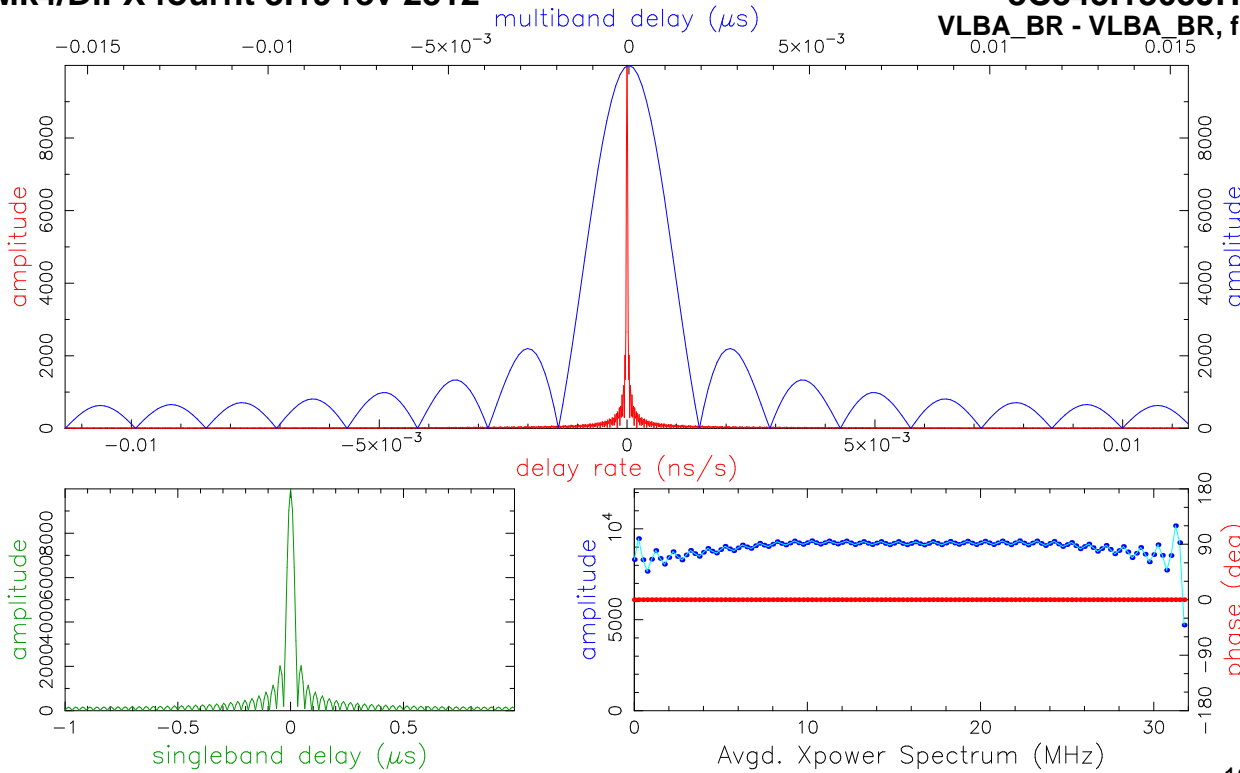


Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bb
VLBA_BR - VLBA_BR, fgroup W, pol LL

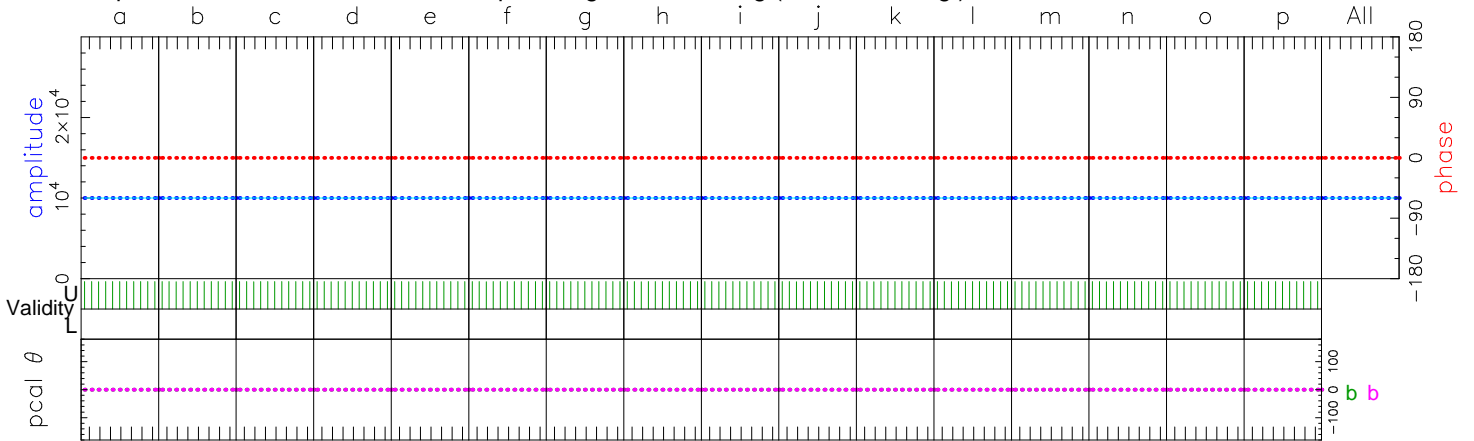


Fringe quality 9

SNR 551374.9
Int time 406.536
Amp 9999.999
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. c192a
Yr:day 16383
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042726
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



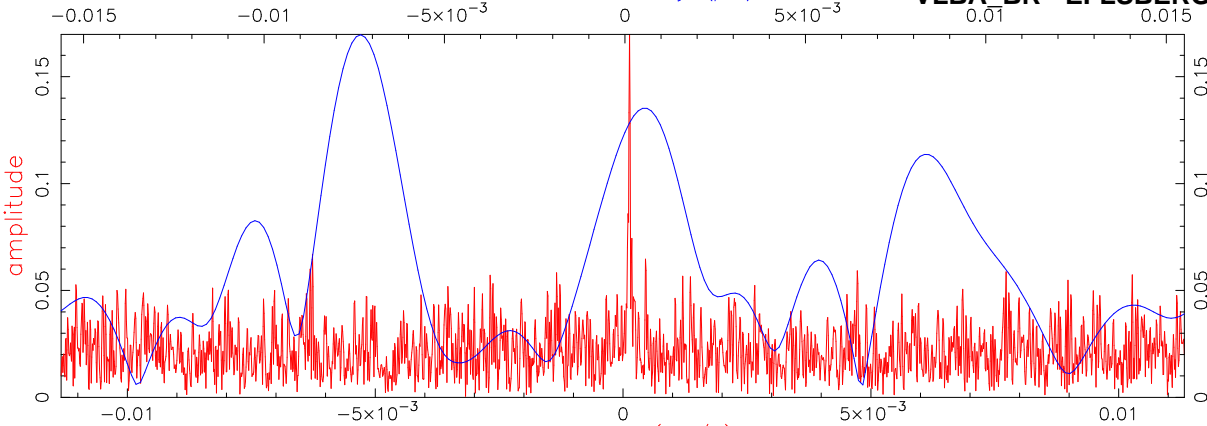
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	Phase	-0.0
	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	Sbd box	129.0
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
b:b	0:0	0:0	0:0	0:0	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	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 3.1E-08
 Phase delay (usec) -3.95582922005E-20 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -3.95583E-20 +/- 6.7E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.9E-14
 Total phase (deg) -0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) -0.0 +/- 0.0

RMS Theor. Amplitude 9999.999 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X64) 9999.999 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. 9999.999 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

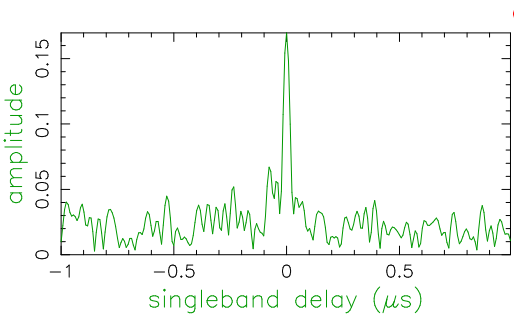
b: az 66.1 el 33.9 pa -52.6 b: az 66.1 el 33.9 pa -52.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bb..1305JH Output file: /Exps/c192a/v2/1234/No0001/bb.W.12.1305JH

multiband delay (μ s)

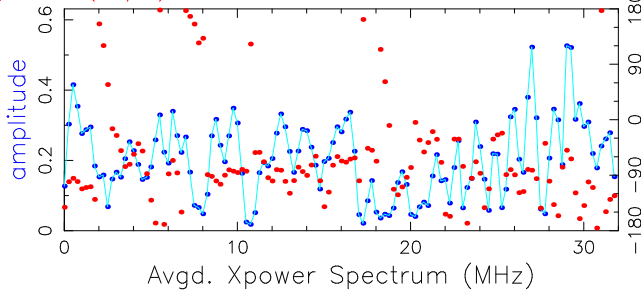


Fringe quality 9

SNR 9.4
 Int time 406.536
 Amp 0.170
 Phase -56.1
 PFD 3.1e-12
 Delays (us)
 SBD -0.000731
 MBD -0.007337
 Fringe rate (Hz)
 0.011154
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

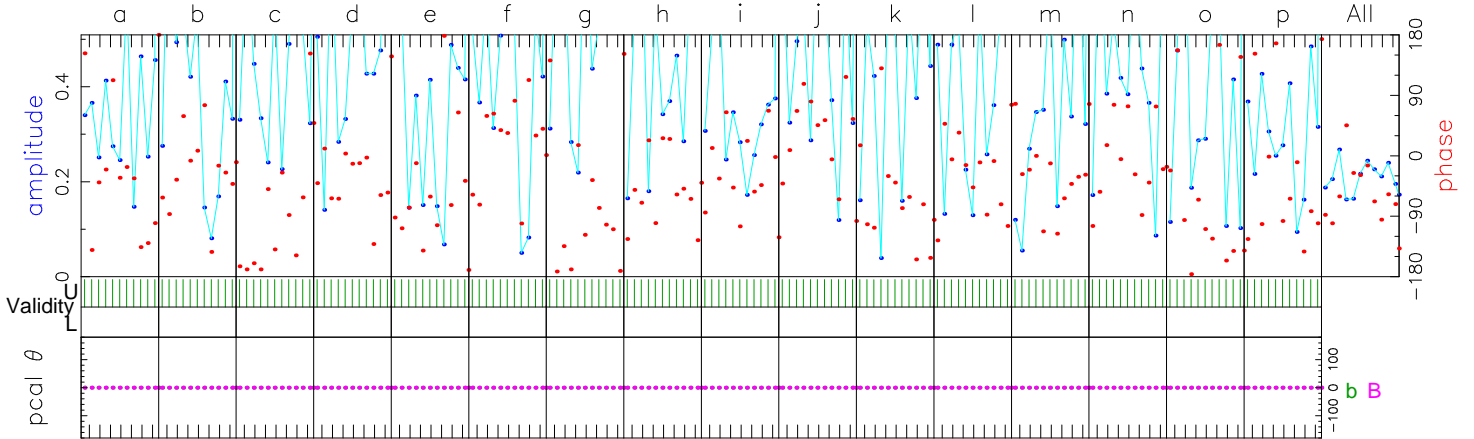


delay rate (ns/s)



Exp. c192a
 Yr:day 16383
 Yr:day 2019:276
 Start 183012.80
 Stop 183659.84
 FRT 183330.00
 Corr/FF/build
 2020:083:003228
 2020:093:042726
 2020:014:135814
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

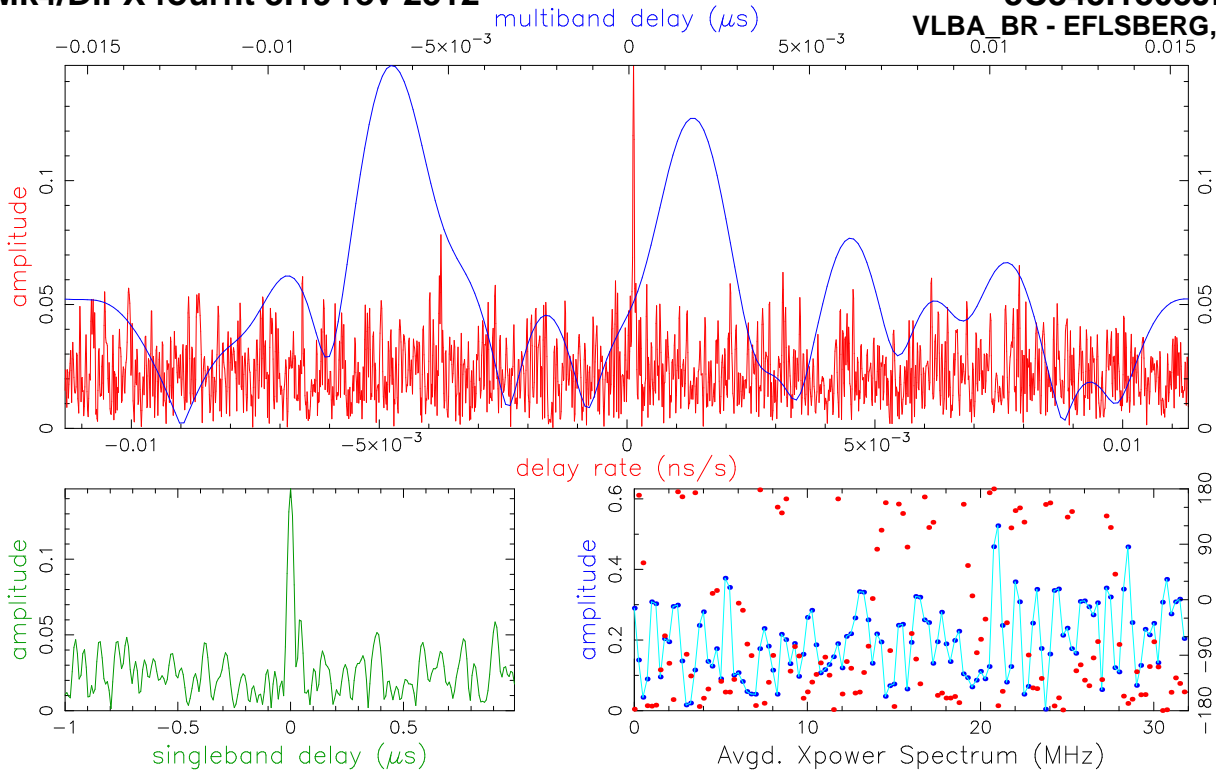
Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



	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				
	-84.7	-24.9	-137.5	-40.2	-70.8	33.6	-126.7	-63.3	-22.2	50.2	-79.2	-36.5	-35.0	-17.7	-137.4	-101.2	Phase	-56.1				
	0.1	0.3	0.3	0.4	0.2	0.3	0.4	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.2	Ampl.	0.3				
	243.2	128.1	129.0	128.6	128.5	128.3	128.8	129.7	127.9	128.4	129.0	129.1	128.5	128.9	128.3	129.6	Sbd box	128.9				
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
b:B	0:0	0:0	0:0	0:0	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:B	0:0	0:0	0:0	0:0	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					
B	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					
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Tracks					
Group delay (usec)(sbd)			-5.66420707786E+03														Apriori delay (usec)	-5.66419974077E+03	Resid mbdelay (usec)	-7.33708E-03	+/-	1.2E-04
Sband delay (usec)			-5.66420047177E+03														Apriori clock (usec)	-1.7451761E+01	Resid sbdelay (usec)	-7.31000E-04	+/-	1.8E-03
Phase delay (usec)			-5.66419974258E+03														Apriori clockrate (us/s)	-4.2395080E-08	Resid phdelay (usec)	-1.81000E-06	+/-	3.9E-07
Delay rate (us/s)			1.33643516118E+00														Apriori rate (us/s)	1.33643503169E+00	Resid rate (us/s)	1.29489E-07	+/-	1.7E-09
Total phase (deg)																	Apriori accel (us/s/s)	2.80562043911E-05	Resid phase (deg)	-56.1	+/-	12.2

ph/seg (deg) 41.3 21.2 Theor. Amplitude 0.170 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 30.5 37.0 Search (2048X64) 0.165 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 57.3 24.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 72.2 42.7 Inc. seg. avg. 0.197 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 b: az 66.1 el 33.9 pa -52.6 B: az 269.2 el 56.7 pa 55.8 u,v (fr/asec) -9910.522 1769.593 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bB..1305JH Output file: /Exps/c192a/v2/1234/No0001/bB.W.14.1305JH

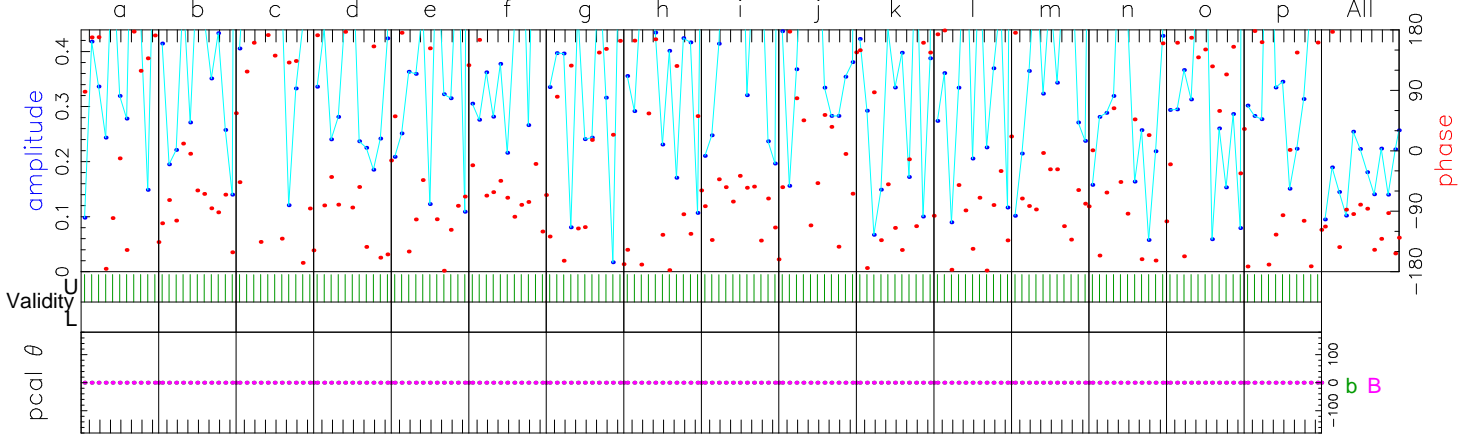


Fringe quality 9

SNR 8.1
Int time 406.536
Amp 0.146
Phase -118.9
PFD 2.3e-07
Delays (us)
SBD -0.000241
MBD -0.006569
Fringe rate (Hz) 0.011127
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042731
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec

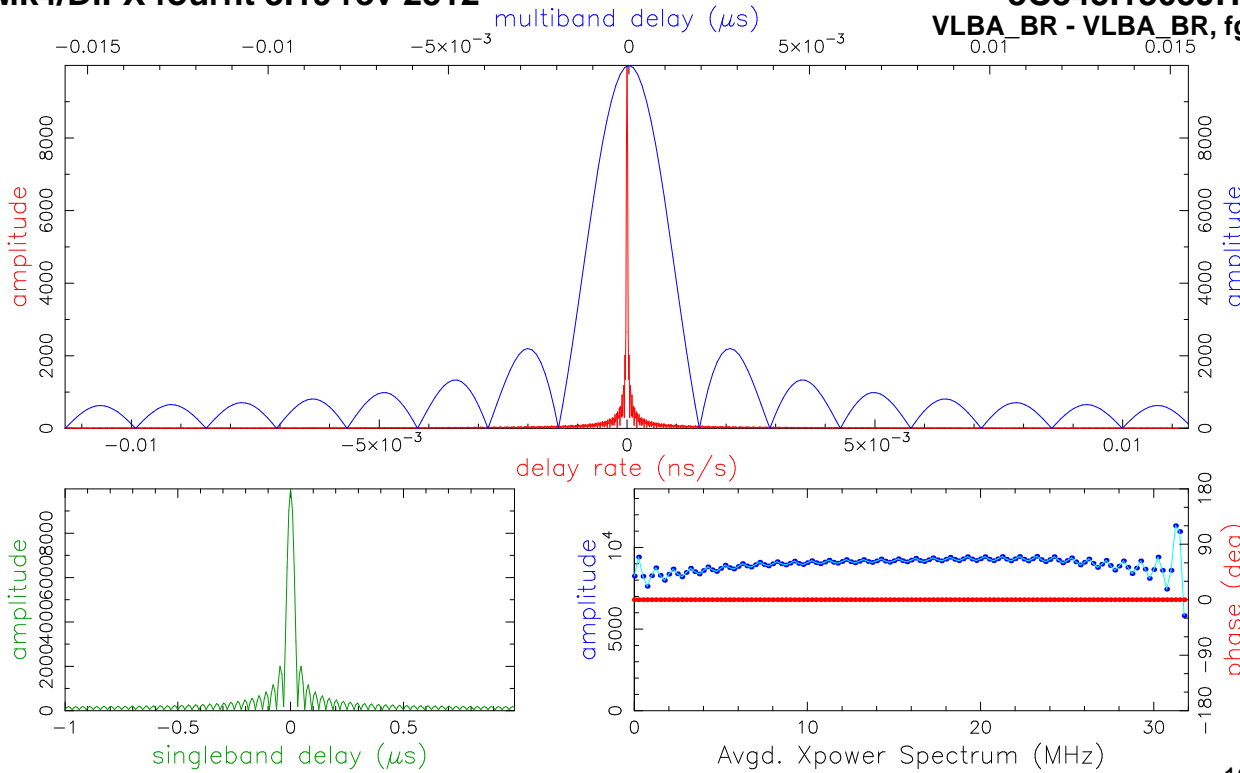


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
U/L	179.6	-66.0	-169.3	-121.8	-109.9	-71.7	175.8	-167.3	-70.1	-17.6	-141.5	-95.9	-77.0	-96.7	146.5	-164.4	Phase	-118.9				
b	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.1	0.2	0.3	Ampl.	0.2				
B	129.1	128.7	129.0	177.7	127.5	128.3	71.0	58.6	128.8	144.5	189.7	130.1	128.5	176.7	223.1	128.8	Sbd box	129.0				
b:1000	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used					
b:1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
b:B	0:0	0:0	0:0	0:0	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:B	0:0	0:0	0:0	0:0	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					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-5.66420630995E+03														Apriori delay (usec)	-5.66419974077E+03	Resid mbdelay (usec)	-6.56918E-03	+/-	1.3E-04
Sband delay (usec)			-5.66419998177E+03														Apriori clock (usec)	-1.7451761E+01	Resid sbdelay (usec)	-2.41000E-04	+/-	2.1E-03
Phase delay (usec)			-5.66419974461E+03														Apriori clockrate (us/s)	-4.2395080E-08	Resid phdelay (usec)	-3.83450E-06	+/-	4.6E-07
Delay rate (us/s)			1.33643516087E+00														Apriori rate (us/s)	1.33643503169E+00	Resid rate (us/s)	1.29175E-07	+/-	1.9E-09
Total phase (deg)					-0.2												Apriori accel (us/s/s)	2.80562043911E-05	Resid phase (deg)	-118.9	+/-	14.2

ph/seg (deg) 32.5 24.6 Search (2048X64) 0.140 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 39.8 42.9 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 28.4 Inc. seg. avg. 0.160 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 75.6 49.5 Inc. frq. avg. 0.205 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 66.1 el 33.9 pa -52.6 B: az 269.2 el 56.7 pa 55.8 u,v (fr/asec) -9910.522 1769.593 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bB..1305JH Output file: /Exps/c192a/v2/1234/No0001/bB.W.34.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bb
VLBA_BR - VLBA_BR, fgroup W, pol RR

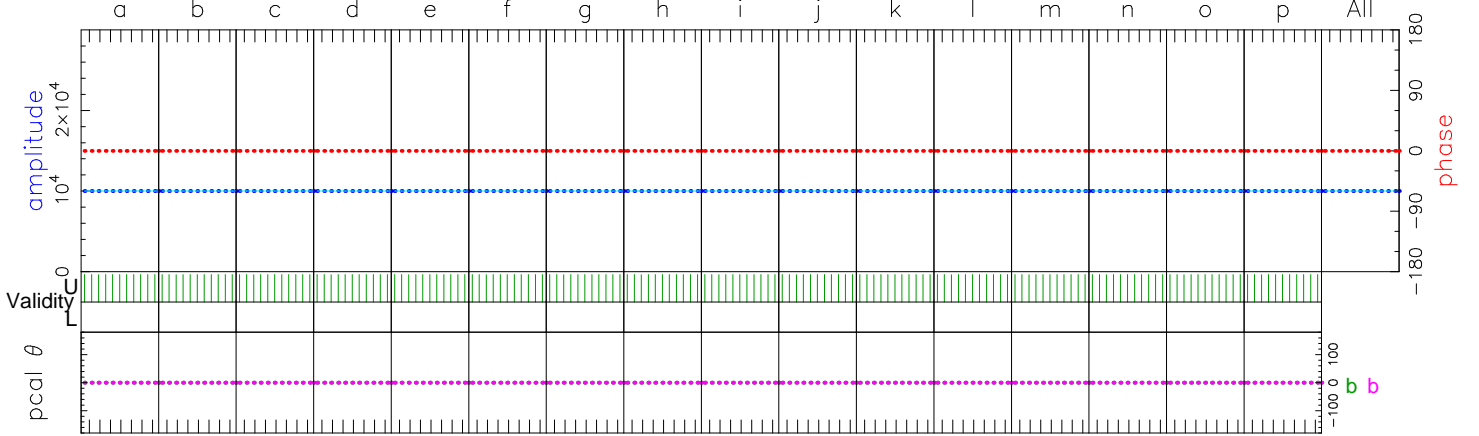


Fringe quality 9

SNR 551374.9
Int time 406.536
Amp 9999.999
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. c192a
Yr:day 16383
Start 2019:276
Stop 2019:276
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042731
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	-0.0	Phase	-0.0
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	Sbd box	129.0
U/L 795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
b:b 0:0	0:0	0:0	0:0	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:b 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
b 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
b 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
b W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
b W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
Group delay (usec)(sbd)	0.0000000000E+00		Apriori delay (usec)		0.0000000000E+00		Resid mbdelay (usec)		0.00000E+00		+/- 2.0E-09						
Sband delay (usec)	0.0000000000E+00		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		0.00000E+00		+/- 3.1E-08						
Phase delay (usec)	-3.69005909906E-20		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-3.69006E-20		+/- 6.7E-12						
Delay rate (us/s)	0.0000000000E+00		Apriori rate (us/s)		0.0000000000E+00		Resid rate (us/s)		0.00000E+00		+/- 2.9E-14						
Total phase (deg)			-0.0		Apriori accel (us/s/s)		0.0000000000E+00		Resid phase (deg)		-0.0		+/- 0.0				

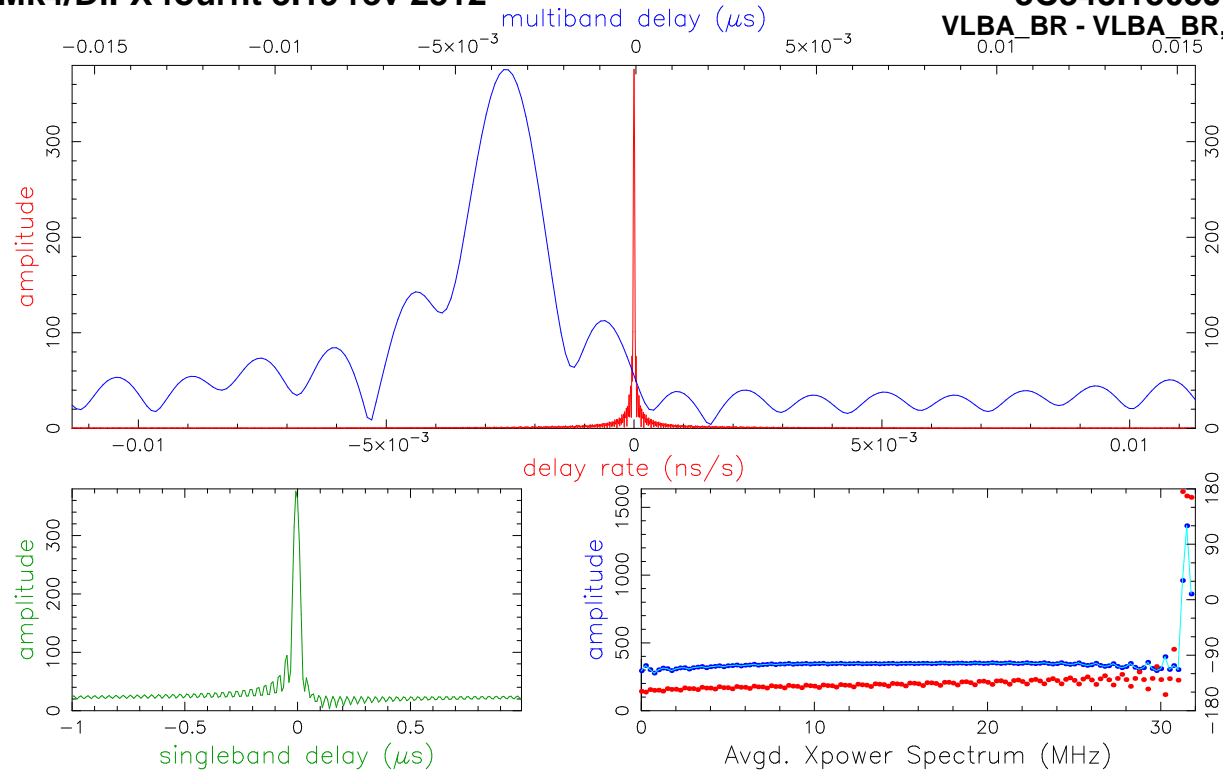
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 9999.999 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X64) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 9999.999 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6 b: az 66.1 el 33.9 pa -52.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bb..1305JH Output file: /Exps/c192a/v2/1234/No0001/bb.W.36.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bb
VLBA_BR - VLBA_BR, fgroup W, pol LR

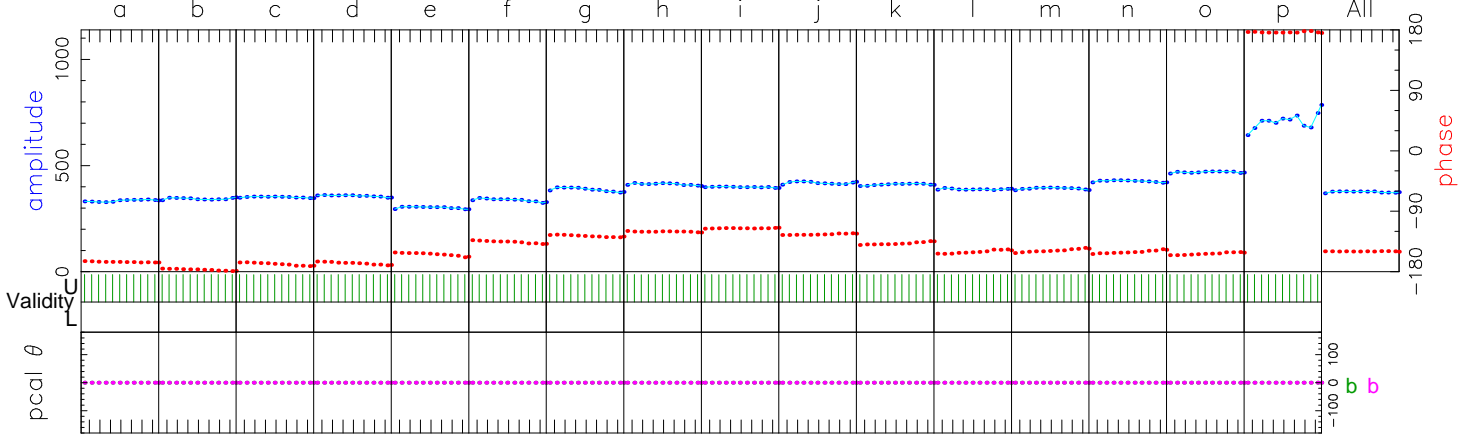


Fringe quality 7

SNR 20944.4
Int time 406.536
Amp 379.857
Phase -149.6
PFD 0.0e+00
Delays (us)
SBD -0.005329
MBD -0.003595
Fringe rate (Hz) 0.000004
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042735
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec

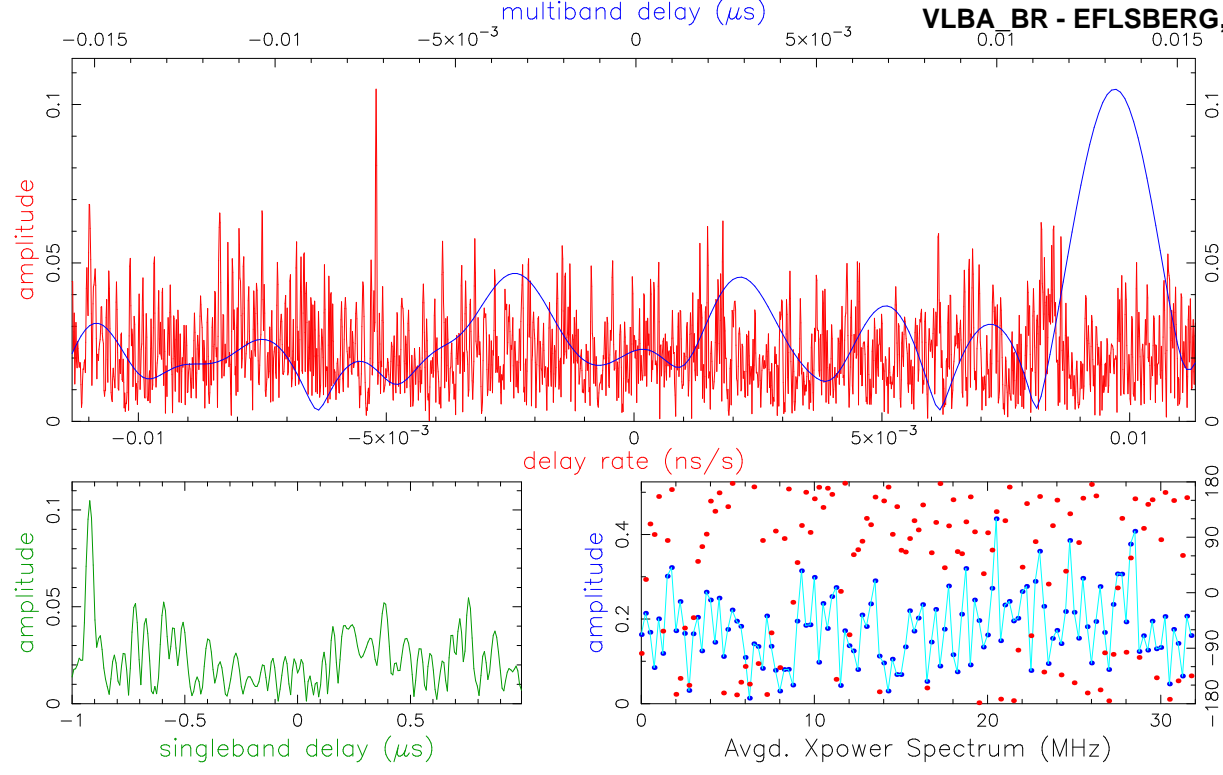


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-165.4	-176.9	-168.4	-167.2	-153.7	-135.5	-126.8	-120.2	-115.3	-124.4	-138.0	-150.5	-148.6	-150.7	-153.2	176.4	Phase	-149.6				
	334.5	343.4	351.4	357.4	302.1	338.0	387.2	412.7	399.0	418.2	410.9	388.2	392.2	426.5	468.9	703.3	Ampl.	402.1				
	128.3	128.7	128.5	128.6	128.7	128.7	128.7	128.5	128.5	128.5	128.4	128.3	128.6	128.6	128.4	127.7	Sbd box	128.3				
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
b:b	0:0	0:0	0:0	0:0	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:b	0:0	0:0	0:0	0:0	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					
b	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					
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-3.59456250000E-03														Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-3.59456E-03	+/-	5.2E-08
Sband delay (usec)			-5.32950000000E-03														Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-5.32950E-03	+/-	8.2E-07
Phase delay (usec)			-4.82434462444E-06														Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-4.82434E-06	+/-	1.8E-10
Delay rate (us/s)			4.25134571751E-11														Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	4.25135E-11	+/-	7.5E-13
Total phase (deg)																	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-149.6	+/-	0.0

ph/seg (deg) 0.2 0.0 RMS Theor. Amplitude 379.857 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.3 0.0 Search (2048X64) 370.174 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.3 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 23.9 0.0 Inc. seg. avg. 375.916 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 402.119 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6 b: az 66.1 el 33.9 pa -52.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bb..1305JH Output file: /Exps/c192a/v2/1234/No0001/bb.W.50.1305JH

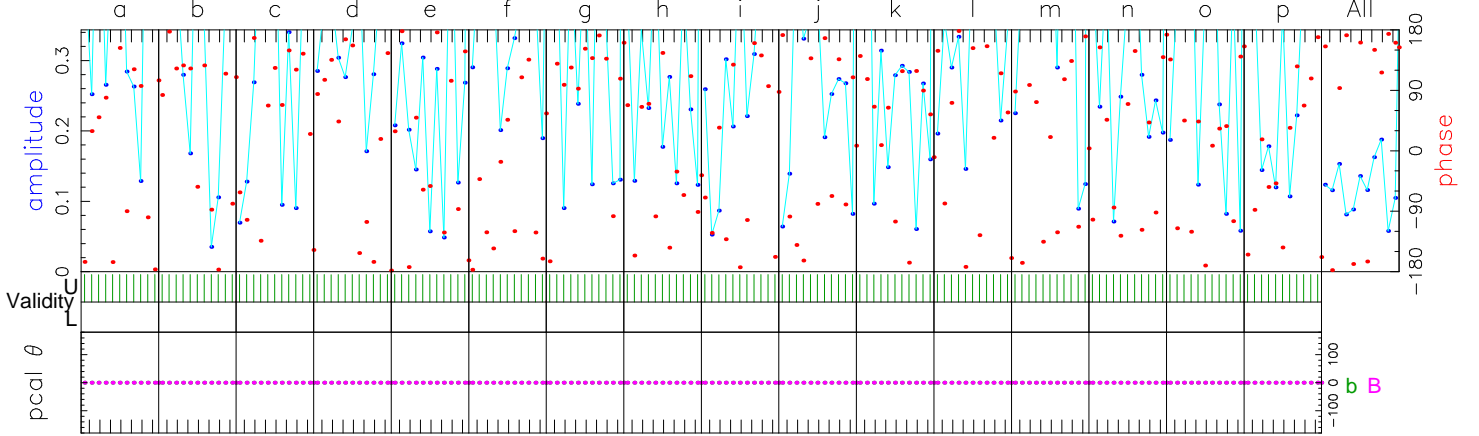


Fringe quality 0

SNR 5.8
Int time 406.536
Amp 0.115
Phase 154.2
PFD 8.4e-01
Delays (us)
SBD -0.921778
MBD 0.013271
Fringe rate (Hz)
-0.449119
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042736
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
169.7	139.8	131.7	139.3	149.9	-142.6	147.5	-54.5	170.6	-143.9	107.4	146.6	128.6	166.5	-52.9	170.0		Phase	154.2	
0.2	0.1	0.2	0.2	0.1	0.1	0.3	0.0	0.2	0.1	0.2	0.1	0.2	0.1	0.0	0.1		Ampl.	0.1	
211.9	75.3	162.4	215.4	66.9	153.5	11.8	181.8	2.2	49.7	28.0	25.5	251.2	237.0	46.0	52.3		Sbd box	11.0	
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
b:B	0:0	0:0	0:0	0:0	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	
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	

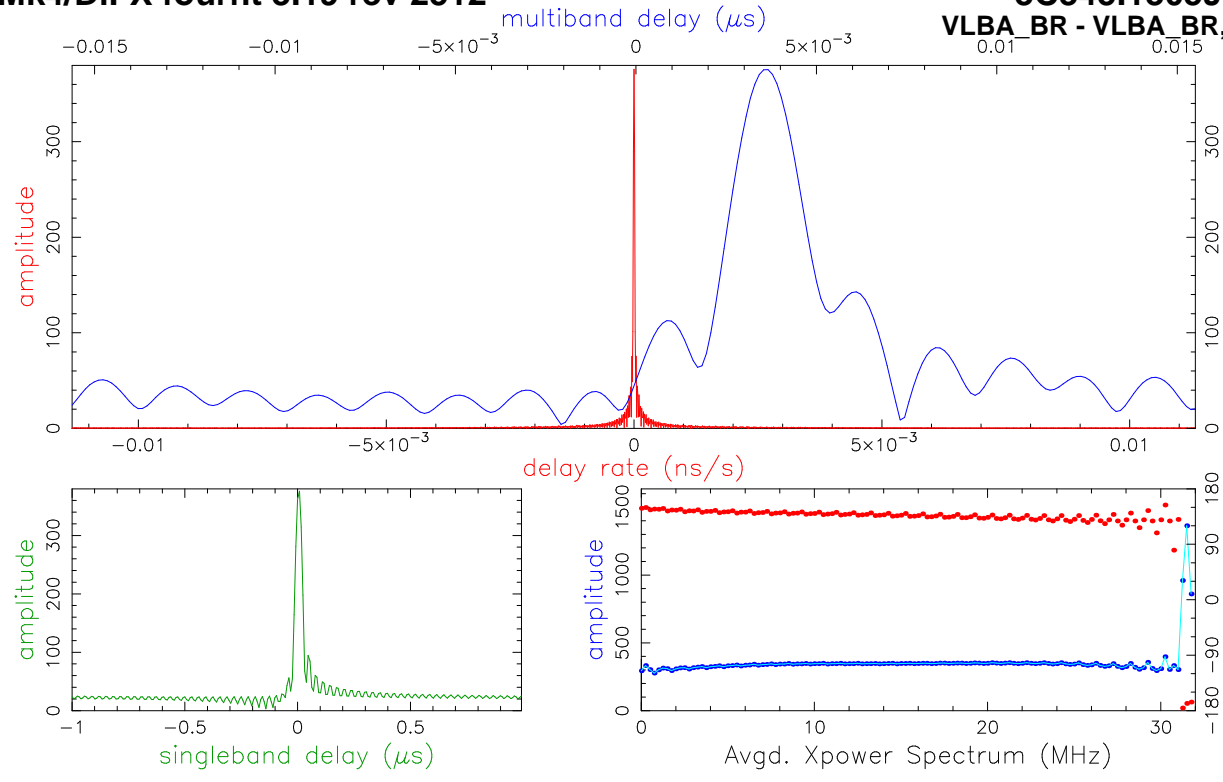
Group delay (usec)(sbd) -5.66512396946E+03 Apriori delay (usec) -5.66419974077E+03 Resid mbdelay (usec) 1.32713E-02 +/- 1.9E-04
 Sband delay (usec) -5.66512151877E+03 Apriori clock (usec) -1.7451761E+01 Resid sbdelay (usec) -9.21778E-01 +/- 3.0E-03
 Phase delay (usec) -5.66419973580E+03 Apriori clockrate (us/s) -4.2395080E-08 Resid phdelay (usec) 4.97385E-06 +/- 6.4E-07
 Delay rate (us/s) 1.33642981787E+00 Apriori rate (us/s) 1.33643503169E+00 Resid rate (us/s) -5.21382E-06 +/- 2.7E-09
 Total phase (deg) -87.0 Apriori accel (us/s/s) 2.80562043911E-05 Resid phase (deg) 154.2 +/- 19.8

RMS Theor. Amplitude 0.115 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 29.8 34.3 Search (2048X64) 0.103 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 41.6 59.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 64.9 39.6 Inc. seg. avg. 0.113 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 63.0 69.2 Inc. frq. avg. 0.112 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6 B: az 269.2 el 56.7 pa 55.8 u,v (fr/asec) -9910.522 1769.593 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bB..1305JH Output file: /Exps/c192a/v2/1234/No0001/bB.W.54.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bb
VLBA_BR - VLBA_BR, fgroup W, pol RL

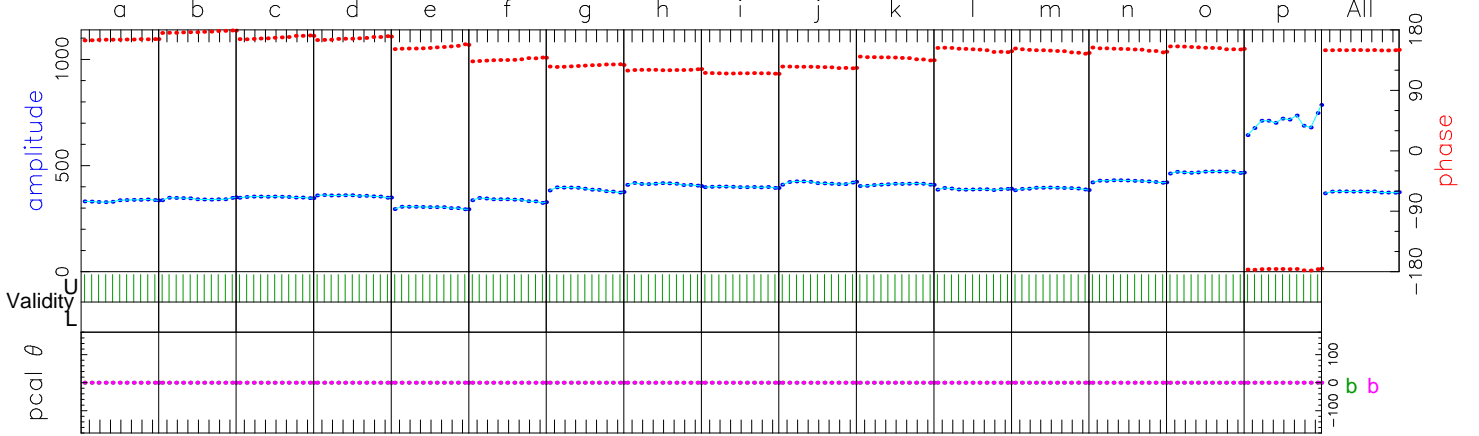


Fringe quality 7

SNR 20944.4
Int time 406.536
Amp 379.857
Phase 149.6
PFD 0.0e+00
Delays (us)
SBD 0.005329
MBD 0.003595
Fringe rate (Hz) -0.000004
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042741
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec

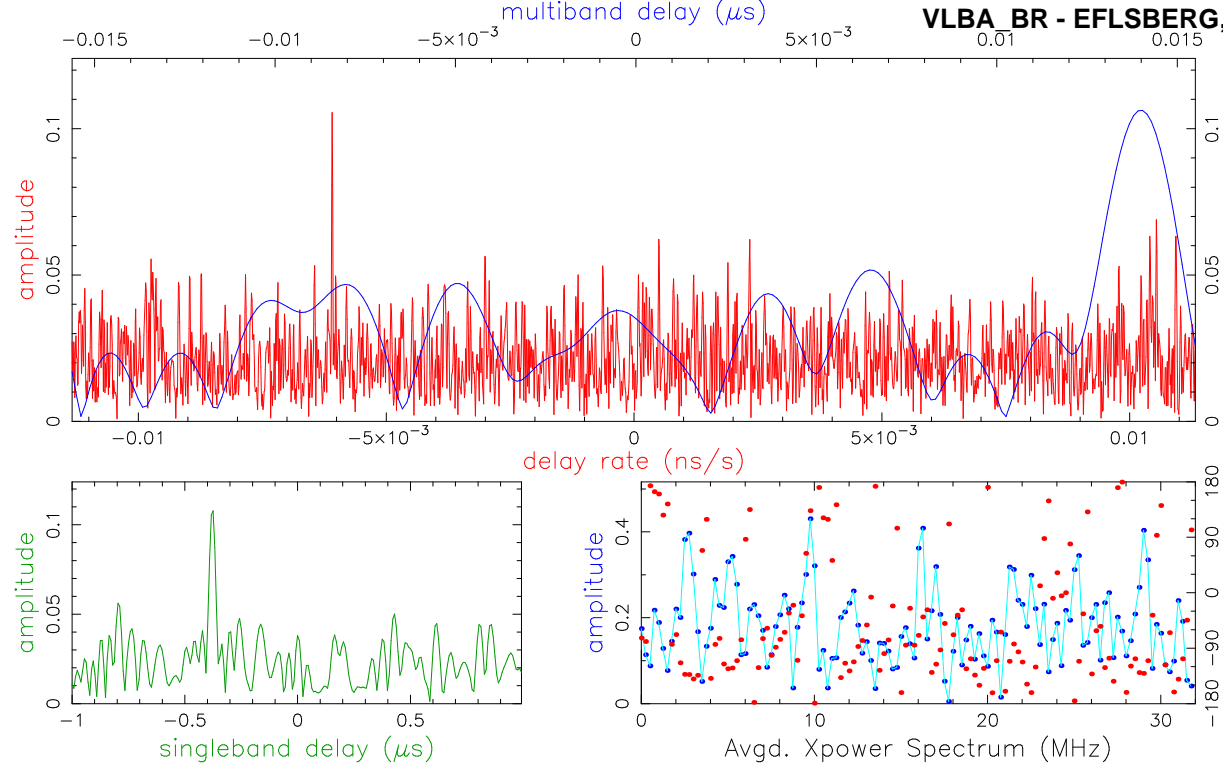


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
165.4	176.9	168.4	167.2	153.7	135.5	126.8	120.2	115.3	124.4	138.0	150.5	148.6	150.7	153.2	-176.4	-176.4	Phase	149.6
334.5	343.4	351.4	357.4	302.1	338.0	387.2	412.7	399.0	418.2	410.9	388.2	392.2	426.5	468.9	703.3	703.3	Ampl.	402.1
129.7	129.3	129.5	129.4	129.3	129.3	129.3	129.5	129.5	129.5	129.6	129.7	129.4	129.4	129.6	130.3	130.3	Sbd box	129.7
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:b	0:0	0:0	0:0	0:0	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:b	0:0	0:0	0:0	0:0	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	
b	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	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

Group delay (usec)(sbd) 3.59456250000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 3.59456E-03 +/- 5.2E-08
 Sband delay (usec) 5.32950000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 5.32950E-03 +/- 8.2E-07
 Phase delay (usec) 4.82434462448E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 4.82434E-06 +/- 1.8E-10
 Delay rate (us/s) -4.25134571751E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -4.25135E-11 +/- 7.5E-13
 Total phase (deg) 149.6 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 149.6 +/- 0.0

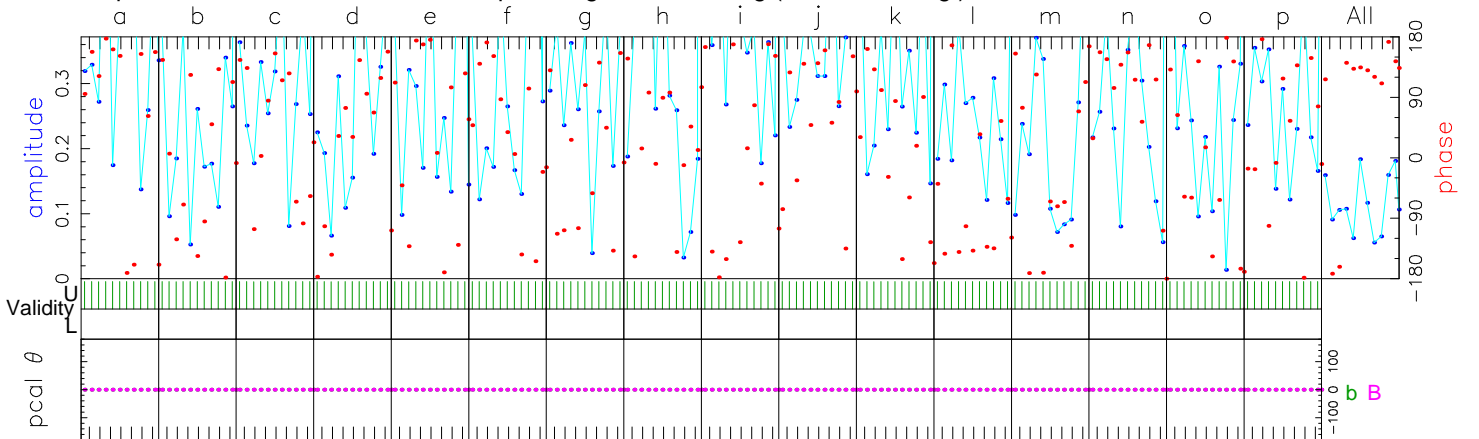
RMS Theor. Amplitude 379.857 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.2 0.0 Search (2048X64) 370.174 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 1.3 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 21.3 0.0 Inc. seg. avg. 375.916 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 23.9 0.0 Inc. frq. avg. 402.119 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6 b: az 66.1 el 33.9 pa -52.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bb..1305JH Output file: /Exps/c192a/v2/1234/No0001/bb.W.70.1305JH



Fringe quality 0
SNR 6.1
Int time 406.536
Amp 0.124
Phase 144.7
PFD 3.1e-01
Delays (us)
SBD -0.378160
MBD 0.014127
Fringe rate (Hz)
-0.525614
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042742
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec

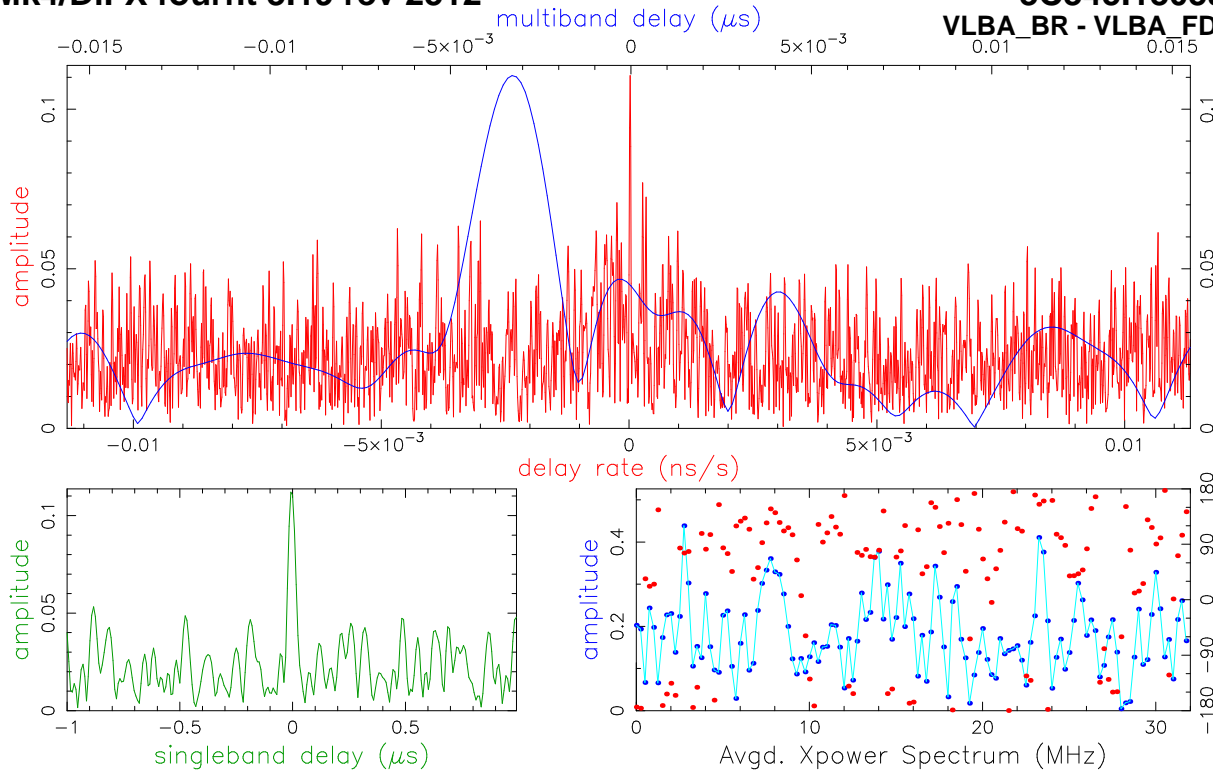


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
160.2	-170.8	151.3	125.1	167.0	119.3	144.8	84.8	179.7	116.3	75.0	-125.8	132.7	126.2	164.5	151.2	151.2	Phase	144.7
0.4	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
79.6	255.6	87.0	7.0	80.0	14.8	206.8	227.9	133.1	20.7	103.4	238.1	63.5	197.6	155.6	187.2	187.2	Sbd box	80.6
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:B	0:0	0:0	0:0	0:0	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:B	0:0	0:0	0:0	0:0	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	
B	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	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

Group delay (usec)(sbd) -5.66459186424E+03 Apriori delay (usec) -5.66419974077E+03 Resid mbdelay (usec) 1.41265E-02 +/- 1.8E-04
 Sband delay (usec) -5.66457790077E+03 Apriori clock (usec) -1.7451761E+01 Resid sbdelay (usec) -3.78160E-01 +/- 2.8E-03
 Phase delay (usec) -5.66419973611E+03 Apriori clockrate (us/s) -4.2395080E-08 Resid phdelay (usec) 4.66660E-06 +/- 6.1E-07
 Delay rate (us/s) 1.33642892984E+00 Apriori rate (us/s) 1.33643503169E+00 Resid rate (us/s) -6.10186E-06 +/- 2.6E-09
 Total phase (deg) -96.6 Apriori accel (us/s/s) 2.80562043911E-05 Resid phase (deg) 144.7 +/- 18.9

RMS Theor. Amplitude 0.124 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 27.6 32.8 Search (2048X64) 0.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 41.7 57.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 40.7 37.9 Inc. seg. avg. 0.114 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 68.7 66.1 Inc. frq. avg. 0.122 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6 B: az 269.2 el 56.7 pa 55.8 u,v (fr/asec) -9910.522 1769.593 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bB..1305JH Output file: /Exps/c192a/v2/1234/No0001/bB.W.75.1305JH



Fringe quality 0

SNR 6.3

Int time 406.164

Amp 0.114

Phase 112.8

PFD 9.5e-02

Delays (us)

SBD -0.004569

MBD -0.003316

Fringe rate (Hz)

0.002249

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:276

Start 183012.80

Stop 183659.84

FRT 183330.00

Corr/FF/build

2020:083:003228

2020:093:042728

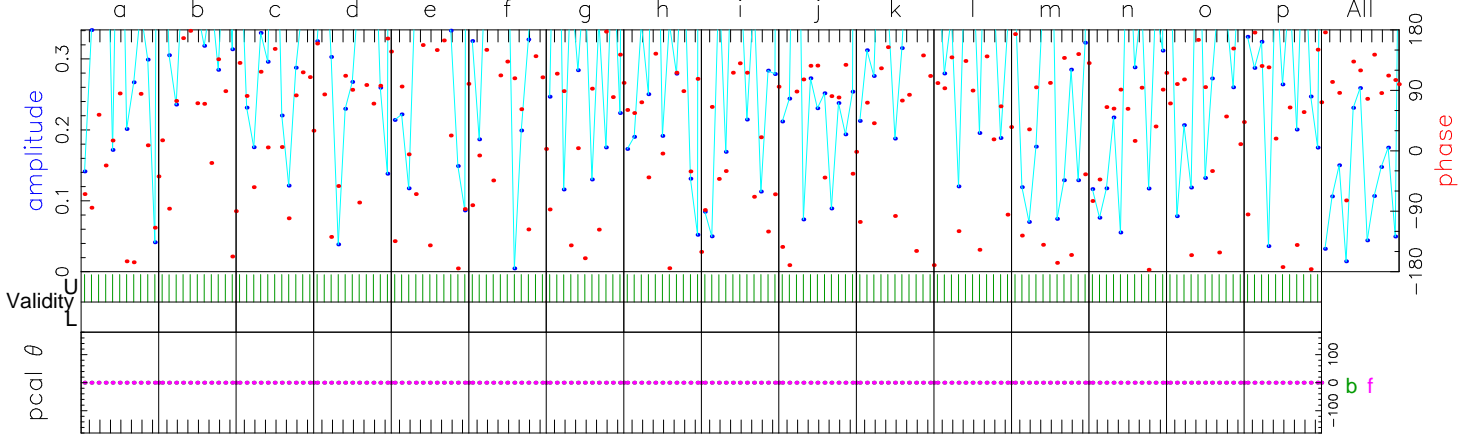
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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				
	32.6	92.2	108.7	107.0	-175.1	130.2	151.7	105.0	-49.7	101.9	127.0	114.3	157.1	64.0	101.7	120.6	Phase	112.8				
	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1				
	154.8	238.9	194.4	127.3	195.3	158.4	147.4	140.1	142.6	126.5	104.3	73.2	234.0	246.4	37.7	179.0	Sbd box	128.4				
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
b:f	0:0	0:0	0:0	0:0	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:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp					
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks					
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
Group delay (usec)(sbd)			-1.02685060768E+03														Apriori delay (usec)	-1.02684729122E+03	Resid mbdelay (usec)	-3.31645E-03	+/-	1.7E-04
Sband delay (usec)			-1.02685186022E+03														Apriori clock (usec)	-1.0674781E+00	Resid sbdelay (usec)	-4.56900E-03	+/-	2.7E-03
Phase delay (usec)			-1.02684728759E+03														Apriori clockrate (us/s)	-1.5144557E-07	Resid phdelay (usec)	3.63747E-06	+/-	5.9E-07
Delay rate (us/s)			-1.40198796855E-01														Apriori rate (us/s)	-1.40198822967E-01	Resid rate (us/s)	2.61118E-08	+/-	2.5E-09
Total phase (deg)			-127.0														Apriori accel (us/s/s)	2.24195151398E-05	Resid phase (deg)	112.8	+/-	18.3

ph/seg (deg) 58.9 31.7 Search (2048X64) 0.109 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

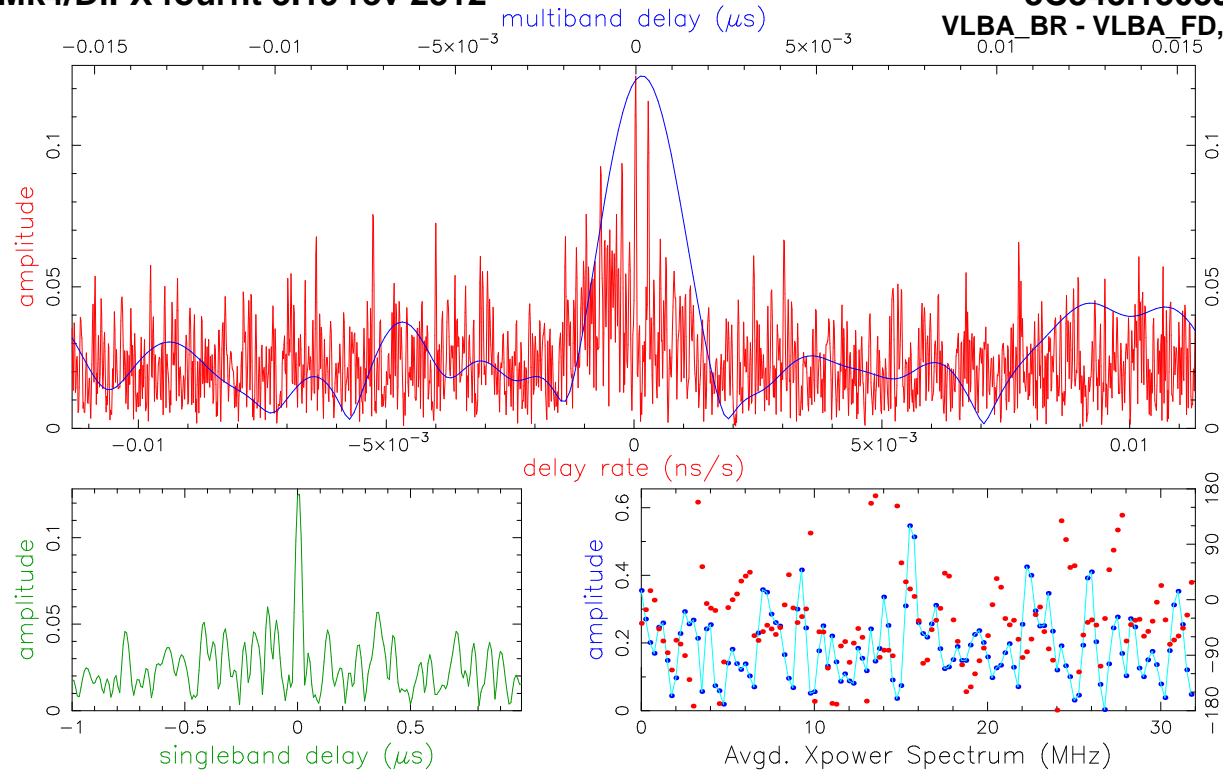
amp/seg (%) 72.5 55.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 56.8 36.6 Inc. seg. avg. 0.105 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 45.1 63.8 Inc. frq. avg. 0.109 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

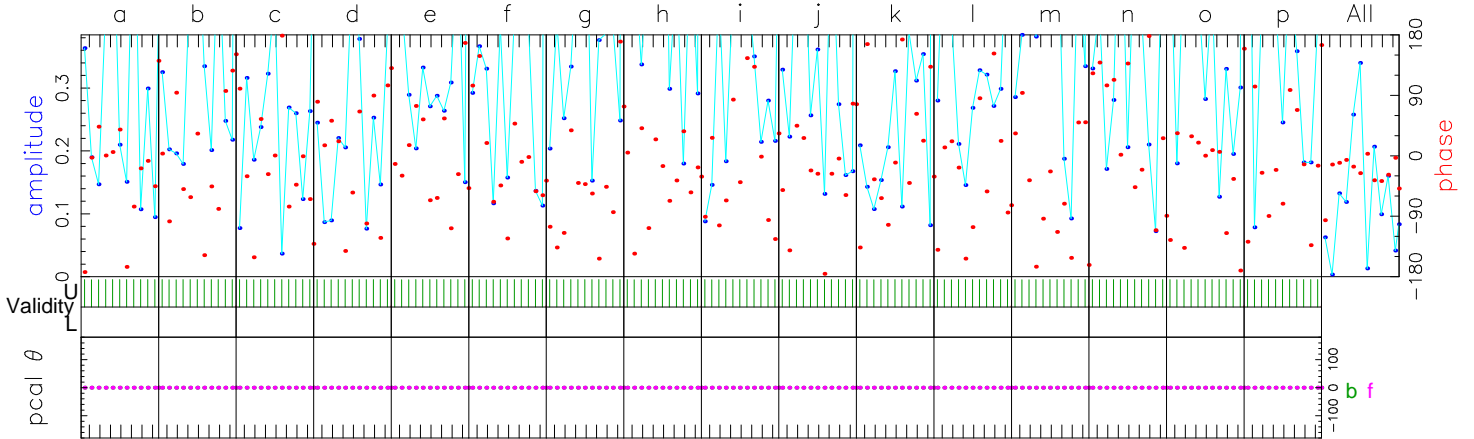
b: az 66.1 el 33.9 pa -52.6 f: az 61.0 el 37.1 pa -78.2 u,v (fr/asec) 1086.832 3053.430 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bf..1305JH Output file: /Exps/c192a/v2/1234/No0001/bf.W.22.1305JH



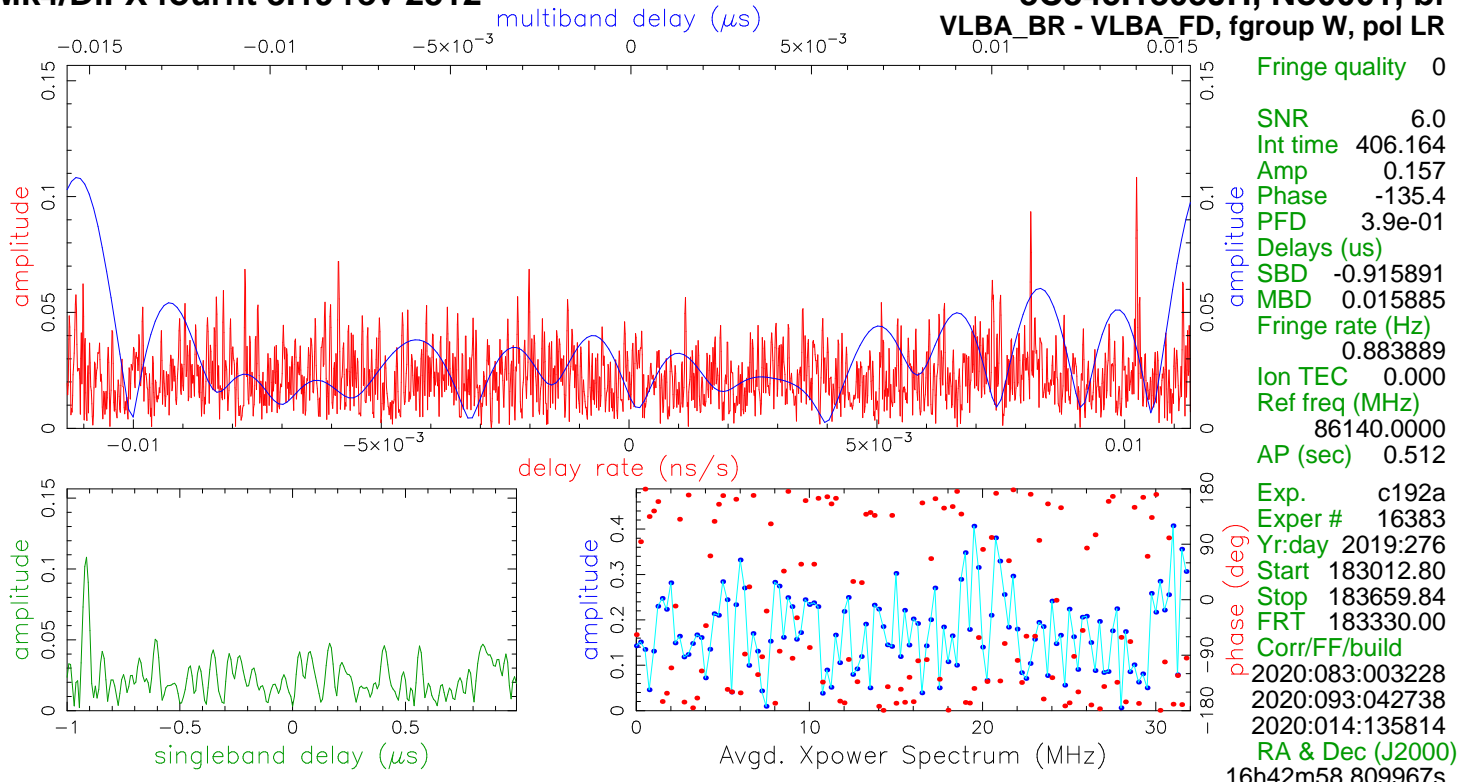
Fringe quality 0
SNR 7.1
Int time 406.164
Amp 0.128
Phase -25.2
PFD 4.8e-04
Delays (us)
SBD 0.004089
MBD 0.000216
Fringe rate (Hz) 0.002738
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042733
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec

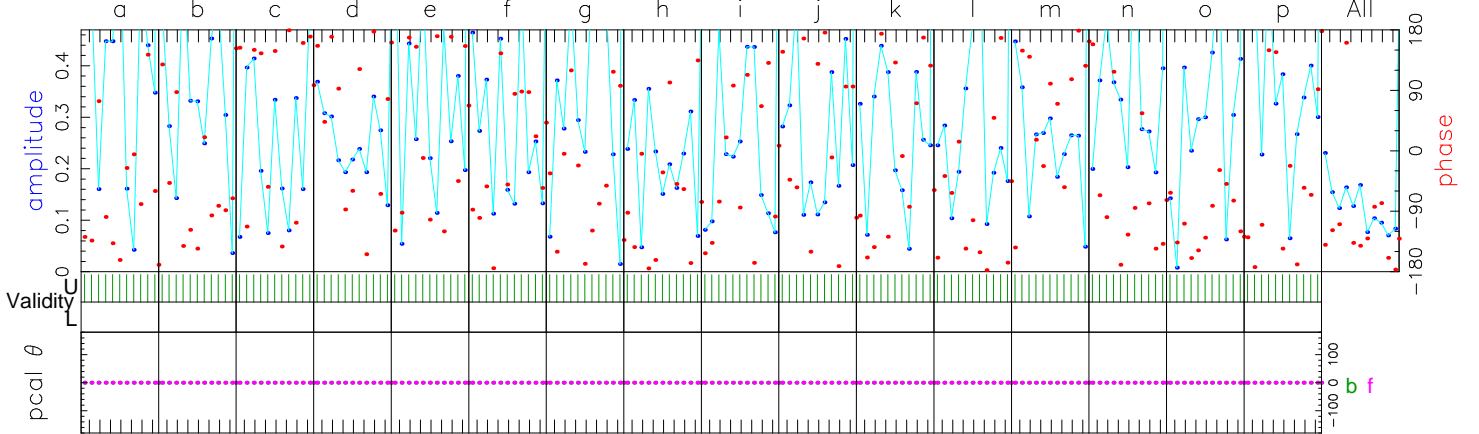


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-19.8	-36.5	-30.2	56.7	-16.7	-0.1	-74.1	-28.0	-76.3	-3.9	-25.0	-30.9	-34.5	37.1	-43.2	-52.3		Phase	-25.2				
	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.0	0.2	0.1	0.1	0.2	0.1	0.1	0.1		Ampl.	0.1				
	164.8	220.0	89.8	81.8	181.1	54.6	185.7	129.6	58.6	209.9	195.2	135.1	117.7	94.0	7.0	207.8		Sbd box	129.5				
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		APs used					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
b:f	0:0	0:0	0:0	0:0	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:f	0:0	0:0	0:0	0:0	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					
f	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					
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-1.02684707565E+03															Apriori delay (usec)	-1.02684729122E+03	Resid mbdelay (usec)	2.15572E-04	+/-	1.5E-04
Sband delay (usec)			-1.02684320272E+03															Apriori clock (usec)	-1.0674781E+00	Resid sbdelay (usec)	4.08850E-03	+/-	2.4E-03
Phase delay (usec)			-1.02684729204E+03															Apriori clockrate (us/s)	-1.5144557E-07	Resid phdelay (usec)	-8.12936E-07	+/-	5.2E-07
Delay rate (us/s)			-1.40198791185E-01															Apriori rate (us/s)	-1.40198822967E-01	Resid rate (us/s)	3.17824E-08	+/-	2.2E-09
Total phase (deg)					-265.0													Apriori accel (us/s/s)	2.24195151398E-05	Resid phase (deg)	-25.2	+/-	16.2

ph/seg (deg) 25.9 28.1 28.1 Search (2048X64) 0.123 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 78.0 49.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 36.0 32.4 Inc. seg. avg. 0.117 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 49.8 56.6 Inc. frq. avg. 0.121 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 66.1 el 33.9 pa -52.6 f: az 61.0 el 37.1 pa -78.2 u,v (fr/asec) 1086.832 3053.430 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bf..1305JH Output file: /Exps/c192a/v2/1234/No0001/bf.W.41.1305JH



Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec

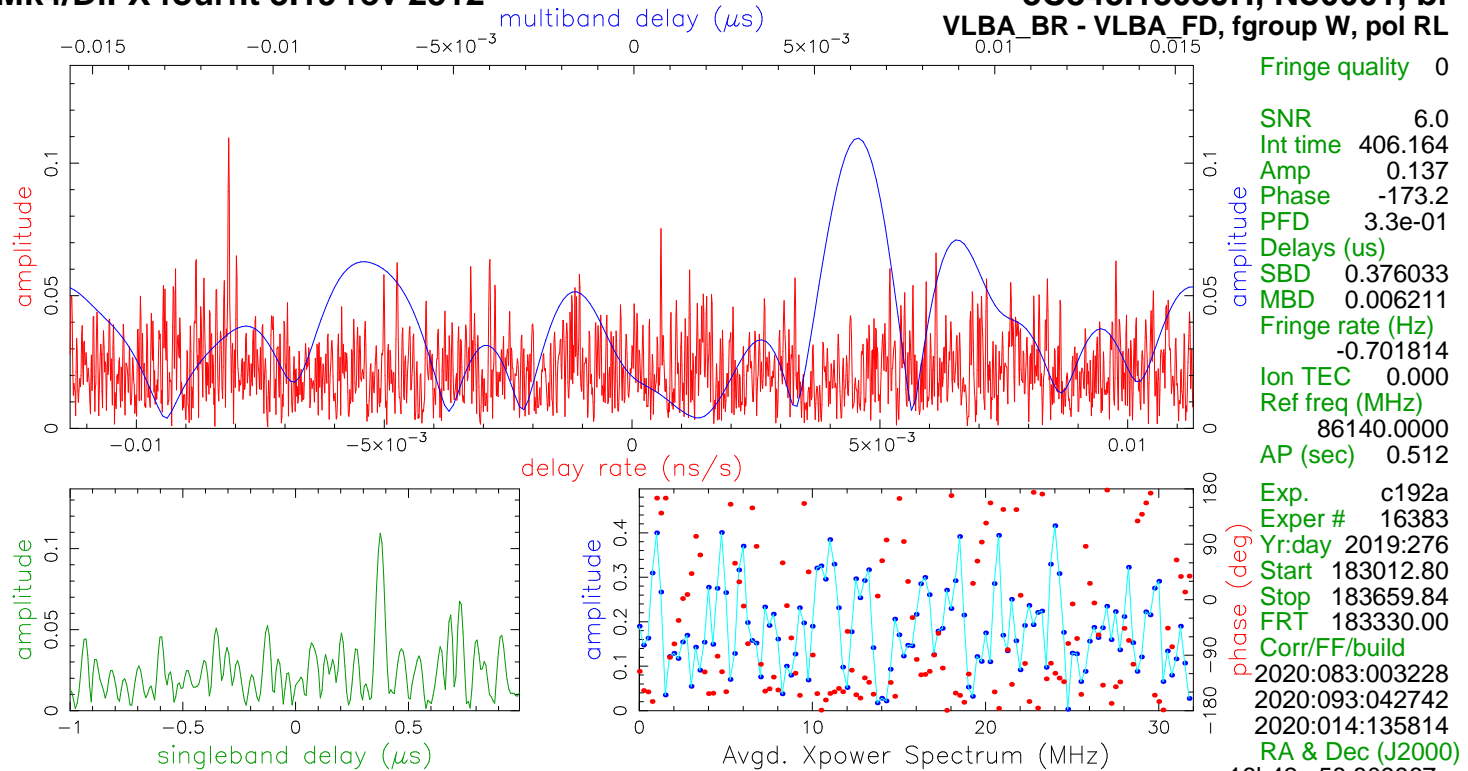


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-126.0	-114.4	-176.3	161.8	-126.9	-5.1	-99.0	-137.1	-172.2	118.4	-171.4	-132.7	133.0	-116.4	-96.1	-157.0	Phase	-135.4				
	0.4	0.2	0.3	0.1	0.2	0.0	0.0	0.2	0.1	0.1	0.0	0.2	0.1	0.3	0.3	0.3	Ampl.	0.2				
	11.1	154.4	247.0	37.1	178.8	88.8	170.8	66.1	68.2	78.0	1.4	202.1	90.7	255.1	210.9	151.6	Sbd box	11.8				
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
b:f	0:0	0:0	0:0	0:0	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					
f	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					
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-1.02776890619E+03														Apriori delay (usec)	-1.02684729122E+03	Resid mbdelay (usec)	1.58850E-02	+/-	1.8E-04
Sband delay (usec)			-1.02776318172E+03														Apriori clock (usec)	-1.0674781E+00	Resid sbdelay (usec)	-9.15891E-01	+/-	2.9E-03
Phase delay (usec)			-1.02684729559E+03														Apriori clockrate (us/s)	-1.5144557E-07	Resid phdelay (usec)	-4.36478E-06	+/-	6.2E-07
Delay rate (us/s)			-1.40188561887E-01														Apriori rate (us/s)	-1.40198822967E-01	Resid rate (us/s)	1.02611E-05	+/-	2.6E-09
Total phase (deg)					-15.2												Apriori accel (us/s/s)	2.24195151398E-05	Resid phase (deg)	-135.4	+/-	19.1

	RMS	Theor.	Amplitude	0.157 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	34.9	33.1	Search (2048X64)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	51.0	57.7	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.016 0.016
ph/frq (deg)	59.3	38.2	Inc. seg. avg.	0.158	Sample rate(MISamp/s): 64	dr window (ns/s) -0.011 0.011
amp/frq (%)	69.6	66.6	Inc. frq. avg.	0.152	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
					nlags: 128	t_cohere infinite

b: az 66.1 el 33.9 pa -52.6 f: az 61.0 el 37.1 pa -78.2 u,v (fr/asec) 1086.832 3053.430 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bf..1305JH Output file: /Exps/c192a/v2/1234/No0001/bf.W.60.1305JH



Fringe quality 0

SNR 6.0

Int time 406.164

Amp 0.137

Phase -173.2

PFD 3.3e-01

Delays (us)

SBD 0.376033

MBD 0.006211

Fringe rate (Hz)

-0.701814

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:276

Start 183012.80

Stop 183659.84

FRT 183330.00

Corr/FF/build

2020:083:003228

2020:093:042742

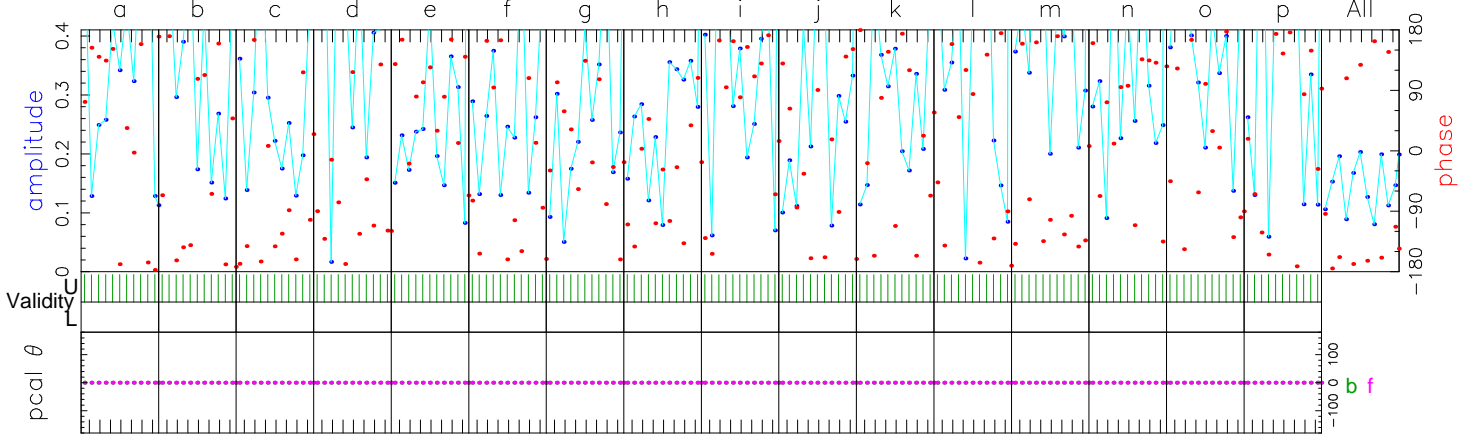
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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	
	142.8	-176.6	-146.8	-122.2	103.0	-143.0	6.9	-65.5	144.9	162.0	-158.9	161.2	-145.2	120.2	-144.7	-175.4		Phase	-173.2
	0.3	0.2	0.2	0.4	0.2	0.1	0.0	0.1	0.3	0.1	0.1	0.2	0.4	0.1	0.1	0.3		Ampl.	0.2
	221.9	194.2	161.3	175.6	158.0	46.9	22.4	63.1	177.2	217.9	7.8	96.5	176.9	40.4	45.5	36.6		Sbd box	177.1
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
b:f	0:0	0:0	0:0	0:0	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:f	0:0	0:0	0:0	0:0	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	
f	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	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	

Group delay (usec)(sbd) -1.02646608026E+03 Apriori delay (usec) -1.02684729122E+03 Resid mbdelay (usec) 6.21097E-03 +/- 1.8E-04

Sband delay (usec) -1.02647125872E+03 Apriori clock (usec) -1.0674781E+00 Resid sbdelay (usec) 3.76033E-01 +/- 2.9E-03

Phase delay (usec) -1.02684729681E+03 Apriori clockrate (us/s) -1.5144557E-07 Resid phdelay (usec) -5.58566E-06 +/- 6.1E-07

Delay rate (us/s) -1.40206970338E-01 Apriori rate (us/s) -1.40198822967E-01 Resid rate (us/s) -8.14737E-06 +/- 2.6E-09

Total phase (deg) -53.0 Apriori accel (us/s/s) 2.24195151398E-05 Resid phase (deg) -173.2 +/- 19.0

RMS Theor. Amplitude 0.137 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

ph/seg (deg) 45.0 32.9 Search (2048X64) 0.108 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

amp/seg (%) 49.7 57.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

ph/frq (deg) 68.9 37.9 Inc. seg. avg. 0.154 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011

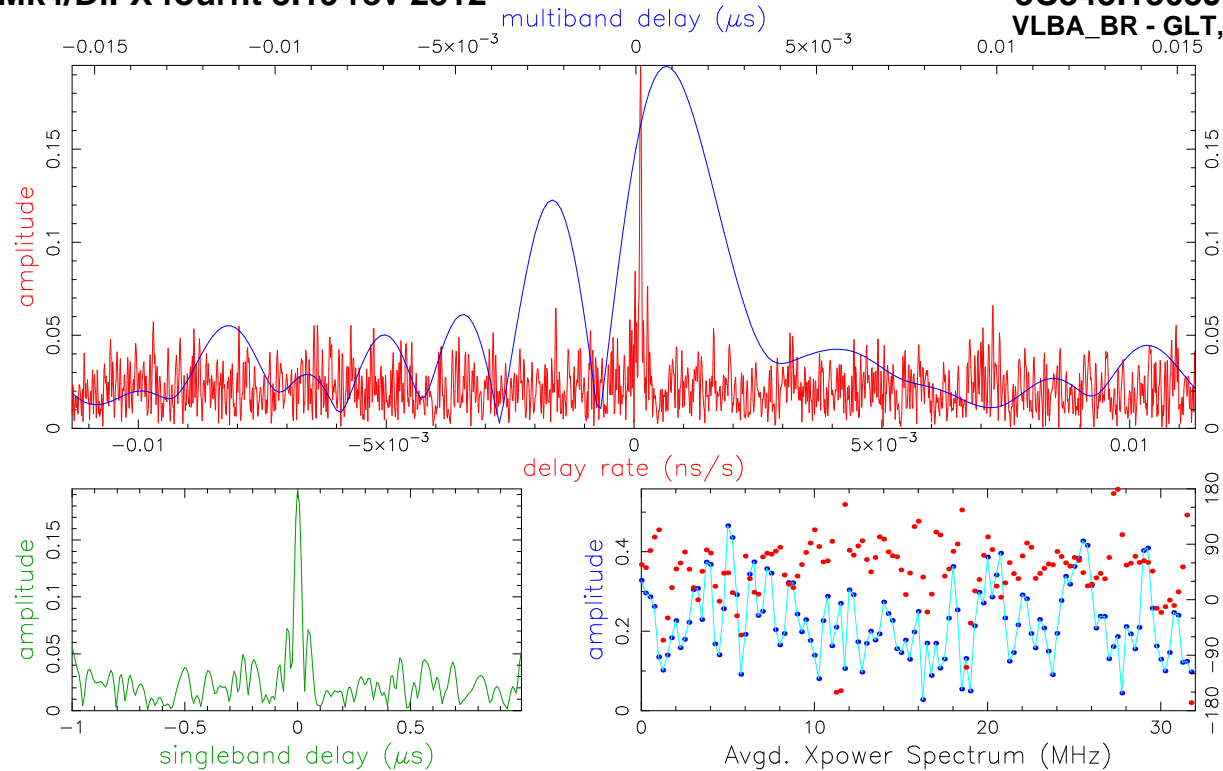
amp/frq (%) 79.6 66.2 Inc. frq. avg. 0.153 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6 f: az 61.0 el 37.1 pa -78.2 u,v (fr/asec) 1086.832 3053.430 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bf..1305JH Output file: /Exps/c192a/v2/1234/No0001/bf.W.79.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bg
VLBA_BR - GLT, fgroup W, pol RR

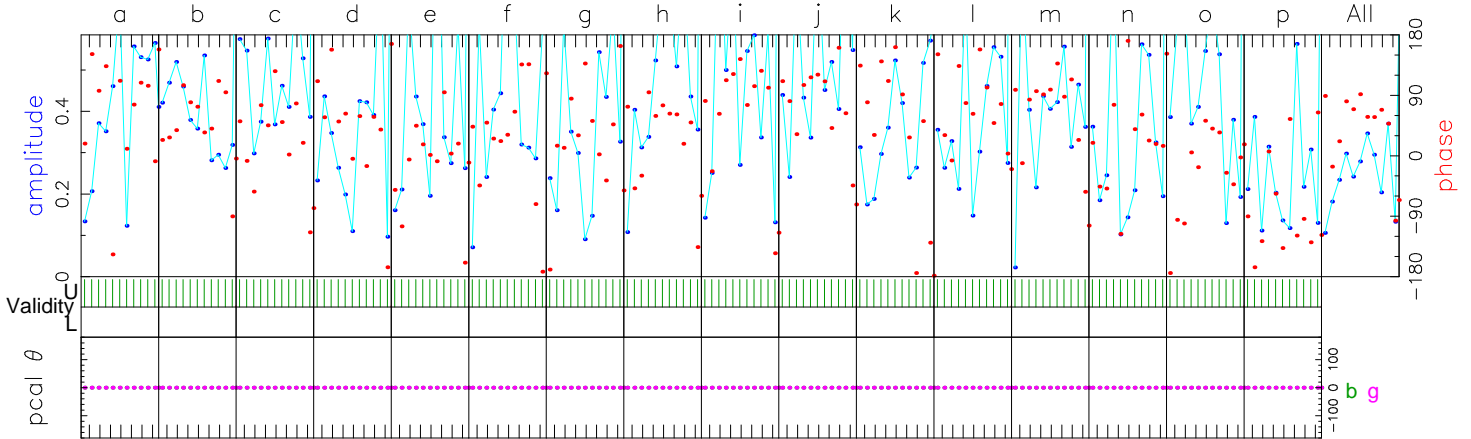


Fringe quality 9

SNR 10.8
Int time 406.440
Amp 0.195
Phase 56.7
PFD 2.7e-18
Delays (us)
SBD 0.001251
MBD 0.000868
Fringe rate (Hz) 0.011793
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042730
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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
100.2	54.5	38.5	54.9	5.5	42.1	30.0	46.2	98.6	81.9	121.5	72.9	68.4	37.0	-13.9	-109.4	-109.4	Phase	56.7
0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.4	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.1	Ampl.	0.2
127.2	128.5	129.4	129.9	128.5	182.7	42.4	129.2	128.4	128.6	39.1	129.9	128.5	179.1	127.1	5.0	5.0	Sbd box	129.2
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	
b:g	0:0	0:0	0:0	0:0	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:g	0:0	0:0	0:0	0:0	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	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) -4.55392837833E+03 Apriori delay (usec) -4.55392924593E+03 Resid mbdelay (usec) 8.67602E-04 +/- 1.0E-04
 Sband delay (usec) -4.55392799443E+03 Apriori clock (usec) -1.9088186E+00 Resid sbdelay (usec) 1.25150E-03 +/- 1.6E-03
 Phase delay (usec) -4.55392924411E+03 Apriori clockrate (us/s) -3.1739506E-07 Resid phdelay (usec) 1.82757E-06 +/- 3.4E-07
 Delay rate (us/s) 6.50043918588E-01 Apriori rate (us/s) 6.50043781683E-01 Resid rate (us/s) 1.36905E-07 +/- 1.5E-09
 Total phase (deg) -31.4 Apriori accel (us/s/s) 7.70195165707E-06 Resid phase (deg) 56.7 +/- 10.7

RMS Theor. Amplitude 0.195 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 55.4 18.5 Search (2048X64) 0.189 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 49.8 32.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 57.2 21.3 Inc. seg. avg. 0.234 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 42.3 37.2 Inc. frq. avg. 0.233 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

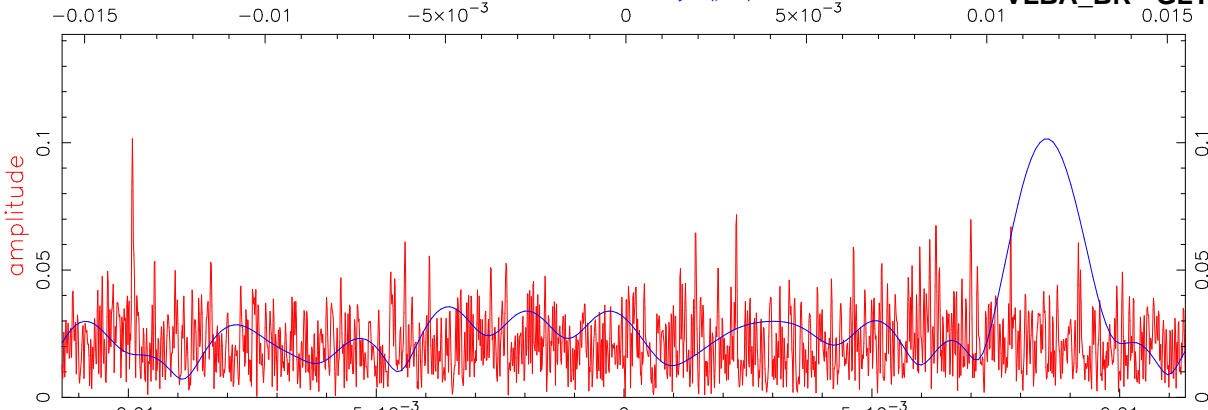
b: az 66.1 el 33.9 pa -52.6 g: az 142.5 el 51.0 pa -10.6 u,v (fr/asec) -4834.133 -994.278 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bg..1305JH Output file: /Exps/c192a/v2/1234/No0001/bg.W.29.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

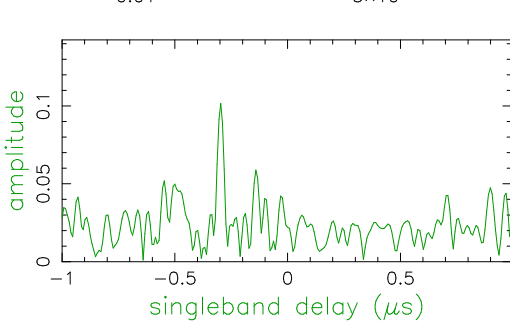
3C345.1305JH, No0001, bg
VLBA_BR - GLT, fgroup W, pol LR

multiband delay (μ s)

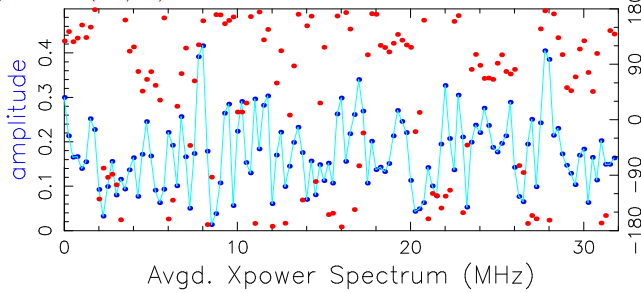
Fringe quality 0



SNR 5.6
Int time 406.440
Amp 0.143
Phase 163.0
PFD 9.9e-01
Delays (us)
SBD -0.297259
MBD 0.011652
Fringe rate (Hz)
-0.855469
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

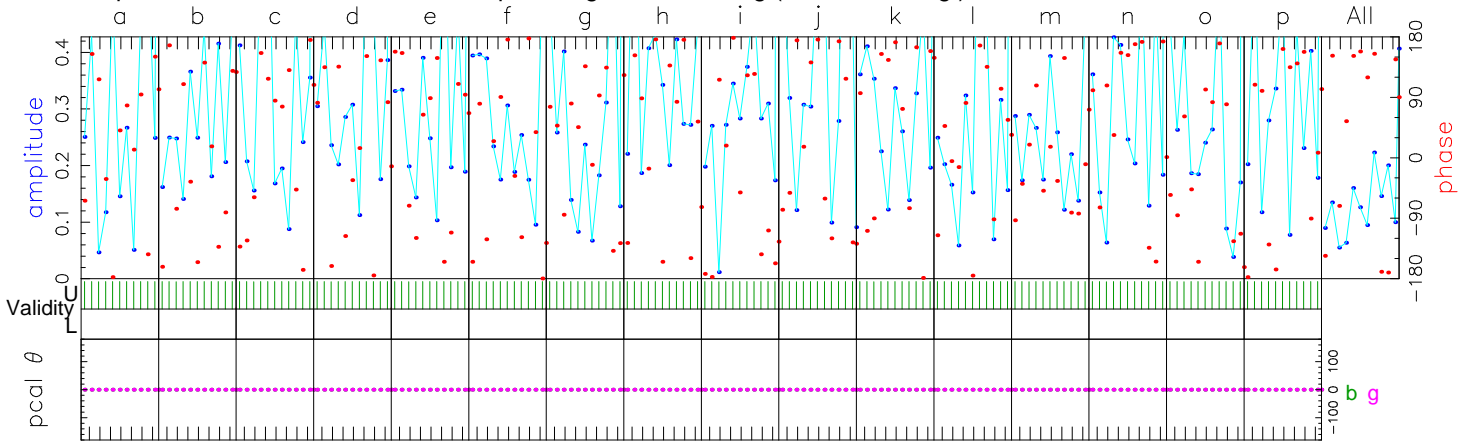


delay rate (ns/s)



Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042735
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
b:g	0:0	0:0	0:0	0:0	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:g	0:0	0:0	0:0	0:0	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		
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)		-4.55423009417E+03																
Sband delay (usec)		-4.55422650493E+03																
Phase delay (usec)		-4.55392924068E+03																
Delay rate (us/s)		6.50033850542E-01																
Total phase (deg)					74.9													
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)																		
PCal period (AP's) 5, 5																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		
nlags: 128																		
t_cohere infinite																		

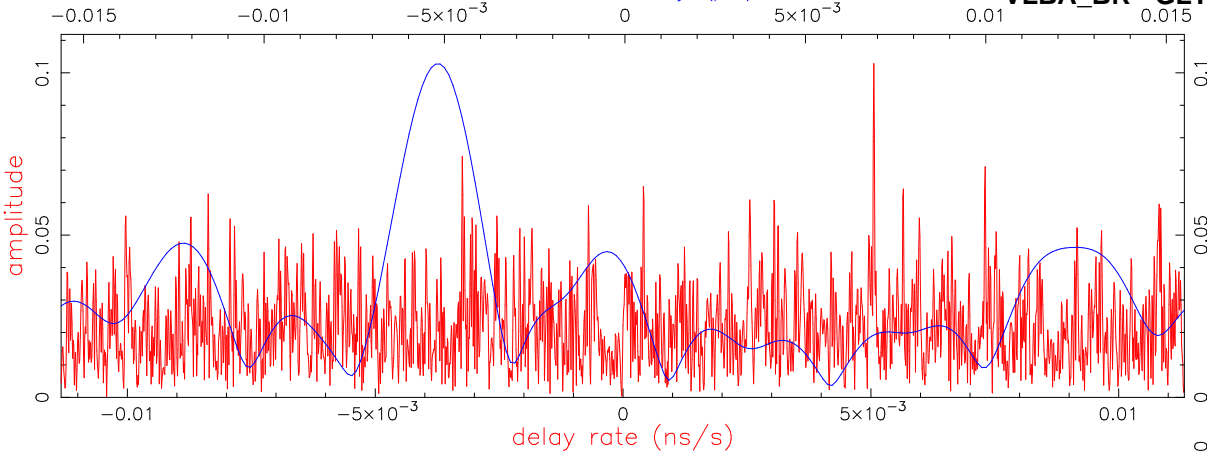
ph/seg (deg) 55.6 35.4 Search (2048X64) 0.100 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.8 61.8 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 52.5 40.9 Inc. seg. avg. 0.151 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 43.9 71.4 Inc. frq. avg. 0.141 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 66.1 el 33.9 pa -52.6 g: az 142.5 el 51.0 pa -10.6 u,v (fr/asec) -4834.133 -994.278 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bg..1305JH Output file: /Exps/c192a/v2/1234/No0001/bg.W.47.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

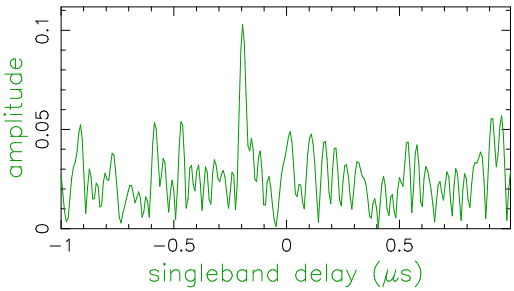
3C345.1305JH, No0001, bg
VLBA_BR - GLT, fgroup W, pol RL

multiband delay (μ s)

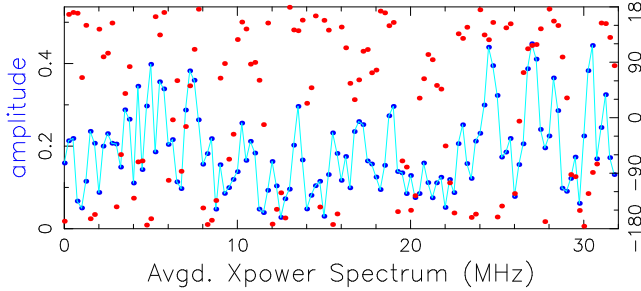


Fringe quality 0

SNR 5.7
Int time 406.400
Amp 0.112
Phase 141.5
PFD 9.7e-01
Delays (us)
SBD -0.194761
MBD -0.005183
Fringe rate (Hz)
0.436024
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

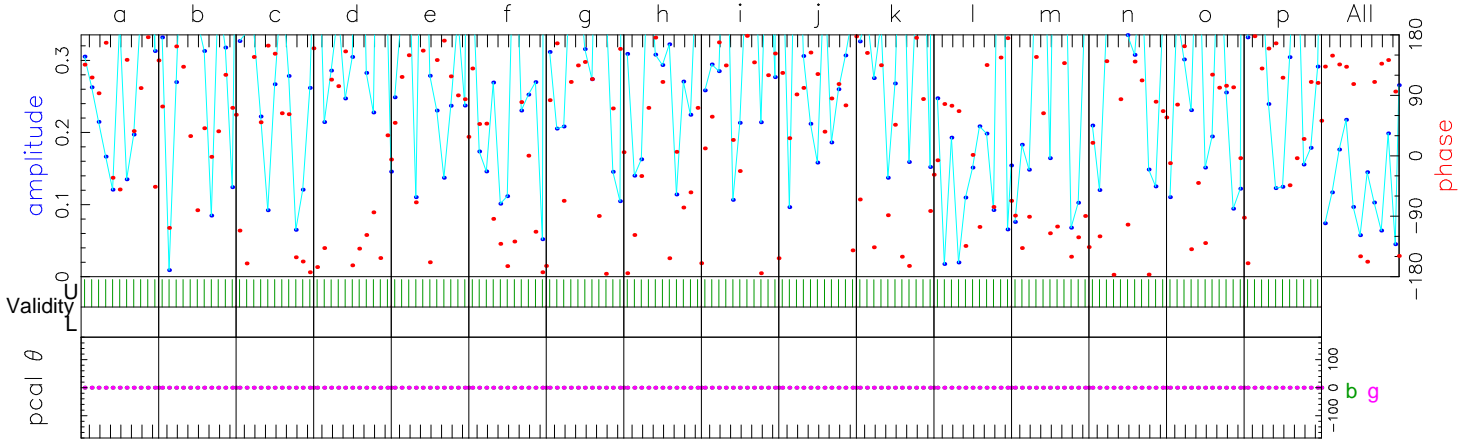


delay rate (ns/s)

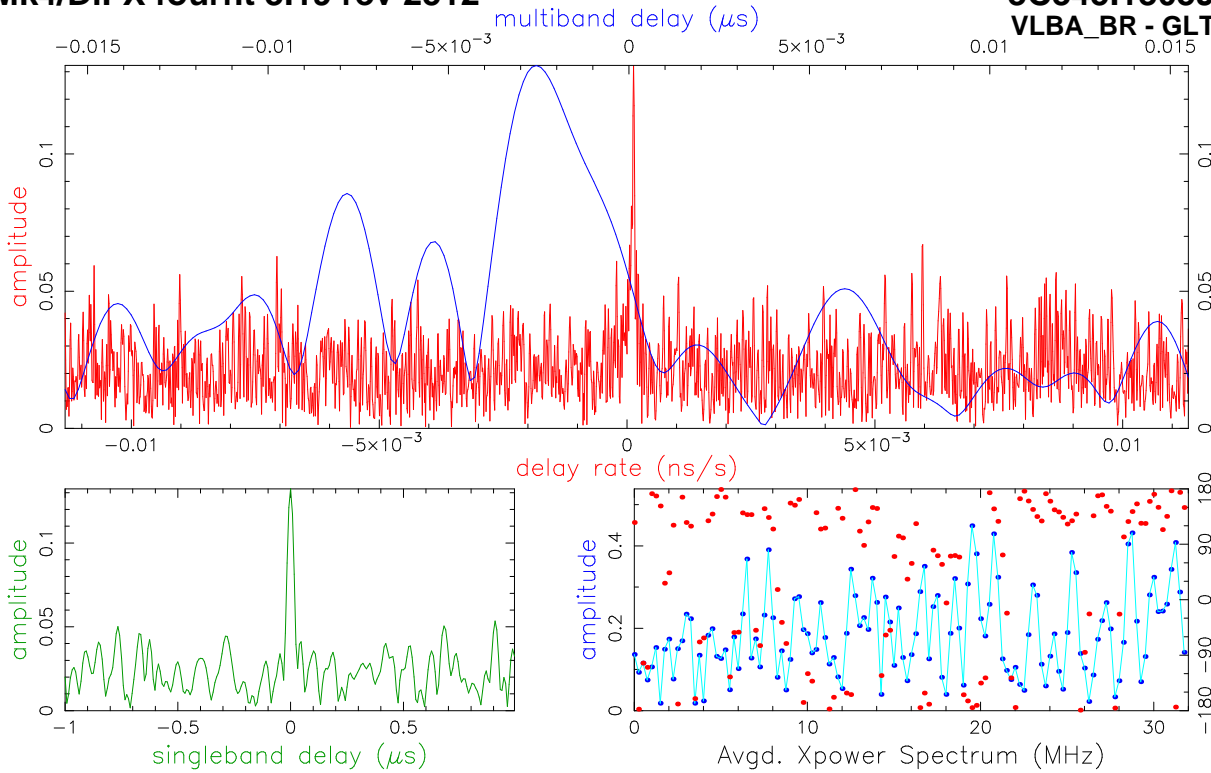


Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042739
2020:014:135814
RA & Dec (J2000)
16h42m58.80967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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
130.3	66.8	149.9	-161.2	131.9	-151.8	147.1	137.0	134.9	101.9	179.0	141.9	-149.4	126.5	98.4	135.4	141.5	Phase	141.5
0.1	0.2	0.1	0.3	0.2	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
250.5	120.0	17.0	104.1	103.7	192.9	117.8	68.8	173.8	103.6	252.1	224.7	40.4	203.1	152.2	11.2	104.1	Sbd box	104.1
UL	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	
b:g	0:0	0:0	0:0	0:0	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:g	0:0	0:0	0:0	0:0	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	
b	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	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Group delay (usec)(sbd) -4.55412192877E+03 Apriori delay (usec) -4.55392924593E+03 Resid mbdelay (usec) -5.18283E-03 +/- 1.9E-04 Sband delay (usec) -4.55412400743E+03 Apriori clock (usec) -1.9088186E+00 Resid sbdelay (usec) -1.94761E-01 +/- 3.0E-03 Phase delay (usec) -4.55392924137E+03 Apriori clockrate (us/s) -3.1739506E-07 Resid phdelay (usec) 4.56186E-06 +/- 6.5E-07 Delay rate (us/s) 6.50048843486E-01 Apriori rate (us/s) 6.50043781683E-01 Resid rate (us/s) 5.06180E-06 +/- 2.8E-09 Total phase (deg) 53.4 Apriori accel (us/s/s) 7.70195165707E-06 Resid phase (deg) 141.5 +/- 20.2																		
ph/seg (deg)	RMS	Theor.	Amplitude		0.112 +/- 0.020		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000		
amp/seg (%)	34.7	35.0	Search (2048X64)		0.099		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)		-0.016	0.016				
ph/frq (deg)	57.5	61.1	Interp.		0.000		Sample rate(MSamp/s): 64				dr window (ns/s)		-0.011	0.011				
amp/frq (%)	41.0	40.4	Inc. seg. avg.		0.108		Data rate(Mb/s): 2048		nlags: 128		t_cohere infinite		ion window (TEC)		0.00	0.00		
amp/frq (%)	65.8	70.5	Inc. frq. avg.		0.114													
b: az 66.1 el 33.9 pa -52.6 g: az 142.5 el 51.0 pa -10.6 u,v (fr/asec) -4834.133 -994.278 simultaneous interpolator Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bg..1305JH Output file: /Exps/c192a/v2/1234/No0001/bg.W.66.1305JH																		

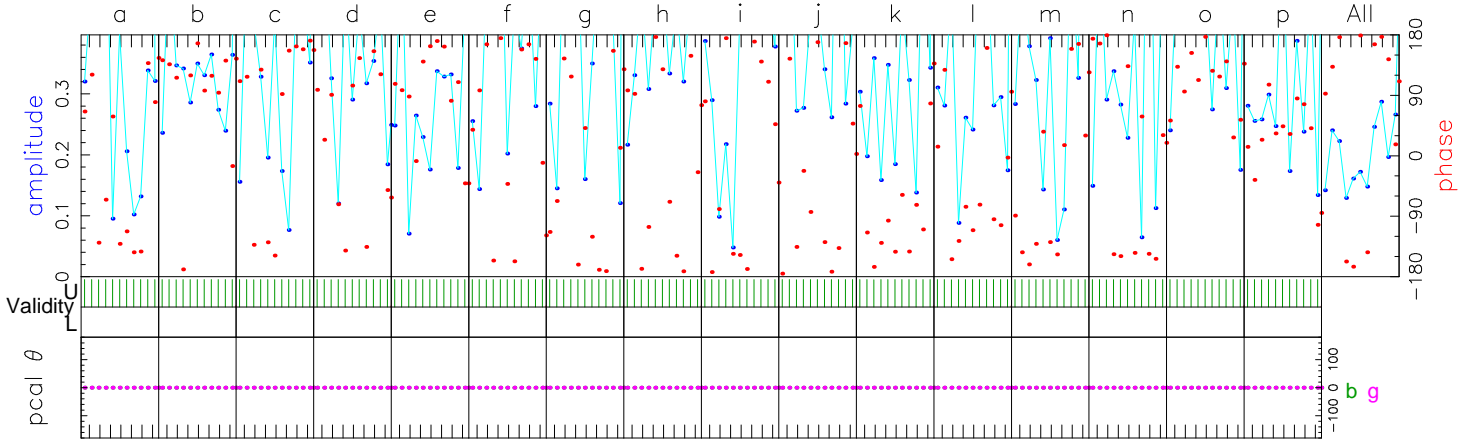


Fringe quality 9

SNR 7.3
Int time 406.400
Amp 0.132
Phase 162.3
PFD 9.4e-05
Delays (us)
SBD -0.000567
MBD -0.002580
Fringe rate (Hz)
0.011902
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

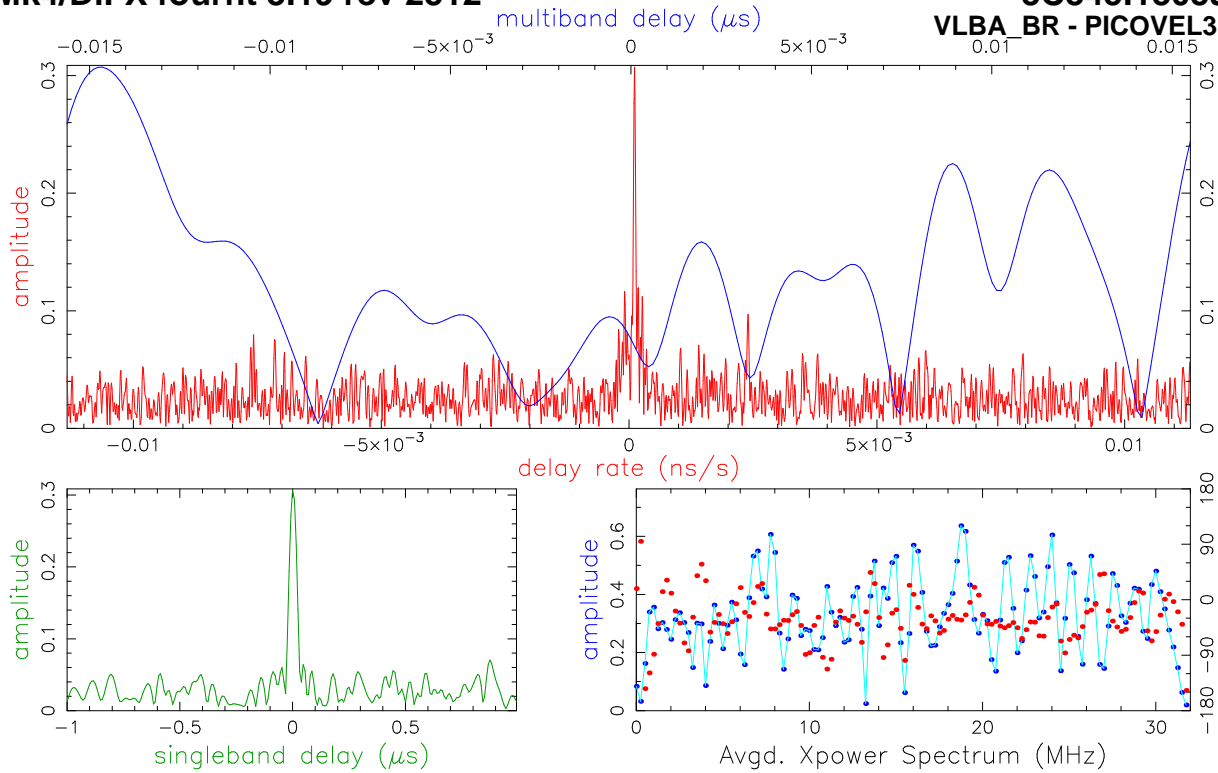
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042726
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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
	-163.7	128.7	163.5	125.5	111.0	173.0	178.8	179.0	154.1	-161.7	-117.8	-115.1	-163.0	-168.8	118.5	43.2	Phase	162.3
	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.2	Ampl.	0.2
	208.2	127.3	11.5	66.4	93.3	82.3	227.0	219.7	152.8	129.1	187.5	232.5	168.7	181.9	127.8	127.1	Sbd box	128.9
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	
b:g	0:0	0:0	0:0	0:0	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:g	0:0	0:0	0:0	0:0	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	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Tracks	
Group delay (usec)(sbd)	-4.55393182612E+03			Apriori delay (usec)			-4.55392924593E+03			Resid mbdelay (usec)			-2.58019E-03			+/- 1.5E-04		
Sband delay (usec)	-4.55392981293E+03			Apriori clock (usec)			-1.9088186E+00			Resid sbdelay (usec)			-5.67000E-04			+/- 2.4E-03		
Phase delay (usec)	-4.55392924070E+03			Apriori clockrate (us/s)			-3.1739506E-07			Resid phdelay (usec)			5.23461E-06			+/- 5.1E-07		
Delay rate (us/s)	6.50043919851E-01			Apriori rate (us/s)			6.50043781683E-01			Resid rate (us/s)			1.38167E-07			+/- 2.2E-09		
Total phase (deg)	74.2			Apriori accel (us/s/s)			7.70195165707E-06			Resid phase (deg)			162.3			+/- 15.7		

ph/seg (deg) 55.3 27.2 Search (2048X64) 0.128 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 66.8 47.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 53.2 31.4 Inc. seg. avg. 0.182 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 62.6 54.8 Inc. frq. avg. 0.165 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 66.1 el 33.9 pa -52.6 g: az 142.5 el 51.0 pa -10.6 u,v (fr/asec) -4834.133 -994.278 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bg..1305JH Output file: /Exps/c192a/v2/1234/No0001/bg.W.8.1305JH

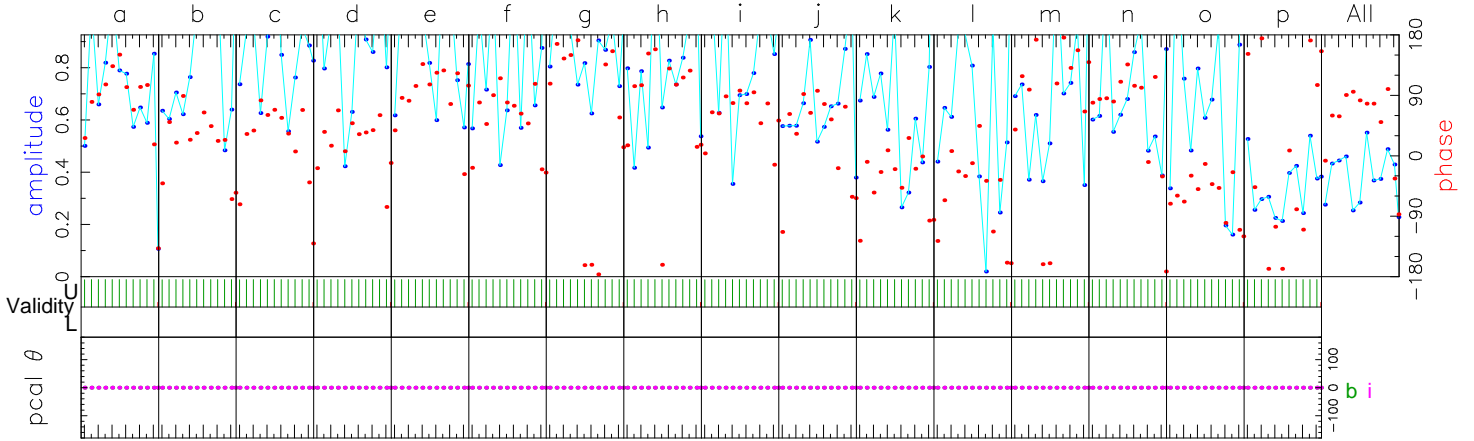


Fringe quality 9

SNR 15.0
Int time 314.116
Amp 0.309
Phase 65.0
PFD 8.3e-42
Delays (us)
SBD 0.001814
MBD -0.014696
Fringe rate (Hz) 0.010024
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183145.47
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042727
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 55 APs / seg (28.16 sec / seg.), time ticks 30 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	94.3	31.5	39.0	26.1	98.6	62.0	154.1	114.7	62.9	46.8	-35.4	-48.9	134.4	93.2	-58.9	-166.1	Phase	65.0				
b	0.6	0.7	0.6	0.7	0.7	0.7	0.5	0.7	0.4	0.5	0.3	0.5	0.5	0.6	0.1	0.1	Ampl.	0.5				
i	128.4	128.5	129.6	129.0	128.8	129.2	129.0	128.4	129.5	128.8	128.6	128.6	128.2	128.2	128.8	114.2	Sbd box	129.2				
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	APs used					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
b:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC					
i	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					
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)			-6.72408425290E+03														Apriori delay (usec)	-6.72410080713E+03	Resid mbdelay (usec)	-1.46958E-02	+/-	7.2E-05
Sband delay (usec)			-6.72409899313E+03														Apriori clock (usec)	-1.2372863E-01	Resid sbdelay (usec)	1.81400E-03	+/-	1.2E-03
Phase delay (usec)			-6.72410080504E+03														Apriori clockrate (us/s)	1.1060491E-07	Resid phdelay (usec)	2.09731E-06	+/-	2.5E-07
Delay rate (us/s)			1.34872448721E+00														Apriori rate (us/s)	1.34872437085E+00	Resid rate (us/s)	1.16366E-07	+/-	1.4E-09
Total phase (deg)					-124.5												Apriori accel (us/s/s)	4.59892593383E-05	Resid phase (deg)	65.0	+/-	7.7

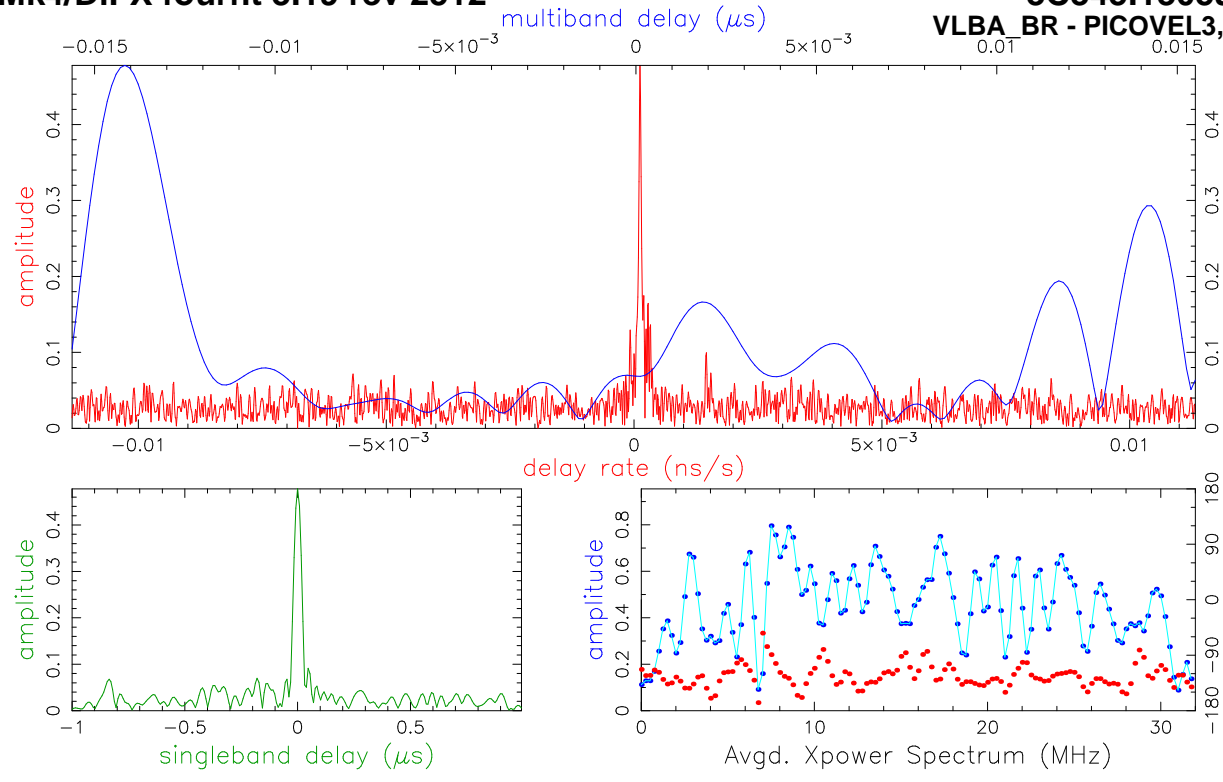
ph/seg (deg) 44.8 13.3
amp/seg (%) 40.8 23.2
ph/frq (deg) 74.0 15.3
amp/frq (%) 96.3 26.7

RMS Theor. Amplitude 0.309 +/- 0.021
Search (2048X64) 0.301
Interp. 0.000
Inc. seg. avg. 0.384
Inc. frq. avg. 0.538

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

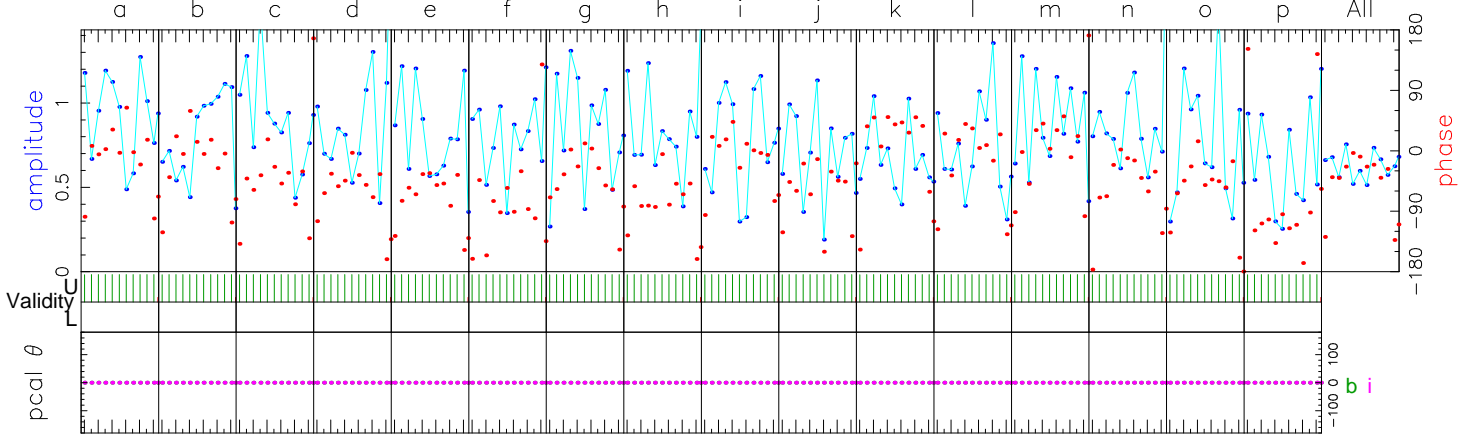
b: az 66.1 el 33.9 pa -52.6 i: az 286.6 el 62.3 pa 84.7 u,v (fr/asec) -9968.663 4094.485 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bi..1305JH Output file: /Exps/c192a/v2/1234/No0001/bi.W.16.1305JH



Fringe quality 7
SNR 23.2
Int time 314.116
Amp 0.478
Phase -40.3
PFD 0.0e+00
Delays (us)
SBD 0.000229
MBD -0.014161
Fringe rate (Hz) 0.010044
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183145.47
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042731
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 55 APs / seg (28.16 sec / seg.), time ticks 30 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
	-9.2	-15.5	-49.2	-65.1	-71.6	-93.2	-33.4	-78.9	-3.0	-54.5	31.9	-4.1	3.0	-46.1	-45.8	-125.5	Phase	-40.3
	0.7	0.6	0.7	0.6	0.7	0.5	0.7	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.5	Ampl.	0.6
	128.7	128.6	129.1	129.0	128.4	129.1	128.9	129.0	129.0	129.1	128.2	129.4	128.7	128.4	128.9	127.7	Sbd box	129.0
U/L	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:i	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b: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	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
i	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

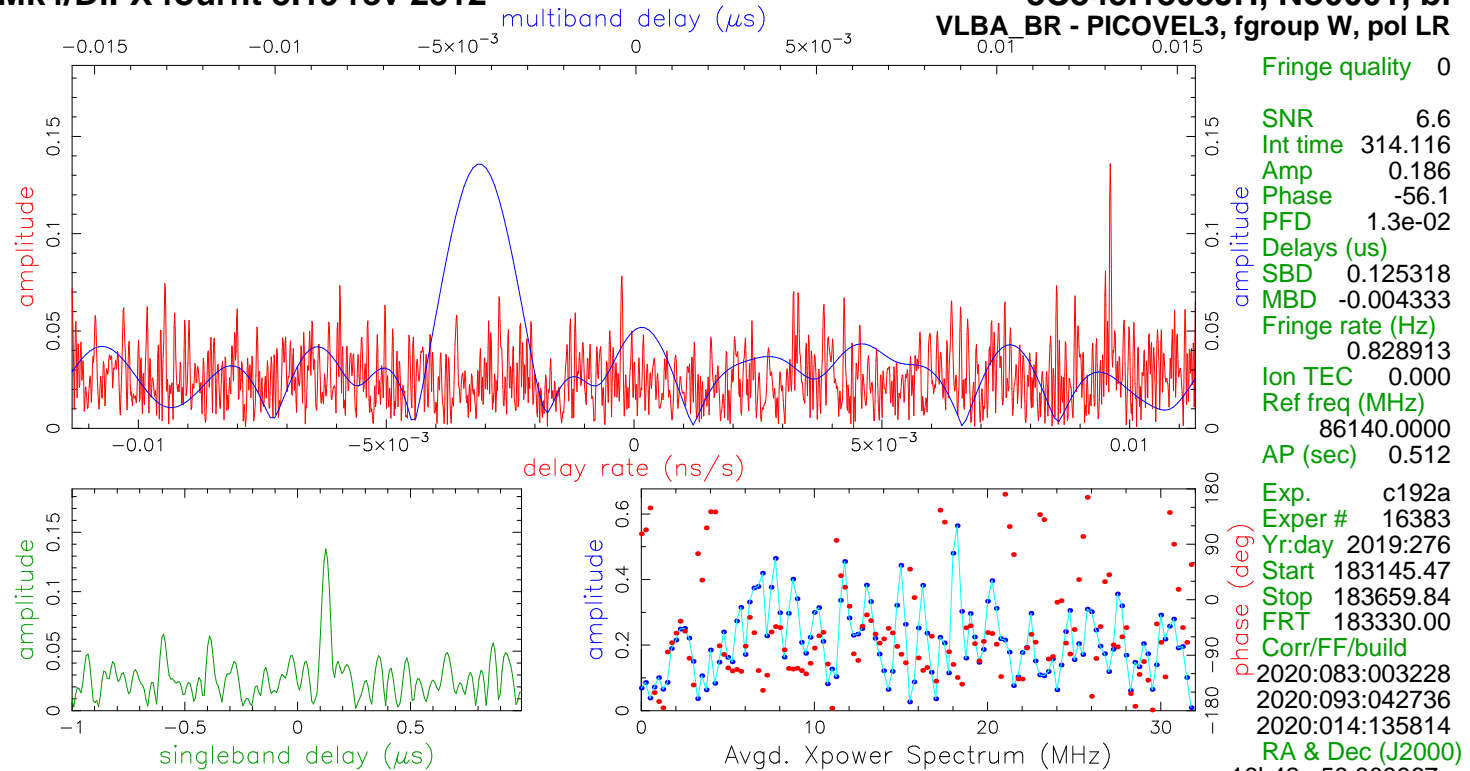
Group delay (usec)(sbd) -6.72411496793E+03 Apriori delay (usec) -6.72410080713E+03 Resid mbdelay (usec) -1.41608E-02 +/- 4.7E-05
 Sband delay (usec) -6.72410057813E+03 Apriori clock (usec) -1.2372863E-01 Resid sbdelay (usec) 2.29000E-04 +/- 7.4E-04
 Phase delay (usec) -6.72410080843E+03 Apriori clockrate (us/s) 1.1060491E-07 Resid phdelay (usec) -1.30068E-06 +/- 1.6E-07
 Delay rate (us/s) 1.34872448745E+00 Apriori rate (us/s) 1.34872437085E+00 Resid rate (us/s) 1.16601E-07 +/- 8.8E-10
 Total phase (deg) -229.8 Apriori accel (us/s/s) 4.59892593383E-05 Resid phase (deg) -40.3 +/- 4.9

RMS Theor. Amplitude 0.478 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 42.9 8.6 Search (2048X64) 0.466 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 35.1 15.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 42.2 9.9 Inc. seg. avg. 0.620 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 27.9 17.3 Inc. frq. avg. 0.585 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

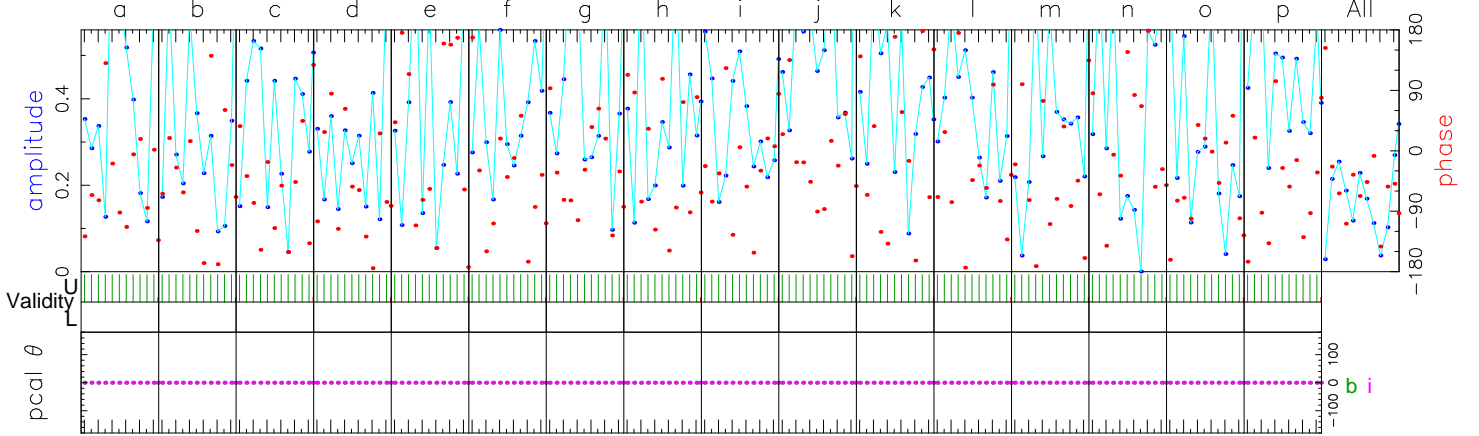
b: az 66.1 el 33.9 pa -52.6 i: az 286.6 el 62.3 pa 84.7 u,v (fr/asec) -9968.663 4094.485 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bi..1305JH Output file: /Exps/c192a/v2/1234/No0001/bi.W.35.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bi
VLBA_BR - PICOVEL3, fgroup W, pol LR



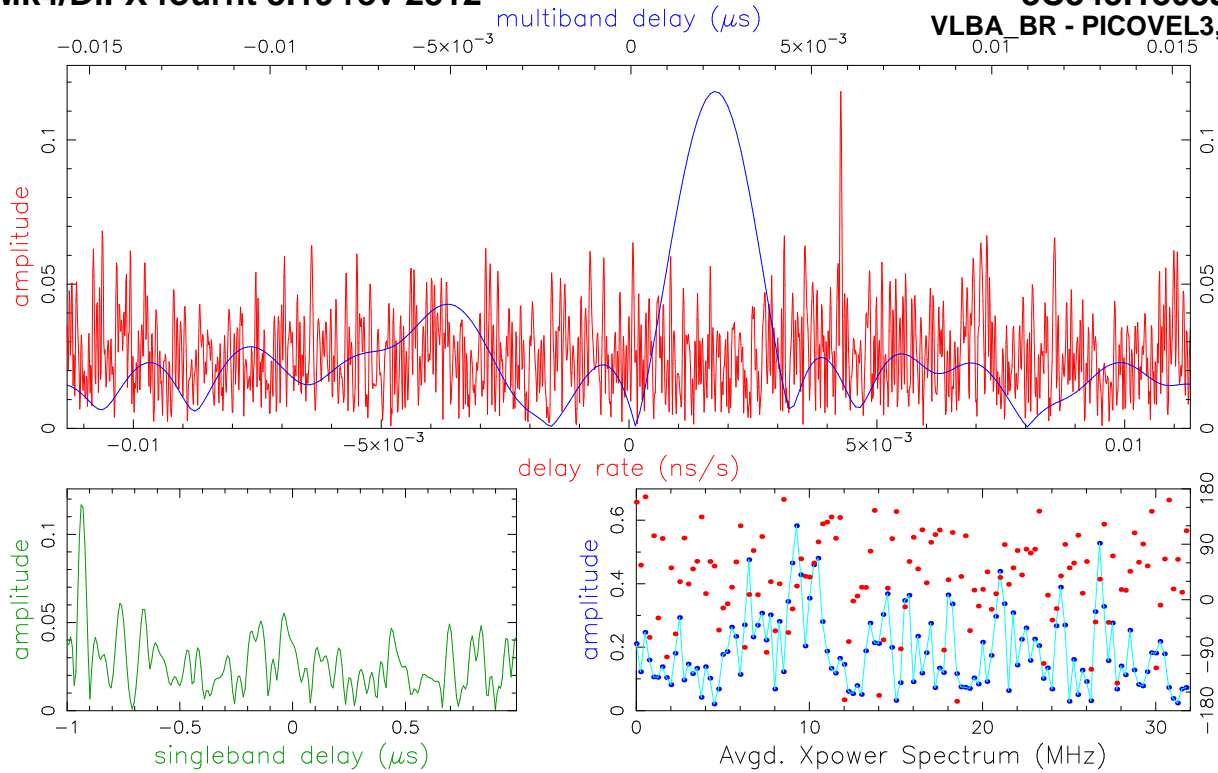
Amp. and Phase vs. time for each freq., 12 segs, 55 APs / seg (28.16 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-54.3	-18.5	-72.7	-75.4	-116.0	-50.4	-36.6	-92.1	-37.5	-24.0	-157.6	-82.7	-95.2	-45.8	-48.1	-52.8		Phase	-56.1
	0.4	0.2	0.2	0.1	0.2	0.2	0.3	0.1	0.3	0.4	0.1	0.2	0.2	0.2	0.2	0.3		Ampl.	0.2
	15.0	245.8	238.1	155.2	32.8	30.7	234.1	52.2	146.7	145.5	9.2	19.9	19.0	119.2	65.6	208.9		Sbd box	145.0
U/L	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0		APs used	
b	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	
b: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	
b	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			
b	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)	-6.72398014013E+03			Apriori delay (usec)			-6.72410080713E+03			Resid mbdelay (usec)			-4.33300E-03			+/- 1.6E-04			
Sband delay (usec)	-6.72397548913E+03			Apriori clock (usec)			-1.2372863E-01			Resid sbdelay (usec)			1.25318E-01			+/- 2.6E-03			
Phase delay (usec)	-6.72410080894E+03			Apriori clockrate (us/s)			1.1060491E-07			Resid phdelay (usec)			-1.81001E-06			+/- 5.6E-07			
Delay rate (us/s)	1.34873399371E+00			Apriori rate (us/s)			1.34872437085E+00			Resid rate (us/s)			9.62286E-06			+/- 3.1E-09			
Total phase (deg)	-245.6			Apriori accel (us/s/s)			4.59892593383E-05			Resid phase (deg)			-56.1			+/- 17.4			
	RMS	Theor.	Amplitude		0.186 +/- 0.028		Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5									
ph/seg (deg)	57.7	30.1	Search (2048X64)		0.134		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)			-1.000 1.000						
amp/seg (%)	62.5	52.6	Interp.		0.000		Bits/sample: 2x2			SampCntNorm: enabled			mb window (us)		-0.016 0.016				
ph/frq (deg)	39.1	34.8	Inc. seg. avg.		0.192		Sample rate(MISamp/s): 64			dr window (ns/s)			-0.011 0.011						
amp/frq (%)	45.9	60.7	Inc. frq. avg.		0.181		Data rate(Mb/s): 2048			nlags: 128			t_cohere infinite			ion window (TEC)		0.00 0.00	

b: az 66.1 el 33.9 pa -52.6 i: az 286.6 el 62.3 pa 84.7 u,v (fr/asec) -9968.663 4094.485 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bi..1305JH Output file: /Exps/c192a/v2/1234/No0001/bi.W.52.1305JH

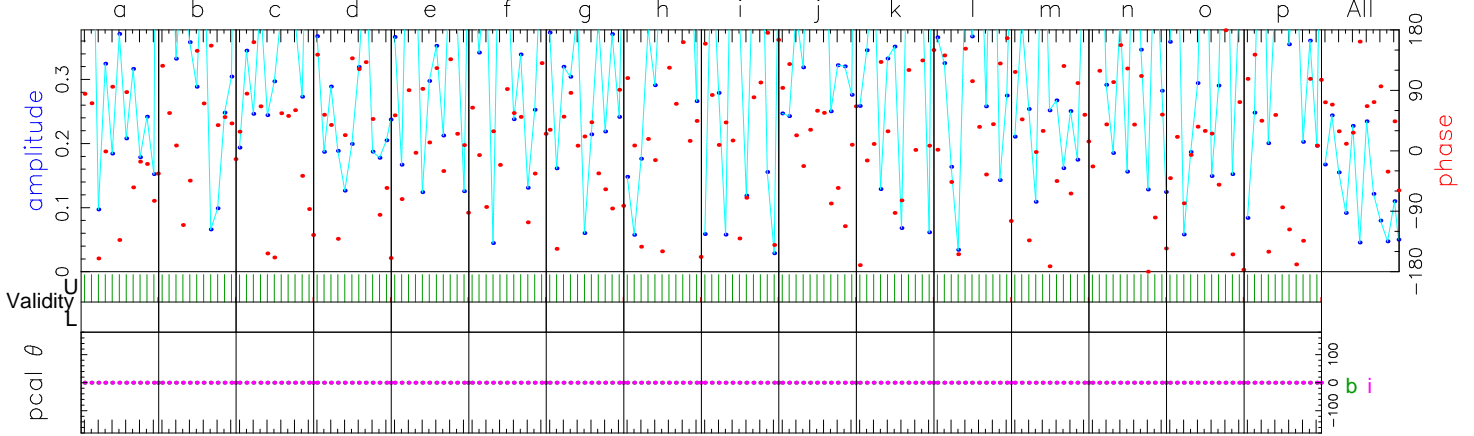


Fringe quality 0

SNR 5.7
Int time 314.116
Amp 0.126
Phase 53.7
PFD 9.0e-01
Delays (us)
SBD -0.934234
MBD 0.002319
Fringe rate (Hz)
0.368900
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183145.47
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042741
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 55 APs / seg (28.16 sec / seg.), time ticks 30 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
28.1	63.5	54.0	112.3	53.2	29.0	9.6	96.1	73.6	29.5	56.7	65.9	40.5	83.4	25.2	144.7	144.7	Phase	53.7
0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.0	Ampl.	0.1
4.1	241.6	131.3	64.9	73.4	26.2	105.3	209.7	46.5	138.5	92.4	247.8	216.1	19.1	95.1	177.5	177.5	Sbd box	9.4
U/L	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	614/0	APs used	
b	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	
b: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	
b	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		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
i	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

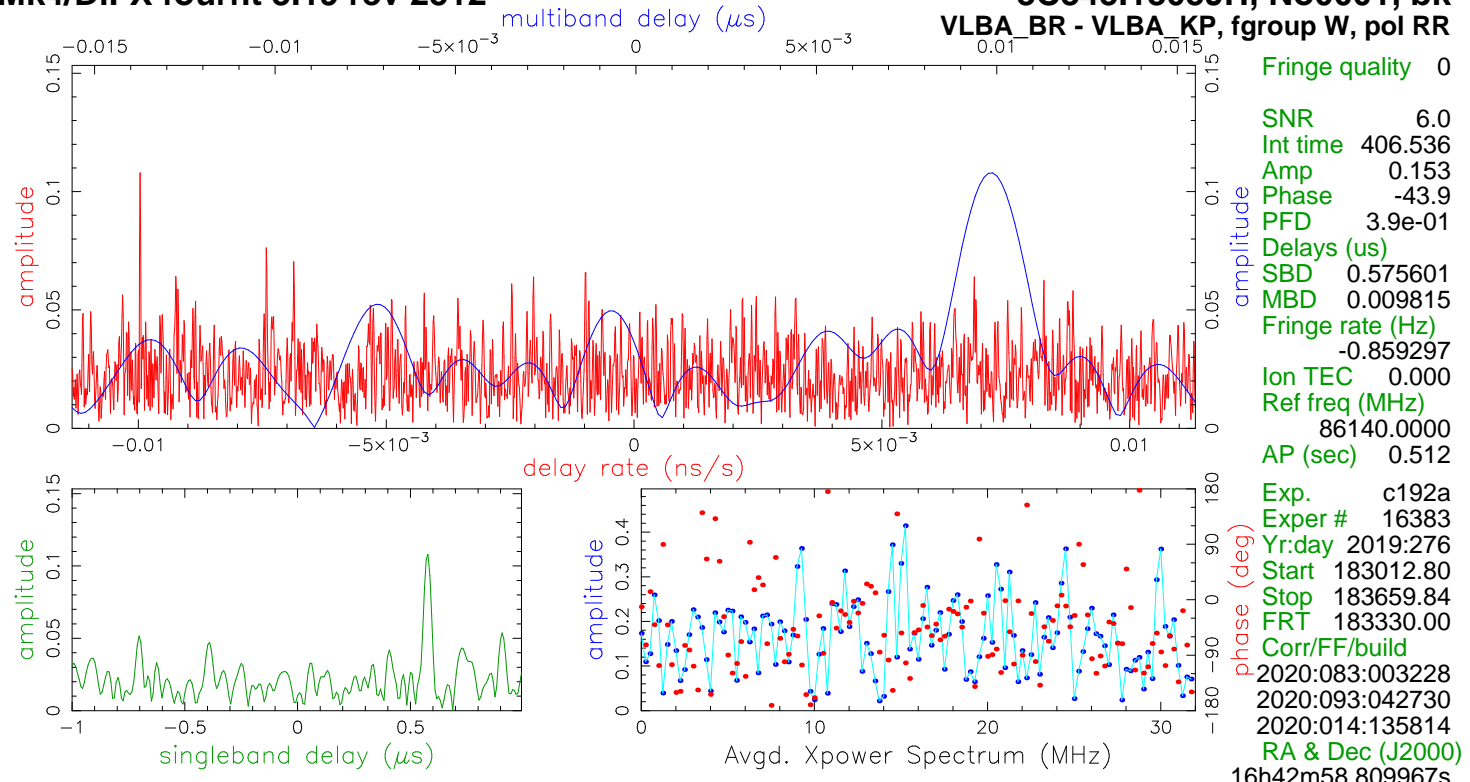
Group delay (usec)(sbd) -6.72503598794E+03 Apriori delay (usec) -6.72410080713E+03 Resid mbdelay (usec) 2.31920E-03 +/- 1.9E-04
 Sband delay (usec) -6.72503504113E+03 Apriori clock (usec) -1.2372863E-01 Resid sbdelay (usec) -9.34234E-01 +/- 3.0E-03
 Phase delay (usec) -6.72410080540E+03 Apriori clockrate (us/s) 1.1060491E-07 Resid phdelay (usec) 1.73085E-06 +/- 6.4E-07
 Delay rate (us/s) 1.34872865341E+00 Apriori rate (us/s) 1.34872437085E+00 Resid rate (us/s) 4.28257E-06 +/- 3.5E-09
 Total phase (deg) -135.8 Apriori accel (us/s/s) 4.59892593383E-05 Resid phase (deg) 53.7 +/- 19.9

RMS Theor. Amplitude 0.126 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 49.4 34.5 Search (2048X64) 0.115 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 61.0 60.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 37.7 39.9 Inc. seg. avg. 0.123 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 37.7 69.6 Inc. frq. avg. 0.113 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6 i: az 286.6 el 62.3 pa 84.7 u,v (fr/asec) -9968.663 4094.485 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bi..1305JH Output file: /Exps/c192a/v2/1234/No0001/bi.W.72.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bk
VLBA_BR - VLBA_KP, fgroup W, pol RR



Fringe quality 0

SNR 6.0

Int time 406.536

Amplitude 0.153

Phase -43.9

PFD 3.9e-01

Delays (us)

SBD 0.575601

MBD 0.009815

Fringe rate (Hz)

-0.859297

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:276

Start 183012.80

Stop 183659.84

FRT 183330.00

Corr/FF/build

2020:083:003228

2020:093:042730

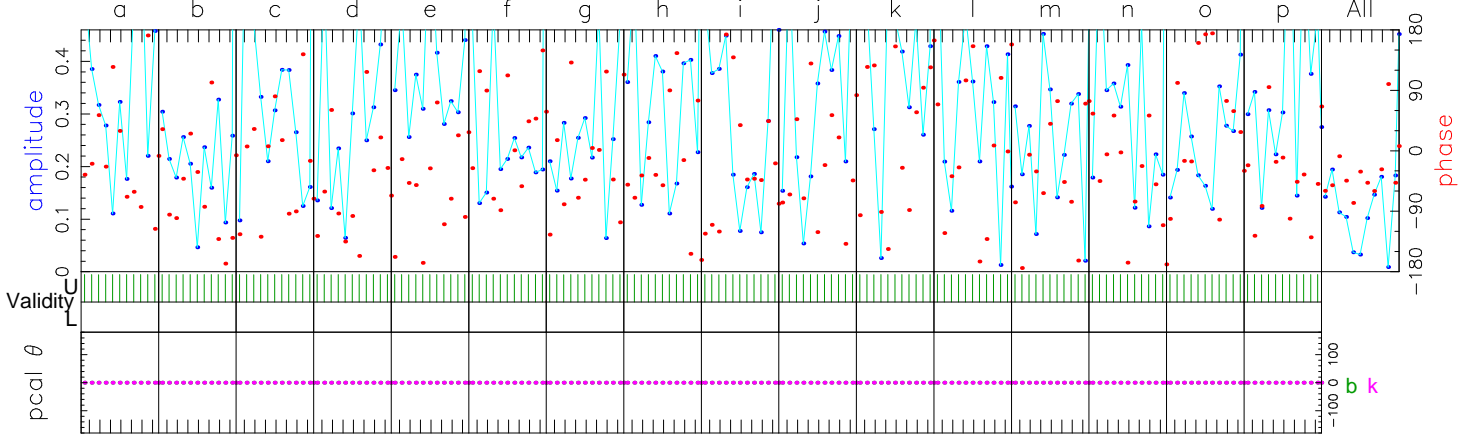
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-47.8	-73.6	-8.9	-59.1	-50.2	-7.7	-50.9	-46.0	-88.3	-32.2	151.1	57.7	-55.8	-25.0	26.9	-62.2	Phase	-43.9
	0.3	0.1	0.2	0.2	0.3	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.3	Ampl.	0.2
	162.8	217.4	117.7	188.7	114.9	75.9	152.1	114.0	134.5	244.8	218.9	2.5	240.3	7.4	69.5	185.3	Sbd box	202.7
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	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:k	0:0	0:0	0:0	0:0	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	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	5.15142537536E+02		Apriori delay (usec)		5.14570222991E+02		Resid mbdelay (usec)		9.81455E-03		+/-		1.8E-04					
Sband delay (usec)	5.15145823491E+02		Apriori clock (usec)		-2.1077624E-01		Resid sbdelay (usec)		5.75601E-01		+/-		2.9E-03					
Phase delay (usec)	5.14570221576E+02		Apriori clockrate (us/s)		-4.7816091E-08		Resid phdelay (usec)		-1.41546E-06		+/-		6.2E-07					
Delay rate (us/s)	-1.77864322598E-01		Apriori rate (us/s)		-1.77854347007E-01		Resid rate (us/s)		-9.97559E-06		+/-		2.6E-09					
Total phase (deg)			-40.8		Apriori accel (us/s/s)		1.28049038570E-05		Resid phase (deg)		-43.9		+/-		19.1			

ph/seg (deg) 46.7 33.0 Search (2048X64) 0.106 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 59.6 57.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 59.3 38.2 Inc. seg. avg. 0.138 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

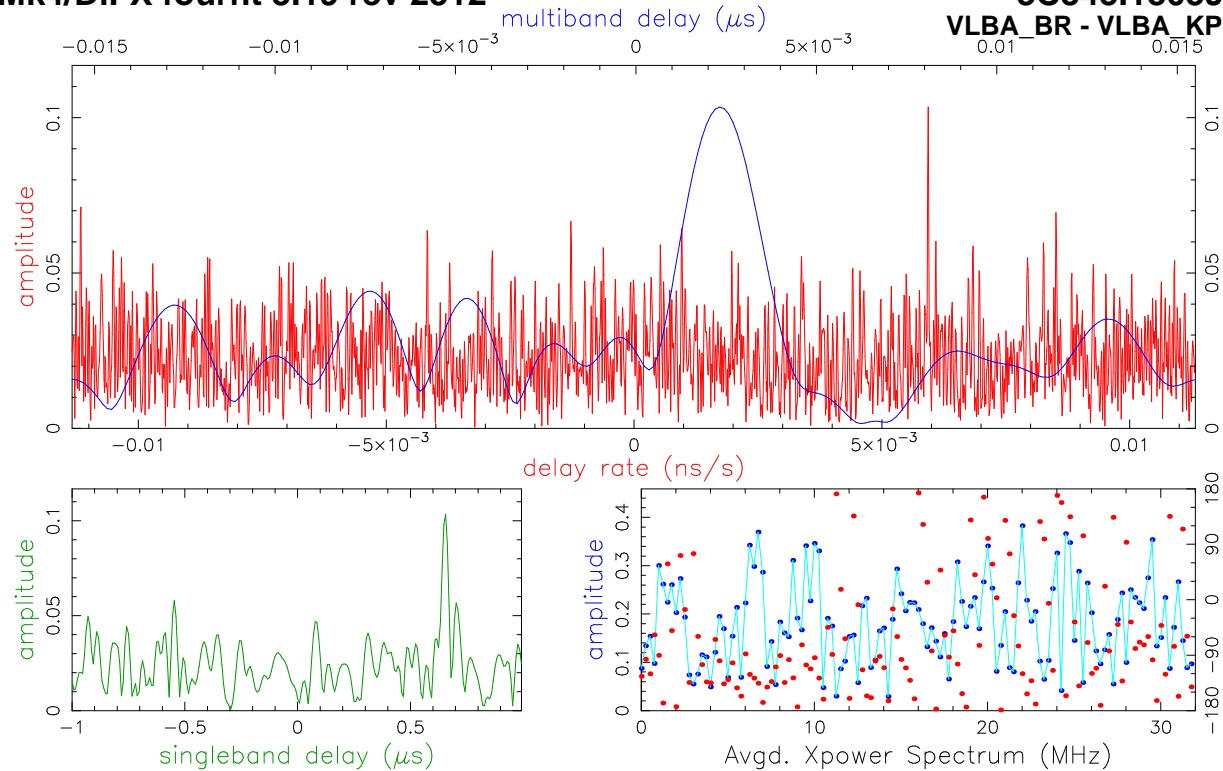
amp/frq (%) 51.1 66.6 Inc. frq. avg. 0.156 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

b: az 66.1 el 33.9 pa -52.6 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 1350.630 2287.184 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bk..1305JH Output file: /Exps/c192a/v2/1234/No0001/bk.W.28.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bk
VLBA_BR - VLBA_KP, fgroup W, pol LL

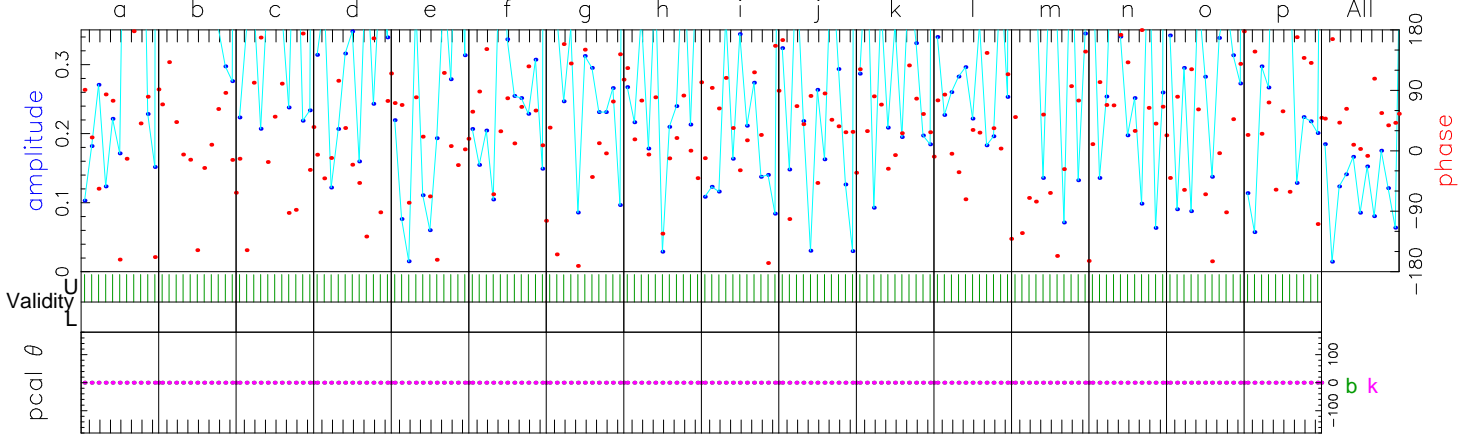


Fringe quality 0

SNR 5.7
Int time 406.536
Amp 0.117
Phase 38.4
PFD 9.1e-01
Delays (us)
SBD 0.654356
MBD 0.002306
Fringe rate (Hz)
0.512257
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042725
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
53.6	23.5	-20.2	-30.1	34.3	57.6	93.2	41.4	62.2	46.2	53.8	26.9	-104.2	67.1	-13.6	8.4	Phase	38.4	
0.1	0.2	0.0	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
21.8	2.0	39.8	24.9	218.4	220.7	244.4	211.3	126.2	144.9	124.0	228.9	10.8	143.2	57.6	168.1	Sbd box	212.8	
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	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:k	0:0	0:0	0:0	0:0	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	
k	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	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

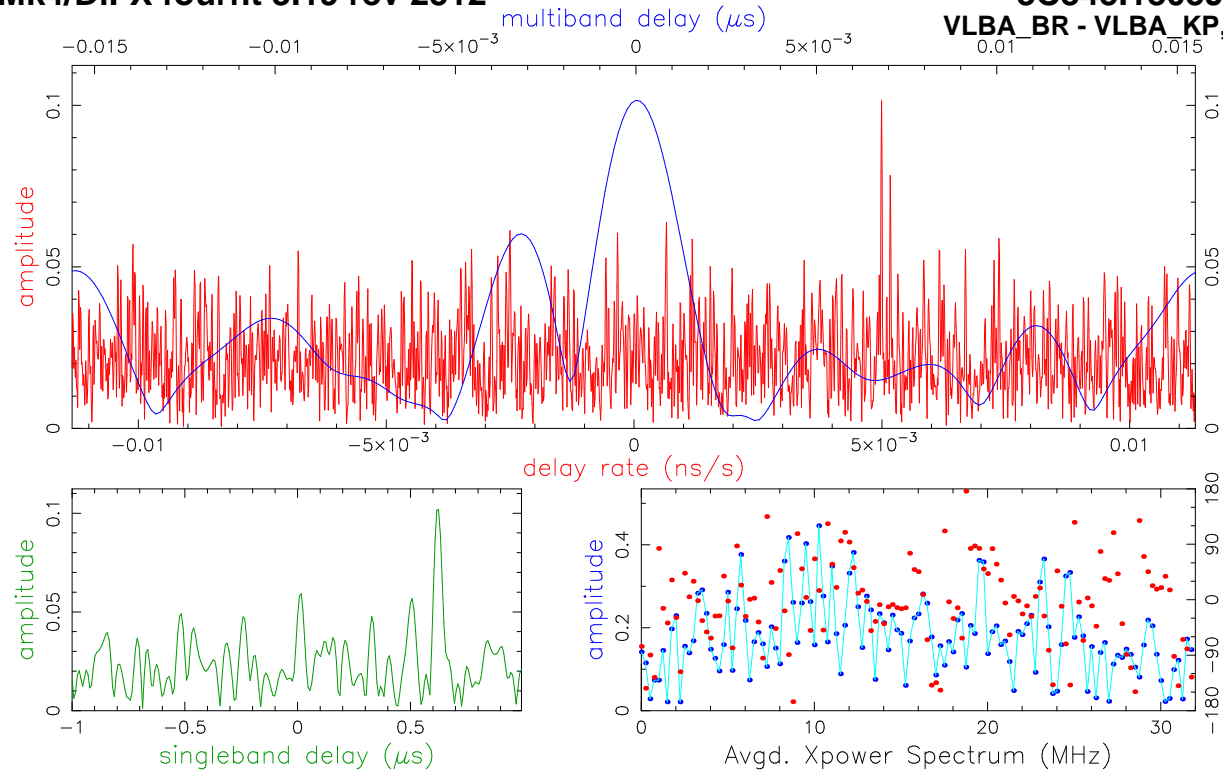
Group delay (usec)(sbd) 5.15228778527E+02 Apriori delay (usec) 5.14570222991E+02 Resid mbdelay (usec) 2.30554E-03 +/- 1.9E-04
 Sband delay (usec) 5.15224579491E+02 Apriori clock (usec) -2.1077624E-01 Resid sbdelay (usec) 6.54356E-01 +/- 3.0E-03
 Phase delay (usec) 5.14570224230E+02 Apriori clockrate (us/s) -4.7816091E-08 Resid phdelay (usec) 1.23933E-06 +/- 6.4E-07
 Delay rate (us/s) -1.77848400211E-01 Apriori rate (us/s) -1.77854347007E-01 Resid rate (us/s) 5.94680E-06 +/- 2.7E-09
 Total phase (deg) 41.5 Apriori accel (us/s/s) 1.28049038570E-05 Resid phase (deg) 38.4 +/- 20.0

RMS Theor. Amplitude 0.117 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 48.9 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 (%) 53.1 60.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 51.9 40.0 Inc. seg. avg. 0.114 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 55.2 69.7 Inc. frq. avg. 0.113 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 1350.630 2287.184 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bk..1305JH Output file: /Exps/c192a/v2/1234/No0001/bk.W.3.1305JH

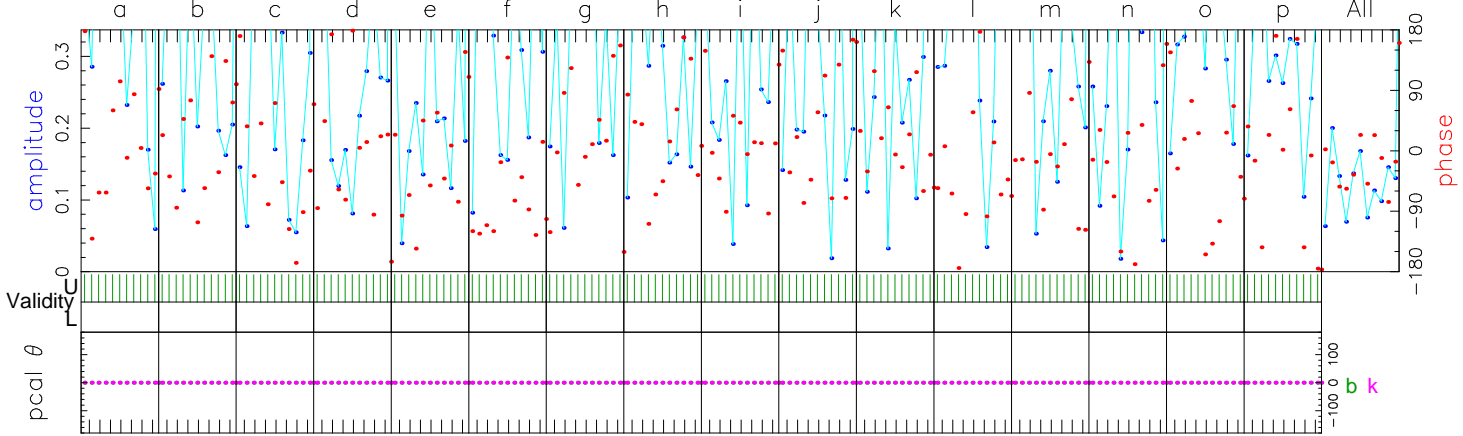
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bk
VLBA_BR - VLBA_KP, fgroup W, pol LR



Fringe quality 0
SNR 5.7
Int time 406.536
Amp 0.112
Phase -22.9
PFD 9.4e-01
Delays (us)
SBD 0.621338
MBD -0.000032
Fringe rate (Hz) 0.431114
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042735
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

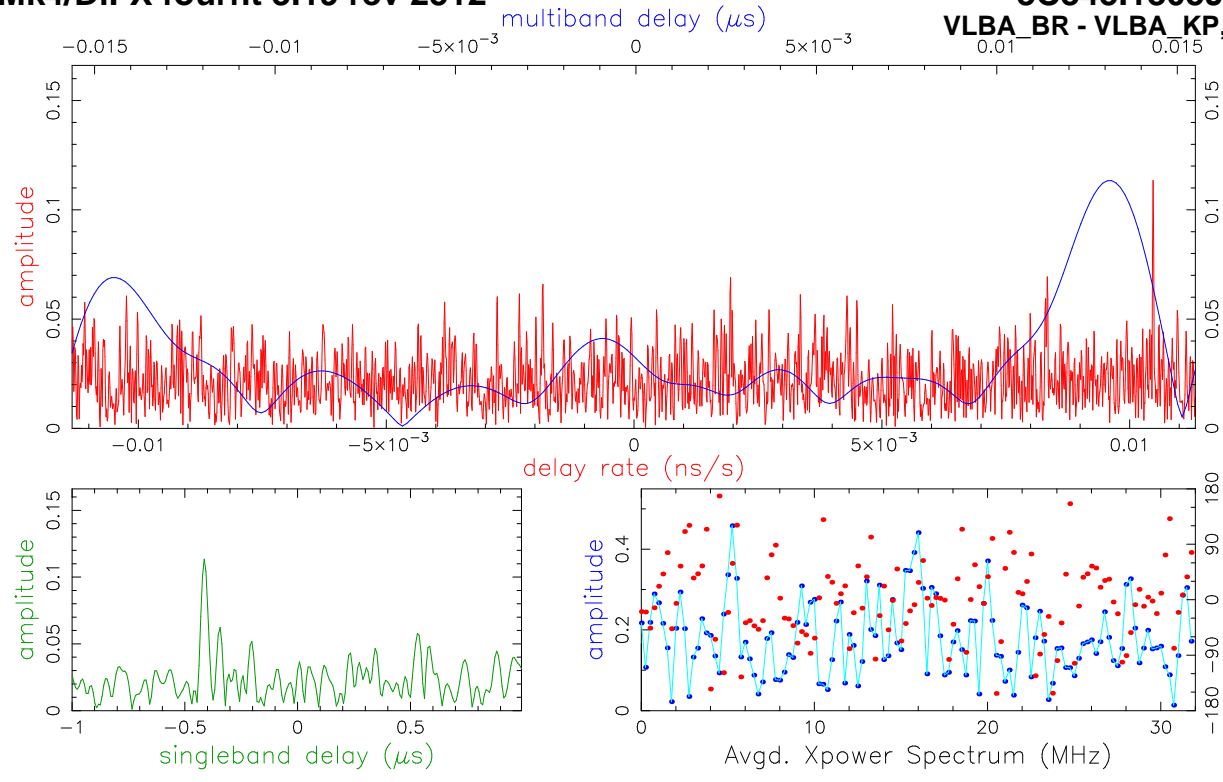
Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



	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
	-3.1	-17.8	-38.5	-18.9	-31.9	-98.7	17.3	-6.9	8.7	23.3	6.3	-49.1	7.2	-66.0	-23.8	144.2	Phase	-22.9
	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.2	0.0	0.2	0.2	0.2	0.2	0.1	0.0	Ampl.	0.1
	103.3	52.6	47.6	6.5	162.0	208.3	183.9	144.3	205.7	28.8	182.8	108.9	255.2	190.7	164.2	125.8	Sbd box	208.5
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	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:k	0:0	0:0	0:0	0:0	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	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	5.15195191130E+02			Apriori delay (usec)			5.14570222991E+02			Resid mbdelay (usec)			-3.18614E-05			+/- 1.9E-04		
Sband delay (usec)	5.15191561491E+02			Apriori clock (usec)			-2.1077624E-01			Resid sbdelay (usec)			6.21338E-01			+/- 3.0E-03		
Phase delay (usec)	5.14570222252E+02			Apriori clockrate (us/s)			-4.7816091E-08			Resid phdelay (usec)			-7.39119E-07			+/- 6.5E-07		
Delay rate (us/s)	-1.77849342201E-01			Apriori rate (us/s)			-1.77854347007E-01			Resid rate (us/s)			5.00481E-06			+/- 2.8E-09		
Total phase (deg)	-19.9			Apriori accel (us/s/s)			1.28049038570E-05			Resid phase (deg)			-22.9			+/- 20.1		
ph/seg (deg)	RMS	Theor.	Amplitude		0.112 +/- 0.020		Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5			sb window (us)		-1.000 1.000			
amp/seg (%)	33.2	34.8	Search (2048X64)		0.101		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			SampCntNorm: enabled			mb window (us)		-0.016 0.016			
ph/frq (deg)	47.4	60.7	Interp.		0.000		Bits/sample: 2x2			Sample rate(MISamp/s): 64			dr window (ns/s)		-0.011 0.011			
amp/frq (%)	55.9	40.1	Inc. seg. avg.		0.112		Data rate(Mb/s): 2048			nlags: 128 t_cohere infinite			ion window (TEC)		0.00 0.00			
	62.1	70.1	Inc. frq. avg.		0.111													
b: az 66.1 el 33.9 pa -52.6	k: az 60.1 el 32.1 pa -73.4			u,v (fr/asec) 1350.630 2287.184												simultaneous interpolator		
Control file: cf_1234_gmva			Input file: /Exps/c192a/v2/1234/No0001/bk..1305JH			Output file: /Exps/c192a/v2/1234/No0001/bk.W.49.1305JH												

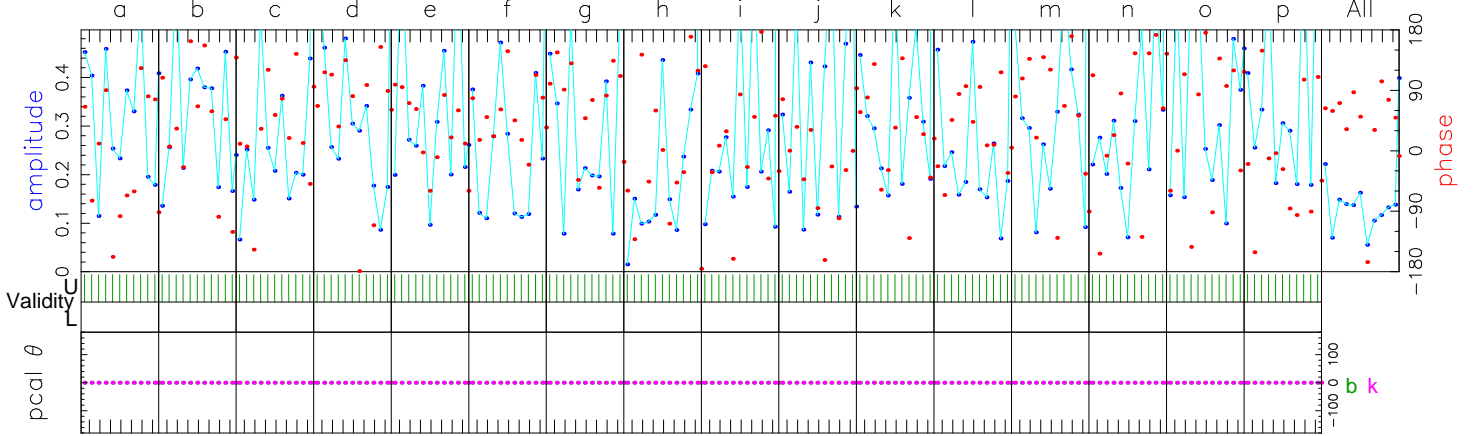
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bk
VLBA_BR - VLBA_KP, fgroup W, pol RL



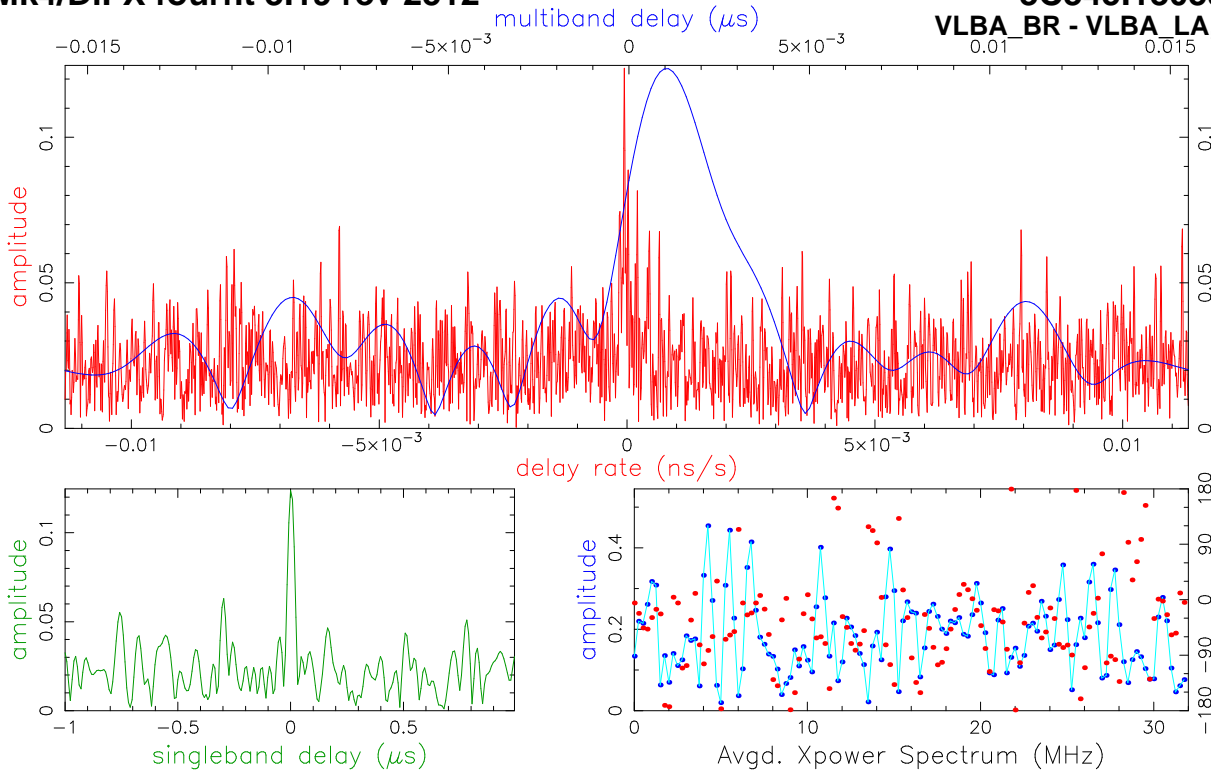
Fringe quality 0
SNR 6.3
Int time 406.536
Amp 0.166
Phase 63.5
PFD 9.9e-02
Delays (us)
SBD -0.413484
MBD 0.013137
Fringe rate (Hz) 0.903377
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042740
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



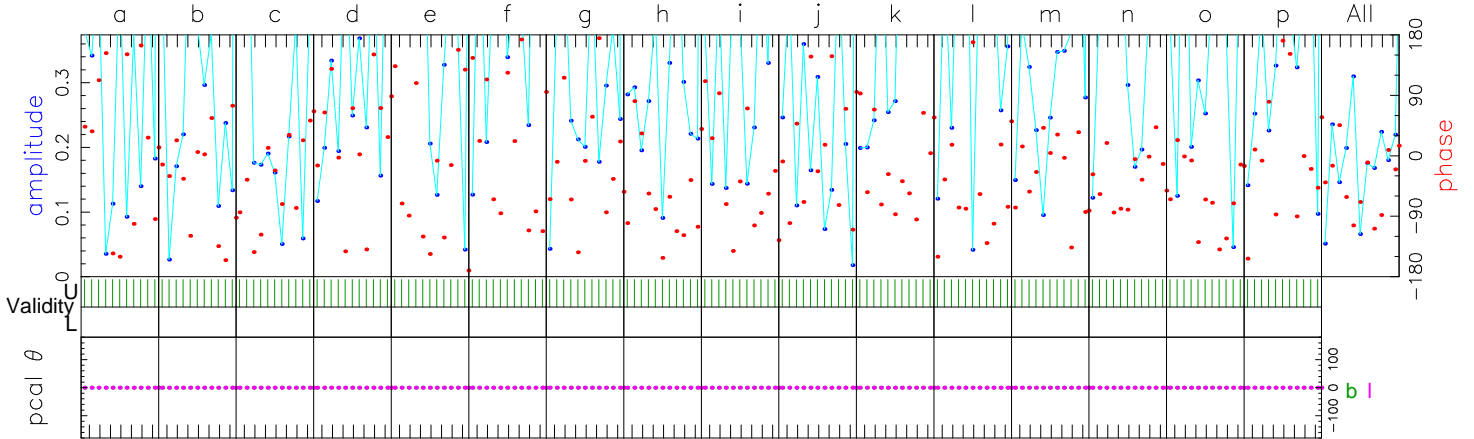
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b:k	0:0	0:0	0:0	0:0	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:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
Group delay (usec)(sbd)	5.14145859651E+02			Apriori delay (usec)			5.14570222991E+02			Resid mbdelay (usec)			1.31367E-02			+/- 1.7E-04		
Sband delay (usec)	5.14156738991E+02			Apriori clock (usec)			-2.1077624E-01			Resid sbdelay (usec)			-4.13484E-01			+/- 2.8E-03		
Phase delay (usec)	5.14570225038E+02			Apriori clockrate (us/s)			-4.7816091E-08			Resid phdelay (usec)			2.04663E-06			+/- 5.9E-07		
Delay rate (us/s)	-1.77843859696E-01			Apriori rate (us/s)			-1.77854347007E-01			Resid rate (us/s)			1.04873E-05			+/- 2.5E-09		
Total phase (deg)	66.5			Apriori accel (us/s/s)			1.28049038570E-05			Resid phase (deg)			63.5			+/- 18.3		
ph/seg (deg)	RMS	Theor.	Amplitude		0.166 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000			
amp/seg (%)	44.8	31.7	Search (2048X64)		0.110		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)		-0.016 0.016					
ph/frq (deg)	40.4	36.6	Inc. seg. avg.		0.166		Sample rate(MISamp/s): 64				dr window (ns/s)		-0.011 0.011					
amp/frq (%)	67.3	63.9	Inc. frq. avg.		0.173		Data rate(Mb/s): 2048		nlags: 128		t_cohere infinite		ion window (TEC)		0.00 0.00			
b: az 66.1 el 33.9 pa -52.6	k: az 60.1 el 32.1 pa -73.4			u,v (fr/asec) 1350.630 2287.184			simultaneous interpolator											

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bk..1305JH Output file: /Exps/c192a/v2/1234/No0001/bk.W.68.1305JH



Fringe quality 0
SNR 6.9
Int time 406.536
Amp 0.125
Phase -46.1
PFD 1.8e-03
Delays (us)
SBD 0.002275
MBD 0.001042
Fringe rate (Hz)
-0.004996
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042730
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec

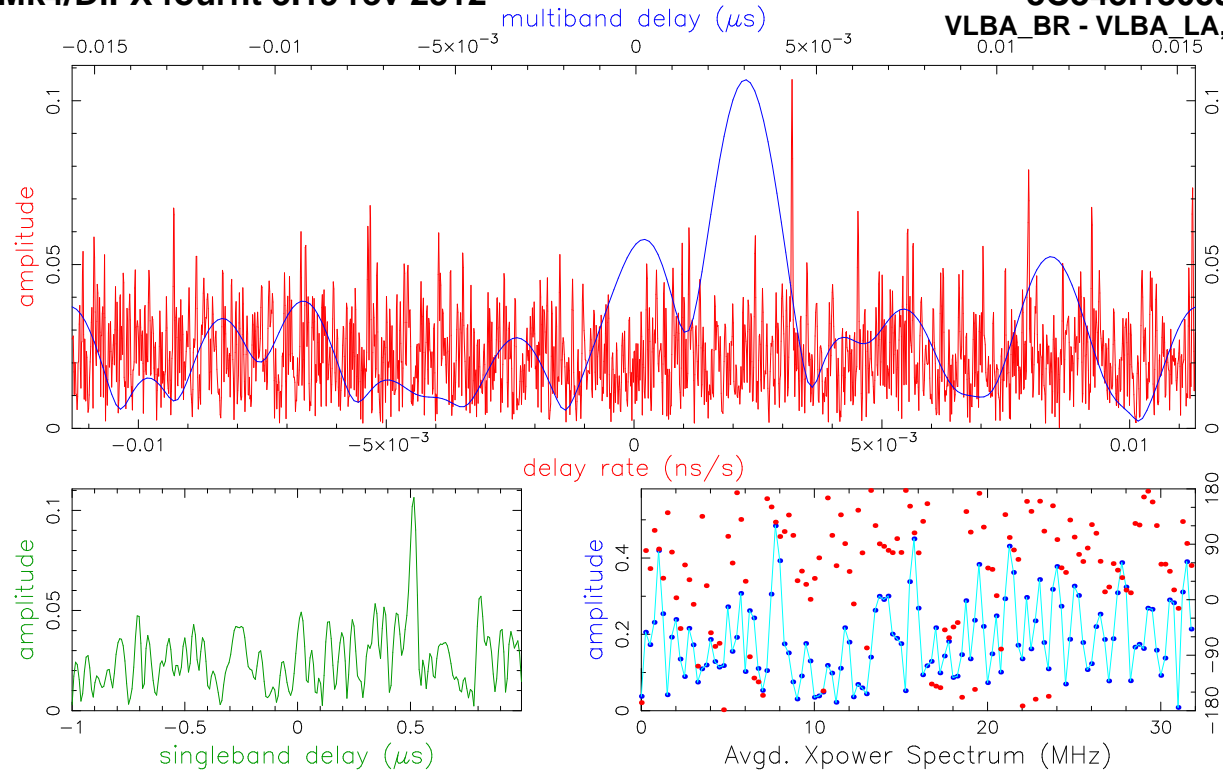


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
81.2	-22.1	-40.2	77.4	-137.9	-80.7	-4.4	-82.9	-49.5	-54.2	-29.3	-70.9	-9.3	-35.3	-56.8	-31.8		Phase	-46.1	
0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.3	0.2	0.3	0.2	0.1		Ampl.	0.1	
186.6	210.8	90.0	234.3	131.7	64.4	118.8	87.9	198.0	149.0	129.0	127.8	197.0	129.0	129.7	217.6		Sbd box	129.3	
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
b:l	0:0	0:0	0:0	0:0	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	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
																		Chan ids	
																		Tracks	
Group delay (usec)(sbd)	-1.21216653790E+03			Apriori delay (usec)			-1.21216758003E+03			Resid mbdelay (usec)			1.04213E-03			+/- 1.6E-04			
Sband delay (usec)	-1.21216530453E+03			Apriori clock (usec)			1.2755744E-01			Resid sbdelay (usec)			2.27550E-03			+/- 2.5E-03			
Phase delay (usec)	-1.21216758152E+03			Apriori clockrate (us/s)			1.0907692E-07			Resid phdelay (usec)			-1.48532E-06			+/- 5.4E-07			
Delay rate (us/s)	-1.03821298214E-01			Apriori rate (us/s)			-1.03821240212E-01			Resid rate (us/s)			-5.80018E-08			+/- 2.3E-09			
Total phase (deg)	-169.8			Apriori accel (us/s/s)			1.79960098304E-05			Resid phase (deg)			-46.1			+/- 16.7			

ph/seg (deg) 46.9 28.9 Search (2048X64) 0.121 Pcd mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.6 50.4 Interp. 0.000 Pcd rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 58.3 33.3 Inc. seg. avg. 0.160 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 63.7 58.2 Inc. frq. avg. 0.132 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 66.1 el 33.9 pa -52.6 l: az 63.9 el 37.8 pa -72.0 u,v (fr/asec) 806.994 2256.689 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bl..1305JH Output file: /Exps/c192a/v2/1234/No0001/bl.W.27.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bl
VLBA_BR - VLBA_LA, fgroup W, pol LR

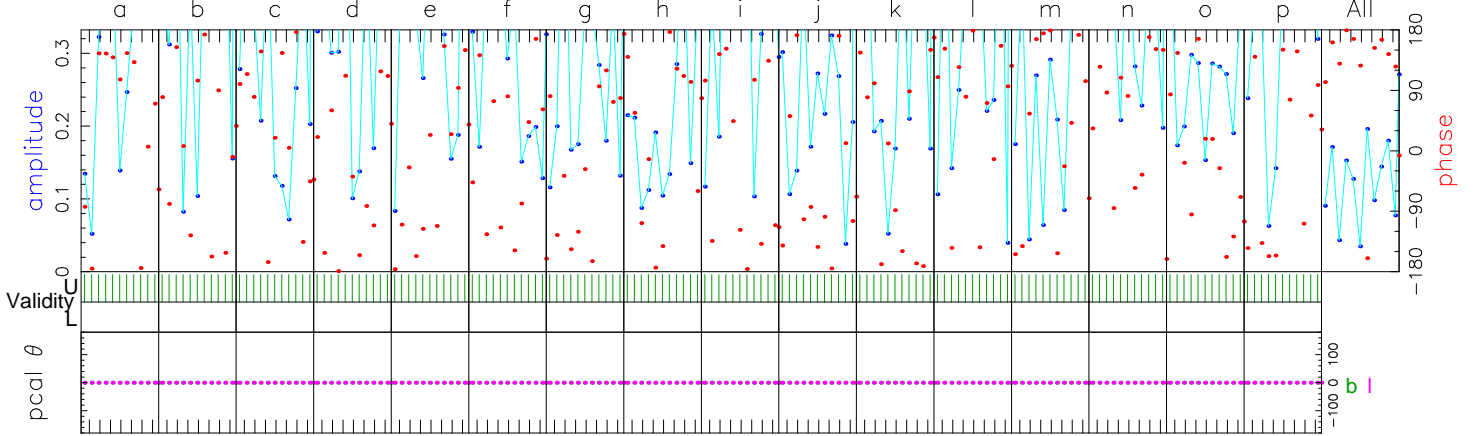


Fringe quality 0

SNR 5.9
Int time 406.536
Amp 0.111
Phase 159.1
PFD 5.8e-01
Delays (us)
SBD 0.513499
MBD 0.003024
Fringe rate (Hz)
0.275390
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

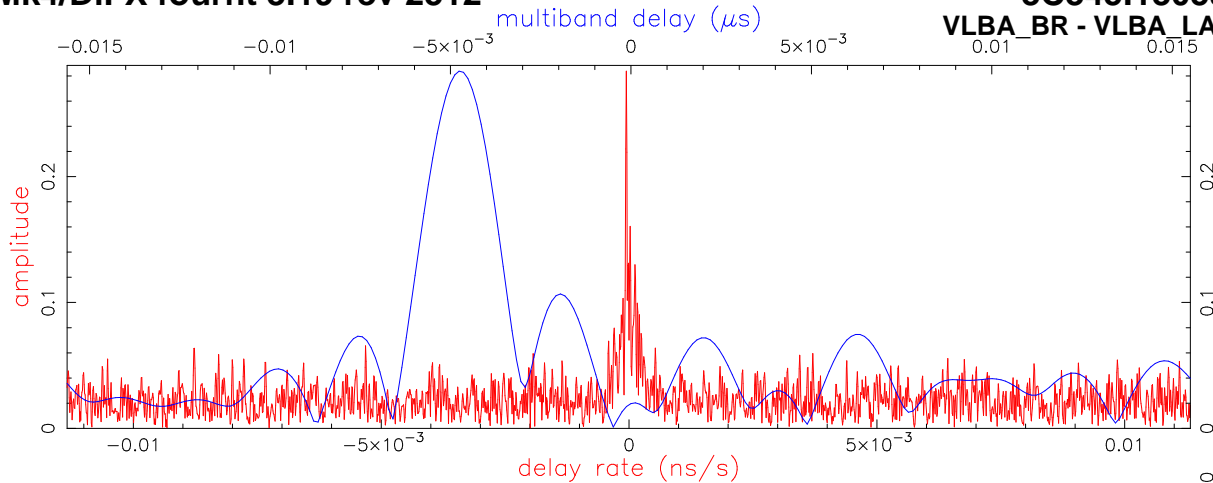
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042735
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



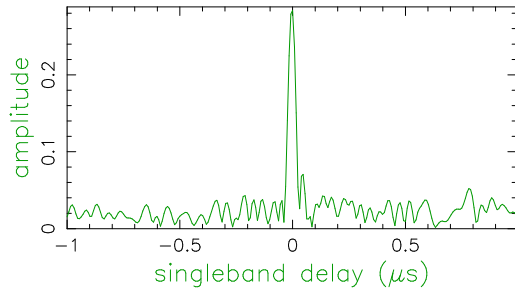
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0			
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
b:l	0:0	0:0	0:0	0:0	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:l	0:0	0:0	0:0	0:0	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			
l	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	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
																		Chan ids	
																		Tracks	
Group delay (usec)(sbd)			-1.21166455636E+03																
Sband delay (usec)			-1.21165408053E+03																
Phase delay (usec)			-1.21216757490E+03																
Delay rate (us/s)			-1.03818043208E-01																
Total phase (deg)				35.4															
ph/seg (deg)	RMS	Theor.																	
amp/seg (%)	30.0	33.6																	
ph/frq (deg)	50.9	58.6																	
amp/frq (%)	66.5	38.8																	
	59.3	67.7																	
b: az 66.1 el 33.9 pa -52.6																			
l: az 63.9 el 37.8 pa -72.0																			
u,v (fr/asec) 806.994 2256.689																			
Control file: cf_1234_gmva																			
Input file: /Exps/c192a/v2/1234/No0001/bl..1305JH																			
Output file: /Exps/c192a/v2/1234/No0001/bl.W.51.1305JH																			

simultaneous interpolator

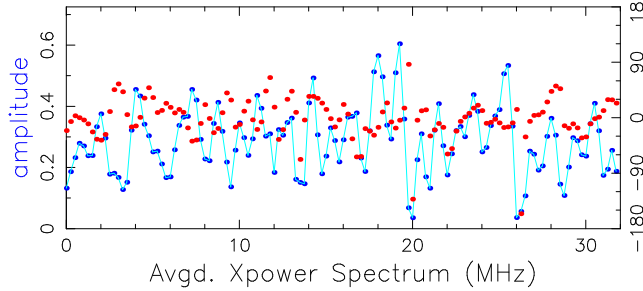


Fringe quality 9

SNR 15.9
Int time 406.536
Amp 0.288
Phase 8.2
PFD 0.0e+00
Delays (us)
SBD -0.003175
MBD -0.004756
Fringe rate (Hz)
-0.005153
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

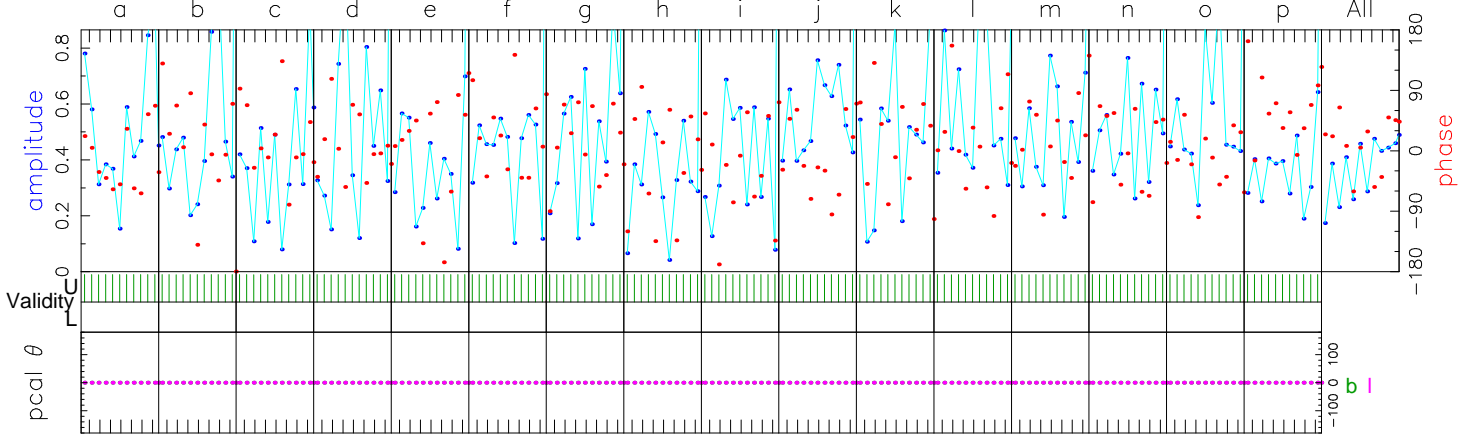


delay rate (ns/s)



Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042725
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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					
	9.2	13.4	21.1	-15.2	38.5	9.2	20.4	-22.1	-17.7	-18.0	20.5	0.7	19.0	10.0	-6.5	58.2		Phase	8.2				
	0.4	0.3	0.3	0.4	0.2	0.3	0.3	0.1	0.2	0.4	0.3	0.3	0.3	0.3	0.4	0.3		Ampl.	0.3				
	129.0	128.2	128.1	128.8	127.7	128.5	128.0	40.4	127.5	129.2	128.3	129.5	128.2	127.8	128.6	129.0		Sbd box	128.6				
UL	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		APs used					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase					
b:l	0:0	0:0	0:0	0:0	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					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids					
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Tracks					
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks					
Group delay (usec)(sbd)			-1.21217233606E+03															Apriori delay (usec)	-1.21216758003E+03	Resid mbdelay (usec)	-4.75603E-03	+/-	6.8E-05
Sband delay (usec)			-1.21217075503E+03															Apriori clock (usec)	1.2755744E-01	Resid sbdelay (usec)	-3.17500E-03	+/-	1.1E-03
Phase delay (usec)			-1.21216757977E+03															Apriori clockrate (us/s)	1.0907692E-07	Resid phdelay (usec)	2.63804E-07	+/-	2.3E-07
Delay rate (us/s)			-1.03821300035E-01															Apriori rate (us/s)	-1.03821240212E-01	Resid rate (us/s)	-5.98228E-08	+/-	9.9E-10
Total phase (deg)					-115.6													Apriori accel (us/s/s)	1.79960098304E-05	Resid phase (deg)	8.2	+/-	7.2

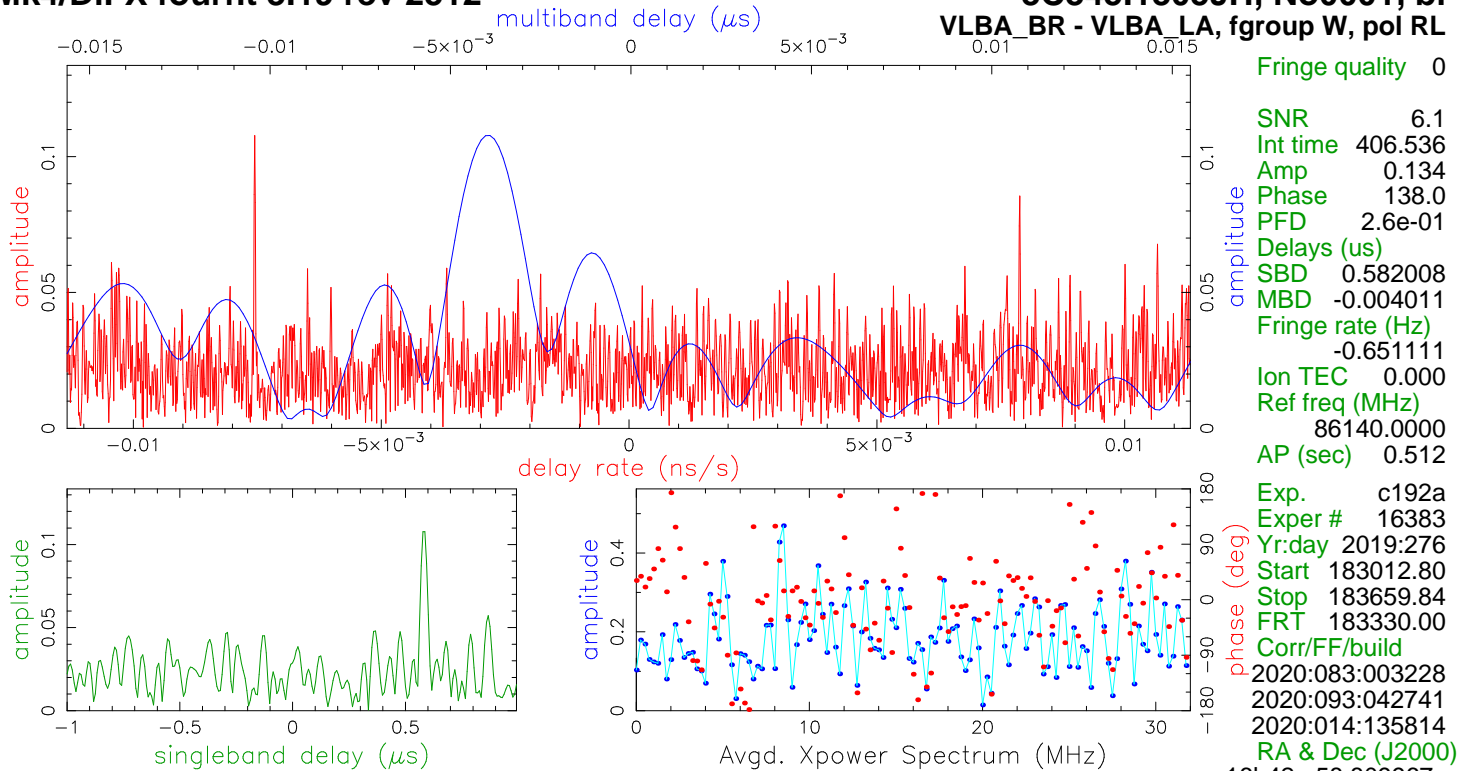
ph/seg (deg) 40.4 12.5
amp/seg (%) 44.4 21.8
ph/frq (deg) 22.6 14.4
amp/frq (%) 27.1 25.2

RMS Theor. Amplitude 0.288 +/- 0.018
Search (2048X64) 0.268
Interp. 0.000
Inc. seg. avg. 0.357
Inc. frq. avg. 0.292

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

b: az 66.1 el 33.9 pa -52.6 l: az 63.9 el 37.8 pa -72.0 u,v (fr/asec) 806.994 2256.689 simultaneous interpolator



Fringe quality 0

SNR 6.1

Int time 406.536

Amp 0.134

Phase 138.0

PFD 2.6e-01

Delays (us)

SBD 0.582008

MBD -0.004011

Fringe rate (Hz)

-0.651111

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:276

Start 183012.80

Stop 183659.84

FRT 183330.00

Corr/FF/build

2020:083:003228

2020:093:042741

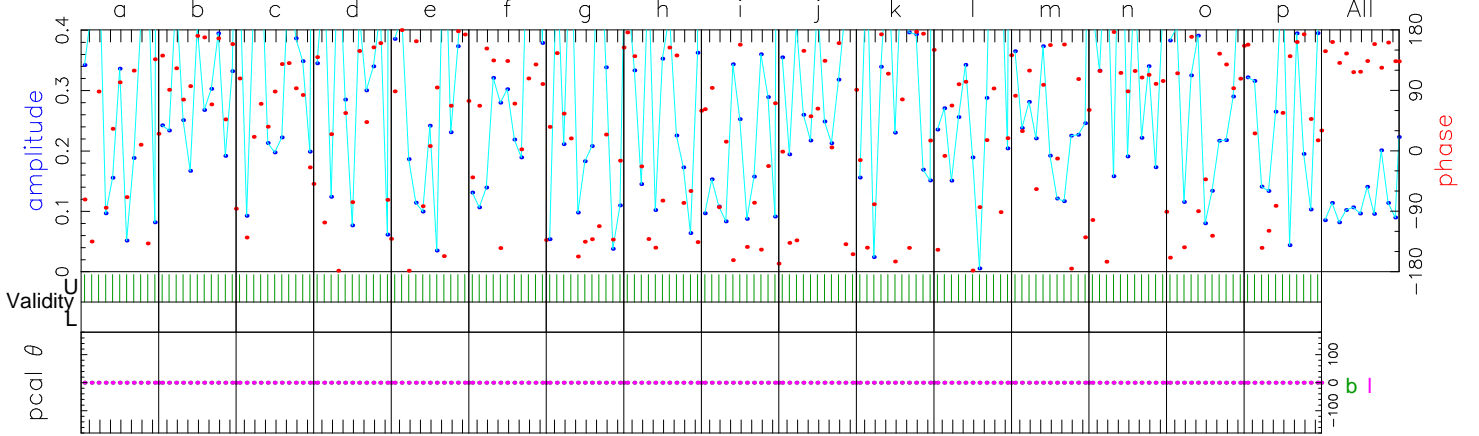
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	138.5	128.6	82.5	161.0	165.5	118.0	-61.3	-157.4	-151.4	172.1	164.5	79.1	111.5	131.4	152.1	88.1	Phase	138.0				
	0.0	0.3	0.3	0.2	0.2	0.3	0.0	0.2	0.1	0.1	0.2	0.1	0.1	0.3	0.2	0.1	Ampl.	0.1				
	228.8	26.3	146.7	214.3	184.5	37.5	215.3	241.1	151.8	185.8	216.9	173.4	77.0	201.8	183.4	15.4	Sbd box	203.5				
UL	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
b:l	0:0	0:0	0:0	0:0	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:l	0:0	0:0	0:0	0:0	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					
l	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					
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-1.21157784144E+03														Apriori delay (usec)	-1.21216758003E+03	Resid mbdelay (usec)	-4.01141E-03	+/-	1.8E-04
Sband delay (usec)			-1.21158557153E+03														Apriori clock (usec)	1.2755744E-01	Resid sbdelay (usec)	5.82008E-01	+/-	2.8E-03
Phase delay (usec)			-1.21216757558E+03														Apriori clockrate (us/s)	1.0907692E-07	Resid phdelay (usec)	4.45105E-06	+/-	6.1E-07
Delay rate (us/s)			-1.03828798968E-01														Apriori rate (us/s)	-1.03821240212E-01	Resid rate (us/s)	-7.55876E-06	+/-	2.6E-09
Total phase (deg)				14.3													Apriori accel (us/s/s)	1.79960098304E-05	Resid phase (deg)	138.0	+/-	18.8

ph/seg (deg) 16.1 32.6 Amplitude 0.134 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 30.0 56.9 Search (2048X64) 0.106 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 58.9 37.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 69.8 65.7 Inc. seg. avg. 0.117 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011

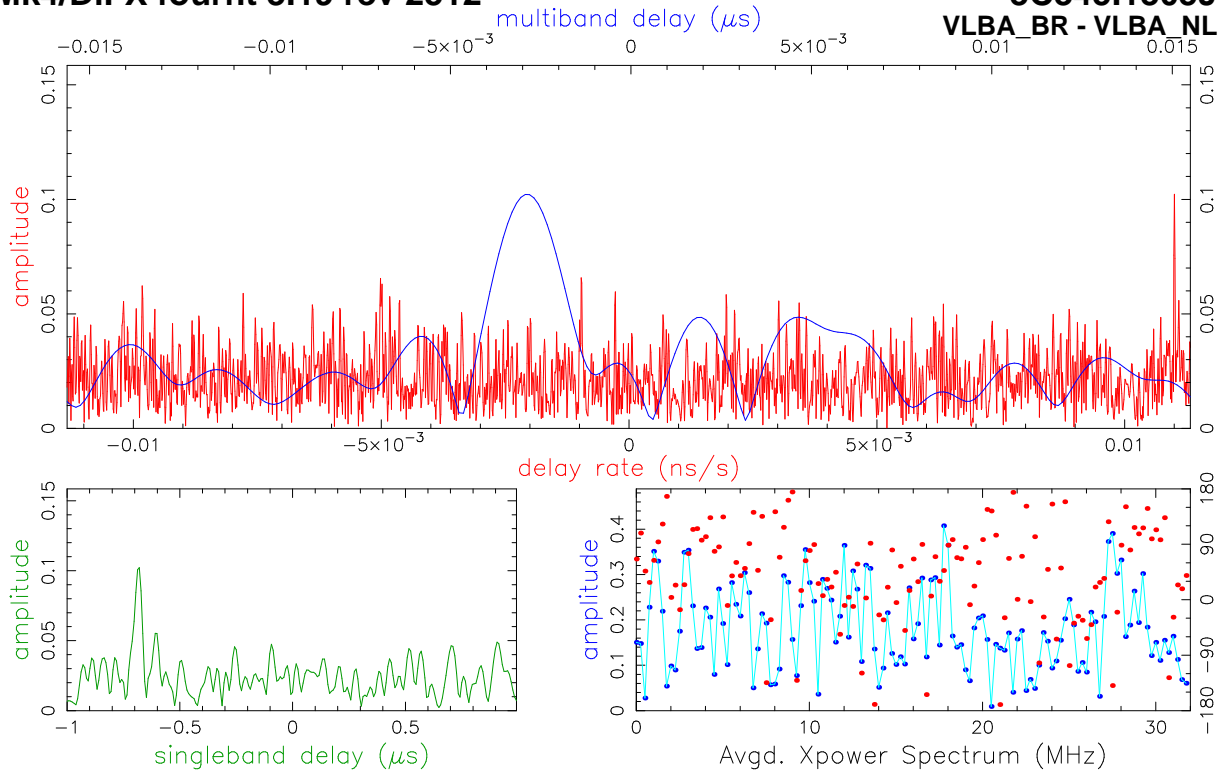
amp/frq (%) 69.8 65.7 Inc. frq. avg. 0.133 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6 l: az 63.9 el 37.8 pa -72.0 u,v (fr/asec) 806.994 2256.689 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bl..1305JH Output file: /Exps/c192a/v2/1234/No0001/bl.W.71.1305JH

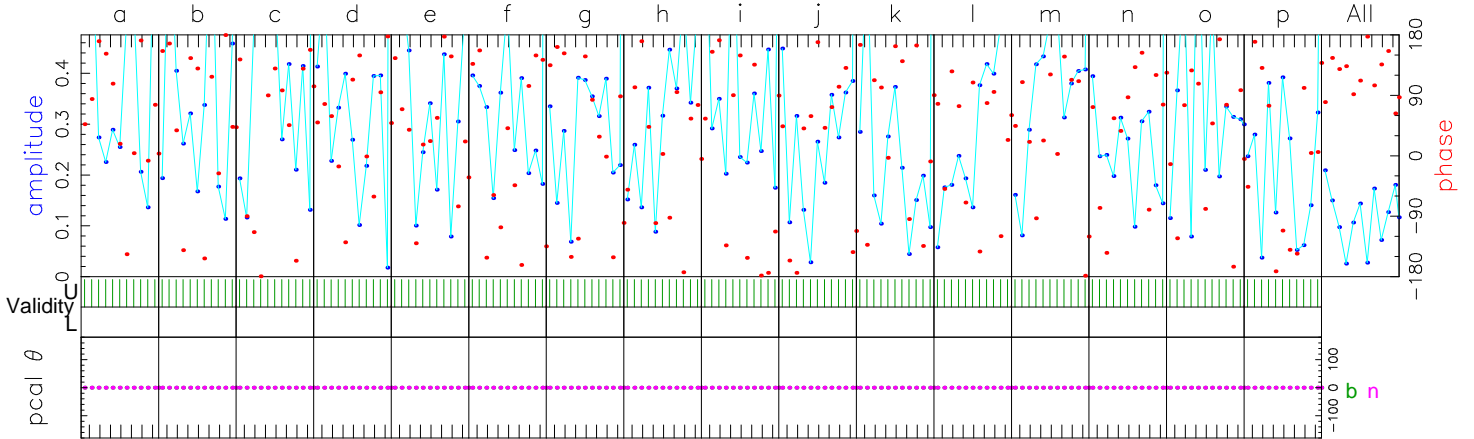
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bn
VLBA_BR - VLBA_NL, fgroup W, pol LL



Fringe quality 0
SNR 5.7
Int time 406.536
Amp 0.159
Phase 109.7
PFD 9.3e-01
Delays (us)
SBD -0.682877
MBD -0.002912
Fringe rate (Hz) 0.948975
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042727
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

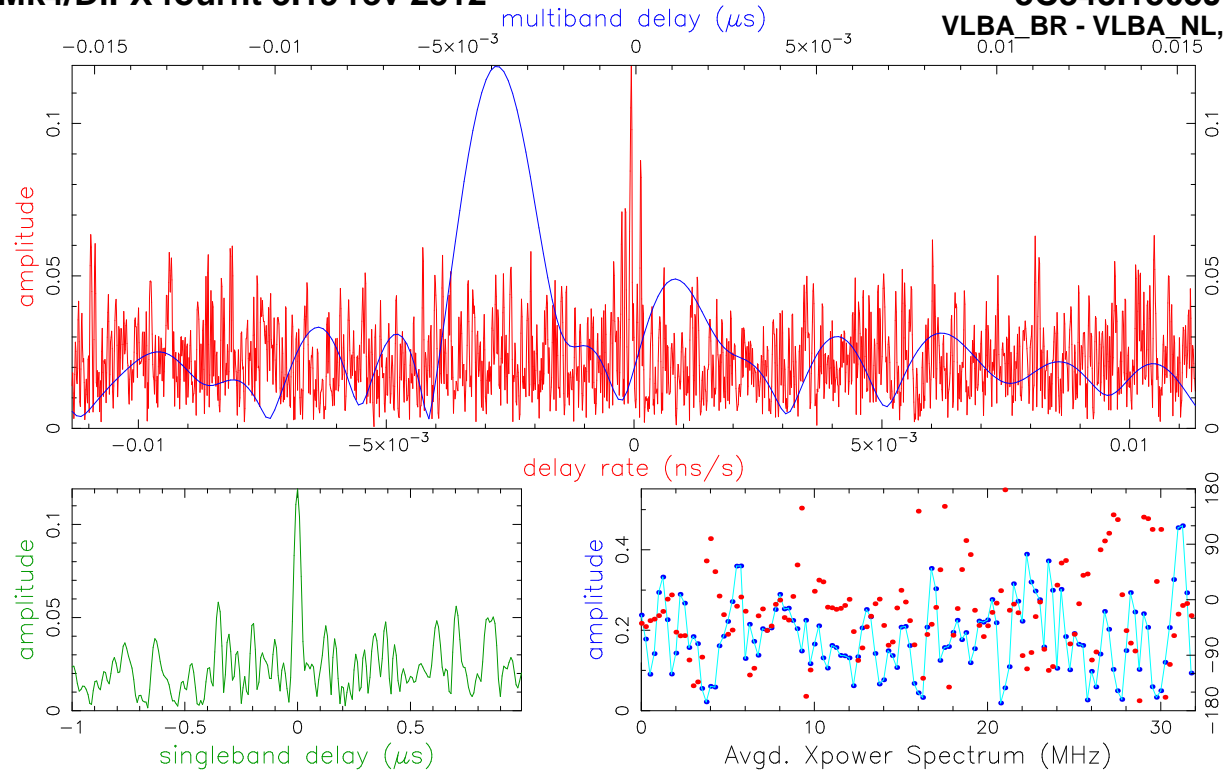
Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



	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	
74.0	134.4	137.1	53.6	62.2	171.9	132.6	76.3	139.4	120.0	-179.7	60.3	89.4	92.6	97.8	-126.4	-126.4	Phase	109.7	
0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.2	0.1	0.2	0.1	0.3	0.0	0.0	Ampl.	0.2	
40.2	114.5	183.7	232.0	20.7	146.4	2.7	9.6	42.7	213.9	193.2	189.8	131.3	123.0	156.5	146.1	146.1	Sbd box	41.6	
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used		
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC		
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks		
																	Chan ids		
																	Tracks		
Group delay (usec)(sbd)	-4.60023946997E+03			Apriori delay (usec)			-4.59954905782E+03			Resid mbdelay (usec)			-2.91215E-03			+/- 1.9E-04			
Sband delay (usec)	-4.60023193532E+03			Apriori clock (usec)			-2.7088036E+01			Resid sbdelay (usec)			-6.82877E-01			+/- 3.0E-03			
Phase delay (usec)	-4.59954905428E+03			Apriori clockrate (us/s)			-3.7661858E-07			Resid phdelay (usec)			3.53725E-06			+/- 6.5E-07			
Delay rate (us/s)	8.41325094209E-02			Apriori rate (us/s)			8.41214927678E-02			Resid rate (us/s)			1.10167E-05			+/- 2.7E-09			
Total phase (deg)	-192.8			Apriori accel (us/s/s)			2.99879442187E-05			Resid phase (deg)			109.7			+/- 20.0			
ph/seg (deg)	RMS	Theor.	Amplitude		0.159 +/- 0.028		Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5									
amp/seg (%)	34.4	34.7	Search (2048X64)		0.100		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)			-1.000 1.000						
ph/frq (deg)	57.4	60.6	Interp.		0.000		Bits/sample: 2x2			SampCntNorm: enabled			mb window (us)		-0.016 0.016				
amp/frq (%)	52.2	40.1	Inc. seg. avg.		0.154		Sample rate(MISamp/s): 64			dr window (ns/s)			-0.011 0.011						
	57.1	69.9	Inc. frq. avg.		0.160		Data rate(Mb/s): 2048			nlags: 128			t_cohere infinite			ion window (TEC)		0.00 0.00	
b: az 66.1 el 33.9 pa -52.6	n: az 74.7 el 50.6 pa -69.4			u,v (fr/asec) -574.191 2503.528														simultaneous interpolator	
Control file: cf_1234_gmva			Input file: /Exps/c192a/v2/1234/No0001/bn..1305JH			Output file: /Exps/c192a/v2/1234/No0001/bn.W.18.1305JH													

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bn
VLBA_BR - VLBA_NL, fgroup W, pol RR

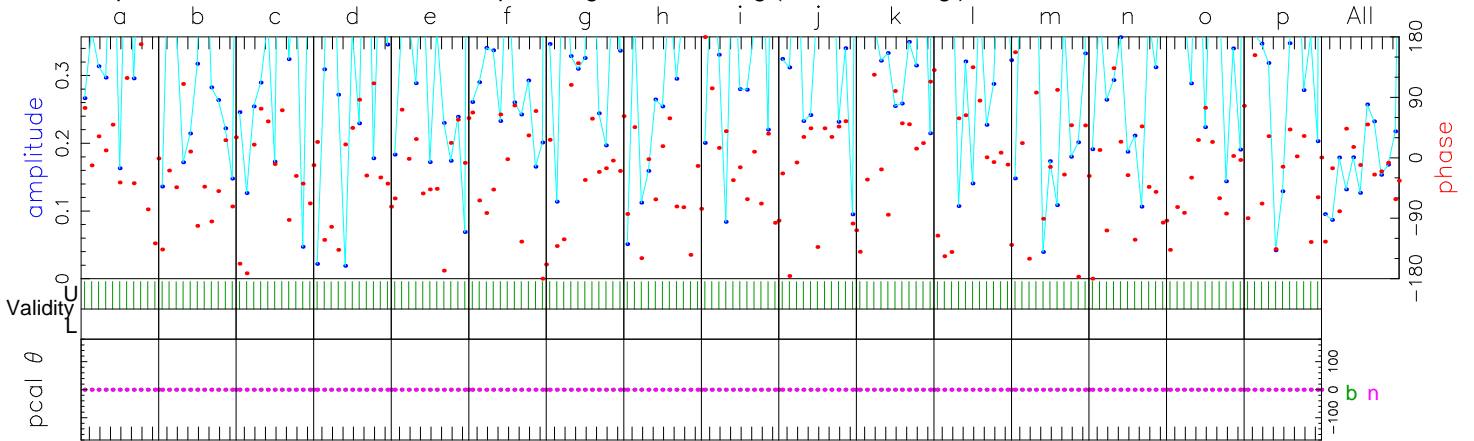


Fringe quality 0

SNR 6.6
Int time 406.536
Amp 0.119
Phase -15.0
PFD 1.5e-02
Delays (us)
SBD -0.001144
MBD -0.003862
Fringe rate (Hz)
-0.004316
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042732
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



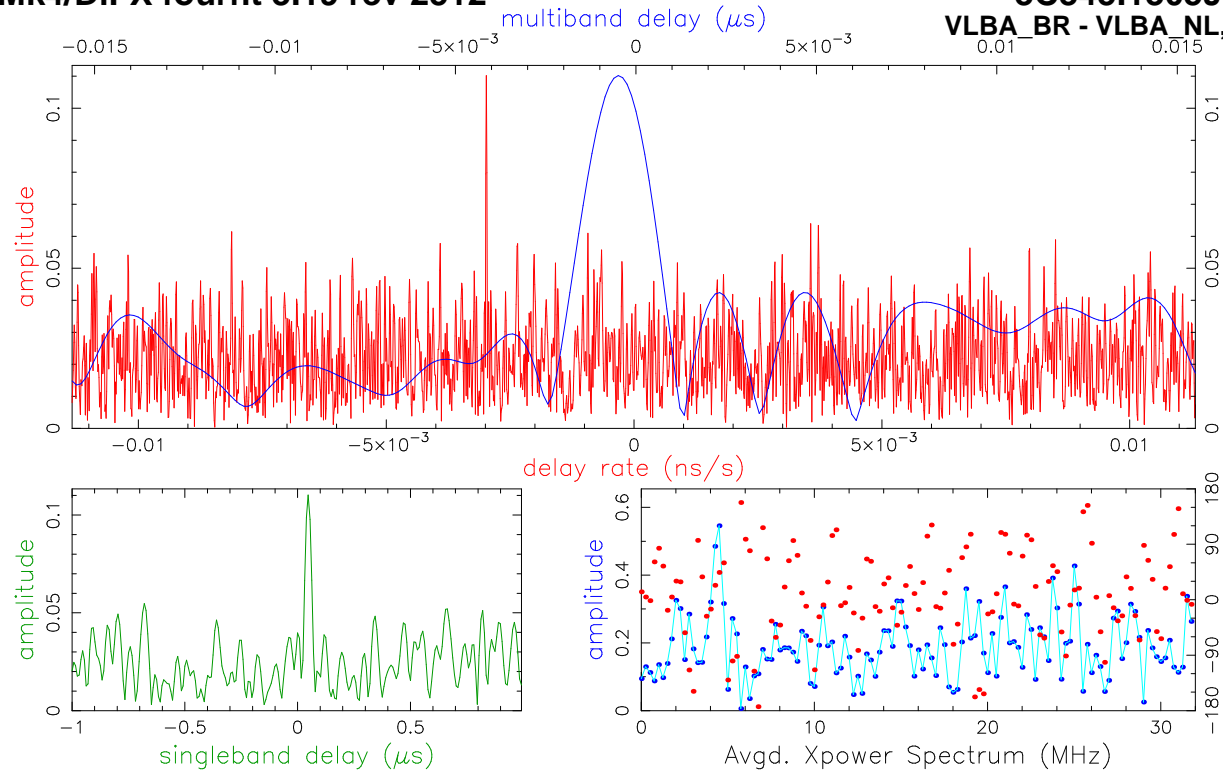
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	14.5	-44.1	10.1	-47.3	-6.5	-3.2	7.6	-26.4	-39.5	22.4	26.0	-10.8	57.1	-52.2	-32.9	-23.7		Phase	-15.0
	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1		Ampl.	0.1
	197.9	77.0	26.1	180.2	48.8	68.9	85.0	179.6	249.1	129.9	45.9	22.0	118.3	228.8	128.5	171.9		Sbd box	128.9
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	

Group delay (usec)(sbd)	-4.59955291966E+03	Apriori delay (usec)	-4.59954905782E+03	Resid mbdelay (usec)	-3.86184E-03	+/-	1.6E-04
Sband delay (usec)	-4.59955020232E+03	Apriori clock (usec)	-2.7088036E+01	Resid sbdelay (usec)	-1.14450E-03	+/-	2.6E-03
Phase delay (usec)	-4.59954905830E+03	Apriori clockrate (us/s)	-3.7661858E-07	Resid phdelay (usec)	-4.84059E-07	+/-	5.6E-07
Delay rate (us/s)	8.41214426664E-02	Apriori rate (us/s)	8.41214927678E-02	Resid rate (us/s)	-5.01014E-08	+/-	2.4E-09
Total phase (deg)		Apriori accel (us/s/s)	2.99879442187E-05	Resid phase (deg)	-15.0	+/-	17.5

ph/seg (deg) 49.5 30.2 Search (2048X64) 0.114 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 62.7 52.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 32.6 34.9 Inc. seg. avg. 0.147 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 41.1 60.9 Inc. frq. avg. 0.114 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 66.1 el 33.9 pa -52.6 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -574.191 2503.528 ion window (TEC) 0.00 0.00 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bn..1305JH Output file: /Exps/c192a/v2/1234/No0001/bn.W.38.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bn
VLBA_BR - VLBA_NL, fgroup W, pol LR

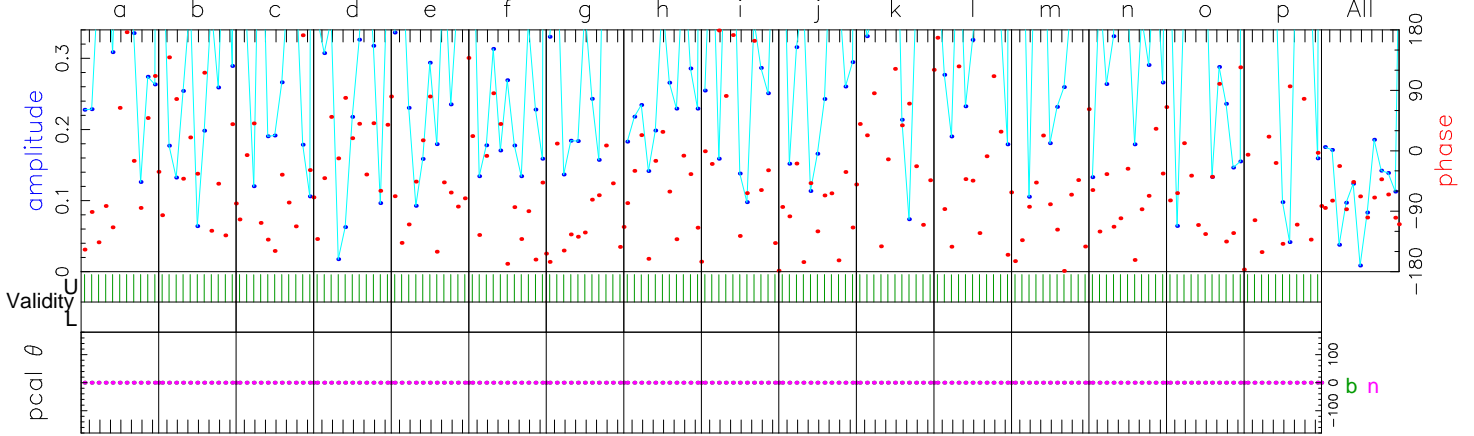


Fringe quality 0

SNR 6.1
Int time 406.536
Amp 0.113
Phase -71.8
PFD 2.8e-01
Delays (us)
SBD 0.046706
MBD -0.000481
Fringe rate (Hz)
-0.256794
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042737
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec

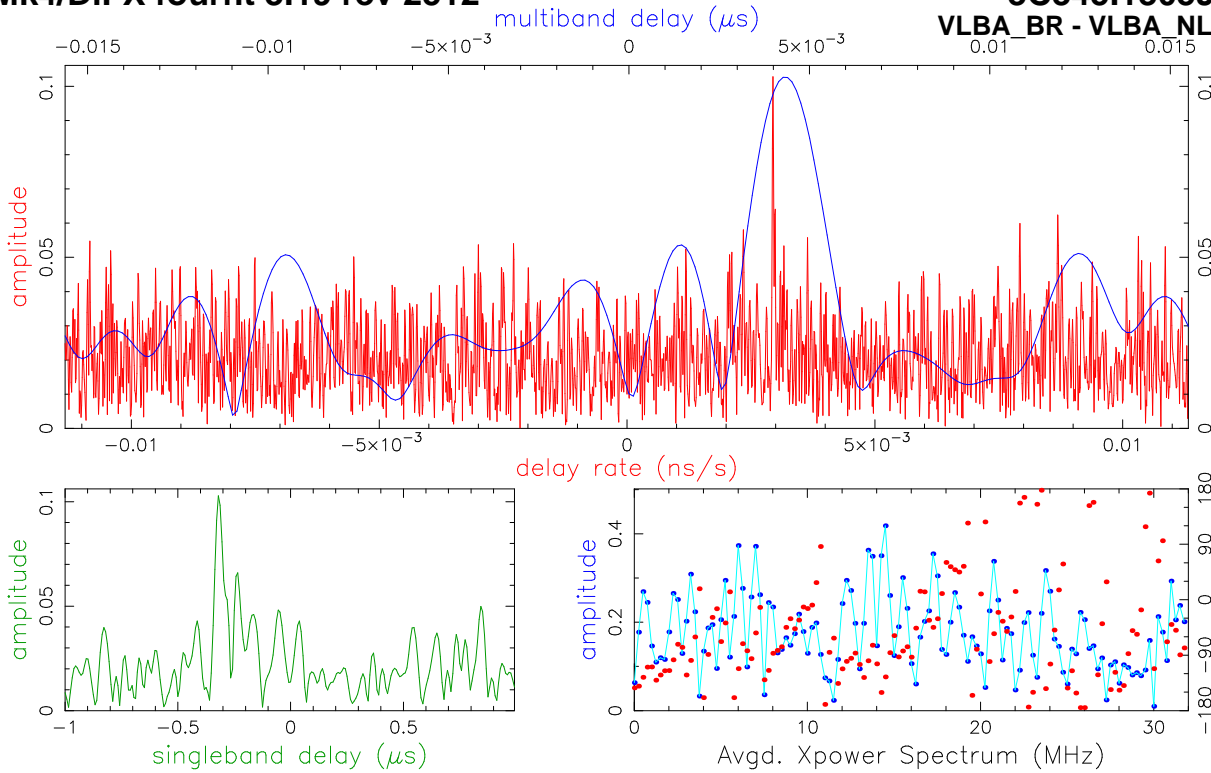


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-119.5	-74.8	-91.5	10.0	-79.3	-58.4	-87.3	-35.1	-129.9	-89.3	18.0	-66.4	-92.5	-71.4	-83.5	-62.6	Phase	-71.8
	0.1	0.1	0.2	0.2	0.2	0.0	0.2	0.1	0.2	0.1	0.0	0.2	0.2	0.2	0.1	0.1	Ampl.	0.1
	120.8	95.7	134.6	197.5	133.0	224.8	121.2	137.1	113.9	32.3	224.4	145.2	133.7	126.6	137.2	2.6	Sbd box	135.0
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-4.59948703838E+03			Apriori delay (usec)			-4.59954905782E+03			Resid mbdelay (usec)			-4.80561E-04			+/- 1.8E-04		
Sband delay (usec)	-4.59950235182E+03			Apriori clock (usec)			-2.7088036E+01			Resid sbdelay (usec)			4.67060E-02			+/- 2.8E-03		
Phase delay (usec)	-4.59954906013E+03			Apriori clockrate (us/s)			-3.7661858E-07			Resid phdelay (usec)			-2.31511E-06			+/- 6.1E-07		
Delay rate (us/s)	8.41185116448E-02			Apriori rate (us/s)			8.41214927678E-02			Resid rate (us/s)			-2.98112E-06			+/- 2.6E-09		
Total phase (deg)	-14.3			Apriori accel (us/s/s)			2.99879442187E-05			Resid phase (deg)			-71.8			+/- 18.9		

ph/seg (deg) 23.2 32.7 Search (2048X64) 0.106 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 52.4 57.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 41.1 37.7 Inc. seg. avg. 0.104 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 58.9 65.8 Inc. frq. avg. 0.113 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 66.1 el 33.9 pa -52.6 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -574.191 2503.528 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bn..1305JH Output file: /Exps/c192a/v2/1234/No0001/bn.W.59.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bn
VLBA_BR - VLBA_NL, fgroup W, pol RL

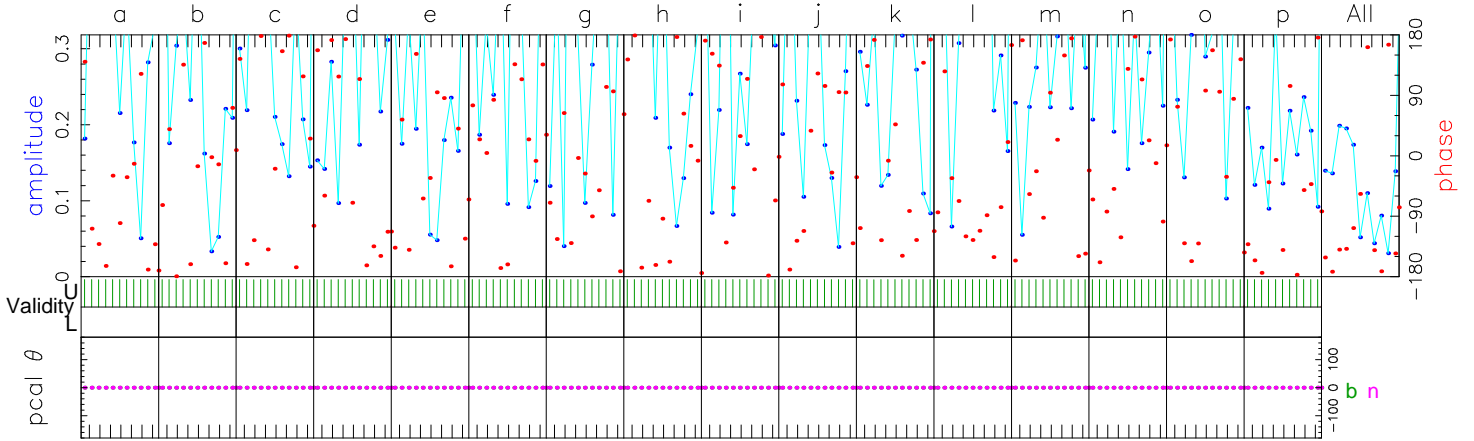


Fringe quality 0

SNR 5.7
Int time 406.536
Amp 0.106
Phase -145.6
PFD 9.6e-01
Delays (us)
SBD -0.318565
MBD 0.004316
Fringe rate (Hz)
0.253692
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042743
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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
	-118.9	-99.0	-167.0	-150.3	-130.7	111.2	-115.8	-140.4	-158.0	162.9	-142.1	-104.9	-141.1	-96.5	154.3	-102.1	Phase	-145.6
	0.2	0.0	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.2	0.1	Ampl.	0.1
	160.2	74.7	23.1	86.4	54.0	87.3	143.5	242.4	128.3	20.3	136.4	64.8	109.6	181.1	222.1	18.6	Sbd box	88.2
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Tracks	
Group delay (usec)(sbd)	-4.59985724189E+03			Apriori delay (usec)			-4.59954905782E+03			Resid mbdelay (usec)			4.31593E-03			+/- 1.9E-04		
Sband delay (usec)	-4.59986762332E+03			Apriori clock (usec)			-2.7088036E+01			Resid sbdelay (usec)			-3.18565E-01			+/- 3.0E-03		
Phase delay (usec)	-4.59954906251E+03			Apriori clockrate (us/s)			-3.7661858E-07			Resid phdelay (usec)			-4.69464E-06			+/- 6.5E-07		
Delay rate (us/s)	8.41244378818E-02			Apriori rate (us/s)			8.41214927678E-02			Resid rate (us/s)			2.94511E-06			+/- 2.8E-09		
Total phase (deg)	-88.1			Apriori accel (us/s/s)			2.99879442187E-05			Resid phase (deg)			-145.6			+/- 20.1		

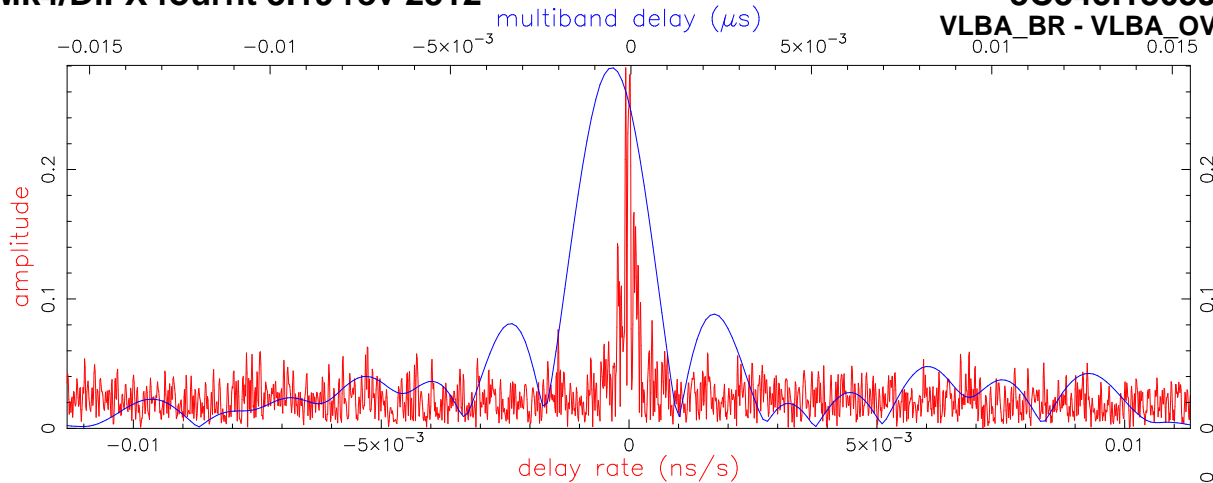
ph/seg (deg) RMS Theor. Amplitude 0.106 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.8 60.9 Search (2048X64) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 44.4 40.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 66.2 70.3 Inc. seg. avg. 0.103 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -574.191 2503.528 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bn..1305JH Output file: /Exps/c192a/v2/1234/No0001/bn.W.80.1305JH

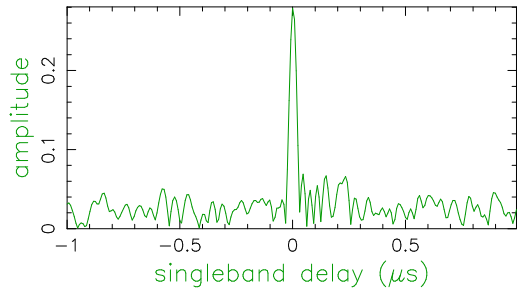
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bo
VLBA_BR - VLBA_OV, fgroup W, pol LL

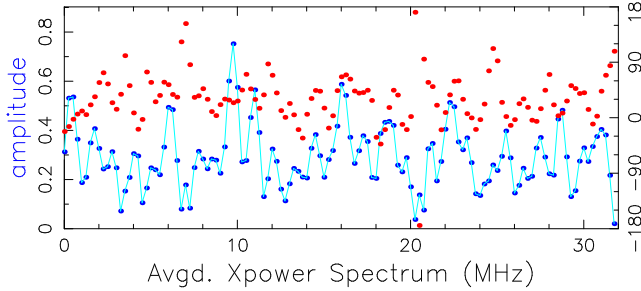


Fringe quality 9

SNR 15.5
Int time 406.536
Amp 0.281
Phase 42.3
PFD 4.2e-45
Delays (us)
SBD 0.001960
MBD -0.000501
Fringe rate (Hz)
-0.005865
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

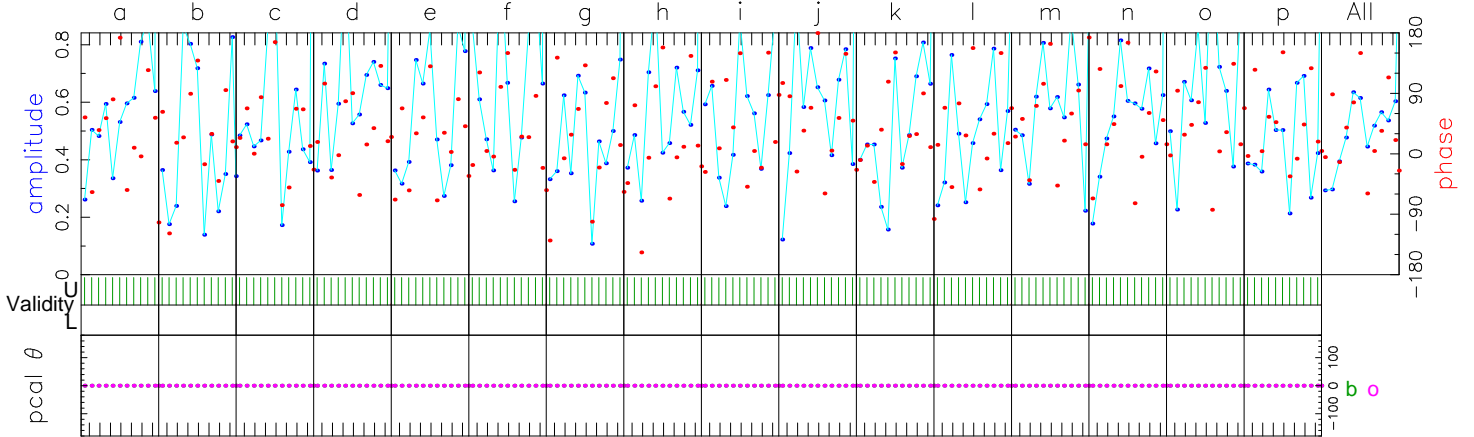


delay rate (ns/s)



Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042726
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

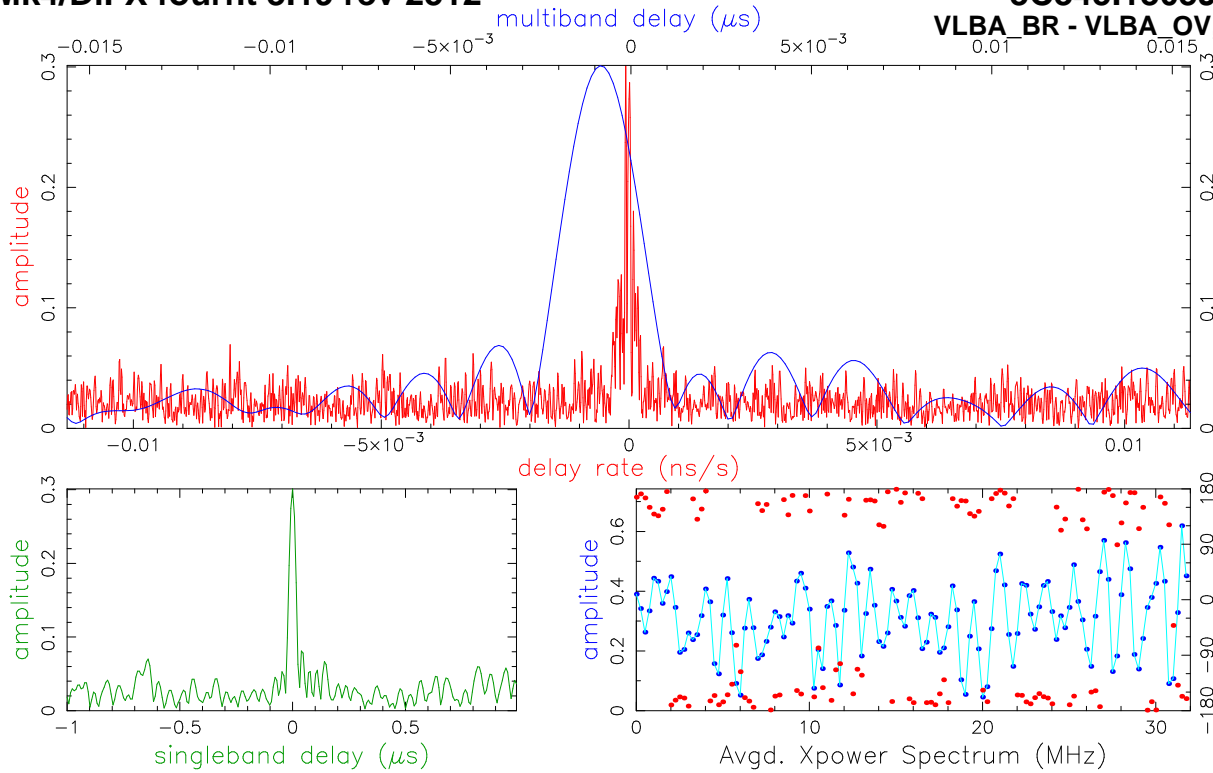
Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



	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
	34.5	50.9	47.9	45.5	41.2	46.0	53.1	27.9	38.5	47.0	32.2	17.2	58.2	61.8	29.3	40.6	Phase	42.3
	0.3	0.3	0.3	0.4	0.3	0.4	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.3	Ampl.	0.3
	160.9	130.1	129.0	129.4	129.7	128.9	130.3	73.3	11.3	214.2	128.2	128.2	128.0	129.4	129.1	130.2	Sbd box	129.3
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b: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	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	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	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	1.20032759195E+03			Apriori delay (usec)			1.20032809316E+03			Resid mbdelay (usec)			-5.01207E-04			+/- 7.0E-05		
Sband delay (usec)	1.20033005316E+03			Apriori clock (usec)			-1.7242477E+01			Resid sbdelay (usec)			1.96000E-03			+/- 1.1E-03		
Phase delay (usec)	1.20032809452E+03			Apriori clockrate (us/s)			-2.4337607E-07			Resid phdelay (usec)			1.36287E-06			+/- 2.4E-07		
Delay rate (us/s)	-1.46733323054E-01			Apriori rate (us/s)			-1.46733254968E-01			Resid rate (us/s)			-6.80860E-08			+/- 1.0E-09		
Total phase (deg)	22.5			Apriori accel (us/s/s)			3.60575885645E-06			Resid phase (deg)			42.3			+/- 7.4		
ph/seg (deg)	RMS	Theor.	Amplitude			0.281 +/- 0.018			Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5						
amp/seg (%)	58.4	12.8	Search (2048X64)			0.276			Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)			-1.000 1.000			
ph/frq (deg)	86.9	22.4	Interp.			0.000			Bits/sample: 2x2			SampCntNorm: enabled			mb window (us) -0.016 0.016			
amp/frq (%)	12.2	14.8	Inc. seg. avg.			0.480			Sample rate(MISamp/s): 64			dr window (ns/s)			-0.011 0.011			
	19.8	25.9	Inc. frq. avg.			0.275			Data rate(Mb/s): 2048			nlags: 128 t_cohere infinite			ion window (TEC) 0.00 0.00			
b: az 66.1 el 33.9 pa -52.6	o: az 60.7 el 29.9 pa -64.6			u,v (fr/asec) 1101.765 1173.303			simultaneous interpolator											
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bo..1305JH Output file: /Exps/c192a/v2/1234/No0001/bo.W.11.1305JH																		

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bo
VLBA_BR - VLBA_OV, fgroup W, pol RR

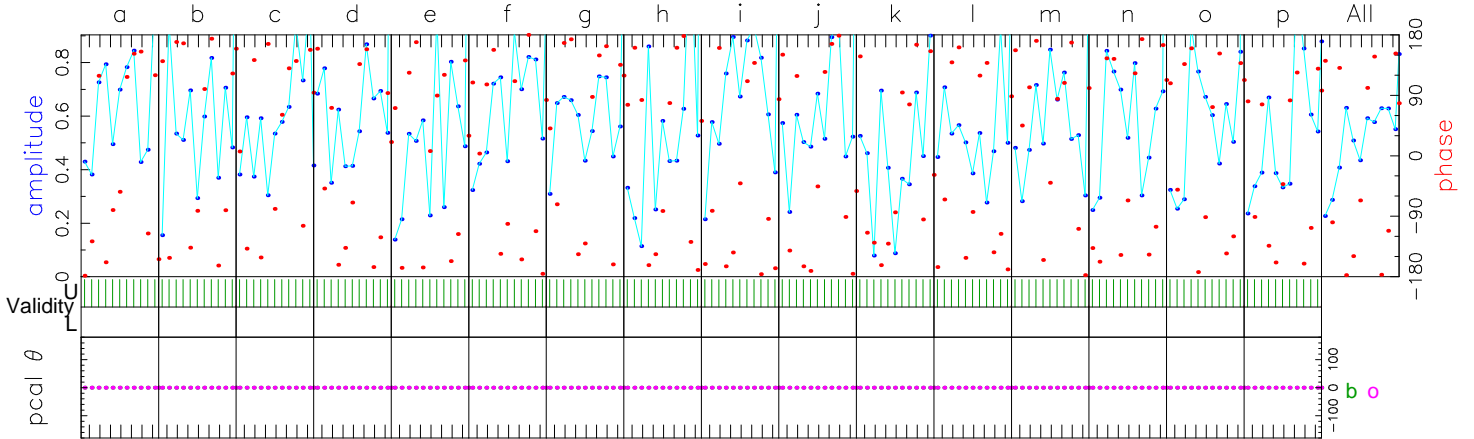


Fringe quality 9

SNR 16.6
Int time 406.536
Amp 0.301
Phase 179.2
PFD 0.0e+00
Delays (us)
SBD -0.000683
MBD -0.000839
Fringe rate (Hz)
-0.005663
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

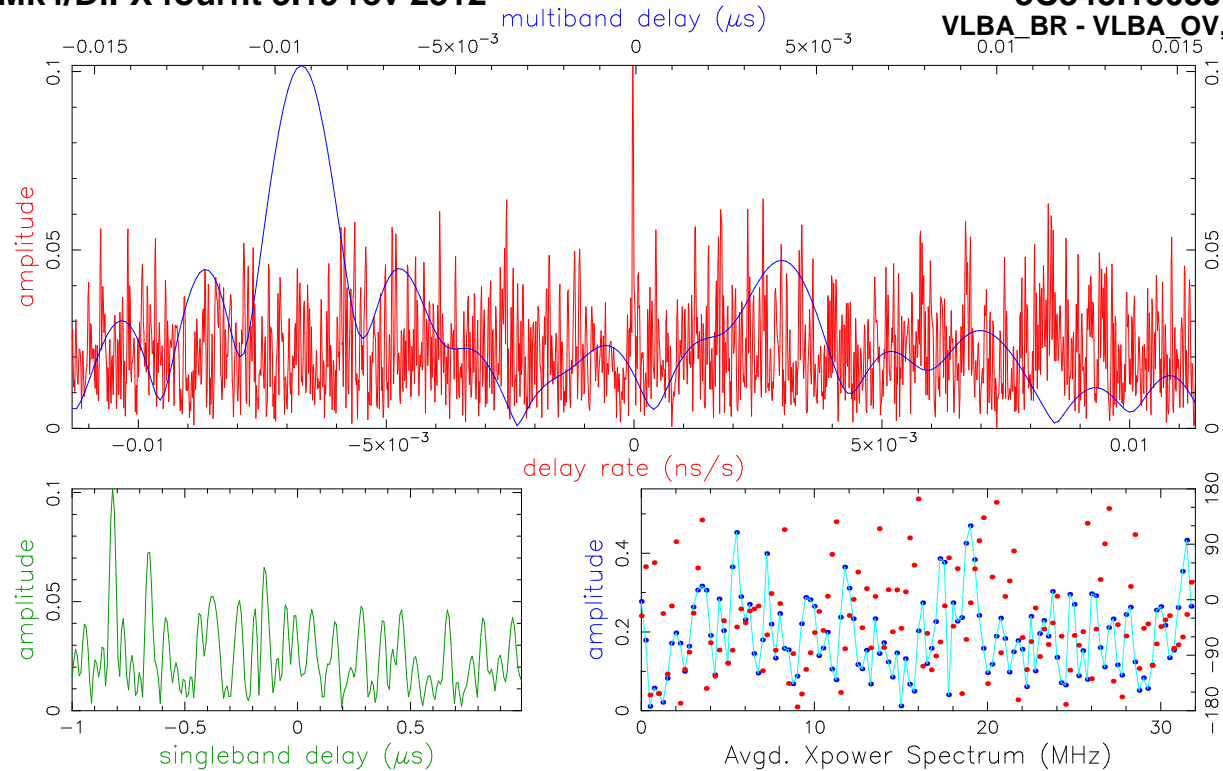
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042731
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	168.7	-171.3	171.9	-172.6	157.2	179.9	171.4	-164.4	-166.8	179.1	-178.9	-157.3	148.7	-179.3	172.0	173.6	Phase	179.2	
	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.3	0.3	0.2	0.4	0.3	0.2	Ampl.	0.3	
	128.8	129.4	128.9	128.4	129.2	130.0	128.7	128.7	129.1	129.3	128.6	128.8	215.5	128.9	128.9	51.6	Sbd box	128.9	
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used		
b	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		
b: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		
b	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			
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks		
																	Chan ids		
																	Tracks		
Group delay (usec)(sbd)		1.20032725461E+03								1.20032809316E+03							Resid mbdelay (usec)	-8.38551E-04	+/- 6.5E-05
Sband delay (usec)		1.20032741016E+03								-1.7242477E+01							Resid sbdelay (usec)	-6.83000E-04	+/- 1.0E-03
Phase delay (usec)		1.20032809894E+03								-2.4337607E-07							Resid phdelay (usec)	5.77998E-06	+/- 2.2E-07
Delay rate (us/s)		-1.46733320708E-01								-1.46733254968E-01							Resid rate (us/s)	-6.57400E-08	+/- 9.5E-10
Total phase (deg)			159.4							3.60575885645E-06							Resid phase (deg)	179.2	+/- 6.9

ph/seg (deg) 58.4 12.0 Search (2048X64) 0.297 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 79.7 20.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 14.4 13.8 Inc. seg. avg. 0.488 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 16.5 24.1 Inc. frq. avg. 0.300 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 66.1 el 33.9 pa -52.6 o: az 60.7 el 29.9 pa -64.6 u,v (fr/asec) 1101.765 1173.303 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bo..1305JH Output file: /Exps/c192a/v2/1234/No0001/bo.W.33.1305JH

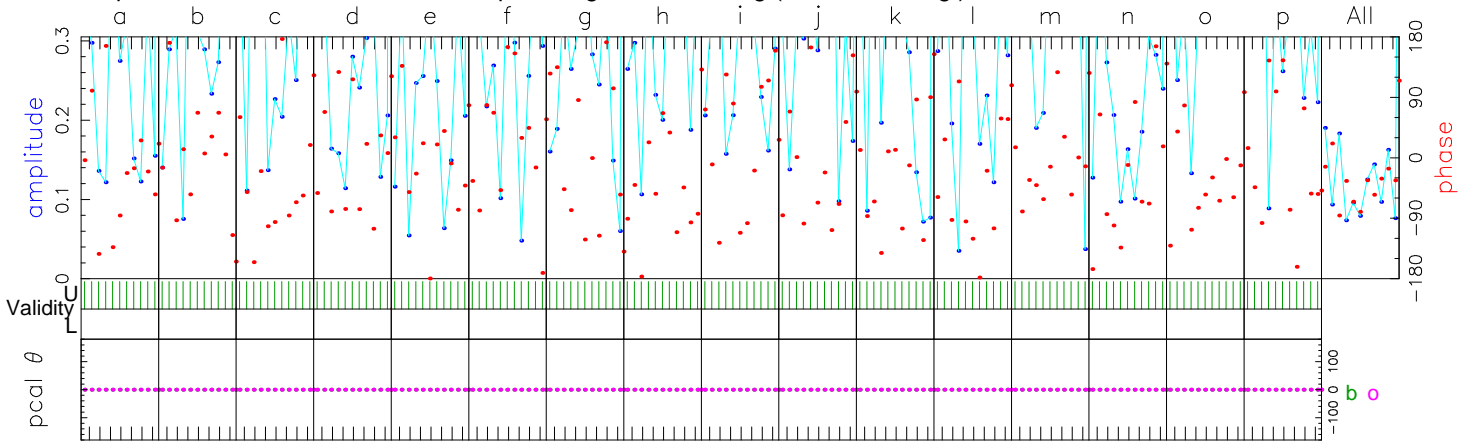


Fringe quality 0

SNR 5.6
Int time 406.536
Amp 0.102
Phase -38.5
PFD 9.9e-01
Delays (us)
SBD -0.819847
MBD -0.009266
Fringe rate (Hz)
-0.002086
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042737
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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			
	-42.3	-20.7	-59.2	-18.9	-7.4	34.1	-132.4	-44.9	-116.7	-64.8	-22.6	-42.9	-17.0	-52.7	-41.7	-53.9		Phase -38.5			
	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.0	0.1	0.2	0.1	0.3	0.0	0.2	0.1		Ampl. 0.1			
	165.9	254.2	85.5	28.4	38.8	152.0	85.1	52.4	82.7	137.1	221.1	109.7	24.3	84.5	227.0	54.3		Sbd box 24.1			
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		APs used			
b	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			
b: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			
b	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					
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids			
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks			
																			Tracks		
Group delay (usec)(sbd)			1.19950632705E+03								1.20032809316E+03							Resid mbdelay (usec)	-9.26611E-03	+/-	1.9E-04
Sband delay (usec)			1.19950824616E+03								-1.7242477E+01							Resid sbdelay (usec)	-8.19847E-01	+/-	3.1E-03
Phase delay (usec)			1.20032809192E+03								-2.4337607E-07							Resid phdelay (usec)	-1.24028E-06	+/-	6.6E-07
Delay rate (us/s)			-1.46733279185E-01								-1.46733254968E-01							Resid rate (us/s)	-2.42171E-08	+/-	2.8E-09
Total phase (deg)					301.7						3.60575885645E-06							Resid phase (deg)	-38.5	+/-	20.4

ph/seg (deg) 31.2 35.4
amp/seg (%) 55.8 61.8
ph/frq (deg) 41.6 40.9
amp/frq (%) 66.6 71.3

RMS Theor. Amplitude 0.102 +/- 0.018
Search (2048X64) 0.101
Interp. 0.000
Inc. seg. avg. 0.103
Inc. frq. avg. 0.090

Group delay (usec)(sbd) 1.19950632705E+03 Apriori delay (usec) 1.20032809316E+03 Resid mbdelay (usec) -9.26611E-03 +/- 1.9E-04
Sband delay (usec) 1.19950824616E+03 Apriori clock (usec) -1.7242477E+01 Resid sbdelay (usec) -8.19847E-01 +/- 3.1E-03
Phase delay (usec) 1.20032809192E+03 Apriori clockrate (us/s) -2.4337607E-07 Resid phdelay (usec) -1.24028E-06 +/- 6.6E-07
Delay rate (us/s) -1.46733279185E-01 Apriori rate (us/s) -1.46733254968E-01 Resid rate (us/s) -2.42171E-08 +/- 2.8E-09
Total phase (deg) 301.7 Apriori accel (us/s/s) 3.60575885645E-06 Resid phase (deg) -38.5 +/- 20.4

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

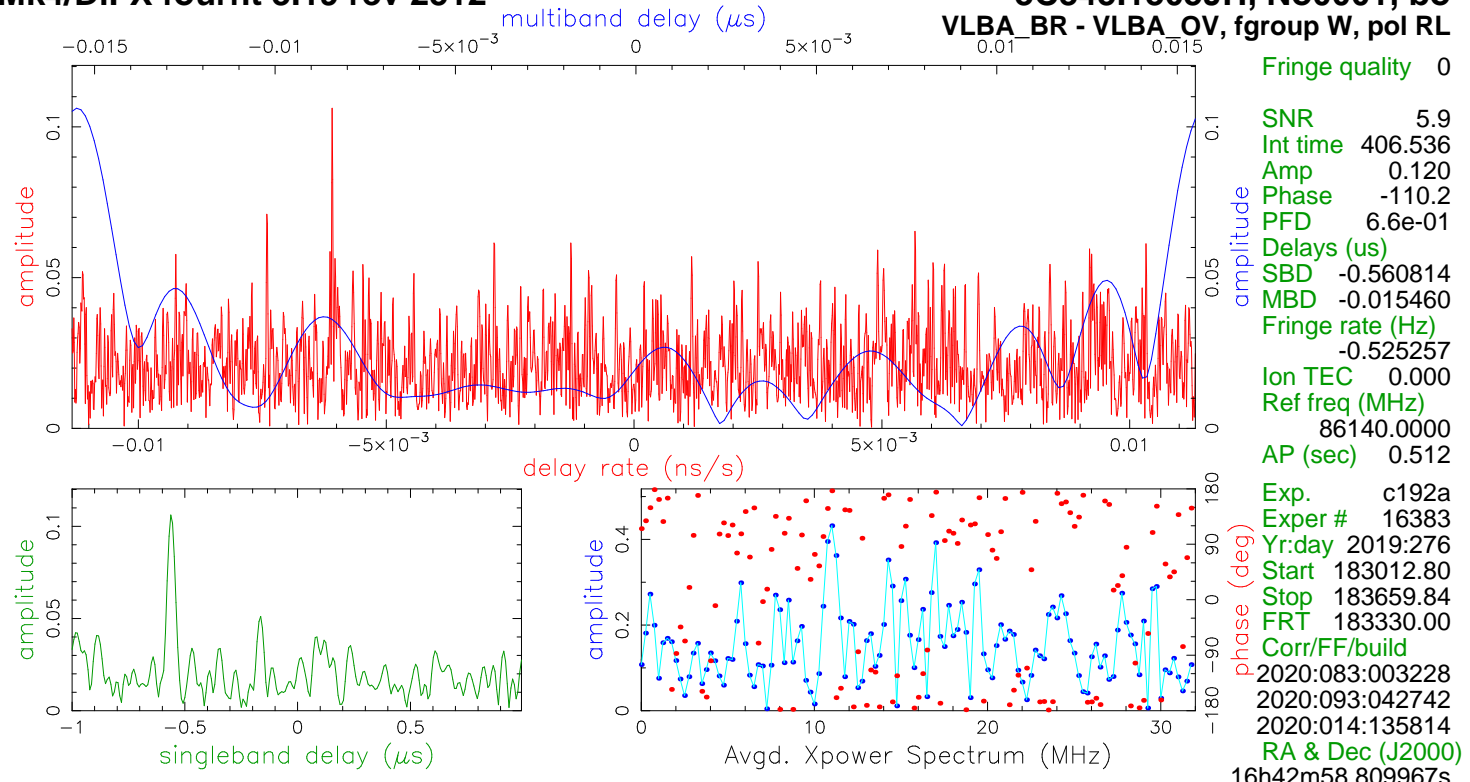
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6 o: az 60.7 el 29.9 pa -64.6 u,v (fr/asec) 1101.765 1173.303 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bo..1305JH Output file: /Exps/c192a/v2/1234/No0001/bo.W.56.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bo
VLBA_BR - VLBA_OV, fgroup W, pol RL



Fringe quality 0

SNR 5.9

Int time 406.536

Amp 0.120

Phase -110.2

PFD 6.6e-01

Delays (us)

SBD -0.560814

MBD -0.015460

Fringe rate (Hz)

-0.525257

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:276

Start 183012.80

Stop 183659.84

FRT 183330.00

Corr/FF/build

2020:083:003228

2020:093:042742

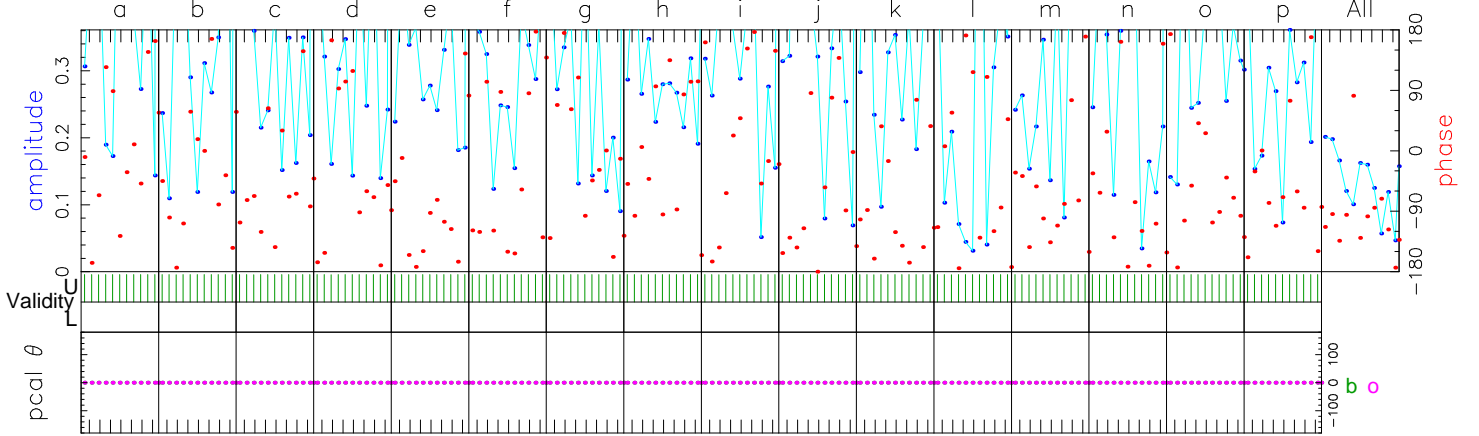
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All		
	-89.4	-70.3	-90.6	-127.9	-117.2	-152.7	-94.2	-47.0	-175.7	-157.0	-98.9	-114.2	-95.6	-121.4	-78.3	-109.7		Phase	-110.2	
	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1		Ampl.	0.1	
	7.5	191.7	100.4	59.5	66.3	220.1	178.7	66.0	111.9	212.7	185.4	114.5	48.7	153.9	38.5	171.0		Sbd box	57.2	
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		APs used		
b	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		
b: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		
b	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				
b	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		
																		Chan ids		
																		Tracks		
Group delay (usec)(sbd)			1.19978138285E+03								1.20032809316E+03							Resid mbdelay (usec)	-1.54603E-02	+/- 1.8E-04
Sband delay (usec)			1.19976727866E+03								-1.7242477E+01							Resid sbdelay (usec)	-5.60814E-01	+/- 2.9E-03
Phase delay (usec)			1.20032808961E+03								-2.4337607E-07							Resid phdelay (usec)	-3.55248E-06	+/- 6.3E-07
Delay rate (us/s)			-1.46739352685E-01								-1.46733254968E-01							Resid rate (us/s)	-6.09772E-06	+/- 2.7E-09
Total phase (deg)				230.0							3.60575885645E-06							Resid phase (deg)	-110.2	+/- 19.5

ph/seg (deg) 57.2 33.8 Amplitude 0.120 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 51.8 59.0 Search (2048X64) 0.104 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 34.7 39.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

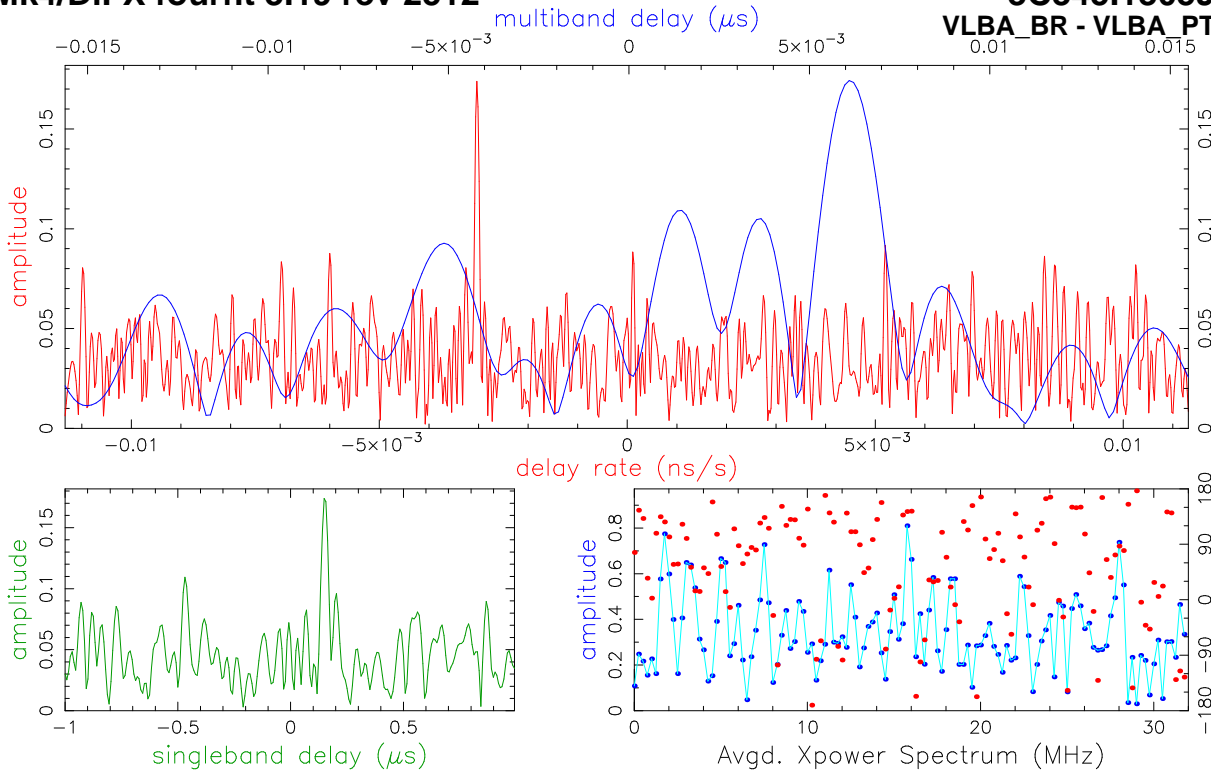
amp/frq (%) 44.2 68.1 Inc. seg. avg. 0.127 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011

b: az 66.1 el 33.9 pa -52.6 o: az 60.7 el 29.9 pa -64.6 u,v (fr/asec) 1101.765 1173.303 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bo..1305JH Output file: /Exps/c192a/v2/1234/No0001/bo.W.76.1305JH simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bp
VLBA_BR - VLBA_PT, fgroup W, pol LL

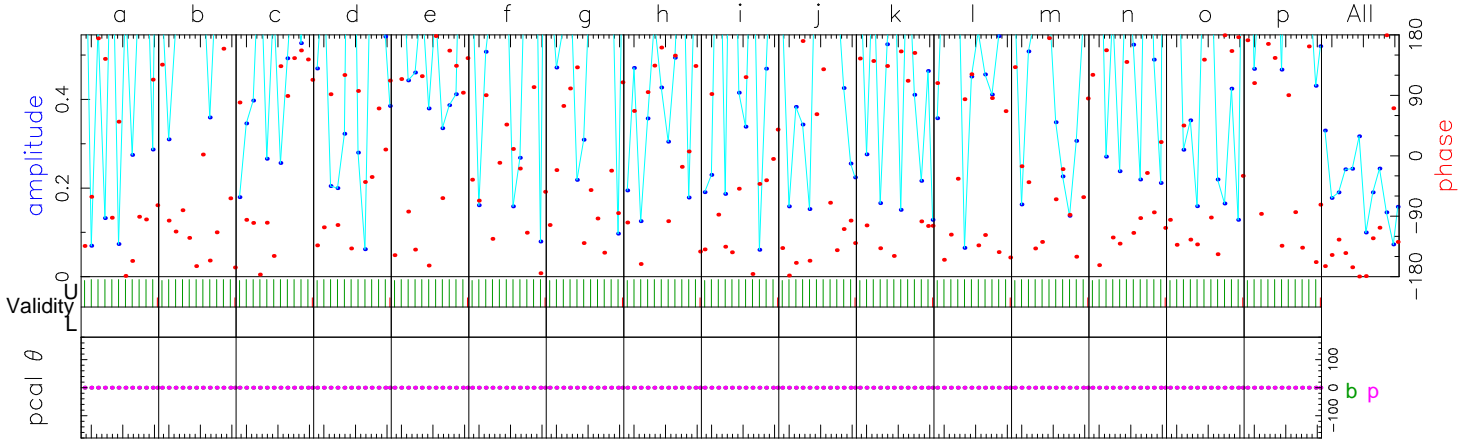


Fringe quality 0

SNR 5.7
Int time 138.827
Amp 0.182
Phase -152.5
PFD 7.9e-01
Delays (us)
SBD 0.151701
MBD 0.006191
Fringe rate (Hz)
-0.261111
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183440.58
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042723
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 24 APs / seg (12.29 sec / seg.), time ticks 10 sec

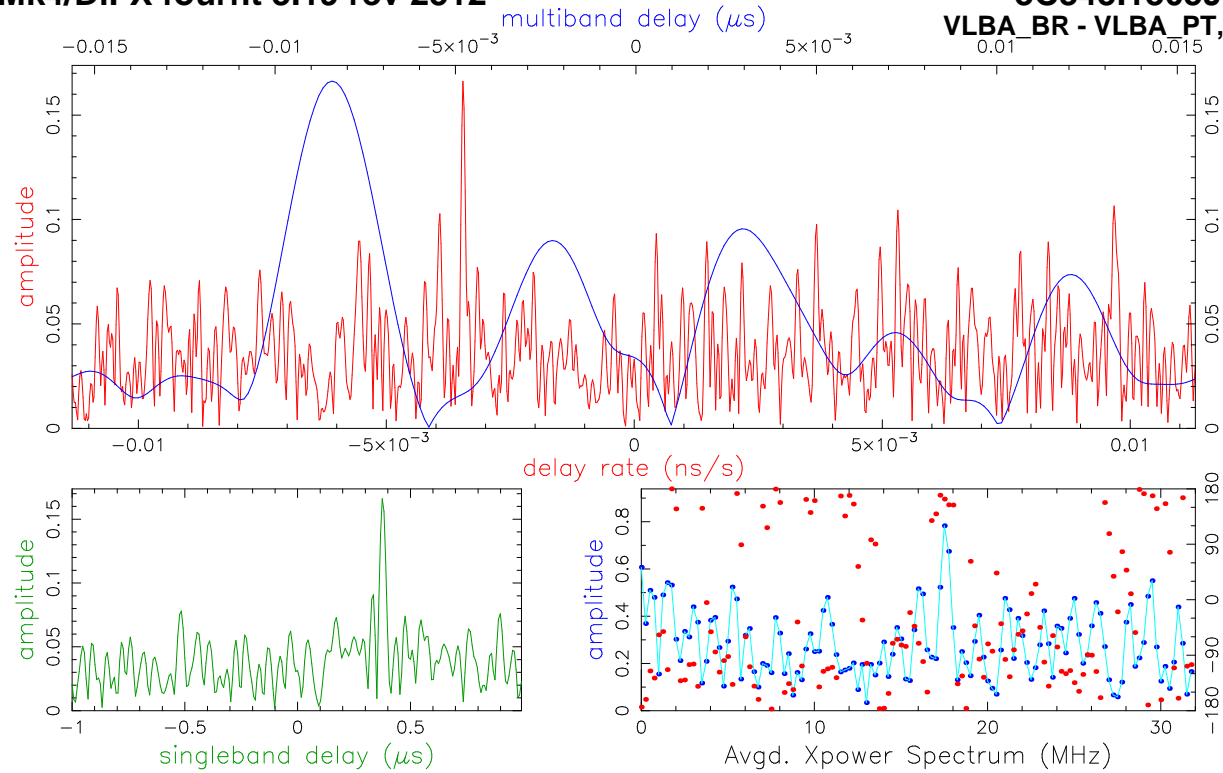


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-125.5	-130.4	167.0	-108.5	158.4	-0.4	-73.2	126.0	-105.2	-154.8	167.5	-147.3	-120.6	-131.1	-137.6	-179.2	Phase	-152.5				
	0.4	0.3	0.3	0.1	0.3	0.1	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.4	Ampl.	0.2				
	139.4	20.8	35.0	209.1	80.5	57.6	48.0	46.6	138.5	222.7	146.3	76.1	2.9	77.9	132.9	149.5	Sbd box	148.4				
U/L	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	APs used					
b	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					
b: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					
b: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					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
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)			-6.26463826139E+02														Apriori delay (usec)	-6.26626267228E+02	Resid mbdelay (usec)	6.19109E-03	+/-	1.9E-04
Sband delay (usec)			-6.26474565728E+02														Apriori clock (usec)	-1.2518601E+01	Resid sbdelay (usec)	1.51701E-01	+/-	3.0E-03
Phase delay (usec)			-6.26626272147E+02														Apriori clockrate (us/s)	-4.4628166E-07	Resid phdelay (usec)	-4.91904E-06	+/-	6.5E-07
Delay rate (us/s)			-1.32315307597E-01														Apriori rate (us/s)	-1.32312276362E-01	Resid rate (us/s)	-3.03124E-06	+/-	8.1E-09
Total phase (deg)																	Apriori accel (us/s/s)	1.63326638069E-05	Resid phase (deg)	-152.5	+/-	20.1

ph/seg (deg) 47.3 34.9 Search (1024X64) 0.173 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 45.8 60.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 59.5 40.3 Inc. seg. avg. 0.176 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 58.7 70.3 Inc. frq. avg. 0.193 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 66.1 el 33.9 pa -52.6 p: az 62.4 el 35.8 pa -72.0 u,v (fr/asec) 1016.773 2288.498 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bp..1305JH Output file: /Exps/c192a/v2/1234/No0001/bp.W.1.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bp
VLBA_BR - VLBA_PT, fgroup W, pol RR

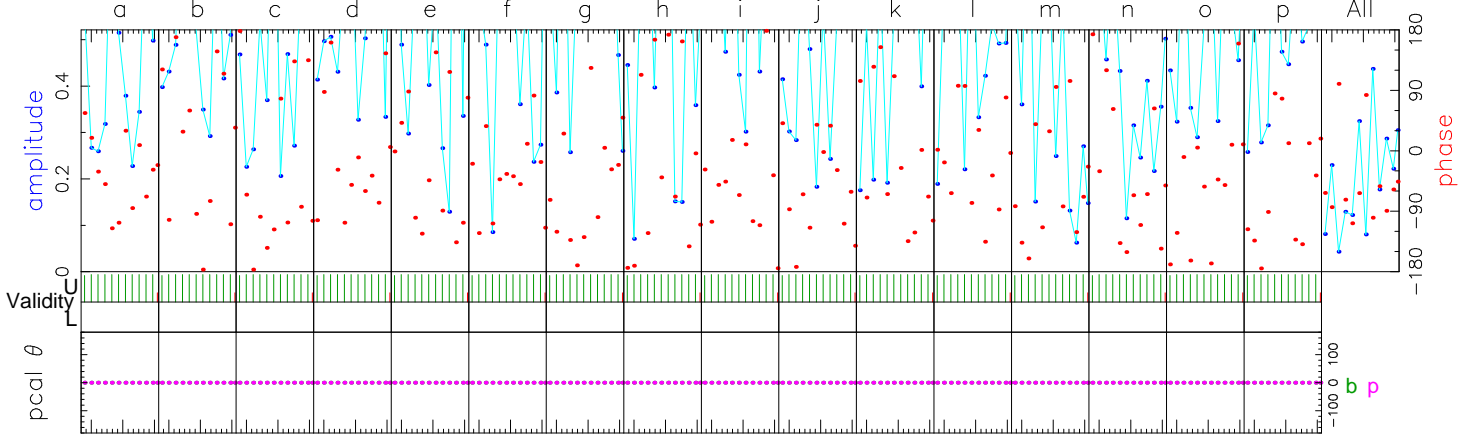


Fringe quality 0

SNR 5.4
Int time 138.827
Amp 0.174
Phase -76.4
PFD 1.0e+00
Delays (us)
SBD 0.376799
MBD -0.008365
Fringe rate (Hz)
-0.298851
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183440.58
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042727
2020:014:135814
RA & Dec (J2000)
16h42m58.80967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 24 APs / seg (12.29 sec / seg.), time ticks 10 sec

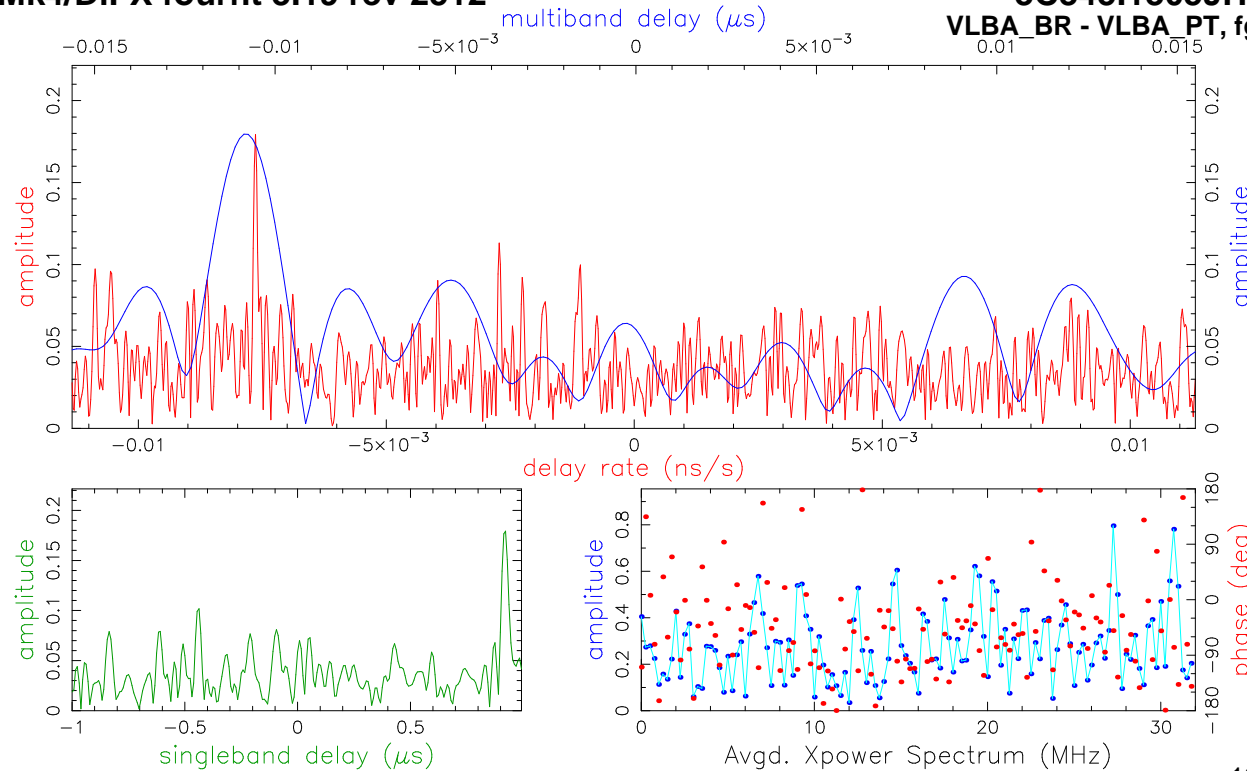


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-43.0	112.9	-131.2	-60.4	-101.1	-31.7	-61.8	-151.5	-69.6	-67.5	-104.0	-30.7	-104.3	-144.4	-61.5	-64.5	Phase	-76.4				
	0.3	0.1	0.3	0.3	0.2	0.4	0.1	0.2	0.4	0.3	0.2	0.2	0.2	0.1	0.2	0.1	Ampl.	0.2				
	215.8	123.9	176.5	157.2	143.2	198.1	166.1	143.7	225.9	174.6	63.5	78.7	209.8	209.5	23.9	128.1	Sbd box	177.2				
U/L	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	APs used					
b	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					
b: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					
b: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					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
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)			-6.26259631834E+02														Apriori delay (usec)	-6.26626267228E+02	Resid mbdelay (usec)	-8.36461E-03	+/-	2.0E-04
Sband delay (usec)			-6.26249467728E+02														Apriori clock (usec)	-1.2518601E+01	Resid sbdelay (usec)	3.76799E-01	+/-	3.2E-03
Phase delay (usec)			-6.26626269692E+02														Apriori clockrate (us/s)	-4.4628166E-07	Resid phdelay (usec)	-2.46442E-06	+/-	6.9E-07
Delay rate (us/s)			-1.32315745725E-01														Apriori rate (us/s)	-1.32312276362E-01	Resid rate (us/s)	-3.46936E-06	+/-	8.5E-09
Total phase (deg)																	Apriori accel (us/s/s)	1.63326638069E-05	Resid phase (deg)	-76.4	+/-	21.3

ph/seg (deg) 72.7 36.9 Search (1024X64) 0.161 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 71.0 64.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 60.2 42.6 Inc. seg. avg. 0.170 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 69.2 74.3 Inc. frq. avg. 0.180 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 66.1 el 33.9 pa -52.6 p: az 62.4 el 35.8 pa -72.0 u,v (fr/asec) 1016.773 2288.498 ion window (TEC) 0.00 0.00 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bp..1305JH Output file: /Exps/c192a/v2/1234/No0001/bp.W.15.1305JH

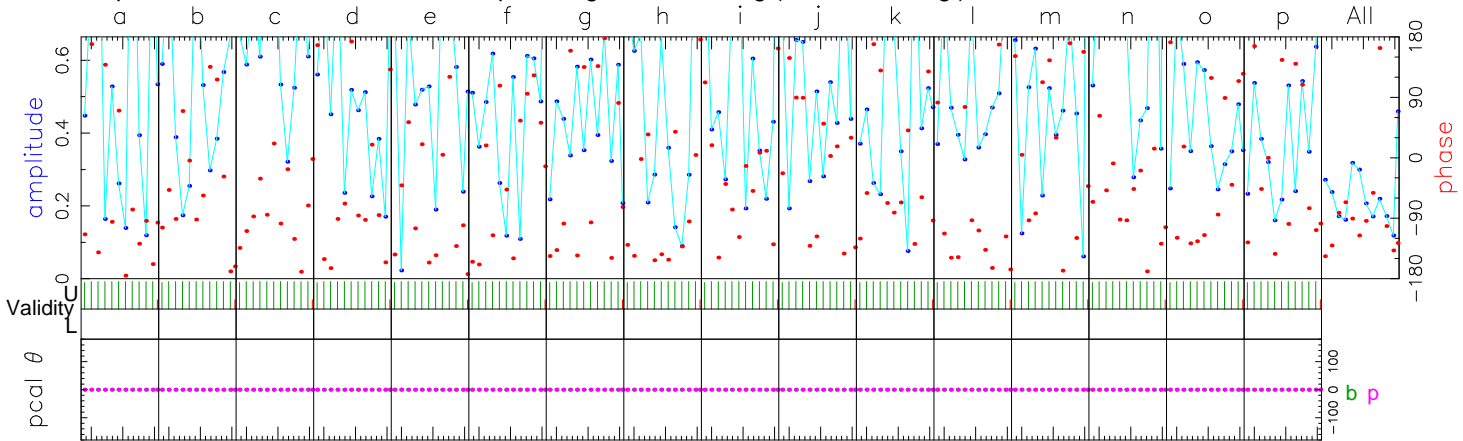
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bp
VLBA_BR - VLBA_PT, fgroup W, pol LR



Fringe quality 0
SNR 5.9
Int time 138.827
Amp 0.221
Phase -111.7
PFD 4.1e-01
Delays (us)
SBD 0.918558
MBD -0.010882
Fringe rate (Hz)
-0.658132
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183440.58
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042729
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 24 APs / seg (12.29 sec / seg.), time ticks 10 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				
	-131.6	-89.0	-82.7	-130.0	-140.6	137.9	-164.3	-100.8	-91.6	11.0	-97.2	-137.0	-153.9	-40.3	-132.7	-124.0	Phase	-111.7				
	0.5	0.3	0.5	0.4	0.1	0.1	0.3	0.2	0.2	0.1	0.3	0.4	0.2	0.5	0.2	0.2	Ampl.	0.2				
	247.8	245.5	246.2	233.7	204.0	74.4	253.1	230.4	122.1	95.8	204.4	45.2	135.0	241.3	177.2	158.0	Sbd box	246.6				
U/L	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	APs used					
b	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					
b: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					
b: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					
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-6.25699648820E+02														Apriori delay (usec)	-6.26626267228E+02	Resid mbdelay (usec)	-1.08816E-02	+/-	1.8E-04
Sband delay (usec)			-6.25707708728E+02														Apriori clock (usec)	-1.2518601E+01	Resid sbdelay (usec)	9.18558E-01	+/-	2.9E-03
Phase delay (usec)			-6.26626270829E+02														Apriori clockrate (us/s)	-4.4628166E-07	Resid phdelay (usec)	-3.60149E-06	+/-	6.3E-07
Delay rate (us/s)			-1.32319916627E-01														Apriori rate (us/s)	-1.32312276362E-01	Resid rate (us/s)	-7.64026E-06	+/-	7.8E-09
Total phase (deg)																	Apriori accel (us/s/s)	1.63326638069E-05	Resid phase (deg)	-111.7	+/-	19.5

ph/seg (deg) 38.7 33.8
amp/seg (%) 44.8 58.9
ph/frq (deg) 54.6 39.0
amp/frq (%) 74.7 68.1

RMS Theor. Amplitude 0.221 +/- 0.038
Search (1024X64) 0.178
Interp. 0.000
Inc. seg. avg. 0.228
Inc. frq. avg. 0.226

b: az 66.1 el 33.9 pa -52.6
p: az 62.4 el 35.8 pa -72.0
u,v (fr/asec) 1016.773 2288.498

Group delay (usec)(sbd) -6.25699648820E+02
Sband delay (usec) -6.25707708728E+02
Phase delay (usec) -6.26626270829E+02
Delay rate (us/s) -1.32319916627E-01
Total phase (deg) -348.9

Apriori delay (usec) -6.26626267228E+02
Apriori clock (usec) -1.2518601E+01
Apriori clockrate (us/s) -4.4628166E-07
Apriori rate (us/s) -1.32312276362E-01
Apriori accel (us/s/s) 1.63326638069E-05

Resid mbdelay (usec) -1.08816E-02
Resid sbdelay (usec) 9.18558E-01
Resid phdelay (usec) -3.60149E-06
Resid rate (us/s) -7.64026E-06
Resid phase (deg) -111.7

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
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

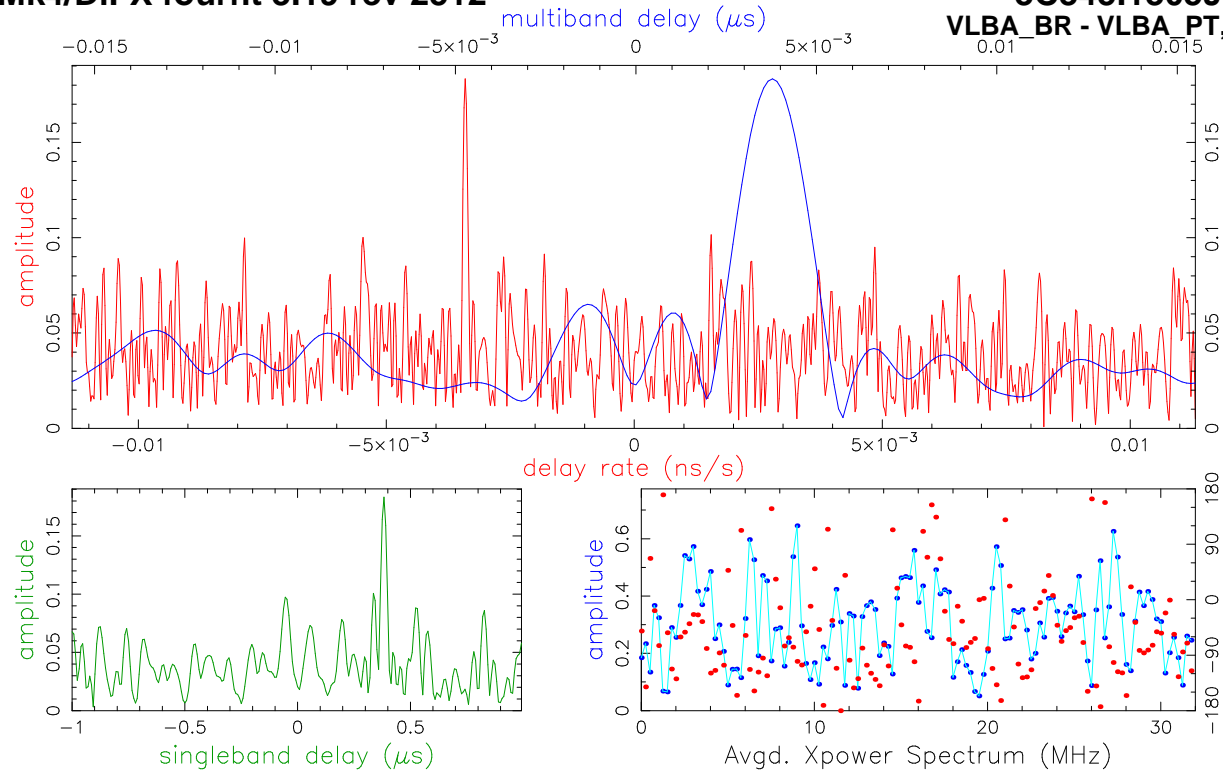
nlags: 128 t_cohere infinite

simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bp..1305JH Output file: /Exps/c192a/v2/1234/No0001/bp.W.24.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bp
VLBA_BR - VLBA_PT, fgroup W, pol RL

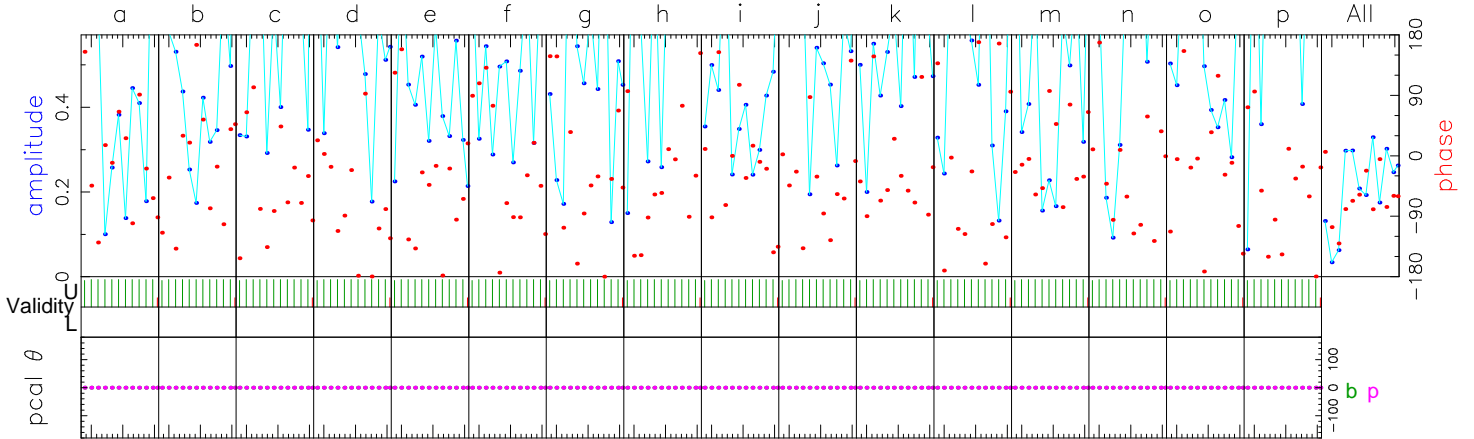


Fringe quality 0

SNR 5.9
Int time 138.827
Amp 0.190
Phase -60.7
PFD 3.6e-01
Delays (us)
SBD 0.382297
MBD 0.003777
Fringe rate (Hz)
-0.293737
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183440.58
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042732
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 24 APs / seg (12.29 sec / seg.), time ticks 10 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-73.3	-48.7	-60.1	-58.9	-91.7	-50.1	-85.6	-58.8	-56.9	-49.8	-44.5	-128.9	-21.5	-62.9	-45.2	-83.4		Phase	-60.7				
	0.2	0.2	0.3	0.2	0.2	0.1	0.0	0.3	0.2	0.3	0.2	0.2	0.3	0.2	0.1	0.3		Ampl.	0.2				
	220.3	40.9	121.0	100.3	253.1	67.4	99.2	125.1	19.7	31.7	56.9	186.9	176.4	115.6	198.0	176.6		Sbd box	177.9				
U/L	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0		APs used					
b	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					
b: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					
b: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					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Tracks					
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
Group delay (usec)(sbd)			-6.26247490570E+02															Apriori delay (usec)	-6.26626267228E+02	Resid mbdelay (usec)	3.77666E-03	+/-	1.8E-04
Sband delay (usec)			-6.26243969728E+02															Apriori clock (usec)	-1.2518601E+01	Resid sbdelay (usec)	3.82297E-01	+/-	2.9E-03
Phase delay (usec)			-6.26626269185E+02															Apriori clockrate (us/s)	-4.4628166E-07	Resid phdelay (usec)	-1.95747E-06	+/-	6.3E-07
Delay rate (us/s)			-1.32315686361E-01															Apriori rate (us/s)	-1.32312276362E-01	Resid rate (us/s)	-3.41000E-06	+/-	7.8E-09
Total phase (deg)					-297.9													Apriori accel (us/s/s)	1.63326638069E-05	Resid phase (deg)	-60.7	+/-	19.4

ph/seg (deg) 38.5 33.6
amp/seg (%) 53.3 58.6
ph/frq (deg) 25.8 38.8
amp/frq (%) 45.8 67.7

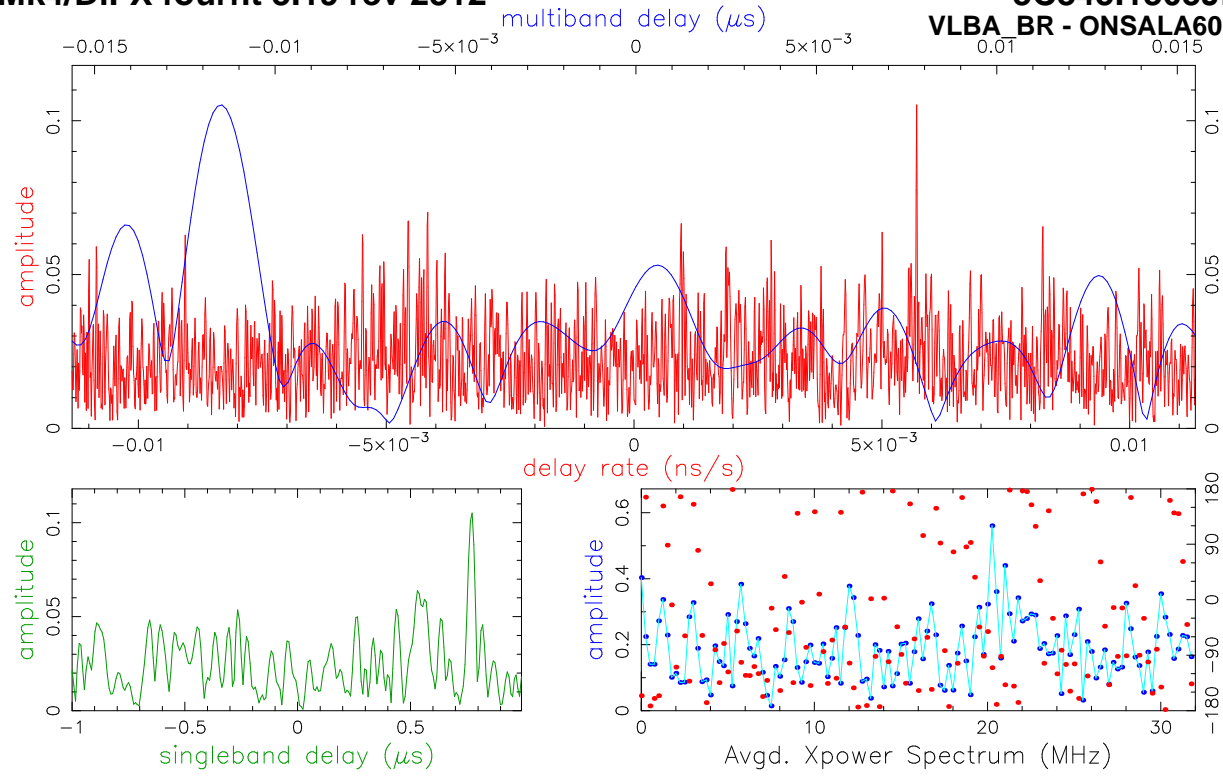
RMS Theor. Amplitude 0.190 +/- 0.032
Search (1024X64) 0.181
Interp. 0.000
Inc. seg. avg. 0.185
Inc. frq. avg. 0.170

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

b: az 66.1 el 33.9 pa -52.6 p: az 62.4 el 35.8 pa -72.0 u,v (fr/asec) 1016.773 2288.498 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bp..1305JH Output file: /Exps/c192a/v2/1234/No0001/bp.W.39.1305JH

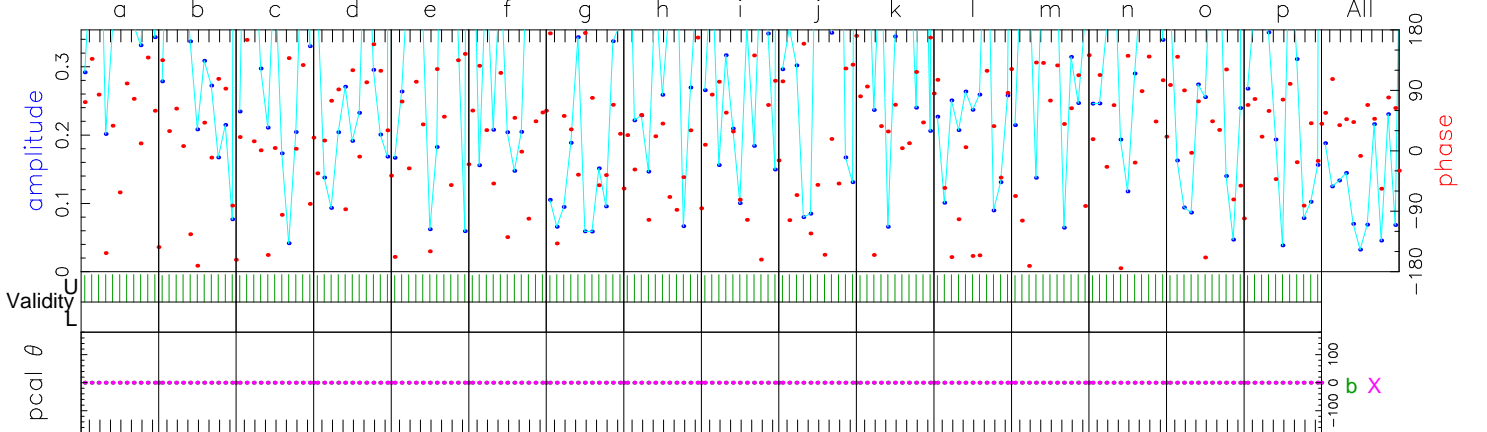


Fringe quality 0

SNR 5.8
Int time 405.038
Amp 0.118
Phase 56.7
PFD 7.4e-01
Delays (us)
SBD 0.771147
MBD -0.011534
Fringe rate (Hz) 0.491845
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042727
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	APs used						
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
b: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	0:0	PC phase					
b: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	0:0	Mani PC					
X	1000	1000	1000	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	1000	1000	1000	PC amp					
b	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					
																				Tracks					
Group delay (usec)(sbd)			-4.96074527710E+03																	Apriori delay (usec)	-4.96151499341E+03	Resid mbdelay (usec)	-1.15337E-02	+/-	1.8E-04
Sband delay (usec)			-4.96074384641E+03																	Apriori clock (usec)	-3.2937950E+01	Resid sbdelay (usec)	7.71147E-01	+/-	3.0E-03
Phase delay (usec)			-4.96151499158E+03																	Apriori clockrate (us/s)	-7.7039509E-07	Resid phdelay (usec)	1.82923E-06	+/-	6.3E-07
Delay rate (us/s)			1.28971035541E+00																	Apriori rate (us/s)	1.28970464558E+00	Resid rate (us/s)	5.70983E-06	+/-	2.7E-09
Total phase (deg)																				Apriori accel (us/s/s)	1.91370941852E-05	Resid phase (deg)	56.7	+/-	19.6

ph/seg (deg) 43.8 34.0
amp/seg (%) 65.6 59.3
ph/frq (deg) 52.5 39.3
amp/frq (%) 61.8 68.5

RMS Theor. Amplitude 0.118 +/- 0.020
Search (2048X64) 0.102
Interp. 0.000
Inc. seg. avg. 0.114
Inc. frq. avg. 0.125

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

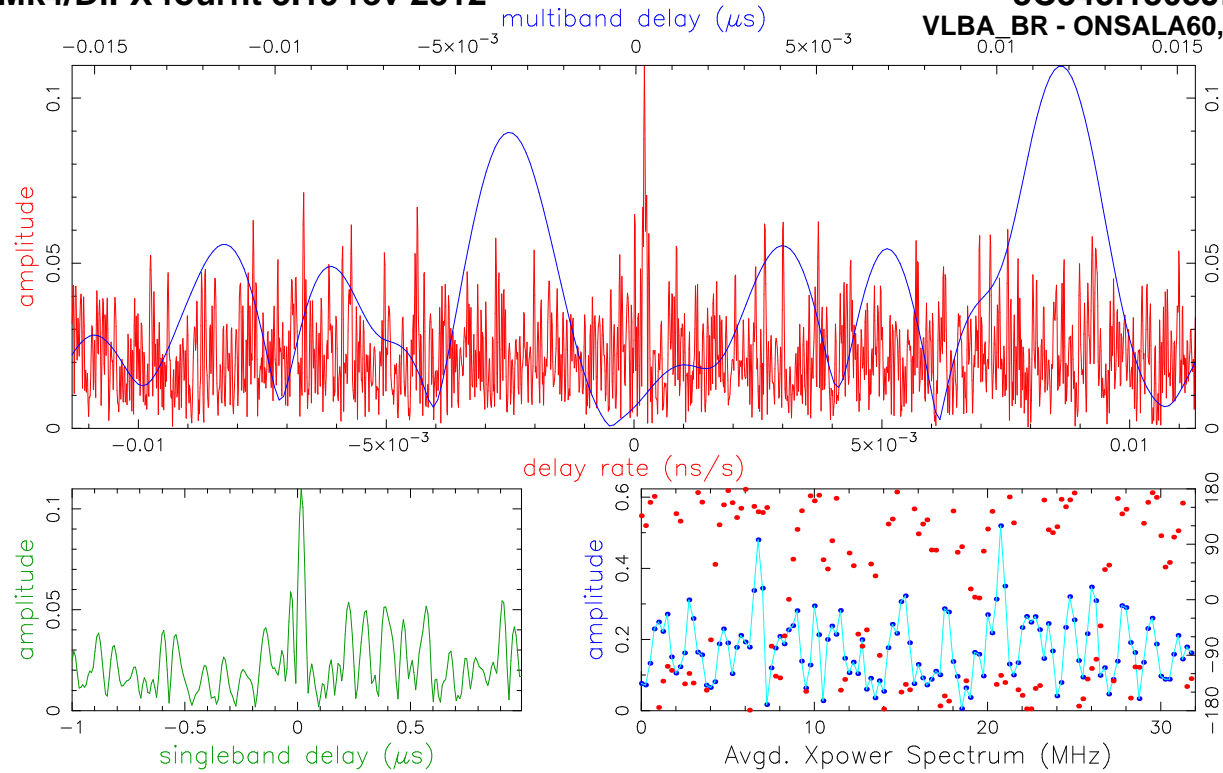
b: az 66.1 el 33.9 pa -52.6 X: az 263.7 el 53.3 pa 44.2 u,v (fr/asec) -9578.737 701.110 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bX..1305JH Output file: /Exps/c192a/v2/1234/No0001/bX.W.19.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bX

VLBA BR - ONSALA60, fgroup W, pol RR

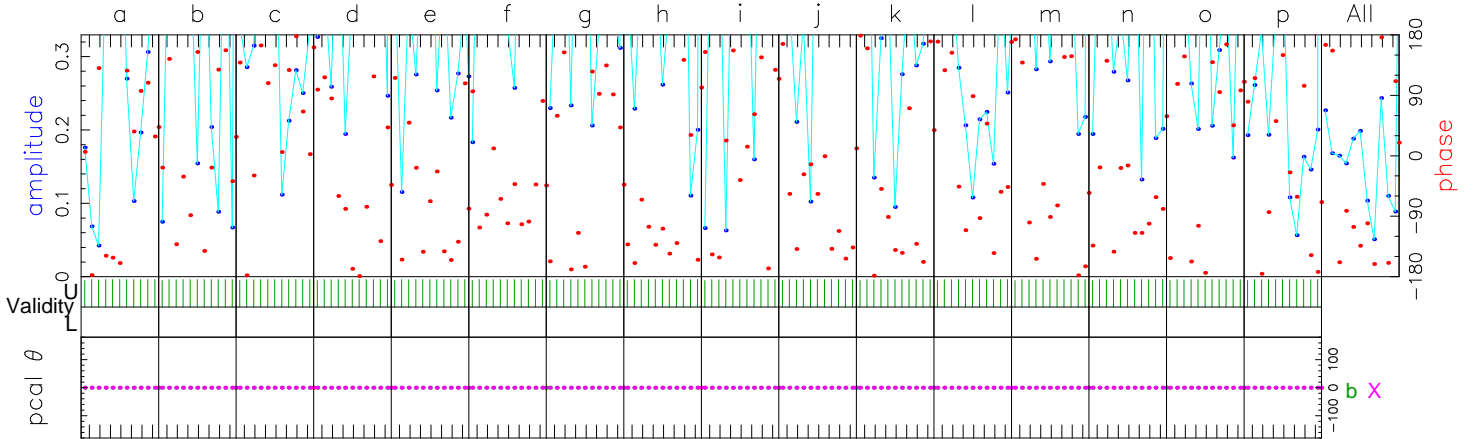


Fringe quality 0

SNR 6.0
 Int time 405.038
 Amp 0.110
 Phase -157.3
 PFD 3.2e-01
 Delays (us)
 SBD 0.016490
 MBD 0.011775
 Fringe rate (Hz) 0.018422
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

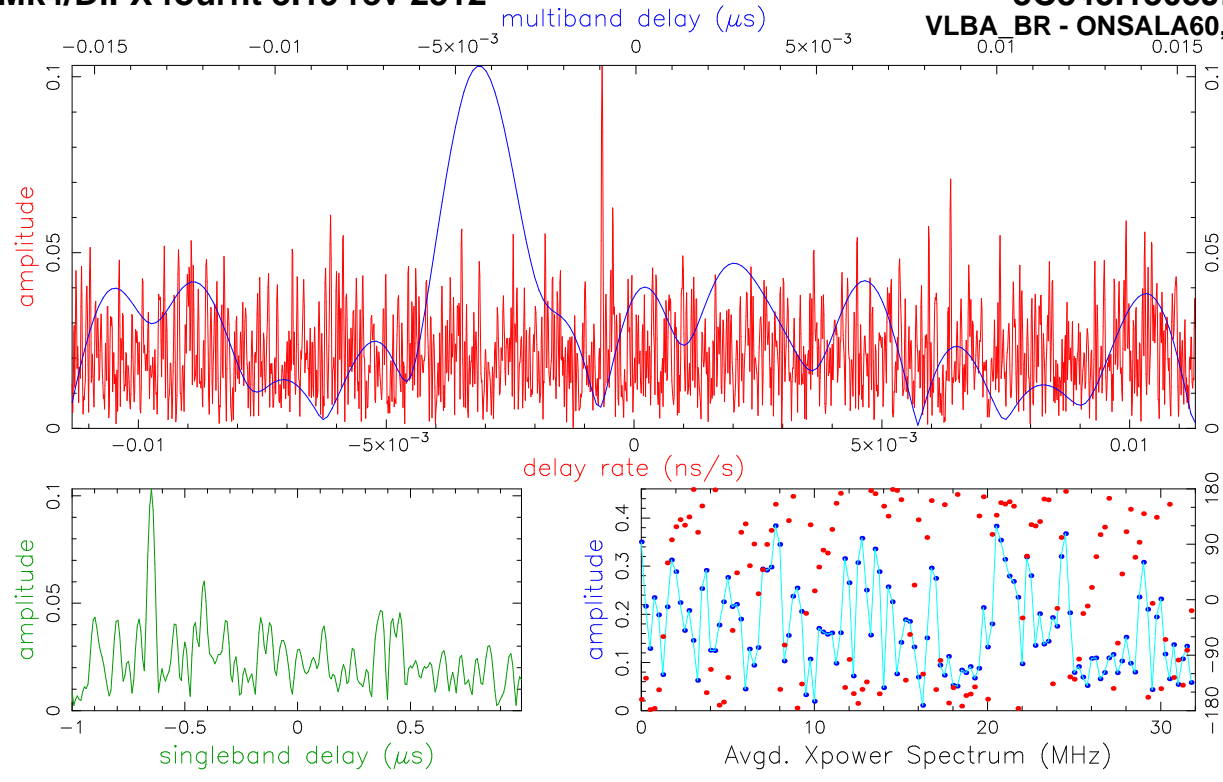
Exp. c192a
 Exper # 16383
 Yr:day 2019:276
 Start 183012.80
 Stop 183659.84
 FRT 183330.00
 Corr/FF/build 2020:083:003228
 2020:093:042733
 2020:014:135814
 RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b: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		
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks
Group delay (usec)(sbd)		-4.96150321886E+03																
Sband delay (usec)		-4.96149850341E+03																
Phase delay (usec)		-4.96151499848E+03																
Delay rate (us/s)		1.28970485944E+00																
Total phase (deg)					-349.0													
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		
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) 48.6 32.8 Amplitude 0.110 +/- 0.018 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 68.8 57.2 Search (2048X64) 0.106 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 50.0 37.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 83.2 66.1 Inc. seg. avg. 0.133 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 b: az 66.1 el 33.9 pa -52.6 X: az 263.7 el 53.3 pa 44.2 u,v (fr/asec) -9578.737 701.110 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bX..1305JH Output file: /Exps/c192a/v2/1234/No0001/bX.W.43.1305JH simultaneous interpolator

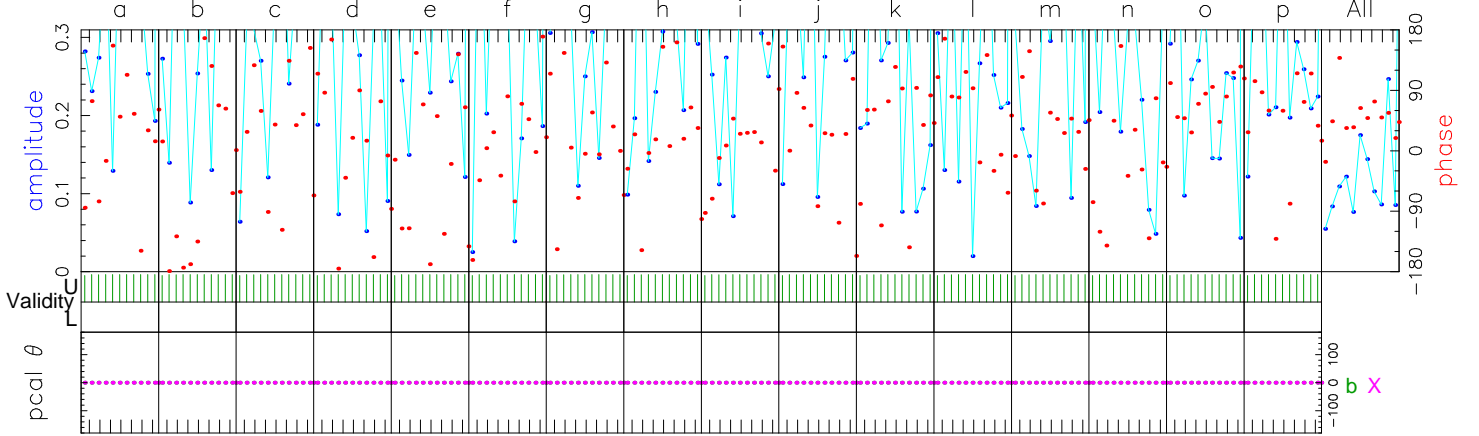


Fringe quality 0

SNR 5.7
Int time 405.038
Amp 0.103
Phase 52.8
PFD 9.7e-01
Delays (us)
SBD -0.648785
MBD -0.004336
Fringe rate (Hz)
-0.054928
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042739
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec

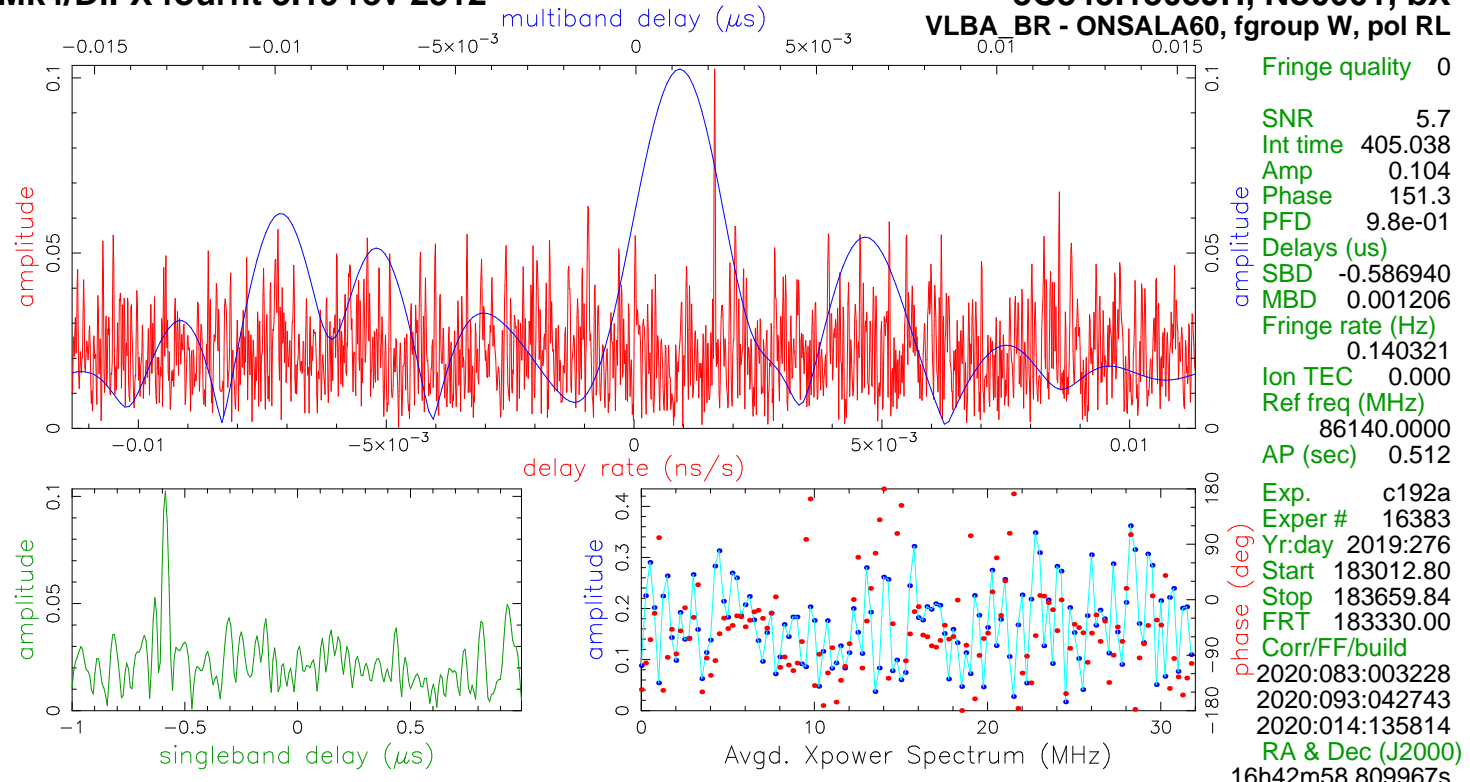


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
43.7	177.1	80.6	85.7	119.3	14.5	47.8	53.2	2.7	35.6	92.7	87.4	23.4	-45.2	74.1	79.7	79.7	Phase	52.8
0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	Ampl.	0.1
79.0	200.1	177.4	14.0	12.1	97.5	134.4	235.8	165.1	166.6	144.2	67.1	36.0	189.7	217.8	69.4	69.4	Sbd box	46.0
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
b: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	
b: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 amp	
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-4.96217557950E+03			Apriori delay (usec)			-4.96151499341E+03			Resid mbdelay (usec)			-4.33609E-03			+/-	1.9E-04	
Sband delay (usec)	-4.96216377791E+03			Apriori clock (usec)			-3.2937950E+01			Resid sbdelay (usec)			-6.48785E-01			+/-	3.0E-03	
Phase delay (usec)	-4.96151499171E+03			Apriori clockrate (us/s)			-7.7039509E-07			Resid phdelay (usec)			1.70414E-06			+/-	6.5E-07	
Delay rate (us/s)	1.28970400792E+00			Apriori rate (us/s)			1.28970464558E+00			Resid rate (us/s)			-6.37659E-07			+/-	2.8E-09	
Total phase (deg)	-138.8			Apriori accel (us/s/s)			1.91370941852E-05			Resid phase (deg)			52.8			+/-	20.2	

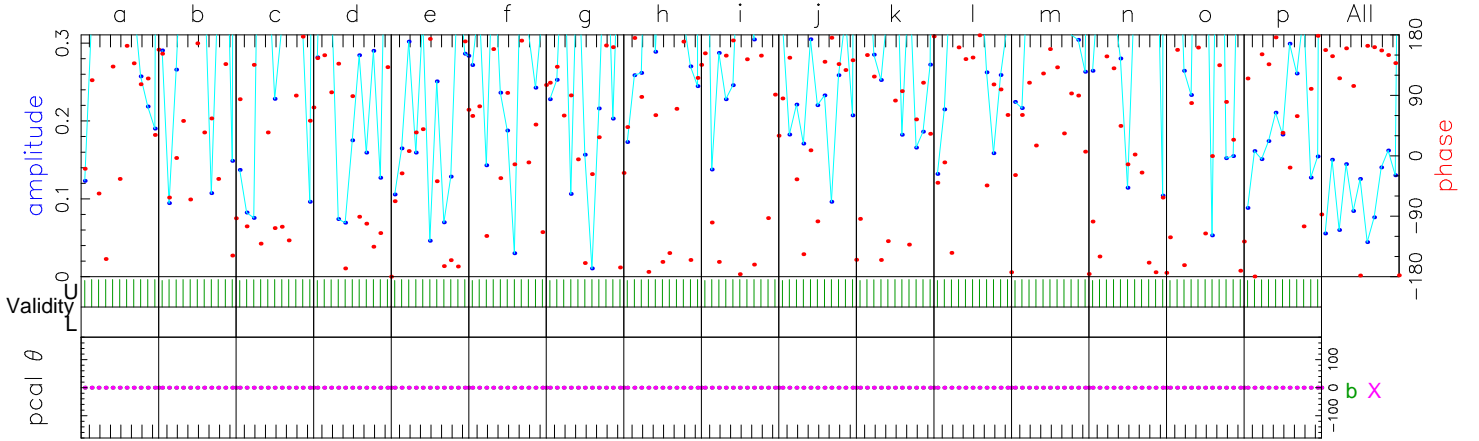
ph/seg (deg) RMS Theor. Amplitude 0.103 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 57.4 61.0 Search (2048X64) 0.099 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 53.8 40.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 58.2 70.5 Inc. seg. avg. 0.100 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.107 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6 X: az 263.7 el 53.3 pa 44.2 u,v (fr/asec) -9578.737 701.110 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bX..1305JH Output file: /Exps/c192a/v2/1234/No0001/bX.W.63.1305JH



Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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
	142.2	52.6	-141.2	156.0	-25.1	104.7	123.8	161.3	162.1	132.8	146.7	149.2	78.3	-163.1	174.7	141.9	Phase	151.3
	0.1	0.0	0.1	0.2	0.0	0.1	0.1	0.2	0.3	0.1	0.1	0.2	0.2	0.1	0.3	0.0	Ampl.	0.1
	68.8	43.0	246.8	55.5	204.0	171.7	63.8	94.1	53.1	57.5	140.0	213.9	54.4	119.8	54.2	171.9	Sbd box	53.9
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	APs used	
b	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	
b: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	
b:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-4.96210753780E+03			Apriori delay (usec)			-4.96151499341E+03			Resid mbdelay (usec)			1.20561E-03			+/- 1.9E-04		
Sband delay (usec)	-4.96210193291E+03			Apriori clock (usec)			-3.2937950E+01			Resid sbdelay (usec)			-5.86940E-01			+/- 3.0E-03		
Phase delay (usec)	-4.96151498853E+03			Apriori clockrate (us/s)			-7.7039509E-07			Resid phdelay (usec)			4.87889E-06			+/- 6.5E-07		
Delay rate (us/s)	1.28970627457E+00			Apriori rate (us/s)			1.28970464558E+00			Resid rate (us/s)			1.62899E-06			+/- 2.8E-09		
Total phase (deg)	-40.4			Apriori accel (us/s/s)			1.91370941852E-05			Resid phase (deg)			151.3			+/- 20.3		

ph/seg (deg) 21.5 35.1 Amplitude 0.104 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 49.5 61.3 Search (2048X64) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 63.8 40.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 79.4 70.8 Inc. seg. avg. 0.092 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011

b: az 66.1 el 33.9 pa -52.6 X: az 263.7 el 53.3 pa 44.2 u,v (fr/asec) -9578.737 701.110 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

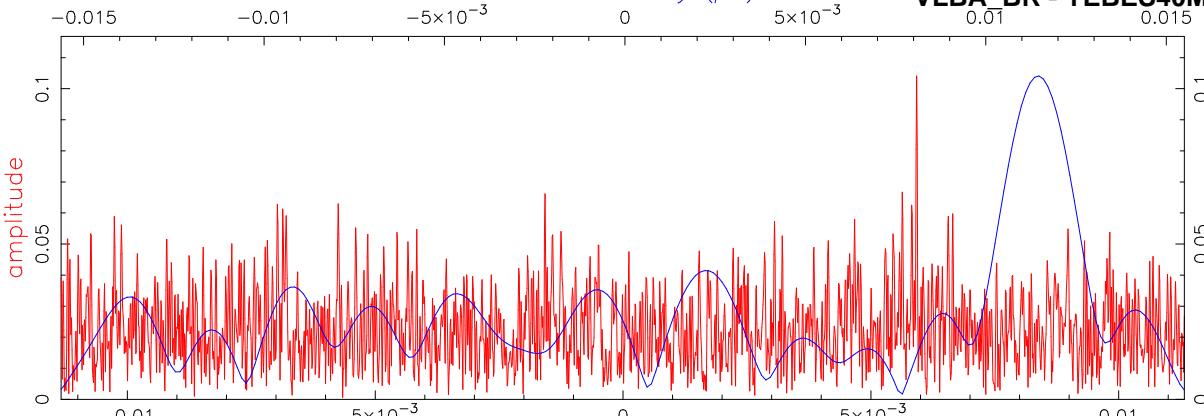
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bX..1305JH Output file: /Exps/c192a/v2/1234/No0001/bX.W.81.1305JH simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bY

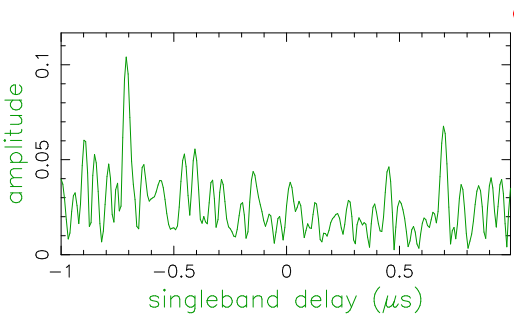
VLBA_BR - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

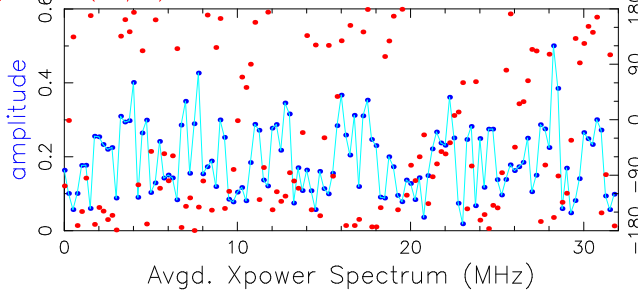


Fringe quality 0

SNR 5.7
Int time 400.941
Amp 0.117
Phase 3.1
PFD 9.5e-01
Delays (us)
SBD -0.710528
MBD 0.011457
Fringe rate (Hz) 0.510563
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

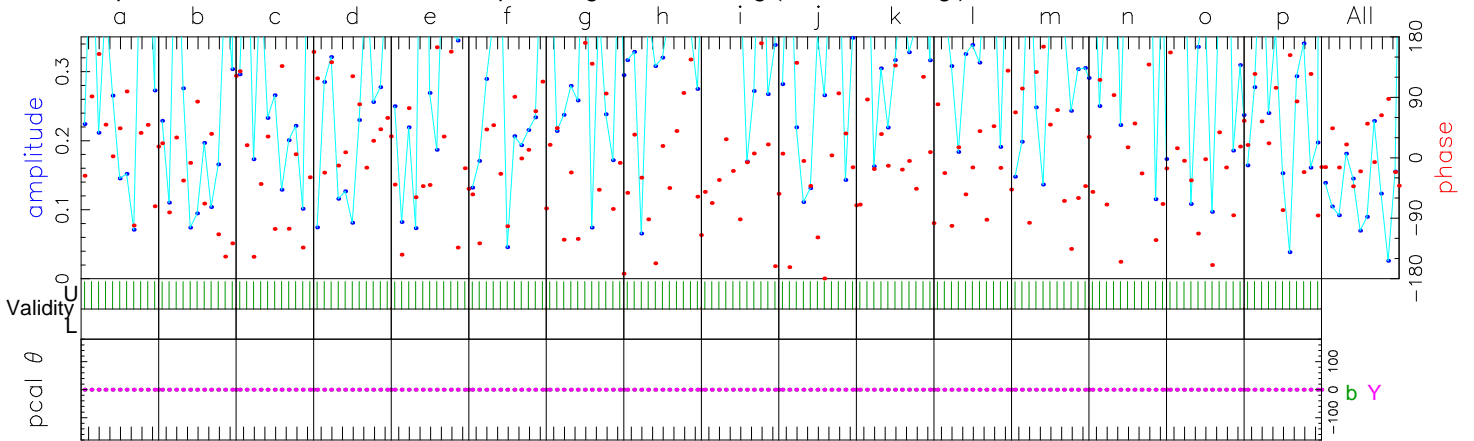


delay rate (ns/s)



Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183017.92
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042750
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					
	44.9	-42.6	-24.9	37.3	-32.7	34.0	-23.0	-6.6	-39.0	6.5	13.9	-0.7	-32.6	18.5	-5.6	54.2		Phase	3.1				
	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.0	0.2	0.2	0.1	0.1	0.2	0.1		Ampl.	0.1				
	235.1	160.3	127.9	63.8	125.2	184.5	35.2	236.0	209.4	82.1	166.9	13.6	204.1	186.5	219.3	4.2		Sbd box	38.1				
U/L	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0		APs used					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase					
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC					
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000							
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-6.83120333837E+03															Apriori delay (usec)	-6.83049604516E+03	Resid mbdelay (usec)	1.14568E-02	+/-	1.9E-04
Sband delay (usec)			-6.83120657316E+03															Apriori clock (usec)	-1.0264677E+01	Resid sbdelay (usec)	-7.10528E-01	+/-	3.0E-03
Phase delay (usec)			-6.83049604506E+03															Apriori clockrate (us/s)	-4.6239510E-07	Resid phdelay (usec)	1.00419E-07	+/-	6.5E-07
Delay rate (us/s)			1.32586969168E+00															Apriori rate (us/s)	1.32586376455E+00	Resid rate (us/s)	5.92713E-06	+/-	2.8E-09
Total phase (deg)					-115.7													Apriori accel (us/s/s)	4.31182720075E-05	Resid phase (deg)	3.1	+/-	20.1

ph/seg (deg) 41.4 34.8
amp/seg (%) 60.8 60.7
ph/frq (deg) 32.6 40.2
amp/frq (%) 51.6 70.1

RMS Theor. Amplitude 0.117 +/- 0.020
Search (2048X64) 0.100
Interp. 0.000
Inc. seg. avg. 0.118
Inc. frq. avg. 0.109

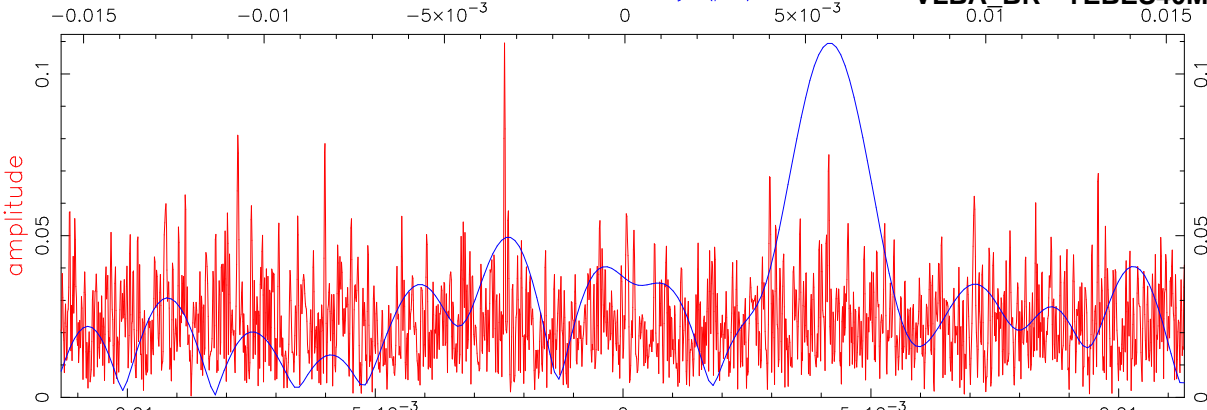
PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
PCal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MISamp/s): 64
Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite

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

b: az 66.1 el 33.9 pa -52.6 Y: az 280.2 el 62.9 pa 77.1 u,v (fr/asec) -9803.997 3585.603 simultaneous interpolator

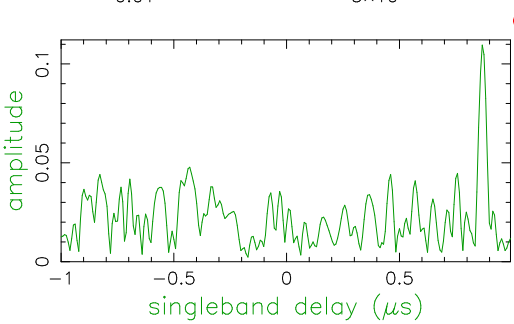
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bY..1305JH Output file: /Exps/c192a/v2/1234/No0001/bY.W.101.1305JH

multiband delay (μ s)

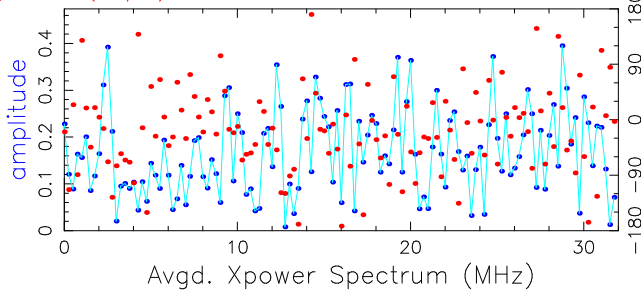


Fringe quality 0

SNR 6.0
 Int time 400.941
 Amp 0.112
 Phase -85.4
 PFD 3.4e-01
 Delays (us)
 SBD 0.869133
 MBD 0.005696
 Fringe rate (Hz)
 -0.206301
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

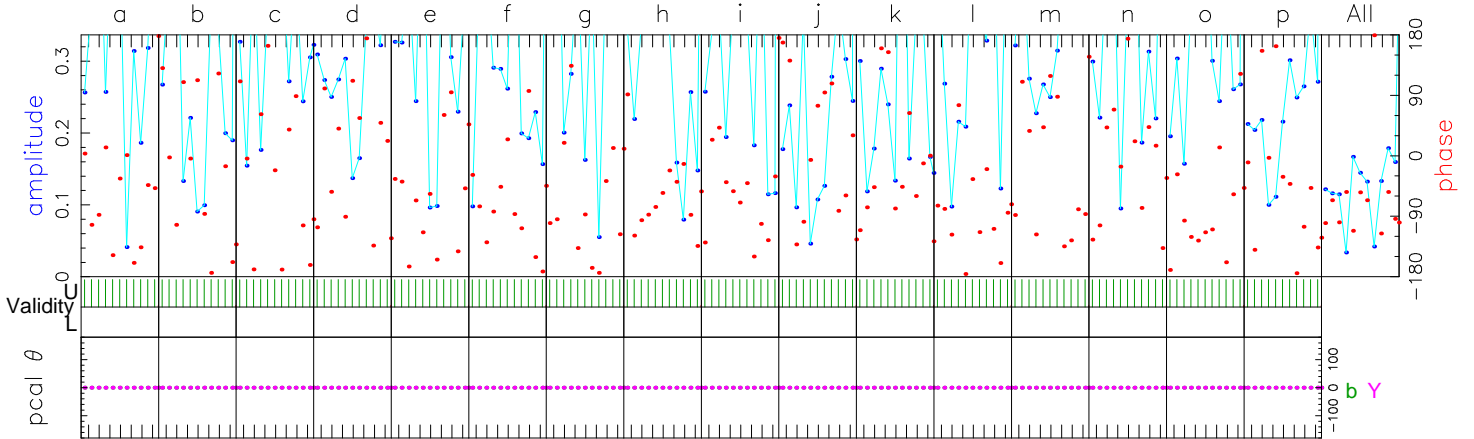


delay rate (ns/s)



Exp. c192a
 Exper # 16383
 Yr:day 2019:276
 Start 183017.92
 Stop 183659.84
 FRT 183330.00
 Corr/FF/build
 2020:083:003228
 2020:093:042754
 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



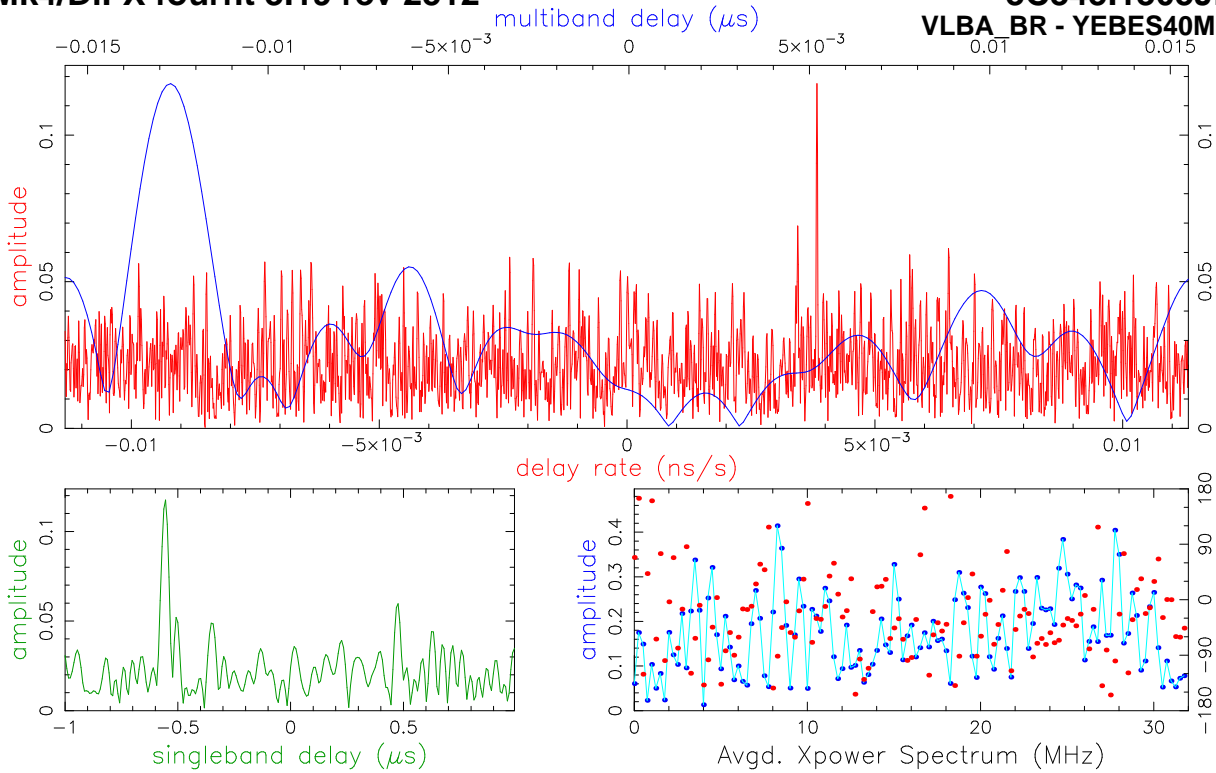
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-77.6	-145.3	151.2	10.6	-71.6	-89.6	-97.1	-72.2	-61.7	-110.4	-54.3	-81.7	-114.9	10.8	-112.5	-92.6	Phase	-85.4
	0.2	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.0	0.1	0.2	0.1	0.0	0.2	0.1	Ampl.	0.1
	133.9	82.4	218.6	217.0	48.0	183.2	107.0	139.1	187.7	182.2	180.0	240.2	204.4	30.6	9.1	35.7	Sbd box	240.2
U/L	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
b	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)	-6.82961534954E+03	Apriori delay (usec)	-6.83049604516E+03	Resid mbdelay (usec)	5.69562E-03	+/-	1.8E-04
Sband delay (usec)	-6.82962691216E+03	Apriori clock (usec)	-1.0264677E+01	Resid sbdelay (usec)	8.69133E-01	+/-	2.9E-03
Phase delay (usec)	-6.83049604791E+03	Apriori clockrate (us/s)	-4.6239510E-07	Resid phdelay (usec)	-2.75551E-06	+/-	6.1E-07
Delay rate (us/s)	1.32586136961E+00	Apriori rate (us/s)	1.32586376455E+00	Resid rate (us/s)	-2.39495E-06	+/-	2.6E-09
Total phase (deg)	-204.2	Apriori accel (us/s/s)	4.31182720075E-05	Resid phase (deg)	-85.4	+/-	19.0

ph/seg (deg)	RMS 36.7	Theor. 32.9	Amplitude Search (2048X64)	0.112 +/- 0.019	0.105	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	46.7	57.4	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.016	0.016	
ph/frq (deg)	54.6	38.0	Inc. seg. avg.	0.108		Bits/sample: 2x2	Sample rate(MISamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	64.3	66.3	Inc. frq. avg.	0.109		Data rate(Mb/s): 2048	nlags: 128	t_cohere infinite	ion window (TEC)	0.00	0.00

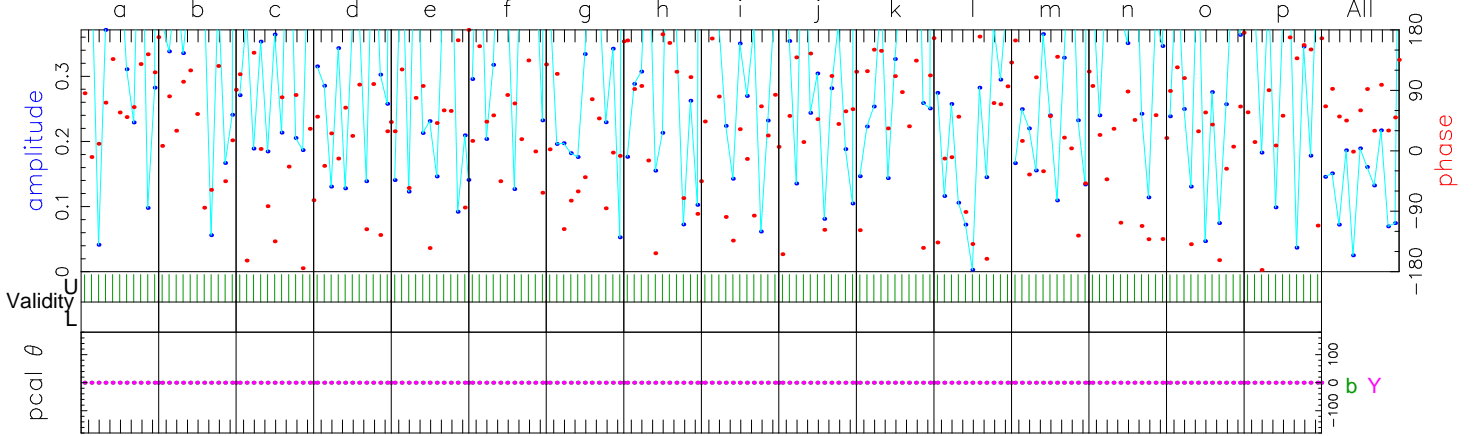
b: az 66.1 el 33.9 pa -52.6 Y: az 280.2 el 62.9 pa 77.1 u,v (fr/asec) -9803.997 3585.603 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bY..1305JH Output file: /Exps/c192a/v2/1234/No0001/bY.W.117.1305JH



Fringe quality 0
SNR 6.5
Int time 400.941
Amp 0.124
Phase 66.8
PFD 2.8e-02
Delays (us)
SBD -0.556430
MBD -0.012732
Fringe rate (Hz)
0.330192
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183017.92
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042739
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

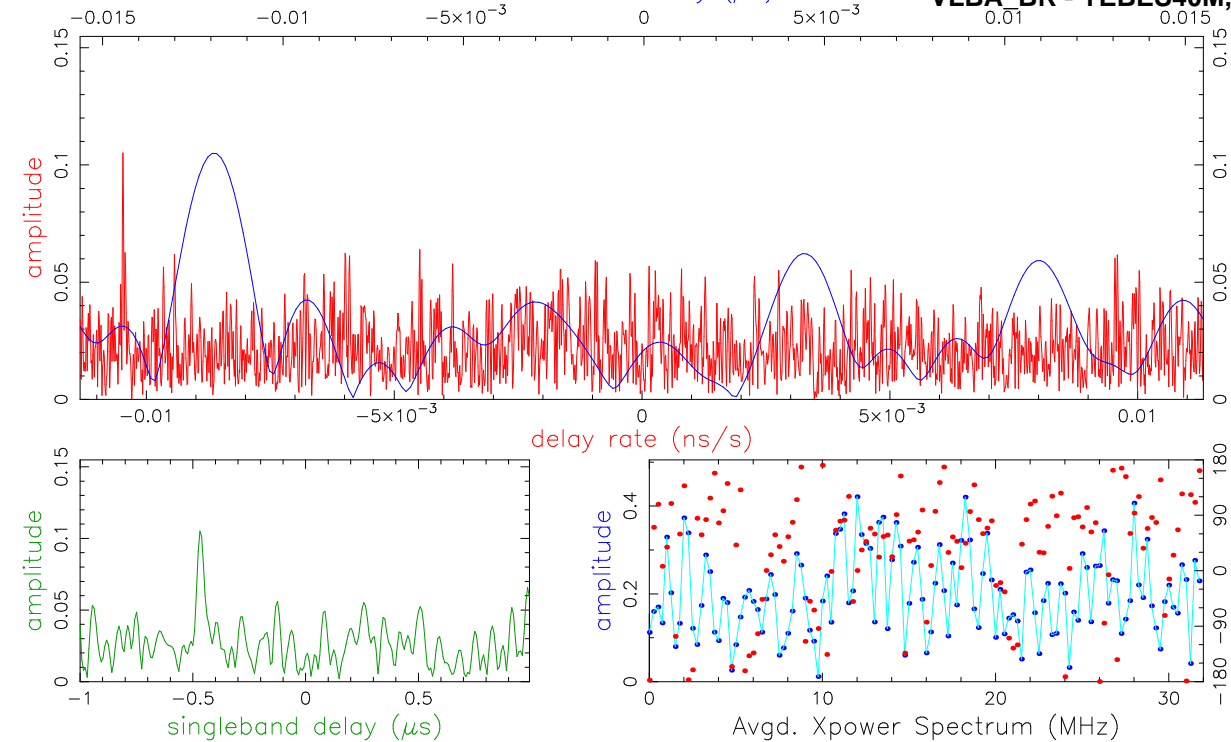
Amp. and Phase vs. time for each freq., 12 segs, 71 APs / seg (36.35 sec / seg.), time ticks 60 sec



	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
	87.4	59.0	22.5	43.5	78.7	44.7	5.0	130.0	47.6	69.1	118.2	92.7	5.0	30.2	57.9	112.6	Phase	66.8
	0.3	0.2	0.0	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	Ampl.	0.1
	43.8	224.3	66.1	132.4	35.3	46.4	163.1	236.9	55.0	132.7	57.9	30.5	231.4	139.6	137.4	53.1	Sbd box	57.8
U/L	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	-6.83104002666E+03			Apriori delay (usec)			-6.83049604516E+03			Resid mbdelay (usec)			-1.27315E-02			+/- 1.7E-04		
Sband delay (usec)	-6.83105247516E+03			Apriori clock (usec)			-1.0264677E+01			Resid sbdelay (usec)			-5.56430E-01			+/- 2.7E-03		
Phase delay (usec)	-6.83049604300E+03			Apriori clockrate (us/s)			-4.6239510E-07			Resid phdelay (usec)			2.15442E-06			+/- 5.7E-07		
Delay rate (us/s)	1.32586759775E+00			Apriori rate (us/s)			1.32586376455E+00			Resid rate (us/s)			3.83320E-06			+/- 2.5E-09		
Total phase (deg)	-52.0			Apriori accel (us/s/s)			4.31182720075E-05			Resid phase (deg)			66.8			+/- 17.7		

ph/seg (deg) RMS Theor. Amplitude 0.124 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 59.4 53.6 Search (2048X64) 0.113 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 40.1 35.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 49.0 61.9 Inc. seg. avg. 0.121 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 b: az 66.1 el 33.9 pa -52.6 Y: az 280.2 el 62.9 pa 77.1 u,v (fr/asec) -9803.997 3585.603 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bY..1305JH Output file: /Exps/c192a/v2/1234/No0001/bY.W.65.1305JH simultaneous interpolator

multiband delay (μ s)

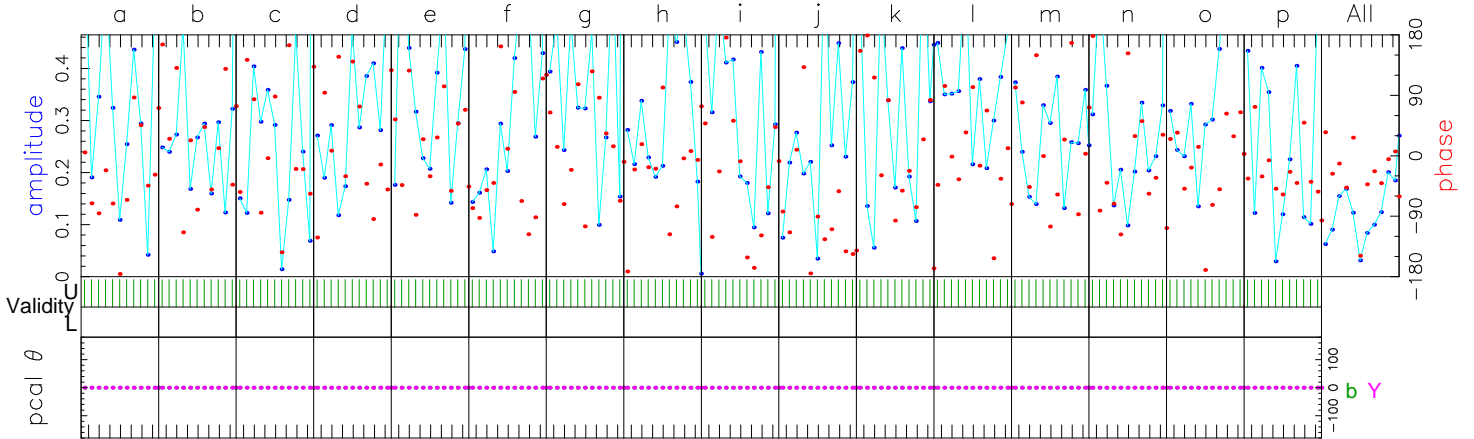


Fringe quality 0

SNR 5.8
 Int time 400.941
 Amp 0.155
 Phase -15.3
 PFD 8.2e-01
 Delays (us)
 SBD -0.466550
 MBD -0.011880
 Fringe rate (Hz)
 -0.903219
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c192a
 Exper # 16383
 Yr:day 2019:276
 Start 183017.92
 Stop 183659.84
 FRT 183330.00
 Corr/FF/build
 2020:083:003228
 2020:093:042744
 2020:014:135814
 RA & Dec (J2000)
 16h42m58.80967s
 +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
	-21.3	-18.7	8.7	-36.8	29.0	-104.5	20.9	-28.4	-15.1	-117.7	14.9	3.5	-14.6	-48.0	16.1	-33.6	Phase	-15.3
	0.3	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.3	0.1	0.2	0.3	0.3	Ampl.	0.2
	44.5	1.7	34.8	235.6	104.1	65.4	41.9	123.2	217.6	227.6	141.7	9.1	110.0	31.3	155.9	254.0	Sbd box	69.3
U/L	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	

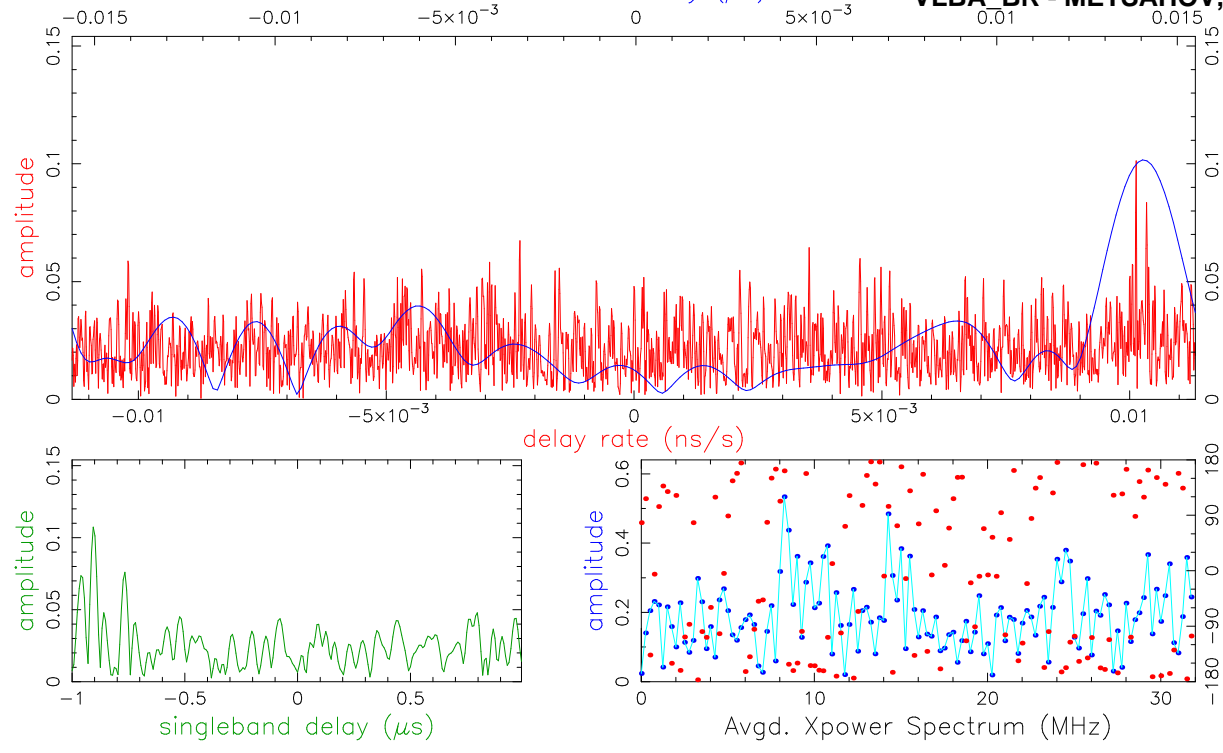
Group delay (usec)(sbd)	-6.83097667501E+03	Apriori delay (usec)	-6.83049604516E+03	Resid mbdelay (usec)	-1.18799E-02	+/-	1.9E-04
Sband delay (usec)	-6.83096259566E+03	Apriori clock (usec)	-1.0264677E+01	Resid sbdelay (usec)	-4.66550E-01	+/-	3.0E-03
Phase delay (usec)	-6.83049604565E+03	Apriori clockrate (us/s)	-4.6239510E-07	Resid phdelay (usec)	-4.94517E-07	+/-	6.4E-07
Delay rate (us/s)	1.32585327908E+00	Apriori rate (us/s)	1.32586376455E+00	Resid rate (us/s)	-1.04855E-05	+/-	2.7E-09
Total phase (deg)		Apriori accel (us/s/s)	4.31182720075E-05	Resid phase (deg)	-15.3	+/-	19.8

ph/seg (deg)	48.0	Theor.	34.2	Amplitude	0.155 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	50.7	Search (2048X64)	0.103	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	43.6	Inc. seg. avg.	0.150	Inc. frq. avg.	0.158	Bits/sample: 2x2	mb window (us) -0.016 0.016
amp/frq (%)	62.2	Inc. frq. avg.	0.158			SampCntNorm: enabled	dr window (ns/s) -0.011 0.011
						Sample rate(MISamp/s): 64	ion window (TEC) 0.00 0.00
						Data rate(Mb/s): 2048	
						nlags: 128 t_cohere infinite	

b: az 66.1 el 33.9 pa -52.6 Y: az 280.2 el 62.9 pa 77.1 u,v (fr/asec) -9803.997 3585.603 simultaneous interpolator

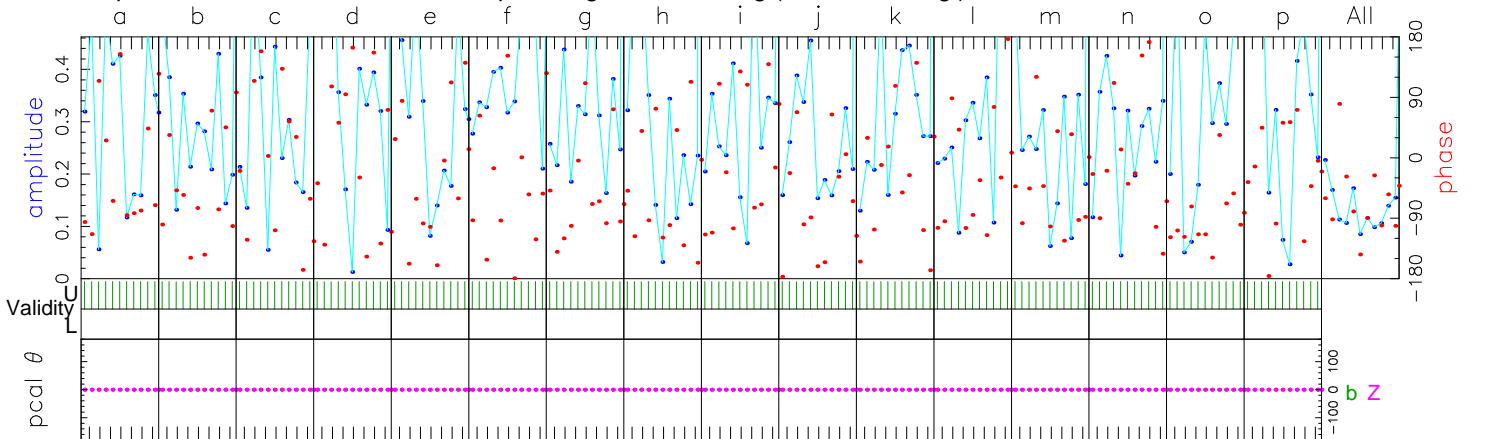
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bY..1305JH Output file: /Exps/c192a/v2/1234/No0001/bY.W.83.1305JH

multiband delay (μ s)



Fringe quality 0
SNR 6.0
Int time 406.169
Amp 0.154
Phase -73.3
PFD 4.8e-01
Delays (us)
SBD -0.904289
MBD 0.013975
Fringe rate (Hz)
0.873898
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042752
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec

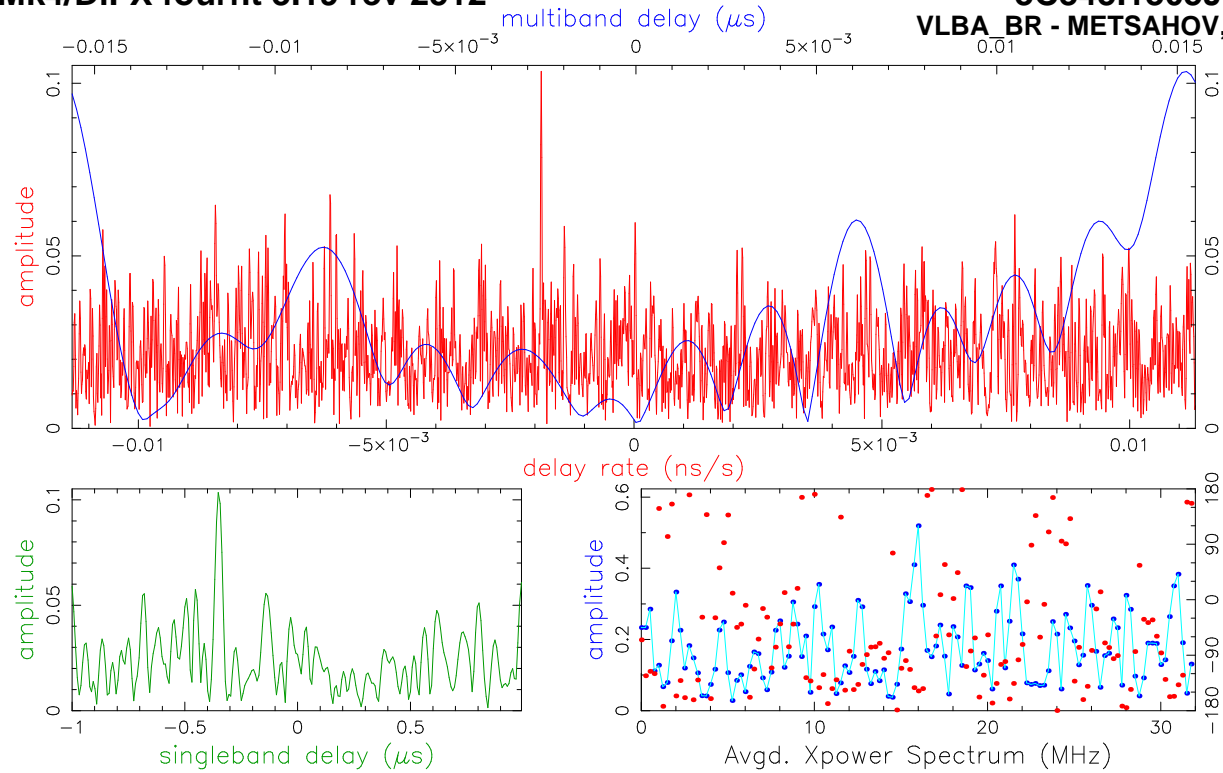


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-65.1	-74.6	167.1	-156.7	-50.6	-77.0	-75.2	-84.5	-88.4	-59.5	-34.2	-80.6	-65.7	-90.6	-93.9	-16.1		Phase	-73.3
	0.2	0.2	0.0	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.4	0.2		Ampl.	0.1
	151.7	49.7	91.5	141.4	32.0	172.4	110.1	177.2	89.5	149.1	124.0	204.9	159.2	187.2	13.0	101.9		Sbd box	13.3
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
b	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	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks	
																		Chan ids	
																		Tracks	
Group delay (usec)(sbd)	-3.35319081688E+03			Apriori delay (usec)			-3.35229854166E+03			Resid mbdelay (usec)			1.39748E-02			+/- 1.8E-04			
Sband delay (usec)	-3.35320283066E+03			Apriori clock (usec)			-7.9490691E-01			Resid sbdelay (usec)			-9.04289E-01			+/- 2.9E-03			
Phase delay (usec)	-3.35229854403E+03			Apriori clockrate (us/s)			-2.5868787E-07			Resid phdelay (usec)			-2.36515E-06			+/- 6.2E-07			
Delay rate (us/s)	1.31904864813E+00			Apriori rate (us/s)			1.31903850304E+00			Resid rate (us/s)			1.01451E-05			+/- 2.6E-09			
Total phase (deg)	-209.7			Apriori accel (us/s/s)			8.90330107089E-06			Resid phase (deg)			-73.3			+/- 19.2			

ph/seg (deg) 56.6 33.3 Search (2048X64) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 50.9 58.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 44.7 38.5 Inc. seg. avg. 0.167 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 48.5 67.1 Inc. frq. avg. 0.133 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 66.1 el 33.9 pa -52.6 Z: az 271.4 el 46.7 pa 40.3 u,v (fr/asec) -9815.245 -139.631 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bZ..1305JH Output file: /Exps/c192a/v2/1234/No0001/bZ.W.105.1305JH simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bZ
VLBA_BR - METSAHOV, fgroup W, pol LR

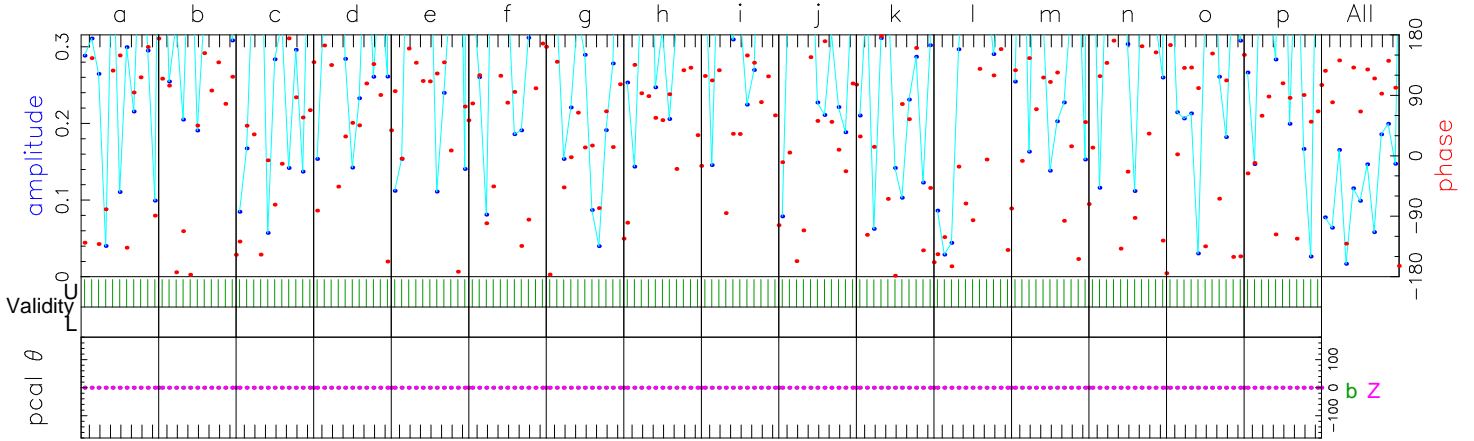


Fringe quality 0

SNR 5.7
Int time 406.169
Amp 0.105
Phase 118.0
PFD 9.1e-01
Delays (us)
SBD -0.349735
MBD -0.016037
Fringe rate (Hz)
-0.161164
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042756
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 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				
	161.6	129.8	48.5	97.3	130.0	118.2	77.4	80.6	96.1	133.2	-120.8	-137.8	77.7	171.1	175.3	78.8	Phase	118.0				
	0.2	0.3	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.0	0.1	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1				
	68.9	83.4	127.8	253.6	134.3	117.8	205.1	232.5	84.5	109.1	117.1	58.8	248.8	139.9	3.2	208.2	Sbd box	84.2				
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp					
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-3.35265832910E+03														Apriori delay (usec)	-3.35229854166E+03	Resid mbdelay (usec)	-1.60374E-02	+/-	1.9E-04
Sband delay (usec)			-3.35264827666E+03														Apriori clock (usec)	-7.9490691E-01	Resid sbdelay (usec)	-3.49735E-01	+/-	3.0E-03
Phase delay (usec)			-3.35229853786E+03														Apriori clockrate (us/s)	-2.5868787E-07	Resid phdelay (usec)	3.80499E-06	+/-	6.4E-07
Delay rate (us/s)			1.31903663208E+00														Apriori rate (us/s)	1.31903850304E+00	Resid rate (us/s)	-1.87096E-06	+/-	2.7E-09
Total phase (deg)					-18.3												Apriori accel (us/s/s)	8.90330107089E-06	Resid phase (deg)	118.0	+/-	20.0

ph/seg (deg) 41.8 34.6
amp/seg (%) 58.0 60.4
ph/frq (deg) 57.3 40.0
amp/frq (%) 71.2 69.8

RMS Theor. Amplitude 0.105 +/- 0.018
Search (2048X64) 0.102
Interp. 0.000
Inc. seg. avg. 0.100
Inc. frq. avg. 0.111

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

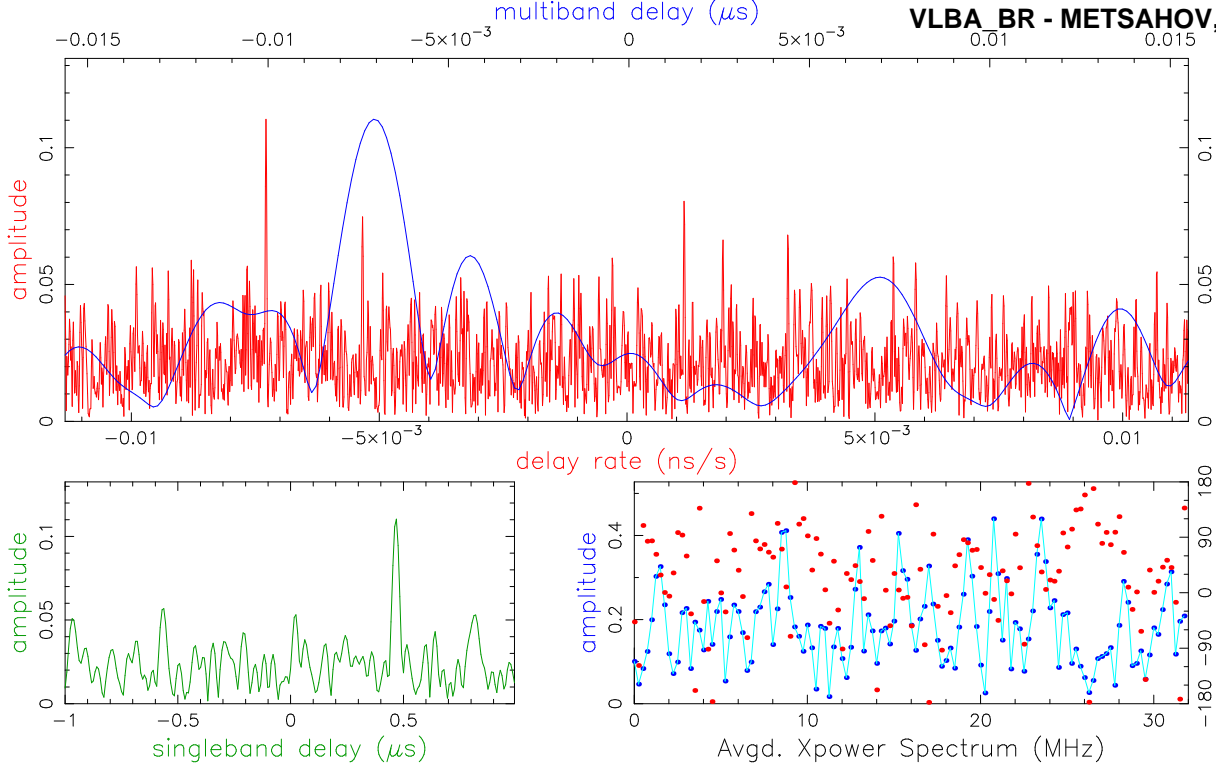
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

b: az 66.1 el 33.9 pa -52.6
Z: az 271.4 el 46.7 pa 40.3
u,v (fr/asec) -9815.245 -139.631
simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bZ..1305JH Output file: /Exps/c192a/v2/1234/No0001/bZ.W.124.1305JH

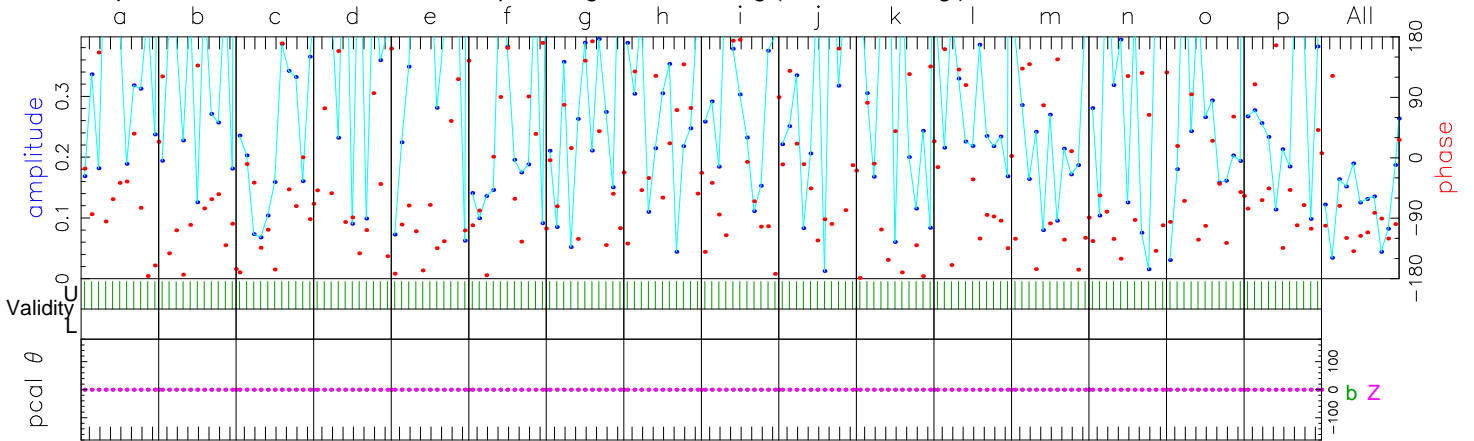
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, bZ
VLBA_BR - METSAHOV, fgroup W, pol RL



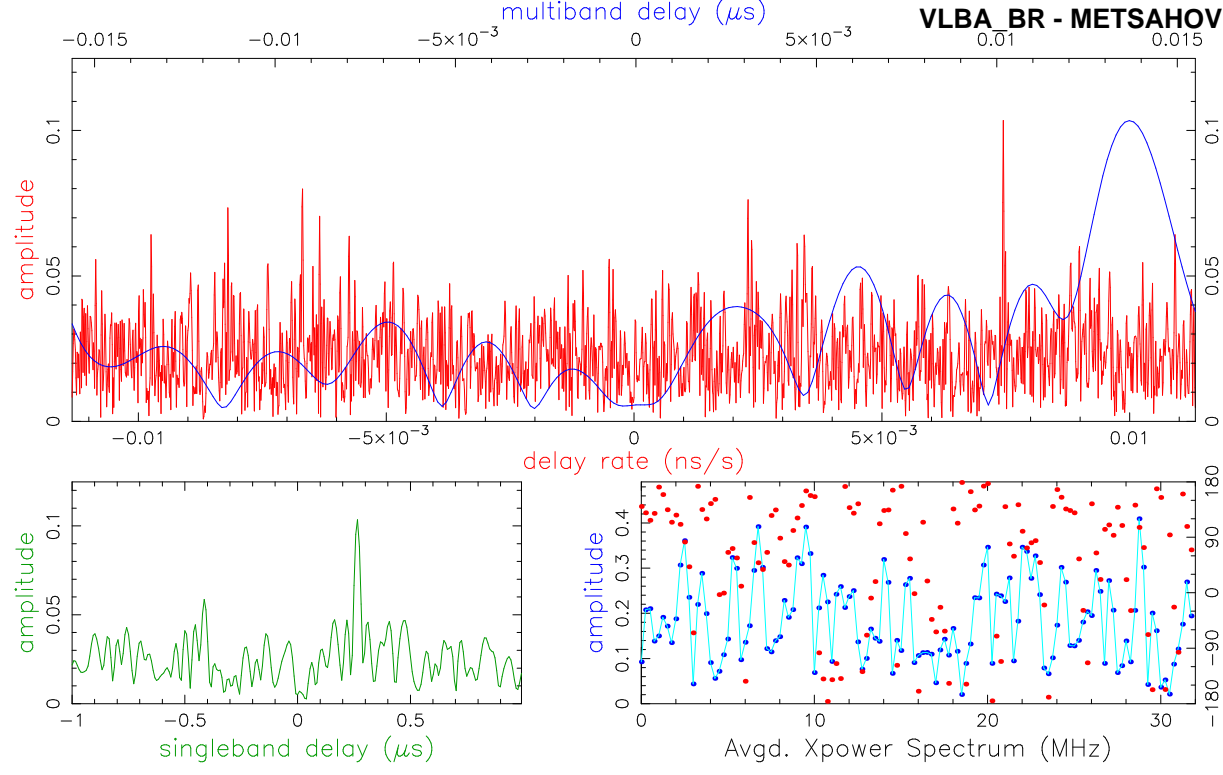
Fringe quality 0
SNR 6.1
Int time 406.169
Amp 0.133
Phase -106.8
PFD 2.1e-01
Delays (us)
SBD 0.466570
MBD -0.007030
Fringe rate (Hz)
-0.628206
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042801
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-78.0	-112.3	-94.4	-103.1	-122.2	95.3	-115.7	-31.9	-125.1	-62.0	-168.5	-116.4	-145.5	-115.4	-57.6	-72.9	Phase	-106.8					
	0.2	0.3	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.3	0.1	0.2	Ampl.	0.1					
	30.9	150.3	239.2	92.9	248.7	201.7	61.0	149.4	221.2	79.3	43.6	95.7	136.7	155.0	134.9	225.4	Sbd box	188.7					
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used						
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs						
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase						
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC						
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp						
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids						
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks						
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids						
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks						
Group delay (usec)(sbd)			-3.35183682211E+03														Apriori delay (usec)	-3.35229854166E+03	Resid mbdelay (usec)	-7.03045E-03	+/-	1.8E-04	
Sband delay (usec)			-3.35183197166E+03															Apriori clock (usec)	-7.9490691E-01	Resid sbdelay (usec)	4.66570E-01	+/-	2.8E-03
Phase delay (usec)			-3.35229854510E+03															Apriori clockrate (us/s)	-2.5868787E-07	Resid phdelay (usec)	-3.44303E-06	+/-	6.0E-07
Delay rate (us/s)			1.31903121019E+00															Apriori rate (us/s)	1.31903850304E+00	Resid rate (us/s)	-7.29285E-06	+/-	2.6E-09
Total phase (deg)					-243.1													Apriori accel (us/s/s)	8.90330107089E-06	Resid phase (deg)	-106.8	+/-	18.7

ph/seg (deg) 44.3 32.4 Search (2048X64) 0.133 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 46.8 56.5 Interp. 0.104 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.6 37.4 Inc. seg. avg. 0.128 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 55.5 65.3 Inc. frq. avg. 0.134 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 66.1 el 33.9 pa -52.6 Z: az 271.4 el 46.7 pa 40.3 u,v (fr/asec) -9815.245 -139.631 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bZ..1305JH Output file: /Exps/c192a/v2/1234/No0001/bZ.W.142.1305JH

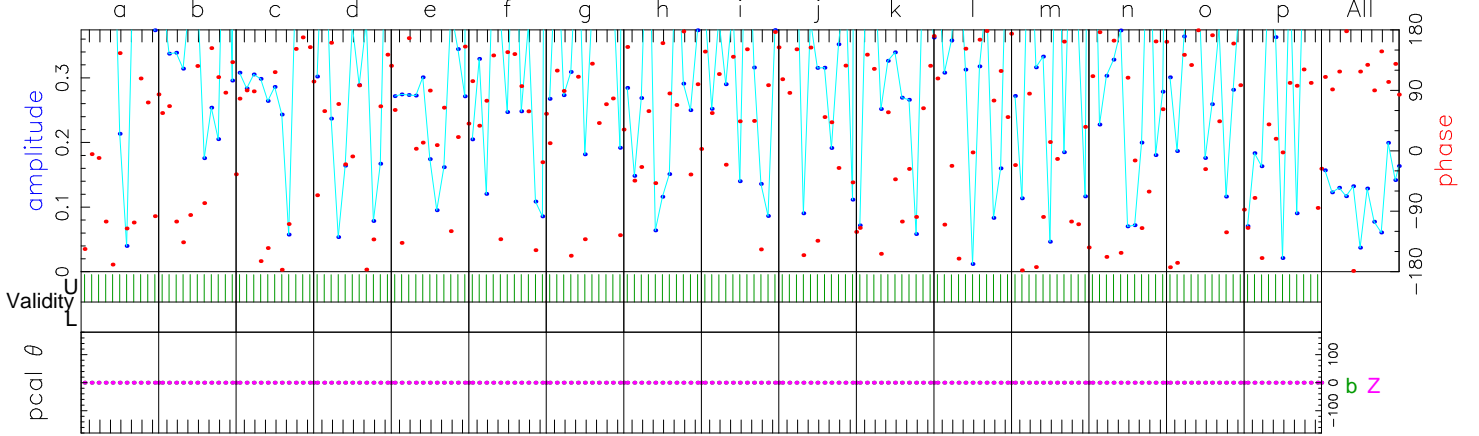


Fringe quality 0

SNR 5.7
Int time 406.169
Amp 0.125
Phase 124.4
PFD 9.3e-01
Delays (us)
SBD 0.264382
MBD 0.013674
Fringe rate (Hz) 0.642555
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042747
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-128.1	118.3	147.9	102.7	52.6	120.8	97.0	69.3	127.1	116.5	112.8	146.5	-79.2	172.8	147.7	80.4	Phase	124.4				
	0.1	0.1	0.3	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1				
	30.8	214.8	109.9	101.2	93.3	70.2	161.9	169.1	108.3	149.6	127.7	120.0	112.4	147.4	111.0	105.1	Sbd box	162.8				
UL	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-3.35203486800E+03														Apriori delay (usec)	-3.35229854166E+03	Resid mbdelay (usec)	1.36737E-02	+/-	1.9E-04
Sband delay (usec)			-3.35203415966E+03														Apriori clock (usec)	-7.9490691E-01	Resid sbdelay (usec)	2.64382E-01	+/-	3.0E-03
Phase delay (usec)			-3.35229853765E+03														Apriori clockrate (us/s)	-2.5868787E-07	Resid phdelay (usec)	4.01160E-06	+/-	6.5E-07
Delay rate (us/s)			1.31904596247E+00														Apriori rate (us/s)	1.31903850304E+00	Resid rate (us/s)	7.45943E-06	+/-	2.8E-09
Total phase (deg)					-11.9												Apriori accel (us/s/s)	8.90330107089E-06	Resid phase (deg)	124.4	+/-	20.0

ph/seg (deg) 29.8 34.7
amp/seg (%) 44.3 60.6
ph/frq (deg) 60.7 40.1
amp/frq (%) 58.3 70.0

RMS Theor. Amplitude 0.125 +/- 0.022
Search (2048X64) 0.102
Interp. 0.000
Inc. seg. avg. 0.121
Inc. frq. avg. 0.131

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

b: az 66.1 el 33.9 pa -52.6 Z: az 271.4 el 46.7 pa 40.3 u,v (fr/asec) -9815.245 -139.631 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/bZ..1305JH Output file: /Exps/c192a/v2/1234/No0001/bZ.W.88.1305JH