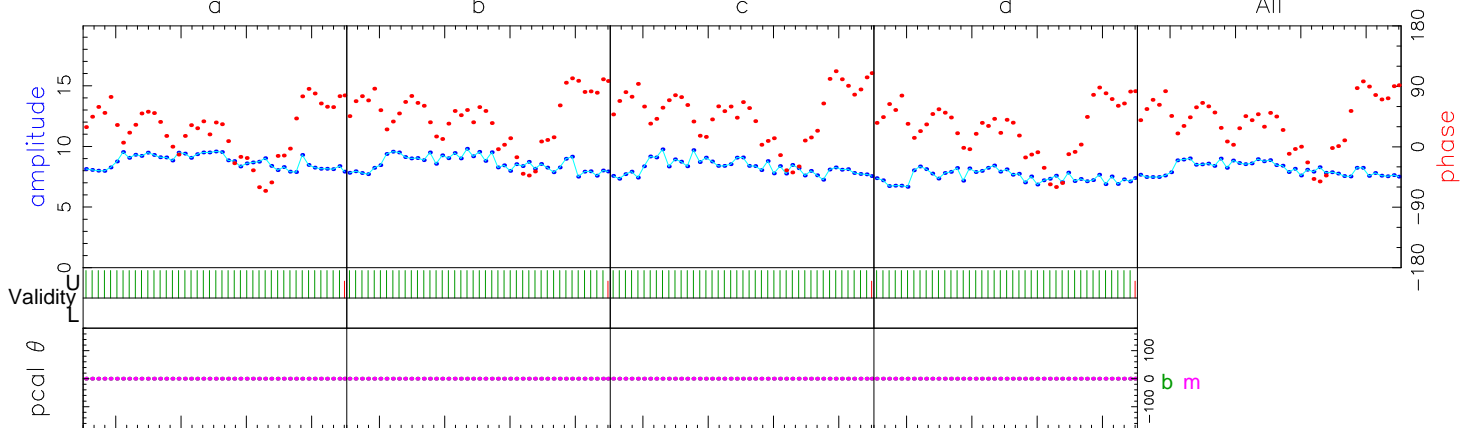


Fringe quality 5

SNR 281.5
Int time 239.986
Amp 6.646
Phase 37.9
PFD 0.0e+00
Delays (us)
SBD -0.000698
MBD -0.000566
Fringe rate (Hz)
-0.000314
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



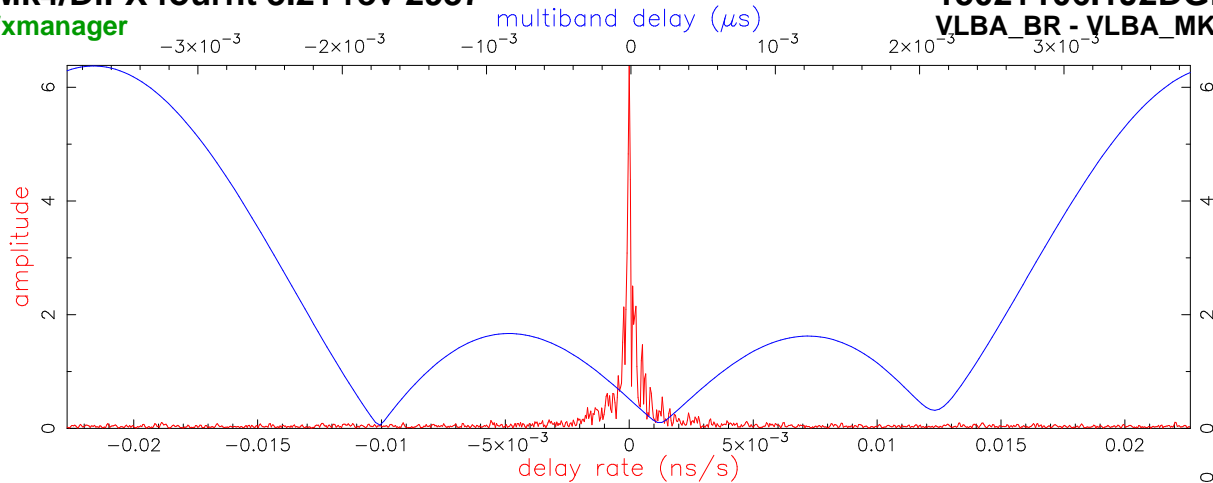
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000		
m	1000	1000	1000	1000		
b:m	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
m	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL		
m	Q00UL	Q01UL	Q02UL	Q03UL		
Group delay (usec)(sbd)	7.15981391061E+03	7.15981377899E+03	7.15981447686E+03	7.15981447686E+03	Resid mbdelay (usec)	-5.66250E-04 +/- 4.0E-06
Sband delay (usec)	7.15981377899E+03	7.15981447931E+03	-1.5080702E+01	-1.5080702E+01	Resid sbdelay (usec)	-6.97875E-04 +/- 1.5E-05
Phase delay (usec)	7.15981447931E+03	-7.47609598984E-01	-9.9999991E-08	-9.9999991E-08	Resid phdelay (usec)	2.44621E-06 +/- 2.6E-08
Delay rate (us/s)	-7.47609598984E-01		-7.47609591681E-01	-7.47609591681E-01	Resid rate (us/s)	-7.30323E-09 +/- 1.9E-10
Total phase (deg)		68.2	-2.98809933156E-05	-2.98809933156E-05	Resid phase (deg)	37.9 +/- 0.4
ph/seg (deg)	37.9	1.3	6.520	6.520	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	23.9	2.3	0.000	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	14.5	0.4	8.149	8.149	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
amp/frq (%)	5.7	0.7	6.684	6.684	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
b: az 125.7 el 40.0 pa -33.5	m: az 85.0 el 17.5 pa -72.4	u,v (fr/asec) 2164.358 1542.057				simultaneous interpolator
Control file: cf_1234_gmva7mm	Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/bm..1J2DGP	Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/bm.Q.12.1J2DGP				

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

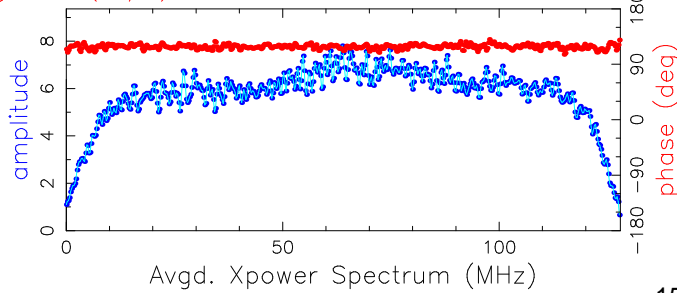
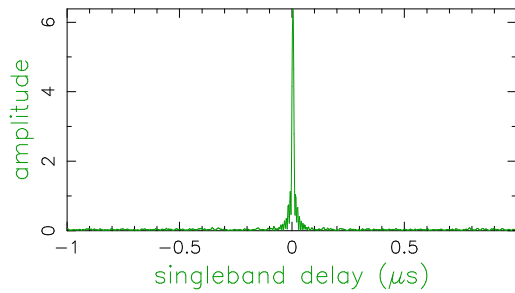
1502+106.1J2DGP, No0154, bm

VLBA_BR - VLBA_MK, fgroup Q, pol RR



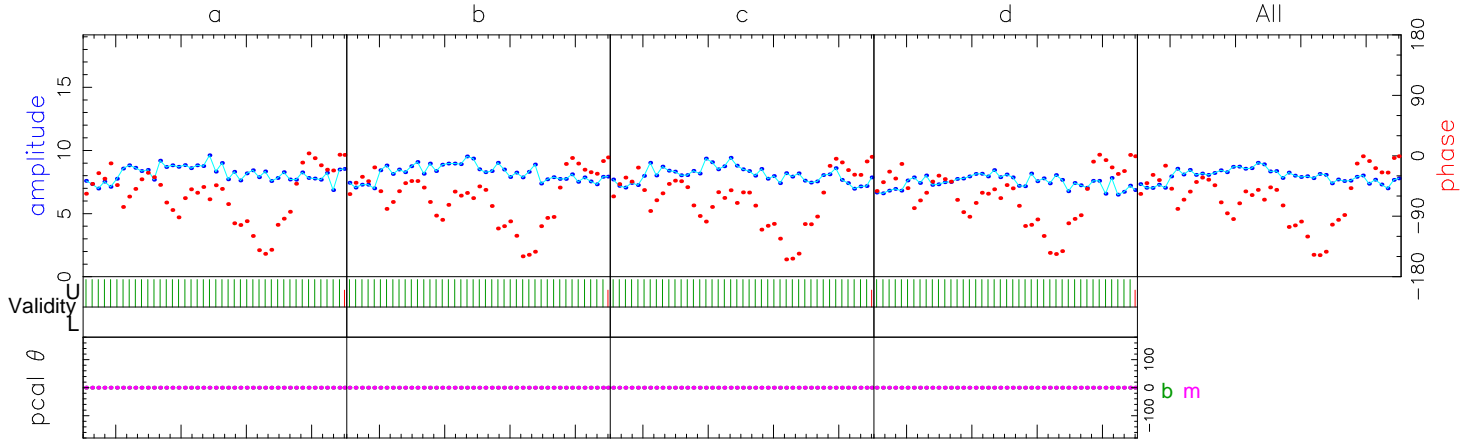
Fringe quality 6

SNR 270.5
 Int time 239.986
 Amp 6.386
 Phase -59.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.004178
 MBD -0.003705
 Fringe rate (Hz)
 -0.000316
 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

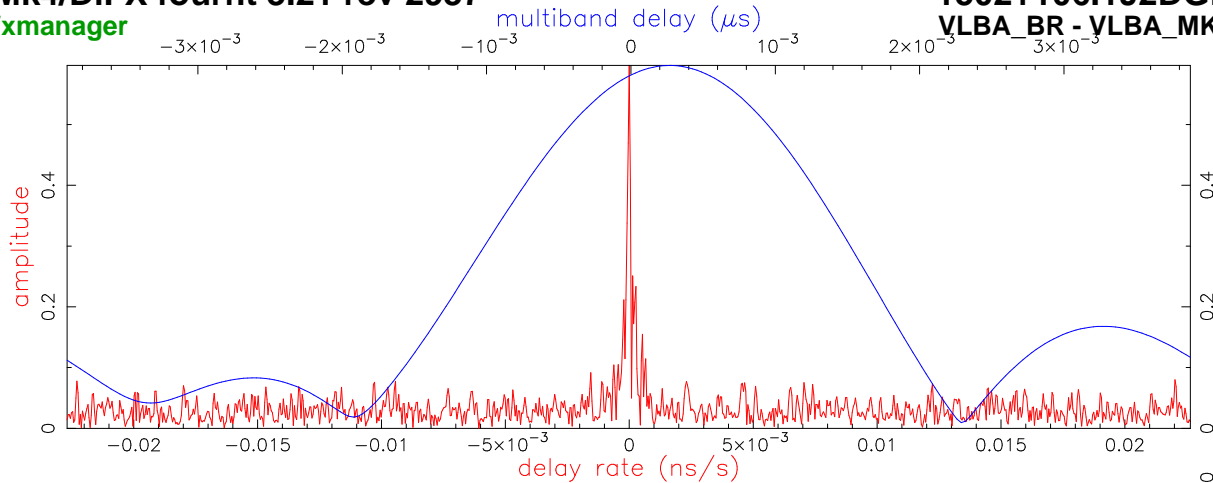


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-56.4	-61.2	-62.8	-58.3	Phase	-59.7
	6.5	6.6	6.4	5.9	Ampl.	6.4
	514.9	515.2	515.1	515.5	Sbd box	515.1
U/L	469/0	469/0	469/0	469/0	APs used	
b	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
b:m	0:0	0:0	0:0	0:0	PC phase	
b:m	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

	7.15981858417E+03	Apriori delay (usec)	7.15981447686E+03	Resid mbdelay (usec)	-3.70519E-03	+/- 4.1E-06
Group delay (usec)(sbd)	7.15981858417E+03	Apriori clock (usec)	-1.5080702E+01	Resid sbdelay (usec)	4.17750E-03	+/- 1.6E-05
Sband delay (usec)	7.15981865436E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	-3.85446E-06	+/- 2.7E-08
Phase delay (usec)	7.15981447301E+03	Apriori rate (us/s)	-7.47609591681E-01	Resid rate (us/s)	-7.34577E-09	+/- 2.0E-10
Delay rate (us/s)	-7.47609599027E-01	Apriori accel (us/s/s)	-2.98809933156E-05	Resid phase (deg)	-59.7	+/- 0.4
Total phase (deg)	-29.4					

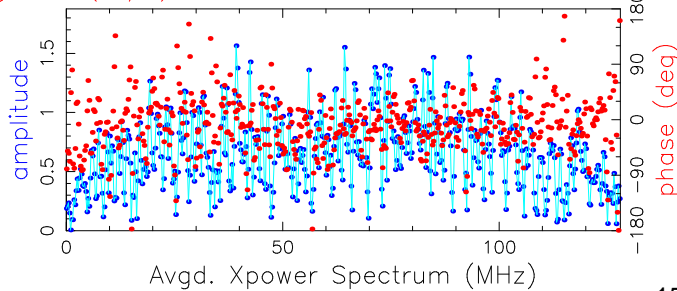
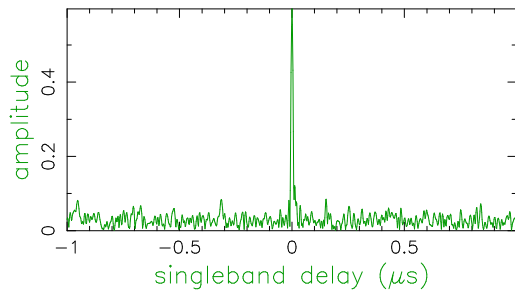
	RMS	Theor.	Amplitude	6.386 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	38.3	1.4	Search (1024X16)	6.236	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	26.0	2.4	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.004 0.004
ph/frq (deg)	3.5	0.4	Inc. seg. avg.	7.959	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.1	0.7	Inc. frq. avg.	6.381	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
					nlags: 512	t_coherence infinite

b: az 125.7 el 40.0 pa -33.5 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2164.358 1542.057 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/bm..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/bm.Q.28.1J2DGP



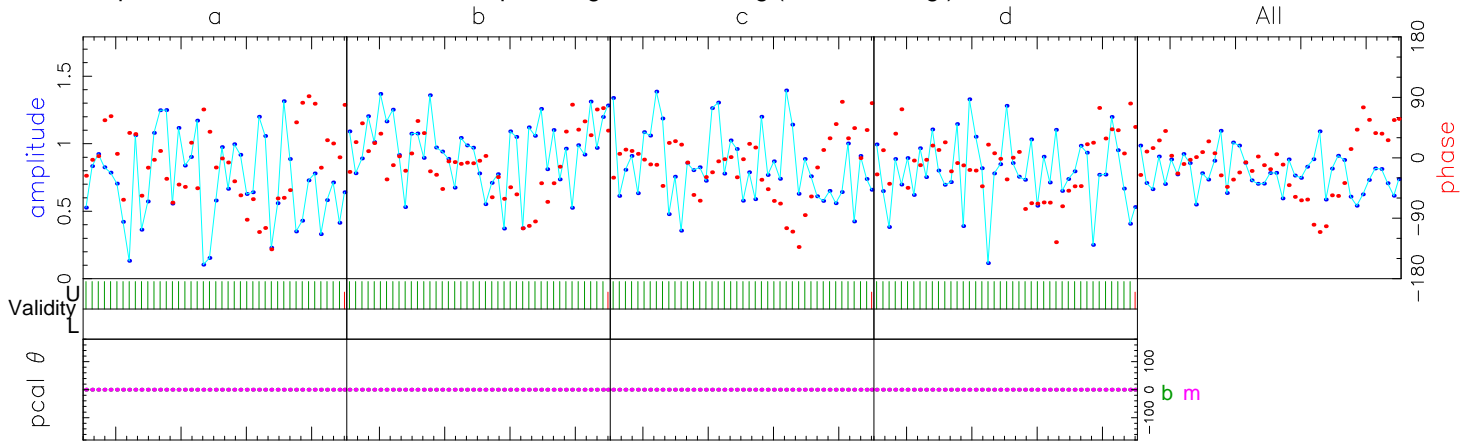
Fringe quality 9

SNR 25.3
Int time 239.986
Amp 0.597
Phase -11.2
PFD 0.0e+00
Delays (us)
SBD 0.000066
MBD 0.000273
Fringe rate (Hz)
-0.000394
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
2021:032:211440
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
	-16.7	-3.1	-16.2	-11.2	Phase	-11.2
	0.5	0.7	0.6	0.6	Ampl.	0.6
	513.4	513.1	512.7	513.0	Sbd box	513.0
U/L	469/0	469/0	469/0	469/0	APs used	
b	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
b:m	0:0	0:0	0:0	0:0	PC phase	
b:m	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

	7.15981475005E+03	Apriori delay (usec)	7.15981447686E+03	Resid mbdelay (usec)	2.73187E-04	+/- 4.4E-05
Group delay (usec)(sbd)	7.15981454311E+03	Apriori clock (usec)	-1.5080702E+01	Resid sbdelay (usec)	6.62500E-05	+/- 1.7E-04
Sband delay (usec)	7.15981447614E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	-7.24189E-07	+/- 2.9E-07
Phase delay (usec)	-7.47609600845E-01	Apriori rate (us/s)	-7.47609591681E-01	Resid rate (us/s)	-9.16378E-09	+/- 2.1E-09
Delay rate (us/s)		Apriori accel (us/s/s)	-2.98809933156E-05	Resid phase (deg)	-11.2	+/- 4.5
Total phase (deg)	19.1					

	RMS	Theor.	Amplitude	0.597 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	42.8	14.8	Search (1024X16)	0.578	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	39.1	25.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.8	4.5	Inc. seg. avg.	0.761	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	13.5	7.9	Inc. frq. avg.	0.598	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

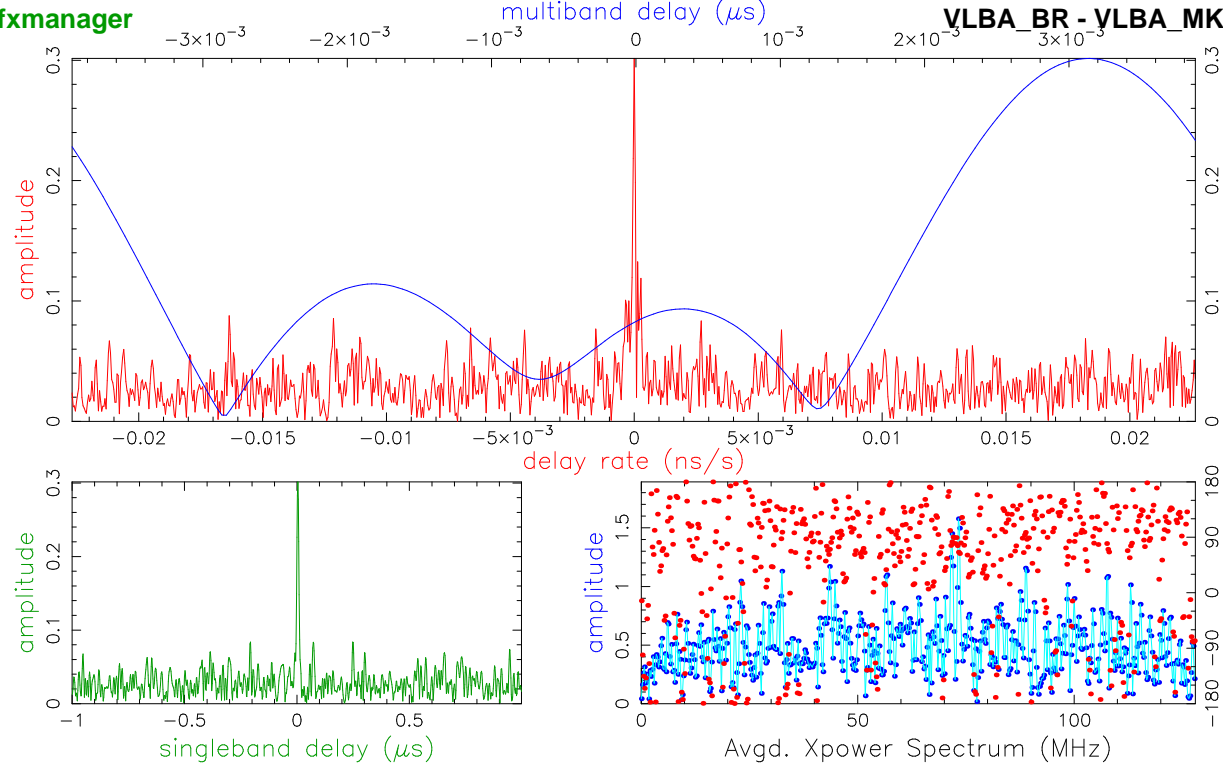
b: az 125.7 el 40.0 pa -33.5 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2164.358 1542.057 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/bm..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/bm.Q.43.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, bm

VLBA_BR - VLBA_MK, fgroup Q, pol RL

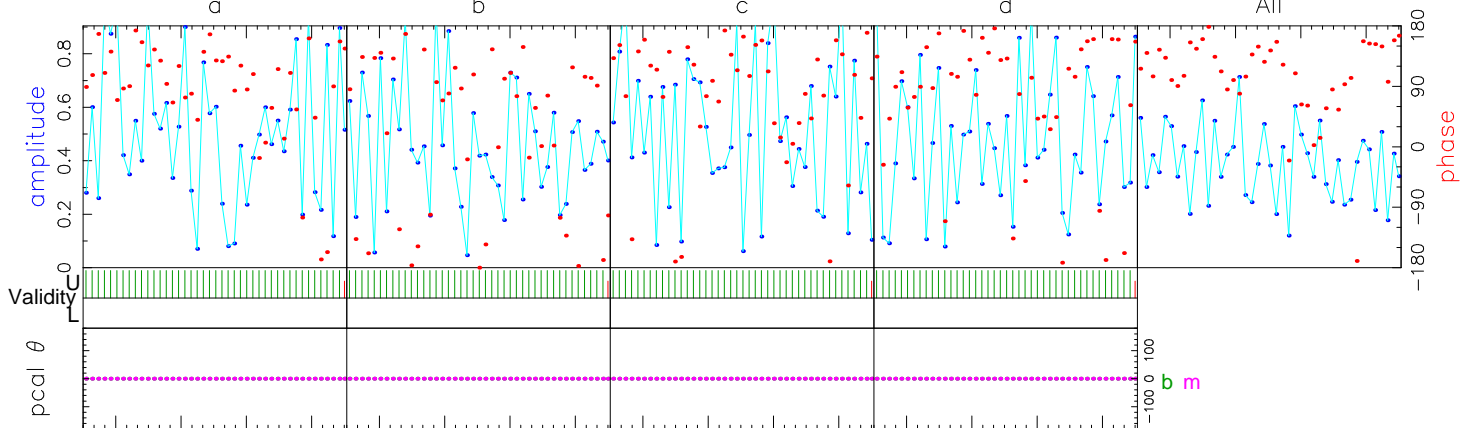


Fringe quality 9

SNR 12.8
 Int time 239.986
 Amp 0.302
 Phase 116.7
 PFD 6.1e-29
 Delays (us)
 SBD 0.003794
 MBD 0.003127
 Fringe rate (Hz)
 -0.000318
 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



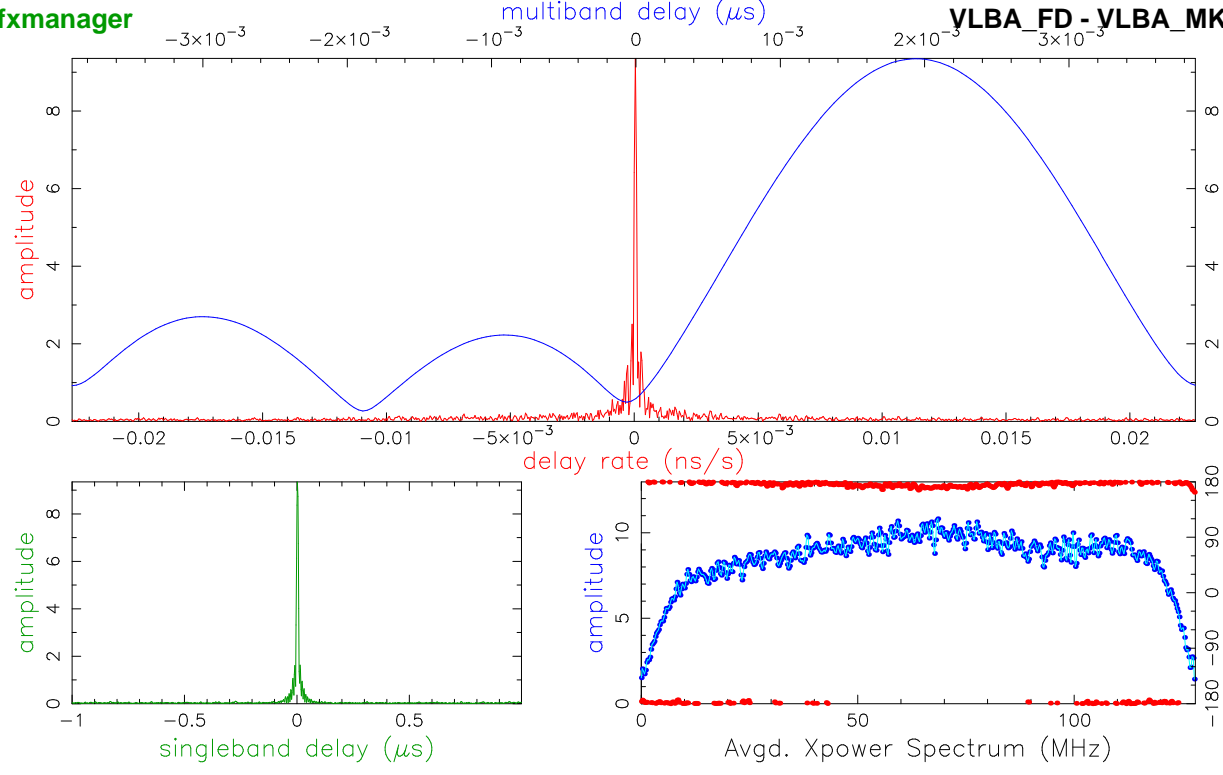
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000		
m	1000	1000	1000	1000		
b:m	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
m	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR		
m	Q00UL	Q01UL	Q02UL	Q03UL		
					Chan ids	
					Tracks	
					Chan ids	
		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

Group delay (usec)(sbd)	7.15981760377E+03	Apriori delay (usec)	7.15981447686E+03	Resid mbdelay (usec)	3.12691E-03	+/-	8.7E-05
Sband delay (usec)	7.15981827061E+03	Apriori clock (usec)	-1.5080702E+01	Resid sbdelay (usec)	3.79375E-03	+/-	3.4E-04
Phase delay (usec)	7.15981448439E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	7.53082E-06	+/-	5.8E-07
Delay rate (us/s)	-7.47609599066E-01	Apriori rate (us/s)	-7.47609591681E-01	Resid rate (us/s)	-7.38548E-09	+/-	4.2E-09
Total phase (deg)	147.0	Apriori accel (us/s/s)	-2.98809933156E-05	Resid phase (deg)	116.7	+/-	9.0

ph/seg (deg)	45.9	Theor.	29.4	Amplitude	0.302 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	54.4	Search (1024X16)	0.294	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)	5.5	Inc. seg. avg.	0.349	Inc. seg. avg.	0.349	Bits/sample: 2x2	Sample rate(MSamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	15.0	Inc. frq. avg.	0.298	Inc. frq. avg.	0.298	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00

b: az 125.7 el 40.0 pa -33.5 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2164.358 1542.057 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/bm..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/bm.Q.63.1J2DGP

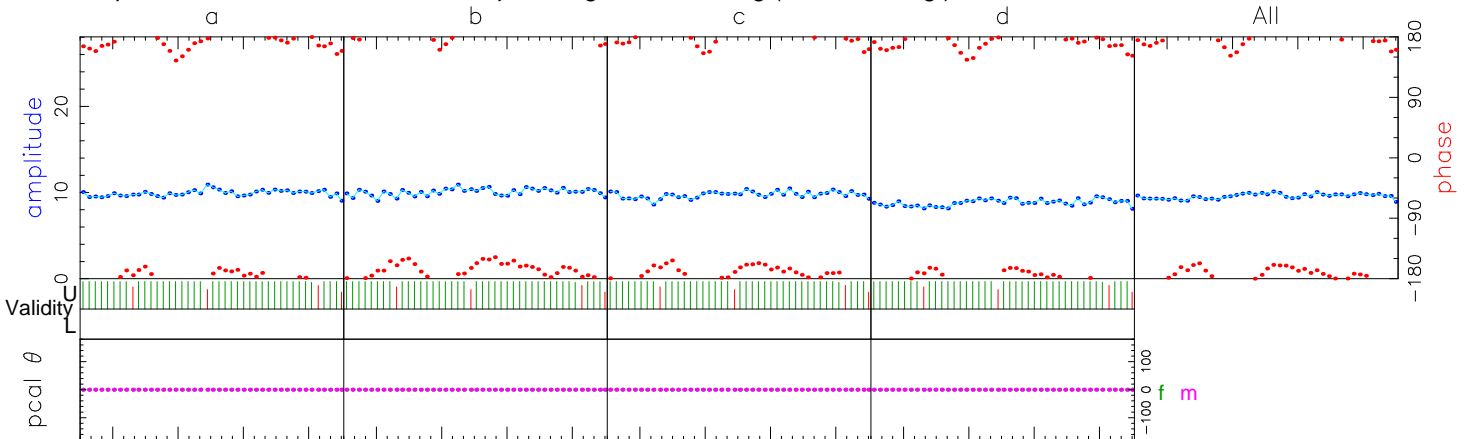


Fringe quality 8

SNR 393.2
Int time 236.233
Amp 9.354
Phase -177.9
PFD 0.0e+00
Delays (us)
SBD 0.002181
MBD 0.001953
Fringe rate (Hz) 0.000984
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	465/0	465/0	465/0	465/0		
f	1000	1000	1000	1000		
m	1000	1000	1000	1000		
f:m	0:0	0:0	0:0	0:0		
f:m	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000		
m	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL		
m	Q00UL	Q01UL	Q02UL	Q03UL		

	1.19399012148E+04	Apriori delay (usec)	1.19398992621E+04	Resid mbdelay (usec)	1.95274E-03	+/- 2.8E-06
Group delay (usec)(sbd)	1.19399014436E+04	Apriori clock (usec)	-5.4878912E+00	Resid sbdelay (usec)	2.18150E-03	+/- 1.1E-05
Sband delay (usec)	1.19398992506E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-1.14819E-05	+/- 1.9E-08
Phase delay (usec)	-8.73808886189E-01	Apriori rate (us/s)	-8.73808909049E-01	Resid rate (us/s)	2.28598E-08	+/- 1.4E-10
Delay rate (us/s)	-91.2	Apriori accel (us/s/s)	-6.00424340194E-05	Resid phase (deg)	-177.9	+/- 0.3
Total phase (deg)						

	RMS	Theor.	Amplitude	9.354 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	12.9	1.0	Search (1024X16)	8.609	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	3.9	1.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	9.0	0.3	Inc. seg. avg.	9.580	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	5.1	0.5	Inc. frq. avg.	9.402	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 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2516.597 299.826 simultaneous interpolator

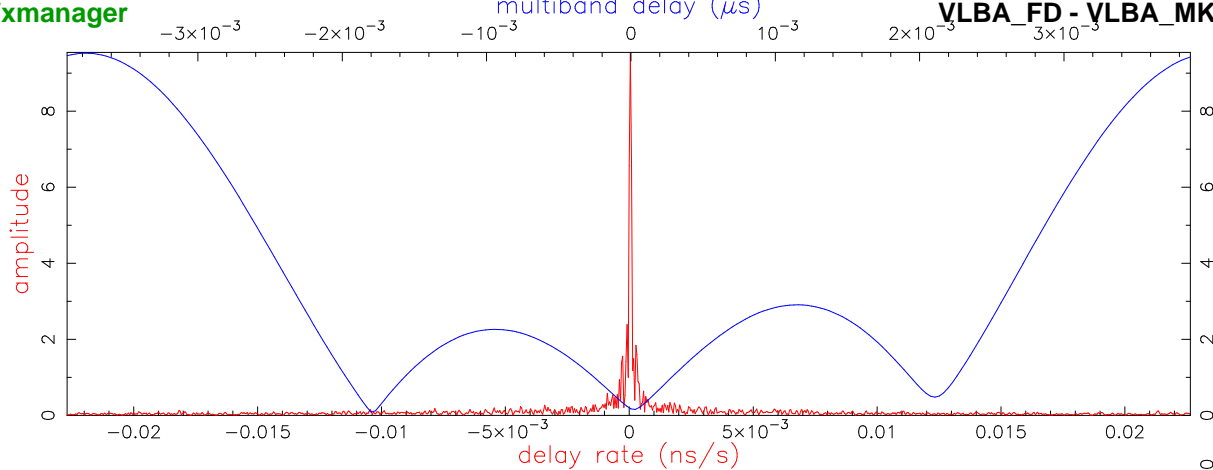
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/fm..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/fm.Q.19.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

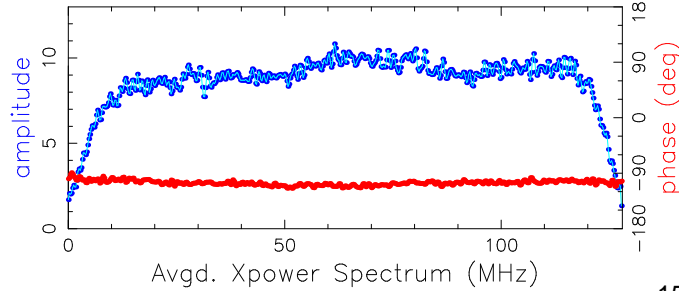
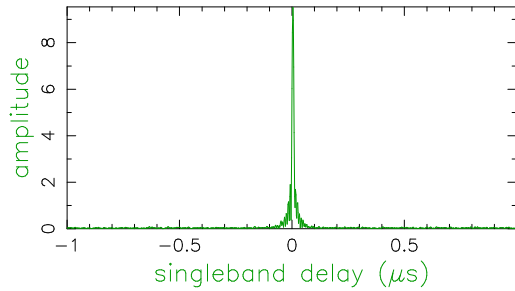
1502+106.1J2DGP, No0154, fm

VLBA_FD - VLBA_MK, fgroup Q, pol RR



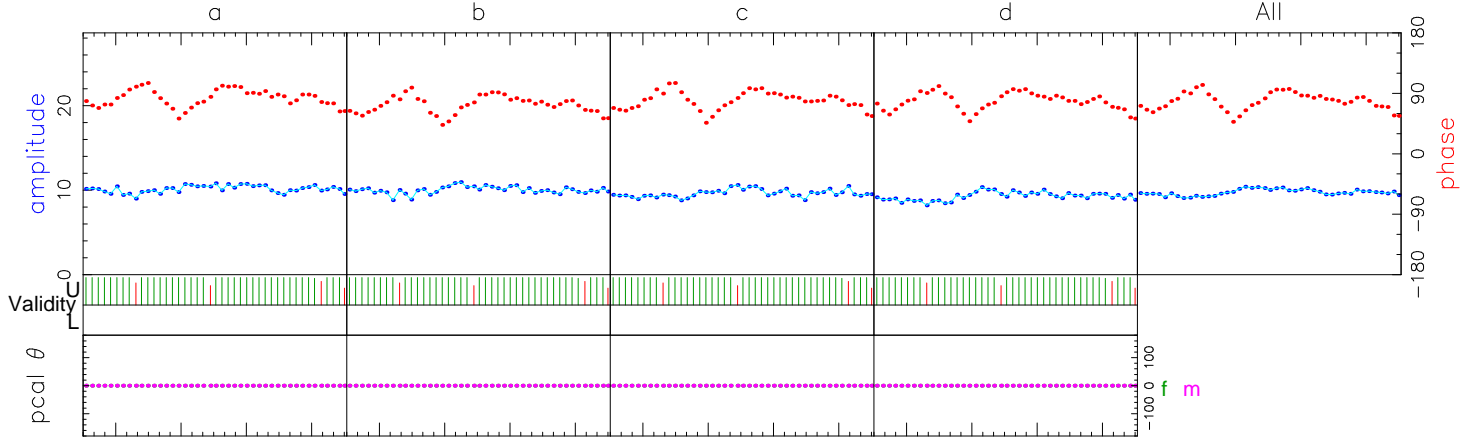
Fringe quality 8

SNR 401.1
 Int time 236.233
 Amp 9.543
 Phase 78.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.004231
 MBD -0.003756
 Fringe rate (Hz)
 0.000969
 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
 2021:032:211440
 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	APs used	1000
m	1000	1000	1000	1000	PC freqs	1000
f:m	0:0	0:0	0:0	0:0	PC phase	0:0
f:m	0:0	0:0	0:0	0:0	ManI PC	0:0
f	1000	1000	1000	1000	PC amp	1000
m	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.19399033181E+04	Apriori delay (usec)	1.19398992621E+04	Resid mbdelay (usec)	-3.75647E-03	+/-	2.8E-06
Sband delay (usec)	1.19399034930E+04	Apriori clock (usec)	-5.4878912E+00	Resid sbdelay (usec)	4.23088E-03	+/-	1.1E-05
Phase delay (usec)	1.19398992671E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	5.05037E-06	+/-	1.8E-08
Delay rate (us/s)	-8.73808886541E-01	Apriori rate (us/s)	-8.73808909049E-01	Resid rate (us/s)	2.25081E-08	+/-	1.3E-10
Total phase (deg)	164.9	Apriori accel (us/s/s)	-6.00424340194E-05	Resid phase (deg)	78.3	+/-	0.3

	RMS	Theor.	Amplitude	9.543 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
ph/seg (deg)	12.6	0.9	Search (1024X16)	8.700	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
amp/seg (%)	4.3	1.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.004 0.004
ph/frq (deg)	5.2	0.3	Inc. seg. avg.	9.753	Sample rate(MISamp/s): 256		dr window (ns/s) -0.023 0.023
amp/frq (%)	3.5	0.5	Inc. frq. avg.	9.540	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite
f: az 127.9 el 60.3 pa -43.4			m: az 85.0 el 17.5 pa -72.4				ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva7mm			u,v (fr/asec) 2516.597 299.826				simultaneous interpolator

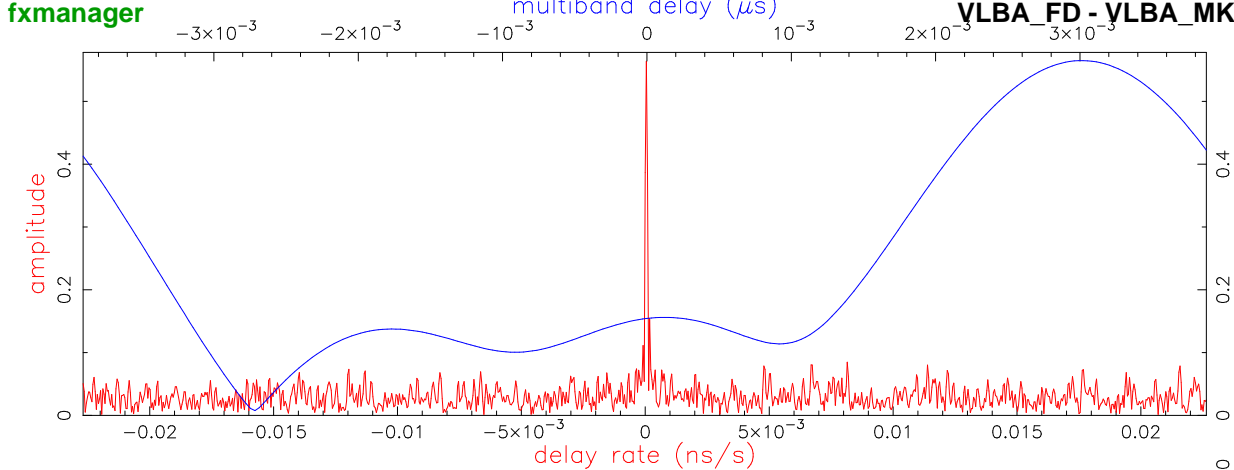
Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/fm..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/fm.Q.39.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

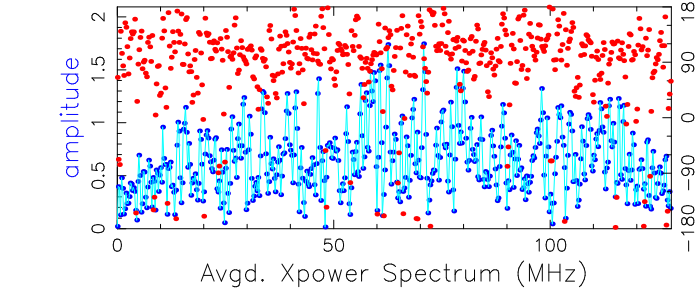
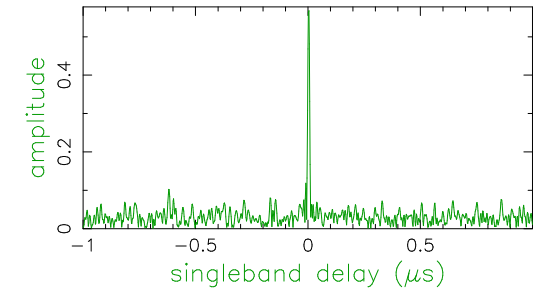
1502+106.1J2DGP, No0154, fm

VLBA_FD - VLBA_MK, fgroup Q, pol LR



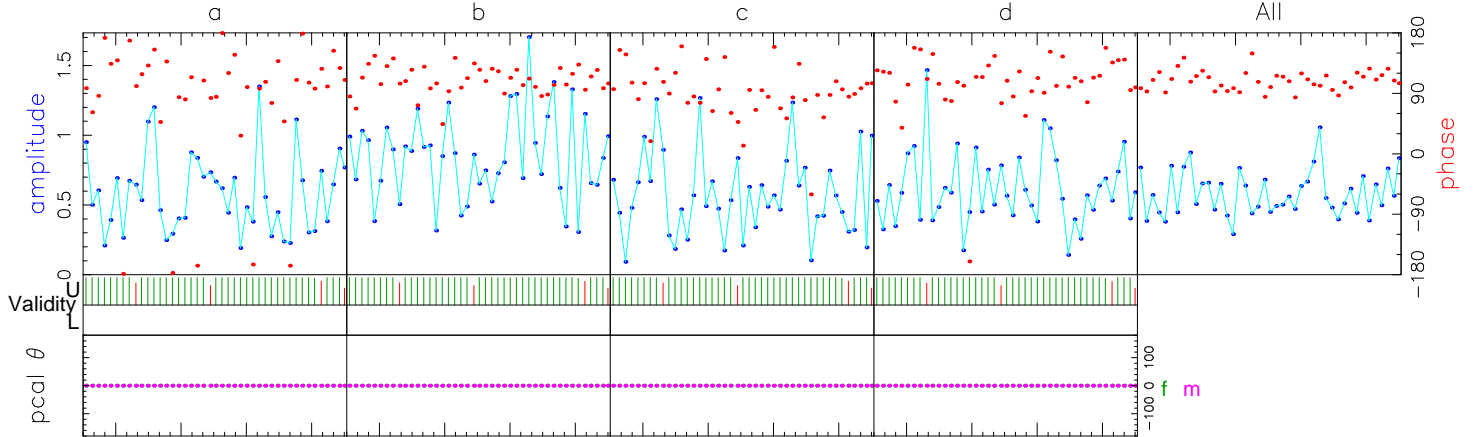
Fringe quality 7

SNR 24.3
 Int time 236.233
 Amp 0.578
 Phase 109.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.003011
 MBD 0.003088
 Fringe rate (Hz)
 0.001020
 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



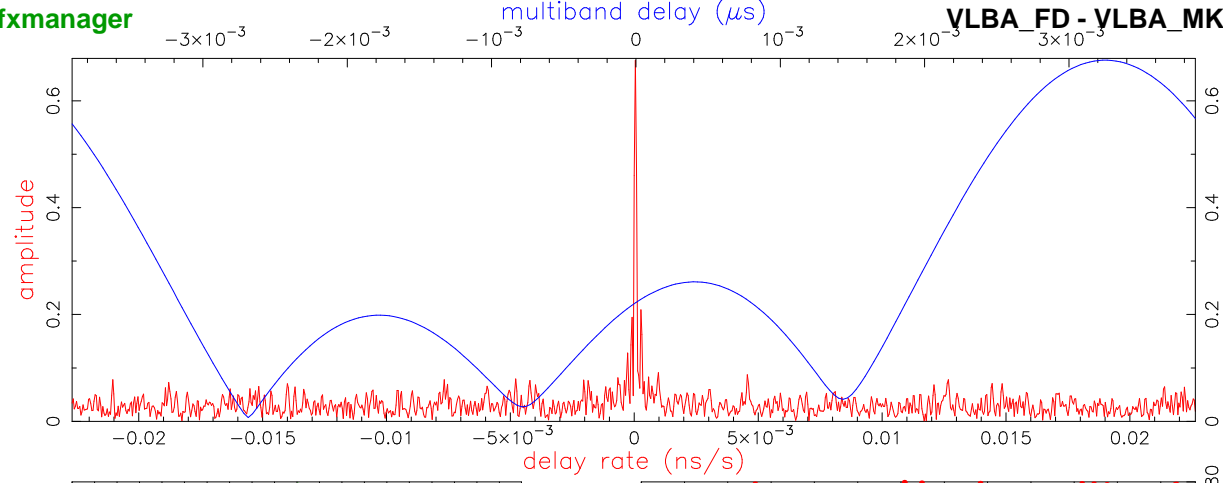
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	465/0	465/0	465/0	465/0		
f	1000	1000	1000	1000		
m	1000	1000	1000	1000		
f:m	0:0	0:0	0:0	0:0		
f:m	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000		
m	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL		
m	Q00UR	Q01UR	Q02UR	Q03UR		
					Phase	109.4
					Ampl.	0.6
					Sbd box	514.5
					APs used	
					PC freqs	
					PC freqs	
					PC phase	
					ManI PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.19399023496E+04	Apriori delay (usec)	1.19398992621E+04	Resid mbdelay (usec)	3.08753E-03	+/-	4.6E-05
Sband delay (usec)	1.19399022732E+04	Apriori clock (usec)	-5.4878912E+00	Resid sbdelay (usec)	3.01112E-03	+/-	1.8E-04
Phase delay (usec)	1.19398992692E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	7.05868E-06	+/-	3.0E-07
Delay rate (us/s)	-8.73808885350E-01	Apriori rate (us/s)	-8.73808909049E-01	Resid rate (us/s)	2.36993E-08	+/-	2.2E-09
Total phase (deg)	196.0	Apriori accel (us/s/s)	-6.00424340194E-05	Resid phase (deg)	109.4	+/-	4.7

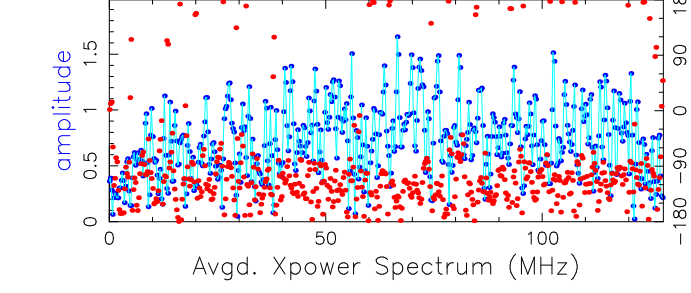
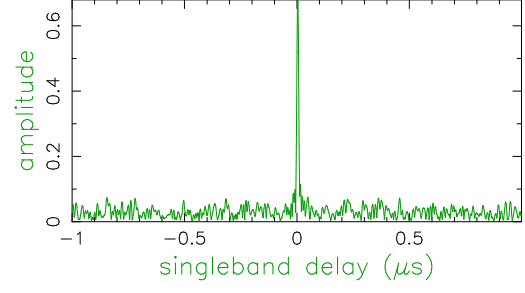
ph/seg (deg)	14.4	Theor.	15.4	Amplitude	0.578 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	27.4	Search (1024X16)	0.521	Search	0.521	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	15.5	Interp.	0.000	Inc. seg. avg.	0.560	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	22.7	Inc. frq. avg.	0.571	Inc. frq. avg.	0.571	Sample rate(MSamp/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 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2516.597 299.826 simultaneous interpolator

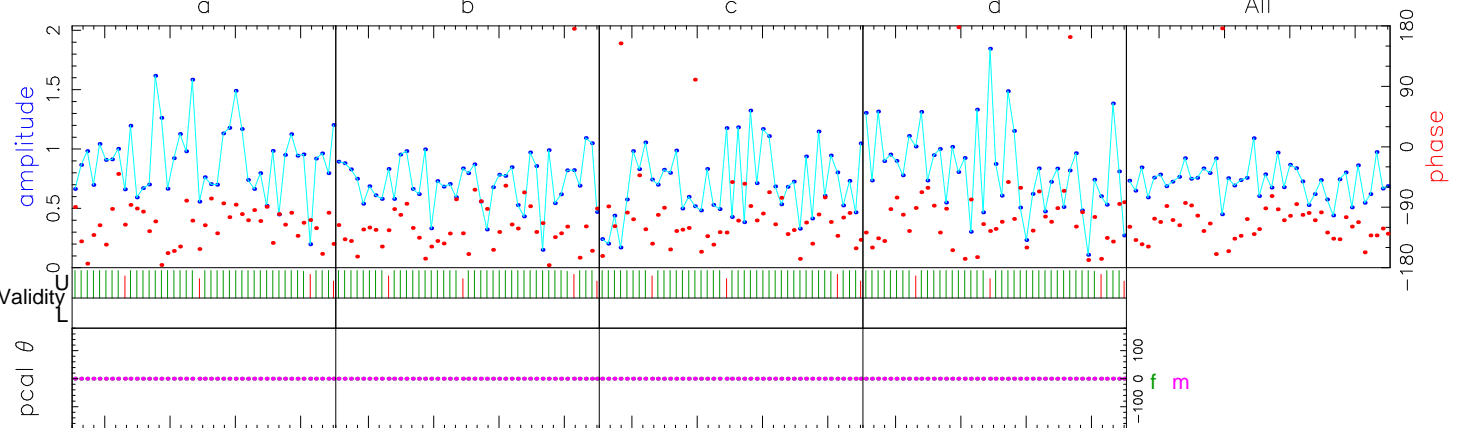
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/fm..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/fm.Q.55.1J2DGP



Fringe quality 9
SNR 28.6
Int time 236.233
Amp 0.679
Phase -116.8
PFD 0.0e+00
Delays (us)
SBD 0.003417
MBD 0.003225
Fringe rate (Hz) 0.001033
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	465/0	465/0	465/0	465/0		
f	1000	1000	1000	1000		
m	1000	1000	1000	1000		
f:m	0:0	0:0	0:0	0:0		
f:m	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000		
m	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR		
m	Q00UL	Q01UL	Q02UL	Q03UL		

	1.19399024868E+04	Apriori delay (usec)	1.19398992621E+04	Resid mbdelay (usec)	3.22471E-03	+/- 3.9E-05
Group delay (usec)(sbd)						
Sband delay (usec)	1.19399026788E+04	Apriori clock (usec)	-5.4878912E+00	Resid sbdelay (usec)	3.41675E-03	+/- 1.5E-04
Phase delay (usec)	1.19398992546E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-7.53771E-06	+/- 2.6E-07
Delay rate (us/s)	-8.73808885044E-01	Apriori rate (us/s)	-8.73808909049E-01	Resid rate (us/s)	2.40056E-08	+/- 1.9E-09
Total phase (deg)	-30.1	Apriori accel (us/s/s)	-6.00424340194E-05	Resid phase (deg)	-116.8	+/- 4.0

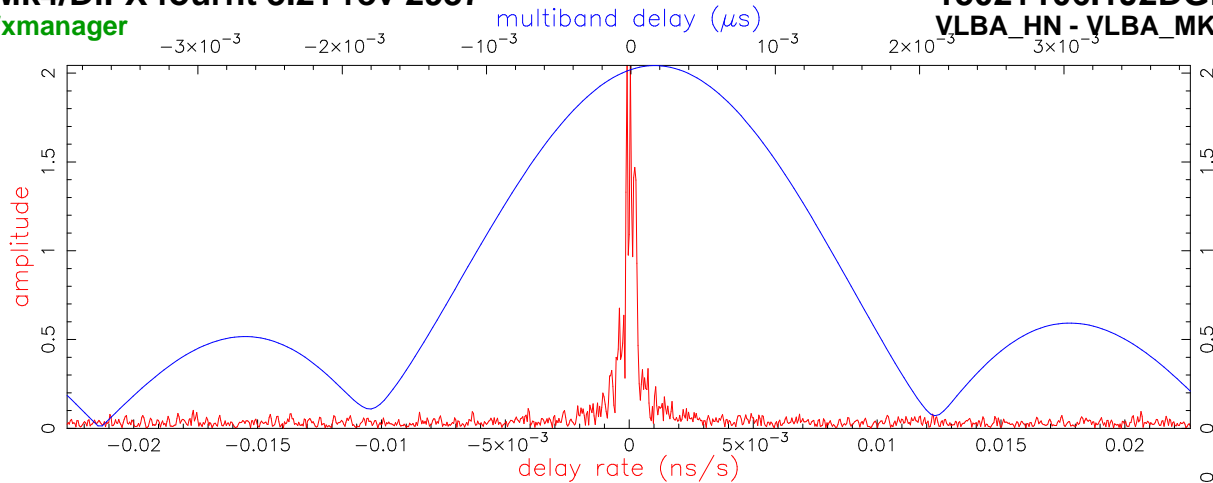
	RMS	Theor.	Amplitude	0.679 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	23.2	13.1	Search (1024X16)	0.623	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	21.2	22.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.1	4.0	Inc. seg. avg.	0.712	Sample rate(MSamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	11.1	7.0	Inc. frq. avg.	0.677	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

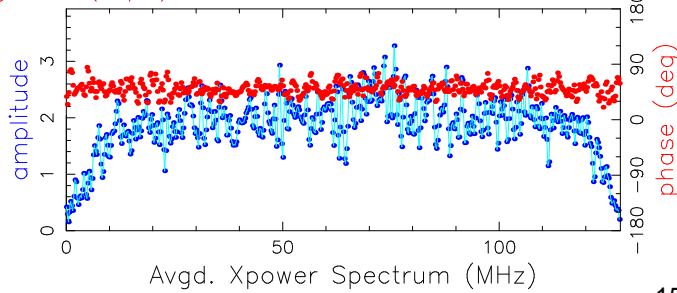
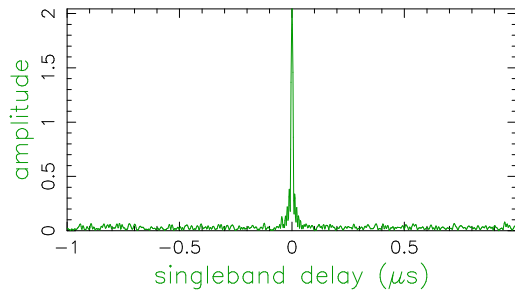
1502+106.1J2DGP, No0154, hm

VLBA_HN - VLBA_MK, fgroup Q, pol RR



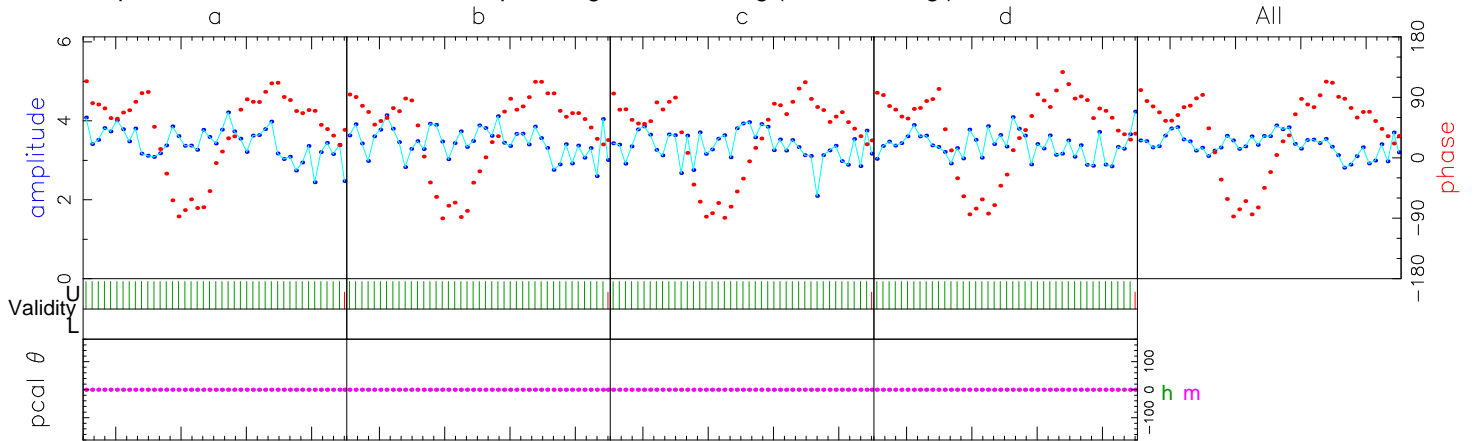
Fringe quality 5

SNR 86.6
 Int time 239.982
 Amp 2.044
 Phase 49.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.000155
 MBD 0.000175
 Fringe rate (Hz)
 0.001818
 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

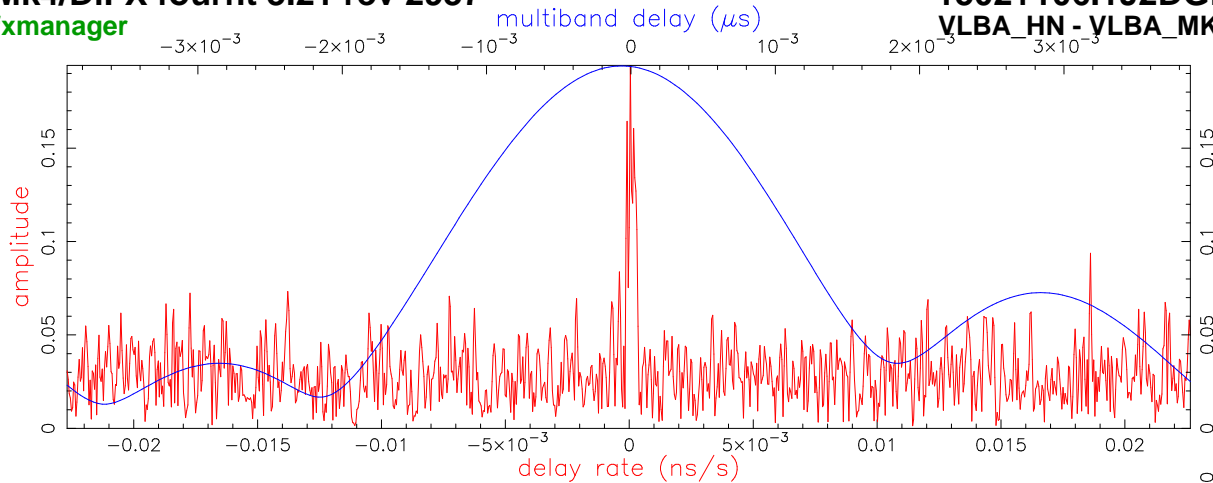


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
h	1000	1000	1000	1000	APs used	1000
m	1000	1000	1000	1000	PC freqs	1000
h:m	0:0	0:0	0:0	0:0	PC phase	0:0
h:m	0:0	0:0	0:0	0:0	ManI PC	0:0
h	1000	1000	1000	1000	PC amp	1000
m	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR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

	1.11268592121E+04	Apriori delay (usec)	1.11268590370E+04	Resid mbdelay (usec)	1.75119E-04	+/- 1.3E-05
Group delay (usec)(sbd)	1.11268592121E+04	2.017	-1.2809986E+01	Resid sbdelay (usec)	1.54625E-04	+/- 5.0E-05
Sband delay (usec)	1.11268591916E+04	2.017	1.3000001E-07	Resid phdelay (usec)	3.20706E-06	+/- 8.5E-08
Phase delay (usec)	1.11268590402E+04	2.017	-1.56127266403E+00	Resid rate (us/s)	4.22283E-08	+/- 6.2E-10
Delay rate (us/s)	-1.56127262180E+00	2.017	-5.22610945567E-05	Resid phase (deg)	49.7	+/- 1.3
Total phase (deg)	32.0					

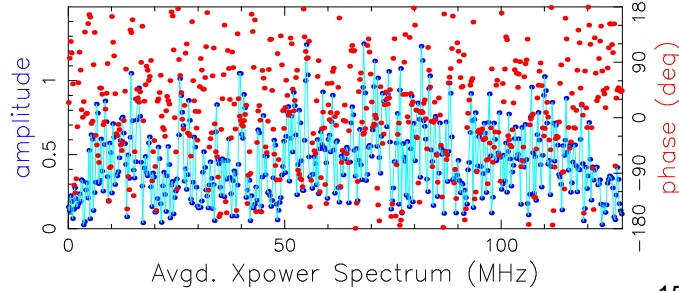
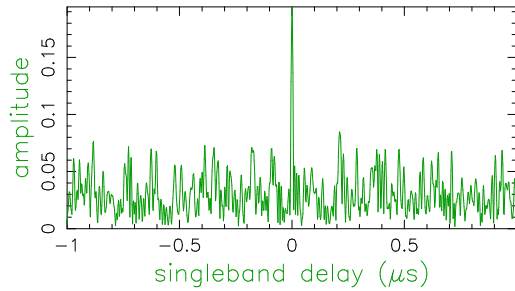
	RMS	Theor.	Amplitude	2.044 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	58.8	4.3	Search (1024X16)	2.017	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	67.8	7.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	5.6	1.3	Inc. seg. avg.	3.395	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	1.3	2.3	Inc. frq. avg.	2.047	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			m: az 85.0 el 17.5 pa -72.4			u,v (fr/asec) 4521.240 1095.502
Control file: cf_1234_gmva7mm			Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/hm..1J2DGP			Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/hm.Q.109.1J2DGP

simultaneous interpolator



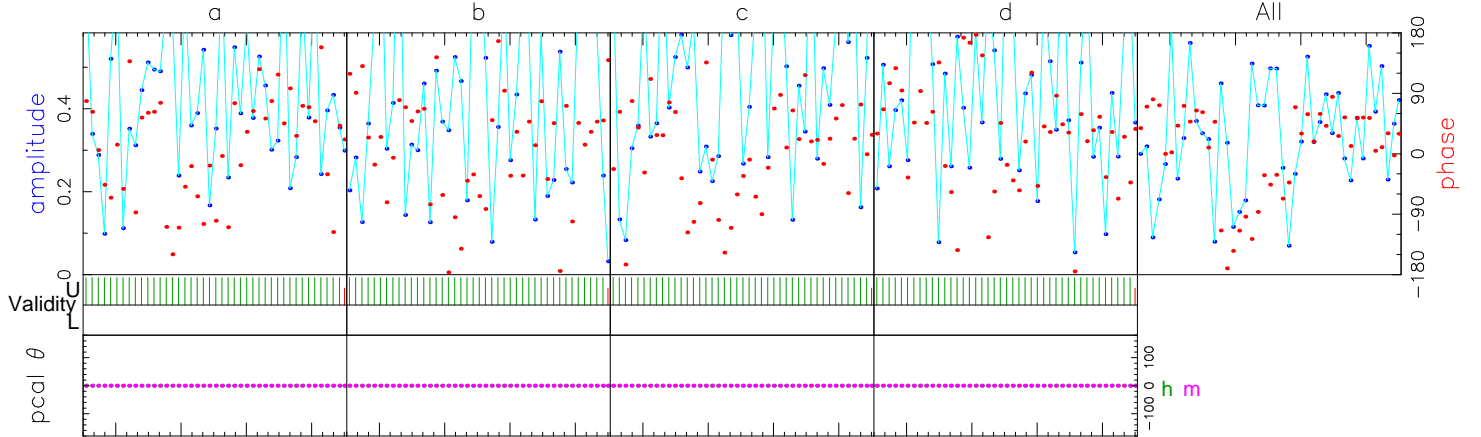
Fringe quality 9

SNR 8.2
Int time 239.982
Amp 0.194
Phase 23.2
PFD 3.2e-08
Delays (us)
SBD 0.000246
MBD -0.000057
Fringe rate (Hz)
0.001660
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
2021:032:211452
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

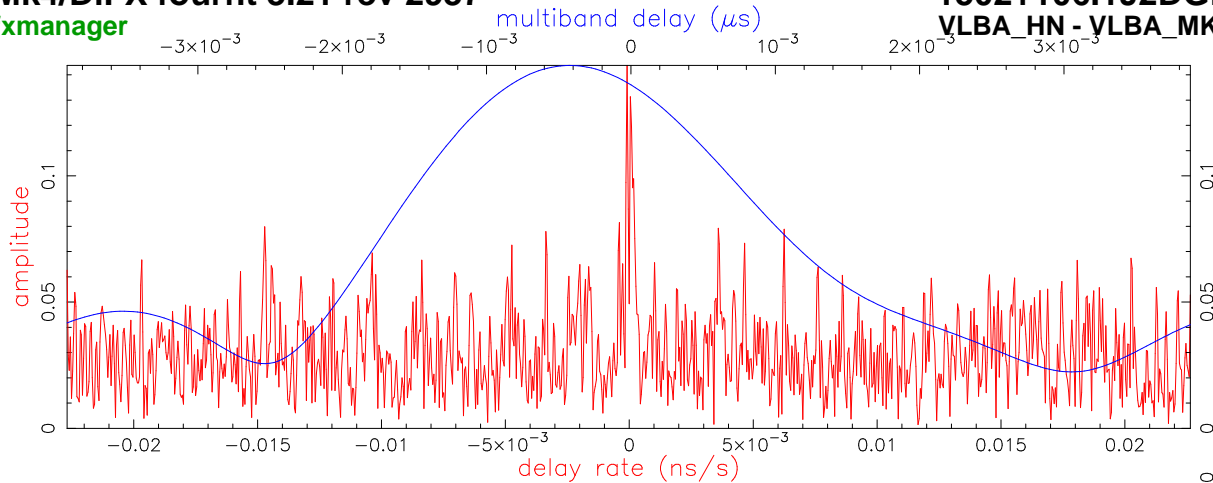


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
h	1000	1000	1000	1000	APs used	
m	1000	1000	1000	1000	PC freqs	
h:m	0:0	0:0	0:0	0:0	PC phase	
h:m	0:0	0:0	0:0	0:0	ManI PC	
h	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UR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

Group delay (usec)(sbd)	1.11268589798E+04	Apriori delay (usec)	1.11268590370E+04	Resid mbdelay (usec)	-5.71622E-05	+/- 1.4E-04
Sband delay (usec)	1.11268592827E+04	Apriori clock (usec)	-1.2809986E+01	Resid sbdelay (usec)	2.45750E-04	+/- 5.2E-04
Phase delay (usec)	1.11268590385E+04	Apriori clockrate (us/s)	1.3000001E-07	Resid phdelay (usec)	1.49879E-06	+/- 9.0E-07
Delay rate (us/s)	-1.56127262547E+00	Apriori rate (us/s)	-1.56127266403E+00	Resid rate (us/s)	3.85611E-08	+/- 6.5E-09
Total phase (deg)	5.5	Apriori accel (us/s/s)	-5.22610945567E-05	Resid phase (deg)	23.2	+/- 13.9

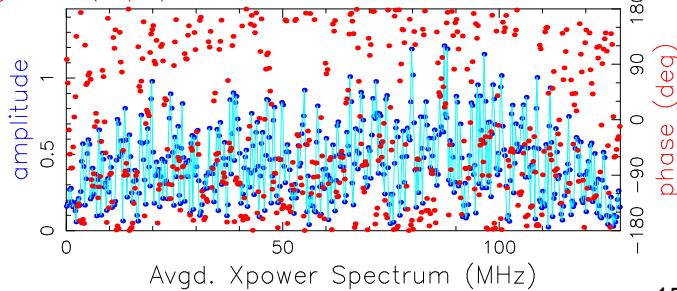
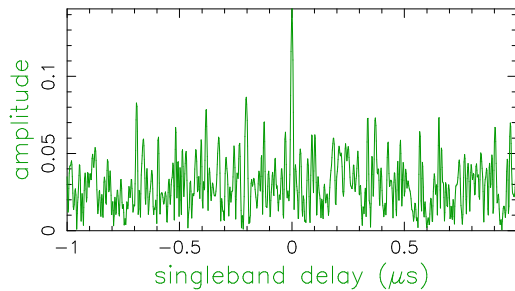
ph/seg (deg)	67.7	Theor.	45.6	Amplitude	0.194 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	100.1		79.7	Search (1024X16)	0.192	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	17.5		13.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	11.2		24.3	Inc. seg. avg.	0.255	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.193	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

h: az 195.3 el 56.6 pa 11.8 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 4521.240 1095.502 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/hm..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/hm.Q.133.1J2DGP



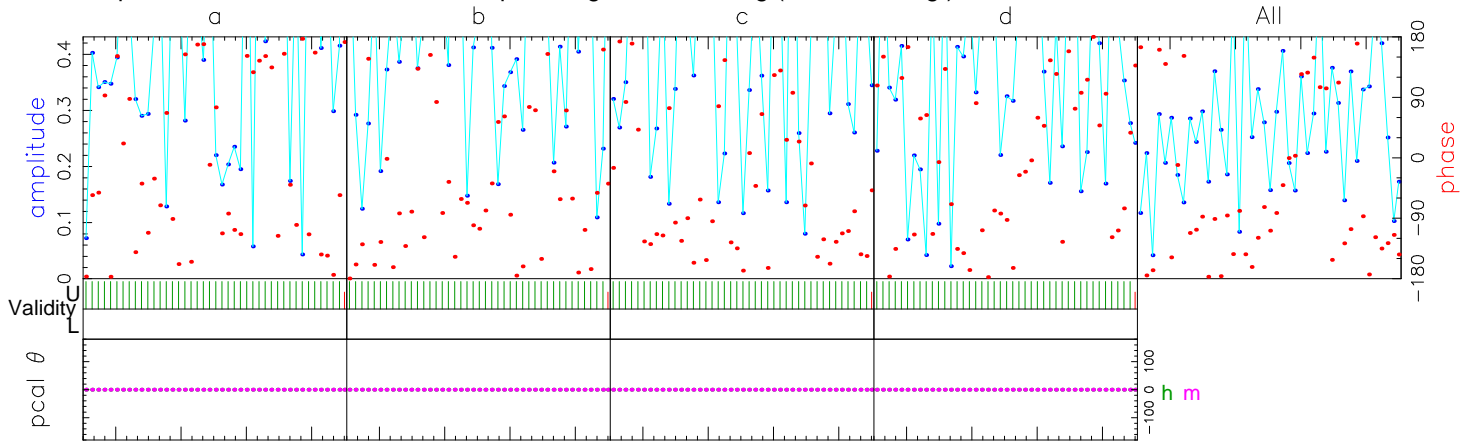
Fringe quality 0

SNR 6.1
Int time 239.982
Amp 0.144
Phase -142.6
PFD 1.4e-01
Delays (us)
SBD -0.000116
MBD -0.000429
Fringe rate (Hz)
-0.003888
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
2021:032:211454
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
	-159.9	-123.6	-130.7	-178.6	Phase	-142.6
	0.2	0.2	0.2	0.1	Ampl.	0.1
	172.9	976.0	426.3	181.4	Sbd box	512.9
U/L	469/0	469/0	469/0	469/0	APs used	
h	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
h:m	0:0	0:0	0:0	0:0	PC phase	
h:m	0:0	0:0	0:0	0:0	ManI PC	
h	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.11268586081E+04	Apriori delay (usec)	1.11268590370E+04	Resid mbdelay (usec)	-4.28832E-04	+/-	1.8E-04
Sband delay (usec)	1.11268589211E+04	Apriori clock (usec)	-1.2809986E+01	Resid sbdelay (usec)	-1.15875E-04	+/-	7.1E-04
Phase delay (usec)	1.11268590278E+04	Apriori clockrate (us/s)	1.3000001E-07	Resid phdelay (usec)	-9.20622E-06	+/-	1.2E-06
Delay rate (us/s)	-1.56127275437E+00	Apriori rate (us/s)	-1.56127266403E+00	Resid rate (us/s)	-9.03417E-08	+/-	8.8E-09
Total phase (deg)	199.7	Apriori accel (us/s/s)	-5.22610945567E-05	Resid phase (deg)	-142.6	+/-	18.8

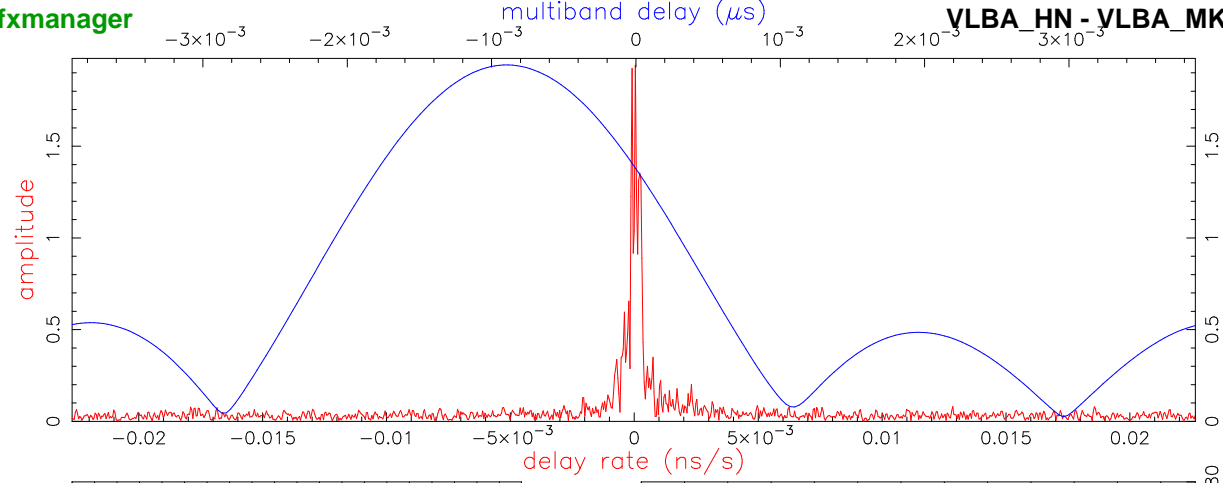
ph/seg (deg)	RMS 65.6	Theor. 61.7	Amplitude Search (1024X16)	0.143	0.144 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	124.6	107.7	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	32.4	18.8	Inc. seg. avg.	0.174	0.174	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023	
amp/frq (%)	32.1	32.8	Inc. frq. avg.	0.145	0.145	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, hm

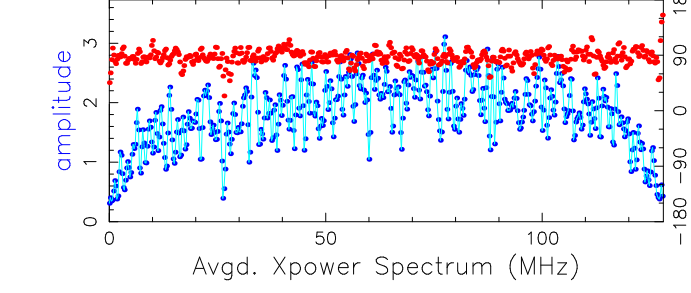
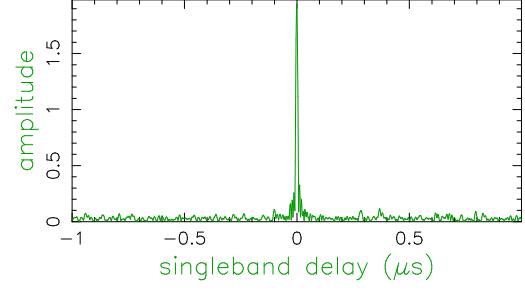
VLBA_HN - VLBA_MK, fgroup Q, pol LL



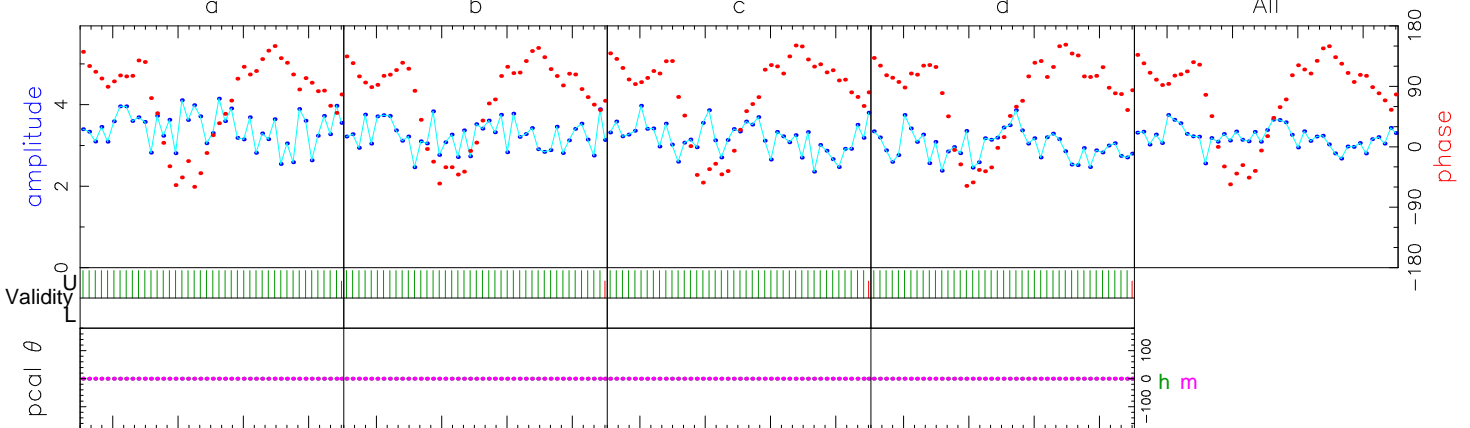
Fringe quality 5

SNR 83.8
 Int time 239.982
 Amp 1.979
 Phase 86.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.000931
 MBD -0.000937
 Fringe rate (Hz) 0.001802
 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
	83.4	84.8	89.8	88.0	Phase	86.4
	2.0	2.0	1.9	1.8	Ampl.	1.9
	512.4	512.6	512.4	512.8	Sbd box	512.5
U/L	469/0	469/0	469/0	469/0	APs used	
h	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
h:m	0:0	0:0	0:0	0:0	PC phase	
h:m	0:0	0:0	0:0	0:0	Manl PC	
h	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.11268581000E+04	Apriori delay (usec)	1.11268590370E+04	Resid mbdelay (usec)	-9.36943E-04	+/-	1.3E-05
Sband delay (usec)	1.11268581063E+04	Apriori clock (usec)	-1.2809986E+01	Resid sbdelay (usec)	-9.30625E-04	+/-	5.1E-05
Phase delay (usec)	1.11268590425E+04	Apriori clockrate (us/s)	1.3000001E-07	Resid phdelay (usec)	5.57635E-06	+/-	8.8E-08
Delay rate (us/s)	-1.56127262216E+00	Apriori rate (us/s)	-1.56127266403E+00	Resid rate (us/s)	4.18709E-08	+/-	6.4E-10
Total phase (deg)	68.7	Apriori accel (us/s/s)	-5.22610945567E-05	Resid phase (deg)	86.4	+/-	1.4

ph/seg (deg)	59.0	Theor.	4.5	Amplitude	1.979 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	63.1		7.8	Search (1024X16)	1.933	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	3.6		1.4	Inc. seg. avg.	3.192	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	5.0		2.4	Inc. frq. avg.	1.943	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
						nlags: 512	t_cohere infinite

h: az 195.3 el 56.6 pa 11.8 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 4521.240 1095.502 simultaneous interpolator

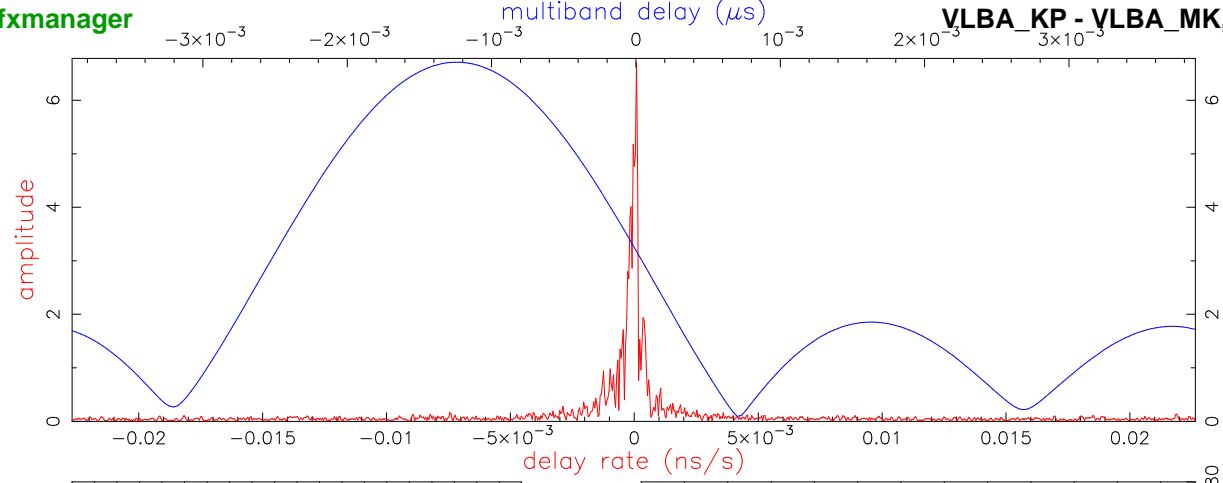
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/hm..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/hm.Q.94.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, km

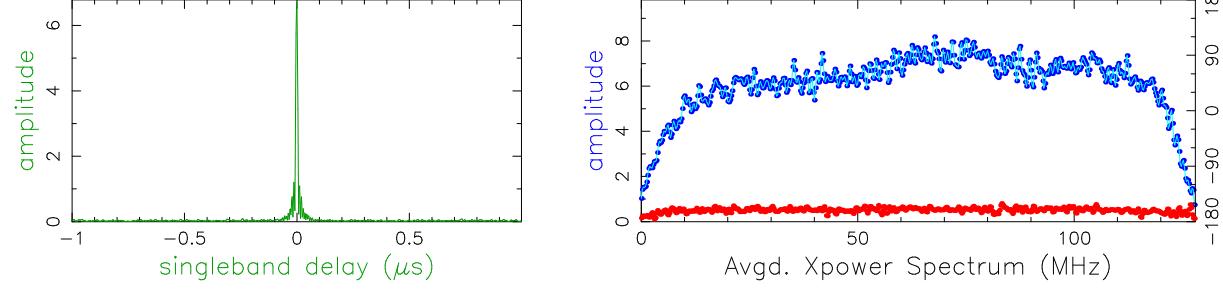
VLBA_KP - VLBA_MK, fgroup Q, pol RR



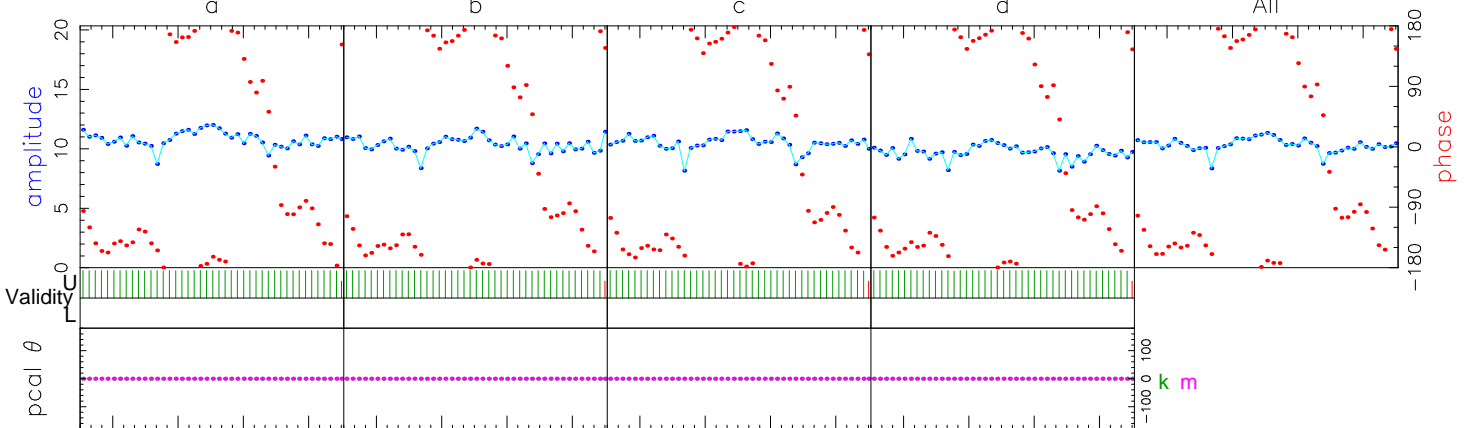
Fringe quality 5

SNR 286.8
 Int time 239.075
 Amp 6.782
 Phase -161.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.001235
 MBD -0.001200
 Fringe rate (Hz)
 0.003147
 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
 2021:032:211450
 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
	-156.7	-162.1	-165.0	-162.0	Phase	-161.4
	7.0	6.7	6.8	6.3	Ampl.	6.7
	512.0	512.5	512.2	512.7	Sbd box	512.4
U/L	469/0	469/0	469/0	469/0	APs used	
k	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
k:m	0:0	0:0	0:0	0:0	PC phase	
k:m	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.07121210586E+04	Apriori delay (usec)	1.07121222583E+04	Resid mbdelay (usec)	-1.19970E-03	+/-	3.9E-06
Sband delay (usec)	1.07121210228E+04	Apriori clock (usec)	-1.3030001E+01	Resid sbdelay (usec)	-1.23550E-03	+/-	1.5E-05
Phase delay (usec)	1.07121222479E+04	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.04161E-05	+/-	2.6E-08
Delay rate (us/s)	-7.25939096193E-01	Apriori rate (us/s)	-7.25939169305E-01	Resid rate (us/s)	7.31117E-08	+/-	1.9E-10
Total phase (deg)	197.4	Apriori accel (us/s/s)	-5.31517521872E-05	Resid phase (deg)	-161.4	+/-	0.4

ph/seg (deg)	RMS 55.5	Theor. 1.3	Amplitude 6.782 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	52.9	2.3	Search (1024X16) 6.301	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	4.3	0.4	Interp. 0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	3.9	0.7	Inc. seg. avg. 10.325	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00
			Inc. frq. avg. 6.716					

k: az 119.9 el 54.1 pa -48.3 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2089.580 436.851 simultaneous interpolator

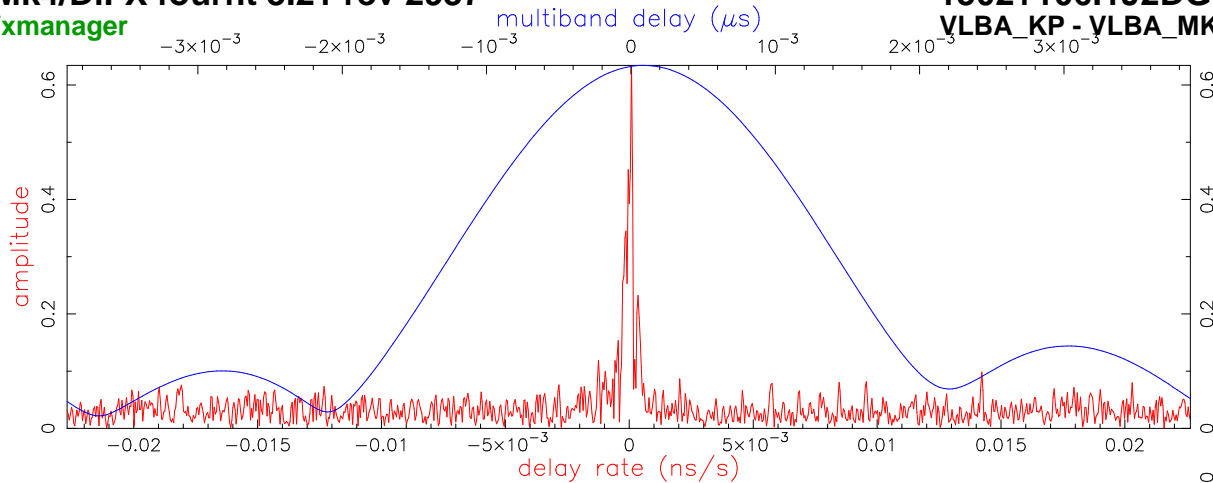
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/km..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/km.Q.110.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

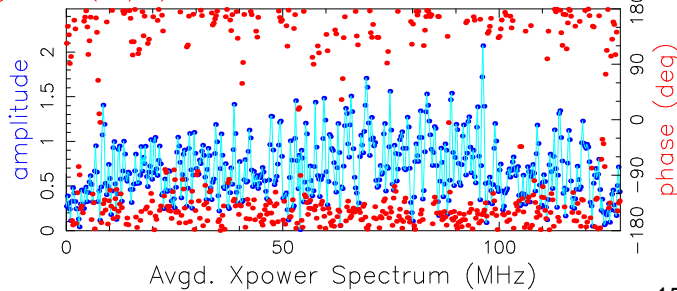
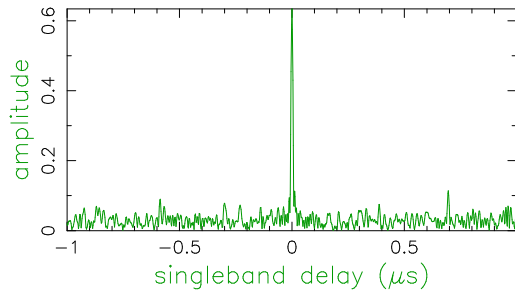
1502+106.1J2DGP, No0154, km

VLBA_KP - VLBA_MK, fgroup Q, pol LR



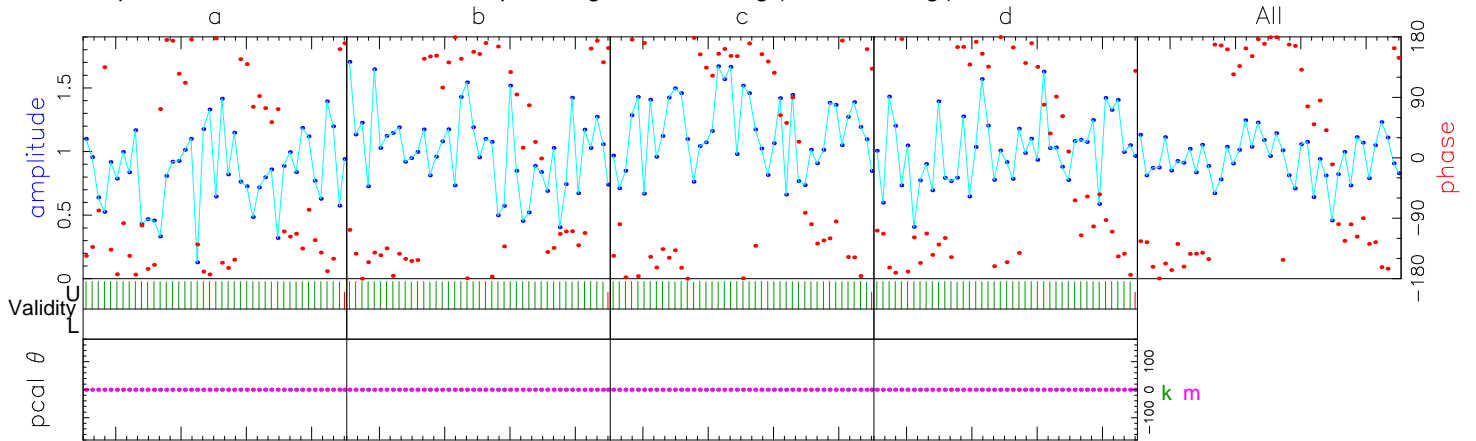
Fringe quality 9

SNR 26.8
 Int time 239.076
 Amp 0.634
 Phase -169.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.000126
 MBD 0.000080
 Fringe rate (Hz)
 0.003167
 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
 2021:032:211452
 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	43296.00	Freq (MHz)	All
-164.3	-173.0	-176.1	-161.2	-161.2	Phase	-169.6
0.5	0.7	0.8	0.5	0.5	Ampl.	0.6
512.4	513.1	512.7	513.6	513.6	Sbd box	512.9
U/L 469/0	469/0	469/0	469/0	469/0	APs used	
k 1000	1000	1000	1000	1000	PC freqs	
m 1000	1000	1000	1000	1000	PC freqs	
k:m 0:0	0:0	0:0	0:0	0:0	PC phase	
k:m 0:0	0:0	0:0	0:0	0:0	ManI PC	
k 1000	1000	1000	1000	1000	PC amp	
m 1000	1000	1000	1000	1000		
k Q00UL	Q01UL	Q02UL	Q03UL	Q03UL	Chan ids	
m Q00UR	Q01UR	Q02UR	Q03UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.07121223385E+04	Apriori delay (usec)	1.07121222583E+04	Resid mbdelay (usec)	8.01756E-05	+/- 4.1E-05
Sband delay (usec)	1.07121221323E+04	Apriori clock (usec)	-1.3030001E+01	Resid sbdelay (usec)	-1.26000E-04	+/- 1.6E-04
Phase delay (usec)	1.07121222473E+04	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.09429E-05	+/- 2.8E-07
Delay rate (us/s)	-7.25939095728E-01	Apriori rate (us/s)	-7.25939169305E-01	Resid rate (us/s)	7.35769E-08	+/- 2.0E-09
Total phase (deg)	189.3	Apriori accel (us/s/s)	-5.31517521872E-05	Resid phase (deg)	-169.6	+/- 4.3

	RMS	Theor.	Amplitude	0.634 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	58.1	14.0	Search (1024X16)	0.604	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/seg (%)	55.7	24.5	Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	8.7	4.3	Inc. seg. avg.	0.917	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00
amp/frq (%)	15.4	7.5	Inc. frq. avg.	0.636					

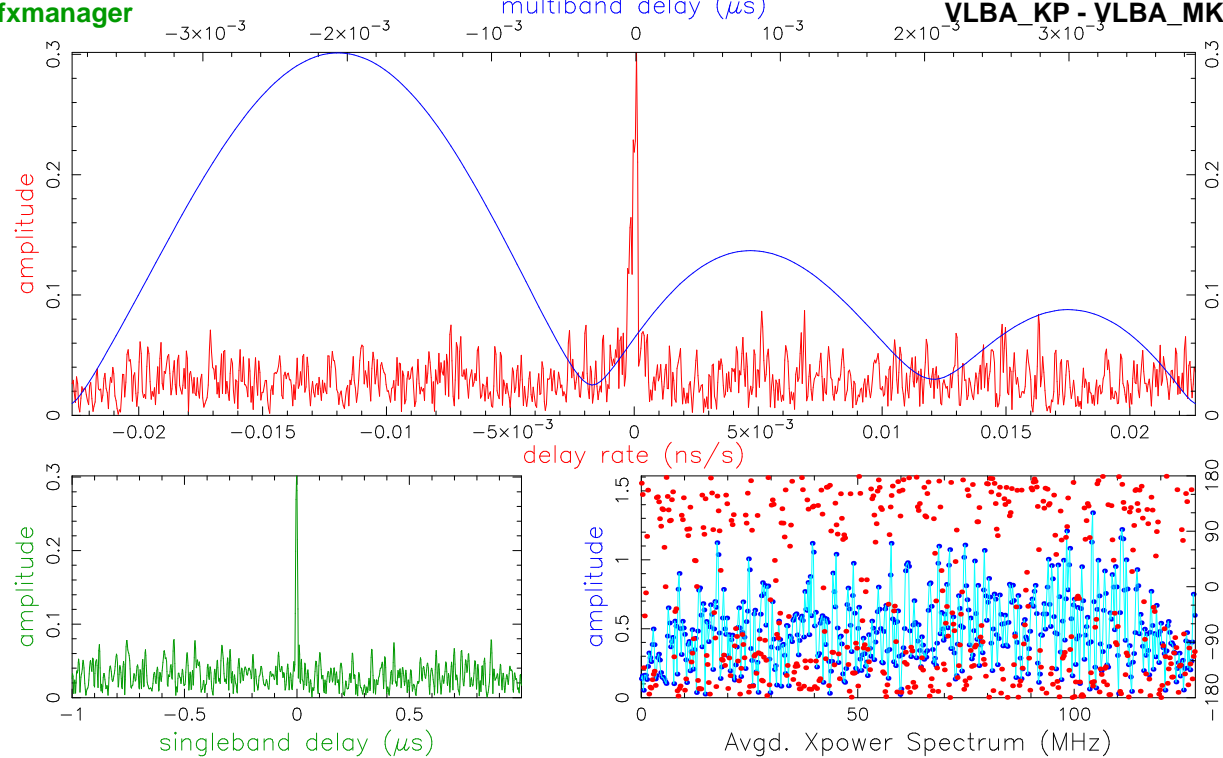
k: az 119.9 el 54.1 pa -48.3 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2089.580 436.851 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/km..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/km.Q.130.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, km

VLBA_KP - VLBA_MK, fgroup Q, pol RL

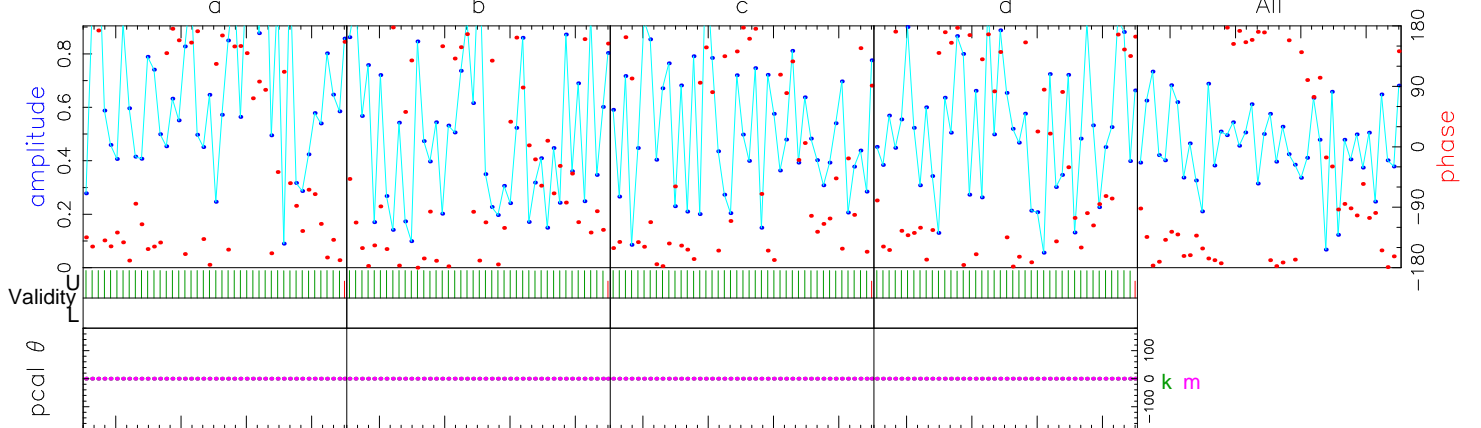


Fringe quality 9

SNR 12.8
 Int time 239.075
 Amp 0.302
 Phase -163.4
 PFD 8.1e-29
 Delays (us)
 SBD -0.001698
 MBD -0.002061
 Fringe rate (Hz)
 0.002889
 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
 2021:032:211454
 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		
m	1000	1000	1000	1000		
k:m	0:0	0:0	0:0	0:0		
k:m	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000		
m	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR		
m	Q00UL	Q01UL	Q02UL	Q03UL		

	1.07121201977E+04	Apriori delay (usec)	1.07121222583E+04	Resid mbdelay (usec)	-2.06054E-03	+/- 8.7E-05
Group delay (usec)(sbd)	1.07121201977E+04	Apriori clock (usec)	-1.3030001E+01	Resid sbdelay (usec)	-1.69800E-03	+/- 3.4E-04
Sband delay (usec)	1.07121205603E+04	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.05439E-05	+/- 5.8E-07
Phase delay (usec)	1.07121222477E+04	Apriori rate (us/s)	-7.25939169305E-01	Resid rate (us/s)	6.71302E-08	+/- 4.2E-09
Delay rate (us/s)	-7.25939102175E-01	Apriori accel (us/s/s)	-5.31517521872E-05	Resid phase (deg)	-163.4	+/- 9.0
Total phase (deg)	195.5					

	RMS	Theor.	Amplitude	0.302 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	56.7	29.5	Search (1024X16)	0.276	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	71.6	51.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	14.4	9.0	Inc. seg. avg.	0.407	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	15.1	15.7	Inc. frq. avg.	0.302	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 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2089.580 436.851 simultaneous interpolator

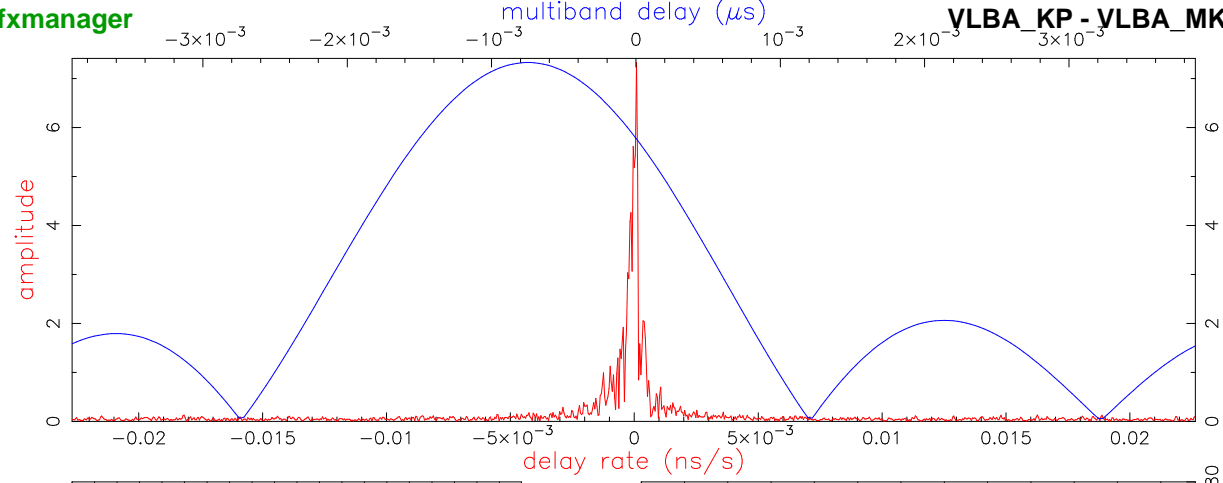
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/km..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/km.Q.150.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, km

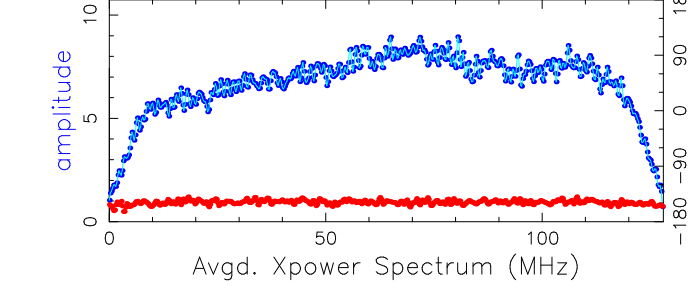
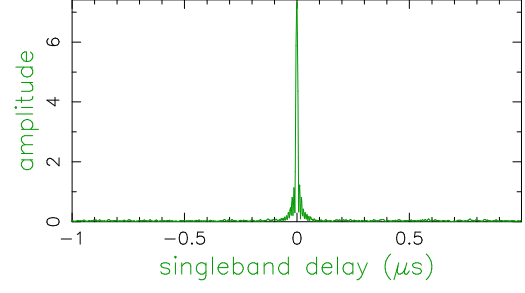
VLBA_KP - VLBA_MK, fgroup Q, pol LL



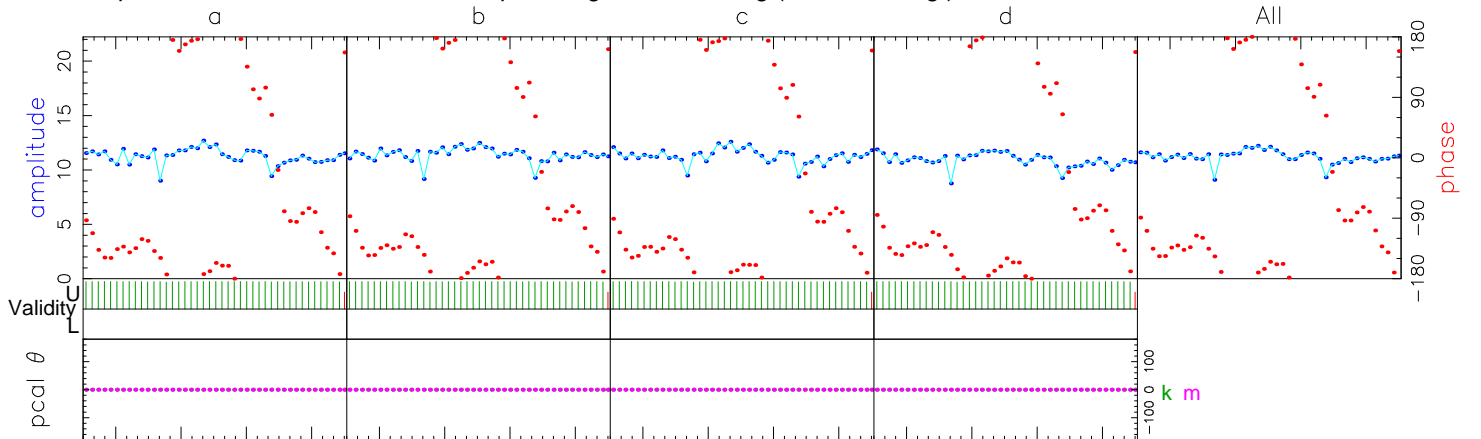
Fringe quality 5

SNR 313.4
 Int time 239.076
 Amp 7.412
 Phase -147.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.000740
 MBD -0.000783
 Fringe rate (Hz)
 0.003158
 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
U/L	469/0	469/0	469/0	469/0		
k	1000	1000	1000	1000		
m	1000	1000	1000	1000		
k:m	0:0	0:0	0:0	0:0		
k:m	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000		
m	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL		
m	Q00UL	Q01UL	Q02UL	Q03UL		
Validity	[Bar chart showing validity for each frequency]					
pcal θ	[Bar chart showing pcal theta for each frequency]					
Ampl.	7.3	7.4	7.4	7.1		7.3
Sbd box	512.7	512.6	512.6	512.7		512.6
APs used	469/0	469/0	469/0	469/0		
PC freqs	1000	1000	1000	1000		
PC phase	0:0	0:0	0:0	0:0		
ManI PC	0:0	0:0	0:0	0:0		
PC amp	0:0	0:0	0:0	0:0		

	1.07121214756E+04	1.07121222583E+04	1.07121222487E+04	1.07121222583E+04	Resid mbdelay (usec)	-7.82668E-04	+/- 3.5E-06
Group delay (usec)(sbd)	1.07121214756E+04	1.07121222583E+04	1.07121222487E+04	1.07121222583E+04	Resid sbdelay (usec)	-7.40000E-04	+/- 1.4E-05
Sband delay (usec)	1.07121215183E+04	-1.3030001E+01	0.0000000E+00	0.0000000E+00	Resid phdelay (usec)	-9.54025E-06	+/- 2.4E-08
Phase delay (usec)	1.07121222487E+04	0.0000000E+00	0.0000000E+00	0.0000000E+00	Resid rate (us/s)	7.33783E-08	+/- 1.7E-10
Delay rate (us/s)	-7.25939095926E-01	-7.25939169305E-01	-7.25939169305E-01	-7.25939169305E-01	Resid phase (deg)	-147.8	+/- 0.4
Total phase (deg)	211.0	-5.31517521872E-05	-5.31517521872E-05	-5.31517521872E-05			
Apriori delay (usec)							
Apriori clock (usec)							
Apriori clockrate (us/s)							
Apriori rate (us/s)							
Apriori accel (us/s/s)							

	RMS	Theor.	Amplitude	7.412 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	55.2	1.2	Search (1024X16)	6.889	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/seg (%)	51.9	2.1	Interp.	0.000	Sample rate(MISamp/s): 256	nlags: 512	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	3.3	0.4	Inc. seg. avg.	11.209	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	2.0	0.6	Inc. frq. avg.	7.331					

k: az 119.9 el 54.1 pa -48.3 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2089.580 436.851 simultaneous interpolator

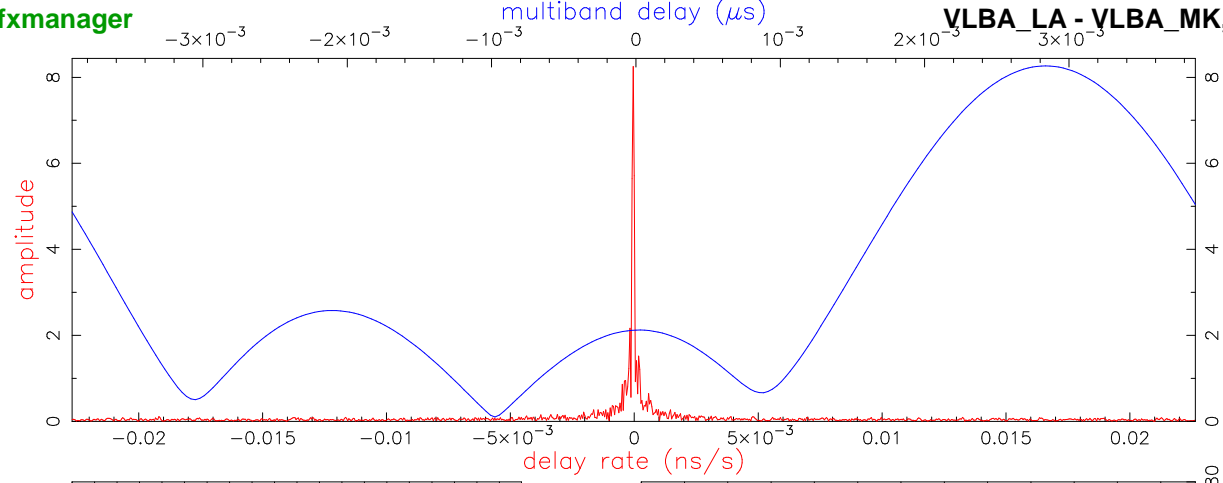
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/km..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/km.Q.87.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

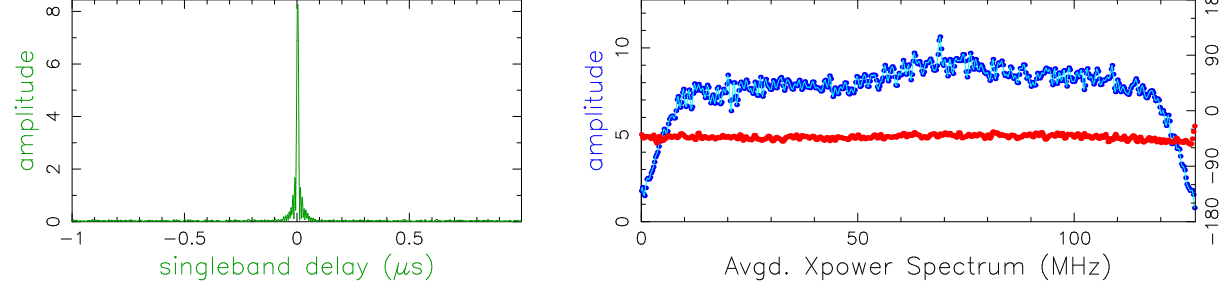
fxmanager

1502+106.1J2DGP, No0154, Im

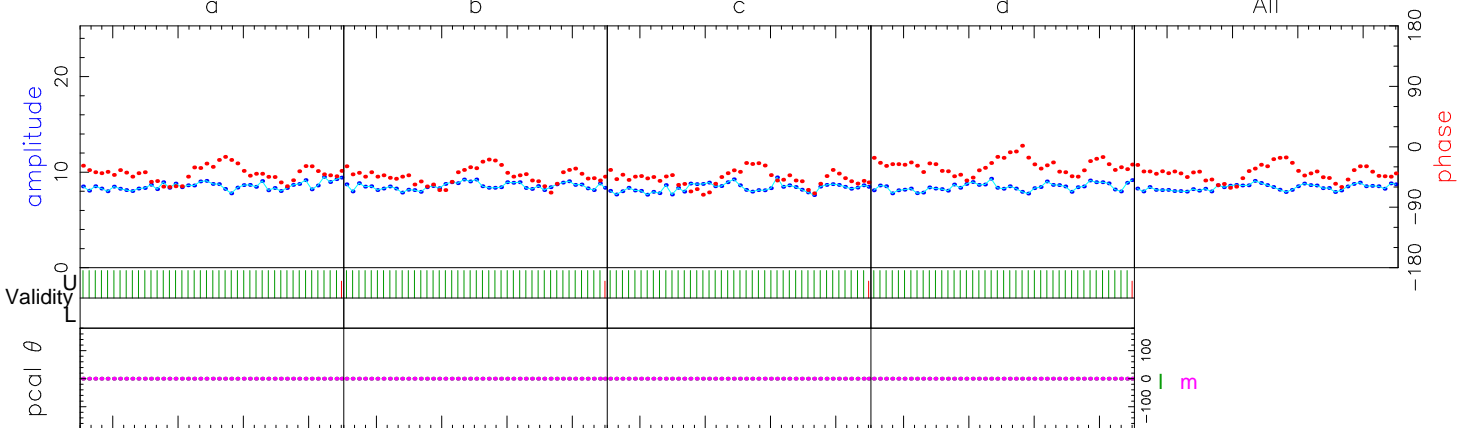
VLBA_LA - VLBA_MK, fgroup Q, pol RR



Fringe quality 9
 SNR 357.6
 Int time 239.982
 Amp 8.440
 Phase -39.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.002909
 MBD 0.002771
 Fringe rate (Hz)
 -0.001370
 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
 2021:032:211450
 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
	-39.5	-43.3	-47.3	-28.1	Phase	-39.6
	8.4	8.4	8.2	8.3	Ampl.	8.3
	514.1	514.4	514.4	515.1	Sbd box	514.5
U/L	469/0	469/0	469/0	469/0	APs used	
l	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
l:m	0:0	0:0	0:0	0:0	PC phase	
l:m	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

	1.09989694011E+04	Apriori delay (usec)	1.09989666297E+04	Resid mbdelay (usec)	2.77147E-03	+/- 3.1E-06
Group delay (usec)(sbd)						
Sband delay (usec)	1.09989695392E+04	Apriori clock (usec)	-1.3775406E+01	Resid sbdelay (usec)	2.90950E-03	+/- 1.2E-05
Phase delay (usec)	1.09989666271E+04	Apriori clockrate (us/s)	-1.9999998E-07	Resid phdelay (usec)	-2.55292E-06	+/- 2.1E-08
Delay rate (us/s)	-8.57265647649E-01	Apriori rate (us/s)	-8.57265615827E-01	Resid rate (us/s)	-3.18222E-08	+/- 1.5E-10
Total phase (deg)	226.9	Apriori accel (us/s/s)	-5.35526904152E-05	Resid phase (deg)	-39.6	+/- 0.3

	RMS	Theor.	Amplitude	8.440 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	11.0	1.1	Search (1024X16)	8.007	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	3.6	1.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	10.1	0.3	Inc. seg. avg.	8.404	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	1.7	0.6	Inc. frq. avg.	8.317	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 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2471.832 673.470 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/Im..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/Im.Q.111.1J2DGP

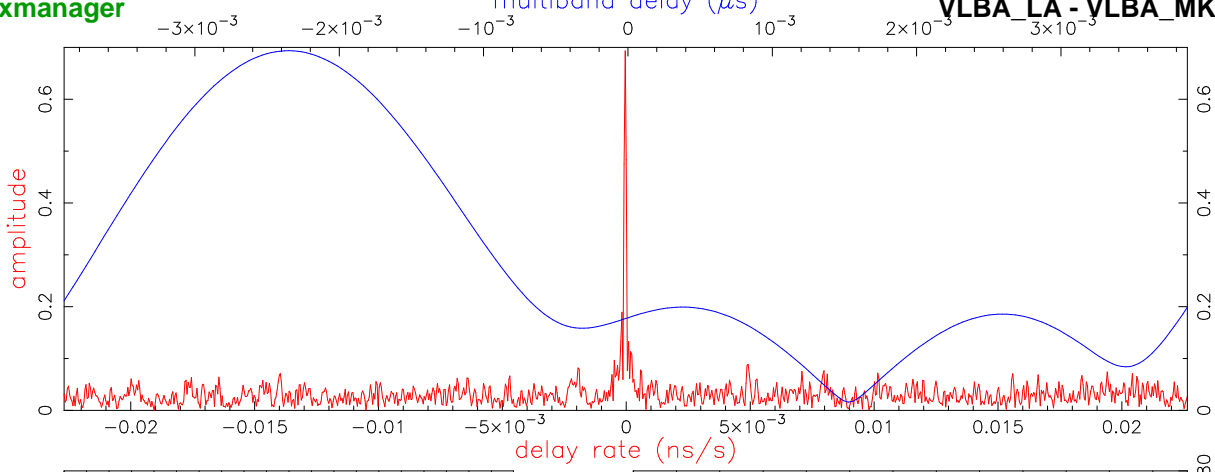
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, Im

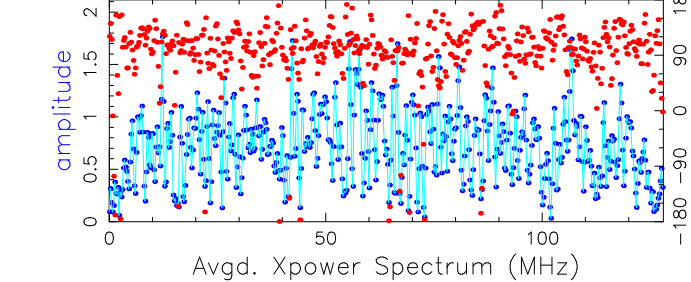
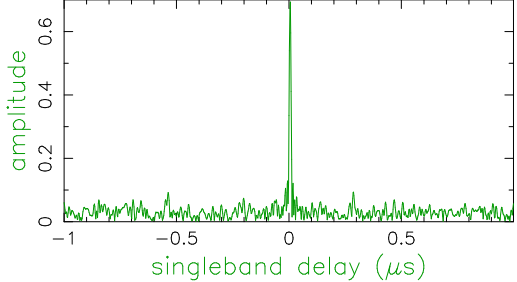
VLBA_LA - VLBA_MK, fgroup Q, pol LR

multiband delay (μ s)



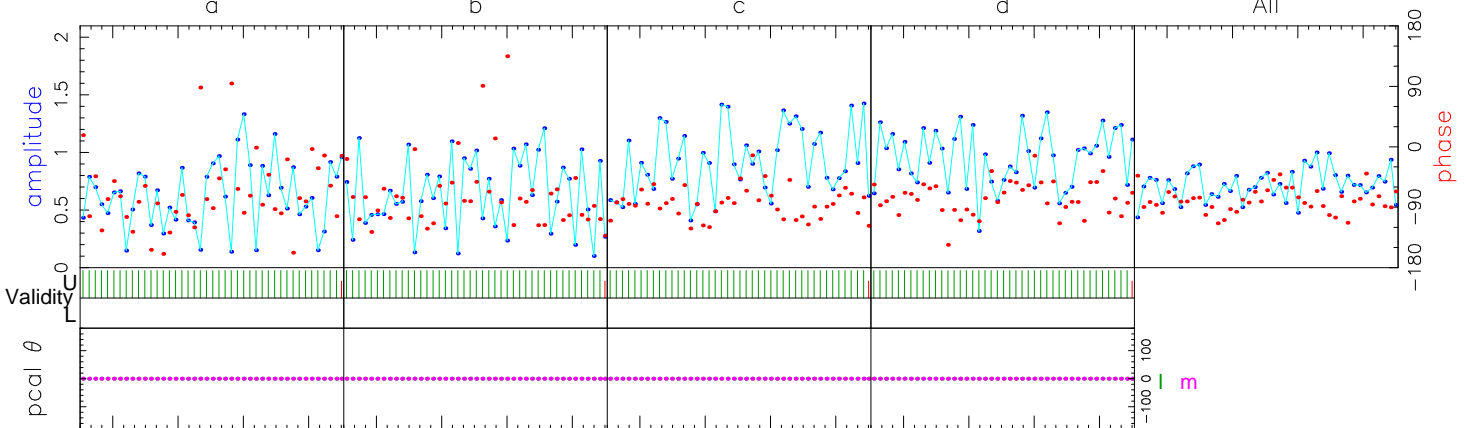
Fringe quality 8

SNR 29.7
 Int time 239.982
 Amp 0.700
 Phase -80.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.005216
 MBD -0.002388
 Fringe rate (Hz)
 -0.001465
 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



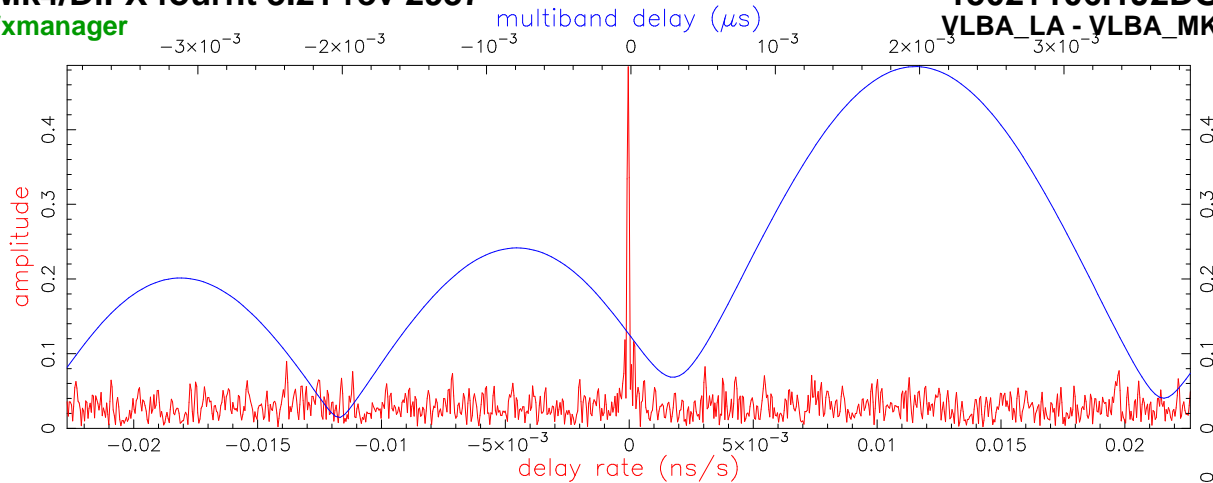
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
l	1000	1000	1000	1000		
m	1000	1000	1000	1000		
l:m	0:0	0:0	0:0	0:0		
l:m	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000		
m	1000	1000	1000	1000		
l	Q00UL	Q01UL	Q02UL	Q03UL		
m	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks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

Group delay (usec)(sbd)	1.09989720546E+04	Apriori delay (usec)	1.09989666297E+04	Resid mbdelay (usec)	-2.38756E-03	+/-	3.8E-05
Sband delay (usec)	1.09989718452E+04	Apriori clock (usec)	-1.3775406E+01	Resid sbdelay (usec)	5.21550E-03	+/-	1.5E-04
Phase delay (usec)	1.09989666244E+04	Apriori clockrate (us/s)	-1.9999998E-07	Resid phdelay (usec)	-5.21774E-06	+/-	2.5E-07
Delay rate (us/s)	-8.57265649875E-01	Apriori rate (us/s)	-8.57265615827E-01	Resid rate (us/s)	-3.40487E-08	+/-	1.8E-09
Total phase (deg)	185.6	Apriori accel (us/s/s)	-5.35526904152E-05	Resid phase (deg)	-80.8	+/-	3.9

ph/seg (deg)	17.7	Theor.	12.7	Amplitude	0.700 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	19.3		22.1	Search (1024X16)	0.677	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	7.1		3.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	25.0		6.7	Inc. seg. avg.	0.708	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	0.694	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

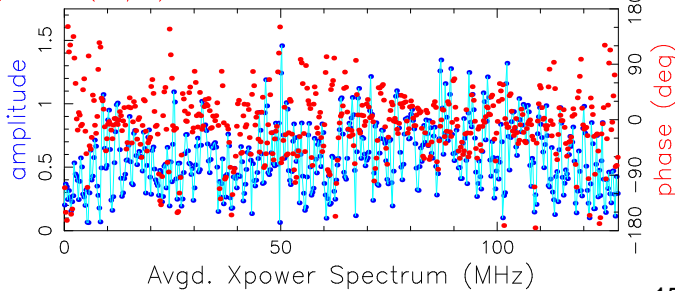
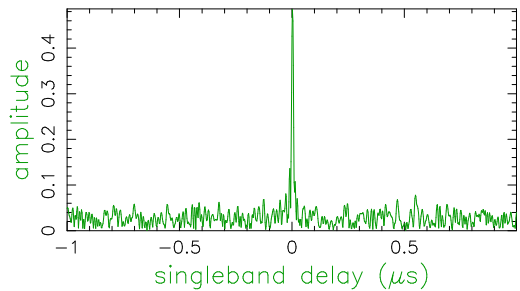
l: az 131.0 el 55.5 pa -38.1 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2471.832 673.470 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/Im..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/Im.Q.125.1J2DGP



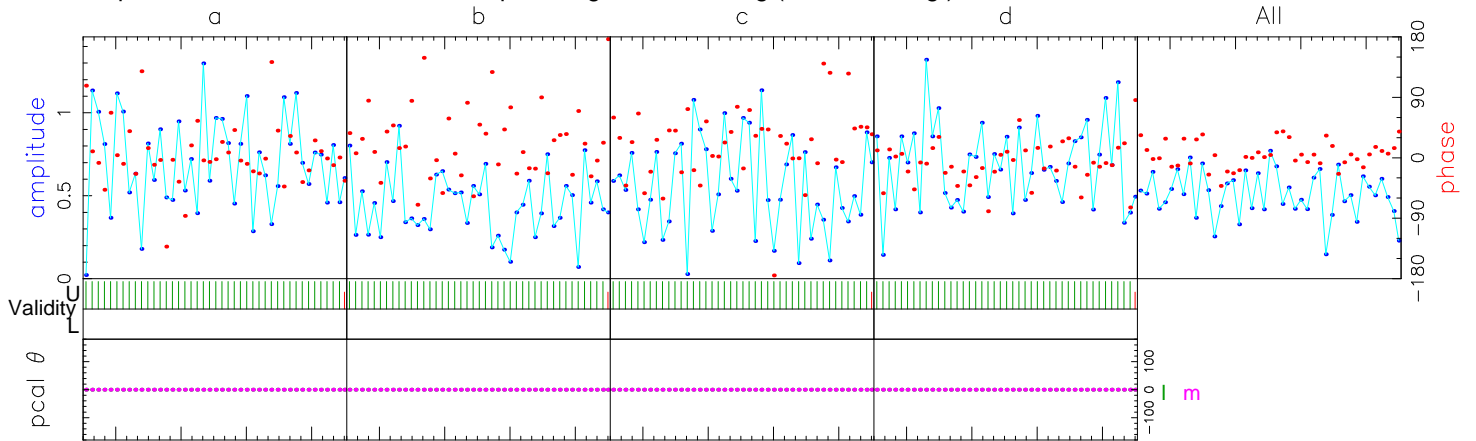
Fringe quality 7

SNR 20.6
Int time 239.982
Amp 0.486
Phase 3.7
PFD 0.0e+00
Delays (us)
SBD 0.002348
MBD 0.001989
Fringe rate (Hz)
-0.001436
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
2021:032:211454
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		
l	1000	1000	1000	1000		
m	1000	1000	1000	1000		
l:m	0:0	0:0	0:0	0:0		
l:m	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000		
m	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR		
m	Q00UL	Q01UL	Q02UL	Q03UL		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.09989686183E+04	Apriori delay (usec)	1.09989666297E+04	Resid mbdelay (usec)	1.98866E-03	+/-	5.4E-05
Sband delay (usec)	1.09989689777E+04	Apriori clock (usec)	-1.3775406E+01	Resid sbdelay (usec)	2.34800E-03	+/-	2.1E-04
Phase delay (usec)	1.09989666299E+04	Apriori clockrate (us/s)	-1.9999998E-07	Resid phdelay (usec)	2.41080E-07	+/-	3.6E-07
Delay rate (us/s)	-8.57265649180E-01	Apriori rate (us/s)	-8.57265615827E-01	Resid rate (us/s)	-3.33538E-08	+/-	2.6E-09
Total phase (deg)	270.2	Apriori accel (us/s/s)	-5.35526904152E-05	Resid phase (deg)	3.7	+/-	5.6

	RMS	Theor.	Amplitude	0.486 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	19.4	18.2	Search (1024X16)	0.474	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/seg (%)	28.1	31.8	Inc. seg. avg.	0.487	Sample rate(MISamp/s): 256	nlags: 512	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	15.8	5.6	Inc. frq. avg.	0.491	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	24.2	9.7							

l: az 131.0 el 55.5 pa -38.1 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2471.832 673.470 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/Im..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/Im.Q.149.1J2DGP

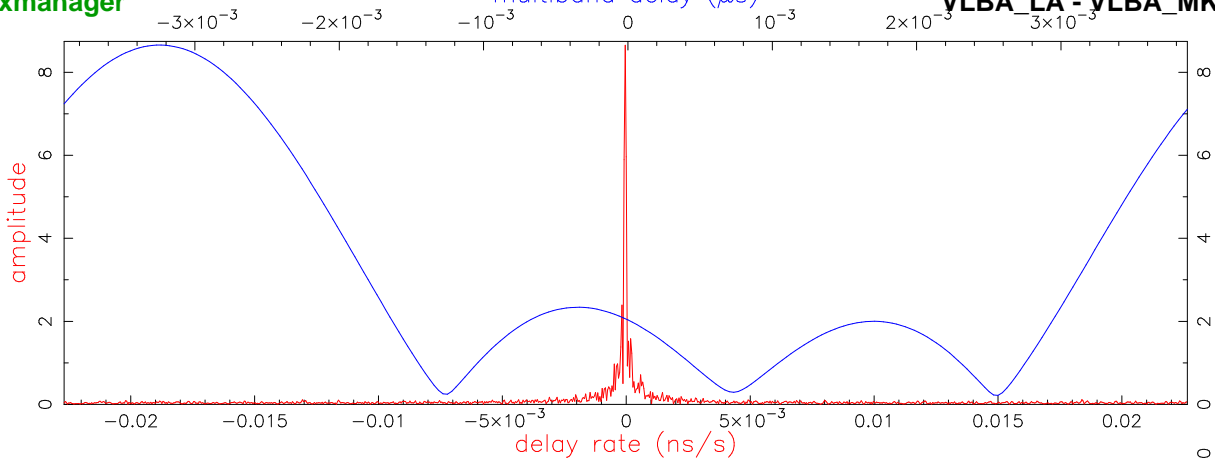
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, Im

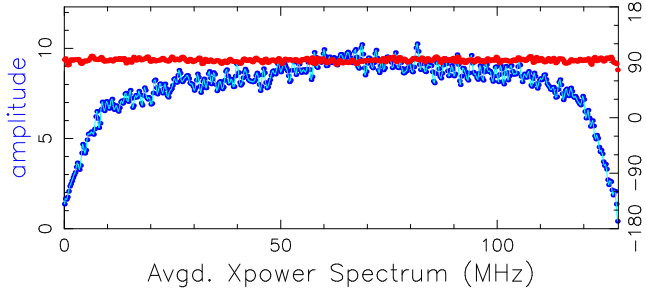
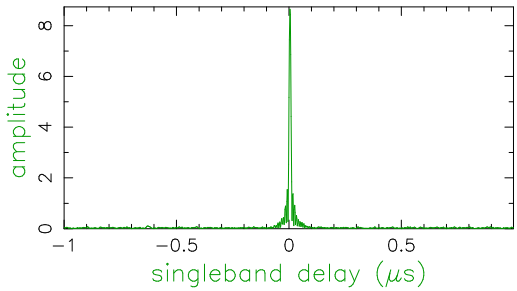
VLBA_LA - VLBA_MK, fgroup Q, pol LL

multiband delay (μ s)



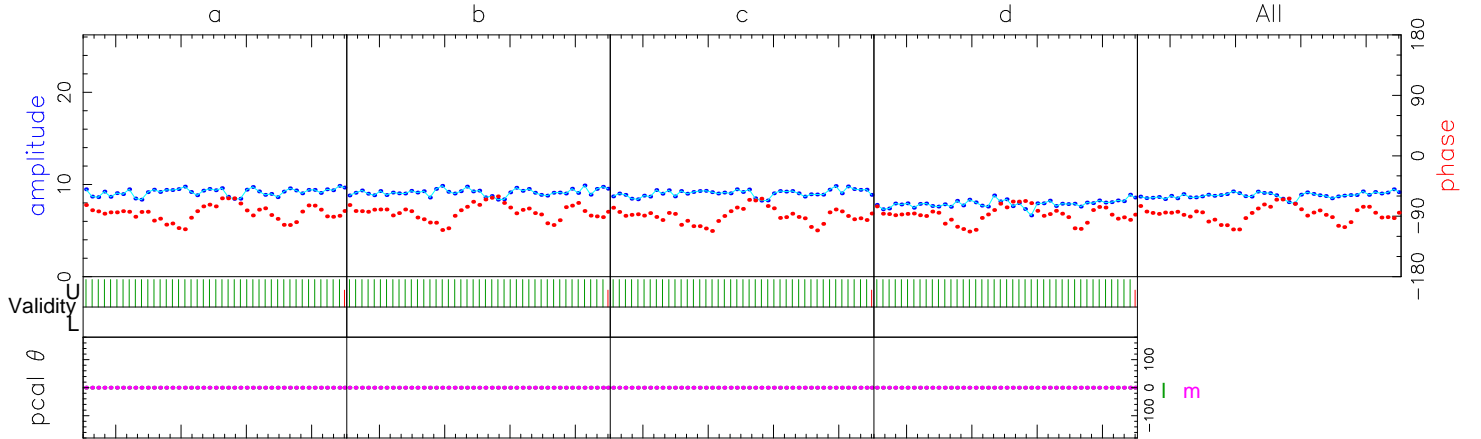
Fringe quality 9

SNR 370.4
 Int time 239.982
 Amp 8.744
 Phase -86.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.004595
 MBD -0.003214
 Fringe rate (Hz)
 -0.001343
 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



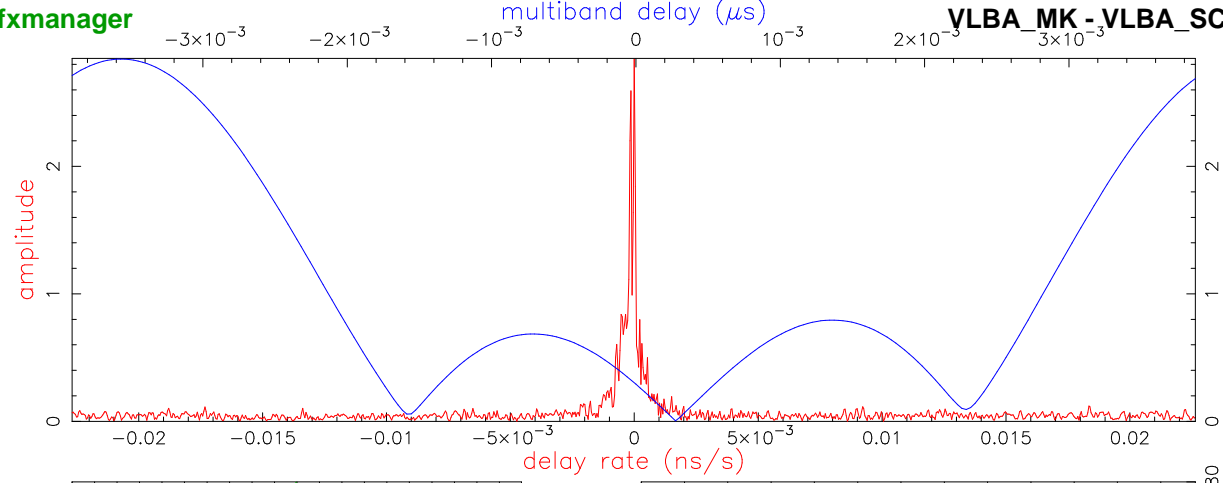
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
l	1000	1000	1000	1000	APs used	
m	1000	1000	1000	1000	PC freqs	
l:m	0:0	0:0	0:0	0:0	PC phase	
l:m	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
l	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UL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

Group delay (usec)(sbd)	1.09989712286E+04	Apriori delay (usec)	1.09989666297E+04	Resid mbdelay (usec)	-3.21353E-03	+/- 3.0E-06
Sband delay (usec)	1.09989712252E+04	Apriori clock (usec)	-1.3775406E+01	Resid sbdelay (usec)	4.59550E-03	+/- 1.2E-05
Phase delay (usec)	1.09989666241E+04	Apriori clockrate (us/s)	-1.9999998E-07	Resid phdelay (usec)	-5.58672E-06	+/- 2.0E-08
Delay rate (us/s)	-8.57265647033E-01	Apriori rate (us/s)	-8.57265615827E-01	Resid rate (us/s)	-3.12068E-08	+/- 1.4E-10
Total phase (deg)	179.9	Apriori accel (us/s/s)	-5.35526904152E-05	Resid phase (deg)	-86.6	+/- 0.3

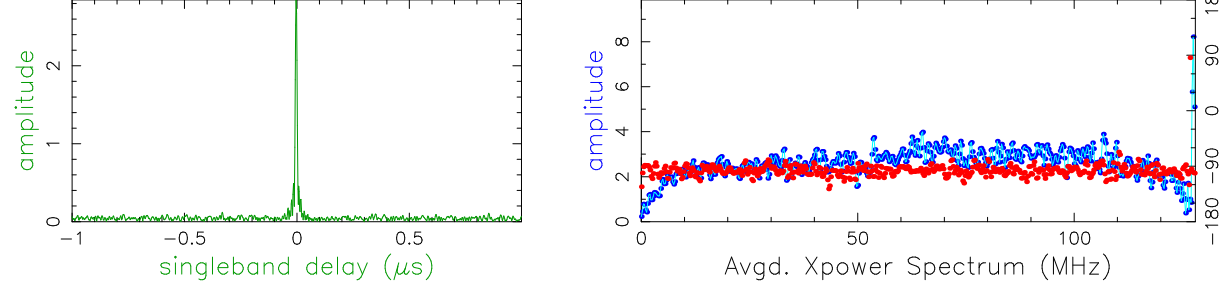
	RMS	Theor.	Amplitude	8.744 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	11.3	1.0	Search (1024X16)	8.278	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	3.6	1.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	3.1	0.3	Inc. seg. avg.	8.820	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	6.1	0.5	Inc. frq. avg.	8.659	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 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 2471.832 673.470 simultaneous interpolator

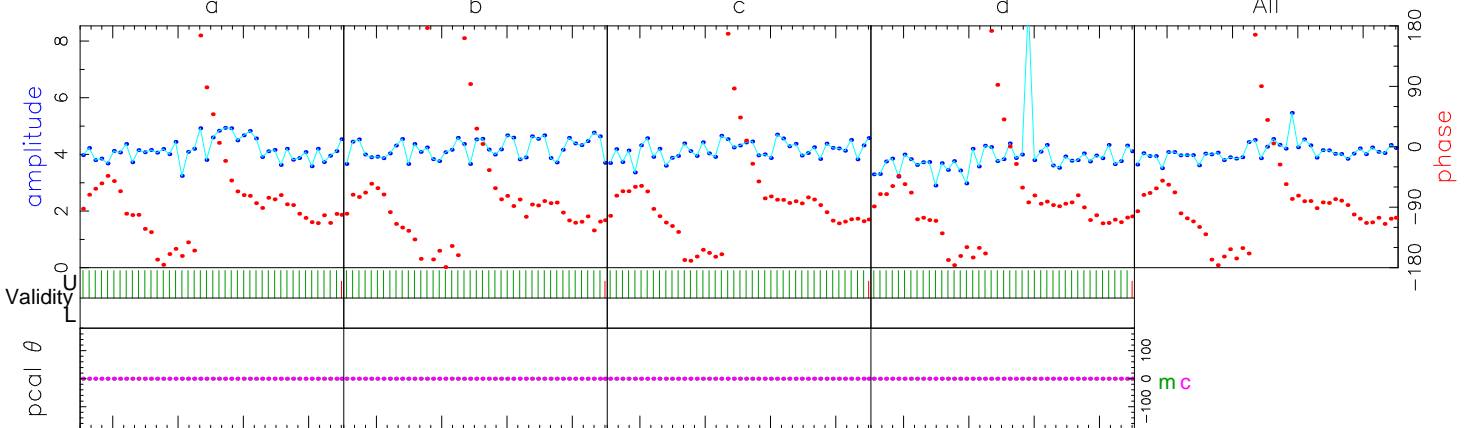
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/lm..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/lm.Q.93.1J2DGP



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

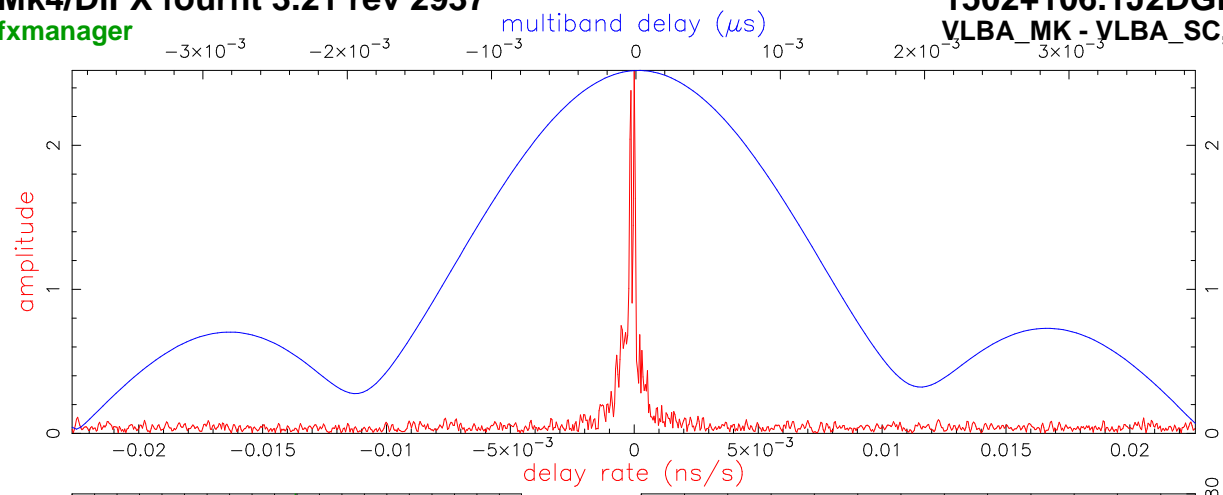


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m:c	0:0	0:0	0:0	0:0		
m:c	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UL	Q01UL	Q02UL	Q03UL		

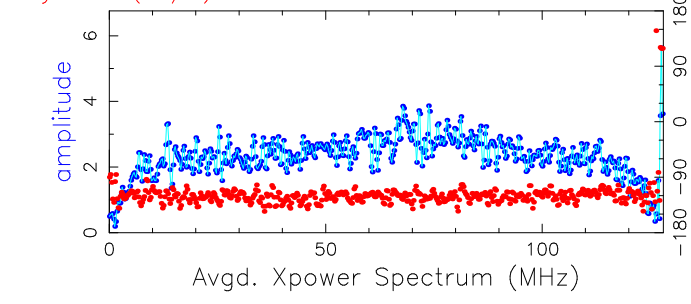
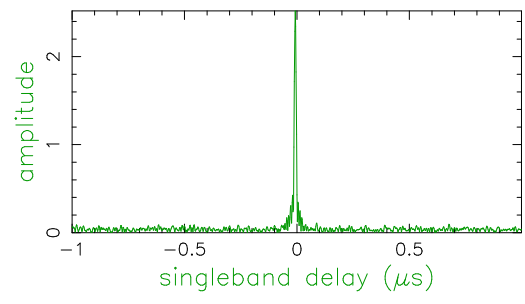
Group delay (usec)(sbd)	-1.36530504523E+04	Apriori delay (usec)	-1.36530468988E+04	Resid mbdelay (usec)	-3.55356E-03	+/-	9.2E-06
Sband delay (usec)	-1.36530505016E+04	Apriori clock (usec)	4.8521881E+00	Resid sbdelay (usec)	-3.60287E-03	+/-	3.6E-05
Phase delay (usec)	-1.36530469051E+04	Apriori clockrate (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	Theor.	3.1	Amplitude	2.847 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	45.4	Search (1024X16)	2.737	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	3.7	Inc. seg. avg.	4.094	Inc. seg. avg.	4.094	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	2.3	Inc. frq. avg.	2.844	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

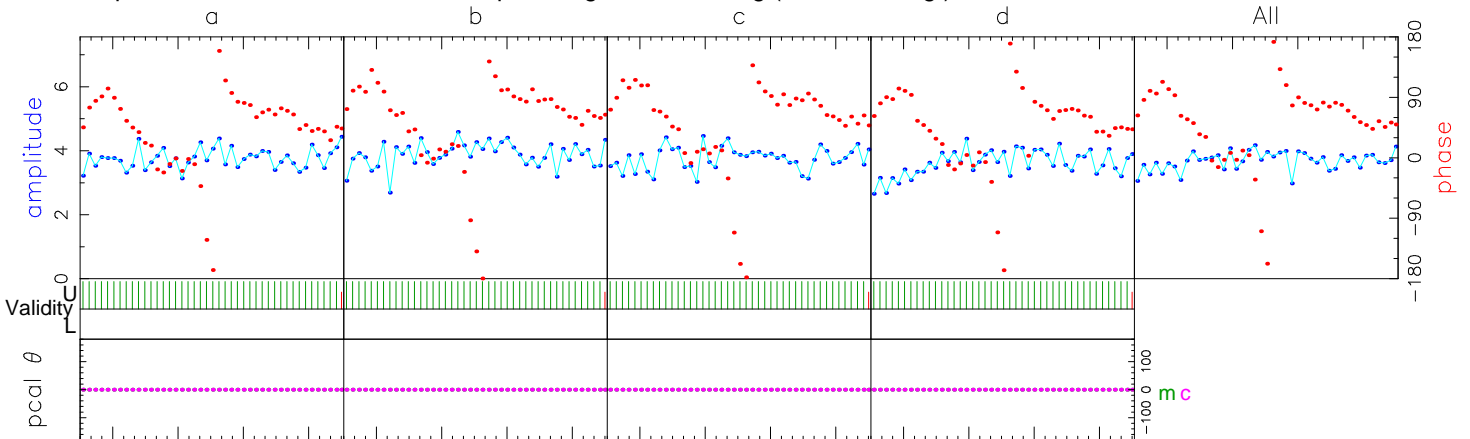
m: az 85.0 el 17.5 pa -72.4 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -5196.445 694.613 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mc.Q.160.1J2DGP



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"



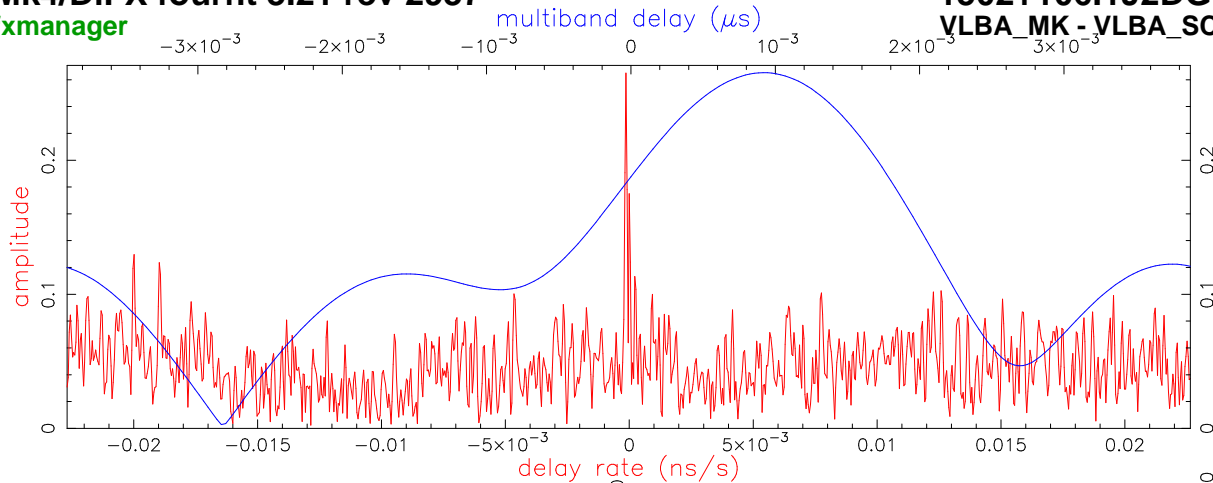
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	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	ManI 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	

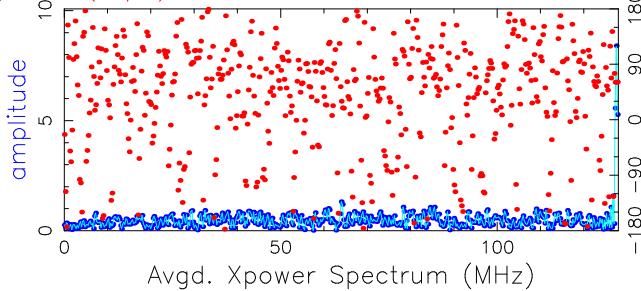
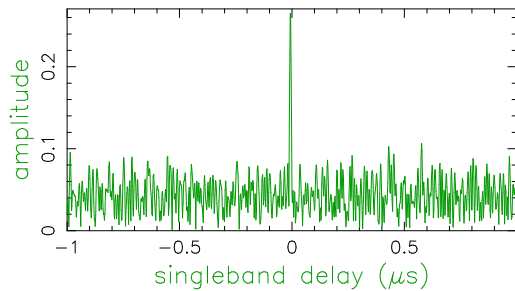
	42912.00	43040.00	43168.00	43296.00	Resid mbdelay (usec)	2.42188E-05	+/- 1.0E-05
Group delay (usec)(sbd)	-1.36530546870E+04	-1.36530545751E+04	-1.36530546898E+04	-1.36530546898E+04	Resid sbdelay (usec)	-7.67638E-03	+/- 4.0E-05
Sband delay (usec)	-1.36530545751E+04	-1.36530546898E+04	-1.36530546898E+04	-1.36530546898E+04	Resid phdelay (usec)	3.92366E-06	+/- 6.9E-08
Phase delay (usec)	-1.36530546898E+04	-1.36530546898E+04	-1.36530546898E+04	-1.36530546898E+04	Resid rate (us/s)	-1.08825E-08	+/- 5.0E-10
Delay rate (us/s)	1.79739643587E+00	1.79739643587E+00	1.79739643587E+00	1.79739643587E+00	Resid phase (deg)	60.8	+/- 1.1
Total phase (deg)		-127.4					

	RMS	Theor.	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



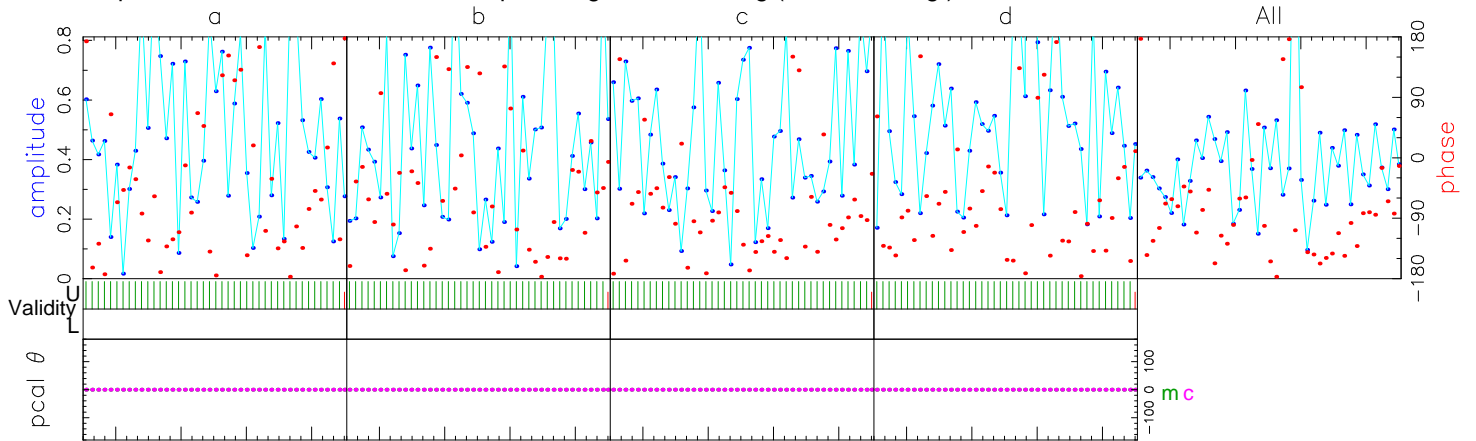
Fringe quality 8

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"

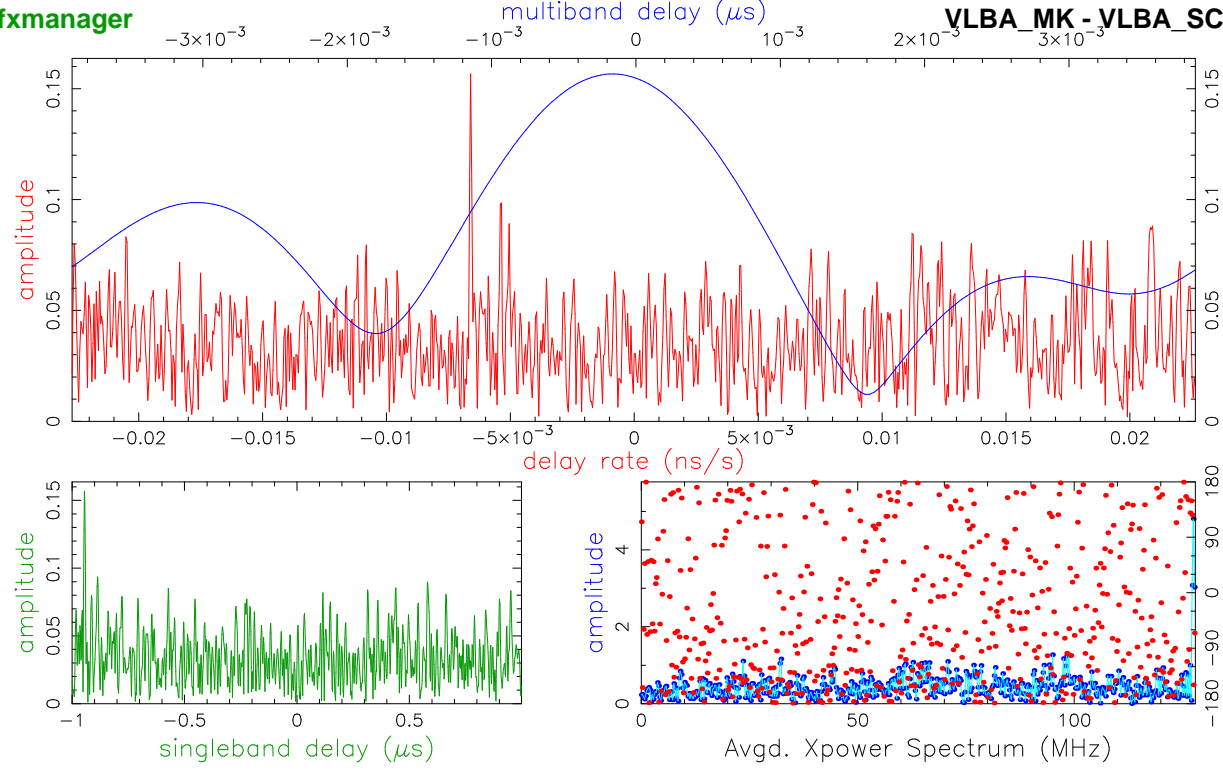
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-126.9	-76.5	-105.6	-109.4	Phase	-107.5
	0.2	0.1	0.3	0.4	Ampl.	0.3
	510.1	808.8	509.2	509.2	Sbd box	509.4
U/L	469/0	469/0	469/0	469/0	APs used	
m	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
m:c	0:0	0:0	0:0	0:0	PC phase	
m:c	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	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		

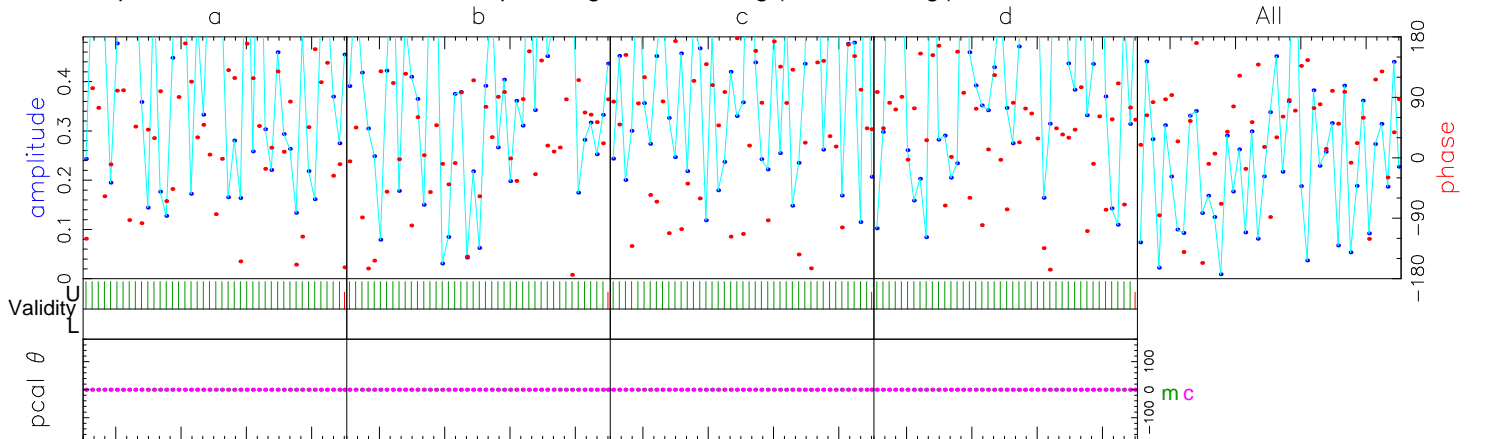


Fringe quality 0

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"

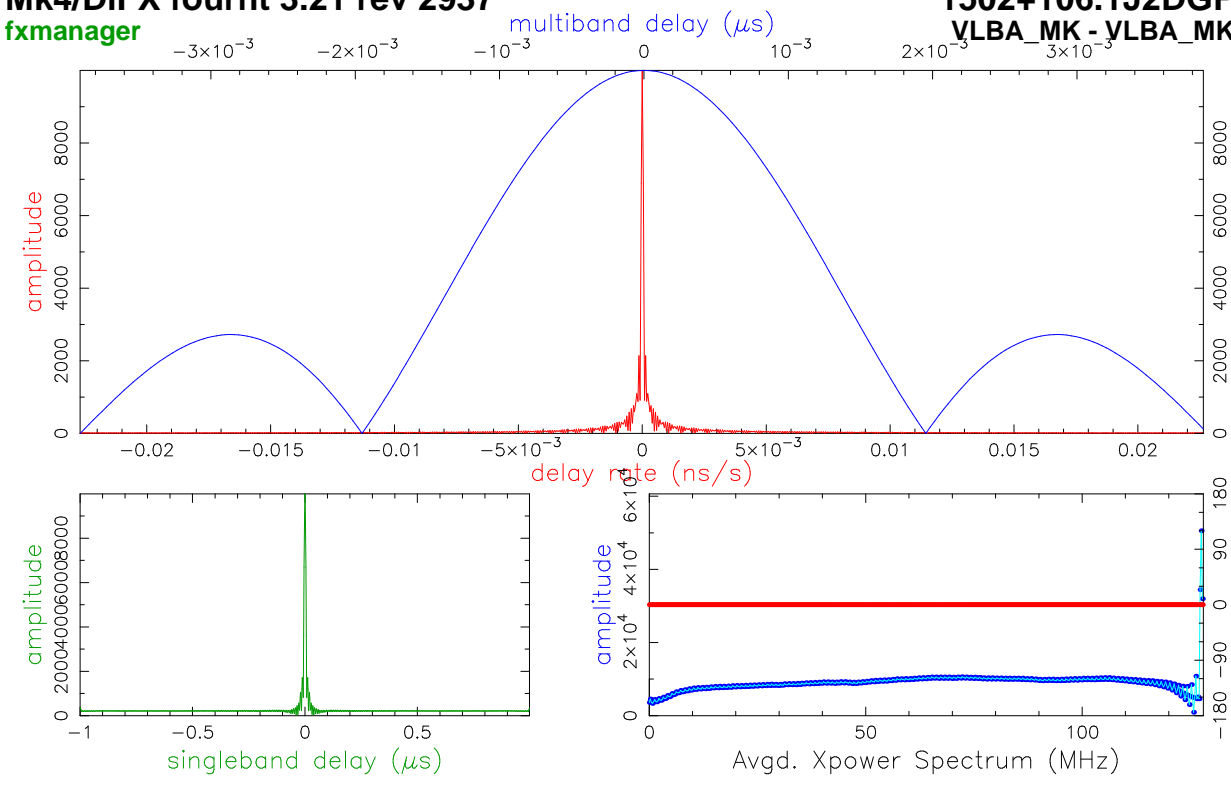
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	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		

	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
Group delay (usec)(sbd)	-1.36539923621E+04		-1.36530468988E+04		-1.50800E-04	+/- 1.7E-04
Sband delay (usec)	-1.36539916795E+04		4.8521881E+00		-9.44781E-01	+/- 6.4E-04
Phase delay (usec)	-1.36530468943E+04		-4.0000002E-07		4.42451E-06	+/- 1.1E-06
Delay rate (us/s)	1.79738982804E+00		1.79739644675E+00		-6.61871E-06	+/- 8.0E-09
Total phase (deg)		-119.7	7.33160236433E-05		68.6	+/- 17.1

	RMS	Theor.	Amplitude	0.164 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	72.6	56.1	Search (1024X16)	0.146	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	109.4	98.0	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.004 0.004
ph/frq (deg)	29.3	17.1	Inc. seg. avg.	0.167	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	45.9	29.9	Inc. frq. avg.	0.162	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

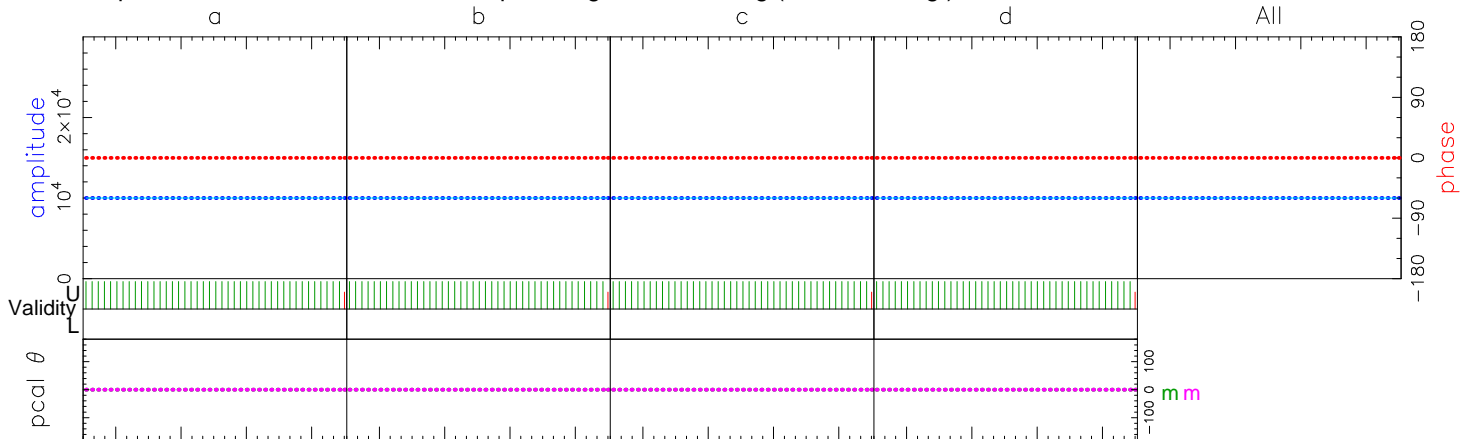


Fringe quality 9

SNR 423640.4
Int time 239.994
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 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



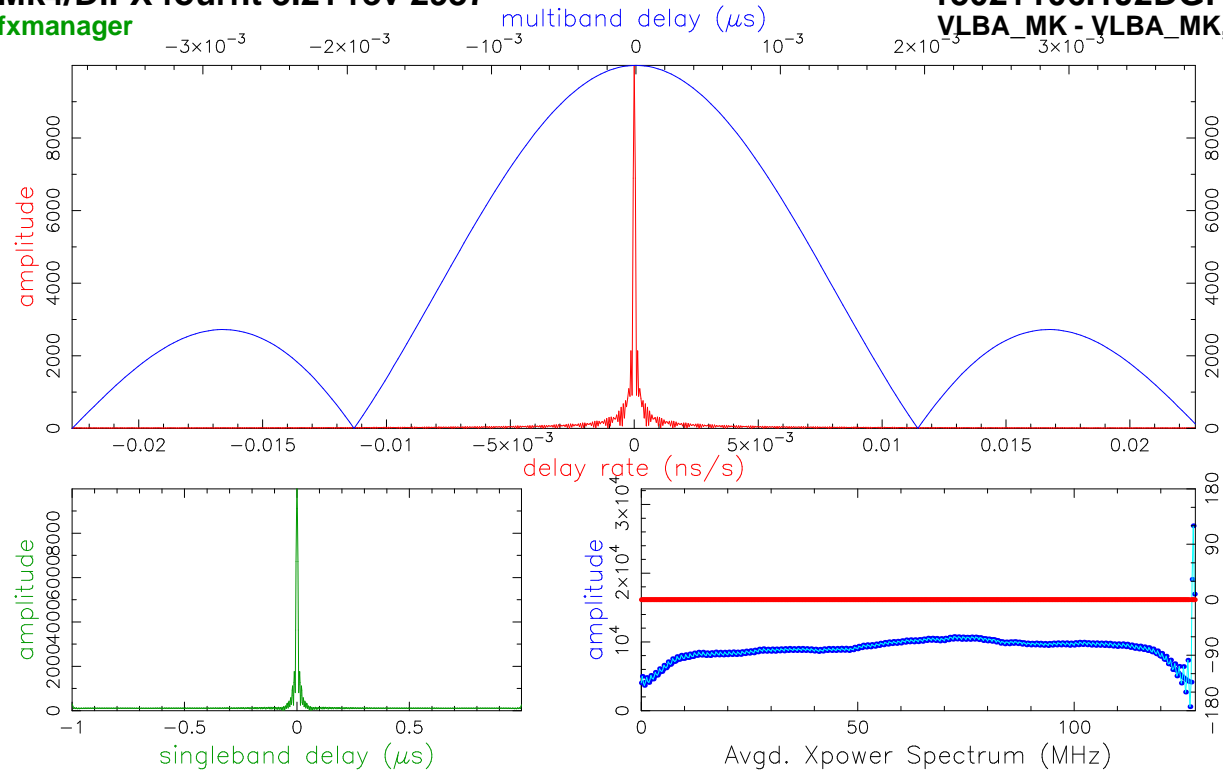
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
m	1000	1000	1000	1000		
m:m	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
m	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
m	Q00UL	Q01UL	Q02UL	Q03UL		

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	2.6E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.0E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	1.7E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	1.3E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg) 0.0 0.0
amp/seg (%) 0.0 0.0
ph/frq (deg) 0.0 0.0
amp/frq (%) 0.0 0.0

m: az 85.0 el 17.5 pa -72.4 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 0.000 0.000

Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mm..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mm.Q.153.1J2DGP

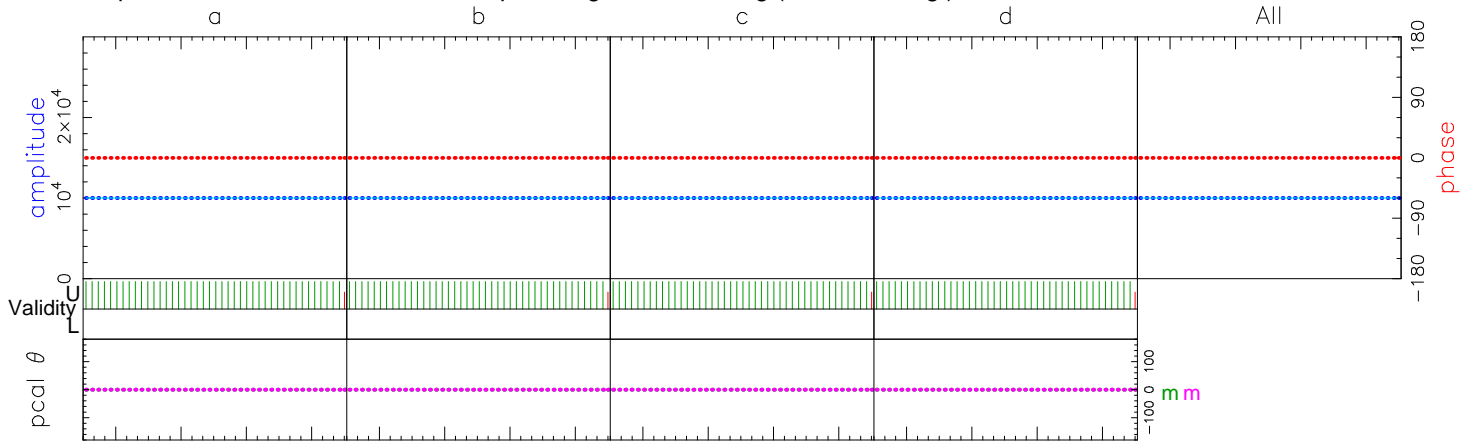


Fringe quality 9

SNR 423640.4
Int time 239.994
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
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		
m	1000	1000	1000	1000		
m:m	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
m	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
m	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	2.6E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.0E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	1.7E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	1.3E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

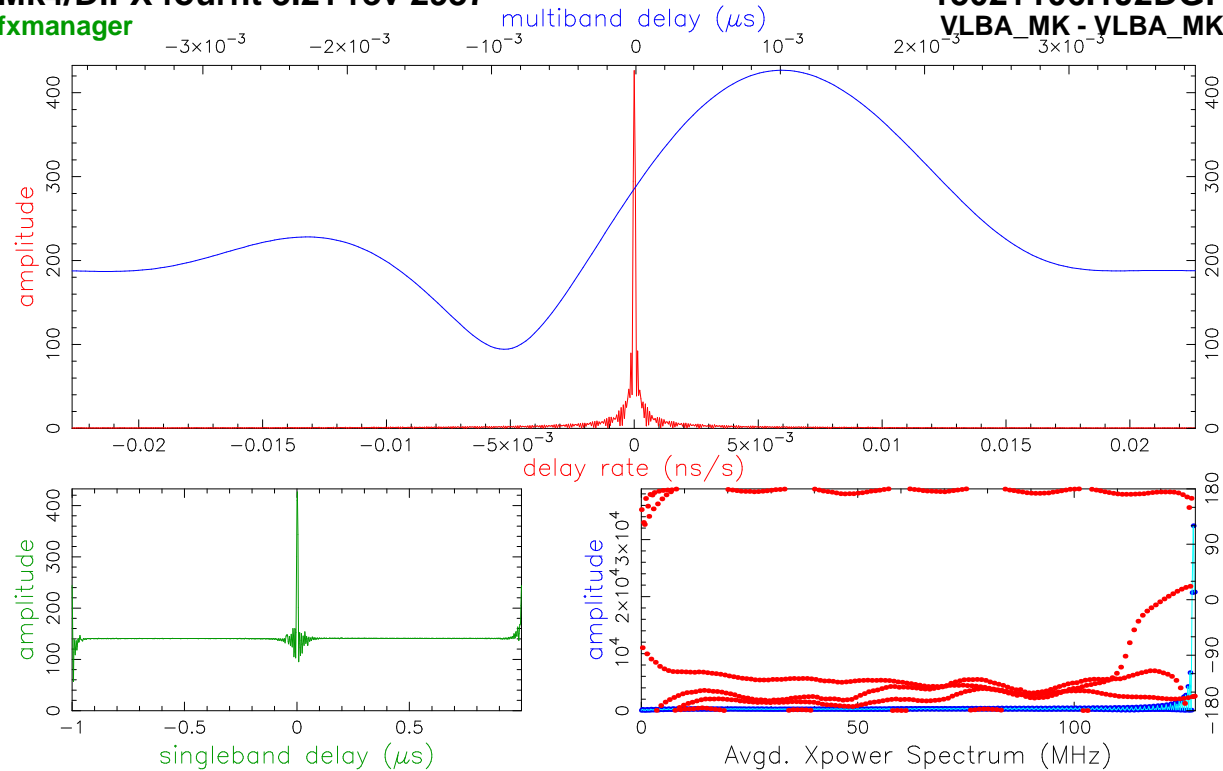
ph/seg (deg)	0.0	RMS	0.0	Theor.	0.0	Amplitude	9999.999 +/- 0.024	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	0.0	0.0	0.0	0.0	0.0	Search (1024X16)	10000.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled		mb window (us)	-0.004	0.004
ph/frq (deg)	0.0	0.0	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate (MSamp/s):	256			dr window (ns/s)	-0.023	0.023
amp/frq (%)	0.0	0.0	0.0	0.0	0.0	Inc. frq. avg.	10000.000	Data rate (Mb/s):	2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, mm

VLBA_MK - VLBA_MK, fgroup Q, pol LR

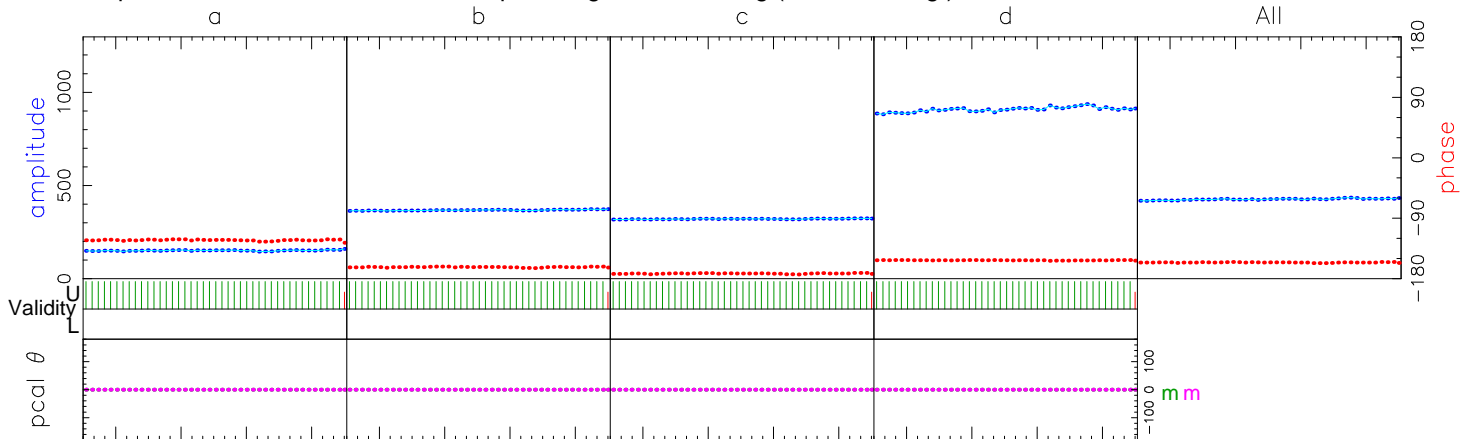


Fringe quality 5

SNR 18325.9
 Int time 239.994
 Amp 432.581
 Phase -155.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.001290
 MBD 0.001059
 Fringe rate (Hz)
 -0.000002
 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
 2021:032:211459
 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
	-122.5	-162.6	-172.2	-152.5	Phase	-155.8
	151.3	367.9	320.6	908.1	Ampl.	437.0
	1023.6	513.3	513.6	513.4	Sbd box	513.7
U/L	469/0	469/0	469/0	469/0	APs used	
m	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
m:m	0:0	0:0	0:0	0:0	PC phase	
m:m	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

	1.05868750000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.05869E-03	+/-	6.1E-08
Group delay (usec)(sbd)	1.05868750000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.28988E-03	+/-	2.4E-07
Sband delay (usec)	1.28987500000E-03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.00534E-05	+/-	4.0E-10
Phase delay (usec)	-1.00534235730E-05	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-5.38879E-11	+/-	2.9E-12
Delay rate (us/s)	-5.38879142039E-11	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-155.8	+/-	0.0
Total phase (deg)	-155.8						

	RMS	Theor.	Amplitude	432.581 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.4	0.0	Search (1024X16)	426.680	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	1.7	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	26.8	0.0	Inc. seg. avg.	426.486	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	65.6	0.0	Inc. frq. avg.	436.969	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 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

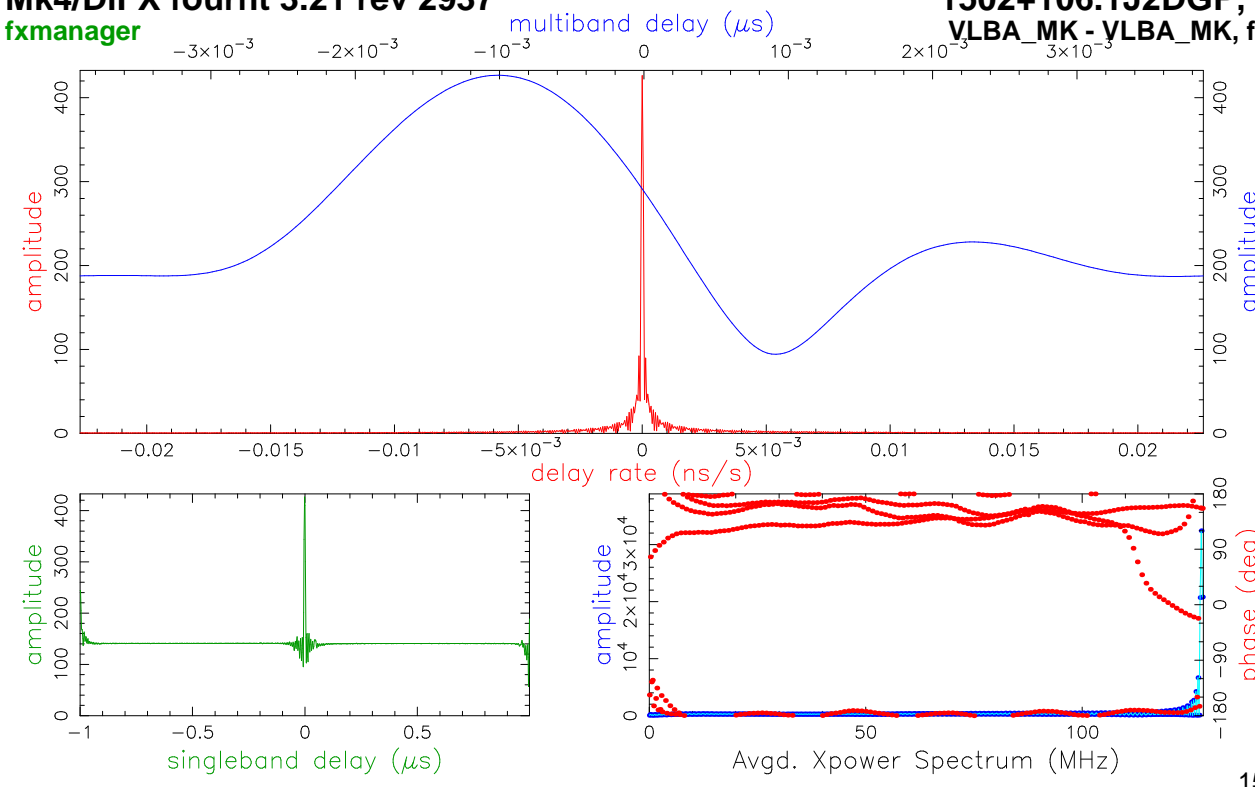
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mm..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mm.Q.181.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, mm

VLBA_MK - VLBA_MK, fgroup Q, pol RL

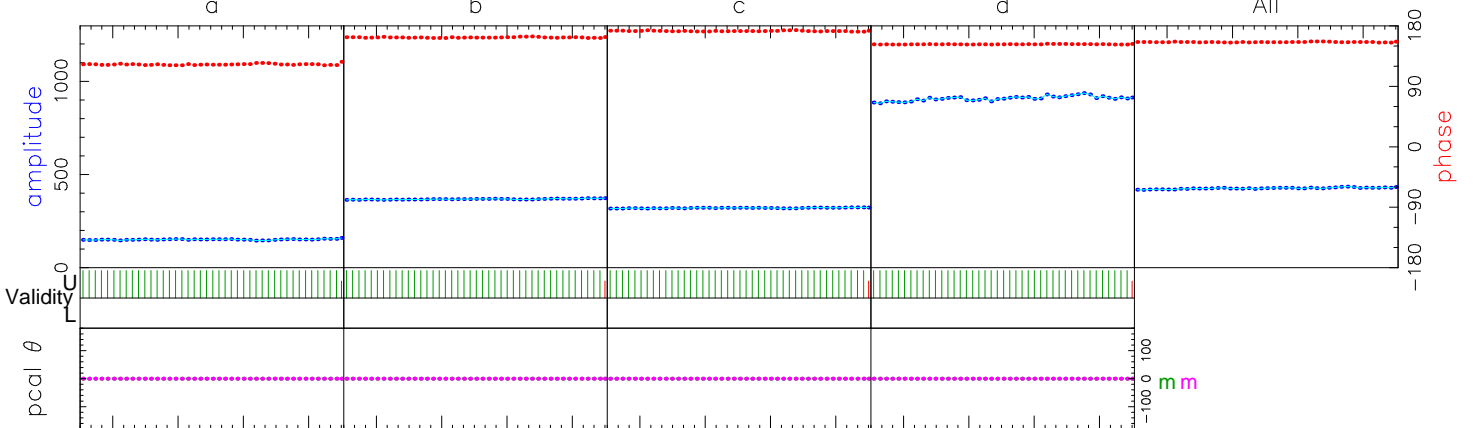


Fringe quality 5

SNR 18325.9
 Int time 239.994
 Amp 432.581
 Phase 155.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.001290
 MBD -0.001059
 Fringe rate (Hz) 0.000002
 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
	122.5	162.6	172.2	152.5	Phase	155.8
	151.3	367.9	320.6	908.1	Ampl.	437.0
	1.5	512.7	512.4	512.6	Sbd box	512.3
U/L	469/0	469/0	469/0	469/0	APs used	
m	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
m:m	0:0	0:0	0:0	0:0	PC phase	
m:m	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.05868750000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-1.05869E-03	+/-	6.1E-08
Sband delay (usec)	-1.28987500000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.28988E-03	+/-	2.4E-07
Phase delay (usec)	1.00534235730E-05	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.00534E-05	+/-	4.0E-10
Delay rate (us/s)	5.38879142039E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	5.38879E-11	+/-	2.9E-12
Total phase (deg)	155.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	155.8	+/-	0.0

ph/seg (deg)	0.4	Theor.	0.0	Amplitude	432.581 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	1.7	0.0	Search (1024X16)	426.680	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	26.8	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	65.6	0.0	Inc. seg. avg.	426.486	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023		
			Inc. frq. avg.	436.969	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 m: az 85.0 el 17.5 pa -72.4 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

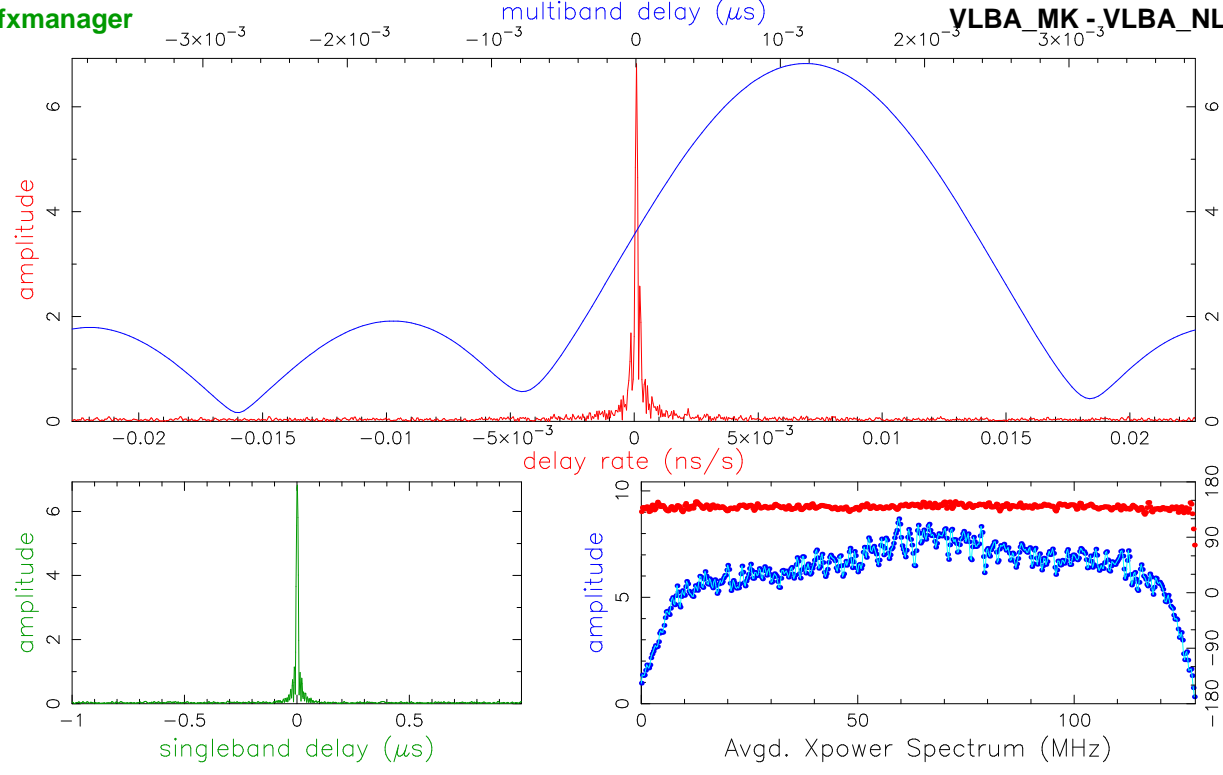
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mm..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mm.Q.199.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, mn

VLBA_MK - VLBA_NL, fgroup Q, pol LL

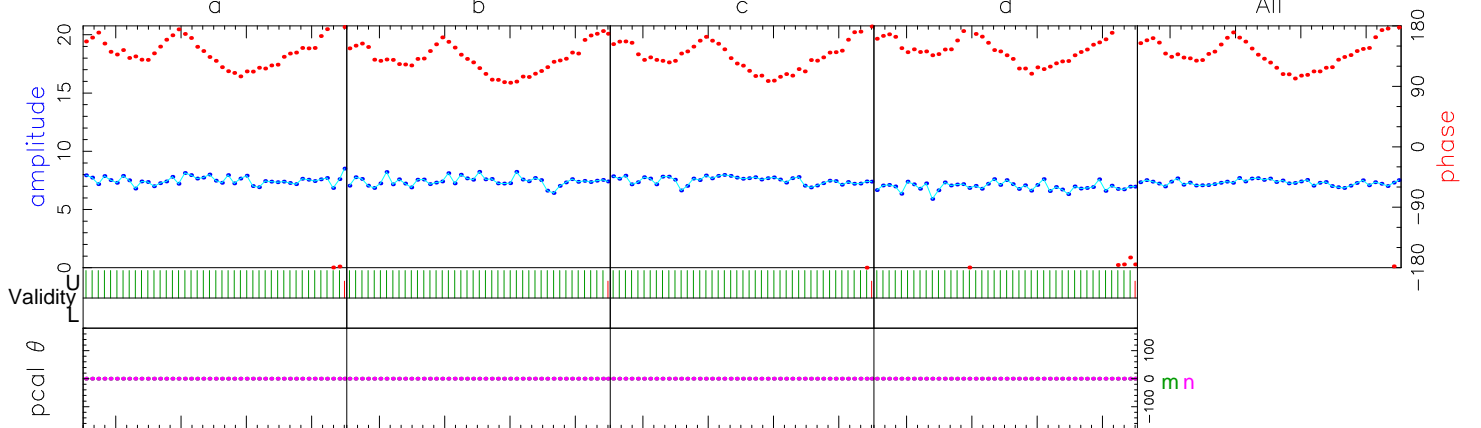


Fringe quality 8

SNR 293.3
 Int time 239.982
 Amp 6.924
 Phase 139.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.001133
 MBD 0.001134
 Fringe rate (Hz) 0.003942
 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	APs used	
n	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	PC phase	
m	1000	1000	1000	1000	ManI PC	
n	1000	1000	1000	1000	PC amp	
m	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

Group delay (usec)(sbd)	-1.12892854301E+04	Apriori delay (usec)	-1.12892865642E+04	Resid mbdelay (usec)	1.13408E-03	+/-	3.8E-06
Sband delay (usec)	-1.12892854310E+04	Apriori clock (usec)	1.3185188E+01	Resid sbdelay (usec)	1.13313E-03	+/-	1.5E-05
Phase delay (usec)	-1.12892865552E+04	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	8.98064E-06	+/-	2.5E-08
Delay rate (us/s)	1.17686252730E+00	Apriori rate (us/s)	1.17686243572E+00	Resid rate (us/s)	9.15839E-08	+/-	1.8E-10
Total phase (deg)	-120.4	Apriori accel (us/s/s)	5.34328629990E-05	Resid phase (deg)	139.1	+/-	0.4

ph/seg (deg) 21.1 1.3 Amplitude 6.924 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 6.3 2.2 Search (1024X16) 6.710 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 8.9 0.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004

amp/frq (%) 3.1 0.7 Inc. seg. avg. 7.303 Sample rate(MISamp/s): 256 dr window (ns/s) -0.023 0.023

m: az 85.0 el 17.5 pa -72.4 n: az 159.6 el 57.2 pa -15.1 u,v (fr/asec) -3402.232 -1025.553 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

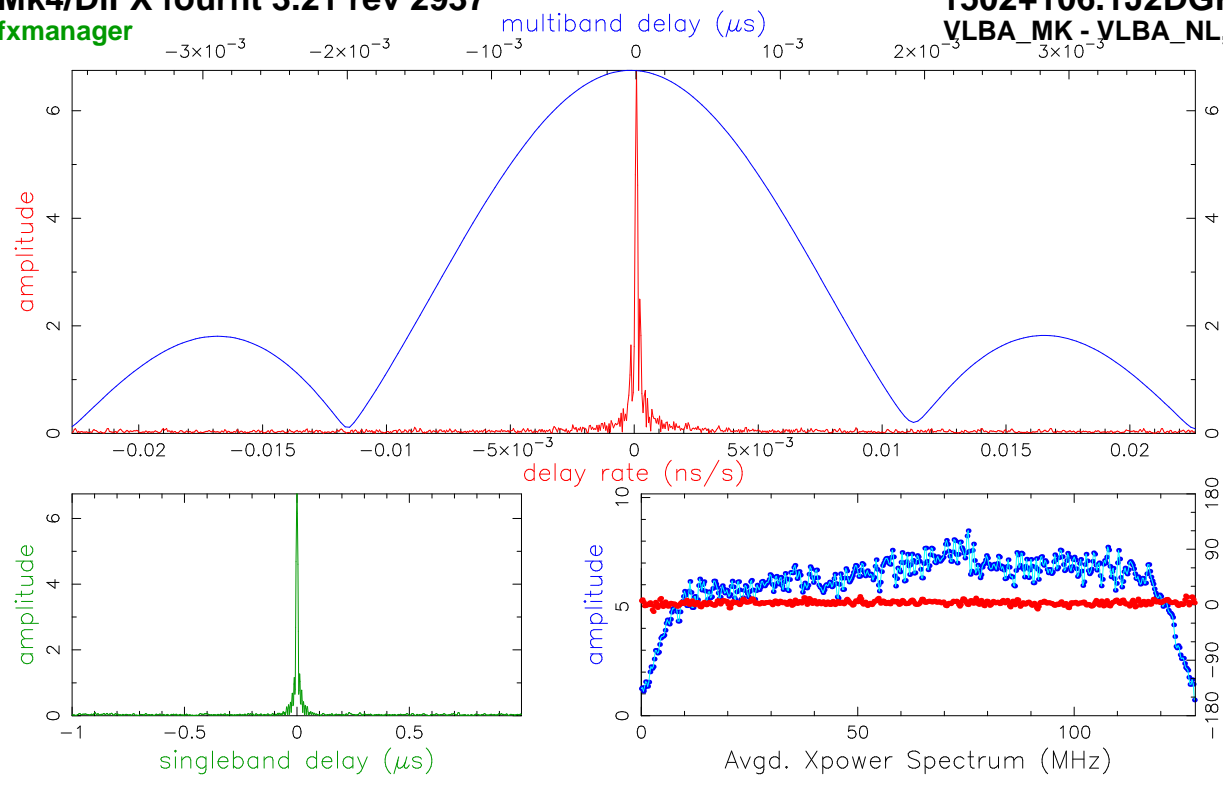
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mn..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mn.Q.164.1J2DGP simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, mn

VLBA_MK - VLBA_NL, fgroup Q, pol RR

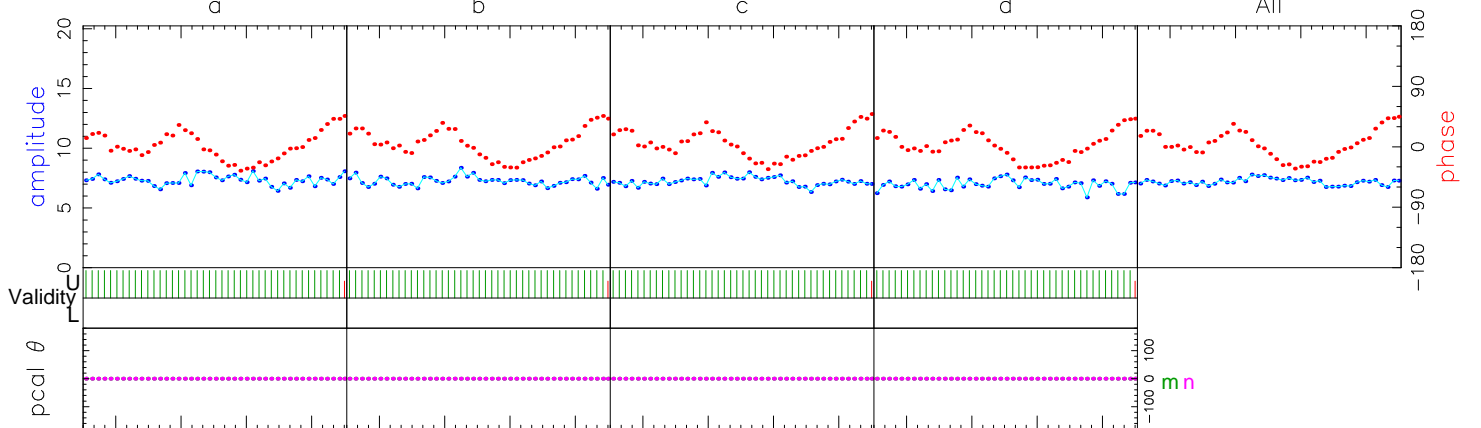


Fringe quality 8

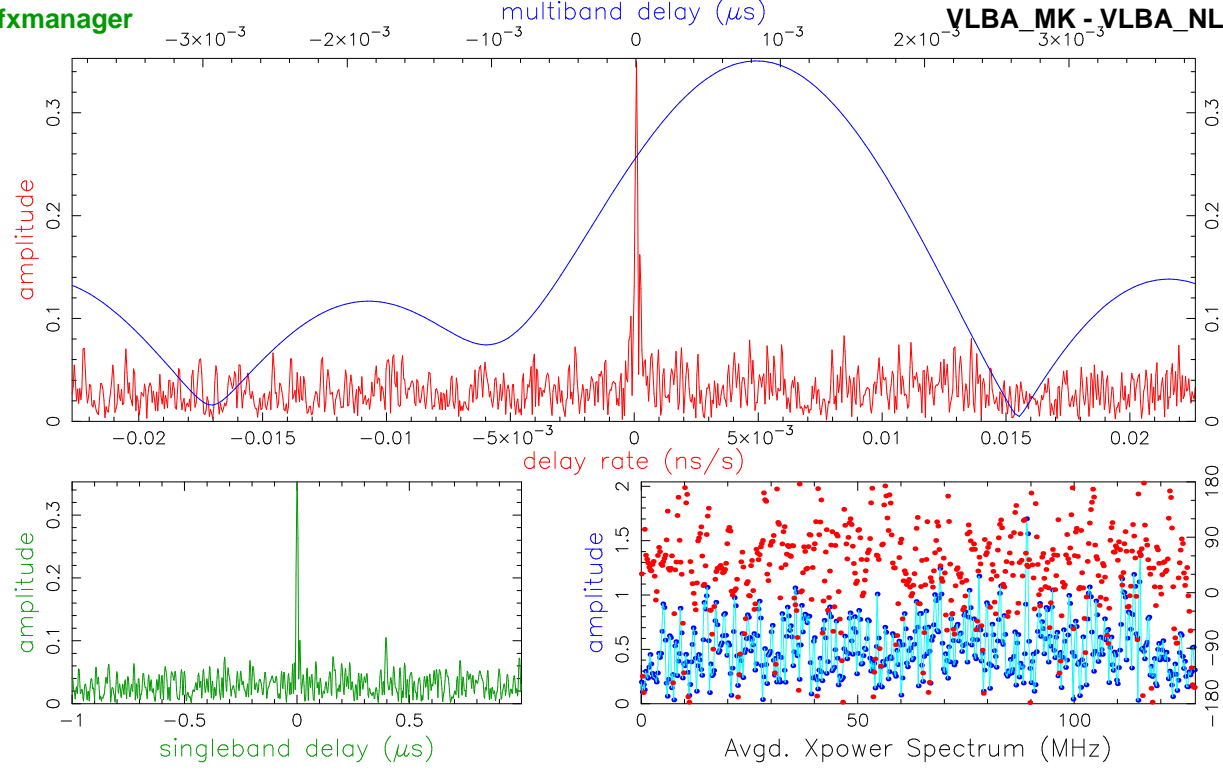
SNR 285.9
 Int time 239.982
 Amp 6.750
 Phase 3.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.000034
 MBD -0.000037
 Fringe rate (Hz) 0.003974
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 190830.00
 Stop 191230.12
 FRT 191030.00
 Corr/FF/build
 2021:032:031903
 2021:032:211459
 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	APs used	
n	1000	1000	1000	1000	PC freqs	513.0
m:n	0:0	0:0	0:0	0:0	PC phase	
m	1000	1000	1000	1000	ManI PC	
n	1000	1000	1000	1000	PC amp	
m	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
Group delay (usec)(sbd)	-1.12892866016E+04				Resid mbdelay (usec)	-3.74807E-05 +/- 3.9E-06
Sband delay (usec)	-1.12892865982E+04				Resid sbdelay (usec)	-3.40000E-05 +/- 1.5E-05
Phase delay (usec)	-1.12892865639E+04				Resid phdelay (usec)	2.08372E-07 +/- 2.6E-08
Delay rate (us/s)	1.17686252804E+00				Resid rate (us/s)	9.23213E-08 +/- 1.9E-10
Total phase (deg)		-256.4			Resid phase (deg)	3.2 +/- 0.4
	RMS	Theor.	Amplitude	6.750 +/- 0.024	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	20.6	1.3	Search (1024X16)	6.716	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	7.8	2.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	2.6	0.4	Inc. seg. avg.	7.203	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	1.8	0.7	Inc. frq. avg.	6.753	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			n: az 159.6 el 57.2 pa -15.1			u,v (fr/asec) -3402.232 -1025.553
Control file: cf_1234_gmva7mm			Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mn..1J2DGP			Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mn.Q.180.1J2DGP

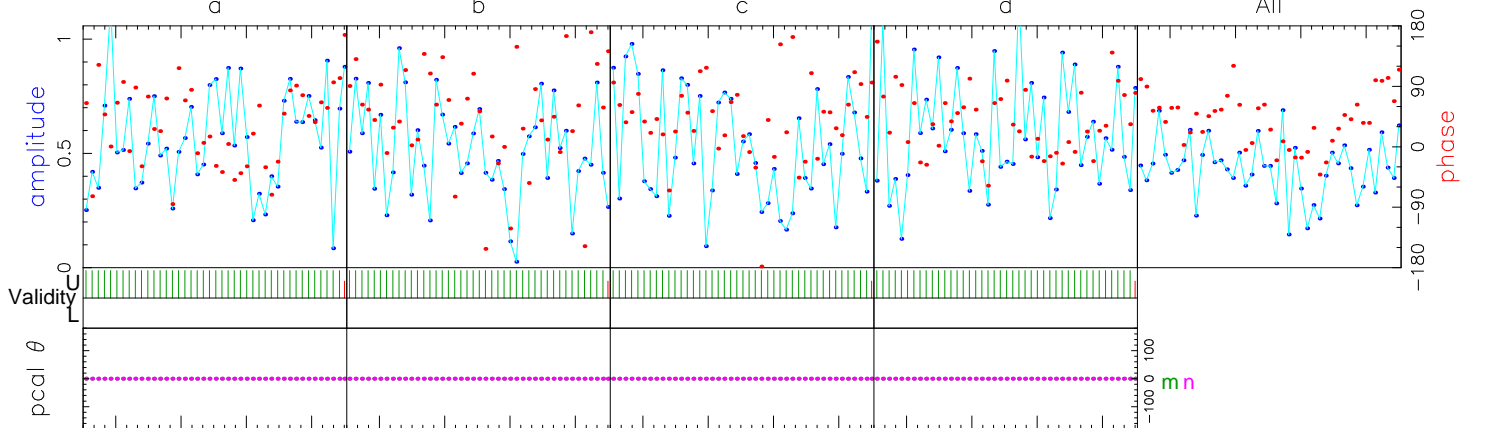


Fringe quality 9

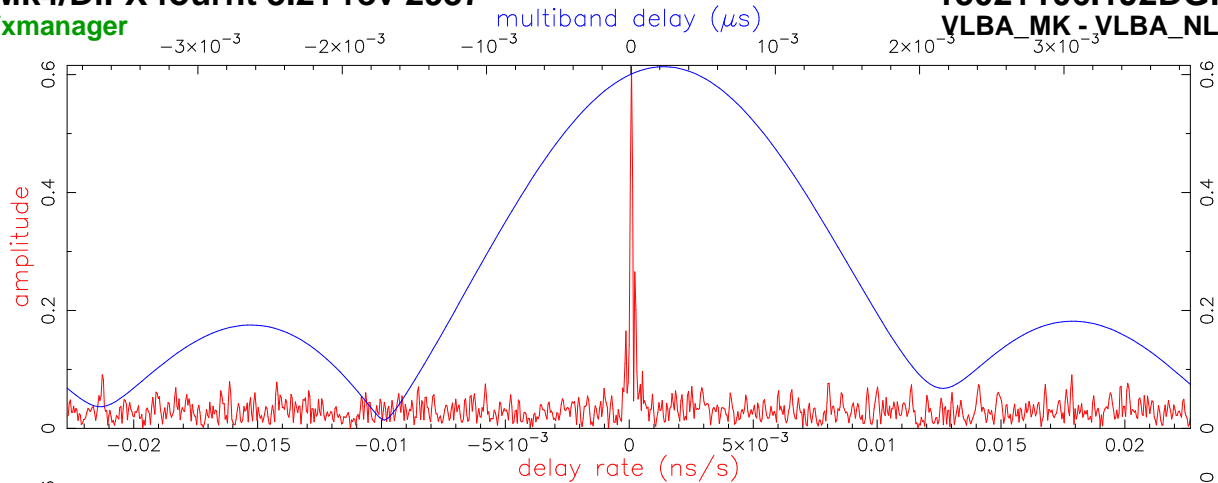
SNR 15.0
Int time 239.982
Amp 0.353
Phase 43.1
PFD 4.9e-42
Delays (us)
SBD 0.000563
MBD 0.000872
Fringe rate (Hz) 0.003986
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512

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"

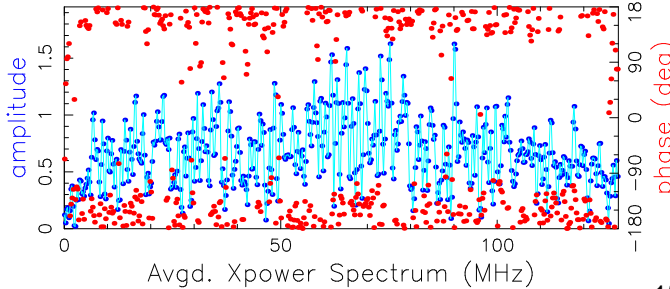
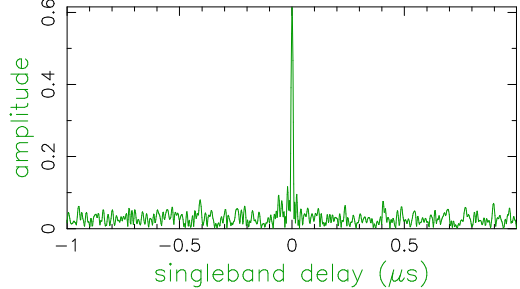
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



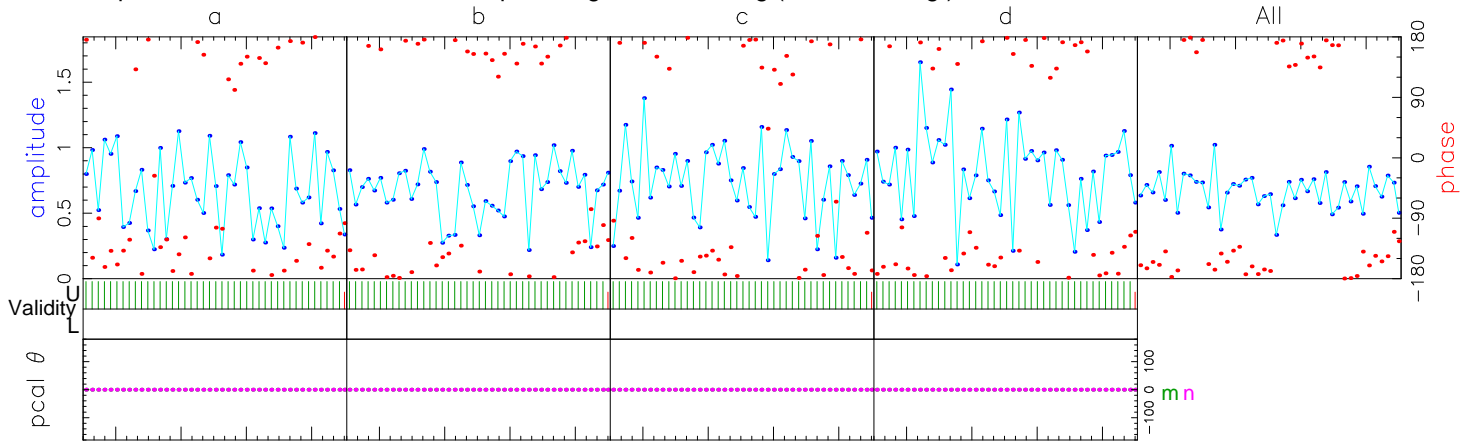
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
m	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-1.12892856919E+04				Resid mbdelay (usec)	8.72238E-04 +/- 7.4E-05
Sband delay (usec)	-1.12892860009E+04				Resid sbdelay (usec)	5.63250E-04 +/- 2.9E-04
Phase delay (usec)	-1.12892865614E+04				Resid phdelay (usec)	2.78250E-06 +/- 4.9E-07
Delay rate (us/s)	1.17686252833E+00				Resid rate (us/s)	9.26106E-08 +/- 3.6E-09
Total phase (deg)		-216.5			Resid phase (deg)	43.1 +/- 7.7
					Apriori delay (usec)	-1.12892865642E+04
					Apriori clock (usec)	1.3185188E+01
					Apriori clockrate (us/s)	-4.0000002E-07
					Apriori rate (us/s)	1.17686243572E+00
					Apriori accel (us/s/s)	5.34328629990E-05
ph/seg (deg)	39.2	25.1	39.2	25.1	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	42.1	43.9	42.1	43.9	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	17.7	7.7	17.7	7.7	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
amp/frq (%)	14.6	13.4	14.6	13.4	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
m: az 85.0 el 17.5 pa -72.4		n: az 159.6 el 57.2 pa -15.1		u,v (fr/asec) -3402.232 -1025.553		simultaneous interpolator
Control file: cf_1234_gmva7mm		Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mn..1J2DGP		Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mn.Q.196.1J2DGP		



Fringe quality 9
SNR 26.1
Int time 239.982
Amp 0.615
Phase -171.5
PFD 0.0e+00
Delays (us)
SBD 0.000435
MBD 0.000261
Fringe rate (Hz) 0.004089
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
	-165.1	-173.5	-176.3	-170.4	Phase	-171.5
	0.5	0.6	0.6	0.7	Ampl.	0.6
	513.7	513.0	513.7	512.7	Sbd box	513.2
U/L	469/0	469/0	469/0	469/0	APs used	
m	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.12892863033E+04	Apriori delay (usec)	-1.12892865642E+04	Resid mbdelay (usec)	2.60832E-04	+/-	4.3E-05
Sband delay (usec)	-1.12892861295E+04	Apriori clock (usec)	1.3185188E+01	Resid sbdelay (usec)	4.34625E-04	+/-	1.7E-04
Phase delay (usec)	-1.12892865752E+04	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-1.10668E-05	+/-	2.8E-07
Delay rate (us/s)	1.17686253072E+00	Apriori rate (us/s)	1.17686243572E+00	Resid rate (us/s)	9.49959E-08	+/-	2.0E-09
Total phase (deg)	-71.1	Apriori accel (us/s/s)	5.34328629990E-05	Resid phase (deg)	-171.5	+/-	4.4

ph/seg (deg)	RMS 25.8	Theor. 14.4	Amplitude Search (1024X16)	0.596	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	24.5	25.1	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)	5.9	4.4	Inc. seg. avg.	0.656	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	11.2	7.7	Inc. frq. avg.	0.613	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00

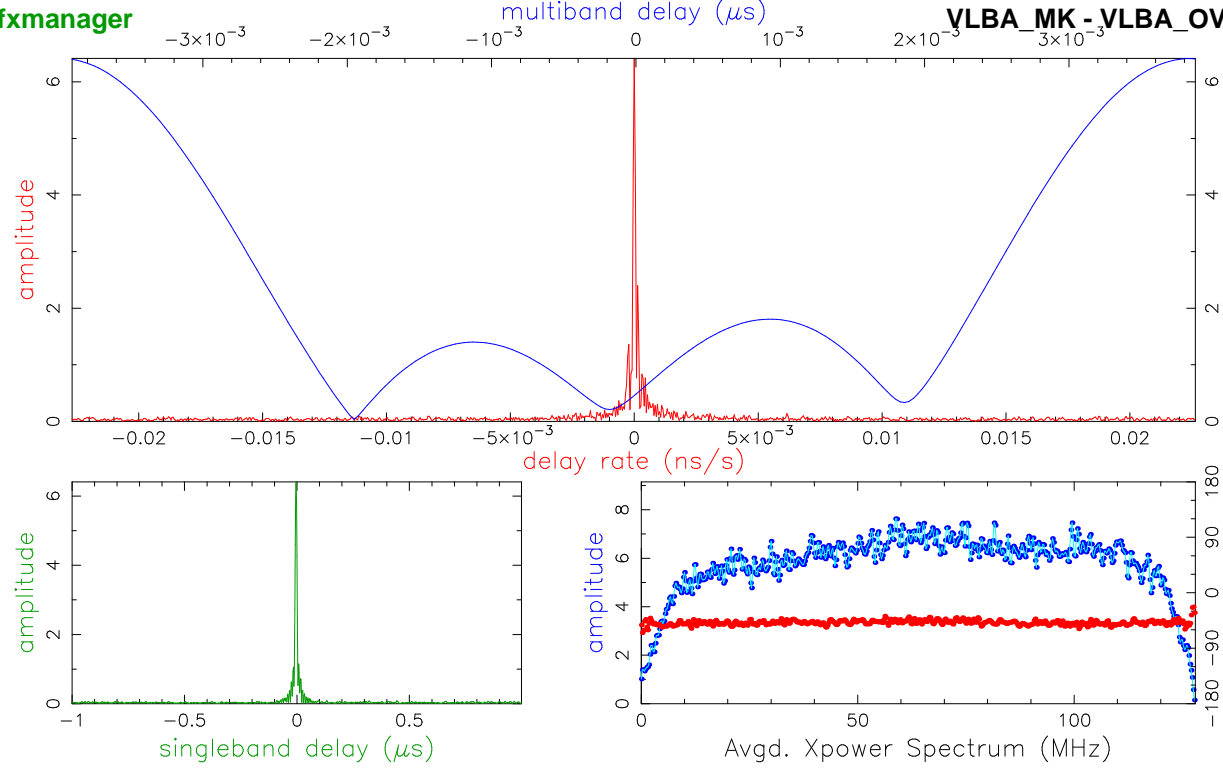
m: az 85.0 el 17.5 pa -72.4 n: az 159.6 el 57.2 pa -15.1 u,v (fr/asec) -3402.232 -1025.553 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mn..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mn.Q.212.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, mo

VLBA_MK - VLBA_OV, fgroup Q, pol LL

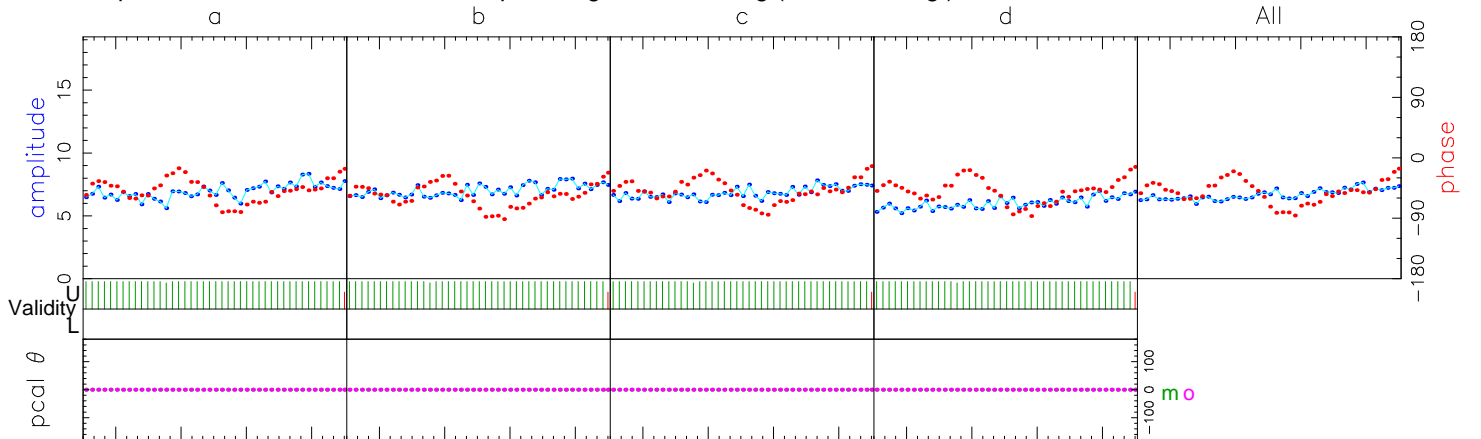


Fringe quality 8

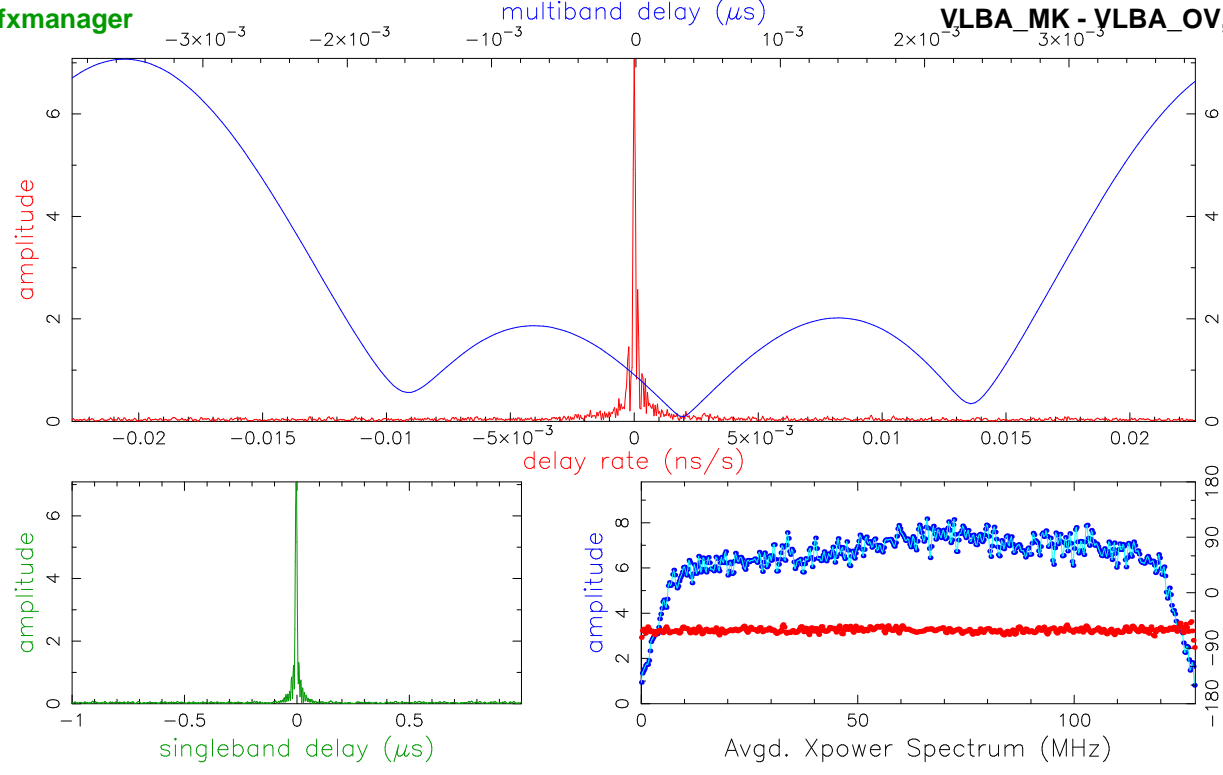
SNR 271.6
 Int time 239.713
 Amp 6.414
 Phase -50.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.004087
 MBD -0.003990
 Fringe rate (Hz)
 -0.000370
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

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		
m	1000	1000	1000	1000		
o	1000	1000	1000	1000		
m:o	0:0	0:0	0:0	0:0		
m:o	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
o	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
o	Q00UL	Q01UL	Q02UL	Q03UL		
Group delay (usec)(sbd)	-9.00303492513E+03			-9.00303093522E+03	Resid mbdelay (usec)	-3.98991E-03 +/- 4.1E-06
Sband delay (usec)	-9.00303502247E+03			-8.0255947E+00	Resid sbdelay (usec)	-4.08725E-03 +/- 1.6E-05
Phase delay (usec)	-9.00303093849E+03			1.9999998E-07	Resid phdelay (usec)	-3.26924E-06 +/- 2.7E-08
Delay rate (us/s)	6.48840700208E-01			6.48840708810E-01	Resid rate (us/s)	-8.60221E-09 +/- 2.0E-10
Total phase (deg)		-213.3		4.24080921297E-05	Resid phase (deg)	-50.7 +/- 0.4
ph/seg (deg)	17.0	1.4	6.414 +/- 0.024		PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	7.7	2.4	Search (1024X16)	6.311	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	4.4	0.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
amp/frq (%)	6.4	0.7	Inc. seg. avg.	6.697	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
			Inc. frq. avg.	6.420	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	o: az 118.4 el 46.7 pa -45.1		u,v (fr/asec) -1870.536 -844.623		simultaneous interpolator	
Control file: cf_1234_gmva7mm	Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mo..1J2DGP		Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mo.Q.156.1J2DGP			

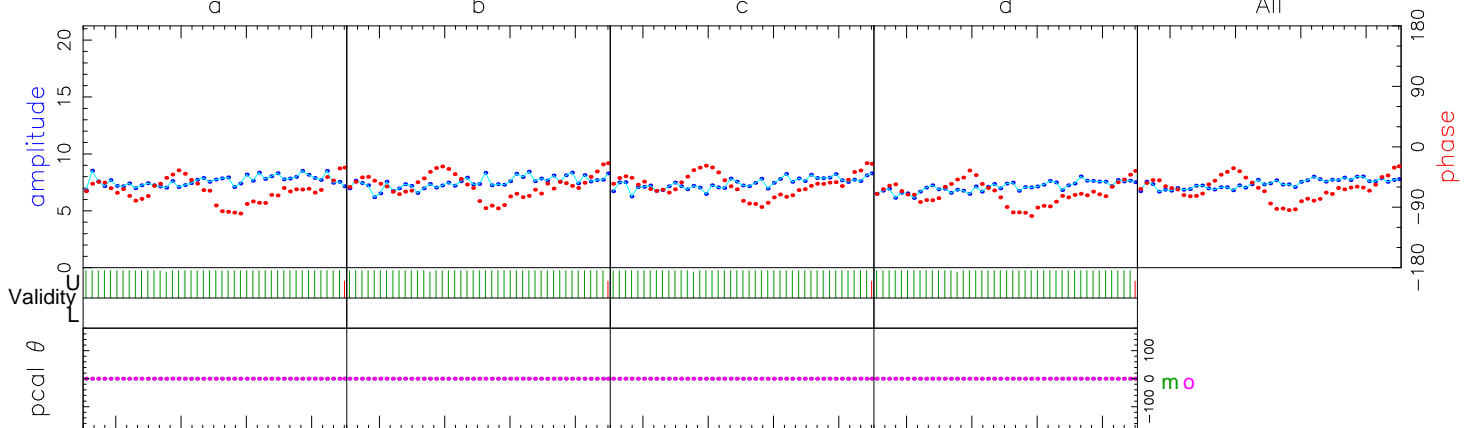


Fringe quality 8

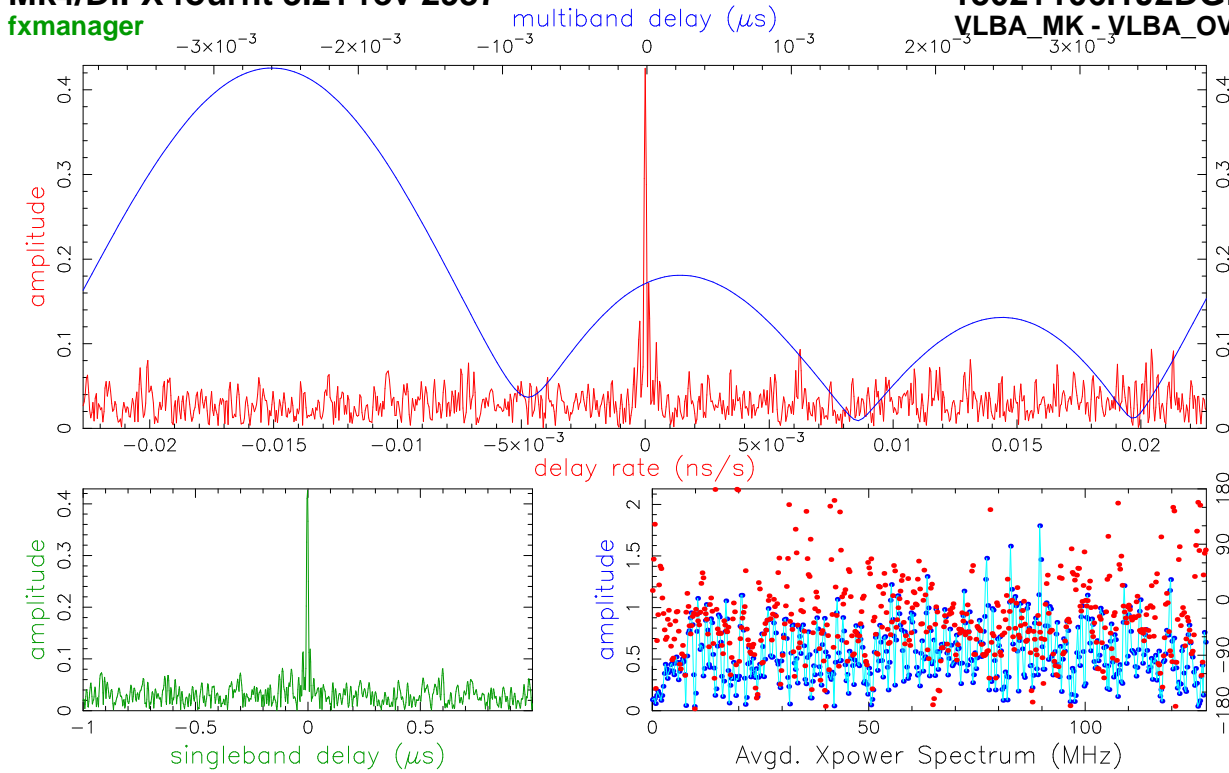
SNR 300.0
Int time 239.713
Amp 7.085
Phase -62.1
PFD 0.0e+00
Delays (us)
SBD -0.003590
MBD -0.003524
Fringe rate (Hz)
-0.000346
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

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
	-65.4	-57.8	-56.2	-69.3	Phase	-62.1
	7.3	7.2	7.1	6.8	Ampl.	7.1
	511.4	511.2	511.1	511.0	Sbd box	511.2
U/L	469/0	469/0	469/0	469/0	APs used	
m	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
o	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-9.00303445941E+03		Apriori delay (usec)	-9.00303093522E+03	Resid mbdelay (usec)	-3.52419E-03 +/- 3.7E-06
Sband delay (usec)	-9.00303452485E+03		Apriori clock (usec)	-8.0255947E+00	Resid sbdelay (usec)	-3.58963E-03 +/- 1.4E-05
Phase delay (usec)	-9.00303093923E+03		Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-4.00938E-06 +/- 2.5E-08
Delay rate (us/s)	6.48840700778E-01		Apriori rate (us/s)	6.48840708810E-01	Resid rate (us/s)	-8.03214E-09 +/- 1.8E-10
Total phase (deg)		-224.8	Apriori accel (us/s/s)	4.24080921297E-05	Resid phase (deg)	-62.1 +/- 0.4
	RMS	Theor.	Amplitude	7.085 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	16.7	1.3	Search (1024X16)	6.943	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	6.8	2.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.6	0.4	Inc. seg. avg.	7.373	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	2.6	0.7	Inc. frq. avg.	7.100	Data rate(Mb/s): 2048	nlags: 512 t_coherence infinite ion window (TEC) 0.00 0.00
m: az 85.0 el 17.5 pa -72.4			o: az 118.4 el 46.7 pa -45.1	u,v (fr/asec) -1870.536 -844.623		simultaneous interpolator
Control file: cf_1234_gmva7mm			Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mo..1J2DGP	Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mo.Q.176.1J2DGP		

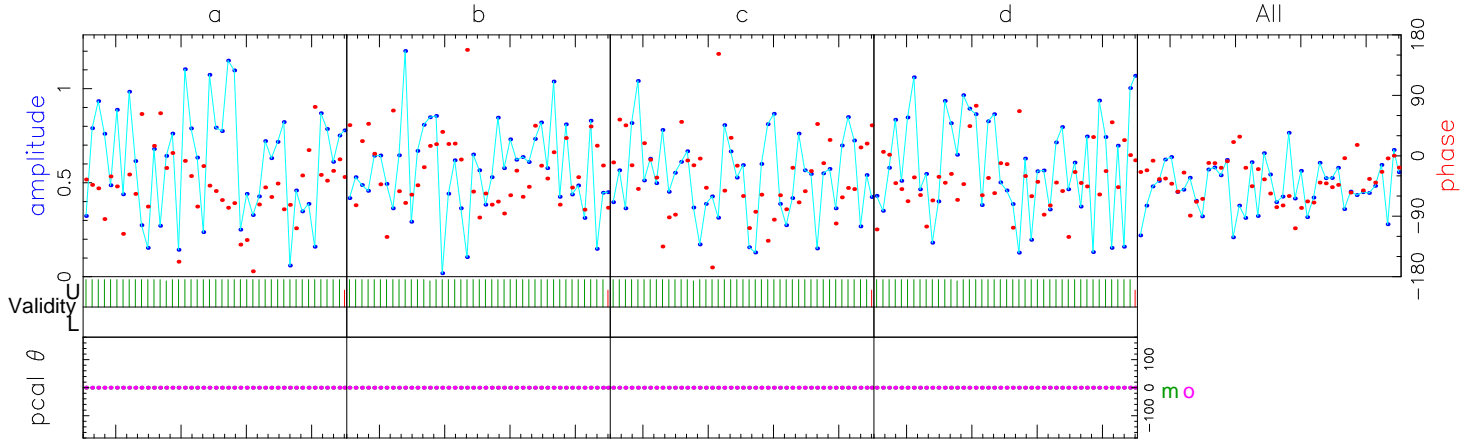


Fringe quality 9

SNR 18.2
Int time 239.713
Amp 0.429
Phase -37.1
PFD 0.0e+00
Delays (us)
SBD -0.002527
MBD -0.002631
Fringe rate (Hz)
-0.000333
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



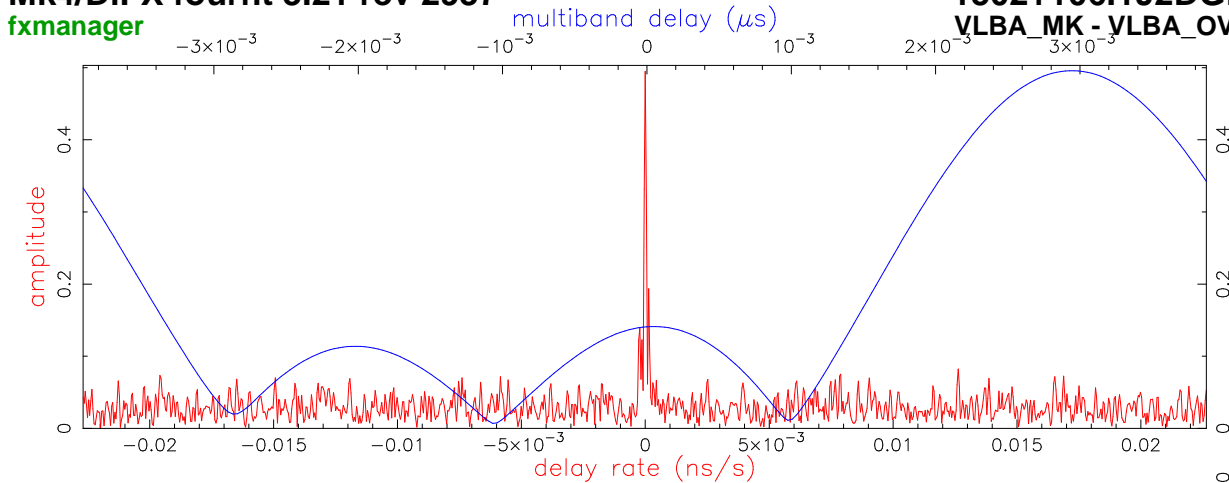
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
m	1000	1000	1000	1000		
o	1000	1000	1000	1000		
m:o	0:0	0:0	0:0	0:0		
m:o	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
o	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
o	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks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

Group delay (usec)(sbd)	-9.00303356672E+03	Apriori delay (usec)	-9.00303093522E+03	Resid mbdelay (usec)	-2.63150E-03	+/-	6.1E-05
Sband delay (usec)	-9.00303346210E+03	Apriori clock (usec)	-8.0255947E+00	Resid sbdelay (usec)	-2.52687E-03	+/-	2.4E-04
Phase delay (usec)	-9.00303093762E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-2.39548E-06	+/-	4.1E-07
Delay rate (us/s)	6.48840701062E-01	Apriori rate (us/s)	6.48840708810E-01	Resid rate (us/s)	-7.74851E-09	+/-	2.9E-09
Total phase (deg)	-199.8	Apriori accel (us/s/s)	4.24080921297E-05	Resid phase (deg)	-37.1	+/-	6.3

ph/seg (deg)	29.5	Theor.	20.7	Amplitude	0.429 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	31.4		36.1	Search (1024X16)	0.417	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	9.8		6.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	13.7		11.0	Inc. seg. avg.	0.450	Sample rate(MSamp/s): 256		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.426	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

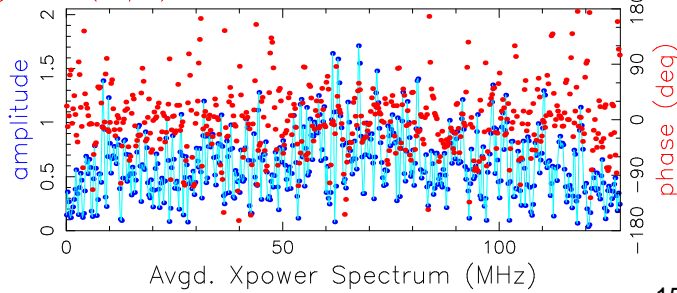
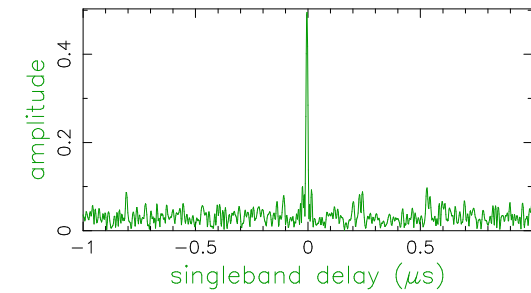
m: az 85.0 el 17.5 pa -72.4 o: az 118.4 el 46.7 pa -45.1 u,v (fr/asec) -1870.536 -844.623 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mo..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mo.Q.192.1J2DGP



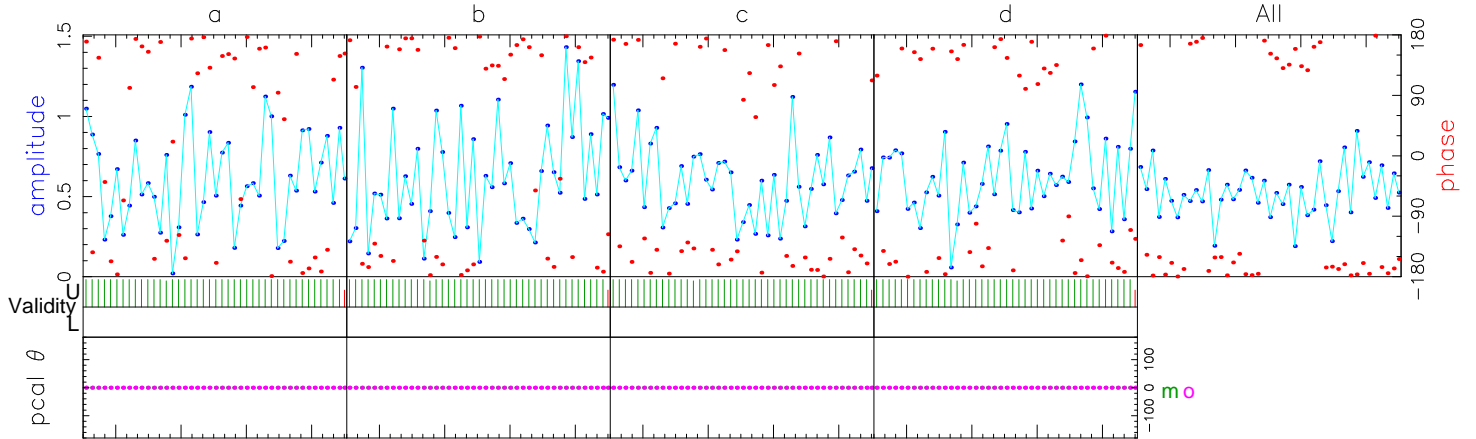
Fringe quality 9

SNR 21.3
Int time 239.713
Amp 0.503
Phase -178.9
PFD 0.0e+00
Delays (us)
SBD -0.004752
MBD 0.002880
Fringe rate (Hz)
-0.000581
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



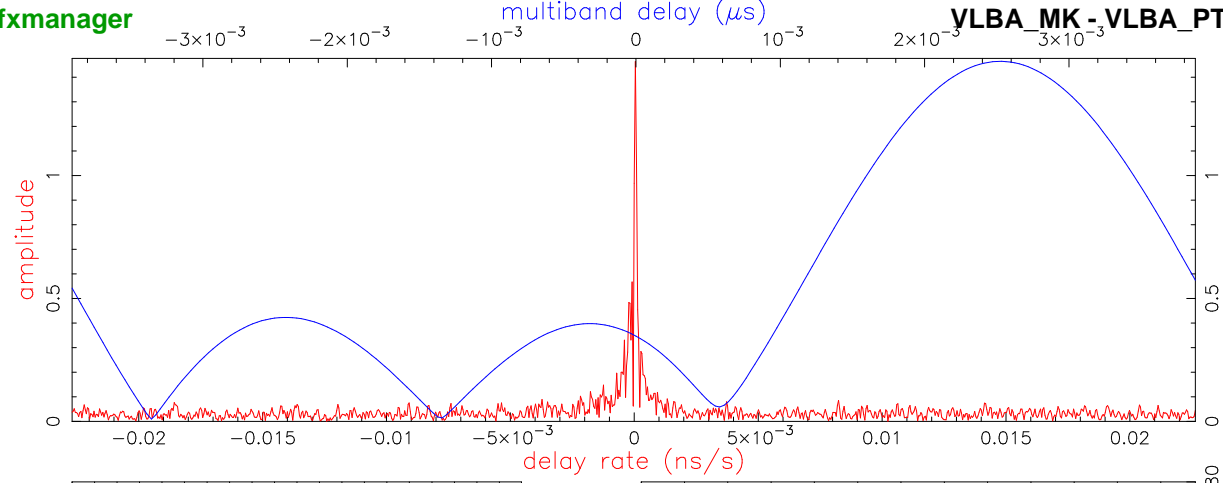
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
m	1000	1000	1000	1000		
o	1000	1000	1000	1000		
m:o	0:0	0:0	0:0	0:0		
m:o	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
o	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
o	Q00UL	Q01UL	Q02UL	Q03UL		
					Chan ids	
					Tracks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

Group delay (usec)(sbd)	-9.00303586775E+03	Apriori delay (usec)	-9.00303093522E+03	Resid mbdelay (usec)	2.87997E-03	+/- 5.2E-05
Sband delay (usec)	-9.00303568760E+03	Apriori clock (usec)	-8.0255947E+00	Resid sbdelay (usec)	-4.75238E-03	+/- 2.0E-04
Phase delay (usec)	-9.00303094677E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-1.15455E-05	+/- 3.5E-07
Delay rate (us/s)	6.48840695307E-01	Apriori rate (us/s)	6.48840708810E-01	Resid rate (us/s)	-1.35032E-08	+/- 2.5E-09
Total phase (deg)	-341.6	Apriori accel (us/s/s)	4.24080921297E-05	Resid phase (deg)	-178.9	+/- 5.4

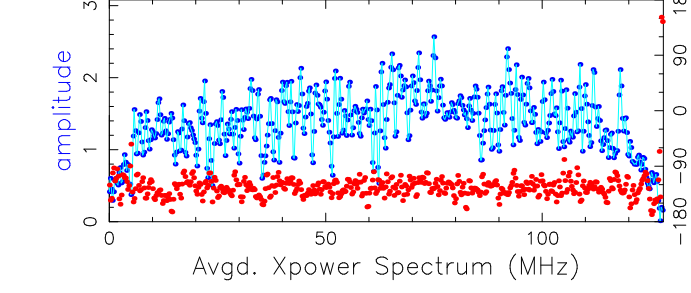
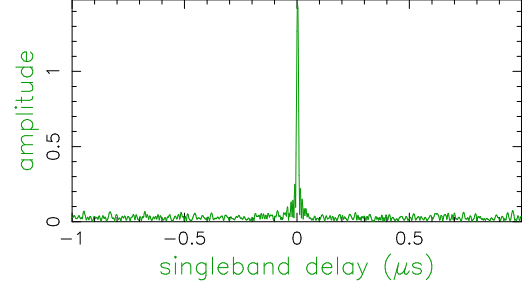
	RMS	Theor.	Amplitude	0.503 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	22.2	17.6	Search (1024X16)	0.478	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
amp/seg (%)	30.7	30.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	6.8	5.4	Inc. seg. avg.	0.506	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
amp/frq (%)	3.2	9.4	Inc. frq. avg.	0.495	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

m: az 85.0 el 17.5 pa -72.4 o: az 118.4 el 46.7 pa -45.1 u,v (fr/asec) -1870.536 -844.623 simultaneous interpolator

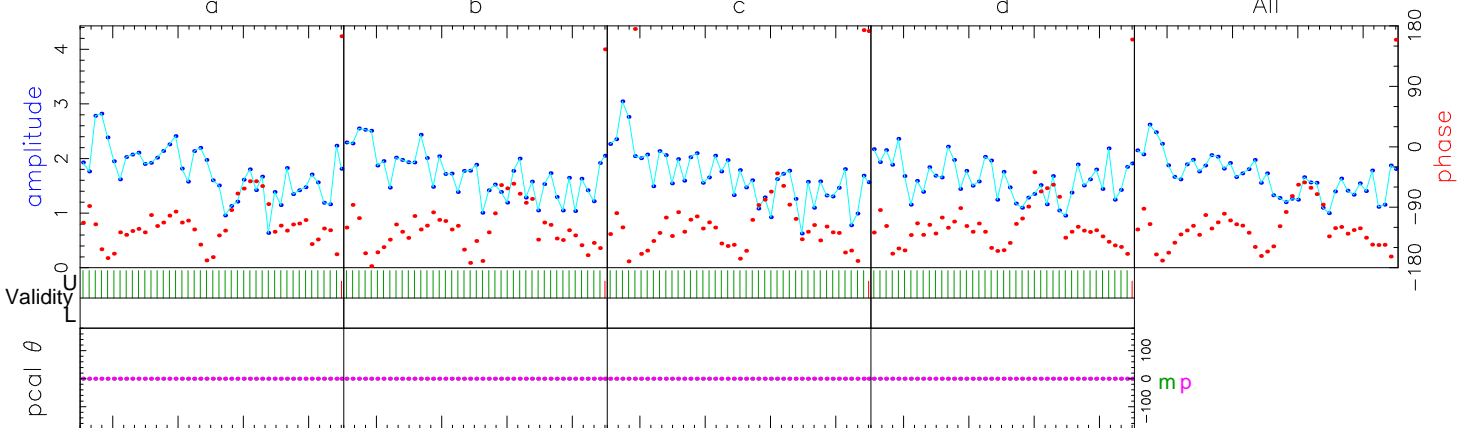
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mo..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mo.Q.208.1J2DGP



Fringe quality 8
SNR 62.5
Int time 239.982
Amp 1.476
Phase -124.1
PFD 0.0e+00
Delays (us)
SBD 0.002575
MBD 0.002550
Fringe rate (Hz) 0.001268
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"



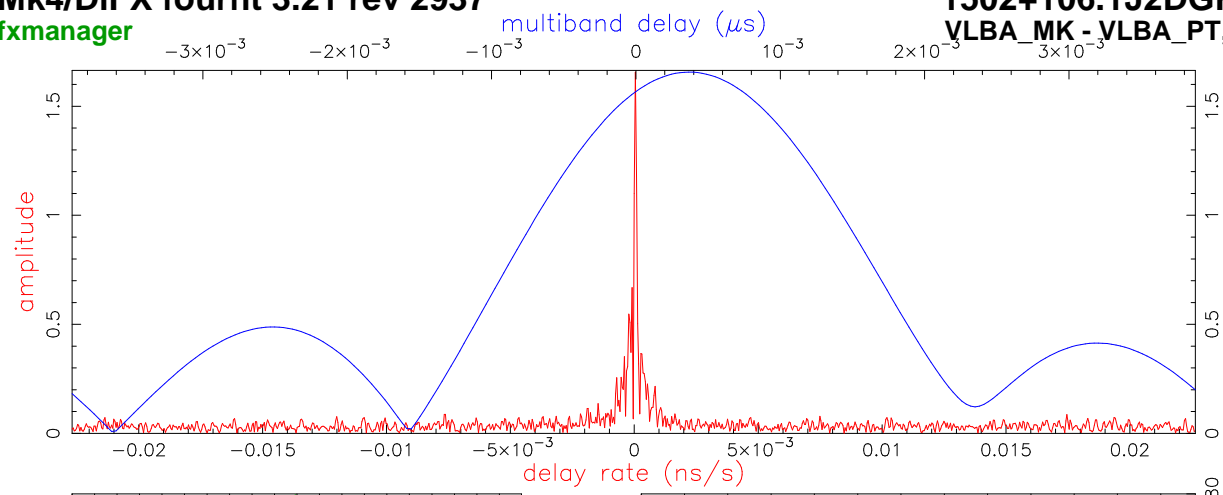
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



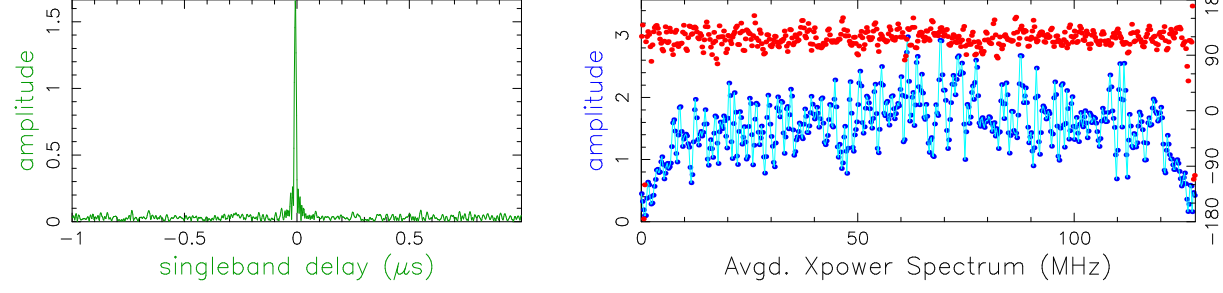
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-120.9	-124.5	-127.7	-123.7	Phase	-124.1
	1.5	1.5	1.4	1.4	Ampl.	1.5
	514.3	514.3	514.4	514.2	Sbd box	514.3
U/L	469/0	469/0	469/0	469/0	APs used	
m	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
m:p	0:0	0:0	0:0	0:0	PC phase	
m:p	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

Group delay (usec)(sbd)	-1.09500894272E+04	Apriori delay (usec)	-1.09500919773E+04	Resid mbdelay (usec)	2.55009E-03	+/- 1.8E-05
Sband delay (usec)	-1.09500894022E+04	Apriori clock (usec)	1.3276892E+01	Resid sbdelay (usec)	2.57513E-03	+/- 6.9E-05
Phase delay (usec)	-1.09500919853E+04	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-8.01207E-06	+/- 1.2E-07
Delay rate (us/s)	8.10613286164E-01	Apriori rate (us/s)	8.10613256693E-01	Resid rate (us/s)	2.94710E-08	+/- 8.5E-10
Total phase (deg)	-17.6	Apriori accel (us/s/s)	5.37189993237E-05	Resid phase (deg)	-124.1	+/- 1.8

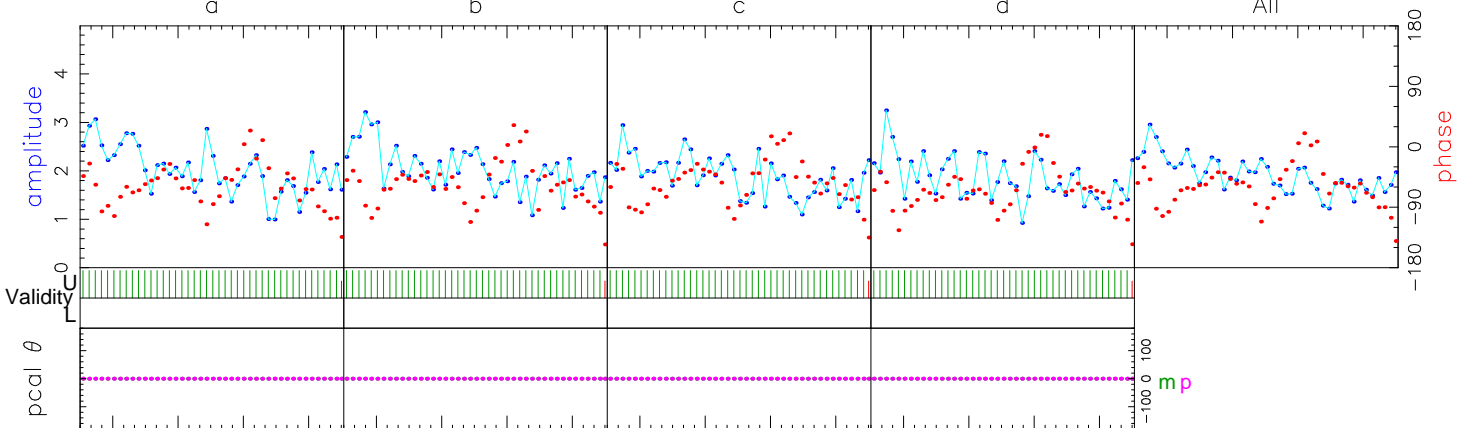
ph/seg (deg)	RMS 30.4	Theor. 6.0	Amplitude	1.476 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	28.2	10.5	Search (1024X16)	1.405	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	3.4	1.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	2.8	3.2	Inc. seg. avg.	1.668	Sample rate(MISamp/s): 256	mb window (us) -0.004 0.004
			Inc. frq. avg.	1.465	Data rate(Mb/s): 2048	dr window (ns/s) -0.023 0.023
					nlags: 512	t_cohere infinite
m: az 85.0 el 17.5 pa -72.4		p: az 126.8 el 55.3 pa -41.9		u,v (fr/asec) -2335.896 -581.203		ion window (TEC) 0.00 0.00



Fringe quality 6
SNR 70.5
Int time 239.982
Amp 1.665
Phase -59.6
PFD 0.0e+00
Delays (us)
SBD -0.007331
MBD 0.000395
Fringe rate (Hz) 0.001274
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
2021:032:211459
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"



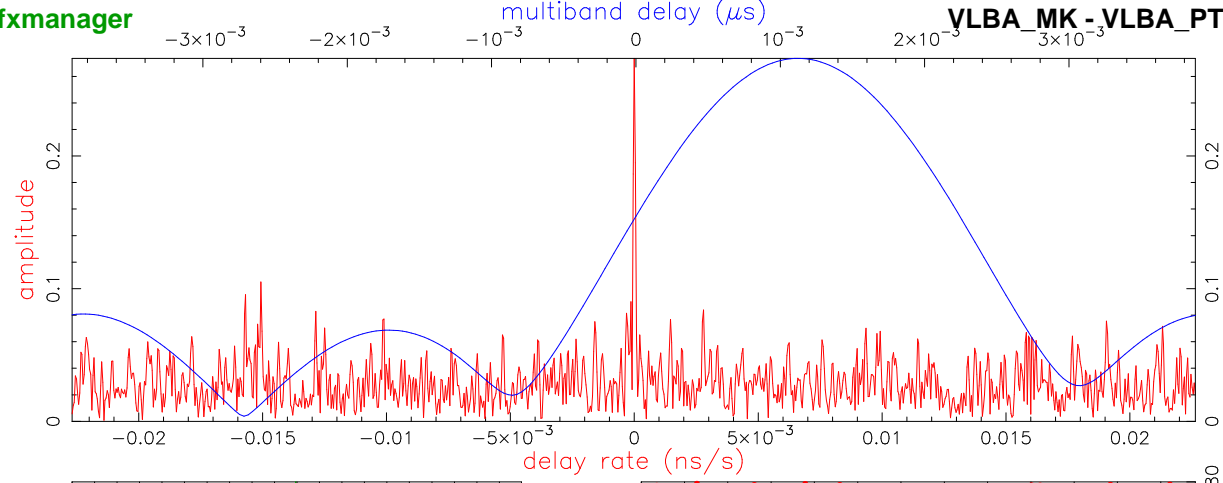
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



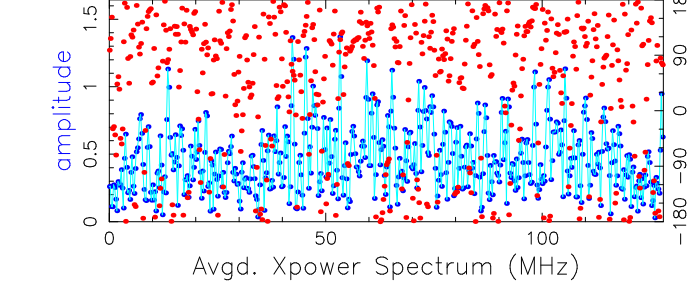
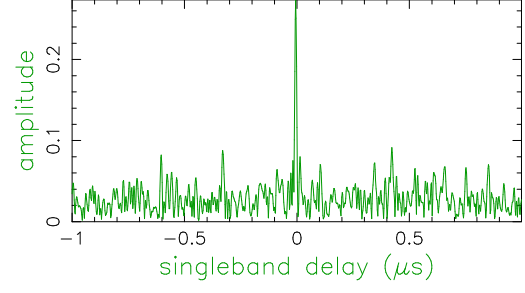
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m:p	0:0	0:0	0:0	0:0		
m:p	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec)(sbd)	-1.09500993946E+04	Apriori delay (usec)	-1.09500919773E+04	Resid mbdelay (usec)	3.95182E-04	+/- 1.6E-05
Sband delay (usec)	-1.09500993081E+04	Apriori clock (usec)	1.3276892E+01	Resid sbdelay (usec)	-7.33075E-03	+/- 6.1E-05
Phase delay (usec)	-1.09500919812E+04	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-3.84477E-06	+/- 1.0E-07
Delay rate (us/s)	8.10613286297E-01	Apriori rate (us/s)	8.10613256693E-01	Resid rate (us/s)	2.96043E-08	+/- 7.6E-10
Total phase (deg)	-313.0	Apriori accel (us/s/s)	5.37189993237E-05	Resid phase (deg)	-59.6	+/- 1.6

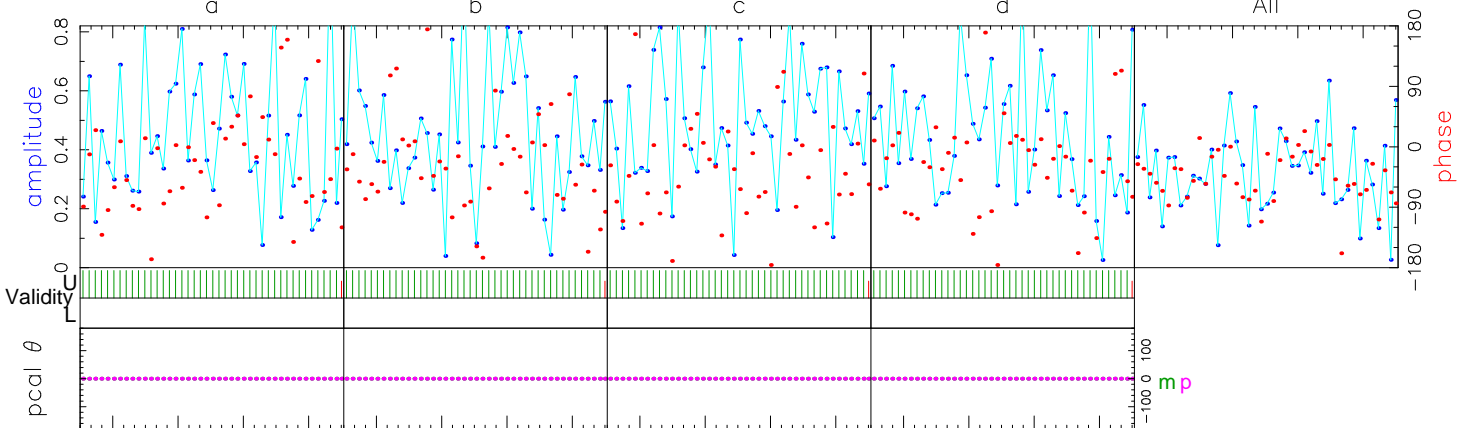
ph/seg (deg)	31.3	Theor.	5.3	Amplitude	1.665 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	26.7		9.3	Search (1024X16)	1.584	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	6.1		1.6	Inc. seg. avg.	1.914	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	4.4		2.8	Inc. frq. avg.	1.660	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00
m: az 85.0 el 17.5 pa -72.4		p: az 126.8 el 55.3 pa -41.9		u,v (fr/asec)	-2335.896 -581.203					



Fringe quality 9
SNR 11.6
Int time 239.982
Amp 0.274
Phase -37.0
PFD 1.2e-22
Delays (us)
SBD -0.005844
MBD 0.001124
Fringe rate (Hz) 0.000837
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

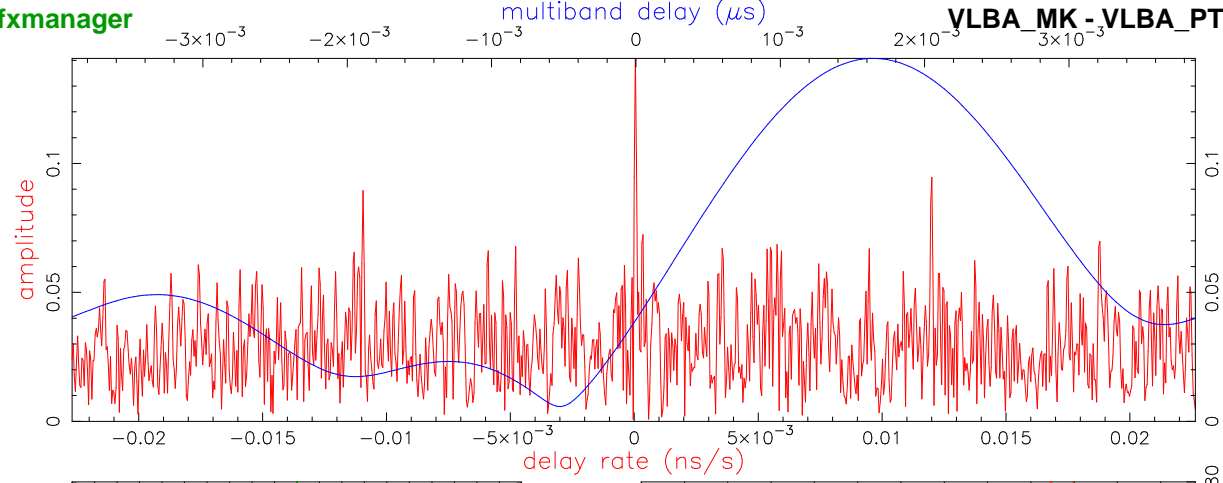


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-30.7	-42.0	-45.4	-29.4	Phase	-37.0
	0.3	0.3	0.3	0.3	Ampl.	0.3
	510.6	509.9	509.6	510.2	Sbd box	510.0
U/L	469/0	469/0	469/0	469/0	APs used	
m	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
m:p	0:0	0:0	0:0	0:0	PC phase	
m:p	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

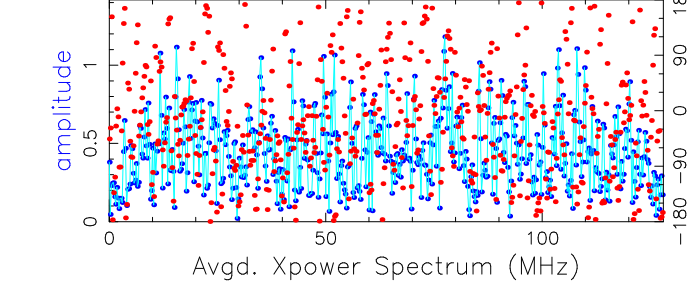
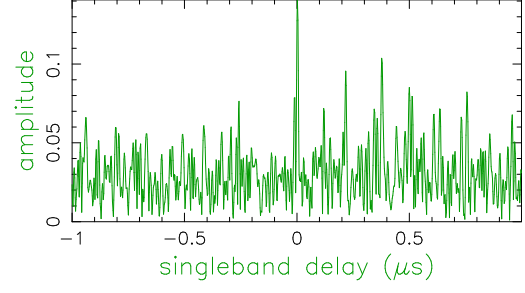
Group delay (usec)(sbd)	-1.09500986655E+04	Apriori delay (usec)	-1.09500919773E+04	Resid mbdelay (usec)	1.12428E-03	+/-	9.6E-05
Sband delay (usec)	-1.09500978212E+04	Apriori clock (usec)	1.3276892E+01	Resid sbdelay (usec)	-5.84387E-03	+/-	3.7E-04
Phase delay (usec)	-1.09500919797E+04	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-2.38871E-06	+/-	6.4E-07
Delay rate (us/s)	8.10613276135E-01	Apriori rate (us/s)	8.10613256693E-01	Resid rate (us/s)	1.94422E-08	+/-	4.6E-09
Total phase (deg)	-290.4	Apriori accel (us/s/s)	5.37189993237E-05	Resid phase (deg)	-37.0	+/-	9.9

ph/seg (deg)	RMS 37.6	Theor. 32.4	Amplitude Search (1024X16)	0.274 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	37.6	32.4	Interp.	0.254	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	55.0	56.6	Inc. seg. avg.	0.283	Bits/sample: 2x2	Sample rate(MSamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	9.8	9.9	Inc. frq. avg.	0.272	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00
	3.6	17.3							

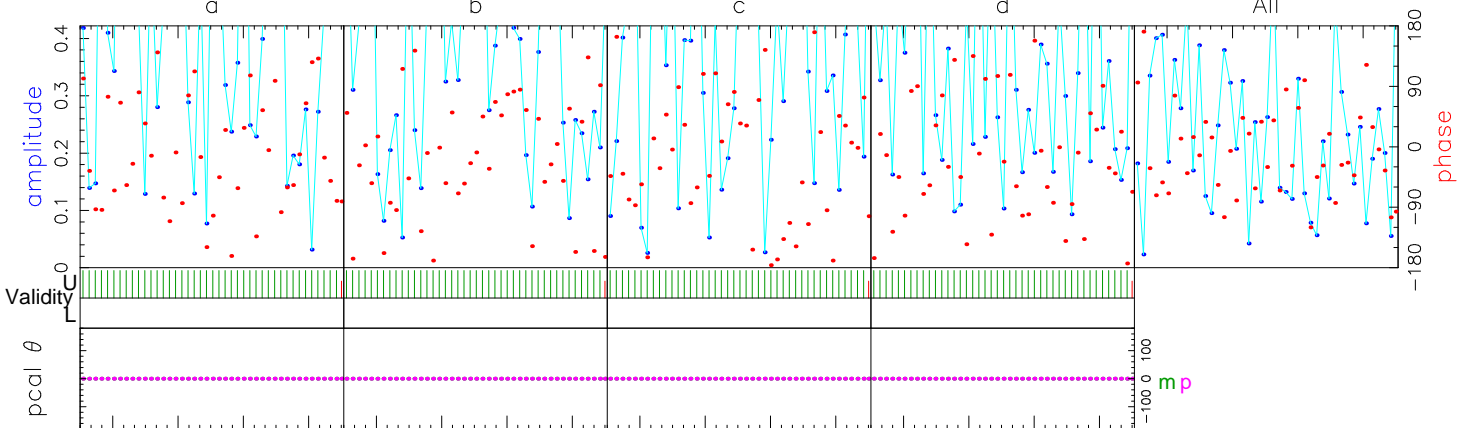
m: az 85.0 el 17.5 pa -72.4 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -2335.896 -581.203 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mp.Q.198.1J2DGP



Fringe quality 0
SNR 6.0
Int time 239.982
Amp 0.141
Phase -19.8
PFD 2.8e-01
Delays (us)
SBD 0.001946
MBD 0.001644
Fringe rate (Hz) 0.001448
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
	-28.6	-4.6	-23.0	-26.8	Phase	-19.8
	0.2	0.2	0.1	0.1	Ampl.	0.1
	401.5	739.9	533.3	864.7	Sbd box	514.0
U/L	469/0	469/0	469/0	469/0	APs used	
m	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
m:p	0:0	0:0	0:0	0:0	PC phase	
m:p	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.09500903331E+04	Apriori delay (usec)	-1.09500919773E+04	Resid mbdelay (usec)	1.64421E-03	+/-	1.9E-04
Sband delay (usec)	-1.09500900318E+04	Apriori clock (usec)	1.3276892E+01	Resid sbdelay (usec)	1.94550E-03	+/-	7.2E-04
Phase delay (usec)	-1.09500919786E+04	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-1.27868E-06	+/-	1.2E-06
Delay rate (us/s)	8.10613290347E-01	Apriori rate (us/s)	8.10613256693E-01	Resid rate (us/s)	3.36544E-08	+/-	8.9E-09
Total phase (deg)	-273.2	Apriori accel (us/s/s)	5.37189993237E-05	Resid phase (deg)	-19.8	+/-	19.2

ph/seg (deg)	64.8	Theor.	63.0	Search (1024X16)	0.137	Amplitude	0.141 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	115.1		110.0	Interp.	0.000	Search	0.137	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	13.6		19.2	Inc. seg. avg.	0.146	Inc. seg. avg.	0.146	Sample rate(MISamp/s): 256	nlags: 512	t_cohere infinite	dr window (ns/s)	-0.023	0.023
amp/frq (%)	27.8		33.5	Inc. frq. avg.	0.135	Inc. frq. avg.	0.135	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00	

m: az 85.0 el 17.5 pa -72.4 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -2335.896 -581.203 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mp.Q.217.1J2DGP