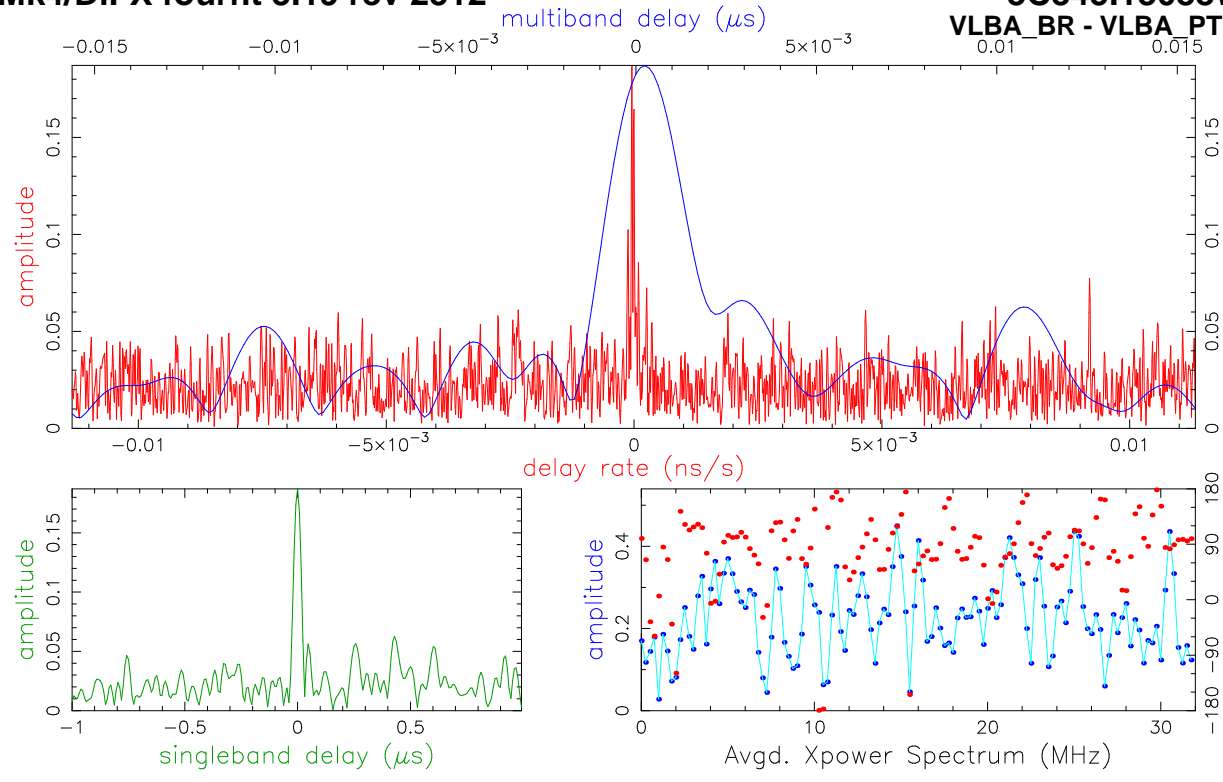


Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, bp
VLBA_BR - VLBA_PT, fgroup W, pol LL

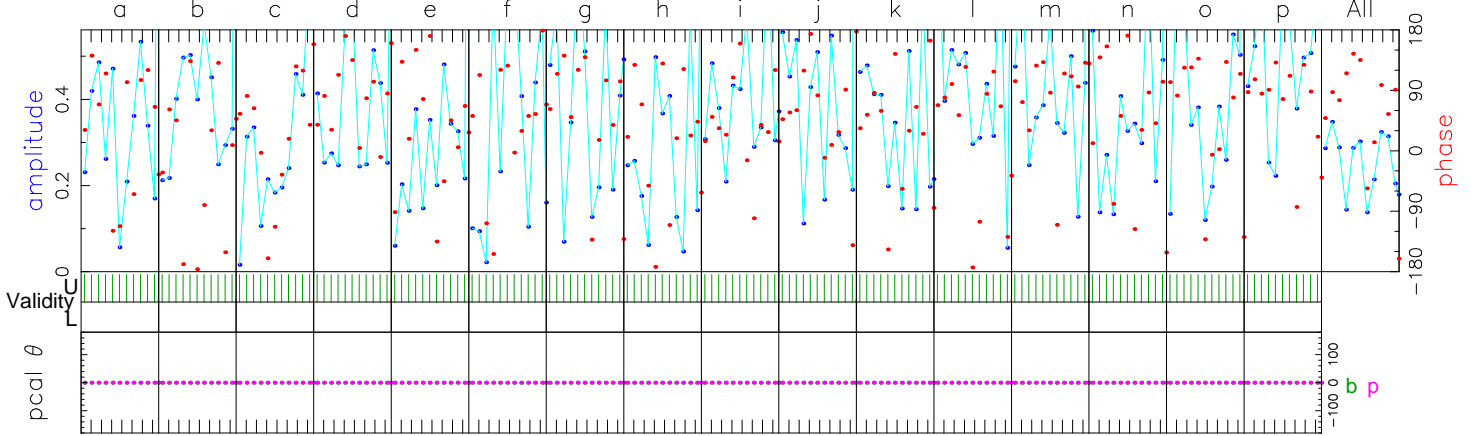


Fringe quality 9

SNR 10.5
Int time 419.819
Amp 0.187
Phase 85.1
PFD 4.6e-17
Delays (us)
SBD -0.000785
MBD 0.000228
Fringe rate (Hz)
-0.004197
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053049
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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

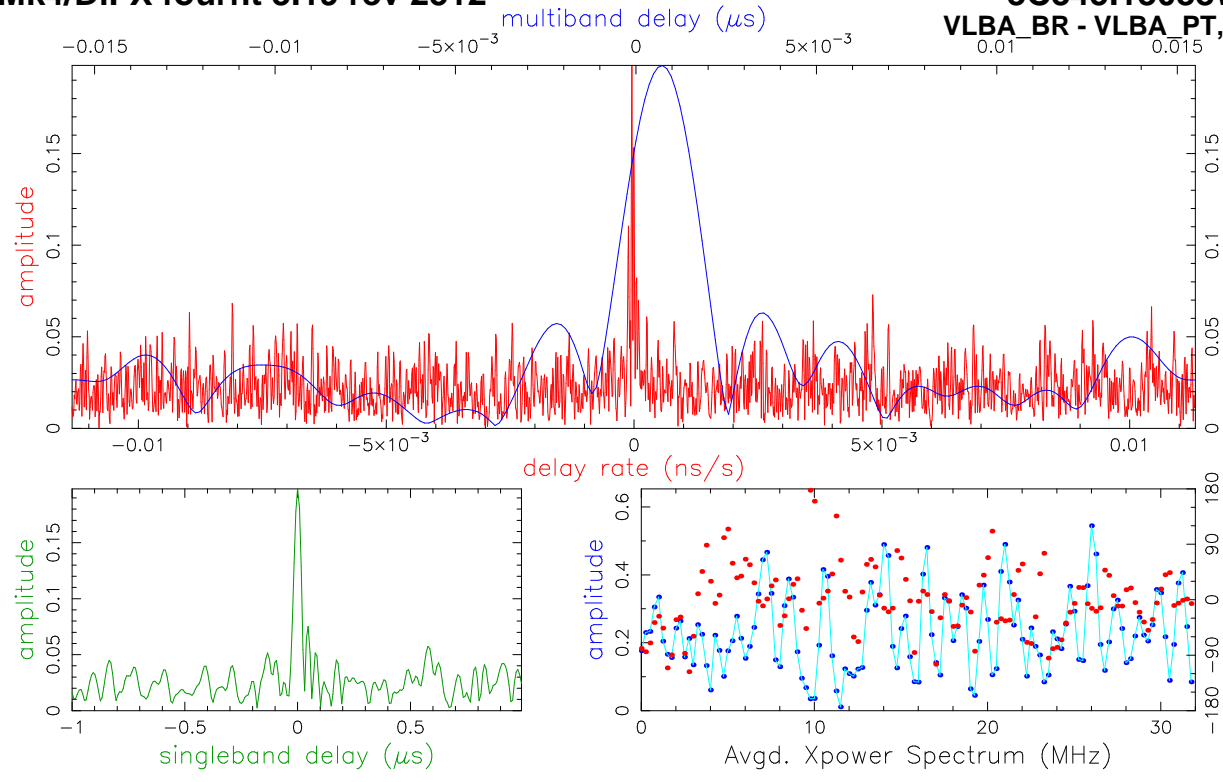


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	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		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
Group delay (usec)(sbd)	2.56318401736E+02			Apriori delay (usec)			2.56318173837E+02			Resid mbdelay (usec)			2.27899E-04			+/-	1.0E-04	
Sband delay (usec)	2.56317388337E+02			Apriori clock (usec)			-1.2527438E+01			Resid sbdelay (usec)			-7.85500E-04			+/-	1.6E-03	
Phase delay (usec)	2.56318176581E+02			Apriori clockrate (us/s)			-4.4628166E-07			Resid phdelay (usec)			2.74478E-06			+/-	3.5E-07	
Delay rate (us/s)	2.05433072346E-01			Apriori rate (us/s)			2.05433121073E-01			Resid rate (us/s)			-4.87275E-08			+/-	1.5E-09	
Total phase (deg)	263.1			Apriori accel (us/s/s)			1.16377693709E-05			Resid phase (deg)			85.1			+/-	10.9	

ph/seg (deg) 56.7 18.9 Search (2048X64) 0.173 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 53.2 33.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 21.6 21.9 Inc. seg. avg. 0.245 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 53.1 38.2 Inc. frq. avg. 0.185 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 189.5 el 81.5 pa 8.2 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -1507.811 2012.195 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/bp..13088W Output file: /Exps/c192a/v2/1234/No0023/bp.W.12.13088W

Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, bp
VLBA_BR - VLBA_PT, fgroup W, pol RR

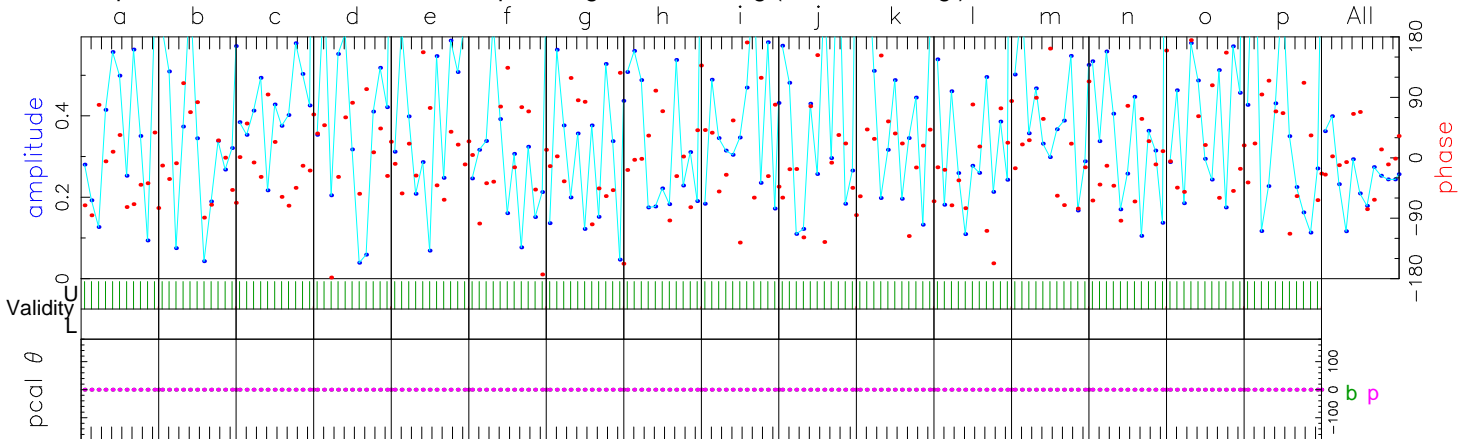


Fringe quality 9

SNR 11.1
Int time 419.819
Amp 0.198
Phase -3.4
PFD 5.9e-20
Delays (us)
SBD 0.000586
MBD 0.000719
Fringe rate (Hz) -0.004288
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build 2020:083:071541
2020:093:053054
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-15.5	15.3	-13.8	31.3	-8.1	-8.2	-26.5	-5.9	-19.6	-18.6	15.6	-18.1	9.7	-26.5	-20.1	27.2	Phase	-3.4
	0.2	0.2	0.3	0.3	0.3	0.1	0.1	0.2	0.1	0.2	0.3	0.1	0.2	0.2	0.2	0.2	Ampl.	0.2
	91.1	127.6	129.4	128.9	127.7	206.6	140.3	128.1	237.2	65.6	128.9	230.5	228.5	134.4	31.6	19.9	Sbd box	129.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

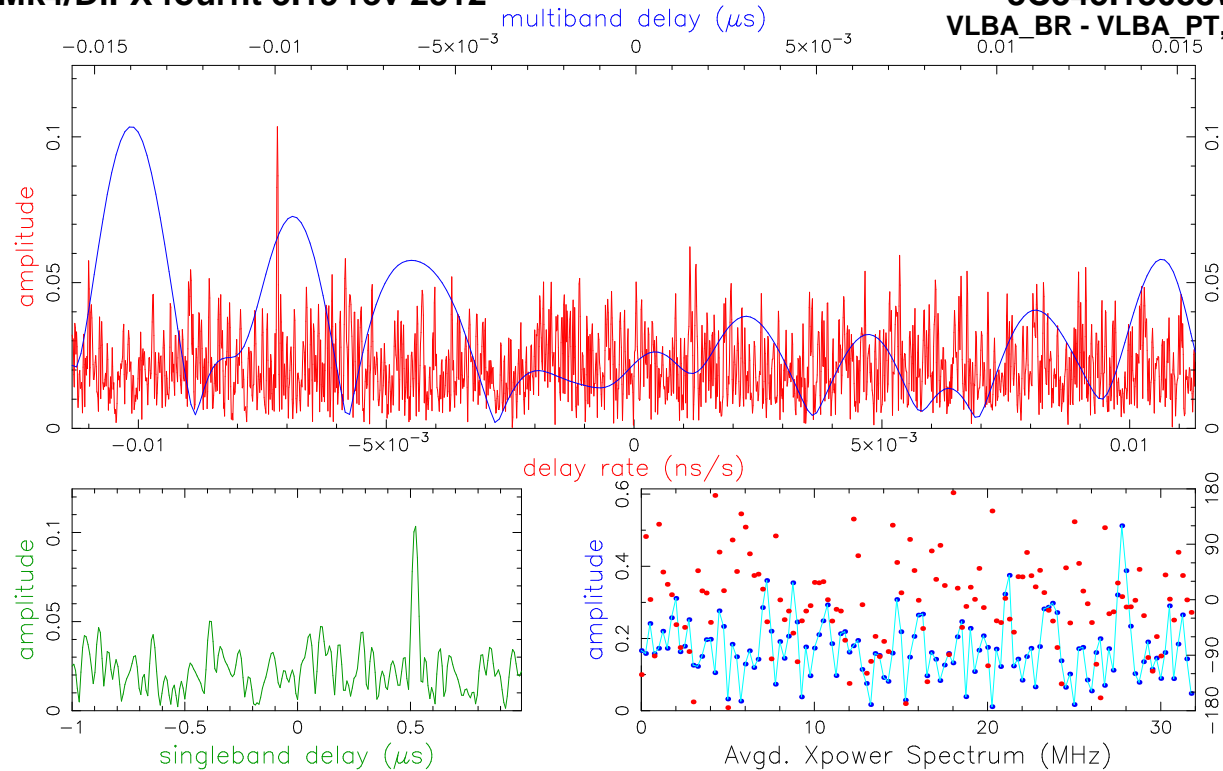
Group delay (usec)(sbd) 2.56318892486E+02 Apriori delay (usec) 2.56318173837E+02 Resid mbdelay (usec) 7.18649E-04 +/- 9.7E-05
 Sband delay (usec) 2.56318760337E+02 Apriori clock (usec) -1.2527438E+01 Resid sbdelay (usec) 5.86500E-04 +/- 1.6E-03
 Phase delay (usec) 2.56318173726E+02 Apriori clockrate (us/s) -4.4628166E-07 Resid phdelay (usec) -1.10644E-07 +/- 3.3E-07
 Delay rate (us/s) 2.05433071298E-01 Apriori rate (us/s) 2.05433121073E-01 Resid rate (us/s) -4.97755E-08 +/- 1.4E-09
 Total phase (deg) 174.5 Apriori accel (us/s/s) 1.16377693709E-05 Resid phase (deg) -3.4 +/- 10.3

RMS Theor. Amplitude 0.198 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 42.1 17.9 Search (2048X64) 0.178 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 47.5 31.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 19.6 20.6 Inc. seg. avg. 0.243 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 31.9 36.0 Inc. frq. avg. 0.196 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 189.5 el 81.5 pa 8.2 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -1507.811 2012.195 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/bp..13088W Output file: /Exps/c192a/v2/1234/No0023/bp.W.31.13088W

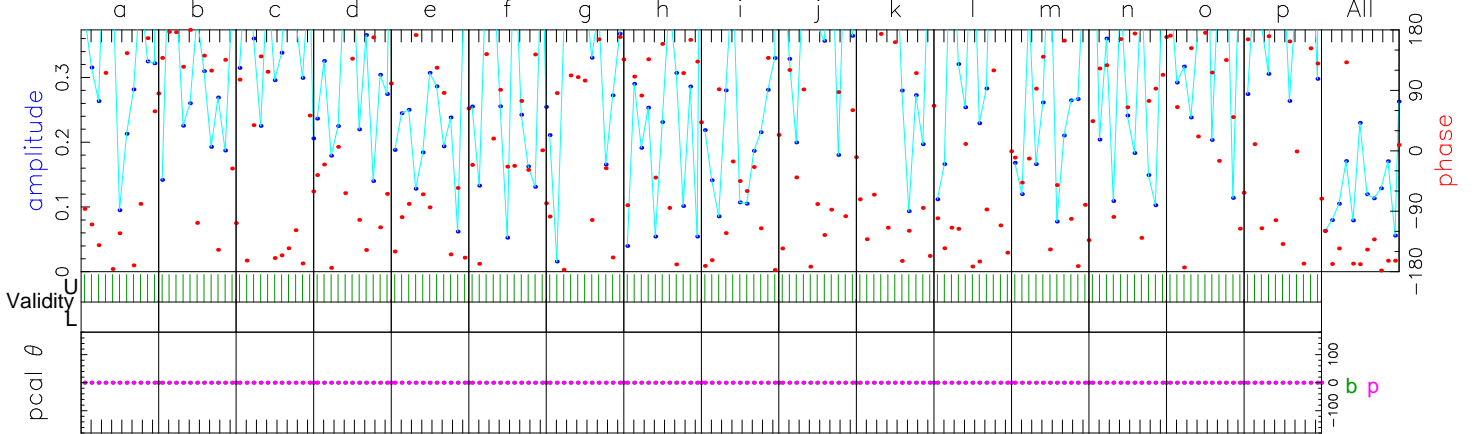
Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, bp
VLBA_BR - VLBA_PT, fgroup W, pol LR



Fringe quality 0
SNR 5.9
Int time 419.819
Amp 0.125
Phase -165.9
PFD 6.6e-01
Delays (us)
SBD 0.520694
MBD -0.014012
Fringe rate (Hz) -0.621080
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build 2020:083:071541
2020:093:053059
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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

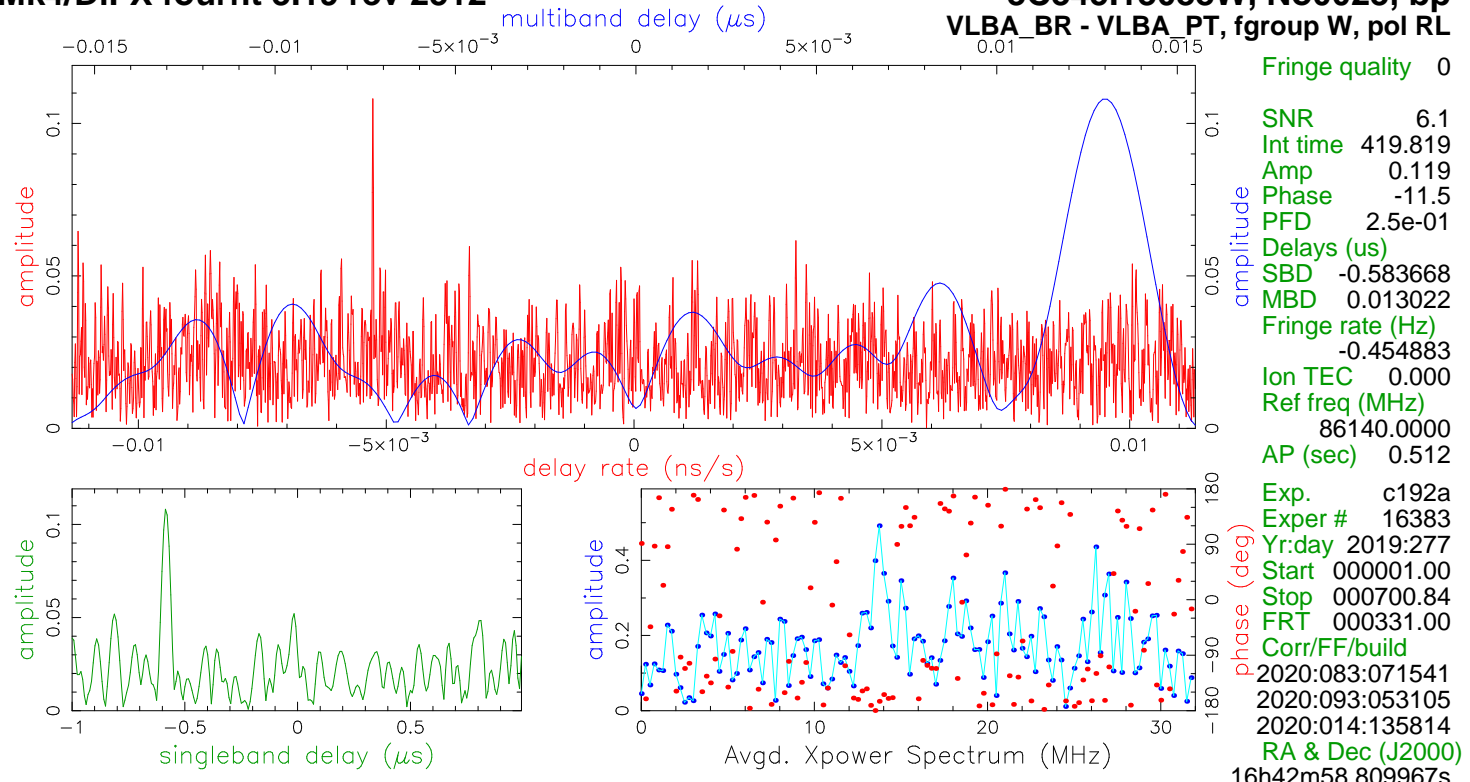


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-168.8	-179.8	170.9	-96.3	-135.7	22.4	149.8	156.9	-116.7	-130.5	-142.0	-140.9	-114.2	120.3	157.7	-154.7	Phase	-165.9
	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.3	0.3	0.1	0.2	0.2	0.2	Ampl.	0.1
	161.3	84.9	78.9	219.0	254.1	246.2	10.1	192.2	119.6	181.7	196.8	159.2	136.7	210.0	165.3	206.4	Sbd box	195.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
b:p	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		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	2.56835412199E+02		Apriori delay (usec)		2.56318173837E+02		Resid mbdelay (usec)		-1.40116E-02		+/-		1.8E-04					
Sband delay (usec)	2.56838868337E+02		Apriori clock (usec)		-1.2527438E+01		Resid sbdelay (usec)		5.20694E-01		+/-		2.9E-03					
Phase delay (usec)	2.56318168486E+02		Apriori clockrate (us/s)		-4.4628166E-07		Resid phdelay (usec)		-5.35027E-06		+/-		6.3E-07					
Delay rate (us/s)	2.05425910949E-01		Apriori rate (us/s)		2.05433121073E-01		Resid rate (us/s)		-7.21012E-06		+/-		2.6E-09					
Total phase (deg)	12.0		Apriori accel (us/s/s)		1.16377693709E-05		Resid phase (deg)		-165.9		+/-		19.5					

ph/seg (deg) 31.1 33.8 Search (2048X64) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 51.8 59.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 62.0 39.0 Inc. seg. avg. 0.122 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 60.7 68.1 Inc. frq. avg. 0.143 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 189.5 el 81.5 pa 8.2 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -1507.811 2012.195 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/bp..13088W Output file: /Exps/c192a/v2/1234/No0023/bp.W.48.13088W

Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, bp
VLBA_BR - VLBA_PT, fgroup W, pol RL



Fringe quality 0

SNR 6.1

Int time 419.819

Amp 0.119

Phase -11.5

PFD 2.5e-01

Delays (us)

SBD -0.583668

MBD 0.013022

Fringe rate (Hz)

-0.454883

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:277

Start 000001.00

Stop 000700.84

FRT 000331.00

Corr/FF/build

2020:083:071541

2020:093:053105

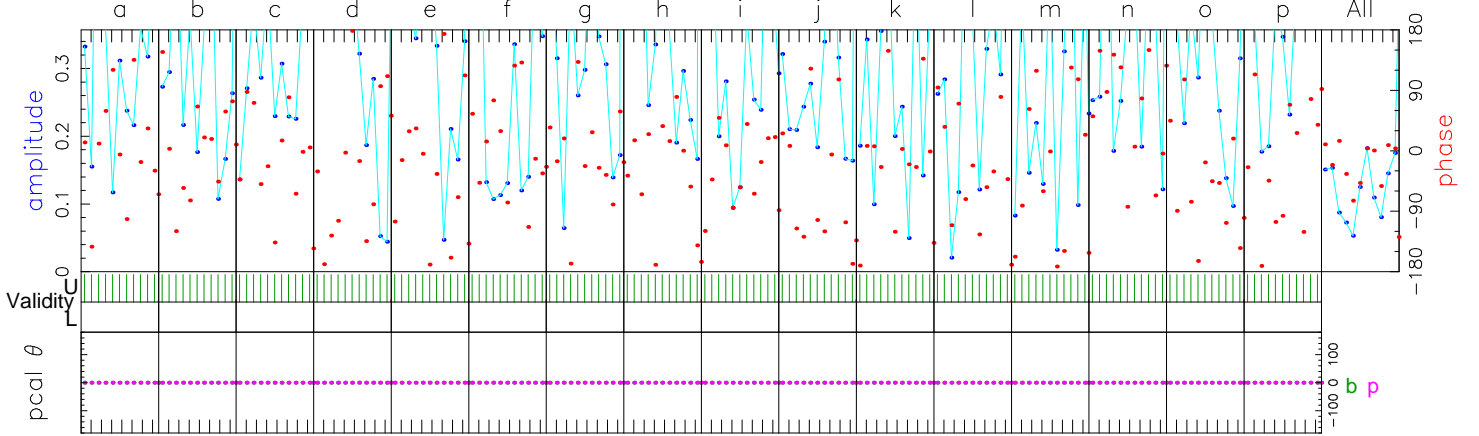
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

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



86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
4.9	-4.1	2.8	-95.8	-31.8	0.9	4.2	-10.4	-16.6	-73.1	-13.9	-30.6	57.6	88.1	-45.1	3.5	Phase	-11.5	
0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.0	0.1	0.2	0.0	0.1	0.1	0.1	Ampl.	0.1	
55.3	228.7	219.3	157.3	63.9	4.8	133.9	233.5	224.4	173.6	212.5	65.1	42.3	47.4	106.5	207.5	Sbd box	54.3	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used		
b	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	PC phase		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp		
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids		
b	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	

Group delay (usec)(sbd) 2.55737445498E+02 Apriori delay (usec) 2.56318173837E+02 Resid mbdelay (usec) 1.30217E-02 +/- 1.8E-04

Sband delay (usec) 2.55734506337E+02 Apriori clock (usec) -1.2527438E+01 Resid sbdelay (usec) -5.83668E-01 +/- 2.8E-03

Phase delay (usec) 2.56318173465E+02 Apriori clockrate (us/s) -4.4628166E-07 Resid phdelay (usec) -3.71406E-07 +/- 6.1E-07

Delay rate (us/s) 2.05427840333E-01 Apriori rate (us/s) 2.05433121073E-01 Resid rate (us/s) -5.28074E-06 +/- 2.5E-09

Total phase (deg) 166.4 Apriori accel (us/s/s) 1.16377693709E-05 Resid phase (deg) -11.5 +/- 18.8

ph/seg (deg) RMS Theor. Amplitude 0.119 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 31.1 32.6 Search (2048X64) 0.107 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 47.0 56.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 45.3 37.6 Inc. seg. avg. 0.117 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011

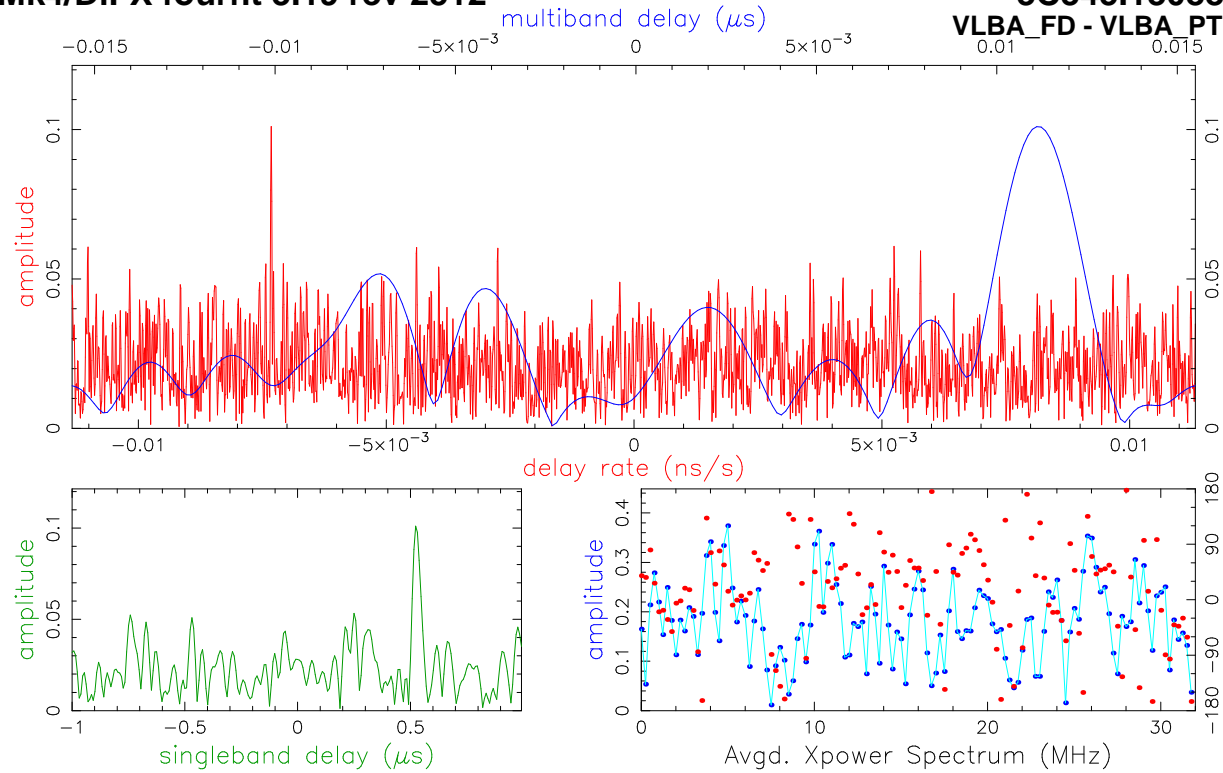
amp/frq (%) 52.4 65.7 Inc. frq. avg. 0.117 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 189.5 el 81.5 pa 8.2 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -1507.811 2012.195 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/bp..13088W Output file: /Exps/c192a/v2/1234/No0023/bp.W.74.13088W

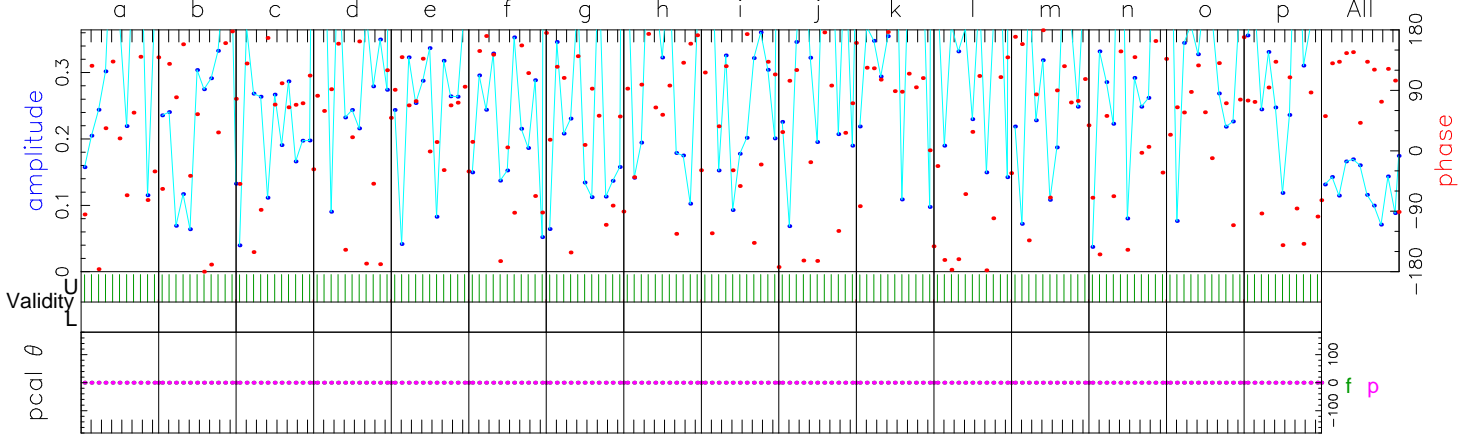
Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, fp
VLBA_FD - VLBA_PT, fgroup W, pol LL



Fringe quality 0
SNR 5.7
Int time 419.472
Amp 0.121
Phase 113.9
PFD 9.5e-01
Delays (us)
SBD 0.525576
MBD 0.011171
Fringe rate (Hz)
-0.631243
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053050
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



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

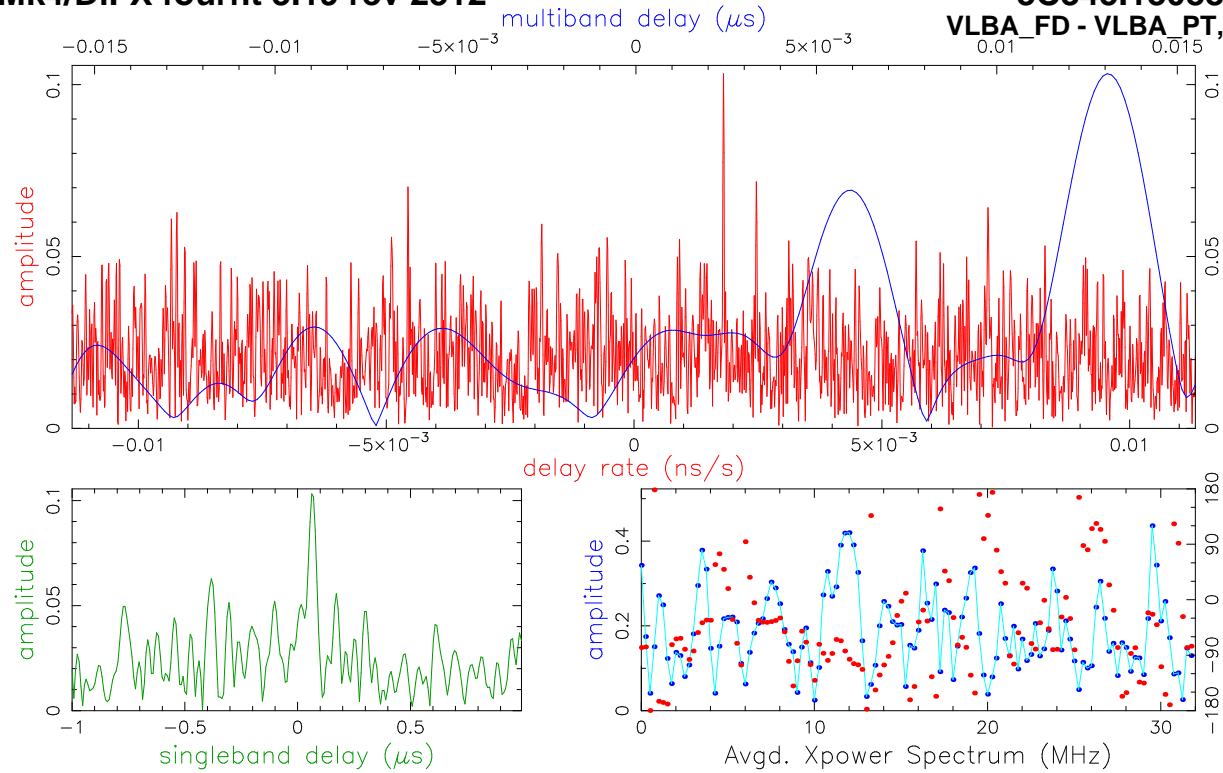
Group delay (usec)(sbd) -4.9181880007E+02 Apriori delay (usec) -4.92329971264E+02 Resid mbdelay (usec) 1.11713E-02 +/- 1.9E-04
 Sband delay (usec) -4.91804395264E+02 Apriori clock (usec) -1.1456962E+01 Resid sbdelay (usec) 5.25576E-01 +/- 3.0E-03
 Phase delay (usec) -4.92329967592E+02 Apriori clockrate (us/s) -2.9483610E-07 Resid phdelay (usec) 3.67202E-06 +/- 6.5E-07
 Delay rate (us/s) -8.18105188615E-02 Apriori rate (us/s) -8.18031907595E-02 Resid rate (us/s) -7.32810E-06 +/- 2.7E-09
 Total phase (deg) -147.0 Apriori accel (us/s/s) -1.34077501323E-06 Resid phase (deg) 113.9 +/- 20.1

RMS Theor. Amplitude 0.121 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 37.9 34.9 Search (2048X64) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 40.2 60.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 42.0 40.3 Inc. seg. avg. 0.129 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 63.3 70.3 Inc. frq. avg. 0.117 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 307.4 el 73.0 pa 118.4 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 606.360 -462.778 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/fp..13088W Output file: /Exps/c192a/v2/1234/No0023/fp.W.18.13088W

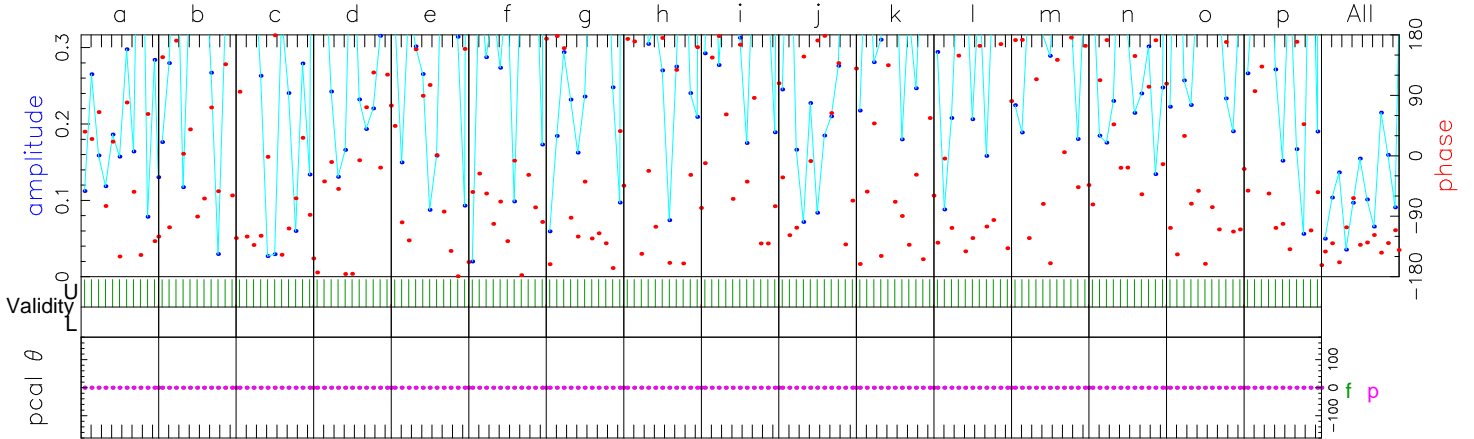
Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, fp
VLBA_FD - VLBA_PT, fgroup W, pol RR



Fringe quality 0
SNR 5.9
Int time 419.472
Amp 0.106
Phase -129.6
PFD 7.1e-01
Delays (us)
SBD 0.065687
MBD 0.013097
Fringe rate (Hz) 0.155213
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build 2020:083:071541
2020:093:053055
2020:014:135814
RA & Dec (J2000) 16h42m58.80967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-122.2	-97.8	-129.6	135.5	-146.4	-80.0	-125.7	-158.0	-171.7	-121.1	-110.6	-149.4	178.9	-4.0	-107.1	-126.3		Phase -129.6					
	0.0	0.1	0.1	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1		Ampl. 0.1					
	169.5	96.1	147.3	43.1	246.6	61.6	135.9	113.8	12.8	117.8	191.0	136.6	139.6	106.0	137.9	238.5		Sbd box 137.4					
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
f	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
f: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					
fp	0:0	0:0	0:0	0:0	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					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids					
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-4.92254374539E+02															Apriori delay (usec)	-4.92329971264E+02	Resid mbdelay (usec)	1.30967E-02	+/-	1.8E-04
Sband delay (usec)			-4.92264284264E+02															Apriori clock (usec)	-1.1456962E+01	Resid sbdelay (usec)	6.56870E-02	+/-	2.9E-03
Phase delay (usec)			-4.92329975442E+02															Apriori clockrate (us/s)	-2.9483610E-07	Resid phdelay (usec)	-4.17785E-06	+/-	6.3E-07
Delay rate (us/s)			-8.18013888861E-02															Apriori rate (us/s)	-8.18031907595E-02	Resid rate (us/s)	1.80187E-06	+/-	2.6E-09
Total phase (deg)																		Apriori accel (us/s/s)	-1.34077501323E-06	Resid phase (deg)	-129.6	+/-	19.6

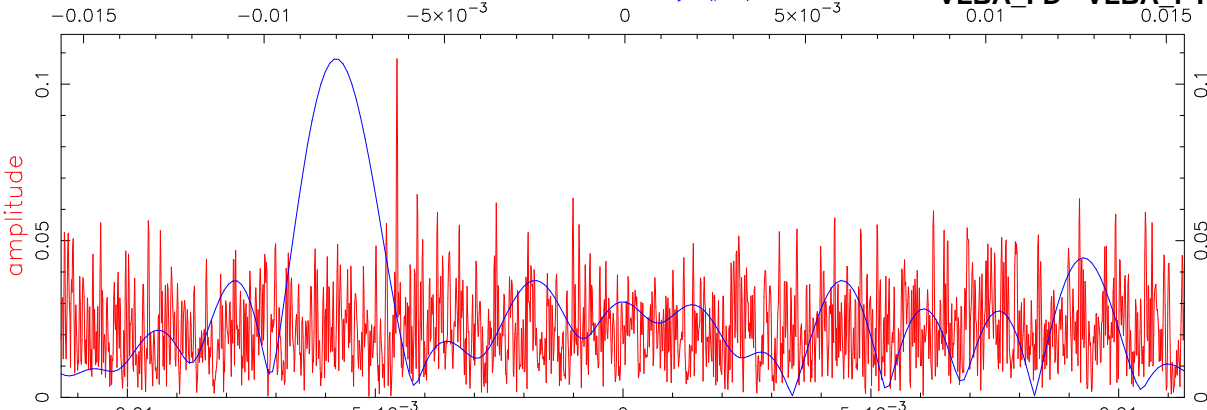
ph/seg (deg) RMS Theor. Amplitude 0.106 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 51.8 59.2 Search (2048X64) 0.101 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 50.1 39.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 67.6 68.3 Inc. seg. avg. 0.096 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 f: az 307.4 el 73.0 pa 118.4 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 606.360 -462.778 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/No0023/fp..13088W Output file: /Exps/c192a/v2/1234/No0023/fp.W.33.13088W simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

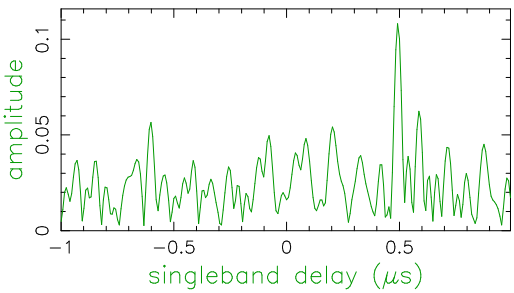
3C345.13088W, No0023, fp
VLBA_FD - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

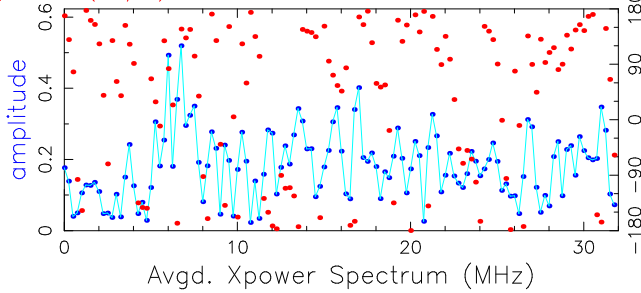
Fringe quality 0



SNR 6.1
Int time 419.472
Amp 0.116
Phase 152.6
PFD 2.9e-01
Delays (us)
SBD 0.493288
MBD -0.007987
Fringe rate (Hz)
-0.393491
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

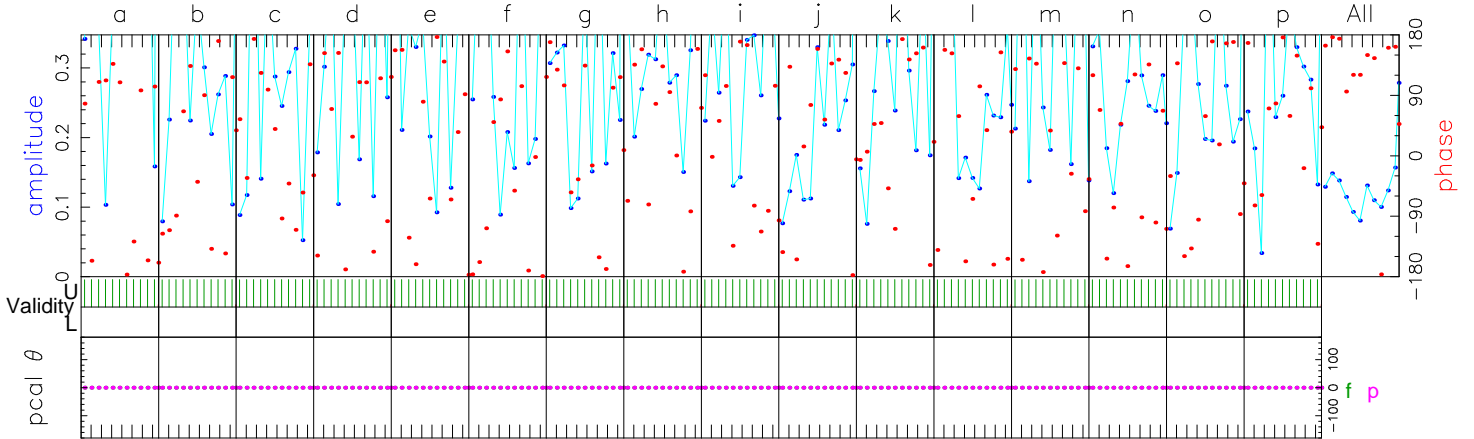


delay rate (ns/s)



Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053101
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



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

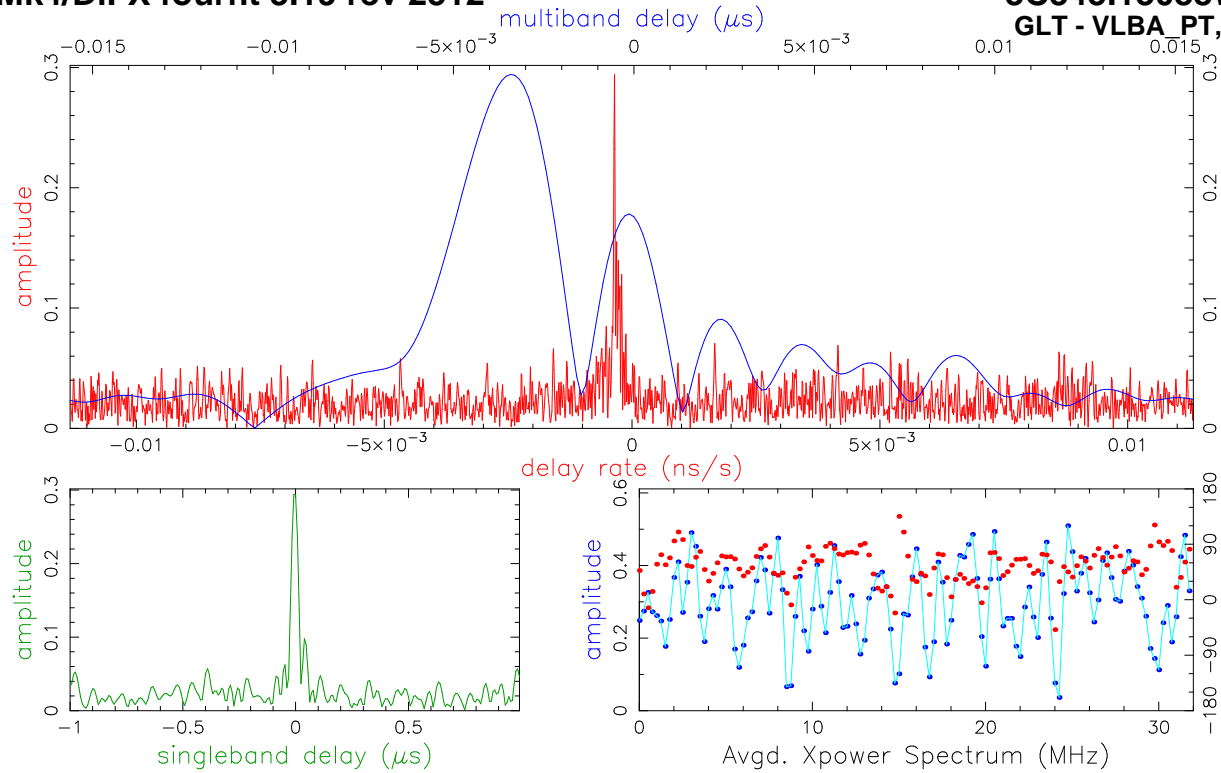
Group delay (usec)(sbd) -4.91837958581E+02 Apriori delay (usec) -4.92329971264E+02 Resid mbdelay (usec) -7.98732E-03 +/- 1.8E-04
 Sband delay (usec) -4.91836682764E+02 Apriori clock (usec) -1.1456962E+01 Resid sbdelay (usec) 4.93288E-01 +/- 2.8E-03
 Phase delay (usec) -4.92329966342E+02 Apriori clockrate (us/s) -2.9483610E-07 Resid phdelay (usec) 4.92162E-06 +/- 6.1E-07
 Delay rate (us/s) -8.18077587965E-02 Apriori rate (us/s) -8.18031907595E-02 Resid rate (us/s) -4.56804E-06 +/- 2.5E-09
 Total phase (deg) -108.3 Apriori accel (us/s/s) -1.34077501323E-06 Resid phase (deg) 152.6 +/- 18.9

RMS 27.8 Theor. 32.7 Amplitude 0.116 +/- 0.019 Pcd mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 27.8 Search (2048X64) 0.100 Pcd rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 27.1 57.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 32.7 37.8 Inc. seg. avg. 0.112 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 55.7 65.9 Inc. frq. avg. 0.106 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 307.4 el 73.0 pa 118.4 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 606.360 -462.778 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/fp..13088W Output file: /Exps/c192a/v2/1234/No0023/fp.W.57.13088W

Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, gp
GLT - VLBA_PT, fgroup W, pol RR

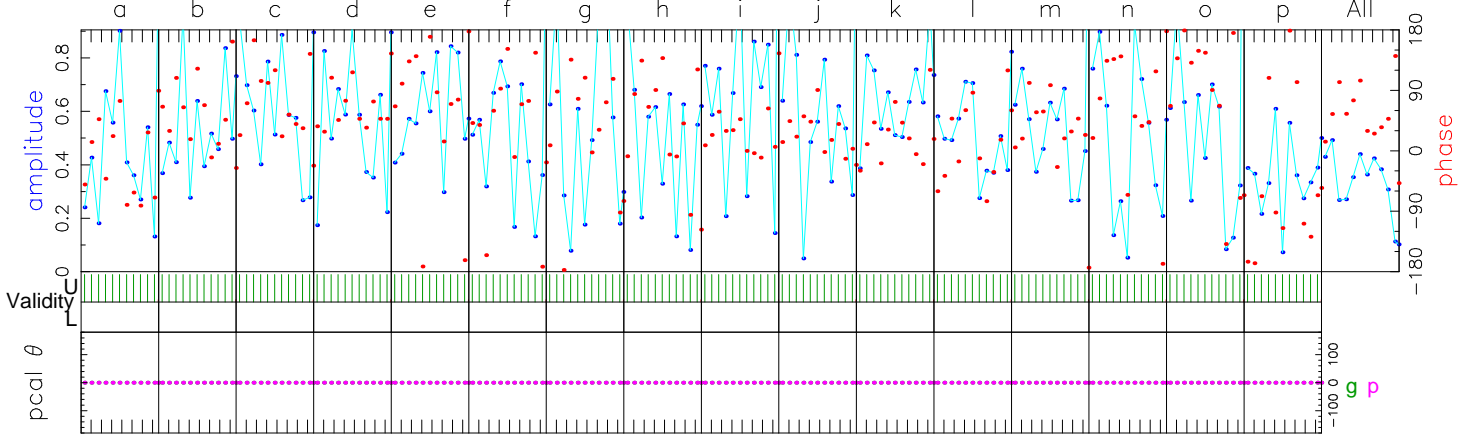


Fringe quality 9

SNR 16.9
Int time 419.525
Amp 0.302
Phase 53.9
PFD 0.0e+00
Delays (us)
SBD -0.003930
MBD -0.003344
Fringe rate (Hz)
-0.030887
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

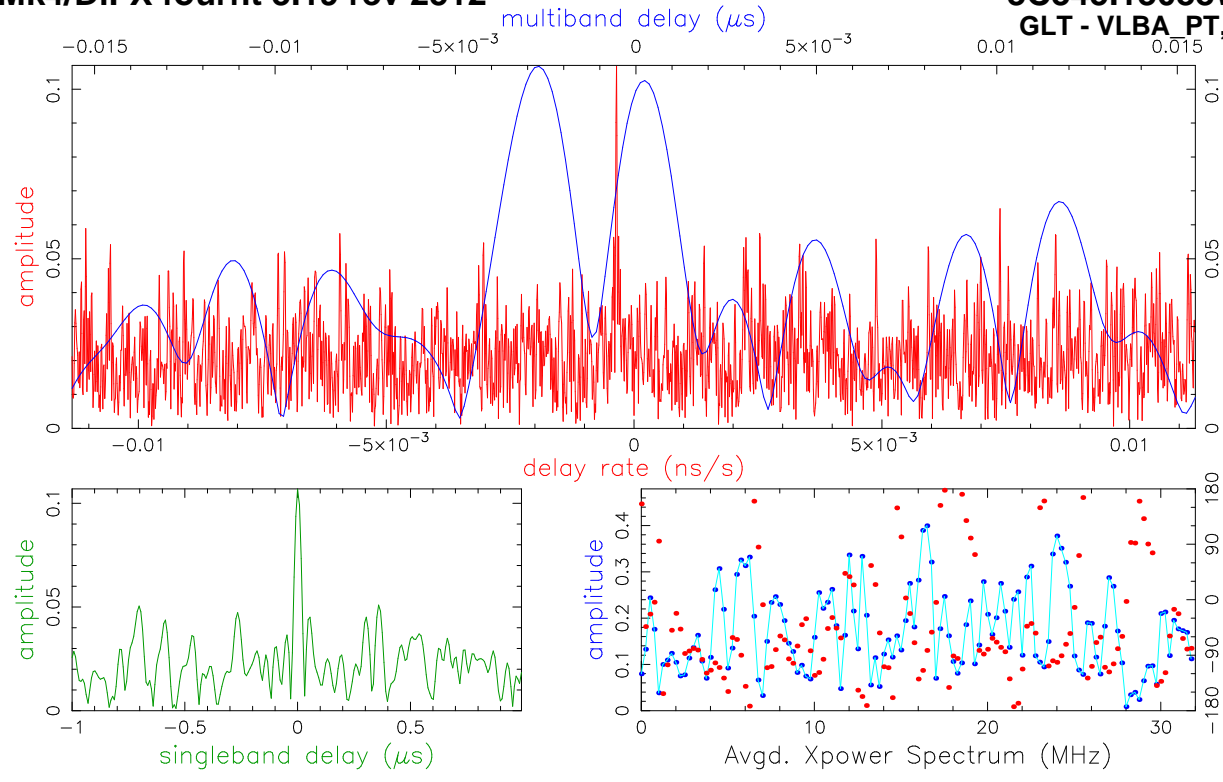
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053114
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-2.1	60.1	68.3	63.3	114.2	83.2	64.0	55.6	28.3	25.8	25.1	12.2	37.6	69.1	125.6	-140.2	Phase	53.9	
	0.2	0.4	0.4	0.5	0.4	0.3	0.4	0.3	0.6	0.5	0.5	0.3	0.4	0.3	0.3	0.2	Ampl.	0.4	
	130.3	128.8	128.6	128.4	129.0	128.4	128.5	128.9	127.9	128.8	128.5	128.7	127.8	129.2	129.4	130.3	Sbd box	128.5	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used		
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	0	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
g: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		
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC		
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
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		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks		
																	Chan ids		
																	Tracks		
Group delay (usec)(sbd)			-5.29757482777E+03					Apriori delay (usec)									-3.34384E-03	+/-	6.4E-05
Sband delay (usec)			-5.29757541343E+03					Apriori clock (usec)									-3.92950E-03	+/-	1.0E-03
Phase delay (usec)			-5.29757148220E+03					Apriori clockrate (us/s)									1.73702E-06	+/-	2.2E-07
Delay rate (us/s)			1.84005052819E-02					Apriori rate (us/s)									-3.58573E-07	+/-	9.0E-10
Total phase (deg)					-171.5			Apriori accel (us/s/s)									53.9	+/-	6.8

ph/seg (deg) 39.4 11.7 Theor. Amplitude 0.302 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 37.4 20.5 Search (2048X64) 0.282 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 56.8 13.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 39.3 23.7 Inc. seg. avg. 0.341 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 g: az 243.7 el 46.9 pa 15.7 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -31.306 6562.527 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/gp..13088W Output file: /Exps/c192a/v2/1234/No0023/gp.W.102.13088W simultaneous interpolator

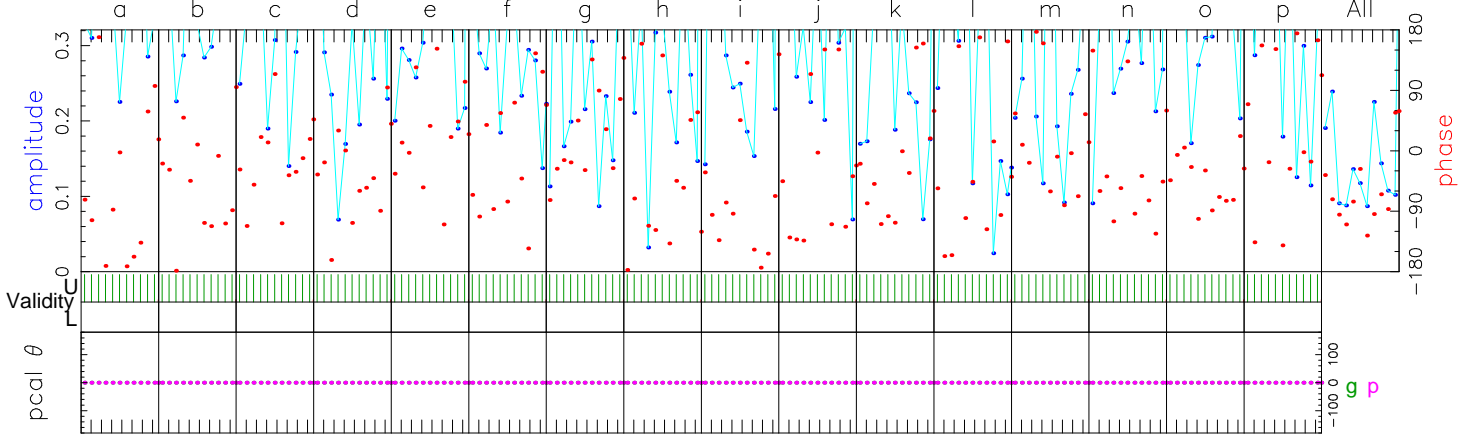


Fringe quality 0

SNR 6.0
Int time 419.712
Amp 0.107
Phase -69.9
PFD 4.1e-01
Delays (us)
SBD 0.001058
MBD -0.002707
Fringe rate (Hz)
-0.030723
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053120
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-153.9	-45.0	-30.8	-54.0	16.9	-66.0	19.7	-139.1	-123.7	-112.6	-70.3	-135.8	-20.0	-67.3	-48.6	133.2		Phase -69.9					
	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.1		Ampl. 0.1					
	55.7	182.1	49.8	148.8	245.4	209.2	99.9	25.1	82.3	139.8	15.6	127.9	51.1	129.6	129.4	209.7		Sbd box 129.1					
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		PC freqs					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
g: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					
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
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					
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			-5.29757419099E+03															Apriori delay (usec)	-5.29757148393E+03	Resid mbdelay (usec)	-2.70706E-03	+/-	1.8E-04
Sband delay (usec)			-5.29757042643E+03															Apriori clock (usec)	-1.0612335E+01	Resid sbdelay (usec)	1.05750E-03	+/-	2.9E-03
Phase delay (usec)			-5.29757148619E+03															Apriori clockrate (us/s)	-1.2888659E-07	Resid phdelay (usec)	-2.25527E-06	+/-	6.2E-07
Delay rate (us/s)			1.84005071929E-02															Apriori rate (us/s)	1.84008638546E-02	Resid rate (us/s)	-3.56662E-07	+/-	2.5E-09
Total phase (deg)					-295.3													Apriori accel (us/s/s)	5.76839276847E-05	Resid phase (deg)	-69.9	+/-	19.1

ph/seg (deg) 49.1 33.1
amp/seg (%) 65.3 57.8
ph/frq (deg) 68.9 38.2
amp/frq (%) 84.9 66.8

RMS Theor. Amplitude 0.107 +/- 0.018
Search (2048X64) 0.103
Interp. 0.000
Inc. seg. avg. 0.121
Inc. frq. avg. 0.140

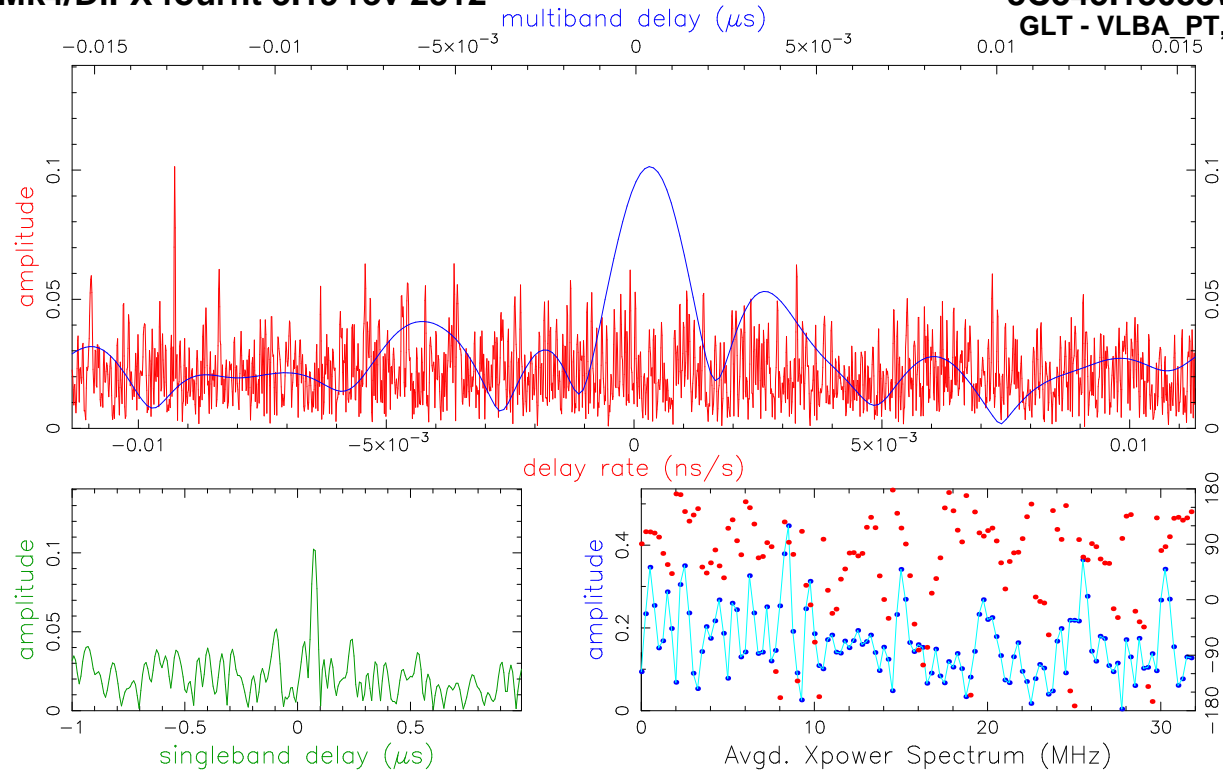
g: az 243.7 el 46.9 pa 15.7
p: az 301.1 el 78.0 pa 111.1
u,v (fr/asec) -31.306 6562.527

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

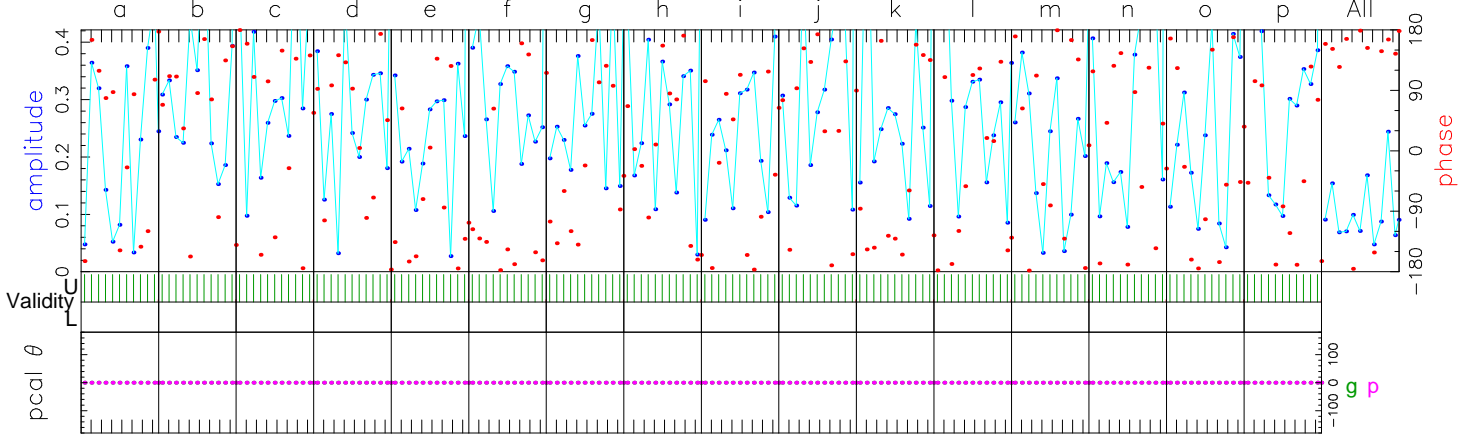
simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/gp..13088W Output file: /Exps/c192a/v2/1234/No0023/gp.W.123.13088W



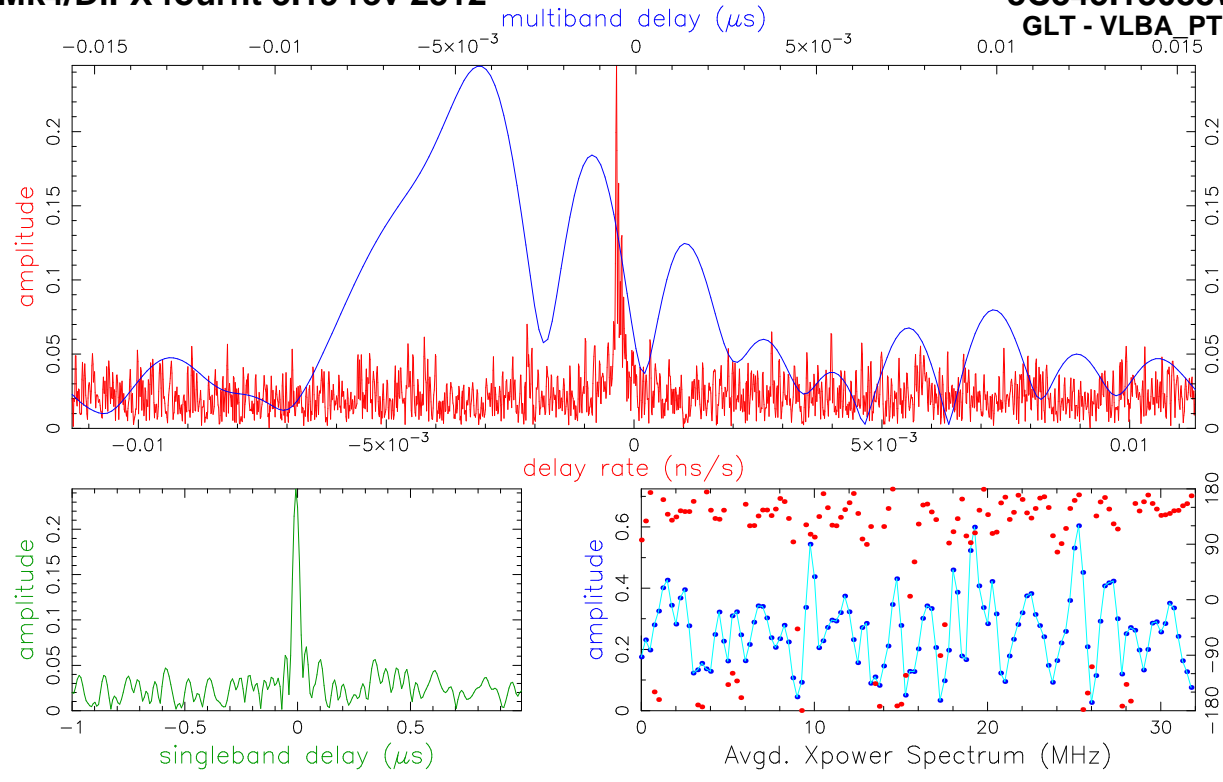
Fringe quality 0
SNR 5.9
Int time 419.525
Amp 0.141
Phase 160.7
PFD 6.6e-01
Delays (us)
SBD 0.073933
MBD 0.000368
Fringe rate (Hz)
-0.799411
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053124
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	160.7
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	0.1
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	138.5
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	138.5
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	138.5
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	138.5
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
Group delay (usec)(sbd)			-5.29750861587E+03															
Sband delay (usec)			-5.29749755093E+03															
Phase delay (usec)			-5.29757147875E+03															
Delay rate (us/s)			1.83915834851E-02															
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)																		

ph/seg (deg) 21.5 33.8 Search (2048X64) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 53.6 59.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 34.6 39.0 Inc. seg. avg. 0.121 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 66.0 68.1 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
 g: az 243.7 el 46.9 pa 15.7 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -31.306 6562.527 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/gp..13088W Output file: /Exps/c192a/v2/1234/No0023/gp.W.139.13088W simultaneous interpolator

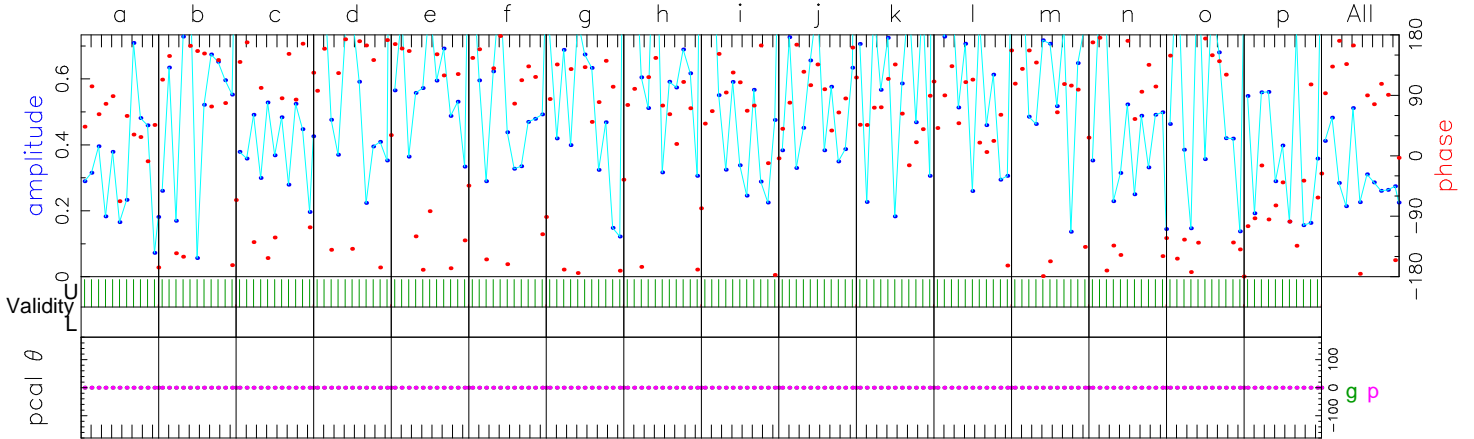


Fringe quality 9

SNR 13.7
Int time 419.712
Amp 0.245
Phase 130.2
PFD 6.1e-34
Delays (us)
SBD -0.007021
MBD -0.004341
Fringe rate (Hz)
-0.030715
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053108
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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

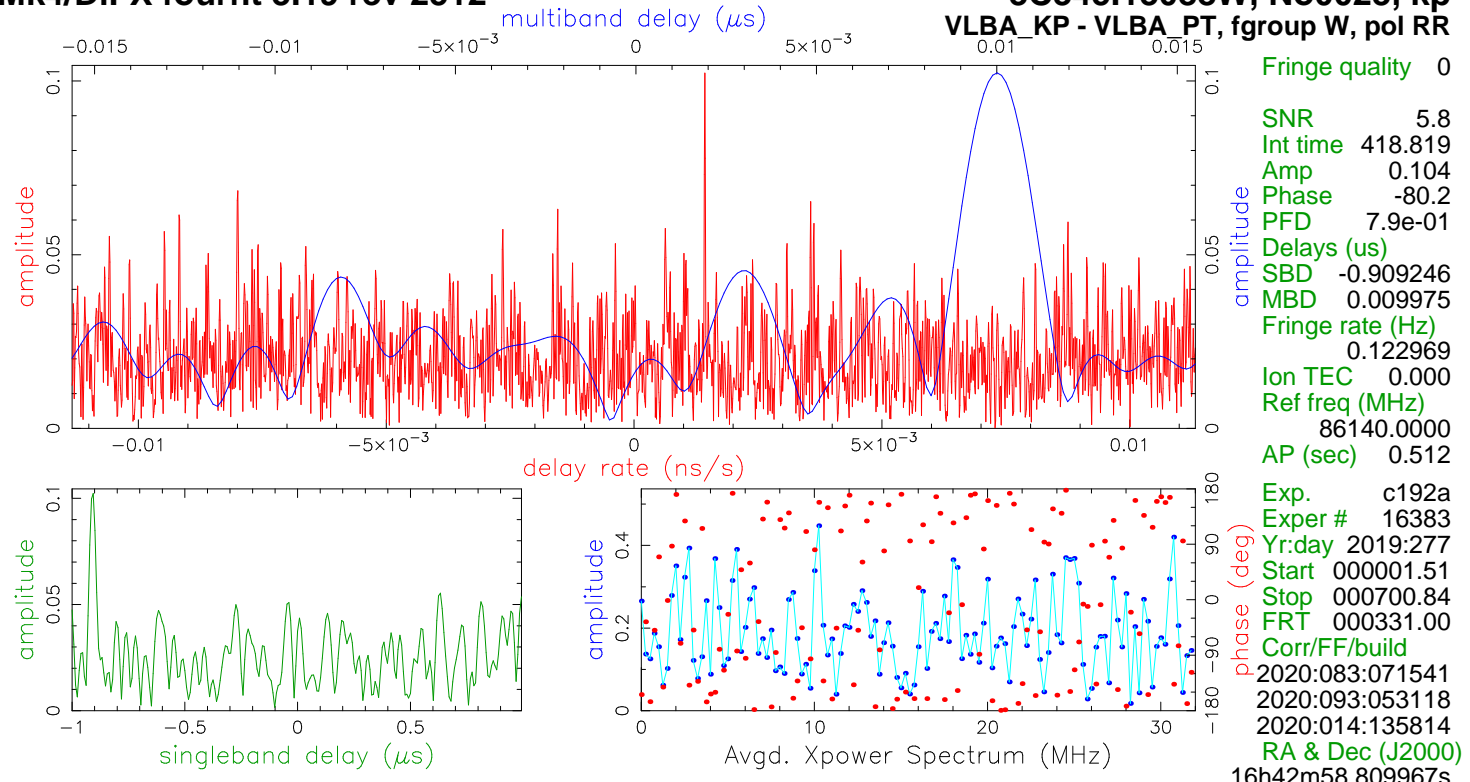


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	44.5	150.0	162.3	165.6	179.2	155.4	130.1	101.9	91.3	102.7	56.8	68.9	139.1	165.7	-173.9	-80.0	Phase	130.2				
	0.3	0.4	0.2	0.4	0.4	0.4	0.3	0.5	0.3	0.4	0.5	0.4	0.4	0.3	0.4	0.3	Ampl.	0.4				
	129.8	129.0	129.5	127.8	128.1	127.8	129.1	127.8	128.5	128.6	128.5	128.7	128.8	128.0	128.8	130.3	Sbd box	128.1				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
g: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					
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
g	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					
																	Tracks					
Group delay (usec)(sbd)			-5.29757582530E+03														Apriori delay (usec)	-5.29757148393E+03	Resid mbdelay (usec)	-4.34137E-03	+/-	7.9E-05
Sband delay (usec)			-5.29757850443E+03														Apriori clock (usec)	-1.0612335E+01	Resid sbdelay (usec)	-7.02050E-03	+/-	1.3E-03
Phase delay (usec)			-5.29757147973E+03														Apriori clockrate (us/s)	-1.2888659E-07	Resid phdelay (usec)	4.19994E-06	+/-	2.7E-07
Delay rate (us/s)			1.84005072872E-02														Apriori rate (us/s)	1.84008638546E-02	Resid rate (us/s)	-3.56567E-07	+/-	1.1E-09
Total phase (deg)					-95.1												Apriori accel (us/s/s)	5.76839276847E-05	Resid phase (deg)	130.2	+/-	8.4

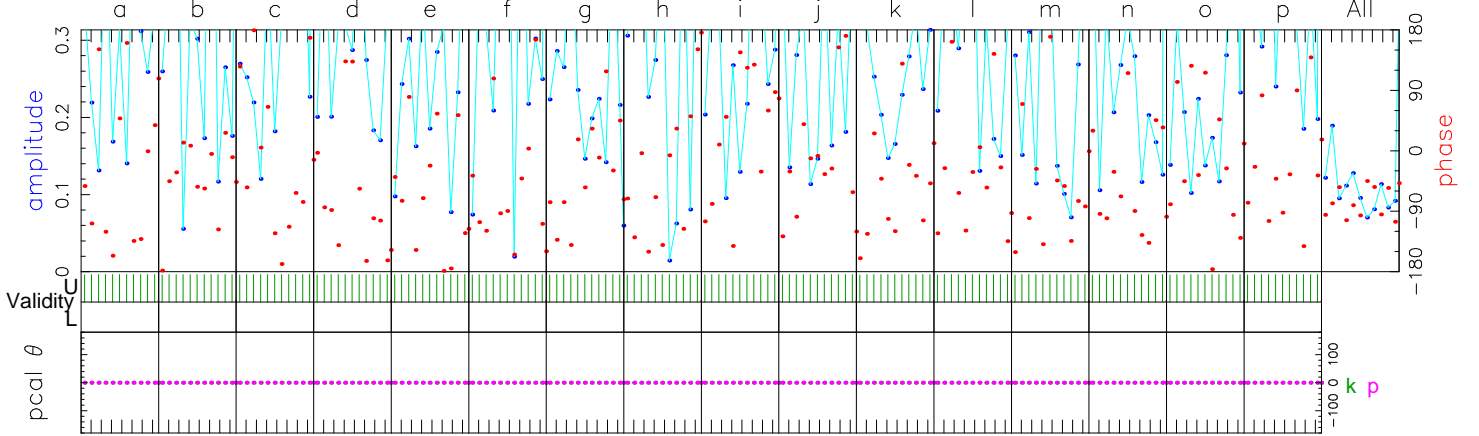
ph/seg (deg) 43.3 14.5 Search (2048X64) 0.239 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 50.2 25.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 61.1 16.7 Inc. seg. avg. 0.310 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 58.8 29.2 Inc. frq. avg. 0.354 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 243.7 el 46.9 pa 15.7 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -31.306 6562.527 ion window (TEC) 0.00 0.00 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/gp..13088W Output file: /Exps/c192a/v2/1234/No0023/gp.W.83.13088W

Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, kp
VLBA_KP - VLBA_PT, fgroup W, pol RR



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



86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
-111.3	-24.1	-107.3	-120.1	-97.9	-91.6	-51.0	-118.6	68.7	-62.8	-72.8	-76.3	-108.7	-58.3	-76.2	-61.6	Phase	-80.2	
0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.2	Ampl.	0.1	
236.0	12.3	63.9	245.2	163.8	108.2	214.7	146.8	102.5	202.3	28.0	193.2	94.3	130.6	41.4	234.8	Sbd box	12.6	
U/L	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	APs used		
k	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	PC freqs		
k: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	PC phase		
k: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	ManI PC		
k	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			
k	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	

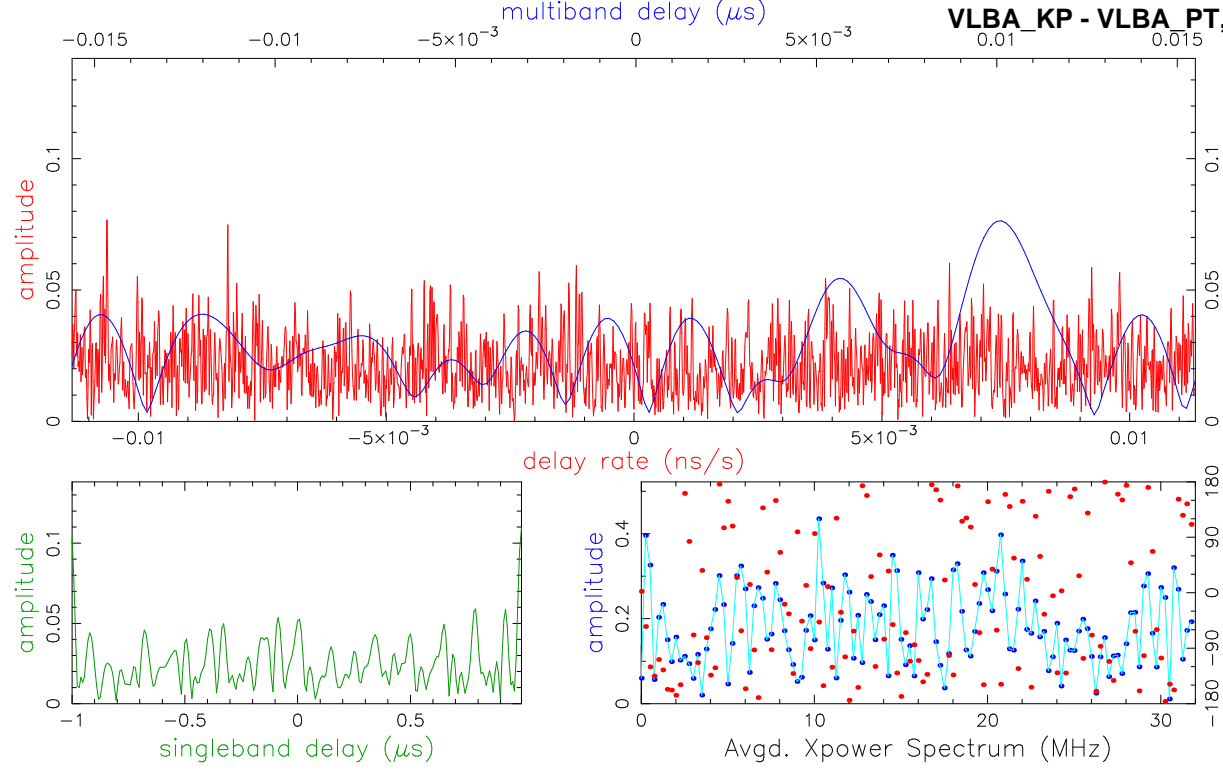
Group delay (usec)(sbd)	5.69040241391E+01	Apriori delay (usec)	5.78002996293E+01	Resid mbdelay (usec)	9.97451E-03	+/-	1.9E-04
Sband delay (usec)	5.68910536293E+01	Apriori clock (usec)	-1.2315716E+01	Resid sbdelay (usec)	-9.09246E-01	+/-	3.0E-03
Phase delay (usec)	5.78002970436E+01	Apriori clockrate (us/s)	-3.9846558E-07	Resid phdelay (usec)	-2.58568E-06	+/-	6.4E-07
Delay rate (us/s)	5.37539248158E-02	Apriori rate (us/s)	5.37524972685E-02	Resid rate (us/s)	1.42755E-06	+/-	2.6E-09
Total phase (deg)	211.4	Apriori accel (us/s/s)	-2.84783158132E-06	Resid phase (deg)	-80.2	+/-	19.7

k: az 317.2 el 78.8 pa 131.5 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -405.976 -414.778 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/kp..13088W Output file: /Exps/c192a/v2/1234/No0023/kp.W.113.13088W

Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, kp
VLBA_KP - VLBA_PT, fgroup W, pol LR

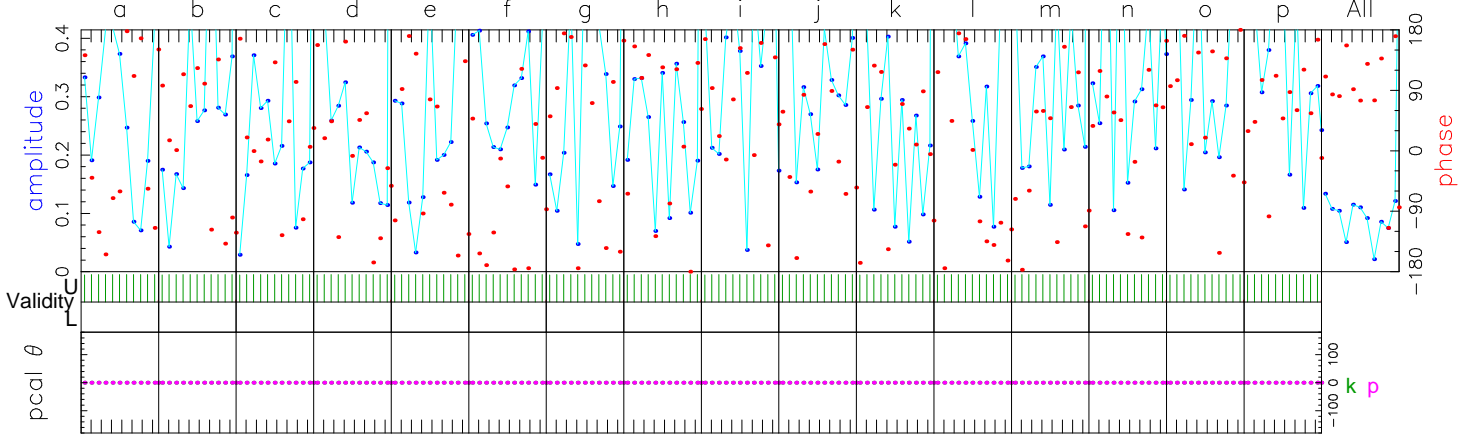


Fringe quality 0

SNR 6.2
Int time 418.819
Amp 0.138
Phase 115.4
PFD 1.7e-01
Delays (us)
SBD 0.993164
MBD 0.010791
Fringe rate (Hz)
-0.707472
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.51
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053124
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

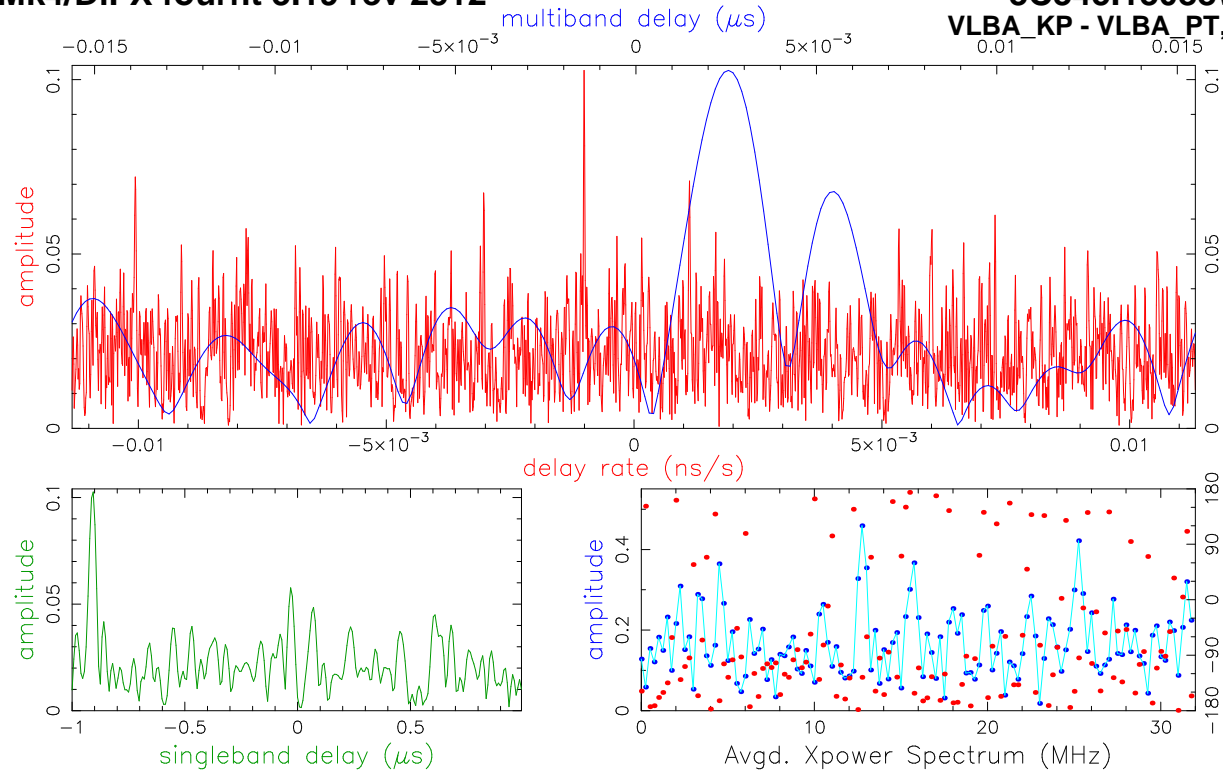
Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-116.9	166.3	17.3	95.8	159.0	-159.1	147.6	127.3	122.6	27.9	115.1	178.2	99.9	69.9	123.0	71.0		Phase 115.4					
	0.2	0.1	0.2	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.0	0.3	0.2	0.3		Ampl. 0.1					
	14.9	159.5	230.2	106.9	229.1	247.0	120.7	26.6	1.4	102.1	184.1	79.9	46.1	254.4	132.6	176.2		Sbd box 256.1					
U/L	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0		APs used					
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs					
k: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					
k: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					
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp					
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids					
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks					
																		Chan ids					
																		Tracks					
Group delay (usec)(sbd)			5.87798408532E+01															Apriori delay (usec)	5.78002996293E+01	Resid mbdelay (usec)	1.07912E-02	+/-	1.7E-04
Sband delay (usec)			5.87934633793E+01															Apriori clock (usec)	-1.2315716E+01	Resid sbdelay (usec)	9.93164E-01	+/-	2.8E-03
Phase delay (usec)			5.78003033522E+01															Apriori clockrate (us/s)	-3.9846558E-07	Resid phdelay (usec)	3.72292E-06	+/-	6.0E-07
Delay rate (us/s)			5.37442842227E-02															Apriori rate (us/s)	5.37524972685E-02	Resid rate (us/s)	-8.21305E-06	+/-	2.5E-09
Total phase (deg)				47.1														Apriori accel (us/s/s)	-2.84783158132E-06	Resid phase (deg)	115.4	+/-	18.6

ph/seg (deg) 52.1 32.2 Search (2048X64) 0.105 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 49.5 56.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 62.8 37.2 Inc. seg. avg. 0.104 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 57.5 64.8 Inc. frq. avg. 0.118 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 317.2 el 78.8 pa 131.5 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -405.976 -414.778 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/kp..13088W Output file: /Exps/c192a/v2/1234/No0023/kp.W.134.13088W

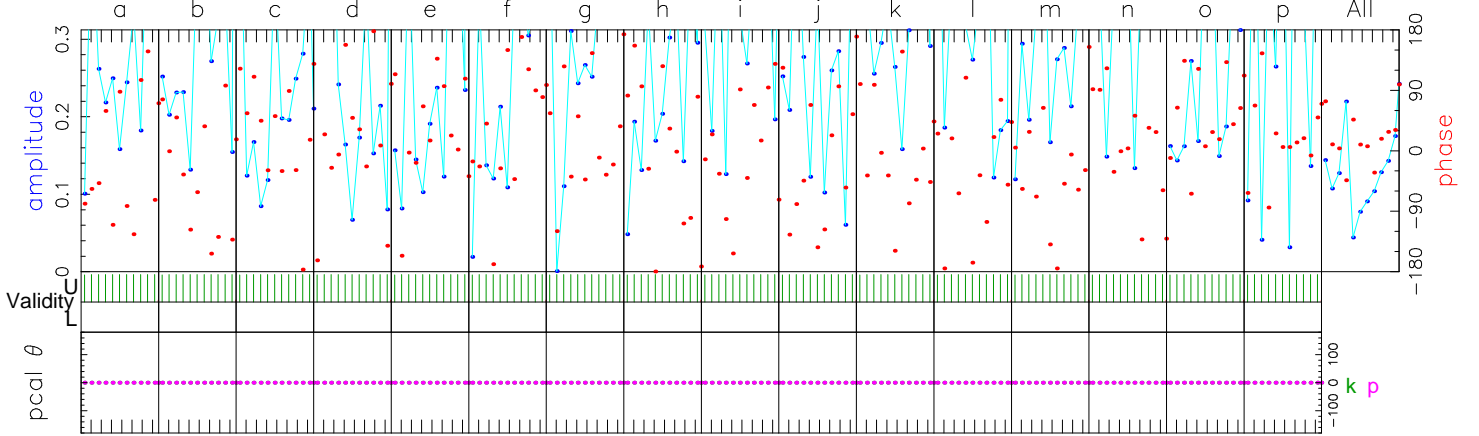


Fringe quality 0

SNR 5.8
Int time 418.819
Amp 0.104
Phase 11.3
PFD 8.0e-01
Delays (us)
SBD -0.908904
MBD 0.002545
Fringe rate (Hz)
-0.086815
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.51
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053128
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



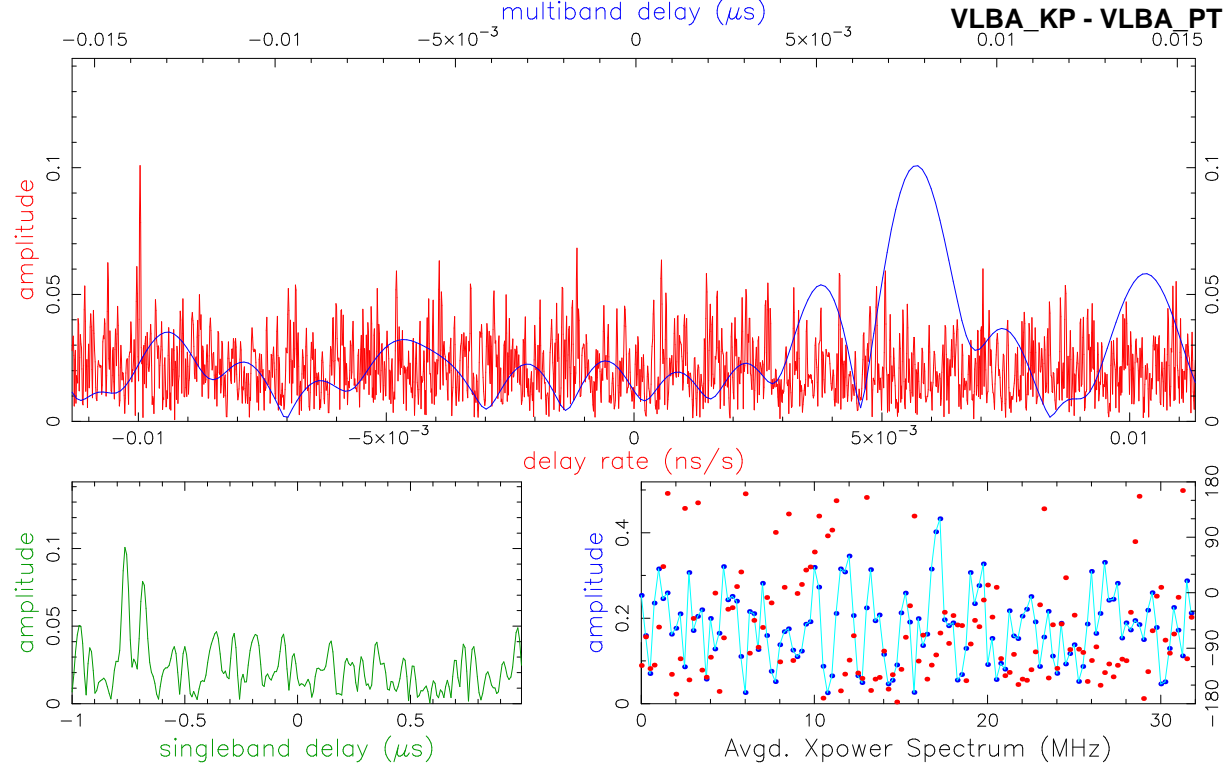
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-88.9	-2.2	59.5	-2.8	29.8	75.5	5.5	27.4	35.0	-22.9	-18.2	-30.5	-30.8	17.2	40.1	19.8	Phase	11.3
	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.3	Ampl.	0.1
	99.3	203.5	211.4	38.6	2.7	215.7	128.9	179.1	23.1	60.9	94.1	99.2	11.1	217.2	143.9	12.9	Sbd box	12.7
U/L	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k: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	
k: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	
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	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	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	5.68965943009E+01			Apriori delay (usec)			5.78002996293E+01			Resid mbdelay (usec)			2.54467E-03			+/-	1.9E-04	
Sband delay (usec)	5.68913956293E+01			Apriori clock (usec)			-1.2315716E+01			Resid sbdelay (usec)			-9.08904E-01			+/-	3.0E-03	
Phase delay (usec)	5.78002999944E+01			Apriori clockrate (us/s)			-3.9846558E-07			Resid phdelay (usec)			3.65089E-07			+/-	6.4E-07	
Delay rate (us/s)	5.37514894317E-02			Apriori rate (us/s)			5.37524972685E-02			Resid rate (us/s)			-1.00784E-06			+/-	2.6E-09	
Total phase (deg)	302.9			Apriori accel (us/s/s)			-2.84783158132E-06			Resid phase (deg)			11.3			+/-	19.7	

ph/seg (deg) RMS Theor. Amplitude 0.104 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 49.0 59.7 Search (2048X64) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 41.9 39.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 60.8 68.9 Inc. seg. avg. 0.106 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

k: az 317.2 el 78.8 pa 131.5 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -405.976 -414.778 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/kp..13088W Output file: /Exps/c192a/v2/1234/No0023/kp.W.152.13088W

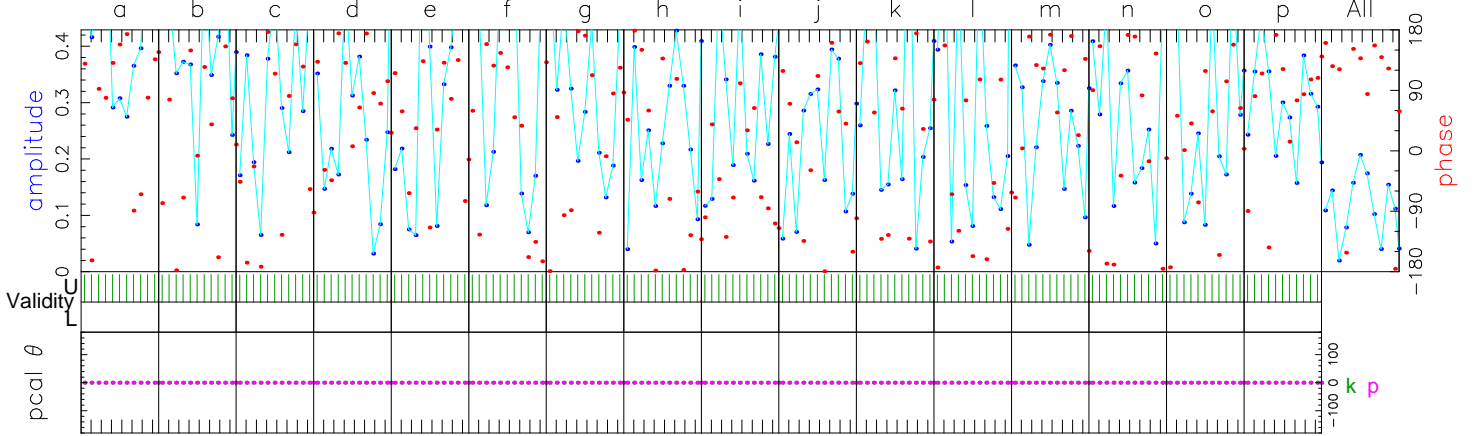
Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, kp
VLBA_KP - VLBA_PT, fgroup W, pol LL



Fringe quality 0
SNR 5.7
Int time 418.819
Amp 0.143
Phase 140.4
PFD 9.6e-01
Delays (us)
SBD -0.763439
MBD 0.007781
Fringe rate (Hz)
-0.859303
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.51
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053113
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

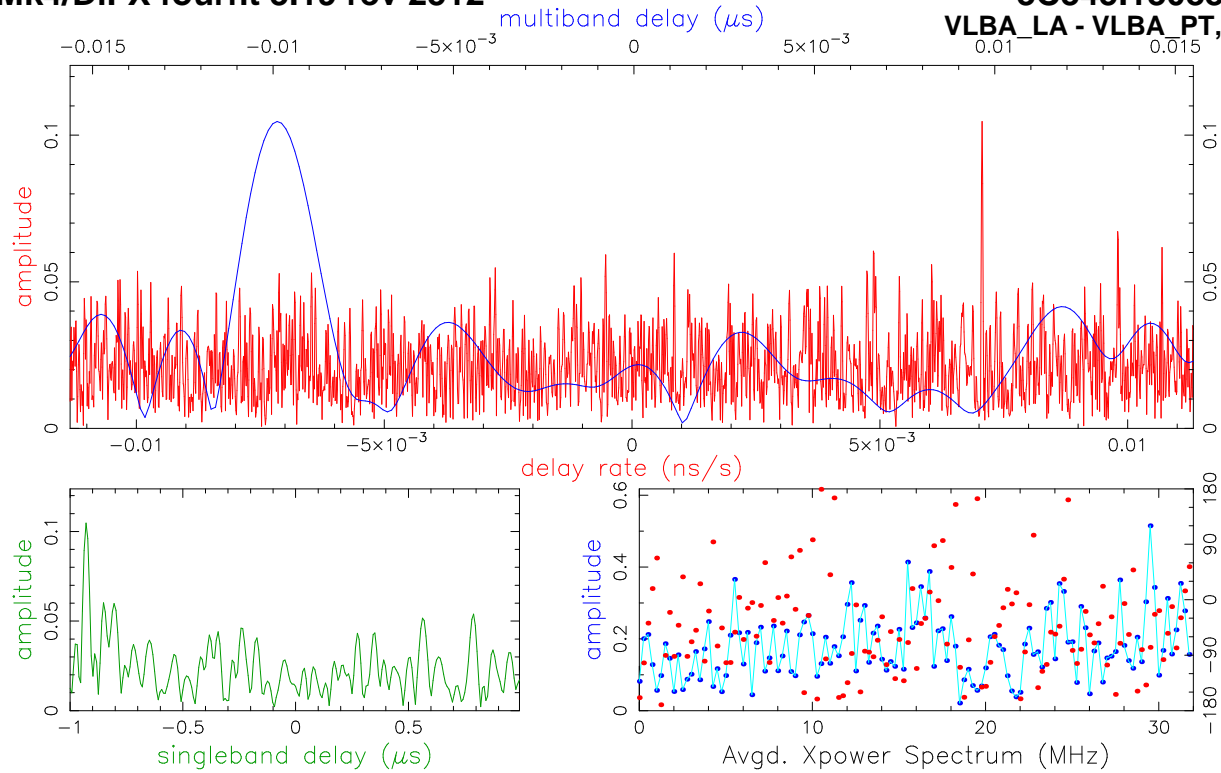
Amp. and Phase vs. time for each freq., 12 segs, 74 APs / seg (37.89 sec / seg.), time ticks 60 sec



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
125.9	142.1	176.2	99.3	125.6	135.7	166.7	165.6	-64.4	113.8	166.5	178.6	114.6	163.7	103.0	109.5	109.5	Phase	140.4
0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	Ampl.	0.1
167.6	195.4	83.9	46.4	127.9	26.1	125.8	91.0	11.5	230.3	119.4	89.8	100.1	84.9	24.7	251.6	251.6	Sbd box	31.3
U/L	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	APs used	
k	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	
k: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	
k: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	
k	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	
k	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)	5.70268305686E+01			Apriori delay (usec)			5.78002996293E+01			Resid mbdelay (usec)			7.78094E-03			+/-	1.9E-04	
Sband delay (usec)	5.70368606293E+01			Apriori clock (usec)			-1.2315716E+01			Resid sbdelay (usec)			-7.63439E-01			+/-	3.0E-03	
Phase delay (usec)	5.78003041555E+01			Apriori clockrate (us/s)			-3.9846558E-07			Resid phdelay (usec)			4.52622E-06			+/-	6.5E-07	
Delay rate (us/s)	5.37425216161E-02			Apriori rate (us/s)			5.37524972685E-02			Resid rate (us/s)			-9.97565E-06			+/-	2.7E-09	
Total phase (deg)	72.0			Apriori accel (us/s/s)			-2.84783158132E-06			Resid phase (deg)			140.4			+/-	20.1	

ph/seg (deg) RMS Theor. Amplitude 0.143 +/- 0.025 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 55.8 60.9 Search (2048X64) 0.099 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 50.2 40.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 45.8 70.3 Inc. seg. avg. 0.140 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

k: az 317.2 el 78.8 pa 131.5 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -405.976 -414.778 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/kp..13088W Output file: /Exps/c192a/v2/1234/No0023/kp.W.94.13088W

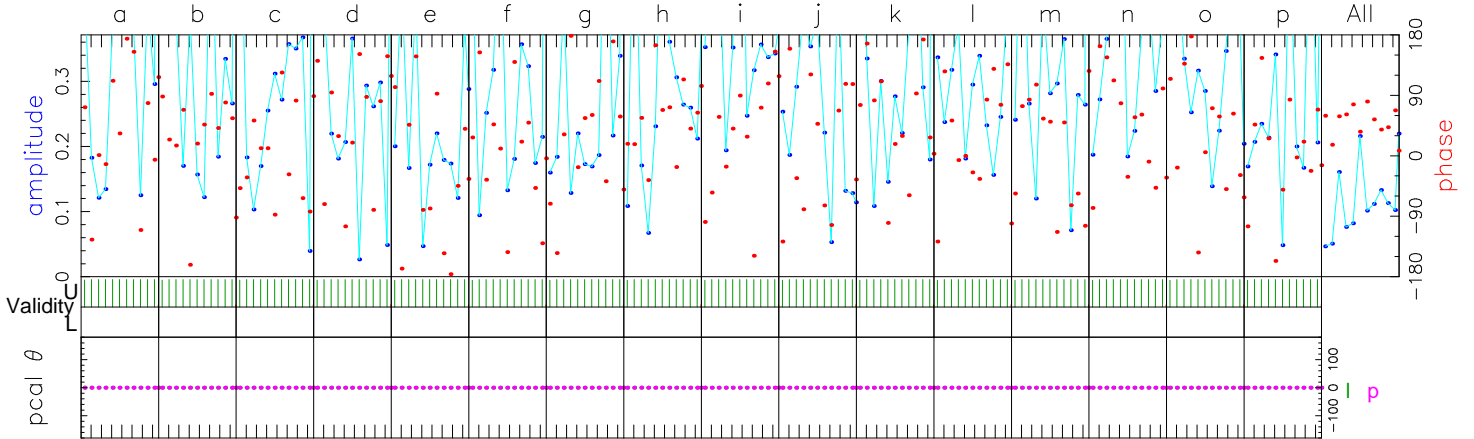


Fringe quality 0

SNR 5.9
Int time 418.793
Amp 0.124
Phase 52.1
PFD 6.7e-01
Delays (us)
SBD -0.928569
MBD -0.009867
Fringe rate (Hz)
0.609477
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053118
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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

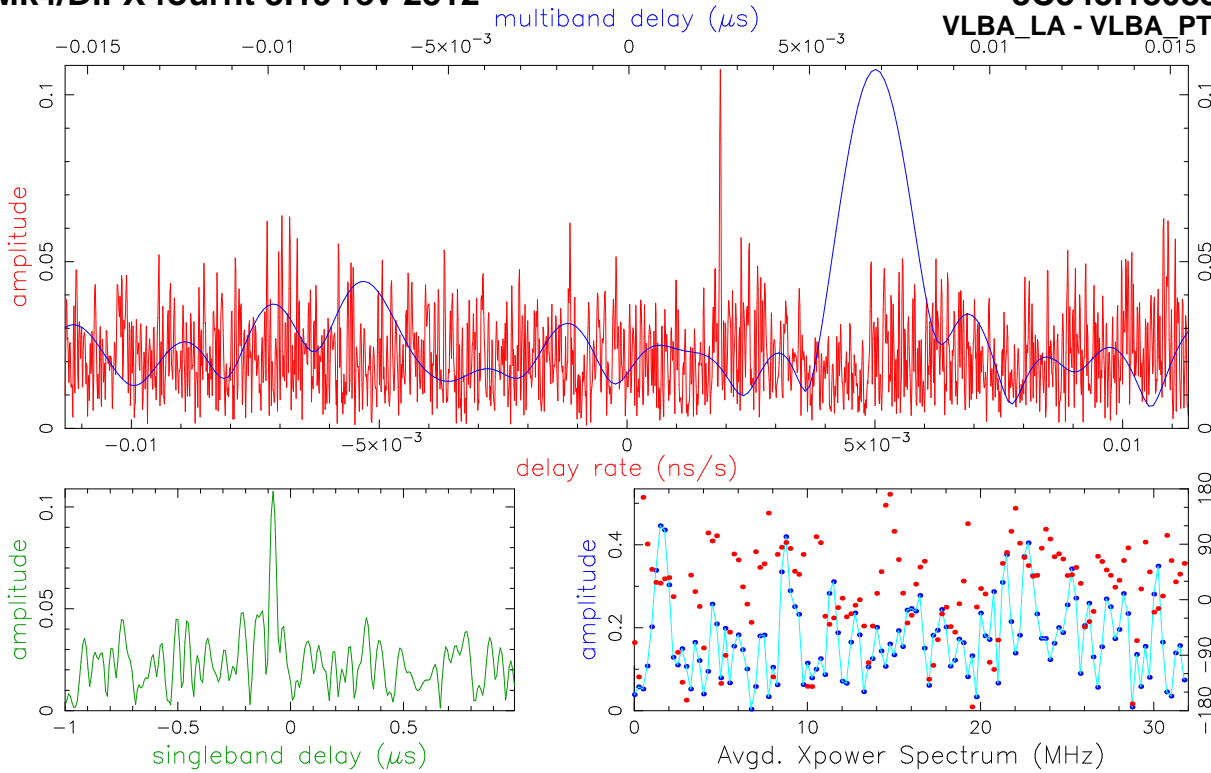


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
l: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		
l: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		
l	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		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)		-7.61724571246E+01																
Sband delay (usec)		-7.61849093034E+01																
Phase delay (usec)		-7.52563386239E+01																
Delay rate (us/s)		-2.62258945273E-02																
Total phase (deg)					-3.3													
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																		
ion window (TEC)																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		

ph/seg (deg) 18.5 33.8 Search (2048X64) 0.103 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 45.3 59.0 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 37.2 39.0 Inc. seg. avg. 0.110 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 50.2 68.1 Inc. frq. avg. 0.117 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 293.0 el 77.3 pa 102.6 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 198.985 261.739 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/lp..13088W Output file: /Exps/c192a/v2/1234/No0023/lp.W.115.13088W

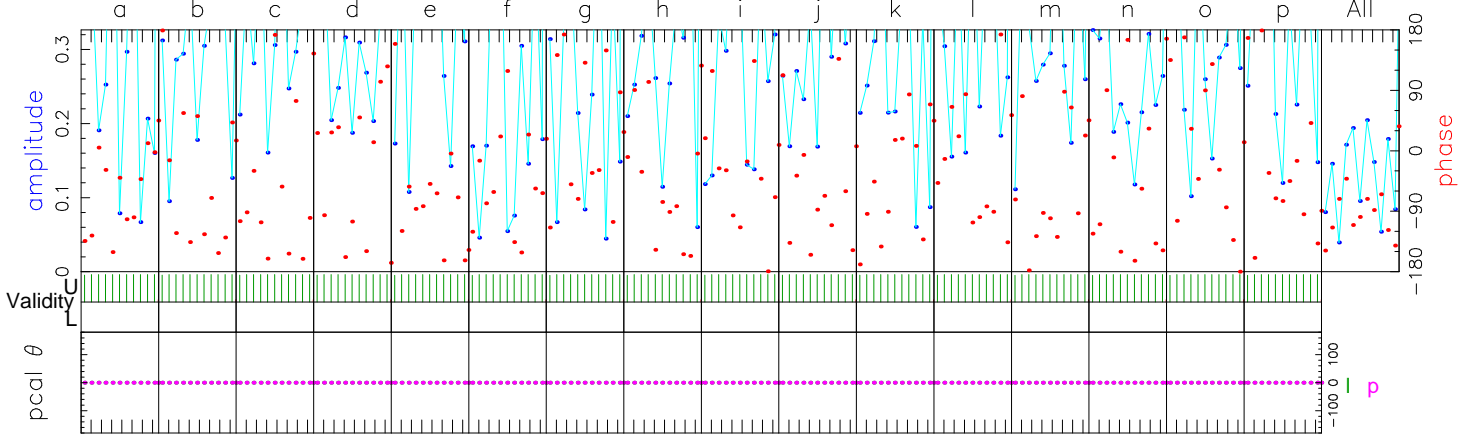
Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, lp
VLBA_LA - VLBA_PT, fgroup W, pol LR



Fringe quality 0
SNR 6.0
Int time 418.793
Amp 0.109
Phase -94.7
PFD 3.6e-01
Delays (us)
SBD -0.078129
MBD 0.006830
Fringe rate (Hz) 0.162828
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build 2020:083:071541
2020:093:053123
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	119.0				
l	1000	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	1000	PC phase					
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp					
l	1000	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	1000	Tracks					
l	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)		-7.53432607208E+01																Apriori delay (usec)	-7.52563403034E+01	Resid mbdelay (usec)	6.82958E-03	+/-	1.8E-04
Sband delay (usec)		-7.53344693034E+01																Apriori clock (usec)	-1.2657156E+01	Resid sbdelay (usec)	-7.81290E-02	+/-	2.9E-03
Phase delay (usec)		-7.52563433586E+01																Apriori clockrate (us/s)	-5.5535860E-07	Resid phdelay (usec)	-3.05523E-06	+/-	6.1E-07
Delay rate (us/s)		-2.62310796889E-02																Apriori rate (us/s)	-2.62329699548E-02	Resid rate (us/s)	1.89027E-06	+/-	2.5E-09
Total phase (deg)																		Apriori accel (us/s/s)	1.85035199360E-06	Resid phase (deg)	-94.7	+/-	19.0

ph/seg (deg) 33.4 33.0
amp/seg (%) 58.9 57.5
ph/frq (deg) 54.3 38.1
amp/frq (%) 50.5 66.4

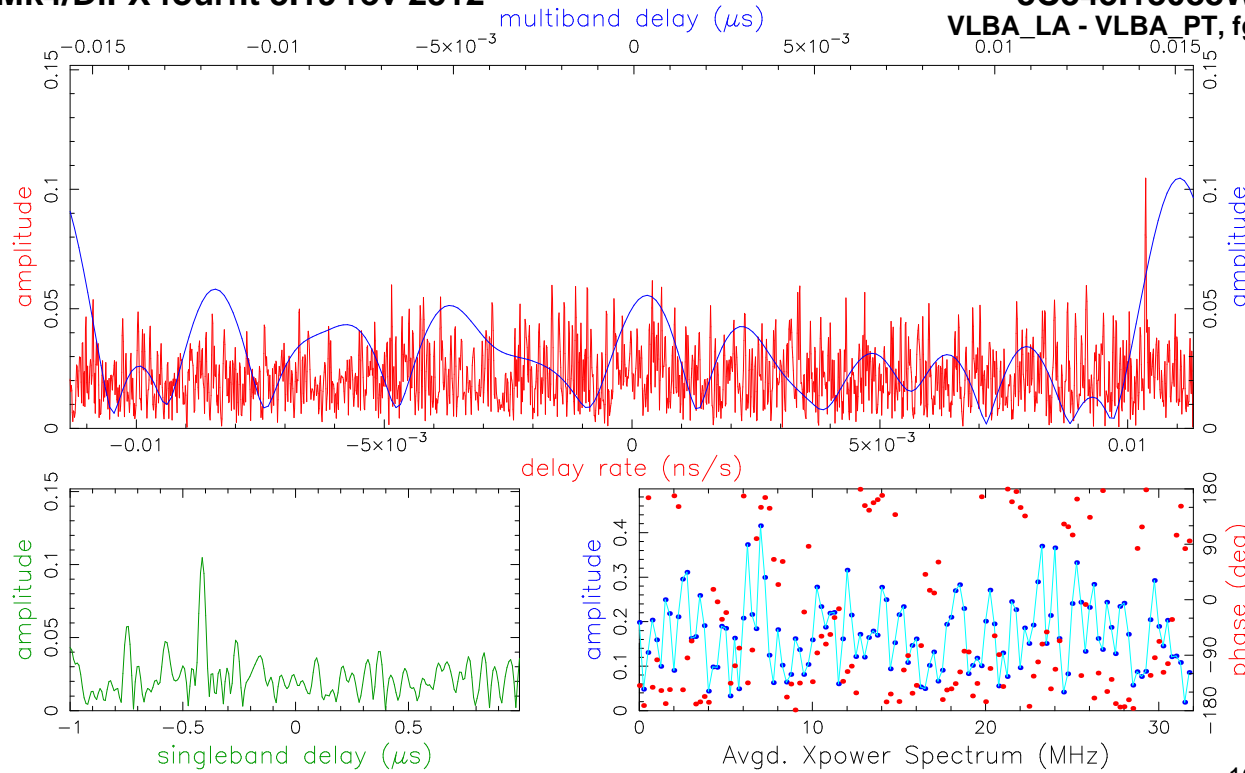
RMS Theor. Amplitude 0.109 +/- 0.018
Search (2048X64) 0.105
Interp. 0.000
Inc. seg. avg. 0.112
Inc. frq. avg. 0.104

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

l: az 293.0 el 77.3 pa 102.6 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 198.985 261.739 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/lp..13088W Output file: /Exps/c192a/v2/1234/No0023/lp.W.132.13088W

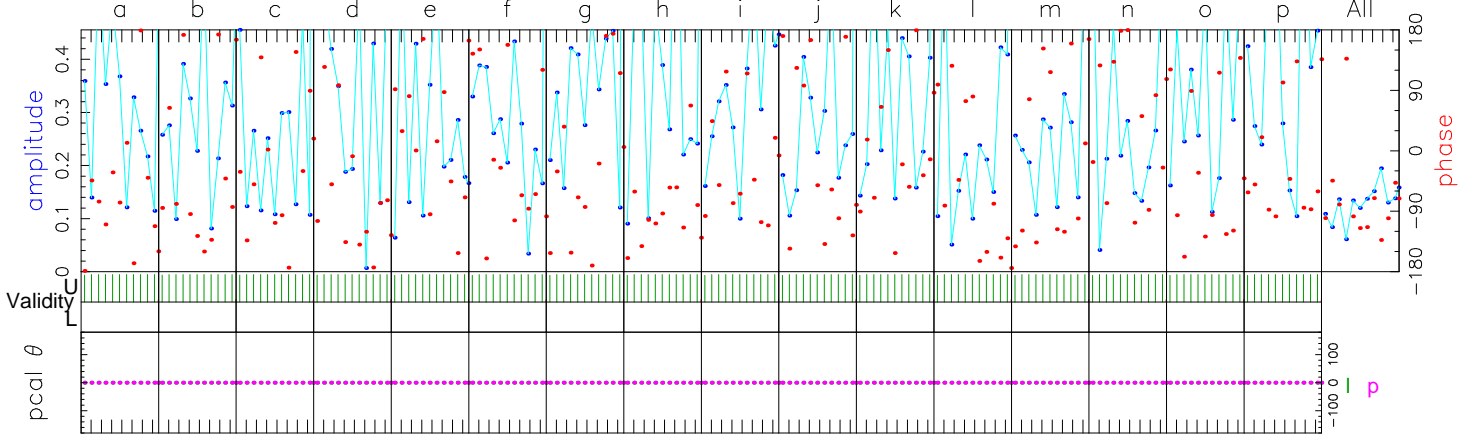


Fringe quality 0

SNR 5.9
Int time 418.793
Amp 0.152
Phase -95.4
PFD 7.0e-01
Delays (us)
SBD -0.414111
MBD 0.015113
Fringe rate (Hz)
0.893850
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053128
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-92.7	-122.2	-50.6	-121.7	2.6	-130.3	-132.7	-86.3	-52.9	-140.3	-40.8	-129.7	-166.2	-22.7	-141.2	-76.3	Phase	-95.4
	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.4	Ampl.	0.2
	24.8	183.1	33.5	5.6	88.4	192.8	107.8	75.1	129.1	95.7	195.1	32.1	19.9	211.2	226.2	75.4	Sbd box	76.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
lp	0:0	0:0	0:0	0:0	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	
lp	0:0	0:0	0:0	0:0	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	
p	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	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Tracks	
Group delay (usec)(sbd)	-7.56787270390E+01			Apriori delay (usec)			-7.52563403034E+01			Resid mbdelay (usec)			1.51133E-02			+/- 1.8E-04		
Sband delay (usec)	-7.56704518034E+01			Apriori clock (usec)			-1.2657156E+01			Resid sbdelay (usec)			-4.14111E-01			+/- 2.9E-03		
Phase delay (usec)	-7.52563433799E+01			Apriori clockrate (us/s)			-5.5535860E-07			Resid phdelay (usec)			-3.07652E-06			+/- 6.3E-07		
Delay rate (us/s)	-2.62225932397E-02			Apriori rate (us/s)			-2.62329699548E-02			Resid rate (us/s)			1.03767E-05			+/- 2.6E-09		
Total phase (deg)	-150.7			Apriori accel (us/s/s)			1.85035199360E-06			Resid phase (deg)			-95.4			+/- 19.6		

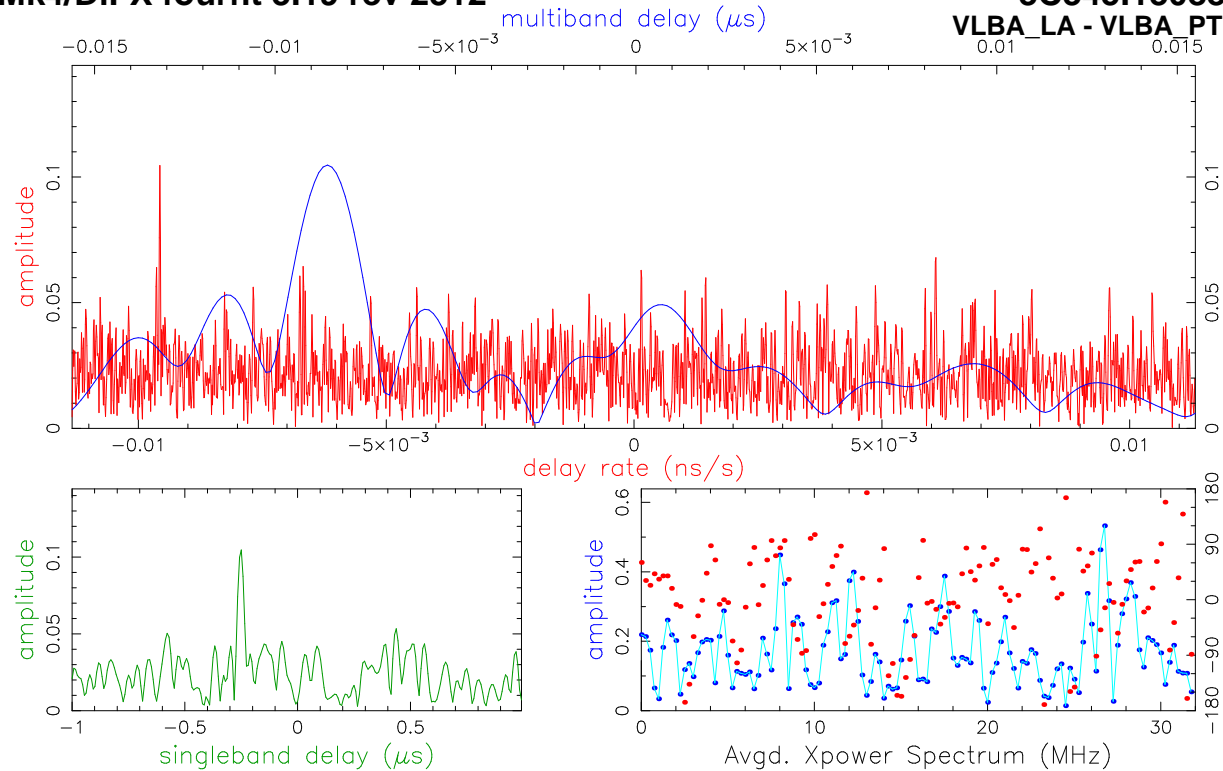
	RMS	Theor.	Amplitude	0.152 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	46.8	33.9	Search (2048X64)	0.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	38.4	59.1	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.016 0.016
ph/frq (deg)	51.0	39.1	Inc. seg. avg.	0.157	Sample rate(MISamp/s): 64	dr window (ns/s) -0.011 0.011
amp/frq (%)	67.2	68.3	Inc. frq. avg.	0.161	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

l: az 293.0 el 77.3 pa 102.6 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 198.985 261.739 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/lp..13088W Output file: /Exps/c192a/v2/1234/No0023/lp.W.154.13088W

Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, lp
VLBA_LA - VLBA_PT, fgroup W, pol LL

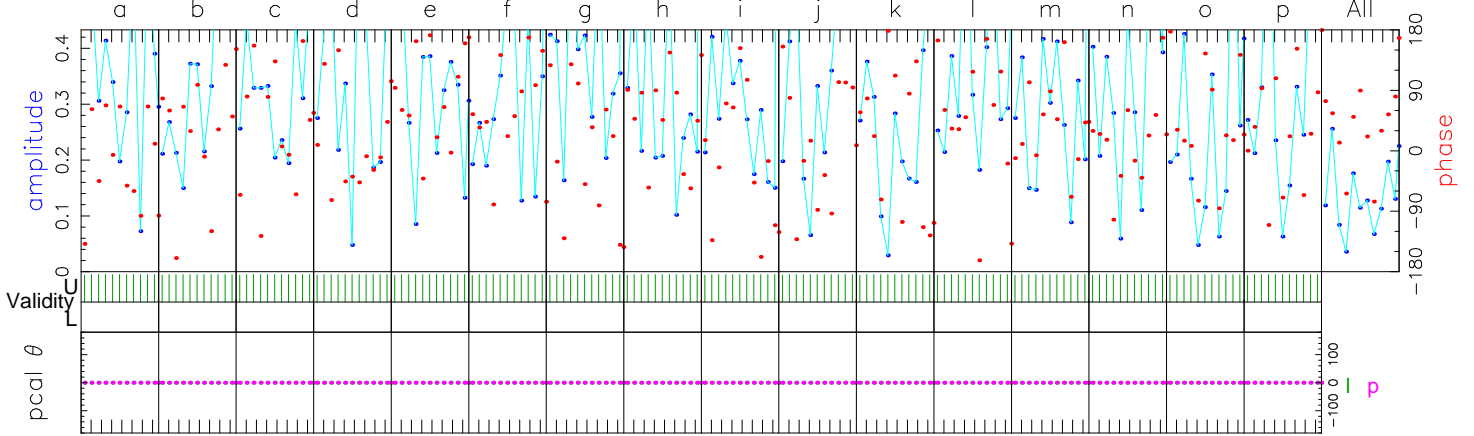


Fringe quality 0

SNR 5.9
Int time 418.793
Amp 0.144
Phase 50.2
PFD 5.9e-01
Delays (us)
SBD -0.252328
MBD -0.008600
Fringe rate (Hz)
-0.825268
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

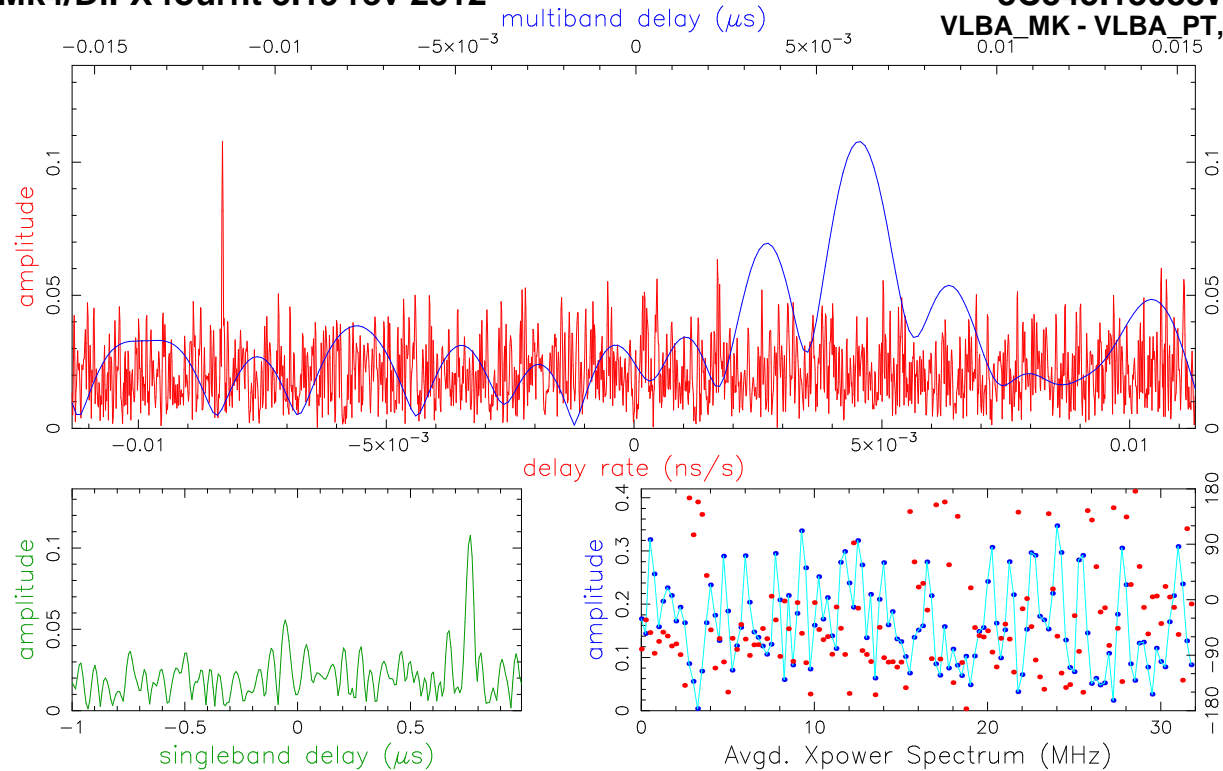
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053113
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
9.1	66.7	66.0	-15.7	70.8	80.2	40.2	57.6	102.4	104.0	156.5	75.9	36.7	29.2	40.6	50.9	50.9	Phase	50.2
0.2	0.3	0.1	0.2	0.2	0.2	0.0	0.2	0.0	0.1	0.0	0.3	0.2	0.3	0.2	0.1	0.1	Ampl.	0.1
75.3	114.1	250.7	147.2	185.1	253.6	195.4	109.6	225.1	66.2	76.0	96.3	76.0	96.1	196.6	214.0	214.0	Sbd box	96.7
UL	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l: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	
l: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	Manl PC	
l	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		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)		-7.55149399063E+01						Apriori delay (usec)		-7.52563403034E+01				Resid mbdelay (usec)		-8.59960E-03	+/-	1.8E-04
Sband delay (usec)		-7.55086678034E+01						Apriori clock (usec)		-1.2657156E+01				Resid sbdelay (usec)		-2.52328E-01	+/-	2.9E-03
Phase delay (usec)		-7.52563386840E+01						Apriori clockrate (us/s)		-5.5535860E-07				Resid phdelay (usec)		1.61934E-06	+/-	6.3E-07
Delay rate (us/s)		-2.62425504949E-02						Apriori rate (us/s)		-2.62329699548E-02				Resid rate (us/s)		-9.58054E-06	+/-	2.6E-09
Total phase (deg)					-5.1			Apriori accel (us/s/s)		1.85035199360E-06				Resid phase (deg)		50.2	+/-	19.4

ph/seg (deg) 56.8 33.6 Search (2048X64) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 60.7 58.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.4 38.8 Inc. seg. avg. 0.152 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 62.8 67.7 Inc. frq. avg. 0.137 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 293.0 el 77.3 pa 102.6 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 198.985 261.739 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/lp..13088W Output file: /Exps/c192a/v2/1234/No0023/lp.W.96.13088W

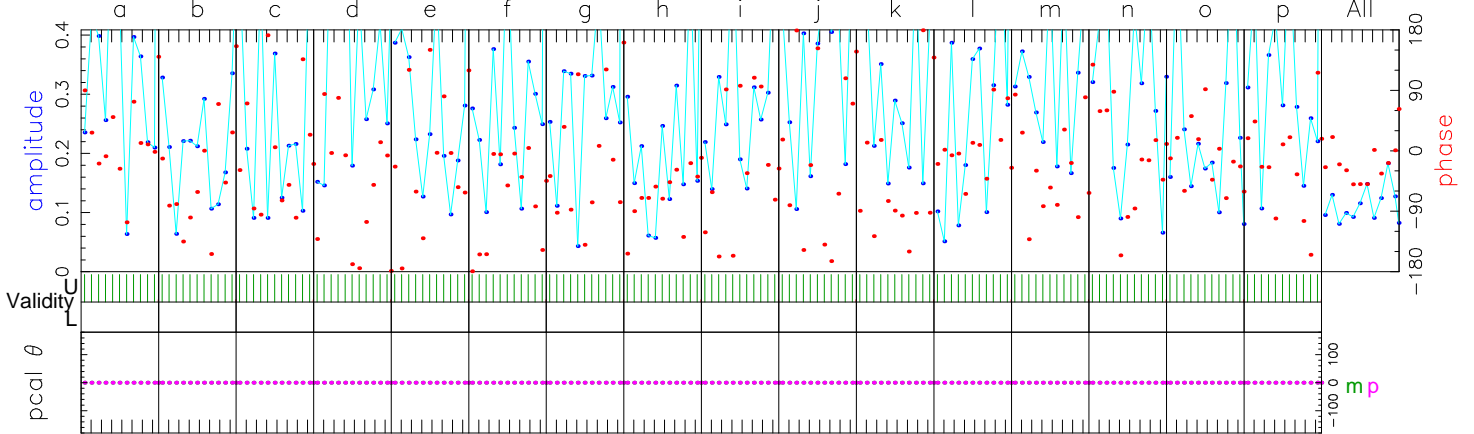


Fringe quality 0

SNR 6.1
Int time 419.673
Amp 0.136
Phase -22.7
PFD 3.0e-01
Delays (us)
SBD 0.764208
MBD 0.006161
Fringe rate (Hz)
-0.716477
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053118
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All						
	21.9	-41.8	-30.0	-7.2	-28.6	-52.3	-46.2	-58.5	-133.3	-156.4	-82.6	14.0	-15.0	15.9	-9.5	-4.0		Phase -22.7						
	0.3	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.3	0.2	0.2	0.3	0.2		Ampl. 0.1						
	225.5	133.0	123.1	58.0	167.2	197.5	165.1	33.1	31.2	18.2	239.2	48.8	183.4	213.8	231.4	152.0		Sbd box 226.8						
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used						
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs						
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC phase						
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC						
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC amp						
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids						
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Tracks						
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids						
	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks						
Group delay (usec)(sbd)			-3.26250426025E+03															Apriori delay (usec)	-3.26326042140E+03	Resid mbdelay (usec)	6.16115E-03	+/-	1.8E-04	
Sband delay (usec)			-3.26249621340E+03																Apriori clock (usec)	-9.3460751E+00	Resid sbdelay (usec)	7.64208E-01	+/-	2.8E-03
Phase delay (usec)			-3.26326042213E+03																Apriori clockrate (us/s)	-2.1257888E-07	Resid phdelay (usec)	-7.30835E-07	+/-	6.1E-07
Delay rate (us/s)			8.55758267878E-01																Apriori rate (us/s)	8.55766585465E-01	Resid rate (us/s)	-8.31759E-06	+/-	2.5E-09
Total phase (deg)					-274.6														Apriori accel (us/s/s)	1.10648517232E-06	Resid phase (deg)	-22.7	+/-	18.9

ph/seg (deg) 23.2 32.8
amp/seg (%) 27.8 57.2
ph/frq (deg) 55.1 37.8
amp/frq (%) 59.3 66.0

RMS Theor. Amplitude 0.136 +/- 0.023
Search (2048X64) 0.103
Interp. 0.000
Inc. seg. avg. 0.127
Inc. frq. avg. 0.144

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

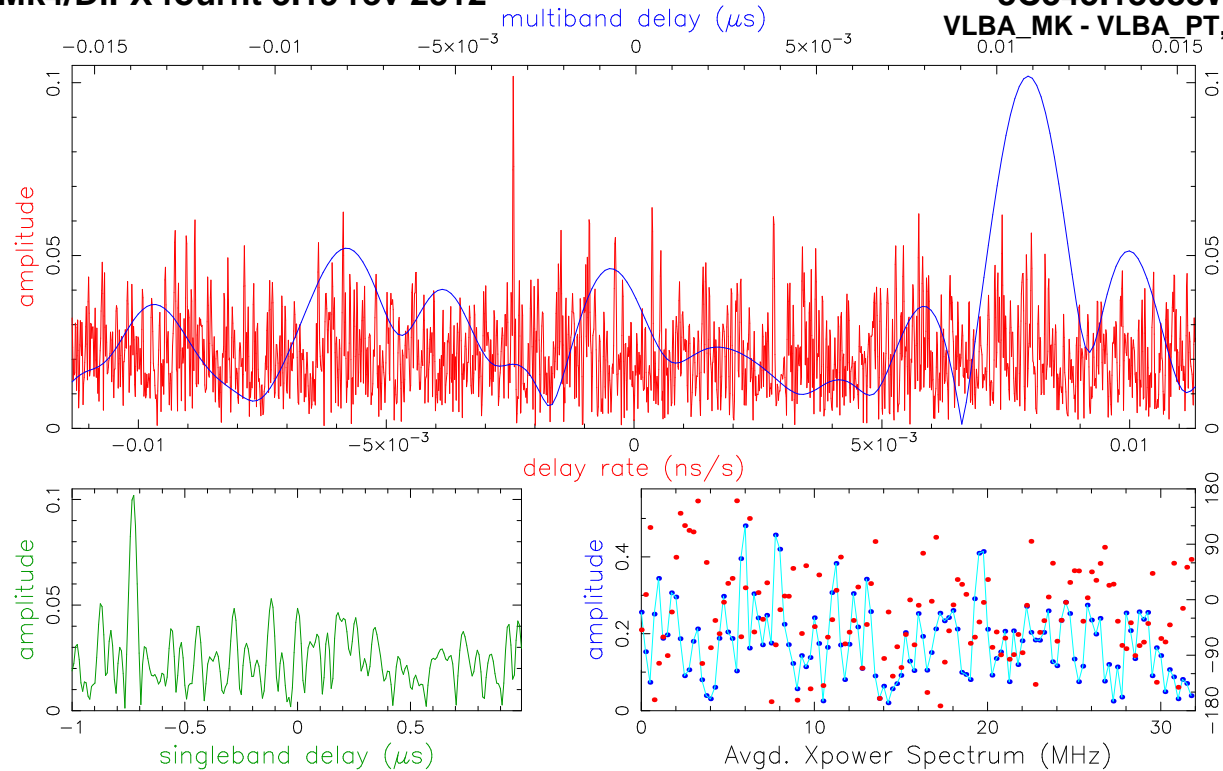
sb window (us) -1.000 1.000
mb window (us) -0.016 0.016
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

m: az 48.0 el 54.7 pa -113.9 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -6378.243 -1377.620 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/mp..13088W Output file: /Exps/c192a/v2/1234/No0023/mp.W.116.13088W

Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, mp
VLBA_MK - VLBA_PT, fgroup W, pol LR

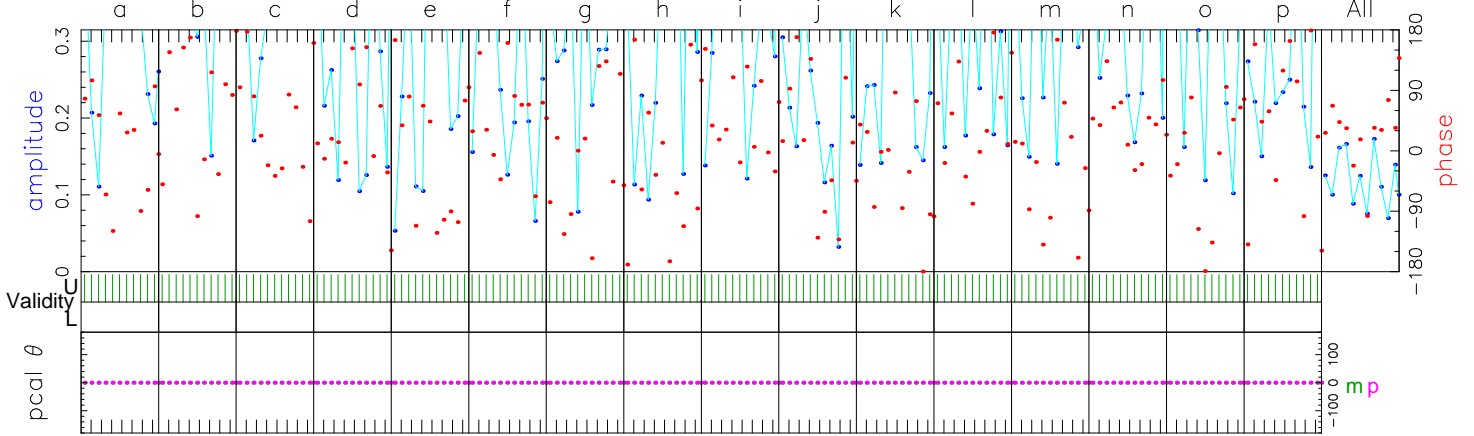


Fringe quality 0

SNR 5.8
Int time 419.667
Amp 0.105
Phase 31.2
PFD 8.6e-01
Delays (us)
SBD -0.729460
MBD 0.010844
Fringe rate (Hz)
-0.209818
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053124
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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

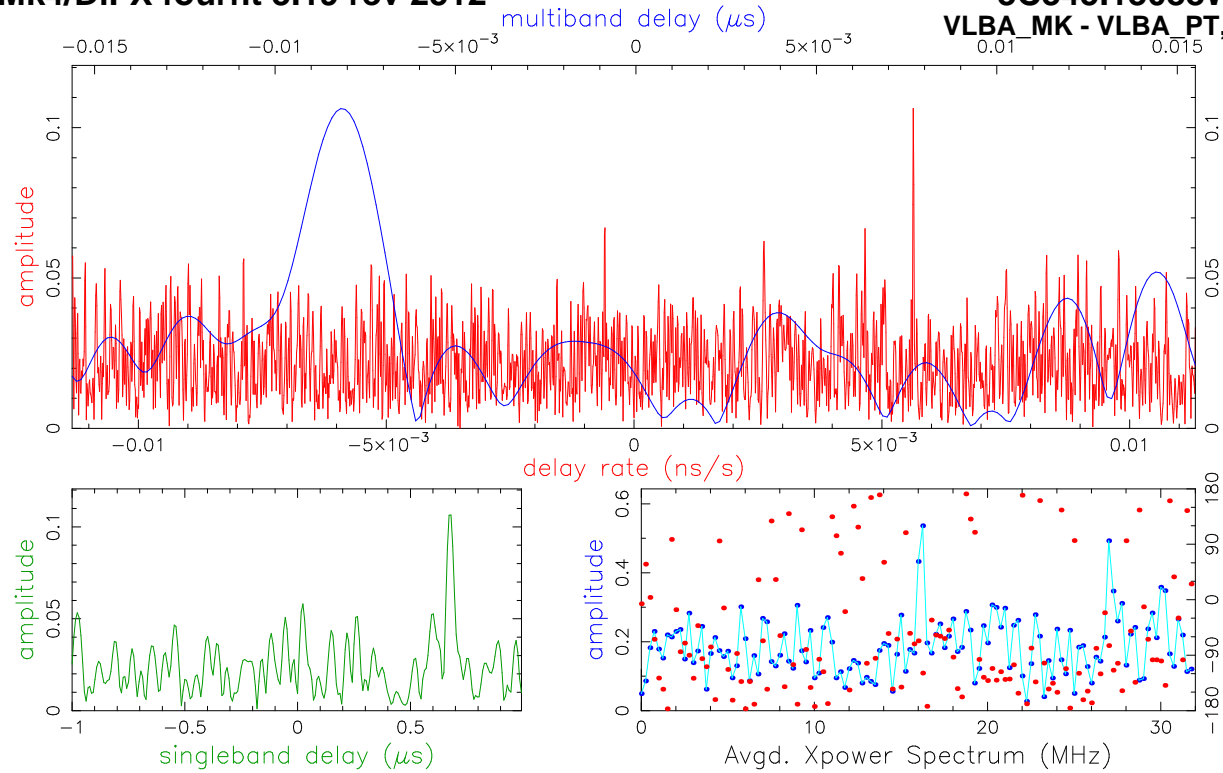


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)		-3.26399957790E+03																
Sband delay (usec)		-3.26398988140E+03																
Phase delay (usec)		-3.26326042040E+03																
Delay rate (us/s)		8.55764149689E-01																
Total phase (deg)					-220.7													
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)																		
Bits/sample: 2x2																		
Sample rate(MSamp/s): 64																		
Data rate(Mb/s): 2048																		
nlags: 128																		
t_cohere infinite																		
sb window (us)																		
mb window (us)																		
dr window (ns/s)																		
ion window (TEC)																		

ph/seg (deg) 46.3 34.4
amp/seg (%) 37.7 60.0
ph/frq (deg) 53.8 39.7
amp/frq (%) 67.6 69.3

m: az 48.0 el 54.7 pa -113.9 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -6378.243 -1377.620

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/mp..13088W Output file: /Exps/c192a/v2/1234/No0023/mp.W.135.13088W

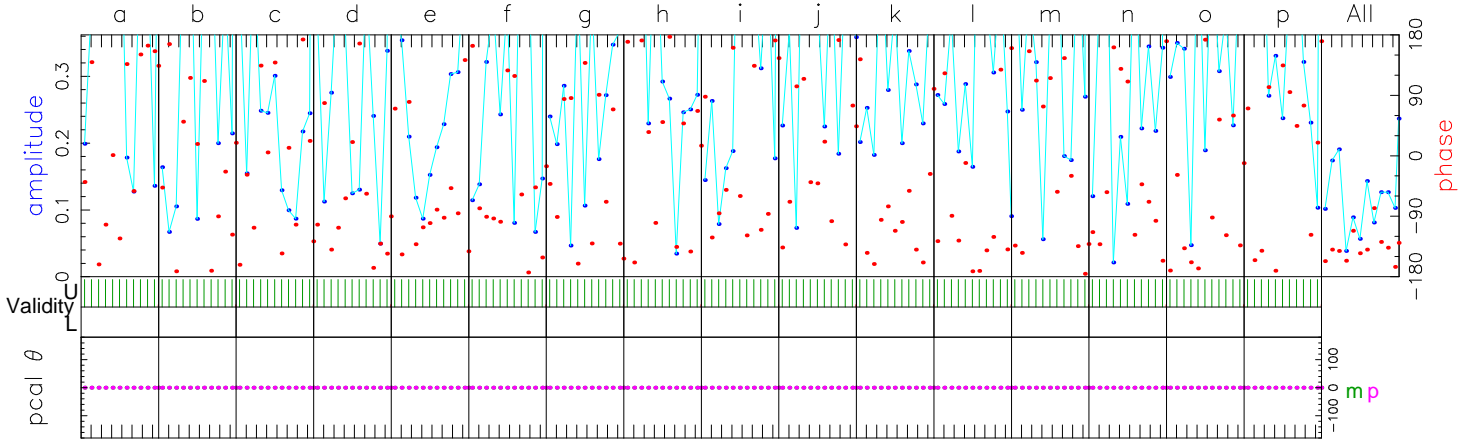


Fringe quality 0

SNR 6.1
Int time 419.673
Amp 0.121
Phase -137.1
PFD 2.5e-01
Delays (us)
SBD 0.675772
MBD -0.008135
Fringe rate (Hz)
0.486254
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

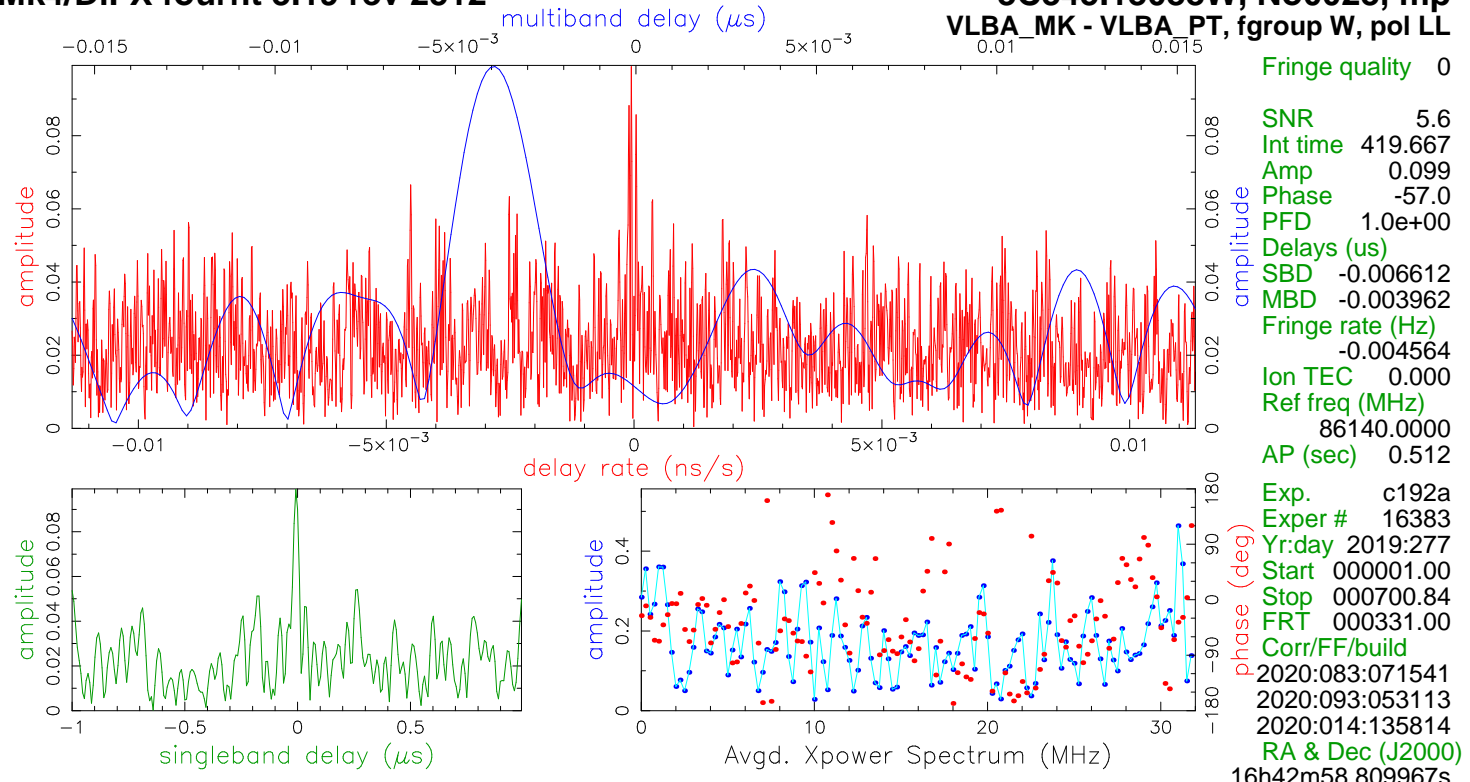
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053128
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-164.9	104.7	-149.7	-105.6	-124.0	-110.5	-143.6	179.2	-112.0	-77.8	-104.2	-151.7	-158.2	-106.0	-131.2	135.2	Phase	-137.1				
	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.1				
	75.9	201.8	120.6	144.0	149.0	128.7	26.3	12.6	216.9	91.0	216.6	213.8	46.6	205.4	160.6	131.3	Sbd box	215.5				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
m:p	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	Chan ids					
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
																	Tracks					
Group delay (usec)(sbd)			-3.26258105656E+03														Apriori delay (usec)	-3.26326042140E+03	Resid mbdelay (usec)	-8.13516E-03	+/-	1.8E-04
Sband delay (usec)			-3.26258464890E+03														Apriori clock (usec)	-9.3460751E+00	Resid sbdelay (usec)	6.75772E-01	+/-	2.8E-03
Phase delay (usec)			-3.26326042582E+03														Apriori clockrate (us/s)	-2.1257888E-07	Resid phdelay (usec)	-4.42098E-06	+/-	6.1E-07
Delay rate (us/s)			8.55772230394E-01														Apriori rate (us/s)	8.55766585465E-01	Resid rate (us/s)	5.64493E-06	+/-	2.5E-09
Total phase (deg)																	Apriori accel (us/s/s)	1.10648517232E-06	Resid phase (deg)	-137.1	+/-	18.8

ph/seg (deg) 23.0 32.6 Amplitude 0.121 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 41.9 56.9 Search (2048X64) 0.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 48.8 37.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 51.0 65.6 Inc. seg. avg. 0.108 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 m: az 48.0 el 54.7 pa -113.9 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -6378.243 -1377.620 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/mp..13088W Output file: /Exps/c192a/v2/1234/No0023/mp.W.153.13088W simultaneous interpolator



Fringe quality 0

SNR 5.6

Int time 419.667

Amp 0.099

Phase -57.0

PFD 1.0e+00

Delays (us)

SBD -0.006612

MBD -0.003962

Fringe rate (Hz)

-0.004564

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:277

Start 000001.00

Stop 000700.84

FRT 000331.00

Corr/FF/build

2020:083:071541

2020:093:053113

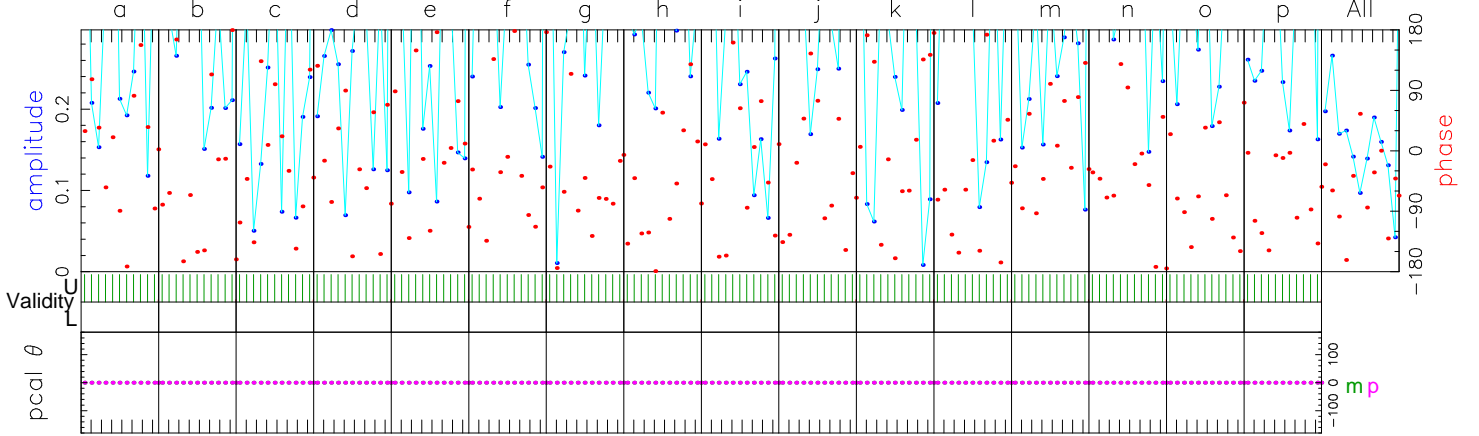
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	18.9	-119.6	-8.4	-47.5	14.6	-81.8	-62.6	-30.6	-80.7	-97.2	-44.4	-64.7	11.2	-32.7	-82.5	-66.4	Phase	-57.0				
	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.1	0.2	Ampl.	0.1				
	157.3	222.9	149.4	239.1	248.6	133.8	127.7	163.9	210.9	226.5	221.9	241.7	165.1	147.3	171.4	79.4	Sbd box	128.2				
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids					
m	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks					
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids					
	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks					
Group delay (usec)(sbd)			-3.26326438326E+03														Apriori delay (usec)	-3.26326042140E+03	Resid mbdelay (usec)	-3.96186E-03	+/-	1.9E-04
Sband delay (usec)			-3.26326703340E+03														Apriori clock (usec)	-9.3460751E+00	Resid sbdelay (usec)	-6.61200E-03	+/-	3.1E-03
Phase delay (usec)			-3.26326042324E+03														Apriori clockrate (us/s)	-2.1257888E-07	Resid phdelay (usec)	-1.83854E-06	+/-	6.7E-07
Delay rate (us/s)			8.55766532480E-01														Apriori rate (us/s)	8.55766585465E-01	Resid rate (us/s)	-5.29852E-08	+/-	2.7E-09
Total phase (deg)																	Apriori accel (us/s/s)	1.10648517232E-06	Resid phase (deg)	-57.0	+/-	20.6

ph/seg (deg) 58.1 35.7 Search (2048X64) 0.097 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 83.3 62.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

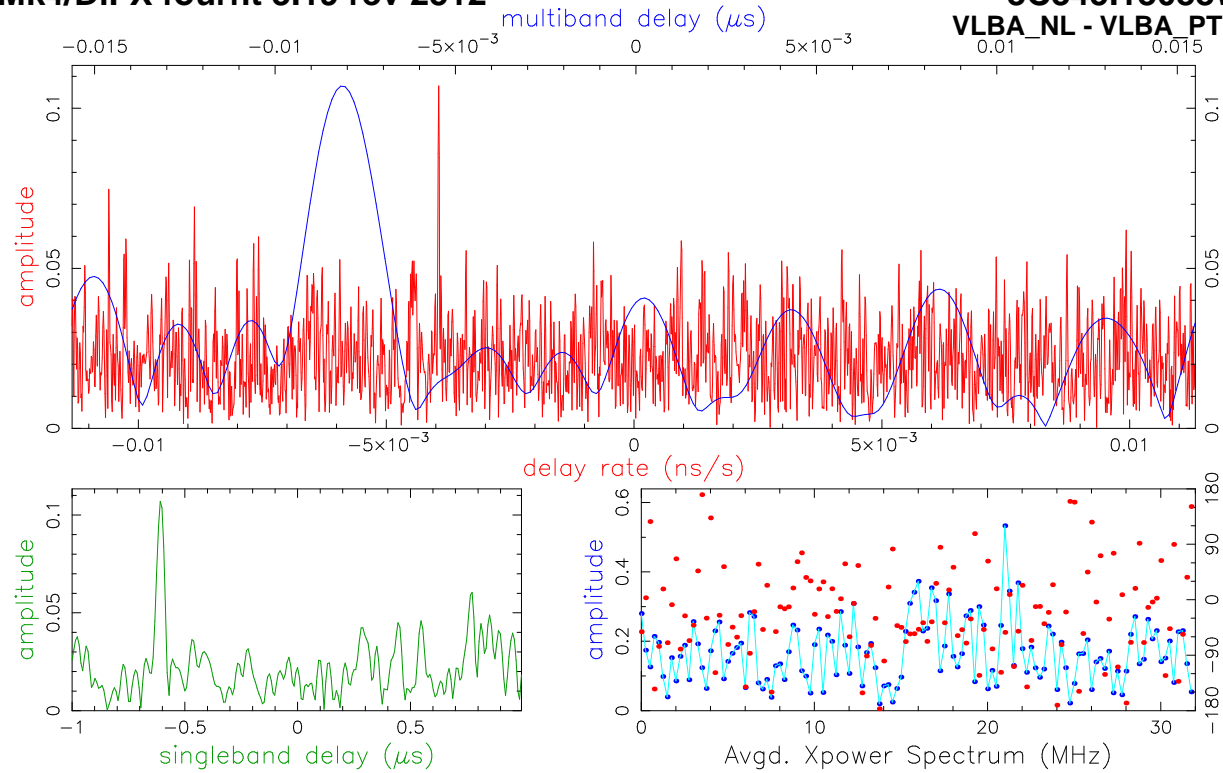
ph/frq (deg) 43.9 41.2 Inc. seg. avg. 0.132 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

amp/frq (%) 61.7 72.0 Inc. frq. avg. 0.097 Sample rate(MSamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

m: az 48.0 el 54.7 pa -113.9 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -6378.243 -1377.620 ion window (TEC) 0.00 0.00 simultaneous interpolator

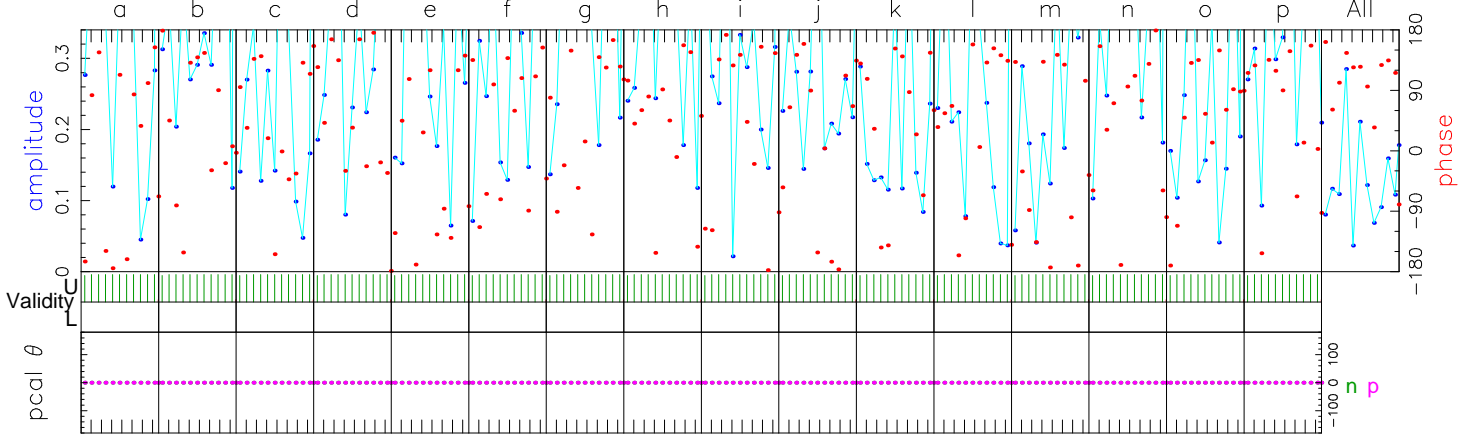
Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, np
VLBA_NL - VLBA_PT, fgroup W, pol LL



Fringe quality 0
SNR 6.0
Int time 418.424
Amp 0.113
Phase 119.5
PFD 3.4e-01
Delays (us)
SBD -0.606899
MBD -0.008113
Fringe rate (Hz)
-0.339778
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053130
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



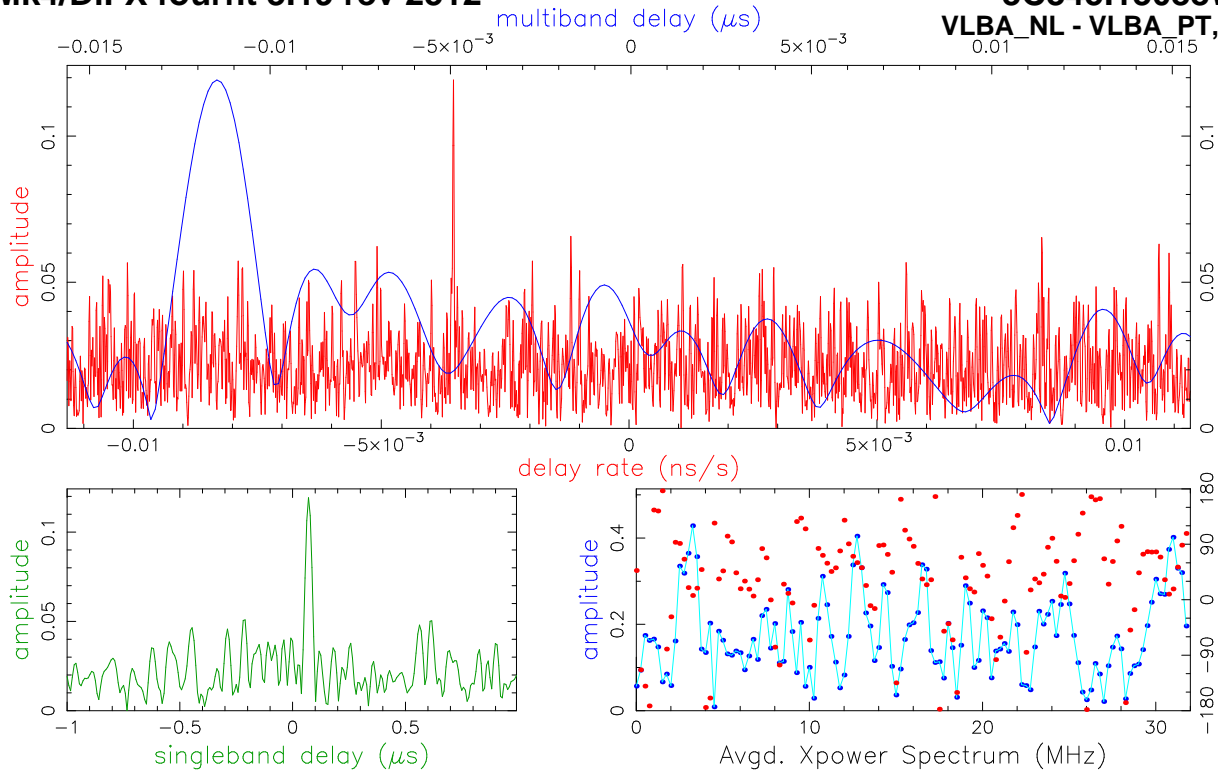
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
147.5	76.3	34.9	108.0	132.2	120.9	148.8	78.7	177.9	139.3	121.6	98.5	175.2	121.0	91.4	118.6	118.6	Phase	119.5
0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	Ampl.	0.1
45.7	65.1	80.7	164.2	23.2	225.6	35.1	1.5	186.7	34.9	6.8	5.1	151.9	195.5	235.5	146.1	146.1	Sbd box	51.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Group delay (usec)(sbd)	-1.21491012570E+03			Apriori delay (usec)			-1.21430826252E+03			Resid mbdelay (usec)			-8.11317E-03			+/- 1.8E-04		
Sband delay (usec)	-1.21491516202E+03			Apriori clock (usec)			1.4568054E+01			Resid sbdelay (usec)			-6.06899E-01			+/- 2.9E-03		
Phase delay (usec)	-1.21430825867E+03			Apriori clockrate (us/s)			-6.9663080E-08			Resid phdelay (usec)			3.85411E-06			+/- 6.1E-07		
Delay rate (us/s)	-2.13149600139E-01			Apriori rate (us/s)			-2.13145655657E-01			Resid rate (us/s)			-3.94448E-06			+/- 2.5E-09		
Total phase (deg)	-144.6			Apriori accel (us/s/s)			1.39276635632E-05			Resid phase (deg)			119.5			+/- 19.0		

ph/seg (deg) 38.5 32.9 Amplitude 0.113 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.2 57.4 Search (2048X64) 0.104 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 38.5 38.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 50.1 66.3 Inc. seg. avg. 0.114 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.110 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 275.0 el 67.4 pa 75.4 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 1613.805 1588.627 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/np..13088W Output file: /Exps/c192a/v2/1234/No0023/np.W.161.13088W

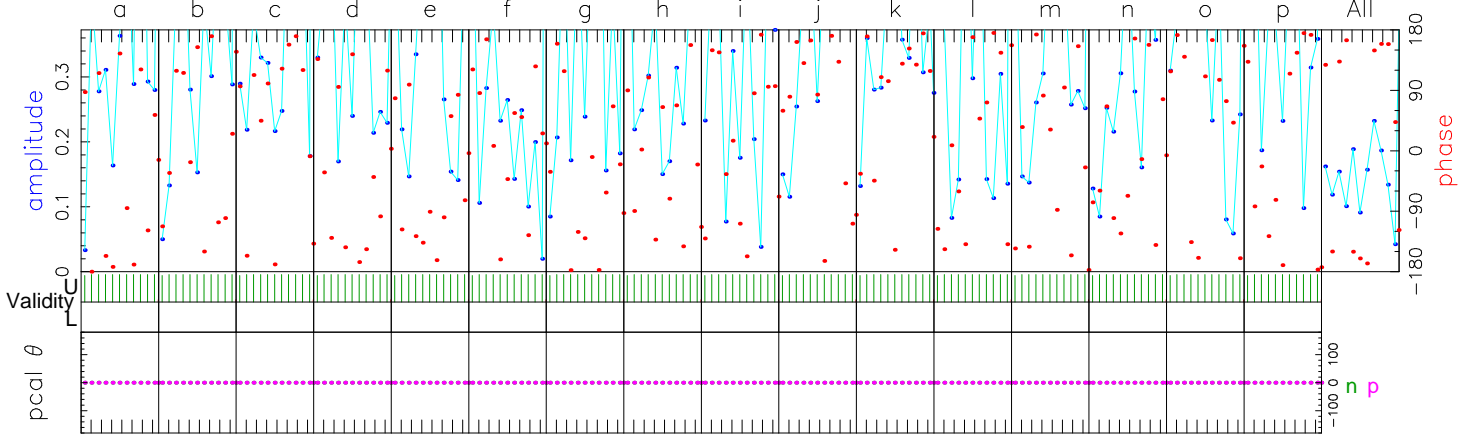
Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, np
VLBA_NL - VLBA_PT, fgroup W, pol RR



Fringe quality 0
SNR 6.7
Int time 418.424
Amp 0.124
Phase 167.7
PFD 7.3e-03
Delays (us)
SBD 0.070782
MBD -0.011454
Fringe rate (Hz)
-0.305631
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053133
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



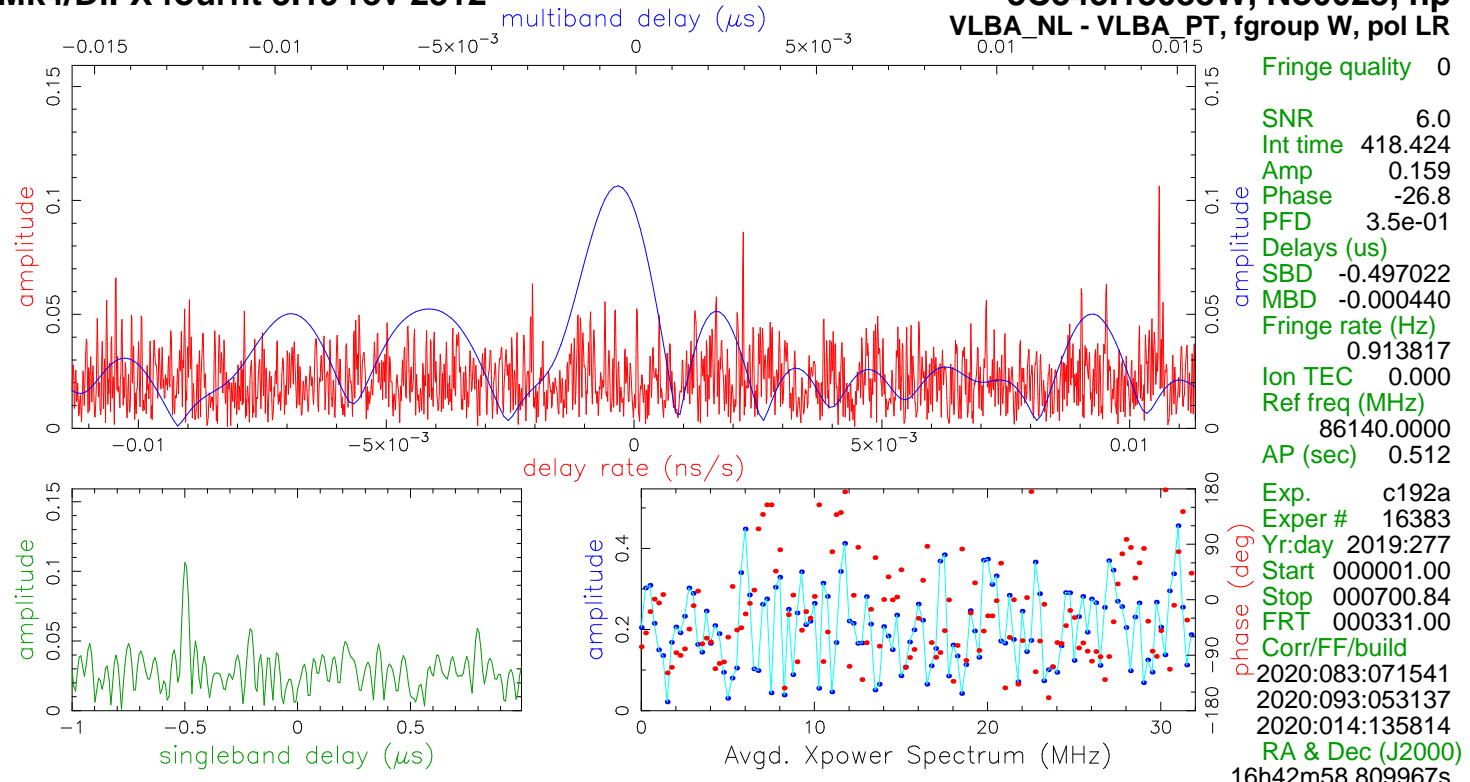
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165.2	-173.0	134.8	-149.7	-125.3	88.9	-171.3	113.3	139.1	166.8	147.1	-165.8	153.6	-139.2	155.2	-176.5	Phase	167.7					
0.2	0.1	0.3	0.2	0.2	0.1	0.1	0.0	0.1	0.2	0.3	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1					
205.1	142.5	97.5	184.5	227.3	90.6	219.2	60.4	77.8	101.2	15.1	144.6	36.0	6.8	138.4	134.5	Sbd box	138.1					
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC phase					
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC					
n	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000						
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids					
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks					
Group delay (usec)(sbd)			-1.21422596679E+03														Apriori delay (usec)	-1.21430826252E+03	Resid mbdelay (usec)	-1.14543E-02	+/-	1.6E-04
Sband delay (usec)			-1.21423748002E+03														Apriori clock (usec)	1.4568054E+01	Resid sbdelay (usec)	7.07825E-02	+/-	2.6E-03
Phase delay (usec)			-1.21430825712E+03														Apriori clockrate (us/s)	-6.9663080E-08	Resid phdelay (usec)	5.40656E-06	+/-	5.5E-07
Delay rate (us/s)			-2.13149203726E-01														Apriori rate (us/s)	-2.13145655657E-01	Resid rate (us/s)	-3.54807E-06	+/-	2.3E-09
Total phase (deg)					-96.5												Apriori accel (us/s/s)	1.39276635632E-05	Resid phase (deg)	167.7	+/-	17.2

ph/seg (deg) 47.1 29.8 Search (2048X64) 0.113 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 50.0 51.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 40.3 34.4 Inc. seg. avg. 0.132 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 60.7 60.0 Inc. frq. avg. 0.125 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 275.0 el 67.4 pa 75.4 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 1613.805 1588.627 ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/np..13088W Output file: /Exps/c192a/v2/1234/No0023/np.W.166.13088W

Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, np
VLBA_NL - VLBA_PT, fgroup W, pol LR



Fringe quality 0

SNR 6.0

Int time 418.424

Amp 0.159

Phase -26.8

PFD 3.5e-01

Delays (us)

SBD -0.497022

MBD -0.000440

Fringe rate (Hz) 0.913817

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:277

Start 000001.00

Stop 000700.84

FRT 000331.00

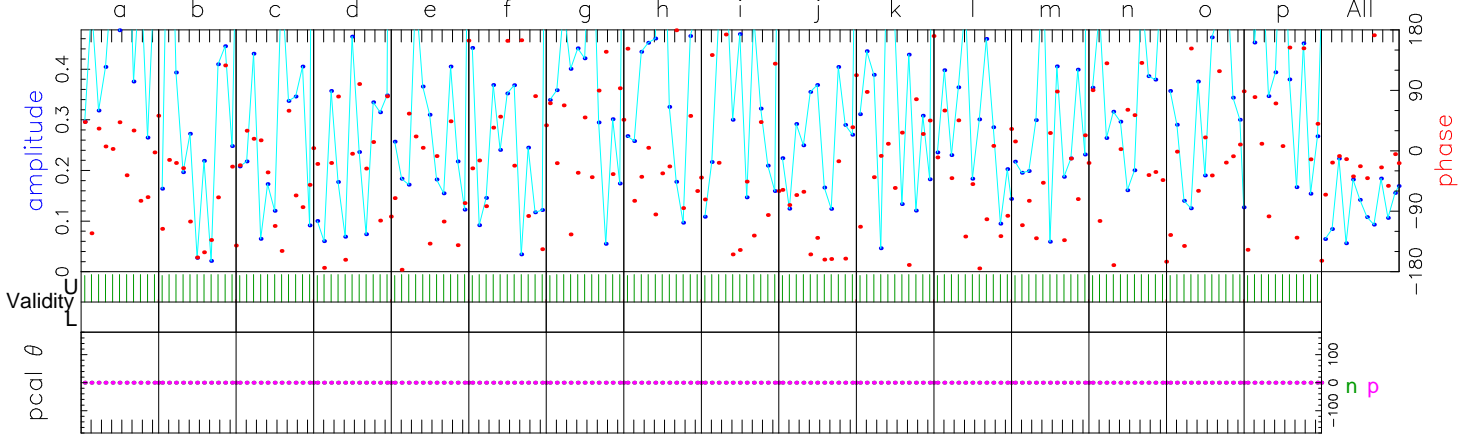
Corr/FF/build 2020:083:071541

2020:093:053137

2020:014:135814

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

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All					
	-11.8	-44.7	-39.7	7.4	-13.6	-8.6	9.5	-38.8	-137.7	-96.2	0.5	-61.4	-46.4	-17.9	-19.9	55.5	Phase	-26.8					
	0.5	0.2	0.2	0.1	0.1	0.1	0.3	0.4	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	Ampl.	0.2					
	64.4	88.4	59.0	231.3	236.7	229.9	156.5	65.1	23.8	254.9	100.2	232.8	209.9	52.4	1.8	181.3	Sbd box	65.4					
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used						
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)		-1.21480870234E+03															Apriori delay (usec)	-1.21430826252E+03	Resid mbdelay (usec)	-4.39815E-04	+/-	1.8E-04	
Sband delay (usec)		-1.21480528452E+03																Apriori clock (usec)	1.4568054E+01	Resid sbdelay (usec)	-4.97022E-01	+/-	2.9E-03
Phase delay (usec)		-1.21430826339E+03																Apriori clockrate (us/s)	-6.9663080E-08	Resid phdelay (usec)	-8.65197E-07	+/-	6.1E-07
Delay rate (us/s)		-2.13135047146E-01																Apriori rate (us/s)	-2.13145655657E-01	Resid rate (us/s)	1.06085E-05	+/-	2.5E-09
Total phase (deg)					-291.0													Apriori accel (us/s/s)	1.39276635632E-05	Resid phase (deg)	-26.8	+/-	19.0

ph/seg (deg) 51.8 32.9 Search (2048X64) 0.101 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 51.3 57.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 46.4 38.0 Inc. seg. avg. 0.162 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016

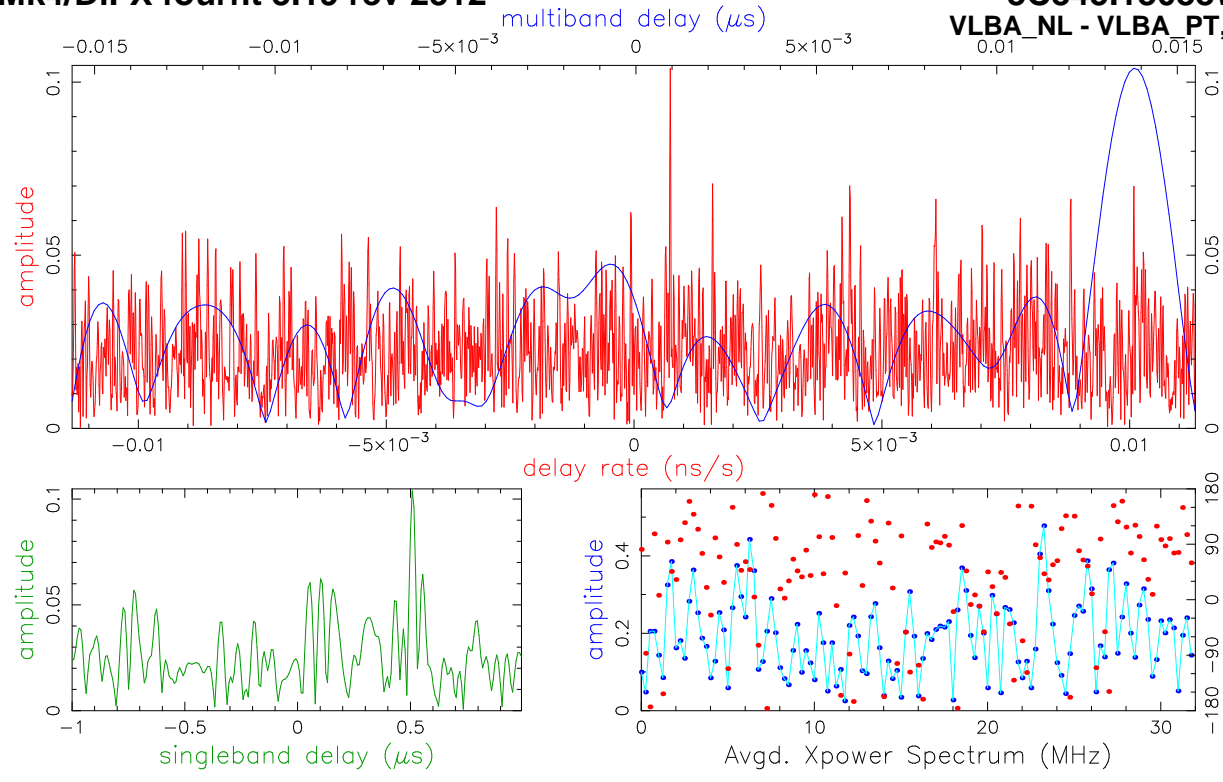
amp/frq (%) 66.9 66.3 Inc. frq. avg. 0.161 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

n: az 275.0 el 67.4 pa 75.4 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 1613.805 1588.627 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/np..13088W Output file: /Exps/c192a/v2/1234/No0023/np.W.171.13088W

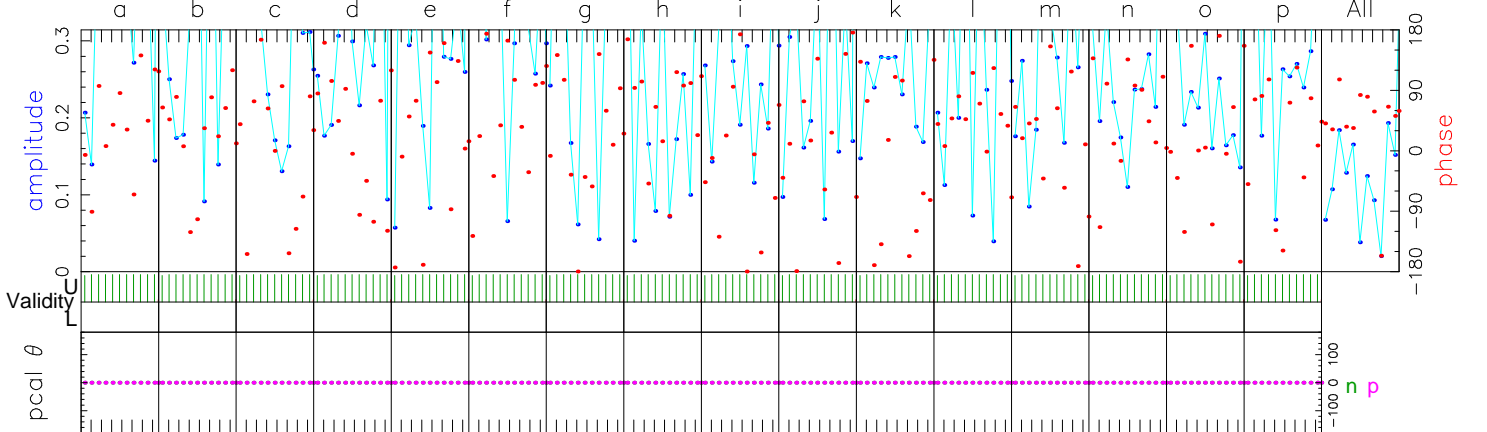
Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, np
VLBA_NL - VLBA_PT, fgroup W, pol RL



Fringe quality 0
SNR 5.9
Int time 418.424
Amp 0.105
Phase 60.0
PFD 7.1e-01
Delays (us)
SBD 0.509569
MBD 0.013868
Fringe rate (Hz)
0.062864
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053140
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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

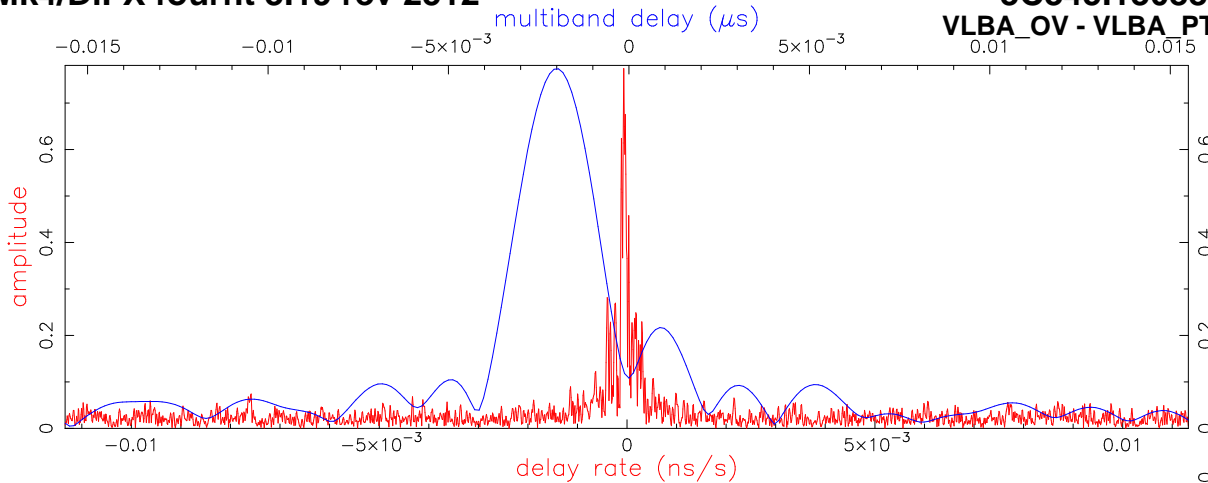


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
58.5	63.6	107.8	65.7	76.3	40.3	43.3	81.3	-58.9	91.3	-174.4	48.8	33.3	83.7	-24.0	64.9	64.9	Phase	60.0
0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.3	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
195.7	143.3	177.9	165.6	135.3	200.3	142.5	228.6	39.0	171.1	104.8	194.8	171.6	162.7	10.0	183.6	183.6	Sbd box	194.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	
Group delay (usec)(sbd)	-1.21379439429E+03			Apriori delay (usec)			-1.21430826252E+03			Resid mbdelay (usec)			1.38682E-02			+/- 1.8E-04		
Sband delay (usec)	-1.21379869352E+03			Apriori clock (usec)			1.4568054E+01			Resid sbdelay (usec)			5.09569E-01			+/- 2.9E-03		
Phase delay (usec)	-1.21430826059E+03			Apriori clockrate (us/s)			-6.9663080E-08			Resid phdelay (usec)			1.93454E-06			+/- 6.3E-07		
Delay rate (us/s)	-2.13144925872E-01			Apriori rate (us/s)			-2.13145655657E-01			Resid rate (us/s)			7.29785E-07			+/- 2.6E-09		
Total phase (deg)	-204.2			Apriori accel (us/s/s)			1.39276635632E-05			Resid phase (deg)			60.0			+/- 19.6		
ph/seg (deg)	RMS	Theor.	Amplitude		0.105 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000			
amp/seg (%)	48.8	33.9	Search (2048X64)		0.103		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)		-0.016 0.016					
ph/frq (deg)	55.5	39.2	Inc. seg. avg.		0.100		Sample rate(MISamp/s): 64		Data rate(Mb/s): 2048		nlags: 128 t_cohere infinite		dr window (ns/s)		-0.011 0.011			
amp/frq (%)	65.1	68.3	Inc. frq. avg.		0.099		Data rate(Mb/s): 2048		nlags: 128 t_cohere infinite		ion window (TEC)		0.00 0.00					

n: az 275.0 el 67.4 pa 75.4 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 1613.805 1588.627 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/np..13088W Output file: /Exps/c192a/v2/1234/No0023/np.W.175.13088W

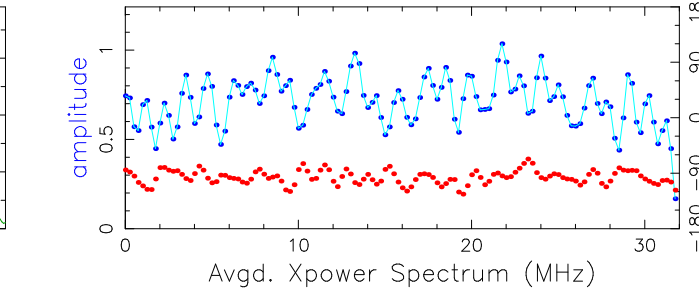
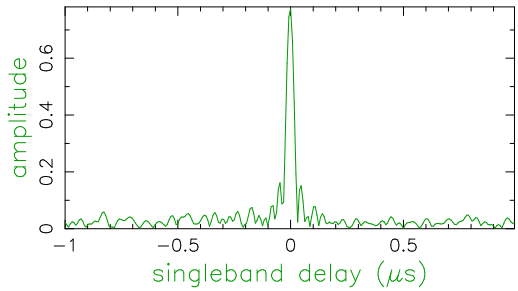
Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, op
VLBA_OV - VLBA_PT, fgroup W, pol LL



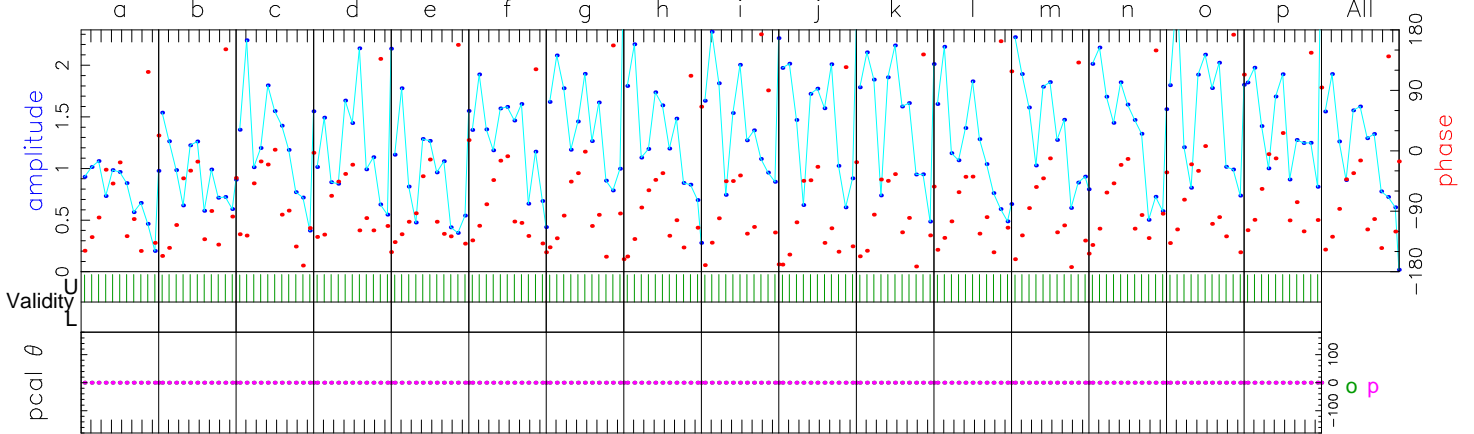
Fringe quality 4

SNR 43.7
Int time 417.819
Amp 0.781
Phase -98.3
PFD 0.0e+00
Delays (us)
SBD -0.002364
MBD -0.002017
Fringe rate (Hz)
-0.005421
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000002.54
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053131
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



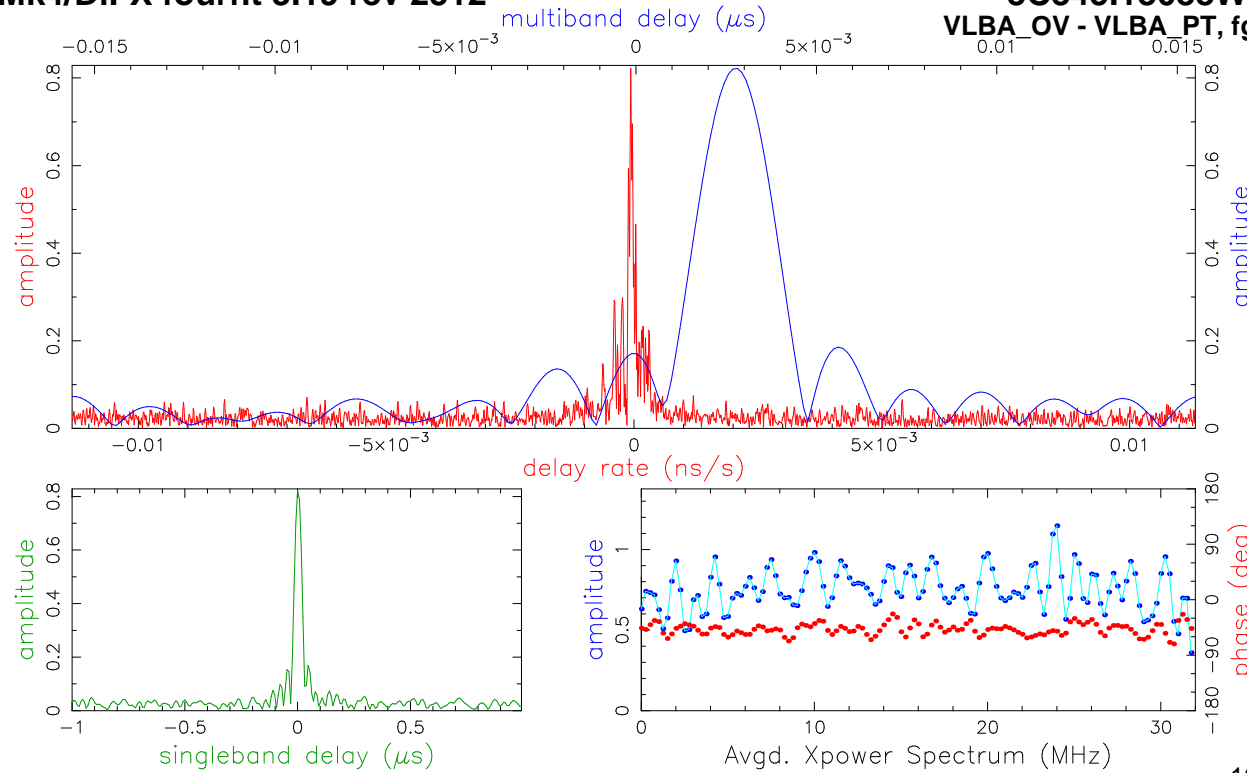
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All				
	-100.1	-105.6	-79.8	-92.0	-102.9	-88.8	-97.1	-102.7	-111.2	-119.0	-106.9	-104.0	-105.2	-85.1	-94.6	-74.2		Phase	-98.3			
	0.5	0.5	0.8	0.8	0.6	0.8	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.8	1.0	0.7		Ampl.	0.8			
	128.0	129.1	128.8	128.6	129.2	128.6	129.0	128.7	128.6	128.7	128.8	128.6	128.7	128.7	128.7	128.7		Sbd box	128.7			
UL	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		APs used				
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs				
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs				
o: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				
o: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				
o	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						
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids				
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks				
																		Chan ids				
																		Tracks				
Group delay (usec)(sbd)	4.59758908014E+02				Apriori delay (usec)				4.59760924939E+02				Resid mbdelay (usec)				-2.01692E-03		+/- 2.5E-05			
Sband delay (usec)	4.59758560939E+02				Apriori clock (usec)				4.7198563E+00				Resid sbdelay (usec)				-2.36400E-03		+/- 3.9E-04			
Phase delay (usec)	4.59760921770E+02				Apriori clockrate (us/s)				-2.0290559E-07				Resid phdelay (usec)				-3.16883E-06		+/- 8.5E-08			
Delay rate (us/s)	1.74953086302E-01				Apriori rate (us/s)				1.74953149236E-01				Resid rate (us/s)				-6.29341E-08		+/- 3.5E-10			
Total phase (deg)					-71.6				Apriori accel (us/s/s)				5.67556256165E-07				Resid phase (deg)		-98.3		+/- 2.6	

ph/seg (deg) RMS Theor. Amplitude 0.781 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 56.9 4.5 Search (2048X64) 0.755 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 77.3 7.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 12.2 5.2 Inc. seg. avg. 1.222 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 17.4 9.2 Inc. frq. avg. 0.786 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

o: az 316.4 el 86.4 pa 129.9 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -1301.981 334.784 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/op..13088W Output file: /Exps/c192a/v2/1234/No0023/op.W.164.13088W

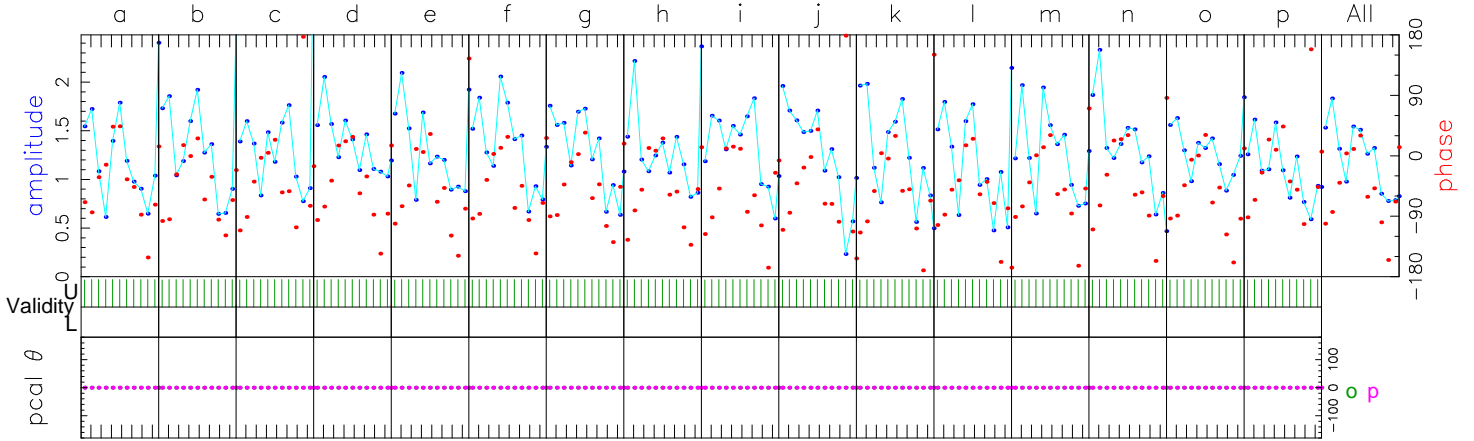
Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, op
VLBA_OV - VLBA_PT, fgroup W, pol RR



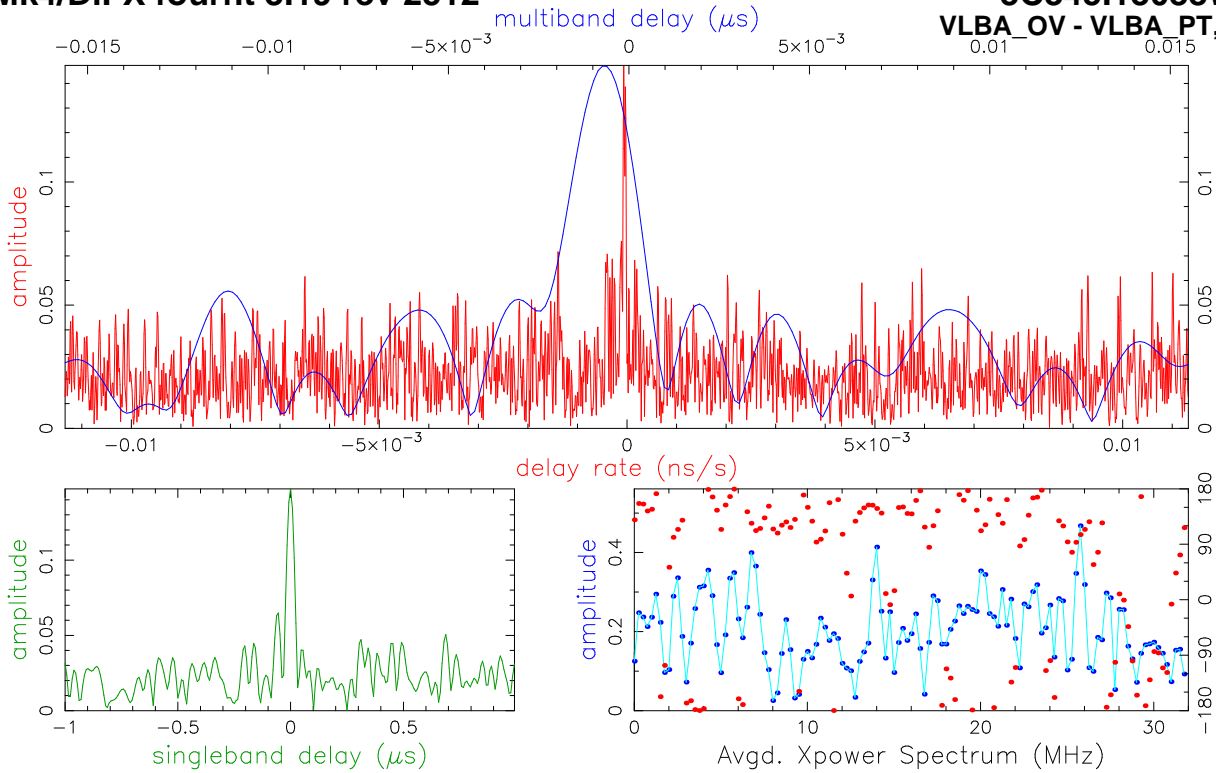
Fringe quality 5
SNR 46.3
Int time 417.819
Amp 0.829
Phase -51.0
PFD 0.0e+00
Delays (us)
SBD 0.002218
MBD 0.002777
Fringe rate (Hz)
-0.005366
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000002.54
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053134
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



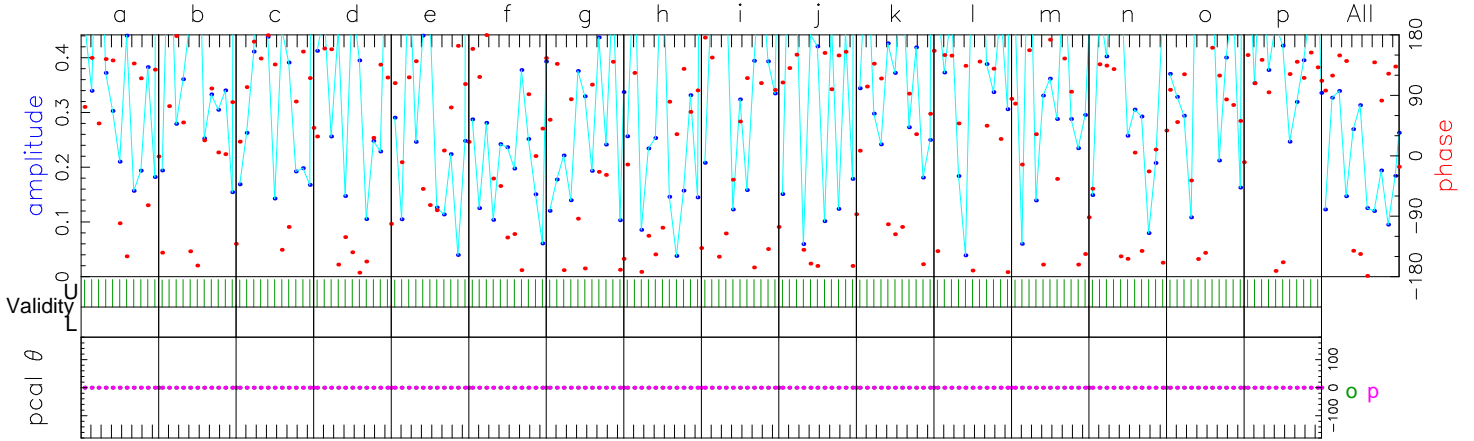
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All		
	-40.7	-44.9	-55.8	-47.4	-58.2	-46.9	-47.4	-56.8	-55.2	-57.0	-61.5	-53.0	-43.8	-49.3	-62.1	-34.4		Phase	-51.0	
	0.7	0.9	0.8	0.9	0.8	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.9	0.9	0.8	0.7		Ampl.	0.8	
	128.7	129.0	129.3	129.5	129.4	129.4	129.1	129.4	129.3	129.1	129.4	129.0	129.7	129.2	129.6	129.6		Sbd box	129.3	
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		APs used		
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs		
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs		
o: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		
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC		
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		PC amp		
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000				
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Tracks		
																		Chan ids		
																		Tracks		
Group delay (usec)(sbd)	4.59763702295E+02			Apriori delay (usec)			4.59760924939E+02			Resid mbdelay (usec)			2.77736E-03			+/-	2.3E-05			
Sband delay (usec)	4.59763142939E+02			Apriori clock (usec)			4.7198563E+00			Resid sbdelay (usec)			2.21800E-03			+/-	3.7E-04			
Phase delay (usec)	4.59760923293E+02			Apriori clockrate (us/s)			-2.0290559E-07			Resid phdelay (usec)			-1.64586E-06			+/-	8.0E-08			
Delay rate (us/s)	1.74953086940E-01			Apriori rate (us/s)			1.74953149236E-01			Resid rate (us/s)			-6.22964E-08			+/-	3.3E-10			
Total phase (deg)				-24.3			Apriori accel (us/s/s)			5.67556256165E-07			Resid phase (deg)			-51.0			+/-	2.5

ph/seg (deg) 52.7 4.3 Search (2048X64) 0.784 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 64.7 7.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 8.1 4.9 Inc. seg. avg. 1.242 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 7.4 8.6 Inc. frq. avg. 0.826 Sample rate(MISamp/s): 64 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
o: az 316.4 el 86.4 pa 129.9 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -1301.981 334.784 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/op..13088W Output file: /Exps/c192a/v2/1234/No0023/op.W.169.13088W



Fringe quality 9
SNR 8.2
Int time 417.819
Amp 0.147
Phase 150.0
PFD 6.4e-08
Delays (us)
SBD -0.000792
MBD -0.000685
Fringe rate (Hz)
-0.005499
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000002.54
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053138
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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

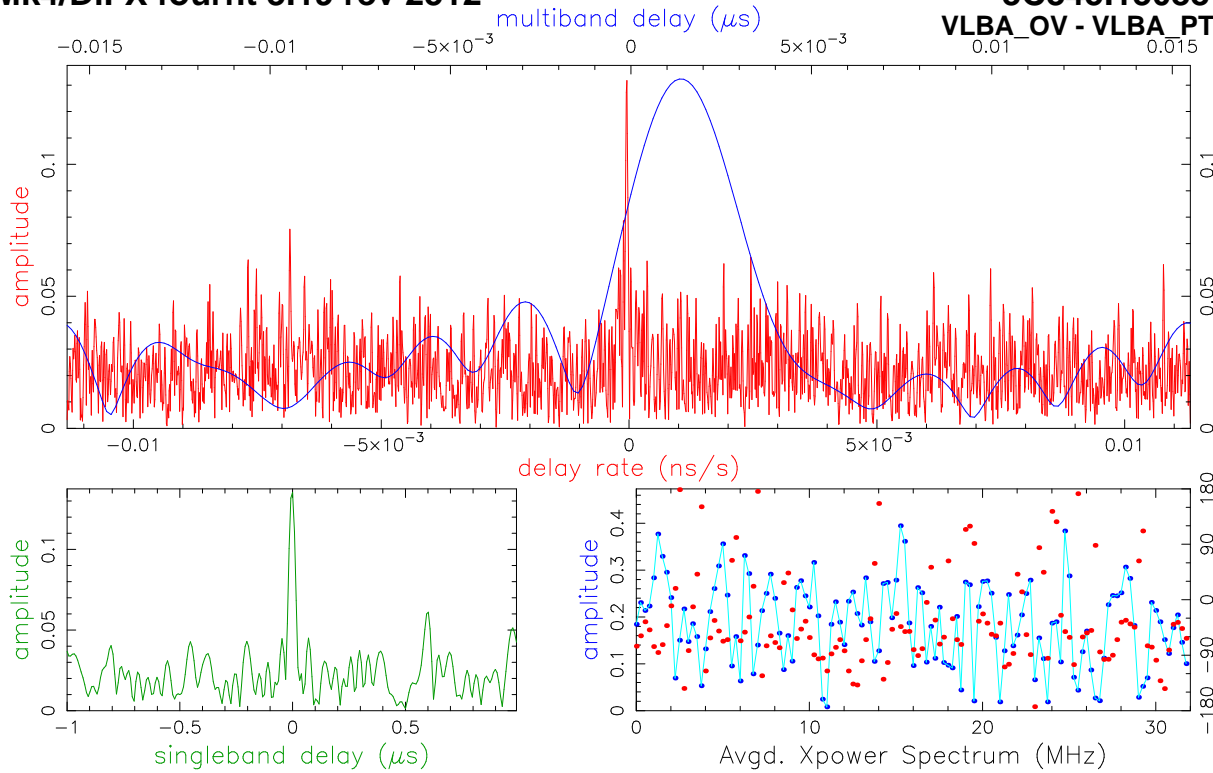


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
UL	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
o	1000	1000	1000	1000	1000	1000	1000	1000	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		
o: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		
o: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		
o	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		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		
Group delay (usec)(sbd)		4.59760239733E+02								4.59760924939E+02							-6.85206E-04	+/- 1.3E-04
Sband delay (usec)		4.59760132439E+02								4.7198563E+00							-7.92500E-04	+/- 2.1E-03
Phase delay (usec)		4.59760929777E+02								-2.0290559E-07							4.83838E-06	+/- 4.5E-07
Delay rate (us/s)		1.74953085397E-01								1.74953149236E-01							-6.38389E-08	+/- 1.9E-09
Total phase (deg)					176.8					5.67556256165E-07							150.0	+/- 13.9

ph/seg (deg) 43.1 24.1 Search (2048X64) 0.143 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 70.9 42.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 31.5 27.8 Inc. seg. avg. 0.187 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
amp/frq (%) 62.7 48.6 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
o: az 316.4 el 86.4 pa 129.9 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -1301.981 334.784 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/op..13088W Output file: /Exps/c192a/v2/1234/No0023/op.W.174.13088W

Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, op
VLBA_OV - VLBA_PT, fgroup W, pol RL

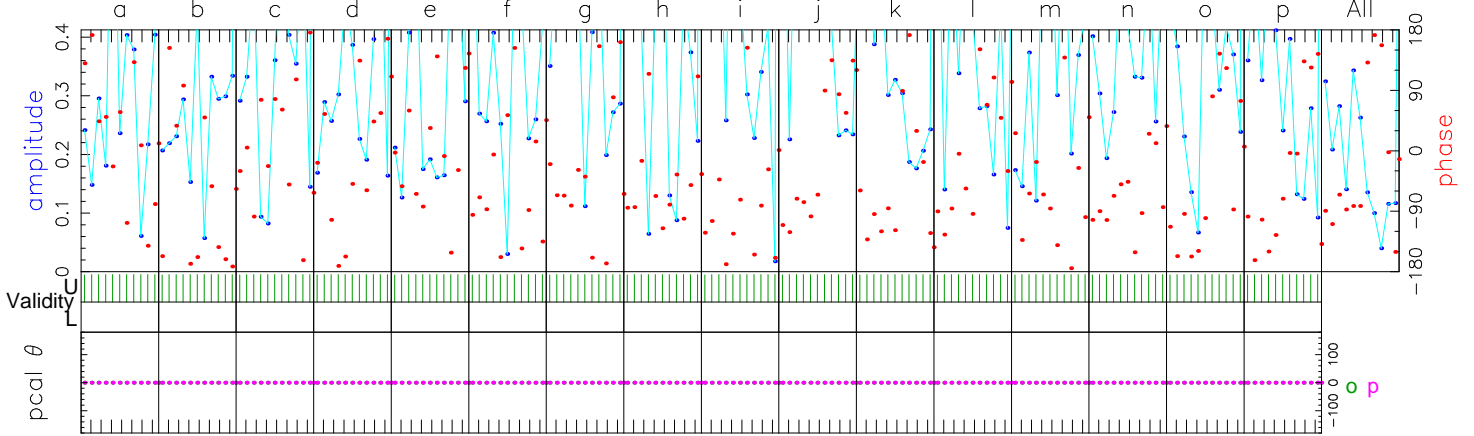


Fringe quality 9

SNR 7.7
Int time 417.819
Amp 0.137
Phase -91.5
PFD 5.0e-06
Delays (us)
SBD -0.002975
MBD 0.001551
Fringe rate (Hz)
-0.003487
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000002.54
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053141
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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

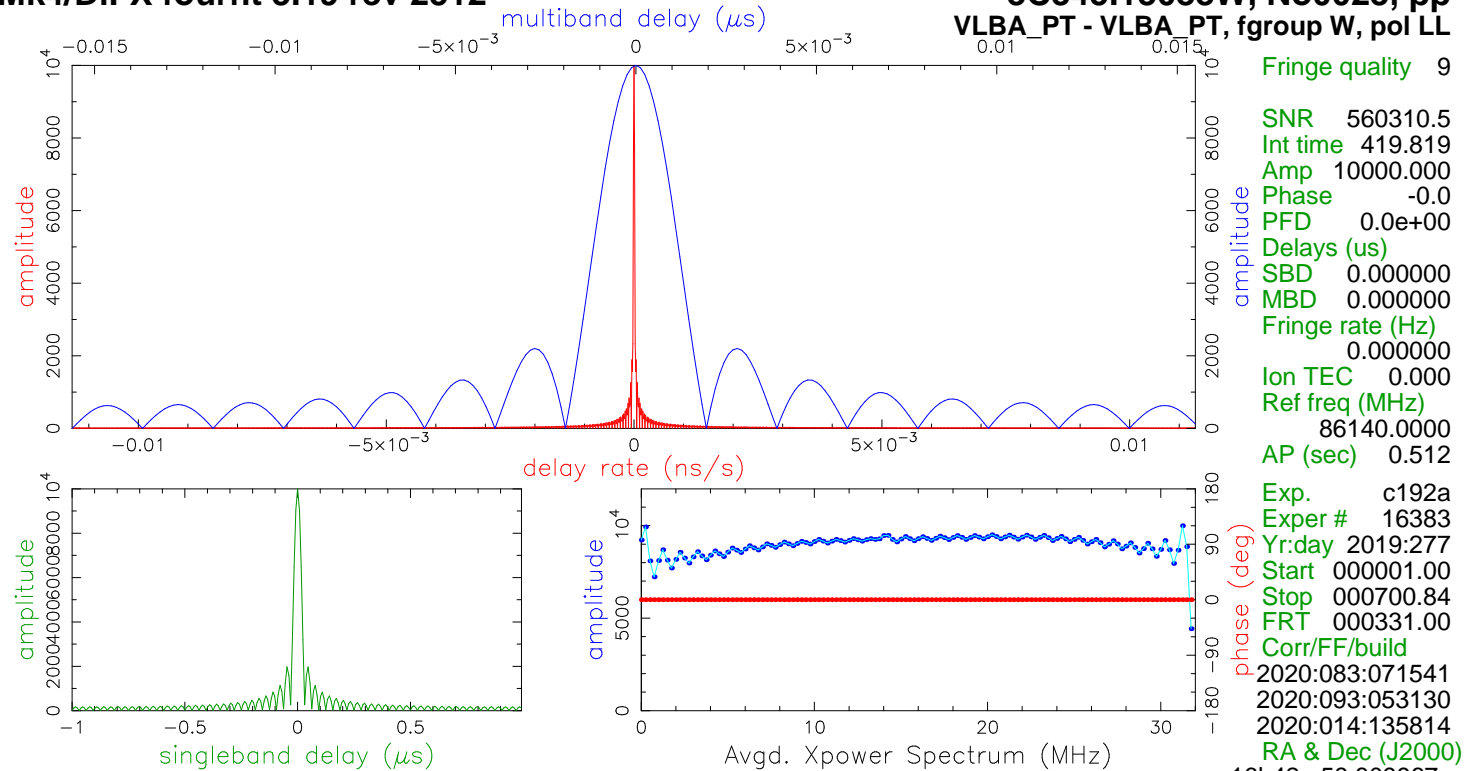


	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-18.9	-164.4	19.4	55.1	-34.3	-110.1	-87.1	-78.6	-99.1	-93.6	-105.6	-63.5	-90.1	-64.1	-148.4	-128.3	Phase	-91.5
	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.1	0.2	Ampl.	0.1
	76.4	31.3	56.9	197.5	248.3	93.1	29.1	129.3	128.5	127.6	138.6	148.1	25.5	129.2	250.0	58.4	Sbd box	128.6
UL	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o: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	
o: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	
o	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

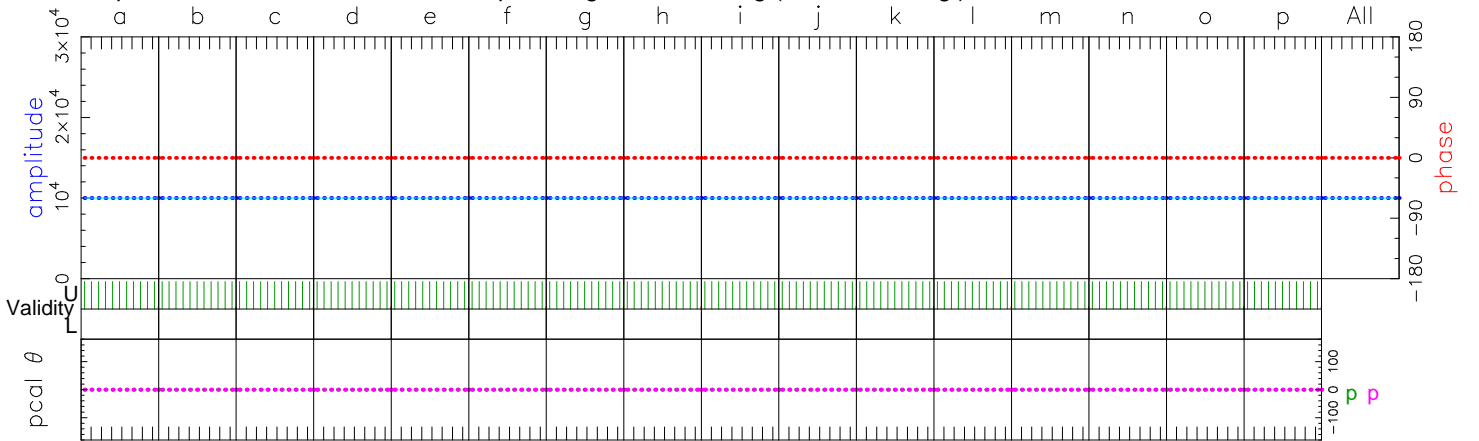
Group delay (usec)(sbd) 4.59762475562E+02 Apriori delay (usec) 4.59760924939E+02 Resid mbdelay (usec) 1.55062E-03 +/- 1.4E-04
 Sband delay (usec) 4.59757949439E+02 Apriori clock (usec) 4.7198563E+00 Resid sbdelay (usec) -2.97550E-03 +/- 2.2E-03
 Phase delay (usec) 4.59760921987E+02 Apriori clockrate (us/s) -2.0290559E-07 Resid phdelay (usec) -2.95132E-06 +/- 4.8E-07
 Delay rate (us/s) 1.74953108758E-01 Apriori rate (us/s) 1.74953149236E-01 Resid rate (us/s) -4.04785E-08 +/- 2.0E-09
 Total phase (deg) -64.8 Apriori accel (us/s/s) 5.67556256165E-07 Resid phase (deg) -91.5 +/- 14.9

RMS Theor. Amplitude 0.137 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 69.6 25.8 Search (2048X64) 0.134 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 83.3 45.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 ph/frq (deg) 62.4 29.8 Inc. seg. avg. 0.173 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 61.9 52.0 Inc. frq. avg. 0.141 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

o: az 316.4 el 86.4 pa 129.9 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) -1301.981 334.784 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/op..13088W Output file: /Exps/c192a/v2/1234/No0023/op.W.178.13088W



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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
	-0.0	-0.0	0.0	-0.0	-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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used	
p	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	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Tracks	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL		Tracks	
Group delay (usec)(sbd)	0.0000000000E+00			Apriori delay (usec)			0.0000000000E+00			Resid mbdelay (usec)			0.00000E+00			+/- 1.9E-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)	-1.47777916786E-21			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			-1.47778E-21			+/- 6.6E-12			
Delay rate (us/s)	0.0000000000E+00			Apriori rate (us/s)			0.0000000000E+00			Resid rate (us/s)			0.00000E+00			+/- 2.7E-14			
Total phase (deg)	-0.0			Apriori accel (us/s/s)			0.0000000000E+00			Resid phase (deg)			-0.0			+/- 0.0			

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

amp/seg (%) 0.0 0.0 Search (2048X64) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

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

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

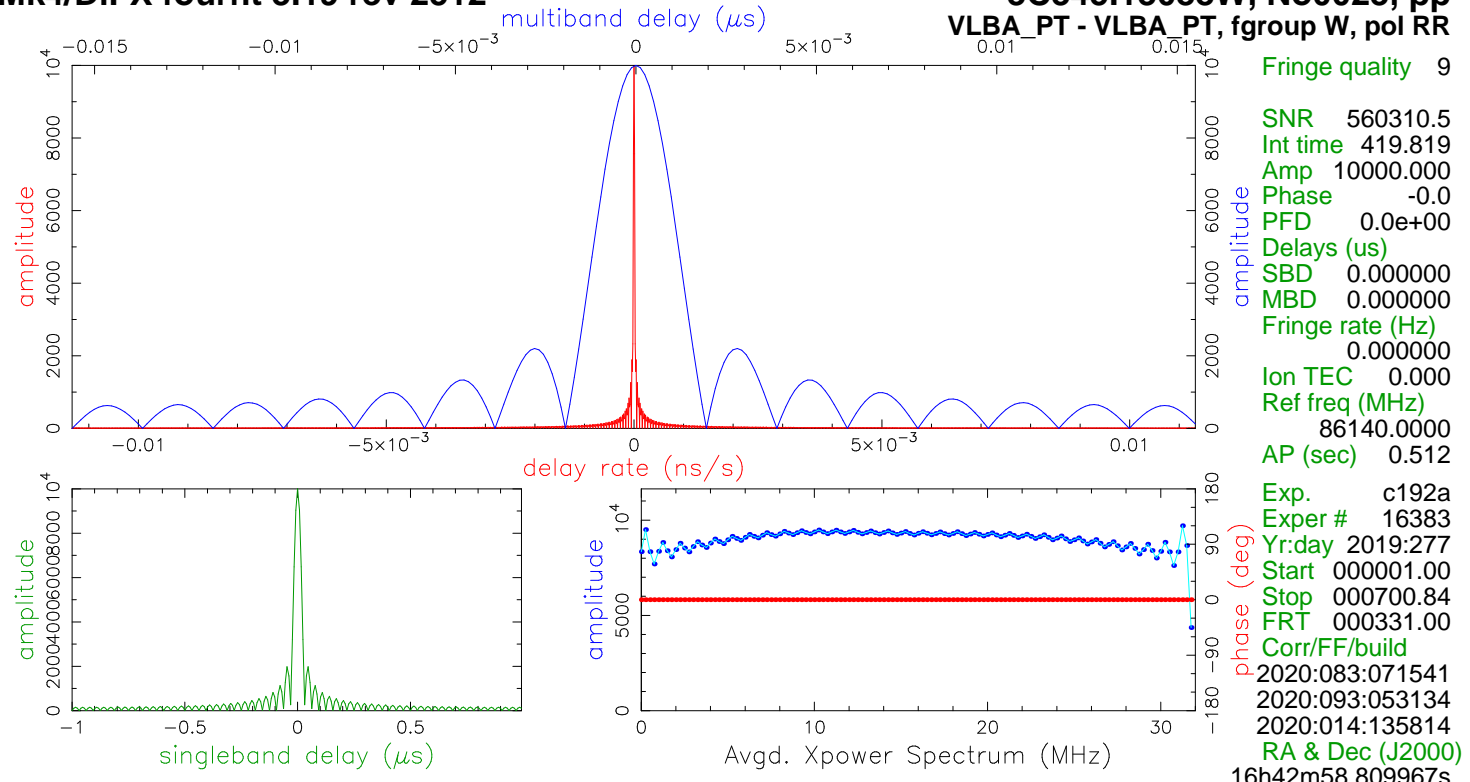
Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

p: az 301.1 el 78.0 pa 111.1 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

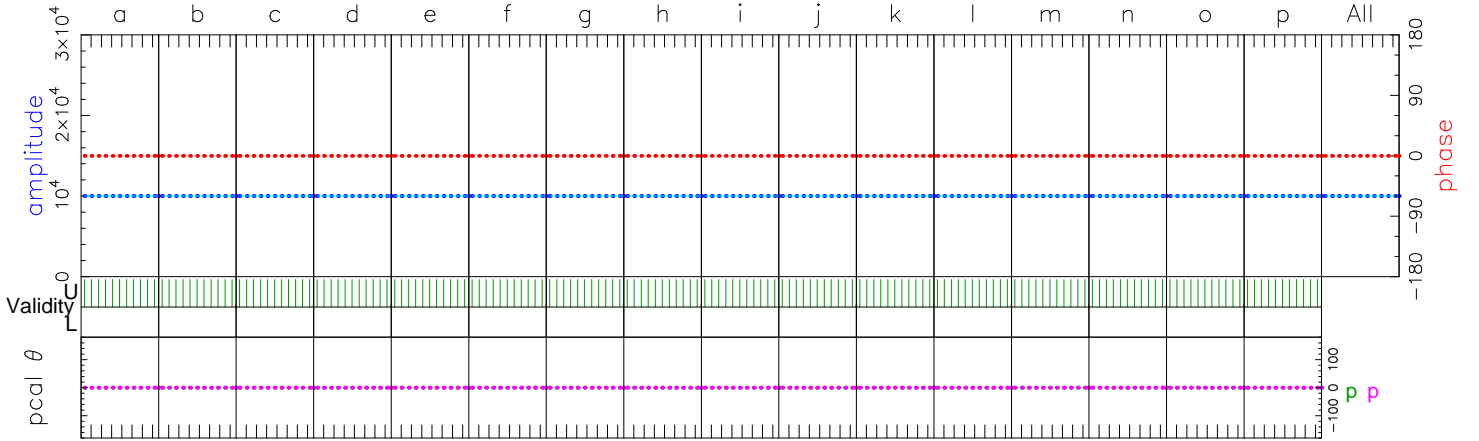
Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/pp..13088W Output file: /Exps/c192a/v2/1234/No0023/pp.W.162.13088W

Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, pp
VLBA_PT - VLBA_PT, fgroup W, pol RR



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



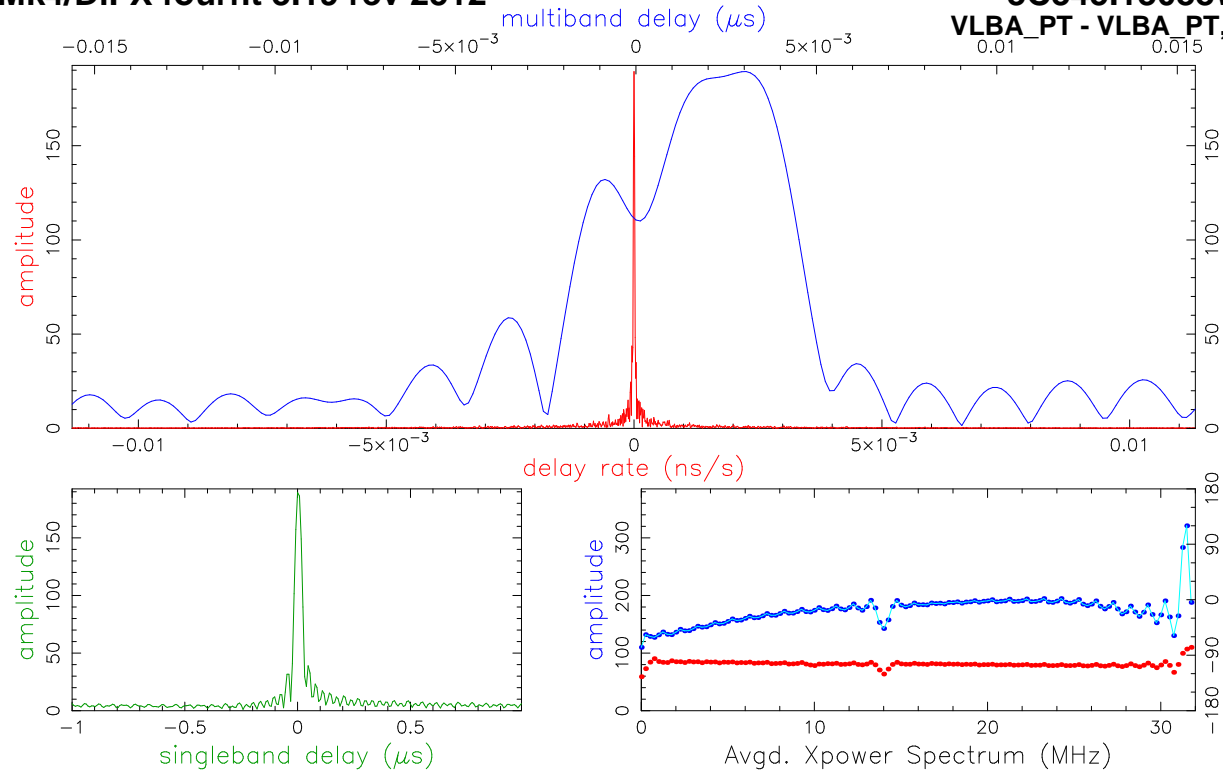
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All	
-0.0	-0.0	0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	0.0	-0.0	-0.0	0.0	0.0		Phase	-0.0
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0		Ampl.	10000.0
129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0		Sbd box	129.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used	
p	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	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		ManI PC	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Chan ids	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		Tracks	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR		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)	-3.52739455322E-20			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			-3.52739E-20			+/- 6.6E-12			
Delay rate (us/s)	0.00000000000E+00			Apriori rate (us/s)			0.00000000000E+00			Resid rate (us/s)			0.00000E+00			+/- 2.7E-14			
Total phase (deg)	-0.0			Apriori accel (us/s/s)			0.00000000000E+00			Resid phase (deg)			-0.0			+/- 0.0			
RMS	Theor.		Amplitude		10000.000 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5										
ph/seg (deg)	0.0	0.0	Search (2048X64)		10000.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000		1.000						
amp/seg (%)	0.0	0.0	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)		-0.016		0.016				
ph/frq (deg)	0.0	0.0	Inc. seg. avg.		10000.000		Sample rate(MISamp/s): 64		dr window (ns/s)		-0.011		0.011						
amp/frq (%)	0.0	0.0	Inc. frq. avg.		10000.000		Data rate(Mb/s): 2048		nlags: 128		t_cohere infinite		ion window (TEC)		0.00		0.00		

p: az 301.1 el 78.0 pa 111.1 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/pp..13088W Output file: /Exps/c192a/v2/1234/No0023/pp.W.167.13088W

Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, pp
VLBA_PT - VLBA_PT, fgroup W, pol LR

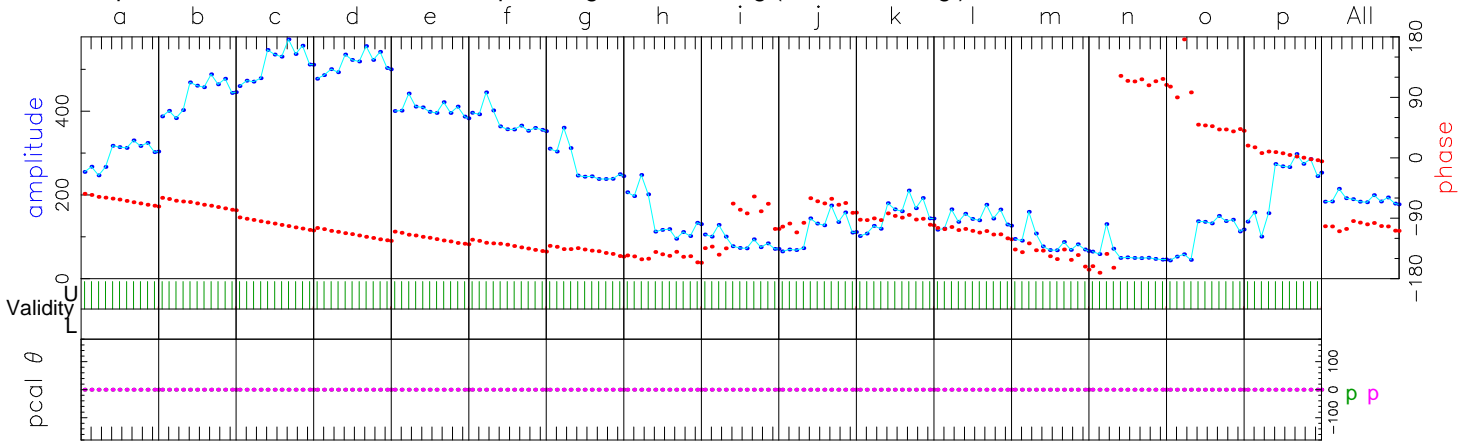


Fringe quality 5

SNR 10791.1
Int time 419.819
Amp 192.591
Phase -101.8
PFD 0.0e+00
Delays (us)
SBD 0.003289
MBD 0.003004
Fringe rate (Hz)
0.000135
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:277
Start 000001.00
Stop 000700.84
FRT 000331.00
Corr/FF/build
2020:083:071541
2020:093:053137
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

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



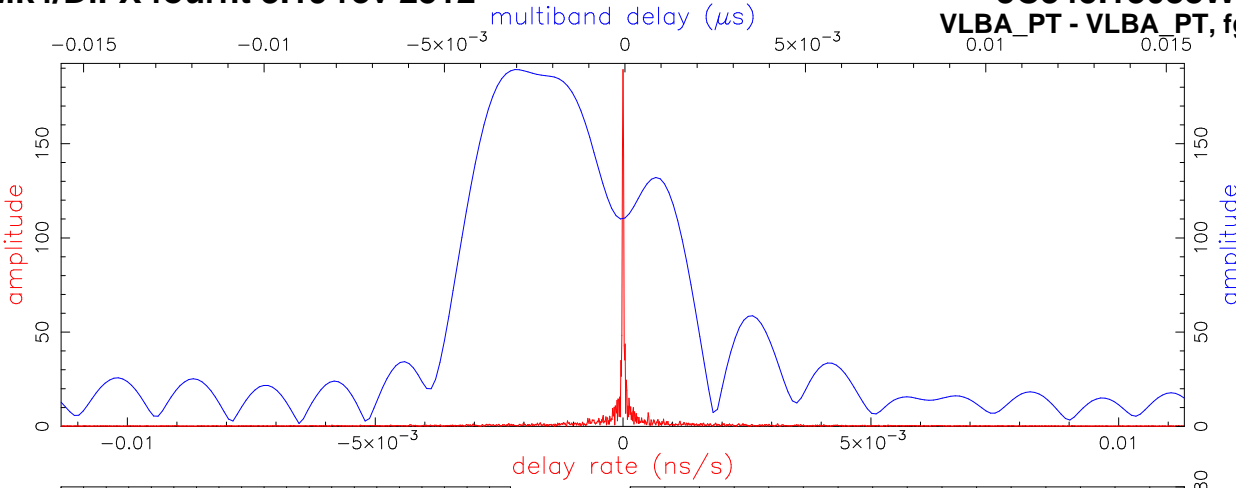
	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	-63.1	-68.6	-98.4	-114.0	-119.2	-130.0	-137.3	-147.2	-103.0	-74.4	-89.8	-109.5	-141.0	157.2	53.2	4.5	Phase	-101.8
	294.7	437.8	513.0	511.6	404.6	375.4	270.5	149.0	75.8	110.3	152.1	144.0	87.4	43.0	91.4	223.0	Ampl.	242.7
	129.1	129.2	129.2	129.3	129.3	129.2	129.3	129.4	130.1	129.1	129.2	129.3	128.5	128.2	128.7	128.4	Sbd box	129.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p: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	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Tracks	
																	Chan ids	
																	Tracks	
Group delay (usec)(sbd)	3.00443750000E-03			Apriori delay (usec)			0.00000000000E+00			Resid mbdelay (usec)			3.00444E-03			+/- 1.0E-07		
Sband delay (usec)	3.28900000000E-03			Apriori clock (usec)			0.0000000E+00			Resid sbdelay (usec)			3.28900E-03			+/- 1.6E-06		
Phase delay (usec)	-3.28207751167E-06			Apriori clockrate (us/s)			0.0000000E+00			Resid phdelay (usec)			-3.28208E-06			+/- 3.4E-10		
Delay rate (us/s)	1.57087224262E-09			Apriori rate (us/s)			0.00000000000E+00			Resid rate (us/s)			1.57087E-09			+/- 1.4E-12		
Total phase (deg)				-101.8			Apriori accel (us/s/s)			0.00000000000E+00			Resid phase (deg)			-101.8 +/- 0.0		

ph/seg (deg) 4.6 0.0 RMS Theor. Amplitude 192.591 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 5.2 0.0 Search (2048X64) 188.294 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 62.8 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.016 0.016
 amp/frq (%) 85.1 0.0 Inc. seg. avg. 189.949 Sample rate(MISamp/s): 64 dr window (ns/s) -0.011 0.011
 p: az 301.1 el 78.0 pa 111.1 p: az 301.1 el 78.0 pa 111.1 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/No0023/pp..13088W Output file: /Exps/c192a/v2/1234/No0023/pp.W.173.13088W simultaneous interpolator

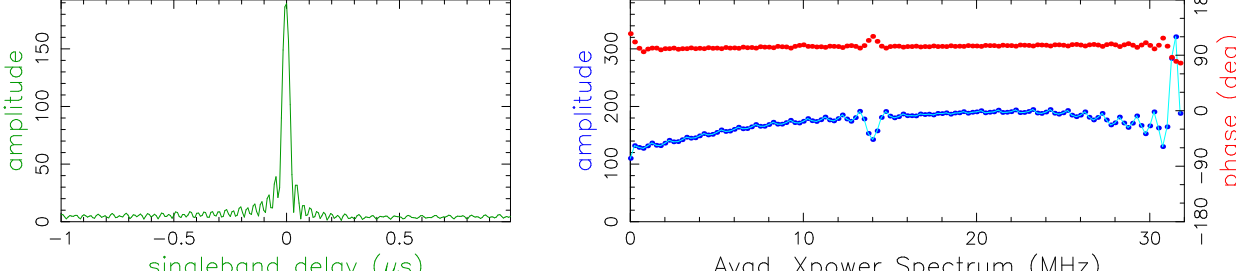
Mk4/DiFX fourfit 3.19 rev 2512

3C345.13088W, No0023, pp VLBA_PT - VLBA_PT, fgroup W, pol RL

Fringe quality 5

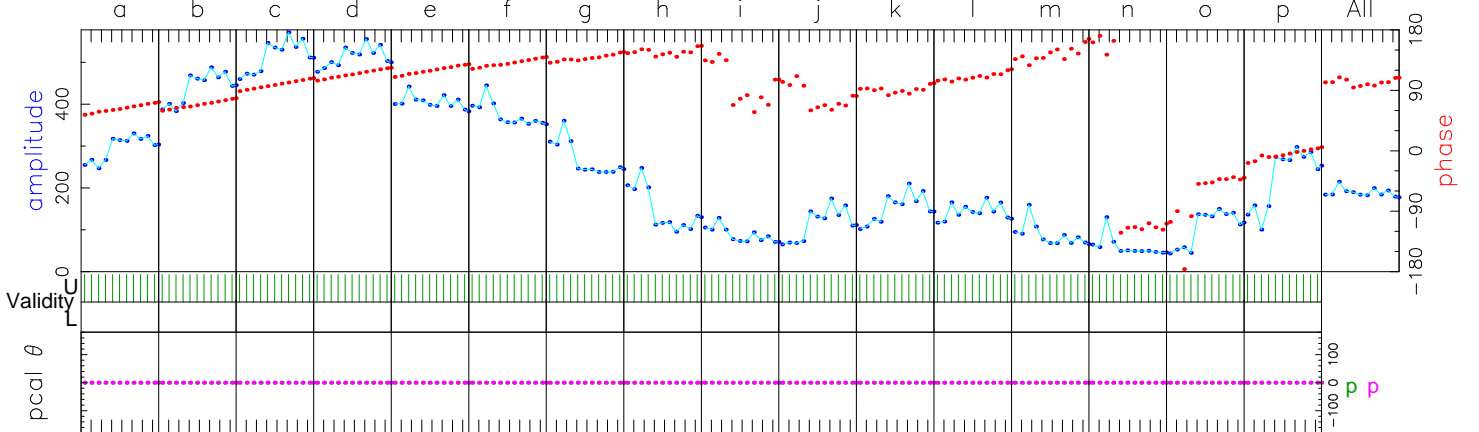


SNR 10791.1
 Int time 419.819
 Amp 192.591
 Phase 101.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.003289
 MBD -0.003004
 Fringe rate (Hz)
 -0.000135
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c192a
 Exper # 16383
 Yr:day 2019:277
 Start 000001.00
 Stop 000700.84
 FRT 000331.00
 Corr/FF/build
 2020:083:071541
 2020:093:053141
 2020:014:135814
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

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



	86012.00	86044.00	86076.00	86108.00	86140.00	86172.00	86204.00	86236.00	86268.00	86300.00	86332.00	86364.00	86396.00	86428.00	86460.00	86492.00	Freq (MHz)	All
	63.1	68.6	98.4	114.0	119.2	130.0	137.3	147.2	103.0	74.4	89.8	109.5	141.0	-157.2	-53.2	-4.5	Phase	101.8
	294.7	437.8	513.0	511.6	404.6	375.4	270.5	149.0	75.8	110.3	152.1	144.0	87.4	43.0	91.4	223.0	Ampl.	242.7
	128.9	128.8	128.8	128.7	128.7	128.8	128.7	128.6	127.9	128.9	128.8	128.7	129.5	129.8	129.3	129.6	Sbd box	128.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p: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	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	Tracks	

Group delay (usec)(sbd) -3.00443750000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -3.00444E-03 +/- 1.0E-07
 Sband delay (usec) -3.28900000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -3.28900E-03 +/- 1.6E-06
 Phase delay (usec) 3.28207751158E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 3.28208E-06 +/- 3.4E-10
 Delay rate (us/s) -1.57087224262E-09 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -1.57087E-09 +/- 1.4E-12
 Total phase (deg) 101.8 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 101.8 +/- 0.0

p: az 301.1 el 78.0 pa 111.1 p: az 301.1 el 78.0 pa 111.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v2/1234/No0023/pp..13088W Output file: /Exps/c192a/v2/1234/No0023/pp.W.177.13088W