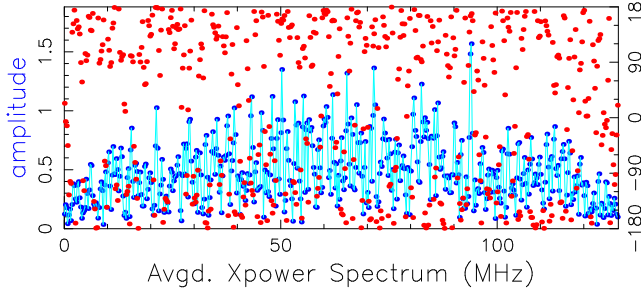
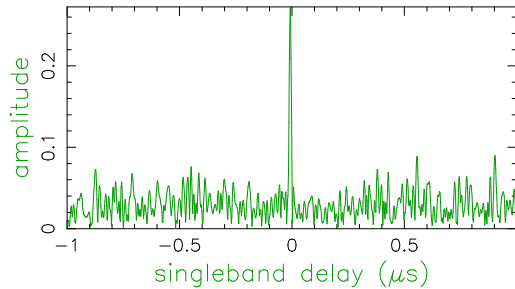


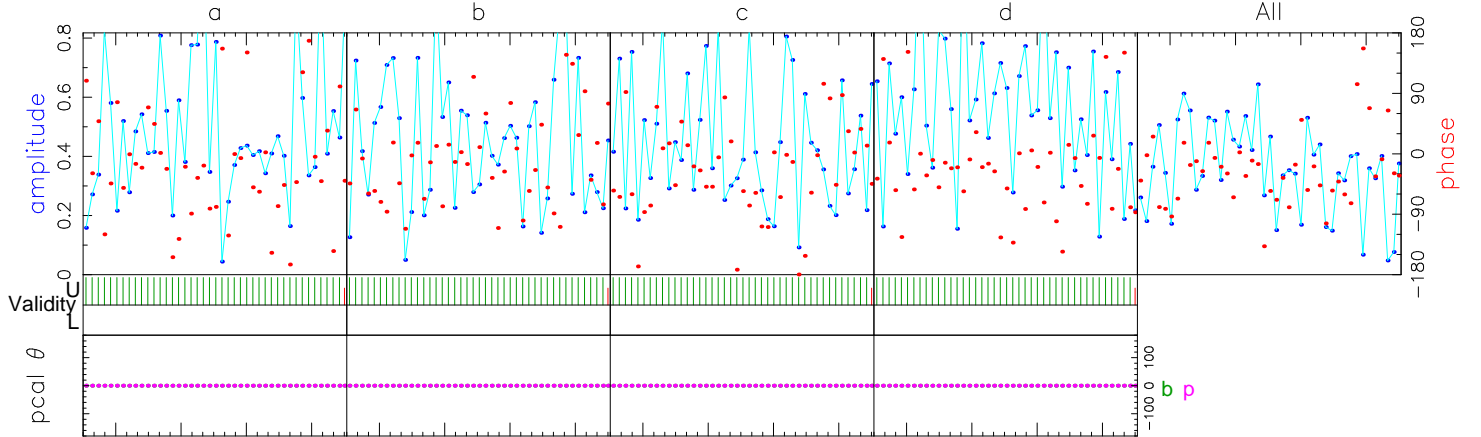
Fringe quality 9

SNR 11.6
Int time 239.982
Amp 0.273
Phase -29.8
PFD 1.8e-22
Delays (us)
SBD -0.007611
MBD 0.000729
Fringe rate (Hz)
0.000868
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	43040.00	All
U/L	469/0	469/0	469/0	469/0	469/0	
b	1000	1000	1000	1000	1000	
p	1000	1000	1000	1000	1000	
b:p	0:0	0:0	0:0	0:0	0:0	
b:p	0:0	0:0	0:0	0:0	0:0	
b	1000	1000	1000	1000	1000	
p	1000	1000	1000	1000	1000	
b	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec)(sbd)	-3.79028458362E+03	Apriori delay (usec)	-3.79027750046E+03	Resid mbdelay (usec)	7.29344E-04	+/-	9.6E-05
Sband delay (usec)	-3.79028511158E+03	Apriori clock (usec)	-1.8038111E+00	Resid sbdelay (usec)	-7.61112E-03	+/-	3.7E-04
Phase delay (usec)	-3.79027750238E+03	Apriori clockrate (us/s)	-3.9999997E-07	Resid phdelay (usec)	-1.92358E-06	+/-	6.4E-07
Delay rate (us/s)	6.30036851885E-02	Apriori rate (us/s)	6.30036650117E-02	Resid rate (us/s)	2.01768E-08	+/-	4.6E-09
Total phase (deg)	-252.9	Apriori accel (us/s/s)	2.38380060081E-05	Resid phase (deg)	-29.8	+/-	9.9

ph/seg (deg)	53.6	Theor.	32.5	Amplitude	0.273 +/- 0.024	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	63.4		56.8	Search (1024X16)	0.253	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	13.6		9.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004		
amp/frq (%)	21.2		17.3	Inc. seg. avg.	0.310	Sample rate (MSamp/s):	256	dr window (ns/s)	-0.023 0.023			
				Inc. frq. avg.	0.272	Data rate (Mb/s):	2048	nlags:	512	t_cohere infinite	ion window (TEC)	0.00 0.00

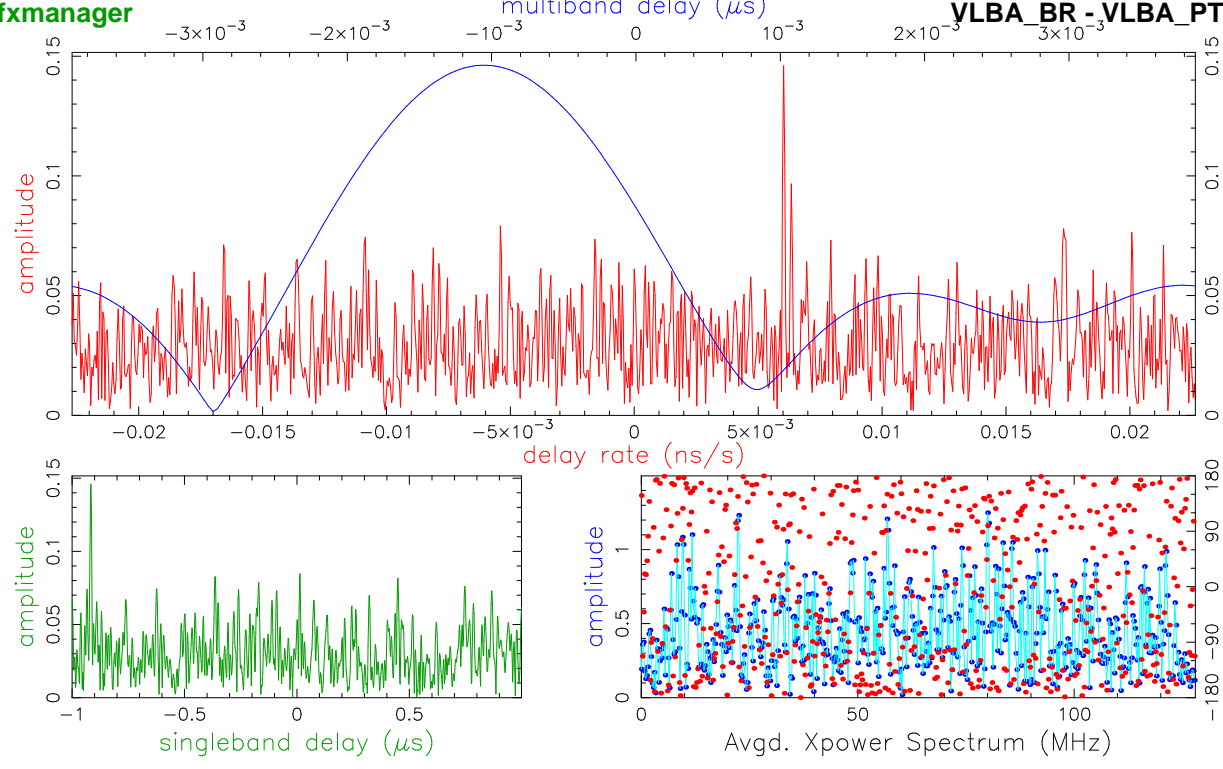
b: az 125.7 el 40.0 pa -33.5 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -171.538 960.854 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/bp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/bp.Q.42.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, bp

VLBA_BR - VLBA_PT, fgroup Q, pol RL

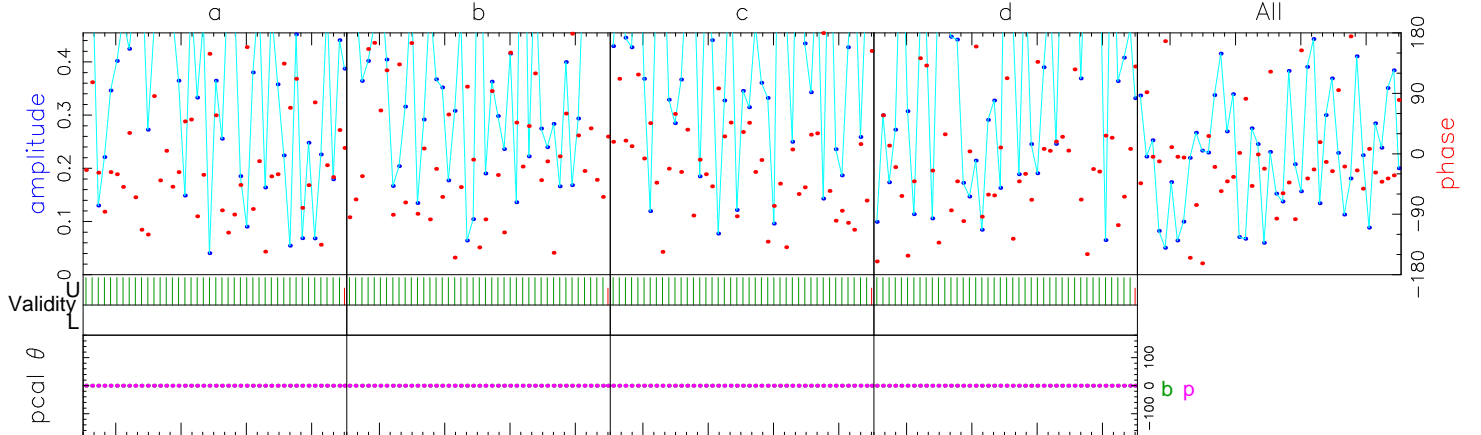


Fringe quality 0

SNR 6.2
 Int time 239.982
 Amp 0.152
 Phase -29.9
 PFD 5.9e-02
 Delays (us)
 SBD -0.916596
 MBD -0.001117
 Fringe rate (Hz)
 0.261001
 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		
p	1000	1000	1000	1000		
b:p	0:0	0:0	0:0	0:0		
b:p	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
p	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UL	Q01UL	Q02UL	Q03UL		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-3.79119268009E+03	Apriori delay (usec)	-3.79027750046E+03	Resid mbdelay (usec)	-1.11713E-03	+/-	1.8E-04
Sband delay (usec)	-3.79119409596E+03	Apriori clock (usec)	-1.8038111E+00	Resid sbdelay (usec)	-9.16596E-01	+/-	6.9E-04
Phase delay (usec)	-3.79027750239E+03	Apriori clockrate (us/s)	-3.9999997E-07	Resid phdelay (usec)	-1.93058E-06	+/-	1.2E-06
Delay rate (us/s)	6.30097291577E-02	Apriori rate (us/s)	6.30036650117E-02	Resid rate (us/s)	6.06415E-06	+/-	8.6E-09
Total phase (deg)	-253.0	Apriori accel (us/s/s)	2.38380060081E-05	Resid phase (deg)	-29.9	+/-	18.4

ph/seg (deg)	71.1	Theor.	60.3	Amplitude	0.152 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	94.1		105.2	Search (1024X16)	0.141	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	9.1		18.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	27.3		32.1	Inc. seg. avg.	0.153	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.144	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

b: az 125.7 el 40.0 pa -33.5 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -171.538 960.854 simultaneous interpolator

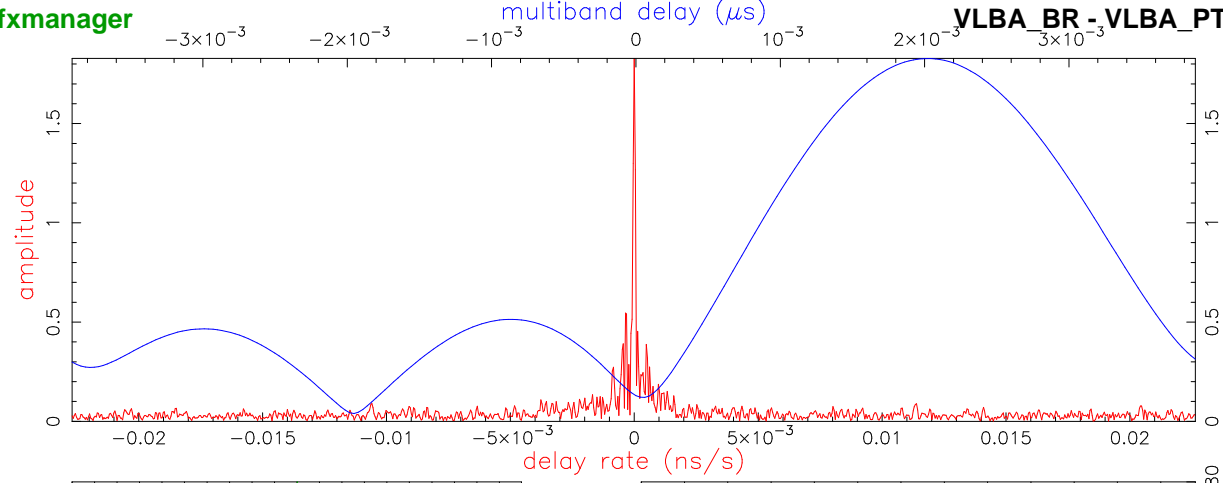
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/bp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/bp.Q.65.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, bp

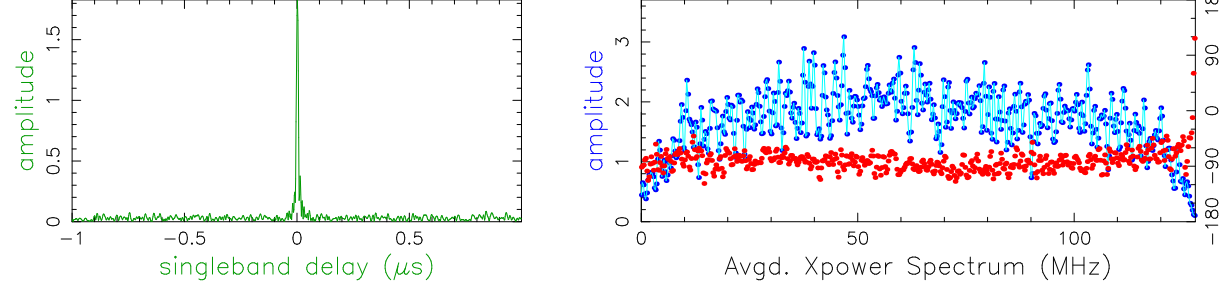
VLBA_BR - VLBA_PT, fgroup Q, pol LL



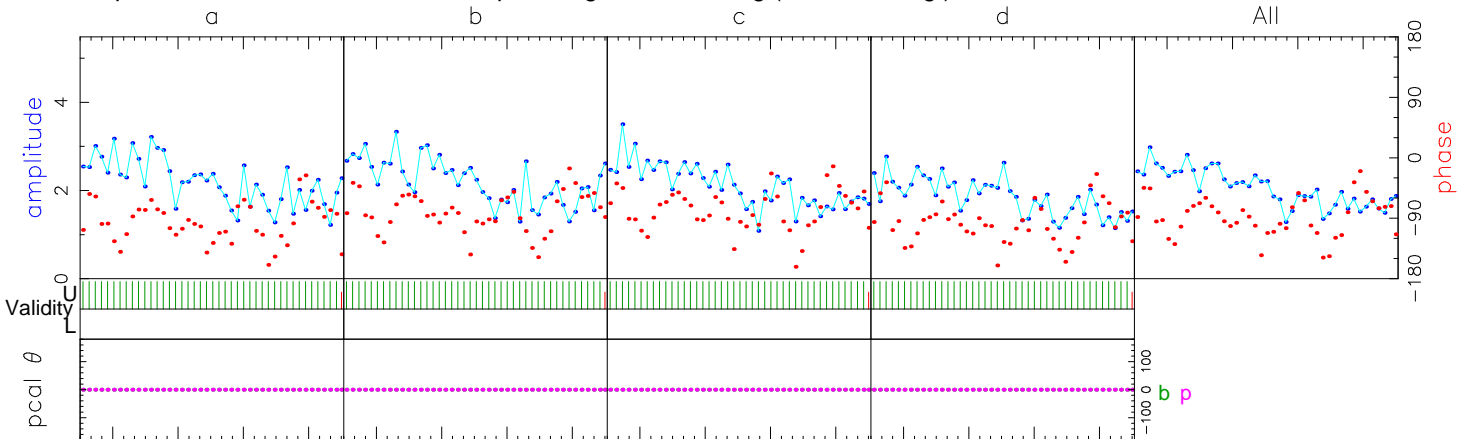
Fringe quality 5

SNR 77.5
Int time 239.982
Amp 1.828
Phase -87.5
PFD 0.0e+00
Delays (us)
SBD 0.001825
MBD 0.002013
Fringe rate (Hz) 0.000920
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211436
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"



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



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

Group delay (usec)(sbd)	-3.79027548730E+03	Apriori delay (usec)	-3.79027750046E+03	Resid mbdelay (usec)	2.01316E-03	+/- 1.4E-05
Sband delay (usec)	-3.79027567546E+03	Apriori clock (usec)	-1.8038111E+00	Resid sbdelay (usec)	1.82500E-03	+/- 5.6E-05
Phase delay (usec)	-3.79027750611E+03	Apriori clockrate (us/s)	-3.9999997E-07	Resid phdelay (usec)	-5.64682E-06	+/- 9.5E-08
Delay rate (us/s)	6.30036863797E-02	Apriori rate (us/s)	6.30036650117E-02	Resid rate (us/s)	2.13680E-08	+/- 6.9E-10
Total phase (deg)	-310.6	Apriori accel (us/s/s)	2.38380060081E-05	Resid phase (deg)	-87.5	+/- 1.5

ph/seg (deg)	28.9	Theor.	4.9	Amplitude	1.828 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	25.7		4.9	Search (1024X16)	1.688	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	12.4		1.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	7.4		2.6	Inc. seg. avg.	2.050	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
				Inc. frq. avg.	1.848	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

b: az 125.7 el 40.0 pa -33.5 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -171.538 960.854 simultaneous interpolator

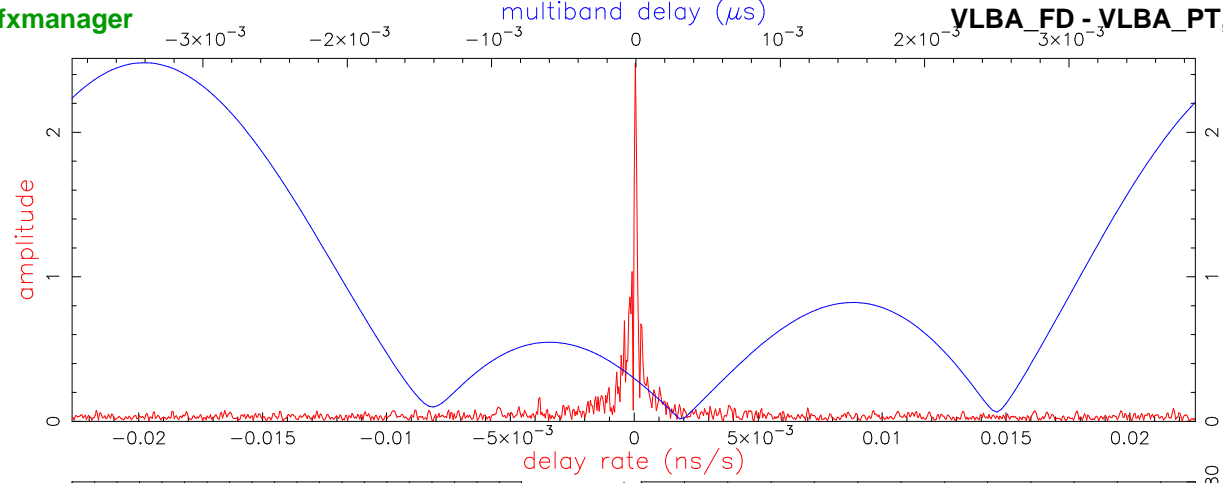
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/bp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/bp.Q.7.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, fp

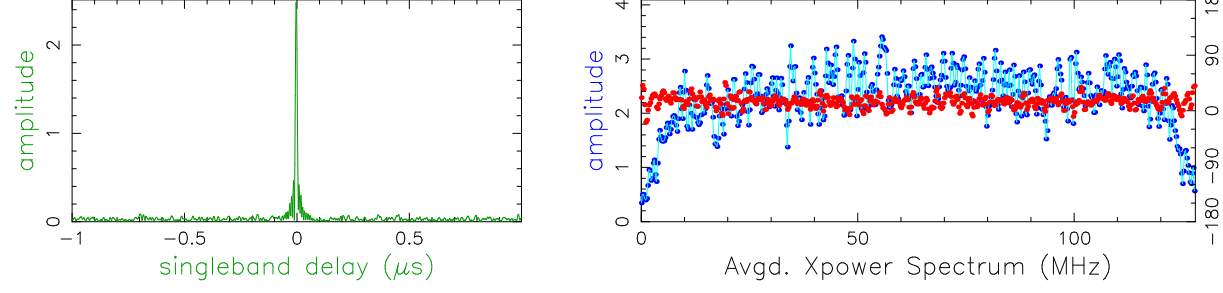
VLBA_FD - VLBA_PT, fgroup Q, pol RR



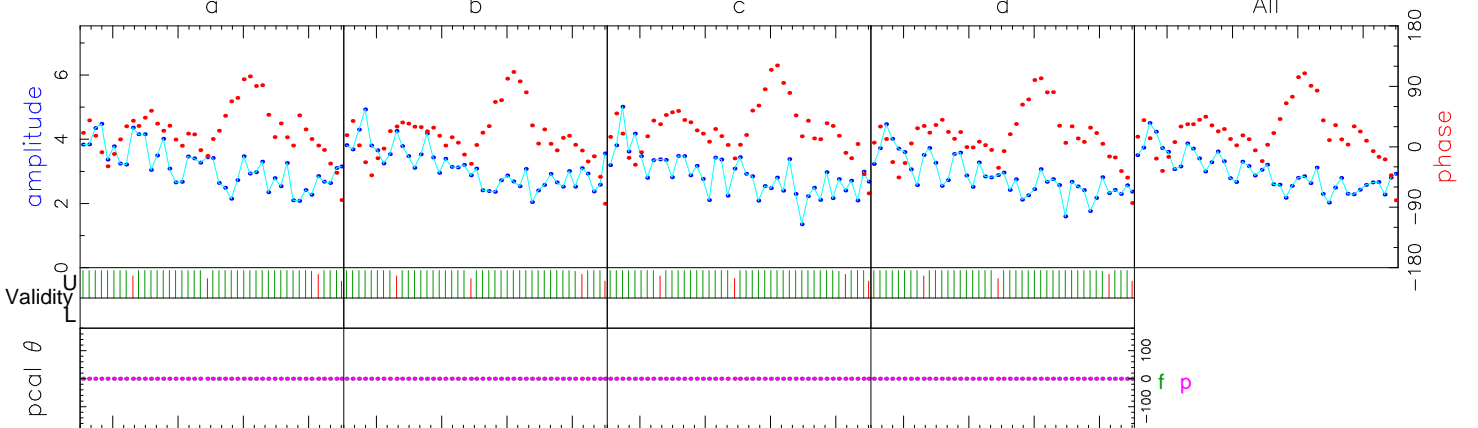
Fringe quality 6

SNR 105.5
 Int time 236.233
 Amp 2.511
 Phase 19.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.003171
 MBD -0.003367
 Fringe rate (Hz) 0.002263
 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	465/0	465/0	465/0	465/0		
f	1000	1000	1000	1000	APs used	1000
p	1000	1000	1000	1000	PC freqs	1000
f:p	0:0	0:0	0:0	0:0	PC phase	0:0
fp	0:0	0:0	0:0	0:0	ManI PC	0:0
f	1000	1000	1000	1000	PC amp	1000
p	1000	1000	1000	1000		1000
f	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	9.89803917958E+02		Apriori delay (usec)	9.89807284776E+02	Resid mbdelay (usec)	-3.36682E-03 +/- 1.1E-05
Sband delay (usec)	9.89804114151E+02		Apriori clock (usec)	7.7890005E+00	Resid sbdelay (usec)	-3.17063E-03 +/- 4.1E-05
Phase delay (usec)	9.89807286047E+02		Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.27098E-06 +/- 7.0E-08
Delay rate (us/s)	-6.31955997819E-02		Apriori rate (us/s)	-6.31956523566E-02	Resid rate (us/s)	5.25748E-08 +/- 5.1E-10
Total phase (deg)		212.9	Apriori accel (us/s/s)	-6.32343469567E-06	Resid phase (deg)	19.7 +/- 1.1

ph/seg (deg) 36.1 3.5 Amplitude 2.511 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 29.3 6.2 Search (1024X16) 2.448 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 7.4 1.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
 amp/frq (%) 4.6 1.9 Inc. seg. avg. 2.984 Sample rate(MISamp/s): 256 dr window (ns/s) -0.023 0.023
 f: az 127.9 el 60.3 pa -43.4 Inc. frq. avg. 2.489 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 180.701 -281.376 simultaneous interpolator

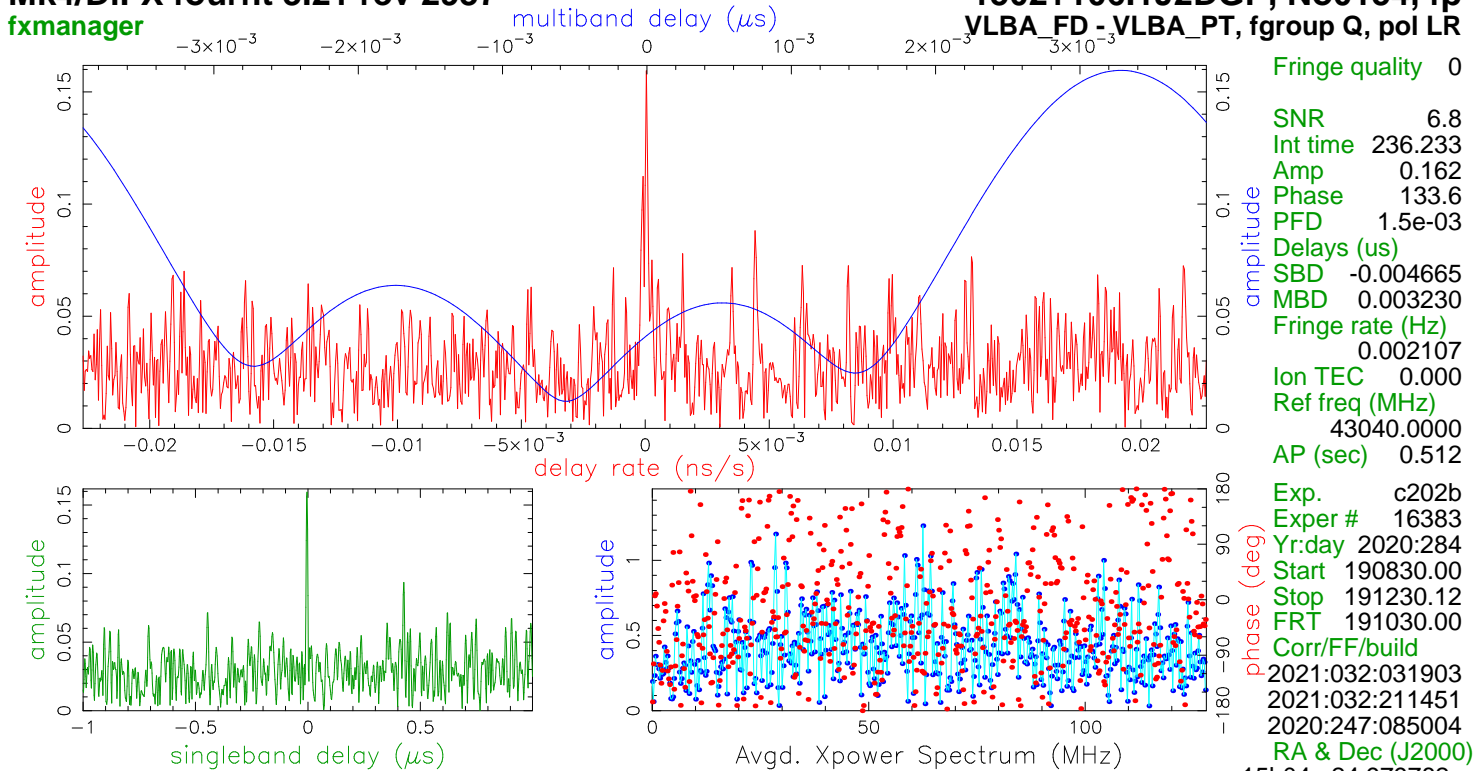
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/fp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/fp.Q.101.1J2DGP

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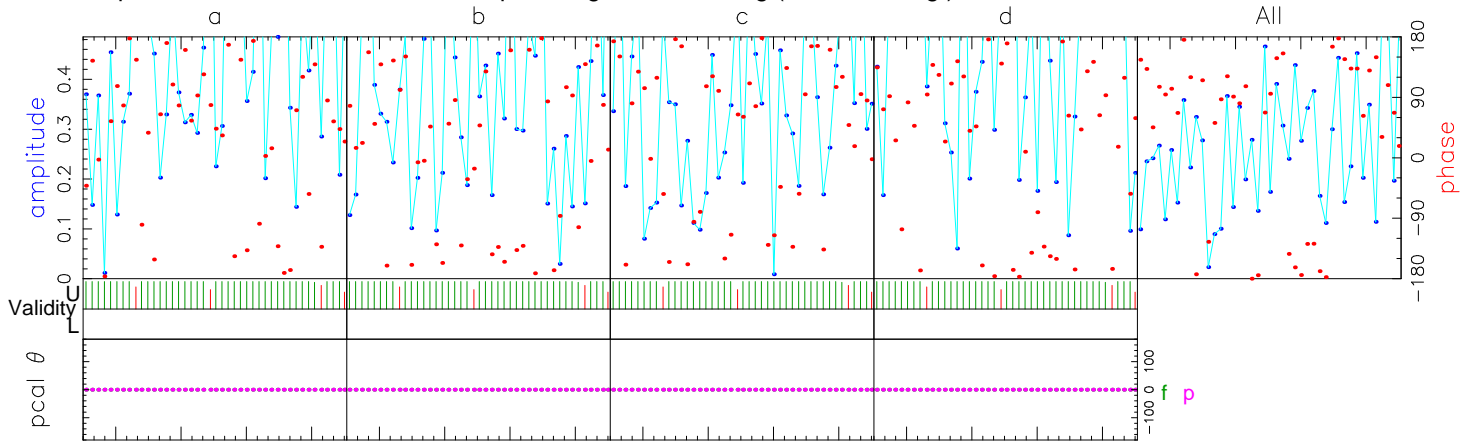
fxmanager

1502+106.1J2DGP, No0154, fp

VLBA_FD - VLBA_PT, fgroup Q, pol LR



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



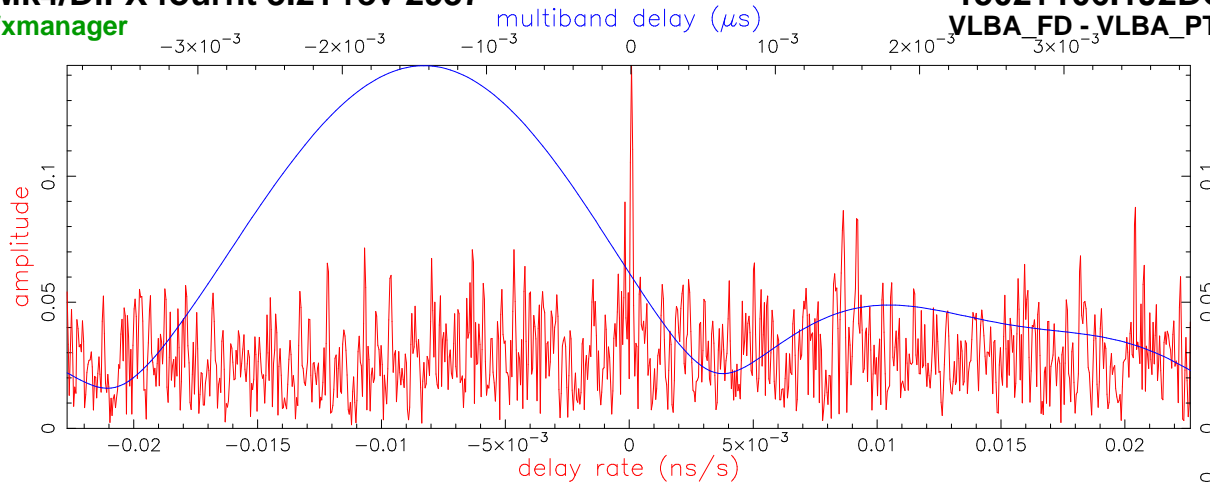
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All		
129.1	134.7	130.6	137.8		Phase	133.6		
0.1	0.1	0.2	0.2		Ampl.	0.2		
792.5	887.2	730.0	510.7		Sbd box	510.6		
U/L 465/0	465/0	465/0	465/0		APs used			
f 1000	1000	1000	1000		PC freqs			
p 1000	1000	1000	1000		PC freqs			
f:p 0:0	0:0	0:0	0:0		PC phase			
f:p 0:0	0:0	0:0	0:0		ManI PC			
f 1000	1000	1000	1000		PC amp			
p 1000	1000	1000	1000					
f Q00UL	Q01UL	Q02UL	Q03UL		Chan ids			
p Q00UR	Q01UR	Q02UR	Q03UR		Tracks			
					Chan ids			
					Tracks			
Group delay (usec)(sbd)	9.89802702364E+02	Apriori delay (usec)	9.89807284776E+02	Resid mbdelay (usec)	3.23009E-03	+/- 1.6E-04		
Sband delay (usec)	9.89802619901E+02	Apriori clock (usec)	7.7890005E+00	Resid sbdelay (usec)	-4.66488E-03	+/- 6.3E-04		
Phase delay (usec)	9.89807293398E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	8.62160E-06	+/- 1.1E-06		
Delay rate (us/s)	-6.31956033924E-02	Apriori rate (us/s)	-6.31956523566E-02	Resid rate (us/s)	4.89643E-08	+/- 7.9E-09		
Total phase (deg)	326.8	Apriori accel (us/s/s)	-6.32343469567E-06	Resid phase (deg)	133.6	+/- 16.9		
RMS	Theor.	Amplitude	0.162 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	54.9 55.0	Search (1024X16)	0.157	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
amp/seg (%)	101.3 96.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
ph/frq (deg)	4.9 16.9	Inc. seg. avg.	0.181	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
amp/frq (%)	26.6 29.4	Inc. frq. avg.	0.153	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	p: az 126.8 el 55.3 pa -41.9	u,v (fr/asec)	180.701 -281.376					simultaneous interpolator
Control file: cf_1234_gmva7mm	Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/fp..1J2DGP	Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/fp.Q.123.1J2DGP						

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

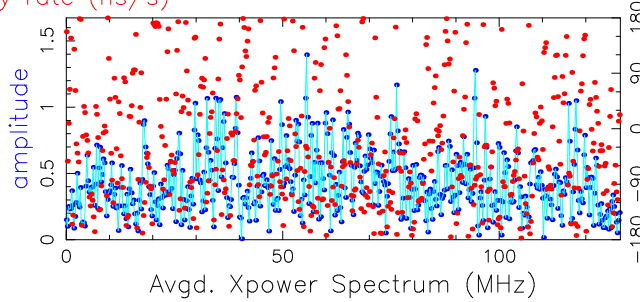
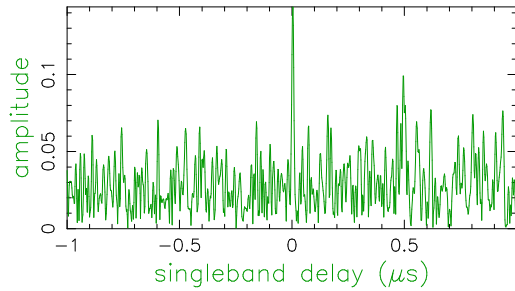
1502+106.1J2DGP, No0154, fp

VLBA_FD - VLBA_PT, fgroup Q, pol RL



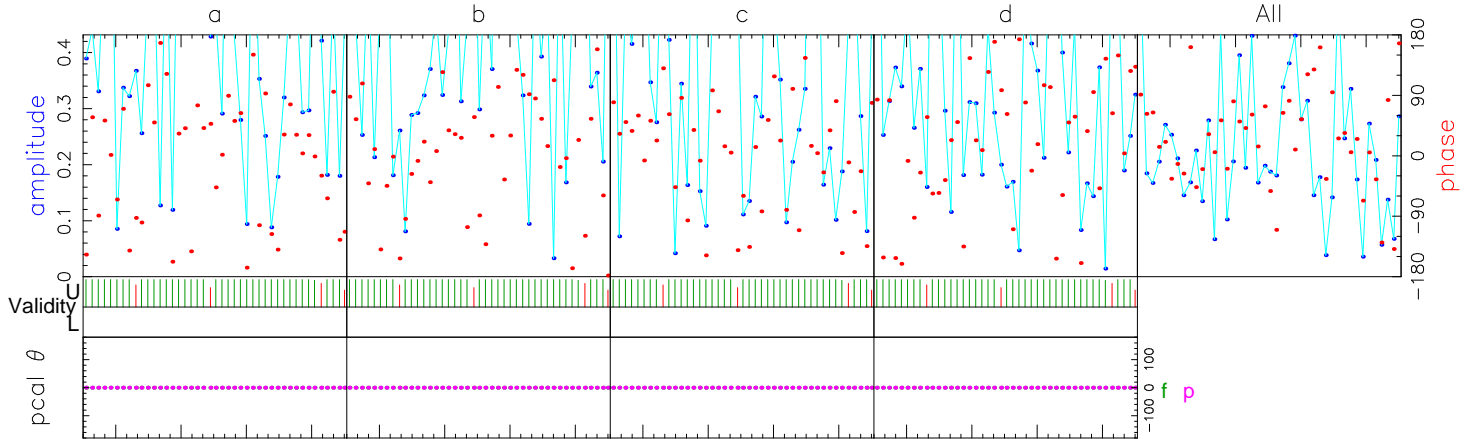
Fringe quality 0

SNR 6.0
 Int time 236.233
 Amp 0.144
 Phase 40.4
 PFD 1.7e-01
 Delays (us)
 SBD 0.003664
 MBD -0.001445
 Fringe rate (Hz)
 0.003451
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



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

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



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	465/0	465/0	465/0	465/0		
f	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
f:p	0:0	0:0	0:0	0:0	PC phase	
f:p	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	9.89813652014E+02	Apriori delay (usec)	9.89807284776E+02	Resid mbdelay (usec)	-1.44526E-03	+/- 1.8E-04
Group delay (usec)(sbd)	9.89810949026E+02	Apriori clock (usec)	7.7890005E+00	Resid sbdelay (usec)	3.66425E-03	+/- 7.1E-04
Sband delay (usec)	9.89807287382E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	2.60579E-06	+/- 1.2E-06
Phase delay (usec)	-6.31955721657E-02	Apriori rate (us/s)	-6.31956523566E-02	Resid rate (us/s)	8.01909E-08	+/- 8.9E-09
Delay rate (us/s)		Apriori accel (us/s/s)	-6.32343469567E-06	Resid phase (deg)	40.4	+/- 18.9
Total phase (deg)	233.6					

	RMS	Theor.	Amplitude	0.144 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	71.3	61.8	Search (1024X16)	0.142	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	105.4	107.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	17.8	18.9	Inc. seg. avg.	0.146	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	31.8	33.1	Inc. frq. avg.	0.139	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 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 180.701 -281.376 simultaneous interpolator

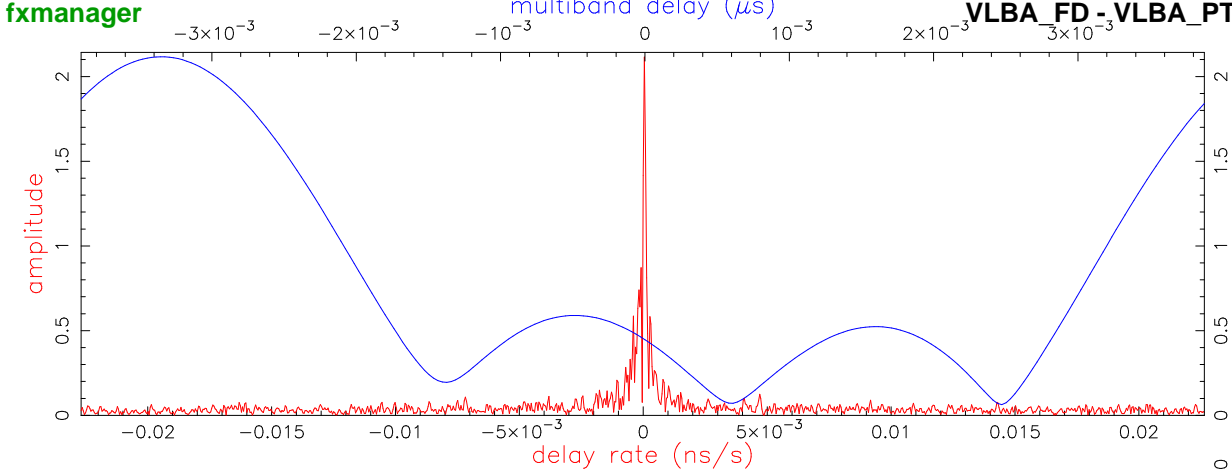
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/fp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/fp.Q.139.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

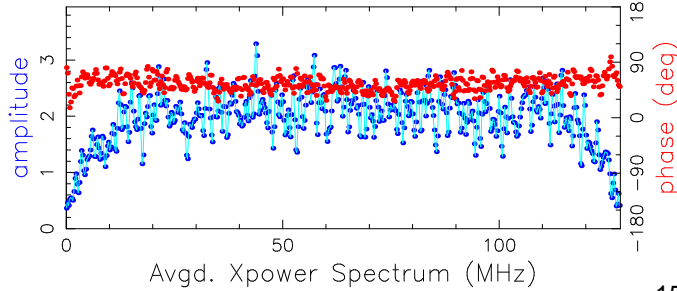
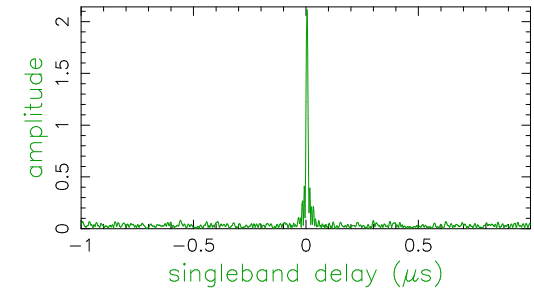
1502+106.1J2DGP, No0154, fp

VLBA_FD - VLBA_PT, fgroup Q, pol LL



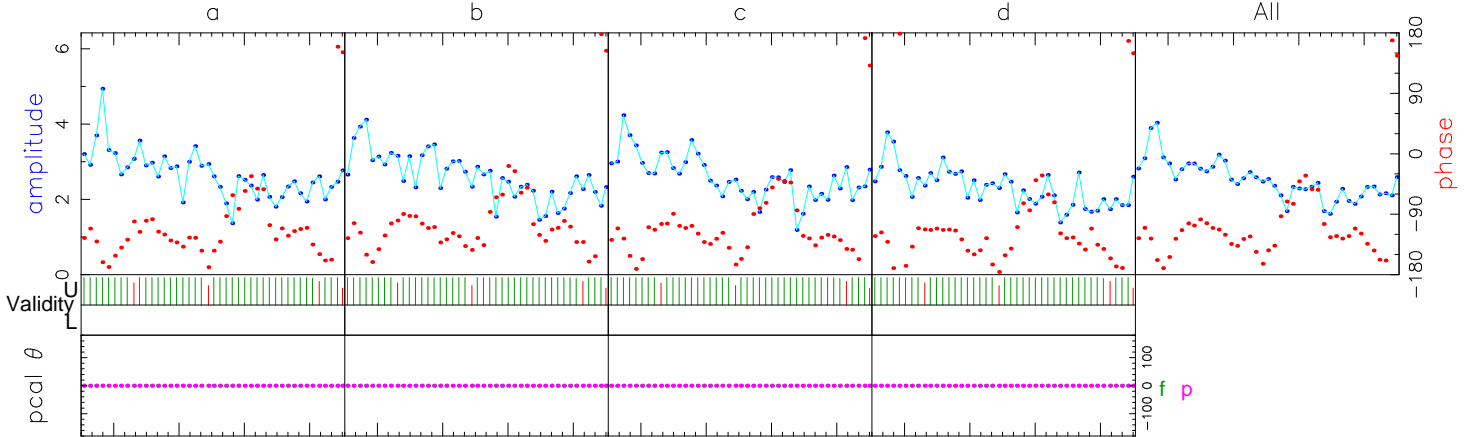
Fringe quality 6

SNR 90.1
 Int time 236.233
 Amp 2.143
 Phase -121.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.004648
 MBD -0.003307
 Fringe rate (Hz) 0.002295
 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



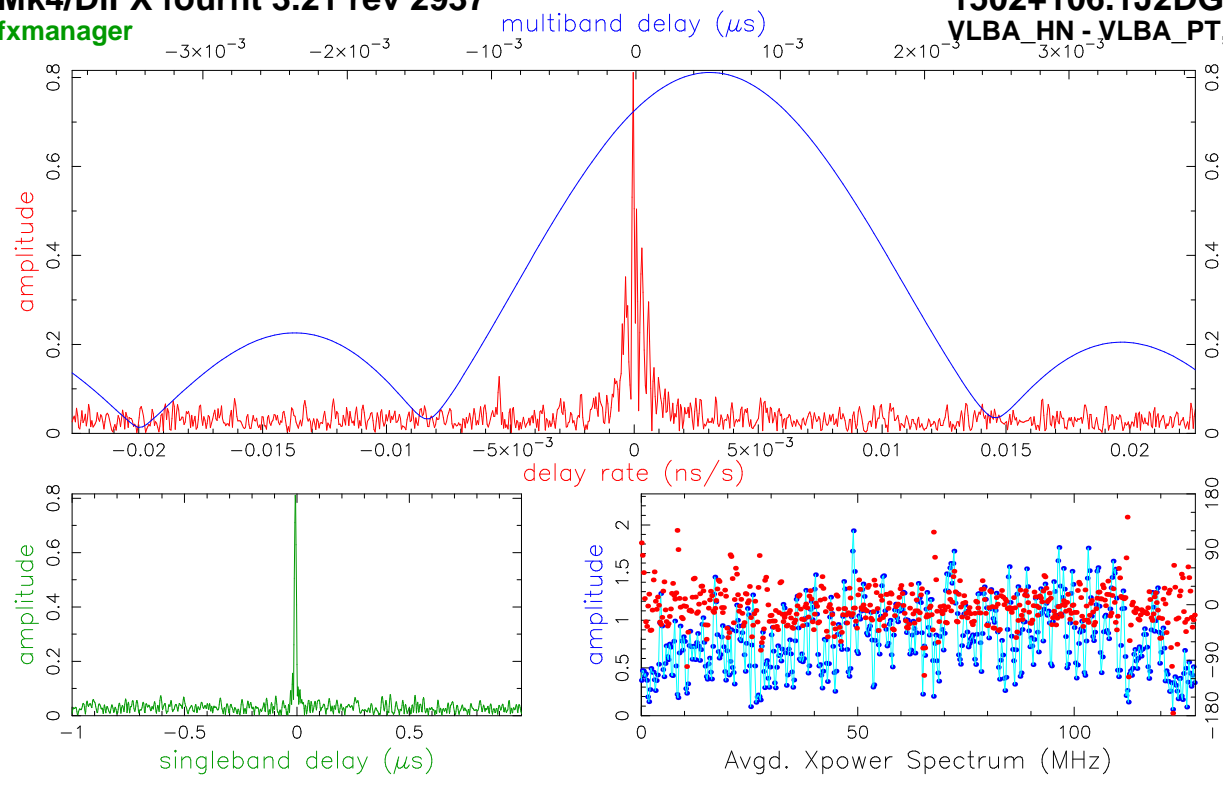
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-124.2	-114.5	-120.1	-129.7	Phase	-121.9
	2.2	2.2	2.1	1.9	Ampl.	2.1
	515.7	515.4	515.2	515.1	Sbd box	515.4
U/L	465/0	465/0	465/0	465/0	APs used	
f	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
f:p	0:0	0:0	0:0	0:0	PC phase	
f:p	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	9.89811790145E+02	Apriori delay (usec)	9.89807284776E+02	Resid mbdelay (usec)	-3.30713E-03	+/- 1.2E-05
Group delay (usec)(sbd)	9.89811933026E+02	Apriori clock (usec)	7.7890005E+00	Resid sbdelay (usec)	4.64825E-03	+/- 4.8E-05
Sband delay (usec)	9.89807276910E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-7.86621E-06	+/- 8.2E-08
Phase delay (usec)	-6.31955990274E-02	Apriori rate (us/s)	-6.31956523566E-02	Resid rate (us/s)	5.33292E-08	+/- 6.0E-10
Delay rate (us/s)		Apriori accel (us/s/s)	-6.32343469567E-06	Resid phase (deg)	-121.9	+/- 1.3
Total phase (deg)	71.4					

	RMS	Theor.	Amplitude	2.143 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	35.5	4.2	Search (1024X16)	2.082	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	29.9	7.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.9	1.3	Inc. seg. avg.	2.519	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	6.0	2.2	Inc. frq. avg.	2.125	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 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 180.701 -281.376 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/fp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/fp.Q.83.1J2DGP

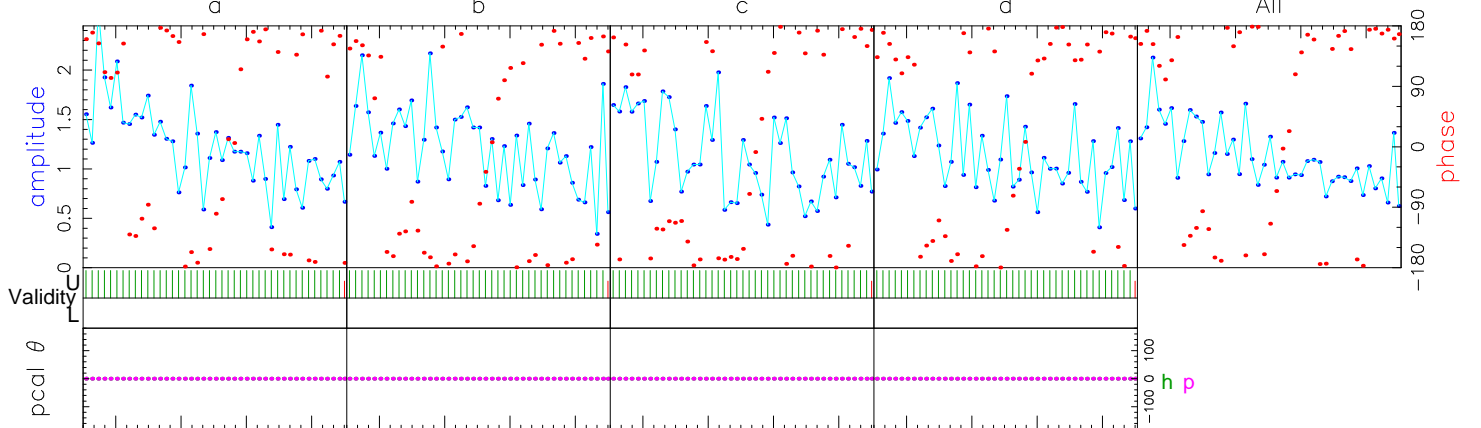


Fringe quality 7

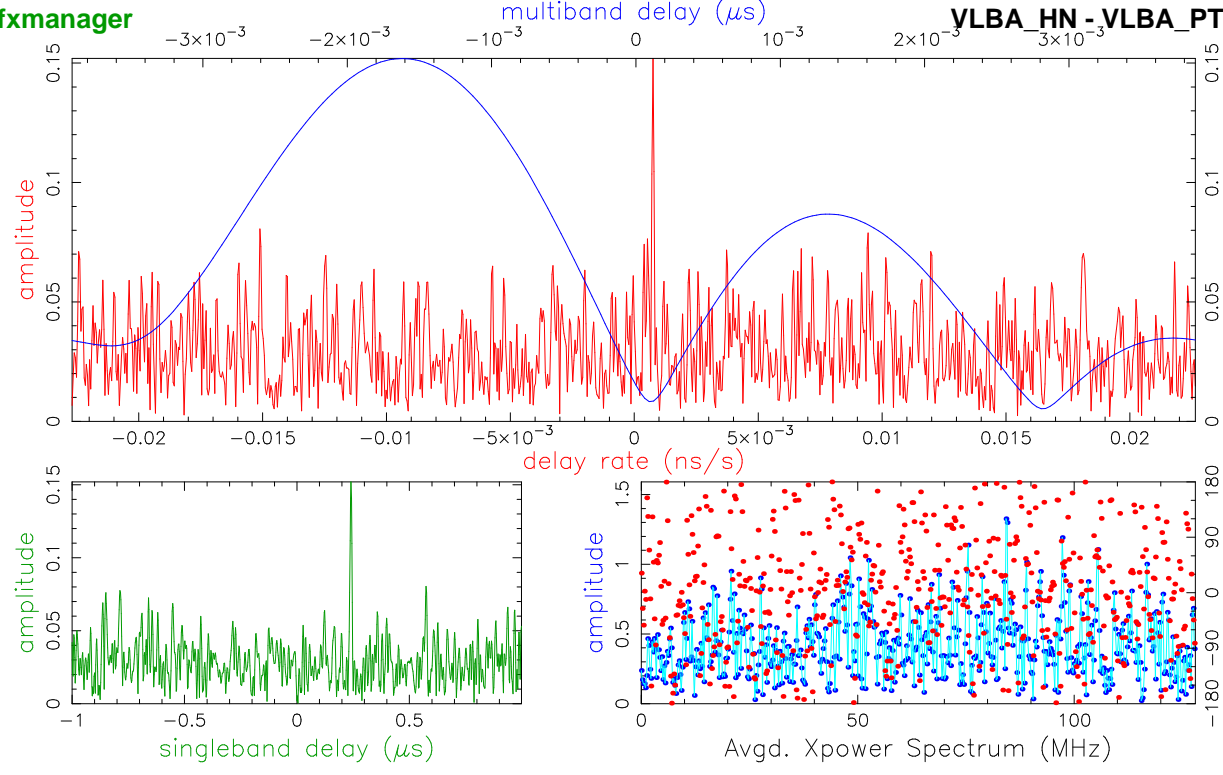
SNR 34.6
Int time 239.982
Amp 0.816
Phase 176.1
PFD 0.0e+00
Delays (us)
SBD -0.007293
MBD 0.000536
Fringe rate (Hz)
-0.002775
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

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
175.0	178.4	-179.5	170.6	Phase	176.1
0.8	0.8	0.8	0.8	Ampl.	0.8
509.3	509.2	509.4	509.1	Sbd box	509.3
U/L 469/0	469/0	469/0	469/0	APs used	
h 1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	PC freqs	
h:p 0:0	0:0	0:0	0:0	PC phase	
h:p 0:0	0:0	0:0	0:0	Manl PC	
h 1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000		
h Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	1.76759783240E+02	Apriori delay (usec)	1.76767059640E+02	Resid mbdelay (usec)	5.36100E-04 +/- 3.2E-05
Sband delay (usec)	1.76759766390E+02	Apriori clock (usec)	4.6690559E-01	Resid sbdelay (usec)	-7.29325E-03 +/- 1.2E-04
Phase delay (usec)	1.76767071008E+02	Apriori clockrate (us/s)	-1.6999997E-07	Resid phdelay (usec)	1.13675E-05 +/- 2.1E-07
Delay rate (us/s)	-7.50659471810E-01	Apriori rate (us/s)	-7.50659407338E-01	Resid rate (us/s)	-6.44726E-08 +/- 1.5E-09
Total phase (deg)	265.0	Apriori accel (us/s/s)	1.45790476707E-06	Resid phase (deg)	176.1 +/- 3.3
RMS	Theor.	Amplitude	0.816 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
52.5	10.9	Search (1024X16)	0.741	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
55.5	19.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
5.3	3.3	Inc. seg. avg.	1.120	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
2.0	5.8	Inc. frq. avg.	0.812	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	p: az 126.8 el 55.3 pa -41.9	u, v (fr/asec)	2185.344 514.300		simultaneous interpolator
Control file: cf_1234_gmva7mm	Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/hp..1J2DGP	Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/hp.Q.105.1J2DGP			

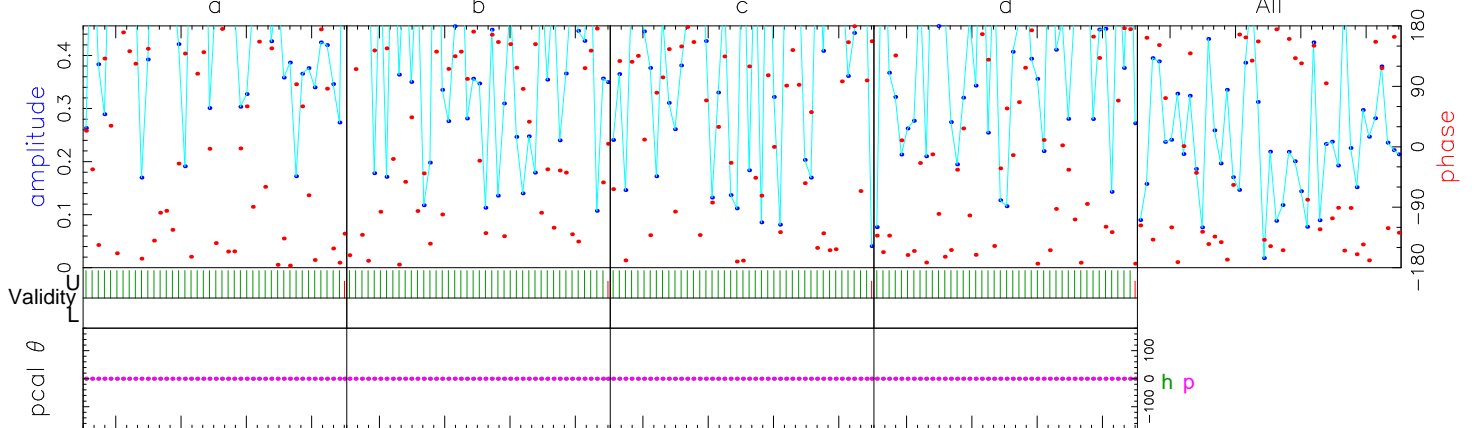


Fringe quality 0

SNR 6.4
Int time 239.982
Amp 0.152
Phase -174.2
PFD 1.7e-02
Delays (us)
SBD 0.240228
MBD -0.001618
Fringe rate (Hz)
0.032580
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
	-170.2	-164.2	154.6	-153.7	Phase	-174.2
	0.2	0.1	0.2	0.1	Ampl.	0.2
	635.7	174.0	636.4	97.2	Sbd box	636.0
U/L	469/0	469/0	469/0	469/0	APs used	
h	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
h:p	0:0	0:0	0:0	0:0	PC phase	
h:p	0:0	0:0	0:0	0:0	Manl PC	
h	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.77007628695E+02	Apriori delay (usec)	1.76767059640E+02	Resid mbdelay (usec)	-1.61845E-03	+/-	1.7E-04
Sband delay (usec)	1.77007287765E+02	Apriori clock (usec)	4.6690559E-01	Resid sbdelay (usec)	2.40228E-01	+/-	6.7E-04
Phase delay (usec)	1.76767048398E+02	Apriori clockrate (us/s)	-1.6999997E-07	Resid phdelay (usec)	-1.12420E-05	+/-	1.1E-06
Delay rate (us/s)	-7.50658650360E-01	Apriori rate (us/s)	-7.50659407338E-01	Resid rate (us/s)	7.56978E-07	+/-	8.3E-09
Total phase (deg)	-85.3	Apriori accel (us/s/s)	1.45790476707E-06	Resid phase (deg)	-174.2	+/-	17.8

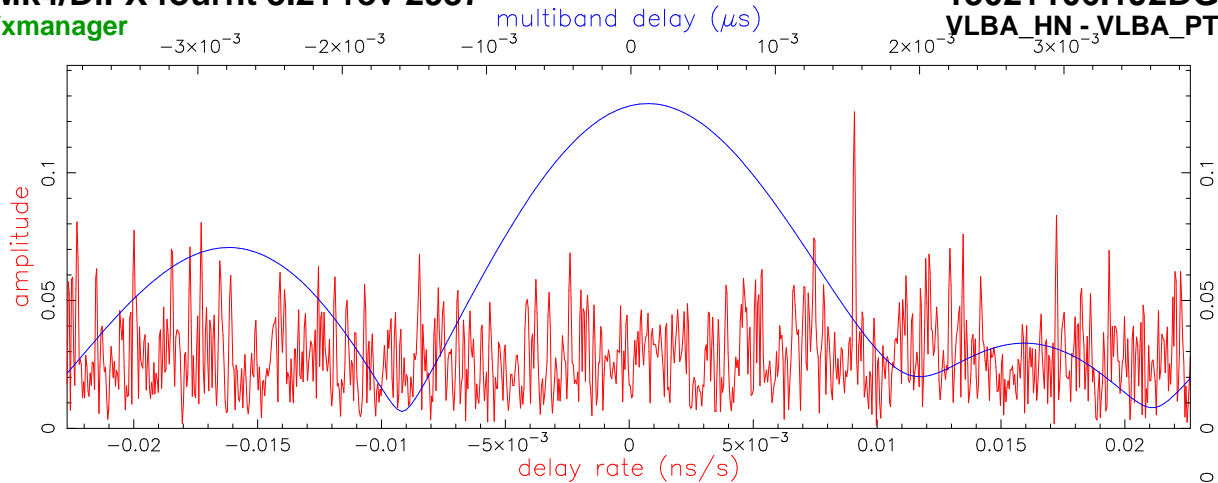
ph/seg (deg)	61.2	Theor.	58.4	Amplitude	0.152 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	98.6	Search (1024X16)	0.146	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	27.4	Inc. seg. avg.	0.160	Inc. frq. avg.	0.153	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	19.5	Inc. frq. avg.	0.153			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

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

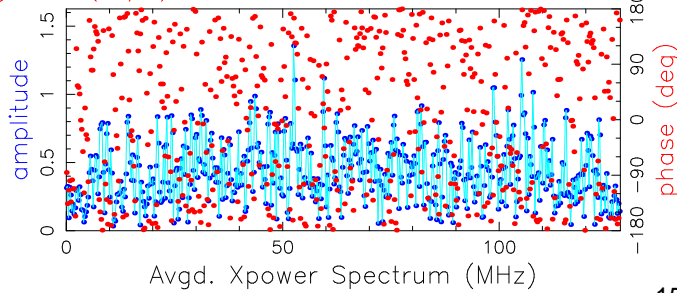
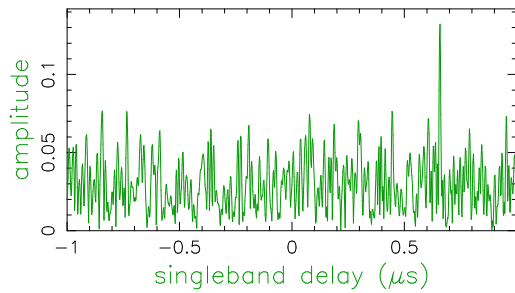
1502+106.1J2DGP, No0154, hp

VLBA_HN - VLBA_PT, fgroup Q, pol RL



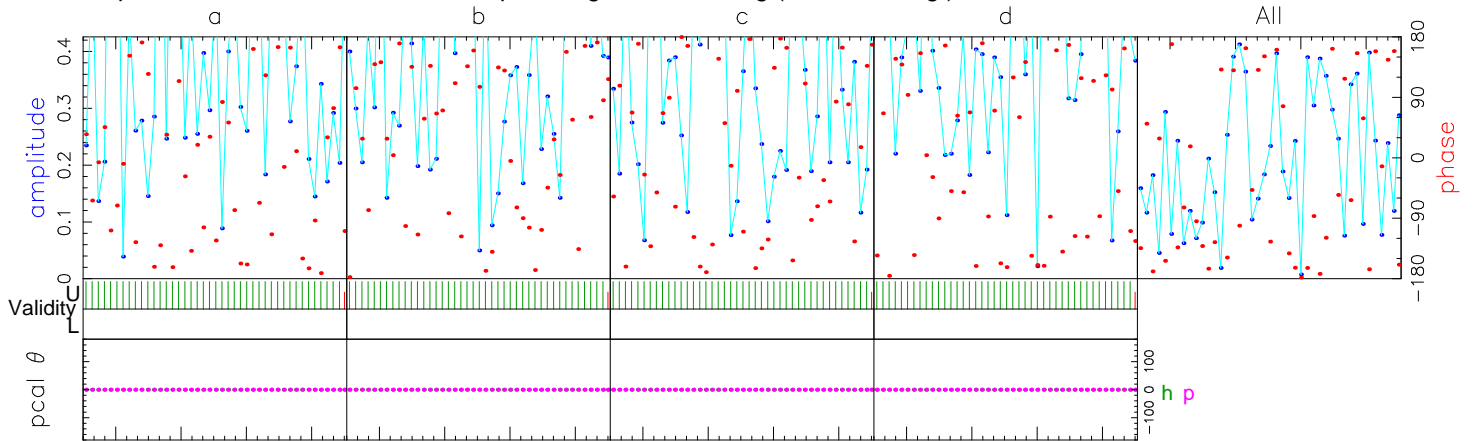
Fringe quality 0

SNR 5.6
 Int time 239.982
 Amp 0.142
 Phase -163.3
 PFD 9.0e-01
 Delays (us)
 SBD 0.657794
 MBD 0.000355
 Fringe rate (Hz)
 0.391637
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



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

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

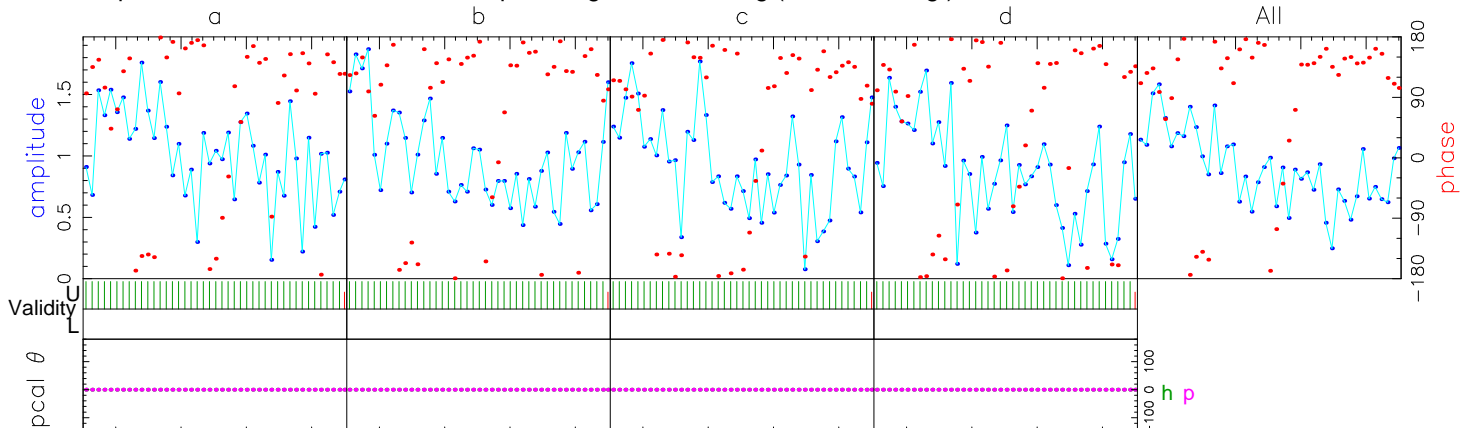
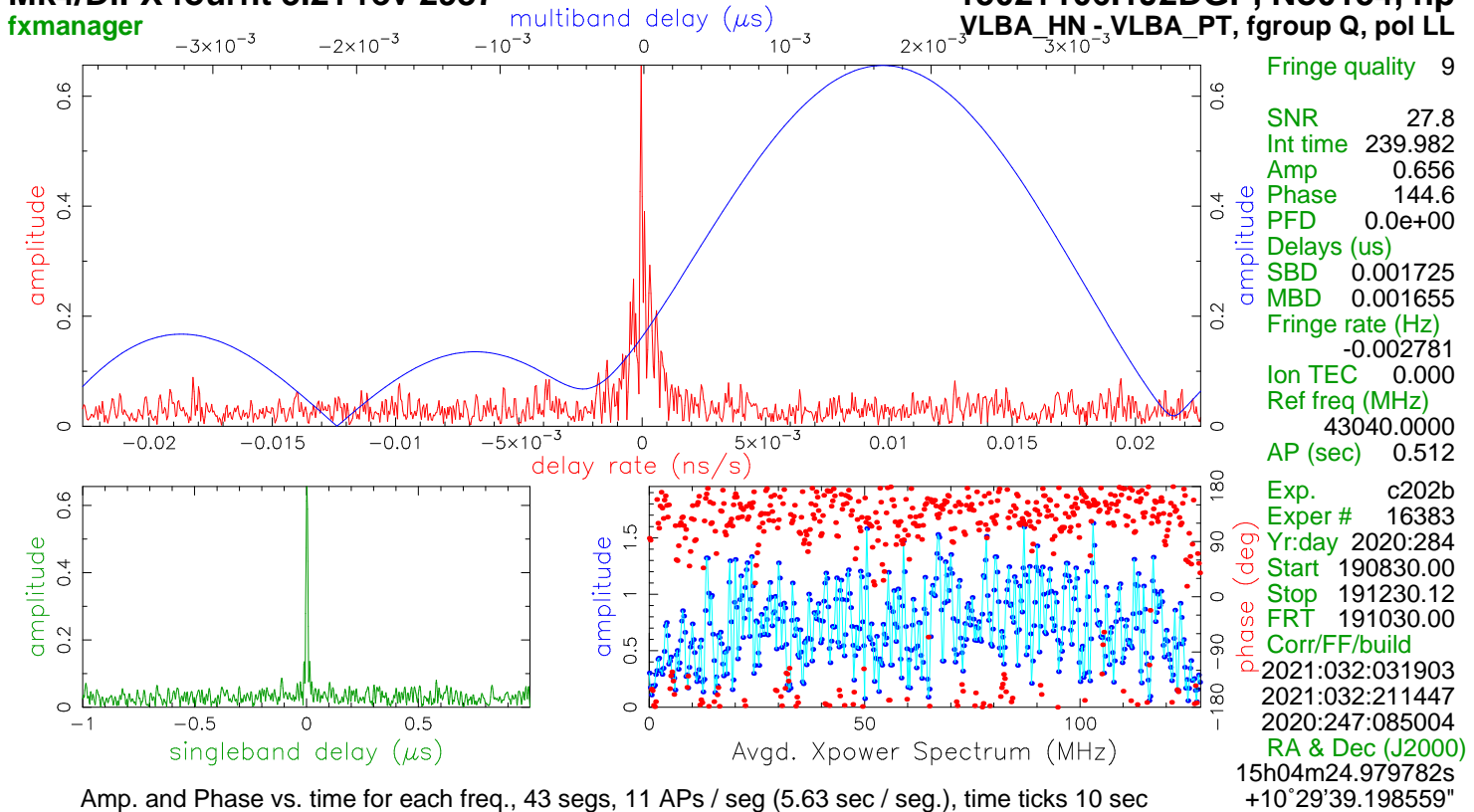


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-131.7	170.0	-156.7	-176.7	Phase	-163.3
	0.2	0.1	0.1	0.2	Ampl.	0.1
	1001.9	552.8	169.3	272.0	Sbd box	849.8
U/L	469/0	469/0	469/0	469/0	APs used	
h	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
h:p	0:0	0:0	0:0	0:0	PC phase	
h:p	0:0	0:0	0:0	0:0	ManI PC	
h	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

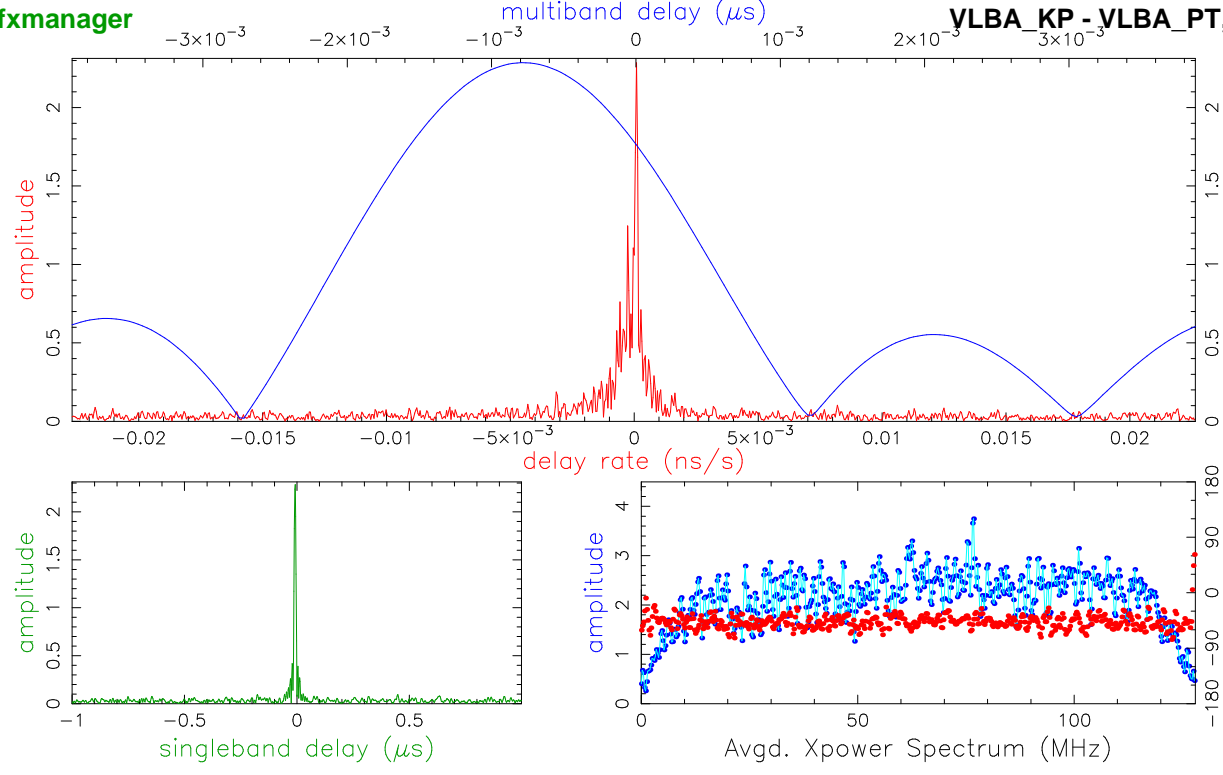
Group delay (usec)(sbd)	1.77423664637E+02	Apriori delay (usec)	1.76767059640E+02	Resid mbdelay (usec)	3.54997E-04	+/-	2.0E-04
Sband delay (usec)	1.77424854140E+02	Apriori clock (usec)	4.6690559E-01	Resid sbdelay (usec)	6.57794E-01	+/-	7.7E-04
Phase delay (usec)	1.76767049101E+02	Apriori clockrate (us/s)	-1.6999997E-07	Resid phdelay (usec)	-1.05393E-05	+/-	1.3E-06
Delay rate (us/s)	-7.50650307955E-01	Apriori rate (us/s)	-7.50659407338E-01	Resid rate (us/s)	9.09938E-06	+/-	9.5E-09
Total phase (deg)	-74.4	Apriori accel (us/s/s)	1.45790476707E-06	Resid phase (deg)	-163.3	+/-	20.4

ph/seg (deg)	RMS 74.6	Theor. 66.8	Amplitude Search (1024X16)	0.124	0.124 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	107.8	116.6	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)	31.1	20.4	Inc. seg. avg.	0.135	0.135	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	11.6	35.6	Inc. frq. avg.	0.134	0.134	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00

h: az 195.3 el 56.6 pa 11.8 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 2185.344 514.300 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/hp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/hp.Q.142.1J2DGP



	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		
p	1000	1000	1000	1000		
h:p	0:0	0:0	0:0	0:0		
h:p	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000		
p	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UL	Q01UL	Q02UL	Q03UL		
Group delay (usec)(sbd)	1.76768715084E+02			1.76767059640E+02	1.65544E-03	+/- 4.0E-05
Sband delay (usec)	1.76768785015E+02			4.6690559E-01	1.72537E-03	+/- 1.5E-04
Phase delay (usec)	1.76767068973E+02			-1.6999997E-07	9.33302E-06	+/- 2.7E-07
Delay rate (us/s)	-7.50659471961E-01			-7.50659407338E-01	Resid rate (us/s)	-6.46230E-08 +/- 1.9E-09
Total phase (deg)		233.5		1.45790476707E-06	Resid phase (deg)	144.6 +/- 4.1
ph/seg (deg)	RMS 49.8	Theor. 13.5	Amplitude Search (1024X16) 0.589	0.656 +/- 0.024	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	58.6	23.6	Interp. 0.000	0.589	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	8.4	4.1	Inc. seg. avg. 0.878	0.878	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	9.2	7.2	Inc. frq. avg. 0.657	0.657	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
h: az 195.3 el 56.6 pa 11.8		p: az 126.8 el 55.3 pa -41.9		u,v (fr/asec) 2185.344 514.300	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite
Control file: cf_1234_gmva7mm		Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/hp..1J2DGP		Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/hp.Q.88.1J2DGP		ion window (TEC) 0.00 0.00

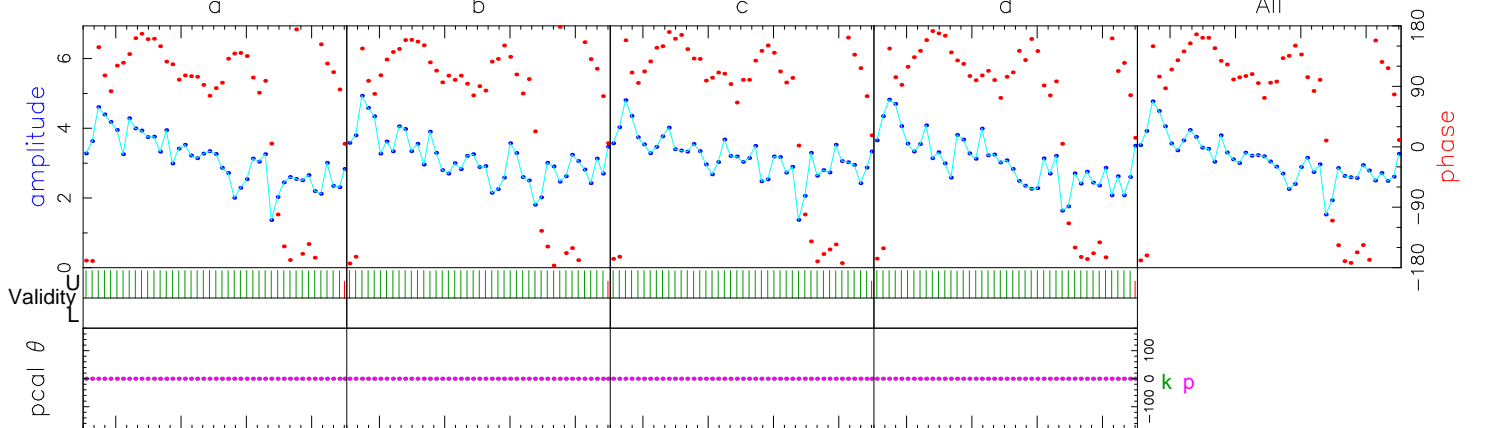


Fringe quality 5

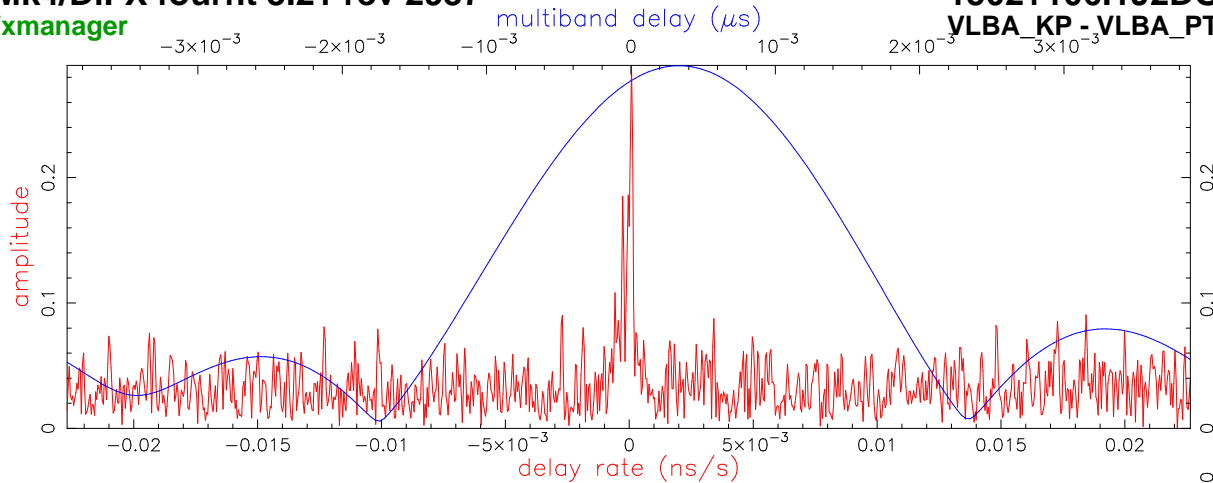
SNR 97.8
Int time 239.075
Amp 2.313
Phase 133.9
PFD 0.0e+00
Delays (us)
SBD -0.008548
MBD -0.000816
Fringe rate (Hz) 0.004331
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512

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
131.6	131.4	137.9	134.6	Phase	133.9
2.3	2.3	2.3	2.2	Ampl.	2.3
508.4	508.7	508.5	508.9	Sbd box	508.6
U/L 469/0	469/0	469/0	469/0	APs used	
k 1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	PC freqs	
k:p 0:0	0:0	0:0	0:0	PC phase	
k:p 0:0	0:0	0:0	0:0	Manl PC	
k 1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000		
k Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-2.37978347202E+02	Apriori delay (usec)	-2.37969719034E+02	Resid mbdelay (usec)	-8.15668E-04 +/- 1.1E-05
Sband delay (usec)	-2.37978267284E+02	Apriori clock (usec)	2.4689102E-01	Resid sbdelay (usec)	-8.54825E-03 +/- 4.4E-05
Phase delay (usec)	-2.37969710395E+02	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	8.63917E-06 +/- 7.6E-08
Delay rate (us/s)	8.46741880136E-02	Apriori rate (us/s)	8.46740873879E-02	Resid rate (us/s)	1.00626E-07 +/- 5.5E-10
Total phase (deg)	-120.7	Apriori accel (us/s/s)	5.67247136522E-07	Resid phase (deg)	133.9 +/- 1.2
RMS	Theor.	Amplitude	2.313 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
48.5	3.8	Search (1024X16)	2.206	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
43.6	6.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
3.7	1.2	Inc. seg. avg.	3.101	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
2.3	2.0	Inc. frq. avg.	2.287	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	p: az 126.8 el 55.3 pa -41.9	u, v (fr/asec) -246.316 -144.352			simultaneous interpolator
Control file: cf_1234_gmva7mm	Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/kp..1J2DGP	Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/kp.Q.119.1J2DGP			



Fringe quality 9

SNR 12.2

Int time 239.075

Amp 0.290

Phase 172.0

PFD 4.7e-26

Delays (us)

SBD -0.007616

MBD 0.000336

Fringe rate (Hz) 0.004438

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

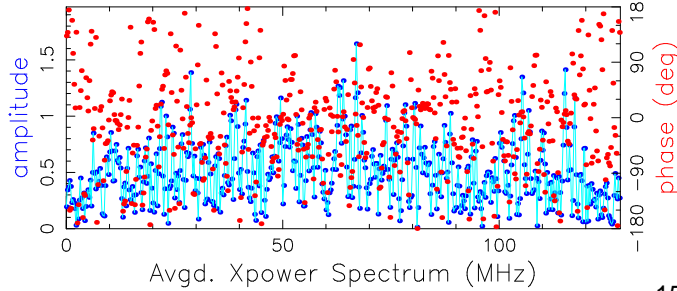
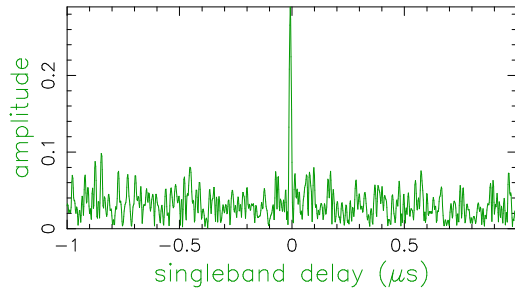
Corr/FF/build

2021:032:031903

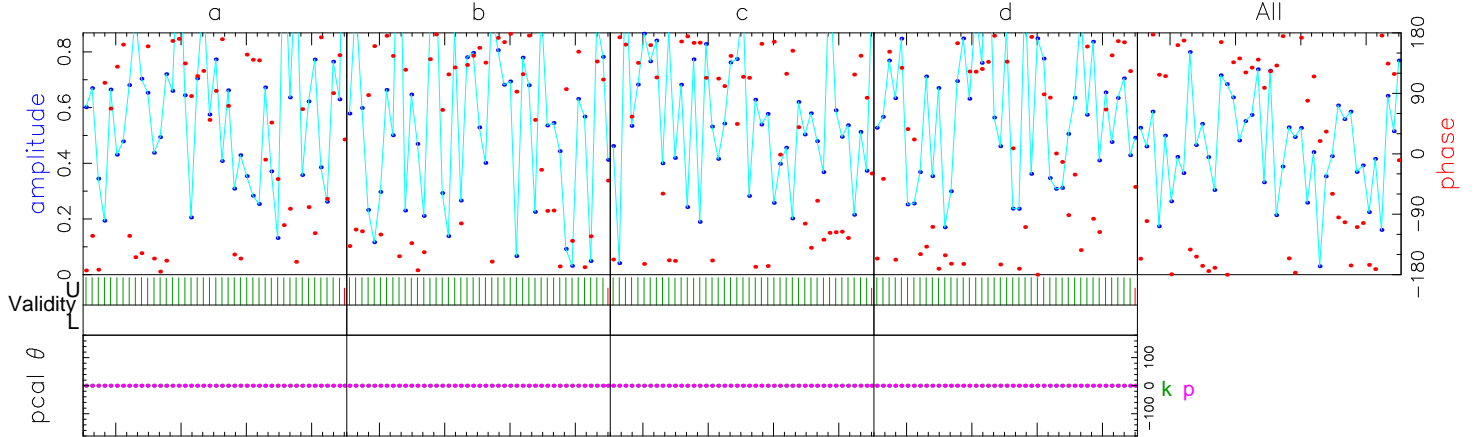
2021:032:211452

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		
k	1000	1000	1000	1000		
p	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0		
k:p	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000		
p	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UR	Q01UR	Q02UR	Q03UR		

	-2.37977195421E+02	Apriori delay (usec)	-2.37969719034E+02	Resid mbdelay (usec)	3.36113E-04	+/- 9.1E-05
Sband delay (usec)	-2.37977334784E+02	Apriori clock (usec)	2.4689102E-01	Resid sbdelay (usec)	-7.61575E-03	+/- 3.5E-04
Phase delay (usec)	-2.37969707932E+02	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	1.11020E-05	+/- 6.0E-07
Delay rate (us/s)	8.46741905010E-02	Apriori rate (us/s)	8.46740873879E-02	Resid rate (us/s)	1.03113E-07	+/- 4.4E-09
Total phase (deg)	-82.6	Apriori accel (us/s/s)	5.67247136522E-07	Resid phase (deg)	172.0	+/- 9.4

	RMS	Theor.	Amplitude	0.290 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	62.0	30.7	Search (1024X16)	0.279	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	85.1	53.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	4.3	9.4	Inc. seg. avg.	0.408	Sample rate(MSamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	11.8	16.3	Inc. frq. avg.	0.286	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 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -246.316 -144.352 simultaneous interpolator

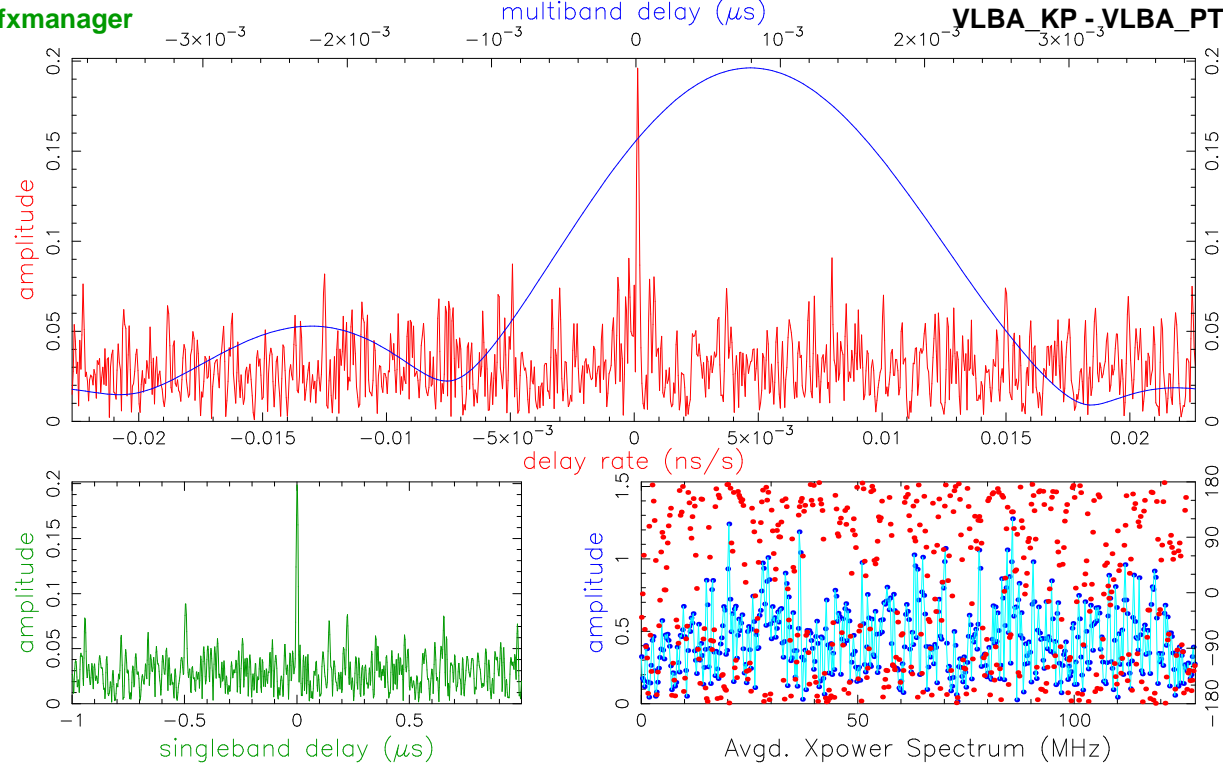
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/kp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/kp.Q.137.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, kp

VLBA_KP - VLBA_PT, fgroup Q, pol RL

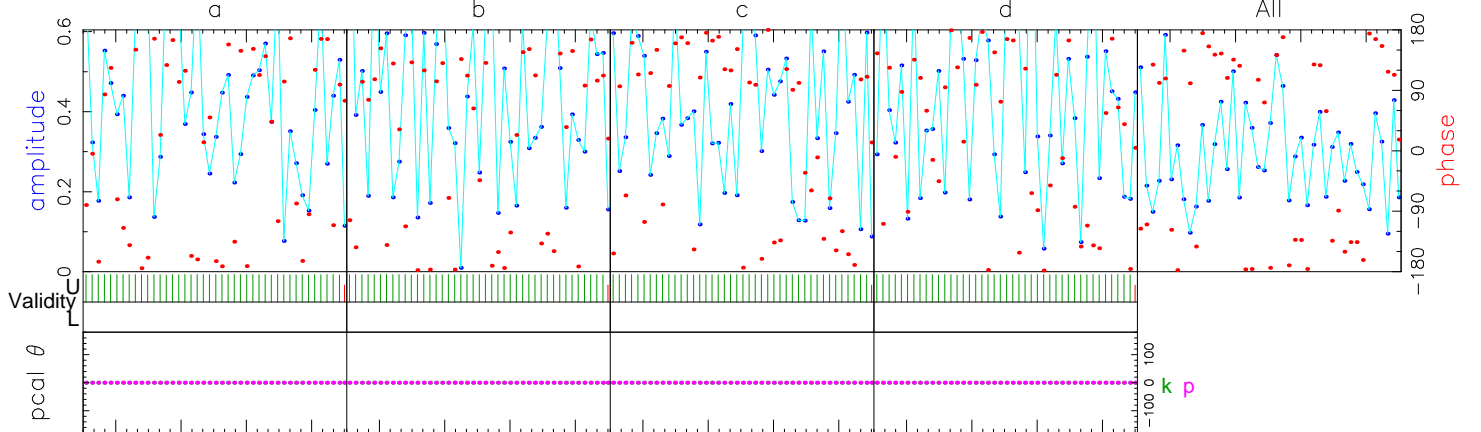


Fringe quality 9

SNR 8.5
 Int time 239.075
 Amp 0.202
 Phase 165.8
 PFD 2.9e-09
 Delays (us)
 SBD 0.000824
 MBD 0.000749
 Fringe rate (Hz) 0.005163
 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



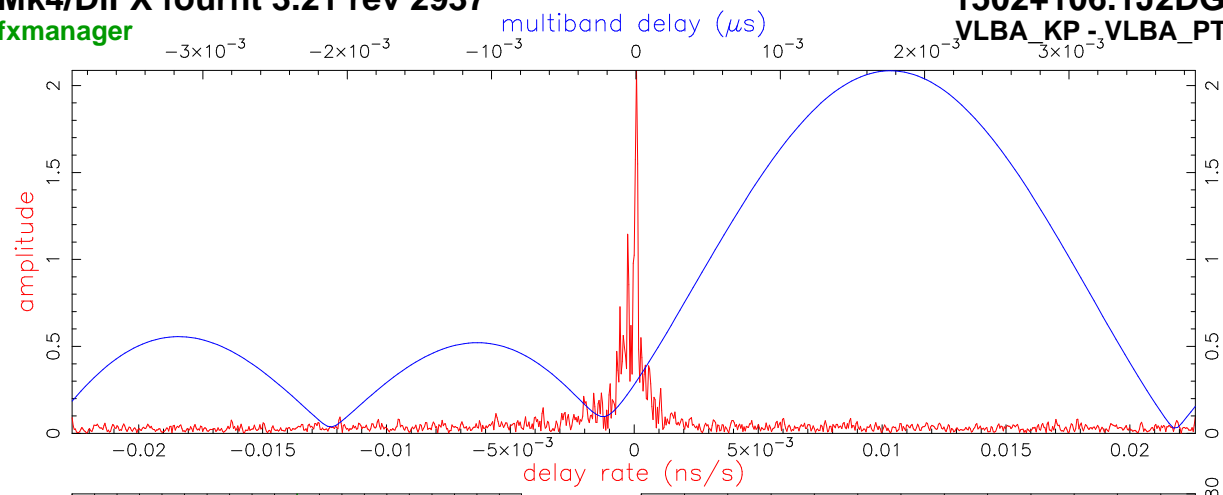
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
k	1000	1000	1000	1000		
p	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0		
k:p	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000		
p	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UL	Q01UL	Q02UL	Q03UL		

	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
Group delay (usec)(sbd)	-2.37968970020E+02		-2.37969719034E+02		7.49013E-04	+/- 1.3E-04
Sband delay (usec)	-2.37968895034E+02		2.4689102E-01		8.24000E-04	+/- 5.1E-04
Phase delay (usec)	-2.37969708335E+02		-2.9999999E-07		1.06983E-05	+/- 8.7E-07
Delay rate (us/s)	8.46742073367E-02		8.46740873879E-02		1.19949E-07	+/- 6.3E-09
Total phase (deg)		-88.8	5.67247136522E-07		165.8	+/- 13.4

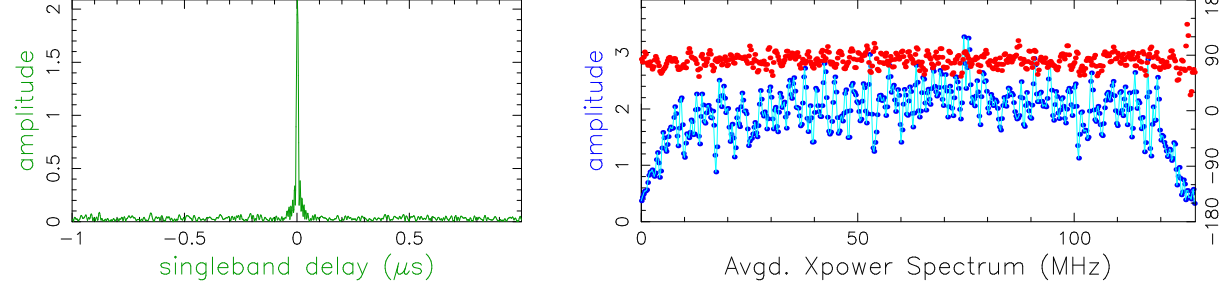
	RMS	Theor.	Amplitude	0.202 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	53.7	44.1	Search (1024X16)	0.192	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	76.2	77.0	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.004 0.004
ph/frq (deg)	9.4	13.4	Inc. seg. avg.	0.229	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	22.2	23.5	Inc. frq. avg.	0.192	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

k: az 119.9 el 54.1 pa -48.3 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -246.316 -144.352 simultaneous interpolator

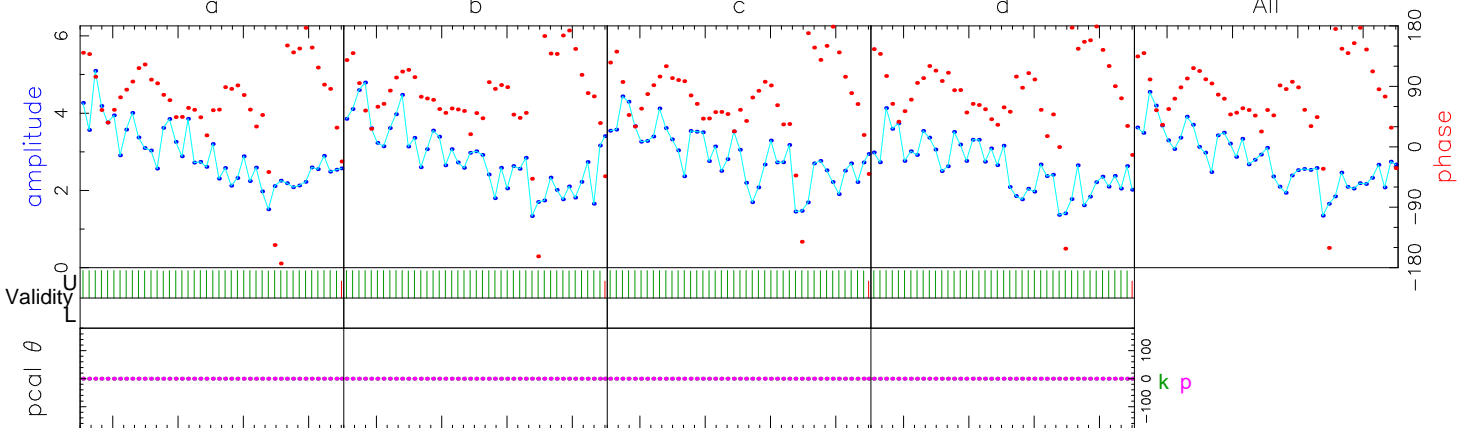
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/kp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/kp.Q.152.1J2DGP



Fringe quality 5
SNR 88.2
Int time 239.075
Amp 2.087
Phase 81.7
PFD 0.0e+00
Delays (us)
SBD 0.001745
MBD 0.001753
Fringe rate (Hz) 0.004231
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"



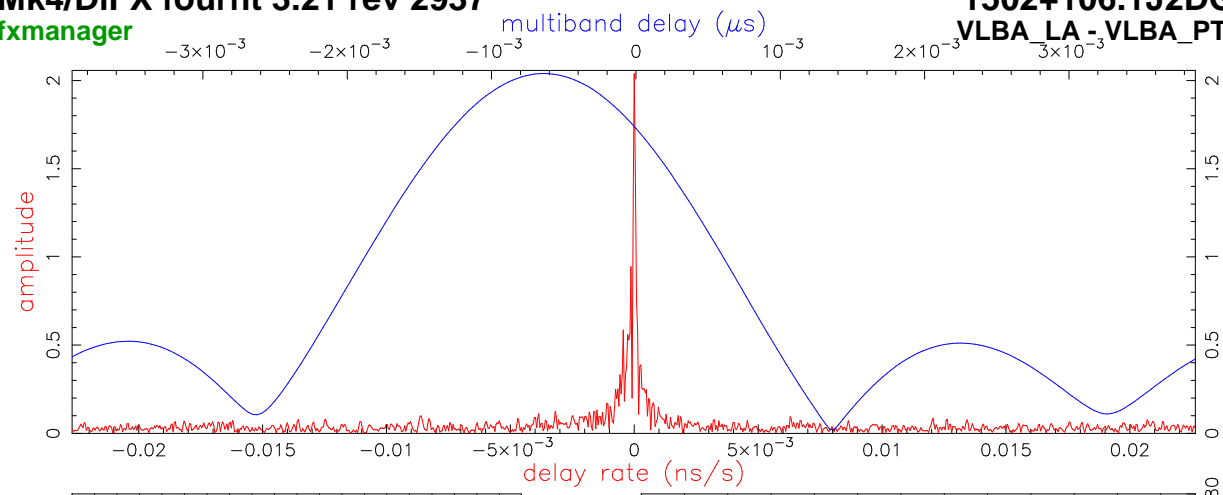
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



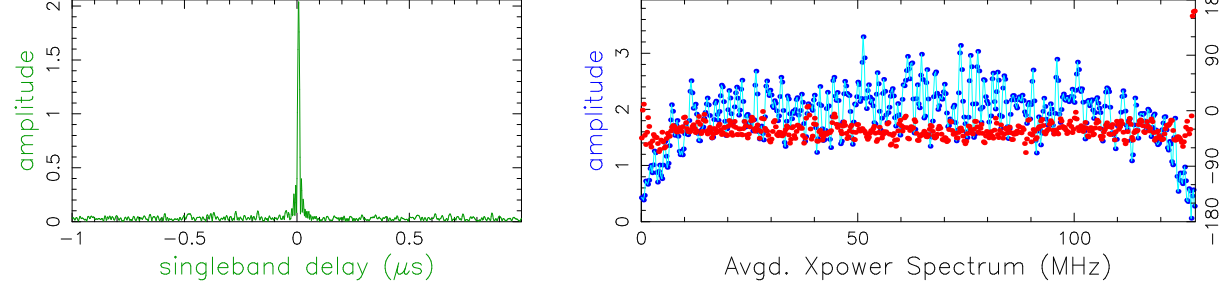
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
k	1000	1000	1000	1000	APs used	
p	1000	1000	1000	1000	PC freqs	
k:p	0:0	0:0	0:0	0:0	PC phase	
k:p	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UL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

	42912.00	43040.00	43168.00	43296.00		
Group delay (usec)(sbd)	-2.37967966452E+02		-2.37969719034E+02		Resid mbdelay (usec)	1.75258E-03 +/- 1.3E-05
Sband delay (usec)	-2.37967974409E+02		2.4689102E-01		Resid sbdelay (usec)	1.74463E-03 +/- 4.9E-05
Phase delay (usec)	-2.37969713759E+02		-2.9999999E-07		Resid phdelay (usec)	5.27512E-06 +/- 8.4E-08
Delay rate (us/s)	8.46741856965E-02		8.46740873879E-02		Resid rate (us/s)	9.83086E-08 +/- 6.0E-10
Total phase (deg)	-172.9		5.67247136522E-07		Resid phase (deg)	81.7 +/- 1.3

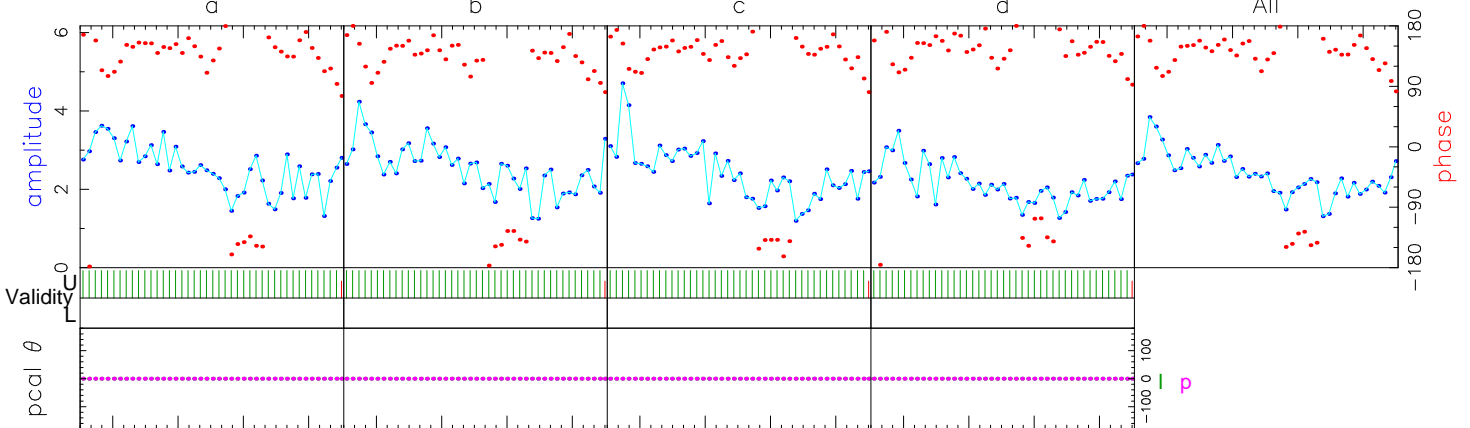
	RMS	Theor.	Amplitude	2.087 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	49.5	4.3	Search (1024X16)	2.022	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	47.8	7.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	3.6	1.3	Inc. seg. avg.	2.799	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.8	2.3	Inc. frq. avg.	2.086	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00



Fringe quality 6
SNR 87.2
Int time 239.982
Amp 2.057
Phase 148.5
PFD 0.0e+00
Delays (us)
SBD 0.007181
MBD -0.000665
Fringe rate (Hz)
-0.000095
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



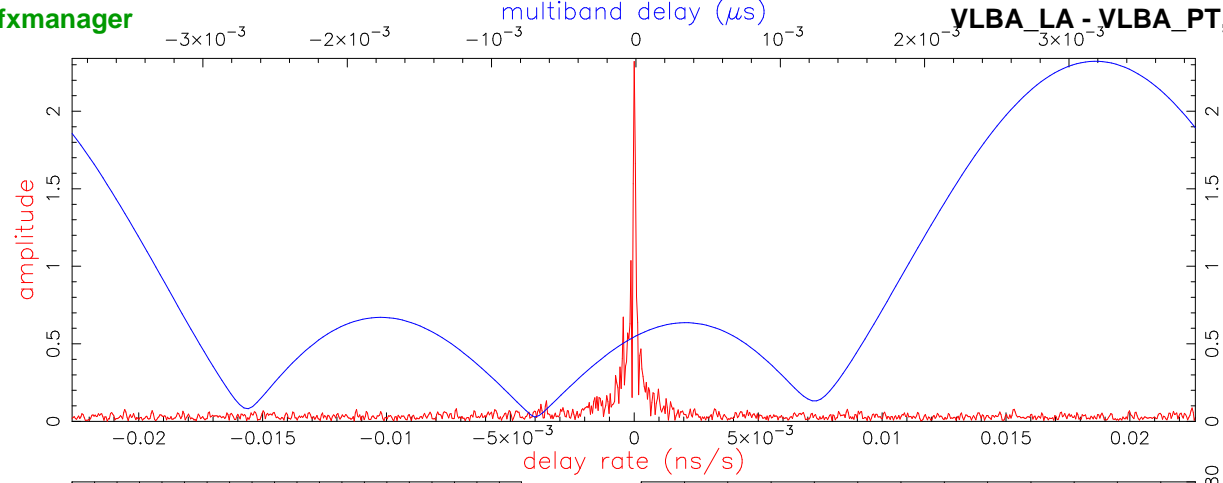
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
l	1000	1000	1000	1000		
p	1000	1000	1000	1000		
l:p	0:0	0:0	0:0	0:0		
lp	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000		
p	1000	1000	1000	1000		
l	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UL	Q01UL	Q02UL	Q03UL		

	4.88817996099E+01	Apriori delay (usec)	4.88746523287E+01	Resid mbdelay (usec)	-6.65219E-04	+/- 1.3E-05
Group delay (usec)(sbd)	4.88817996099E+01	Apriori clock (usec)	-4.9851418E-01	Resid sbdelay (usec)	7.18075E-03	+/- 4.9E-05
Sband delay (usec)	4.88818330787E+01	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	9.58169E-06	+/- 8.5E-08
Phase delay (usec)	4.88746619104E+01	Apriori rate (us/s)	-4.66523591341E-02	Resid rate (us/s)	-2.20657E-09	+/- 6.1E-10
Delay rate (us/s)	-4.66523613407E-02	Apriori accel (us/s/s)	1.66308908488E-07	Resid phase (deg)	148.5	+/- 1.3
Total phase (deg)	161.5					

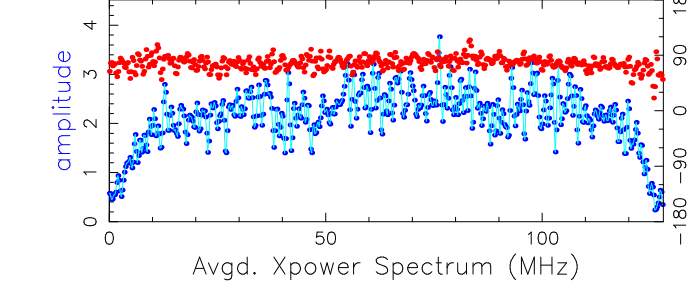
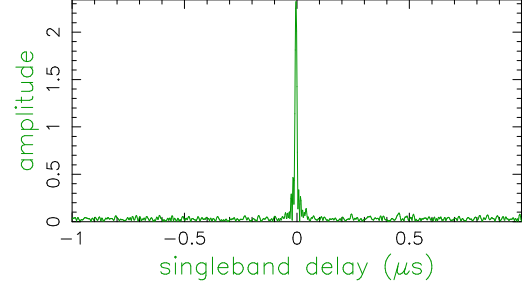
	RMS	Theor.	Amplitude	2.057 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	33.9	4.3	Search (1024X16)	2.020	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	30.5	7.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	3.4	1.3	Inc. seg. avg.	2.383	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	7.5	2.3	Inc. frq. avg.	2.040	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 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 135.936 92.268 simultaneous interpolator

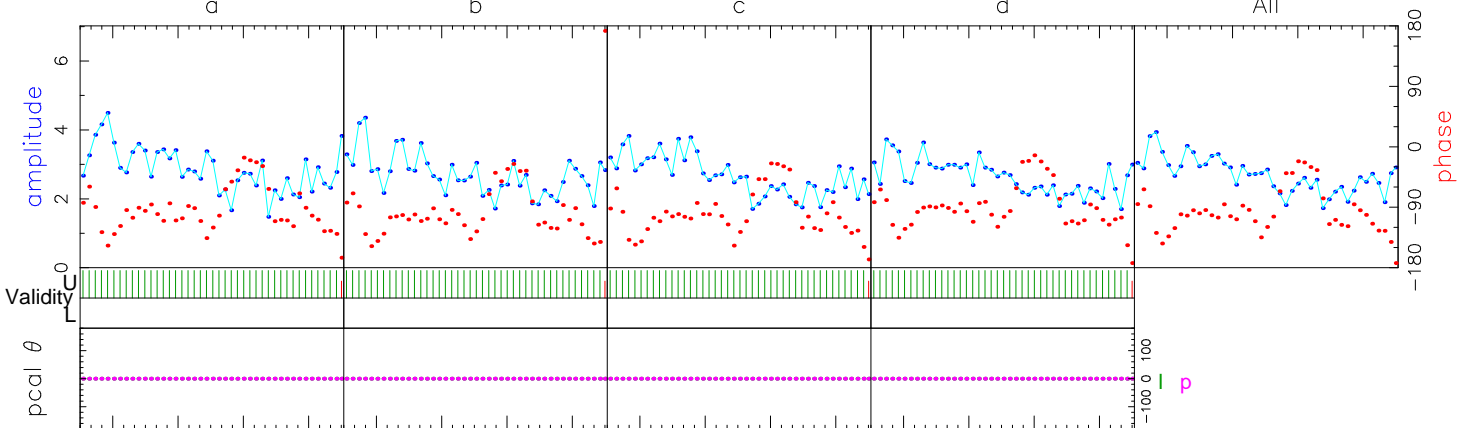
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/lp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/lp.Q.157.1J2DGP



Fringe quality 6
SNR 99.2
Int time 239.982
Amp 2.341
Phase -98.9
PFD 0.0e+00
Delays (us)
SBD -0.004520
MBD 0.003153
Fringe rate (Hz)
-0.000098
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



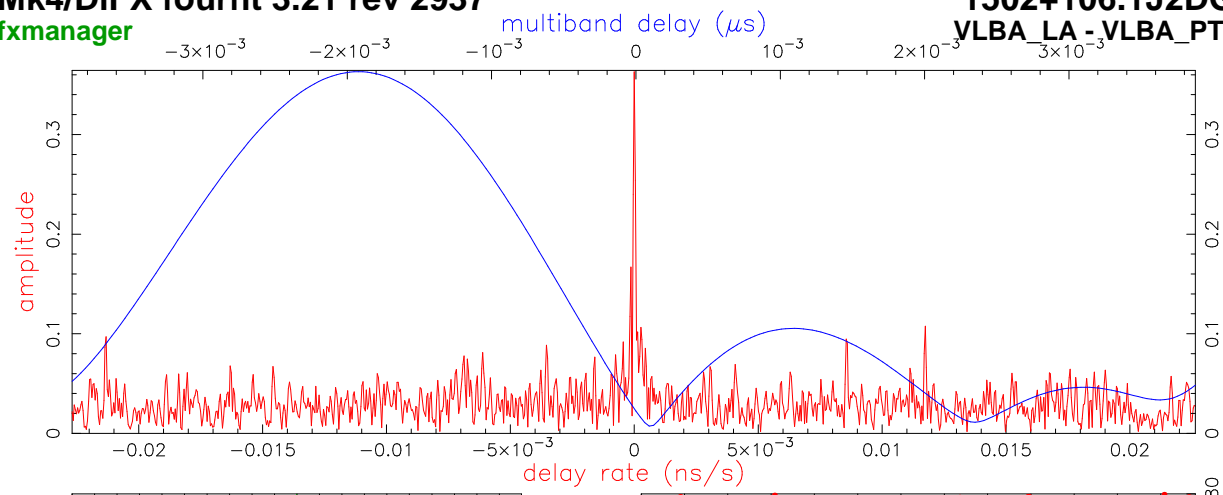
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
l	1000	1000	1000	1000		
p	1000	1000	1000	1000		
l:p	0:0	0:0	0:0	0:0		
lp	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000		
p	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec)(sbd)	4.88699926724E+01	Apriori delay (usec)	4.88746523287E+01	Resid mbdelay (usec)	3.15284E-03	+/-	1.1E-05
Sband delay (usec)	4.88701322037E+01	Apriori clock (usec)	-4.9851418E-01	Resid sbdelay (usec)	-4.52013E-03	+/-	4.3E-05
Phase delay (usec)	4.88746459488E+01	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-6.37994E-06	+/-	7.5E-08
Delay rate (us/s)	-4.66523614031E-02	Apriori rate (us/s)	-4.66523591341E-02	Resid rate (us/s)	-2.26896E-09	+/-	5.4E-10
Total phase (deg)	-85.8	Apriori accel (us/s/s)	1.66308908488E-07	Resid phase (deg)	-98.9	+/-	1.2

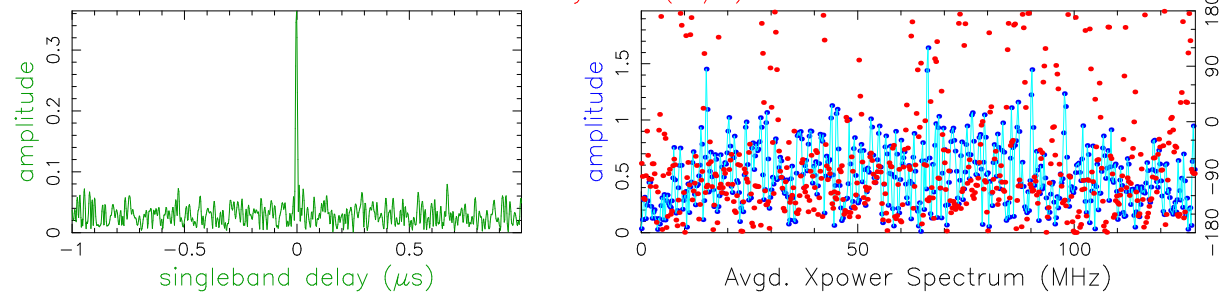
ph/seg (deg)	32.8	Theor.	3.8	Amplitude	2.341 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	26.4		6.6	Search (1024X16)	2.269	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	5.8		1.2	Inc. seg. avg.	2.694	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004
amp/frq (%)	2.2		2.0	Inc. frq. avg.	2.327	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	

l: az 131.0 el 55.5 pa -38.1 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 135.936 92.268 simultaneous interpolator

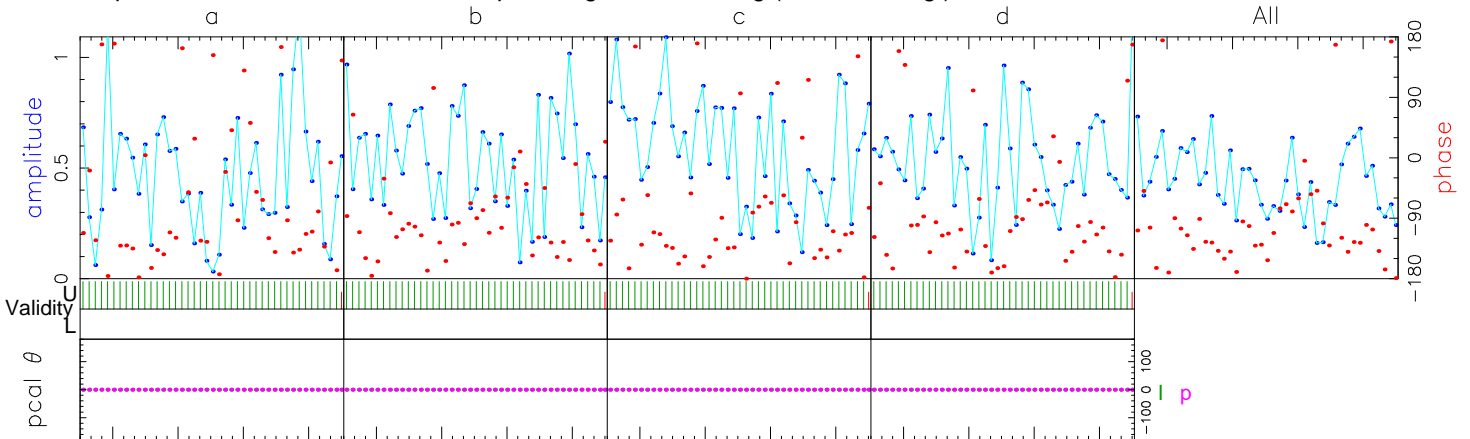
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/lp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/lp.Q.172.1J2DGP



Fringe quality 9
SNR 15.4
Int time 239.982
Amp 0.364
Phase -119.8
PFD 2.8e-45
Delays (us)
SBD -0.002360
MBD -0.001936
Fringe rate (Hz) 0.000025
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
-129.3	-108.7	-124.4	-119.3	Phase	-119.8
0.3	0.4	0.4	0.4	Ampl.	0.4
511.4	512.2	511.2	512.1	Sbd box	511.8
U/L 469/0	469/0	469/0	469/0	APs used	
l 1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	PC freqs	
l:p 0:0	0:0	0:0	0:0	PC phase	
lp 0:0	0:0	0:0	0:0	Manl PC	
l 1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000		
l Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	4.88727163287E+01	Apriori delay (usec)	4.88746523287E+01	Resid mbdelay (usec)	-1.93600E-03	+/- 7.2E-05
Sband delay (usec)	4.88722919537E+01	Apriori clock (usec)	-4.9851418E-01	Resid sbdelay (usec)	-2.36037E-03	+/- 2.8E-04
Phase delay (usec)	4.88746445994E+01	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-7.72925E-06	+/- 4.8E-07
Delay rate (us/s)	-4.66523585584E-02	Apriori rate (us/s)	-4.66523591341E-02	Resid rate (us/s)	5.75750E-10	+/- 3.5E-09
Total phase (deg)	-106.7	Apriori accel (us/s/s)	1.66308908488E-07	Resid phase (deg)	-119.8	+/- 7.4

ph/seg (deg)	RMS 40.9	Theor. 24.3	Amplitude	0.364 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	46.2	42.5	Search (1024X16)	0.363	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	10.8	7.4	Inc. seg. avg.	0.408	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	15.0	13.0	Inc. frq. avg.	0.363	Sample rate(MISamp/s): 256	mb window (us) -0.004 0.004
					Data rate(Mb/s): 2048	dr window (ns/s) -0.023 0.023
					nlags: 512	t_cohere infinite
						ion window (TEC) 0.00 0.00

l: az 131.0 el 55.5 pa -38.1 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 135.936 92.268 simultaneous interpolator

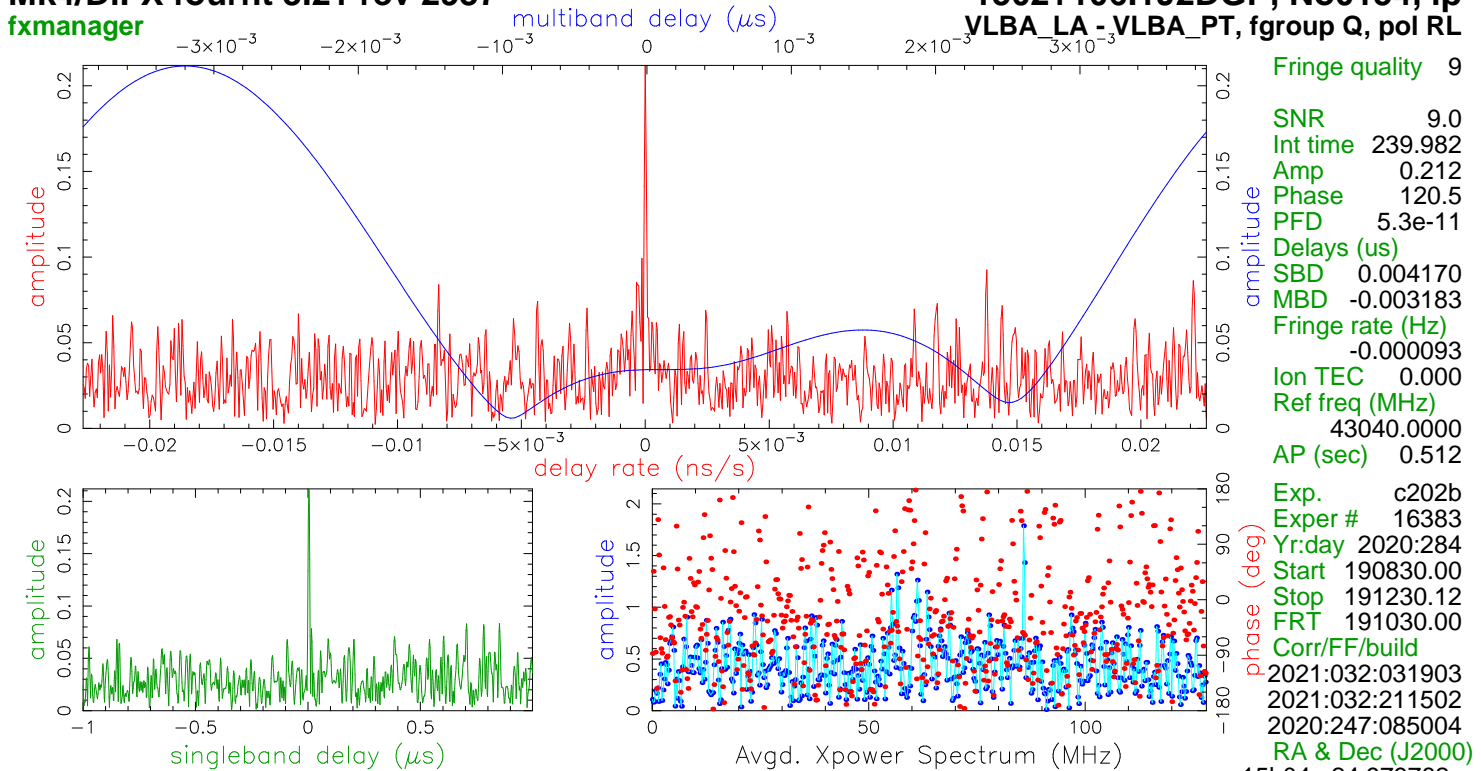
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/lp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/lp.Q.191.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, lp

VLBA_LA - VLBA_PT, fgroup Q, pol RL



Fringe quality 9

SNR 9.0

Int time 239.982

Ampl 0.212

Phase 120.5

PFD 5.3e-11

Delays (us)

SBD 0.004170

MBD -0.003183

Fringe rate (Hz)

-0.000093

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

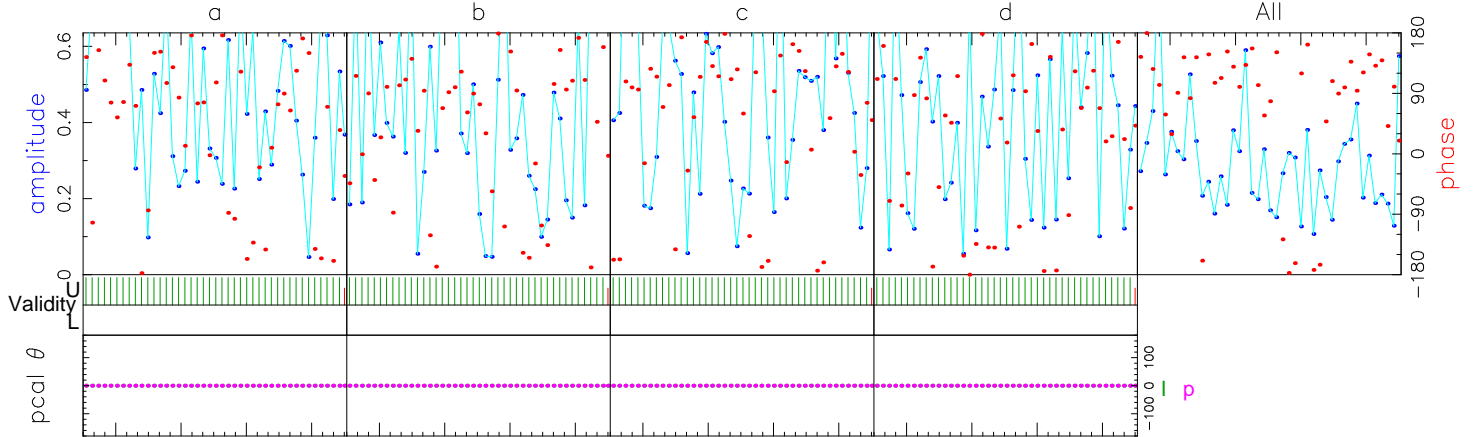
2020:247:085004

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



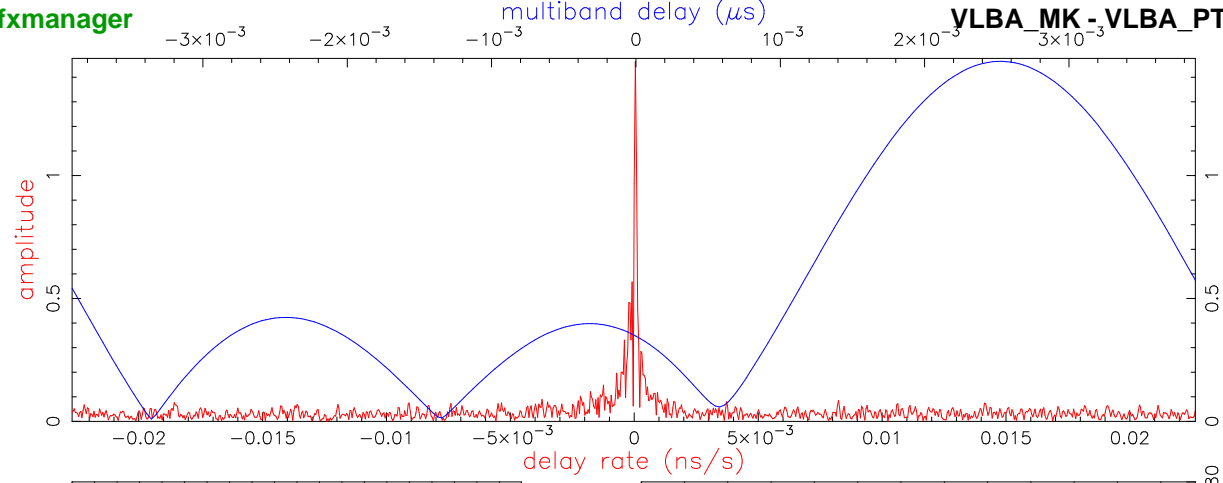
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	121.1	117.3	125.7	113.5	Phase	120.5
	0.2	0.2	0.3	0.1	Ampl.	0.2
	515.2	515.0	515.4	374.4	Sbd box	515.1
U/L	469/0	469/0	469/0	469/0	APs used	
l	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
l:p	0:0	0:0	0:0	0:0	PC phase	
l:p	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	4.88792817349E+01	Apriori delay (usec)	4.88746523287E+01	Resid mbdelay (usec)	-3.18309E-03	+/-	1.2E-04
Sband delay (usec)	4.88788225787E+01	Apriori clock (usec)	-4.9851418E-01	Resid sbdelay (usec)	4.17025E-03	+/-	4.8E-04
Phase delay (usec)	4.88746601055E+01	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	7.77684E-06	+/-	8.2E-07
Delay rate (us/s)	-4.66523613010E-02	Apriori rate (us/s)	-4.66523591341E-02	Resid rate (us/s)	-2.16686E-09	+/-	5.9E-09
Total phase (deg)	133.5	Apriori accel (us/s/s)	1.66308908488E-07	Resid phase (deg)	120.5	+/-	12.8

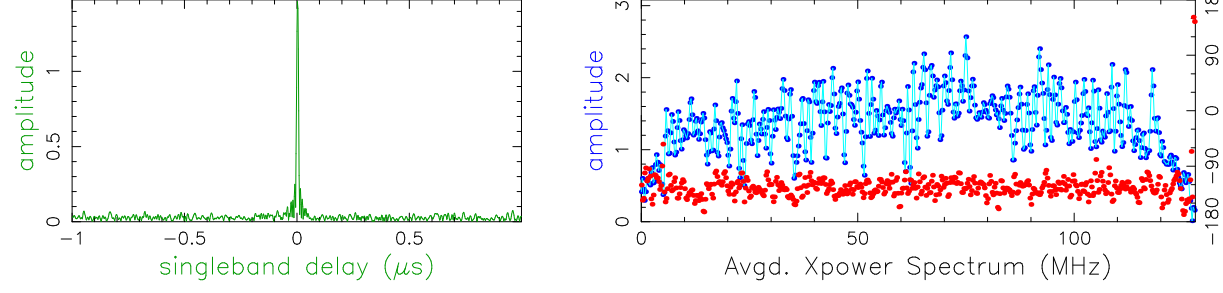
ph/seg (deg)	RMS 46.9	Theor. 41.9	Amplitude	0.212 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	76.0	73.0	Search (1024X16)	0.208	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	6.6	12.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	24.8	22.3	Inc. seg. avg.	0.233	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
			Inc. frq. avg.	0.207	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 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 135.936 92.268 simultaneous interpolator

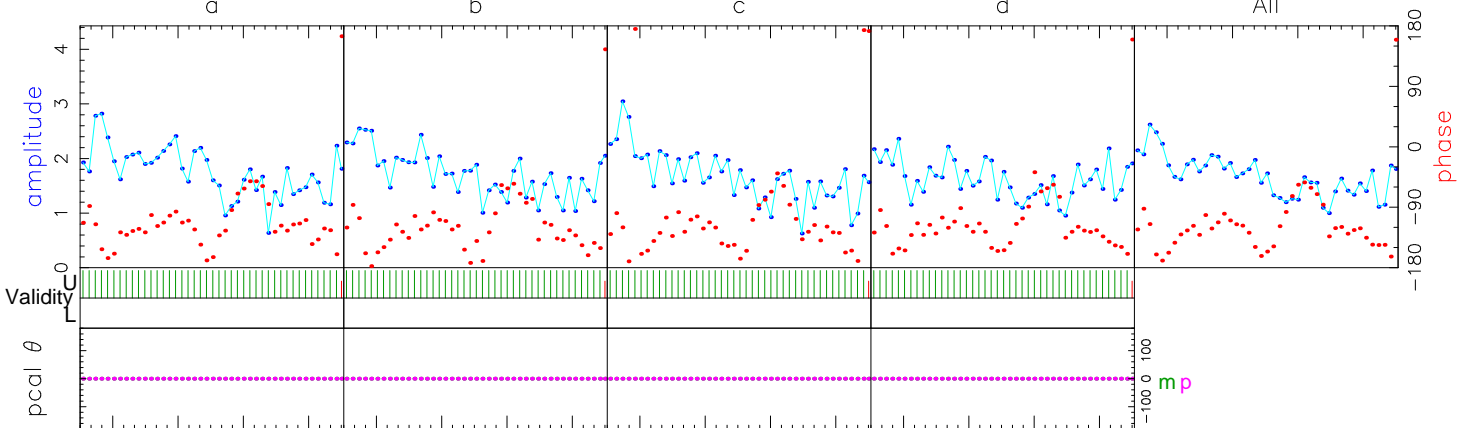
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/lp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/lp.Q.209.1J2DGP



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
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	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UL	Q01UL	Q02UL	Q03UL		

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

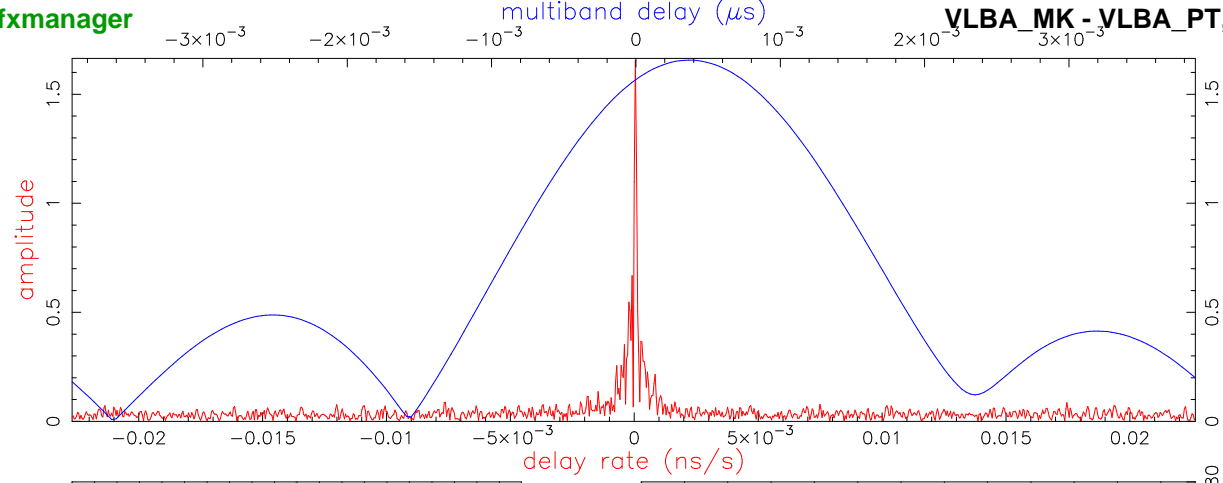
ph/seg (deg)	30.4	Theor.	6.0	Amplitude	1.476 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	28.2		10.5	Search (1024X16)	1.405	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	3.4		1.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	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	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

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, mp

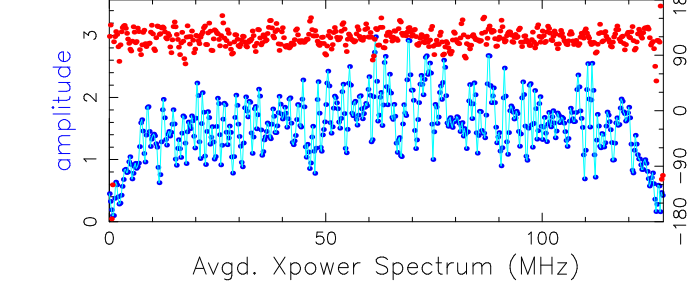
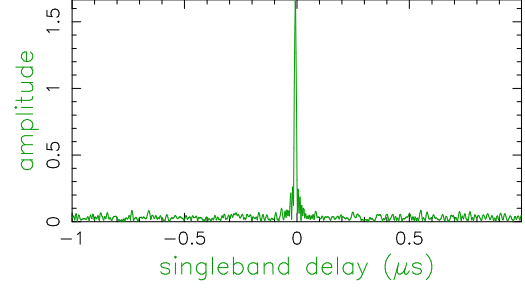
VLBA_MK - VLBA_PT, fgroup Q, pol RR



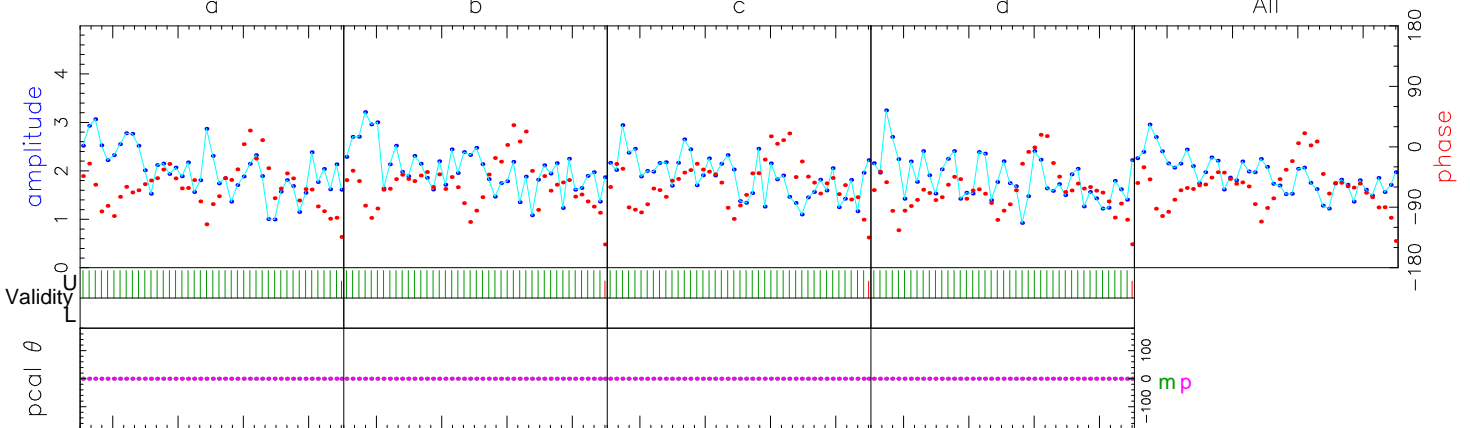
Fringe quality 6

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



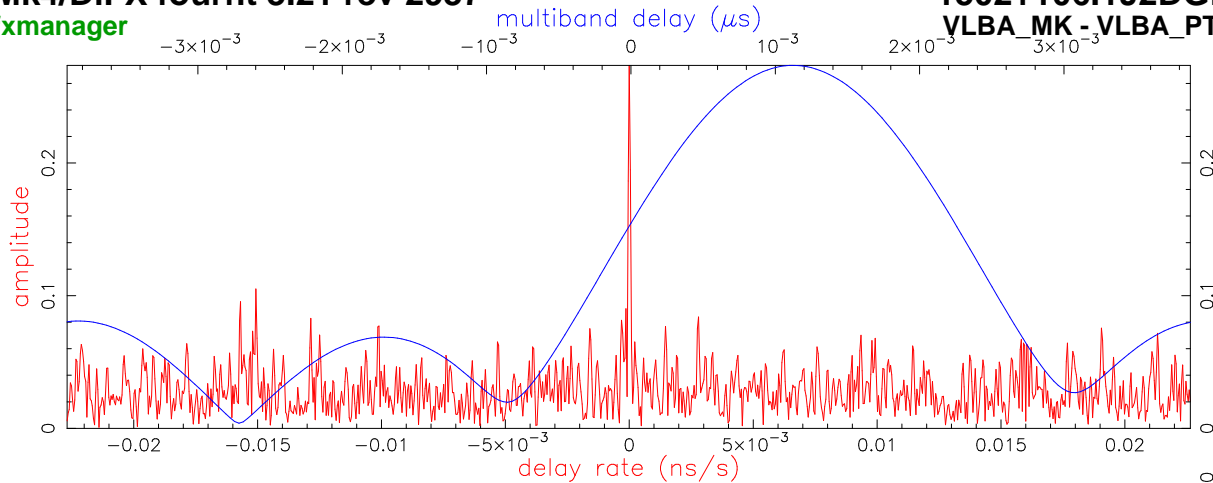
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m:p	0:0	0:0	0:0	0:0		
m:p	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UR	Q01UR	Q02UR	Q03UR		

	42912.00	43040.00	43168.00	43296.00	Resid mbdelay (usec)	3.95182E-04	+/- 1.6E-05
Group delay (usec)(sbd)	-1.09500993946E+04		-1.09500919773E+04				
Sband delay (usec)	-1.09500993081E+04		1.3276892E+01		Resid sbdelay (usec)	-7.33075E-03	+/- 6.1E-05
Phase delay (usec)	-1.09500919812E+04		-2.9999999E-07		Resid phdelay (usec)	-3.84477E-06	+/- 1.0E-07
Delay rate (us/s)	8.10613286297E-01		8.10613256693E-01		Resid rate (us/s)	2.96043E-08	+/- 7.6E-10
Total phase (deg)		-313.0	5.37189993237E-05		Resid phase (deg)	-59.6	+/- 1.6

	RMS	Theor.	Amplitude	1.665 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	31.3	5.3	Search (1024X16)	1.584	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	26.7	9.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	6.1	1.6	Inc. seg. avg.	1.914	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 t_cohere infinite ion window (TEC) 0.00 0.00

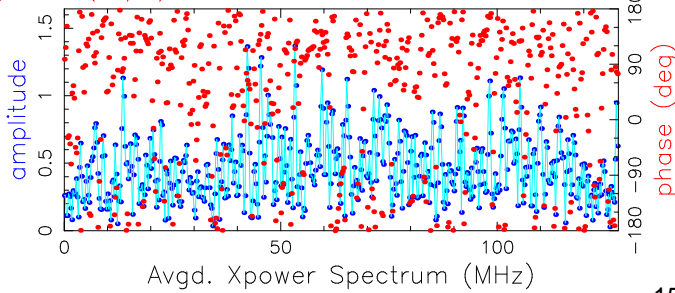
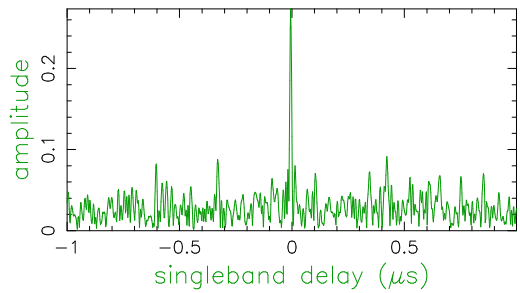
m: az 85.0 el 17.5 pa -72.4 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -2335.896 -581.203 simultaneous interpolator

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.183.1J2DGP



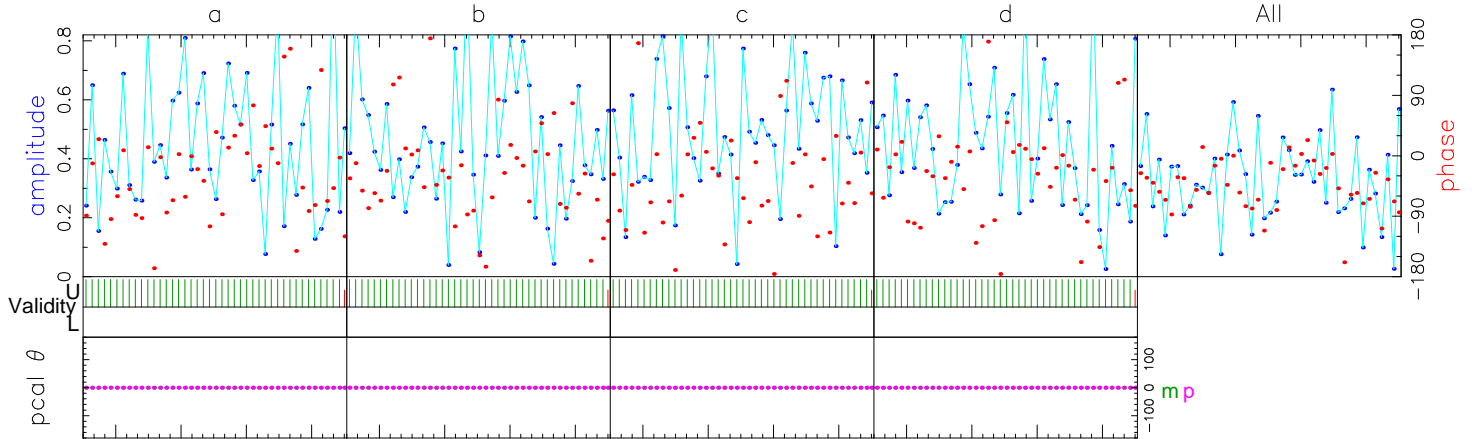
Fringe quality 9

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



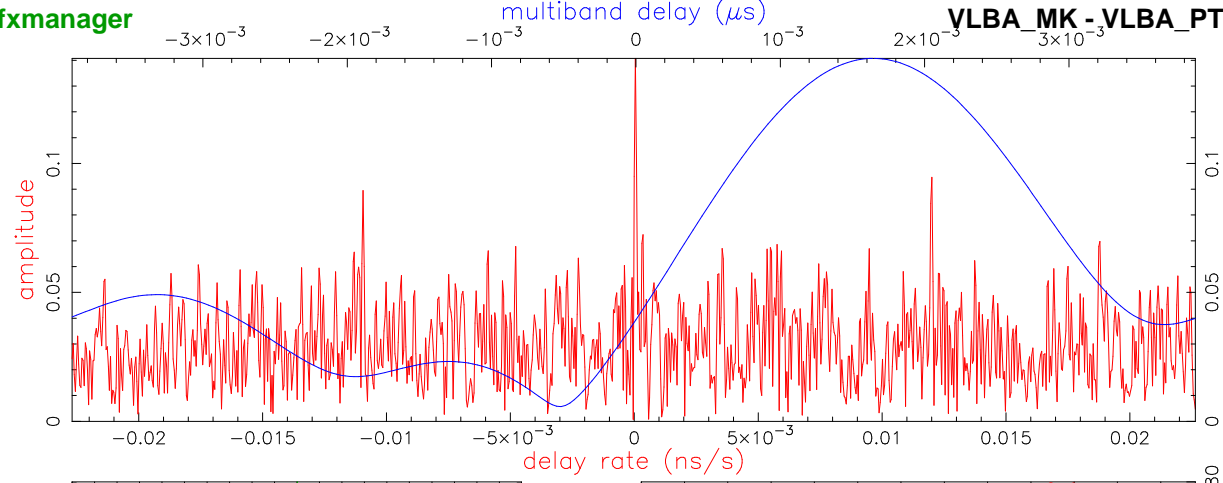
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-30.7	-42.0	-45.4	-29.4	Phase	-37.0
	0.3	0.3	0.3	0.3	Ampl.	0.3
	510.6	509.9	509.6	510.2	Sbd box	510.0
U/L	469/0	469/0	469/0	469/0	APs used	
m	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
m:p	0:0	0:0	0:0	0:0	PC phase	
m:p	0:0	0:0	0:0	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

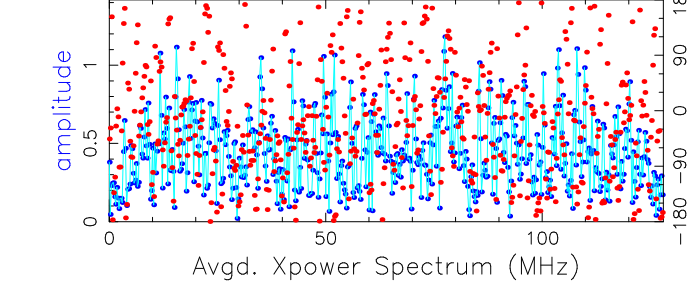
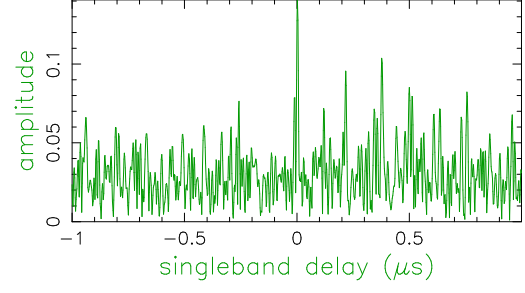
ph/seg (deg)	RMS 37.6	Theor. 32.4	Amplitude	0.274 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	37.6	32.4	Search (1024X16)	0.254	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	55.0	56.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
amp/frq (%)	9.8	9.9	Inc. seg. avg.	0.283	Sample rate(MSamp/s): 256		dr window (ns/s)	-0.023	0.023	
	3.6	17.3	Inc. frq. avg.	0.272	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 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -2335.896 -581.203 simultaneous interpolator

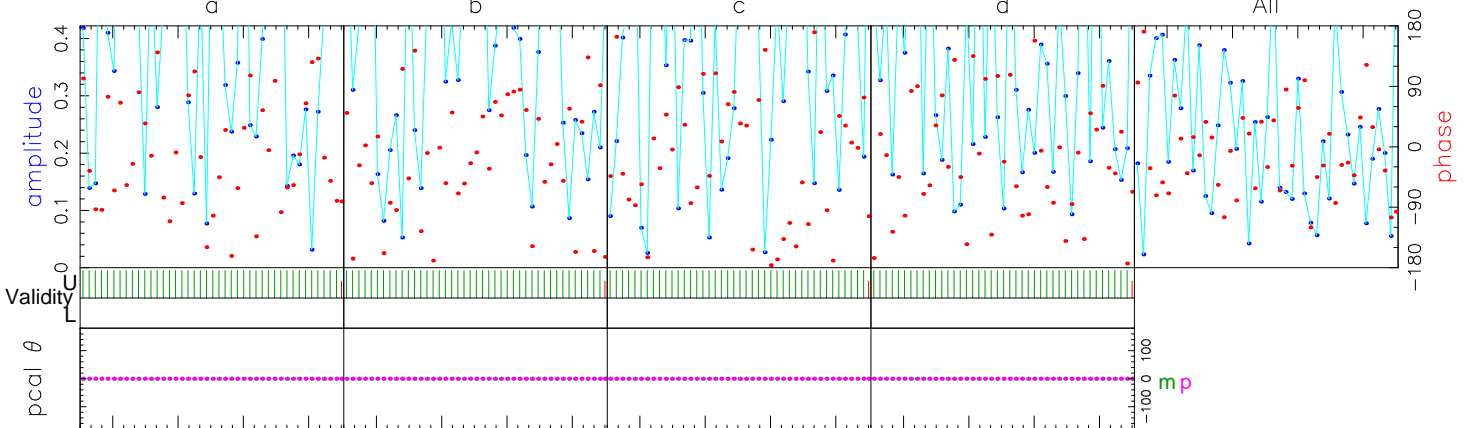
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/mp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/mp.Q.198.1J2DGP



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



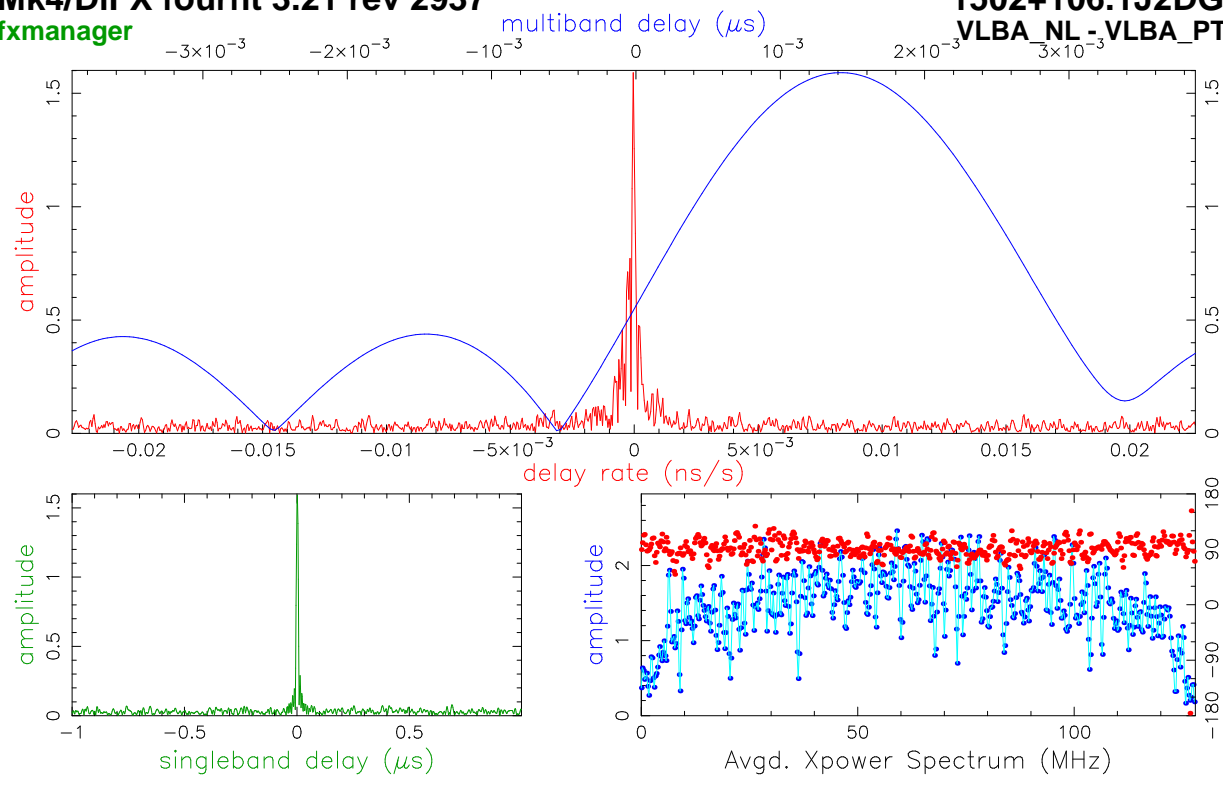
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m:p	0:0	0:0	0:0	0:0		
m:p	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UL	Q01UL	Q02UL	Q03UL		

	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
Group delay (usec)(sbd)	-1.09500903331E+04	-1.09500919786E+04	-1.09500919773E+04	-1.09500919773E+04		
Sband delay (usec)	-1.09500900318E+04	-1.09500919786E+04	-1.09500919773E+04	-1.09500919773E+04		
Phase delay (usec)	-1.09500919786E+04	-1.09500919786E+04	-1.09500919773E+04	-1.09500919773E+04		
Delay rate (us/s)	8.10613290347E-01	8.10613256693E-01	8.10613256693E-01	8.10613256693E-01		
Total phase (deg)		-273.2				

	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
Phase	-28.6	-4.6	-23.0	-26.8		-19.8
Ampl.	0.2	0.2	0.1	0.1		0.1
Sbd box	401.5	739.9	533.3	864.7		514.0
APs used	469/0	469/0	469/0	469/0		
PC freqs	1000	1000	1000	1000		
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		
Chan ids						
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 63.0 Amplitude 0.141 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 115.1 110.0 Search (1024X16) 0.137 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 13.6 19.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
 amp/frq (%) 27.8 33.5 Inc. seg. avg. 0.146 Sample rate(MISamp/s): 256 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite dr window (ns/s) -0.023 0.023
 m: az 85.0 el 17.5 pa -72.4 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

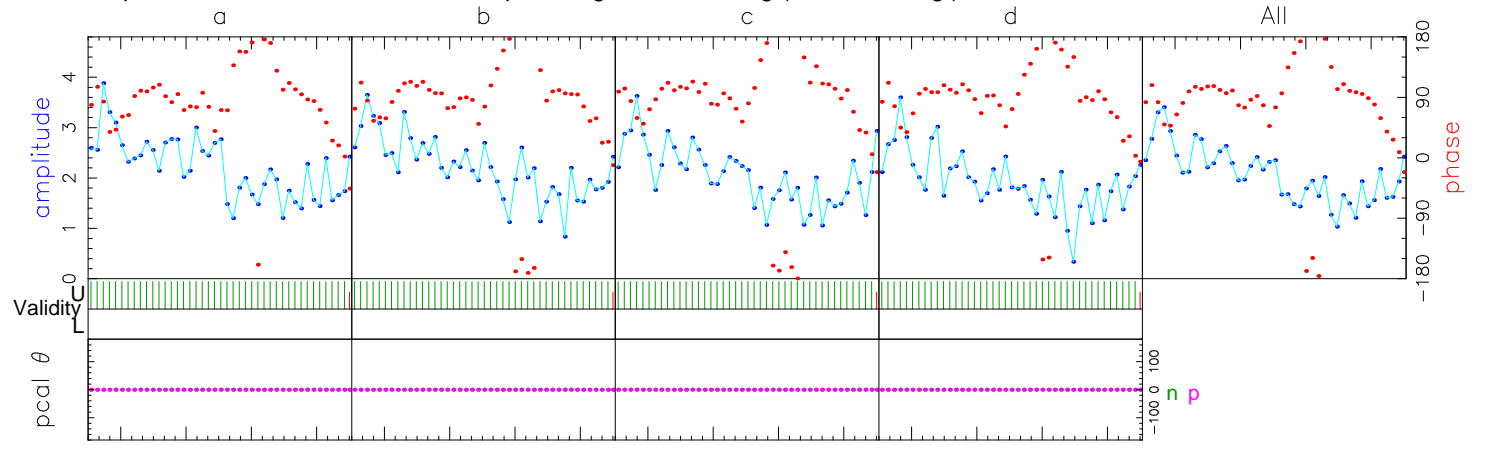


Fringe quality 5

SNR 67.8
Int time 239.982
Amp 1.601
Phase 91.0
PFD 0.0e+00
Delays (us)
SBD 0.001401
MBD 0.001396
Fringe rate (Hz)
-0.002655
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

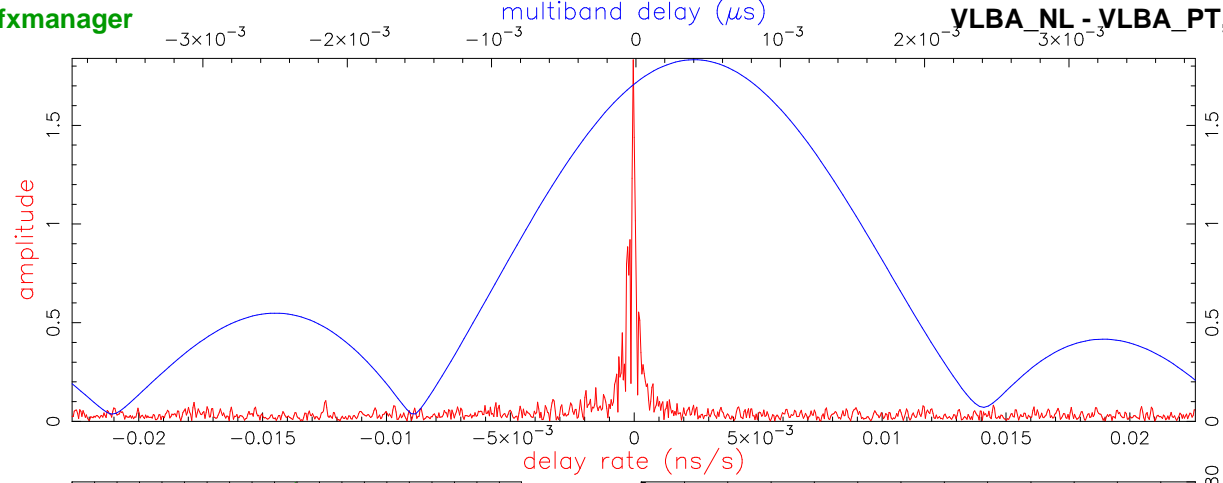
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211457
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

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

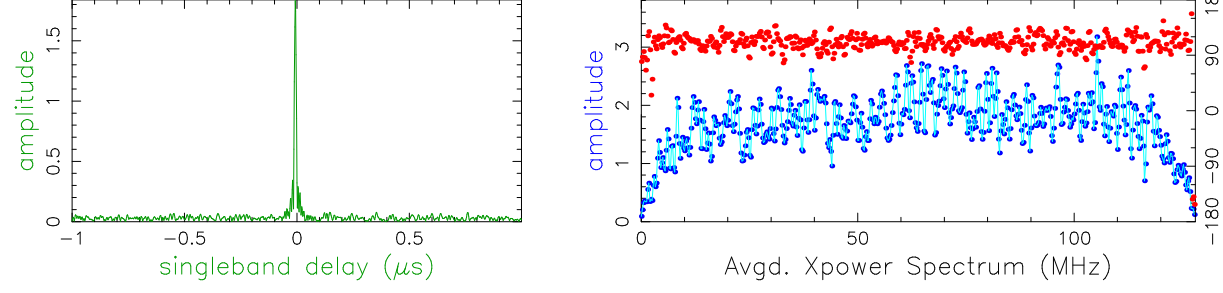


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
n	1000	1000	1000	1000		
p	1000	1000	1000	1000		
n:p	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000		
p	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UL	Q01UL	Q02UL	Q03UL		
Group delay (usec)(sbd)	3.39195983242E+02	3.39195983242E+02	3.39195983242E+02	3.39195983242E+02	Resid mbdelay (usec)	1.39641E-03 +/- 1.6E-05
Sband delay (usec)	3.39195988329E+02	3.39195988329E+02	3.39195988329E+02	3.39195988329E+02	Resid sbdelay (usec)	1.40150E-03 +/- 6.3E-05
Phase delay (usec)	3.39194592700E+02	3.39194592700E+02	3.39194592700E+02	3.39194592700E+02	Resid phdelay (usec)	5.87037E-06 +/- 1.1E-07
Delay rate (us/s)	-3.66249240720E-01	-3.66249240720E-01	-3.66249240720E-01	-3.66249240720E-01	Resid rate (us/s)	-6.16932E-08 +/- 7.9E-10
Total phase (deg)		97.1			Resid phase (deg)	91.0 +/- 1.7

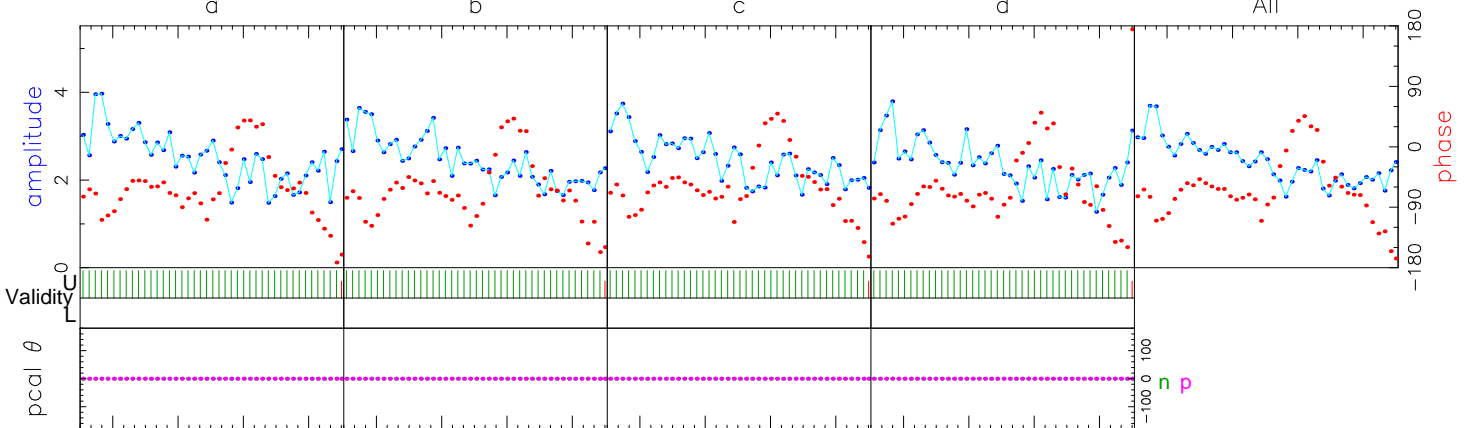
ph/seg (deg) 45.2 5.5 Search (1024X16) 1.601 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 44.9 9.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 5.7 1.7 Inc. seg. avg. 2.069 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
amp/frq (%) 6.1 2.9 Inc. frq. avg. 1.594 Sample rate(MISamp/s): 256 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite dr window (ns/s) -0.023 0.023
n: az 159.6 el 57.2 pa -15.1 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 1066.336 444.350 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/np..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/np.Q.167.1J2DGP



Fringe quality 5
SNR 77.9
Int time 239.982
Amp 1.839
Phase -68.3
PFD 0.0e+00
Delays (us)
SBD -0.007382
MBD 0.000422
Fringe rate (Hz)
-0.002682
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
-68.0	-69.5	-62.7	-73.6	Phase	-68.3
1.9	1.8	1.9	1.7	Ampl.	1.8
509.1	509.2	509.3	509.2	Sbd box	509.2
U/L 469/0	469/0	469/0	469/0	APs used	
n 1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	PC freqs	
n:p 0:0	0:0	0:0	0:0	PC phase	
n:p 0:0	0:0	0:0	0:0	Manl PC	
n 1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000		
n Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	3.39187196523E+02	Apriori delay (usec)	3.39194586829E+02	Resid mbdelay (usec)	4.22193E-04 +/- 1.4E-05
Sband delay (usec)	3.39187205079E+02	Apriori clock (usec)	9.1703415E-02	Resid sbdelay (usec)	-7.38175E-03 +/- 5.5E-05
Phase delay (usec)	3.39194582420E+02	Apriori clockrate (us/s)	1.0000003E-07	Resid phdelay (usec)	-4.40910E-06 +/- 9.5E-08
Delay rate (us/s)	-3.66249241335E-01	Apriori rate (us/s)	-3.66249179027E-01	Resid rate (us/s)	-6.23086E-08 +/- 6.8E-10
Total phase (deg)	-62.1	Apriori accel (us/s/s)	2.86136324675E-07	Resid phase (deg)	-68.3 +/- 1.5

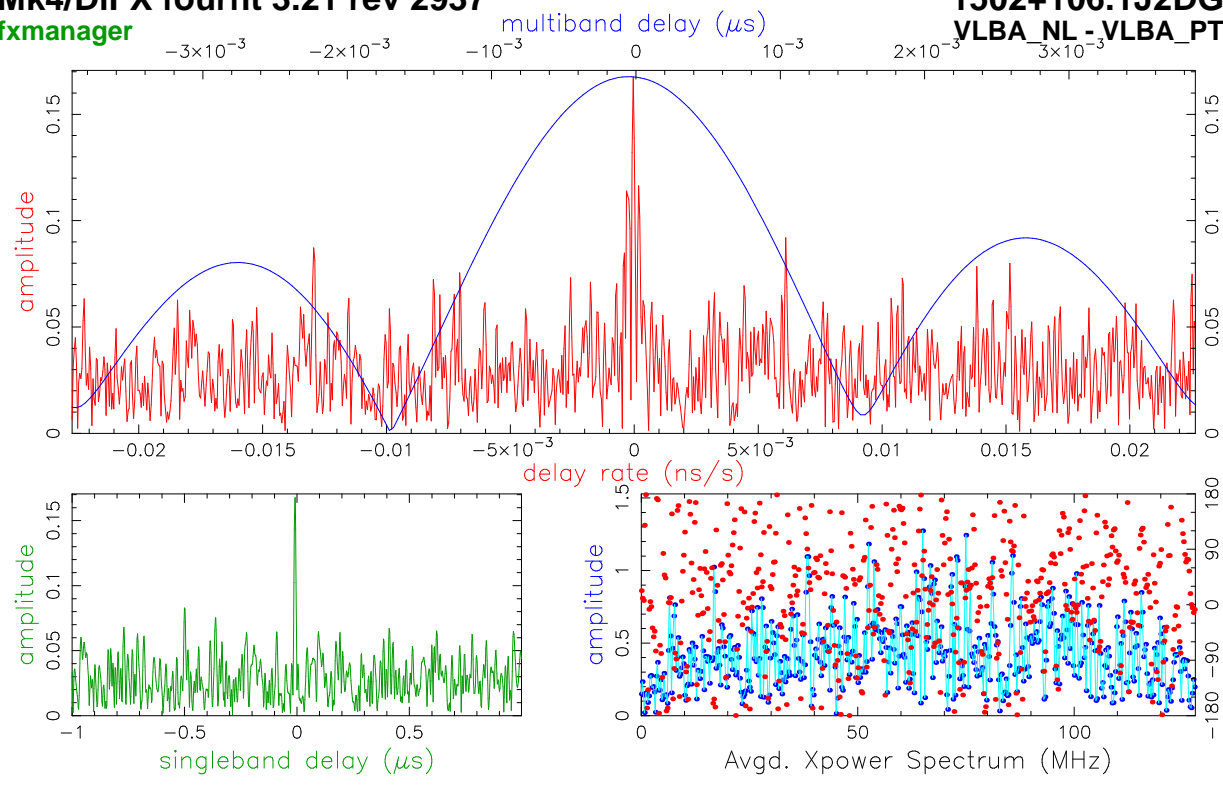
ph/seg (deg) 46.0 4.8 Search (1024X16) 1.744 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 41.1 8.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 5.5 1.5 Inc. seg. avg. 2.414 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
amp/frq (%) 3.3 2.6 Inc. frq. avg. 1.836 Sample rate(MISamp/s): 256 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite dr window (ns/s) -0.023 0.023
n: az 159.6 el 57.2 pa -15.1 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 1066.336 444.350 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/np..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/np.Q.185.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, np

VLBA_NL - VLBA_PT, fgroup Q, pol LR

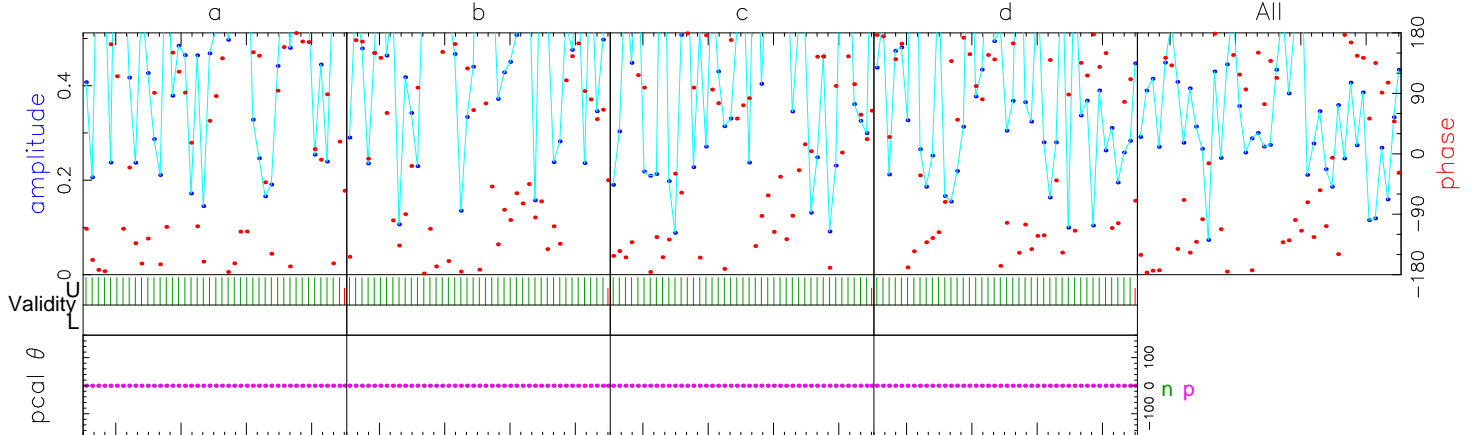


Fringe quality 9

SNR 7.2
 Int time 239.982
 Amp 0.171
 Phase -171.7
 PFD 7.5e-05
 Delays (us)
 SBD -0.008749
 MBD -0.000067
 Fringe rate (Hz)
 -0.001672
 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
	-175.8	-164.1	-173.7	-171.5	Phase	-171.7
	0.2	0.1	0.1	0.2	Ampl.	0.2
	508.9	149.6	964.3	508.7	Sbd box	508.5
U/L	469/0	469/0	469/0	469/0	APs used	
n	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
n:p	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	3.39186707617E+02	Apriori delay (usec)	3.39194586829E+02	Resid mbdelay (usec)	-6.67128E-05	+/- 1.5E-04
Sband delay (usec)	3.39185838204E+02	Apriori clock (usec)	9.1703415E-02	Resid sbdelay (usec)	-8.74863E-03	+/- 6.0E-04
Phase delay (usec)	3.39194575746E+02	Apriori clockrate (us/s)	1.0000003E-07	Resid phdelay (usec)	-1.10837E-05	+/- 1.0E-06
Delay rate (us/s)	-3.66249217874E-01	Apriori rate (us/s)	-3.66249179027E-01	Resid rate (us/s)	-3.88475E-08	+/- 7.4E-09
Total phase (deg)	-165.6	Apriori accel (us/s/s)	2.86136324675E-07	Resid phase (deg)	-171.7	+/- 15.9

ph/seg (deg)	RMS 74.5	Theor. 52.0	Amplitude	0.171 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	122.7	90.7	Search (1024X16)	0.168	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	6.3	15.9	Inc. seg. avg.	0.238	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	34.1	27.7	Inc. frq. avg.	0.162	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00

n: az 159.6 el 57.2 pa -15.1 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 1066.336 444.350 simultaneous interpolator

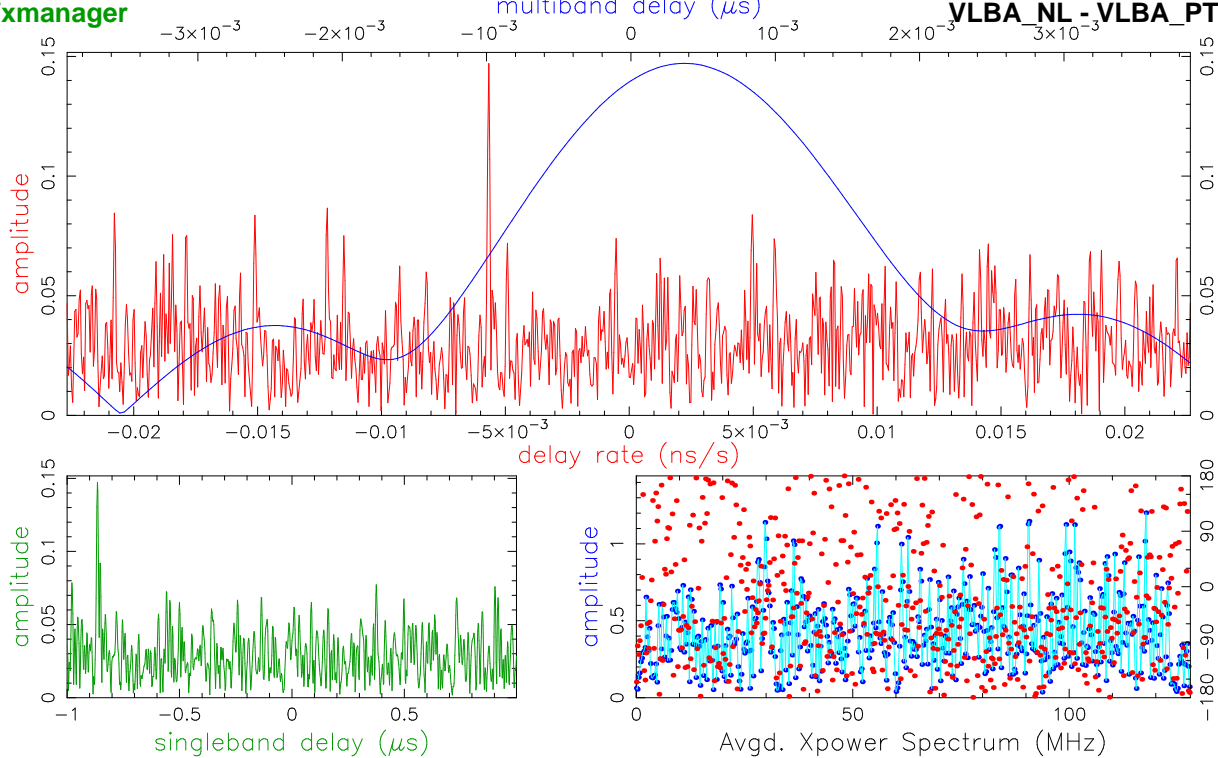
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/np..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/np.Q.204.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1502+106.1J2DGP, No0154, np

VLBA_NL - VLBA_PT, fgroup Q, pol RL

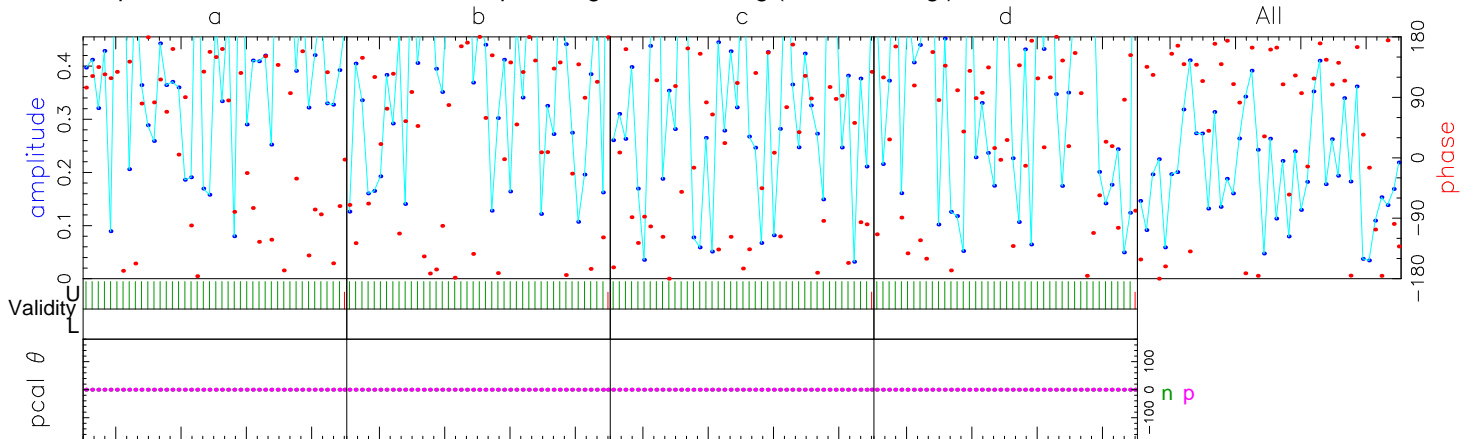


Fringe quality 0

SNR 6.3
 Int time 239.982
 Amp 0.152
 Phase 153.4
 PFD 5.0e-02
 Delays (us)
 SBD -0.864739
 MBD 0.000401
 Fringe rate (Hz)
 -0.244023
 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
 2021:032:211504
 2020:247:085004
 RA & Dec (J2000)
 15h04m24.979782s
 +10°29'39.198559"

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



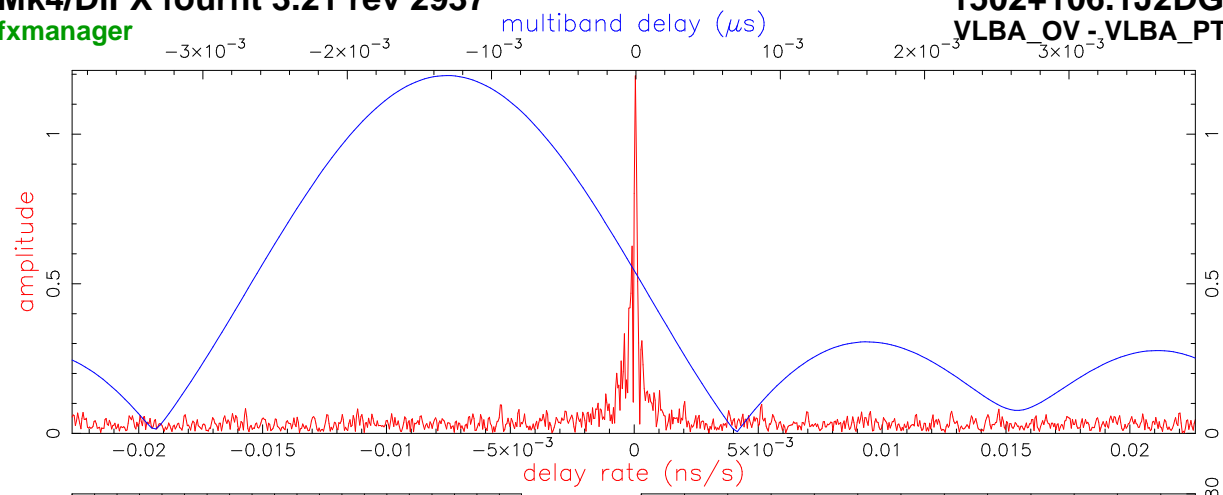
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
n	1000	1000	1000	1000		
p	1000	1000	1000	1000		
n:p	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000		
p	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UL	Q01UL	Q02UL	Q03UL		

	3.38327799873E+02	3.39194596732E+02	3.39194586829E+02	3.39194586829E+02	4.00544E-04	+/- 1.8E-04
Group delay (usec)(sbd)	3.38327799873E+02	3.39194596732E+02	3.39194586829E+02	3.39194586829E+02	4.00544E-04	+/- 1.8E-04
Sband delay (usec)	3.38329847579E+02	3.39194596732E+02	9.1703415E-02	9.1703415E-02	-8.64739E-01	+/- 6.9E-04
Phase delay (usec)	3.39194596732E+02	3.39194596732E+02	1.0000003E-07	1.0000003E-07	9.90276E-06	+/- 1.2E-06
Delay rate (us/s)	-3.66254848716E-01	-3.66254848716E-01	-3.66249179027E-01	-3.66249179027E-01	-5.66969E-06	+/- 8.5E-09
Total phase (deg)		159.6	2.86136324675E-07	2.86136324675E-07	153.4	+/- 18.3

	RMS	Theor.	Amplitude	0.152 +/- 0.024	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	65.7	60.0	Search (1024X16)	0.145	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	79.5	104.7	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.004 0.004
ph/frq (deg)	5.9	18.3	Inc. seg. avg.	0.138	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	29.0	31.9	Inc. frq. avg.	0.144	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

n: az 159.6 el 57.2 pa -15.1 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 1066.336 444.350 simultaneous interpolator

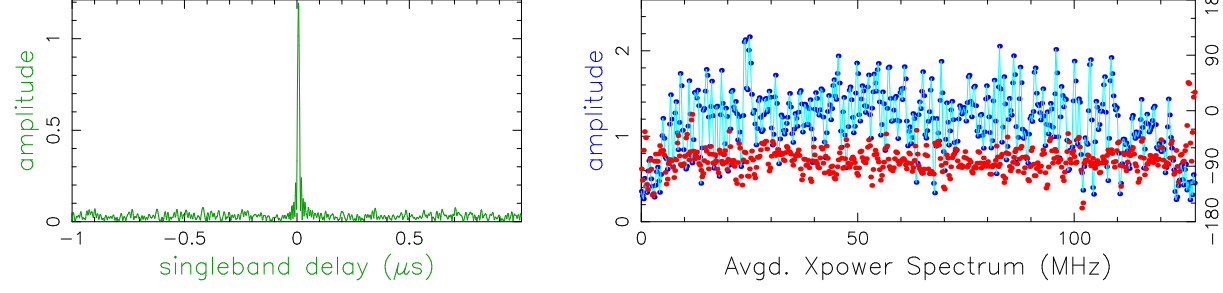
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/np..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/np.Q.220.1J2DGP



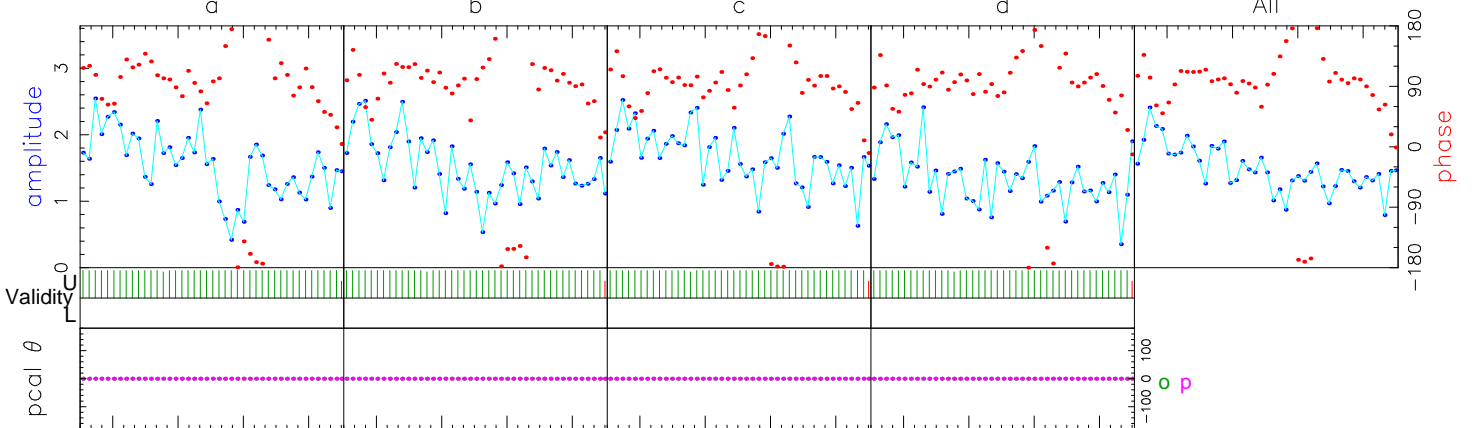
Fringe quality 8

SNR 51.4
Int time 239.711
Amp 1.213
Phase 101.5
PFD 0.0e+00
Delays (us)
SBD 0.006673
MBD -0.001271
Fringe rate (Hz)
0.001747
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

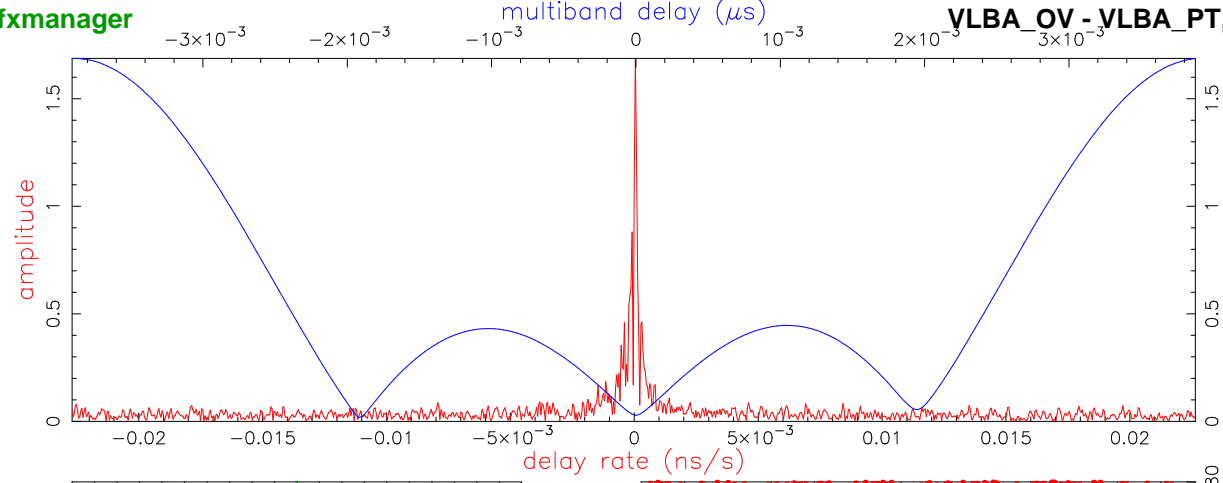


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
o	1000	1000	1000	1000	APs used	
p	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
o	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UL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

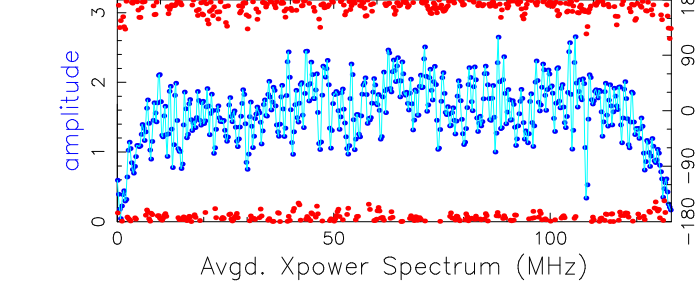
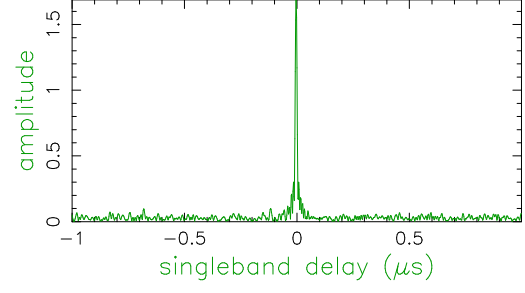
Group delay (usec)(sbd)	-1.94705450017E+03	Apriori delay (usec)	-1.94706104210E+03	Resid mbdelay (usec)	-1.27057E-03	+/-	2.2E-05
Sband delay (usec)	-1.94705436935E+03	Apriori clock (usec)	2.1302486E+01	Resid sbdelay (usec)	6.67275E-03	+/-	8.4E-05
Phase delay (usec)	-1.94706103555E+03	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	6.55275E-06	+/-	1.4E-07
Delay rate (us/s)	1.61772588482E-01	Apriori rate (us/s)	1.61772547882E-01	Resid rate (us/s)	4.06003E-08	+/-	1.0E-09
Total phase (deg)	10.8	Apriori accel (us/s/s)	1.13109071940E-05	Resid phase (deg)	101.5	+/-	2.2

ph/seg (deg)	RMS	Theor.	Amplitude	1.213 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	40.1	7.3	Search (1024X16)	1.181	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	36.2	12.8	Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	3.3	2.2	Inc. seg. avg.	1.486	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00
	8.0	3.9	Inc. frq. avg.	1.195					

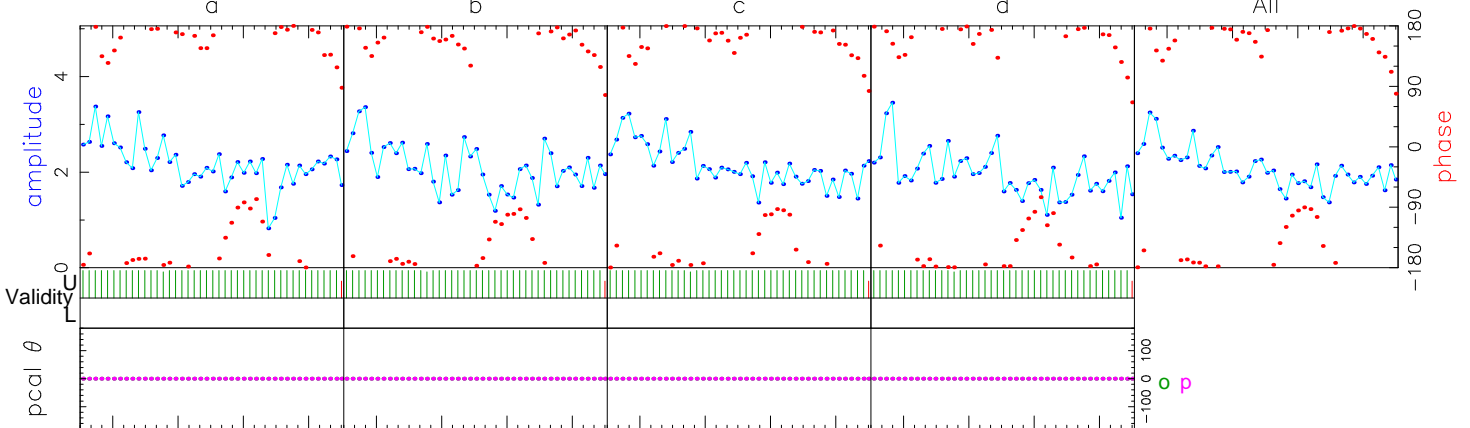
o: az 118.4 el 46.7 pa -45.1 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -465.360 263.420 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/op..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/op.Q.163.1J2DGP



Fringe quality 6
SNR 71.5
Int time 239.711
Amp 1.688
Phase 178.0
PFD 0.0e+00
Delays (us)
SBD -0.003846
MBD -0.003890
Fringe rate (Hz) 0.001684
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		
o	1000	1000	1000	1000	APs used	
p	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
o	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.94706493186E+03	Apriori delay (usec)	-1.94706104210E+03	Resid mbdelay (usec)	-3.88976E-03	+/-	1.6E-05
Sband delay (usec)	-1.94706488798E+03	Apriori clock (usec)	2.1302486E+01	Resid sbdelay (usec)	-3.84587E-03	+/-	6.0E-05
Phase delay (usec)	-1.94706103062E+03	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	1.14852E-05	+/-	1.0E-07
Delay rate (us/s)	1.61772587002E-01	Apriori rate (us/s)	1.61772547882E-01	Resid rate (us/s)	3.91198E-08	+/-	7.5E-10
Total phase (deg)		Apriori accel (us/s/s)	1.13109071940E-05	Resid phase (deg)	178.0	+/-	1.6

	RMS	Theor.	Amplitude	1.688 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	39.6	5.3	Search (1024X16)	1.678	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/seg (%)	33.2	9.2	Interp.	0.000	Sample rate(MISamp/s): 256	nlags: 512	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	2.3	1.6	Inc. seg. avg.	2.078	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	3.0	2.8	Inc. frq. avg.	1.688					

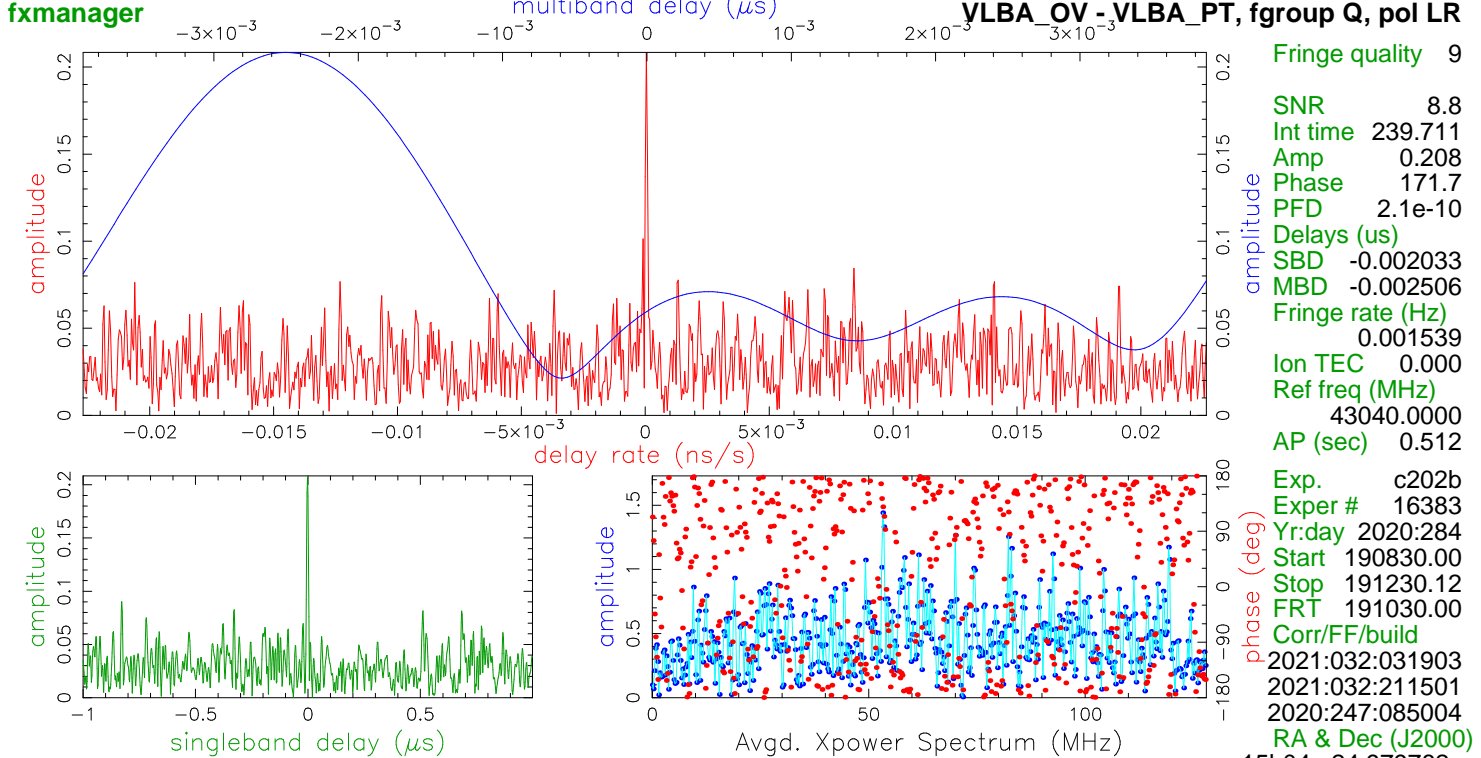
o: az 118.4 el 46.7 pa -45.1 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -465.360 263.420 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/op..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/op.Q.178.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

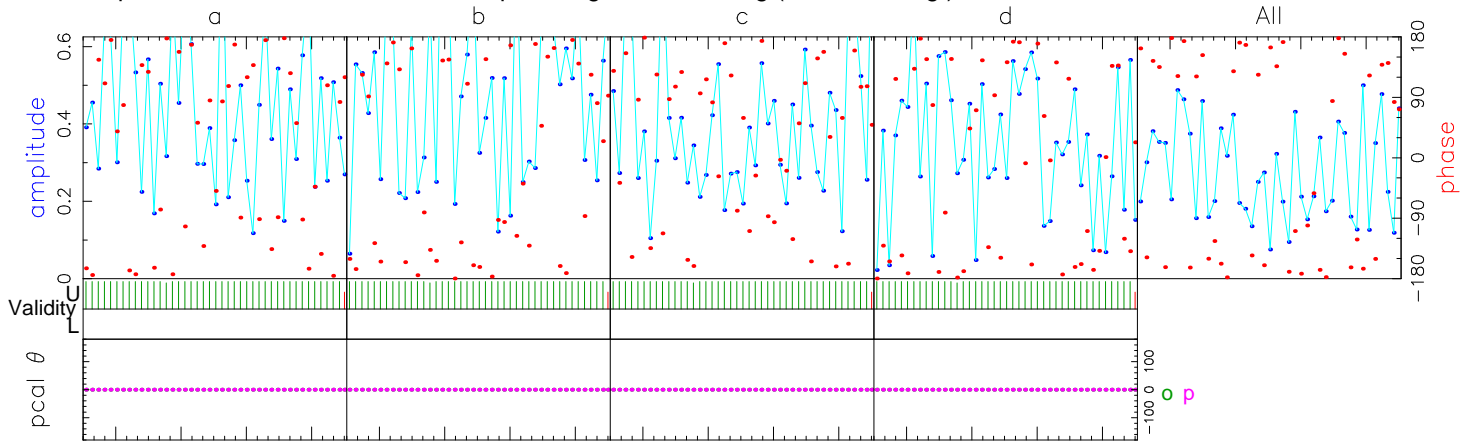
fxmanager

1502+106.1J2DGP, No0154, op

VLBA_OV - VLBA_PT, fgroup Q, pol LR



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



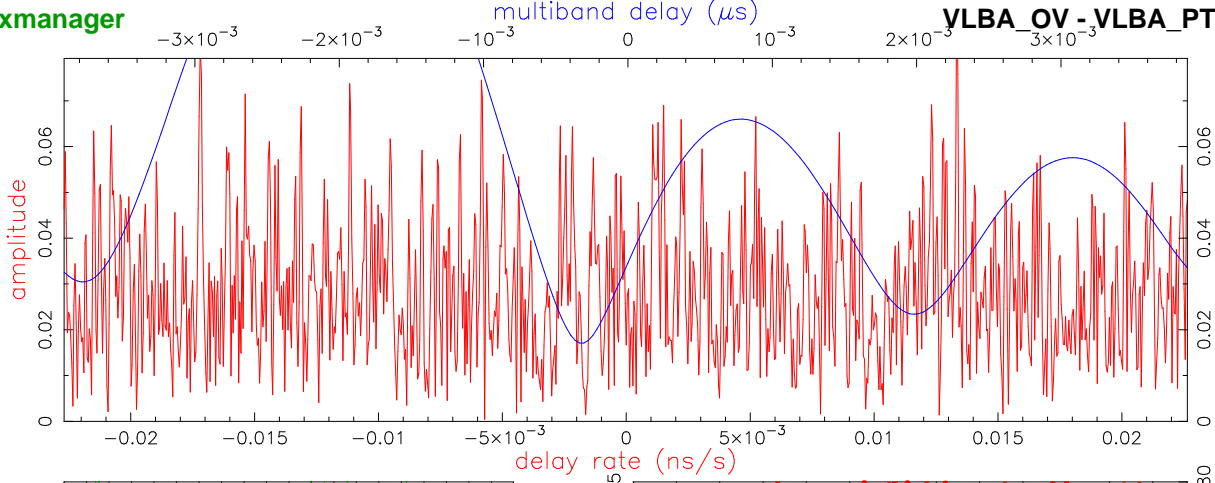
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	173.3	172.0	160.6	176.3	Phase	171.7
	0.2	0.3	0.1	0.2	Ampl.	0.2
	557.4	511.7	416.8	512.6	Sbd box	512.0
U/L	469/0	469/0	469/0	469/0	APs used	
o	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
o	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.94706354811E+03	Apriori delay (usec)	-1.94706104210E+03	Resid mbdelay (usec)	-2.50601E-03	+/- 1.3E-04
Sband delay (usec)	-1.94706307510E+03	Apriori clock (usec)	2.1302486E+01	Resid sbdelay (usec)	-2.03300E-03	+/- 4.9E-04
Phase delay (usec)	-1.94706103102E+03	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	1.10828E-05	+/- 8.4E-07
Delay rate (us/s)	1.61772583647E-01	Apriori rate (us/s)	1.61772547882E-01	Resid rate (us/s)	3.57646E-08	+/- 6.0E-09
Total phase (deg)	81.0	Apriori accel (us/s/s)	1.13109071940E-05	Resid phase (deg)	171.7	+/- 13.0

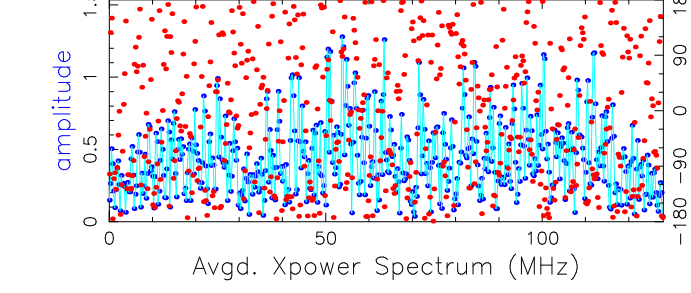
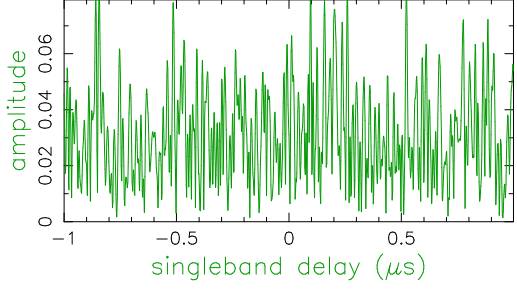
	RMS	Theor.	Amplitude	0.208 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	46.6	42.6	Search (1024X16)	0.205	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	67.6	74.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004
ph/frq (deg)	8.6	13.0	Inc. seg. avg.	0.218	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023
amp/frq (%)	28.1	22.7	Inc. frq. avg.	0.204	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC) 0.00 0.00

o: az 118.4 el 46.7 pa -45.1 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -465.360 263.420 simultaneous interpolator

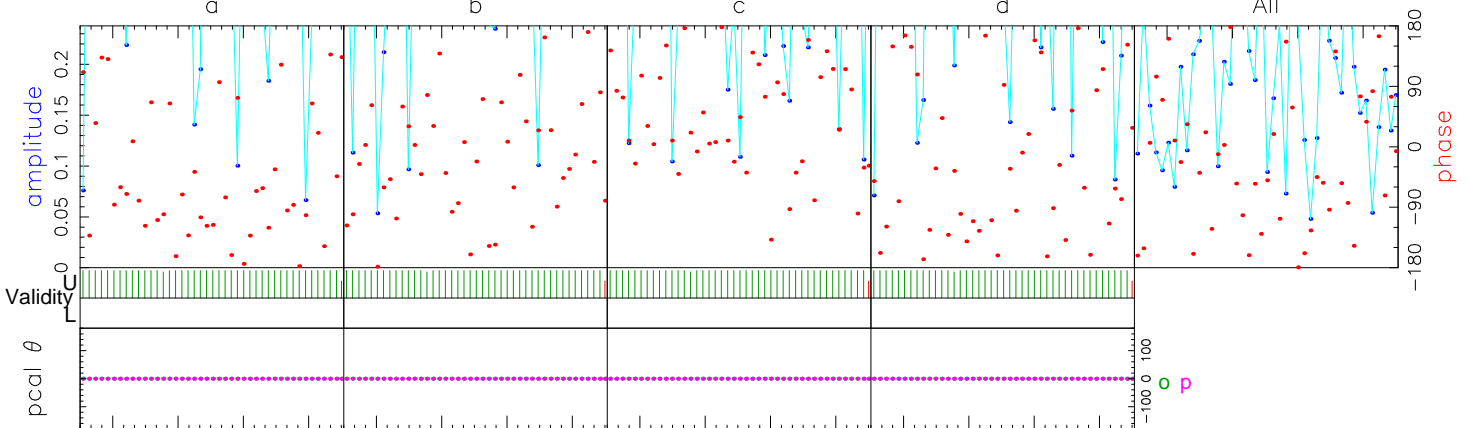
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/op..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/op.Q.194.1J2DGP



Fringe quality 0
SNR 2.3
Int time 239.711
Amp 0.079
Phase -82.7
PFD 1.0e+00
Delays (us)
SBD -0.196293
MBD 0.003418
Fringe rate (Hz)
0.917185
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

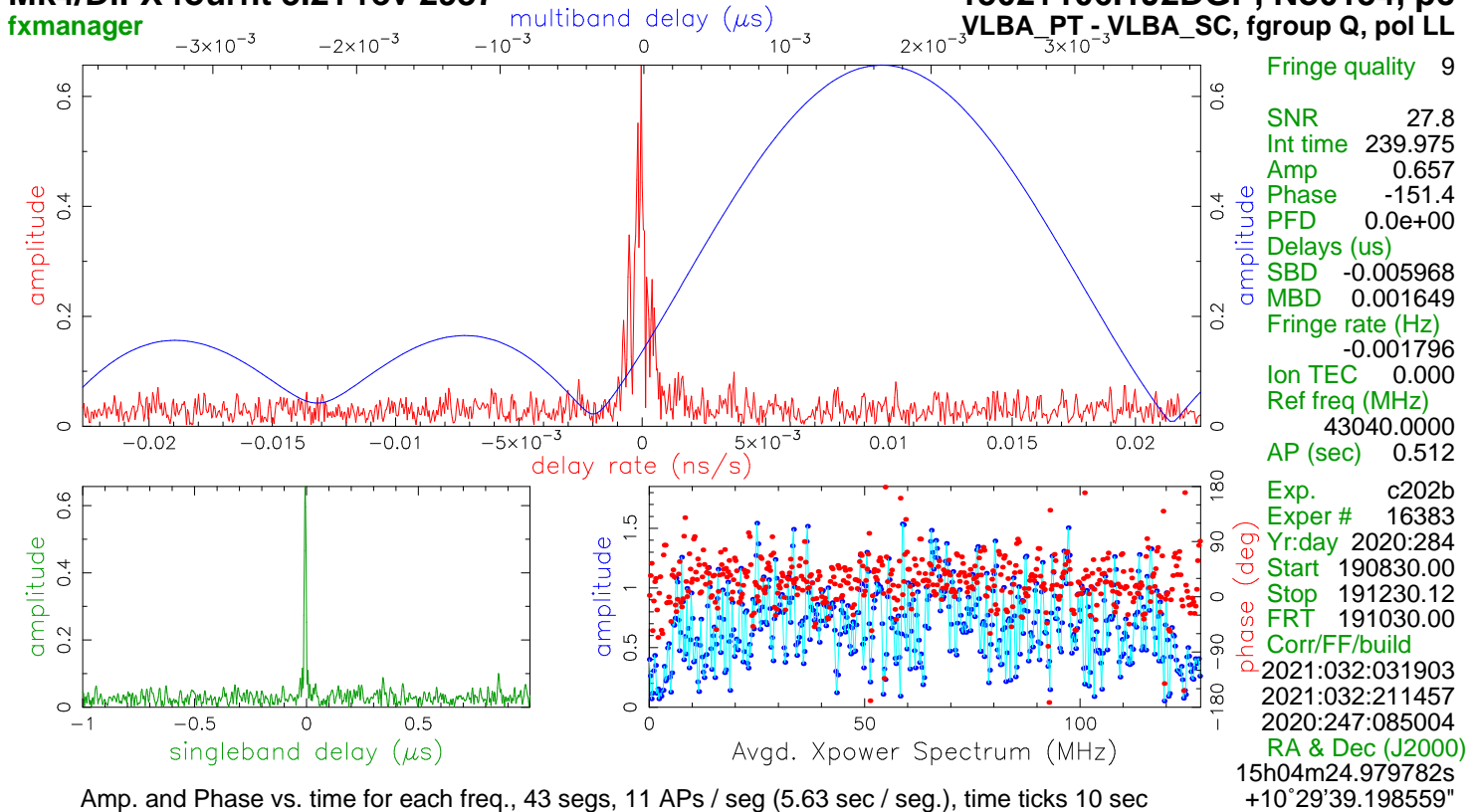


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-104.0	-10.9	65.9	-133.1	Phase	-82.7
	0.2	0.2	0.2	0.3	Ampl.	0.2
	81.0	510.3	113.5	567.9	Sbd box	412.5
U/L	469/0	469/0	469/0	469/0	APs used	
o	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	ManI PC	
o	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
o	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

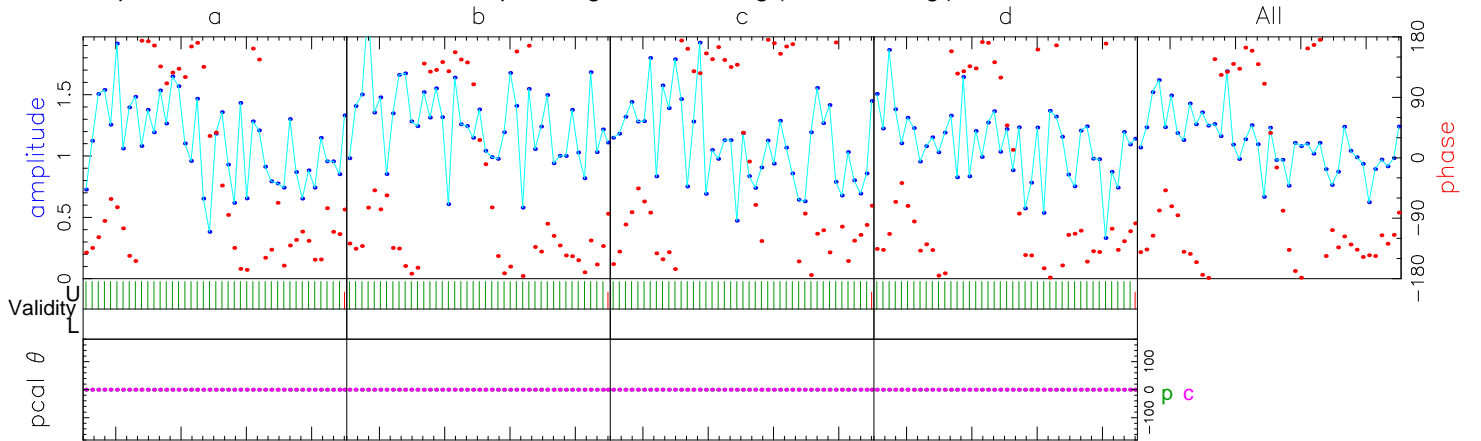
Group delay (usec)(sbd)	-1.94726074913E+03	Apriori delay (usec)	-1.94706104210E+03	Resid mbdelay (usec)	3.41797E-03	+/-	4.9E-04
Sband delay (usec)	-1.94725733485E+03	Apriori clock (usec)	2.1302486E+01	Resid sbdelay (usec)	-1.96293E-01	+/-	1.9E-03
Phase delay (usec)	-1.94706104744E+03	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-5.33810E-06	+/-	3.3E-06
Delay rate (us/s)	1.61793857934E-01	Apriori rate (us/s)	1.61772547882E-01	Resid rate (us/s)	2.13101E-05	+/-	2.4E-08
Total phase (deg)	-173.4	Apriori accel (us/s/s)	1.13109071940E-05	Resid phase (deg)	-82.7	+/-	50.6

ph/seg (deg)	RMS 92.0	Theor. 165.9	Amplitude Search (1024X16)	0.132	0.079 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	300.3	289.6	Interp.	0.000	0.132	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	123.0	50.6	Inc. seg. avg.	0.054	0.054	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	172.5	88.3	Inc. frq. avg.	0.152	0.152	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00

o: az 118.4 el 46.7 pa -45.1 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) -465.360 263.420 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/op..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/op.Q.213.1J2DGP



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



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

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

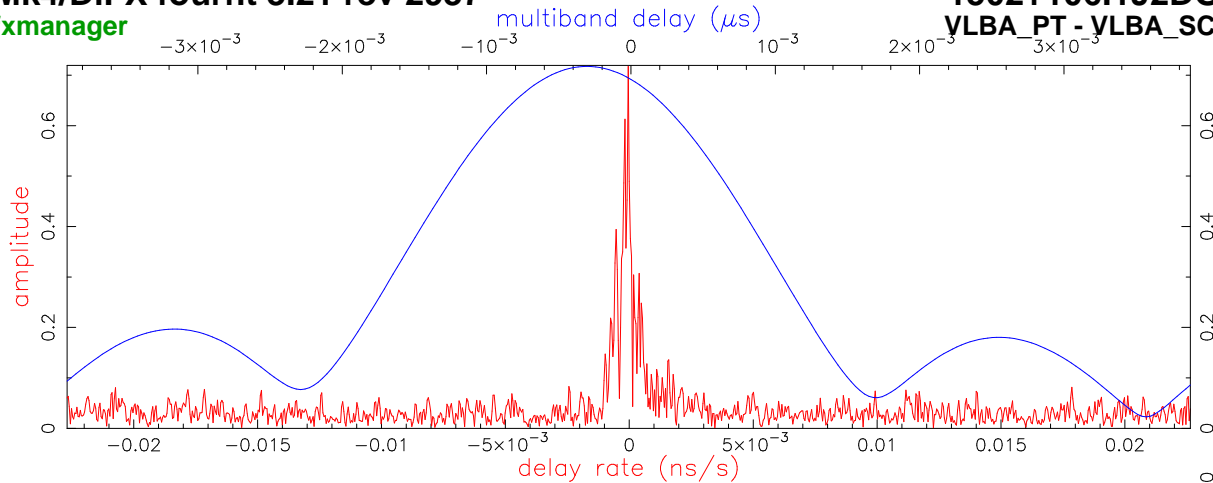
	RMS	Theor.	Amplitude	0.657 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	58.7	13.5	Search (1024X16)	0.646	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/seg (%)	77.4	23.6	Interp.	0.000	Sample rate(MISamp/s):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

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

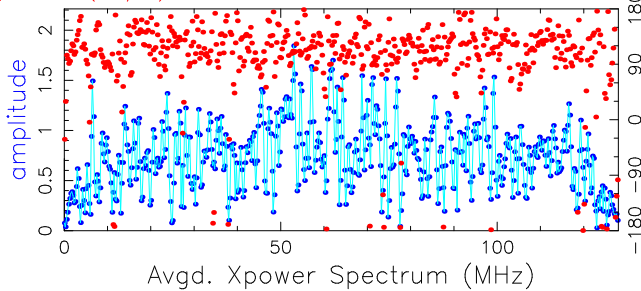
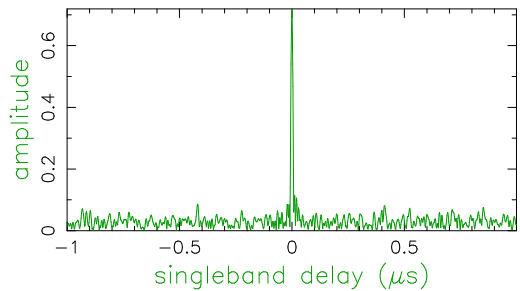
1502+106.1J2DGP, No0154, pc

VLBA_PT - VLBA_SC, fgroup Q, pol RR



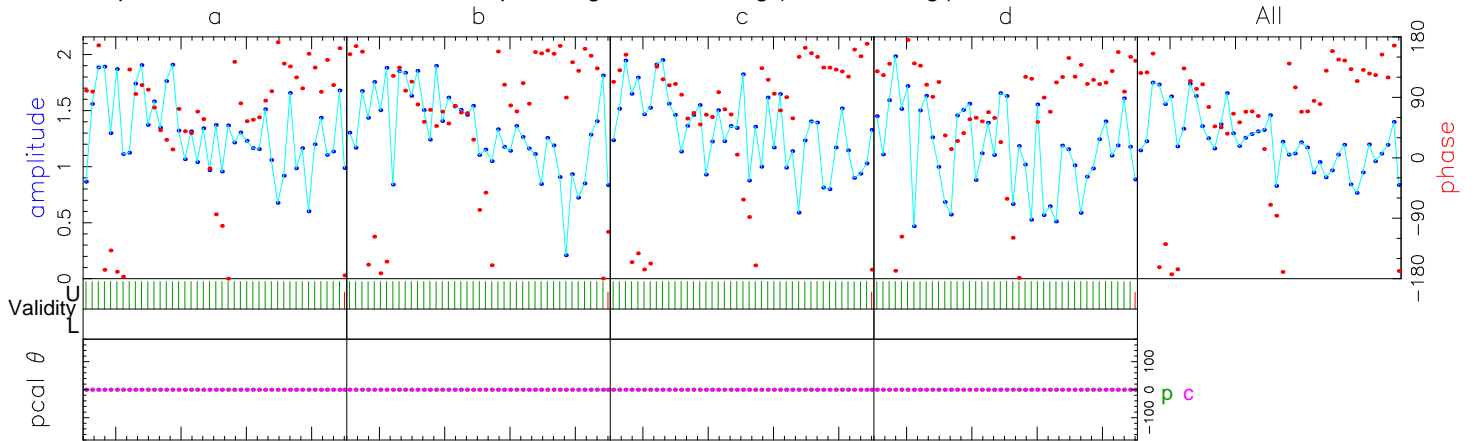
Fringe quality 9

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



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

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

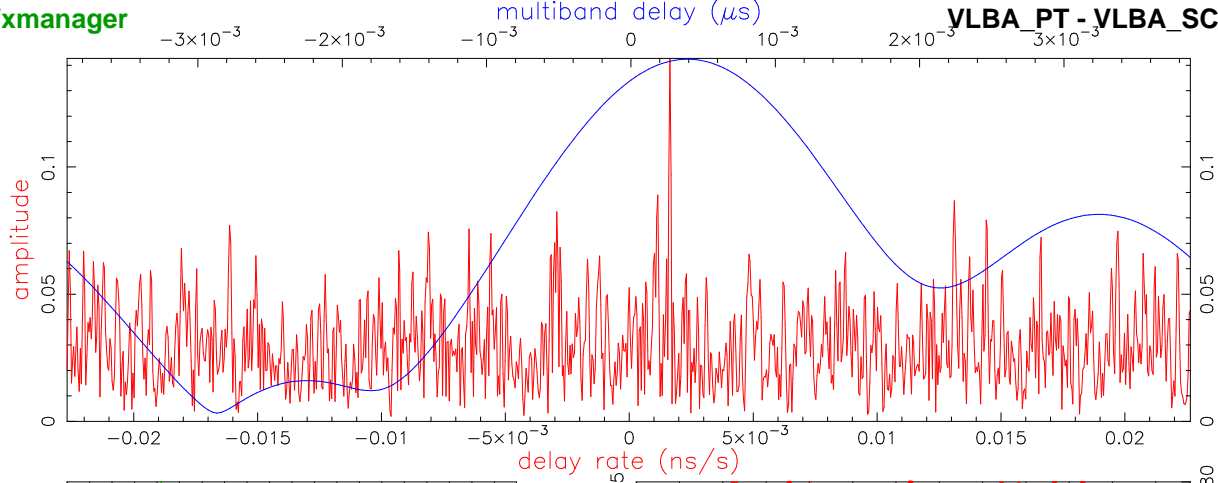


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p:c	0:0	0:0	0:0	0:0		
p:c	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UR	Q01UR	Q02UR	Q03UR		
					Phase	116.3
					Ampl.	0.7
					Sbd box	512.8
					APs used	
					PC freqs	
					PC freqs	
					PC phase	
					ManI PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

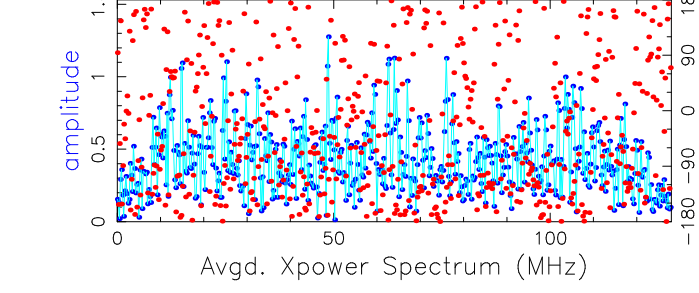
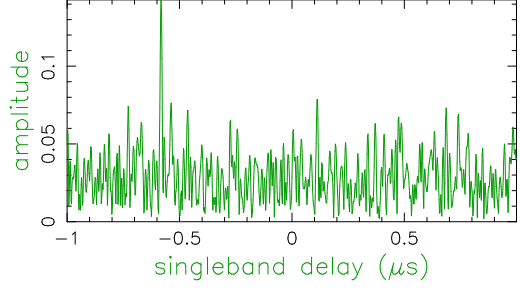
Group delay (usec)(sbd)	-2.70295523806E+03	Apriori delay (usec)	-2.70295492144E+03	Resid mbdelay (usec)	-3.16619E-04	+/-	3.6E-05
Sband delay (usec)	-2.70295527682E+03	Apriori clock (usec)	-8.4247036E+00	Resid sbdelay (usec)	-3.55375E-04	+/-	1.4E-04
Phase delay (usec)	-2.70295491394E+03	Apriori clockrate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

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

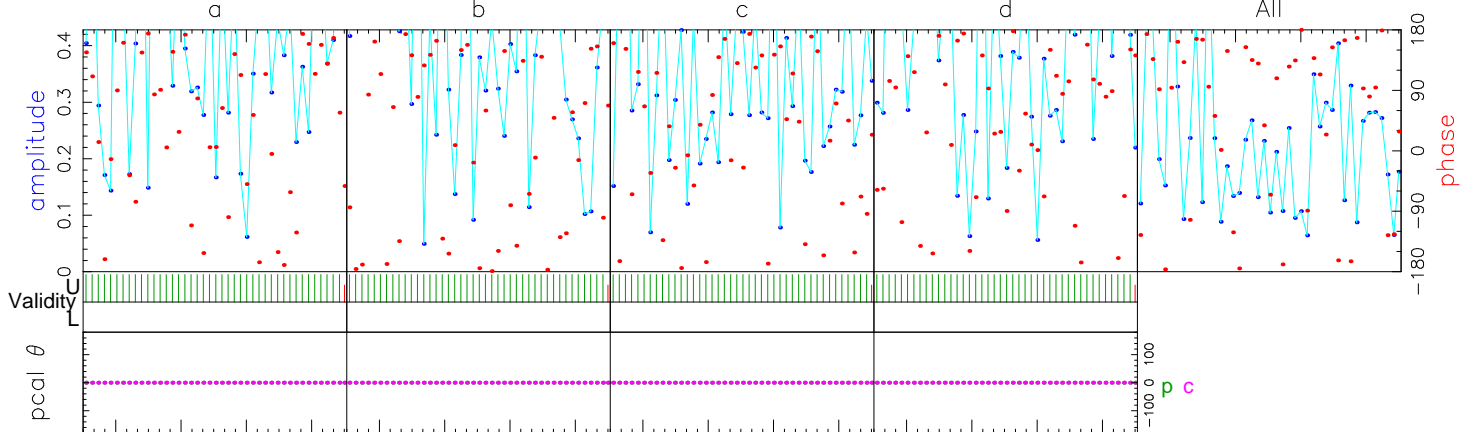
p: az 126.8 el 55.3 pa -41.9 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -2860.549 1275.816 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/pc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/pc.Q.187.1J2DGP



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



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



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

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

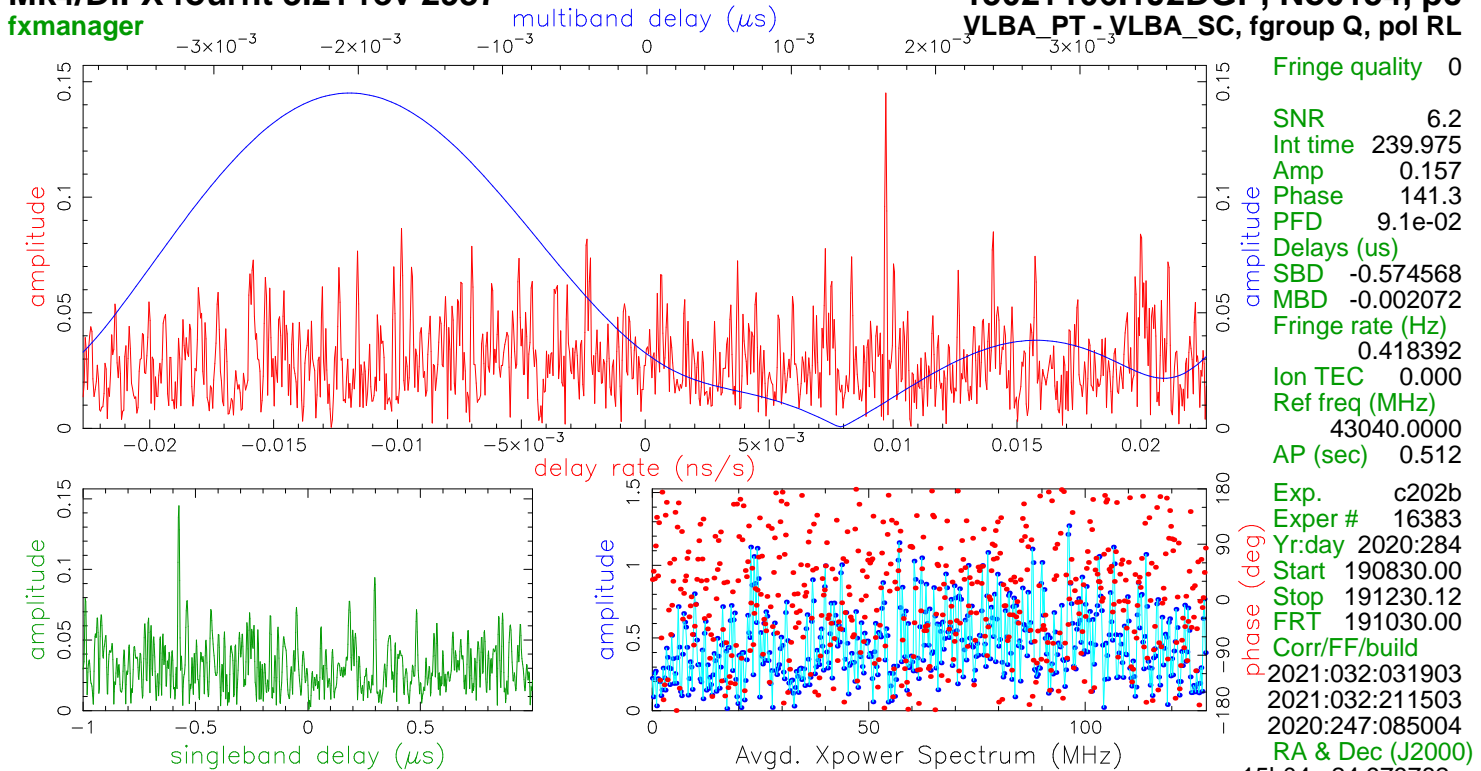
ph/seg (deg)	66.6	Theor.	62.3	Amplitude	0.143 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	117.6		108.7	Search (1024X16)	0.137	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	26.4		19.0	Interp.	0.000	Bits/sample: 2x2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

Mk4/DiFX fourfit 3.21 rev 2937

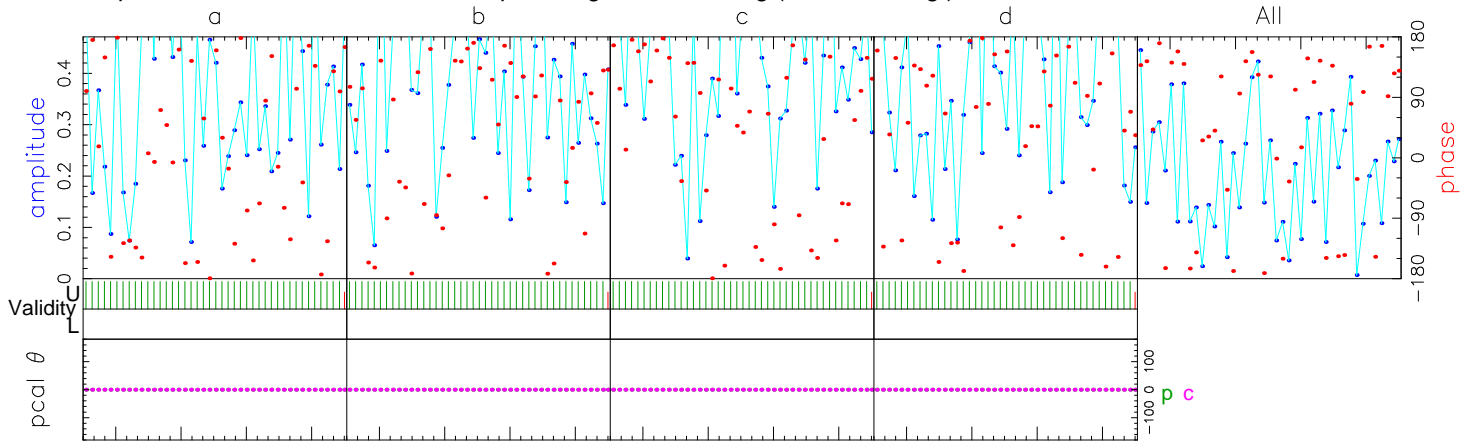
fxmanager

1502+106.1J2DGP, No0154, pc

VLBA_PT - VLBA_SC, fgroup Q, pol RL



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



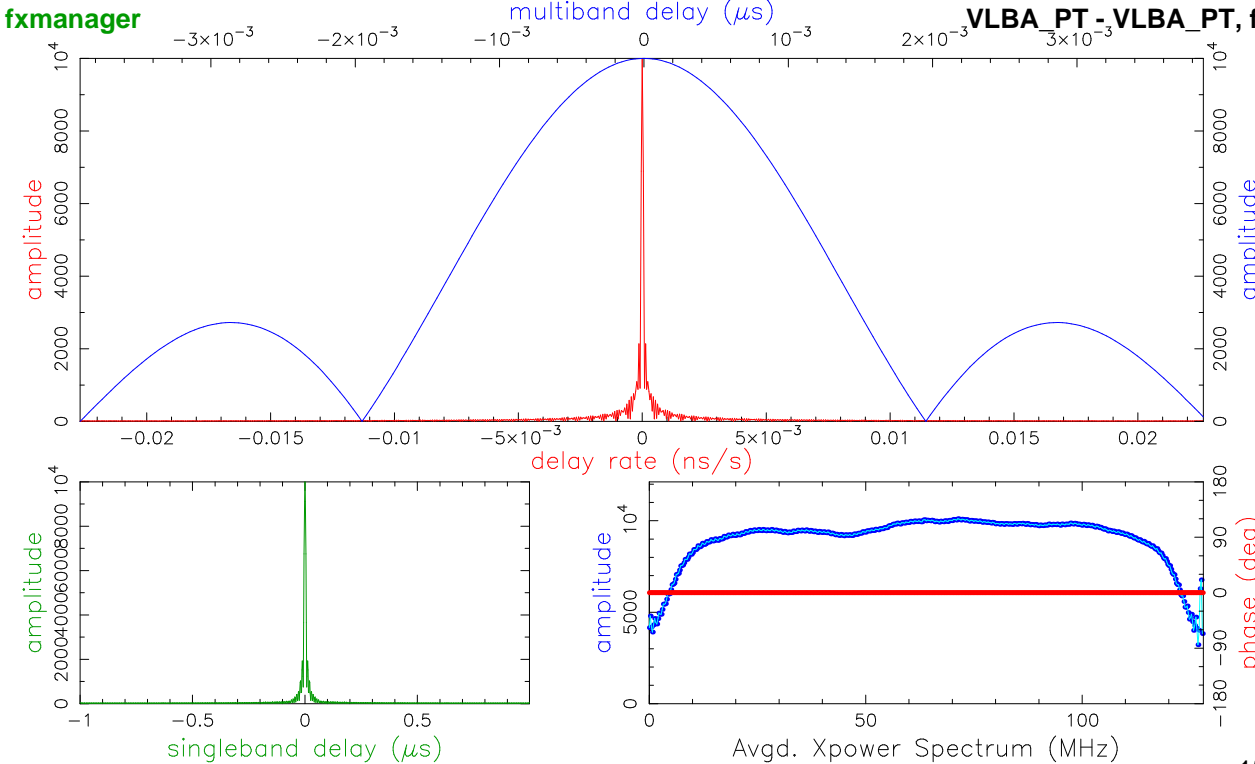
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p:c	0:0	0:0	0:0	0:0		
p:c	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UL	Q01UL	Q02UL	Q03UL		

Group delay (usec)(sbd)	-2.70352730572E+03	Apriori delay (usec)	-2.70295492144E+03	Resid mbdelay (usec)	-2.07177E-03	+/-	1.8E-04
Sband delay (usec)	-2.70352948919E+03	Apriori clock (usec)	-8.4247036E+00	Resid sbdelay (usec)	-5.74568E-01	+/-	7.0E-04
Phase delay (usec)	-2.70295491232E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	9.12107E-06	+/-	1.2E-06
Delay rate (us/s)	9.86792911062E-01	Apriori rate (us/s)	9.86783190057E-01	Resid rate (us/s)	9.72100E-06	+/-	8.7E-09
Total phase (deg)	-153.5	Apriori accel (us/s/s)	1.95970243196E-05	Resid phase (deg)	141.3	+/-	18.6

ph/seg (deg)	RMS	Theor.	Amplitude	0.157 +/- 0.025	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	73.6	61.0	Search (1024X16)	0.136	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	91.1	106.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	11.8	18.6	Inc. seg. avg.	0.144	Sample rate(MISamp/s):	256	dr window (ns/s)	-0.023 0.023		
	31.2	32.5	Inc. frq. avg.	0.150	Data rate(Mb/s):	2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

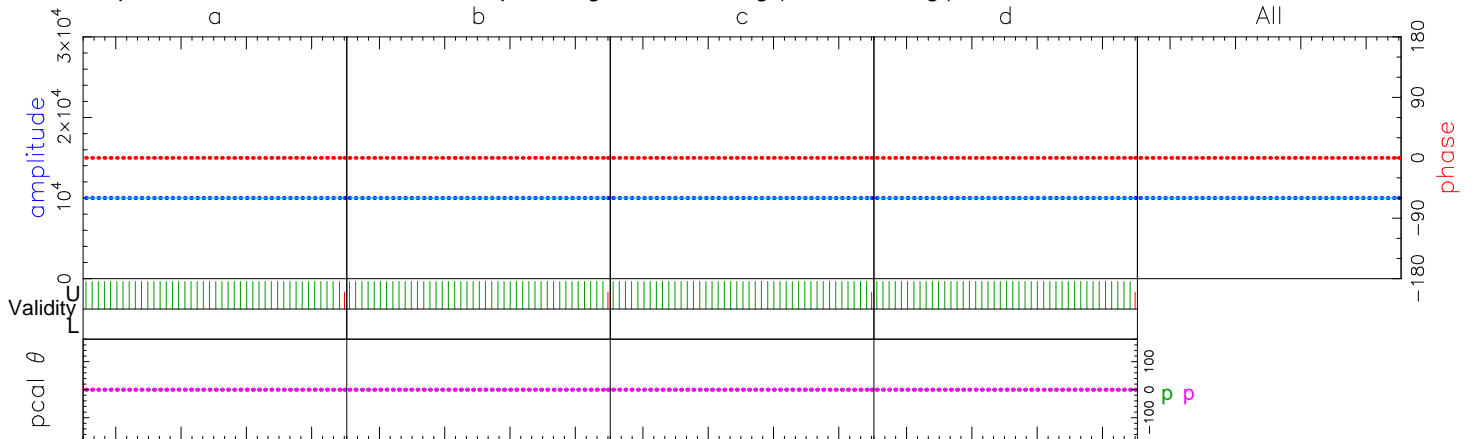
p: az 126.8 el 55.3 pa -41.9 c: az 246.7 el 72.9 pa 62.7 u,v (fr/asec) -2860.549 1275.816 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/pc..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/pc.Q.218.1J2DGP



Fringe quality 9
SNR 423630.7
Int time 239.982
Amp 10000.000
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512
Exp. c202b
Yr:day 16383
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211458
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

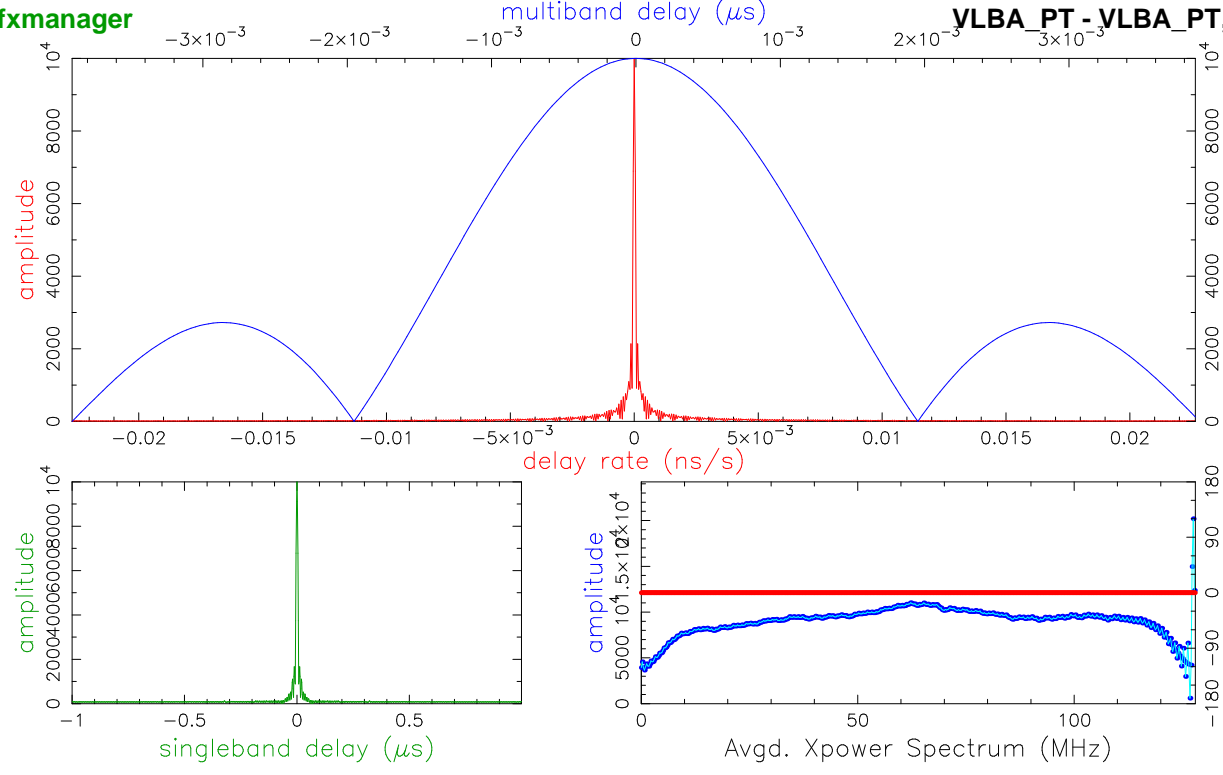
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



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

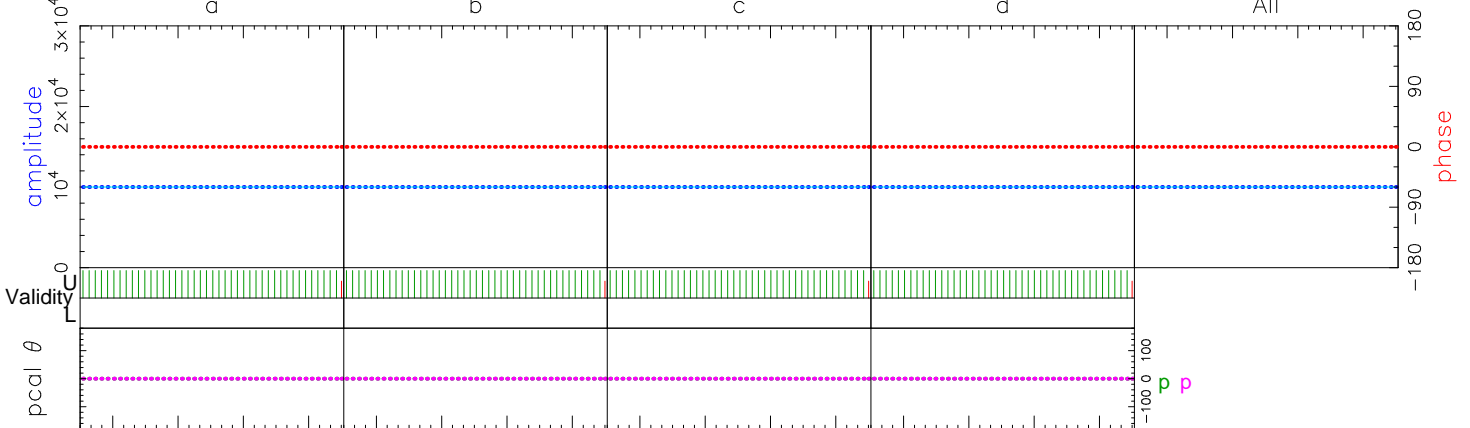
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/- 2.6E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/- 1.0E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/- 1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/- 1.3E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/- 0.0

	RMS	Theor.	Amplitude	10000.000 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.0	0.0	Search (1024X16)	10000.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.000	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00



Fringe quality 9
SNR 423630.7
Int time 239.982
Amp 10000.000
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 190830.00
Stop 191230.12
FRT 191030.00
Corr/FF/build
2021:032:031903
2021:032:211459
2020:247:085004
RA & Dec (J2000)
15h04m24.979782s
+10°29'39.198559"

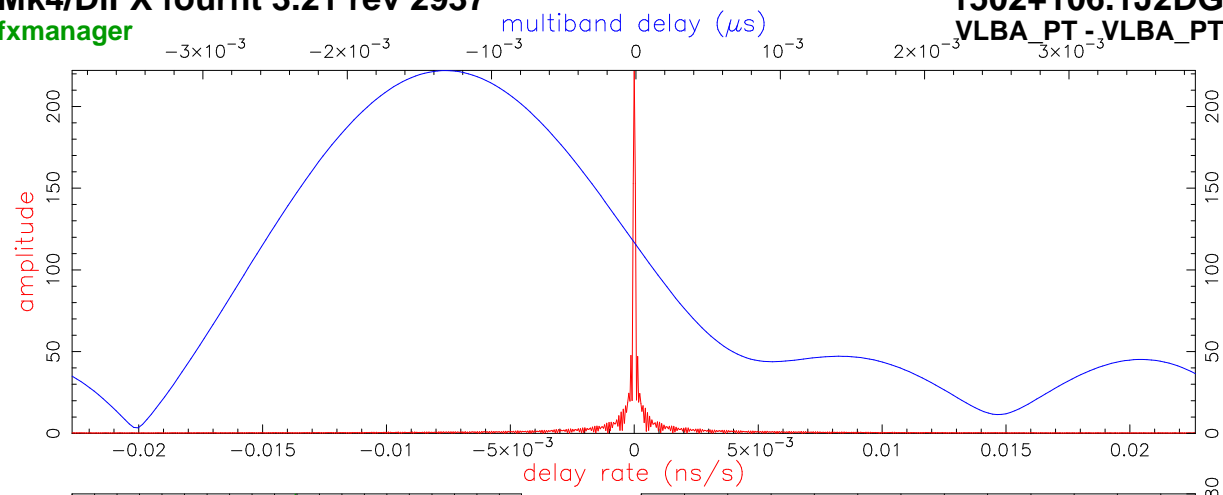
Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



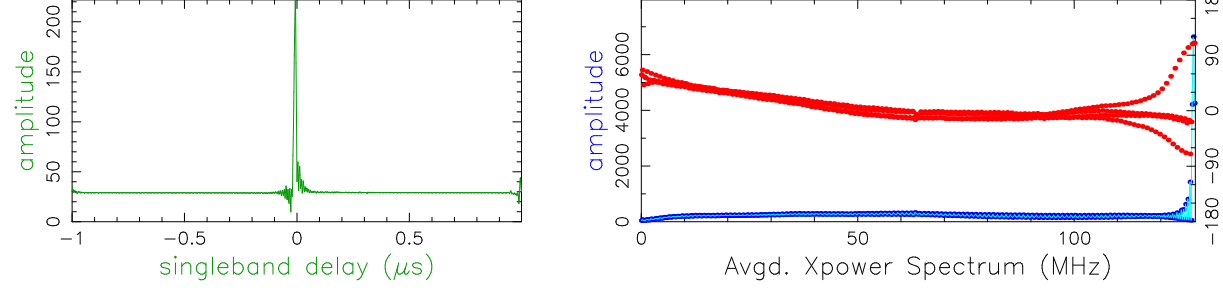
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
p	1000	1000	1000	1000		
p:p	0:0	0:0	0:0	0:0		
p:p	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000		
p	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/- 2.6E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/- 1.0E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/- 1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/- 1.3E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/- 0.0

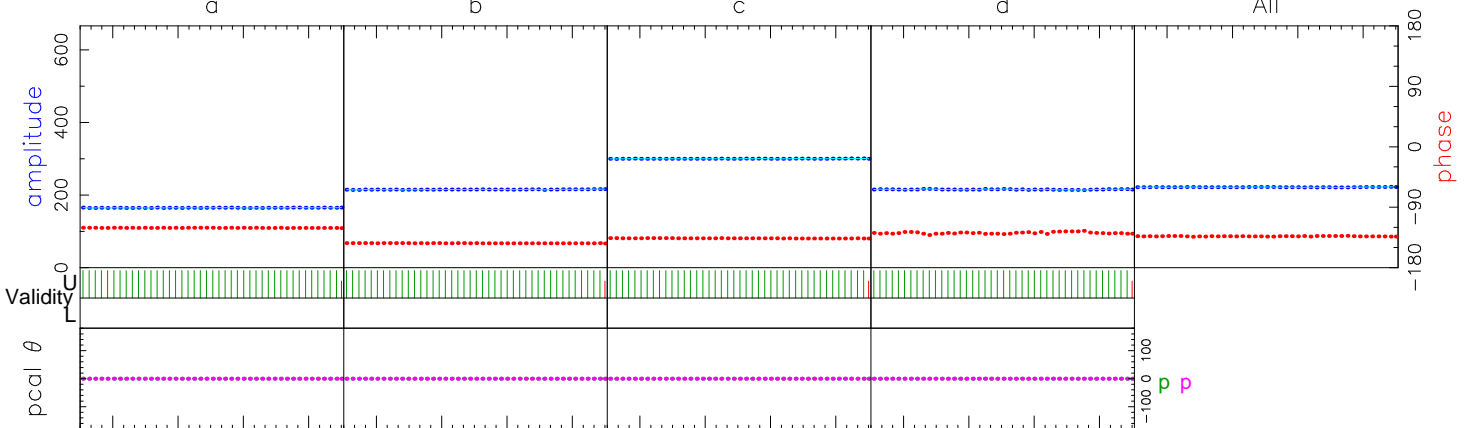
	RMS	Theor.	Amplitude	10000.000 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.0	0.0	Search (1024X16)	10000.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.000	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00



Fringe quality 7
SNR 9407.3
Int time 239.982
Amp 222.063
Phase -133.1
PFD 0.0e+00
Delays (us)
SBD -0.007624
MBD -0.001301
Fringe rate (Hz) 0.000003
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
	-120.6	-143.5	-136.2	-128.1	Phase	-133.1
	165.1	215.4	300.2	215.6	Ampl.	224.1
	507.7	508.6	508.2	510.5	Sbd box	509.1
U/L	469/0	469/0	469/0	469/0	APs used	
p	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
p:p	0:0	0:0	0:0	0:0	PC phase	
p:p	0:0	0:0	0:0	0:0	Manl PC	
p	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
p	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-9.11350000000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-1.30100E-03	+/-	1.2E-07
Sband delay (usec)	-7.62400000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-7.62400E-03	+/-	4.6E-07
Phase delay (usec)	-8.59222982049E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-8.59223E-06	+/-	7.9E-10
Delay rate (us/s)	7.37413562791E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	7.37414E-11	+/-	5.7E-12
Total phase (deg)	-133.1	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-133.1	+/-	0.0

ph/seg (deg)	0.3	Theor.	0.0	Amplitude	222.063 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	0.2		0.0	Search (1024X16)	220.292	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	12.2		0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	21.9		0.0	Inc. seg. avg.	221.906	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023		
				Inc. frq. avg.	224.066	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

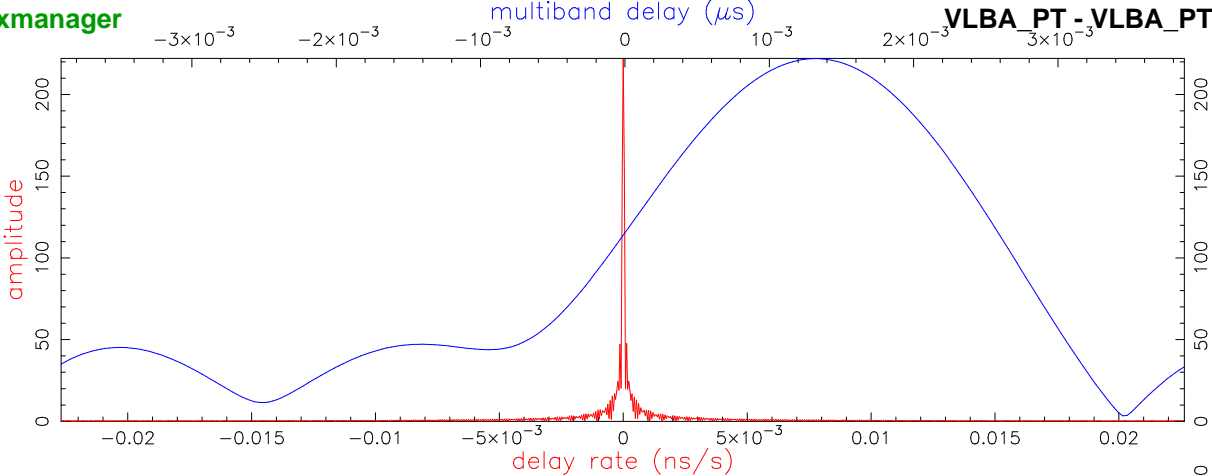
p: az 126.8 el 55.3 pa -41.9 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/pp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/pp.Q.200.1J2DGP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

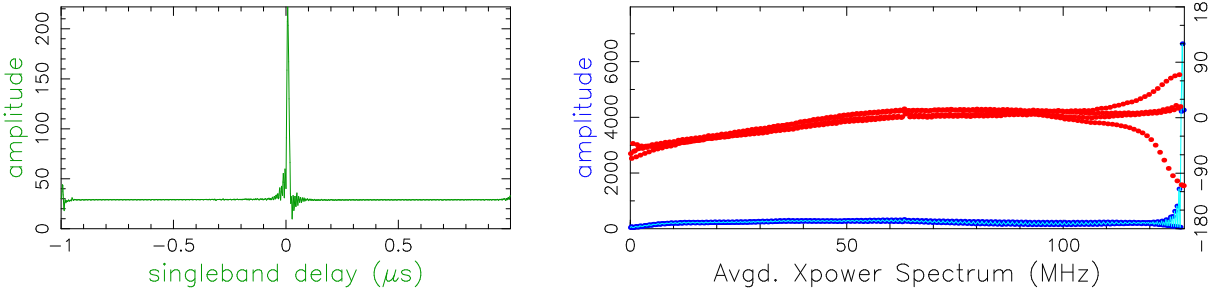
1502+106.1J2DGP, No0154, pp

VLBA_PT - VLBA_PT, fgroup Q, pol RL



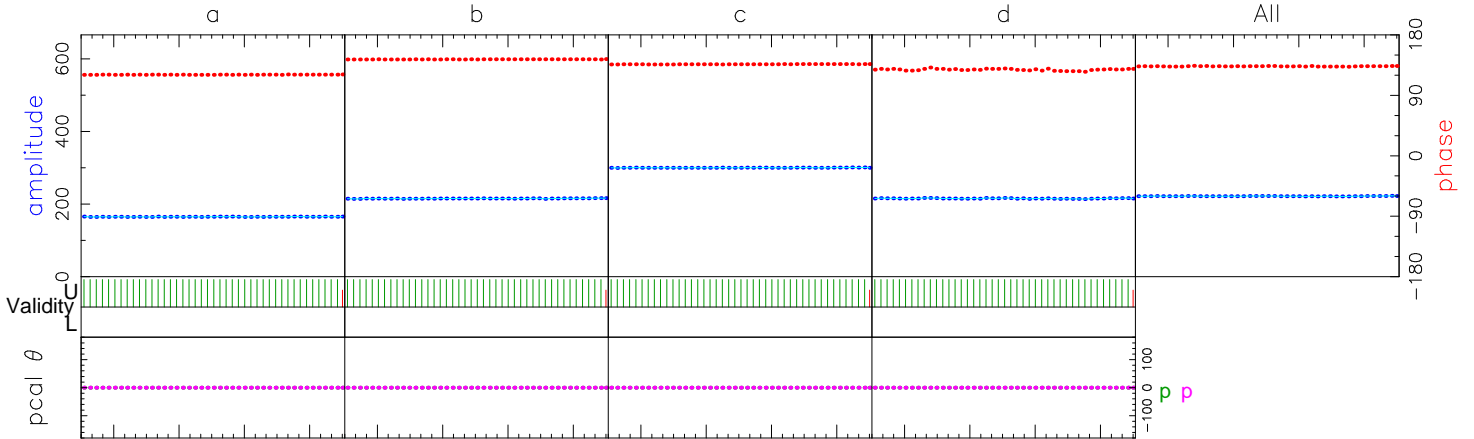
Fringe quality 7

SNR 9407.3
 Int time 239.982
 Amp 222.063
 Phase 133.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.007624
 MBD 0.001301
 Fringe rate (Hz)
 -0.000003
 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
	120.6	143.5	136.2	128.1	Phase	133.1
	165.1	215.4	300.2	215.6	Ampl.	224.1
	518.3	517.4	517.8	515.5	Sbd box	516.9
U/L	469/0	469/0	469/0	469/0	APs used	
p	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
p:p	0:0	0:0	0:0	0:0	PC phase	
p:p	0:0	0:0	0:0	0:0	Manl PC	
p	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

	9.11350000000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.30100E-03	+/- 1.2E-07
Group delay (usec)(sbd)	9.11350000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	7.62400E-03	+/- 4.6E-07
Sband delay (usec)	7.62400000000E-03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	8.59223E-06	+/- 7.9E-10
Phase delay (usec)	8.59222982046E-06	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-7.37414E-11	+/- 5.7E-12
Delay rate (us/s)	-7.37413562791E-11	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	133.1	+/- 0.0
Total phase (deg)	133.1					

	RMS	Theor.	Amplitude	222.063 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.3	0.0	Search (1024X16)	220.292	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	0.2	0.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	12.2	0.0	Inc. seg. avg.	221.906	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	21.9	0.0	Inc. frq. avg.	224.066	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

p: az 126.8 el 55.3 pa -41.9 p: az 126.8 el 55.3 pa -41.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202b/v1/v1_7mm/1234/No0154/pp..1J2DGP Output file: /Exps/c202b/v1/v1_7mm/1234/No0154/pp.Q.215.1J2DGP