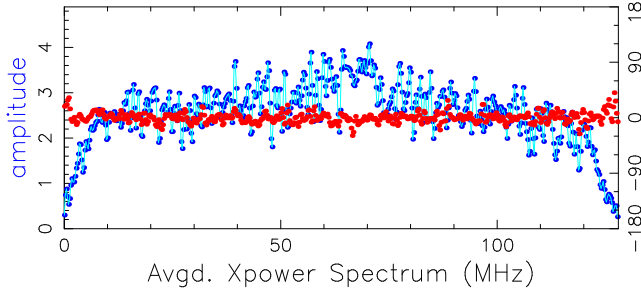
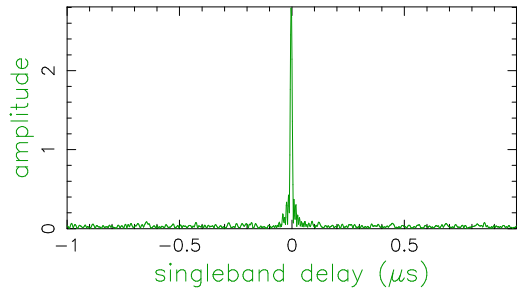
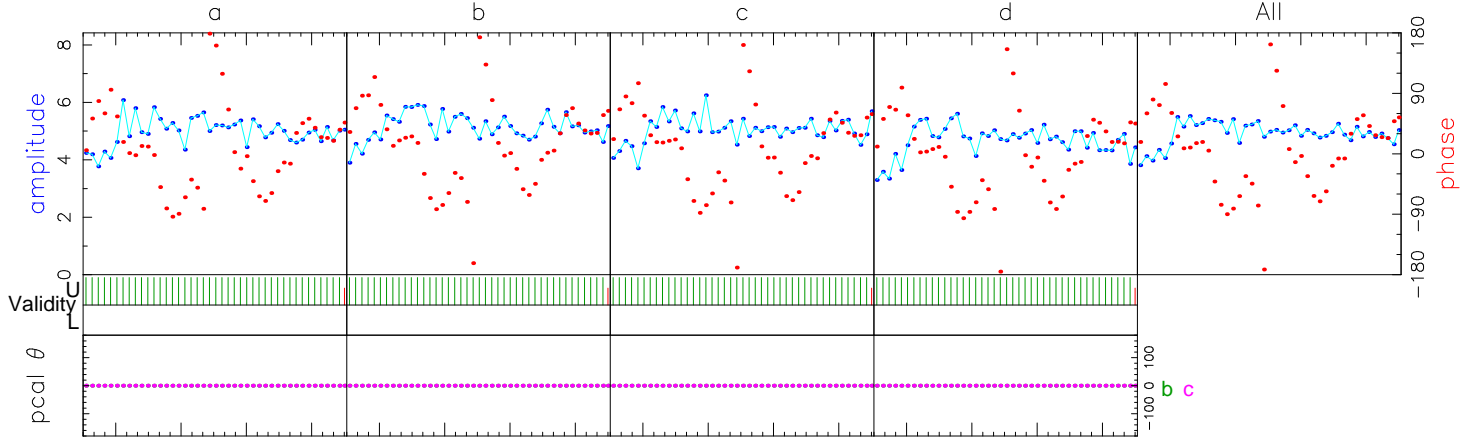


Fringe quality 5
SNR 118.9
Int time 239.976
Amp 2.807
Phase 4.6
PFD 0.0e+00
Delays (us)
SBD -0.003413
MBD -0.003640
Fringe rate (Hz)
-0.000651
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211438
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

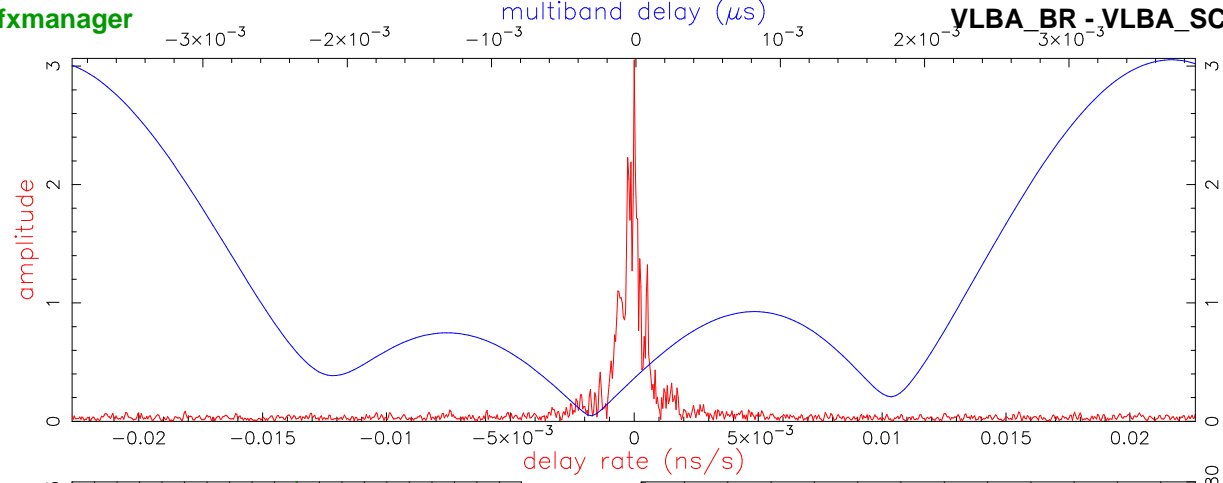


Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec

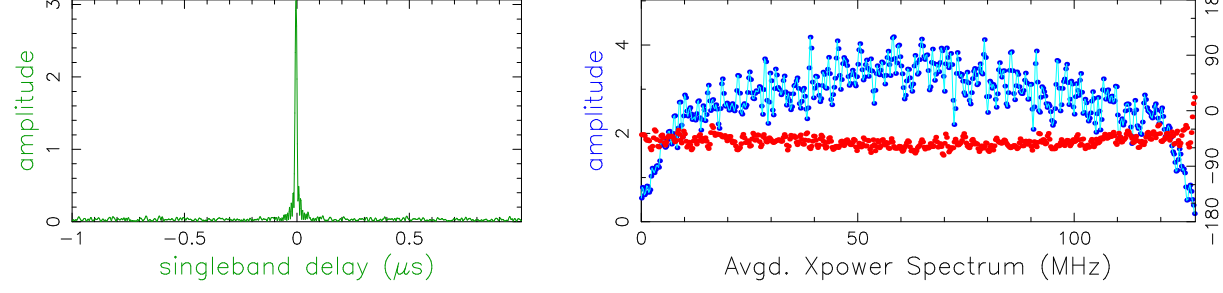


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	PC freqs	
b:c	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	Manl PC	
c	1000	1000	1000	1000	PC amp	
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
Group delay (usec)(sbd)	-6.49323606197E+03				Resid mbdelay (usec)	-3.64006E-03 +/- 9.4E-06
Sband delay (usec)	-6.49323583465E+03				Resid sbdelay (usec)	-3.41275E-03 +/- 3.6E-05
Phase delay (usec)	-6.49323242161E+03				Resid phdelay (usec)	2.97422E-07 +/- 6.2E-08
Delay rate (us/s)	1.04978683995E+00				Resid rate (us/s)	-1.51141E-08 +/- 4.5E-10
Total phase (deg)		-153.3			Resid phase (deg)	4.6 +/- 1.0
	RMS	Theor.	Amplitude	2.807 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	63.2	3.2	Search (1024X16)	2.603	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	76.6	5.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	10.1	1.0	Inc. seg. avg.	4.911	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.2	1.7	Inc. frq. avg.	2.813	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

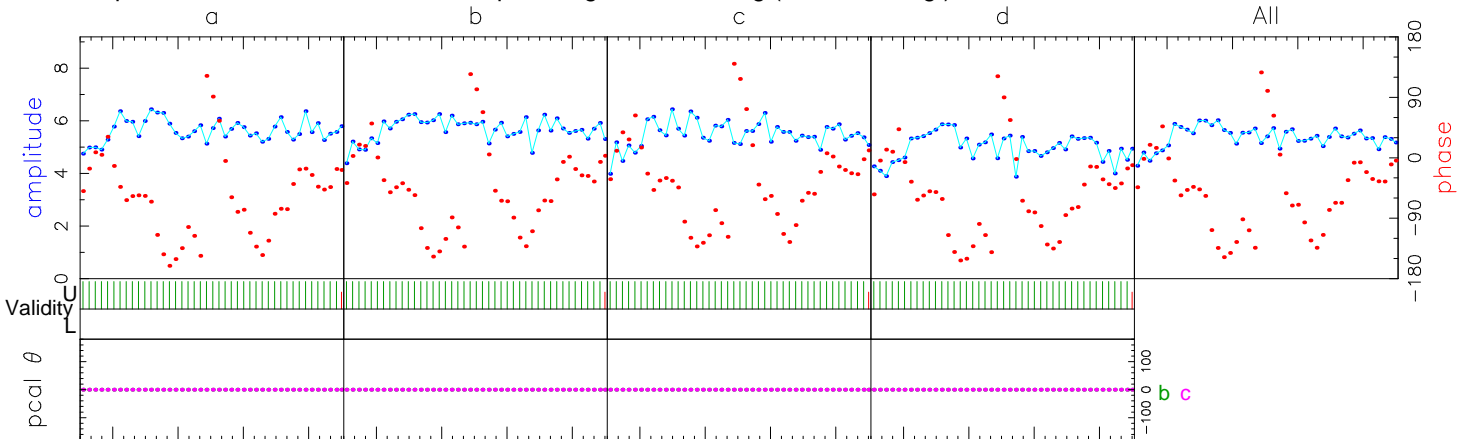
b: az 125.7 el 40.0 pa -33.5 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -3032.087 2236.670 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/bc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/bc.Q.25.1J2DGP



Fringe quality 4
SNR 129.9
Int time 239.975
Amp 3.065
Phase -55.7
PFD 0.0e+00
Delays (us)
SBD -0.004338
MBD -0.004130
Fringe rate (Hz)
-0.000683
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211436
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"



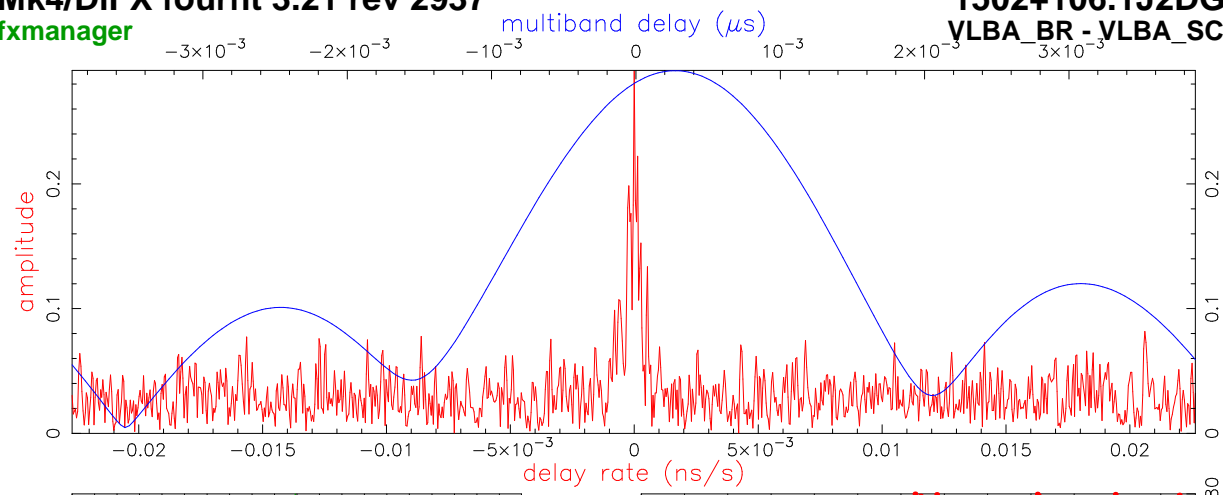
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



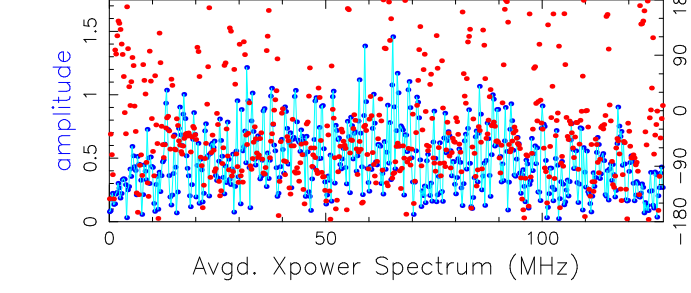
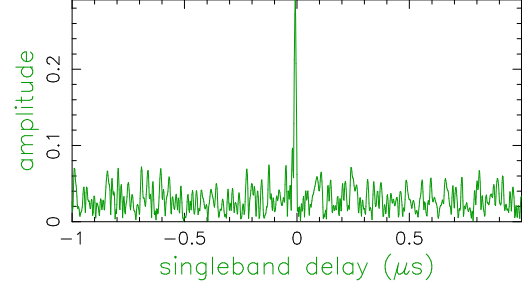
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	PC freqs	
b:c	0:0	0:0	0:0	0:0	PC phase	
b:c	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

Group delay (usec)(sbd)	-6.49323655215E+03	Apriori delay (usec)	-6.49323242190E+03	Resid mbdelay (usec)	-4.13025E-03	+/-	8.6E-06
Sband delay (usec)	-6.49323675965E+03	Apriori clock (usec)	-1.0228515E+01	Resid sbdelay (usec)	-4.33775E-03	+/-	3.3E-05
Phase delay (usec)	-6.49323242550E+03	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-3.59536E-06	+/-	5.7E-08
Delay rate (us/s)	1.04978683920E+00	Apriori rate (us/s)	1.04978685507E+00	Resid rate (us/s)	-1.58686E-08	+/-	4.1E-10
Total phase (deg)		Apriori accel (us/s/s)	4.34350303278E-05	Resid phase (deg)	-55.7	+/-	0.9

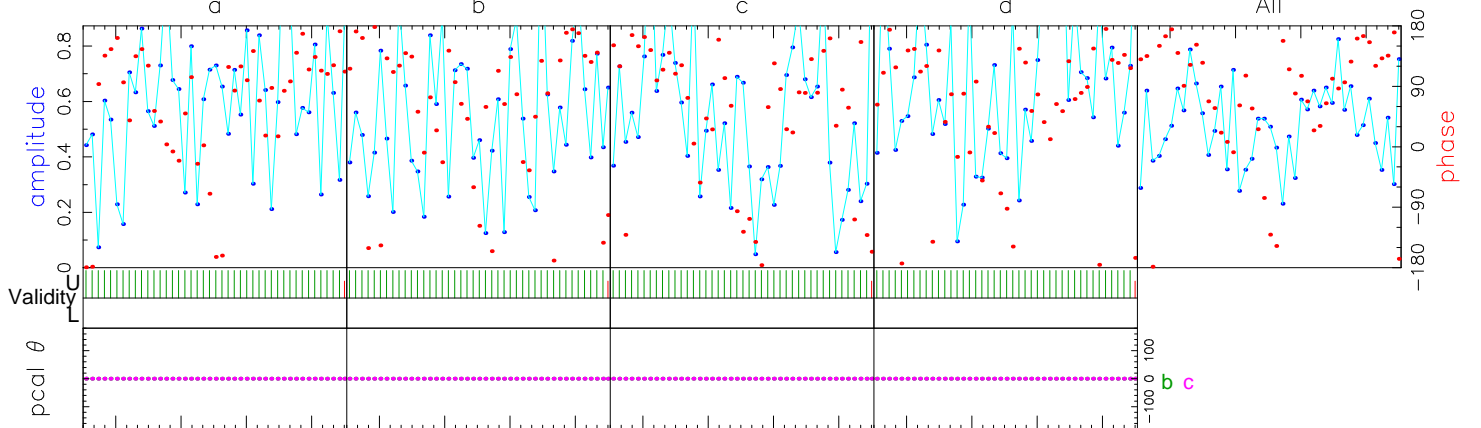
ph/seg (deg)	63.1	2.9	Amplitude	3.065 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	76.7	5.0	Search (1024X16)	2.857	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	11.8	0.9	Inc. seg. avg.	5.379	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	5.1	1.5	Inc. frq. avg.	3.086	Sample rate(MISamp/s): 256	nlags: 512	t_cohere infinite	dr window (ns/s)	-0.023 0.023
					Data rate(Mb/s): 2048	ion window (TEC)	0.00	0.00	



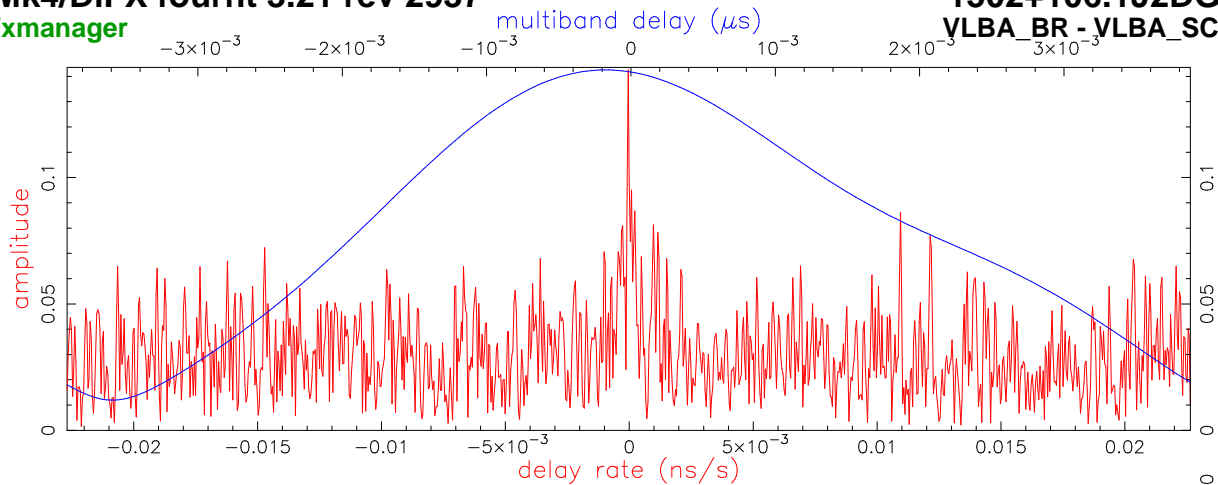
Fringe quality 9
SNR 12.3
Int time 239.976
Amp 0.291
Phase 111.1
PFD 1.7e-26
Delays (us)
SBD -0.007951
MBD 0.000266
Fringe rate (Hz)
-0.000810
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211441
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec

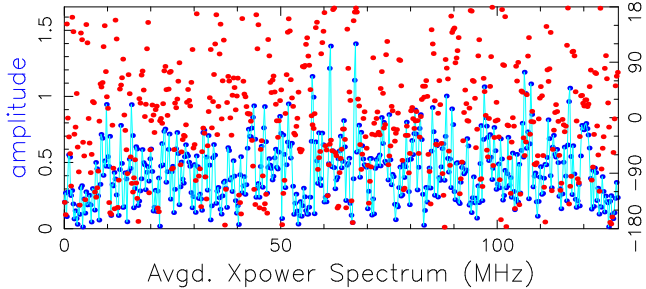
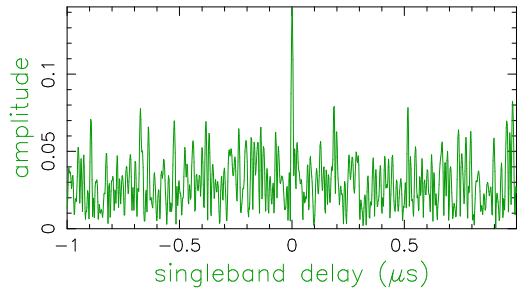


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000		
c	1000	1000	1000	1000		
b:c	0:0	0:0	0:0	0:0		
b:c	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
c	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UR	Q01UR	Q02UR	Q03UR		
Group delay (usec)(sbd)	-6.49323996862E+03		-6.49323242190E+03		2.65781E-04	+/- 9.0E-05
Sband delay (usec)	-6.49324037278E+03		-1.0228515E+01		-7.95087E-03	+/- 3.5E-04
Phase delay (usec)	-6.49323241473E+03		-5.0000000E-07		7.16951E-06	+/- 6.0E-07
Delay rate (us/s)	1.04978683624E+00		1.04978685507E+00		-1.88296E-08	+/- 4.3E-09
Total phase (deg)		-46.8			111.1	+/- 9.3
	RMS	Theor.	Amplitude	0.291 +/- 0.024	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	61.4	30.5	Search (1024X16)	0.265	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	91.3	53.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	16.1	9.3	Inc. seg. avg.	0.453	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	12.4	16.2	Inc. frq. avg.	0.293	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
b: az 125.7 el 40.0 pa -33.5	c: az 246.7 el 72.9 pa 62.7		u,v (fr/asec) -3032.087 2236.670		simultaneous interpolator	
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/bc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/bc.Q.50.1J2DGP						



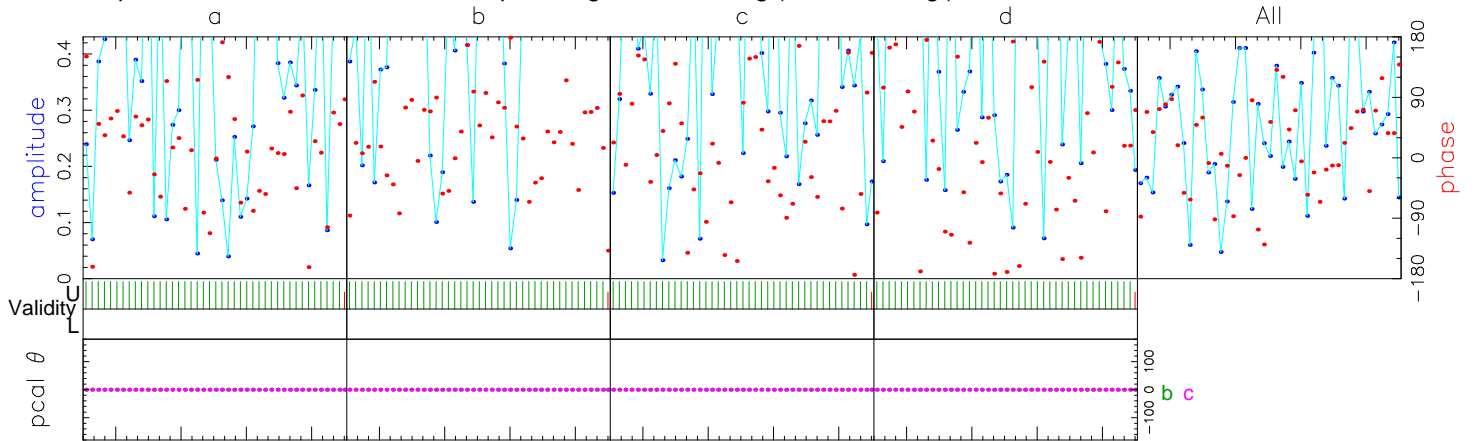
Fringe quality 0

SNR 6.1
Int time 239.975
Amp 0.144
Phase 19.3
PFD 1.4e-01
Delays (us)
SBD 0.000560
MBD -0.000174
Fringe rate (Hz)
-0.001471
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211443
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec

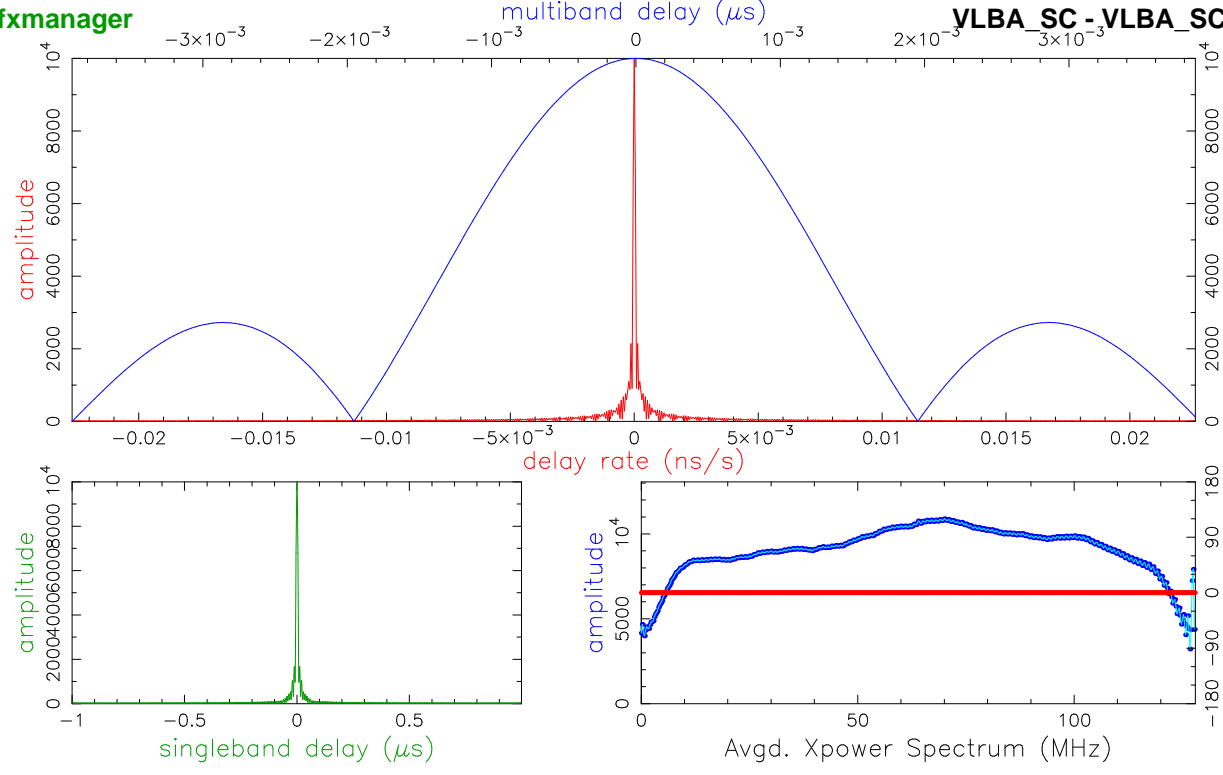


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	PC freqs	
b:c	0:0	0:0	0:0	0:0	PC phase	
b:c	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

Group delay (usec)(sbd)	-6.49323259571E+03	Apriori delay (usec)	-6.49323242190E+03	Resid mbdelay (usec)	-1.73807E-04	+/- 1.8E-04
Sband delay (usec)	-6.49323186203E+03	Apriori clock (usec)	-1.0228515E+01	Resid sbdelay (usec)	5.59875E-04	+/- 7.1E-04
Phase delay (usec)	-6.49323242065E+03	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	1.24795E-06	+/- 1.2E-06
Delay rate (us/s)	1.04978682090E+00	Apriori rate (us/s)	1.04978685507E+00	Resid rate (us/s)	-3.41706E-08	+/- 8.8E-09
Total phase (deg)	-138.6	Apriori accel (us/s/s)	4.34350303278E-05	Resid phase (deg)	19.3	+/- 18.8

ph/seg (deg)	66.3	Theor.	61.8	Amplitude	0.144 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	137.5	Search (1024X16)	0.140	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	17.9	Inc. seg. avg.	0.181	Inc. frq. avg.	0.137	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	74.8	Inc. frq. avg.	0.137			Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

b: az 125.7 el 40.0 pa -33.5 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -3032.087 2236.670 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/bc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/bc.Q.67.1J2DGP

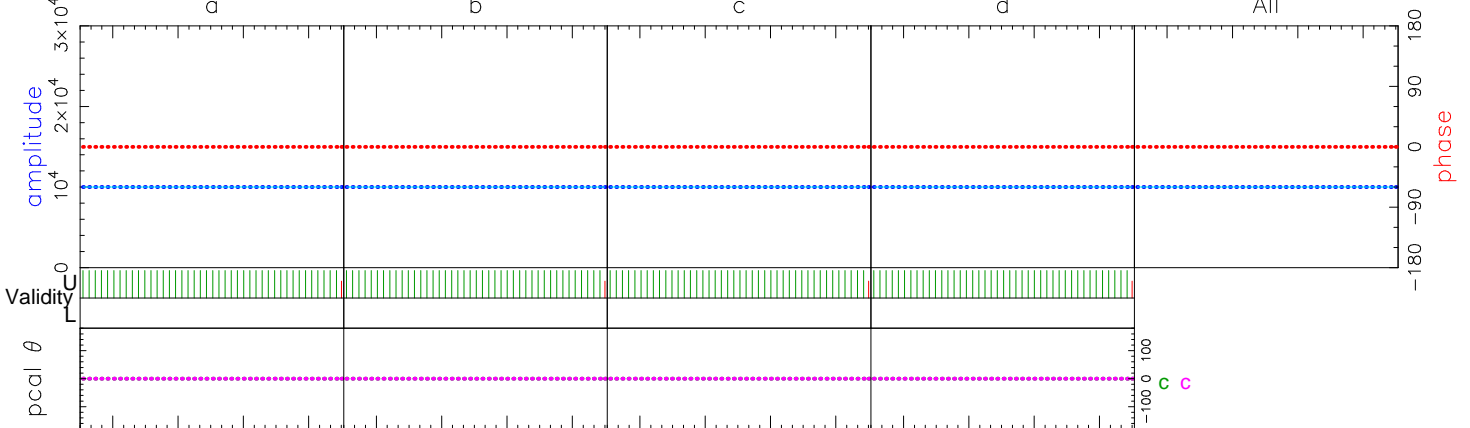


Fringe quality 9

SNR 423624.4
Int time 239.975
Amp 10000.000
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211437
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

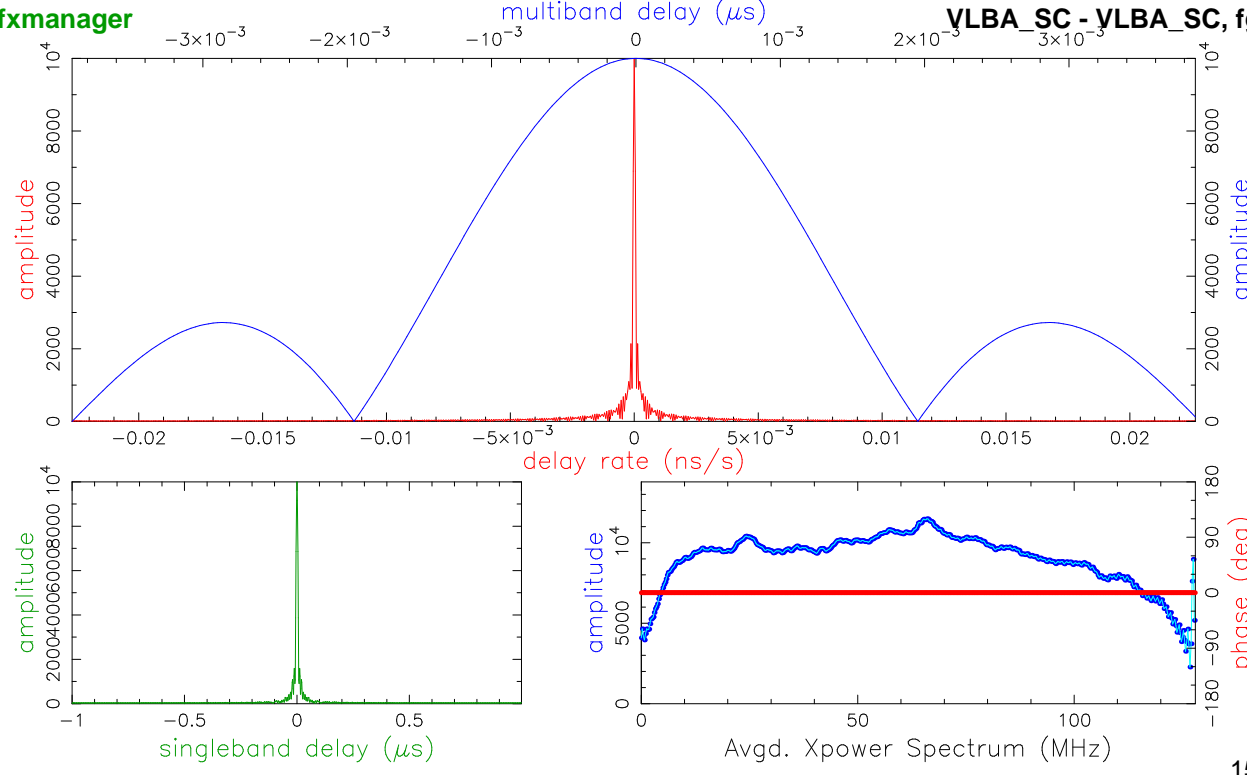
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
c	1000	1000	1000	1000		
c:c	0:0	0:0	0:0	0:0		
c:c	0:0	0:0	0:0	0:0		
c	1000	1000	1000	1000		
c	1000	1000	1000	1000		
c	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UL	Q01UL	Q02UL	Q03UL		

Group delay (usec)(sbd)	0.00000000000E+00	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	2.6E-09
Sband delay (usec)	0.00000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.0E-08
Phase delay (usec)	0.00000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	1.7E-11
Delay rate (us/s)	0.00000000000E+00	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	1.3E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	0.0	Amplitude	10000.000 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	0.0	0.0	Search (1024X16)	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)	-0.004 0.004
amp/frq (%)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 256		dr window (ns/s)	-0.023 0.023
			Inc. frq. avg.	10000.000	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00 0.00

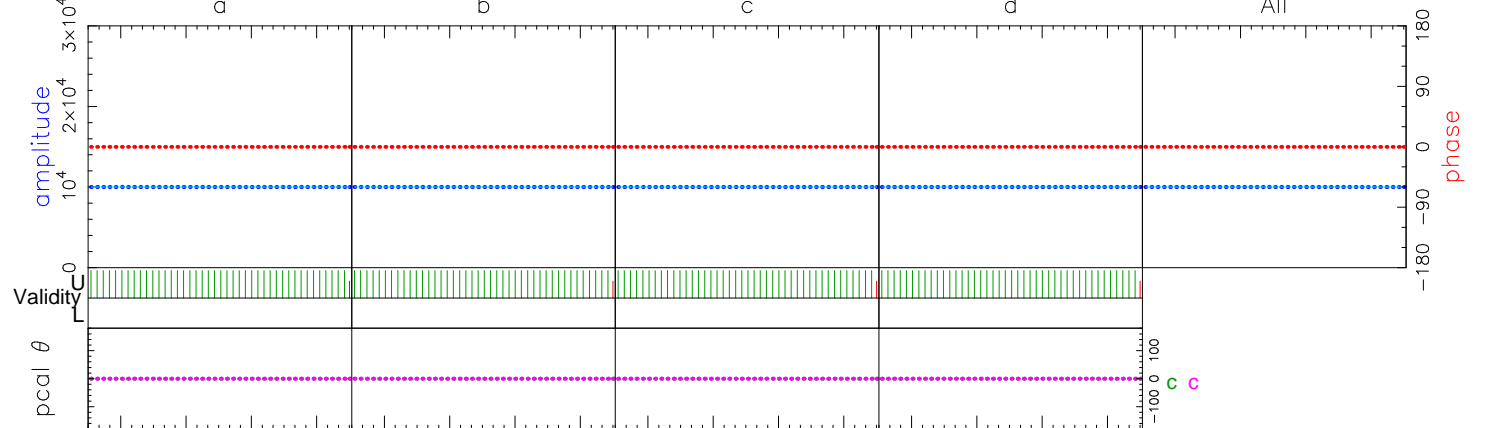


Fringe quality 9

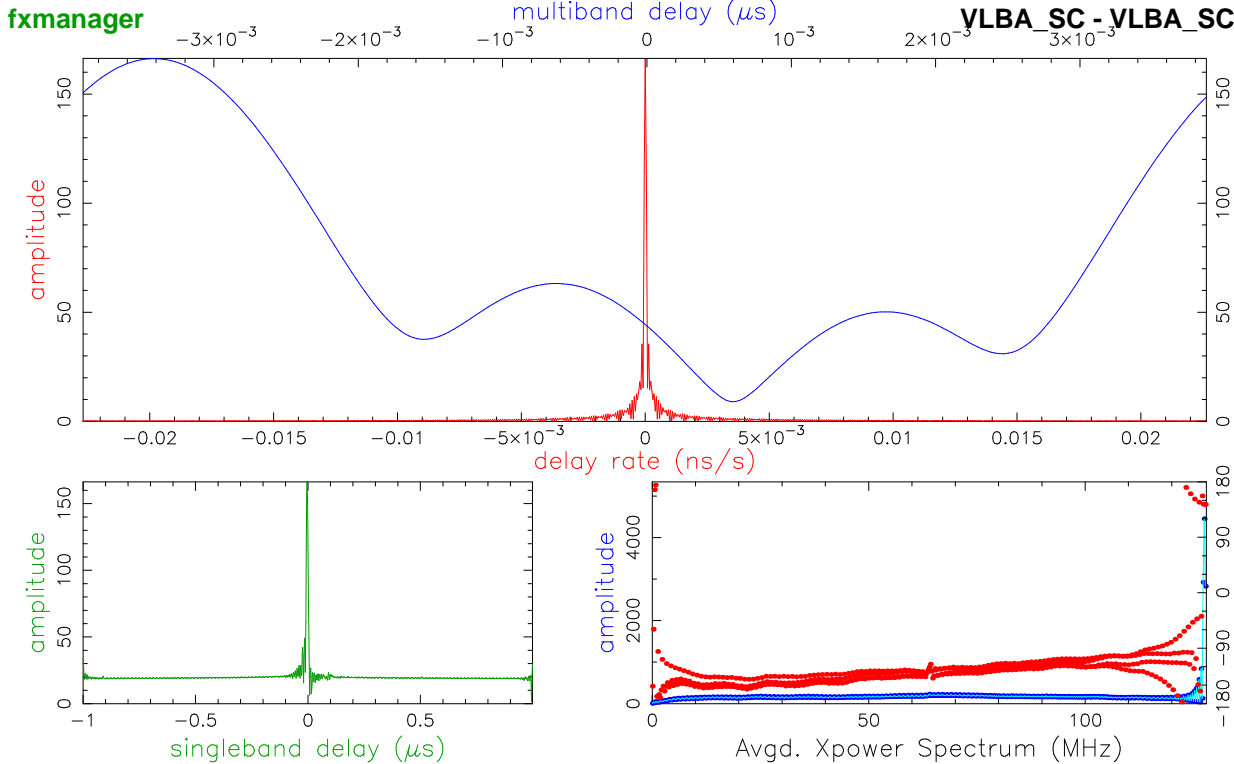
SNR 423624.8
Int time 239.976
Amp 10000.000
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512

Exp. c202b
Yr:day 16383
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211439
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0	APs used	10000.0
c	1000	1000	1000	1000	PC freqs	513.0
c:c	0:0	0:0	0:0	0:0	PC phase	
c:c	0:0	0:0	0:0	0:0	ManI PC	
c	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
c	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
c	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00 +/- 2.6E-09
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid sbdelay (usec)	0.000000E+00 +/- 1.0E-08
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid phdelay (usec)	0.000000E+00 +/- 1.7E-11
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid rate (us/s)	0.000000E+00 +/- 1.3E-13
Total phase (deg)		0.0			Resid phase (deg)	0.0 +/- 0.0
	RMS	Theor.	Amplitude	10000.000 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.0	0.0	Search (1024X16)	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) -0.004 0.004
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.000	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
c: az 246.7 el 72.9 pa 62.7		c: az 246.7 el 72.9 pa 62.7		u,v (fr/asec) 0.000 0.000		simultaneous interpolator
Control file: cf_1234_gmva7mm		Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/cc..1J2DGP		Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/cc.Q.37.1J2DGP		

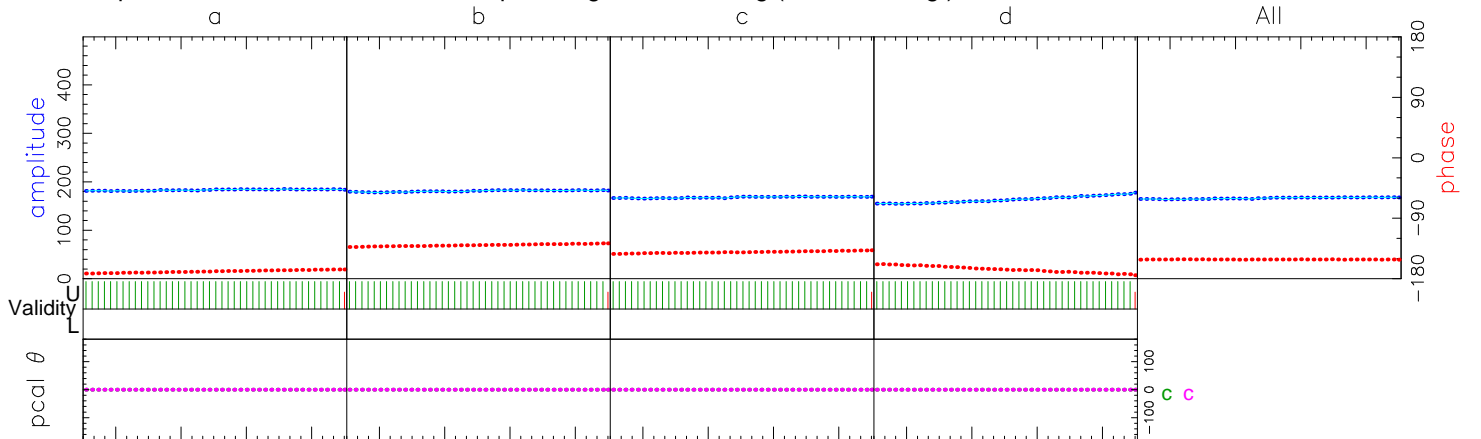


Fringe quality 7

SNR 7046.8
Int time 239.975
Amp 166.346
Phase -151.3
PFD 0.0e+00
Delays (us)
SBD -0.004088
MBD -0.003422
Fringe rate (Hz)
-0.000067
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211441
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

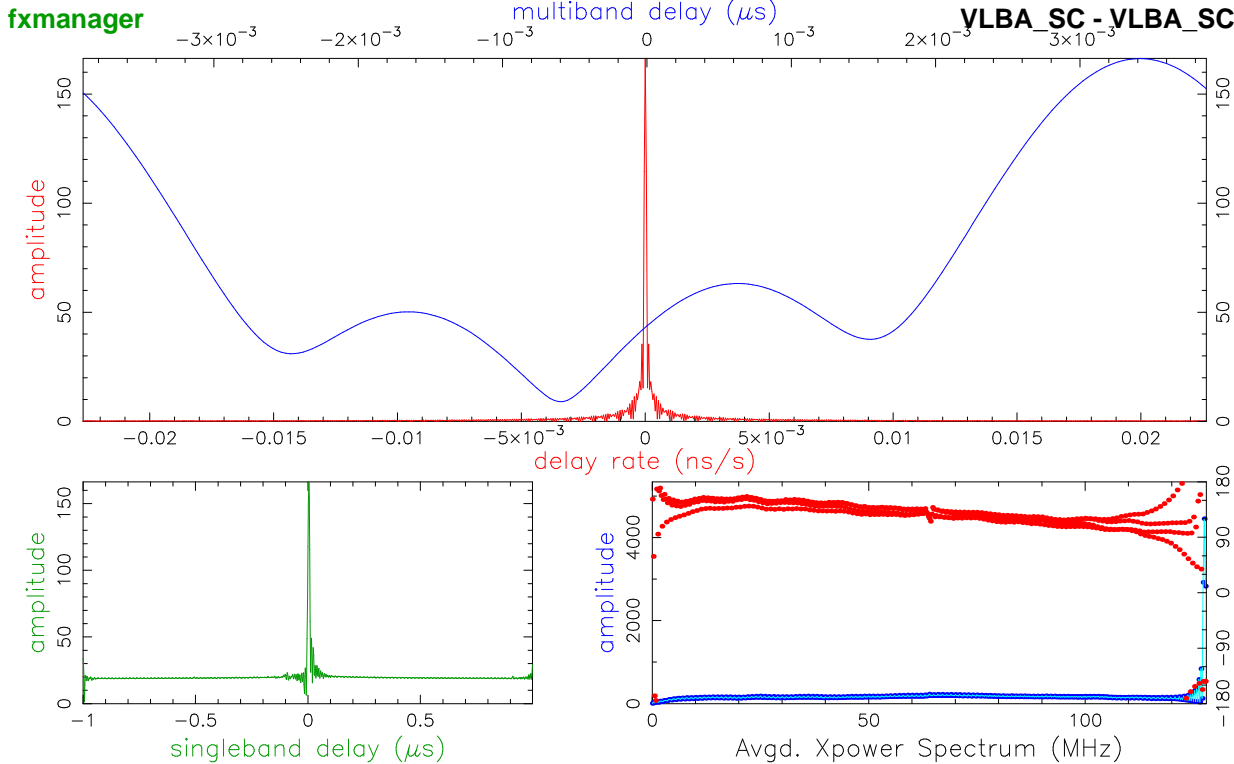
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
c	1000	1000	1000	1000		
c:c	0:0	0:0	0:0	0:0		
c:c	0:0	0:0	0:0	0:0		
c	1000	1000	1000	1000		
c	1000	1000	1000	1000		
c	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-3.42159375000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-3.42159E-03	+/-	1.6E-07
Sband delay (usec)	-4.08775000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-4.08775E-03	+/-	6.1E-07
Phase delay (usec)	-9.76334569316E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-9.76335E-06	+/-	1.0E-09
Delay rate (us/s)	-1.55424089388E-09	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.55424E-09	+/-	7.6E-12
Total phase (deg)	-151.3	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-151.3	+/-	0.0

ph/seg (deg)	0.1	Theor.	0.1	Amplitude	166.346 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	0.9		0.1	Search (1024X16)	166.154	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	23.6		0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	6.8		0.0	Inc. seg. avg.	166.224	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
				Inc. frq. avg.	173.619	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
						nlags: 512	t_cohere infinite

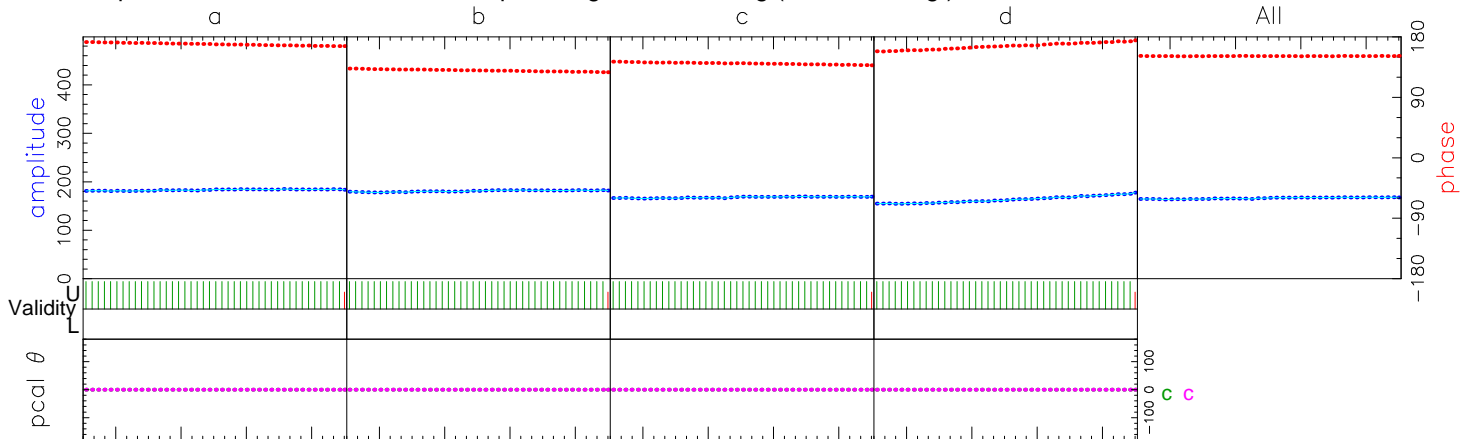


Fringe quality 7

SNR 7046.8
Int time 239.976
Amp 166.345
Phase 151.3
PFD 0.0e+00
Delays (us)
SBD 0.004088
MBD 0.003422
Fringe rate (Hz) 0.000067
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211443
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

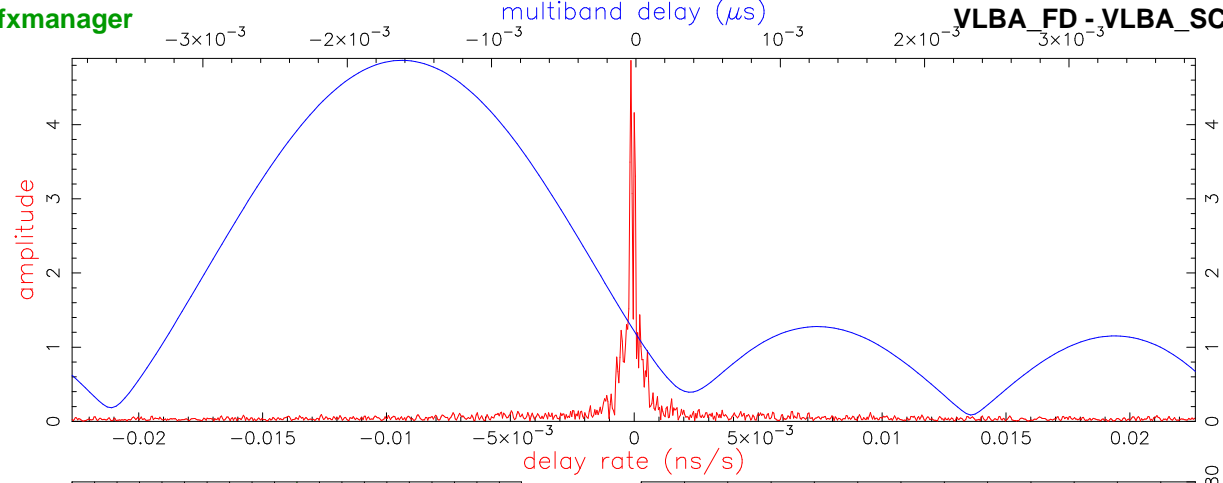
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



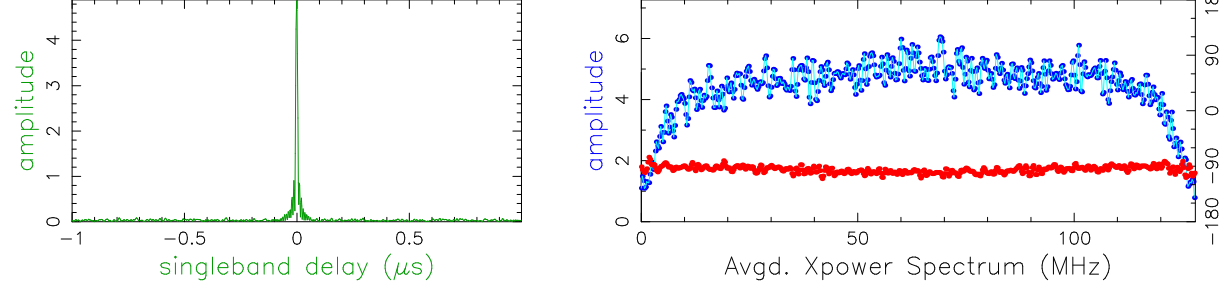
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
c	1000	1000	1000	1000	APs used	
c:c	0:0	0:0	0:0	0:0	PC freqs	
c:c	0:0	0:0	0:0	0:0	PC phase	
c	1000	1000	1000	1000	Manl PC	
c	1000	1000	1000	1000	PC amp	
c	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
Group delay (usec)(sbd)	3.42159375000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	3.42159E-03	+/- 1.6E-07
Sband delay (usec)	4.08775000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	4.08775E-03	+/- 6.1E-07
Phase delay (usec)	9.76334569305E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	9.76335E-06	+/- 1.0E-09
Delay rate (us/s)	1.55424089388E-09	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.55424E-09	+/- 7.6E-12
Total phase (deg)		151.3	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	151.3 +/- 0.0

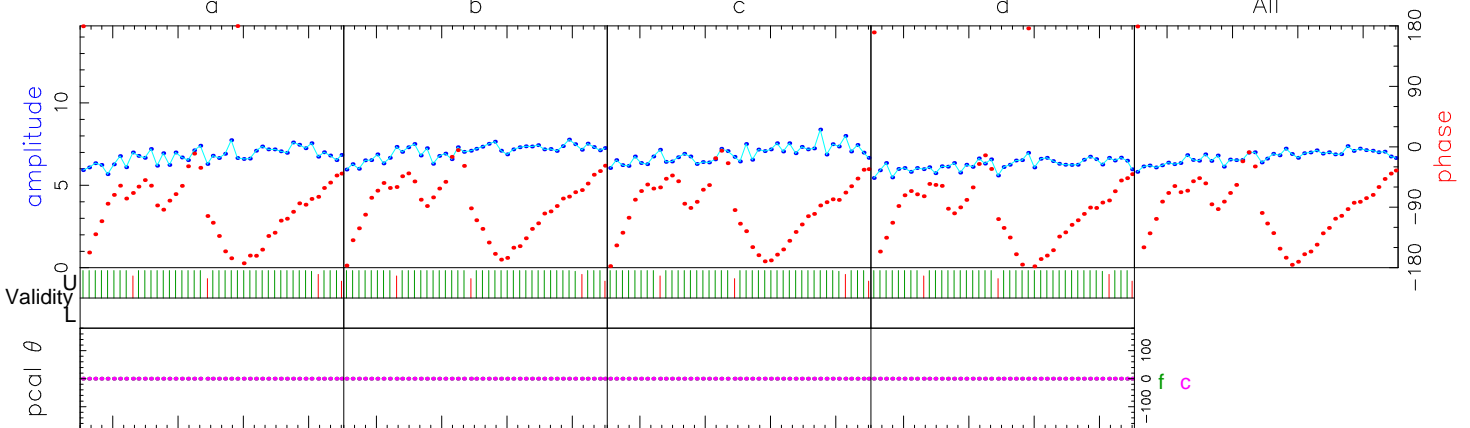
	RMS	Theor.	Amplitude	166.345 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.1	0.1	Search (1024X16)	166.154	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	0.9	0.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	23.6	0.0	Inc. seg. avg.	166.224	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	6.8	0.0	Inc. frq. avg.	173.619	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00



Fringe quality 6
SNR 205.6
Int time 236.227
Amp 4.893
Phase -92.6
PFD 0.0e+00
Delays (us)
SBD -0.001455
MBD -0.001590
Fringe rate (Hz)
-0.005753
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211437
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-95.7	-86.2	-90.3	-99.4	Phase	-92.6
	4.9	5.2	5.0	4.4	Ampl.	4.9
	512.4	512.3	512.2	512.1	Sbd box	512.3
U/L	465/0	465/0	465/0	465/0	APs used	
f	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
f:c	0:0	0:0	0:0	0:0	PC phase	
f:c	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.71314922709E+03	Apriori delay (usec)	-1.71314763667E+03	Resid mbdelay (usec)	-1.59042E-03	+/-	5.4E-06
Sband delay (usec)	-1.71314909154E+03	Apriori clock (usec)	-6.3570309E-01	Resid sbdelay (usec)	-1.45487E-03	+/-	2.1E-05
Phase delay (usec)	-1.71314764265E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	-5.97906E-06	+/-	3.6E-08
Delay rate (us/s)	9.23587404036E-01	Apriori rate (us/s)	9.23587537700E-01	Resid rate (us/s)	-1.33665E-07	+/-	2.6E-10
Total phase (deg)	-194.2	Apriori accel (us/s/s)	1.32735896240E-05	Resid phase (deg)	-92.6	+/-	0.6

ph/seg (deg)	45.0	1.8	Search (1024X16)	4.815	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	38.1	3.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	7.1	0.6	Inc. seg. avg.	6.719	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
amp/frq (%)	5.6	1.0	Inc. frq. avg.	4.884	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023	0.023	
					Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 127.9 el 60.3 pa -43.4 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -2679.848 994.439 simultaneous interpolator

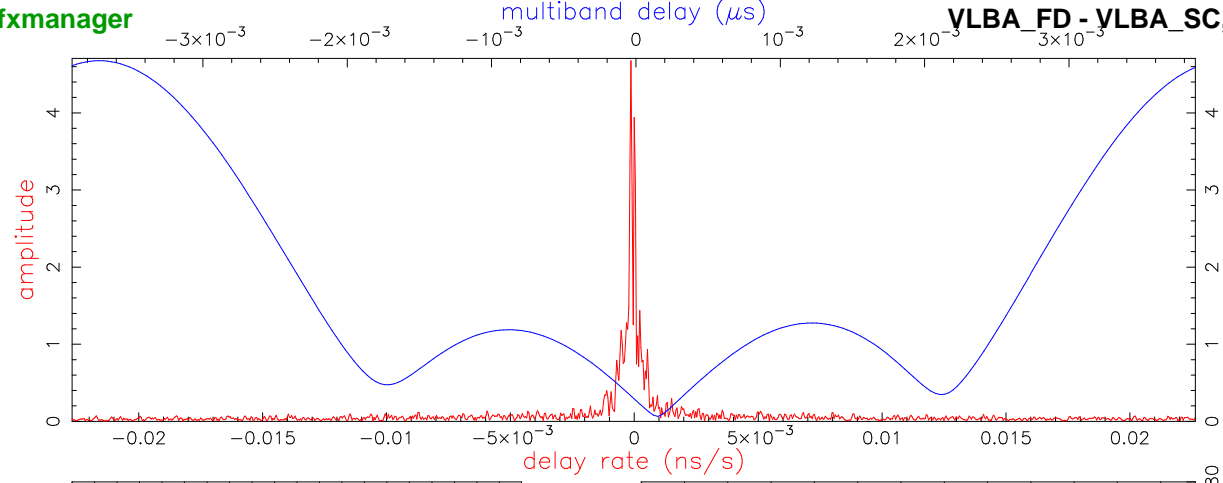
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/fc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/fc.Q.14.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, fc

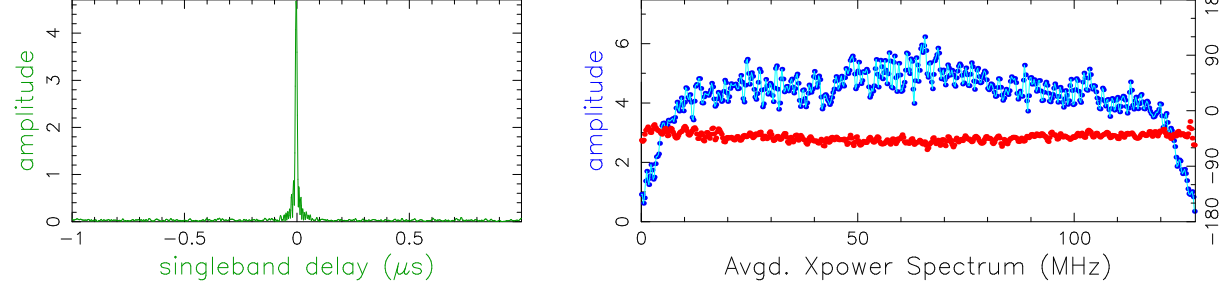
VLBA_FD - VLBA_SC, fgroup Q, pol RR



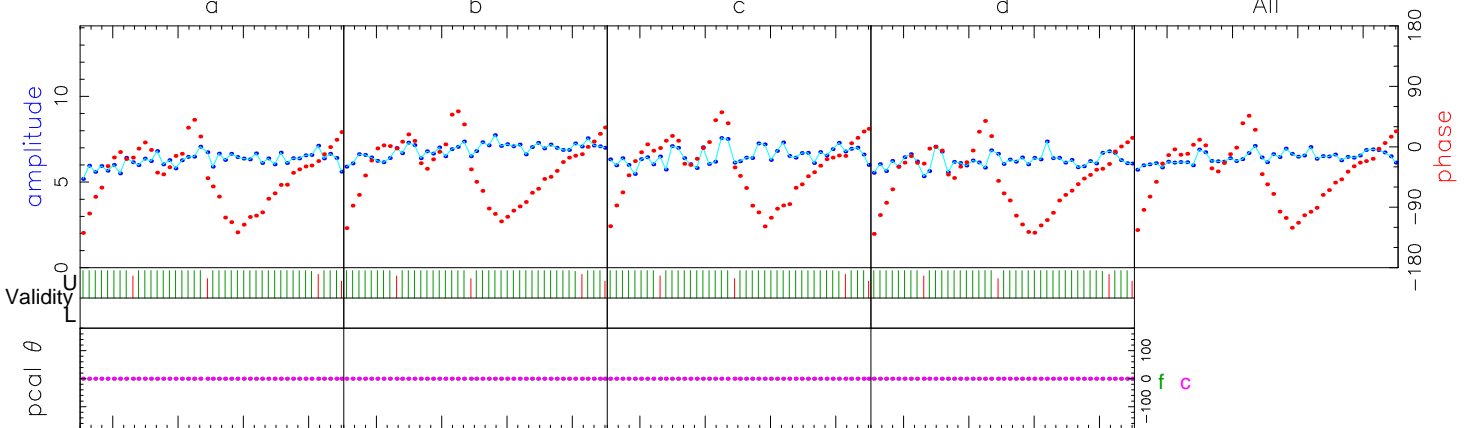
Fringe quality 6

SNR 197.8
 Int time 236.227
 Amp 4.707
 Phase -36.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.003369
 MBD -0.003698
 Fringe rate (Hz)
 -0.005736
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

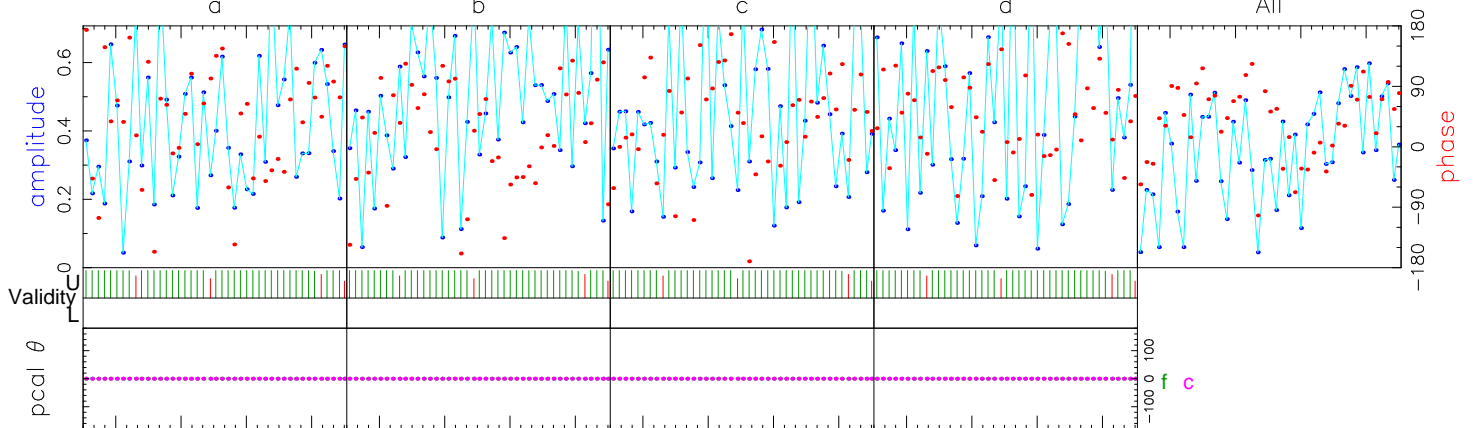
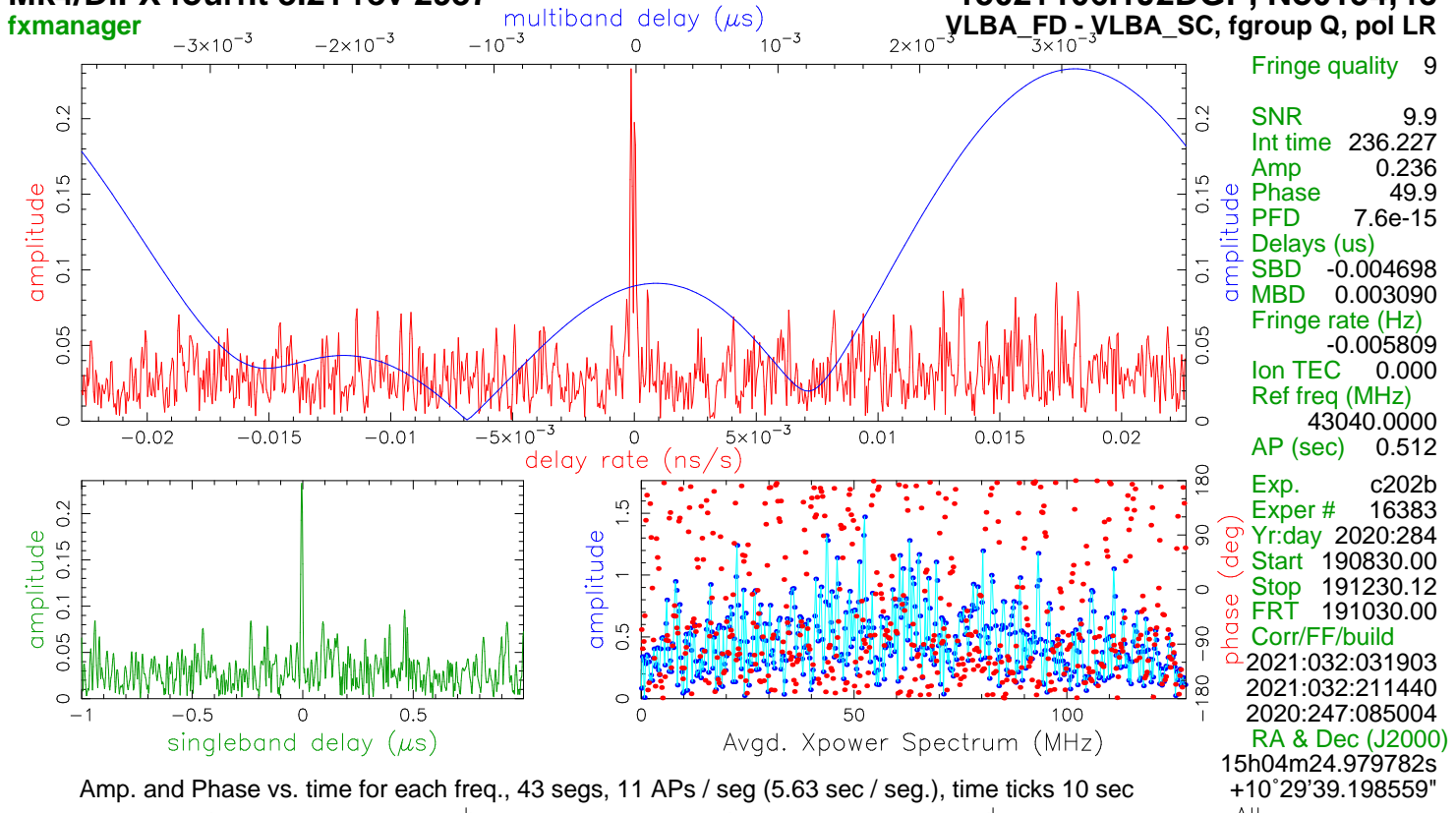
Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211439
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	465/0	465/0	465/0	465/0		
f	1000	1000	1000	1000	Phase	-36.5
c	1000	1000	1000	1000	Ampl.	4.7
f:c	0:0	0:0	0:0	0:0	Sbd box	511.3
f:c	0:0	0:0	0:0	0:0	APs used	
f	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
f	Q00UR	Q01UR	Q02UR	Q03UR	PC phase	
c	Q00UR	Q01UR	Q02UR	Q03UR	ManI PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-1.71315133423E+03		-1.71314763667E+03		Resid mbdelay (usec)	-3.69756E-03 +/- 5.6E-06
Sband delay (usec)	-1.71315100554E+03		-6.3570309E-01		Resid sbdelay (usec)	-3.36888E-03 +/- 2.2E-05
Phase delay (usec)	-1.71314763902E+03		-1.0000003E-07		Resid phdelay (usec)	-2.35443E-06 +/- 3.7E-08
Delay rate (us/s)	9.23587404418E-01		9.23587537700E-01		Resid rate (us/s)	-1.33282E-07 +/- 2.7E-10
Total phase (deg)	-138.1		1.32735896240E-05		Resid phase (deg)	-36.5 +/- 0.6
					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	44.5	1.9	Search (1024X16)	4.589	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	37.3	3.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	10.2	0.6	Inc. seg. avg.	6.428	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.8	1.0	Inc. frq. avg.	4.713	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
f: az 127.9 el 60.3 pa -43.4	c: az 246.7 el 72.9 pa 62.7	u,v (fr/asec) -2679.848 994.439				simultaneous interpolator



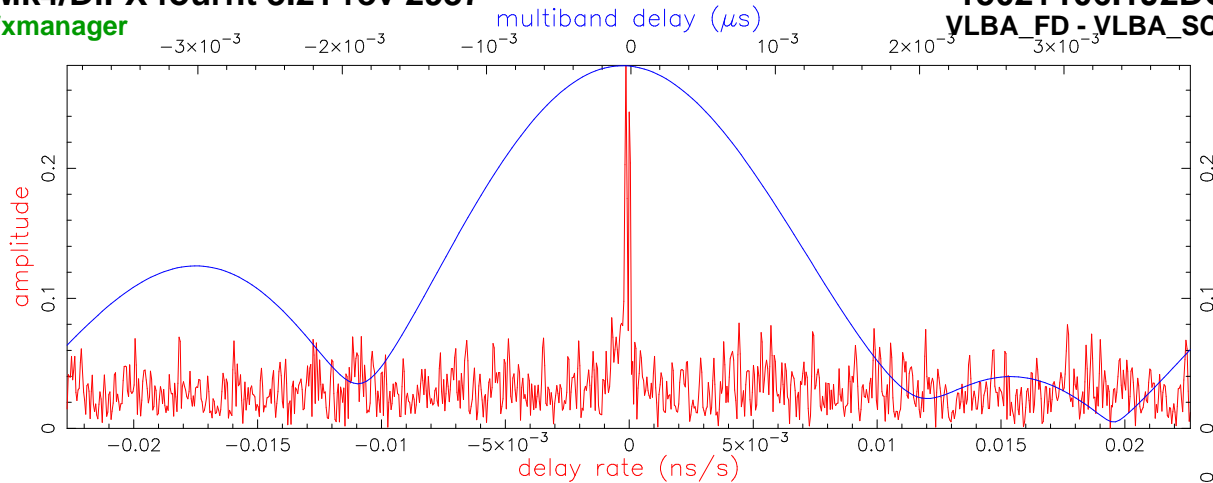
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	465/0	465/0	465/0	465/0	APs used	510.6
f	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
f:c	0:0	0:0	0:0	0:0	PC phase	
f:c	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-1.71315235959E+03		Apriori delay (usec)	-1.71314763667E+03	Resid mbdelay (usec)	3.08958E-03 +/- 1.1E-04
Sband delay (usec)	-1.71315233429E+03		Apriori clock (usec)	-6.3570309E-01	Resid sbdelay (usec)	-4.69763E-03 +/- 4.3E-04
Phase delay (usec)	-1.71314763345E+03		Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	3.22127E-06 +/- 7.5E-07
Delay rate (us/s)	9.23587402731E-01		Apriori rate (us/s)	9.23587537700E-01	Resid rate (us/s)	-1.34969E-07 +/- 5.4E-09
Total phase (deg)		-51.7	Apriori accel (us/s/s)	1.32735896240E-05	Resid phase (deg)	49.9 +/- 11.6
RMS	55.7	37.7	Amplitude	0.236 +/- 0.024	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	79.9	65.9	Search (1024X16)	0.229	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	15.5	11.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	15.5	11.6	Inc. seg. avg.	0.280	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	15.9	20.2	Inc. frq. avg.	0.232	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
f: az 127.9 el 60.3 pa -43.4	c: az 246.7 el 72.9 pa 62.7	u, v (fr/asec) -2679.848 994.439				simultaneous interpolator
Control file: cf_1234_gmva7mm	Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/fc..1J2DGP	Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/fc.Q.44.1J2DGP				

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

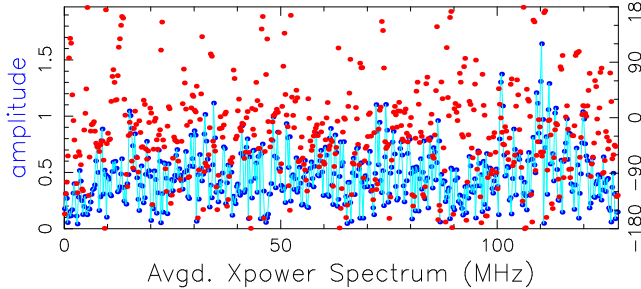
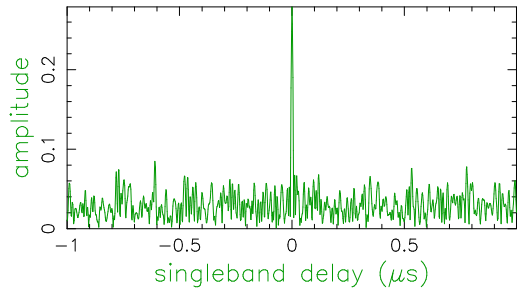
1502+106.1J2DGP, No0154, fc

VLBA_FD - VLBA_SC, fgroup Q, pol RL



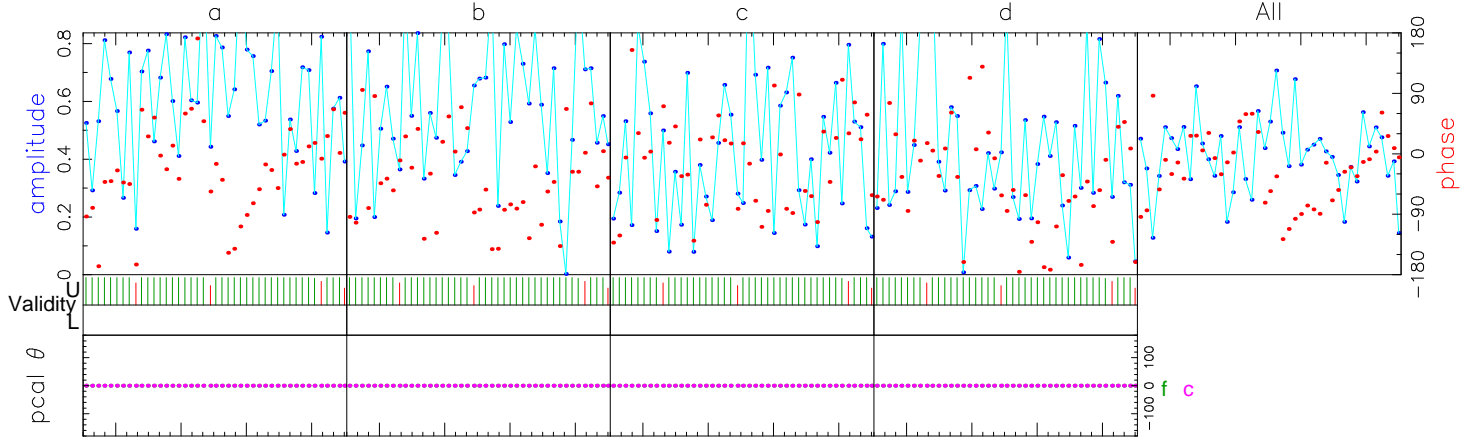
Fringe quality 9

SNR 11.7
 Int time 236.227
 Amp 0.279
 Phase -25.8
 PFD 2.2e-23
 Delays (us)
 SBD 0.000183
 MBD -0.000047
 Fringe rate (Hz)
 -0.006065
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211442
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-19.4	-42.1	-7.6	-32.3	Phase	-25.8
0.3	0.3	0.3	0.2	Ampl.	0.3
513.3	512.5	513.6	513.0	Sbd box	513.1
U/L 465/0	465/0	465/0	465/0	APs used	
f 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
f:c 0:0	0:0	0:0	0:0	PC phase	
f:c 0:0	0:0	0:0	0:0	Manl PC	
f 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
f Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	-1.71314768356E+03	Apriori delay (usec)	-1.71314763667E+03	Resid mbdelay (usec)	-4.68884E-05	+/-	9.5E-05
Sband delay (usec)	-1.71314745379E+03	Apriori clock (usec)	-6.3570309E-01	Resid sbdelay (usec)	1.82875E-04	+/-	3.7E-04
Phase delay (usec)	-1.71314763833E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	-1.66755E-06	+/-	6.3E-07
Delay rate (us/s)	9.23587396783E-01	Apriori rate (us/s)	9.23587537700E-01	Resid rate (us/s)	-1.40917E-07	+/-	4.6E-09
Total phase (deg)	-127.4	Apriori accel (us/s/s)	1.32735896240E-05	Resid phase (deg)	-25.8	+/-	9.8

	RMS	Theor.	Amplitude	0.279 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	51.4	31.9	Search (1024X16)	0.275	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
amp/seg (%)	67.3	55.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	18.4	9.8	Inc. seg. avg.	0.363	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
amp/frq (%)	15.2	17.0	Inc. frq. avg.	0.282	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

f: az 127.9 el 60.3 pa -43.4 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -2679.848 994.439 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/fc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/fc.Q.59.1J2DGP

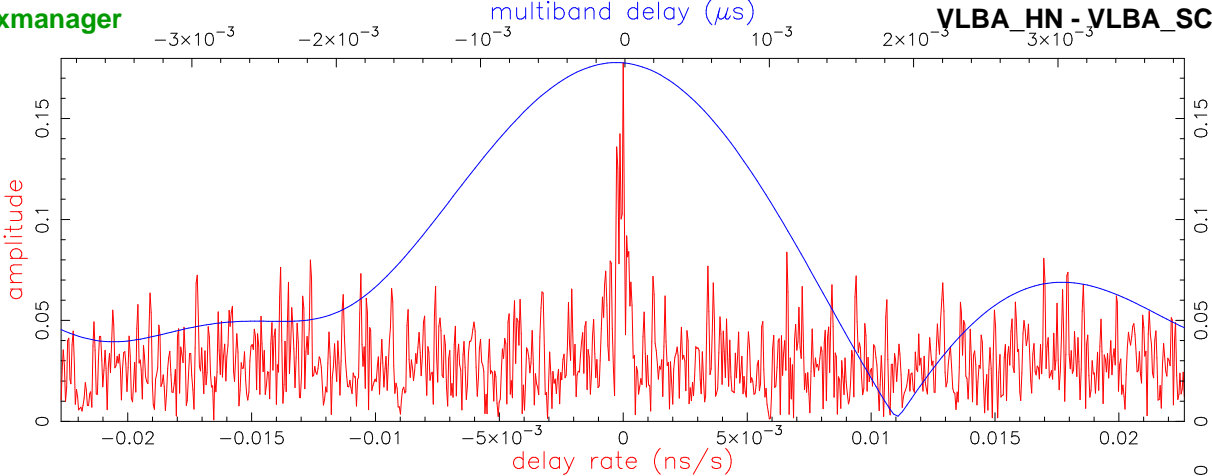
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

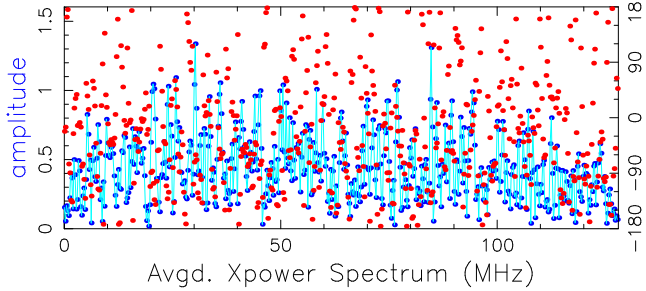
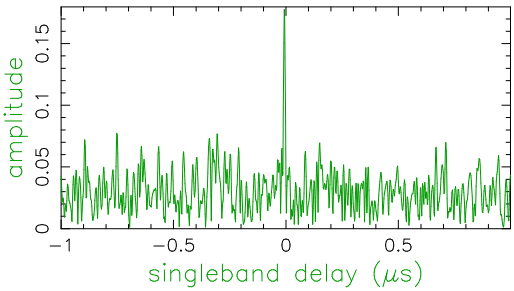
1502+106.1J2DGP, No0154, hc

VLBA_HN - VLBA_SC, fgroup Q, pol LR

Fringe quality 9

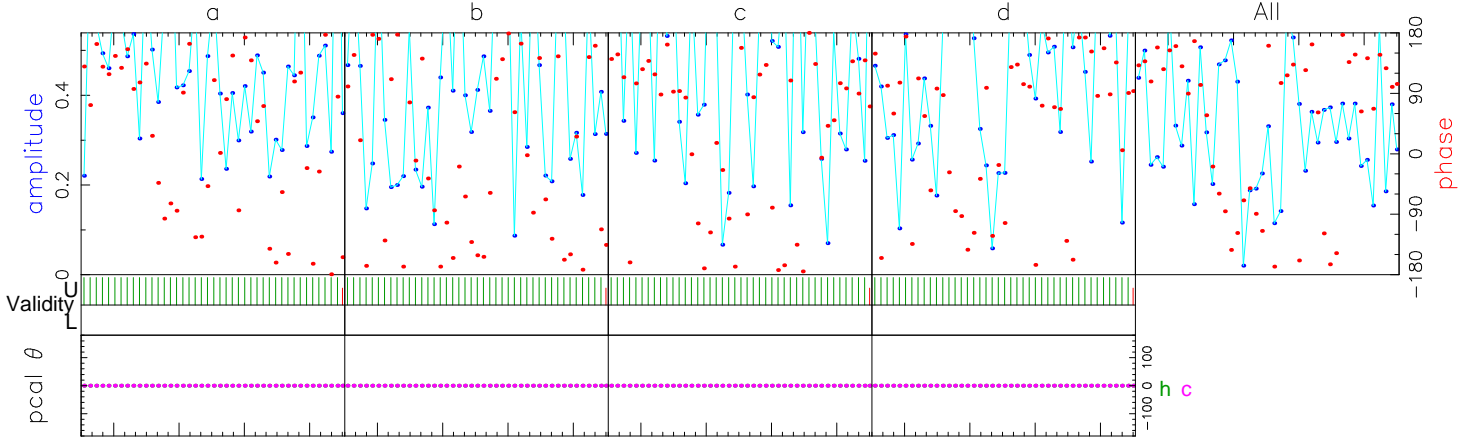


SNR 7.6
Int time 239.976
Amp 0.180
Phase 150.5
PFD 4.3e-06
Delays (us)
SBD -0.007141
MBD -0.000023
Fringe rate (Hz) 0.000603
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211451
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
h	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	PC freqs	
h:c	0:0	0:0	0:0	0:0	PC phase	
h:c	0:0	0:0	0:0	0:0	Manl PC	
h	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	

Group delay (usec)(sbd)	-2.52619569743E+03	Apriori delay (usec)	-2.52618786180E+03	Resid mbdelay (usec)	-2.31250E-05	+/- 1.5E-04
Sband delay (usec)	-2.52619500243E+03	Apriori clock (usec)	-7.9577980E+00	Resid sbdelay (usec)	-7.14062E-03	+/- 5.7E-04
Phase delay (usec)	-2.52618785209E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	9.71001E-06	+/- 9.7E-07
Delay rate (us/s)	2.36123796730E-01	Apriori rate (us/s)	2.36123782719E-01	Resid rate (us/s)	1.40109E-08	+/- 7.0E-09
Total phase (deg)	-55.5	Apriori accel (us/s/s)	2.10549290867E-05	Resid phase (deg)	150.5	+/- 15.0

	RMS	Theor.	Amplitude	0.180 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	71.3	49.3	Search (1024X16)	0.169	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
amp/seg (%)	113.4	86.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	27.8	15.0	Inc. seg. avg.	0.241	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
amp/frq (%)	23.1	26.3	Inc. frq. avg.	0.181	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

h: az 195.3 el 56.6 pa 11.8 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -675.205 1790.116 simultaneous interpolator

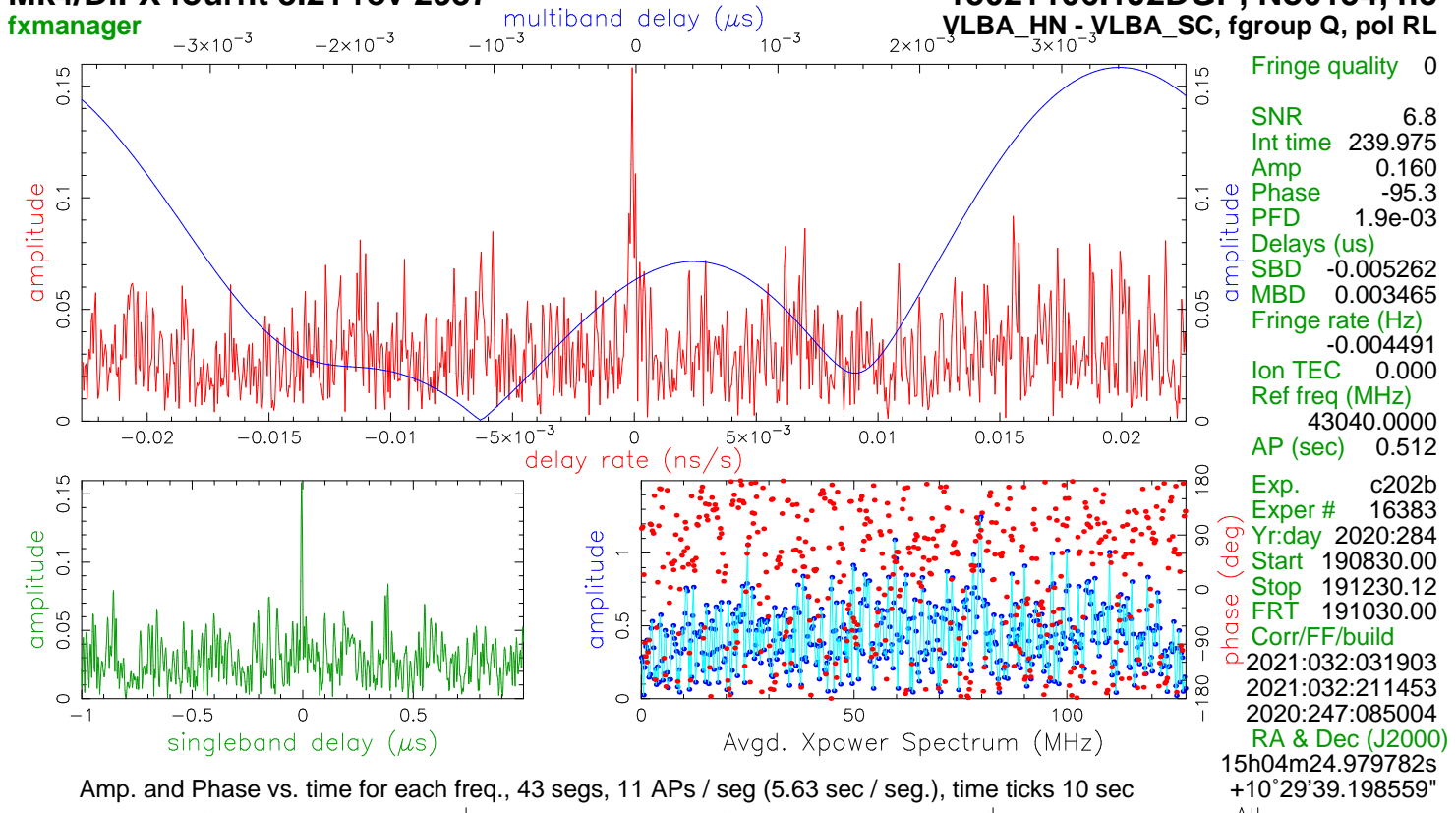
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/hc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/hc.Q.127.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

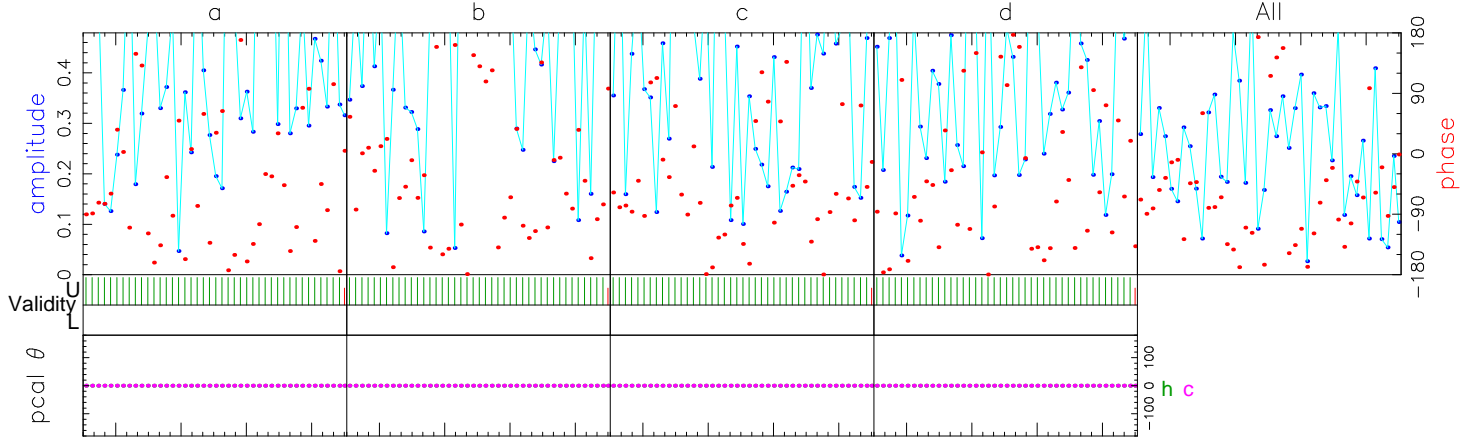
fxmanager

1502+106.1J2DGP, No0154, hc

VLBA_HN - VLBA_SC, fgroup Q, pol RL



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



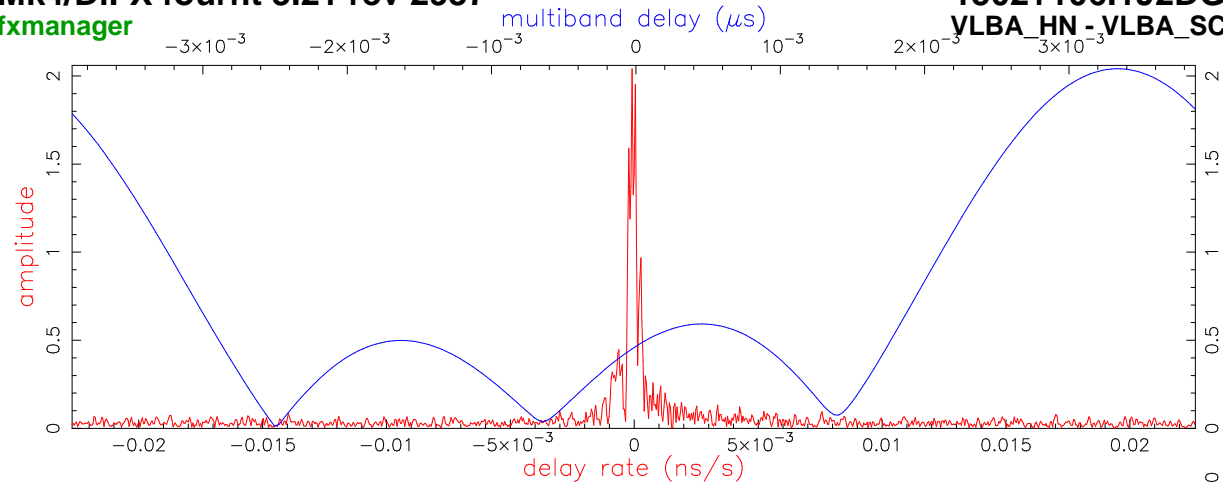
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
h	1000	1000	1000	1000		
c	1000	1000	1000	1000		
h:c	0:0	0:0	0:0	0:0		
h:c	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000		
c	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UL	Q01UL	Q02UL	Q03UL		
Chan ids						
Tracks						
Chan ids						
Tracks						

Group delay (usec)(sbd)	-2.52619220970E+03	Apriori delay (usec)	-2.52618786180E+03	Resid mbdelay (usec)	3.46461E-03	+/-	1.6E-04
Sband delay (usec)	-2.52619312380E+03	Apriori clock (usec)	-7.9577980E+00	Resid sbdelay (usec)	-5.26200E-03	+/-	6.4E-04
Phase delay (usec)	-2.52618786795E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	-6.14829E-06	+/-	1.1E-06
Delay rate (us/s)	2.36123678384E-01	Apriori rate (us/s)	2.36123782719E-01	Resid rate (us/s)	-1.04336E-07	+/-	7.9E-09
Total phase (deg)	-301.2	Apriori accel (us/s/s)	2.10549290867E-05	Resid phase (deg)	-95.3	+/-	16.9

ph/seg (deg)	67.2	Theor.	55.5	Amplitude	0.160 +/- 0.024	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	103.3		96.9	Search (1024X16)	0.150	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	24.7		16.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004		
amp/frq (%)	15.5		29.5	Inc. seg. avg.	0.176	Sample rate(MISamp/s):	256	dr window (ns/s)	-0.023 0.023			
				Inc. frq. avg.	0.159	Data rate(Mb/s):	2048	nlags:	512	t_cohere infinite	ion window (TEC)	0.00 0.00

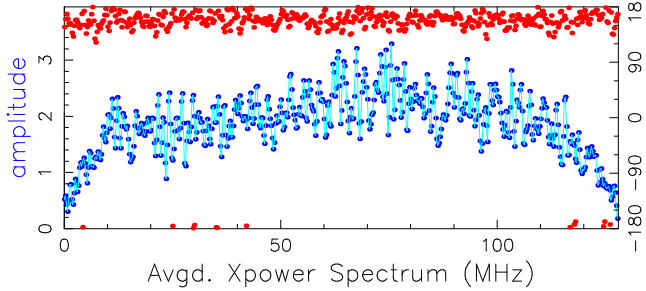
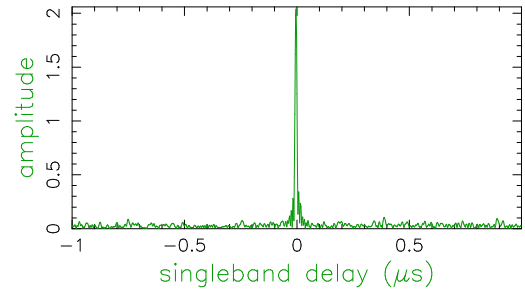
h: az 195.3 el 56.6 pa 11.8 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -675.205 1790.116 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/hc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/hc.Q.147.1J2DGP



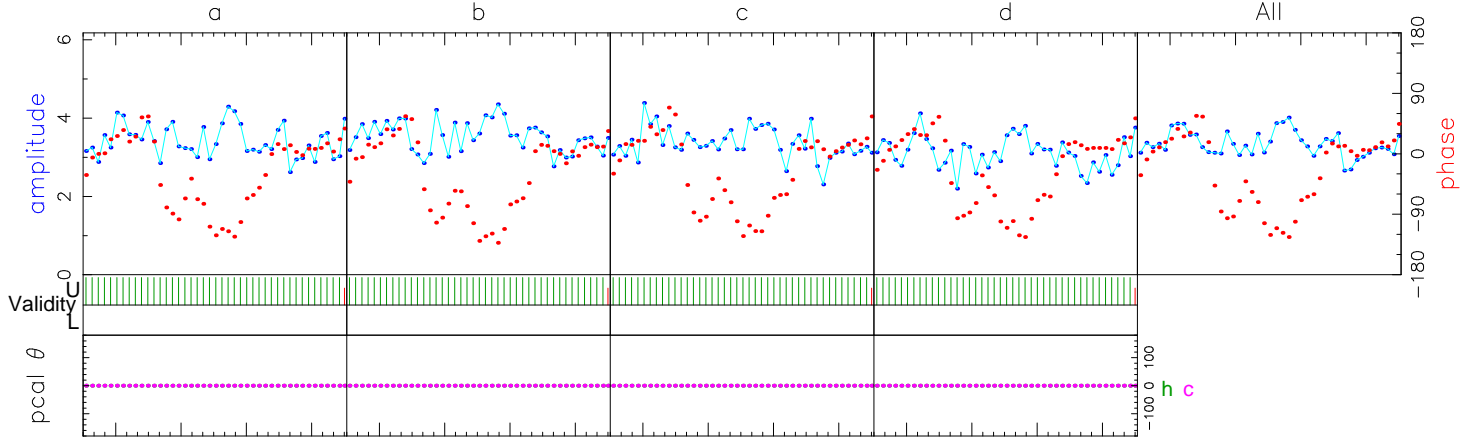
Fringe quality 5

SNR 87.3
Int time 239.975
Amp 2.060
Phase -22.4
PFD 0.0e+00
Delays (us)
SBD -0.004555
MBD 0.003306
Fringe rate (Hz)
-0.004654
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512



Exp. c202b
Yr:day 16383
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211446
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

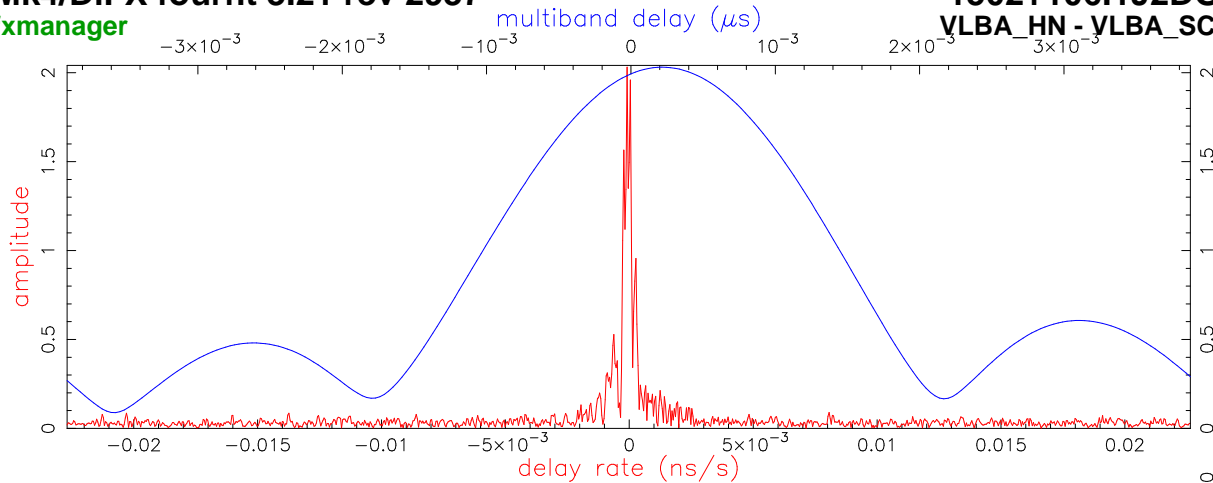
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0	APs used	1000
h	1000	1000	1000	1000	PC freqs	1000
c	1000	1000	1000	1000	PC freqs	1000
h:c	0:0	0:0	0:0	0:0	PC phase	0:0
h:c	0:0	0:0	0:0	0:0	Manl PC	0:0
h	1000	1000	1000	1000	PC amp	1000
c	1000	1000	1000	1000		1000
h	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

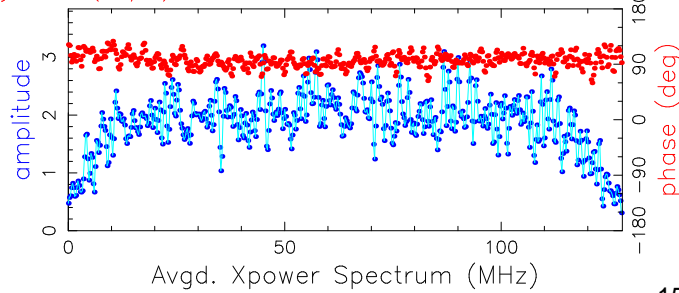
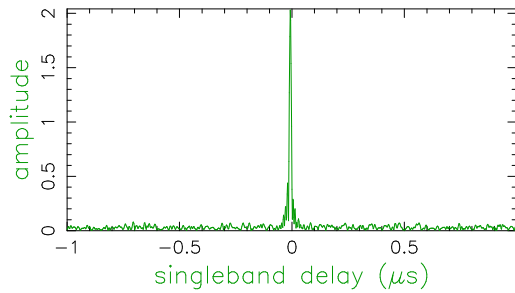
	42912.00	43040.00	43168.00	43296.00		
Group delay (usec)(sbd)	-2.52619236863E+03		-2.52618786180E+03		Resid mbdelay (usec)	3.30567E-03 +/- 1.3E-05
Sband delay (usec)	-2.52619241705E+03		-7.9577980E+00		Resid sbdelay (usec)	-4.55525E-03 +/- 4.9E-05
Phase delay (usec)	-2.52618786325E+03		-2.7000001E-07		Resid phdelay (usec)	-1.44320E-06 +/- 8.5E-08
Delay rate (us/s)	2.36123674595E-01		2.36123782719E-01		Resid rate (us/s)	-1.08125E-07 +/- 6.1E-10
Total phase (deg)	-228.3		2.10549290867E-05		Resid phase (deg)	-22.4 +/- 1.3

	RMS	Theor.	Amplitude	2.060 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	53.0	4.3	Search (1024X16)	1.863	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	64.2	7.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	4.1	1.3	Inc. seg. avg.	3.335	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.4	2.3	Inc. frq. avg.	2.042	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00



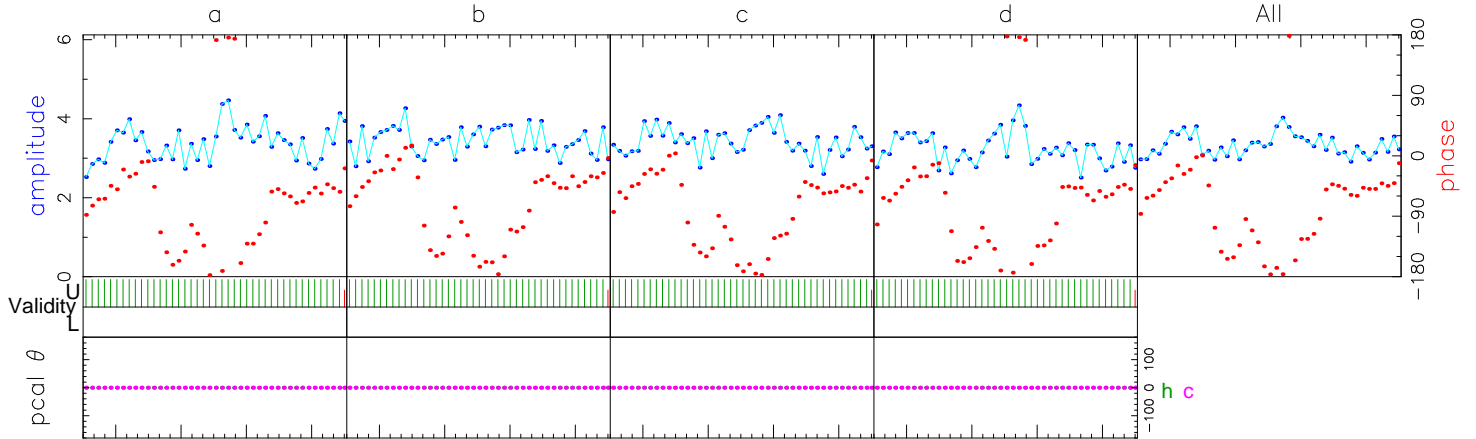
Fringe quality 5

SNR 86.5
Int time 239.976
Amp 2.042
Phase -79.2
PFD 0.0e+00
Delays (us)
SBD -0.007369
MBD 0.000236
Fringe rate (Hz)
-0.004600
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211448
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

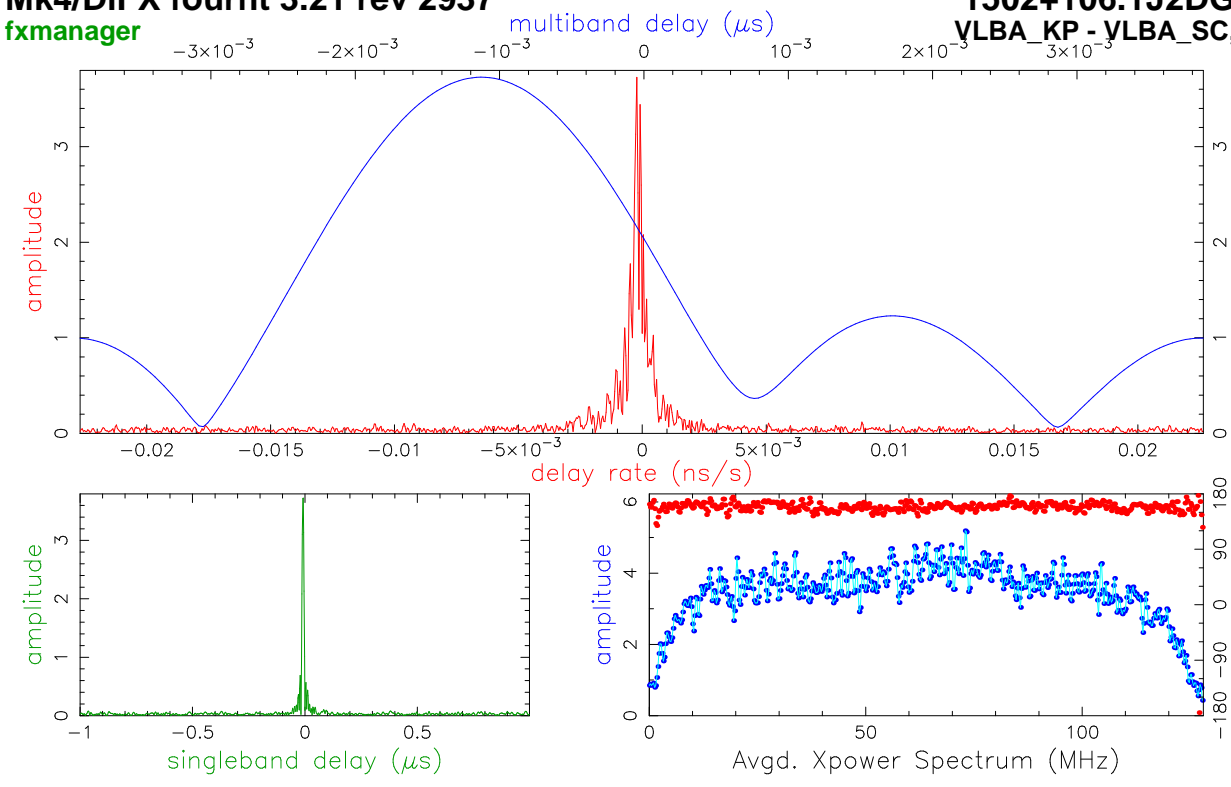
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
h	1000	1000	1000	1000	APs used	1000
c	1000	1000	1000	1000	PC freqs	1000
h:c	0:0	0:0	0:0	0:0	PC phase	0:0
h:c	0:0	0:0	0:0	0:0	Manl PC	0:0
h	1000	1000	1000	1000	PC amp	1000
c	1000	1000	1000	1000		1000
h	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-2.52619543854E+03	Apriori delay (usec)	-2.52618786180E+03	Resid mbdelay (usec)	2.35762E-04	+/-	1.3E-05
Sband delay (usec)	-2.52619523118E+03	Apriori clock (usec)	-7.9577980E+00	Resid sbdelay (usec)	-7.36937E-03	+/-	5.0E-05
Phase delay (usec)	-2.52618786691E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	-5.10980E-06	+/-	8.6E-08
Delay rate (us/s)	2.36123675834E-01	Apriori rate (us/s)	2.36123782719E-01	Resid rate (us/s)	-1.06885E-07	+/-	6.2E-10
Total phase (deg)	-285.1	Apriori accel (us/s/s)	2.10549290867E-05	Resid phase (deg)	-79.2	+/-	1.3

ph/seg (deg)	53.4	RMS	4.3	Theor.	4.3	Amplitude	2.042 +/- 0.024	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	65.0	Search (1024X16)	1.839	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.004	0.004		
ph/frq (deg)	10.5	Inc. seg. avg.	3.331	Inc. frq. avg.	2.048	Bits/sample:	2x2	Sample rate (MSamp/s):	256	dr window (ns/s)	-0.023	0.023		
amp/frq (%)	4.1	Inc. frq. avg.	2.048	Data rate (Mb/s):	2048	nlags:	512	t_coherence:	infinite	ion window (TEC)	0.00	0.00		
h:	az 195.3 el 56.6 pa 11.8	c:	az 246.7 el 72.9 pa 62.7	u,v (fr/asec)	-675.205 1790.116	simultaneous interpolator								

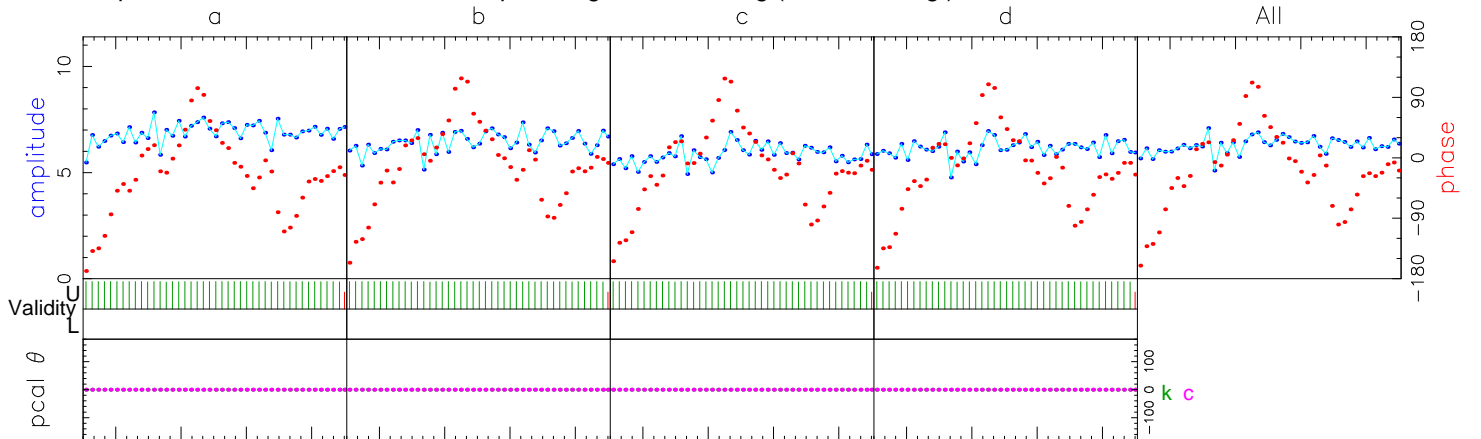


Fringe quality 5

SNR 160.6
Int time 239.069
Amp 3.798
Phase -15.9
PFD 0.0e+00
Delays (us)
SBD -0.008761
MBD -0.001152
Fringe rate (Hz)
-0.008840
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211449
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



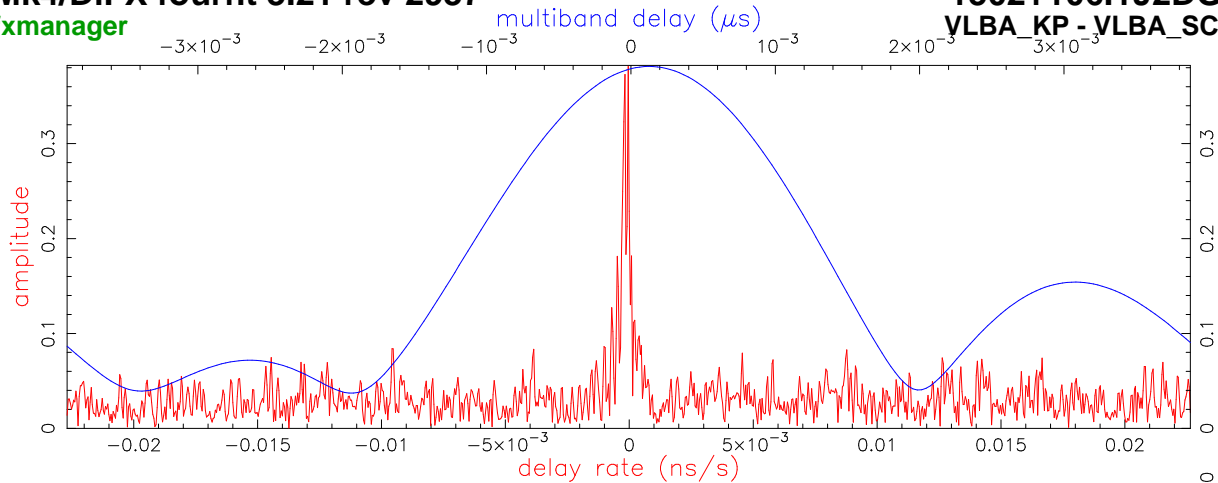
42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-22.9	-8.5	-13.8	-17.8	Phase	-15.9
4.1	3.8	3.4	3.6	Ampl.	3.7
508.8	508.5	508.0	508.7	Sbd box	508.5
U/L 469/0	469/0	469/0	469/0	APs used	
k 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
k:c 0:0	0:0	0:0	0:0	PC phase	
k:c 0:0	0:0	0:0	0:0	Manl PC	
k 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
k Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-2.94093360451E+03	Apriori delay (usec)	-2.94092464048E+03	Resid mbdelay (usec)	-1.15153E-03 +/- 6.9E-06
Sband delay (usec)	-2.94093340123E+03	Apriori clock (usec)	-8.1778126E+00	Resid sbdelay (usec)	-8.76075E-03 +/- 2.7E-05
Phase delay (usec)	-2.94092464150E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-1.02646E-06 +/- 4.6E-08
Delay rate (us/s)	1.07145707206E+00	Apriori rate (us/s)	1.07145727744E+00	Resid rate (us/s)	-2.05384E-07 +/- 3.3E-10
Total phase (deg)	-205.3	Apriori accel (us/s/s)	2.01642714561E-05	Resid phase (deg)	-15.9 +/- 0.7
RMS	Theor.	Amplitude	3.798 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
59.7	2.3	Search (1024X16)	3.567	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
66.5	4.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
7.5	0.7	Inc. seg. avg.	6.293	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
6.8	1.2	Inc. frq. avg.	3.742	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
k: az 119.9 el 54.1 pa -48.3	c: az 246.7 el 72.9 pa 62.7	u, v (fr/asec)	-3106.864 1131.464		simultaneous interpolator
Control file: cf_1234_gmva7mm	Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/kc..1J2DGP	Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/kc.Q.108.1J2DGP			

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

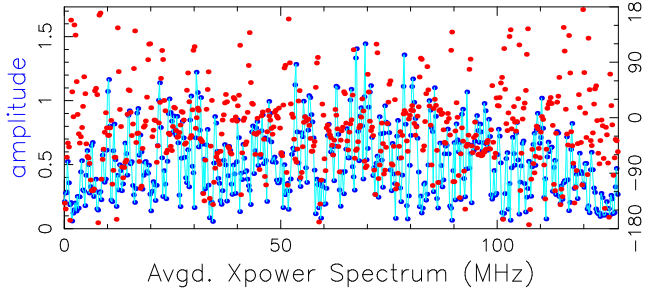
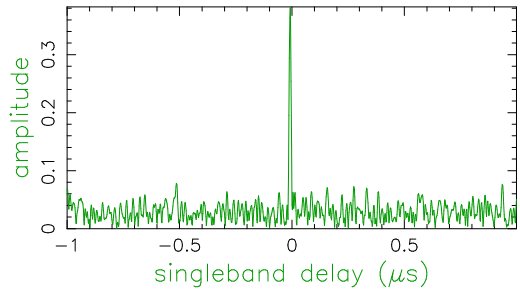
1502+106.1J2DGP, No0154, kc

VLBA_KP - VLBA_SC, fgroup Q, pol LR



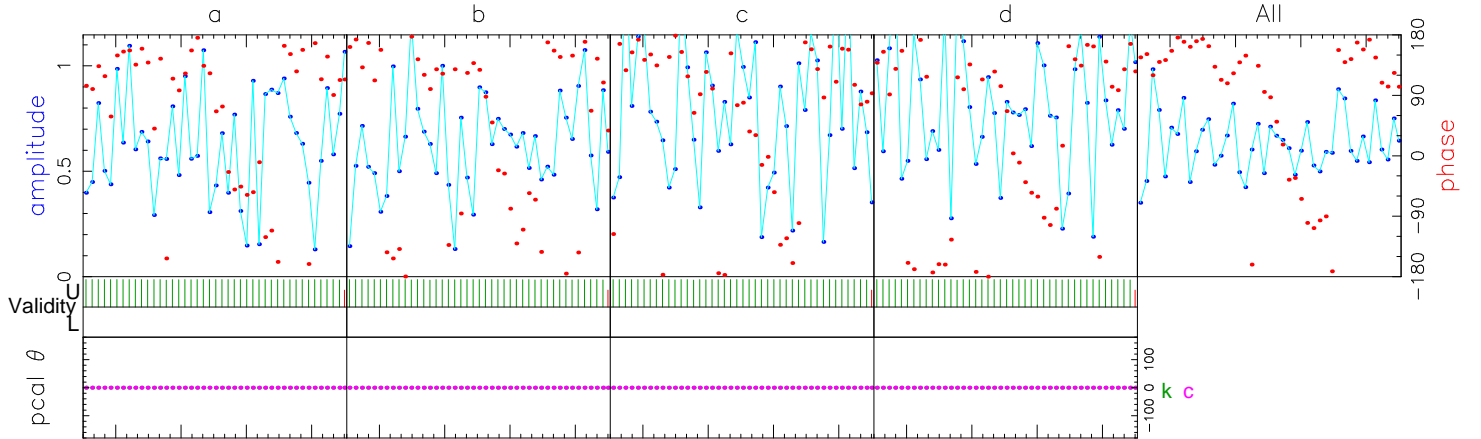
Fringe quality 9

SNR 16.2
 Int time 239.069
 Amp 0.382
 Phase 147.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.008184
 MBD 0.000114
 Fringe rate (Hz)
 -0.002547
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211451
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
k	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	PC freqs	
k:c	0:0	0:0	0:0	0:0	PC phase	
k:c	0:0	0:0	0:0	0:0	ManI PC	
k	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	

Group delay (usec)(sbd)	-2.9409323869E+03	Apriori delay (usec)	-2.94092464048E+03	Resid mbdelay (usec)	1.14287E-04	+/-	6.9E-05
Sband delay (usec)	-2.94093282423E+03	Apriori clock (usec)	-8.1778126E+00	Resid sbdelay (usec)	-8.18375E-03	+/-	2.7E-04
Phase delay (usec)	-2.94092463098E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	9.49506E-06	+/-	4.6E-07
Delay rate (us/s)	1.07145721827E+00	Apriori rate (us/s)	1.07145727744E+00	Resid rate (us/s)	-5.91774E-08	+/-	3.3E-09
Total phase (deg)	-42.3	Apriori accel (us/s/s)	2.01642714561E-05	Resid phase (deg)	147.1	+/-	7.1

	RMS	Theor.	Amplitude	0.382 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	66.8	23.2	Search (1024X16)	0.358	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	74.8	40.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	14.3	7.1	Inc. seg. avg.	0.586	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	17.5	12.4	Inc. frq. avg.	0.384	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

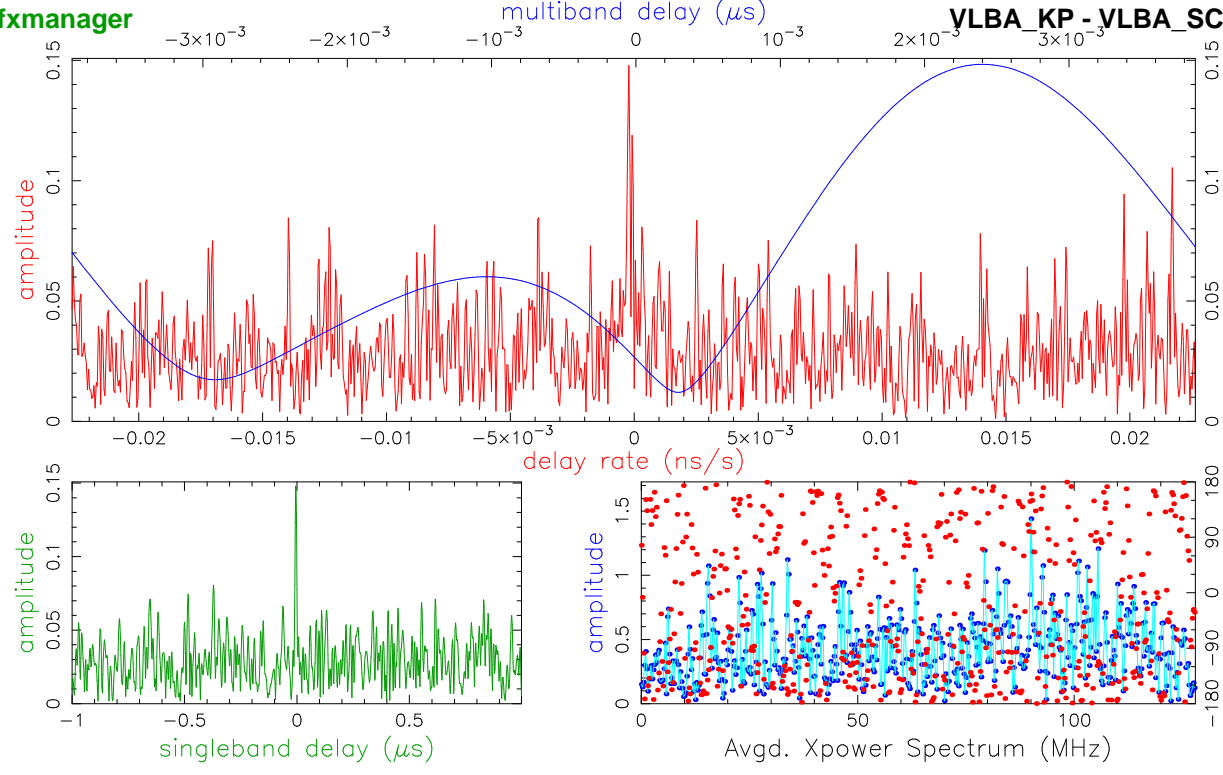
k: az 119.9 el 54.1 pa -48.3 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -3106.864 1131.464 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/kc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/kc.Q.126.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, kc

VLBA_KP - VLBA_SC, fgroup Q, pol RL

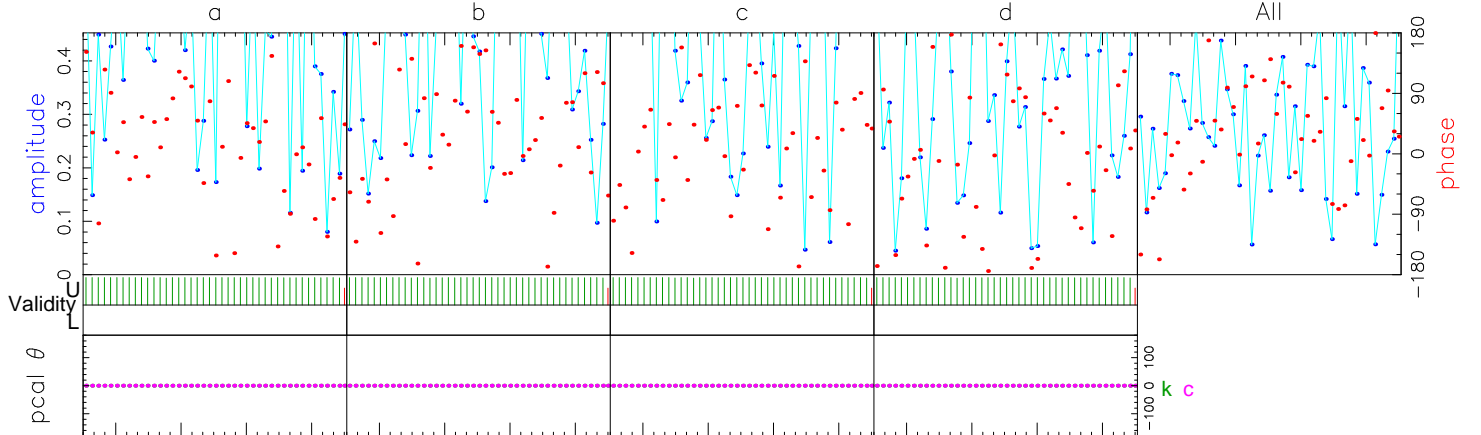


Fringe quality 0

SNR 6.4
 Int time 239.068
 Amp 0.151
 Phase 28.3
 PFD 2.4e-02
 Delays (us)
 SBD -0.004950
 MBD 0.002502
 Fringe rate (Hz)
 -0.009174
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211453
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
k	1000	1000	1000	1000	APs used	1000
k:c	0:0	0:0	0:0	0:0	PC freqs	1000
k:c	0:0	0:0	0:0	0:0	PC phase	1000
k	1000	1000	1000	1000	Manl PC	1000
c	1000	1000	1000	1000	PC amp	1000
k	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	-2.94092995123E+03	Apriori delay (usec)	-2.94092464048E+03	Resid mbdelay (usec)	2.50175E-03	+/- 1.7E-04
Sband delay (usec)	-2.94092959035E+03	Apriori clock (usec)	-8.1778126E+00	Resid sbdelay (usec)	-4.94988E-03	+/- 6.8E-04
Phase delay (usec)	-2.94092463865E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	1.82326E-06	+/- 1.2E-06
Delay rate (us/s)	1.07145706429E+00	Apriori rate (us/s)	1.07145727744E+00	Resid rate (us/s)	-2.13152E-07	+/- 8.4E-09
Total phase (deg)	-161.2	Apriori accel (us/s/s)	2.01642714561E-05	Resid phase (deg)	28.3	+/- 18.0

	RMS	Theor.	Amplitude	0.151 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	75.3	58.9	Search (1024X16)	0.145	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	125.8	102.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	27.7	18.0	Inc. seg. avg.	0.188	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	41.3	31.4	Inc. frq. avg.	0.144	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 119.9 el 54.1 pa -48.3 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -3106.864 1131.464 simultaneous interpolator

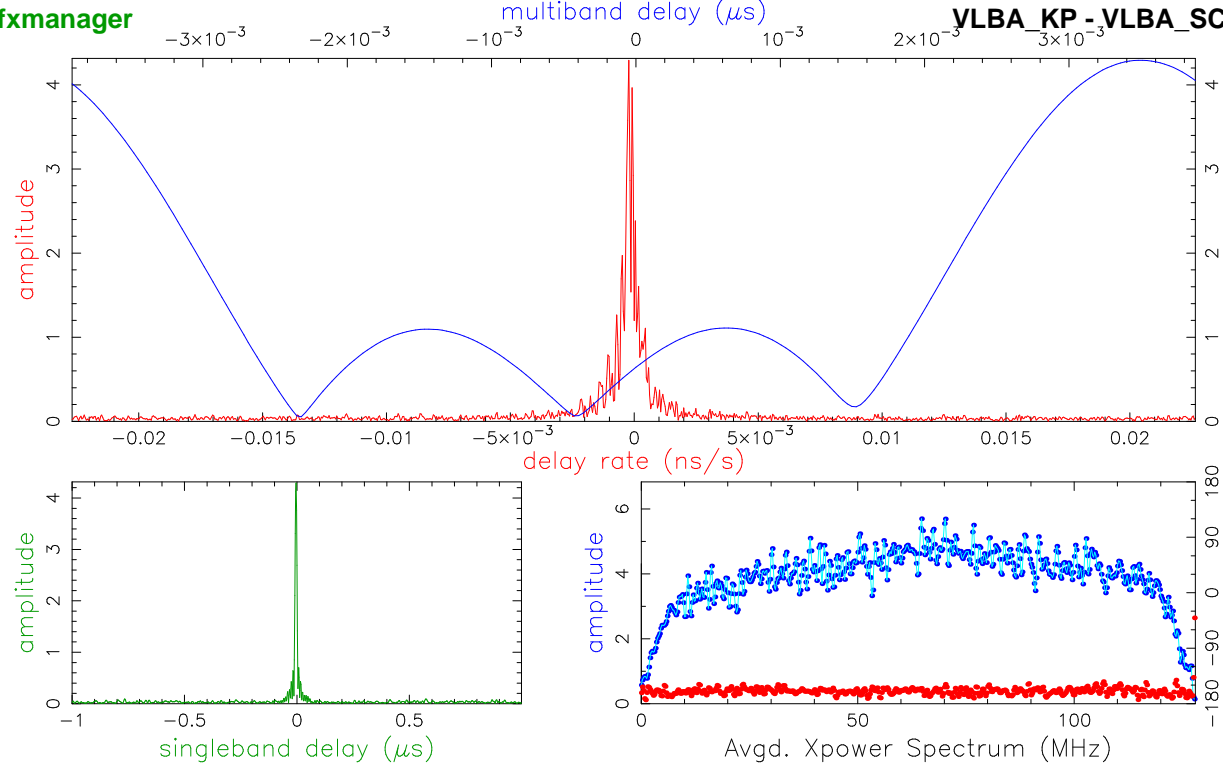
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/kc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/kc.Q.141.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, kc

VLBA_KP - VLBA_SC, fgroup Q, pol LL

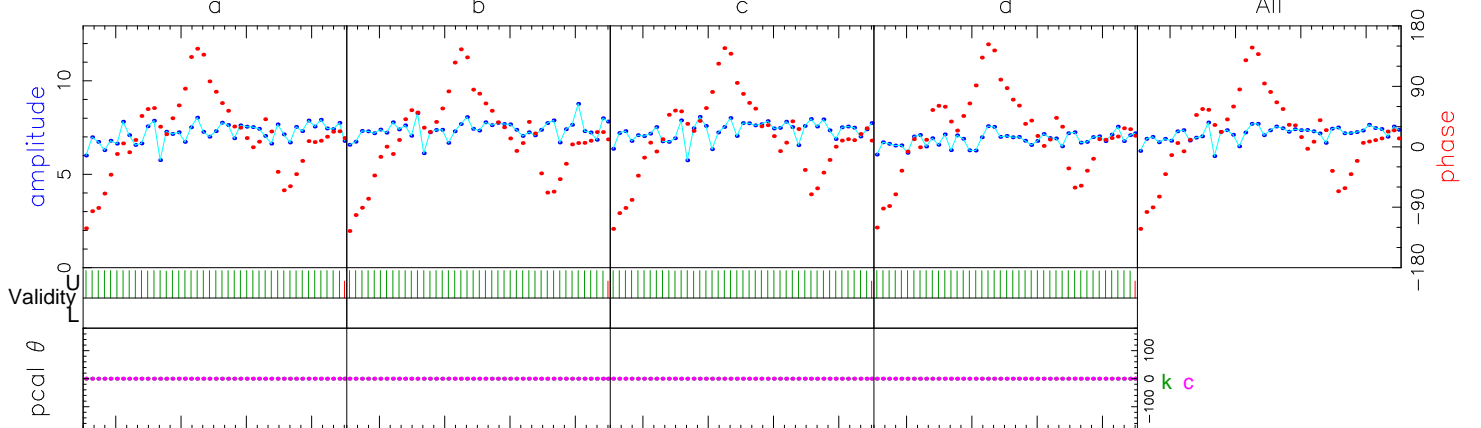


Fringe quality 5

SNR 182.4
 Int time 239.068
 Amp 4.315
 Phase 18.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.004429
 MBD 0.003469
 Fringe rate (Hz)
 -0.008822
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211447
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

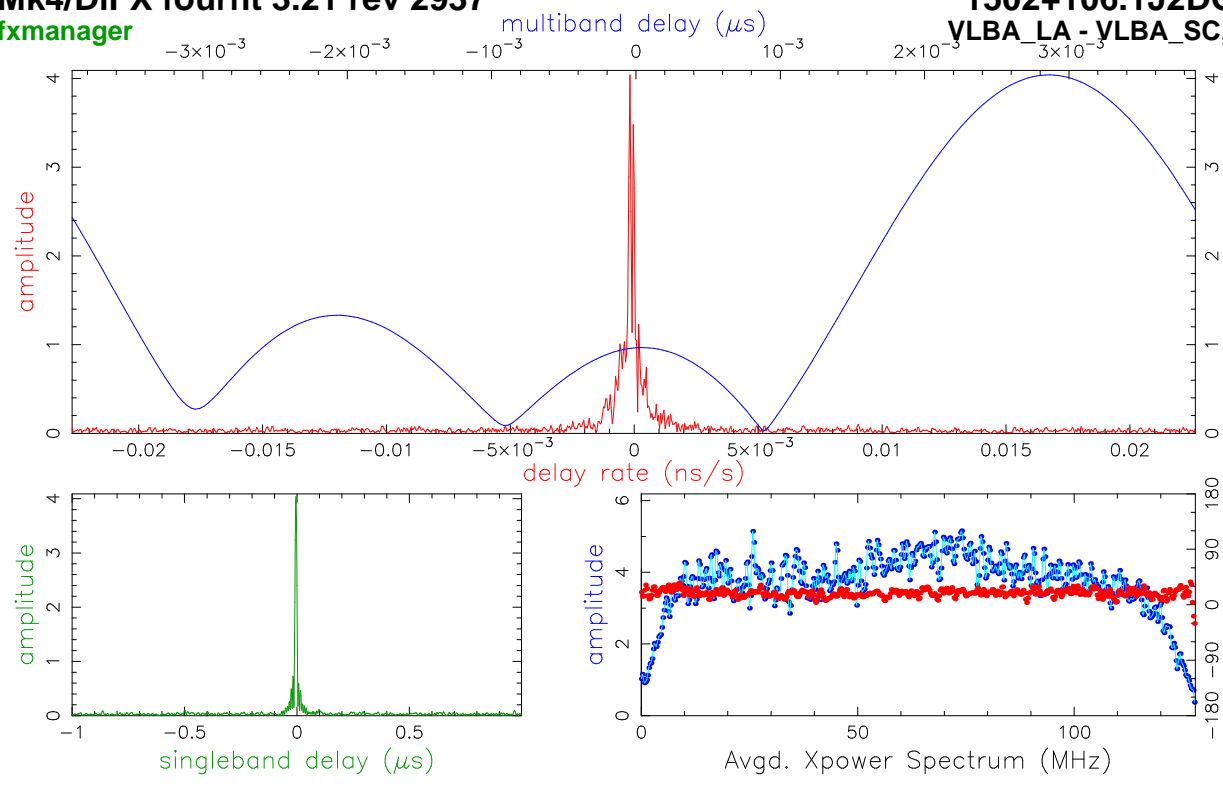
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
18.3	15.3	17.0	22.2	Phase	18.1
4.3	4.4	4.4	4.0	Ampl.	4.3
510.7	510.8	510.8	510.7	Sbd box	510.7
U/L 469/0	469/0	469/0	469/0	APs used	
k 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
k:c 0:0	0:0	0:0	0:0	PC phase	
k:c 0:0	0:0	0:0	0:0	Manl PC	
k 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
k Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

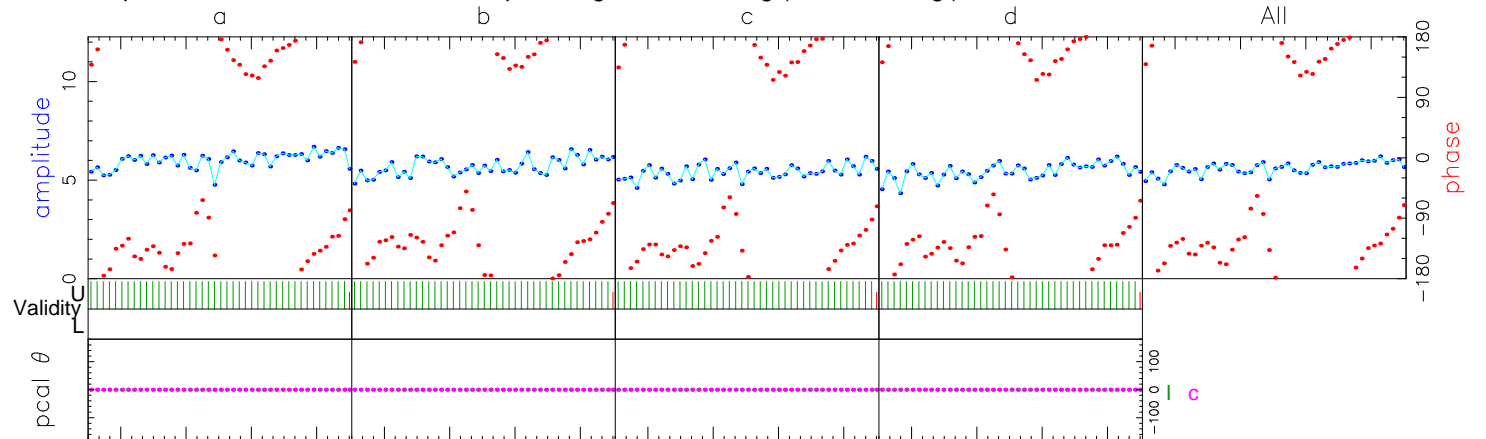
Group delay (usec)(sbd)	-2.94092898442E+03	Apriori delay (usec)	-2.94092464048E+03	Resid mbdelay (usec)	3.46856E-03	+/-	6.1E-06
Sband delay (usec)	-2.94092906923E+03	Apriori clock (usec)	-8.1778126E+00	Resid sbdelay (usec)	-4.42875E-03	+/-	2.4E-05
Phase delay (usec)	-2.94092463931E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	1.16854E-06	+/-	4.1E-08
Delay rate (us/s)	1.07145707248E+00	Apriori rate (us/s)	1.07145727744E+00	Resid rate (us/s)	-2.04967E-07	+/-	2.9E-10
Total phase (deg)	-171.3	Apriori accel (us/s/s)	2.01642714561E-05	Resid phase (deg)	18.1	+/-	0.6

ph/seg (deg) 59.2 2.1 Amplitude 4.315 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 67.1 3.6 Search (1024X16) 4.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 3.6 0.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
 amp/frq (%) 3.5 1.1 Inc. seg. avg. 7.182 Sample rate(MISamp/s): 256 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite dr window (ns/s) -0.023 0.023
 k: az 119.9 el 54.1 pa -48.3 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -3106.864 1131.464 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/kc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/kc.Q.89.1J2DGP



Fringe quality 6
SNR 173.3
Int time 239.976
Amp 4.090
Phase -153.5
PFD 0.0e+00
Delays (us)
SBD -0.004657
MBD 0.002834
Fringe rate (Hz)
-0.008022
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211449
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



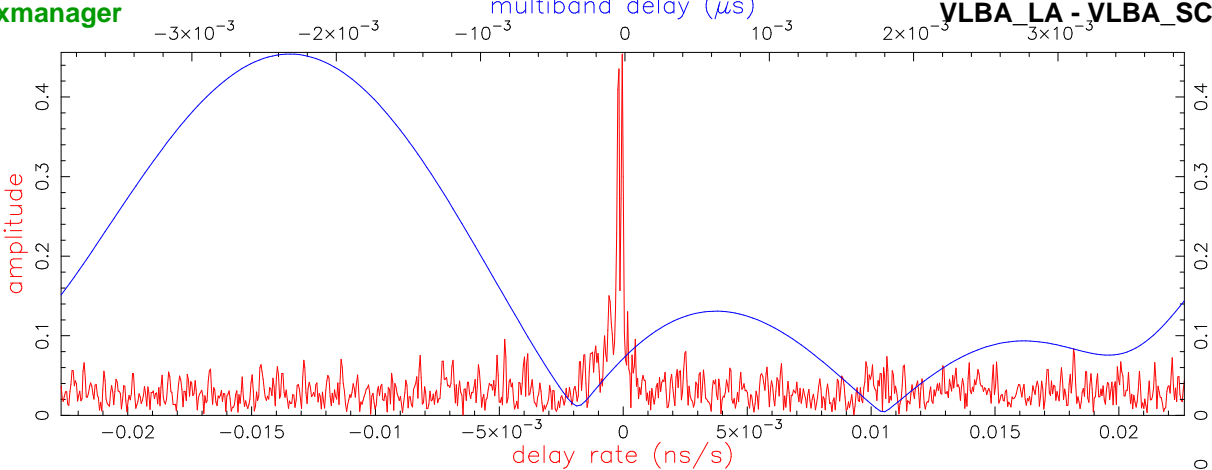
42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-159.6	-146.2	-155.1	-152.9	Phase	-153.5
4.4	4.1	3.9	3.9	Ampl.	4.1
510.9	510.5	510.3	511.0	Sbd box	510.6
U/L 469/0	469/0	469/0	469/0	APs used	
l 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
l:c 0:0	0:0	0:0	0:0	PC phase	
l:c 0:0	0:0	0:0	0:0	Manl PC	
l 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
l Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-2.65408524712E+03	Apriori delay (usec)	-2.65408026911E+03	Resid mbdelay (usec)	2.83449E-03 +/- 6.4E-06
Sband delay (usec)	-2.65408492649E+03	Apriori clock (usec)	-8.9232178E+00	Resid sbdelay (usec)	-4.65738E-03 +/- 2.5E-05
Phase delay (usec)	-2.65408027902E+03	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	-9.90745E-06 +/- 4.3E-08
Delay rate (us/s)	9.40130644547E-01	Apriori rate (us/s)	9.40130830923E-01	Resid rate (us/s)	-1.86376E-07 +/- 3.1E-10
Total phase (deg)	-75.3	Apriori accel (us/s/s)	1.9763332281E-05	Resid phase (deg)	-153.5 +/- 0.7
RMS	Theor.	Amplitude	4.090 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
45.8	2.2	Search (1024X16)	3.956	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
38.4	3.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
6.8	0.7	Inc. seg. avg.	5.625	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
5.1	1.2	Inc. frq. avg.	4.053	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
l: az 131.0 el 55.5 pa -38.1	c: az 246.7 el 72.9 pa 62.7	u,v (fr/asec)	-2724.613 1368.083		simultaneous interpolator
Control file: cf_1234_gmva7mm	Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/lc..1J2DGP	Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/lc.Q.106.1J2DGP			

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

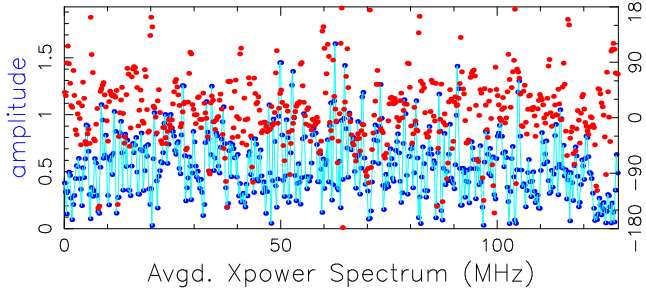
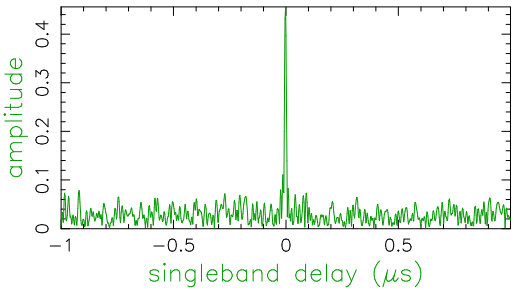
1502+106.1J2DGP, No0154, lc

VLBA_LA - VLBA_SC, fgroup Q, pol LR



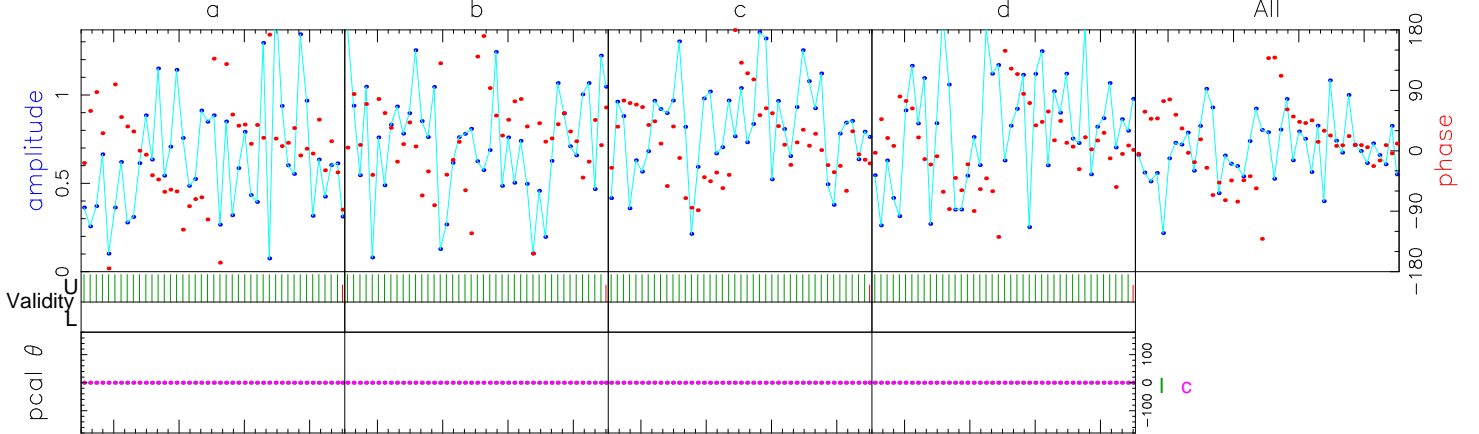
Fringe quality 9

SNR 19.3
 Int time 239.976
 Amp 0.456
 Phase 9.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.002393
 MBD -0.002336
 Fringe rate (Hz)
 -0.001760
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211451
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-3.2	22.8	11.9	5.3	Phase	9.9
0.4	0.5	0.5	0.5	Ampl.	0.5
511.7	512.0	511.4	511.9	Sbd box	511.8
U/L 469/0	469/0	469/0	469/0	APs used	
l 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
l:c 0:0	0:0	0:0	0:0	PC phase	
l:c 0:0	0:0	0:0	0:0	Manl PC	
l 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
l Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	-2.65408260514E+03	Apriori delay (usec)	-2.65408026911E+03	Resid mbdelay (usec)	-2.33603E-03	+/-	5.8E-05
Sband delay (usec)	-2.65408266236E+03	Apriori clock (usec)	-8.9232178E+00	Resid sbdelay (usec)	-2.39325E-03	+/-	2.2E-04
Phase delay (usec)	-2.65408026848E+03	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	6.37561E-07	+/-	3.8E-07
Delay rate (us/s)	9.40130790028E-01	Apriori rate (us/s)	9.40130830923E-01	Resid rate (us/s)	-4.08953E-08	+/-	2.8E-09
Total phase (deg)	-271.9	Apriori accel (us/s/s)	1.9763332281E-05	Resid phase (deg)	9.9	+/-	5.9

RMS	Theor.	Amplitude	0.456 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	54.8	Search (1024X16)	0.450	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
amp/seg (%)	65.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
ph/frq (deg)	13.5	Inc. seg. avg.	0.661	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
amp/frq (%)	12.5	Inc. frq. avg.	0.457	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 131.0 el 55.5 pa -38.1 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -2724.613 1368.083 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/lc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/lc.Q.121.1J2DGP

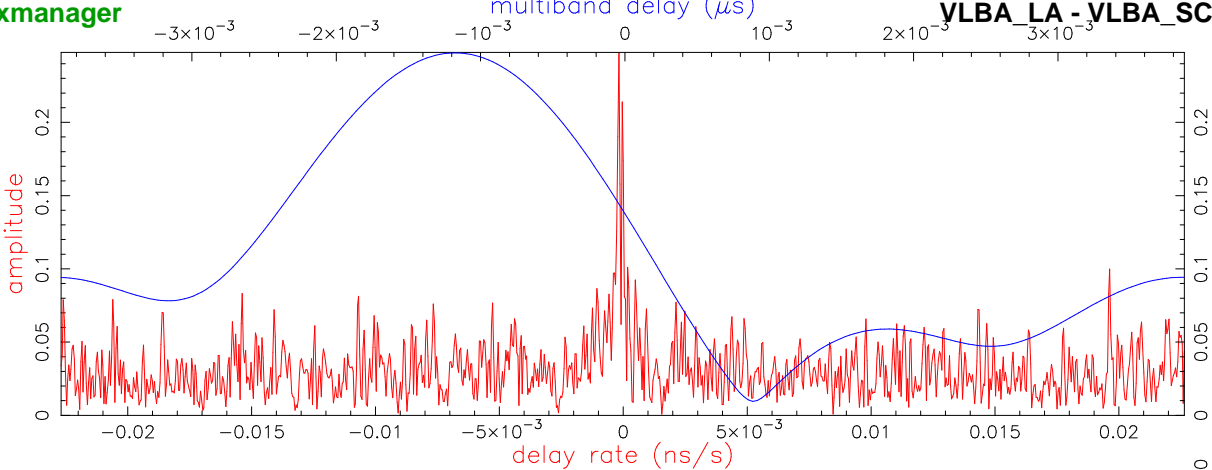
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

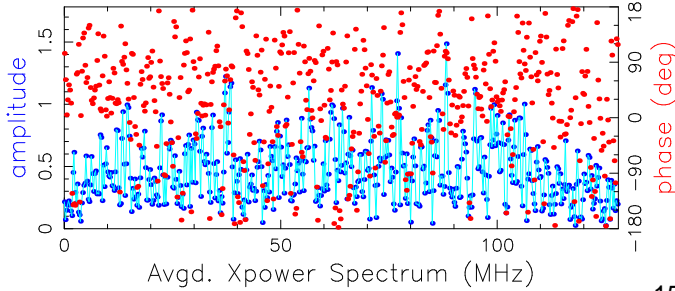
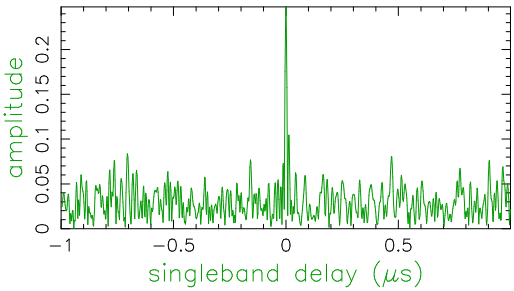
1502+106.1J2DGP, No0154, lc

VLBA_LA - VLBA_SC, fgroup Q, pol RL

Fringe quality 9

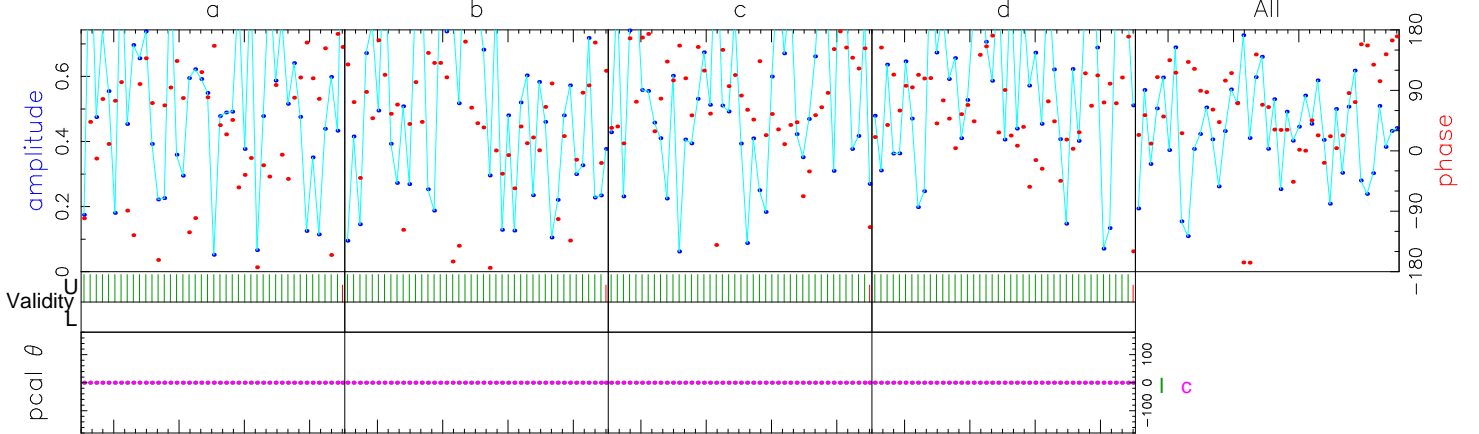


SNR 10.5
 Int time 239.975
 Amp 0.248
 Phase 76.7
 PFD 2.0e-17
 Delays (us)
 SBD -0.000220
 MBD -0.001182
 Fringe rate (Hz)
 -0.008076
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211453
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec

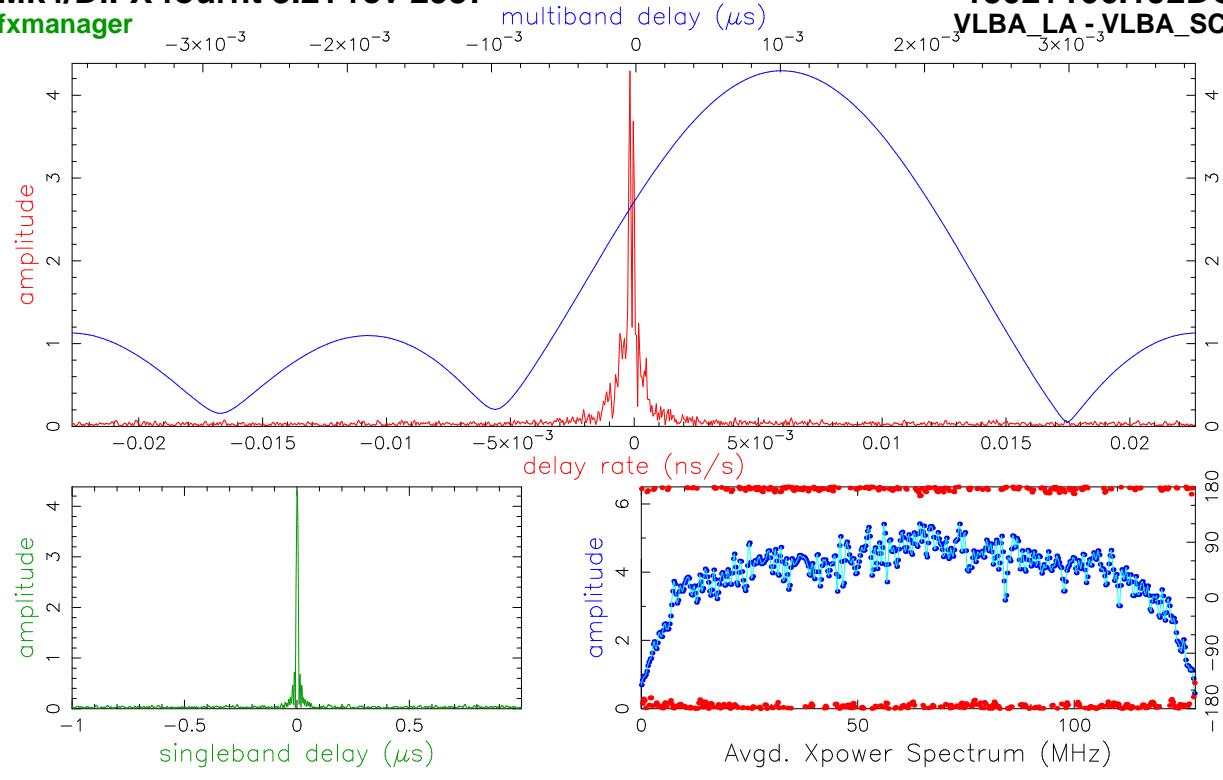


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0	APs used	512.9
l	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
l:c	0:0	0:0	0:0	0:0	PC phase	
l:c	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

Group delay (usec)(sbd)	-2.65408145100E+03	Apriori delay (usec)	-2.65408026911E+03	Resid mbdelay (usec)	-1.18188E-03	+/-	1.1E-04
Sband delay (usec)	-2.65408048936E+03	Apriori clock (usec)	-8.9232178E+00	Resid sbdelay (usec)	-2.20250E-04	+/-	4.1E-04
Phase delay (usec)	-2.65408026416E+03	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	4.95198E-06	+/-	7.0E-07
Delay rate (us/s)	9.40130643282E-01	Apriori rate (us/s)	9.40130830923E-01	Resid rate (us/s)	-1.87641E-07	+/-	5.1E-09
Total phase (deg)	-205.0	Apriori accel (us/s/s)	1.9763332281E-05	Resid phase (deg)	76.7	+/-	10.9

ph/seg (deg)	RMS 59.1	Theor. 35.8	Amplitude Search (1024X16)	0.238	0.248 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	94.5	62.5	Interp.	0.000	0.238	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	16.7	10.9	Inc. seg. avg.	0.362	0.362	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	31.9	19.1	Inc. frq. avg.	0.248	0.248	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00

l: az 131.0 el 55.5 pa -38.1 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -2724.613 1368.083 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/lc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/lc.Q.145.1J2DGP

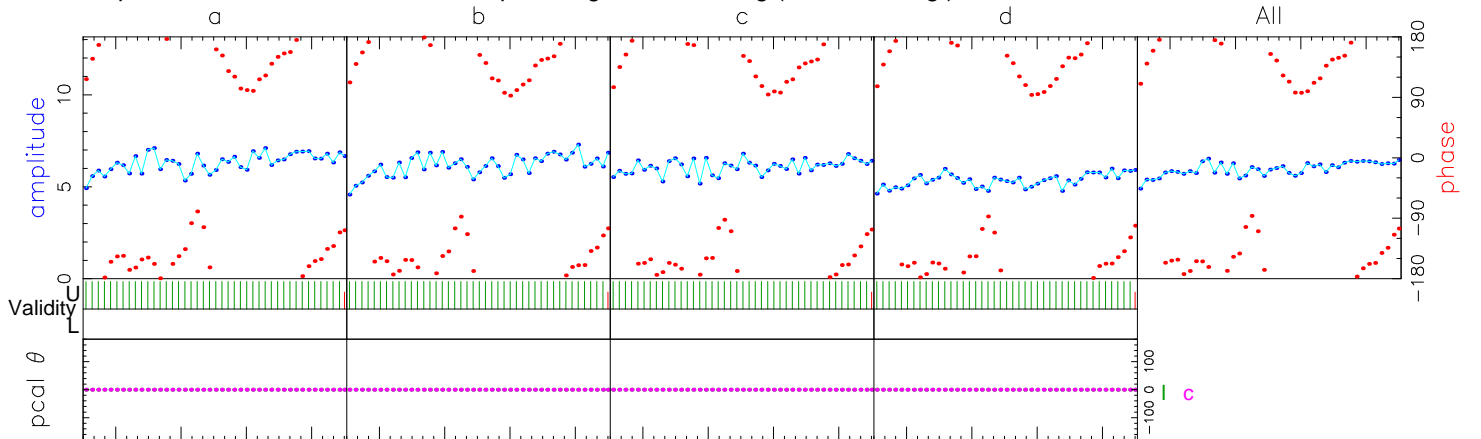


Fringe quality 6

SNR 185.7
Int time 239.975
Amp 4.385
Phase 178.9
PFD 0.0e+00
Delays (us)
SBD 0.000983
MBD 0.001062
Fringe rate (Hz)
-0.008053
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211447
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



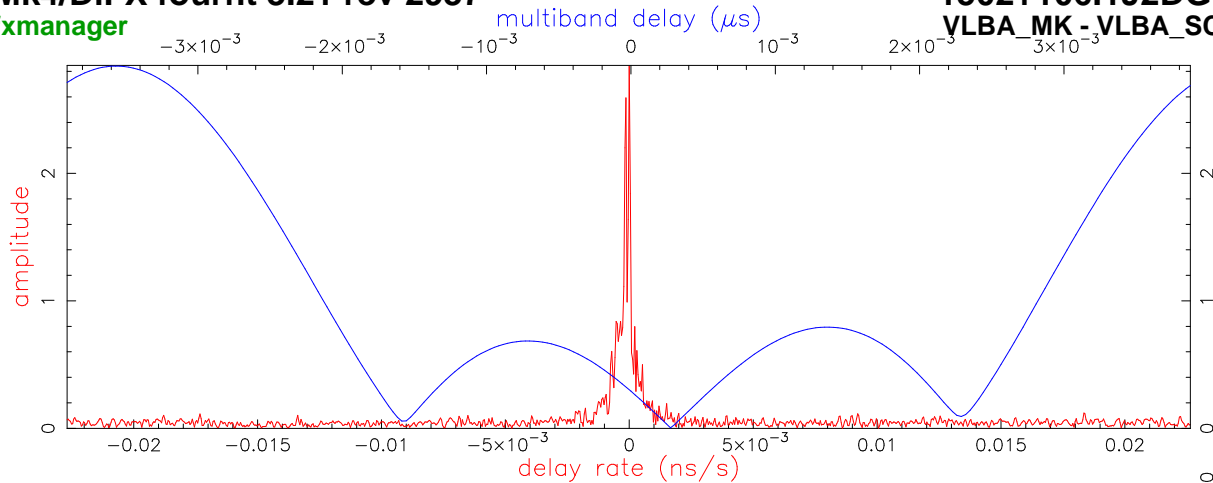
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-176.4	178.8	175.8	177.0	Phase	178.9
	4.5	4.4	4.4	3.9	Ampl.	4.3
	513.2	513.7	513.6	513.5	Sbd box	513.5
U/L	469/0	469/0	469/0	469/0	APs used	
l	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
l:c	0:0	0:0	0:0	0:0	PC phase	
l:c	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
l	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

	-2.65407920715E+03	Apriori delay (usec)	-2.65408026911E+03	Resid mbdelay (usec)	1.06196E-03	+/- 6.0E-06
Group delay (usec)(sbd)	-2.65407928599E+03	Apriori clock (usec)	-8.9232178E+00	Resid sbdelay (usec)	9.83125E-04	+/- 2.3E-05
Sband delay (usec)	-2.65408025757E+03	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	1.15467E-05	+/- 4.0E-08
Phase delay (usec)	9.40130643813E-01	Apriori rate (us/s)	9.40130830923E-01	Resid rate (us/s)	-1.87110E-07	+/- 2.9E-10
Delay rate (us/s)		Apriori accel (us/s/s)	1.9763332281E-05	Resid phase (deg)	178.9	+/- 0.6
Total phase (deg)						

	RMS	Theor.	Amplitude	4.385 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	45.8	2.0	Search (1024X16)	4.194	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	37.0	3.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	4.2	0.6	Inc. seg. avg.	5.964	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	6.2	1.1	Inc. frq. avg.	4.297	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

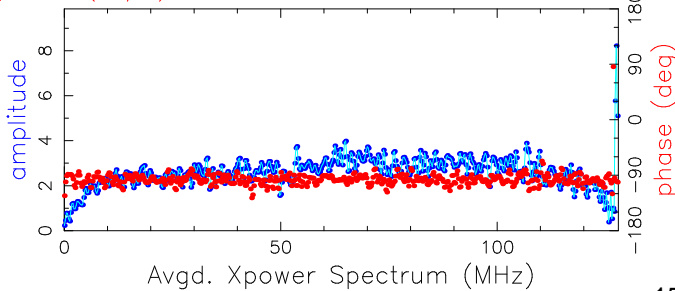
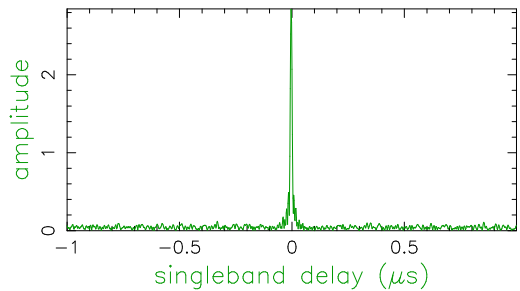
l: az 131.0 el 55.5 pa -38.1 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -2724.613 1368.083 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/lc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/lc.Q.91.1J2DGP



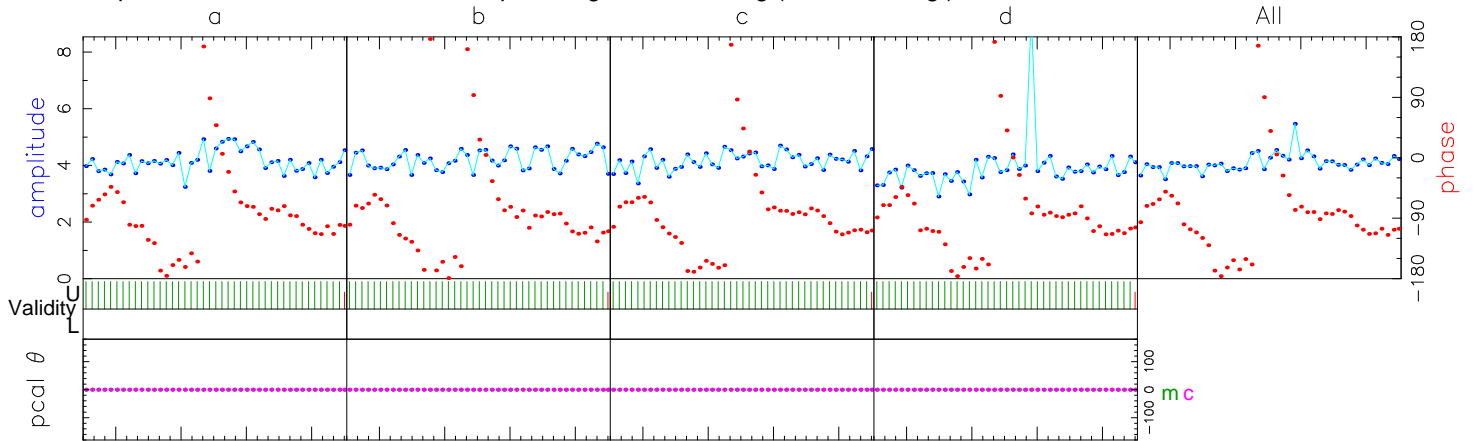
Fringe quality 5

SNR 120.6
Int time 239.975
Amp 2.847
Phase -98.3
PFD 0.0e+00
Delays (us)
SBD -0.003603
MBD -0.003554
Fringe rate (Hz)
-0.000489
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211457
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

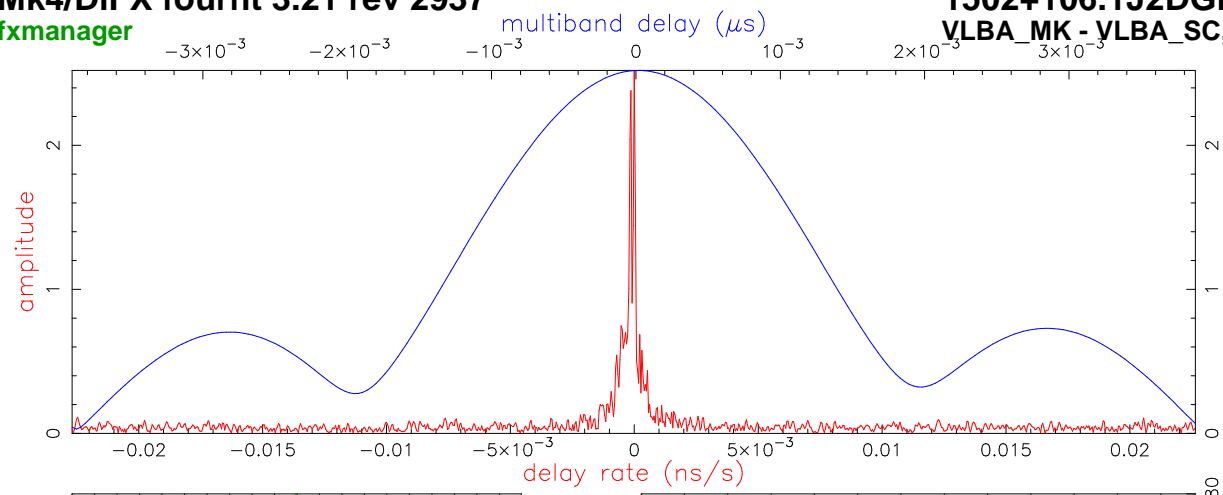
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



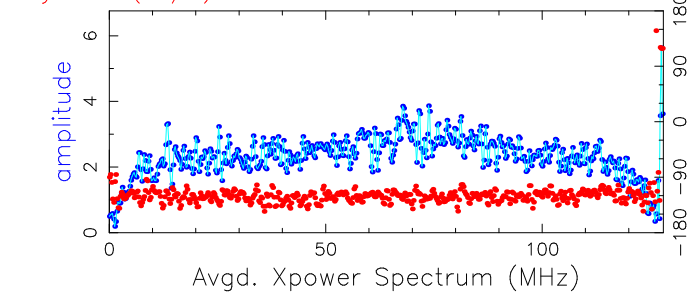
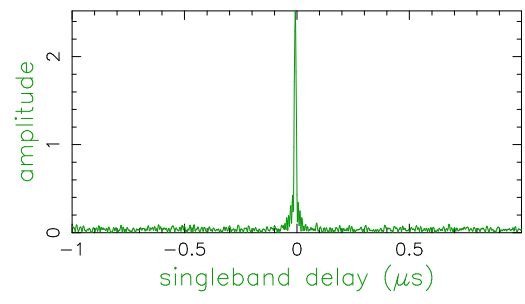
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m:c	0:0	0:0	0:0	0:0		
m:c	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UL	Q01UL	Q02UL	Q03UL		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.36530504523E+04	Apriori delay (usec)	-1.36530468988E+04	Resid mbdelay (usec)	-3.55356E-03	+/-	9.2E-06
Sband delay (usec)	-1.36530505016E+04	Apriori clock (usec)	4.8521881E+00	Resid sbdelay (usec)	-3.60287E-03	+/-	3.6E-05
Phase delay (usec)	-1.36530469051E+04	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-6.34297E-06	+/-	6.1E-08
Delay rate (us/s)	1.79739643538E+00	Apriori rate (us/s)	1.79739644675E+00	Resid rate (us/s)	-1.13647E-08	+/-	4.4E-10
Total phase (deg)	-286.5	Apriori accel (us/s/s)	7.33160236433E-05	Resid phase (deg)	-98.3	+/-	1.0

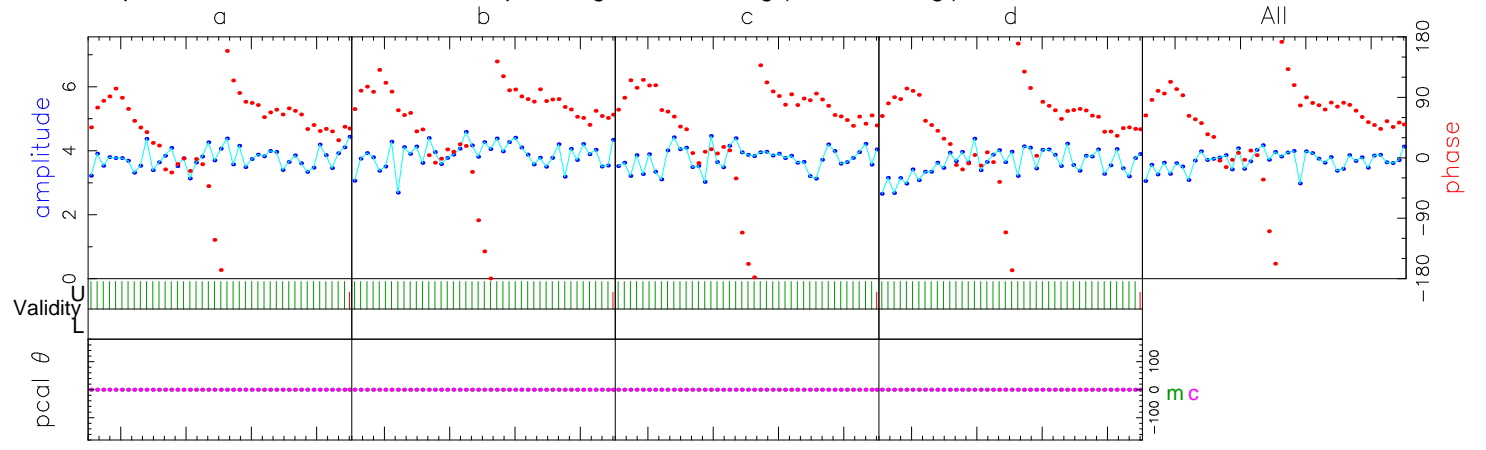
ph/seg (deg)	52.6	3.1	Amplitude	2.847 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	45.4	5.4	Search (1024X16)	2.737	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	3.7	1.0	Inc. seg. avg.	4.094	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
amp/frq (%)	2.3	1.7	Inc. frq. avg.	2.844	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023	0.023	
					Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00



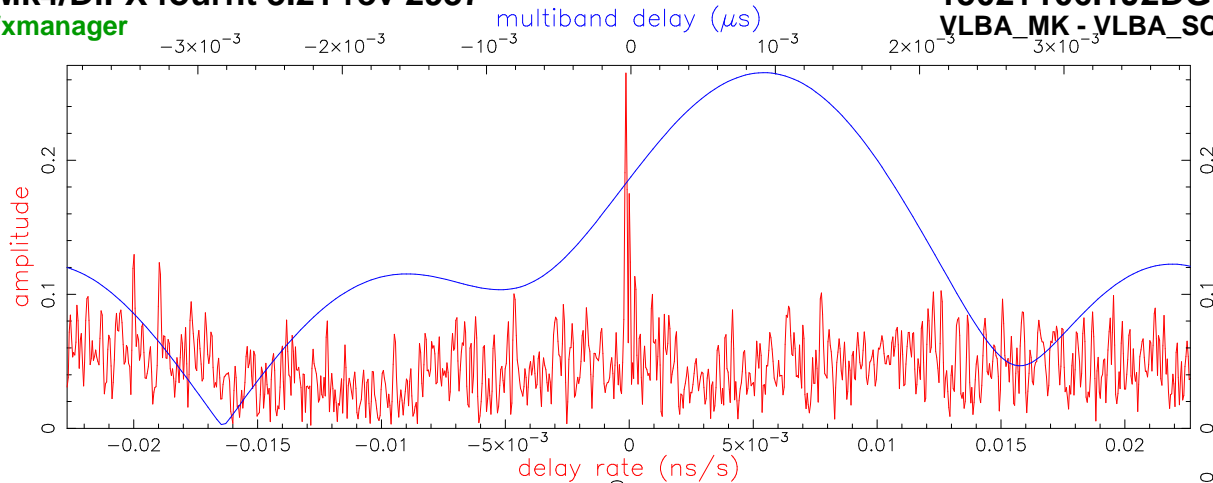
Fringe quality 4
SNR 106.8
Int time 239.976
Amp 2.521
Phase 60.8
PFD 0.0e+00
Delays (us)
SBD -0.007676
MBD 0.000024
Fringe rate (Hz)
-0.000468
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211458
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec

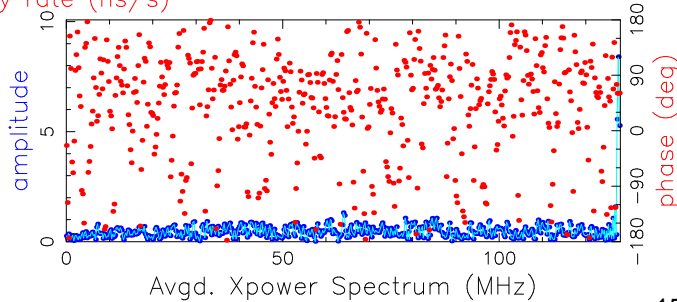
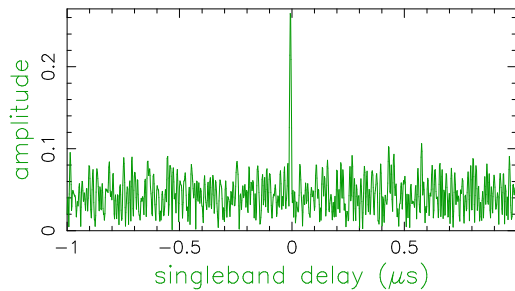


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0	APs used	1000
m	1000	1000	1000	1000	PC freqs	1000
c	1000	1000	1000	1000	PC freqs	1000
m:c	0:0	0:0	0:0	0:0	PC phase	0:0
m:c	0:0	0:0	0:0	0:0	Manl PC	0:0
m	1000	1000	1000	1000	PC amp	1000
c	1000	1000	1000	1000		1000
m	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-1.36530546870E+04		Apriori delay (usec)	-1.36530468988E+04	Resid mbdelay (usec)	2.42188E-05 +/- 1.0E-05
Sband delay (usec)	-1.36530545751E+04		Apriori clock (usec)	4.8521881E+00	Resid sbdelay (usec)	-7.67638E-03 +/- 4.0E-05
Phase delay (usec)	-1.36530468948E+04		Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	3.92366E-06 +/- 6.9E-08
Delay rate (us/s)	1.79739643587E+00		Apriori rate (us/s)	1.79739644675E+00	Resid rate (us/s)	-1.08825E-08 +/- 5.0E-10
Total phase (deg)		-127.4	Apriori accel (us/s/s)	7.33160236433E-05	Resid phase (deg)	60.8 +/- 1.1
RMS	52.8	3.5	Amplitude	2.521 +/- 0.024	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	52.8	3.5	Search (1024X16)	2.456	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	47.4	6.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	13.4	1.1	Inc. seg. avg.	3.676	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	2.8	1.9	Inc. frq. avg.	2.555	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
m: az 85.0 el 17.5 pa -72.4	c: az 246.7 el 72.9 pa 62.7		u,v (fr/asec) -5196.445 694.613		simultaneous interpolator	
Control file: cf_1234_gmva7mm	Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mc..1J2DGP		Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mc.Q.175.1J2DGP			



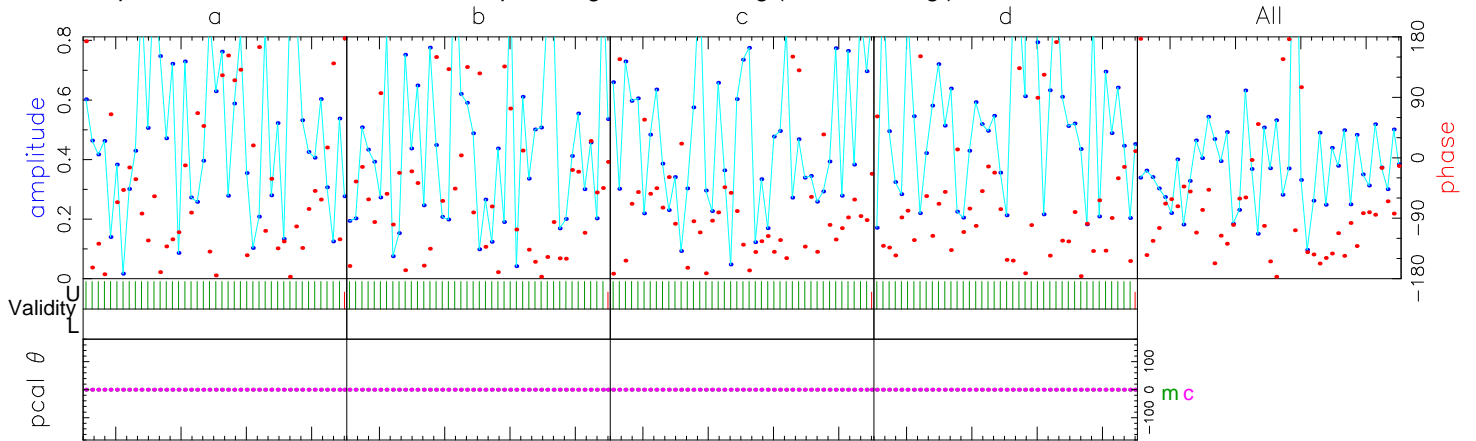
Fringe quality 8

SNR 11.5
Int time 239.976
Amp 0.271
Phase -107.5
PFD 4.6e-22
Delays (us)
SBD -0.006934
MBD 0.000870
Fringe rate (Hz)
-0.006650
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211500
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

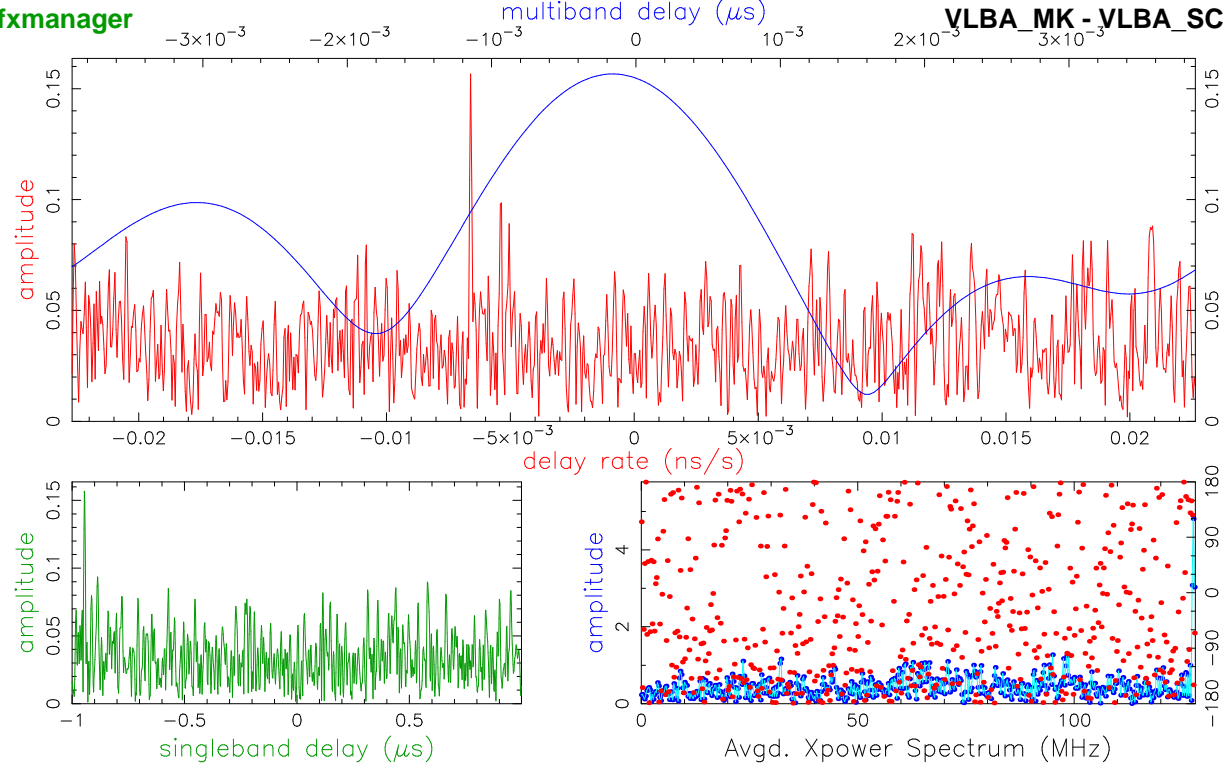
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m:c	0:0	0:0	0:0	0:0		
m:c	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

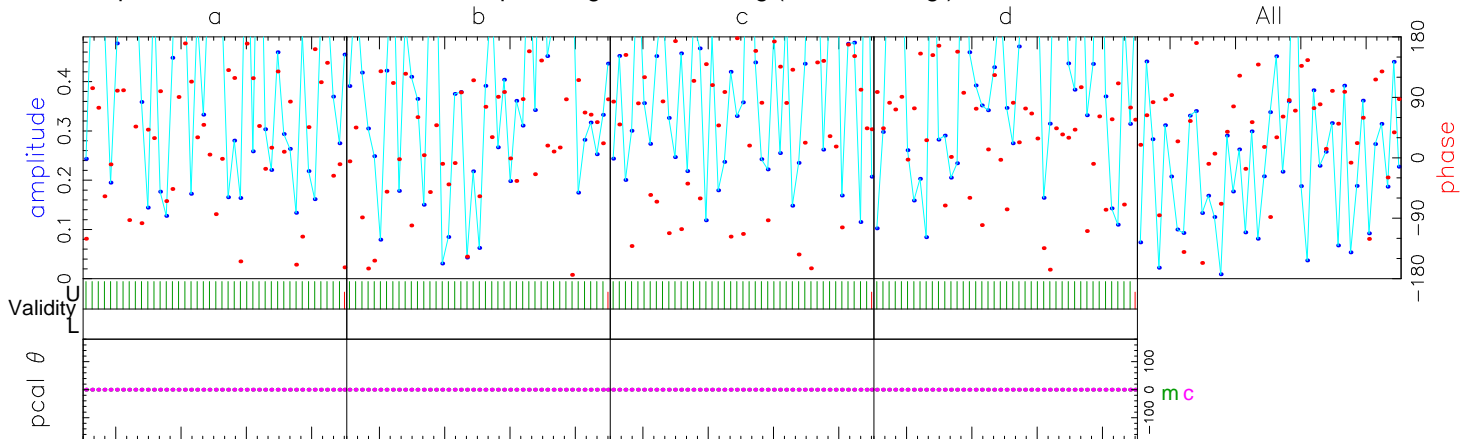
Group delay (usec)(sbd)	-1.36530538410E+04	Apriori delay (usec)	-1.36530468988E+04	Resid mbdelay (usec)	8.70299E-04	+/-	9.7E-05
Sband delay (usec)	-1.36530538333E+04	Apriori clock (usec)	4.8521881E+00	Resid sbdelay (usec)	-6.93450E-03	+/-	3.8E-04
Phase delay (usec)	-1.36530469057E+04	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-6.93551E-06	+/-	6.4E-07
Delay rate (us/s)	1.79739629224E+00	Apriori rate (us/s)	1.79739644675E+00	Resid rate (us/s)	-1.54505E-07	+/-	4.7E-09
Total phase (deg)	-295.7	Apriori accel (us/s/s)	7.33160236433E-05	Resid phase (deg)	-107.5	+/-	10.0

	RMS	Theor.	Amplitude	0.271 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	57.7	32.8	Search (1024X16)	0.244	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
amp/seg (%)	91.6	57.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	25.9	10.0	Inc. seg. avg.	0.339	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
amp/frq (%)	37.7	17.4	Inc. frq. avg.	0.269	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		
m: az 85.0 el 17.5 pa -72.4			c: az 246.7 el 72.9 pa 62.7						
u,v (fr/asec)			-5196.445	694.613					simultaneous interpolator



Fringe quality 0
SNR 6.7
Int time 239.975
Amp 0.164
Phase 68.6
PFD 3.1e-03
Delays (us)
SBD -0.944781
MBD -0.000151
Fringe rate (Hz)
-0.284869
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211502
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m:c	0:0	0:0	0:0	0:0		
m:c	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UL	Q01UL	Q02UL	Q03UL		

Group delay (usec)(sbd)	-1.36539923621E+04	Apriori delay (usec)	-1.36530468988E+04	Resid mbdelay (usec)	-1.50800E-04	+/-	1.7E-04
Sband delay (usec)	-1.36539916795E+04	Apriori clock (usec)	4.8521881E+00	Resid sbdelay (usec)	-9.44781E-01	+/-	6.4E-04
Phase delay (usec)	-1.36530468943E+04	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	4.42451E-06	+/-	1.1E-06
Delay rate (us/s)	1.79738982804E+00	Apriori rate (us/s)	1.79739644675E+00	Resid rate (us/s)	-6.61871E-06	+/-	8.0E-09
Total phase (deg)	-119.7	Apriori accel (us/s/s)	7.33160236433E-05	Resid phase (deg)	68.6	+/-	17.1

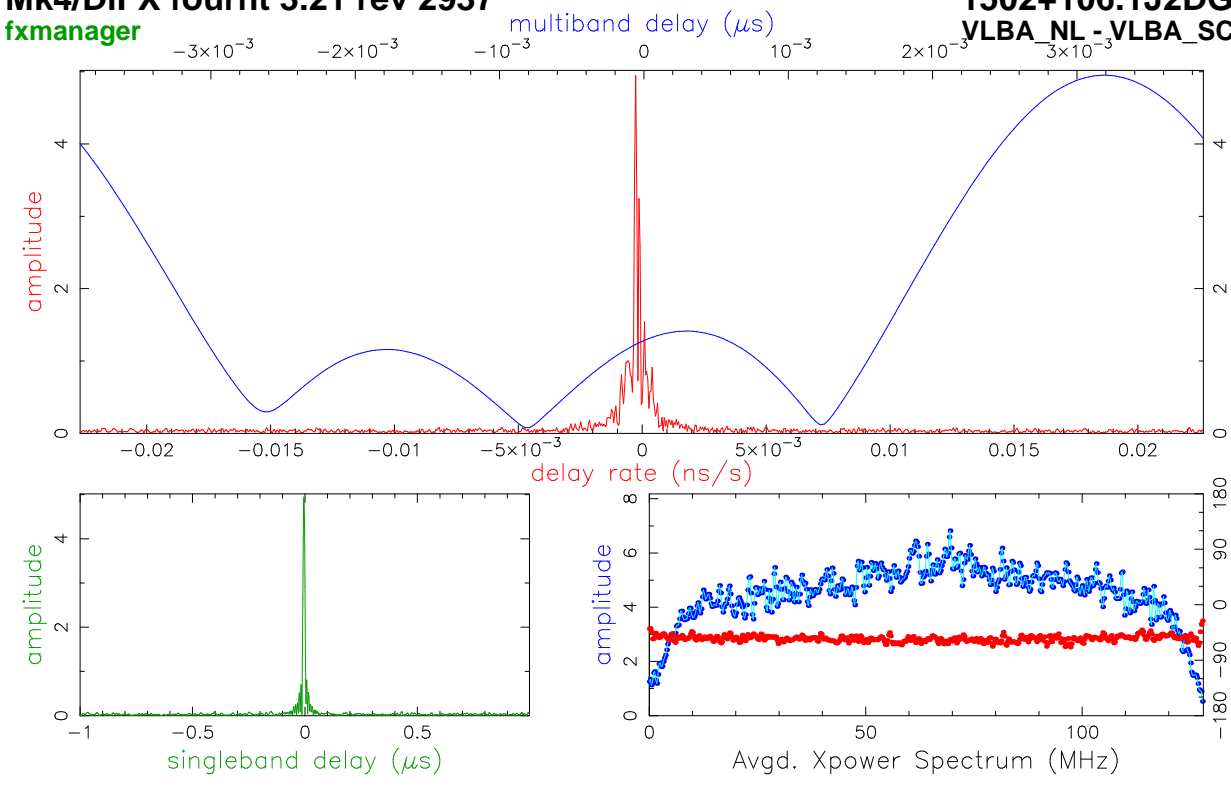
ph/seg (deg) 72.6 56.1 Amplitude 0.164 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 109.4 98.0 Search (1024X16) 0.146 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 29.3 17.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
amp/frq (%) 45.9 29.9 Inc. seg. avg. 0.167 Sample rate(MISamp/s): 256 Data rate (Mb/s): 2048 nlags: 512 t_cohere infinite dr window (ns/s) -0.023 0.023
m: az 85.0 el 17.5 pa -72.4 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -5196.445 694.613 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mc.Q.206.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, nc

VLBA_NL - VLBA_SC, fgroup Q, pol LL

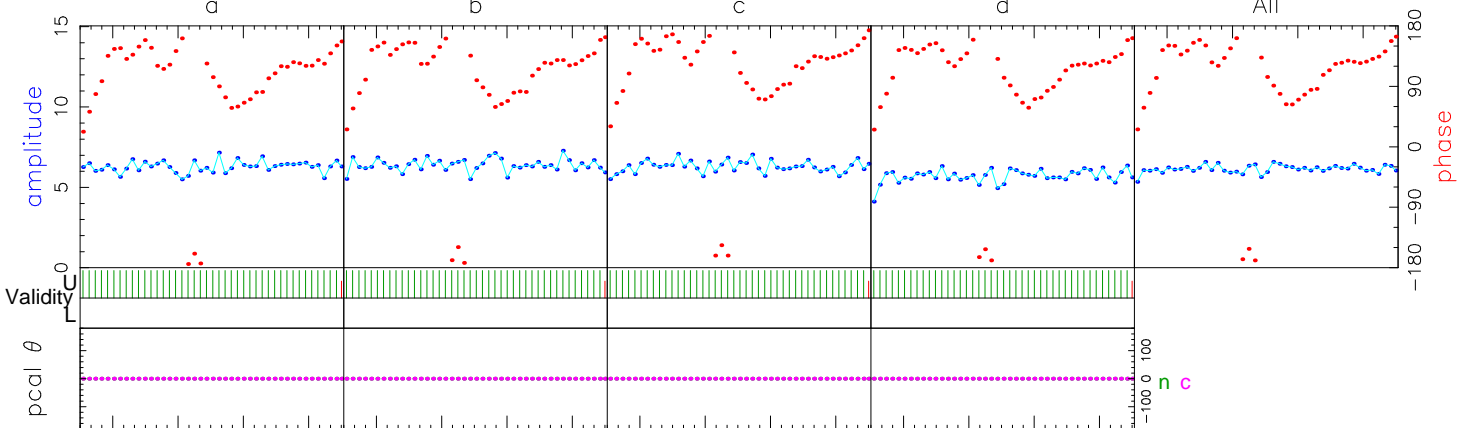


Fringe quality 6

SNR 212.5
 Int time 239.975
 Amp 5.017
 Phase 123.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.004713
 MBD 0.003146
 Fringe rate (Hz)
 -0.010709
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211456
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



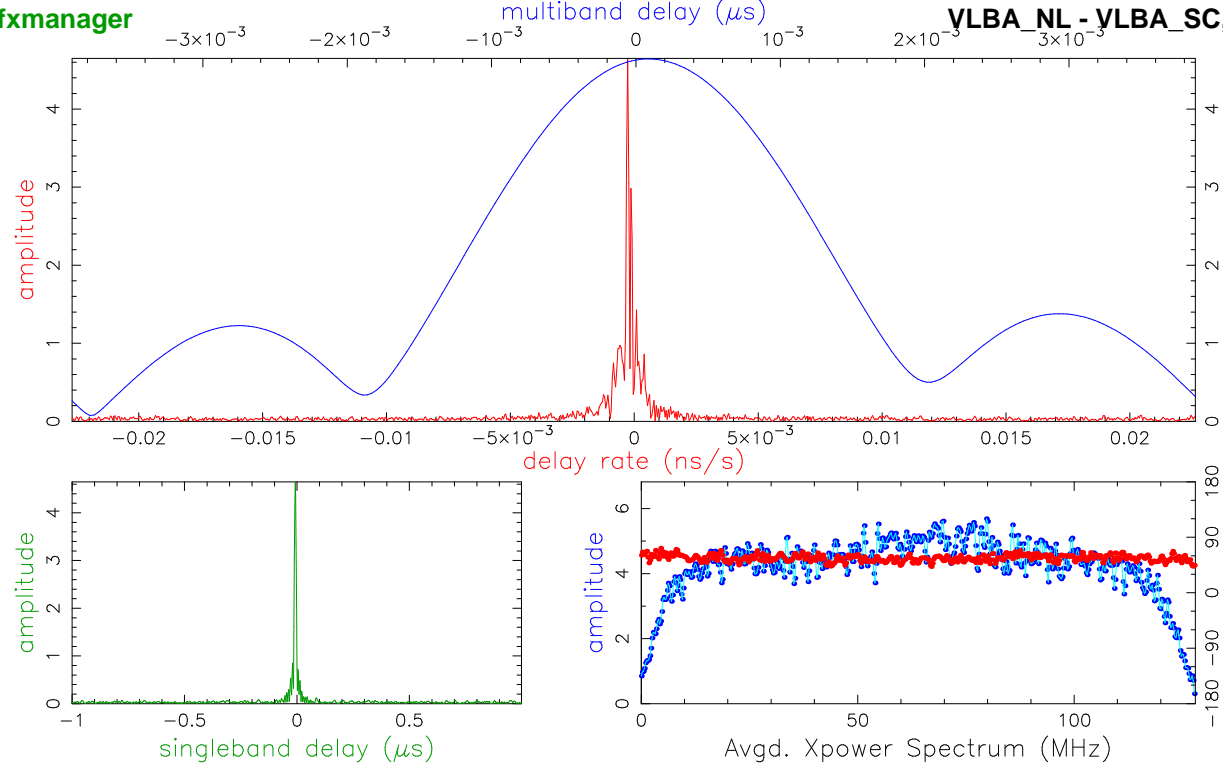
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
n	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	PC freqs	
n:c	0:0	0:0	0:0	0:0	PC phase	
n:c	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	-2.36376500161E+03	Apriori delay (usec)	-2.36376033461E+03	Resid mbdelay (usec)	3.14550E-03	+/- 5.2E-06
Group delay (usec)(sbd)	-2.36376500161E+03	Apriori clock (usec)	-8.3330002E+00	Resid sbdelay (usec)	-4.71262E-03	+/- 2.0E-05
Sband delay (usec)	-2.36376504724E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	7.96463E-06	+/- 3.5E-08
Phase delay (usec)	-2.36376032665E+03	Apriori rate (us/s)	6.20534011030E-01	Resid rate (us/s)	-2.48820E-07	+/- 2.5E-10
Delay rate (us/s)	6.20533762210E-01	Apriori accel (us/s/s)	1.98831606443E-05	Resid phase (deg)	123.4	+/- 0.5
Total phase (deg)	-165.2					

	RMS	Theor.	Amplitude	5.017 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	38.1	1.8	Search (1024X16)	4.612	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	23.1	3.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	6.4	0.5	Inc. seg. avg.	6.150	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.0	0.9	Inc. frq. avg.	4.963	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

n: az 159.6 el 57.2 pa -15.1 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -1794.213 1720.166 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/nc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/nc.Q.158.1J2DGP

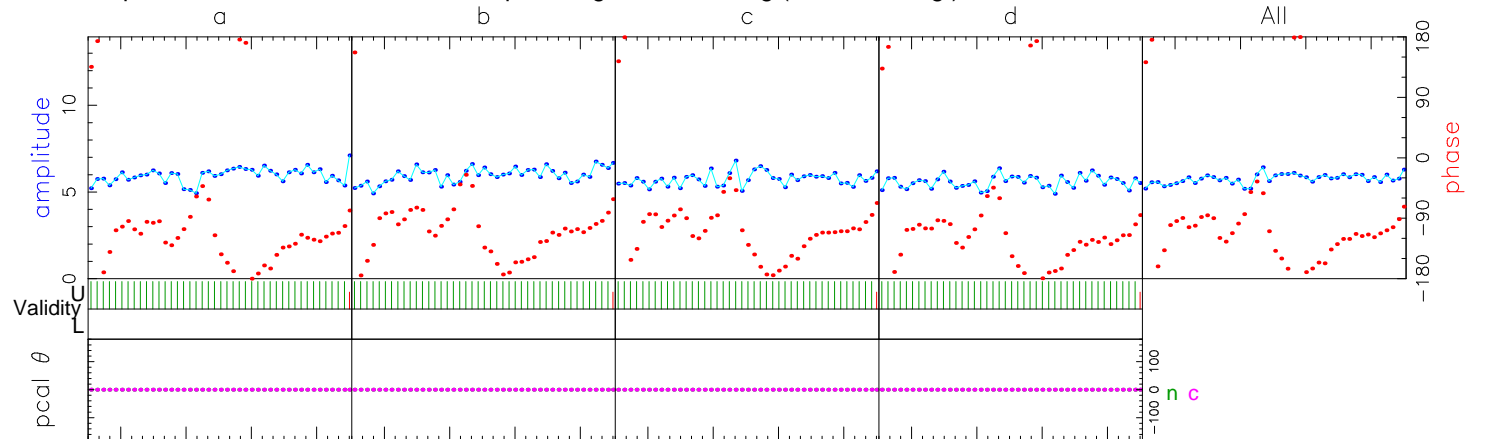


Fringe quality 6

SNR 197.0
Int time 239.976
Amp 4.650
Phase -119.7
PFD 0.0e+00
Delays (us)
SBD -0.007532
MBD 0.000097
Fringe rate (Hz)
-0.010707
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211458
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



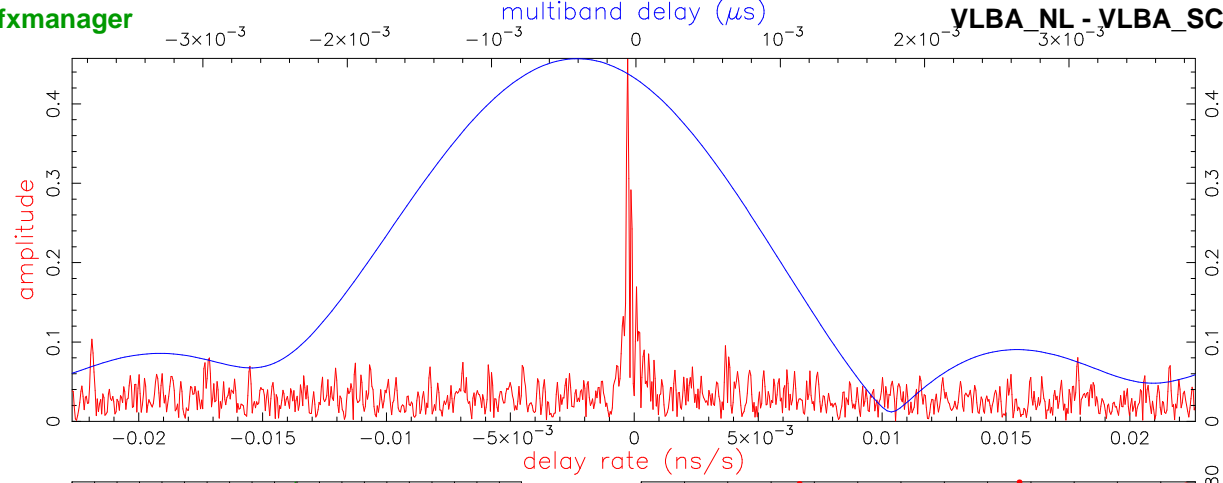
42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-126.6	-110.6	-114.5	-127.3	Phase	-119.7
4.8	4.8	4.6	4.5	Ampl.	4.7
509.5	509.1	508.9	509.0	Sbd box	509.1
U/L 469/0	469/0	469/0	469/0	APs used	
n 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
n:c 0:0	0:0	0:0	0:0	PC phase	
n:c 0:0	0:0	0:0	0:0	ManI PC	
n 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
n Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-2.36376804983E+03	Apriori delay (usec)	-2.36376033461E+03	Resid mbdelay (usec)	9.72858E-05 +/- 5.6E-06
Sband delay (usec)	-2.36376786649E+03	Apriori clock (usec)	-8.3330002E+00	Resid sbdelay (usec)	-7.53187E-03 +/- 2.2E-05
Phase delay (usec)	-2.36376034234E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-7.72281E-06 +/- 3.8E-08
Delay rate (us/s)	6.20533762255E-01	Apriori rate (us/s)	6.20534011030E-01	Resid rate (us/s)	-2.48775E-07 +/- 2.7E-10
Total phase (deg)	-48.3	Apriori accel (us/s/s)	1.98831606443E-05	Resid phase (deg)	-119.7 +/- 0.6
RMS	Theor.	Amplitude	4.650 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
37.8	1.9	Search (1024X16)	4.371	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	24.7 3.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	10.4 0.6	Inc. seg. avg.	5.760	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.2 1.0	Inc. frq. avg.	4.681	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
n: az 159.6 el 57.2 pa -15.1	c: az 246.7 el 72.9 pa 62.7	u, v (fr/asec)	-1794.213 1720.166		simultaneous interpolator
Control file: cf_1234_gmva7mm	Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/nc..1J2DGP	Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/nc.Q.174.1J2DGP			

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, nc

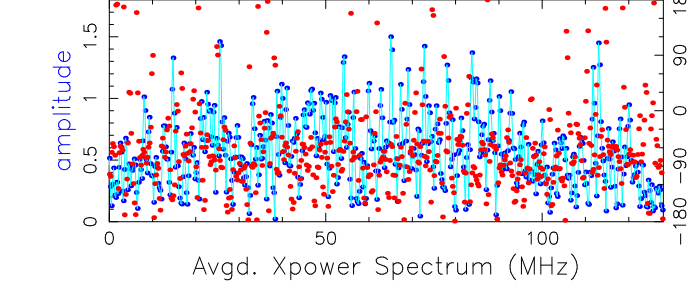
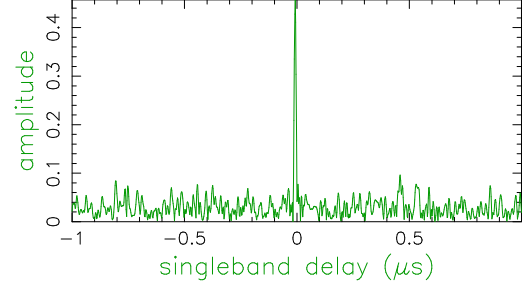
VLBA_NL - VLBA_SC, fgroup Q, pol LR



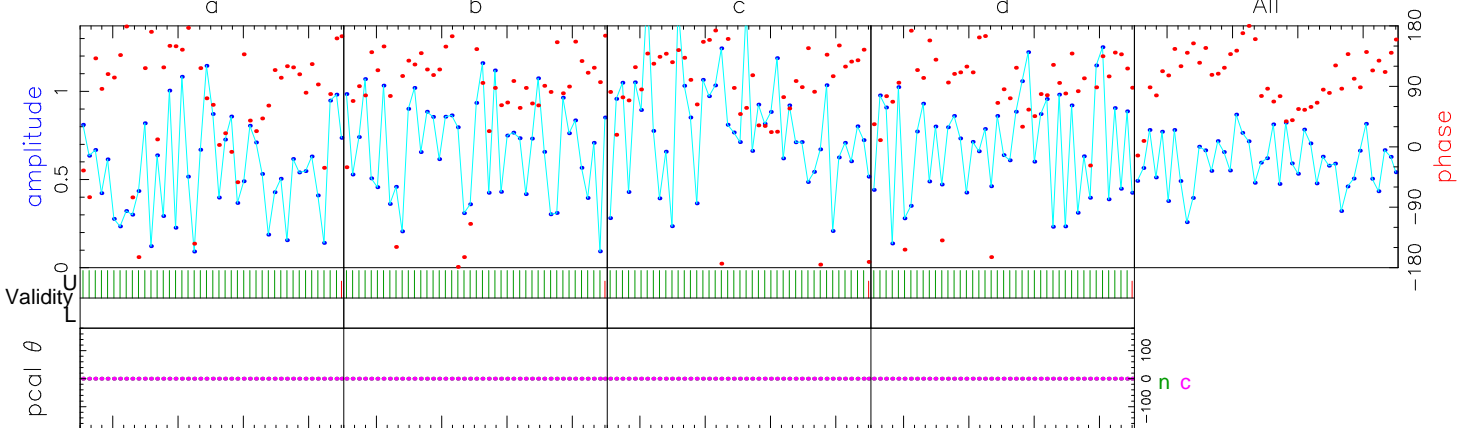
Fringe quality 9

SNR 19.4
 Int time 239.976
 Amp 0.457
 Phase 104.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.008029
 MBD -0.000410
 Fringe rate (Hz)
 -0.010757
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211500
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
n	1000	1000	1000	1000		
c	1000	1000	1000	1000		
n:c	0:0	0:0	0:0	0:0		
n:c	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000		
c	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UR	Q01UR	Q02UR	Q03UR		
					Phase	104.9
					Ampl.	0.5
					Sbd box	508.9
					APs used	
					PC freqs	
					PC freqs	
					PC phase	
					Manl PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-2.36376855755E+03	Apriori delay (usec)	-2.36376033461E+03	Resid mbdelay (usec)	-4.10433E-04	+/-	5.7E-05
Sband delay (usec)	-2.36376836349E+03	Apriori clock (usec)	-8.3330002E+00	Resid sbdelay (usec)	-8.02888E-03	+/-	2.2E-04
Phase delay (usec)	-2.36376032784E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	6.76901E-06	+/-	3.8E-07
Delay rate (us/s)	6.20533761107E-01	Apriori rate (us/s)	6.20534011030E-01	Resid rate (us/s)	-2.49924E-07	+/-	2.8E-09
Total phase (deg)	-183.8	Apriori accel (us/s/s)	1.98831606443E-05	Resid phase (deg)	104.9	+/-	5.9

ph/seg (deg)	42.3	Theor.	19.4	Amplitude	0.457 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	44.5		33.9	Search (1024X16)	0.435	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	7.6		5.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	23.6		10.3	Inc. seg. avg.	0.569	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.456	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

n: az 159.6 el 57.2 pa -15.1 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -1794.213 1720.166 simultaneous interpolator

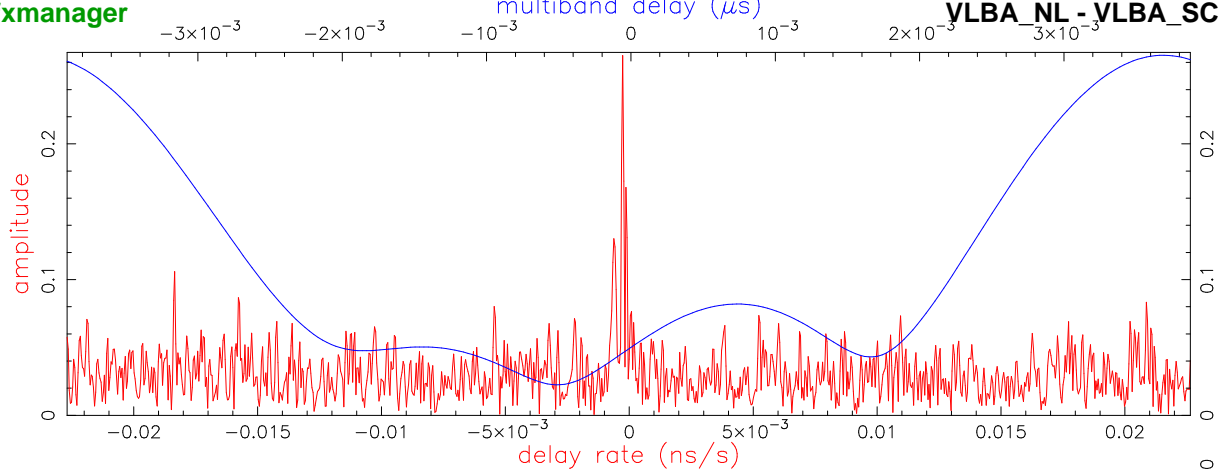
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/nc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/nc.Q.193.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

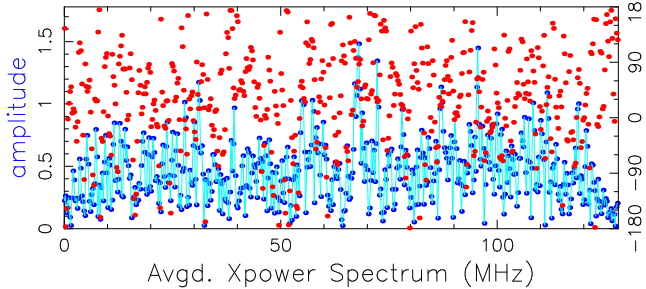
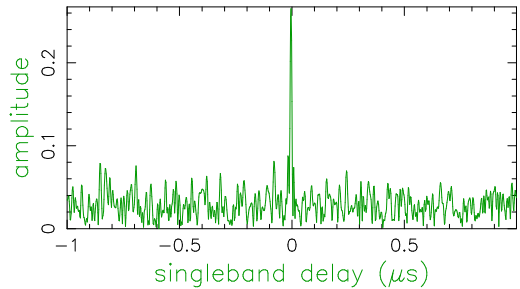
1502+106.1J2DGP, No0154, nc

VLBA_NL - VLBA_SC, fgroup Q, pol RL



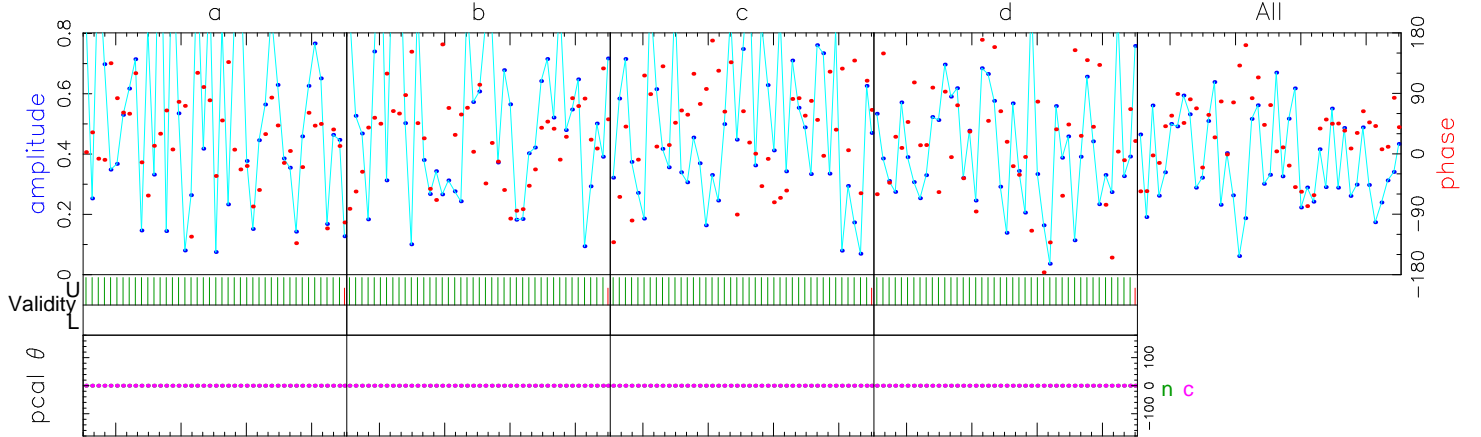
Fringe quality 9

SNR 11.3
 Int time 239.975
 Amp 0.267
 Phase 32.8
 PFD 2.3e-21
 Delays (us)
 SBD -0.004499
 MBD -0.004160
 Fringe rate (Hz)
 -0.010787
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211503
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
n	1000	1000	1000	1000		
c	1000	1000	1000	1000		
n:c	0:0	0:0	0:0	0:0		
n:c	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000		
c	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UL	Q01UL	Q02UL	Q03UL		

Group delay (usec)(sbd)	-2.36376449480E+03	Apriori delay (usec)	-2.36376033461E+03	Resid mbdelay (usec)	-4.16019E-03	+/- 9.8E-05
Sband delay (usec)	-2.36376483399E+03	Apriori clock (usec)	-8.3330002E+00	Resid sbdelay (usec)	-4.49937E-03	+/- 3.8E-04
Phase delay (usec)	-2.36376033250E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	2.11863E-06	+/- 6.5E-07
Delay rate (us/s)	6.20533760395E-01	Apriori rate (us/s)	6.20534011030E-01	Resid rate (us/s)	-2.50636E-07	+/- 4.7E-09
Total phase (deg)	-255.8	Apriori accel (us/s/s)	1.98831606443E-05	Resid phase (deg)	32.8	+/- 10.1

ph/seg (deg)	52.7	Theor.	33.2	Amplitude	0.267 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	68.5		57.9	Search (1024X16)	0.250	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	9.2		10.1	Inc. seg. avg.	0.325	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	28.3		17.7	Inc. frq. avg.	0.263	Sample rate(MSamp/s): 256		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

n: az 159.6 el 57.2 pa -15.1 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -1794.213 1720.166 simultaneous interpolator

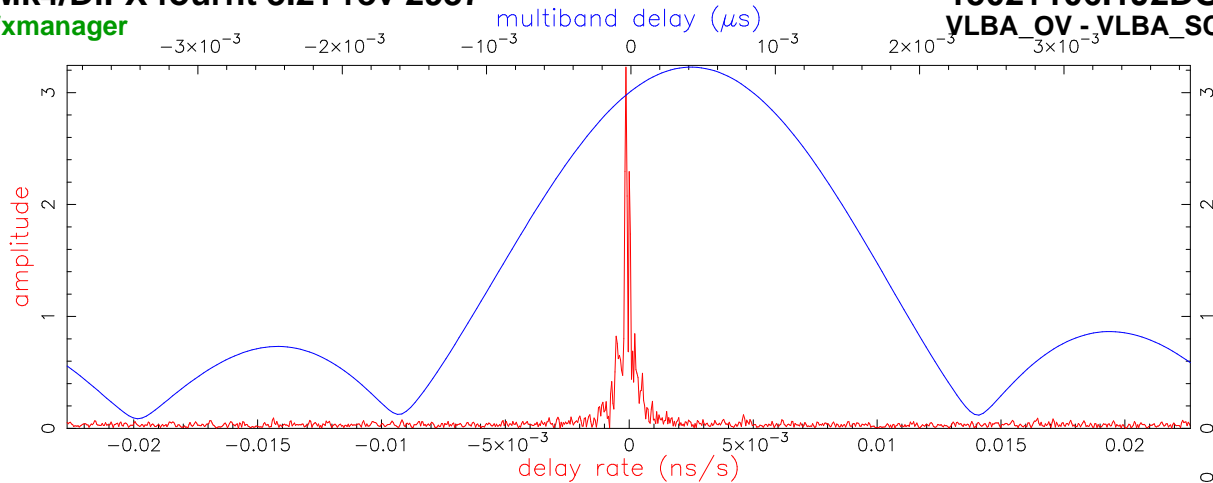
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/nc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/nc.Q.214.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

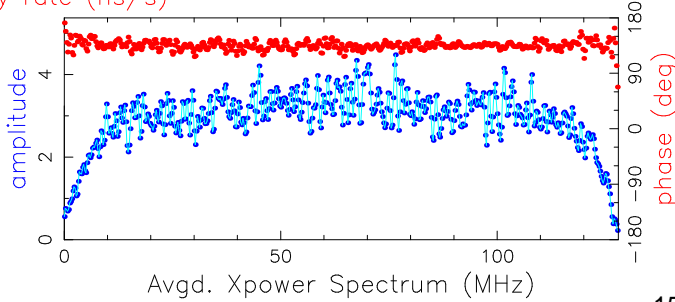
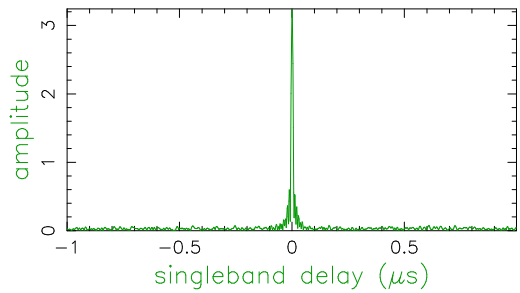
1502+106.1J2DGP, No0154, oc

VLBA_OV - VLBA_SC, fgroup Q, pol LL



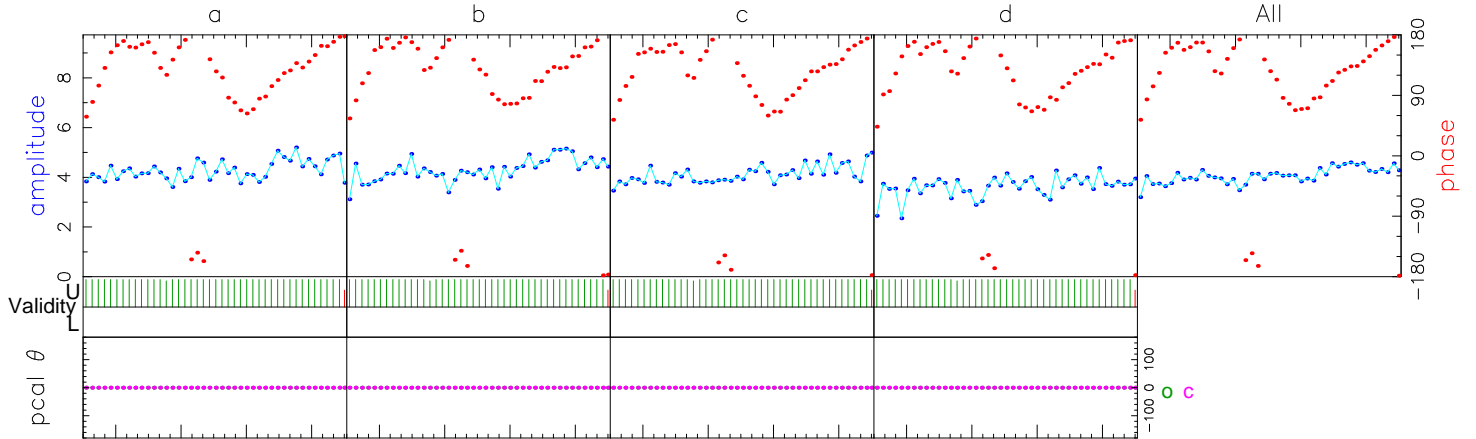
Fringe quality 6

SNR 137.3
 Int time 239.704
 Amp 3.244
 Phase 135.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.000466
 MBD 0.000445
 Fringe rate (Hz)
 -0.006338
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211458
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
o	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	PC freqs	
o:c	0:0	0:0	0:0	0:0	PC phase	
o:c	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
o	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-4.65001551815E+03	Apriori delay (usec)	-4.65001596354E+03	Resid mbdelay (usec)	4.45393E-04	+/- 8.1E-06
Sband delay (usec)	-4.65001549779E+03	Apriori clock (usec)	1.2877782E+01	Resid sbdelay (usec)	4.65750E-04	+/- 3.1E-05
Phase delay (usec)	-4.65001595480E+03	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	8.74425E-06	+/- 5.4E-08
Delay rate (us/s)	1.14855559067E+00	Apriori rate (us/s)	1.14855573794E+00	Resid rate (us/s)	-1.47264E-07	+/- 3.9E-10
Total phase (deg)	109.9	Apriori accel (us/s/s)	3.09079315136E-05	Resid phase (deg)	135.5	+/- 0.8

ph/seg (deg)	RMS 39.2	Theor. 2.7	Amplitude 3.244 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	27.3	4.8	Search (1024X16) 3.092	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	3.1	0.8	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	7.1	1.5	Inc. seg. avg. 4.069	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
			Inc. frq. avg. 3.229	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

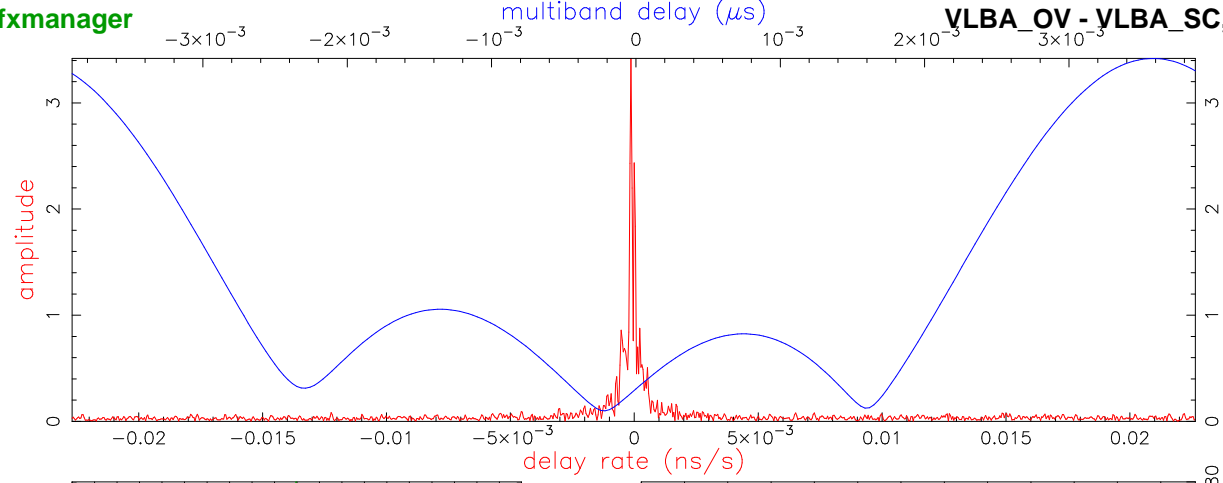
o: az 118.4 el 46.7 pa -45.1 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -3325.909 1539.236 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/oc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/oc.Q.171.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, oc

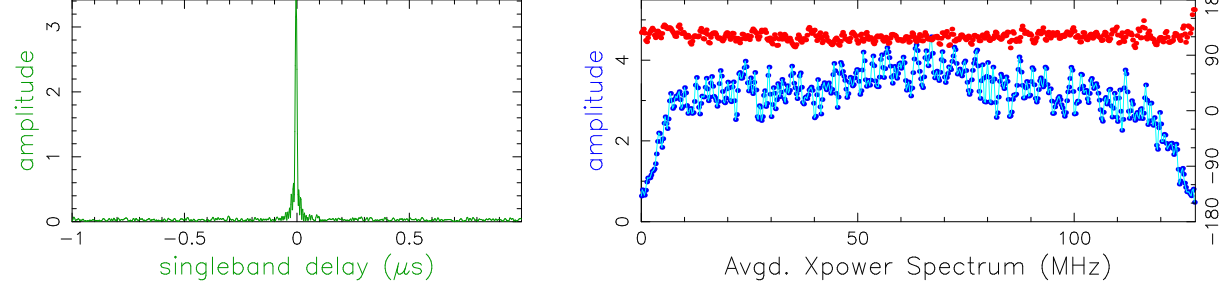
VLBA_OV - VLBA_SC, fgroup Q, pol RR



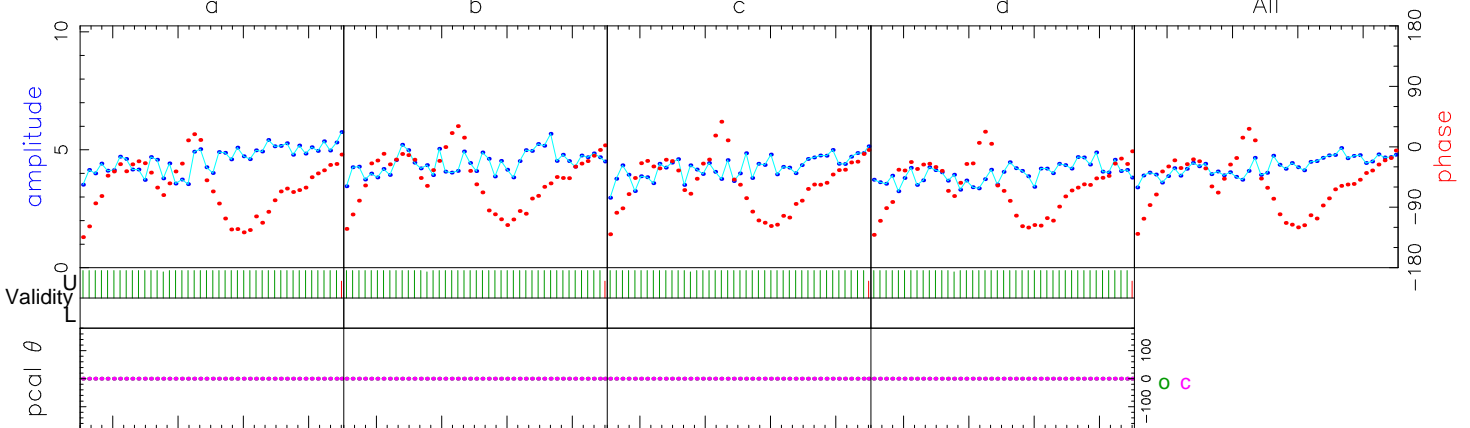
Fringe quality 6

SNR 144.8
 Int time 239.704
 Amp 3.419
 Phase -53.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.003974
 MBD 0.003581
 Fringe rate (Hz)
 -0.006304
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211500
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
o	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	PC freqs	
o:c	0:0	0:0	0:0	0:0	PC freqs	
o:c	0:0	0:0	0:0	0:0	PC phase	
o	1000	1000	1000	1000	Manl PC	
c	1000	1000	1000	1000	PC amp	
o	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-4.65002019550E+03	Apriori delay (usec)	-4.65001596354E+03	Resid mbdelay (usec)	3.58055E-03	+/- 7.7E-06
Sband delay (usec)	-4.65001993742E+03	Apriori clock (usec)	1.2877782E+01	Resid sbdelay (usec)	-3.97388E-03	+/- 3.0E-05
Phase delay (usec)	-4.65001596702E+03	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	-3.47851E-06	+/- 5.1E-08
Delay rate (us/s)	1.1485559146E+00	Apriori rate (us/s)	1.14855573794E+00	Resid rate (us/s)	-1.46476E-07	+/- 3.7E-10
Total phase (deg)	-79.4	Apriori accel (us/s/s)	3.09079315136E-05	Resid phase (deg)	-53.9	+/- 0.8

ph/seg (deg)	38.8	Theor.	2.6	Amplitude	3.419 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	28.1		4.5	Search (1024X16)	3.247	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	8.1		0.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004
amp/frq (%)	4.9		1.4	Inc. seg. avg.	4.297	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	3.436	Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00	
						nlags: 512	t_cohere infinite		

o: az 118.4 el 46.7 pa -45.1 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -3325.909 1539.236 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/oc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/oc.Q.188.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

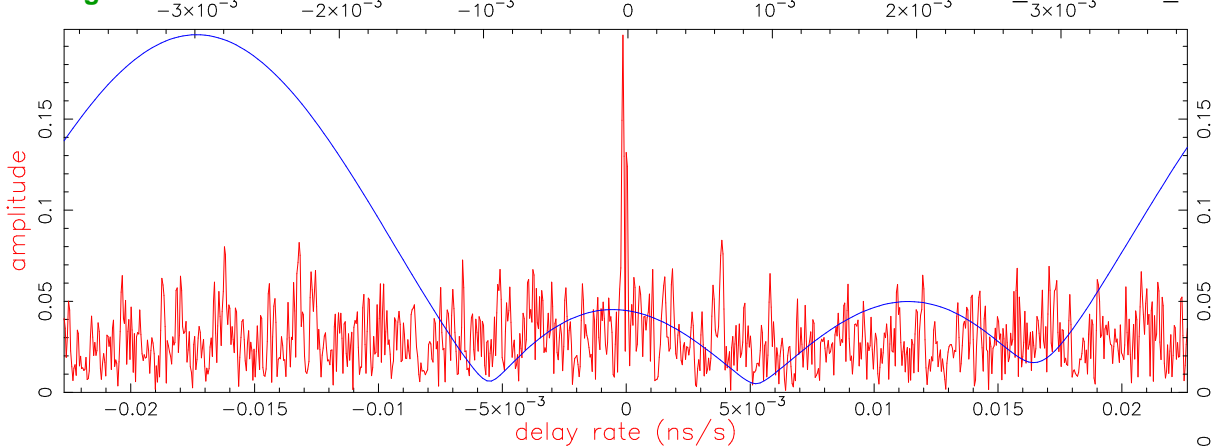
fxmanager

1502+106.1J2DGP, No0154, oc

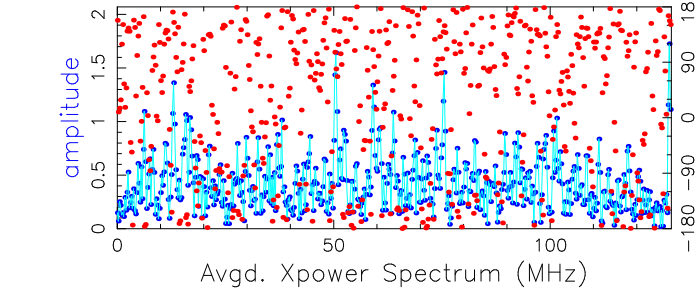
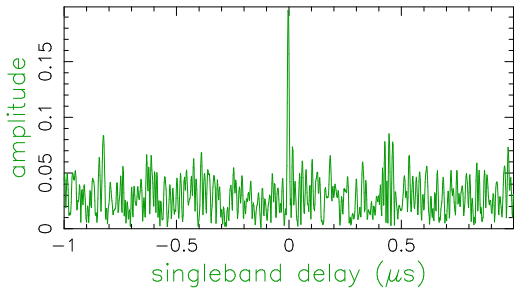
VLBA_OV - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)

Fringe quality 9

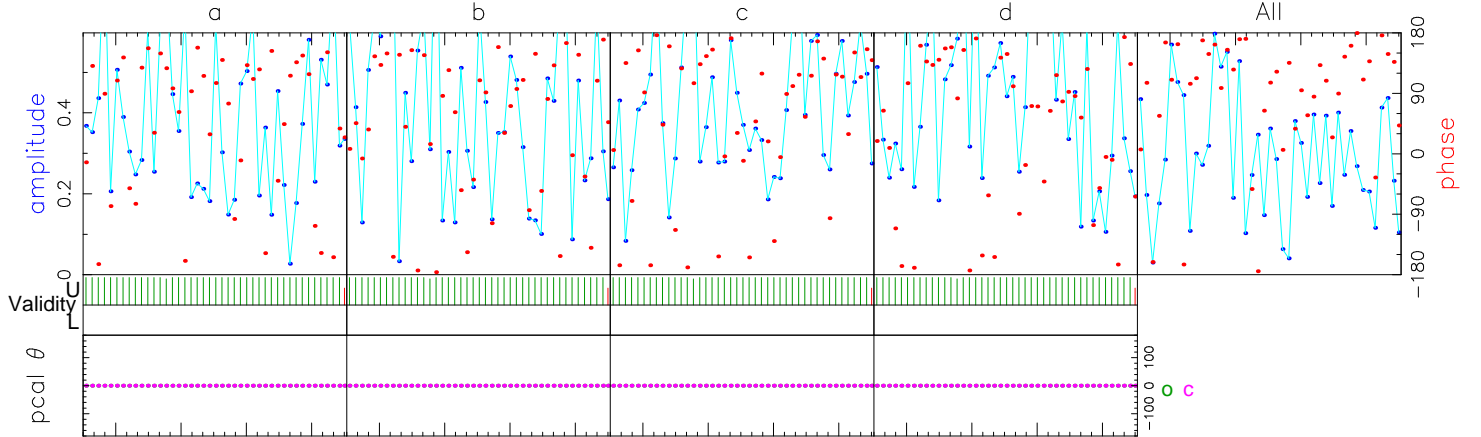


SNR 8.4
 Int time 239.704
 Amp 0.199
 Phase 129.8
 PFD 5.9e-09
 Delays (us)
 SBD -0.003083
 MBD -0.002930
 Fringe rate (Hz)
 -0.006626
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211502
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec

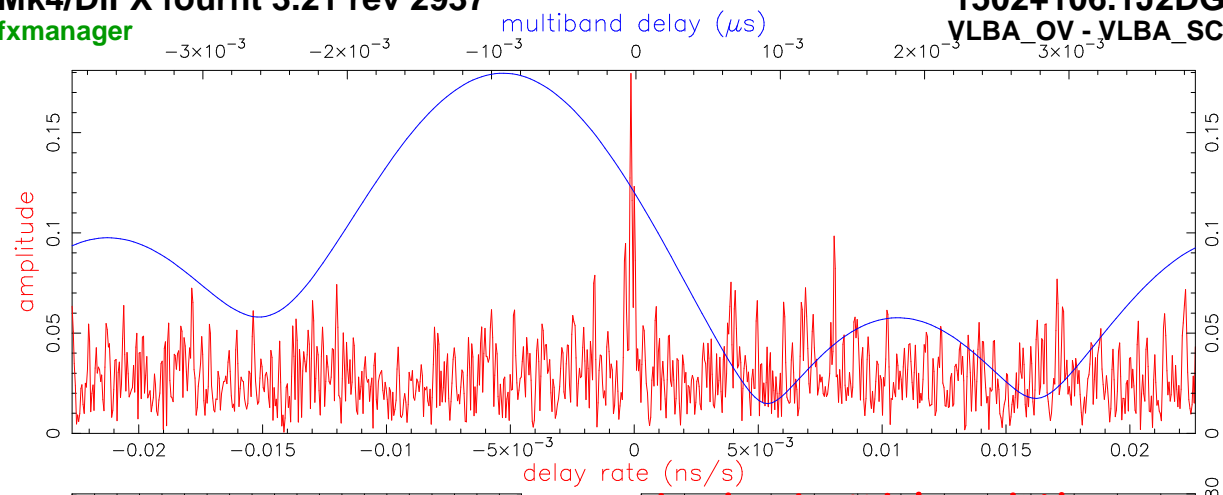


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
o	1000	1000	1000	1000		
c	1000	1000	1000	1000		
o:c	0:0	0:0	0:0	0:0		
o:c	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000		
c	1000	1000	1000	1000		
o	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UR	Q01UR	Q02UR	Q03UR		

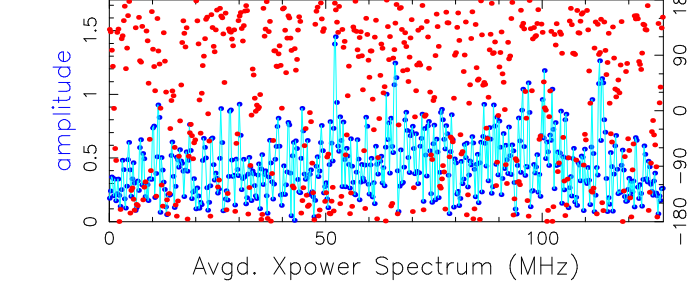
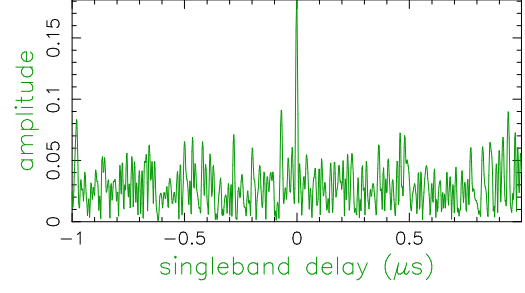
Group delay (usec)(sbd)	-4.65001889386E+03	Apriori delay (usec)	-4.65001596354E+03	Resid mbdelay (usec)	-2.93032E-03	+/-	1.3E-04
Sband delay (usec)	-4.65001904692E+03	Apriori clock (usec)	1.2877782E+01	Resid sbdelay (usec)	-3.08338E-03	+/-	5.1E-04
Phase delay (usec)	-4.65001595516E+03	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	8.37947E-06	+/-	8.8E-07
Delay rate (us/s)	1.1485558400E+00	Apriori rate (us/s)	1.14855573794E+00	Resid rate (us/s)	-1.53941E-07	+/-	6.3E-09
Total phase (deg)	104.3	Apriori accel (us/s/s)	3.09079315136E-05	Resid phase (deg)	129.8	+/-	13.6

ph/seg (deg)	RMS 62.4	Theor. 44.5	Amplitude Search (1024X16)	0.199 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	88.1	77.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	5.1	13.6	Inc. seg. avg.	0.227	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023	
amp/frq (%)	9.8	23.7	Inc. frq. avg.	0.191	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

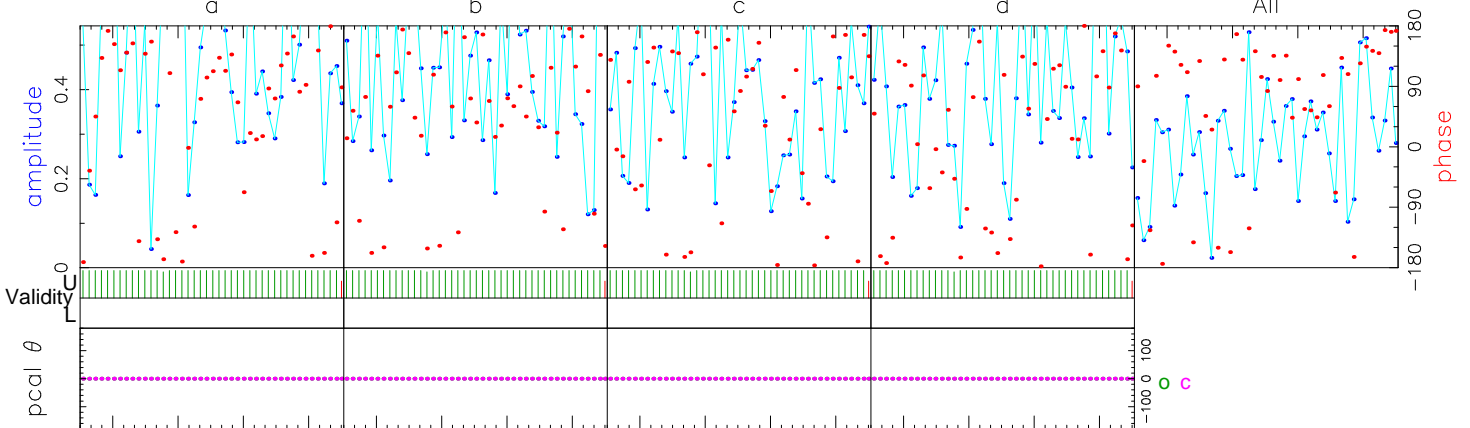
o: az 118.4 el 46.7 pa -45.1 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -3325.909 1539.236 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/oc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/oc.Q.205.1J2DGP



Fringe quality 9
SNR 7.7
Int time 239.704
Amp 0.181
Phase 130.7
PFD 2.9e-06
Delays (us)
SBD -0.001343
MBD -0.000883
Fringe rate (Hz)
-0.006428
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211503
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"



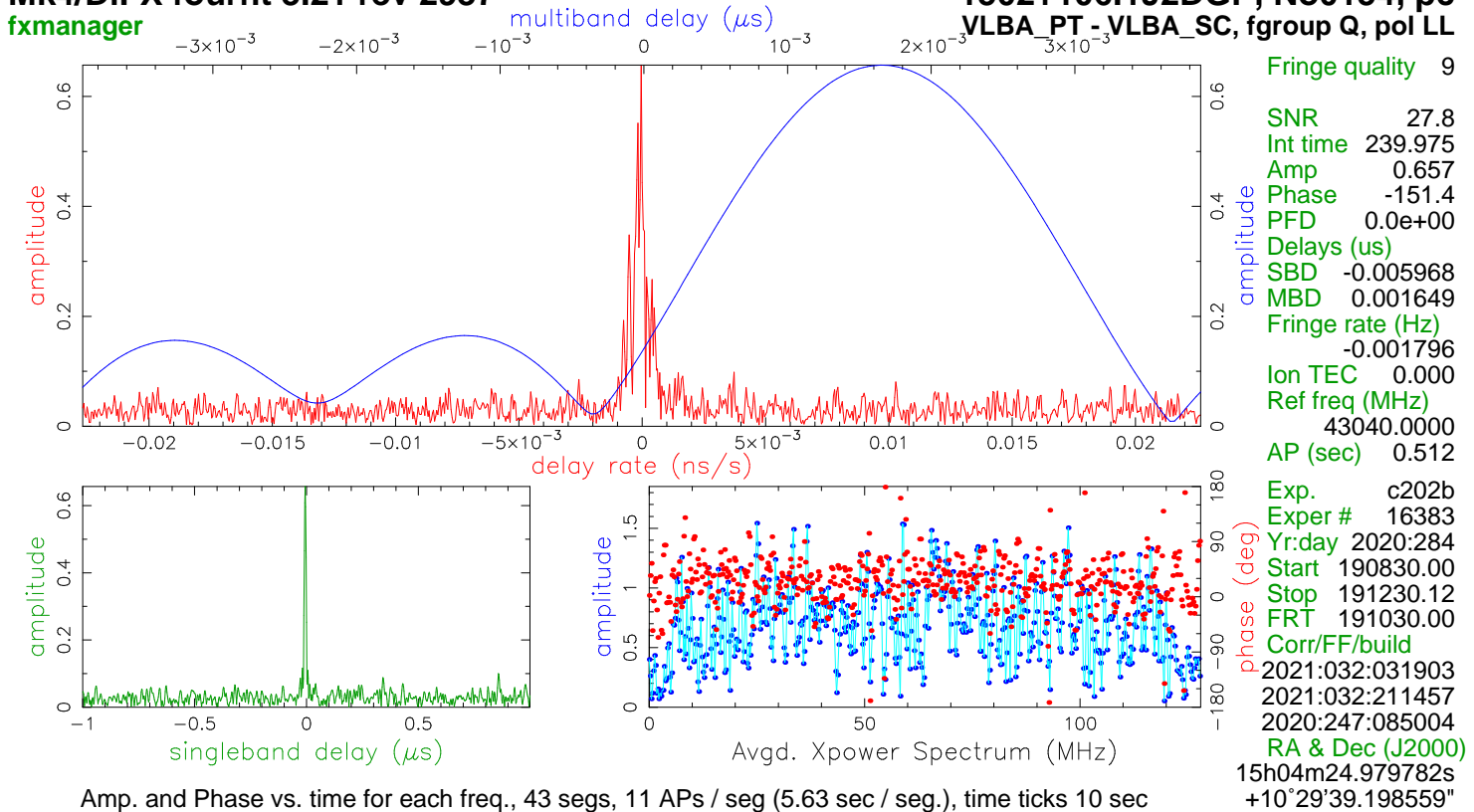
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



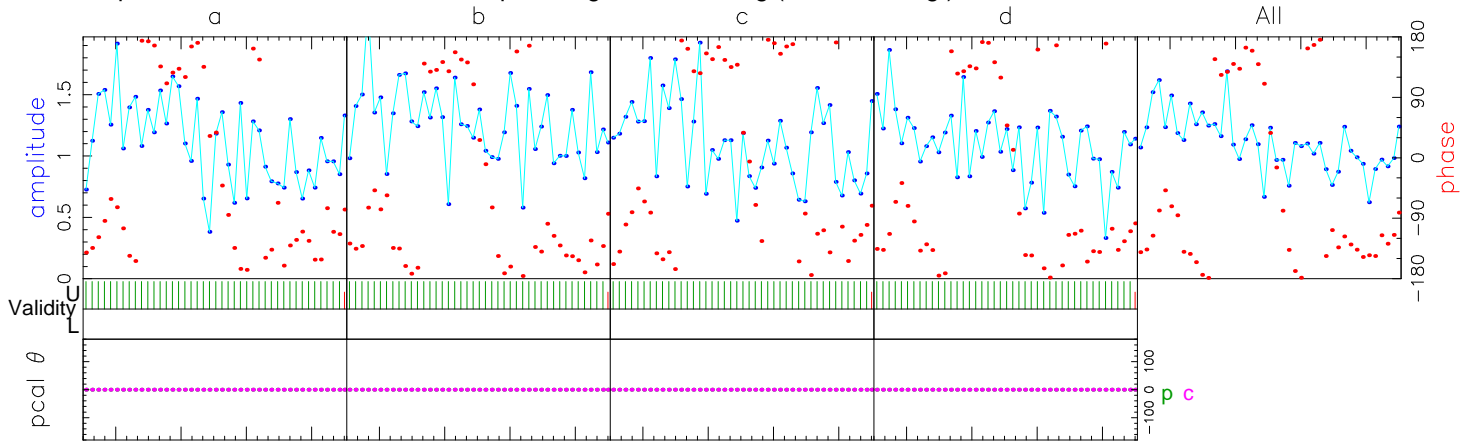
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
o	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	PC freqs	
o:c	0:0	0:0	0:0	0:0	PC freqs	
o:c	0:0	0:0	0:0	0:0	PC phase	
o	1000	1000	1000	1000	ManI PC	
c	1000	1000	1000	1000	PC amp	
o	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

Group delay (usec)(sbd)	-4.65001684631E+03	Apriori delay (usec)	-4.65001596354E+03	Resid mbdelay (usec)	-8.82763E-04	+/- 1.5E-04
Sband delay (usec)	-4.65001730629E+03	Apriori clock (usec)	1.2877782E+01	Resid sbdelay (usec)	-1.34275E-03	+/- 5.6E-04
Phase delay (usec)	-4.65001595511E+03	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	8.43489E-06	+/- 9.6E-07
Delay rate (us/s)	1.1485558858E+00	Apriori rate (us/s)	1.14855573794E+00	Resid rate (us/s)	-1.49355E-07	+/- 7.0E-09
Total phase (deg)	105.2	Apriori accel (us/s/s)	3.09079315136E-05	Resid phase (deg)	130.7	+/- 14.9

	RMS	Theor.	Amplitude	0.181 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	62.0	49.0	Search (1024X16)	0.170	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004 0.004
amp/seg (%)	86.5	85.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023 0.023
ph/frq (deg)	17.1	14.9	Inc. seg. avg.	0.206	Sample rate(MISamp/s): 256		ion window (TEC)	0.00 0.00
amp/frq (%)	34.6	26.1	Inc. frq. avg.	0.178	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-150.7	-152.8	-151.6	-150.2	Phase	-151.4
	0.6	0.8	0.6	0.6	Ampl.	0.7
	509.6	509.8	510.0	510.4	Sbd box	509.9
U/L	469/0	469/0	469/0	469/0	APs used	
p	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
p:c	0:0	0:0	0:0	0:0	PC phase	
p:c	0:0	0:0	0:0	0:0	Manl PC	
p	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
p	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-2.70296108481E+03	Apriori delay (usec)	-2.70295492144E+03	Resid mbdelay (usec)	1.64913E-03	+/-	4.0E-05
Sband delay (usec)	-2.70296088957E+03	Apriori clock (usec)	-8.4247036E+00	Resid sbdelay (usec)	-5.96813E-03	+/-	1.5E-04
Phase delay (usec)	-2.70295493121E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	-9.76926E-06	+/-	2.7E-07
Delay rate (us/s)	9.86783148319E-01	Apriori rate (us/s)	9.86783190057E-01	Resid rate (us/s)	-4.17376E-08	+/-	1.9E-09
Total phase (deg)	-86.2	Apriori accel (us/s/s)	1.95970243196E-05	Resid phase (deg)	-151.4	+/-	4.1

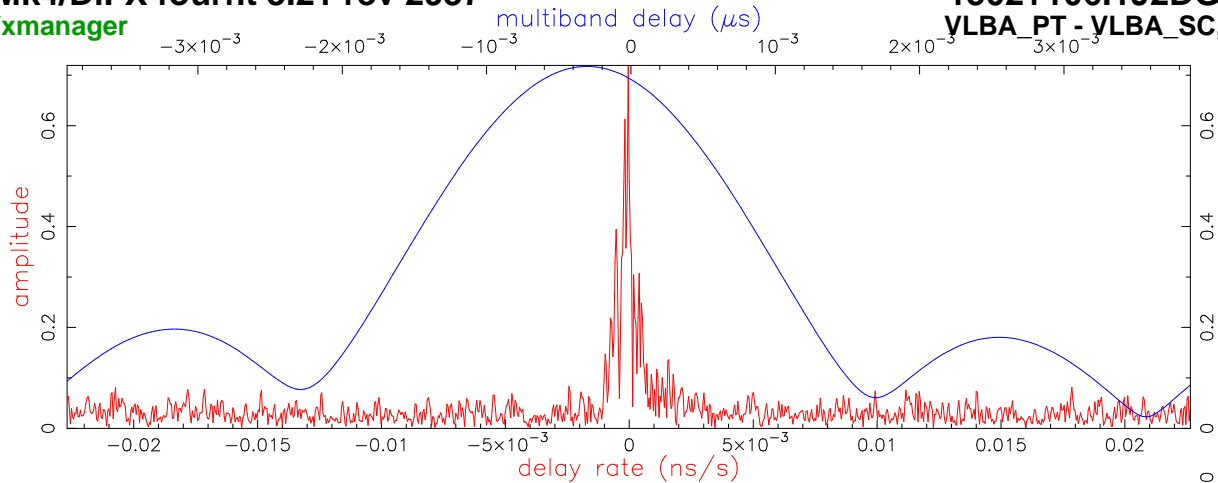
	RMS	Theor.	Amplitude	0.657 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	58.7	13.5	Search (1024X16)	0.646	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/seg (%)	77.4	23.6	Interp.	0.000	Sample rate(MISamp/s): 256	nlags: 512	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	1.4	4.1	Inc. seg. avg.	1.081	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	8.6	7.2	Inc. frq. avg.	0.655					

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

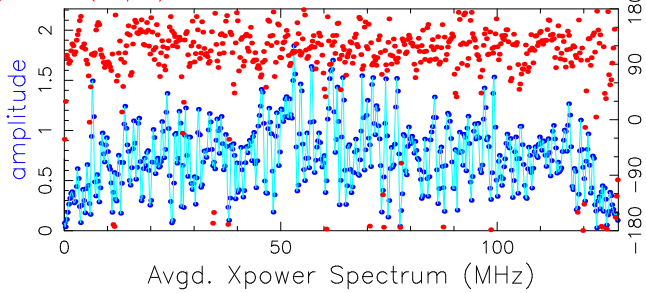
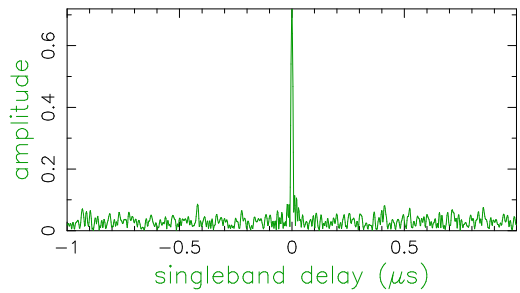
1502+106.1J2DGP, No0154, pc

VLBA_PT - VLBA_SC, fgroup Q, pol RR



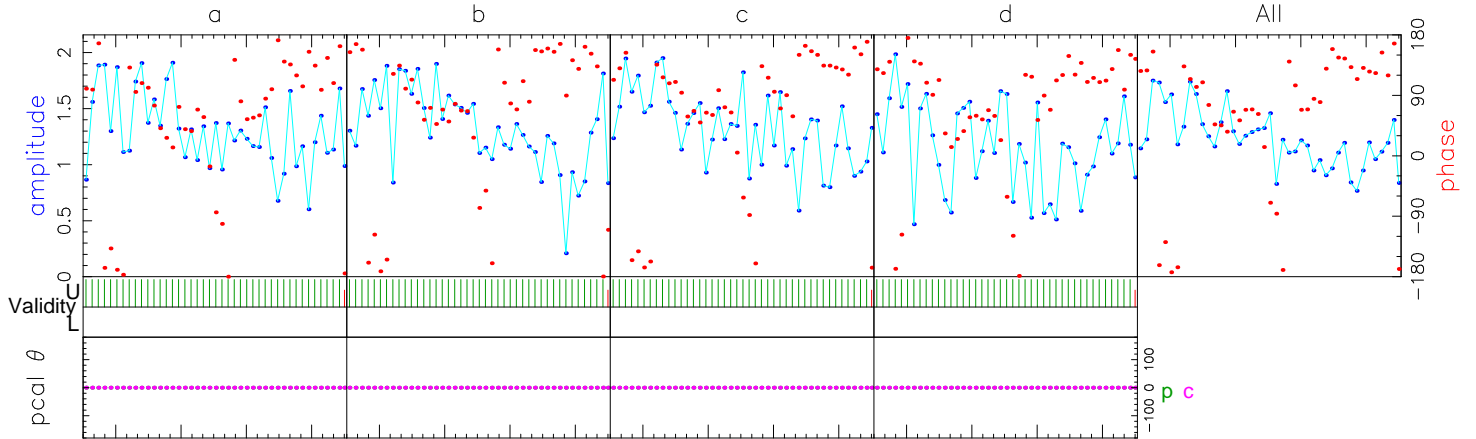
Fringe quality 9

SNR 30.5
 Int time 239.976
 Amp 0.719
 Phase 116.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.000355
 MBD -0.000317
 Fringe rate (Hz)
 -0.001708
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211500
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



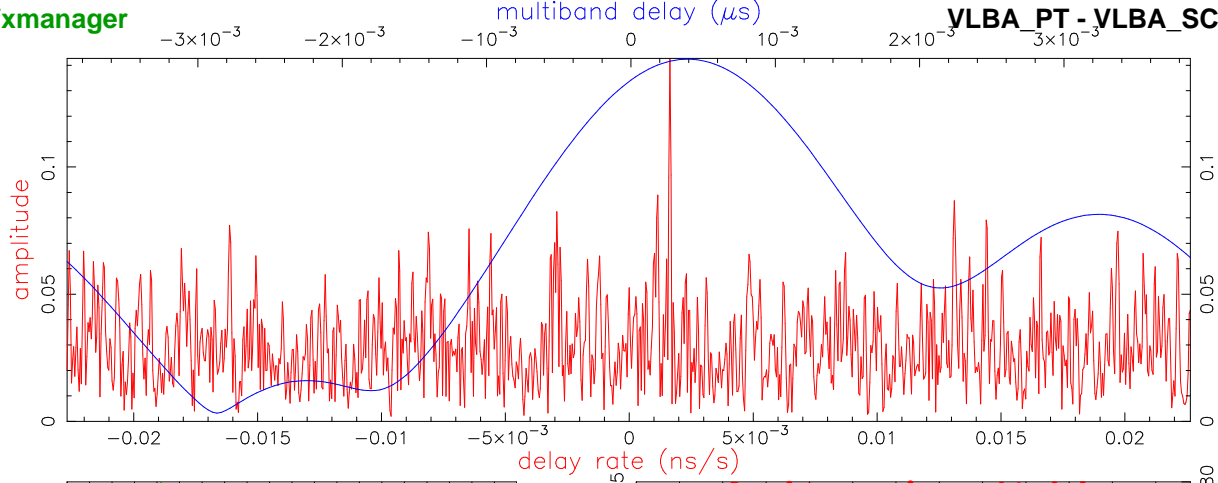
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p:c	0:0	0:0	0:0	0:0		
p:c	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-2.70295523806E+03	Apriori delay (usec)	-2.70295492144E+03	Resid mbdelay (usec)	-3.16619E-04	+/-	3.6E-05
Sband delay (usec)	-2.70295527682E+03	Apriori clock (usec)	-8.4247036E+00	Resid sbdelay (usec)	-3.55375E-04	+/-	1.4E-04
Phase delay (usec)	-2.70295491394E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	7.50291E-06	+/-	2.4E-07
Delay rate (us/s)	9.86783150376E-01	Apriori rate (us/s)	9.86783190057E-01	Resid rate (us/s)	-3.96814E-08	+/-	1.8E-09
Total phase (deg)	-178.6	Apriori accel (us/s/s)	1.95970243196E-05	Resid phase (deg)	116.3	+/-	3.8

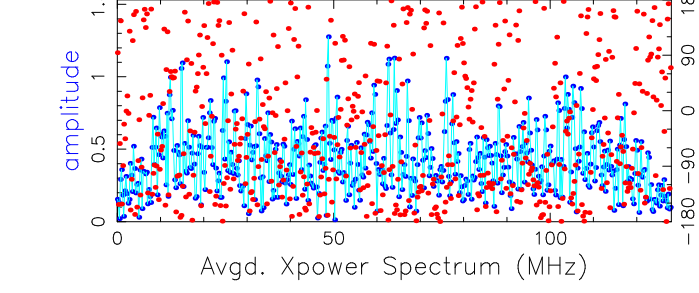
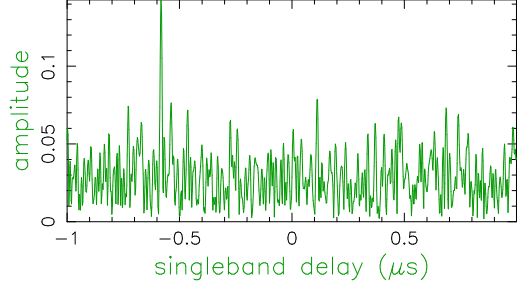
ph/seg (deg)	60.4	Theor.	12.3	Amplitude	0.719 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	79.9		21.5	Search (1024X16)	0.703	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	10.8		3.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	5.4		6.6	Inc. seg. avg.	1.209	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	0.722	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

p: az 126.8 el 55.3 pa -41.9 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -2860.549 1275.816 simultaneous interpolator

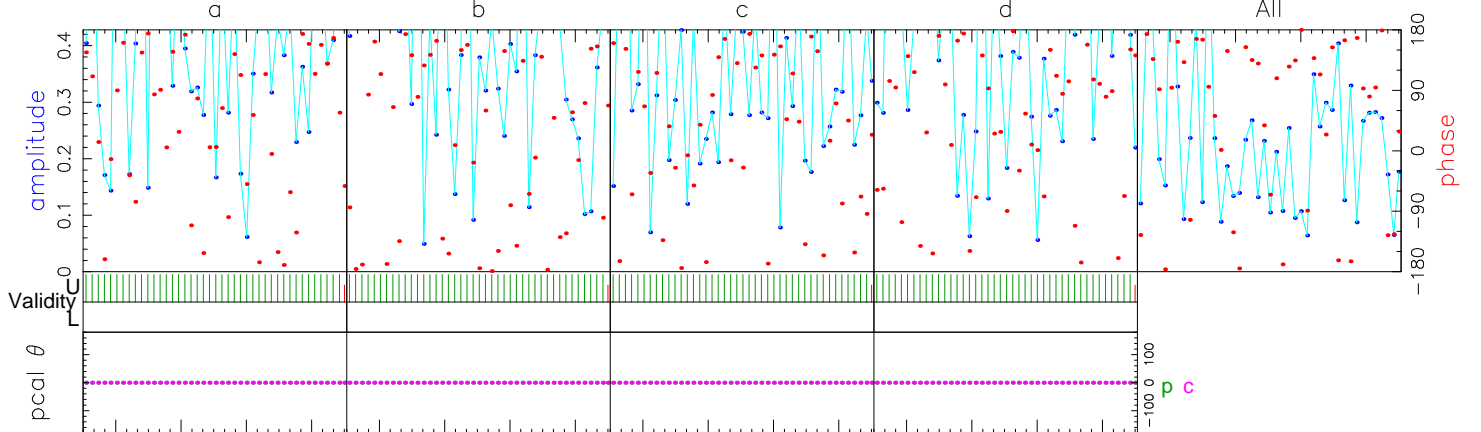
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/pc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/pc.Q.187.1J2DGP



Fringe quality 0
SNR 6.0
Int time 239.976
Amp 0.143
Phase 138.1
PFD 1.9e-01
Delays (us)
SBD -0.581970
MBD 0.000397
Fringe rate (Hz)
0.070922
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211501
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p:c	0:0	0:0	0:0	0:0		
p:c	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec)(sbd)	-2.70354046169E+03	Apriori delay (usec)	-2.70295492144E+03	Resid mbdelay (usec)	3.97248E-04	+/-	1.8E-04
Sband delay (usec)	-2.70353689132E+03	Apriori clock (usec)	-8.4247036E+00	Resid sbdelay (usec)	-5.81970E-01	+/-	7.1E-04
Phase delay (usec)	-2.70295491253E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	8.91403E-06	+/-	1.2E-06
Delay rate (us/s)	9.86784837873E-01	Apriori rate (us/s)	9.86783190057E-01	Resid rate (us/s)	1.64782E-06	+/-	8.8E-09
Total phase (deg)	-156.7	Apriori accel (us/s/s)	1.95970243196E-05	Resid phase (deg)	138.1	+/-	19.0

ph/seg (deg)	66.6	Theor.	62.3	Amplitude	0.143 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	117.6		108.7	Search (1024X16)	0.137	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	26.4		19.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	32.9		33.2	Inc. seg. avg.	0.149	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.145	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

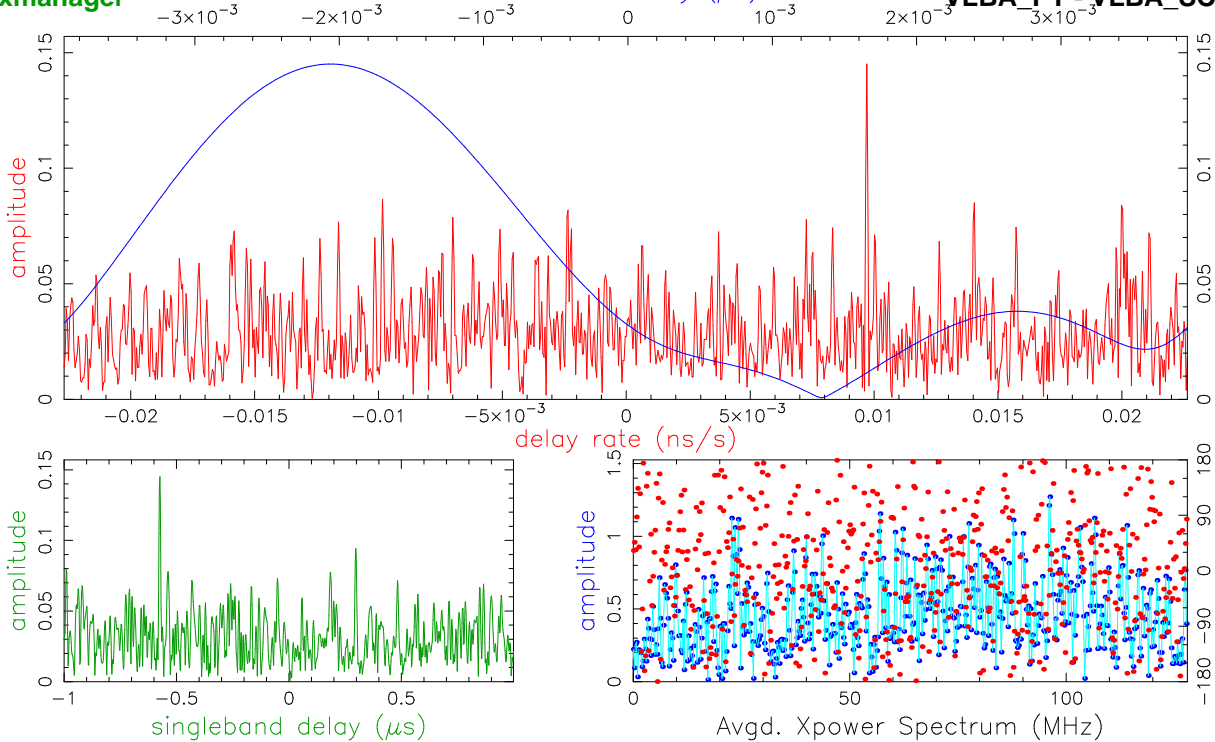
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, pc

VLBA_PT - VLBA_SC, fgroup Q, pol RL

multiband delay (μ s)

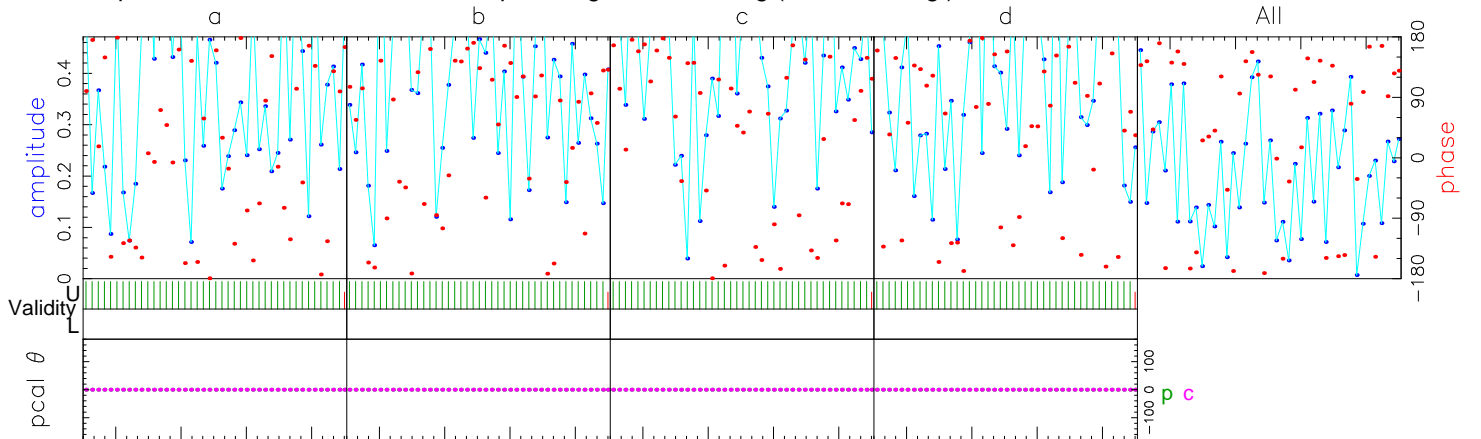


Fringe quality 0

SNR 6.2
 Int time 239.975
 Amp 0.157
 Phase 141.3
 PFD 9.1e-02
 Delays (us)
 SBD -0.574568
 MBD -0.002072
 Fringe rate (Hz)
 0.418392
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211503
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p:c	0:0	0:0	0:0	0:0		
p:c	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UL	Q01UL	Q02UL	Q03UL		
Group delay (usec)(sbd)	-2.70352730572E+03			-2.70295492144E+03	Resid mbdelay (usec)	-2.07177E-03 +/- 1.8E-04
Sband delay (usec)	-2.70352948919E+03			-8.4247036E+00	Resid sbdelay (usec)	-5.74568E-01 +/- 7.0E-04
Phase delay (usec)	-2.70295491232E+03			-1.0000003E-07	Resid phdelay (usec)	9.12107E-06 +/- 1.2E-06
Delay rate (us/s)	9.86792911062E-01			9.86783190057E-01	Resid rate (us/s)	9.72100E-06 +/- 8.7E-09
Total phase (deg)		-153.5		1.95970243196E-05	Resid phase (deg)	141.3 +/- 18.6
RMS	73.6	61.0	0.157 +/- 0.025			
ph/seg (deg)	73.6	61.0	Search (1024X16)	0.136	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	91.1	106.4	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	11.8	18.6	Inc. seg. avg.	0.144	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	31.2	32.5	Inc. frq. avg.	0.150	Sample rate(MISamp/s): 256	mb window (us) -0.004 0.004
					Data rate(Mb/s): 2048	dr window (ns/s) -0.023 0.023
					nlags: 512	t_cohere infinite
p: az 126.8 el 55.3 pa -41.9	c: az 246.7 el 72.9 pa 62.7	u,v (fr/asec) -2860.549 1275.816				ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva7mm	Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/pc..1J2DGP	Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/pc.Q.218.1J2DGP				simultaneous interpolator