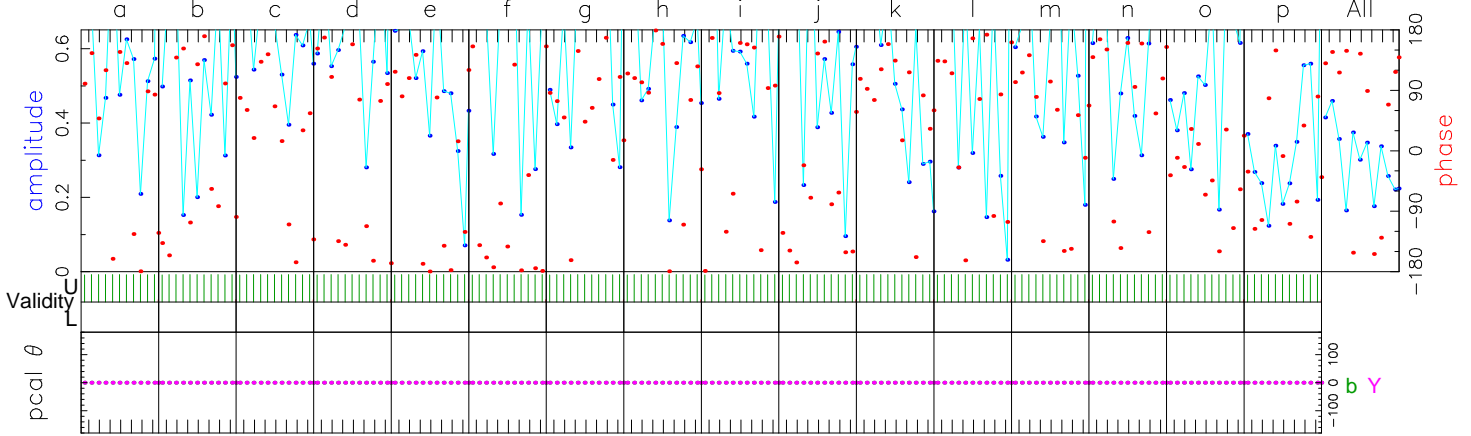


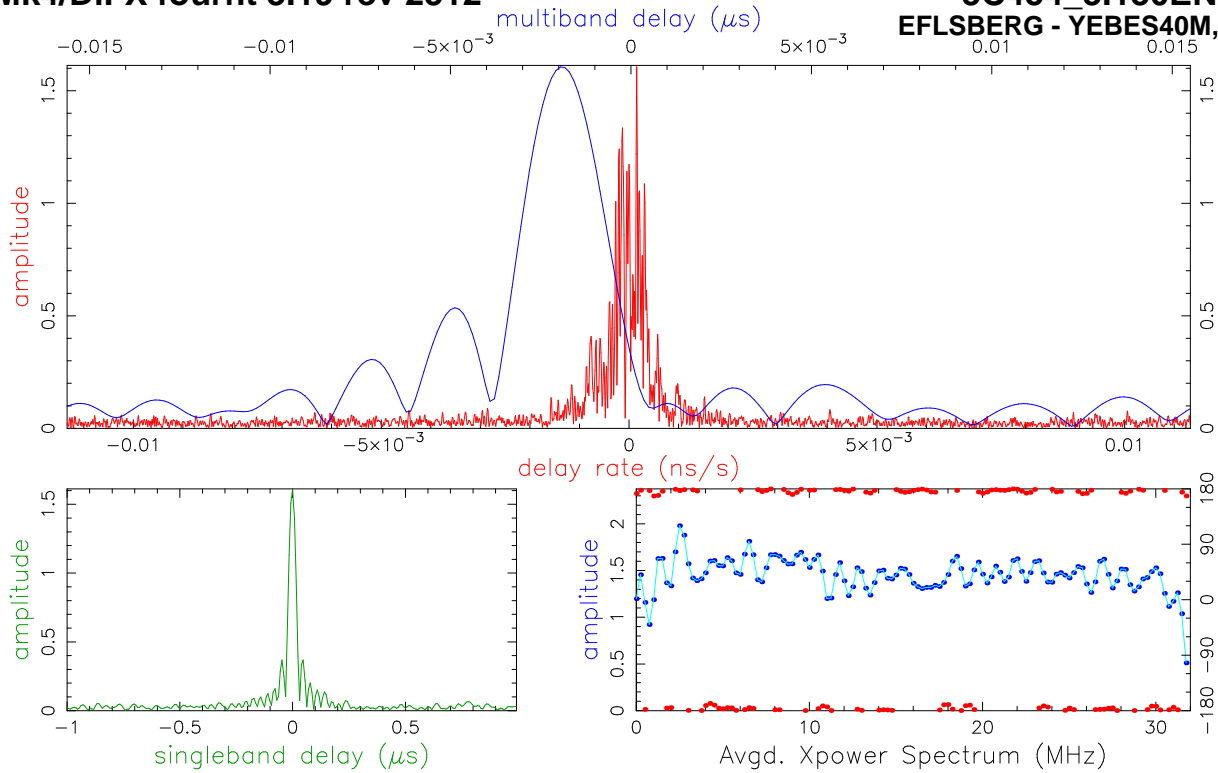
Fringe quality 9
SNR 11.9
Int time 401.221
Amp 0.217
Phase 143.3
PFD 7.2e-24
Delays (us)
SBD -0.009837
MBD -0.011406
Fringe rate (Hz) 0.019823
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100758
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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



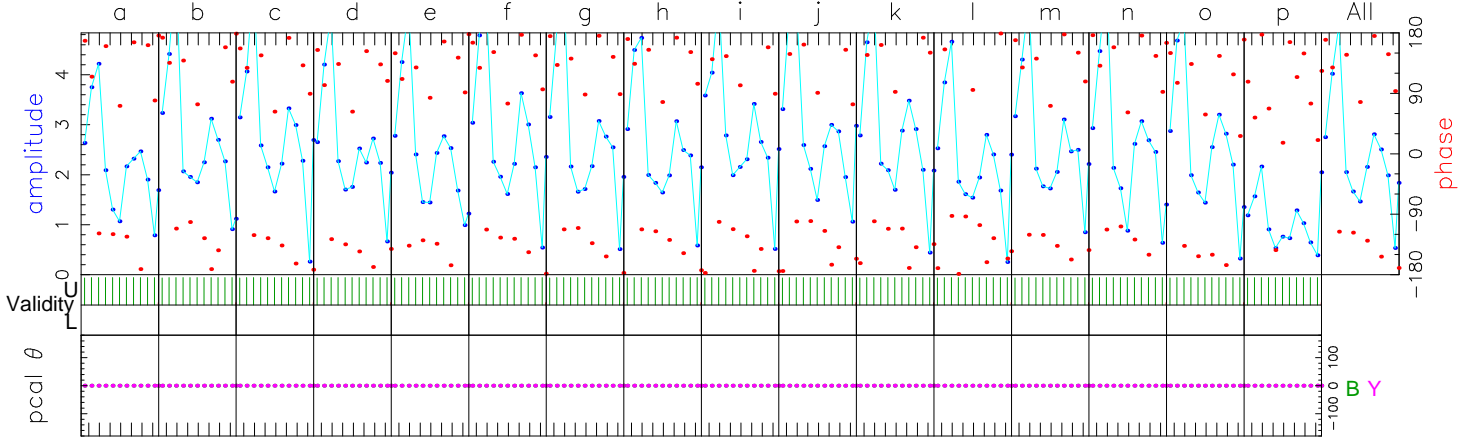
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	135.7	-165.8	77.7	150.9	130.8	-160.3	90.8	128.1	173.1	-128.7	108.9	143.0	110.3	147.5	-31.8	-74.2		Phase 143.3					
	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.1		Ampl. 0.3					
	128.2	128.4	127.9	128.3	127.4	128.2	128.4	127.8	128.5	128.2	127.2	127.9	127.3	128.0	128.2	124.6		Sbd box 127.7					
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					
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					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000							
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-5.61166098904E+03															Apriori delay (usec)	-5.61164958312E+03	Resid mbdelay (usec)	-1.14059E-02	+/-	9.1E-05
Sband delay (usec)			-5.61165942012E+03															Apriori clock (usec)	-1.0285865E+01	Resid sbdelay (usec)	-9.83700E-03	+/-	1.4E-03
Phase delay (usec)			-5.61164957850E+03															Apriori clockrate (us/s)	-4.6239510E-07	Resid phdelay (usec)	4.62253E-06	+/-	3.1E-07
Delay rate (us/s)			1.75691764462E+00															Apriori rate (us/s)	1.75691741449E+00	Resid rate (us/s)	2.30129E-07	+/-	1.3E-09
Total phase (deg)					110.8													Apriori accel (us/s/s)	3.27824750840E-05	Resid phase (deg)	143.3	+/-	9.6

ph/seg (deg) 48.4 16.7 Theor. Amplitude 0.217 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 59.9 29.1 Search (2048X64) 0.212 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 73.3 19.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 70.8 33.7 Inc. seg. avg. 0.297 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.329 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 b: az 92.5 el 24.3 pa -44.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -10425.605 1621.304 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/bY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/bY.W.101.130EN2



Fringe quality 4
 SNR 88.4
 Int time 402.209
 Amp 1.613
 Phase -177.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.001445
 MBD -0.001922
 Fringe rate (Hz)
 0.013334
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c192b
 Exper # 16383
 Yr:day 2019:278
 Start 011516.90
 Stop 012159.84
 FRT 011830.00
 Corr/FF/build
 2020:079:134246
 2020:086:100758
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

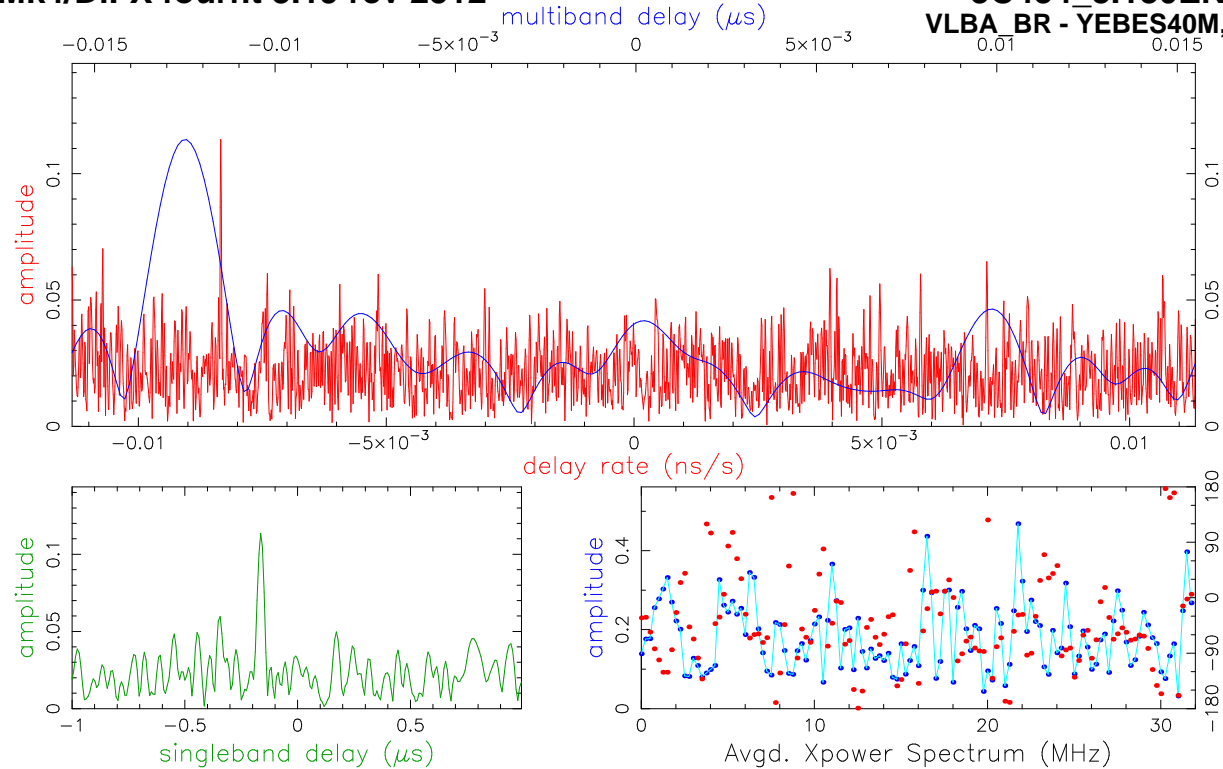
Amp. and Phase vs. time for each freq., 12 segs, 71 APs / seg (36.35 sec / seg.), time ticks 60 sec



	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
	177.8	-170.5	178.5	165.8	167.2	-176.9	-178.1	-177.9	-169.4	-162.8	-157.4	-150.3	179.1	-170.8	160.7	113.5	Phase	-177.4
	1.5	1.7	1.9	1.6	1.7	1.8	1.8	1.7	1.9	1.8	1.9	1.5	1.8	1.8	1.7	0.6	Ampl.	1.7
	128.9	128.9	128.8	128.4	129.1	128.8	128.7	128.9	129.0	129.0	128.9	128.8	128.6	128.7	128.2	127.7	Sbd box	128.8
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	
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	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-2.78554821886E+03			Apriori delay (usec)			-2.78554629665E+03			Resid mbdelay (usec)			-1.92220E-03			+/- 1.2E-05		
Sband delay (usec)	-2.78554774115E+03			Apriori clock (usec)			7.1485891E+00			Resid sbdelay (usec)			-1.44450E-03			+/- 1.9E-04		
Phase delay (usec)	-2.78554630237E+03			Apriori clockrate (us/s)			-4.2000000E-07			Resid phdelay (usec)			-5.71954E-06			+/- 4.2E-08		
Delay rate (us/s)	3.03801033151E-02			Apriori rate (us/s)			3.03799485208E-02			Resid rate (us/s)			1.54794E-07			+/- 1.8E-10		
Total phase (deg)	-175.1			Apriori accel (us/s/s)			1.87094875458E-05			Resid phase (deg)			-177.4			+/- 1.3		

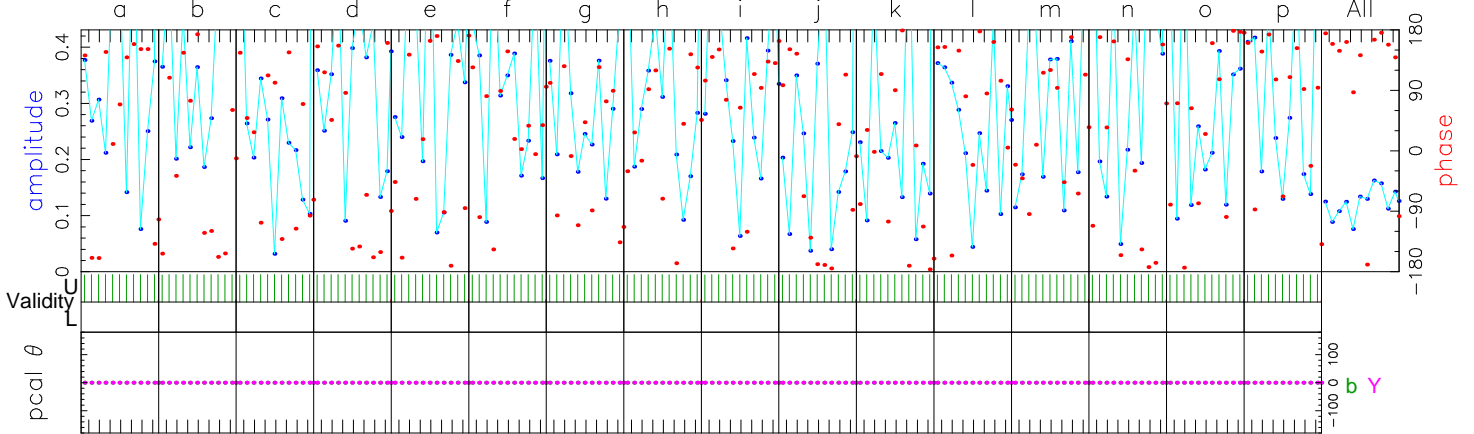
ph/seg (deg) RMS Theor. Amplitude 1.613 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 56.3 2.2 Search (2048X64) 1.601 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 88.5 3.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 22.9 2.6 Inc. seg. avg. 2.442 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 19.3 4.5 Inc. frq. avg. 1.670 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 252.6 el 34.4 pa 39.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -150.382 1469.098 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/BY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/BY.W.103.130EN2



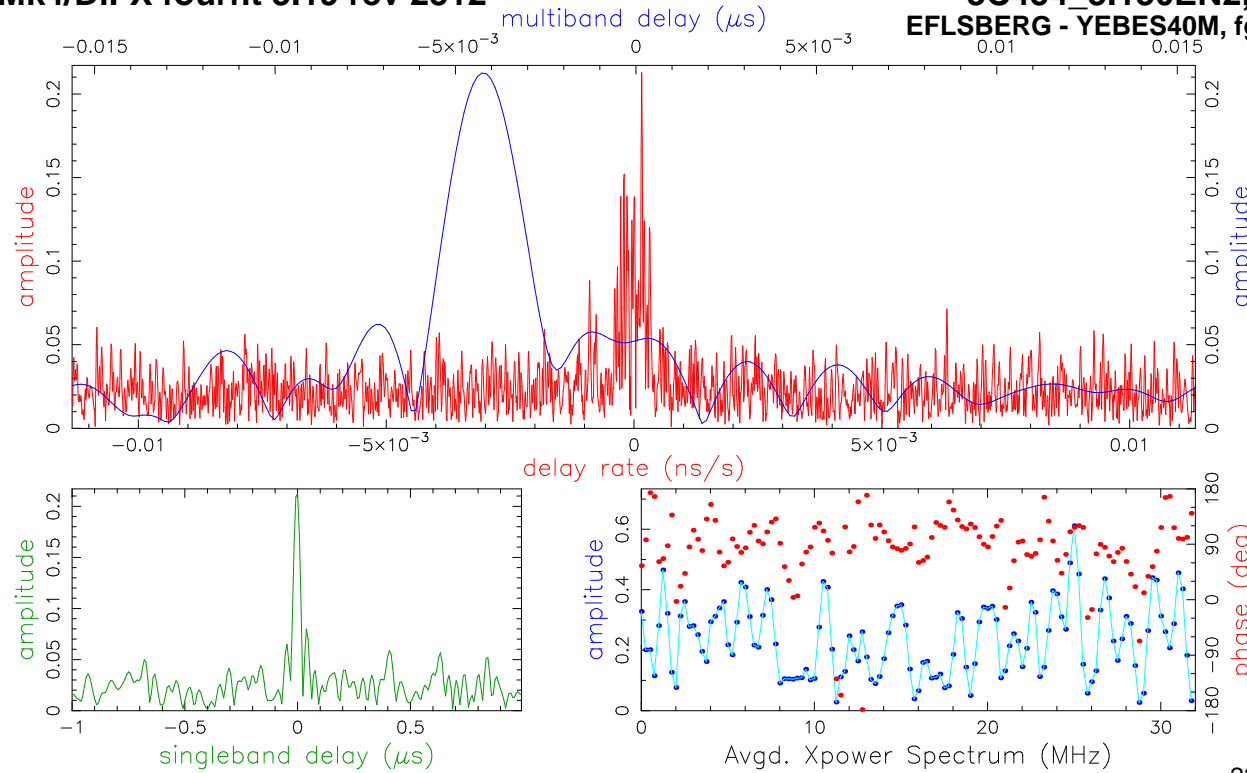
Fringe quality 0
SNR 6.2
Int time 401.221
Amp 0.144
Phase 159.0
PFD 1.2e-01
Delays (us)
SBD -0.163185
MBD -0.012492
Fringe rate (Hz)
-0.718987
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100803
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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					
UL	150.4	167.9	163.8	-176.4	-170.7	63.8	129.9	92.7	136.5	-179.7	-155.8	147.0	98.3	-167.3	-171.7	141.6	Phase	159.0					
b	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.3	0.1	0.1	0.2	0.1	0.3	0.2	0.2	Ampl.	0.1					
Y	5.9	129.6	54.9	82.5	211.2	4.9	144.6	87.4	154.8	165.8	158.5	63.1	71.5	74.8	253.6	173.9	Sbd box	108.1					
b:Y	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						
b: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						
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						
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp						
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids						
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks						
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						
Group delay (usec)(sbd)			-5.61181832518E+03														Apriori delay (usec)	-5.61164958312E+03	Resid mbdelay (usec)	-1.24921E-02	+/-	1.7E-04	
Sband delay (usec)			-5.61181276812E+03															Apriori clock (usec)	-1.0285865E+01	Resid sbdelay (usec)	-1.63185E-01	+/-	2.8E-03
Phase delay (usec)			-5.61164957800E+03															Apriori clockrate (us/s)	-4.6239510E-07	Resid phdelay (usec)	5.12640E-06	+/-	5.9E-07
Delay rate (us/s)			1.75690906777E+00															Apriori rate (us/s)	1.75691741449E+00	Resid rate (us/s)	-8.34672E-06	+/-	2.5E-09
Total phase (deg)				126.4														Apriori accel (us/s/s)	3.27824750840E-05	Resid phase (deg)	159.0	+/-	18.4

ph/seg (deg) 27.6 31.9 Search (2048X64) 0.111 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 23.9 55.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 42.4 36.8 Inc. seg. avg. 0.135 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 53.8 64.2 Inc. frq. avg. 0.139 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 92.5 el 24.3 pa -44.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -10425.605 1621.304 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/bY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/bY.W.121.130EN2

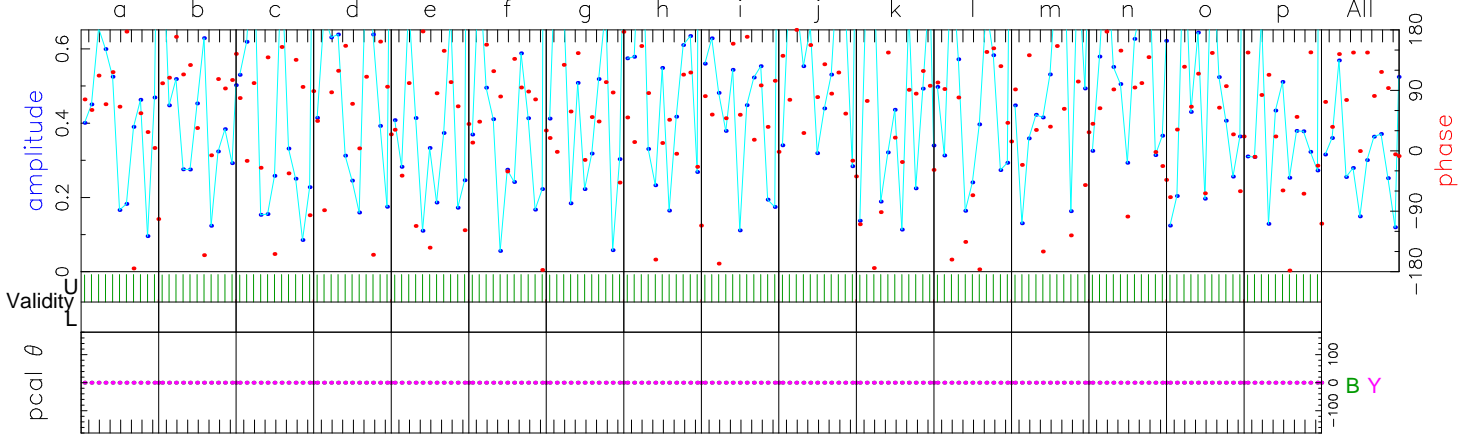


Fringe quality 9

SNR 11.9
Int time 402.209
Amp 0.217
Phase 97.5
PFD 5.7e-24
Delays (us)
SBD -0.003322
MBD -0.004230
Fringe rate (Hz) 0.013332
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100804
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

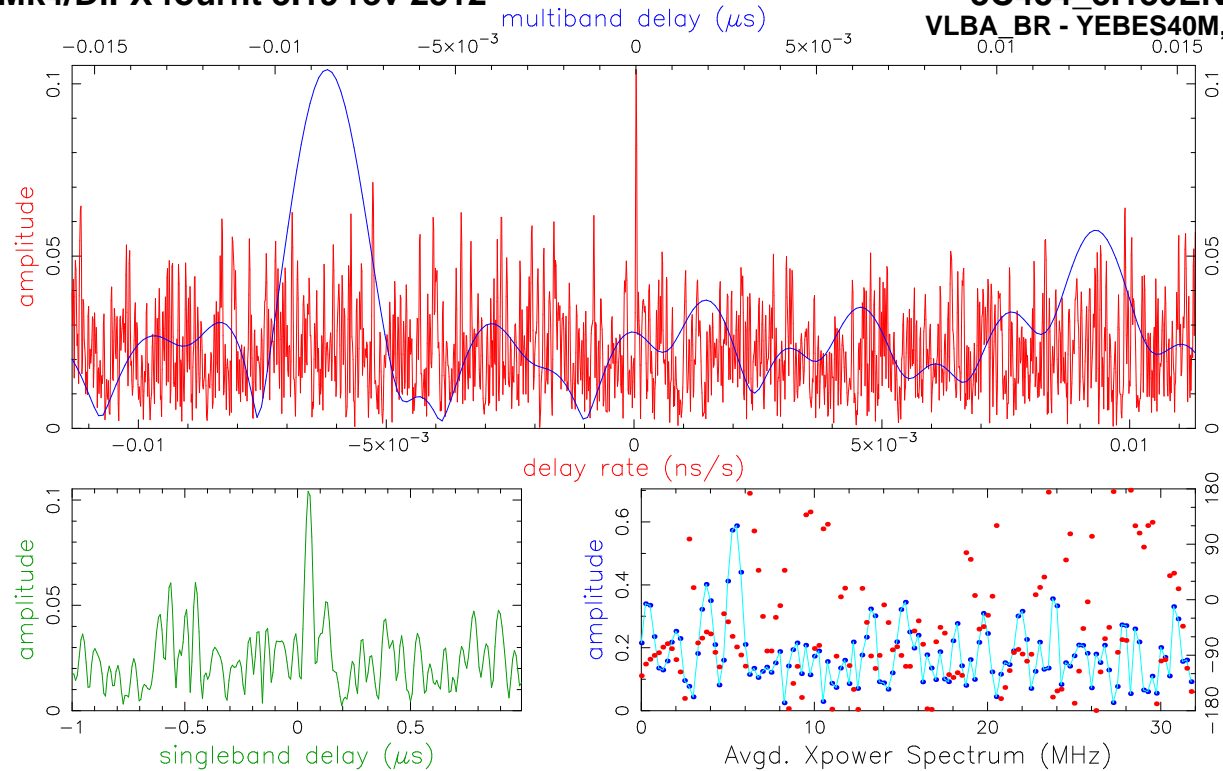
Amp. and Phase vs. time for each freq., 12 segs, 71 APs / seg (36.35 sec / seg.), time ticks 60 sec



	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
	83.5	115.9	103.6	119.9	110.4	82.0	58.3	77.7	89.7	100.7	103.9	139.7	88.8	108.9	97.8	30.1	Phase	97.5
	0.3	0.3	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.2	0.3	0.3	0.1	Ampl.	0.2
	127.2	128.5	28.6	10.1	188.5	128.2	128.4	105.9	37.7	129.0	128.9	129.3	203.7	128.2	127.9	104.6	Sbd box	128.6
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	
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	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	

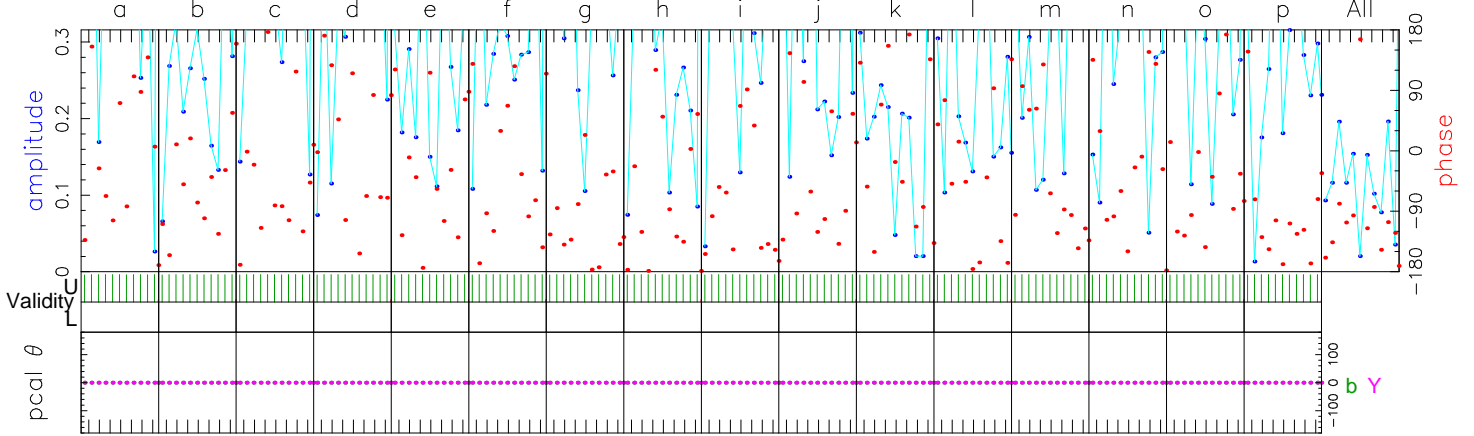
Group delay (usec)(sbd)	-2.78555052670E+03	Apriori delay (usec)	-2.78554629665E+03	Resid mbdelay (usec)	-4.23005E-03	+/-	9.1E-05
Sband delay (usec)	-2.78554961865E+03	Apriori clock (usec)	7.1485891E+00	Resid sbdelay (usec)	-3.32200E-03	+/-	1.4E-03
Phase delay (usec)	-2.78554629351E+03	Apriori clockrate (us/s)	-4.2000000E-07	Resid phdelay (usec)	3.14513E-06	+/-	3.1E-07
Delay rate (us/s)	3.03801032967E-02	Apriori rate (us/s)	3.03799485208E-02	Resid rate (us/s)	1.54776E-07	+/-	1.3E-09
Total phase (deg)		Apriori accel (us/s/s)	1.87094875458E-05	Resid phase (deg)	97.5	+/-	9.6

ph/seg (deg) 55.1 16.7 Search (2048X64) 0.210 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 67.0 29.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.8 19.3 Inc. seg. avg. 0.292 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 30.3 33.6 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
 B: az 252.6 el 34.4 pa 39.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -150.382 1469.098 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/BY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/BY.W.128.130EN2



Fringe quality 0
SNR 5.8
Int time 401.221
Amp 0.105
Phase -111.9
PFD 8.6e-01
Delays (us)
SBD 0.049835
MBD -0.008565
Fringe rate (Hz)
0.003422
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100808
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

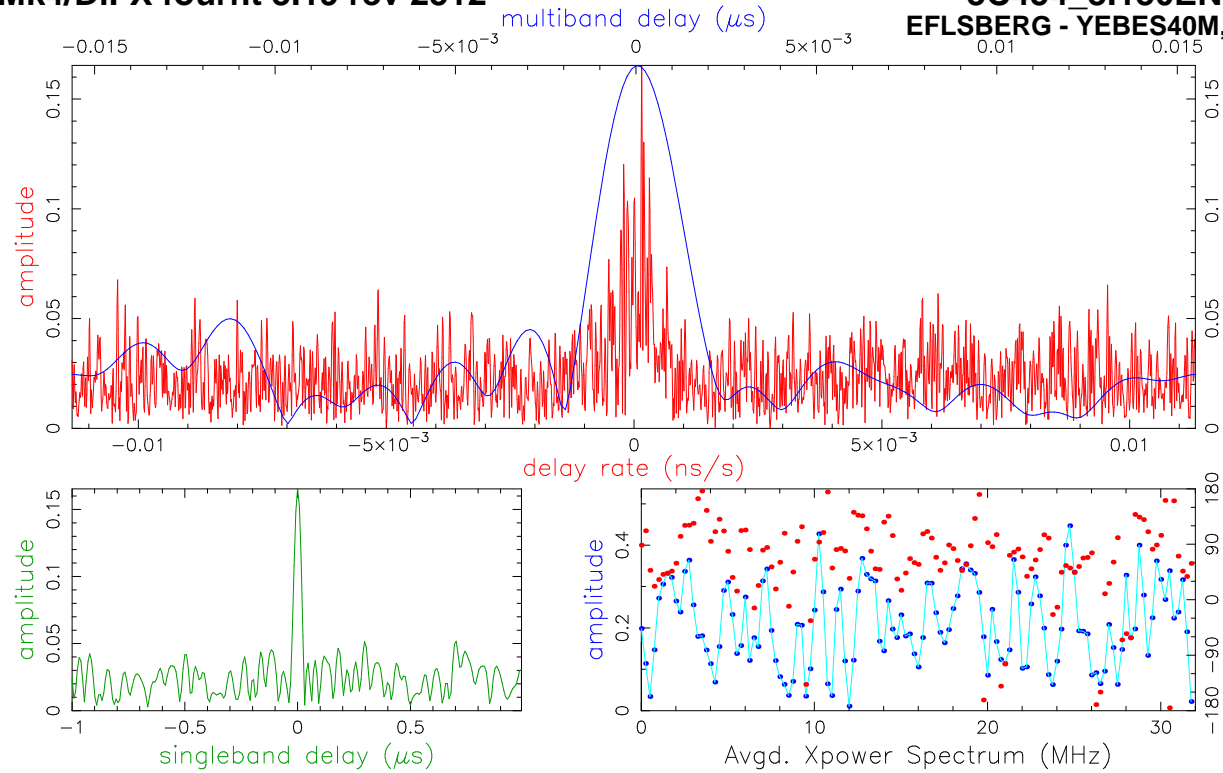


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-154.6	-41.6	-101.4	-146.2	-128.4	-110.3	-118.2	-153.1	-115.2	-94.3	152.0	-55.2	-114.6	-77.6	-89.0	-127.4	Phase	-111.9
	0.1	0.1	0.1	0.1	0.0	0.1	0.3	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	Ampl.	0.1
	206.0	137.5	186.4	187.6	6.8	202.6	135.0	86.4	138.1	135.8	173.8	253.6	79.8	65.9	104.7	9.1	Sbd box	135.4
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	
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	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
b	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)	-5.61159564821E+03	Apriori delay (usec)	-5.61164958312E+03	Resid mbdelay (usec)	-8.56509E-03	+/-	1.9E-04
Sband delay (usec)	-5.61159974762E+03	Apriori clock (usec)	-1.0285865E+01	Resid sbdelay (usec)	4.98355E-02	+/-	3.0E-03
Phase delay (usec)	-5.61164958673E+03	Apriori clockrate (us/s)	-4.6239510E-07	Resid phdelay (usec)	-3.60817E-06	+/-	6.4E-07
Delay rate (us/s)	1.75691745422E+00	Apriori rate (us/s)	1.75691741449E+00	Resid rate (us/s)	3.97274E-08	+/-	2.8E-09
Total phase (deg)	-144.4	Apriori accel (us/s/s)	3.27824750840E-05	Resid phase (deg)	-111.9	+/-	19.9

ph/seg (deg)	34.8	Theor.	34.4	Search (2048X64)	0.100	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	59.4	Amplitude	0.105 +/- 0.018	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	42.1	Search	0.100	Inc. seg. avg.	0.099	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	62.3	Inc. frq. avg.	0.100	Inc. frq. avg.	0.100	Sample rate(MISamp/s): 64	mb window (us) -0.016 0.016
						Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
						nlags: 128	t_cohere infinite
							ion window (TEC) 0.00 0.00

b: az 92.5 el 24.3 pa -44.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -10425.605 1621.304 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/bY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/bY.W.140.130EN2

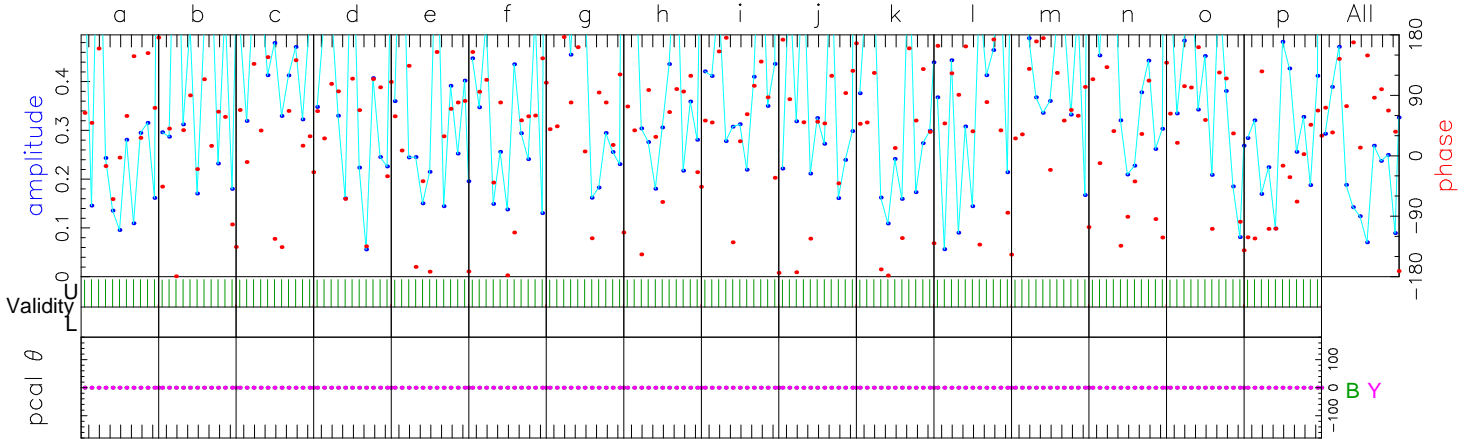


Fringe quality 9

SNR 9.1
Int time 402.209
Amp 0.165
Phase 86.1
PFD 4.7e-11
Delays (us)
SBD 0.000539
MBD 0.000052
Fringe rate (Hz) 0.013330
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100810
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

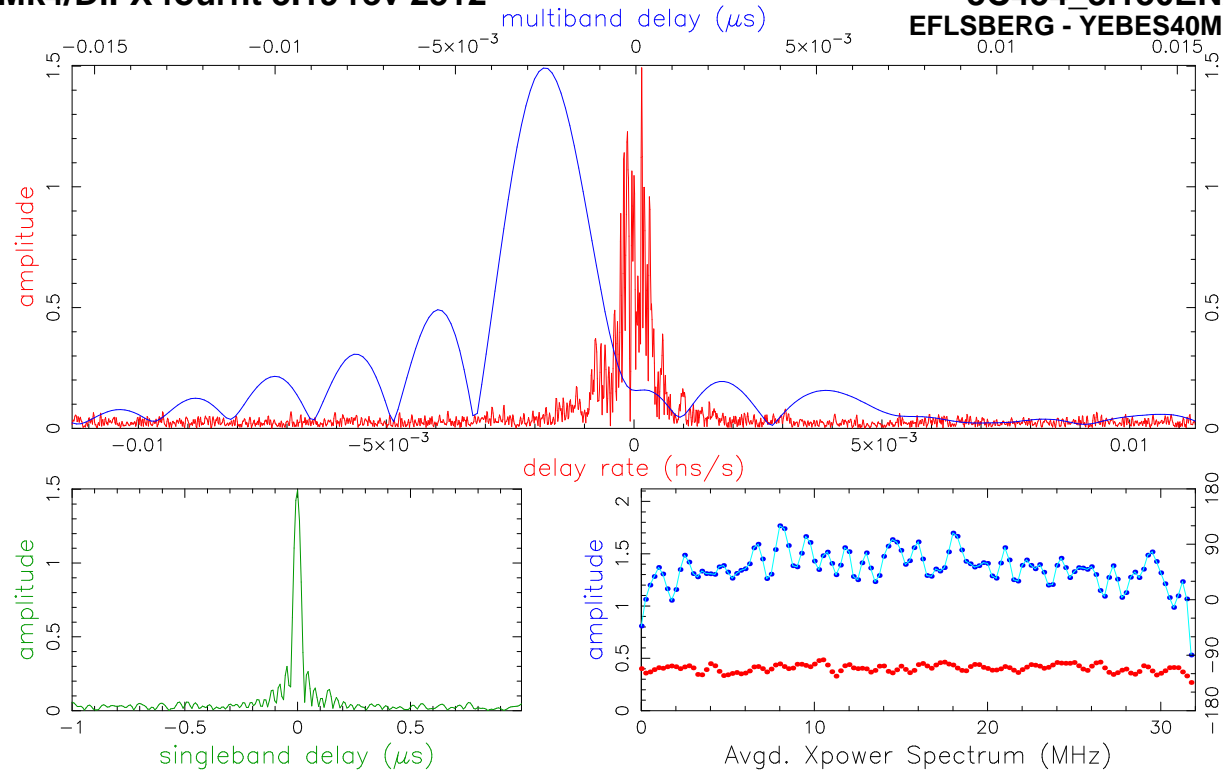


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All		
	92.6	69.5	77.2	86.7	83.7	101.0	81.2	69.3	104.2	97.9	99.4	136.1	72.1	86.8	92.9	-29.8	86.1	Phase		
	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.1	0.3	0.1	0.1	86.1	Ampl.	
	133.7	1.7	254.1	165.3	36.4	57.1	121.0	129.3	141.9	178.3	151.7	167.2	129.4	52.2	129.1	103.5	129.1	129.1	Sbd box	
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	787/0	787/0	APs used	
B	1000	1000	1000	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	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	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	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	1000	1000	1000	PC amp
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR			Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL			Tracks	

Group delay (usec)(sbd) -2.78554624508E+03 Apriori delay (usec) -2.78554629665E+03 Resid mbdelay (usec) 5.15784E-05 +/- 1.2E-04
 Sband delay (usec) -2.78554575815E+03 Apriori clock (usec) 7.1485891E+00 Resid sbdelay (usec) 5.38500E-04 +/- 1.9E-03
 Phase delay (usec) -2.78554629388E+03 Apriori clockrate (us/s) -4.2000000E-07 Resid phdelay (usec) 2.77797E-06 +/- 4.1E-07
 Delay rate (us/s) 3.03801032740E-02 Apriori rate (us/s) 3.03799485208E-02 Resid rate (us/s) 1.54753E-07 +/- 1.8E-09
 Total phase (deg) -271.6 Apriori accel (us/s/s) 1.87094875458E-05 Resid phase (deg) 86.1 +/- 12.6

RMS Theor. Amplitude 0.165 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 49.0 21.9 Search (2048X64) 0.165 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 81.8 38.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 35.6 25.3 Inc. seg. avg. 0.215 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 30.3 44.1 Inc. frq. avg. 0.166 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

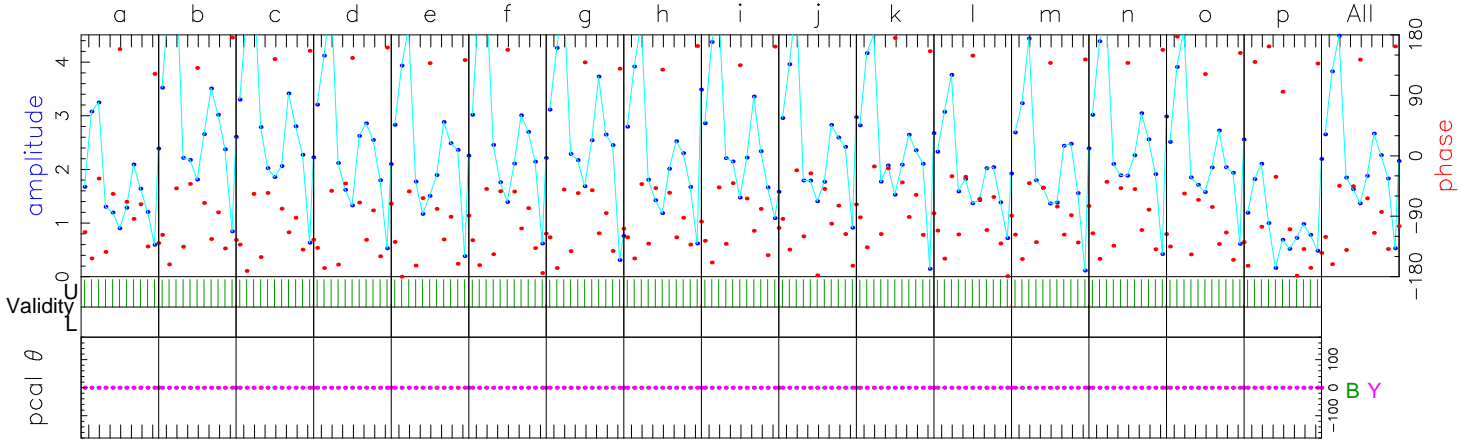
B: az 252.6 el 34.4 pa 39.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -150.382 1469.098 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/BY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/BY.W.145.130EN2



Fringe quality 3

SNR 82.4
Int time 402.209
Amp 1.503
Phase -107.9
PFD 0.0e+00
Delays (us)
SBD -0.002033
MBD -0.002535
Fringe rate (Hz) 0.013312
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100752
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

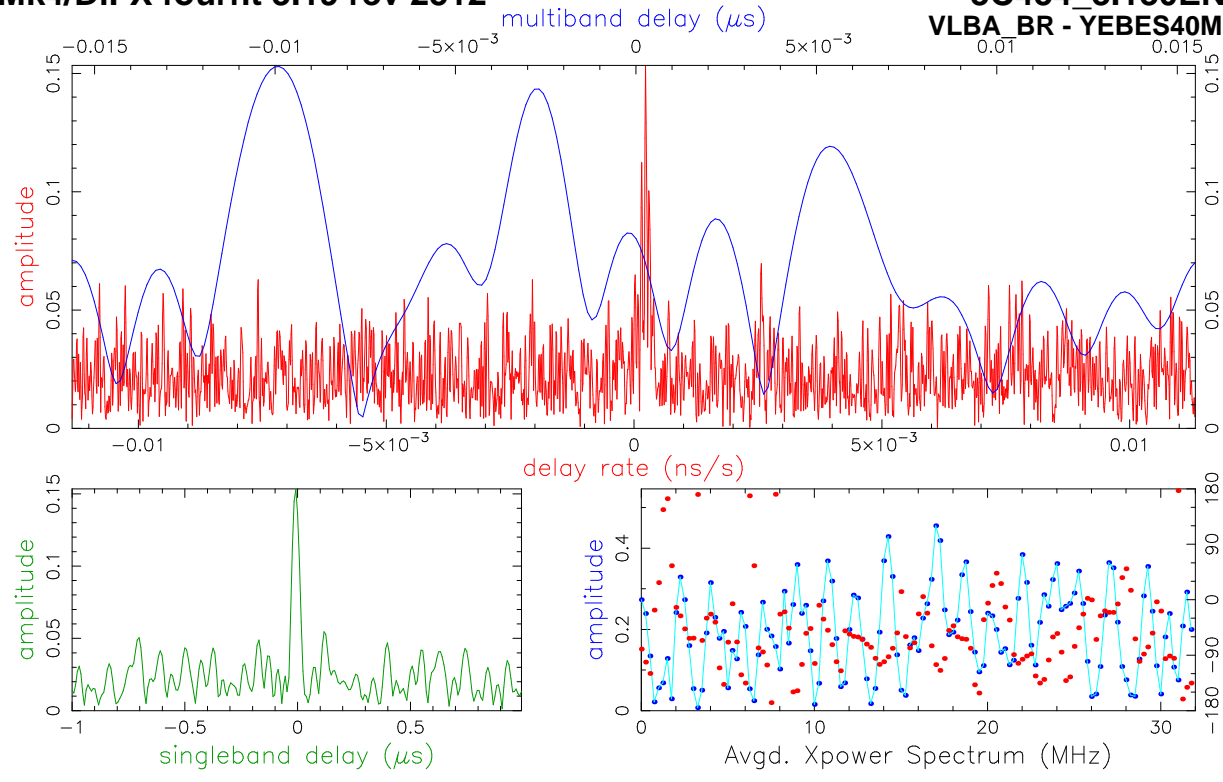
Amp. and Phase vs. time for each freq., 12 segs, 71 APs / seg (36.35 sec / seg.), time ticks 60 sec



	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				
	-101.7	-109.2	-117.9	-114.1	-122.8	-109.8	-108.0	-105.0	-107.1	-89.0	-81.2	-96.0	-102.5	-103.2	-125.2	-168.4	Phase	-107.9				
	1.1	2.0	2.0	1.6	1.5	1.8	1.8	1.5	1.7	1.7	1.6	1.2	1.5	1.6	1.5	0.6	Ampl.	1.5				
	128.3	129.0	128.7	128.6	128.5	128.8	128.5	128.9	129.0	129.0	128.7	128.3	128.6	128.6	128.0	128.8	Sbd box	128.7				
UL	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used					
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					
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						
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)			-2.78554883158E+03														Apriori delay (usec)	-2.78554629665E+03	Resid mbdelay (usec)	-2.53492E-03	+/-	1.3E-05
Sband delay (usec)			-2.78554832965E+03														Apriori clock (usec)	7.1485891E+00	Resid sbdelay (usec)	-2.03300E-03	+/-	2.1E-04
Phase delay (usec)			-2.78554630013E+03														Apriori clockrate (us/s)	-4.2000000E-07	Resid phdelay (usec)	-3.47977E-06	+/-	4.5E-08
Delay rate (us/s)			3.03801030643E-02														Apriori rate (us/s)	3.03799485208E-02	Resid rate (us/s)	1.54543E-07	+/-	1.9E-10
Total phase (deg)																	Apriori accel (us/s/s)	1.87094875458E-05	Resid phase (deg)	-107.9	+/-	1.4

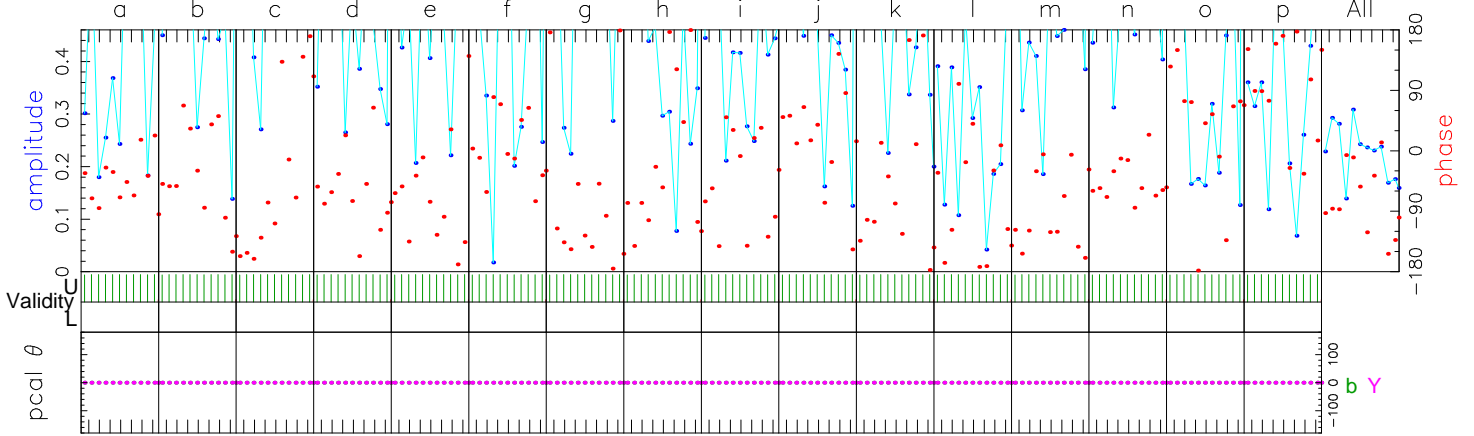
ph/seg (deg) RMS Theor. Amplitude 1.503 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 56.6 2.4 Search (2048X64) 1.481 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 87.1 4.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 20.1 2.8 Inc. seg. avg. 2.270 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 22.4 4.9 Inc. frq. avg. 1.540 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 252.6 el 34.4 pa 39.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -150.382 1469.098 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/BY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/BY.W.81.130EN2



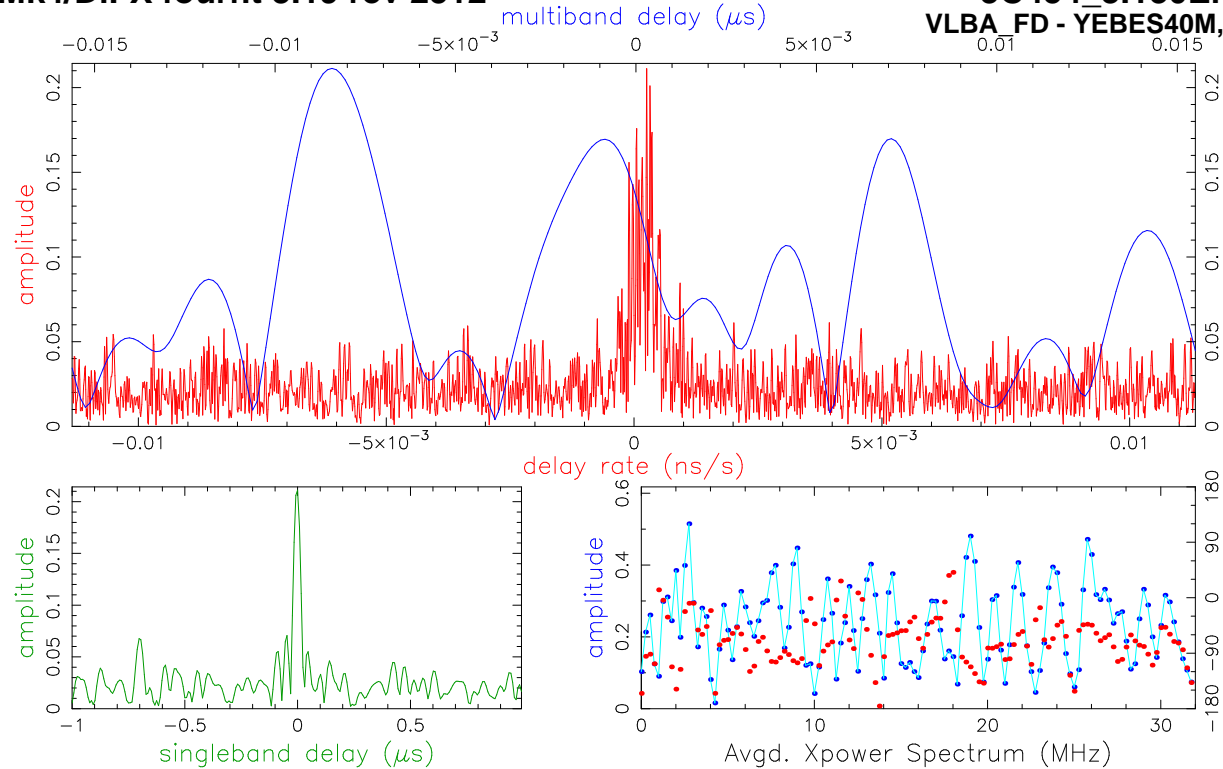
Fringe quality 9
SNR 8.4
Int time 401.221
Amp 0.153
Phase -68.1
PFD 1.6e-08
Delays (us)
SBD -0.009221
MBD -0.009915
Fringe rate (Hz) 0.019789
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100752
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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



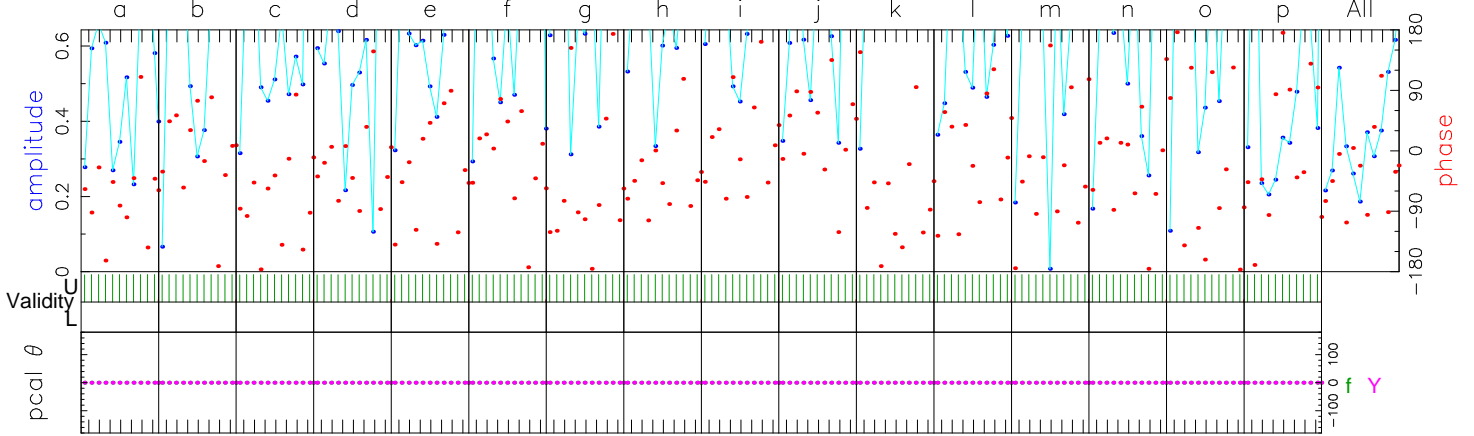
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-36.9	-23.7	-149.8	-62.8	-92.2	-2.7	-120.3	-87.9	-53.2	38.8	-117.1	-74.3	-105.7	-45.6	99.1	107.2	Phase	-68.1
	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.2	0.2	0.3	0.3	0.1	0.3	0.5	0.2	0.2	Ampl.	0.3
	127.3	128.8	129.2	127.6	126.8	128.0	127.7	129.9	43.0	128.6	128.5	121.0	127.9	128.3	115.2	129.7	Sbd box	127.8
UL	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
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	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-5.61165949810E+03			Apriori delay (usec)			-5.61164958312E+03			Resid mbdelay (usec)			-9.91498E-03			+/- 1.3E-04		
Sband delay (usec)	-5.61165880462E+03			Apriori clock (usec)			-1.0285865E+01			Resid sbdelay (usec)			-9.22150E-03			+/- 2.1E-03		
Phase delay (usec)	-5.61164958532E+03			Apriori clockrate (us/s)			-4.6239510E-07			Resid phdelay (usec)			-2.19650E-06			+/- 4.4E-07		
Delay rate (us/s)	1.75691764422E+00			Apriori rate (us/s)			1.75691741449E+00			Resid rate (us/s)			2.29732E-07			+/- 1.9E-09		
Total phase (deg)	-100.6			Apriori accel (us/s/s)			3.27824750840E-05			Resid phase (deg)			-68.1			+/- 13.6		

ph/seg (deg) 52.4 23.6 Search (2048X64) 0.148 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 60.2 41.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 81.2 27.3 Inc. seg. avg. 0.213 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 106.0 47.6 Inc. frq. avg. 0.259 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 92.5 el 24.3 pa -44.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -10425.605 1621.304 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/bY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/bY.W.83.130EN2



Fringe quality 9
SNR 11.7
Int time 401.060
Amp 0.214
Phase -40.7
PFD 4.2e-23
Delays (us)
SBD -0.002967
MBD -0.008370
Fringe rate (Hz) 0.022123
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100802
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

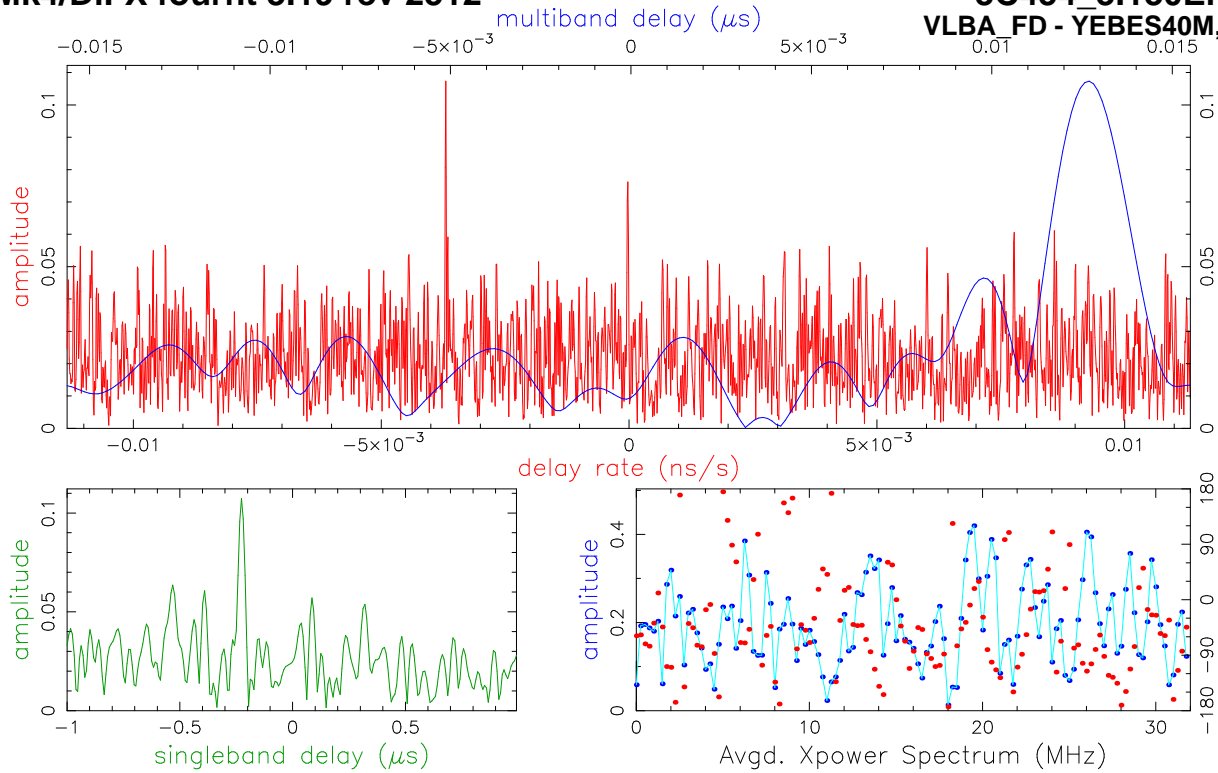


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-90.8	15.3	-84.7	-40.9	-31.2	12.9	-116.5	-50.9	1.2	45.7	-99.4	-21.2	-51.5	-17.2	173.1	-169.9	Phase	-40.7
	0.2	0.4	0.4	0.5	0.2	0.5	0.5	0.5	0.3	0.5	0.4	0.2	0.4	0.4	0.4	0.1	Ampl.	0.3
	128.4	128.9	128.5	128.8	130.3	128.2	128.3	128.7	128.0	128.6	130.6	127.3	128.0	128.0	127.6	126.2	Sbd box	128.6
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	
f	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	
f: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	
f: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	
f	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		
f	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) -1.41047631187E+03 Apriori delay (usec) -1.41046794210E+03 Resid mbdelay (usec) -8.36977E-03 +/- 9.2E-05
 Sband delay (usec) -1.41047090910E+03 Apriori clock (usec) -9.2016211E+00 Resid sbdelay (usec) -2.96700E-03 +/- 1.5E-03
 Phase delay (usec) -1.41046794342E+03 Apriori clockrate (us/s) -3.1094951E-07 Resid phdelay (usec) -1.31323E-06 +/- 3.1E-07
 Delay rate (us/s) 1.86496265479E+00 Apriori rate (us/s) 1.86496239796E+00 Resid rate (us/s) 2.56827E-07 +/- 1.4E-09
 Total phase (deg) -232.6 Apriori accel (us/s/s) 3.02717977680E-06 Resid phase (deg) -40.7 +/- 9.8

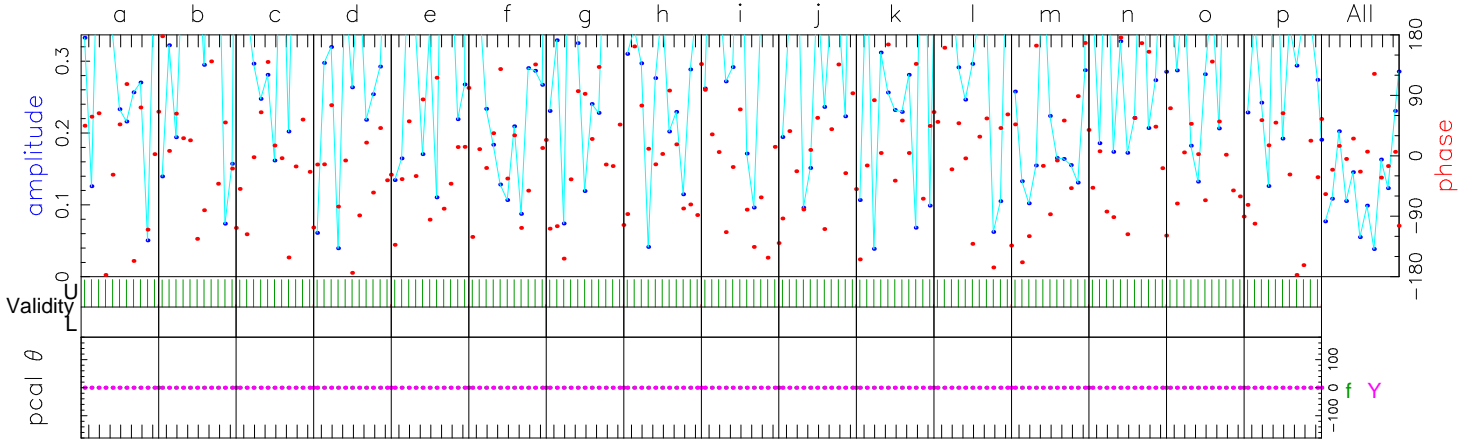
RMS Theor. Amplitude 0.214 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 63.0 16.9 Search (2048X64) 0.206 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 96.1 29.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 69.8 19.5 Inc. seg. avg. 0.352 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 92.0 34.1 Inc. frq. avg. 0.349 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 92.5 el 37.4 pa -63.5 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11119.244 -1055.305 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/fY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/fY.W.113.130EN2



Fringe quality 0
SNR 5.9
Int time 401.060
Amp 0.112
Phase -4.6
PFD 6.5e-01
Delays (us)
SBD -0.226266
MBD 0.012678
Fringe rate (Hz)
-0.318666
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100806
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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						
	54.5	-8.0	-15.9	-20.0	-30.9	-27.8	-5.9	-29.5	0.1	31.6	-20.2	41.7	3.8	-74.8	-8.9	-1.1		Phase	-4.6					
	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.0	0.1	0.2	0.1		Ampl.	0.1					
	94.5	15.5	180.3	13.2	71.6	177.7	253.2	118.6	216.8	39.0	138.7	167.1	175.0	20.8	203.8	132.0		Sbd box	100.0					
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						
f	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						
f: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						
f: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						
f	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						
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids						
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks						
																			Chan ids					
																			Tracks					
Group delay (usec)(sbd)			-1.41070526437E+03																Apriori delay (usec)	-1.41046794210E+03	Resid mbdelay (usec)	1.26777E-02	+/-	1.8E-04
Sband delay (usec)			-1.41069420760E+03																Apriori clock (usec)	-9.2016211E+00	Resid sbdelay (usec)	-2.26266E-01	+/-	2.9E-03
Phase delay (usec)			-1.41046794225E+03																Apriori clockrate (us/s)	-3.1094951E-07	Resid phdelay (usec)	-1.48445E-07	+/-	6.3E-07
Delay rate (us/s)			1.86495869857E+00																Apriori rate (us/s)	1.86496239796E+00	Resid rate (us/s)	-3.69939E-06	+/-	2.7E-09
Total phase (deg)					-196.4														Apriori accel (us/s/s)	3.02717977680E-06	Resid phase (deg)	-4.6	+/-	19.5

ph/seg (deg) 45.1 33.8
amp/seg (%) 56.1 58.9
ph/frq (deg) 32.2 39.0
amp/frq (%) 39.9 68.0

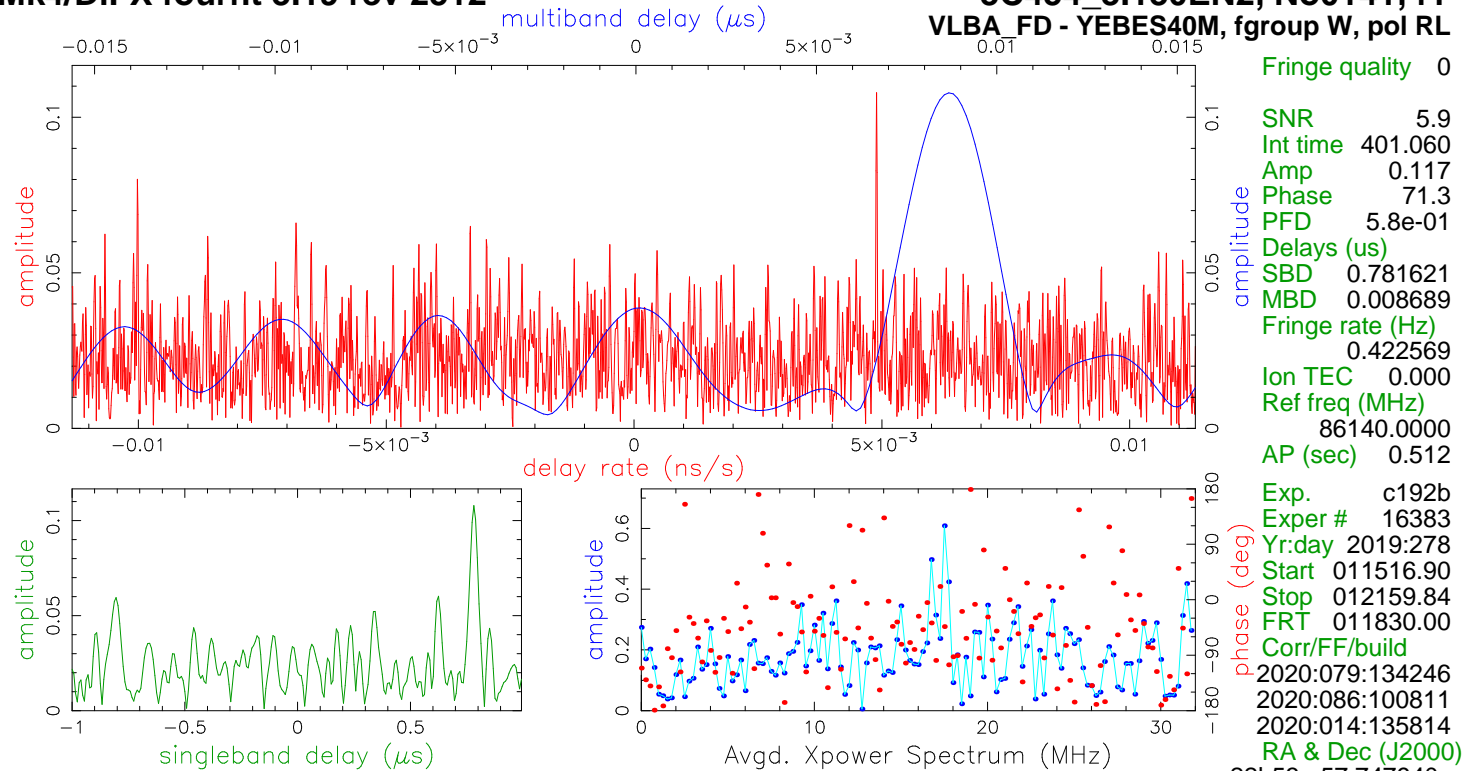
RMS Theor. Amplitude 0.112 +/- 0.019
Search (2048X64) 0.104
Interp. 0.000
Inc. seg. avg. 0.110
Inc. frq. avg. 0.103

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

f: az 92.5 el 37.4 pa -63.5 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11119.244 -1055.305 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/fY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/fY.W.131.130EN2



Fringe quality 0

SNR 5.9

Int time 401.060

Amp 0.117

Phase 71.3

PFD 5.8e-01

Delays (us)

SBD 0.781621

MBD 0.008689

Fringe rate (Hz)

0.422569

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192b

Exper # 16383

Yr:day 2019:278

Start 011516.90

Stop 012159.84

FRT 011830.00

Corr/FF/build

2020:079:134246

2020:086:100811

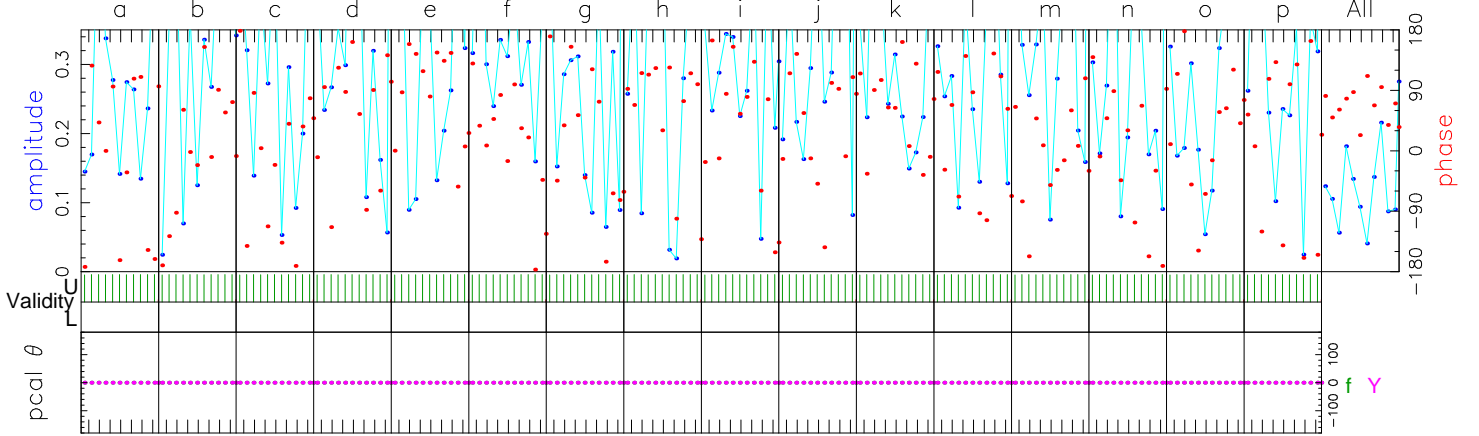
2020:014:135814

RA & Dec (J2000)

22h53m57.747940s

+16°08'53.560909"

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					
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							
f	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							
f: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							
f: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							
f	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							
f	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)			-1.40967800312E+03															Apriori delay (usec)	-1.41046794210E+03	Resid mbdelay (usec)	8.68899E-03	+/-	1.8E-04
Sband delay (usec)			-1.40968632160E+03															Apriori clock (usec)	-9.2016211E+00	Resid sbdelay (usec)	7.81621E-01	+/-	2.9E-03
Phase delay (usec)			-1.41046793980E+03															Apriori clockrate (us/s)	-3.1094951E-07	Resid phdelay (usec)	2.29966E-06	+/-	6.3E-07
Delay rate (us/s)			1.86496730357E+00															Apriori rate (us/s)	1.86496239796E+00	Resid rate (us/s)	4.90561E-06	+/-	2.7E-09
Total phase (deg)					-120.5													Apriori accel (us/s/s)	3.02717977680E-06	Resid phase (deg)	71.3	+/-	19.4

ph/seg (deg) 24.5 33.6 Search (2048X64) 0.106 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

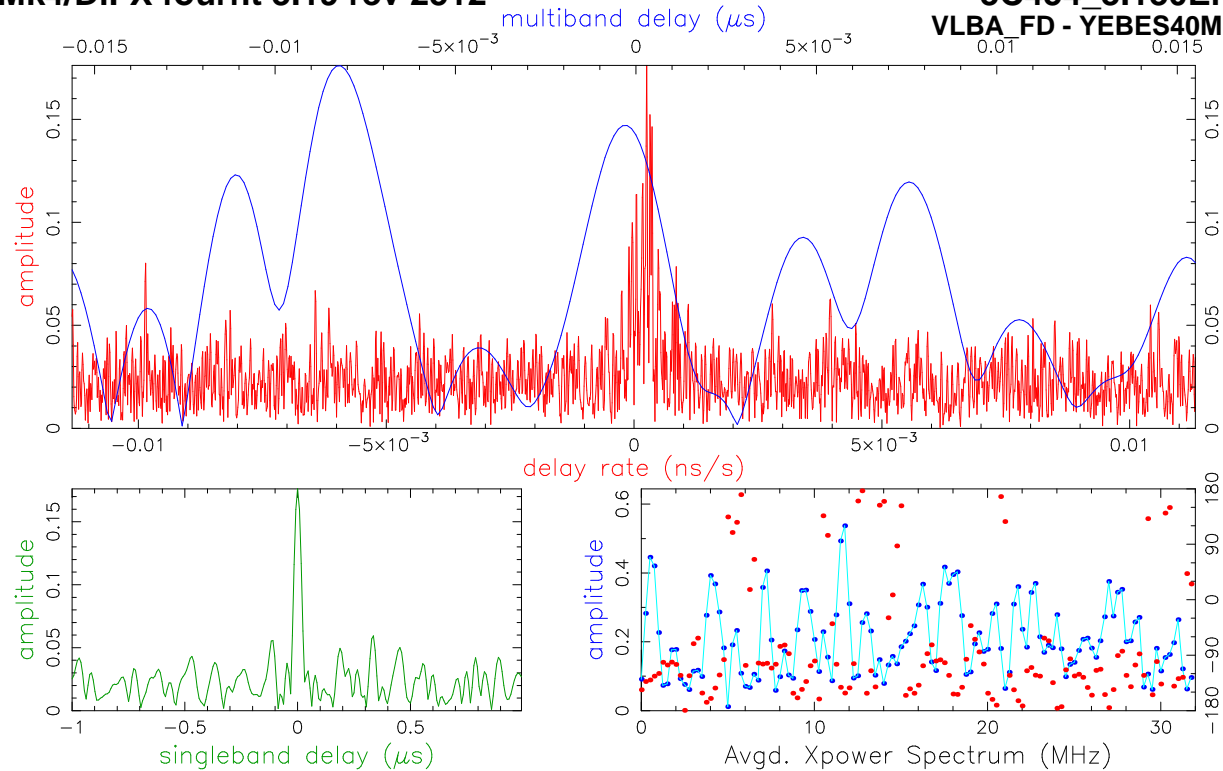
amp/seg (%) 47.6 58.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 34.4 38.8 Inc. seg. avg. 0.107 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 57.9 67.7 Inc. frq. avg. 0.110 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

f: az 92.5 el 37.4 pa -63.5 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11119.244 -1055.305 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/fY...130EN2 Output file: /Exps/c192b/v2/1234/No0141/fY.W.150.130EN2

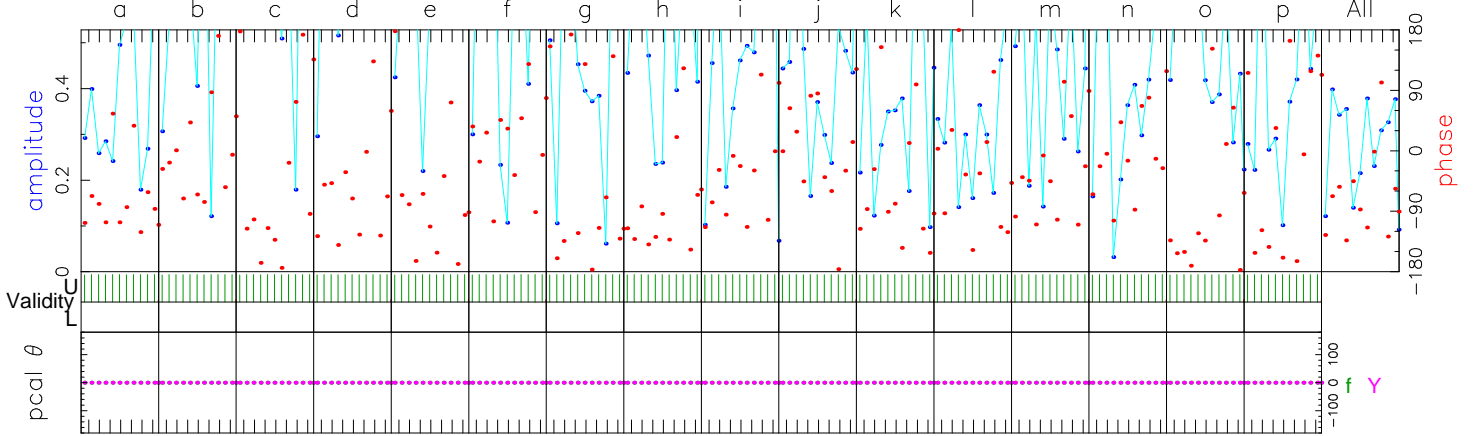


Fringe quality 9

SNR 9.6
Int time 401.060
Amp 0.176
Phase -84.8
PFD 2.1e-13
Delays (us)
SBD -0.000041
MBD -0.008229
Fringe rate (Hz) 0.022091
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100756
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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				
	-78.6	-33.9	-134.0	-77.9	-117.2	-17.2	-167.0	-122.7	-44.6	12.3	-118.9	-55.3	-52.9	-10.0	-146.9	178.5	Phase	-84.8				
	0.3	0.4	0.5	0.4	0.4	0.3	0.4	0.3	0.3	0.2	0.1	0.1	0.2	0.3	0.3	0.1	Ampl.	0.3				
	128.8	129.4	128.6	128.8	128.5	128.5	129.0	128.6	129.2	182.9	168.7	226.1	127.3	128.7	128.2	66.8	Sbd box	129.0				
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					
f	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					
f: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					
f: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					
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
f	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)			-1.41047617097E+03														Apriori delay (usec)	-1.41046794210E+03	Resid mbdelay (usec)	-8.22886E-03	+/-	1.1E-04
Sband delay (usec)			-1.41046798360E+03														Apriori clock (usec)	-9.2016211E+00	Resid sbdelay (usec)	-4.15000E-05	+/-	1.8E-03
Phase delay (usec)			-1.41046794484E+03														Apriori clockrate (us/s)	-3.1094951E-07	Resid phdelay (usec)	-2.73512E-06	+/-	3.8E-07
Delay rate (us/s)			1.86496265441E+00														Apriori rate (us/s)	1.86496239796E+00	Resid rate (us/s)	2.56449E-07	+/-	1.6E-09
Total phase (deg)																	Apriori accel (us/s/s)	3.02717977680E-06	Resid phase (deg)	-84.8	+/-	11.9

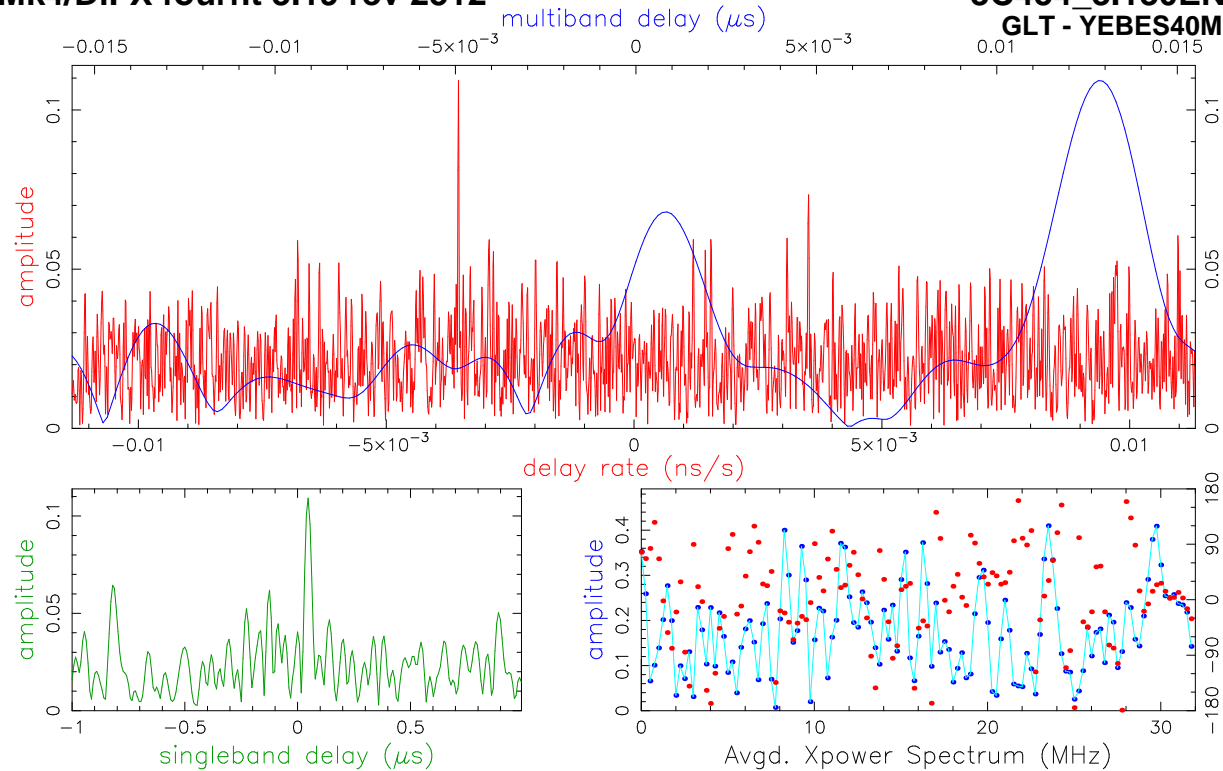
RMS Theor. Amplitude 0.176 +/- 0.018
 ph/seg (deg) 65.4 20.6 Search (2048X64) 0.174
 amp/seg (%) 83.6 35.9 Interp. 0.000
 ph/frq (deg) 60.8 23.8 Inc. seg. avg. 0.272
 amp/frq (%) 88.7 41.5 Inc. frq. avg. 0.273

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

f: az 92.5 el 37.4 pa -63.5 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11119.244 -1055.305 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/fY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/fY.W.91.130EN2

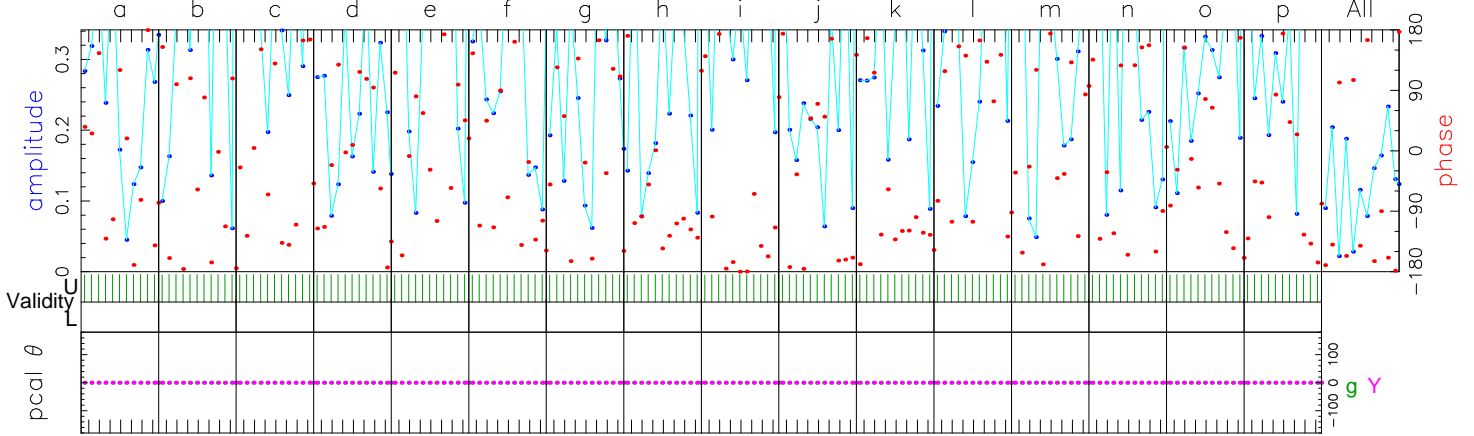
Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130EN2, No0141, gY
GLT - YEBES40M, fgroup W, pol LL



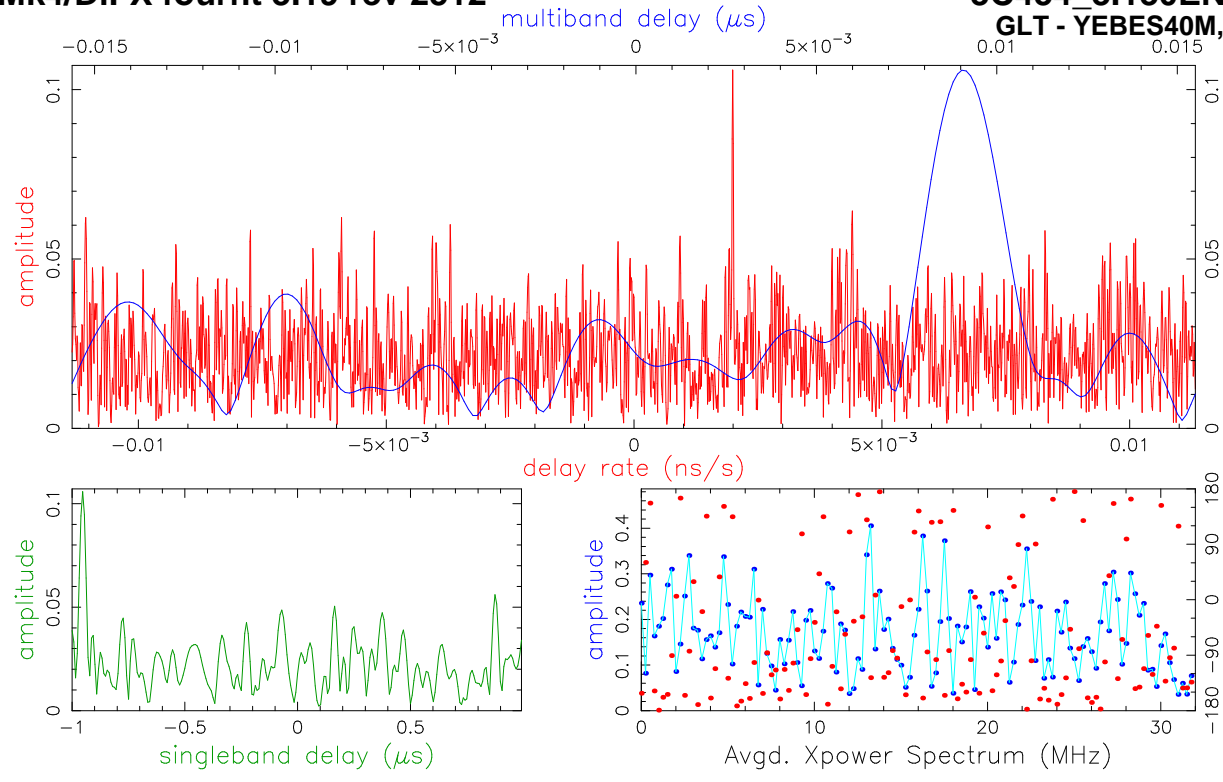
Fringe quality 0
SNR 6.0
Int time 401.878
Amp 0.114
Phase -154.8
PFD 4.0e-01
Delays (us)
SBD 0.045842
MBD 0.012832
Fringe rate (Hz)
-0.305924
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100817
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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



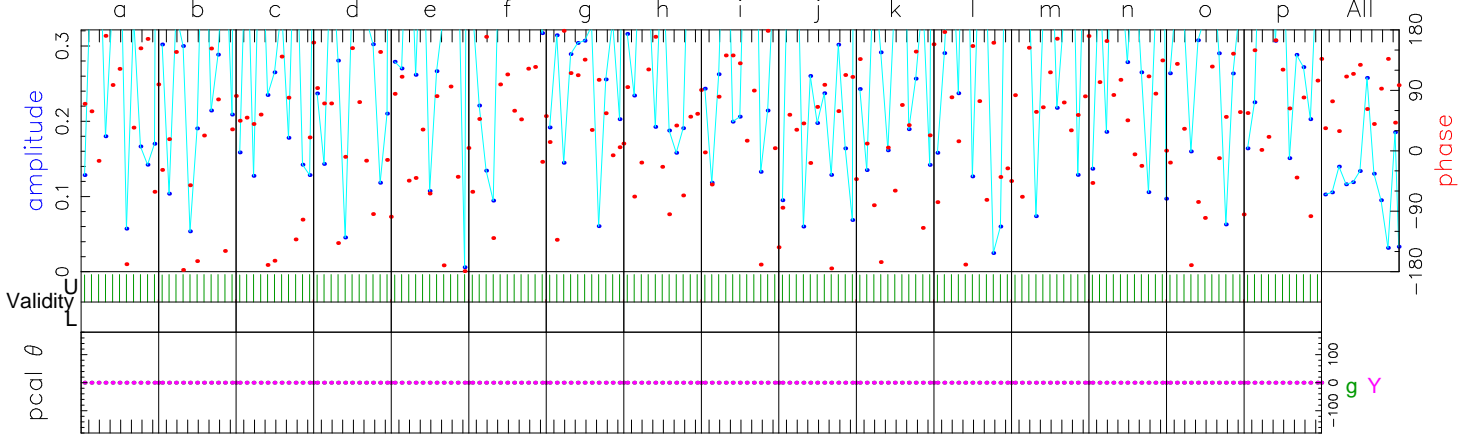
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-157.7	95.1	-149.0	74.4	-84.9	-136.9	142.7	-115.0	-162.2	174.0	-131.1	156.9	-154.1	-168.3	-116.4	-124.7		Phase -154.8					
	0.1	0.0	0.2	0.0	0.1	0.1	0.1	0.2	0.3	0.2	0.3	0.2	0.1	0.2	0.1	0.2		Ampl. 0.1					
	138.9	144.6	2.9	111.1	232.2	213.2	192.7	210.6	134.8	203.4	140.7	188.0	227.6	134.8	213.4	197.2		Sbd box 134.9					
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					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		PC freqs					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase					
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000							
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-4.34128499198E+03															Apriori delay (usec)	-4.34132907372E+03	Resid mbdelay (usec)	1.28317E-02	+/-	1.8E-04
Sband delay (usec)			-4.34128323122E+03															Apriori clock (usec)	-8.3679104E+00	Resid sbdelay (usec)	4.58425E-02	+/-	2.9E-03
Phase delay (usec)			-4.34132907871E+03															Apriori clockrate (us/s)	-1.4500001E-07	Resid phdelay (usec)	-4.99057E-06	+/-	6.2E-07
Delay rate (us/s)			9.34251455799E-01															Apriori rate (us/s)	9.34255007272E-01	Resid rate (us/s)	-3.55147E-06	+/-	2.6E-09
Total phase (deg)																		Apriori accel (us/s/s)	3.32577798686E-05	Resid phase (deg)	-154.8	+/-	19.1

ph/seg (deg) RMS Theor. Amplitude 0.114 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 50.3 33.1 Search (2048X64) 0.106 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 62.0 57.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 57.6 38.2 Inc. seg. avg. 0.114 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 71.0 66.7 Inc. frq. avg. 0.111 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 g: az 157.5 el 28.8 pa -5.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -5517.075 3547.320 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/gY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/gY.W.165.130EN2



Fringe quality 0
SNR 5.8
Int time 401.700
Amp 0.107
Phase 70.3
PFD 8.1e-01
Delays (us)
SBD -0.953004
MBD 0.009075
Fringe rate (Hz) 0.172103
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100824
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

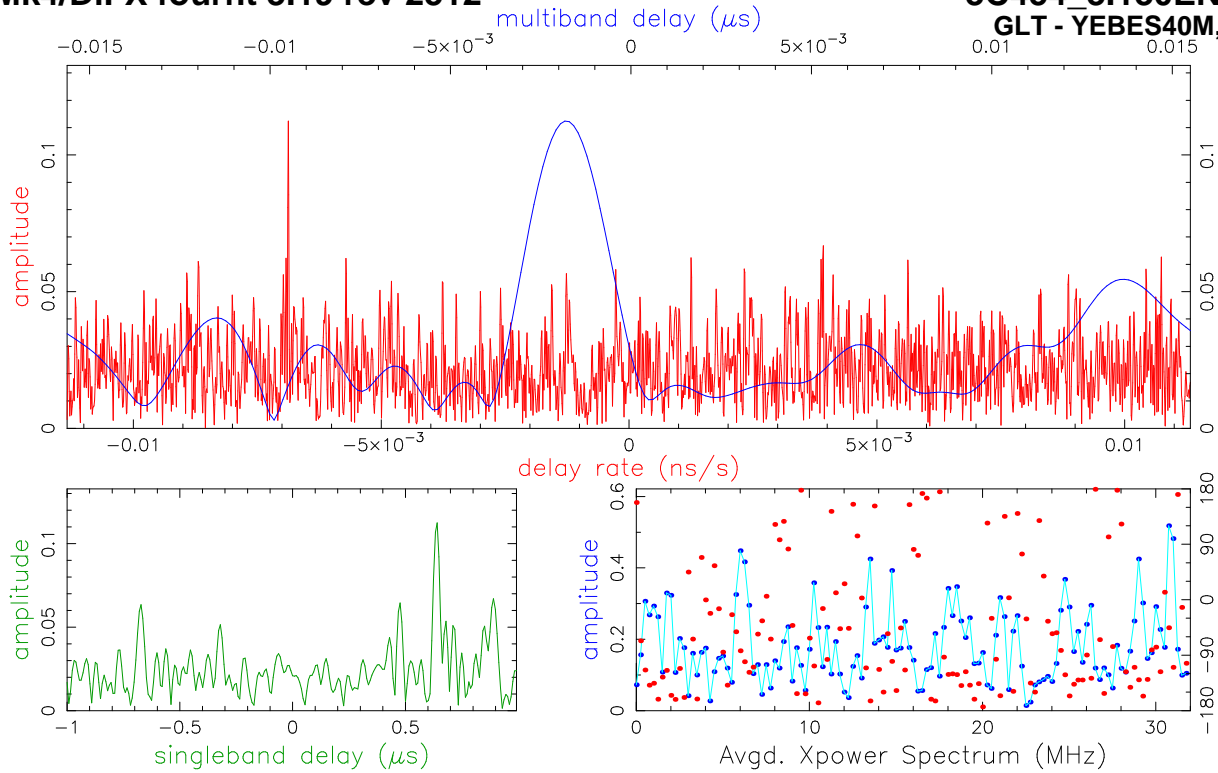


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
79.6	108.3	102.0	71.9	21.2	78.7	70.5	31.5	83.6	49.1	8.8	1.9	81.6	85.9	67.4	70.5	70.5	Phase	70.3
0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.1	0.1	Ampl.	0.1
159.9	187.0	149.0	100.7	238.7	6.4	188.0	71.4	20.6	85.6	122.5	87.8	123.8	201.6	122.8	240.3	240.3	Sbd box	7.0
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	
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	
g	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) -4.34228874882E+03 Apriori delay (usec) -4.34132907372E+03 Resid mbdelay (usec) 9.07490E-03 +/- 1.9E-04
 Sband delay (usec) -4.34228207772E+03 Apriori clock (usec) -8.3679104E+00 Resid sbdelay (usec) -9.53004E-01 +/- 3.0E-03
 Phase delay (usec) -4.34132907145E+03 Apriori clockrate (us/s) -1.4500001E-07 Resid phdelay (usec) 2.26763E-06 +/- 6.4E-07
 Delay rate (us/s) 9.34257005221E-01 Apriori rate (us/s) 9.34255007272E-01 Resid rate (us/s) 1.99795E-06 +/- 2.7E-09
 Total phase (deg) -77.4 Apriori accel (us/s/s) 3.32577798686E-05 Resid phase (deg) 70.3 +/- 19.8

RMS Theor. Amplitude 0.107 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 38.8 34.2 Search (2048X64) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 55.5 59.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 33.8 39.5 Inc. seg. avg. 0.110 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 61.6 69.0 Inc. frq. avg. 0.094 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

g: az 157.5 el 28.8 pa -5.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -5517.075 3547.320 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/gY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/gY.W.192.130EN2

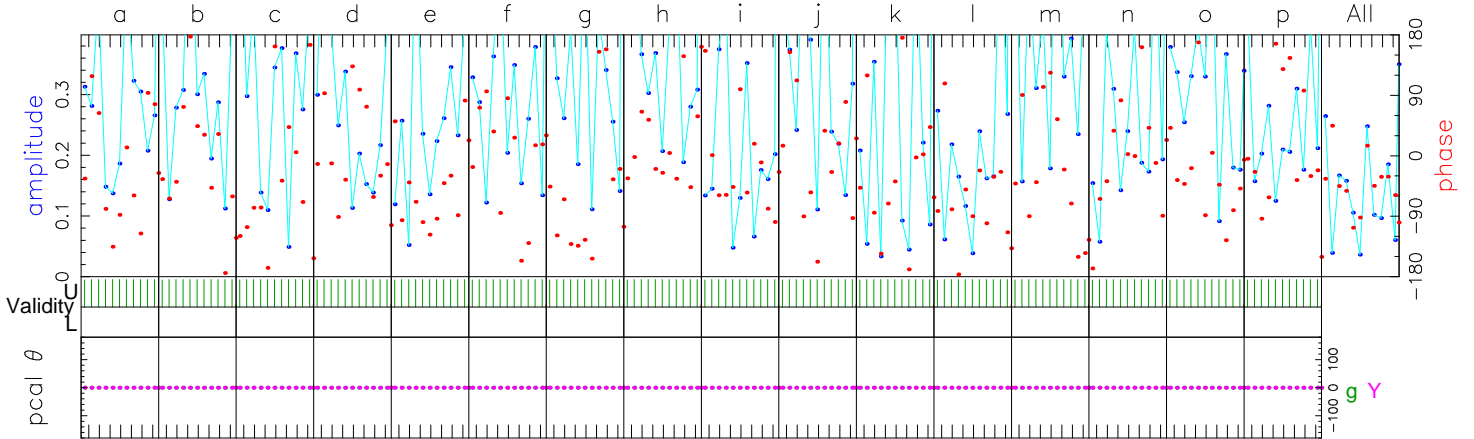


Fringe quality 0

SNR 6.2
Int time 401.878
Amp 0.133
Phase -36.1
PFD 1.2e-01
Delays (us)
SBD 0.638416
MBD -0.001821
Fringe rate (Hz)
-0.593469
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100829
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

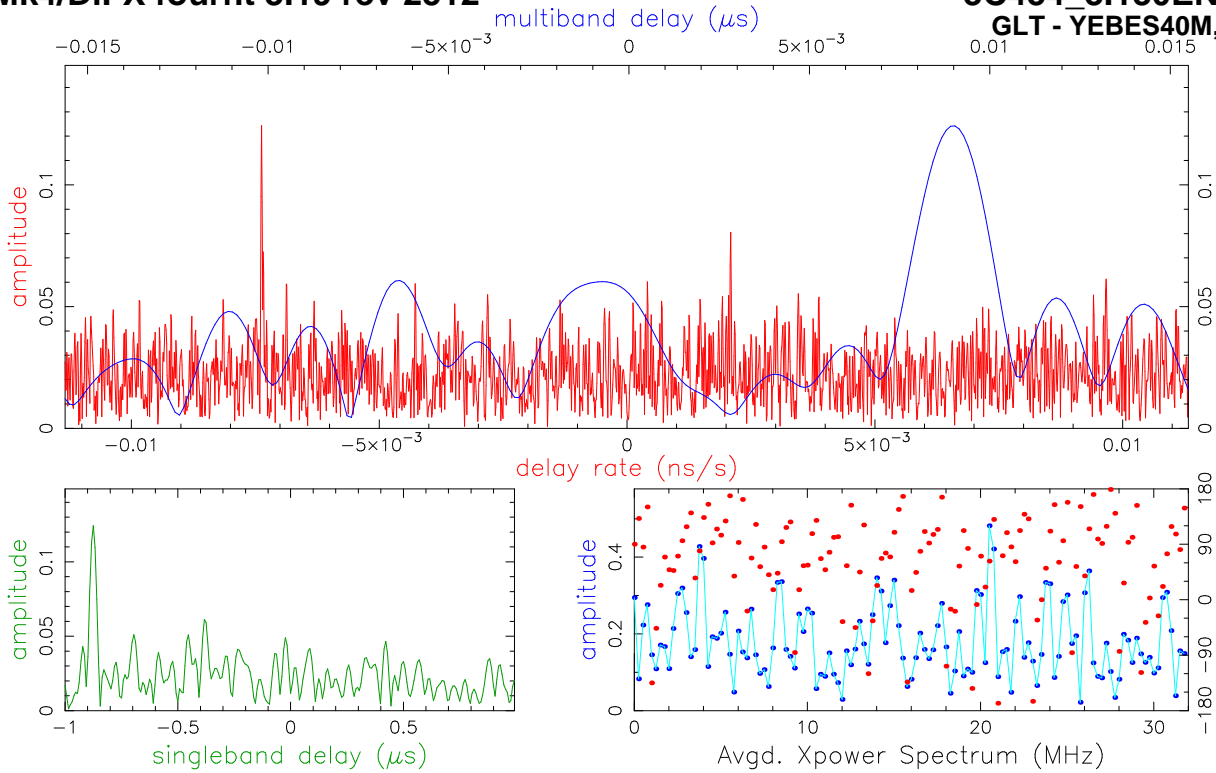


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
UL	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Y	1000	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		
g	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)		-4.34070589476E+03																
Sband delay (usec)		-4.34069065822E+03																
Phase delay (usec)		-4.34132907488E+03																
Delay rate (us/s)		9.34248117691E-01																
Total phase (deg)					-183.8													
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		
PCal mode: MANUAL, MANUAL																		
PCal rate: 0.000E+00, 0.000E+00 (us/s)																		
Bits/sample: 2x2																		
Sample rate(MISamp/s): 64																		
Data rate(Mb/s): 2048																		
nlags: 128																		
t_cohere infinite																		
ion window (TEC)																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		

ph/seg (deg) 41.0 31.9 Search (2048X64) 0.109 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.0 55.7 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.5 36.8 Inc. seg. avg. 0.136 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 46.2 64.3 Inc. frq. avg. 0.138 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 g: az 157.5 el 28.8 pa -5.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -5517.075 3547.320 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/gY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/gY.W.209.130EN2 simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130EN2, No0141, gY
GLT - YEBES40M, fgroup W, pol RL

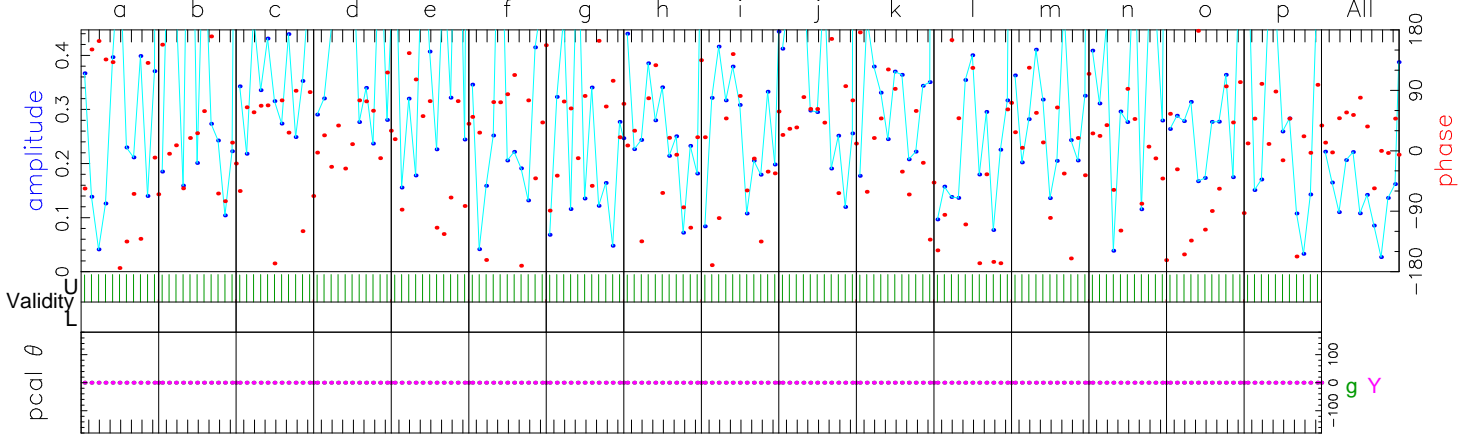


Fringe quality 0

SNR 6.8
Int time 401.700
Amp 0.149
Phase 30.6
PFD 2.7e-03
Delays (us)
SBD -0.875629
MBD 0.008981
Fringe rate (Hz)
-0.635750
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100834
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

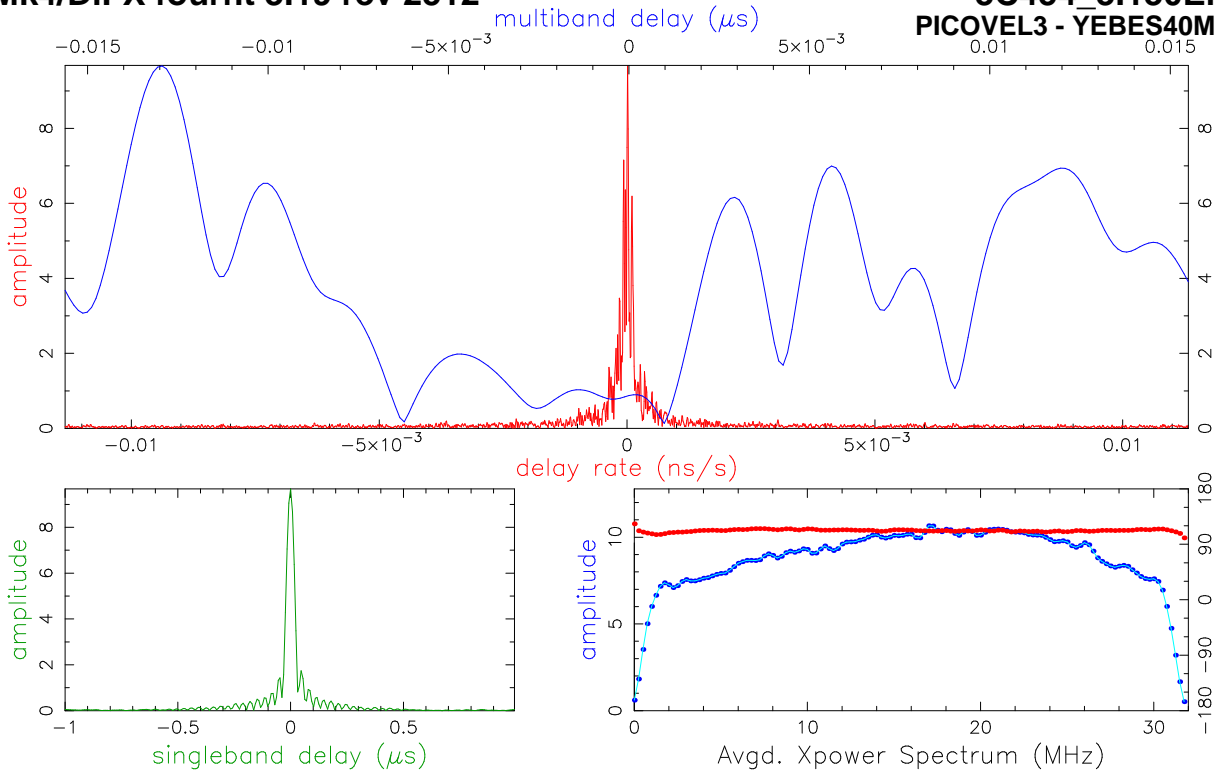


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
Group delay (usec)(sbd)	-144.3	14.0	64.4	17.1	47.8	65.4	13.9	8.8	-37.2	47.0	-5.6	176.8	17.3	14.9	170.3	44.8	Phase	30.6
Sband delay (usec)	0.1	0.3	0.2	0.4	0.1	0.2	0.2	0.1	0.0	0.4	0.1	0.2	0.3	0.0	0.3	0.0	Ampl.	0.2
Phase delay (usec)	128.6	17.8	245.4	17.0	31.2	47.5	149.8	180.3	76.4	16.4	119.9	192.9	80.3	16.4	199.8	45.5	Sbd box	16.9
Delay rate (us/s)	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	
Total phase (deg)	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	

Group delay (usec)(sbd) -4.34219509306E+03 Apriori delay (usec) -4.34132907372E+03 Resid mbdelay (usec) 8.98066E-03 +/- 1.6E-04
 Sband delay (usec) -4.34220470272E+03 Apriori clock (usec) -8.3679104E+00 Resid sbdelay (usec) -8.75629E-01 +/- 2.5E-03
 Phase delay (usec) -4.34132907273E+03 Apriori clockrate (us/s) -1.4500001E-07 Resid phdelay (usec) 9.87347E-07 +/- 5.4E-07
 Delay rate (us/s) 9.34247626844E-01 Apriori rate (us/s) 9.34255007272E-01 Resid rate (us/s) -7.38043E-06 +/- 2.3E-09
 Total phase (deg) -117.1 Apriori accel (us/s/s) 3.32577798686E-05 Resid phase (deg) 30.6 +/- 16.8

ph/seg (deg) RMS Theor. Amplitude 0.149 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 37.2 29.1 Search (2048X64) 0.119 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 52.0 50.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 76.6 33.6 Inc. seg. avg. 0.155 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 74.7 58.7 Inc. frq. avg. 0.158 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

g: az 157.5 el 28.8 pa -5.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -5517.075 3547.320 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/gY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/gY.W.226.130EN2

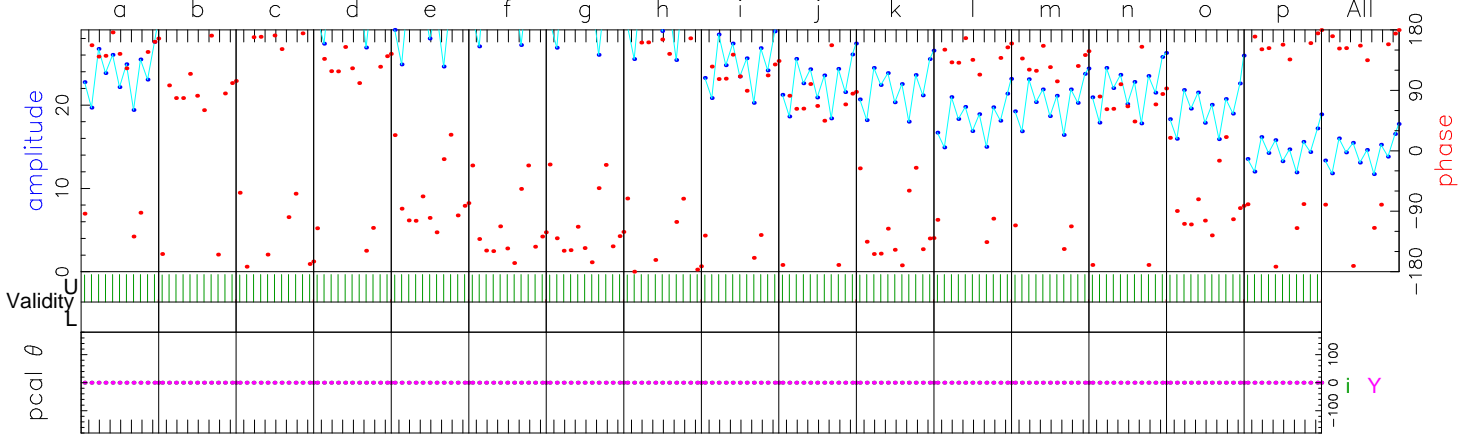


Fringe quality 1

SNR 530.9
 Int time 402.209
 Amp 9.680
 Phase -178.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.000949
 MBD -0.012971
 Fringe rate (Hz) 0.001313
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c192b
 Exper # 16383
 Yr:day 2019:278
 Start 011516.90
 Stop 012159.84
 FRT 011830.00
 Corr/FF/build
 2020:079:134246
 2020:086:100818
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

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

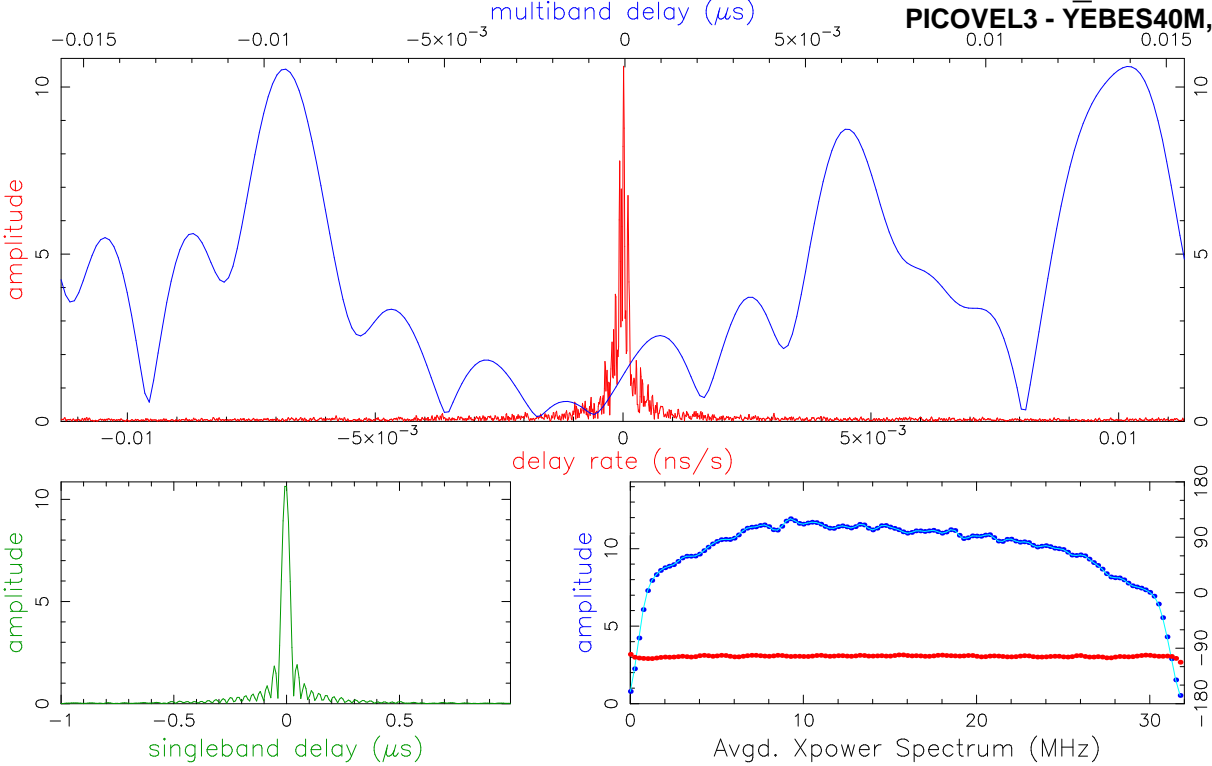


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
i	1000	1000	1000	1000	1000	1000	1000	1000	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		
i: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		
i: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		
i	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) 3.10479526434E+02 Apriori delay (usec) 3.10492497174E+02 Resid mbdelay (usec) -1.29707E-02 +/- 2.0E-06
 Sband delay (usec) 3.10491548174E+02 Apriori clock (usec) -1.0192380E+01 Resid sbdelay (usec) -9.49000E-04 +/- 3.2E-05
 Phase delay (usec) 3.10492491418E+02 Apriori clockrate (us/s) -5.7299998E-07 Resid phdelay (usec) -5.75642E-06 +/- 7.0E-09
 Delay rate (us/s) -3.64224719829E-02 Apriori rate (us/s) -3.64224872303E-02 Resid rate (us/s) 1.52475E-08 +/- 3.0E-11
 Total phase (deg) 75.9 Apriori accel (us/s/s) -3.18511935420E-06 Resid phase (deg) -178.5 +/- 0.2

RMS Theor. Amplitude 9.680 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 50.8 0.4 Search (2048X64) 9.197 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 49.5 0.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 64.0 0.4 Inc. seg. avg. 14.211 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 94.8 0.8 Inc. frq. avg. 17.732 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

i: az 254.5 el 45.4 pa 53.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) 211.875 -472.875 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/iY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/iY.W.172.130EN2

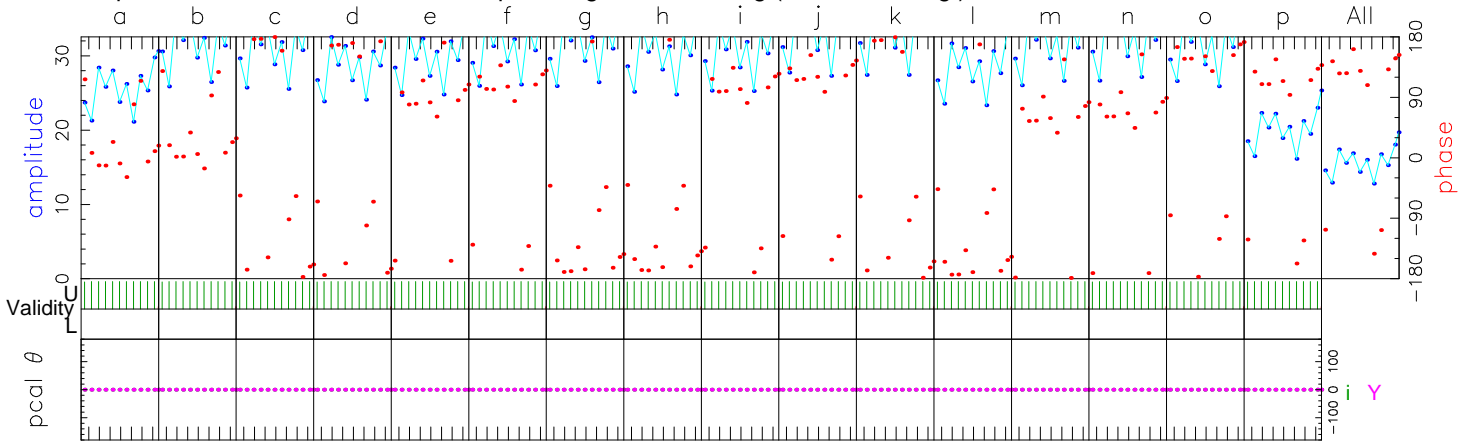


Fringe quality 1

SNR 595.3
Int time 402.209
Amp 10.855
Phase 154.6
PFD 0.0e+00
Delays (us)
SBD -0.003998
MBD 0.013946
Fringe rate (Hz) 0.001319
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100824
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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
	17.1	30.7	-154.7	-163.9	108.5	131.2	-140.4	-138.6	127.7	145.1	-155.9	-144.8	84.0	90.7	175.8	138.8	Phase	154.6
	17.5	21.8	21.4	19.7	20.2	21.4	21.5	20.9	21.1	22.6	22.8	19.4	21.7	22.2	21.6	13.6	Ampl.	20.6
	128.9	129.0	128.8	128.5	129.2	128.8	128.8	128.9	128.9	128.9	128.8	128.8	128.7	128.8	128.4	128.2	Sbd box	128.5
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	
i	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	
i: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	
i: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		
i	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) 3.10475192966E+02 Apriori delay (usec) 3.10492497174E+02 Resid mbdelay (usec) 1.39458E-02 +/- 1.8E-06
 Sband delay (usec) 3.10488499674E+02 Apriori clock (usec) -1.0192380E+01 Resid sbdelay (usec) -3.99750E-03 +/- 2.9E-05
 Phase delay (usec) 3.10492502159E+02 Apriori clockrate (us/s) -5.7299998E-07 Resid phdelay (usec) 4.98514E-06 +/- 6.2E-09
 Delay rate (us/s) -3.64224719177E-02 Apriori rate (us/s) -3.64224872303E-02 Resid rate (us/s) 1.53126E-08 +/- 2.7E-11
 Total phase (deg) 49.0 Apriori accel (us/s/s) -3.18511935420E-06 Resid phase (deg) 154.6 +/- 0.2

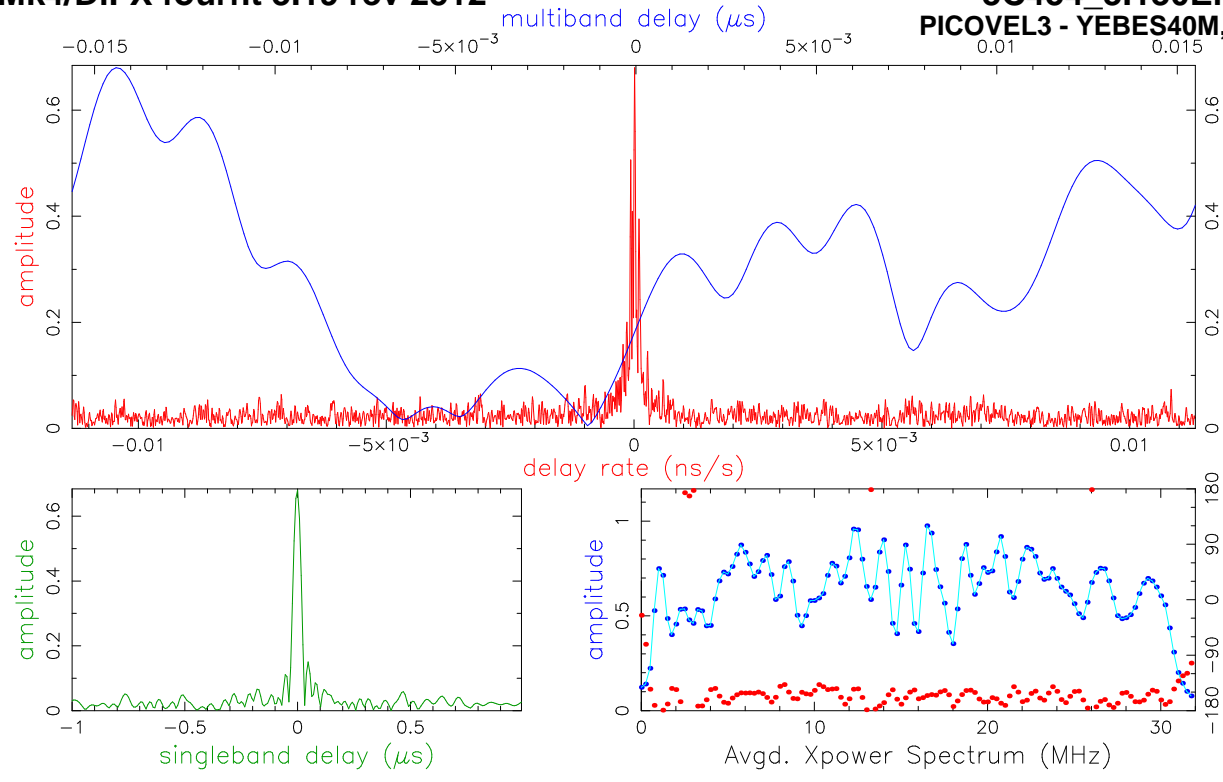
RMS Theor. Amplitude 10.855 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 50.5 0.3 Search (2048X64) 10.182 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 46.0 0.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 69.0 0.4 Inc. seg. avg. 15.553 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 92.0 0.7 Inc. frq. avg. 20.594 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

i: az 254.5 el 45.4 pa 53.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) 211.875 -472.875 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/iY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/iY.W.190.130EN2

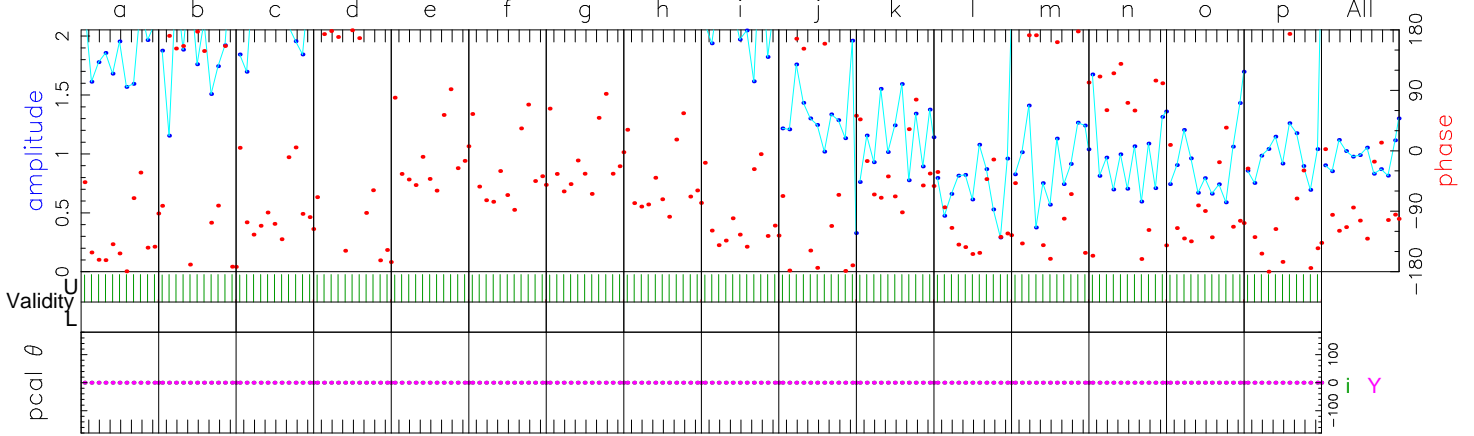
Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130EN2, No0141, iY
PICOVEL3 - YEBES40M, fgroup W, pol LR



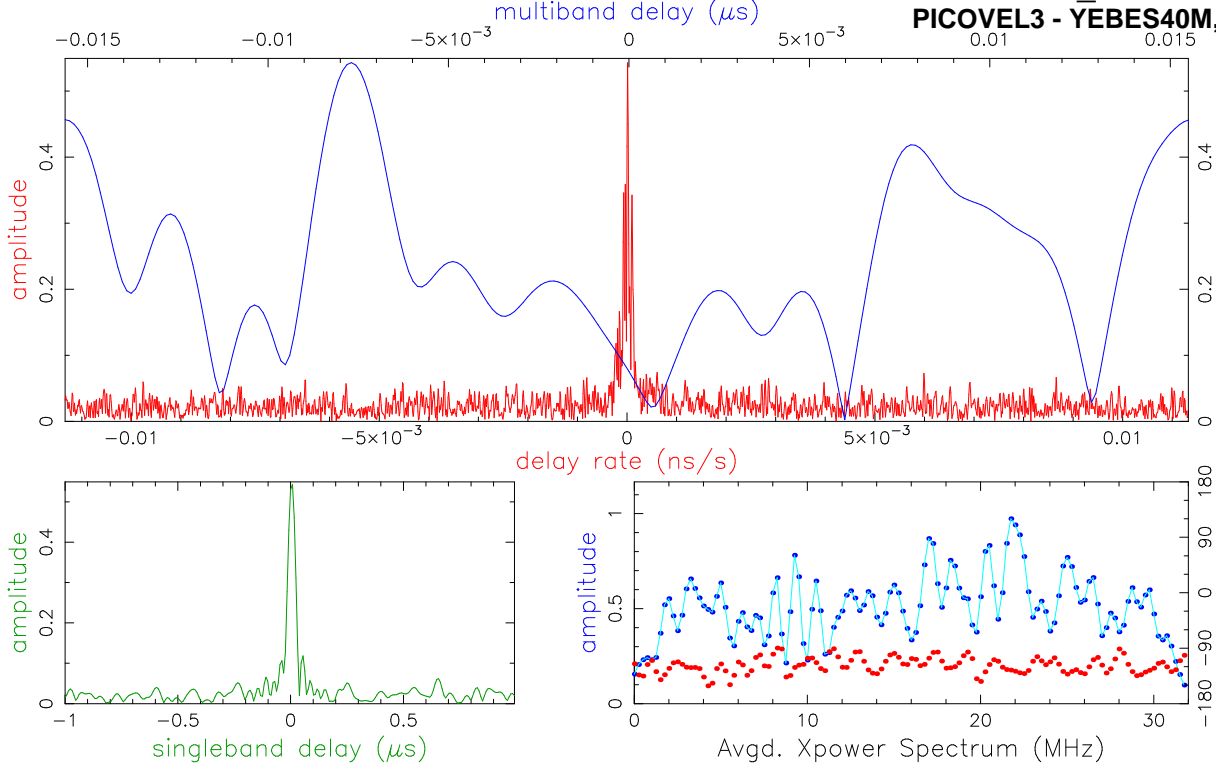
Fringe quality 3
SNR 37.5
Int time 402.209
Amp 0.685
Phase -87.2
PFD 0.0e+00
Delays (us)
SBD -0.002129
MBD -0.014403
Fringe rate (Hz) 0.001202
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100829
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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
	-129.1	-173.5	-88.9	-152.2	-13.4	-38.5	-18.3	-52.7	-102.4	-162.0	-38.8	-111.0	-152.0	123.3	-98.8	-134.4	Phase	-87.2
	1.3	1.4	1.5	1.9	2.0	2.1	1.9	1.4	1.0	0.8	0.5	0.6	0.5	0.6	0.6	0.6	Ampl.	1.2
	128.8	128.6	128.5	128.2	129.0	128.5	128.9	128.8	128.3	129.1	128.6	128.1	128.2	127.9	128.3	128.1	Sbd box	128.7
UL	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
i	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	
i: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	
i: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		
i	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)		3.10478093716E+02		Apriori delay (usec)		3.10492497174E+02		Resid mbdelay (usec)		-1.44035E-02		+/-	2.9E-05					
Sband delay (usec)		3.10490368174E+02		Apriori clock (usec)		-1.0192380E+01		Resid sbdelay (usec)		-2.12900E-03		+/-	4.6E-04					
Phase delay (usec)		3.10492494364E+02		Apriori clockrate (us/s)		-5.7299998E-07		Resid phdelay (usec)		-2.81050E-06		+/-	9.8E-08					
Delay rate (us/s)		-3.64224732760E-02		Apriori rate (us/s)		-3.64224872303E-02		Resid rate (us/s)		1.39543E-08		+/-	4.2E-10					
Total phase (deg)			167.2	Apriori accel (us/s/s)		-3.18511935420E-06		Resid phase (deg)		-87.2		+/-	3.1					

ph/seg (deg) RMS Theor. Amplitude 0.685 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 49.5 5.3 Search (2048X64) 0.659 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 43.6 9.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 68.1 6.1 Inc. seg. avg. 0.958 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
amp/frq (%) 117.1 10.7 Inc. frq. avg. 1.238 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
i: az 254.5 el 45.4 pa 53.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) 211.875 -472.875 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/iY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/iY.W.212.130EN2

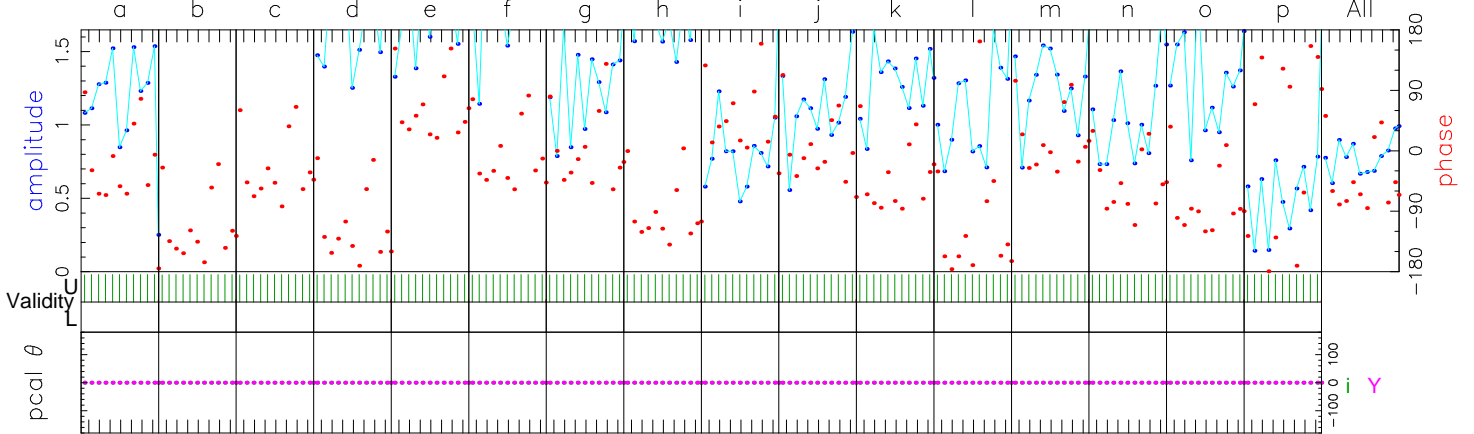


Fringe quality 5

SNR 30.1
Int time 402.209
Amp 0.549
Phase -45.7
PFD 0.0e+00
Delays (us)
SBD 0.004915
MBD -0.007734
Fringe rate (Hz)
0.001334
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100834
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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



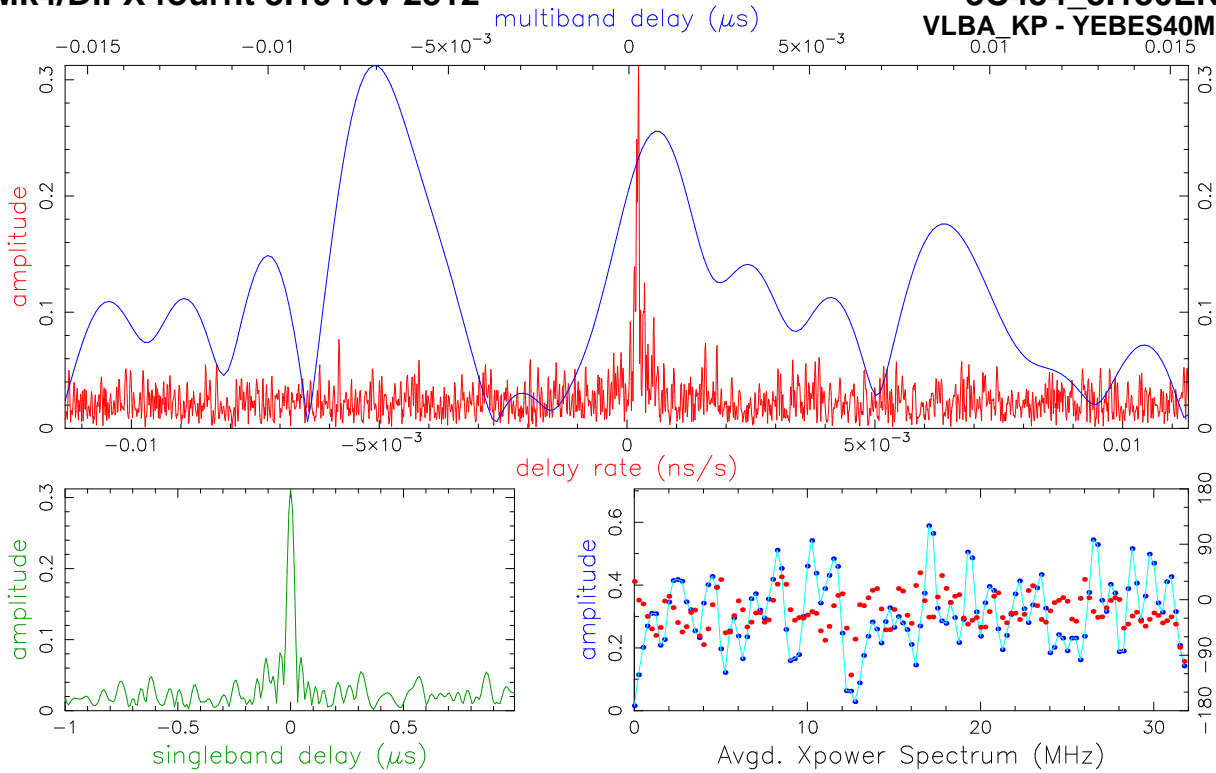
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	-16.7	-120.7	-32.0	-114.3	57.6	-8.4	-10.8	-96.6	50.4	0.8	-45.2	-133.6	14.4	-47.8	-81.6	174.1		Phase	-45.7
	0.8	1.7	1.8	1.1	1.3	1.3	0.8	1.3	0.6	0.8	0.9	0.7	0.9	0.8	0.9	0.3		Ampl.	1.0
	128.2	129.4	128.8	129.5	128.4	128.8	128.8	128.9	130.0	129.2	129.4	128.7	129.4	128.9	128.1	126.1		Sbd box	129.6
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	
i	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	
i: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	
i: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	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids	
i	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
																		Tracks	
Group delay (usec)(sbd)			3.10484763528E+02					Apriori delay (usec)		3.10492497174E+02				Resid mbdelay (usec)		-7.73365E-03		+/-	3.6E-05
Sband delay (usec)			3.10497412174E+02					Apriori clock (usec)		-1.0192380E+01				Resid sbdelay (usec)		4.91500E-03		+/-	5.7E-04
Phase delay (usec)			3.10492495701E+02					Apriori clockrate (us/s)		-5.7299998E-07				Resid phdelay (usec)		-1.47325E-06		+/-	1.2E-07
Delay rate (us/s)			-3.64224717483E-02					Apriori rate (us/s)		-3.64224872303E-02				Resid rate (us/s)		1.54820E-08		+/-	5.3E-10
Total phase (deg)					208.7			Apriori accel (us/s/s)		-3.18511935420E-06				Resid phase (deg)		-45.7		+/-	3.8

ph/seg (deg) 49.0 6.6
amp/seg (%) 46.3 11.5
ph/frq (deg) 71.2 7.6
amp/frq (%) 109.0 13.3

i: az 254.5 el 45.4 pa 53.0
Y: az 251.5 el 44.2 pa 48.5
u,v (fr/asec) 211.875 -472.875

Control file: cf_1234_gmva
Input file: /Exps/c192b/v2/1234/No0141/iY...130EN2
Output file: /Exps/c192b/v2/1234/No0141/iY.W.225.130EN2

simultaneous interpolator

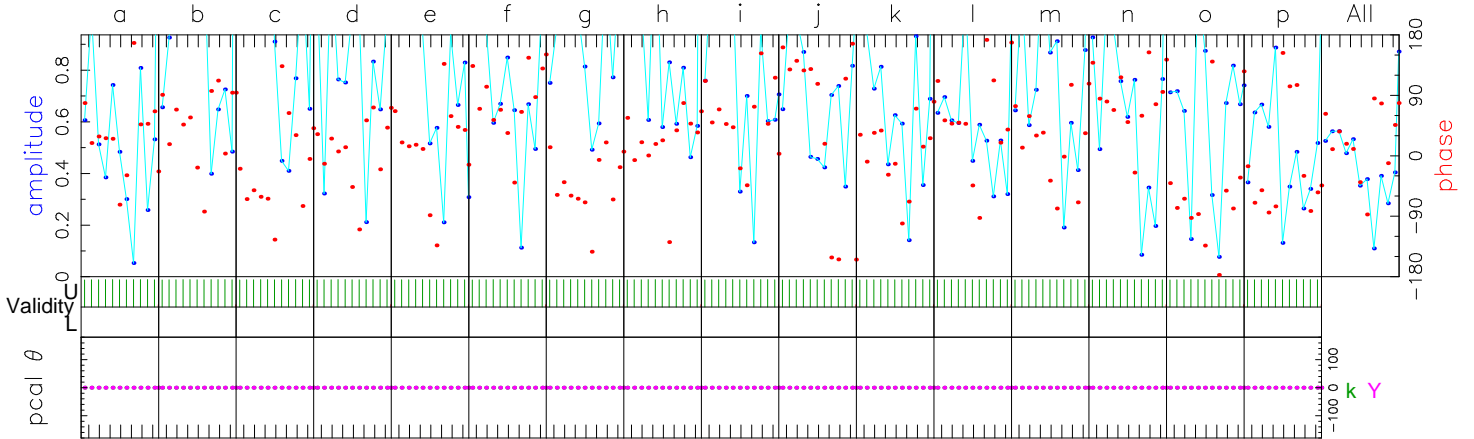


Fringe quality 9

SNR 17.1
Int time 400.498
Amp 0.312
Phase 22.7
PFD 0.0e+00
Delays (us)
SBD 0.000258
MBD -0.007039
Fringe rate (Hz) 0.019708
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100823
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

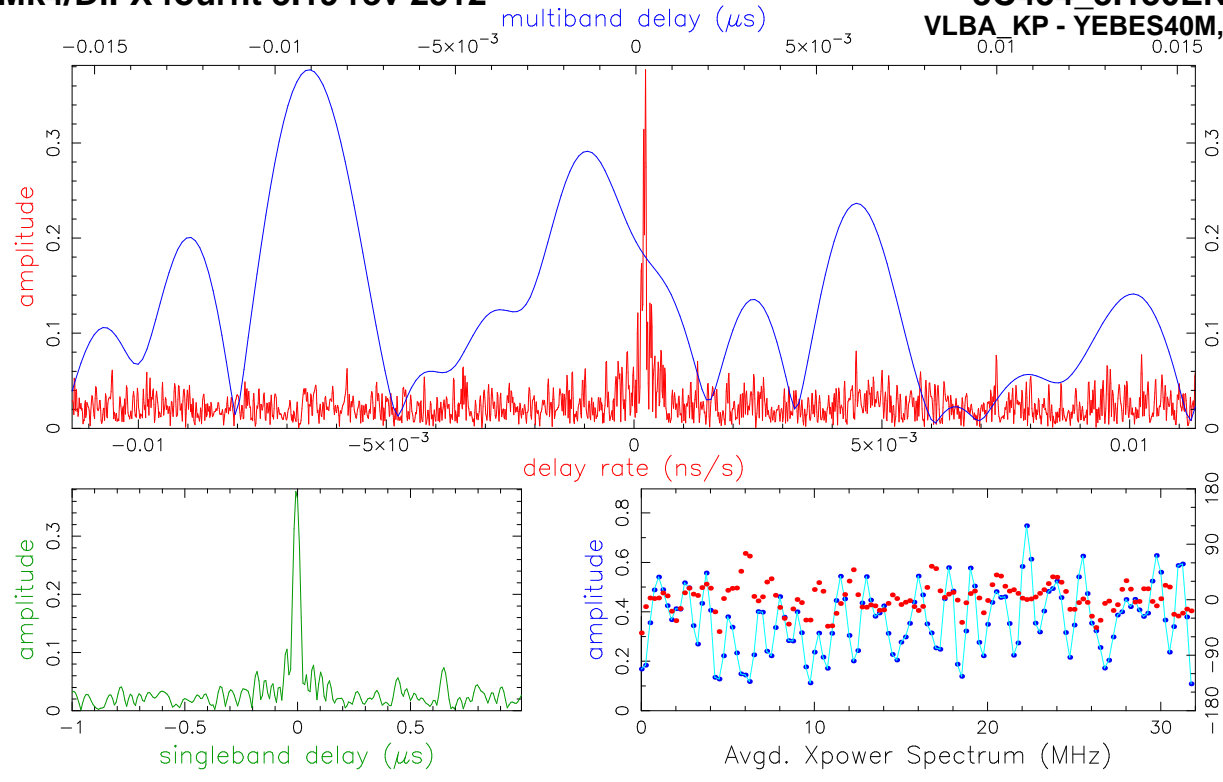


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
k	1000	1000	1000	1000	1000	1000	1000	1000	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		
k: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		
k: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		
k	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		
k	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) -3.41233806370E+03 Apriori delay (usec) -3.41233102454E+03 Resid mbdelay (usec) -7.03916E-03 +/- 6.3E-05
 Sband delay (usec) -3.41233076604E+03 Apriori clock (usec) -1.0069795E+01 Resid sbdelay (usec) 2.58500E-04 +/- 1.0E-03
 Phase delay (usec) -3.41233102381E+03 Apriori clockrate (us/s) -4.1457899E-07 Resid phdelay (usec) 7.31228E-07 +/- 2.2E-07
 Delay rate (us/s) 1.93903431502E+00 Apriori rate (us/s) 1.93903408623E+00 Resid rate (us/s) 2.28786E-07 +/- 9.3E-10
 Total phase (deg) -140.7 Apriori accel (us/s/s) 1.42897386593E-05 Resid phase (deg) 22.7 +/- 6.7

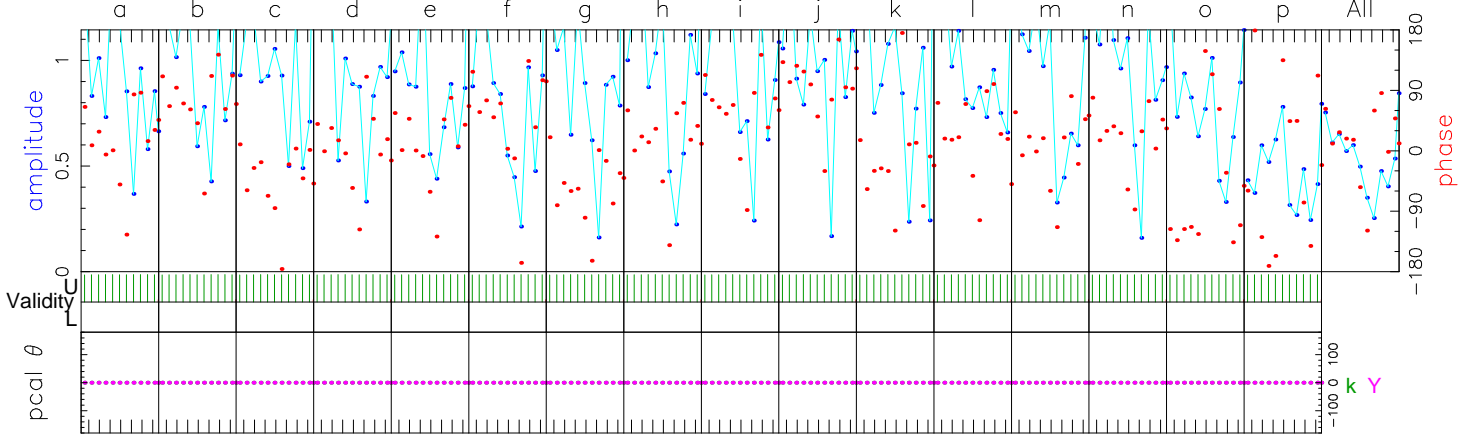
ph/seg (deg) RMS Theor. Amplitude 0.312 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 49.3 11.6 Search (2048X64) 0.297 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.9 20.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 61.7 13.4 Inc. seg. avg. 0.412 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 75.4 23.4 Inc. frq. avg. 0.503 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 89.3 el 30.8 pa -62.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11542.727 -627.088 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/KY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/kY.W.184.130EN2



Fringe quality 5
SNR 20.9
Int time 400.497
Amp 0.382
Phase 25.7
PFD 0.0e+00
Delays (us)
SBD -0.005185
MBD -0.009050
Fringe rate (Hz) 0.019905
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build 2020:079:134246
2020:086:100827
2020:014:135814
RA & Dec (J2000) 22h53m57.747940s +16°08'53.560909"

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				
U/L	18.7	85.3	-35.4	9.2	21.0	75.3	-52.0	18.3	73.0	104.6	-39.4	35.5	15.2	28.7	-133.6	-166.5	Phase	25.7				
k	0.6	0.7	0.6	0.7	0.6	0.6	0.7	0.7	0.6	0.7	0.6	0.6	0.7	0.7	0.5	0.2	Ampl.	0.6				
Y	127.9	128.6	128.5	127.9	129.1	128.6	128.9	128.3	128.0	128.2	128.5	128.1	128.0	127.9	127.4	126.3	Sbd box	128.3				
k	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					
k: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					
k: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					
k	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						
k	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)			-3.41234007427E+03														Apriori delay (usec)	-3.41233102454E+03	Resid mbdelay (usec)	-9.04973E-03	+/-	5.2E-05
Sband delay (usec)			-3.41233620954E+03														Apriori clock (usec)	-1.0069795E+01	Resid sbdelay (usec)	-5.18500E-03	+/-	8.3E-04
Phase delay (usec)			-3.41233102371E+03														Apriori clockrate (us/s)	-4.1457899E-07	Resid phdelay (usec)	8.28625E-07	+/-	1.8E-07
Delay rate (us/s)			1.93903431731E+00														Apriori rate (us/s)	1.93903408623E+00	Resid rate (us/s)	2.31079E-07	+/-	7.6E-10
Total phase (deg)																	Apriori accel (us/s/s)	1.42897386593E-05	Resid phase (deg)	25.7	+/-	5.5

ph/seg (deg) 56.2 9.5
amp/seg (%) 51.6 16.6
ph/frq (deg) 76.8 11.0
amp/frq (%) 70.6 19.2

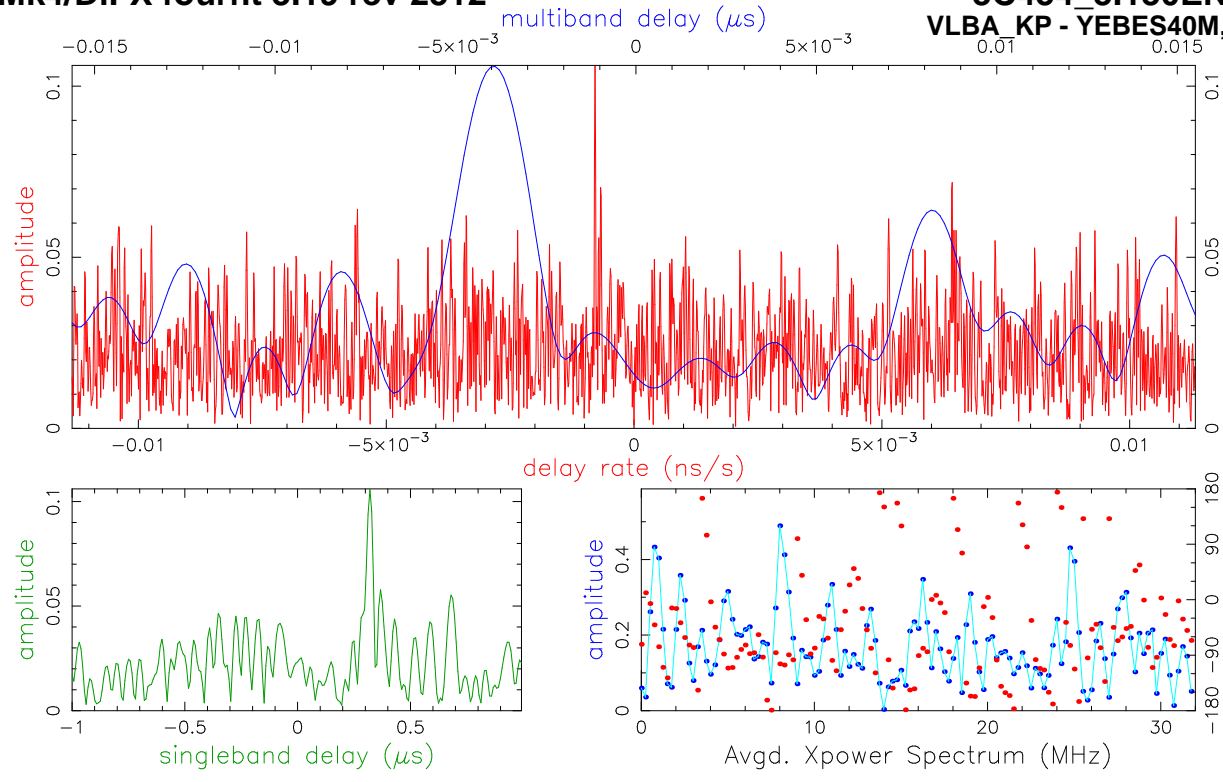
RMS Theor. Amplitude 0.382 +/- 0.018
Search (2048X64) 0.370
Interp. 0.000
Inc. seg. avg. 0.514
Inc. frq. avg. 0.605

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

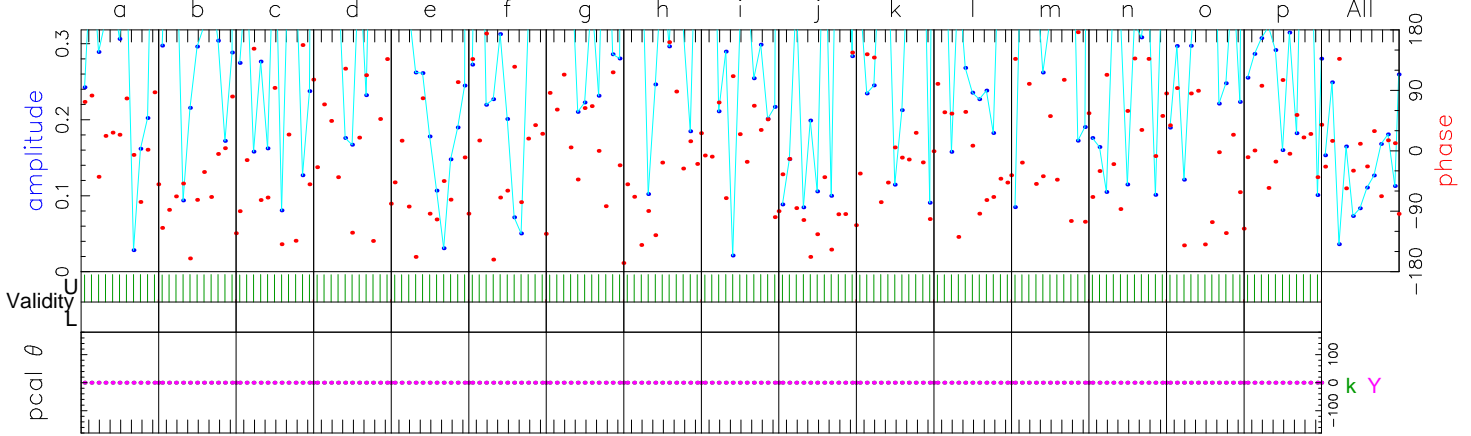
k: az 89.3 el 30.8 pa -62.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11542.727 -627.088 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/kY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/kY.W.203.130EN2



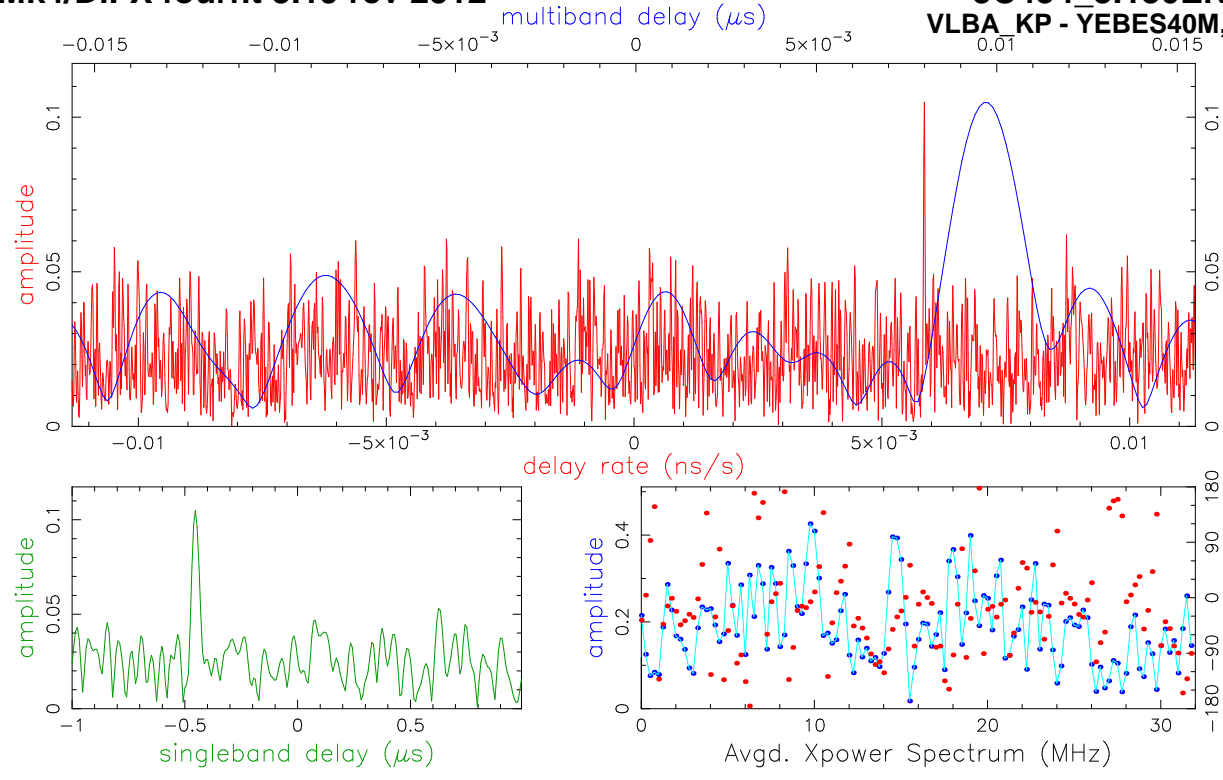
Fringe quality 0
SNR 5.8
Int time 400.498
Amp 0.106
Phase -10.7
PFD 8.2e-01
Delays (us)
SBD 0.320787
MBD -0.003932
Fringe rate (Hz)
-0.068039
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100833
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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



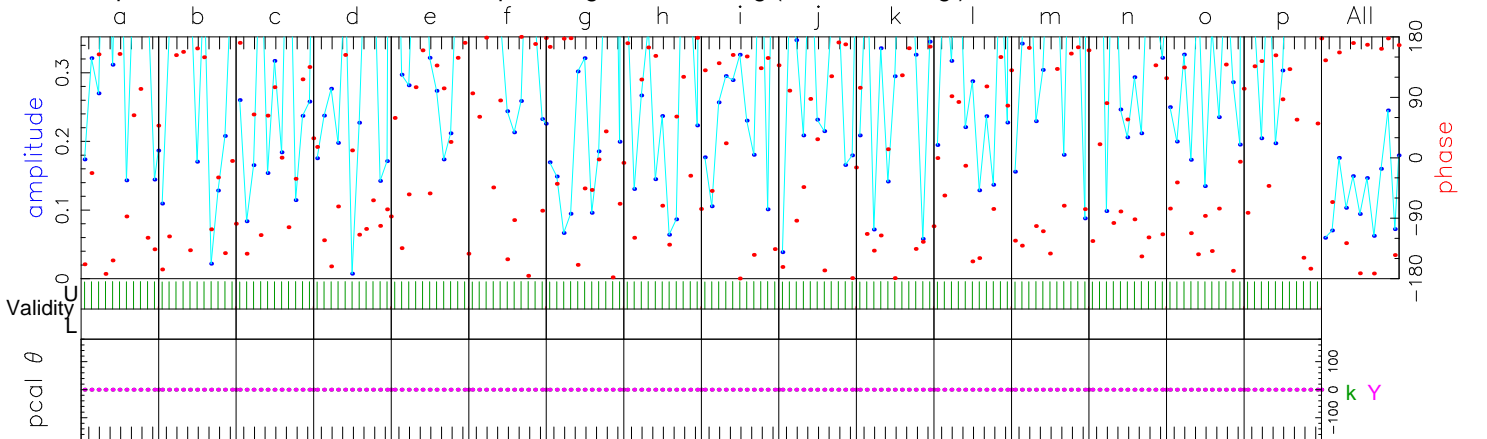
86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
46.1	-65.7	-47.0	31.3	-44.2	13.8	37.2	-44.0	1.1	-91.6	-21.3	-18.7	-24.2	42.0	-54.4	12.8	Phase	-10.7	
0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.2	Ampl.	0.1	
168.7	169.2	28.7	216.1	209.9	70.4	171.8	135.2	171.4	20.0	78.2	5.5	240.6	61.4	177.7	69.6	Sbd box	170.1	
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	APs used		
k	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		
k: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		
k: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		
k	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		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
Group delay (usec)(sbd)	-3.41202245694E+03			Apriori delay (usec)			-3.41233102454E+03			Resid mbdelay (usec)			-3.93240E-03			+/- 1.9E-04		
Sband delay (usec)	-3.41201023754E+03			Apriori clock (usec)			-1.0069795E+01			Resid sbdelay (usec)			3.20787E-01			+/- 3.0E-03		
Phase delay (usec)	-3.41233102488E+03			Apriori clockrate (us/s)			-4.1457899E-07			Resid phdelay (usec)			-3.44403E-07			+/- 6.4E-07		
Delay rate (us/s)	1.93903329637E+00			Apriori rate (us/s)			1.93903408623E+00			Resid rate (us/s)			-7.89862E-07			+/- 2.7E-09		
Total phase (deg)	-174.1			Apriori accel (us/s/s)			1.42897386593E-05			Resid phase (deg)			-10.7			+/- 19.8		

ph/seg (deg) 53.9 34.3 Search (2048X64) 0.101 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 60.0 59.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 43.7 39.6 Inc. seg. avg. 0.114 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 66.9 69.0 Inc. frq. avg. 0.114 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
k: az 89.3 el 30.8 pa -62.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11542.727 -627.088 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/KY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/kY.W.222.130EN2



Fringe quality 0
 SNR 5.7
 Int time 400.497
 Amp 0.117
 Phase 179.5
 PFD 9.0e-01
 Delays (us)
 SBD -0.453645
 MBD 0.009683
 Fringe rate (Hz) 0.505668
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c192b
 Exper # 16383
 Yr:day 2019:278
 Start 011516.90
 Stop 012159.84
 FRT 011830.00
 Corr/FF/build
 2020:079:134246
 2020:086:100839
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

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

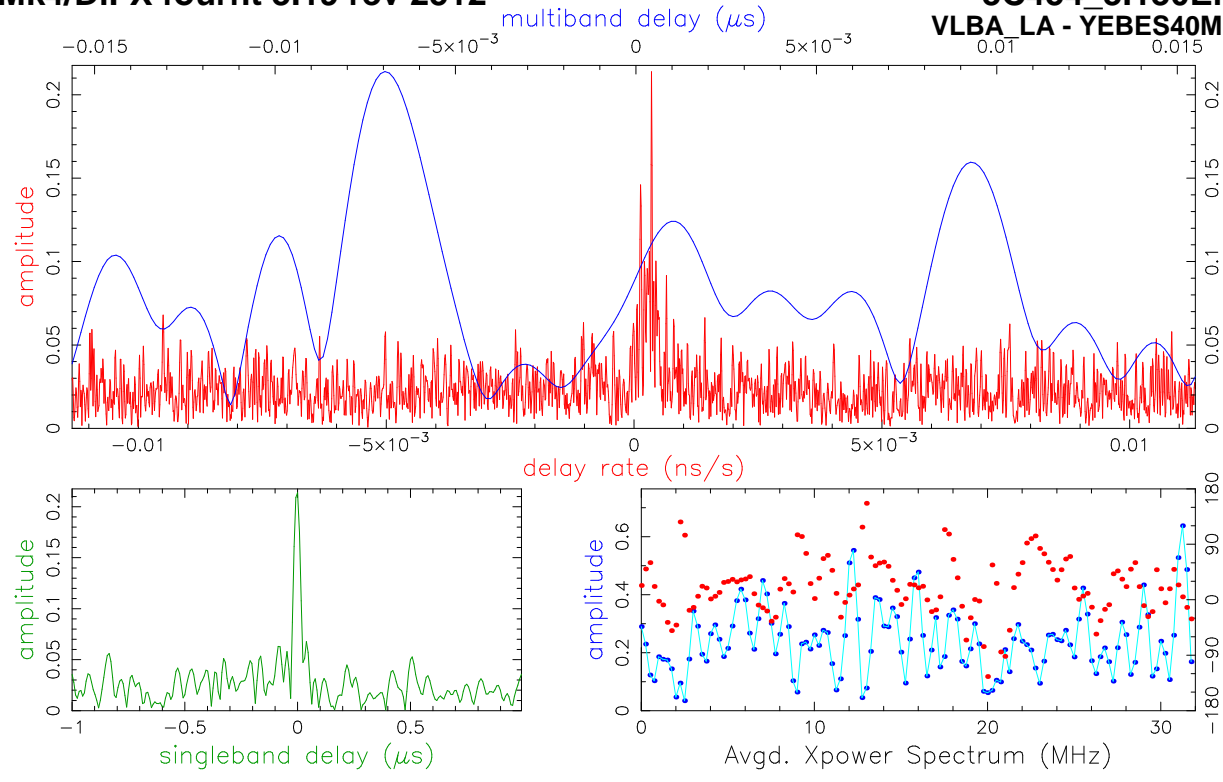


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	171.8	-170.5	-166.0	-106.1	129.9	157.9	-119.6	160.3	167.0	135.5	-175.6	98.4	-168.8	-101.6	-144.8	133.9	Phase	179.5
	0.2	0.2	0.1	0.2	0.2	0.1	0.0	0.1	0.2	0.1	0.2	0.1	0.3	0.2	0.1	0.1	Ampl.	0.1
	215.7	42.2	209.0	182.9	73.5	2.9	234.0	175.4	72.4	93.6	60.0	59.9	70.4	149.7	243.3	16.2	Sbd box	70.9
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
k	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	
k: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	
k: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	
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
W	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) -3.41279009149E+03 Apriori delay (usec) -3.41233102454E+03 Resid mbdelay (usec) 9.68305E-03 +/- 1.9E-04
 Sband delay (usec) -3.41278467004E+03 Apriori clock (usec) -1.0069795E+01 Resid sbdelay (usec) -4.53645E-01 +/- 3.0E-03
 Phase delay (usec) -3.41233101875E+03 Apriori clockrate (us/s) -4.1457899E-07 Resid phdelay (usec) 5.78926E-06 +/- 6.4E-07
 Delay rate (us/s) 1.93903995654E+00 Apriori rate (us/s) 1.93903408623E+00 Resid rate (us/s) 5.87031E-06 +/- 2.8E-09
 Total phase (deg) 16.1 Apriori accel (us/s/s) 1.42897386593E-05 Resid phase (deg) 179.5 +/- 20.0

RMS Theor. Amplitude 0.117 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 42.1 34.6 Search (2048X64) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 56.0 60.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 47.3 39.9 Inc. seg. avg. 0.116 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 58.3 69.7 Inc. frq. avg. 0.123 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 89.3 el 30.8 pa -62.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11542.727 -627.088 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/KY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/kY.W.239.130EN2

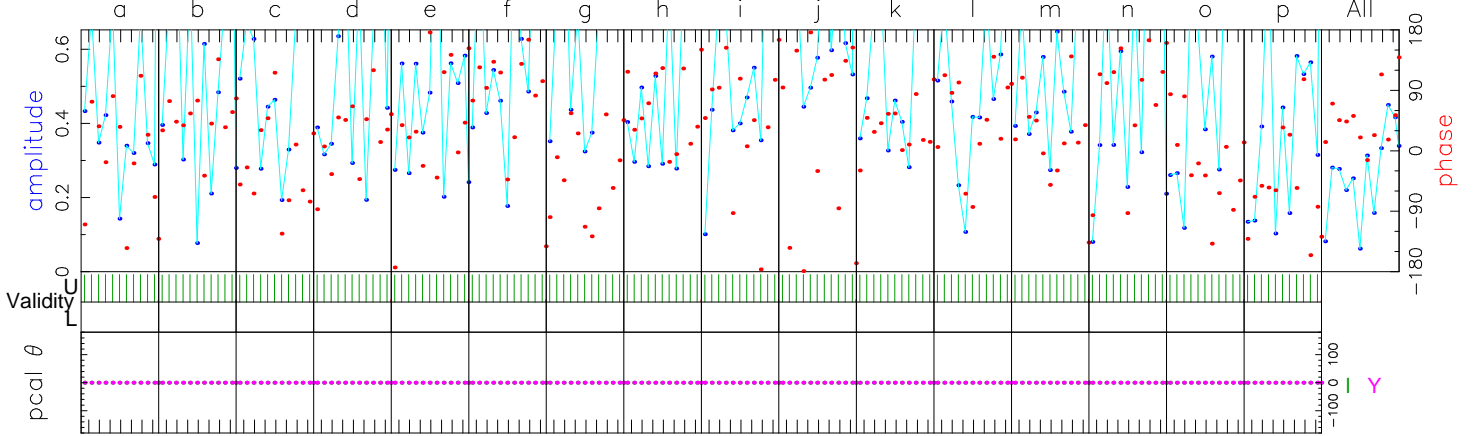


Fringe quality 9

SNR 11.9
Int time 401.745
Amp 0.218
Phase 43.4
PFD 4.6e-24
Delays (us)
SBD -0.003111
MBD -0.006983
Fringe rate (Hz) 0.030239
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100837
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

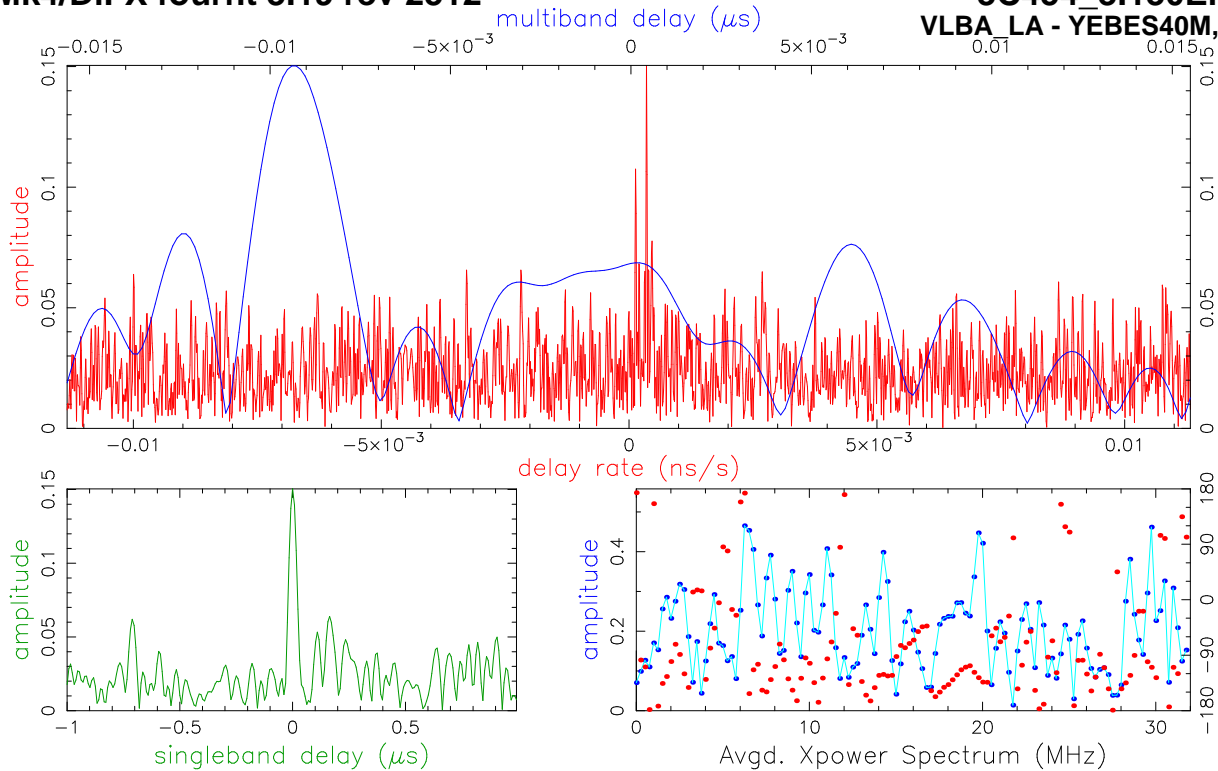


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
I	1000	1000	1000	1000	1000	1000	1000	1000	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		
I: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		
I: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		
I	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
W	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) -2.09537420218E+03 Apriori delay (usec) -2.09536721885E+03 Resid mbdelay (usec) -6.98333E-03 +/- 9.1E-05
 Sband delay (usec) -2.09537032985E+03 Apriori clock (usec) -1.0425497E+01 Resid sbdelay (usec) -3.11100E-03 +/- 1.4E-03
 Phase delay (usec) -2.09536721745E+03 Apriori clockrate (us/s) -5.7147201E-07 Resid phdelay (usec) 1.39948E-06 +/- 3.1E-07
 Delay rate (us/s) 1.83291240957E+00 Apriori rate (us/s) 1.83291205852E+00 Resid rate (us/s) 3.51049E-07 +/- 1.3E-09
 Total phase (deg) -40.0 Apriori accel (us/s/s) 9.03162523774E-06 Resid phase (deg) 43.4 +/- 9.6

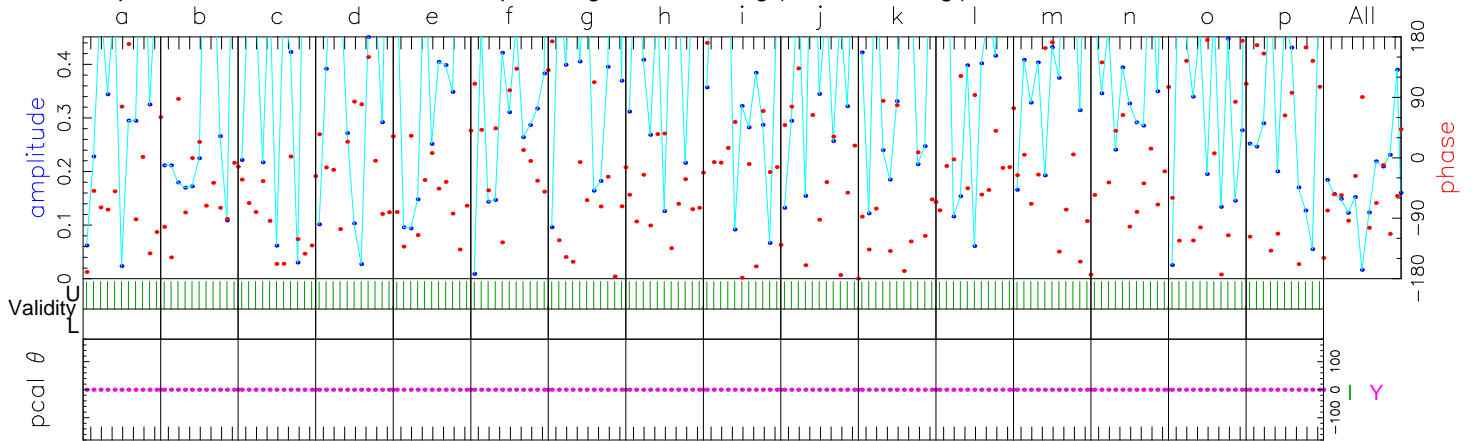
RMS Theor. Amplitude 0.218 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 33.5 16.6 Search (2048X64) 0.204 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 57.3 29.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 60.7 19.2 Inc. seg. avg. 0.249 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 77.0 33.6 Inc. frq. avg. 0.330 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

I: az 94.9 el 35.2 pa -57.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -10918.031 -280.831 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/IY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/IY.W.237.130EN2



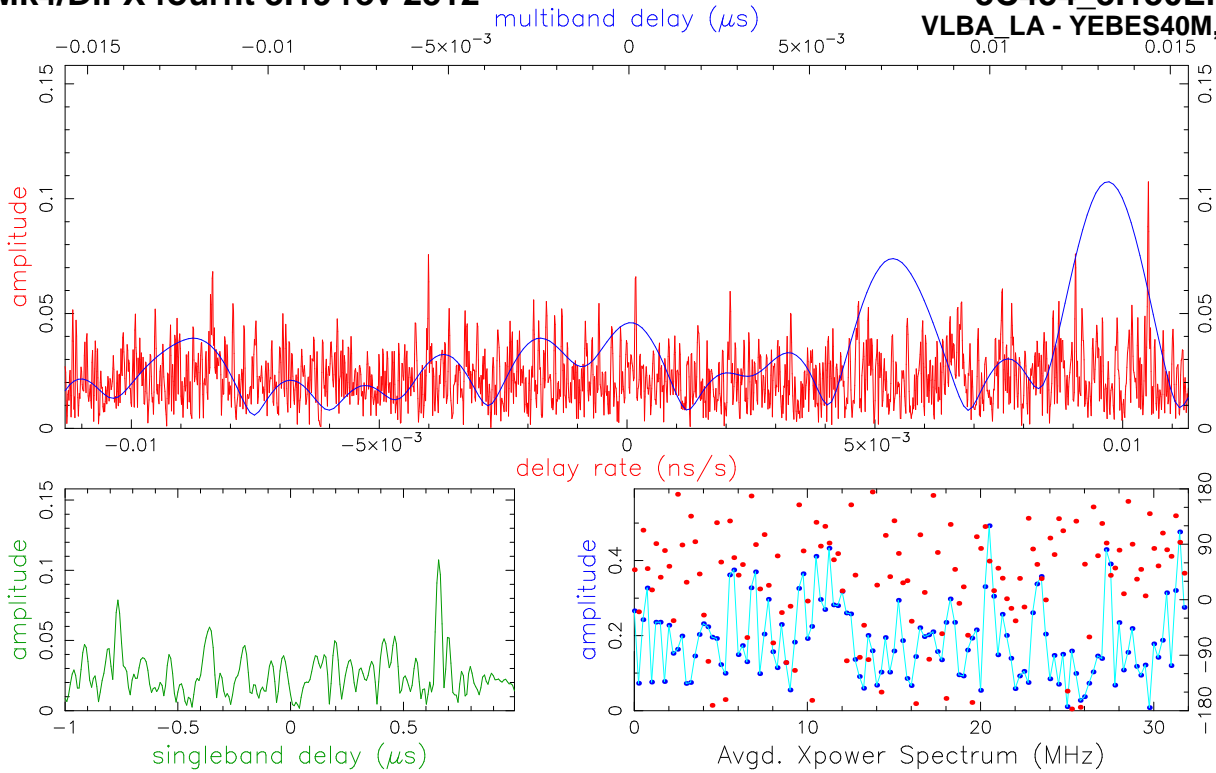
Fringe quality 9
SNR 8.2
Int time 401.746
Amp 0.150
Phase -63.8
PFD 5.8e-08
Delays (us)
SBD 0.000295
MBD -0.009331
Fringe rate (Hz) 0.030477
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100844
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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
	-73.1	-43.7	-95.5	-43.8	-69.3	16.6	-118.4	-67.0	1.1	46.3	-101.2	-25.8	-77.9	-23.9	-139.3	154.8	Phase	-63.8
	0.2	0.2	0.3	0.2	0.3	0.1	0.2	0.3	0.2	0.1	0.2	0.3	0.2	0.2	0.2	0.2	Ampl.	0.2
	251.7	129.2	128.0	164.0	130.3	82.8	128.9	128.3	61.1	29.5	204.2	129.5	61.6	130.3	127.1	127.6	Sbd box	129.0
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	
I	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	
I: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	
I: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	
I	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
I	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)	-2.09537654978E+03			Apriori delay (usec)			-2.09536721885E+03			Resid mbdelay (usec)			-9.33093E-03			+/-	1.3E-04	
Sband delay (usec)	-2.09536692435E+03			Apriori clock (usec)			-1.0425497E+01			Resid sbdelay (usec)			2.94500E-04			+/-	2.1E-03	
Phase delay (usec)	-2.09536722091E+03			Apriori clockrate (us/s)			-5.7147201E-07			Resid phdelay (usec)			-2.05731E-06			+/-	4.5E-07	
Delay rate (us/s)	1.83291241233E+00			Apriori rate (us/s)			1.83291205852E+00			Resid rate (us/s)			3.53810E-07			+/-	1.9E-09	
Total phase (deg)	-147.2			Apriori accel (us/s/s)			9.03162523774E-06			Resid phase (deg)			-63.8			+/-	13.9	

ph/seg (deg) 55.7 24.1 Search (2048X64) 0.148 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 60.8 42.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 64.4 27.8 Inc. seg. avg. 0.163 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 64.4 48.5 Inc. frq. avg. 0.193 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
I: az 94.9 el 35.2 pa -57.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -10918.031 -280.831 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/IY...130EN2 Output file: /Exps/c192b/v2/1234/No0141/IY.W.260.130EN2

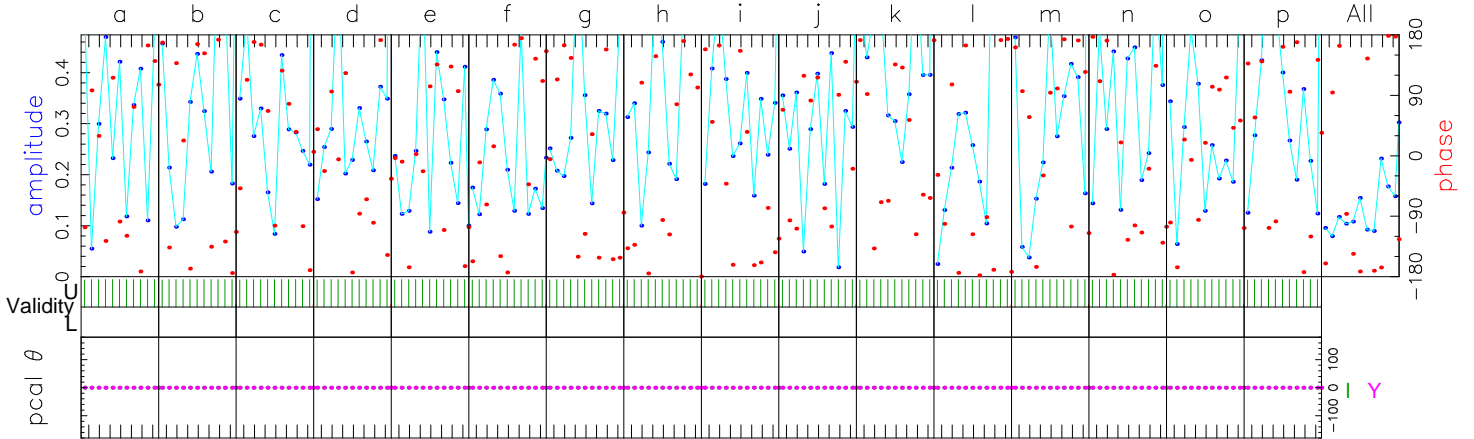


Fringe quality 0

SNR 5.9
Int time 401.745
Amp 0.158
Phase -173.7
PFD 6.1e-01
Delays (us)
SBD 0.657194
MBD 0.013275
Fringe rate (Hz) 0.907510
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

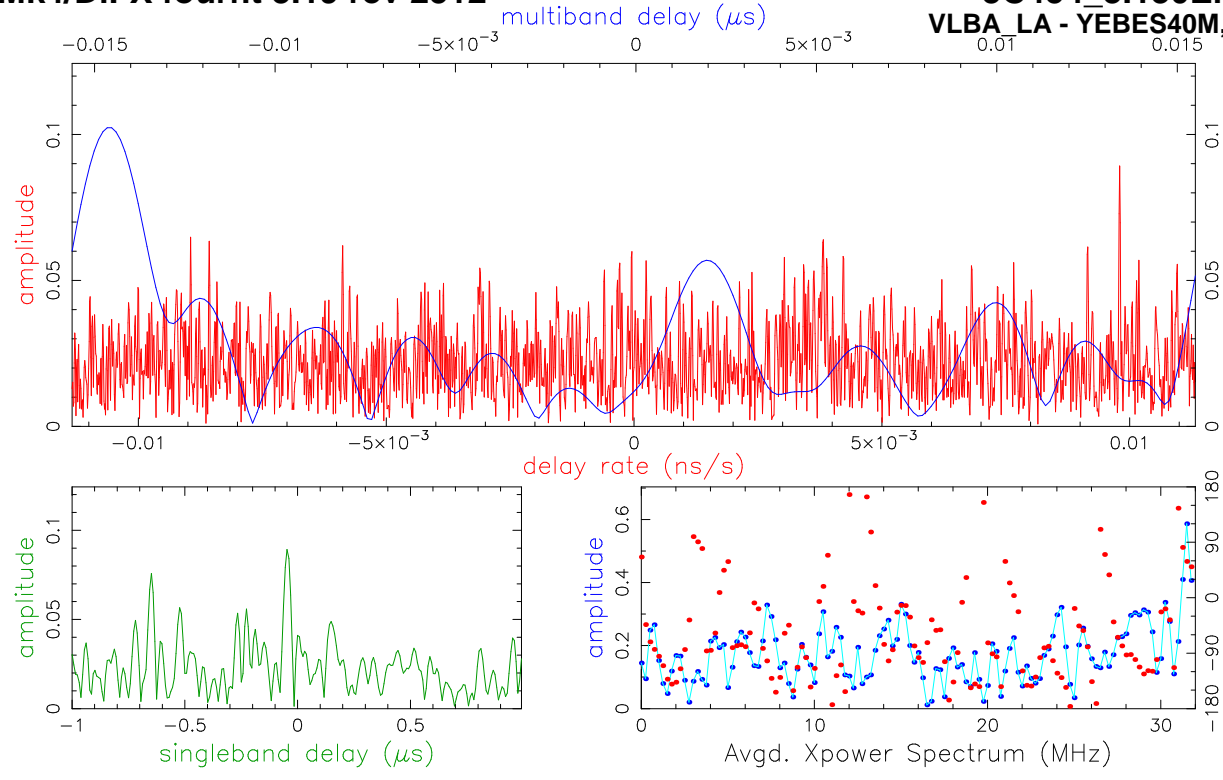
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build 2020:079:134246
2020:086:100850
2020:014:135814
RA & Dec (J2000) 22h53m57.747940s +16°08'53.560909"

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



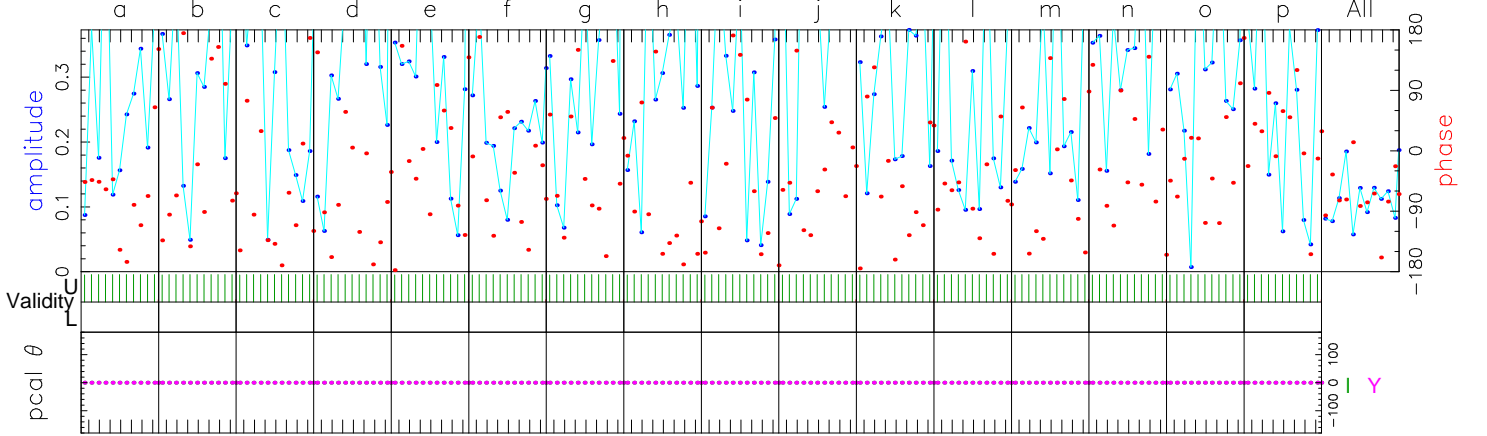
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-166.4	-173.5	123.0	-75.0	-50.8	-163.0	-162.8	168.9	-173.5	-179.4	-121.6	-175.4	157.3	-164.2	29.2	-167.3	Phase	-173.7				
	0.2	0.4	0.1	0.1	0.0	0.1	0.3	0.3	0.1	0.0	0.2	0.4	0.2	0.2	0.2	0.2	Ampl.	0.2				
	15.4	80.8	3.7	37.5	206.3	209.9	1.4	194.2	6.3	5.0	85.6	211.1	235.2	225.9	202.8	226.2	Sbd box	213.1				
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					
I	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					
I: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					
I: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					
I	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					
I	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)			-2.09469769393E+03														Apriori delay (usec)	-2.09536721885E+03	Resid mbdelay (usec)	1.32749E-02	+/-	1.8E-04
Sband delay (usec)			-2.09471002435E+03														Apriori clock (usec)	-1.0425497E+01	Resid sbdelay (usec)	6.57194E-01	+/-	2.9E-03
Phase delay (usec)			-2.09536722445E+03														Apriori clockrate (us/s)	-5.7147201E-07	Resid phdelay (usec)	-5.60151E-06	+/-	6.3E-07
Delay rate (us/s)			1.83292259382E+00														Apriori rate (us/s)	1.83291205852E+00	Resid rate (us/s)	1.05353E-05	+/-	2.7E-09
Total phase (deg)																	Apriori accel (us/s/s)	9.03162523774E-06	Resid phase (deg)	-173.7	+/-	19.4

ph/seg (deg) 42.2 33.7 Theor. Amplitude 0.158 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 48.2 58.7 Search (2048X64) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 64.3 38.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 76.0 67.8 Inc. seg. avg. 0.162 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 I: az 94.9 el 35.2 pa -57.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -10918.031 -280.831 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/IY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/IY.W.283.130EN2 simultaneous interpolator



Fringe quality 0
SNR 4.9
Int time 401.746
Amp 0.124
Phase -72.1
PFD 1.0e+00
Delays (us)
SBD -0.045449
MBD 0.016113
Fringe rate (Hz) 0.844995
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100856
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

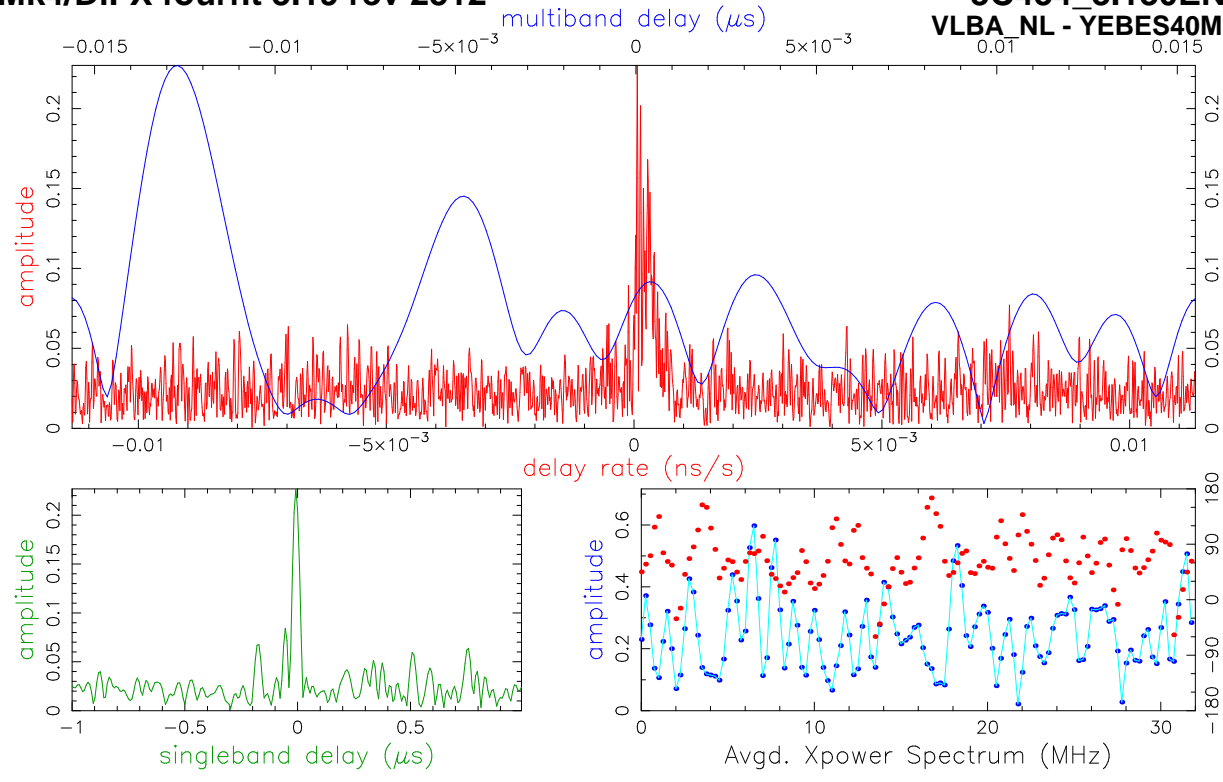


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-67.6	-122.9	-138.1	-109.3	-26.2	-65.5	-76.7	-114.7	-151.1	-52.4	-98.0	-60.8	-102.0	-34.9	-38.7	25.8	Phase	-72.1
	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.3	0.0	0.3	0.2	0.3	0.1	0.2	0.2	0.3	Ampl.	0.1
	45.6	100.4	60.9	118.1	146.5	140.5	44.0	121.0	188.8	123.7	129.5	158.8	231.9	51.3	120.5	123.7	Sbd box	123.2
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	
I	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	
I: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	
I: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	
I	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	
I	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) -2.09541360557E+03 Apriori delay (usec) -2.09536721885E+03 Resid mbdelay (usec) 1.61133E-02 +/- 2.2E-04
Sband delay (usec) -2.09541266785E+03 Apriori clock (usec) -1.0425497E+01 Resid sbdelay (usec) -4.54490E-02 +/- 3.5E-03
Phase delay (usec) -2.09536722117E+03 Apriori clockrate (us/s) -5.7147201E-07 Resid phdelay (usec) -2.32405E-06 +/- 7.5E-07
Delay rate (us/s) 1.83292186808E+00 Apriori rate (us/s) 1.83291205852E+00 Resid rate (us/s) 9.80956E-06 +/- 3.2E-09
Total phase (deg) -155.5 Apriori accel (us/s/s) 9.03162523774E-06 Resid phase (deg) -72.1 +/- 23.4

RMS Theor. Amplitude 0.124 +/- 0.025 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
ph/seg (deg) 41.7 40.5 Search (2048X64) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
amp/seg (%) 43.6 70.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
ph/frq (deg) 48.4 46.7 Inc. seg. avg. 0.121 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
amp/frq (%) 77.8 81.6 Inc. frq. avg. 0.128 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

I: az 94.9 el 35.2 pa -57.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -10918.031 -280.831 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/IY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/IY.W.307.130EN2

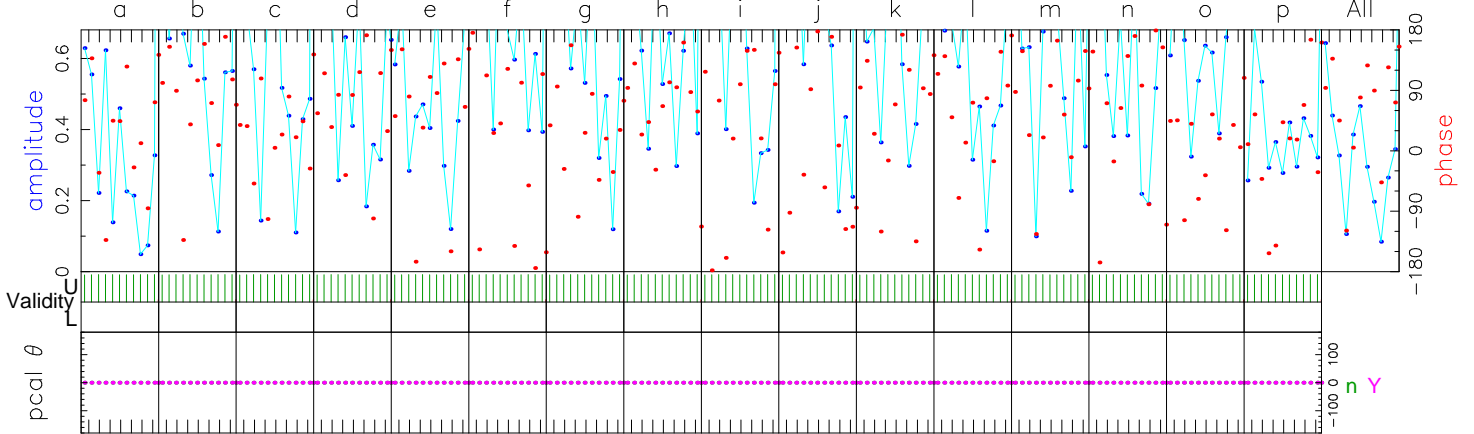


Fringe quality 9

SNR 12.4
Int time 400.905
Amp 0.227
Phase 88.5
PFD 9.7e-27
Delays (us)
SBD -0.007671
MBD -0.012721
Fringe rate (Hz) 0.006101
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

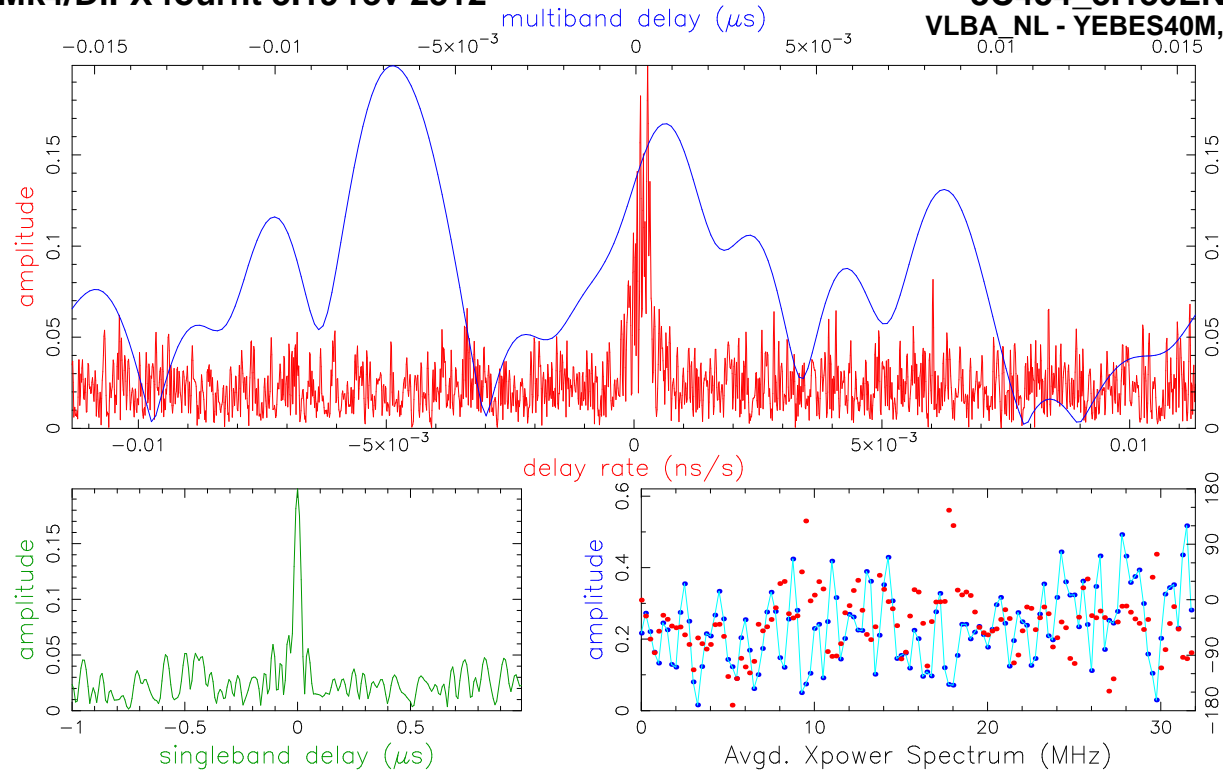
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100842
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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
	91.0	114.6	14.5	67.5	103.5	135.9	36.3	81.7	112.2	-155.4	88.4	85.9	92.0	150.5	8.4	24.7		Phase 88.5
	0.1	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.2	0.4	0.2	0.4	0.4	0.3	0.1		Ampl. 0.3
	118.4	128.8	127.7	129.6	128.4	128.0	127.1	128.1	128.2	128.3	127.6	66.5	127.8	127.5	127.8	254.8		Sbd box 128.0
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
n	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
n: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
n: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
n	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)	6.50840005286E+02			Apriori delay (usec)			6.50852726101E+02			Resid mbdelay (usec)			-1.27208E-02			+/- 8.7E-05		
Sband delay (usec)	6.50845055101E+02			Apriori clock (usec)			1.6843861E+01			Resid sbdelay (usec)			-7.67100E-03			+/- 1.4E-03		
Phase delay (usec)	6.50852728956E+02			Apriori clockrate (us/s)			-8.5776492E-08			Resid phdelay (usec)			2.85523E-06			+/- 3.0E-07		
Delay rate (us/s)	1.56692577389E+00			Apriori rate (us/s)			1.56692570306E+00			Resid rate (us/s)			7.08225E-08			+/- 1.3E-09		
Total phase (deg)	26.0			Apriori accel (us/s/s)			-2.85586587041E-06			Resid phase (deg)			88.5			+/- 9.2		

ph/seg (deg) 71.5 16.0 Search (2048X64) 0.227 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 84.4 27.9 Interp. 0.215 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 53.6 18.4 Inc. seg. avg. 0.315 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 60.1 32.2 Inc. frq. avg. 0.307 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
n: az 111.2 el 45.0 pa -46.3 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -9350.436 129.783 ion window (TEC) 0.00 0.00 simultaneous interpolator

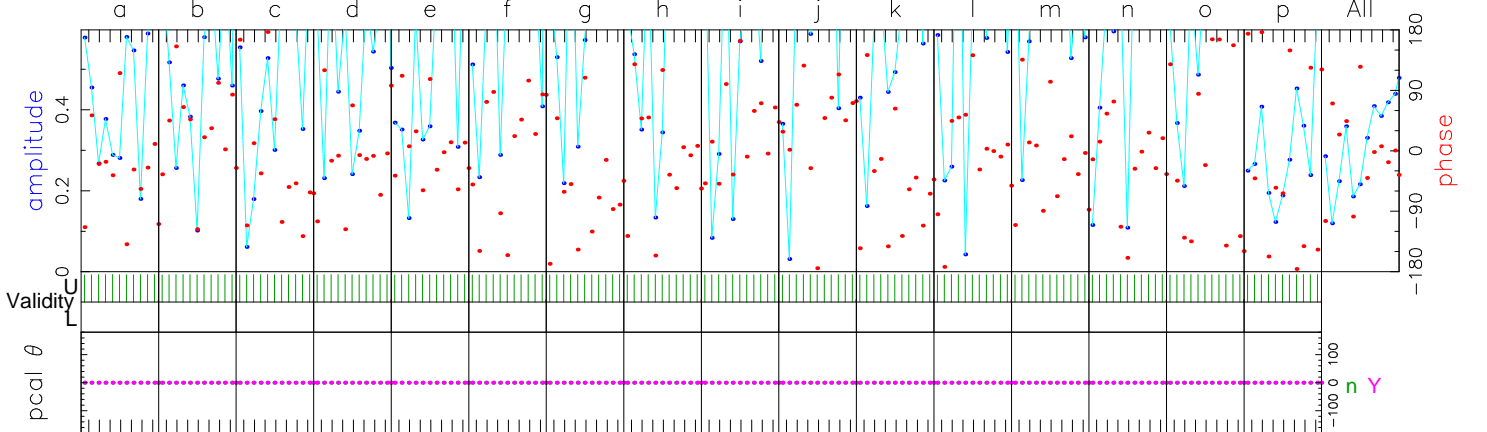


Fringe quality 9

SNR 10.9
Int time 400.905
Amp 0.199
Phase -3.9
PFD 5.3e-19
Delays (us)
SBD -0.000631
MBD -0.006729
Fringe rate (Hz) 0.024288
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100848
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

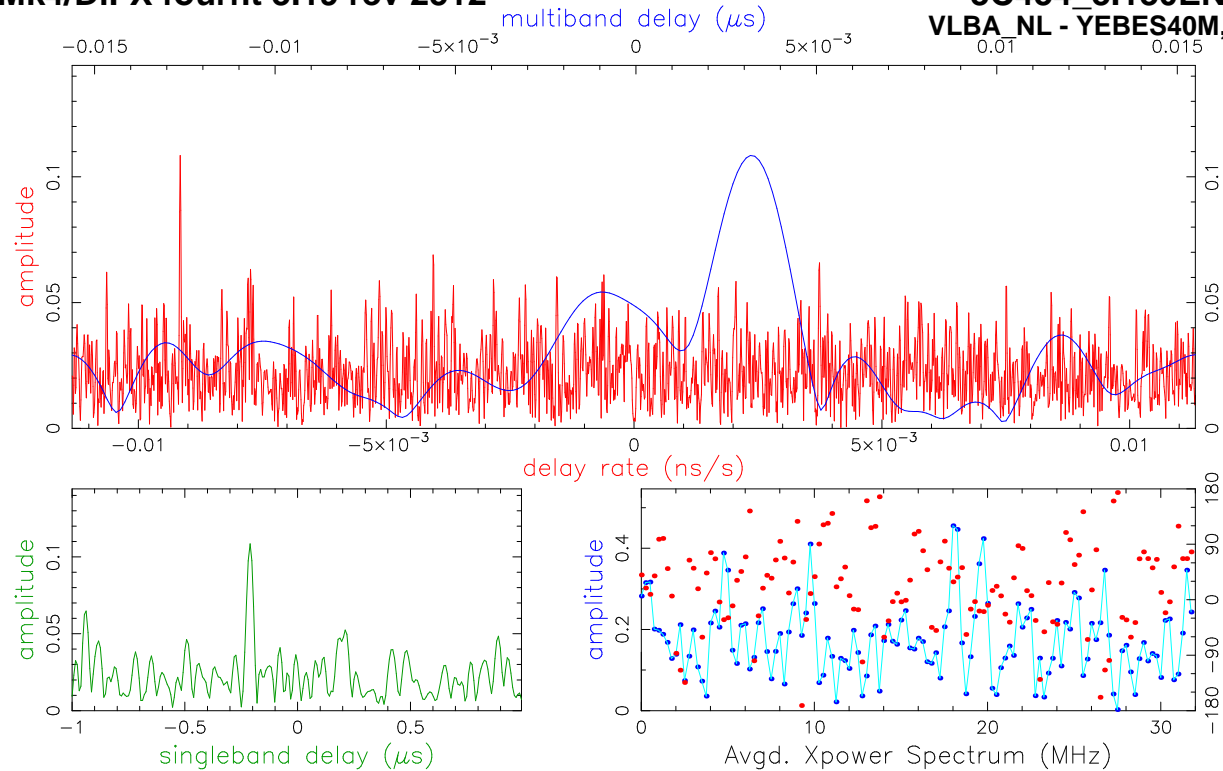


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-31.2	34.8	-80.4	-28.0	2.7	59.9	-75.5	-3.5	35.4	74.8	-65.6	4.8	-24.7	4.5	-167.0	-166.1	Phase	-3.9
	0.2	0.3	0.2	0.4	0.4	0.3	0.3	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.3	0.2	Ampl.	0.3
	248.2	129.0	128.5	128.2	129.6	128.0	128.5	129.2	129.1	128.9	129.0	129.5	128.7	128.1	128.5	125.7	Sbd box	128.9
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	
n	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	
n: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	
n: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		
n	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) 6.50845997133E+02 Apriori delay (usec) 6.50852726101E+02 Resid mbdelay (usec) -6.72897E-03 +/- 9.9E-05
 Sband delay (usec) 6.50852095601E+02 Apriori clock (usec) 1.6843861E+01 Resid sbdelay (usec) -6.30500E-04 +/- 1.6E-03
 Phase delay (usec) 6.50852725973E+02 Apriori clockrate (us/s) -8.5776492E-08 Resid phdelay (usec) -1.27224E-07 +/- 3.4E-07
 Delay rate (us/s) 1.56692598502E+00 Apriori rate (us/s) 1.56692570306E+00 Resid rate (us/s) 2.81958E-07 +/- 1.5E-09
 Total phase (deg) 293.5 Apriori accel (us/s/s) -2.85586587041E-06 Resid phase (deg) -3.9 +/- 10.5

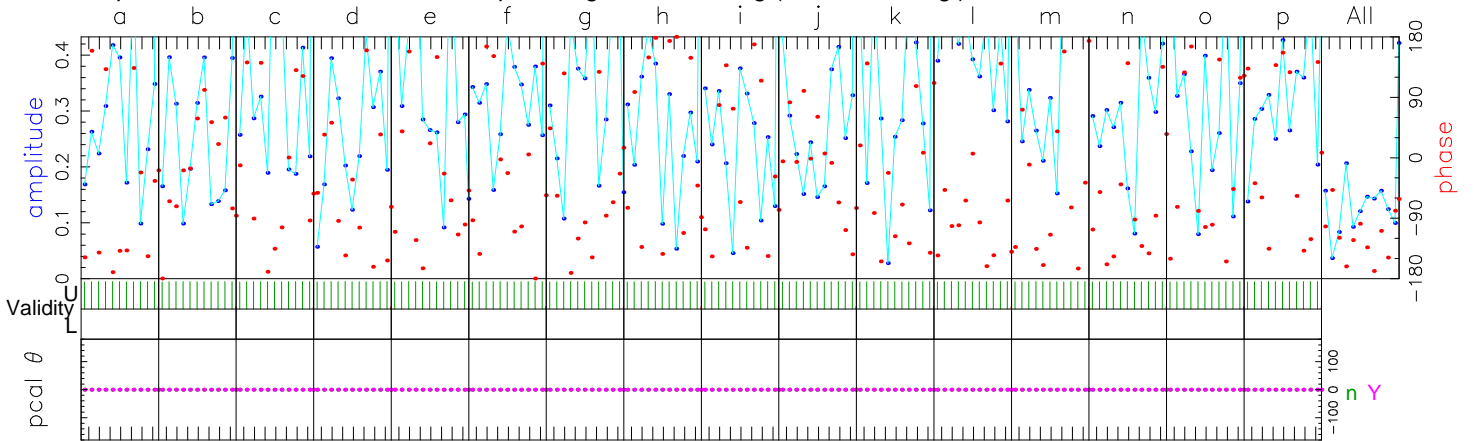
RMS Theor. Amplitude 0.199 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 64.3 18.2 Search (2048X64) 0.191 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 75.3 31.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 77.0 21.0 Inc. seg. avg. 0.293 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 90.8 36.7 Inc. frq. avg. 0.335 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 111.2 el 45.0 pa -46.3 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -9350.436 129.783 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/nY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/nY.W.275.130EN2



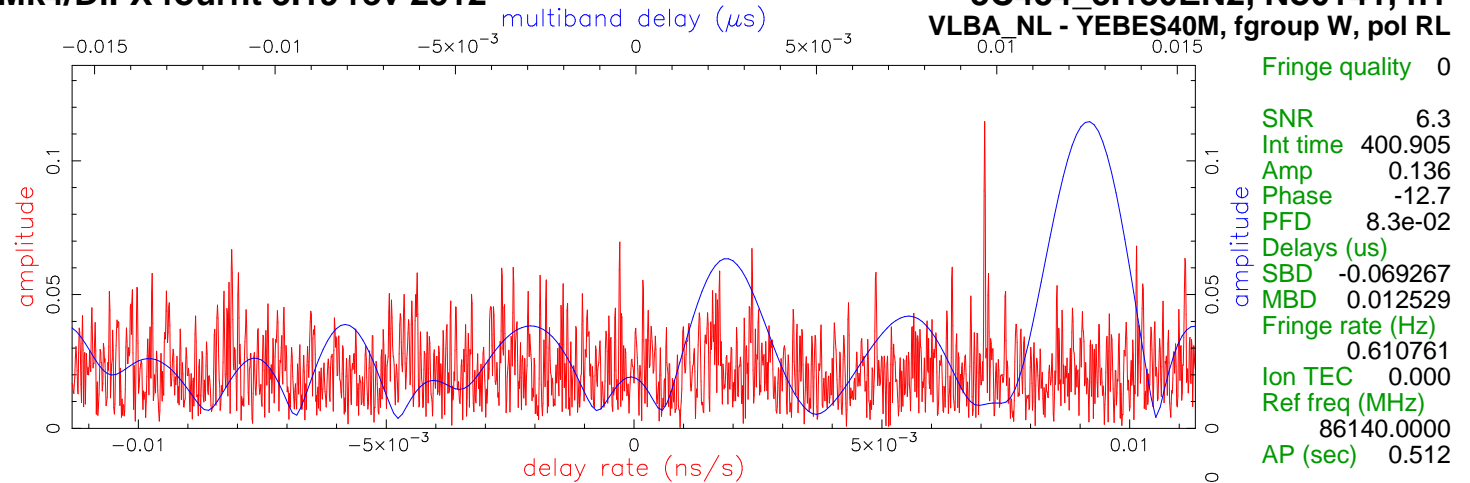
Fringe quality 0
SNR 5.9
Int time 400.905
Amp 0.144
Phase -124.1
PFD 5.2e-01
Delays (us)
SBD -0.210829
MBD 0.003205
Fringe rate (Hz)
-0.789586
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100853
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

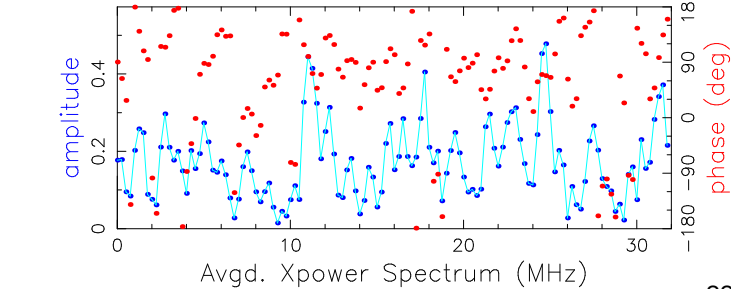
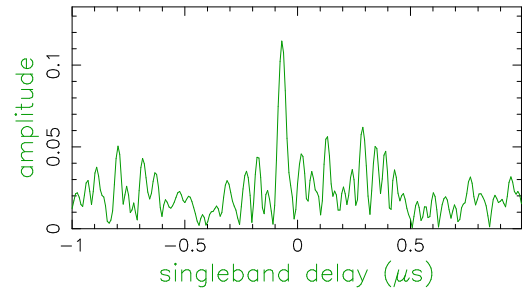


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-166.4	-15.9	-152.6	-135.5	-113.9	-114.4	-98.1	-165.2	-141.1	-18.7	-100.6	-101.3	-121.4	-128.9	-158.2	-142.4	Phase	-124.1
	0.2	0.1	0.2	0.0	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.3	0.2	0.2	0.2	0.2	Ampl.	0.1
	49.7	83.1	228.7	190.5	20.5	156.5	250.0	77.2	196.5	144.7	13.0	8.6	104.0	207.3	74.3	134.8	Sbd box	102.0
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	
n	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	
n: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	
n: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	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	6.50637180801E+02			Apriori delay (usec)			6.50852726101E+02			Resid mbdelay (usec)			3.20470E-03			+/- 1.8E-04		
Sband delay (usec)	6.50641897101E+02			Apriori clock (usec)			1.6843861E+01			Resid sbdelay (usec)			-2.10829E-01			+/- 2.9E-03		
Phase delay (usec)	6.50852722100E+02			Apriori clockrate (us/s)			-8.5776492E-08			Resid phdelay (usec)			-4.00084E-06			+/- 6.2E-07		
Delay rate (us/s)	1.56691653675E+00			Apriori rate (us/s)			1.56692570306E+00			Resid rate (us/s)			-9.16631E-06			+/- 2.7E-09		
Total phase (deg)	173.4			Apriori accel (us/s/s)			-2.85586587041E-06			Resid phase (deg)			-124.1			+/- 19.3		

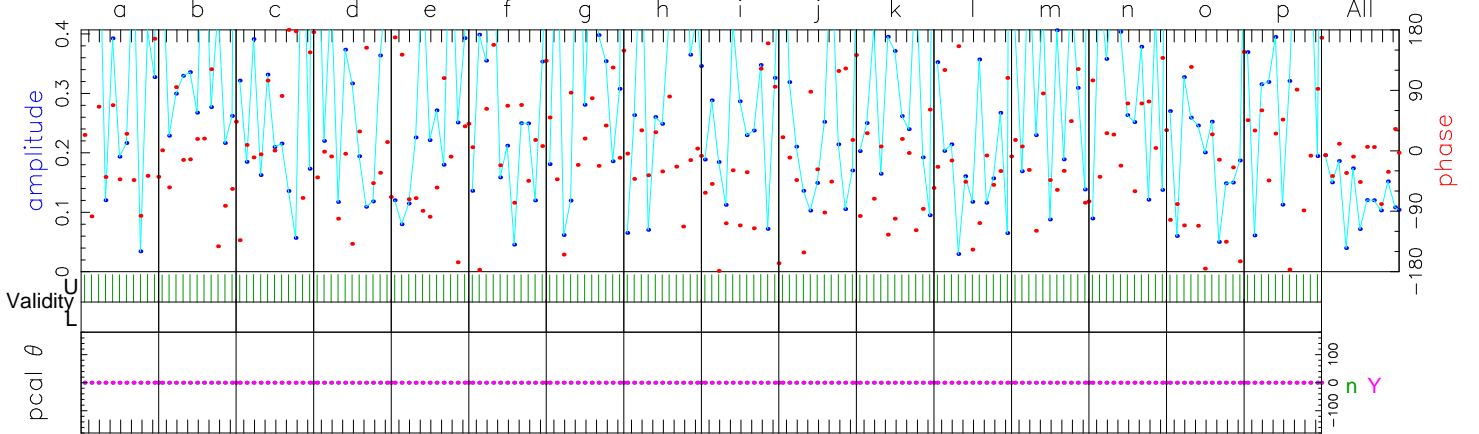
ph/seg (deg) 35.1 33.4 Search (2048X64) 0.107 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 49.4 58.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 47.0 38.6 Inc. seg. avg. 0.144 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 51.0 67.3 Inc. frq. avg. 0.148 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
n: az 111.2 el 45.0 pa -46.3 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -9350.436 129.783 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/nY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/nY.W.294.130EN2



Fringe quality 0
SNR 6.3
Int time 400.905
Amp 0.136
Phase -12.7
PFD 8.3e-02
Delays (us)
SBD -0.069267
MBD 0.012529
Fringe rate (Hz) 0.610761
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build 2020:079:134246
2020:086:100857
2020:014:135814
RA & Dec (J2000) 22h53m57.747940s
+16°08'53.560909"

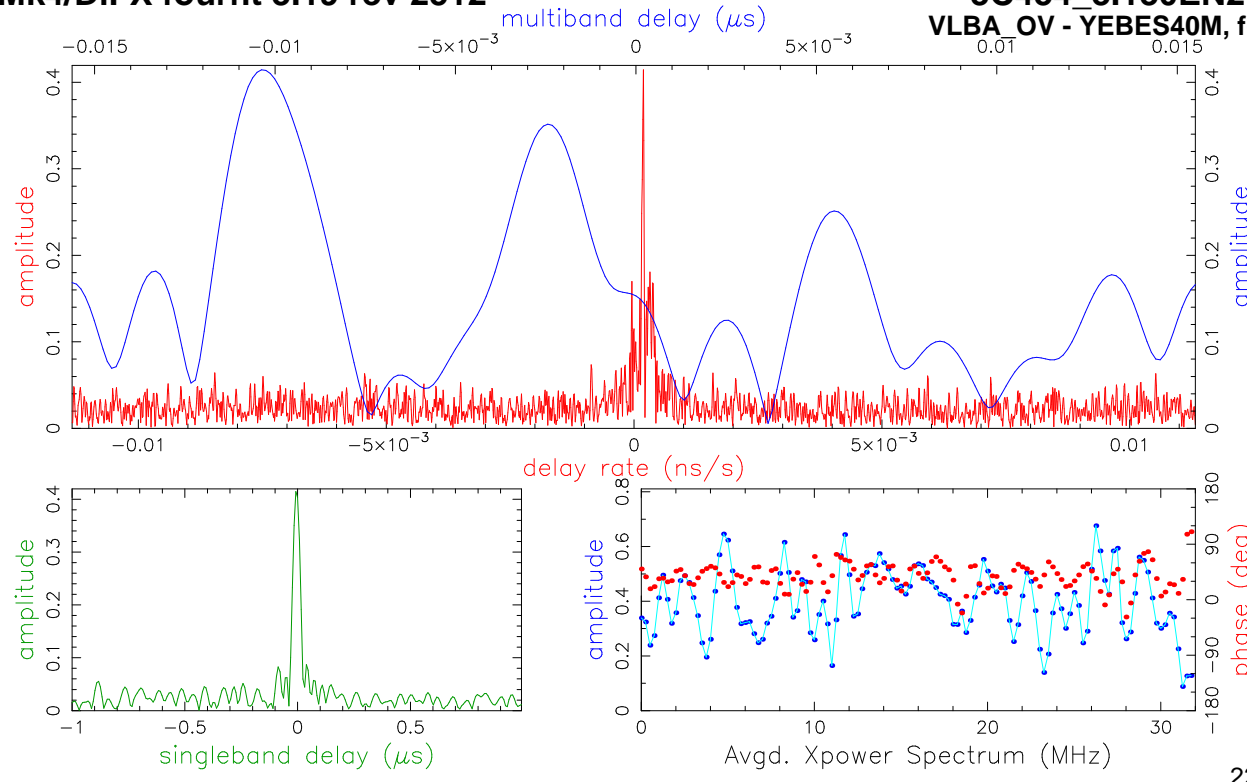


Amp. and Phase vs. time for each freq., 12 segs, 71 APs / seg (36.35 sec / seg.), time ticks 60 sec



	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
UL	-0.8	-5.0	-28.0	-22.4	-50.1	69.3	9.9	-11.9	-82.6	-9.9	-72.2	-40.9	-0.5	16.2	-124.1	26.5	Phase	-12.7
n	0.2	0.2	0.1	0.3	0.1	0.1	0.3	0.3	0.1	0.2	0.2	0.1	0.2	0.3	0.1	0.2	Ampl.	0.1
Y	22.5	117.8	197.5	205.7	102.2	30.5	38.9	121.3	15.4	127.7	164.5	177.8	106.4	5.9	30.8	141.1	Sbd box	120.1
n	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	
n: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	
n: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	
n	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		
n	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	
																	Tracks	
Group delay (usec)(sbd)	6.50771505446E+02			Apriori delay (usec)			6.50852726101E+02			Resid mbdelay (usec)			1.25293E-02			+/-	1.7E-04	
Sband delay (usec)	6.50783459101E+02			Apriori clock (usec)			1.6843861E+01			Resid sbdelay (usec)			-6.92670E-02			+/-	2.7E-03	
Phase delay (usec)	6.50852725692E+02			Apriori clockrate (us/s)			-8.5776492E-08			Resid phdelay (usec)			-4.08666E-07			+/-	5.9E-07	
Delay rate (us/s)	1.56693279339E+00			Apriori rate (us/s)			1.56692570306E+00			Resid rate (us/s)			7.09033E-06			+/-	2.5E-09	
Total phase (deg)	284.8			Apriori accel (us/s/s)			-2.85586587041E-06			Resid phase (deg)			-12.7			+/-	18.2	

ph/seg (deg) 30.4 31.6 Search (2048X64) 0.136 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 41.7 55.1 Interp. 0.108 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 48.8 36.4 Inc. seg. avg. 0.132 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 54.3 63.6 Inc. frq. avg. 0.138 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
n: az 111.2 el 45.0 pa -46.3 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -9350.436 129.783 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/nY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/nY.W.310.130EN2 simultaneous interpolator

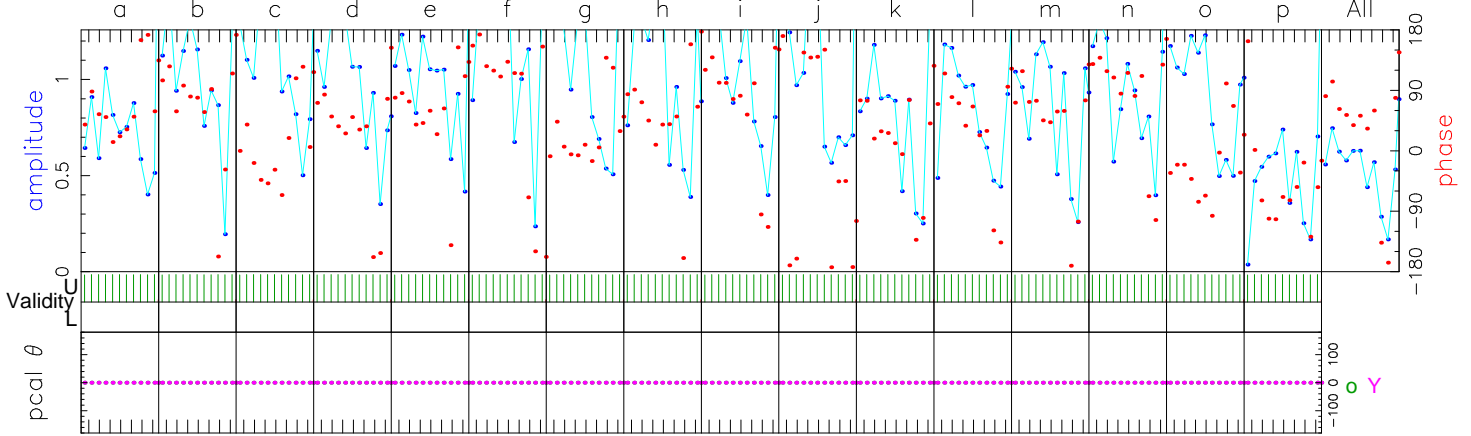


Fringe quality 5

SNR 23.0
Int time 400.784
Amp 0.420
Phase 67.4
PFD 0.0e+00
Delays (us)
SBD -0.005015
MBD -0.010299
Fringe rate (Hz) 0.016165
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100841
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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	
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			
o	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			
o: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			
o: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			
o	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			
o	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)			-5.16590989415E+03																
Sband delay (usec)			-5.16590461032E+03																
Phase delay (usec)			-5.16589959264E+03																
Delay rate (us/s)			1.92721693679E+00																
Total phase (deg)					32.3														
Apriori delay (usec)																			
Apriori clock (usec)																			
Apriori clockrate (us/s)																			
Apriori rate (us/s)																			
Apriori accel (us/s/s)																			
Resid mbdelay (usec)																			
Resid sbdelay (usec)																			
Resid phdelay (usec)																			
Resid rate (us/s)																			
Resid phase (deg)																			

ph/seg (deg) 63.6 8.6
amp/seg (%) 46.3 15.1
ph/frq (deg) 65.4 10.0
amp/frq (%) 74.4 17.4

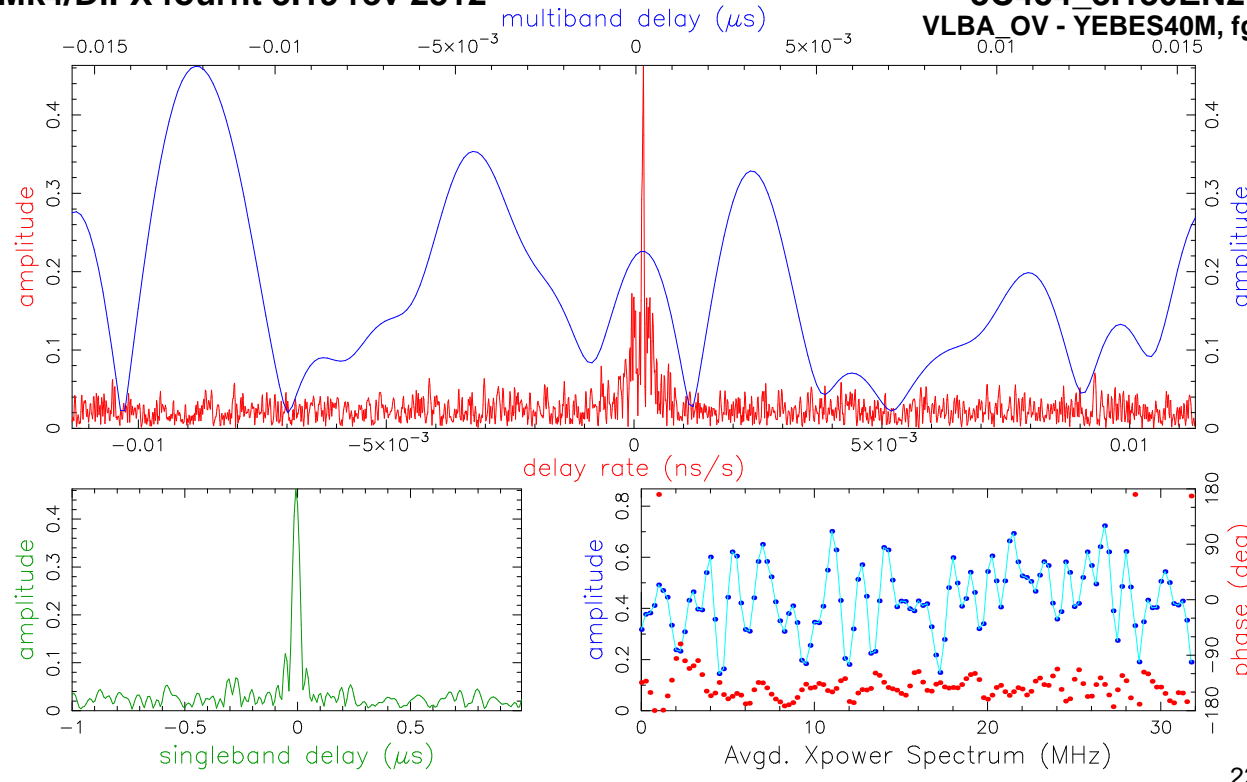
RMS Theor. Amplitude 0.420 +/- 0.018
Search (2048X64) 0.412
Interp. 0.000
Inc. seg. avg. 0.521
Inc. frq. avg. 0.695

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

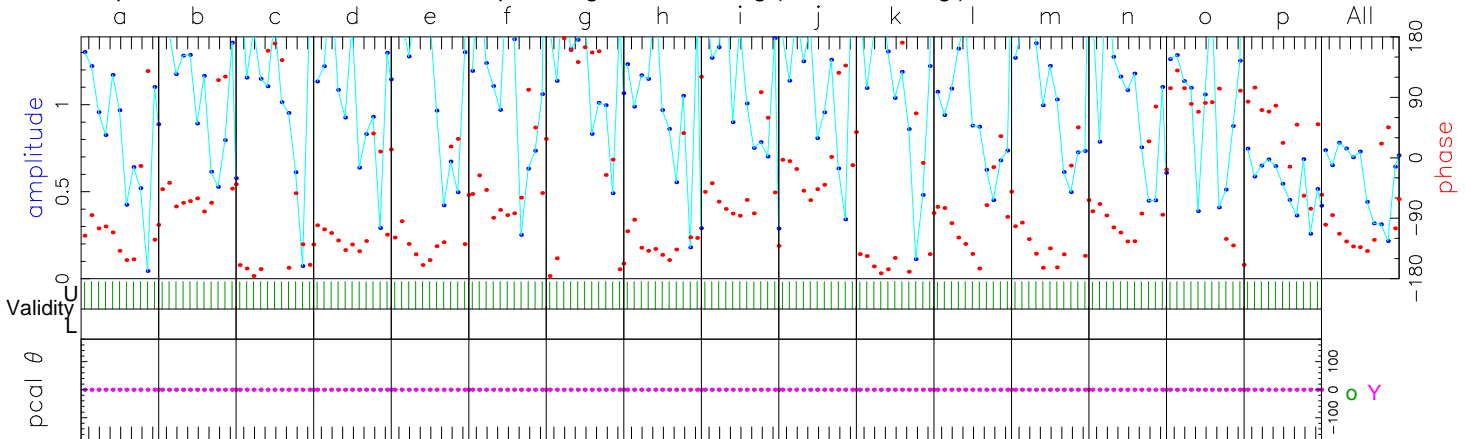
o: az 88.4 el 25.5 pa -56.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11452.796 286.449 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/oY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/oY.W.251.130EN2



Fringe quality 5
SNR 25.4
Int time 400.784
Amp 0.463
Phase -112.4
PFD 0.0e+00
Delays (us)
SBD -0.006682
MBD -0.012170
Fringe rate (Hz) 0.016185
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100847
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

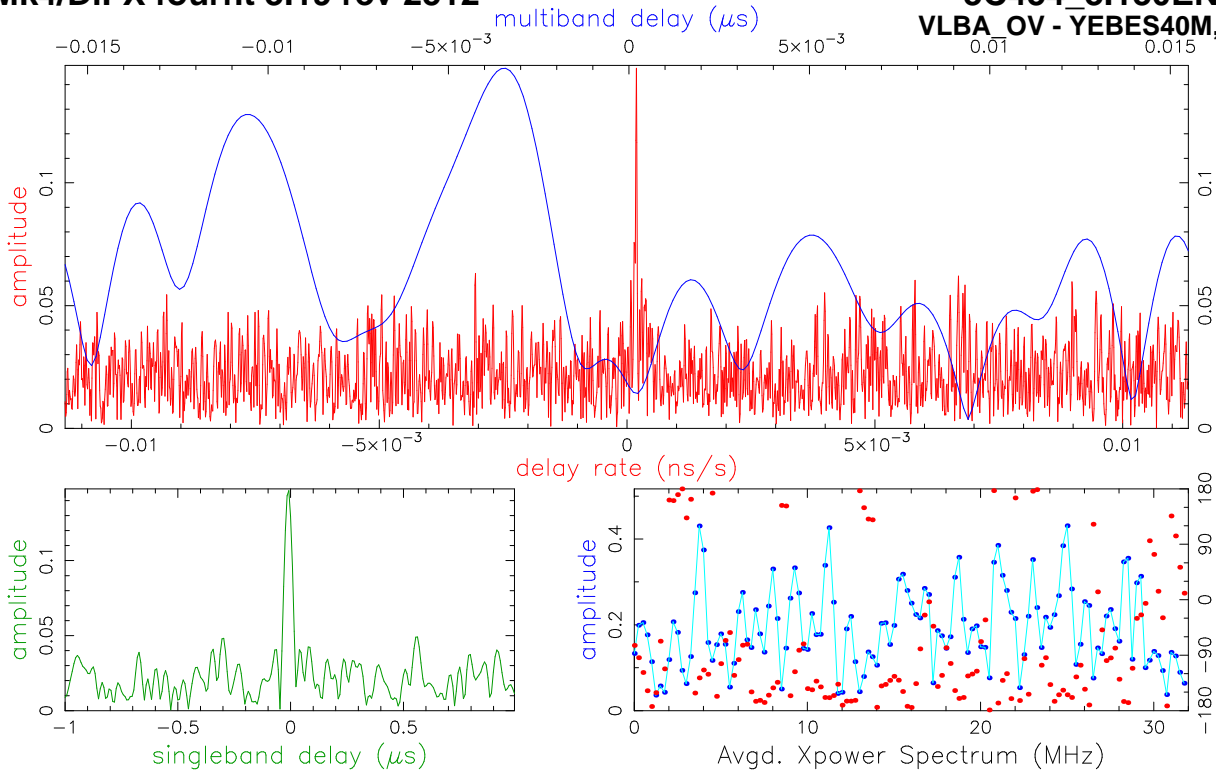


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-112.4	-58.1	-171.2	-114.5	-127.7	-56.6	174.5	-126.6	-60.7	-20.3	-158.0	-100.5	-126.8	-93.3	104.4	51.1		Phase -112.4
	0.7	0.8	1.0	0.8	0.9	0.8	0.9	0.8	0.9	1.0	0.7	0.8	0.9	0.7	0.4	0.4		Ampl. 0.8
	128.3	128.1	128.0	128.0	128.2	128.1	128.2	128.4	128.0	127.9	127.8	128.1	128.2	127.7	127.4	125.2		Sbd box 128.1
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
o	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
o: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
o: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
o	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) -5.16591176477E+03 Apriori delay (usec) -5.16589959482E+03 Resid mbdelay (usec) -1.21700E-02 +/- 4.3E-05
 Sband delay (usec) -5.16590627682E+03 Apriori clock (usec) 6.9865541E+00 Resid sbdelay (usec) -6.68200E-03 +/- 6.8E-04
 Phase delay (usec) -5.16589959844E+03 Apriori clockrate (us/s) -2.1901900E-07 Resid phdelay (usec) -3.62493E-06 +/- 1.5E-07
 Delay rate (us/s) 1.92721693702E+00 Apriori rate (us/s) 1.92721674913E+00 Resid rate (us/s) 1.87891E-07 +/- 6.3E-10
 Total phase (deg) -147.6 Apriori accel (us/s/s) 2.60943067624E-05 Resid phase (deg) -112.4 +/- 4.5

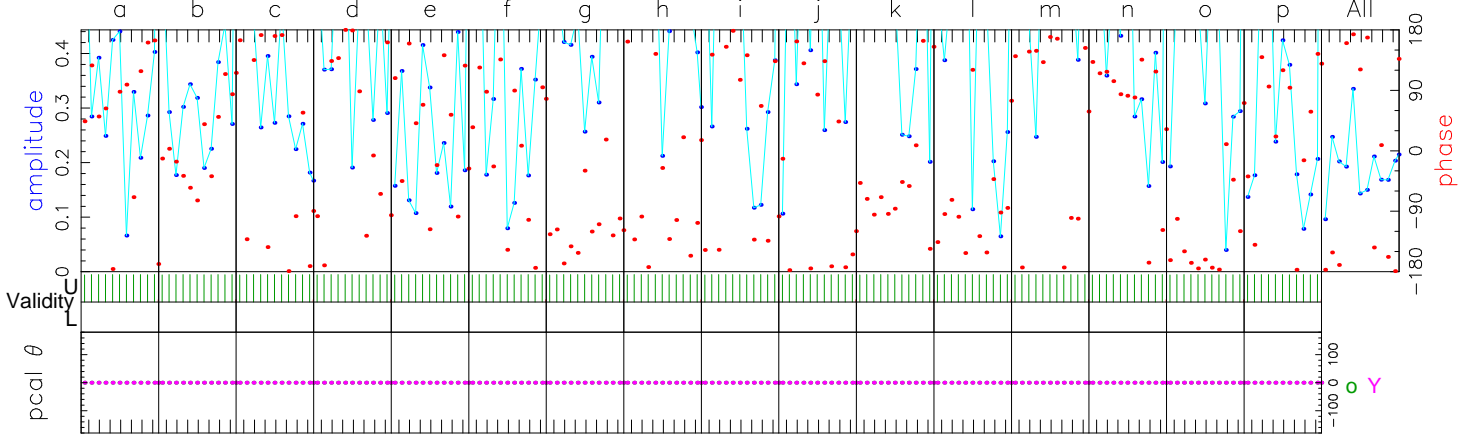
ph/seg (deg) RMS Theor. Amplitude 0.463 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.1 7.8 Search (2048X64) 0.461 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 48.6 13.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 73.9 9.0 Inc. seg. avg. 0.567 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 80.6 15.8 Inc. frq. avg. 0.799 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

o: az 88.4 el 25.5 pa -56.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11452.796 286.449 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/oY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/oY.W.273.130EN2



Fringe quality 9
SNR 8.1
Int time 400.784
Amp 0.148
Phase -178.1
PFD 2.0e-07
Delays (us)
SBD -0.010435
MBD -0.003417
Fringe rate (Hz) 0.016050
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100858
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

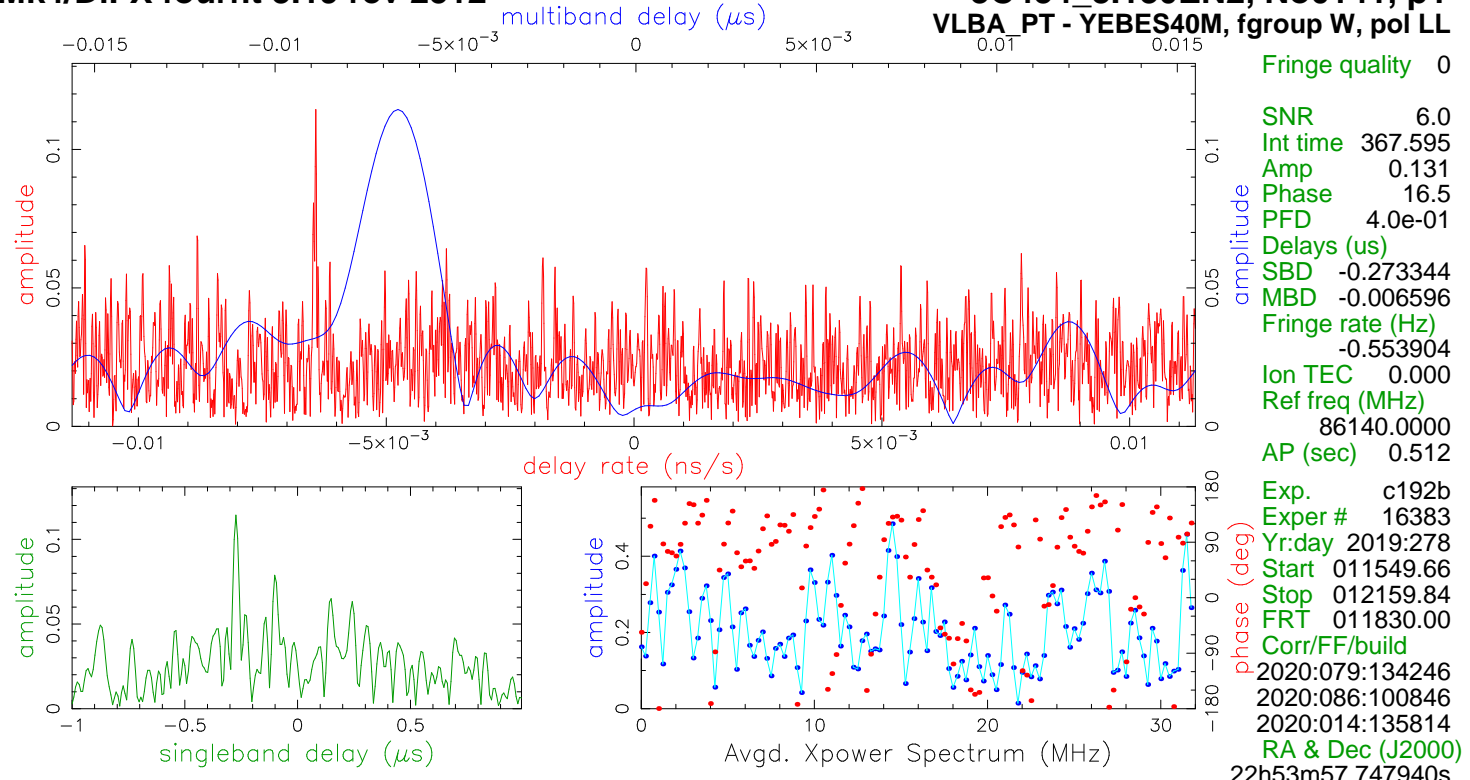


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
106.1	3.3	-177.3	-172.4	-24.9	97.0	-115.7	-141.0	173.9	151.8	-84.8	-119.2	169.4	109.7	-153.0	112.9	112.9	Phase	-178.1
0.2	0.2	0.3	0.2	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.2	Ampl.	0.2
3.5	247.9	162.9	62.4	114.8	37.8	128.4	128.1	128.8	127.6	127.9	127.6	127.3	127.9	128.0	201.2	201.2	Sbd box	127.7
UL	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
o	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	
o: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	
o: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	
o	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	
o	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	

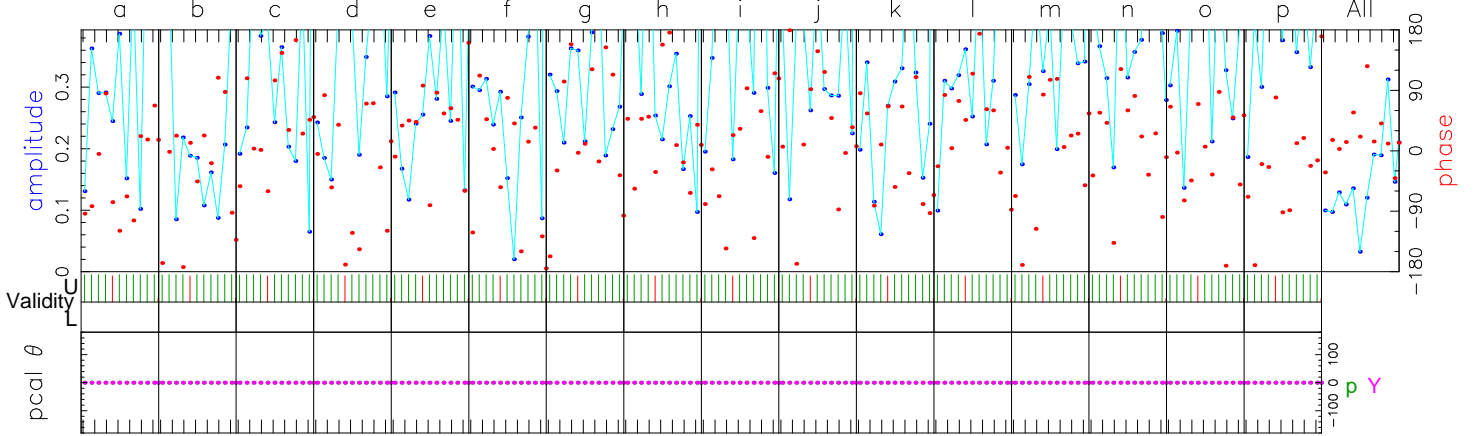
Group delay (usec)(sbd) -5.16590301162E+03 Apriori delay (usec) -5.16589959482E+03 Resid mbdelay (usec) -3.41680E-03 +/- 1.3E-04
 Sband delay (usec) -5.16591002982E+03 Apriori clock (usec) 6.9865541E+00 Resid sbdelay (usec) -1.04350E-02 +/- 2.1E-03
 Phase delay (usec) -5.16589960056E+03 Apriori clockrate (us/s) -2.1901900E-07 Resid phdelay (usec) -5.74334E-06 +/- 4.6E-07
 Delay rate (us/s) 1.92721693545E+00 Apriori rate (us/s) 1.92721674913E+00 Resid rate (us/s) 1.86322E-07 +/- 2.0E-09
 Total phase (deg) -213.3 Apriori accel (us/s/s) 2.60943067624E-05 Resid phase (deg) -178.1 +/- 14.2

RMS Theor. Amplitude 0.148 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 57.9 24.5 Search (2048X64) 0.145 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 50.2 42.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 83.5 28.3 Inc. seg. avg. 0.177 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 105.0 49.4 Inc. frq. avg. 0.237 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

o: az 88.4 el 25.5 pa -56.0 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11452.796 286.449 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/oY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/oY.W.313.130EN2



Amp. and Phase vs. time for each freq., 12 segs, 65 APs / seg (33.28 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				
	-30.3	-55.2	28.6	8.6	41.8	26.7	43.9	16.3	16.2	48.1	5.6	41.3	36.0	20.5	17.8	-26.6	Phase	16.5				
	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	Ampl.	0.1				
	116.6	1.7	163.0	146.0	50.5	231.6	47.1	146.7	146.8	3.2	188.9	5.4	48.4	202.8	148.0	33.7	Sbd box	94.0				
U/L	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	APs used					
p	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					
p: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					
p: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					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
p	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)			-2.51090043324E+03														Apriori delay (usec)	-2.51061258749E+03	Resid mbdelay (usec)	-6.59576E-03	+/-	1.8E-04
Sband delay (usec)			-2.51088593099E+03														Apriori clock (usec)	2.2821407E+08	Resid sbdelay (usec)	-2.73344E-01	+/-	2.9E-03
Phase delay (usec)			-2.51061258695E+03														Apriori clockrate (us/s)	-1.6113413E-08	Resid phdelay (usec)	5.33672E-07	+/-	6.2E-07
Delay rate (us/s)			1.87278215601E+00														Apriori rate (us/s)	1.87278858629E+00	Resid rate (us/s)	-6.43028E-06	+/-	2.9E-09
Total phase (deg)																	Apriori accel (us/s/s)	1.06433837979E-05	Resid phase (deg)	16.5	+/-	19.1

ph/seg (deg) RMS Theor. Amplitude 0.131 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

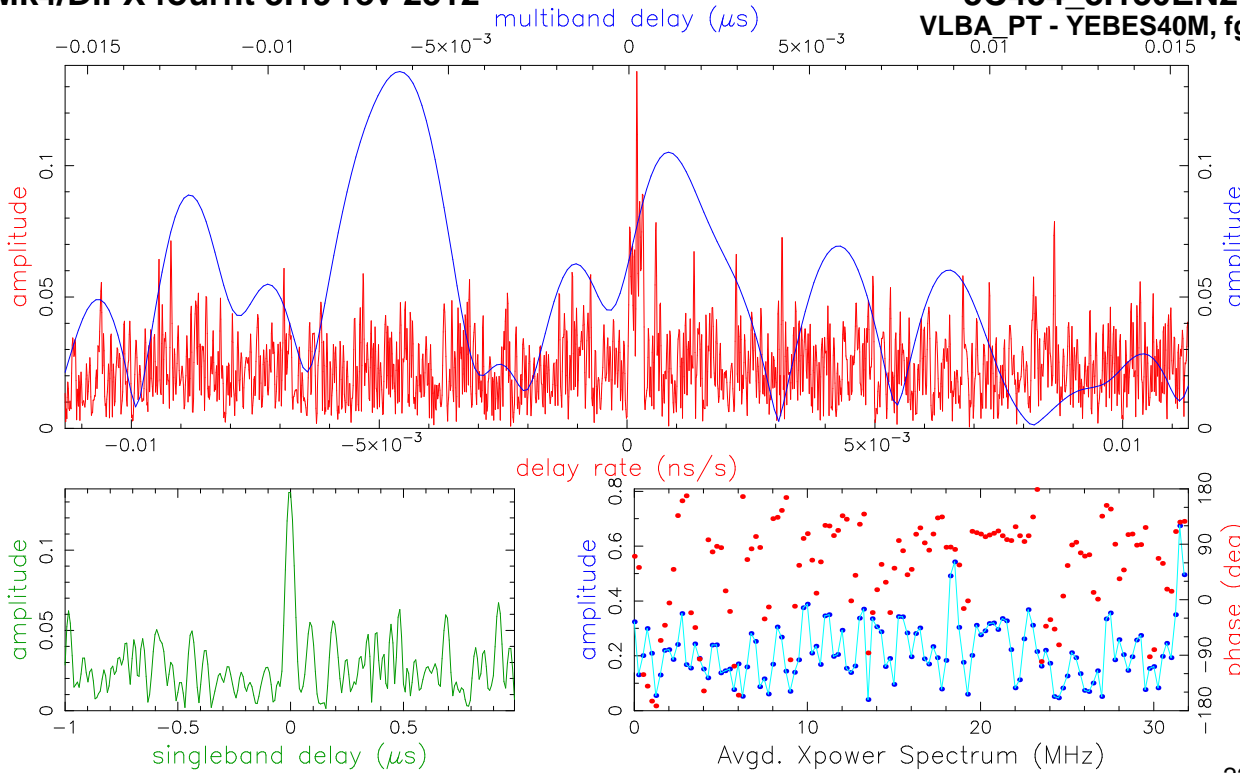
amp/seg (%) 64.7 57.7 Search (2048X64) 0.111 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 30.5 38.2 Inc. seg. avg. 0.140 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 46.3 66.7 Inc. frq. avg. 0.119 Data rate (Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

p: az 92.7 el 33.7 pa -59.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11153.355 -421.311 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/pY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/pY.W.267.130EN2

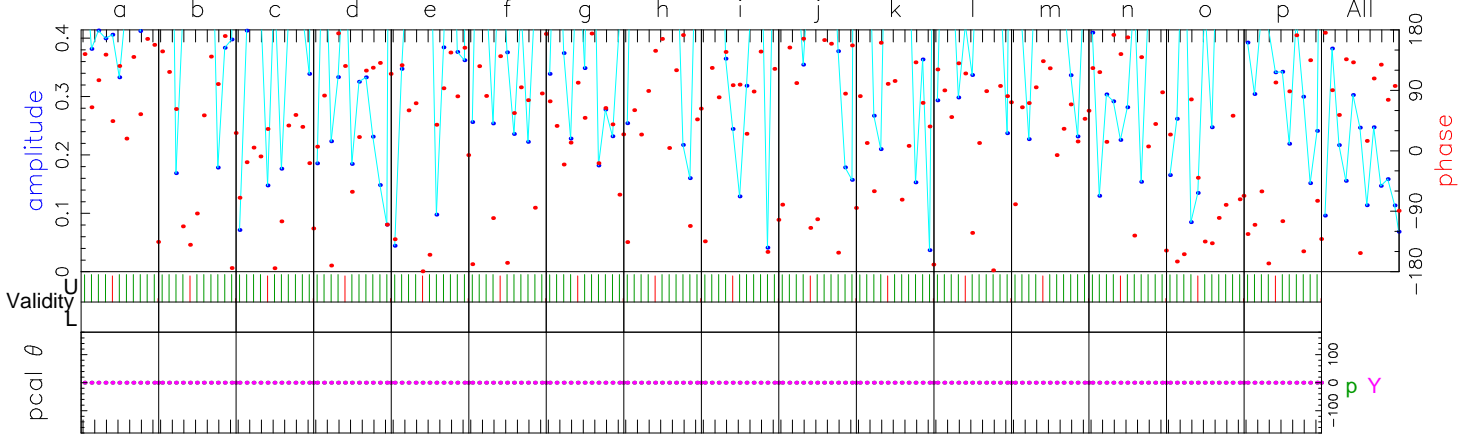


Fringe quality 0

SNR 7.2
Int time 367.594
Amp 0.138
Phase 110.2
PFD 1.4e-04
Delays (us)
SBD -0.003894
MBD -0.006369
Fringe rate (Hz)
0.017404
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011549.66
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100852
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 65 APs / seg (33.28 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	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0								
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000								
p: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								
p	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)			-2.51061895690E+03															Apriori delay (usec)	-2.51061258749E+03	Resid mbdelay (usec)	-6.36941E-03	+/-	1.5E-04	
Sband delay (usec)			-2.51061648199E+03																Apriori clock (usec)	2.2821407E+00	Resid sbdelay (usec)	-3.89450E-03	+/-	2.4E-03
Phase delay (usec)			-2.51061258393E+03																Apriori clockrate (us/s)	-1.6113413E-08	Resid phdelay (usec)	3.55306E-06	+/-	5.1E-07
Delay rate (us/s)			1.87278878833E+00																Apriori rate (us/s)	1.87278858629E+00	Resid rate (us/s)	2.02037E-07	+/-	2.4E-09
Total phase (deg)																			Apriori accel (us/s/s)	1.06433837979E-05	Resid phase (deg)	110.2	+/-	15.8

ph/seg (deg) 54.2 27.4
amp/seg (%) 75.4 47.8
ph/frq (deg) 68.0 31.6
amp/frq (%) 78.0 55.2

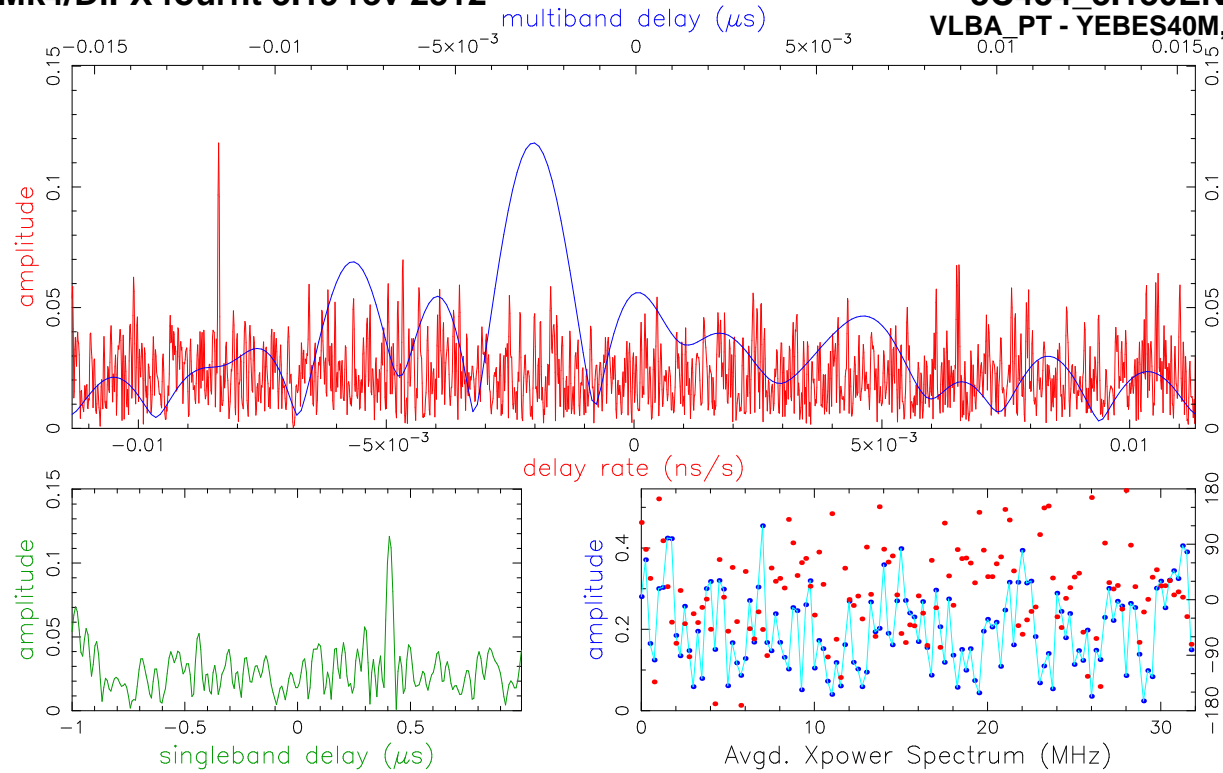
RMS Theor. Amplitude 0.138 +/- 0.019
Search (2048X64) 0.134
Interp. 0.000
Inc. seg. avg. 0.176
Inc. frq. avg. 0.201

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

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

p: az 92.7 el 33.7 pa -59.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11153.355 -421.311 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/pY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/pY.W.291.130EN2

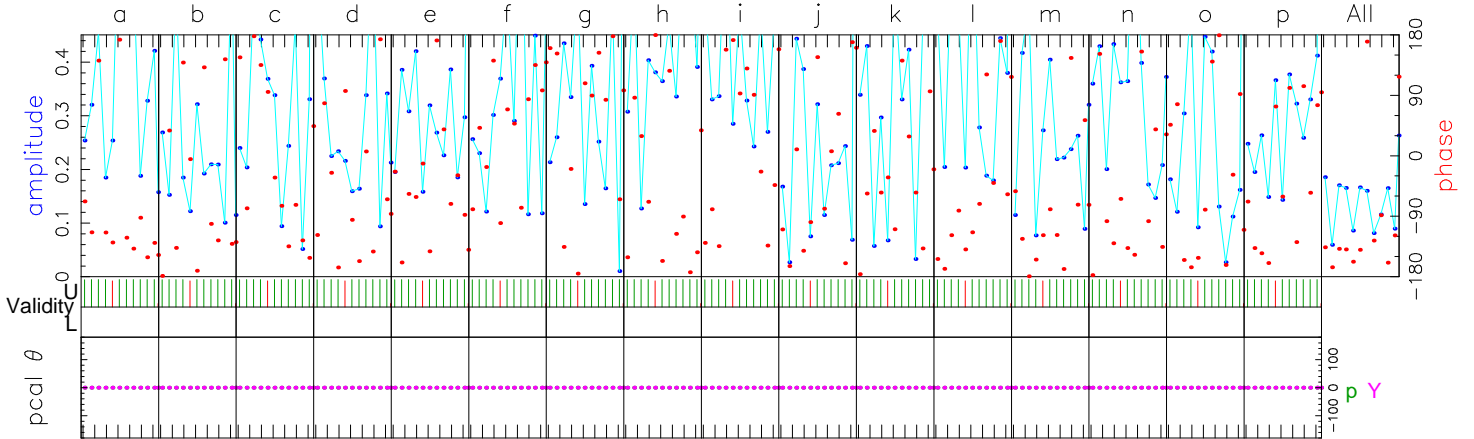


Fringe quality 0

SNR 6.2
Int time 367.595
Amp 0.150
Phase -144.2
PFD 1.2e-01
Delays (us)
SBD 0.407788
MBD -0.002806
Fringe rate (Hz)
-0.722536
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011549.66
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100856
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 65 APs / seg (33.28 sec / seg.), time ticks 60 sec

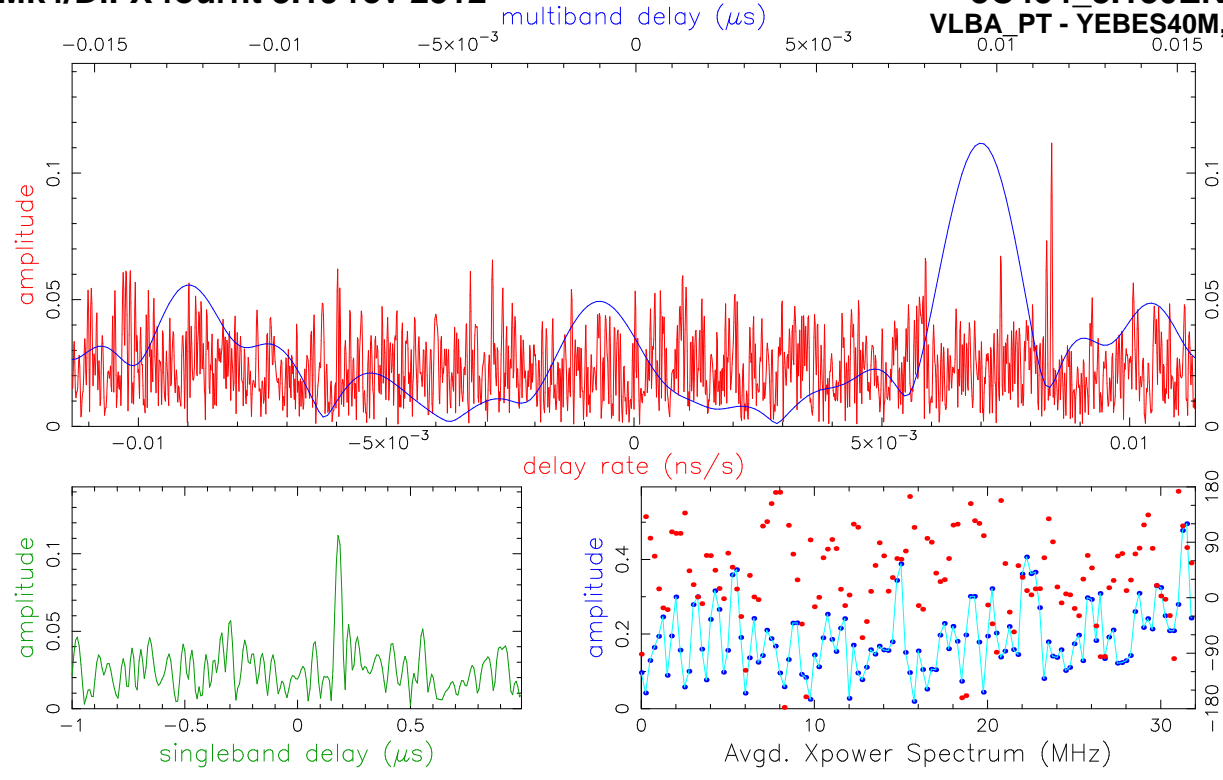


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-141.1	-152.6	-159.3	-117.9	-82.9	46.4	159.3	-157.0	-161.2	-162.0	-109.8	-120.8	-129.3	-148.3	-167.8	131.3	Phase	-144.2				
	0.4	0.2	0.1	0.1	0.2	0.0	0.2	0.2	0.1	0.0	0.1	0.3	0.2	0.3	0.1	0.1	Ampl.	0.1				
	181.7	49.9	228.7	9.6	73.0	4.6	55.6	255.5	106.8	12.9	13.2	181.3	173.8	181.3	20.7	223.6	Sbd box	181.2				
U/L	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	APs used					
p	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					
p: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					
p: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					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
p	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)			-2.51020914353E+03														Apriori delay (usec)	-2.51061258749E+03	Resid mbdelay (usec)	-2.80604E-03	+/-	1.7E-04
Sband delay (usec)			-2.51020479899E+03														Apriori clock (usec)	2.2821407E+08	Resid sbdelay (usec)	4.07788E-01	+/-	2.8E-03
Phase delay (usec)			-2.51061259214E+03														Apriori clockrate (us/s)	-1.6113413E-08	Resid phdelay (usec)	-4.65005E-06	+/-	5.9E-07
Delay rate (us/s)			1.87278019836E+00														Apriori rate (us/s)	1.87278858629E+00	Resid rate (us/s)	-8.38793E-06	+/-	2.8E-09
Total phase (deg)																	Apriori accel (us/s/s)	1.06433837979E-05	Resid phase (deg)	-144.2	+/-	18.4

ph/seg (deg) 27.6 31.8 Theor. Amplitude 0.150 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 39.9 55.6 Search (2048X64) 0.114 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 58.0 36.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 71.1 64.3 Inc. seg. avg. 0.146 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 p: az 92.7 el 33.7 pa -59.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11153.355 -421.311 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/pY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/pY.W.306.130EN2 simultaneous interpolator

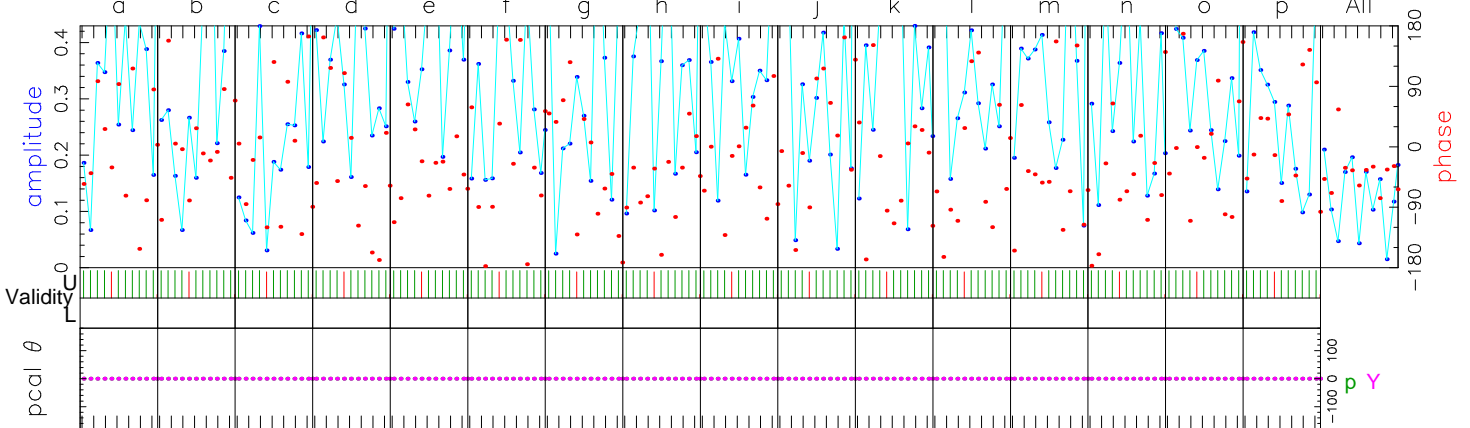
Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130EN2, No0141, pY
VLBA_PT - YEBES40M, fgroup W, pol RL



Fringe quality 0
SNR 5.9
Int time 367.594
Amp 0.143
Phase -42.1
PFD 5.8e-01
Delays (us)
SBD 0.181856
MBD 0.009545
Fringe rate (Hz) 0.727183
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011549.66
Stop 012159.84
FRT 011830.00
Corr/FF/build 2020:079:134246
2020:086:100900
2020:014:135814
RA & Dec (J2000) 22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 65 APs / seg (33.28 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				
	-26.0	-22.0	-20.4	-92.7	-36.0	-124.1	-72.3	-48.1	-25.5	20.4	-55.4	-101.5	-65.2	-49.2	-34.3	26.4	Phase	-42.1				
	0.1	0.3	0.0	0.1	0.4	0.0	0.1	0.3	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	Ampl.	0.1				
	193.9	90.6	29.7	84.1	151.2	145.8	169.0	153.3	158.3	236.7	184.8	34.6	242.2	84.9	184.0	105.8	Sbd box	152.3				
U/L	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	721/0	APs used					
p	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					
p: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					
p: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					
p	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)			-2.51041554255E+03														Apriori delay (usec)	-2.51061258749E+03	Resid mbdelay (usec)	9.54494E-03	+/-	1.8E-04
Sband delay (usec)			-2.51043073149E+03														Apriori clock (usec)	2.2821407E+08	Resid sbdelay (usec)	1.81856E-01	+/-	2.9E-03
Phase delay (usec)			-2.51061258884E+03														Apriori clockrate (us/s)	-1.6113413E-08	Resid phdelay (usec)	-1.35646E-06	+/-	6.3E-07
Delay rate (us/s)			1.87279702816E+00														Apriori rate (us/s)	1.87278858629E+00	Resid rate (us/s)	8.44187E-06	+/-	2.9E-09
Total phase (deg)																	Apriori accel (us/s/s)	1.06433837979E-05	Resid phase (deg)	-42.1	+/-	19.4

ph/seg (deg) 33.4 33.5
amp/seg (%) 55.9 58.5
ph/frq (deg) 42.0 38.8
amp/frq (%) 67.2 67.7

RMS Theor. Amplitude 0.143 +/- 0.024
Search (2048X64) 0.107
Interp. 0.000
Inc. seg. avg. 0.132
Inc. frq. avg. 0.135

Group delay (usec)(sbd) -2.51041554255E+03
Sband delay (usec) -2.51043073149E+03
Phase delay (usec) -2.51061258884E+03
Delay rate (us/s) 1.87279702816E+00
Total phase (deg) -145.1

Apriori delay (usec) -2.51061258749E+03
Apriori clock (usec) 2.2821407E+08
Apriori clockrate (us/s) -1.6113413E-08
Apriori rate (us/s) 1.87278858629E+00
Apriori accel (us/s/s) 1.06433837979E-05

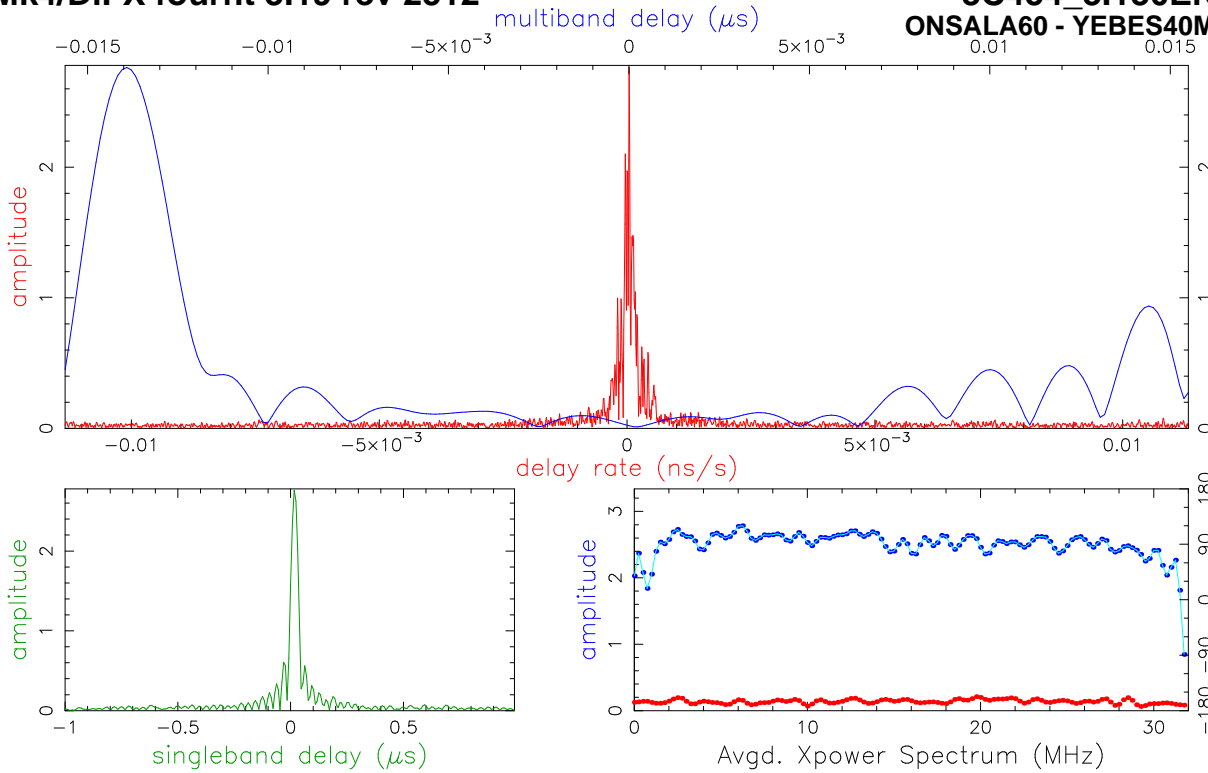
Resid mbdelay (usec) 9.54494E-03 +/- 1.8E-04
Resid sbdelay (usec) 1.81856E-01 +/- 2.9E-03
Resid phdelay (usec) -1.35646E-06 +/- 6.3E-07
Resid rate (us/s) 8.44187E-06 +/- 2.9E-09
Resid phase (deg) -42.1 +/- 19.4

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

p: az 92.7 el 33.7 pa -59.2 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -11153.355 -421.311 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/pY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/pY.W.319.130EN2

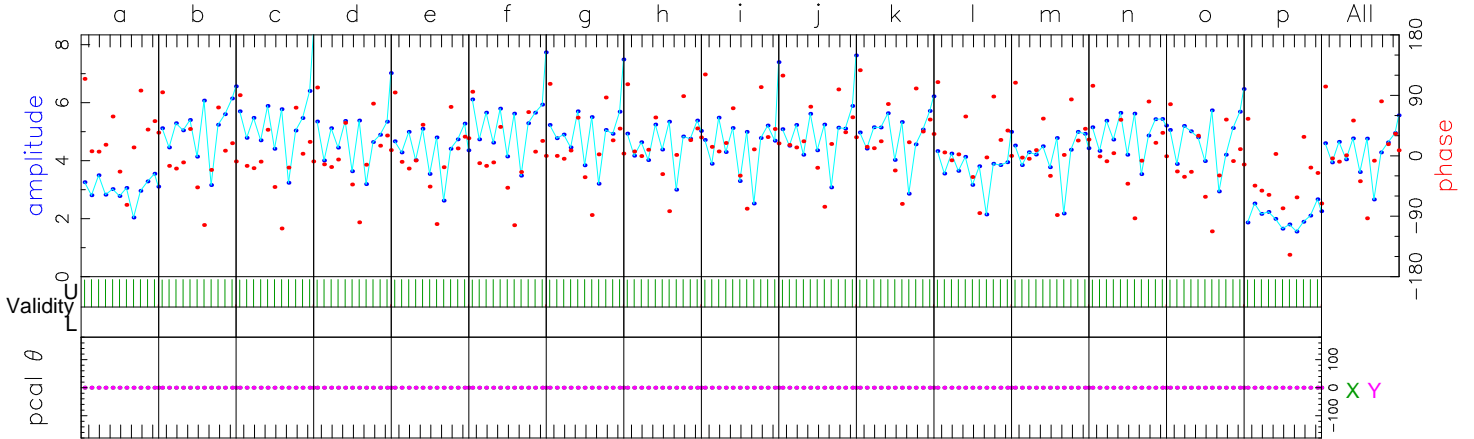


Fringe quality 4

SNR 152.4
 Int time 402.209
 Amp 2.779
 Phase 15.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.017560
 MBD -0.013906
 Fringe rate (Hz)
 0.003840
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

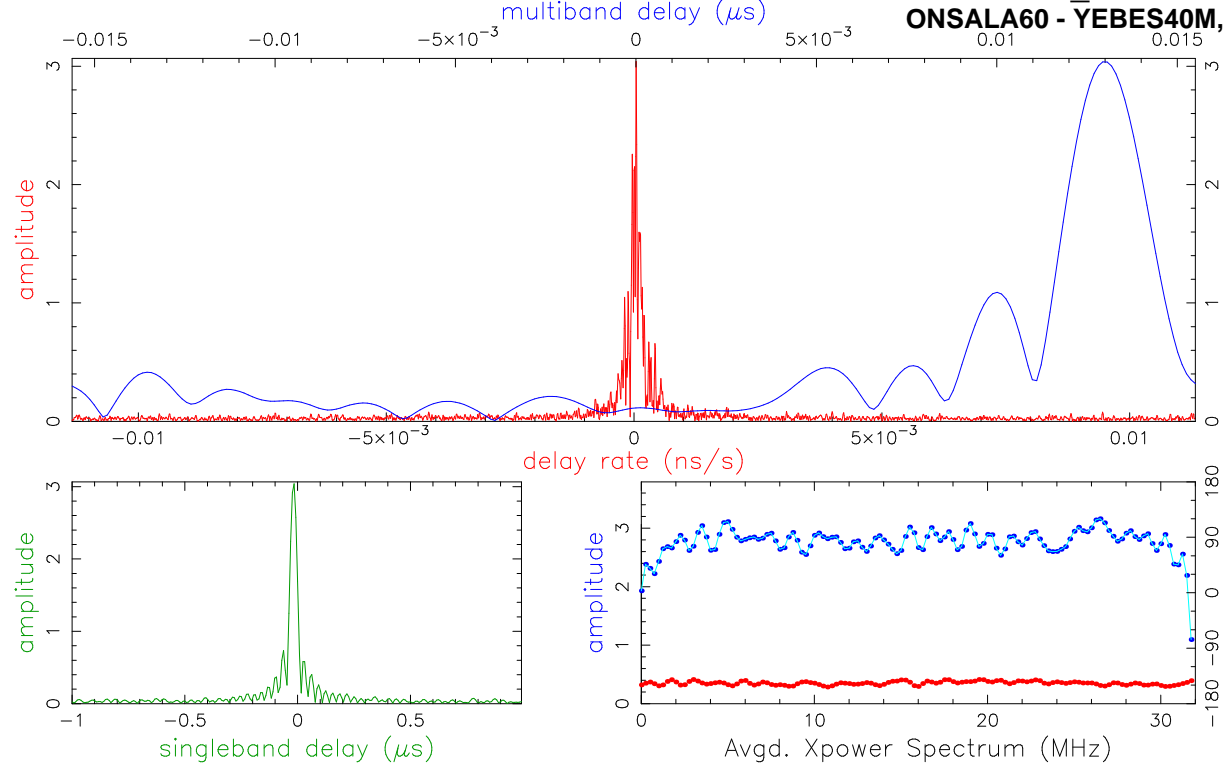
Exp. c192b
 Exper # 16383
 Yr:day 2019:278
 Start 011516.90
 Stop 012159.84
 FRT 011830.00
 Corr/FF/build
 2020:079:134246
 2020:086:100859
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

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				
	30.5	3.7	4.9	11.6	9.6	6.9	22.4	23.4	30.9	37.4	36.1	21.8	21.4	16.2	-9.5	-34.0	Phase	15.8				
	2.0	3.3	3.4	2.9	2.8	3.4	3.1	3.0	2.8	3.2	3.1	2.4	2.7	3.2	3.1	1.4	Ampl.	2.9				
	129.9	131.7	131.4	131.5	130.9	131.2	131.3	131.3	131.2	131.4	131.2	131.0	131.1	131.1	130.8	131.0	Sbd box	131.2				
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					
X	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					
X: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					
X: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					
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	PC amp					
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-4.28119484830E+03														Apriori delay (usec)	-4.28121219228E+03	Resid mbdelay (usec)	-1.39060E-02	+/-	7.1E-06
Sband delay (usec)			-4.28119463278E+03														Apriori clock (usec)	2.2706367E+01	Resid sbdelay (usec)	1.75595E-02	+/-	1.1E-04
Phase delay (usec)			-4.28121219177E+03														Apriori clockrate (us/s)	3.0800002E-07	Resid phdelay (usec)	5.10206E-07	+/-	2.4E-08
Delay rate (us/s)			1.13622076718E-01														Apriori rate (us/s)	1.13622032136E-01	Resid rate (us/s)	4.45817E-08	+/-	1.0E-10
Total phase (deg)					-71.5												Apriori accel (us/s/s)	2.89765932436E-05	Resid phase (deg)	15.8	+/-	0.8

ph/seg (deg) 51.9 1.3 Theor. Amplitude 2.779 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.6 2.3 Search (2048X64) 2.703 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 18.9 1.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 18.5 2.6 Inc. seg. avg. 4.272 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 2.865 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 X: az 253.2 el 29.6 pa 32.5 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -629.944 2308.202 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/XY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/XY.W.315.130EN2

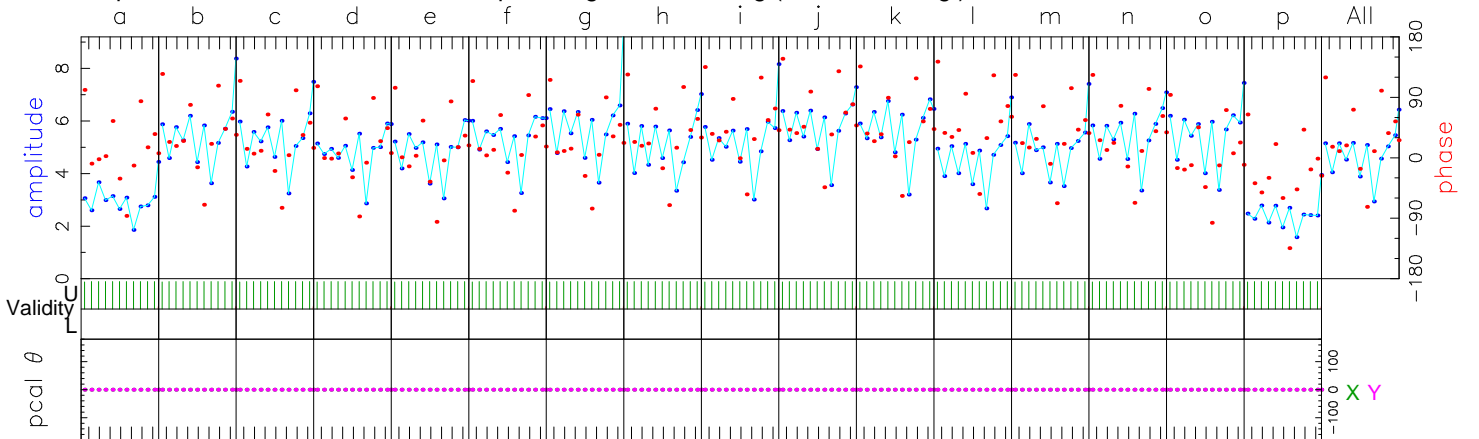


Fringe quality 3

SNR 168.2
 Int time 402.209
 Amp 3.066
 Phase 35.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.017918
 MBD 0.012973
 Fringe rate (Hz)
 0.003849
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

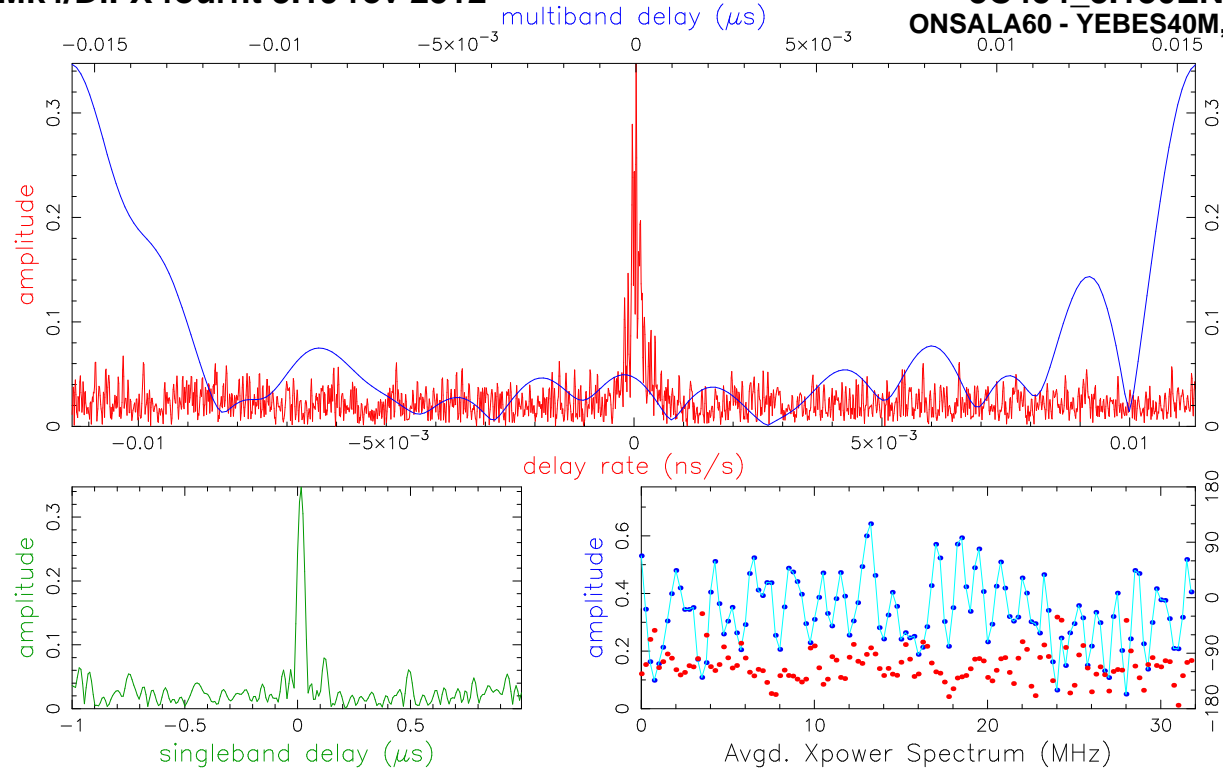
Exp. c192b
 Exper # 16383
 Yr:day 2019:278
 Start 011516.90
 Stop 012159.84
 FRT 011830.00
 Corr/FF/build
 2020:079:134246
 2020:086:100903
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

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					
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					
X	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					
X: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					
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	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)			-4.28123046889E+03															Apriori delay (usec)	-4.28121219228E+03	Resid mbdelay (usec)	1.29734E-02	+/-	6.4E-06
Sband delay (usec)			-4.28123010978E+03															Apriori clock (usec)	2.2706367E+01	Resid sbdelay (usec)	-1.79175E-02	+/-	1.0E-04
Phase delay (usec)			-4.28121219113E+03															Apriori clockrate (us/s)	3.0800002E-07	Resid phdelay (usec)	1.14446E-06	+/-	2.2E-08
Delay rate (us/s)			1.13622076825E-01															Apriori rate (us/s)	1.13622032136E-01	Resid rate (us/s)	4.46887E-08	+/-	9.4E-11
Total phase (deg)					-51.8													Apriori accel (us/s/s)	2.89765932436E-05	Resid phase (deg)	35.5	+/-	0.7

ph/seg (deg) 51.3 1.2 Theor. Amplitude 3.066 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 56.9 2.1 Search (2048X64) 2.991 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.8 1.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 20.1 2.4 Inc. seg. avg. 4.649 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 X: az 253.2 el 29.6 pa 32.5 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -629.944 2308.202 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/XY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/XY.W.330.130EN2 simultaneous interpolator

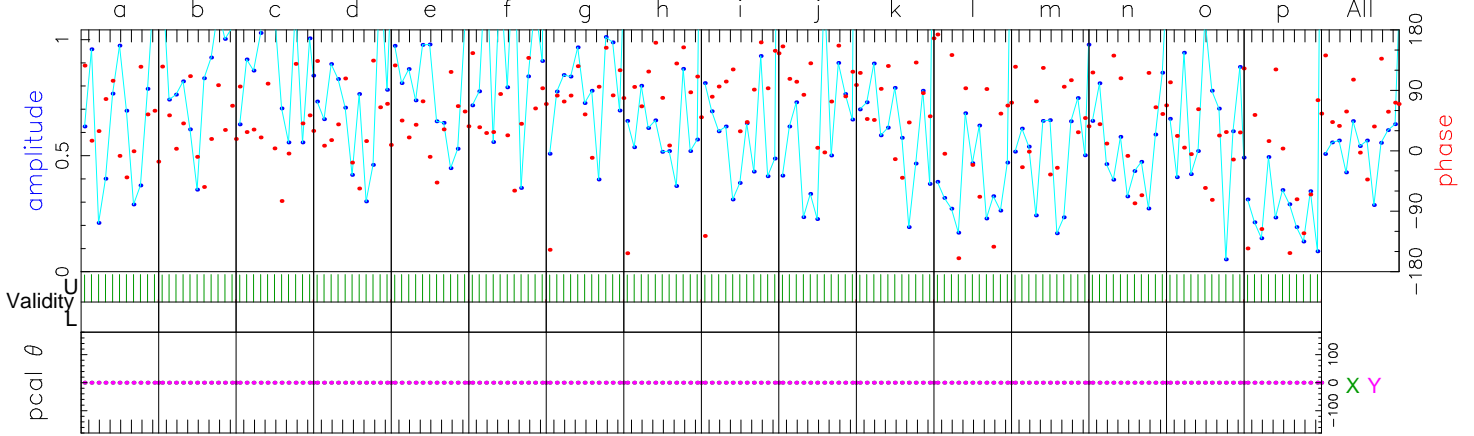


Fringe quality 7

SNR 19.1
 Int time 402.209
 Amp 0.347
 Phase 61.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.014480
 MBD -0.015684
 Fringe rate (Hz) 0.003889
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c192b
 Exper # 16383
 Yr:day 2019:278
 Start 011516.90
 Stop 012159.84
 FRT 011830.00
 Corr/FF/build
 2020:079:134246
 2020:086:100906
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

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				
	45.1	52.2	46.3	48.9	47.1	54.7	94.6	111.6	111.3	94.8	67.7	70.8	45.5	59.3	3.0	-29.9	Phase	61.2				
	0.4	0.6	0.6	0.4	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.1	0.3	0.3	0.4	0.1	Ampl.	0.4				
	130.7	131.7	130.9	129.9	131.0	130.6	131.0	131.4	130.6	130.7	131.4	32.9	131.2	130.7	130.9	246.2	Sbd box	130.9				
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used					
X	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					
X: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					
X: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					
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	PC amp					
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-4.28119662586E+03														Apriori delay (usec)	-4.28121219228E+03	Resid mbdelay (usec)	-1.56836E-02	+/-	5.7E-05
Sband delay (usec)			-4.28119771178E+03														Apriori clock (usec)	2.2706367E+01	Resid sbdelay (usec)	1.44805E-02	+/-	9.0E-04
Phase delay (usec)			-4.28121219030E+03														Apriori clockrate (us/s)	3.0800002E-07	Resid phdelay (usec)	1.97412E-06	+/-	1.9E-07
Delay rate (us/s)			1.13622077282E-01														Apriori rate (us/s)	1.13622032136E-01	Resid rate (us/s)	4.51458E-08	+/-	8.3E-10
Total phase (deg)					-26.1												Apriori accel (us/s/s)	2.89765932436E-05	Resid phase (deg)	61.2	+/-	6.0

ph/seg (deg) 52.7 10.4
 amp/seg (%) 63.9 18.2
 ph/frq (deg) 38.1 12.0
 amp/frq (%) 46.8 21.0

RMS Theor. Amplitude 0.347 +/- 0.018
 Search (2048X64) 0.345
 Interp. 0.000
 Inc. seg. avg. 0.532
 Inc. frq. avg. 0.387

Group delay (usec)(sbd) -4.28119662586E+03
 Sband delay (usec) -4.28119771178E+03
 Phase delay (usec) -4.28121219030E+03
 Delay rate (us/s) 1.13622077282E-01
 Total phase (deg) -26.1

Apriori delay (usec) -4.28121219228E+03
 Apriori clock (usec) 2.2706367E+01
 Apriori clockrate (us/s) 3.0800002E-07
 Apriori rate (us/s) 1.13622032136E-01
 Apriori accel (us/s/s) 2.89765932436E-05

Resid mbdelay (usec) -1.56836E-02
 Resid sbdelay (usec) 1.44805E-02
 Resid phdelay (usec) 1.97412E-06
 Resid rate (us/s) 4.51458E-08
 Resid phase (deg) 61.2

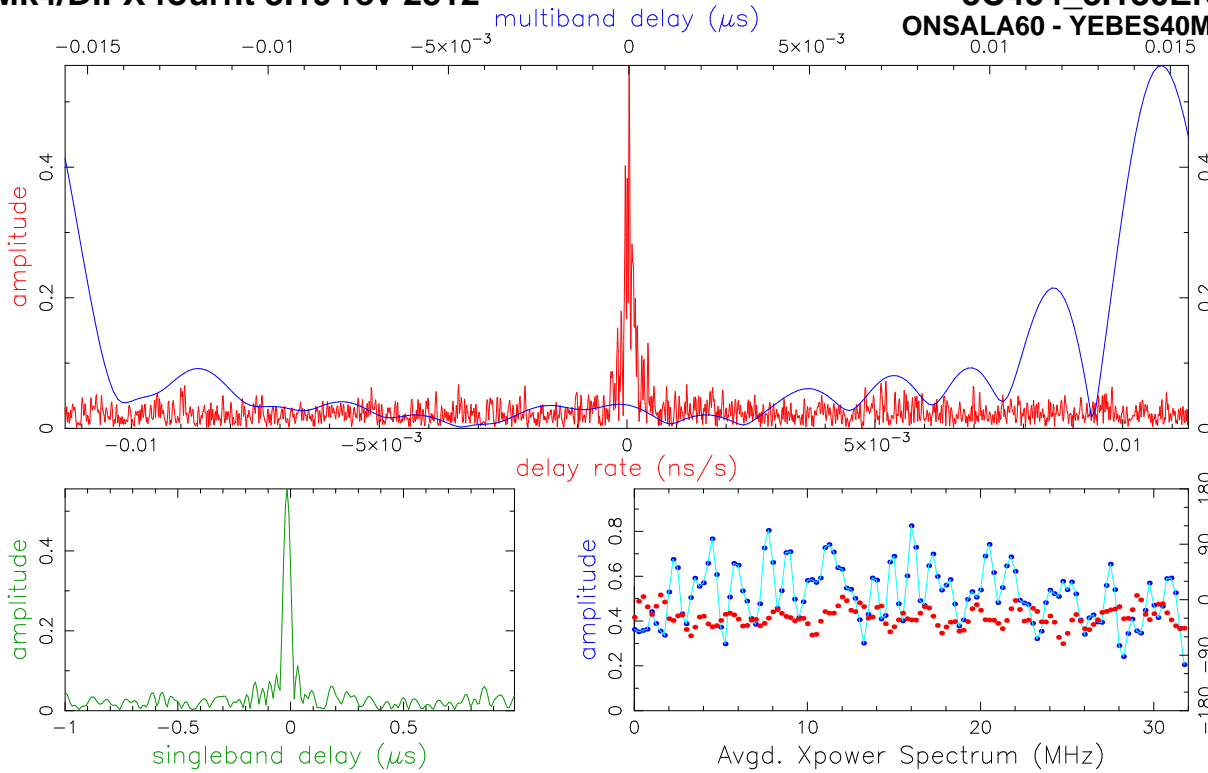
PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 PCal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Sample rate(MISamp/s): 64
 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite

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

simultaneous interpolator

X: az 253.2 el 29.6 pa 32.5 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -629.944 2308.202

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/XY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/XY.W.342.130EN2

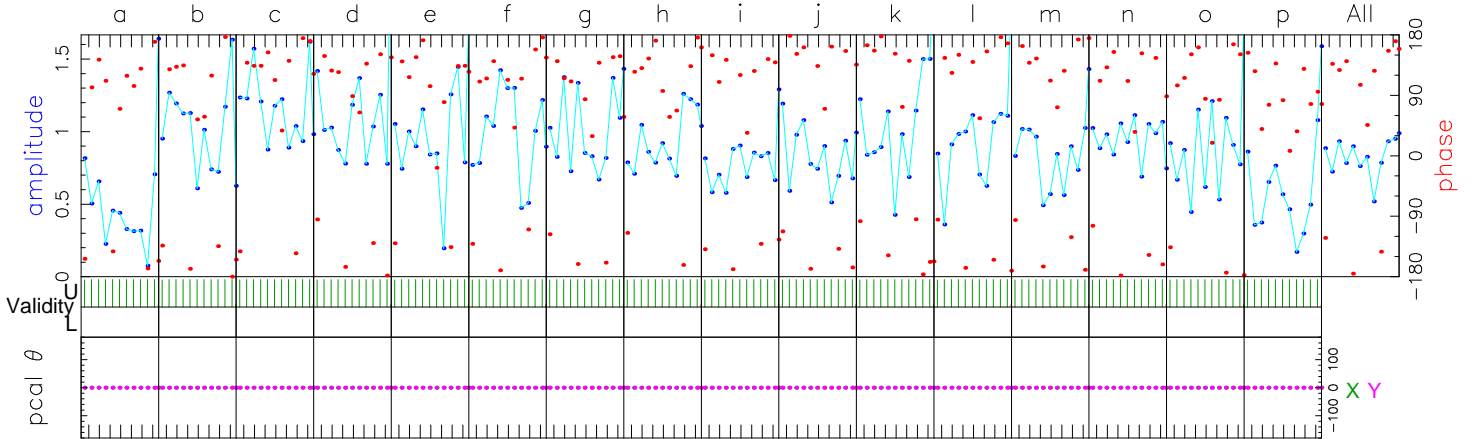


Fringe quality 7

SNR 30.5
 Int time 402.209
 Amp 0.556
 Phase 153.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.016129
 MBD 0.014741
 Fringe rate (Hz) 0.003866
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c192b
 Exper # 16383
 Yr:day 2019:278
 Start 011516.90
 Stop 012159.84
 FRT 011830.00
 Corr/FF/build
 2020:079:134246
 2020:086:100910
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

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	154.8	150.4	148.7	152.6	143.7	145.2	143.5	151.1	171.8	-168.5	165.8	165.2	157.0	141.1	96.8		Phase	153.4					
0.3	0.7	0.9	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.7	0.7	0.5	0.6	0.5	0.4		Ampl.	0.6					
127.7	127.2	126.9	127.6	126.9	126.6	126.5	126.9	127.6	127.0	126.7	126.6	126.6	126.5	126.7	127.1		Sbd box	126.9					
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		APs used						
X	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 freqs						
X: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 phase						
X: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						
X	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		PC amp						
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-4.28122870086E+03															Apriori delay (usec)	-4.28121219228E+03	Resid mbdelay (usec)	1.47414E-02	+/-	3.5E-05
Sband delay (usec)			-4.28122832128E+03															Apriori clock (usec)	2.2706367E+01	Resid sbdelay (usec)	-1.61290E-02	+/-	5.7E-04
Phase delay (usec)			-4.28121218733E+03															Apriori clockrate (us/s)	3.0800002E-07	Resid phdelay (usec)	4.94669E-06	+/-	1.2E-07
Delay rate (us/s)			1.13622077012E-01															Apriori rate (us/s)	1.13622032136E-01	Resid rate (us/s)	4.48765E-08	+/-	5.2E-10
Total phase (deg)				66.1														Apriori accel (us/s/s)	2.89765932436E-05	Resid phase (deg)	153.4	+/-	3.8

ph/seg (deg) 50.4 6.5
 amp/seg (%) 52.3 11.4
 ph/frq (deg) 20.3 7.5
 amp/frq (%) 21.7 13.1

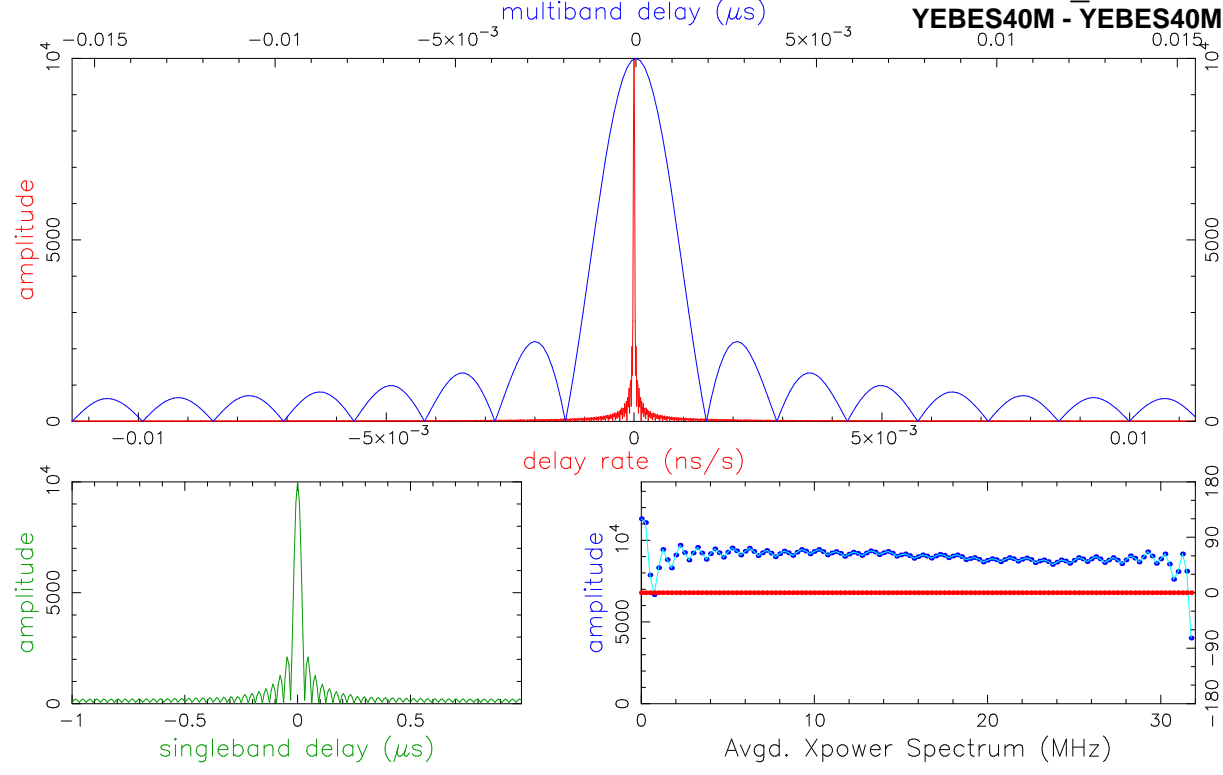
RMS Theor. Amplitude 0.556 +/- 0.018
 Search (2048X64) 0.552
 Interp. 0.000
 Inc. seg. avg. 0.815
 Inc. frq. avg. 0.578

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

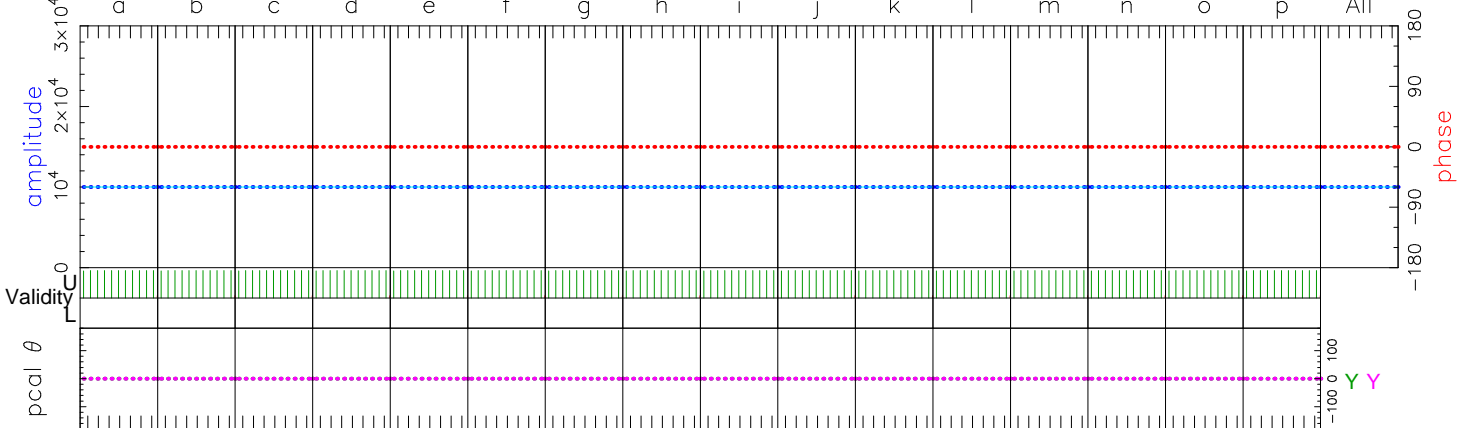
X: az 253.2 el 29.6 pa 32.5 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -629.944 2308.202 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/XY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/XY.W.353.130EN2



Fringe quality 9
SNR 548432.9
Int time 402.209
Amp 10000.002
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 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100859
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

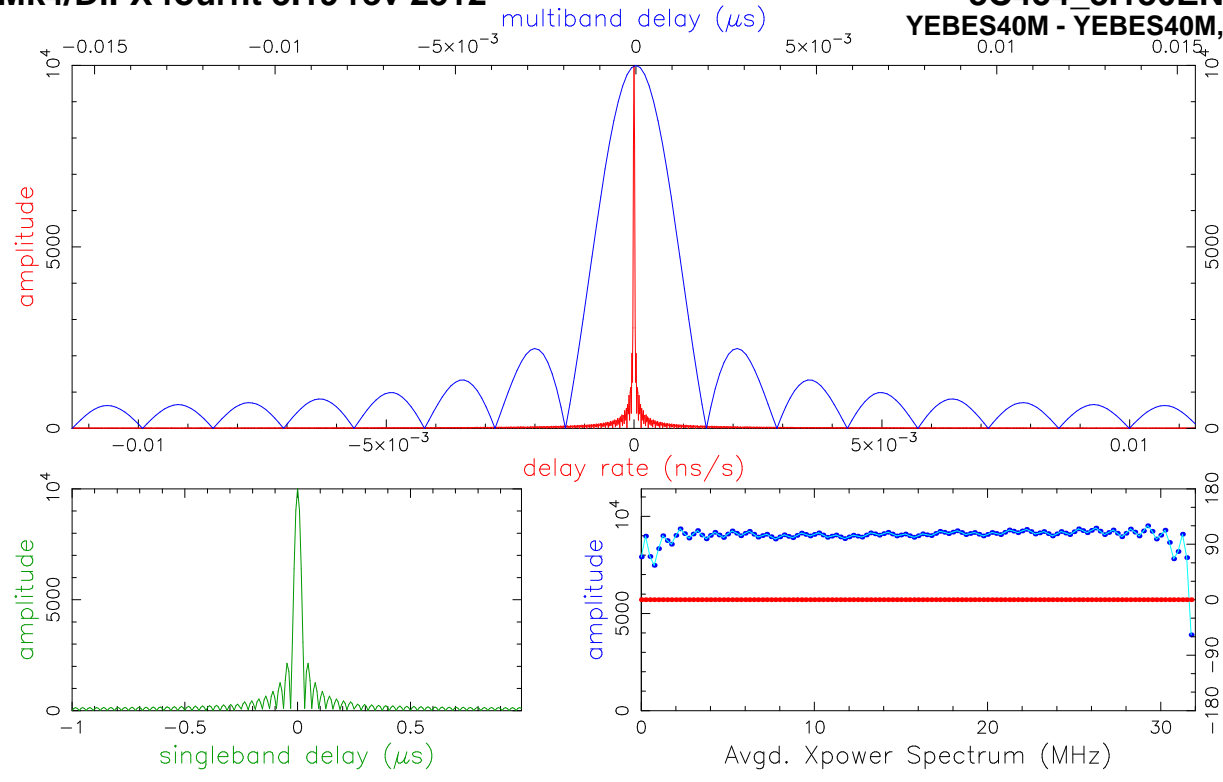


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
0.0	0.0	-0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	Phase	-0.0
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	Sbd box	129.0
U/L	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 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: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	
Y	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	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.0E-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) -2.15179898116E-20 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -2.15180E-20 +/- 6.7E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.9E-14
 Total phase (deg) -0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) -0.0 +/- 0.0

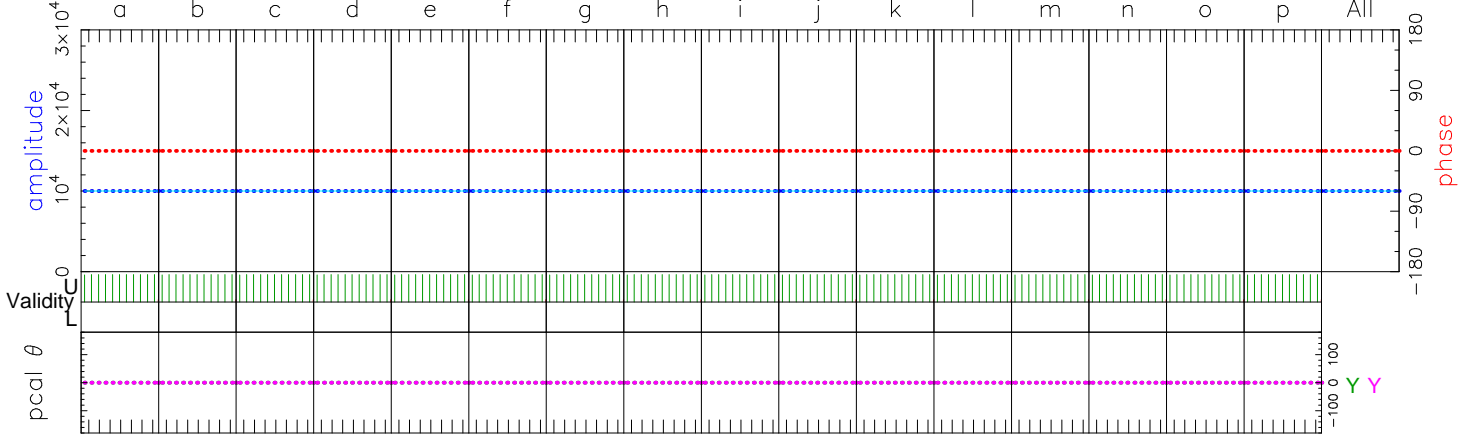
RMS Theor. Amplitude 10000.002 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X64) 10000.003 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.003 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/YY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/YY.W.314.130EN2



Fringe quality 9
SNR 548432.9
Int time 402.209
Amp 10000.002
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
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100902
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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

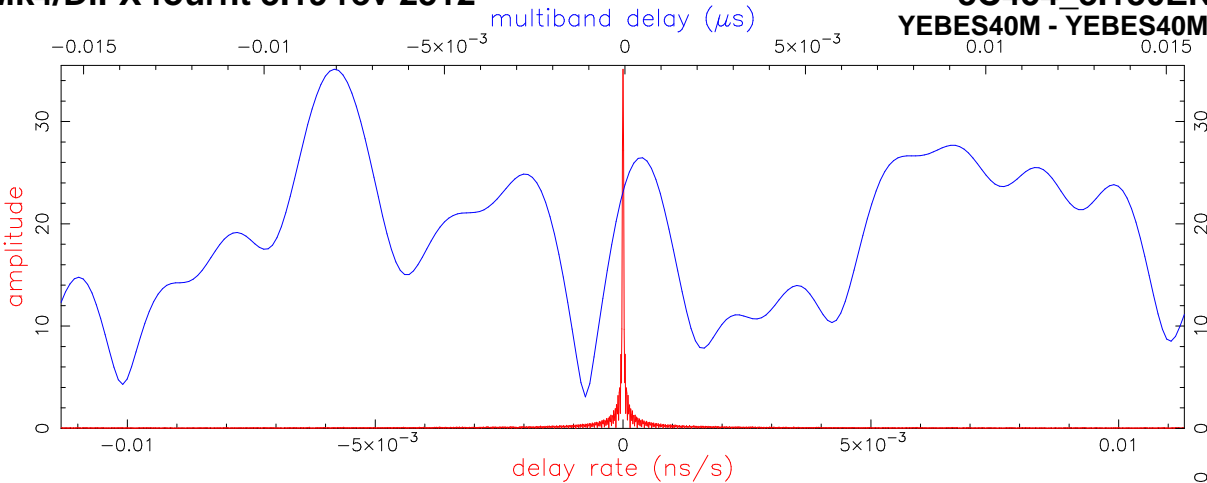


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	10000.0
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	129.0
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	PC phase	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	ManI PC	0.0
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	10000.0
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	0.0
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	0.0
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	0.0
Group delay (usec)(sbd)	0.000000000000E+00			Apriori delay (usec)			0.000000000000E+00			Resid mbdelay (usec)			0.000000E+00			+/- 2.0E-09		
Sband delay (usec)	0.000000000000E+00			Apriori clock (usec)			0.0000000E+00			Resid sbdelay (usec)			0.000000E+00			+/- 3.1E-08		
Phase delay (usec)	8.45291108076E-20			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			8.45291E-20			+/- 6.7E-12		
Delay rate (us/s)	0.000000000000E+00			Apriori rate (us/s)			0.000000000000E+00			Resid rate (us/s)			0.000000E+00			+/- 2.9E-14		
Total phase (deg)	0.0			Apriori accel (us/s/s)			0.000000000000E+00			Resid phase (deg)			0.0			+/- 0.0		

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.002 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X64) 10000.003 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Y: az 251.5 el 44.2 pa 48.5 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) 0.000 0.000 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/YY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/YY.W.327.130EN2 simultaneous interpolator

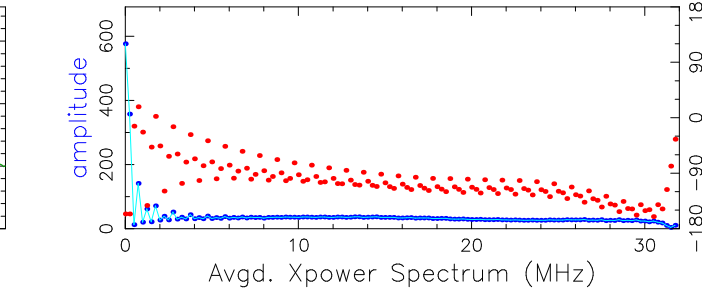
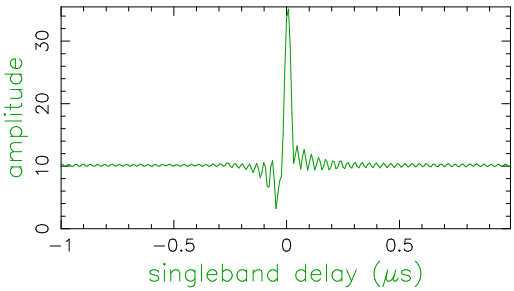
Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130EN2, No0141, YY
YEBES40M - YEBES40M, fgroup W, pol LR



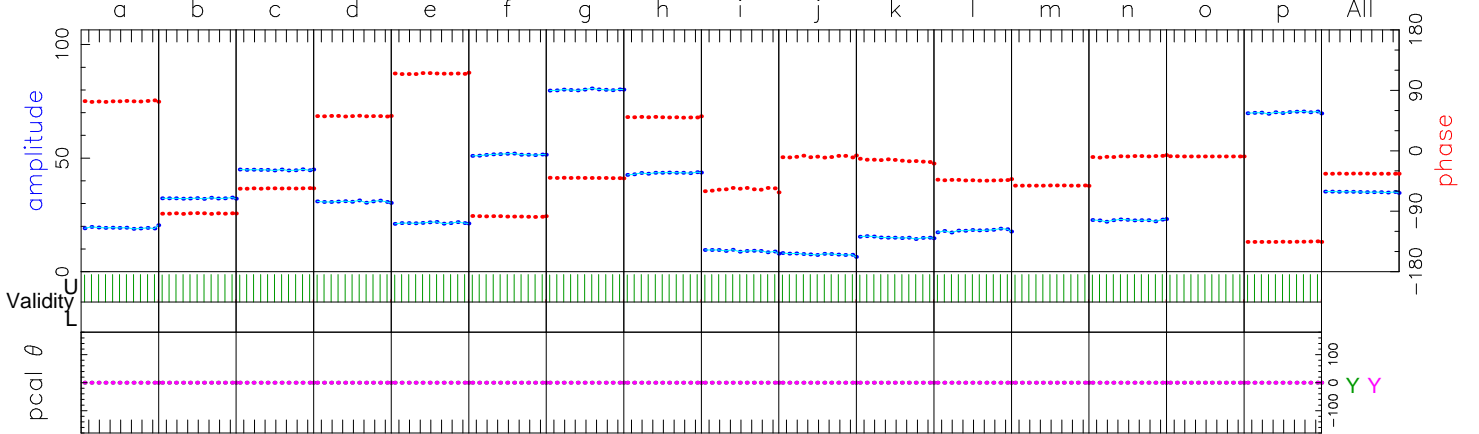
Fringe quality 5

SNR 1946.5
Int time 402.209
Amp 35.492
Phase -34.0
PFD 0.0e+00
Delays (us)
SBD 0.005389
MBD -0.008076
Fringe rate (Hz)
0.000003
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



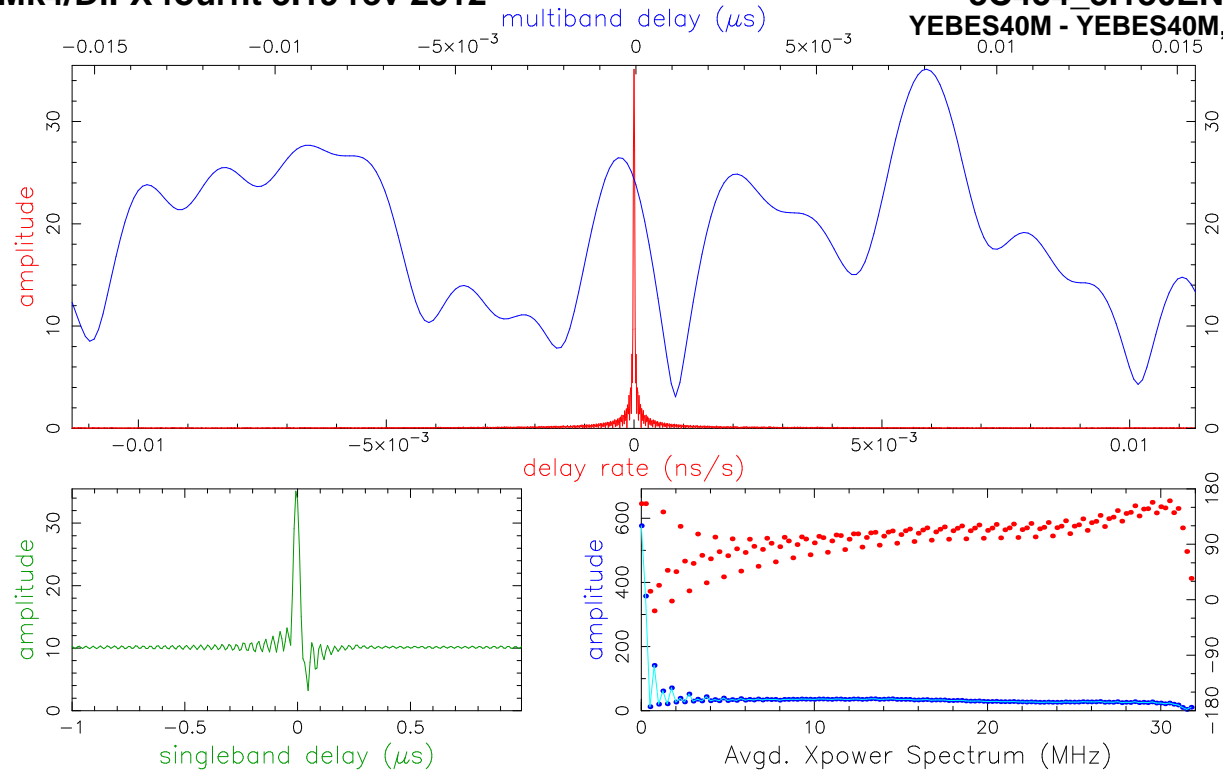
Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100905
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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
	73.6	-93.3	-56.0	51.5	114.8	-97.7	-40.4	49.9	-57.2	-9.0	-14.3	-43.8	-51.7	-8.5	-8.4	-135.3	Phase	-34.0
	19.3	32.3	44.8	30.9	21.5	51.5	80.1	43.4	9.2	7.7	15.1	18.2	159.2	22.6	235.9	70.1	Ampl.	53.9
	129.0	128.4	129.8	128.4	130.6	128.9	129.2	128.1	127.0	127.7	132.5	129.9	130.4	126.9	130.2	130.2	Sbd box	129.7
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)			-8.07609375000E-03					Apriori delay (usec)	0.00000000000E+00				Resid mbdelay (usec)	-8.07609E-03			+/-	5.5E-07
Sband delay (usec)			5.38950000000E-03					Apriori clock (usec)	0.0000000E+00				Resid sbdelay (usec)	5.38950E-03			+/-	8.9E-06
Phase delay (usec)			-1.09670506199E-06					Apriori clockrate (us/s)	0.0000000E+00				Resid phdelay (usec)	-1.09671E-06			+/-	1.9E-09
Delay rate (us/s)			3.61364385988E-11					Apriori rate (us/s)	0.00000000000E+00				Resid rate (us/s)	3.61364E-11			+/-	8.2E-12
Total phase (deg)								Apriori accel (us/s/s)	0.00000000000E+00				Resid phase (deg)	-34.0			+/-	0.1

ph/seg (deg) 0.1 0.1 RMS Theor. Amplitude 35.492 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.1 0.2 Search (2048X64) 34.556 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 70.6 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 175.3 0.2 Inc. seg. avg. 35.113 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Y: az 251.5 el 44.2 pa 48.5 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) 0.000 0.000 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/YY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/YY.W.338.130EN2 simultaneous interpolator

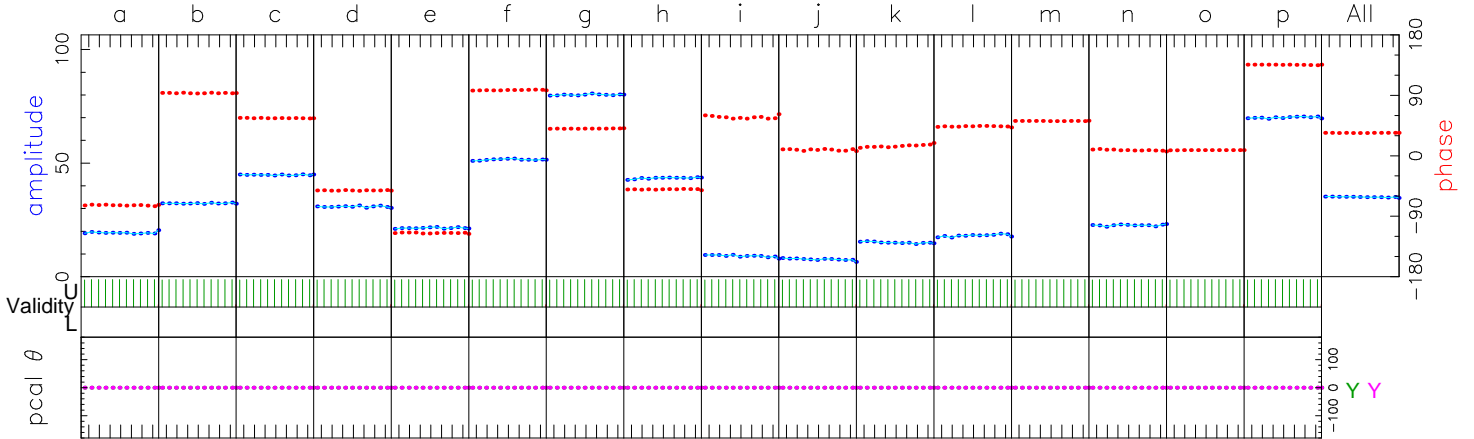


Fringe quality 5

SNR 1946.5
 Int time 402.209
 Amp 35.492
 Phase 34.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.005389
 MBD 0.008076
 Fringe rate (Hz)
 -0.000003
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c192b
 Exper # 16383
 Yr:day 2019:278
 Start 011516.90
 Stop 012159.84
 FRT 011830.00
 Corr/FF/build
 2020:079:134246
 2020:086:100909
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

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

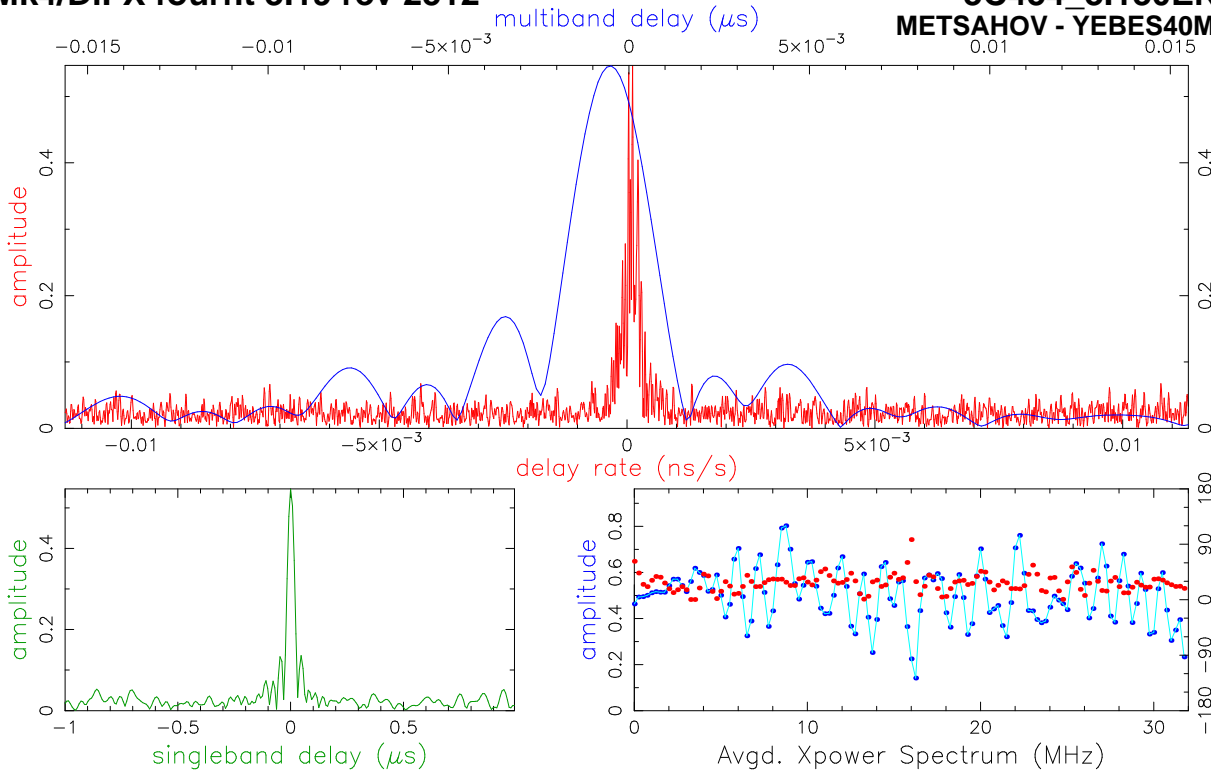


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-73.6	93.3	56.0	-51.5	-114.8	97.7	40.4	-49.9	57.2	9.0	14.3	43.8	51.7	8.5	8.4	135.3	Phase	34.0
	19.3	32.3	44.8	30.9	21.5	51.5	80.1	43.4	9.2	7.7	15.1	18.2	159.2	22.6	235.9	70.1	Ampl.	53.9
	129.0	129.6	128.2	129.6	127.4	129.1	128.8	129.9	131.0	130.3	125.5	128.1	127.6	131.1	127.8	127.8	Sbd box	128.3
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		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Chan ids	
																	Tracks	

Group delay (usec)(sbd) 8.07609375000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 8.07609E-03 +/- 5.5E-07
 Sband delay (usec) -5.38950000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -5.38950E-03 +/- 8.9E-06
 Phase delay (usec) 1.09670506144E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 1.09671E-06 +/- 1.9E-09
 Delay rate (us/s) -3.61364385988E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -3.61364E-11 +/- 8.2E-12
 Total phase (deg) 34.0 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 34.0 +/- 0.1

RMS Theor. Amplitude 35.492 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.1 0.1 Search (2048X64) 34.556 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 1.1 0.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 70.6 0.1 Inc. seg. avg. 35.113 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 175.3 0.2 Inc. frq. avg. 53.868 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Y: az 251.5 el 44.2 pa 48.5 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/YY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/YY.W.349.130EN2

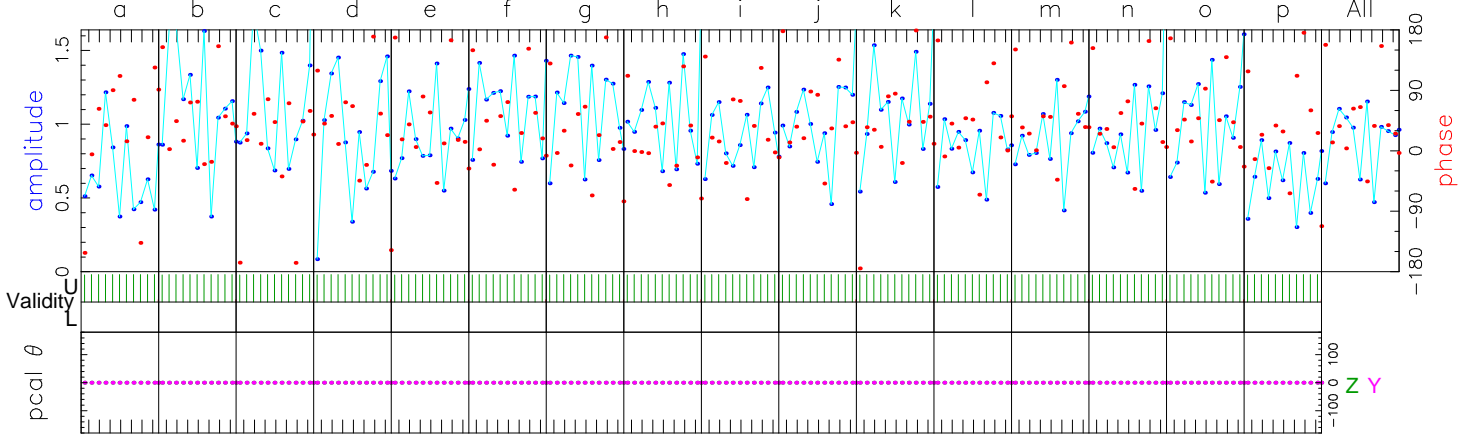


Fringe quality 7

SNR 30.0
 Int time 401.968
 Amp 0.547
 Phase 34.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.000953
 MBD -0.000511
 Fringe rate (Hz) 0.009476
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c192b
 Exper # 16383
 Yr:day 2019:278
 Start 011516.90
 Stop 012159.84
 FRT 011830.00
 Corr/FF/build
 2020:079:134246
 2020:086:100902
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

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

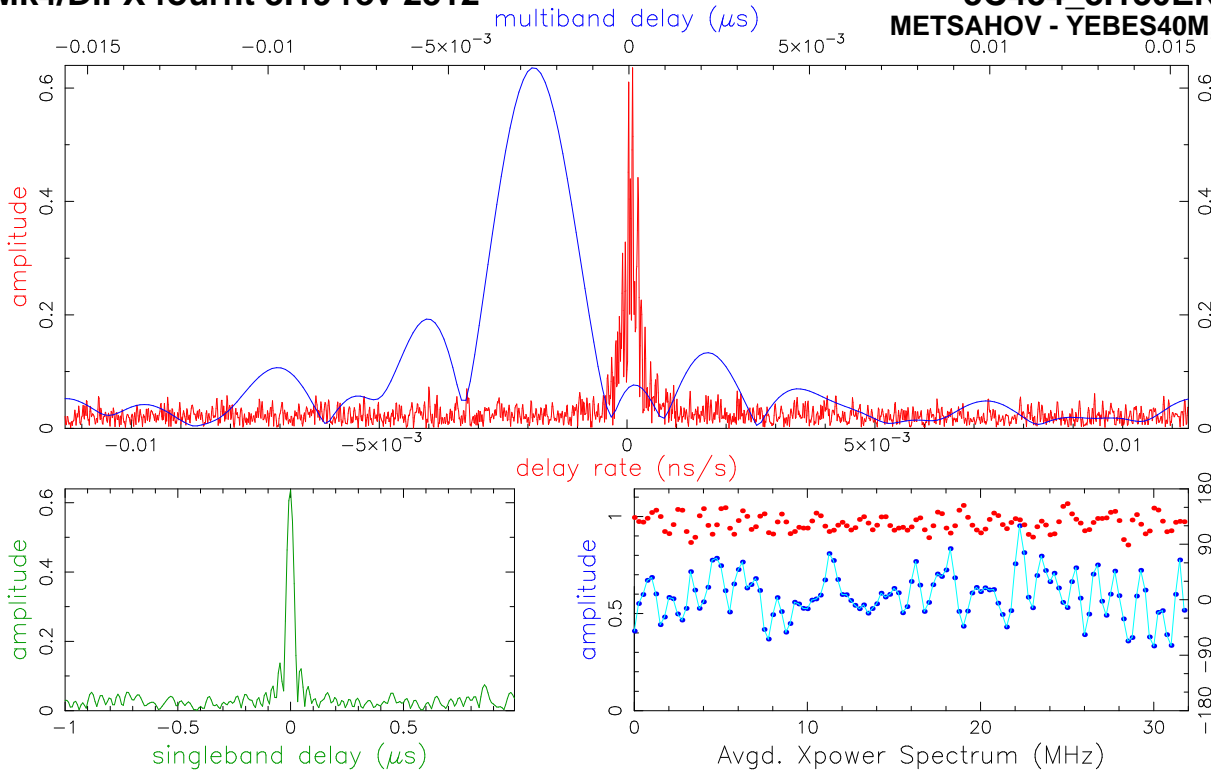


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
UL	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		APs used					
Z	1000	1000	1000	1000	1000	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					
Z: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					
Z: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					
Z	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					
Z	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)			-6.61582354396E+03															Apriori delay (usec)	-6.61582303275E+03	Resid mbdelay (usec)	-5.11212E-04	+/-	3.6E-05
Sband delay (usec)			-6.61582207975E+03															Apriori clock (usec)	-9.4853210E+00	Resid sbdelay (usec)	9.53000E-04	+/-	5.7E-04
Phase delay (usec)			-6.61582303163E+03															Apriori clockrate (us/s)	-2.0370720E-07	Resid phdelay (usec)	1.11829E-06	+/-	1.2E-07
Delay rate (us/s)			1.06985798155E-01															Apriori rate (us/s)	1.06985688146E-01	Resid rate (us/s)	1.10009E-07	+/-	5.3E-10
Total phase (deg)				19.9														Apriori accel (us/s/s)	4.20278550125E-05	Resid phase (deg)	34.7	+/-	3.8

ph/seg (deg) RMS Theor. Amplitude 0.547 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 59.7 6.6 Search (2048X64) 0.543 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 73.8 11.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 11.5 7.6 Inc. seg. avg. 0.885 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 19.9 13.3 Inc. frq. avg. 0.550 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 263.1 el 22.7 pa 30.9 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -569.133 2824.547 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/ZY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/ZY.W.328.130EN2

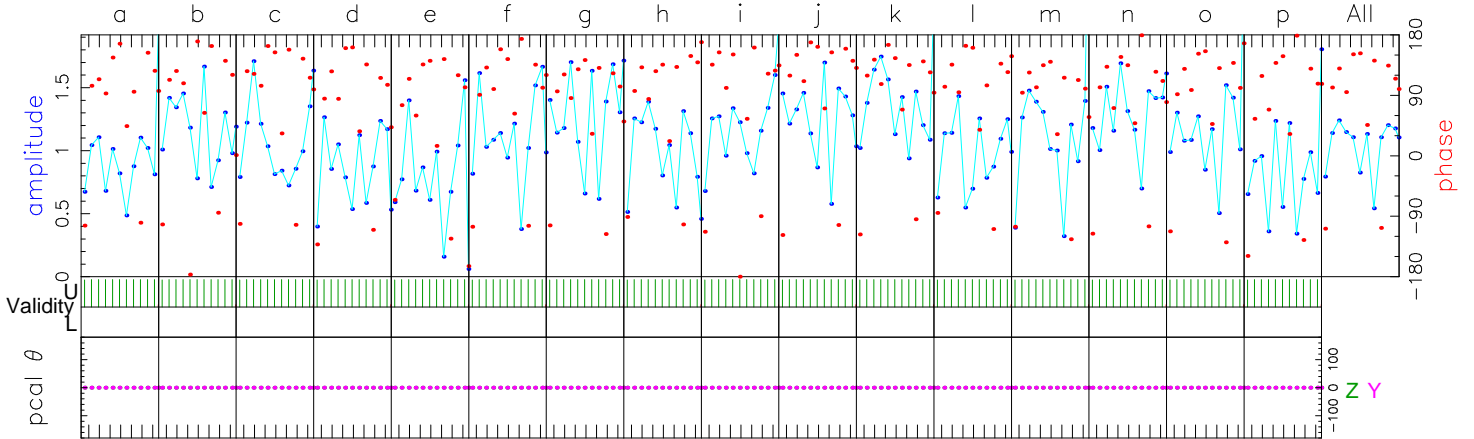


Fringe quality 5

SNR 35.1
 Int time 401.968
 Amp 0.640
 Phase 128.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.001982
 MBD -0.002654
 Fringe rate (Hz)
 0.009503
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c192b
 Exper # 16383
 Yr:day 2019:278
 Start 011516.90
 Stop 012159.84
 FRT 011830.00
 Corr/FF/build
 2020:079:134246
 2020:086:100906
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

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

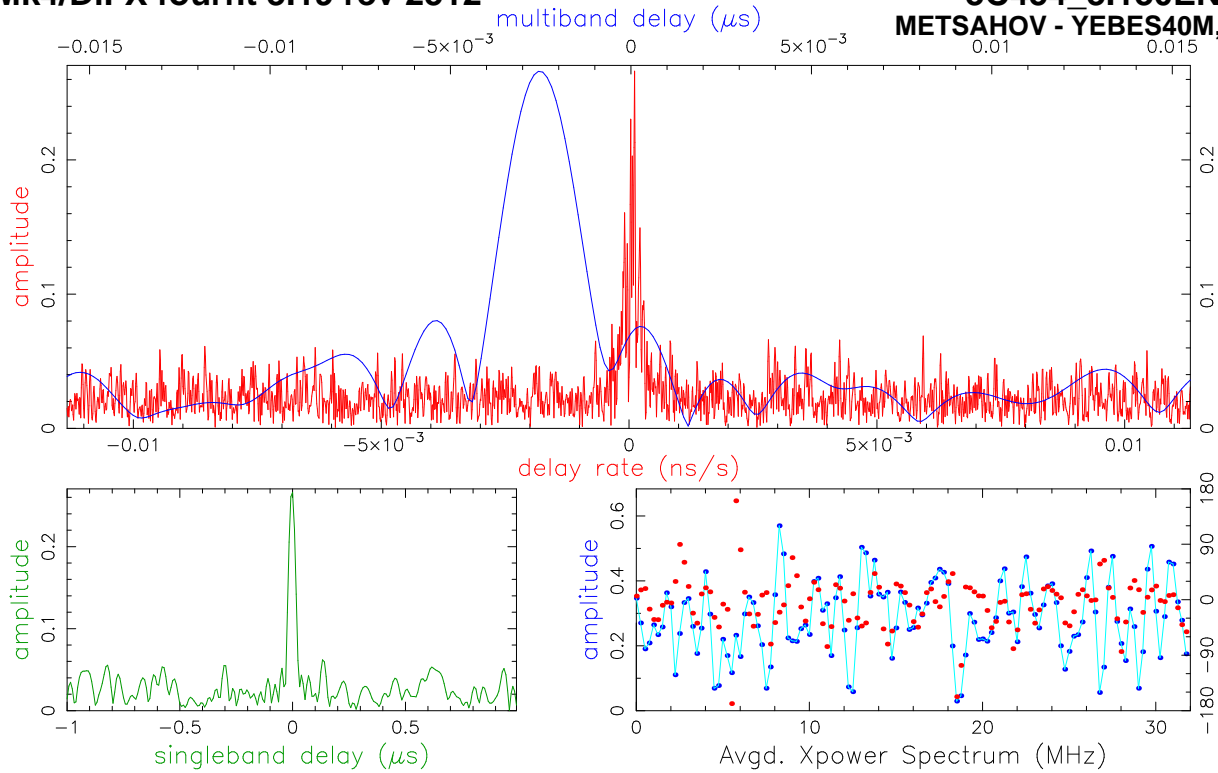


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
132.5	134.6	135.1	113.3	103.7	124.1	113.4	123.1	144.7	151.7	138.5	121.0	115.1	131.2	133.7	119.2	119.2	Phase	128.5
0.5	0.7	0.7	0.6	0.5	0.7	0.7	0.6	0.8	0.8	0.8	0.6	0.7	0.7	0.7	0.4	0.4	Ampl.	0.6
129.2	128.7	128.3	128.1	129.0	128.2	129.0	129.3	129.0	129.2	128.4	128.3	128.4	128.6	128.5	128.3	128.3	Sbd box	128.7
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	
Z	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	
Z: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	
Z: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	
Z	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	
Z	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) -6.61582568637E+03 Apriori delay (usec) -6.61582303275E+03 Resid mbdelay (usec) -2.65362E-03 +/- 3.1E-05
 Sband delay (usec) -6.61582501425E+03 Apriori clock (usec) -9.4853210E+00 Resid sbdelay (usec) -1.98150E-03 +/- 4.9E-04
 Phase delay (usec) -6.61582302860E+03 Apriori clockrate (us/s) -2.0370720E-07 Resid phdelay (usec) 4.14384E-06 +/- 1.1E-07
 Delay rate (us/s) 1.06985798468E-01 Apriori rate (us/s) 1.06985688146E-01 Resid rate (us/s) 1.10322E-07 +/- 4.5E-10
 Total phase (deg) 113.8 Apriori accel (us/s/s) 4.20278550125E-05 Resid phase (deg) 128.5 +/- 3.3

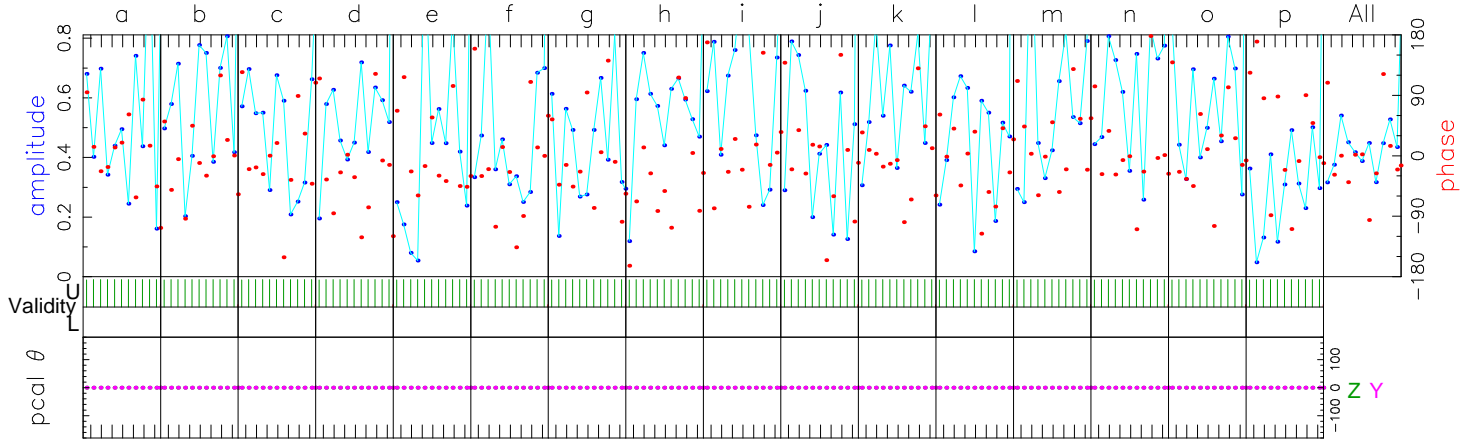
RMS Theor. Amplitude 0.640 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 60.6 5.7 Search (2048X64) 0.621 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 70.3 9.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 13.3 6.5 Inc. seg. avg. 1.034 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 17.6 11.4 Inc. frq. avg. 0.647 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 263.1 el 22.7 pa 30.9 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -569.133 2824.547 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/ZY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/ZY.W.340.130EN2



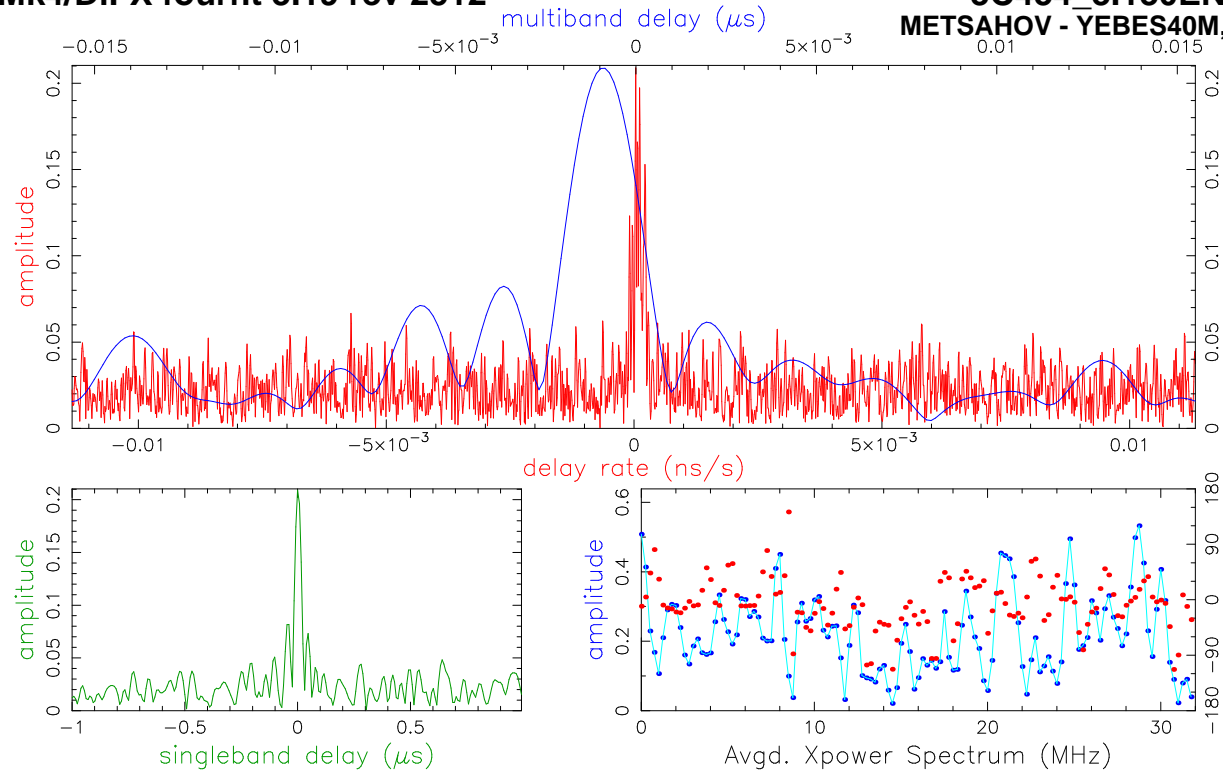
Fringe quality 9
 SNR 14.8
 Int time 401.968
 Amp 0.270
 Phase -7.4
 PFD 6.1e-41
 Delays (us)
 SBD -0.003137
 MBD -0.002540
 Fringe rate (Hz)
 0.009387
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c192b
 Exper # 16383
 Yr:day 2019:278
 Start 011516.90
 Stop 012159.84
 FRT 011830.00
 Corr/FF/build
 2020:079:134246
 2020:086:100909
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

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				
	11.1	3.7	-6.7	-44.8	3.5	-15.9	-11.3	-37.1	-20.6	-9.1	-3.4	-12.4	3.8	-10.2	17.9	6.0	Phase	-7.4				
	0.4	0.4	0.2	0.3	0.2	0.3	0.3	0.2	0.4	0.1	0.4	0.3	0.4	0.3	0.2	0.1	Ampl.	0.3				
	127.6	128.6	127.9	90.7	128.4	127.8	129.1	127.8	128.1	31.4	129.6	128.4	129.3	128.5	6.6	200.3	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					
Z	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					
Z: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					
Z: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					
Z	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					
Z	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)			-6.61582557290E+03														Apriori delay (usec)	-6.61582303275E+03	Resid mbdelay (usec)	-2.54015E-03	+/-	7.3E-05
Sband delay (usec)			-6.61582616925E+03														Apriori clock (usec)	-9.4853210E+00	Resid sbdelay (usec)	-3.13650E-03	+/-	1.2E-03
Phase delay (usec)			-6.61582303299E+03														Apriori clockrate (us/s)	-2.0370720E-07	Resid phdelay (usec)	-2.39252E-07	+/-	2.5E-07
Delay rate (us/s)			1.06985797115E-01														Apriori rate (us/s)	1.06985688146E-01	Resid rate (us/s)	1.08969E-07	+/-	1.1E-09
Total phase (deg)																	Apriori accel (us/s/s)	4.20278550125E-05	Resid phase (deg)	-7.4	+/-	7.7

RMS Theor. Amplitude 0.270 +/- 0.018
 ph/seg (deg) 60.4 13.4 Search (2048X64) 0.262 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.1 23.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.2 15.5 Inc. seg. avg. 0.416 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 31.0 27.0 Inc. frq. avg. 0.266 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 263.1 el 22.7 pa 30.9 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -569.133 2824.547 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/ZY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/ZY.W.351.130EN2 simultaneous interpolator

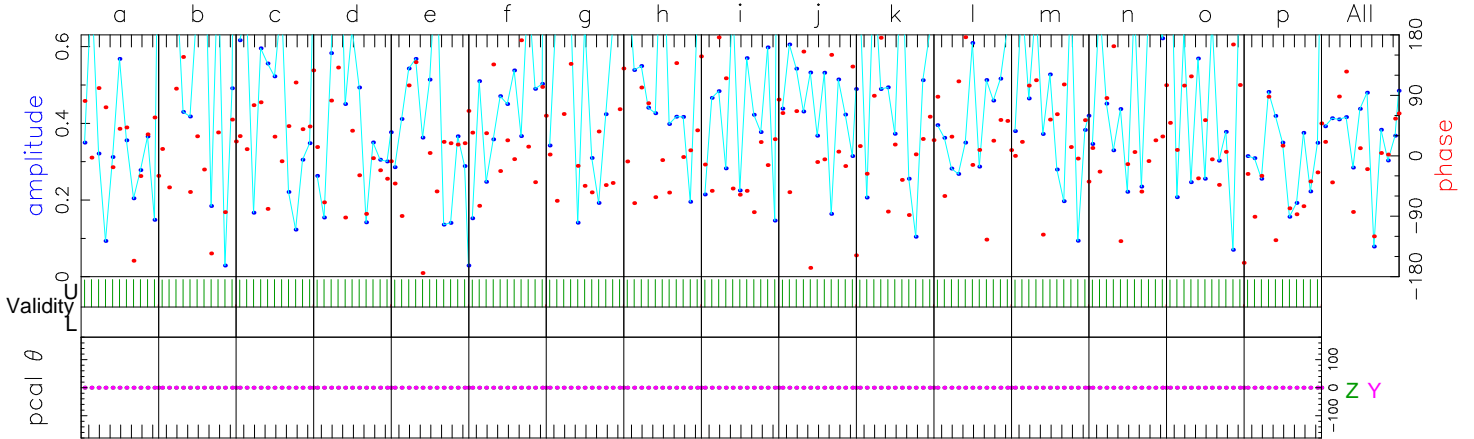


Fringe quality 9

SNR 11.5
Int time 401.968
Amp 0.210
Phase 14.4
PFD 4.5e-22
Delays (us)
SBD 0.001829
MBD -0.000890
Fringe rate (Hz) 0.002573
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:278
Start 011516.90
Stop 012159.84
FRT 011830.00
Corr/FF/build
2020:079:134246
2020:086:100913
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

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	
	29.1	17.5	25.4	20.7	-3.3	11.9	-4.1	5.4	-38.1	24.5	12.8	30.9	49.8	6.2	44.2	-44.7		Phase	14.4
	0.2	0.3	0.3	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.2		Ampl.	0.2
	133.0	129.1	129.7	122.5	173.3	128.0	129.3	158.2	174.5	93.7	129.1	242.9	129.6	124.0	135.7	125.8		Sbd box	129.2
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	
Z	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	
Z: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	
Z: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	
Z	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	
Z	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) -6.61582392259E+03 Apriori delay (usec) -6.61582303275E+03 Resid mbdelay (usec) -8.89845E-04 +/- 9.4E-05

Sband delay (usec) -6.61582120375E+03 Apriori clock (usec) -9.4853210E+00 Resid sbdelay (usec) 1.82900E-03 +/- 1.5E-03

Phase delay (usec) -6.61582303229E+03 Apriori clockrate (us/s) -2.0370720E-07 Resid phdelay (usec) 4.63058E-07 +/- 3.2E-07

Delay rate (us/s) 1.06985718014E-01 Apriori rate (us/s) 1.06985688146E-01 Resid rate (us/s) 2.98678E-08 +/- 1.4E-09

Total phase (deg) -0.4 Apriori accel (us/s/s) 4.20278550125E-05 Resid phase (deg) 14.4 +/- 9.9

RMS Theor. Amplitude 0.210 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

ph/seg (deg) 68.2 17.2 Search (2048X64) 0.203 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

amp/seg (%) 87.3 30.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

ph/frq (deg) 26.7 19.9 Inc. seg. avg. 0.346 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011

amp/frq (%) 32.4 34.7 Inc. frq. avg. 0.215 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 263.1 el 22.7 pa 30.9 Y: az 251.5 el 44.2 pa 48.5 u,v (fr/asec) -569.133 2824.547 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0141/ZY..130EN2 Output file: /Exps/c192b/v2/1234/No0141/ZY.W.360.130EN2