

Fringe quality 5

SNR 20.2

Int time 419.207

Amp 0.361

Phase 12.3

PFD 0.0e+00

Delays (us)

SBD 0.008379

MBD 0.014297

Fringe rate (Hz) -0.021442

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.512

Exp. c192b

Exper # 16383

Yr:day 2019:277

Start 200000.00

Stop 200659.84

FRT 200330.00

Corr/FF/build

2020:079:052110

2020:086:092642

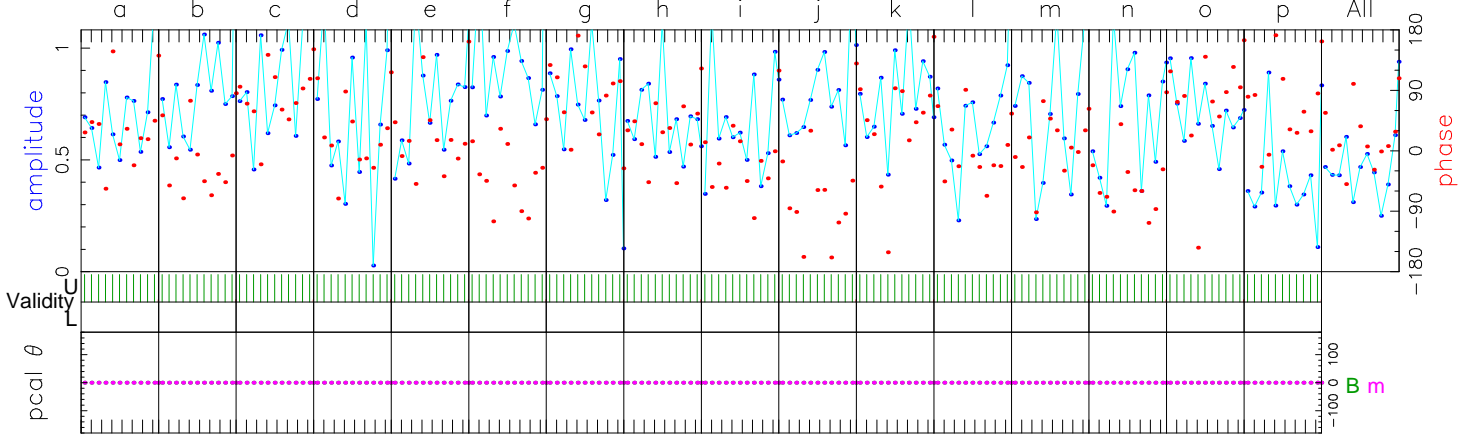
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

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



86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
23.3	-23.8	77.0	21.8	5.9	-38.8	85.9	21.3	-28.7	-71.2	54.7	1.4	12.7	-54.3	94.1	44.7	Phase	12.3
0.5	0.6	0.7	0.5	0.5	0.7	0.5	0.6	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.2	Ampl.	0.5
130.1	129.7	130.4	130.3	130.3	130.2	130.1	130.5	129.6	130.8	130.1	130.8	130.3	130.2	130.7	133.9	Sbd box	130.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
B:m	0:0	0:0	0:0	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	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks

Group delay (usec)(sbd) 1.00475815735E+04 Apriori delay (usec) 1.00475672767E+04 Resid mbdelay (usec) 1.42968E-02 +/- 5.3E-05

Sband delay (usec) 1.00475756552E+04 Apriori clock (usec) 1.4235463E+01 Resid sbdelay (usec) 8.37850E-03 +/- 8.5E-04

Phase delay (usec) 1.00475672771E+04 Apriori clockrate (us/s) -1.9130770E-07 Resid phdelay (usec) 3.95057E-07 +/- 1.8E-07

Delay rate (us/s) -1.83606324245E+00 Apriori rate (us/s) -1.83606299353E+00 Resid rate (us/s) -2.48921E-07 +/- 7.6E-10

Total phase (deg) 90.2 Apriori accel (us/s/s) -2.21149072890E-05 Resid phase (deg) 12.3 +/- 5.7

RMS Theor. Amplitude 0.361 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

ph/seg (deg) 39.1 9.8 Search (2048X64) 0.329 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

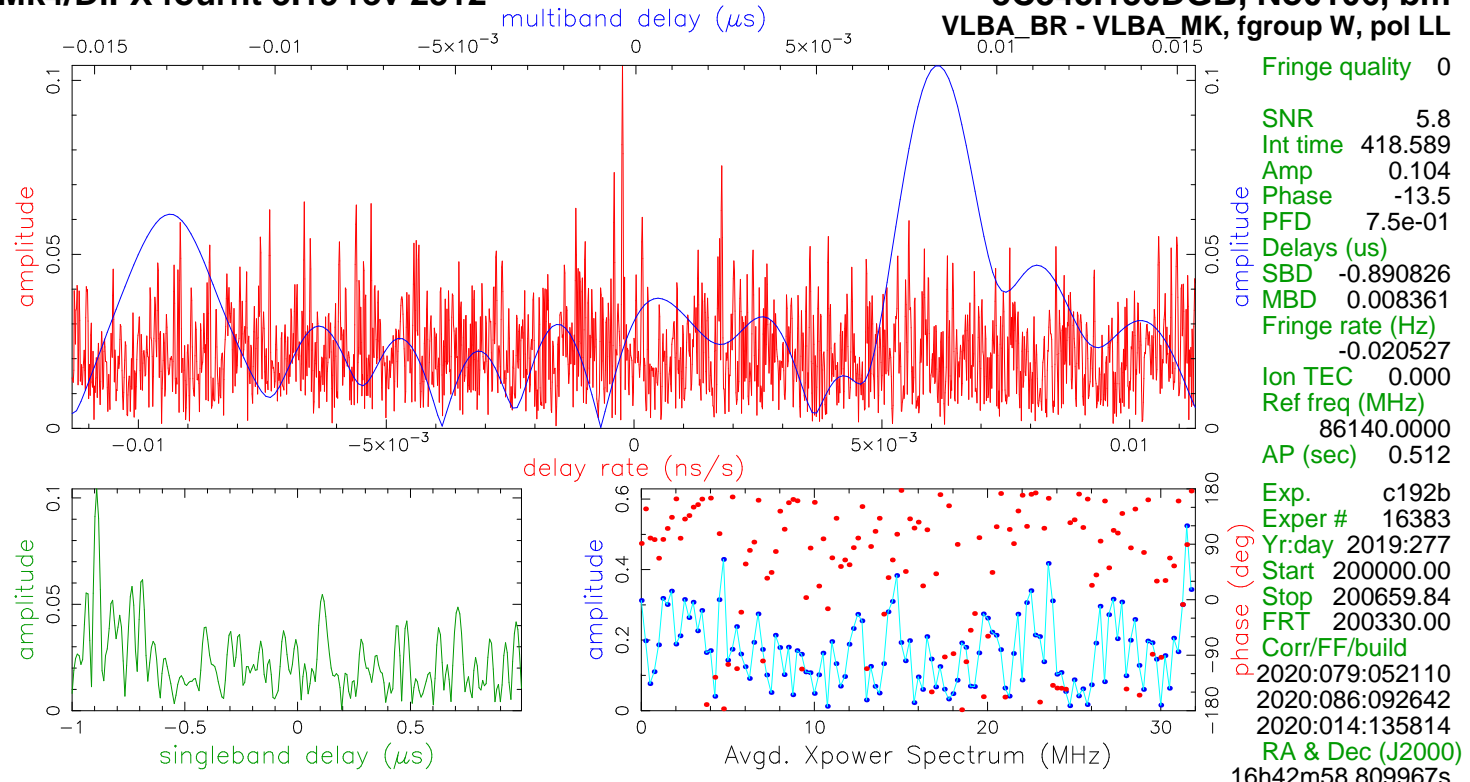
amp/seg (%) 40.1 17.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

ph/frq (deg) 51.1 11.4 Inc. seg. avg. 0.446 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011

amp/frq (%) 52.4 19.8 Inc. frq. avg. 0.516 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 285.3 el 41.9 pa 53.1 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 13650.009 1333.769 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/Bm...130DGB Output file: /Exps/c192b/v2/1234/No0106/Bm.W.11.130DGB



Fringe quality 0

SNR 5.8

Int time 418.589

Amp 0.104

Phase -13.5

PFD 7.5e-01

Delays (us)

SBD -0.890826

MBD 0.008361

Fringe rate (Hz)

-0.020527

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192b

Exper # 16383

Yr:day 2019:277

Start 200000.00

Stop 200659.84

FRT 200330.00

Corr/FF/build

2020:079:052110

2020:086:092642

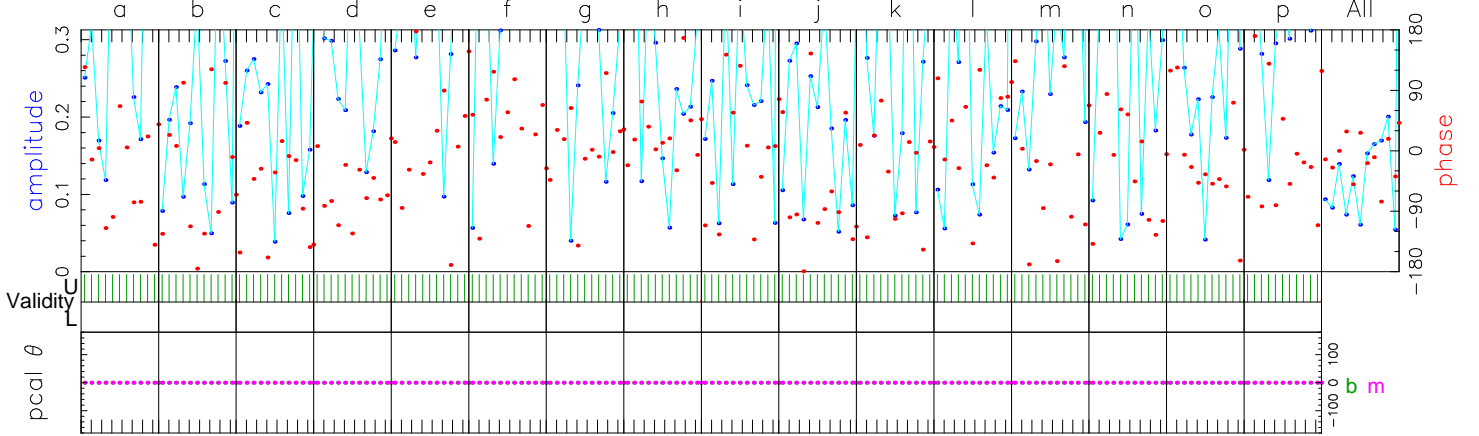
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-20.4	-107.2	-27.5	-62.0	-2.3	57.5	0.5	13.6	25.4	-101.0	2.7	41.6	-70.1	-30.4	27.2	-49.5		Phase	-13.5
	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.2		Ampl.	0.1
	41.8	26.9	10.4	182.3	114.6	249.3	14.1	15.0	166.9	24.3	234.0	32.9	255.6	40.4	34.7	28.1		Sbd box	15.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
b:m	0:0	0:0	0:0	0:0	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	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	

Group delay (usec)(sbd) 1.21436475810E+04 Apriori delay (usec) 1.21445454700E+04 Resid mbdelay (usec) 8.36104E-03 +/- 1.8E-04

Sband delay (usec) 1.21436546445E+04 Apriori clock (usec) -3.1981895E+00 Resid sbdelay (usec) -8.90826E-01 +/- 3.0E-03

Phase delay (usec) 1.21445454695E+04 Apriori clockrate (us/s) -2.3370279E-07 Resid phdelay (usec) -4.35121E-07 +/- 6.3E-07

Delay rate (us/s) -4.57202545485E-01 Apriori rate (us/s) -4.57202307185E-01 Resid rate (us/s) -2.38300E-07 +/- 2.6E-09

Total phase (deg) 267.9 Apriori accel (us/s/s) -3.53284962824E-05 Resid phase (deg) -13.5 +/- 19.6

ph/seg (deg) RMS Theor. Amplitude 0.104 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 31.2 34.0 Search (2048X64) 0.097 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

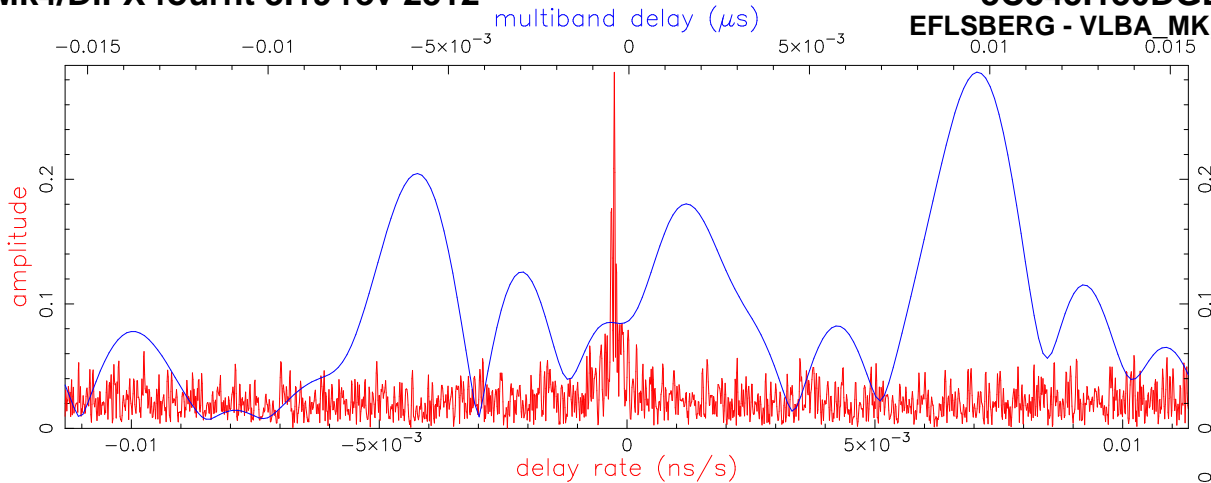
ph/frq (deg) 61.4 59.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 51.0 39.3 Inc. seg. avg. 0.105 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011

amp/frq (%) 66.5 68.6 Inc. frq. avg. 0.111 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

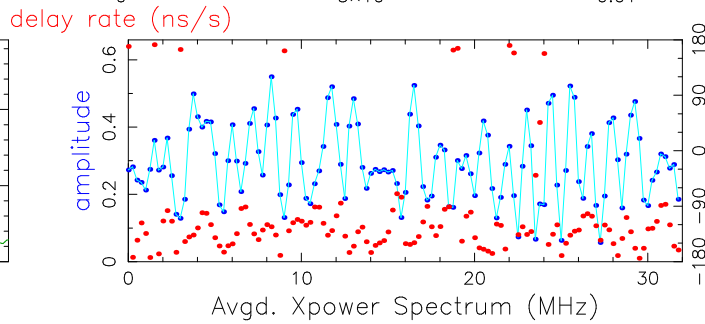
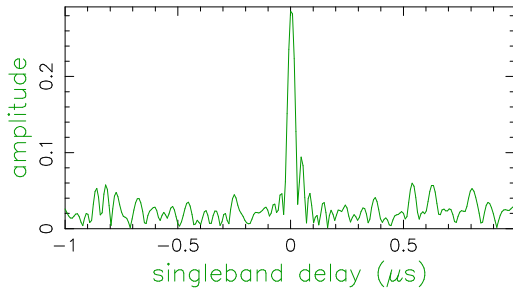
b: az 79.6 el 48.9 pa -58.7 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 3352.693 408.917 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/bm..130DGB Output file: /Exps/c192b/v2/1234/No0106/bm.W.14.130DGB



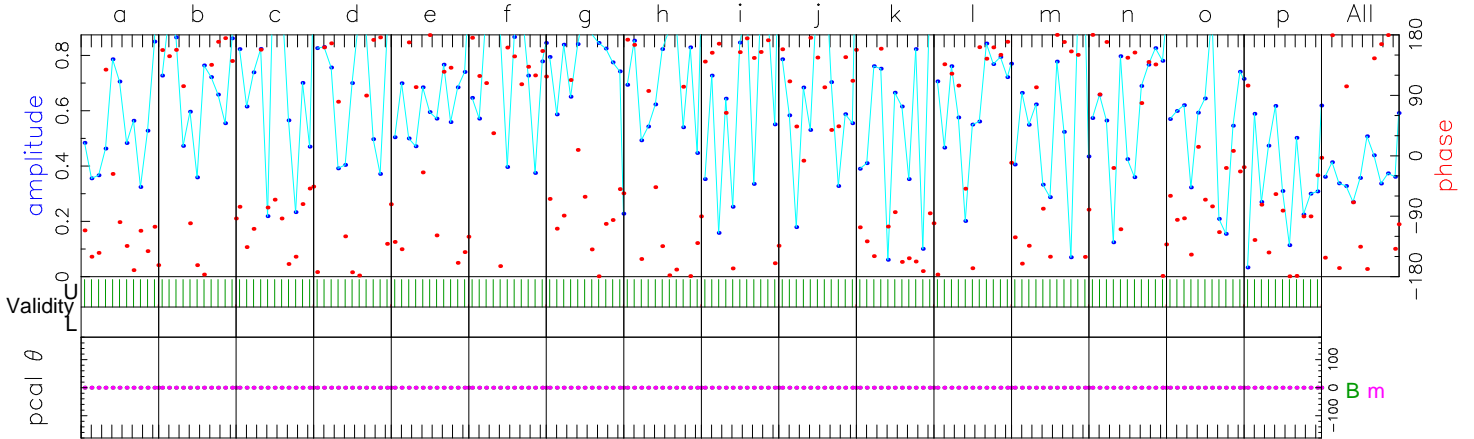
Fringe quality 9

SNR 16.3
Int time 419.206
Amp 0.292
Phase -171.3
PFD 0.0e+00
Delays (us)
SBD 0.003414
MBD 0.009697
Fringe rate (Hz)
-0.021686
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092648
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-123.0	162.4	-99.0	175.1	-168.2	131.4	-90.3	-174.3	159.4	112.9	-134.3	153.4	-170.8	151.9	-57.7	-102.8		Phase -171.3
	0.4	0.6	0.5	0.5	0.3	0.6	0.4	0.5	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.2		Ampl. 0.4
	129.6	129.5	129.4	129.4	129.2	129.2	129.1	128.9	129.2	129.9	130.1	129.3	129.7	129.7	130.3	131.1		Sbd box 129.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase
B:m	0:0	0:0	0:0	0:0	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
m	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
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks

Group delay (usec)(sbd)	1.00475769741E+04	Apriori delay (usec)	1.00475672767E+04	Resid mbdelay (usec)	9.69740E-03	+/-	6.6E-05
Sband delay (usec)	1.00475706902E+04	Apriori clock (usec)	1.4235463E+01	Resid sbdelay (usec)	3.41350E-03	+/-	1.1E-03
Phase delay (usec)	1.00475672712E+04	Apriori clockrate (us/s)	-1.9130770E-07	Resid phdelay (usec)	-5.52306E-06	+/-	2.3E-07
Delay rate (us/s)	-1.83606324528E+00	Apriori rate (us/s)	-1.83606299353E+00	Resid rate (us/s)	-2.51749E-07	+/-	9.3E-10
Total phase (deg)	-93.4	Apriori accel (us/s/s)	-2.21149072890E-05	Resid phase (deg)	-171.3	+/-	7.0

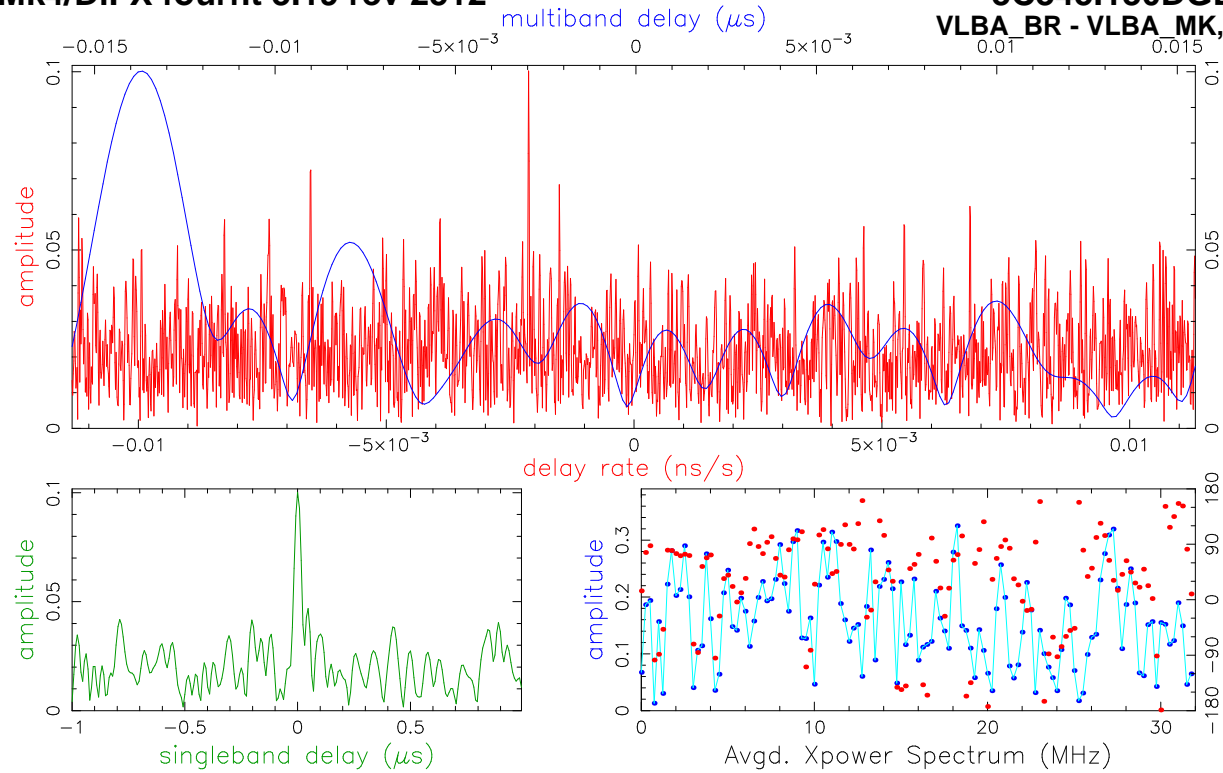
ph/seg (deg)	RMS 46.0	Theor. 12.2	Amplitude Search (2048X64)	0.292 +/- 0.018	0.278	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	35.4	21.2	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	57.6	14.0	Inc. seg. avg.	0.365	0.365	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	59.7	24.5	Inc. frq. avg.	0.431	0.431	Sample rate(MISamp/s): 64	mb window (us) -0.016 0.016
						Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
						nlags: 128	t_cohere infinite
							ion window (TEC) 0.00 0.00

B: az 285.3 el 41.9 pa 53.1 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 13650.009 1333.769 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/Bm...130DGB Output file: /Exps/c192b/v2/1234/No0106/Bm.W.33.130DGB

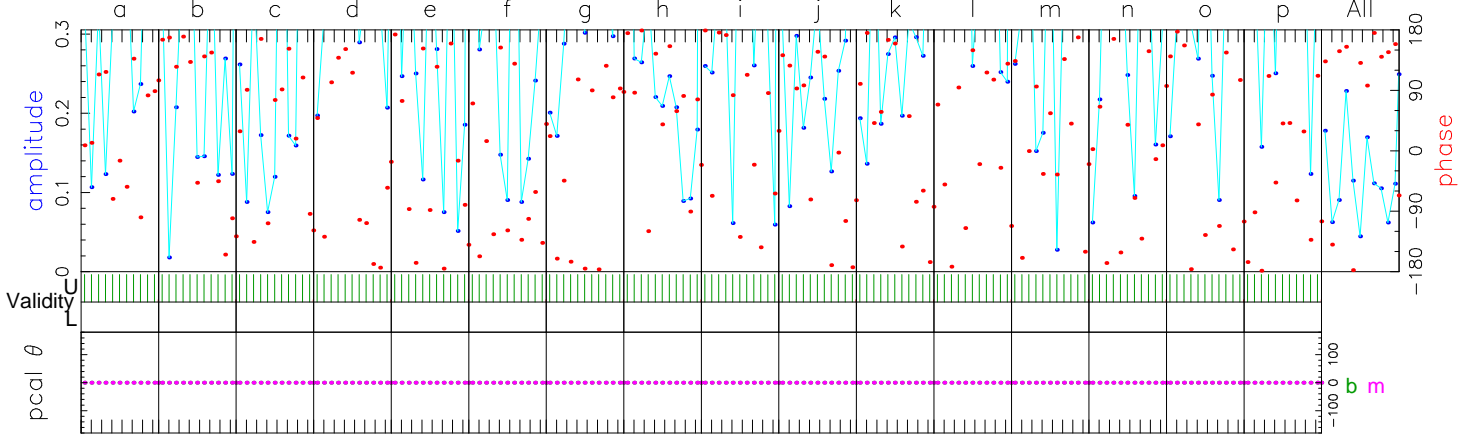
Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, bm
VLBA_BR - VLBA_MK, fgroup W, pol RR



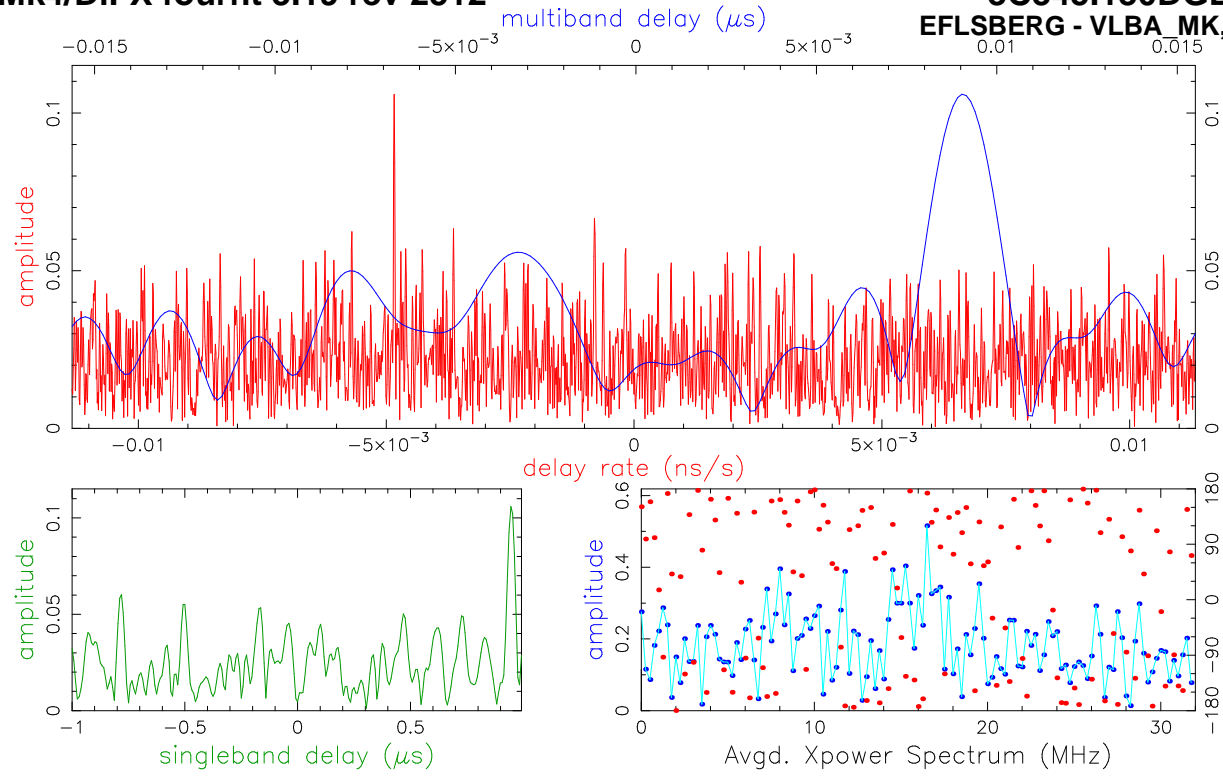
Fringe quality 0
SNR 5.6
Int time 418.588
Amp 0.102
Phase 149.4
PFD 9.9e-01
Delays (us)
SBD 0.000834
MBD -0.013698
Fringe rate (Hz)
-0.183203
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
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RA & Dec (J2000)
16h42m58.809967s
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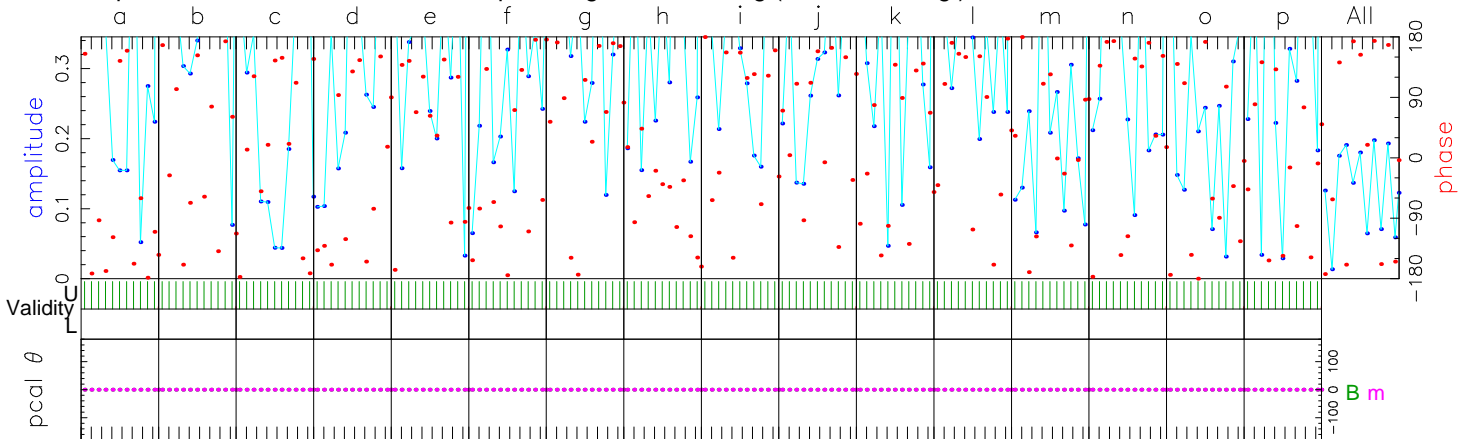
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	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
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks
																		Chan ids
																		Tracks
Group delay (usec)(sbd)		1.21445317723E+04								1.21445454700E+04							-1.36976E-02	+/- 1.9E-04
Sband delay (usec)		1.21445463040E+04								-3.1981895E+00							8.34000E-04	+/- 3.1E-03
Phase delay (usec)		1.21445454748E+04								-2.3370279E-07							4.81720E-06	+/- 6.6E-07
Delay rate (us/s)		-4.57204433985E-01								-4.57202307185E-01							-2.12680E-06	+/- 2.7E-09
Total phase (deg)					70.8					-3.53284962824E-05							149.4	+/- 20.4
ph/seg (deg)		RMS 33.1	Theor. 35.4															
amp/seg (%)		56.5	61.7															
ph/frq (deg)		51.6	40.8															
amp/frq (%)		57.3	71.3															
b: az 79.6 el 48.9 pa -58.7																		
m: az 51.2 el 10.2 pa -72.6																		
u,v (fr/asec) 3352.693 408.917																		
Control file: cf_1234_gmva																		
Input file: /Exps/c192b/v2/1234/No0106/bm..130DGB																		
Output file: /Exps/c192b/v2/1234/No0106/bm.W.34.130DGB																		

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

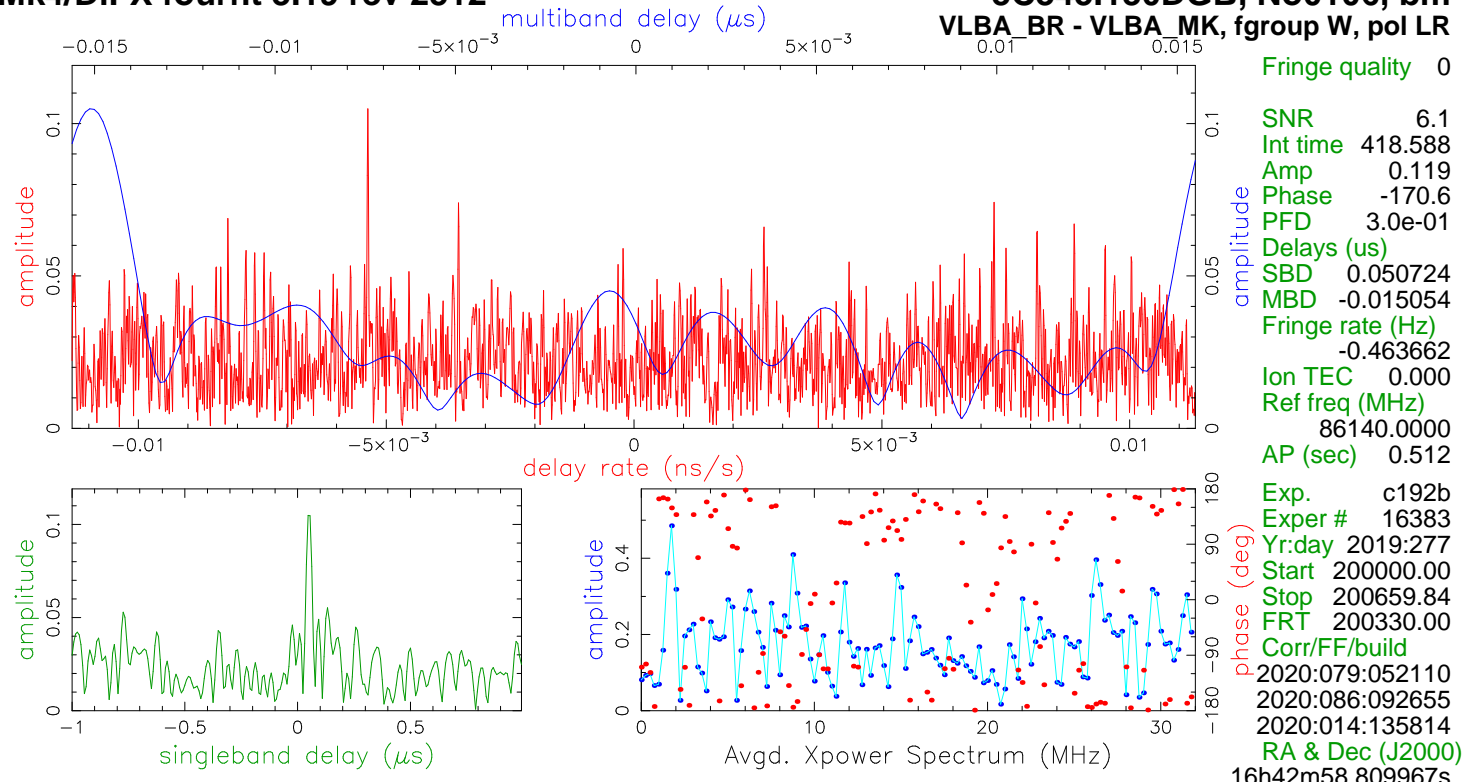


Fringe quality 0
SNR 6.0
Int time 419.206
Amp 0.115
Phase 173.1
PFD 4.6e-01
Delays (us)
SBD 0.947582
MBD 0.009110
Fringe rate (Hz)
-0.417730
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
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2020:079:052110
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RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All		
	-157.7	-169.0	154.1	156.2	130.2	-176.0	145.9	-68.9	165.4	118.0	167.3	165.9	116.9	166.8	-147.3	159.8	173.1	Phase		
	0.3	0.1	0.1	0.1	0.2	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	Ampl.	
	250.5	203.7	92.7	36.7	143.7	94.9	250.6	81.2	130.8	9.7	80.4	246.5	65.2	251.6	132.1	78.0	250.3	250.3	Sbd box	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs
B:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	PC amp
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL			Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR			Tracks	
																				Tracks
Group delay (usec)(sbd)	1.00485138868E+04			Apriori delay (usec)			1.00475672767E+04			Resid mbdelay (usec)			9.11004E-03			+/- 1.8E-04				
Sband delay (usec)	1.00485148592E+04			Apriori clock (usec)			1.4235463E+01			Resid sbdelay (usec)			9.47582E-01			+/- 2.9E-03				
Phase delay (usec)	1.00475672823E+04			Apriori clockrate (us/s)			-1.9130770E-07			Resid phdelay (usec)			5.58310E-06			+/- 6.2E-07				
Delay rate (us/s)	-1.83606784296E+00			Apriori rate (us/s)			-1.83606299353E+00			Resid rate (us/s)			-4.84944E-06			+/- 2.6E-09				
Total phase (deg)	251.0			Apriori accel (us/s/s)			-2.21149072890E-05			Resid phase (deg)			173.1			+/- 19.2				
ph/seg (deg)	RMS	Theor.	Amplitude		0.115 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5											
amp/seg (%)	64.5	33.2	Search (2048X64)		0.103		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000		1.000							
ph/frq (deg)	61.9	58.0	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)		-0.016		0.016					
amp/frq (%)	43.6	38.4	Inc. seg. avg.		0.118		Sample rate(MISamp/s): 64		dr window (ns/s)		-0.011		0.011							
	68.7	67.0	Inc. frq. avg.		0.124		Data rate(Mb/s): 2048		nlags: 128		t_cohere infinite		ion window (TEC)		0.00		0.00			
B: az 285.3 el 41.9 pa 53.1	m: az 51.2 el 10.2 pa -72.6			u,v (fr/asec) 13650.009 1333.769												simultaneous interpolator				
Control file: cf_1234_gmva	Input file: /Exps/c192b/v2/1234/No0106/Bm...130DGB			Output file: /Exps/c192b/v2/1234/No0106/Bm.W.51.130DGB																



Fringe quality 0

SNR 6.1

Int time 418.588

Amp 0.119

Phase -170.6

PFD 3.0e-01

Delays (us)

SBD 0.050724

MBD -0.015054

Fringe rate (Hz)

-0.463662

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192b

Exper # 16383

Yr:day 2019:277

Start 200000.00

Stop 200659.84

FRT 200330.00

Corr/FF/build

2020:079:052110

2020:086:092655

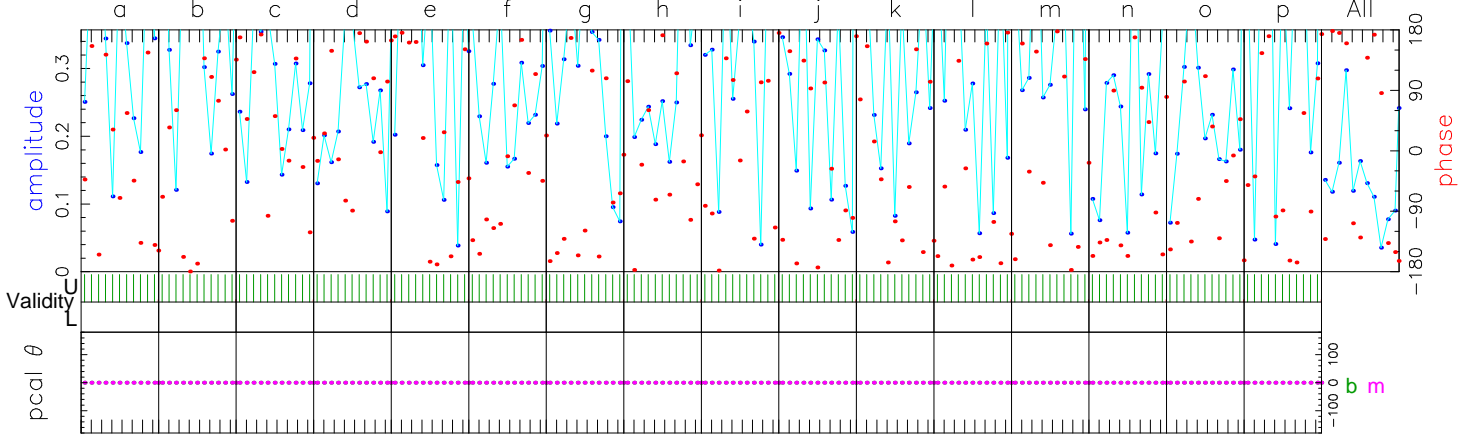
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-163.9	-168.9	137.9	-69.0	171.0	-113.8	-161.5	-24.6	164.6	175.3	-179.9	-167.6	-177.8	-179.7	-77.5	-175.9	Phase	-170.6				
	0.1	0.1	0.0	0.0	0.3	0.1	0.2	0.1	0.1	0.2	0.1	0.3	0.2	0.1	0.0	0.2	Ampl.	0.1				
	164.5	84.5	50.8	97.3	133.8	126.9	221.0	115.4	144.4	149.8	29.6	136.3	136.8	117.5	141.1	89.9	Sbd box	135.5				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
b:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	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					
m	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					
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			1.21445929160E+04														Apriori delay (usec)	1.21445454700E+04	Resid mbdelay (usec)	-1.50540E-02	+/-	1.8E-04
Sband delay (usec)			1.21445961945E+04														Apriori clock (usec)	-3.1981895E+00	Resid sbdelay (usec)	5.07245E-02	+/-	2.8E-03
Phase delay (usec)			1.21445454644E+04														Apriori clockrate (us/s)	-2.3370279E-07	Resid phdelay (usec)	-5.50242E-06	+/-	6.1E-07
Delay rate (us/s)			-4.57207689842E-01														Apriori rate (us/s)	-4.57202307185E-01	Resid rate (us/s)	-5.38266E-06	+/-	2.5E-09
Total phase (deg)				110.8													Apriori accel (us/s/s)	-3.53284962824E-05	Resid phase (deg)	-170.6	+/-	18.9

ph/seg (deg) 46.1 32.7 Search (2048X64) 0.119 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

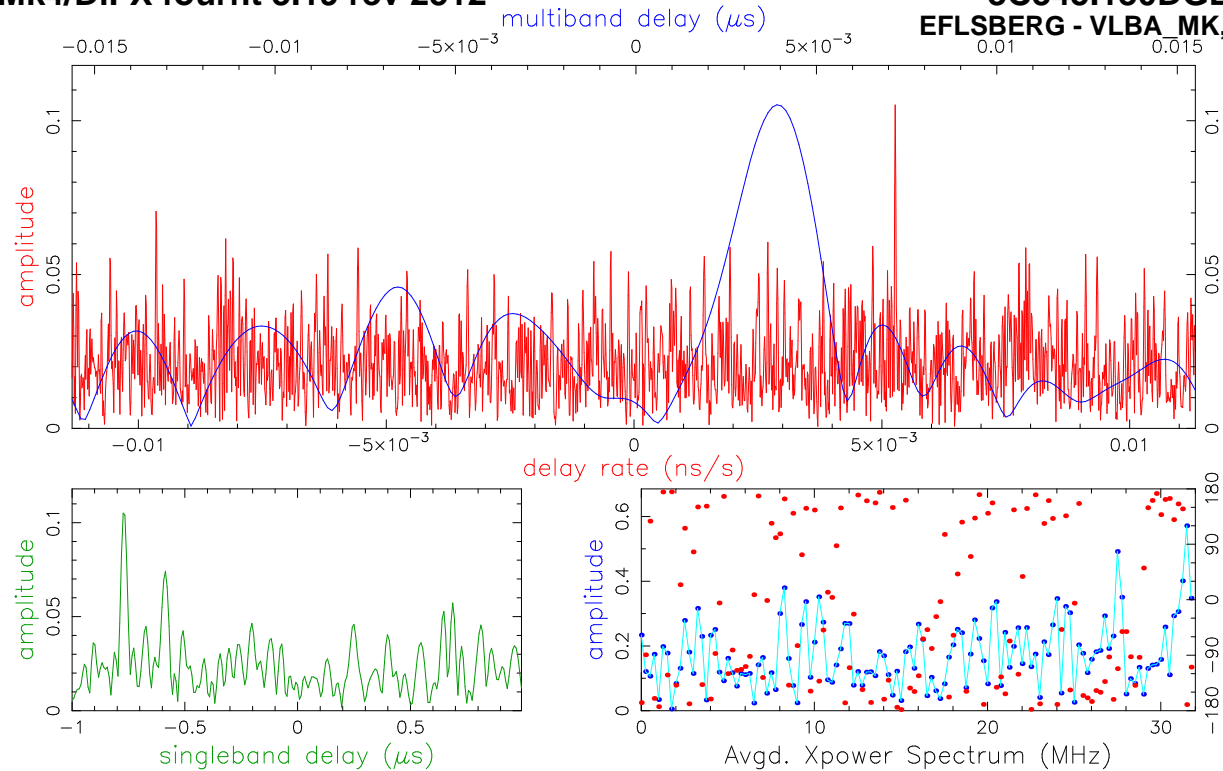
amp/seg (%) 62.7 57.2 Interp. 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 58.4 37.8 Inc. seg. avg. 0.124 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 68.9 66.0 Inc. frq. avg. 0.111 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

b: az 79.6 el 48.9 pa -58.7 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 3352.693 408.917 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/bm..130DGB Output file: /Exps/c192b/v2/1234/No0106/bm.W.61.130DGB

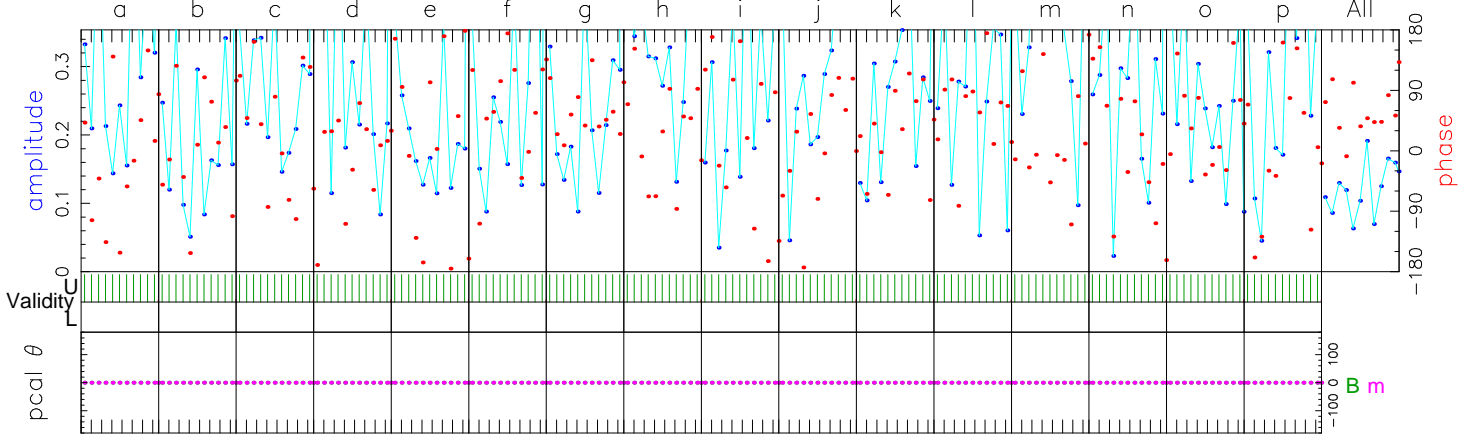


Fringe quality 0

SNR 6.0
Int time 419.207
Amp 0.118
Phase 53.9
PFD 3.5e-01
Delays (us)
SBD -0.769894
MBD 0.003970
Fringe rate (Hz)
0.454952
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092658
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
B:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	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
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks

Group delay (usec)(sbd)	1.00467899970E+04	Apriori delay (usec)	1.00475672767E+04	Resid mbdelay (usec)	3.97025E-03	+/-	1.8E-04
Sband delay (usec)	1.00467973822E+04	Apriori clock (usec)	1.4235463E+01	Resid sbdelay (usec)	-7.69894E-01	+/-	2.9E-03
Phase delay (usec)	1.00475672785E+04	Apriori clockrate (us/s)	-1.9130770E-07	Resid phdelay (usec)	1.73779E-06	+/-	6.1E-07
Delay rate (us/s)	-1.83605771198E+00	Apriori rate (us/s)	-1.83606299353E+00	Resid rate (us/s)	5.28155E-06	+/-	2.5E-09
Total phase (deg)	131.8	Apriori accel (us/s/s)	-2.21149072890E-05	Resid phase (deg)	53.9	+/-	19.0

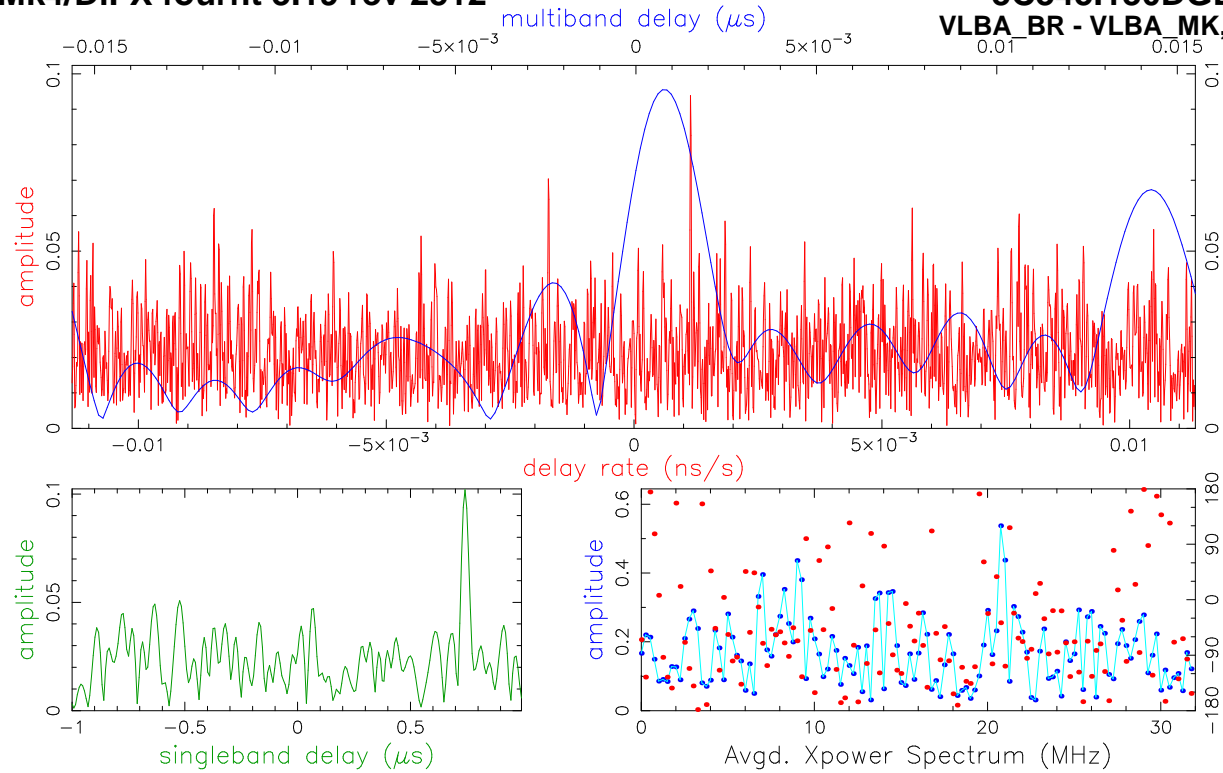
ph/seg (deg)	RMS 32.2	Theor. 32.9	Amplitude Search (2048X64)	0.118 +/- 0.020	0.103	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	37.4	57.4	Interp.	0.000	1.4235463E+01	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	43.4	38.0	Inc. seg. avg.	0.113	-1.9130770E-07	Bits/sample: 2x2	mb window (us) -0.016 0.016
amp/frq (%)	42.7	66.3	Inc. frq. avg.	0.118	-1.83606299353E+00	Sample rate(MISamp/s): 64	dr window (ns/s) -0.011 0.011
					-2.21149072890E-05	Data rate(Mb/s): 2048	nlags: 128 t_cohere infinite
							ion window (TEC) 0.00 0.00

B: az 285.3 el 41.9 pa 53.1 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 13650.009 1333.769 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/Bm...130DGB Output file: /Exps/c192b/v2/1234/No0106/Bm.W.70.130DGB

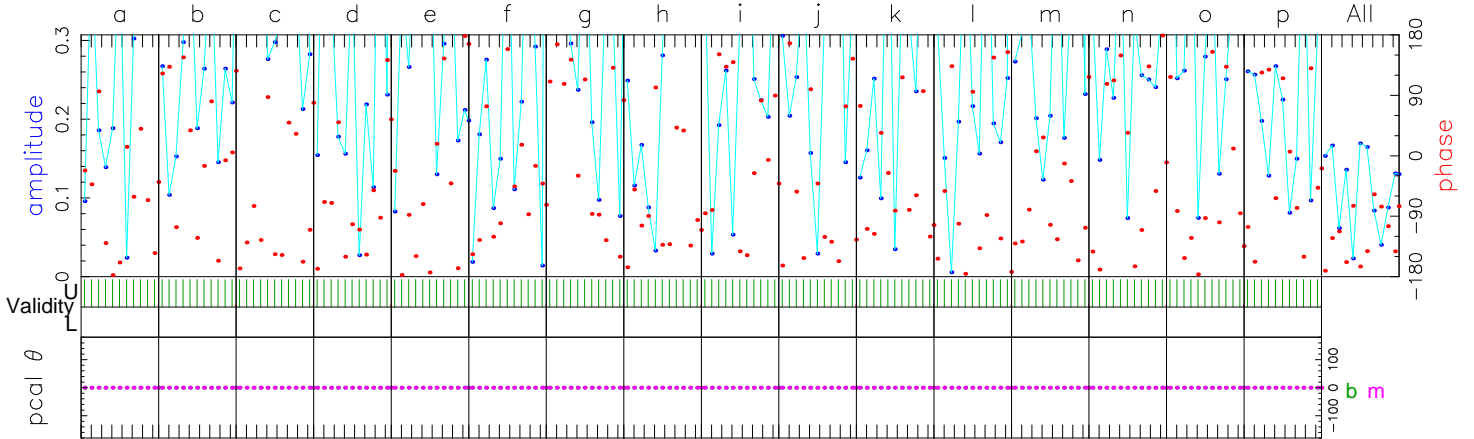
Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, bm
VLBA_BR - VLBA_MK, fgroup W, pol RL



Fringe quality 0
SNR 5.7
Int time 418.589
Amp 0.102
Phase -135.7
PFD 9.4e-01
Delays (us)
SBD 0.742061
MBD 0.001003
Fringe rate (Hz) 0.098775
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092700
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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

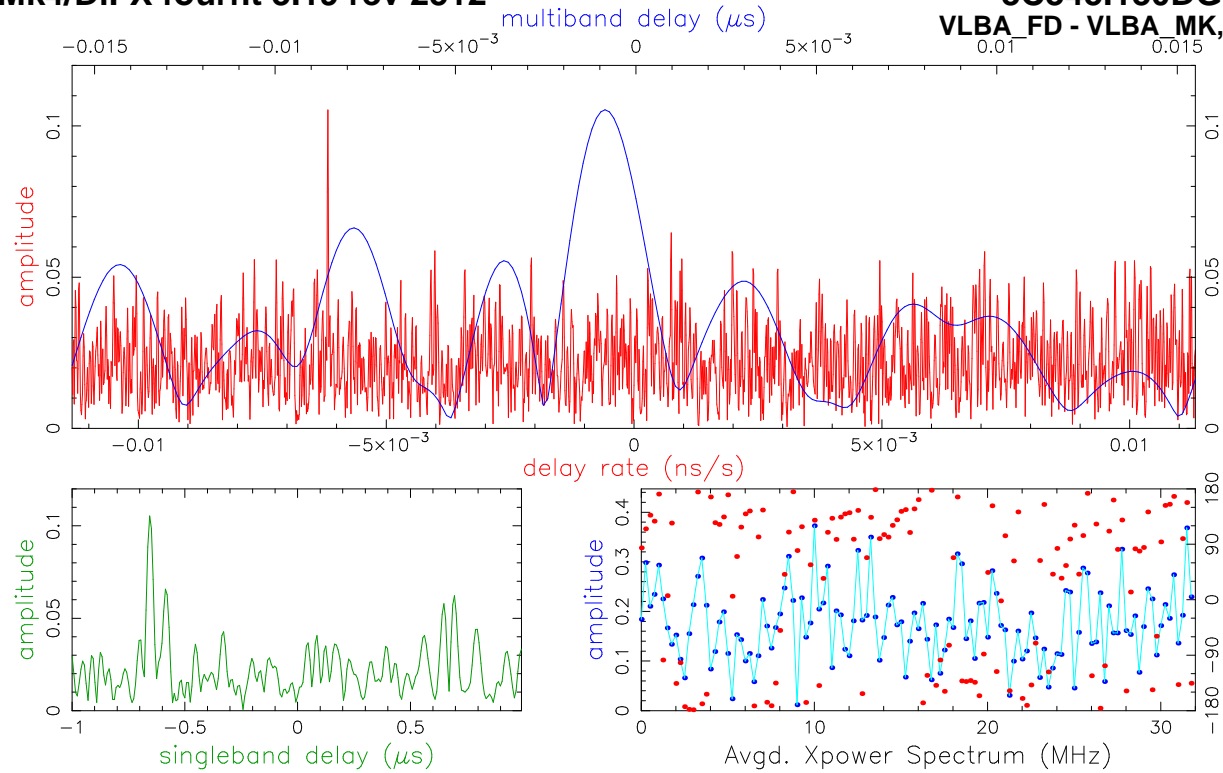


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-83.9	62.8	-135.4	-95.8	-132.8	-91.3	144.2	-109.8	-169.3	-156.4	-63.7	-147.3	-108.9	173.6	-143.1	-130.5		Phase -135.7
	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1		Ampl. 0.1
	33.9	194.1	207.2	91.0	49.8	228.3	72.5	87.1	55.3	133.1	138.1	227.9	224.3	88.3	160.7	249.3		Sbd box 224.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
b:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	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
m	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
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks

Group delay (usec)(sbd) 1.21452964728E+04 Apriori delay (usec) 1.21445454700E+04 Resid mbdelay (usec) 1.00284E-03 +/- 1.9E-04
 Sband delay (usec) 1.21452875312E+04 Apriori clock (usec) -3.1981895E+00 Resid sbdelay (usec) 7.42061E-01 +/- 3.0E-03
 Phase delay (usec) 1.21445454656E+04 Apriori clockrate (us/s) -2.3370279E-07 Resid phdelay (usec) -4.37674E-06 +/- 6.5E-07
 Delay rate (us/s) -4.57201160506E-01 Apriori rate (us/s) -4.57202307185E-01 Resid rate (us/s) 1.14668E-06 +/- 2.7E-09
 Total phase (deg) 145.7 Apriori accel (us/s/s) -3.53284962824E-05 Resid phase (deg) -135.7 +/- 20.1

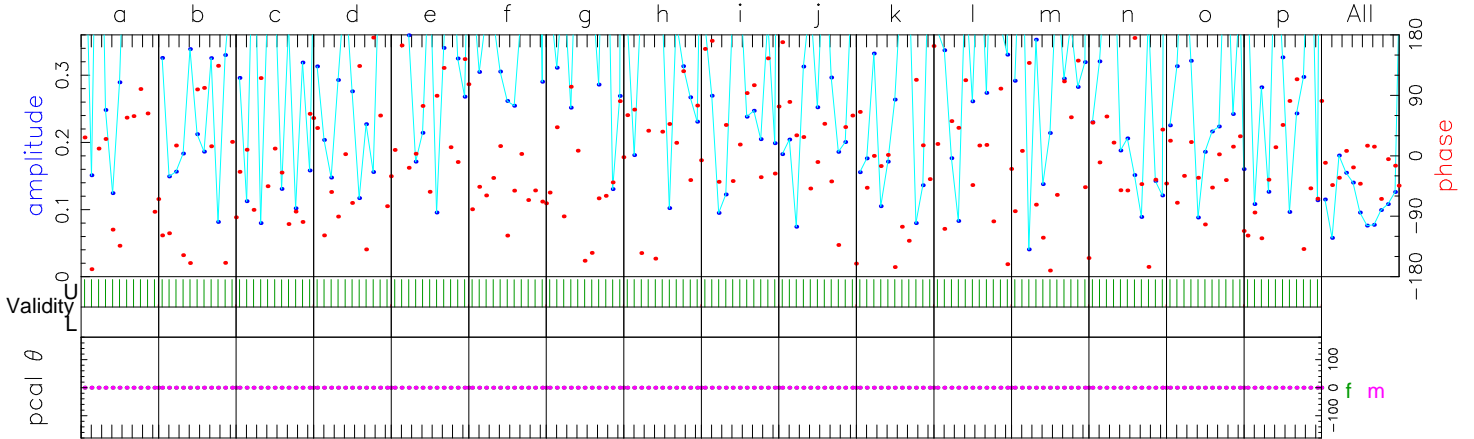
ph/seg (deg) RMS Theor. Amplitude 0.102 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 40.6 34.8 Search (2048X64) 0.097 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 50.6 60.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 59.6 40.2 Inc. seg. avg. 0.094 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 54.0 70.1 Inc. frq. avg. 0.102 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 79.6 el 48.9 pa -58.7 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 3352.693 408.917 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/bm..130DGB Output file: /Exps/c192b/v2/1234/No0106/bm.W.79.130DGB



Fringe quality 0
SNR 5.9
Int time 418.221
Amp 0.120
Phase -17.9
PFD 5.6e-01
Delays (us)
SBD -0.654575
MBD -0.000819
Fringe rate (Hz)
-0.532930
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092711
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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

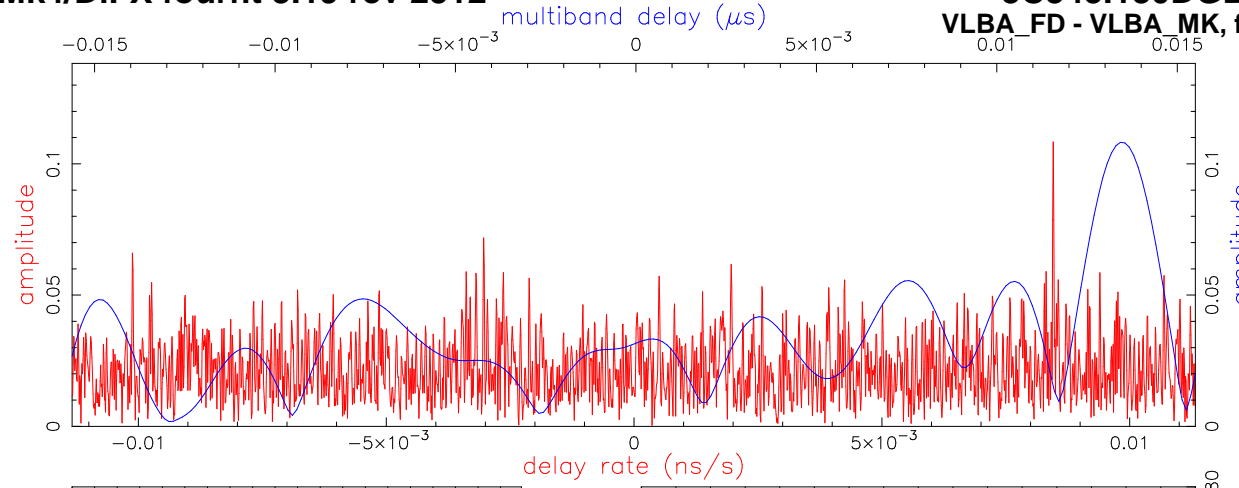


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	32.1	-161.0	-49.0	-44.5	22.7	-51.6	-52.1	52.9	68.1	23.4	-59.7	1.1	-42.3	7.2	-17.9	-51.2	Phase	-17.9
	0.2	0.0	0.2	0.1	0.1	0.4	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.3	0.1	Ampl.	0.1
	74.3	229.9	63.1	63.0	156.8	44.8	200.1	136.8	162.3	217.3	114.8	60.9	115.0	142.8	45.4	178.1	Sbd box	45.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:m	0:0	0:0	0:0	0:0	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	
m	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	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) 1.35877687054E+04 Apriori delay (usec) 1.35884257746E+04 Resid mbdelay (usec) -8.19190E-04 +/- 1.8E-04
 Sband delay (usec) 1.35877712001E+04 Apriori clock (usec) -2.1168087E+00 Resid sbdelay (usec) -6.54575E-01 +/- 2.9E-03
 Phase delay (usec) 1.35884257740E+04 Apriori clockrate (us/s) -8.2257206E-08 Resid phdelay (usec) -5.77269E-07 +/- 6.2E-07
 Delay rate (us/s) -4.51511778221E-01 Apriori rate (us/s) -4.51505591434E-01 Resid rate (us/s) -6.18679E-06 +/- 2.6E-09
 Total phase (deg) 63.2 Apriori accel (us/s/s) -5.99655031684E-05 Resid phase (deg) -17.9 +/- 19.4

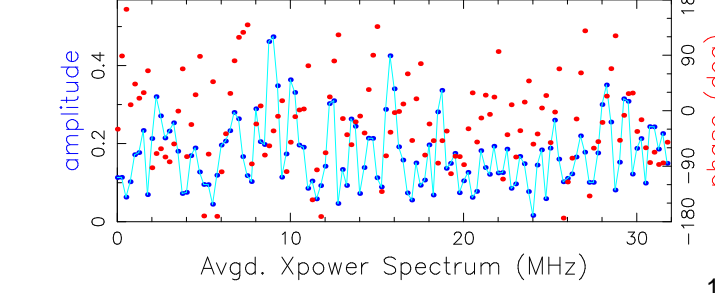
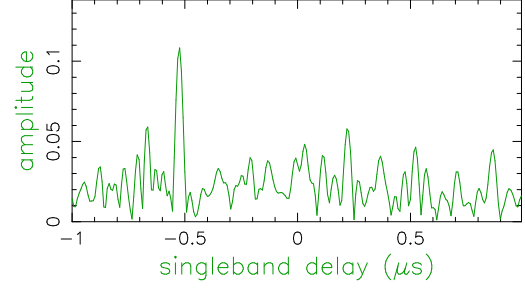
RMS Theor. Amplitude 0.120 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 24.4 33.5 Search (2048X64) 0.103 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 40.4 58.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 58.0 38.7 Inc. seg. avg. 0.110 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 78.7 67.6 Inc. frq. avg. 0.127 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 63.2 el 55.1 pa -91.6 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 3264.269 -2801.680 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/fm..130DGB Output file: /Exps/c192b/v2/1234/No0106/fm.W.107.130DGB



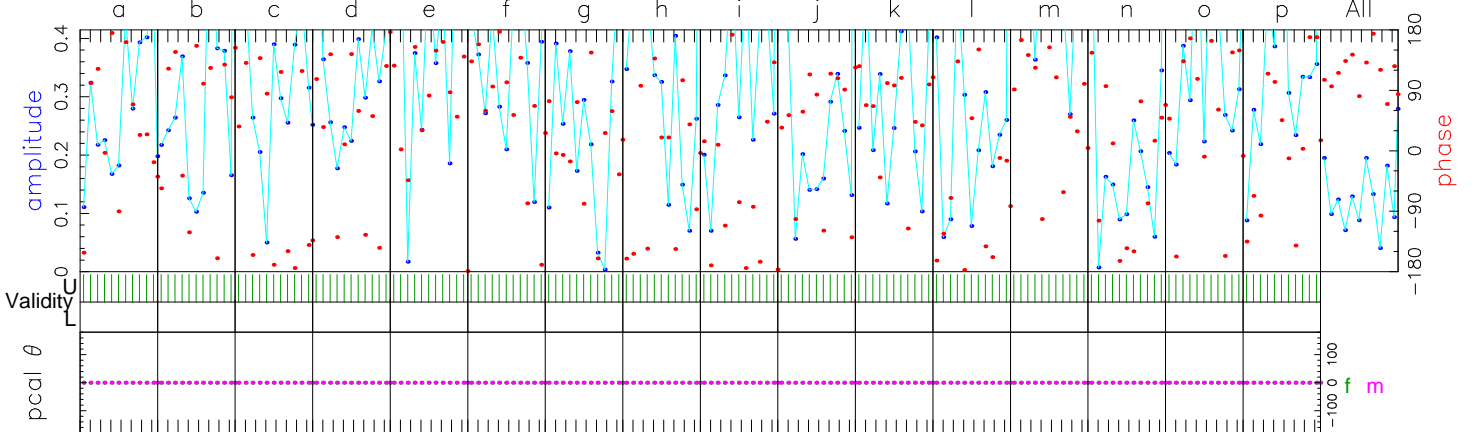
Fringe quality 0

SNR 6.1
Int time 418.221
Amp 0.138
Phase 116.1
PFD 2.7e-01
Delays (us)
SBD -0.524883
MBD 0.013463
Fringe rate (Hz) 0.729230
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



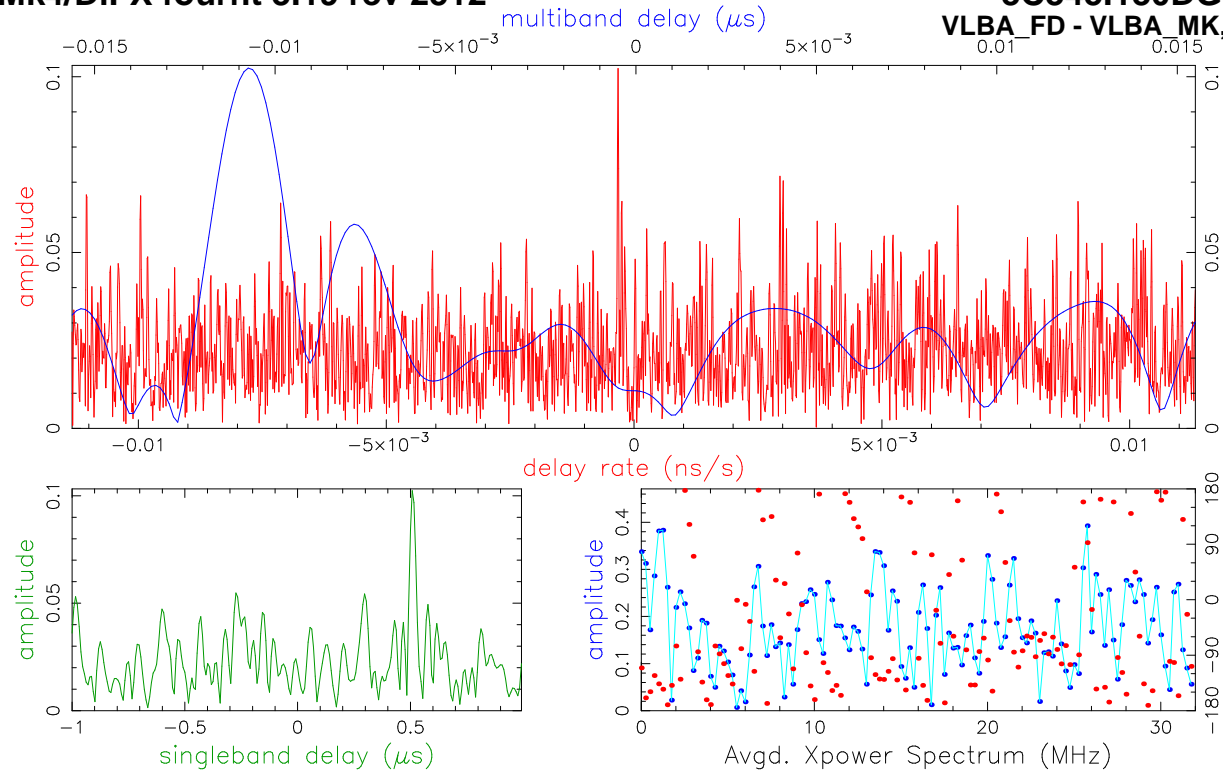
Exp. c192b
Exper # 16383
Yr:day 2019-277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092717
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0						
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
f:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	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						
m	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					
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
Group delay (usec)(sbd)		1.35879079874E+04															Apriori delay (usec)	1.35884257746E+04	Resid mbdelay (usec)	1.34628E-02	+/-	1.8E-04
Sband delay (usec)		1.35879008916E+04															Apriori clock (usec)	-2.1168087E+00	Resid sbdelay (usec)	-5.24883E-01	+/-	2.8E-03
Phase delay (usec)		1.35884257784E+04															Apriori clockrate (us/s)	-8.2257206E-08	Resid phdelay (usec)	3.74328E-06	+/-	6.1E-07
Delay rate (us/s)		-4.51497125791E-01															Apriori rate (us/s)	-4.51505591434E-01	Resid rate (us/s)	8.46564E-06	+/-	2.5E-09
Total phase (deg)					197.2												Apriori accel (us/s/s)	-5.99655031684E-05	Resid phase (deg)	116.1	+/-	18.9

ph/seg (deg) 28.0 32.7 Amplitude 0.138 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 48.4 57.0 Search (2048X64) 0.103 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 53.8 37.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 59.3 65.8 Inc. seg. avg. 0.136 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
f: az 63.2 el 55.1 pa -91.6 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 3264.269 -2801.680 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/fm..130DGB Output file: /Exps/c192b/v2/1234/No0106/fm.W.127.130DGB simultaneous interpolator

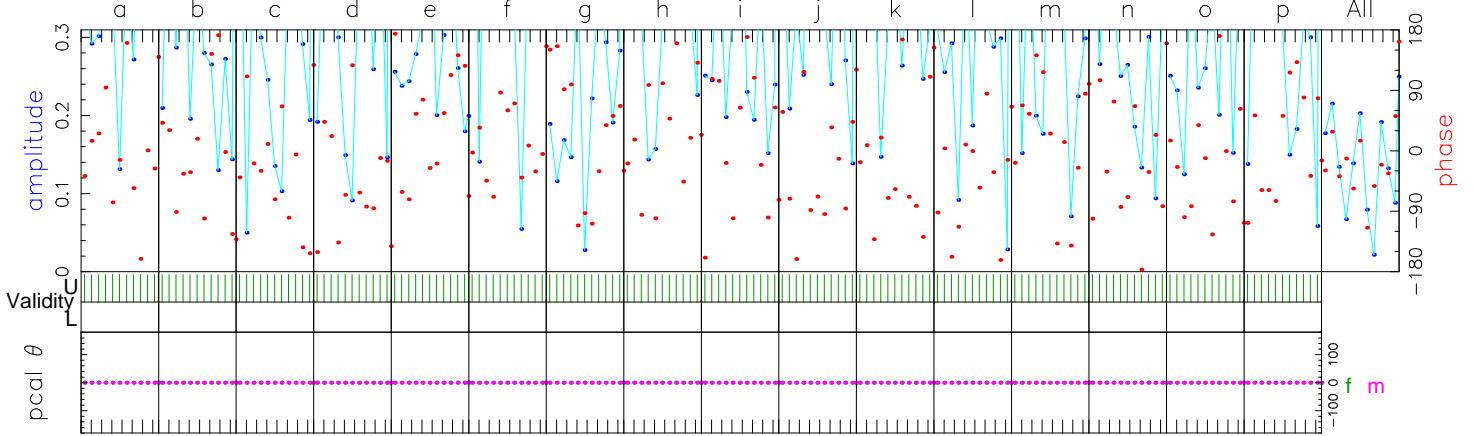


Fringe quality 0

SNR 5.8
Int time 418.222
Amp 0.103
Phase -15.2
PFD 8.6e-01
Delays (us)
SBD 0.509852
MBD -0.010666
Fringe rate (Hz)
-0.027662
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092722
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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

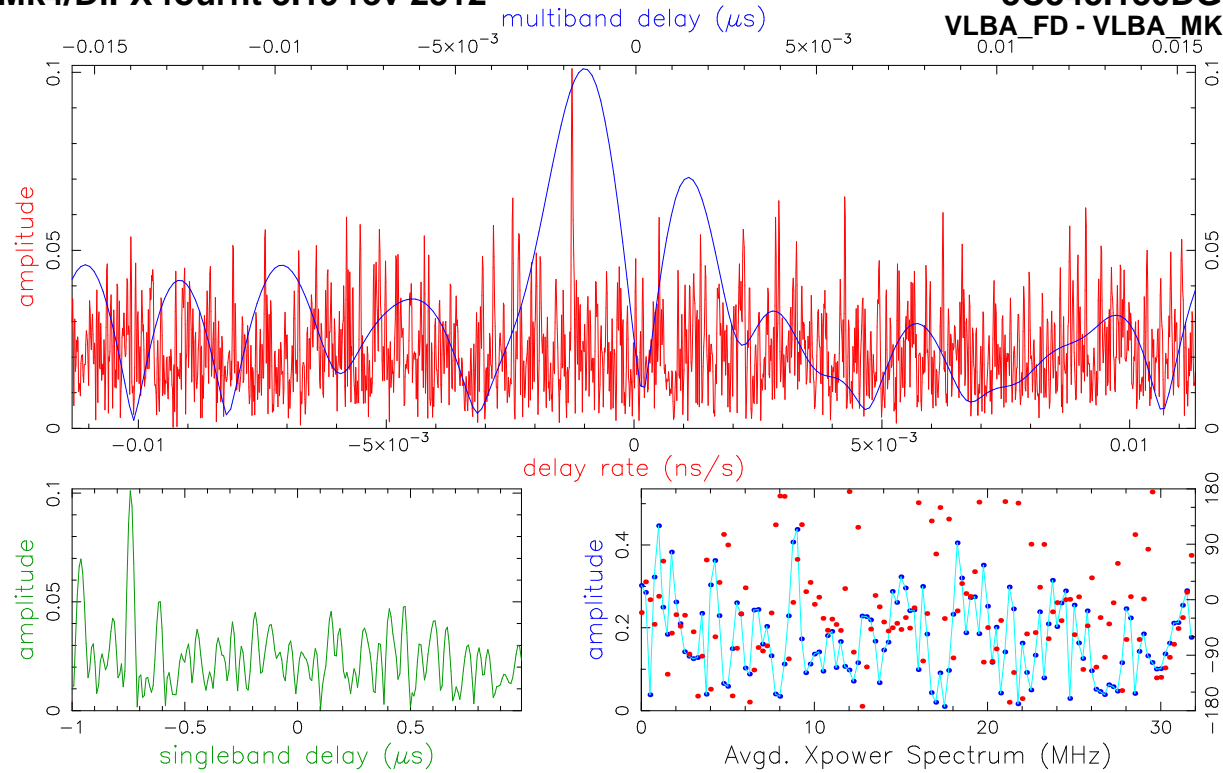


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-14.9	-18.2	-43.4	-38.9	59.1	8.9	30.4	9.6	75.0	-54.2	-69.7	-36.6	33.4	-50.4	-27.3	-5.6	Phase	-15.2
	0.1	0.1	0.2	0.2	0.1	0.3	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	50.8	51.7	130.4	95.3	155.1	193.8	201.3	198.2	217.4	111.2	102.1	80.2	255.4	224.2	242.4	137.9	Sbd box	194.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:m	0:0	0:0	0:0	0:0	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	
m	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	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

Group delay (usec)(sbd) 1.35889463582E+04 Apriori delay (usec) 1.35884257746E+04 Resid mbdelay (usec) -1.06664E-02 +/- 1.9E-04
 Sband delay (usec) 1.35889356261E+04 Apriori clock (usec) -2.1168087E+00 Resid sbdelay (usec) 5.09852E-01 +/- 3.0E-03
 Phase delay (usec) 1.35884257741E+04 Apriori clockrate (us/s) -8.2257206E-08 Resid phdelay (usec) -4.90478E-07 +/- 6.4E-07
 Delay rate (us/s) -4.51505912558E-01 Apriori rate (us/s) -4.51505591434E-01 Resid rate (us/s) -3.21124E-07 +/- 2.6E-09
 Total phase (deg) 65.9 Apriori accel (us/s/s) -5.99655031684E-05 Resid phase (deg) -15.2 +/- 19.9

RMS Theor. Amplitude 0.103 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 46.4 34.4 Search (2048X64) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 64.7 60.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 44.0 39.7 Inc. seg. avg. 0.112 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 56.5 69.3 Inc. frq. avg. 0.102 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 63.2 el 55.1 pa -91.6 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 3264.269 -2801.680 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/fm..130DGB Output file: /Exps/c192b/v2/1234/No0106/fm.W.146.130DGB

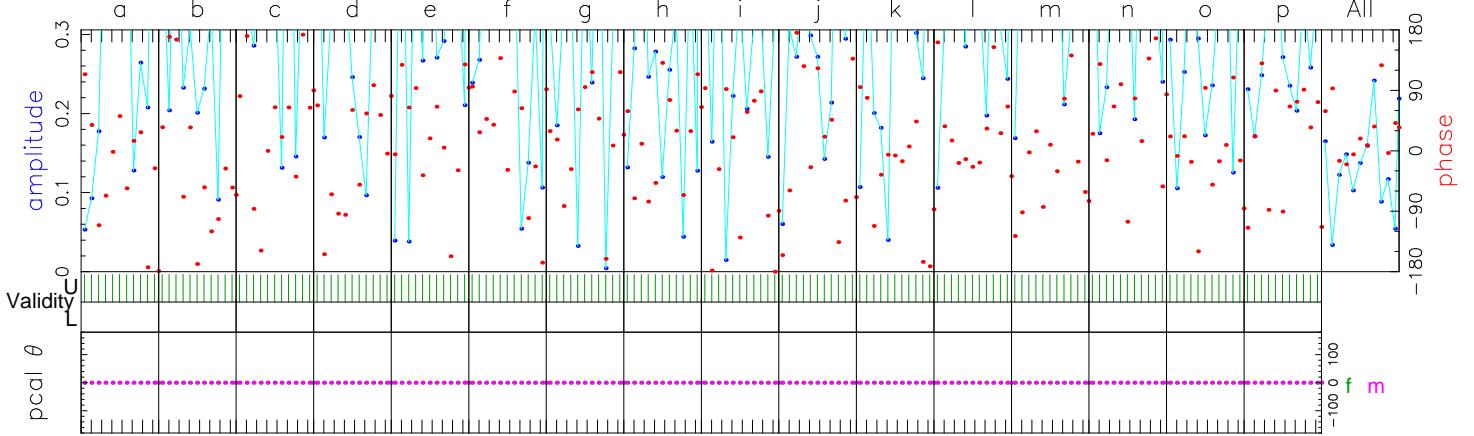


Fringe quality 0

SNR 5.7
Int time 418.222
Amp 0.102
Phase 21.0
PFD 9.7e-01
Delays (us)
SBD -0.740730
MBD -0.001408
Fringe rate (Hz)
-0.107711
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

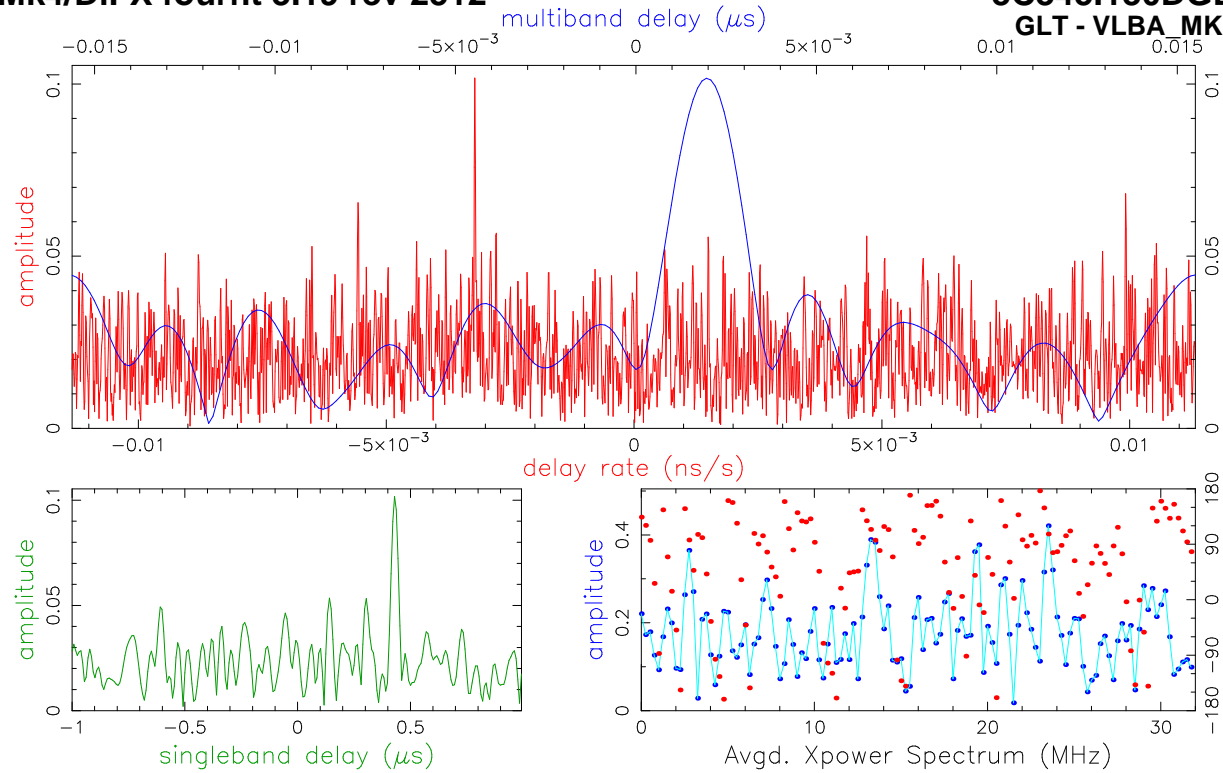
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092707
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-22.5	-59.0	72.5	13.4	61.8	57.3	49.5	14.2	76.3	-164.2	1.0	9.8	-31.6	57.2	-3.6	71.6	Phase	21.0				
	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	Ampl.	0.1				
	151.4	188.3	104.7	117.7	231.8	80.6	61.6	198.0	120.2	9.7	249.5	230.3	33.1	3.7	136.1	198.4	Sbd box	34.2				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used					
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
f:m	0:0	0:0	0:0	0:0	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					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			1.35876743671E+04														Apriori delay (usec)	1.35884257746E+04	Resid mbdelay (usec)	-1.40752E-03	+/-	1.9E-04
Sband delay (usec)			1.35876850446E+04														Apriori clock (usec)	-2.1168087E+08	Resid sbdelay (usec)	-7.40730E-01	+/-	3.0E-03
Phase delay (usec)			1.35884257753E+04														Apriori clockrate (us/s)	-8.2257206E-08	Resid phdelay (usec)	6.76731E-07	+/-	6.5E-07
Delay rate (us/s)			-4.51506841847E-01														Apriori rate (us/s)	-4.51505591434E-01	Resid rate (us/s)	-1.25041E-06	+/-	2.7E-09
Total phase (deg)					102.1												Apriori accel (us/s/s)	-5.99655031684E-05	Resid phase (deg)	21.0	+/-	20.2

ph/seg (deg) 45.6 35.0 Search (2048X64) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.7 61.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 63.4 40.4 Inc. seg. avg. 0.106 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 61.6 70.5 Inc. frq. avg. 0.112 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 63.2 el 55.1 pa -91.6 m: az 51.2 el 10.2 pa -72.6 u, v (fr/asec) 3264.269 -2801.680 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/fm..130DGB Output file: /Exps/c192b/v2/1234/No0106/fm.W.91.130DGB

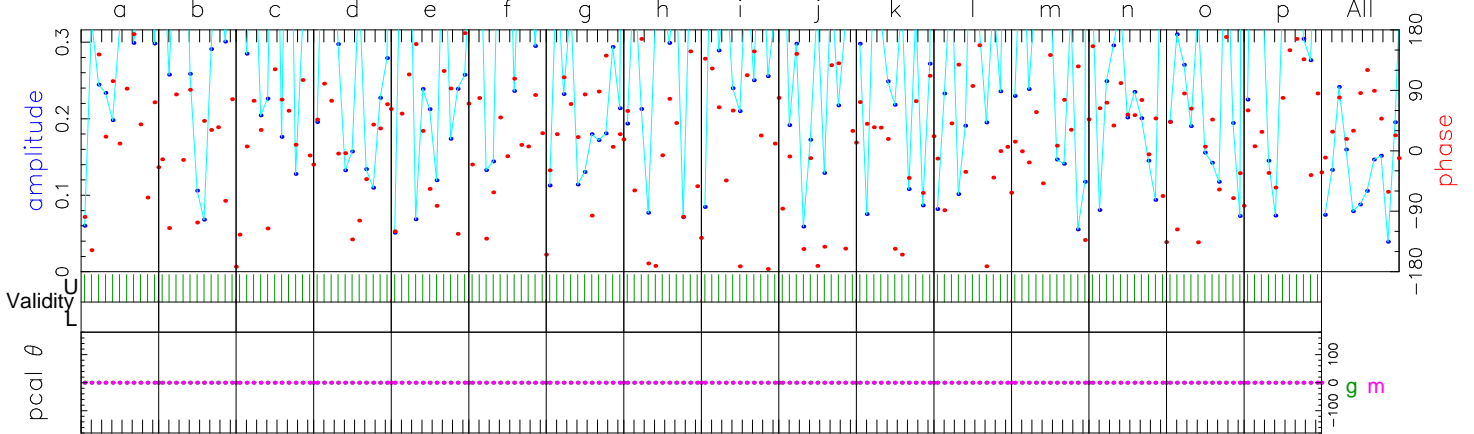


Fringe quality 0

SNR 5.7
Int time 419.016
Amp 0.105
Phase 49.1
PFD 9.4e-01
Delays (us)
SBD 0.430986
MBD 0.001961
Fringe rate (Hz)
-0.276679
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092727
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	64.1	22.3	67.5	49.1	104.3	25.5	46.4	-13.1	83.2	-170.4	56.2	21.3	19.7	59.1	-133.5	64.7	Phase	49.1
	0.1	0.2	0.2	0.1	0.1	0.3	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.2	Ampl.	0.1
	55.3	8.6	219.3	175.7	115.4	147.1	171.0	127.9	213.0	240.3	18.1	70.3	204.4	122.1	91.8	222.3	Sbd box	184.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	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	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

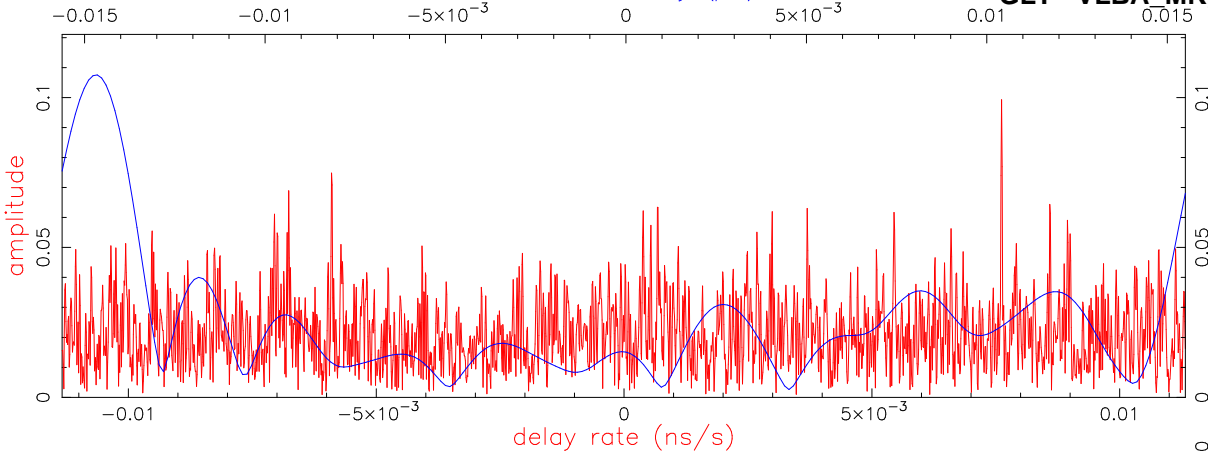
Group delay (usec)(sbd) 1.30169641794E+04 Apriori delay (usec) 1.30165247183E+04 Resid mbdelay (usec) 1.96112E-03 +/- 1.9E-04
 Sband delay (usec) 1.30169557043E+04 Apriori clock (usec) -1.2862341E+00 Resid sbdelay (usec) 4.30986E-01 +/- 3.0E-03
 Phase delay (usec) 1.30165247198E+04 Apriori clockrate (us/s) 8.3692290E-08 Resid phdelay (usec) 1.58241E-06 +/- 6.5E-07
 Delay rate (us/s) -1.09531705433E+00 Apriori rate (us/s) -1.09531384236E+00 Resid rate (us/s) -3.21197E-06 +/- 2.7E-09
 Total phase (deg) 132.3 Apriori accel (us/s/s) -2.34518148625E-05 Resid phase (deg) 49.1 +/- 20.1

RMS Theor. Amplitude 0.105 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 49.6 34.8 Search (2048X64) 0.098 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 63.6 60.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 67.2 40.2 Inc. seg. avg. 0.114 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 60.1 70.1 Inc. frq. avg. 0.101 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

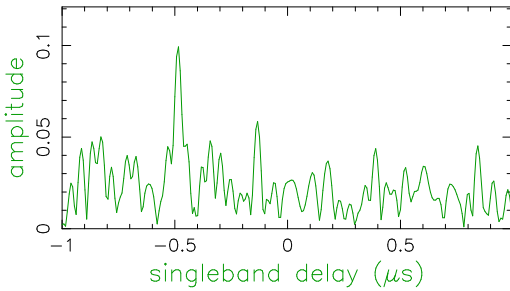
g: az 171.8 el 53.1 pa -2.5 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 8131.448 2684.363 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/gm..130DGB Output file: /Exps/c192b/v2/1234/No0106/gm.W.161.130DGB

multiband delay (μ s)

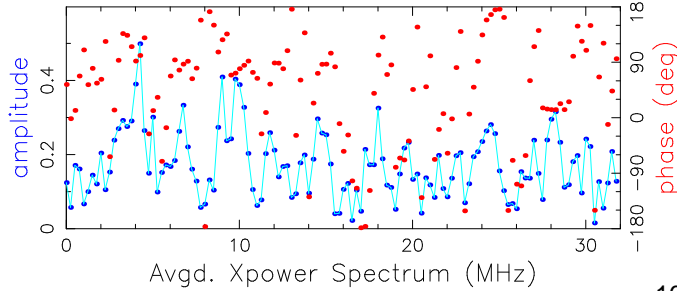
Fringe quality 0



SNR 5.6
Int time 418.834
Amp 0.121
Phase 72.0
PFD 1.0e+00
Delays (us)
SBD -0.486098
MBD 0.016113
Fringe rate (Hz)
0.657242
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

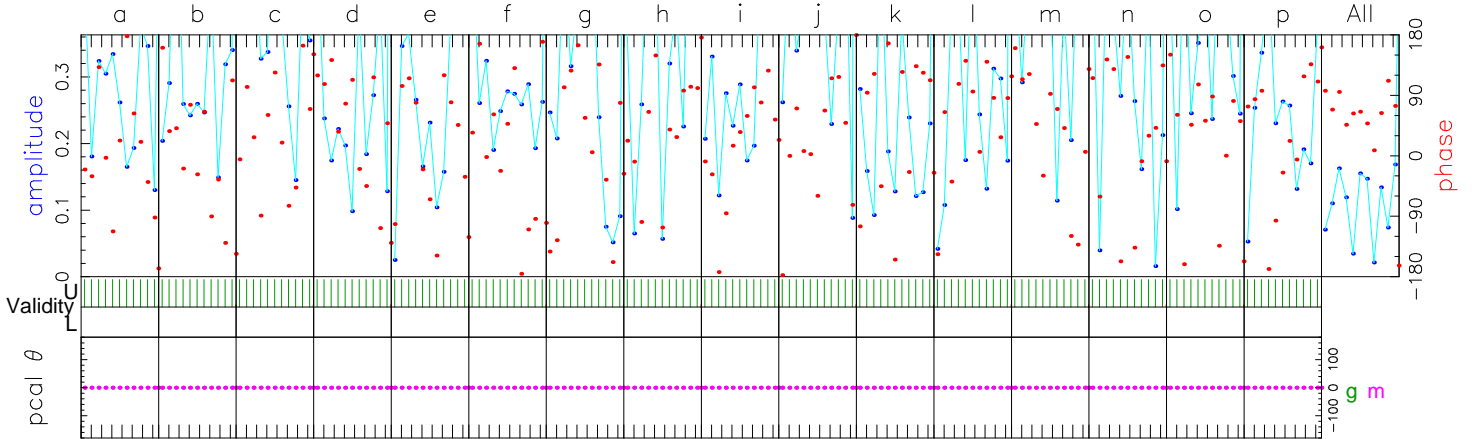


delay rate (ns/s)



Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092735
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



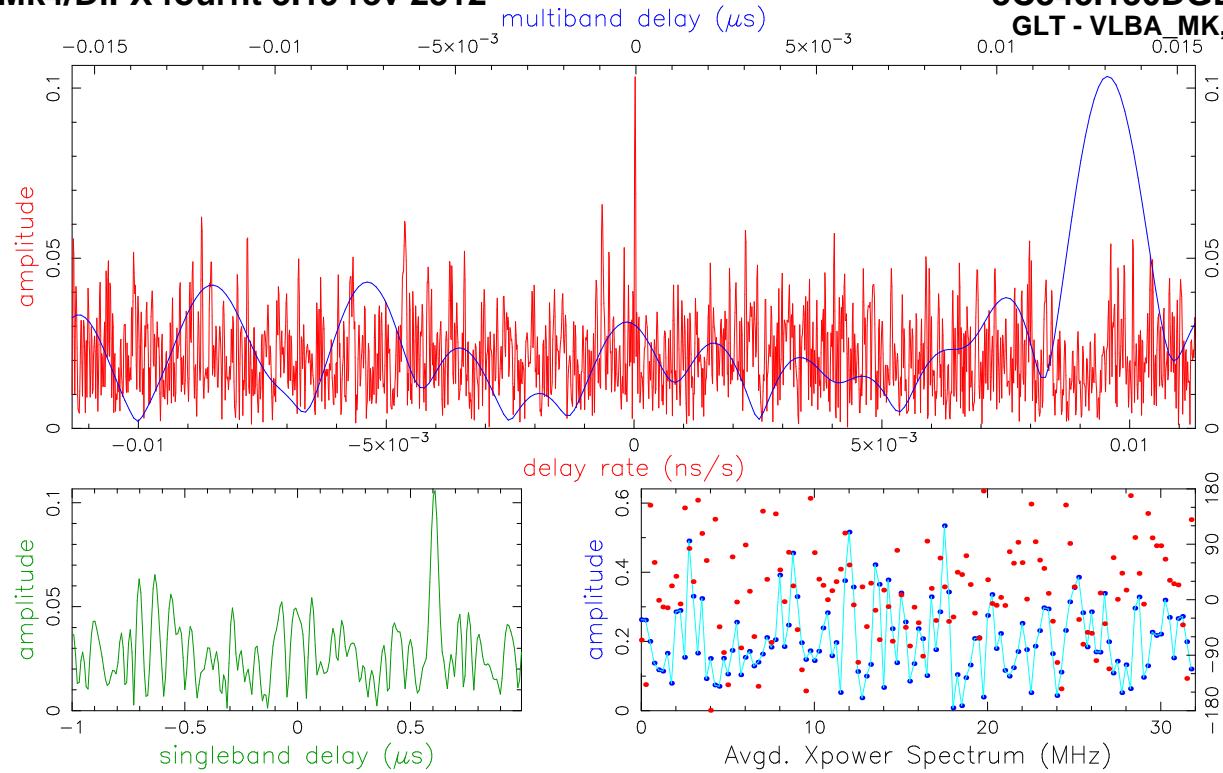
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-12.1	24.1	62.9	89.5	61.7	60.0	102.2	80.4	49.0	33.9	143.8	76.4	70.5	131.2	105.5	107.7	Phase	72.0
	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.3	0.2	0.2	0.0	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
	211.2	150.6	64.8	235.7	3.3	236.3	194.4	67.7	68.0	180.4	226.9	19.4	47.2	173.0	228.7	73.3	Sbd box	66.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)		1.30160408315E+04				Apriori delay (usec)		1.30165247183E+04			Resid mbdelay (usec)		1.61133E-02				+/-	1.9E-04
Sband delay (usec)		1.30160386203E+04				Apriori clock (usec)		-1.2862341E+00			Resid sbdelay (usec)		-4.86098E-01				+/-	3.1E-03
Phase delay (usec)		1.30165247206E+04				Apriori clockrate (us/s)		8.3692290E-08			Resid phdelay (usec)		2.32028E-06				+/-	6.6E-07
Delay rate (us/s)		-1.09530621243E+00				Apriori rate (us/s)		-1.09531384236E+00			Resid rate (us/s)		7.62993E-06				+/-	2.7E-09
Total phase (deg)				155.2		Apriori accel (us/s/s)		-2.34518148625E-05			Resid phase (deg)		72.0				+/-	20.5

ph/seg (deg) RMS Theor. Amplitude 0.121 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 29.3 35.6 Search (2048X64) 0.107 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 59.7 62.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 41.5 41.1 Inc. seg. avg. 0.114 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 54.9 71.7 Inc. frq. avg. 0.117 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

g: az 171.8 el 53.1 pa -2.5 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 8131.448 2684.363 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/gm..130DGB Output file: /Exps/c192b/v2/1234/No0106/gm.W.180.130DGB

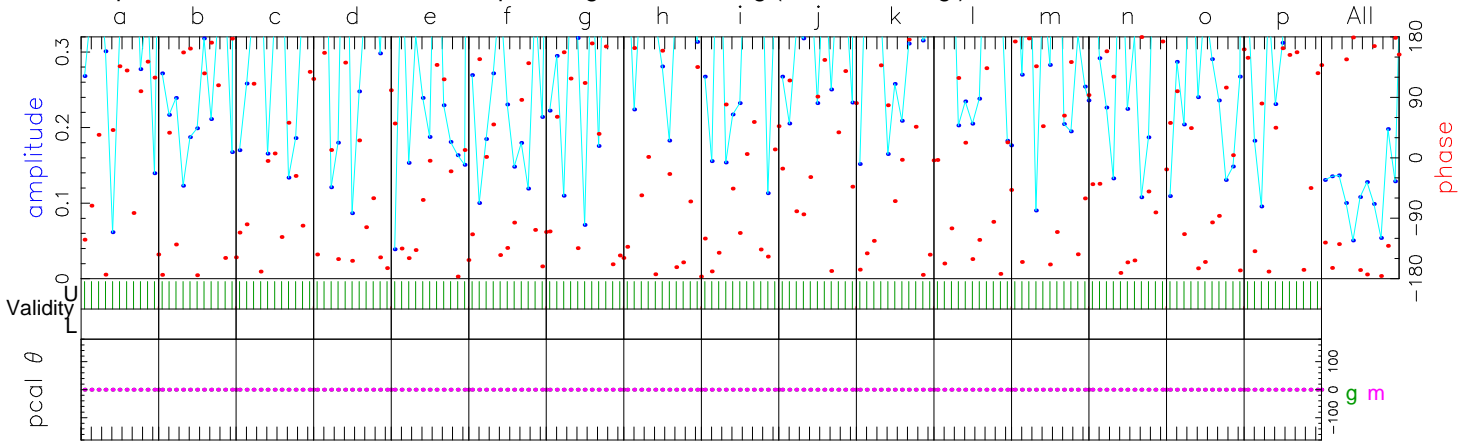
Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, gm
GLT - VLBA_MK, fgroup W, pol LR



Fringe quality 0
SNR 6.0
Int time 419.015
Amp 0.107
Phase -162.4
PFD 4.5e-01
Delays (us)
SBD 0.606677
MBD 0.013014
Fringe rate (Hz) 0.002143
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092742
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	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		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)		1.30171314821E+04								1.30165247183E+04							1.30138E-02	+/- 1.8E-04
Sband delay (usec)		1.30171313953E+04								-1.2862341E+00							6.06677E-01	+/- 2.9E-03
Phase delay (usec)		1.30165247130E+04								8.3692290E-08							-5.23642E-06	+/- 6.2E-07
Delay rate (us/s)		-1.09531381748E+00								-1.09531384236E+00							2.48796E-08	+/- 2.6E-09
Total phase (deg)					-79.2					-2.34518148625E-05							-162.4	+/- 19.2

ph/seg (deg) 27.3 33.2 27.3 33.2
amp/seg (%) 41.2 58.0 41.2 58.0
ph/frq (deg) 52.9 38.4 52.9 38.4
amp/frq (%) 49.6 67.0 49.6 67.0

RMS Theor. Amplitude 0.107 +/- 0.018
Search (2048X64) 0.103
Interp. 0.000
Inc. seg. avg. 0.100
Inc. frq. avg. 0.097

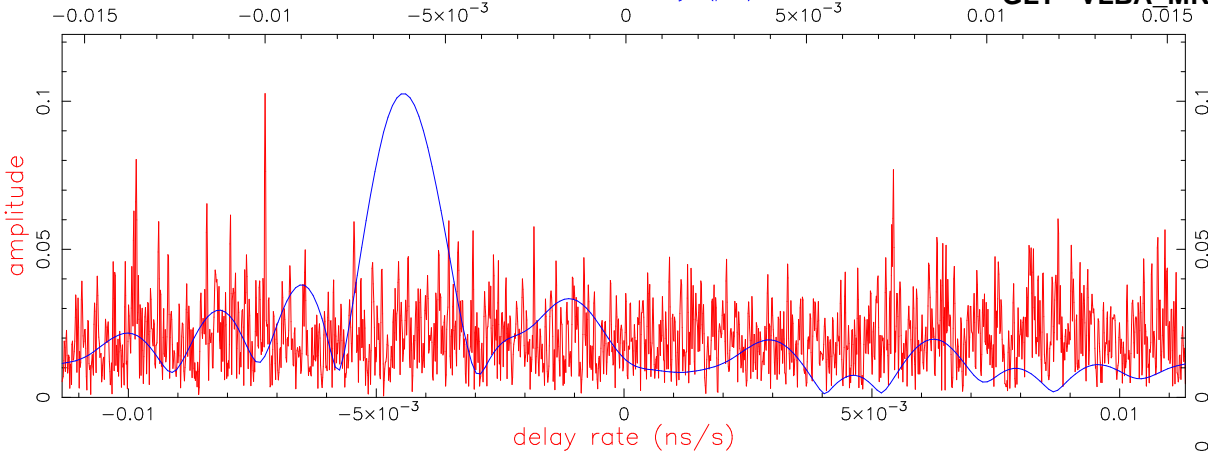
g: az 171.8 el 53.1 pa -2.5 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 8131.448 2684.363

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/gm..130DGB Output file: /Exps/c192b/v2/1234/No0106/gm.W.201.130DGB

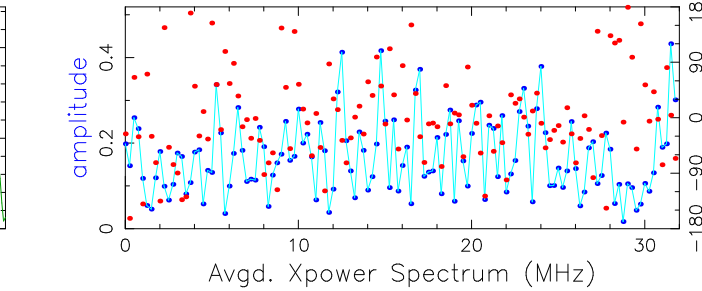
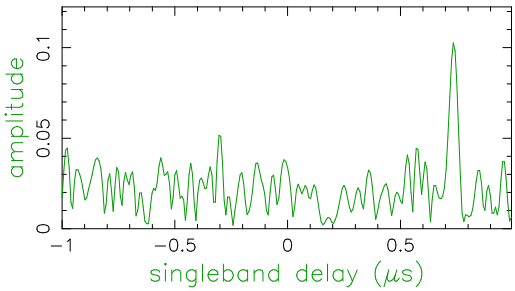
simultaneous interpolator

multiband delay (μ s)

Fringe quality 0

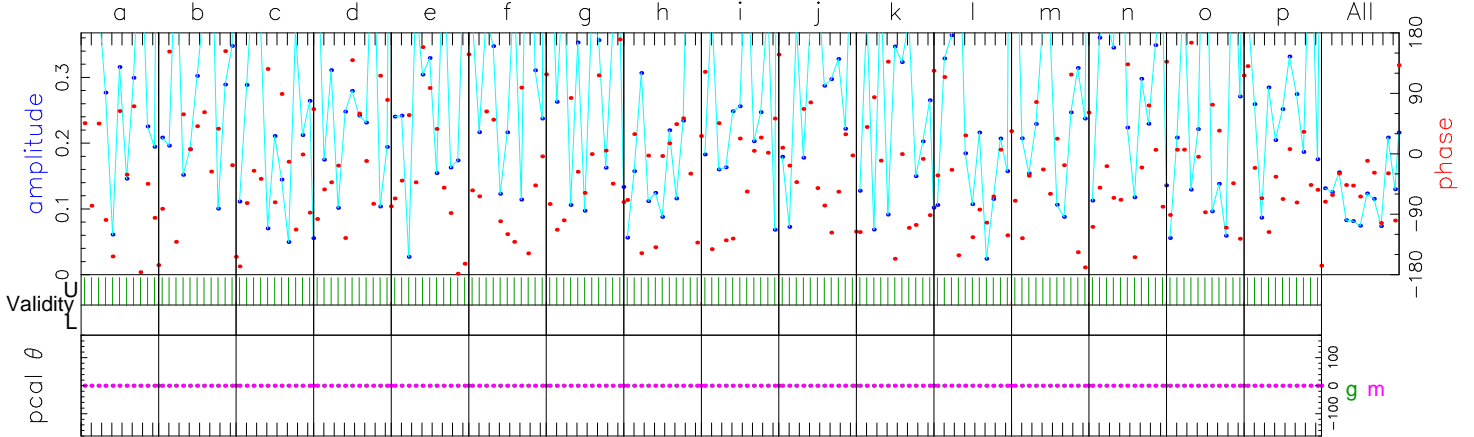


SNR 5.8
Int time 418.835
Amp 0.123
Phase -49.4
PFD 8.7e-01
Delays (us)
SBD 0.736140
MBD -0.006185
Fringe rate (Hz)
-0.624480
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



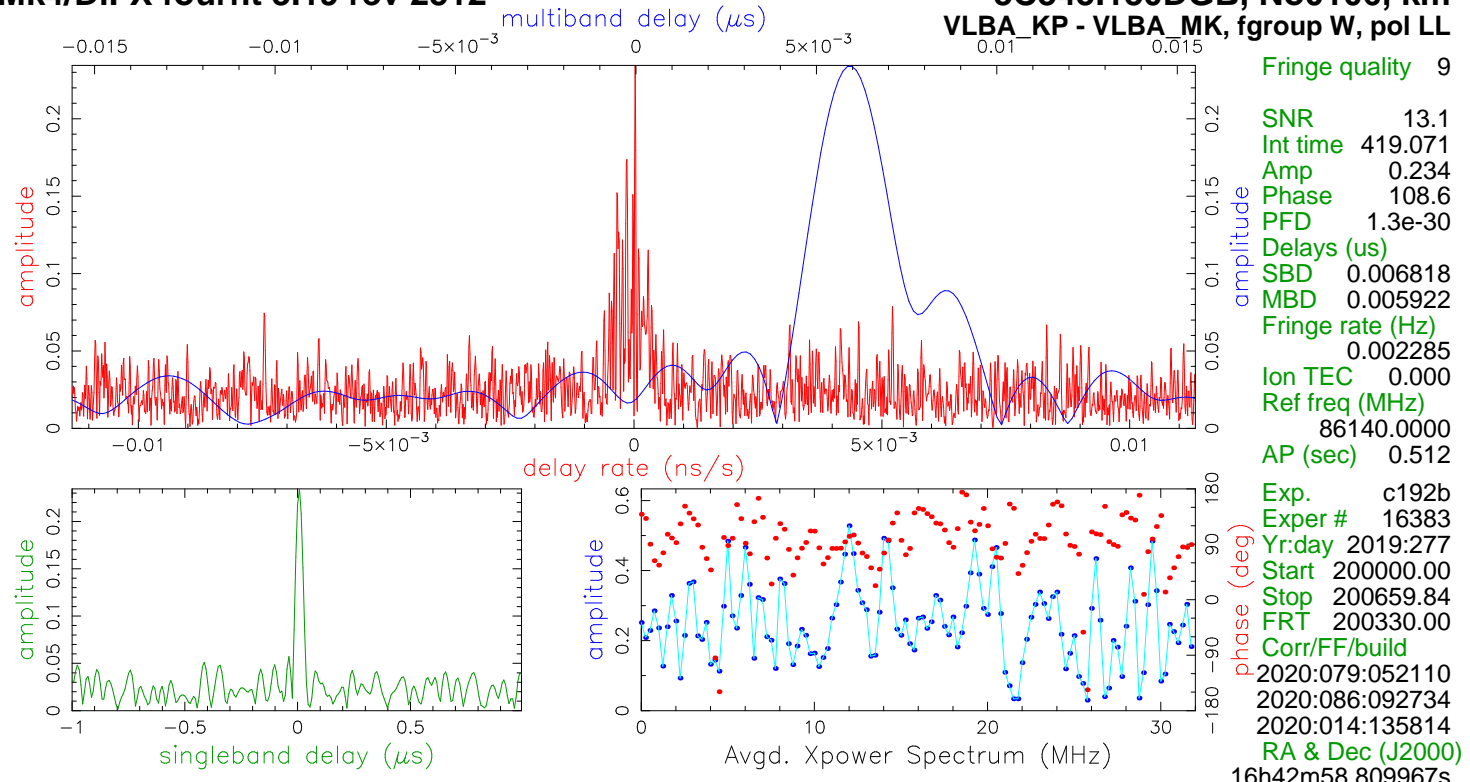
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092749
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-29.1	0.3	-57.5	-64.7	-88.9	-86.0	-63.8	-35.5	-28.3	-24.8	-48.6	-76.6	-67.6	-47.4	-44.9	-44.8		Phase	-49.4				
	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2		Ampl.	0.1				
	23.1	193.4	96.1	78.2	172.4	218.1	119.3	141.3	144.6	233.4	250.4	84.5	139.6	18.9	209.8	133.1		Sbd box	223.2				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		PC freqs					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
g:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC					
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
m	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					
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			1.30172685336E+04															Apriori delay (usec)	1.30165247183E+04	Resid mbdelay (usec)	-6.18464E-03	+/-	1.9E-04
Sband delay (usec)			1.30172608583E+04															Apriori clock (usec)	-1.2862341E+00	Resid sbdelay (usec)	7.36140E-01	+/-	3.0E-03
Phase delay (usec)			1.30165247167E+04															Apriori clockrate (us/s)	8.3692290E-08	Resid phdelay (usec)	-1.59302E-06	+/-	6.4E-07
Delay rate (us/s)			-1.09532109196E+00															Apriori rate (us/s)	-1.09531384236E+00	Resid rate (us/s)	-7.24959E-06	+/-	2.6E-09
Total phase (deg)					33.8													Apriori accel (us/s/s)	-2.34518148625E-05	Resid phase (deg)	-49.4	+/-	19.9

ph/seg (deg) RMS Theor. Amplitude 0.123 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 32.3 34.4 Search (2048X64) 0.099 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 41.3 60.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 24.9 39.8 Inc. seg. avg. 0.120 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 40.3 69.4 Inc. frq. avg. 0.105 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 g: az 171.8 el 53.1 pa -2.5 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 8131.448 2684.363 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/gm..130DGB Output file: /Exps/c192b/v2/1234/No0106/gm.W.229.130DGB



Fringe quality 9

SNR 13.1

Int time 419.071

Amp 0.234

Phase 108.6

PFD 1.3e-30

Delays (us)

SBD 0.006818

MBD 0.005922

Fringe rate (Hz) 0.002285

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.512

Exp. c192b

Exper # 16383

Yr:day 2019:277

Start 200000.00

Stop 200659.84

FRT 200330.00

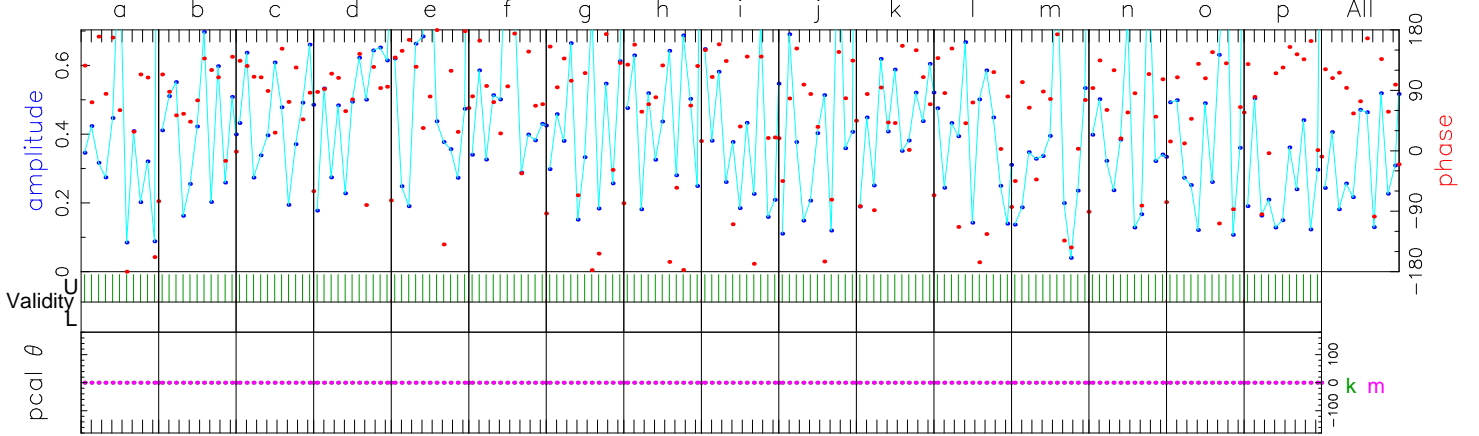
Corr/FF/build 2020:079:052110

2020:086:092734

2020:014:135814

RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	96.6	95.6	97.6	103.9	118.8	100.8	143.0	129.4	141.6	116.5	79.9	140.1	97.3	86.5	99.1	111.2		Phase 108.6
	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.1		Ampl. 0.2
	129.6	129.8	130.2	130.8	129.8	129.3	130.2	166.3	131.3	44.3	130.6	184.1	73.9	129.7	191.1	84.3		Sbd box 129.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
k:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	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
m	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
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks
																		Chan ids
																		Tracks
Group delay (usec)(sbd)	1.24038654196E+04			Apriori delay (usec)			1.24038594978E+04			Resid mbdelay (usec)			5.92171E-03			+/- 8.2E-05		
Sband delay (usec)	1.24038663158E+04			Apriori clock (usec)			-2.9830236E+00			Resid sbdelay (usec)			6.81800E-03			+/- 1.3E-03		
Phase delay (usec)	1.24038595013E+04			Apriori clockrate (us/s)			-1.8588669E-07			Resid phdelay (usec)			3.50189E-06			+/- 2.8E-07		
Delay rate (us/s)	-3.64310636735E-01			Apriori rate (us/s)			-3.64310663263E-01			Resid rate (us/s)			2.65277E-08			+/- 1.2E-09		
Total phase (deg)	160.5			Apriori accel (us/s/s)			-5.22484345603E-05			Resid phase (deg)			108.6			+/- 8.7		

ph/seg (deg) 57.2 15.1 Search (2048X64) 0.222 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 63.5 26.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 20.6 17.5 Inc. seg. avg. 0.302 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

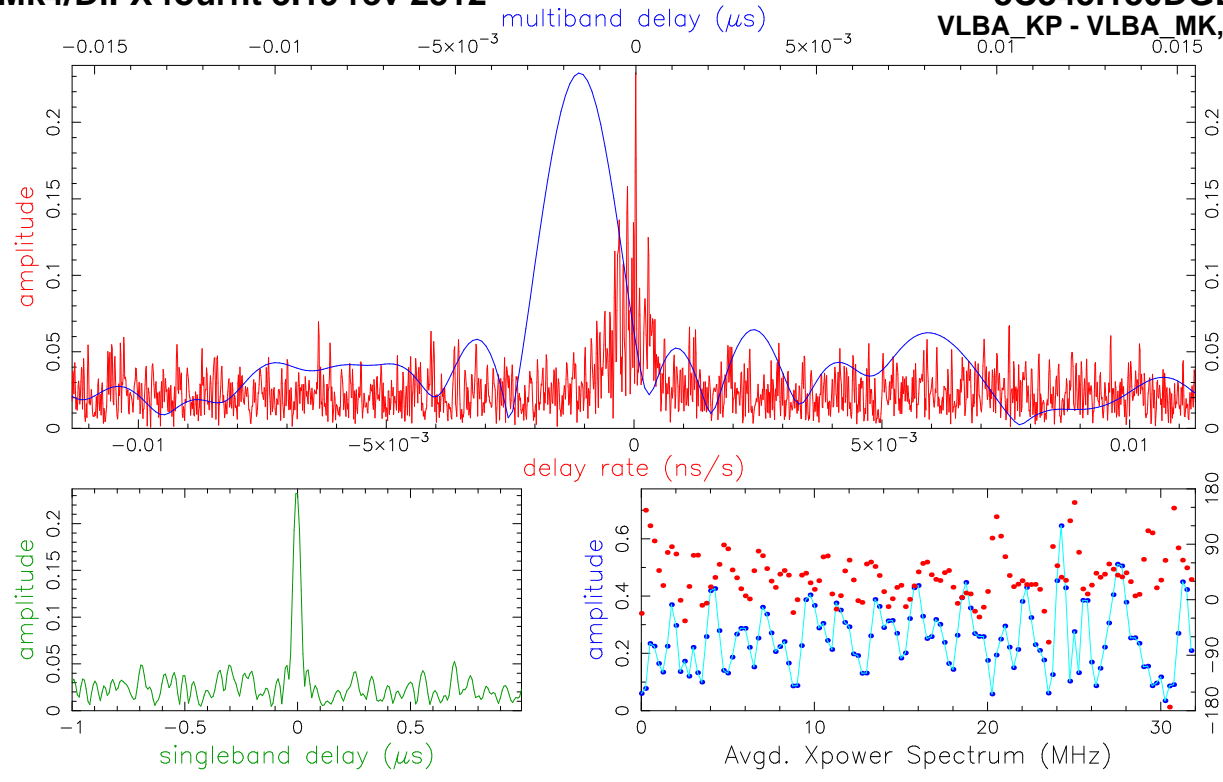
amp/frq (%) 31.7 30.5 Inc. frq. avg. 0.236 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

k: az 64.5 el 49.8 pa -85.5 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 2628.091 -2155.014 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/km..130DGB Output file: /Exps/c192b/v2/1234/No0106/km.W.177.130DGB

Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, km
VLBA_KP - VLBA_MK, fgroup W, pol RR

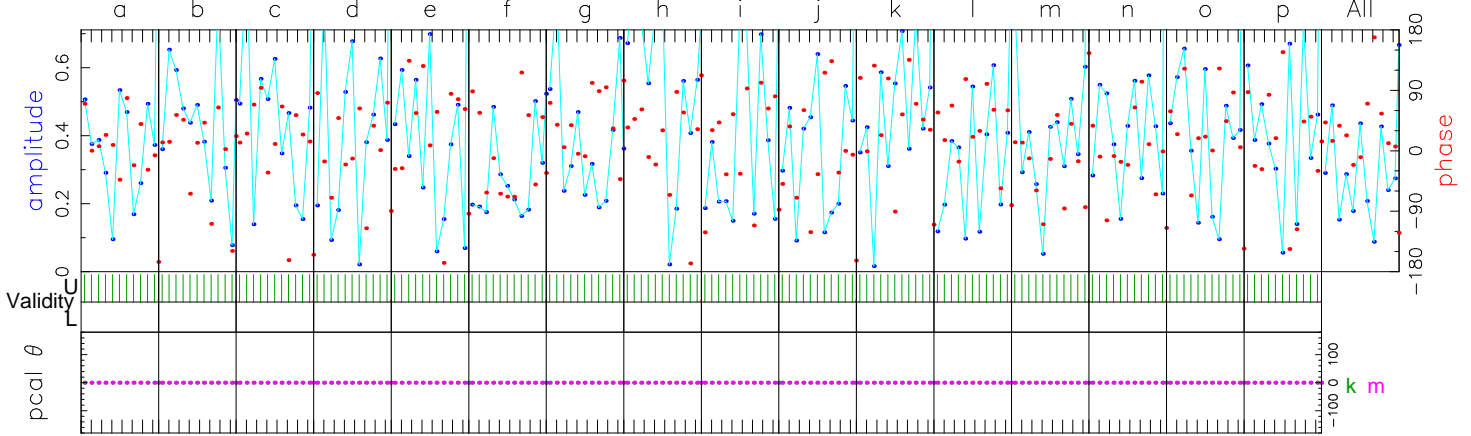


Fringe quality 9

SNR 13.3
Int time 419.070
Amp 0.237
Phase 22.5
PFD 1.7e-31
Delays (us)
SBD -0.003861
MBD -0.001590
Fringe rate (Hz) 0.002471
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092739
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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

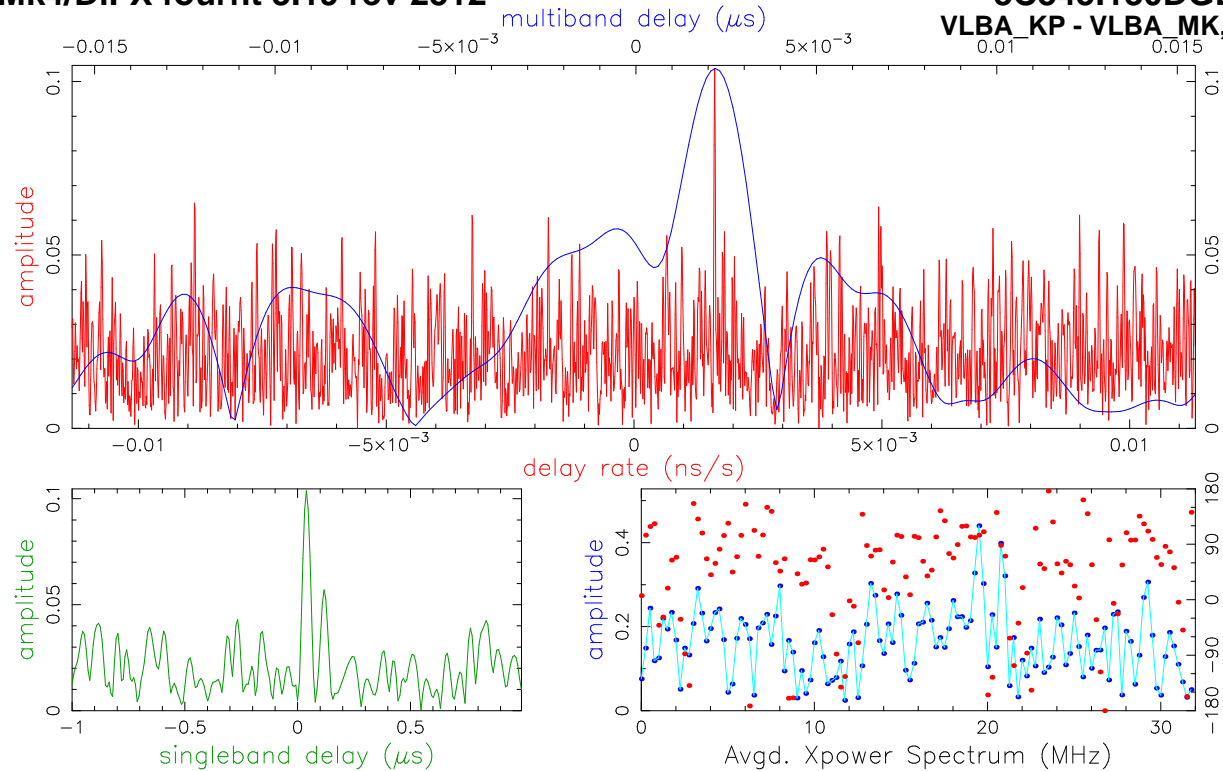


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	11.0	25.8	29.1	-2.2	40.4	-16.0	31.2	34.4	48.7	-10.6	51.0	43.5	-8.7	-7.5	43.0	24.4	Phase	22.5
k	0.3	0.3	0.3	0.3	0.2	0.1	0.3	0.4	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	Ampl.	0.2
m	128.9	129.6	129.3	127.7	190.4	104.5	128.5	129.1	148.1	196.8	128.2	127.4	127.7	57.9	129.2	44.1	Sbd box	128.5
k	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	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	
m	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	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) 1.24038579083E+04 Apriori delay (usec) 1.24038594978E+04 Resid mbdelay (usec) -1.58956E-03 +/- 8.1E-05
 Sband delay (usec) 1.24038556368E+04 Apriori clock (usec) -2.9830236E+00 Resid sbdelay (usec) -3.86100E-03 +/- 1.3E-03
 Phase delay (usec) 1.24038594986E+04 Apriori clockrate (us/s) -1.8588669E-07 Resid phdelay (usec) 7.25370E-07 +/- 2.8E-07
 Delay rate (us/s) -3.64310634579E-01 Apriori rate (us/s) -3.64310663263E-01 Resid rate (us/s) 2.86838E-08 +/- 1.1E-09
 Total phase (deg) 74.4 Apriori accel (us/s/s) -5.22484345603E-05 Resid phase (deg) 22.5 +/- 8.6

RMS Theor. Amplitude 0.237 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 52.4 14.9 Search (2048X64) 0.220 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 55.8 26.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 24.1 17.3 Inc. seg. avg. 0.273 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 28.5 30.1 Inc. frq. avg. 0.238 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 64.5 el 49.8 pa -85.5 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 2628.091 -2155.014 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/km..130DGB Output file: /Exps/c192b/v2/1234/No0106/km.W.195.130DGB

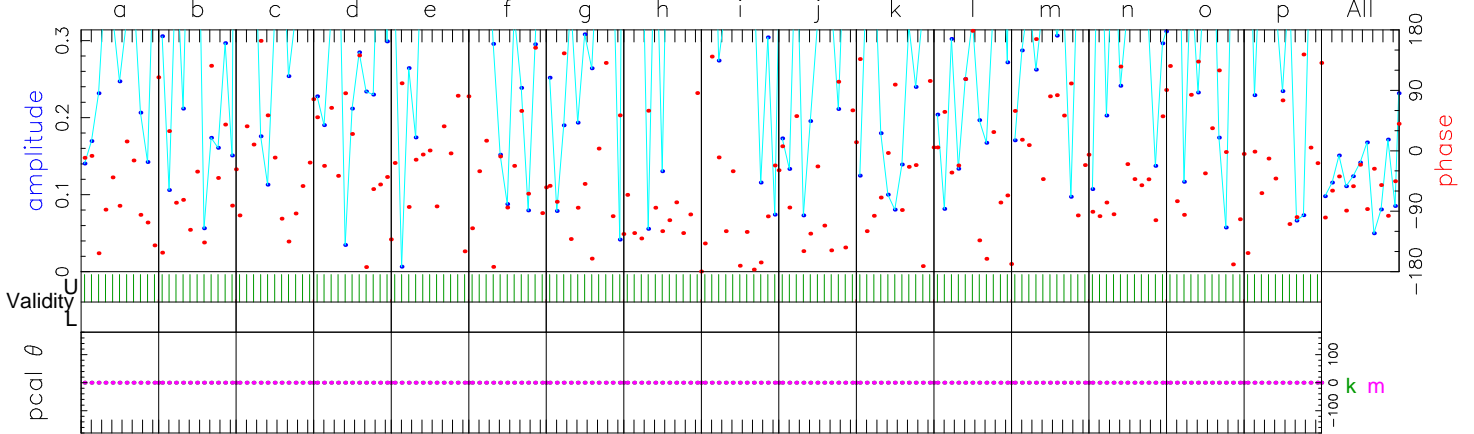


Fringe quality 0

SNR 5.8
Int time 419.070
Amp 0.105
Phase -62.5
PFD 7.9e-01
Delays (us)
SBD 0.039209
MBD 0.002202
Fringe rate (Hz)
0.140025
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092745
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-67.1	-71.3	-43.4	-20.0	-14.7	-57.5	-94.4	-102.9	-138.9	-98.8	-83.1	-59.9	22.2	-60.9	-38.0	-46.7		Phase	-62.5				
	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.3	0.2	0.0	0.1	0.1	0.1	0.2	0.0	0.1		Ampl.	0.1				
	208.8	45.2	255.1	220.4	184.7	193.9	109.1	134.3	13.4	24.3	200.3	32.9	240.4	1.5	40.5	203.9		Sbd box	134.0				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase					
k:m	0:0	0:0	0:0	0:0	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					
m	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					
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			1.24038929501E+04															Apriori delay (usec)	1.24038594978E+04	Resid mbdelay (usec)	2.20226E-03	+/-	1.9E-04
Sband delay (usec)			1.24038987063E+04															Apriori clock (usec)	-2.9830236E+00	Resid sbdelay (usec)	3.92085E-02	+/-	3.0E-03
Phase delay (usec)			1.24038594958E+04															Apriori clockrate (us/s)	-1.8588669E-07	Resid phdelay (usec)	-2.01542E-06	+/-	6.4E-07
Delay rate (us/s)			-3.64309037715E-01															Apriori rate (us/s)	-3.64310663263E-01	Resid rate (us/s)	1.62555E-06	+/-	2.6E-09
Total phase (deg)					-10.6													Apriori accel (us/s/s)	-5.22484345603E-05	Resid phase (deg)	-62.5	+/-	19.7

ph/seg (deg) 28.2 34.2
amp/seg (%) 38.9 59.6
ph/frq (deg) 40.4 39.4
amp/frq (%) 71.3 68.8

RMS Theor. Amplitude 0.105 +/- 0.018
Search (2048X64) 0.101
Interp. 0.000
Inc. seg. avg. 0.102
Inc. frq. avg. 0.109

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

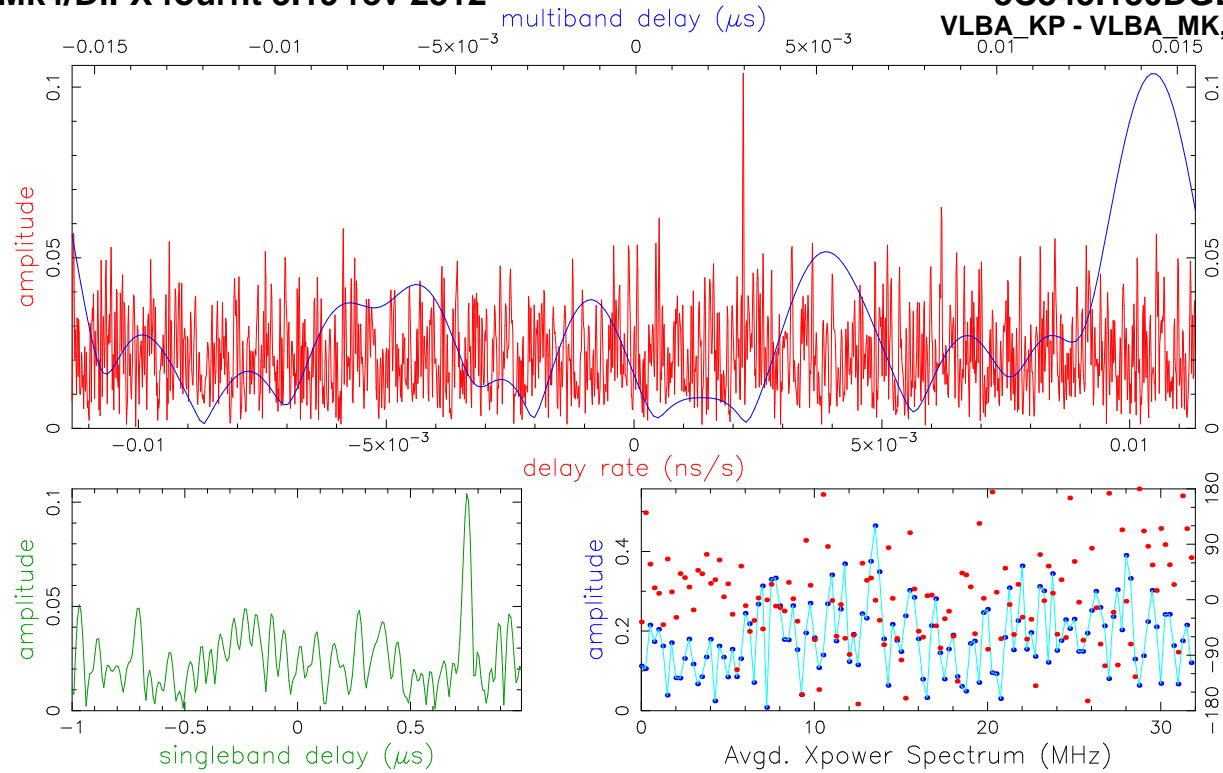
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

k: az 64.5 el 49.8 pa -85.5 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 2628.091 -2155.014 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/km..130DGB Output file: /Exps/c192b/v2/1234/No0106/km.W.214.130DGB

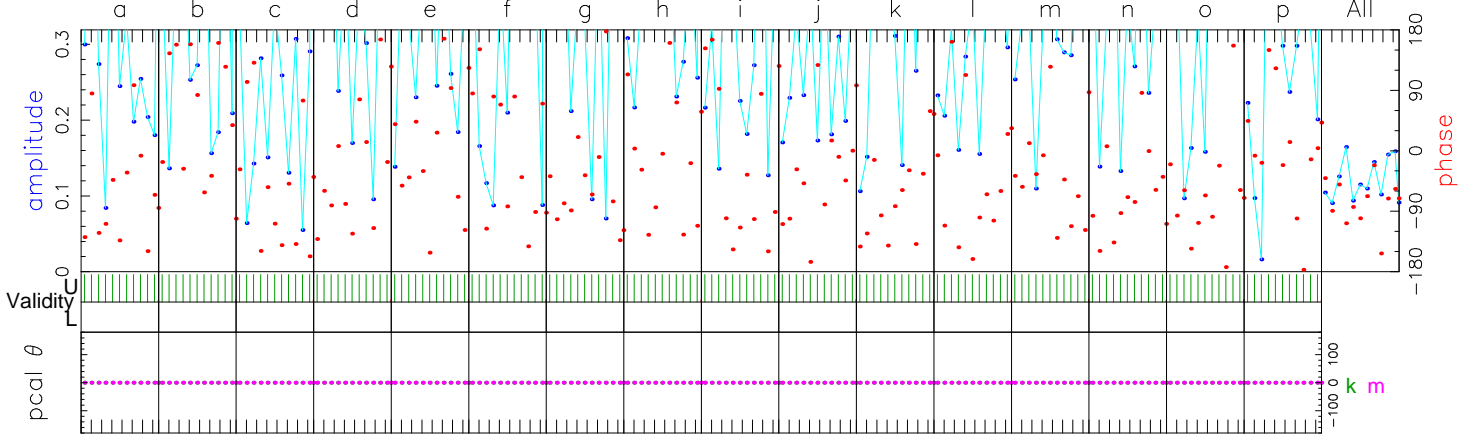
Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, km
VLBA_KP - VLBA_MK, fgroup W, pol RL



Fringe quality 0
SNR 5.9
Int time 419.071
Amp 0.106
Phase -73.6
PFD 6.8e-01
Delays (us)
SBD 0.752281
MBD 0.014344
Fringe rate (Hz) 0.189814
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092750
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-64.1	70.0	-118.6	-66.9	-74.2	72.5	-62.7	-56.0	-145.7	-50.5	-61.5	-99.4	-63.9	-66.7	-92.3	71.3	Phase	-73.6
	0.1	0.0	0.1	0.1	0.1	0.0	0.3	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.0	Ampl.	0.1
	244.6	198.3	115.1	97.9	40.0	244.5	225.1	166.7	50.8	138.1	1.4	148.1	187.2	136.5	224.6	29.3	Sbd box	225.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	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	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

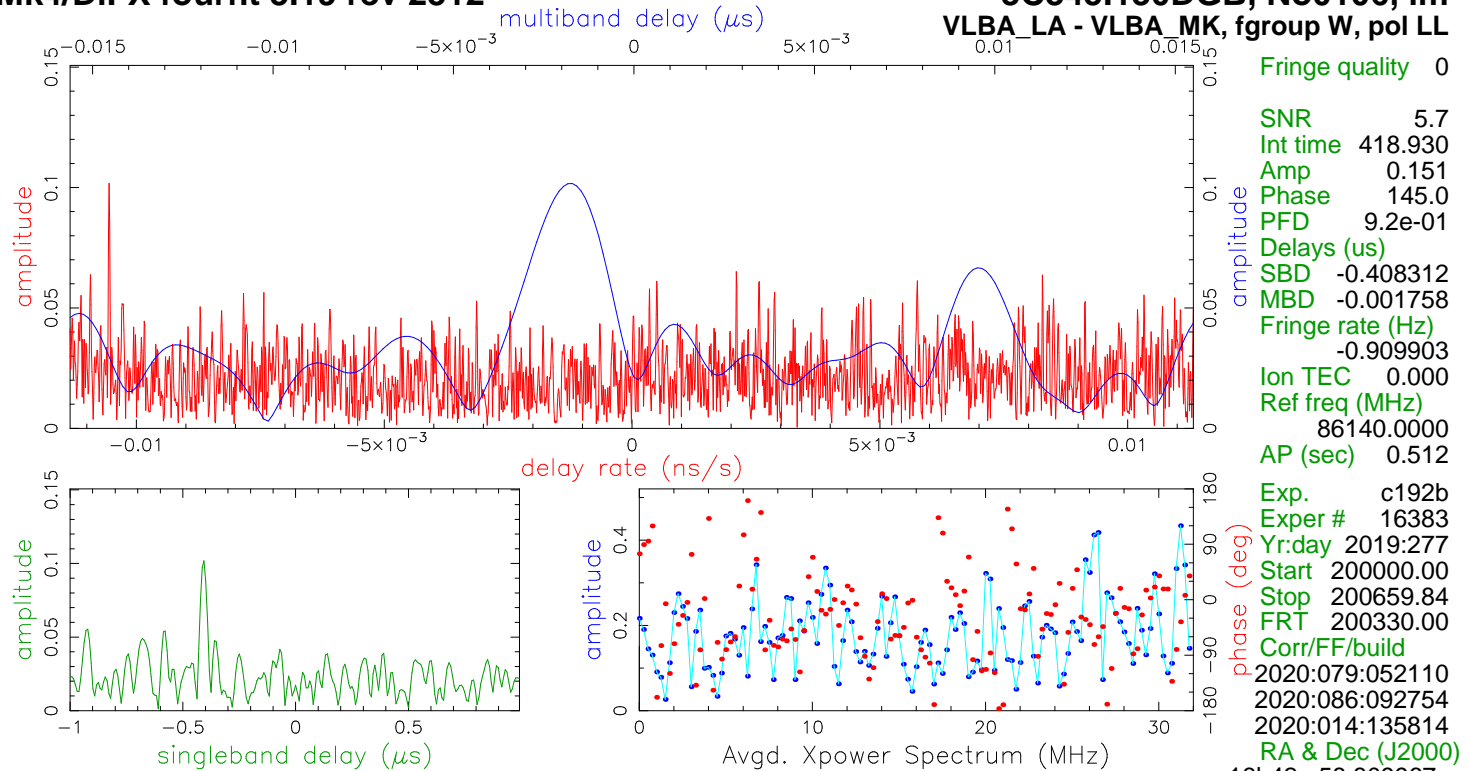
Group delay (usec)(sbd) 1.24046238416E+04 Apriori delay (usec) 1.24038594978E+04 Resid mbdelay (usec) 1.43438E-02 +/- 1.8E-04
 Sband delay (usec) 1.24046117788E+04 Apriori clock (usec) -2.9830236E+00 Resid sbdelay (usec) 7.52281E-01 +/- 2.9E-03
 Phase delay (usec) 1.24038594955E+04 Apriori clockrate (us/s) -1.8588669E-07 Resid phdelay (usec) -2.37212E-06 +/- 6.3E-07
 Delay rate (us/s) -3.64308459709E-01 Apriori rate (us/s) -3.64310663263E-01 Resid rate (us/s) 2.20355E-06 +/- 2.6E-09
 Total phase (deg) -21.6 Apriori accel (us/s/s) -5.22484345603E-05 Resid phase (deg) -73.6 +/- 19.5

RMS Theor. Amplitude 0.106 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 34.5 33.9 Search (2048X64) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 30.8 59.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 72.0 39.1 Inc. seg. avg. 0.107 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 67.0 68.2 Inc. frq. avg. 0.104 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

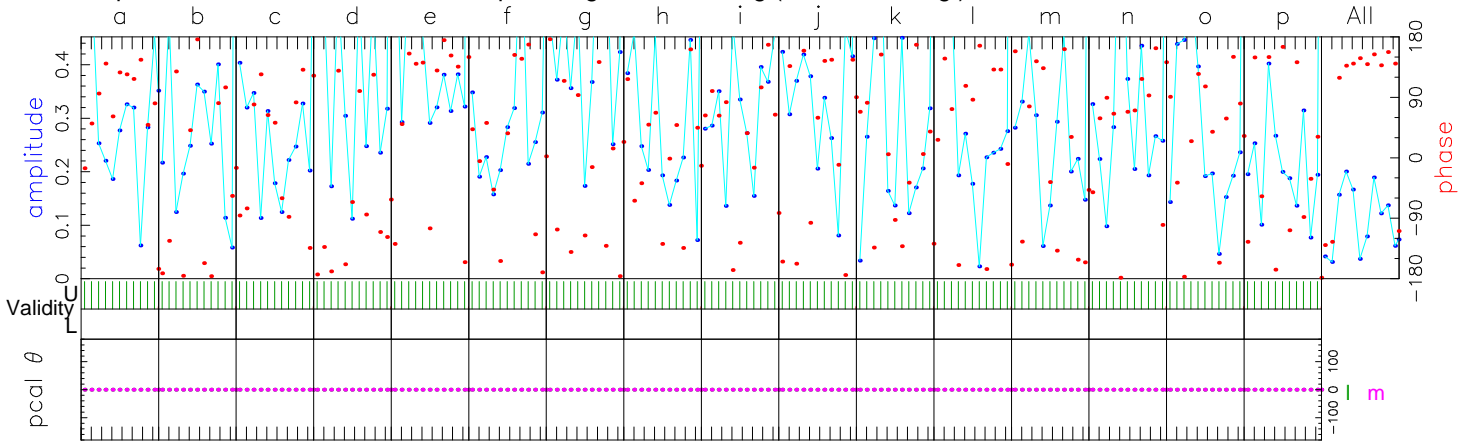
k: az 64.5 el 49.8 pa -85.5 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 2628.091 -2155.014 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/km..130DGB Output file: /Exps/c192b/v2/1234/No0106/km.W.232.130DGB

Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, Im
VLBA_LA - VLBA_MK, fgroup W, pol LL



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

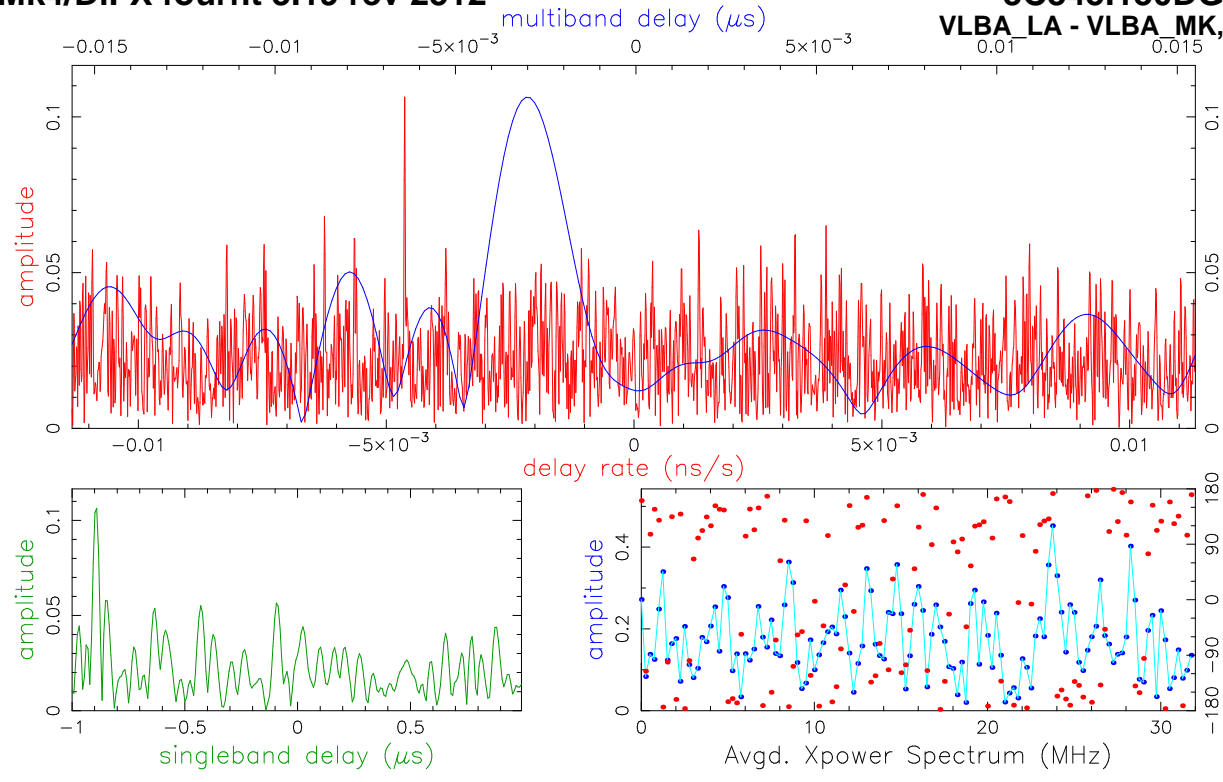


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	67.6	175.7	69.6	-174.5	164.3	136.8	175.8	60.1	100.7	168.1	-170.8	104.3	169.4	121.1	78.1	-166.0	Phase	145.0
	0.3	0.2	0.0	0.3	0.4	0.1	0.3	0.1	0.2	0.3	0.1	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	91.7	71.8	70.9	75.8	75.8	164.7	229.4	119.8	174.3	61.1	67.5	32.4	28.4	203.7	36.4	223.8	Sbd box	76.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	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	
m	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	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	1.36432856637E+04			Apriori delay (usec)			1.36436936714E+04			Resid mbdelay (usec)			-1.75771E-03			+/- 1.9E-04		
Sband delay (usec)	1.36432853594E+04			Apriori clock (usec)			-3.3357601E+00			Resid sbdelay (usec)			-4.08312E-01			+/- 3.0E-03		
Phase delay (usec)	1.36436936760E+04			Apriori clockrate (us/s)			-3.4277971E-07			Resid phdelay (usec)			4.67596E-06			+/- 6.4E-07		
Delay rate (us/s)	-4.60630007104E-01			Apriori rate (us/s)			-4.60619444032E-01			Resid rate (us/s)			-1.05631E-05			+/- 2.7E-09		
Total phase (deg)	91.4			Apriori accel (us/s/s)			-5.48505923305E-05			Resid phase (deg)			145.0			+/- 20.0		

	RMS	Theor.	Amplitude	0.151 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	39.6	34.6	Search (2048X64)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	59.5	60.4	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.016 0.016
ph/frq (deg)	51.4	40.0	Inc. seg. avg.	0.138	Sample rate(MSamp/s): 64	dr window (ns/s) -0.011 0.011
amp/frq (%)	77.3	69.8	Inc. frq. avg.	0.162	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

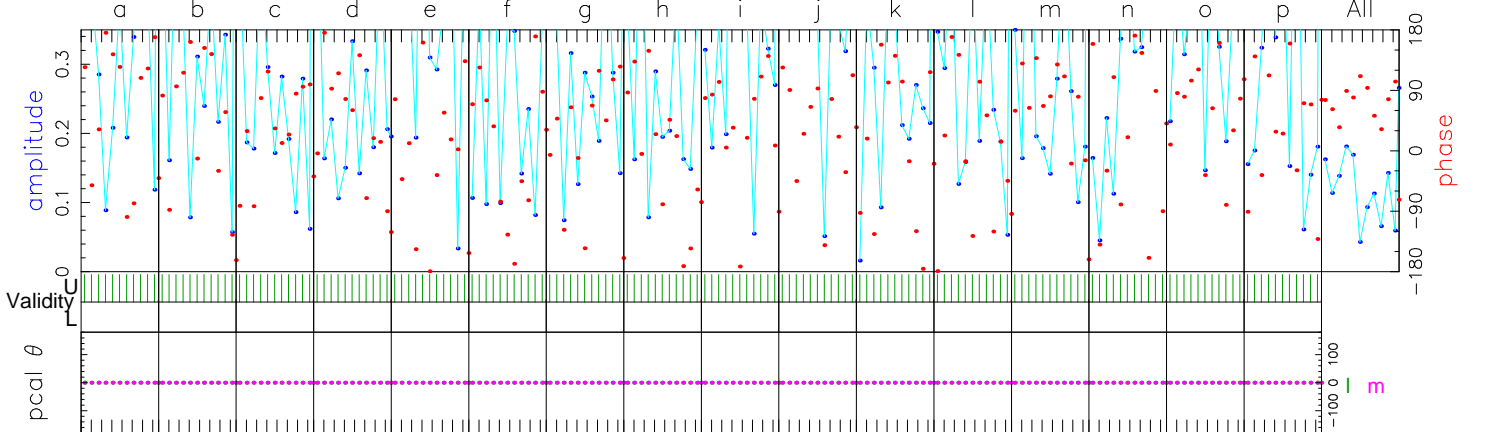
l: az 69.9 el 55.4 pa -82.9 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 3342.144 -1957.263 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/lm..130DGB Output file: /Exps/c192b/v2/1234/No0106/lm.W.242.130DGB



Fringe quality 0
SNR 6.1
Int time 418.929
Amp 0.117
Phase 71.6
PFD 2.6e-01
Delays (us)
SBD -0.893886
MBD -0.002979
Fringe rate (Hz)
-0.398764
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092800
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



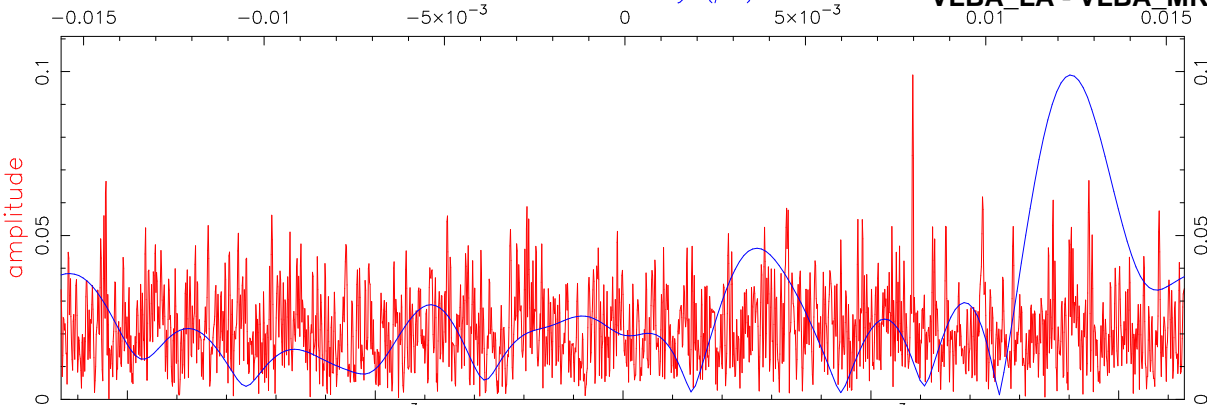
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	123.7	97.4	40.3	23.2	81.5	91.9	61.0	10.3	67.0	61.7	128.4	164.0	81.0	167.0	82.0	22.0		Phase 71.6
	0.1	0.2	0.1	0.1	0.1	0.0	0.2	0.1	0.2	0.2	0.1	0.0	0.2	0.0	0.3	0.1		Ampl. 0.1
	35.4	126.3	4.4	38.8	7.0	21.2	74.1	23.3	14.0	213.0	42.1	79.2	86.8	225.1	15.1	66.4		Sbd box 14.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
l:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	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
m	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
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks

Group delay (usec)(sbd) 1.36427844419E+04 Apriori delay (usec) 1.36436936714E+04 Resid mbdelay (usec) -2.97946E-03 +/- 1.8E-04
 Sband delay (usec) 1.36427997854E+04 Apriori clock (usec) -3.3357601E+00 Resid sbdelay (usec) -8.93886E-01 +/- 2.8E-03
 Phase delay (usec) 1.36436936737E+04 Apriori clockrate (us/s) -3.4277971E-07 Resid phdelay (usec) 2.30869E-06 +/- 6.1E-07
 Delay rate (us/s) -4.60624073289E-01 Apriori rate (us/s) -4.60619444032E-01 Resid rate (us/s) -4.62926E-06 +/- 2.5E-09
 Total phase (deg) 18.0 Apriori accel (us/s/s) -5.48505923305E-05 Resid phase (deg) 71.6 +/- 18.8

RMS Theor. Amplitude 0.117 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 27.7 32.6 Search (2048X64) 0.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 43.4 56.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 49.8 37.7 Inc. seg. avg. 0.109 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 59.7 65.7 Inc. frq. avg. 0.113 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

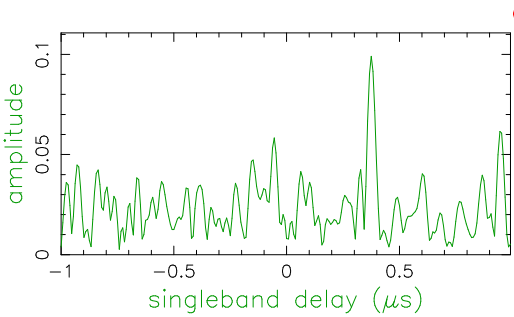
l: az 69.9 el 55.4 pa -82.9 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 3342.144 -1957.263 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/lm..130DGB Output file: /Exps/c192b/v2/1234/No0106/lm.W.255.130DGB

multiband delay (μ s)

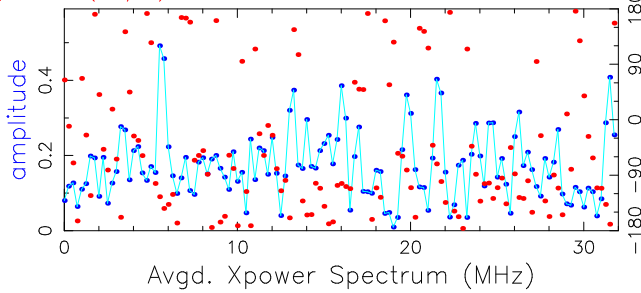


Fringe quality 0

SNR 5.5
Int time 418.929
Amp 0.111
Phase 167.4
PFD 1.0e+00
Delays (us)
SBD 0.375158
MBD 0.012349
Fringe rate (Hz) 0.504546
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

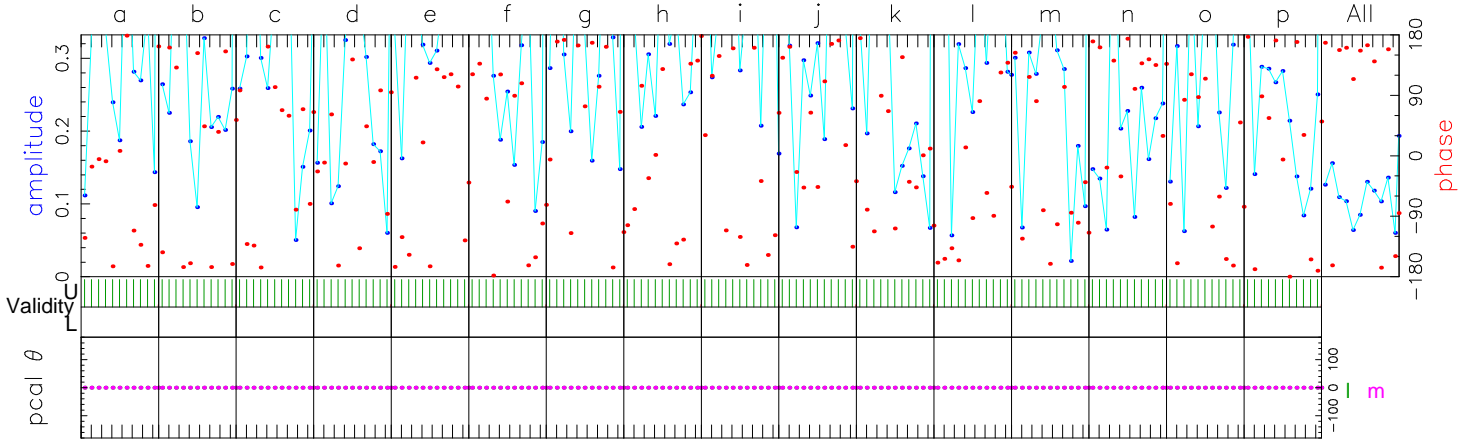


delay rate (ns/s)



Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092807
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
l:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	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		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks

Group delay (usec)(sbd)	1.36440810204E+04	Apriori delay (usec)	1.36436936714E+04	Resid mbdelay (usec)	1.23490E-02	+/-	1.9E-04
Sband delay (usec)	1.36440688289E+04	Apriori clock (usec)	-3.3357601E+00	Resid sbdelay (usec)	3.75158E-01	+/-	3.1E-03
Phase delay (usec)	1.36436936768E+04	Apriori clockrate (us/s)	-3.4277971E-07	Resid phdelay (usec)	5.39871E-06	+/-	6.7E-07
Delay rate (us/s)	-4.60613586755E-01	Apriori rate (us/s)	-4.60619444032E-01	Resid rate (us/s)	5.85728E-06	+/-	2.8E-09
Total phase (deg)	113.8	Apriori accel (us/s/s)	-5.48505923305E-05	Resid phase (deg)	167.4	+/-	20.7

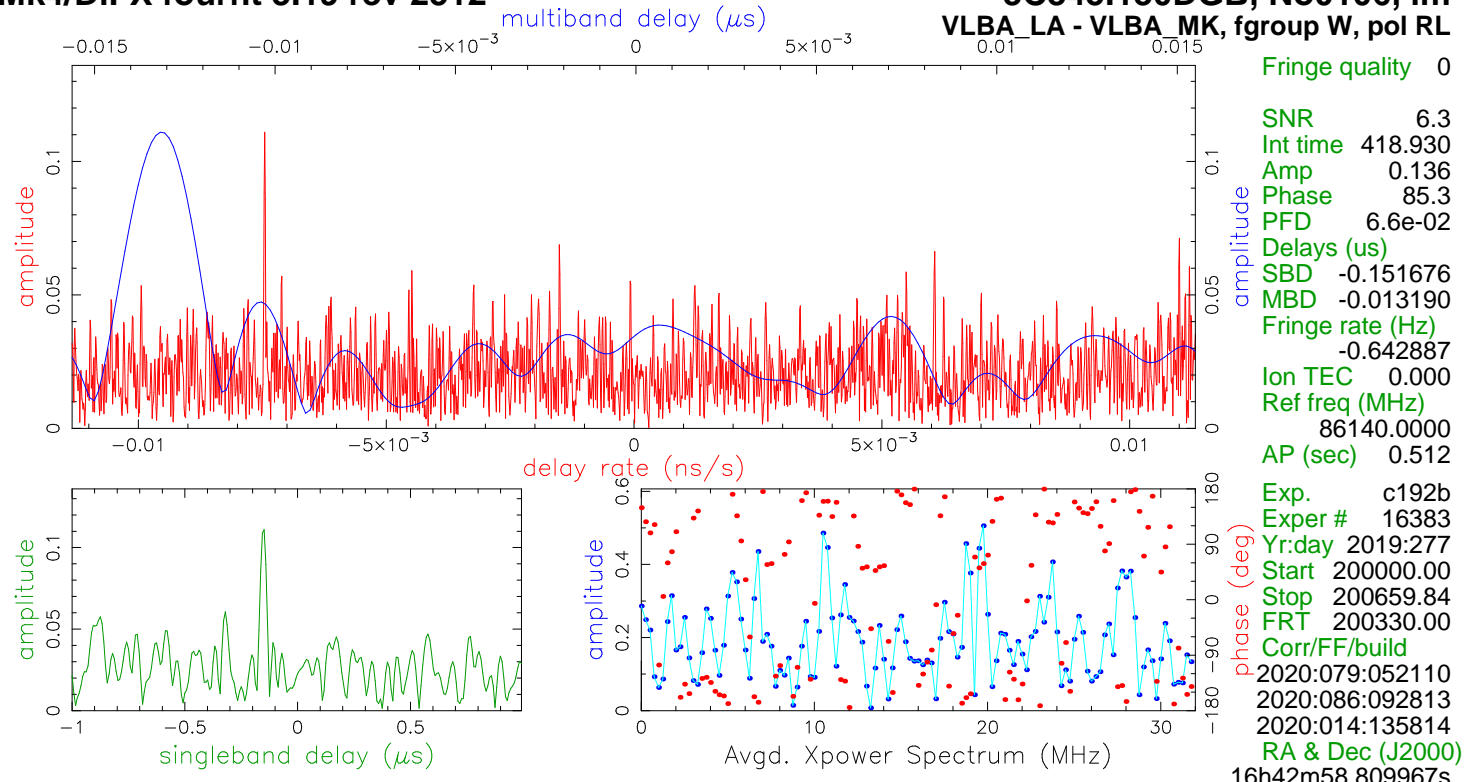
ph/seg (deg)	RMS 27.3	Theor. 35.8	Amplitude Search (2048X64)	0.111 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	31.2	62.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	56.7	41.4	Inc. seg. avg.	0.102	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	57.8	72.2	Inc. frq. avg.	0.108	Sample rate(MISamp/s): 64	mb window (us) -0.016 0.016
					Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00

l: az 69.9 el 55.4 pa -82.9 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 3342.144 -1957.263 simultaneous interpolator

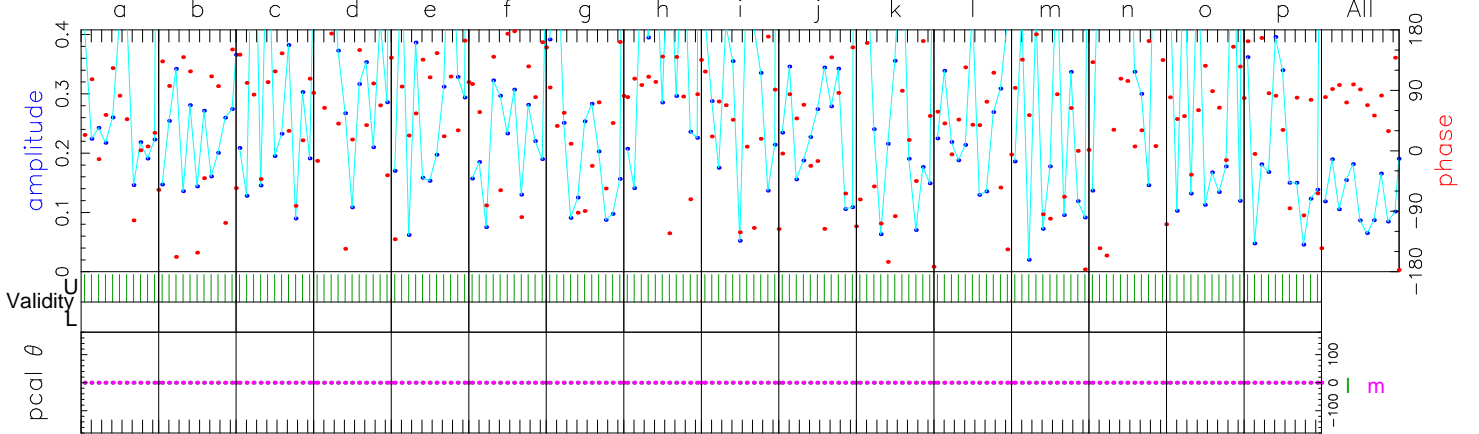
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/lm..130DGB Output file: /Exps/c192b/v2/1234/No0106/lm.W.278.130DGB

Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, Im
VLBA_LA - VLBA_MK, fgroup W, pol RL



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

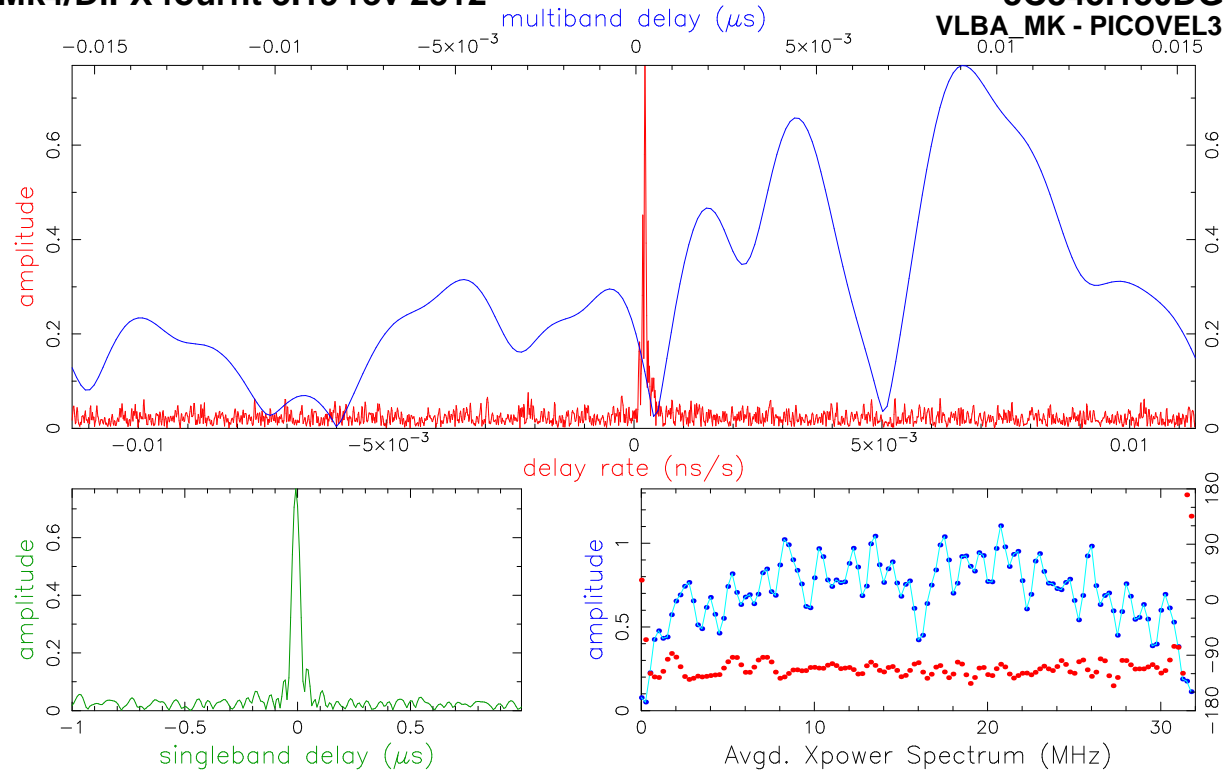


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	41.7	151.4	85.6	69.6	94.9	145.6	39.1	113.3	50.0	47.4	-155.7	46.9	113.7	100.4	78.9	93.9	Phase	85.3				
	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.1	0.0	0.1	0.1	0.2	0.2	0.1	Ampl.	0.1				
	255.1	87.0	49.3	162.8	12.3	28.4	127.2	108.5	151.7	3.1	95.3	65.6	228.6	48.2	19.2	47.1	Sbd box	109.6				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used					
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
l:m	0:0	0:0	0:0	0:0	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:m	0:0	0:0	0:0	0:0	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					
m	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					
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			1.36435554812E+04														Apriori delay (usec)	1.36436936714E+04	Resid mbdelay (usec)	-1.31901E-02	+/-	1.7E-04
Sband delay (usec)			1.36435419954E+04														Apriori clock (usec)	-3.3357601E+00	Resid sbdelay (usec)	-1.51676E-01	+/-	2.7E-03
Phase delay (usec)			1.36436936741E+04														Apriori clockrate (us/s)	-3.4277971E-07	Resid phdelay (usec)	2.75030E-06	+/-	5.8E-07
Delay rate (us/s)			-4.60626907318E-01														Apriori rate (us/s)	-4.60619444032E-01	Resid rate (us/s)	-7.46329E-06	+/-	2.4E-09
Total phase (deg)				31.7													Apriori accel (us/s/s)	-5.48505923305E-05	Resid phase (deg)	85.3	+/-	18.1

	RMS	Theor.	Amplitude	0.136 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	28.1	31.4	Search (2048X64)	0.110	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	37.8	54.8	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.016 0.016
ph/frq (deg)	48.3	36.2	Inc. seg. avg.	0.128	Sample rate(MISamp/s): 64	dr window (ns/s) -0.011 0.011
amp/frq (%)	52.4	63.2	Inc. frq. avg.	0.135	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
					nlags: 128	t_cohere infinite

l: az 69.9 el 55.4 pa -82.9 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 3342.144 -1957.263 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/lm..130DGB Output file: /Exps/c192b/v2/1234/No0106/lm.W.299.130DGB

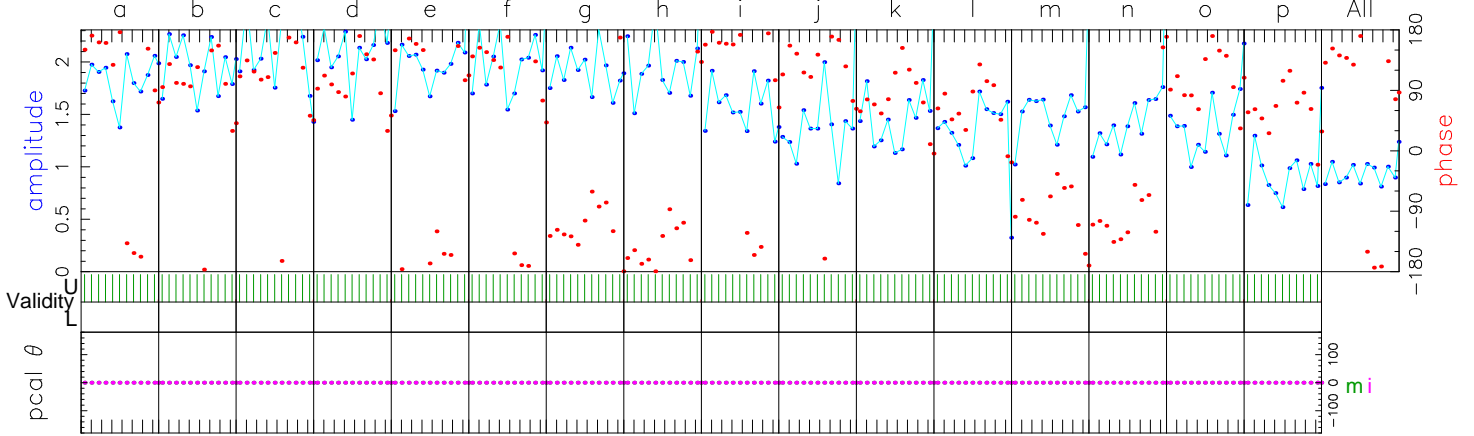


Fringe quality 2

SNR 43.1
Int time 419.218
Amp 0.769
Phase 150.8
PFD 0.0e+00
Delays (us)
SBD -0.007662
MBD 0.009072
Fringe rate (Hz) 0.019257
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

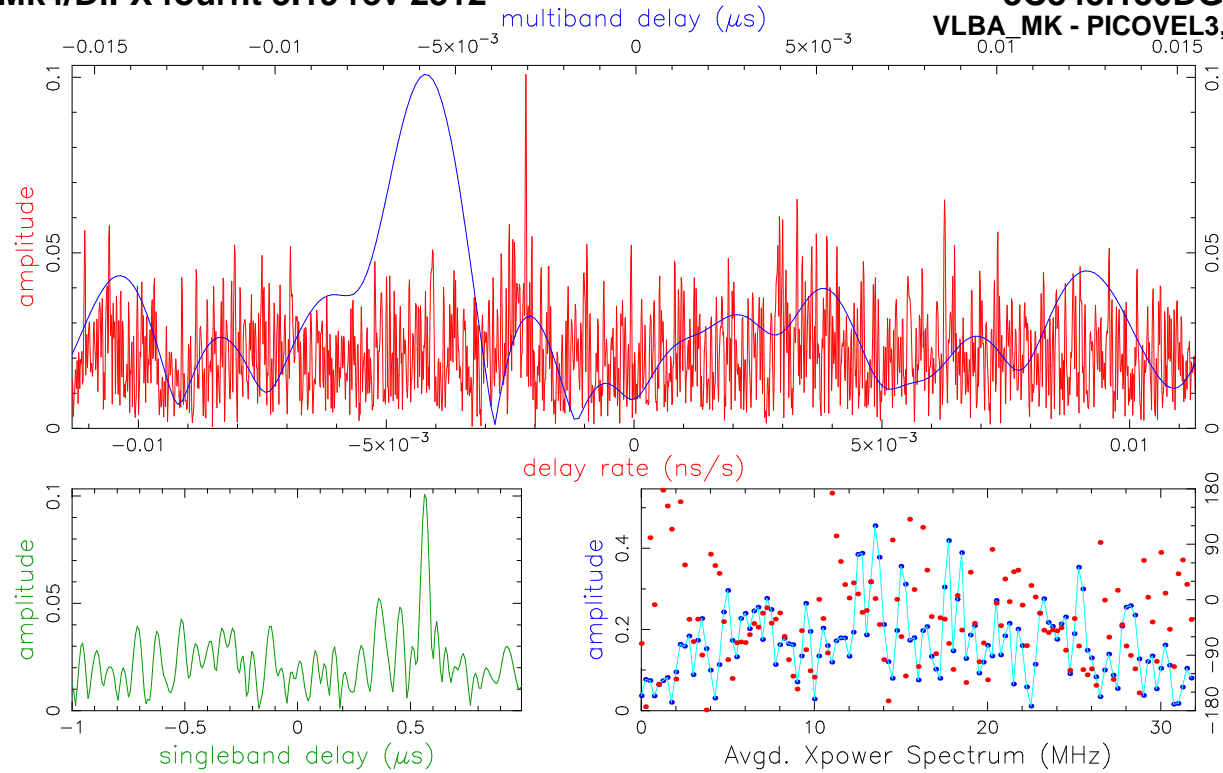
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092759
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0			
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
m:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
m:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
i	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
																			Tracks
Group delay (usec)(sbd)	-1.07593319503E+04			Apriori delay (usec)			-1.07593097726E+04			Resid mbdelay (usec)			9.07238E-03			+/- 2.5E-05			
Sband delay (usec)	-1.07593174346E+04			Apriori clock (usec)			3.1026144E+00			Resid sbdelay (usec)			-7.66200E-03			+/- 4.0E-04			
Phase delay (usec)	-1.07593097678E+04			Apriori clockrate (us/s)			3.4430770E-07			Resid phdelay (usec)			4.86324E-06			+/- 8.6E-08			
Delay rate (us/s)	1.94557757659E+00			Apriori rate (us/s)			1.94557735303E+00			Resid rate (us/s)			2.23556E-07			+/- 3.5E-10			
Total phase (deg)	-142.9			Apriori accel (us/s/s)			3.81966868402E-05			Resid phase (deg)			150.8			+/- 2.7			

ph/seg (deg) 35.2 4.6 Search (2048X64) 0.750 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 24.1 8.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 67.0 5.3 Inc. seg. avg. 0.929 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 86.8 9.3 Inc. frq. avg. 1.363 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 51.2 el 10.2 pa -72.6 i: az 292.4 el 44.6 pa 74.1 u,v (fr/asec) -14435.767 878.891 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mi..130DGB Output file: /Exps/c192b/v2/1234/No0106/mi.W.252.130DGB

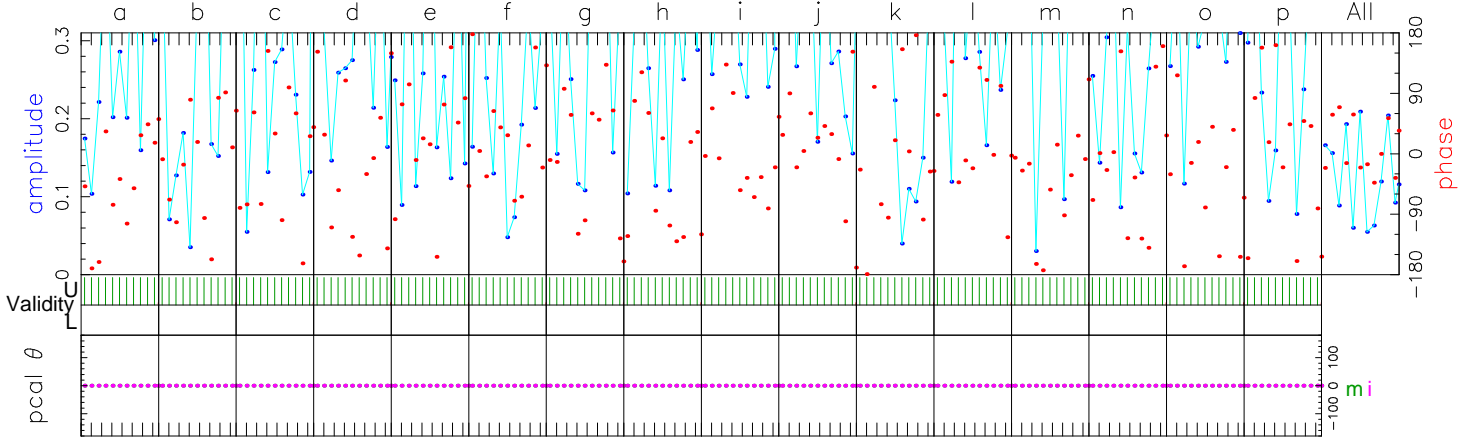


Fringe quality 0

SNR 5.7
Int time 419.218
Amp 0.103
Phase 7.4
PFD 9.5e-01
Delays (us)
SBD 0.565408
MBD -0.005800
Fringe rate (Hz)
-0.187934
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092810
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-12.3	-0.7	-42.1	-105.9	54.0	5.1	71.9	48.0	-13.7	33.6	-59.1	22.7	-16.6	-94.5	-4.1	45.8		Phase	7.4				
	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.3	0.0	0.1	0.1		Ampl.	0.1				
	160.1	68.6	156.4	27.2	249.7	28.2	217.2	134.0	215.6	199.3	55.1	151.7	201.5	70.7	176.0	67.1		Sbd box	201.4				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase					
m:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000							
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
i	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-1.07587530726E+04															Apriori delay (usec)	-1.07593097726E+04	Resid mbdelay (usec)	-5.79996E-03	+/-	1.9E-04
Sband delay (usec)			-1.07587443646E+04															Apriori clock (usec)	3.1026144E+00	Resid sbdelay (usec)	5.65408E-01	+/-	3.0E-03
Phase delay (usec)			-1.07593097724E+04															Apriori clockrate (us/s)	3.4430770E-07	Resid phdelay (usec)	2.38755E-07	+/-	6.5E-07
Delay rate (us/s)			1.94557517130E+00															Apriori rate (us/s)	1.94557735303E+00	Resid rate (us/s)	-2.18173E-06	+/-	2.7E-09
Total phase (deg)					-286.4													Apriori accel (us/s/s)	3.81966868402E-05	Resid phase (deg)	7.4	+/-	20.1

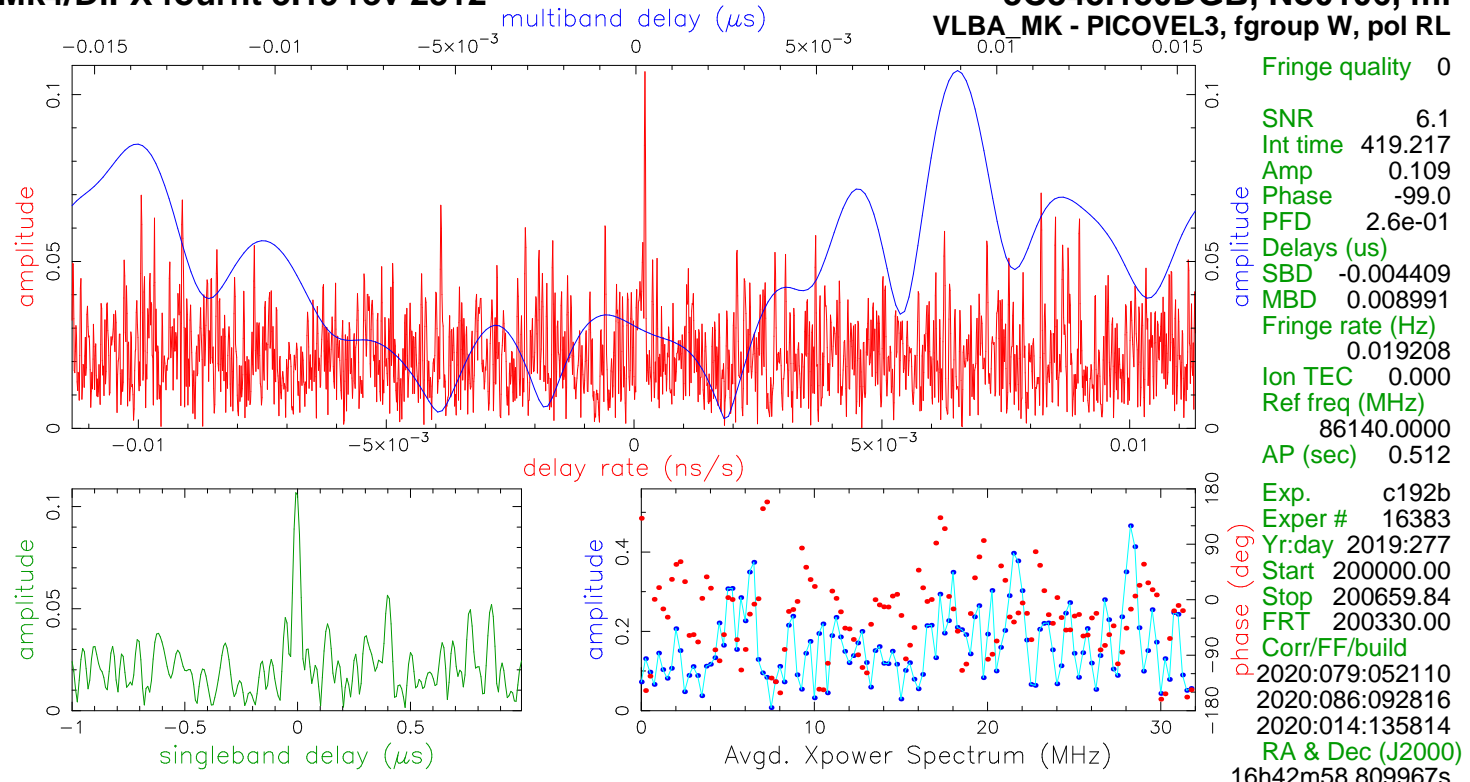
ph/seg (deg) RMS Theor. Amplitude 0.103 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 40.5 34.8 Search (2048X64) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 61.5 60.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 54.8 40.2 Inc. seg. avg. 0.110 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 69.7 70.2 Inc. frq. avg. 0.102 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

m: az 51.2 el 10.2 pa -72.6 i: az 292.4 el 44.6 pa 74.1 u,v (fr/asec) -14435.767 878.891 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mi..130DGB Output file: /Exps/c192b/v2/1234/No0106/mi.W.289.130DGB

Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, mi
VLBA_MK - PICOVEL3, fgroup W, pol RL



Fringe quality 0

SNR 6.1

Int time 419.217

Amp 0.109

Phase -99.0

PFD 2.6e-01

Delays (us)

SBD -0.004409

MBD 0.008991

Fringe rate (Hz)

0.019208

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192b

Exper # 16383

Yr:day 2019:277

Start 200000.00

Stop 200659.84

FRT 200330.00

Corr/FF/build

2020:079:052110

2020:086:092816

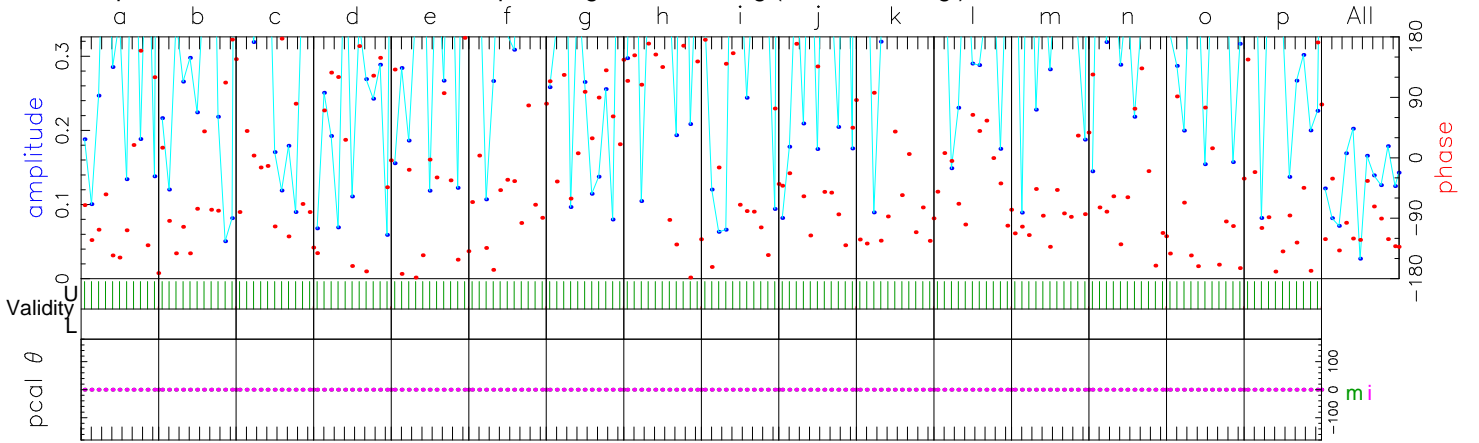
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

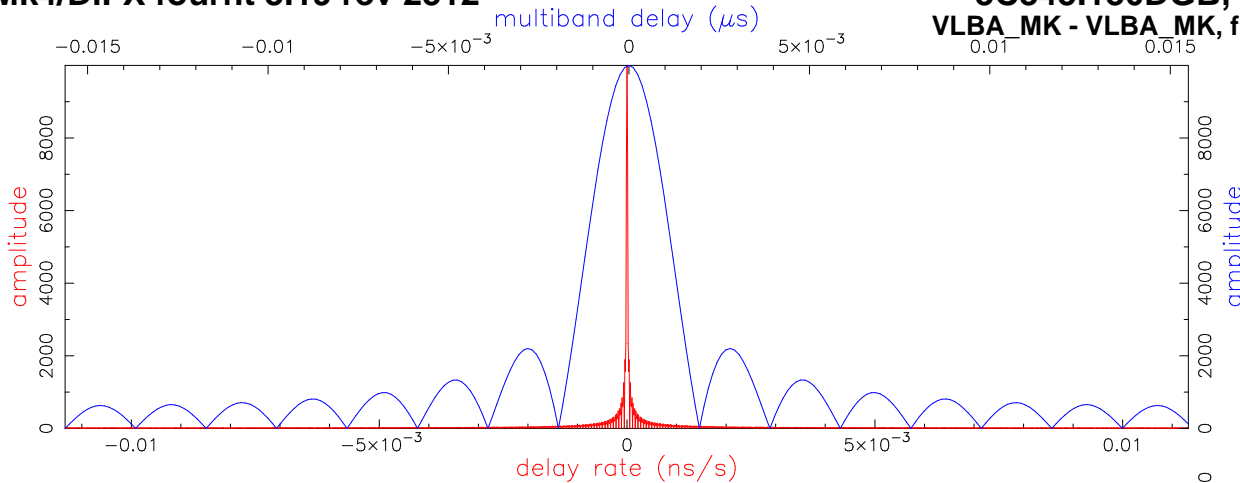
Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-104.3	-88.9	-41.6	125.1	-142.9	-57.3	65.1	159.7	-130.0	-93.4	-82.7	-23.5	-86.5	-93.0	-138.6	-126.9	Phase	-99.0
	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.4	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.1	Ampl.	0.2
	186.2	55.3	239.0	177.9	200.0	128.0	11.5	128.5	90.2	68.8	128.7	46.0	127.2	108.2	255.6	213.3	Sbd box	128.4
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
m:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
i	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-1.07593007821E+04			Apriori delay (usec)			-1.07593097726E+04			Resid mbdelay (usec)			8.99060E-03			+/- 1.8E-04		
Sband delay (usec)	-1.07593141816E+04			Apriori clock (usec)			3.1026144E+00			Resid sbdelay (usec)			-4.40900E-03			+/- 2.8E-03		
Phase delay (usec)	-1.07593097758E+04			Apriori clockrate (us/s)			3.4430770E-07			Resid phdelay (usec)			-3.19395E-06			+/- 6.1E-07		
Delay rate (us/s)	1.94557757602E+00			Apriori rate (us/s)			1.94557735303E+00			Resid rate (us/s)			2.22988E-07			+/- 2.5E-09		
Total phase (deg)	-32.8			Apriori accel (us/s/s)			3.81966868402E-05			Resid phase (deg)			-99.0			+/- 18.8		
ph/seg (deg)	RMS	Theor.	Amplitude		0.109 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5									
amp/seg (%)	35.8	32.6	Search (2048X64)		0.106		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000		1.000					
ph/frq (deg)	48.8	56.9	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)		-0.016		0.016			
amp/frq (%)	71.8	37.7	Inc. seg. avg.		0.110		Sample rate(MISamp/s): 64		dr window (ns/s)		-0.011		0.011					
	99.4	65.7	Inc. frq. avg.		0.157		Data rate(Mb/s): 2048		nlags: 128		t_cohere infinite		ion window (TEC)		0.00		0.00	
m: az 51.2 el 10.2 pa -72.6	i: az 292.4 el 44.6 pa 74.1			u,v (fr/asec) -14435.767 878.891												simultaneous interpolator		
Control file: cf_1234_gmva			Input file: /Exps/c192b/v2/1234/No0106/mi..130DGB			Output file: /Exps/c192b/v2/1234/No0106/mi.W.308.130DGB												

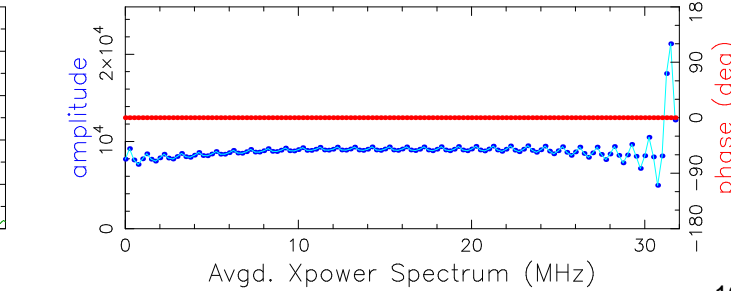
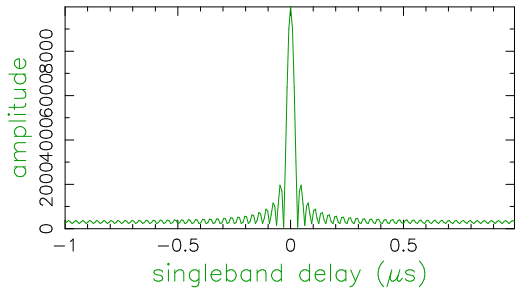
Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, mm
VLBA_MK - VLBA_MK, fgroup W, pol LL



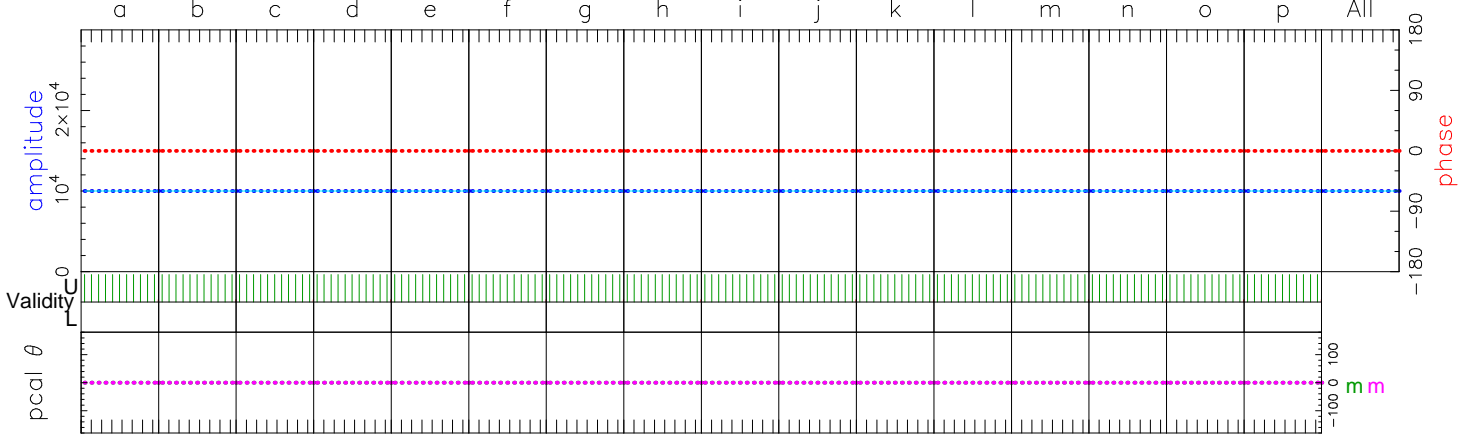
Fringe quality 9

SNR 559913.6
Int time 419.226
Amp 9999.987
Phase -0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092800
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	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		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		

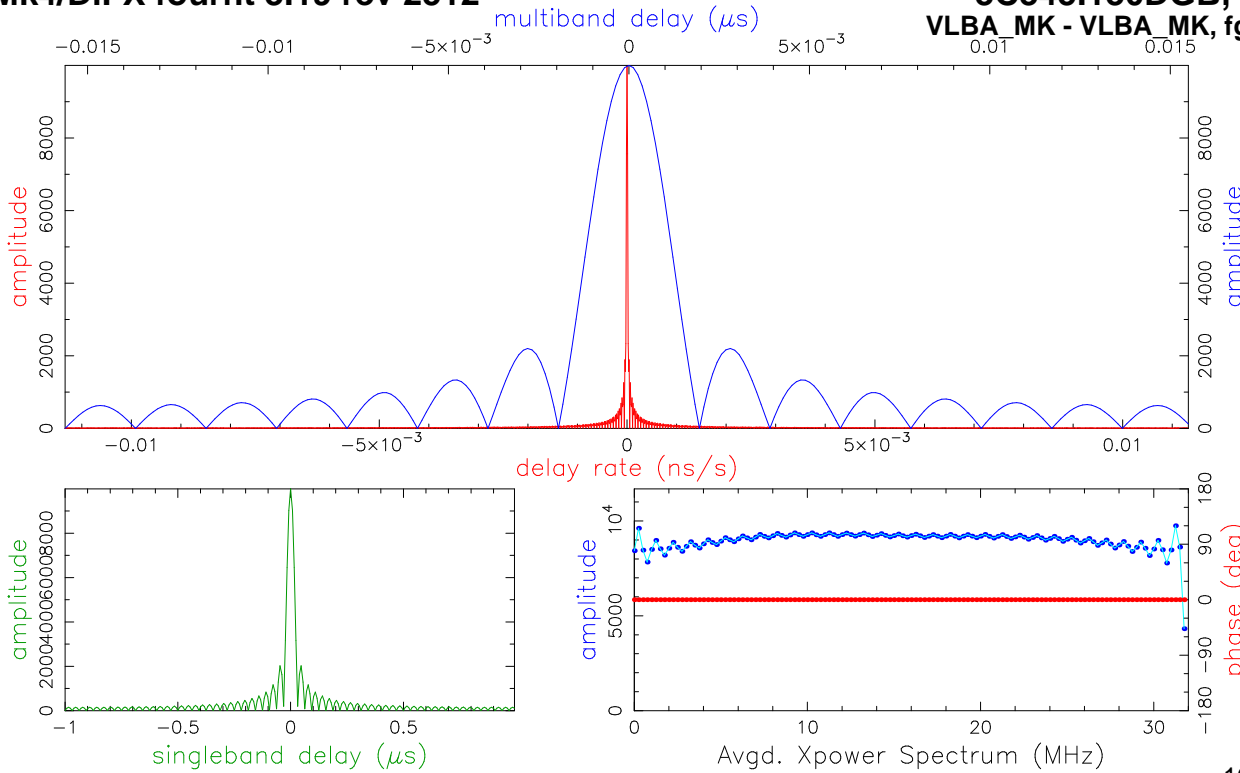
Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.000000E+00 +/- 1.9E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.000000E+00 +/- 3.1E-08
 Phase delay (usec) -1.70376103523E-19 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -1.70376E-19 +/- 6.6E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.000000E+00 +/- 2.7E-14
 Total phase (deg) -0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) -0.0 +/- 0.0

RMS Theor. Amplitude 9999.987 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X64) 9999.987 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.987 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 m: az 51.2 el 10.2 pa -72.6 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mm..130DGB Output file: /Exps/c192b/v2/1234/No0106/mm.W.254.130DGB

Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, mm
VLBA_MK - VLBA_MK, fgroup W, pol RR

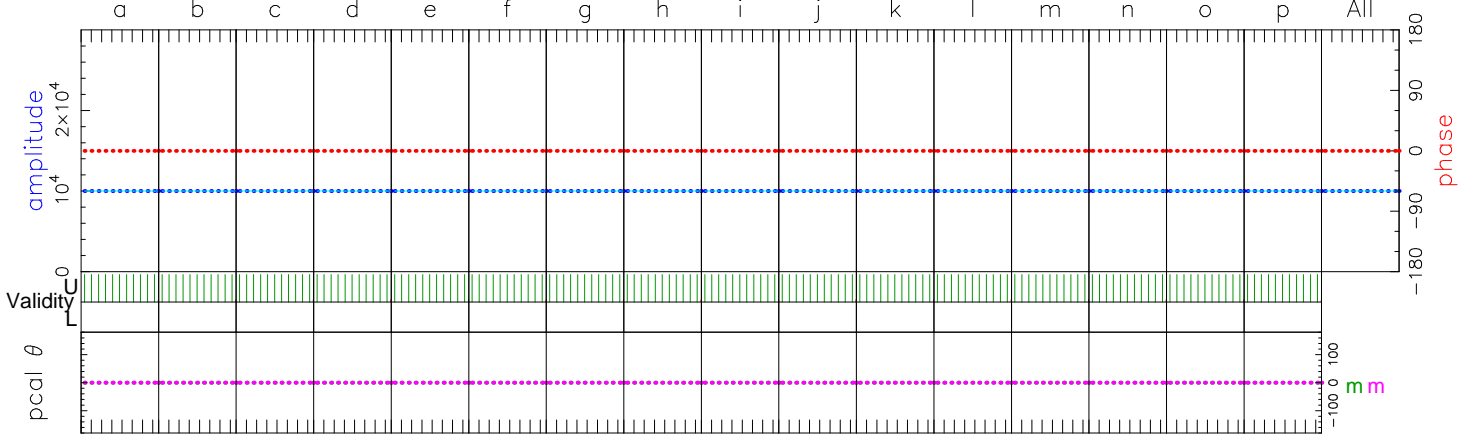


Fringe quality 9

SNR 559914.1
Int time 419.226
Amp 9999.997
Phase -0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

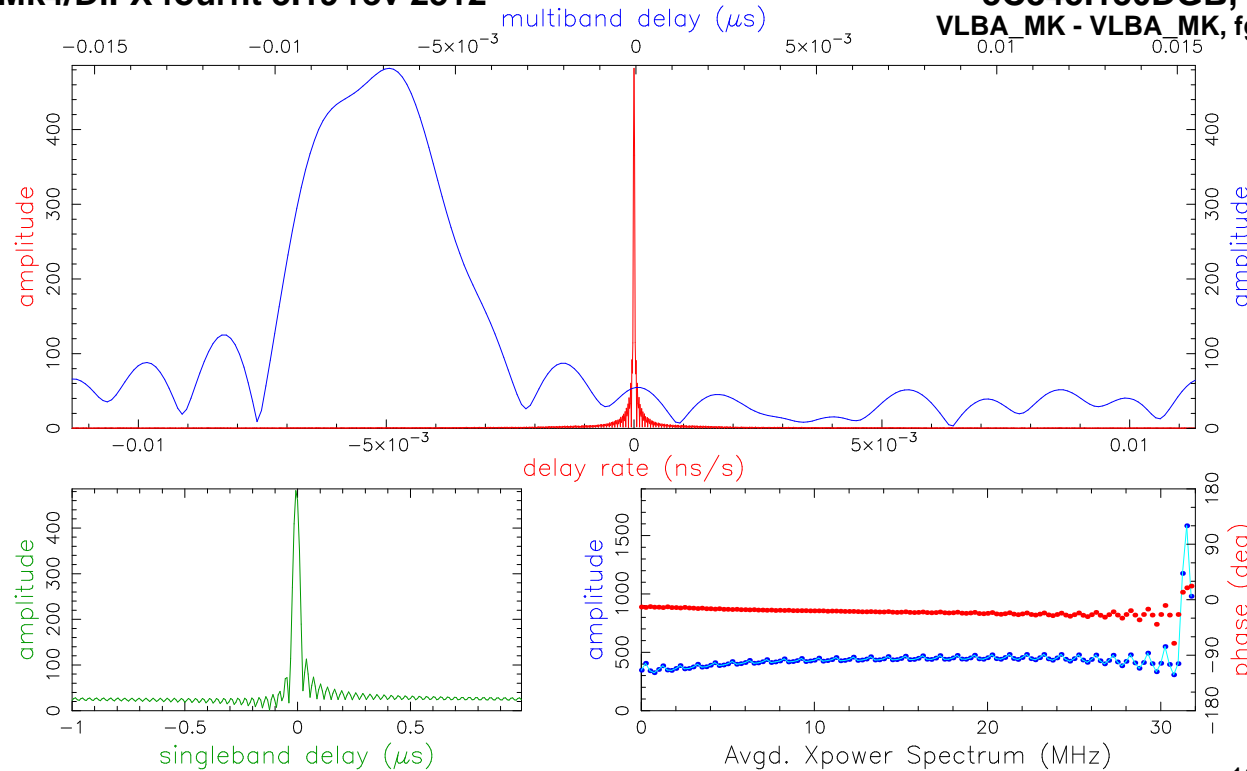
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092805
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	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		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)	0.0000000000E+00			Apriori delay (usec)			0.0000000000E+00			Resid mbdelay (usec)			0.00000E+00			+/- 1.9E-09		
Sband delay (usec)	0.0000000000E+00			Apriori clock (usec)			0.0000000E+00			Resid sbdelay (usec)			0.00000E+00			+/- 3.1E-08		
Phase delay (usec)	-4.41567528426E-20			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			-4.41568E-20			+/- 6.6E-12		
Delay rate (us/s)	0.0000000000E+00			Apriori rate (us/s)			0.0000000000E+00			Resid rate (us/s)			0.00000E+00			+/- 2.7E-14		
Total phase (deg)	-0.0			Apriori accel (us/s/s)			0.0000000000E+00			Resid phase (deg)			-0.0			+/- 0.0		

ph/seg (deg) 0.0 0.0 Theor. Amplitude 9999.997 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X64) 9999.997 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
 m: az 51.2 el 10.2 pa -72.6 m: az 51.2 el 10.2 pa -72.6 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/c192b/v2/1234/No0106/mm..130DGB Output file: /Exps/c192b/v2/1234/No0106/mm.W.273.130DGB simultaneous interpolator

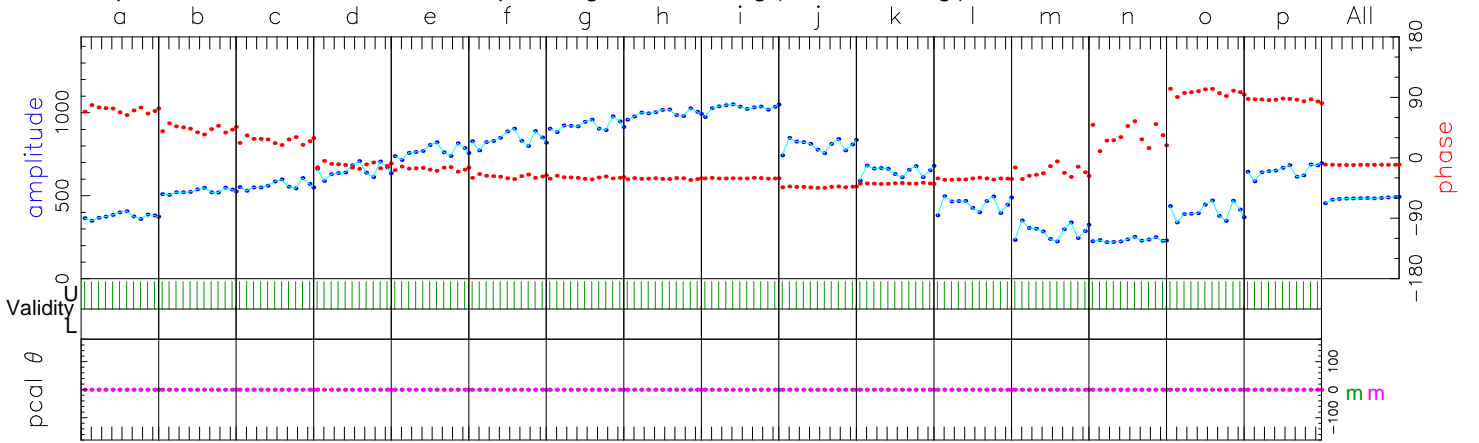


Fringe quality 5

SNR 27204.7
Int time 419.226
Amp 485.872
Phase -10.5
PFD 0.0e+00
Delays (us)
SBD -0.005634
MBD -0.006846
Fringe rate (Hz) 0.000007
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092811
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

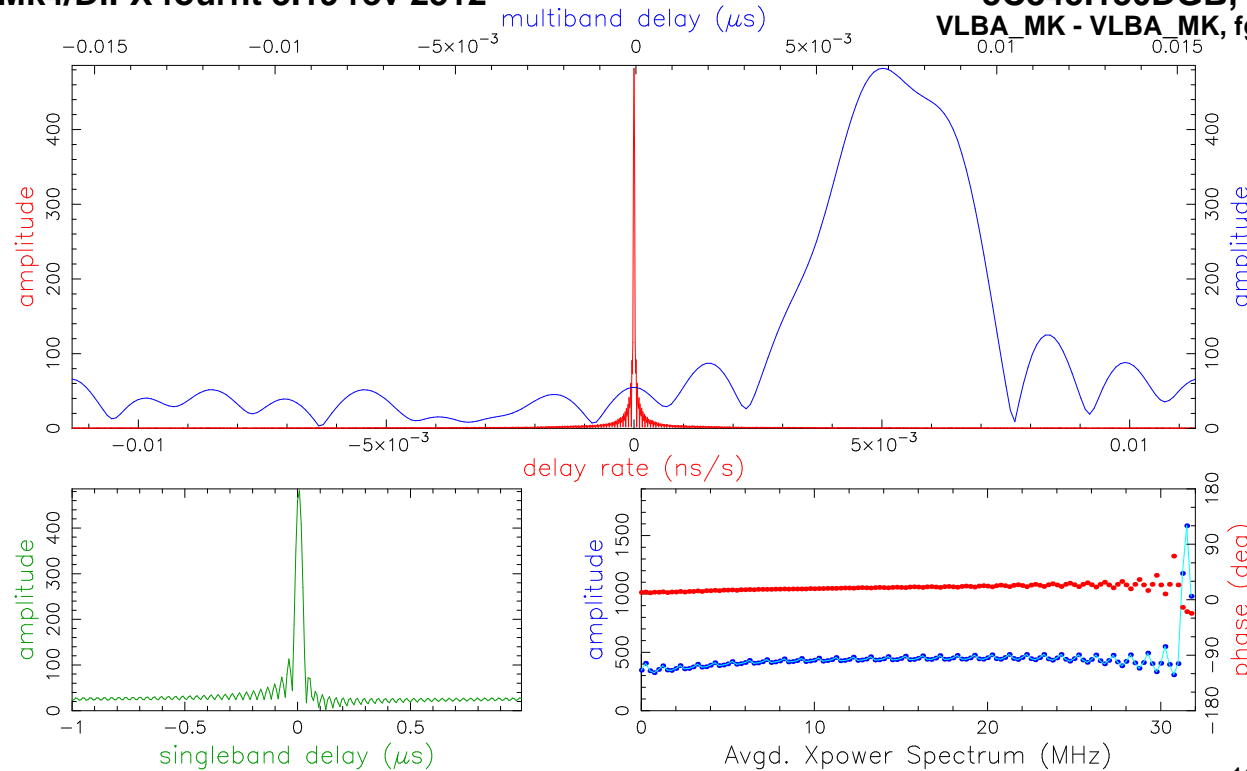
Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	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
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks

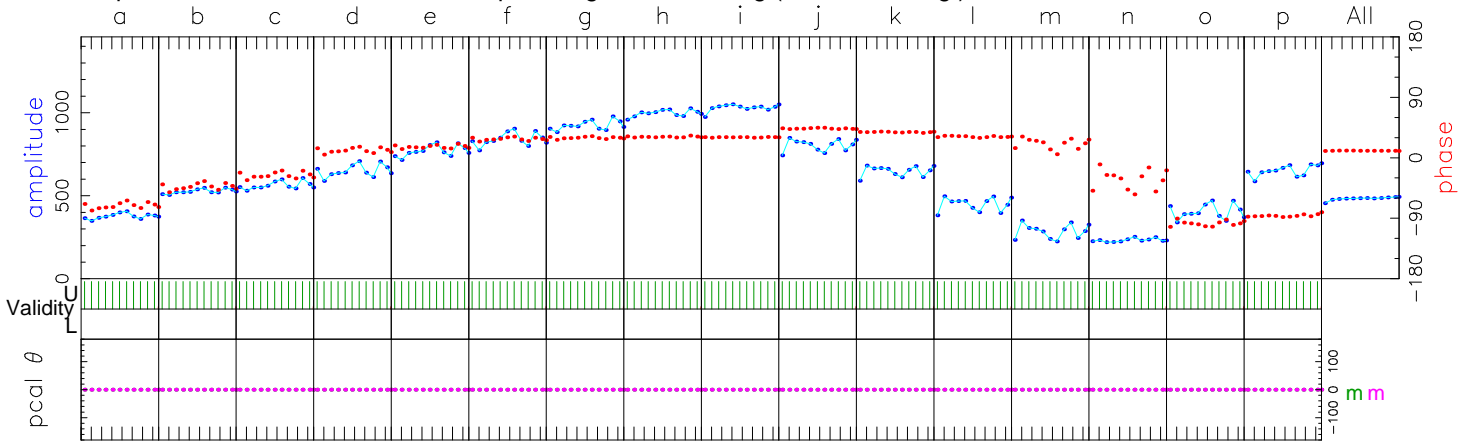
Group delay (usec)(sbd) -6.84621875000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -6.84622E-03 +/- 4.0E-08
 Sband delay (usec) -5.63400000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -5.63400E-03 +/- 6.3E-07
 Phase delay (usec) -3.38554965758E-07 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -3.38555E-07 +/- 1.4E-10
 Delay rate (us/s) 7.93584533934E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 7.93585E-11 +/- 5.6E-13
 Total phase (deg) -10.5 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -10.5 +/- 0.0

ph/seg (deg) 0.1 0.0 Search (2048X64) 485.872 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 2.1 0.0 Interp. 482.019 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 52.0 0.0 Inc. seg. avg. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 58.1 0.0 Inc. frq. avg. 482.025 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 m: az 51.2 el 10.2 pa -72.6 m: az 51.2 el 10.2 pa -72.6 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/c192b/v2/1234/No0106/mm...130DGB Output file: /Exps/c192b/v2/1234/No0106/mm.W.292.130DGB simultaneous interpolator



Fringe quality 5
SNR 27204.7
Int time 419.226
Amp 485.873
Phase 10.5
PFD 0.0e+00
Delays (us)
SBD 0.005634
MBD 0.006846
Fringe rate (Hz)
-0.000007
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092818
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

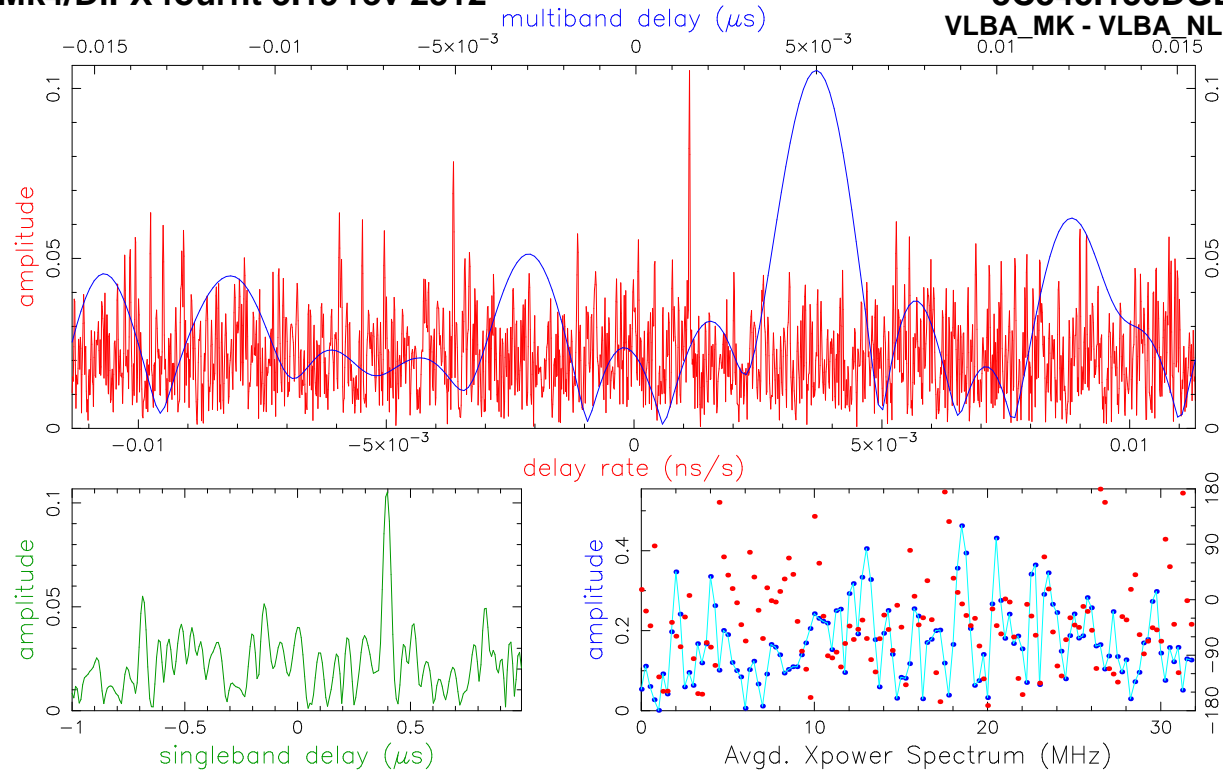
Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-70.9	-42.5	-25.5	11.4	16.6	28.1	29.7	31.1	30.5	43.5	38.2	31.5	21.5	-33.7	-98.2	-86.4	Phase	10.5
	376.3	524.8	562.2	651.4	770.2	841.9	925.0	997.7	1029.4	802.8	646.4	447.1	281.1	225.6	406.5	648.8	Ampl.	633.6
	130.3	130.1	130.1	130.1	129.9	130.1	129.8	129.9	129.8	130.0	129.8	129.9	129.5	128.7	129.6	130.9	Sbd box	129.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:m	0:0	0:0	0:0	0:0	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	
m:m	0:0	0:0	0:0	0:0	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	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

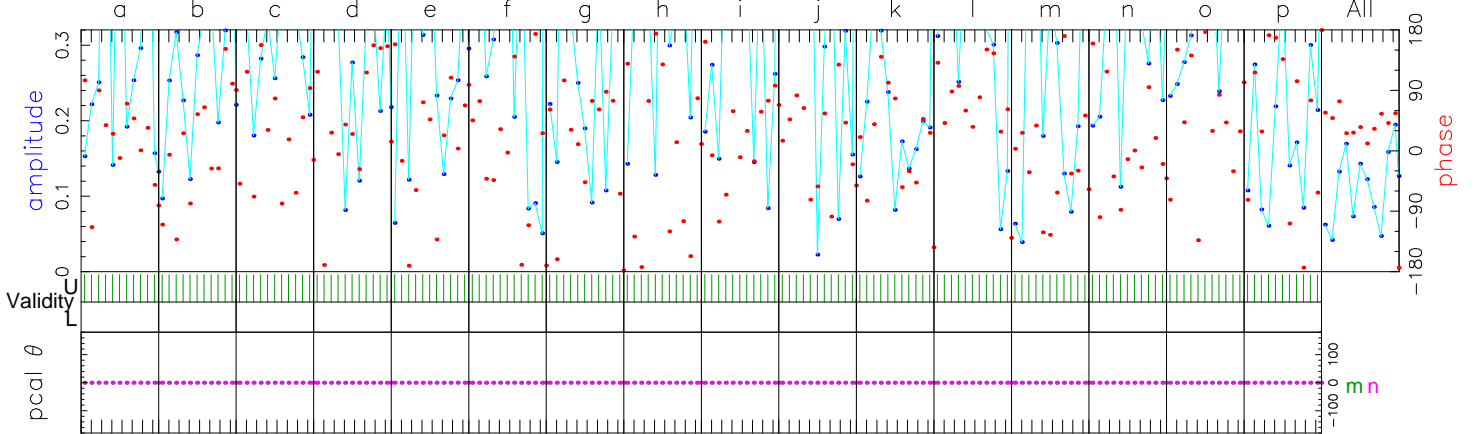
Group delay (usec)(sbd) 6.84621875000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 6.84622E-03 +/- 4.0E-08
 Sband delay (usec) 5.63400000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 5.63400E-03 +/- 6.3E-07
 Phase delay (usec) 3.38554965533E-07 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 3.38555E-07 +/- 1.4E-10
 Delay rate (us/s) -7.93584533934E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -7.93585E-11 +/- 5.6E-13
 Total phase (deg) 10.5 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 10.5 +/- 0.0

ph/seg (deg) 0.1 0.0 Search (2048X64) 485.873 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 2.1 0.0 Interp. 482.019 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 52.0 0.0 Inc. seg. avg. 482.025 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 58.1 0.0 Inc. frq. avg. 633.575 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 51.2 el 10.2 pa -72.6 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mm...130DGB Output file: /Exps/c192b/v2/1234/No0106/mm.W.312.130DGB



Fringe quality 0
SNR 5.9
Int time 417.808
Amp 0.107
Phase 41.6
PFD 5.1e-01
Delays (us)
SBD 0.395628
MBD 0.004957
Fringe rate (Hz)
0.096796
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092800
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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

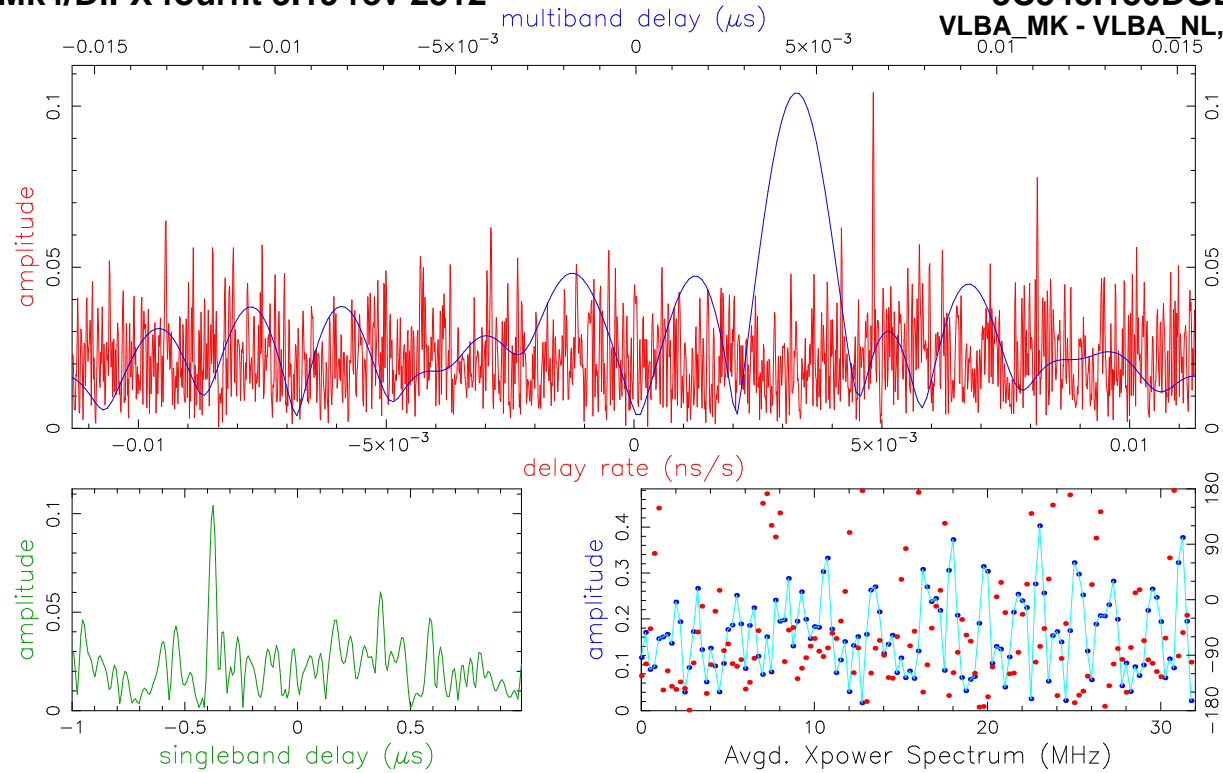


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
UL	26.0	49.2	6.8	110.2	25.2	27.6	62.4	147.3	20.8	22.4	30.3	85.6	-15.2	-3.5	55.1	133.9	Phase	41.6
m	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	Ampl.	0.1
n	181.9	113.1	158.1	220.1	188.3	225.1	130.0	242.6	142.8	42.1	13.8	42.8	112.7	224.0	34.1	152.9	Sbd box	179.6
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
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	PC phase	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	ManI PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
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	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-1.58132511269E+04			Apriori delay (usec)			-1.58136623340E+04			Resid mbdelay (usec)			4.95703E-03			+/- 1.8E-04		
Sband delay (usec)	-1.58132667060E+04			Apriori clock (usec)			-2.3924417E+01			Resid sbdelay (usec)			3.95628E-01			+/- 2.9E-03		
Phase delay (usec)	-1.58136623326E+04			Apriori clockrate (us/s)			-1.4291580E-07			Resid phdelay (usec)			1.34169E-06			+/- 6.2E-07		
Delay rate (us/s)	6.98612860090E-01			Apriori rate (us/s)			6.98611736380E-01			Resid rate (us/s)			1.12371E-06			+/- 2.6E-09		
Total phase (deg)	-120.0			Apriori accel (us/s/s)			6.03687885226E-05			Resid phase (deg)			41.6			+/- 19.3		

ph/seg (deg) 21.0 33.4 Search (2048X64) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 47.2 58.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 50.1 38.5 Inc. seg. avg. 0.096 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 56.7 67.3 Inc. frq. avg. 0.115 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
m: az 51.2 el 10.2 pa -72.6 n: az 85.3 el 67.9 pa -75.5 u,v (fr/asec) -5107.348 1785.369 ion window (TEC) 0.00 0.00 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mn..130DGB Output file: /Exps/c192b/v2/1234/No0106/mn.W.256.130DGB

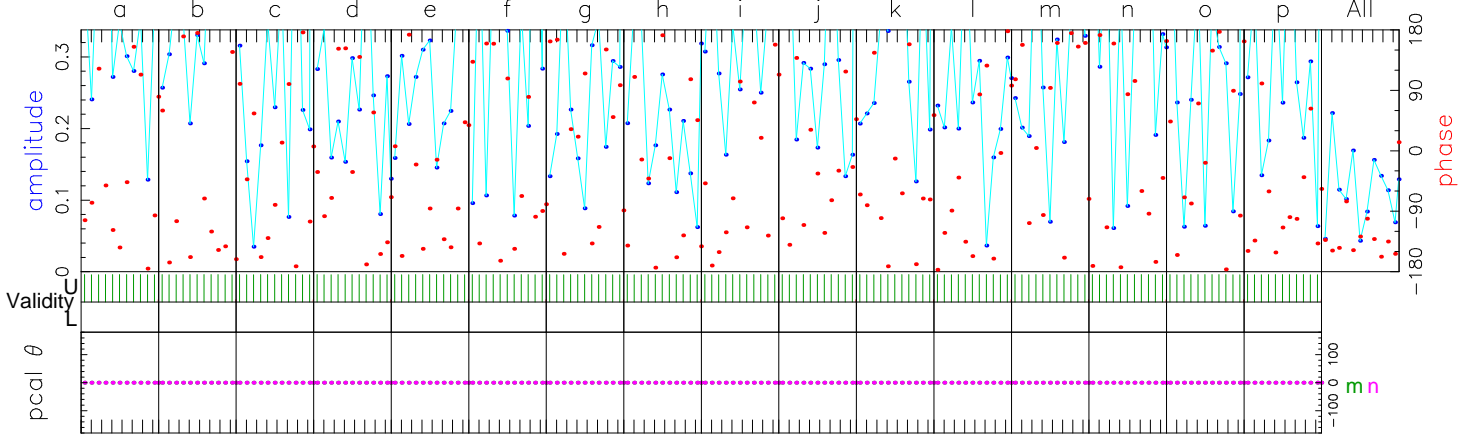
Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, mn
VLBA_MK - VLBA_NL, fgroup W, pol RR



Fringe quality 0
SNR 5.8
Int time 417.807
Amp 0.113
Phase -136.1
PFD 7.4e-01
Delays (us)
SBD -0.376208
MBD 0.004432
Fringe rate (Hz) 0.416518
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092807
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-116.1	-153.7	-148.0	-137.0	-85.5	-140.3	172.3	-177.4	-149.5	-86.0	-86.1	-141.0	170.8	-138.5	148.2	-115.5		Phase -136.1					
	0.1	0.3	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.2		Ampl. 0.1					
	143.9	80.1	92.8	133.8	32.7	236.2	115.8	106.0	147.7	151.0	56.1	226.0	96.8	132.4	45.5	174.8		Sbd box 80.8					
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
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)			-1.58140329020E+04															Apriori delay (usec)	-1.58136623340E+04	Resid mbdelay (usec)	4.43202E-03	+/-	1.8E-04
Sband delay (usec)			-1.58140385415E+04															Apriori clock (usec)	-2.3924417E+01	Resid sbdelay (usec)	-3.76208E-01	+/-	3.0E-03
Phase delay (usec)			-1.58136623384E+04															Apriori clockrate (us/s)	-1.4291580E-07	Resid phdelay (usec)	-4.39005E-06	+/-	6.3E-07
Delay rate (us/s)			6.98616571741E-01															Apriori rate (us/s)	6.98611736380E-01	Resid rate (us/s)	4.83536E-06	+/-	2.6E-09
Total phase (deg)																		Apriori accel (us/s/s)	6.03687885226E-05	Resid phase (deg)	-136.1	+/-	19.6

ph/seg (deg) 26.8 34.0
amp/seg (%) 50.3 59.4
ph/frq (deg) 39.6 39.3
amp/frq (%) 59.6 68.6

RMS Theor. Amplitude 0.113 +/- 0.019
Search (2048X64) 0.101
Interp. 0.000
Inc. seg. avg. 0.105
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

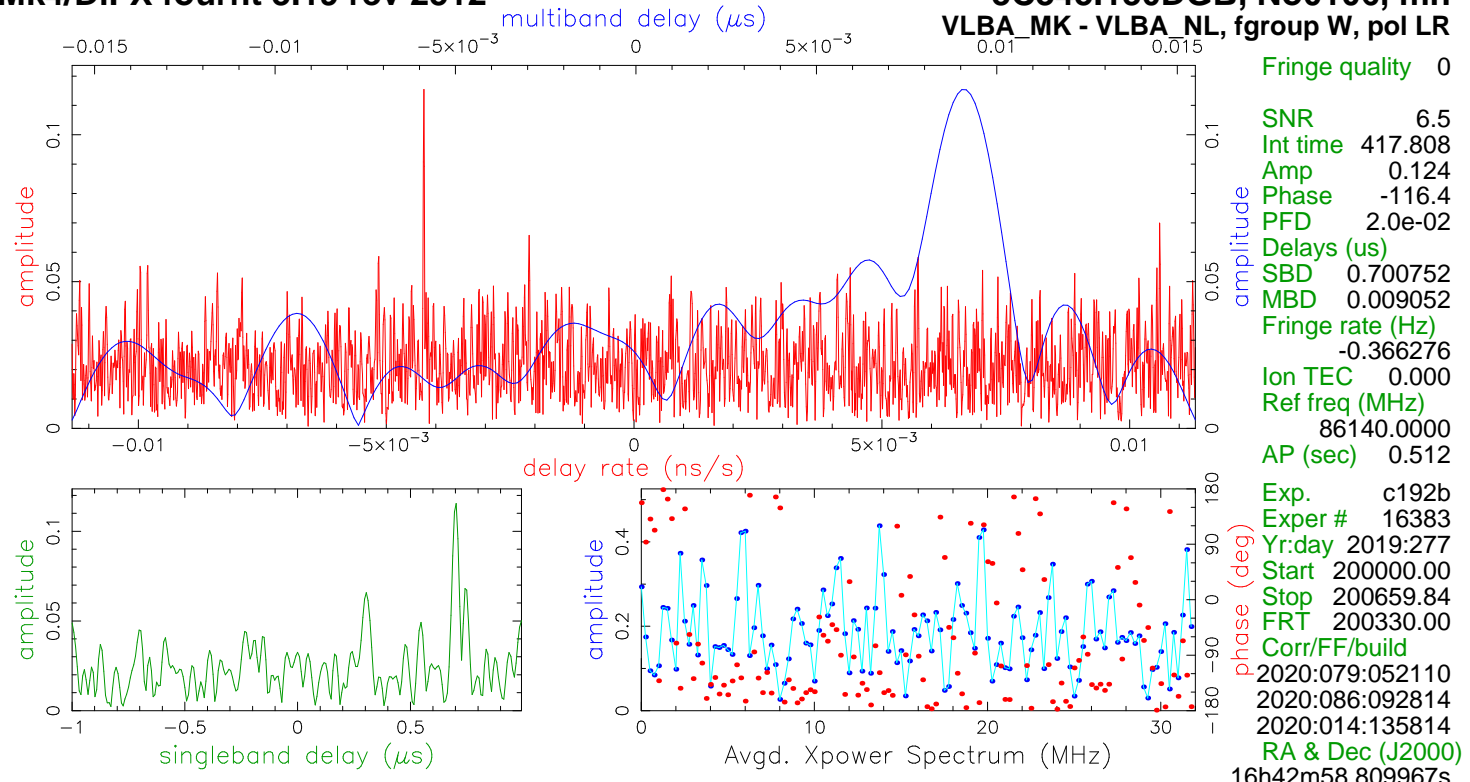
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

m: az 51.2 el 10.2 pa -72.6 n: az 85.3 el 67.9 pa -75.5 u,v (fr/asec) -5107.348 1785.369 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mn..130DGB Output file: /Exps/c192b/v2/1234/No0106/mn.W.280.130DGB

Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, mn
VLBA_MK - VLBA_NL, fgroup W, pol LR



Fringe quality 0

SNR 6.5

Int time 417.808

Amp 0.124

Phase -116.4

PFD 2.0e-02

Delays (us)

SBD 0.700752

MBD 0.009052

Fringe rate (Hz)

-0.366276

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192b

Exper # 16383

Yr:day 2019:277

Start 200000.00

Stop 200659.84

FRT 200330.00

Corr/FF/build

2020:079:052110

2020:086:092814

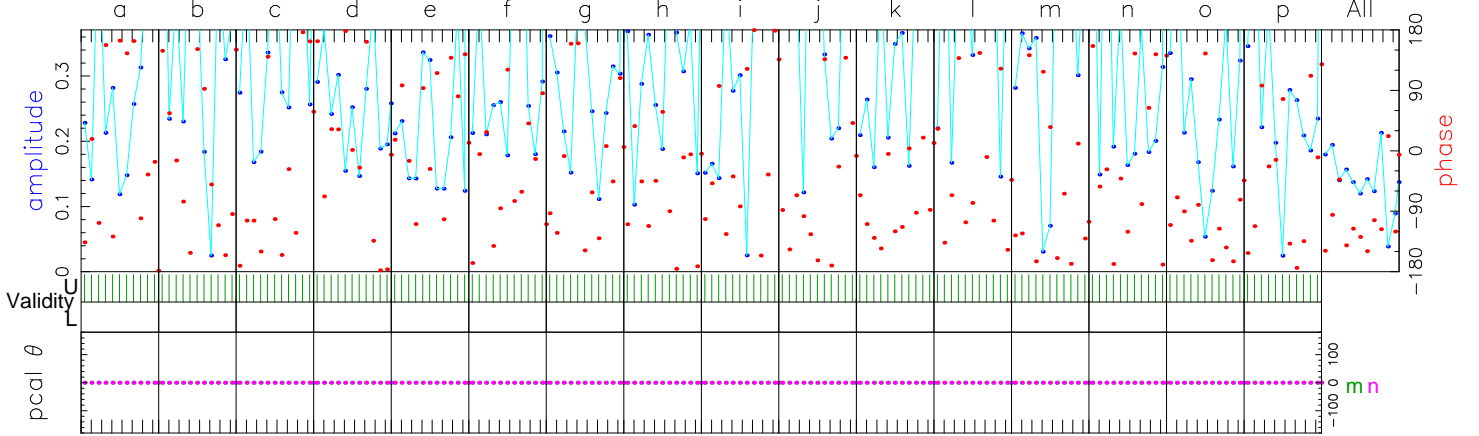
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-92.3	-159.6	-139.8	-144.5	64.7	-47.8	-113.3	-71.2	-112.3	-140.7	-90.9	-129.4	-142.7	-122.1	-105.6	-119.8	Phase	-116.4				
	0.1	0.2	0.3	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	Ampl.	0.1				
	78.1	11.2	219.2	235.1	30.2	188.4	211.3	97.7	64.2	254.1	218.3	203.9	10.5	137.6	16.2	159.7	Sbd box	218.7				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used					
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 freqs					
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	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	PC amp					
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					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-1.58129657824E+04														Apriori delay (usec)	-1.58136623340E+04	Resid mbdelay (usec)	9.05159E-03	+/-	1.7E-04
Sband delay (usec)			-1.58129615820E+04														Apriori clock (usec)	-2.3924417E+01	Resid sbdelay (usec)	7.00752E-01	+/-	2.6E-03
Phase delay (usec)			-1.58136623377E+04														Apriori clockrate (us/s)	-1.4291580E-07	Resid phdelay (usec)	-3.75258E-06	+/-	5.7E-07
Delay rate (us/s)			6.98607484280E-01														Apriori rate (us/s)	6.98611736380E-01	Resid rate (us/s)	-4.25210E-06	+/-	2.3E-09
Total phase (deg)																	Apriori accel (us/s/s)	6.03687885226E-05	Resid phase (deg)	-116.4	+/-	17.6

ph/seg (deg) 51.1 30.4 Search (2048X64) 0.112 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 44.2 53.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 56.6 35.2 Inc. seg. avg. 0.130 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

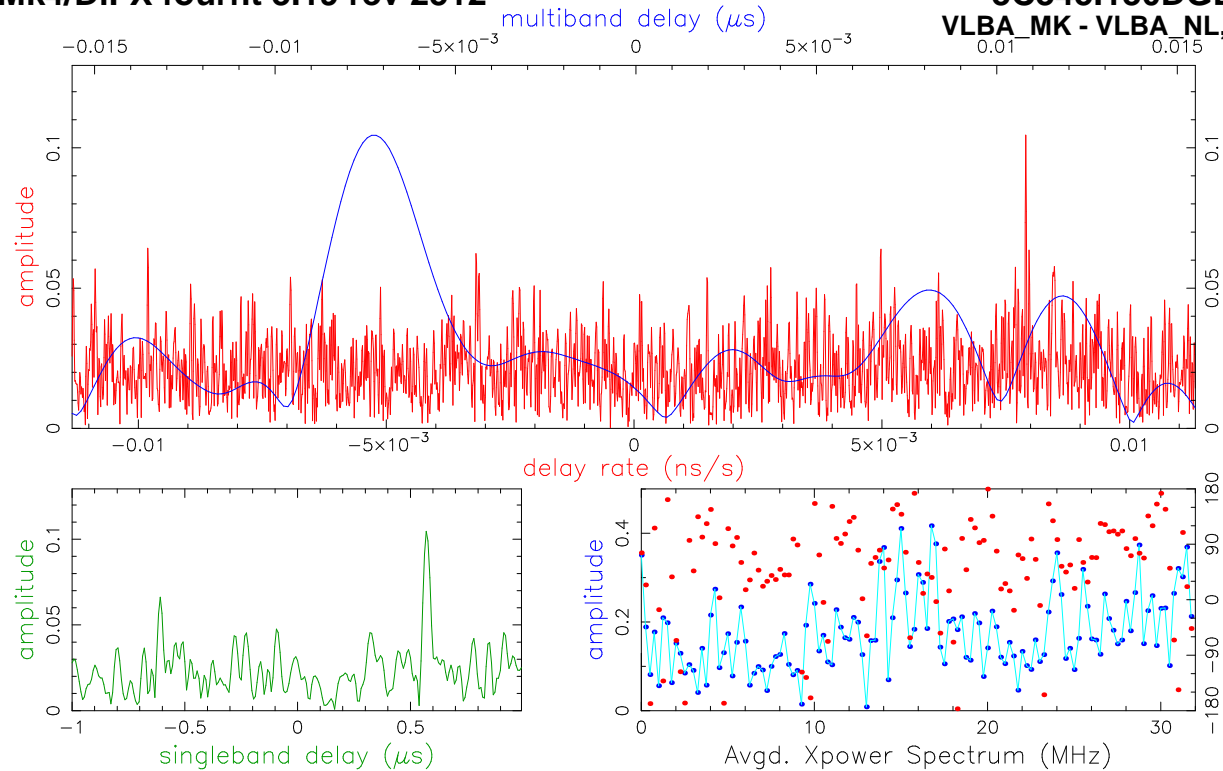
amp/frq (%) 56.4 61.4 Inc. frq. avg. 0.129 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

m: az 51.2 el 10.2 pa -72.6 n: az 85.3 el 67.9 pa -75.5 u,v (fr/asec) -5107.348 1785.369 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mn..130DGB Output file: /Exps/c192b/v2/1234/No0106/mn.W.301.130DGB

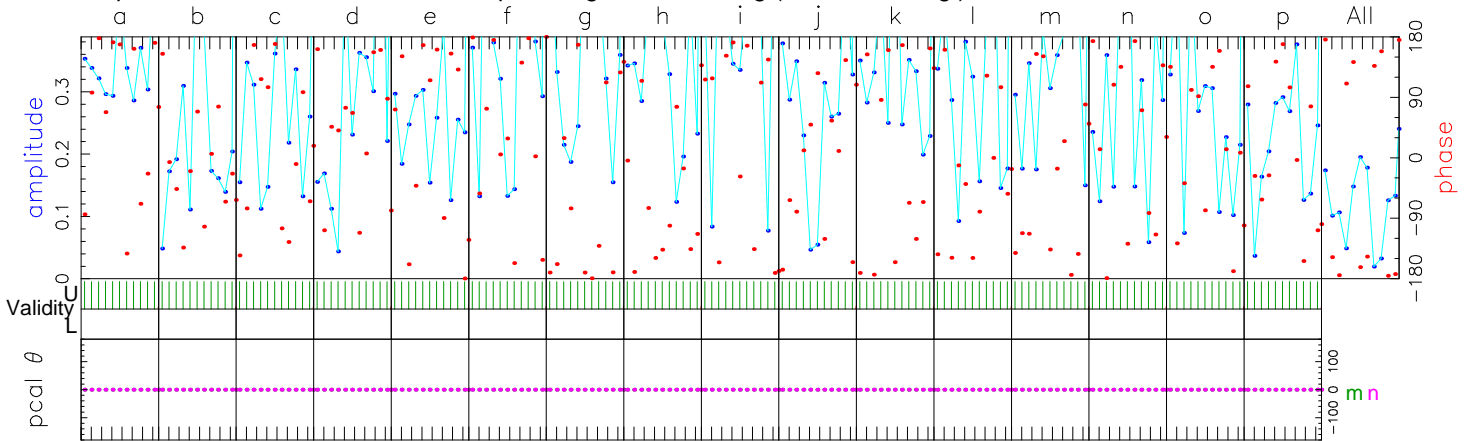
Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, mn
VLBA_MK - VLBA_NL, fgroup W, pol RL



Fringe quality 0
SNR 5.9
Int time 417.807
Amp 0.129
Phase -176.6
PFD 6.7e-01
Delays (us)
SBD 0.571937
MBD -0.007252
Fringe rate (Hz) 0.681718
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092820
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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

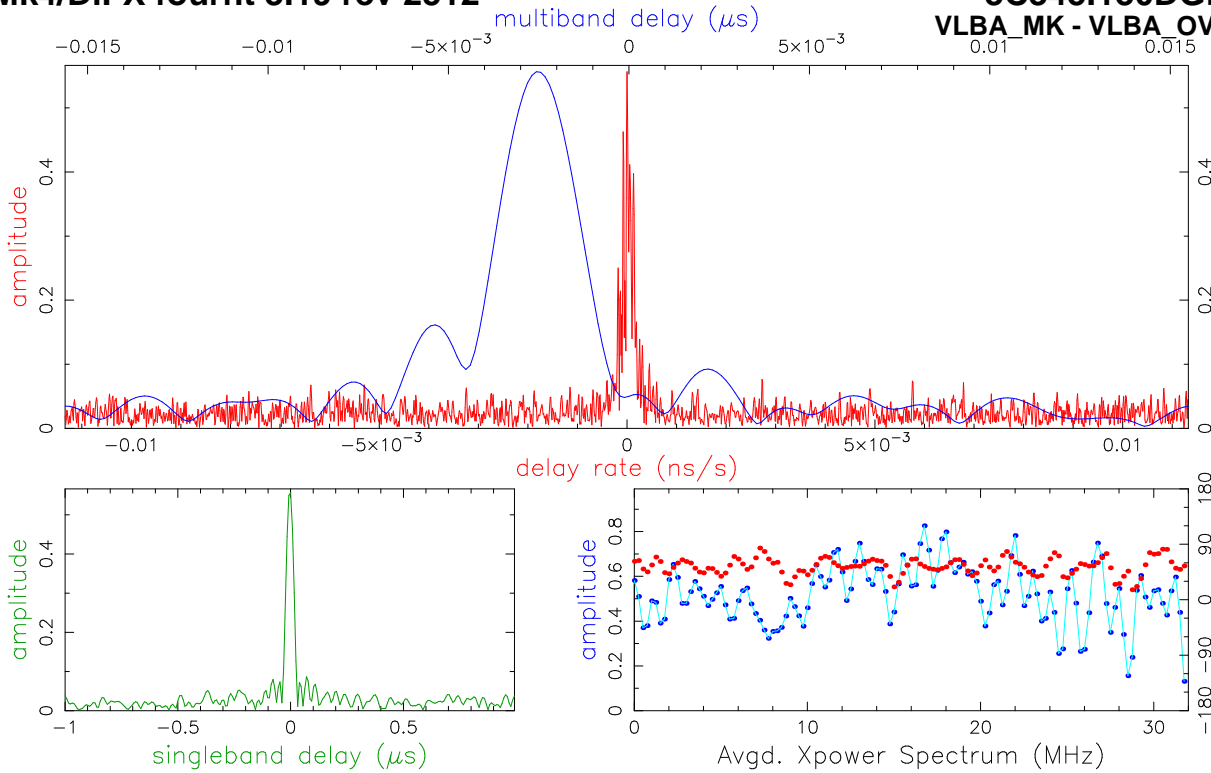


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
m	1000	1000	1000	1000	1000	1000	1000	1000	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		
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		
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		
m	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		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
Group delay (usec)(sbd)		-1.58130758365E+04																
Sband delay (usec)		-1.58130903970E+04																
Phase delay (usec)		-1.58136623397E+04																
Delay rate (us/s)		6.98619650453E-01																
Total phase (deg)																		
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		
PCal mode: MANUAL, MANUAL																		
PCal rate: 0.000E+00, 0.000E+00 (us/s)																		
Bits/sample: 2x2																		
Sample rate(MISamp/s): 64																		
Data rate(Mb/s): 2048																		
PCal period (AP's) 5, 5																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		

ph/seg (deg) 32.6 33.8
amp/seg (%) 56.2 59.0
ph/frq (deg) 55.4 39.1
amp/frq (%) 70.3 68.2
m: az 51.2 el 10.2 pa -72.6
n: az 85.3 el 67.9 pa -75.5
u,v (fr/asec) -5107.348 1785.369
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mn..130DGB Output file: /Exps/c192b/v2/1234/No0106/mn.W.317.130DGB
simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, mo
VLBA_MK - VLBA_OV, fgroup W, pol LL

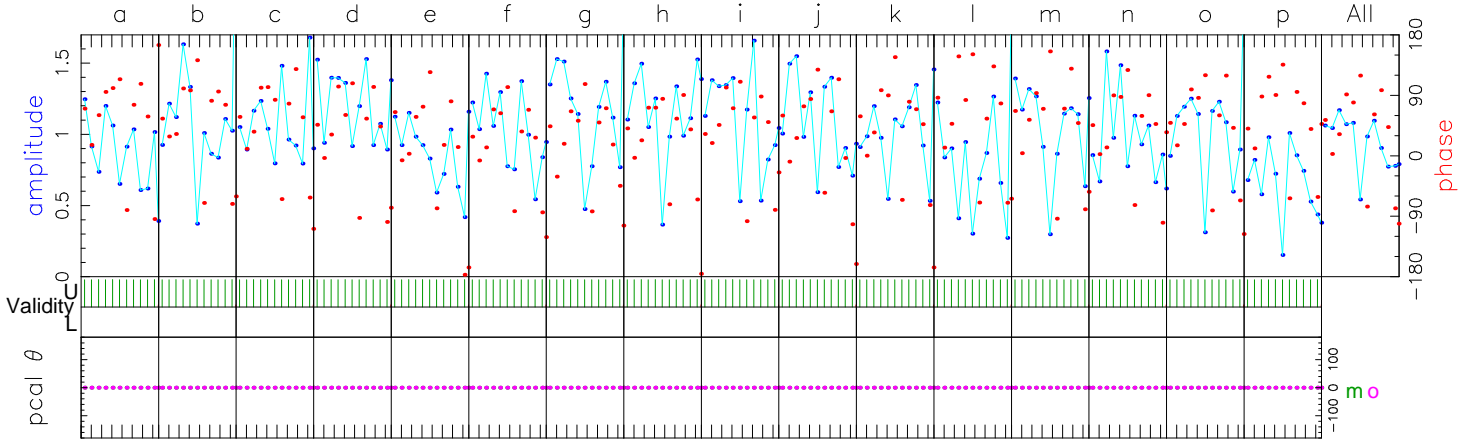


Fringe quality 7

SNR 31.6
Int time 416.732
Amp 0.566
Phase 50.2
PFD 0.0e+00
Delays (us)
SBD -0.003362
MBD -0.002549
Fringe rate (Hz)
-0.000038
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092759
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
UL	73.2	63.5	50.4	52.4	46.1	32.0	28.4	32.0	49.7	39.1	58.6	75.6	63.3	51.7	56.3	61.2	Phase	50.2				
m	0.5	0.6	0.5	0.7	0.5	0.7	0.8	0.7	0.7	0.6	0.5	0.4	0.6	0.5	0.4	0.4	Ampl.	0.6				
o	128.2	128.3	128.6	128.4	128.5	128.6	128.9	128.4	129.0	128.7	128.2	128.6	128.4	128.8	128.8	128.8	Sbd box	128.6				
o	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used					
m	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					
m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids					
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
o	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					
Group delay (usec)(sbd)			-1.16916768227E+04														Apriori delay (usec)	-1.16916742735E+04	Resid mbdelay (usec)	-2.54922E-03	+/-	3.4E-05
Sband delay (usec)			-1.16916776350E+04														Apriori clock (usec)	-1.4069629E+01	Resid sbdelay (usec)	-3.36150E-03	+/-	5.5E-04
Phase delay (usec)			-1.16916742719E+04														Apriori clockrate (us/s)	-9.6732924E-09	Resid phdelay (usec)	1.61861E-06	+/-	1.2E-07
Delay rate (us/s)			3.42441639034E-01														Apriori rate (us/s)	3.42441639477E-01	Resid rate (us/s)	-4.43557E-10	+/-	4.8E-10
Total phase (deg)					-280.6												Apriori accel (us/s/s)	4.29086218748E-05	Resid phase (deg)	50.2	+/-	3.6

ph/seg (deg) 64.7 6.3
amp/seg (%) 75.4 11.0
ph/frq (deg) 14.7 7.3
amp/frq (%) 19.3 12.7

RMS Theor. Amplitude 0.566 +/- 0.018
Search (2048X64) 0.555
Interp. 0.000
Inc. seg. avg. 0.948
Inc. frq. avg. 0.569

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

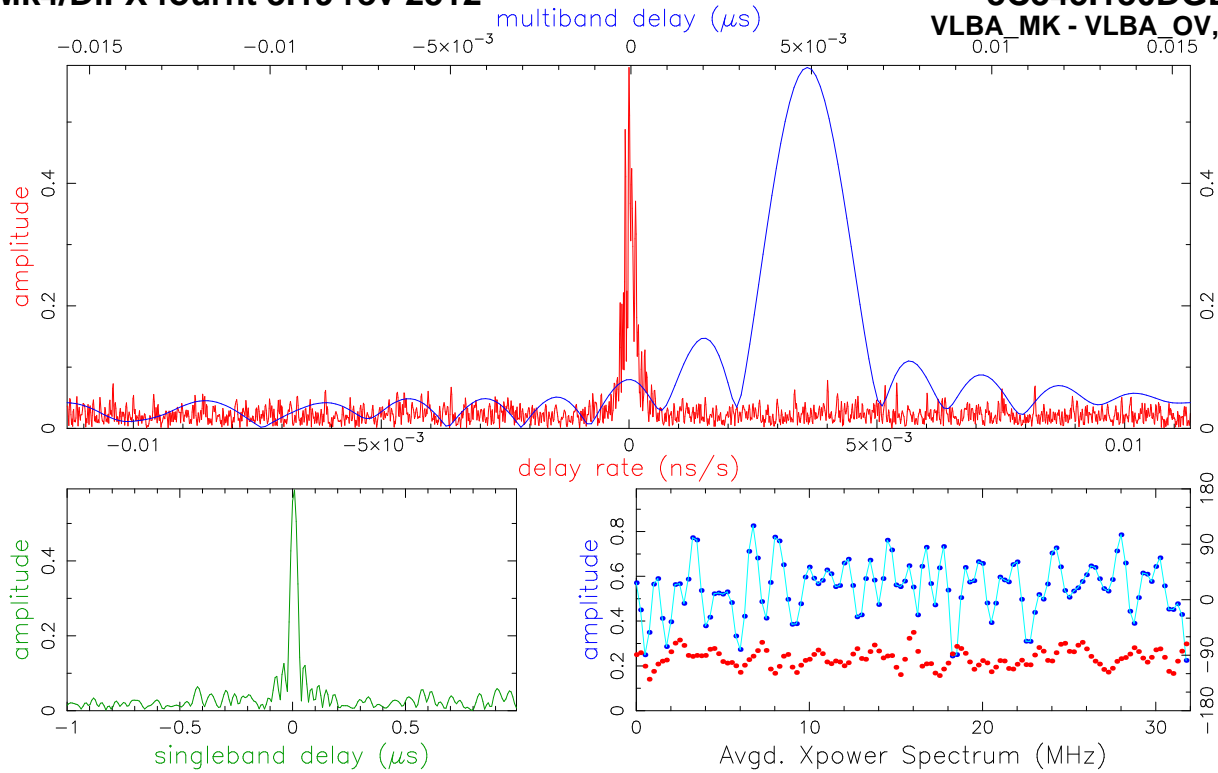
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

m: az 51.2 el 10.2 pa -72.6 o: az 68.6 el 46.9 pa -74.7 u,v (fr/asec) -2482.355 1027.137 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mo..130DGB Output file: /Exps/c192b/v2/1234/No0106/mo.W.250.130DGB

Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, mo
VLBA_MK - VLBA_OV, fgroup W, pol RR

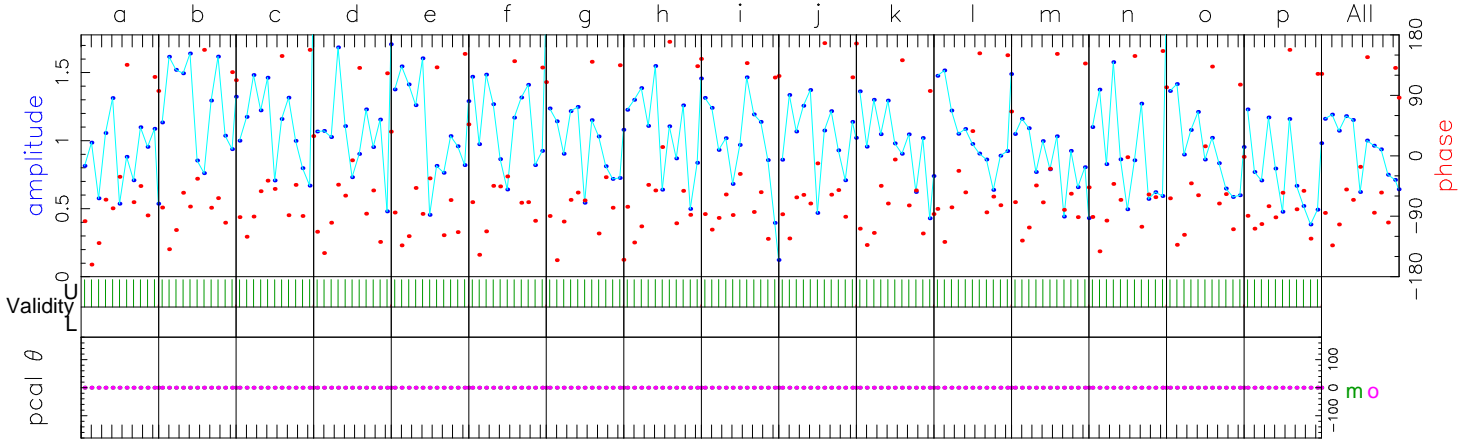


Fringe quality 7

SNR 33.1
Int time 416.730
Amp 0.593
Phase -89.1
PFD 0.0e+00
Delays (us)
SBD 0.005922
MBD 0.004872
Fringe rate (Hz) 0.000032
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092804
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-93.8	-89.7	-82.3	-87.5	-103.0	-85.9	-97.3	-86.8	-89.2	-81.6	-90.0	-79.2	-88.8	-92.1	-77.3	-100.0		Phase	-89.1				
	0.4	0.9	0.7	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5		Ampl.	0.6				
	129.2	130.3	129.6	129.2	130.3	129.4	130.0	129.2	129.9	129.8	130.2	129.3	130.0	129.9	129.1	130.2		Sbd box	129.8				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
m	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					
m: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					
m	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					
m	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)			-1.16916694013E+04															Apriori delay (usec)	-1.16916742735E+04	Resid mbdelay (usec)	4.87222E-03	+/-	3.3E-05
Sband delay (usec)			-1.16916683515E+04															Apriori clock (usec)	-1.4069629E+01	Resid sbdelay (usec)	5.92200E-03	+/-	5.2E-04
Phase delay (usec)			-1.16916742764E+04															Apriori clockrate (us/s)	-9.6732924E-09	Resid phdelay (usec)	-2.87391E-06	+/-	1.1E-07
Delay rate (us/s)			3.42441639848E-01															Apriori rate (us/s)	3.42441639477E-01	Resid rate (us/s)	3.70576E-10	+/-	4.6E-10
Total phase (deg)					-59.9													Apriori accel (us/s/s)	4.29086218748E-05	Resid phase (deg)	-89.1	+/-	3.5

ph/seg (deg) 66.1 6.0
amp/seg (%) 72.3 10.5
ph/frq (deg) 7.4 6.9
amp/frq (%) 17.1 12.1

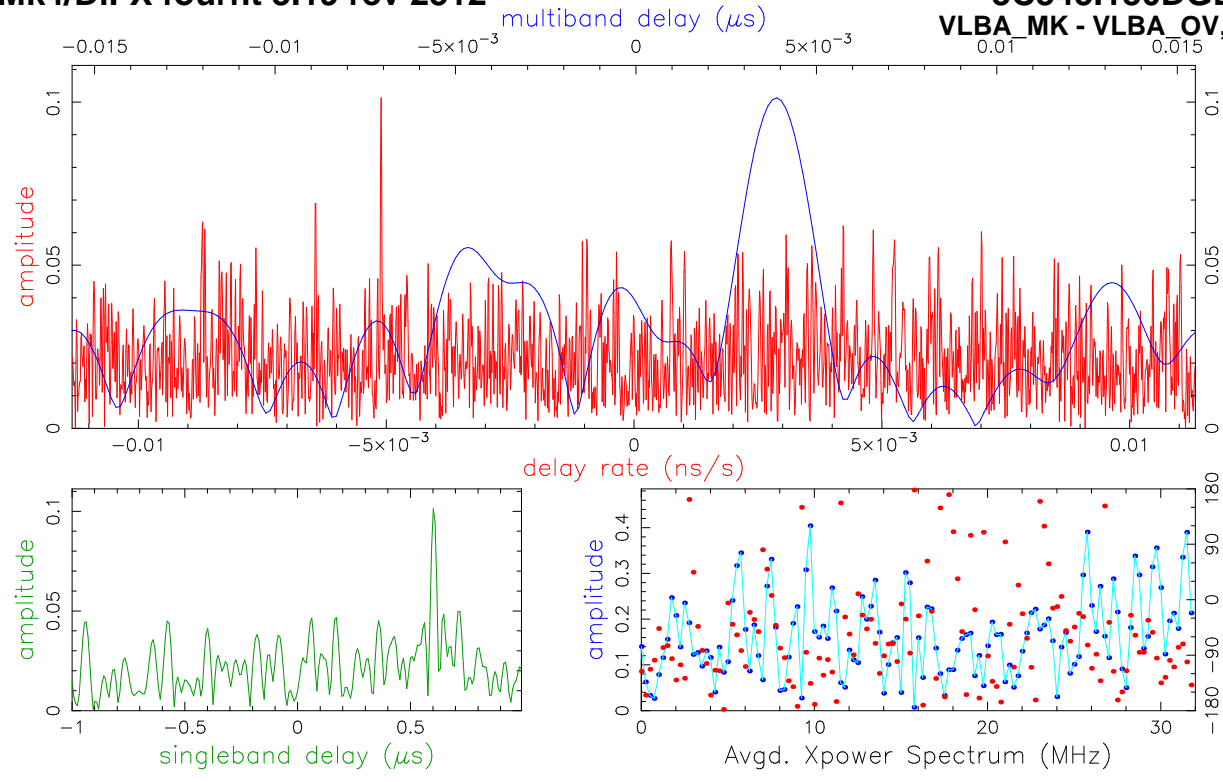
RMS Theor. Amplitude 0.593 +/- 0.018
Search (2048X64) 0.589
Interp. 0.000
Inc. seg. avg. 0.969
Inc. frq. avg. 0.589

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

m: az 51.2 el 10.2 pa -72.6 o: az 68.6 el 46.9 pa -74.7 u,v (fr/asec) -2482.355 1027.137 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mo..130DGB Output file: /Exps/c192b/v2/1234/No0106/mo.W.269.130DGB

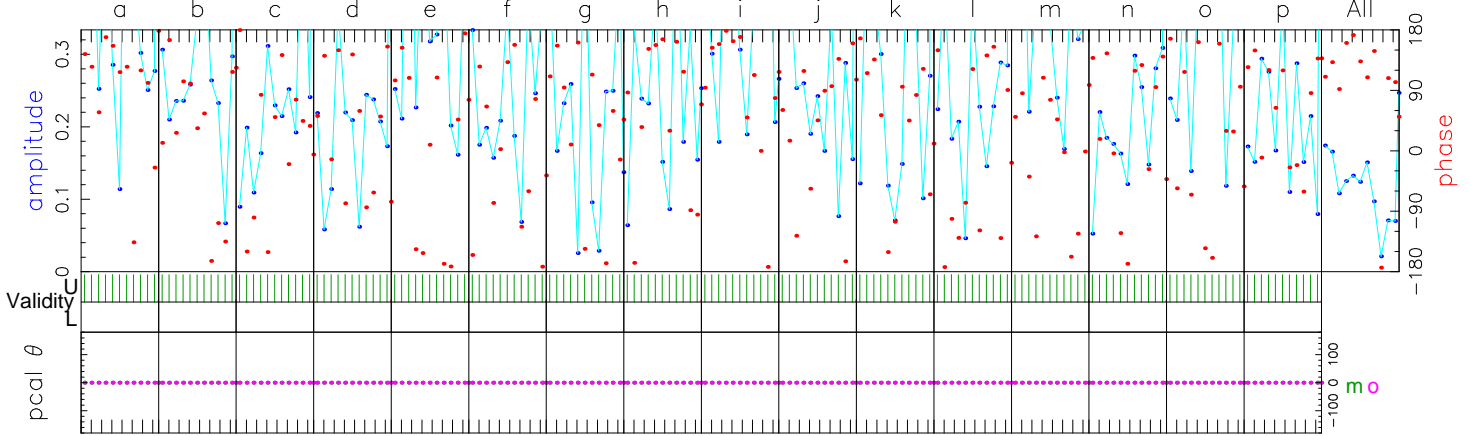


Fringe quality 0

SNR 5.7
Int time 416.730
Amp 0.111
Phase 127.7
PFD 9.4e-01
Delays (us)
SBD 0.603547
MBD 0.003914
Fringe rate (Hz)
-0.440504
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092811
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
UL	137.8	82.3	61.9	152.0	146.9	168.0	111.0	166.8	146.3	88.1	87.1	178.8	72.2	114.1	159.4	80.9	Phase	127.7				
m	0.3	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.3	0.1	0.2	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1				
o	206.2	92.3	158.4	151.8	114.3	57.1	244.3	145.0	205.6	8.3	90.4	186.2	53.3	232.4	162.5	107.8	Sbd box	206.3				
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	APs used					
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
o	0:0	0:0	0:0	0:0	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					
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids					
m	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					
o																	Tracks					
Group delay (usec)(sbd)			-1.16910766096E+04														Apriori delay (usec)	-1.16916742735E+04	Resid mbdelay (usec)	3.91390E-03	+/-	1.9E-04
Sband delay (usec)			-1.16910707265E+04														Apriori clock (usec)	-1.4069629E+01	Resid sbdelay (usec)	6.03547E-01	+/-	3.0E-03
Phase delay (usec)			-1.16916742694E+04														Apriori clockrate (us/s)	-9.6732924E-09	Resid phdelay (usec)	4.11796E-06	+/-	6.5E-07
Delay rate (us/s)			3.42436525663E-01														Apriori rate (us/s)	3.42441639477E-01	Resid rate (us/s)	-5.11381E-06	+/-	2.7E-09
Total phase (deg)																	Apriori accel (us/s/s)	4.29086218748E-05	Resid phase (deg)	127.7	+/-	20.1

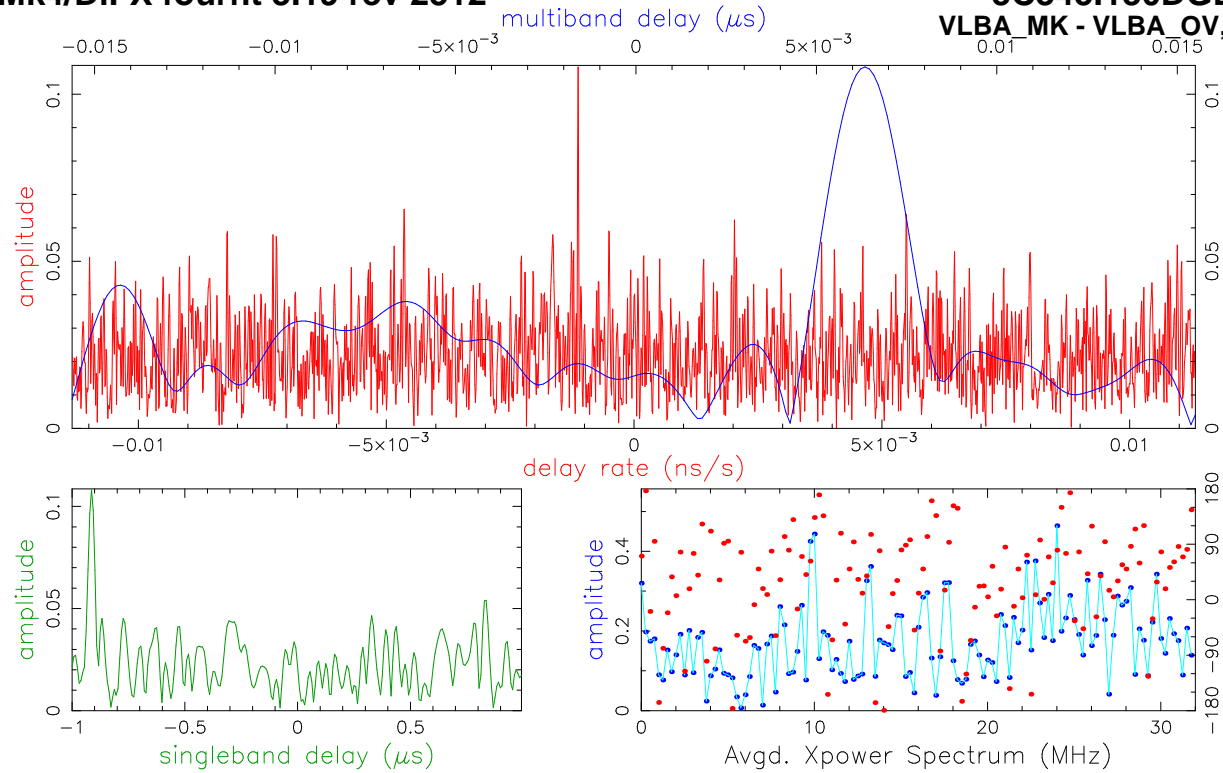
ph/seg (deg) RMS Theor. Amplitude 0.111 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 30.6 34.8 Search (2048X64) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.3 60.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 41.0 40.2 Inc. seg. avg. 0.105 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 72.3 70.1 Inc. frq. avg. 0.108 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

m: az 51.2 el 10.2 pa -72.6 o: az 68.6 el 46.9 pa -74.7 u,v (fr/asec) -2482.355 1027.137 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mo..130DGB Output file: /Exps/c192b/v2/1234/No0106/mo.W.291.130DGB

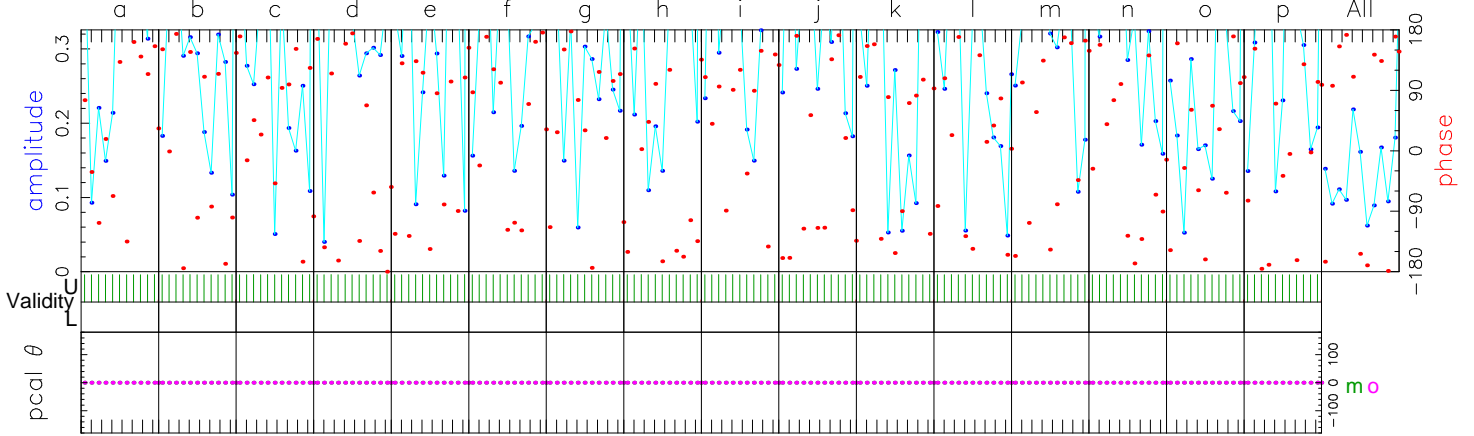
Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, mo
VLBA_MK - VLBA_OV, fgroup W, pol RL



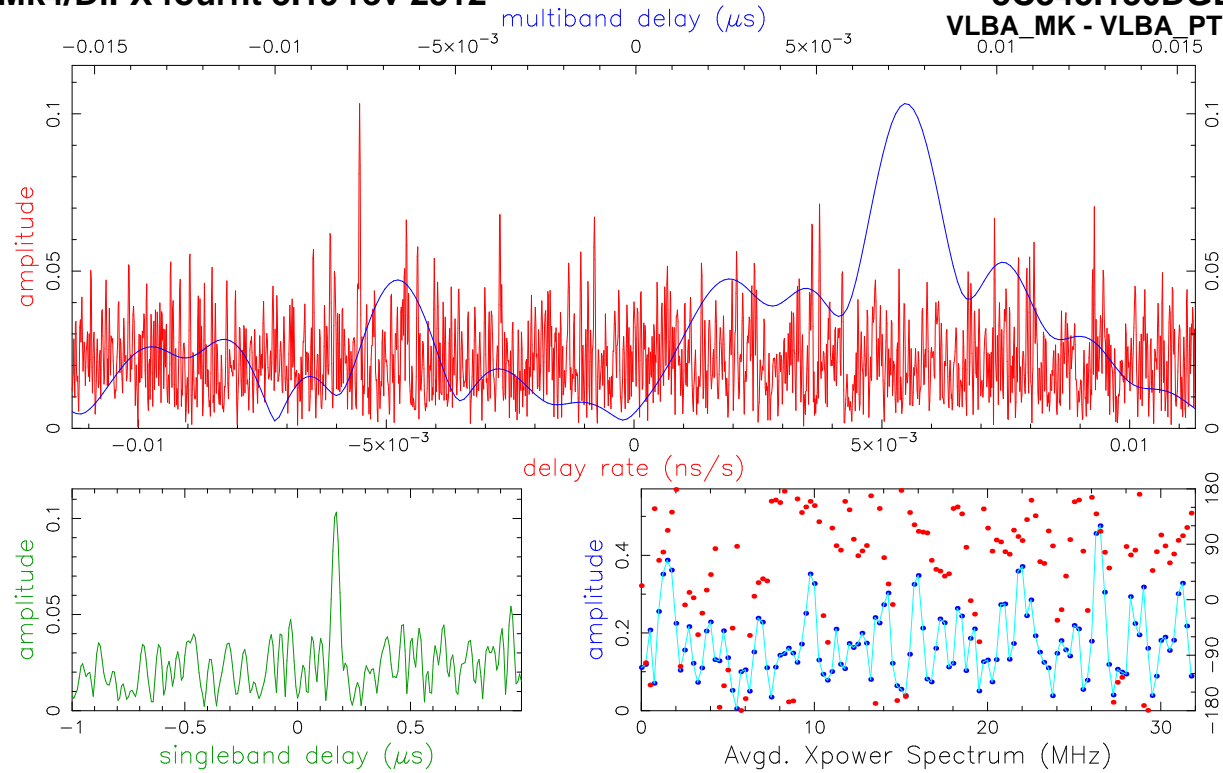
Fringe quality 0
SNR 6.0
Int time 416.731
Amp 0.109
Phase 157.5
PFD 3.3e-01
Delays (us)
SBD -0.913675
MBD 0.006353
Fringe rate (Hz)
-0.097215
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092817
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All		
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0				
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000				
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000				
m:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
m:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000				
o	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		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks		
Group delay (usec)(sbd)		-1.16925741701E+04																		
Sband delay (usec)		-1.16925879490E+04																		
Phase delay (usec)		-1.16916742684E+04																		
Delay rate (us/s)		3.42440510911E-01																		
Total phase (deg)					-173.4															
Apriori delay (usec)																				
Apriori clock (usec)																				
Apriori clockrate (us/s)																				
Apriori rate (us/s)																				
Apriori accel (us/s/s)																				
Resid mbdelay (usec)																				
Resid sbdelay (usec)																				
Resid phdelay (usec)																				
Resid rate (us/s)																				
Resid phase (deg)																				
PCal mode: MANUAL, MANUAL																				
PCal rate: 0.000E+00, 0.000E+00 (us/s)																				
Bits/sample: 2x2																				
Sample rate(MISamp/s): 64																				
Data rate(Mb/s): 2048																				
nlags: 128																				
t_cohere infinite																				
ion window (TEC)																				
sb window (us)																				
mb window (us)																				
dr window (ns/s)																				
ion window (TEC)																				

ph/seg (deg) 33.6 32.9 Search (2048X64) 0.104 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 50.9 57.4 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 37.7 38.0 Inc. seg. avg. 0.112 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 52.8 66.2 Inc. frq. avg. 0.103 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
m: az 51.2 el 10.2 pa -72.6 o: az 68.6 el 46.9 pa -74.7 u,v (fr/asec) -2482.355 1027.137 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mo..130DGB Output file: /Exps/c192b/v2/1234/No0106/mo.W.309.130DGB

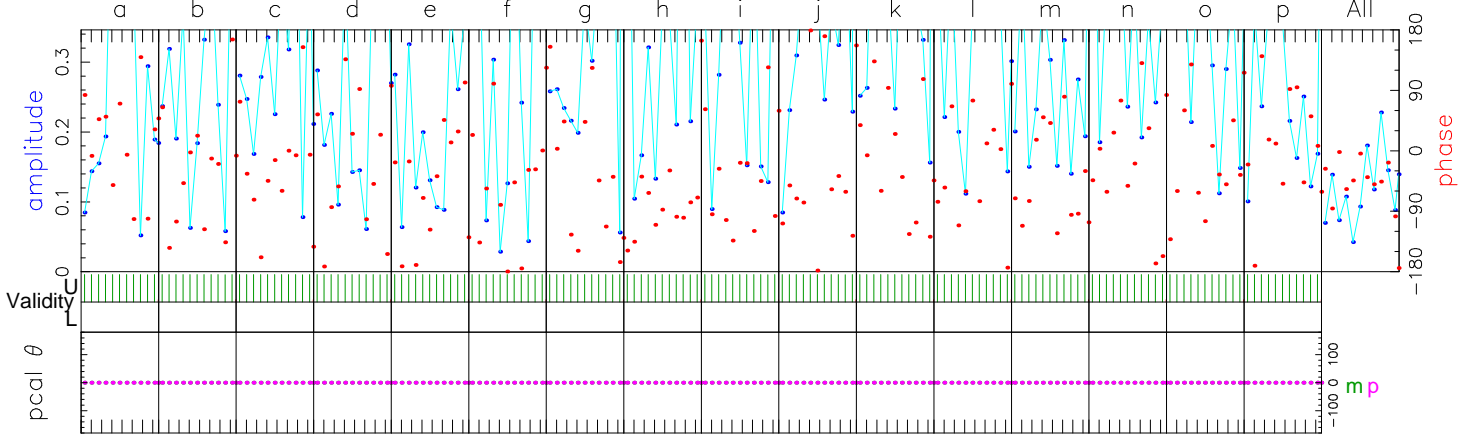


Fringe quality 0

SNR 5.8
Int time 418.913
Amp 0.115
Phase -44.4
PFD 7.3e-01
Delays (us)
SBD 0.169117
MBD 0.007453
Fringe rate (Hz)
-0.477915
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092801
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-13.2	-70.3	-23.0	8.8	-1.5	-30.4	-56.3	-93.7	-85.9	-98.5	-23.3	-4.7	-35.0	-11.5	-47.0	13.7	Phase	-44.4	
	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.3	0.2	0.2	0.0	0.2	0.1	0.2	0.2	0.1	Ampl.	0.1	
	45.2	214.8	75.2	252.7	235.3	49.4	189.1	151.0	56.5	117.7	132.1	62.3	208.6	250.2	106.0	251.9	Sbd box	150.6	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used		
m	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 freqs		
m: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 phase		
m: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		
m	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	PC amp		
m	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		
																	Chan ids		
																	Tracks		
Group delay (usec)(sbd)			-1.32401755086E+04					Apriori delay (usec)			-1.32403392116E+04						Resid mbdelay (usec)	7.45296E-03	+/- 1.8E-04
Sband delay (usec)			-1.32401700946E+04					Apriori clock (usec)			-9.3613806E+00						Resid sbdelay (usec)	1.69117E-01	+/- 2.9E-03
Phase delay (usec)			-1.32403392130E+04					Apriori clockrate (us/s)			-2.1257888E-07						Resid phdelay (usec)	-1.43194E-06	+/- 6.3E-07
Delay rate (us/s)			4.25382346348E-01					Apriori rate (us/s)			4.25387894469E-01						Resid rate (us/s)	-5.54812E-06	+/- 2.6E-09
Total phase (deg)								Apriori accel (us/s/s)			5.41557332763E-05						Resid phase (deg)	-44.4	+/- 19.6

ph/seg (deg) 31.0 34.0
amp/seg (%) 50.3 59.3
ph/frq (deg) 38.5 39.2
amp/frq (%) 70.0 68.5

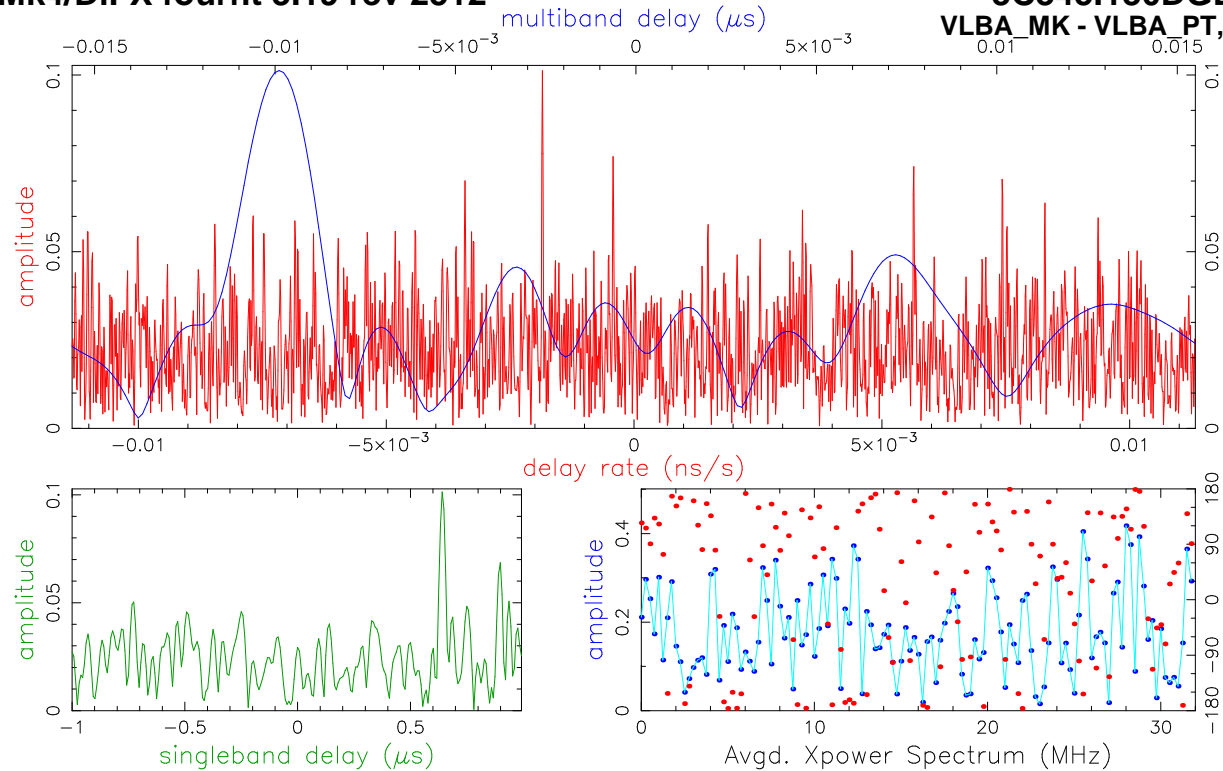
RMS Theor. Amplitude 0.115 +/- 0.020
Search (2048X64) 0.101
Interp. 0.000
Inc. seg. avg. 0.110
Inc. frq. avg. 0.116

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

m: az 51.2 el 10.2 pa -72.6 p: az 67.6 el 53.4 pa -83.4 u,v (fr/asec) -3080.481 2051.784 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mp..130DGB Output file: /Exps/c192b/v2/1234/No0106/mp.W.260.130DGB

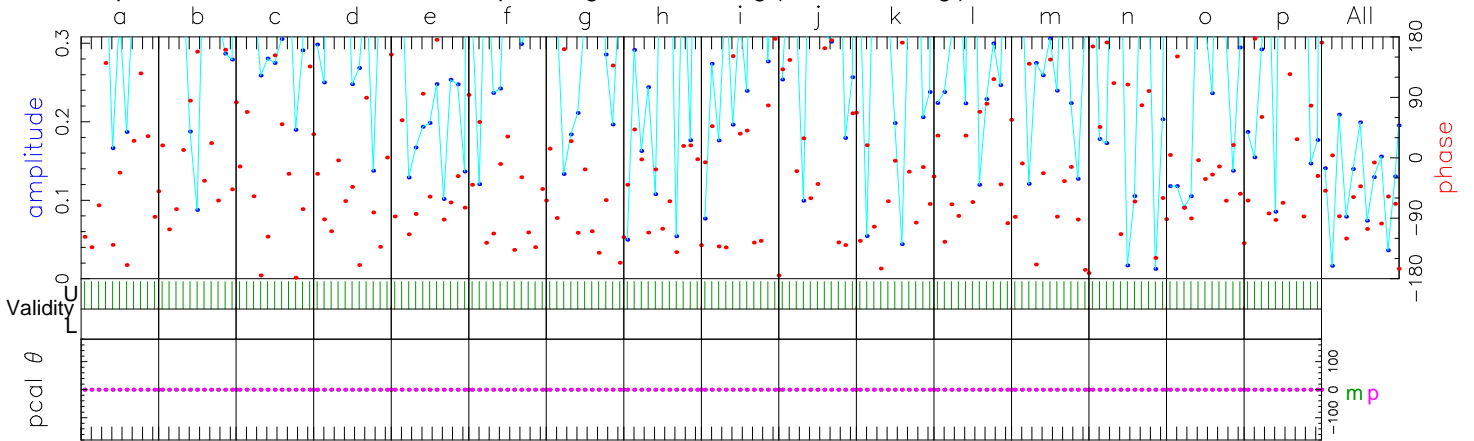


Fringe quality 0

SNR 5.7
Int time 418.912
Amp 0.103
Phase -66.9
PFD 9.6e-01
Delays (us)
SBD 0.641965
MBD -0.009858
Fringe rate (Hz)
-0.159063
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092806
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-103.1	-26.4	8.4	-60.8	-65.1	-70.7	-98.7	-32.7	-154.5	-121.0	-82.1	-60.7	-79.8	128.6	-31.9	-62.0	Phase	-66.9
	0.1	0.2	0.0	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	251.4	136.3	160.0	12.3	240.2	71.3	190.2	143.3	243.4	195.1	170.1	225.5	93.0	231.1	137.7	250.0	Sbd box	211.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	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	
m: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	
m: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	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
Group delay (usec)(sbd)	-1.32396928198E+04			Apriori delay (usec)			-1.32403392116E+04			Resid mbdelay (usec)			-9.85823E-03			+/-	1.9E-04	
Sband delay (usec)	-1.32396972466E+04			Apriori clock (usec)			-9.3613806E+00			Resid sbdelay (usec)			6.41965E-01			+/-	3.0E-03	
Phase delay (usec)	-1.32403392137E+04			Apriori clockrate (us/s)			-2.1257888E-07			Resid phdelay (usec)			-2.15885E-06			+/-	6.5E-07	
Delay rate (us/s)	4.25386047904E-01			Apriori rate (us/s)			4.25387894469E-01			Resid rate (us/s)			-1.84656E-06			+/-	2.7E-09	
Total phase (deg)	-313.5			Apriori accel (us/s/s)			5.41557332763E-05			Resid phase (deg)			-66.9			+/-	20.1	

ph/seg (deg) 38.2 34.9
amp/seg (%) 60.6 60.9
ph/frq (deg) 59.9 40.3
amp/frq (%) 60.2 70.3

RMS Theor. Amplitude 0.103 +/- 0.018
Search (2048X64) 0.098
Interp. 0.000
Inc. seg. avg. 0.102
Inc. frq. avg. 0.109

Group delay (usec)(sbd) -1.32396928198E+04
Sband delay (usec) -1.32396972466E+04
Phase delay (usec) -1.32403392137E+04
Delay rate (us/s) 4.25386047904E-01
Total phase (deg) -313.5

Apriori delay (usec) -1.32403392116E+04
Apriori clock (usec) -9.3613806E+00
Apriori clockrate (us/s) -2.1257888E-07
Apriori rate (us/s) 4.25387894469E-01
Apriori accel (us/s/s) 5.41557332763E-05

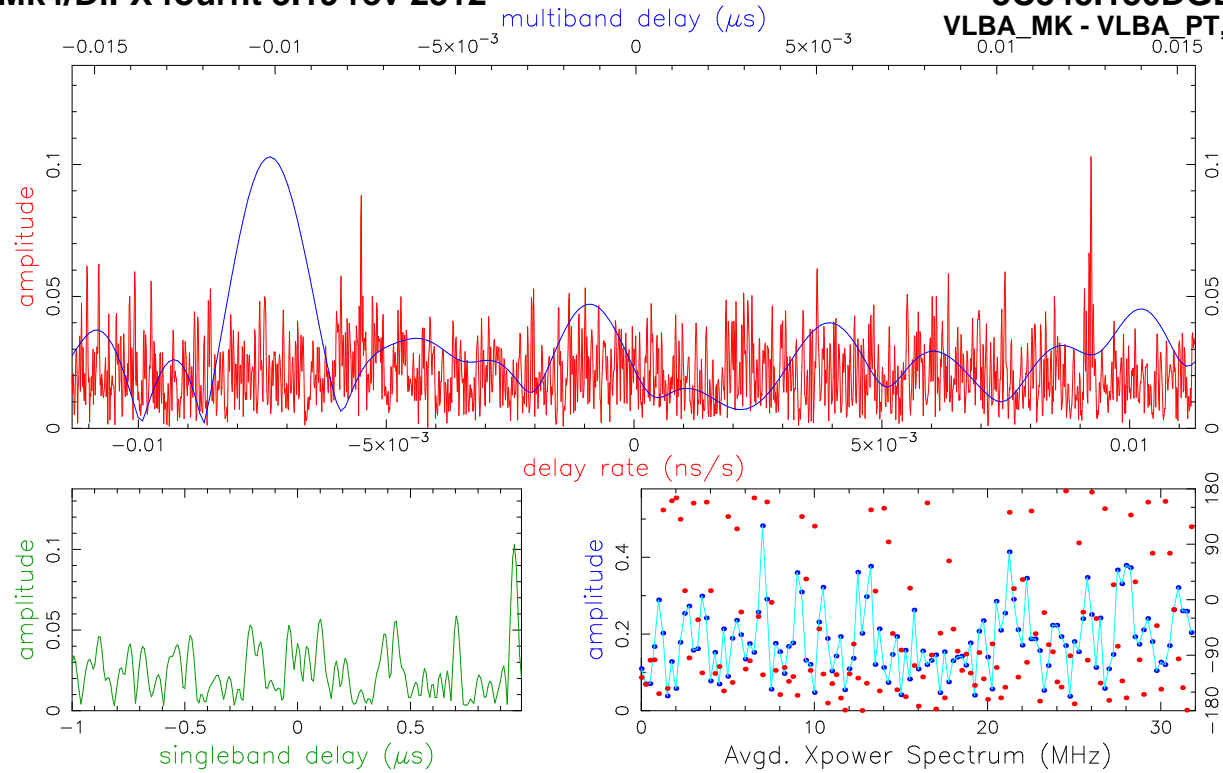
Resid mbdelay (usec) -9.85823E-03
Resid sbdelay (usec) 6.41965E-01
Resid phdelay (usec) -2.15885E-06
Resid rate (us/s) -1.84656E-06
Resid phase (deg) -66.9

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

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

m: az 51.2 el 10.2 pa -72.6 p: az 67.6 el 53.4 pa -83.4 u,v (fr/asec) -3080.481 2051.784 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mp..130DGB Output file: /Exps/c192b/v2/1234/No0106/mp.W.276.130DGB

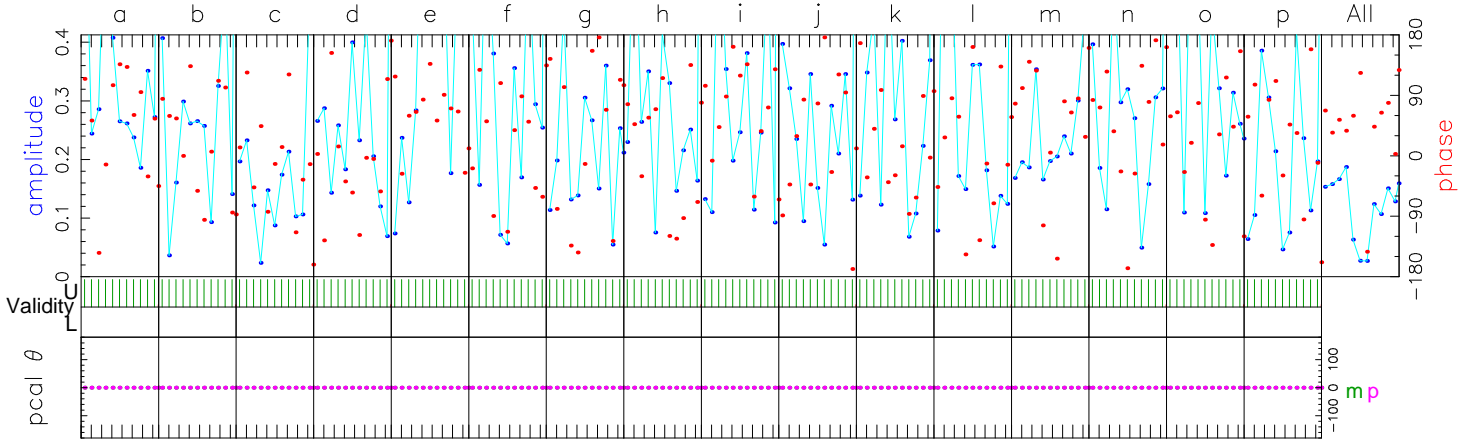


Fringe quality 0

SNR 5.8
Int time 418.913
Amp 0.138
Phase 50.9
PFD 8.7e-01
Delays (us)
SBD 0.960278
MBD -0.010151
Fringe rate (Hz) 0.795727
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092813
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All						
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0								
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000								
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000								
m: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								
m: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								
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000								
p	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						
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks						
																		Chan ids						
																		Tracks						
Group delay (usec)(sbd)			-1.32393806125E+04															Apriori delay (usec)	-1.32403392116E+04	Resid mbdelay (usec)	-1.01509E-02	+/-	1.9E-04	
Sband delay (usec)			-1.32393789336E+04																Apriori clock (usec)	-9.3613806E+00	Resid sbdelay (usec)	9.60278E-01	+/-	3.0E-03
Phase delay (usec)			-1.32403392099E+04																Apriori clockrate (us/s)	-2.1257888E-07	Resid phdelay (usec)	1.64001E-06	+/-	6.4E-07
Delay rate (us/s)			4.25397132069E-01																Apriori rate (us/s)	4.25387894469E-01	Resid rate (us/s)	9.23760E-06	+/-	2.6E-09
Total phase (deg)																			Apriori accel (us/s/s)	5.41557332763E-05	Resid phase (deg)	50.9	+/-	19.9

ph/seg (deg) 58.2 34.4
amp/seg (%) 53.3 60.1
ph/frq (deg) 43.7 39.8
amp/frq (%) 61.6 69.4

RMS Theor. Amplitude 0.138 +/- 0.024
Search (2048X64) 0.098
Interp. 0.000
Inc. seg. avg. 0.133
Inc. frq. avg. 0.138

m: az 51.2 el 10.2 pa -72.6
p: az 67.6 el 53.4 pa -83.4
u,v (fr/asec) -3080.481 2051.784

Group delay (usec)(sbd) -1.32393806125E+04
Sband delay (usec) -1.32393789336E+04
Phase delay (usec) -1.32403392099E+04
Delay rate (us/s) 4.25397132069E-01
Total phase (deg) -195.7

Apriori delay (usec) -1.32403392116E+04
Apriori clock (usec) -9.3613806E+00
Apriori clockrate (us/s) -2.1257888E-07
Apriori rate (us/s) 4.25387894469E-01
Apriori accel (us/s/s) 5.41557332763E-05

Resid mbdelay (usec) -1.01509E-02
Resid sbdelay (usec) 9.60278E-01
Resid phdelay (usec) 1.64001E-06
Resid rate (us/s) 9.23760E-06
Resid phase (deg) 50.9

PCal mode: MANUAL, MANUAL
PCal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2
Sample rate(MISamp/s): 64
Data rate(Mb/s): 2048

PC period (AP's) 5, 5
SampCntNorm: enabled
nlags: 128 t_cohere infinite

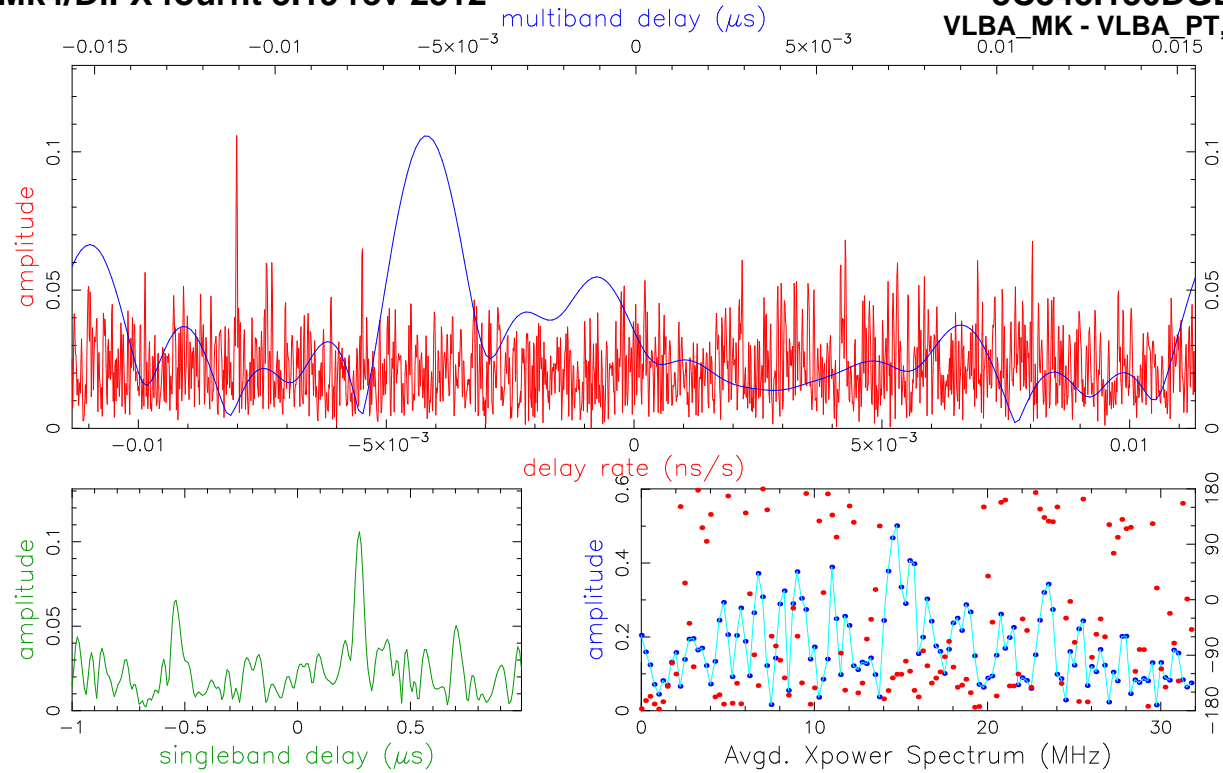
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mp..130DGB Output file: /Exps/c192b/v2/1234/No0106/mp.W.298.130DGB

Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, mp
VLBA_MK - VLBA_PT, fgroup W, pol RL

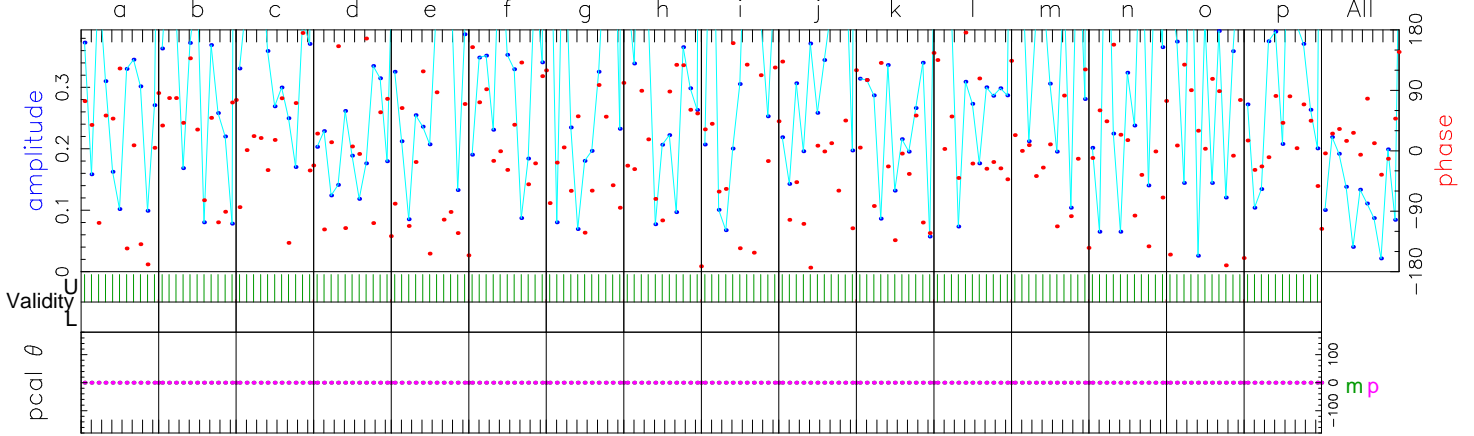


Fringe quality 0

SNR 5.9
Int time 418.912
Amp 0.131
Phase 19.3
PFD 5.5e-01
Delays (us)
SBD 0.272990
MBD -0.005805
Fringe rate (Hz)
-0.691216
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092819
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



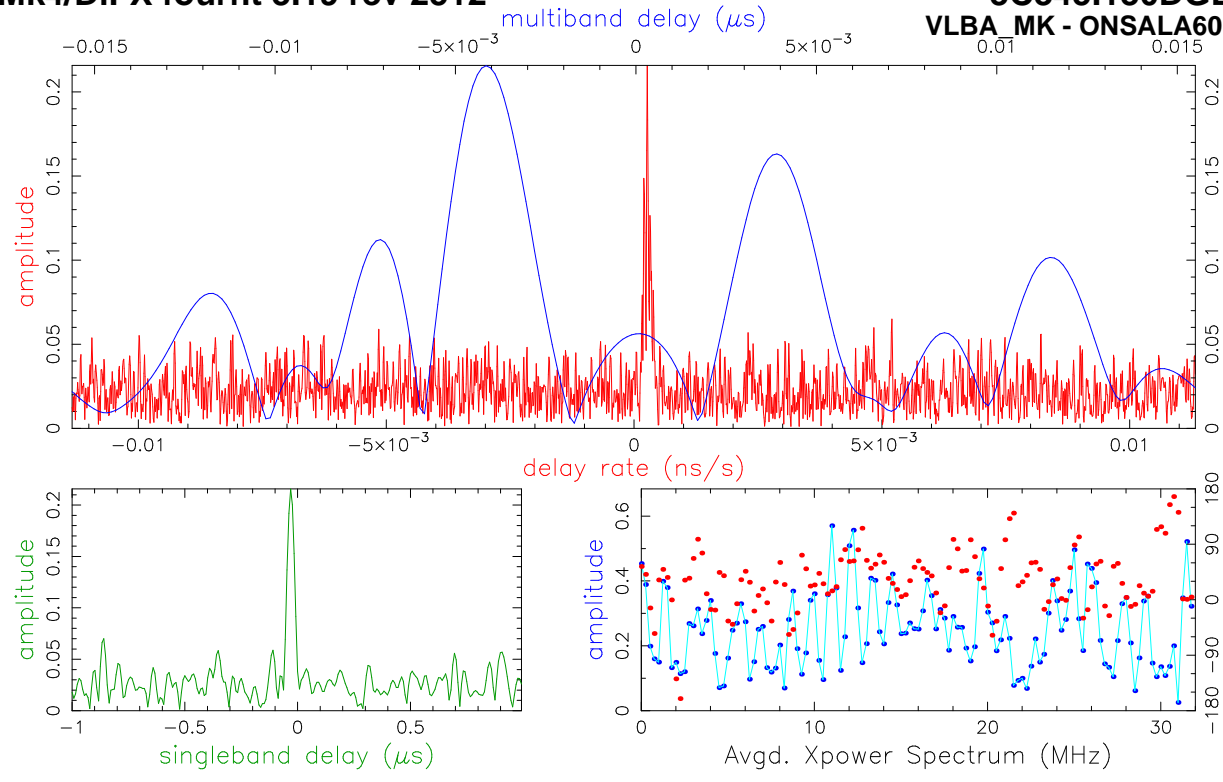
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
m: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	0:0	0:0	0:0
m: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	0:0	0:0	0:0
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
p	1000	1000	1000	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			
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL			
Group delay (usec)(sbd)			-1.32400637668E+04																
Sband delay (usec)			-1.32400662216E+04																
Phase delay (usec)			-1.32403392110E+04																
Delay rate (us/s)			4.25379870136E-01																
Total phase (deg)																			
Apriori delay (usec)																			
Apriori clock (usec)																			
Apriori clockrate (us/s)																			
Apriori rate (us/s)																			
Apriori accel (us/s/s)																			
Resid mbdelay (usec)																			
Resid sbdelay (usec)																			
Resid phdelay (usec)																			
Resid rate (us/s)																			
Resid phase (deg)																			
PCal mode: MANUAL, MANUAL																			
PCal rate: 0.000E+00, 0.000E+00 (us/s)																			
Bits/sample: 2x2																			
Sample rate(MISamp/s): 64																			
Data rate(Mb/s): 2048																			
nlags: 128																			
t_cohere infinite																			
sb window (us)																			
mb window (us)																			
dr window (ns/s)																			
ion window (TEC)																			

ph/seg (deg) 31.6 33.5
amp/seg (%) 67.1 58.5
ph/frq (deg) 51.1 38.7
amp/frq (%) 64.7 67.5

m: az 51.2 el 10.2 pa -72.6
p: az 67.6 el 53.4 pa -83.4
u,v (fr/asec) -3080.481 2051.784

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mp..130DGB Output file: /Exps/c192b/v2/1234/No0106/mp.W.316.130DGB

simultaneous interpolator

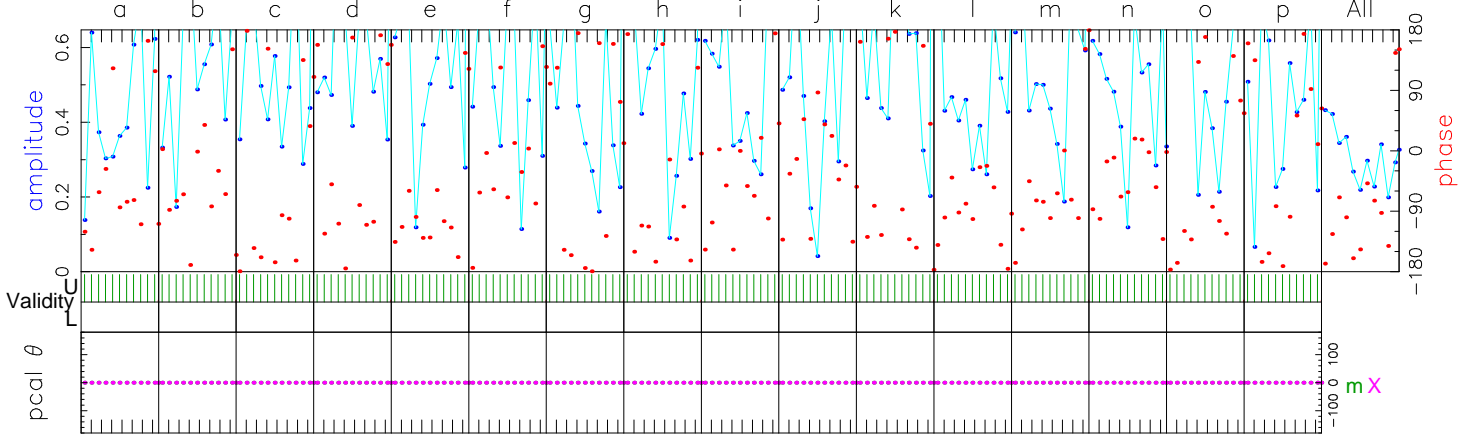


Fringe quality 9

SNR 12.1
Int time 418.637
Amp 0.216
Phase -120.1
PFD 7.7e-25
Delays (us)
SBD -0.030445
MBD -0.004144
Fringe rate (Hz) 0.023338
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.52
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092800
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-110.4	-64.3	-164.5	-134.5	-115.5	-43.8	177.8	-159.6	-89.6	-23.8	-145.9	-94.0	-99.3	-42.3	-166.6	175.8	Phase	-120.1				
	0.2	0.2	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.4	0.3	0.4	0.3	0.4	0.2	Ampl.	0.3				
	124.0	126.1	125.4	124.8	125.4	125.5	124.9	125.7	125.6	124.6	125.2	124.4	124.7	124.9	124.8	107.8	Sbd box	125.1				
UL	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	APs used					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-9.74065743927E+03														Apriori delay (usec)	-9.74062204518E+03	Resid mbdelay (usec)	-4.14409E-03	+/-	8.9E-05
Sband delay (usec)			-9.74065249018E+03														Apriori clock (usec)	-2.9779484E+01	Resid sbdelay (usec)	-3.04450E-02	+/-	1.4E-03
Phase delay (usec)			-9.74062204905E+03														Apriori clockrate (us/s)	-5.3669233E-07	Resid phdelay (usec)	-3.87365E-06	+/-	3.1E-07
Delay rate (us/s)			1.74435962991E+00														Apriori rate (us/s)	1.74435935898E+00	Resid rate (us/s)	2.70932E-07	+/-	1.3E-09
Total phase (deg)																	Apriori accel (us/s/s)	1.52998275500E-05	Resid phase (deg)	-120.1	+/-	9.5

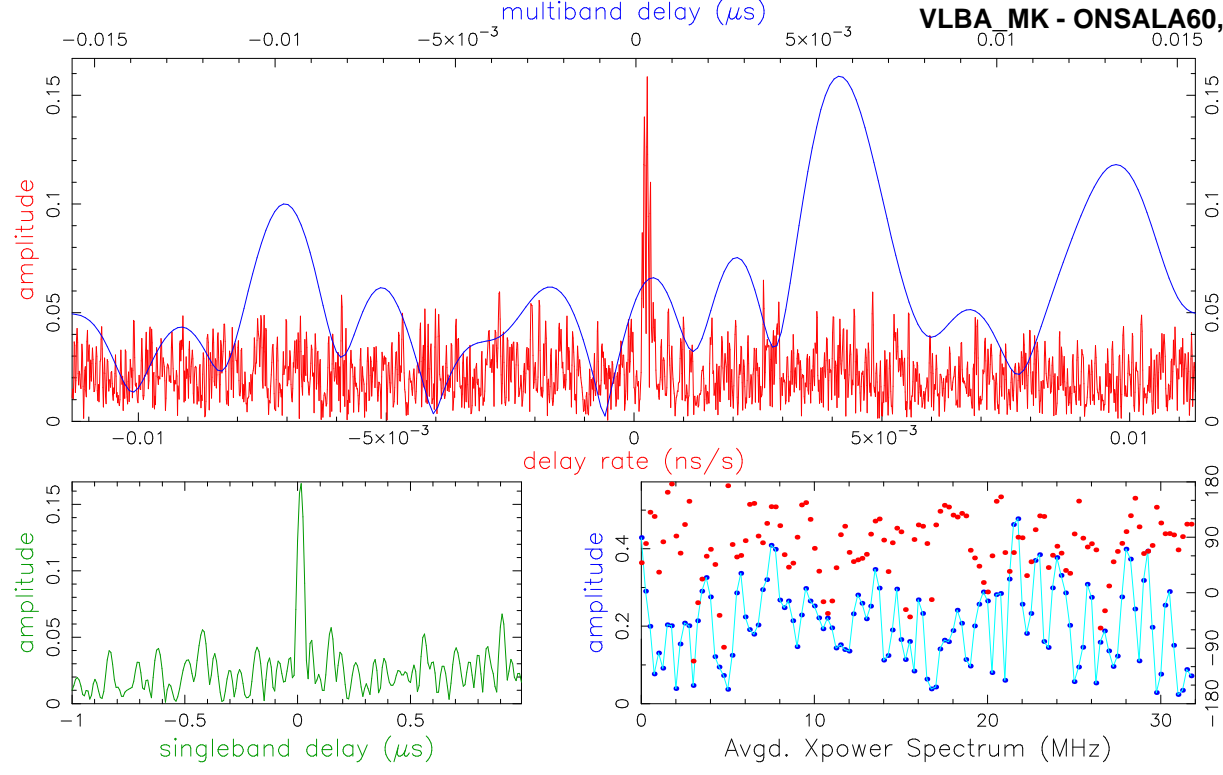
ph/seg (deg) 48.0 16.4
amp/seg (%) 55.6 28.7
ph/frq (deg) 54.1 19.0
amp/frq (%) 55.0 33.1

RMS Theor. Amplitude 0.216 +/- 0.018
Search (2048X64) 0.203
Interp. 0.000
Inc. seg. avg. 0.297
Inc. frq. avg. 0.295

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

m: az 51.2 el 10.2 pa -72.6 X: az 282.9 el 40.7 pa 43.2 u,v (fr/asec) -12979.516 -2268.761 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mX..130DGB Output file: /Exps/c192b/v2/1234/No0106/mX.W.258.130DGB

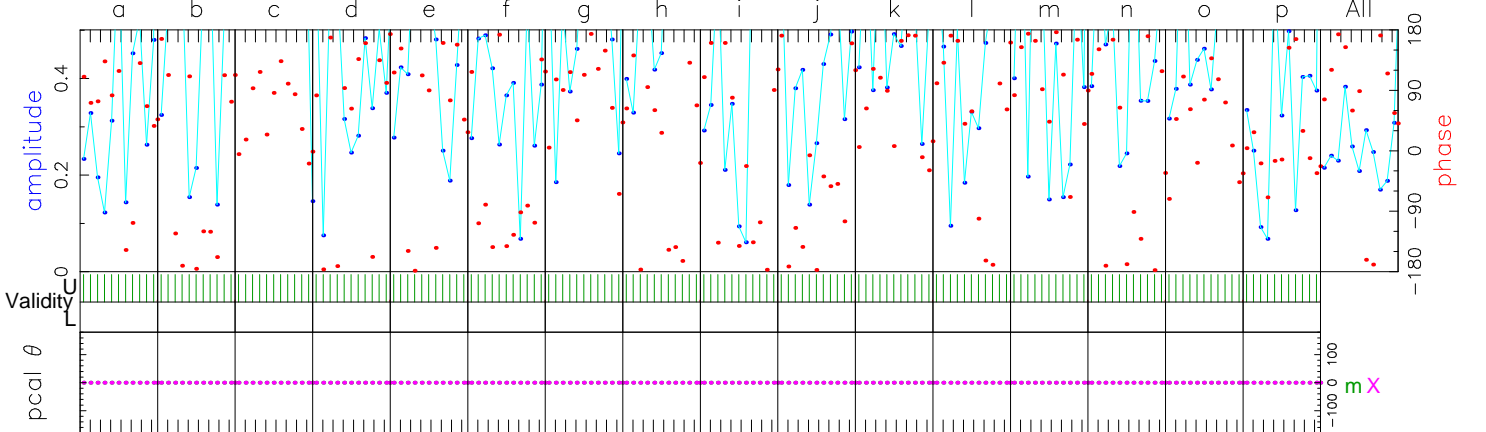


Fringe quality 9

SNR 9.3
Int time 418.636
Amp 0.167
Phase 128.1
PFD 3.8e-12
Delays (us)
SBD 0.013473
MBD 0.005721
Fringe rate (Hz)
0.023259
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

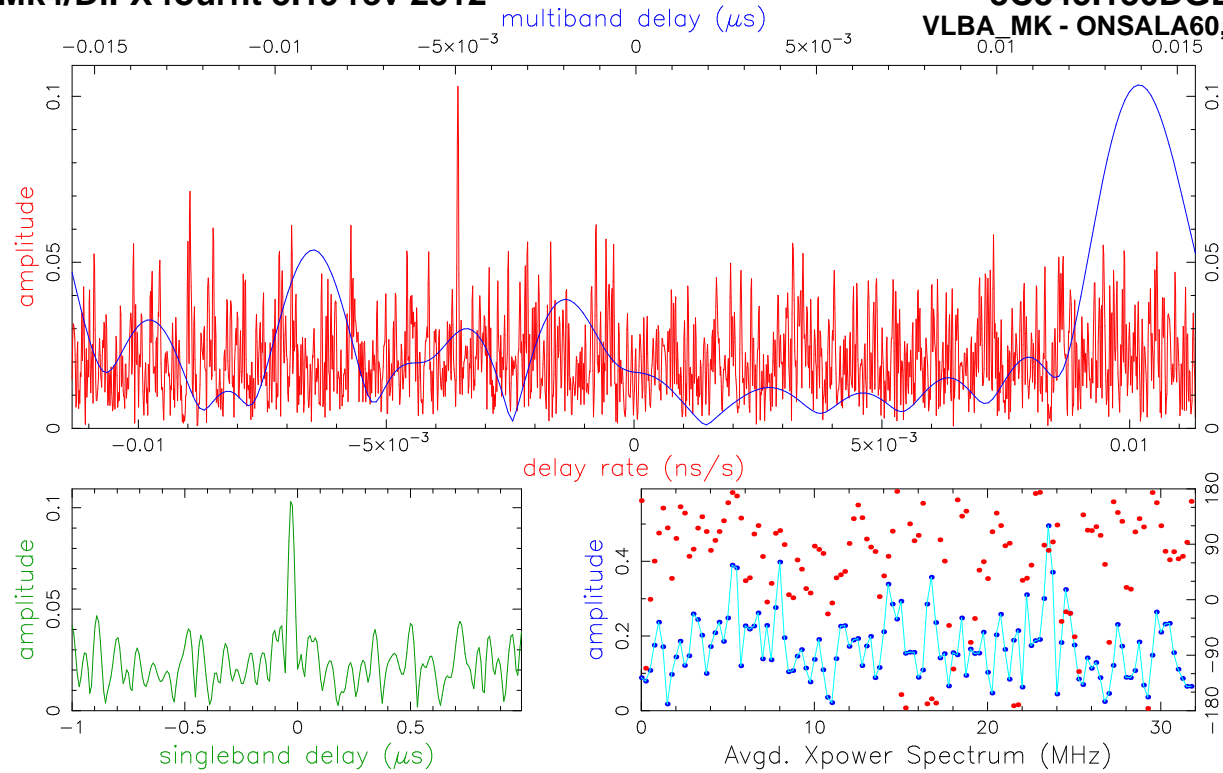
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.52
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092808
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



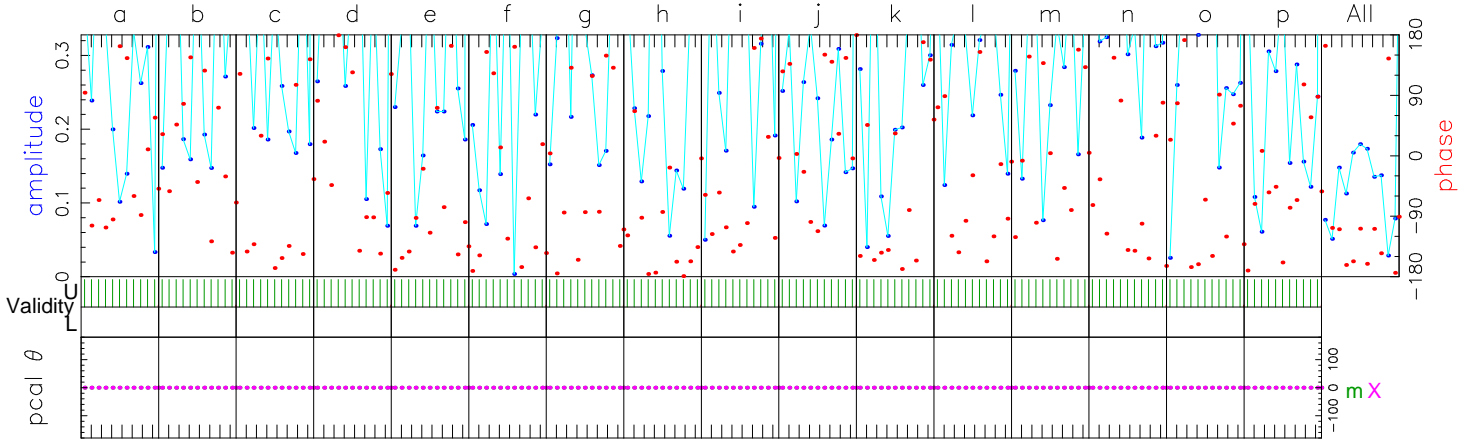
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All						
U/L	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	128.1	Phase					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	0.2	Ampl.					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	130.7	Sbd box					
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used					
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC					
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR			PC amp					
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR			Chan ids					
																			Tracks					
																			Tracks					
Group delay (usec)(sbd)			-9.74061632386E+03																Apriori delay (usec)	-9.74062204518E+03	Resid mbdelay (usec)	5.72131E-03	+/-	1.2E-04
Sband delay (usec)			-9.74060857218E+03																Apriori clock (usec)	-2.9779484E+01	Resid sbdelay (usec)	1.34730E-02	+/-	1.8E-03
Phase delay (usec)			-9.74062204105E+03																Apriori clockrate (us/s)	-5.3669233E-07	Resid phdelay (usec)	4.12956E-06	+/-	4.0E-07
Delay rate (us/s)			1.74435962900E+00																Apriori rate (us/s)	1.74435935898E+00	Resid rate (us/s)	2.70016E-07	+/-	1.6E-09
Total phase (deg)																			Apriori accel (us/s/s)	1.52998275500E-05	Resid phase (deg)	128.1	+/-	12.3

ph/seg (deg) 50.5 21.2 Search (2048X64) 0.155 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 62.7 37.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 65.5 24.5 Inc. seg. avg. 0.235 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 67.0 42.8 Inc. frq. avg. 0.240 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
m: az 51.2 el 10.2 pa -72.6 X: az 282.9 el 40.7 pa 43.2 u,v (fr/asec) -12979.516 -2268.761 ion window (TEC) 0.00 0.00 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mX..130DGB Output file: /Exps/c192b/v2/1234/No0106/mX.W.285.130DGB



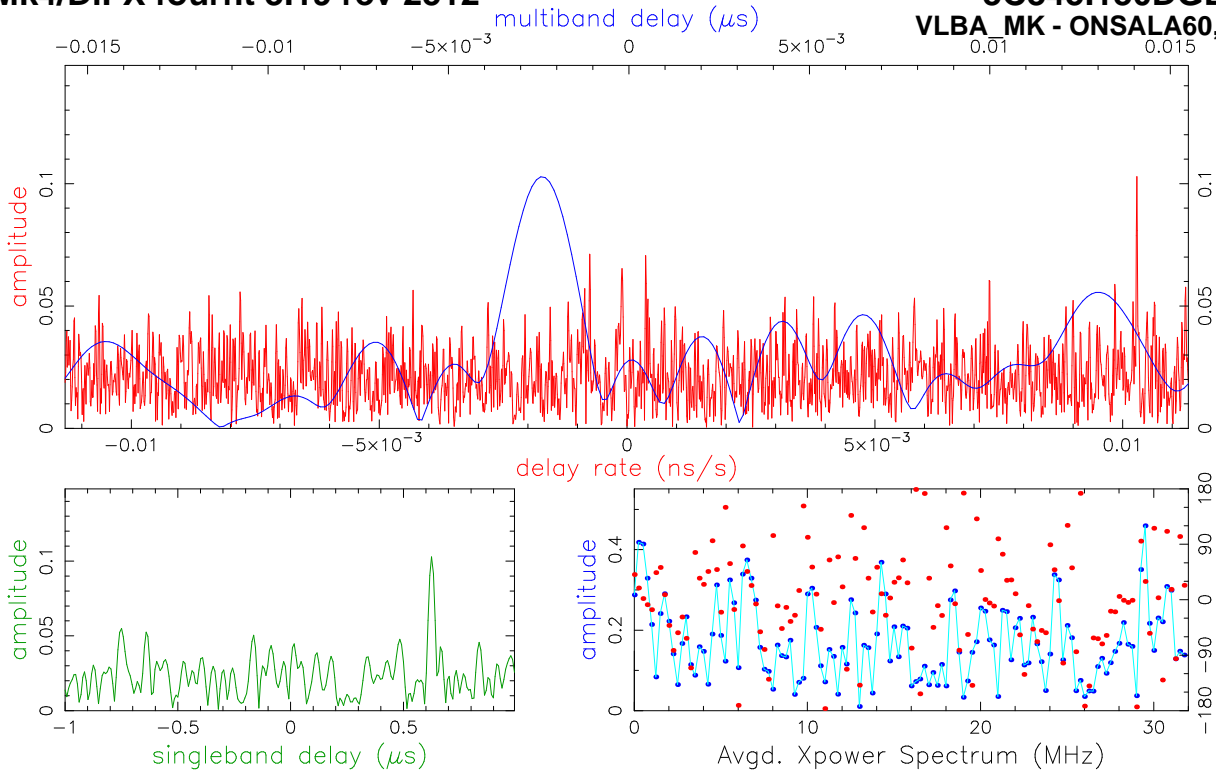
Fringe quality 0
SNR 5.9
Int time 418.637
Amp 0.109
Phase -140.6
PFD 6.7e-01
Delays (us)
SBD -0.028048
MBD 0.014059
Fringe rate (Hz)
-0.306888
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.52
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092815
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-75.0	11.5	-174.2	-143.6	-142.7	-140.7	-150.0	-149.1	-116.0	136.6	-157.6	-127.4	-125.6	-147.4	-168.8	-95.3	Phase	-140.6				
	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.0	0.2	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1				
	116.7	50.3	118.6	30.1	140.0	113.9	120.5	125.1	92.6	155.5	103.9	117.8	172.0	40.3	213.1	245.7	Sbd box	125.4				
U/L	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	APs used					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-9.74063923595E+03														Apriori delay (usec)	-9.74062204518E+03	Resid mbdelay (usec)	1.40592E-02	+/-	1.8E-04
Sband delay (usec)			-9.74065009268E+03														Apriori clock (usec)	-2.9779484E+01	Resid sbdelay (usec)	-2.80475E-02	+/-	2.9E-03
Phase delay (usec)			-9.74062204971E+03														Apriori clockrate (us/s)	-5.3669233E-07	Resid phdelay (usec)	-4.53288E-06	+/-	6.3E-07
Delay rate (us/s)			1.74435579632E+00														Apriori rate (us/s)	1.74435935898E+00	Resid rate (us/s)	-3.56266E-06	+/-	2.6E-09
Total phase (deg)																	Apriori accel (us/s/s)	1.52998275500E-05	Resid phase (deg)	-140.6	+/-	19.5

ph/seg (deg) 37.1 33.8 Search (2048X64) 0.109 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 54.9 59.0 Interp. 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 53.3 39.0 Inc. seg. avg. 0.106 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 54.8 68.1 Inc. frq. avg. 0.106 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
m: az 51.2 el 10.2 pa -72.6 X: az 282.9 el 40.7 pa 43.2 u,v (fr/asec) -12979.516 -2268.761 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mX..130DGB Output file: /Exps/c192b/v2/1234/No0106/mX.W.305.130DGB

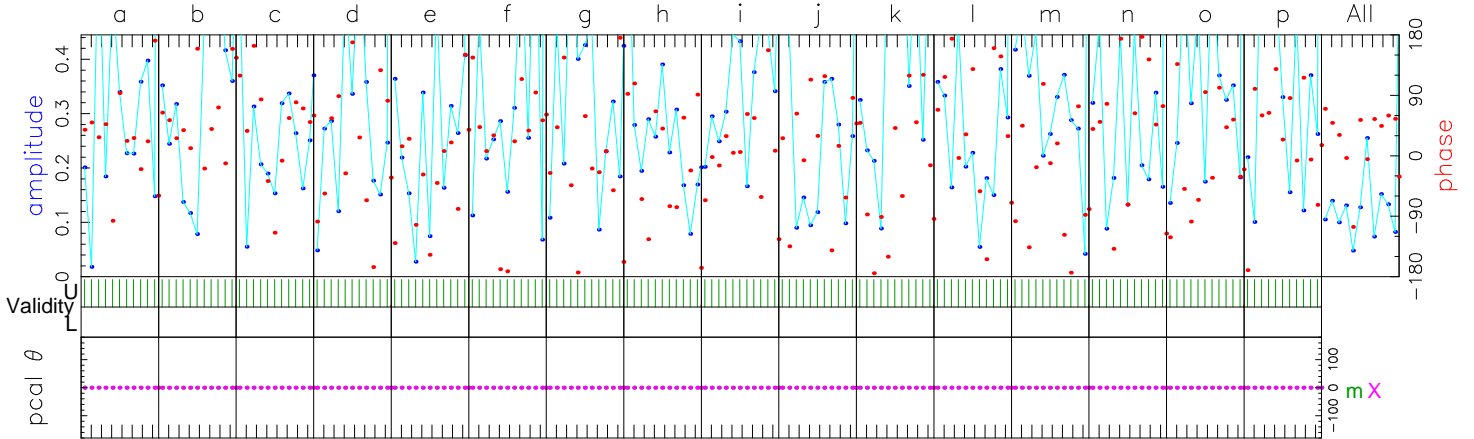


Fringe quality 0

SNR 5.8
Int time 418.636
Amp 0.148
Phase 32.5
PFD 8.8e-01
Delays (us)
SBD 0.625282
MBD -0.002398
Fringe rate (Hz) 0.887025
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

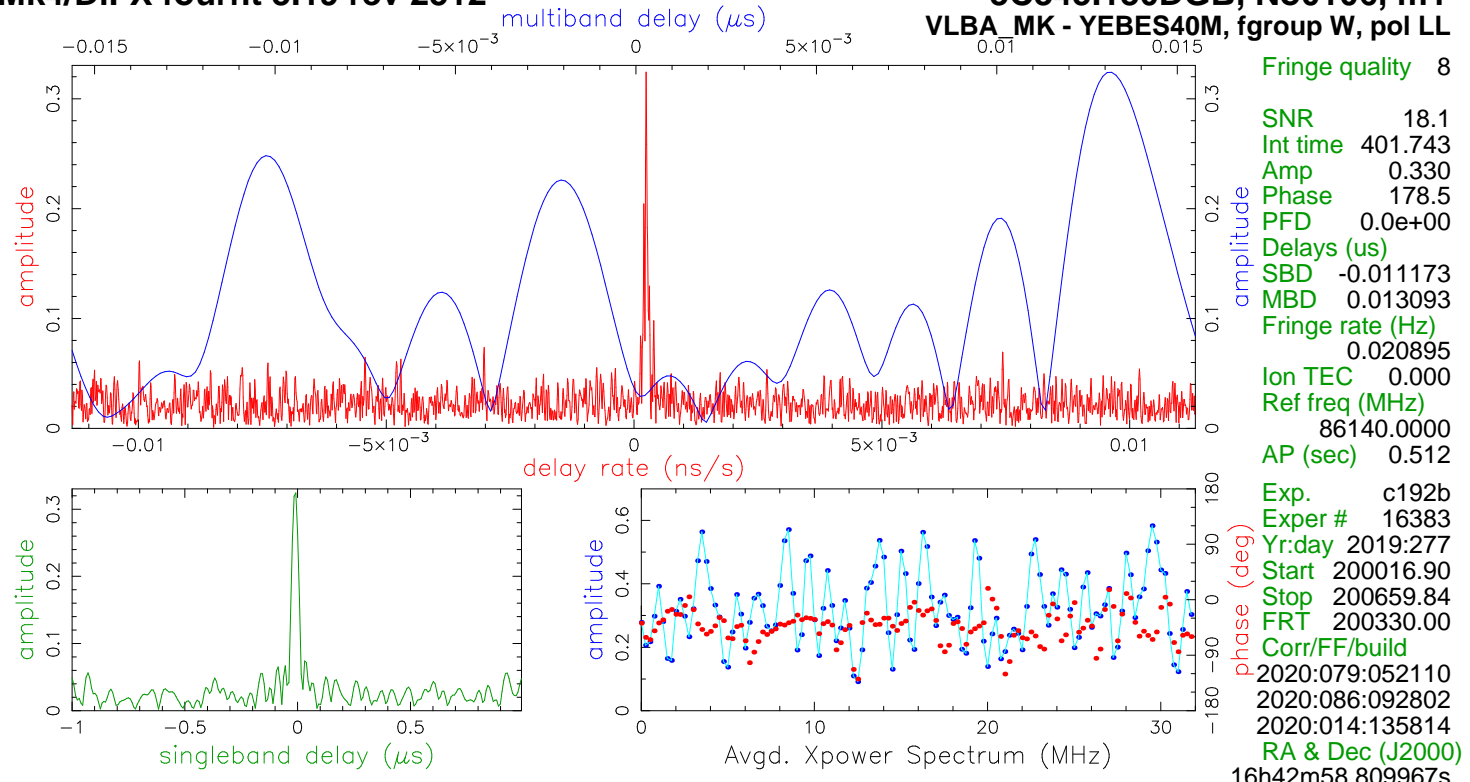
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.52
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092820
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
UL	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	Phase	32.5
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	0.2
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	209.0
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		ManI PC	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		PC amp	
																		Chan ids	
																		Tracks	
																		Chan ids	
																		Tracks	
Group delay (usec)(sbd)	-9.73999944294E+03			Apriori delay (usec)			-9.74062204518E+03			Resid mbdelay (usec)			-2.39776E-03			+/- 1.9E-04			
Sband delay (usec)	-9.73999676368E+03			Apriori clock (usec)			-2.9779484E+01			Resid sbdelay (usec)			6.25282E-01			+/- 3.0E-03			
Phase delay (usec)	-9.74062204413E+03			Apriori clockrate (us/s)			-5.3669233E-07			Resid phdelay (usec)			1.04676E-06			+/- 6.4E-07			
Delay rate (us/s)	1.74436965646E+00			Apriori rate (us/s)			1.74435935898E+00			Resid rate (us/s)			1.02975E-05			+/- 2.7E-09			
Total phase (deg)	-317.3			Apriori accel (us/s/s)			1.52998275500E-05			Resid phase (deg)			32.5			+/- 19.9			

ph/seg (deg) 48.6 34.5 Search (2048X64) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 63.7 60.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.9 39.8 Inc. seg. avg. 0.153 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 56.6 69.5 Inc. frq. avg. 0.151 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 51.2 el 10.2 pa -72.6 X: az 282.9 el 40.7 pa 43.2 u,v (fr/asec) -12979.516 -2268.761 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mX..130DGB Output file: /Exps/c192b/v2/1234/No0106/mX.W.319.130DGB



Fringe quality 8

SNR 18.1

Int time 401.743

Amp 0.330

Phase 178.5

PFD 0.0e+00

Delays (us)

SBD -0.011173

MBD 0.013093

Fringe rate (Hz)

0.020895

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192b

Exper # 16383

Yr:day 2019:277

Start 200016.90

Stop 200659.84

FRT 200330.00

Corr/FF/build

2020:079:052110

2020:086:092802

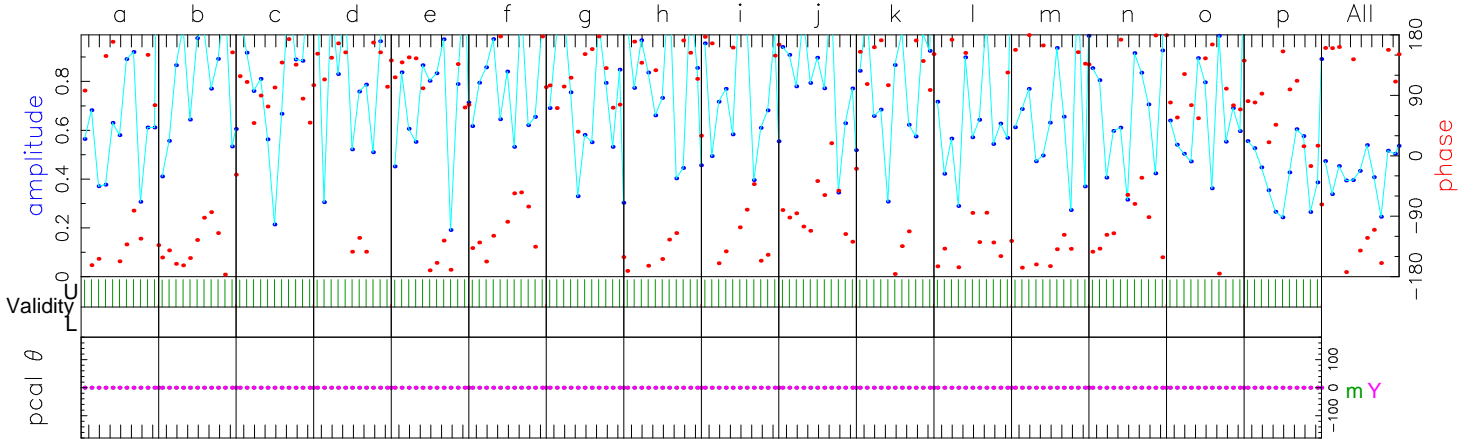
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-167.9	-140.4	102.9	160.9	145.9	-122.8	111.8	175.2	-150.4	-78.7	158.2	-148.4	-174.1	-118.9	101.3	65.4	Phase	178.5
	0.3	0.7	0.7	0.7	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.4	0.6	0.5	0.5	0.3	Ampl.	0.5
	126.1	127.9	127.9	126.9	128.2	127.2	127.3	127.4	127.9	127.5	127.3	127.9	126.8	127.4	126.8	126.3	Sbd box	127.6
UL	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-1.10359630142E+04			Apriori delay (usec)			-1.10359448576E+04			Resid mbdelay (usec)			1.30934E-02			+/- 6.0E-05		
Sband delay (usec)	-1.10359560306E+04			Apriori clock (usec)			-7.0789356E+00			Resid sbdelay (usec)			-1.11730E-02			+/- 9.5E-04		
Phase delay (usec)	-1.10359448518E+04			Apriori clockrate (us/s)			-2.2869228E-07			Resid phdelay (usec)			5.75697E-06			+/- 2.0E-07		
Delay rate (us/s)	1.90889149461E+00			Apriori rate (us/s)			1.90889125203E+00			Resid rate (us/s)			2.42573E-07			+/- 8.8E-10		
Total phase (deg)	167.1			Apriori accel (us/s/s)			3.62307354815E-05			Resid phase (deg)			178.5			+/- 6.3		

ph/seg (deg) 40.4 11.0 Search (2048X64) 0.321 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

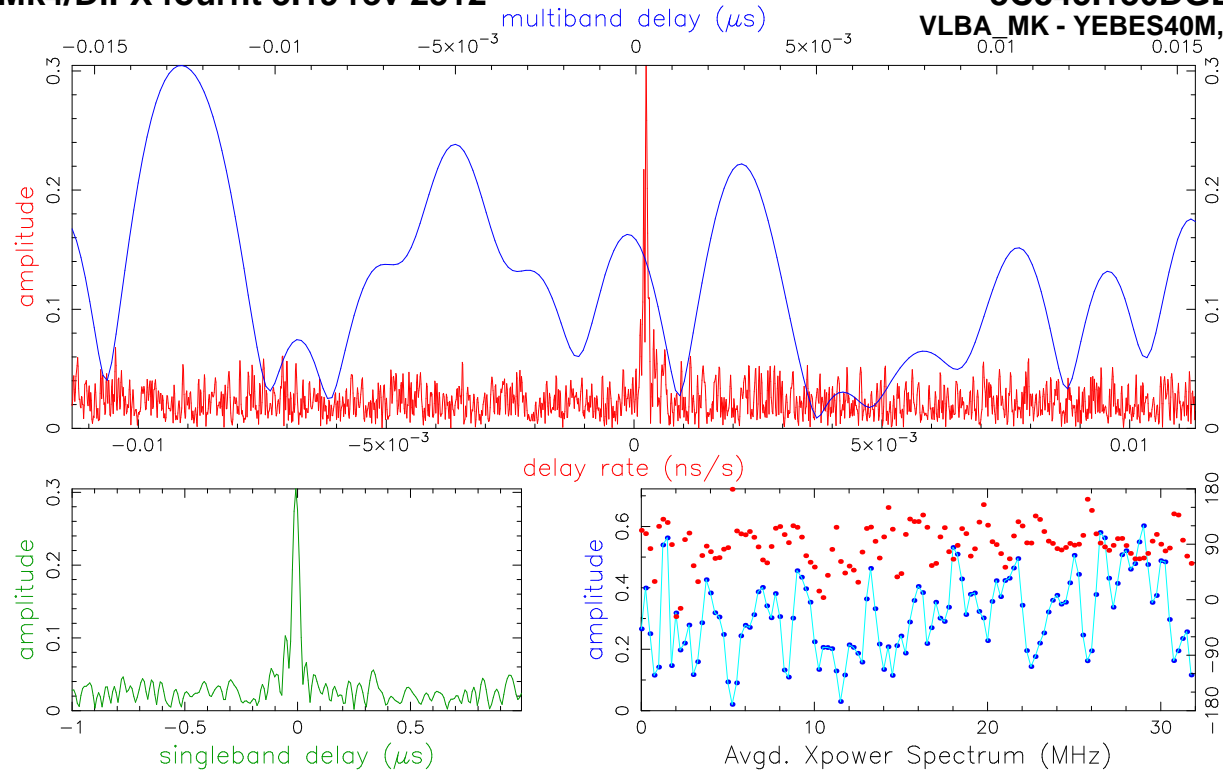
amp/seg (%) 38.5 19.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 61.3 12.7 Inc. seg. avg. 0.421 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 70.2 22.1 Inc. frq. avg. 0.522 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

m: az 51.2 el 10.2 pa -72.6 Y: az 289.3 el 45.6 pa 69.4 u,v (fr/asec) -14166.534 427.928 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mY...130DGB Output file: /Exps/c192b/v2/1234/No0106/mY.W.262.130DGB

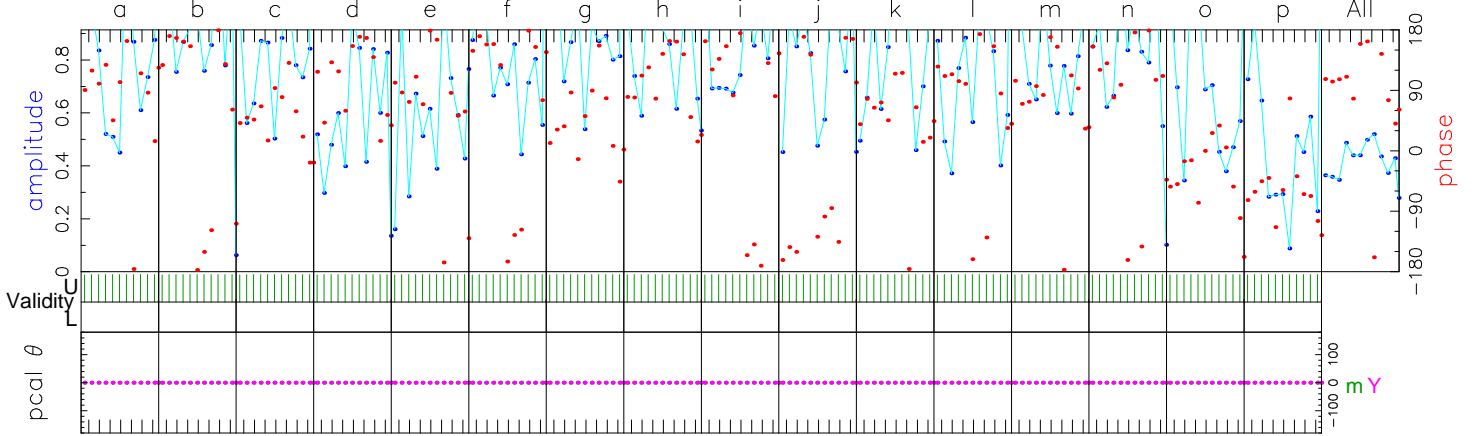


Fringe quality 9

SNR 16.7
Int time 401.742
Amp 0.305
Phase 119.3
PFD 0.0e+00
Delays (us)
SBD -0.007771
MBD -0.012605
Fringe rate (Hz) 0.021119
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200016.90
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092808
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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

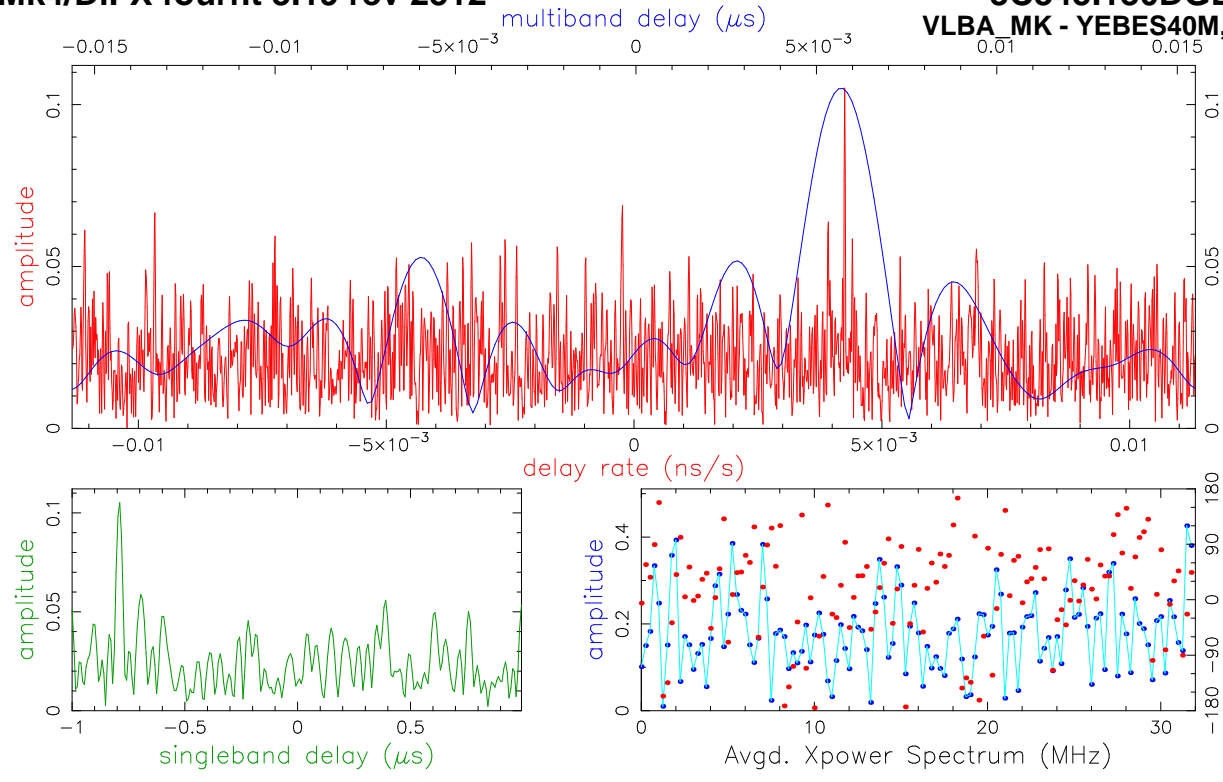


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	111.2	163.0	51.8	118.4	109.5	166.8	39.5	105.7	154.1	-157.5	74.7	134.2	99.1	141.1	-32.7	-63.4	Phase	119.3	
	0.6	0.7	0.6	0.4	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.4	0.6	0.6	0.5	0.4	Ampl.	0.5	
	128.8	128.1	128.1	127.7	127.6	128.1	128.2	128.4	128.3	128.1	128.0	127.8	128.1	127.5	127.4	126.0	Sbd box	128.0	
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks		
																	Chan ids		
																	Tracks		
Group delay (usec)(sbd)			-1.10359574621E+04						Apriori delay (usec)		-1.10359448576E+04						Resid mbdelay (usec)	-1.26045E-02	+/- 6.5E-05
Sband delay (usec)			-1.10359526281E+04						Apriori clock (usec)		-7.0789356E+00						Resid sbdelay (usec)	-7.77050E-03	+/- 1.0E-03
Phase delay (usec)			-1.10359448537E+04						Apriori clockrate (us/s)		-2.2869228E-07						Resid phdelay (usec)	3.84626E-06	+/- 2.2E-07
Delay rate (us/s)			1.90889149720E+00						Apriori rate (us/s)		1.90889125203E+00						Resid rate (us/s)	2.45169E-07	+/- 9.5E-10
Total phase (deg)				107.8					Apriori accel (us/s/s)		3.62307354815E-05						Resid phase (deg)	119.3	+/- 6.9

ph/seg (deg) 44.3 11.9 Search (2048X64) 0.305 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 44.1 20.7 Interp. 0.302 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 76.2 13.7 Inc. seg. avg. 0.417 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 88.2 24.0 Inc. frq. avg. 0.541 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
m: az 51.2 el 10.2 pa -72.6 Y: az 289.3 el 45.6 pa 69.4 u,v (fr/asec) -14166.534 427.928 ion window (TEC) 0.00 0.00 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mY...130DGB Output file: /Exps/c192b/v2/1234/No0106/mY.W.282.130DGB

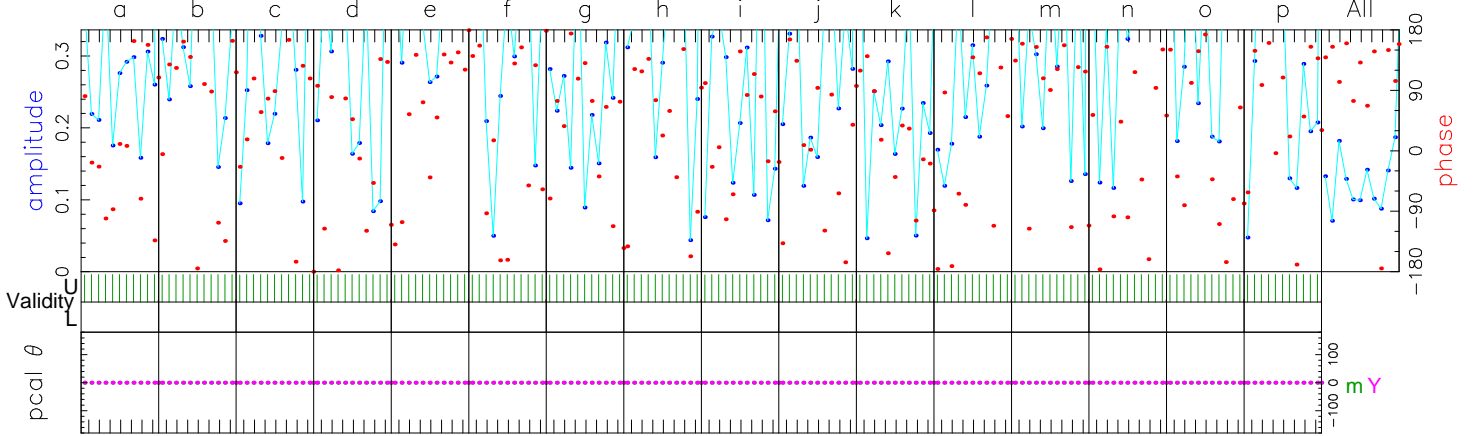
Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, mY
VLBA_MK - YEBES40M, fgroup W, pol LR



Fringe quality 0
SNR 5.8
Int time 401.743
Amp 0.112
Phase 125.3
PFD 8.2e-01
Delays (us)
SBD -0.790834
MBD 0.005691
Fringe rate (Hz) 0.367167
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200016.90
Stop 200659.84
FRT 200330.00
Corr/FF/build 2020:079:052110
2020:086:092813
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-56.2	141.1	100.2	144.6	128.4	-179.9	76.6	116.0	48.2	141.6	46.6	161.8	141.7	123.8	170.5	98.7	Phase	125.3				
	0.0	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	Ampl.	0.1				
	74.3	116.5	130.7	93.9	28.0	37.8	4.9	199.1	12.9	13.0	105.7	147.5	29.2	71.5	178.7	186.9	Sbd box	27.8				
UL	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids					
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-1.10367204162E+04														Apriori delay (usec)	-1.10359448576E+04	Resid mbdelay (usec)	5.69137E-03	+/-	1.9E-04
Sband delay (usec)			-1.10367356916E+04														Apriori clock (usec)	-7.0789356E+00	Resid sbdelay (usec)	-7.90834E-01	+/-	3.0E-03
Phase delay (usec)			-1.10359448535E+04														Apriori clockrate (us/s)	-2.2869228E-07	Resid phdelay (usec)	4.04030E-06	+/-	6.4E-07
Delay rate (us/s)			1.90889551448E+00														Apriori rate (us/s)	1.90889125203E+00	Resid rate (us/s)	4.26245E-06	+/-	2.7E-09
Total phase (deg)				113.8													Apriori accel (us/s/s)	3.62307354815E-05	Resid phase (deg)	125.3	+/-	19.8

ph/seg (deg) 35.6 34.3
amp/seg (%) 42.5 59.8
ph/frq (deg) 62.9 39.5
amp/frq (%) 57.1 69.0

RMS Theor. Amplitude 0.112 +/- 0.019
Search (2048X64) 0.104
Interp. 0.000
Inc. seg. avg. 0.114
Inc. frq. avg. 0.114

Group delay (usec)(sbd) -1.10367204162E+04
Sband delay (usec) -1.10367356916E+04
Phase delay (usec) -1.10359448535E+04
Delay rate (us/s) 1.90889551448E+00
Total phase (deg) 113.8

Apriori delay (usec) -1.10359448576E+04
Apriori clock (usec) -7.0789356E+00
Apriori clockrate (us/s) -2.2869228E-07
Apriori rate (us/s) 1.90889125203E+00
Apriori accel (us/s/s) 3.62307354815E-05

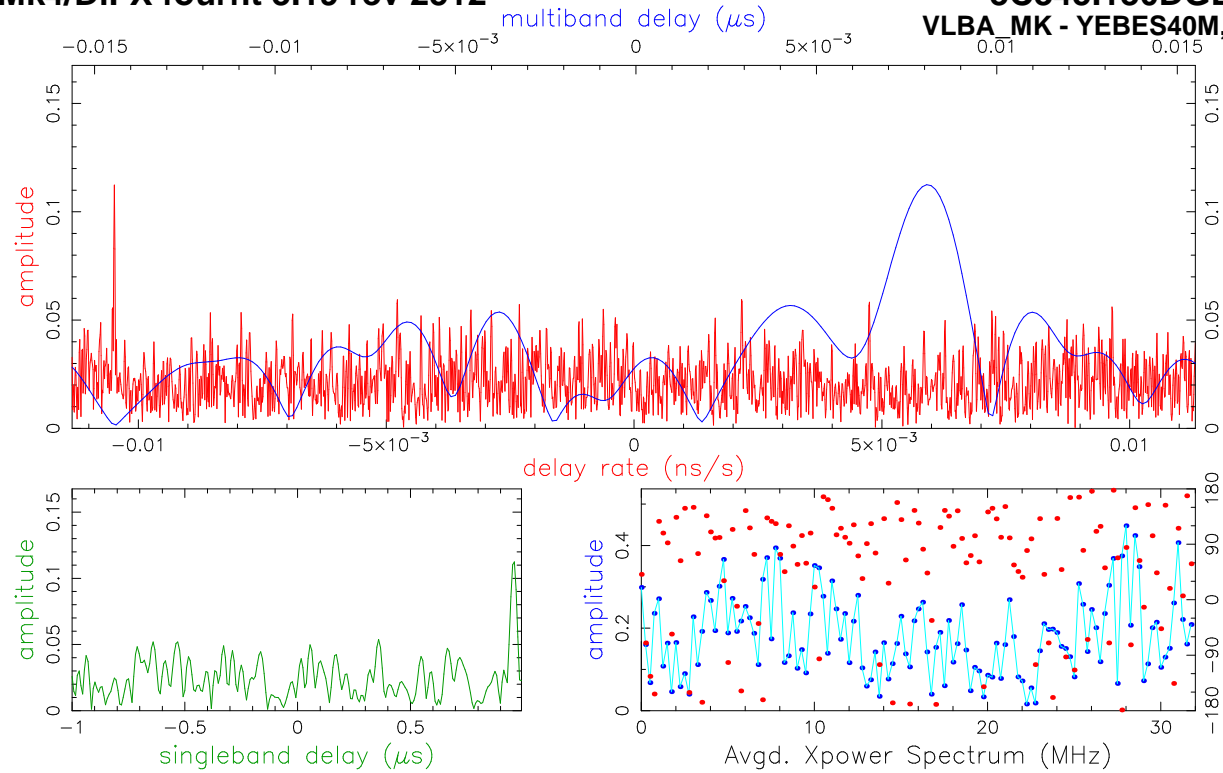
Resid mbdelay (usec) 5.69137E-03 +/- 1.9E-04
Resid sbdelay (usec) -7.90834E-01 +/- 3.0E-03
Resid phdelay (usec) 4.04030E-06 +/- 6.4E-07
Resid rate (us/s) 4.26245E-06 +/- 2.7E-09
Resid phase (deg) 125.3 +/- 19.8

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

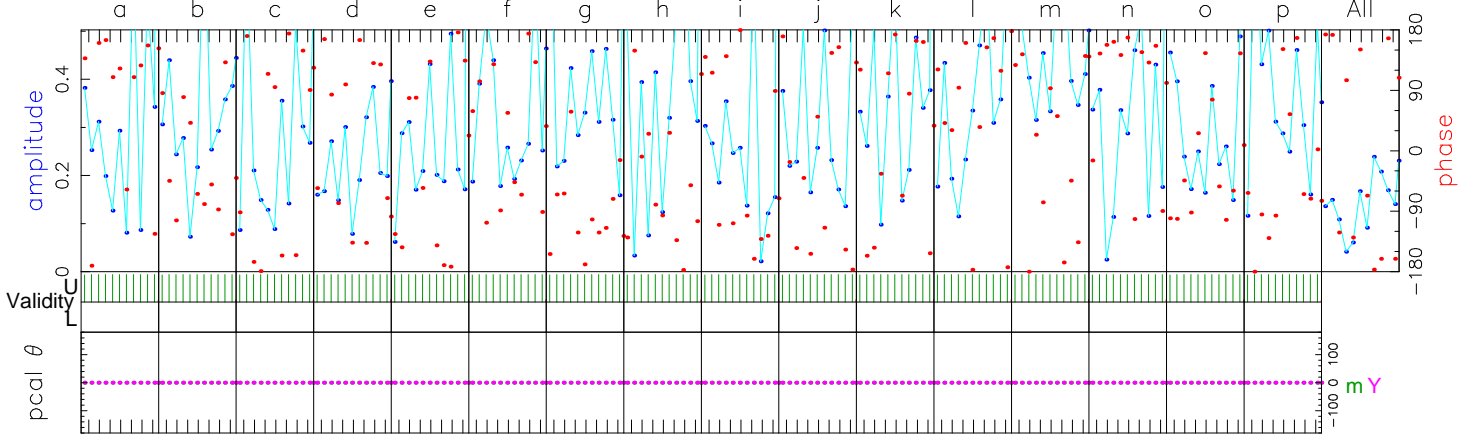
m: az 51.2 el 10.2 pa -72.6 Y: az 289.3 el 45.6 pa 69.4 u,v (fr/asec) -14166.534 427.928 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mY..130DGB Output file: /Exps/c192b/v2/1234/No0106/mY.W.296.130DGB



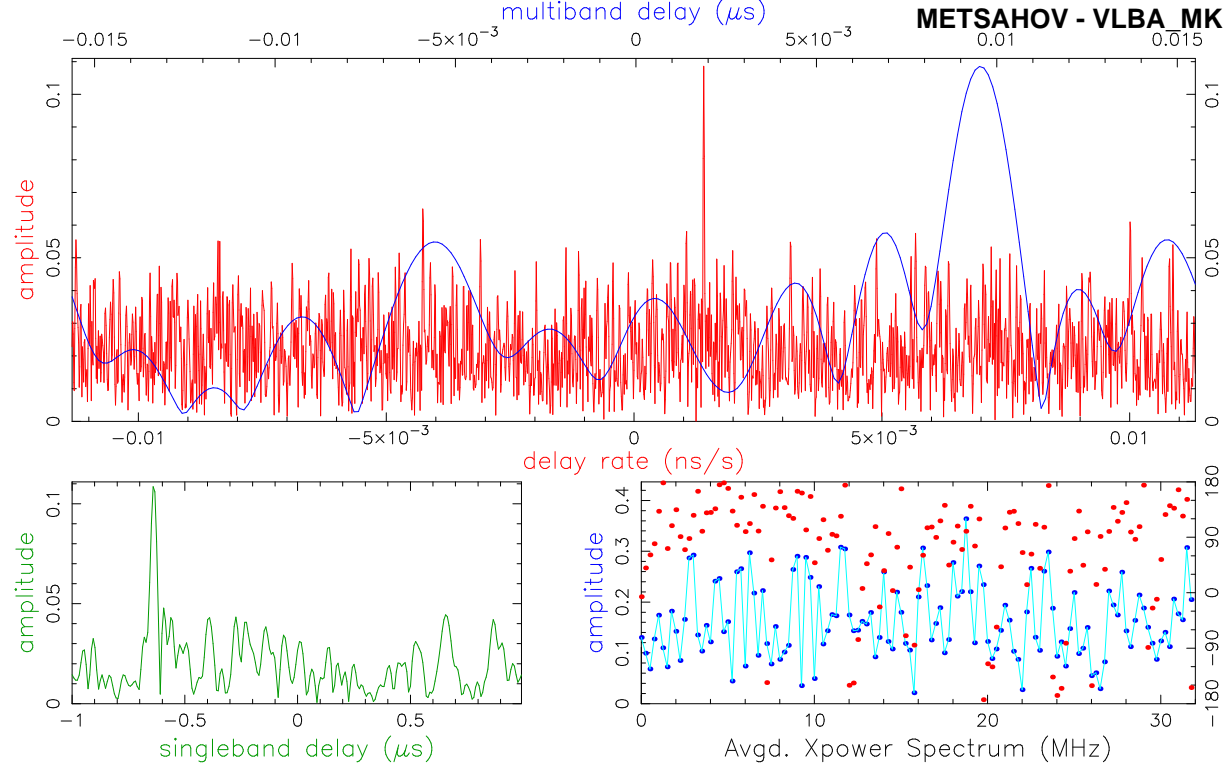
Fringe quality 0
SNR 6.3
Int time 401.742
Amp 0.168
Phase -173.6
PFD 9.1e-02
Delays (us)
SBD 0.957719
MBD 0.008021
Fringe rate (Hz)
-0.904273
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200016.90
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092818
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



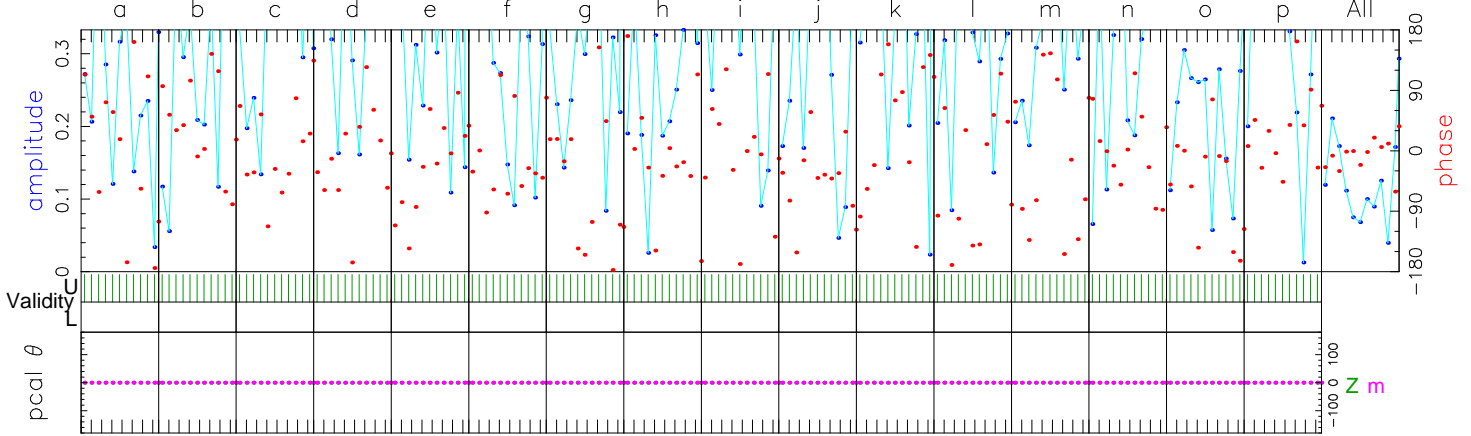
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
UL	149.1	-75.8	172.8	158.1	165.8	155.6	-115.1	-108.1	-173.7	-152.3	168.8	136.1	146.9	165.2	-89.8	-127.0		Phase	-173.6				
m	0.4	0.2	0.3	0.1	0.2	0.1	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.2		Ampl.	0.2				
Y	251.4	195.5	9.7	76.4	11.4	237.6	252.0	241.6	122.8	82.2	73.7	250.4	33.8	181.5	163.4	70.6		Sbd box	251.6				
m	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		APs used					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase					
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids					
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-1.10349993363E+04															Apriori delay (usec)	-1.10359448576E+04	Resid mbdelay (usec)	8.02124E-03	+/-	1.7E-04
Sband delay (usec)			-1.10349871386E+04															Apriori clock (usec)	-7.0789356E+00	Resid sbdelay (usec)	9.57719E-01	+/-	2.7E-03
Phase delay (usec)			-1.10359448632E+04															Apriori clockrate (us/s)	-2.2869228E-07	Resid phdelay (usec)	-5.59704E-06	+/-	5.9E-07
Delay rate (us/s)			1.90888075432E+00															Apriori rate (us/s)	1.90889125203E+00	Resid rate (us/s)	-1.04977E-05	+/-	2.5E-09
Total phase (deg)																		Apriori accel (us/s/s)	3.62307354815E-05	Resid phase (deg)	-173.6	+/-	18.3

ph/seg (deg) 48.1 31.6 Search (2048X64) 0.109 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 54.0 55.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 50.4 36.5 Inc. seg. avg. 0.176 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 57.7 63.8 Inc. frq. avg. 0.189 Data rate (MB/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
m: az 51.2 el 10.2 pa -72.6 Y: az 289.3 el 45.6 pa 69.4 u,v (fr/asec) -14166.534 427.928 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/mY...130DGB Output file: /Exps/c192b/v2/1234/No0106/mY.W.314.130DGB simultaneous interpolator



Fringe quality 0
 SNR 6.2
 Int time 418.862
 Amp 0.111
 Phase -13.4
 PFD 1.6e-01
 Delays (us)
 SBD -0.637569
 MBD 0.009545
 Fringe rate (Hz)
 0.121396
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c192b
 Exper # 16383
 Yr:day 2019:277
 Start 200000.00
 Stop 200659.84
 FRT 200330.00
 Corr/FF/build
 2020:079:052110
 2020:086:092831
 2020:014:135814
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
50.2	11.4	-10.3	-11.1	-5.2	-36.7	-133.5	-18.3	10.3	-45.3	89.3	11.3	-147.6	-24.9	-34.5	9.6	Phase	-13.4	
0.0	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.2	0.1	0.3	Ampl.	0.1	
54.0	168.8	46.4	45.9	9.0	45.8	214.1	30.7	83.4	220.6	33.6	95.0	105.2	106.7	78.2	47.6	Sbd box	47.4	
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

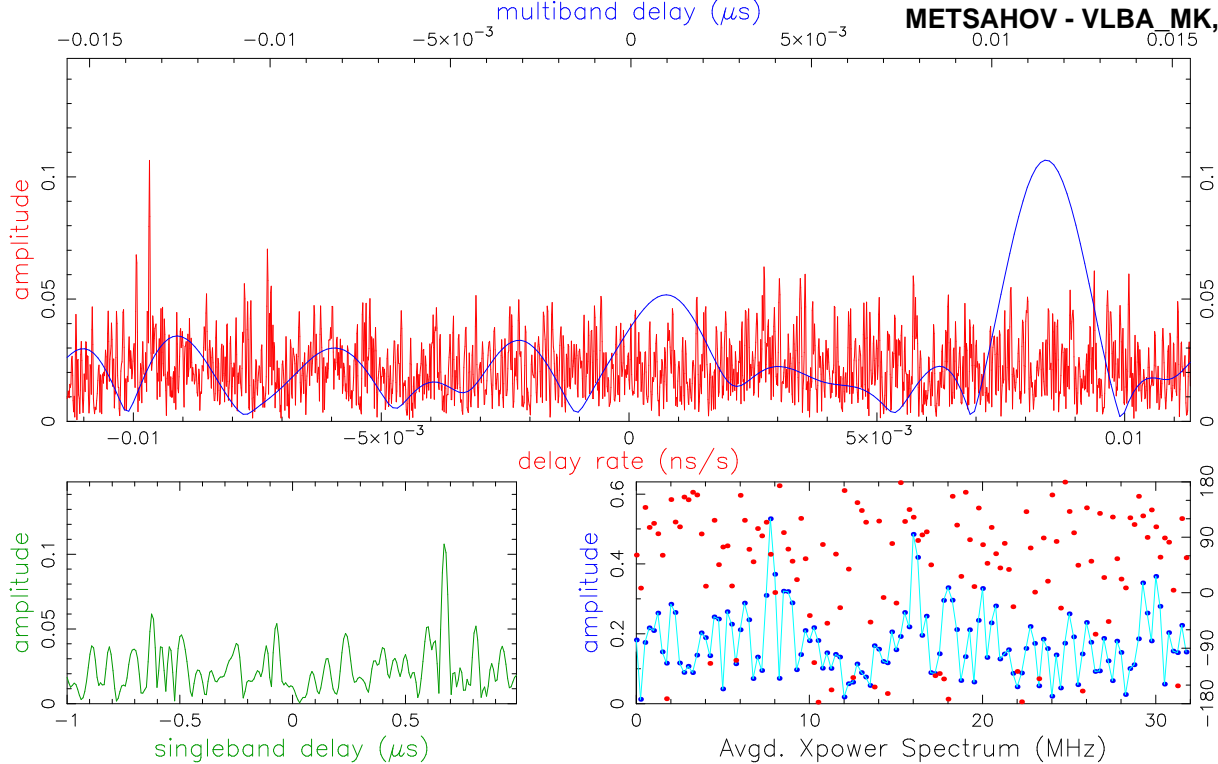
Group delay (usec)(sbd) 8.13026943871E+03 Apriori delay (usec) 8.13091614411E+03 Resid mbdelay (usec) 9.54460E-03 +/- 1.7E-04
 Sband delay (usec) 8.13027857461E+03 Apriori clock (usec) -2.4025350E-08 Resid sbdelay (usec) -6.37569E-01 +/- 2.8E-03
 Phase delay (usec) 8.13091614368E+03 Apriori clockrate (us/s) 2.4985100E-08 Resid phdelay (usec) -4.32860E-07 +/- 6.0E-07
 Delay rate (us/s) -1.71518222360E+00 Apriori rate (us/s) -1.71518363289E+00 Resid rate (us/s) 1.40929E-06 +/- 2.5E-09
 Total phase (deg) 221.9 Apriori accel (us/s/s) -5.06363845314E-06 Resid phase (deg) -13.4 +/- 18.6

RMS Theor. Amplitude 0.111 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 22.1 32.2 Search (2048X64) 0.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 46.7 56.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 60.7 37.1 Inc. seg. avg. 0.103 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 70.4 64.8 Inc. frq. avg. 0.112 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 290.0 el 35.3 pa 37.5 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 12780.058 3114.959 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/Zm..130DGB Output file: /Exps/c192b/v2/1234/No0106/Zm.W.352.130DGB

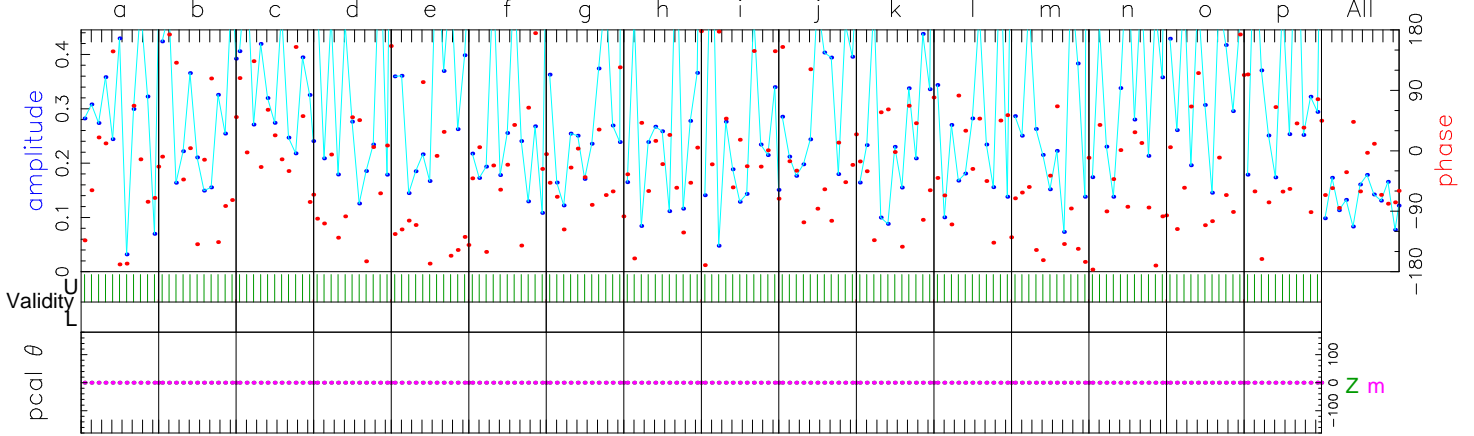
Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, Zm
METSAROV - VLBA_MK, fgroup W, pol RR



Fringe quality 0
SNR 6.0
Int time 418.861
Amp 0.148
Phase -45.6
PFD 3.5e-01
Delays (us)
SBD 0.673989
MBD 0.011550
Fringe rate (Hz)
-0.834820
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092836
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-37.1	-74.5	18.3	-61.5	-117.5	-18.5	-45.6	-42.8	7.6	-59.5	-46.6	5.0	-91.8	-50.5	-64.8	-25.6		Phase	-45.6
	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.2		Ampl.	0.1
	189.0	102.4	122.3	22.3	231.8	15.2	117.2	112.9	204.3	162.1	183.2	55.5	64.4	205.2	188.8	151.5		Sbd box	215.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	

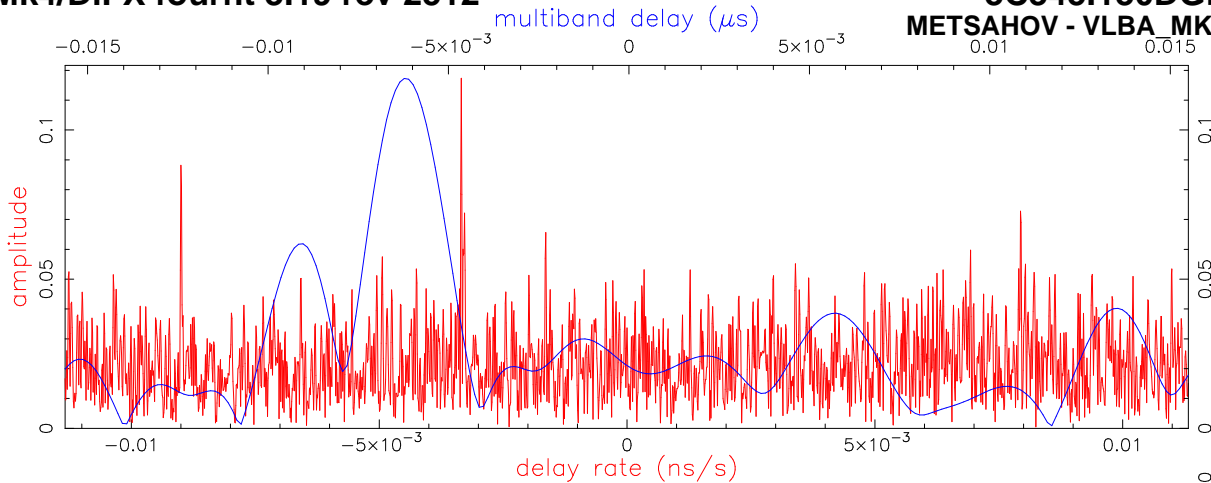
Group delay (usec)(sbd) 8.13158394410E+03 Apriori delay (usec) 8.13091614411E+03 Resid mbdelay (usec) 1.15500E-02 +/- 1.8E-04
 Sband delay (usec) 8.13159013261E+03 Apriori clock (usec) -2.4025350E-08 Resid sbdelay (usec) 6.73989E-01 +/- 2.9E-03
 Phase delay (usec) 8.13091614264E+03 Apriori clockrate (us/s) 2.4985100E-08 Resid phdelay (usec) -1.47063E-06 +/- 6.1E-07
 Delay rate (us/s) -1.71519332431E+00 Apriori rate (us/s) -1.71518363289E+00 Resid rate (us/s) -9.69143E-06 +/- 2.5E-09
 Total phase (deg) 189.7 Apriori accel (us/s/s) -5.06363845314E-06 Resid phase (deg) -45.6 +/- 19.0

ph/seg (deg) 40.0 32.9 Amplitude 0.148 +/- 0.025 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 38.8 57.5 Search (2048X64) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.5 38.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 39.7 66.4 Inc. seg. avg. 0.156 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.147 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 290.0 el 35.3 pa 37.5 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 12780.058 3114.959 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/Zm..130DGB Output file: /Exps/c192b/v2/1234/No0106/Zm.W.368.130DGB

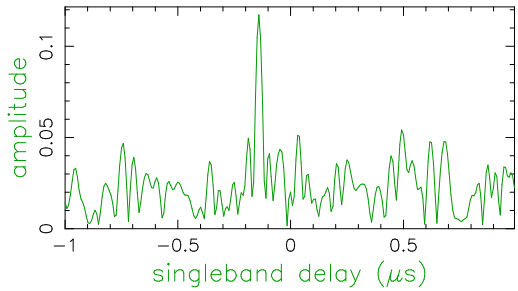
Mk4/DiFX fourfit 3.19 rev 2512

3C345.130DGB, No0106, Zm
 METSAHOV - VLBA_MK, fgroup W, pol LR

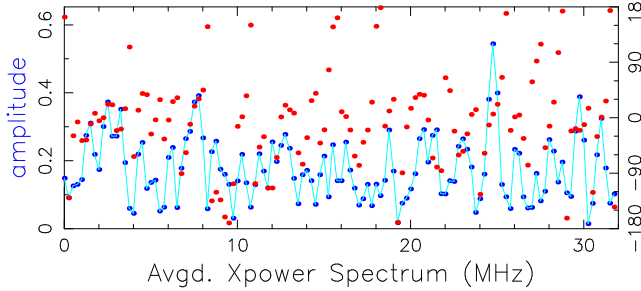


Fringe quality 0

SNR 6.6
 Int time 418.861
 Amp 0.122
 Phase -64.0
 PFD 1.4e-02
 Delays (us)
 SBD -0.140808
 MBD -0.006188
 Fringe rate (Hz)
 -0.288055
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

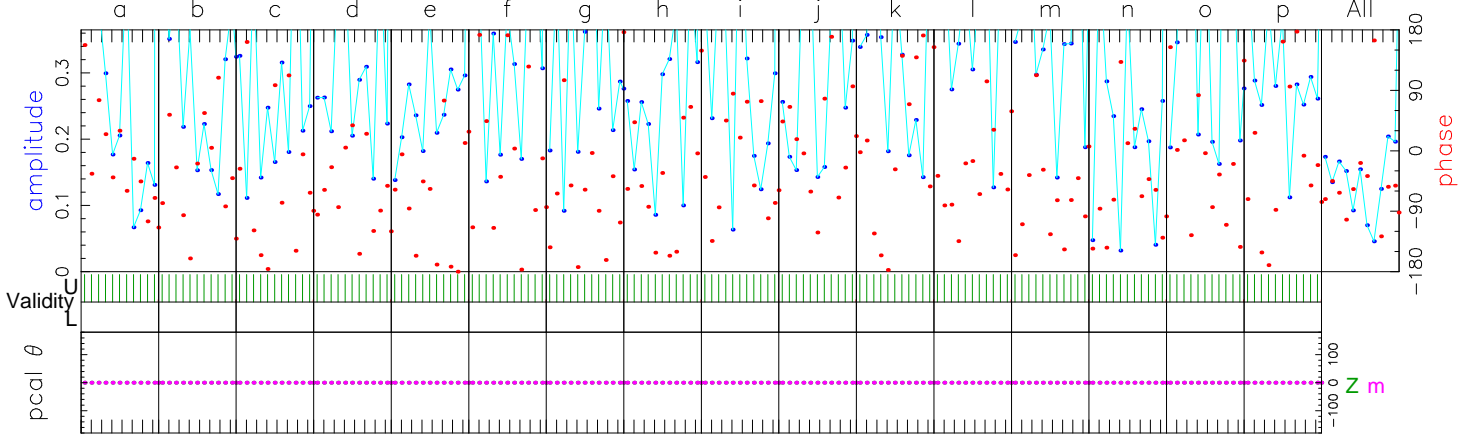


delay rate (ns/s)



Exp. c192b
 Exper # 16383
 Yr:day 2019:277
 Start 200000.00
 Stop 200659.84
 FRT 200330.00
 Corr/FF/build
 2020:079:052110
 2020:086:092841
 2020:014:135814
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

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



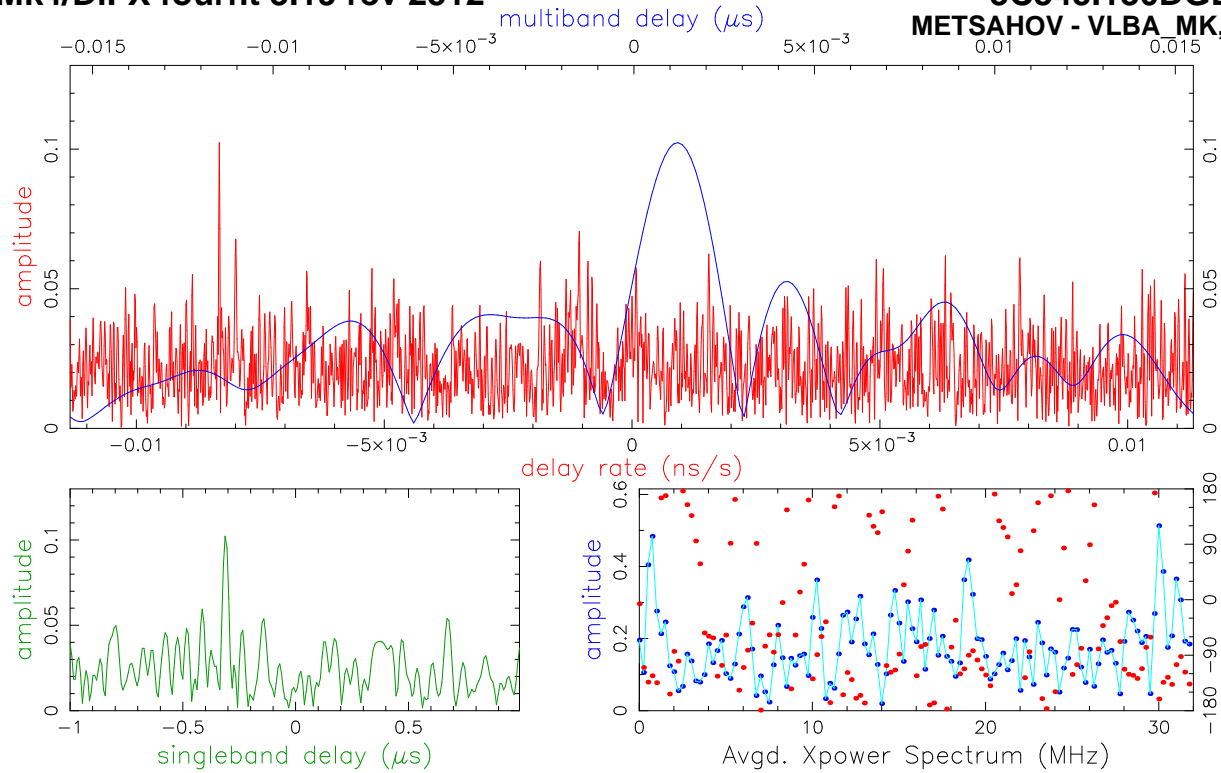
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-34.6	-45.9	-118.9	-58.6	-86.0	-128.4	-73.0	-50.0	-25.8	-7.7	-92.0	-46.8	-81.2	-71.9	-51.2	-100.7	Phase	-64.0
	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.2	0.1	Ampl.	0.1
	173.8	4.9	90.7	71.8	179.2	116.2	138.0	222.4	78.5	153.8	106.8	241.1	214.7	234.0	155.4	177.5	Sbd box	111.0
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) 8.13078495620E+03 Apriori delay (usec) 8.13091614411E+03 Resid mbdelay (usec) -6.18791E-03 +/- 1.6E-04
 Sband delay (usec) 8.13077533561E+03 Apriori clock (usec) -2.4025350E+00 Resid sbdelay (usec) -1.40808E-01 +/- 2.6E-03
 Phase delay (usec) 8.13091614204E+03 Apriori clockrate (us/s) 2.4985100E-08 Resid phdelay (usec) -2.06539E-06 +/- 5.6E-07
 Delay rate (us/s) -1.71518697692E+00 Apriori rate (us/s) -1.71518363289E+00 Resid rate (us/s) -3.34403E-06 +/- 2.3E-09
 Total phase (deg) 171.2 Apriori accel (us/s/s) -5.06363845314E-06 Resid phase (deg) -64.0 +/- 17.4

RMS Theor. Amplitude 0.122 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 48.9 30.2 Search (2048X64) 0.115 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 52.1 52.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 34.6 34.9 Inc. seg. avg. 0.128 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 46.8 60.9 Inc. frq. avg. 0.118 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

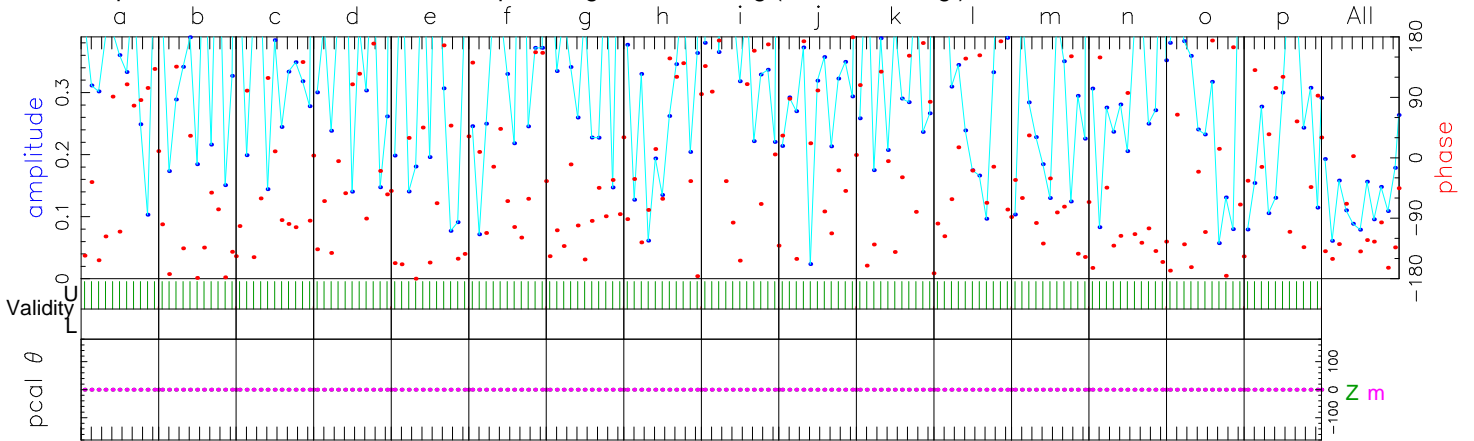
Z: az 290.0 el 35.3 pa 37.5 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 12780.058 3114.959 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/Zm..130DGB Output file: /Exps/c192b/v2/1234/No0106/Zm.W.387.130DGB



Fringe quality 0
SNR 5.8
Int time 418.862
Amp 0.130
Phase -121.6
PFD 8.7e-01
Delays (us)
SBD -0.310724
MBD 0.001178
Fringe rate (Hz)
-0.717850
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192b
Exper # 16383
Yr:day 2019:277
Start 200000.00
Stop 200659.84
FRT 200330.00
Corr/FF/build
2020:079:052110
2020:086:092845
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks

Group delay (usec)(sbd) 8.13060482237E+03 Apriori delay (usec) 8.13091614411E+03 Resid mbdelay (usec) 1.17826E-03 +/- 1.9E-04
Sband delay (usec) 8.13060541961E+03 Apriori clock (usec) -2.4025350E+00 Resid sbdelay (usec) -3.10724E-01 +/- 3.0E-03
Phase delay (usec) 8.13091614019E+03 Apriori clockrate (us/s) 2.4985100E-08 Resid phdelay (usec) -3.92198E-06 +/- 6.4E-07
Delay rate (us/s) -1.71519196641E+00 Apriori rate (us/s) -1.71518363289E+00 Resid rate (us/s) -8.33353E-06 +/- 2.6E-09
Total phase (deg) 113.7 Apriori accel (us/s/s) -5.06363845314E-06 Resid phase (deg) -121.6 +/- 19.9

RMS Theor. Amplitude 0.130 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
ph/seg (deg) 45.3 34.4 Search (2048X64) 0.099 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
amp/seg (%) 47.6 60.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
ph/frq (deg) 56.0 39.8 Inc. seg. avg. 0.135 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
amp/frq (%) 68.5 69.4 Inc. frq. avg. 0.130 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 290.0 el 35.3 pa 37.5 m: az 51.2 el 10.2 pa -72.6 u,v (fr/asec) 12780.058 3114.959 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192b/v2/1234/No0106/Zm..130DGB Output file: /Exps/c192b/v2/1234/No0106/Zm.W.401.130DGB