (usec)			-4.90511E-03			+/- 1.9E-04		
Sband delay (usec)	-8.67243438684E+03			Apriori clock (usec)			8.2706785E+00			Resid sbdelay (usec)			1.32042E-01			+/- 3.0E-03		
Phase delay (usec)	-8.67256642454E+03			Apriori clockrate (us/s)			3.8370717E-07			Resid phdelay (usec)			4.30527E-06			+/- 6.5E-07		
Delay rate (us/s)	-1.25489037353E+00			Apriori rate (us/s)			-1.25488067726E+00			Resid rate (us/s)			-9.69627E-06			+/- 2.7E-09		
Total phase (deg)	68.5			Apriori accel (us/s/s)			2.65639585324E-05			Resid phase (deg)			133.5			+/- 20.1		
	RMS	Theor.	Amplitude		0.140 +/- 0.025		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5									
ph/seg (deg)	35.0	34.9	Search (2048X64)		0.099		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000		1.000					
amp/seg (%)	76.5	60.8	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)		-0.016		0.016			
ph/frq (deg)	49.8	40.2	Inc. seg. avg.		0.148		Sample rate(MISamp/s): 64		dr window (ns/s)		-0.011		0.011					
amp/frq (%)	62.7	70.2	Inc. frq. avg.		0.133		Data rate(Mb/s): 2048		nlags: 128		t_cohere infinite		ion window (TEC)		0.00		0.00	
u: az 297.1 el 28.9 pa 65.2	Z: az 131.6 el 61.5 pa -27.8			u,v (fr/asec) 9066.780 -539.272												simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c192b/v2/1234/No0078/uZ..130CNK			Output file: /Exps/c192b/v2/1234/No0078/uZ.W.158.130CNK														

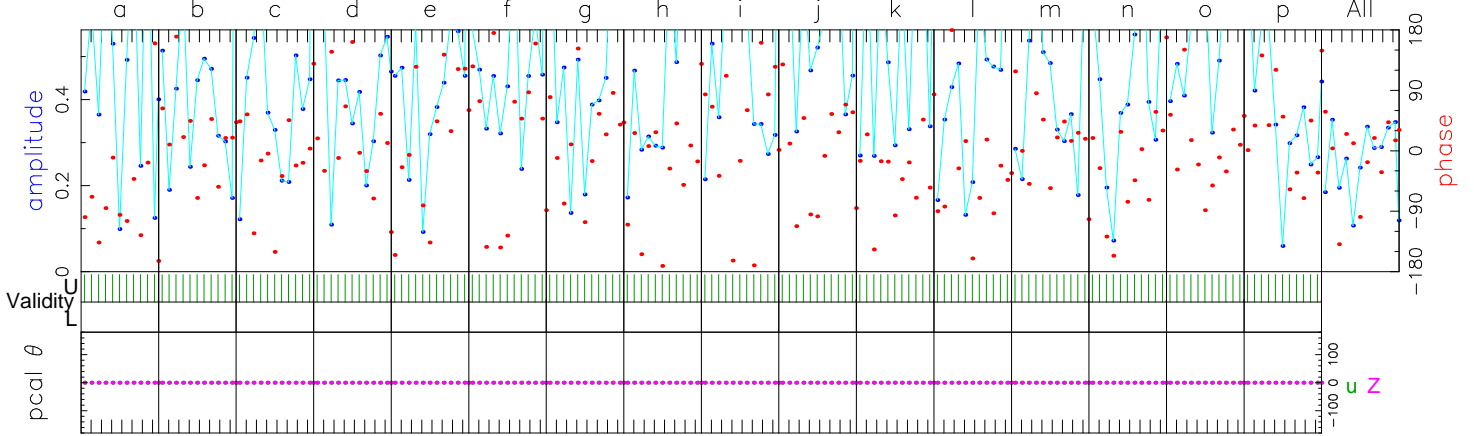


Fringe quality 9

SNR 10.5
Int time 419.369
Amp 0.187
Phase 3.1
PFD 4.0e-17
Delays (us)
SBD 0.004438
MBD 0.007585
Fringe rate (Hz) 0.007174
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085709
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 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					
	-67.0	15.8	-13.1	9.1	103.3	121.2	48.7	-11.5	101.3	25.3	-20.8	-54.6	23.5	-7.7	-9.5	17.5		Phase	3.1				
	0.4	0.2	0.2	0.3	0.1	0.2	0.3	0.3	0.2	0.3	0.4	0.3	0.3	0.3	0.4	0.2		Ampl.	0.2				
	129.8	131.1	14.7	128.9	153.0	129.3	129.0	130.2	227.0	129.6	129.7	129.3	129.7	129.4	130.0	116.5		Sbd box	129.6				
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
u	1000	1000	1000	1000	1000	1000	1000	1000	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					
u: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					
u: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					
u	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					
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-8.67255884342E+03															Apriori delay (usec)	-8.67256642884E+03	Resid mbdelay (usec)	7.58542E-03	+/-	1.0E-04
Sband delay (usec)			-8.67256199084E+03															Apriori clock (usec)	8.2706785E+00	Resid sbdelay (usec)	4.43800E-03	+/-	1.6E-03
Phase delay (usec)			-8.67256642874E+03															Apriori clockrate (us/s)	3.8370717E-07	Resid phdelay (usec)	9.84359E-08	+/-	3.5E-07
Delay rate (us/s)			-1.25488059398E+00															Apriori rate (us/s)	-1.25488067726E+00	Resid rate (us/s)	8.32817E-08	+/-	1.5E-09
Total phase (deg)					-61.9													Apriori accel (us/s/s)	2.65639585324E-05	Resid phase (deg)	3.1	+/-	10.9

ph/seg (deg) 58.3 18.9
amp/seg (%) 58.6 33.0
ph/frq (deg) 57.7 21.8
amp/frq (%) 53.7 38.1

RMS Theor. Amplitude 0.187 +/- 0.018
Search (2048X64) 0.171
Interp. 0.000
Inc. seg. avg. 0.253
Inc. frq. avg. 0.245

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

u: az 297.1 el 28.9 pa 65.2 Z: az 131.6 el 61.5 pa -27.8 u,v (fr/asec) 9066.780 -539.272 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/uZ..130CNK Output file: /Exps/c192b/v2/1234/No0078/uZ.W.96.130CNK