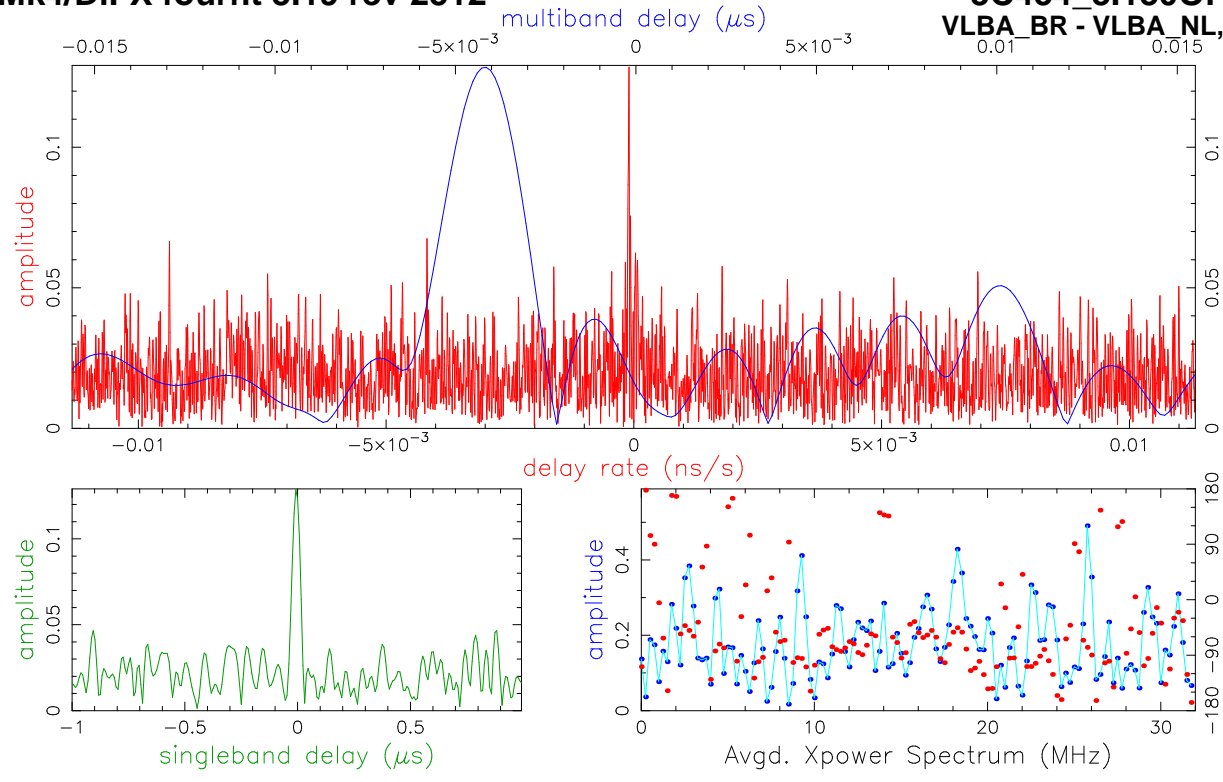


Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130OPJ, No0117, bn
VLBA_BR - VLBA_NL, fgroup W, pol RR

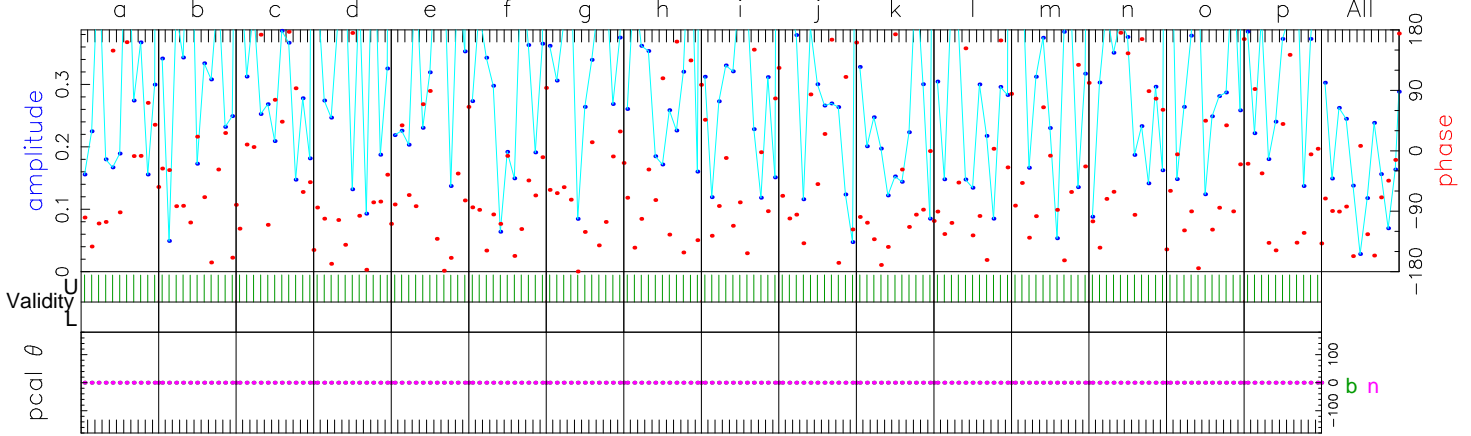


Fringe quality 9

SNR 8.5
Int time 582.329
Amp 0.129
Phase -90.4
PFD 1.1e-08
Delays (us)
SBD -0.005877
MBD -0.004173
Fringe rate (Hz)
-0.008702
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070729
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec

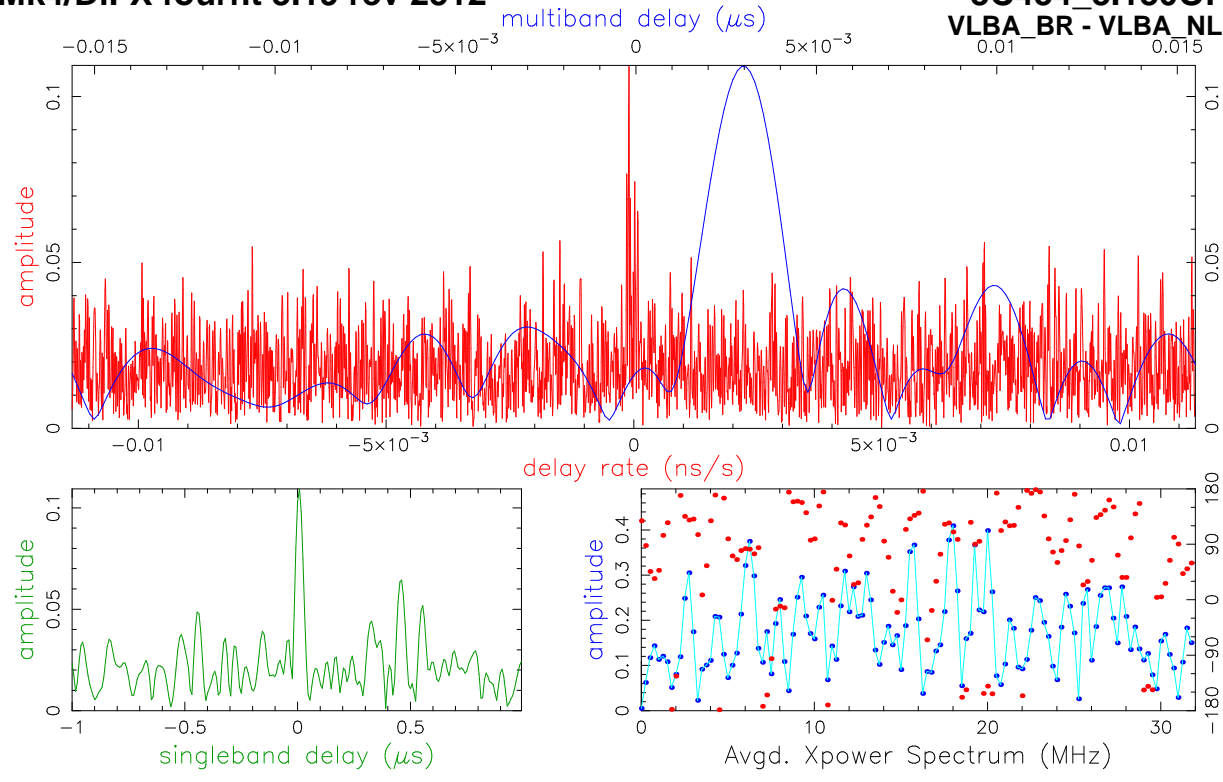


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-101.4	-73.8	-49.7	-100.7	-91.2	-84.1	-65.5	-141.4	-89.7	-100.1	-108.5	-102.8	-67.0	-158.7	-82.9	-32.3	Phase	-90.4
	0.1	0.2	0.0	0.3	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	Ampl.	0.1
	92.5	127.5	181.3	128.5	213.4	128.7	127.6	175.4	102.2	99.9	127.9	131.1	68.7	11.9	84.3	95.2	Sbd box	128.2
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
b:n	0:0	0:0	0:0	0:0	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	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	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) 6.17743804209E+03 Apriori delay (usec) 6.17744221496E+03 Resid mbdelay (usec) -4.17287E-03 +/- 1.3E-04
 Sband delay (usec) 6.17743633796E+03 Apriori clock (usec) -2.7173145E+01 Resid sbdelay (usec) -5.87700E-03 +/- 2.0E-03
 Phase delay (usec) 6.17744221205E+03 Apriori clockrate (us/s) -3.7661858E-07 Resid phdelay (usec) -2.91373E-06 +/- 4.3E-07
 Delay rate (us/s) 3.16056797220E-01 Apriori rate (us/s) 3.16056898245E-01 Resid rate (us/s) -1.01025E-07 +/- 1.3E-09
 Total phase (deg) 52.4 Apriori accel (us/s/s) -3.05096558210E-05 Resid phase (deg) -90.4 +/- 13.4

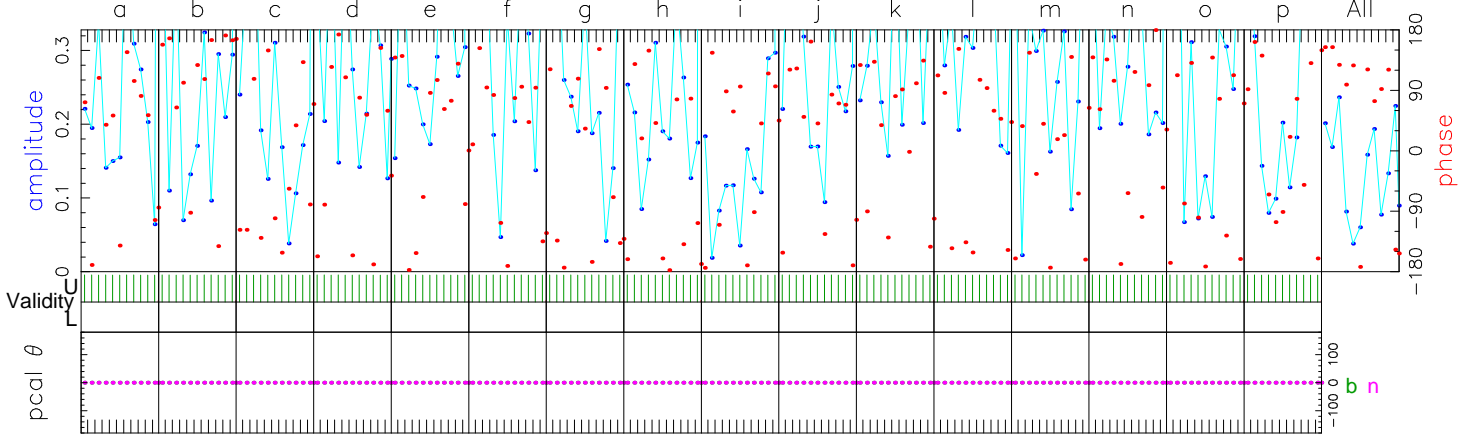
RMS Theor. Amplitude 0.129 +/- 0.015 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 50.9 23.3 Search (4096X64) 0.125 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 70.2 40.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 32.3 26.9 Inc. seg. avg. 0.158 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 49.7 46.9 Inc. frq. avg. 0.128 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 249.5 el 38.4 pa 40.6 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -1950.221 -15.053 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/bn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/bn.W.23.130OPJ



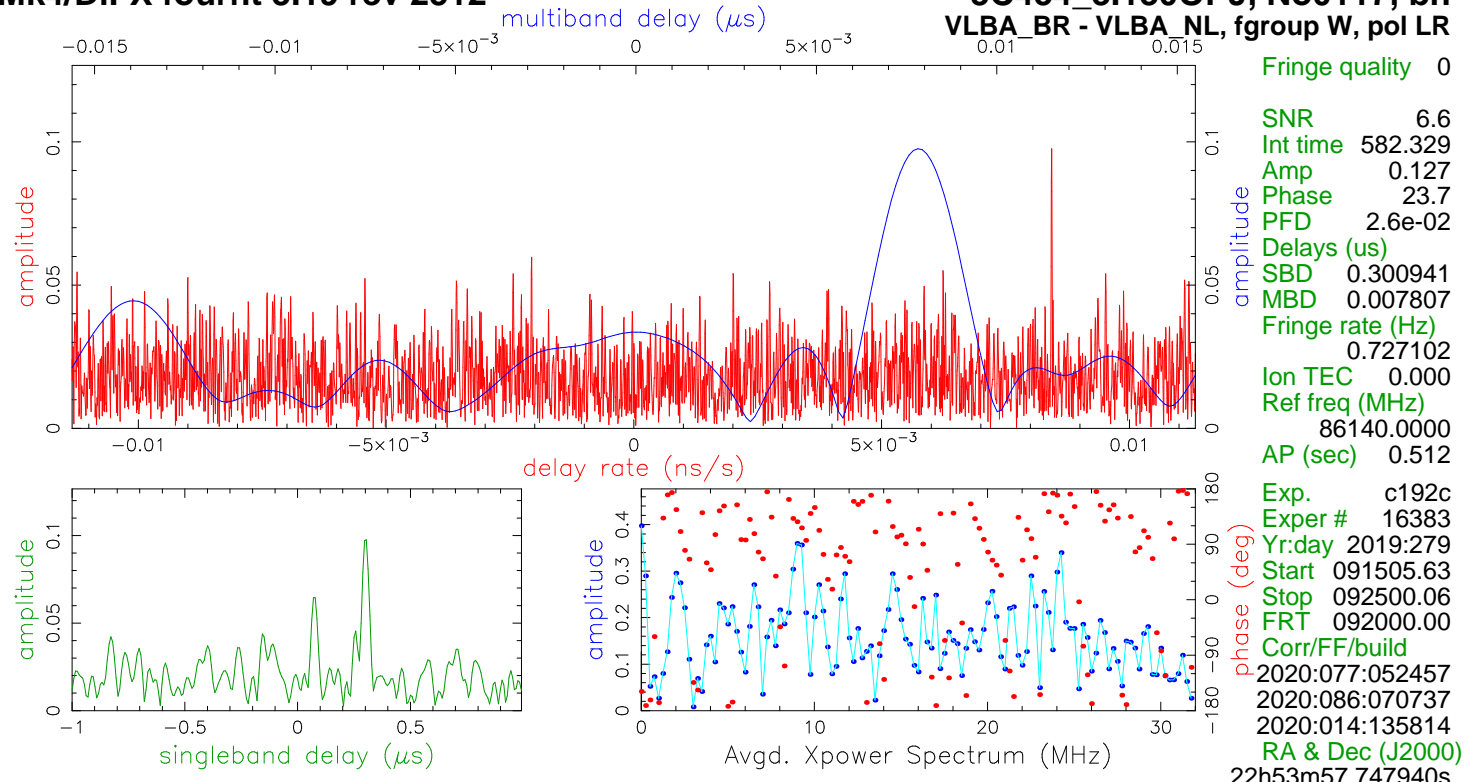
Fringe quality 0
SNR 7.2
Int time 582.331
Amp 0.109
Phase 135.7
PFD 3.3e-04
Delays (us)
SBD 0.006568
MBD 0.002955
Fringe rate (Hz)
-0.008539
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070720
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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
108.8	147.5	-149.0	150.2	112.2	105.7	175.6	152.1	116.8	111.8	110.7	124.2	-175.5	139.3	153.8	158.4	158.4	Phase	135.7
0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.0	0.1	0.2	0.1	0.1	Ampl.	0.1
187.0	222.0	117.8	151.5	188.6	169.7	123.3	62.9	168.5	129.1	85.7	132.0	216.9	66.1	9.1	62.1	62.1	Sbd box	129.8
UL	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
b:n	0:0	0:0	0:0	0:0	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	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	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
Group delay (usec)(sbd)	6.17744516997E+03			Apriori delay (usec)			6.17744221496E+03			Resid mbdelay (usec)			2.95501E-03			+/- 1.5E-04		
Sband delay (usec)	6.17744878296E+03			Apriori clock (usec)			-2.7173145E+01			Resid sbdelay (usec)			6.56800E-03			+/- 2.4E-03		
Phase delay (usec)	6.17744221934E+03			Apriori clockrate (us/s)			-3.7661858E-07			Resid phdelay (usec)			4.37669E-06			+/- 5.1E-07		
Delay rate (us/s)	3.16056799119E-01			Apriori rate (us/s)			3.16056898245E-01			Resid rate (us/s)			-9.91261E-08			+/- 1.5E-09		
Total phase (deg)	278.5			Apriori accel (us/s/s)			-3.05096558210E-05			Resid phase (deg)			135.7			+/- 15.9		

ph/seg (deg) RMS Theor. Amplitude 0.109 +/- 0.015 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 39.6 27.5 Search (4096X64) 0.108 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 67.9 48.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 32.7 31.8 Inc. seg. avg. 0.128 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 40.9 55.4 Inc. frq. avg. 0.106 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 b: az 249.5 el 38.4 pa 40.6 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -1950.221 -15.053 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/bn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/bn.W.4.130OPJ



Fringe quality 0

SNR 6.6

Int time 582.329

Amp 0.127

Phase 23.7

PFD 2.6e-02

Delays (us)

SBD 0.300941

MBD 0.007807

Fringe rate (Hz)

0.727102

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192c

Exper # 16383

Yr:day 2019:279

Start 091505.63

Stop 092500.06

FRT 092000.00

Corr/FF/build

2020:077:052457

2020:086:070737

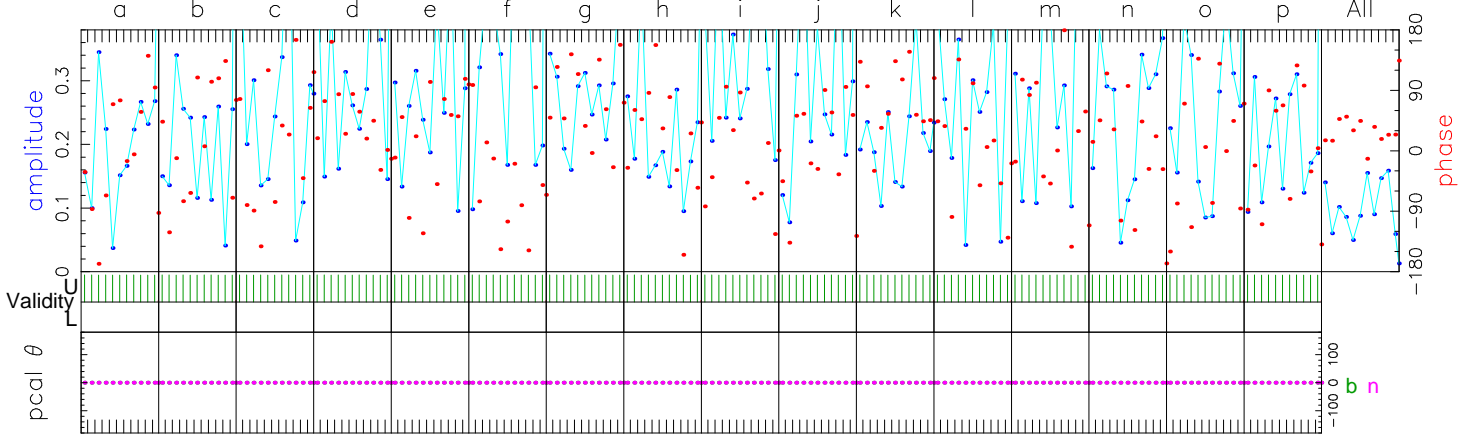
2020:014:135814

RA & Dec (J2000)

22h53m57.747940s

+16°08'53.560909"

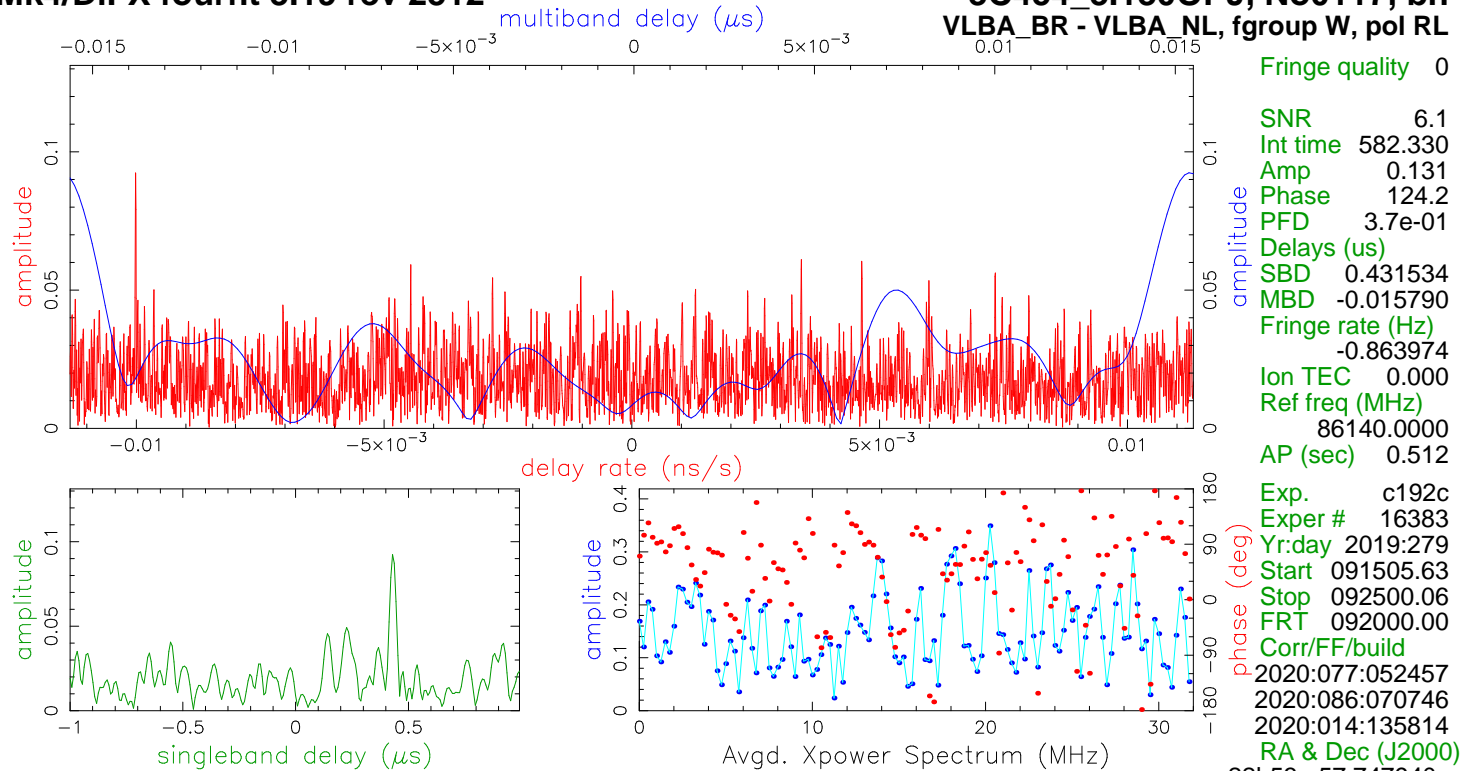
Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



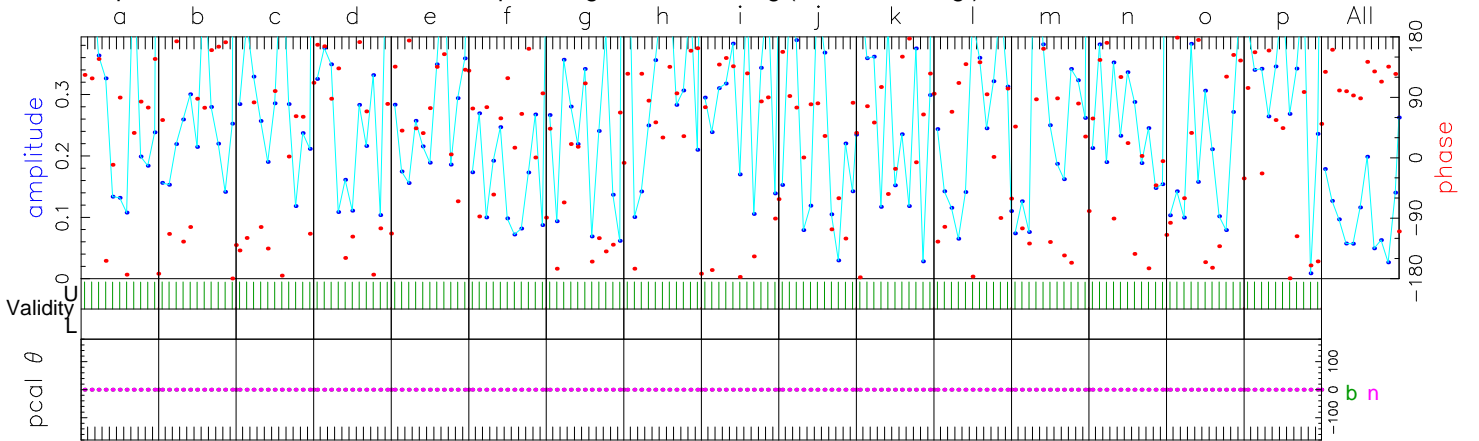
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	43.7	-15.2	27.6	40.6	33.4	-57.5	84.9	25.0	-23.9	24.5	74.6	27.0	18.7	24.8	3.4	19.8	Phase	23.7
	0.0	0.1	0.1	0.3	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.0	0.1	Ampl.	0.1
	115.5	7.3	37.6	168.1	90.9	71.1	172.9	218.4	251.1	222.0	29.5	76.1	126.7	179.3	192.6	123.8	Sbd box	167.5
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	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:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	6.17773127239E+03			Apriori delay (usec)			6.17744221496E+03			Resid mbdelay (usec)			7.80743E-03			+/- 1.6E-04		
Sband delay (usec)	6.17774315596E+03			Apriori clock (usec)			-2.7173145E+01			Resid sbdelay (usec)			3.00941E-01			+/- 2.6E-03		
Phase delay (usec)	6.17744221573E+03			Apriori clockrate (us/s)			-3.7661858E-07			Resid phdelay (usec)			7.65338E-07			+/- 5.6E-07		
Delay rate (us/s)	3.16065339181E-01			Apriori rate (us/s)			3.16056898245E-01			Resid rate (us/s)			8.44094E-06			+/- 1.6E-09		
Total phase (deg)	166.5			Apriori accel (us/s/s)			-3.05096558210E-05			Resid phase (deg)			23.7			+/- 17.4		
ph/seg (deg)	RMS	Theor.	Amplitude		0.127 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000			
amp/seg (%)	19.1	30.2	Search (4096X64)		0.096		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)		-0.016 0.016					
ph/frq (deg)	35.8	34.8	Interp.		0.000		Sample rate(MISamp/s): 64				dr window (ns/s)		-0.011 0.011					
amp/frq (%)	54.7	60.8	Inc. seg. avg.		0.115		Data rate(Mb/s): 2048		nlags: 128		ion window (TEC)		0.00 0.00					
			Inc. frq. avg.		0.128													
b: az 249.5 el 38.4 pa 40.6	n: az 274.6 el 19.6 pa 50.6			u,v (fr/asec) -1950.221 -15.053			simultaneous interpolator											
Control file: cf_1234_gmva	Input file: /Exps/c192c/v2/1234/No0117/bn..130OPJ			Output file: /Exps/c192c/v2/1234/No0117/bn.W.42.130OPJ														

Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130OPJ, No0117, bn
VLBA_BR - VLBA_NL, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



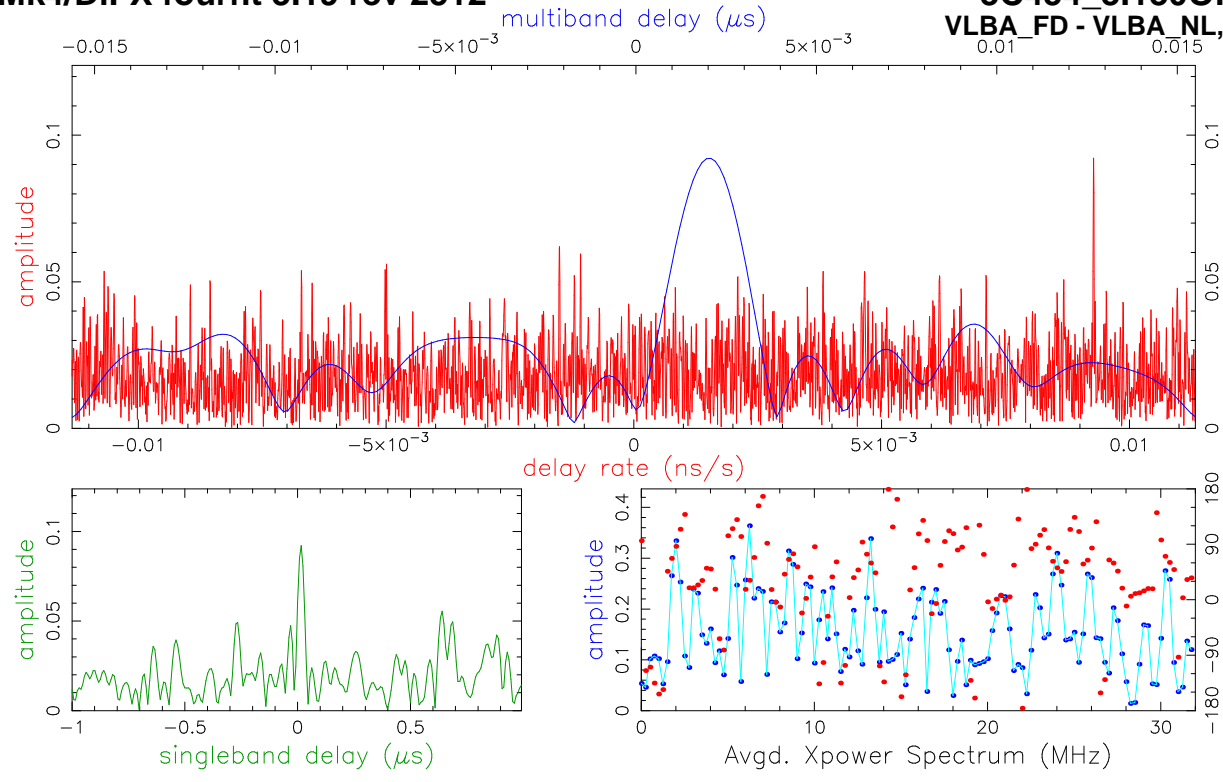
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	115.7	165.1	-165.9	145.5	109.8	35.2	-63.0	107.0	127.7	77.1	86.4	163.3	125.9	176.2	169.4	112.8	Phase	124.2
	0.3	0.2	0.1	0.2	0.2	0.1	0.0	0.3	0.3	0.2	0.1	0.1	0.1	0.0	0.1	0.2	Ampl.	0.1
	185.3	158.5	131.9	125.9	191.0	214.7	152.6	93.2	184.6	32.1	142.2	27.9	191.1	140.6	219.9	64.2	Sbd box	184.2
UL	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	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:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	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	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Tracks	
Group delay (usec)(sbd)	6.17786392540E+03			Apriori delay (usec)			6.17744221496E+03			Resid mbdelay (usec)			-1.57896E-02			+/- 1.8E-04		
Sband delay (usec)	6.17787374946E+03			Apriori clock (usec)			-2.7173145E+01			Resid sbdelay (usec)			4.31534E-01			+/- 2.8E-03		
Phase delay (usec)	6.17744221897E+03			Apriori clockrate (us/s)			-3.7661858E-07			Resid phdelay (usec)			4.00618E-06			+/- 6.0E-07		
Delay rate (us/s)	3.16046868365E-01			Apriori rate (us/s)			3.16056898245E-01			Resid rate (us/s)			-1.00299E-05			+/- 1.8E-09		
Total phase (deg)	267.0			Apriori accel (us/s/s)			-3.05096558210E-05			Resid phase (deg)			124.2			+/- 18.7		
ph/seg (deg)	RMS	Theor.	Amplitude		0.131 +/- 0.021		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000			
amp/seg (%)	23.9	32.4	Search (4096X64)		0.090		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)		-0.016 0.016					
ph/frq (deg)	59.5	56.5	Interp.		0.000		Bits/sample: 2x2		Sample rate(MISamp/s): 64		dr window (ns/s)		-0.011 0.011					
amp/frq (%)	62.9	37.4	Inc. seg. avg.		0.124		Data rate(Mb/s): 2048		nlags: 128		ion window (TEC)		0.00 0.00					
	67.9	65.2	Inc. frq. avg.		0.131													

b: az 249.5 el 38.4 pa 40.6 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -1950.221 -15.053 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/bn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/bn.W.61.130OPJ

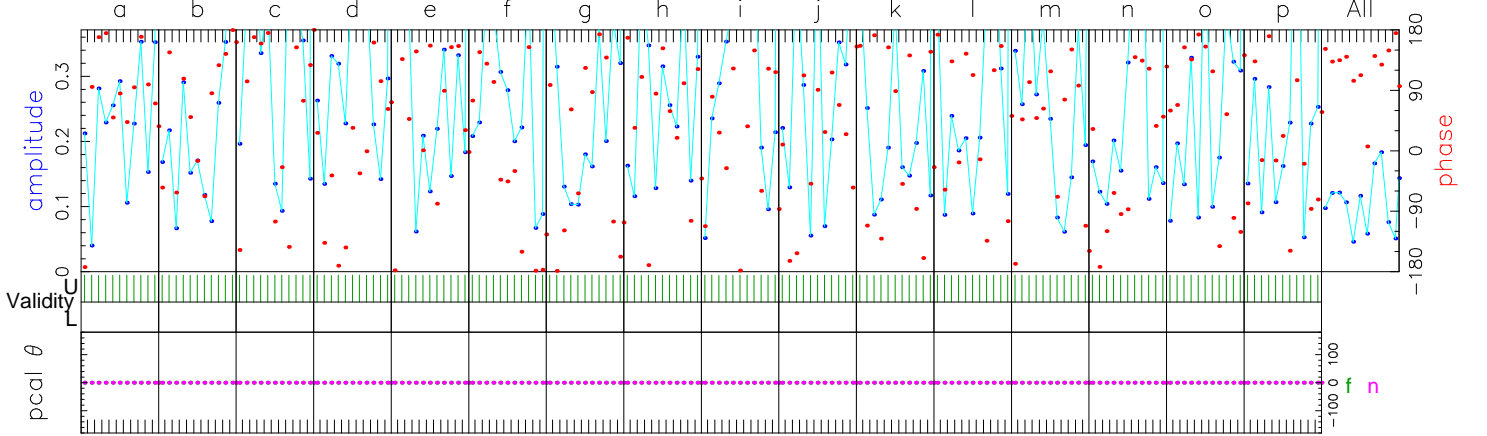
Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130OPJ, No0117, fn
VLBA_FD - VLBA_NL, fgroup W, pol RR



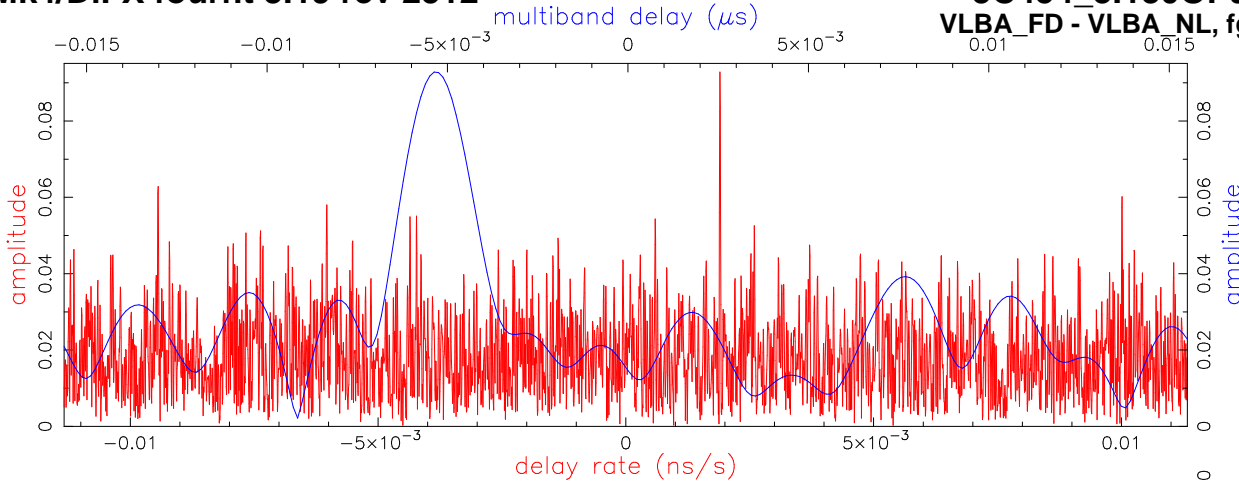
Fringe quality 0
SNR 6.1
Int time 576.909
Amp 0.124
Phase 132.9
PFD 5.0e-01
Delays (us)
SBD 0.014616
MBD 0.002008
Fringe rate (Hz) 0.800306
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091507.68
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070734
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



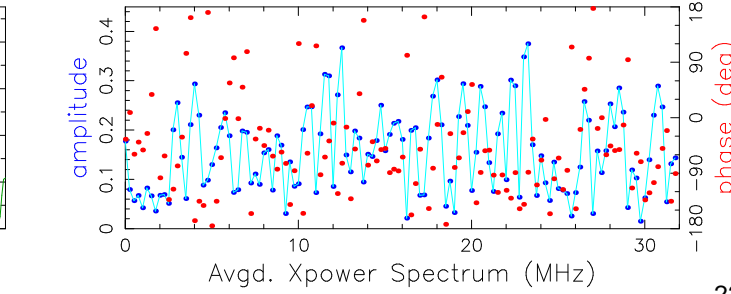
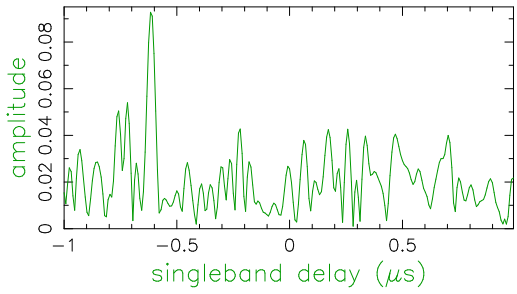
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fn	0:0	0:0	0:0	0:0	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		
n	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		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)		3.10396698548E+03								3.10396497742E+03							2.00807E-03	+/- 1.8E-04
Sband delay (usec)		3.10397959392E+03								-2.6072441E+01							1.46165E-02	+/- 2.8E-03
Phase delay (usec)		3.10396498170E+03								-2.2517302E-07							4.28442E-06	+/- 6.1E-07
Delay rate (us/s)		-8.79071246109E-02								-8.79164153658E-02							9.29075E-06	+/- 1.8E-09
Total phase (deg)					188.6					-2.15826551191E-05							132.9	+/- 18.9
ph/seg (deg)	RMS	Theor.																
amp/seg (%)	42.5	32.7																
ph/frq (deg)	47.9	57.1																
amp/frq (%)	43.5	37.8																
	50.2	66.0																
f: az 272.5 el 29.0 pa 63.5																		
n: az 274.6 el 19.6 pa 50.6																		
u,v (fr/asec) 477.096 -1828.800																		
Control file: cf_1234_gmva																		
Input file: /Exps/c192c/v2/1234/No0117/fn..130OPJ																		
Output file: /Exps/c192c/v2/1234/No0117/fn.W.35.130OPJ																		

simultaneous interpolator



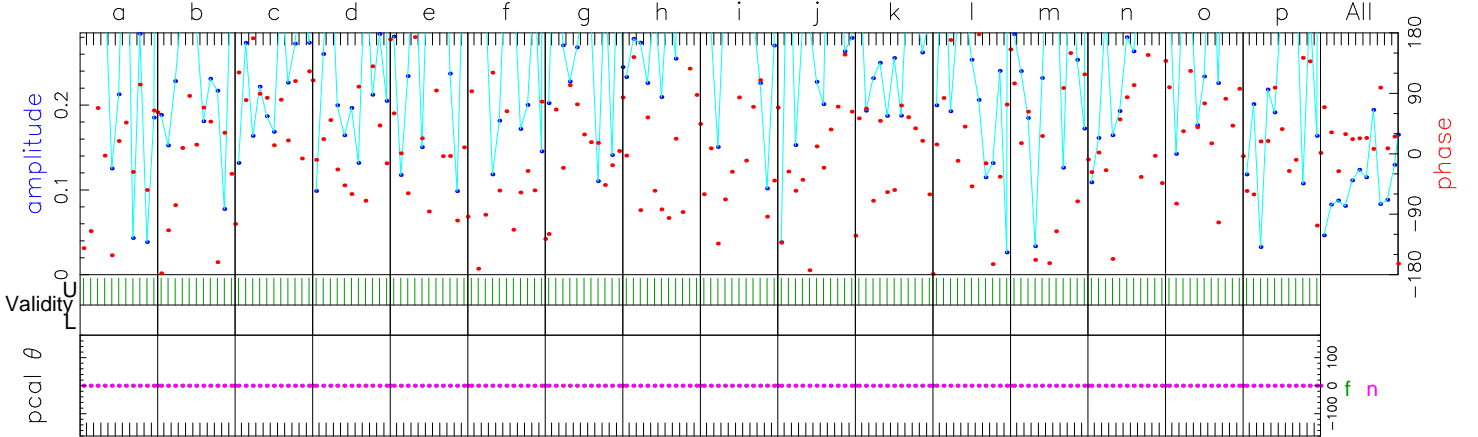
Fringe quality 0

SNR 6.2
 Int time 576.909
 Amp 0.095
 Phase 23.1
 PFD 3.0e-01
 Delays (us)
 SBD -0.614142
 MBD -0.005372
 Fringe rate (Hz) 0.163576
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c192c
 Exper # 16383
 Yr:day 2019:279
 Start 091507.68
 Stop 092500.06
 FRT 092000.00
 Corr/FF/build 2020:077:052457
 2020:086:070745
 2020:014:135814
 RA & Dec (J2000) 22h53m57.747940s
 +16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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
	47.0	19.4	77.9	4.6	0.5	-74.9	19.5	-56.3	-3.2	21.1	19.8	25.4	144.6	11.6	65.7	2.4	Phase	23.1
	0.1	0.1	0.2	0.1	0.1	0.0	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1
	33.0	173.4	84.4	67.7	68.3	129.9	51.6	86.4	51.1	187.5	170.9	106.0	140.3	131.3	49.7	103.1	Sbd box	50.4
U/L	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:n	0:0	0:0	0:0	0:0	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	
fn	0:0	0:0	0:0	0:0	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	
n	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	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd)		3.10336585537E+03	Apriori delay (usec)	3.10396497742E+03	Resid mbdelay (usec)	-5.37205E-03	+/-	1.7E-04
Sband delay (usec)		3.10335083542E+03	Apriori clock (usec)	-2.6072441E+01	Resid sbdelay (usec)	-6.14142E-01	+/-	2.8E-03
Phase delay (usec)		3.10396497816E+03	Apriori clockrate (us/s)	-2.2517302E-07	Resid phdelay (usec)	7.44659E-07	+/-	6.0E-07
Delay rate (us/s)		-8.79145164147E-02	Apriori rate (us/s)	-8.79164153658E-02	Resid rate (us/s)	1.89895E-06	+/-	1.8E-09
Total phase (deg)			Apriori accel (us/s/s)	-2.15826551191E-05	Resid phase (deg)	23.1	+/-	18.6

ph/seg (deg)	RMS	Theor.	Amplitude	0.095 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	32.1	32.1	Search (4096X64)	0.092	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	40.2	56.1	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.016 0.016
amp/frq (%)	52.2	37.1	Inc. seg. avg.	0.091	Sample rate(MISamp/s): 64	dr window (ns/s) -0.011 0.011
	56.8	64.8	Inc. frq. avg.	0.096	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 272.5 el 29.0 pa 63.5 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) 477.096 -1828.800 simultaneous interpolator

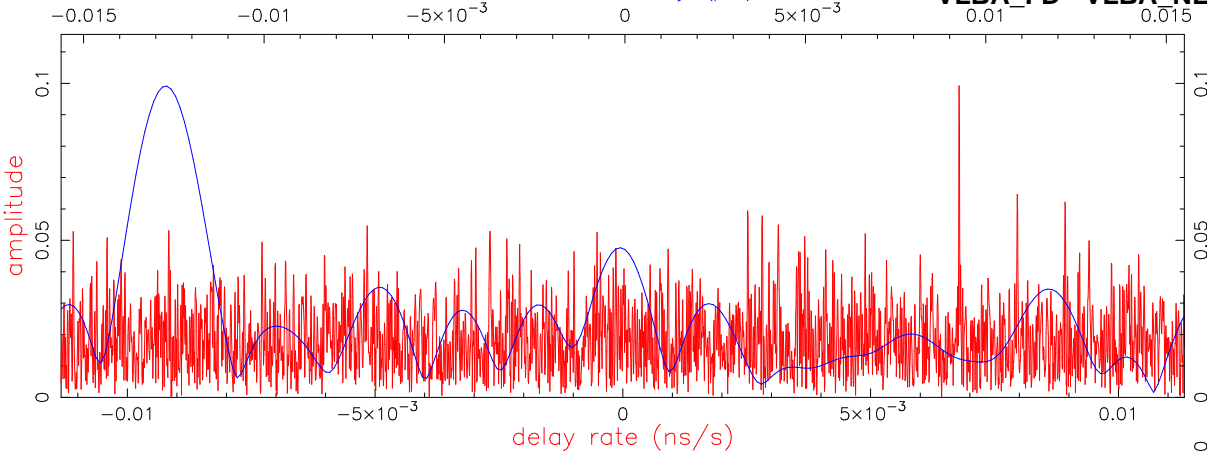
Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/fn..1300PJ Output file: /Exps/c192c/v2/1234/No0117/fn.W.58.1300PJ

Mk4/DiFX fourfit 3.19 rev 2512

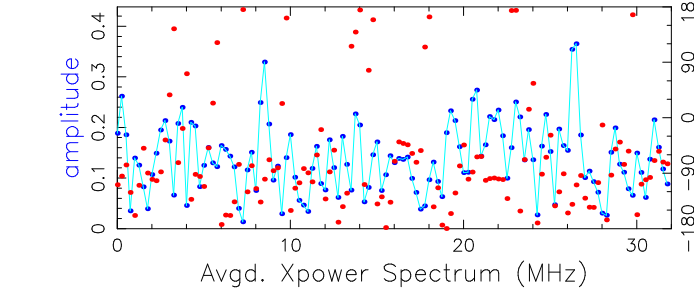
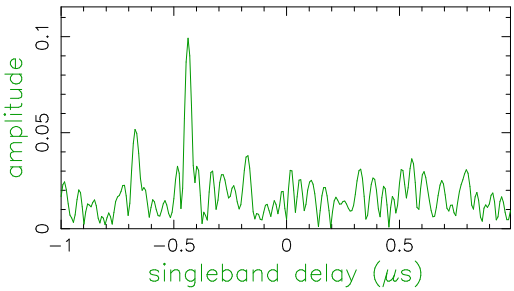
3C454_3.130OPJ, No0117, fn
VLBA_FD - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

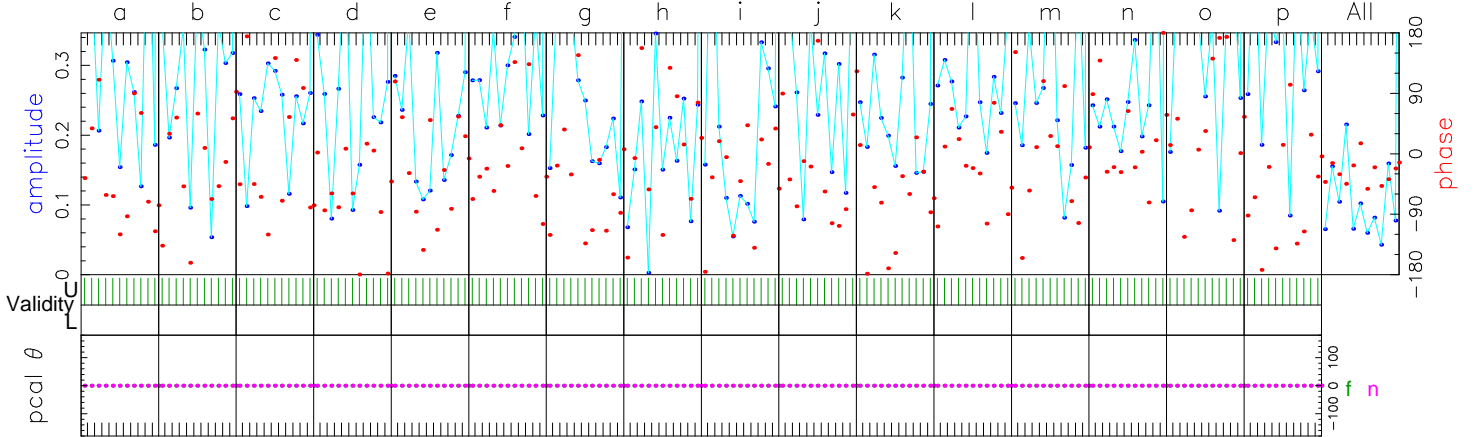


SNR 6.5
Int time 576.909
Amp 0.116
Phase -28.2
PFD 3.9e-02
Delays (us)
SBD -0.436926
MBD -0.012715
Fringe rate (Hz) 0.585243
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091507.68
Stop 092500.06
FRT 092000.00
Corr/FF/build 2020:077:052457
2020:086:070755
2020:014:135814
RA & Dec (J2000) 22h53m57.747940s +16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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	
	-47.9	3.4	-92.8	-28.3	-1.9	-31.7	-48.0	68.4	-8.5	-29.4	-60.7	-14.3	-12.6	8.1	-98.4	-65.3	Phase	-28.2	
	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.0	0.2	Ampl.	0.1	
	94.5	8.8	231.2	116.5	161.6	84.3	160.5	62.1	37.9	177.3	115.3	107.9	196.0	85.2	143.8	65.4	Sbd box	73.1	
U/L	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	APs used		
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
f:n	0:0	0:0	0:0	0:0	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		
fn	0:0	0:0	0:0	0:0	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		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks		
																	Tracks		
Group delay (usec)(sbd)			3.10351476289E+03					Apriori delay (usec)		3.10396497742E+03							Resid mbdelay (usec)	-1.27145E-02	+/- 1.7E-04
Sband delay (usec)			3.10352805142E+03					Apriori clock (usec)		-2.6072441E+01							Resid sbdelay (usec)	-4.36926E-01	+/- 2.6E-03
Phase delay (usec)			3.10396497651E+03					Apriori clockrate (us/s)		-2.2517302E-07							Resid phdelay (usec)	-9.09009E-07	+/- 5.7E-07
Delay rate (us/s)			-8.79096212725E-02					Apriori rate (us/s)		-8.79164153658E-02							Resid rate (us/s)	6.79409E-06	+/- 1.7E-09
Total phase (deg)					27.6			Apriori accel (us/s/s)		-2.15826551191E-05							Resid phase (deg)	-28.2	+/- 17.6

ph/seg (deg) 18.8 30.4
amp/seg (%) 64.9 53.1
ph/frq (deg) 42.7 35.2
amp/frq (%) 45.2 61.4

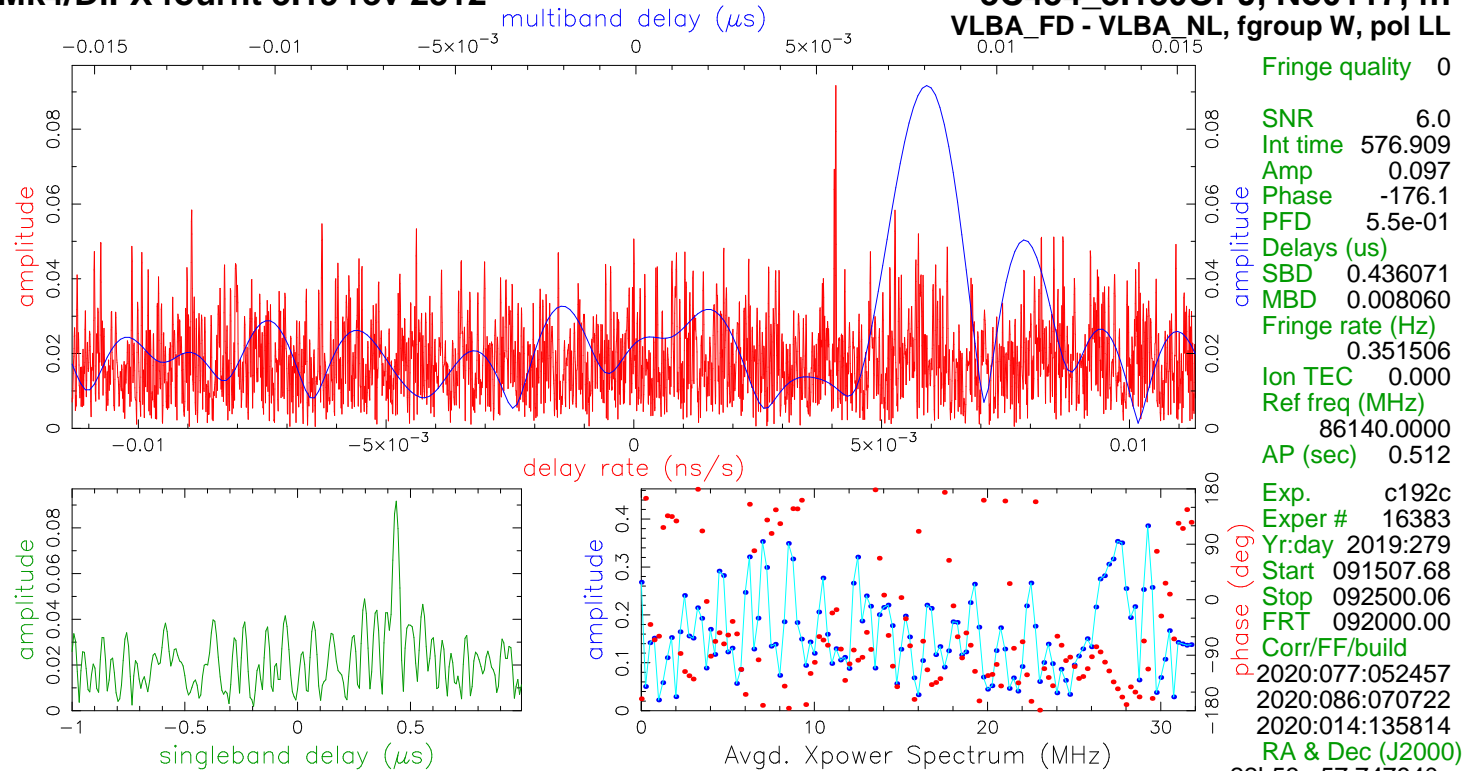
RMS Theor. Amplitude 0.116 +/- 0.018
Search (4096X64) 0.097
Interp. 0.000
Inc. seg. avg. 0.107
Inc. frq. avg. 0.114

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

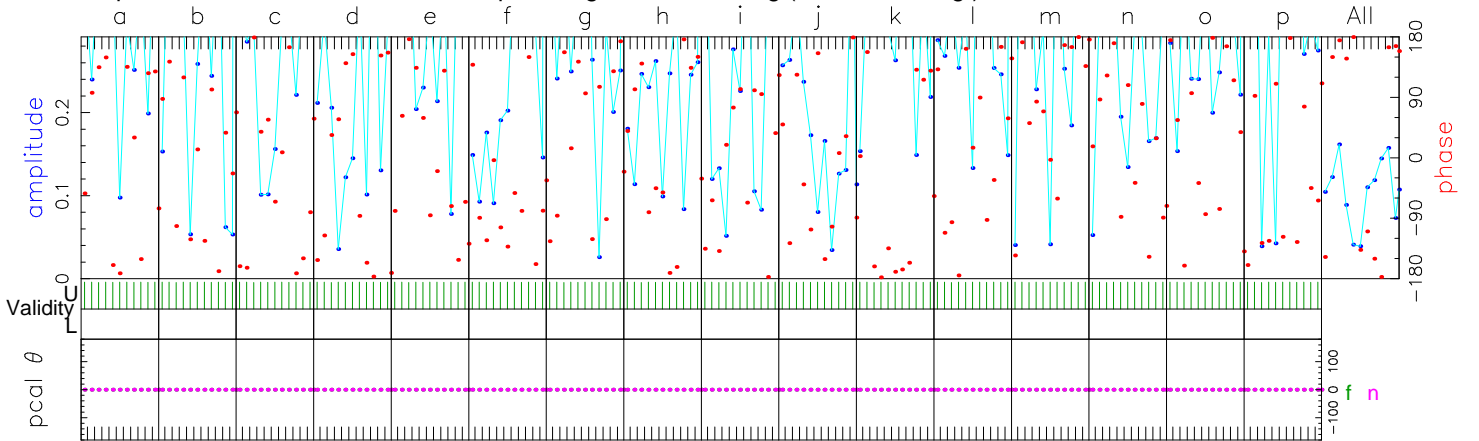
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

f: az 272.5 el 29.0 pa 63.5 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) 477.096 -1828.800 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/fn..1300PJ Output file: /Exps/c192c/v2/1234/No0117/fn.W.78.1300PJ



Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0		APs used						
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs						
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase						
f:n	0:0	0:0	0:0	0:0	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:n	0:0	0:0	0:0	0:0	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						
f	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						
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks						
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks						
Group delay (usec)(sbd)		3.10441053771E+03																Apriori delay (usec)	3.10396497742E+03	Resid mbdelay (usec)	8.06030E-03	+/-	1.8E-04	
Sband delay (usec)		3.10440104792E+03																	Apriori clock (usec)	-2.6072441E+01	Resid sbdelay (usec)	4.36071E-01	+/-	2.9E-03
Phase delay (usec)		3.10396497174E+03																	Apriori clockrate (us/s)	-2.2517302E-07	Resid phdelay (usec)	-5.68034E-06	+/-	6.1E-07
Delay rate (us/s)		-8.79123347336E-02																	Apriori rate (us/s)	-8.79164153658E-02	Resid rate (us/s)	4.08063E-06	+/-	1.8E-09
Total phase (deg)					-120.4														Apriori accel (us/s/s)	-2.15826551191E-05	Resid phase (deg)	-176.1	+/-	19.0

ph/seg (deg) 31.3 32.9
amp/seg (%) 46.0 57.3
ph/frq (deg) 32.3 37.9
amp/frq (%) 59.9 66.2

RMS Theor. Amplitude 0.097 +/- 0.016
Search (4096X64) 0.091
Interp. 0.000
Inc. seg. avg. 0.096
Inc. frq. avg. 0.091

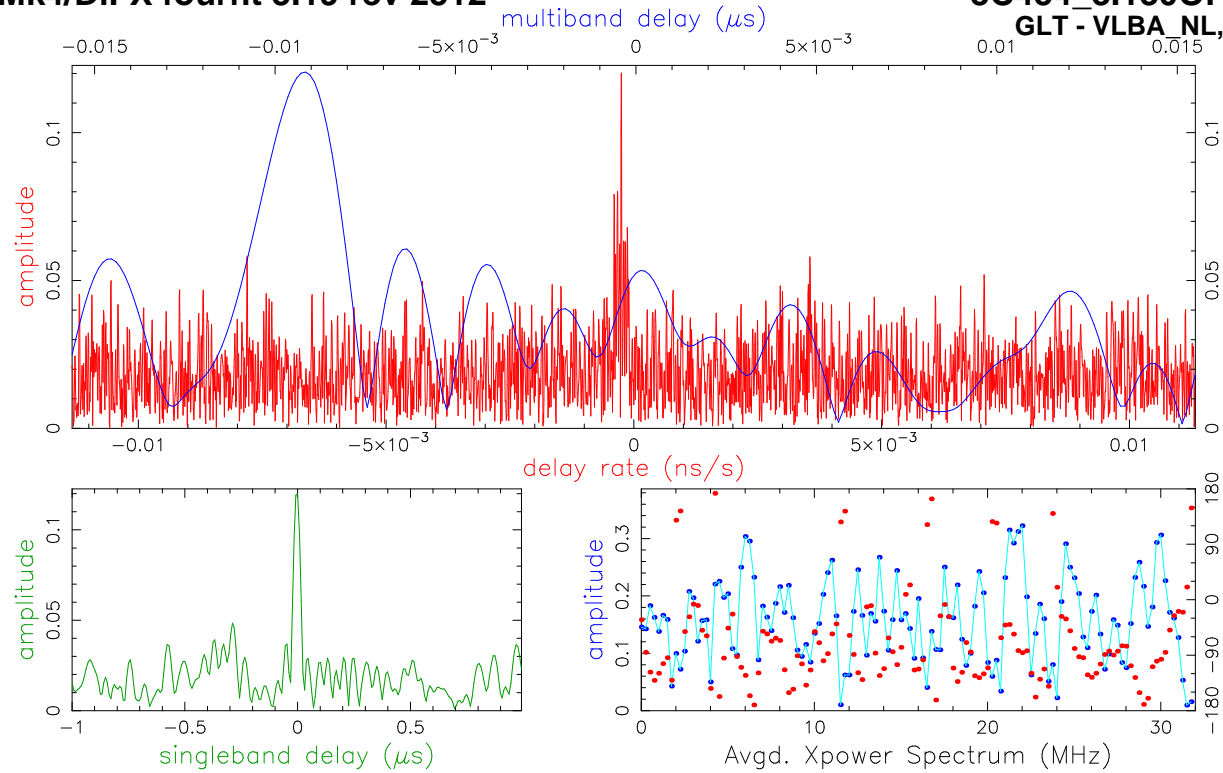
f: az 272.5 el 29.0 pa 63.5
n: az 274.6 el 19.6 pa 50.6
u,v (fr/asec) 477.096 -1828.800

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

Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/fn..1300PJ Output file: /Exps/c192c/v2/1234/No0117/fn.W.8.1300PJ

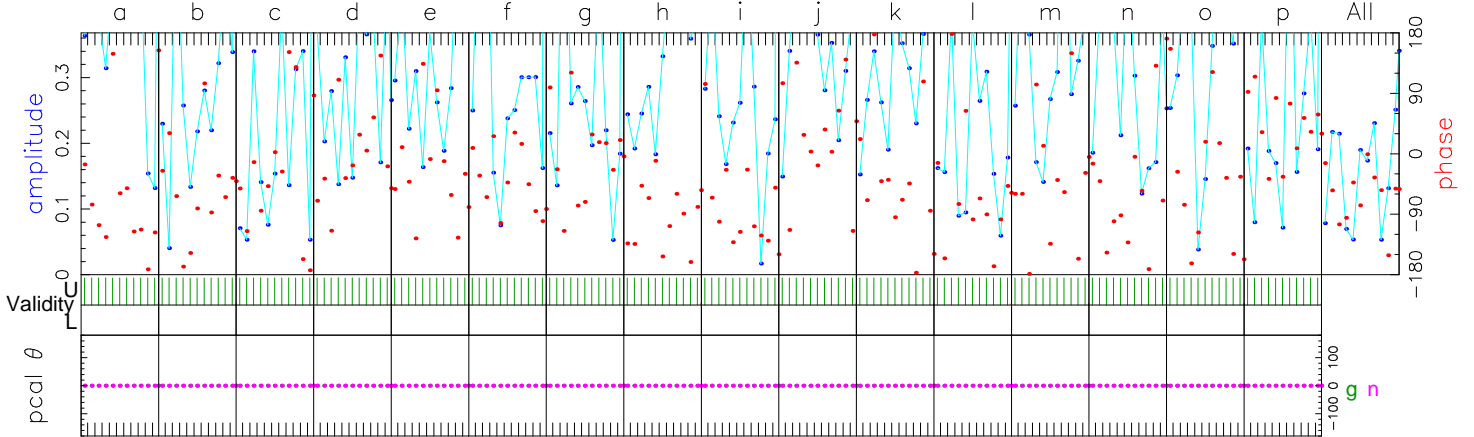


Fringe quality 9

SNR 8.1
Int time 584.706
Amp 0.123
Phase -59.7
PFD 3.4e-07
Delays (us)
SBD -0.003595
MBD -0.009277
Fringe rate (Hz)
-0.022176
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

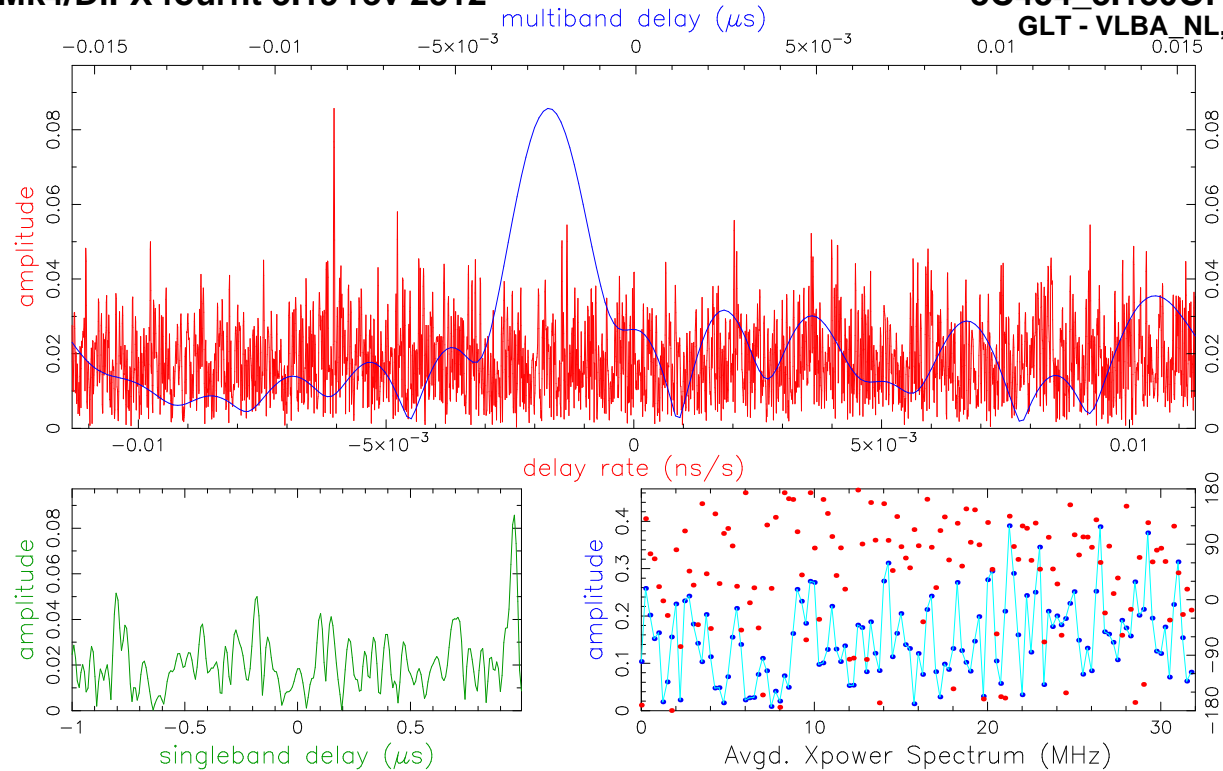
Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070818
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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					
	-94.6	-61.9	-51.8	-10.7	-44.7	-38.2	-27.1	-94.7	-79.6	27.3	-82.4	-102.2	-72.5	-96.7	-50.9	49.7		Phase -59.7					
	0.2	0.2	0.0	0.2	0.2	0.2	0.1	0.3	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2		Ampl. 0.1					
	130.0	128.8	51.2	124.4	127.0	128.1	251.0	129.3	104.5	35.1	132.3	92.3	128.6	129.0	4.8	129.0		Sbd box 128.5					
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0		APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase					
g:n	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-2.01546655465E+03															Apriori delay (usec)	-2.01545727807E+03	Resid mbdelay (usec)	-9.27658E-03	+/-	1.3E-04
Sband delay (usec)			-2.01546087257E+03															Apriori clock (usec)	-2.5236599E+01	Resid sbdelay (usec)	-3.59450E-03	+/-	2.1E-03
Phase delay (usec)			-2.01545728000E+03															Apriori clockrate (us/s)	-5.9223514E-08	Resid phdelay (usec)	-1.92590E-06	+/-	4.6E-07
Delay rate (us/s)			7.53764025774E-01															Apriori rate (us/s)	7.53764283211E-01	Resid rate (us/s)	-2.57437E-07	+/-	1.3E-09
Total phase (deg)																		Apriori accel (us/s/s)	2.02859060019E-05	Resid phase (deg)	-59.7	+/-	14.1

ph/seg (deg) 41.0 24.5 Search (4096X64) 0.116 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.7 42.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.7 28.3 Inc. seg. avg. 0.140 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 57.0 49.3 Inc. frq. avg. 0.144 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 g: az 284.3 el 13.3 pa 13.5 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -4450.044 3113.191 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/gn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/gn.W.114.130OPJ

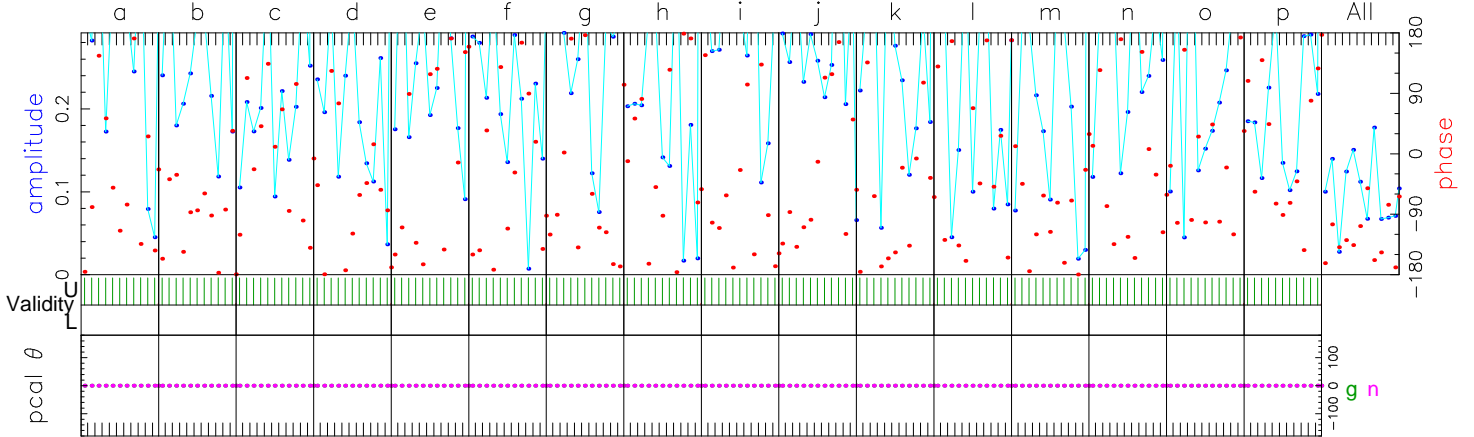


Fringe quality 0

SNR 5.7
Int time 584.827
Amp 0.097
Phase -129.4
PFD 1.0e+00
Delays (us)
SBD 0.959060
MBD -0.002430
Fringe rate (Hz)
-0.522169
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

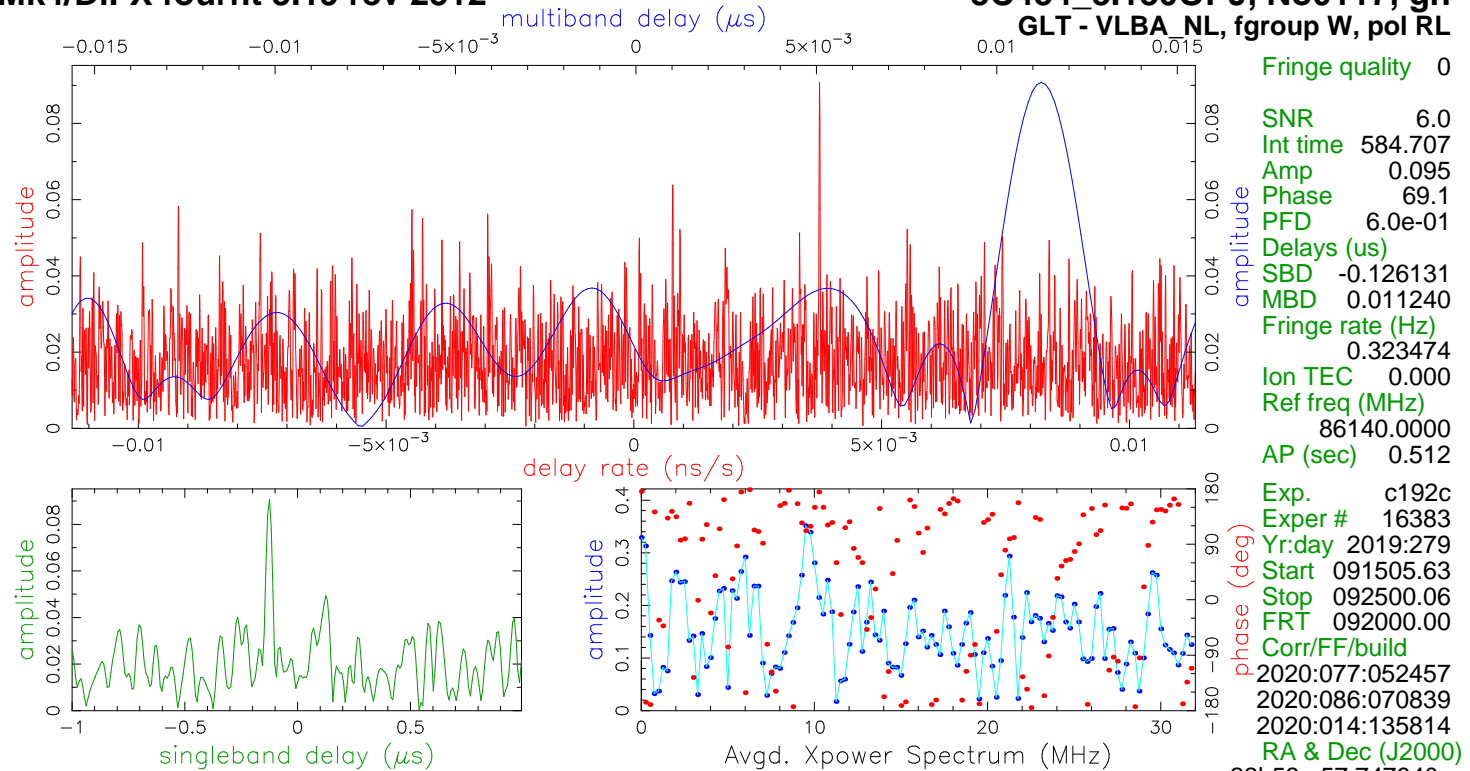
Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070830
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec

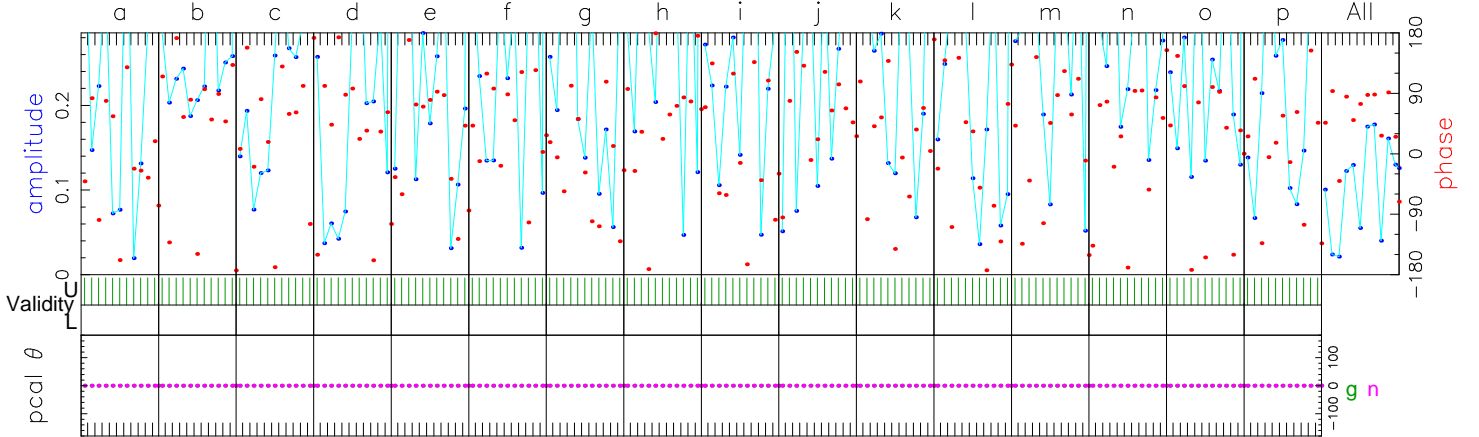


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-128.7	-80.6	119.7	-105.4	-162.2	-153.9	-138.6	-161.7	-141.8	-148.2	-136.4	-163.6	-95.7	-122.5	-94.7	-130.0	Phase	-129.4				
	0.1	0.2	0.0	0.1	0.2	0.1	0.2	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	Ampl.	0.1				
	174.2	96.9	139.7	67.0	141.4	52.7	102.4	161.9	103.3	150.2	92.1	145.6	233.5	158.8	210.3	47.2	Sbd box	251.8				
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
g:n	0:0	0:0	0:0	0:0	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:n	0:0	0:0	0:0	0:0	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	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					
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-2.01449095799E+03														Apriori delay (usec)	-2.01545727807E+03	Resid mbdelay (usec)	-2.42991E-03	+/-	1.9E-04
Sband delay (usec)			-2.01449821807E+03														Apriori clock (usec)	-2.5236599E+01	Resid sbdelay (usec)	9.59060E-01	+/-	3.0E-03
Phase delay (usec)			-2.01545728225E+03														Apriori clockrate (us/s)	-5.9223514E-08	Resid phdelay (usec)	-4.17270E-06	+/-	6.5E-07
Delay rate (us/s)			7.53758221348E-01														Apriori rate (us/s)	7.53764283211E-01	Resid rate (us/s)	-6.06186E-06	+/-	1.9E-09
Total phase (deg)																	Apriori accel (us/s/s)	2.02859060019E-05	Resid phase (deg)	-129.4	+/-	20.1

ph/seg (deg) RMS Theor. Amplitude 0.097 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 52.2 60.8 Search (4096X64) 0.085 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.8 40.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 59.4 70.2 Inc. seg. avg. 0.096 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 g: az 284.3 el 13.3 pa 13.5 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -4450.044 3113.191 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/gn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/gn.W.136.130OPJ simultaneous interpolator

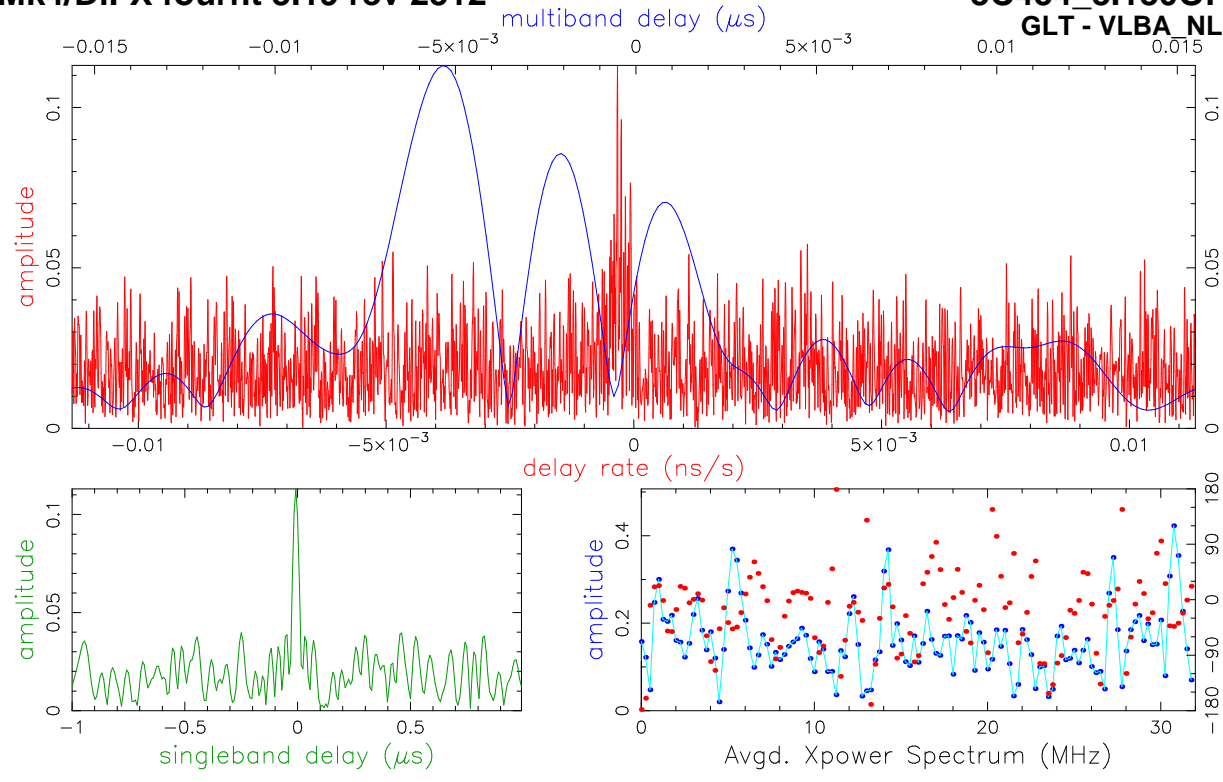


Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



	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
18.8	98.8	108.6	60.4	77.3	48.1	-12.6	64.8	147.0	73.8	20.7	-160.5	98.7	69.8	84.2	34.0	Phase	69.1	
0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1	
252.9	162.0	150.0	86.1	109.4	52.8	57.0	112.1	254.8	112.7	55.5	155.1	171.8	140.8	205.6	235.2	Sbd box	112.9	
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:n	0:0	0:0	0:0	0:0	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:n	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Tracks	
Group delay (usec)(sbd)		-2.01557103770E+03		Apriori delay (usec)		-2.01545727807E+03		Resid mbdelay (usec)		1.12404E-02		+/-	1.8E-04					
Sband delay (usec)		-2.01558340907E+03		Apriori clock (usec)		-2.5236599E+01		Resid sbdelay (usec)		-1.26131E-01		+/-	2.9E-03					
Phase delay (usec)		-2.01545727584E+03		Apriori clockrate (us/s)		-5.9223514E-08		Resid phdelay (usec)		2.22845E-06		+/-	6.1E-07					
Delay rate (us/s)		7.53768038425E-01		Apriori rate (us/s)		7.53764283211E-01		Resid rate (us/s)		3.75521E-06		+/-	1.8E-09					
Total phase (deg)			-266.8	Apriori accel (us/s/s)		2.02859060019E-05		Resid phase (deg)		69.1		+/-	19.0					

	RMS	Theor.	Amplitude	0.095 +/- 0.016	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	42.2	33.0	Search (4096X64)	0.088	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	63.4	57.6	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.016 0.016
ph/frq (deg)	53.5	38.1	Inc. seg. avg.	0.093	Sample rate(MSamp/s): 64	dr window (ns/s) -0.011 0.011
amp/frq (%)	57.9	66.5	Inc. frq. avg.	0.094	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

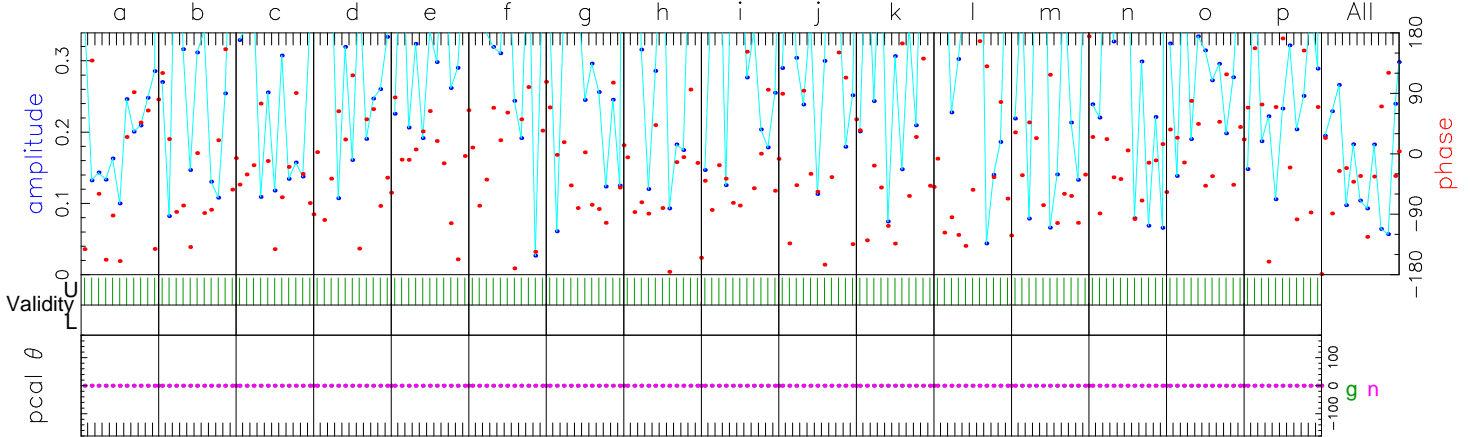


Fringe quality 9

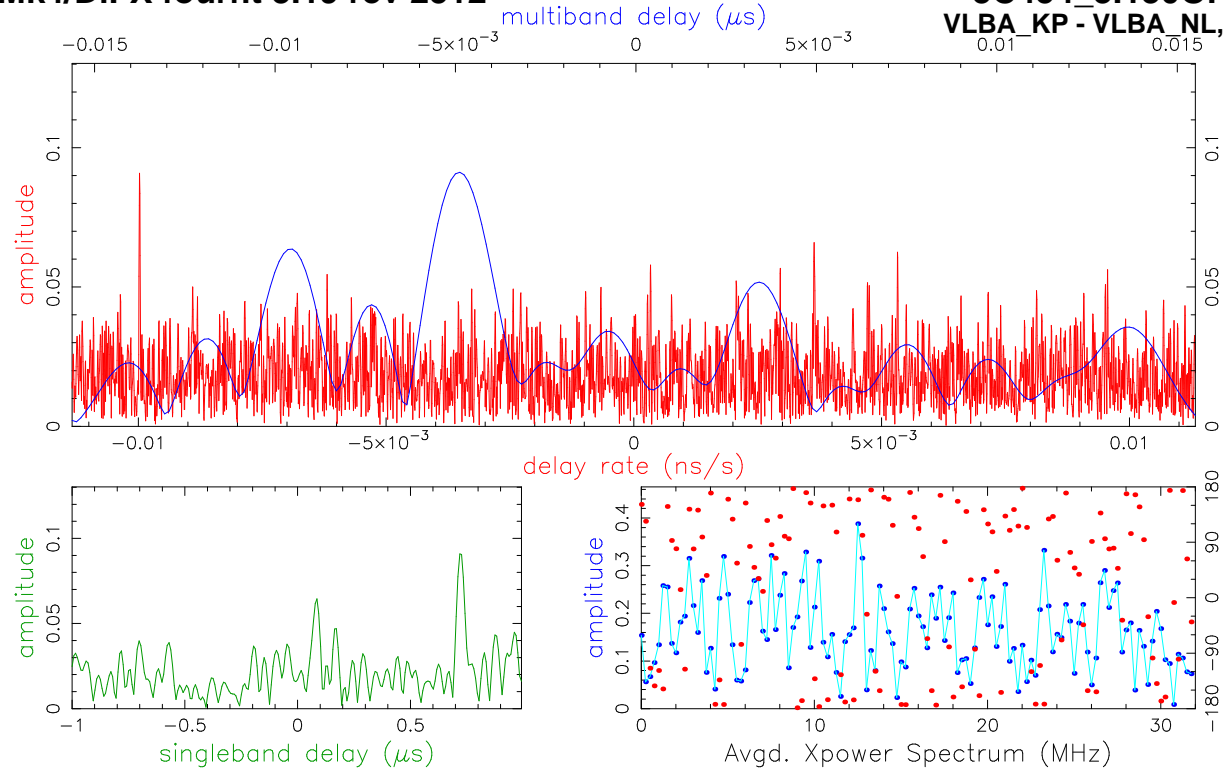
SNR 7.5
Int time 584.828
Amp 0.113
Phase -32.9
PFD 4.9e-05
Delays (us)
SBD -0.008256
MBD -0.005333
Fringe rate (Hz)
-0.028698
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070805
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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
168.1	-69.7	-36.2	-32.0	6.0	34.8	-29.0	-39.2	-53.7	-105.6	-74.8	-106.1	-42.7	-19.1	17.0	158.3	158.3	Phase	-32.9
0.0	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	Ampl.	0.1
51.3	174.4	169.0	119.8	128.3	8.7	145.6	114.5	210.9	156.0	32.3	10.7	127.2	128.7	129.4	70.9	70.9	Sbd box	127.9
UL	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:n	0:0	0:0	0:0	0:0	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:n	0:0	0:0	0:0	0:0	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	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	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Group delay (usec)(sbd)	-2.01546261148E+03			Apriori delay (usec)			-2.01545727807E+03			Resid mbdelay (usec)			-5.33340E-03			+/- 1.4E-04		
Sband delay (usec)	-2.01546553407E+03			Apriori clock (usec)			-2.5236599E+01			Resid sbdelay (usec)			-8.25600E-03			+/- 2.3E-03		
Phase delay (usec)	-2.01545727913E+03			Apriori clockrate (us/s)			-5.9223514E-08			Resid phdelay (usec)			-1.06090E-06			+/- 4.9E-07		
Delay rate (us/s)	7.53763950060E-01			Apriori rate (us/s)			7.53764283211E-01			Resid rate (us/s)			-3.33151E-07			+/- 1.4E-09		
Total phase (deg)	-8.9			Apriori accel (us/s/s)			2.02859060019E-05			Resid phase (deg)			-32.9			+/- 15.3		
ph/seg (deg)	RMS	Theor.	Amplitude		0.113 +/- 0.015		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)		-1.000		1.000			
amp/seg (%)	66.6	26.5	Search (4096X64)		0.111		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)		-0.016		0.016			
ph/frq (deg)	74.1	46.3	Interp.		0.000		Bits/sample: 2x2		Sample rate(MISamp/s): 64		dr window (ns/s)		-0.011		0.011			
amp/frq (%)	74.1	30.7	Inc. seg. avg.		0.141		Data rate(Mb/s): 2048		nlags: 128		t_cohere infinite		ion window (TEC)		0.00		0.00	
	64.5	53.5	Inc. frq. avg.		0.135													
g: az 284.3 el 13.3 pa 13.5	n: az 274.6 el 19.6 pa 50.6			u,v (fr/asec) -4450.044 3113.191												simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c192c/v2/1234/No0117/gn..130OPJ			Output file: /Exps/c192c/v2/1234/No0117/gn.W.89.130OPJ														

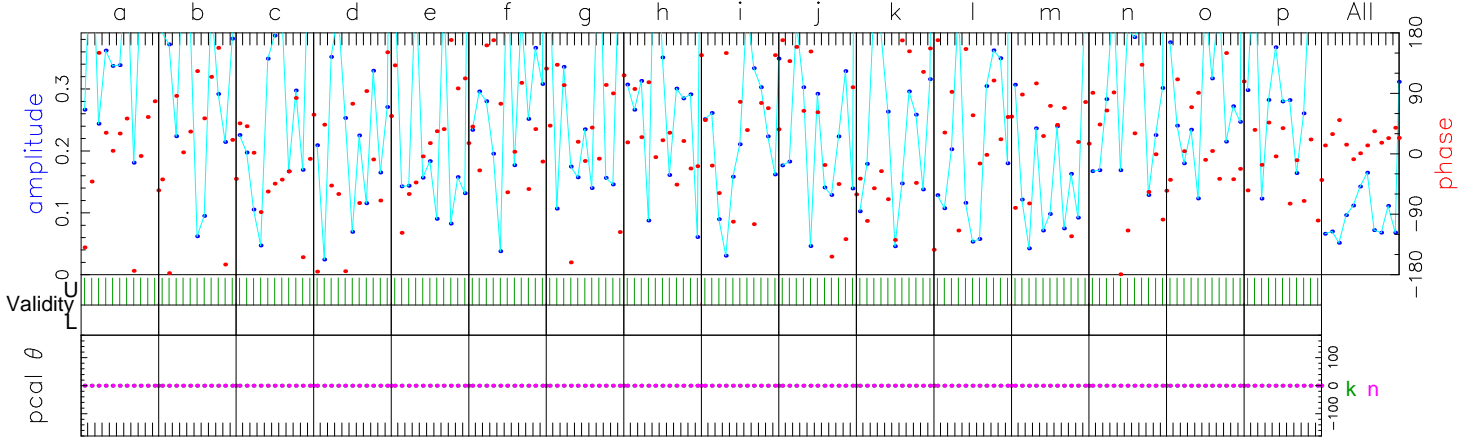


Fringe quality 0

SNR 6.1
Int time 582.384
Amp 0.130
Phase 16.5
PFD 4.3e-01
Delays (us)
SBD 0.722499
MBD -0.004809
Fringe rate (Hz)
-0.860732
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070819
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec

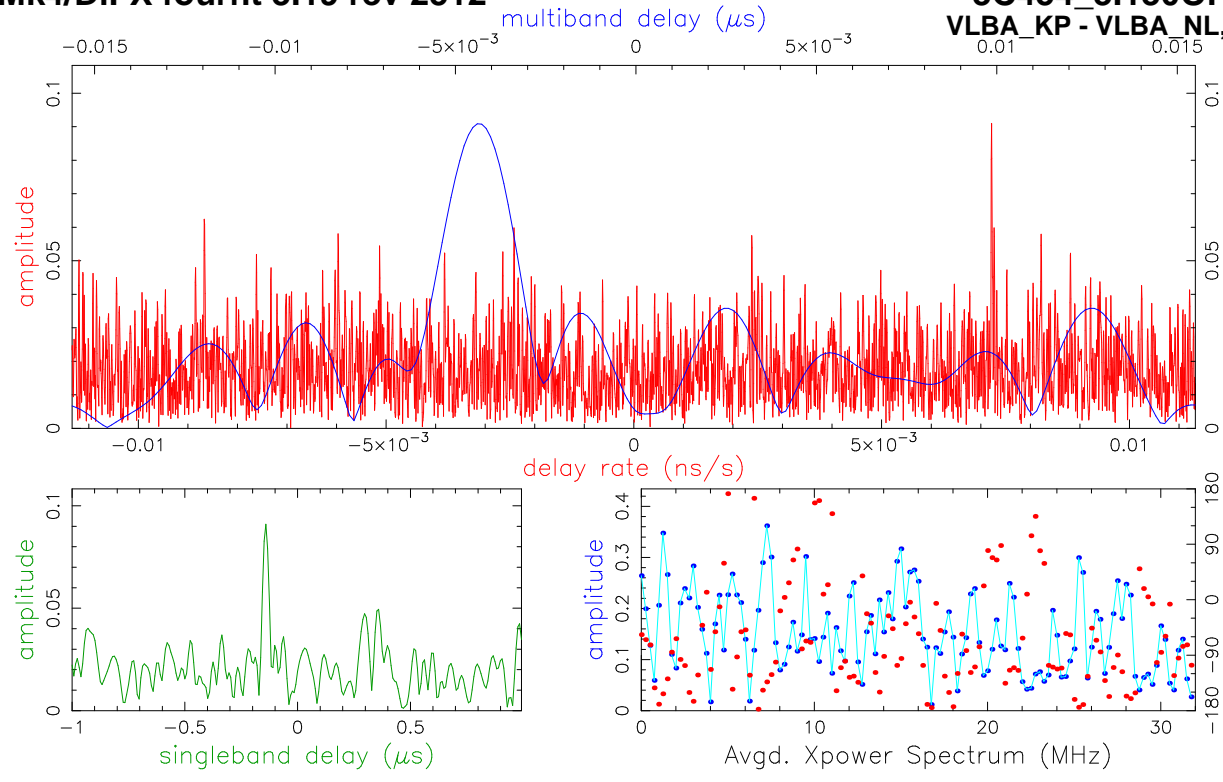


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0		
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
k:n	0:0	0:0	0:0	0:0	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		
n	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		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)		5.19784885696E+03		Apriori delay (usec)		5.19713491641E+03		Resid mbdelay (usec)		-4.80945E-03		+/-	1.8E-04					
Sband delay (usec)		5.19785741541E+03		Apriori clock (usec)		-2.6949562E+01		Resid sbdelay (usec)		7.22499E-01		+/-	2.8E-03					
Phase delay (usec)		5.19713491694E+03		Apriori clockrate (us/s)		-3.2880250E-07		Resid phdelay (usec)		5.31056E-07		+/-	6.1E-07					
Delay rate (us/s)		4.58457627776E-03		Apriori rate (us/s)		4.59456852524E-03		Resid rate (us/s)		-9.99225E-06		+/-	1.8E-09					
Total phase (deg)			268.3	Apriori accel (us/s/s)		-3.20951157279E-05		Resid phase (deg)		16.5		+/-	18.8					

ph/seg (deg) 16.5 32.5 Search (4096X64) 0.130 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 40.6 56.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.6 37.6 Inc. seg. avg. 0.114 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 68.2 65.6 Inc. frq. avg. 0.135 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 267.7 el 35.5 pa 62.0 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -97.166 -1897.478 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/kn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/kn.W.116.130OPJ

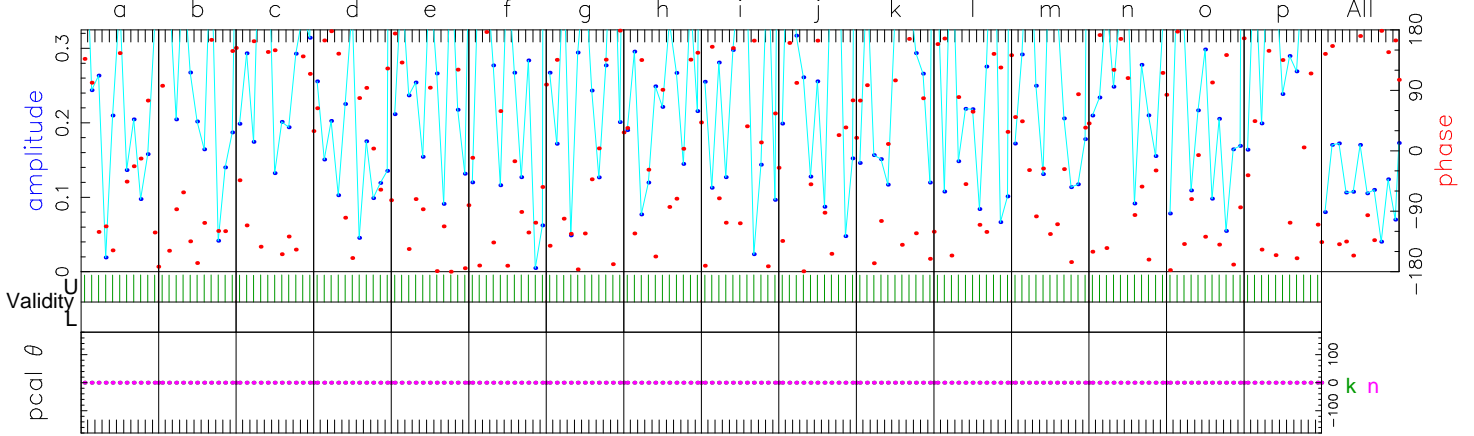
Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130OPJ, No0117, kn
VLBA_KP - VLBA_NL, fgroup W, pol LR



Fringe quality 0
SNR 6.0
Int time 582.383
Amp 0.108
Phase -169.9
PFD 6.2e-01
Delays (us)
SBD -0.141368
MBD -0.004358
Fringe rate (Hz) 0.622786
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070829
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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	
	172.5	-150.0	-173.0	165.4	170.9	-151.7	-149.5	-148.7	-148.7	157.2	156.5	167.7	-48.1	166.8	-145.3	-168.8	Phase	-169.9	
	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1	
	210.4	186.7	176.4	251.7	255.1	14.8	111.8	127.0	236.5	212.2	109.1	191.3	4.4	166.9	209.9	31.8	Sbd box	110.9	
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used		
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase		
k:n	0:0	0:0	0:0	0:0	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		
n	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		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks		
																	Tracks		
Group delay (usec)(sbd)			5.1970055823E+03							5.19713491641E+03							Resid mbdelay (usec)	-4.35819E-03	+/- 1.8E-04
Sband delay (usec)			5.19699354791E+03							-2.6949562E+01							Resid sbdelay (usec)	-1.41368E-01	+/- 2.9E-03
Phase delay (usec)			5.19713491093E+03							-3.2880250E-07							Resid phdelay (usec)	-5.47745E-06	+/- 6.1E-07
Delay rate (us/s)			4.60179845730E-03							4.59456852524E-03							Resid rate (us/s)	7.22993E-06	+/- 1.8E-09
Total phase (deg)					82.0					-3.20951157279E-05							Resid phase (deg)	-169.9	+/- 19.1

ph/seg (deg) 38.0 33.0
amp/seg (%) 52.0 57.6
ph/frq (deg) 39.7 38.1
amp/frq (%) 45.0 66.6

RMS Theor. Amplitude 0.108 +/- 0.018
Search (4096X64) 0.090
Interp. 0.000
Inc. seg. avg. 0.117
Inc. frq. avg. 0.105

Group delay (usec)(sbd) 5.1970055823E+03
Sband delay (usec) 5.19699354791E+03
Phase delay (usec) 5.19713491093E+03
Delay rate (us/s) 4.60179845730E-03
Total phase (deg) 82.0

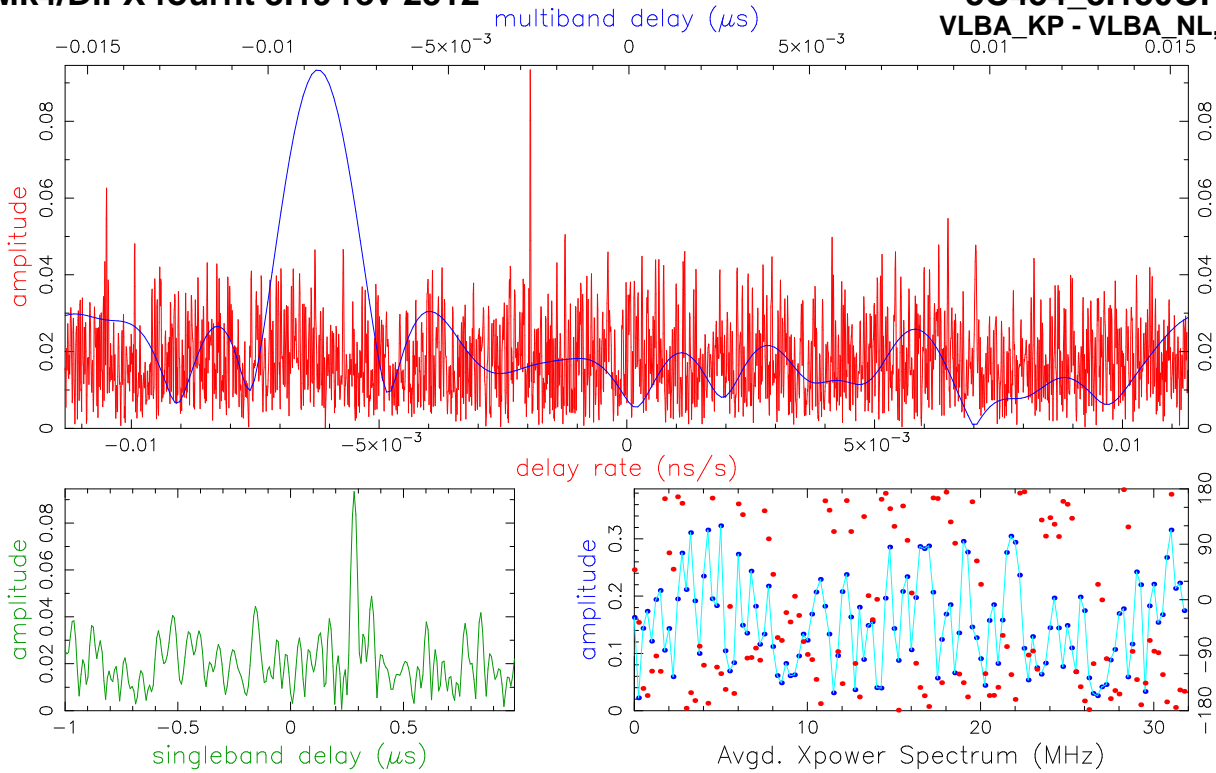
Apriori delay (usec) 5.19713491641E+03
Apriori clock (usec) -2.6949562E+01
Apriori clockrate (us/s) -3.2880250E-07
Apriori rate (us/s) 4.59456852524E-03
Apriori accel (us/s/s) -3.20951157279E-05

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

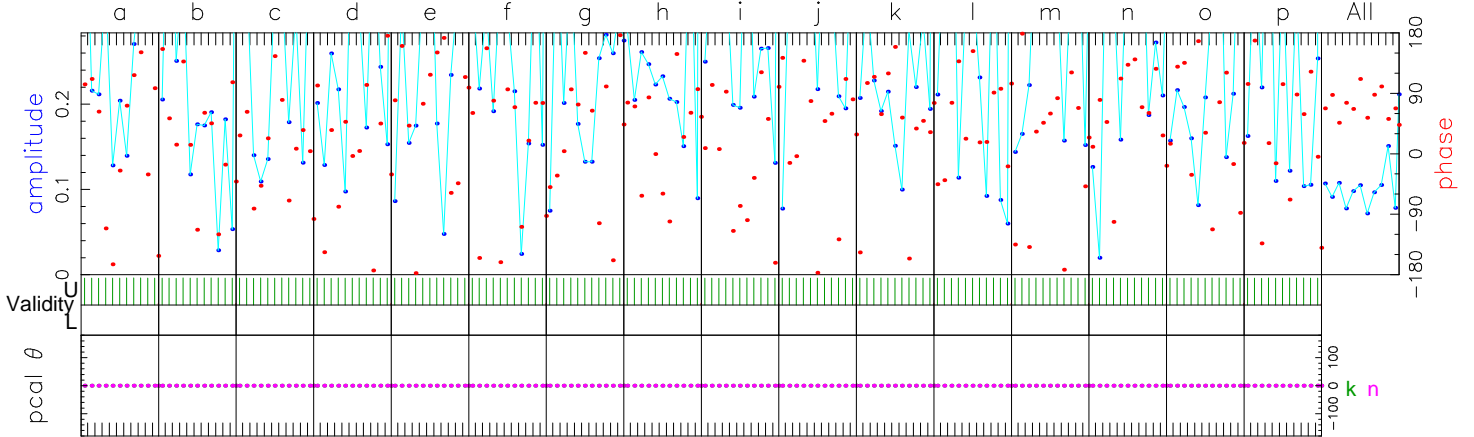
k: az 267.7 el 35.5 pa 62.0 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -97.166 -1897.478 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/kn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/kn.W.135.130OPJ



Fringe quality 0
 SNR 6.2
 Int time 582.385
 Amp 0.095
 Phase 73.2
 PFD 3.1e-01
 Delays (us)
 SBD 0.281433
 MBD -0.008611
 Fringe rate (Hz)
 -0.168214
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c192c
 Exper # 16383
 Yr:day 2019:279
 Start 091505.63
 Stop 092500.06
 FRT 092000.00
 Corr/FF/build
 2020:077:052457
 2020:086:070840
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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	
	107.3	59.1	29.0	37.0	113.0	101.0	104.4	45.2	31.7	69.0	96.7	54.5	78.5	86.4	24.9	78.2	Phase	73.2	
	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.0	0.1	Ampl.	0.1	
	150.6	118.0	64.8	238.5	99.2	189.2	194.2	174.5	145.6	114.7	178.1	246.6	136.9	104.3	83.7	27.8	Sbd box	165.0	
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used		
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase		
k:n	0:0	0:0	0:0	0:0	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		
n	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		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks		
																	Tracks		
Group delay (usec)(sbd)			5.19740755495E+03								5.19713491641E+03						Resid mbdelay (usec)	-8.61146E-03	+/- 1.7E-04
Sband delay (usec)			5.19741634941E+03								-2.6949562E+01						Resid sbdelay (usec)	2.81433E-01	+/- 2.8E-03
Phase delay (usec)			5.19713491877E+03								-3.2880250E-07						Resid phdelay (usec)	2.36128E-06	+/- 6.0E-07
Delay rate (us/s)			4.59261572344E-03								4.59456852524E-03						Resid rate (us/s)	-1.95280E-06	+/- 1.7E-09
Total phase (deg)				325.1							-3.20951157279E-05						Resid phase (deg)	73.2	+/- 18.6

	RMS	Theor.	Amplitude	0.095 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	19.8	32.2	Search (4096X64)	0.091	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	24.3	56.2	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.016 0.016
ph/frq (deg)	31.6	37.2	Inc. seg. avg.	0.087	Sample rate(MISamp/s): 64	dr window (ns/s) -0.011 0.011
amp/frq (%)	44.8	64.9	Inc. frq. avg.	0.088	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

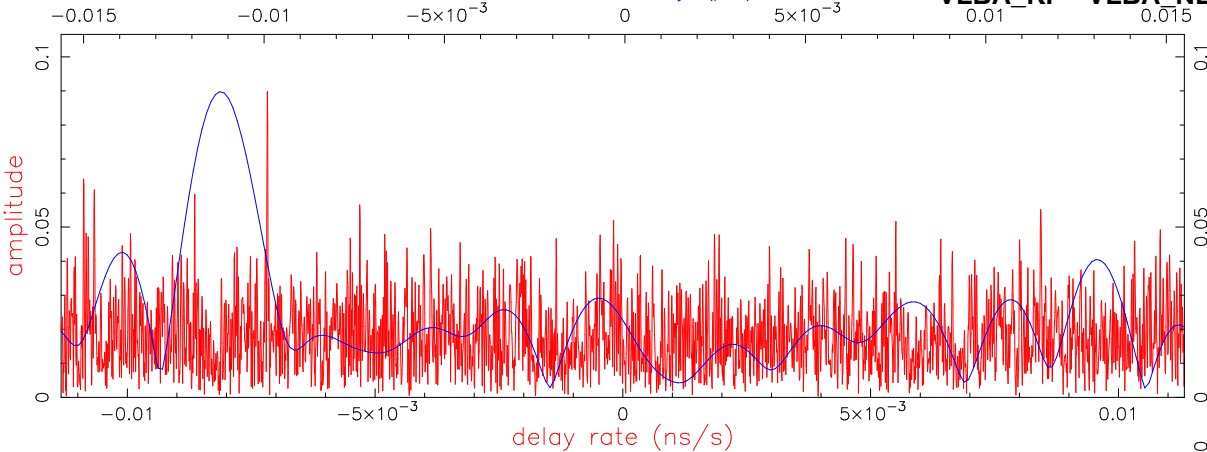
k: az 267.7 el 35.5 pa 62.0 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -97.166 -1897.478 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/kn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/kn.W.157.130OPJ

Mk4/DiFX fourfit 3.19 rev 2512

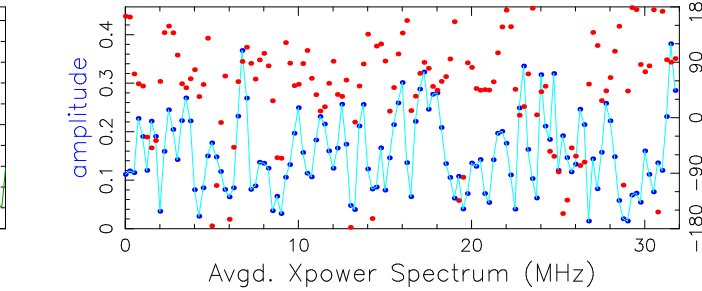
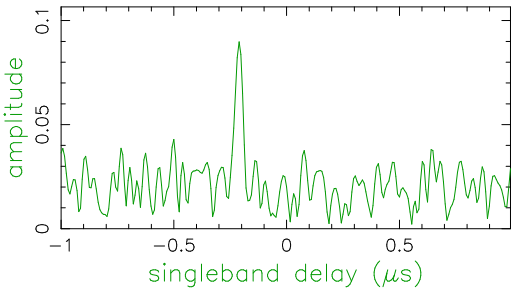
3C454_3.130OPJ, No0117, kn
VLBA_KP - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)



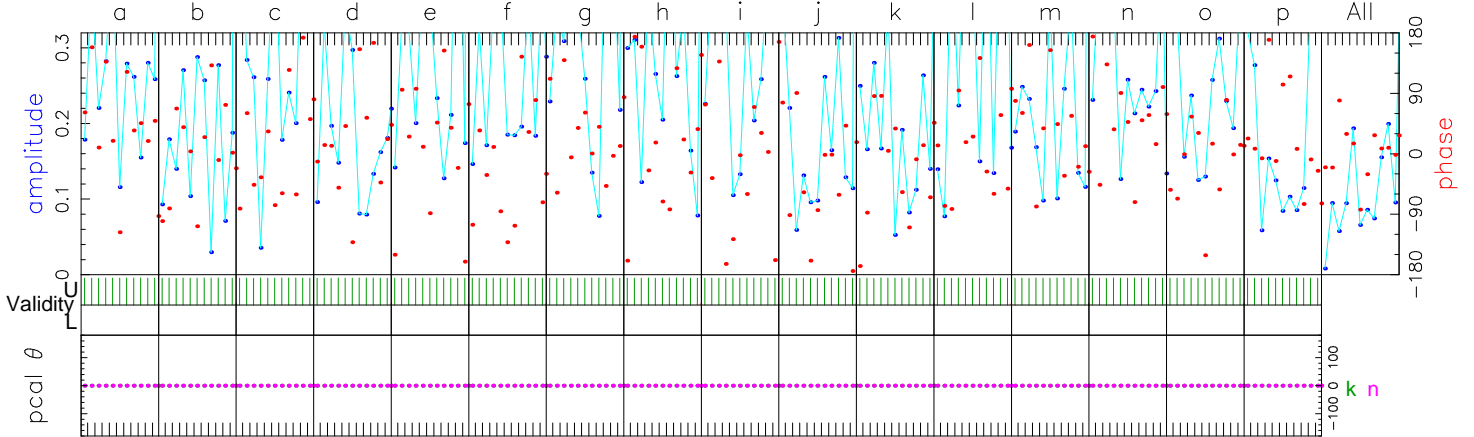
Fringe quality 0

SNR 5.9
Int time 582.384
Amp 0.107
Phase 5.9
PFD 7.9e-01
Delays (us)
SBD -0.210295
MBD -0.011195
Fringe rate (Hz)
-0.619043
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070809
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



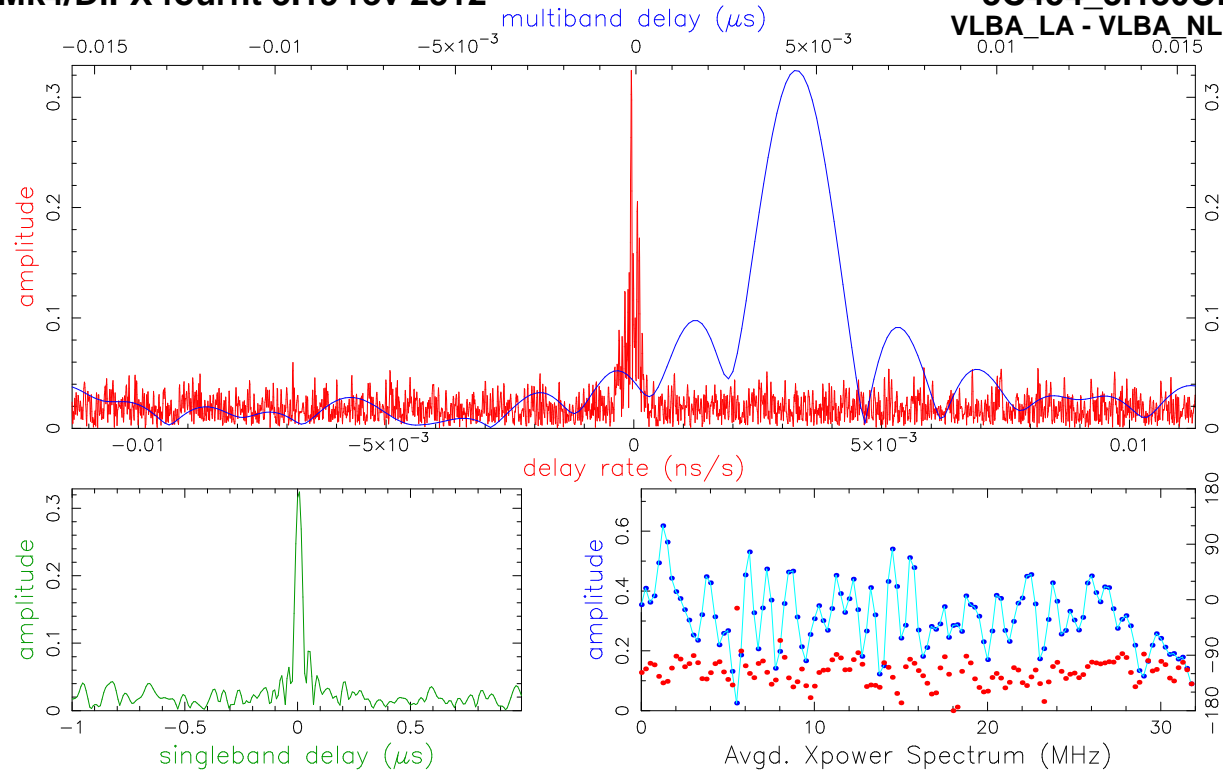
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	61.9	-5.4	-36.4	5.8	18.5	-31.8	8.1	-54.5	-39.4	-18.1	-2.0	-2.7	56.5	63.2	-10.3	-2.6	Phase	5.9				
	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.2	0.2	Ampl.	0.1				
	192.0	16.9	237.6	234.0	114.0	81.2	102.7	19.4	94.0	35.0	174.2	68.8	228.0	69.2	62.8	98.5	Sbd box	102.1				
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used					
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
k:n	0:0	0:0	0:0	0:0	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:n	0:0	0:0	0:0	0:0	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					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Tracks					
Group delay (usec)(sbd)			5.19693622140E+03														Apriori delay (usec)	5.19713491641E+03	Resid mbdelay (usec)	-1.11950E-02	+/-	1.8E-04
Sband delay (usec)			5.19692462141E+03														Apriori clock (usec)	-2.6949562E+01	Resid sbdelay (usec)	-2.10295E-01	+/-	2.9E-03
Phase delay (usec)			5.19713491660E+03														Apriori clockrate (us/s)	-3.2880250E-07	Resid phdelay (usec)	1.90328E-07	+/-	6.2E-07
Delay rate (us/s)			4.58738204973E-03														Apriori rate (us/s)	4.59456852524E-03	Resid rate (us/s)	-7.18648E-06	+/-	1.8E-09
Total phase (deg)				257.8													Apriori accel (us/s/s)	-3.20951157279E-05	Resid phase (deg)	5.9	+/-	19.3

ph/seg (deg) 39.4 33.5 Search (4096X64) 0.087 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.8 58.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.1 38.7 Inc. seg. avg. 0.105 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 54.4 67.5 Inc. frq. avg. 0.102 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 267.7 el 35.5 pa 62.0 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -97.166 -1897.478 ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/kn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/kn.W.97.130OPJ

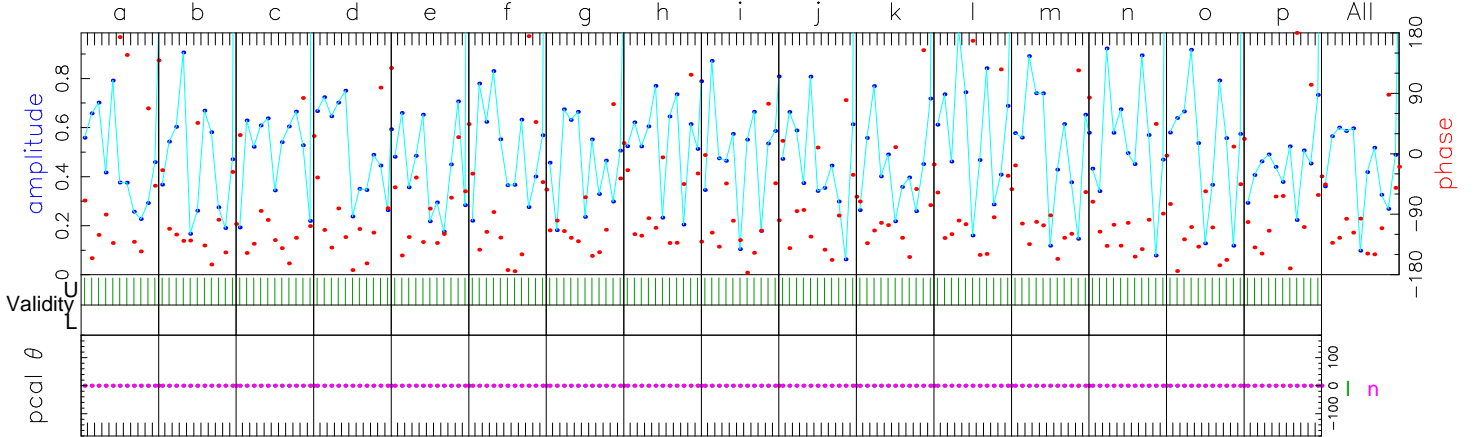
Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130OPJ, No0117, In
VLBA_LA - VLBA_NL, fgroup W, pol LL



Fringe quality 7
SNR 21.7
Int time 582.146
Amp 0.329
Phase -113.1
PFD 0.0e+00
Delays (us)
SBD 0.004945
MBD 0.004416
Fringe rate (Hz)
-0.004340
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091507.68
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070828
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

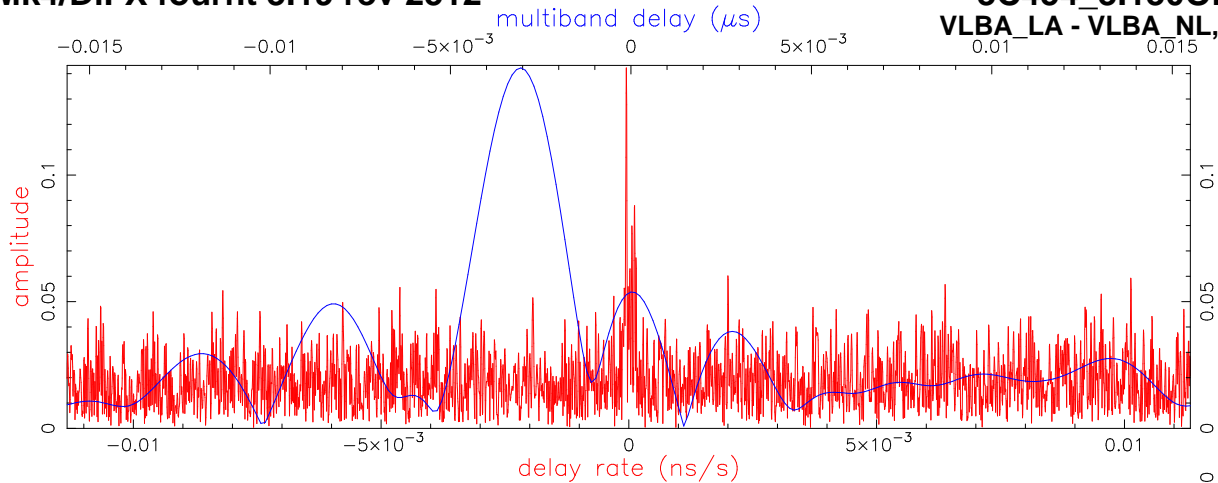
Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



	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				
	-127.4	-116.0	-128.8	-113.2	-84.2	-121.5	-116.1	-103.7	-108.7	-94.4	-110.0	-111.2	-105.7	-118.8	-122.9	-113.9	Phase	-113.1				
	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.5	0.4	0.3	Ampl.	0.3				
	130.0	130.3	129.1	130.1	130.3	130.2	129.7	129.2	129.9	128.9	129.5	129.9	129.2	130.0	129.5	128.0	Sbd box	129.6				
UL	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	APs used					
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
l:n	0:0	0:0	0:0	0:0	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					
l:n	0:0	0:0	0:0	0:0	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					
l	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	PC amp					
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			3.76744606317E+03														Apriori delay (usec)	3.76744164731E+03	Resid mbdelay (usec)	4.41586E-03	+/-	5.0E-05
Sband delay (usec)			3.76744659231E+03														Apriori clock (usec)	-2.7323353E+01	Resid sbdelay (usec)	4.94500E-03	+/-	7.9E-04
Phase delay (usec)			3.76744164367E+03														Apriori clockrate (us/s)	-4.8569552E-07	Resid phdelay (usec)	-3.64864E-06	+/-	1.7E-07
Delay rate (us/s)			-1.01448300810E-03														Apriori rate (us/s)	-1.0144326222E-03	Resid rate (us/s)	-5.03859E-08	+/-	5.0E-10
Total phase (deg)				66.7													Apriori accel (us/s/s)	-2.27481581014E-05	Resid phase (deg)	-113.1	+/-	5.3

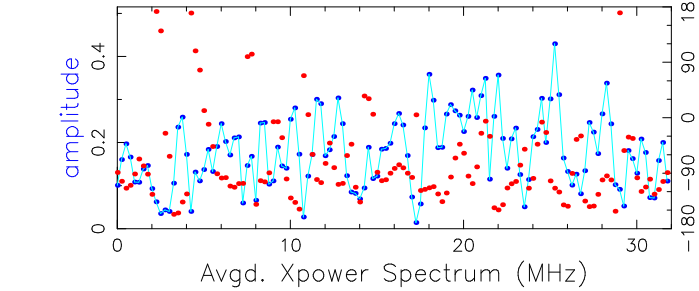
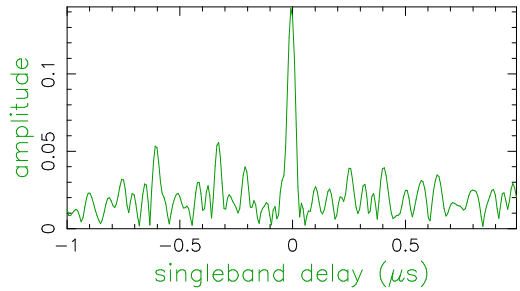
ph/seg (deg) 58.2 9.1 Theor. Amplitude 0.329 +/- 0.015 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.8 16.0 Search (4096X64) 0.323 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 12.1 10.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 19.1 18.4 Inc. seg. avg. 0.435 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.324 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

l: az 268.3 el 30.9 pa 57.6 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -43.328 -1213.266 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/In..130OPJ Output file: /Exps/c192c/v2/1234/No0117/In.W.134.130OPJ



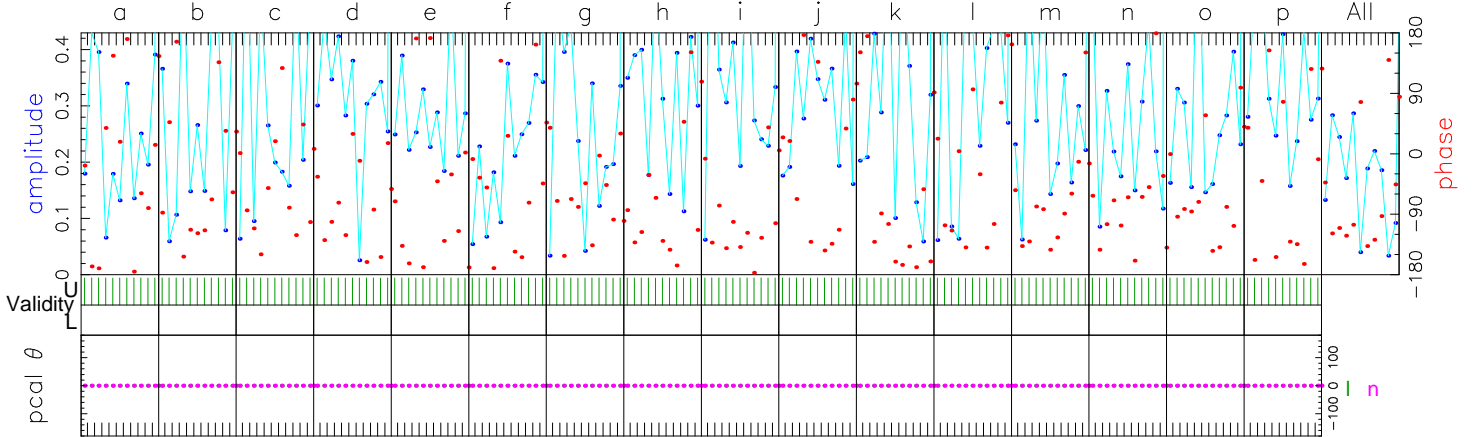
Fringe quality 9

SNR 9.5
Int time 582.146
Amp 0.143
Phase -109.6
PFD 2.7e-12
Delays (us)
SBD -0.005600
MBD -0.003061
Fringe rate (Hz)
-0.004228
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091507.68
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070839
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

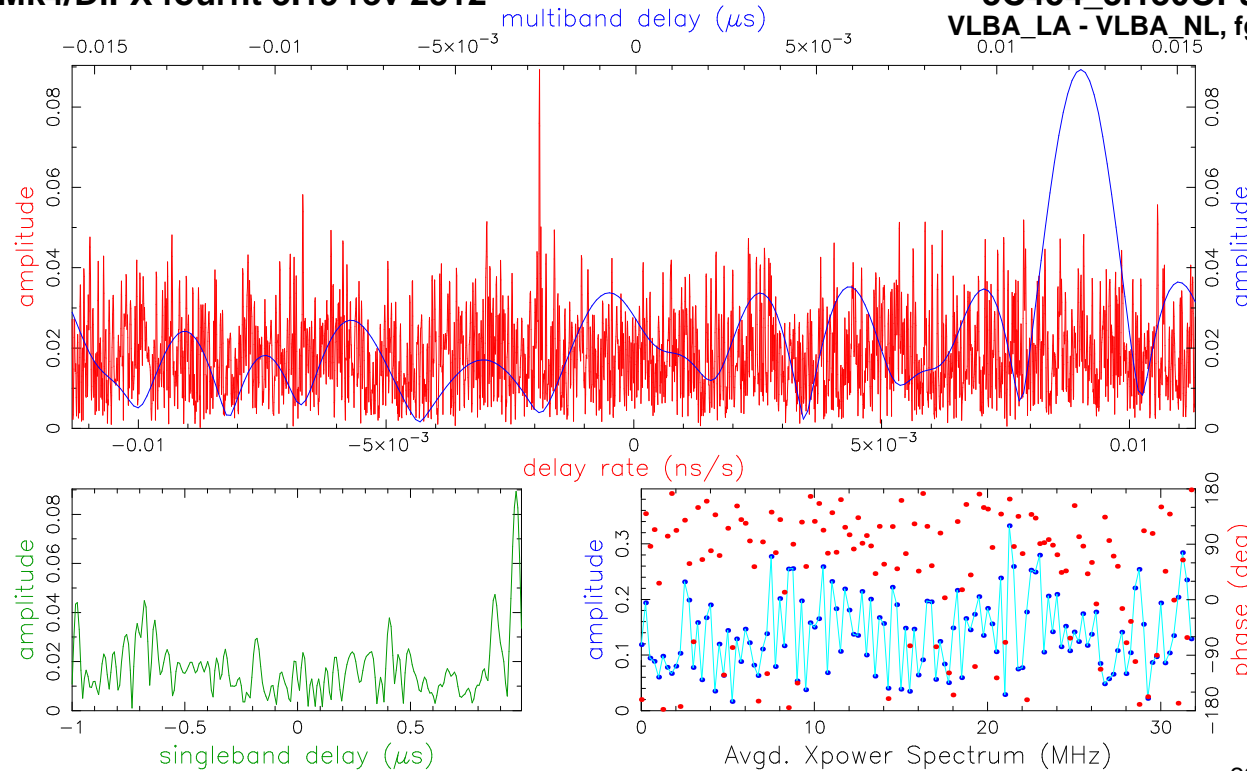
Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



	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	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks
Group delay (usec)(sbd)		3.76743858604E+03																
Sband delay (usec)		3.76743604731E+03																
Phase delay (usec)		3.76744164378E+03																
Delay rate (us/s)		-1.01448170719E-03																
Total phase (deg)					70.3													
ph/seg (deg)		RMS 69.2	Theor. 21.0															
amp/seg (%)		62.5	36.6															
ph/frq (deg)		29.3	24.2															
amp/frq (%)		47.1	42.3															
l: az 268.3 el 30.9 pa 57.6																		
n: az 274.6 el 19.6 pa 50.6																		
u,v (fr/asec) -43.328 -1213.266																		
Control file: cf_1234_gmva																		
Input file: /Exps/c192c/v2/1234/No0117/In...130OPJ																		
Output file: /Exps/c192c/v2/1234/No0117/In.W.156.130OPJ																		

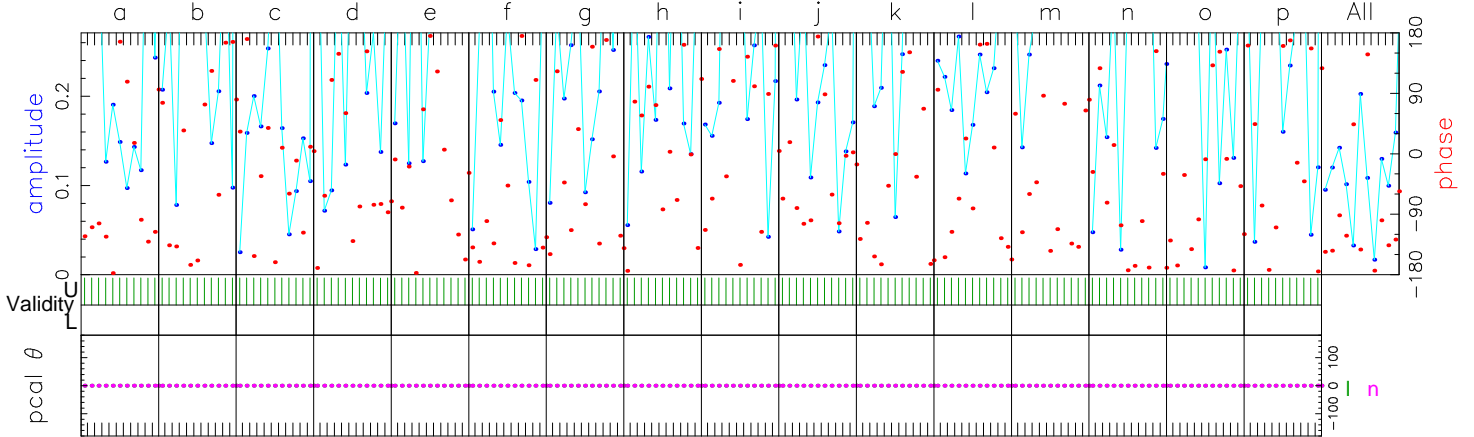
Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130OPJ, No0117, In
VLBA_LA - VLBA_NL, fgroup W, pol LR



Fringe quality 0
 SNR 5.9
 Int time 582.145
 Amp 0.090
 Phase -132.6
 PFD 8.5e-01
 Delays (us)
 SBD 0.968831
 MBD 0.012328
 Fringe rate (Hz)
 -0.164395
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c192c
 Exper # 16383
 Yr:day 2019:279
 Start 091507.68
 Stop 092500.06
 FRT 092000.00
 Corr/FF/build
 2020:077:052457
 2020:086:070850
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec

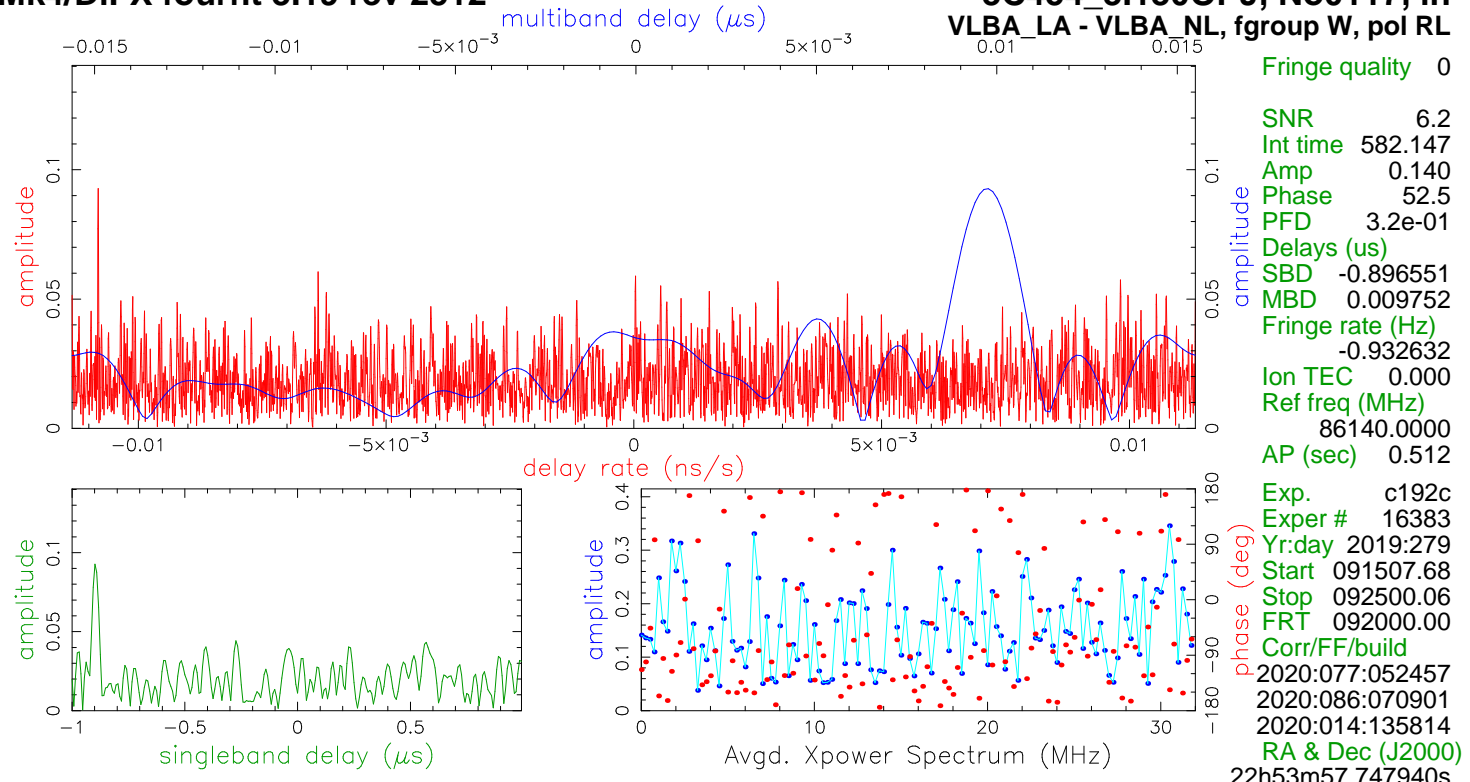


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-124.4	154.8	-97.1	-127.9	-135.2	-129.0	-140.7	-56.9	-171.0	-47.4	-138.8	-135.5	-137.2	-151.6	-135.1	-136.2	Phase	-132.6				
	0.2	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1				
	253.8	172.8	6.1	141.8	24.6	220.7	157.0	140.6	126.0	191.9	138.7	3.8	179.9	194.8	252.0	38.5	Sbd box	253.0				
UL	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	APs used					
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
l:n	0:0	0:0	0:0	0:0	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					
l:n	0:0	0:0	0:0	0:0	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					
l	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	PC amp					
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Tracks					
Group delay (usec)(sbd)		3.76842272491E+03															Apriori delay (usec)	3.76744164731E+03	Resid mbdelay (usec)	1.23276E-02	+/-	1.8E-04
Sband delay (usec)		3.76841047831E+03															Apriori clock (usec)	-2.7323353E+01	Resid sbdelay (usec)	9.68831E-01	+/-	2.9E-03
Phase delay (usec)		3.76744164304E+03															Apriori clockrate (us/s)	-4.8569552E-07	Resid phdelay (usec)	-4.27575E-06	+/-	6.3E-07
Delay rate (us/s)		-1.01634108780E-03															Apriori rate (us/s)	-1.01443262222E-03	Resid rate (us/s)	-1.90847E-06	+/-	1.8E-09
Total phase (deg)				47.3													Apriori accel (us/s/s)	-2.27481581014E-05	Resid phase (deg)	-132.6	+/-	19.4

ph/seg (deg) 62.2 33.7 Theor. Amplitude 0.090 +/- 0.015 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 61.2 58.8 Search (4096X64) 0.087 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.3 38.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 53.6 67.9 Inc. seg. avg. 0.095 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.084 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 l: az 268.3 el 30.9 pa 57.6 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -43.328 -1213.266 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/In..130OPJ Output file: /Exps/c192c/v2/1234/No0117/In.W.172.130OPJ

Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130OPJ, No0117, In
VLBA_LA - VLBA_NL, fgroup W, pol RL



Fringe quality 0

SNR 6.2

Int time 582.147

Amp 0.140

Phase 52.5

PFD 3.2e-01

Delays (us)

SBD -0.896551

MBD 0.009752

Fringe rate (Hz)

-0.932632

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192c

Exper # 16383

Yr:day 2019:279

Start 091507.68

Stop 092500.06

FRT 092000.00

Corr/FF/build

2020:077:052457

2020:086:070901

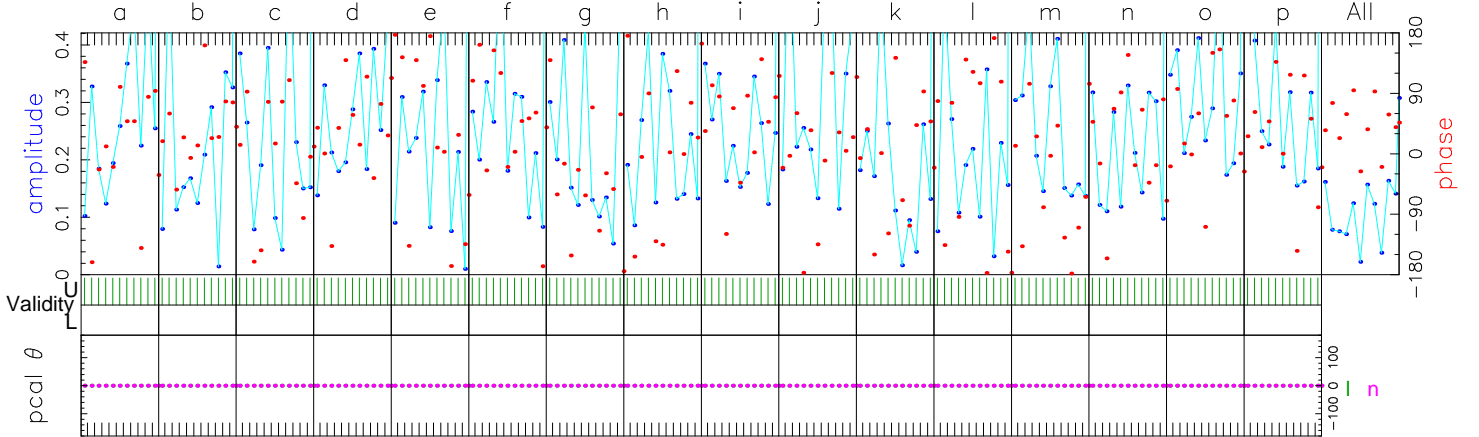
2020:014:135814

RA & Dec (J2000)

22h53m57.747940s

+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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
70.0	50.7	62.4	31.4	80.1	78.7	-17.3	69.1	66.6	23.0	14.1	161.7	15.1	32.7	61.8	55.8	Phase	52.5	
0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.3	0.1	0.2	0.1	0.2	0.3	Ampl.	0.1	
237.2	14.1	218.8	193.0	56.8	137.2	154.3	249.5	172.3	161.4	93.1	130.3	178.9	179.5	159.2	30.6	Sbd box	14.2	
U/L	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	1157/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	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	
l:n	0:0	0:0	0:0	0:0	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	
l	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	PC amp	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

Group delay (usec)(sbd) 3.76654514948E+03 Apriori delay (usec) 3.76744164731E+03 Resid mbdelay (usec) 9.75217E-03 +/- 1.8E-04

Sband delay (usec) 3.76654509581E+03 Apriori clock (usec) -2.7323353E+01 Resid sbdelay (usec) -8.96551E-01 +/- 2.8E-03

Phase delay (usec) 3.76744164901E+03 Apriori clockrate (us/s) -4.8569552E-07 Resid phdelay (usec) 1.69140E-06 +/- 6.0E-07

Delay rate (us/s) -1.02525955943E-03 Apriori rate (us/s) -1.01443262222E-03 Resid rate (us/s) -1.08269E-05 +/- 1.8E-09

Total phase (deg) 232.3 Apriori accel (us/s/s) -2.27481581014E-05 Resid phase (deg) 52.5 +/- 18.6

RMS Theor. Amplitude 0.140 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

ph/seg (deg) 39.2 32.2 Search (4096X64) 0.090 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

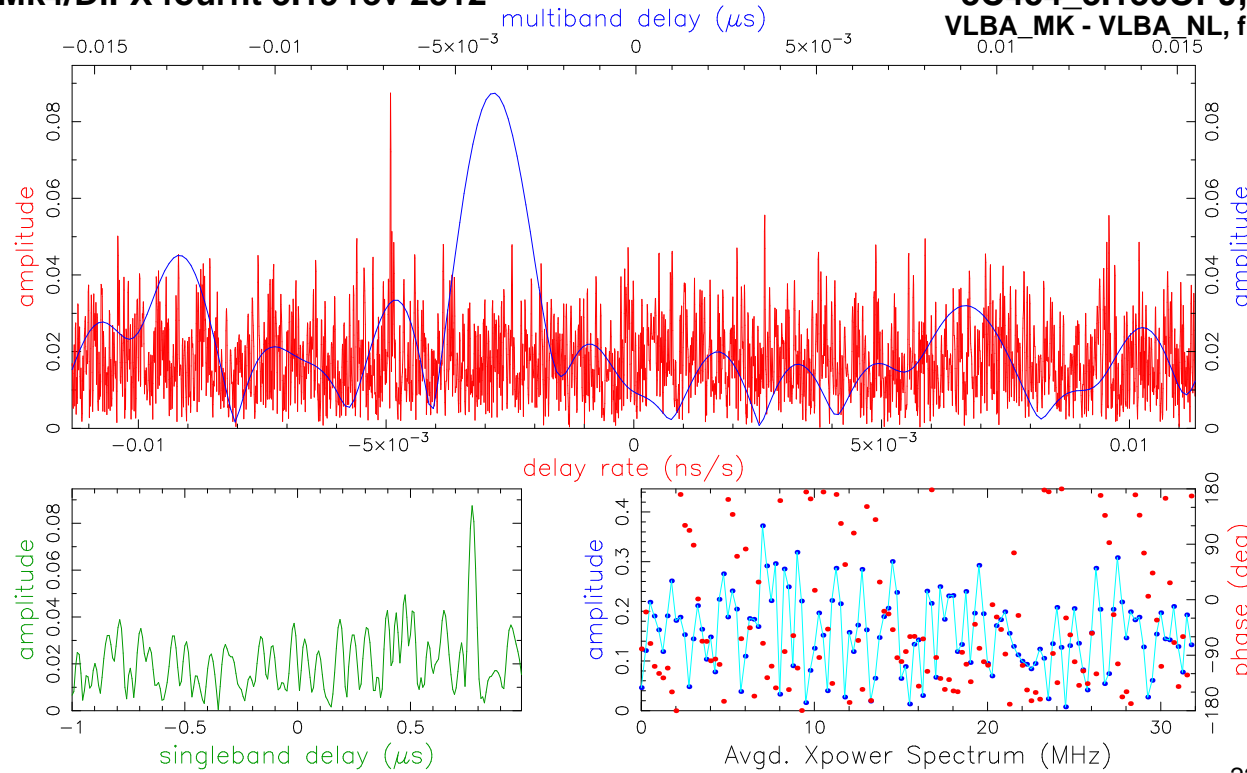
amp/seg (%) 53.6 56.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

ph/frq (deg) 41.2 37.2 Inc. seg. avg. 0.137 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011

amp/frq (%) 50.5 65.0 Inc. frq. avg. 0.139 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

l: az 268.3 el 30.9 pa 57.6 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -43.328 -1213.266 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/In...130OPJ Output file: /Exps/c192c/v2/1234/No0117/In.W.192.130OPJ

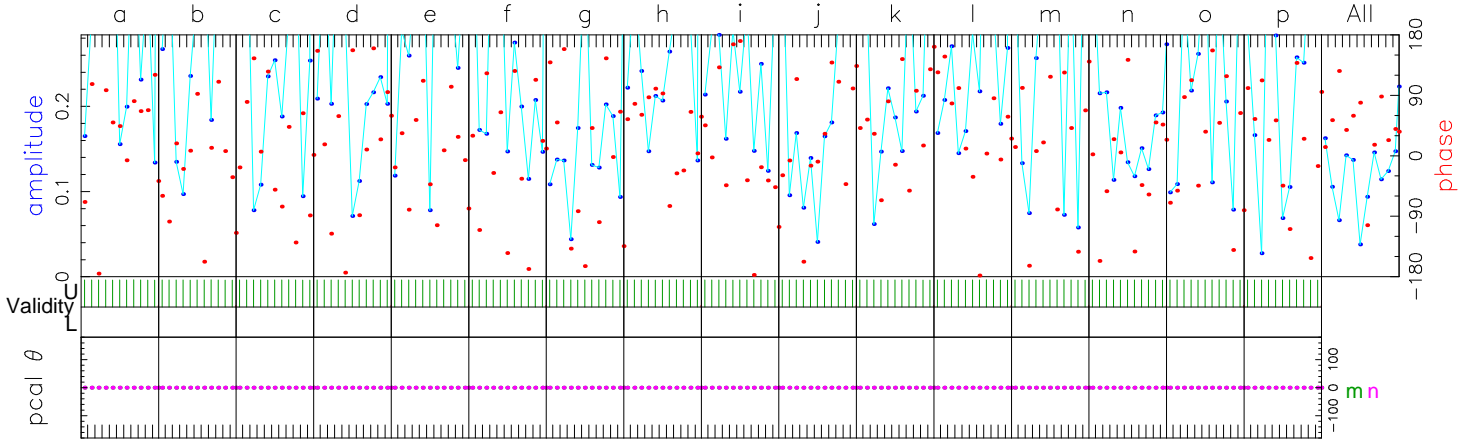


Fringe quality 0

SNR 5.8
Int time 584.473
Amp 0.095
Phase 40.9
PFD 9.7e-01
Delays (us)
SBD 0.774073
MBD -0.003936
Fringe rate (Hz)
-0.423452
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070847
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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
80.3	-6.7	-9.0	74.2	17.0	39.7	172.5	42.3	-26.3	45.9	53.4	48.6	41.4	-6.0	58.0	47.9		Phase	40.9
0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
114.3	141.0	38.8	35.0	73.2	213.5	125.2	53.6	71.4	253.2	195.7	226.6	109.5	85.1	253.4	64.6		Sbd box	228.1
UL	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
m:n	0:0	0:0	0:0	0:0	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	
m	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		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Tracks	

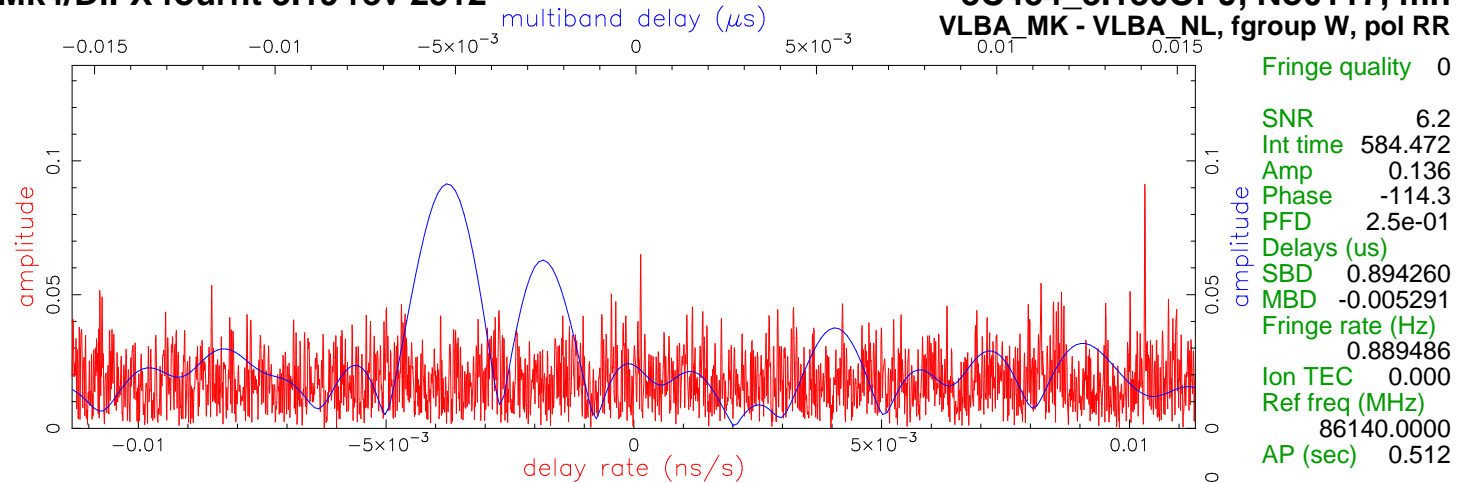
Group delay (usec)(sbd) 1.37709998373E+04 Apriori delay (usec) 1.37702225231E+04 Resid mbdelay (usec) -3.93581E-03 +/- 1.9E-04
 Sband delay (usec) 1.37709965966E+04 Apriori clock (usec) -2.3945595E+01 Resid sbdelay (usec) 7.74073E-01 +/- 3.0E-03
 Phase delay (usec) 1.37702225244E+04 Apriori clockrate (us/s) -1.4291580E-07 Resid phdelay (usec) 1.31956E-06 +/- 6.4E-07
 Delay rate (us/s) 7.17432090322E-01 Apriori rate (us/s) 7.17437006183E-01 Resid rate (us/s) -4.91586E-06 +/- 1.9E-09
 Total phase (deg) 92.0 Apriori accel (us/s/s) -8.36689221411E-05 Resid phase (deg) 40.9 +/- 19.8

RMS Theor. Amplitude 0.095 +/- 0.016 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 55.4 34.3 Search (4096X64) 0.087 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 53.7 59.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 48.3 39.6 Inc. seg. avg. 0.107 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 49.6 69.1 Inc. frq. avg. 0.090 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

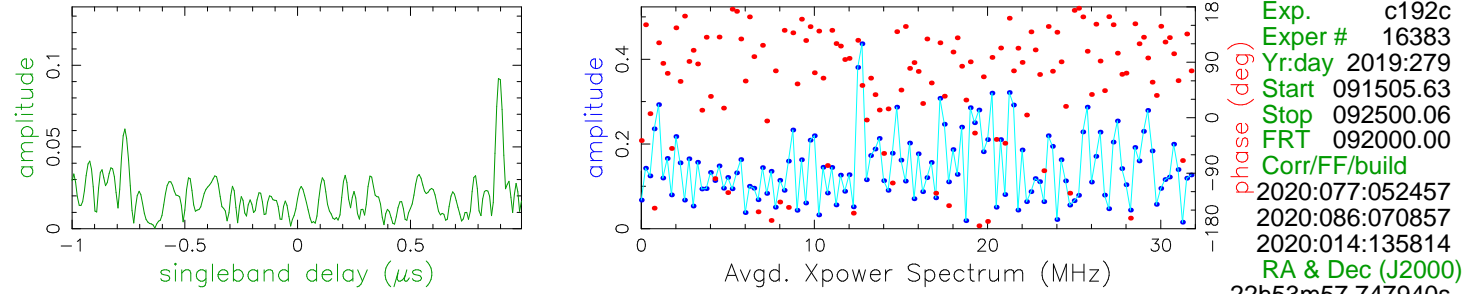
m: az 257.4 el 76.2 pa 73.5 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -4460.254 -4661.686 simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

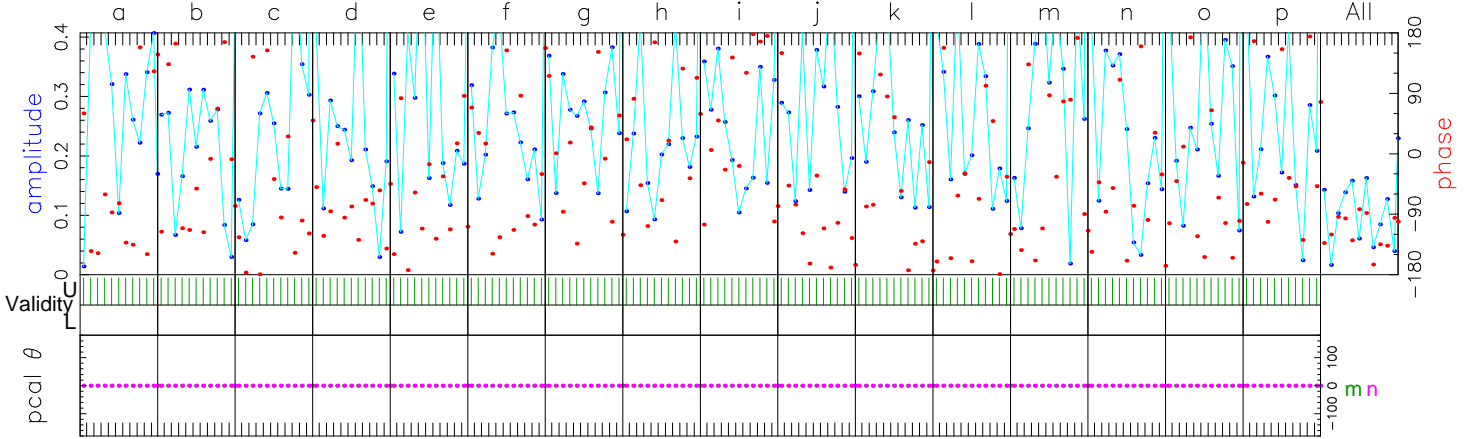
3C454_3.130OPJ, No0117, mn
VLBA_MK - VLBA_NL, fgroup W, pol RR



Fringe quality 0
SNR 6.2
Int time 584.472
Amp 0.136
Phase -114.3
PFD 2.5e-01
Delays (us)
SBD 0.894260
MBD -0.005291
Fringe rate (Hz) 0.889486
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build 2020:077:052457
2020:086:070857
2020:014:135814
RA & Dec (J2000) 22h53m57.747940s +16°08'53.560909"



Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



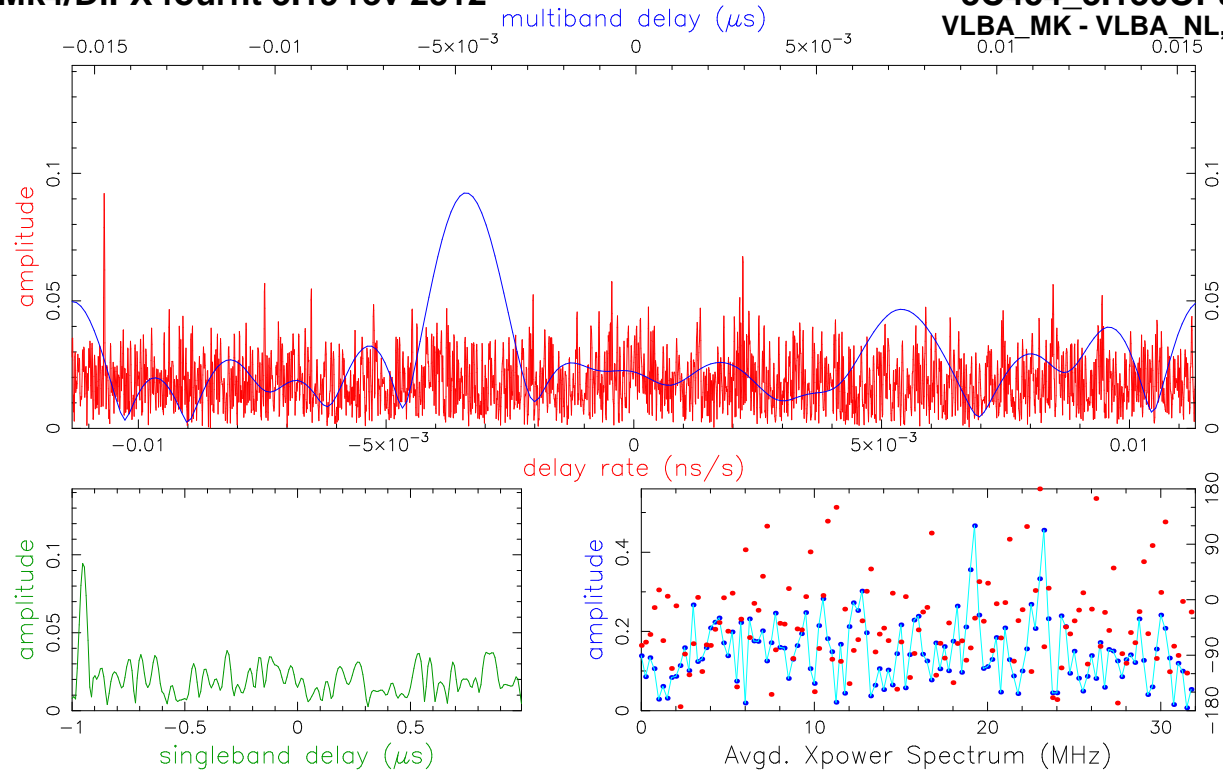
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-138.2	-108.7	-135.9	-85.4	-112.8	-137.9	-26.5	-50.5	-134.5	-114.6	151.2	-130.7	-149.3	-99.3	-119.5	-80.3	Phase	-114.3				
	0.3	0.1	0.2	0.3	0.2	0.1	0.1	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1				
	246.4	160.4	71.3	243.8	20.3	228.0	164.5	201.7	127.4	193.8	48.5	233.1	26.6	1.7	199.3	16.8	Sbd box	243.5				
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
m:n	0:0	0:0	0:0	0:0	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					
m	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						
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			1.37711234822E+04														Apriori delay (usec)	1.37702225231E+04	Resid mbdelay (usec)	-5.29096E-03	+/-	1.7E-04
Sband delay (usec)			1.37711167826E+04														Apriori clock (usec)	-2.3945595E+01	Resid sbdelay (usec)	8.94260E-01	+/-	2.8E-03
Phase delay (usec)			1.37702225194E+04														Apriori clockrate (us/s)	-1.4291580E-07	Resid phdelay (usec)	-3.68656E-06	+/-	6.0E-07
Delay rate (us/s)			7.17447332234E-01														Apriori rate (us/s)	7.17437006183E-01	Resid rate (us/s)	1.03261E-05	+/-	1.7E-09
Total phase (deg)					-63.2												Apriori accel (us/s/s)	-8.36689221411E-05	Resid phase (deg)	-114.3	+/-	18.5

ph/seg (deg) 24.9 32.0 Amplitude 0.136 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 53.4 55.8 Search (4096X64) 0.090 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.5 36.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 59.0 64.4 Inc. seg. avg. 0.124 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 m: az 257.4 el 76.2 pa 73.5 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -4460.254 -4661.686 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/mn..1300PJ Output file: /Exps/c192c/v2/1234/No0117/mn.W.185.1300PJ

Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130OPJ, No0117, mn
VLBA_MK - VLBA_NL, fgroup W, pol LR

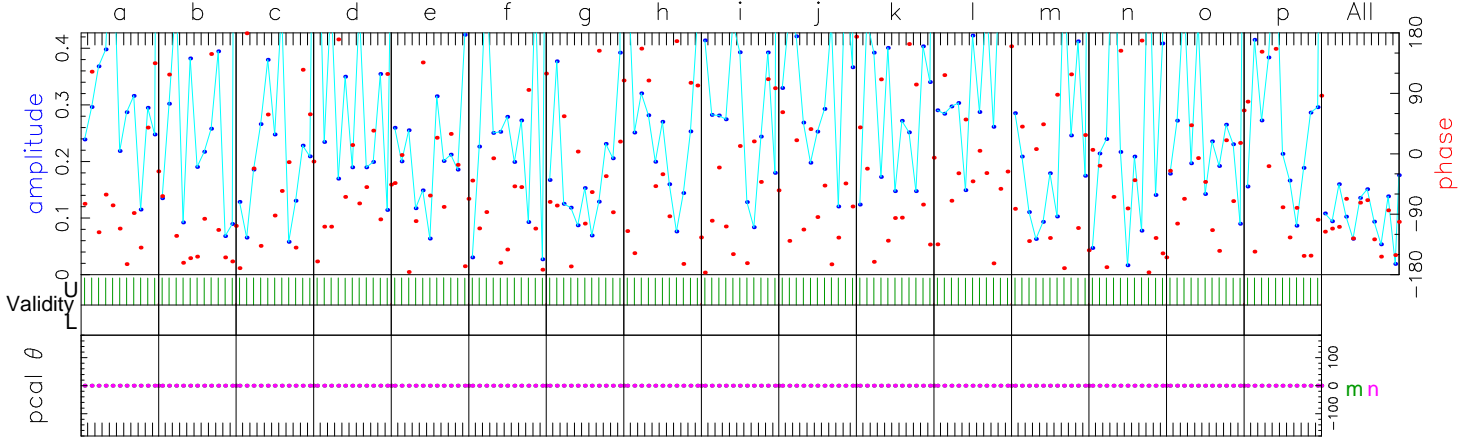


Fringe quality 0

SNR 6.3
Int time 584.472
Amp 0.142
Phase -98.2
PFD 1.3e-01
Delays (us)
SBD -0.950286
MBD -0.004788
Fringe rate (Hz)
-0.922279
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070909
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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					
	-97.8	-143.3	-56.3	-102.2	-51.6	-95.6	-49.9	-173.9	-114.9	-75.3	-113.9	-42.1	-141.4	-128.2	-45.7	-149.5		Phase	-98.2				
	0.2	0.3	0.1	0.3	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.1	0.2	0.2	0.2		Ampl.	0.1				
	62.4	9.3	49.3	6.9	44.6	28.6	118.2	153.9	107.0	198.2	48.3	69.6	239.4	6.1	243.6	142.0		Sbd box	7.4				
UL	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0		APs used					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase					
m:n	0:0	0:0	0:0	0:0	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					
m	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							
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Tracks					
Group delay (usec)(sbd)			1.37692802348E+04															Apriori delay (usec)	1.37702225231E+04	Resid mbdelay (usec)	-4.78835E-03	+/-	1.7E-04
Sband delay (usec)			1.37692722371E+04															Apriori clock (usec)	-2.3945595E+01	Resid sbdelay (usec)	-9.50286E-01	+/-	2.7E-03
Phase delay (usec)			1.37702225200E+04															Apriori clockrate (us/s)	-1.4291580E-07	Resid phdelay (usec)	-3.16621E-06	+/-	5.8E-07
Delay rate (us/s)			7.17426299440E-01															Apriori rate (us/s)	7.17437006183E-01	Resid rate (us/s)	-1.07067E-05	+/-	1.7E-09
Total phase (deg)					-47.1													Apriori accel (us/s/s)	-8.36689221411E-05	Resid phase (deg)	-98.2	+/-	18.1

ph/seg (deg) 31.0 31.4
amp/seg (%) 44.3 54.8
ph/frq (deg) 43.4 36.3
amp/frq (%) 56.8 63.3

RMS Theor. Amplitude 0.142 +/- 0.023
Search (4096X64) 0.092
Interp. 0.000
Inc. seg. avg. 0.132
Inc. frq. avg. 0.146

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

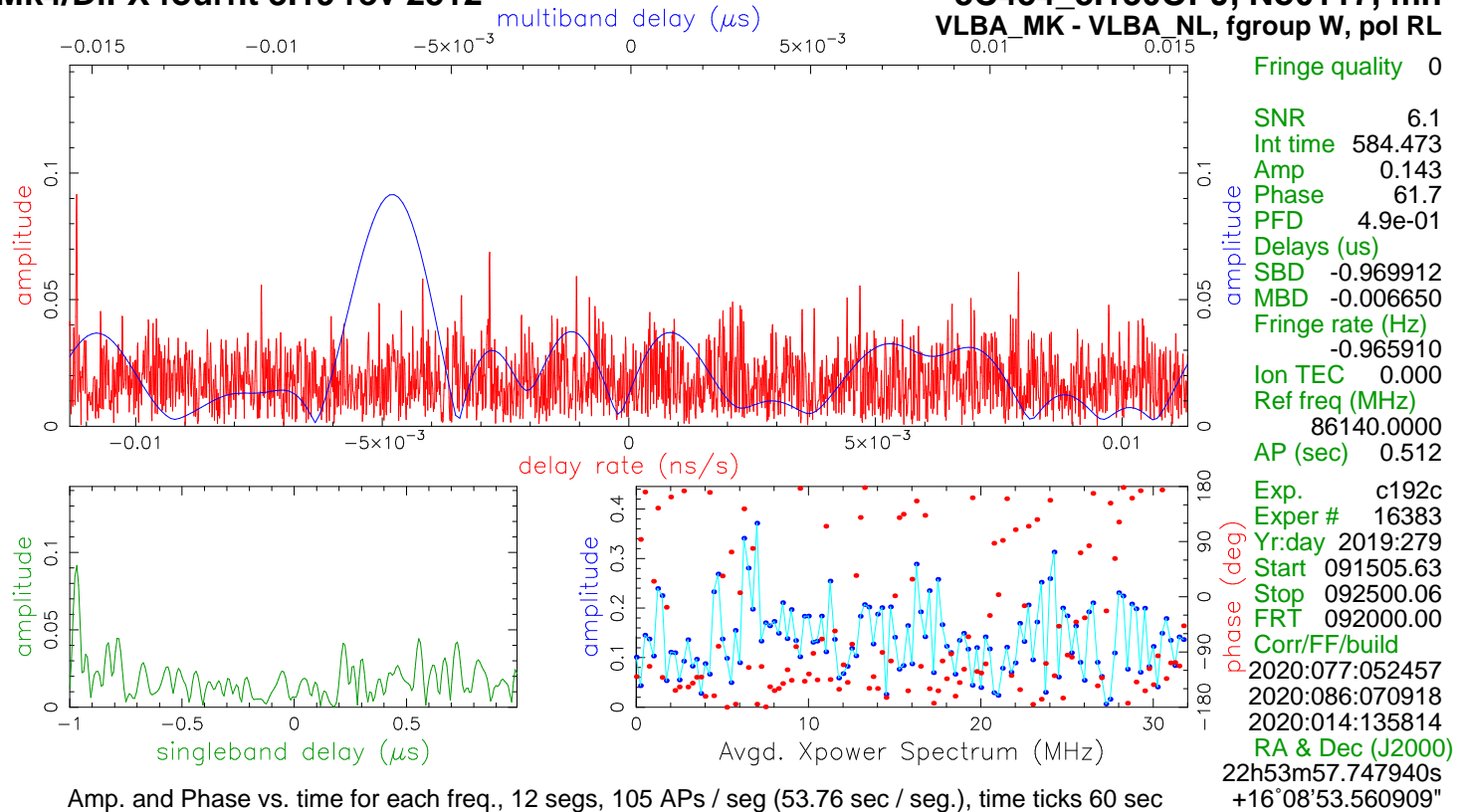
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

m: az 257.4 el 76.2 pa 73.5 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -4460.254 -4661.686 simultaneous interpolator

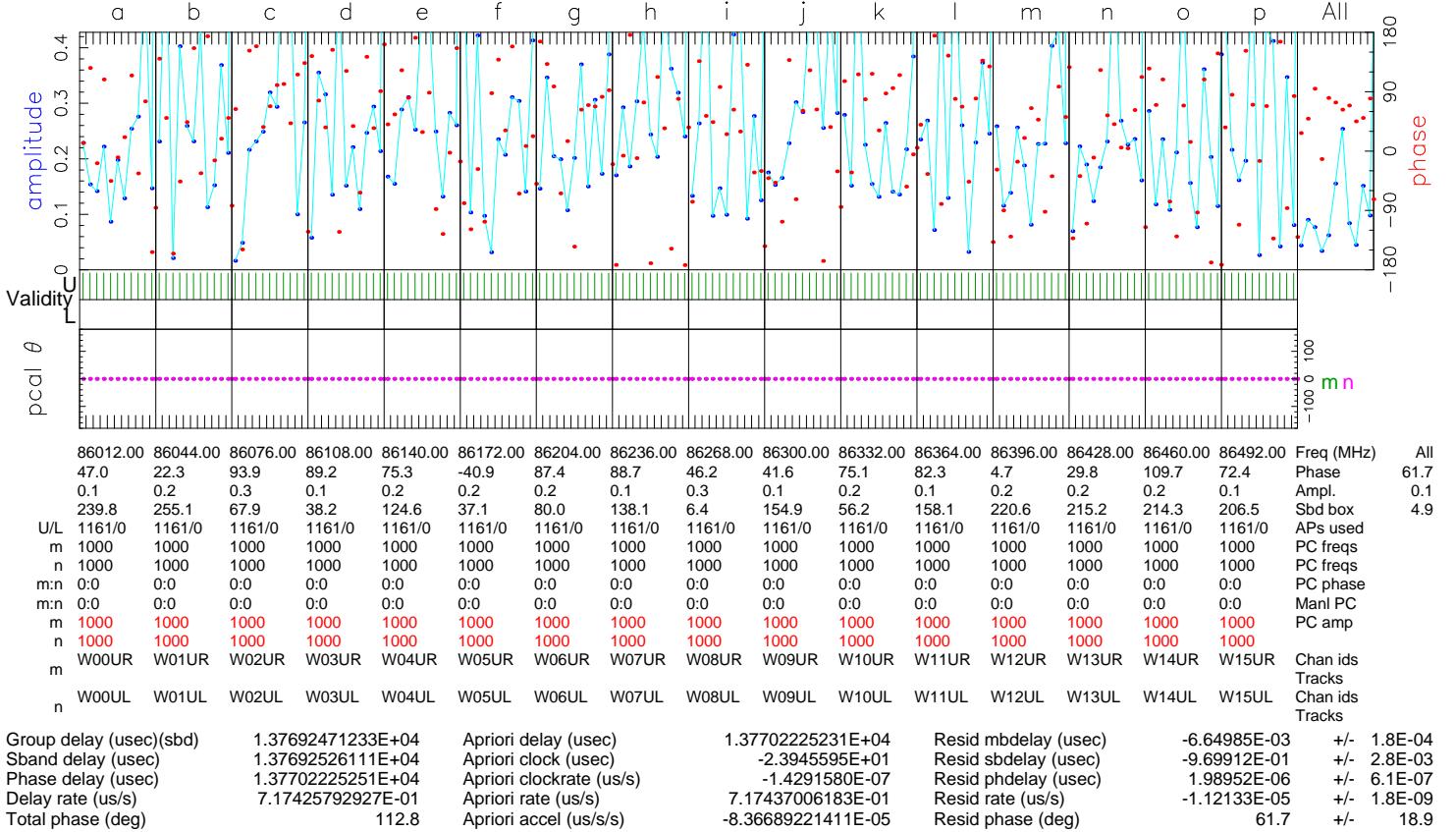
Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/mn..1300PJ Output file: /Exps/c192c/v2/1234/No0117/mn.W.208.1300PJ

Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130OPJ, No0117, mn
VLBA_MK - VLBA_NL, fgroup W, pol RL

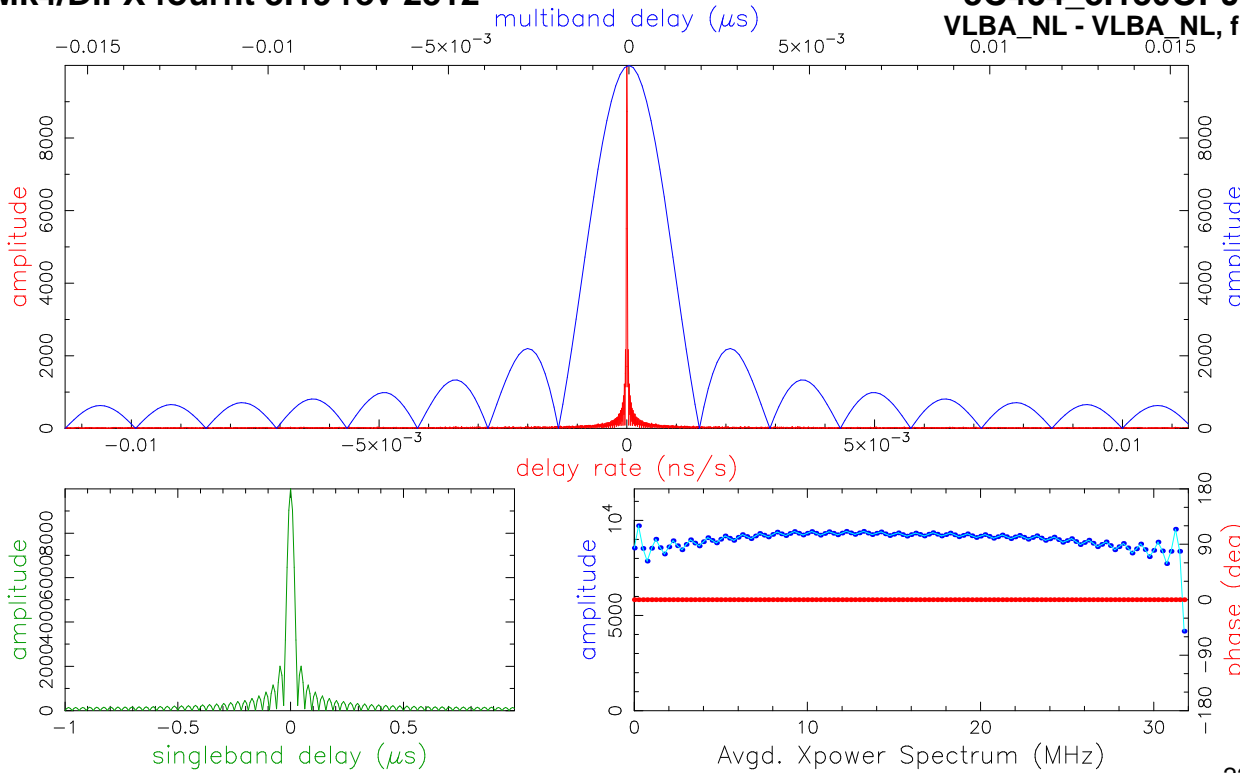


Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



m: az 257.4 el 76.2 pa 73.5 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -4460.254 -4661.686 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/mn..1300PJ Output file: /Exps/c192c/v2/1234/No0117/mn.W.228.1300PJ

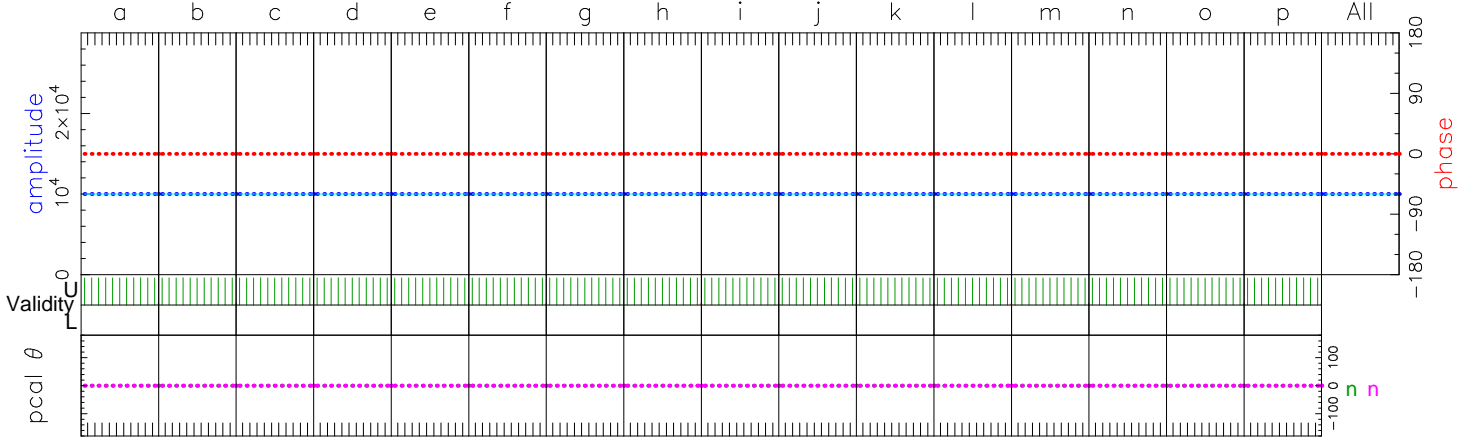


Fringe quality 9

SNR 661894.9
Int time 585.846
Amp 9999.989
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

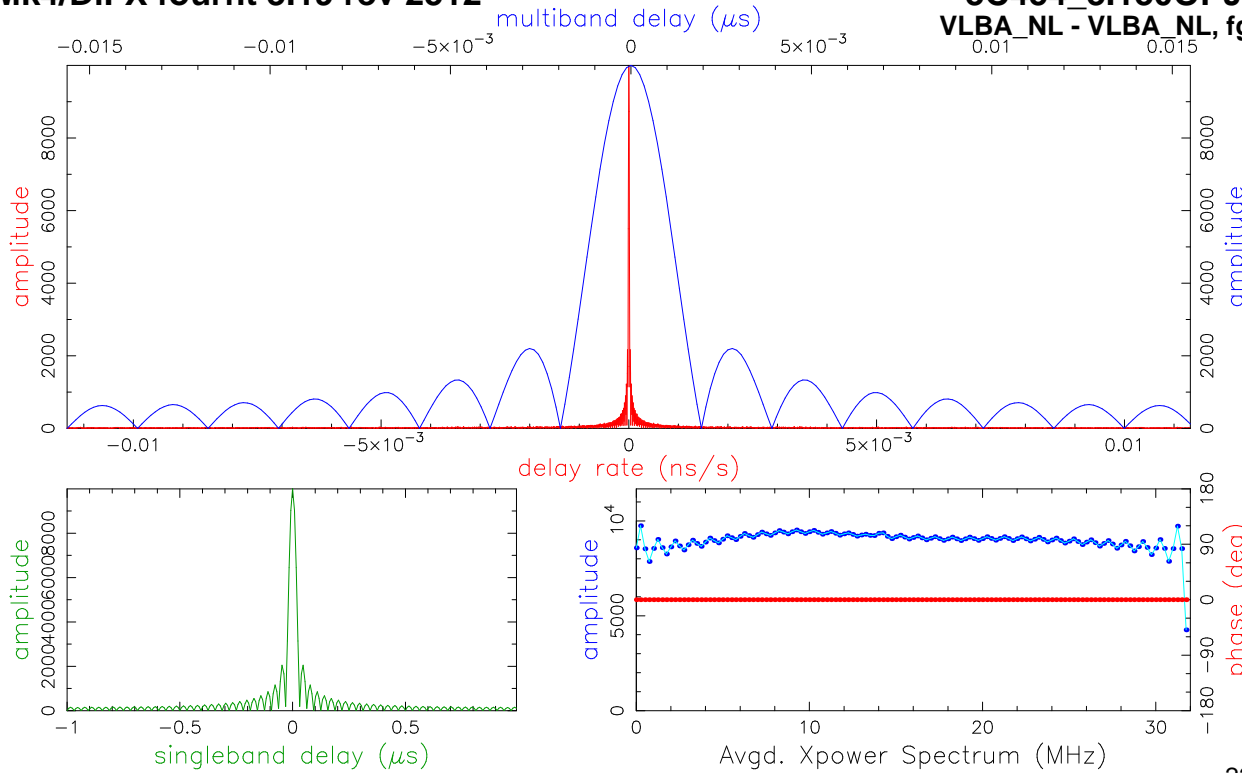
Exp. c192c
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070851
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	0.0	-0.0	0.0	0.0		Phase	0.0
	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0		Ampl.	10000.0
	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0		Sbd box	129.0
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0		APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
n:n	0:0	0:0	0:0	0:0	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	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		Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
Group delay (usec)(sbd)	0.0000000000E+00			Apriori delay (usec)			0.0000000000E+00			Resid mbdelay (usec)			0.00000E+00			+/- 1.6E-09			
Sband delay (usec)	0.0000000000E+00			Apriori clock (usec)			0.0000000E+00			Resid sbdelay (usec)			0.00000E+00			+/- 2.6E-08			
Phase delay (usec)	3.43437739782E-20			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			3.43438E-20			+/- 5.6E-12			
Delay rate (us/s)	0.0000000000E+00			Apriori rate (us/s)			0.0000000000E+00			Resid rate (us/s)			0.00000E+00			+/- 1.6E-14			
Total phase (deg)	0.0			Apriori accel (us/s/s)			0.0000000000E+00			Resid phase (deg)			0.0			+/- 0.0			

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 9999.988 +/- 0.015 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 0.0 0.0 Search (4096X64) 9999.988 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
n: az 274.6 el 19.6 pa 50.6 n: az 274.6 el 19.6 pa 50.6 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/c192c/v2/1234/No0117/nn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/nn.W.174.130OPJ simultaneous interpolator

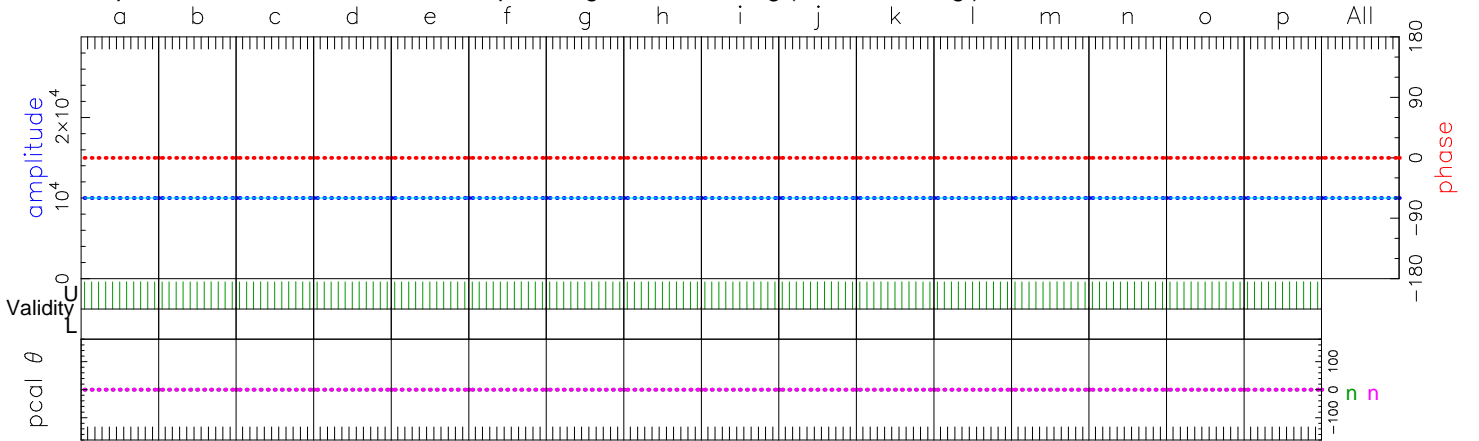


Fringe quality 9

SNR 661894.8
Int time 585.845
Amp 9999.995
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070901
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec

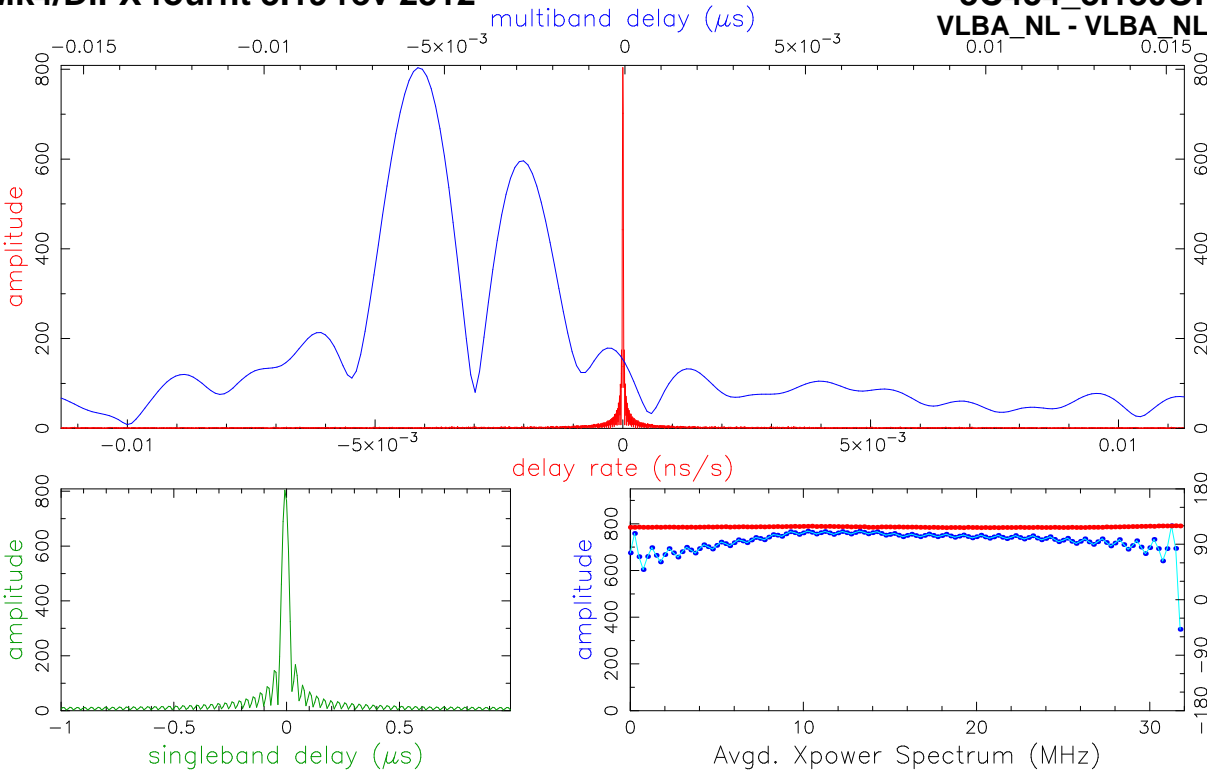


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-0.0	-0.0	0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	0.0	-0.0		Phase	0.0
	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0		Ampl.	10000.0
	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0		Sbd box	129.0
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0		APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
n:n	0:0	0:0	0:0	0:0	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	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		Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
Group delay (usec)(sbd)	0.0000000000E+00			Apriori delay (usec)			0.0000000000E+00			Resid mbdelay (usec)			0.00000E+00			+/- 1.6E-09			
Sband delay (usec)	0.0000000000E+00			Apriori clock (usec)			0.0000000E+00			Resid sbdelay (usec)			0.00000E+00			+/- 2.6E-08			
Phase delay (usec)	2.75972606190E-20			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			2.75973E-20			+/- 5.6E-12			
Delay rate (us/s)	0.0000000000E+00			Apriori rate (us/s)			0.0000000000E+00			Resid rate (us/s)			0.00000E+00			+/- 1.6E-14			
Total phase (deg)	0.0			Apriori accel (us/s/s)			0.0000000000E+00			Resid phase (deg)			0.0			+/- 0.0			

ph/seg (deg) 0.0 0.0 Theor. Amplitude 9999.995 +/- 0.015 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (4096X64) 9999.995 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
 n: az 274.6 el 19.6 pa 50.6 n: az 274.6 el 19.6 pa 50.6 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/c192c/v2/1234/No0117/nn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/nn.W.193.130OPJ simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

3C454_3.130OPJ, No0117, nn
VLBA_NL - VLBA_NL, fgroup W, pol LR

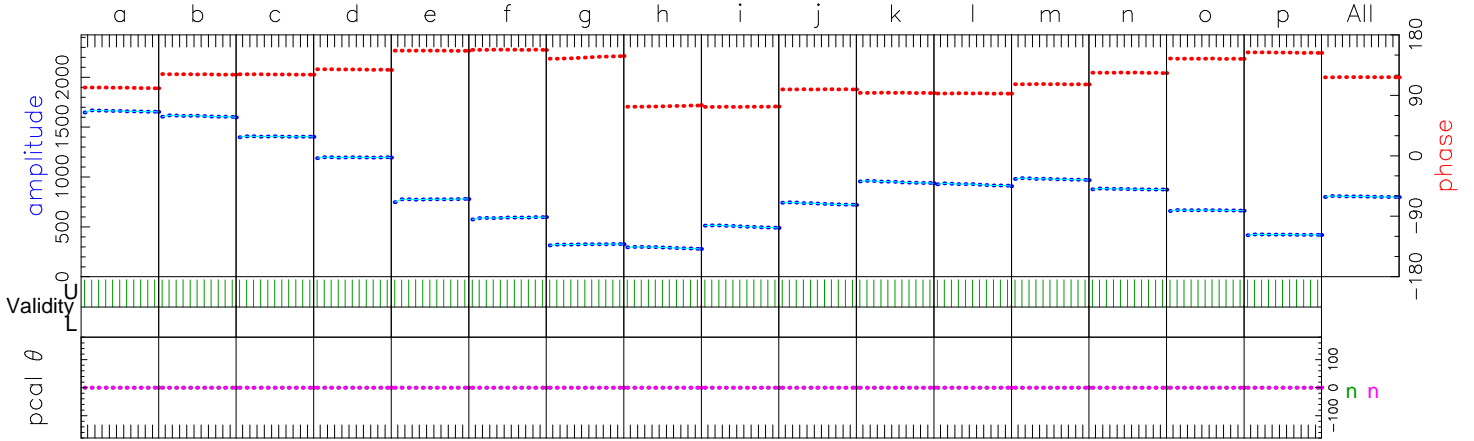


Fringe quality 5

SNR 53525.7
Int time 585.846
Amp 808.673
Phase 116.9
PFD 0.0e+00
Delays (us)
SBD -0.005869
MBD -0.005694
Fringe rate (Hz) 0.000005
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070912
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec

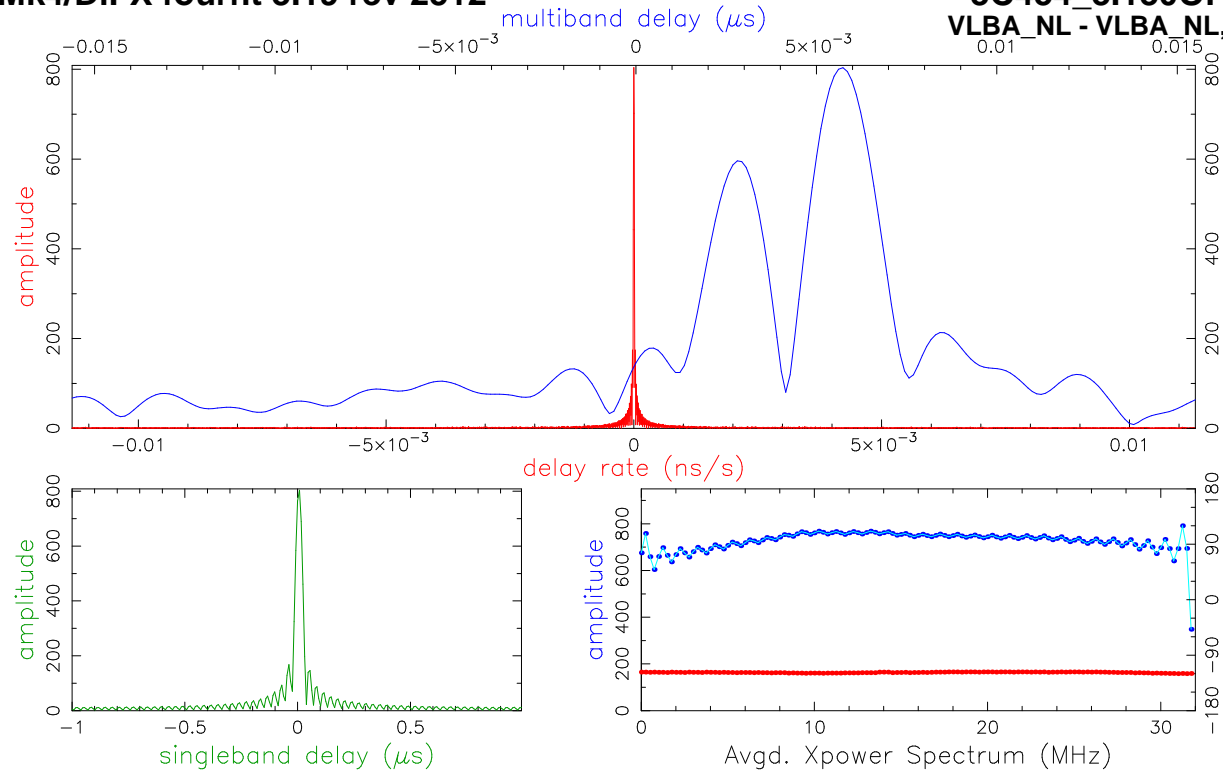


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
101.2	121.1	121.0	128.4	156.3	157.7	146.2	73.7	72.9	98.8	93.6	92.7	106.5	123.6	144.4	153.5	153.5	Phase	116.9
1659.4	1609.9	1405.3	1196.5	774.4	591.3	324.2	291.8	504.9	733.6	949.9	924.3	979.5	878.6	666.0	421.6	421.6	Ampl.	869.4
128.3	128.3	128.4	128.6	128.4	128.3	127.9	127.7	128.6	128.3	128.3	128.2	128.3	128.5	128.4	128.5	128.5	Sbd box	128.2
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n:n	0:0	0:0	0:0	0:0	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	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		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) -5.69440625000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -5.69441E-03 +/- 2.0E-08
 Sband delay (usec) -5.86850000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -5.86850E-03 +/- 3.2E-07
 Phase delay (usec) 3.76945893275E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 3.76946E-06 +/- 6.9E-11
 Delay rate (us/s) 5.66846095667E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 5.66846E-11 +/- 2.0E-13
 Total phase (deg) 116.9 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 116.9 +/- 0.0

RMS Theor. Amplitude 808.673 +/- 0.015 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.1 0.0 Search (4096X64) 794.964 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.7 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 29.3 0.0 Inc. seg. avg. 803.734 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 51.3 0.0 Inc. frq. avg. 869.449 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 274.6 el 19.6 pa 50.6 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/nn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/nn.W.213.130OPJ

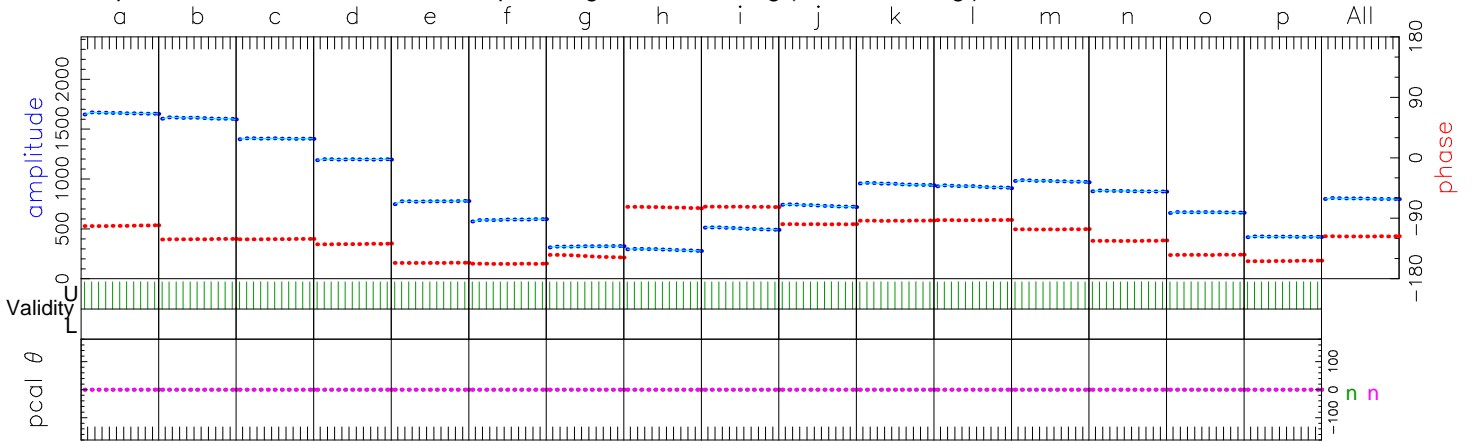


Fringe quality 5

SNR 53525.8
Int time 585.845
Amp 808.674
Phase -116.9
PFD 0.0e+00
Delays (us)
SBD 0.005869
MBD 0.005694
Fringe rate (Hz)
-0.000005
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070921
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec

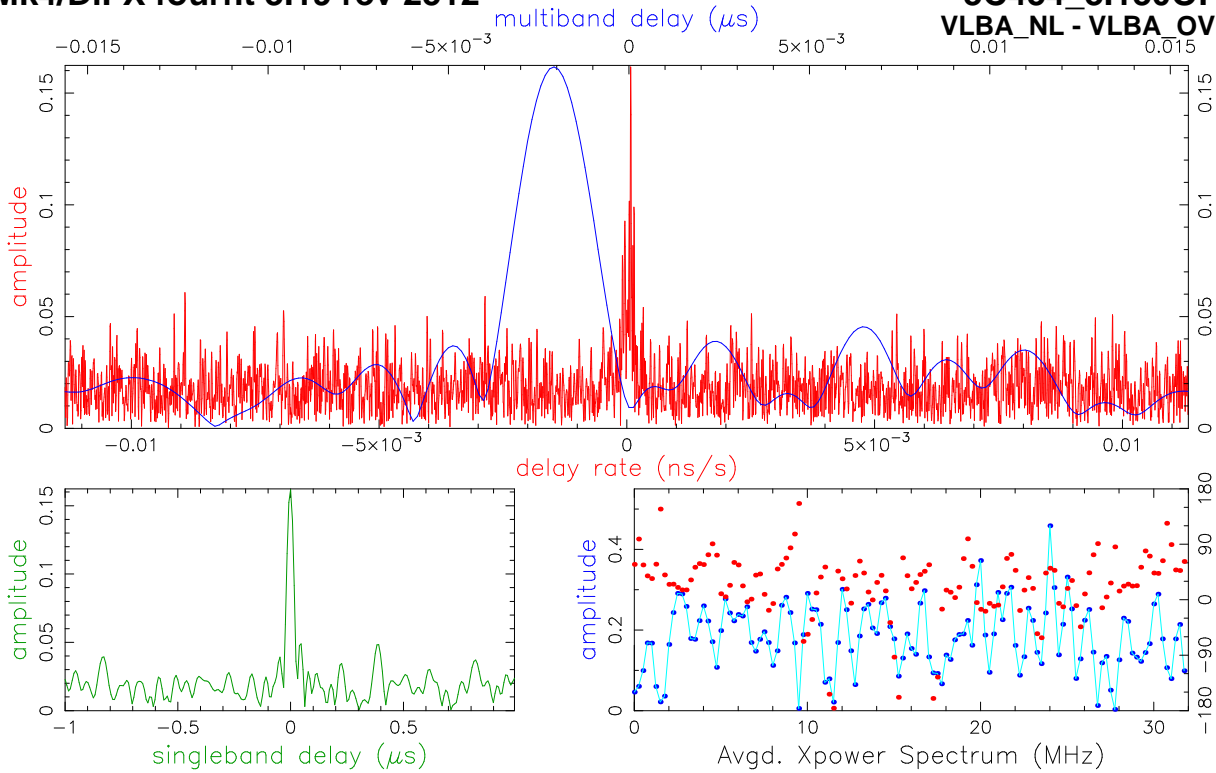


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-101.2	-121.1	-121.0	-128.4	-156.3	-157.7	-146.2	-73.7	-72.9	-98.8	-93.6	-92.7	-106.5	-123.6	-144.4	-153.5	Phase	-116.9
	1659.4	1609.9	1405.3	1196.5	774.4	591.3	324.2	291.8	504.9	733.6	949.9	924.3	979.5	878.6	666.0	421.6	Ampl.	869.5
	129.7	129.7	129.6	129.4	129.6	129.7	130.1	130.3	129.4	129.7	129.7	129.8	129.7	129.5	129.6	129.5	Sbd box	129.8
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n:n	0:0	0:0	0:0	0:0	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	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		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

Group delay (usec)(sbd) 5.69440625000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 5.69441E-03 +/- 2.0E-08
 Sband delay (usec) 5.86850000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 5.86850E-03 +/- 3.2E-07
 Phase delay (usec) -3.76945893273E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -3.76946E-06 +/- 6.9E-11
 Delay rate (us/s) -5.66846095667E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -5.66846E-11 +/- 2.0E-13
 Total phase (deg) -116.9 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -116.9 +/- 0.0

RMS Theor. Amplitude 808.674 +/- 0.015 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.1 0.0 Search (4096X64) 794.966 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.7 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 29.3 0.0 Inc. seg. avg. 803.735 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 51.3 0.0 Inc. frq. avg. 869.451 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 274.6 el 19.6 pa 50.6 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/nn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/nn.W.234.130OPJ

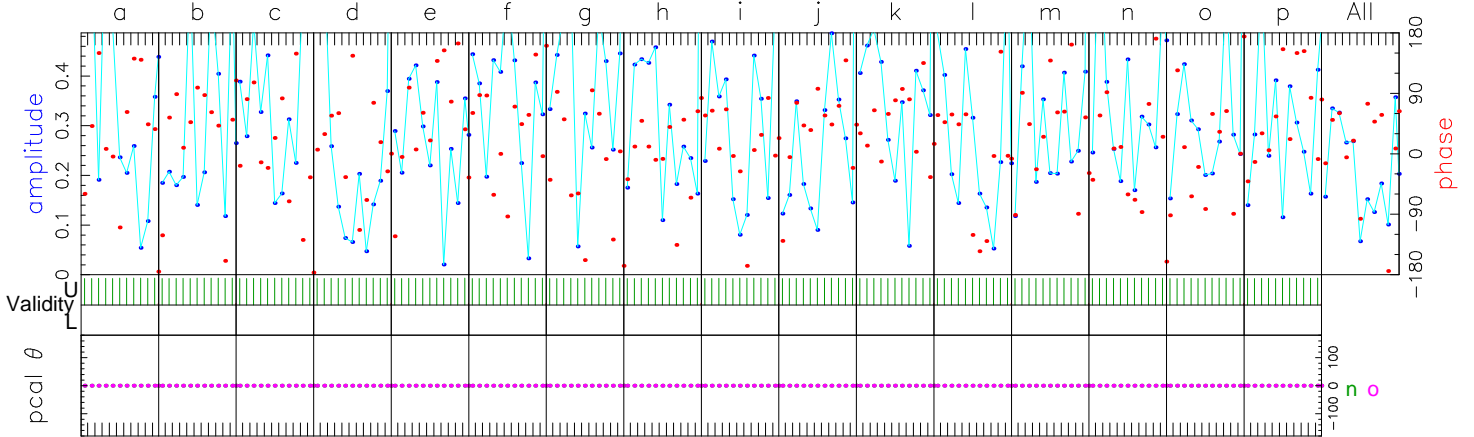


Fringe quality 9

SNR 10.7
 Int time 577.874
 Amp 0.162
 Phase 32.0
 PFD 1.2e-17
 Delays (us)
 SBD -0.001639
 MBD -0.002107
 Fringe rate (Hz) 0.006882
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

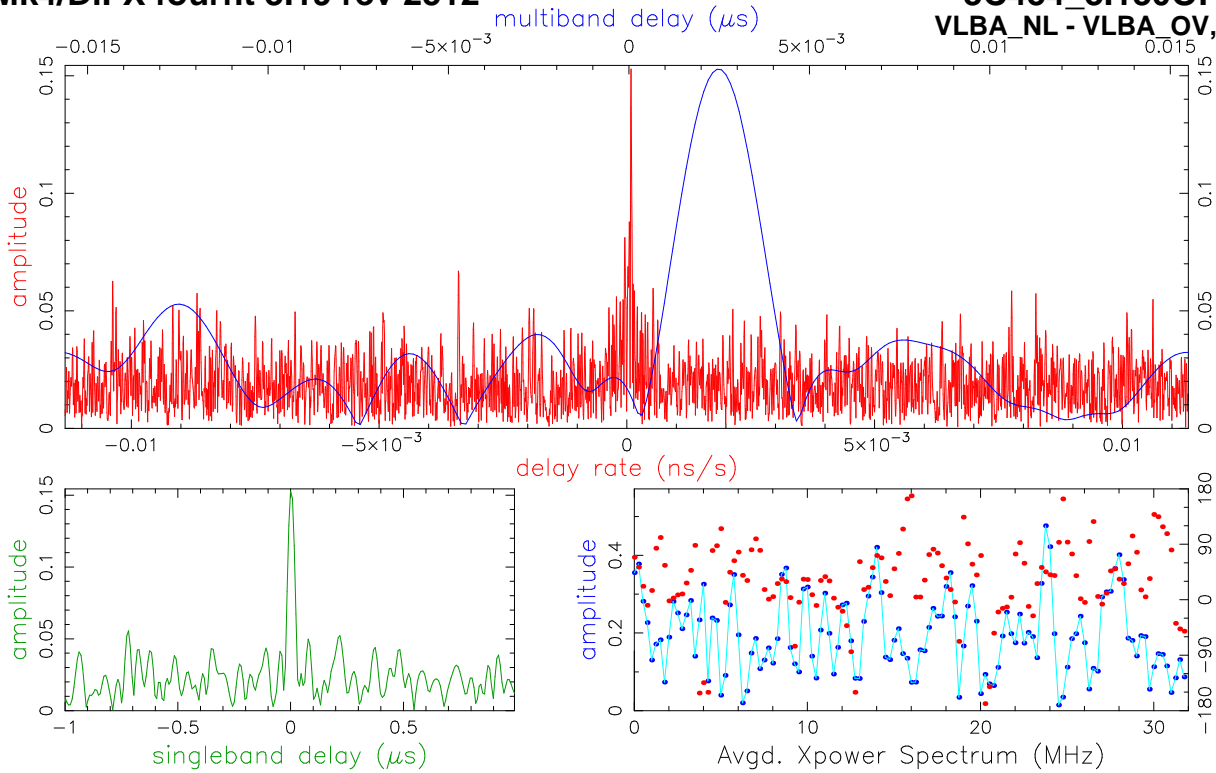
Exp. c192c
 Exper # 16383
 Yr:day 2019:279
 Start 091505.63
 Stop 092500.06
 FRT 092000.00
 Corr/FF/build
 2020:077:052457
 2020:086:070849
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	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	1000	1000	1000	PC amp
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL			Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL			Tracks	
																				Tracks
Group delay (usec)(sbd)	-6.69190237522E+03			Apriori delay (usec)			-6.69190026801E+03			Resid mbdelay (usec)			-2.10721E-03			+/- 1.0E-04				
Sband delay (usec)	-6.69190190701E+03			Apriori clock (usec)			9.8736687E+00			Resid sbdelay (usec)			-1.63900E-03			+/- 1.6E-03				
Phase delay (usec)	-6.69190026698E+03			Apriori clockrate (us/s)			1.3324251E-07			Resid phdelay (usec)			1.03199E-06			+/- 3.5E-07				
Delay rate (us/s)	-1.48551285866E-01			Apriori rate (us/s)			-1.48551365757E-01			Resid rate (us/s)			7.98909E-08			+/- 1.0E-09				
Total phase (deg)	0.8			Apriori accel (us/s/s)			3.75631105862E-05			Resid phase (deg)			32.0			+/- 10.7				

ph/seg (deg) 66.2 18.6 Search (4096X64) 0.155 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 67.2 32.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 22.3 21.5 Inc. seg. avg. 0.202 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 26.7 37.5 Inc. frq. avg. 0.160 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 274.6 el 19.6 pa 50.6 o: az 259.3 el 40.4 pa 54.7 u,v (fr/asec) 967.109 1372.247 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/no..130OPJ Output file: /Exps/c192c/v2/1234/No0117/no.W.167.130OPJ

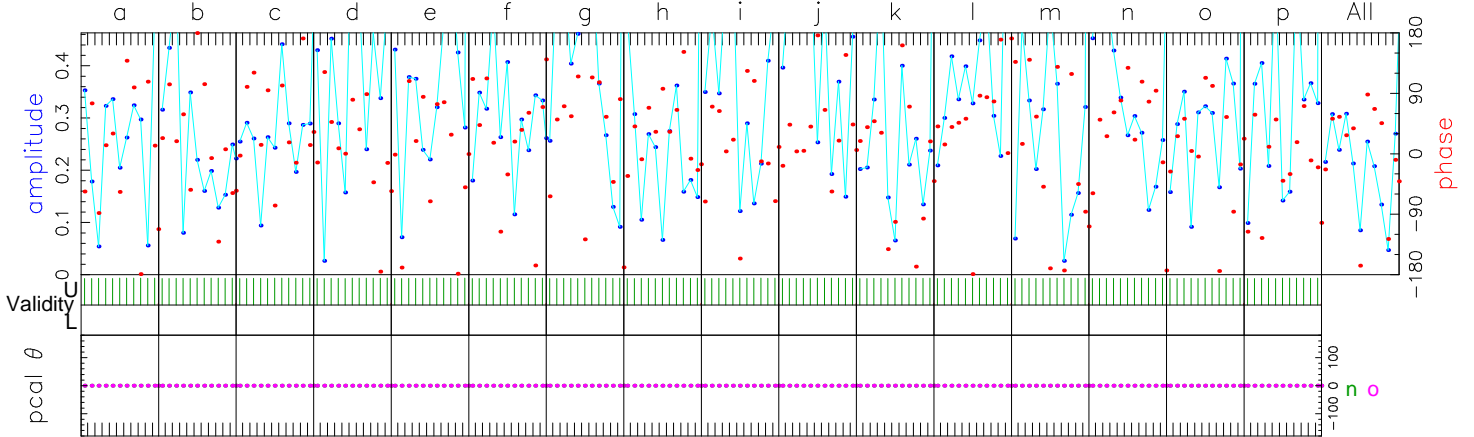


Fringe quality 9

SNR 10.1
 Int time 577.874
 Amp 0.154
 Phase 38.5
 PFD 2.9e-15
 Delays (us)
 SBD 0.002493
 MBD 0.002505
 Fringe rate (Hz) 0.006930
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

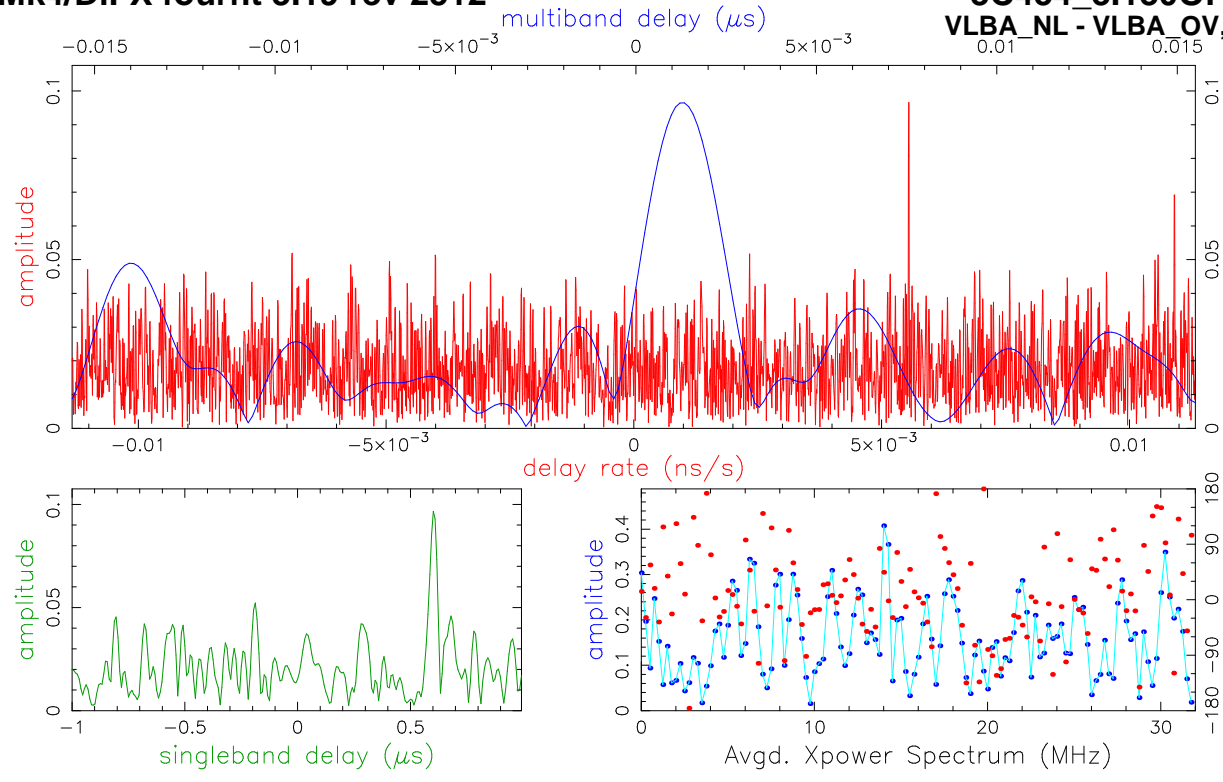
Exp. c192c
 Exper # 16383
 Yr:day 2019:279
 Start 091505.63
 Stop 092500.06
 FRT 092000.00
 Corr/FF/build
 2020:077:052457
 2020:086:070859
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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	
28.9	17.2	62.1	25.9	45.6	45.3	86.7	26.5	10.6	28.5	50.7	54.2	159.6	48.4	35.0	11.6		Phase	38.5	
0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.1	0.3	0.0	0.2	0.1	0.2		Ampl.	0.2	
64.2	131.2	131.5	129.1	127.9	66.3	207.4	50.8	129.5	128.7	243.7	129.7	89.1	130.1	85.3	130.4		Sbd box	129.3	
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0		APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
n:o	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
																		Tracks	
Group delay (usec)(sbd)	-6.69189776287E+03			Apriori delay (usec)			-6.69190026801E+03			Resid mbdelay (usec)			2.50514E-03			+/- 1.1E-04			
Sband delay (usec)	-6.69189777501E+03			Apriori clock (usec)			9.8736687E+00			Resid sbdelay (usec)			2.49300E-03			+/- 1.7E-03			
Phase delay (usec)	-6.69190026677E+03			Apriori clockrate (us/s)			1.3324251E-07			Resid phdelay (usec)			1.24133E-06			+/- 3.6E-07			
Delay rate (us/s)	-1.48551285306E-01			Apriori rate (us/s)			-1.48551365757E-01			Resid rate (us/s)			8.04511E-08			+/- 1.1E-09			
Total phase (deg)	7.3			Apriori accel (us/s/s)			3.75631105862E-05			Resid phase (deg)			38.5			+/- 11.3			

ph/seg (deg) 74.7 19.6 Search (4096X64) 0.148 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.7 34.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 38.4 22.6 Inc. seg. avg. 0.197 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 45.8 39.4 Inc. frq. avg. 0.153 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 274.6 el 19.6 pa 50.6 o: az 259.3 el 40.4 pa 54.7 u,v (fr/asec) 967.109 1372.247 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/no..130OPJ Output file: /Exps/c192c/v2/1234/No0117/no.W.188.130OPJ

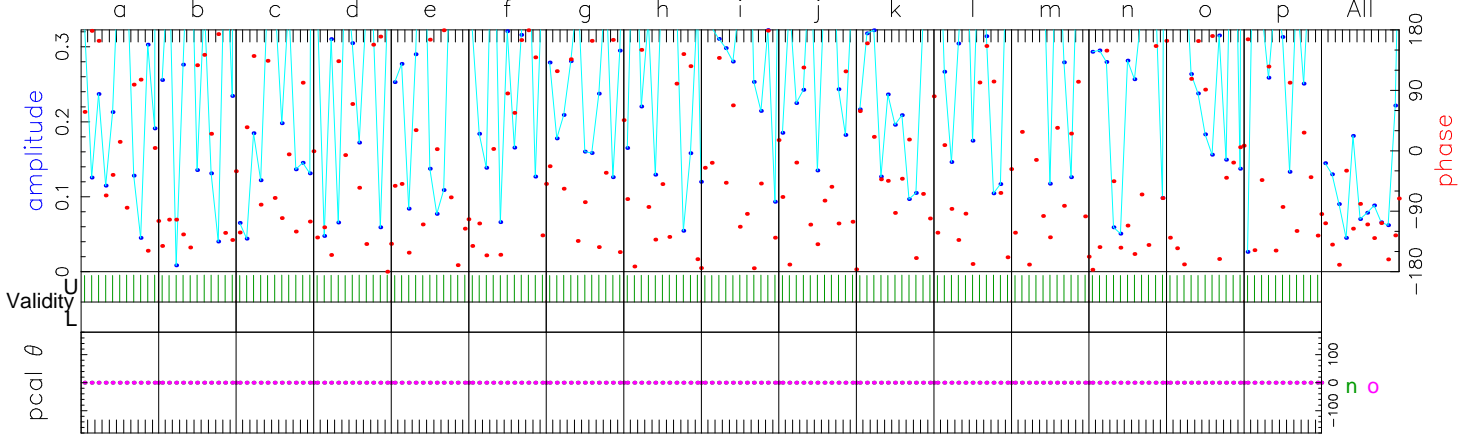


Fringe quality 0

SNR 6.4
 Int time 577.875
 Amp 0.108
 Phase -120.5
 PFD 8.6e-02
 Delays (us)
 SBD 0.603798
 MBD 0.001283
 Fringe rate (Hz) 0.478609
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c192c
 Exper # 16383
 Yr:day 2019:279
 Start 091505.63
 Stop 092500.06
 FRT 092000.00
 Corr/FF/build
 2020:077:052457
 2020:086:070910
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-38.4	-137.2	-89.3	-155.6	-97.0	-169.7	-123.8	-145.8	-88.2	-101.6	-52.3	-140.4	-70.8	-148.9	-148.2	-109.2	Phase	-120.5				
	0.0	0.2	0.0	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	Ampl.	0.1				
	228.4	105.7	84.7	36.9	208.0	10.1	130.1	210.6	13.6	206.0	105.7	135.4	231.1	138.2	137.4	43.0	Sbd box	206.3				
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
n:o	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
o	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					
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-6.69130523454E+03														Apriori delay (usec)	-6.69190026801E+03	Resid mbdelay (usec)	1.28348E-03	+/-	1.7E-04
Sband delay (usec)			-6.69129647001E+03														Apriori clock (usec)	9.8736687E+00	Resid sbdelay (usec)	6.03798E-01	+/-	2.7E-03
Phase delay (usec)			-6.69190027190E+03														Apriori clockrate (us/s)	1.3324251E-07	Resid phdelay (usec)	-3.88585E-06	+/-	5.8E-07
Delay rate (us/s)			-1.48545809581E-01														Apriori rate (us/s)	-1.48551365757E-01	Resid rate (us/s)	5.55618E-06	+/-	1.7E-09
Total phase (deg)					-151.7												Apriori accel (us/s/s)	3.75631105862E-05	Resid phase (deg)	-120.5	+/-	17.9

ph/seg (deg) 37.0 31.0
 amp/seg (%) 61.4 54.2
 ph/frq (deg) 40.9 35.8
 amp/frq (%) 47.7 62.6

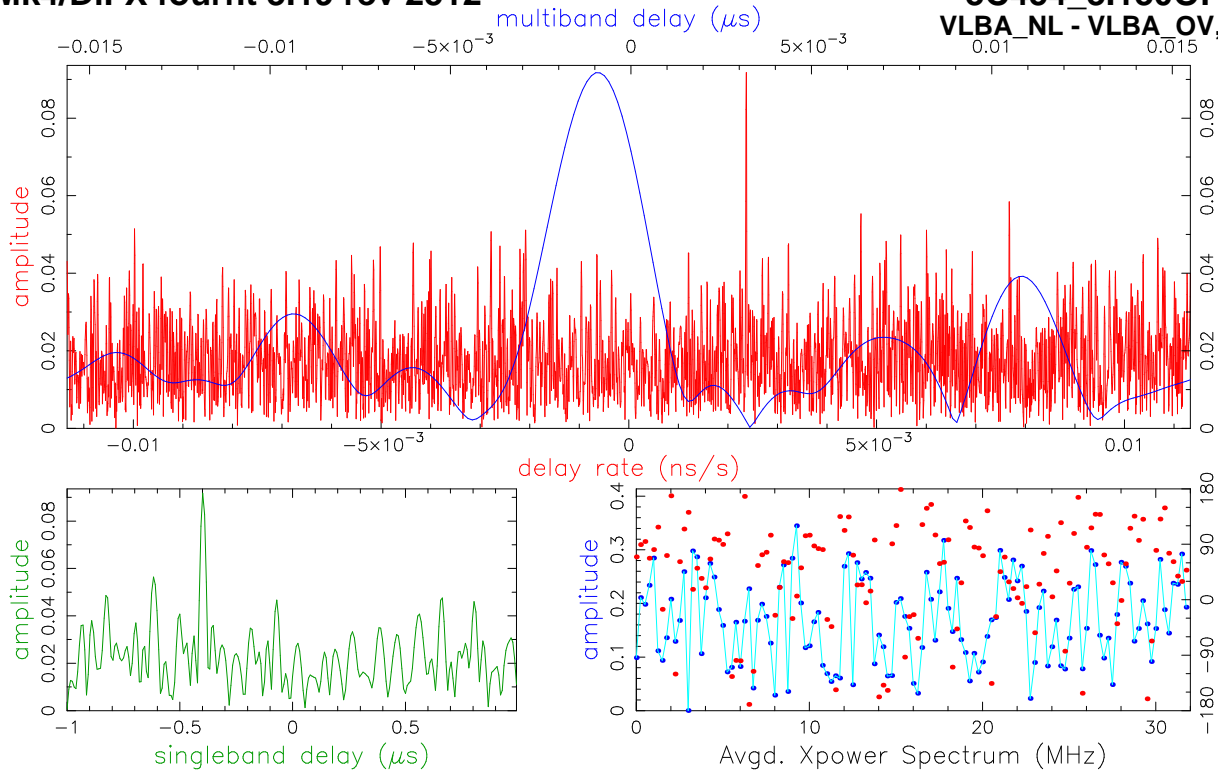
RMS Theor. Amplitude 0.108 +/- 0.017
 Search (4096X64) 0.094
 Interp. 0.000
 Inc. seg. avg. 0.105
 Inc. frq. avg. 0.105

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

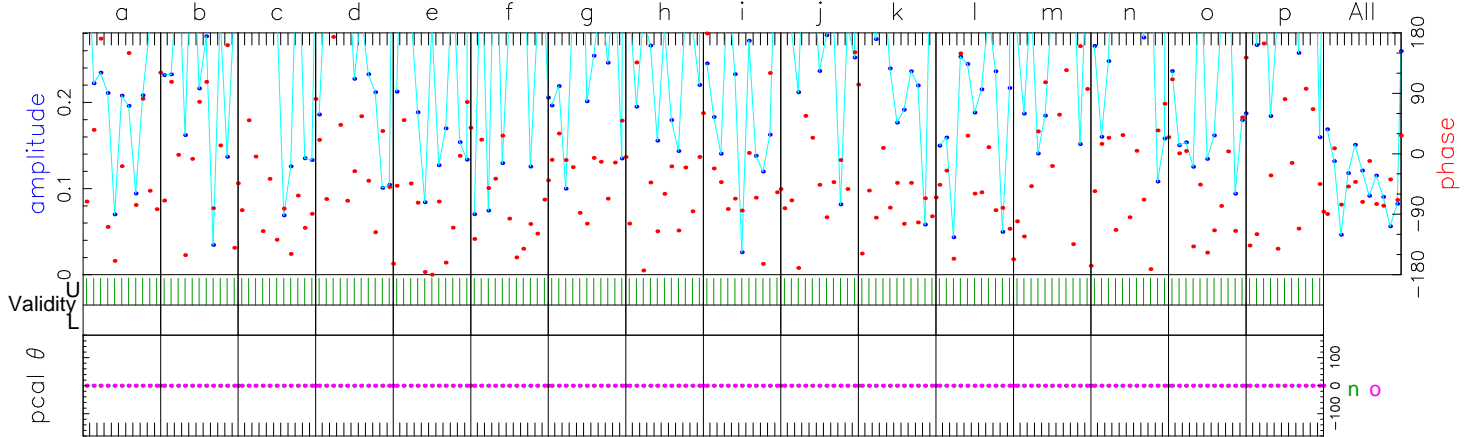
n: az 274.6 el 19.6 pa 50.6 o: az 259.3 el 40.4 pa 54.7 u,v (fr/asec) 967.109 1372.247 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/no..130OPJ Output file: /Exps/c192c/v2/1234/No0117/no.W.211.130OPJ



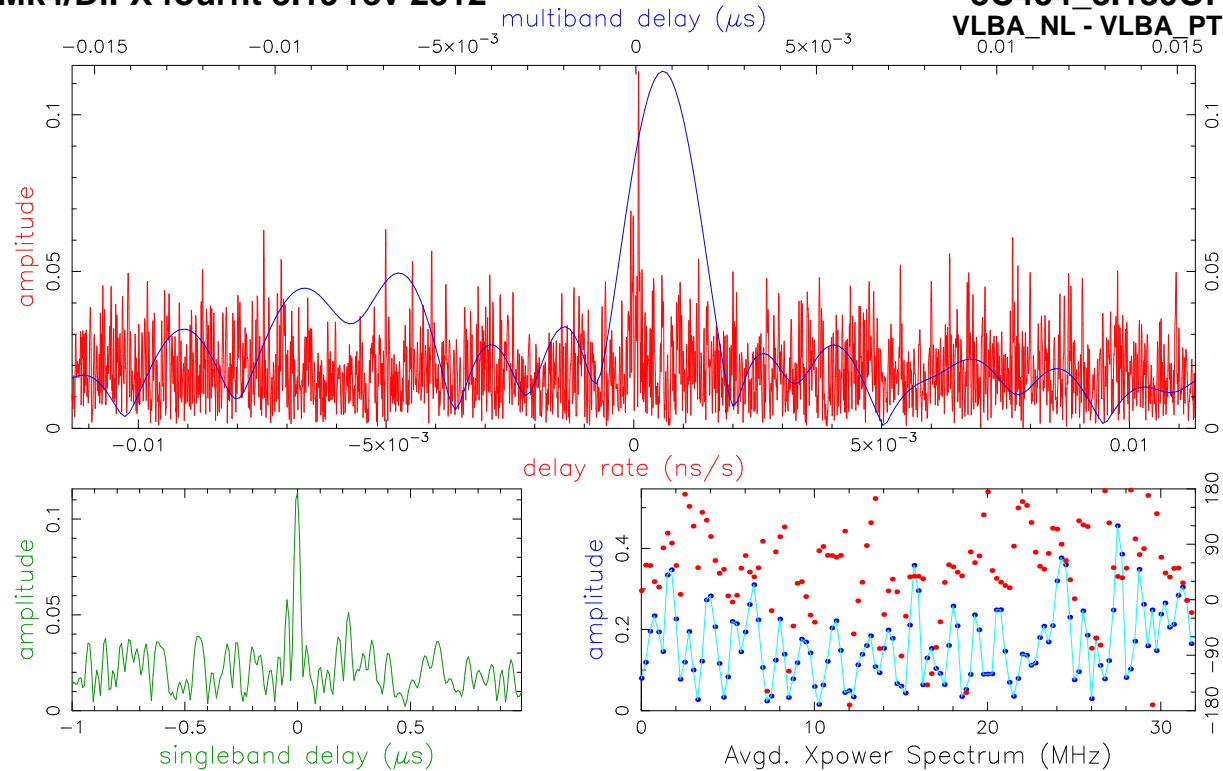
Fringe quality 0
 SNR 6.0
 Int time 577.873
 Amp 0.094
 Phase -53.9
 PFD 5.5e-01
 Delays (us)
 SBD -0.397595
 MBD -0.000917
 Fringe rate (Hz) 0.204310
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c192c
 Exper # 16383
 Yr:day 2019:279
 Start 091505.63
 Stop 092500.06
 FRT 092000.00
 Corr/FF/build
 2020:077:052457
 2020:086:070920
 2020:014:135814
 RA & Dec (J2000)
 22h53m57.747940s
 +16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-76.1	17.8	-59.0	-34.0	-52.3	-83.9	-29.1	-71.6	-63.5	-45.2	-77.0	-51.2	93.9	-42.7	-35.5	155.2	Phase	-53.9
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.0	Ampl.	0.1
	141.0	190.4	213.1	174.6	229.8	84.1	78.8	23.0	101.9	226.8	78.4	57.1	81.9	213.7	45.1	15.8	Sbd box	78.1
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	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:o	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Tracks	
Group delay (usec)(sbd)	-6.69230743453E+03			Apriori delay (usec)			-6.69190026801E+03			Resid mbdelay (usec)			-9.16522E-04			+/- 1.8E-04		
Sband delay (usec)	-6.69229786251E+03			Apriori clock (usec)			9.8736687E+00			Resid sbdelay (usec)			-3.97595E-01			+/- 2.9E-03		
Phase delay (usec)	-6.69190026975E+03			Apriori clockrate (us/s)			1.3324251E-07			Resid phdelay (usec)			-1.73704E-06			+/- 6.1E-07		
Delay rate (us/s)	-1.48548993918E-01			Apriori rate (us/s)			-1.48551365757E-01			Resid rate (us/s)			2.37184E-06			+/- 1.8E-09		
Total phase (deg)	-85.0			Apriori accel (us/s/s)			3.75631105862E-05			Resid phase (deg)			-53.9			+/- 19.0		

ph/seg (deg) 29.7 32.8 Search (4096X64) 0.088 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 43.8 57.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 61.9 37.9 Inc. seg. avg. 0.094 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 58.0 66.2 Inc. frq. avg. 0.088 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 274.6 el 19.6 pa 50.6 o: az 259.3 el 40.4 pa 54.7 u,v (fr/asec) 967.109 1372.247 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/no..130OPJ Output file: /Exps/c192c/v2/1234/No0117/no.W.233.130OPJ

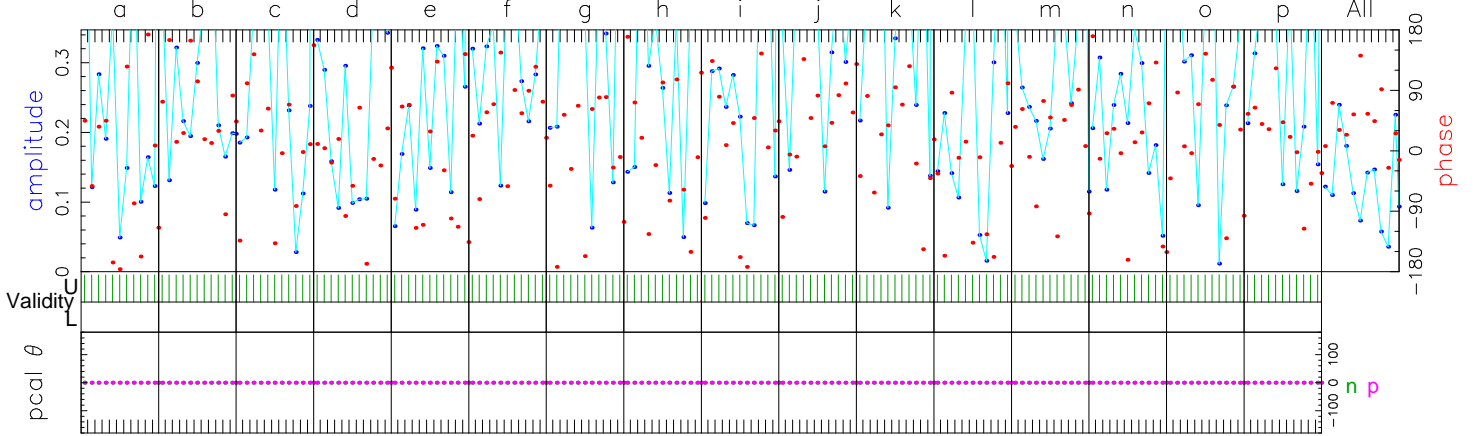


Fringe quality 9

SNR 7.7
Int time 585.248
Amp 0.116
Phase 40.2
PFD 1.2e-05
Delays (us)
SBD -0.002894
MBD 0.000700
Fringe rate (Hz) 0.008293
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070849
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec

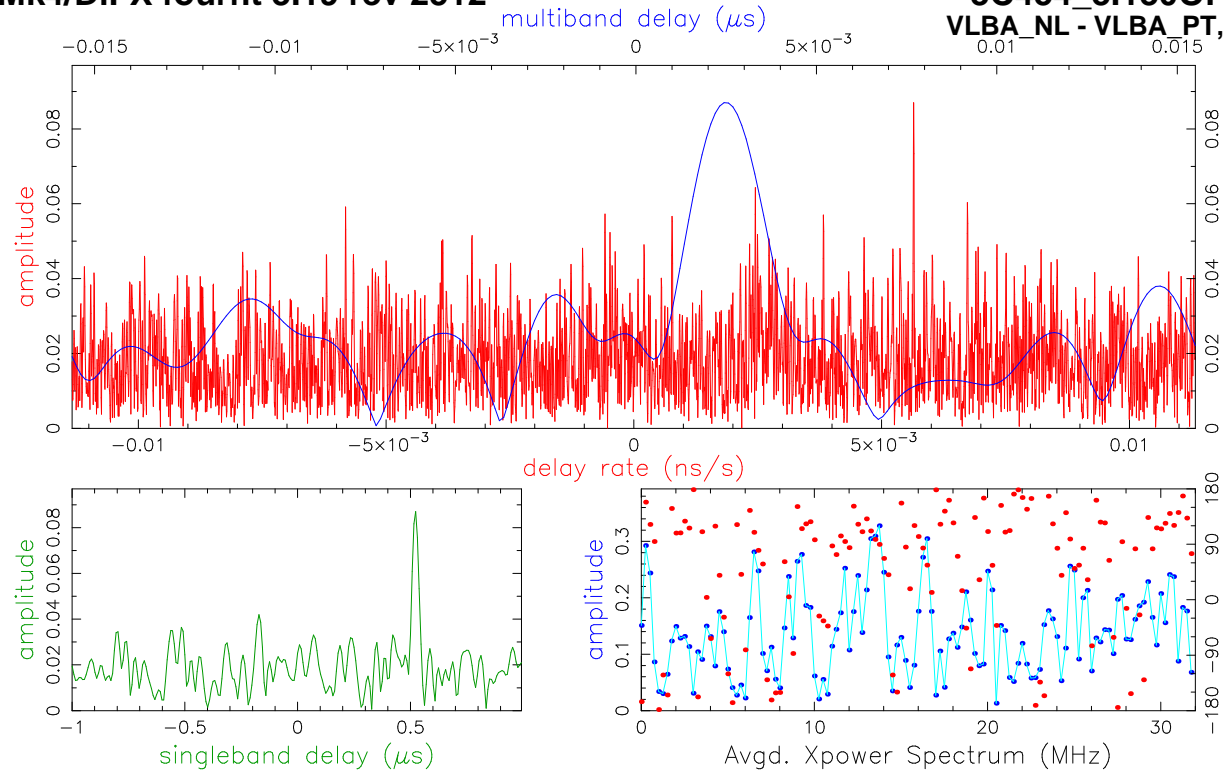


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
22.9	44.4	46.1	-8.4	-127.0	61.4	33.8	20.1	77.4	66.3	42.6	-11.7	34.7	28.0	64.3	26.6	Phase	40.2	
0.0	0.2	0.1	0.2	0.0	0.2	0.2	0.1	0.1	0.2	0.1	0.0	0.2	0.1	0.1	0.2	Ampl.	0.1	
252.9	163.4	206.5	83.1	11.0	39.5	14.8	156.9	254.2	128.6	213.7	248.5	127.9	199.9	30.0	168.0	Sbd box	128.6	
UL	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n:p	0:0	0:0	0:0	0:0	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:p	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		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

Group delay (usec)(sbd) -4.27990447075E+03 Apriori delay (usec) -4.27990517093E+03 Resid mbdelay (usec) 7.00178E-04 +/- 1.4E-04
 Sband delay (usec) -4.27990806443E+03 Apriori clock (usec) 1.4551687E+01 Resid sbdelay (usec) -2.89350E-03 +/- 2.3E-03
 Phase delay (usec) -4.27990516964E+03 Apriori clockrate (us/s) -6.9663080E-08 Resid phdelay (usec) 1.29507E-06 +/- 4.8E-07
 Delay rate (us/s) 3.15422621653E-03 Apriori rate (us/s) 3.15412994516E-03 Resid rate (us/s) 9.62714E-08 +/- 1.4E-09
 Total phase (deg) -112.5 Apriori accel (us/s/s) 2.60690898482E-05 Resid phase (deg) 40.2 +/- 15.0

RMS Theor. Amplitude 0.116 +/- 0.015 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 43.0 25.9 Search (4096X64) 0.108 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 55.0 45.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 51.6 29.9 Inc. seg. avg. 0.119 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 49.5 52.2 Inc. frq. avg. 0.113 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 274.6 el 19.6 pa 50.6 p: az 268.1 el 32.5 pa 59.3 u,v (fr/asec) 37.814 1468.221 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/np..130OPJ Output file: /Exps/c192c/v2/1234/No0117/np.W.168.130OPJ

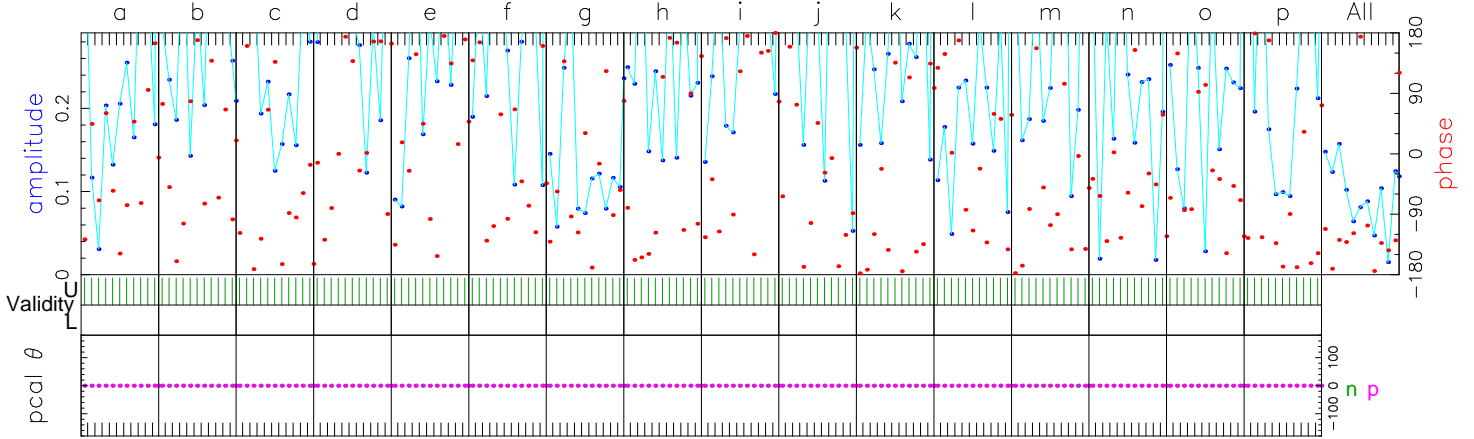


Fringe quality 0

SNR 5.8
Int time 585.247
Amp 0.097
Phase -135.7
PFD 9.8e-01
Delays (us)
SBD 0.521944
MBD 0.002448
Fringe rate (Hz) 0.487221
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070859
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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				
	-93.1	-144.9	-129.4	-101.3	160.6	-113.4	-111.1	-151.8	-170.6	-103.3	-174.8	-133.1	-145.1	-78.3	-67.8	-145.2	Phase	-135.7				
	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.0	0.2	0.1	0.1	0.2	Ampl.	0.1				
	102.2	171.9	129.6	38.9	35.6	113.2	255.0	15.4	196.7	192.2	196.1	160.1	23.2	225.0	231.8	68.4	Sbd box	195.8				
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
n:p	0:0	0:0	0:0	0:0	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	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						
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Tracks					
Group delay (usec)(sbd)			-4.27937147331E+03														Apriori delay (usec)	-4.27990517093E+03	Resid mbdelay (usec)	2.44762E-03	+/-	1.9E-04
Sband delay (usec)			-4.27938322693E+03														Apriori clock (usec)	1.4551687E+01	Resid sbdelay (usec)	5.21944E-01	+/-	3.0E-03
Phase delay (usec)			-4.27990517531E+03														Apriori clockrate (us/s)	-6.9663080E-08	Resid phdelay (usec)	-4.37722E-06	+/-	6.4E-07
Delay rate (us/s)			3.15978609705E-03														Apriori rate (us/s)	3.15412994516E-03	Resid rate (us/s)	5.65615E-06	+/-	1.9E-09
Total phase (deg)																	Apriori accel (us/s/s)	2.60690898482E-05	Resid phase (deg)	-135.7	+/-	19.8

ph/seg (deg) 26.5 34.3
amp/seg (%) 47.7 59.9
ph/frq (deg) 38.2 39.7
amp/frq (%) 66.8 69.2

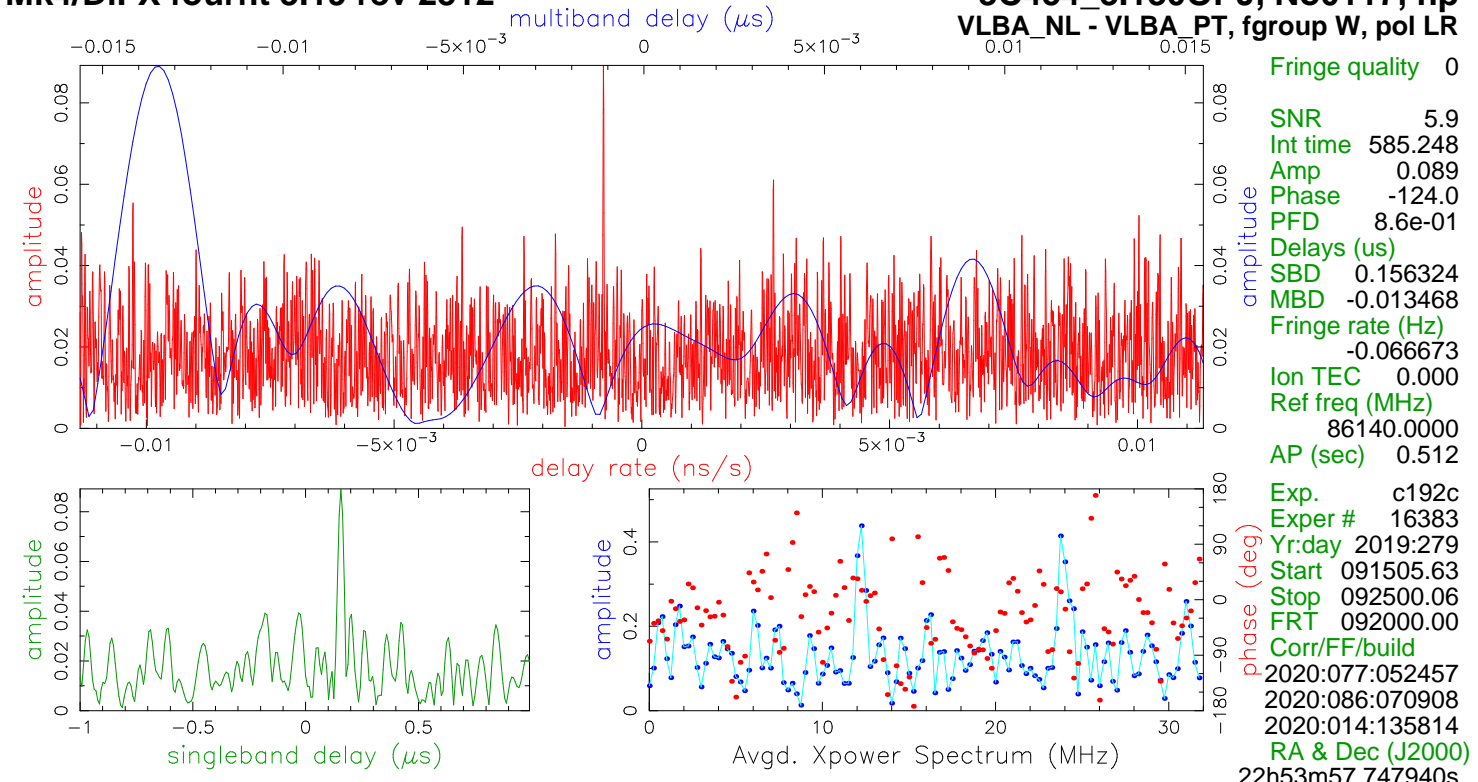
RMS Theor. Amplitude 0.097 +/- 0.017
Search (4096X64) 0.085
Interp. 0.000
Inc. seg. avg. 0.090
Inc. frq. avg. 0.095

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

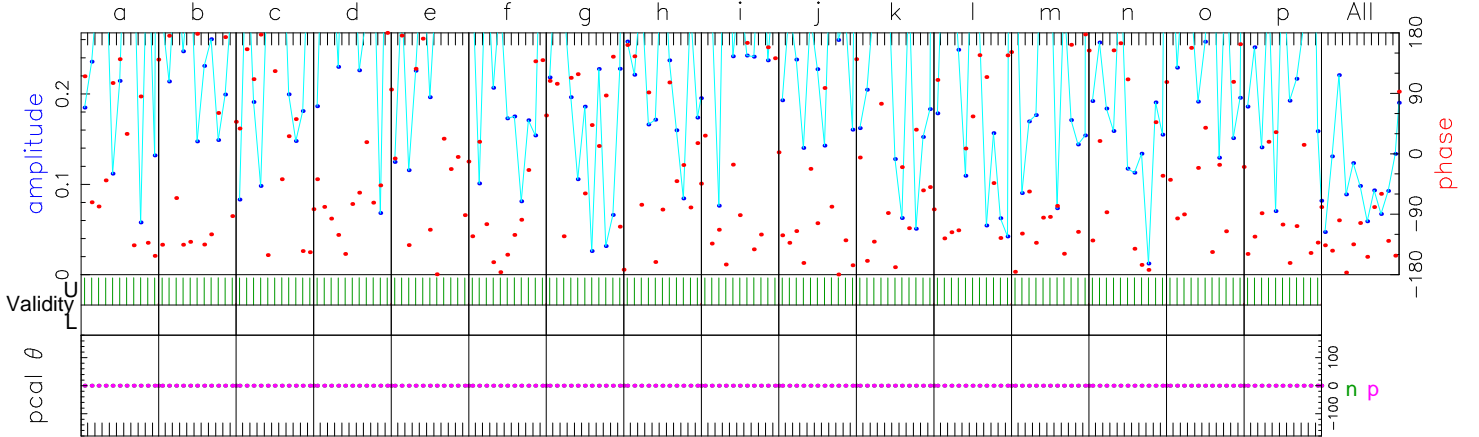
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

n: az 274.6 el 19.6 pa 50.6 p: az 268.1 el 32.5 pa 59.3 u,v (fr/asec) 37.814 1468.221 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/np..130OPJ Output file: /Exps/c192c/v2/1234/No0117/np.W.189.130OPJ



Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



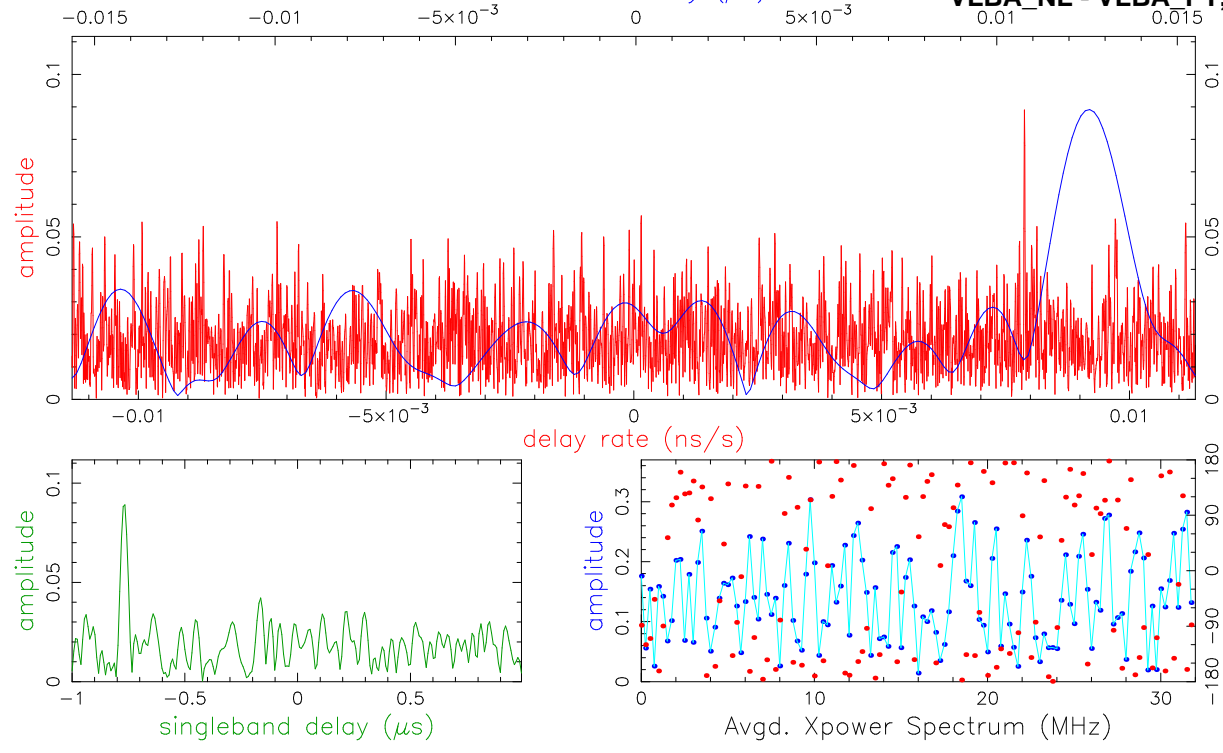
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-104.1	-130.1	177.8	-94.8	-55.7	-153.3	128.5	-101.5	-147.9	-121.3	-93.0	-150.2	-130.6	177.8	-100.6	-116.6	Phase	-124.0
	0.1	0.2	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.0	0.1	0.1	Ampl.	0.1
	206.3	149.7	108.1	149.2	60.4	139.0	103.1	22.7	58.0	19.9	250.5	11.3	175.8	93.3	97.6	247.5	Sbd box	149.0
UL	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n:p	0:0	0:0	0:0	0:0	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:p	0:0	0:0	0:0	0:0	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	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
Group delay (usec)(sbd)	-4.27976238871E+03			Apriori delay (usec)			-4.27990517093E+03			Resid mbdelay (usec)			-1.34678E-02			+/-	1.8E-04	
Sband delay (usec)	-4.27974884743E+03			Apriori clock (usec)			1.4551687E+01			Resid sbdelay (usec)			1.56324E-01			+/-	2.9E-03	
Phase delay (usec)	-4.27990517493E+03			Apriori clockrate (us/s)			-6.9663080E-08			Resid phdelay (usec)			-3.99928E-06			+/-	6.3E-07	
Delay rate (us/s)	3.15335593949E-03			Apriori rate (us/s)			3.15412994516E-03			Resid rate (us/s)			-7.74006E-07			+/-	1.8E-09	
Total phase (deg)	-276.7			Apriori accel (us/s/s)			2.60690898482E-05			Resid phase (deg)			-124.0			+/-	19.5	

	RMS	Theor.	Amplitude	0.089 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	35.0	33.7	Search (4096X64)	0.088	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	54.5	58.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	45.1	38.9	Inc. seg. avg.	0.090	Sample rate(MISamp/s): 64	dr window (ns/s) -0.011 0.011
amp/frq (%)	62.4	67.9	Inc. frq. avg.	0.084	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

n: az 274.6 el 19.6 pa 50.6 p: az 268.1 el 32.5 pa 59.3 u,v (fr/asec) 37.814 1468.221 simultaneous interpolator

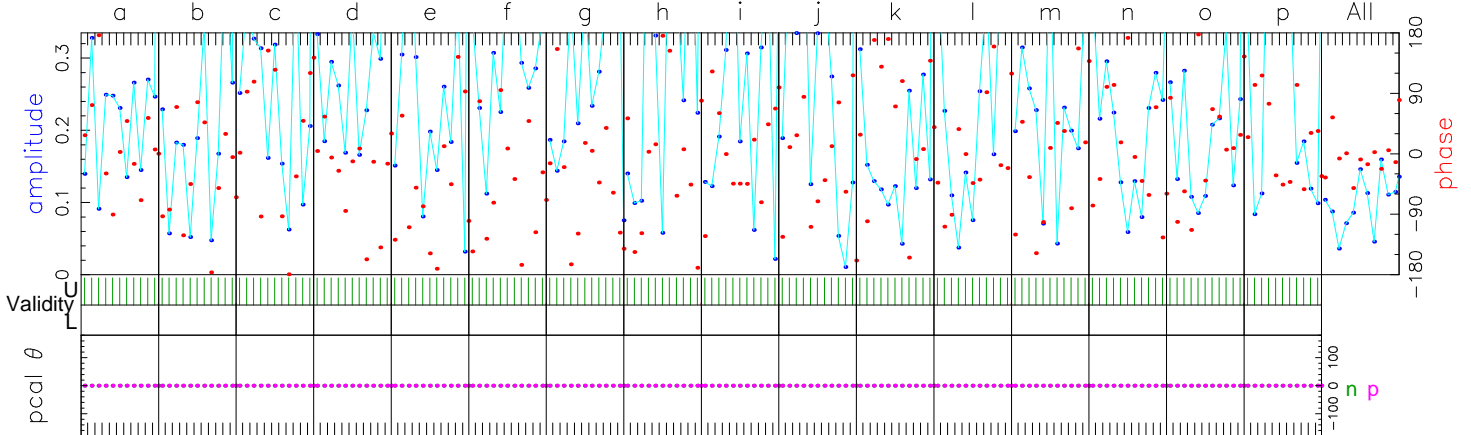
Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/np..130OPJ Output file: /Exps/c192c/v2/1234/No0117/np.W.206.130OPJ

multiband delay (μ s)

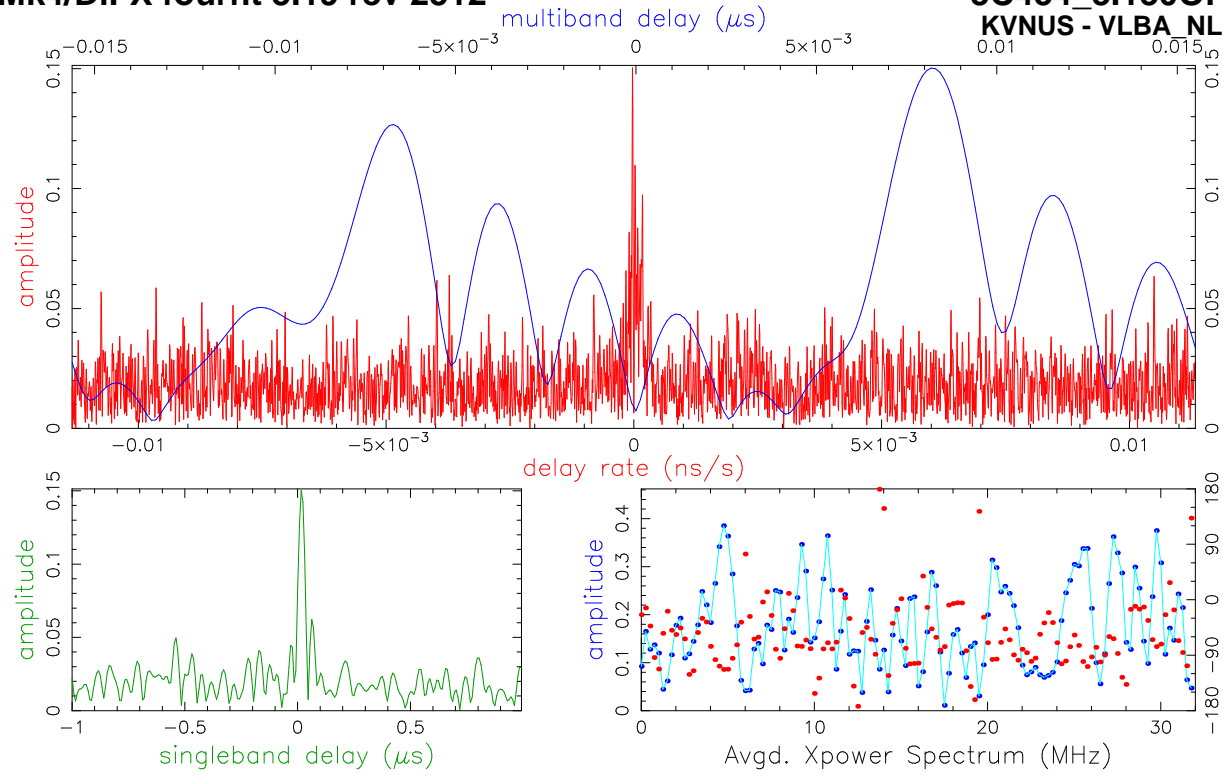


Fringe quality 0
SNR 6.0
Int time 585.247
Amp 0.112
Phase -10.4
PFD 6.4e-01
Delays (us)
SBD -0.769102
MBD 0.012491
Fringe rate (Hz) 0.680028
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070919
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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
6.5	7.7	90.0	-17.3	-101.8	-45.4	-43.9	-22.5	-19.0	7.6	73.9	-24.2	-1.6	-21.0	18.1	5.1	Phase	-10.4	
0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.2	0.1	0.1	0.1	0.2	Ampl.	0.1	
154.9	234.8	132.1	29.2	6.4	151.9	2.4	250.1	199.9	151.3	40.9	218.9	187.4	13.9	207.8	1.5	Sbd box	30.6	
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n:p	0:0	0:0	0:0	0:0	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	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		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Group delay (usec)(sbd)	-4.28067393031E+03			Apriori delay (usec)			-4.27990517093E+03			Resid mbdelay (usec)			1.24906E-02			+/- 1.8E-04		
Sband delay (usec)	-4.28067427243E+03			Apriori clock (usec)			1.4551687E+01			Resid sbdelay (usec)			-7.69102E-01			+/- 2.9E-03		
Phase delay (usec)	-4.27990517127E+03			Apriori clockrate (us/s)			-6.9663080E-08			Resid phdelay (usec)			-3.33988E-07			+/- 6.2E-07		
Delay rate (us/s)	3.16202440081E-03			Apriori rate (us/s)			3.15412994516E-03			Resid rate (us/s)			7.89446E-06			+/- 1.8E-09		
Total phase (deg)	-163.0			Apriori accel (us/s/s)			2.60690898482E-05			Resid phase (deg)			-10.4			+/- 19.1		
ph/seg (deg)	RMS	Theor.	Amplitude		0.112 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000			
amp/seg (%)	26.2	33.1	Search (4096X64)		0.088		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)		-0.016 0.016					
ph/frq (deg)	46.7	38.2	Interp.		0.000		Sample rate(MISamp/s): 64				dr window (ns/s)		-0.011 0.011					
amp/frq (%)	48.2	66.7	Inc. seg. avg.		0.103		Data rate(Mb/s): 2048		nlags: 128		ion window (TEC)		0.00 0.00					
n: az 274.6 el 19.6 pa 50.6		p: az 268.1 el 32.5 pa 59.3		u,v (fr/asec) 37.814 1468.221										simultaneous interpolator				

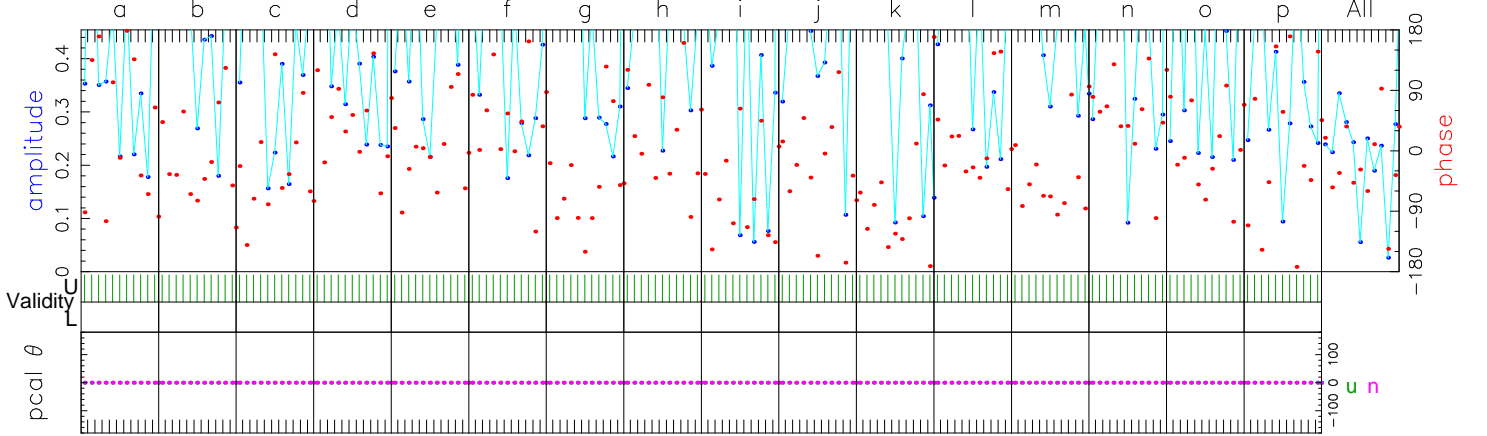


Fringe quality 9

SNR 10.0
Int time 585.846
Amp 0.151
Phase -15.1
PFD 1.1e-14
Delays (us)
SBD 0.017607
MBD 0.008229
Fringe rate (Hz) -0.002407
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

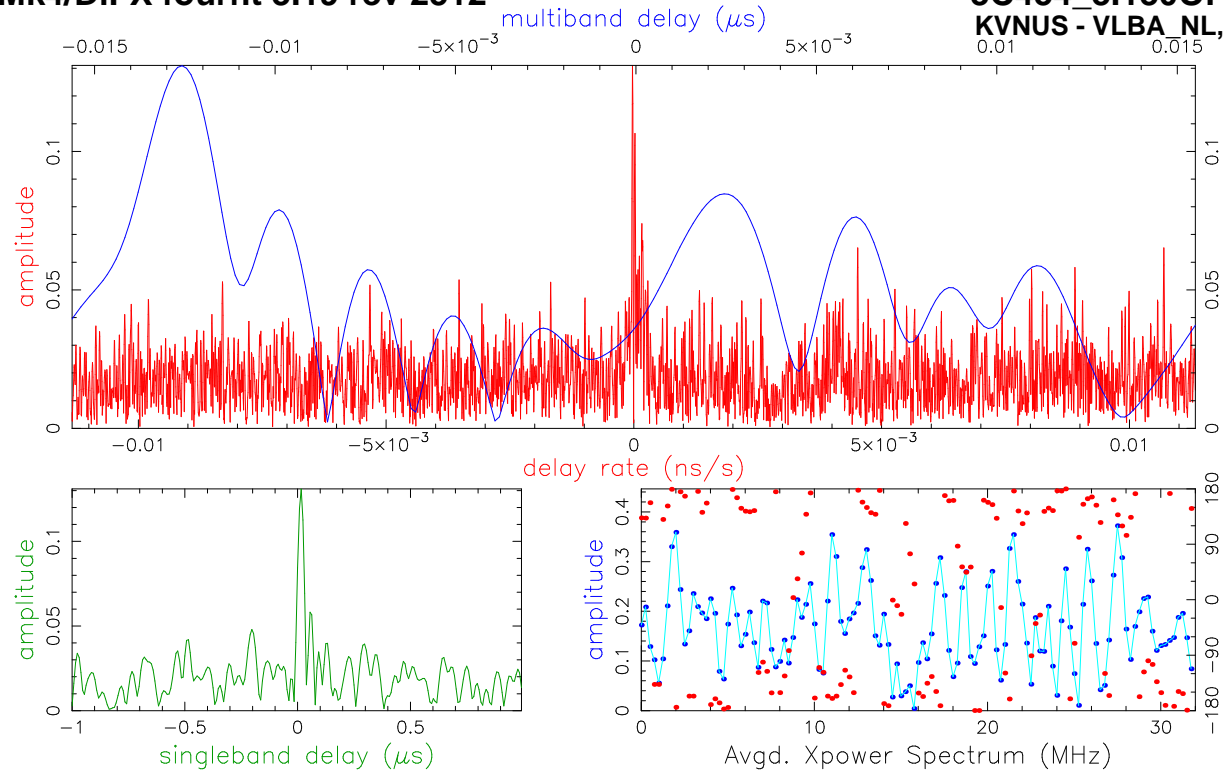
Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070853
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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				
	144.7	-16.1	-47.6	46.2	-12.4	49.9	-71.2	13.9	-79.0	-6.1	-90.7	-9.6	-48.3	70.2	13.3	-170.4	Phase	-15.1				
	0.1	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.1	Ampl.	0.2				
	133.9	131.5	131.8	132.1	131.5	139.1	131.6	130.8	131.1	131.0	131.2	131.6	131.4	130.7	131.8	133.6	Sbd box	131.3				
UL	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used					
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Tracks					
Group delay (usec)(sbd)			5.06721020429E+03														Apriori delay (usec)	5.06720197574E+03	Resid mbdelay (usec)	8.22855E-03	+/-	1.1E-04
Sband delay (usec)			5.06721958274E+03														Apriori clock (usec)	-1.8003082E+01	Resid sbdelay (usec)	1.76070E-02	+/-	1.7E-03
Phase delay (usec)			5.06720197525E+03														Apriori clockrate (us/s)	2.6577647E-07	Resid phdelay (usec)	-4.87135E-07	+/-	3.7E-07
Delay rate (us/s)			2.14156766595E+00														Apriori rate (us/s)	2.14156769390E+00	Resid rate (us/s)	-2.79480E-08	+/-	1.1E-09
Total phase (deg)					53.3												Apriori accel (us/s/s)	-2.97178207748E-05	Resid phase (deg)	-15.1	+/-	11.4

ph/seg (deg) 59.2 19.8 Search (4096X64) 0.150 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 73.7 34.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 76.4 22.9 Inc. seg. avg. 0.204 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 80.3 39.9 Inc. frq. avg. 0.232 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
u: az 92.8 el 32.6 pa -57.8 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -12835.820 -1301.323 ion window (TEC) 0.00 0.00 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/un..130OPJ Output file: /Exps/c192c/v2/1234/No0117/un.W.178.130OPJ

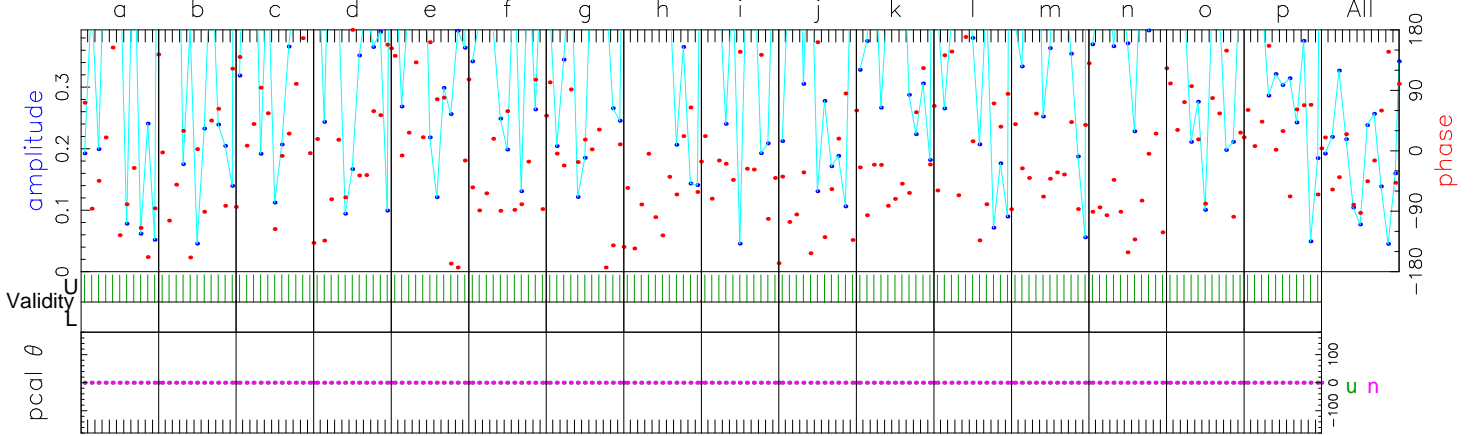


Fringe quality 9

SNR 8.7
Int time 585.845
Amp 0.131
Phase -24.6
PFD 3.1e-09
Delays (us)
SBD 0.014818
MBD -0.012600
Fringe rate (Hz)
-0.002506
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070904
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec

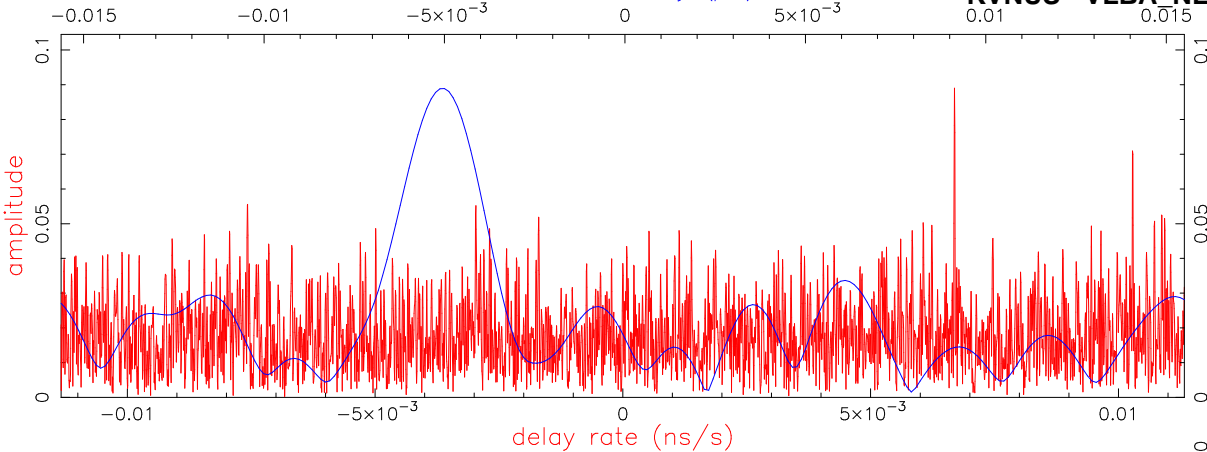


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All		
	-68.7	-35.2	43.6	-12.6	81.3	-53.5	36.0	-62.3	-28.9	-106.9	-46.0	-104.8	-11.7	-82.5	59.8	32.0		Phase	-24.6	
	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.3	0.3	0.2	0.3	0.1	0.3	0.3	0.3	0.2		Ampl.	0.2	
	245.1	129.1	130.1	60.5	227.4	130.5	233.3	130.6	131.0	129.7	131.3	220.2	130.2	131.1	131.3	132.6		Sbd box	130.9	
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0		APs used		
u	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000		PC freqs		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids		
																		Tracks		
Group delay (usec)(sbd)			5.06722062588E+03								5.06720197574E+03							Resid mbdelay (usec)	-1.25999E-02	+/- 1.2E-04
Sband delay (usec)			5.06721679374E+03								-1.8003082E+01							Resid sbdelay (usec)	1.48180E-02	+/- 2.0E-03
Phase delay (usec)			5.06720197494E+03								2.6577647E-07							Resid phdelay (usec)	-7.94113E-07	+/- 4.3E-07
Delay rate (us/s)			2.14156766481E+00								2.14156769390E+00							Resid rate (us/s)	-2.90916E-08	+/- 1.2E-09
Total phase (deg)				43.8							-2.97178207748E-05							Resid phase (deg)	-24.6	+/- 13.2

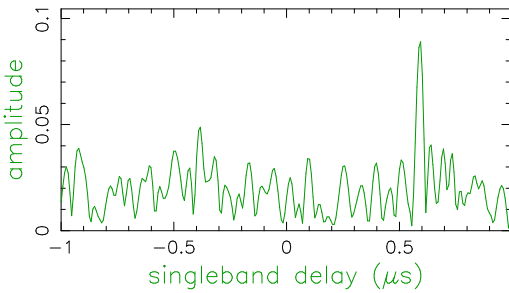
RMS Theor. Amplitude 0.131 +/- 0.015 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 68.5 22.9 Search (4096X64) 0.130 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 72.0 39.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 60.7 26.4 Inc. seg. avg. 0.167 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 82.2 46.1 Inc. frq. avg. 0.190 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 u: az 92.8 el 32.6 pa -57.8 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -12835.820 -1301.323 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/un..130OPJ Output file: /Exps/c192c/v2/1234/No0117/un.W.199.130OPJ

multiband delay (μ s)

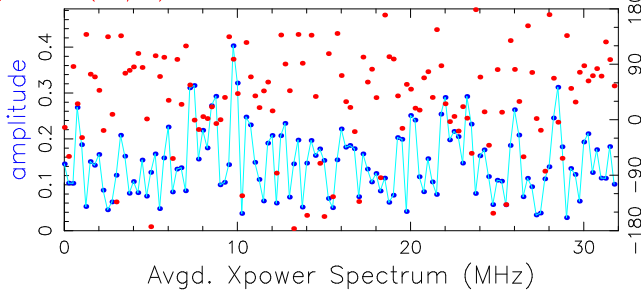
Fringe quality 0



SNR 6.0
Int time 585.845
Amp 0.105
Phase -114.8
PFD 7.2e-01
Delays (us)
SBD 0.591070
MBD -0.005061
Fringe rate (Hz)
0.577431
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

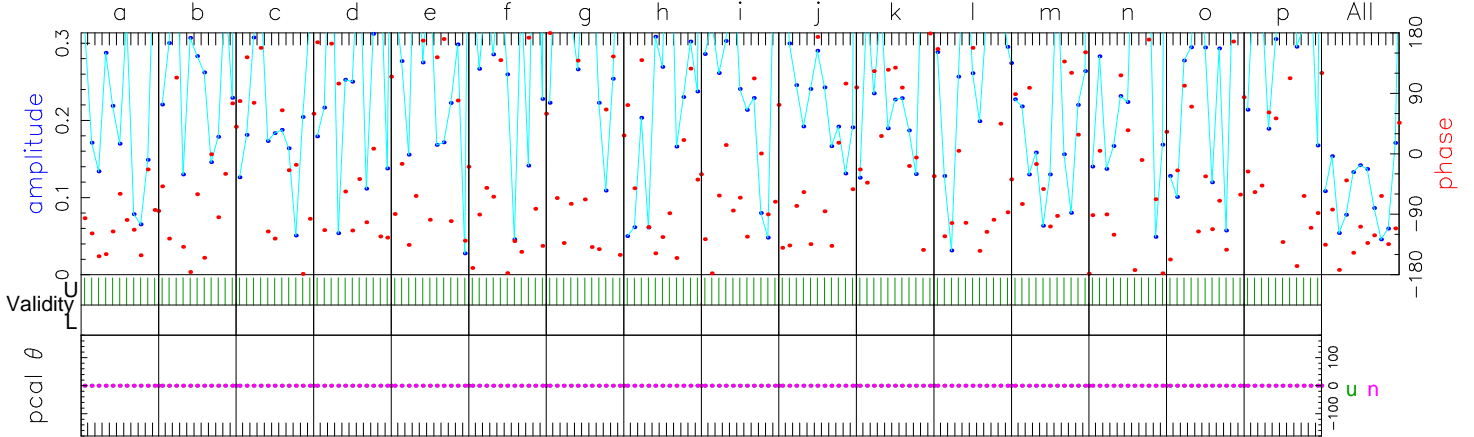


delay rate (ns/s)



Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070915
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

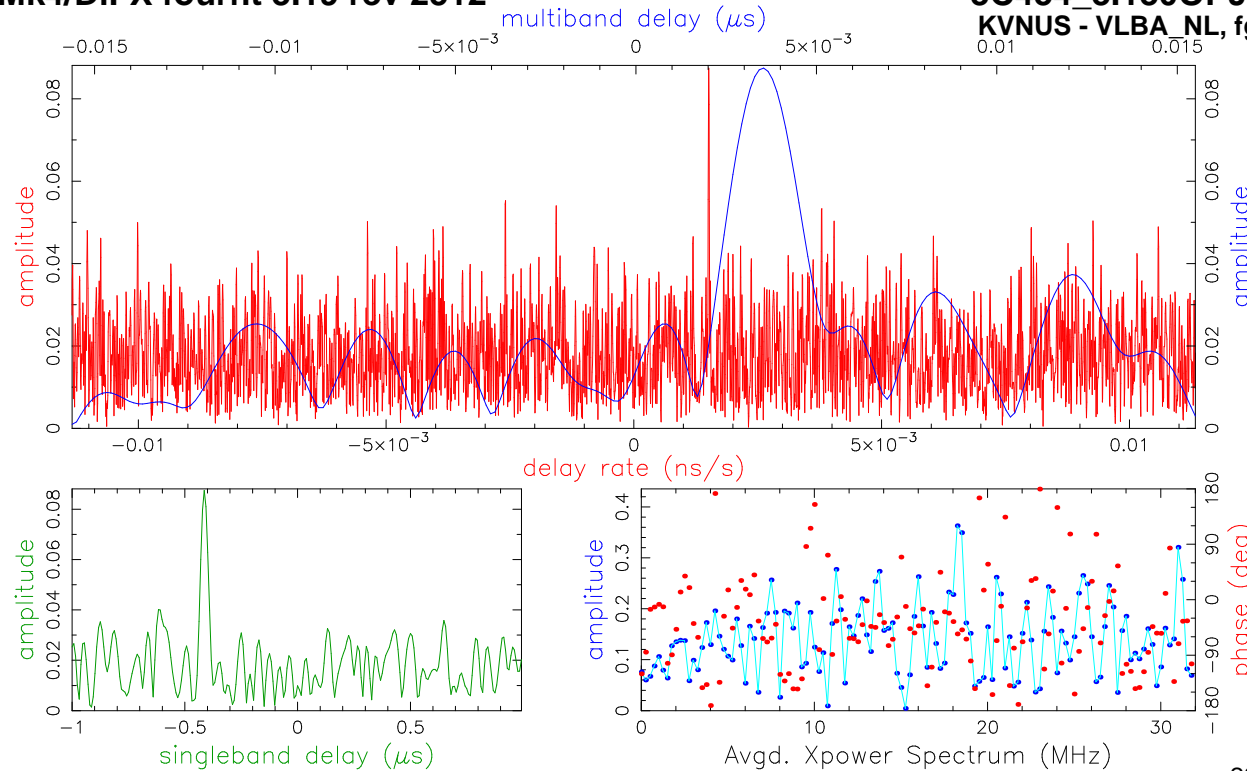
Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec



	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
	-101.5	-105.5	158.8	-109.6	-100.2	-125.8	-128.3	-116.6	-85.6	-118.5	144.7	-113.5	-139.6	-165.9	-98.0	-80.9	Phase	-114.8
	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.0	0.1	0.0	0.1	0.1	0.1	Ampl.	0.1
	203.9	64.9	32.8	214.5	38.6	202.4	206.1	30.3	254.1	55.3	4.6	122.9	5.1	150.9	202.0	1.8	Sbd box	204.7
UL	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
u	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:n	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)			5.06779066501E+03					Apriori delay (usec)		5.06720197574E+03				Resid mbdelay (usec)		-5.06073E-03	+/-	1.8E-04
Sband delay (usec)			5.06779304624E+03					Apriori clock (usec)		-1.8003082E+01				Resid sbdelay (usec)		5.91070E-01	+/-	2.9E-03
Phase delay (usec)			5.06720197204E+03					Apriori clockrate (us/s)		2.6577647E-07				Resid phdelay (usec)		-3.70194E-06	+/-	6.2E-07
Delay rate (us/s)			2.14157439731E+00					Apriori rate (us/s)		2.14156769390E+00				Resid rate (us/s)		6.70340E-06	+/-	1.8E-09
Total phase (deg)					-46.3			Apriori accel (us/s/s)		-2.97178207748E-05				Resid phase (deg)		-114.8	+/-	19.2

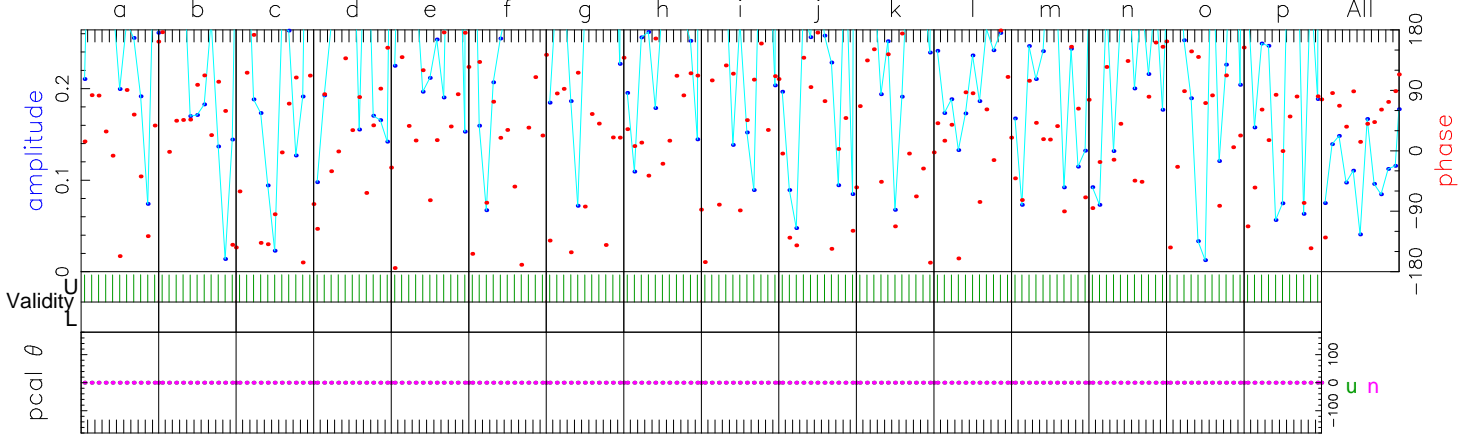
ph/seg (deg) 38.6 33.3 Theor. Amplitude 0.105 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 55.1 58.1 Search (4096X64) 0.087 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 41.3 38.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 62.5 67.1 Inc. seg. avg. 0.107 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 u: az 92.8 el 32.6 pa -57.8 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -12835.820 -1301.323 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/un..130OPJ Output file: /Exps/c192c/v2/1234/No0117/un.W.220.130OPJ

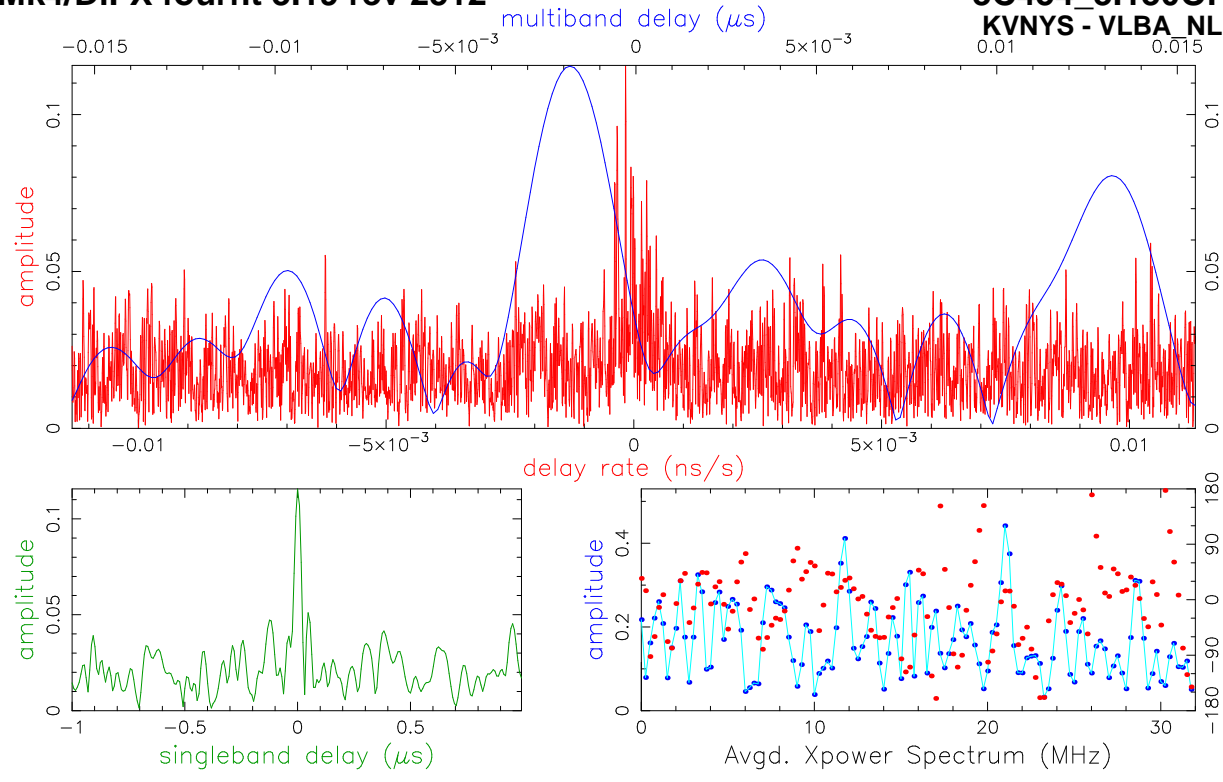


Fringe quality 0
SNR 5.8
Int time 585.846
Amp 0.088
Phase 64.7
PFD 9.7e-01
Delays (us)
SBD -0.413714
MBD 0.003524
Fringe rate (Hz) 0.130139
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build 2020:077:052457
2020:086:070923
2020:014:135814
RA & Dec (J2000) 22h53m57.747940s +16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 sec / seg.), time ticks 60 sec

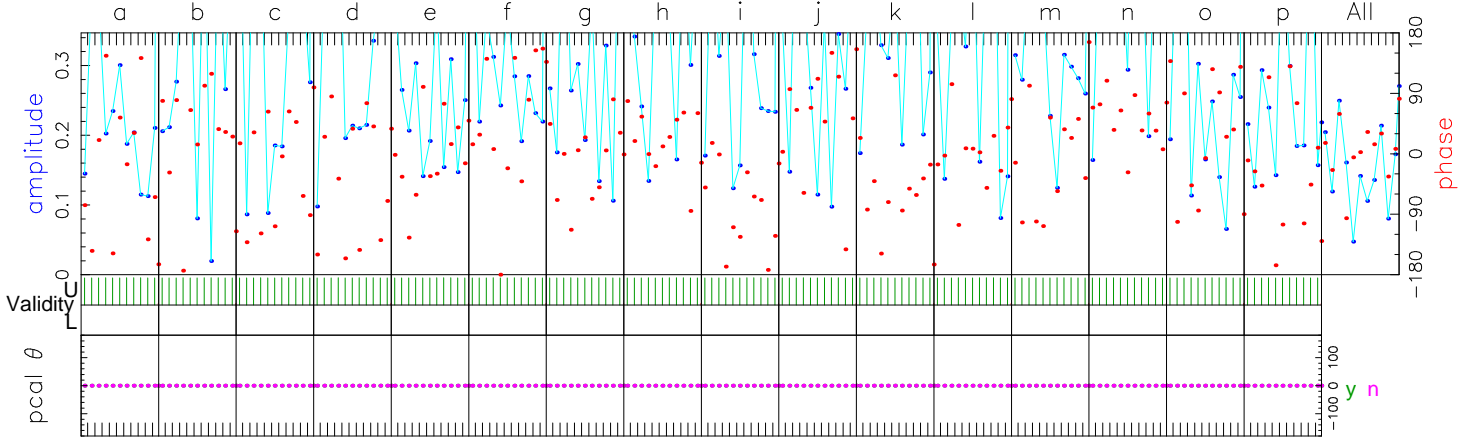


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
50.2	61.5	122.9	36.1	72.8	53.8	52.0	44.5	126.2	113.3	133.4	62.9	30.4	96.3	51.4	51.0	51.0	Phase	64.7	
0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1	
76.0	191.4	245.4	142.3	161.3	59.1	234.0	90.0	71.7	191.9	25.0	189.8	127.5	115.5	53.9	50.5	50.5	Sbd box	76.0	
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used		
u	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	PC freqs		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
u	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks		
																	Tracks		
Group delay (usec)(sbd)	5.06679925014E+03			Apriori delay (usec)			5.06720197574E+03			Resid mbdelay (usec)			3.52441E-03			+/- 1.9E-04			
Sband delay (usec)	5.06678826124E+03			Apriori clock (usec)			-1.8003082E+01			Resid sbdelay (usec)			-4.13714E-01			+/- 3.0E-03			
Phase delay (usec)	5.06720197782E+03			Apriori clockrate (us/s)			2.6577647E-07			Resid phdelay (usec)			2.08483E-06			+/- 6.4E-07			
Delay rate (us/s)	2.14156920469E+00			Apriori rate (us/s)			2.14156769390E+00			Resid rate (us/s)			1.51078E-06			+/- 1.9E-09			
Total phase (deg)	133.1			Apriori accel (us/s/s)			-2.97178207748E-05			Resid phase (deg)			64.7			+/- 19.8			
ph/seg (deg)	RMS	Theor.	Amplitude	0.088 +/- 0.015			Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5									
amp/seg (%)	55.4	34.3	Search (4096X64)	0.086			Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)			-1.000 1.000						
ph/frq (deg)	45.7	59.8	Interp.	0.000			Bits/sample: 2x2			SampCntNorm: enabled			mb window (us)		-0.016 0.016				
amp/frq (%)	36.5	39.6	Inc. seg. avg.	0.093			Sample rate(MISamp/s): 64			Data rate(Mb/s): 2048			nlags: 128 t_cohere infinite			dr window (ns/s)		-0.011 0.011	
	49.8	69.1	Inc. frq. avg.	0.081									ion window (TEC)			0.00 0.00			
u: az 92.8 el 32.6 pa -57.8	n: az 274.6 el 19.6 pa 50.6			u,v (fr/asec) -12835.820 -1301.323												simultaneous interpolator			



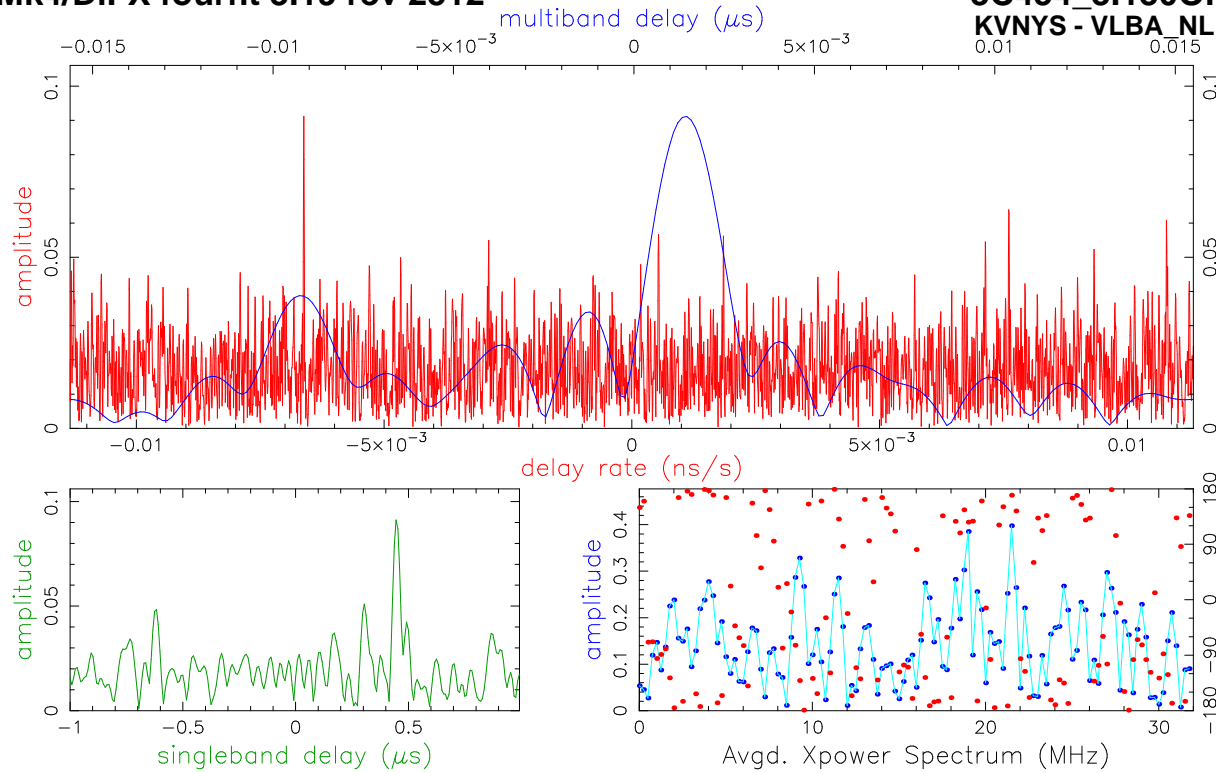
Fringe quality 9
SNR 7.7
Int time 585.846
Amp 0.116
Phase 11.5
PFD 1.3e-05
Delays (us)
SBD 0.001075
MBD -0.001822
Fringe rate (Hz)
-0.014252
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070925
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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		
	-55.6	62.0	-6.5	-16.4	-14.2	67.4	-3.0	30.1	-58.1	59.9	-60.4	1.4	-28.8	55.0	89.2	-58.0		Phase	11.5	
	0.0	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.1	0.2	0.2	0.2	0.1	0.4	0.1	0.1		Ampl.	0.1	
	133.1	202.3	239.9	97.4	128.8	135.5	128.9	129.6	111.8	223.1	128.1	129.3	15.2	129.4	140.4	132.2		Sbd box	129.1	
UL	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0		APs used		
y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase		
y:n	0:0	0:0	0:0	0:0	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		Chan ids		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids		
Group delay (usec)(sbd)			4.46983602145E+03							4.46983784307E+03								Resid mbdelay (usec)	-1.82162E-03	+/- 1.4E-04
Sband delay (usec)			4.46983891757E+03							2.7000561E+08								Resid sbdelay (usec)	1.07450E-03	+/- 2.3E-03
Phase delay (usec)			4.46983784344E+03							-3.4223519E-08								Resid phdelay (usec)	3.69289E-07	+/- 4.8E-07
Delay rate (us/s)			2.13780988282E+00							2.13781004828E+00								Resid rate (us/s)	-1.65456E-07	+/- 1.4E-09
Total phase (deg)				300.2						-2.55376591868E-05								Resid phase (deg)	11.5	+/- 15.0

ph/seg (deg) 41.1 25.9 Search (4096X64) 0.113 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 57.6 45.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 53.0 29.9 Inc. seg. avg. 0.135 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 83.1 52.3 Inc. frq. avg. 0.140 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 y: az 92.6 el 30.6 pa -55.5 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -12804.277 -965.078 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/yn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/yn.W.241.130OPJ

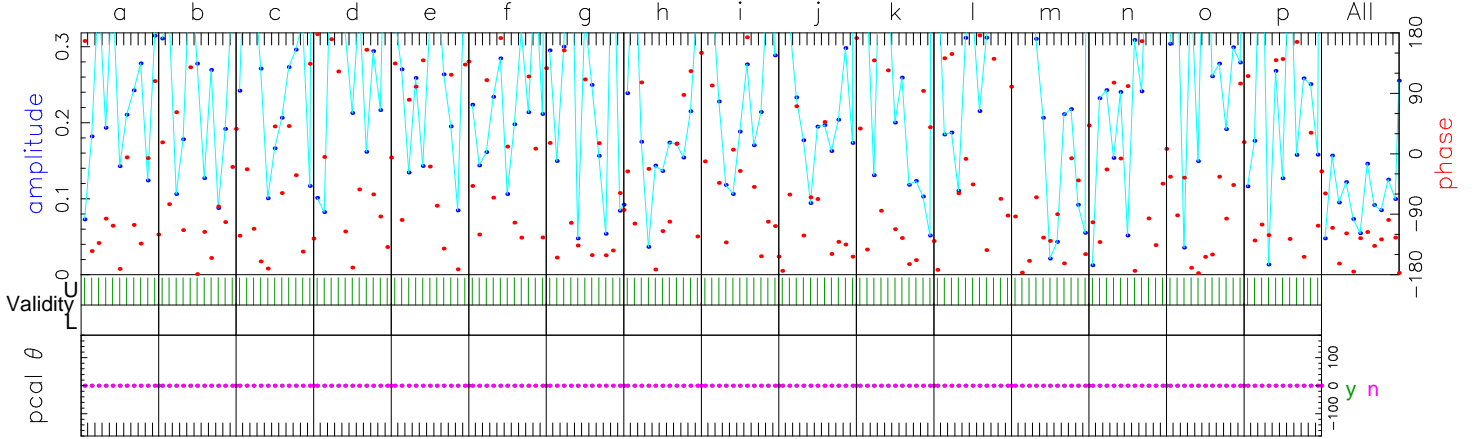


Fringe quality 0

SNR 6.1
Int time 585.845
Amp 0.106
Phase -123.5
PFD 4.8e-01
Delays (us)
SBD 0.447298
MBD 0.001438
Fringe rate (Hz)
-0.571189
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070932
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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
	-124.3	-100.7	-81.3	-138.7	158.4	-100.7	-146.6	-120.8	-85.0	-132.7	-145.8	-128.8	-116.9	-102.0	-114.9	-142.1	Phase	-123.5
	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	Ampl.	0.1
	73.6	191.8	101.5	198.3	218.8	14.2	27.4	34.2	149.4	157.3	241.3	191.1	137.8	140.9	81.8	23.1	Sbd box	186.3
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used	
y	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:n	0:0	0:0	0:0	0:0	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:n	0:0	0:0	0:0	0:0	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	PC amp	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) 4.47027678134E+03 Apriori delay (usec) 4.46983784307E+03 Resid mbdelay (usec) 1.43827E-03 +/- 1.8E-04
 Sband delay (usec) 4.47028514157E+03 Apriori clock (usec) 2.7000561E+00 Resid sbdelay (usec) 4.47298E-01 +/- 2.8E-03
 Phase delay (usec) 4.46983783909E+03 Apriori clockrate (us/s) -3.4223519E-08 Resid phdelay (usec) -3.98248E-06 +/- 6.1E-07
 Delay rate (us/s) 2.13780341734E+00 Apriori rate (us/s) 2.13781004828E+00 Resid rate (us/s) -6.63093E-06 +/- 1.8E-09
 Total phase (deg) 165.2 Apriori accel (us/s/s) -2.55376591868E-05 Resid phase (deg) -123.5 +/- 18.9

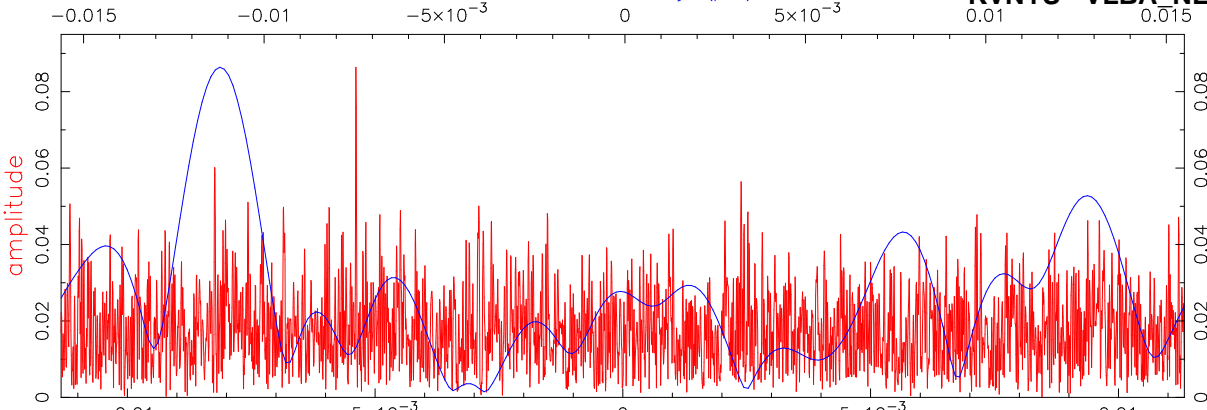
RMS Theor. Amplitude 0.106 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 29.6 32.7 Search (4096X64) 0.091 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 39.3 57.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 30.1 37.7 Inc. seg. avg. 0.100 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 32.9 65.8 Inc. frq. avg. 0.095 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

y: az 92.6 el 30.6 pa -55.5 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -12804.277 -965.078 simultaneous interpolator

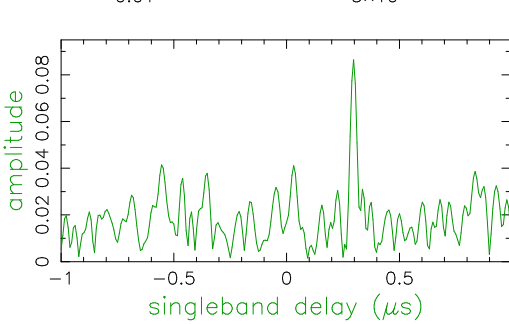
Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/yn..130OPJ Output file: /Exps/c192c/v2/1234/No0117/yn.W.246.130OPJ

multiband delay (μ s)

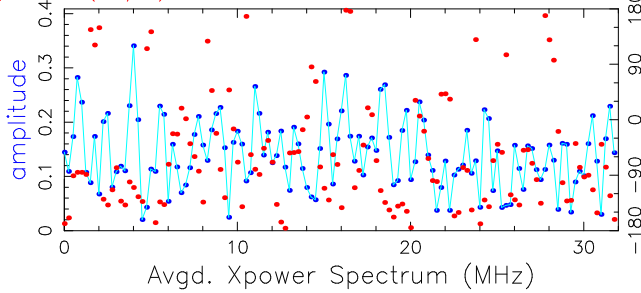
Fringe quality 0



SNR 5.7
Int time 585.845
Amp 0.095
Phase -130.0
PFD 1.0e+00
Delays (us)
SBD 0.296654
MBD -0.011218
Fringe rate (Hz)
-0.464865
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

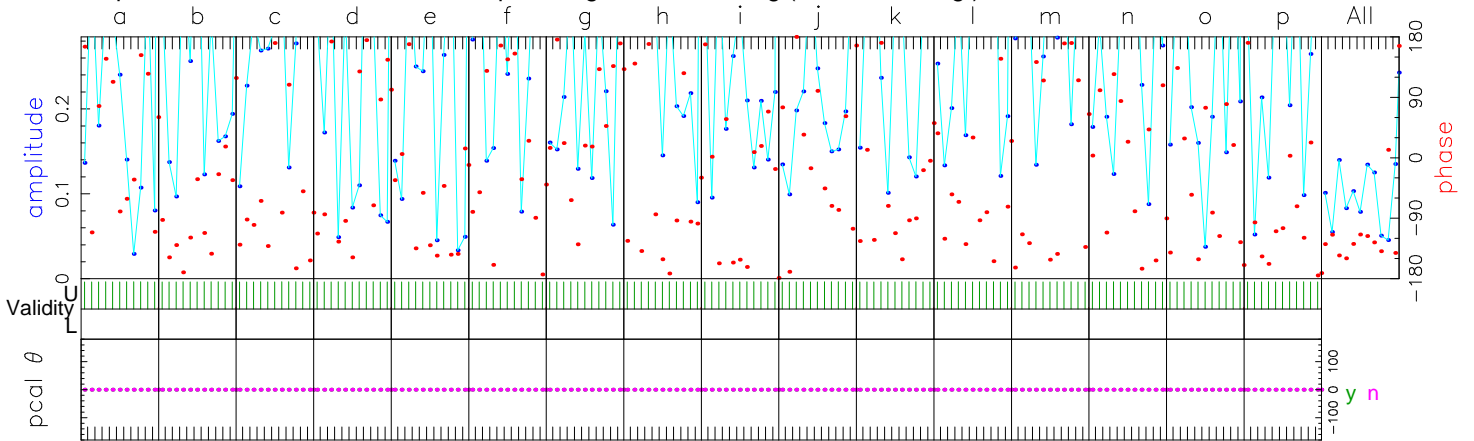


delay rate (ns/s)



Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070939
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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				
	160.8	-94.0	-113.6	-143.7	-118.0	-148.7	78.3	-145.5	-171.9	-31.3	-88.6	-83.4	-167.1	119.9	-81.1	-123.8	Phase	-130.0				
	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.2	0.1	0.0	0.1	0.2	0.3	0.0	0.0	0.2	Ampl.	0.1				
	106.3	169.2	166.1	175.7	220.2	93.6	19.0	167.7	252.9	6.1	239.5	161.0	167.4	134.6	9.7	158.5	Sbd box	167.0				
U/L	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	APs used					
y	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
y:n	0:0	0:0	0:0	0:0	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:n	0:0	0:0	0:0	0:0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			4.47013912512E+03														Apriori delay (usec)	4.46983784307E+03	Resid mbdelay (usec)	-1.12179E-02	+/-	1.9E-04
Sband delay (usec)			4.47013449707E+03														Apriori clock (usec)	2.7000561E+08	Resid sbdelay (usec)	2.96654E-01	+/-	3.0E-03
Phase delay (usec)			4.46983783888E+03														Apriori clockrate (us/s)	-3.4223519E-08	Resid phdelay (usec)	-4.19357E-06	+/-	6.5E-07
Delay rate (us/s)			2.13780465165E+00														Apriori rate (us/s)	2.13781004828E+00	Resid rate (us/s)	-5.39662E-06	+/-	1.9E-09
Total phase (deg)				158.7													Apriori accel (us/s/s)	-2.55376591868E-05	Resid phase (deg)	-130.0	+/-	20.0

ph/seg (deg) 44.4 34.7
amp/seg (%) 42.5 60.6
ph/frq (deg) 66.3 40.1
amp/frq (%) 75.2 70.0

RMS Theor. Amplitude 0.095 +/- 0.017
Search (4096X64) 0.085
Interp. 0.000
Inc. seg. avg. 0.090
Inc. frq. avg. 0.099

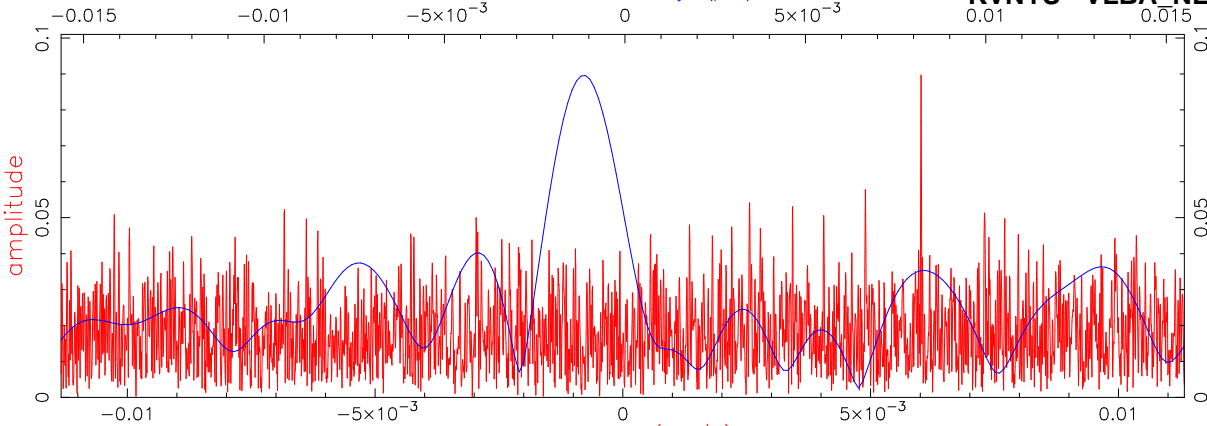
PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
PCal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MISamp/s): 64
Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite

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

y: az 92.6 el 30.6 pa -55.5 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -12804.277 -965.078 simultaneous interpolator

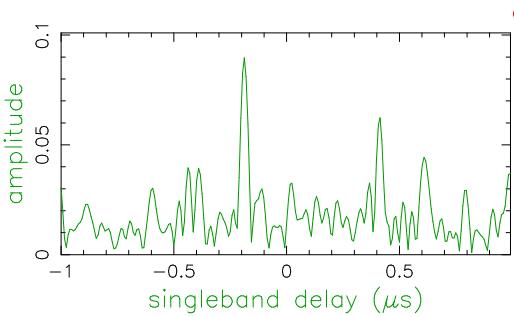
Control file: cf_1234_gmva Input file: /Exps/c192c/v2/1234/No0117/yn..1300PJ Output file: /Exps/c192c/v2/1234/No0117/yn.W.252.1300PJ

multiband delay (μ s)

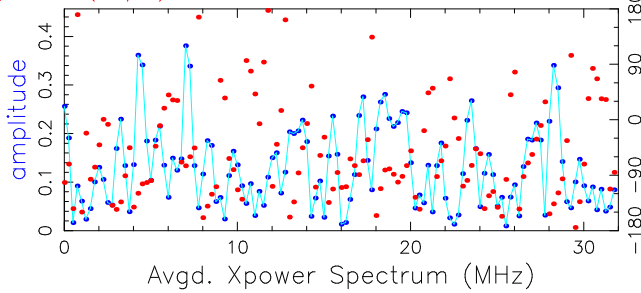


Fringe quality 0

SNR 5.9
Int time 585.846
Amp 0.101
Phase -83.4
PFD 7.8e-01
Delays (us)
SBD -0.187845
MBD -0.001147
Fringe rate (Hz)
0.519307
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

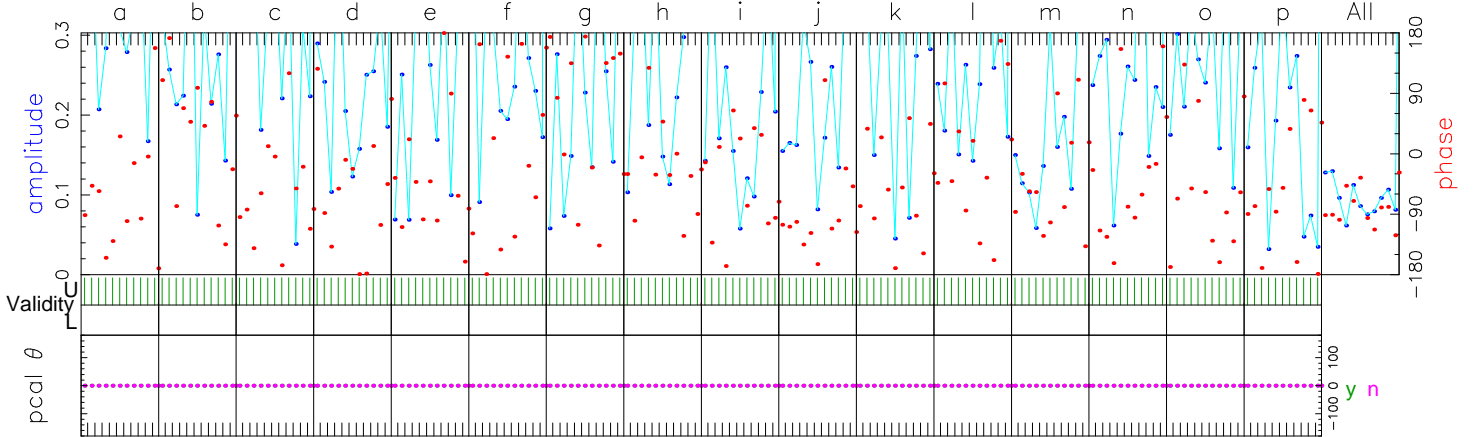


delay rate (ns/s)



Exp. c192c
Exper # 16383
Yr:day 2019:279
Start 091505.63
Stop 092500.06
FRT 092000.00
Corr/FF/build
2020:077:052457
2020:086:070945
2020:014:135814
RA & Dec (J2000)
22h53m57.747940s
+16°08'53.560909"

Amp. and Phase vs. time for each freq., 12 segs, 105 APs / seg (53.76 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	40.7	-75.3	-74.4	-98.2	-152.9	174.9	-43.6	-81.5	-94.7	-51.6	-55.7	-100.4	-80.3	-91.6	-91.9		Phase	-83.4					
	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1		Ampl.	0.1					
	183.4	139.7	149.0	29.7	208.1	79.4	114.7	90.1	85.3	236.9	14.6	108.4	143.9	112.7	93.1	24.2		Sbd box	105.0					
UL	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0	1161/0		APs used						
y	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000	31000		PC freqs						
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs						
y:n	0:0	0:0	0:0	0:0	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:n	0:0	0:0	0:0	0:0	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		PC amp						
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids						
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks						
																			Tracks					
Group delay (usec)(sbd)			4.46964919590E+03																Apriori delay (usec)	4.46983784307E+03	Resid mbdelay (usec)	-1.14717E-03	+/-	1.8E-04
Sband delay (usec)			4.46964999757E+03																Apriori clock (usec)	2.7000561E+00	Resid sbdelay (usec)	-1.87845E-01	+/-	2.9E-03
Phase delay (usec)			4.46983784038E+03																Apriori clockrate (us/s)	-3.4223519E-08	Resid phdelay (usec)	-2.69102E-06	+/-	6.2E-07
Delay rate (us/s)			2.13781607692E+00																Apriori rate (us/s)	2.13781004828E+00	Resid rate (us/s)	6.02864E-06	+/-	1.8E-09
Total phase (deg)				205.3															Apriori accel (us/s/s)	-2.55376591868E-05	Resid phase (deg)	-83.4	+/-	19.3

ph/seg (deg) 24.7 33.4
amp/seg (%) 41.0 58.4
ph/frq (deg) 49.9 38.6
amp/frq (%) 49.7 67.4

RMS Theor. Amplitude 0.101 +/- 0.017
Search (4096X64) 0.089
Interp. 0.000
Inc. seg. avg. 0.094
Inc. frq. avg. 0.108

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

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

y: az 92.6 el 30.6 pa -55.5 n: az 274.6 el 19.6 pa 50.6 u,v (fr/asec) -12804.277 -965.078 simultaneous interpolator