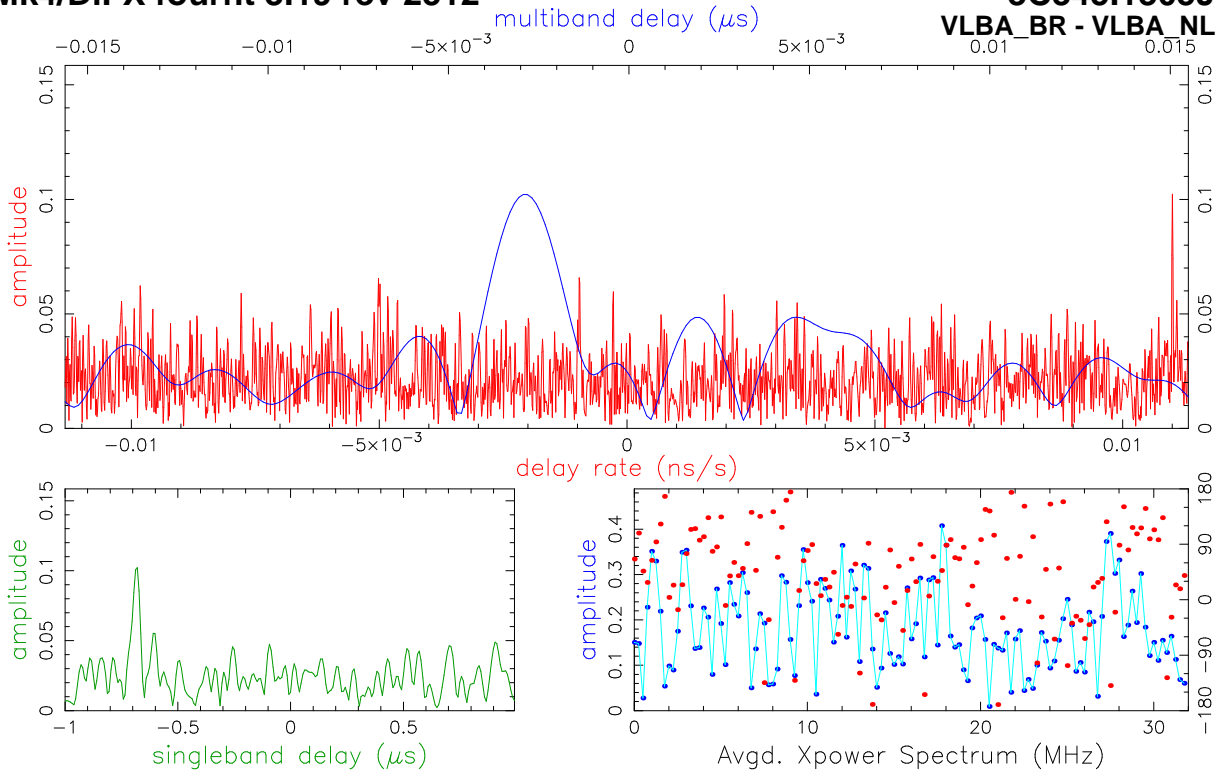


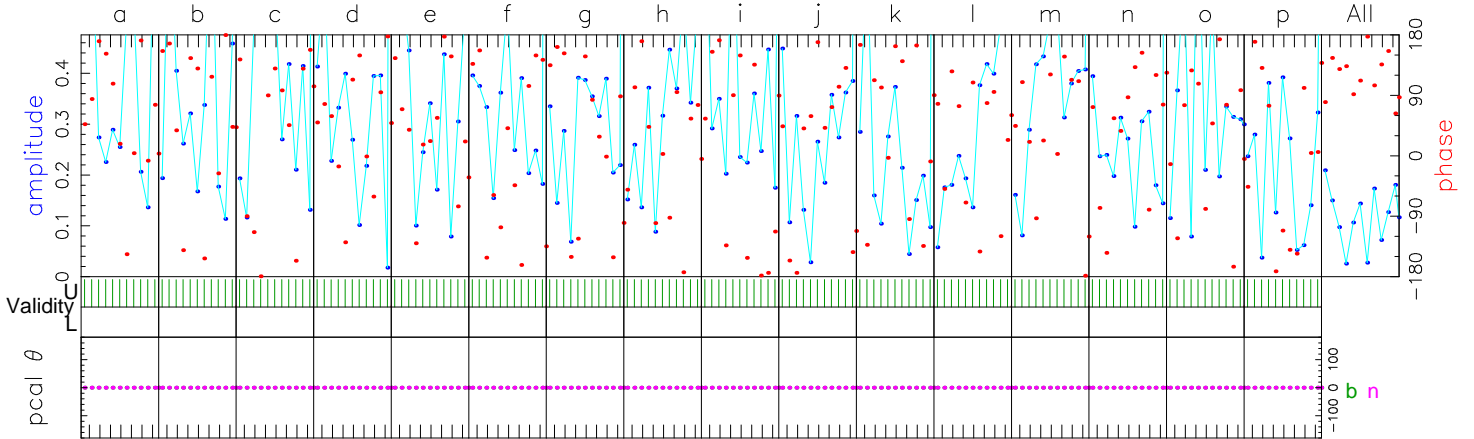
Mk4/DiFX fourfit 3.19 rev 2512

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

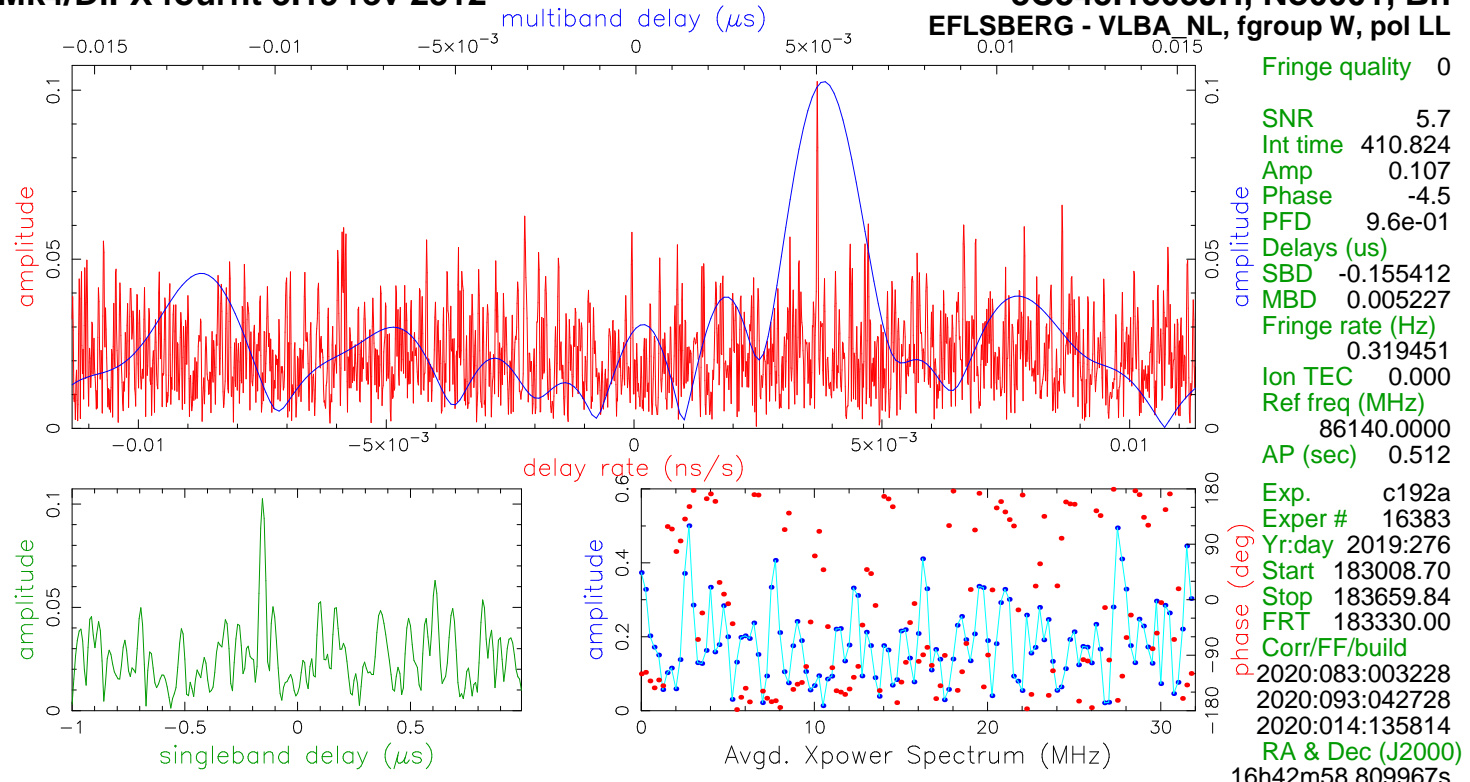


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
74.0	134.4	137.1	53.6	62.2	171.9	132.6	76.3	139.4	120.0	-179.7	60.3	89.4	92.6	97.8	-126.4	Phase	109.7	
0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.2	0.1	0.2	0.1	0.3	0.0	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	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	

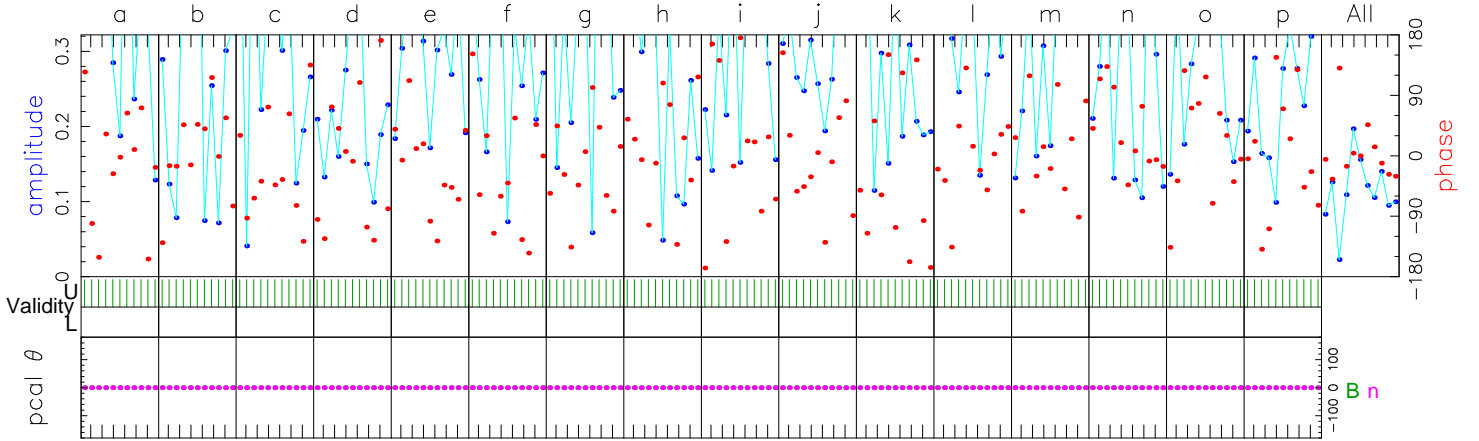
ph/seg (deg) 34.4 34.7 Search (2048X64) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 57.4 60.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 52.2 40.1 Inc. seg. avg. 0.154 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 57.1 69.9 Inc. frq. avg. 0.160 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.18.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, Bn
EFLSBERG - VLBA_NL, fgroup W, pol LL



Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 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	
	40.7	24.8	-9.0	-6.6	-15.9	-74.6	-23.2	14.4	-17.2	-4.1	-116.3	0.6	10.7	26.3	25.7	-19.6	Phase	-4.5	
	0.1	0.1	0.1	0.0	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1	
	195.8	64.8	166.4	152.4	176.4	12.0	24.0	77.9	185.5	147.7	76.3	89.4	122.8	16.6	127.3	249.0	Sbd box	109.1	
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	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		
																	Tracks		
Group delay (usec)(sbd)			1.06449966021E+03								1.06465068296E+03						Resid mbdelay (usec)	5.22725E-03	+/- 1.9E-04
Sband delay (usec)			1.06449527096E+03								-9.6362743E+00						Resid sbdelay (usec)	-1.55412E-01	+/- 3.0E-03
Phase delay (usec)			1.06465068281E+03								-3.3422351E-07						Resid phdelay (usec)	-1.44532E-07	+/- 6.5E-07
Delay rate (us/s)			-1.25230983041E+00								-1.25231353893E+00						Resid rate (us/s)	3.70851E-06	+/- 2.7E-09
Total phase (deg)				294.3							1.93173982764E-06						Resid phase (deg)	-4.5	+/- 20.1

ph/seg (deg) 46.2 33.4 Search (2048X64) 0.101 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

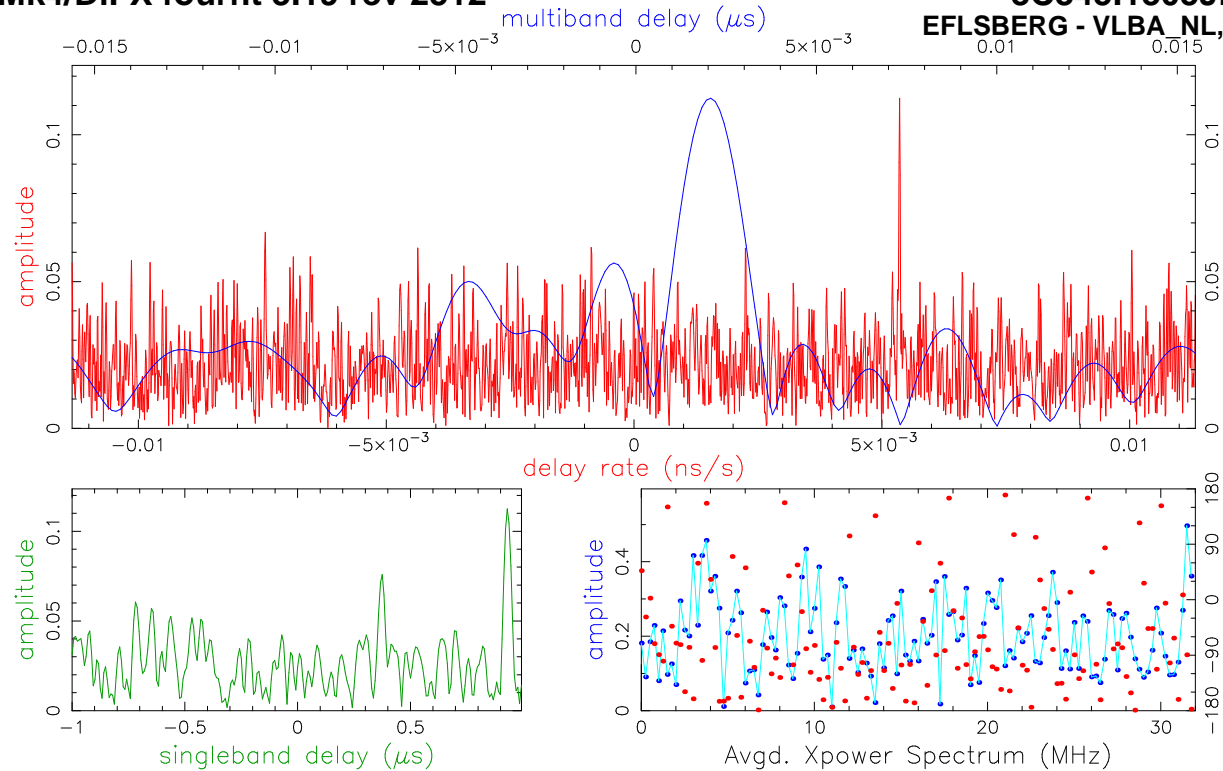
amp/seg (%) 42.5 58.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 41.1 40.3 Inc. seg. avg. 0.102 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 51.3 70.3 Inc. frq. avg. 0.104 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 269.2 el 56.7 pa 55.8 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 9336.331 733.935 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.23.1305JH

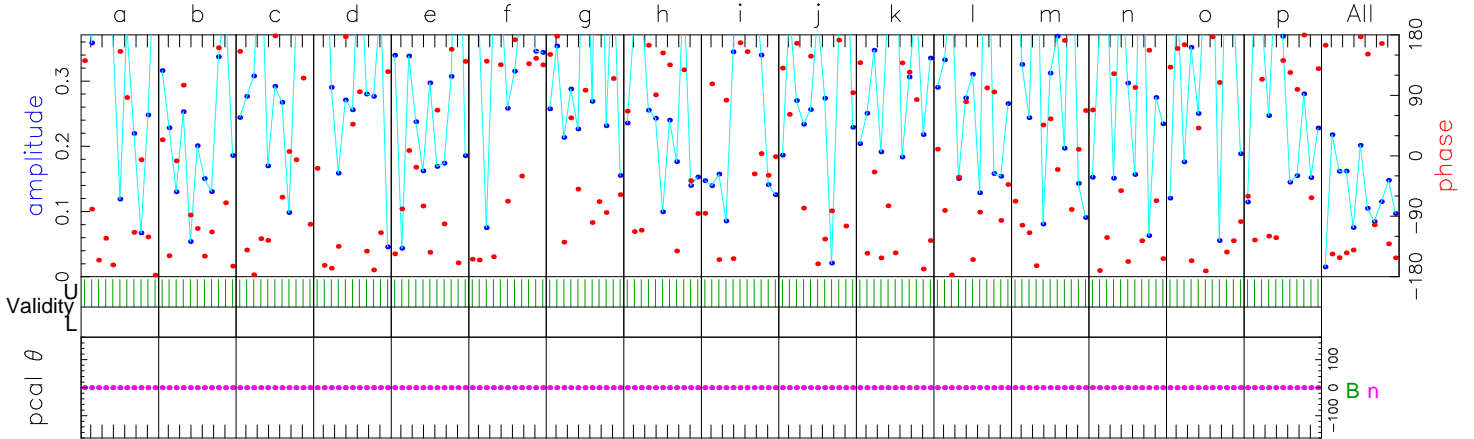


Fringe quality 0

SNR 6.2
Int time 410.824
Amp 0.124
Phase -156.7
PFD 1.1e-01
Delays (us)
SBD 0.930403
MBD 0.002054
Fringe rate (Hz)
0.462338
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
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., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec

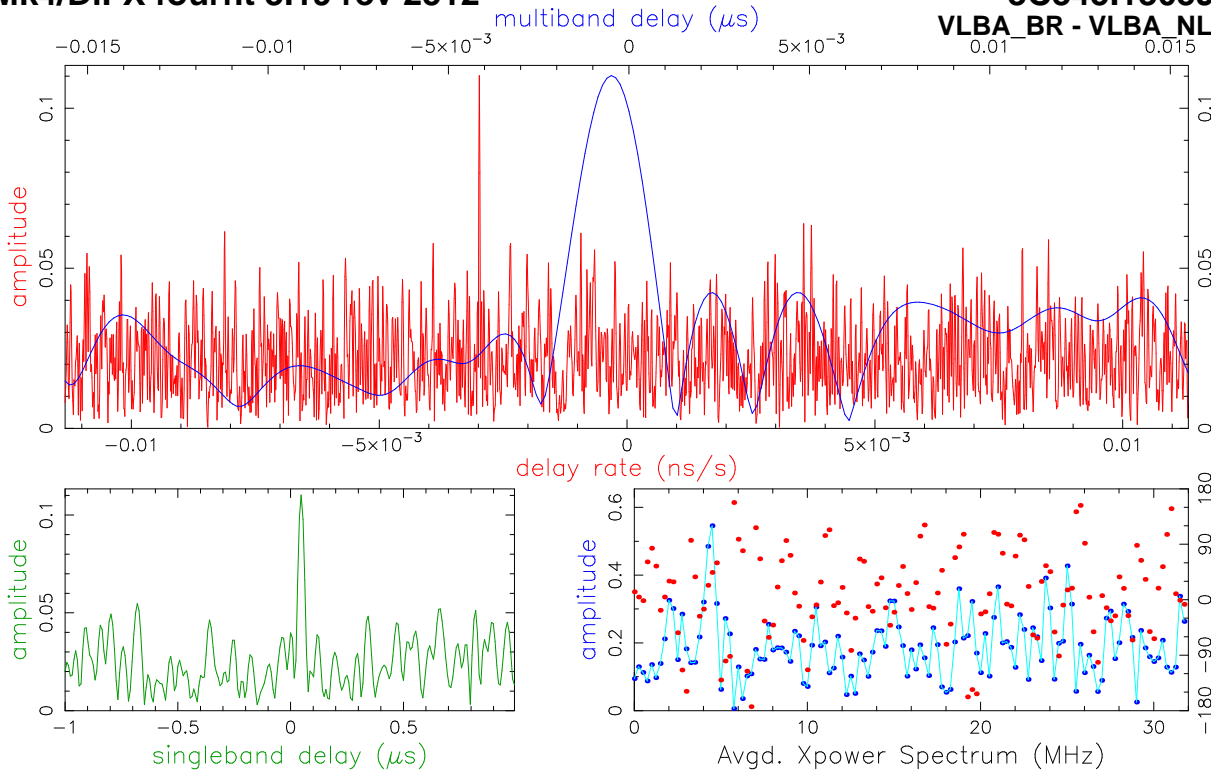


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-156.5	-129.4	-136.5	-161.4	-147.1	173.8	-144.3	-179.3	-169.0	-173.0	-157.9	140.2	-86.1	-130.5	-168.2	-173.9	Phase	-156.7				
	0.3	0.1	0.2	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.3	0.1	Ampl.	0.1				
	246.0	210.5	48.0	84.3	229.6	135.6	4.3	213.2	233.2	139.0	73.7	169.1	26.9	189.1	190.8	172.7	Sbd box	248.1				
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			1.06559023726E+03														Apriori delay (usec)	1.06465068296E+03	Resid mbdelay (usec)	2.05430E-03	+/-	1.7E-04
Sband delay (usec)			1.06558108546E+03														Apriori clock (usec)	-9.6362743E+00	Resid sbdelay (usec)	9.30403E-01	+/-	2.8E-03
Phase delay (usec)			1.06465067790E+03														Apriori clockrate (us/s)	-3.3422351E-07	Resid phdelay (usec)	-5.05206E-06	+/-	5.9E-07
Delay rate (us/s)			-1.25230817164E+00														Apriori rate (us/s)	-1.25231353893E+00	Resid rate (us/s)	5.36728E-06	+/-	2.5E-09
Total phase (deg)				142.1													Apriori accel (us/s/s)	1.93173982764E-06	Resid phase (deg)	-156.7	+/-	18.4

ph/seg (deg) RMS Theor. Amplitude 0.124 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 51.5 53.2 Search (2048X64) 0.110 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 30.8 36.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 56.9 64.1 Inc. seg. avg. 0.121 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 B: az 269.2 el 56.7 pa 55.8 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 9336.331 733.935 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/Bn..1305JH Output file: /Exps/c192a/v2/1234/No0001/Bn.W.42.1305JH simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

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

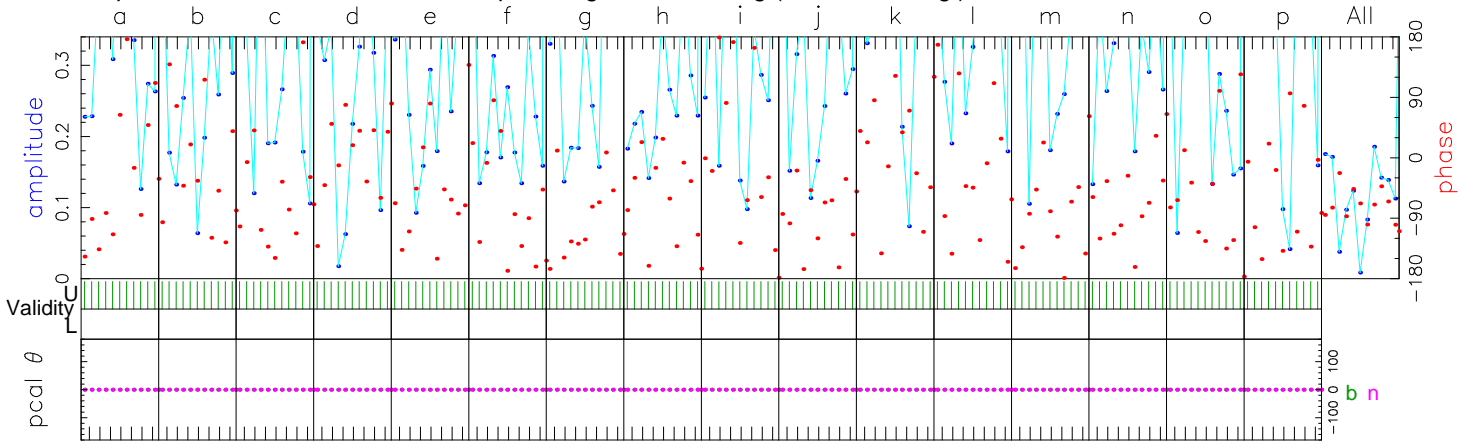


Fringe quality 0

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

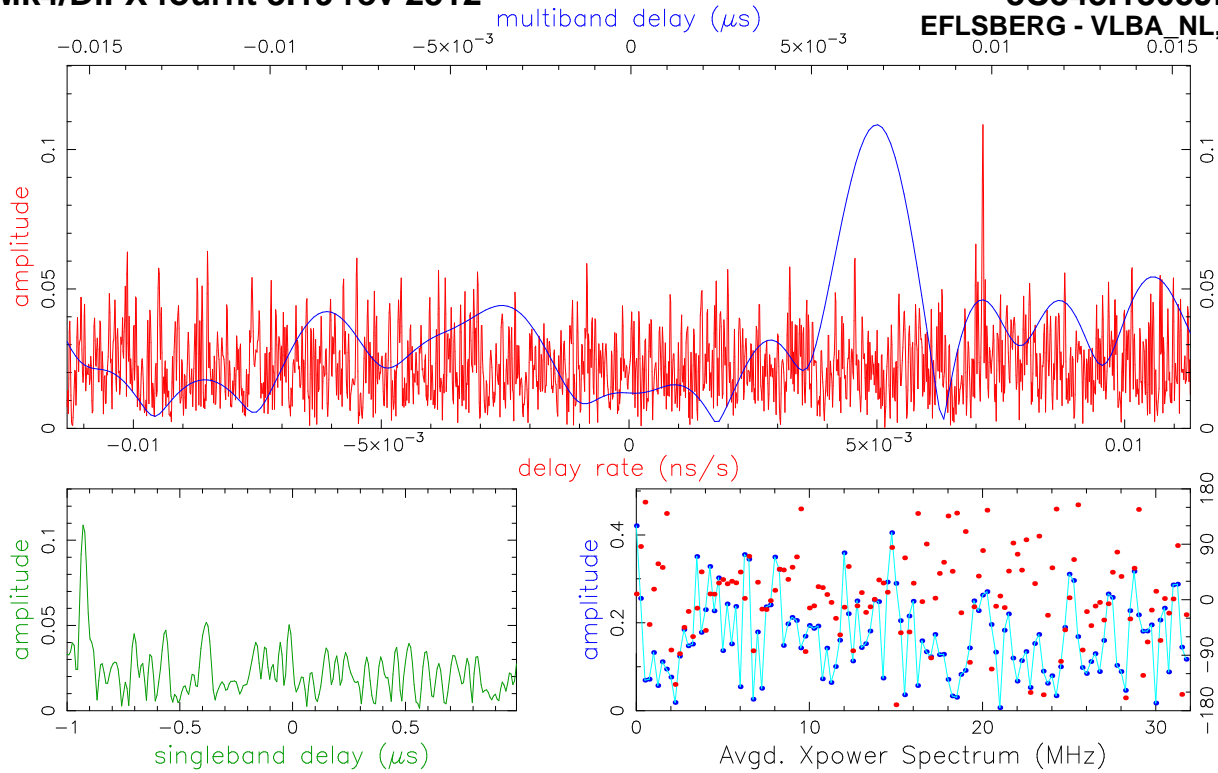
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042737
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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 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.59.1305JH

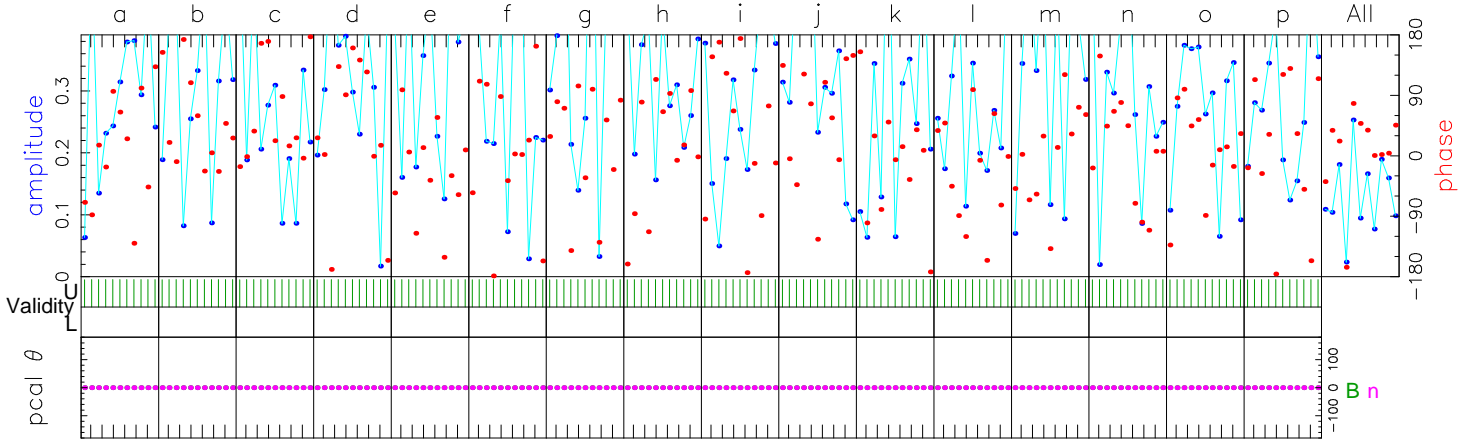


Fringe quality 0

SNR 6.1
Int time 410.824
Amp 0.130
Phase 28.3
PFD 2.5e-01
Delays (us)
SBD -0.927310
MBD 0.006794
Fringe rate (Hz) 0.616045
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
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"

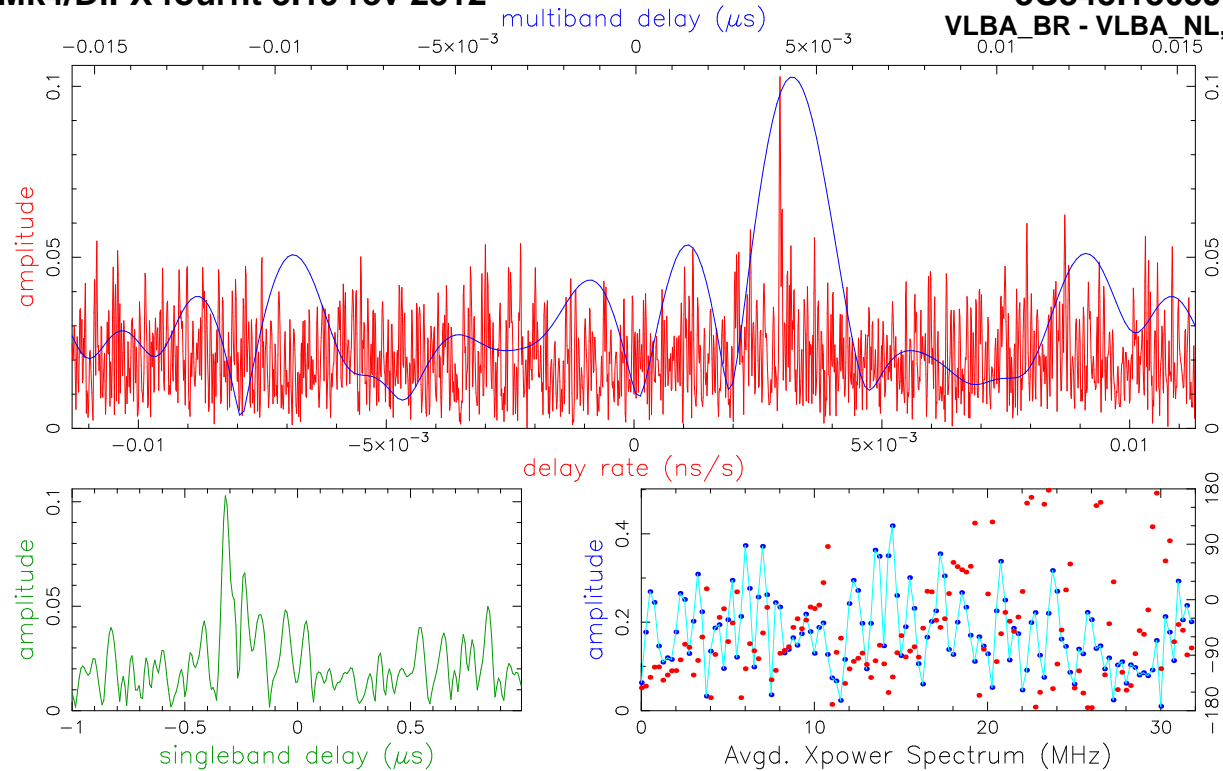
Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec



	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				
	-8.3	22.4	21.8	136.1	-19.7	46.3	55.7	58.2	5.6	68.5	18.6	-11.8	12.2	19.6	29.8	128.6	Phase	28.3				
	0.1	0.2	0.1	0.2	0.3	0.1	0.3	0.1	0.0	0.1	0.2	0.1	0.2	0.2	0.2	0.1	Ampl.	0.1				
	224.8	62.7	100.5	5.2	79.2	131.7	10.7	228.8	251.2	20.9	77.2	171.0	79.2	215.9	188.5	169.3	Sbd box	10.3				
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	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)		1.06371997714E+03															Apriori delay (usec)	1.06465068296E+03	Resid mbdelay (usec)	6.79418E-03	+/-	1.8E-04
Sband delay (usec)		1.06372337296E+03															Apriori clock (usec)	-9.6362743E+00	Resid sbdelay (usec)	-9.27310E-01	+/-	2.8E-03
Phase delay (usec)		1.06465068387E+03															Apriori clockrate (us/s)	-3.3422351E-07	Resid phdelay (usec)	9.11898E-07	+/-	6.1E-07
Delay rate (us/s)		-1.25230638726E+00															Apriori rate (us/s)	-1.25231353893E+00	Resid rate (us/s)	7.15167E-06	+/-	2.6E-09
Total phase (deg)				327.0													Apriori accel (us/s/s)	1.93173982764E-06	Resid phase (deg)	28.3	+/-	18.8

ph/seg (deg) 58.3 31.2 Amplitude 0.130 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 59.2 54.4 Search (2048X64) 0.108 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 47.5 37.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 65.1 65.7 Inc. seg. avg. 0.137 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.134 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 269.2 el 56.7 pa 55.8 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 9336.331 733.935 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.62.1305JH

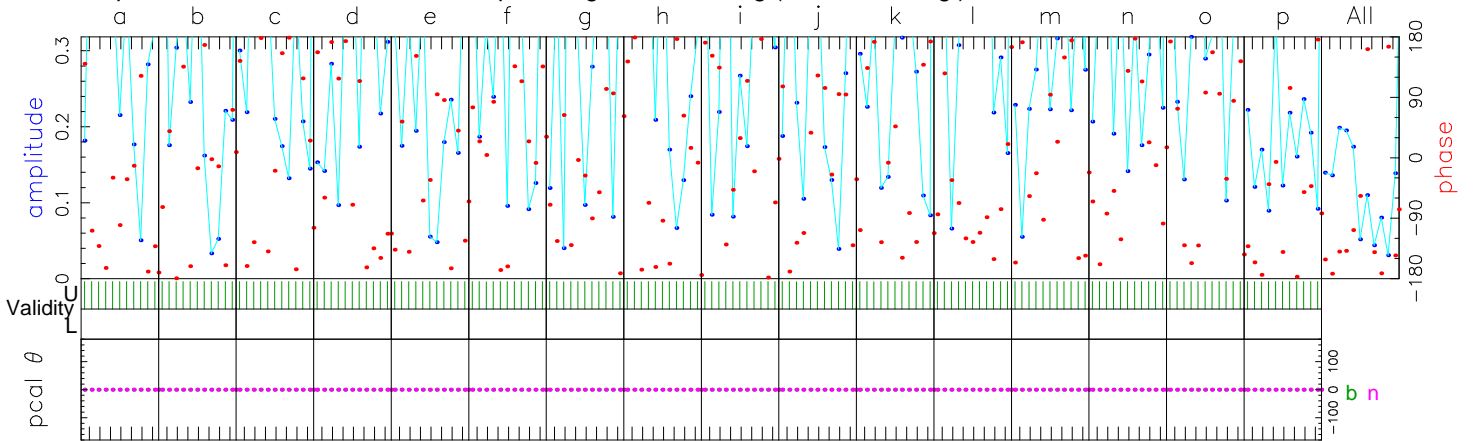


Fringe quality 0

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

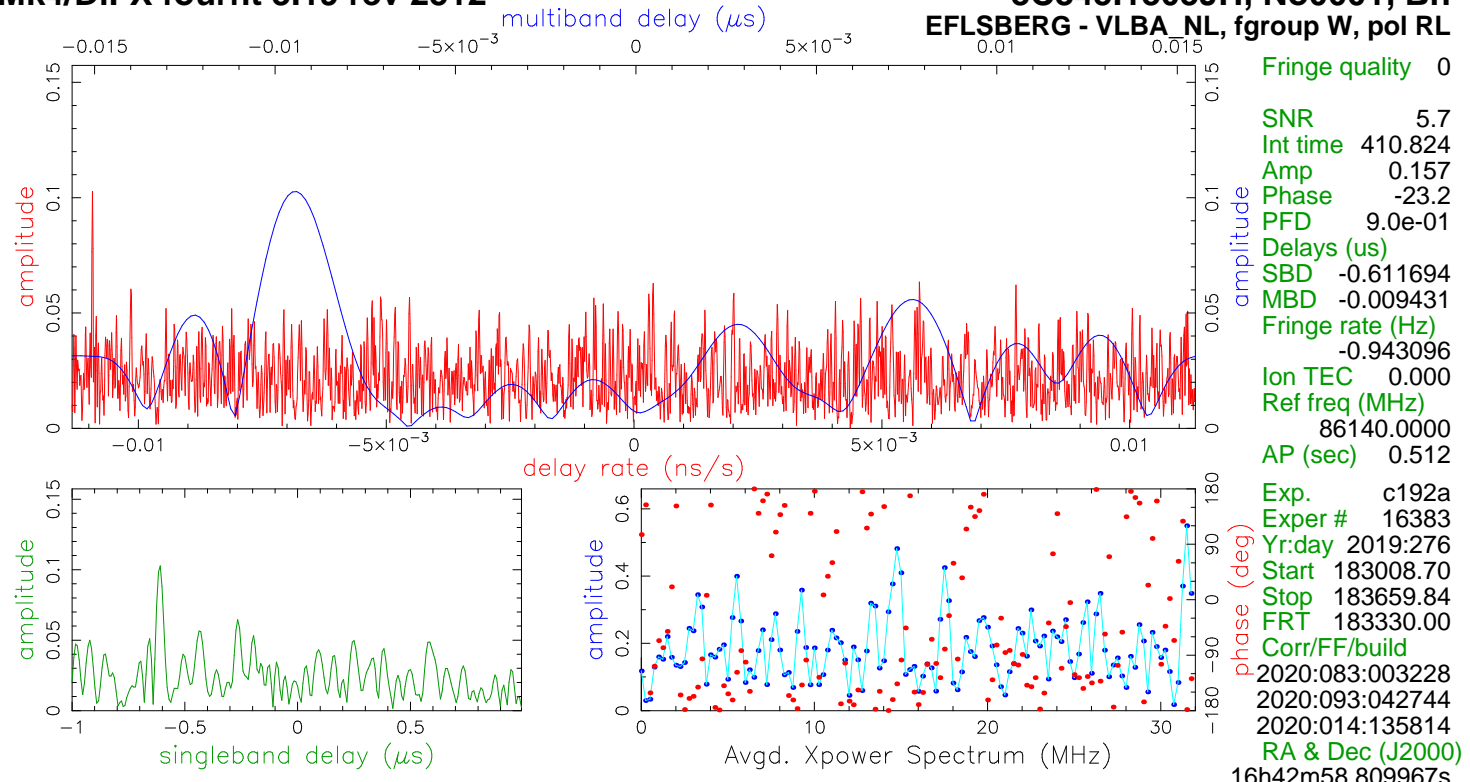


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-118.9	-99.0	-167.0	-150.3	-130.7	111.2	-115.8	-140.4	-158.0	162.9	-142.1	-104.9	-141.1	-96.5	154.3	-102.1	Phase	-145.6
	0.2	0.0	0.2	0.1	0.2	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		

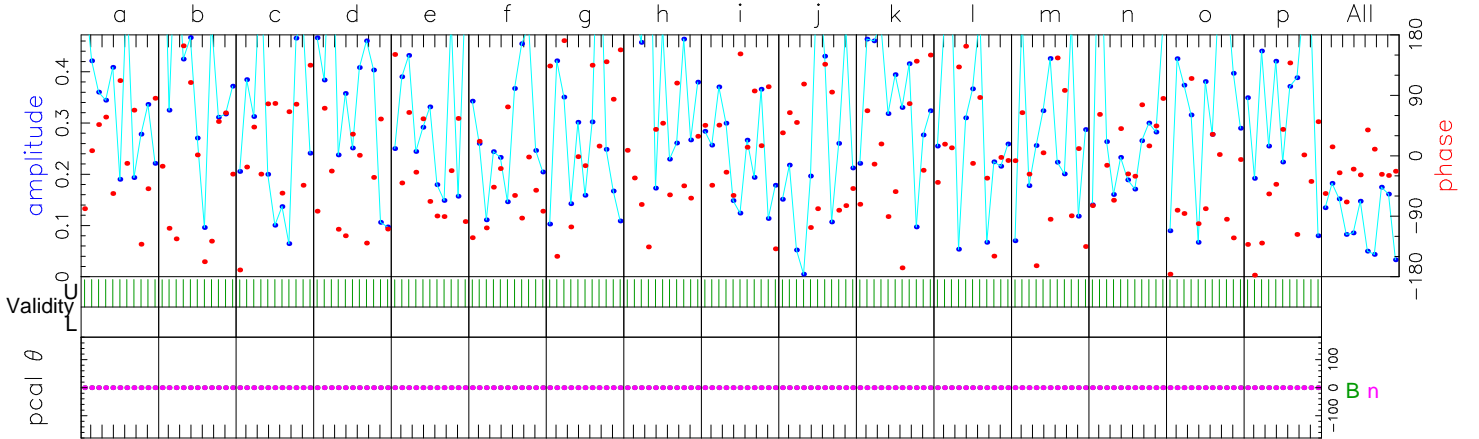
ph/seg (deg) RMS Theor. Amplitude 0.106 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.8 60.9 Search (2048X64) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 44.4 40.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -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



Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 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					
	-9.0	-65.1	12.1	-45.6	-33.4	-50.9	102.5	-33.1	18.2	-72.0	4.5	16.6	-65.8	36.6	-65.7	-70.6		Phase	-23.2				
	0.3	0.1	0.2	0.3	0.2	0.3	0.1	0.3	0.2	0.1	0.1	0.2	0.1	0.3	0.3	0.2		Ampl.	0.2				
	205.0	11.7	42.3	81.8	73.0	53.2	160.8	194.3	57.0	199.2	197.9	98.9	214.4	127.7	44.6	239.0		Sbd box	50.7				
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0		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		Chan ids					
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			1.06404750196E+03															Apriori delay (usec)	1.06465068296E+03	Resid mbdelay (usec)	-9.43099E-03	+/-	1.9E-04
Sband delay (usec)			1.06403898896E+03															Apriori clock (usec)	-9.6362743E+00	Resid sbdelay (usec)	-6.11694E-01	+/-	3.0E-03
Phase delay (usec)			1.06465068221E+03															Apriori clockrate (us/s)	-3.3422351E-07	Resid phdelay (usec)	-7.46740E-07	+/-	6.4E-07
Delay rate (us/s)			-1.25232448734E+00															Apriori rate (us/s)	-1.25231353893E+00	Resid rate (us/s)	-1.09484E-05	+/-	2.7E-09
Total phase (deg)				275.6														Apriori accel (us/s/s)	1.93173982764E-06	Resid phase (deg)	-23.2	+/-	20.0

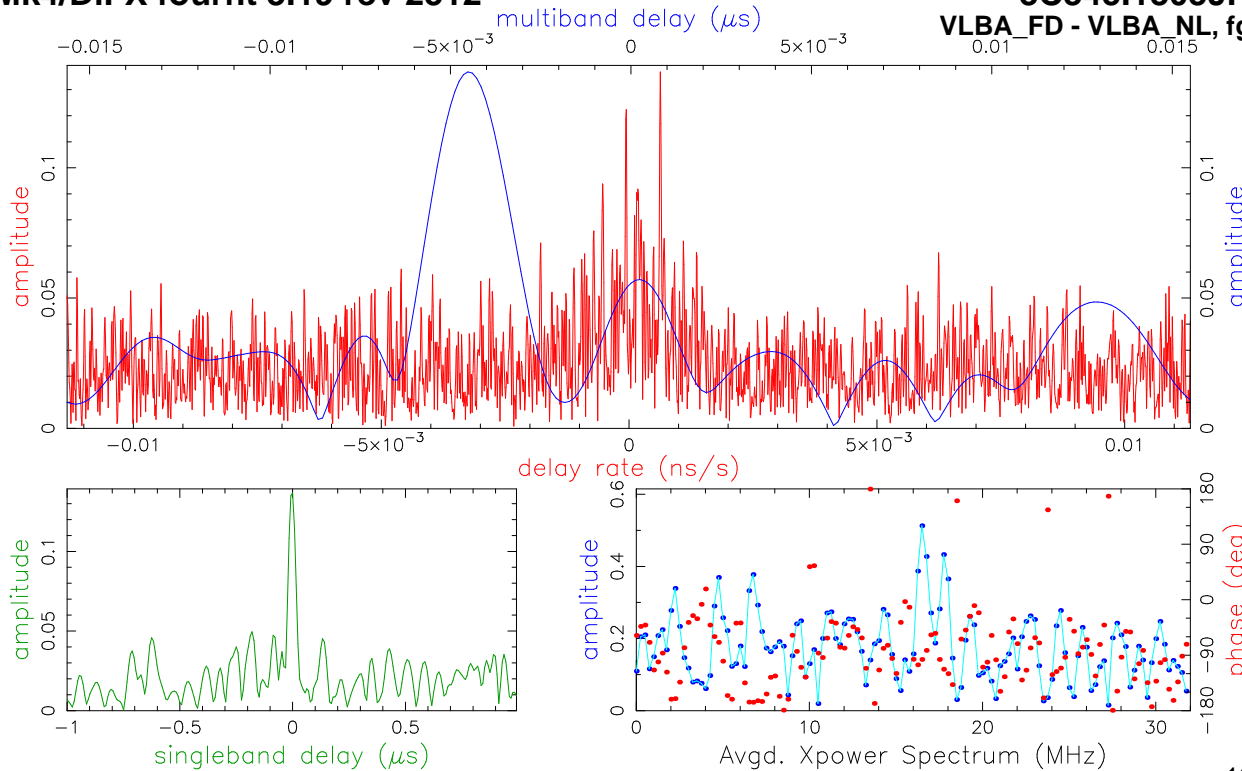
	RMS	Theor.	Amplitude	0.157 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	29.3	33.1	Search (2048X64)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	52.1	57.8	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.016 0.016
ph/frq (deg)	51.0	39.9	Inc. seg. avg.	0.148	Sample rate(MISamp/s): 64	dr window (ns/s) -0.011 0.011
amp/frq (%)	55.1	69.7	Inc. frq. avg.	0.161	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
					nlags: 128	t_cohere infinite

B: az 269.2 el 56.7 pa 55.8 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 9336.331 733.935 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.82.1305JH

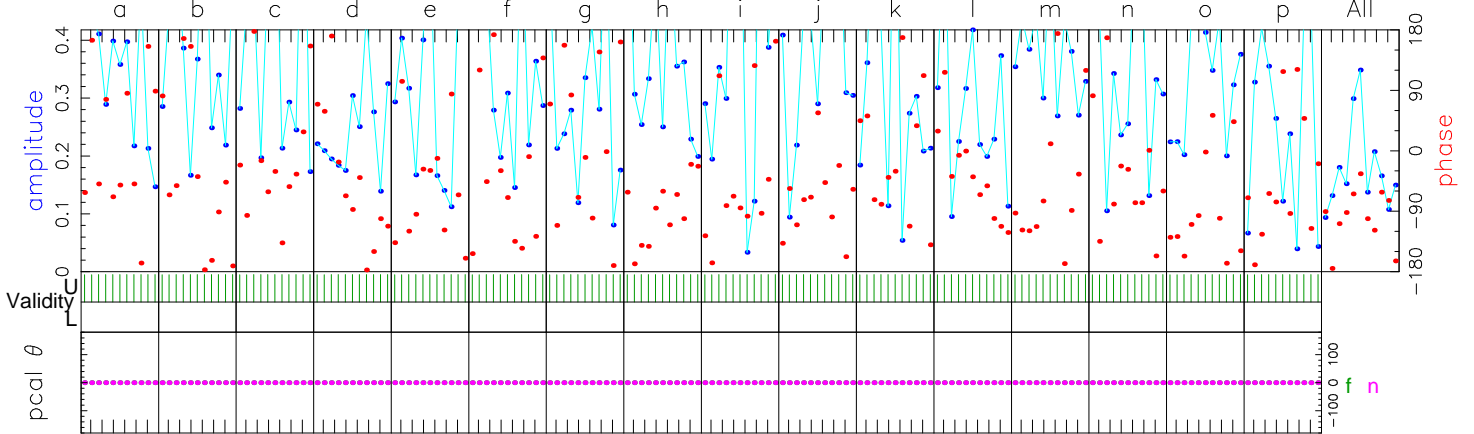
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, fn
VLBA_FD - VLBA_NL, fgroup W, pol RR



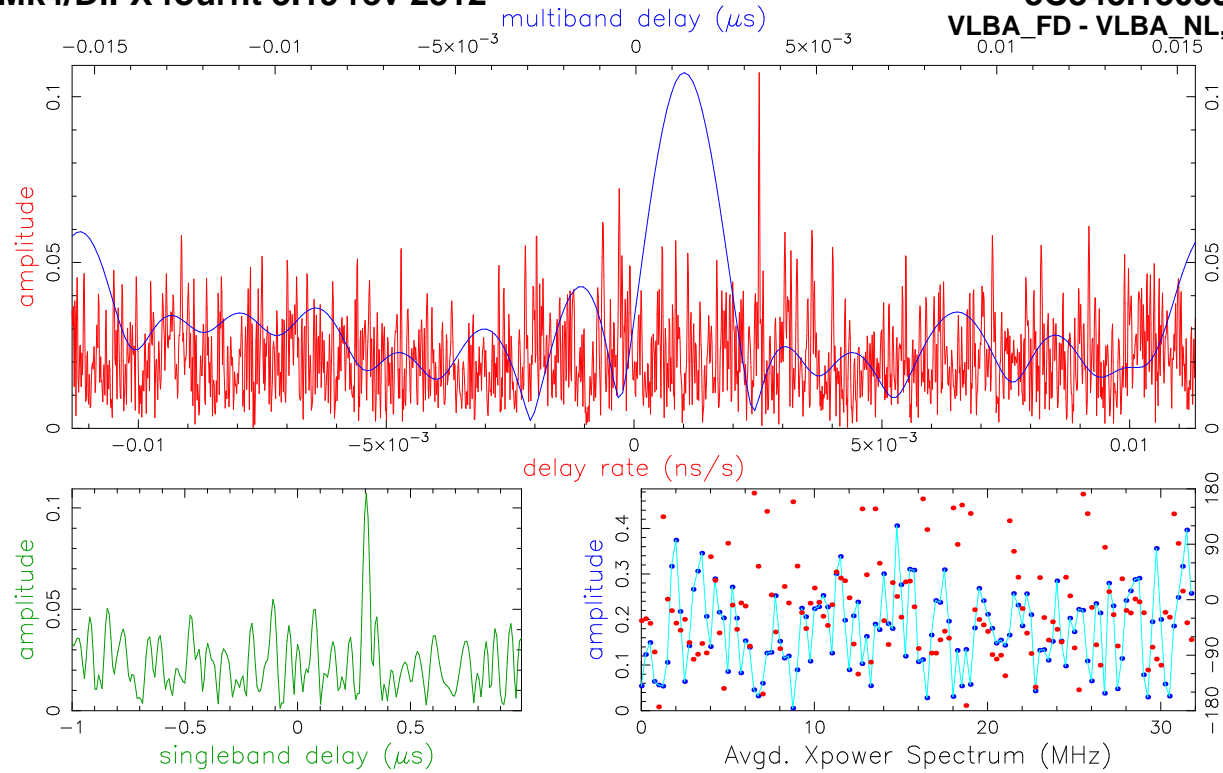
Fringe quality 9
SNR 7.7
Int time 410.452
Amp 0.139
Phase -87.5
PFD 4.2e-06
Delays (us)
SBD -0.003364
MBD -0.004527
Fringe rate (Hz) 0.054008
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042755
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec



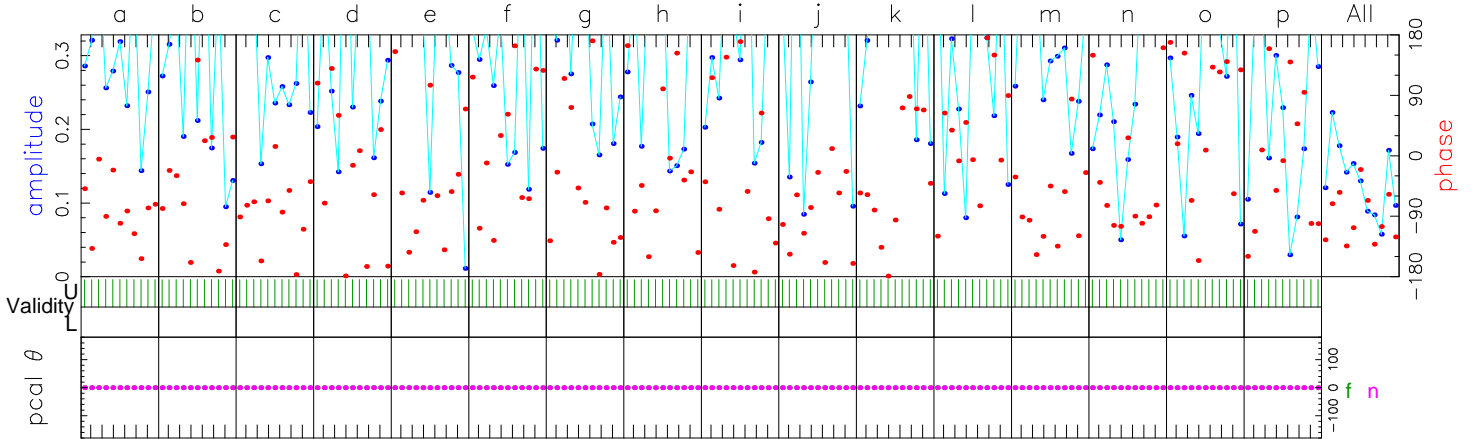
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fn	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)			-3.57270629382E+03															
Sband delay (usec)			-3.57270513059E+03															
Phase delay (usec)			-3.57270176941E+03															
Delay rate (us/s)			2.24320942709E-01															
Total phase (deg)					-150.2													
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		
PCal mode: MANUAL, MANUAL																		
PCal rate: 0.000E+00, 0.000E+00 (us/s)																		
Bits/sample: 2x2																		
Sample rate(MISamp/s): 64																		
Data rate(Mb/s): 2048																		
nlags: 128																		
t_cohere infinite																		
ion window (TEC)																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		

ph/seg (deg) 41.9 24.7 Search (2048X64) 0.130 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 61.3 43.0 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 29.7 Inc. seg. avg. 0.165 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 49.8 51.9 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
f: az 61.0 el 37.1 pa -78.2 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1661.023 -549.903 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/fn..1305JH Output file: /Exps/c192a/v2/1234/No0001/fn.W.121.1305JH



Fringe quality 0
SNR 5.9
Int time 410.452
Amp 0.109
Phase -85.5
PFD 5.2e-01
Delays (us)
SBD 0.304637
MBD 0.001340
Fringe rate (Hz)
0.217325
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042807
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec

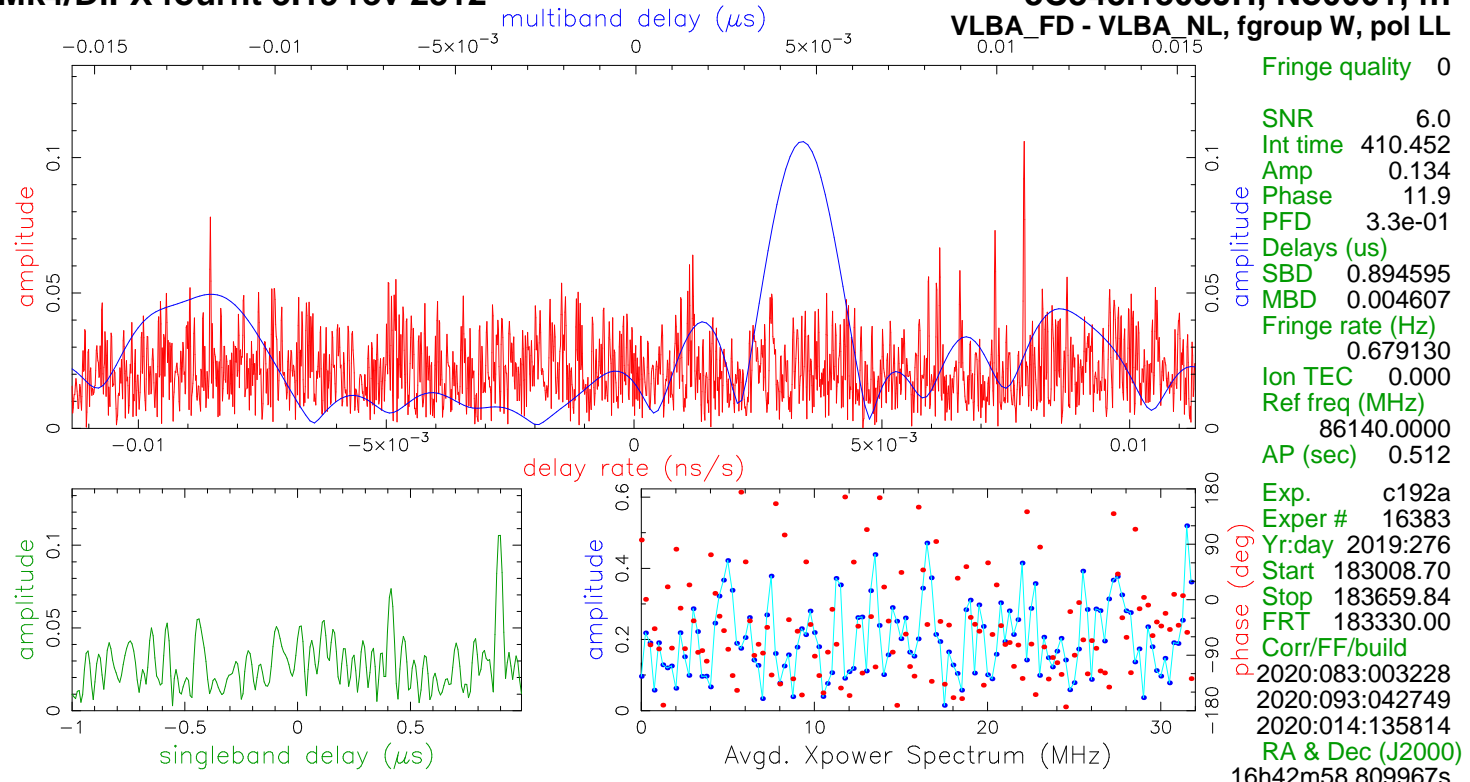


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-78.6	-55.9	-81.5	-169.3	-92.6	99.6	-92.5	-102.0	-133.3	-64.4	-72.0	-17.0	-88.0	-96.8	125.4	-71.4		Phase	-85.5				
	0.2	0.1	0.2	0.0	0.2	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.2	0.2	0.0	0.1		Ampl.	0.1				
	117.1	241.1	167.1	24.3	167.6	30.2	136.3	16.4	58.7	168.5	22.1	215.1	168.2	58.7	255.6	229.1		Sbd box	168.0				
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0		APs used					
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase					
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC					
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC amp					
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Tracks					
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks					
Group delay (usec)(sbd)			-3.57238792640E+03															Apriori delay (usec)	-3.57270176659E+03	Resid mbdelay (usec)	1.34019E-03	+/-	1.8E-04
Sband delay (usec)			-3.57239712909E+03															Apriori clock (usec)	-2.6020557E+01	Resid sbdelay (usec)	3.04637E-01	+/-	2.9E-03
Phase delay (usec)			-3.57270176935E+03															Apriori clockrate (us/s)	-2.2517302E-07	Resid phdelay (usec)	-2.75759E-06	+/-	6.2E-07
Delay rate (us/s)			2.24322838664E-01															Apriori rate (us/s)	2.24320315735E-01	Resid rate (us/s)	2.52293E-06	+/-	2.6E-09
Total phase (deg)					-148.2													Apriori accel (us/s/s)	7.56842907894E-06	Resid phase (deg)	-85.5	+/-	19.3

ph/seg (deg) RMS 36.6 Theor. 32.0 Amplitude 0.109 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 48.7 55.8 Interp. 0.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 70.2 38.6 Inc. seg. avg. 0.116 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 74.6 67.3 Inc. frq. avg. 0.103 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 61.0 el 37.1 pa -78.2 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1661.023 -549.903 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/fn...1305JH Output file: /Exps/c192a/v2/1234/No0001/fn.W.165.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, fn
VLBA_FD - VLBA_NL, fgroup W, pol LL



Fringe quality 0

SNR 6.0

Int time 410.452

Amp 0.134

Phase 11.9

PFD 3.3e-01

Delays (us)

SBD 0.894595

MBD 0.004607

Fringe rate (Hz)

0.679130

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:276

Start 183008.70

Stop 183659.84

FRT 183330.00

Corr/FF/build

2020:083:003228

2020:093:042749

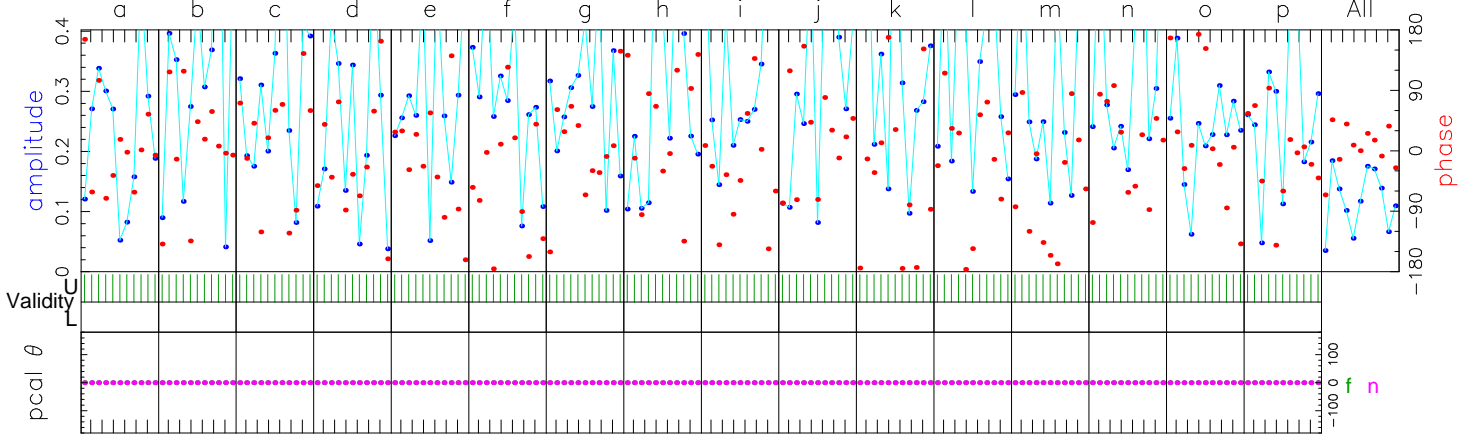
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 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
	-9.8	23.6	66.9	8.8	-37.0	-14.1	-1.7	74.3	-44.2	34.5	-20.2	45.6	-55.5	24.9	-16.6	10.6	Phase	11.9
	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.3	0.1	0.2	0.1	0.3	0.1	0.2	Ampl.	0.1
	97.1	144.5	25.9	182.8	96.3	134.8	206.4	16.2	249.4	229.9	97.1	242.2	22.1	200.2	252.1	148.0	Sbd box	243.5
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fn	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

Group delay (usec)(sbd) -3.57182215920E+03 Apriori delay (usec) -3.57270176659E+03 Resid mbdelay (usec) 4.60739E-03 +/- 1.8E-04

Sband delay (usec) -3.57180717159E+03 Apriori clock (usec) -2.6020557E+01 Resid sbdelay (usec) 8.94595E-01 +/- 2.9E-03

Phase delay (usec) -3.57270176621E+03 Apriori clockrate (us/s) -2.2517302E-07 Resid phdelay (usec) 3.85122E-07 +/- 6.1E-07

Delay rate (us/s) 2.24328199762E-01 Apriori rate (us/s) 2.24320315735E-01 Resid rate (us/s) 7.88403E-06 +/- 2.6E-09

Total phase (deg) -50.8 Apriori accel (us/s/s) 7.56842907894E-06 Resid phase (deg) 11.9 +/- 19.0

RMS Theor. Amplitude 0.134 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

ph/seg (deg) 32.1 31.5 Search (2048X64) 0.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

amp/seg (%) 44.5 54.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

ph/frq (deg) 39.8 38.0 Inc. seg. avg. 0.126 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011

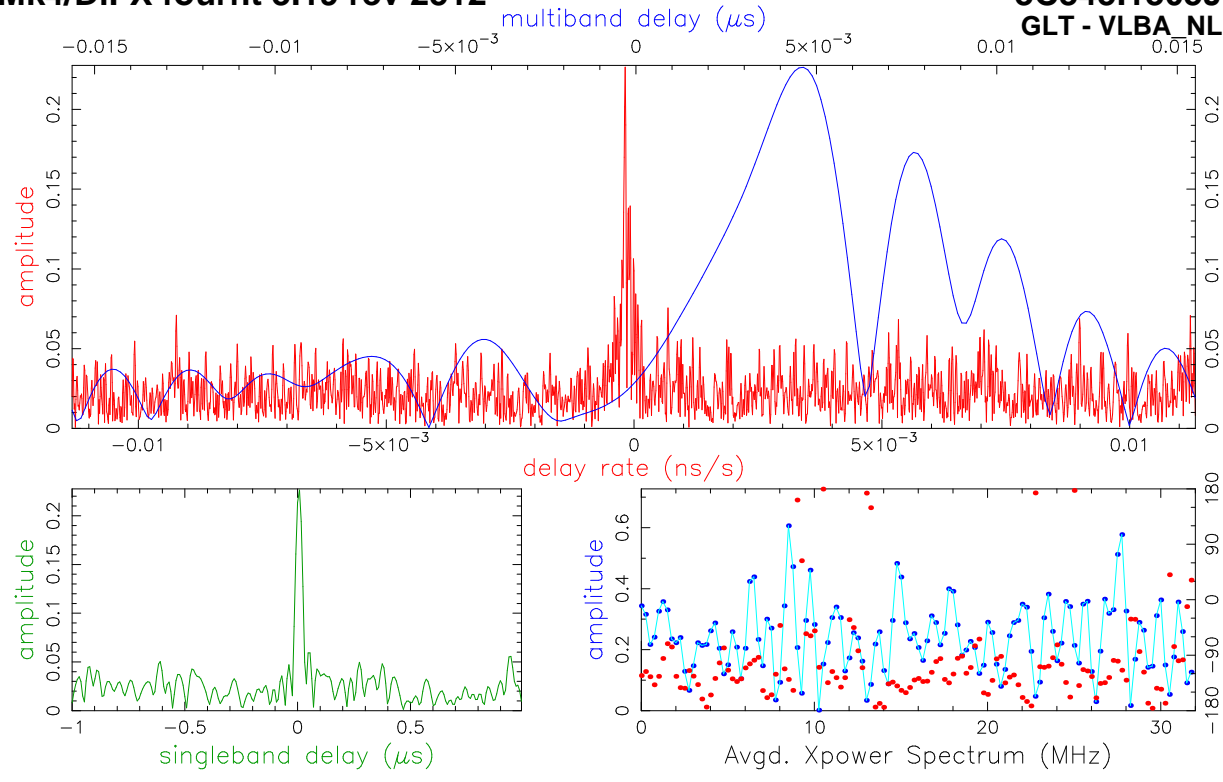
amp/frq (%) 49.9 66.3 Inc. frq. avg. 0.128 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 61.0 el 37.1 pa -78.2 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1661.023 -549.903 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/fn..1305JH Output file: /Exps/c192a/v2/1234/No0001/fn.W.94.1305JH

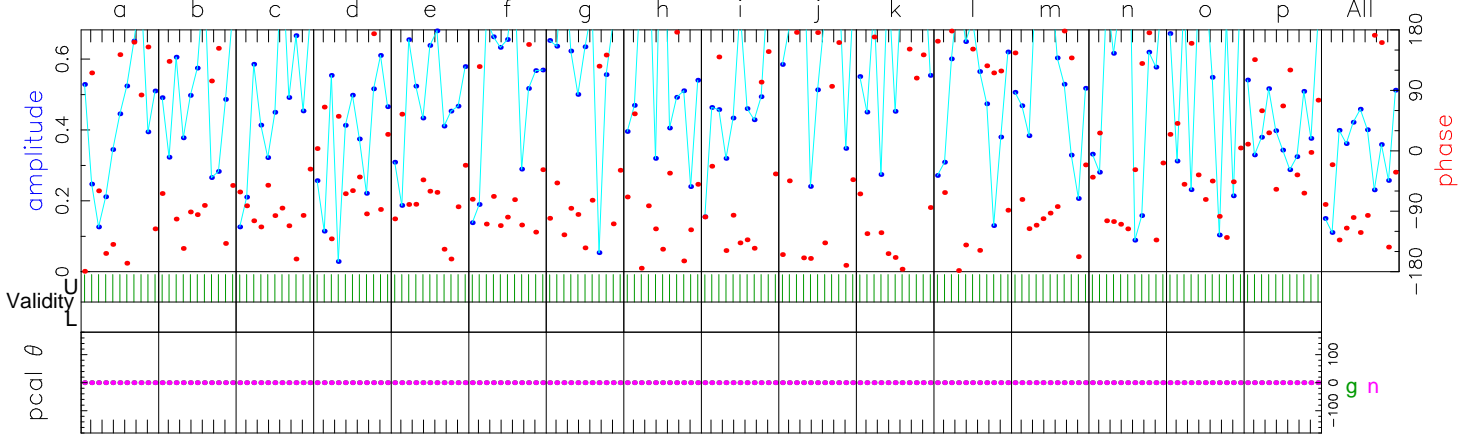
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, gn
GLT - VLBA_NL, fgroup W, pol LL



Fringe quality 9
SNR 12.6
Int time 410.687
Amp 0.228
Phase -113.3
PFD 9.5e-28
Delays (us)
SBD 0.006098
MBD 0.004569
Fringe rate (Hz) -0.015235
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042759
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec

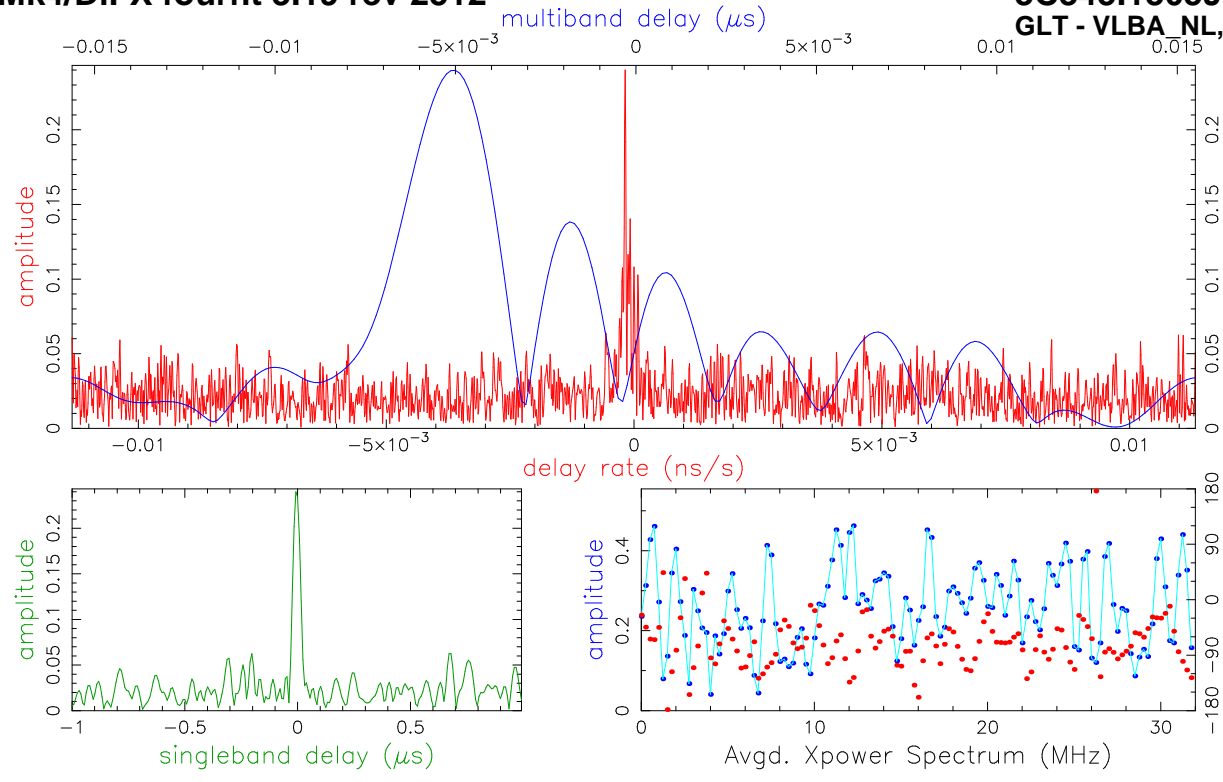


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0		
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
Group delay (usec)(sbd)		-4.56152432446E+01																
Sband delay (usec)		-4.56137133825E+01																
Phase delay (usec)		-4.56198155348E+01																
Delay rate (us/s)		-5.65922465780E-01																
Total phase (deg)					-327.7													
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)																		
sb window (us)																		
Bits/sample: 2x2																		
SampCntNorm: enabled																		
Sample rate(MISamp/s): 64																		
Data rate(Mb/s): 2048																		
nlags: 128																		
t_cohere infinite																		
ion window (TEC)																		

ph/seg (deg) 53.2 15.1 Search (2048X64) 0.222 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 71.1 26.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 57.7 18.2 Inc. seg. avg. 0.322 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 54.2 31.7 Inc. frq. avg. 0.311 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
g: az 142.5 el 51.0 pa -10.6 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 4259.942 3497.805 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/gn..1305JH Output file: /Exps/c192a/v2/1234/No0001/gn.W.135.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, gn
GLT - VLBA_NL, fgroup W, pol RR

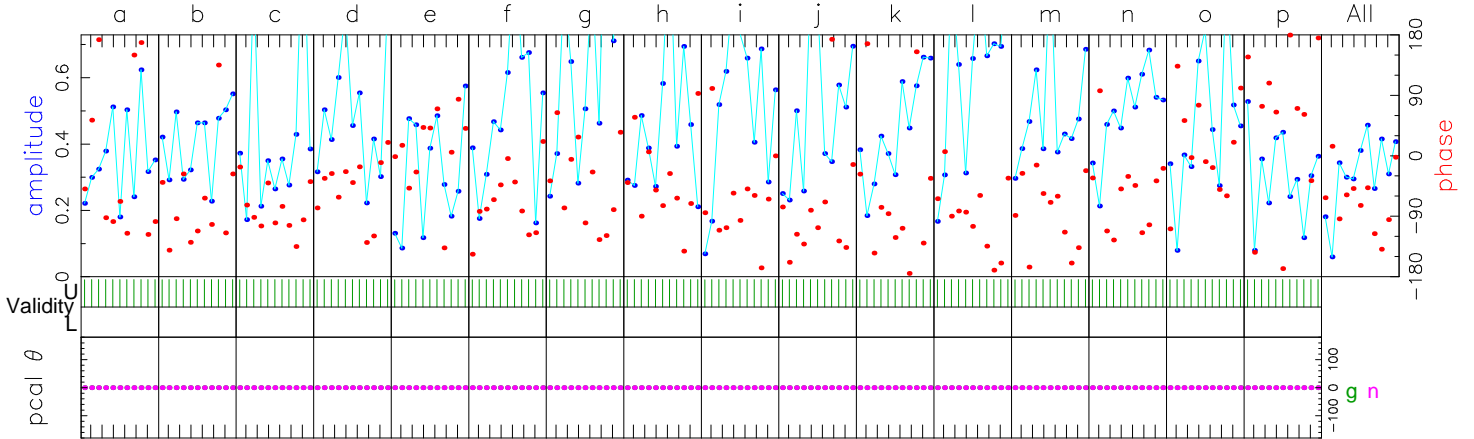


Fringe quality 9

SNR 13.5
Int time 410.728
Amp 0.243
Phase -71.6
PFD 1.3e-32
Delays (us)
SBD -0.004941
MBD -0.005063
Fringe rate (Hz)
-0.015294
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042804
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-124.9	-88.8	-83.5	-34.1	20.5	-60.1	-56.1	-55.8	-79.5	-103.0	-113.9	-92.2	-74.0	-66.9	0.4	125.4	Phase	-71.6				
	0.2	0.3	0.4	0.4	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.1	Ampl.	0.3				
	130.7	130.0	127.4	127.9	250.3	128.2	128.4	128.7	128.2	128.1	128.9	128.5	128.2	129.1	128.7	130.4	Sbd box	128.4				
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-4.56248752759E+01														Apriori delay (usec)	-4.56198118825E+01	Resid mbdelay (usec)	-5.06339E-03	+/-	8.0E-05
Sband delay (usec)			-4.56247533825E+01														Apriori clock (usec)	-2.5179216E+01	Resid sbdelay (usec)	-4.94150E-03	+/-	1.3E-03
Phase delay (usec)			-4.56198141907E+01														Apriori clockrate (us/s)	-5.9223514E-08	Resid phdelay (usec)	-2.30819E-06	+/-	2.7E-07
Delay rate (us/s)			-5.65922466466E-01														Apriori rate (us/s)	-5.65922288916E-01	Resid rate (us/s)	-1.77550E-07	+/-	1.2E-09
Total phase (deg)																	Apriori accel (us/s/s)	2.22859925616E-05	Resid phase (deg)	-71.6	+/-	8.5

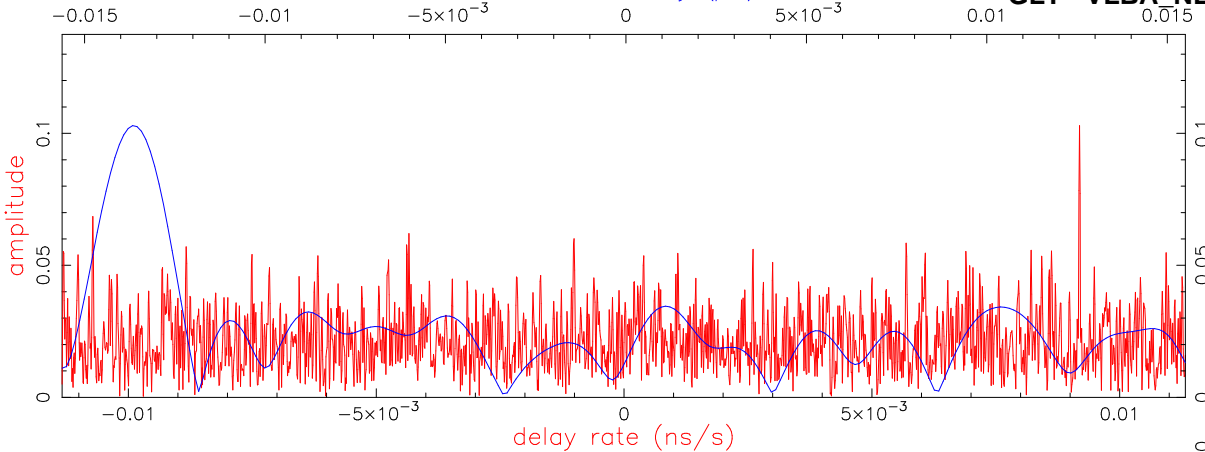
ph/seg (deg) 43.8 14.1 Search (2048X64) 0.237 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 52.6 24.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 59.1 17.0 Inc. seg. avg. 0.301 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 40.8 29.7 Inc. frq. avg. 0.291 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
g: az 142.5 el 51.0 pa -10.6 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 4259.942 3497.805 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/gn..1305JH Output file: /Exps/c192a/v2/1234/No0001/gn.W.151.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

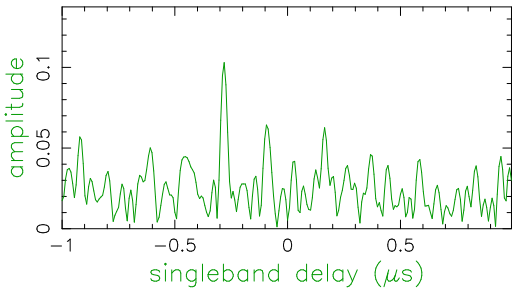
3C345.1305JH, No0001, gn
GLT - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

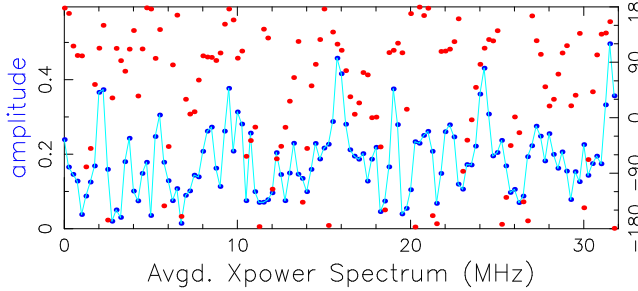
Fringe quality 0



SNR 5.7
Int time 410.687
Amp 0.137
Phase 9.9
PFD 9.3e-01
Delays (us)
SBD -0.282342
MBD -0.013652
Fringe rate (Hz)
0.792393
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

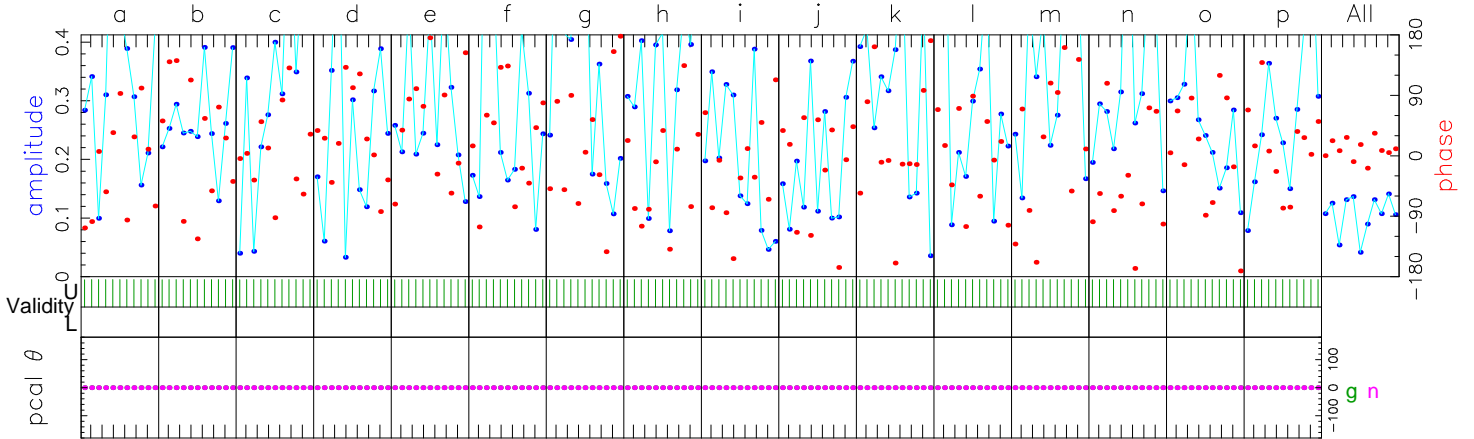


delay rate (ns/s)



Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042809
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec



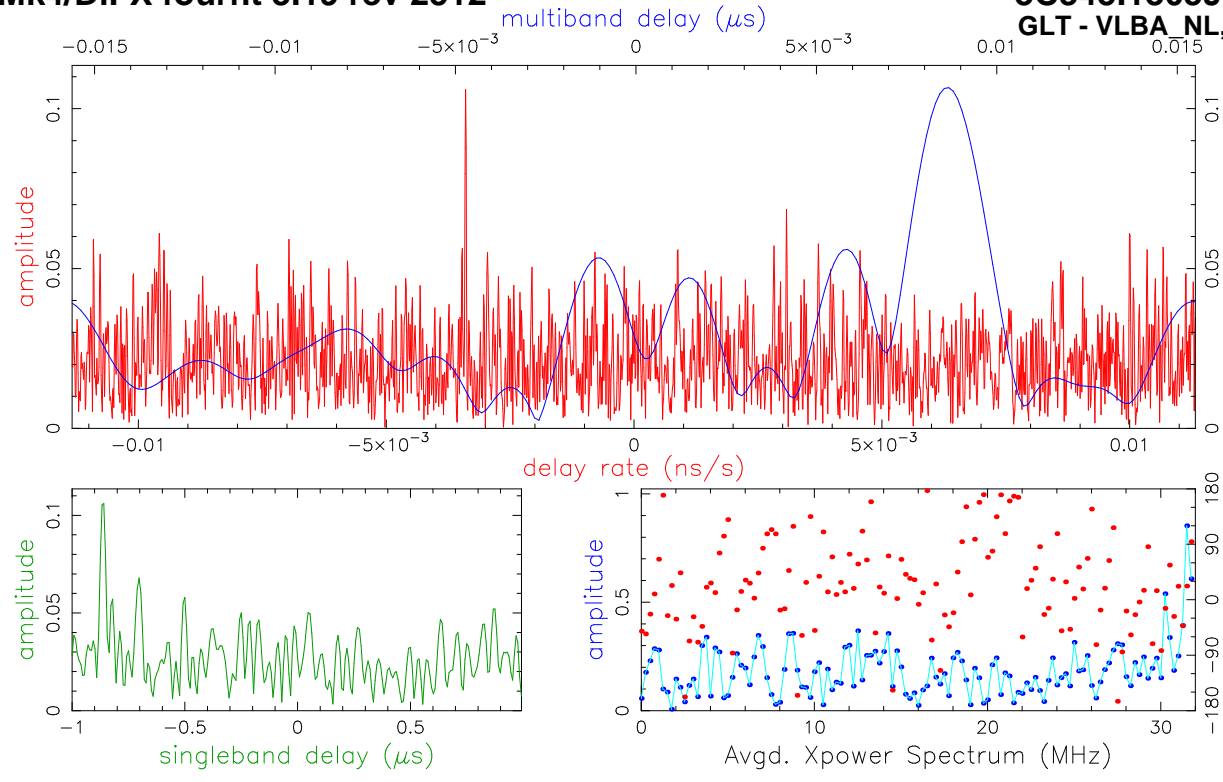
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-19.4	47.1	8.9	3.3	71.6	37.4	-3.6	-6.8	-49.0	-2.5	13.8	29.1	170.6	-29.2	29.1	12.3	Phase	9.9				
	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.1	0.2	0.2	0.3	Ampl.	0.1				
	115.8	155.0	245.8	129.7	149.8	61.6	46.4	203.7	68.3	250.0	97.5	151.1	151.2	50.5	248.0	94.0	Sbd box	92.9				
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-4.59147134975E+01														Apriori delay (usec)	-4.56198118825E+01	Resid mbdelay (usec)	-1.36516E-02	+/-	1.9E-04
Sband delay (usec)			-4.59021533825E+01														Apriori clock (usec)	-2.5179216E+01	Resid sbdelay (usec)	-2.82342E-01	+/-	3.0E-03
Phase delay (usec)			-4.56198115620E+01														Apriori clockrate (us/s)	-5.9223514E-08	Resid phdelay (usec)	3.20549E-07	+/-	6.5E-07
Delay rate (us/s)			-5.65913090017E-01														Apriori rate (us/s)	-5.65922288916E-01	Resid rate (us/s)	9.19890E-06	+/-	2.7E-09
Total phase (deg)					-204.5												Apriori accel (us/s/s)	2.22859925616E-05	Resid phase (deg)	9.9	+/-	20.0

	RMS	Theor.	Amplitude	0.137 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	14.6	33.2	Search (2048X64)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	30.8	58.0	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.016 0.016
ph/frq (deg)	52.8	40.1	Inc. seg. avg.	0.122	Sample rate(MISamp/s): 64	dr window (ns/s) -0.011 0.011
amp/frq (%)	43.8	70.0	Inc. frq. avg.	0.129	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
					nlags: 128	t_cohere infinite

g: az 142.5 el 51.0 pa -10.6 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 4259.942 3497.805 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/gn..1305JH Output file: /Exps/c192a/v2/1234/No0001/gn.W.171.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, gn
GLT - VLBA_NL, fgroup W, pol RL

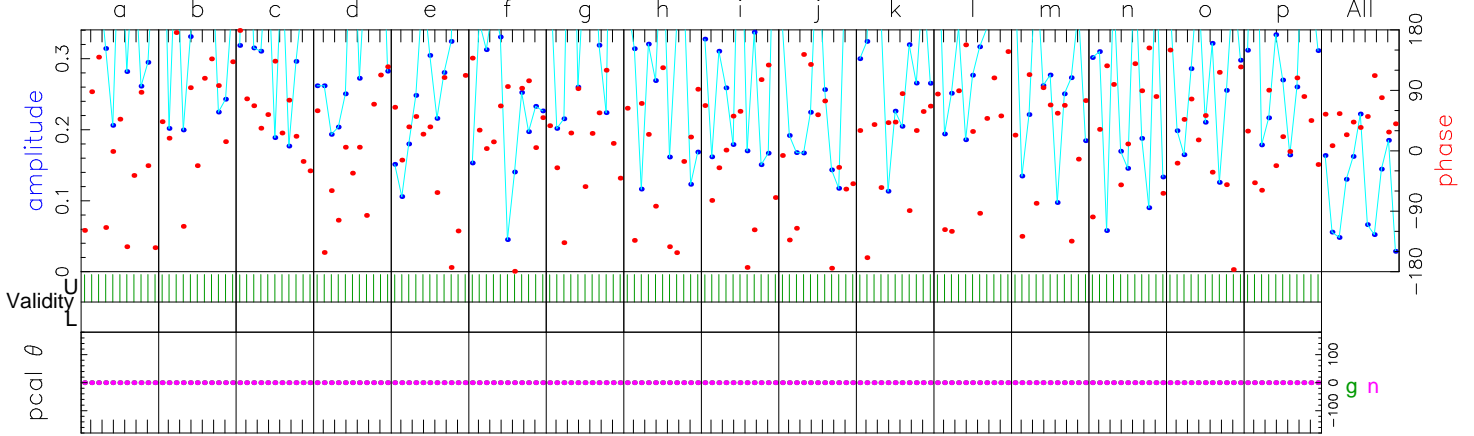


Fringe quality 0

SNR 6.1
Int time 410.728
Amp 0.114
Phase 44.4
PFD 3.0e-01
Delays (us)
SBD -0.863057
MBD 0.008742
Fringe rate (Hz)
-0.293592
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042815
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec

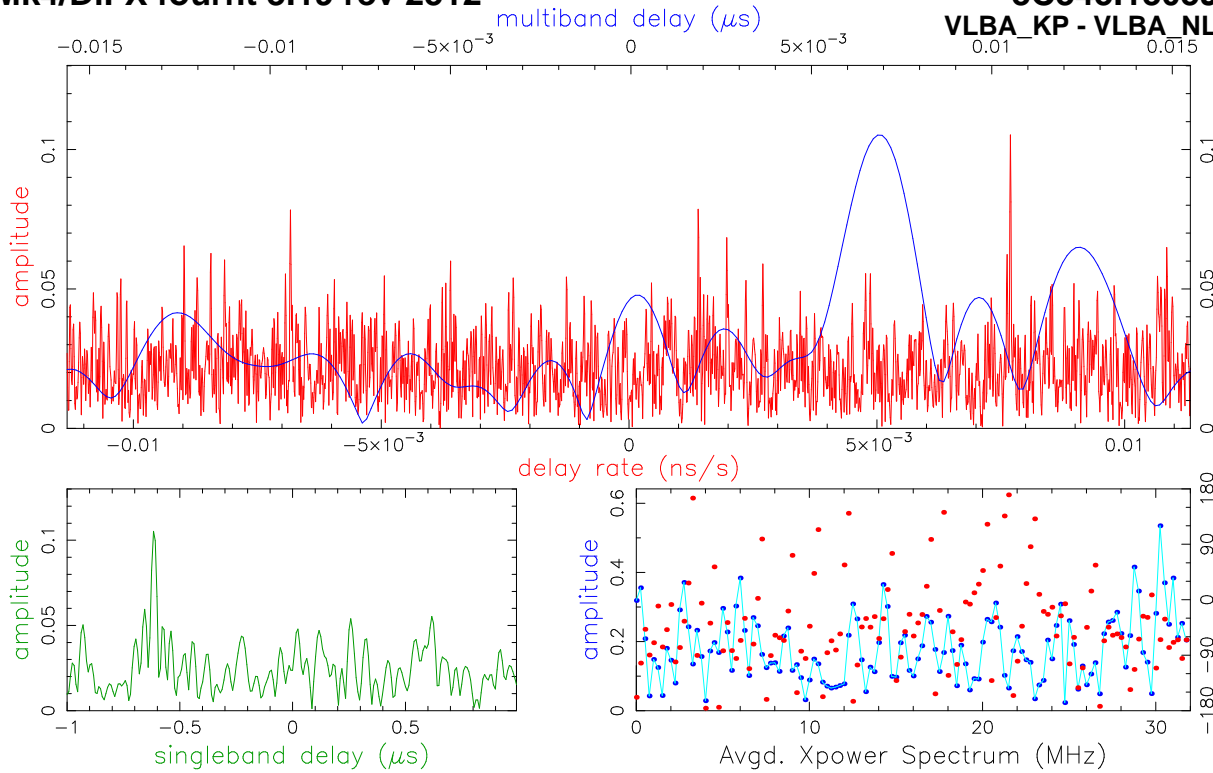


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0		
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
Group delay (usec)(sbd)			-4.64860698531E+01															
Sband delay (usec)			-4.64828688825E+01															
Phase delay (usec)			-4.56198104499E+01															
Delay rate (us/s)			-5.65925697227E-01															
Total phase (deg)					-170.0													
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																		
nlags: 128																		
t_cohere infinite																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		
simultaneous interpolator																		

ph/seg (deg) 27.3 31.4 Search (2048X64) 0.104 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 57.9 54.7 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 41.5 37.8 Inc. seg. avg. 0.103 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 67.1 66.0 Inc. frq. avg. 0.106 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
g: az 142.5 el 51.0 pa -10.6 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 4259.942 3497.805 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/gn..1305JH Output file: /Exps/c192a/v2/1234/No0001/gn.W.194.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, kn
VLBA_KP - VLBA_NL, fgroup W, pol LL

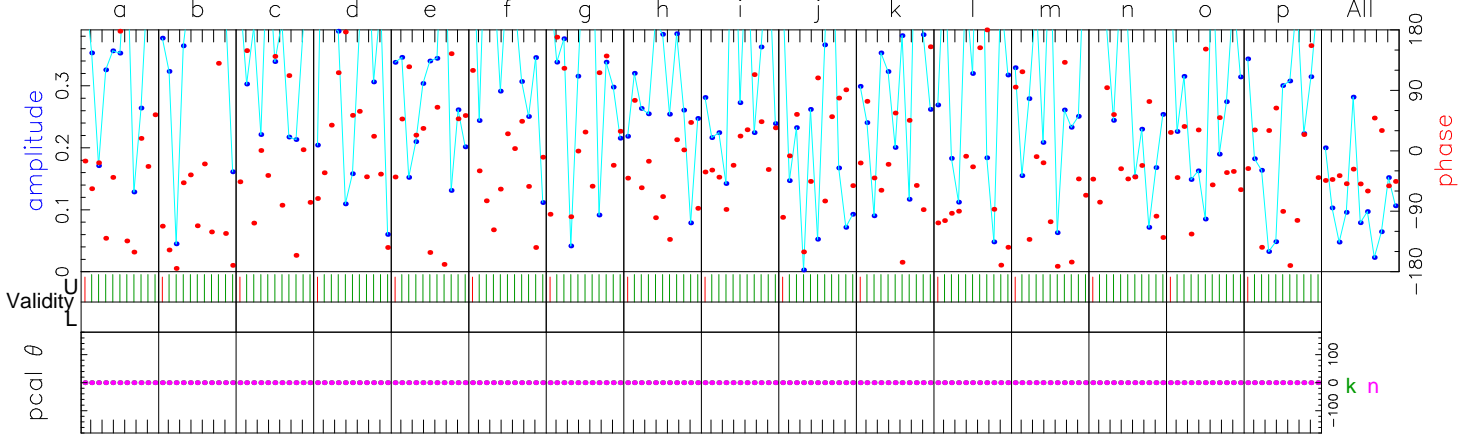


Fringe quality 0

SNR 5.9
Int time 407.728
Amp 0.130
Phase -38.6
PFD 6.1e-01
Delays (us)
SBD -0.614708
MBD 0.006913
Fringe rate (Hz) 0.664243
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042812
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 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					
	-34.3	-104.5	-67.2	-2.4	74.2	-38.3	-0.7	-42.2	-1.1	-6.1	-46.7	-131.8	-80.9	-40.0	-17.8	-77.7		Phase -38.6					
	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.3	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1		Ampl. 0.1					
	41.8	184.2	90.1	99.0	148.8	89.6	3.9	1.4	134.1	236.2	220.9	78.4	246.4	137.3	50.9	106.7		Sbd box 50.3					
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0		APs used					
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase					
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC					
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks					
																		Tracks					
Group delay (usec)(sbd)			-5.11473736746E+03															Apriori delay (usec)	-5.11411928081E+03	Resid mbdelay (usec)	6.91335E-03	+/-	1.8E-04
Sband delay (usec)			-5.11473398931E+03															Apriori clock (usec)	-2.6877258E+01	Resid sbdelay (usec)	-6.14708E-01	+/-	2.9E-03
Phase delay (usec)			-5.11411928205E+03															Apriori clockrate (us/s)	-3.2880250E-07	Resid phdelay (usec)	-1.24520E-06	+/-	6.3E-07
Delay rate (us/s)			2.61983550981E-01															Apriori rate (us/s)	2.61975839775E-01	Resid rate (us/s)	7.71121E-06	+/-	2.6E-09
Total phase (deg)					-344.2													Apriori accel (us/s/s)	1.71830403617E-05	Resid phase (deg)	-38.6	+/-	19.4

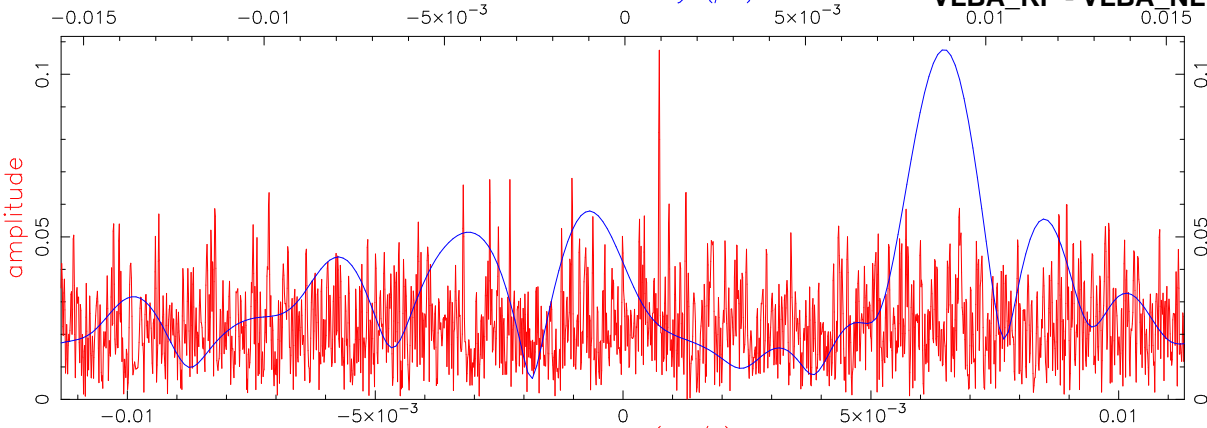
ph/seg (deg) 35.1 32.2 Amplitude 0.130 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.8 56.2 Search (2048X64) 0.099 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 50.4 38.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 56.3 67.8 Inc. seg. avg. 0.119 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.140 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 60.1 el 32.1 pa -73.4 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1924.821 216.344 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/kn..1305JH Output file: /Exps/c192a/v2/1234/No0001/kn.W.182.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

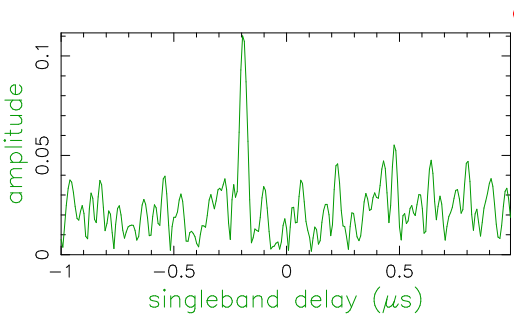
3C345.1305JH, No0001, kn
VLBA_KP - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

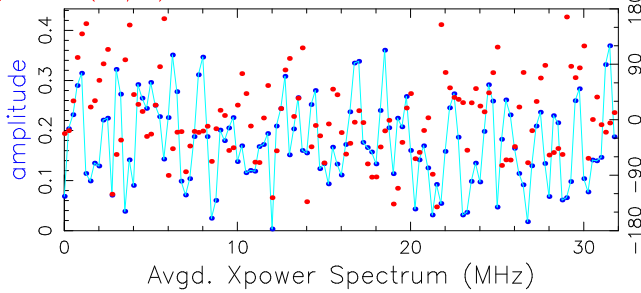


Fringe quality 0

SNR 6.2
Int time 407.728
Amp 0.112
Phase -79.3
PFD 1.8e-01
Delays (us)
SBD -0.192530
MBD 0.008774
Fringe rate (Hz)
0.063265
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

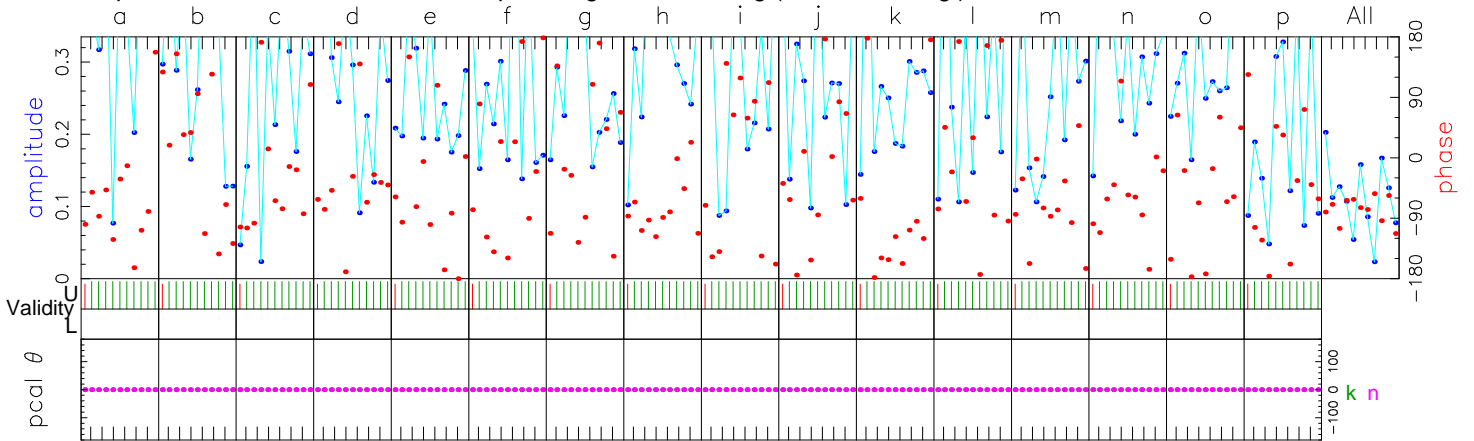


delay rate (ns/s)



Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042816
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec

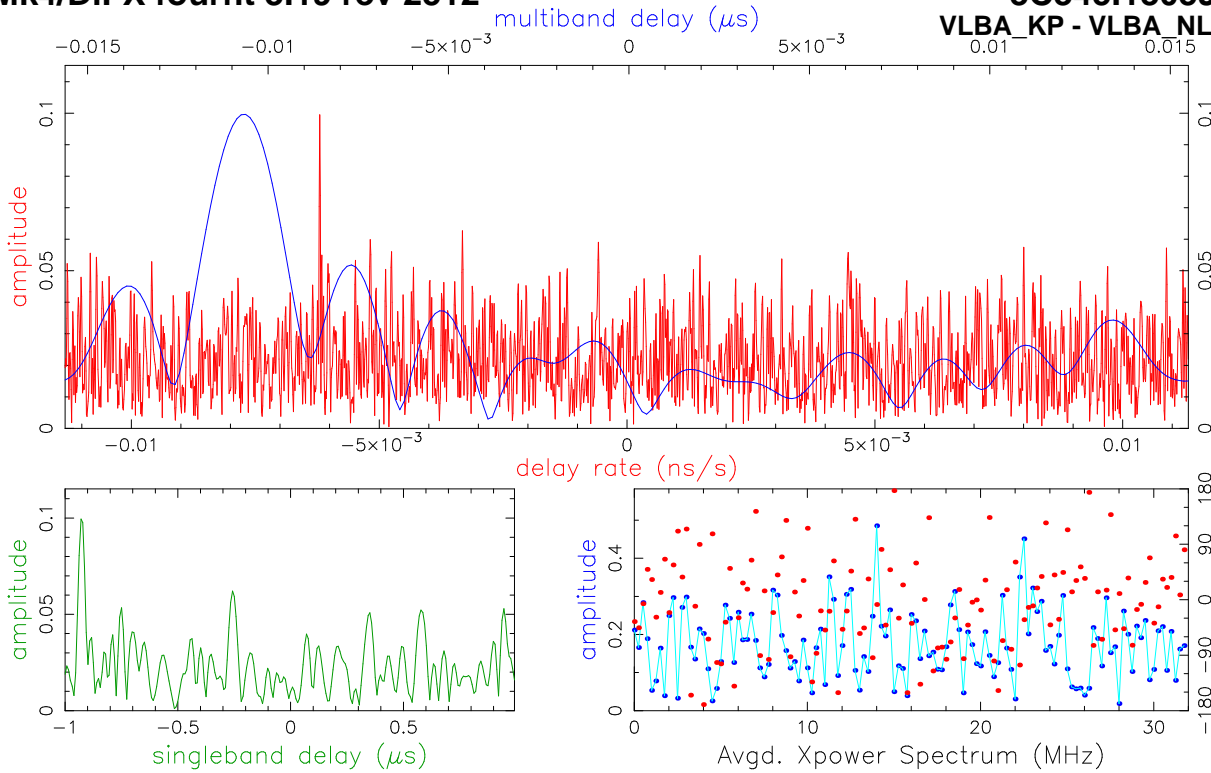


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-78.0	121.1	-58.8	-68.0	-103.7	-60.4	-100.3	-79.9	171.1	-56.6	-144.4	-89.4	-72.3	-64.9	-32.4	-22.5		Phase	-79.3				
	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.3	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1		Ampl.	0.1				
	105.5	20.0	227.3	106.8	151.1	177.9	170.0	6.2	1.4	250.2	215.6	42.2	8.0	149.1	178.0	187.0		Sbd box	104.4				
U/L	801/0	801/0	801/0	801/0	801/0	801/0	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0	802/0	802/0		APs used					
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase					
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC					
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000							
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-5.11429800728E+03															Apriori delay (usec)	-5.11411928081E+03	Resid mbdelay (usec)	8.77353E-03	+/-	1.8E-04
Sband delay (usec)			-5.11431181131E+03															Apriori clock (usec)	-2.6877258E+01	Resid sbdelay (usec)	-1.92530E-01	+/-	2.8E-03
Phase delay (usec)			-5.11411928337E+03															Apriori clockrate (us/s)	-3.2880250E-07	Resid phdelay (usec)	-2.55807E-06	+/-	6.0E-07
Delay rate (us/s)			2.61976574216E-01															Apriori rate (us/s)	2.61975839775E-01	Resid rate (us/s)	7.34441E-07	+/-	2.5E-09
Total phase (deg)					-24.9													Apriori accel (us/s/s)	1.71830403617E-05	Resid phase (deg)	-79.3	+/-	18.6

ph/seg (deg) 18.9 30.8 Amplitude 0.112 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 43.9 53.8 Search (2048X64) 0.104 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 59.7 37.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 67.4 65.0 Inc. seg. avg. 0.098 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
k: az 60.1 el 32.1 pa -73.4 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1924.821 216.344 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/kn..1305JH Output file: /Exps/c192a/v2/1234/No0001/kn.W.200.1305JH simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, kn
VLBA_KP - VLBA_NL, fgroup W, pol LR

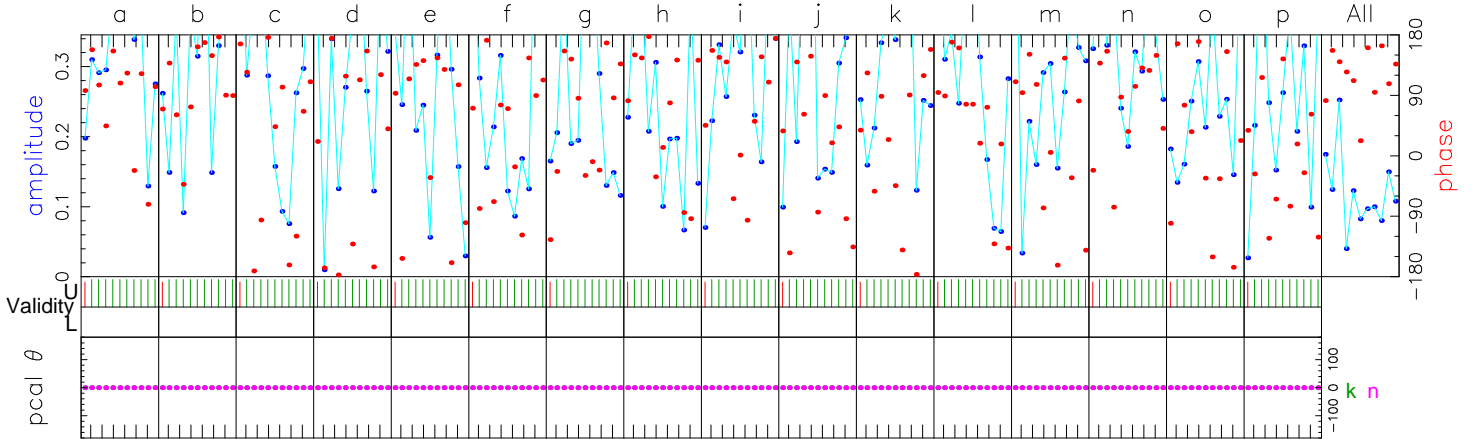


Fringe quality 0

SNR 5.6
Int time 407.728
Amp 0.115
Phase 122.1
PFD 9.9e-01
Delays (us)
SBD -0.926453
MBD -0.010602
Fringe rate (Hz)
-0.535175
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042822
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec

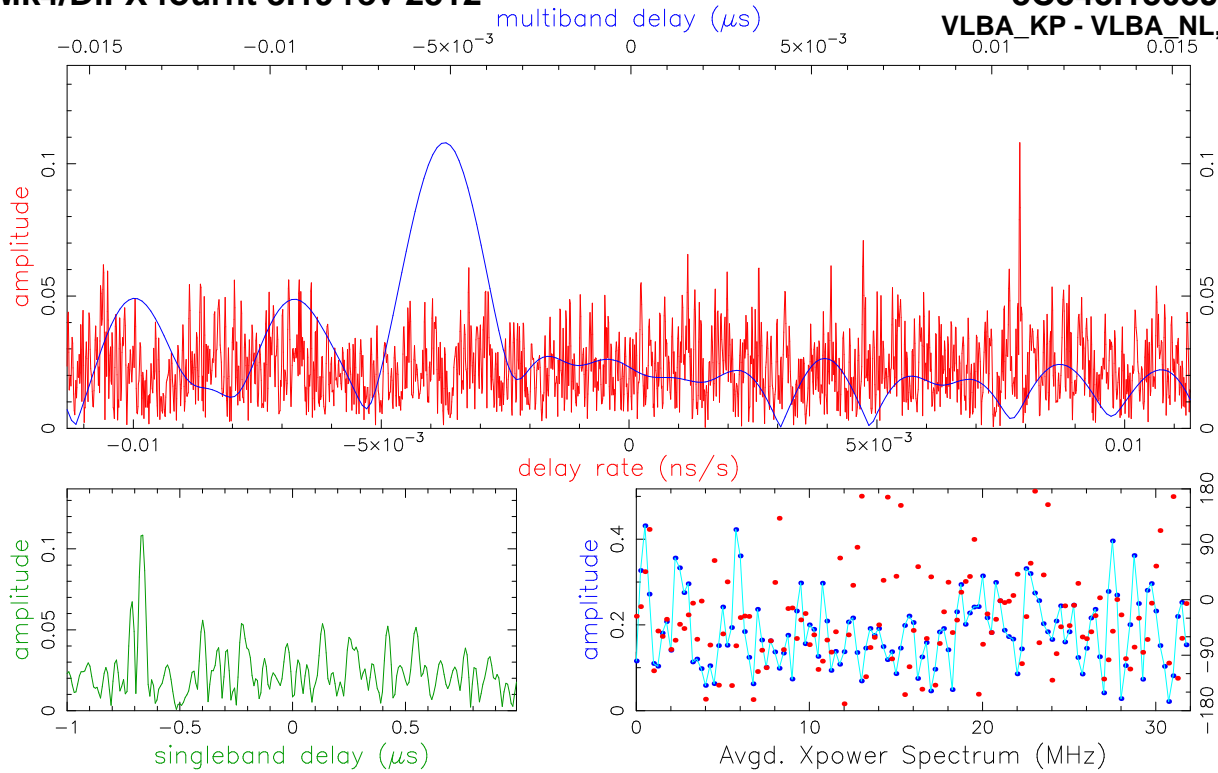


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	112.6	116.0	161.1	130.2	136.7	88.9	10.2	150.1	152.8	153.3	97.3	96.1	115.9	116.9	162.3	-74.7	Phase	122.1	
	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.0	0.0	Ampl.	0.1	
	162.6	230.2	47.2	103.7	104.3	254.0	199.2	155.8	38.9	176.9	82.2	19.1	219.9	19.0	126.0	182.7	Sbd box	10.4	
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	APs used		
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC		
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks		
																	Chan ids		
																	Tracks		
Group delay (usec)(sbd)			-5.11503613252E+03					Apriori delay (usec)									-1.06017E-02	+/-	1.9E-04
Sband delay (usec)			-5.11504573381E+03					Apriori clock (usec)									-9.26453E-01	+/-	3.1E-03
Phase delay (usec)			-5.11411927687E+03					Apriori clockrate (us/s)									3.93791E-06	+/-	6.6E-07
Delay rate (us/s)			2.61969626922E-01					Apriori rate (us/s)									-6.21285E-06	+/-	2.8E-09
Total phase (deg)								Apriori accel (us/s/s)									122.1	+/-	20.5

ph/seg (deg) 40.0 33.9 Search (2048X64) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 56.4 59.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 58.5 40.9 Inc. seg. avg. 0.117 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 65.1 71.4 Inc. frq. avg. 0.106 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 60.1 el 32.1 pa -73.4 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1924.821 216.344 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/kn..1305JH Output file: /Exps/c192a/v2/1234/No0001/kn.W.218.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, kn
VLBA_KP - VLBA_NL, fgroup W, pol RL

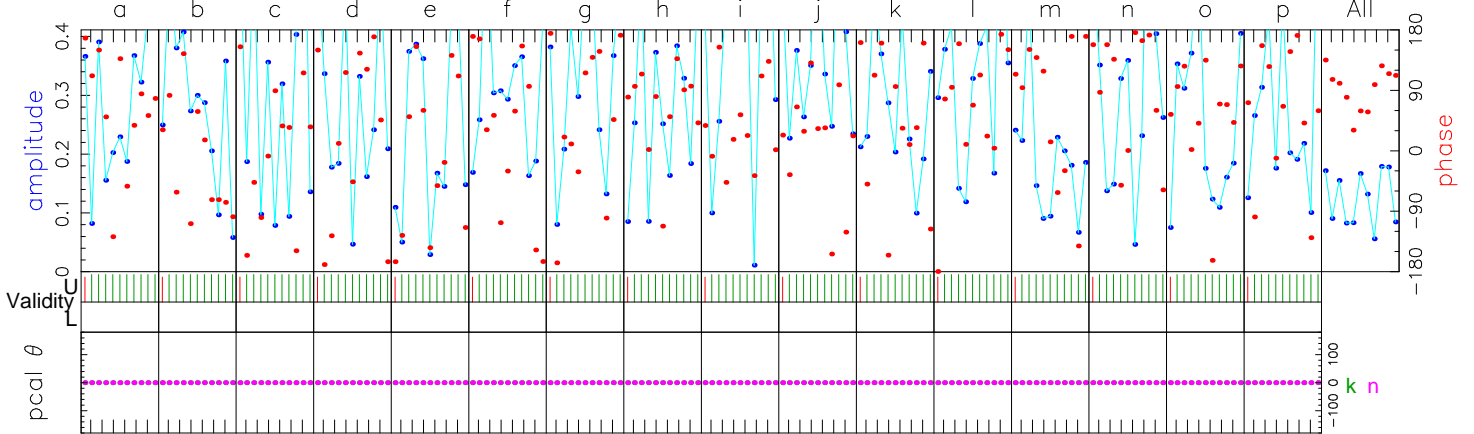


Fringe quality 0

SNR 6.2
Int time 407.728
Amp 0.137
Phase 97.0
PFD 1.8e-01
Delays (us)
SBD -0.667835
MBD -0.005158
Fringe rate (Hz) 0.679751
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042826
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

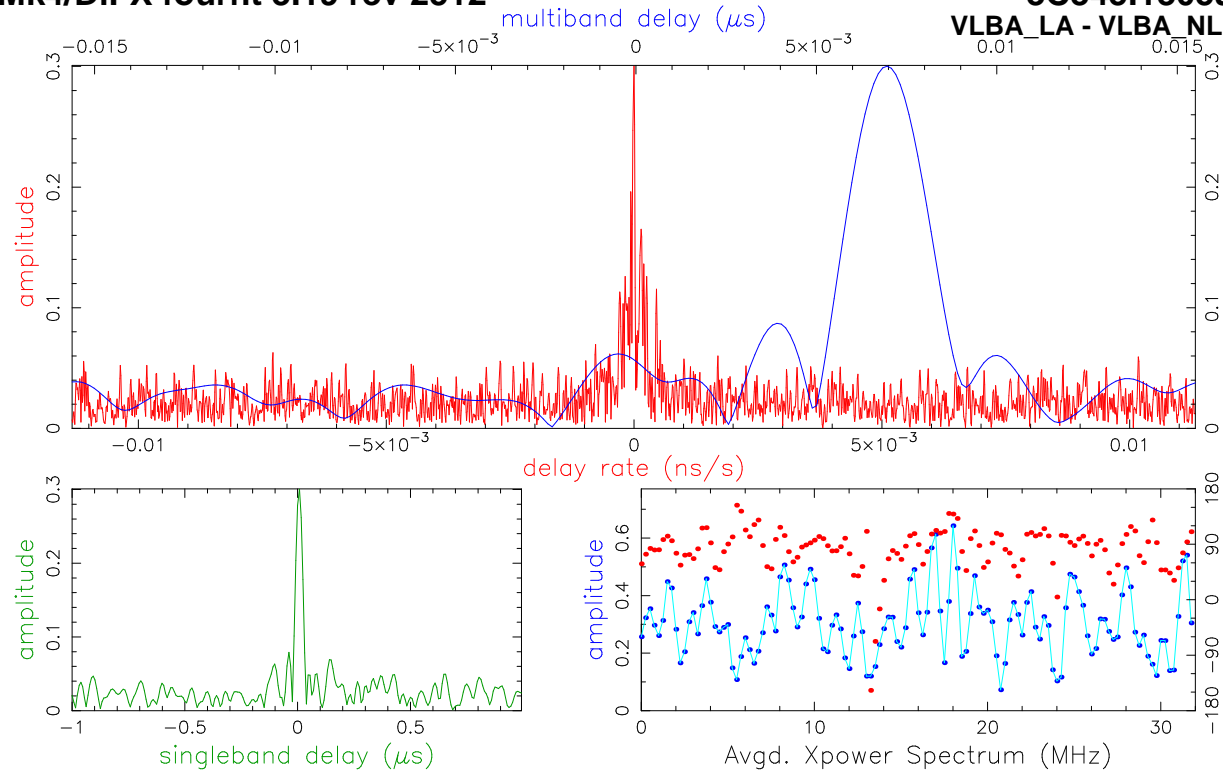
Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	92.8	-9.7	108.5	137.7	111.1	113.9	119.7	90.1	52.2	51.2	128.5	112.5	141.3	138.3	78.1	94.3	Phase	97.0				
	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	Ampl.	0.1				
	72.9	253.5	8.8	140.5	59.0	16.4	50.2	43.1	37.3	98.0	182.7	126.4	111.6	200.4	198.8	117.2	Sbd box	43.5				
U/L	801/0	801/0	801/0	801/0	801/0	801/0	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0	802/0	802/0	APs used					
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Tracks					
Group delay (usec)(sbd)			-5.11478068831E+03														Apriori delay (usec)	-5.11411928081E+03	Resid mbdelay (usec)	-5.15750E-03	+/-	1.8E-04
Sband delay (usec)			-5.11478711581E+03														Apriori clock (usec)	-2.6877258E+01	Resid sbdelay (usec)	-6.67835E-01	+/-	2.8E-03
Phase delay (usec)			-5.11411927768E+03														Apriori clockrate (us/s)	-3.2880250E-07	Resid phdelay (usec)	3.12762E-06	+/-	6.0E-07
Delay rate (us/s)			2.61983731009E-01														Apriori rate (us/s)	2.61975839775E-01	Resid rate (us/s)	7.89123E-06	+/-	2.5E-09
Total phase (deg)					-208.6												Apriori accel (us/s/s)	1.71830403617E-05	Resid phase (deg)	97.0	+/-	18.6

ph/seg (deg) 31.0 30.9 Search (2048X64) 0.105 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 41.8 53.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 41.0 37.3 Inc. seg. avg. 0.134 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 48.1 65.0 Inc. frq. avg. 0.130 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
k: az 60.1 el 32.1 pa -73.4 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1924.821 216.344 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/kn..1305JH Output file: /Exps/c192a/v2/1234/No0001/kn.W.238.1305JH

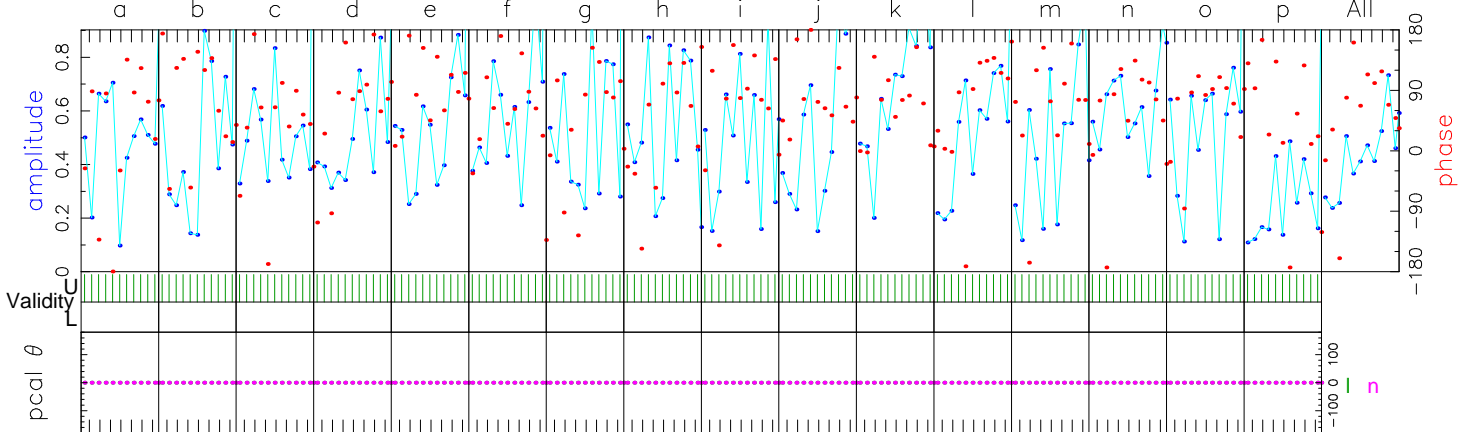


Fringe quality 9

SNR 16.6
Int time 406.934
Amp 0.301
Phase 86.1
PFD 0.0e+00
Delays (us)
SBD 0.006688
MBD 0.006947
Fringe rate (Hz) 0.000136
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
2020:093:042820
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		
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
Group delay (usec)(sbd)			-3.38737453097E+03															
Sband delay (usec)			-3.38737479029E+03															
Phase delay (usec)			-3.38738147501E+03															
Delay rate (us/s)			1.87942734555E-01															
Total phase (deg)																		
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		
PCal mode: MANUAL, MANUAL																		
PCal rate: 0.000E+00, 0.000E+00 (us/s)																		
Bits/sample: 2x2																		
Sample rate(MISamp/s): 64																		
Data rate(Mb/s): 2048																		
nlags: 128																		
t_cohere infinite																		
ion window (TEC)																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		

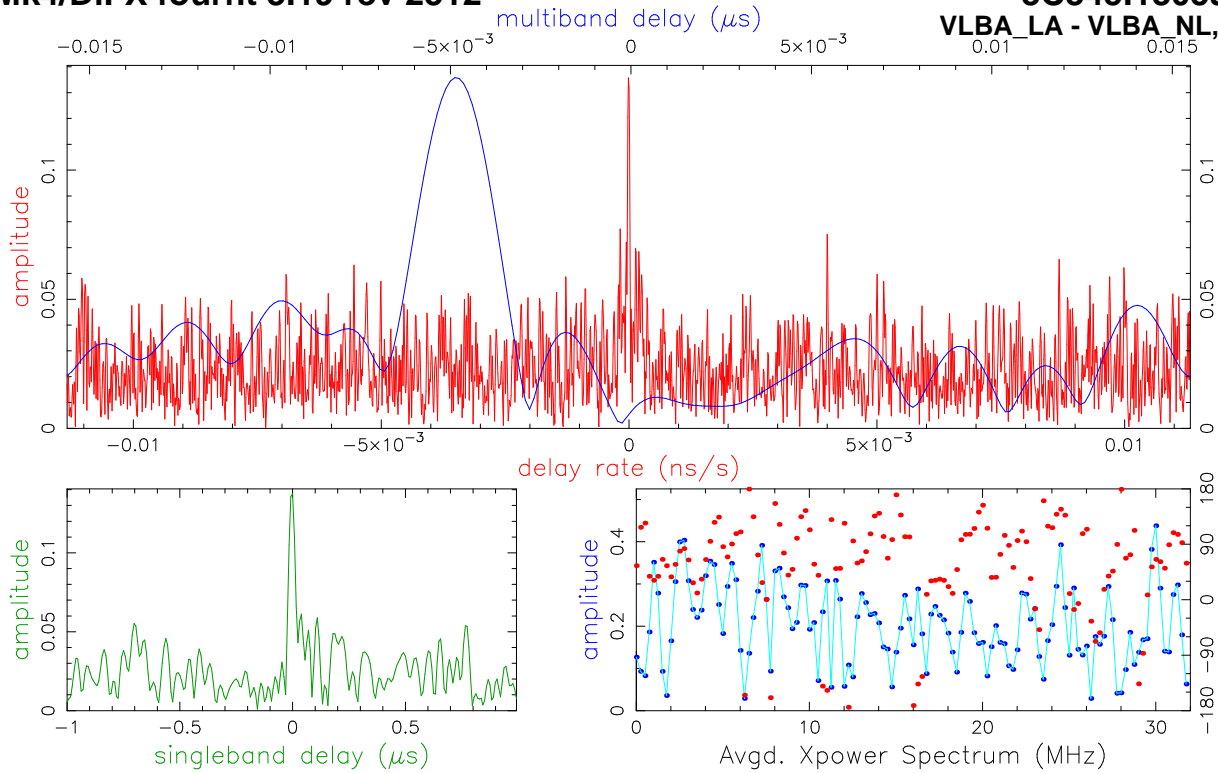
ph/seg (deg) 56.9 12.0
amp/seg (%) 61.1 20.9
ph/frq (deg) 16.7 13.8
amp/frq (%) 32.1 24.1

RMS Theor. Amplitude 0.301 +/- 0.018
Search (2048X64) 0.298
Interp. 0.000
Inc. seg. avg. 0.415
Inc. frq. avg. 0.303

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Sbd window (us) -1.000 1.000
SampCntNorm: enabled mb window (us) -0.016 0.016
Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

l: az 63.9 el 37.8 pa -72.0 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1381.185 246.839 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/in..1305JH Output file: /Exps/c192a/v2/1234/No0001/in.W.213.1305JH

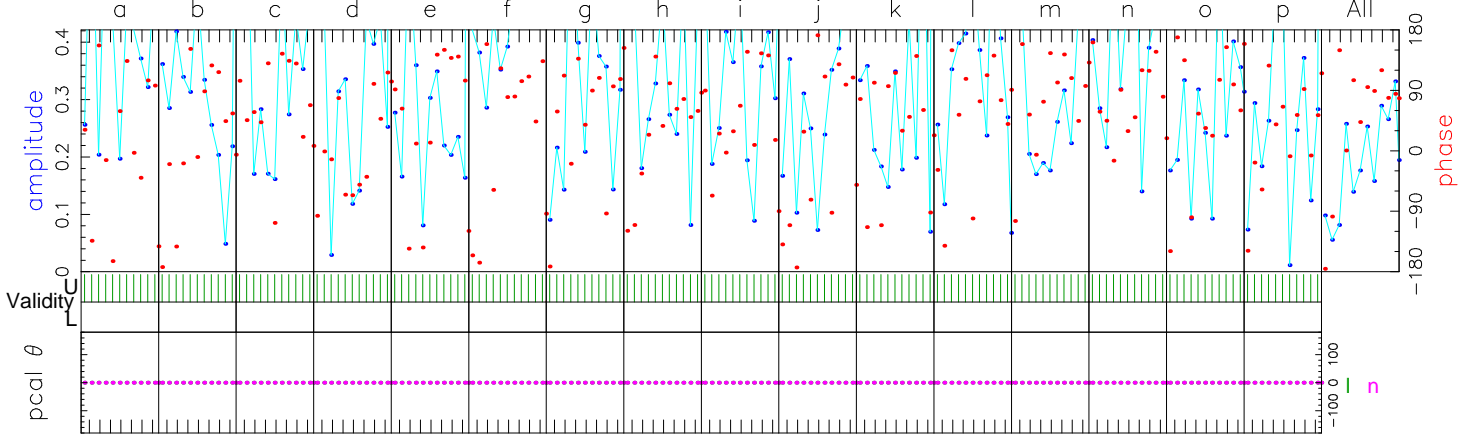


Fringe quality 9

SNR 7.8
Int time 406.934
Amp 0.141
Phase 86.3
PFD 3.0e-06
Delays (us)
SBD -0.003472
MBD -0.004795
Fringe rate (Hz)
-0.001180
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
2020:093:042826
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

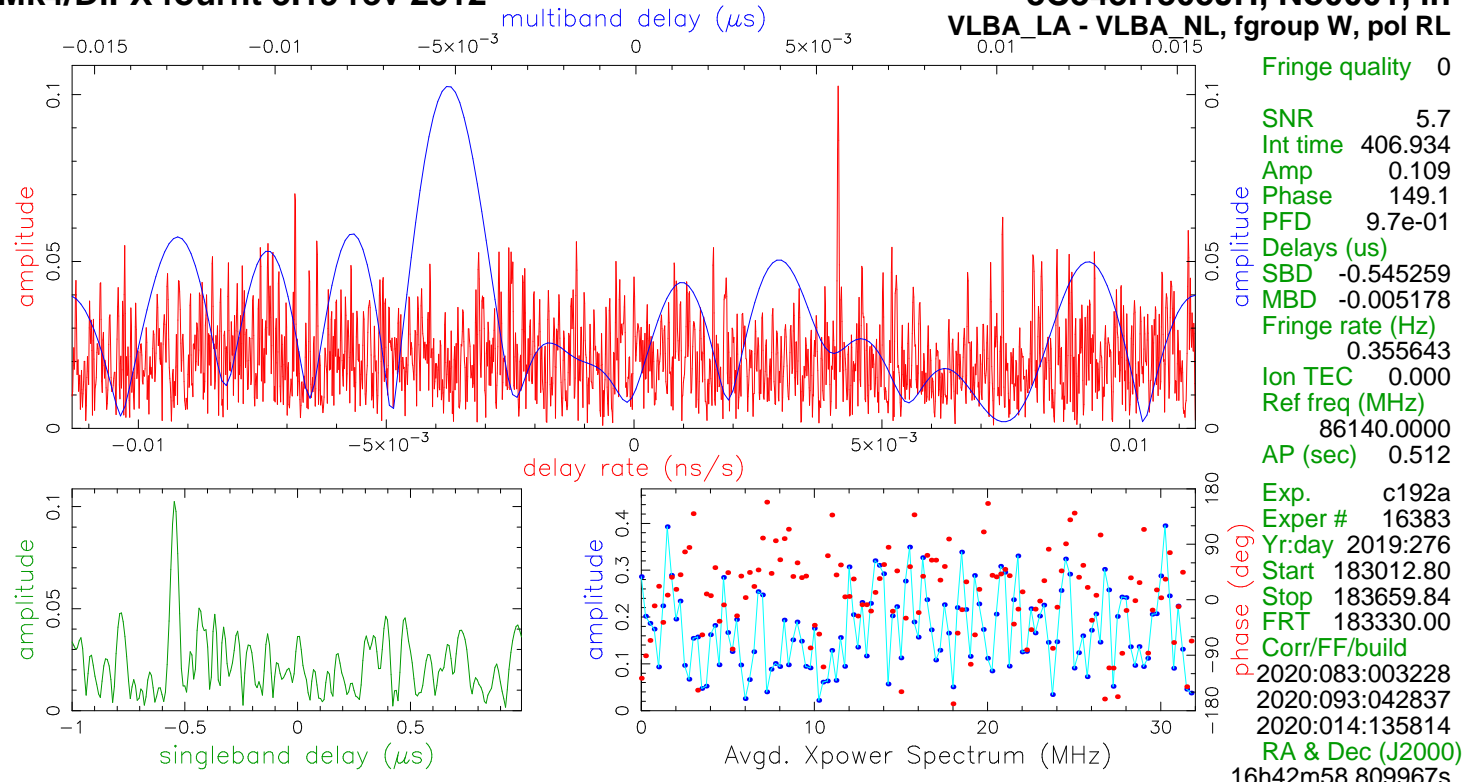
Amp. and Phase vs. time for each freq., 12 segs, 72 APs / seg (36.86 sec / seg.), time ticks 60 sec



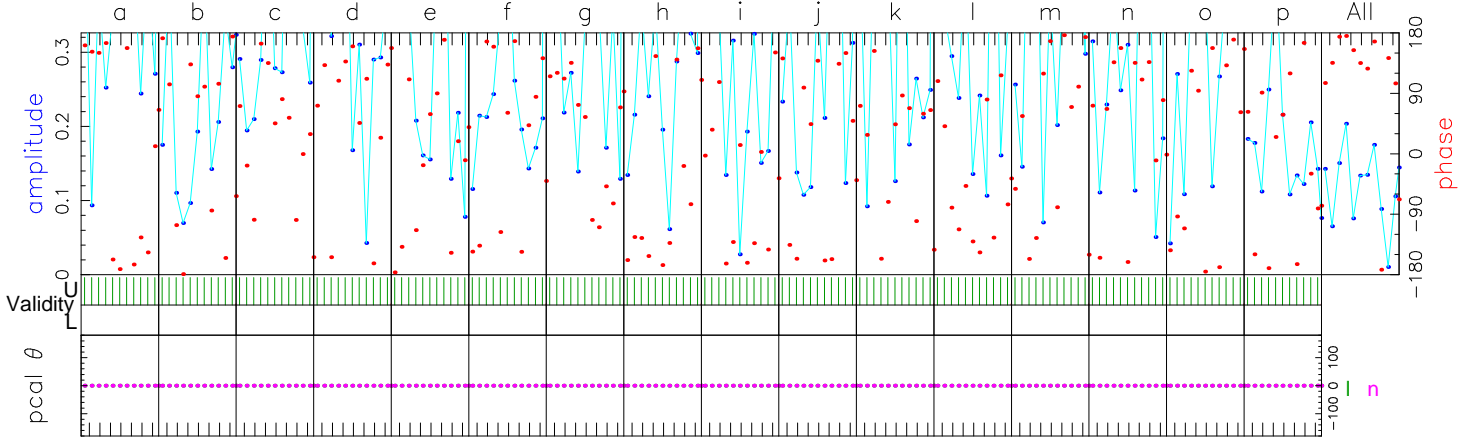
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All		
	88.4	80.1	85.7	-6.0	128.8	117.4	83.8	62.5	64.5	141.9	77.1	102.4	105.2	71.7	101.6	52.6	86.3	Phase		
	0.0	0.0	0.2	0.1	0.1	0.3	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.1	86.3	Ampl.	
	66.8	85.0	201.8	96.2	177.1	128.0	154.1	193.7	20.6	20.6	74.9	95.7	205.9	128.7	129.1	126.6	128.6	128.6	Sbd box	
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	795/0	795/0	APs used	
l	1000	1000	1000	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	1000	1000	1000	PC freqs
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	1000	1000	1000	PC amp
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR			Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR				Tracks

Group delay (usec)(sbd) -3.38738627322E+03 Apriori delay (usec) -3.38738147779E+03 Resid mbdelay (usec) -4.79543E-03 +/- 1.4E-04
 Sband delay (usec) -3.38738494979E+03 Apriori clock (usec) -2.7215591E+01 Resid sbdelay (usec) -3.47200E-03 +/- 2.2E-03
 Phase delay (usec) -3.38738147500E+03 Apriori clockrate (us/s) -4.8569552E-07 Resid phdelay (usec) 2.78246E-06 +/- 4.8E-07
 Delay rate (us/s) 1.87942719285E-01 Apriori rate (us/s) 1.87942732980E-01 Resid rate (us/s) -1.36950E-08 +/- 2.0E-09
 Total phase (deg) -92.5 Apriori accel (us/s/s) 1.19919343883E-05 Resid phase (deg) 86.3 +/- 14.8

RMS Theor. Amplitude 0.141 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 70.9 25.6 Search (2048X64) 0.136 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 72.6 44.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 35.6 29.6 Inc. seg. avg. 0.174 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 50.9 51.6 Inc. frq. avg. 0.136 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00



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				
	-178.5	140.3	59.1	123.5	156.8	162.3	121.8	-152.8	110.0	159.4	99.6	-101.8	177.3	123.0	148.8	77.1	Phase	149.1				
	0.3	0.1	0.1	0.3	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.0	Ampl.	0.1				
	96.4	68.8	52.1	162.6	73.6	215.8	167.7	37.0	223.9	103.6	126.7	105.1	57.1	100.5	69.1	101.1	Sbd box	59.2				
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					
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
																	Tracks					
Group delay (usec)(sbd)			-3.38791790596E+03														Apriori delay (usec)	-3.38738147779E+03	Resid mbdelay (usec)	-5.17818E-03	+/-	1.9E-04
Sband delay (usec)			-3.38792673729E+03														Apriori clock (usec)	-2.7215591E+01	Resid sbdelay (usec)	-5.45259E-01	+/-	3.0E-03
Phase delay (usec)			-3.38738147298E+03														Apriori clockrate (us/s)	-4.8569552E-07	Resid phdelay (usec)	4.80802E-06	+/-	6.5E-07
Delay rate (us/s)			1.87946861639E-01														Apriori rate (us/s)	1.87942732980E-01	Resid rate (us/s)	4.12866E-06	+/-	2.8E-09
Total phase (deg)					-29.7												Apriori accel (us/s/s)	1.19919343883E-05	Resid phase (deg)	149.1	+/-	20.2

ph/seg (deg) 28.3 35.0 Search (2048X64) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

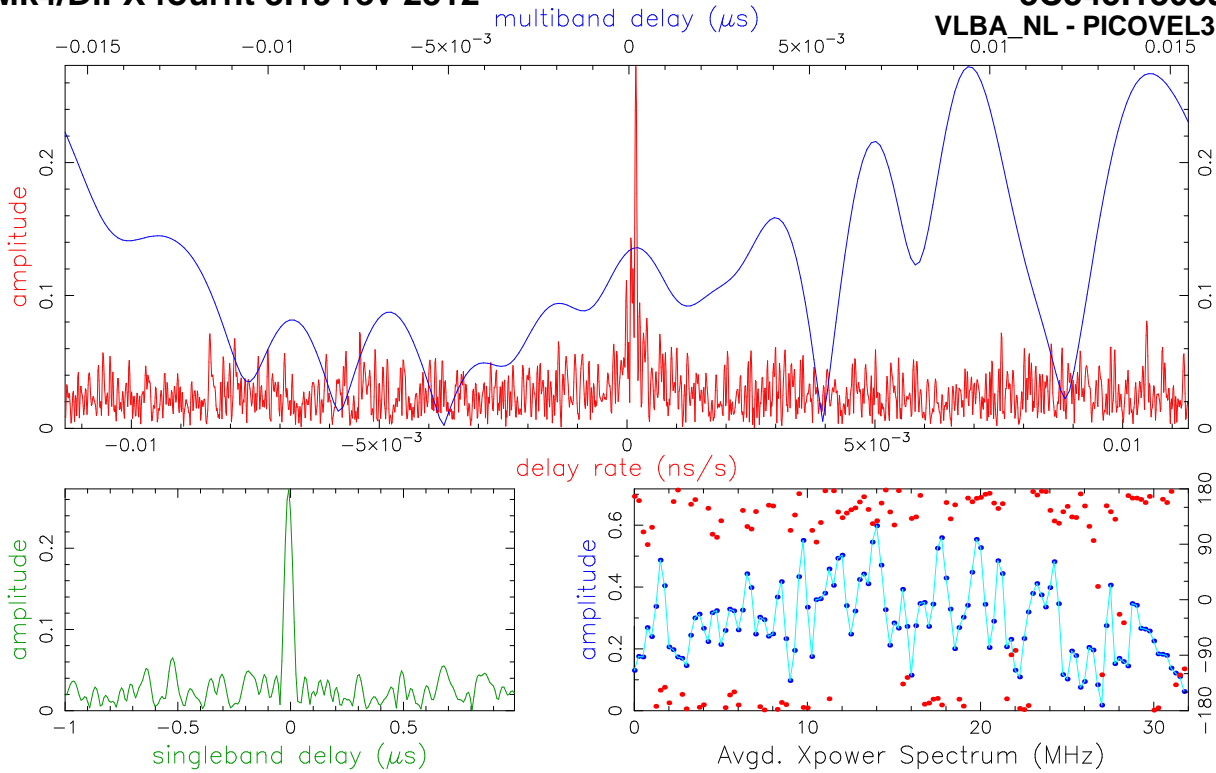
amp/seg (%) 52.5 61.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 51.3 40.4 Inc. seg. avg. 0.104 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 72.4 70.5 Inc. frq. avg. 0.115 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

l: az 63.9 el 37.8 pa -72.0 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1381.185 246.839 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/In..1305JH Output file: /Exps/c192a/v2/1234/No0001/In.W.277.1305JH

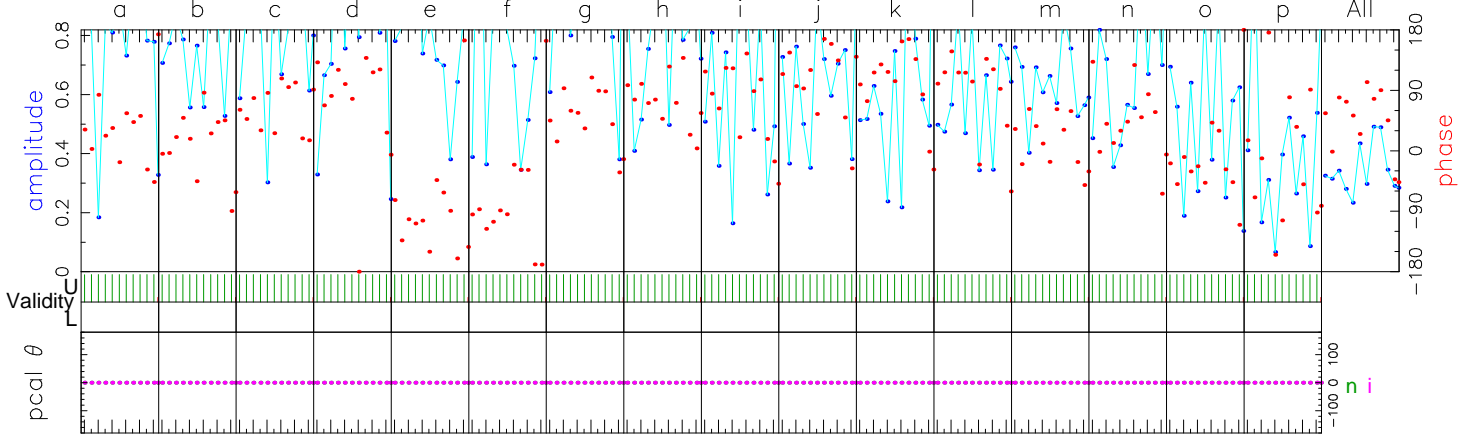


Fringe quality 9

SNR 13.2
Int time 314.116
Amp 0.273
Phase 55.7
PFD 3.0e-31
Delays (us)
SBD -0.009399
MBD 0.009419
Fringe rate (Hz) 0.014939
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
2020:093:042829
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	19.7	12.6	58.4	106.6	-112.8	-101.3	62.3	70.3	84.1	106.8	116.1	104.7	18.1	44.7	-28.2	-56.4		Phase	55.7				
n	0.7	0.5	0.7	0.7	0.6	0.5	0.8	0.7	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.2		Ampl.	0.5				
i	127.2	129.0	128.3	128.2	128.2	128.6	128.3	128.0	128.2	127.8	129.1	128.8	128.1	127.0	128.5	125.9		Sbd box	127.8				
n	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					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase					
n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000							
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
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)			-2.12457358081E+03															Apriori delay (usec)	-2.12455174932E+03	Resid mbdelay (usec)	9.41850E-03	+/-	8.2E-05
Sband delay (usec)			-2.12456114782E+03															Apriori clock (usec)	2.6964306E+01	Resid sbdelay (usec)	-9.39850E-03	+/-	1.3E-03
Phase delay (usec)			-2.12455174752E+03															Apriori clockrate (us/s)	4.8722349E-07	Resid phdelay (usec)	1.79602E-06	+/-	2.8E-07
Delay rate (us/s)			1.26460305151E+00															Apriori rate (us/s)	1.26460287808E+00	Resid rate (us/s)	1.73429E-07	+/-	1.5E-09
Total phase (deg)					-191.3													Apriori accel (us/s/s)	1.60013151196E-05	Resid phase (deg)	55.7	+/-	8.7

ph/seg (deg) 42.7 15.0
amp/seg (%) 40.7 26.2
ph/frq (deg) 80.0 17.3
amp/frq (%) 110.0 30.2

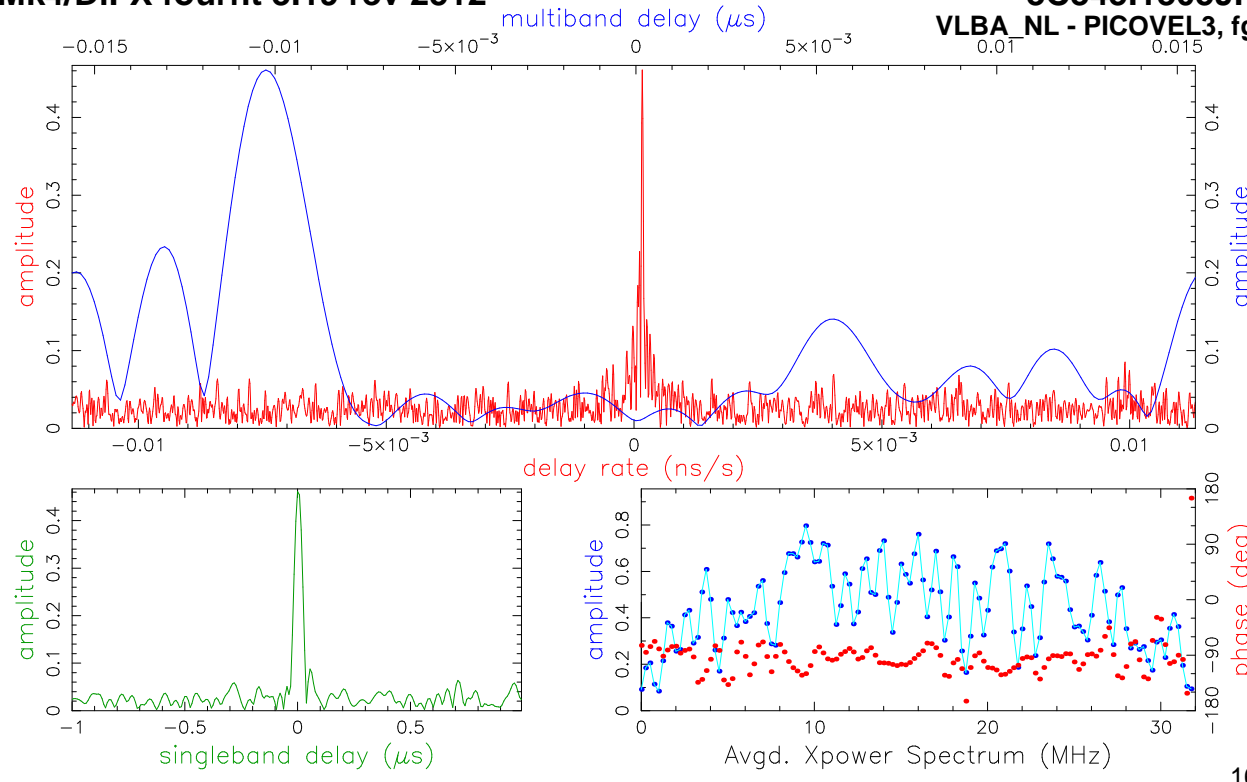
RMS Theor. Amplitude 0.273 +/- 0.021
Search (2048X64) 0.266
Interp. 0.000
Inc. seg. avg. 0.337
Inc. frq. avg. 0.511

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

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

n: az 74.7 el 50.6 pa -69.4 i: az 286.6 el 62.3 pa 84.7 u,v (fr/asec) -9394.473 1590.958 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/ni..1305JH Output file: /Exps/c192a/v2/1234/No0001/ni.W.243.1305JH

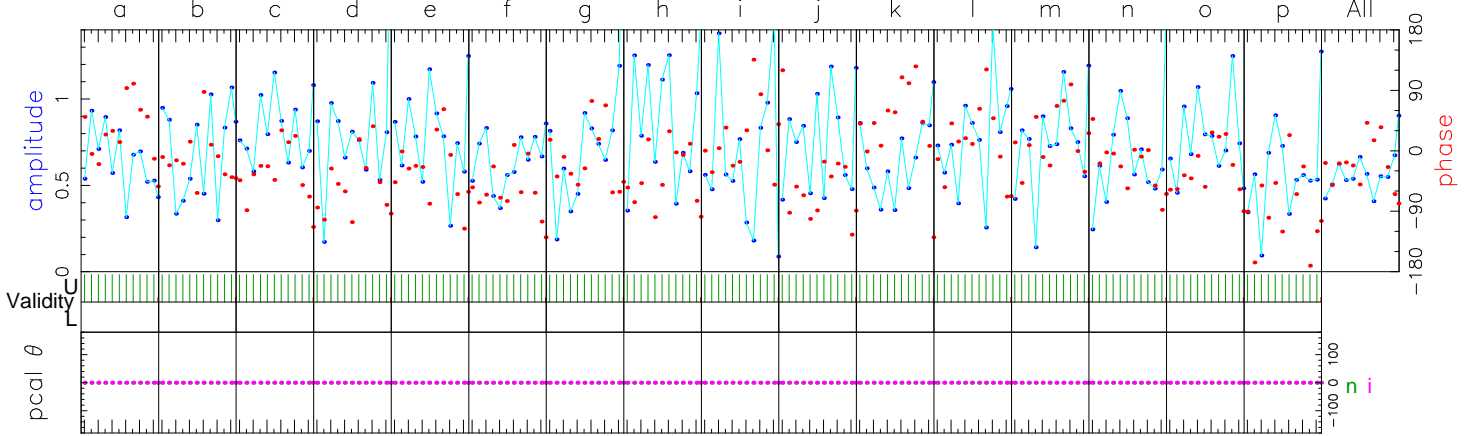


Fringe quality 7

SNR 22.6
Int time 314.116
Amp 0.467
Phase -20.1
PFD 0.0e+00
Delays (us)
SBD 0.003165
MBD -0.010239
Fringe rate (Hz) 0.014438
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
2020:093:042834
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				
U/L	28.2	-17.6	-28.1	-46.1	-30.2	-57.8	-14.0	-33.6	-2.5	-61.3	52.5	11.1	17.9	-24.2	-23.5	-92.2	Phase	-20.1				
n	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.6	0.5	0.6	0.7	0.3	Ampl.	0.5				
i	128.5	129.4	129.4	129.5	129.5	128.9	129.5	129.4	128.2	129.2	129.0	129.3	129.2	129.0	129.6	128.0	Sbd box	129.4				
n	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					
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
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					
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					
n	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						
n	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					
																	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-2.12456198866E+03														Apriori delay (usec)	-2.12455174932E+03	Resid mbdelay (usec)	-1.02393E-02	+/-	4.8E-05
Sband delay (usec)			-2.12454858432E+03														Apriori clock (usec)	2.6964306E+01	Resid sbdelay (usec)	3.16500E-03	+/-	7.6E-04
Phase delay (usec)			-2.12455174996E+03														Apriori clockrate (us/s)	4.8722349E-07	Resid phdelay (usec)	-6.47348E-07	+/-	1.6E-07
Delay rate (us/s)			1.26460304569E+00														Apriori rate (us/s)	1.26460287808E+00	Resid rate (us/s)	1.67614E-07	+/-	9.0E-10
Total phase (deg)																	Apriori accel (us/s/s)	1.60013151196E-05	Resid phase (deg)	-20.1	+/-	5.1

ph/seg (deg) 33.5 8.8
amp/seg (%) 27.0 15.3
ph/frq (deg) 37.6 10.1
amp/frq (%) 22.6 17.7

RMS Theor. Amplitude 0.467 +/- 0.021
Search (2048X64) 0.458
Interp. 0.000
Inc. seg. avg. 0.548
Inc. frq. avg. 0.533

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

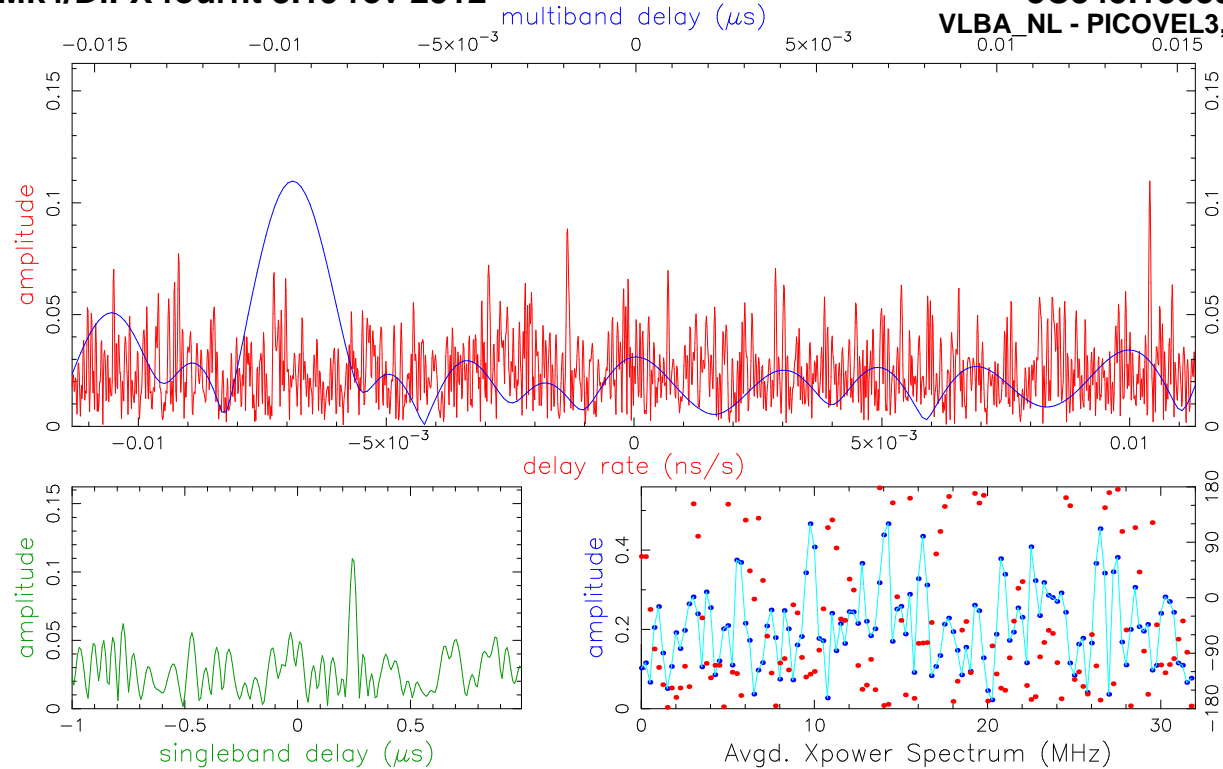
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

n: az 74.7 el 50.6 pa -69.4 i: az 286.6 el 62.3 pa 84.7 u,v (fr/asec) -9394.473 1590.958 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/ni..1305JH Output file: /Exps/c192a/v2/1234/No0001/ni.W.263.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, ni
VLBA_NL - PICOVEL3, fgroup W, pol LR

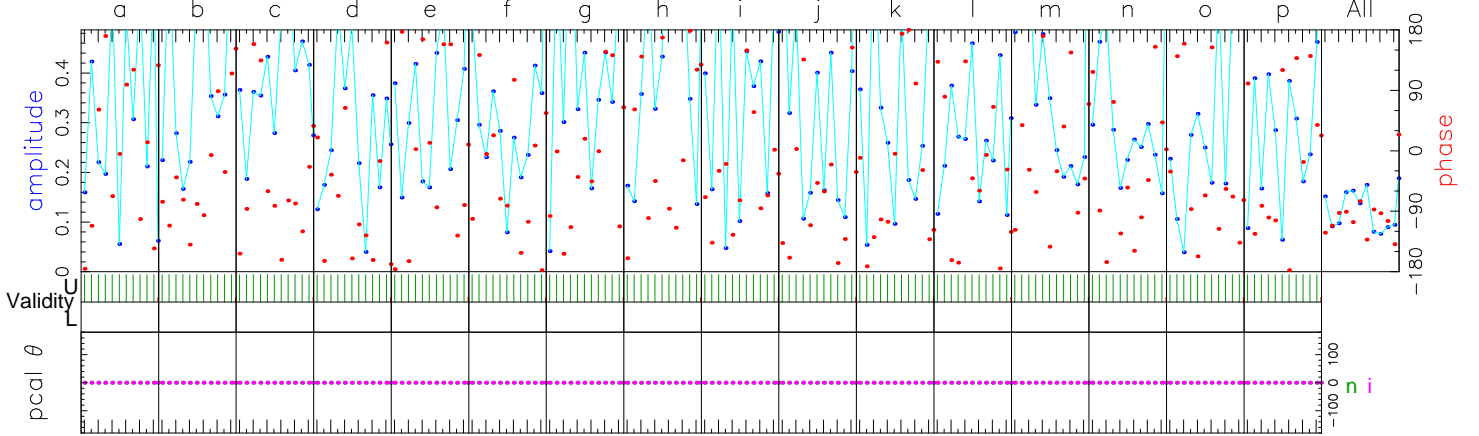


Fringe quality 0

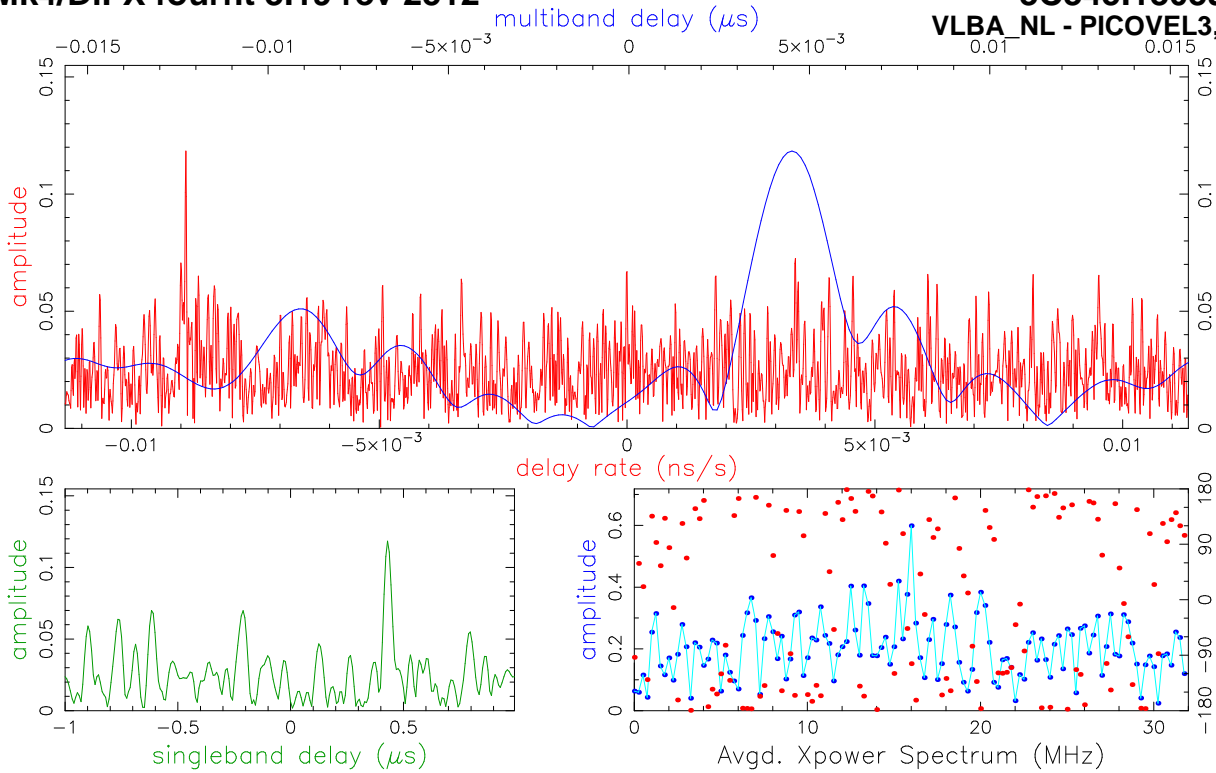
SNR 5.4
Int time 314.116
Amp 0.162
Phase -104.7
PFD 1.0e+00
Delays (us)
SBD 0.245379
MBD -0.009516
Fringe rate (Hz) 0.898160
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183145.47
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042839
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	
	-134.8	-84.7	-106.3	-127.7	-142.6	-71.5	-72.3	-108.4	-58.4	-95.3	-124.3	-171.1	-58.1	-125.3	-104.0	-142.7		Phase	-104.7
	0.1	0.2	0.3	0.1	0.2	0.1	0.2	0.3	0.2	0.2	0.3	0.1	0.1	0.1	0.3	0.1		Ampl.	0.1
	57.5	12.9	5.1	146.2	239.7	62.0	19.9	70.2	11.2	238.8	38.5	146.4	85.7	229.0	48.3	26.3		Sbd box	160.4
UL	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	
n	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	
ni	0:0	0:0	0:0	0:0	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	
ni	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
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)	-2.12431126498E+03			Apriori delay (usec)			-2.12455174932E+03			Resid mbdelay (usec)			-9.51566E-03			+/-		2.0E-04	
Sband delay (usec)	-2.12430637032E+03			Apriori clock (usec)			2.6964306E+01			Resid sbdelay (usec)			2.45379E-01			+/-		3.2E-03	
Phase delay (usec)	-2.12455175269E+03			Apriori clockrate (us/s)			4.8722349E-07			Resid phdelay (usec)			-3.37714E-06			+/-		6.8E-07	
Delay rate (us/s)	1.26461330483E+00			Apriori rate (us/s)			1.26460287808E+00			Resid rate (us/s)			1.04267E-05			+/-		3.8E-09	
Total phase (deg)	-351.7			Apriori accel (us/s/s)			1.60013151196E-05			Resid phase (deg)			-104.7			+/-		21.2	
ph/seg (deg)	RMS	Theor.	Amplitude		0.162 +/- 0.030		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		simultaneous interpolator		
amp/seg (%)	24.5	36.7	Search (2048X64)		0.108		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)		-0.016 0.016						
ph/frq (deg)	33.8	64.1	Interp.		0.000		Sample rate(MSamp/s): 64				dr window (ns/s)		-0.011 0.011						
amp/frq (%)	34.3	42.4	Inc. seg. avg.		0.146		Data rate(Mb/s): 2048				ion window (TEC)		0.00 0.00						
	50.7	74.0	Inc. frq. avg.		0.140		nlags: 128 t_cohere infinite												
n: az 74.7 el 50.6 pa -69.4	i: az 286.6 el 62.3 pa 84.7			u, v (fr/asec) -9394.473 1590.958															
Control file: cf_1234_gmva	Input file: /Exps/c192a/v2/1234/No0001/ni..1305JH			Output file: /Exps/c192a/v2/1234/No0001/ni.W.287.1305JH															

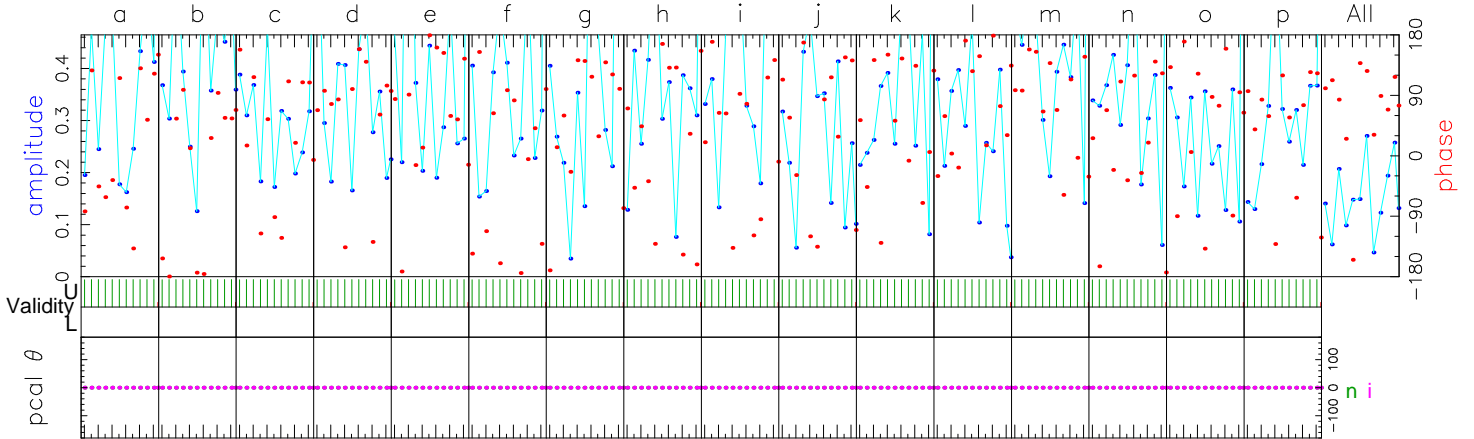


Fringe quality 0

SNR 5.7
Int time 314.116
Amp 0.155
Phase 104.9
PFD 9.0e-01
Delays (us)
SBD 0.430334
MBD 0.004511
Fringe rate (Hz)
-0.767884
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
2020:093:042843
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	
	88.2	91.1	99.6	110.9	93.0	138.0	106.3	-145.4	117.3	138.7	125.9	52.2	97.2	71.3	135.1	112.9	Phase	104.9	
	0.0	0.3	0.1	0.3	0.3	0.1	0.4	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1	
	222.5	40.2	51.9	123.3	32.3	15.0	185.2	188.7	122.1	65.1	50.2	255.6	198.2	160.5	121.8	104.8	Sbd box	184.1	
UL	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		
n	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		
ni	0:0	0:0	0:0	0:0	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		
ni	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids		
i	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks		
																	Tracks		
Group delay (usec)(sbd)			-2.12410973815E+03					Apriori delay (usec)		-2.12455174932E+03							Resid mbdelay (usec)	4.51116E-03	+/- 1.9E-04
Sband delay (usec)			-2.12412141532E+03					Apriori clock (usec)		2.6964306E+01							Resid sbdelay (usec)	4.30334E-01	+/- 3.0E-03
Phase delay (usec)			-2.12455174593E+03					Apriori clockrate (us/s)		4.8722349E-07							Resid phdelay (usec)	3.38372E-06	+/- 6.4E-07
Delay rate (us/s)			1.26459396371E+00					Apriori rate (us/s)		1.26460287808E+00							Resid rate (us/s)	-8.91437E-06	+/- 3.5E-09
Total phase (deg)								Apriori accel (us/s/s)		1.60013151196E-05							Resid phase (deg)	104.9	+/- 20.0

ph/seg (deg) 48.1 34.6
amp/seg (%) 65.5 60.4
ph/frq (deg) 38.2 39.9
amp/frq (%) 63.7 69.7

RMS 48.1 34.6
Theor. 34.6
Amplitude 0.155 +/- 0.027
Search (2048X64) 0.116
Interp. 0.000
Inc. seg. avg. 0.170
Inc. frq. avg. 0.139

n: az 74.7 el 50.6 pa -69.4
i: az 286.6 el 62.3 pa 84.7
u,v (fr/asec) -9394.473 1590.958

Group delay (usec)(sbd) -2.12410973815E+03
Sband delay (usec) -2.12412141532E+03
Phase delay (usec) -2.12455174593E+03
Delay rate (us/s) 1.26459396371E+00
Total phase (deg) -142.1

Apriori delay (usec) -2.12455174932E+03
Apriori clock (usec) 2.6964306E+01
Apriori clockrate (us/s) 4.8722349E-07
Apriori rate (us/s) 1.26460287808E+00
Apriori accel (us/s/s) 1.60013151196E-05

Resid mbdelay (usec) 4.51116E-03
Resid sbdelay (usec) 4.30334E-01
Resid phdelay (usec) 3.38372E-06
Resid rate (us/s) -8.91437E-06
Resid phase (deg) 104.9

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

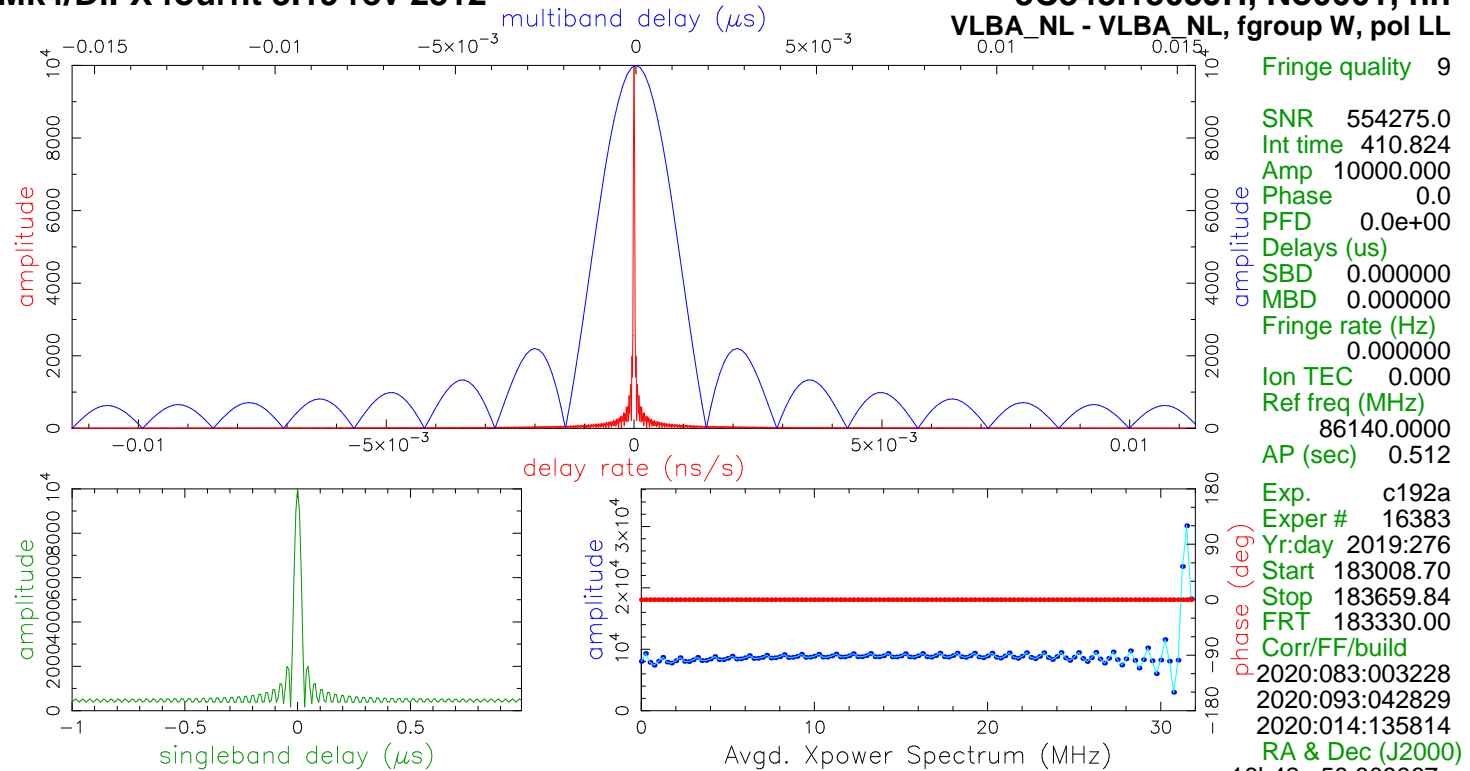
PC period (AP's) 5, 5
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

nlags: 128 t_cohere infinite
simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/ni..1305JH Output file: /Exps/c192a/v2/1234/No0001/ni.W.307.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

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



Fringe quality 9

SNR 554275.0

Int time 410.824

Amp 10000.000

Phase 0.0

PFD 0.0e+00

Delays (us)

SBD 0.000000

MBD 0.000000

Fringe rate (Hz)

0.000000

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:276

Start 183008.70

Stop 183659.84

FRT 183330.00

Corr/FF/build

2020:083:003228

2020:093:042829

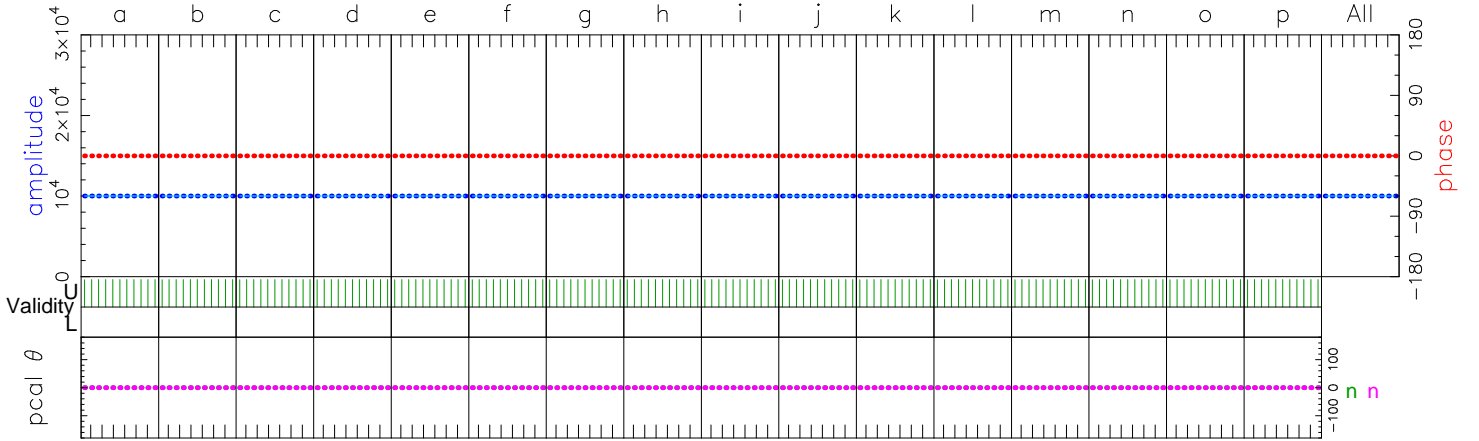
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	Phase	0.0
	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	Sbd box	129.0
UL	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Tracks	
Group delay (usec)(sbd)	0.00000000000E+00			Apriori delay (usec)			0.00000000000E+00			Resid mbdelay (usec)			0.00000E+00			+/- 1.9E-09		
Sband delay (usec)	0.00000000000E+00			Apriori clock (usec)			0.0000000E+00			Resid sbdelay (usec)			0.00000E+00			+/- 3.1E-08		
Phase delay (usec)	7.55676984277E-20			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			7.55677E-20			+/- 6.7E-12		
Delay rate (us/s)	0.00000000000E+00			Apriori rate (us/s)			0.00000000000E+00			Resid rate (us/s)			0.00000E+00			+/- 2.8E-14		
Total phase (deg)	0.0			Apriori accel (us/s/s)			0.00000000000E+00			Resid phase (deg)			0.0			+/- 0.0		

ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

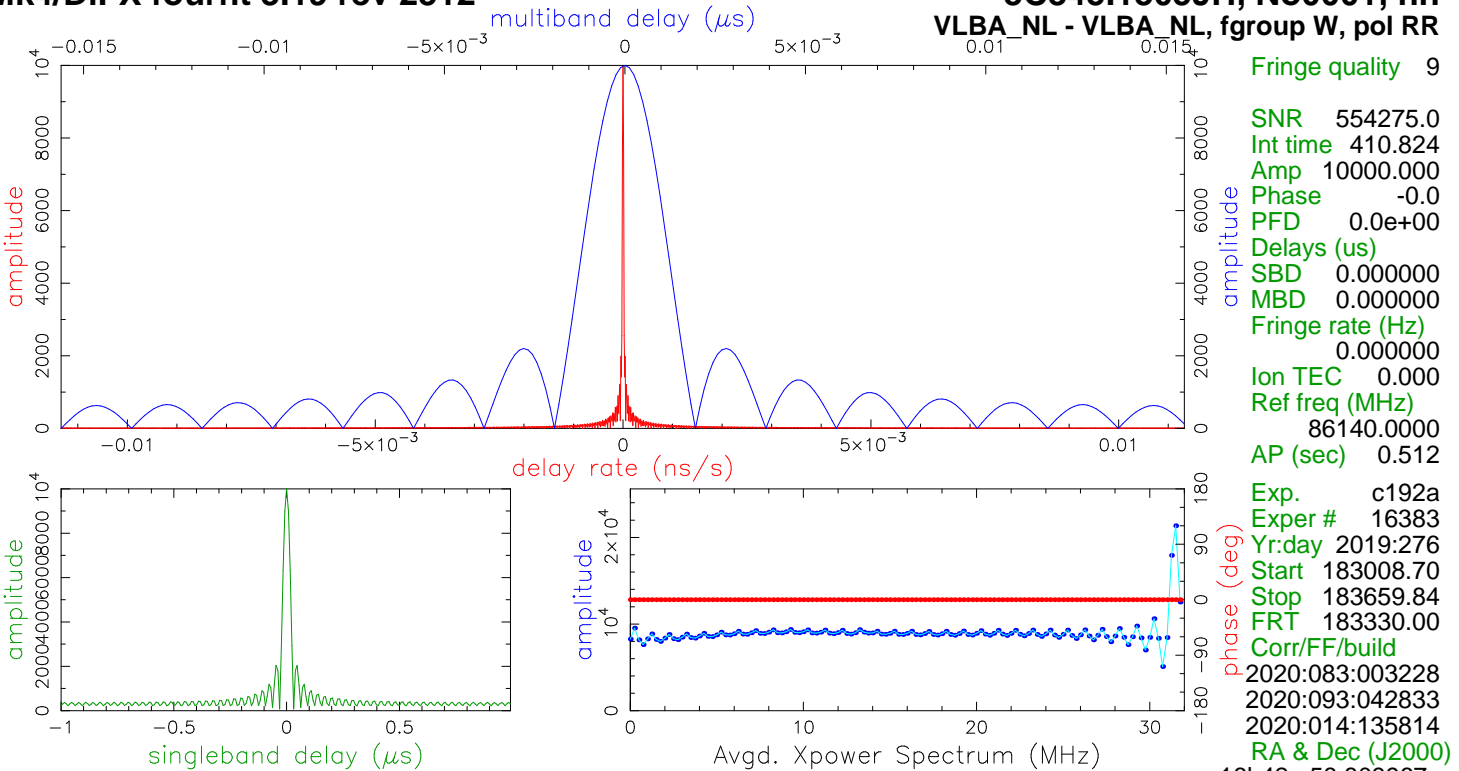
amp/seg (%) 0.0 0.0 Search (2048X64) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011

az 74.7 el 50.6 pa -69.4 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 0.000 0.000 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/nn..1305JH Output file: /Exps/c192a/v2/1234/No0001/nn.W.245.1305JH



Fringe quality 9

SNR 554275.0

Int time 410.824

Amplitude 10000.000

Phase -0.0

PFD 0.0e+00

Delays (us)

SBD 0.000000

MBD 0.000000

Fringe rate (Hz)

0.000000

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:276

Start 183008.70

Stop 183659.84

FRT 183330.00

Corr/FF/build

2020:083:003228

2020:093:042833

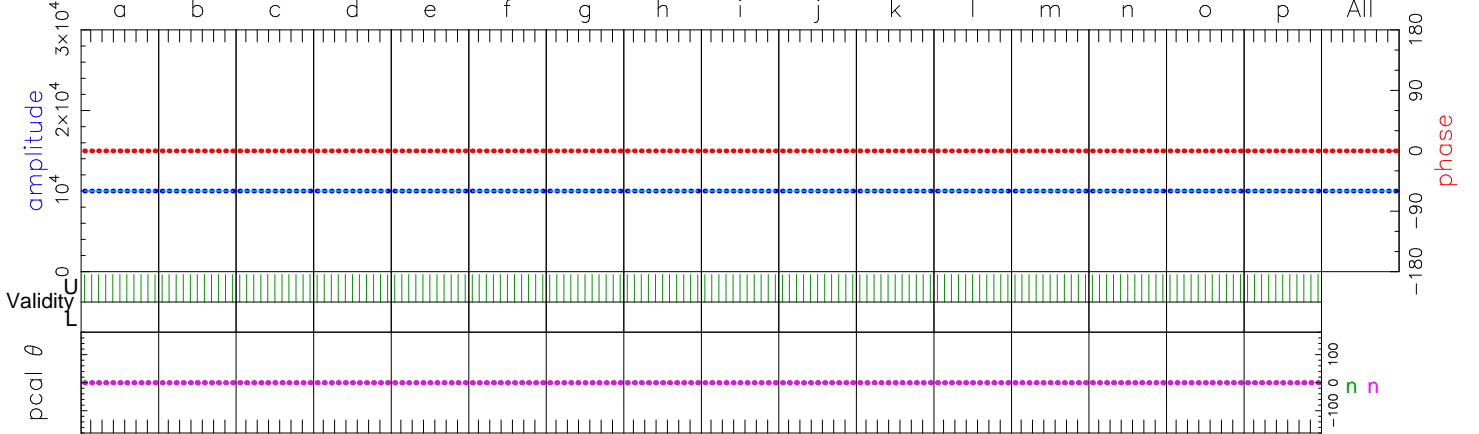
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 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 803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	APs used	
n 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
n 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
n 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
n 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)	0.0000000000E+00	Apriori delay (usec)				0.0000000000E+00	Resid mbdelay (usec)				0.00000E+00	+/- 1.9E-09					
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)				0.0000000E+00	Resid sbdelay (usec)				0.00000E+00	+/- 3.1E-08					
Phase delay (usec)	-1.82168426802E-19	Apriori clockrate (us/s)				0.0000000E+00	Resid phdelay (usec)				-1.82168E-19	+/- 6.7E-12					
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)				0.0000000000E+00	Resid rate (us/s)				0.00000E+00	+/- 2.8E-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 10000.000 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 0.0 0.0 Search (2048X64) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

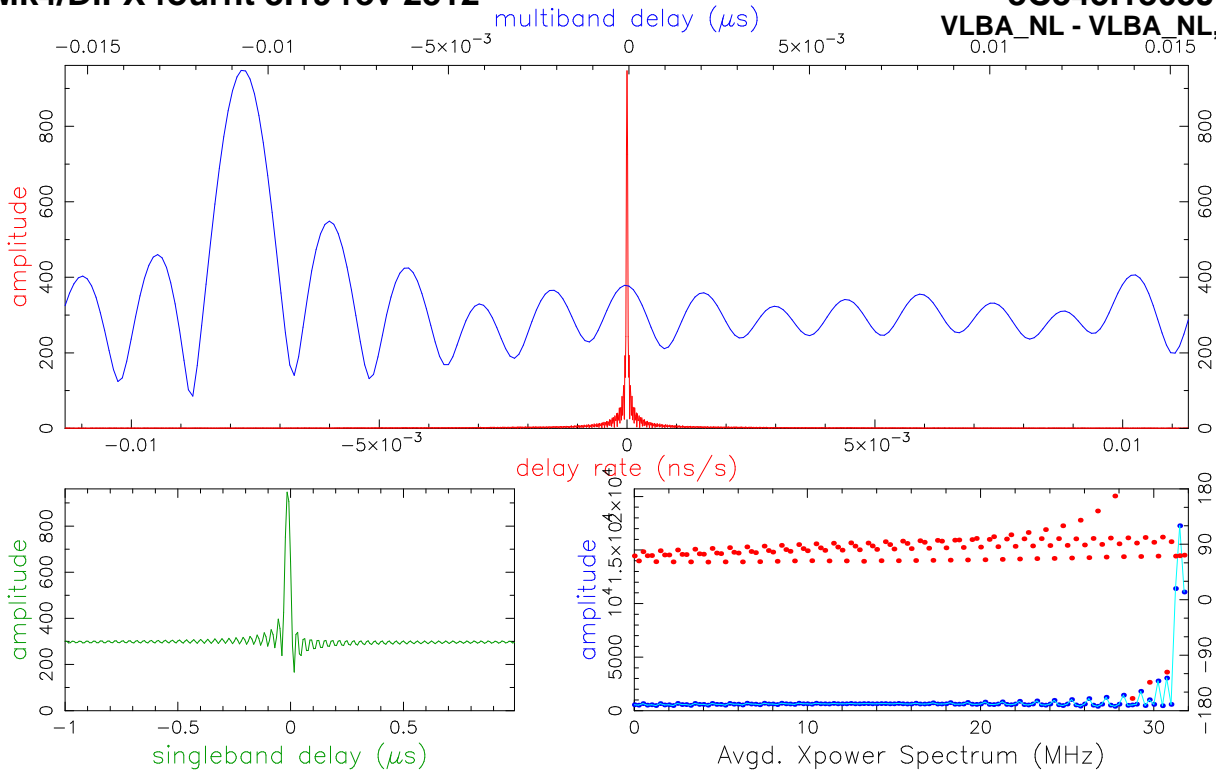
amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011

az 74.7 el 50.6 pa -69.4 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 0.000 0.000 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/nn..1305JH Output file: /Exps/c192a/v2/1234/No0001/nn.W.261.1305JH simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

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

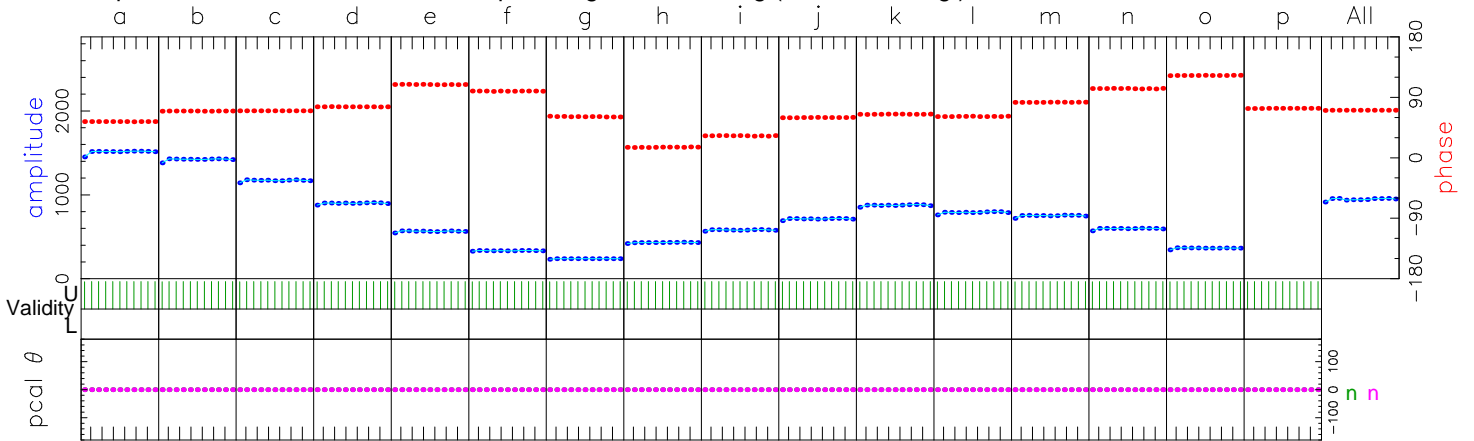


Fringe quality 5

SNR 53283.4
Int time 410.824
Amp 961.317
Phase 70.7
PFD 0.0e+00
Delays (us)
SBD -0.012970
MBD -0.010759
Fringe rate (Hz)
-0.000001
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042838
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 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	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)			-1.07589375000E-02															
Sband delay (usec)			-1.29705000000E-02															
Phase delay (usec)			2.27918964597E-06															
Delay rate (us/s)			-7.79413381543E-12															
Total phase (deg)					70.7													
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		

ph/seg (deg) 0.1 0.0
amp/seg (%) 2.0 0.0
ph/frq (deg) 28.4 0.0
amp/frq (%) 106.8 0.0

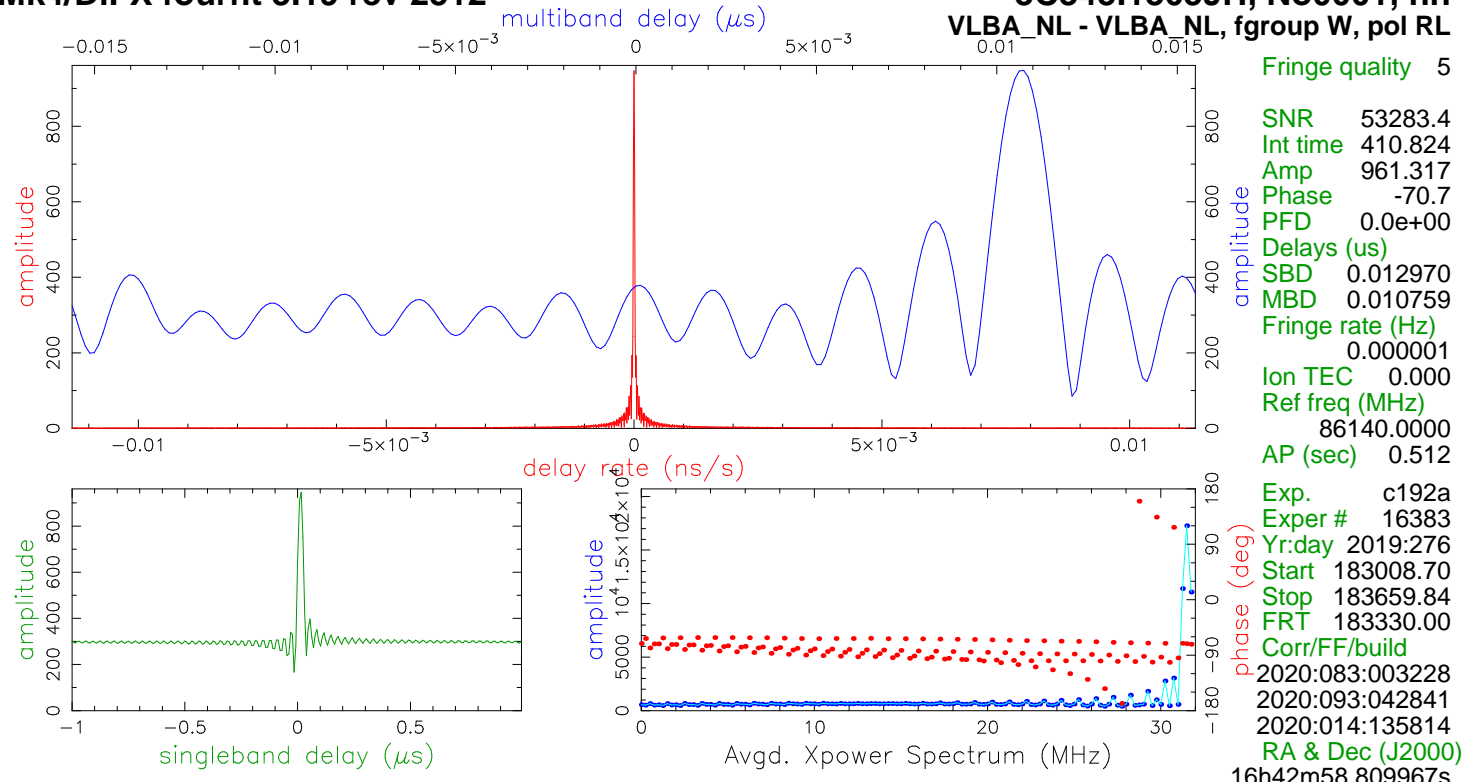
RMS Theor. Amplitude 961.318 +/- 0.018
Search (2048X64) 948.099
Interp. 0.000
Inc. seg. avg. 946.847
Inc. frq. avg. 998.219

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

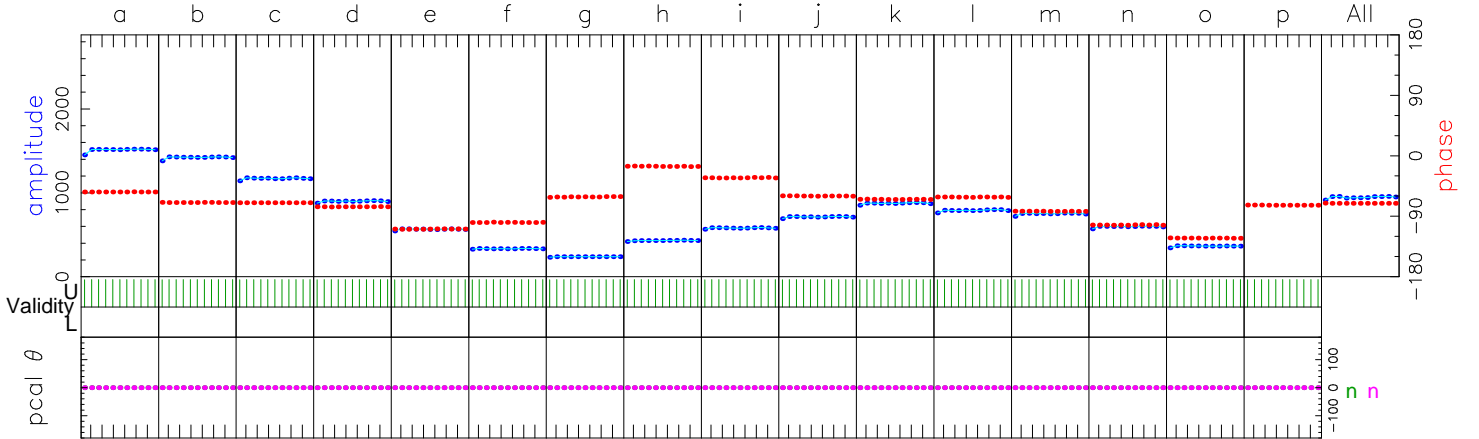
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/nn..1305JH Output file: /Exps/c192a/v2/1234/No0001/nn.W.281.1305JH



Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec

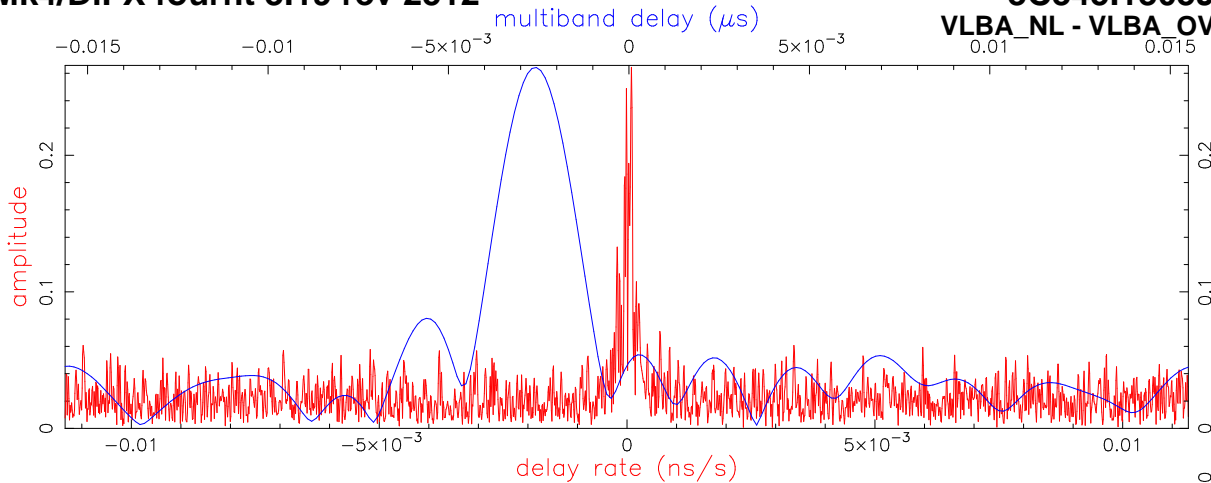


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-53.9	-69.5	-69.9	-75.9	-109.0	-99.2	-61.2	-15.6	-32.7	-59.8	-64.8	-61.4	-82.6	-102.9	-122.5	-73.5		Phase	-70.7				
	1511.9	1421.4	1170.9	899.6	565.3	334.1	238.6	431.1	581.0	713.3	875.3	790.1	750.6	596.9	364.6	4726.8		Ampl.	998.2				
	130.3	130.3	130.2	130.1	130.3	130.6	131.0	130.7	129.9	130.2	130.3	130.4	130.3	130.0	130.2	131.9		Sbd box	130.7				
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0		APs used					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase					
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids					
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
																		Tracks					
Group delay (usec)(sbd)		1.07589375000E-02																Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.07589E-02	+/-	2.0E-08
Sband delay (usec)		1.29705000000E-02																Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.29705E-02	+/-	3.2E-07
Phase delay (usec)		-2.27918964598E-06																Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.27919E-06	+/-	6.9E-11
Delay rate (us/s)		7.79413381543E-12																Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	7.79413E-12	+/-	2.9E-13
Total phase (deg)																		Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-70.7	+/-	0.0

ph/seg (deg) 0.1 0.0 RMS Theor. Amplitude 961.318 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 2.0 0.0 Search (2048X64) 948.099 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 28.4 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 106.8 0.0 Inc. seg. avg. 946.847 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 n: az 74.7 el 50.6 pa -69.4 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/nn..1305JH Output file: /Exps/c192a/v2/1234/No0001/nn.W.299.1305JH simultaneous interpolator

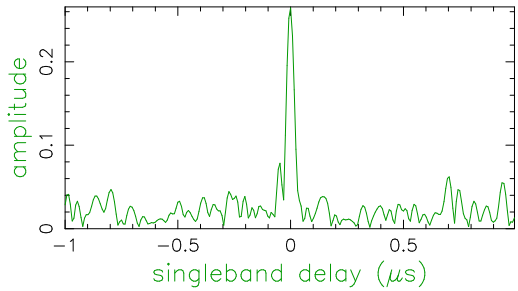
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, no
VLBA_NL - VLBA_OV, fgroup W, pol LL

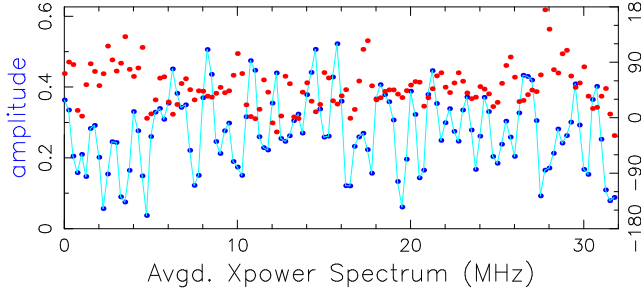


Fringe quality 9

SNR 14.7
Int time 410.824
Amp 0.266
Phase 49.1
PFD 2.4e-40
Delays (us)
SBD -0.001921
MBD -0.002608
Fringe rate (Hz)
0.007171
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

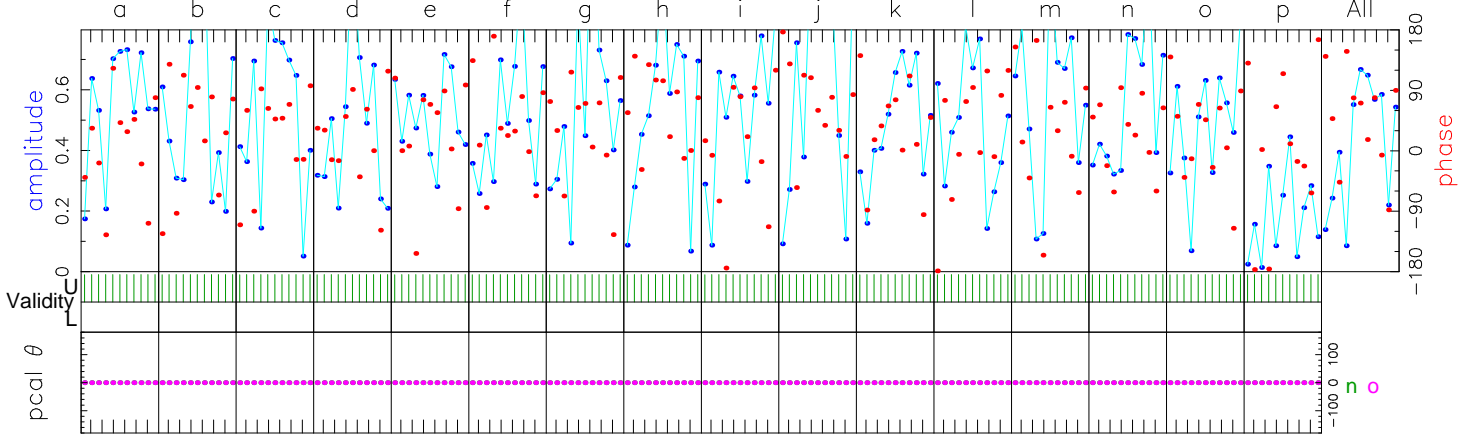


delay rate (ns/s)



Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042832
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec

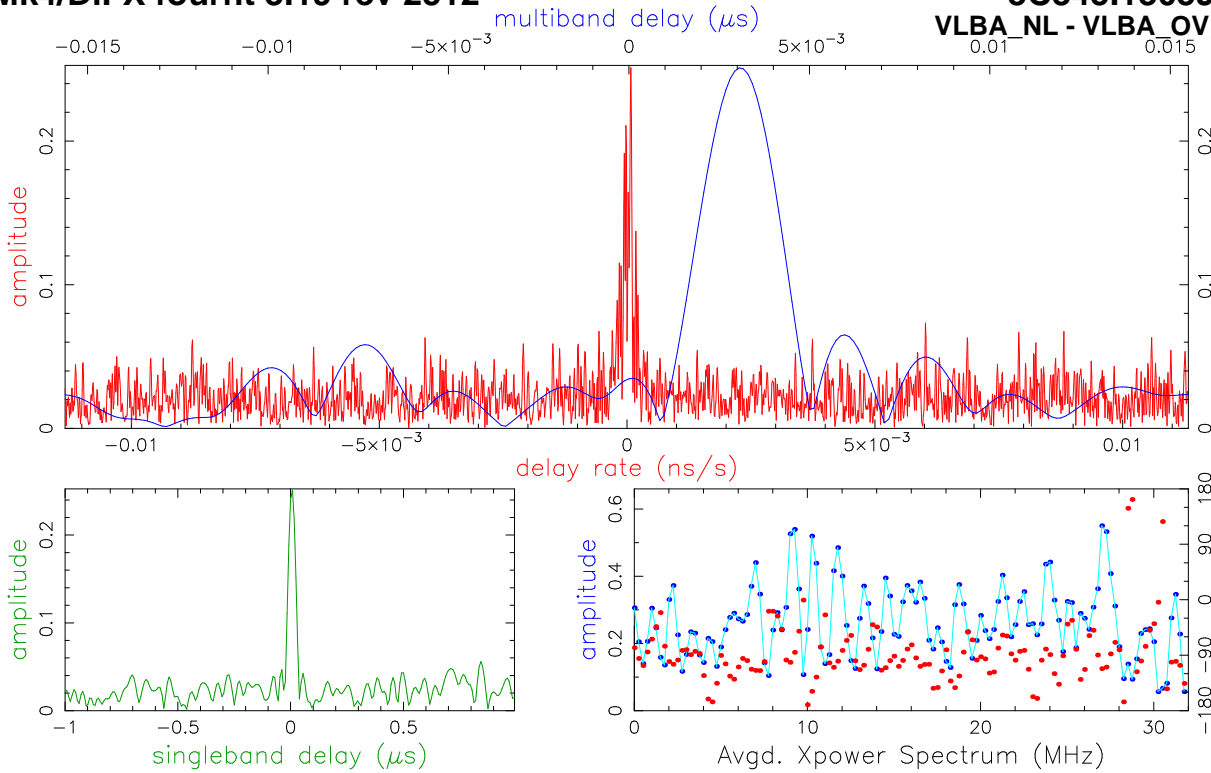


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks
Group delay (usec)(sbd)	5.79987454269E+03			Apriori delay (usec)			5.79987715098E+03			Resid mbdelay (usec)			-2.60829E-03			+/- 7.3E-05		
Sband delay (usec)	5.79987522948E+03			Apriori clock (usec)			9.8455582E+00			Resid sbdelay (usec)			-1.92150E-03			+/- 1.2E-03		
Phase delay (usec)	5.79987715256E+03			Apriori clockrate (us/s)			1.3324251E-07			Resid phdelay (usec)			1.58479E-06			+/- 2.5E-07		
Delay rate (us/s)	-2.30854664492E-01			Apriori rate (us/s)			-2.30854747736E-01			Resid rate (us/s)			8.32442E-08			+/- 1.1E-09		
Total phase (deg)	331.9			Apriori accel (us/s/s)			-2.63821853623E-05			Resid phase (deg)			49.1			+/- 7.8		

ph/seg (deg) 70.1 12.9 Search (2048X64) 0.253 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 96.6 22.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 17.2 15.6 Inc. seg. avg. 0.412 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 36.1 27.1 Inc. frq. avg. 0.265 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
n: az 74.7 el 50.6 pa -69.4 o: az 60.7 el 29.9 pa -64.6 u,v (fr/asec) 1675.956 -1330.225 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/no..1305JH Output file: /Exps/c192a/v2/1234/No0001/no.W.258.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, no
VLBA_NL - VLBA_OV, fgroup W, pol RR

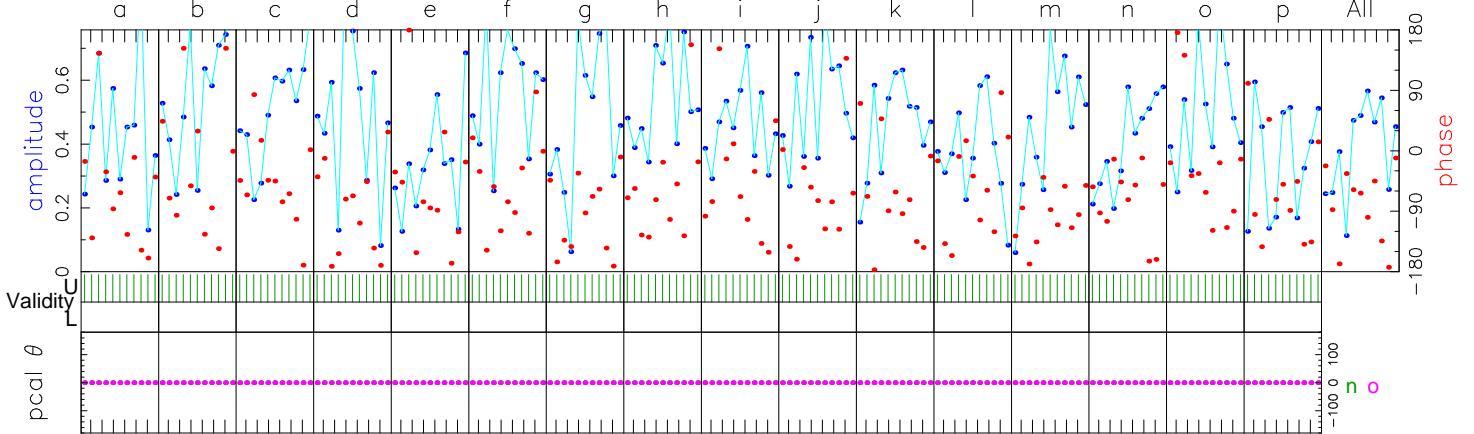


Fringe quality 9

SNR 14.0
Int time 410.824
Amp 0.253
Phase -79.8
PFD 8.7e-36
Delays (us)
SBD 0.005741
MBD 0.003080
Fringe rate (Hz) 0.006777
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042838
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 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	
	-105.8	-88.7	-55.0	-79.9	-75.6	-66.7	-83.5	-84.0	-74.6	-93.3	-90.4	-64.7	-93.0	-75.9	-58.3	-86.9		Phase	-79.8
	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.3	0.3	0.2	0.4	0.3	0.3	0.2		Ampl.	0.2
	128.4	69.6	129.5	129.3	142.8	150.8	129.4	129.0	235.0	130.5	131.5	230.6	130.3	227.2	129.4	130.5		Sbd box	129.7
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0		APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
n	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)	5.79988023078E+03			Apriori delay (usec)			5.79987715098E+03			Resid mbdelay (usec)			3.07980E-03			+/- 7.7E-05			
Sband delay (usec)	5.79988289198E+03			Apriori clock (usec)			9.8455582E+00			Resid sbdelay (usec)			5.74100E-03			+/- 1.2E-03			
Phase delay (usec)	5.79987714841E+03			Apriori clockrate (us/s)			1.3324251E-07			Resid phdelay (usec)			-2.57199E-06			+/- 2.6E-07			
Delay rate (us/s)	-2.30854669062E-01			Apriori rate (us/s)			-2.30854747736E-01			Resid rate (us/s)			7.86740E-08			+/- 1.1E-09			
Total phase (deg)	202.9			Apriori accel (us/s/s)			-2.63821853623E-05			Resid phase (deg)			-79.8			+/- 8.2			

ph/seg (deg) 54.0 13.6
amp/seg (%) 76.6 23.7
ph/frq (deg) 14.2 16.4
amp/frq (%) 25.8 28.6

RMS Theor. Amplitude 0.253 +/- 0.018
Search (2048X64) 0.248
Interp. 0.000
Inc. seg. avg. 0.375
Inc. frq. avg. 0.248

Group delay (usec)(sbd) 5.79988023078E+03
Sband delay (usec) 5.79988289198E+03
Phase delay (usec) 5.79987714841E+03
Delay rate (us/s) -2.30854669062E-01
Total phase (deg) 202.9

Apriori delay (usec) 5.79987715098E+03
Apriori clock (usec) 9.8455582E+00
Apriori clockrate (us/s) 1.3324251E-07
Apriori rate (us/s) -2.30854747736E-01
Apriori accel (us/s/s) -2.63821853623E-05

Resid mbdelay (usec) 3.07980E-03 +/- 7.7E-05
Resid sbdelay (usec) 5.74100E-03 +/- 1.2E-03
Resid phdelay (usec) -2.57199E-06 +/- 2.6E-07
Resid rate (us/s) 7.86740E-08 +/- 1.1E-09
Resid phase (deg) -79.8 +/- 8.2

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

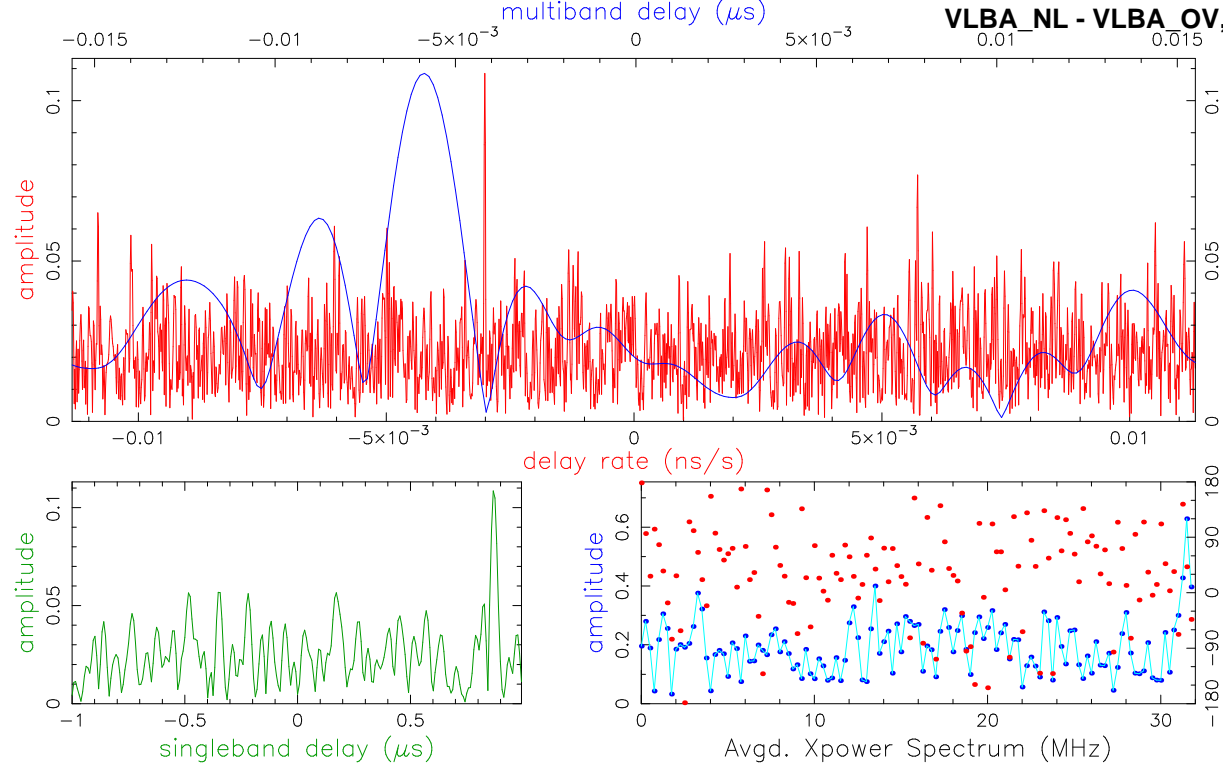
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

n: az 74.7 el 50.6 pa -69.4 o: az 60.7 el 29.9 pa -64.6 u,v (fr/asec) 1675.956 -1330.225 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/no..1305JH Output file: /Exps/c192a/v2/1234/No0001/no.W.284.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, no
VLBA_NL - VLBA_OV, fgroup W, pol LR

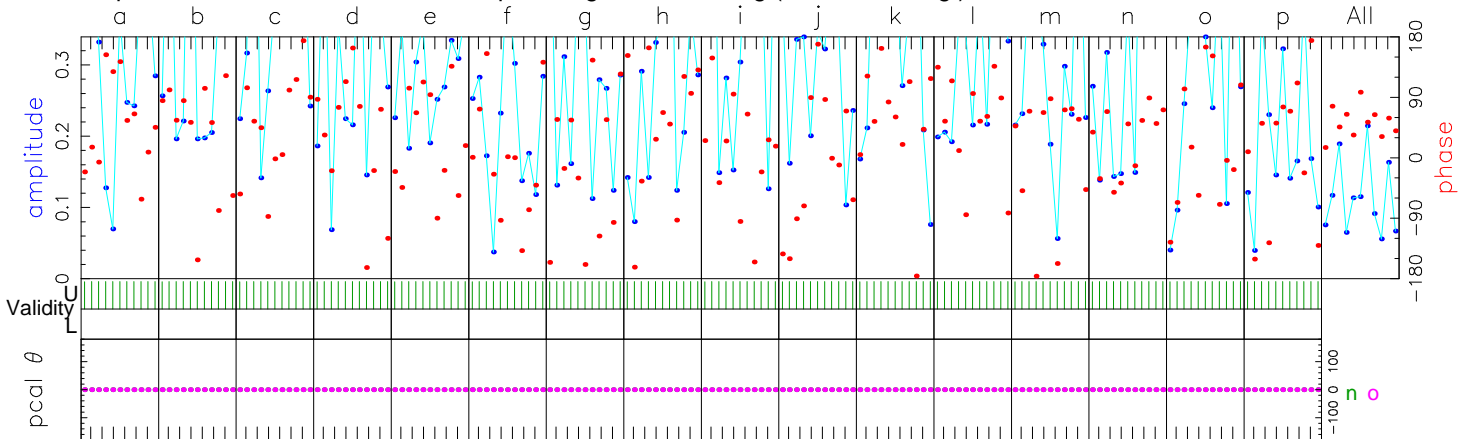


Fringe quality 0

SNR 6.1
Int time 410.824
Amp 0.113
Phase 54.6
PFD 2.5e-01
Delays (us)
SBD 0.869847
MBD -0.005894
Fringe rate (Hz)
-0.260234
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042843
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 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
	16.9	76.5	67.6	66.5	23.7	-4.2	-135.0	74.3	40.3	-65.7	93.0	78.5	64.9	49.4	-19.2	52.2	Phase	54.6
	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.1	0.1	Ampl.	0.1
	99.7	159.4	248.9	190.7	56.9	174.7	71.4	1.5	38.1	60.0	241.4	185.4	60.2	240.1	146.1	113.7	Sbd box	240.3
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	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	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	5.80074625660E+03		Apriori delay (usec)		5.79987715098E+03		Resid mbdelay (usec)		-5.89438E-03		+/- 1.8E-04							
Sband delay (usec)	5.80074699848E+03		Apriori clock (usec)		9.8455582E+00		Resid sbdelay (usec)		8.69847E-01		+/- 2.8E-03							
Phase delay (usec)	5.79987715274E+03		Apriori clockrate (us/s)		1.3324251E-07		Resid phdelay (usec)		1.76114E-06		+/- 6.1E-07							
Delay rate (us/s)	-2.30857768795E-01		Apriori rate (us/s)		-2.30854747736E-01		Resid rate (us/s)		-3.02106E-06		+/- 2.6E-09							
Total phase (deg)	337.3		Apriori accel (us/s/s)		-2.63821853623E-05		Resid phase (deg)		54.6		+/- 18.8							

RMS Theor. Amplitude 0.113 +/- 0.019
 ph/seg (deg) 22.0 31.2 Search (2048X64) 0.106
 amp/seg (%) 46.3 54.4 Interp. 0.000
 ph/frq (deg) 64.6 37.6 Inc. seg. avg. 0.103
 amp/frq (%) 56.6 65.7 Inc. frq. avg. 0.113

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

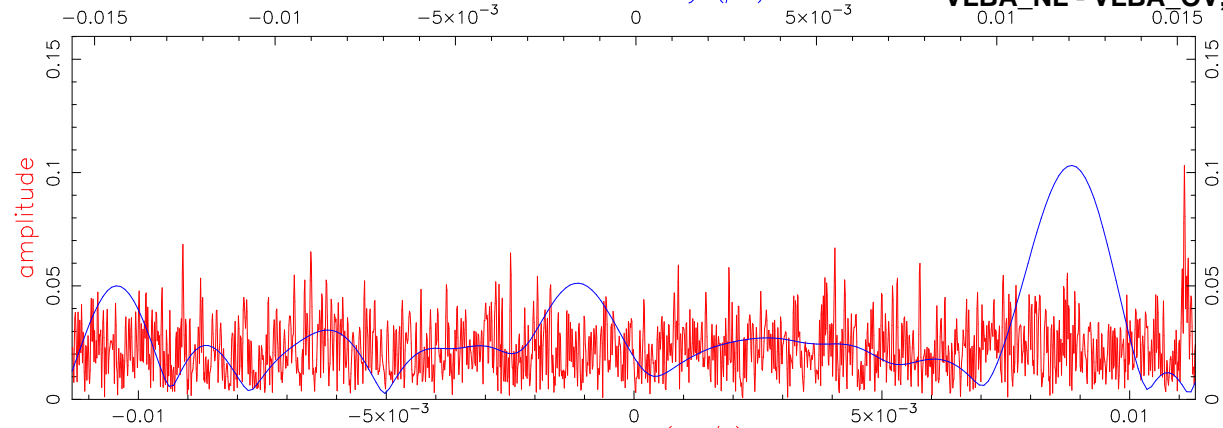
n: az 74.7 el 50.6 pa -69.4 o: az 60.7 el 29.9 pa -64.6 u,v (fr/asec) 1675.956 -1330.225 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/no..1305JH Output file: /Exps/c192a/v2/1234/No0001/no.W.306.1305JH

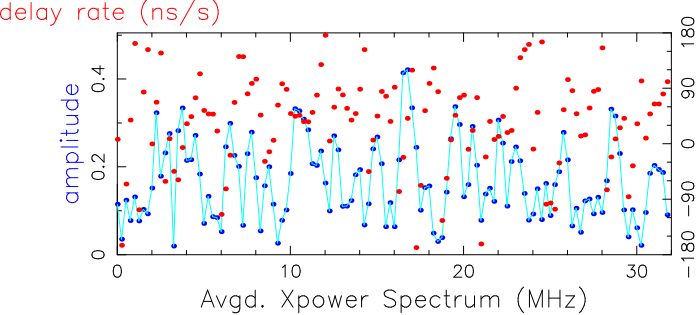
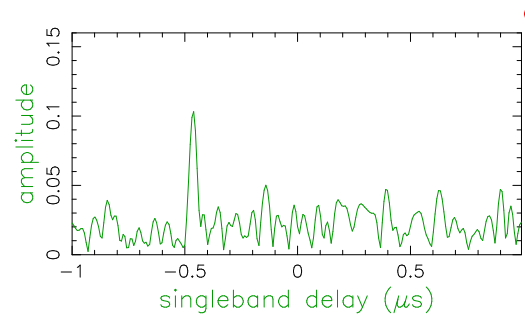
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, no
VLBA_NL - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

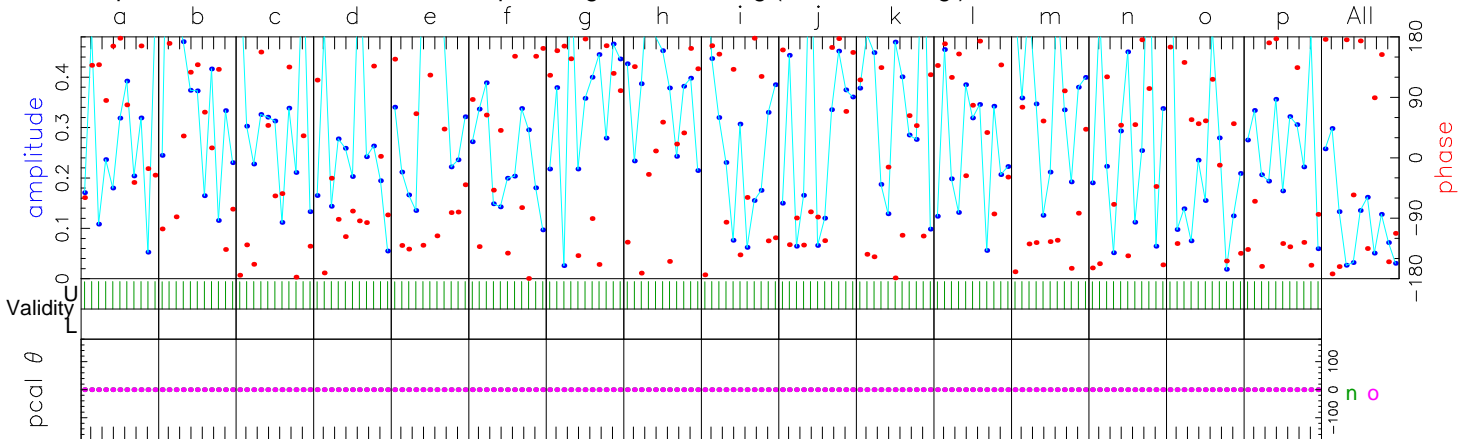


Fringe quality 0
SNR 5.8
Int time 410.824
Amp 0.160
Phase -173.0
PFD 8.9e-01
Delays (us)
SBD -0.463027
MBD 0.012050
Fringe rate (Hz)
0.958371
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042849
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 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
	120.8	175.2	172.1	-111.7	-139.2	169.4	161.5	65.2	-163.4	-152.0	-160.0	152.3	-145.6	161.9	127.0	-150.8	Phase	-173.0
	0.1	0.1	0.1	0.2	0.2	0.1	0.4	0.1	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.3	Ampl.	0.2
	206.2	26.3	32.6	198.8	111.0	60.9	144.4	19.6	70.4	19.2	221.6	15.9	85.5	245.5	129.7	90.1	Sbd box	69.7
UL	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

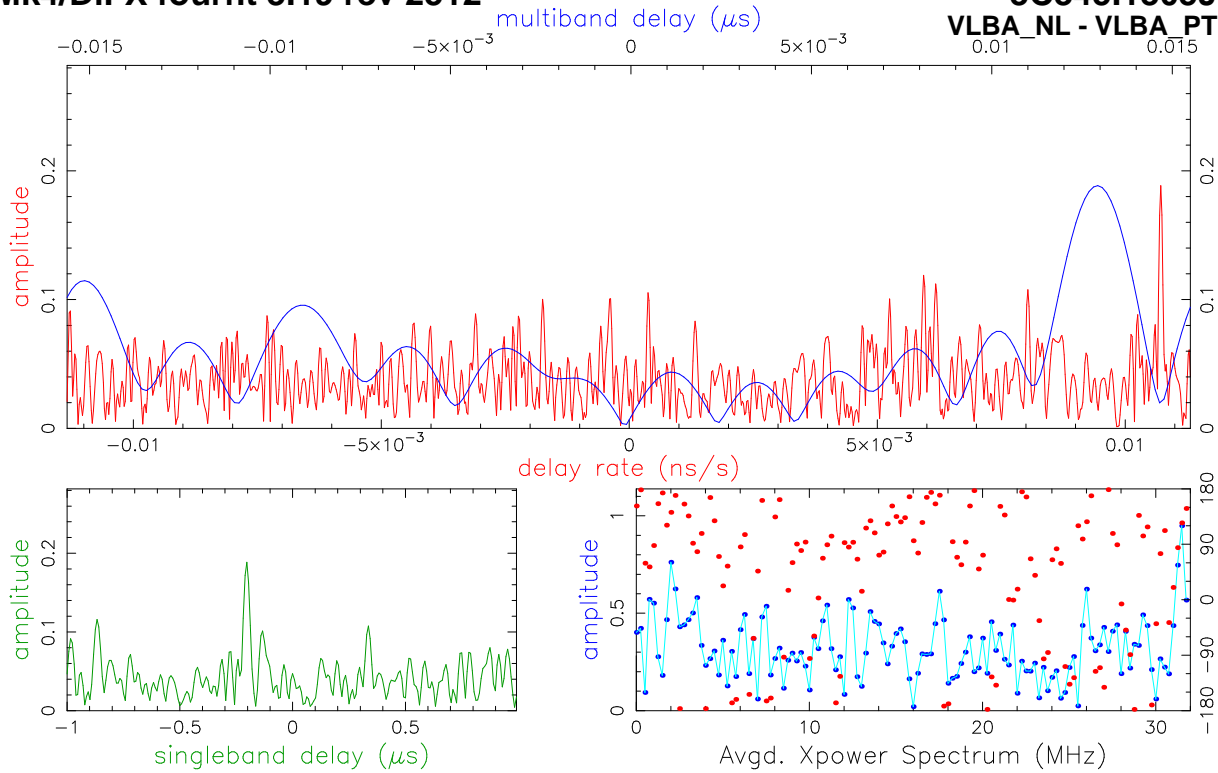
Group delay (usec)(sbd) 5.79942045074E+03 Apriori delay (usec) 5.79987715098E+03 Resid mbdelay (usec) 1.20498E-02 +/- 1.9E-04
 Sband delay (usec) 5.79941412398E+03 Apriori clock (usec) 9.8455582E+00 Resid sbdelay (usec) -4.63027E-01 +/- 3.0E-03
 Phase delay (usec) 5.79987714540E+03 Apriori clockrate (us/s) 1.3324251E-07 Resid phdelay (usec) -5.57891E-06 +/- 6.4E-07
 Delay rate (us/s) -2.30843622004E-01 Apriori rate (us/s) -2.30854747736E-01 Resid rate (us/s) 1.11257E-05 +/- 2.7E-09
 Total phase (deg) 109.7 Apriori accel (us/s/s) -2.63821853623E-05 Resid phase (deg) -173.0 +/- 19.9

ph/seg (deg) RMS Theor. Amplitude 0.160 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 52.7 33.0 Search (2048X64) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 85.9 57.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 48.4 39.8 Inc. seg. avg. 0.159 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

n: az 74.7 el 50.6 pa -69.4 o: az 60.7 el 29.9 pa -64.6 u,v (fr/asec) 1675.956 -1330.225 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/no..1305JH Output file: /Exps/c192a/v2/1234/No0001/no.W.330.1305JH

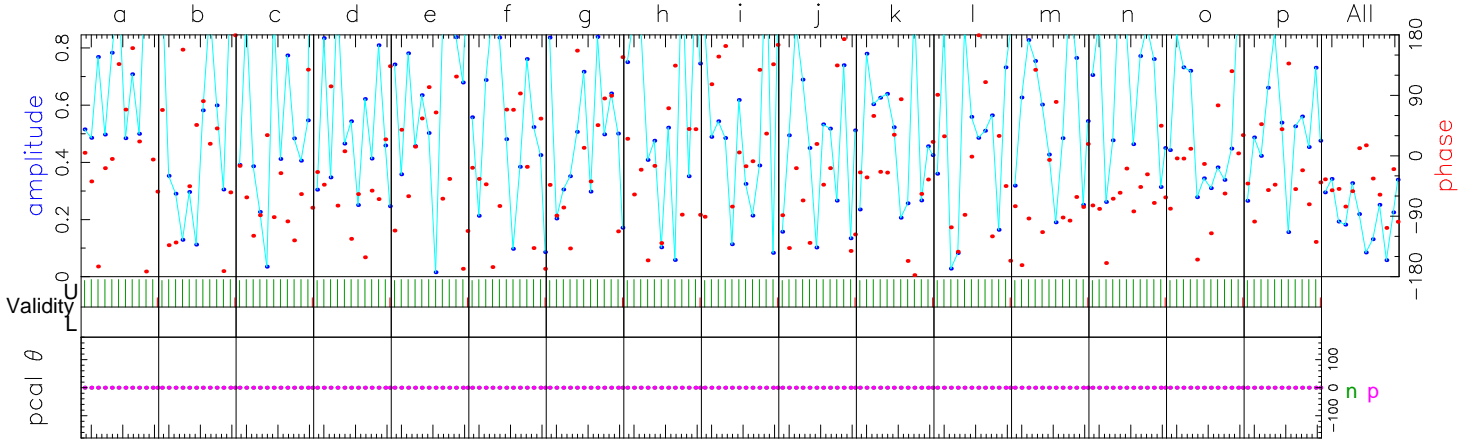
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, np
VLBA_NL - VLBA_PT, fgroup W, pol LL



Fringe quality 0
SNR 6.1
Int time 138.827
Amp 0.282
Phase -43.9
PFD 1.4e-01
Delays (us)
SBD -0.204131
MBD 0.012947
Fringe rate (Hz) 0.924534
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
2020:093:042829
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

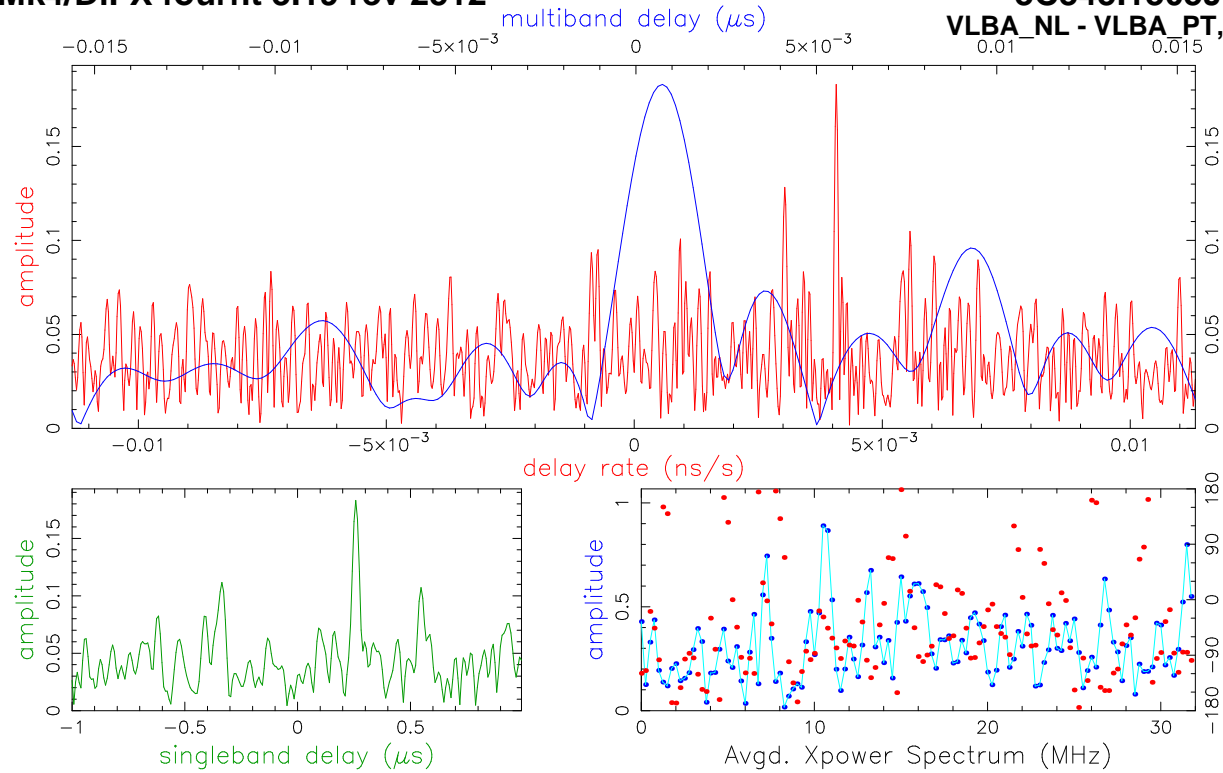


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	21.3	30.8	-81.4	-59.3	-44.3	-40.8	8.1	-19.0	62.3	-81.0	-15.4	-44.8	-95.6	-55.1	-3.2	-48.1	Phase	-43.9
n	0.1	0.2	0.6	0.5	0.2	0.2	0.2	0.5	0.1	0.3	0.3	0.1	0.5	0.8	0.5	0.5	Ampl.	0.3
p	238.2	227.2	225.8	251.9	139.8	230.1	75.8	153.4	68.7	88.0	51.3	43.6	80.1	103.0	162.7	102.6	Sbd box	102.9
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Group delay (usec)(sbd)	3.97271698748E+03			Apriori delay (usec)			3.97292279059E+03			Resid mbdelay (usec)			1.29469E-02			+/- 1.8E-04		
Sband delay (usec)	3.97271865909E+03			Apriori clock (usec)			1.4569433E+01			Resid sbdelay (usec)			-2.04131E-01			+/- 2.8E-03		
Phase delay (usec)	3.97292278917E+03			Apriori clockrate (us/s)			-6.9663080E-08			Resid phdelay (usec)			-1.41613E-06			+/- 6.1E-07		
Delay rate (us/s)	-2.16423036202E-01			Apriori rate (us/s)			-2.16433769130E-01			Resid rate (us/s)			1.07329E-05			+/- 7.6E-09		
Total phase (deg)	21.4			Apriori accel (us/s/s)			-1.36552804118E-05			Resid phase (deg)			-43.9			+/- 18.8		

ph/seg (deg) 34.8 32.6 Amplitude 0.282 +/- 0.046 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 49.4 56.9 Search (1024X64) 0.186 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 48.4 37.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 73.6 65.7 Inc. seg. avg. 0.274 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
n: az 74.7 el 50.6 pa -69.4 p: az 62.4 el 35.8 pa -72.0 u,v (fr/asec) 1590.964 -215.030 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/np..1305JH Output file: /Exps/c192a/v2/1234/No0001/np.W.244.1305JH simultaneous interpolator

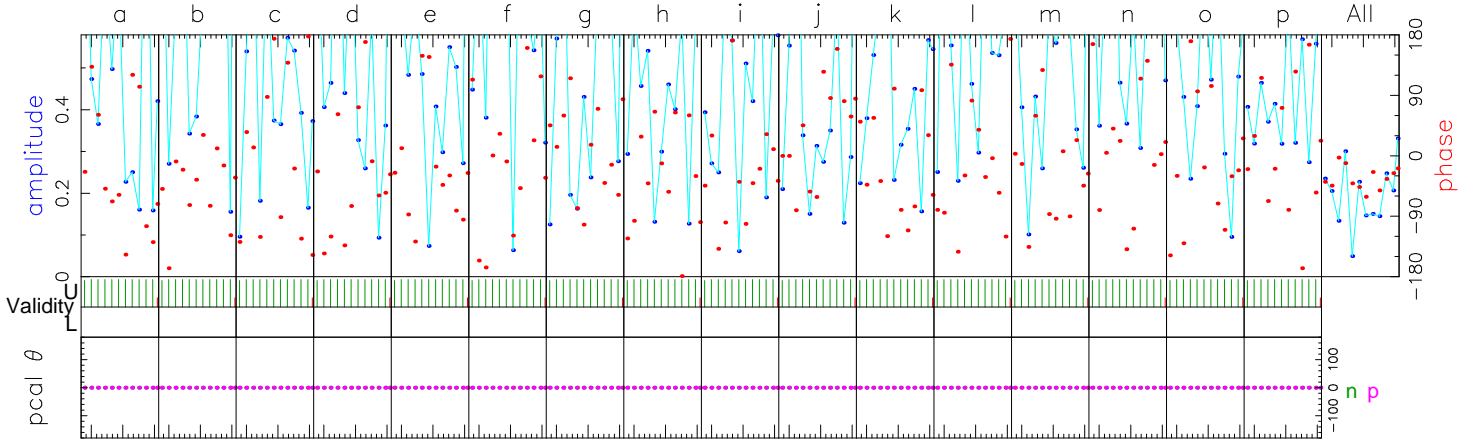
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, np
VLBA_NL - VLBA_PT, fgroup W, pol RR



Fringe quality 0
SNR 5.9
Int time 138.827
Amp 0.193
Phase -32.7
PFD 3.8e-01
Delays (us)
SBD 0.258086
MBD 0.000724
Fringe rate (Hz) 0.351551
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
2020:093:042831
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

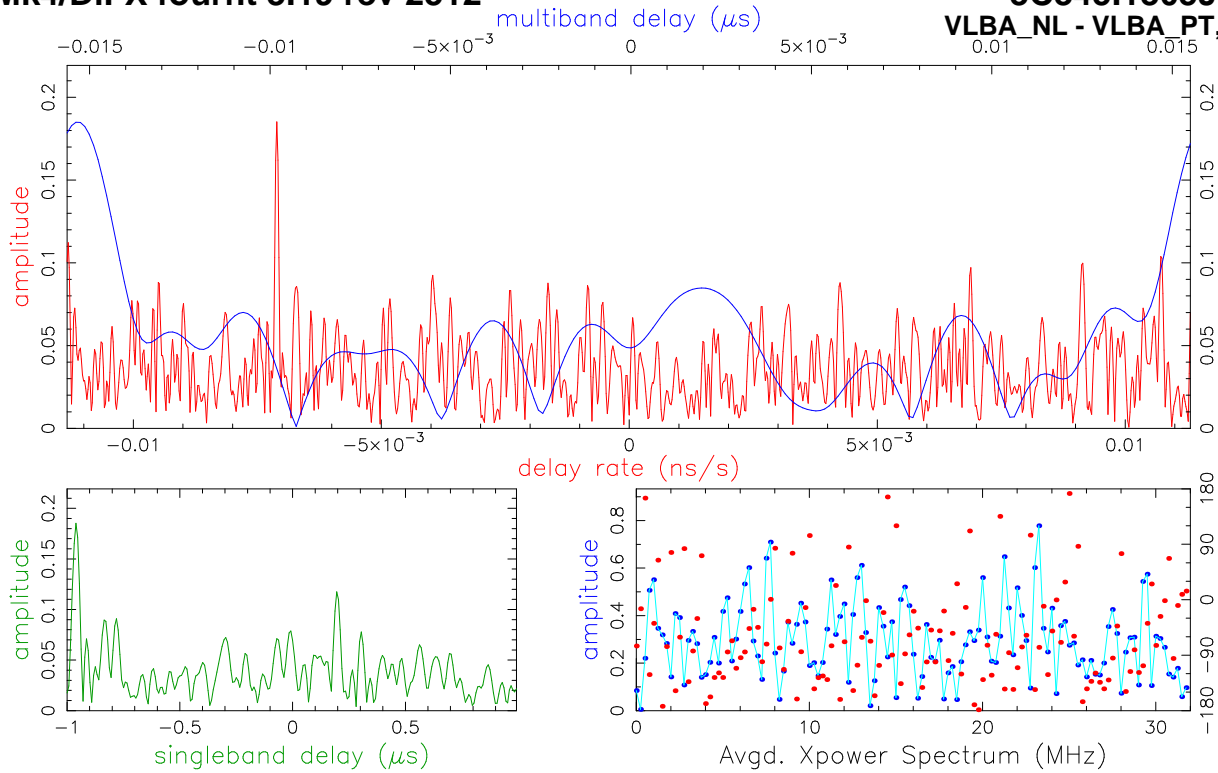


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All		
	-65.4	-27.7	54.4	-38.4	-51.3	12.0	10.9	-47.7	-49.3	6.3	-50.3	-64.1	-30.3	19.0	-65.5	-35.5		Phase	-32.7	
	0.3	0.6	0.1	0.2	0.3	0.2	0.3	0.2	0.2	0.1	0.2	0.3	0.3	0.2	0.2	0.1		Ampl.	0.2	
	96.2	162.3	99.8	153.3	12.6	188.7	179.4	58.1	199.7	219.2	213.0	91.6	179.9	93.3	237.0	87.9		Sbd box	162.0	
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		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs		
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC amp		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids		
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Tracks		
n	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		
Group delay (usec)(sbd)		3.97317351454E+03								3.97292279059E+03								Resid mbdelay (usec)	7.23947E-04	+/- 1.8E-04
Sband delay (usec)		3.97318087659E+03								1.4569433E+01								Resid sbdelay (usec)	2.58086E-01	+/- 2.9E-03
Phase delay (usec)		3.97292278953E+03								-6.9663080E-08								Resid phdelay (usec)	-1.05438E-06	+/- 6.3E-07
Delay rate (us/s)		-2.16429687974E-01								-2.16433769130E-01								Resid rate (us/s)	4.08116E-06	+/- 7.8E-09
Total phase (deg)				32.6						-1.36552804118E-05								Resid phase (deg)	-32.7	+/- 19.4

ph/seg (deg) 16.7 33.7 Search (1024X64) 0.180 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 38.1 58.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 37.8 38.9 Inc. seg. avg. 0.171 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 60.6 67.8 Inc. frq. avg. 0.179 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
n: az 74.7 el 50.6 pa -69.4 p: az 62.4 el 35.8 pa -72.0 u,v (fr/asec) 1590.964 -215.030 ion window (TEC) 0.00 0.00 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/np..1305JH Output file: /Exps/c192a/v2/1234/No0001/np.W.254.1305JH

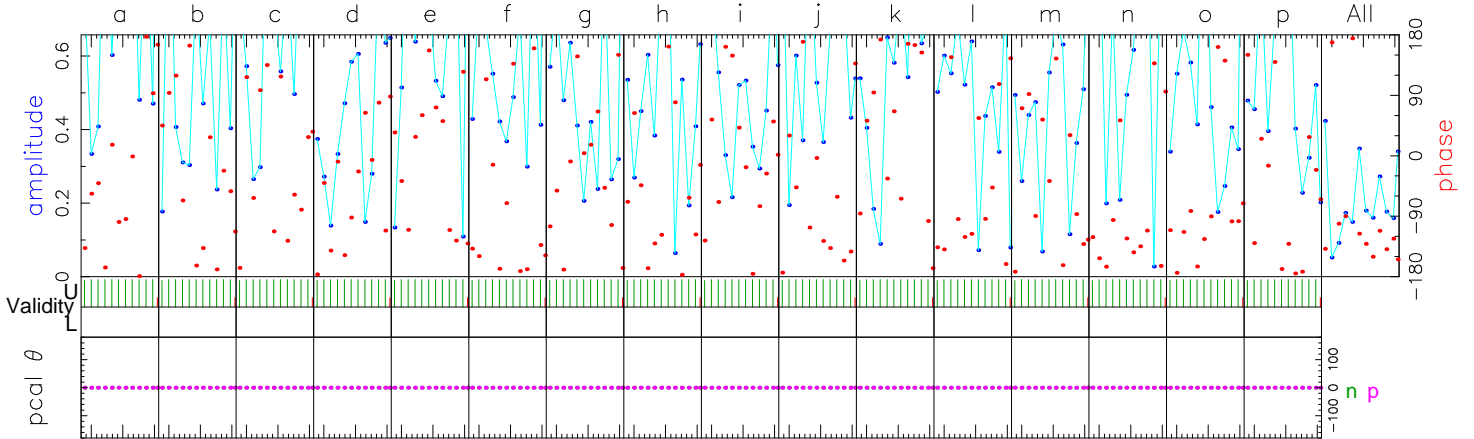
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, np
VLBA_NL - VLBA_PT, fgroup W, pol LR



Fringe quality 0
SNR 6.0
Int time 138.827
Amp 0.219
Phase -130.4
PFD 2.6e-01
Delays (us)
SBD -0.960090
MBD -0.015311
Fringe rate (Hz)
-0.613543
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
2020:093:042833
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

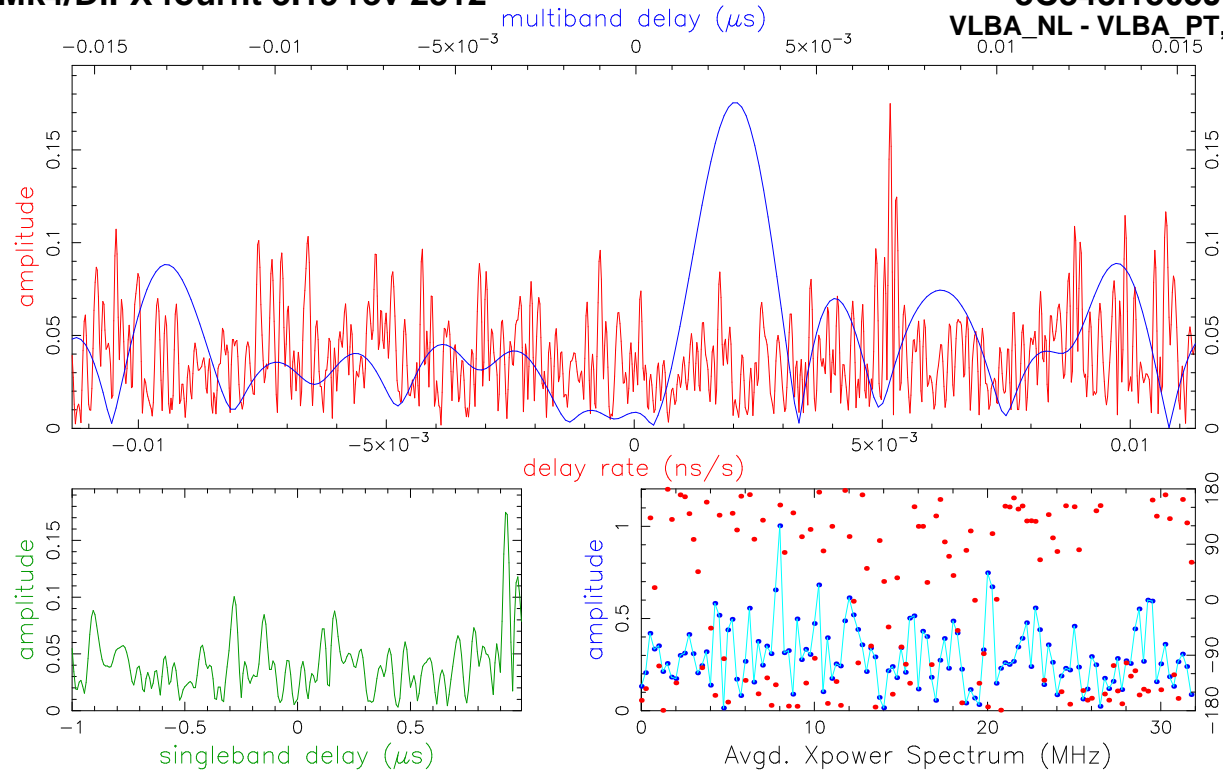


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-125.0	122.9	-152.2	-60.6	-109.8	-170.2	-65.5	-134.6	-0.3	-119.3	-156.4	-129.9	-149.9	-135.1	-118.1	-159.9	Phase	-130.4
	0.3	0.0	0.1	0.1	0.1	0.4	0.2	0.3	0.1	0.4	0.2	0.4	0.2	0.6	0.5	0.1	Ampl.	0.2
	100.8	80.1	18.3	146.8	171.2	52.7	243.6	72.8	213.0	6.6	131.7	37.2	201.2	6.6	6.7	217.9	Sbd box	6.1
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	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
Group delay (usec)(sbd)		3.97196997971E+03								3.97292279059E+03							Resid mbdelay (usec)	-1.53109E-02 +/- 1.8E-04
Sband delay (usec)		3.97196270109E+03								1.4569433E+01							Resid sbdelay (usec)	-9.60090E-01 +/- 2.9E-03
Phase delay (usec)		3.97292278638E+03								-6.9663080E-08							Resid phdelay (usec)	-4.20480E-06 +/- 6.2E-07
Delay rate (us/s)		-2.16440891755E-01								-2.16433769130E-01							Resid rate (us/s)	-7.12263E-06 +/- 7.7E-09
Total phase (deg)				-65.1						-1.36552804118E-05							Resid phase (deg)	-130.4 +/- 19.2

ph/seg (deg) RMS Theor. Amplitude 0.219 +/- 0.037 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 57.0 58.0 Search (1024X64) 0.178 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 54.9 38.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 77.5 67.0 Inc. seg. avg. 0.205 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 n: az 74.7 el 50.6 pa -69.4 p: az 62.4 el 35.8 pa -72.0 u,v (fr/asec) 1590.964 -215.030 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/np..1305JH Output file: /Exps/c192a/v2/1234/No0001/np.W.260.1305JH simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, np
VLBA_NL - VLBA_PT, fgroup W, pol RL

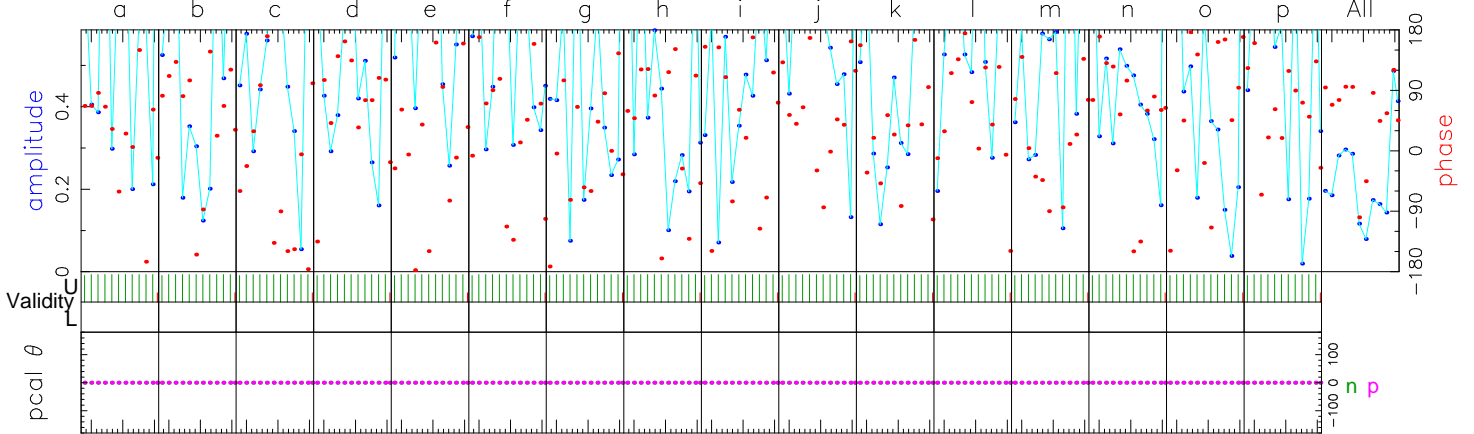


Fringe quality 0

SNR 5.8
Int time 138.827
Amp 0.195
Phase 85.0
PFD 6.2e-01
Delays (us)
SBD 0.925403
MBD 0.002845
Fringe rate (Hz)
0.445973
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
2020:093:042835
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

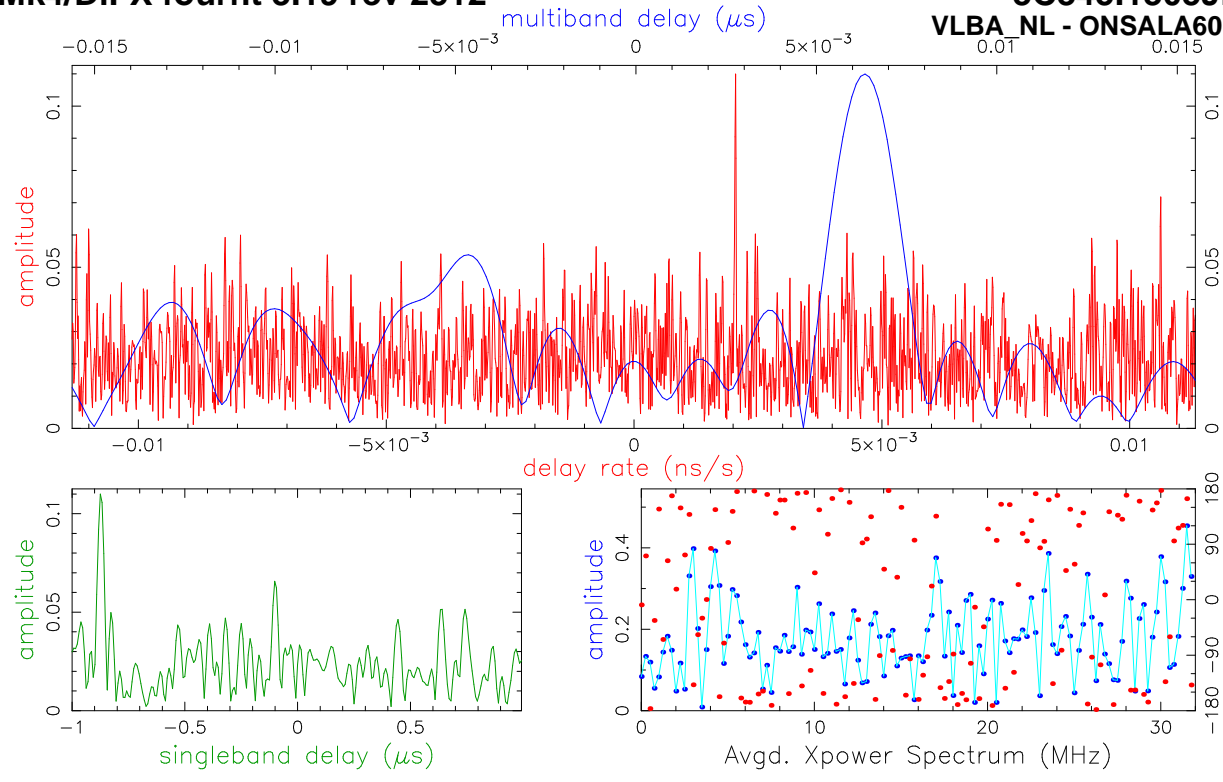


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks
Group delay (usec)(sbd)		3.97386313584E+03																
Sband delay (usec)		3.97384819409E+03																
Phase delay (usec)		3.97292279333E+03																
Delay rate (us/s)		-2.16428591823E-01																
Total phase (deg)			150.3															
Apriori delay (usec)																		
Apriori clock (usec)																		
Apriori clockrate (us/s)																		
Apriori rate (us/s)																		
Apriori accel (us/s/s)																		
Resid mbdelay (usec)																		
Resid sbdelay (usec)																		
Resid phdelay (usec)																		
Resid rate (us/s)																		
Resid phase (deg)																		
Pcal mode: MANUAL, MANUAL																		
Pcal rate: 0.000E+00, 0.000E+00 (us/s)																		
Bits/sample: 2x2																		
Sample rate(MISamp/s): 64																		
Data rate(Mb/s): 2048																		
nlags: 128																		
t_cohere infinite																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		
pcal period (AP's) 5, 5																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		

ph/seg (deg) 68.4 34.4 Search (1024X64) 0.173 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 67.3 60.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 58.7 39.7 Inc. seg. avg. 0.208 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 50.7 69.3 Inc. frq. avg. 0.195 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
n: az 74.7 el 50.6 pa -69.4 p: az 62.4 el 35.8 pa -72.0 u,v (fr/asec) 1590.964 -215.030 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/np..1305JH Output file: /Exps/c192a/v2/1234/No0001/np.W.271.1305JH

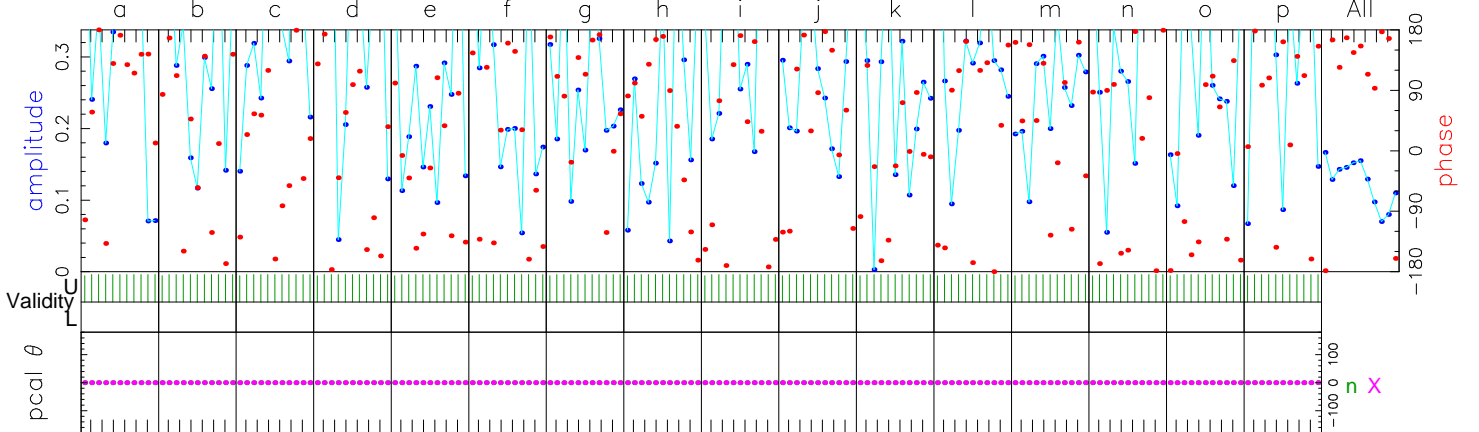
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, nX
VLBA_NL - ONSALA60, fgroup W, pol LL



Fringe quality 0
SNR 6.1
Int time 409.325
Amp 0.113
Phase 154.1
PFD 1.9e-01
Delays (us)
SBD -0.872509
MBD 0.006340
Fringe rate (Hz)
0.176766
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042832
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

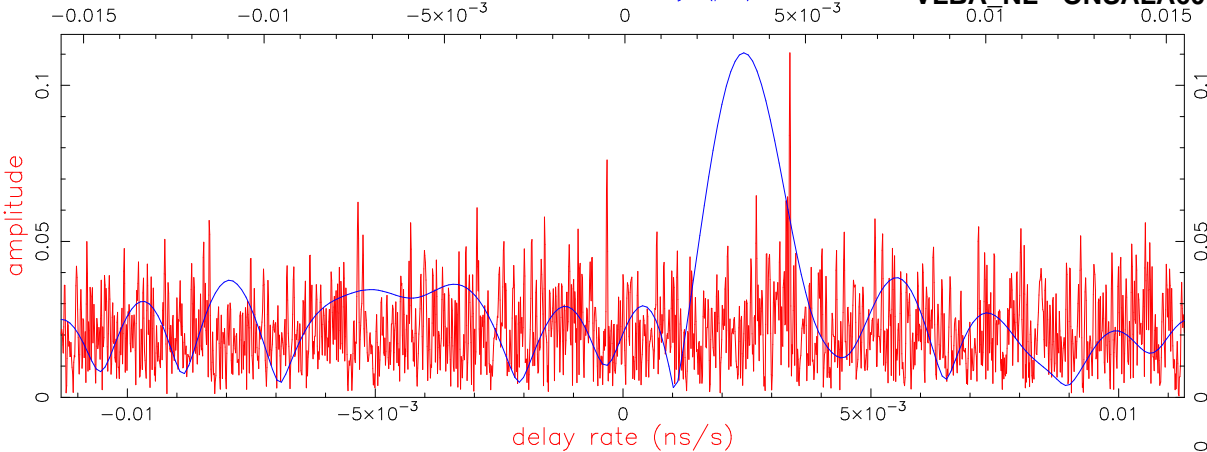
Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec



	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	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0			
n	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			
n: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			
n	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			
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
Group delay (usec)(sbd)			-3.62834595986E+02																
Sband delay (usec)			-3.62838444595E+02																
Phase delay (usec)			-3.61965930626E+02																
Delay rate (us/s)			1.20558520489E+00																
Total phase (deg)					-95.1														
Apriori delay (usec)																			
Apriori clock (usec)																			
Apriori clockrate (us/s)																			
Apriori rate (us/s)																			
Apriori accel (us/s/s)																			
Resid mbdelay (usec)																			
Resid sbdelay (usec)																			
Resid phdelay (usec)																			
Resid rate (us/s)																			
Resid phase (deg)																			
Pcal mode: MANUAL, MANUAL																			
Pcal rate: 0.000E+00, 0.000E+00 (us/s)																			
Bits/sample: 2x2																			
Sample rate(MISamp/s): 64																			
Data rate(Mb/s): 2048																			
nlags: 128																			
t_cohere infinite																			
sb window (us)																		-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

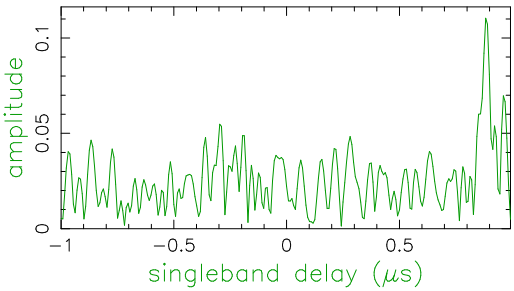
ph/seg (deg) 30.4 30.9
amp/seg (%) 30.1 53.9
ph/frq (deg) 41.4 37.3
amp/frq (%) 61.8 65.1
RMS Theor. Amplitude 0.113 +/- 0.018
Search (2048X64) 0.107
Interp. 0.000
Inc. seg. avg. 0.111
Inc. frq. avg. 0.100
Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Sb window (us) -1.000 1.000
Mb window (us) -0.016 0.016
Dr window (ns/s) -0.011 0.011
Ion window (TEC) 0.00 0.00
n: az 74.7 el 50.6 pa -69.4 X: az 263.7 el 53.3 pa 44.2 u,v (fr/asec) -9004.546 -1802.418 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/nX..1305JH Output file: /Exps/c192a/v2/1234/No0001/nX.W.259.1305JH

multiband delay (μ s)

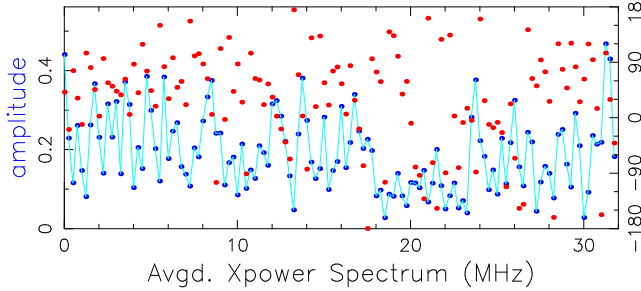


Fringe quality 0

SNR 6.2
 Int time 409.325
 Amp 0.116
 Phase 87.0
 PFD 1.4e-01
 Delays (us)
 SBD 0.885759
 MBD 0.003279
 Fringe rate (Hz)
 0.290267
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

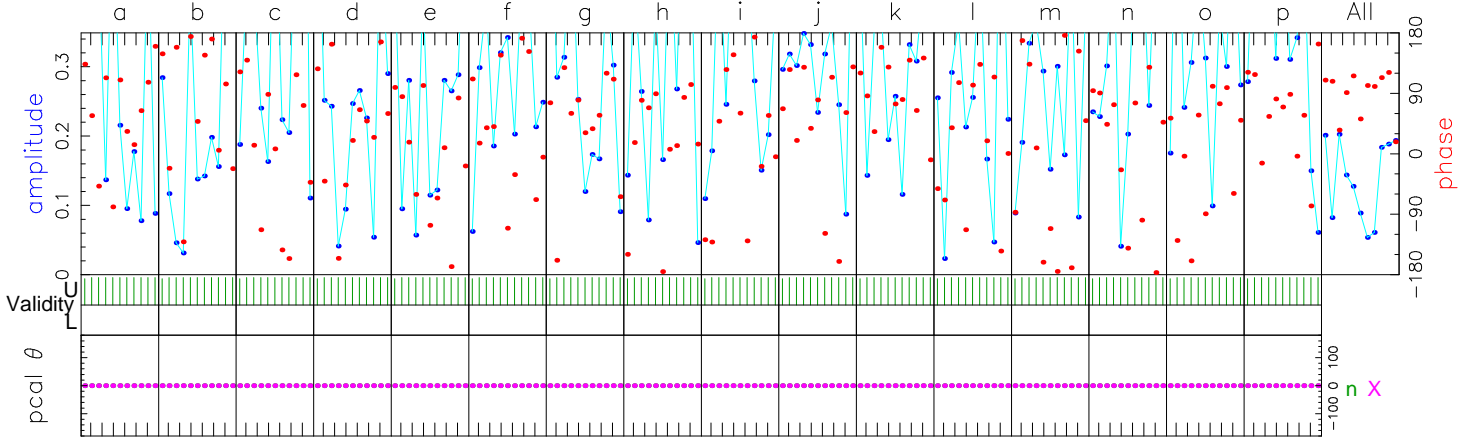


delay rate (ns/s)



Exp. c192a
 Exper # 16383
 Yr:day 2019:276
 Start 183008.70
 Stop 183659.84
 FRT 183330.00
 Corr/FF/build
 2020:083:003228
 2020:093:042837
 2020:014:135814
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec

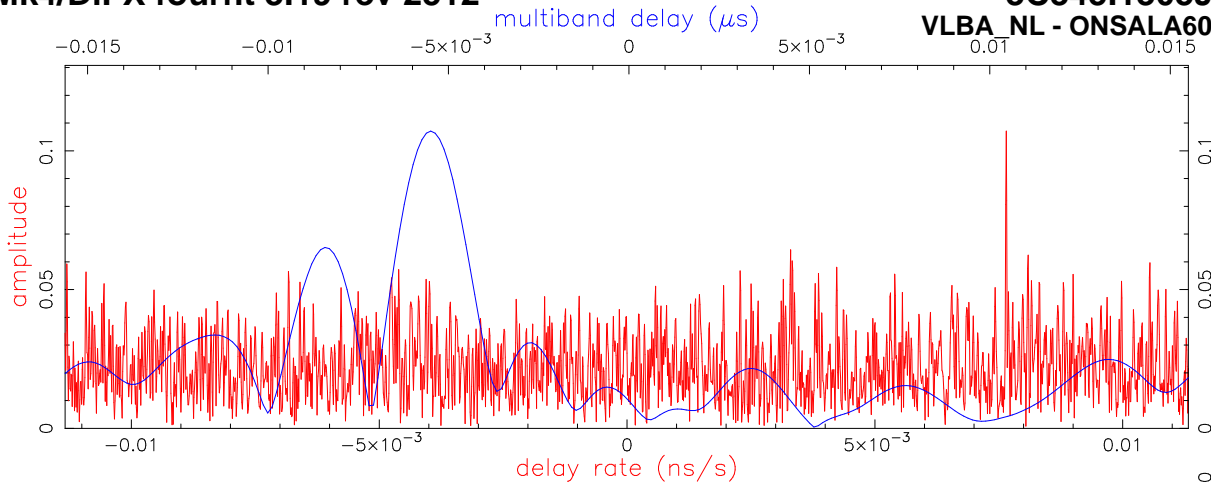


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0						
n	1000	1000	1000	1000	1000	1000	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						
n: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						
n: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						
n	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						
n	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)			-3.61087656277E+02														Apriori delay (usec)	-3.61965935595E+02	Resid mbdelay (usec)	3.27932E-03	+/-	1.7E-04
Sband delay (usec)			-3.61080177095E+02														Apriori clock (usec)	-5.8499165E+00	Resid sbdelay (usec)	8.85759E-01	+/-	2.8E-03
Phase delay (usec)			-3.61965932790E+02														Apriori clockrate (us/s)	-3.9377651E-07	Resid phdelay (usec)	2.80447E-06	+/-	6.0E-07
Delay rate (us/s)			1.20558652253E+00														Apriori rate (us/s)	1.20558315282E+00	Resid rate (us/s)	3.36971E-06	+/-	2.5E-09
Total phase (deg)																	Apriori accel (us/s/s)	-1.08508500335E-05	Resid phase (deg)	87.0	+/-	18.5

	RMS	Theor.	Amplitude	0.116 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	34.0	30.6	Search (2048X64)	0.106	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	55.2	53.4	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.016 0.016
ph/frq (deg)	36.3	36.9	Inc. seg. avg.	0.126	Sample rate(MISamp/s): 64	dr window (ns/s) -0.011 0.011
amp/frq (%)	58.4	64.5	Inc. frq. avg.	0.107	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
n: az 74.7 el 50.6 pa -69.4			X: az 263.7 el 53.3 pa 44.2		u,v (fr/asec) -9004.546 -1802.418	simultaneous interpolator

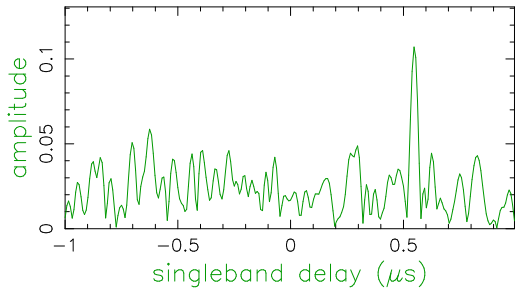
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, nX
VLBA_NL - ONSALA60, fgroup W, pol LR

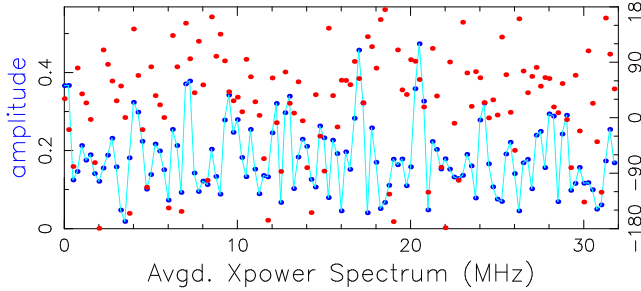


Fringe quality 0

SNR 6.0
Int time 409.325
Amp 0.131
Phase 4.6
PFD 5.0e-01
Delays (us)
SBD 0.548509
MBD -0.005492
Fringe rate (Hz)
0.660041
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

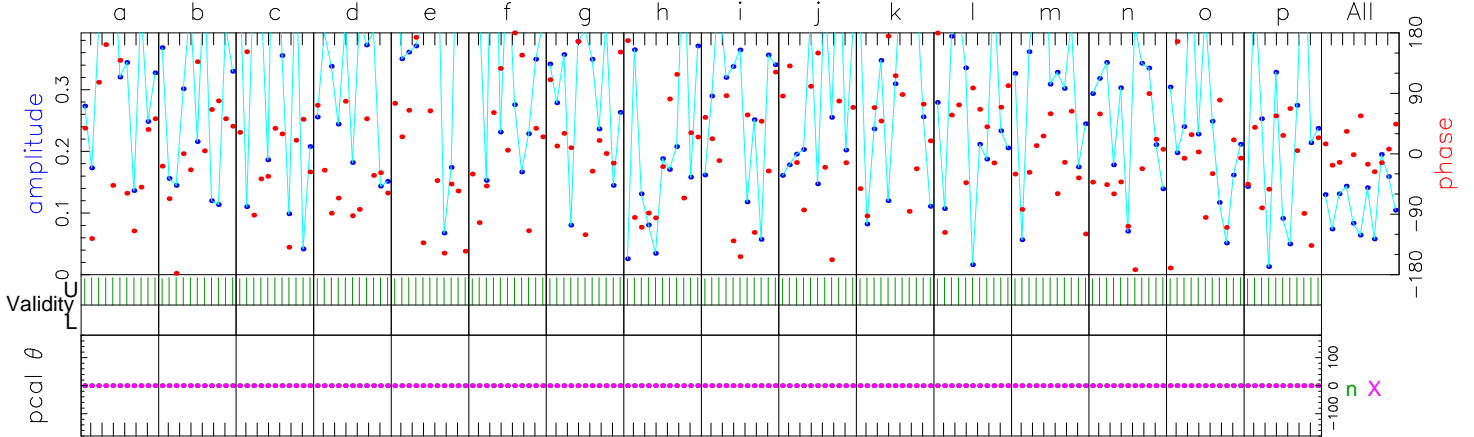


delay rate (ns/s)



Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042841
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec



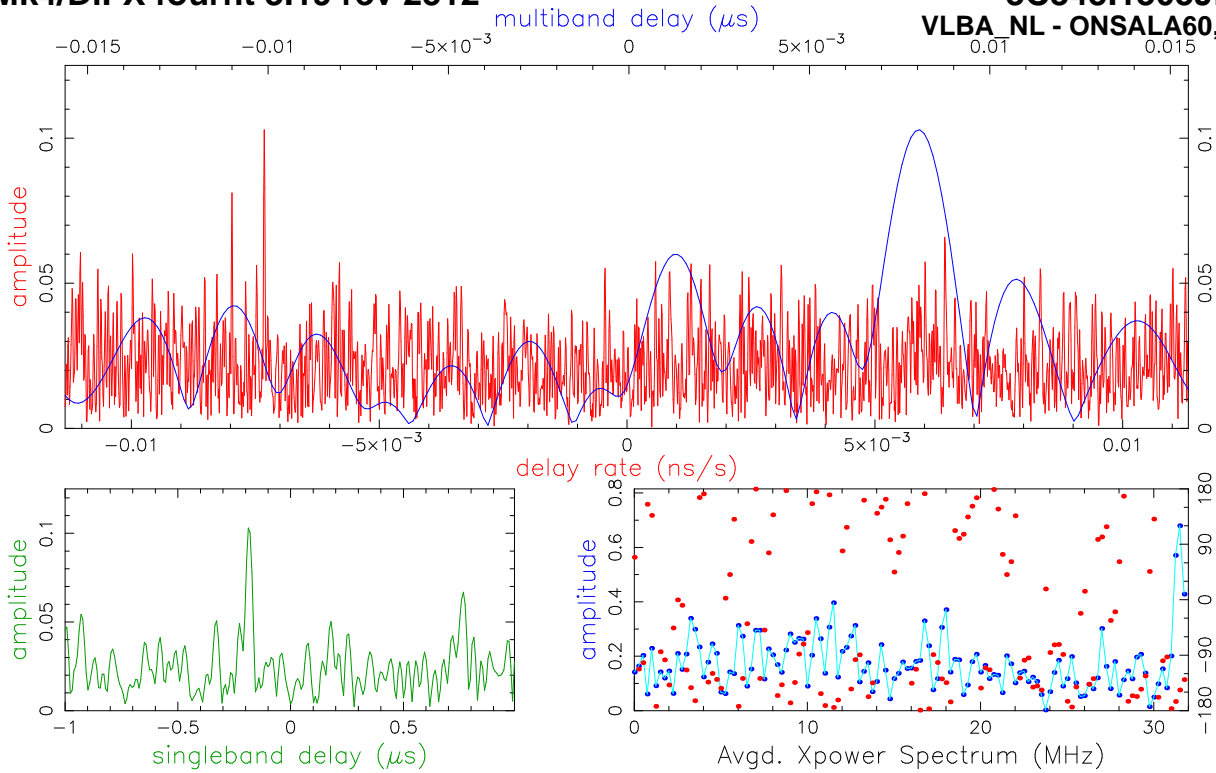
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-2.0	15.2	3.3	-29.0	-12.4	13.2	20.9	-39.6	12.8	64.5	17.8	46.5	0.1	-16.2	-13.4	-15.8		Phase	4.6				
	0.1	0.2	0.3	0.2	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.2	0.3	0.1	0.1	0.1		Ampl.	0.1				
	166.6	35.4	7.2	64.0	173.1	37.7	23.7	87.4	52.4	172.7	223.0	92.1	45.7	182.2	54.1	24.9		Sbd box	199.2				
UL	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0		APs used					
n	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					
n: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					
n: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					
n	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					
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Tracks					
Group delay (usec)(sbd)			-3.61408927153E+02															Apriori delay (usec)	-3.61965935595E+02	Resid mbdelay (usec)	-5.49156E-03	+/-	1.8E-04
Sband delay (usec)			-3.61417426095E+02															Apriori clock (usec)	-5.8499165E+00	Resid sbdelay (usec)	5.48509E-01	+/-	2.9E-03
Phase delay (usec)			-3.61965935447E+02															Apriori clockrate (us/s)	-3.9377651E-07	Resid phdelay (usec)	1.47872E-07	+/-	6.2E-07
Delay rate (us/s)			1.20559081523E+00															Apriori rate (us/s)	1.20558315282E+00	Resid rate (us/s)	7.66242E-06	+/-	2.6E-09
Total phase (deg)					-244.6													Apriori accel (us/s/s)	-1.08508500335E-05	Resid phase (deg)	4.6	+/-	19.3

ph/seg (deg) RMS 26.5 Theor. 31.9 Amplitude 0.131 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 39.6 55.7 Search (2048X64) 0.104 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 27.6 38.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 50.3 67.2 Inc. seg. avg. 0.123 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 n: az 74.7 el 50.6 pa -69.4 X: az 263.7 el 53.3 pa 44.2 u,v (fr/asec) -9004.546 -1802.418 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/nX..1305JH Output file: /Exps/c192a/v2/1234/No0001/nX.W.300.1305JH

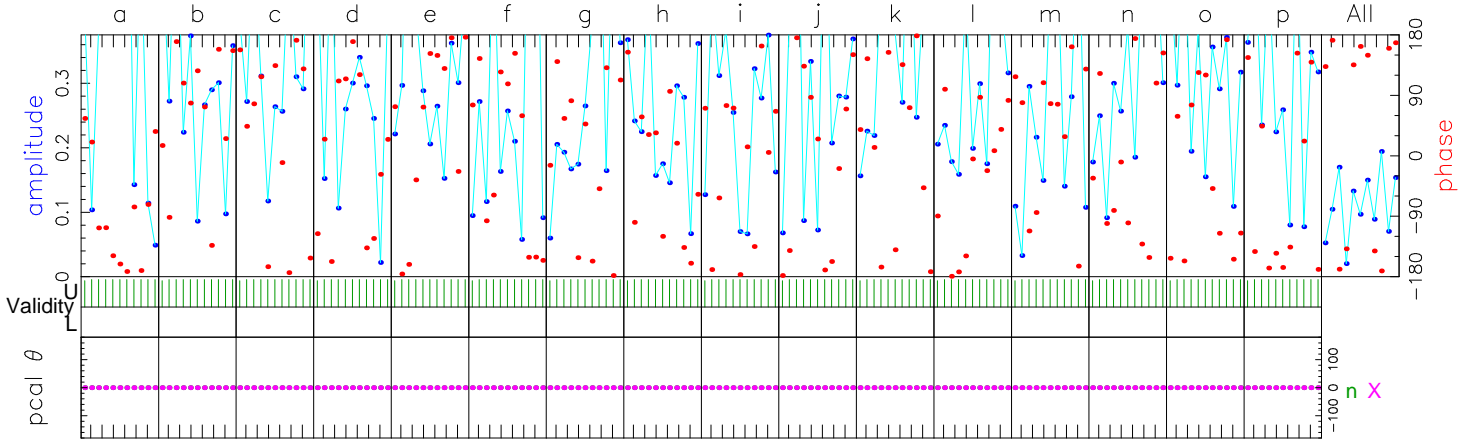
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, nX
VLBA_NL - ONSALA60, fgroup W, pol RL



Fringe quality 0
SNR 5.8
Int time 409.325
Amp 0.125
Phase 171.1
PFD 8.3e-01
Delays (us)
SBD -0.184449
MBD 0.008041
Fringe rate (Hz)
-0.631610
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:083:003228
2020:093:042846
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 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
	-148.5	130.6	147.5	-172.8	169.8	-161.0	154.2	1.6	107.5	168.8	158.4	46.4	131.5	-151.0	-166.5	176.9	Phase	171.1
	0.3	0.1	0.2	0.1	0.2	0.2	0.1	0.0	0.0	0.2	0.2	0.1	0.1	0.1	0.2	0.3	Ampl.	0.1
	239.7	55.1	106.7	189.9	243.6	59.0	222.3	75.0	236.6	198.8	46.2	172.1	148.4	116.7	167.4	204.9	Sbd box	105.4
UL	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	APs used	
n	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	
n: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	
n	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	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	

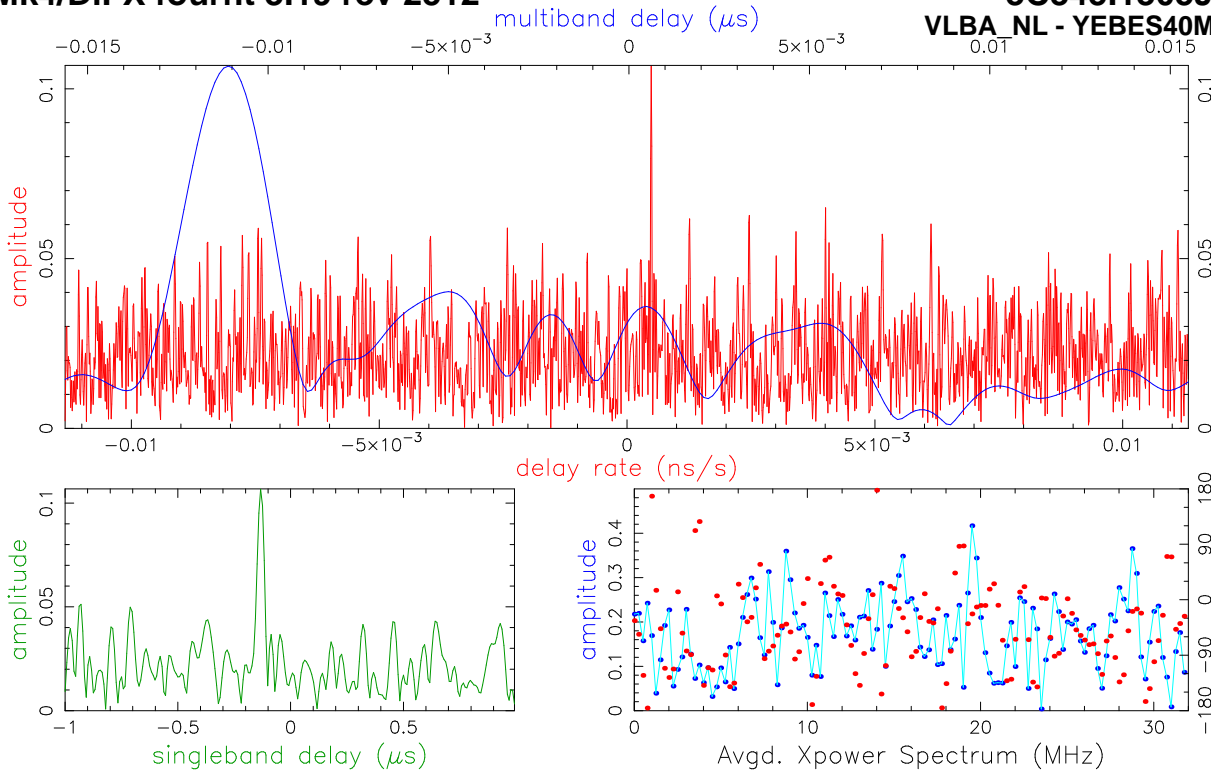
Group delay (usec)(sbd) -3.62145394702E+02 Apriori delay (usec) -3.61965935595E+02 Resid mbdelay (usec) 8.04089E-03 +/- 1.9E-04
 Sband delay (usec) -3.62150385095E+02 Apriori clock (usec) -5.8499165E+00 Resid sbdelay (usec) -1.84449E-01 +/- 3.0E-03
 Phase delay (usec) -3.61965930076E+02 Apriori clockrate (us/s) -3.9377651E-07 Resid phdelay (usec) 5.51876E-06 +/- 6.4E-07
 Delay rate (us/s) 1.20557582044E+00 Apriori rate (us/s) 1.20558315282E+00 Resid rate (us/s) -7.33237E-06 +/- 2.7E-09
 Total phase (deg) -78.0 Apriori accel (us/s/s) -1.08508500335E-05 Resid phase (deg) 171.1 +/- 19.8

RMS Theor. Amplitude 0.125 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 28.5 32.8 Search (2048X64) 0.098 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 48.9 57.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 63.9 39.6 Inc. seg. avg. 0.116 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 58.1 69.1 Inc. frq. avg. 0.124 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 74.7 el 50.6 pa -69.4 X: az 263.7 el 53.3 pa 44.2 u,v (fr/asec) -9004.546 -1802.418 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/nX..1305JH Output file: /Exps/c192a/v2/1234/No0001/nX.W.316.1305JH

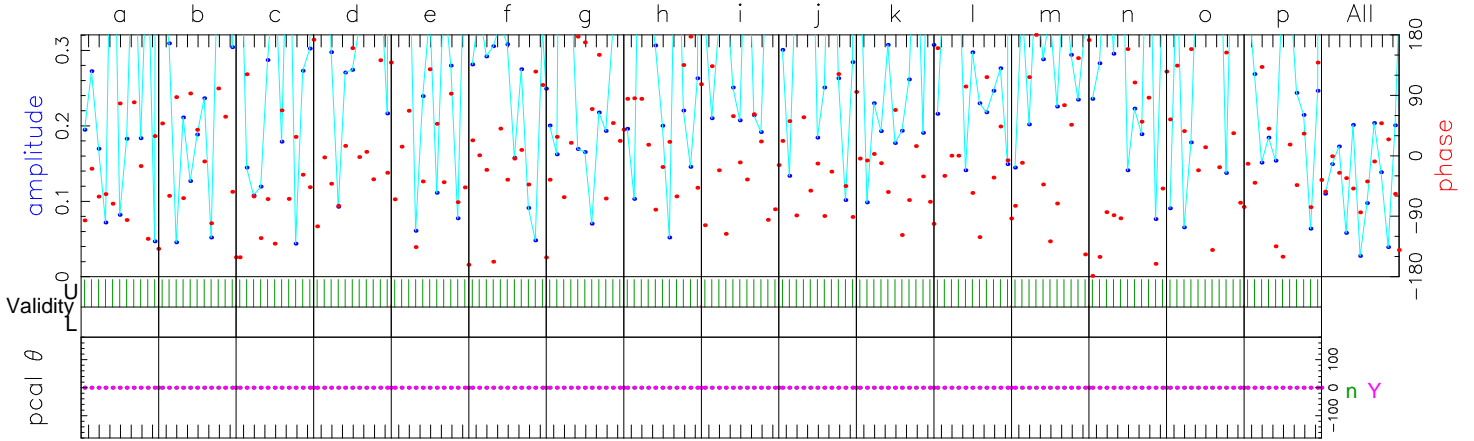
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, nY
VLBA_NL - YEBES40M, fgroup W, pol LL



Fringe quality 0
SNR 5.9
Int time 401.317
Amp 0.107
Phase -26.4
PFD 7.1e-01
Delays (us)
SBD -0.131943
MBD -0.011093
Fringe rate (Hz) 0.041996
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
2020:093:042834
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

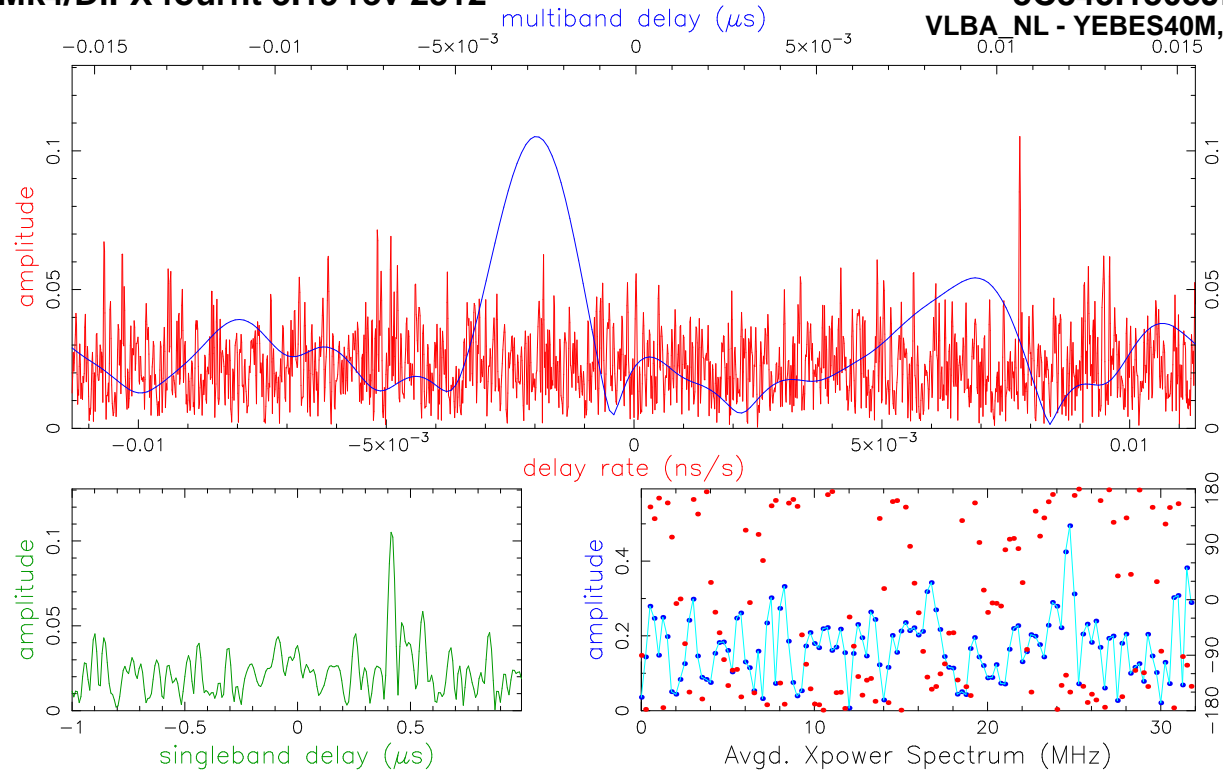


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All			
	-66.6	28.0	-88.7	-15.9	-12.6	9.6	-22.7	17.9	-52.5	-31.0	-27.9	-12.2	-147.5	-117.1	-12.5	-15.0		Phase -26.4			
	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.0	0.1	0.1	0.1		Ampl. 0.1			
	148.0	70.0	246.4	215.0	223.5	57.2	101.6	198.6	171.1	141.9	113.8	39.2	227.4	102.6	12.8	210.1		Sbd box 112.1			
UL	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			
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs			
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase			
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC			
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC amp			
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000					
W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL			Chan ids			
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL			Tracks		
																			Tracks		
Group delay (usec)(sbd)			-2.23108308077E+03																Apriori delay (usec) -2.23094698734E+03	Resid mbdelay (usec) -1.10934E-02	+/- 1.8E-04
Sband delay (usec)			-2.23107893084E+03																Apriori clock (usec) 1.6823357E+01	Resid sbdelay (usec) -1.31943E-01	+/- 2.9E-03
Phase delay (usec)			-2.23094698819E+03																Apriori clockrate (us/s) -8.5776492E-08	Resid phdelay (usec) -8.50419E-07	+/- 6.3E-07
Delay rate (us/s)			1.24174275932E+00																Apriori rate (us/s) 1.24174227179E+00	Resid rate (us/s) 4.87530E-07	+/- 2.7E-09
Total phase (deg)																			Apriori accel (us/s/s) 1.31303277888E-05	Resid phase (deg) -26.4	+/- 19.6

ph/seg (deg) 37.5 33.9 Search (2048X64) 0.106 Pcd mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 63.5 59.2 Interp. 0.000 Pcd rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 50.8 39.2 Inc. seg. avg. 0.109 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 47.6 68.4 Inc. frq. avg. 0.104 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
n: az 74.7 el 50.6 pa -69.4 Y: az 280.2 el 62.9 pa 77.1 u,v (fr/asec) -9229.806 1082.076 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/nY..1305JH Output file: /Exps/c192a/v2/1234/No0001/nY.W.264.1305JH

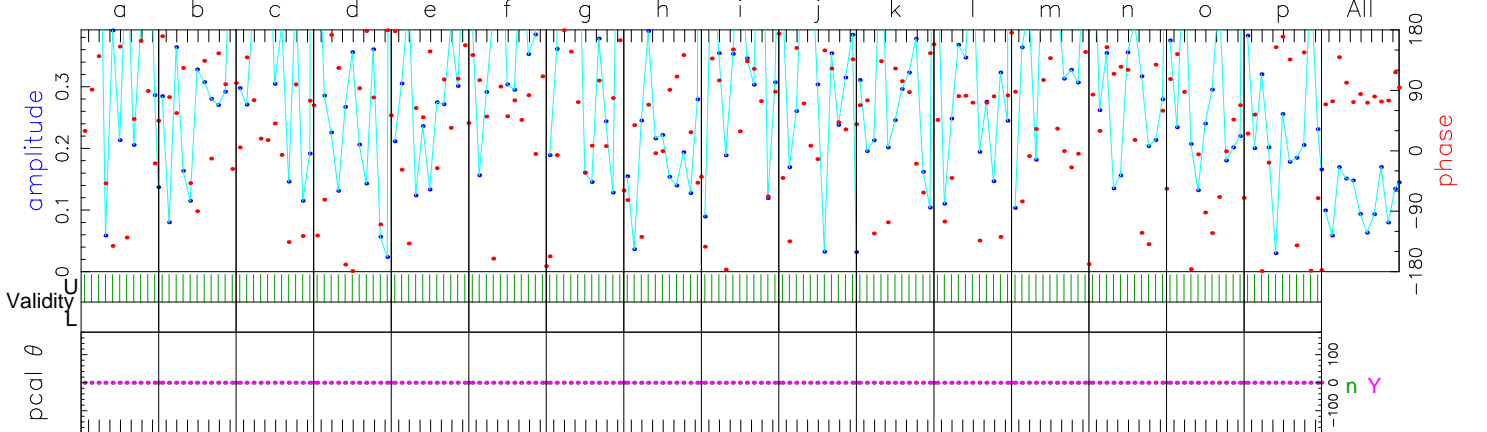
Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, nY
VLBA_NL - YEBES40M, fgroup W, pol RR



Fringe quality 0
SNR 5.9
Int time 401.317
Amp 0.131
Phase 90.4
PFD 7.1e-01
Delays (us)
SBD 0.417021
MBD -0.002738
Fringe rate (Hz) 0.671233
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
2020:093:042839
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

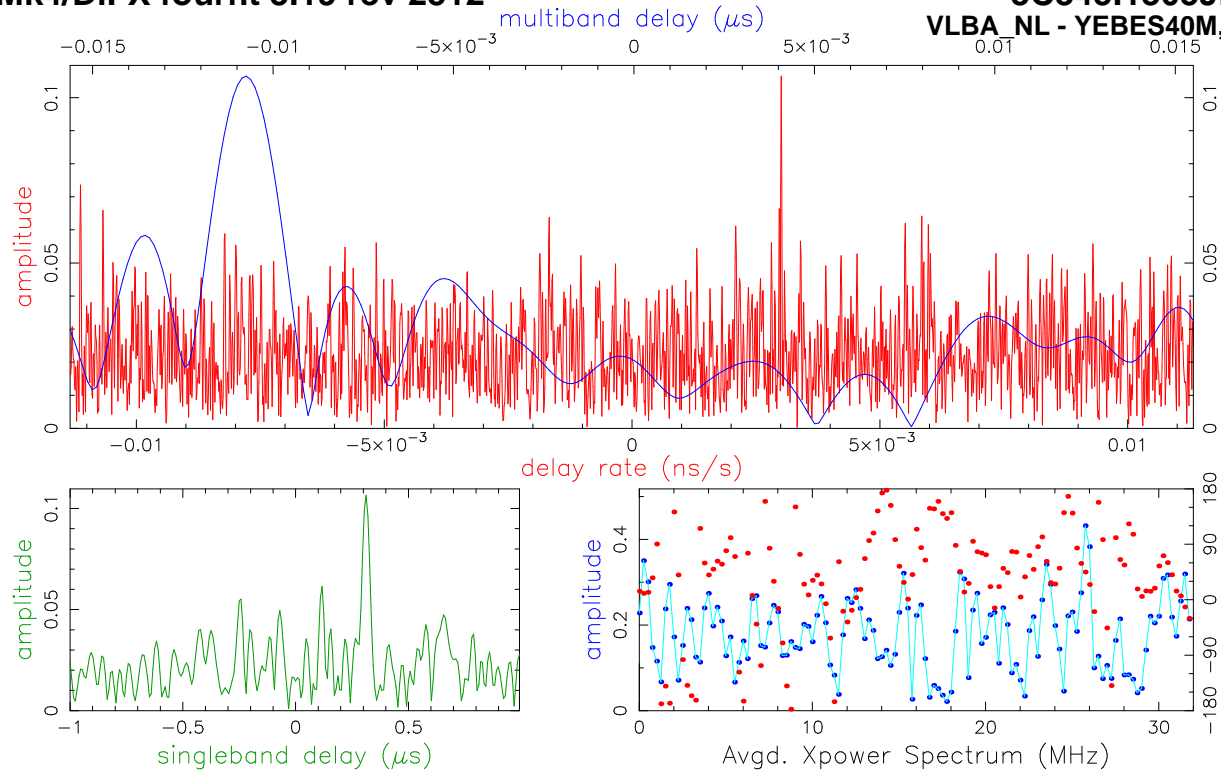


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
117.5	61.9	43.5	-175.2	103.6	85.8	130.2	18.8	105.7	50.1	103.8	73.8	46.6	99.0	79.8	165.6	165.6	Phase	90.4
0.2	0.1	0.3	0.1	0.1	0.3	0.2	0.1	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.0	0.1	Ampl.	0.1
201.3	39.0	70.9	115.0	133.0	182.6	206.5	214.9	180.9	146.6	198.7	140.4	58.9	57.5	225.2	54.8	54.8	Sbd box	182.4
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	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) -2.23054347527E+03 Apriori delay (usec) -2.23094698734E+03 Resid mbdelay (usec) -2.73793E-03 +/- 1.8E-04
 Sband delay (usec) -2.23052996634E+03 Apriori clock (usec) 1.6823357E+01 Resid sbdelay (usec) 4.17021E-01 +/- 2.9E-03
 Phase delay (usec) -2.23094698442E+03 Apriori clockrate (us/s) -8.5776492E-08 Resid phdelay (usec) 2.91667E-06 +/- 6.3E-07
 Delay rate (us/s) 1.24175006414E+00 Apriori rate (us/s) 1.24174227179E+00 Resid rate (us/s) 7.79235E-06 +/- 2.7E-09
 Total phase (deg) -85.8 Apriori accel (us/s/s) 1.31303277888E-05 Resid phase (deg) 90.4 +/- 19.6

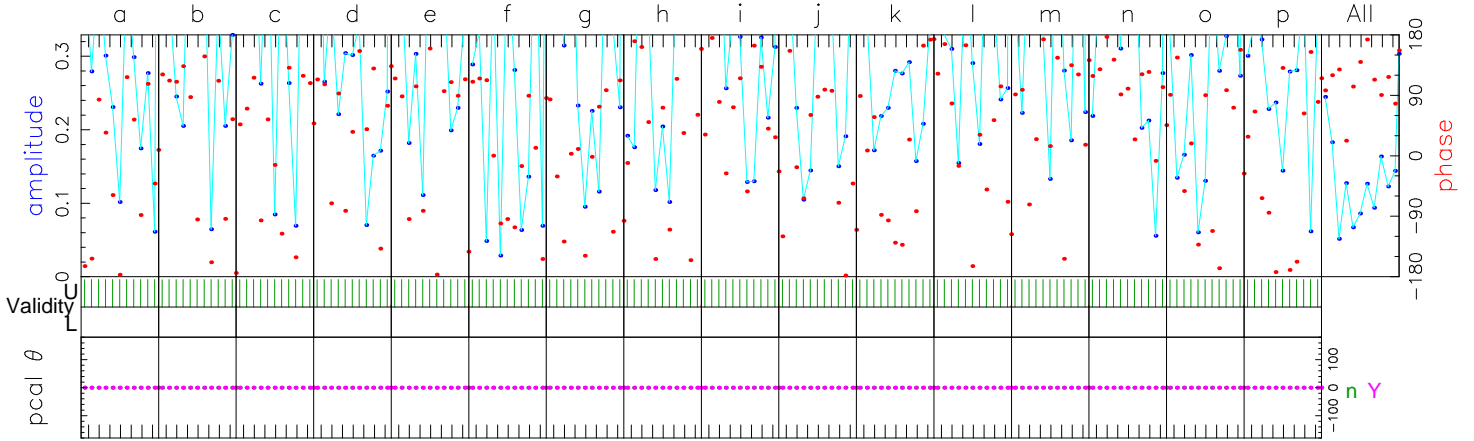
RMS Theor. Amplitude 0.131 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 21.9 33.9 Search (2048X64) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 37.6 59.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 46.0 39.2 Inc. seg. avg. 0.120 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 64.1 68.4 Inc. frq. avg. 0.132 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 74.7 el 50.6 pa -69.4 Y: az 280.2 el 62.9 pa 77.1 u,v (fr/asec) -9229.806 1082.076 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/nY..1305JH Output file: /Exps/c192a/v2/1234/No0001/nY.W.289.1305JH



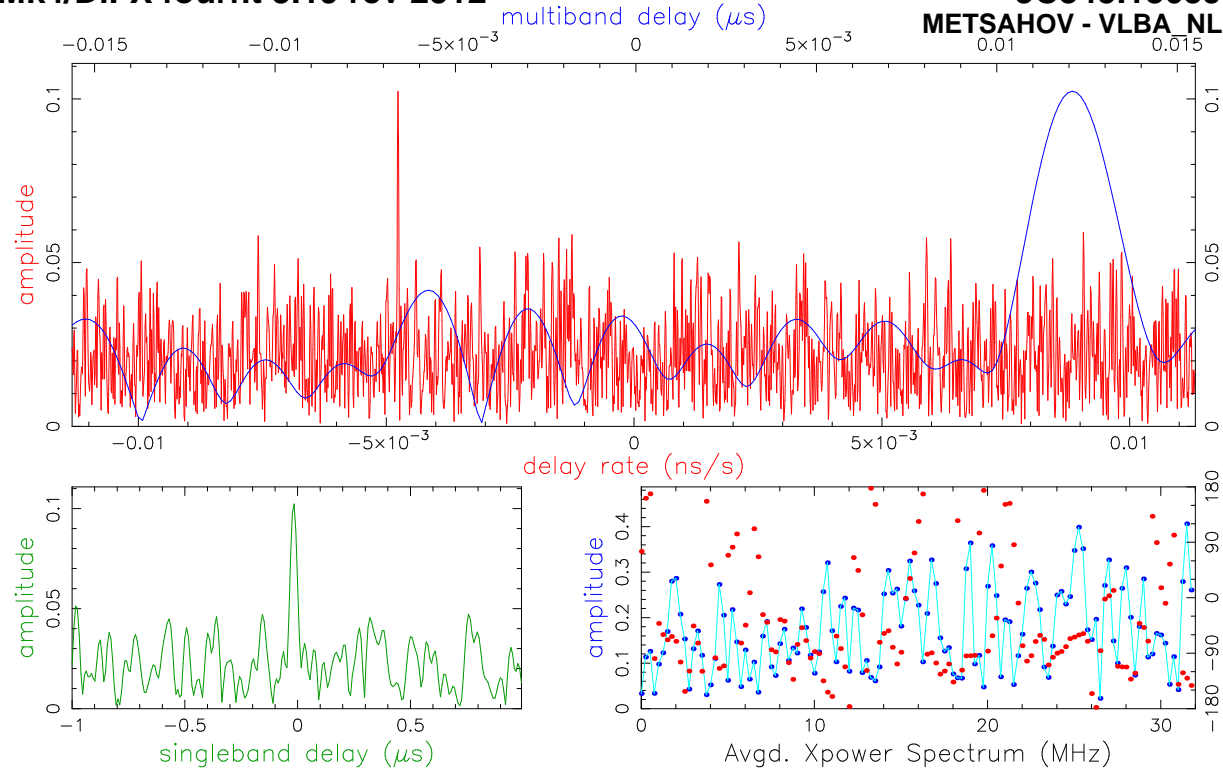
Fringe quality 0
SNR 5.8
Int time 401.317
Amp 0.110
Phase 105.9
PFD 7.4e-01
Delays (us)
SBD 0.311769
MBD -0.010768
Fringe rate (Hz) 0.259758
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183017.92
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:083:003228
2020:093:042848
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



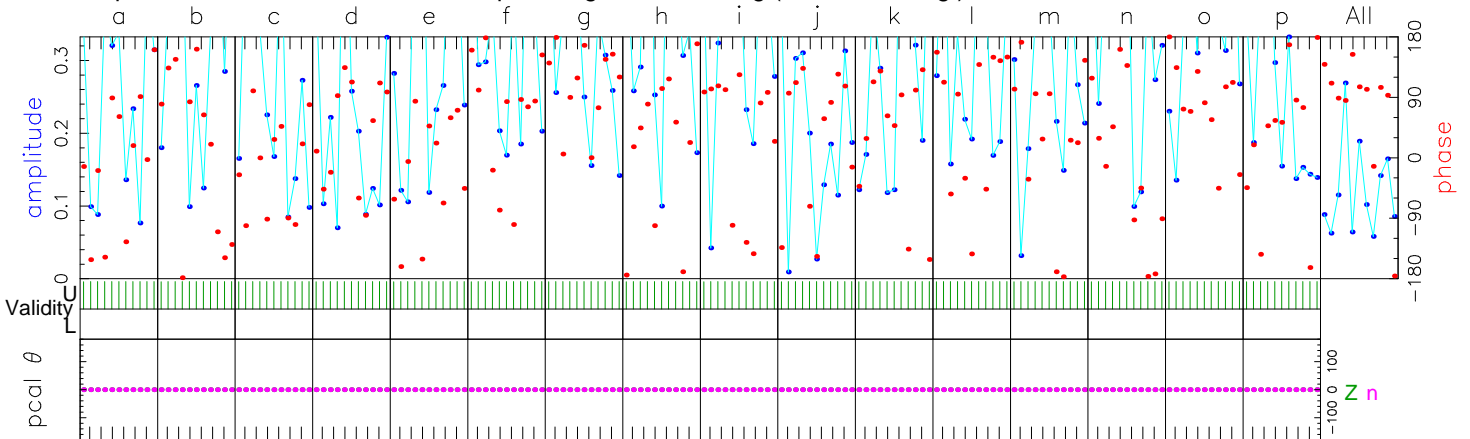
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
111.6	120.0	97.5	111.5	126.5	10.0	11.7	102.2	82.0	119.7	-145.2	113.8	122.0	110.9	108.8	101.0	101.0	Phase	105.9
0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.0	0.0	0.1	0.2	0.3	0.1	0.1	0.1	Ampl.	0.1
161.9	251.6	110.4	47.6	167.3	54.7	72.4	115.9	66.2	1.5	36.3	102.3	193.9	169.9	235.2	153.7	153.7	Sbd box	168.9
UL	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	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
n	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	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Group delay (usec)(sbd)	-2.23064525550E+03			Apriori delay (usec)			-2.23094698734E+03			Resid mbdelay (usec)			-1.07682E-02			+/- 1.8E-04		
Sband delay (usec)	-2.23063521784E+03			Apriori clock (usec)			1.6823357E+01			Resid sbdelay (usec)			3.11769E-01			+/- 3.0E-03		
Phase delay (usec)	-2.23094698393E+03			Apriori clockrate (us/s)			-8.5776492E-08			Resid phdelay (usec)			3.41456E-06			+/- 6.3E-07		
Delay rate (us/s)	1.24174528732E+00			Apriori rate (us/s)			1.24174227179E+00			Resid rate (us/s)			3.01553E-06			+/- 2.7E-09		
Total phase (deg)	-70.4			Apriori accel (us/s/s)			1.31303277888E-05			Resid phase (deg)			105.9			+/- 19.6		

ph/seg (deg) 36.6 34.0 Search (2048X64) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 54.9 59.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 47.7 39.3 Inc. seg. avg. 0.113 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 67.6 68.5 Inc. frq. avg. 0.102 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 74.7 el 50.6 pa -69.4 Y: az 280.2 el 62.9 pa 77.1 u,v (fr/asec) -9229.806 1082.076 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/nY..1305JH Output file: /Exps/c192a/v2/1234/No0001/nY.W.325.1305JH



Fringe quality 0
 SNR 5.7
 Int time 410.457
 Amp 0.111
 Phase 103.8
 PFD 9.4e-01
 Delays (us)
 SBD -0.017702
 MBD 0.012142
 Fringe rate (Hz)
 -0.411094
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c192a
 Exper # 16383
 Yr:day 2019:276
 Start 183008.70
 Stop 183659.84
 FRT 183330.00
 Corr/FF/build
 2020:083:003228
 2020:093:042847
 2020:014:135814
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
41.0	173.1	12.4	77.6	43.3	115.6	117.5	92.1	108.1	122.3	137.2	136.9	72.9	136.7	83.7	73.8	73.8	Phase	103.8
0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.3	0.1	0.1	Ampl.	0.1
11.4	41.6	3.4	83.6	78.0	152.9	164.5	109.1	140.1	57.9	210.0	194.4	51.8	174.5	28.5	124.4	124.4	Sbd box	126.7
UL	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	APs used	
Z	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	
Z: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	
Z: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	
Z	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	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

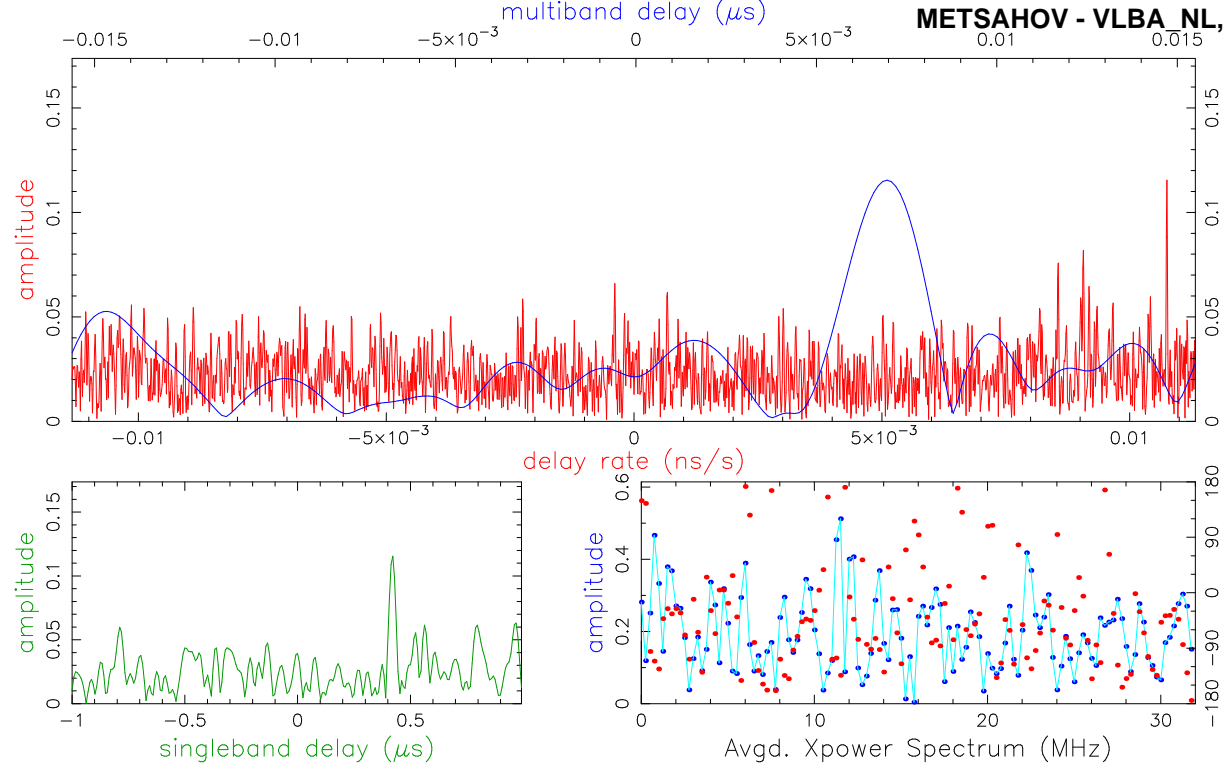
Group delay (usec)(sbd) -1.24726962377E+03 Apriori delay (usec) -1.24725051616E+03 Resid mbdelay (usec) 1.21424E-02 +/- 1.9E-04
 Sband delay (usec) -1.24726821816E+03 Apriori clock (usec) -2.6293127E+01 Resid sbdelay (usec) -1.77020E-02 +/- 3.0E-03
 Phase delay (usec) -1.24725051281E+03 Apriori clockrate (us/s) -1.1793070E-07 Resid phdelay (usec) 3.34596E-06 +/- 6.5E-07
 Delay rate (us/s) -1.23492178267E+00 Apriori rate (us/s) -1.23491701027E+00 Resid rate (us/s) -4.77240E-06 +/- 2.7E-09
 Total phase (deg) -62.4 Apriori accel (us/s/s) 2.10846431478E-05 Resid phase (deg) 103.8 +/- 20.1

RMS Theor. Amplitude 0.111 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 47.2 33.3 Search (2048X64) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 62.9 58.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 44.6 40.2 Inc. seg. avg. 0.112 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 57.5 70.1 Inc. frq. avg. 0.111 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 271.4 el 46.7 pa 40.3 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 9241.054 2643.159 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/Zn..1305JH Output file: /Exps/c192a/v2/1234/No0001/Zn.W.321.1305JH

Mk4/DiFX fourfit 3.19 rev 2512

3C345.1305JH, No0001, Zn
 METSAHOV - VLBA_NL, fgroup W, pol RR

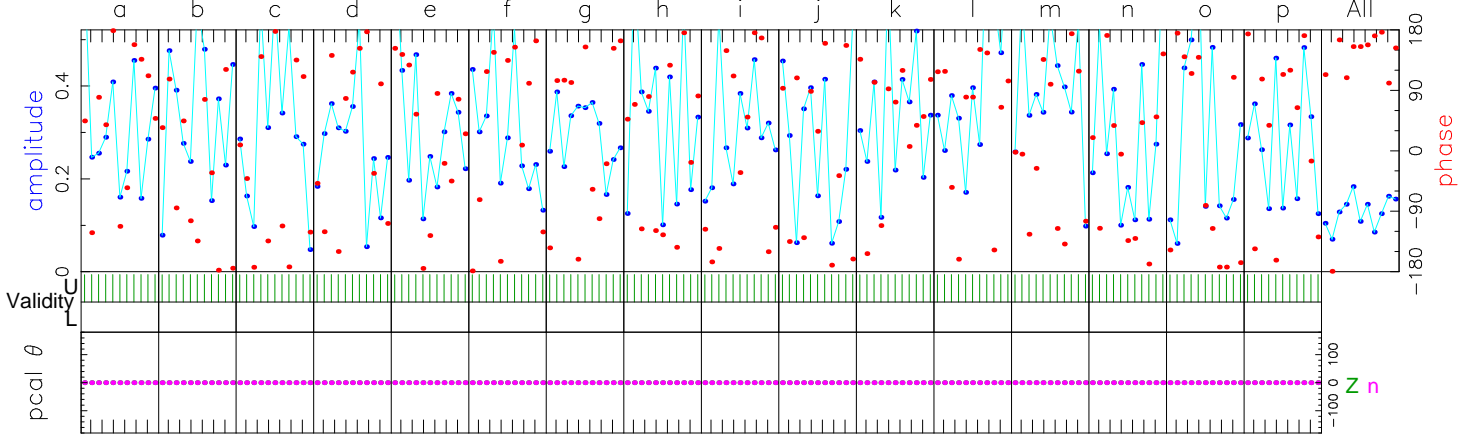


Fringe quality 0

SNR 6.4
 Int time 410.457
 Amp 0.174
 Phase 146.7
 PFD 3.4e-02
 Delays (us)
 SBD 0.419975
 MBD 0.006976
 Fringe rate (Hz)
 0.926924
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c192a
 Exper # 16383
 Yr:day 2019:276
 Start 183008.70
 Stop 183659.84
 FRT 183330.00
 Corr/FF/build
 2020:083:003228
 2020:093:042851
 2020:014:135814
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec



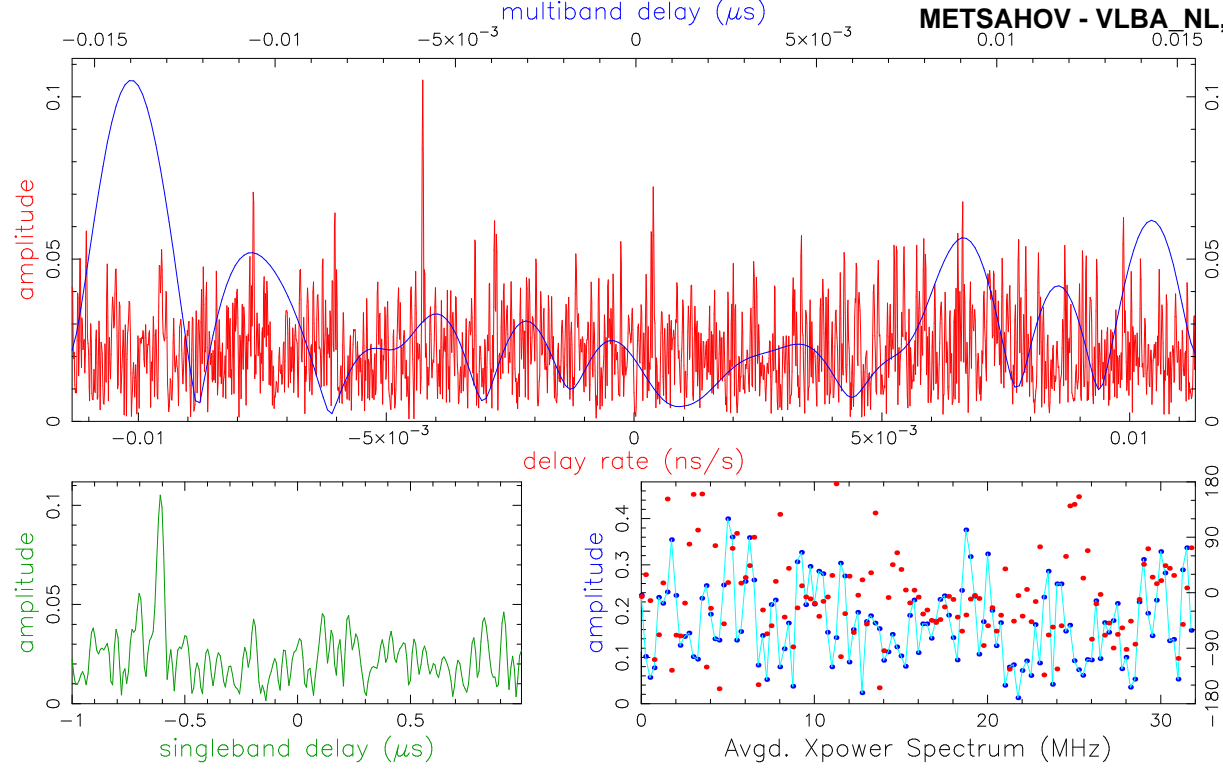
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	95.6	169.5	176.1	165.4	101.9	156.1	165.6	134.7	-164.2	160.9	87.9	128.0	175.4	113.8	162.9	161.7	Phase	146.7
	0.2	0.1	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.1	0.1	0.3	0.2	Ampl.	0.2
	16.9	246.2	47.7	199.6	130.1	81.8	6.5	180.6	25.2	212.0	103.3	183.7	7.3	72.7	131.7	28.0	Sbd box	182.8
U/L	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	APs used	
Z	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	
Z: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	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) -1.24683728984E+03 Apriori delay (usec) -1.24725051616E+03 Resid mbdelay (usec) 6.97631E-03 +/- 1.7E-04
 Sband delay (usec) -1.24683054066E+03 Apriori clock (usec) -2.6293127E+01 Resid sbdelay (usec) 4.19975E-01 +/- 2.7E-03
 Phase delay (usec) -1.24725051142E+03 Apriori clockrate (us/s) -1.1793070E-07 Resid phdelay (usec) 4.73196E-06 +/- 5.7E-07
 Delay rate (us/s) -1.23490624960E+00 Apriori rate (us/s) -1.23491701027E+00 Resid rate (us/s) 1.07607E-05 +/- 2.4E-09
 Total phase (deg) -19.4 Apriori accel (us/s/s) 2.10846431478E-05 Resid phase (deg) 146.7 +/- 17.8

RMS Theor. Amplitude 0.174 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 26.9 29.5 Search (2048X64) 0.114 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 30.2 51.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 33.6 35.6 Inc. seg. avg. 0.170 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 49.8 62.2 Inc. frq. avg. 0.170 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 271.4 el 46.7 pa 40.3 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 9241.054 2643.159 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/Zn..1305JH Output file: /Exps/c192a/v2/1234/No0001/Zn.W.339.1305JH

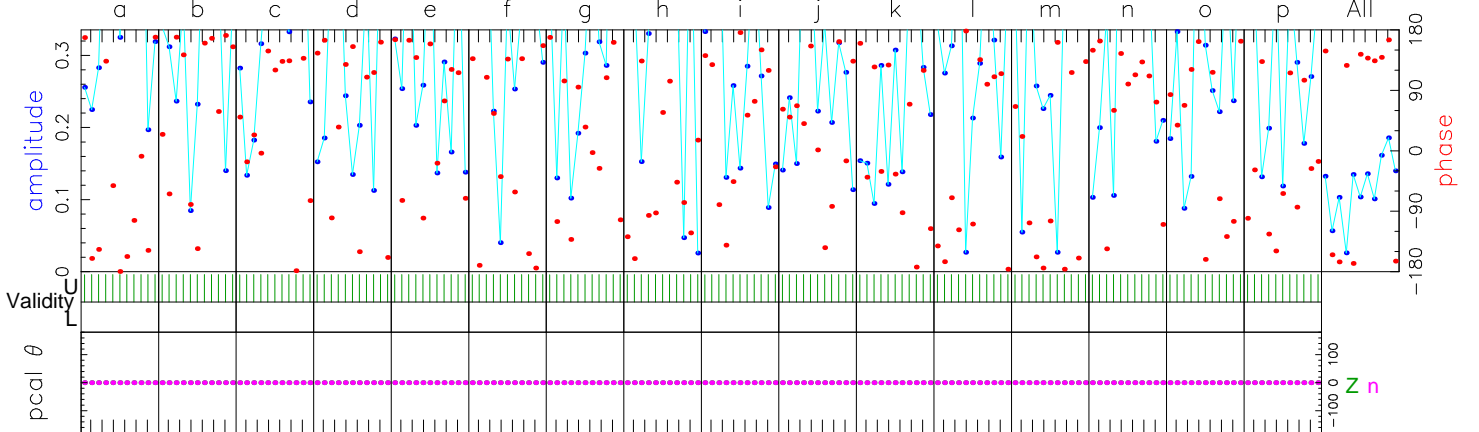


Fringe quality 0

SNR 5.8
 Int time 410.457
 Amp 0.112
 Phase 162.3
 PFD 7.3e-01
 Delays (us)
 SBD -0.607950
 MBD -0.013987
 Fringe rate (Hz)
 -0.367464
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c192a
 Exper # 16383
 Yr:day 2019:276
 Start 183008.70
 Stop 183659.84
 FRT 183330.00
 Corr/FF/build
 2020:083:003228
 2020:093:042855
 2020:014:135814
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec

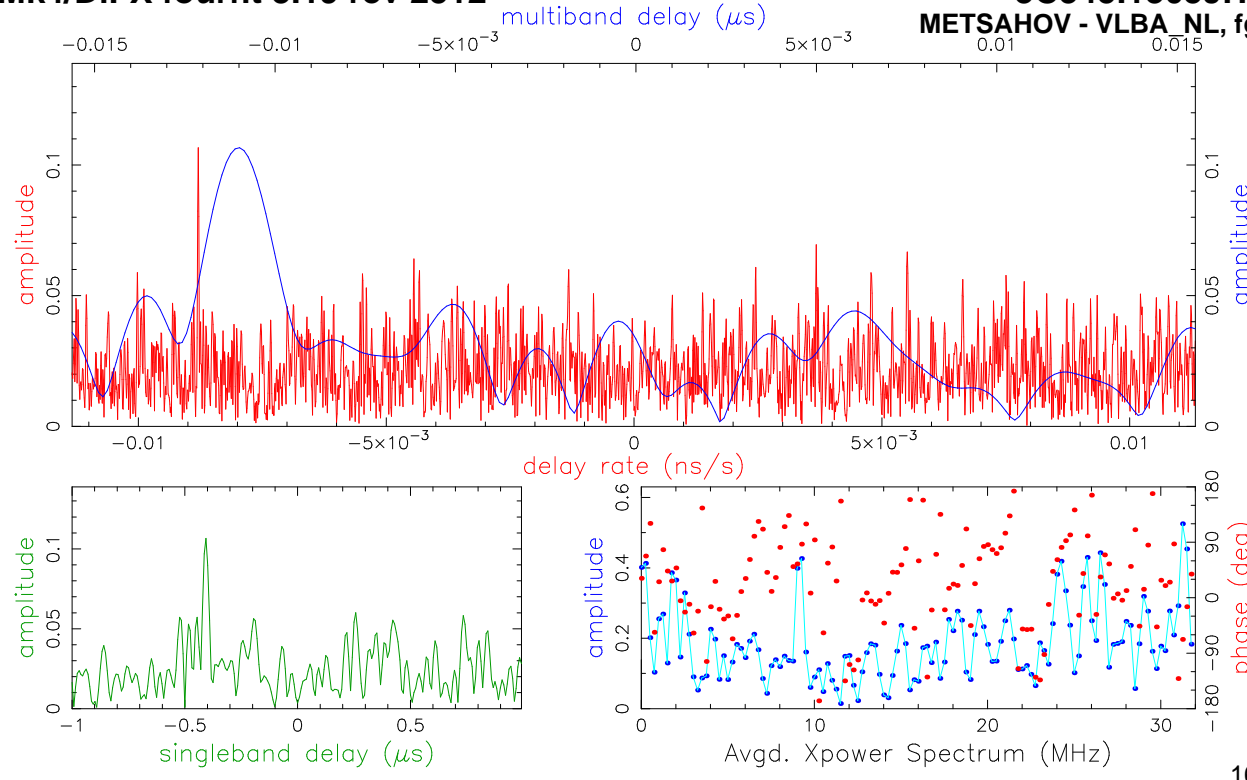


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-136.2	154.3	127.6	156.2	153.1	153.8	126.4	-117.5	121.9	82.6	163.8	-171.6	174.2	131.1	170.5	-78.2	Phase	162.3
	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.2	0.2	0.3	0.1	0.1	0.1	Ampl.	0.1
	197.8	156.3	71.4	155.5	140.7	49.8	130.7	25.8	190.3	127.9	29.8	235.0	75.3	122.7	29.6	44.7	Sbd box	51.2
UL	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	APs used	
Z	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	
Z: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	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) -1.24785825360E+03 Apriori delay (usec) -1.24725051616E+03 Resid mbdelay (usec) -1.39874E-02 +/- 1.8E-04
 Sband delay (usec) -1.24785846616E+03 Apriori clock (usec) -2.6293127E+01 Resid sbdelay (usec) -6.07950E-01 +/- 2.9E-03
 Phase delay (usec) -1.24725051092E+03 Apriori clockrate (us/s) -1.1793070E-07 Resid phdelay (usec) 5.23257E-06 +/- 6.3E-07
 Delay rate (us/s) -1.23492127616E+00 Apriori rate (us/s) -1.23491701027E+00 Resid rate (us/s) -4.26589E-06 +/- 2.7E-09
 Total phase (deg) -3.9 Apriori accel (us/s/s) 2.10846431478E-05 Resid phase (deg) 162.3 +/- 19.6

RMS Theor. Amplitude 0.112 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 28.1 32.5 Search (2048X64) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 42.4 56.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 51.5 39.2 Inc. seg. avg. 0.106 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 65.0 68.5 Inc. frq. avg. 0.117 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 271.4 el 46.7 pa 40.3 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 9241.054 2643.159 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/Zn..1305JH Output file: /Exps/c192a/v2/1234/No0001/Zn.W.349.1305JH

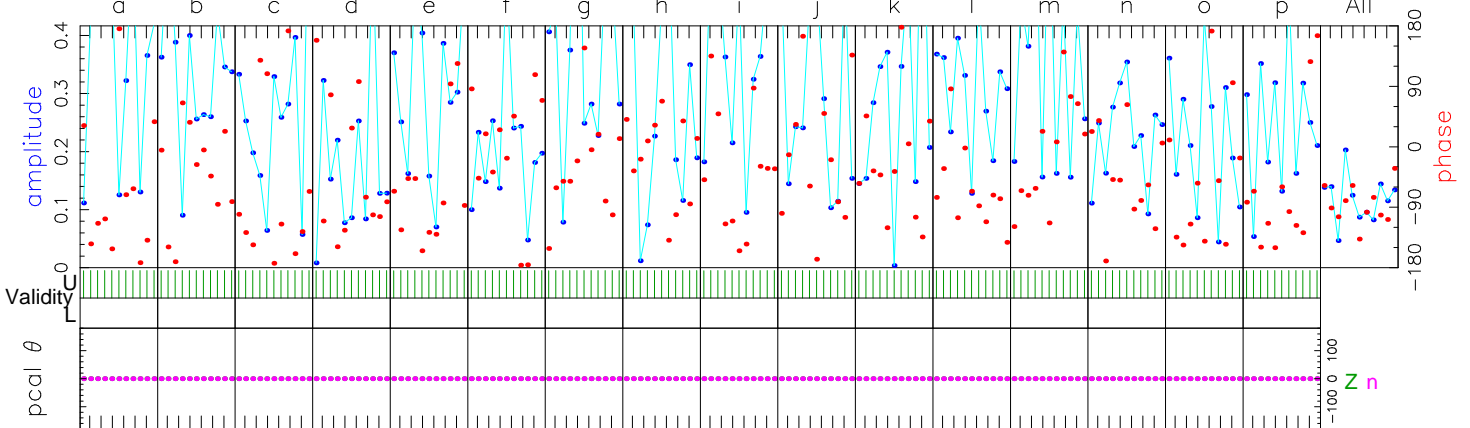


Fringe quality 0

SNR 5.9
 Int time 410.457
 Amp 0.139
 Phase -82.4
 PFD 5.5e-01
 Delays (us)
 SBD -0.407411
 MBD -0.011032
 Fringe rate (Hz)
 -0.758047
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c192a
 Exper # 16383
 Yr:day 2019:276
 Start 183008.70
 Stop 183659.84
 FRT 183330.00
 Corr/FF/build
 2020:083:003228
 2020:093:042858
 2020:014:135814
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 11 segs, 73 APs / seg (37.38 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-112.4	-47.9	-131.2	-112.2	-95.6	13.3	-51.8	-11.5	-46.7	-97.4	-78.1	-77.5	-58.5	-37.7	-136.0	-127.1		Phase	-82.4
	0.3	0.2	0.2	0.1	0.2	0.1	0.3	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.2		Ampl.	0.1
	67.0	89.6	128.8	243.3	189.8	226.9	172.5	247.9	213.9	233.2	61.5	162.2	244.7	52.4	248.5	75.8		Sbd box	76.9
UL	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0	803/0		APs used	
Z	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	
Z: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	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	

Group delay (usec)(sbd) -1.24766779835E+03 Apriori delay (usec) -1.24725051616E+03 Resid mbdelay (usec) -1.10322E-02 +/- 1.8E-04
 Sband delay (usec) -1.24765792716E+03 Apriori clock (usec) -2.6293127E+01 Resid sbdelay (usec) -4.07411E-01 +/- 2.9E-03
 Phase delay (usec) -1.24725051881E+03 Apriori clockrate (us/s) -1.1793070E-07 Resid phdelay (usec) -2.65870E-06 +/- 6.2E-07
 Delay rate (us/s) -1.23492581045E+00 Apriori rate (us/s) -1.23491701027E+00 Resid rate (us/s) -8.80017E-06 +/- 2.6E-09
 Total phase (deg) -248.6 Apriori accel (us/s/s) 2.10846431478E-05 Resid phase (deg) -82.4 +/- 19.3

ph/seg (deg) RMS 28.0 Theor. 32.1 Amplitude 0.139 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 38.4 56.0 Search (2048X64) 0.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.0 38.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 54.6 67.5 Inc. seg. avg. 0.134 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

Z: az 271.4 el 46.7 pa 40.3 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) 9241.054 2643.159 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0001/Zn..1305JH Output file: /Exps/c192a/v2/1234/No0001/Zn.W.357.1305JH