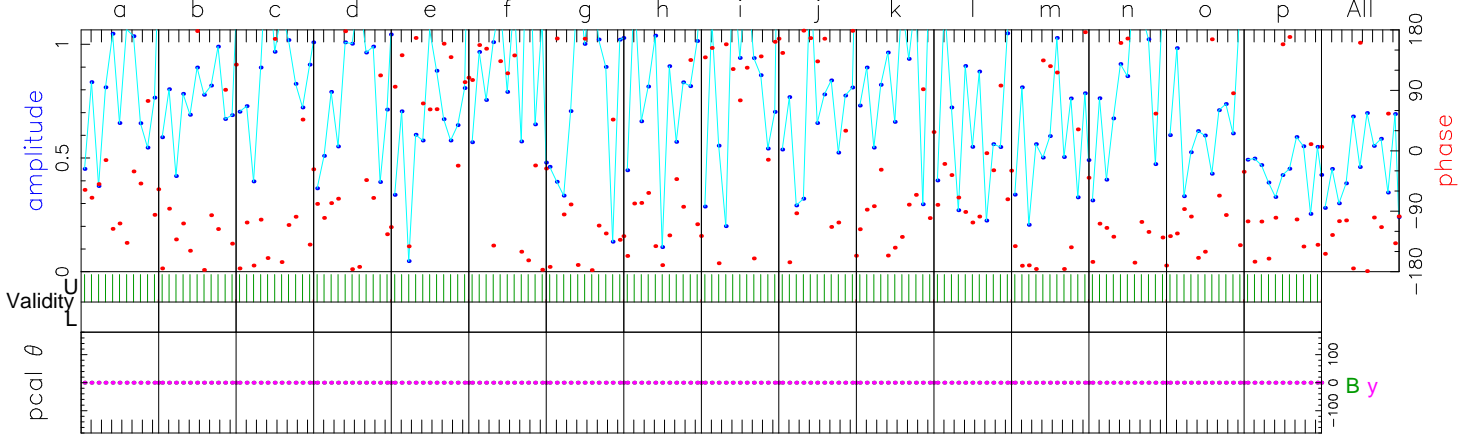


Fringe quality 7

SNR 19.9
Int time 419.814
Amp 0.355
Phase -143.0
PFD 0.0e+00
Delays (us)
SBD -0.006986
MBD -0.009431
Fringe rate (Hz)
-0.016360
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

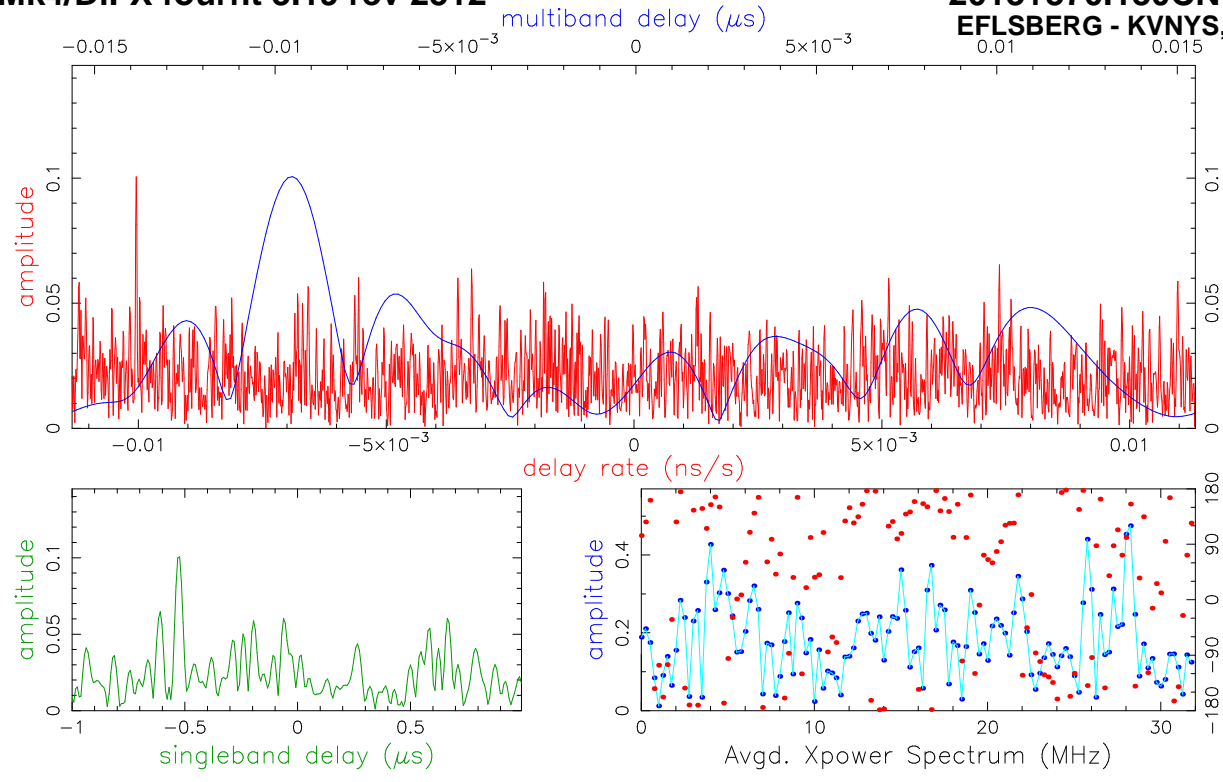
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085649
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

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	
	-73.5	-140.2	-143.0	-119.9	100.0	165.6	-149.1	-104.9	140.0	-178.4	-99.0	-60.0	167.0	-143.8	-125.7	-137.3		Phase	-143.0
	0.5	0.5	0.6	0.4	0.4	0.7	0.6	0.5	0.6	0.4	0.7	0.5	0.4	0.6	0.5	0.3		Ampl.	0.5
	126.7	127.8	128.4	128.1	128.2	128.4	128.1	128.2	128.8	128.5	128.5	128.2	128.8	128.3	127.9	128.2		Sbd box	128.1
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	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
																		Chan ids	
																		Tracks	
Group delay (usec)(sbd)	6.86885633682E+03			Apriori delay (usec)			6.86886576783E+03			Resid mbdelay (usec)			-9.43101E-03			+/- 5.4E-05			
Sband delay (usec)	6.86885878183E+03			Apriori clock (usec)			-1.2381285E+01			Resid sbdelay (usec)			-6.98600E-03			+/- 8.7E-04			
Phase delay (usec)	6.86886576322E+03			Apriori clockrate (us/s)			-2.9999999E-07			Resid phdelay (usec)			-4.61042E-06			+/- 1.9E-07			
Delay rate (us/s)	1.49324132853E+00			Apriori rate (us/s)			1.49324151845E+00			Resid rate (us/s)			-1.89922E-07			+/- 7.7E-10			
Total phase (deg)				-56.3			Apriori accel (us/s/s)			-2.54997202289E-05			Resid phase (deg)			-143.0 +/- 5.8			

ph/seg (deg) 58.6 10.0 Search (2048X64) 0.348 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 57.8 17.4 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 11.5 Inc. seg. avg. 0.486 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 54.0 20.1 Inc. frq. avg. 0.509 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 B: az 95.8 el 56.2 pa -52.5 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) -10781.490 -256.340 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/By..130CNK Output file: /Exps/c192b/v2/1234/No0078/By.W.33.130CNK

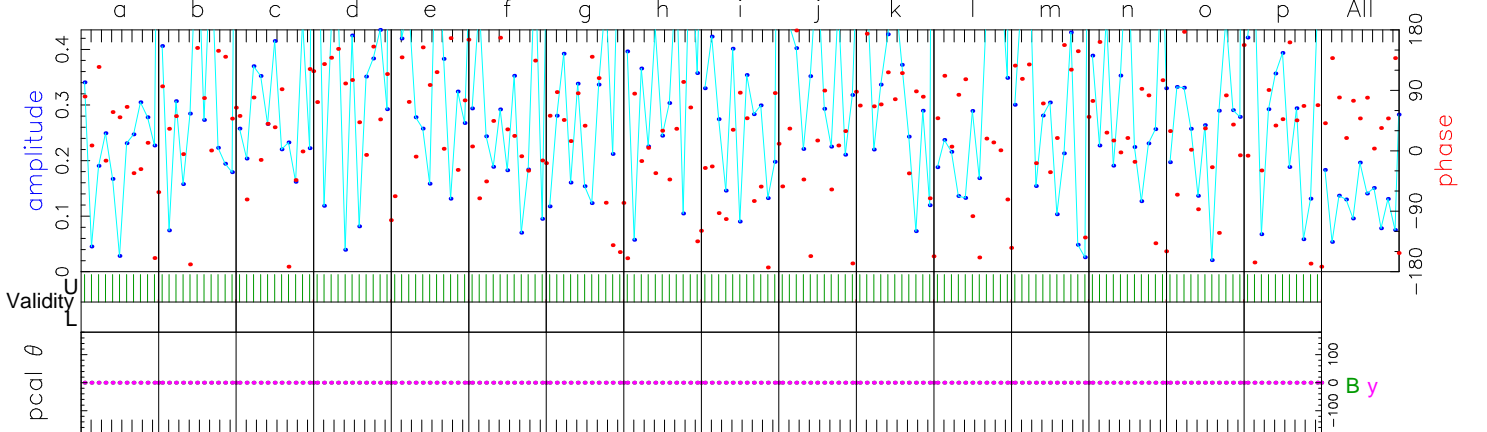


Fringe quality 0

SNR 5.7
Int time 419.814
Amp 0.145
Phase 53.8
PFD 9.0e-01
Delays (us)
SBD -0.527026
MBD -0.009498
Fringe rate (Hz)
-0.866045
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
2020:086:085655
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

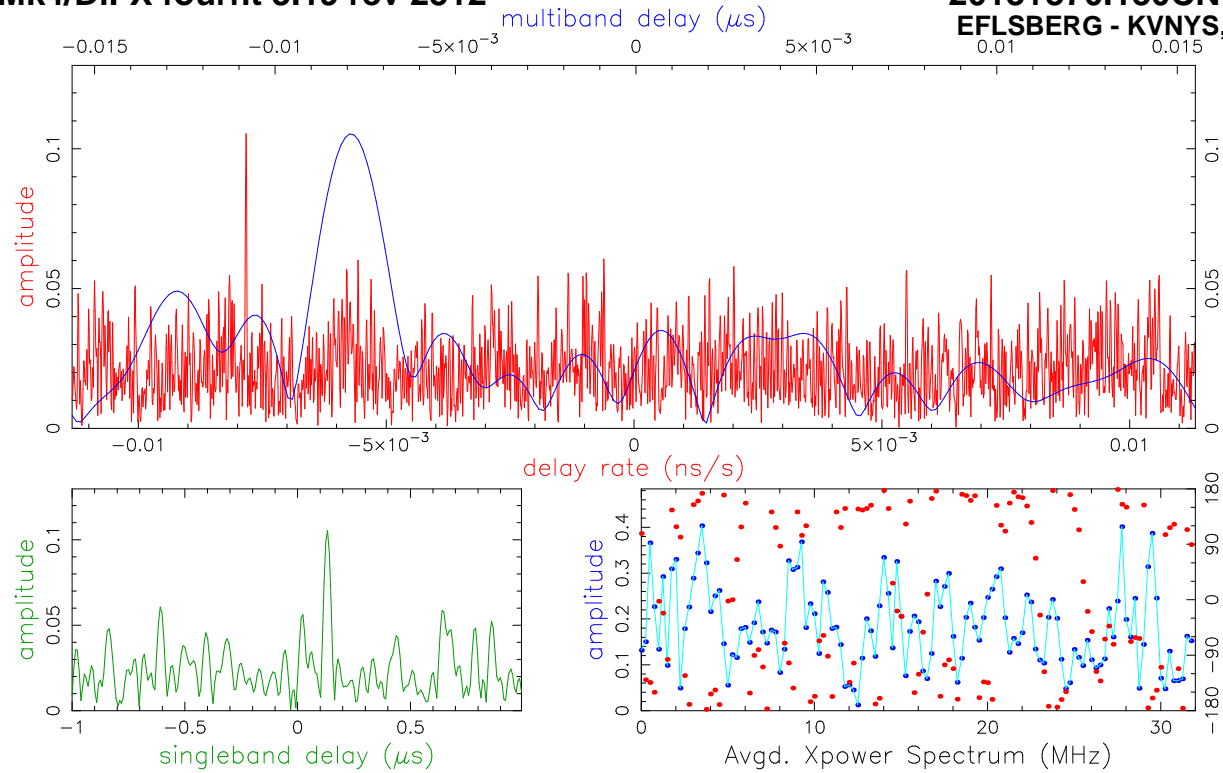


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All		
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	Phase	53.8
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	0.2
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	61.5
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
B	1000	1000	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	
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) 6.86832501966E+03 Apriori delay (usec) 6.86886576783E+03 Resid mbdelay (usec) -9.49817E-03 +/- 1.9E-04
 Sband delay (usec) 6.86833874133E+03 Apriori clock (usec) -1.2381285E+01 Resid sbdelay (usec) -5.27026E-01 +/- 3.0E-03
 Phase delay (usec) 6.86886576956E+03 Apriori clockrate (us/s) -2.9999999E-07 Resid phdelay (usec) 1.73635E-06 +/- 6.4E-07
 Delay rate (us/s) 1.49323146452E+00 Apriori rate (us/s) 1.49324151845E+00 Resid rate (us/s) -1.00539E-05 +/- 2.7E-09
 Total phase (deg) 140.5 Apriori accel (us/s/s) -2.54997202289E-05 Resid phase (deg) 53.8 +/- 20.0

RMS Theor. Amplitude 0.145 +/- 0.025 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 44.7 34.6 Search (2048X64) 0.099 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 49.3 60.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 45.5 39.9 Inc. seg. avg. 0.151 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 57.0 69.6 Inc. frq. avg. 0.153 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 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) -10781.490 -256.340 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/By..130CNK Output file: /Exps/c192b/v2/1234/No0078/By.W.56.130CNK

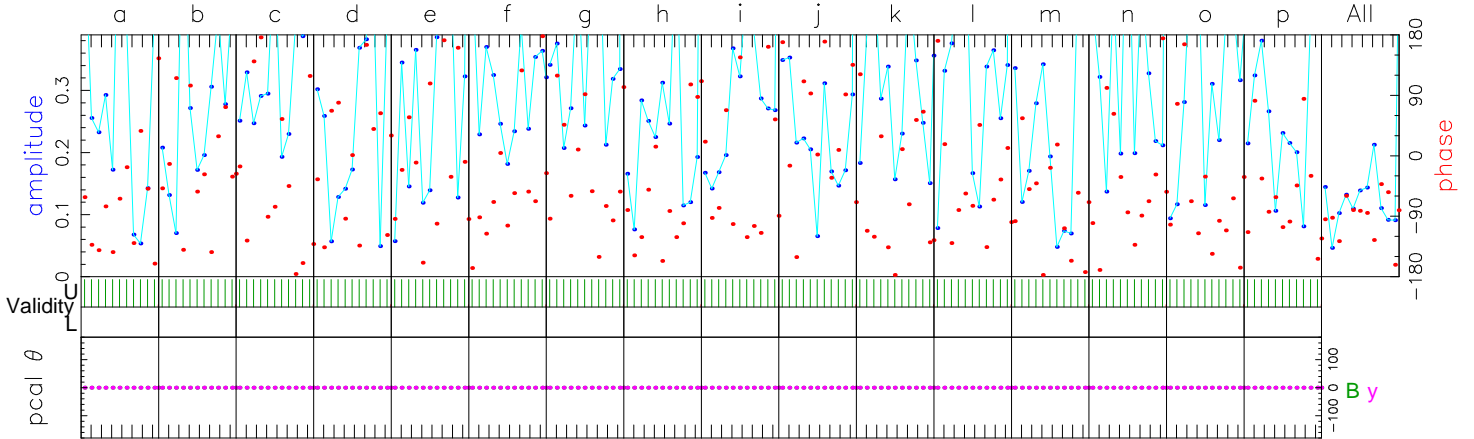


Fringe quality 0

SNR 5.9
Int time 419.814
Amp 0.130
Phase -91.2
PFD 5.5e-01
Delays (us)
SBD 0.131320
MBD -0.007897
Fringe rate (Hz)
-0.675389
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
2020:086:085701
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

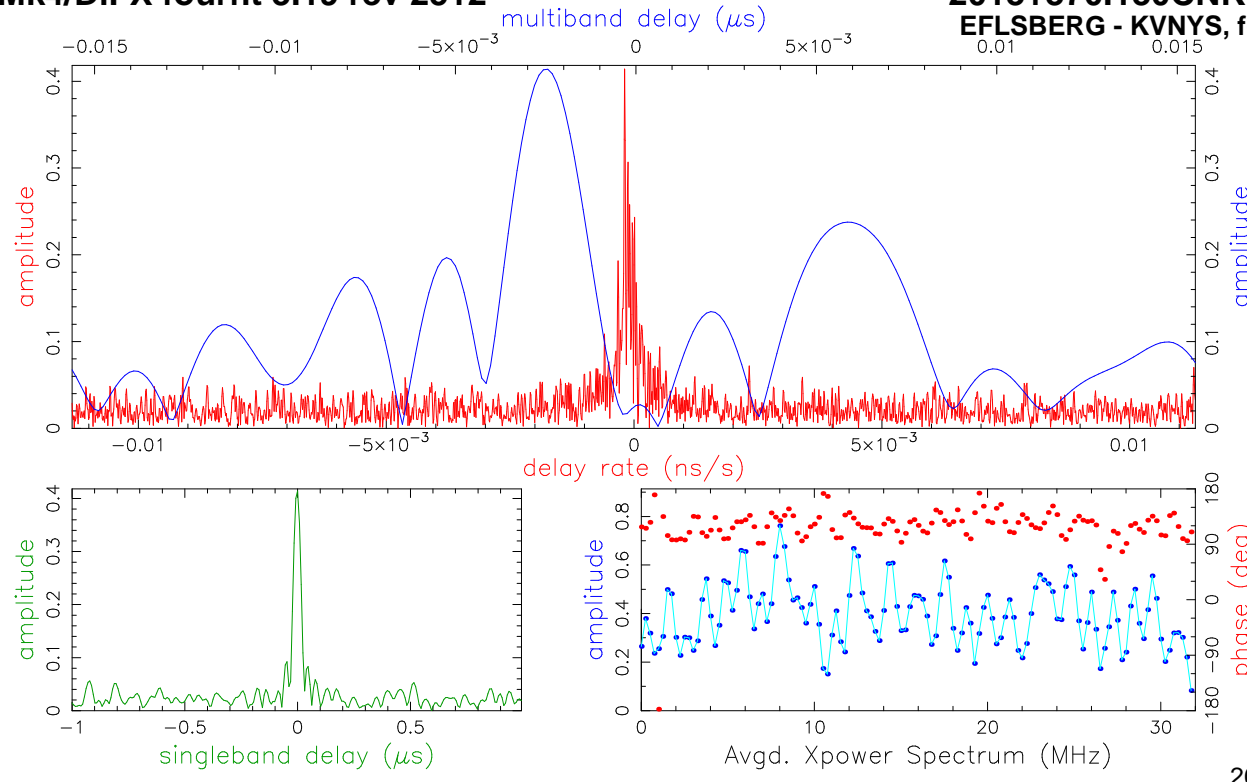
Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



	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	
	-86.4	-36.9	-140.7	-103.2	-45.8	-108.4	-63.9	-110.1	-121.3	126.7	-95.0	-64.7	-85.8	-88.2	-107.8	-77.5		Phase	-91.2
	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.3	0.2		Ampl.	0.1
	91.8	19.0	99.5	49.7	55.3	40.8	161.9	220.5	250.4	5.1	21.1	139.3	209.8	8.2	147.1	185.4		Sbd box	145.8
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	
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC	
B: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	
B	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	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
Group delay (usec)(sbd)	6.86898287102E+03			Apriori delay (usec)			6.86886576783E+03			Resid mbdelay (usec)			-7.89681E-03			+/- 1.8E-04			
Sband delay (usec)	6.86899708783E+03			Apriori clock (usec)			-1.2381285E+01			Resid sbdelay (usec)			1.31320E-01			+/- 2.9E-03			
Phase delay (usec)	6.86886576489E+03			Apriori clockrate (us/s)			-2.9999999E-07			Resid phdelay (usec)			-2.94150E-06			+/- 6.2E-07			
Delay rate (us/s)	1.49323367786E+00			Apriori rate (us/s)			1.49324151845E+00			Resid rate (us/s)			-7.84060E-06			+/- 2.6E-09			
Total phase (deg)	-4.6			Apriori accel (us/s/s)			-2.54997202289E-05			Resid phase (deg)			-91.2			+/- 19.3			
ph/seg (deg)	RMS	Theor.	Amplitude		0.130 +/- 0.022		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)		-1.000		1.000				
amp/seg (%)	33.6	33.5	Search (2048X64)		0.103		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)		-0.016		0.016				
ph/frq (deg)	52.7	58.5	Interp.		0.000		Bits/sample: 2x2		Sample rate(MSamp/s): 64		dr window (ns/s)		-0.011		0.011				
amp/frq (%)	47.3	38.7	Inc. seg. avg.		0.129		Data rate(Mb/s): 2048		nlags: 128		t_cohere infinite		ion window (TEC)		0.00		0.00		
	48.2	67.5	Inc. frq. avg.		0.123														

B: az 95.8 el 56.2 pa -52.5 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) -10781.490 -256.340 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/By..130CNK Output file: /Exps/c192b/v2/1234/No0078/By.W.77.130CNK

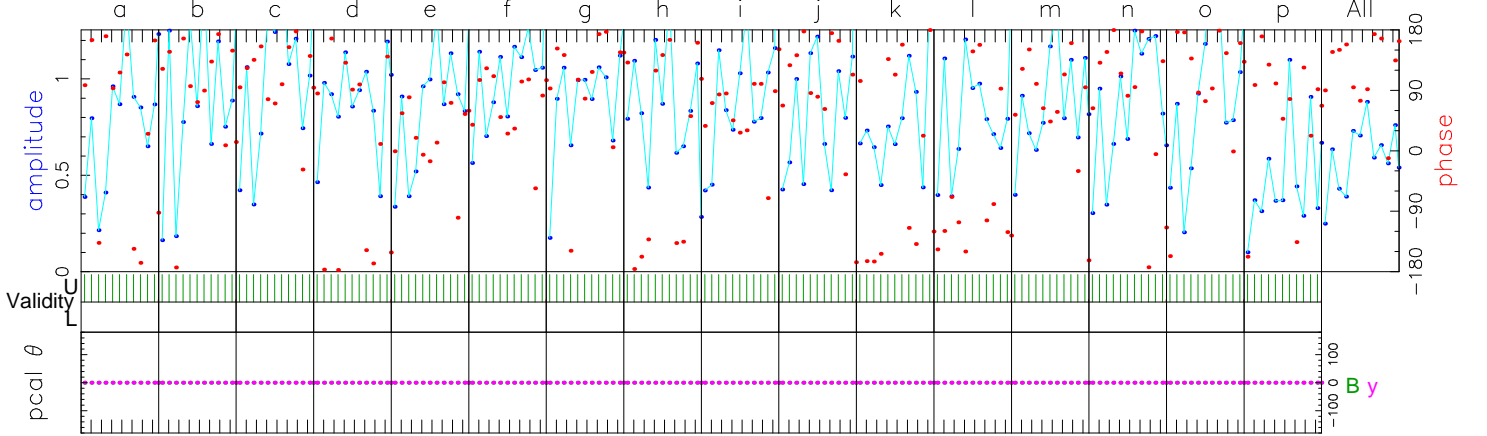


Fringe quality 5

SNR 23.4
Int time 419.814
Amp 0.418
Phase 121.6
PFD 0.0e+00
Delays (us)
SBD -0.002542
MBD -0.002514
Fringe rate (Hz)
-0.016546
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
2020:086:085642
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		
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks
																		Chan ids
																		Tracks
Group delay (usec)(sbd)	6.86886325429E+03			Apriori delay (usec)			6.86886576783E+03			Resid mbdelay (usec)			-2.51354E-03			+/-	4.6E-05	
Sband delay (usec)	6.86886322533E+03			Apriori clock (usec)			-1.2381285E+01			Resid sbdelay (usec)			-2.54250E-03			+/-	7.4E-04	
Phase delay (usec)	6.86886577175E+03			Apriori clockrate (us/s)			-2.9999999E-07			Resid phdelay (usec)			3.92165E-06			+/-	1.6E-07	
Delay rate (us/s)	1.49324132638E+00			Apriori rate (us/s)			1.49324151845E+00			Resid rate (us/s)			-1.92078E-07			+/-	6.5E-10	
Total phase (deg)	208.3			Apriori accel (us/s/s)			-2.54997202289E-05			Resid phase (deg)			121.6			+/-	4.9	

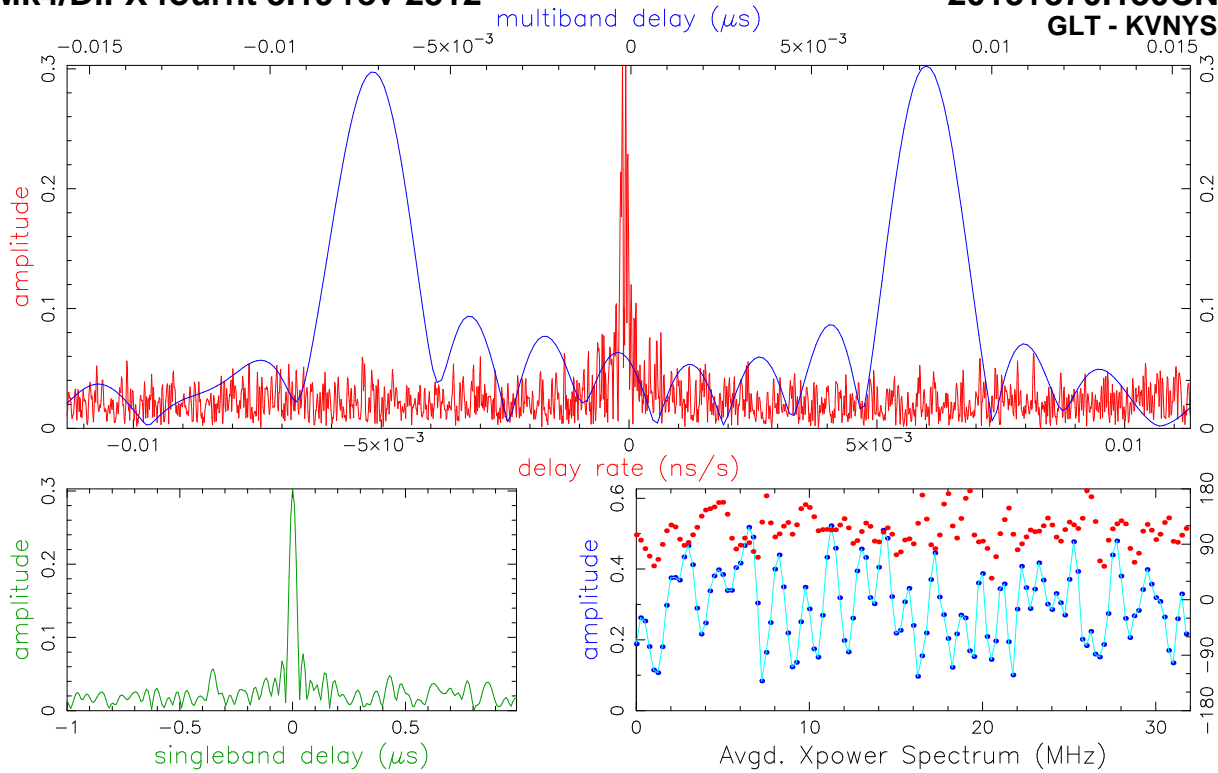
	RMS	Theor.	Amplitude	0.418 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	52.3	8.5	Search (2048X64)	0.401	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	60.0	14.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	48.6	9.8	Inc. seg. avg.	0.593	Sample rate(MISamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	40.9	17.1	Inc. frq. avg.	0.554	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 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) -10781.490 -256.340 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/By..130CNK Output file: /Exps/c192b/v2/1234/No0078/By.W.9.130CNK

Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130CNK, No0078, gy
GLT - KVNYS, fgroup W, pol LL

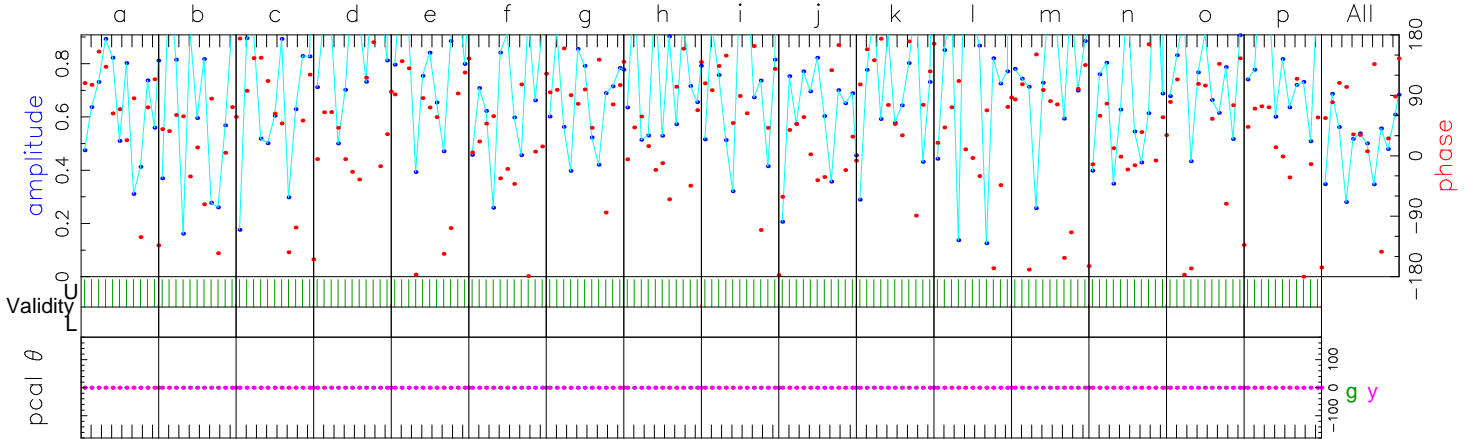


Fringe quality 9

SNR 17.0
Int time 419.602
Amp 0.303
Phase 69.2
PFD 0.0e+00
Delays (us)
SBD 0.000943
MBD 0.008178
Fringe rate (Hz)
-0.011831
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

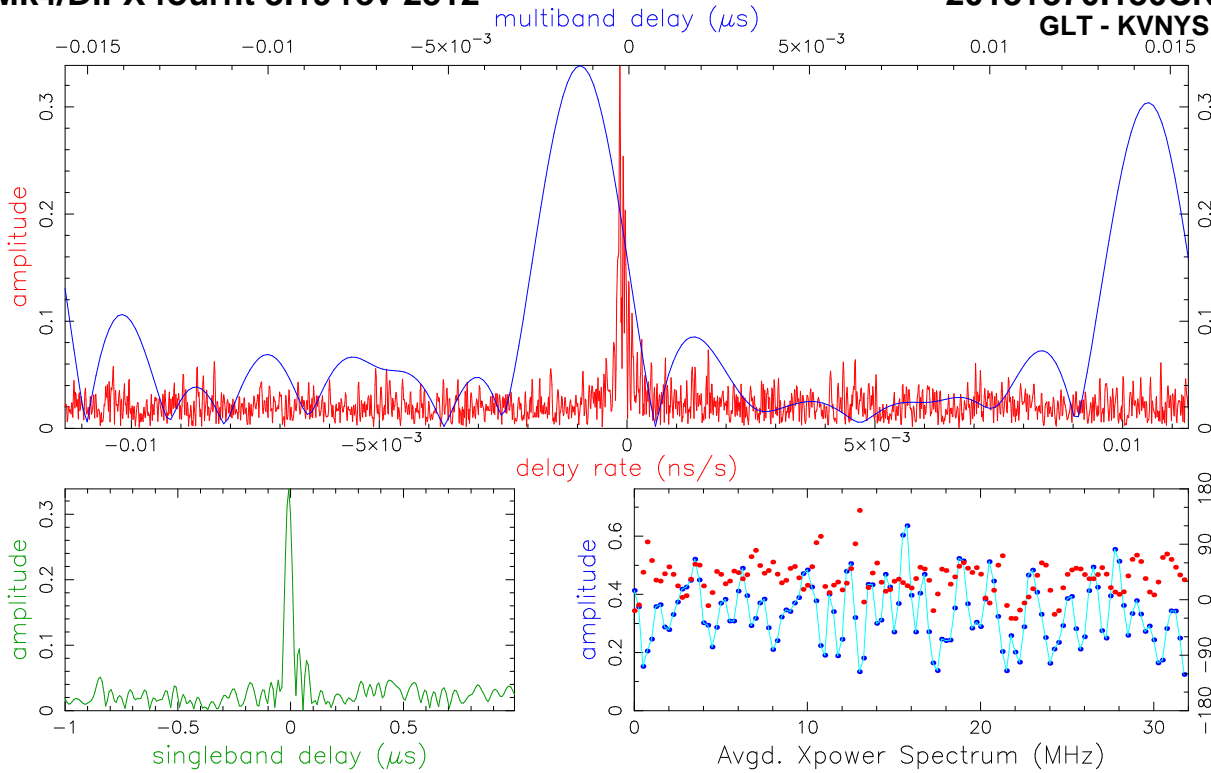
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085643
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

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
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		
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	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)			-3.27405611513E+02															
Sband delay (usec)			-3.27412847054E+02															
Phase delay (usec)			-3.27413787322E+02															
Delay rate (us/s)			1.20709848243E+00															
Total phase (deg)				-230.4														
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		
Pcal mode: MANUAL, MANUAL																		
Pcal rate: 0.000E+00, 0.000E+00 (us/s)																		
Bits/sample: 2x2																		
Sample rate(MSamp/s): 64																		
Data rate(Mb/s): 2048																		
nlags: 128																		
t_cohere infinite																		
ion window (TEC)																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		

ph/seg (deg) 59.2 11.7 Search (2048X64) 0.286 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 74.3 20.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 49.0 13.5 Inc. seg. avg. 0.485 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 44.5 23.6 Inc. frq. avg. 0.415 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
g: az 52.8 el 29.8 pa -13.6 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) -8635.749 4241.525 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/gy..130CNK Output file: /Exps/c192b/v2/1234/No0078/gy.W.14.130CNK

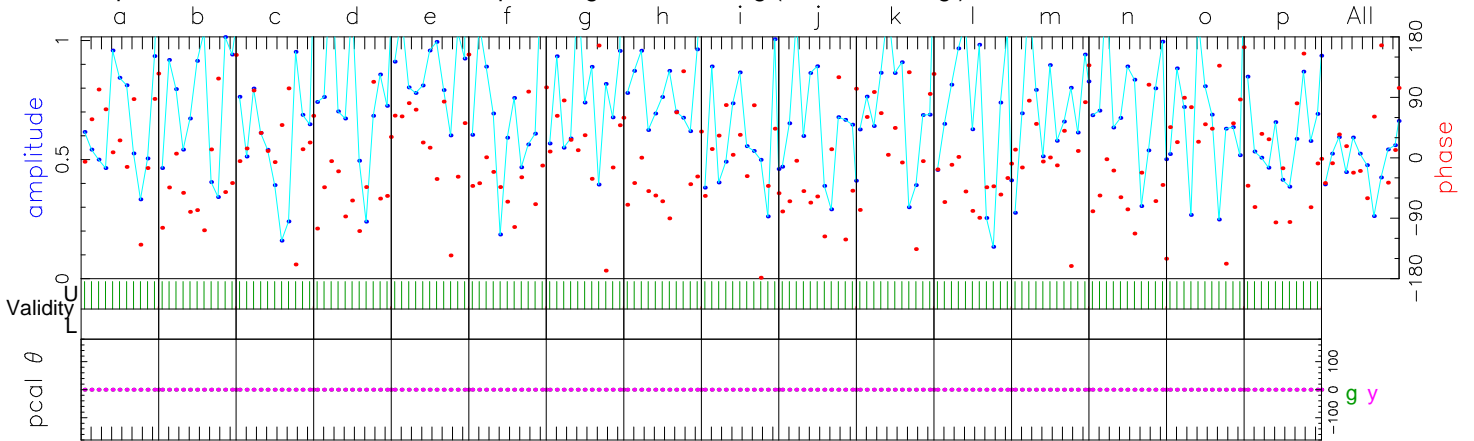


Fringe quality 7

SNR 19.0
Int time 419.569
Amp 0.339
Phase -7.6
PFD 0.0e+00
Delays (us)
SBD -0.008671
MBD -0.001355
Fringe rate (Hz)
-0.011959
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
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		
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)			-3.27415144648E+02															
Sband delay (usec)			-3.27422461054E+02															
Phase delay (usec)			-3.27413789799E+02															
Delay rate (us/s)			1.20709848094E+00															
Total phase (deg)				-307.2														
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)																		

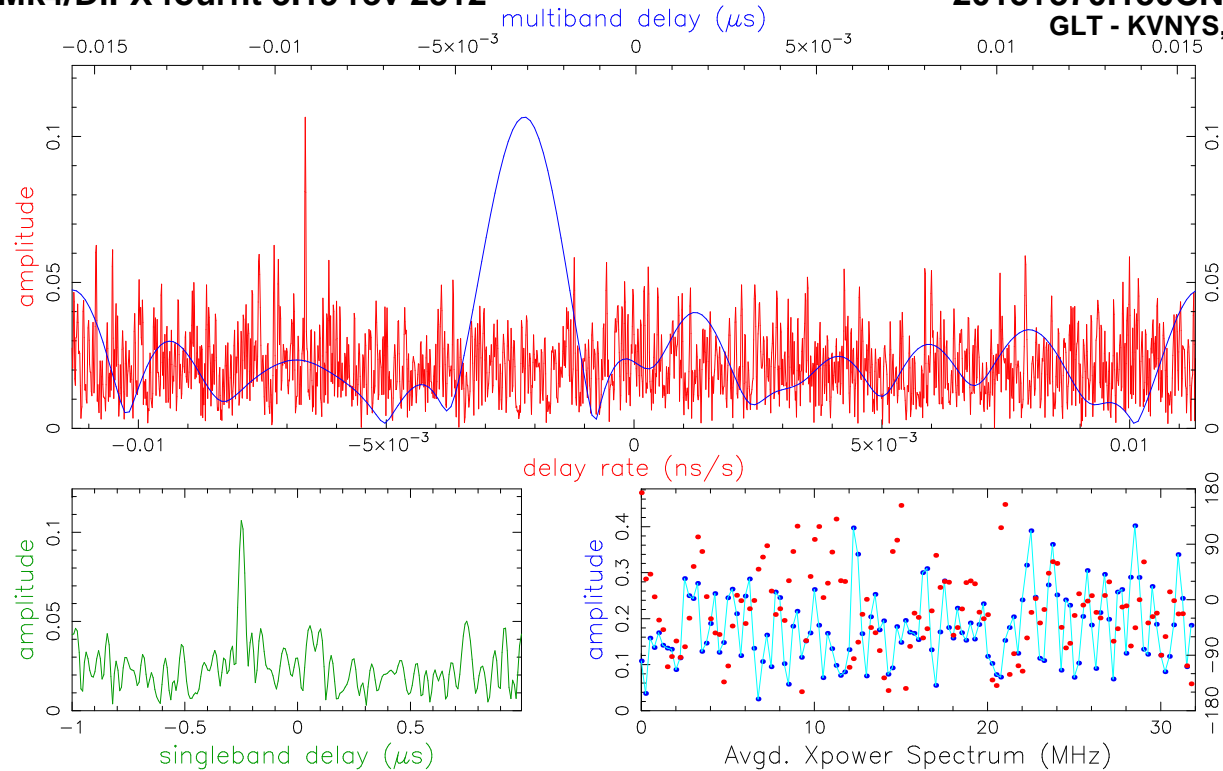
RMS Theor. Amplitude 0.339 +/- 0.018
Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

ph/seg (deg) 63.0
amp/seg (%) 52.3
ph/frq (deg) 45.2
amp/frq (%) 45.0

g: az 52.8 el 29.8 pa -13.6
y: az 295.1 el 31.5 pa 64.1
u,v (fr/asec) -8635.749 4241.525

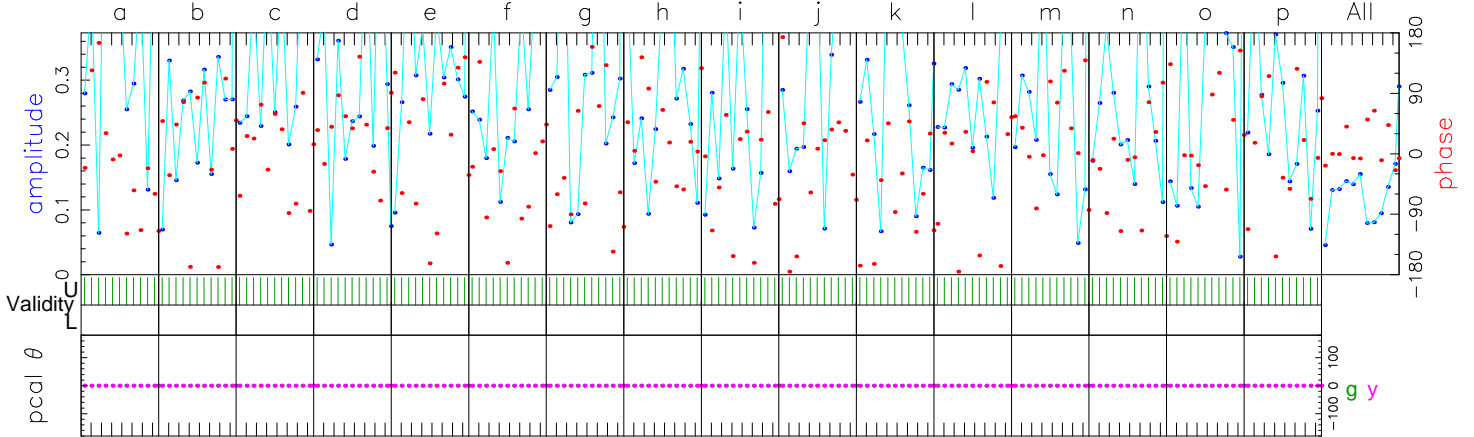
simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/gy..130CNK Output file: /Exps/c192b/v2/1234/No0078/gy.W.30.130CNK



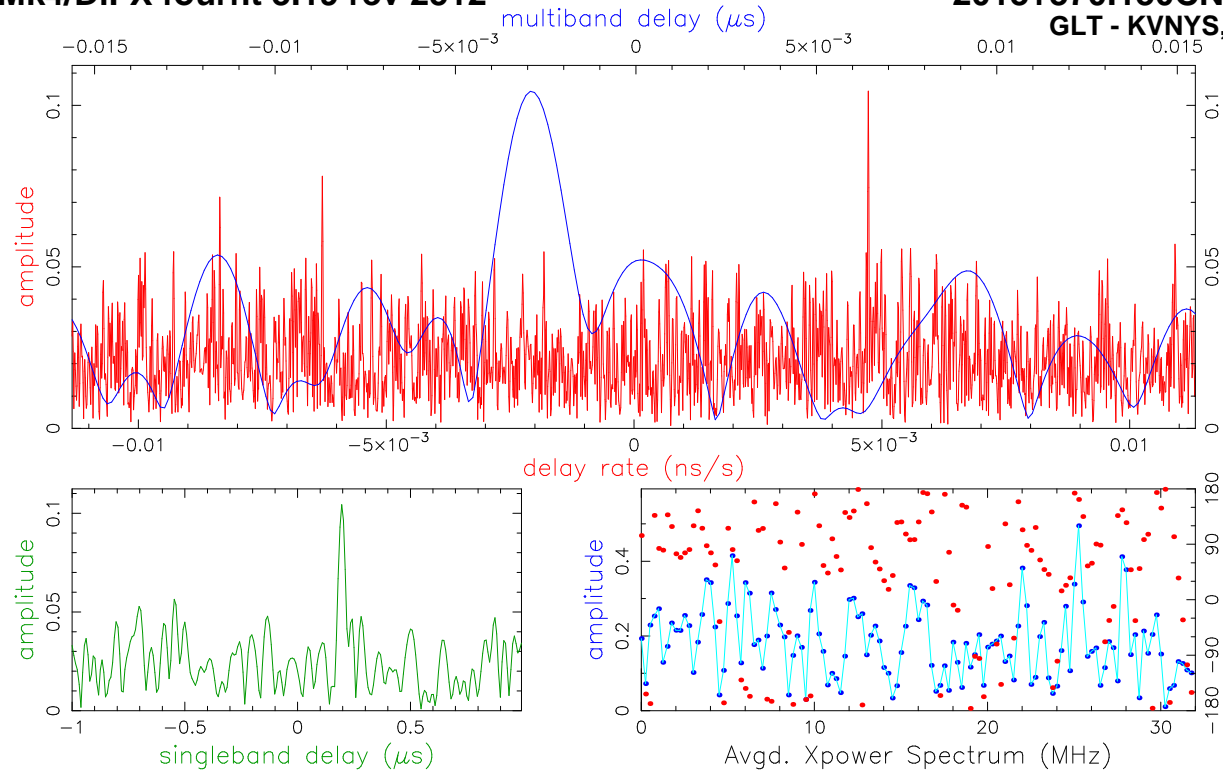
Fringe quality 0
SNR 6.0
Int time 419.602
Amp 0.124
Phase 8.9
PFD 3.6e-01
Delays (us)
SBD -0.247749
MBD -0.003142
Fringe rate (Hz)
-0.572305
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085655
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				
	-27.9	75.0	7.6	22.8	79.7	-17.8	-52.4	19.4	8.6	10.7	-25.9	55.6	38.7	-42.6	26.2	14.8	Phase	8.9				
	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1				
	254.1	221.6	12.4	241.4	127.1	248.5	161.7	98.5	158.4	101.9	40.2	23.3	37.2	126.3	22.3	248.1	Sbd box	97.3				
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					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-3.27666931733E+02														Apriori delay (usec)	-3.27413789554E+02	Resid mbdelay (usec)	-3.14218E-03	+/-	1.8E-04
Sband delay (usec)			-3.27661538554E+02														Apriori clock (usec)	-2.7906940E+01	Resid sbdelay (usec)	-2.47749E-01	+/-	2.9E-03
Phase delay (usec)			-3.27413789267E+02														Apriori clockrate (us/s)	-2.4999994E-08	Resid phdelay (usec)	2.86911E-07	+/-	6.1E-07
Delay rate (us/s)			1.20709197588E+00														Apriori rate (us/s)	1.20709861978E+00	Resid rate (us/s)	-6.64389E-06	+/-	2.5E-09
Total phase (deg)																	Apriori accel (us/s/s)	2.64317430901E-05	Resid phase (deg)	8.9	+/-	19.0

ph/seg (deg) RMS Theor. Amplitude 0.124 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 29.7 33.0 Search (2048X64) 0.103 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 38.3 57.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 40.3 38.0 Inc. seg. avg. 0.119 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 43.4 66.4 Inc. frq. avg. 0.119 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 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) -8635.749 4241.525 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/gy..130CNK Output file: /Exps/c192b/v2/1234/No0078/gy.W.54.130CNK

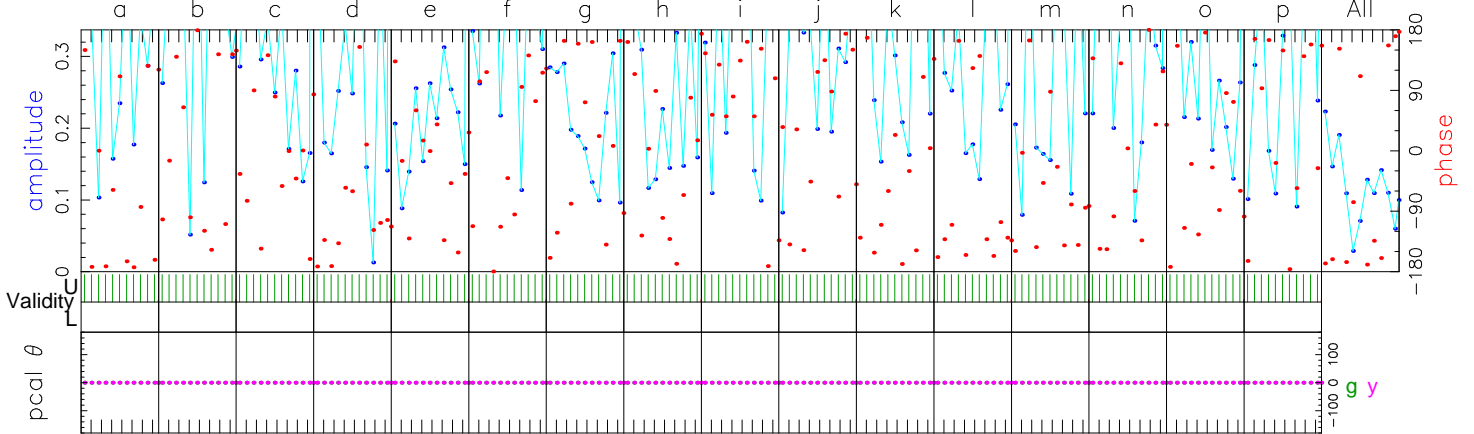


Fringe quality 0

SNR 5.9
Int time 419.569
Amp 0.112
Phase -175.4
PFD 7.1e-01
Delays (us)
SBD 0.196053
MBD -0.002888
Fringe rate (Hz) 0.408241
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

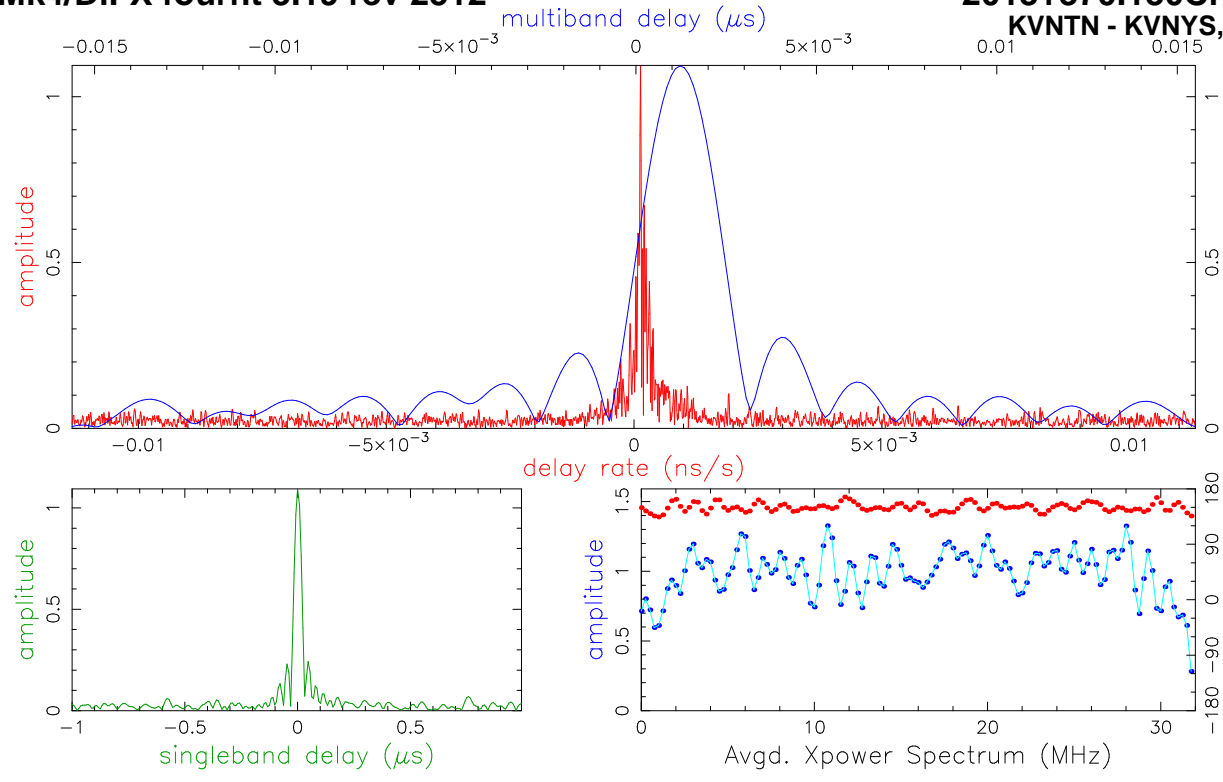
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085700
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

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				
	-175.6	179.5	-24.6	-134.0	-13.8	149.1	-155.4	164.6	128.8	164.1	-162.6	-151.2	-124.4	-176.7	-150.1	152.9	Phase	-175.4				
	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.3	0.1	0.1	0.3	0.1	0.1	0.1	0.2	Ampl.	0.1				
	87.0	228.5	37.8	212.2	157.6	90.6	195.3	118.9	153.6	10.5	63.8	154.7	40.0	144.2	136.8	255.6	Sbd box	154.1				
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					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-3.27229177280E+02														Apriori delay (usec)	-3.27413789554E+02	Resid mbdelay (usec)	-2.88773E-03	+/-	1.8E-04
Sband delay (usec)			-3.27217736554E+02														Apriori clock (usec)	-2.7906940E+01	Resid sbdelay (usec)	1.96053E-01	+/-	2.9E-03
Phase delay (usec)			-3.27413795211E+02														Apriori clockrate (us/s)	-2.4999994E-08	Resid phdelay (usec)	-5.65644E-06	+/-	6.3E-07
Delay rate (us/s)			1.20710335905E+00														Apriori rate (us/s)	1.20709861978E+00	Resid rate (us/s)	4.73928E-06	+/-	2.6E-09
Total phase (deg)																	Apriori accel (us/s/s)	2.64317430901E-05	Resid phase (deg)	-175.4	+/-	19.6

ph/seg (deg) 42.0 33.9 Search (2048X64) 0.103 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 53.2 59.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 66.1 39.2 Inc. seg. avg. 0.110 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 66.6 68.4 Inc. frq. avg. 0.118 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 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) -8635.749 4241.525 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/gy..130CNK Output file: /Exps/c192b/v2/1234/No0078/gy.W.72.130CNK

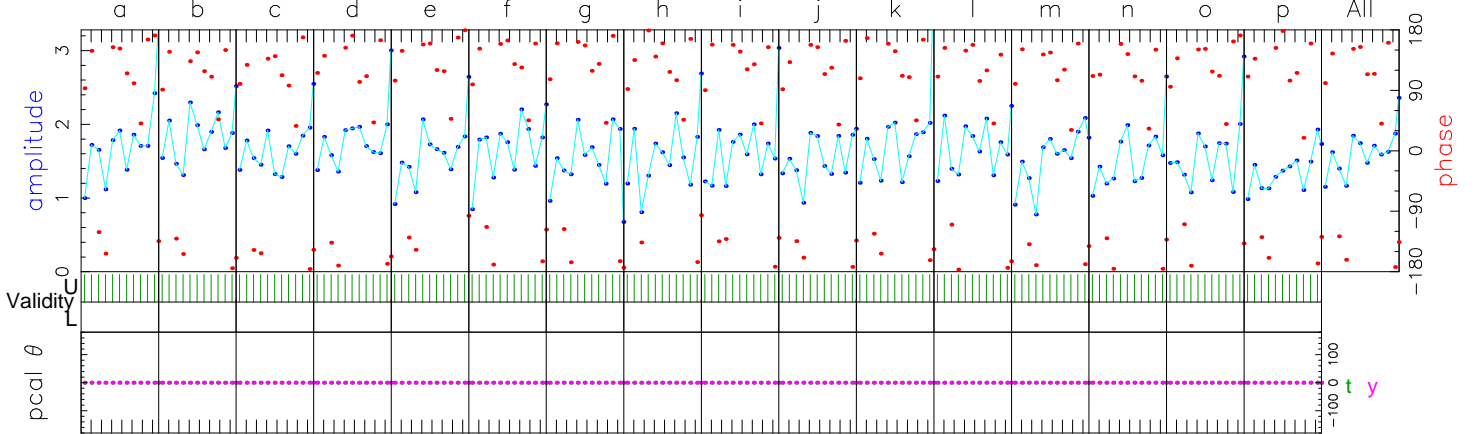


Fringe quality 5

SNR 61.3
Int time 419.817
Amp 1.094
Phase 148.4
PFD 0.0e+00
Delays (us)
SBD 0.000957
MBD 0.001233
Fringe rate (Hz) 0.011749
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

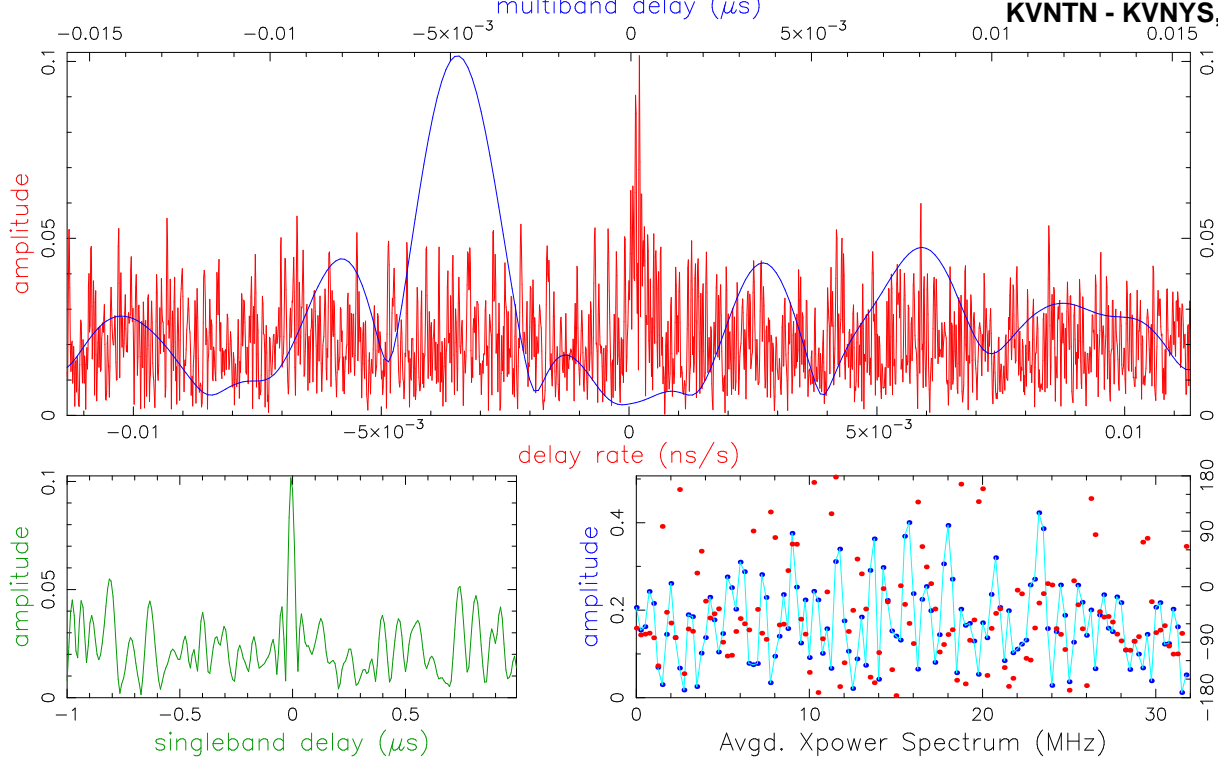
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085711
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

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



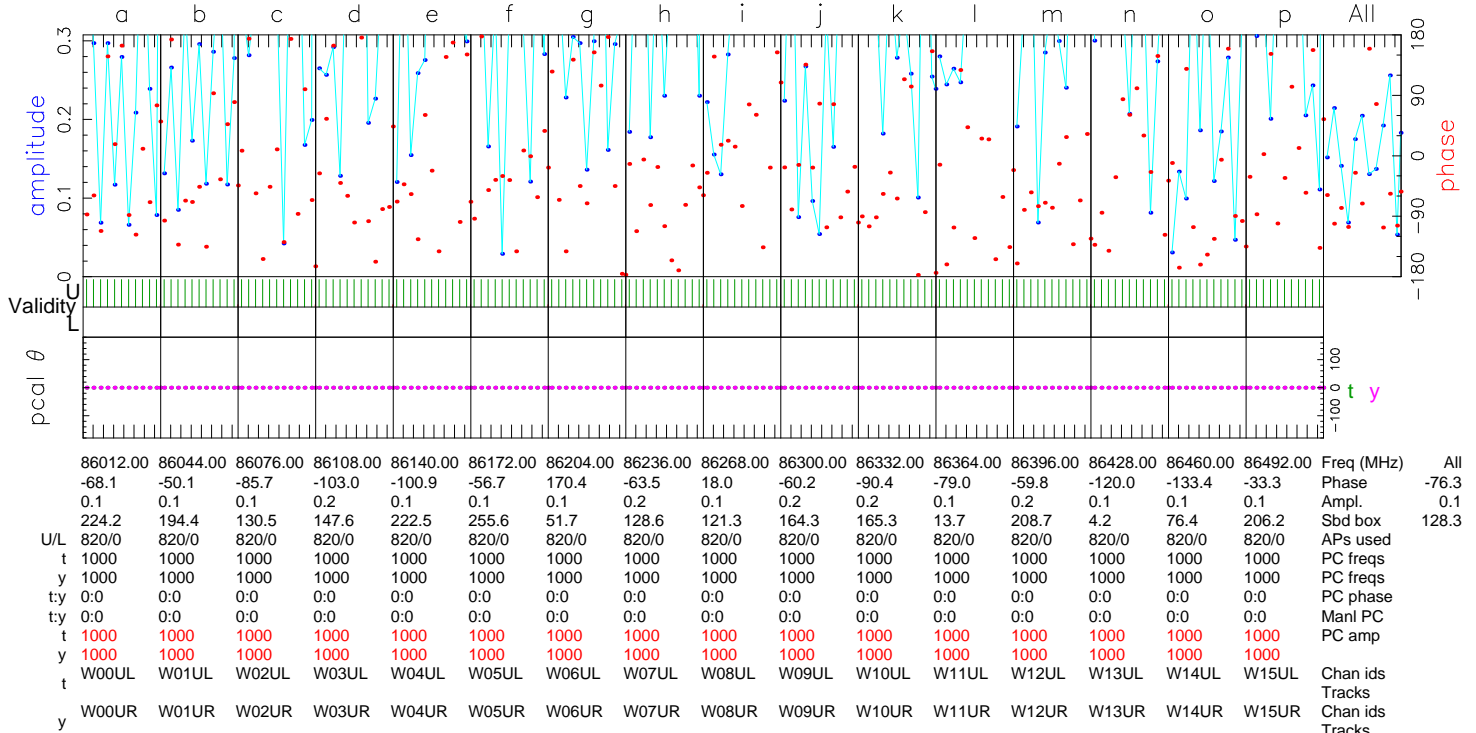
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0			
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
t	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			
t	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)	-4.99040580860E+02			Apriori delay (usec)			-4.99041813538E+02			Resid mbdelay (usec)			1.23268E-03			+/- 1.8E-05			
Sband delay (usec)	-4.99040857038E+02			Apriori clock (usec)			-1.4782391E+00			Resid sbdelay (usec)			9.56500E-04			+/- 2.8E-04			
Phase delay (usec)	-4.99041808752E+02			Apriori clockrate (us/s)			1.0000001E-07			Resid phdelay (usec)			4.78589E-06			+/- 6.0E-08			
Delay rate (us/s)	-4.98705596022E-02			Apriori rate (us/s)			-4.98706959974E-02			Resid rate (us/s)			1.36395E-07			+/- 2.5E-10			
Total phase (deg)	-146.1			Apriori accel (us/s/s)			-1.50194209262E-06			Resid phase (deg)			148.4			+/- 1.9			

ph/seg (deg) 50.3 3.2 Search (2048X64) 1.039 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 48.8 5.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 6.7 3.7 Inc. seg. avg. 1.568 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 7.7 6.5 Inc. frq. avg. 1.097 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 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) 355.491 -522.118 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/ty..130CNK Output file: /Exps/c192b/v2/1234/No0078/ty.W.101.130CNK



Fringe quality 0
SNR 5.7
Int time 419.817
Amp 0.103
Phase -76.3
PFD 9.0e-01
Delays (us)
SBD -0.005672
MBD -0.004827
Fringe rate (Hz)
0.018118
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
2020:086:085717
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

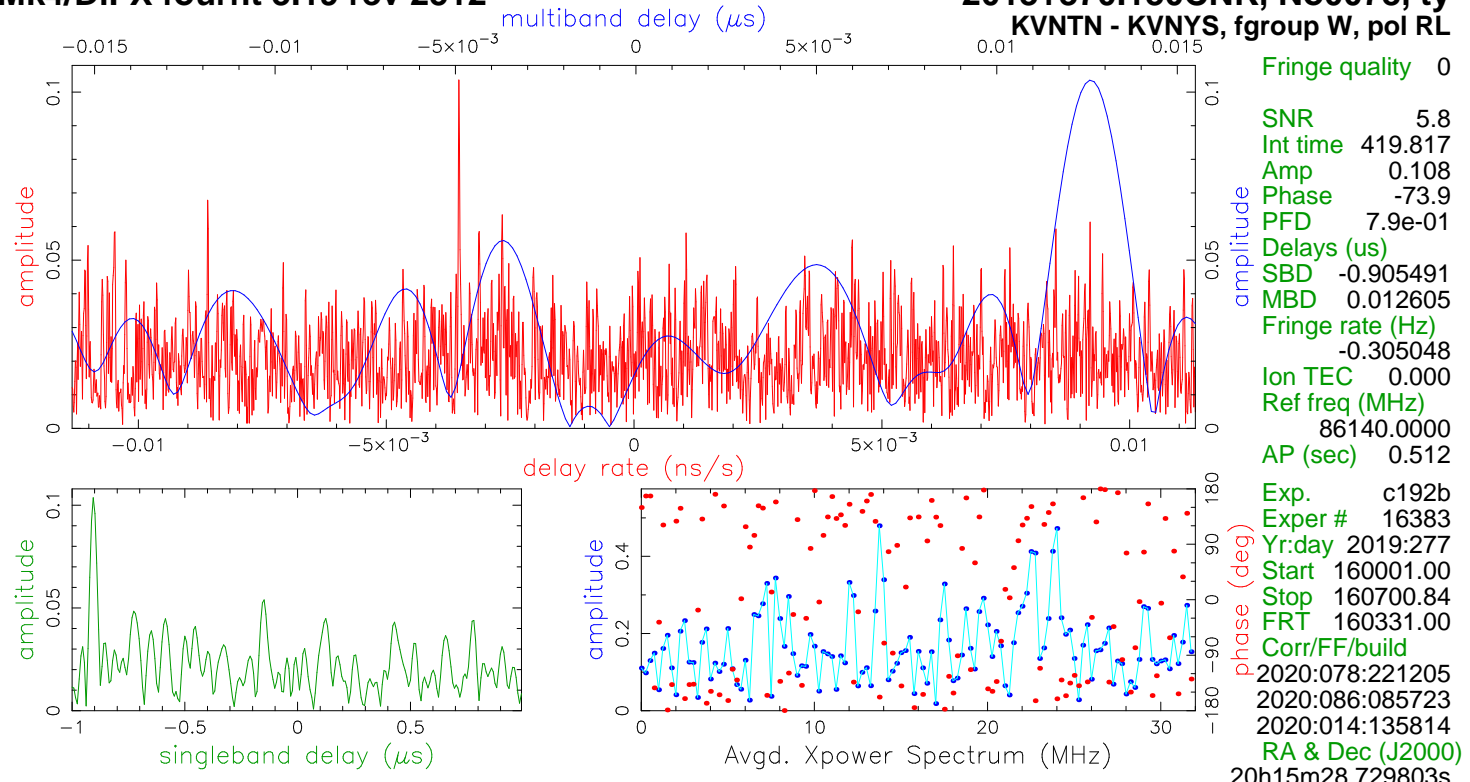


86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
-68.1	-50.1	-85.7	-103.0	-100.9	-56.7	170.4	-63.5	18.0	-60.2	-90.4	-79.0	-59.8	-120.0	-133.4	-33.3	Phase	-76.3
0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
224.2	194.4	130.5	147.6	222.5	255.6	51.7	128.6	121.3	164.3	165.3	13.7	208.7	4.2	76.4	206.2	Sbd box	128.3
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	
y 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
ty 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
ty 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
y W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
y W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) -4.99046640511E+02 Apriori delay (usec) -4.99041813538E+02 Resid mbdelay (usec) -4.82697E-03 +/- 1.9E-04
 Sband delay (usec) -4.99047485538E+02 Apriori clock (usec) -1.4782391E+00 Resid sbdelay (usec) -5.67200E-03 +/- 3.0E-03
 Phase delay (usec) -4.99041815998E+02 Apriori clockrate (us/s) 1.0000001E-07 Resid phdelay (usec) -2.46062E-06 +/- 6.4E-07
 Delay rate (us/s) -4.98704856663E-02 Apriori rate (us/s) -4.98706959974E-02 Resid rate (us/s) 2.10331E-07 +/- 2.7E-09
 Total phase (deg) -10.8 Apriori accel (us/s/s) -1.50194209262E-06 Resid phase (deg) -76.3 +/- 19.9

ph/seg (deg) RMS Theor. Amplitude 0.103 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.1 34.5 Search (2048X64) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 77.4 60.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 48.0 39.9 Inc. seg. avg. 0.133 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 55.0 69.6 Inc. frq. avg. 0.103 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 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) 355.491 -522.118 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/ty..130CNK Output file: /Exps/c192b/v2/1234/No0078/ty.W.121.130CNK



Fringe quality 0

SNR 5.8

Int time 419.817

Amp 0.108

Phase -73.9

PFD 7.9e-01

Delays (us)

SBD -0.905491

MBD 0.012605

Fringe rate (Hz)

-0.305048

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

2020:086:085723

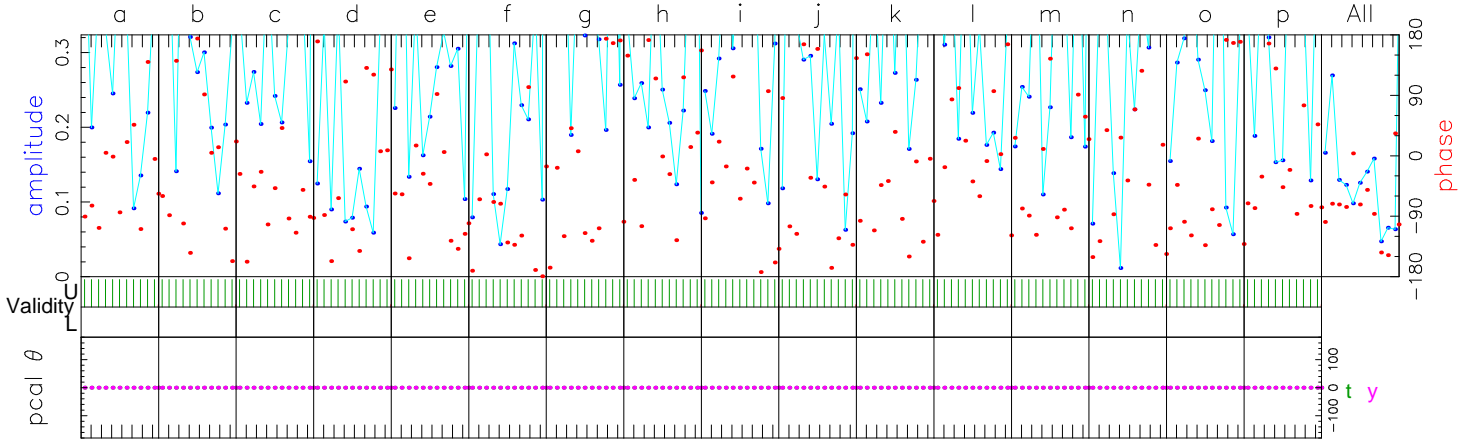
2020:014:135814

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			
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
Group delay (usec)(sbd)			-4.99935458179E+02																
Sband delay (usec)			-4.99947305038E+02																
Phase delay (usec)			-4.99041815920E+02																
Delay rate (us/s)			-4.98742373011E-02																
Total phase (deg)					-8.4														
Apriori delay (usec)																			
Apriori clock (usec)																			
Apriori clockrate (us/s)																			
Apriori rate (us/s)																			
Apriori accel (us/s/s)																			
Resid mbdelay (usec)																			
Resid sbdelay (usec)																			
Resid phdelay (usec)																			
Resid rate (us/s)																			
Resid phase (deg)																			
PCal mode: MANUAL, MANUAL																			
PCal rate: 0.000E+00, 0.000E+00 (us/s)																			
Bits/sample: 2x2																			
Sample rate(MISamp/s): 64																			
Data rate(Mb/s): 2048																			
nlags: 128																			
t_cohere infinite																			
ion window (TEC)																			
sb window (us)																			
mb window (us)																			
dr window (ns/s)																			
ion window (TEC)																			

ph/seg (deg) 51.4 34.2 Search (2048X64) 0.101 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5

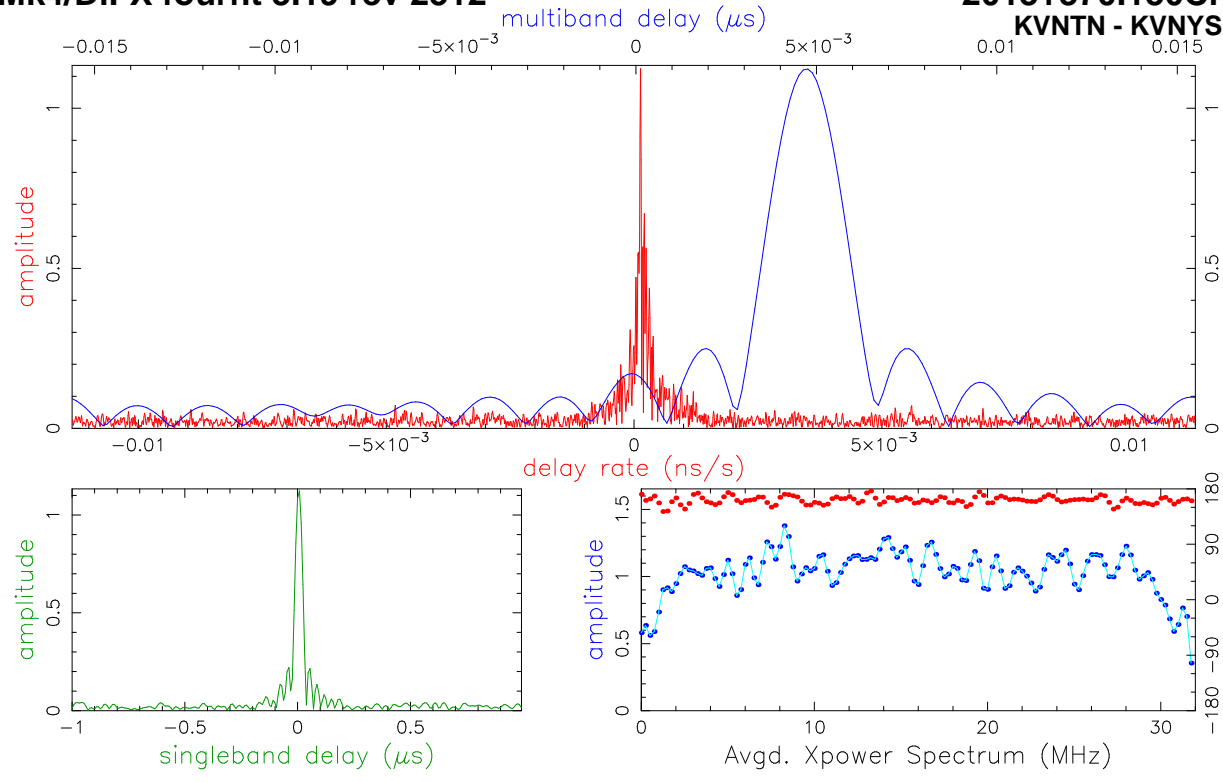
amp/seg (%) 65.3 59.6 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 50.1 39.5 Inc. seg. avg. 0.113 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 56.3 68.9 Inc. frq. avg. 0.113 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 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) 355.491 -522.118 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/ty..130CNK Output file: /Exps/c192b/v2/1234/No0078/ty.W.142.130CNK

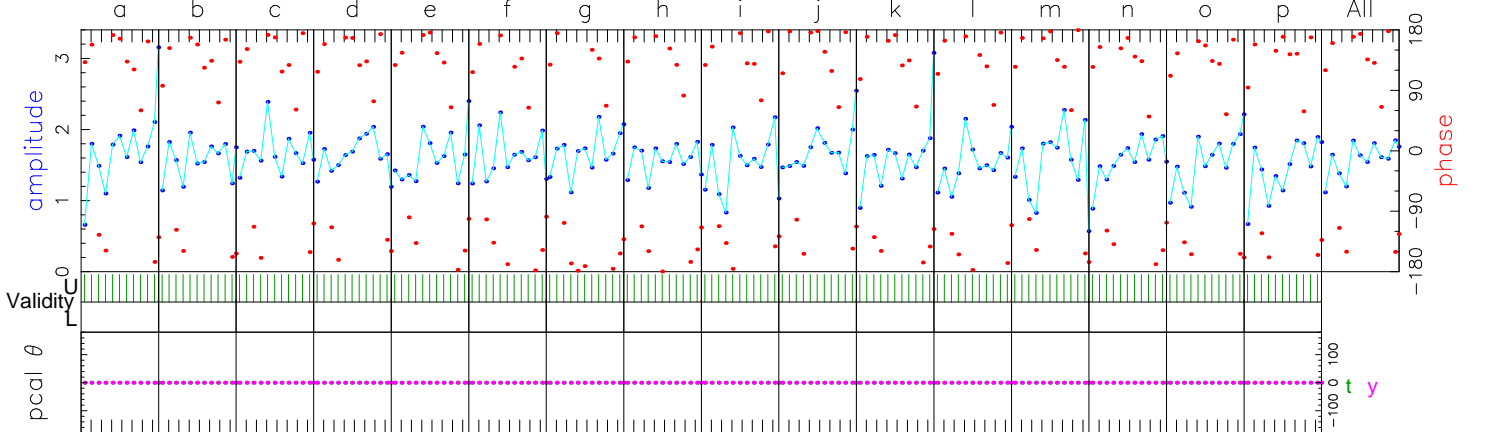


Fringe quality 5

SNR 63.5
Int time 419.817
Amp 1.134
Phase 165.5
PFD 0.0e+00
Delays (us)
SBD 0.005346
MBD 0.004717
Fringe rate (Hz) 0.011730
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
2020:086:085705
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

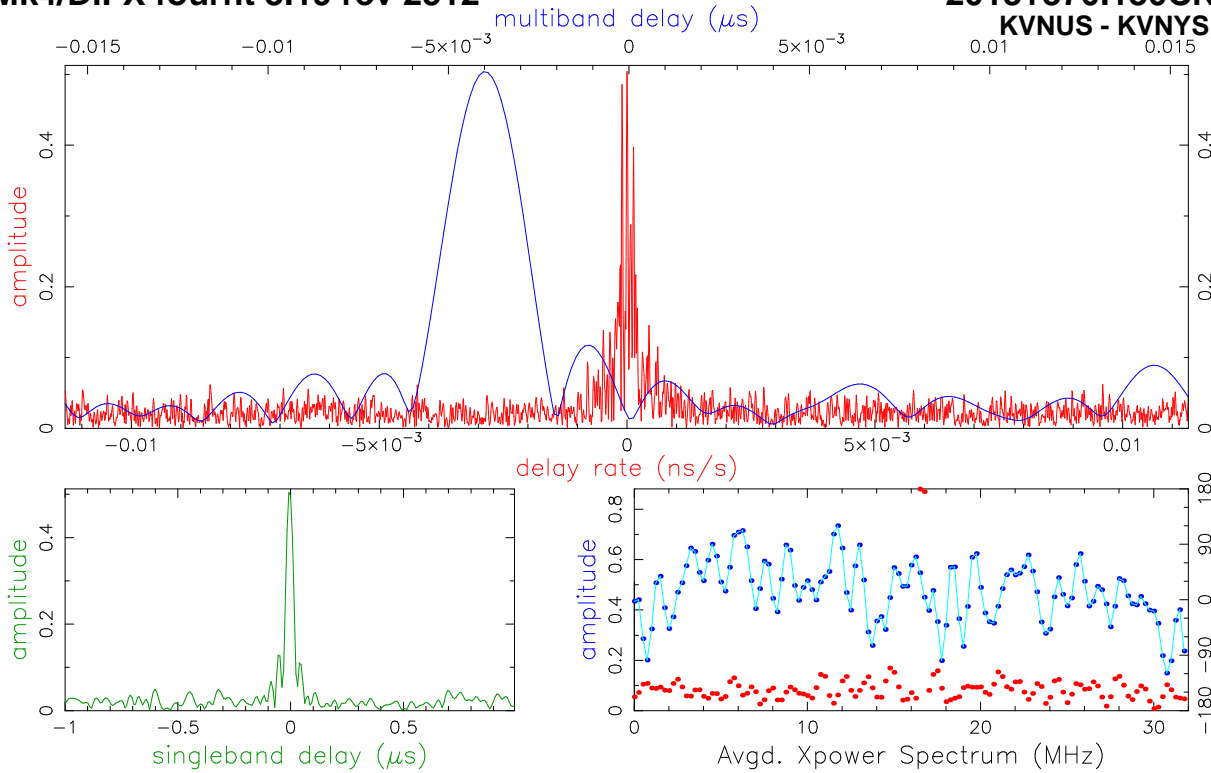
Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



	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
162.3	156.4	164.7	159.8	165.8	169.3	173.7	173.3	168.2	170.1	171.6	165.1	161.5	168.0	156.3	161.4	161.4	Phase	165.5
1.2	1.1	1.2	1.2	1.0	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	Ampl.	1.1
129.7	129.7	129.8	129.7	129.5	129.7	129.6	129.7	129.7	129.8	129.7	129.7	129.7	129.7	129.6	129.7	129.7	Sbd box	129.7
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	
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

Group delay (usec)(sbd) -4.99037096672E+02 Apriori delay (usec) -4.99041813538E+02 Resid mbdelay (usec) 4.71687E-03 +/- 1.7E-05
 Sband delay (usec) -4.99036468038E+02 Apriori clock (usec) -1.4782391E+00 Resid sbdelay (usec) 5.34550E-03 +/- 2.7E-04
 Phase delay (usec) -4.99041808201E+02 Apriori clockrate (us/s) 1.0000001E-07 Resid phdelay (usec) 5.33690E-06 +/- 5.8E-08
 Delay rate (us/s) -4.98705598219E-02 Apriori rate (us/s) -4.98706959974E-02 Resid rate (us/s) 1.36176E-07 +/- 2.4E-10
 Total phase (deg) -129.0 Apriori accel (us/s/s) -1.50194209262E-06 Resid phase (deg) 165.5 +/- 1.8

RMS Theor. Amplitude 1.134 +/- 0.018
 ph/seg (deg) 47.6 3.1 Search (2048X64) 1.080 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 43.4 5.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 5.7 3.6 Inc. seg. avg. 1.566 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 4.8 6.3 Inc. frq. avg. 1.127 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 t: az 297.2 el 30.0 pa 69.0 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) 355.491 -522.118 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/ty..130CNK Output file: /Exps/c192b/v2/1234/No0078/ty.W.81.130CNK simultaneous interpolator

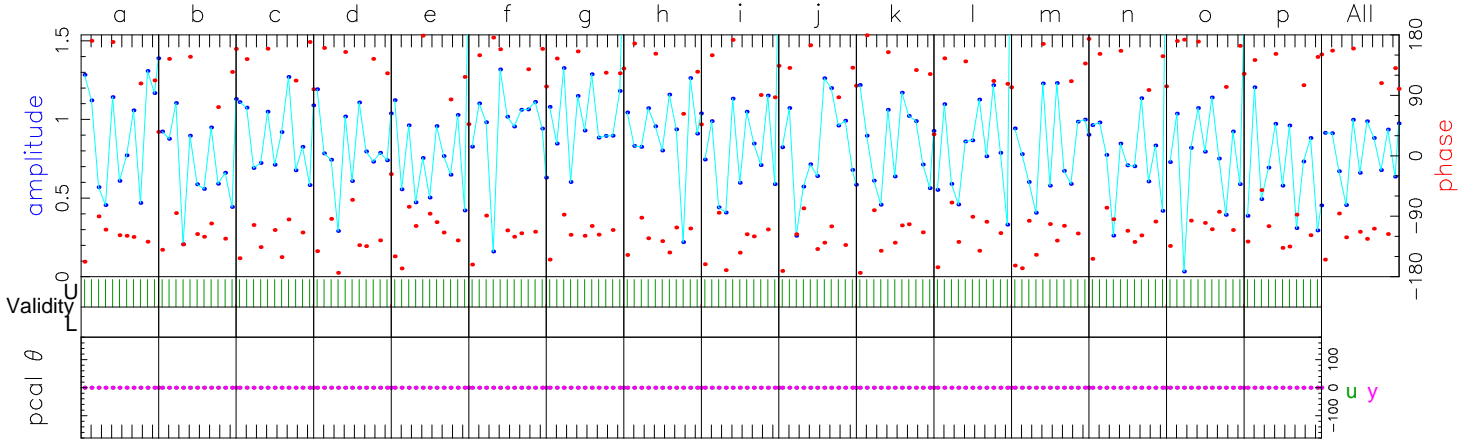


Fringe quality 7

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

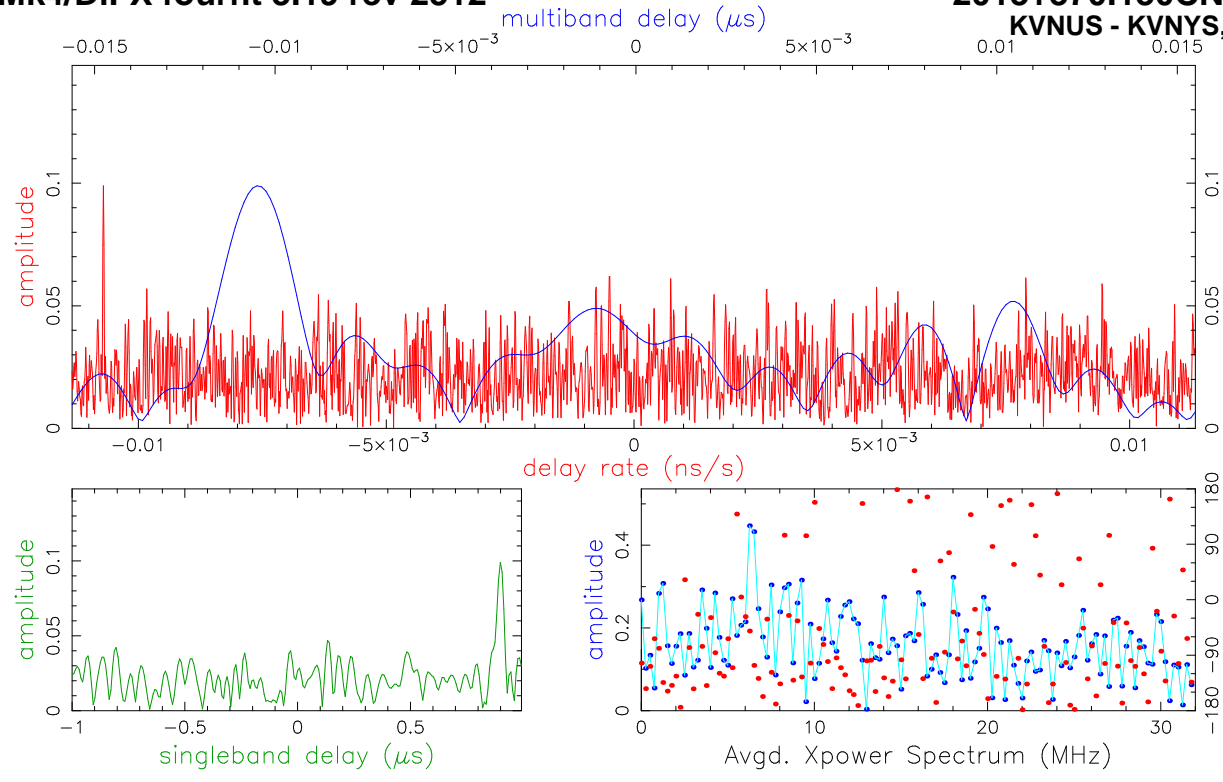
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085714
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

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	APs used		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
y	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 Search (2048X64) 0.498 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.4 12.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 9.4 8.0 Inc. seg. avg. 0.790 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 16.4 13.9 Inc. frq. avg. 0.505 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.109.130CNK

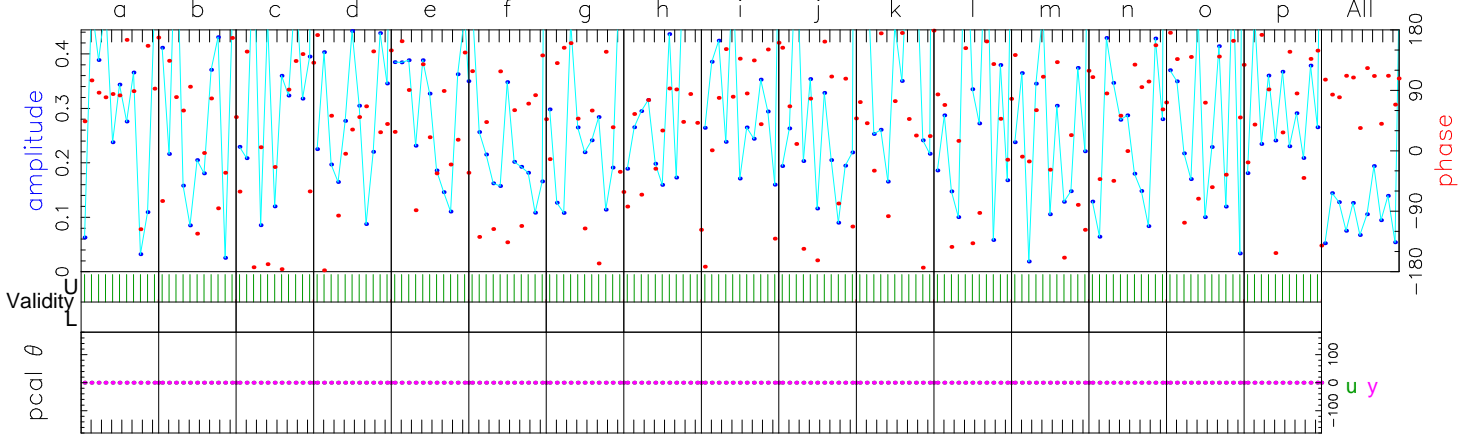


Fringe quality 0

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



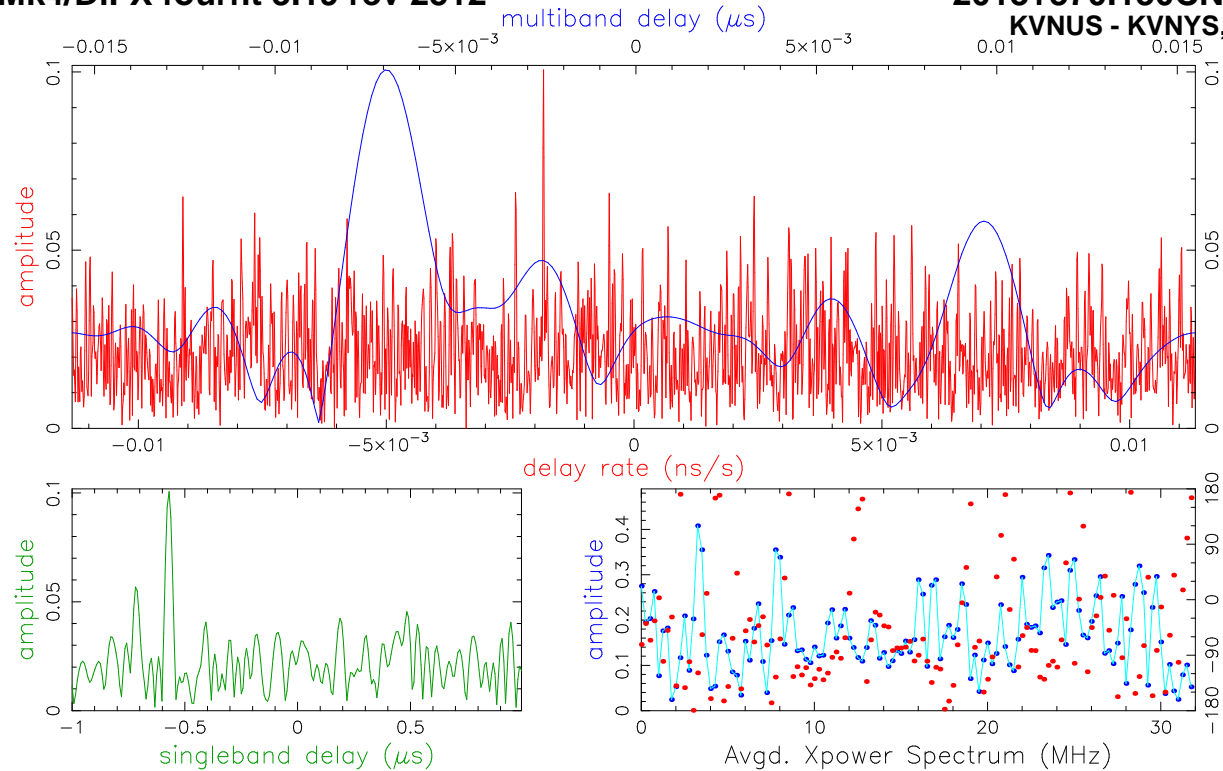
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)			-8.46098527462E+02															
Sband delay (usec)			-8.46094428390E+02															
Phase delay (usec)			-8.46994297340E+02															
Delay rate (us/s)			-3.36245037539E-02															
Total phase (deg)				81.8														
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		

ph/seg (deg) 29.6 35.7
amp/seg (%) 53.6 62.3
ph/frq (deg) 42.5 41.2
amp/frq (%) 68.5 71.9

RMS Theor. Amplitude 0.148 +/- 0.027
Search (2048X64) 0.095
Interp. 0.000
Inc. seg. avg. 0.137
Inc. frq. avg. 0.149

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

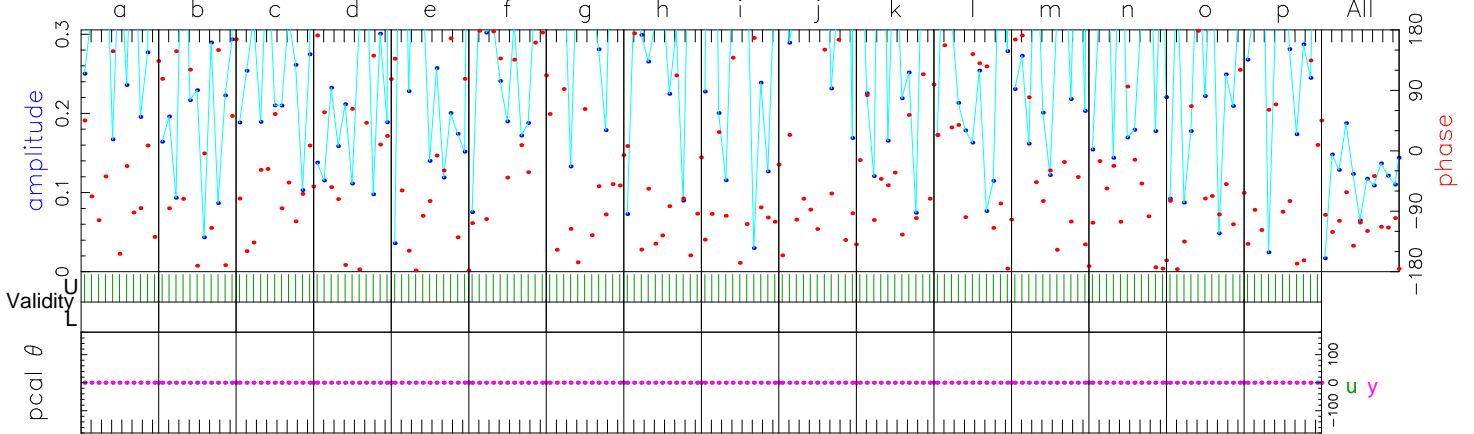


Fringe quality 0

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

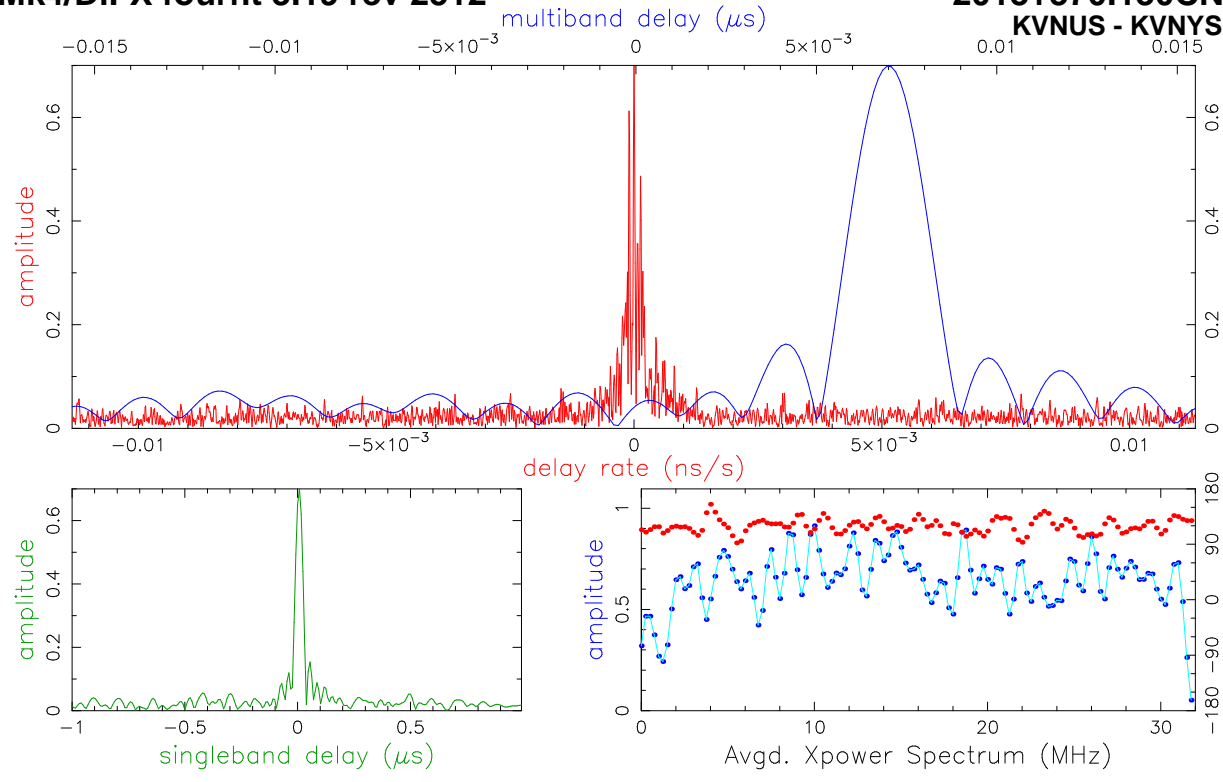
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085725
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

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(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 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

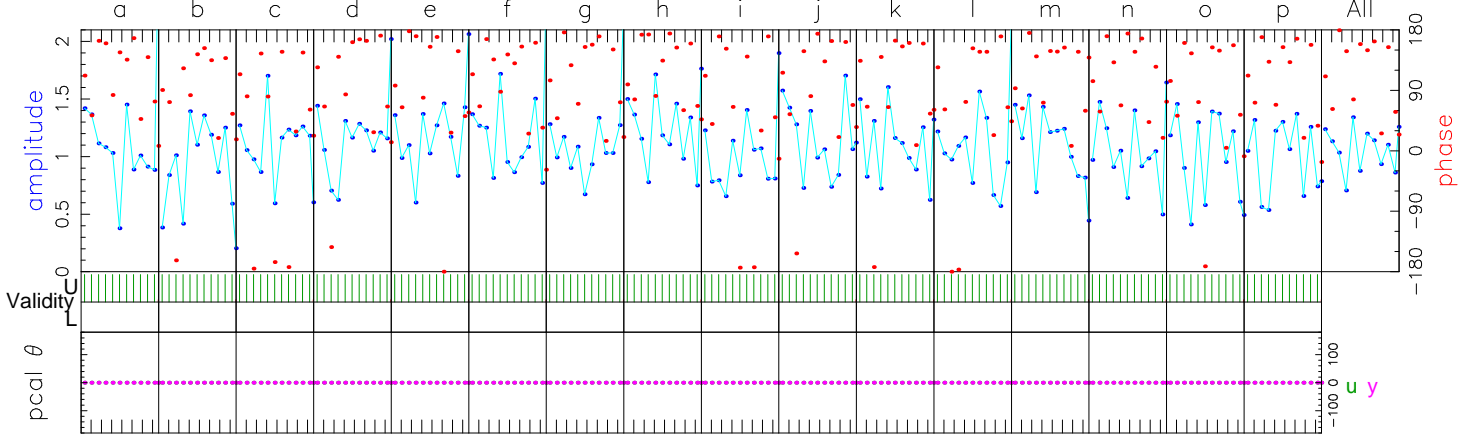


Fringe quality 5

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"

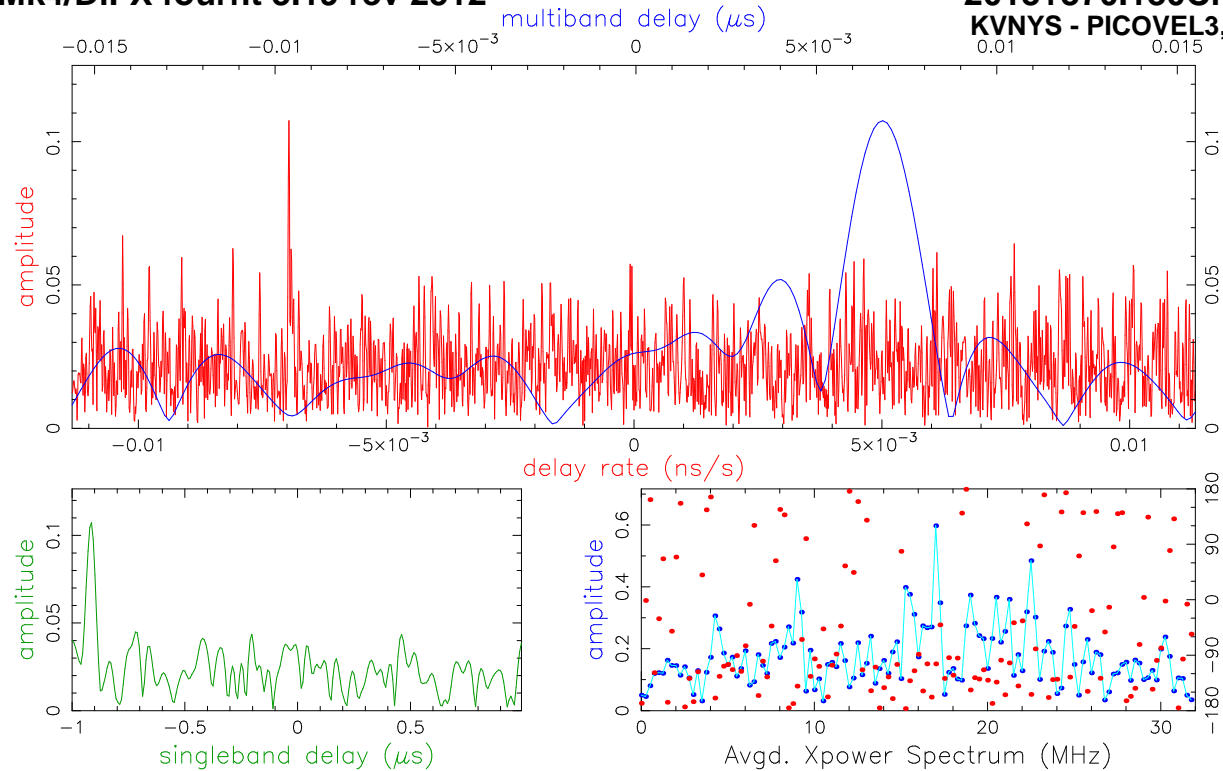
Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



	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	119.0	Phase
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	119.0	Ampl.
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	129.9	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	119.0	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	119.0	PC freqs
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	119.0	PC phase
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	119.0	Mani PC
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	119.0	PC amp
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	119.0	Chan ids
																	119.0	Tracks
																	119.0	Tracks
Group delay (usec)(sbd)			-8.46987301483E+02														6.99891E-03	+/- 2.7E-05
Sband delay (usec)			-8.46987410890E+02														6.88950E-03	+/- 4.4E-04
Phase delay (usec)			-8.46994296551E+02														3.83864E-06	+/- 9.4E-08
Delay rate (us/s)			-3.36137780742E-02														9.12622E-10	+/- 3.9E-10
Total phase (deg)					106.2												119.0	+/- 2.9
ph/seg (deg)	50.6	5.1																
amp/seg (%)	56.6	8.8																
ph/frq (deg)	4.9	5.8																
amp/frq (%)	10.9	10.2																

Group delay (usec)(sbd) -8.46987301483E+02 Apriori delay (usec) -8.46994300390E+02 Resid mbdelay (usec) 6.99891E-03 +/- 2.7E-05
 Sband delay (usec) -8.46987410890E+02 Apriori clock (usec) -2.0751719E+01 Resid sbdelay (usec) 6.88950E-03 +/- 4.4E-04
 Phase delay (usec) -8.46994296551E+02 Apriori clockrate (us/s) 2.9999999E-07 Resid phdelay (usec) 3.83864E-06 +/- 9.4E-08
 Delay rate (us/s) -3.36137780742E-02 Apriori rate (us/s) -3.36137789868E-02 Resid rate (us/s) 9.12622E-10 +/- 3.9E-10
 Total phase (deg) 106.2 Apriori accel (us/s/s) 2.46105573358E-06 Resid phase (deg) 119.0 +/- 2.9

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 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.87.130CNK

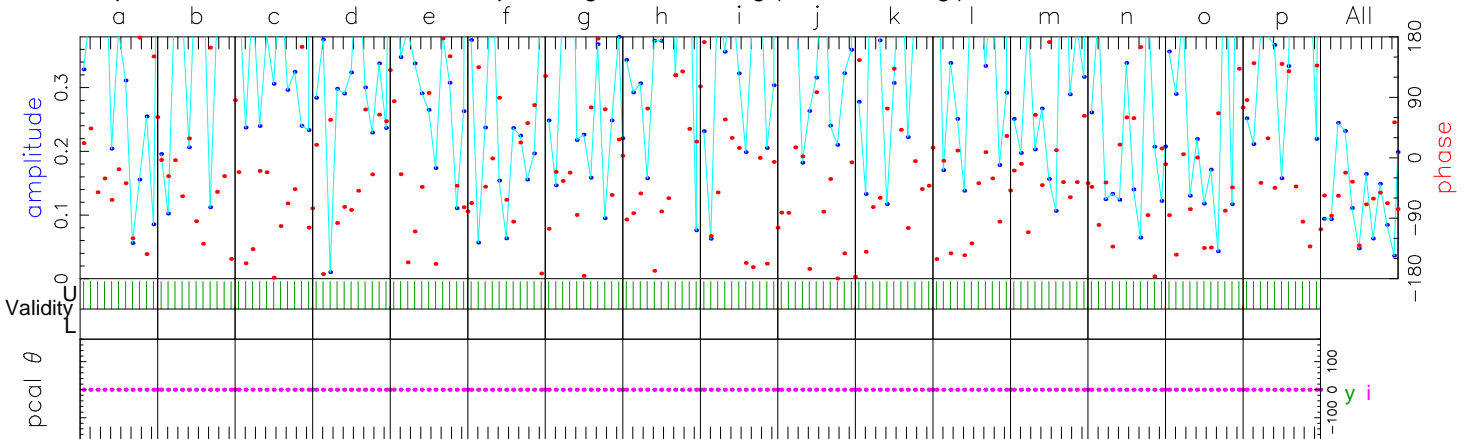


Fringe quality 0

SNR 6.0
Int time 419.824
Amp 0.127
Phase -53.5
PFD 3.3e-01
Delays (us)
SBD -0.916225
MBD 0.006835
Fringe rate (Hz)
-0.601035
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

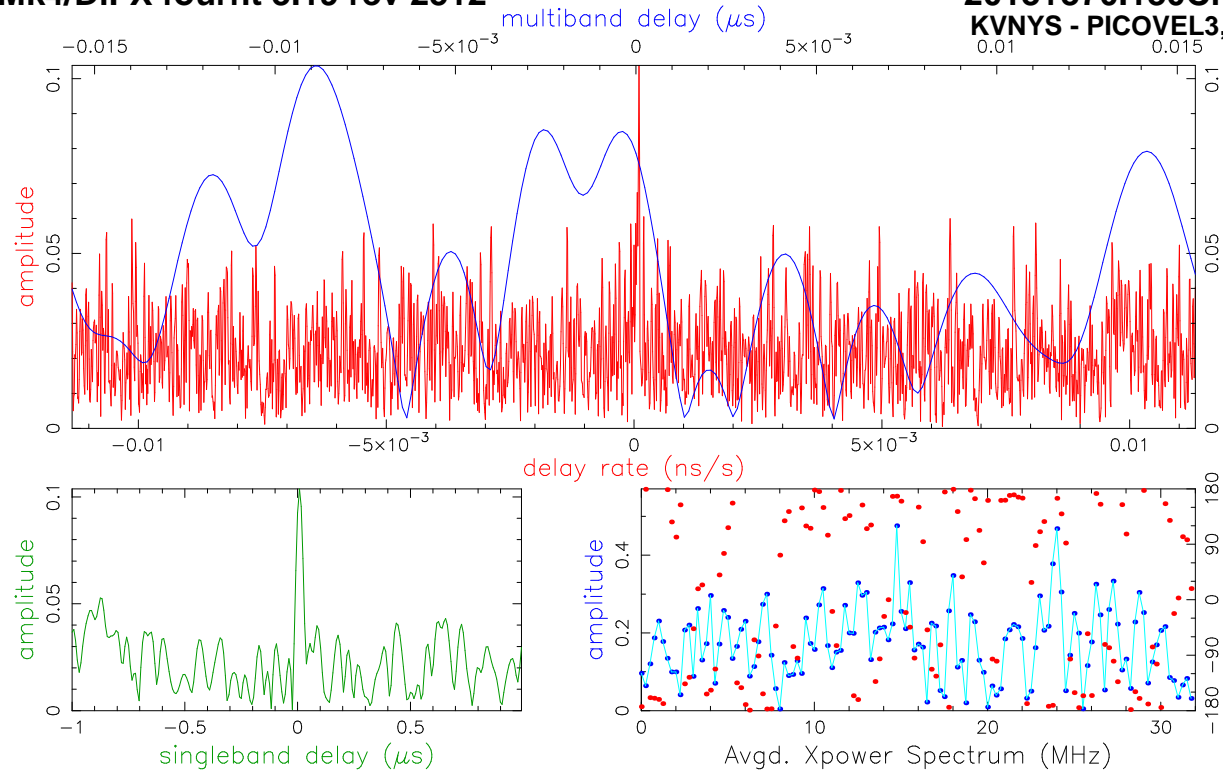


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-26.4	-66.8	-85.4	-28.8	-148.7	-16.5	-34.5	-66.6	-17.0	-68.2	-39.2	-68.5	-31.9	-62.2	-90.9	-64.2	Phase	-53.5				
	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	Ampl.	0.1				
	13.5	208.8	11.2	133.5	253.5	8.0	163.4	32.7	202.0	66.9	147.9	75.3	149.6	187.2	33.2	192.0	Sbd box	11.7				
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					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
y:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
y:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
i	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-4.87037051390E+03														Apriori delay (usec)	-4.86943984918E+03	Resid mbdelay (usec)	6.83528E-03	+/-	1.8E-04
Sband delay (usec)			-4.87035607418E+03														Apriori clock (usec)	2.9717159E+01	Resid sbdelay (usec)	-9.16225E-01	+/-	2.9E-03
Phase delay (usec)			-4.86943985091E+03														Apriori clockrate (us/s)	4.5300000E-07	Resid phdelay (usec)	-1.72521E-06	+/-	6.1E-07
Delay rate (us/s)			-1.74791826977E+00														Apriori rate (us/s)	-1.74791129235E+00	Resid rate (us/s)	-6.97742E-06	+/-	2.5E-09
Total phase (deg)																	Apriori accel (us/s/s)	2.65055289680E-05	Resid phase (deg)	-53.5	+/-	19.0

ph/seg (deg) RMS Theor. Amplitude 0.127 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 42.6 32.9 Search (2048X64) 0.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 63.2 57.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 35.4 38.0 Inc. seg. avg. 0.122 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 48.9 66.2 Inc. frq. avg. 0.116 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

y: az 295.1 el 31.5 pa 64.1 i: az 72.5 el 47.3 pa -73.2 u,v (fr/asec) 12617.500 1488.298 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yi..130CNK Output file: /Exps/c192b/v2/1234/No0078/yi.W.128.130CNK

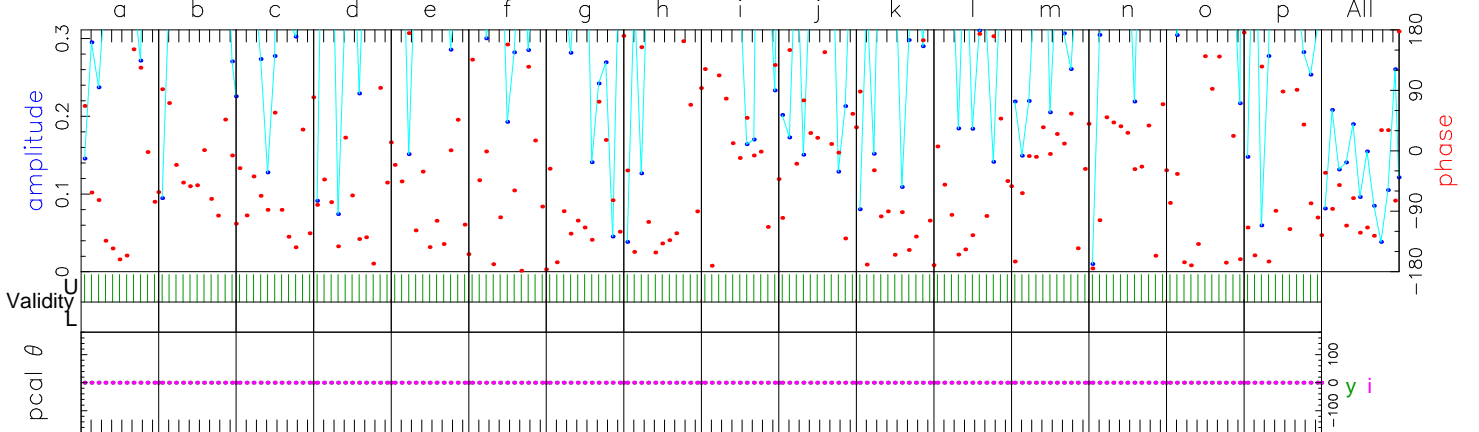


Fringe quality 0

SNR 5.8
Int time 419.824
Amp 0.104
Phase -80.2
PFD 7.8e-01
Delays (us)
SBD 0.008380
MBD -0.008858
Fringe rate (Hz) 0.008881
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

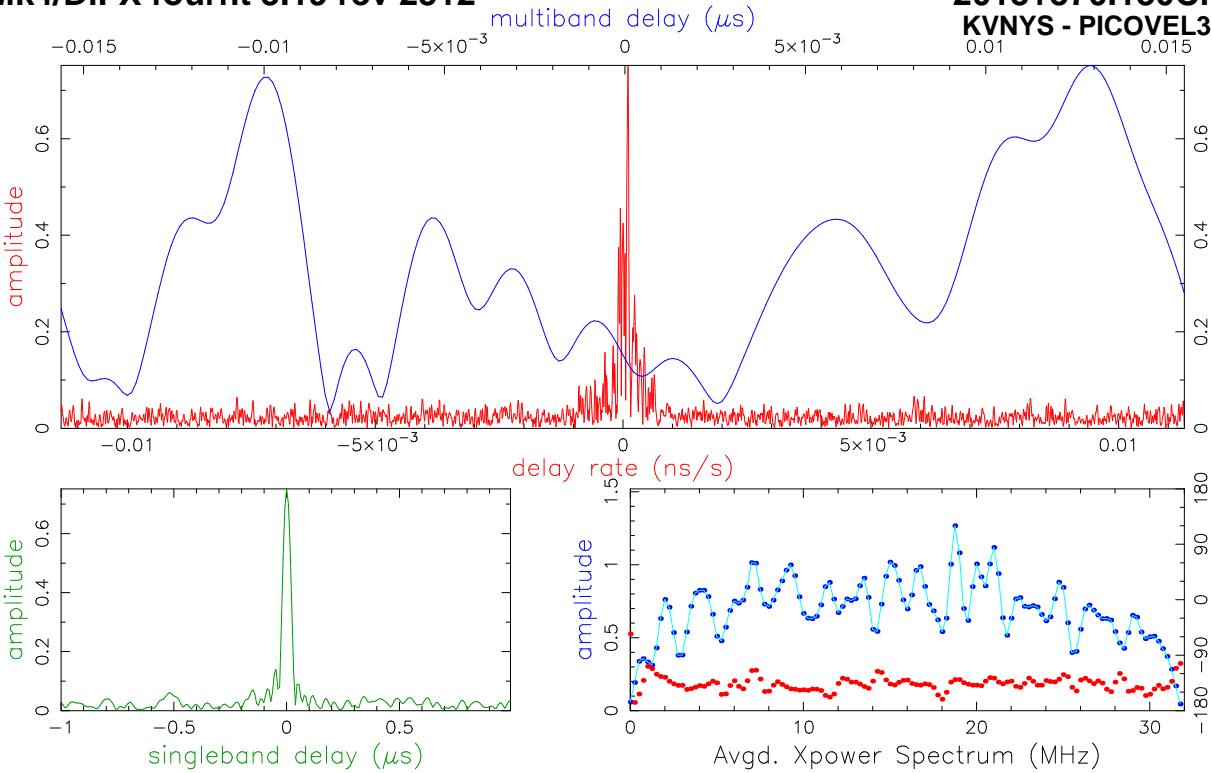
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085724
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

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				
	-128.8	-28.2	-73.1	-70.9	-90.4	-100.6	-106.8	-137.1	40.3	25.0	-122.7	-80.7	-1.7	25.8	-171.5	-128.2	Phase	-80.2				
	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.1	0.3	0.2	0.2	0.3	0.2	0.1	Ampl.	0.2				
	131.8	129.4	131.0	202.1	129.1	55.2	129.3	130.9	85.4	222.9	129.1	94.7	132.0	130.0	131.9	10.0	Sbd box	130.1				
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					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
y:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
y:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
i	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-4.86941745747E+03														Apriori delay (usec)	-4.86943984918E+03	Resid mbdelay (usec)	-8.85829E-03	+/-	1.9E-04
Sband delay (usec)			-4.86943146918E+03														Apriori clock (usec)	2.9717159E+01	Resid sbdelay (usec)	8.38000E-03	+/-	3.0E-03
Phase delay (usec)			-4.86943985177E+03														Apriori clockrate (us/s)	4.5300000E-07	Resid phdelay (usec)	-2.58521E-06	+/-	6.4E-07
Delay rate (us/s)			-1.74791118925E+00														Apriori rate (us/s)	-1.74791129235E+00	Resid rate (us/s)	1.03102E-07	+/-	2.6E-09
Total phase (deg)																	Apriori accel (us/s/s)	2.65055289680E-05	Resid phase (deg)	-80.2	+/-	19.7

ph/seg (deg) RMS Theor. Amplitude 0.104 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 66.6 59.6 Search (2048X64) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 68.2 39.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 106.1 68.8 Inc. seg. avg. 0.115 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 y: az 295.1 el 31.5 pa 64.1 i: az 72.5 el 47.3 pa -73.2 u,v (fr/asec) 12617.500 1488.298 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yi..130CNK Output file: /Exps/c192b/v2/1234/No0078/yi.W.146.130CNK simultaneous interpolator

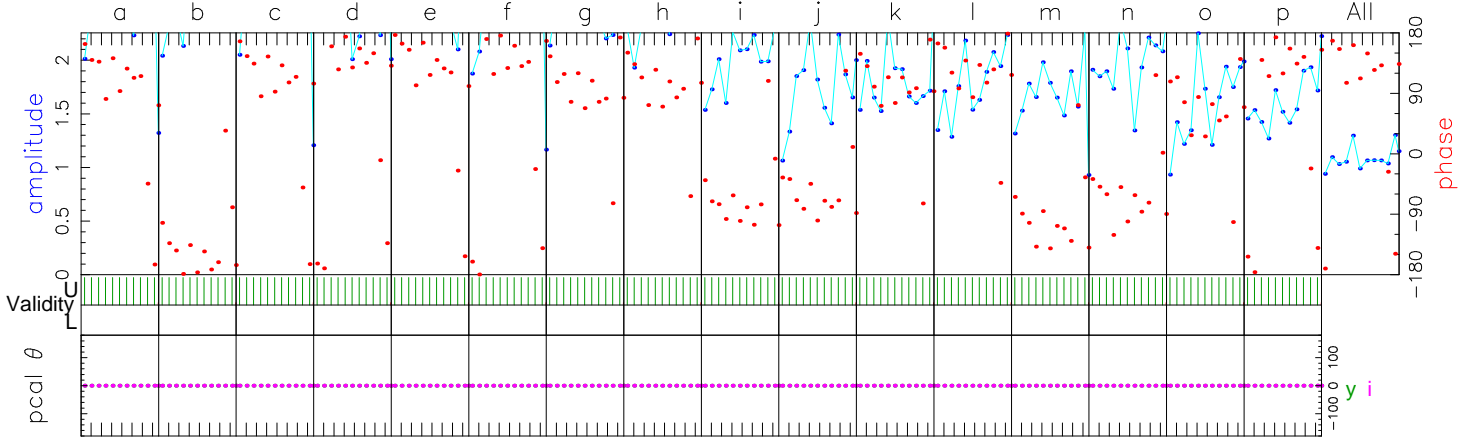


Fringe quality 1

SNR 42.1
Int time 419.824
Amp 0.752
Phase 151.4
PFD 0.0e+00
Delays (us)
SBD 0.000435
MBD 0.012901
Fringe rate (Hz)
0.008270
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

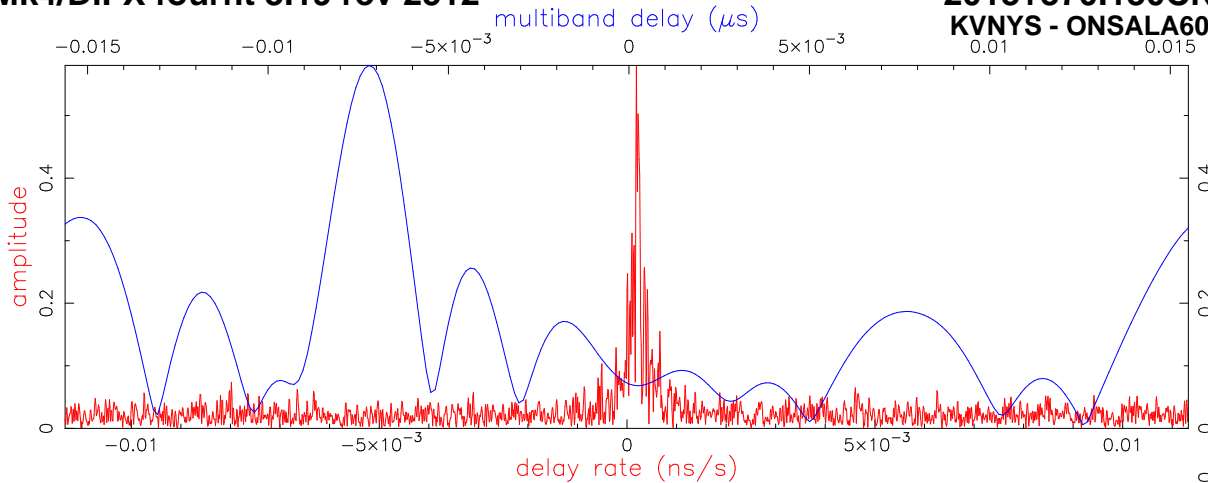
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085709
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

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



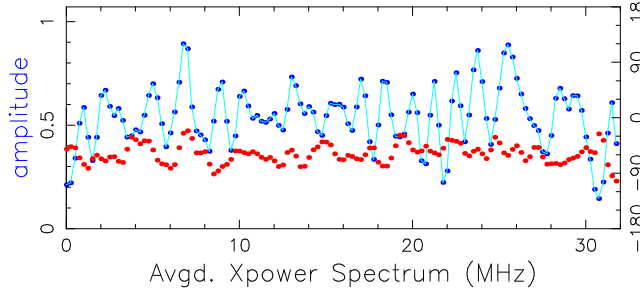
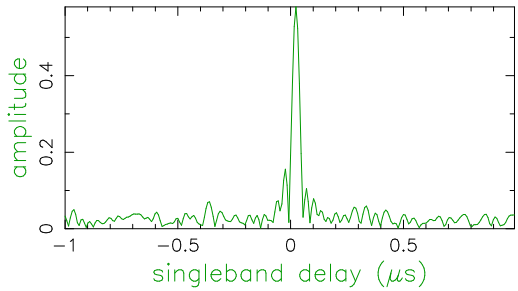
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	129.2	-143.2	130.9	166.6	147.9	162.4	108.4	109.2	-72.7	-61.3	111.1	130.6	-99.7	-63.5	73.8	159.8	Phase	151.4
	1.7	1.7	1.9	1.9	1.8	1.8	1.8	1.7	1.4	1.2	1.3	1.2	1.2	1.3	1.0	1.0	Ampl.	1.5
	129.9	129.4	129.1	129.0	128.8	128.9	128.7	128.9	128.8	128.6	128.9	128.9	128.9	129.0	129.5	129.4	Sbd box	129.1
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	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
i	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-4.86942694866E+03			Apriori delay (usec)			-4.86943984918E+03			Resid mbdelay (usec)			1.29005E-02			+/- 2.6E-05		
Sband delay (usec)	-4.86943941368E+03			Apriori clock (usec)			2.9717159E+01			Resid sbdelay (usec)			4.35500E-04			+/- 4.1E-04		
Phase delay (usec)	-4.86943984430E+03			Apriori clockrate (us/s)			4.5300000E-07			Resid phdelay (usec)			4.88320E-06			+/- 8.8E-08		
Delay rate (us/s)	-1.74791119635E+00			Apriori rate (us/s)			-1.74791129235E+00			Resid rate (us/s)			9.60025E-08			+/- 3.6E-10		
Total phase (deg)	-67.7			Apriori accel (us/s/s)			2.65055289680E-05			Resid phase (deg)			151.4			+/- 2.7		

ph/seg (deg) 61.5 4.7 Search (2048X64) 0.731 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 46.8 8.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 80.4 5.4 Inc. seg. avg. 1.083 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 108.9 9.5 Inc. frq. avg. 1.500 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 y: az 295.1 el 31.5 pa 64.1 i: az 72.5 el 47.3 pa -73.2 u,v (fr/asec) 12617.500 1488.298 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yi..130CNK Output file: /Exps/c192b/v2/1234/No0078/yi.W.94.130CNK



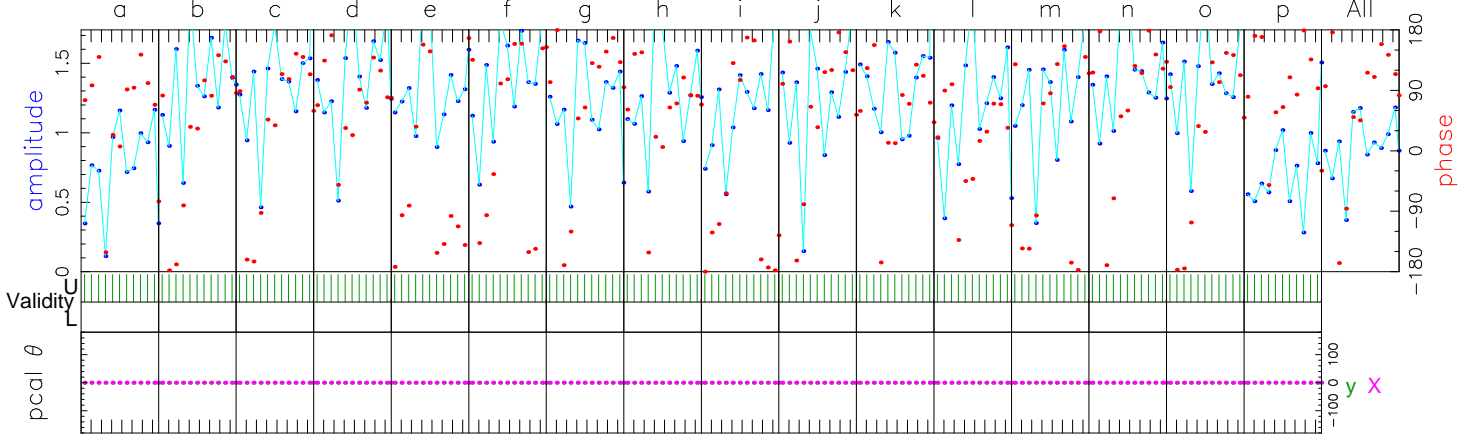
Fringe quality 5

SNR 32.5
Int time 419.814
Amp 0.580
Phase 116.5
PFD 0.0e+00
Delays (us)
SBD 0.023248
MBD -0.007192
Fringe rate (Hz)
0.015866
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

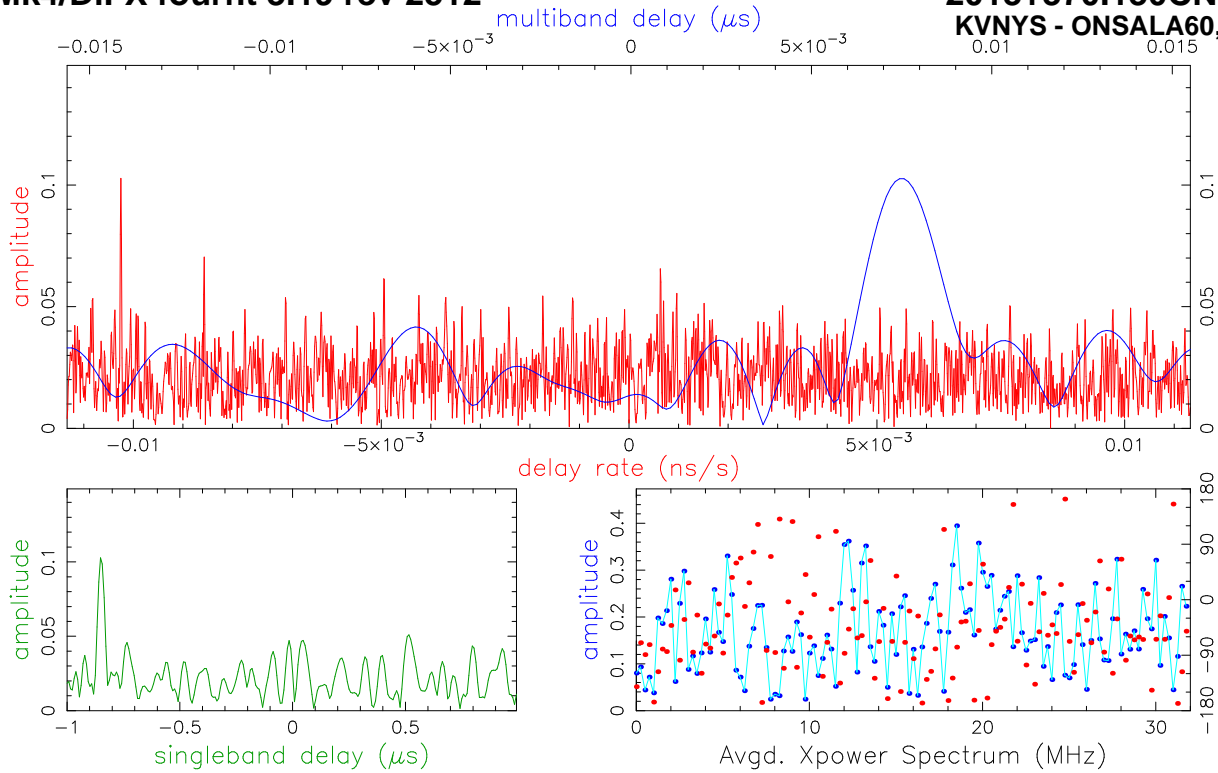


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	82.7	104.7	113.1	85.9	-146.5	164.8	128.0	72.1	-176.5	119.7	85.1	24.2	153.8	121.5	113.3	99.6	Phase	116.5
	0.6	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.7	0.8	0.9	0.8	0.4	Ampl.	0.8
	132.2	132.5	131.7	131.6	131.5	131.9	131.4	131.5	131.4	131.4	131.6	131.7	132.0	131.7	132.1	131.5	Sbd box	132.0
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	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	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		
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)			-7.12069001371E+03					Apriori delay (usec)	-7.12071407147E+03				Resid mbdelay (usec)	-7.19224E-03			+/-	3.3E-05
Sband delay (usec)			-7.12069082297E+03					Apriori clock (usec)	-3.1522541E+00				Resid sbdelay (usec)	2.32485E-02			+/-	5.3E-04
Phase delay (usec)			-7.12071406771E+03					Apriori clockrate (us/s)	-4.2800003E-07				Resid phdelay (usec)	3.75649E-06			+/-	1.1E-07
Delay rate (us/s)			-1.36675626997E+00					Apriori rate (us/s)	-1.36675645416E+00				Resid rate (us/s)	1.84194E-07			+/-	4.7E-10
Total phase (deg)					74.7			Apriori accel (us/s/s)	2.19316231520E-05				Resid phase (deg)	116.5			+/-	3.5

ph/seg (deg) 64.9 6.1 Theor. Amplitude 0.580 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 68.9 10.7 Search (2048X64) 0.551 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 47.7 7.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 40.7 12.3 Inc. seg. avg. 0.905 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 y: az 295.1 el 31.5 pa 64.1 X: az 111.2 el 57.4 pa -38.7 u,v (fr/asec) 9864.795 -444.819 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yX..130CNK Output file: /Exps/c192b/v2/1234/No0078/yX.W.117.130CNK simultaneous interpolator

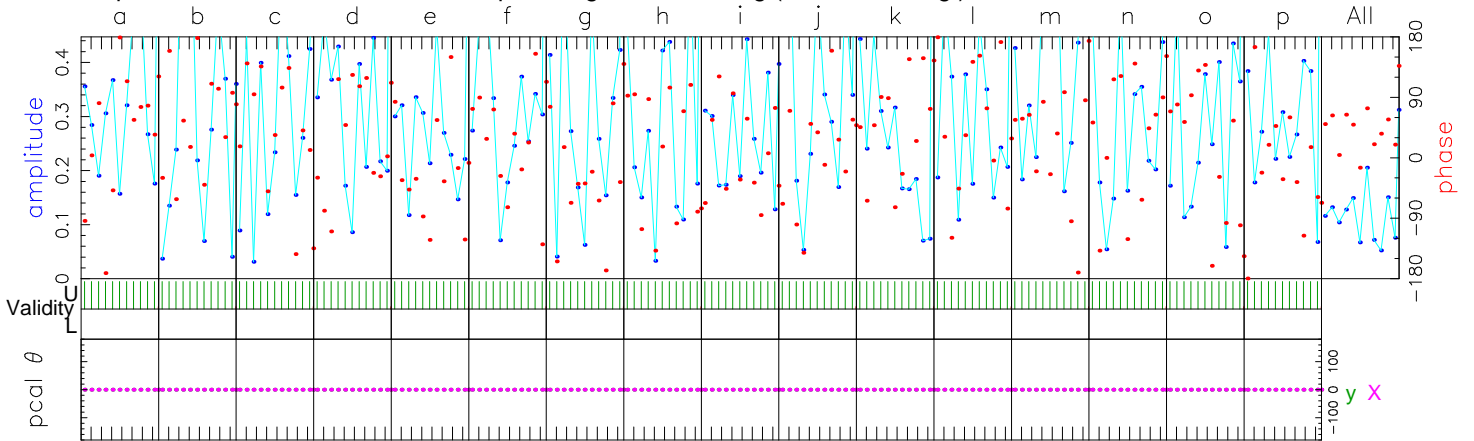
Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130CNK, No0078, yX
KVNYS - ONSALA60, fgroup W, pol LR



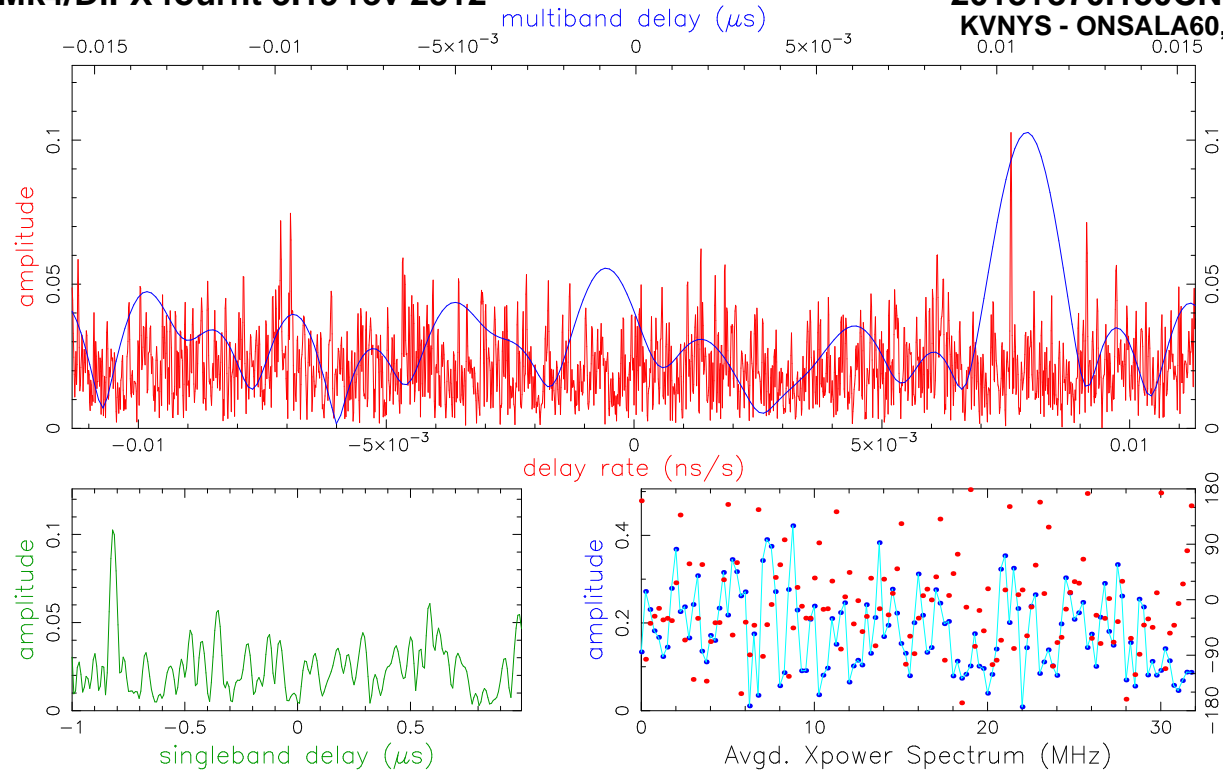
Fringe quality 0
SNR 5.8
Int time 419.814
Amp 0.149
Phase 48.1
PFD 7.9e-01
Delays (us)
SBD -0.849183
MBD 0.007517
Fringe rate (Hz)
-0.884096
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
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				
	66.3	55.8	98.7	-0.7	-28.6	49.8	-3.8	86.9	16.4	22.9	48.4	87.9	58.2	95.5	89.4	-13.5	Phase	48.1				
	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.3	0.2	0.1	0.2	Ampl.	0.1				
	6.7	20.5	206.6	132.0	248.1	188.2	176.2	36.5	150.8	180.7	192.1	130.4	21.2	95.6	170.2	8.8	Sbd box	20.3				
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					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
X	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						
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-7.12155030463E+03														Apriori delay (usec)	-7.12071407147E+03	Resid mbdelay (usec)	7.51683E-03	+/-	1.9E-04
Sband delay (usec)			-7.12156325447E+03														Apriori clock (usec)	-3.1522541E+00	Resid sbdelay (usec)	-8.49183E-01	+/-	3.0E-03
Phase delay (usec)			-7.12071406991E+03														Apriori clockrate (us/s)	-4.2800003E-07	Resid phdelay (usec)	1.55231E-06	+/-	6.4E-07
Delay rate (us/s)			-1.36676671764E+00														Apriori rate (us/s)	-1.36675645416E+00	Resid rate (us/s)	-1.02635E-05	+/-	2.6E-09
Total phase (deg)					6.4												Apriori accel (us/s/s)	2.19316231520E-05	Resid phase (deg)	48.1	+/-	19.7

ph/seg (deg) RMS Theor. Amplitude 0.149 +/- 0.026 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 46.2 59.6 Search (2048X64) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.5 39.4 Inc. seg. avg. 0.141 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 47.3 68.8 Inc. frq. avg. 0.150 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 y: az 295.1 el 31.5 pa 64.1 X: az 111.2 el 57.4 pa -38.7 u,v (fr/asec) 9864.795 -444.819 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yX..130CNK Output file: /Exps/c192b/v2/1234/No0078/yX.W.137.130CNK simultaneous interpolator

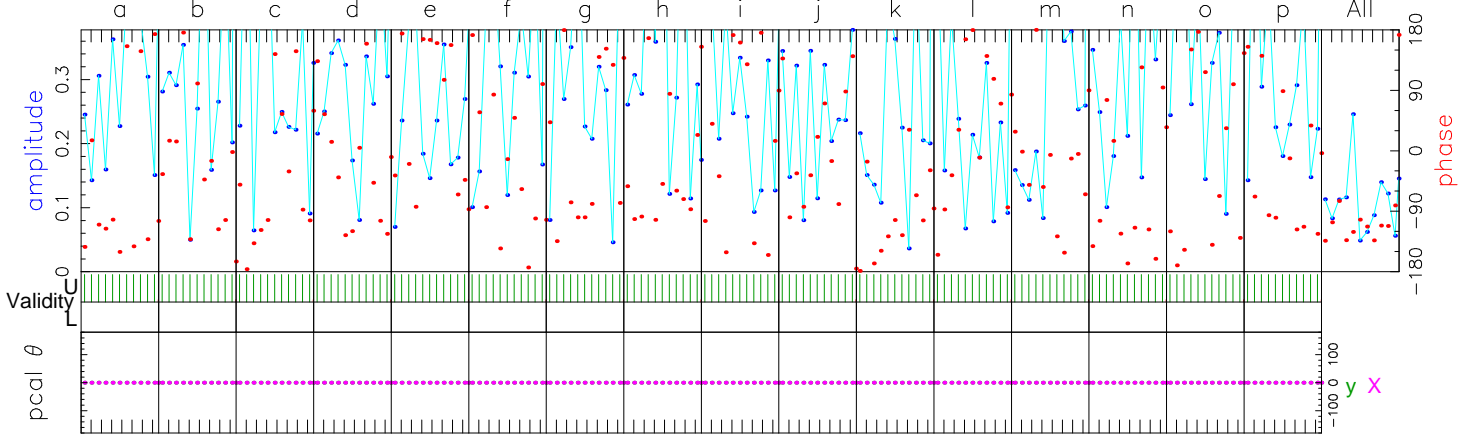


Fringe quality 0

SNR 5.8
Int time 419.814
Amp 0.126
Phase -114.5
PFD 7.8e-01
Delays (us)
SBD -0.817518
MBD 0.010880
Fringe rate (Hz)
0.655921
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

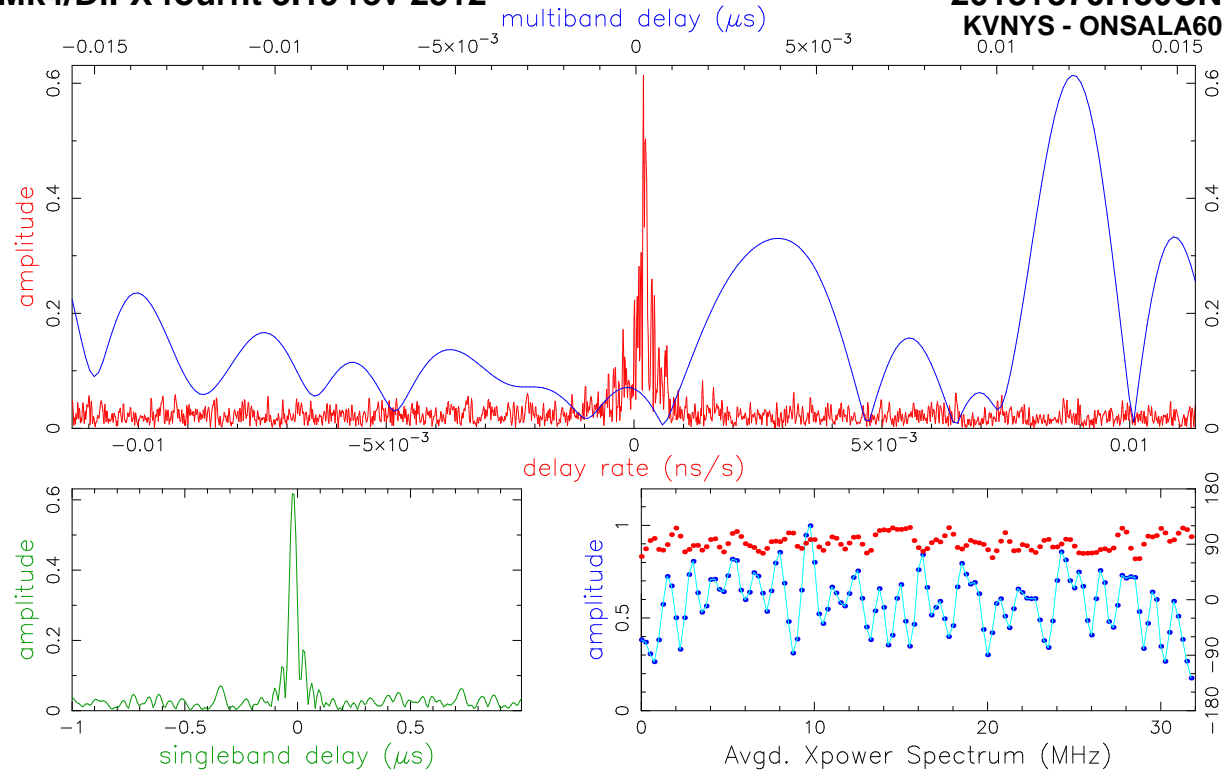
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085726
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

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				
	-149.0	-50.4	-125.3	-87.8	-127.6	-98.8	-122.5	-76.0	-161.3	21.4	-101.9	-169.2	-53.6	-140.5	-162.7	-95.9	Phase	-114.5				
	0.3	0.1	0.2	0.1	0.1	0.1	0.2	0.3	0.1	0.0	0.2	0.0	0.1	0.2	0.3	0.2	Ampl.	0.1				
	25.1	169.9	104.5	227.9	36.7	49.9	69.1	213.9	36.8	204.8	205.0	84.3	120.9	249.7	24.3	25.1	Sbd box	24.4				
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					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-7.12154694107E+03														Apriori delay (usec)	-7.12071407147E+03	Resid mbdelay (usec)	1.08804E-02	+/-	1.9E-04
Sband delay (usec)			-7.12153158997E+03														Apriori clock (usec)	-3.1522541E+00	Resid sbdelay (usec)	-8.17518E-01	+/-	3.0E-03
Phase delay (usec)			-7.12071407516E+03														Apriori clockrate (us/s)	-4.2800003E-07	Resid phdelay (usec)	-3.69286E-06	+/-	6.4E-07
Delay rate (us/s)			-1.36674883957E+00														Apriori rate (us/s)	-1.36675645416E+00	Resid rate (us/s)	7.61459E-06	+/-	2.6E-09
Total phase (deg)					-156.3												Apriori accel (us/s/s)	2.19316231520E-05	Resid phase (deg)	-114.5	+/-	19.7

ph/seg (deg) RMS 20.0 Theor. 34.1 Amplitude 0.126 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 50.1 59.6 Search (2048X64) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 52.7 39.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 69.1 68.8 Inc. seg. avg. 0.112 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 y: az 295.1 el 31.5 pa 64.1 X: az 111.2 el 57.4 pa -38.7 u,v (fr/asec) 9864.795 -444.819 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yX..130CNK Output file: /Exps/c192b/v2/1234/No0078/yX.W.157.130CNK simultaneous interpolator

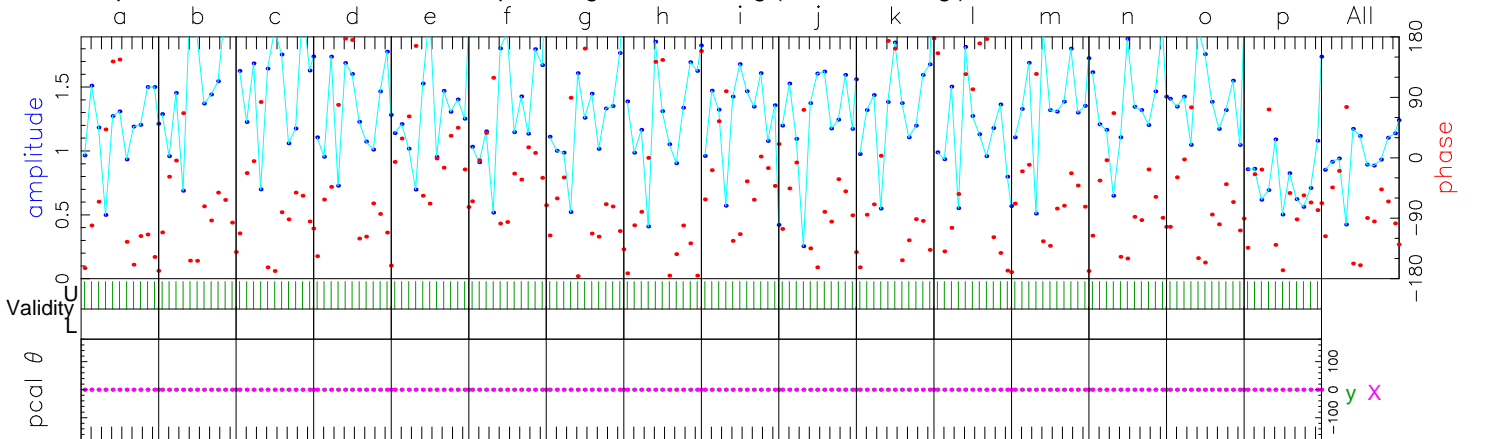


Fringe quality 4

SNR 35.4
Int time 419.814
Amp 0.631
Phase -90.4
PFD 0.0e+00
Delays (us)
SBD -0.019784
MBD 0.012083
Fringe rate (Hz) 0.015808
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
2020:086:085710
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

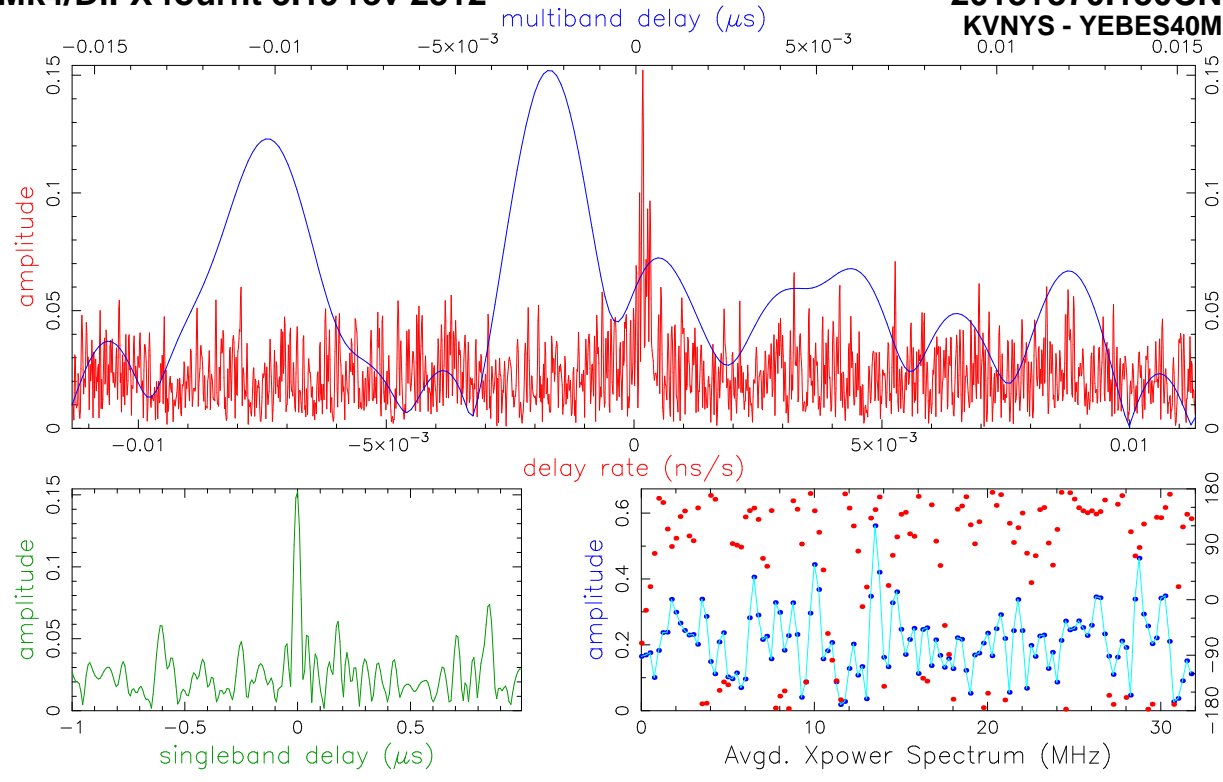


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-140.5	-88.6	-85.3	-115.1	-5.6	-32.6	-108.8	-155.3	-40.2	-80.1	-129.2	-171.1	-63.4	-83.5	-86.4	-76.8		Phase	-90.4
	0.8	1.0	0.9	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.9	0.7	1.0	0.9	0.8	0.5		Ampl.	0.8
	127.4	126.8	126.5	125.8	126.0	125.8	125.8	126.0	126.3	126.1	125.9	126.0	126.3	126.7	126.5	126.7		Sbd box	126.5
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	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	

Group delay (usec)(sbd) -7.12073323827E+03 Apriori delay (usec) -7.12071407147E+03 Resid mbdelay (usec) 1.20832E-02 +/- 3.1E-05
 Sband delay (usec) -7.12073385547E+03 Apriori clock (usec) -3.1522541E+00 Resid sbdelay (usec) -1.97840E-02 +/- 4.9E-04
 Phase delay (usec) -7.12071407438E+03 Apriori clockrate (us/s) -4.2800003E-07 Resid phdelay (usec) -2.91406E-06 +/- 1.0E-07
 Delay rate (us/s) -1.36675627065E+00 Apriori rate (us/s) -1.36675645416E+00 Resid rate (us/s) 1.83515E-07 +/- 4.3E-10
 Total phase (deg) -132.1 Apriori accel (us/s/s) 2.19316231520E-05 Resid phase (deg) -90.4 +/- 3.2

RMS Theor. Amplitude 0.631 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 65.4 5.6 Search (2048X64) 0.574 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 58.9 9.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 46.2 6.5 Inc. seg. avg. 0.941 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 34.8 11.3 Inc. frq. avg. 0.811 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

y: az 295.1 el 31.5 pa 64.1 X: az 111.2 el 57.4 pa -38.7 u,v (fr/asec) 9864.795 -444.819 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yX..130CNK Output file: /Exps/c192b/v2/1234/No0078/yX.W.98.130CNK

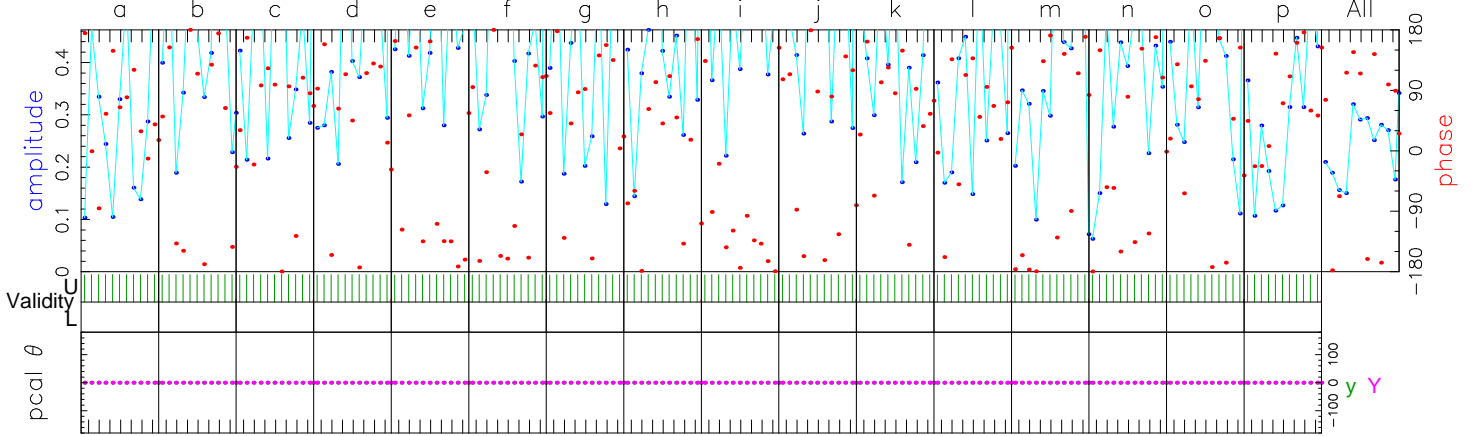


Fringe quality 9

SNR 8.5
Int time 402.170
Amp 0.154
Phase 140.7
PFD 1.0e-08
Delays (us)
SBD -0.002819
MBD -0.002411
Fringe rate (Hz)
0.015015
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

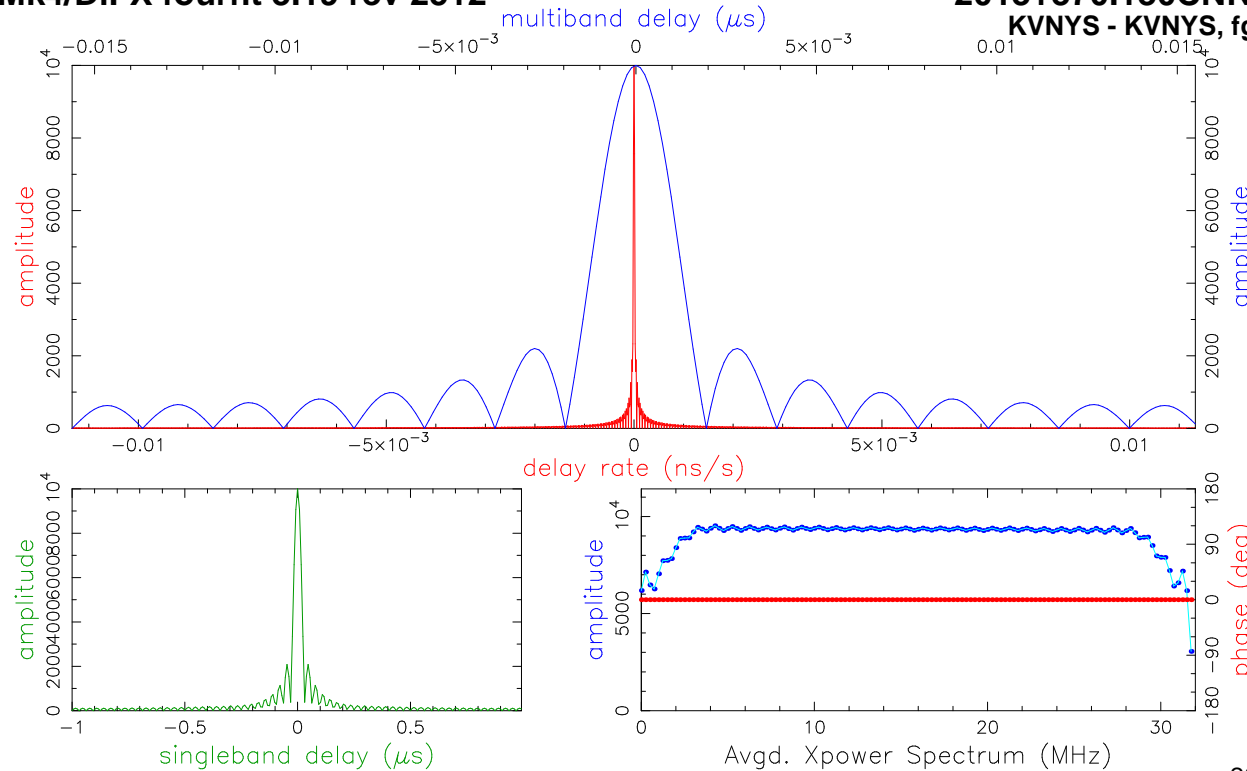
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160017.89
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085711
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

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				
	38.9	156.2	109.9	118.7	-156.4	179.8	102.0	75.5	-142.4	159.8	84.5	62.0	178.9	-168.3	135.0	78.5	Phase	140.7				
	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.1	0.2	0.2	Ampl.	0.2				
	230.4	129.2	128.2	128.7	127.7	127.6	223.8	219.9	128.3	128.1	128.4	151.0	237.2	57.3	107.2	102.4	Sbd box	128.6				
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					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-5.15438117420E+03														Apriori delay (usec)	-5.15437876368E+03	Resid mbdelay (usec)	-2.41053E-03	+/-	1.3E-04
Sband delay (usec)			-5.15438158268E+03														Apriori clock (usec)	1.9543859E+01	Resid sbdelay (usec)	-2.81900E-03	+/-	2.0E-03
Phase delay (usec)			-5.15437875914E+03														Apriori clockrate (us/s)	-1.2000001E-07	Resid phdelay (usec)	4.53741E-06	+/-	4.4E-07
Delay rate (us/s)			-1.70723043480E+00														Apriori rate (us/s)	-1.70723060911E+00	Resid rate (us/s)	1.74309E-07	+/-	1.9E-09
Total phase (deg)																	Apriori accel (us/s/s)	2.47665289706E-05	Resid phase (deg)	140.7	+/-	13.6

ph/seg (deg) 61.5 23.5 Search (2048X64) 0.149 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.5 41.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 57.9 27.1 Inc. seg. avg. 0.218 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 69.6 47.3 Inc. frq. avg. 0.216 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 y: az 295.1 el 31.5 pa 64.1 Y: az 76.3 el 48.4 pa -68.3 u,v (fr/asec) 12321.374 1057.220 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yY..130CNK Output file: /Exps/c192b/v2/1234/No0078/yY.W.100.130CNK

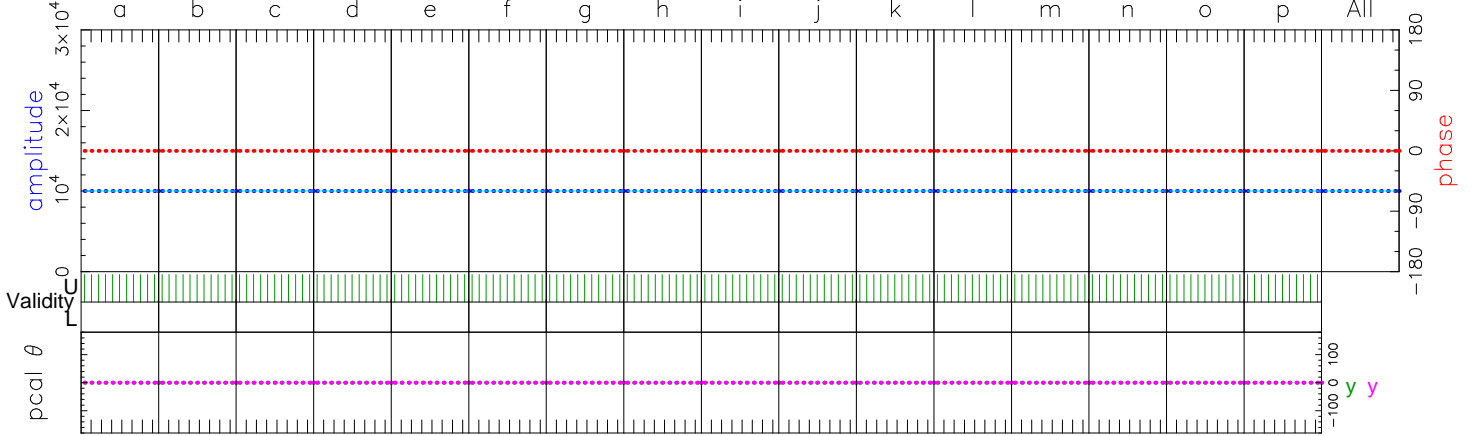


Fringe quality 9

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

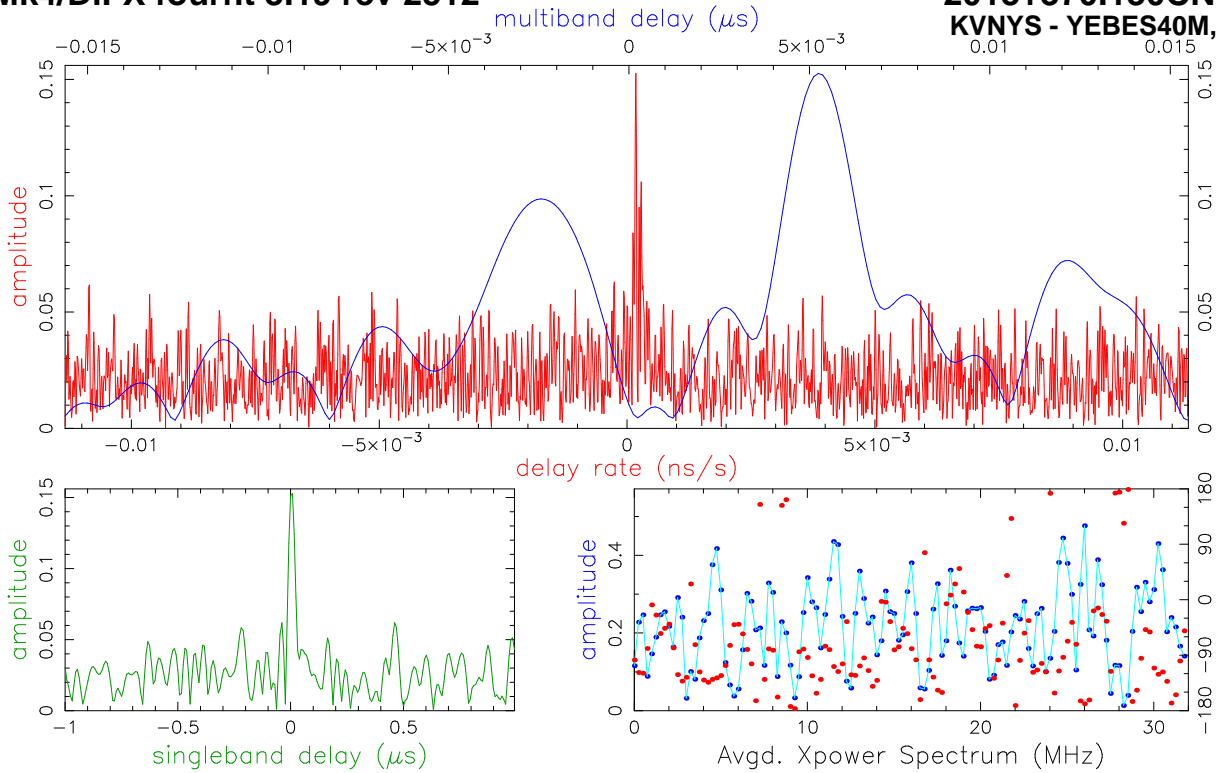
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
2020:086:085714
2020:014:135814
RA & Dec (J2000) 20h15m28.729803s +37°10'59.514664"

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
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		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)	0.0000000000E+00			Apriori delay (usec)			0.0000000000E+00			Resid mbdelay (usec)			0.00000E+00			+/-	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)	-6.03654216673E-20			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			-6.03654E-20			+/-	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
 az 295.1 el 31.5 pa 64.1 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yy..130CNK Output file: /Exps/c192b/v2/1234/No0078/yy.W.113.130CNK simultaneous interpolator

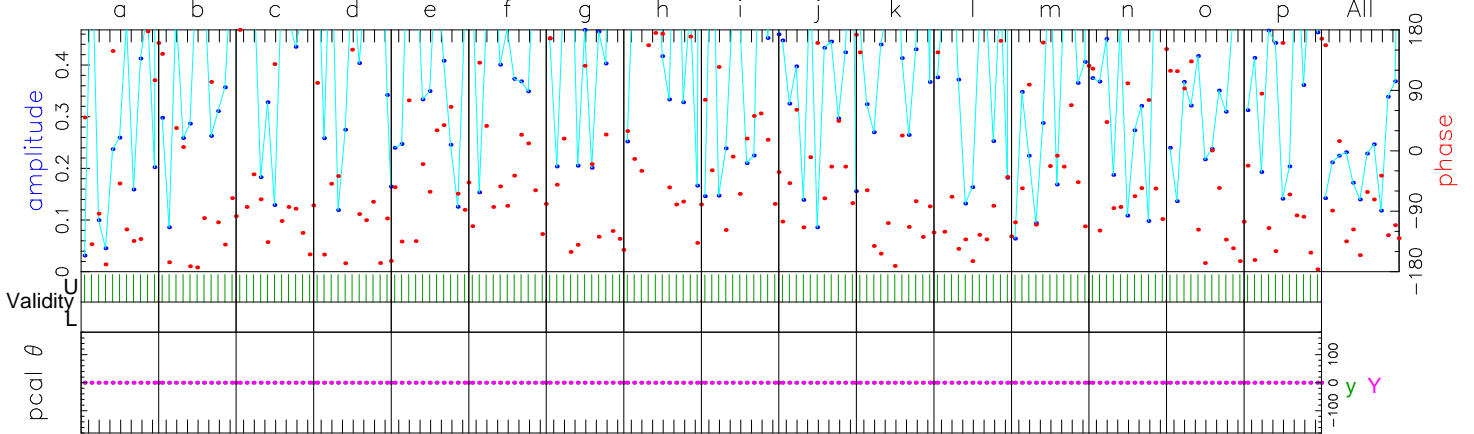


Fringe quality 9

SNR 8.6
Int time 402.170
Amp 0.156
Phase -102.5
PFD 4.2e-09
Delays (us)
SBD 0.004220
MBD 0.005247
Fringe rate (Hz) 0.014807
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
2020:086:085716
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

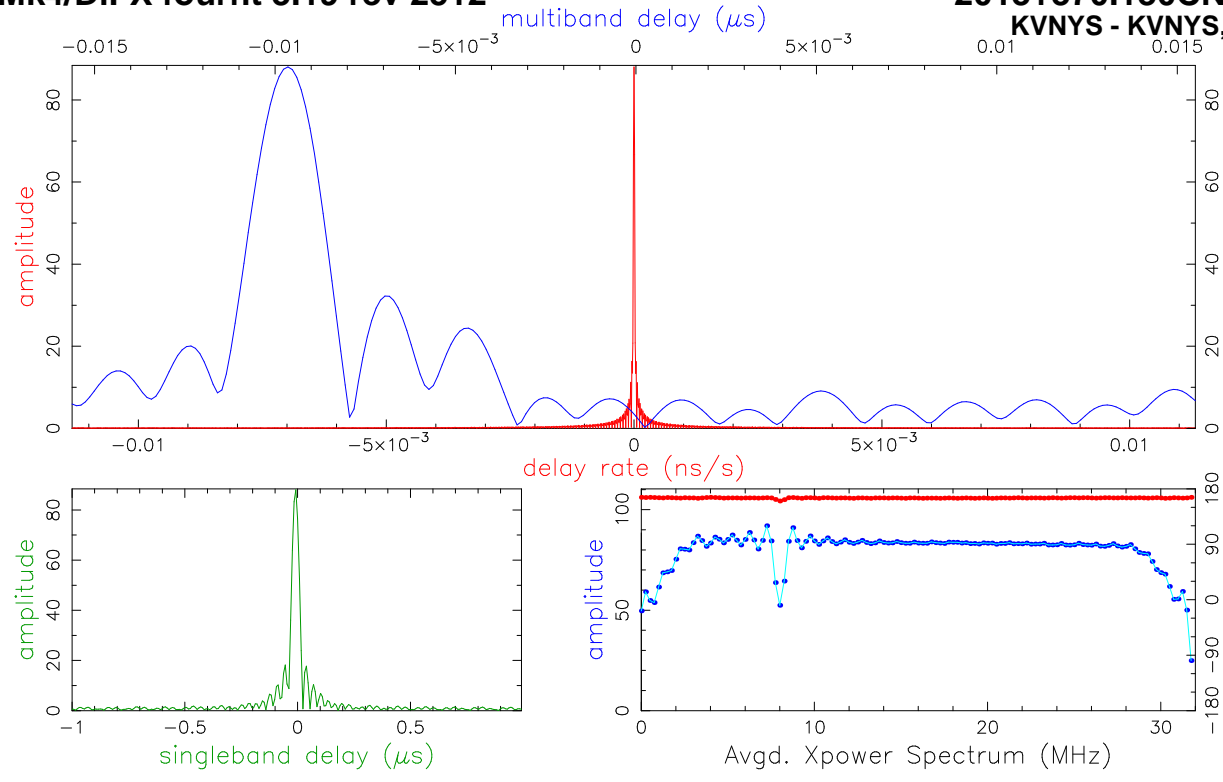


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-149.3	-125.8	-107.9	-129.2	-18.0	-61.9	-131.9	-107.7	-9.6	-41.6	-125.8	-129.2	-23.3	-73.9	-160.7	-132.5	Phase	-102.5				
	0.2	0.1	0.3	0.2	0.1	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.2	0.2	0.3	Ampl.	0.2				
	78.8	83.9	129.4	103.0	189.0	128.9	129.1	39.0	129.6	19.5	129.6	130.3	139.1	48.2	97.6	129.3	Sbd box	129.5				
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					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-5.15437351656E+03														Apriori delay (usec)	-5.15437876368E+03	Resid mbdelay (usec)	5.24712E-03	+/-	1.3E-04
Sband delay (usec)			-5.15437454368E+03														Apriori clock (usec)	1.9543859E+01	Resid sbdelay (usec)	4.22000E-03	+/-	2.0E-03
Phase delay (usec)			-5.15437876698E+03														Apriori clockrate (us/s)	-1.2000001E-07	Resid phdelay (usec)	-3.30382E-06	+/-	4.3E-07
Delay rate (us/s)			-1.70723043721E+00														Apriori rate (us/s)	-1.70723060911E+00	Resid rate (us/s)	1.71896E-07	+/-	1.9E-09
Total phase (deg)																	Apriori accel (us/s/s)	2.47665289706E-05	Resid phase (deg)	-102.5	+/-	13.4

ph/seg (deg) 56.5 23.2 Search (2048X64) 0.143 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.4 40.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 52.2 26.8 Inc. seg. avg. 0.207 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 54.5 46.7 Inc. frq. avg. 0.192 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 y: az 295.1 el 31.5 pa 64.1 Y: az 76.3 el 48.4 pa -68.3 u,v (fr/asec) 12321.374 1057.220 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yY..130CNK Output file: /Exps/c192b/v2/1234/No0078/yY.W.118.130CNK

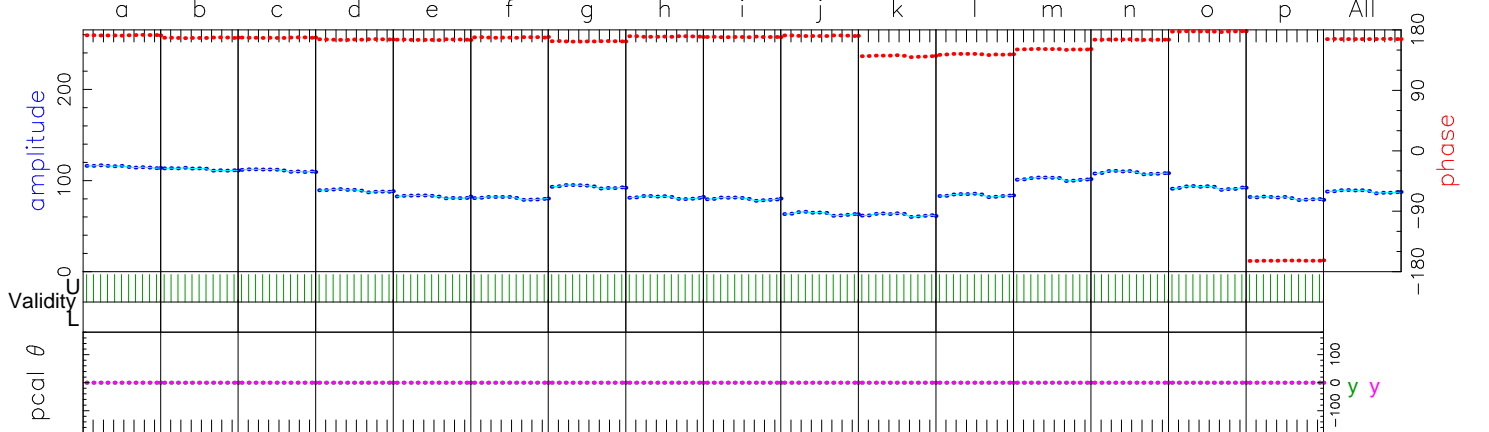
Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130CNK, No0078, yy
KVNYS - KVNYS, fgroup W, pol LR



Fringe quality 8
SNR 4954.8
Int time 419.840
Amp 88.428
Phase 166.3
PFD 0.0e+00
Delays (us)
SBD -0.009487
MBD -0.009647
Fringe rate (Hz) -0.000003
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"

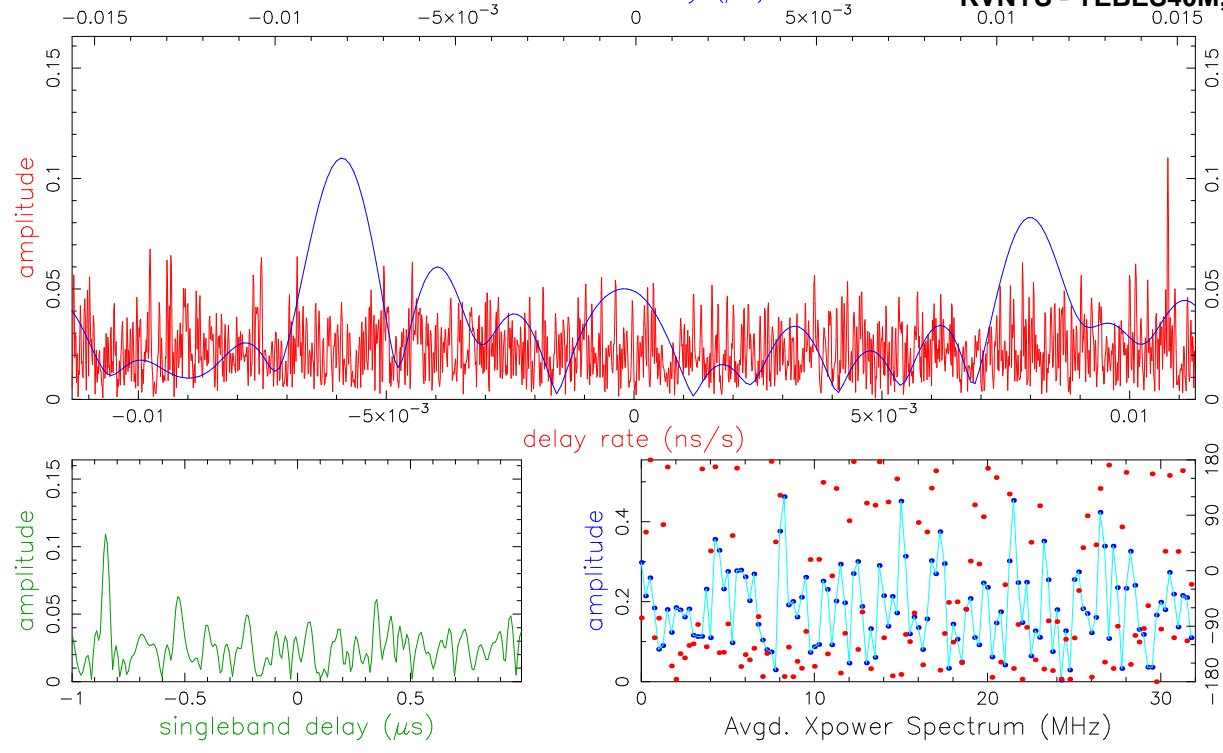
Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



	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
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		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)			-9.64715625000E-03															
Sband delay (usec)			-9.48650000000E-03															
Phase delay (usec)			5.36153326387E-06															
Delay rate (us/s)			-3.25936505009E-11															
Total phase (deg)					166.3													
Apriori delay (usec)								0.00000000000E+00										
Apriori clock (usec)								0.0000000E+00										
Apriori clockrate (us/s)								0.0000000E+00										
Apriori rate (us/s)								0.00000000000E+00										
Apriori accel (us/s/s)								0.00000000000E+00										
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		

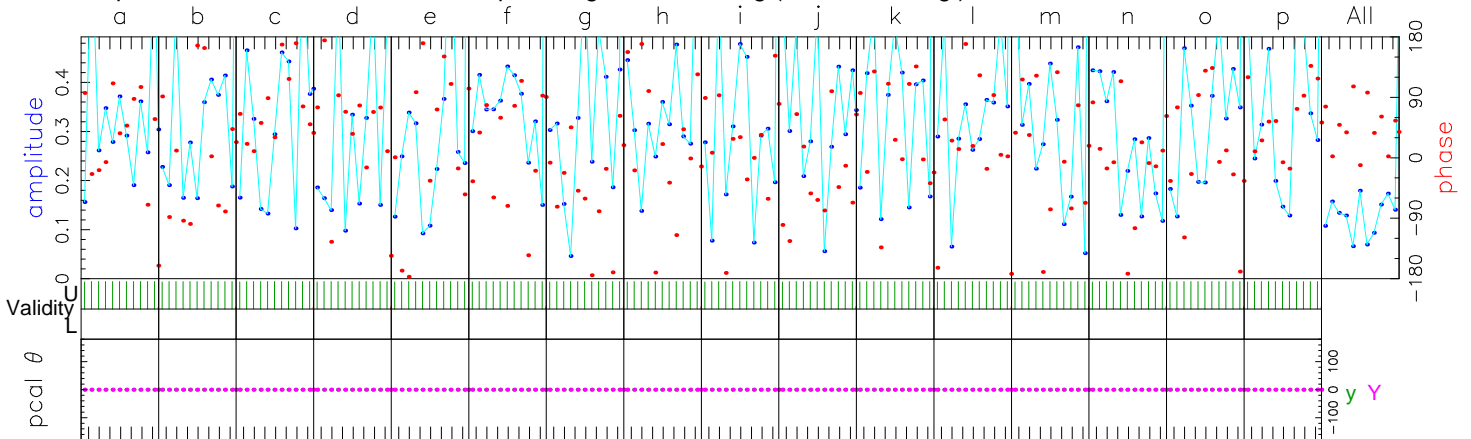
ph/seg (deg) 0.1 0.0 Search (2048X64) 87.471 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 1.4 0.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 13.5 0.0 Inc. seg. avg. 88.042 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 18.0 0.1 Inc. frq. avg. 89.935 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
y: az 295.1 el 31.5 pa 64.1 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yy..130CNK Output file: /Exps/c192b/v2/1234/No0078/yy.W.131.130CNK simultaneous interpolator

multiband delay (μ s)



Fringe quality 0
SNR 6.0
Int time 402.170
Amp 0.164
Phase 37.3
PFD 3.8e-01
Delays (us)
SBD -0.850115
MBD -0.008158
Fringe rate (Hz) 0.929206
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
2020:086:085722
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

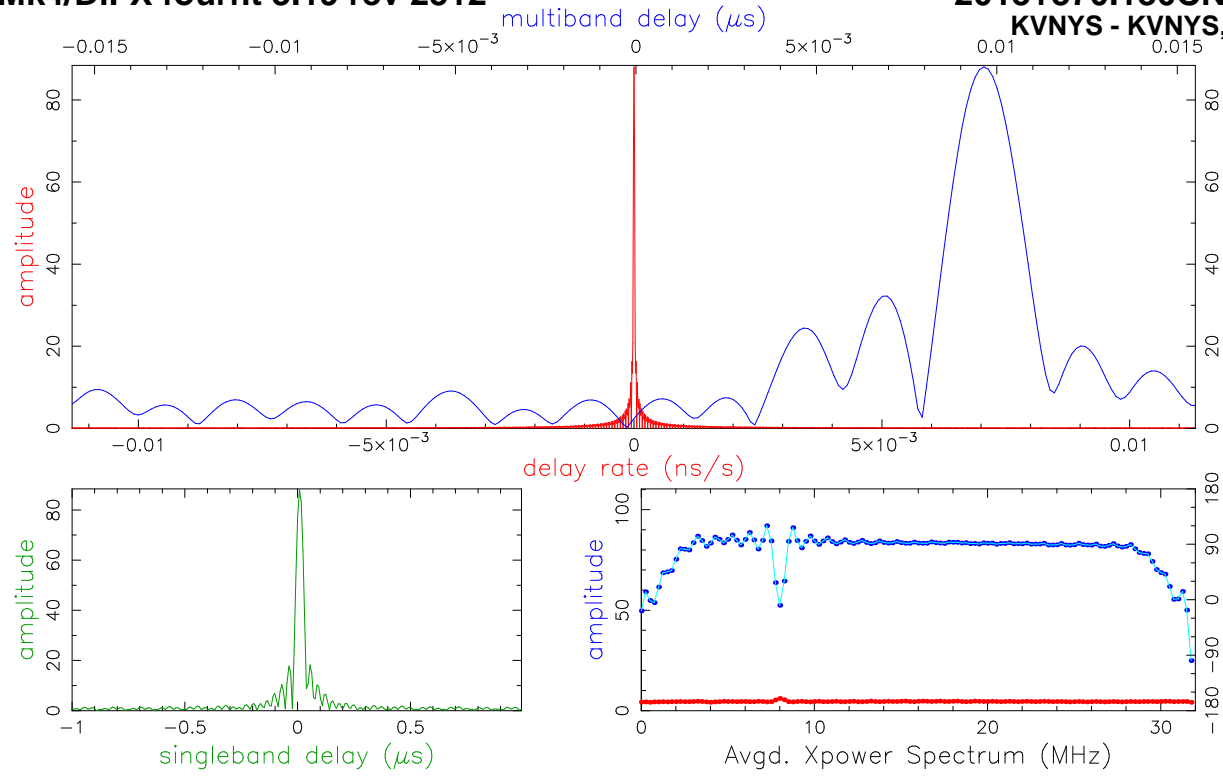


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	33.7	-43.0	69.3	57.4	119.0	35.4	-40.2	96.1	41.4	-49.0	47.9	43.4	63.2	8.7	-13.8	75.1	Phase	37.3				
	0.3	0.1	0.3	0.3	0.2	0.2	0.3	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.4	Ampl.	0.2				
	77.2	61.9	20.8	40.6	92.4	251.0	223.4	78.2	114.2	114.7	231.3	132.9	14.0	146.4	255.6	19.6	Sbd box	20.2				
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					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-5.15523067166E+03														Apriori delay (usec)	-5.15437876368E+03	Resid mbdelay (usec)	-8.15798E-03	+/-	1.8E-04
Sband delay (usec)			-5.15522887918E+03														Apriori clock (usec)	1.9543859E+01	Resid sbdelay (usec)	-8.50115E-01	+/-	2.9E-03
Phase delay (usec)			-5.15437876247E+03														Apriori clockrate (us/s)	-1.2000001E-07	Resid phdelay (usec)	1.20159E-06	+/-	6.1E-07
Delay rate (us/s)			-1.70721982195E+00														Apriori rate (us/s)	-1.70723060911E+00	Resid rate (us/s)	1.07872E-05	+/-	2.6E-09
Total phase (deg)					-215.8												Apriori accel (us/s/s)	2.47665289706E-05	Resid phase (deg)	37.3	+/-	19.1

ph/seg (deg) RMS Theor. Amplitude 0.164 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 37.6 33.0 Search (2048X64) 0.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 54.3 57.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 51.5 38.1 Inc. seg. avg. 0.169 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 60.3 66.5 Inc. frq. avg. 0.188 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 y: az 295.1 el 31.5 pa 64.1 Y: az 76.3 el 48.4 pa -68.3 u,v (fr/asec) 12321.374 1057.220 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yY..130CNK Output file: /Exps/c192b/v2/1234/No0078/yY.W.138.130CNK

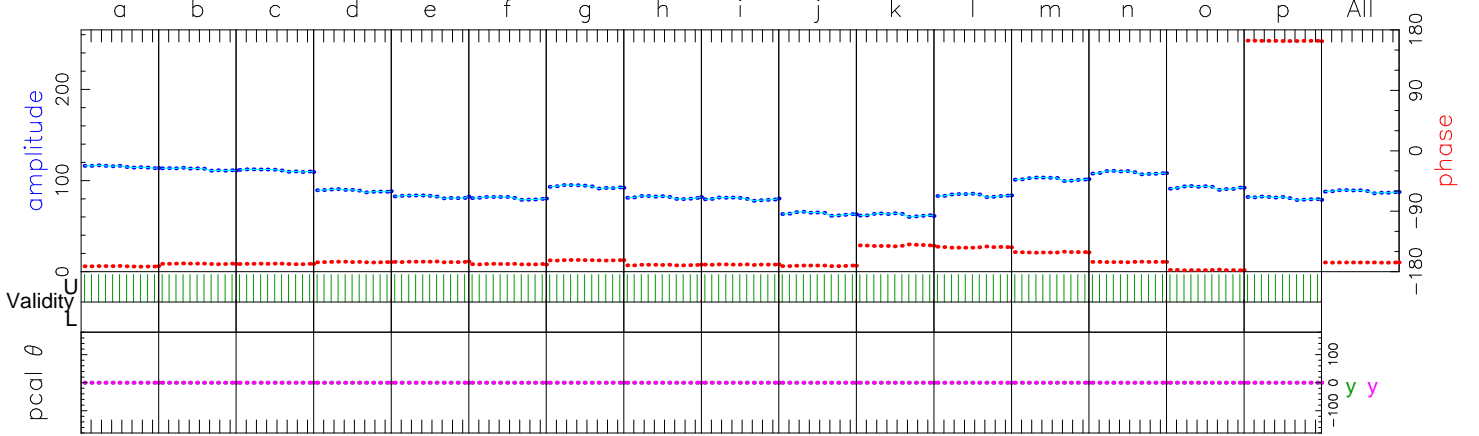
Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130CNK, No0078, yy
KVNYS - KVNYS, fgroup W, pol RL



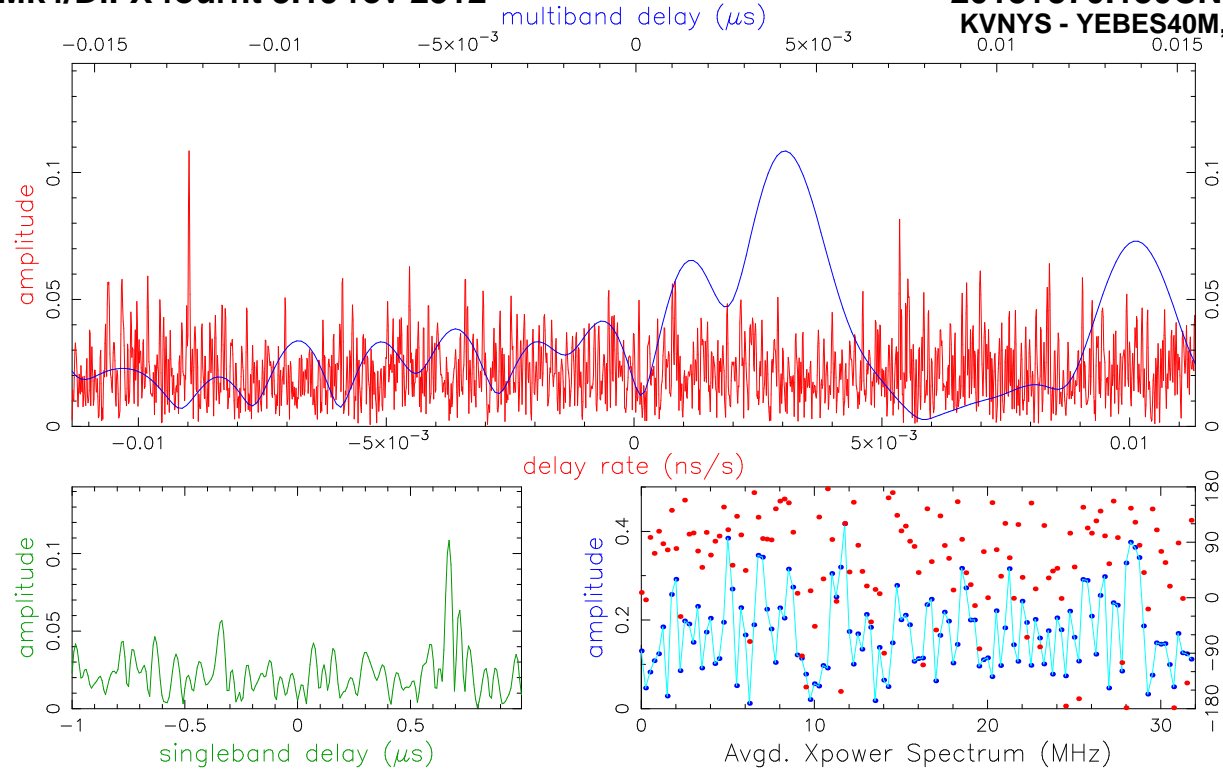
Fringe quality 8
SNR 4954.8
Int time 419.840
Amp 88.428
Phase -166.3
PFD 0.0e+00
Delays (us)
SBD 0.009487
MBD 0.009647
Fringe rate (Hz) 0.000003
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 160001.00
Stop 160700.84
FRT 160331.00
Corr/FF/build
2020:078:221205
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



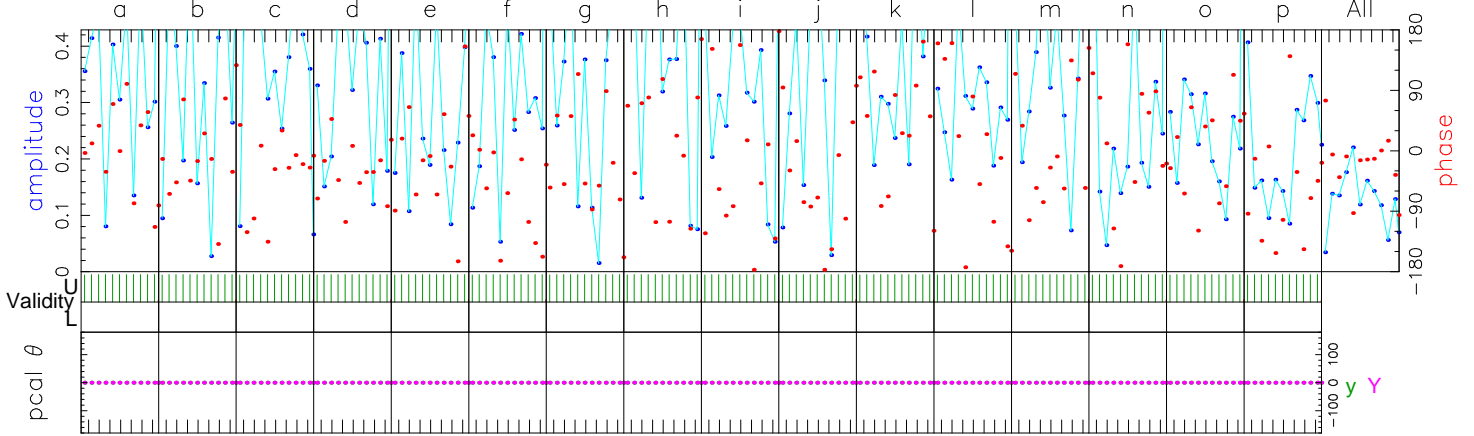
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	130.2
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	89.9
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
Group delay (usec)(sbd)	9.64715625000E-03			Apriori delay (usec)			0.0000000000E+00			Resid mbdelay (usec)			9.64716E-03			+/- 2.2E-07			
Sband delay (usec)	9.4865000000E-03			Apriori clock (usec)			0.0000000E+00			Resid sbdelay (usec)			9.48650E-03			+/- 3.5E-06			
Phase delay (usec)	-5.36153326393E-06			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			-5.36153E-06			+/- 7.5E-10			
Delay rate (us/s)	3.25936505009E-11			Apriori rate (us/s)			0.0000000000E+00			Resid rate (us/s)			3.25937E-11			+/- 3.1E-12			
Total phase (deg)				-166.3			Apriori accel (us/s/s)			0.0000000000E+00			Resid phase (deg)			-166.3 +/- 0.0			

ph/seg (deg) 0.1 0.0 Search (2048X64) 87.471 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.4 0.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 13.5 0.0 Inc. seg. avg. 88.042 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 18.0 0.1 Inc. frq. avg. 89.935 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yy..130CNK Output file: /Exps/c192b/v2/1234/No0078/yy.W.151.130CNK



Fringe quality 0
SNR 6.0
Int time 402.170
Amp 0.143
Phase -23.1
PFD 4.7e-01
Delays (us)
SBD 0.670790
MBD 0.004155
Fringe rate (Hz)
-0.774901
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
2020:086:085726
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

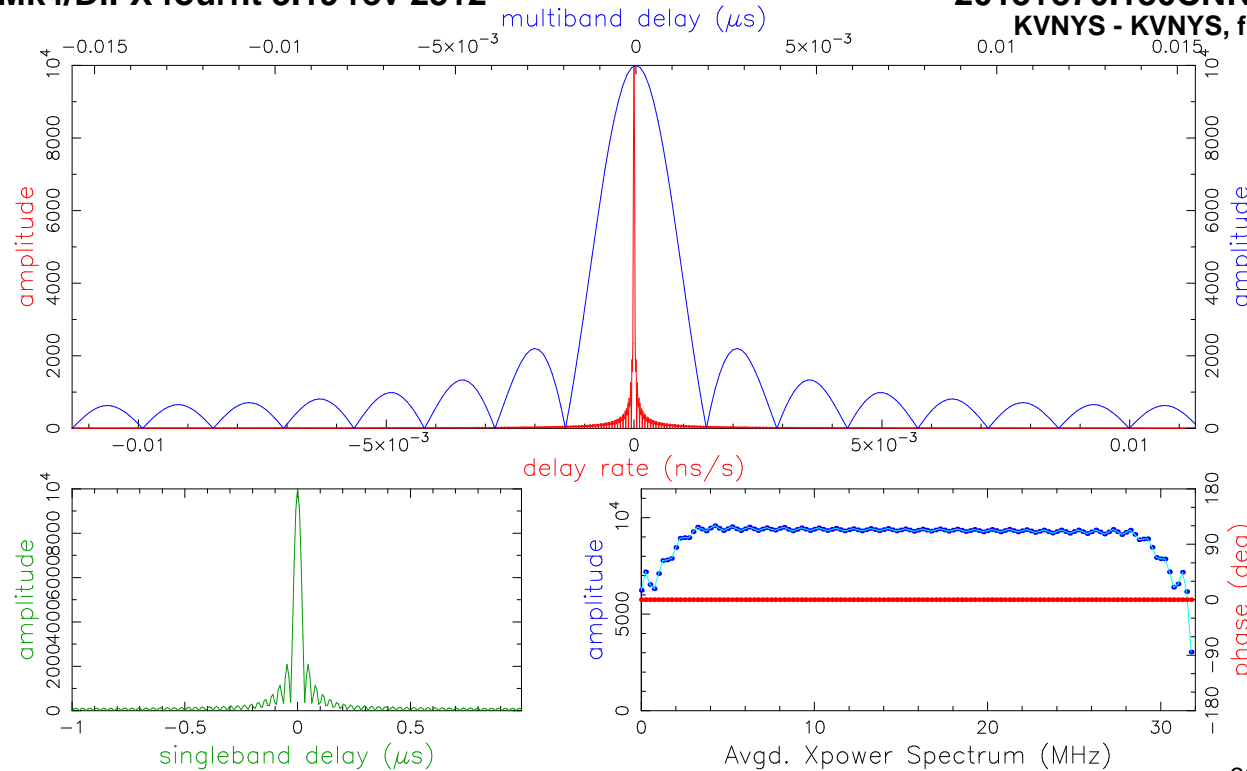


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	30.7	-26.3	-39.8	-40.2	-36.0	-46.6	-23.6	6.6	-106.7	-34.8	73.4	83.6	-43.3	77.7	15.3	-81.5		Phase -23.1
	0.3	0.2	0.3	0.3	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.0	0.2	0.1	0.1	0.2		Ampl. 0.2
	215.6	222.7	214.2	215.6	191.2	40.9	4.9	203.7	46.1	100.2	85.3	53.0	8.6	223.1	73.8	24.9		Sbd box 214.9
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
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks

Group delay (usec)(sbd) -5.15371835870E+03 Apriori delay (usec) -5.15437876368E+03 Resid mbdelay (usec) 4.15498E-03 +/- 1.8E-04
 Sband delay (usec) -5.15370797318E+03 Apriori clock (usec) 1.9543859E+01 Resid sbdelay (usec) 6.70790E-01 +/- 2.9E-03
 Phase delay (usec) -5.15437876442E+03 Apriori clockrate (us/s) -1.2000001E-07 Resid phdelay (usec) -7.46105E-07 +/- 6.2E-07
 Delay rate (us/s) -1.70723960493E+00 Apriori rate (us/s) -1.70723060911E+00 Resid rate (us/s) -8.99583E-06 +/- 2.7E-09
 Total phase (deg) -276.2 Apriori accel (us/s/s) 2.47665289706E-05 Resid phase (deg) -23.1 +/- 19.2

RMS Theor. Amplitude 0.143 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 40.4 33.3 Search (2048X64) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 49.0 58.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 58.8 38.4 Inc. seg. avg. 0.146 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 66.6 67.1 Inc. frq. avg. 0.162 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

y: az 295.1 el 31.5 pa 64.1 Y: az 76.3 el 48.4 pa -68.3 u,v (fr/asec) 12321.374 1057.220 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yY..130CNK Output file: /Exps/c192b/v2/1234/No0078/yY.W.154.130CNK

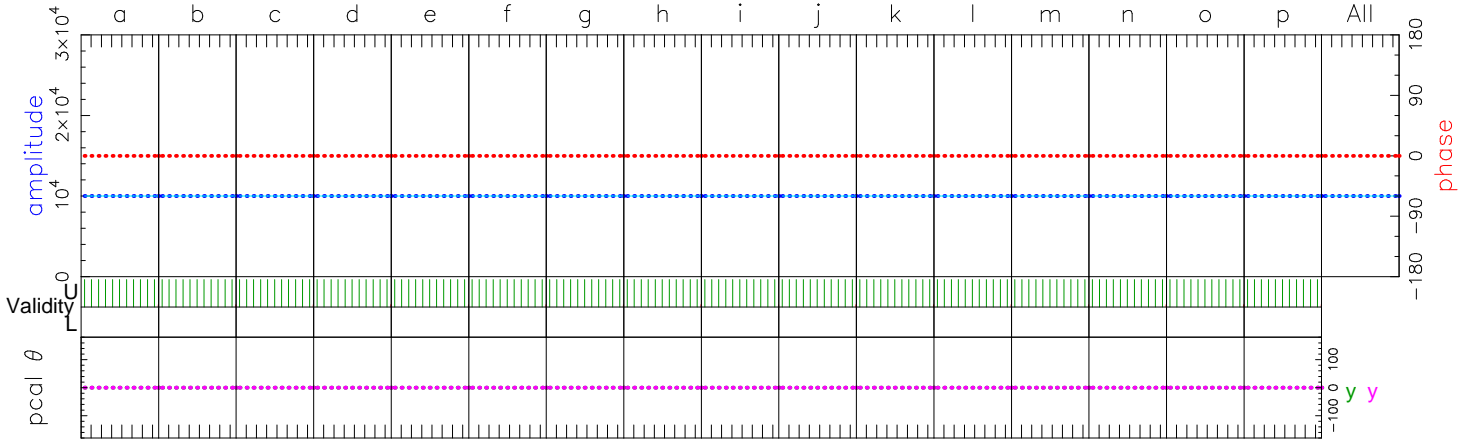


Fringe quality 9

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
2020:086:085710
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

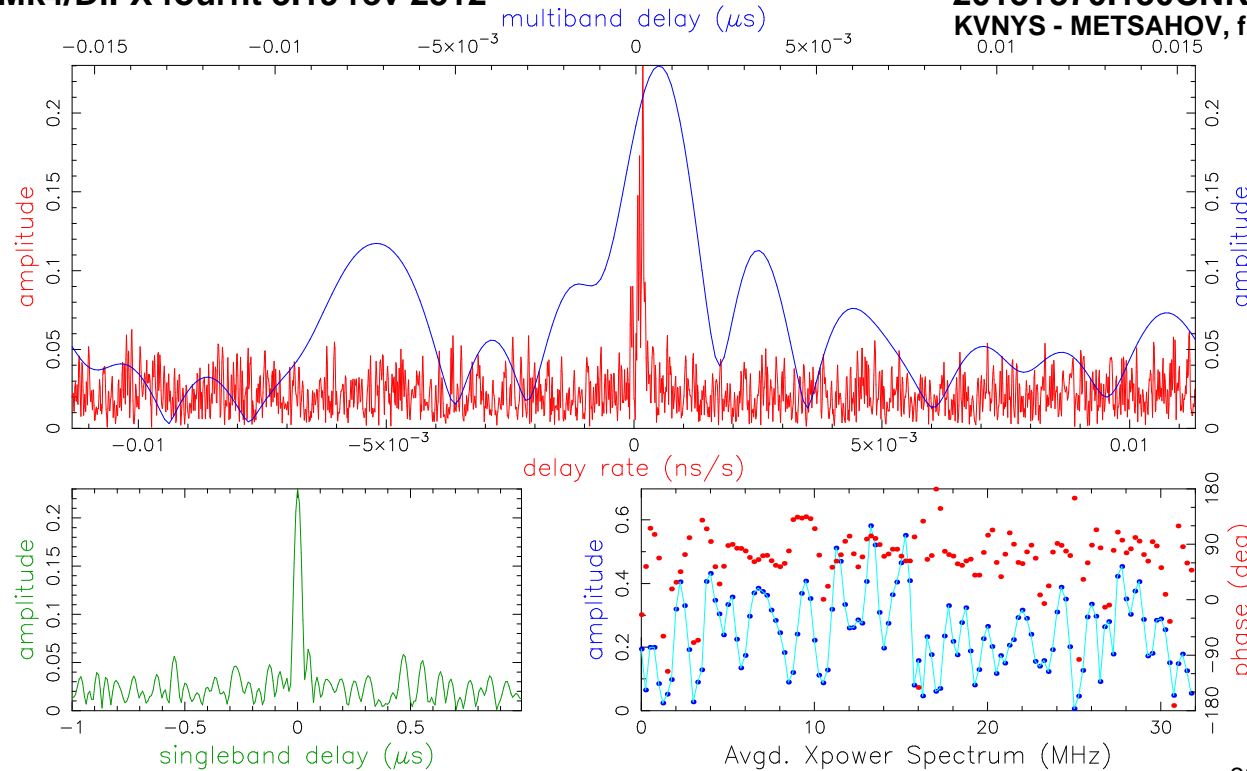


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-0.0	0.0	0.0	-0.0	-0.0	-0.0	0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0		Phase	-0.0
	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	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
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	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
																		Chan ids	
																		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)	-8.44758007136E-21			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			-8.44758E-21			+/- 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
 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

y: az 295.1 el 31.5 pa 64.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yy..130CNK Output file: /Exps/c192b/v2/1234/No0078/yy.W.97.130CNK

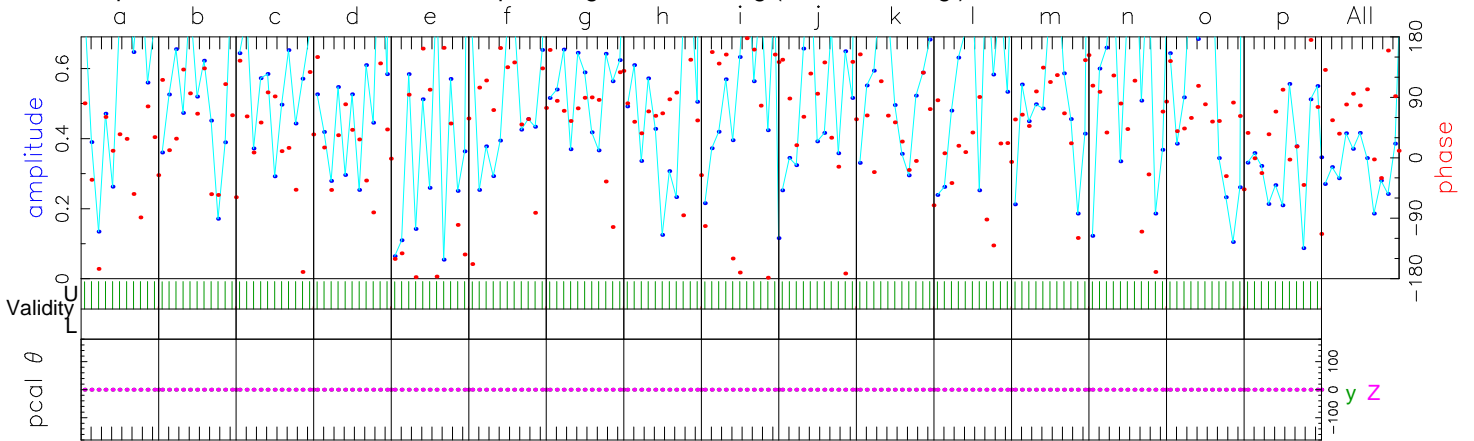


Fringe quality 9

SNR 12.9
Int time 419.369
Amp 0.230
Phase 77.7
PFD 2.7e-29
Delays (us)
SBD 0.000852
MBD 0.000644
Fringe rate (Hz) 0.015416
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									
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	820/0	APs used								
y	1000	1000	1000	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	1000	1000	1000	PC freqs							
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase							
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC							
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp							
y	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							
																				Tracks							
Group delay (usec)(sbd)			-7.82557148464E+03																	Apriori delay (usec)	-7.82557212845E+03		Resid mbdelay (usec)	6.43810E-04	+/-	8.4E-05	
Sband delay (usec)			-7.82557127645E+03																		Apriori clock (usec)	2.9022396E+01		Resid sbdelay (usec)	8.52000E-04	+/-	1.3E-03
Phase delay (usec)			-7.82557212595E+03																		Apriori clockrate (us/s)	8.3707184E-08		Resid phdelay (usec)	2.50630E-06	+/-	2.9E-07
Delay rate (us/s)			-1.22126671931E+00																		Apriori rate (us/s)	-1.22126689827E+00		Resid rate (us/s)	1.78968E-07	+/-	1.2E-09
Total phase (deg)					25.5																Apriori accel (us/s/s)	2.41029027988E-05		Resid phase (deg)	77.7	+/-	8.9

ph/seg (deg) 53.1 15.4
amp/seg (%) 52.3 26.9
ph/frq (deg) 45.1 17.8
amp/frq (%) 45.2 31.0

Group delay (usec)(sbd) -7.82557148464E+03
Sband delay (usec) -7.82557127645E+03
Phase delay (usec) -7.82557212595E+03
Delay rate (us/s) -1.22126671931E+00
Total phase (deg) 25.5

Apriori delay (usec) -7.82557212845E+03
Apriori clock (usec) 2.9022396E+01
Apriori clockrate (us/s) 8.3707184E-08
Apriori rate (us/s) -1.22126689827E+00
Apriori accel (us/s/s) 2.41029027988E-05

Resid mbdelay (usec) 6.43810E-04 +/- 8.4E-05
Resid sbdelay (usec) 8.52000E-04 +/- 1.3E-03
Resid phdelay (usec) 2.50630E-06 +/- 2.9E-07
Resid rate (us/s) 1.78968E-07 +/- 1.2E-09
Resid phase (deg) 77.7 +/- 8.9

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

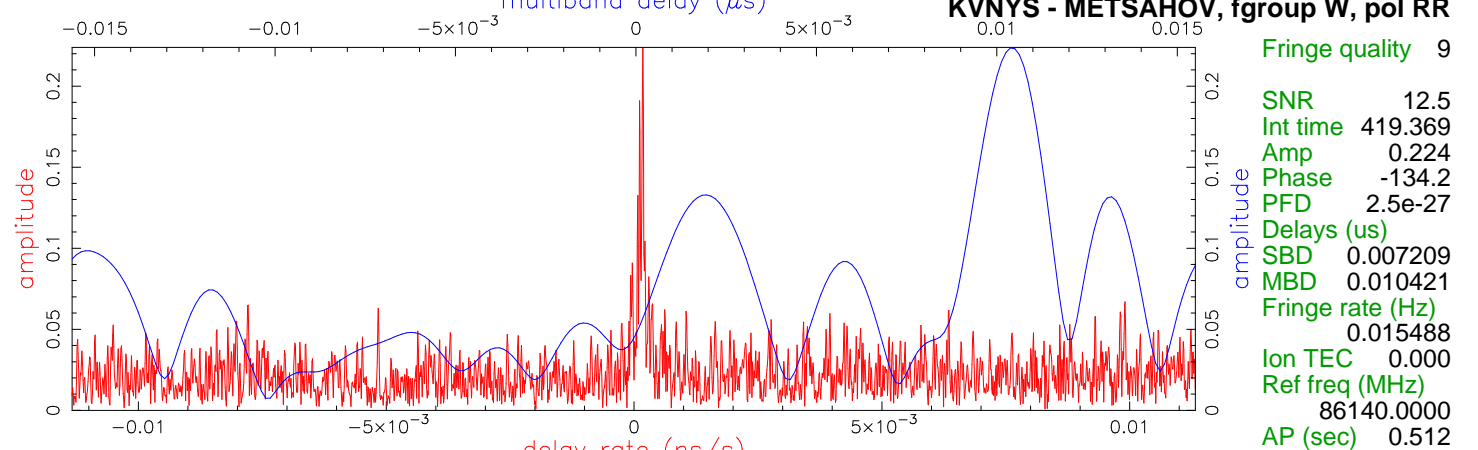
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

y: az 295.1 el 31.5 pa 64.1 Z: az 131.6 el 61.5 pa -27.8 u,v (fr/asec) 8821.347 -483.925 simultaneous interpolator

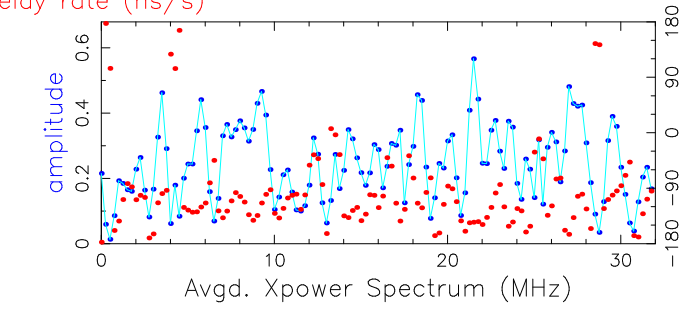
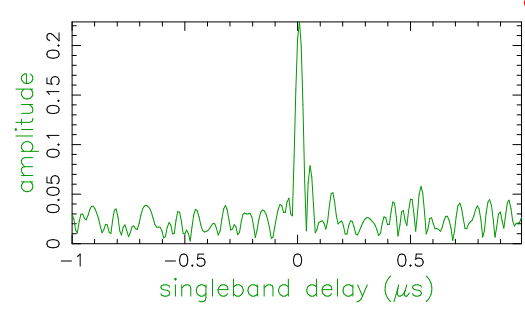
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yZ..130CNK Output file: /Exps/c192b/v2/1234/No0078/yZ.W.150.130CNK

Mk4/DiFX fourfit 3.19 rev 2512

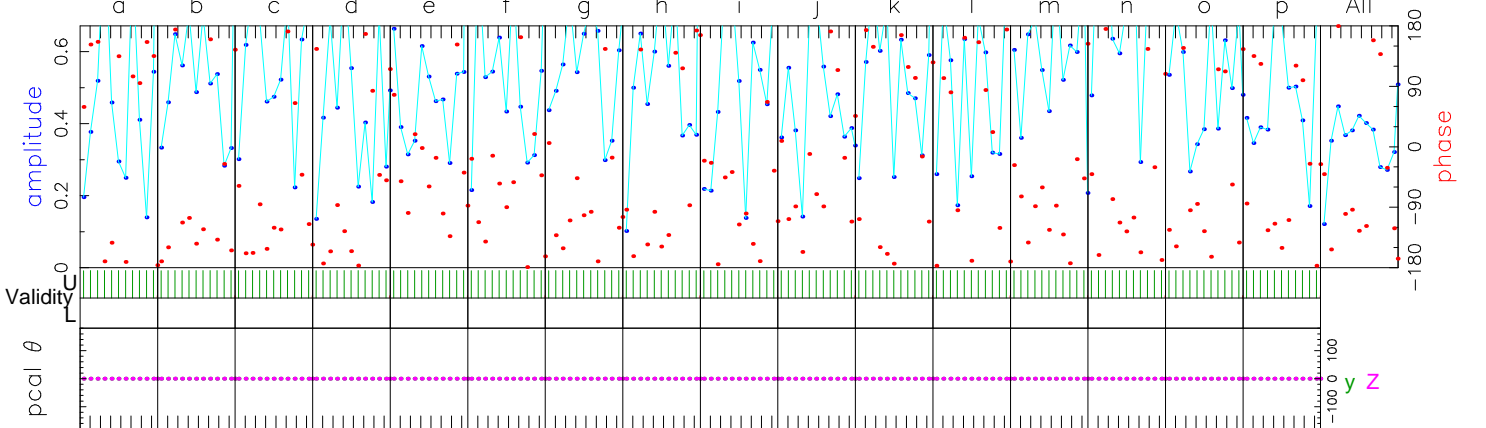
2013+370.130CNK, No0078, yZ
KVNS - METSAHOV, fgroup W, pol RR



Fringe quality 9
 SNR 12.5
 Int time 419.369
 Amp 0.224
 Phase -134.2
 PFD 2.5e-27
 Delays (us)
 SBD 0.007209
 MBD 0.010421
 Fringe rate (Hz) 0.015488
 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
 2020:086:085729
 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

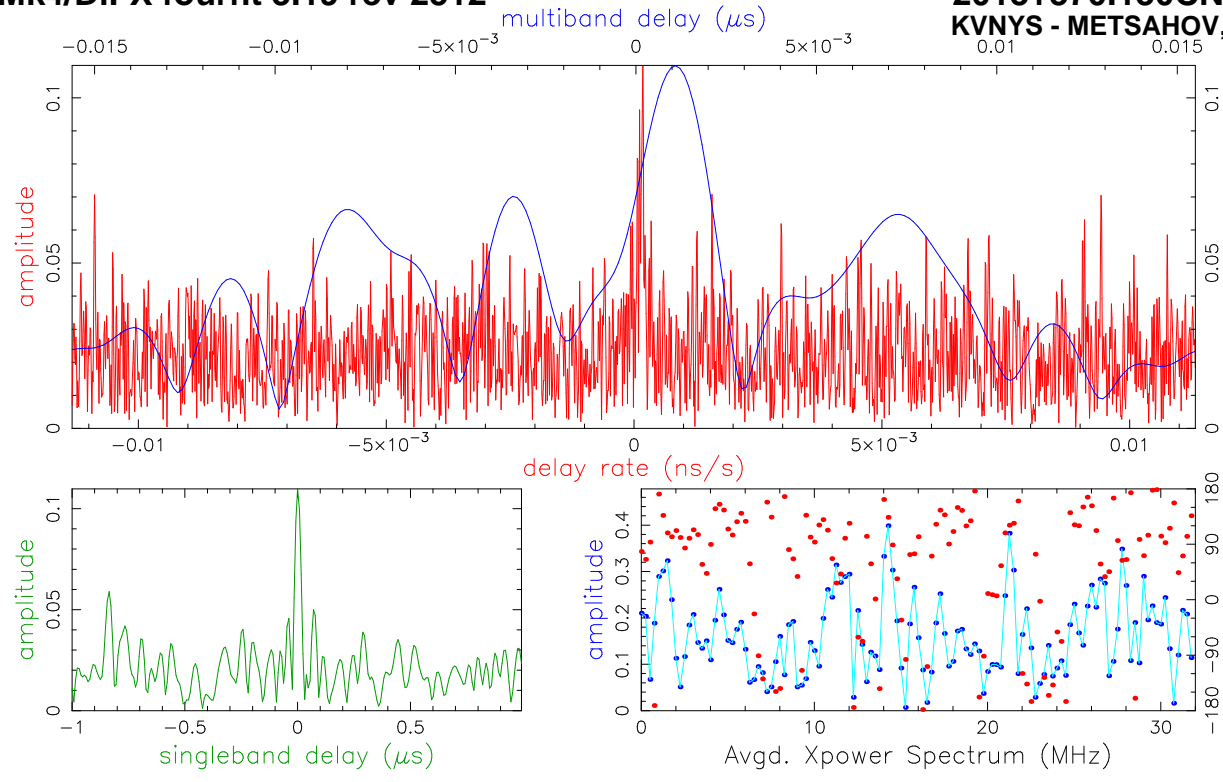


86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
149.6	-142.7	-127.2	-135.3	-39.4	-76.2	-110.4	-164.0	-75.7	-74.6	177.8	141.4	-85.2	-134.2	-153.6	-159.4	Phase	-134.2	
0.3	0.4	0.4	0.3	0.2	0.3	0.4	0.4	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.2	Ampl.	0.3	
130.2	130.4	130.3	128.8	128.8	130.1	128.3	129.6	129.6	198.9	129.7	130.1	129.7	130.7	130.7	130.3	Sbd box	129.9	
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	APs used		
y	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	PC freqs		
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
y	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	PC amp		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) -7.82556170702E+03 Apriori delay (usec) -7.82557212845E+03 Resid mbdelay (usec) 1.04214E-02 +/- 8.6E-05
 Sband delay (usec) -7.82556491895E+03 Apriori clock (usec) 2.9022396E+01 Resid sbdelay (usec) 7.20950E-03 +/- 1.4E-03
 Phase delay (usec) -7.82557213278E+03 Apriori clockrate (us/s) 8.3707184E-08 Resid phdelay (usec) -4.32667E-06 +/- 2.9E-07
 Delay rate (us/s) -1.22126671847E+00 Apriori rate (us/s) -1.22126689827E+00 Resid rate (us/s) 1.79804E-07 +/- 1.2E-09
 Total phase (deg) -186.3 Apriori accel (us/s/s) 2.41029027988E-05 Resid phase (deg) -134.2 +/- 9.1

RMS Theor. Amplitude 0.224 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 58.1 15.8 Search (2048X64) 0.218 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 65.8 27.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 53.1 18.3 Inc. seg. avg. 0.330 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 52.3 31.9 Inc. frq. avg. 0.301 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

y: az 295.1 el 31.5 pa 64.1 Z: az 131.6 el 61.5 pa -27.8 u,v (fr/asec) 8821.347 -483.925 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yZ..130CNK Output file: /Exps/c192b/v2/1234/No0078/yZ.W.161.130CNK

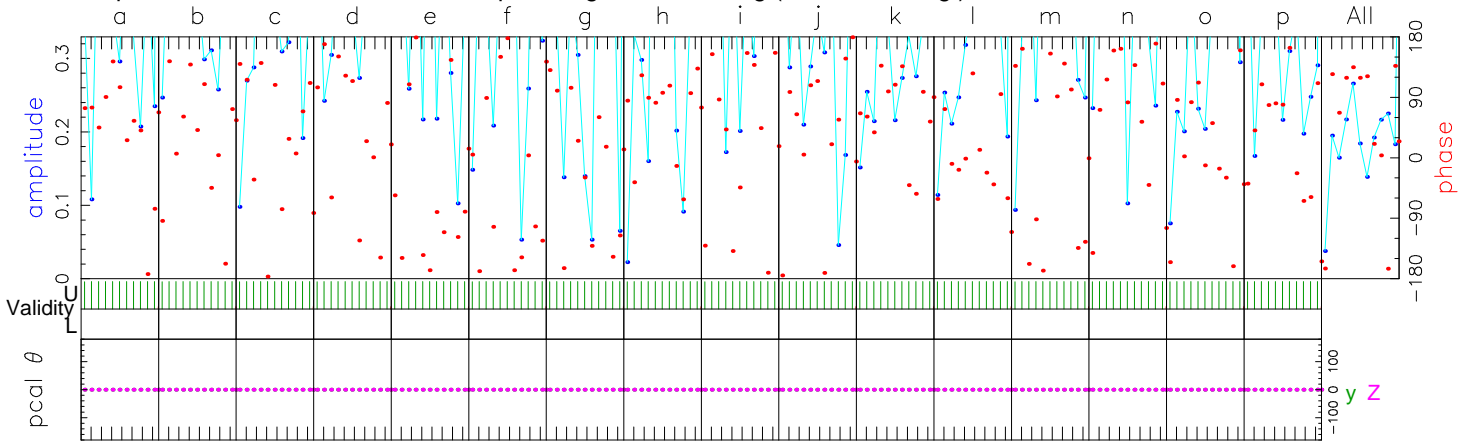


Fringe quality 0

SNR 6.1
Int time 419.369
Amp 0.110
Phase 111.9
PFD 1.9e-01
Delays (us)
SBD 0.000813
MBD 0.001111
Fringe rate (Hz) 0.015314
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
2020:086:085732
2020:014:135814
RA & Dec (J2000)
20h15m28.729803s
+37°10'59.514664"

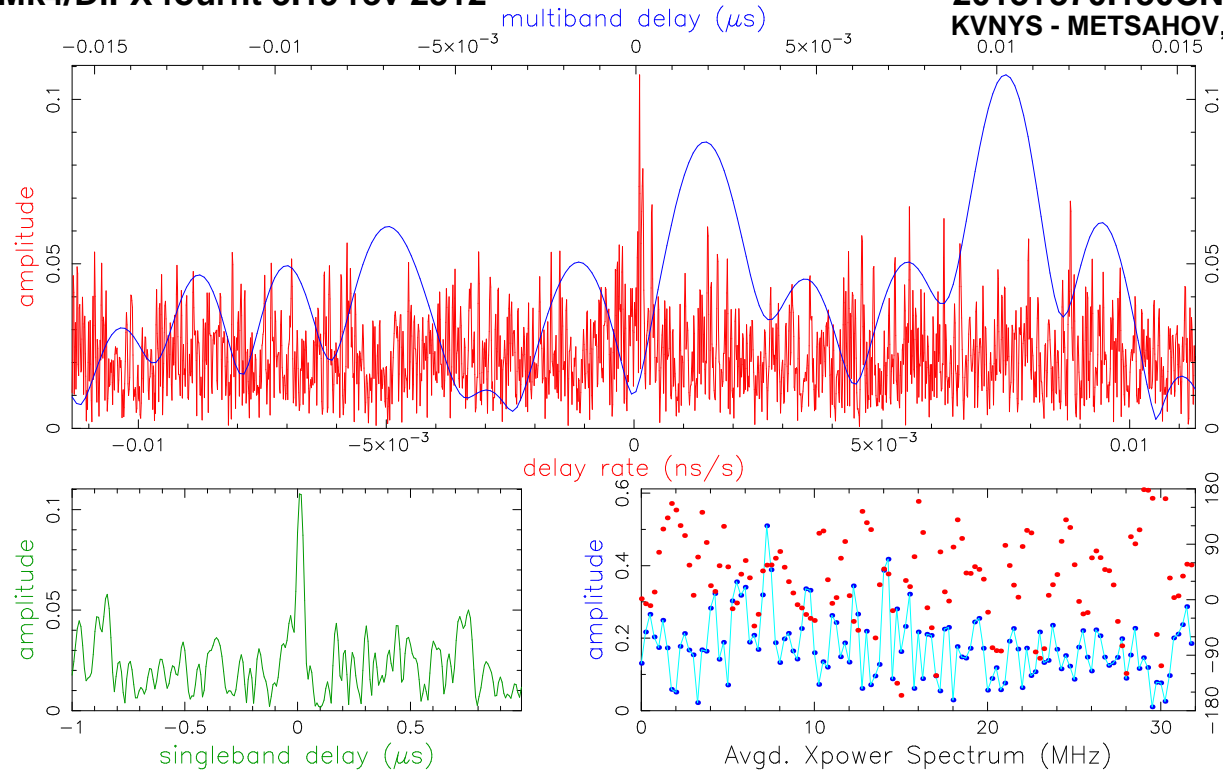
Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



	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	
73.8	67.7	105.4	113.8	-137.3	-156.4	89.4	94.0	149.8	119.5	82.2	4.5	165.4	119.1	48.6	57.9		Phase	111.9	
0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.1	0.1		Ampl.	0.1	
241.9	193.5	33.9	89.7	128.7	139.3	40.2	128.9	129.3	194.3	5.2	187.0	129.4	129.2	218.7	253.5		Sbd box	129.1	
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	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC amp	
z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
Group delay (usec)(sbd)	-7.82557101764E+03			Apriori delay (usec)			-7.82557212845E+03			Resid mbdelay (usec)			1.11081E-03			+/- 1.8E-04			
Sband delay (usec)	-7.82557131595E+03			Apriori clock (usec)			2.9022396E+01			Resid sbdelay (usec)			8.12500E-04			+/- 2.8E-03			
Phase delay (usec)	-7.82557212485E+03			Apriori clockrate (us/s)			8.3707184E-08			Resid phdelay (usec)			3.60693E-06			+/- 6.0E-07			
Delay rate (us/s)	-1.22126672050E+00			Apriori rate (us/s)			-1.22126689827E+00			Resid rate (us/s)			1.77778E-07			+/- 2.5E-09			
Total phase (deg)	59.7			Apriori accel (us/s/s)			2.41029027988E-05			Resid phase (deg)			111.9			+/- 18.6			
ph/seg (deg)	RMS	Theor.	Amplitude		0.110 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000				
amp/seg (%)	58.6	32.3	Search (2048X64)		0.109		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)		-0.016 0.016						
ph/frq (deg)	90.0	56.3	Interp.		0.000		Sample rate(MISamp/s): 64				dr window (ns/s)		-0.011 0.011						
amp/frq (%)	59.0	37.3	Inc. seg. avg.		0.161		Data rate(Mb/s): 2048		nlags: 128		ion window (TEC)		0.00 0.00						
	79.6	65.0	Inc. frq. avg.		0.145														
y: az 295.1 el 31.5 pa 64.1	Z: az 131.6 el 61.5 pa -27.8			u,v (fr/asec) 8821.347 -483.925									simultaneous interpolator						
Control file: cf_1234_gmva	Input file: /Exps/c192b/v2/1234/No0078/yZ..130CNK			Output file: /Exps/c192b/v2/1234/No0078/yZ.W.165.130CNK															

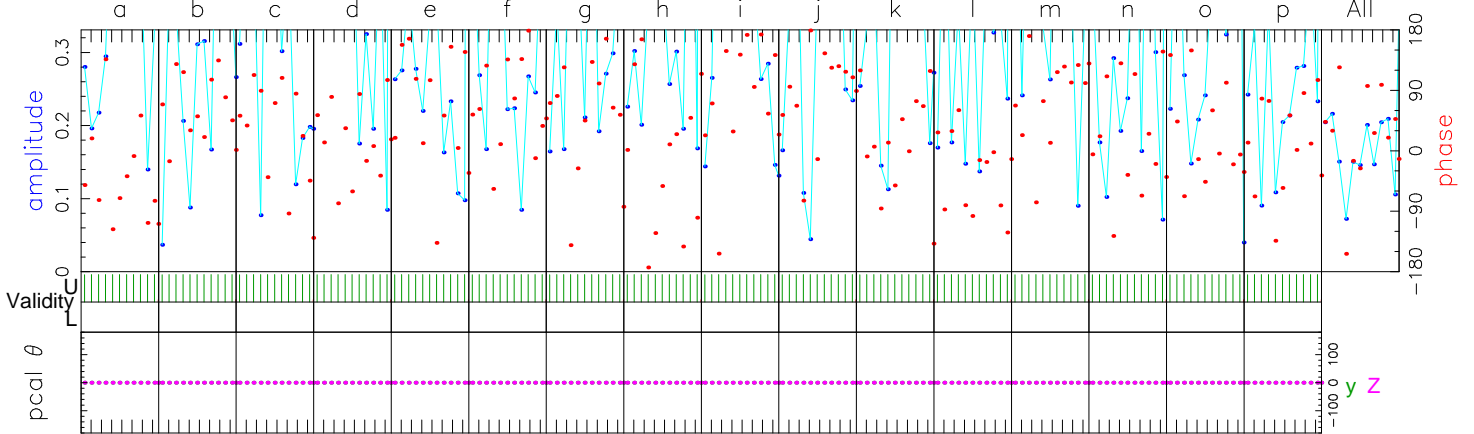
Mk4/DiFX fourfit 3.19 rev 2512

2013+370.130CNK, No0078, yZ
KVNS - METSAHOV, fgroup W, pol RL



Fringe quality 0
SNR 6.2
Int time 419.369
Amp 0.110
Phase 45.2
PFD 1.6e-01
Delays (us)
SBD 0.011579
MBD 0.010226
Fringe rate (Hz) 0.009938
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
2020:086:085736
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
	-53.8	76.3	36.3	9.9	123.6	35.3	99.4	38.2	133.1	99.2	19.1	-45.0	102.7	24.6	9.9	24.4	Phase	45.2
	0.2	0.2	0.2	0.3	0.1	0.2	0.1	0.0	0.2	0.2	0.2	0.2	0.3	0.1	0.3	0.1	Ampl.	0.1
	49.0	132.3	57.2	129.6	128.5	206.2	225.5	19.4	129.7	131.0	131.2	83.6	130.7	39.2	129.5	194.0	Sbd box	130.5
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	
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	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)	-7.82556190283E+03			Apriori delay (usec)			-7.82557212845E+03			Resid mbdelay (usec)			1.02256E-02			+/- 1.7E-04		
Sband delay (usec)	-7.82556054995E+03			Apriori clock (usec)			2.9022396E+01			Resid sbdelay (usec)			1.15785E-02			+/- 2.8E-03		
Phase delay (usec)	-7.82557212700E+03			Apriori clockrate (us/s)			8.3707184E-08			Resid phdelay (usec)			1.45775E-06			+/- 6.0E-07		
Delay rate (us/s)	-1.22126678290E+00			Apriori rate (us/s)			-1.22126689827E+00			Resid rate (us/s)			1.15374E-07			+/- 2.5E-09		
Total phase (deg)	-7.0			Apriori accel (us/s/s)			2.41029027988E-05			Resid phase (deg)			45.2			+/- 18.5		

ph/seg (deg) 65.8 32.1 Search (2048X64) 0.110 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 66.0 56.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 57.4 37.1 Inc. seg. avg. 0.143 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 80.0 64.7 Inc. frq. 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
y: az 295.1 el 31.5 pa 64.1 Z: az 131.6 el 61.5 pa -27.8 u,v (fr/asec) 8821.347 -483.925 ion window (TEC) 0.00 0.00 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0078/yZ..130CNK Output file: /Exps/c192b/v2/1234/No0078/yZ.W.170.130CNK