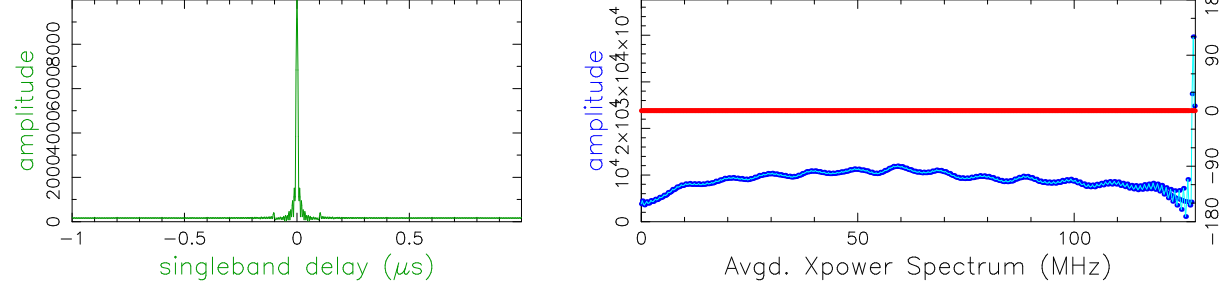
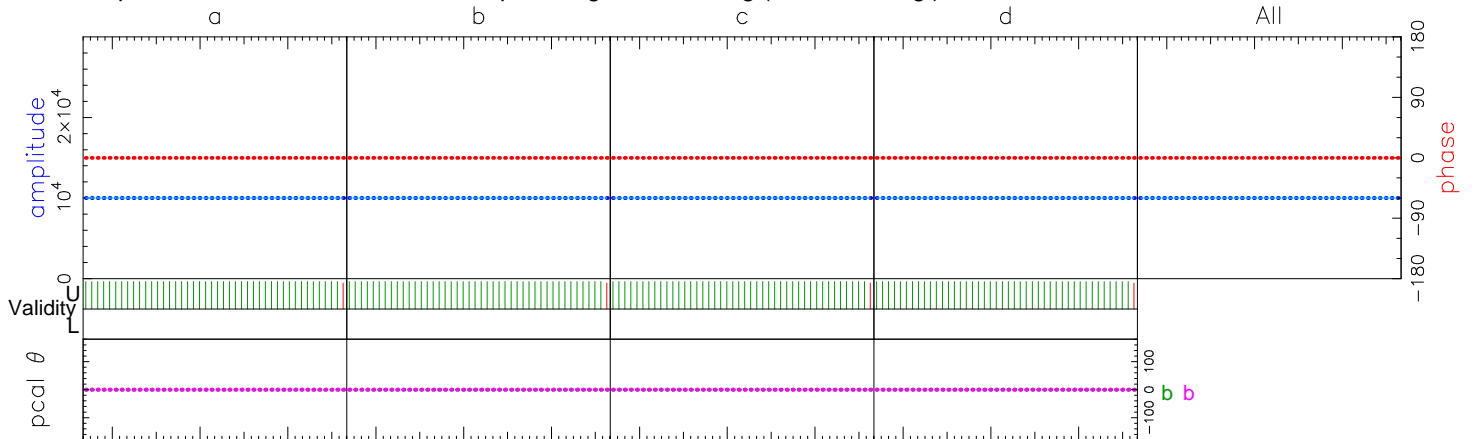


Fringe quality 9
SNR 366861.4
Int time 179.974
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 055640.00
Stop 055940.22
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163059
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
b:b	0:0	0:0	0:0	0:0	PC freqs	
b:b	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	Manl PC	
b	1000	1000	1000	1000	PC amp	
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
b	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	3.0E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.2E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	2.0E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	1.9E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

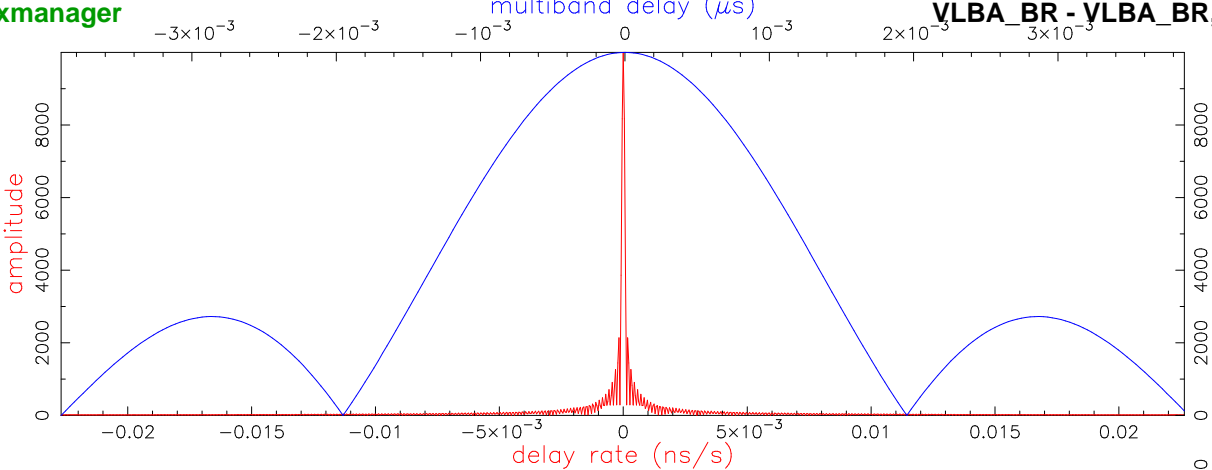
ph/seg (deg)	0.0	Theor.	0.0	Amplitude	9999.999 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	0.0	Search (1024X16)	9999.999	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023		
				Inc. frq. avg.	9999.999	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

0102+584.1HP6Q8, No0090, bb

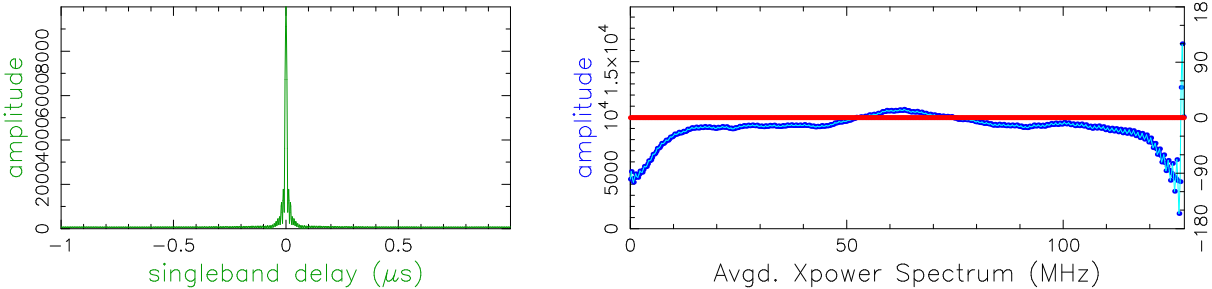
VLBA_BR - VLBA_BR, fgroup Q, pol RR



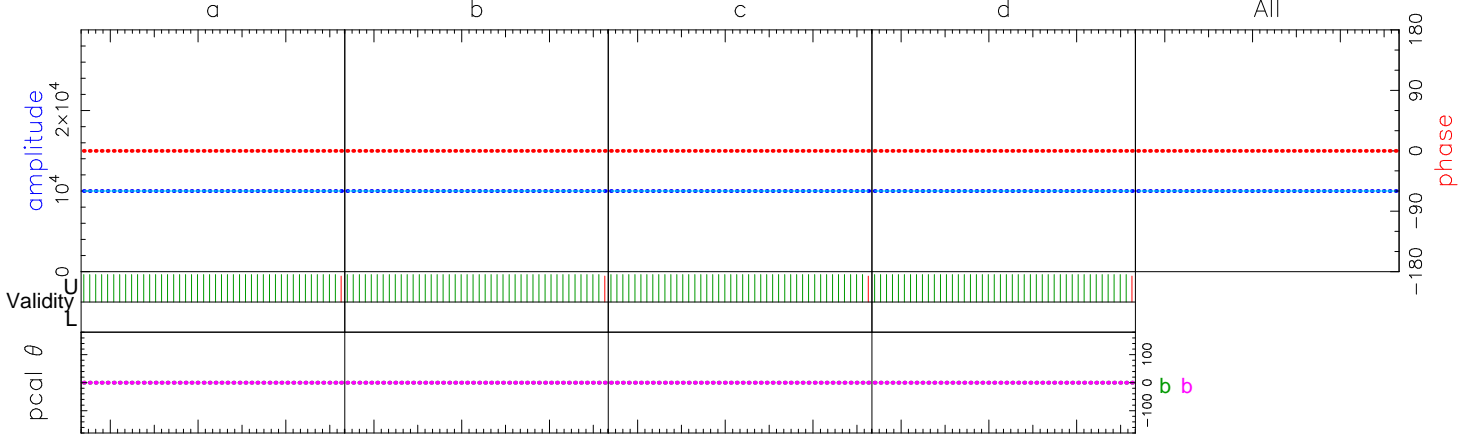
Fringe quality 9

SNR 366861.4
 Int time 179.974
 Amp 9999.999
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163101
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000		
b:b	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
b	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR		
b	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	3.0E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.2E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	2.0E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	1.9E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	9999.999 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0	0.0	0.0	Search (1024X16)	9999.999	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	mb window (us)	-0.004 0.004
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 256	dr window (ns/s)	-0.023 0.023
				Inc. frq. avg.	9999.999	Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00

b: az 47.6 el 70.3 pa -109.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

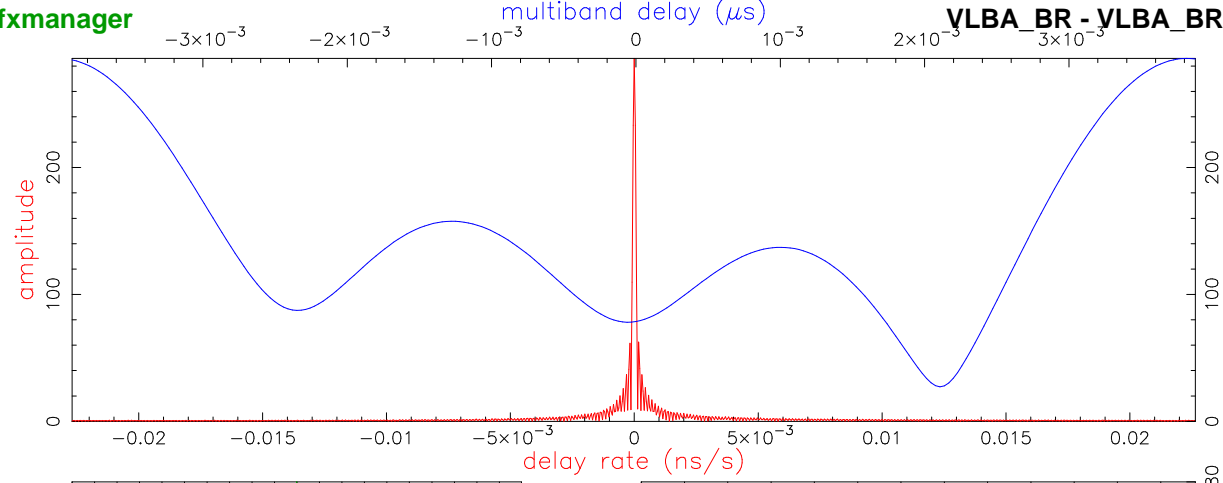
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bb..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bb.Q.15.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

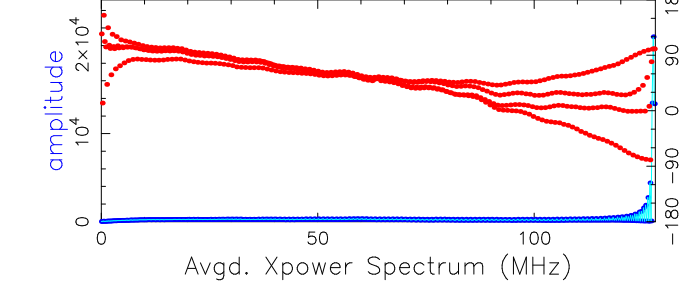
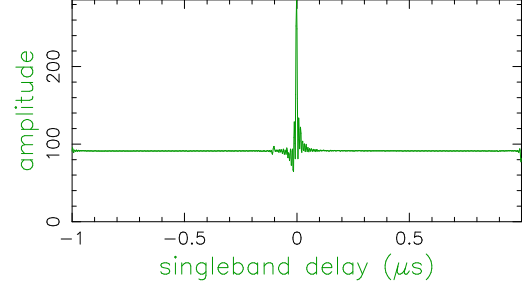
0102+584.1HP6Q8, No0090, bb

VLBA_BR - VLBA_BR, fgroup Q, pol LR



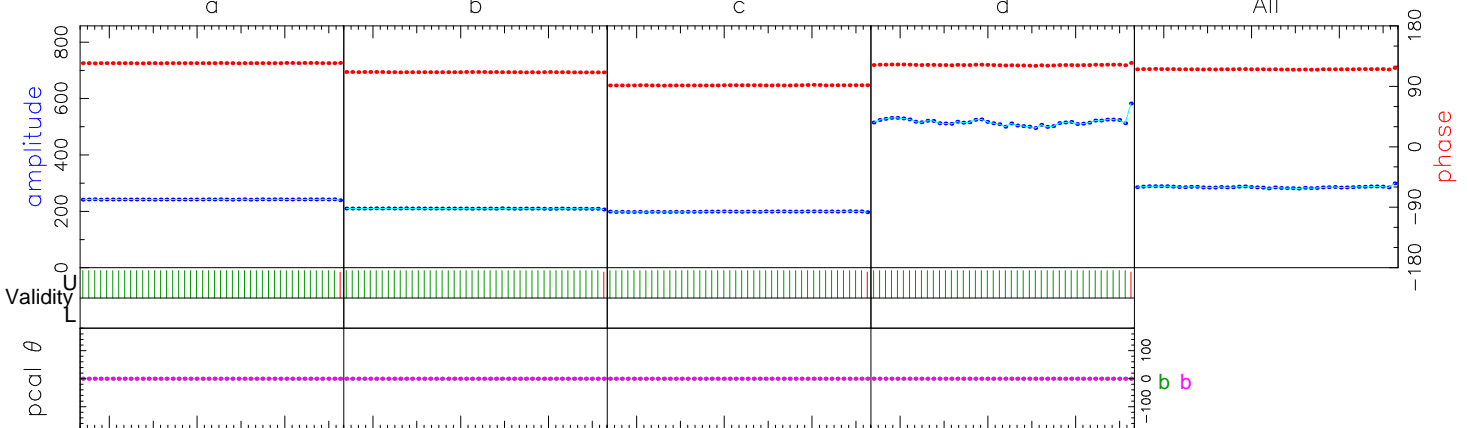
Fringe quality 6

SNR 10493.0
 Int time 179.974
 Amp 286.020
 Phase 115.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.002006
 MBD -0.003995
 Fringe rate (Hz)
 0.000002
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163102
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



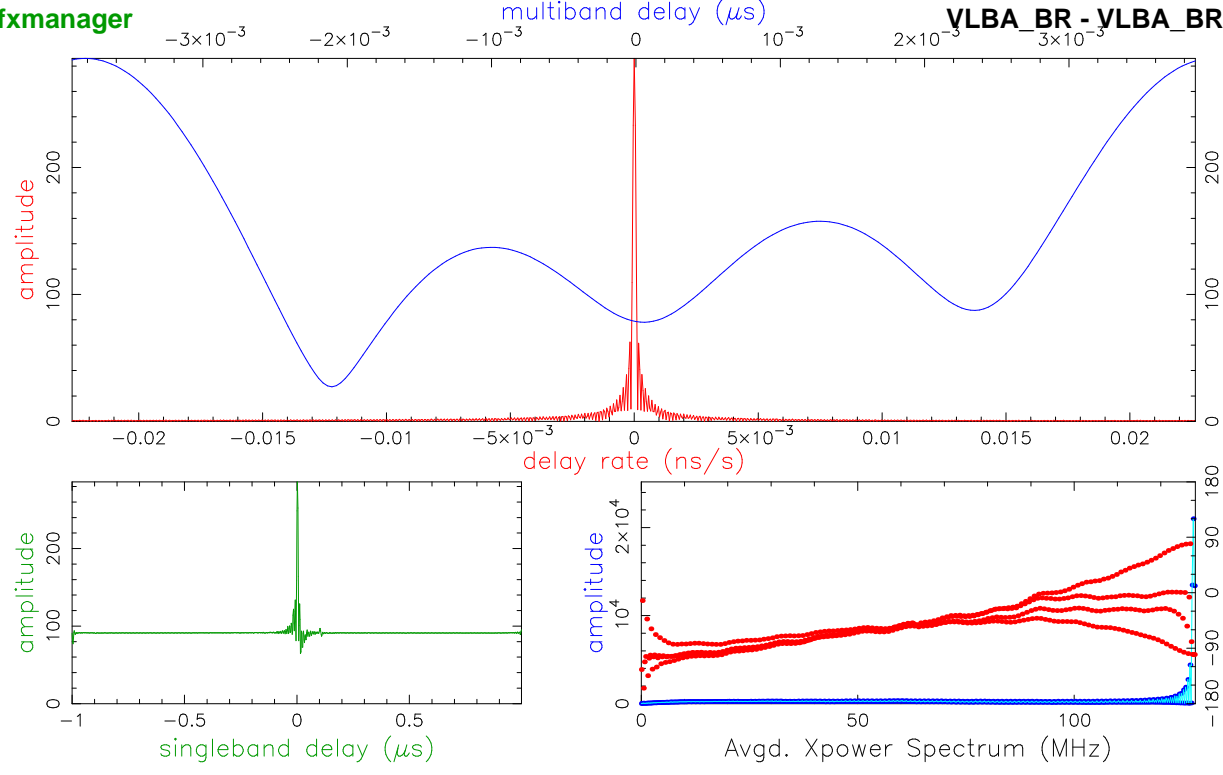
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
b:b	0:0	0:0	0:0	0:0	PC freqs	
b:b	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	Manl PC	
b	1000	1000	1000	1000	PC amp	
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
b	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	

Group delay (usec)(sbd)	-3.99518750000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-3.99519E-03	+/-	1.1E-07
Sband delay (usec)	-2.00637500000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-2.00637E-03	+/-	4.1E-07
Phase delay (usec)	7.44243086961E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	7.44243E-06	+/-	7.0E-10
Delay rate (us/s)	3.97068841503E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	3.97069E-11	+/-	6.8E-12
Total phase (deg)	115.3	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	115.3	+/-	0.0

ph/seg (deg)	0.4	Theor.	0.0	Amplitude	286.020 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	1.0	0.1		Search (1024X16)	284.875	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	18.9	0.0		Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	45.8	0.0		Inc. seg. avg.	285.998	Sample rate(MISamp/s):	256	dr window (ns/s)	-0.023 0.023		
				Inc. frq. avg.	291.965	Data rate(Mb/s):	2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 47.6 el 70.3 pa -109.3 b: az 47.6 el 70.3 pa -109.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bb..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bb.Q.29.1HP6Q8

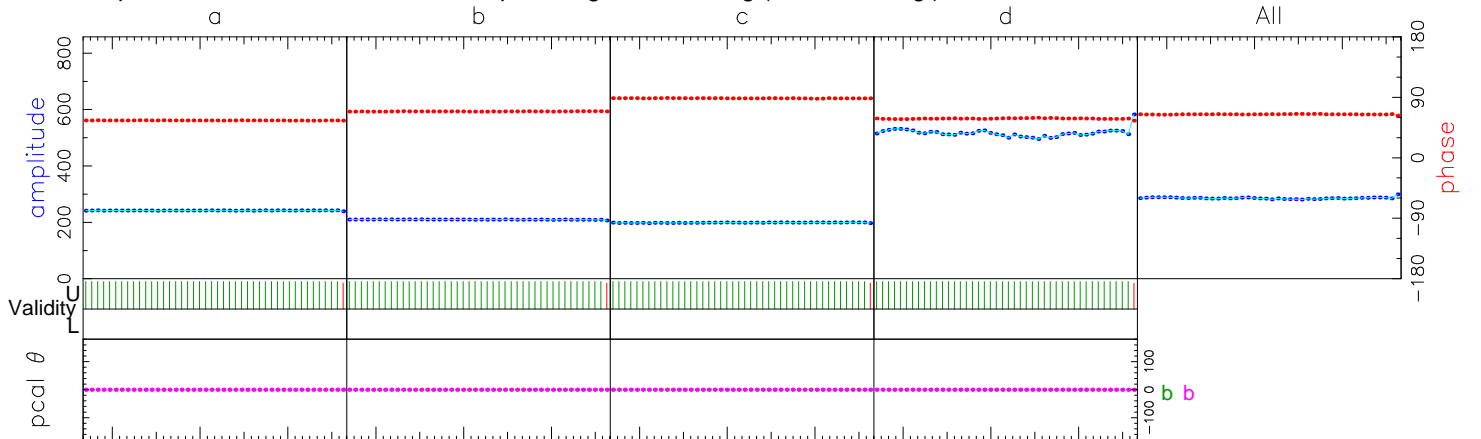


Fringe quality 6

SNR 10493.0
Int time 179.974
Amp 286.020
Phase 64.7
PFD 0.0e+00
Delays (us)
SBD 0.002006
MBD -0.003817
Fringe rate (Hz)
-0.000002
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 055640.00
Stop 055940.22
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163105
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
b:b	0:0	0:0	0:0	0:0	PC freqs	
b:b	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	Manl PC	
b	1000	1000	1000	1000	PC amp	
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
b	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
Group delay (usec)(sbd)	3.99518750000E-03				Resid mbdelay (usec)	-3.81731E-03 +/- 1.1E-07
Sband delay (usec)	2.00637500000E-03				Resid sbdelay (usec)	2.00637E-03 +/- 4.1E-07
Phase delay (usec)	4.17466950209E-06				Resid phdelay (usec)	4.17467E-06 +/- 7.0E-10
Delay rate (us/s)	-3.97068841503E-11				Resid rate (us/s)	-3.97069E-11 +/- 6.8E-12
Total phase (deg)		64.7			Resid phase (deg)	64.7 +/- 0.0

ph/seg (deg) 0.4 0.0
amp/seg (%) 1.0 0.1
ph/frq (deg) 18.9 0.0
amp/frq (%) 45.8 0.0

b: az 47.6 el 70.3 pa -109.3
Control file: cf_1234_gmva7mm

Group delay (usec) 3.99518750000E-03
Sband delay (usec) 2.00637500000E-03
Phase delay (usec) 4.17466950209E-06
Delay rate (us/s) -3.97068841503E-11
Total phase (deg) 64.7

Apriori delay (usec) 0.00000000000E+00
Apriori clock (usec) 0.0000000E+00
Apriori clockrate (us/s) 0.0000000E+00
Apriori rate (us/s) 0.00000000000E+00
Apriori accel (us/s/s) 0.00000000000E+00

286.020 +/- 0.027
Search (1024X16) 284.875
Interp. 0.000
Inc. seg. avg. 285.998
Inc. frq. avg. 291.965

Pcal mode: MANUAL, MANUAL
Pcal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2
Sample rate(MISamp/s): 256
Data rate(Mb/s): 2048

PC period (AP's) 5, 5
SampCntNorm: enabled
nlags: 512
t_cohere infinite

sb window (us) -1.000 1.000
mb window (us) -0.004 0.004
dr window (ns/s) -0.023 0.023
ion window (TEC) 0.00 0.00

simultaneous interpolator

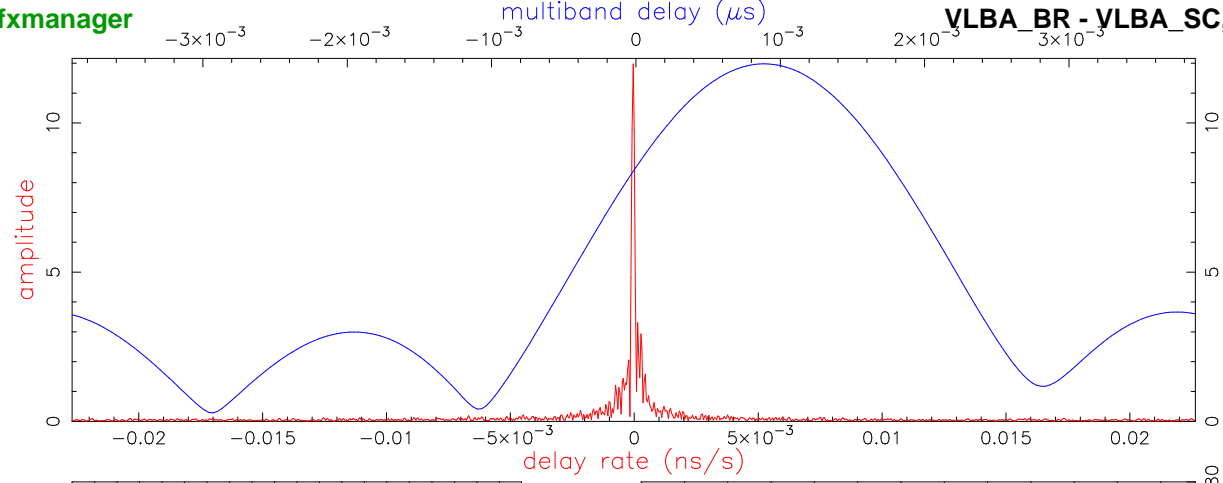
Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bb..1HP6Q8
Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bb.Q.51.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bc

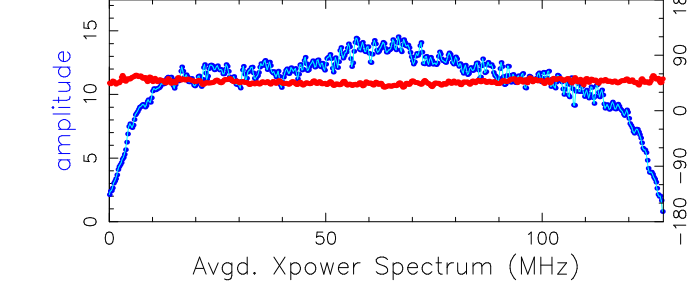
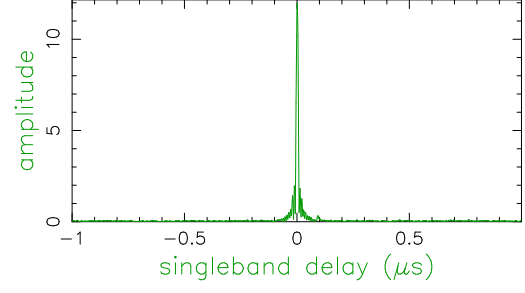
VLBA_BR - VLBA_SC, fgroup Q, pol RR



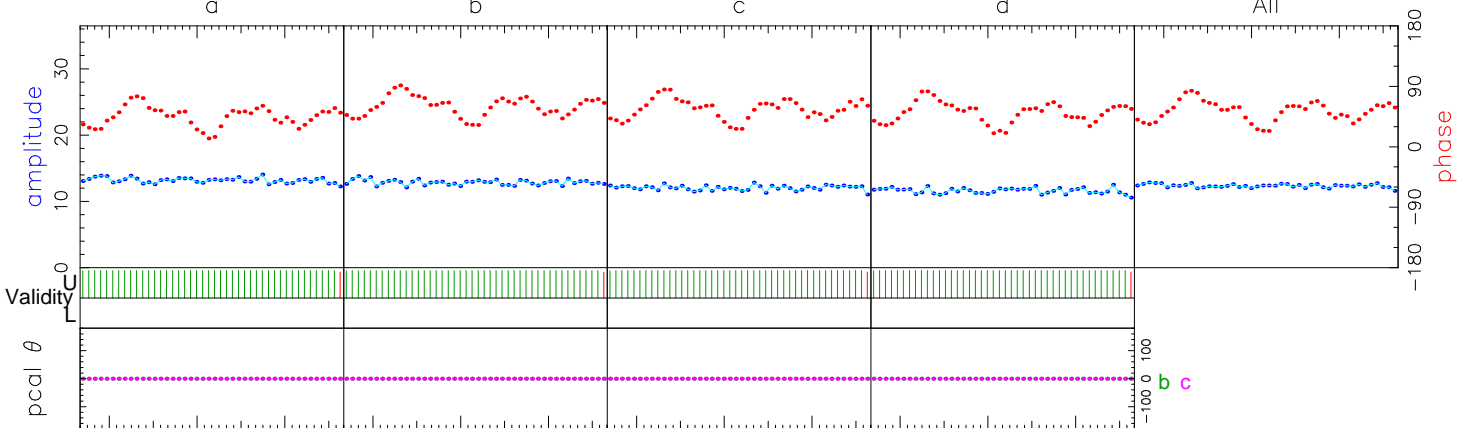
Fringe quality 8

SNR 446.2
 Int time 179.971
 Amp 12.162
 Phase 52.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.001118
 MBD 0.000856
 Fringe rate (Hz)
 -0.001833
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163102
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
b:c	0:0	0:0	0:0	0:0	PC phase	
b:c	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	

	5.09797587180E+03	Apriori delay (usec)	5.09797501559E+03	Resid mbdelay (usec)	8.56210E-04	+/- 2.5E-06
Group delay (usec)(sbd)	5.09797613371E+03	Apriori clock (usec)	-1.0156545E+01	Resid sbdelay (usec)	1.11813E-03	+/- 9.7E-06
Sband delay (usec)	5.09797501900E+03	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	3.41495E-06	+/- 1.7E-08
Phase delay (usec)	6.06601777953E-01	Apriori rate (us/s)	6.06601820539E-01	Resid rate (us/s)	-4.25856E-08	+/- 1.6E-10
Delay rate (us/s)		Apriori accel (us/s/s)	1.50999363938E-05	Resid phase (deg)	52.9	+/- 0.3
Total phase (deg)	294.4					

	RMS	Theor.	Amplitude	12.162 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	14.5	0.9	Search (1024X16)	11.937	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	2.8	1.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	8.2	0.3	Inc. seg. avg.	12.369	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	5.2	0.4	Inc. frq. avg.	12.041	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -3314.871 2006.007 simultaneous interpolator

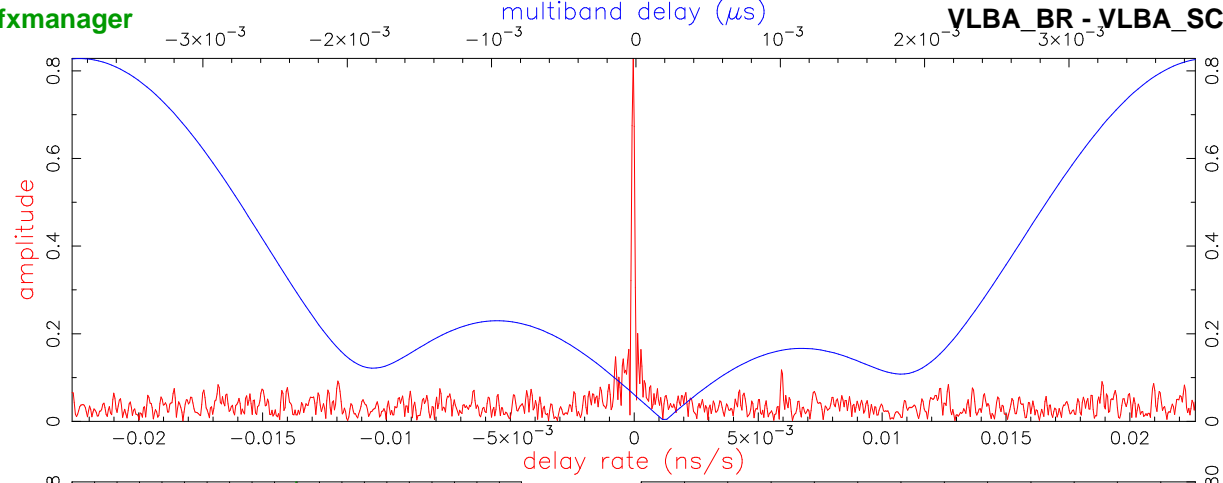
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bc.Q.25.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

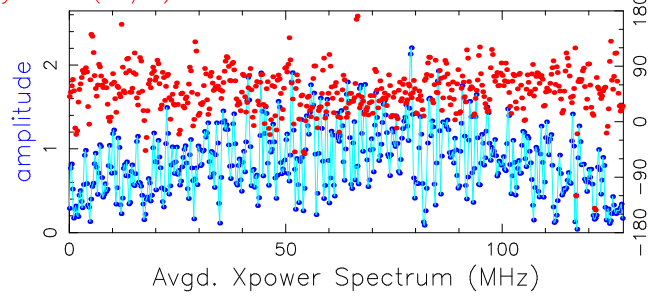
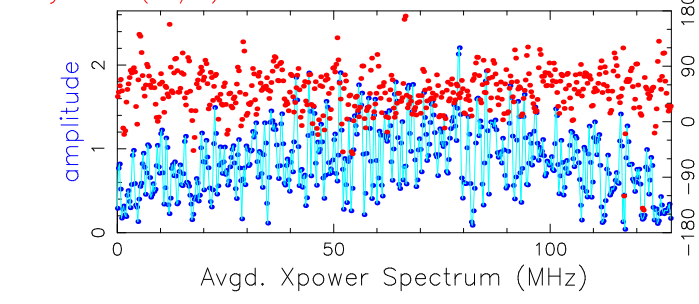
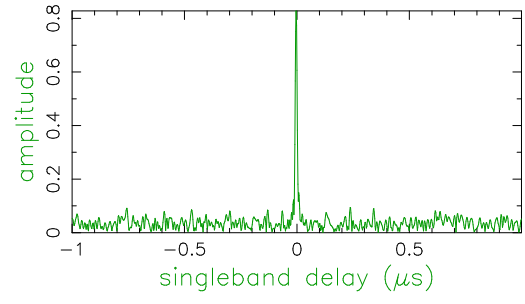
0102+584.1HP6Q8, No0090, bc

VLBA_BR - VLBA_SC, fgroup Q, pol LR



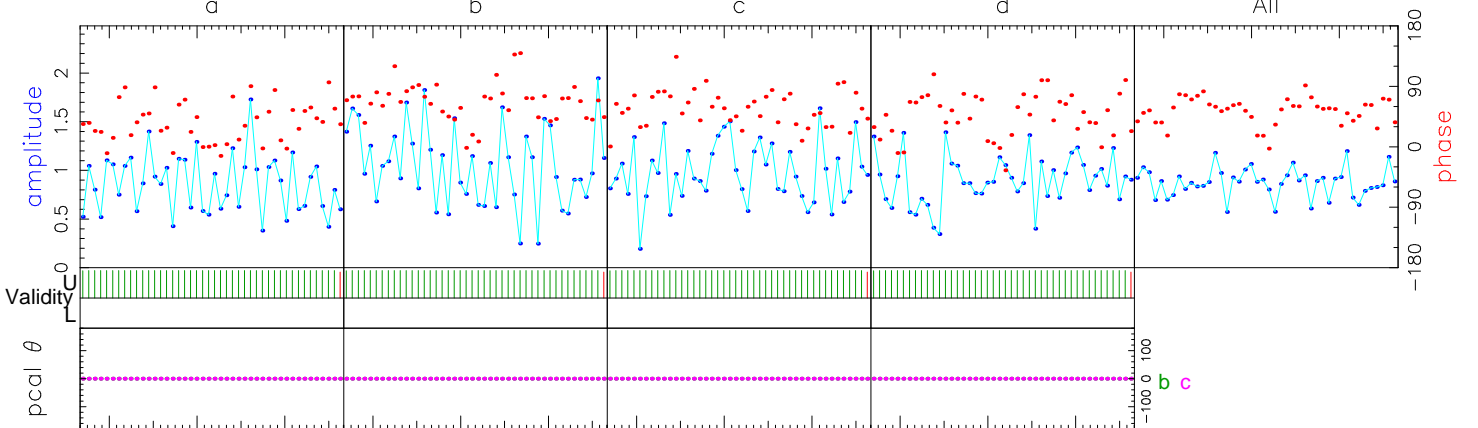
Fringe quality 8

SNR 30.4
 Int time 179.971
 Amp 0.828
 Phase 53.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.003744
 MBD -0.003844
 Fringe rate (Hz)
 -0.001920
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163103
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
40.9	66.7	59.8	42.9	Phase	53.7
0.8	1.0	0.9	0.8	Ampl.	0.8
511.9	511.2	510.4	510.9	Sbd box	511.1
U/L 352/0	352/0	352/0	352/0	APs used	
b 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
b:c 0:0	0:0	0:0	0:0	PC phase	
b:c 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
b Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	5.09797117127E+03	Apriori delay (usec)	5.09797501559E+03	Resid mbdelay (usec)	-3.84431E-03	+/-	3.7E-05
Sband delay (usec)	5.09797127196E+03	Apriori clock (usec)	-1.0156545E+01	Resid sbdelay (usec)	-3.74363E-03	+/-	1.4E-04
Phase delay (usec)	5.09797501906E+03	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	3.46824E-06	+/-	2.4E-07
Delay rate (us/s)	6.06601775934E-01	Apriori rate (us/s)	6.06601820539E-01	Resid rate (us/s)	-4.46050E-08	+/-	2.3E-09
Total phase (deg)	295.2	Apriori accel (us/s/s)	1.50999363938E-05	Resid phase (deg)	53.7	+/-	3.8

	RMS	Theor.	Amplitude	0.828 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	19.4	12.5	Search (1024X16)	0.826	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	18.3	21.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	15.6	3.8	Inc. seg. avg.	0.854	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023	0.023	
amp/frq (%)	10.9	6.6	Inc. frq. avg.	0.842	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 47.6 el 70.3 pa -109.3 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -3314.871 2006.007 simultaneous interpolator

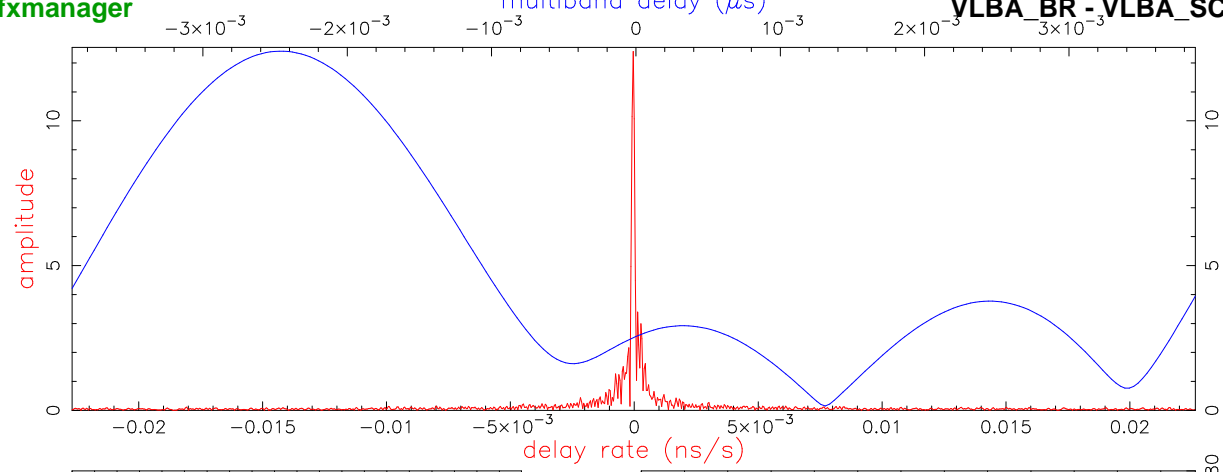
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bc.Q.40.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bc

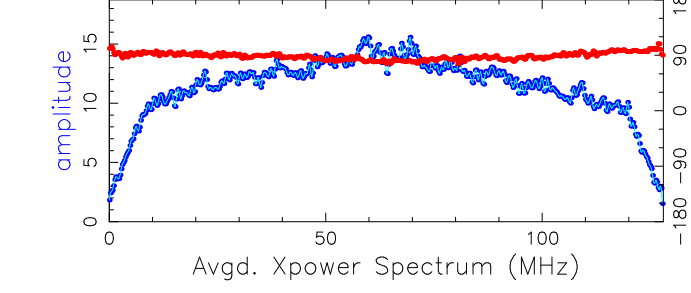
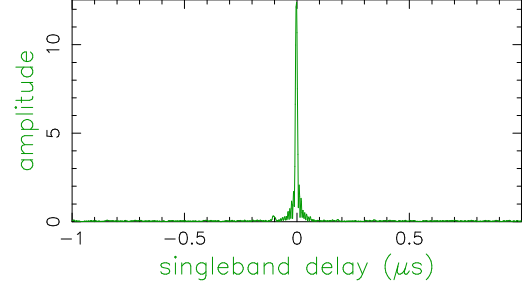
VLBA_BR - VLBA_SC, fgroup Q, pol LL



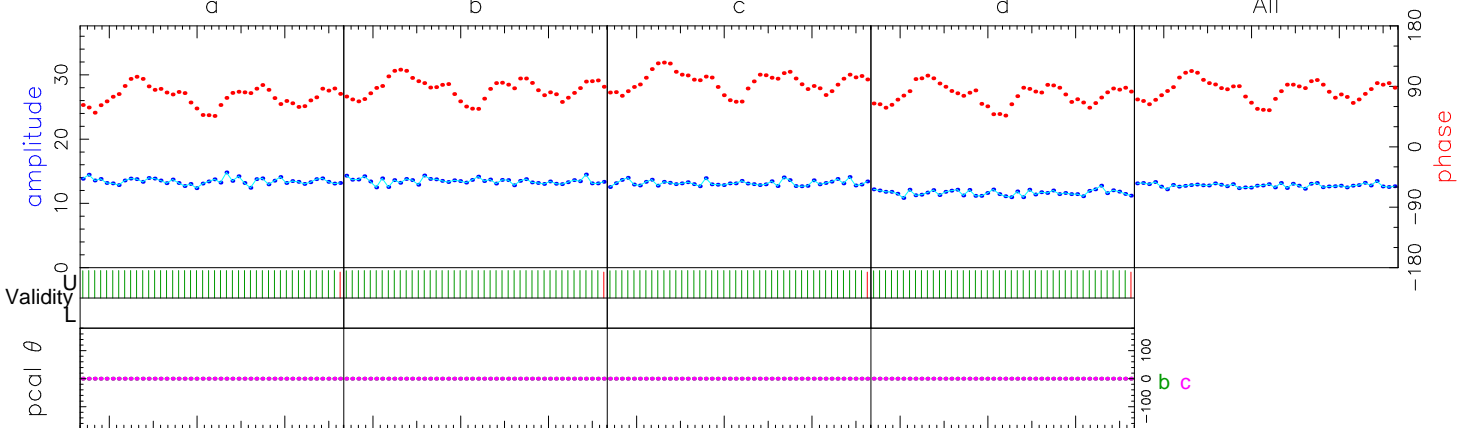
Fringe quality 7

SNR 459.9
 Int time 179.971
 Amp 12.538
 Phase 83.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.002674
 MBD -0.002507
 Fringe rate (Hz)
 -0.001830
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163100
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
b:c	0:0	0:0	0:0	0:0	PC phase	
b:c	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	5.09797250908E+03	Apriori delay (usec)	5.09797501559E+03	Resid mbdelay (usec)	-2.50651E-03	+/- 2.4E-06
Group delay (usec)(sbd)	5.09797234109E+03	Apriori clock (usec)	-1.0156545E+01	Resid sbdelay (usec)	-2.67450E-03	+/- 9.4E-06
Sband delay (usec)	5.09797502099E+03	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	5.40595E-06	+/- 1.6E-08
Phase delay (usec)	6.06601778027E-01	Apriori rate (us/s)	6.06601820539E-01	Resid rate (us/s)	-4.25119E-08	+/- 1.5E-10
Delay rate (us/s)		Apriori accel (us/s/s)	1.50999363938E-05	Resid phase (deg)	83.8	+/- 0.2
Total phase (deg)	325.3					

	RMS	Theor.	Amplitude	12.538 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	14.4	0.8	Search (1024X16)	12.396	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	3.1	1.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	12.2	0.2	Inc. seg. avg.	12.795	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	5.8	0.4	Inc. frq. avg.	12.540	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -3314.871 2006.007 simultaneous interpolator

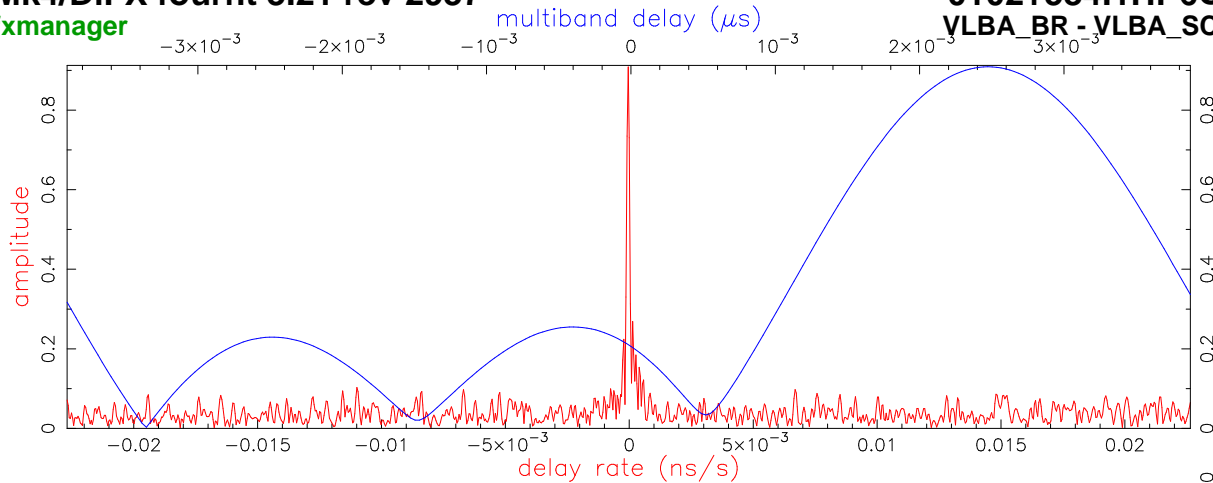
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bc.Q.4.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

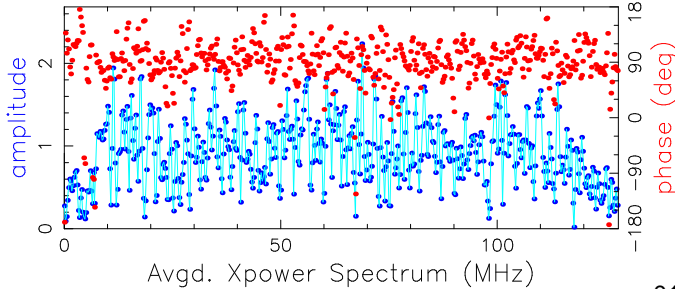
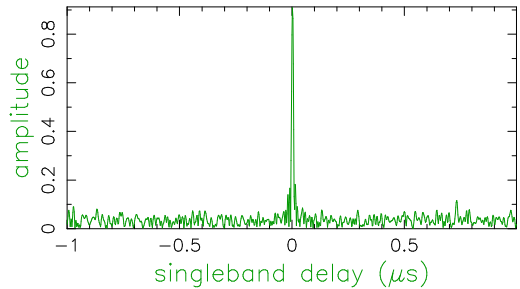
0102+584.1HP6Q8, No0090, bc

VLBA_BR - VLBA_SC, fgroup Q, pol RL



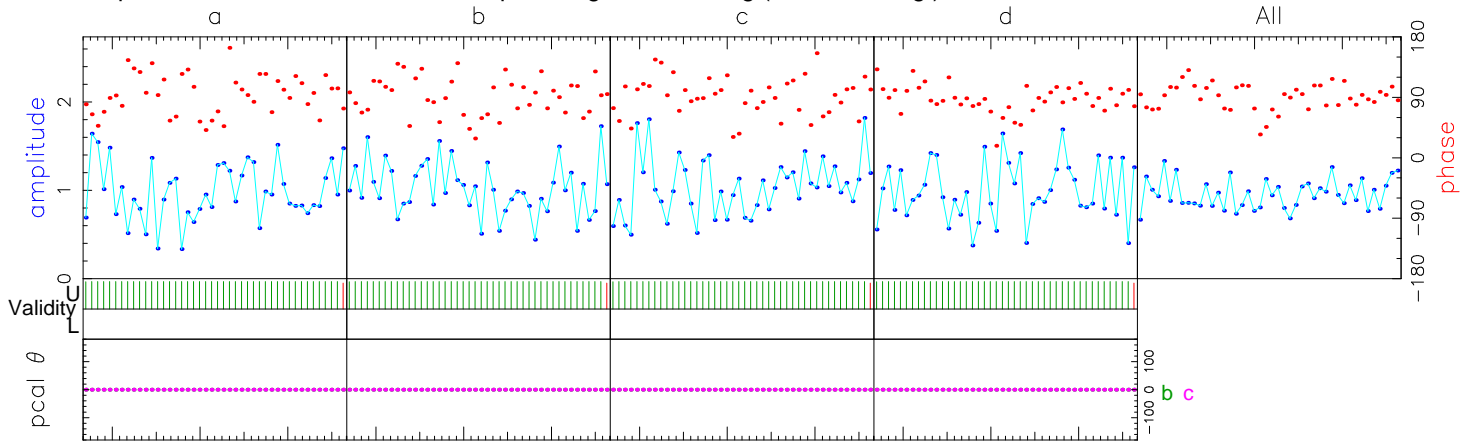
Fringe quality 9

SNR 33.5
 Int time 179.971
 Amp 0.913
 Phase 90.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.002383
 MBD 0.002505
 Fringe rate (Hz)
 -0.001710
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163105
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	PC freqs	
b:c	0:0	0:0	0:0	0:0	PC phase	
b:c	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	5.09797752092E+03	Apriori delay (usec)	5.09797501559E+03	Resid mbdelay (usec)	2.50534E-03	+/- 3.3E-05
Sband delay (usec)	5.09797739821E+03	Apriori clock (usec)	-1.0156545E+01	Resid sbdelay (usec)	2.38262E-03	+/- 1.3E-04
Phase delay (usec)	5.09797502144E+03	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	5.85519E-06	+/- 2.2E-07
Delay rate (us/s)	6.06601780801E-01	Apriori rate (us/s)	6.06601820539E-01	Resid rate (us/s)	-3.97381E-08	+/- 2.1E-09
Total phase (deg)	332.2	Apriori accel (us/s/s)	1.50999363938E-05	Resid phase (deg)	90.7	+/- 3.4

	RMS	Theor.	Amplitude	0.913 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	19.1	11.4	Search (1024X16)	0.906	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	18.7	19.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	3.6	3.4	Inc. seg. avg.	0.942	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.5	6.0	Inc. frq. avg.	0.908	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -3314.871 2006.007 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bc.Q.55.1HP6Q8

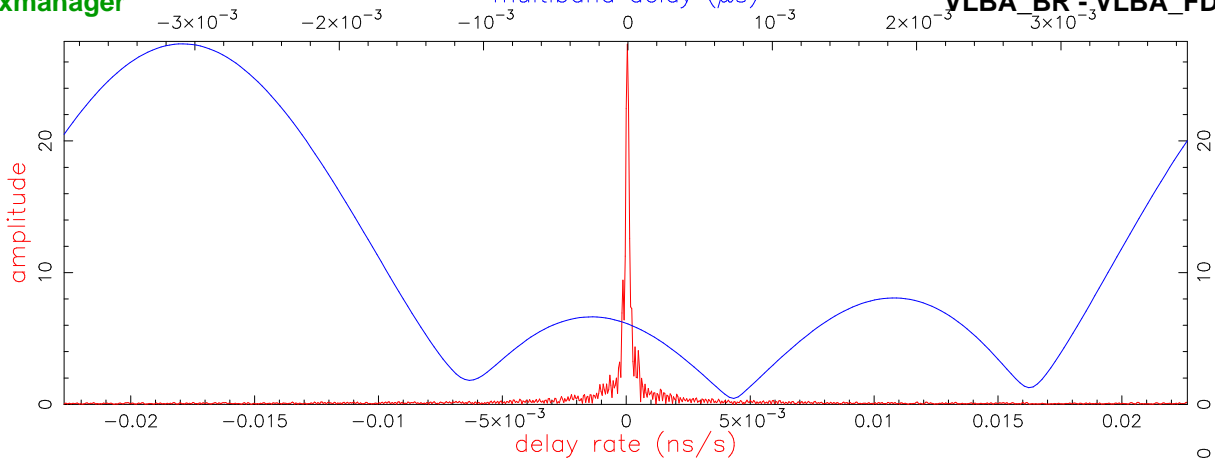
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bf

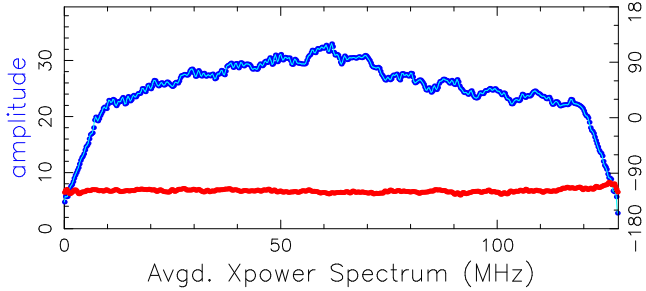
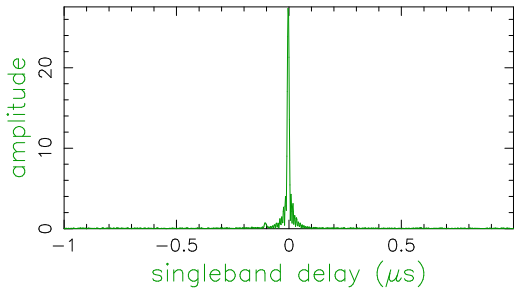
VLBA_BR - VLBA_FD, fgroup Q, pol LL

multiband delay (μ s)



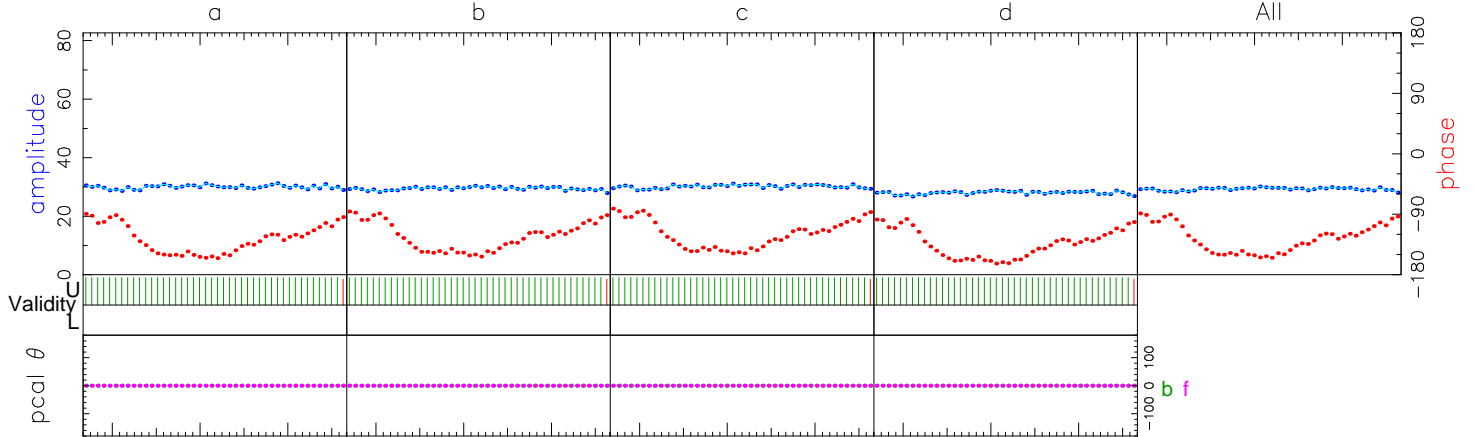
Fringe quality 8

SNR 1011.1
 Int time 179.974
 Amp 27.561
 Phase -125.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.003328
 MBD -0.003048
 Fringe rate (Hz)
 0.001432
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163100
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



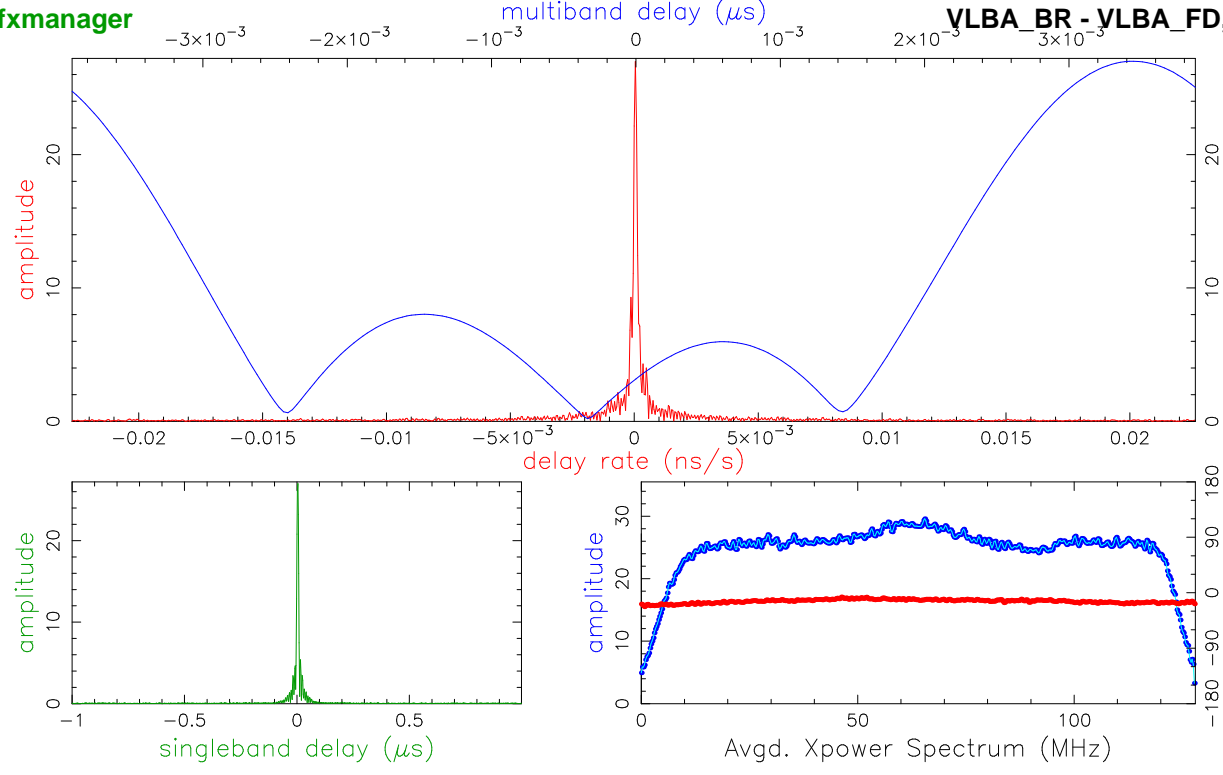
42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-126.5	-123.0	-119.3	-134.0	Phase	-125.6
28.0	27.5	28.2	26.2	Ampl.	27.5
511.4	511.6	511.2	510.9	Sbd box	511.3
U/L 352/0	352/0	352/0	352/0	APs used	
b 1000	1000	1000	1000	PC freqs	
f 1000	1000	1000	1000	PC freqs	
b:f 0:0	0:0	0:0	0:0	PC phase	
b:f 0:0	0:0	0:0	0:0	ManI PC	
b 1000	1000	1000	1000	PC amp	
f 1000	1000	1000	1000		
b Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
f Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	1.45399647892E+03	Apriori delay (usec)	1.45399952647E+03	Resid mbdelay (usec)	-3.04755E-03	+/- 1.1E-06
Sband delay (usec)	1.45399619810E+03	Apriori clock (usec)	-9.5412359E+00	Resid sbdelay (usec)	-3.32838E-03	+/- 4.3E-06
Phase delay (usec)	1.45399951837E+03	Apriori clockrate (us/s)	-3.9999997E-07	Resid phdelay (usec)	-8.10445E-06	+/- 7.3E-09
Delay rate (us/s)	1.06713008327E-01	Apriori rate (us/s)	1.06712975044E-01	Resid rate (us/s)	3.32829E-08	+/- 7.0E-11
Total phase (deg)	97.4	Apriori accel (us/s/s)	1.48282805863E-05	Resid phase (deg)	-125.6	+/- 0.1

ph/seg (deg)	21.0	Theor.	0.4	Amplitude	27.561 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	6.5	0.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	7.7	0.1	Inc. seg. avg.	29.284	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	2.9	0.2	Inc. frq. avg.	27.480	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
b: az 47.6 el 70.3 pa -109.3		f: az 13.6 el 60.8 pa -157.8		u,v (fr/asec) -575.911 1497.425	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bf..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bf.Q.10.1HP6Q8

simultaneous interpolator

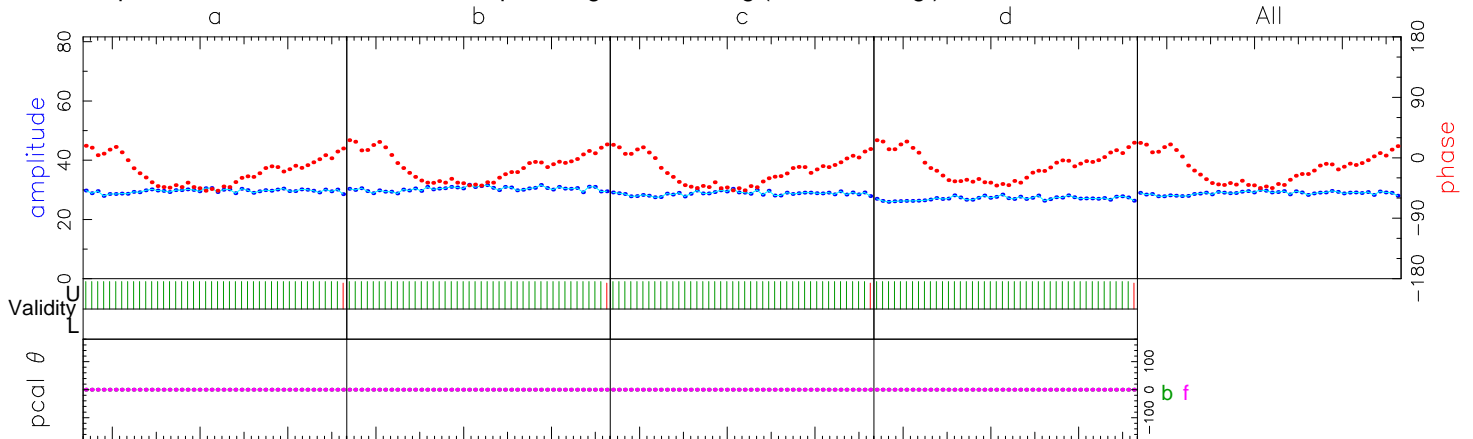


Fringe quality 8

SNR 998.4
Int time 179.974
Amp 27.215
Phase -15.8
PFD 0.0e+00
Delays (us)
SBD 0.003306
MBD 0.003407
Fringe rate (Hz) 0.001424
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512

Exp. c202a
Yr:day 16383
Start 2020:283
Stop 2020:283
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163103
2020:247:085004
RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
f	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
f	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	1.45400293314E+03	Apriori delay (usec)	1.45399952647E+03	Resid mbdelay (usec)	3.40666E-03	+/- 1.1E-06
Sband delay (usec)	1.45400283210E+03	Apriori clock (usec)	-9.5412359E+00	Resid sbdelay (usec)	3.30562E-03	+/- 4.3E-06
Phase delay (usec)	1.45399952545E+03	Apriori clockrate (us/s)	-3.9999997E-07	Resid phdelay (usec)	-1.01982E-06	+/- 7.4E-09
Delay rate (us/s)	1.06713008128E-01	Apriori rate (us/s)	1.06712975044E-01	Resid rate (us/s)	3.30843E-08	+/- 7.1E-11
Total phase (deg)	207.2	Apriori accel (us/s/s)	1.48282805863E-05	Resid phase (deg)	-15.8	+/- 0.1

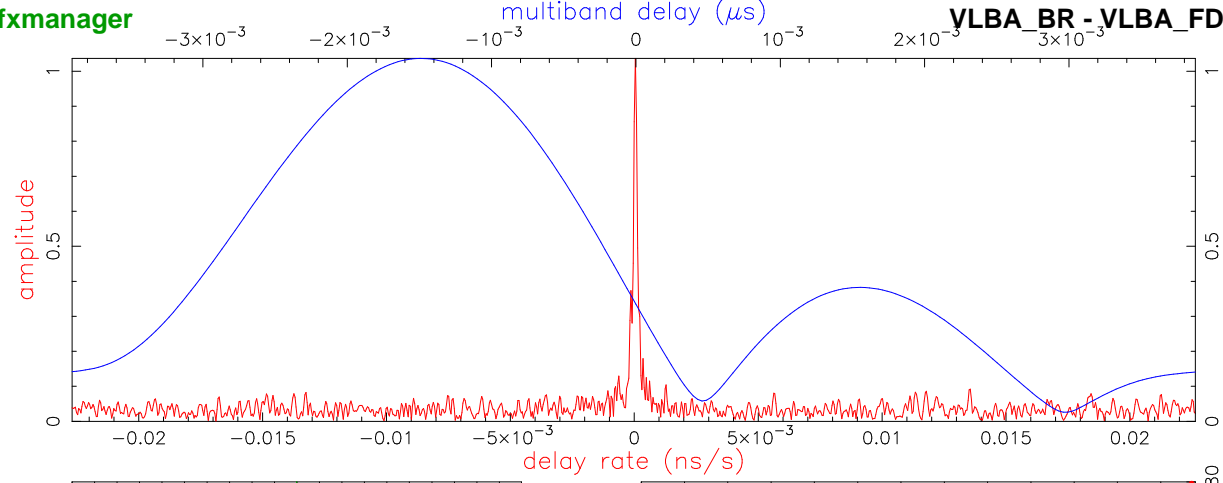
ph/seg (deg) 21.0 0.4 Search (1024X16) 26.656 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 6.5 0.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 5.3 0.1 Inc. seg. avg. 28.887 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
amp/frq (%) 4.2 0.2 Inc. frq. avg. 27.043 Sample rate(MISamp/s): 256 Data rate (Mb/s): 2048 nlags: 512 t_cohere infinite dr window (ns/s) -0.023 0.023
b: az 47.6 el 70.3 pa -109.3 f: az 13.6 el 60.8 pa -157.8 u,v (fr/asec) -575.911 1497.425 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bf..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bf.Q.37.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bf

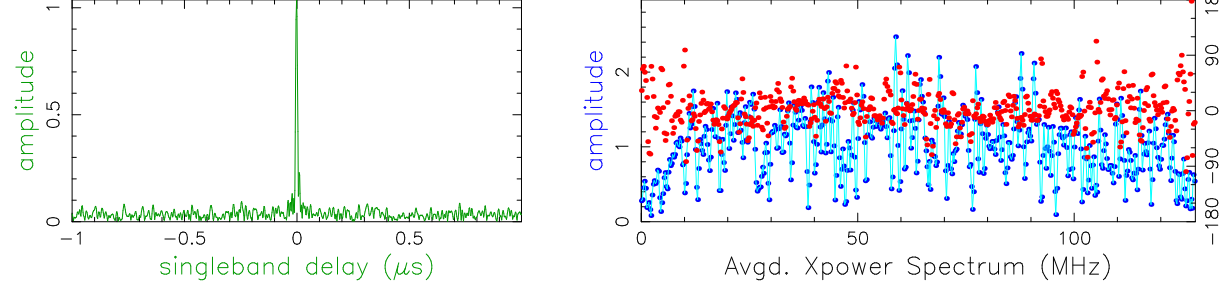
VLBA_BR - VLBA_FD, fgroup Q, pol LR



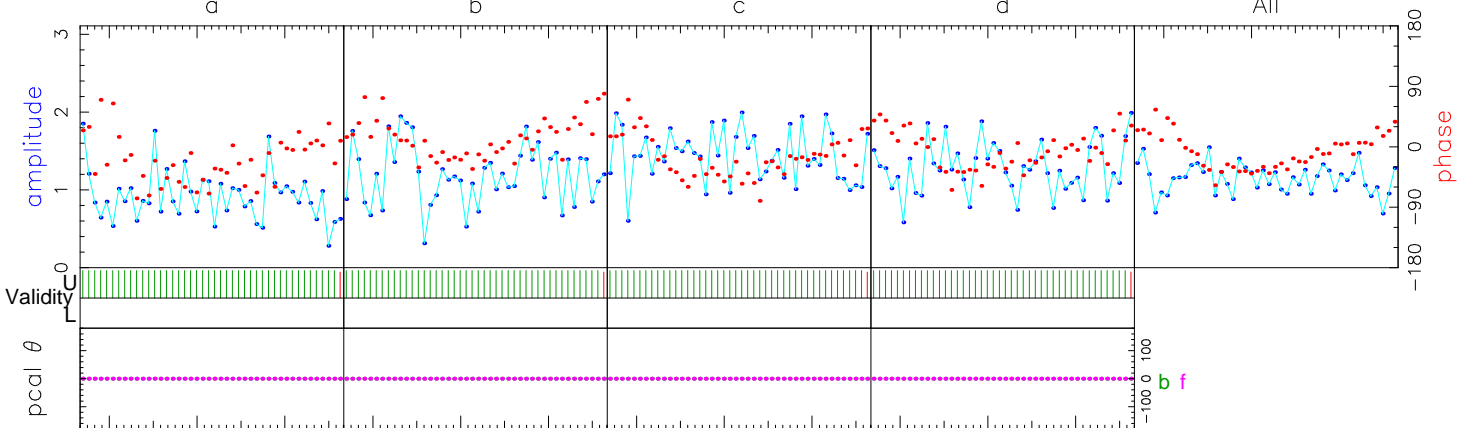
Fringe quality 7

SNR 38.0
 Int time 179.974
 Amp 1.037
 Phase -7.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.001863
 MBD -0.001485
 Fringe rate (Hz)
 0.001507
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163106
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000		
f	1000	1000	1000	1000		
b:f	0:0	0:0	0:0	0:0		
b:f	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
f	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL		
f	Q00UR	Q01UR	Q02UR	Q03UR		

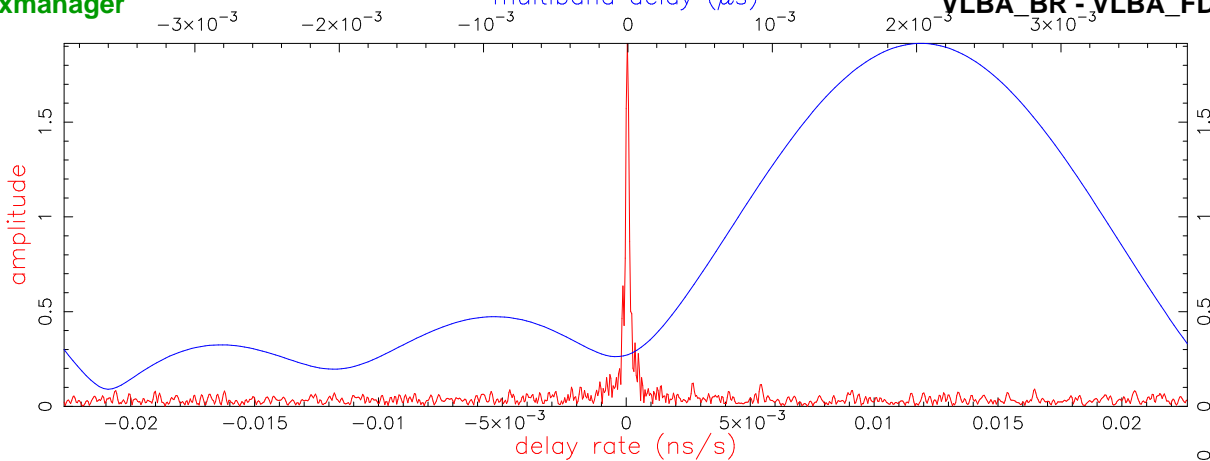
Group delay (usec)(sbd)	1.45399804101E+03	Apriori delay (usec)	1.45399952647E+03	Resid mbdelay (usec)	-1.48546E-03	+/-	2.9E-05
Sband delay (usec)	1.45399766335E+03	Apriori clock (usec)	-9.5412359E+00	Resid sbdelay (usec)	-1.86313E-03	+/-	1.1E-04
Phase delay (usec)	1.45399952597E+03	Apriori clockrate (us/s)	-3.9999997E-07	Resid phdelay (usec)	-5.03379E-07	+/-	1.9E-07
Delay rate (us/s)	1.06713010051E-01	Apriori rate (us/s)	1.06712975044E-01	Resid rate (us/s)	3.50073E-08	+/-	1.9E-09
Total phase (deg)	215.2	Apriori accel (us/s/s)	1.48282805863E-05	Resid phase (deg)	-7.8	+/-	3.0

ph/seg (deg)	26.1	Theor.	10.0	Amplitude	1.037 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	21.0	Search (1024X16)	1.027	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	18.6	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us) -0.004 0.004
amp/frq (%)	17.7	Inc. seg. avg.	1.127	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023
		Inc. frq. avg.	1.062	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

b: az 47.6 el 70.3 pa -109.3 f: az 13.6 el 60.8 pa -157.8 u,v (fr/asec) -575.911 1497.425 simultaneous interpolator

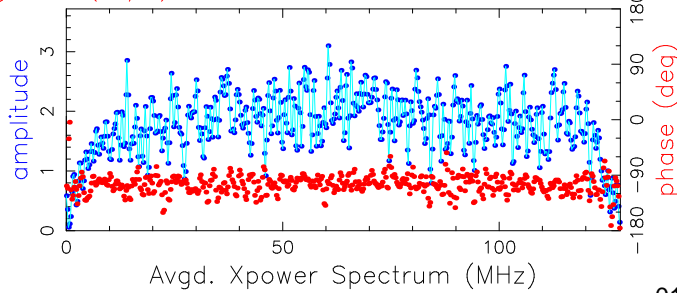
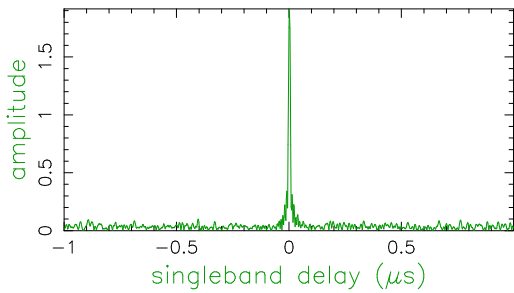
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bf..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bf.Q.62.1HP6Q8

multiband delay (μ s)



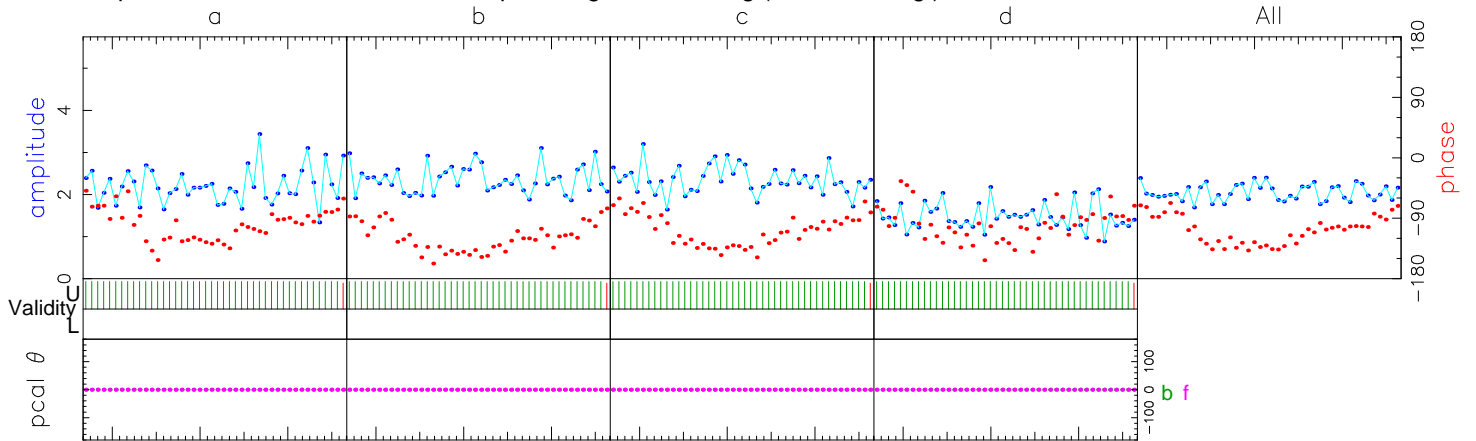
Fringe quality 8

SNR 70.3
Int time 179.974
Amp 1.916
Phase -107.3
PFD 0.0e+00
Delays (us)
SBD 0.001925
MBD 0.002027
Fringe rate (Hz)
0.001419
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 055640.00
Stop 055940.22
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163108
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000		
f	1000	1000	1000	1000		
b:f	0:0	0:0	0:0	0:0		
b:f	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
f	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR		
f	Q00UL	Q01UL	Q02UL	Q03UL		

	1.45400155392E+03	1.45399952647E+03	2.02745E-03	+/-	1.6E-05
Group delay (usec)(sbd)	1.45400155392E+03	1.45399952647E+03	2.02745E-03	+/-	1.6E-05
Sband delay (usec)	1.45400145110E+03	-9.5412359E+00	1.92463E-03	+/-	6.1E-05
Phase delay (usec)	1.45399951955E+03	-3.9999997E-07	-6.92611E-06	+/-	1.1E-07
Delay rate (us/s)	1.06713008004E-01	1.06712975044E-01	3.29596E-08	+/-	1.0E-09
Total phase (deg)	115.6	1.4822805863E-05	-107.3	+/-	1.6

	1.916 +/- 0.027	1.45399952647E+03	2.02745E-03	+/-	1.6E-05
ph/seg (deg)	21.0	1.45399952647E+03	2.02745E-03	+/-	1.6E-05
amp/seg (%)	12.2	-9.5412359E+00	1.92463E-03	+/-	6.1E-05
ph/frq (deg)	10.9	-3.9999997E-07	-6.92611E-06	+/-	1.1E-07
amp/frq (%)	18.1	1.06712975044E-01	3.29596E-08	+/-	1.0E-09

b: az 47.6 el 70.3 pa -109.3 f: az 13.6 el 60.8 pa -157.8 u,v (fr/asec) -575.911 1497.425 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bf..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bf.Q.78.1HP6Q8

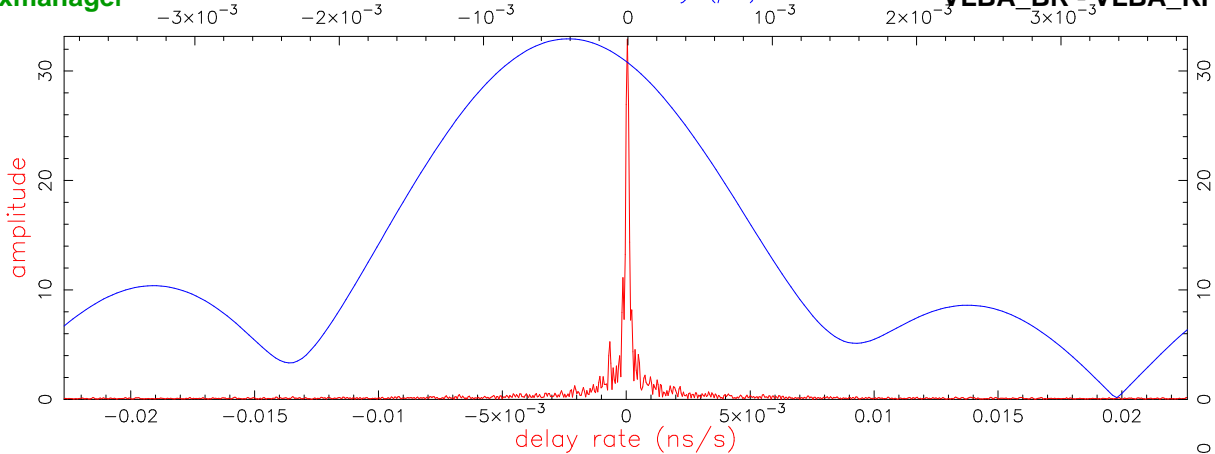
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bk

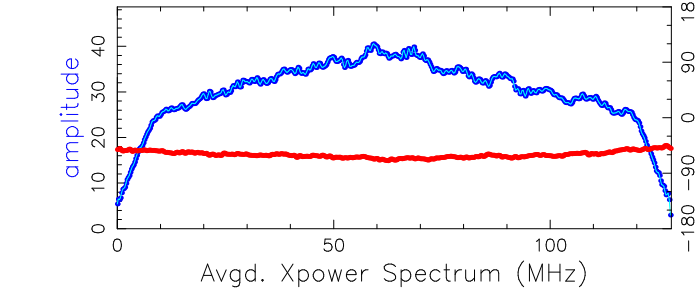
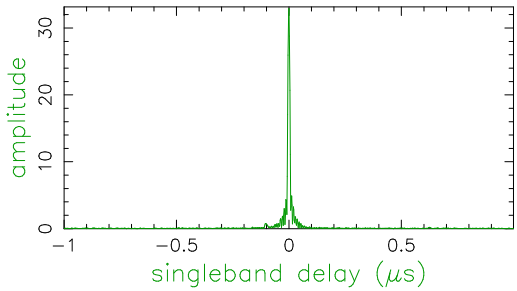
VLBA_BR - VLBA_KP, fgroup Q, pol LL

multiband delay (μ s)



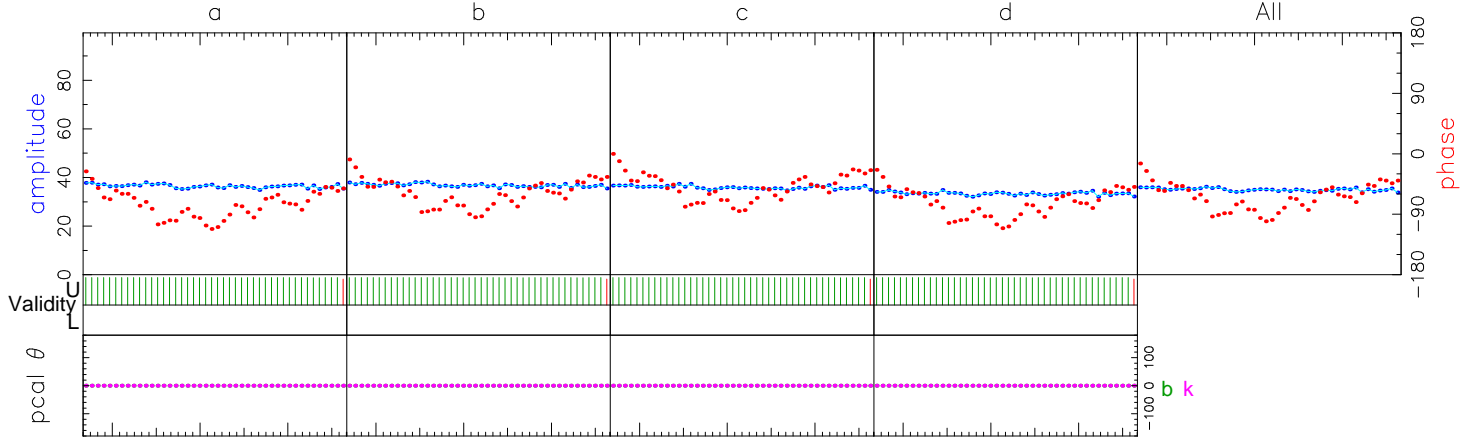
Fringe quality 7

SNR 1216.2
 Int time 179.799
 Amp 33.168
 Phase -64.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.000585
 MBD -0.000449
 Fringe rate (Hz)
 0.002445
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163101
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-75.2	-58.5	-49.2	-73.7	Phase	-64.0
	34.3	34.6	33.8	31.4	Ampl.	33.5
	513.0	513.0	512.4	512.1	Sbd box	512.7
U/L	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
k	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

	1.58069461263E+03	Apriori delay (usec)	1.58069506212E+03	Resid mbdelay (usec)	-4.49492E-04	+/- 9.1E-07
Group delay (usec)(sbd)	1.58069447762E+03	Apriori clock (usec)	-2.0373087E+00	Resid sbdelay (usec)	-5.84500E-04	+/- 3.5E-06
Sband delay (usec)	1.58069505799E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	-4.13046E-06	+/- 6.1E-09
Phase delay (usec)	2.02223687042E-02	Apriori rate (us/s)	2.02223118921E-02	Resid rate (us/s)	5.68120E-08	+/- 5.8E-11
Delay rate (us/s)		Apriori accel (us/s/s)	1.22982474377E-05	Resid phase (deg)	-64.0	+/- 0.1
Total phase (deg)	106.5					

	RMS	Theor.	Amplitude	33.168 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	20.1	0.3	Search (1024X16)	32.360	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	5.9	0.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	15.3	0.1	Inc. seg. avg.	35.032	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.0	0.2	Inc. frq. avg.	33.523	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 k: az 21.3 el 60.1 pa -144.4 u,v (fr/asec) -103.621 1286.486 simultaneous interpolator

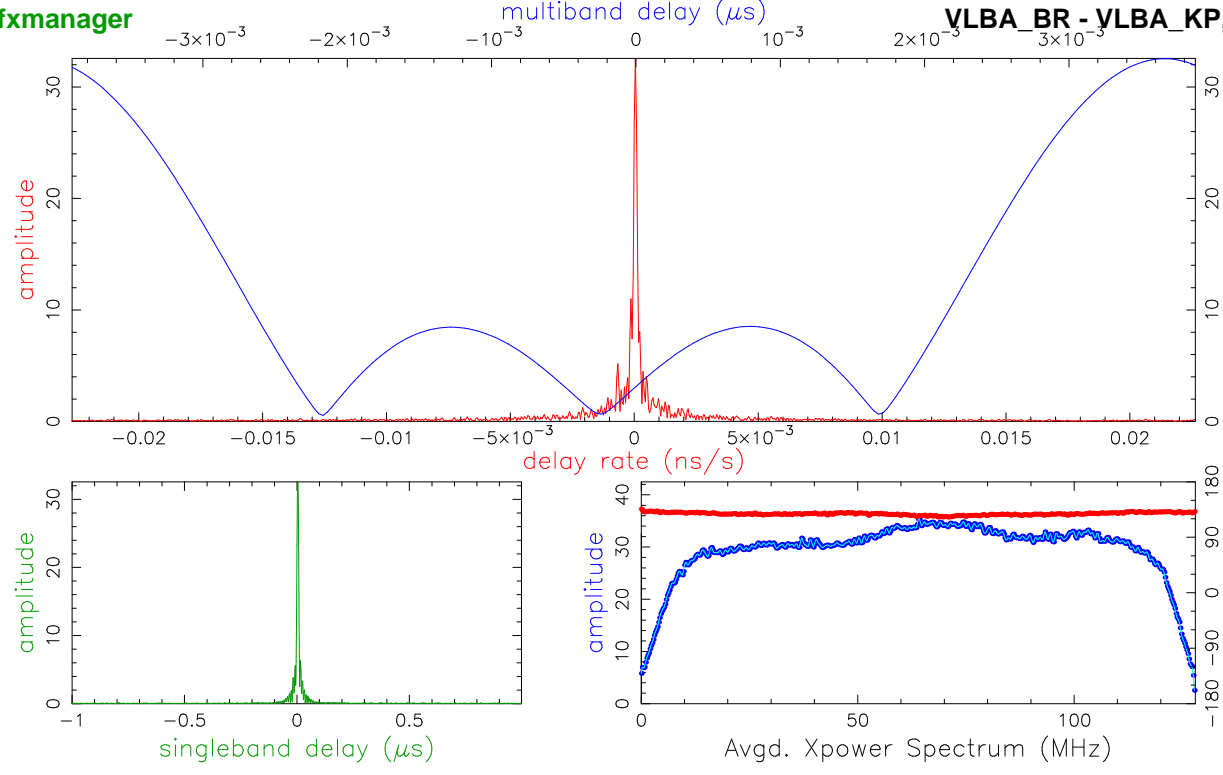
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bk..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bk.Q.17.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bk

VLBA_BR - VLBA_KP, fgroup Q, pol RR

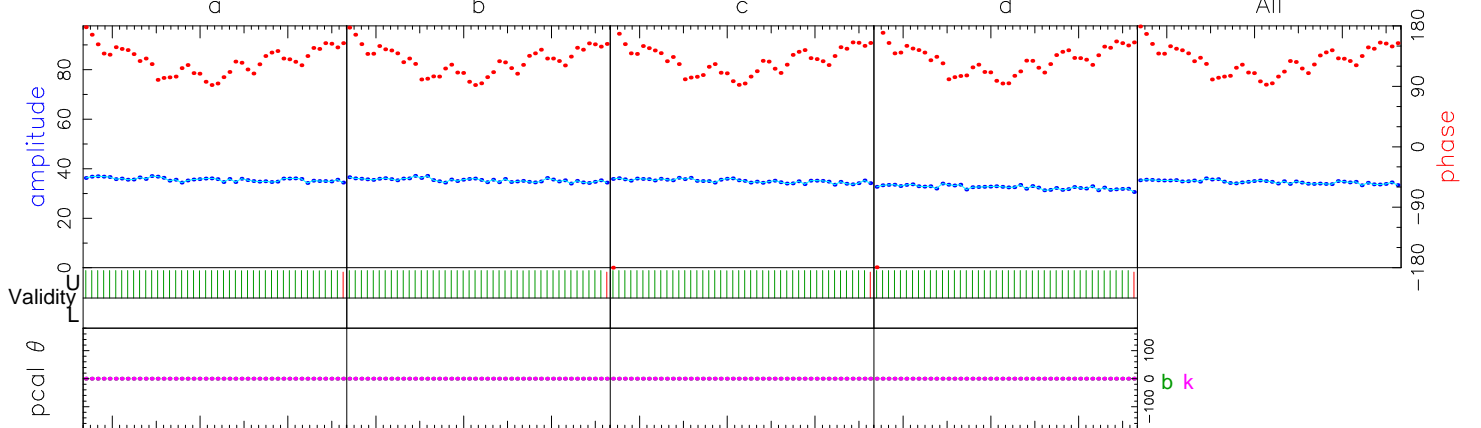


Fringe quality 8

SNR 1194.4
 Int time 179.799
 Amp 32.572
 Phase 129.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.003705
 MBD 0.003652
 Fringe rate (Hz) 0.002432
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163104
 2020:247:085004
 RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
128.5	128.6	129.4	130.0	Phase	129.1
33.5	33.3	32.9	30.5	Ampl.	32.5
515.0	514.8	515.0	514.9	Sbd box	514.9
U/L 352/0	352/0	352/0	352/0	APs used	
b 1000	1000	1000	1000	PC freqs	
k 1000	1000	1000	1000	PC freqs	
b:k 0:0	0:0	0:0	0:0	PC phase	
b:k 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
k 1000	1000	1000	1000		
b Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
k Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	1.58069871363E+03	Apriori delay (usec)	1.58069506212E+03	Resid mbdelay (usec)	3.65151E-03	+/-	9.3E-07
Sband delay (usec)	1.58069876737E+03	Apriori clock (usec)	-2.0373087E+00	Resid sbdelay (usec)	3.70525E-03	+/-	3.6E-06
Phase delay (usec)	1.58069507045E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	8.33075E-06	+/-	6.2E-09
Delay rate (us/s)	2.02223683979E-02	Apriori rate (us/s)	2.02223118921E-02	Resid rate (us/s)	5.65057E-08	+/-	6.0E-11
Total phase (deg)	299.6	Apriori accel (us/s/s)	1.22982474377E-05	Resid phase (deg)	129.1	+/-	0.1

	RMS	Theor.	Amplitude	32.572 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	20.2	0.3	Search (1024X16)	31.322	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	6.7	0.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	0.9	0.1	Inc. seg. avg.	34.648	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.6	0.2	Inc. frq. avg.	32.544	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 k: az 21.3 el 60.1 pa -144.4 u,v (fr/asec) -103.621 1286.486 simultaneous interpolator

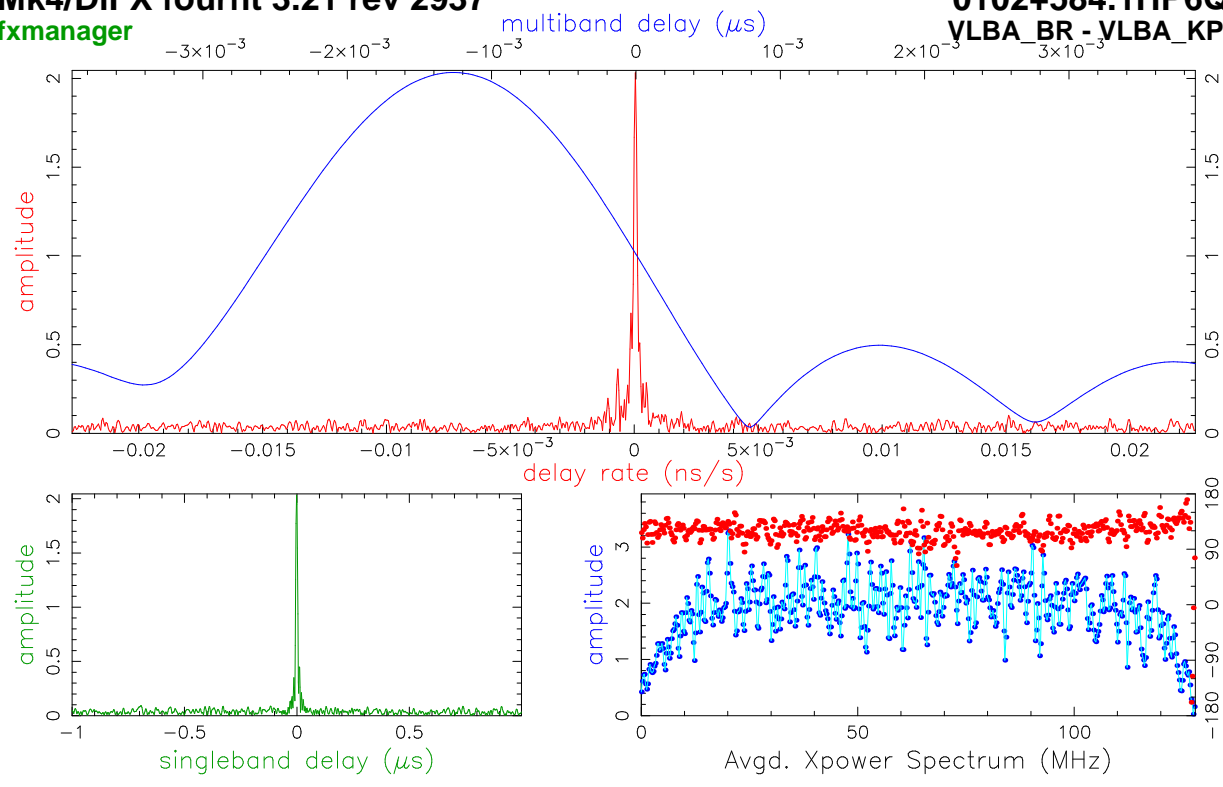
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bk..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bk.Q.43.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bk

VLBA_BR - VLBA_KP, fgroup Q, pol LR

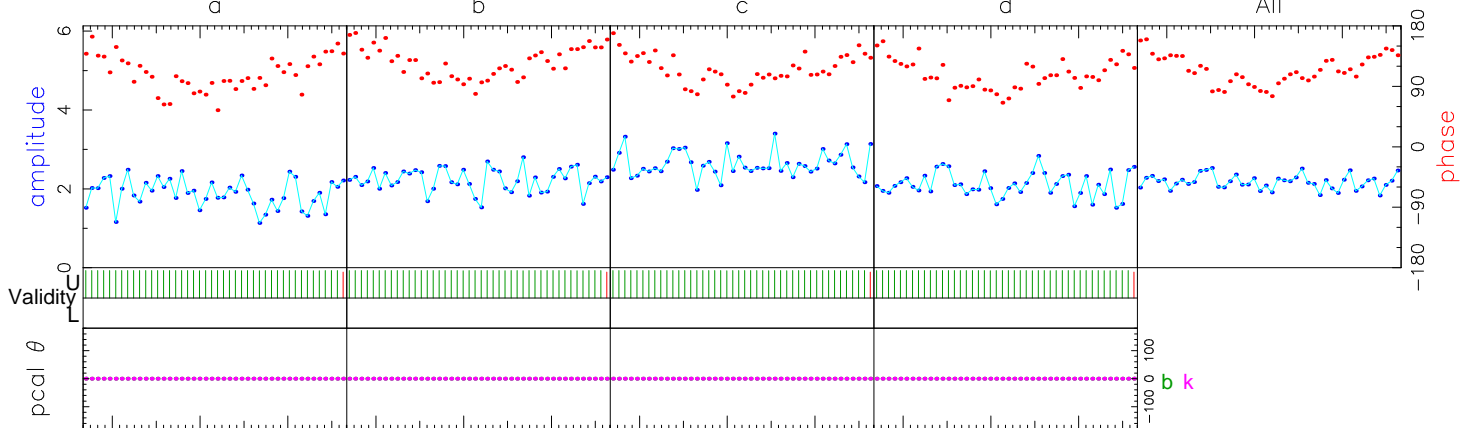


Fringe quality 8

SNR 75.0
 Int time 179.799
 Amp 2.045
 Phase 114.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.001432
 MBD -0.001230
 Fringe rate (Hz) 0.002408
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163107
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
k	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
k	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	1.58069383175E+03		1.58069506212E+03		Resid mbdelay (usec)	-1.23037E-03 +/- 1.5E-05
Sband delay (usec)	1.58069362999E+03		-2.0373087E+00		Resid sbdelay (usec)	-1.43212E-03 +/- 5.7E-05
Phase delay (usec)	1.58069506952E+03		-9.9999991E-08		Resid phdelay (usec)	7.40674E-06 +/- 9.9E-08
Delay rate (us/s)	2.02223678448E-02		2.02223118921E-02		Resid rate (us/s)	5.59527E-08 +/- 9.5E-10
Total phase (deg)		285.2	1.22982474377E-05		Resid phase (deg)	114.8 +/- 1.5
	RMS	Theor.	Amplitude	2.045 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	21.3	5.1	Search (1024X16)	1.977	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	10.8	8.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	10.1	1.5	Inc. seg. avg.	2.168	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	13.1	2.7	Inc. frq. avg.	2.047	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
b: az 47.6 el 70.3 pa -109.3		k: az 21.3 el 60.1 pa -144.4		u, v (fr/asec) -103.621 1286.486		simultaneous interpolator
Control file: cf_1234_gmva7mm		Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bk..1HP6Q8		Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bk.Q.75.1HP6Q8		

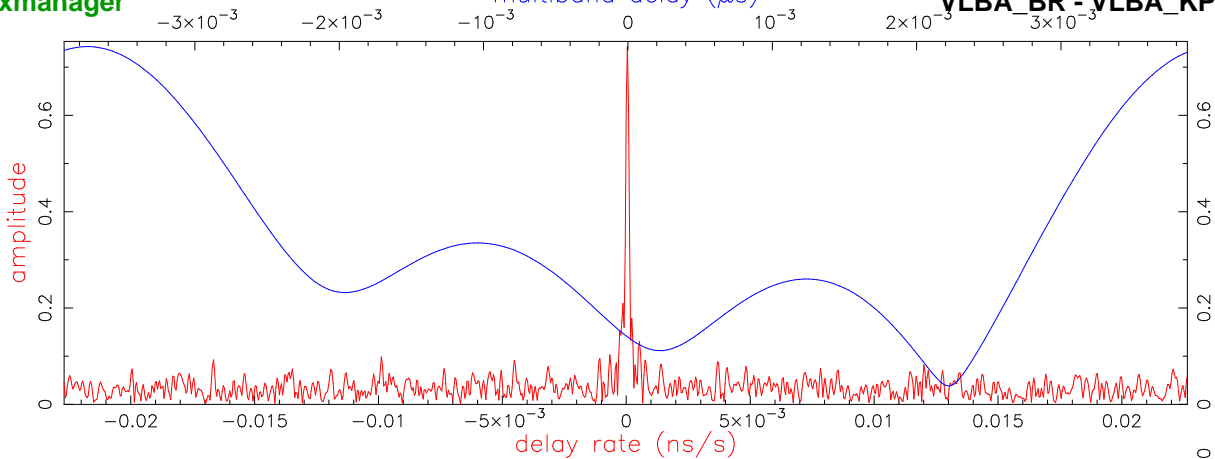
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bk

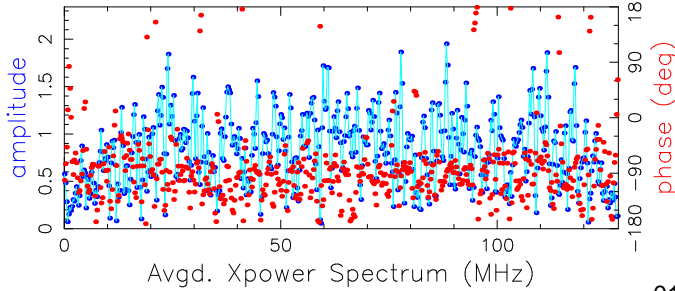
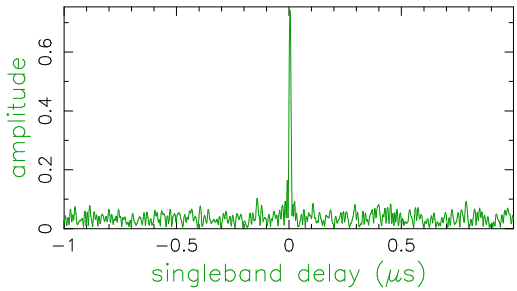
VLBA_BR - VLBA_KP, fgroup Q, pol RL

multiband delay (μ s)



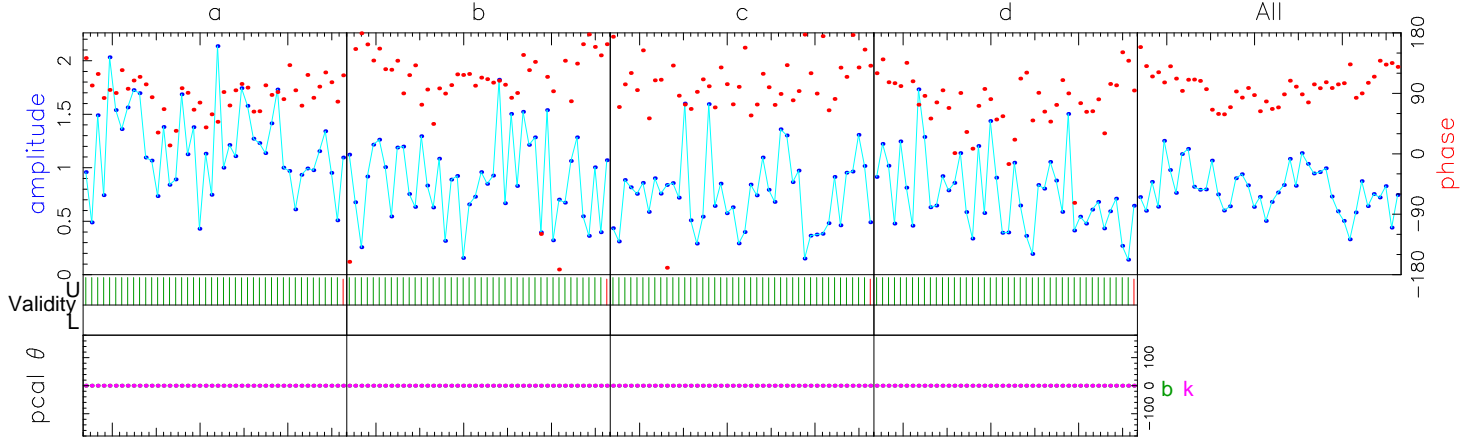
Fringe quality 6

SNR 27.6
 Int time 179.799
 Amp 0.754
 Phase 99.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.004735
 MBD -0.003703
 Fringe rate (Hz)
 0.002389
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163109
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



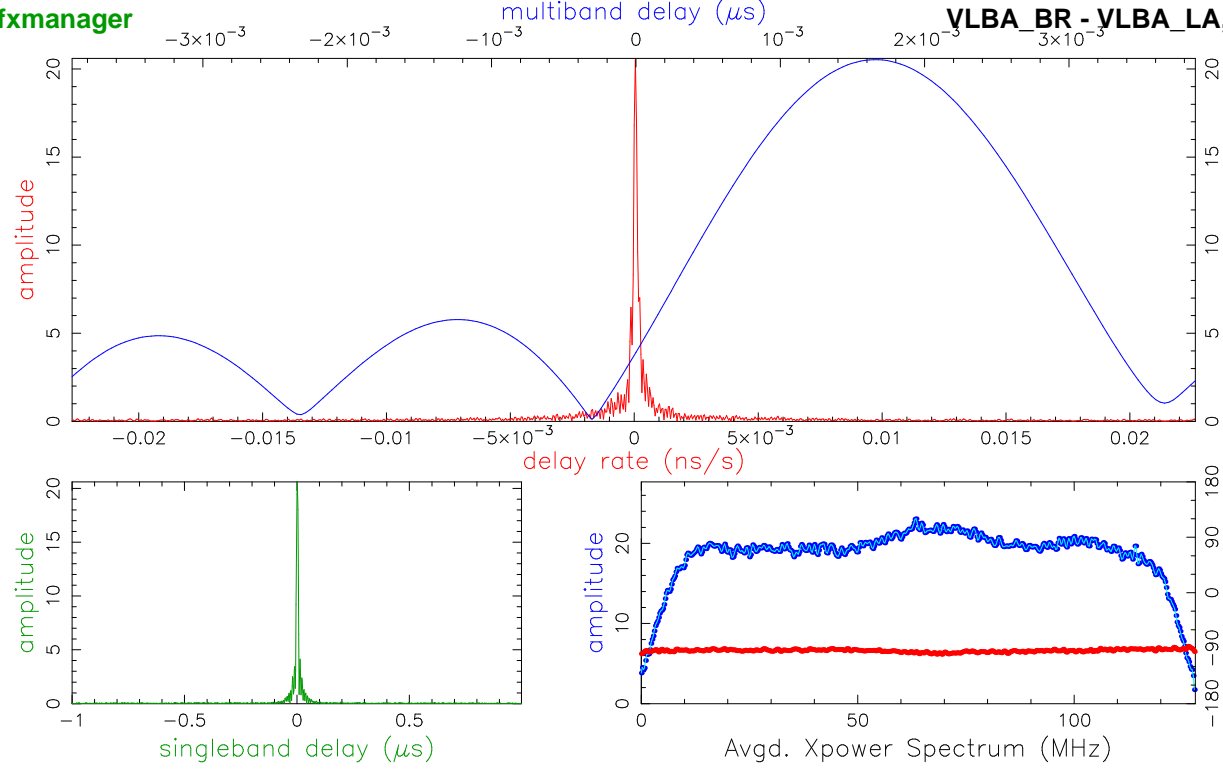
42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
89.7	123.4	107.5	80.9	Phase	99.7
1.1	0.8	0.6	0.6	Ampl.	0.8
515.7	515.4	514.7	515.7	Sbd box	515.4
U/L 352/0	352/0	352/0	352/0	APs used	
b 1000	1000	1000	1000	PC freqs	
k 1000	1000	1000	1000	PC freqs	
b:k 0:0	0:0	0:0	0:0	PC phase	
b:k 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
k 1000	1000	1000	1000		
b Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
k Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	1.58069917156E+03	Apriori delay (usec)	1.58069506212E+03	Resid mbdelay (usec)	-3.70305E-03	+/-	4.0E-05
Sband delay (usec)	1.58069979699E+03	Apriori clock (usec)	-2.0373087E+00	Resid sbdelay (usec)	4.73488E-03	+/-	1.6E-04
Phase delay (usec)	1.58069506855E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	6.43543E-06	+/-	2.7E-07
Delay rate (us/s)	2.02223673995E-02	Apriori rate (us/s)	2.02223118921E-02	Resid rate (us/s)	5.55074E-08	+/-	2.6E-09
Total phase (deg)	270.2	Apriori accel (us/s/s)	1.22982474377E-05	Resid phase (deg)	99.7	+/-	4.1

	RMS	Theor.	Amplitude	0.754 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	23.2	13.8	Search (1024X16)	0.727	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	27.4	24.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
ph/frq (deg)	23.2	4.1	Inc. seg. avg.	0.777	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
amp/frq (%)	23.9	7.2	Inc. frq. avg.	0.770	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

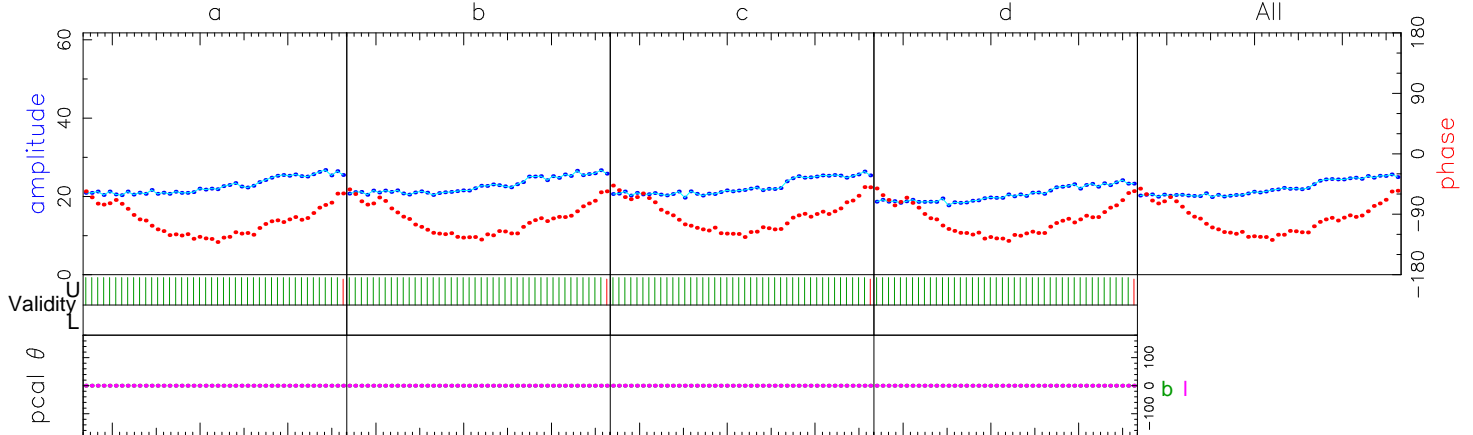
b: az 47.6 el 70.3 pa -109.3 k: az 21.3 el 60.1 pa -144.4 u,v (fr/asec) -103.621 1286.486 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bk..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bk.Q.81.1HP6Q8



Fringe quality 8
SNR 755.8
Int time 179.974
Amp 20.602
Phase -96.0
PFD 0.0e+00
Delays (us)
SBD 0.001551
MBD 0.001633
Fringe rate (Hz)
0.002392
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 055640.00
Stop 055940.22
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163102
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	Phase	-96.0
l	1000	1000	1000	1000	Ampl.	20.6
b:l	0:0	0:0	0:0	0:0	Sbd box	513.8
b:l	0:0	0:0	0:0	0:0	APs used	
b	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	PC freqs	
b	Q00UR	Q01UR	Q02UR	Q03UR	PC phase	
l	Q00UR	Q01UR	Q02UR	Q03UR	Manl PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	7.19309773894E+02	Apriori delay (usec)	7.19308140823E+02	Resid mbdelay (usec)	1.63307E-03	+/- 1.5E-06
Sband delay (usec)	7.19309691698E+02	Apriori clock (usec)	-1.3236904E+00	Resid sbdelay (usec)	1.55088E-03	+/- 5.7E-06
Phase delay (usec)	7.19308134630E+02	Apriori clockrate (us/s)	9.9999998E-08	Resid phdelay (usec)	-6.19300E-06	+/- 9.8E-09
Delay rate (us/s)	8.92884436411E-02	Apriori rate (us/s)	8.92883880656E-02	Resid rate (us/s)	5.55755E-08	+/- 9.4E-11
Total phase (deg)	41.2	Apriori accel (us/s/s)	1.15612805555E-05	Resid phase (deg)	-96.0	+/- 0.2

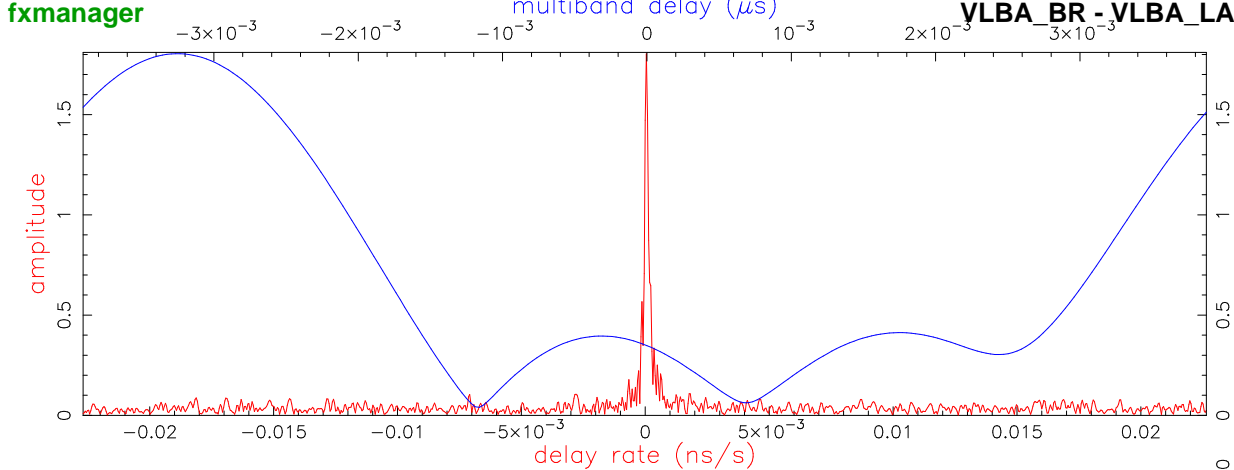
ph/seg (deg)	22.0	0.5	Amplitude	20.602 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	12.0	0.9	Search (1024X16)	19.977	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	4.5	0.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	4.4	0.3	Inc. seg. avg.	22.100	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
			Inc. frq. avg.	20.558	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

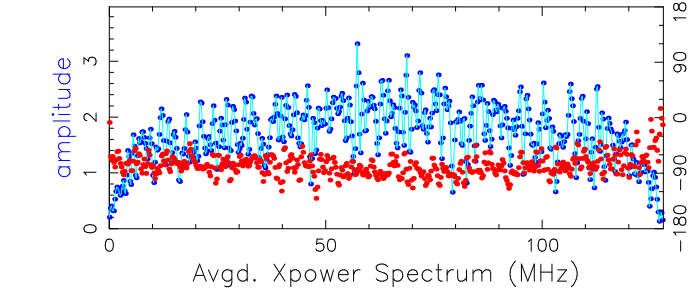
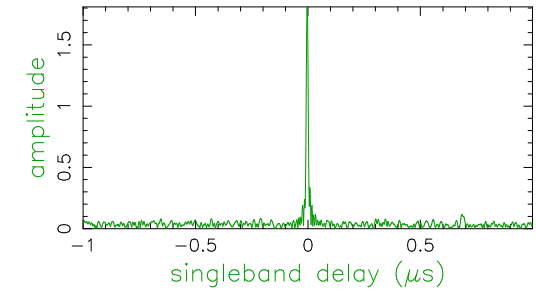
0102+584.1HP6Q8, No0090, bl

VLBA_BR - VLBA_LA, fgroup Q, pol LR



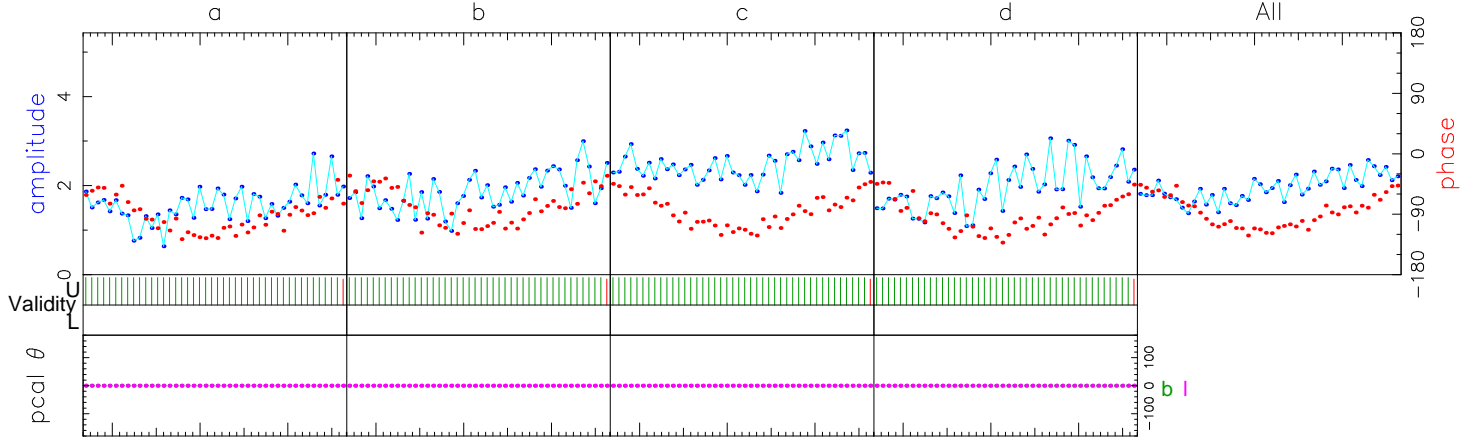
Fringe quality 8

SNR 66.4
 Int time 179.974
 Amp 1.810
 Phase -85.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.003489
 MBD -0.003221
 Fringe rate (Hz)
 0.002390
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163104
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-91.2	-77.0	-83.0	-92.7	Phase	-85.7
1.4	1.7	2.3	1.8	Ampl.	1.8
512.1	511.5	511.0	510.5	Sbd box	511.2
U/L 352/0	352/0	352/0	352/0	APs used	
b 1000	1000	1000	1000	PC freqs	
l 1000	1000	1000	1000	PC freqs	
b:l 0:0	0:0	0:0	0:0	PC phase	
b:l 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
l 1000	1000	1000	1000		
b Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
l Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	7.19304919769E+02	Apriori delay (usec)	7.19308140823E+02	Resid mbdelay (usec)	-3.22105E-03	+/- 1.7E-05
Sband delay (usec)	7.19304651823E+02	Apriori clock (usec)	-1.3236904E+00	Resid sbdelay (usec)	-3.48900E-03	+/- 6.5E-05
Phase delay (usec)	7.19308135293E+02	Apriori clockrate (us/s)	9.9999998E-08	Resid phdelay (usec)	-5.52952E-06	+/- 1.1E-07
Delay rate (us/s)	8.92884436042E-02	Apriori rate (us/s)	8.92883880656E-02	Resid rate (us/s)	5.55386E-08	+/- 1.1E-09
Total phase (deg)	51.5	Apriori accel (us/s/s)	1.15612805555E-05	Resid phase (deg)	-85.7	+/- 1.7

	RMS	Theor.	Amplitude	1.810 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	22.8	5.7	Search (1024X16)	1.763	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	18.1	10.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	9.0	1.7	Inc. seg. avg.	1.943	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023	0.023	
amp/frq (%)	17.2	3.0	Inc. frq. avg.	1.813	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00
b: az 47.6 el 70.3 pa -109.3			l: az 18.7 el 65.2 pa -150.7							simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bl.1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bl.Q.45.1HP6Q8

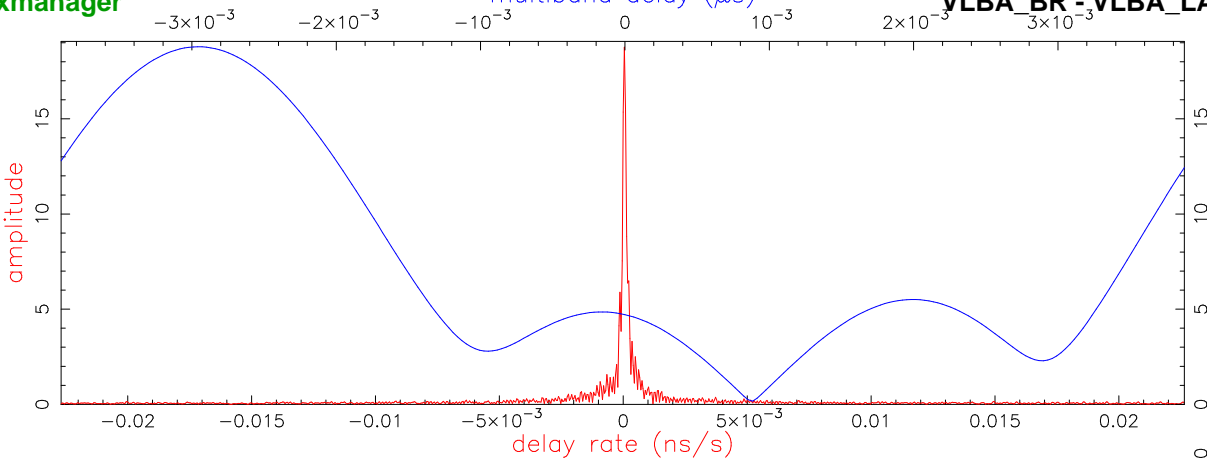
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bl

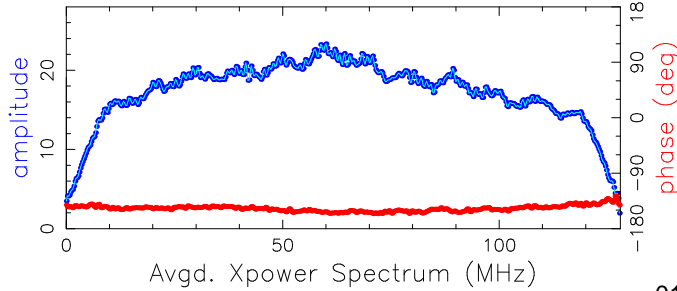
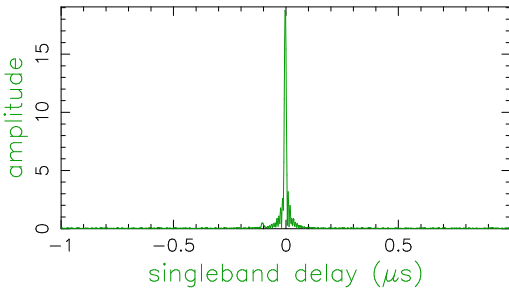
VLBA_BR - VLBA_LA, fgroup Q, pol LL

multiband delay (μ s)



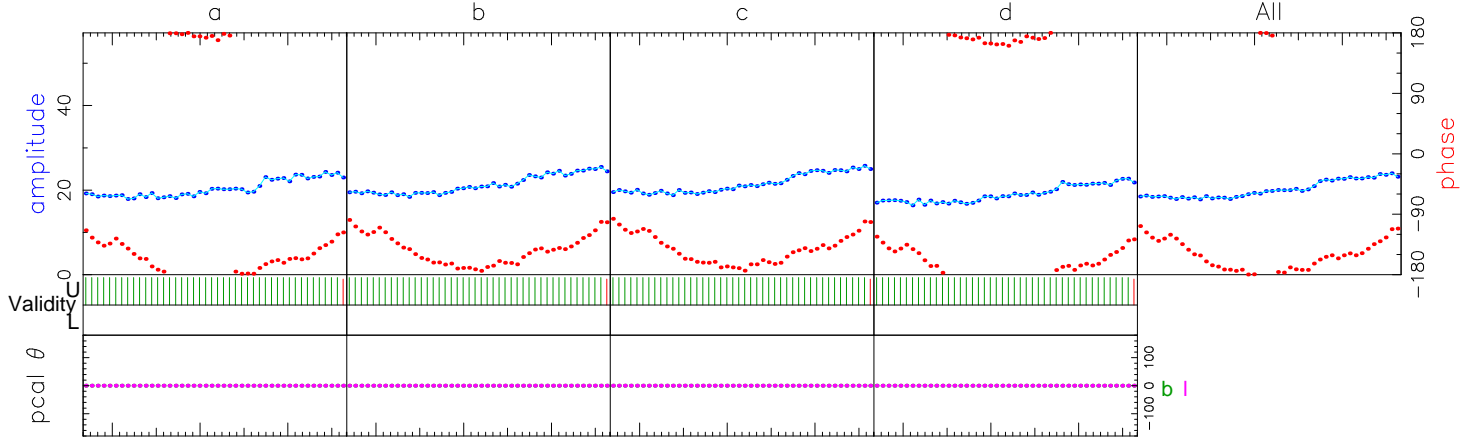
Fringe quality 7

SNR 699.5
 Int time 179.974
 Amp 19.068
 Phase -151.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.003048
 MBD -0.002906
 Fringe rate (Hz)
 0.002429
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163100
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000		
l	1000	1000	1000	1000		
b:l	0:0	0:0	0:0	0:0		
b:l	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
l	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL		
l	Q00UL	Q01UL	Q02UL	Q03UL		
					Phase	-151.8
					Ampl.	19.1
					Sbd box	511.4
					APs used	
					PC freqs	
					PC freqs	
					PC phase	
					ManI PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

	7.19305235113E+02	Apriori delay (usec)	7.19308140823E+02	Resid mbdelay (usec)	-2.90571E-03	+/- 1.6E-06
Sband delay (usec)	7.19305092823E+02	Apriori clock (usec)	-1.3236904E+08	Resid sbdelay (usec)	-3.04800E-03	+/- 6.2E-06
Phase delay (usec)	7.19308131026E+02	Apriori clockrate (us/s)	9.9999998E-08	Resid phdelay (usec)	-9.79693E-06	+/- 1.1E-08
Delay rate (us/s)	8.92884445033E-02	Apriori rate (us/s)	8.92883880656E-02	Resid rate (us/s)	5.64377E-08	+/- 1.0E-10
Total phase (deg)	-14.6	Apriori accel (us/s/s)	1.15612805555E-05	Resid phase (deg)	-151.8	+/- 0.2

	RMS	Theor.	Amplitude	19.068 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	22.0	0.5	Search (1024X16)	18.499	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	12.2	0.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	15.9	0.2	Inc. seg. avg.	20.207	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.8	0.3	Inc. frq. avg.	19.123	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
b: az 47.6 el 70.3 pa -109.3			l: az 18.7 el 65.2 pa -150.7			u,v (fr/asec) -482.304 1114.012
simultaneous interpolator						

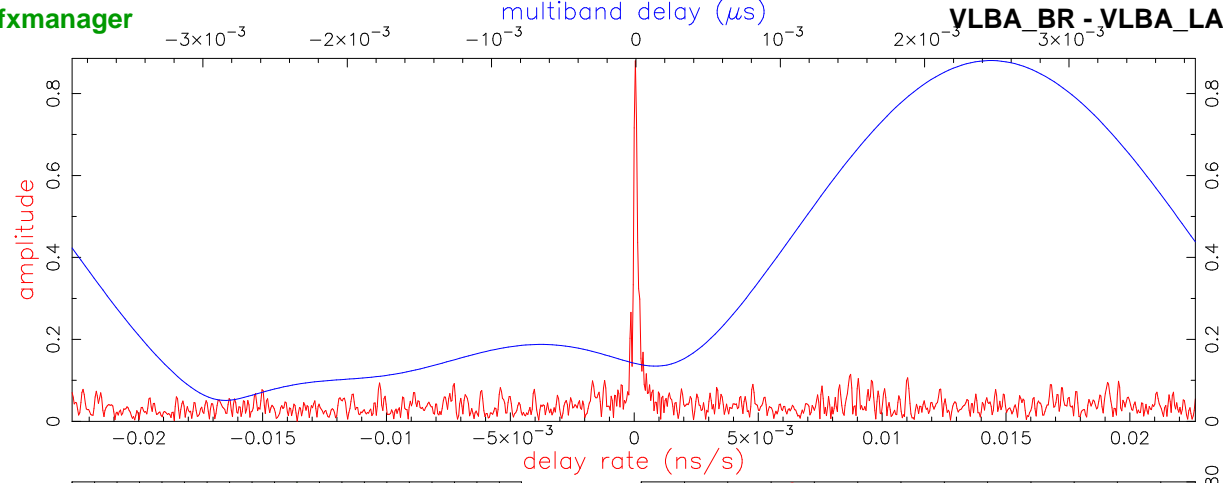
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bl.1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bl.Q.5.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bl

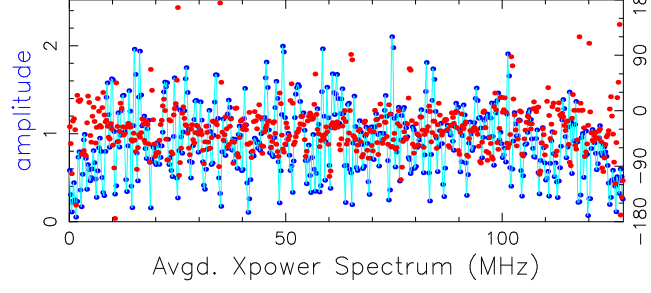
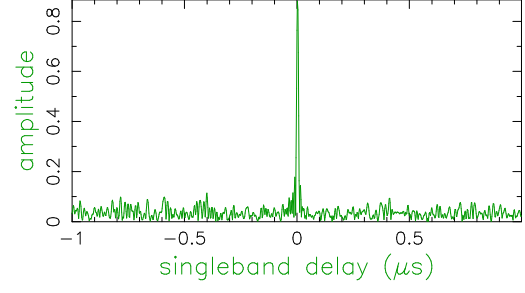
VLBA_BR - VLBA_LA, fgroup Q, pol RL



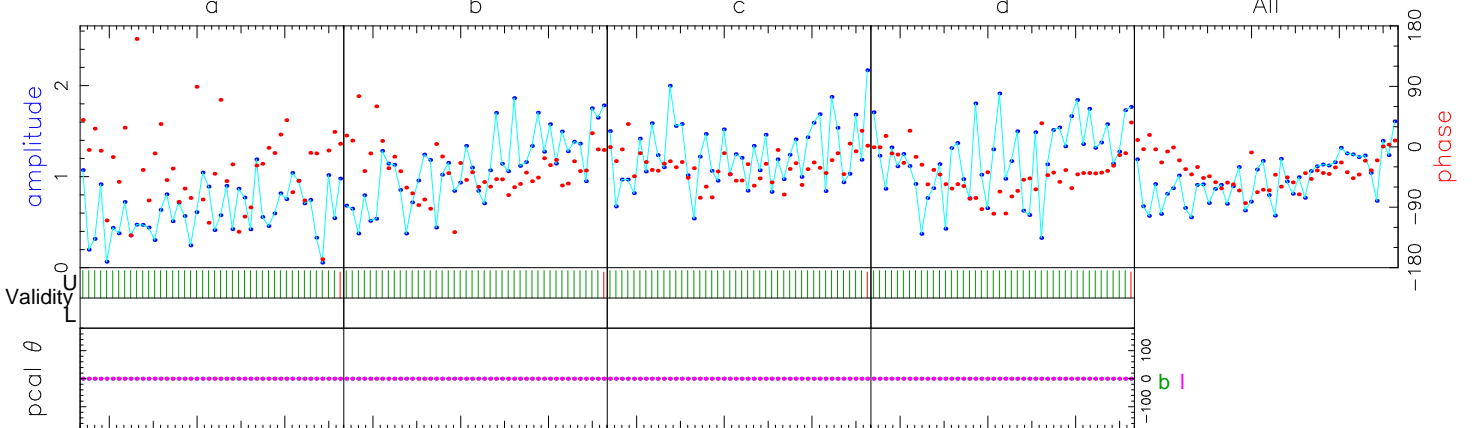
Fringe quality 8

SNR 32.5
 Int time 179.974
 Amp 0.886
 Phase -34.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.002490
 MBD 0.002502
 Fringe rate (Hz) 0.002431
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163106
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-30.3	-36.6	-27.8	-40.1	Phase	-34.1
0.4	0.9	1.2	1.0	Ampl.	0.9
514.0	514.2	514.5	514.1	Sbd box	514.3
U/L 352/0	352/0	352/0	352/0	APs used	
b 1000	1000	1000	1000	PC freqs	
l 1000	1000	1000	1000	PC freqs	
b:l 0:0	0:0	0:0	0:0	PC phase	
b:l 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
l 1000	1000	1000	1000		
b Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
l Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	7.19310642956E+02	Apriori delay (usec)	7.19308140823E+02	Resid mbdelay (usec)	2.50213E-03	+/-	3.4E-05
Sband delay (usec)	7.19310630948E+02	Apriori clock (usec)	-1.3236904E+00	Resid sbdelay (usec)	2.49012E-03	+/-	1.3E-04
Phase delay (usec)	7.19308138625E+02	Apriori clockrate (us/s)	9.9999998E-08	Resid phdelay (usec)	-2.19818E-06	+/-	2.3E-07
Delay rate (us/s)	8.92884445572E-02	Apriori rate (us/s)	8.92883880656E-02	Resid rate (us/s)	5.64916E-08	+/-	2.2E-09
Total phase (deg)	103.1	Apriori accel (us/s/s)	1.15612805555E-05	Resid phase (deg)	-34.1	+/-	3.5

ph/seg (deg)	RMS	Theor.	Amplitude	0.886 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	24.2	11.7	Search (1024X16)	0.867	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	29.2	20.4	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.004 0.004
amp/frq (%)	6.9	3.5	Inc. seg. avg.	0.944	Sample rate(MSamp/s): 256	dr window (ns/s) -0.023 0.023
	33.5	6.2	Inc. frq. avg.	0.882	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 l: az 18.7 el 65.2 pa -150.7 u,v (fr/asec) -482.304 1114.012 simultaneous interpolator

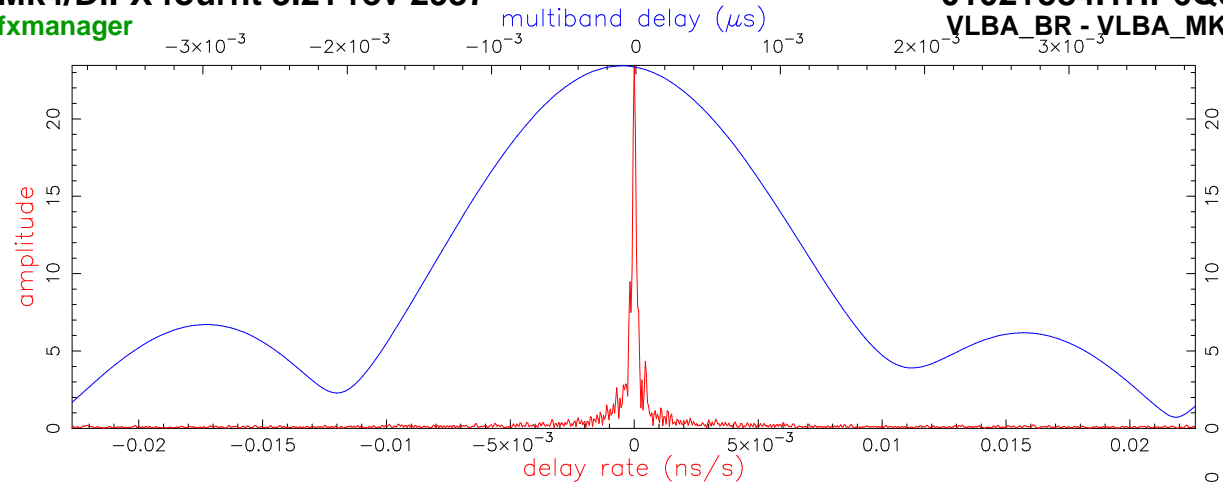
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bl.1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bl.Q.59.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

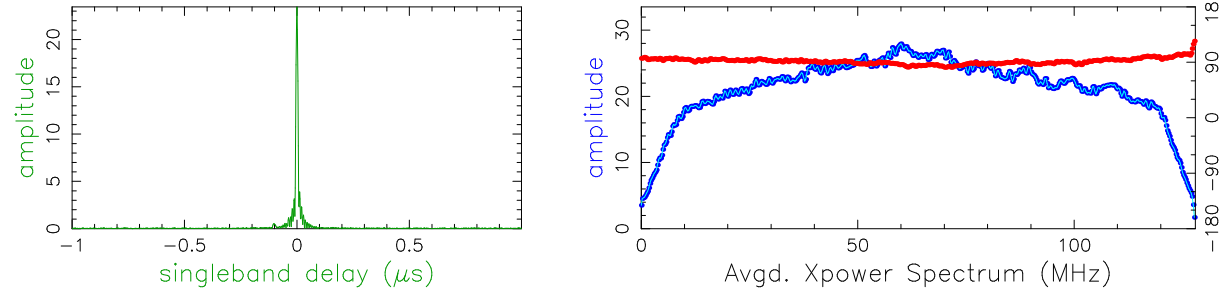
0102+584.1HP6Q8, No0090, bm

VLBA_BR - VLBA_MK, fgroup Q, pol LL



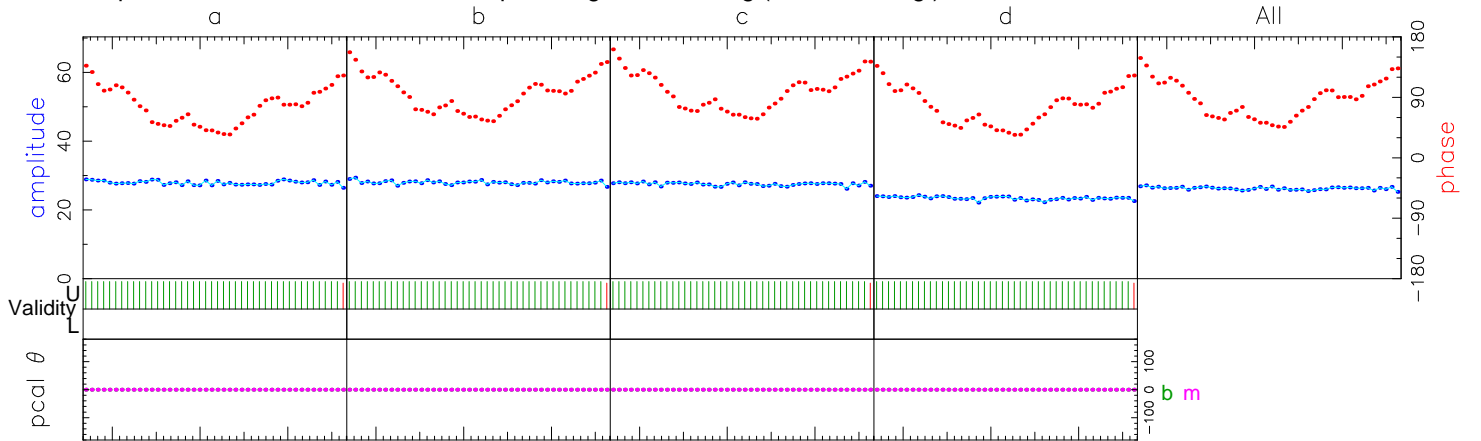
Fringe quality 6

SNR 860.6
 Int time 179.974
 Amp 23.459
 Phase 87.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.000254
 MBD -0.000115
 Fringe rate (Hz)
 0.000705
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163059
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
m	1000	1000	1000	1000	PC freqs	
b:m	0:0	0:0	0:0	0:0	PC freqs	
b:m	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	Manl PC	
m	1000	1000	1000	1000	PC amp	
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

	9.23883983358E+03	Apriori delay (usec)	9.23883994839E+03	Resid mbdelay (usec)	-1.14813E-04	+/- 1.3E-06
Sband delay (usec)	9.23883969389E+03	Apriori clock (usec)	-1.5067309E+01	Resid sbdelay (usec)	-2.54500E-04	+/- 5.0E-06
Phase delay (usec)	9.23883995404E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	5.64738E-06	+/- 8.6E-09
Delay rate (us/s)	-4.30570033583E-01	Apriori rate (us/s)	-4.30570049971E-01	Resid rate (us/s)	1.63876E-08	+/- 8.3E-11
Total phase (deg)	223.9	Apriori accel (us/s/s)	-1.02054796716E-05	Resid phase (deg)	87.5	+/- 0.1

	RMS	Theor.	Amplitude	23.459 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	27.2	0.4	Search (1024X16)	22.742	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	12.2	0.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	15.0	0.1	Inc. seg. avg.	26.287	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	7.5	0.2	Inc. frq. avg.	23.828	Data rate(Mb/s): 2048	nlags: 512 t_coherence infinite ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2351.295 267.104 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm.Q.2.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

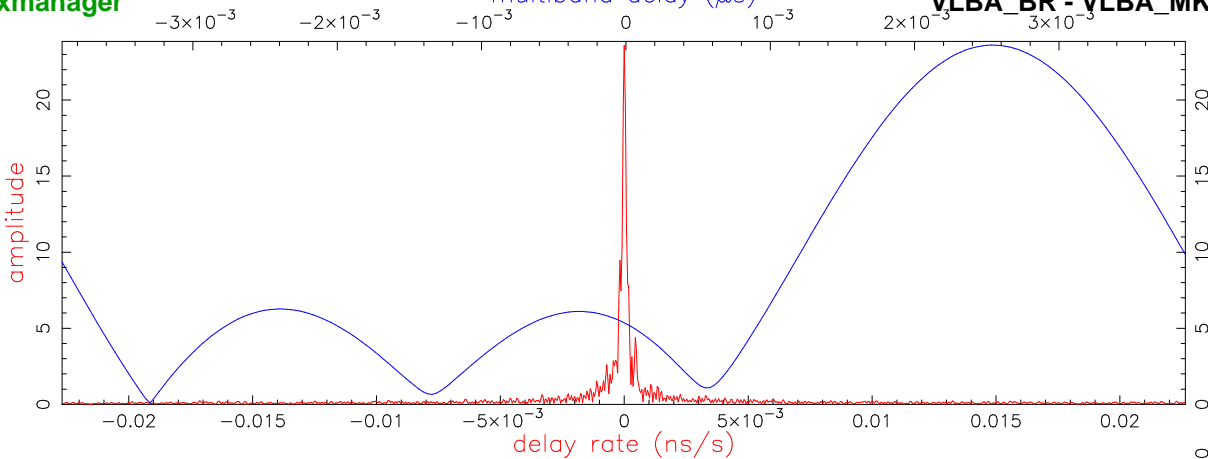
fxmanager

0102+584.1HP6Q8, No0090, bm

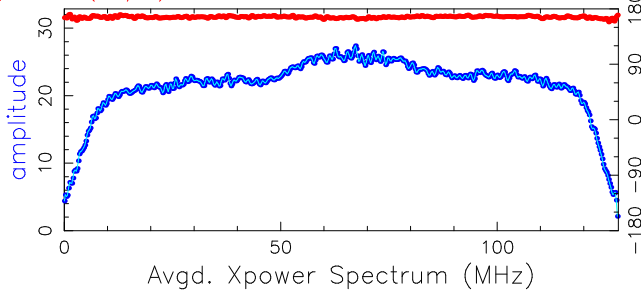
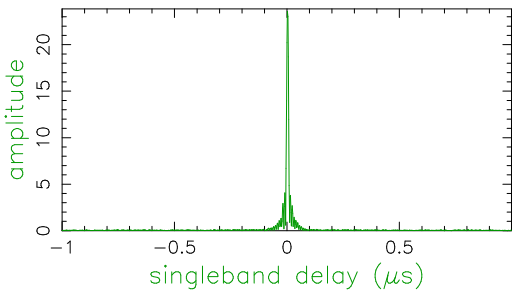
VLBA_BR - VLBA_MK, fgroup Q, pol RR

multiband delay (μ s)

Fringe quality 7

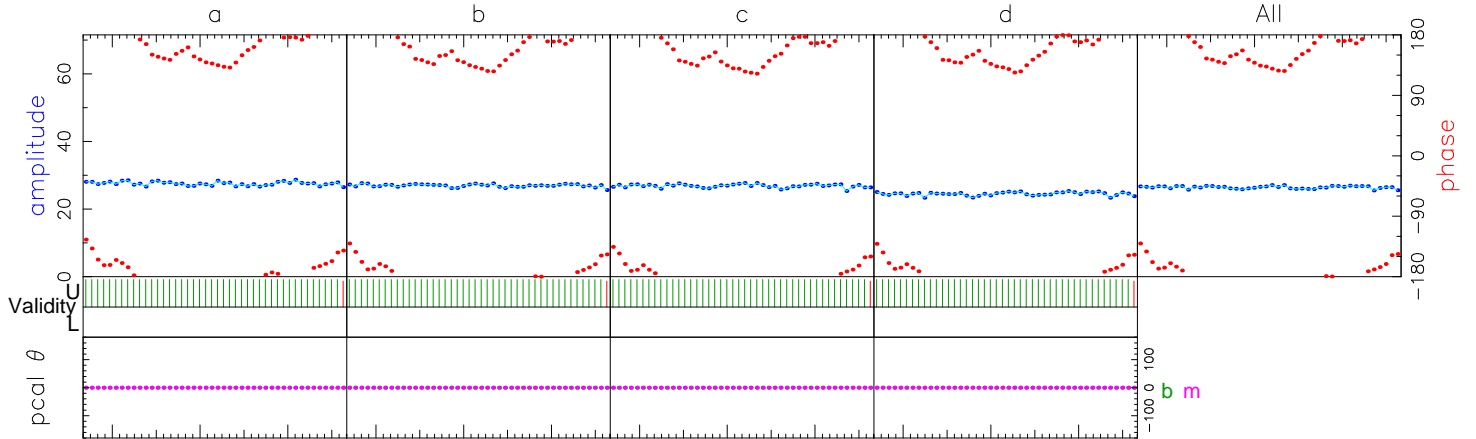


SNR 875.2
 Int time 179.974
 Amp 23.855
 Phase 168.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.002654
 MBD 0.002587
 Fringe rate (Hz)
 0.000711
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163102
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
m	1000	1000	1000	1000	PC freqs	
b:m	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	Manl PC	
m	1000	1000	1000	1000	PC amp	
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
Group delay (usec)(sbd)	9.23884253511E+03	Apriori delay (usec)	9.23883994839E+03	Resid mbdelay (usec)	2.58672E-03	+/- 1.3E-06
Sband delay (usec)	9.23884260239E+03	Apriori clock (usec)	-1.5067309E+01	Resid sbdelay (usec)	2.65400E-03	+/- 4.9E-06
Phase delay (usec)	9.23883995926E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	1.08720E-05	+/- 8.5E-09
Delay rate (us/s)	-4.30570033458E-01	Apriori rate (us/s)	-4.30570049971E-01	Resid rate (us/s)	1.65124E-08	+/- 8.1E-11
Total phase (deg)	304.8	Apriori accel (us/s/s)	-1.02054796716E-05	Resid phase (deg)	168.5	+/- 0.1

	RMS	Theor.	Amplitude	23.855 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	27.2	0.4	Search (1024X16)	22.910	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	11.1	0.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	4.3	0.1	Inc. seg. avg.	26.463	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.5	0.2	Inc. frq. avg.	23.625	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2351.295 267.104 simultaneous interpolator

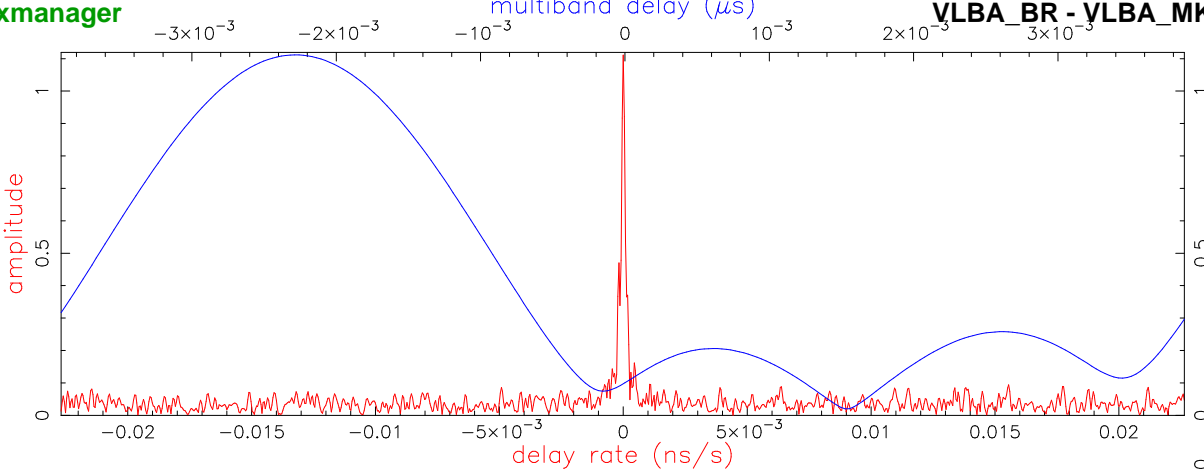
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm.Q.22.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

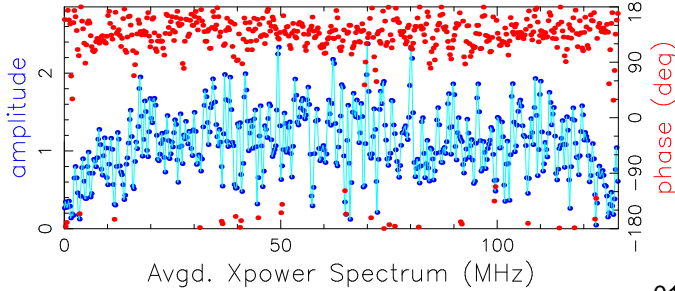
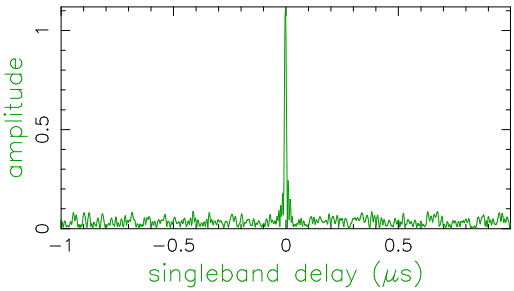
0102+584.1HP6Q8, No0090, bm

VLBA_BR - VLBA_MK, fgroup Q, pol LR



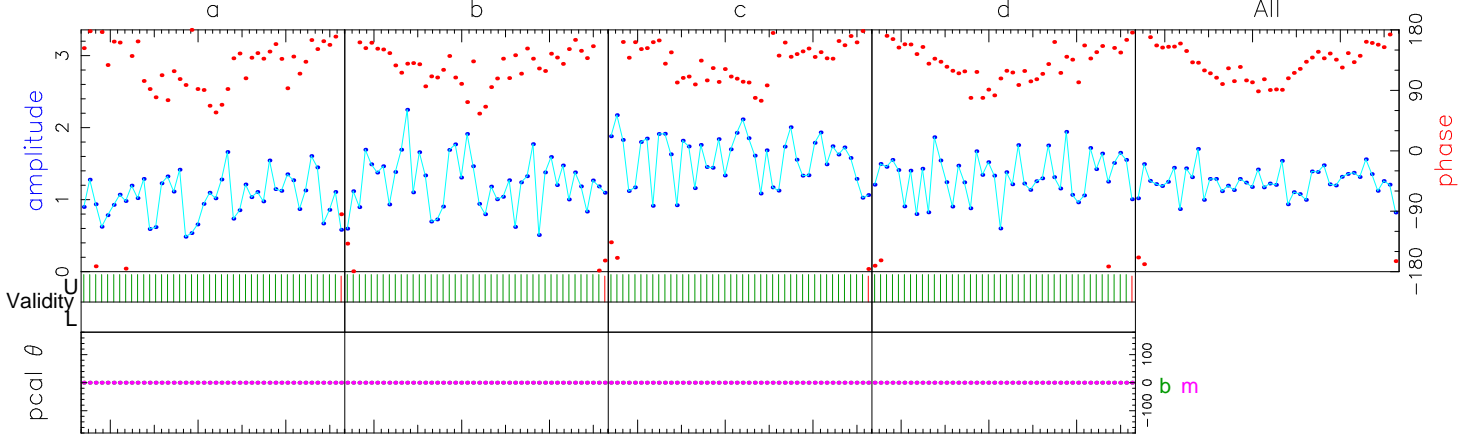
Fringe quality 8

SNR 41.1
 Int time 179.974
 Amp 1.119
 Phase 134.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.002518
 MBD -0.002323
 Fringe rate (Hz)
 0.000721
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163103
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
131.0	132.4	138.3	135.2	Phase	134.7
0.8	1.1	1.4	1.2	Ampl.	1.1
511.5	512.2	511.4	511.9	Sbd box	511.7
U/L 352/0	352/0	352/0	352/0	APs used	
b 1000	1000	1000	1000	PC freqs	
m 1000	1000	1000	1000	PC freqs	
b:m 0:0	0:0	0:0	0:0	PC phase	
b:m 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
m 1000	1000	1000	1000		
b Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	9.23883762492E+03	Apriori delay (usec)	9.23883994839E+03	Resid mbdelay (usec)	-2.32347E-03	+/- 2.7E-05
Sband delay (usec)	9.23883742989E+03	Apriori clock (usec)	-1.5067309E+01	Resid sbdelay (usec)	-2.51850E-03	+/- 1.0E-04
Phase delay (usec)	9.23883995708E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	8.69025E-06	+/- 1.8E-07
Delay rate (us/s)	-4.30570033223E-01	Apriori rate (us/s)	-4.30570049971E-01	Resid rate (us/s)	1.67478E-08	+/- 1.7E-09
Total phase (deg)	271.0	Apriori accel (us/s/s)	-1.02054796716E-05	Resid phase (deg)	134.7	+/- 2.8

	RMS	Theor.	Amplitude	1.119 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	28.2	9.3	Search (1024X16)	1.073	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	19.8	16.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
ph/frq (deg)	4.0	2.8	Inc. seg. avg.	1.233	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
amp/frq (%)	16.4	4.9	Inc. frq. avg.	1.111	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 47.6 el 70.3 pa -109.3 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2351.295 267.104 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm.Q.39.1HP6Q8

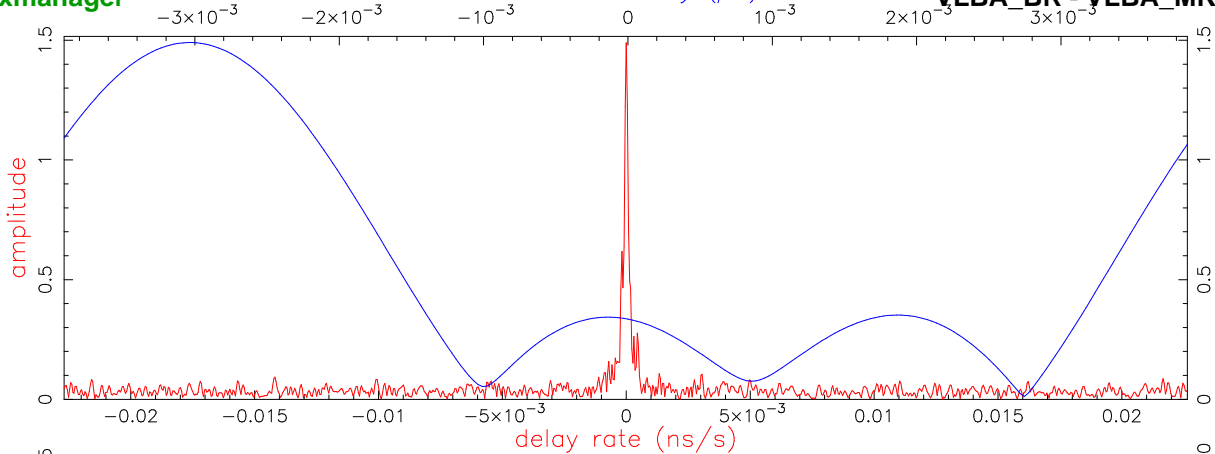
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bm

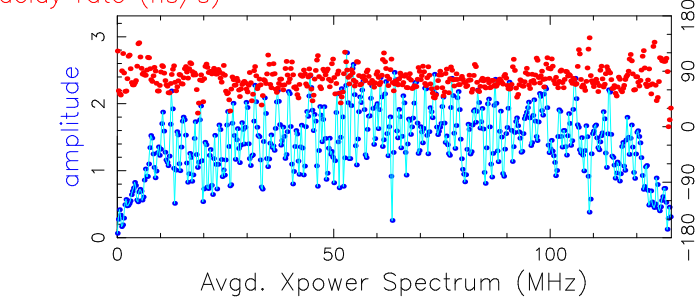
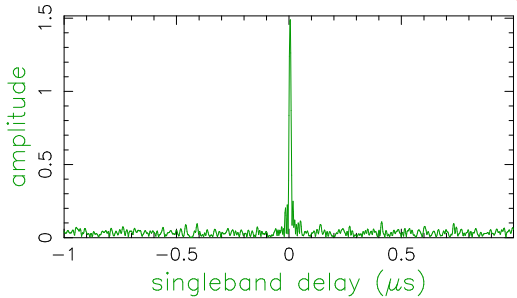
VLBA_BR - VLBA_MK, fgroup Q, pol RL

multiband delay (μ s)



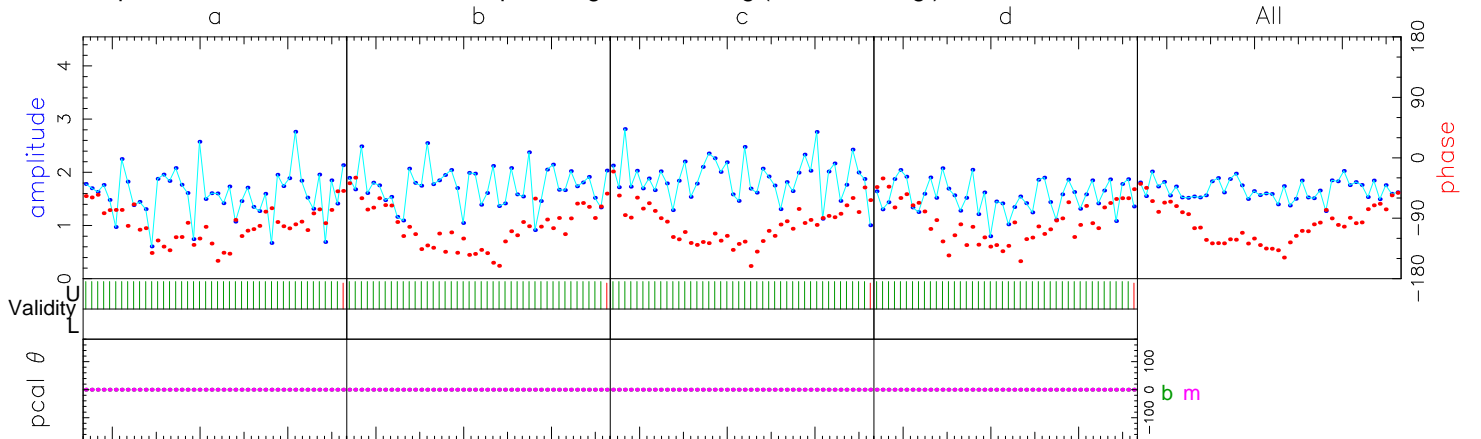
Fringe quality 8

SNR 55.6
 Int time 179.974
 Amp 1.516
 Phase -98.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.004951
 MBD -0.003081
 Fringe rate (Hz)
 0.000698
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163106
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
m	1000	1000	1000	1000	PC freqs	
b:m	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	ManI PC	
m	1000	1000	1000	1000	PC amp	
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

Group delay (usec)(sbd)	9.23884467996E+03	Apriori delay (usec)	9.23883994839E+03	Resid mbdelay (usec)	-3.08094E-03	+/-	2.0E-05
Sband delay (usec)	9.23884489889E+03	Apriori clock (usec)	-1.5067309E+01	Resid sbdelay (usec)	4.95050E-03	+/-	7.7E-05
Phase delay (usec)	9.23883994206E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	-6.32865E-06	+/-	1.3E-07
Delay rate (us/s)	-4.30570033764E-01	Apriori rate (us/s)	-4.30570049971E-01	Resid rate (us/s)	1.62061E-08	+/-	1.3E-09
Total phase (deg)	38.3	Apriori accel (us/s/s)	-1.02054796716E-05	Resid phase (deg)	-98.1	+/-	2.1

	RMS	Theor.	Amplitude	1.516 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	27.4	6.8	Search (1024X16)	1.447	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	15.3	11.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	4.2	2.1	Inc. seg. avg.	1.660	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	8.3	3.6	Inc. frq. avg.	1.490	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

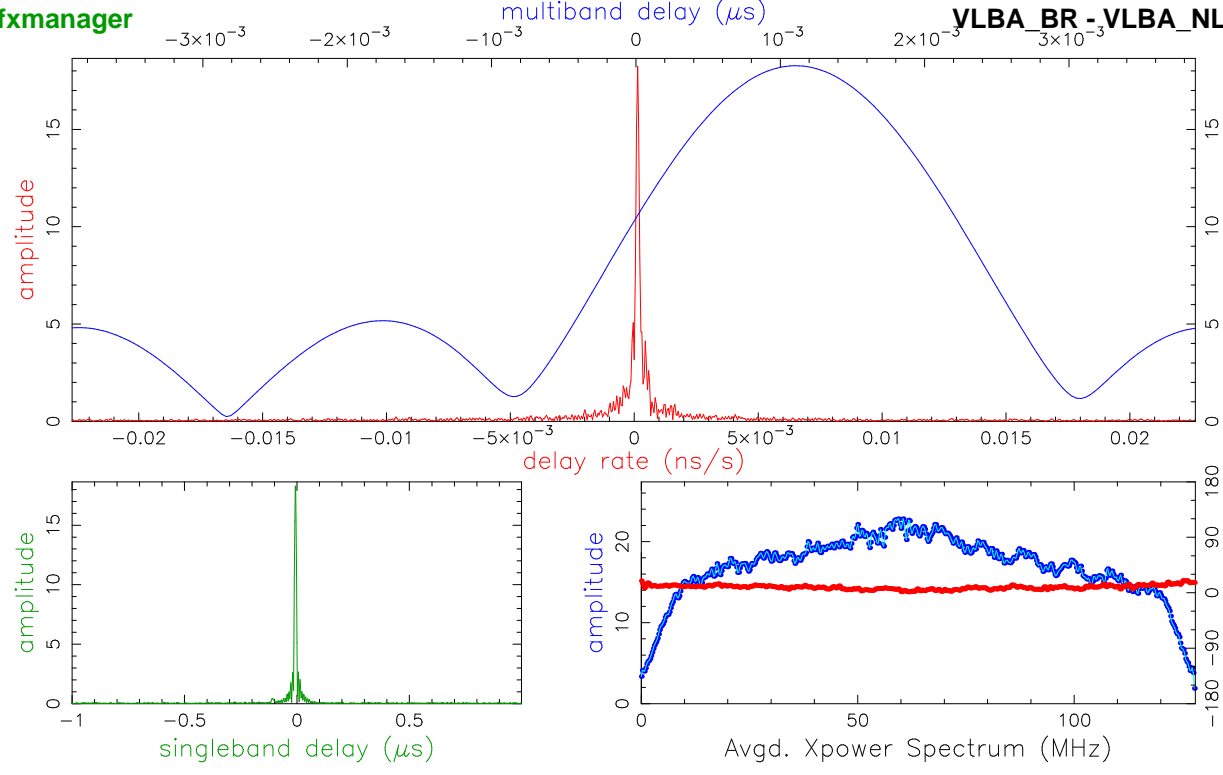
b: az 47.6 el 70.3 pa -109.3 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2351.295 267.104 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm.Q.63.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bn

VLBA_BR - VLBA_NL, fgroup Q, pol LL

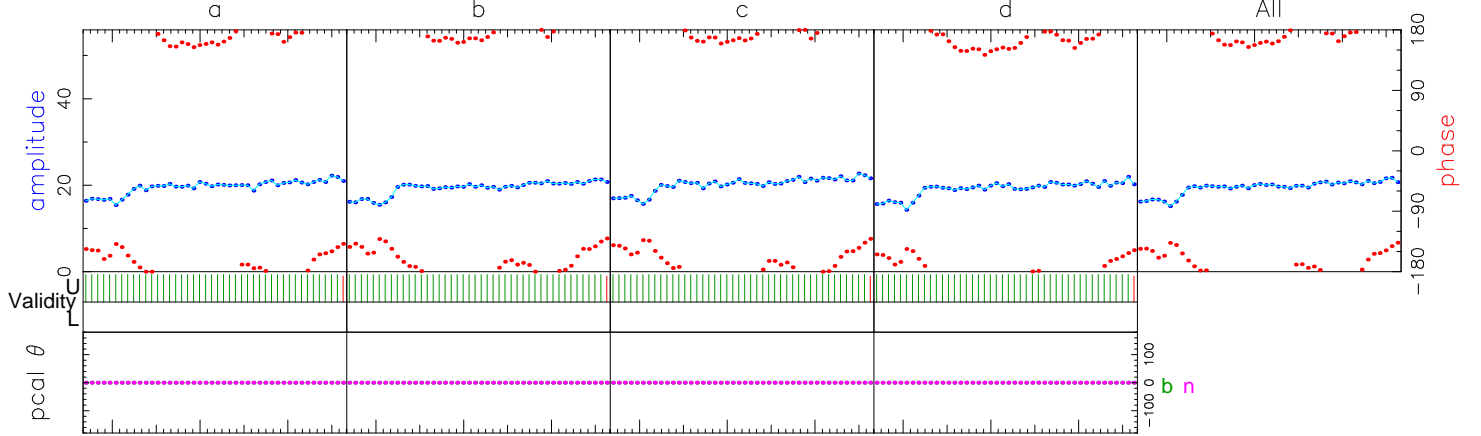


Fringe quality 8

SNR 684.1
 Int time 179.973
 Amp 18.647
 Phase -175.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.006808
 MBD 0.001164
 Fringe rate (Hz) 0.004888
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163101
 2020:247:085004
 RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	ManI PC	
b	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	-3.09115437140E+02	Apriori delay (usec)	-3.09108788977E+02	Resid mbdelay (usec)	1.16434E-03	+/- 1.6E-06
Sband delay (usec)	-3.09115597477E+02	Apriori clock (usec)	-1.8355455E+00	Resid sbdelay (usec)	-6.80850E-03	+/- 6.3E-06
Phase delay (usec)	-3.09108800315E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-1.13381E-05	+/- 1.1E-08
Delay rate (us/s)	2.55883160562E-01	Apriori rate (us/s)	2.55883047000E-01	Resid rate (us/s)	1.13562E-07	+/- 1.0E-10
Total phase (deg)	-275.6	Apriori accel (us/s/s)	9.19614577339E-06	Resid phase (deg)	-175.7	+/- 0.2

	RMS	Theor.	Amplitude	18.647 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	20.9	0.6	Search (1024X16)	17.511	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	9.5	1.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	8.8	0.2	Inc. seg. avg.	19.475	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	2.4	0.3	Inc. frq. avg.	18.352	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -1396.246 780.602 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn.Q.12.1HP6Q8

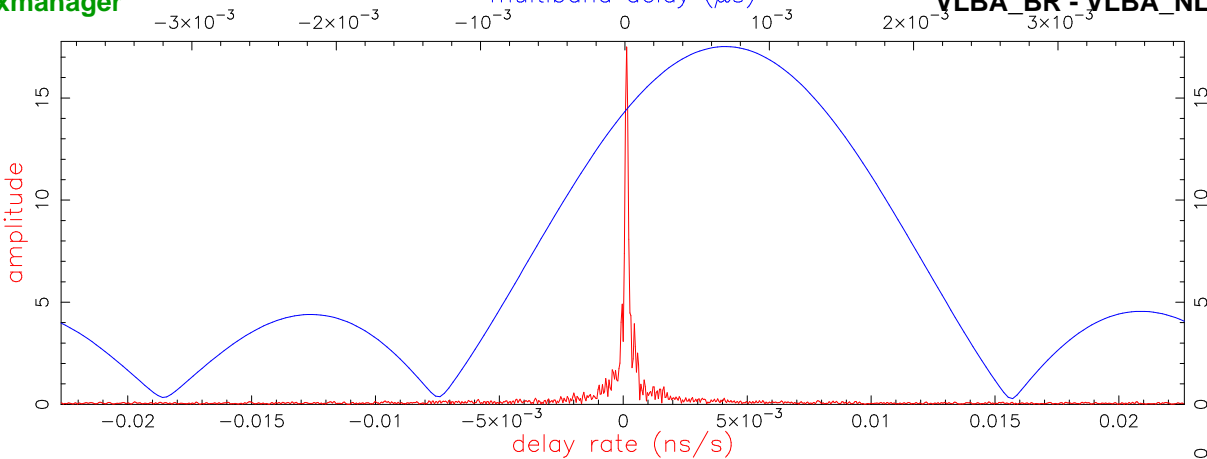
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bn

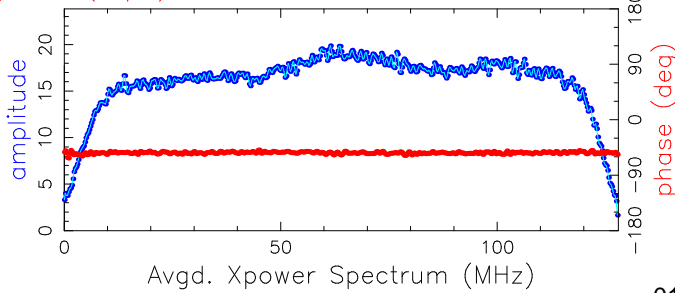
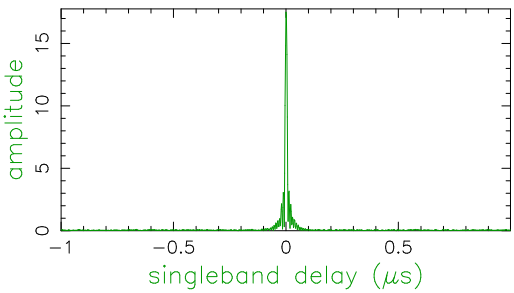
VLBA_BR - VLBA_NL, fgroup Q, pol RR

multiband delay (μ s)



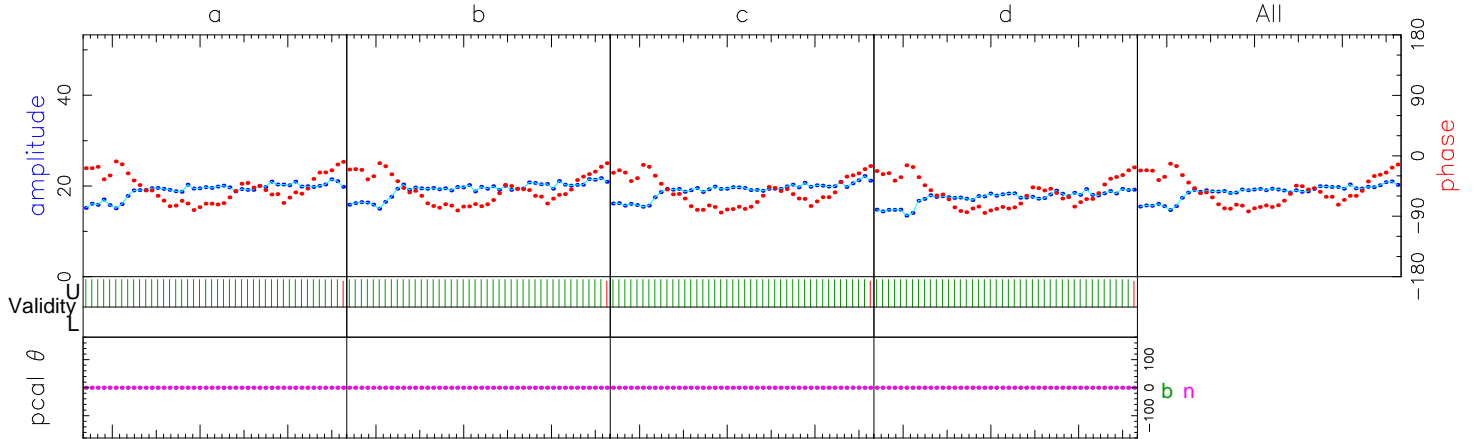
Fringe quality 8

SNR 652.0
 Int time 179.973
 Amp 17.772
 Phase -51.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.000817
 MBD 0.000745
 Fringe rate (Hz)
 0.004850
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163102
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000		
n	1000	1000	1000	1000		
b:n	0:0	0:0	0:0	0:0		
b:n	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
n	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR		
n	Q00UR	Q01UR	Q02UR	Q03UR		

	-3.09108043546E+02	Apriori delay (usec)	-3.09108788977E+02	Resid mbdelay (usec)	7.45431E-04	+/- 1.7E-06
Sband delay (usec)	-3.09107972102E+02	Apriori clock (usec)	-1.8355455E+00	Resid sbdelay (usec)	8.16875E-04	+/- 6.6E-06
Phase delay (usec)	-3.09108792313E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-3.33617E-06	+/- 1.1E-08
Delay rate (us/s)	2.55883159685E-01	Apriori rate (us/s)	2.55883047000E-01	Resid rate (us/s)	1.12685E-07	+/- 1.1E-10
Total phase (deg)	-151.6	Apriori accel (us/s/s)	9.19614577339E-06	Resid phase (deg)	-51.7	+/- 0.2

	RMS	Theor.	Amplitude	17.772 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	21.1	0.6	Search (1024X16)	16.577	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	10.1	1.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	3.7	0.2	Inc. seg. avg.	18.703	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.3	0.3	Inc. frq. avg.	17.519	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -1396.246 780.602 simultaneous interpolator

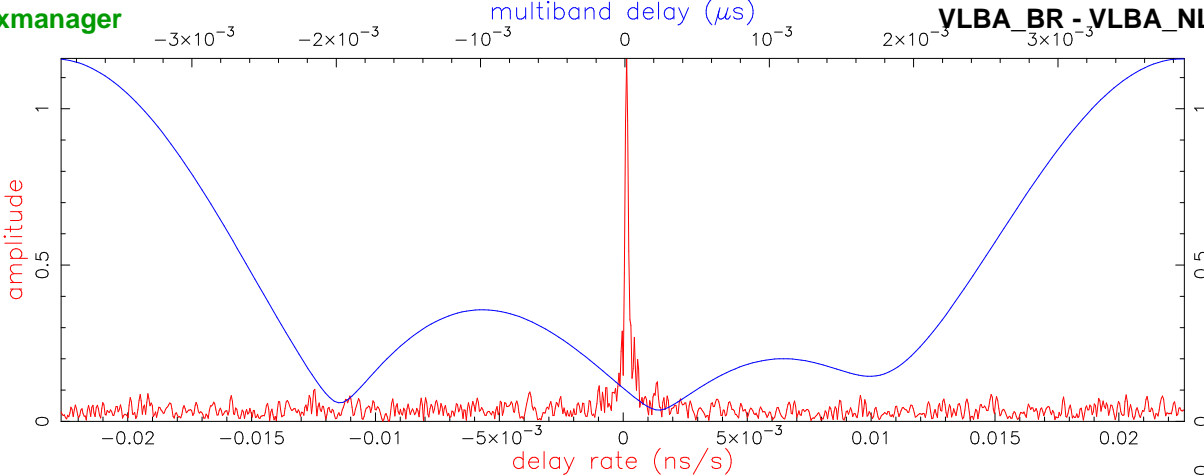
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn.Q.26.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

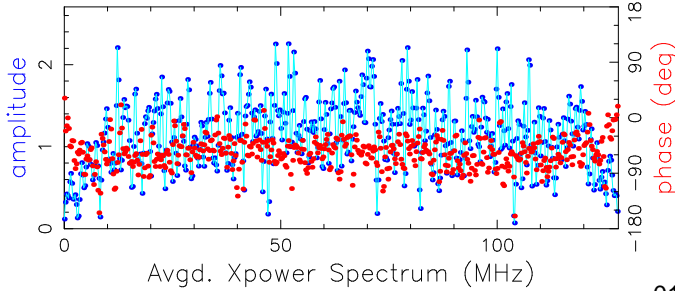
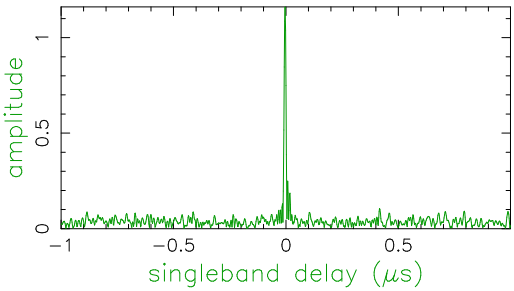
0102+584.1HP6Q8, No0090, bn

VLBA_BR - VLBA_NL, fgroup Q, pol LR



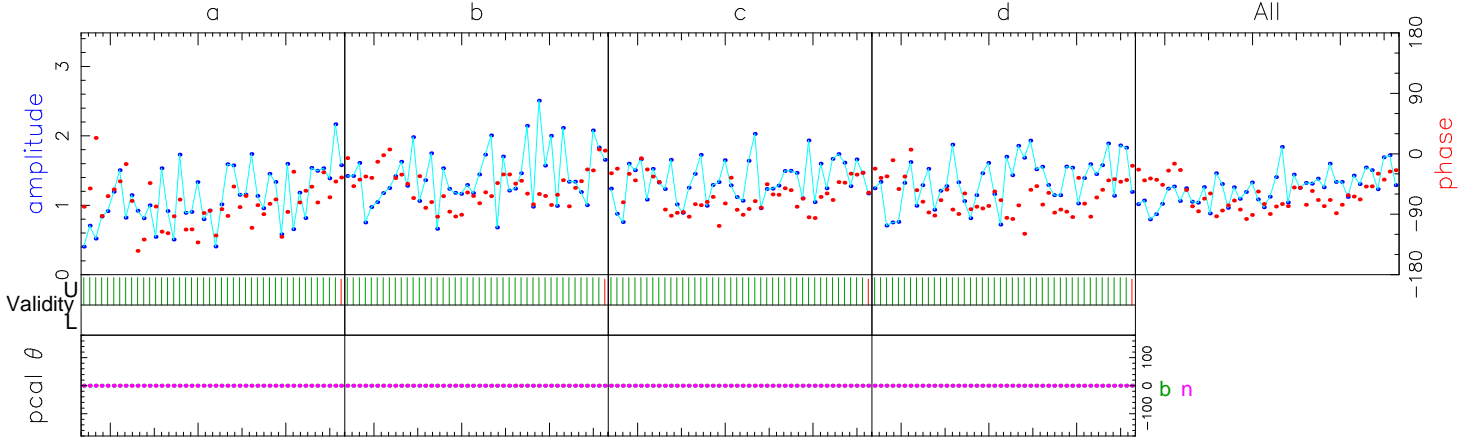
Fringe quality 8

SNR 42.6
 Int time 179.973
 Amp 1.161
 Phase -60.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.004156
 MBD -0.003973
 Fringe rate (Hz) 0.004854
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163105
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000		
n	1000	1000	1000	1000		
b:n	0:0	0:0	0:0	0:0		
b:n	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
n	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL		
n	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec)(sbd)	-3.09112761577E+02	Apriori delay (usec)	-3.09108788977E+02	Resid mbdelay (usec)	-3.97260E-03	+/- 2.6E-05
Sband delay (usec)	-3.09112945227E+02	Apriori clock (usec)	-1.8355455E+00	Resid sbdelay (usec)	-4.15625E-03	+/- 1.0E-04
Phase delay (usec)	-3.09108792903E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-3.92618E-06	+/- 1.7E-07
Delay rate (us/s)	2.55883159779E-01	Apriori rate (us/s)	2.55883047000E-01	Resid rate (us/s)	1.12779E-07	+/- 1.7E-09
Total phase (deg)	-160.8	Apriori accel (us/s/s)	9.19614577339E-06	Resid phase (deg)	-60.8	+/- 2.7

ph/seg (deg)	22.1	Theor.	8.9	Amplitude	1.161 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	21.0	Search (1024X16)	1.113	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	13.1	Inc. seg. avg.	1.235	Inc. frq. avg.	1.173	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	11.1	Inc. frq. avg.	1.173			Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
b: az 47.6 el 70.3 pa -109.3		n: az 360.5 el 73.3 pa -179.4		u,v (fr/asec)	-1396.246 780.602	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite
Control file: cf_1234_gmva7mm		Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn..1HP6Q8		Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn.Q.50.1HP6Q8			ion window (TEC) 0.00 0.00

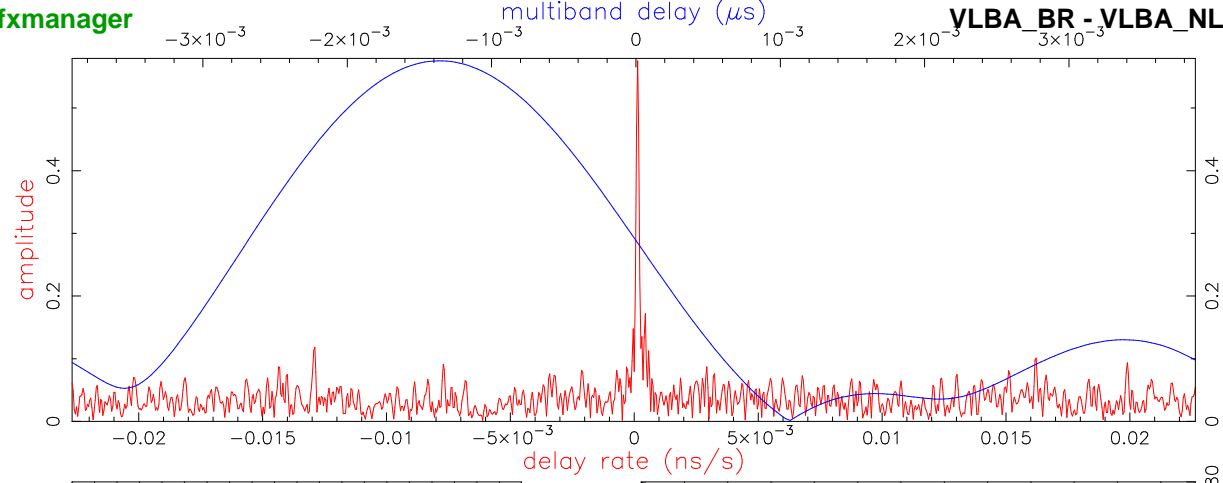
simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

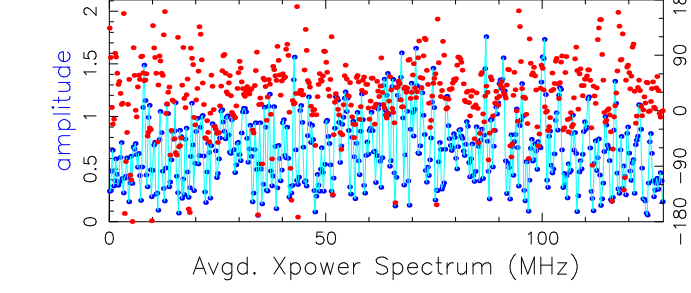
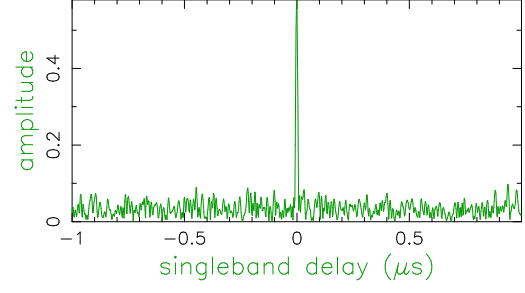
0102+584.1HP6Q8, No0090, bn

VLBA_BR - VLBA_NL, fgroup Q, pol RL



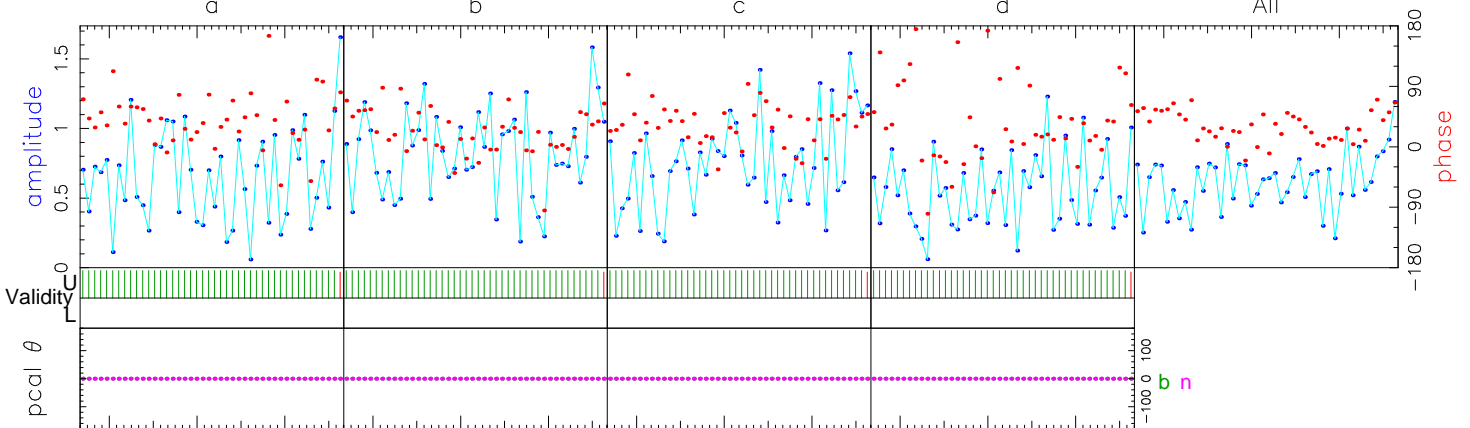
Fringe quality 8

SNR 21.2
 Int time 179.973
 Amp 0.579
 Phase 31.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.001377
 MBD -0.001325
 Fringe rate (Hz)
 0.005412
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163106
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec

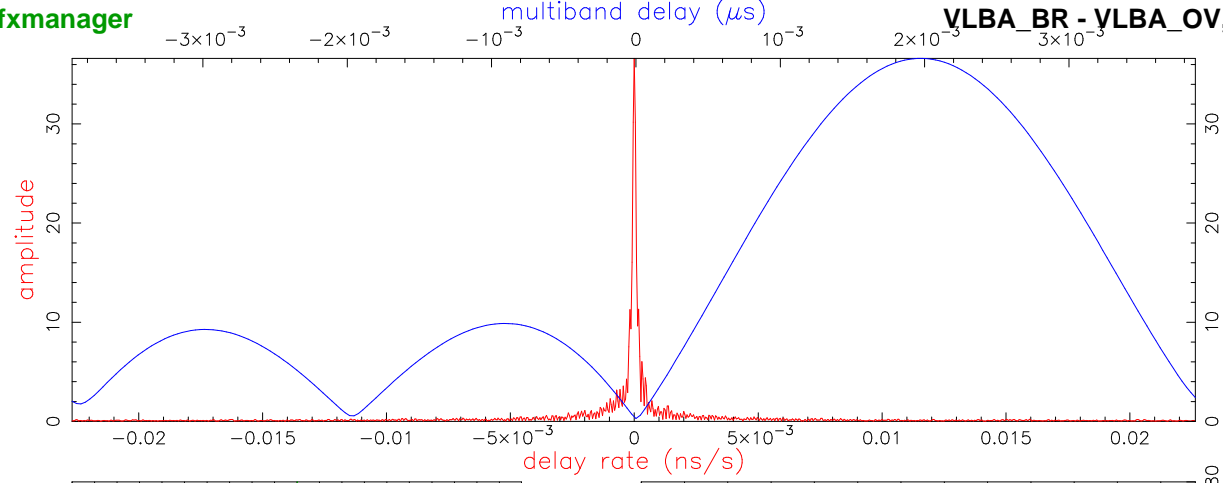


42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
39.0	23.0	35.3	28.2	Phase	31.2
0.6	0.7	0.7	0.4	Ampl.	0.6
511.9	512.4	512.7	512.0	Sbd box	512.3
U/L 352/0	352/0	352/0	352/0	APs used	
b 1000	1000	1000	1000	PC freqs	
n 1000	1000	1000	1000	PC freqs	
b:n 0:0	0:0	0:0	0:0	PC phase	
b:n 0:0	0:0	0:0	0:0	ManI PC	
b 1000	1000	1000	1000	PC amp	
n 1000	1000	1000	1000		
b Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
n Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

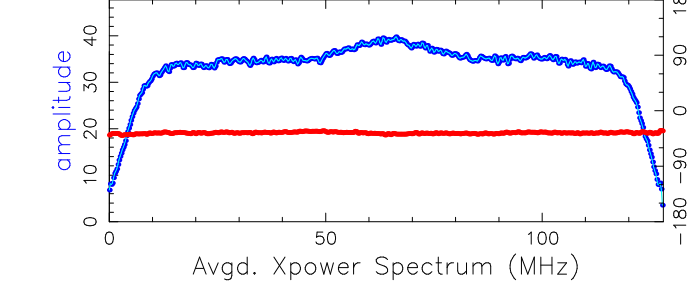
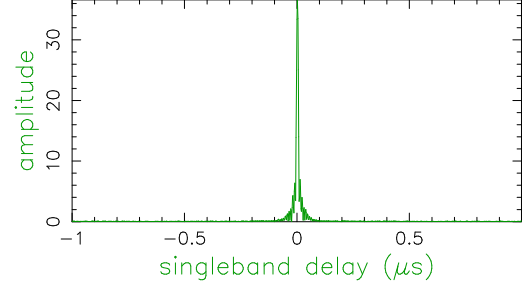
Group delay (usec)(sbd)	-3.09110113577E+02	Apriori delay (usec)	-3.09108788977E+02	Resid mbdelay (usec)	-1.32460E-03	+/-	5.2E-05
Sband delay (usec)	-3.09110165977E+02	Apriori clock (usec)	-1.8355455E+00	Resid sbdelay (usec)	-1.37700E-03	+/-	2.0E-04
Phase delay (usec)	-3.09108786962E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	2.01480E-06	+/-	3.5E-07
Delay rate (us/s)	2.55883172754E-01	Apriori rate (us/s)	2.55883047000E-01	Resid rate (us/s)	1.25755E-07	+/-	3.3E-09
Total phase (deg)	-68.7	Apriori accel (us/s/s)	9.19614577339E-06	Resid phase (deg)	31.2	+/-	5.4

ph/seg (deg)	RMS 22.4	Theor. 17.9	Amplitude	0.579 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	35.7	31.2	Search (1024X16)	0.570	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	8.8	5.4	Inc. seg. avg.	0.593	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	23.1	9.4	Inc. frq. avg.	0.576	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00

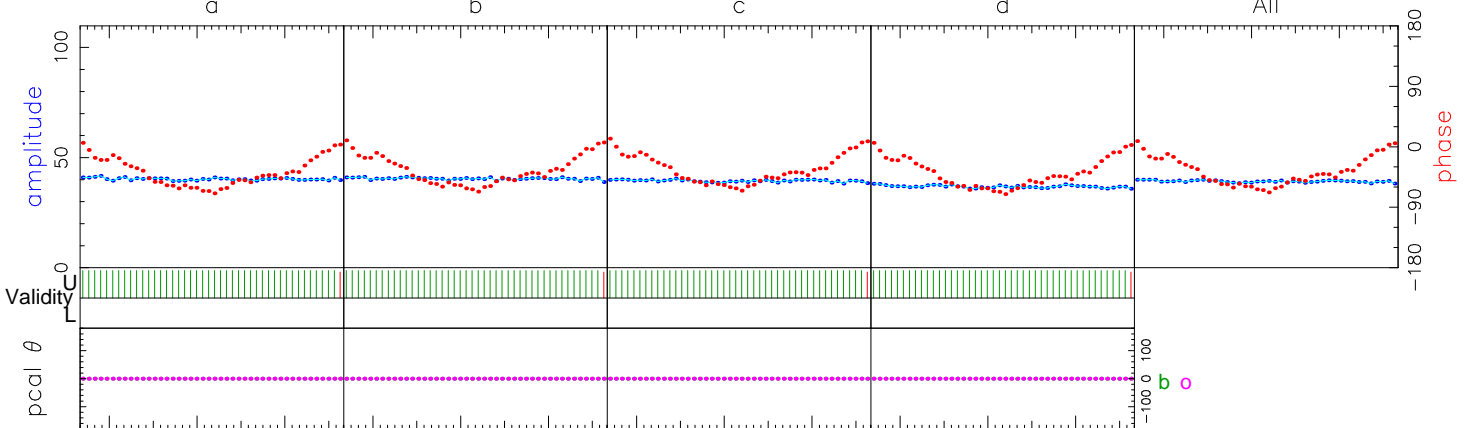
b: az 47.6 el 70.3 pa -109.3 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -1396.246 780.602 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn.Q.65.1HP6Q8



Fringe quality 8
SNR 1343.2
Int time 179.974
Amp 36.613
Phase -35.9
PFD 0.0e+00
Delays (us)
SBD 0.001975
MBD 0.001973
Fringe rate (Hz) 0.000446
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512
Exp. c202a
Yr:day 16383
Start 2021:005:135111
Stop 2021:010:163103
FRT 2020:247:085004
RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-37.7	-34.6	-32.8	-38.7	Phase	-35.9
37.6	37.8	36.8	34.4	Ampl.	36.6
514.0	514.1	513.8	514.1	Sbd box	514.0
U/L 352/0	352/0	352/0	352/0	APs used	
b 1000	1000	1000	1000	PC freqs	
o 1000	1000	1000	1000	PC freqs	
b:o 0:0	0:0	0:0	0:0	PC phase	
b:o 0:0	0:0	0:0	0:0	ManI PC	
b 1000	1000	1000	1000	PC amp	
o 1000	1000	1000	1000		
b Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
o Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	1.14033883553E+03	Apriori delay (usec)	1.14033686218E+03	Resid mbdelay (usec)	1.97334E-03	+/- 8.3E-07
Sband delay (usec)	1.14033883756E+03	Apriori clock (usec)	-2.3116692E+01	Resid sbdelay (usec)	1.97537E-03	+/- 3.2E-06
Phase delay (usec)	1.14033685987E+03	Apriori clockrate (us/s)	9.9999998E-08	Resid phdelay (usec)	-2.31563E-06	+/- 5.5E-09
Delay rate (us/s)	-3.45621385567E-02	Apriori rate (us/s)	-3.45621489202E-02	Resid rate (us/s)	1.03635E-08	+/- 5.3E-11
Total phase (deg)	161.5	Apriori accel (us/s/s)	7.24793366544E-06	Resid phase (deg)	-35.9	+/- 0.1

ph/seg (deg)	21.2	0.3	RMS	21.2	Theor.	0.3	Amplitude	36.613 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	7.3	0.5	Search (1024X16)	36.231	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		Interp.	0.000	SampCntNorm: enabled	mb window (us)	-0.004	0.004		
ph/frq (deg)	3.3	0.1	Inc. seg. avg.	39.232	Bits/sample: 2x2		Inc. frq. avg.	36.643	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023		
amp/frq (%)	3.7	0.1	Inc. frq. avg.	36.643	Data rate(Mb/s): 2048				nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00	

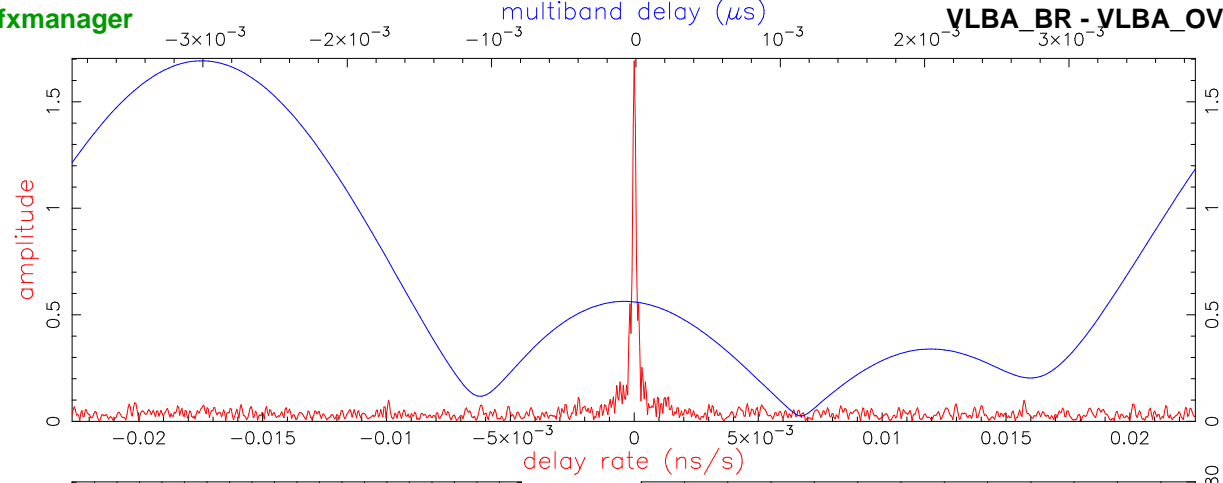
b: az 47.6 el 70.3 pa -109.3 o: az 30.8 el 62.4 pa -129.3 u,v (fr/asec) 193.533 785.903 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bo..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bo.Q.32.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bo

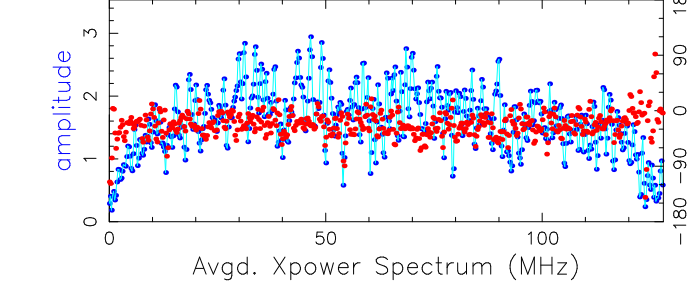
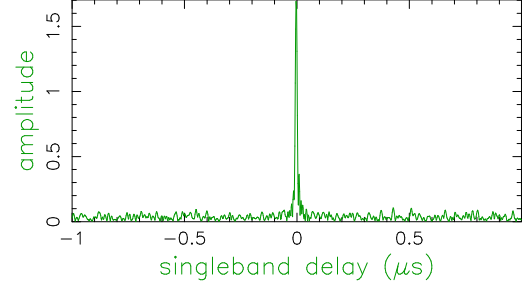
VLBA_BR - VLBA_OV, fgroup Q, pol LR



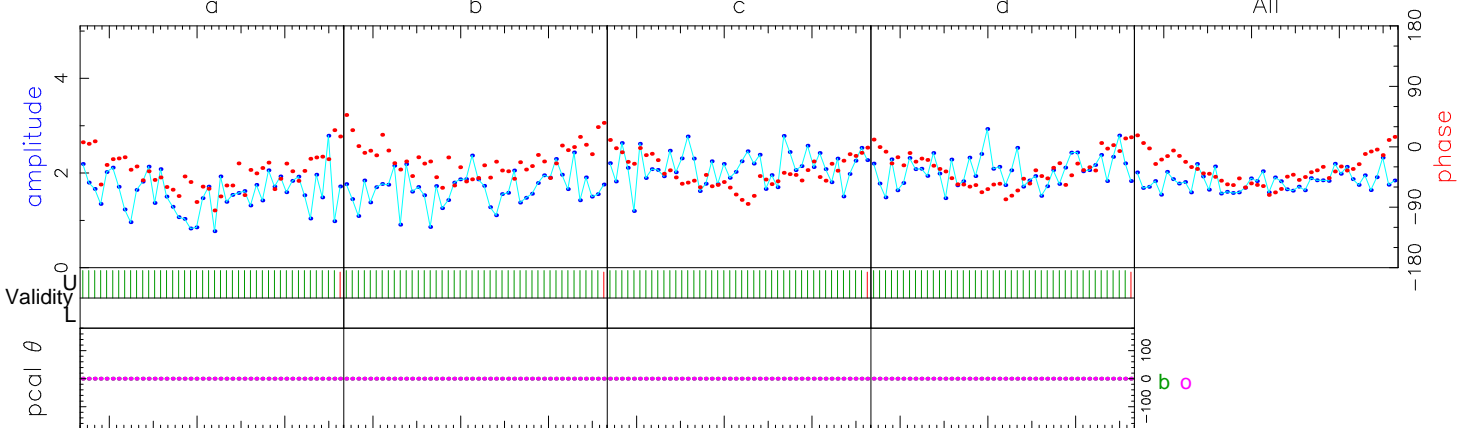
Fringe quality 9

SNR 62.5
 Int time 179.974
 Amp 1.704
 Phase -31.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.003345
 MBD -0.002982
 Fringe rate (Hz) 0.000455
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163105
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	PC freqs	
b:o	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	Manl PC	
o	1000	1000	1000	1000	PC amp	
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
o	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	

	1.14033388015E+03	1.140333686218E+03	1.14033686218E+03	1.14033686218E+03	Resid mbdelay (usec)	-2.98203E-03	+/- 1.8E-05
Group delay (usec)(sbd)					Resid sbdelay (usec)	-3.34512E-03	+/- 6.9E-05
Sband delay (usec)					Resid phdelay (usec)	-2.06004E-06	+/- 1.2E-07
Phase delay (usec)					Resid rate (us/s)	1.05734E-08	+/- 1.1E-09
Delay rate (us/s)	-3.45621383468E-02				Resid phase (deg)	-31.9	+/- 1.8
Total phase (deg)	165.5						

	RMS	Theor.	Amplitude	1.704 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	22.3	6.1	Search (1024X16)	1.670	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	13.2	10.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	10.1	1.8	Inc. seg. avg.	1.815	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	13.2	3.2	Inc. frq. avg.	1.703	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 o: az 30.8 el 62.4 pa -129.3 u,v (fr/asec) 193.533 785.903 simultaneous interpolator

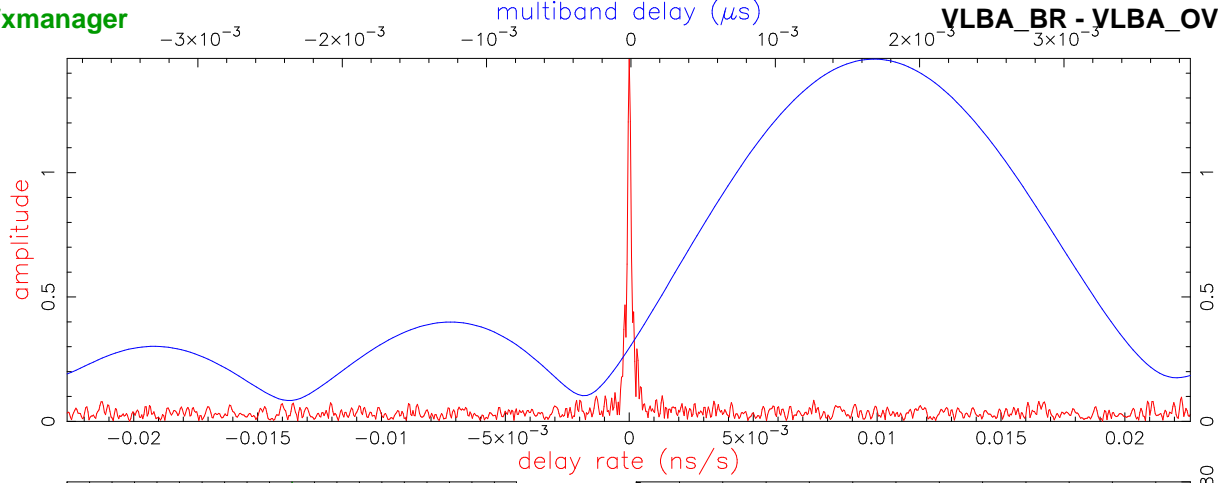
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bo..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bo.Q.56.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

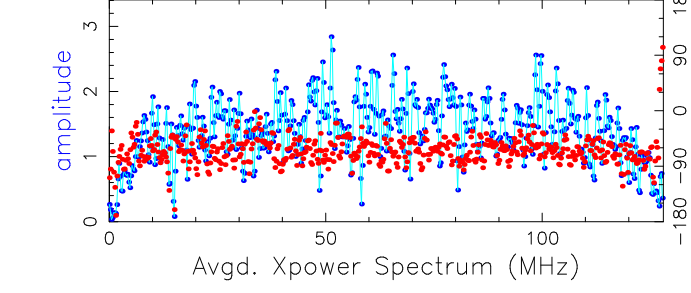
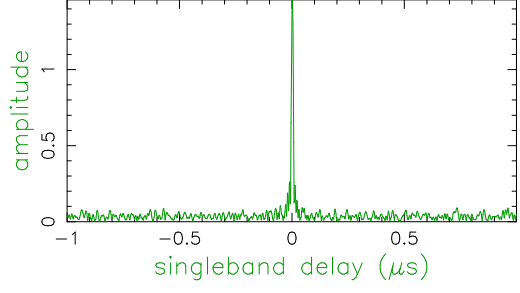
fxmanager

0102+584.1HP6Q8, No0090, bo

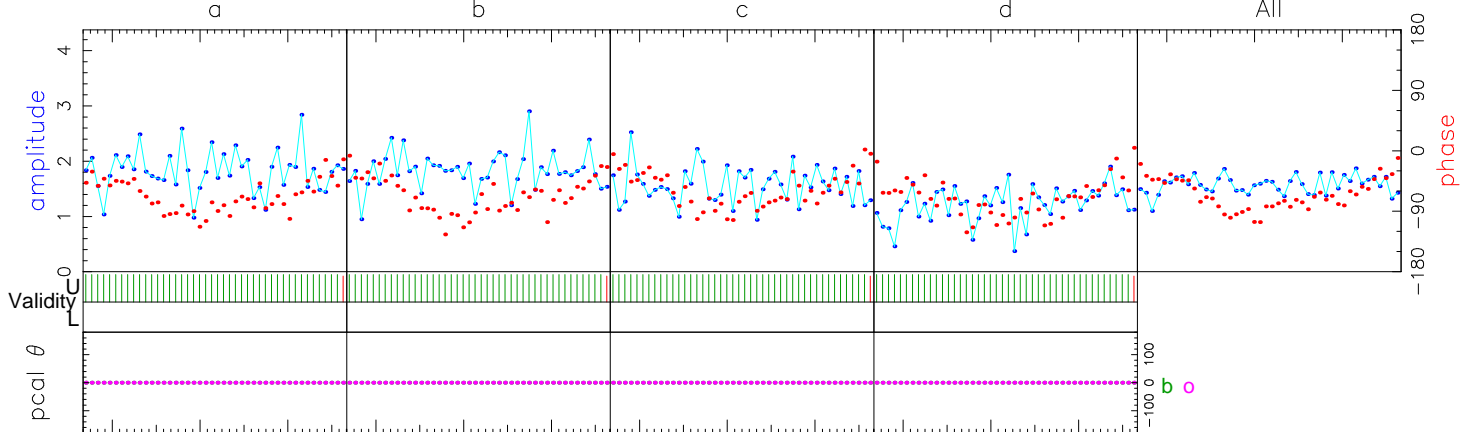
VLBA_BR - VLBA_OV, fgroup Q, pol RL



Fringe quality 8
 SNR 53.5
 Int time 179.974
 Amp 1.459
 Phase -65.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.001645
 MBD 0.001667
 Fringe rate (Hz) 0.000514
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163107
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000		
o	1000	1000	1000	1000		
b:o	0:0	0:0	0:0	0:0		
b:o	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
o	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR		
o	Q00UL	Q01UL	Q02UL	Q03UL		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.14033852965E+03	Apriori delay (usec)	1.14033686218E+03	Resid mbdelay (usec)	1.66747E-03	+/-	2.1E-05
Sband delay (usec)	1.14033850743E+03	Apriori clock (usec)	-2.3116692E+01	Resid sbdelay (usec)	1.64525E-03	+/-	8.0E-05
Phase delay (usec)	1.14033685797E+03	Apriori clockrate (us/s)	9.9999998E-08	Resid phdelay (usec)	-4.21266E-06	+/-	1.4E-07
Delay rate (us/s)	-3.45621369798E-02	Apriori rate (us/s)	-3.45621489202E-02	Resid rate (us/s)	1.19404E-08	+/-	1.3E-09
Total phase (deg)	132.1	Apriori accel (us/s/s)	7.24793366544E-06	Resid phase (deg)	-65.3	+/-	2.1

ph/seg (deg)	23.1	Theor.	7.1	Amplitude	1.459 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	13.7		12.4	Search (1024X16)	1.410	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	5.6		2.1	Inc. seg. avg.	1.565	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	16.4		3.7	Inc. frq. avg.	1.458	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023		
						Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 47.6 el 70.3 pa -109.3 o: az 30.8 el 62.4 pa -129.3 u,v (fr/asec) 193.533 785.903 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bo..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bo.Q.73.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

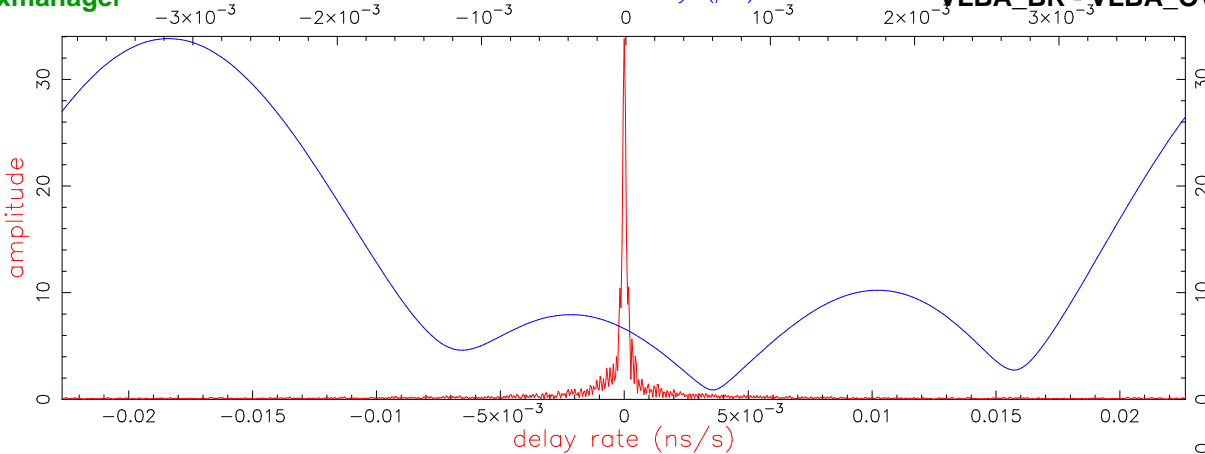
fxmanager

0102+584.1HP6Q8, No0090, bo

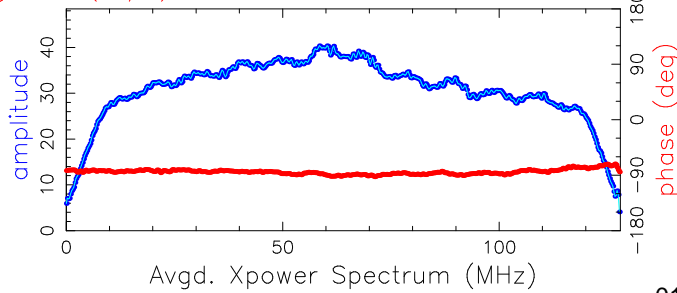
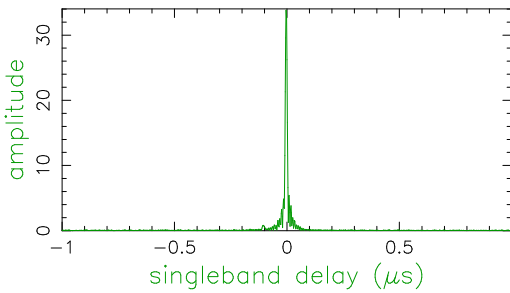
VLBA_BR - VLBA_OV, fgroup Q, pol LL

multiband delay (μ s)

Fringe quality 7

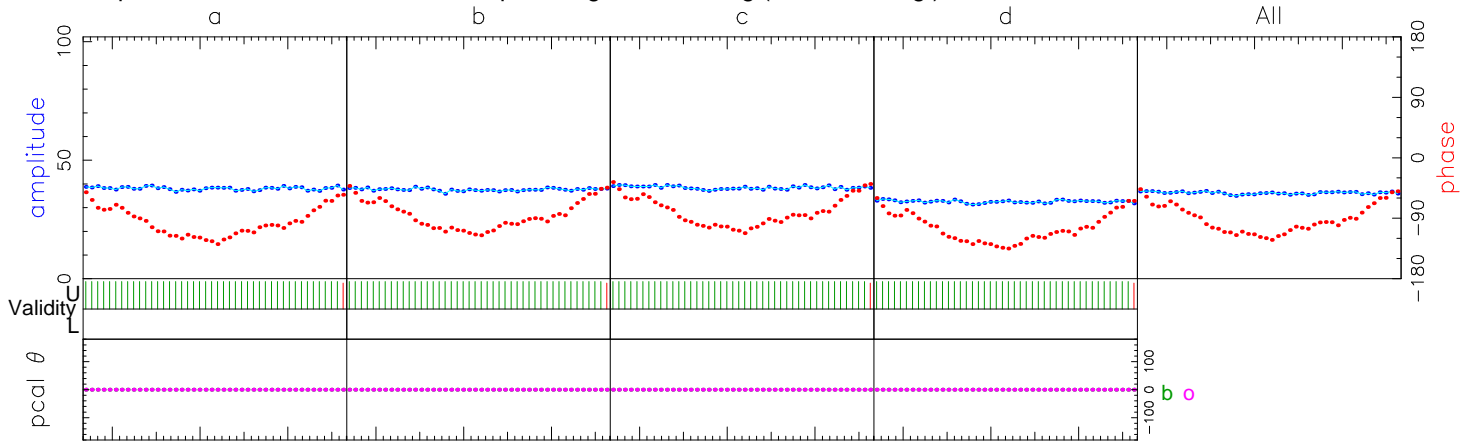


SNR 1248.5
 Int time 179.974
 Amp 34.032
 Phase -90.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.003358
 MBD -0.003134
 Fringe rate (Hz) 0.000452
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163100
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-95.5	-84.9	-79.8	-104.3	Phase	-90.6
35.6	35.2	35.9	30.4	Ampl.	34.3
511.6	511.6	511.0	510.7	Sbd box	511.3
U/L 352/0	352/0	352/0	352/0	APs used	
b 1000	1000	1000	1000	PC freqs	
o 1000	1000	1000	1000	PC freqs	
b:o 0:0	0:0	0:0	0:0	PC phase	
b:o 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
o 1000	1000	1000	1000		
b Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
o Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	1.14033372850E+03	Apriori delay (usec)	1.14033686218E+03	Resid mbdelay (usec)	-3.13369E-03	+/- 8.9E-07
Sband delay (usec)	1.14033350406E+03	Apriori clock (usec)	-2.3116692E+01	Resid sbdelay (usec)	-3.35812E-03	+/- 3.4E-06
Phase delay (usec)	1.14033685634E+03	Apriori clockrate (us/s)	9.9999998E-08	Resid phdelay (usec)	-5.84737E-06	+/- 5.9E-09
Delay rate (us/s)	-3.45621384149E-02	Apriori rate (us/s)	-3.45621489202E-02	Resid rate (us/s)	1.05053E-08	+/- 5.7E-11
Total phase (deg)	106.8	Apriori accel (us/s/s)	7.24793366544E-06	Resid phase (deg)	-90.6	+/- 0.1

ph/seg (deg)	21.1	0.3	Amplitude	34.032 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	6.6	0.5	Search (1024X16)	32.725	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	13.4	0.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	6.6	0.2	Inc. seg. avg.	36.223	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
			Inc. frq. avg.	34.260	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 o: az 30.8 el 62.4 pa -129.3 u,v (fr/asec) 193.533 785.903 simultaneous interpolator

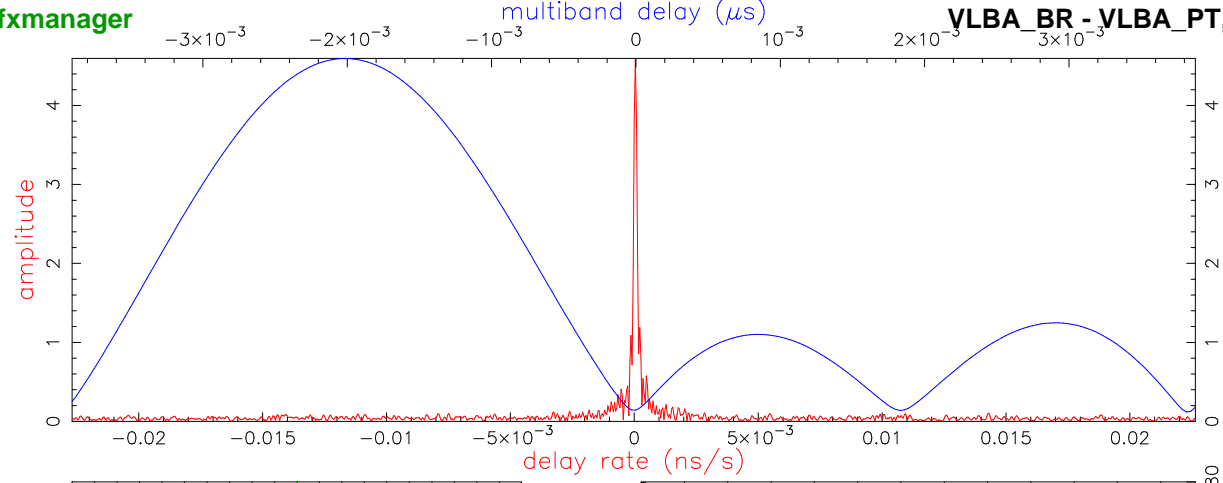
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bo..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bo.Q.8.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bp

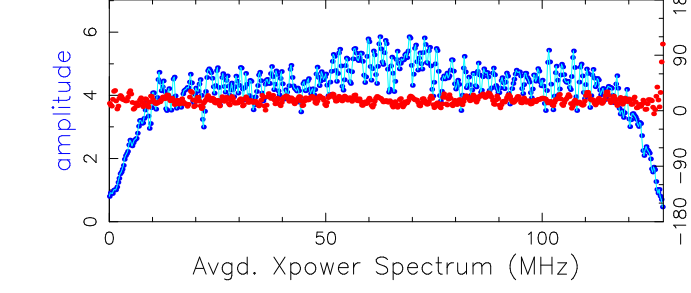
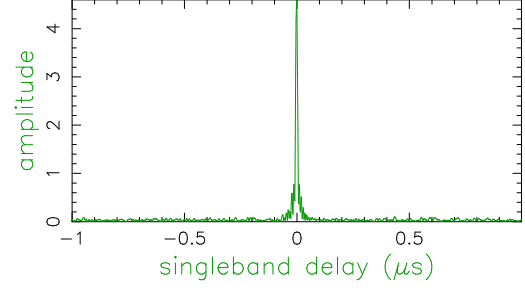
VLBA_BR - VLBA_PT, fgroup Q, pol RR



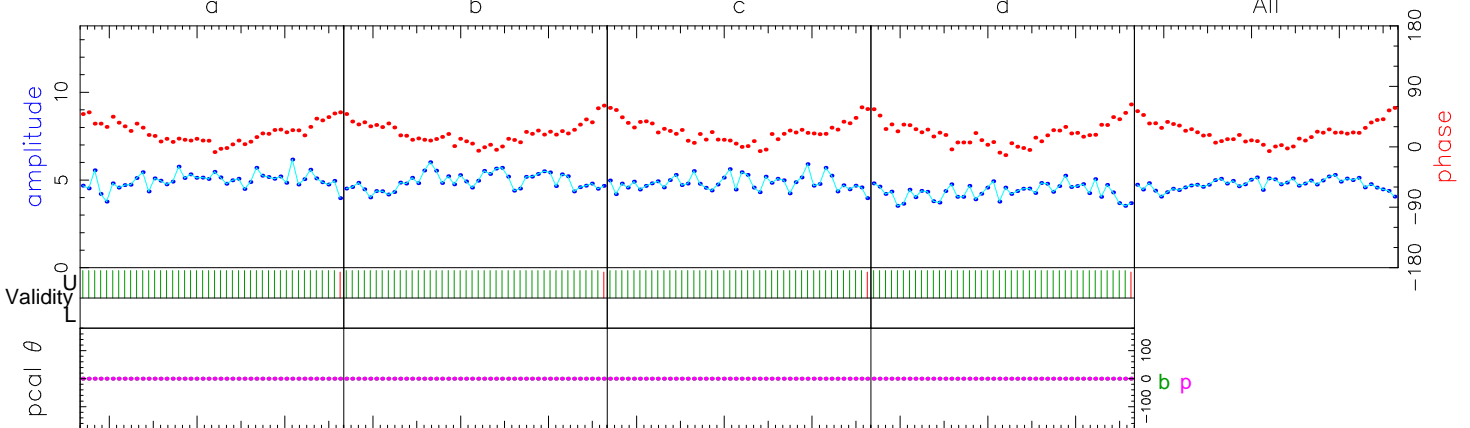
Fringe quality 8

SNR 168.6
 Int time 179.974
 Amp 4.596
 Phase 20.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.001824
 MBD -0.002009
 Fringe rate (Hz) 0.001649
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163103
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
21.7	19.5	22.7	19.5	Phase	20.9
4.8	4.8	4.7	4.2	Ampl.	4.6
512.0	512.0	512.1	512.3	Sbd box	512.1
U/L 352/0	352/0	352/0	352/0	APs used	
b 1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	PC freqs	
b:p 0:0	0:0	0:0	0:0	PC phase	
b:p 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000		
b Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	1.01969676005E+03	Apriori delay (usec)	1.01969876910E+03	Resid mbdelay (usec)	-2.00905E-03	+/- 6.6E-06
Sband delay (usec)	1.01969694485E+03	Apriori clock (usec)	-1.7522354E+00	Resid sbdelay (usec)	-1.82425E-03	+/- 2.6E-05
Phase delay (usec)	1.01969877045E+03	Apriori clockrate (us/s)	-3.9999997E-07	Resid phdelay (usec)	1.34986E-06	+/- 4.4E-08
Delay rate (us/s)	6.51715241065E-02	Apriori rate (us/s)	6.51714857837E-02	Resid rate (us/s)	3.83228E-08	+/- 4.2E-10
Total phase (deg)	28.9	Apriori accel (us/s/s)	1.19841699137E-05	Resid phase (deg)	20.9	+/- 0.7

RMS	Theor.	Amplitude	4.596 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	15.3	Search (1024X16)	4.569	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	7.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	2.0	Inc. seg. avg.	4.754	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	5.6	Inc. frq. avg.	4.596	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -349.976 1188.795 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bp.Q.31.1HP6Q8

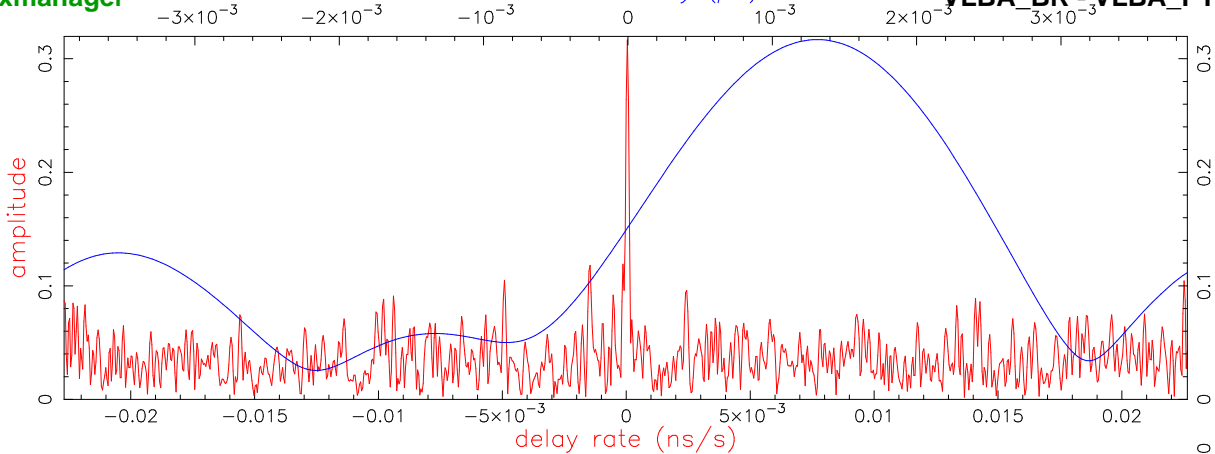
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bp

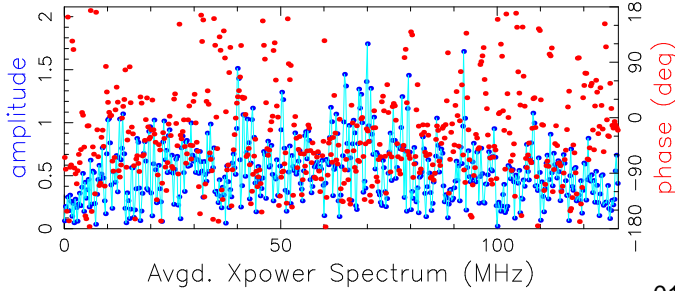
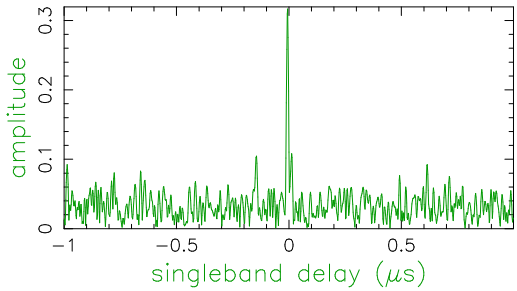
VLBA_BR - VLBA_PT, fgroup Q, pol LR

multiband delay (μ s)



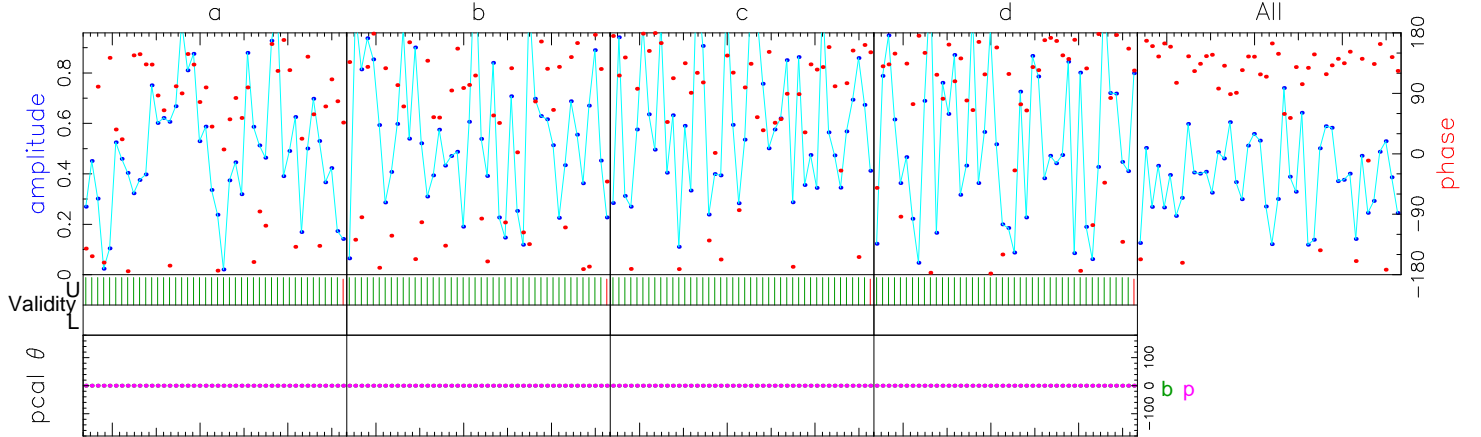
Fringe quality 9

SNR 11.7
 Int time 179.974
 Amp 0.320
 Phase 134.4
 PFD 2.2e-23
 Delays (us)
 SBD -0.006548
 MBD 0.001264
 Fringe rate (Hz) 0.002081
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163104
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
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	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.01969222036E+03	Apriori delay (usec)	1.01969876910E+03	Resid mbdelay (usec)	1.26376E-03	+/-	9.5E-05
Sband delay (usec)	1.01969222135E+03	Apriori clock (usec)	-1.7522354E+00	Resid sbdelay (usec)	-6.54775E-03	+/-	3.7E-04
Phase delay (usec)	1.01969877778E+03	Apriori clockrate (us/s)	-3.9999997E-07	Resid phdelay (usec)	8.67421E-06	+/-	6.3E-07
Delay rate (us/s)	6.51715341297E-02	Apriori rate (us/s)	6.51714857837E-02	Resid rate (us/s)	4.83460E-08	+/-	6.1E-09
Total phase (deg)	142.4	Apriori accel (us/s/s)	1.19841699137E-05	Resid phase (deg)	134.4	+/-	9.8

ph/seg (deg)	40.1	Theor.	32.4	Amplitude	0.320 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	51.7	Search (1024X16)	0.313	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	18.6	Inc. seg. avg.	0.336	Inc. frq. avg.	0.320	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	18.5	Inc. frq. avg.	0.320			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

b: az 47.6 el 70.3 pa -109.3 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -349.976 1188.795 simultaneous interpolator

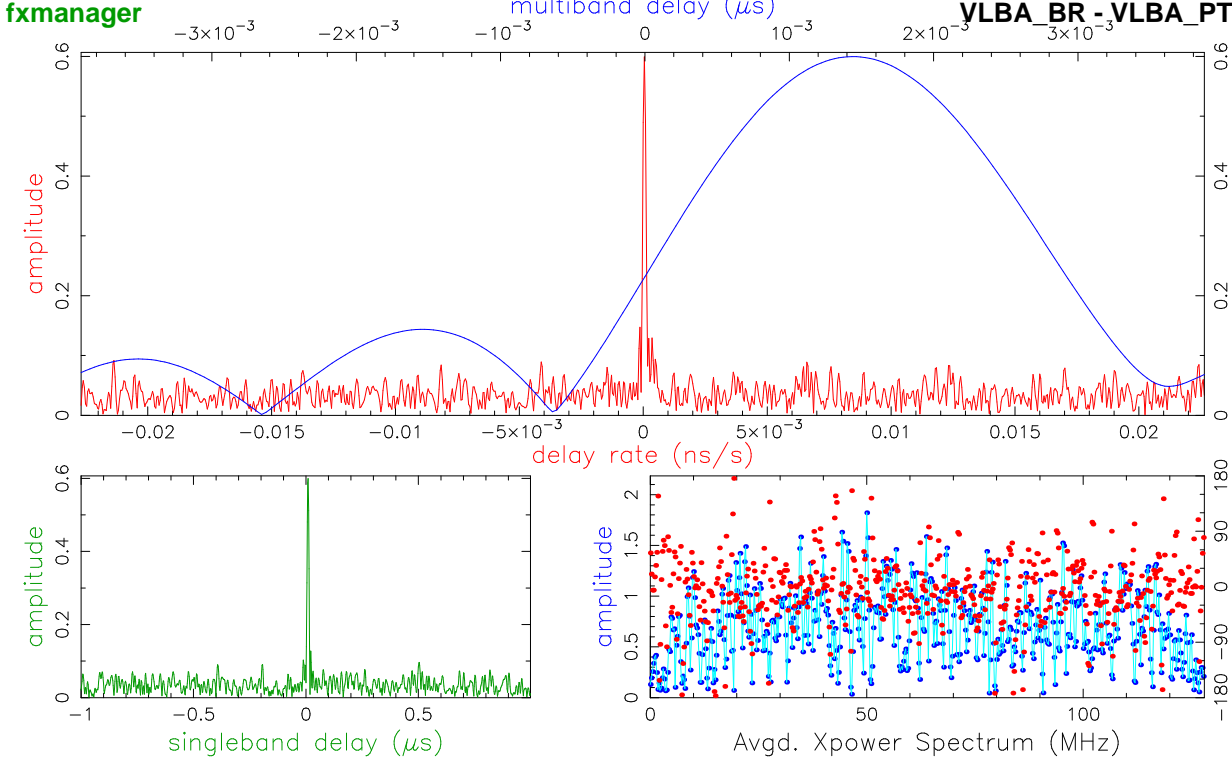
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bp.Q.46.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bp

VLBA_BR - VLBA_PT, fgroup Q, pol RL

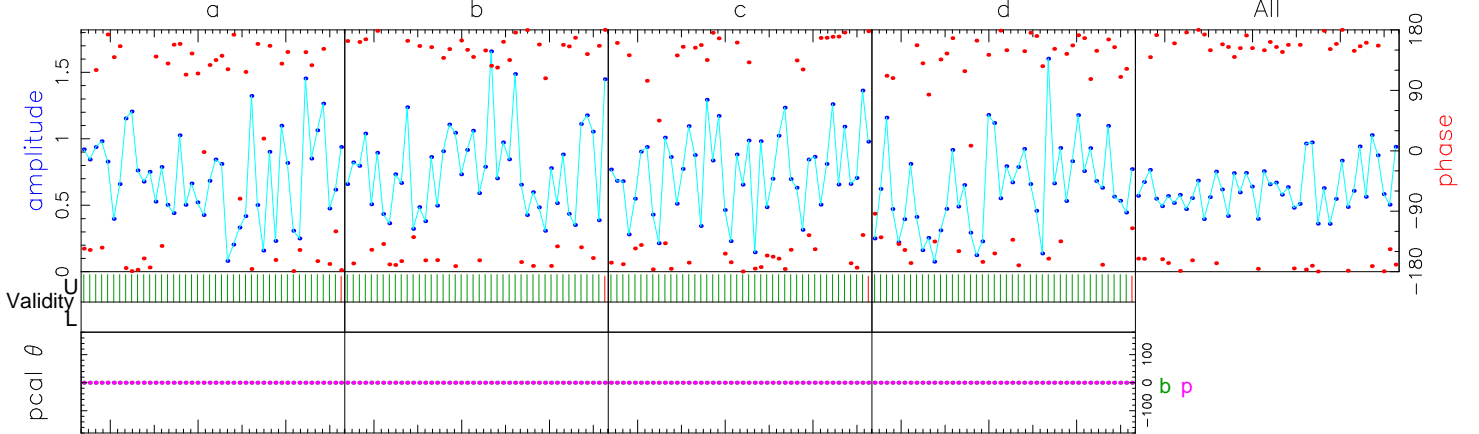


Fringe quality 9

SNR 22.3
 Int time 179.974
 Amp 0.607
 Phase 171.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.009023
 MBD 0.001395
 Fringe rate (Hz)
 0.001961
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163106
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
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	

	1.01970797658E+03	1.01969878015E+03	1.01969876910E+03	1.01969876910E+03	1.39498E-03	5.0E-05
Group delay (usec)(sbd)	1.01970797658E+03	1.01969878015E+03	1.01969876910E+03	1.01969876910E+03	1.39498E-03	5.0E-05
Sband delay (usec)	1.01970779185E+03	1.01969878015E+03	1.01969876910E+03	1.01969876910E+03	9.02275E-03	1.9E-04
Phase delay (usec)	1.01969878015E+03	1.01969878015E+03	1.01969876910E+03	1.01969876910E+03	1.10509E-05	3.3E-07
Delay rate (us/s)	6.51715313388E-02	6.51715313388E-02	6.51714857837E-02	6.51714857837E-02	4.55551E-08	3.2E-09
Total phase (deg)	179.2	179.2	179.2	179.2	171.2	5.1

	18.4	17.1	0.599	0.599	0.607 +/- 0.027	5, 5
ph/seg (deg)	18.4	17.1	0.599	0.599	0.607 +/- 0.027	5, 5
amp/seg (%)	27.9	29.8	0.000	0.000	0.000	sb window (us) -1.000 1.000
ph/frq (deg)	7.7	5.1	0.605	0.605	0.605	mb window (us) -0.004 0.004
amp/frq (%)	13.1	9.0	0.600	0.600	0.600	dr window (ns/s) -0.023 0.023

b: az 47.6 el 70.3 pa -109.3 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -349.976 1188.795 simultaneous interpolator

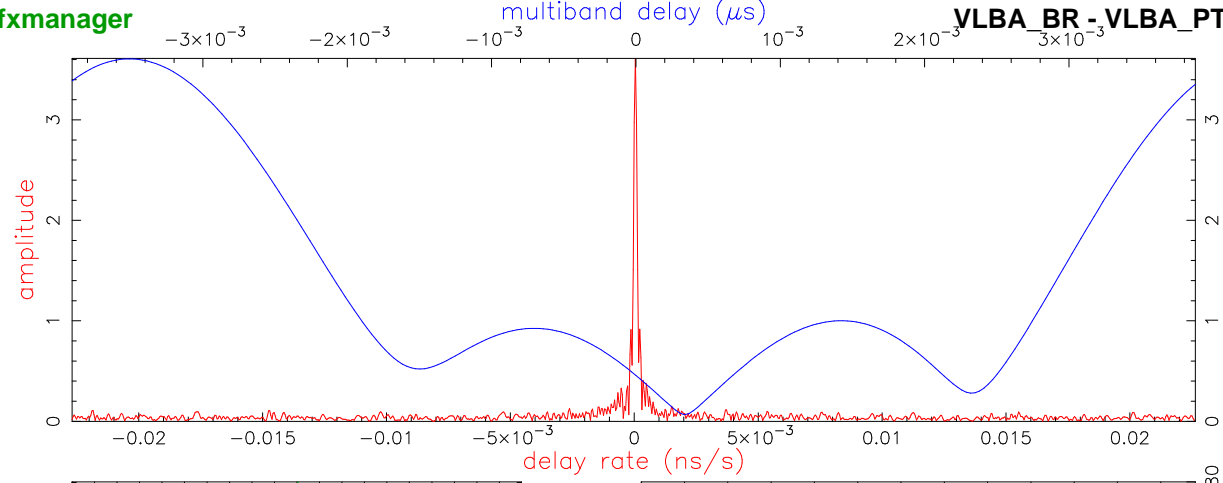
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bp.Q.67.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bp

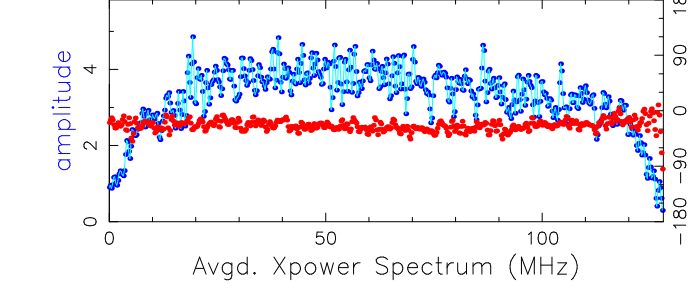
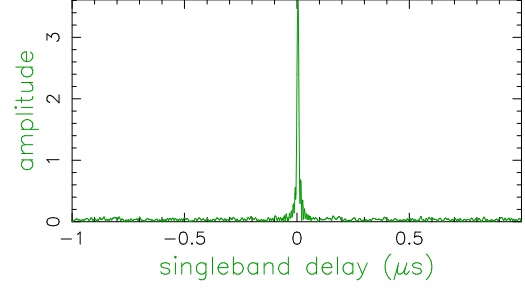
VLBA_BR - VLBA_PT, fgroup Q, pol LL



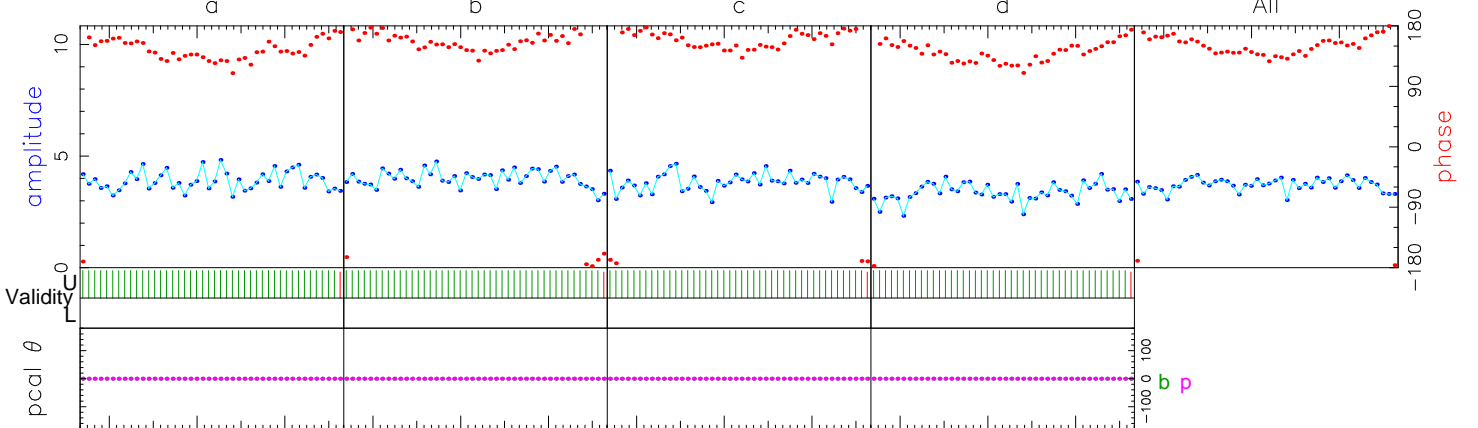
Fringe quality 7

SNR 132.5
 Int time 179.974
 Amp 3.611
 Phase 152.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.004163
 MBD -0.003495
 Fringe rate (Hz) 0.001719
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163100
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
p	1000	1000	1000	1000	PC freqs	
b:p	0:0	0:0	0:0	0:0	PC phase	
b:p	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	1.01970308661E+03	Apriori delay (usec)	1.01969876910E+03	Resid mbdelay (usec)	-3.49499E-03	+/- 8.4E-06
Group delay (usec)(sbd)	1.01970293248E+03	Apriori clock (usec)	-1.7522354E+00	Resid sbdelay (usec)	4.16338E-03	+/- 3.3E-05
Sband delay (usec)	1.01969877893E+03	Apriori clockrate (us/s)	-3.9999997E-07	Resid phdelay (usec)	9.82555E-06	+/- 5.6E-08
Phase delay (usec)	6.51715257175E-02	Apriori rate (us/s)	6.51714857837E-02	Resid rate (us/s)	3.99338E-08	+/- 5.4E-10
Delay rate (us/s)	160.2	Apriori accel (us/s/s)	1.19841699137E-05	Resid phase (deg)	152.2	+/- 0.9

	RMS	Theor.	Amplitude	3.611 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	14.4	2.9	Search (1024X16)	3.585	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	8.1	5.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	12.8	0.9	Inc. seg. avg.	3.715	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	6.6	1.5	Inc. frq. avg.	3.650	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 47.6 el 70.3 pa -109.3 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -349.976 1188.795 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bp.Q.9.1HP6Q8