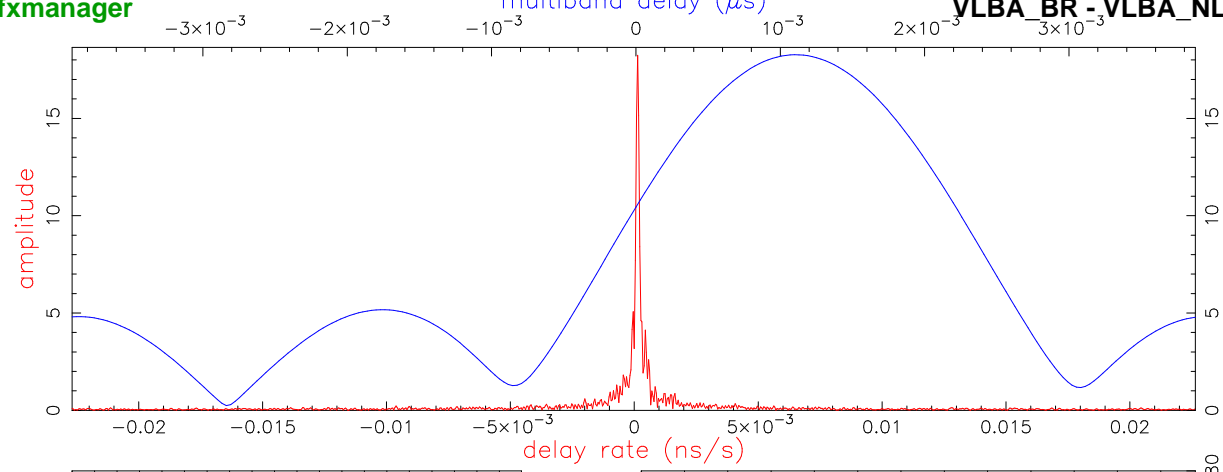


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bn

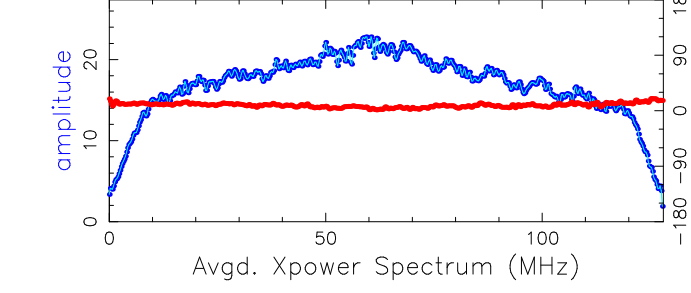
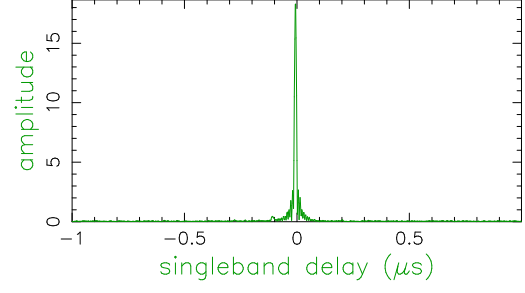
VLBA_BR - VLBA_NL, fgroup Q, pol LL



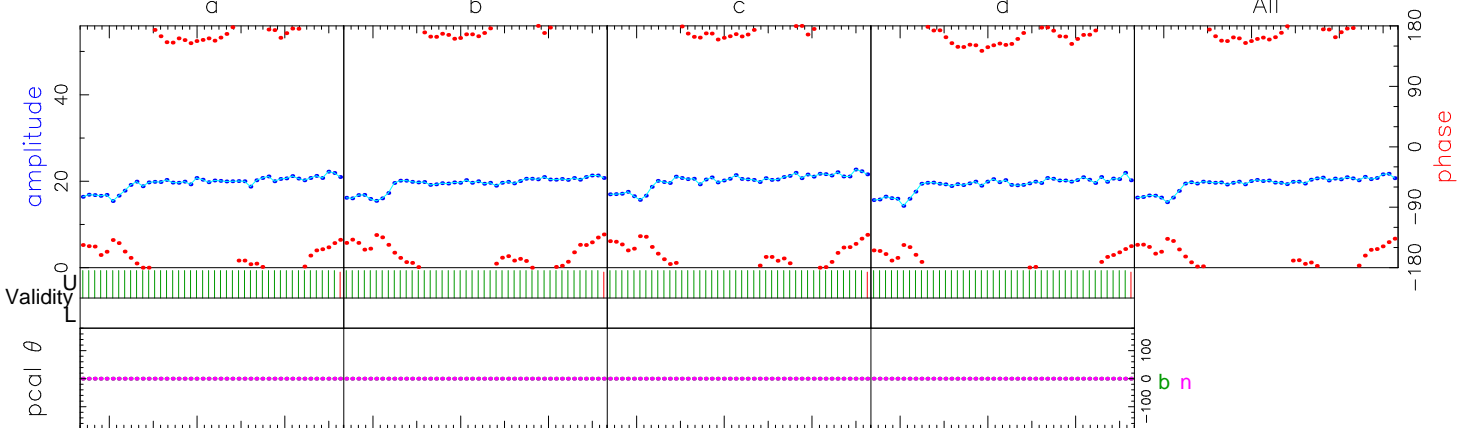
Fringe quality 8

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
-176.8	-169.8	-171.0	174.5	Phase	-175.7
18.4	18.2	18.9	18.0	Ampl.	18.4
509.7	509.7	509.3	509.1	Sbd box	509.5
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 Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
n Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	-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

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

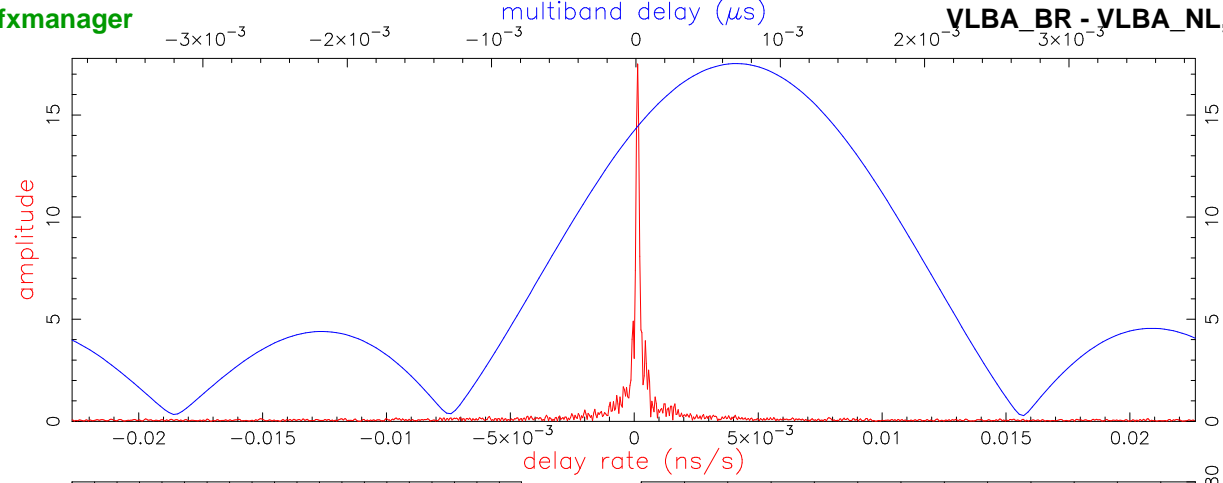
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn.Q.12.1HP6Q8

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fxmanager

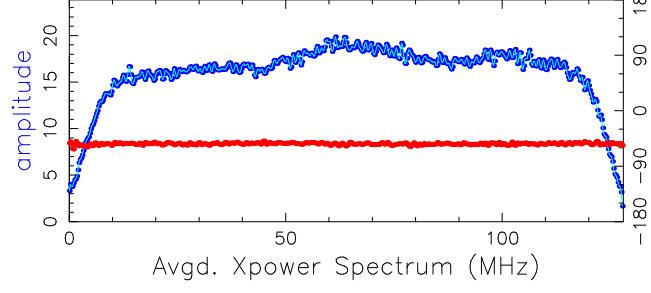
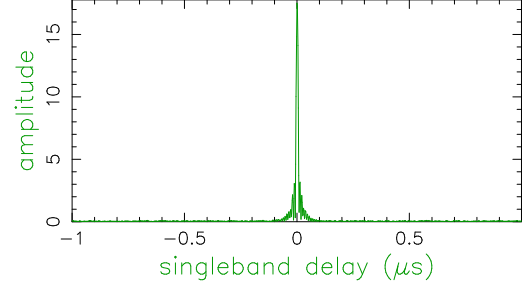
0102+584.1HP6Q8, No0090, bn

VLBA_BR - VLBA_NL, fgroup Q, pol RR



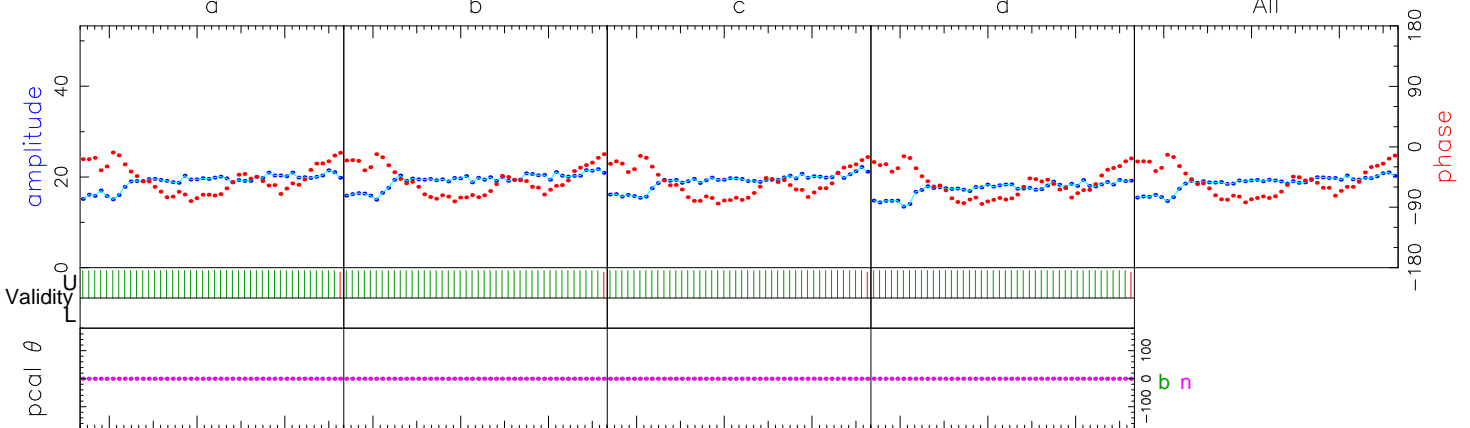
Fringe quality 8

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		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-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

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

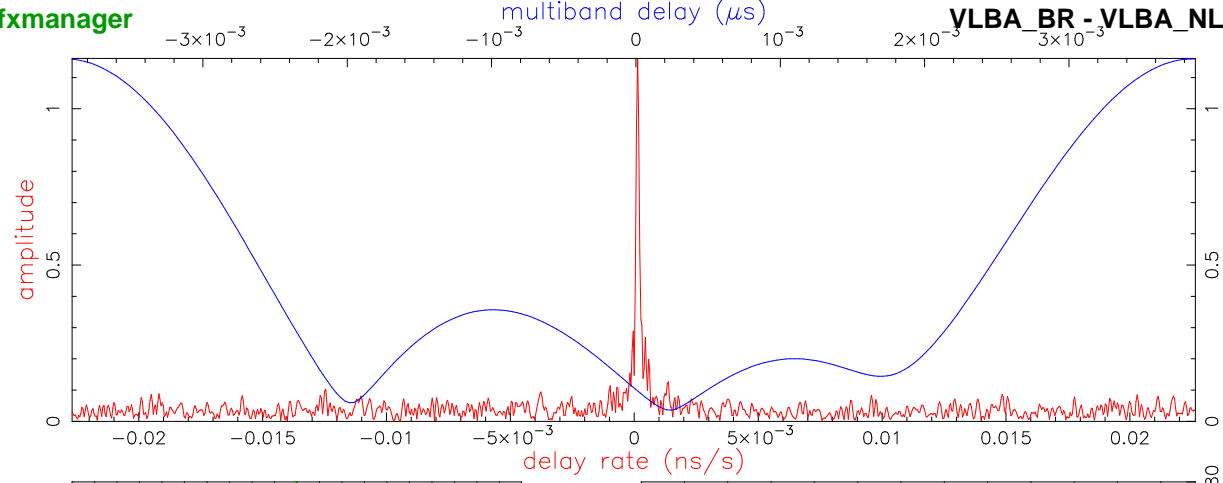
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn.Q.26.1HP6Q8

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fxmanager

0102+584.1HP6Q8, No0090, bn

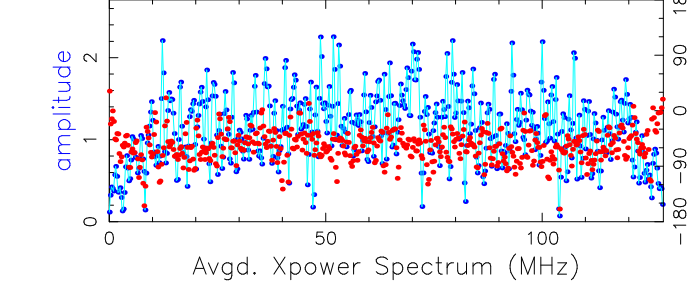
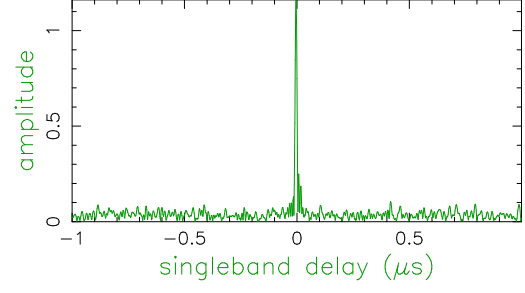
VLBA_BR - VLBA_NL, fgroup Q, pol LR



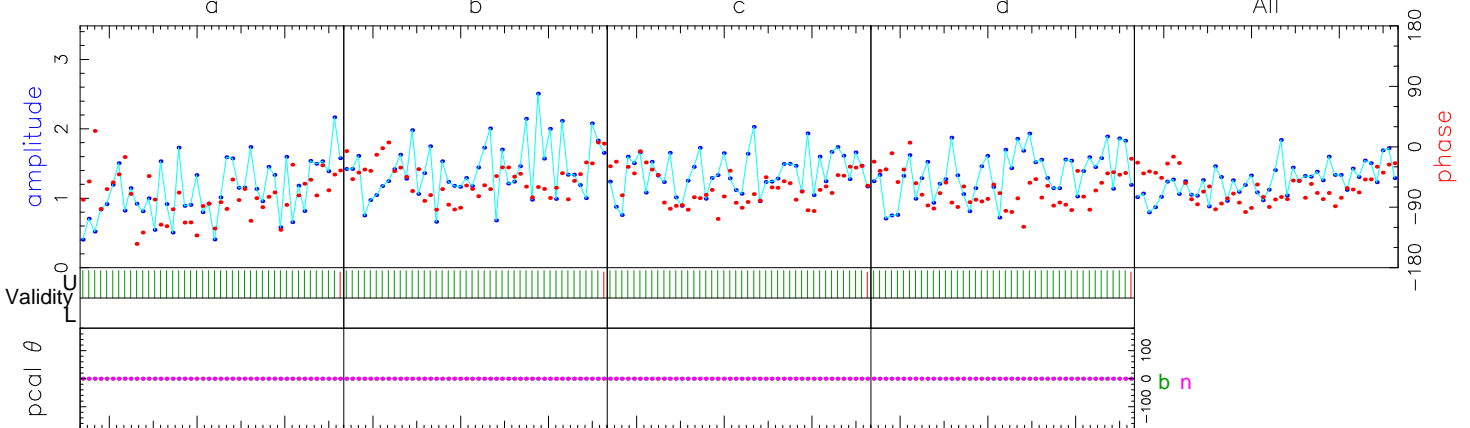
Fringe quality 8

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	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	Manl PC	
b	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	

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

	RMS	Theor.	Amplitude	1.161 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	22.1	8.9	Search (1024X16)	1.113	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	21.0	15.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	13.1	2.7	Inc. seg. avg.	1.235	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	11.1	4.7	Inc. frq. avg.	1.173	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.50.1HP6Q8

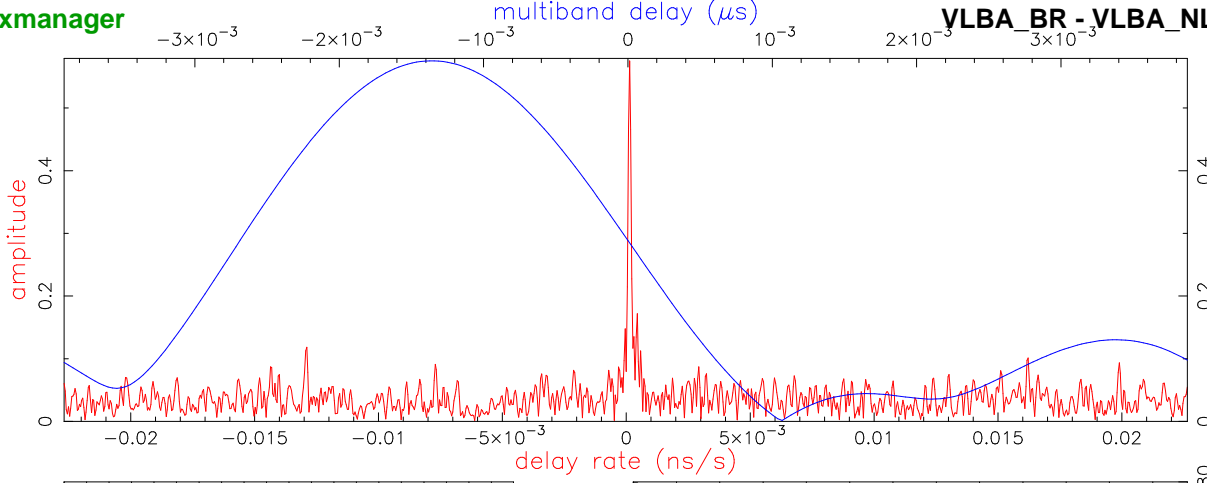
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

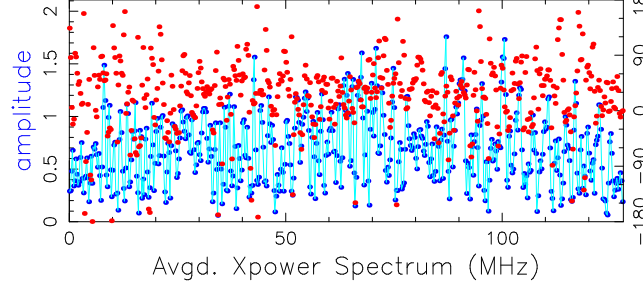
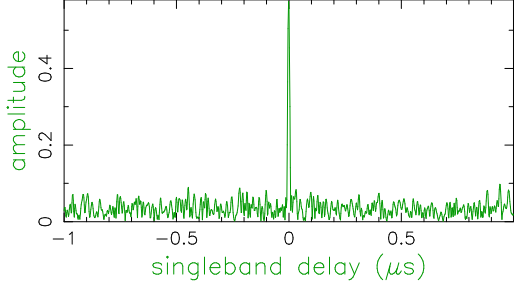
0102+584.1HP6Q8, No0090, bn

VLBA_BR - VLBA_NL, fgroup Q, pol RL

Fringe quality 8

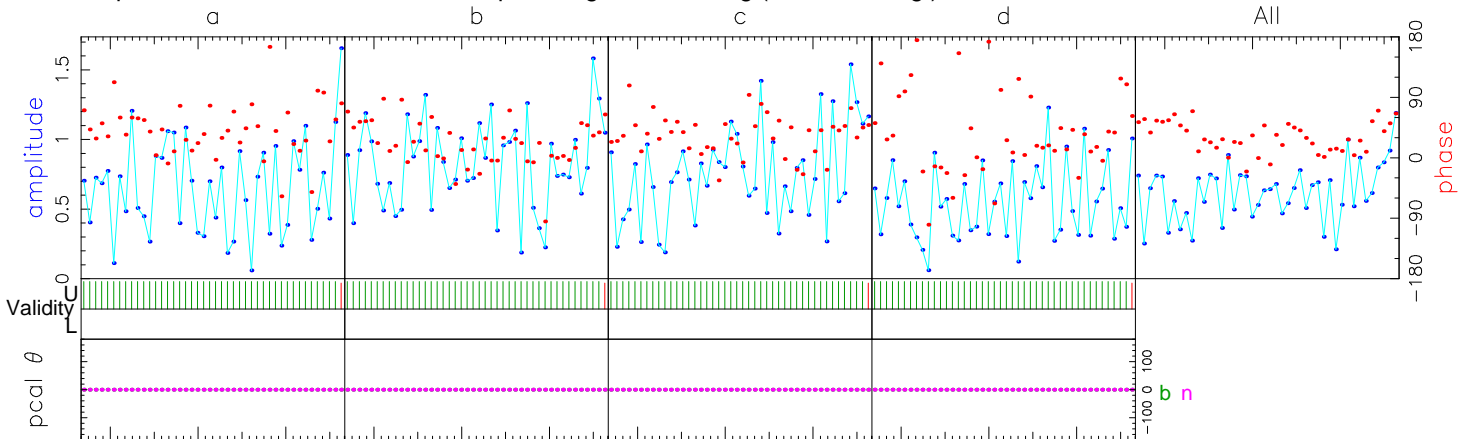


SNR 21.2
 Int time 179.973
 Amp 0.579
 Phase 31.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.001377
 MBD -0.001325
 Fringe rate (Hz)
 0.005412
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



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	Manl 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)	22.4	Theor.	17.9	Amplitude	0.579 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	35.7	Search (1024X16)	0.570	Search	0.570	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	8.8	Inc. seg. avg.	0.593	Inc. seg. avg.	0.593	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	23.1	Inc. frq. avg.	0.576	Inc. frq. avg.	0.576	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	ion window (TEC)	0.00 0.00

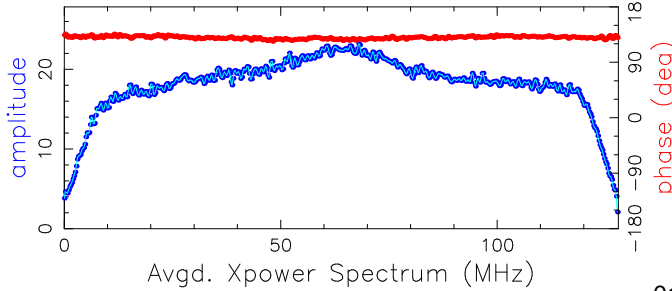
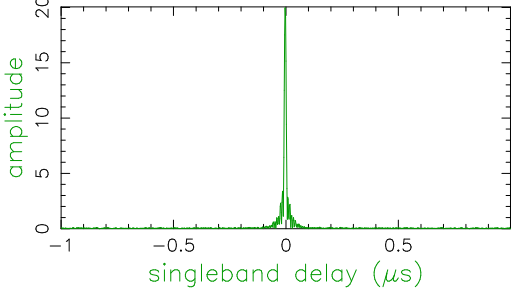
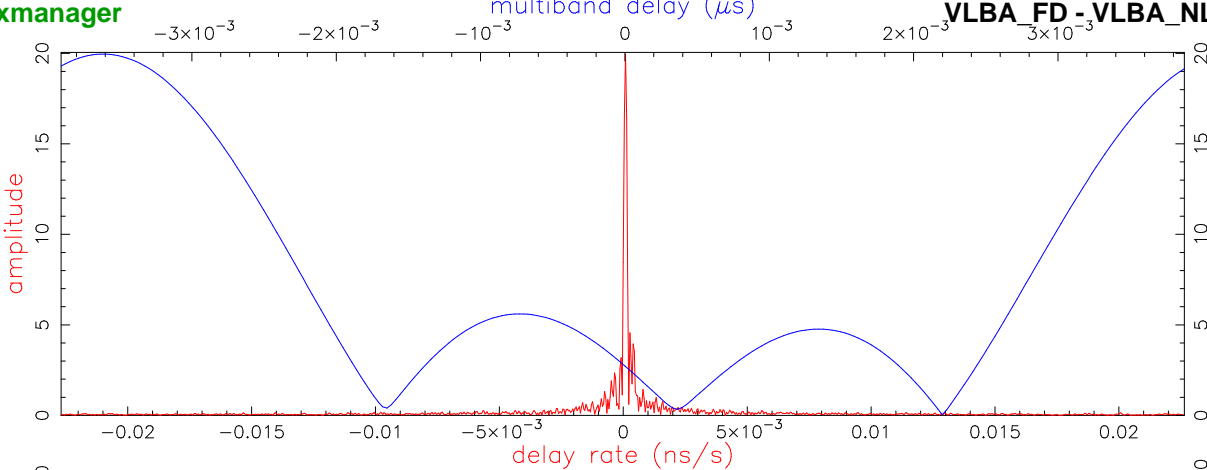
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bn.Q.65.1HP6Q8 simultaneous interpolator

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fxmanager

0102+584.1HP6Q8, No0090, fn

VLBA_FD - VLBA_NL, fgroup Q, pol LL

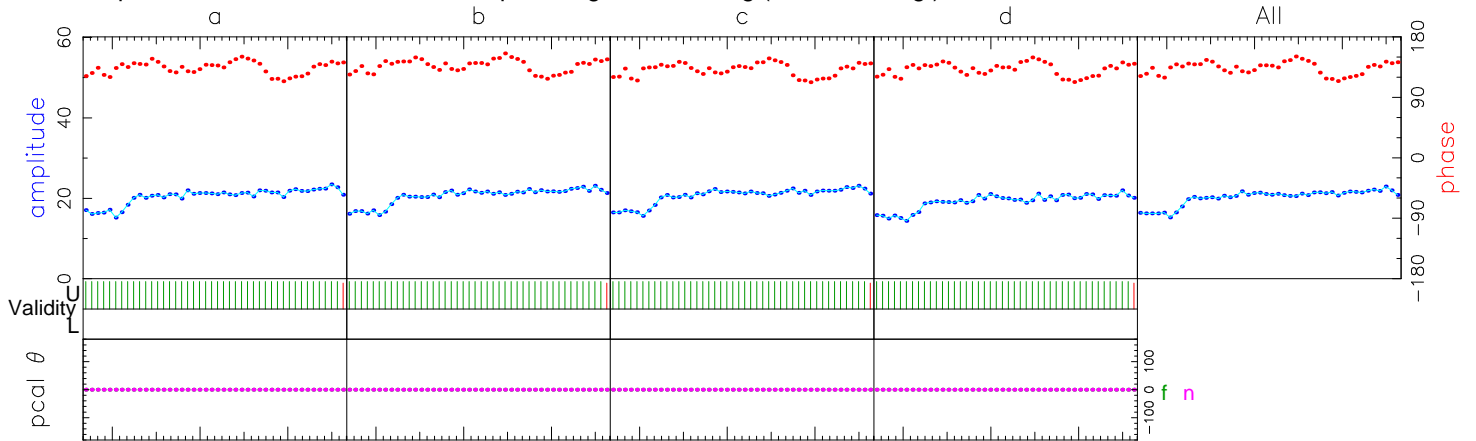


Fringe quality 9

SNR 735.7
 Int time 179.973
 Amp 20.054
 Phase 133.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.003442
 MBD -0.003590
 Fringe rate (Hz)
 0.003380
 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		
f	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	PC freqs	
f:n	0:0	0:0	0:0	0:0	PC phase	
f	1000	1000	1000	1000	ManI PC	
n	1000	1000	1000	1000	PC amp	
f	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

	-1.76311190506E+03	Apriori delay (usec)	-1.76310831545E+03	Resid mbdelay (usec)	-3.58961E-03	+/- 1.5E-06
Group delay (usec)(sbd)	-1.76311190506E+03	Apriori clock (usec)	7.7056904E+00	Resid sbdelay (usec)	-3.44212E-03	+/- 5.9E-06
Sband delay (usec)	-1.76311175757E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	8.61317E-06	+/- 1.0E-08
Phase delay (usec)	-1.76310830684E+03	Apriori rate (us/s)	1.49170071956E-01	Resid rate (us/s)	7.85289E-08	+/- 9.7E-11
Delay rate (us/s)	1.49170150485E-01	Apriori accel (us/s/s)	-5.63213481295E-06	Resid phase (deg)	133.5	+/- 0.2
Total phase (deg)	-189.4					

	RMS	Theor.	Amplitude	20.054 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	9.3	0.5	Search (1024X16)	19.415	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	9.6	0.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	3.3	0.2	Inc. seg. avg.	20.225	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	2.9	0.3	Inc. frq. avg.	19.974	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
f: az 13.6 el 60.8 pa -157.8			n: az 360.5 el 73.3 pa -179.4	u,v (fr/asec) -820.335 -716.822		simultaneous interpolator

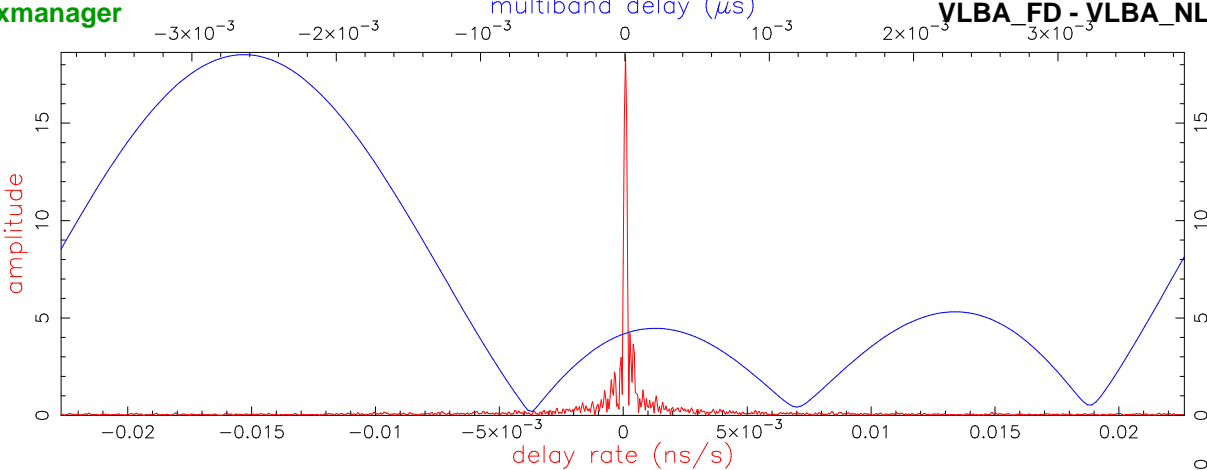
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fn.Q.19.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

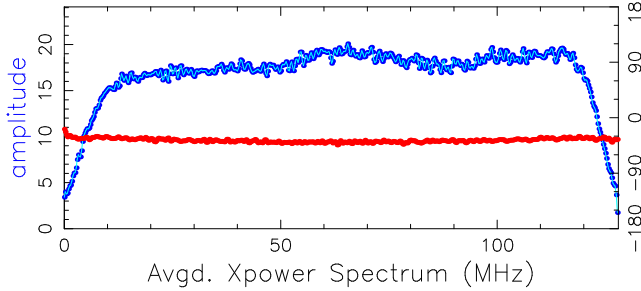
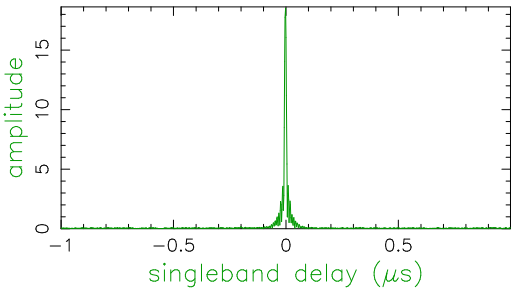
0102+584.1HP6Q8, No0090, fn

VLBA_FD - VLBA_NL, fgroup Q, pol RR



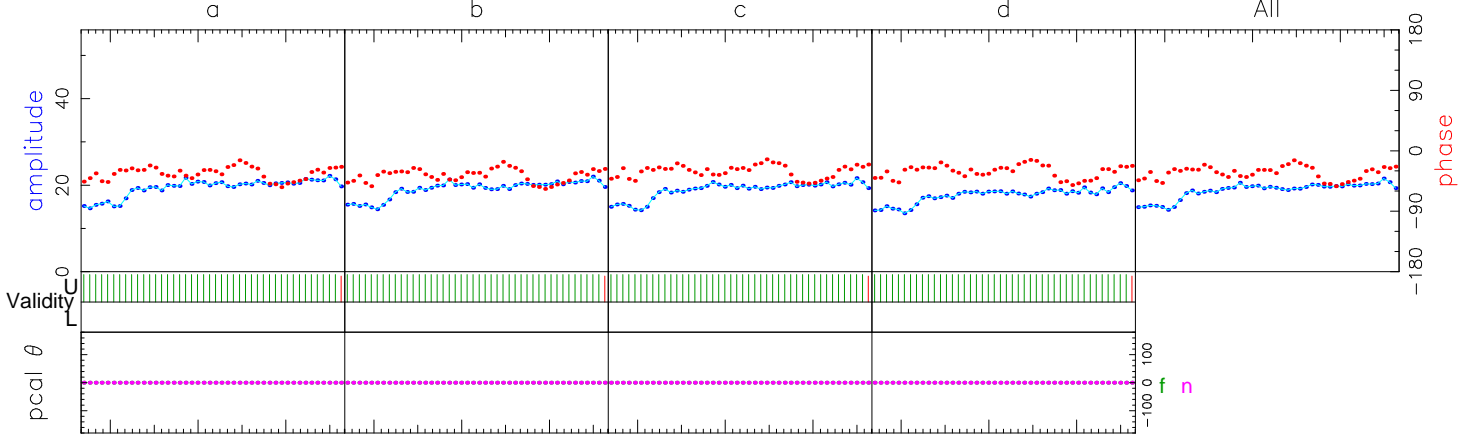
Fringe quality 9

SNR 683.6
 Int time 179.973
 Amp 18.633
 Phase -32.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.002483
 MBD -0.002671
 Fringe rate (Hz)
 0.003340
 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
-33.4	-36.8	-30.2	-30.8	Phase	-32.9
19.2	18.9	18.7	17.4	Ampl.	18.5
512.1	511.6	511.8	511.3	Sbd box	511.7
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
n 1000	1000	1000	1000	PC freqs	
f:n 0:0	0:0	0:0	0:0	PC phase	
f:n 0:0	0:0	0:0	0:0	ManI PC	
f 1000	1000	1000	1000	PC amp	
n 1000	1000	1000	1000		
f Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
n Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	-1.76311098662E+03	Apriori delay (usec)	-1.76310831545E+03	Resid mbdelay (usec)	-2.67117E-03	+/- 1.6E-06
Sband delay (usec)	-1.76311079857E+03	Apriori clock (usec)	7.7056904E+00	Resid sbdelay (usec)	-2.48313E-03	+/- 6.3E-06
Phase delay (usec)	-1.76310831757E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	-2.12085E-06	+/- 1.1E-08
Delay rate (us/s)	1.49170149560E-01	Apriori rate (us/s)	1.49170071956E-01	Resid rate (us/s)	7.76043E-08	+/- 1.0E-10
Total phase (deg)	-355.8	Apriori accel (us/s/s)	-5.63213481295E-06	Resid phase (deg)	-32.9	+/- 0.2

ph/seg (deg)	9.5	0.6	Search (1024X16)	17.973	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	9.9	1.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	3.6	0.2	Inc. seg. avg.	18.765	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023	
amp/frq (%)	3.7	0.3	Inc. frq. avg.	18.529	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00
f: az 13.6 el 60.8 pa -157.8	n: az 360.5 el 73.3 pa -179.4	u,v (fr/asec)	-820.335 -716.822						simultaneous interpolator	

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fn.Q.38.1HP6Q8

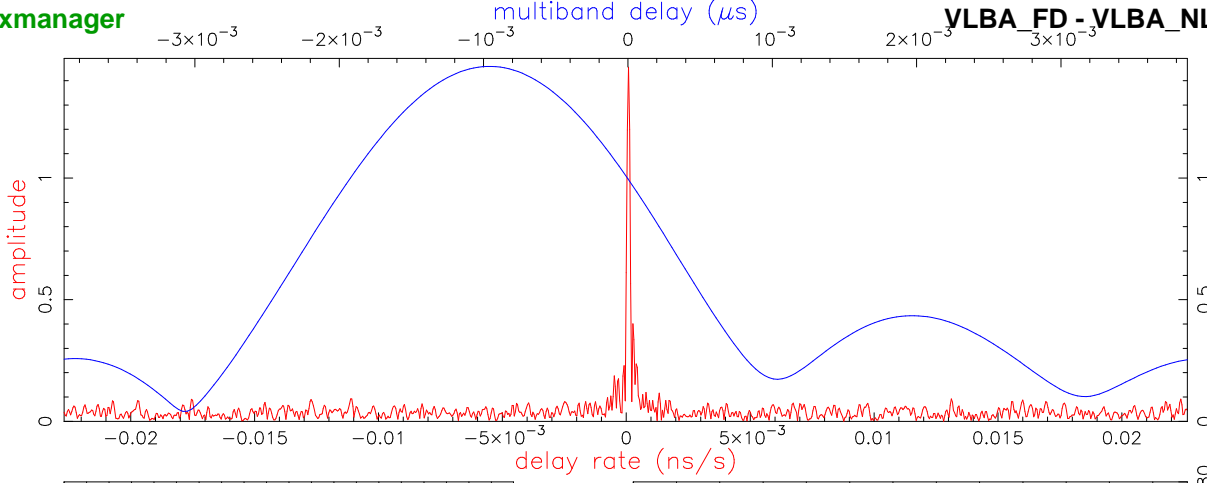
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

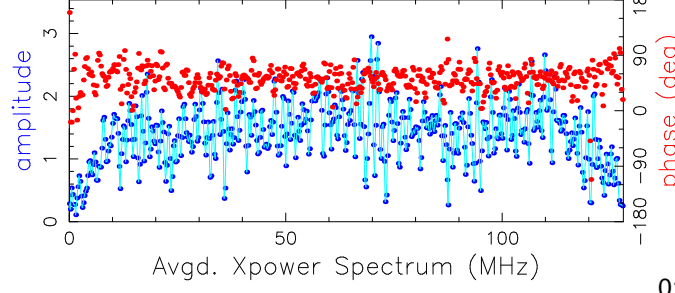
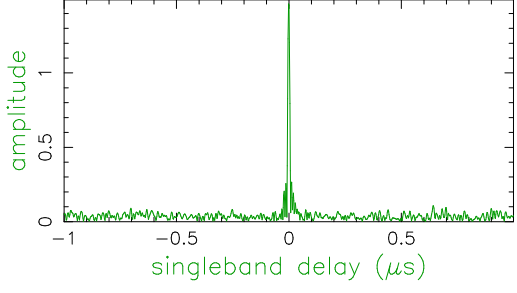
0102+584.1HP6Q8, No0090, fn

VLBA_FD - VLBA_NL, fgroup Q, pol LR

Fringe quality 8

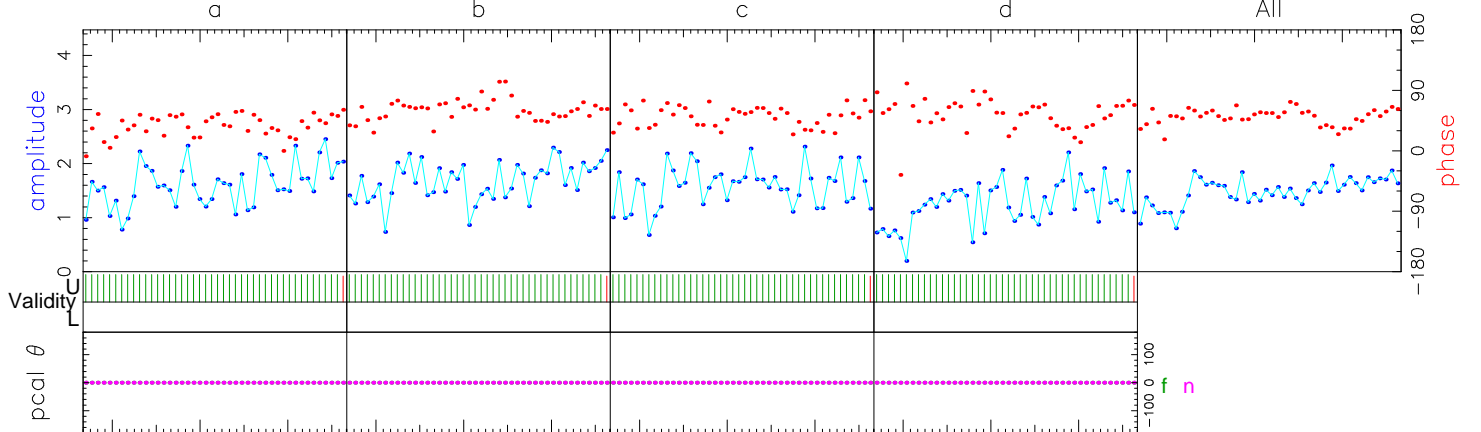


SNR 54.7
 Int time 179.973
 Amp 1.492
 Phase 50.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.001040
 MBD -0.001038
 Fringe rate (Hz)
 0.003207
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



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



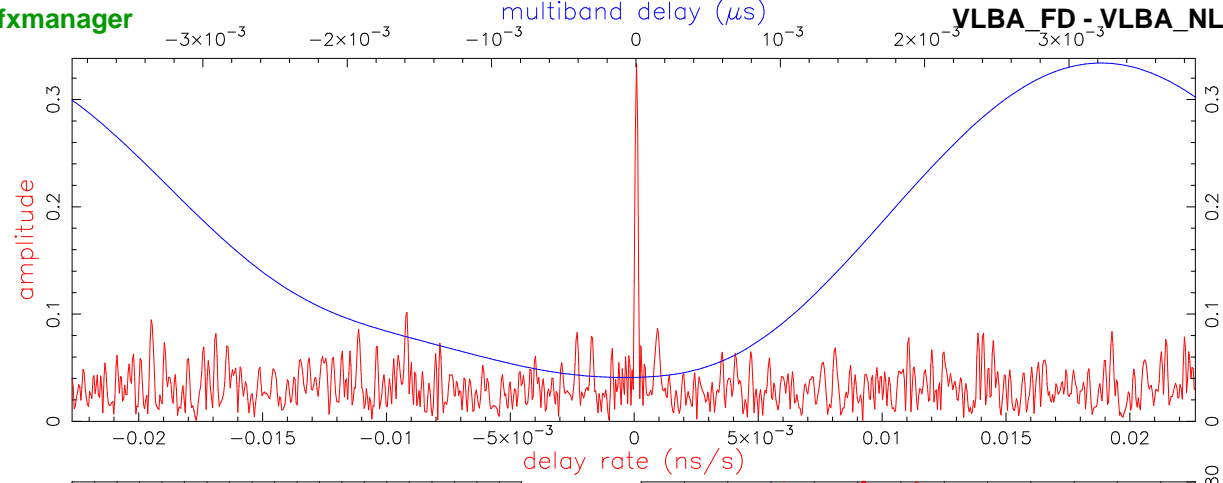
42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
38.4	61.1	51.2	53.0	Phase	50.9
1.6	1.6	1.5	1.2	Ampl.	1.5
513.0	512.5	511.8	512.8	Sbd box	512.5
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
n 1000	1000	1000	1000	PC freqs	
f:n 0:0	0:0	0:0	0:0	PC phase	
f:n 0:0	0:0	0:0	0:0	ManI PC	
f 1000	1000	1000	1000	PC amp	
n 1000	1000	1000	1000		
f Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
n Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.76310935337E+03	Apriori delay (usec)	-1.76310831545E+03	Resid mbdelay (usec)	-1.03792E-03 +/- 2.0E-05
Sband delay (usec)	-1.76310935545E+03	Apriori clock (usec)	7.7056904E+00	Resid sbdelay (usec)	-1.04000E-03 +/- 7.9E-05
Phase delay (usec)	-1.76310831216E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	3.28478E-06 +/- 1.4E-07
Delay rate (us/s)	1.49170146463E-01	Apriori rate (us/s)	1.49170071956E-01	Resid rate (us/s)	7.45071E-08 +/- 1.3E-09
Total phase (deg)	-272.0	Apriori accel (us/s/s)	-5.63213481295E-06	Resid phase (deg)	50.9 +/- 2.1
RMS	Theor.	Amplitude	1.492 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
11.8	6.9	Search (1024X16)	1.431	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
17.2	12.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
11.5	2.1	Inc. seg. avg.	1.475	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
11.8	3.7	Inc. frq. avg.	1.470	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
f: az 13.6 el 60.8 pa -157.8	n: az 360.5 el 73.3 pa -179.4	u,v (fr/asec)	-820.335 -716.822		simultaneous interpolator
Control file: cf_1234_gmva7mm	Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fn..1HP6Q8	Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fn.Q.64.1HP6Q8			

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, fn

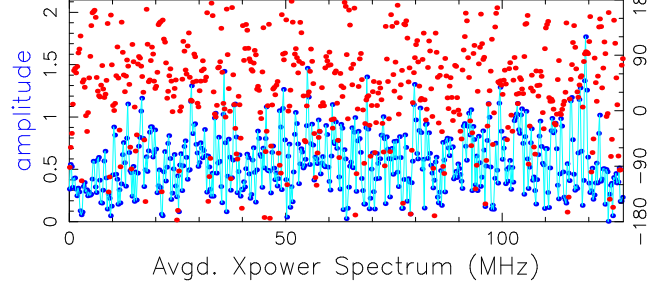
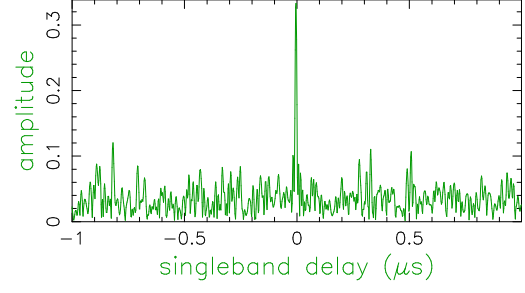
VLBA_FD - VLBA_NL, fgroup Q, pol RL



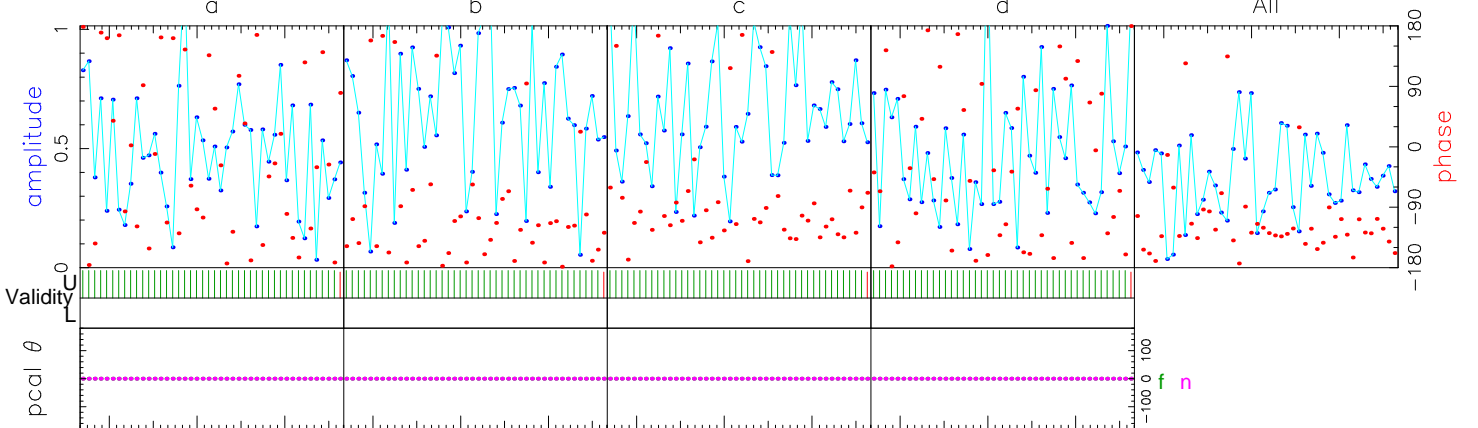
Fringe quality 7

SNR 12.4
 Int time 179.973
 Amp 0.338
 Phase -131.2
 PFD 5.8e-27
 Delays (us)
 SBD -0.004695
 MBD 0.003113
 Fringe rate (Hz) 0.003781
 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		
f	1000	1000	1000	1000		
n	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000		
n	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR		
n	Q00UL	Q01UL	Q02UL	Q03UL		

	-1.76311301528E+03	Apriori delay (usec)	-1.76310831545E+03	Resid mbdelay (usec)	3.11267E-03	+/- 9.0E-05
Group delay (usec)(sbd)	-1.76311301528E+03	Apriori clock (usec)	7.7056904E+00	Resid sbdelay (usec)	-4.69487E-03	+/- 3.5E-04
Sband delay (usec)	-1.76311301032E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	-8.46460E-06	+/- 6.0E-07
Phase delay (usec)	-1.76310832391E+03	Apriori rate (us/s)	1.49170071956E-01	Resid rate (us/s)	8.78430E-08	+/- 5.7E-09
Delay rate (us/s)	1.49170159799E-01	Apriori accel (us/s/s)	-5.63213481295E-06	Resid phase (deg)	-131.2	+/- 9.2
Total phase (deg)	-94.0					

	RMS	Theor.	Amplitude	0.338 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	44.1	30.6	Search (1024X16)	0.330	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	49.1	53.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	28.7	9.2	Inc. seg. avg.	0.330	Sample rate(MSamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	50.3	16.1	Inc. frq. avg.	0.343	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 13.6 el 60.8 pa -157.8 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -820.335 -716.822 simultaneous interpolator

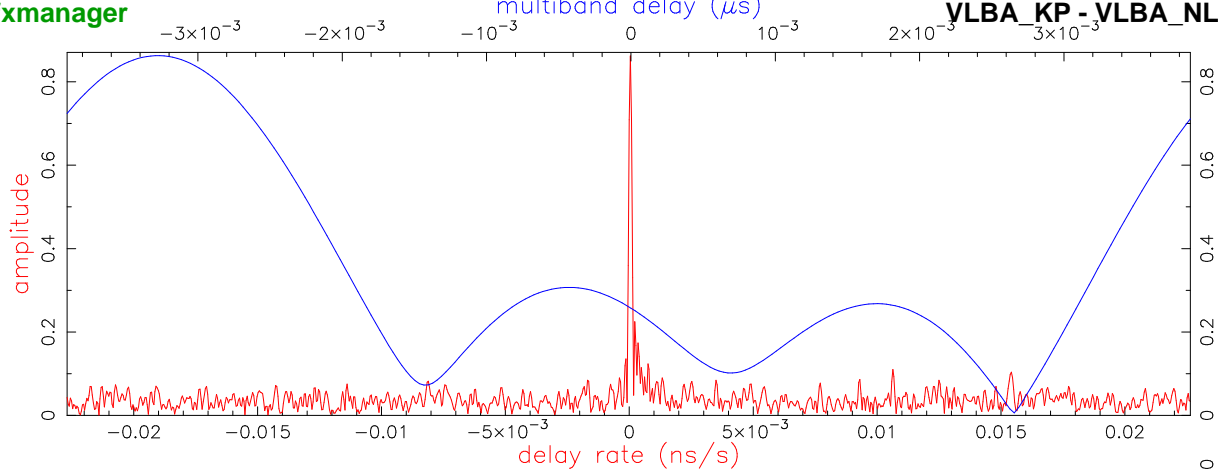
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fn.Q.79.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

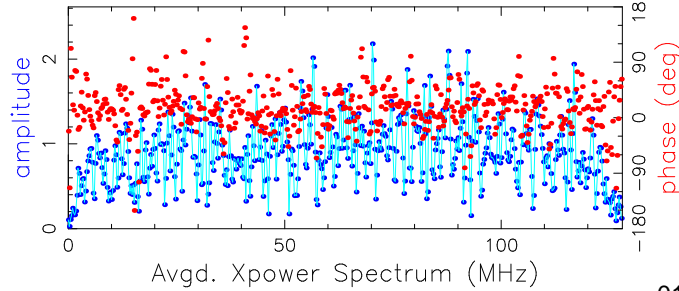
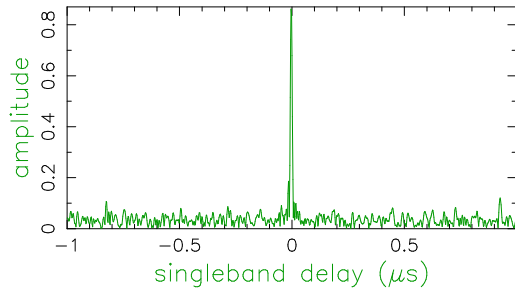
0102+584.1HP6Q8, No0090, kn

VLBA_KP - VLBA_NL, fgroup Q, pol LR



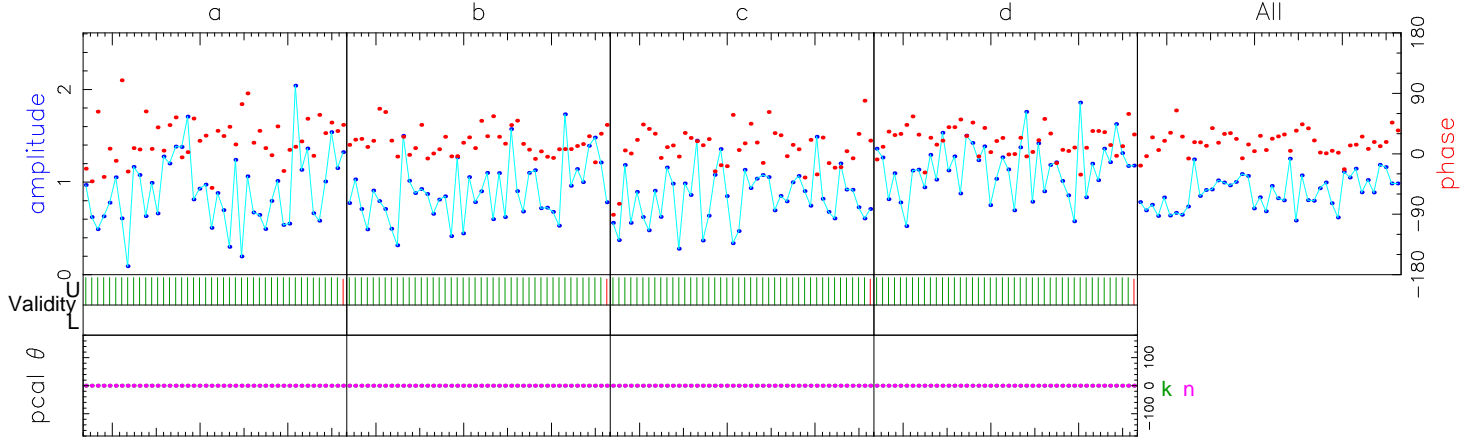
Fringe quality 9

SNR 31.9
Int time 179.799
Amp 0.871
Phase 16.9
PFD 0.0e+00
Delays (us)
SBD -0.003261
MBD -0.003242
Fringe rate (Hz)
0.002174
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
2021:010:163114
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		
k	1000	1000	1000	1000		
n	1000	1000	1000	1000		
k:n	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000		
n	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL		
n	Q00UR	Q01UR	Q02UR	Q03UR		

	-1.88980709337E+03	Apriori delay (usec)	-1.88980385110E+03	Resid mbdelay (usec)	-3.24227E-03	+/- 3.5E-05
Group delay (usec)(sbd)						
Sband delay (usec)	-1.88980711160E+03	Apriori clock (usec)	2.0176315E-01	Resid sbdelay (usec)	-3.26050E-03	+/- 1.3E-04
Phase delay (usec)	-1.88980385001E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	1.08783E-06	+/- 2.3E-07
Delay rate (us/s)	2.35660785618E-01	Apriori rate (us/s)	2.35660735108E-01	Resid rate (us/s)	5.05100E-08	+/- 2.2E-09
Total phase (deg)	-253.6	Apriori accel (us/s/s)	-3.10210166430E-06	Resid phase (deg)	16.9	+/- 3.6

	RMS	Theor.	Amplitude	0.871 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	16.9	11.9	Search (1024X16)	0.853	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	20.6	20.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.5	3.6	Inc. seg. avg.	0.880	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	14.3	6.3	Inc. frq. avg.	0.864	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 21.3 el 60.1 pa -144.4 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -1292.625 -505.883 simultaneous interpolator

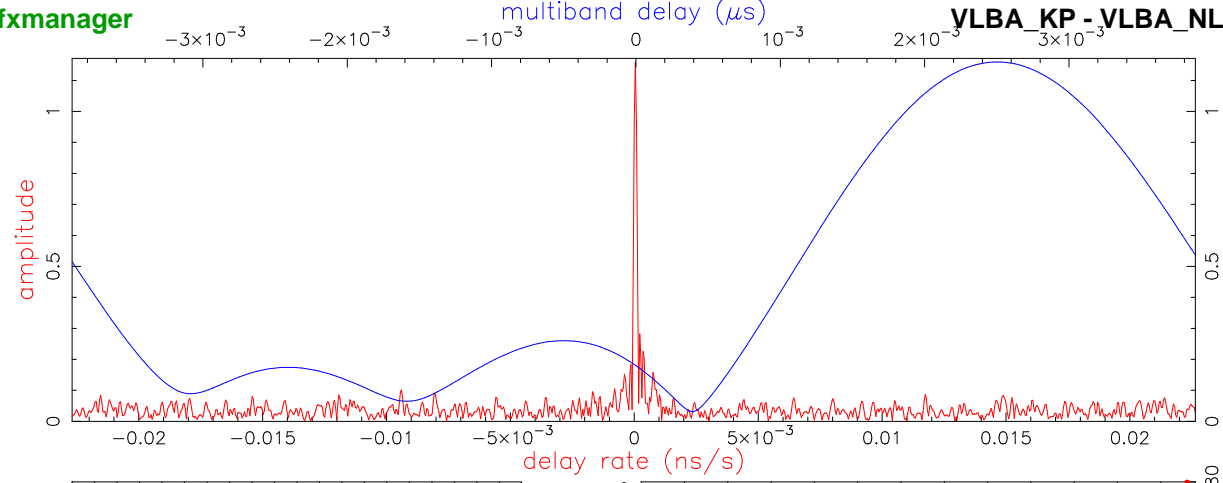
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/kn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/kn.Q.123.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, kn

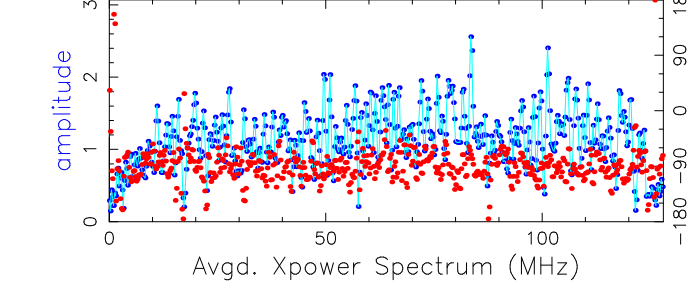
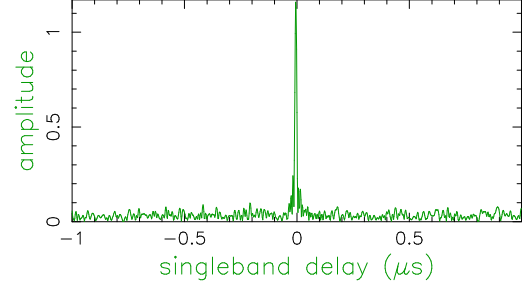
VLBA_KP - VLBA_NL, fgroup Q, pol RL



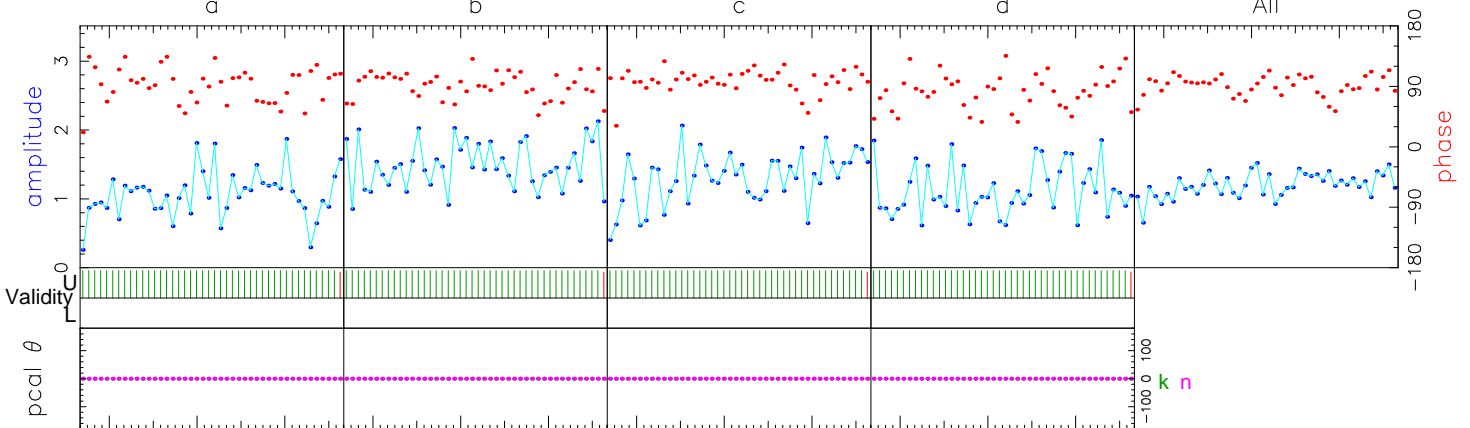
Fringe quality 9

SNR 42.9
 Int time 179.799
 Amp 1.171
 Phase 91.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.005180
 MBD 0.002548
 Fringe rate (Hz) 0.002656
 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
 2021:010:163116
 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		
k	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	PC freqs	510.3
k:n	0:0	0:0	0:0	0:0	PC freqs	
k:n	0:0	0:0	0:0	0:0	PC phase	
k	1000	1000	1000	1000	ManI PC	
n	1000	1000	1000	1000	PC amp	
k	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	-1.88980911568E+03	Apriori delay (usec)	-1.88980385110E+03	Resid mbdelay (usec)	2.54791E-03	+/- 2.6E-05
Group delay (usec)(sbd)	-1.88980911568E+03	Apriori clock (usec)	2.0176315E-01	Resid sbdelay (usec)	-5.18000E-03	+/- 1.0E-04
Sband delay (usec)	-1.88980903110E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	5.90799E-06	+/- 1.7E-07
Phase delay (usec)	-1.88980384519E+03	Apriori rate (us/s)	2.35660735108E-01	Resid rate (us/s)	6.17187E-08	+/- 1.7E-09
Delay rate (us/s)	2.35660796826E-01	Apriori accel (us/s/s)	-3.10210166430E-06	Resid phase (deg)	91.5	+/- 2.7
Total phase (deg)	-178.9					

	RMS	Theor.	Amplitude	1.171 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	14.9	8.9	Search (1024X16)	1.124	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	15.0	15.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	8.6	2.7	Inc. seg. avg.	1.184	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	15.5	4.7	Inc. frq. avg.	1.164	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 21.3 el 60.1 pa -144.4 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -1292.625 -505.883 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/kn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/kn.Q.145.1HP6Q8

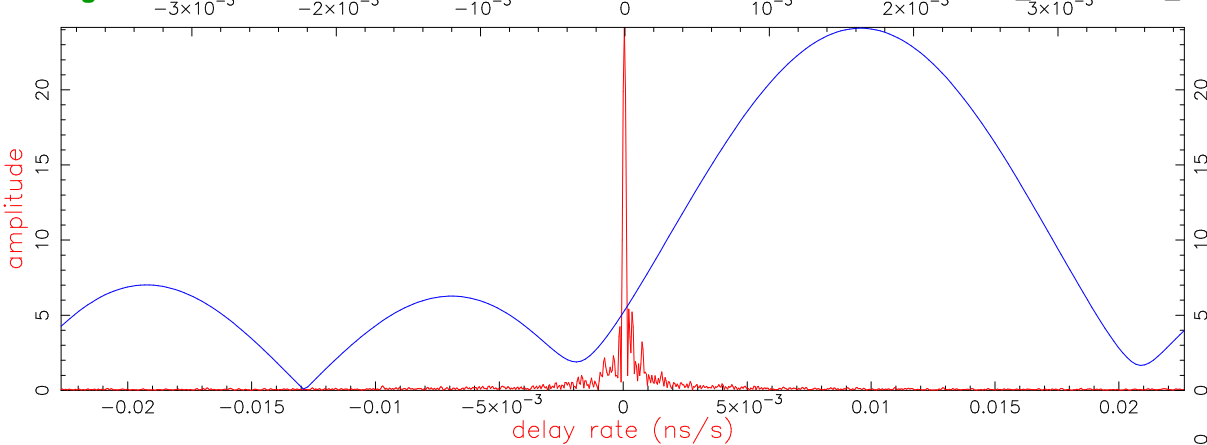
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, kn

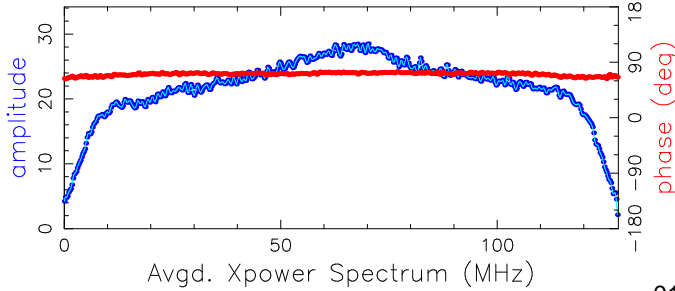
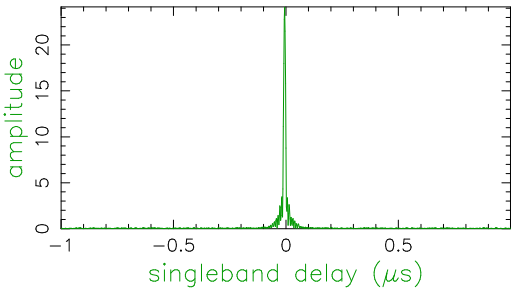
VLBA_KP - VLBA_NL, fgroup Q, pol LL

multiband delay (μ s)



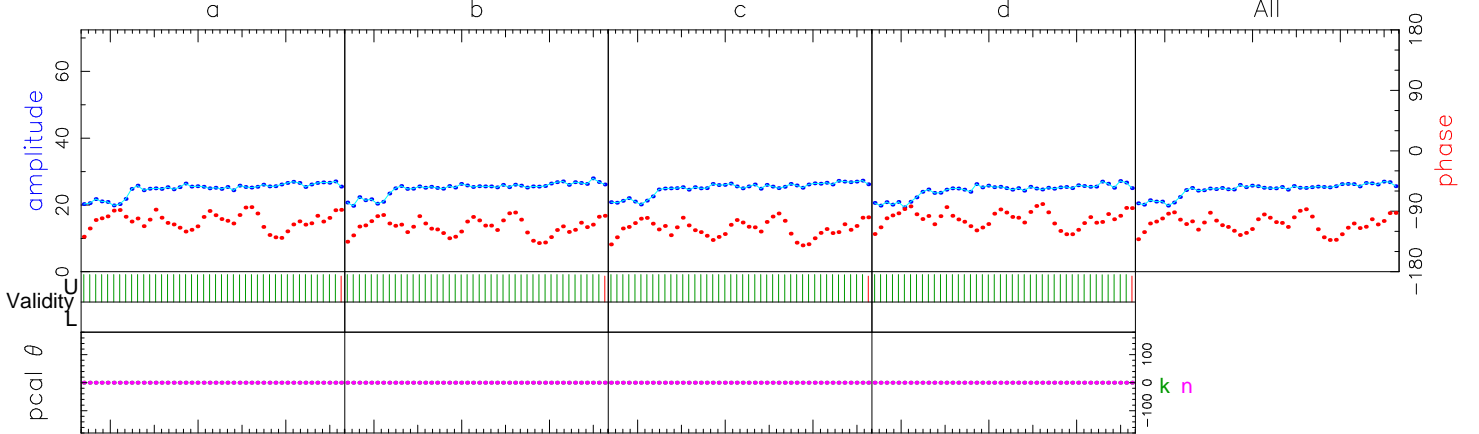
Fringe quality 8

SNR 885.7
 Int time 179.799
 Amp 24.155
 Phase -108.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.006188
 MBD 0.001616
 Fringe rate (Hz)
 0.002370
 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
 2021:010:163110
 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
-104.4	-113.1	-116.0	-100.9	Phase	-108.7
24.2	24.5	24.4	23.8	Ampl.	24.2
509.7	509.7	509.9	510.0	Sbd box	509.8
U/L 352/0	352/0	352/0	352/0	APs used	
k 1000	1000	1000	1000	PC freqs	
n 1000	1000	1000	1000	PC freqs	
k:n 0:0	0:0	0:0	0:0	PC phase	
k:n 0:0	0:0	0:0	0:0	Manl PC	
k 1000	1000	1000	1000	PC amp	
n 1000	1000	1000	1000		
k Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
n Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	-1.88981004724E+03	Apriori delay (usec)	-1.88980385110E+03	Resid mbdelay (usec)	1.61635E-03	+/- 1.3E-06
Sband delay (usec)	-1.88981003885E+03	Apriori clock (usec)	2.0176315E-01	Resid sbdelay (usec)	-6.18775E-03	+/- 4.9E-06
Phase delay (usec)	-1.88980385811E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-7.01229E-06	+/- 8.4E-09
Delay rate (us/s)	2.35660790167E-01	Apriori rate (us/s)	2.35660735108E-01	Resid rate (us/s)	5.50593E-08	+/- 8.0E-11
Total phase (deg)	-19.1	Apriori accel (us/s/s)	-3.10210166430E-06	Resid phase (deg)	-108.7	+/- 0.1

ph/seg (deg)	RMS 11.9	Theor. 0.4	Amplitude 24.155 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	8.1	0.7	Search (1024X16) 23.566	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	8.7	0.1	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	1.1	0.2	Inc. seg. avg. 24.623	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 24.238	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

k: az 21.3 el 60.1 pa -144.4 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -1292.625 -505.883 simultaneous interpolator

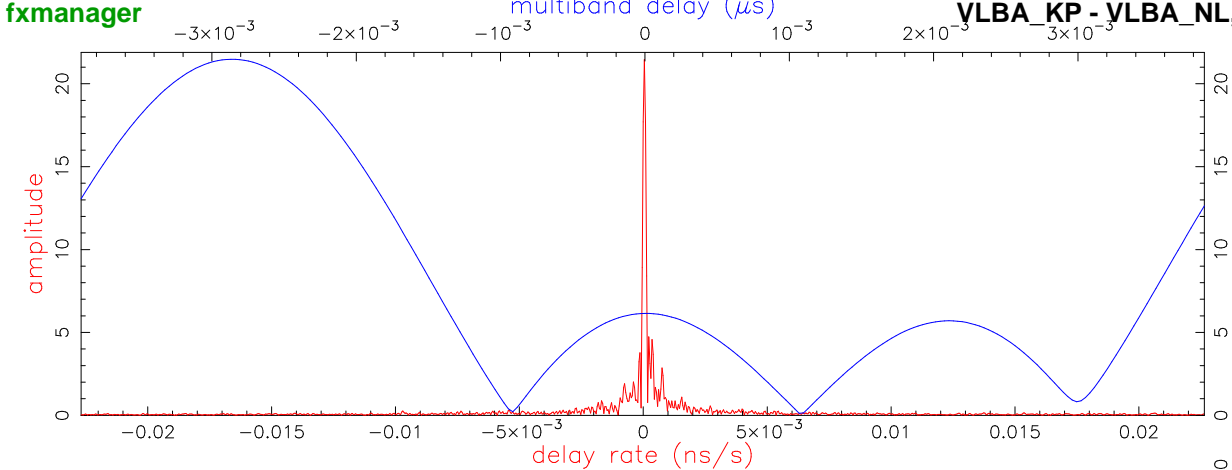
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/kn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/kn.Q.84.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

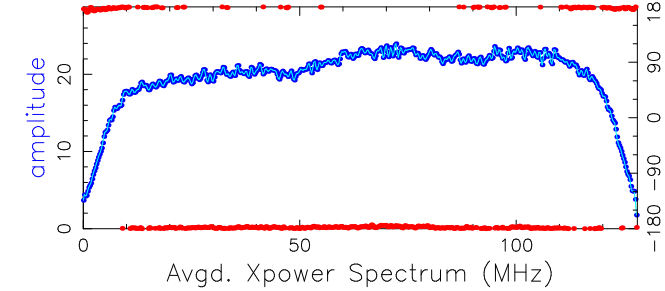
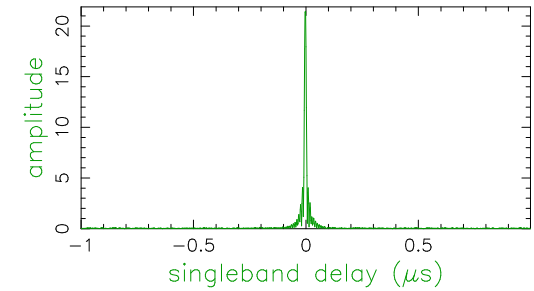
0102+584.1HP6Q8, No0090, kn

VLBA_KP - VLBA_NL, fgroup Q, pol RR



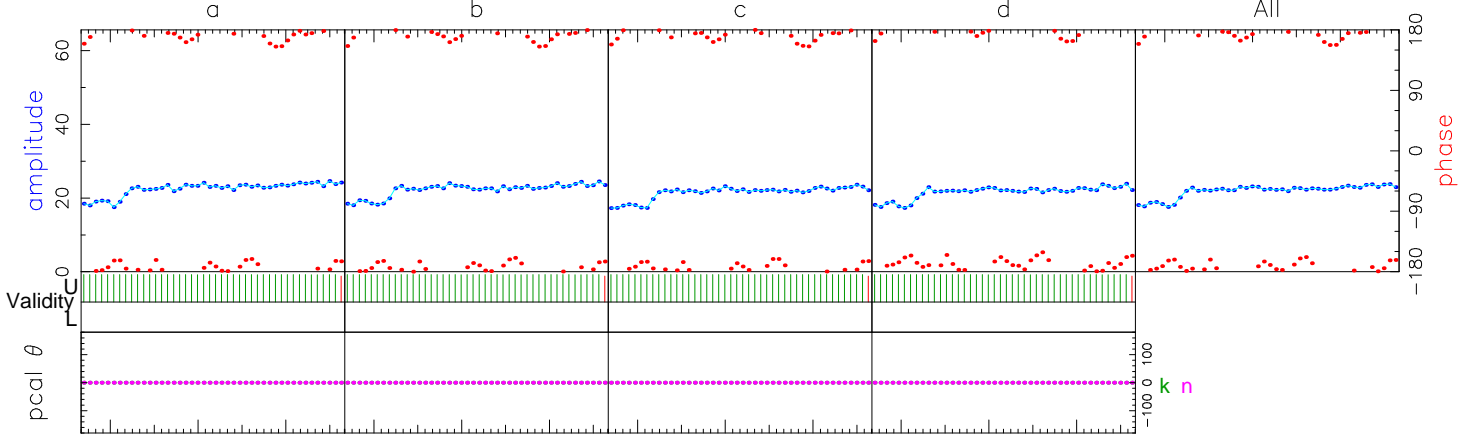
Fringe quality 8

SNR 802.7
 Int time 179.799
 Amp 21.892
 Phase -178.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.002888
 MBD -0.002909
 Fringe rate (Hz) 0.002331
 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
 2021:010:163111
 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



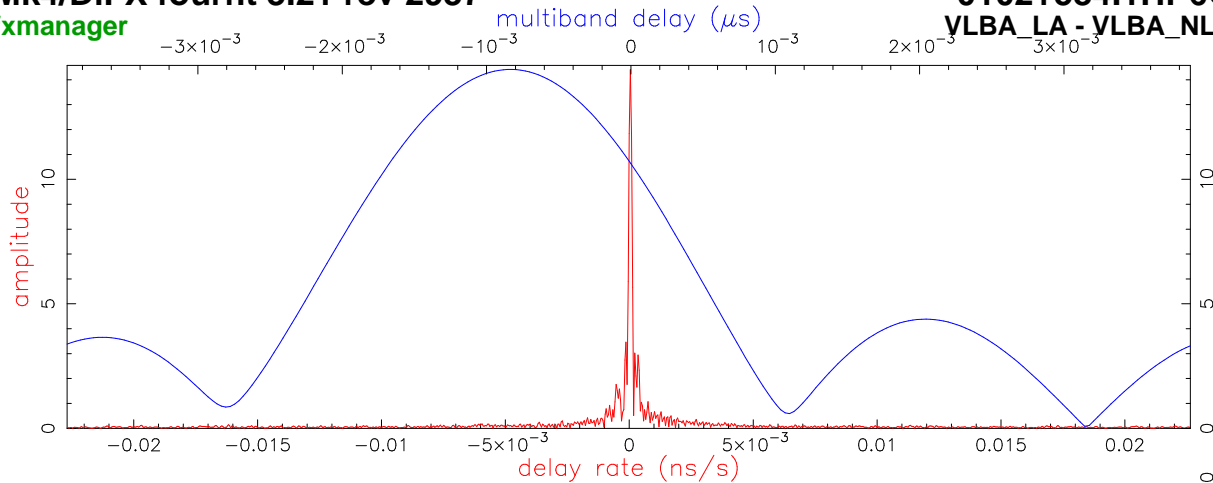
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	ManI PC	
k	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.88980675984E+03	Apriori delay (usec)	-1.88980385110E+03	Resid mbdelay (usec)	-2.90874E-03	+/- 1.4E-06
Sband delay (usec)	-1.88980673872E+03	Apriori clock (usec)	2.0176315E-01	Resid sbdelay (usec)	-2.88763E-03	+/- 5.4E-06
Phase delay (usec)	-1.88980386263E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-1.15382E-05	+/- 9.2E-09
Delay rate (us/s)	2.35660789268E-01	Apriori rate (us/s)	2.35660735108E-01	Resid rate (us/s)	5.41602E-08	+/- 8.9E-11
Total phase (deg)	-89.2	Apriori accel (us/s/s)	-3.10210166430E-06	Resid phase (deg)	-178.8	+/- 0.1

	RMS	Theor.	Amplitude	21.892 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	11.8	0.5	Search (1024X16)	21.231	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	7.9	0.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	4.8	0.1	Inc. seg. avg.	21.913	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	2.7	0.2	Inc. frq. avg.	21.495	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

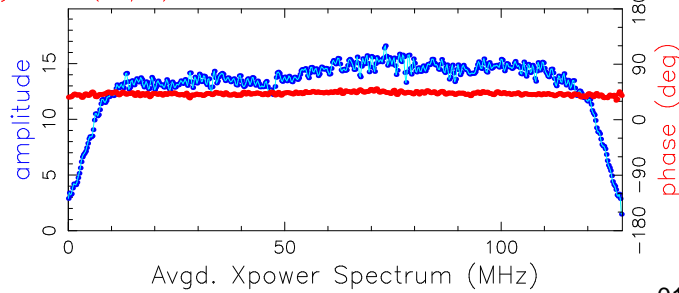
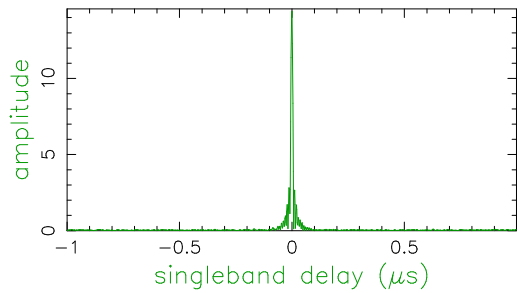
k: az 21.3 el 60.1 pa -144.4 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -1292.625 -505.883 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/kn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/kn.Q.99.1HP6Q8



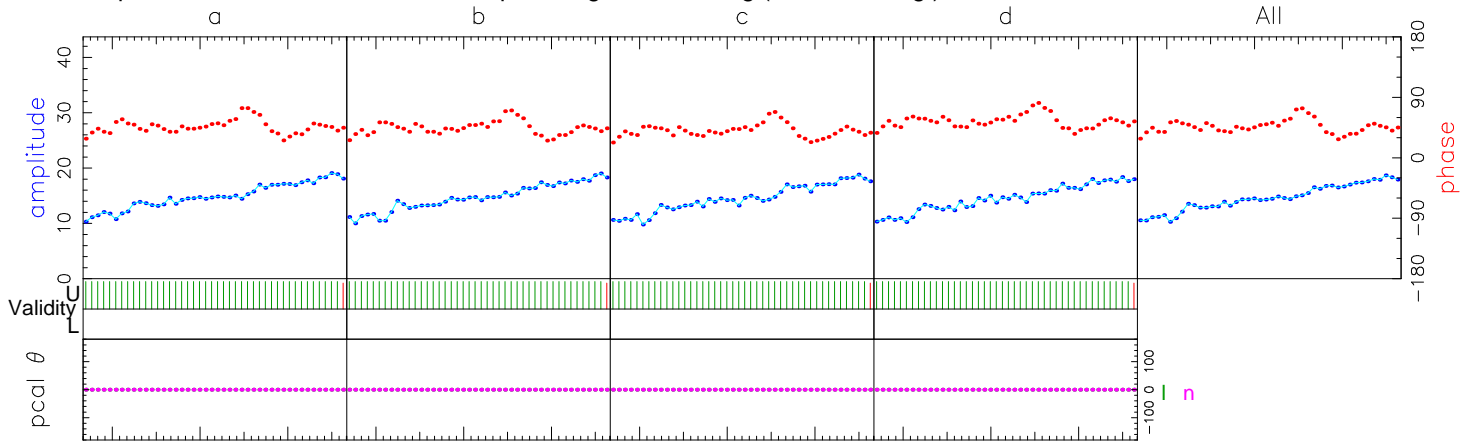
Fringe quality 9

SNR 534.7
Int time 179.973
Amp 14.575
Phase 46.2
PFD 0.0e+00
Delays (us)
SBD -0.000717
MBD -0.000878
Fringe rate (Hz)
0.002416
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
2021:010:163113
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		
l	1000	1000	1000	1000		
n	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000		
n	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR		
n	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.02841780760E+03	Apriori delay (usec)	-1.02841692980E+03	Resid mbdelay (usec)	-8.77804E-04	+/-	2.1E-06
Sband delay (usec)	-1.02841764668E+03	Apriori clock (usec)	-5.1185513E-01	Resid sbdelay (usec)	-7.16875E-04	+/-	8.1E-06
Phase delay (usec)	-1.02841692682E+03	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	2.98175E-06	+/-	1.4E-08
Delay rate (us/s)	1.66594715077E-01	Apriori rate (us/s)	1.66594658934E-01	Resid rate (us/s)	5.61427E-08	+/-	1.3E-10
Total phase (deg)	-190.9	Apriori accel (us/s/s)	-2.36513478215E-06	Resid phase (deg)	46.2	+/-	0.2

ph/seg (deg)	9.8	Theor.	0.7	Amplitude	14.575 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	16.1	Search (1024X16)	14.101	Search	14.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	7.3	Inc. seg. avg.	14.618	Inc. seg. avg.	14.618	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	1.3	Inc. frq. avg.	14.461	Inc. frq. avg.	14.461	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

l: az 18.7 el 65.2 pa -150.7 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -913.941 -333.409 simultaneous interpolator

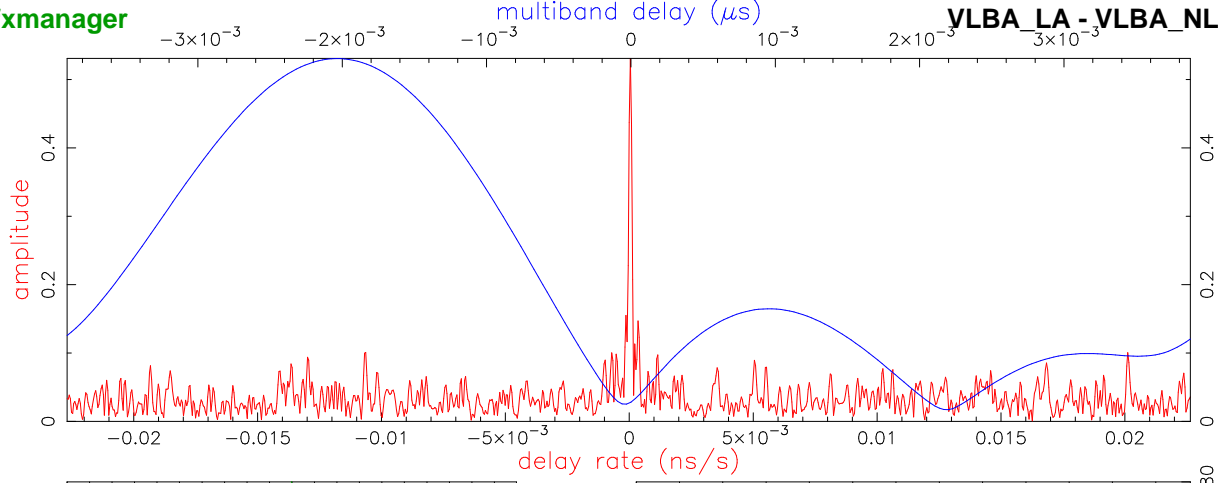
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/In..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/In.Q.114.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, In

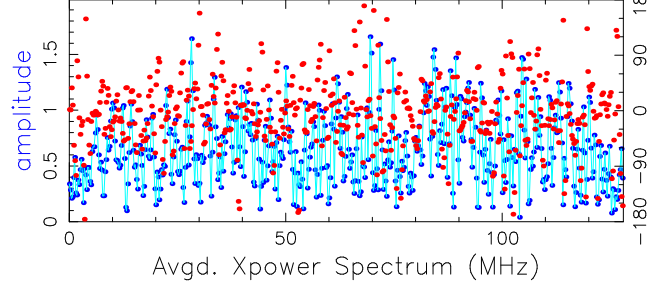
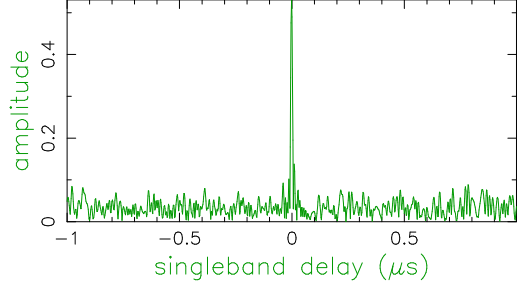
VLBA_LA - VLBA_NL, fgroup Q, pol LR



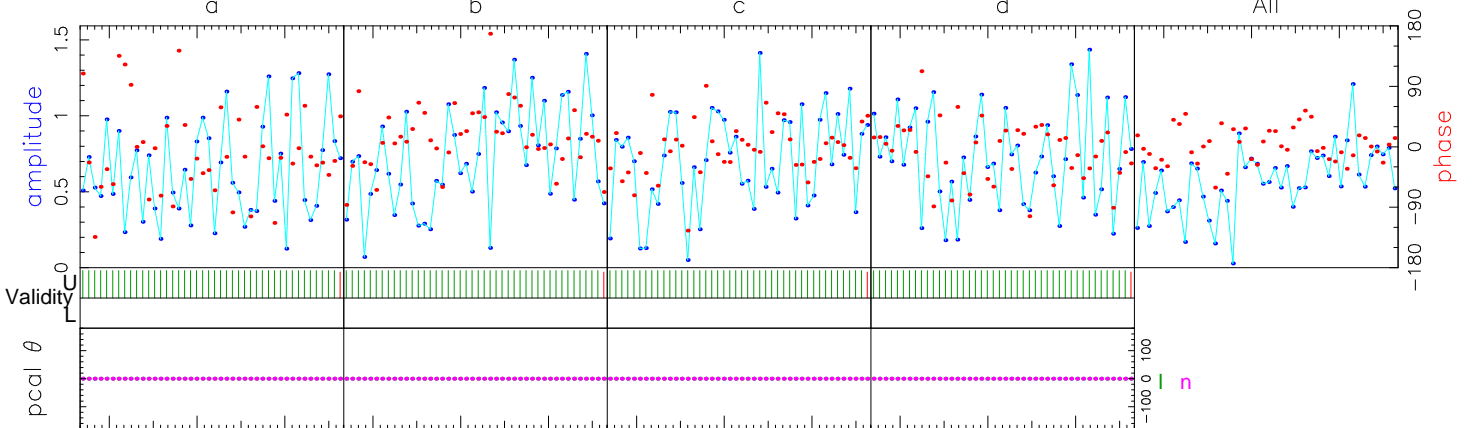
Fringe quality 9

SNR 19.5
 Int time 179.973
 Amp 0.531
 Phase 0.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.001801
 MBD -0.002023
 Fringe rate (Hz) 0.002633
 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
 2021:010:163115
 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		
l	1000	1000	1000	1000		
n	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000		
n	1000	1000	1000	1000		
l	Q00UL	Q01UL	Q02UL	Q03UL		
n	Q00UR	Q01UR	Q02UR	Q03UR		
Group delay (usec)(sbd)	-1.02841895292E+03			-1.02841692980E+03	Resid mbdelay (usec)	-2.02312E-03 +/- 5.7E-05
Sband delay (usec)	-1.02841873105E+03			-5.1185513E-01	Resid sbdelay (usec)	-1.80125E-03 +/- 2.2E-04
Phase delay (usec)	-1.02841692979E+03			-6.0000003E-07	Resid phdelay (usec)	1.34761E-08 +/- 3.8E-07
Delay rate (us/s)	1.66594720114E-01			1.66594658934E-01	Resid rate (us/s)	6.11798E-08 +/- 3.6E-09
Total phase (deg)		-236.9		-2.36513478215E-06	Resid phase (deg)	0.2 +/- 5.9
	RMS	Theor.	Amplitude	0.531 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	25.9	19.5	Search (1024X16)	0.514	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	41.6	34.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	16.3	5.9	Inc. seg. avg.	0.546	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	15.2	10.3	Inc. frq. avg.	0.538	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
l: az 18.7 el 65.2 pa -150.7		n: az 360.5 el 73.3 pa -179.4		u,v (fr/asec) -913.941 -333.409		simultaneous interpolator

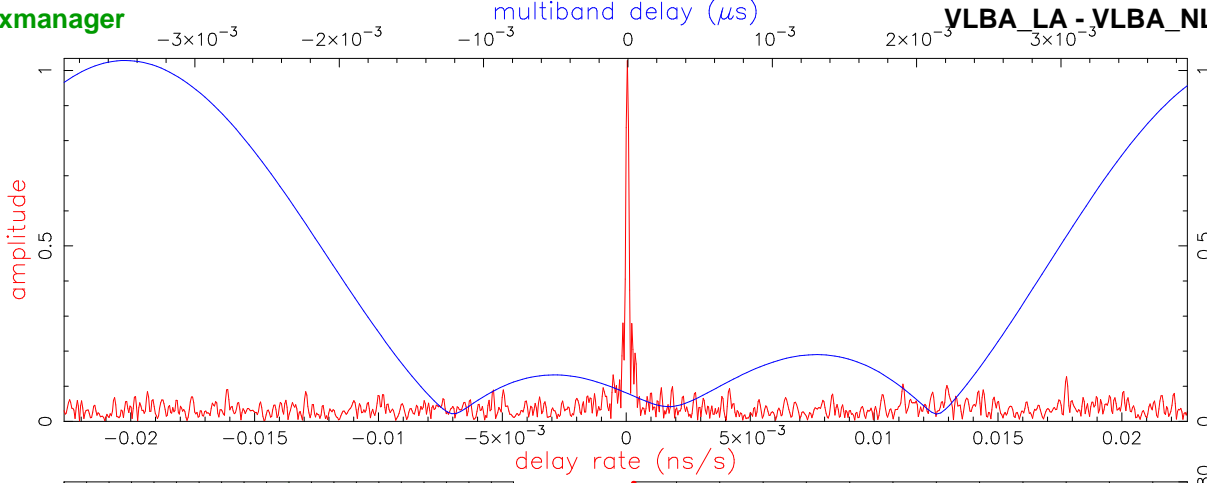
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/In..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/In.Q.132.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, In

VLBA_LA - VLBA_NL, fgroup Q, pol RL



Fringe quality 9

SNR 37.9

Int time 179.973

Amp 1.034

Phase 106.9

PFD 0.0e+00

Delays (us)

SBD -0.003379

MBD -0.003454

Fringe rate (Hz)

0.002597

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

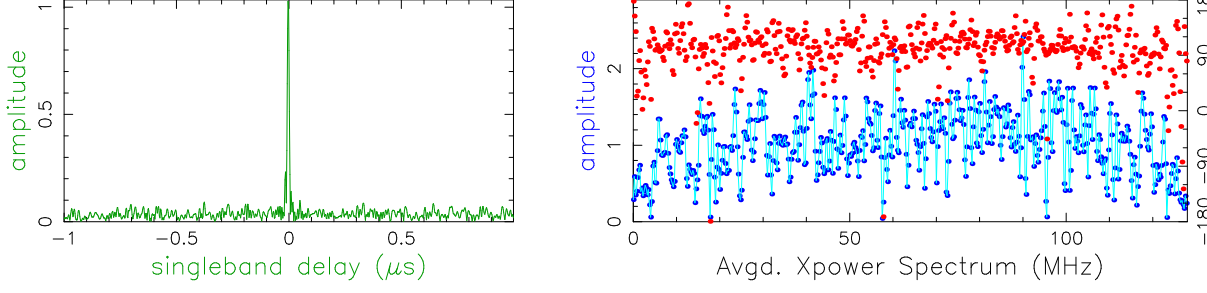
2021:010:163116

2020:247:085004

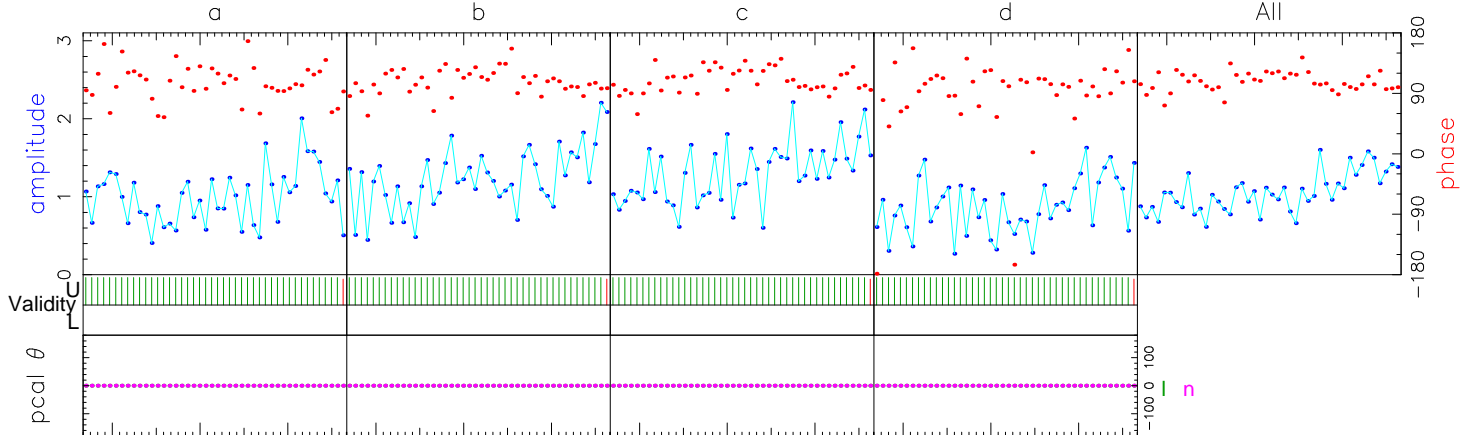
RA & Dec (J2000)

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		
l	1000	1000	1000	1000		
n	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000		
n	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR		
n	Q00UL	Q01UL	Q02UL	Q03UL		
Group delay (usec)(sbd)	-1.02842038414E+03					
Sband delay (usec)	-1.02842030868E+03					
Phase delay (usec)	-1.02841692290E+03					
Delay rate (us/s)	1.66594719283E-01					
Total phase (deg)		-130.2				
Apriori delay (usec)			-1.02841692980E+03			
Apriori clock (usec)			-5.1185513E-01			
Apriori clockrate (us/s)			-6.0000003E-07			
Apriori rate (us/s)			1.66594658934E-01			
Apriori accel (us/s/s)			-2.36513478215E-06			
Resid mbdelay (usec)				-3.45434E-03		+/- 2.9E-05
Resid sbdelay (usec)				-3.37888E-03		+/- 1.1E-04
Resid phdelay (usec)				6.90006E-06		+/- 1.9E-07
Resid rate (us/s)				6.03488E-08		+/- 1.9E-09
Resid phase (deg)				106.9		+/- 3.0
Pcal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5			
Pcal rate:	0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000
Bits/sample:	2x2		SampCntNorm: enabled		mb window (us)	-0.004 0.004
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

ph/seg (deg) 14.1 10.0 Search (1024X16) 1.000 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 24.4 17.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 4.3 3.0 Inc. seg. avg. 1.042 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004

amp/frq (%) 18.5 5.3 Inc. frq. avg. 1.028 Sample rate(MISamp/s): 256 dr window (ns/s) -0.023 0.023

l: az 18.7 el 65.2 pa -150.7 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -913.941 -333.409 simultaneous interpolator

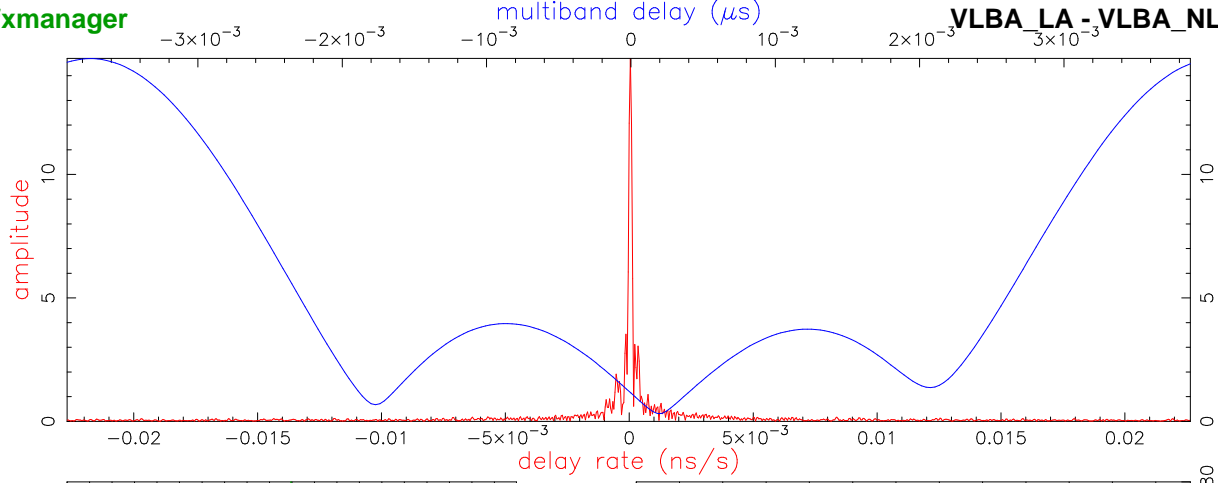
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/In..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/In.Q.147.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, In

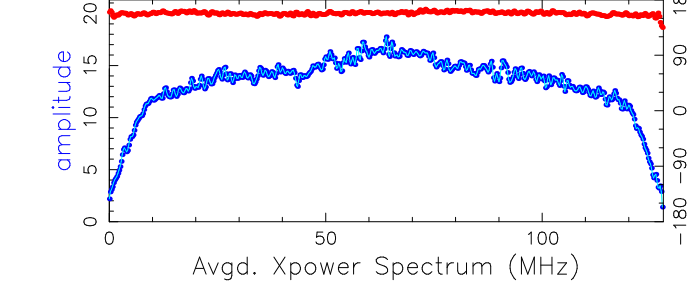
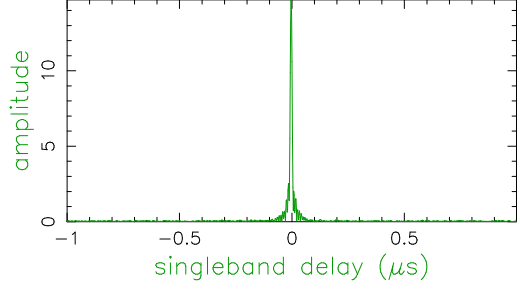
VLBA_LA - VLBA_NL, fgroup Q, pol LL



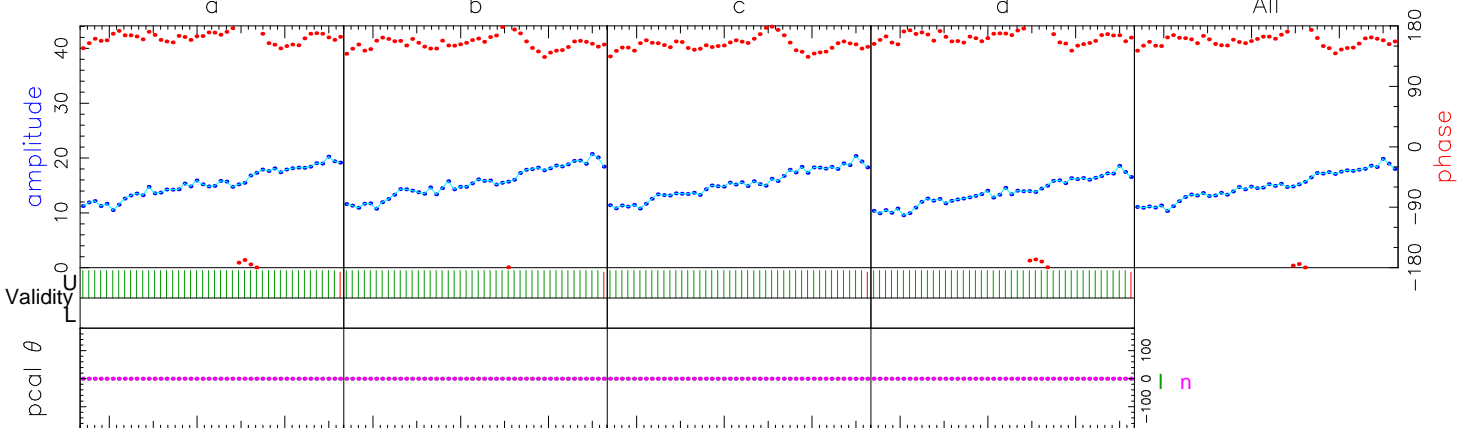
Fringe quality 9

SNR 539.4
 Int time 179.973
 Amp 14.703
 Phase 158.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.003735
 MBD -0.003737
 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
 2021:010:163111
 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



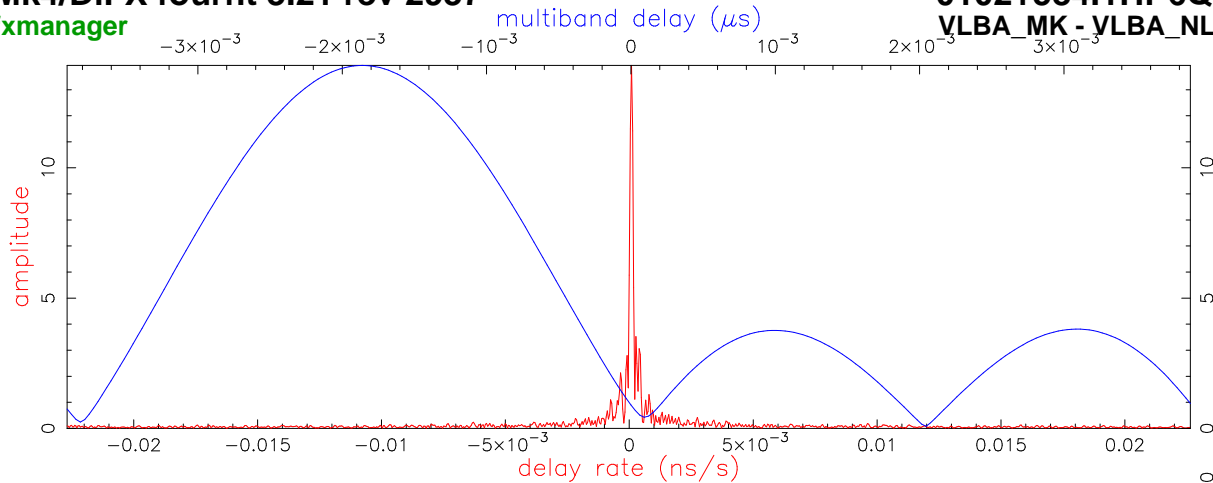
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	PC freqs	
l:n	0:0	0:0	0:0	0:0	PC phase	
l	1000	1000	1000	1000	Manl PC	
n	1000	1000	1000	1000	PC amp	
l	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids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

Group delay (usec)(sbd)	-1.02842066698E+03	Apriori delay (usec)	-1.02841692980E+03	Resid mbdelay (usec)	-3.73718E-03	+/- 2.1E-06
Sband delay (usec)	-1.02842066443E+03	Apriori clock (usec)	-5.1185513E-01	Resid sbdelay (usec)	-3.73462E-03	+/- 8.0E-06
Phase delay (usec)	-1.02841691957E+03	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	1.02265E-05	+/- 1.4E-08
Delay rate (us/s)	1.66594715429E-01	Apriori rate (us/s)	1.66594658934E-01	Resid rate (us/s)	5.64944E-08	+/- 1.3E-10
Total phase (deg)	-78.6	Apriori accel (us/s/s)	-2.36513478215E-06	Resid phase (deg)	158.5	+/- 0.2

ph/seg (deg)	9.9	Theor.	0.7	Amplitude	14.703 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	17.3	Search (1024X16)	14.335	Search	14.335	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	8.0	Inc. seg. avg.	14.917	Inc. seg. avg.	14.917	Bits/sample: 2x2	mb window (us)	-0.004 0.004
amp/frq (%)	4.9	Inc. frq. avg.	14.765	Inc. frq. avg.	14.765	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023
						Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00
						nlags: 512	t_cohere infinite	

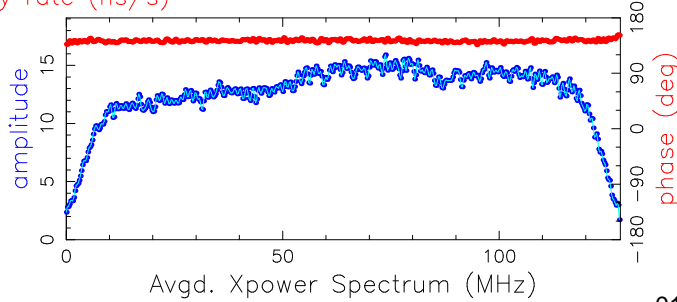
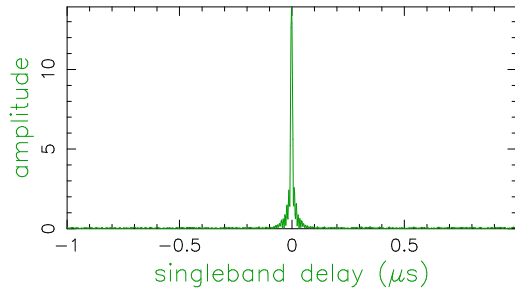
l: az 18.7 el 65.2 pa -150.7 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -913.941 -333.409 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/In..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/In.Q.97.1HP6Q8



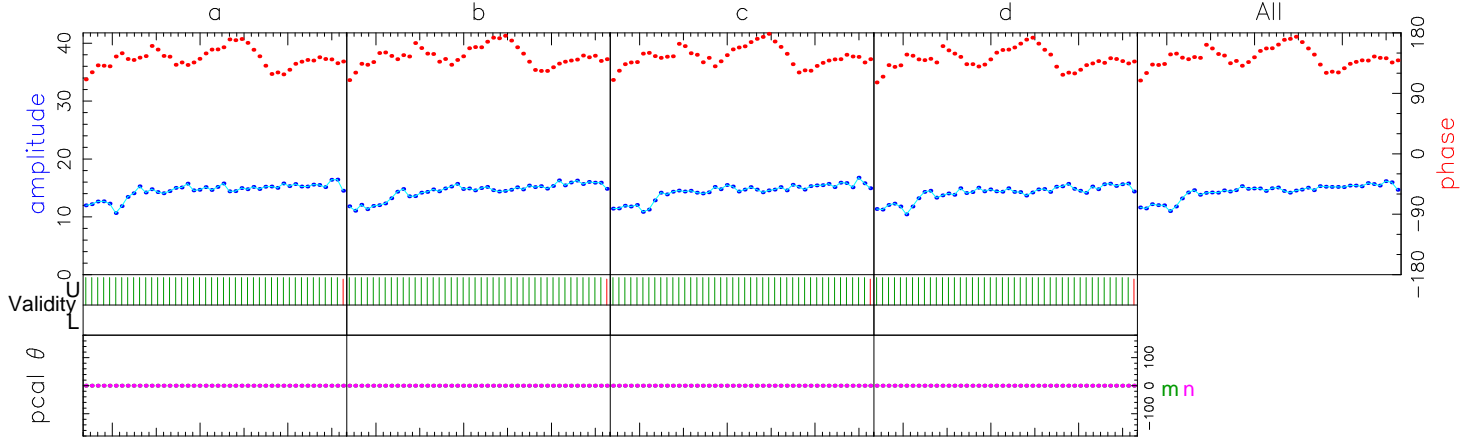
Fringe quality 8

SNR 511.1
Int time 179.973
Amp 13.933
Phase 143.0
PFD 0.0e+00
Delays (us)
SBD -0.001850
MBD -0.001854
Fringe rate (Hz)
0.004026
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
2021:010:163112
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		
m	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	PC freqs	
m:n	0:0	0:0	0:0	0:0	PC phase	
m	1000	1000	1000	1000	ManI PC	
n	1000	1000	1000	1000	PC amp	
m	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-9.54795059142E+03	Apriori delay (usec)	-9.54794873737E+03	Resid mbdelay (usec)	-1.85405E-03	+/-	2.2E-06
Sband delay (usec)	-9.54795058699E+03	Apriori clock (usec)	1.3231764E+01	Resid sbdelay (usec)	-1.84963E-03	+/-	8.4E-06
Phase delay (usec)	-9.54794872814E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	9.22660E-06	+/-	1.4E-08
Delay rate (us/s)	6.86453190503E-01	Apriori rate (us/s)	6.86453096970E-01	Resid rate (us/s)	9.35324E-08	+/-	1.4E-10
Total phase (deg)	-93.3	Apriori accel (us/s/s)	1.94016254450E-05	Resid phase (deg)	143.0	+/-	0.2

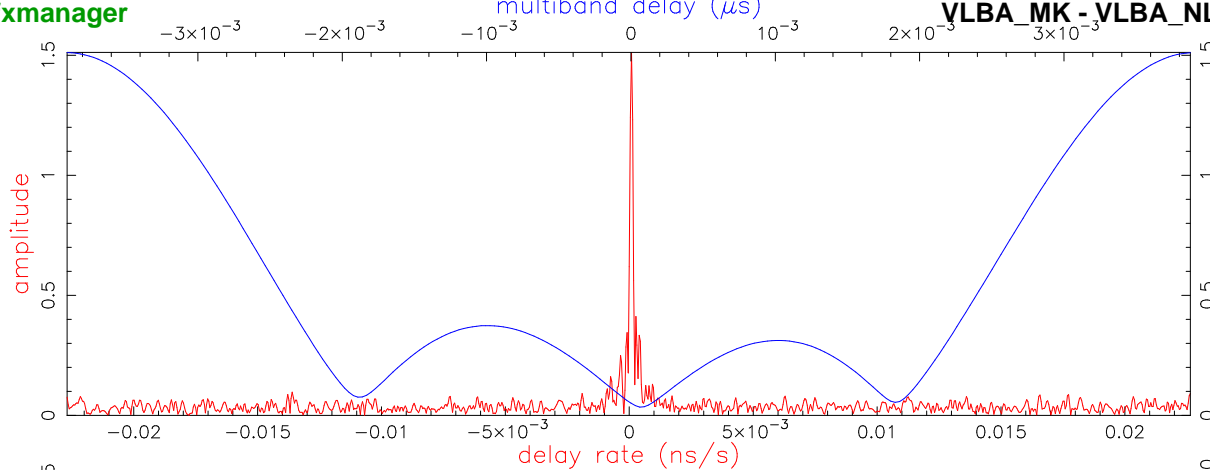
	RMS	Theor.	Amplitude	13.933 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	14.3	0.7	Search (1024X16)	13.841	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	9.7	1.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	2.8	0.2	Inc. seg. avg.	14.360	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023	0.023	
amp/frq (%)	1.1	0.4	Inc. frq. avg.	13.938	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00
m: az 32.9 el 30.2 pa -101.9			n: az 360.5 el 73.3 pa -179.4							simultaneous interpolator
Control file: cf_1234_gmva7mm			Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mn..1HP6Q8							Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mn.Q.105.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

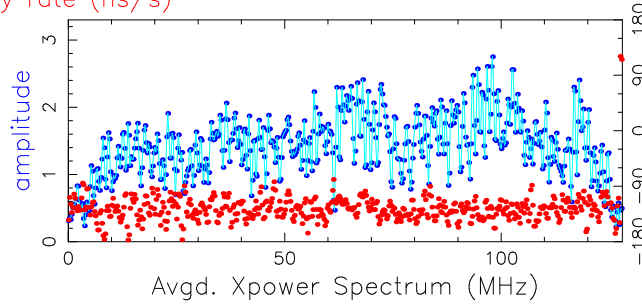
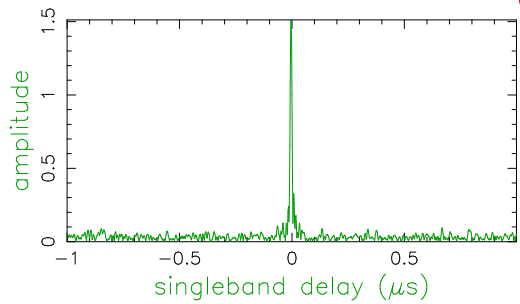
0102+584.1HP6Q8, No0090, mn

VLBA_MK - VLBA_NL, fgroup Q, pol LR



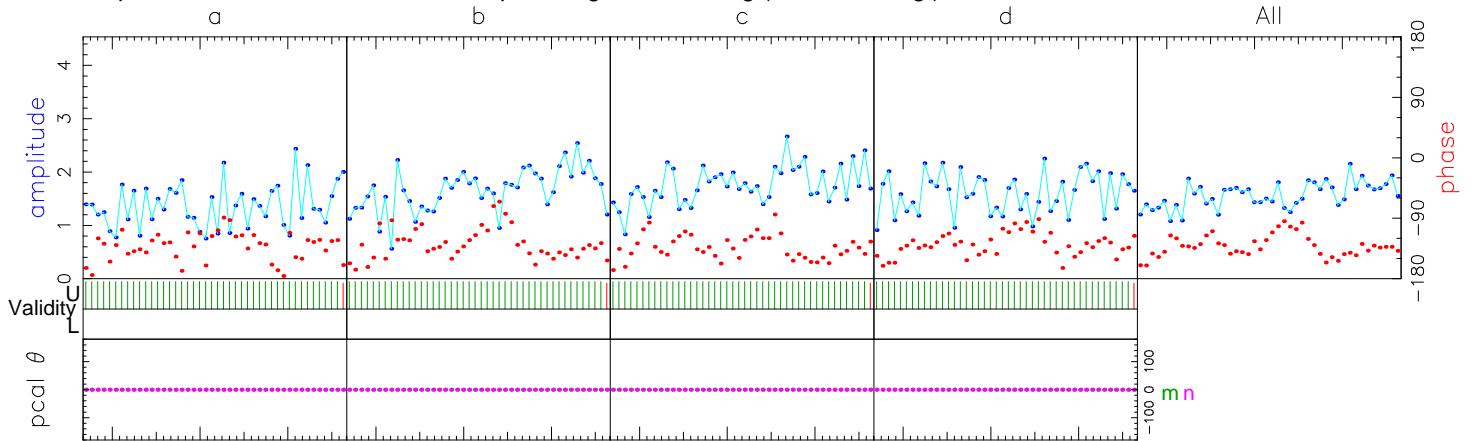
Fringe quality 9

SNR 55.5
 Int time 179.973
 Amp 1.512
 Phase -131.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.004090
 MBD -0.003920
 Fringe rate (Hz)
 0.003935
 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
 2021:010:163114
 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		
m	1000	1000	1000	1000		
n	1000	1000	1000	1000		
m:n	0:0	0:0	0:0	0:0		
m:n	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
n	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
n	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

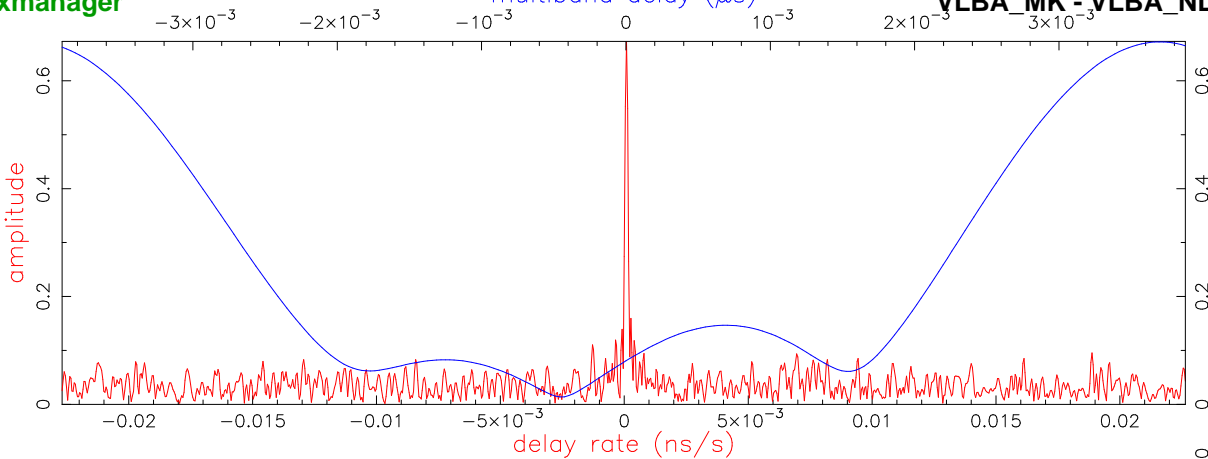
	Group delay (usec)(sbd)	-9.54795265738E+03	Apriori delay (usec)	-9.54794873737E+03	Resid mbdelay (usec)	-3.92001E-03	+/-	2.0E-05
	Sband delay (usec)	-9.54795282724E+03	Apriori clock (usec)	1.3231764E+01	Resid sbdelay (usec)	-4.08988E-03	+/-	7.8E-05
	Phase delay (usec)	-9.54794874586E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-8.48991E-06	+/-	1.3E-07
	Delay rate (us/s)	6.86453188401E-01	Apriori rate (us/s)	6.86453096970E-01	Resid rate (us/s)	9.14308E-08	+/-	1.3E-09
	Total phase (deg)	-7.8	Apriori accel (us/s/s)	1.94016254450E-05	Resid phase (deg)	-131.5	+/-	2.1

	RMS	Theor.	Amplitude	1.512 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	16.0	6.9	Search (1024X16)	1.508	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
amp/seg (%)	16.1	12.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
ph/frq (deg)	2.4	2.1	Inc. seg. avg.	1.556	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
amp/frq (%)	9.6	3.6	Inc. frq. avg.	1.510	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

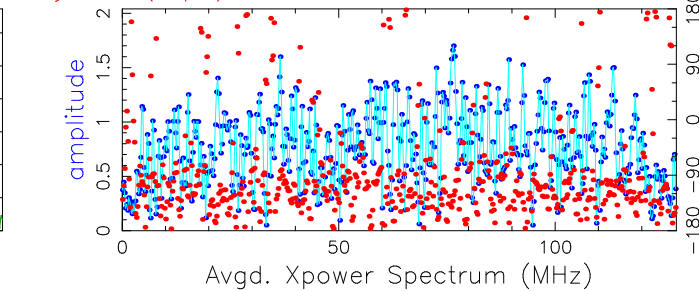
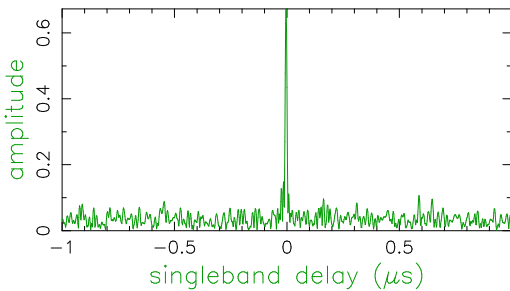
m: az 32.9 el 30.2 pa -101.9 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -3747.541 513.499 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mn.Q.125.1HP6Q8

multiband delay (μ s)

Fringe quality 8

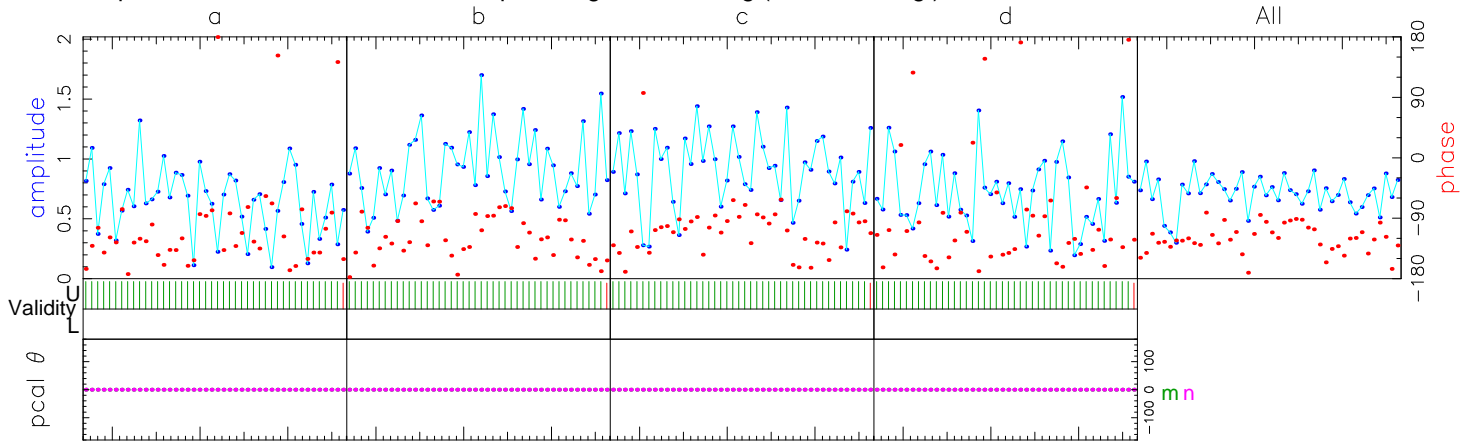


SNR 24.7
Int time 179.973
Amp 0.673
Phase -120.0
PFD 0.0e+00
Delays (us)
SBD -0.004161
MBD -0.004137
Fringe rate (Hz) 0.004311
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 055640.00
Stop 055940.22
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163116
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		
m	1000	1000	1000	1000	APs used	1000
n	1000	1000	1000	1000	PC freqs	1000
m:n	0:0	0:0	0:0	0:0	PC phase	0:0
m:n	0:0	0:0	0:0	0:0	ManI PC	0:0
m	1000	1000	1000	1000	PC amp	1000
n	1000	1000	1000	1000		1000
m	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-9.54795287395E+03	Apriori delay (usec)	-9.54794873737E+03	Resid mbdelay (usec)	-4.13658E-03	+/-	4.5E-05
Sband delay (usec)	-9.54795289874E+03	Apriori clock (usec)	1.3231764E+01	Resid sbdelay (usec)	-4.16138E-03	+/-	1.7E-04
Phase delay (usec)	-9.54794874511E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-7.74348E-06	+/-	3.0E-07
Delay rate (us/s)	6.86453197134E-01	Apriori rate (us/s)	6.86453096970E-01	Resid rate (us/s)	1.00163E-07	+/-	2.9E-09
Total phase (deg)	-356.3	Apriori accel (us/s/s)	1.94016254450E-05	Resid phase (deg)	-120.0	+/-	4.6

	RMS	Theor.	Amplitude	0.673 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	20.4	15.4	Search (1024X16)	0.654	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	22.4	26.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004
ph/frq (deg)	11.5	4.6	Inc. seg. avg.	0.691	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023
amp/frq (%)	18.8	8.1	Inc. frq. avg.	0.677	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00 0.00

m: az 32.9 el 30.2 pa -101.9 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -3747.541 513.499 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mn.Q.148.1HP6Q8

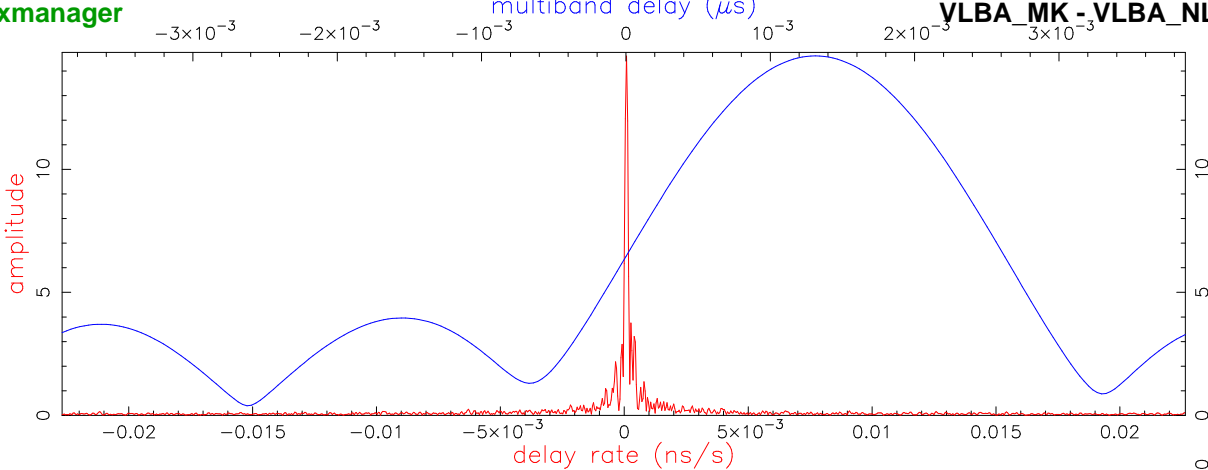
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

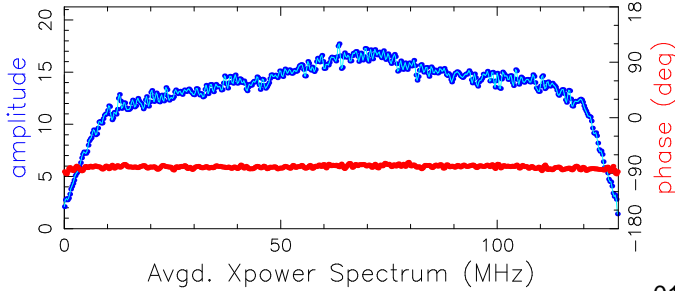
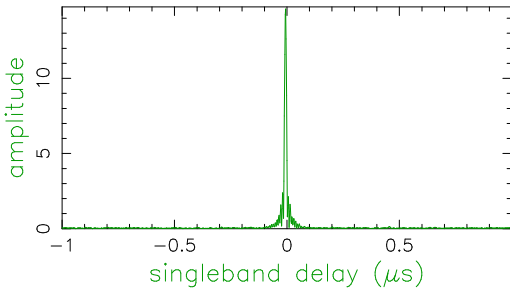
0102+584.1HP6Q8, No0090, mn

VLBA_MK - VLBA_NL, fgroup Q, pol LL

Fringe quality 8

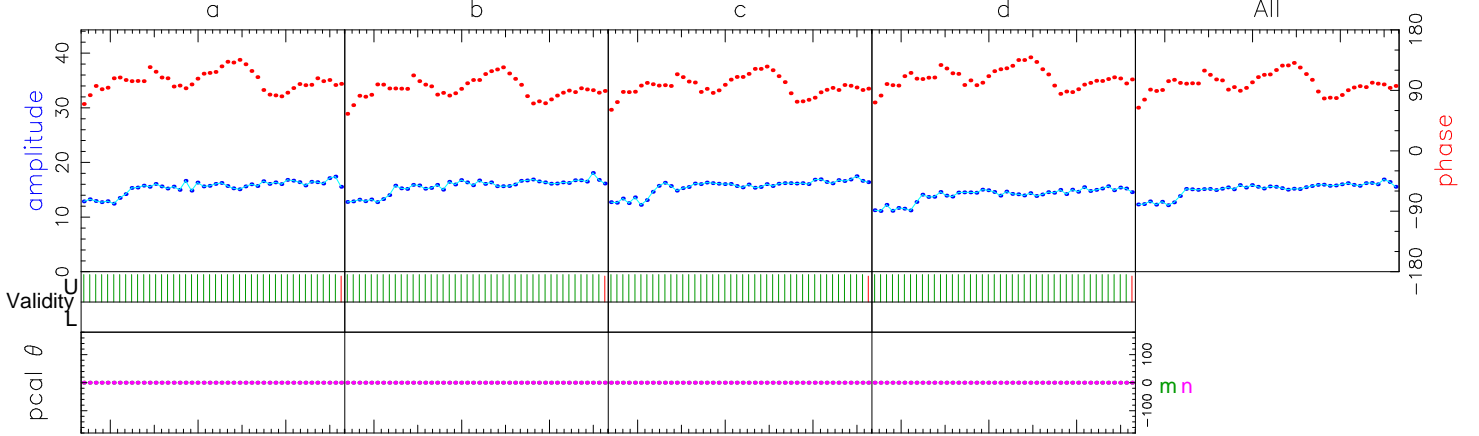


SNR 541.4
 Int time 179.973
 Amp 14.758
 Phase 100.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.006535
 MBD 0.001281
 Fringe rate (Hz)
 0.004078
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163110
 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		
m	1000	1000	1000	1000	APs used	1000
n	1000	1000	1000	1000	PC freqs	1000
m:n	0:0	0:0	0:0	0:0	PC phase	0:0
m:n	0:0	0:0	0:0	0:0	ManI PC	0:0
m	1000	1000	1000	1000	PC amp	1000
n	1000	1000	1000	1000		1000
m	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-9.54795526920E+03	Apriori delay (usec)	-9.54794873737E+03	Resid mbdelay (usec)	1.28067E-03	+/- 2.1E-06
Sband delay (usec)	-9.54795527262E+03	Apriori clock (usec)	1.3231764E+01	Resid sbdelay (usec)	-6.53525E-03	+/- 8.0E-06
Phase delay (usec)	-9.54794873092E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	6.45373E-06	+/- 1.4E-08
Delay rate (us/s)	6.86453191711E-01	Apriori rate (us/s)	6.86453096970E-01	Resid rate (us/s)	9.47406E-08	+/- 1.3E-10
Total phase (deg)	-136.3	Apriori accel (us/s/s)	1.94016254450E-05	Resid phase (deg)	100.0	+/- 0.2

	RMS	Theor.	Amplitude	14.758 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	14.4	0.7	Search (1024X16)	14.401	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	8.5	1.2	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.	15.067	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.4	0.4	Inc. frq. avg.	14.696	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

m: az 32.9 el 30.2 pa -101.9 n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) -3747.541 513.499 simultaneous interpolator

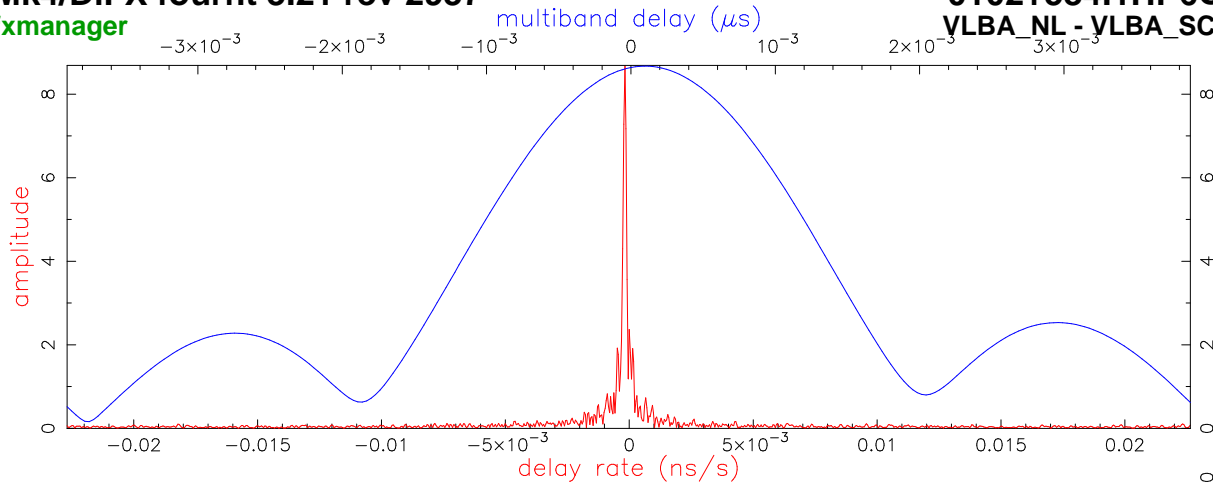
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mn.Q.92.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

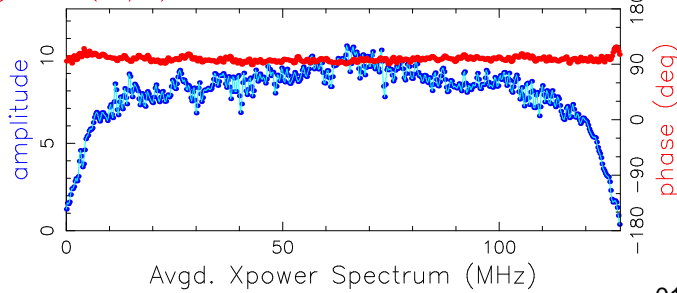
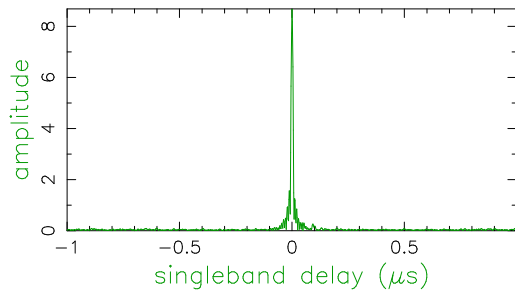
0102+584.1HP6Q8, No0090, nc

VLBA_NL - VLBA_SC, fgroup Q, pol RR



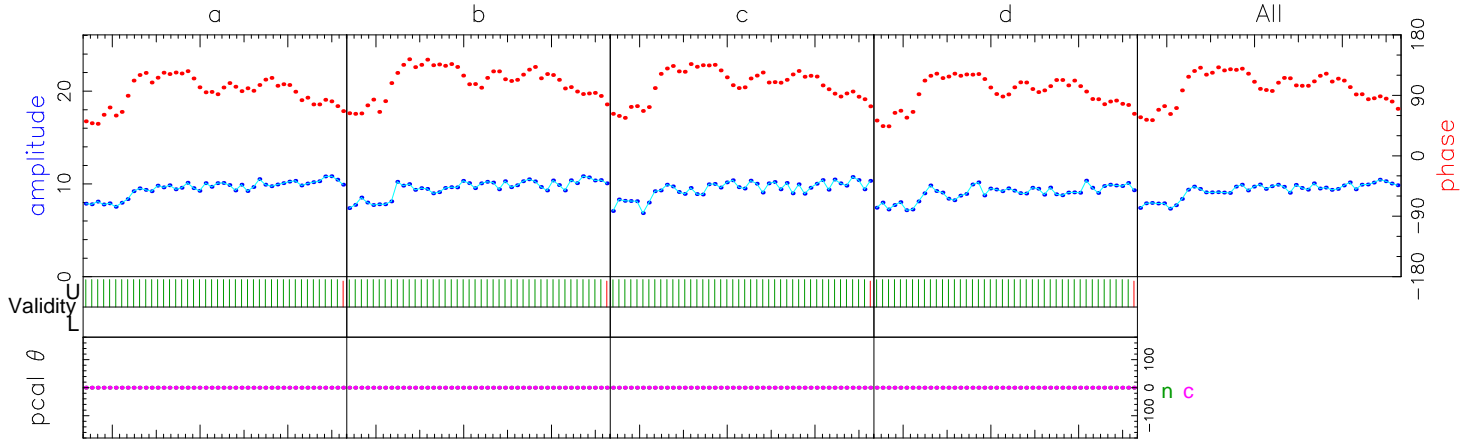
Fringe quality 8

SNR 318.8
 Int time 179.970
 Amp 8.690
 Phase 102.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.000300
 MBD 0.000107
 Fringe rate (Hz)
 -0.006721
 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
 2021:010:163113
 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		
n	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	PC freqs	
n:c	0:0	0:0	0:0	0:0	PC freqs	
n:c	0:0	0:0	0:0	0:0	PC phase	
n	1000	1000	1000	1000	ManI PC	
c	1000	1000	1000	1000	PC amp	
n	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	5.40708391200E+03	Apriori delay (usec)	5.40708380456E+03	Resid mbdelay (usec)	1.07435E-04	+/-	3.5E-06
Sband delay (usec)	5.40708410431E+03	Apriori clock (usec)	-8.3209991E+00	Resid sbdelay (usec)	2.99750E-04	+/-	1.4E-05
Phase delay (usec)	5.40708381117E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	6.60787E-06	+/-	2.3E-08
Delay rate (us/s)	3.50718617389E-01	Apriori rate (us/s)	3.50718773539E-01	Resid rate (us/s)	-1.56150E-07	+/-	2.2E-10
Total phase (deg)	83.8	Apriori accel (us/s/s)	5.90379062039E-06	Resid phase (deg)	102.4	+/-	0.4

	RMS	Theor.	Amplitude	8.690 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	22.5	1.2	Search (1024X16)	8.273	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/seg (%)	11.6	2.1	Interp.	0.000	Sample rate(MISamp/s): 256	nlags: 512	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	9.6	0.4	Inc. seg. avg.	9.313	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	2.4	0.6	Inc. frq. avg.	8.733					

n: az 360.5 el 73.3 pa -179.4 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -1918.626 1225.405 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/nc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/nc.Q.116.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

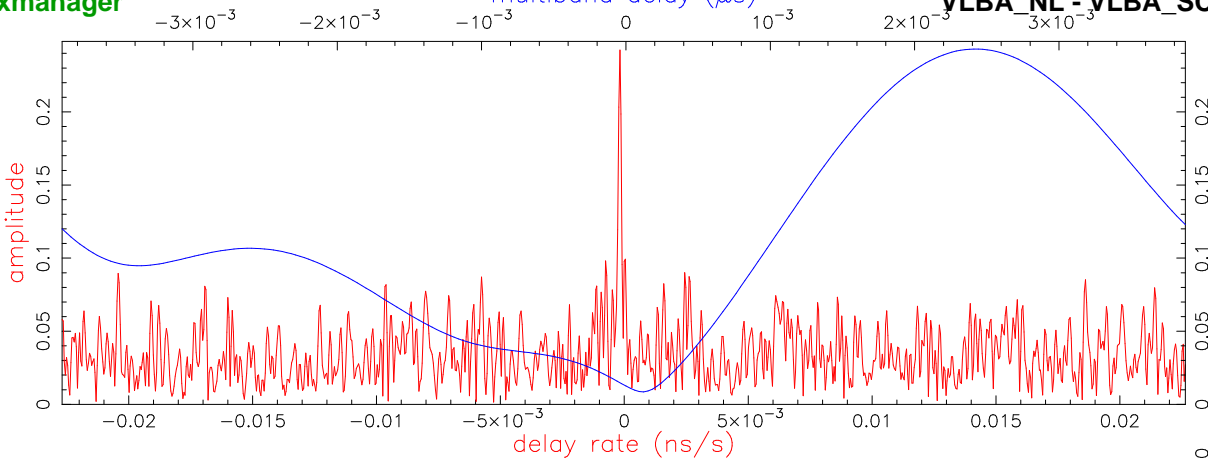
fxmanager

0102+584.1HP6Q8, No0090, nc

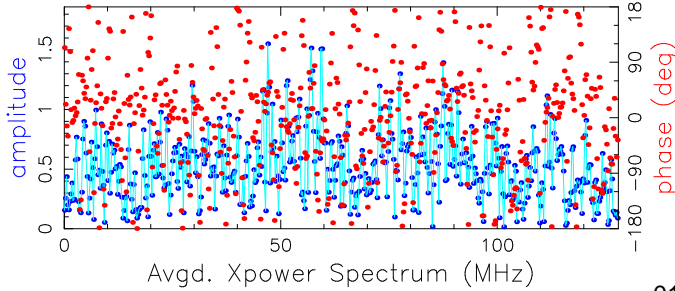
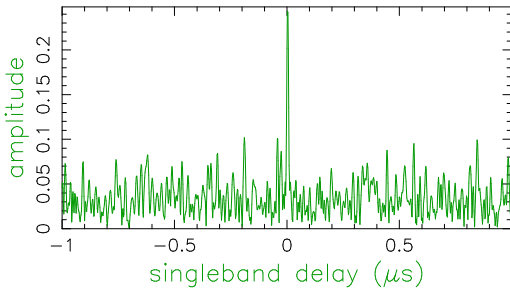
VLBA_NL - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)

Fringe quality 9

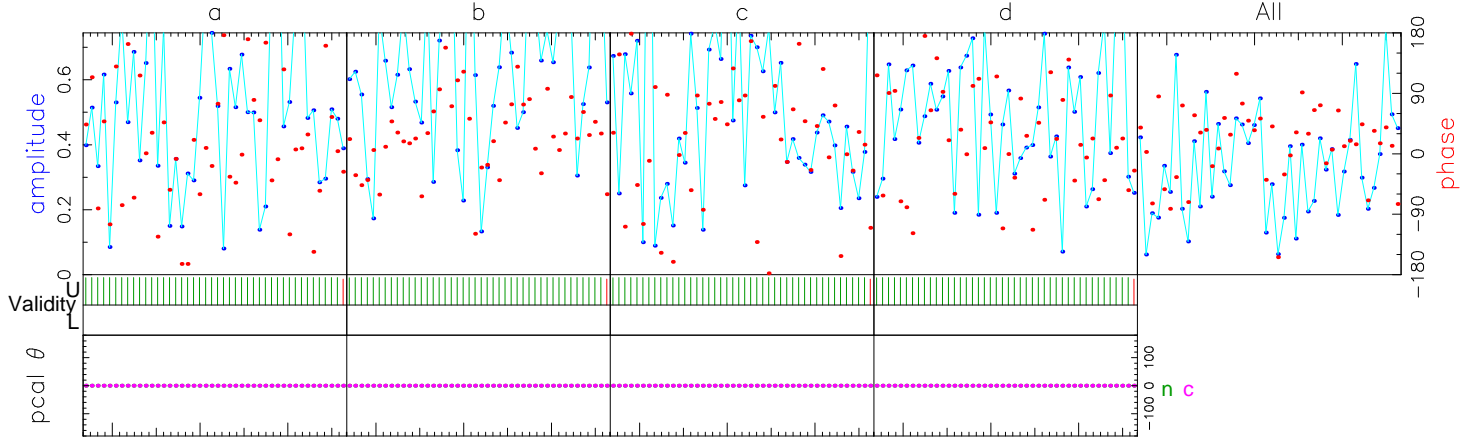


SNR 9.1
 Int time 179.970
 Amp 0.248
 Phase 25.2
 PFD 1.7e-11
 Delays (us)
 SBD 0.002885
 MBD 0.002324
 Fringe rate (Hz) -0.007912
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163115
 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		
n	1000	1000	1000	1000		
c	1000	1000	1000	1000		
n:c	0:0	0:0	0:0	0:0		
n:c	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000		
c	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UR	Q01UR	Q02UR	Q03UR		

	42912.00	43040.00	43168.00	43296.00	Resid mbdelay (usec)	2.32397E-03	+/- 1.2E-04
Group delay (usec)(sbd)	5.40708612853E+03	5.40708668919E+03	5.40708380456E+03	5.40708380456E+03	Resid sbdelay (usec)	2.88462E-03	+/- 4.7E-04
Sband delay (usec)	5.40708668919E+03	5.40708380619E+03	5.40708380619E+03	5.40708380619E+03	Resid phdelay (usec)	1.62768E-06	+/- 8.1E-07
Phase delay (usec)	5.40708380619E+03	3.50718589719E-01	3.50718773539E-01	3.50718773539E-01	Resid rate (us/s)	-1.83820E-07	+/- 7.8E-09
Delay rate (us/s)	3.50718589719E-01	0.244	5.90379062039E-06	5.90379062039E-06	Resid phase (deg)	25.2	+/- 12.6
Total phase (deg)	6.7						

	RMS	Theor.	Amplitude	0.248 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	55.5	41.7	Search (1024X16)	0.241	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	74.0	72.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	22.2	12.6	Inc. seg. avg.	0.265	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	41.3	22.0	Inc. frq. avg.	0.244	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 360.5 el 73.3 pa -179.4 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -1918.626 1225.405 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/nc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/nc.Q.138.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

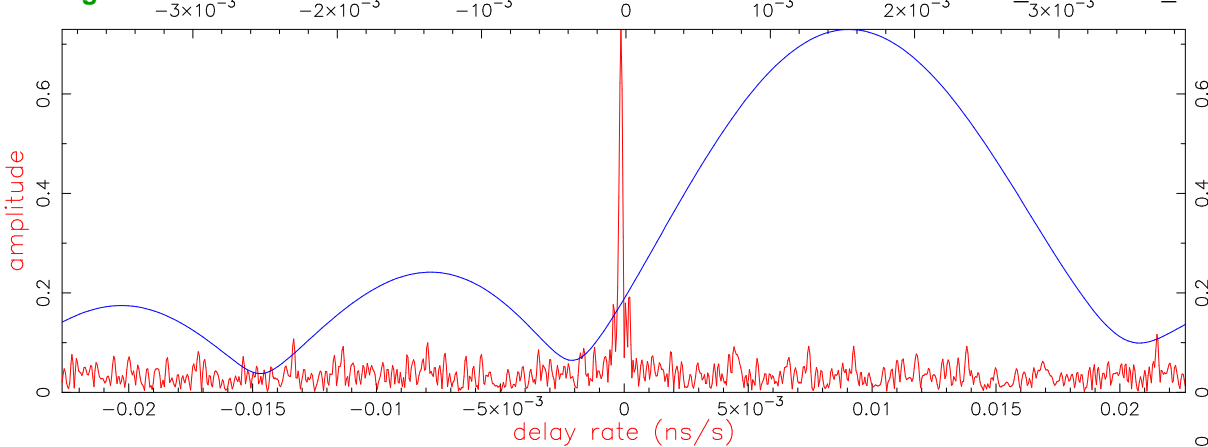
fxmanager

0102+584.1HP6Q8, No0090, nc

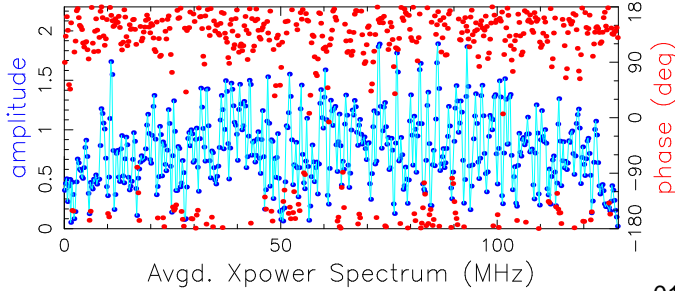
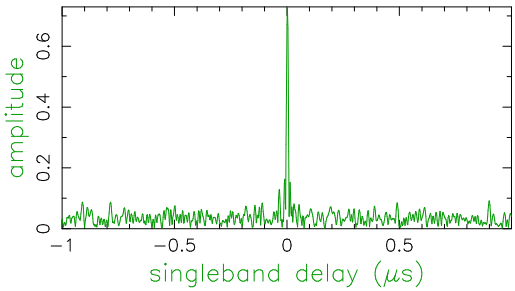
VLBA_NL - VLBA_SC, fgroup Q, pol RL

multiband delay (μ s)

Fringe quality 9

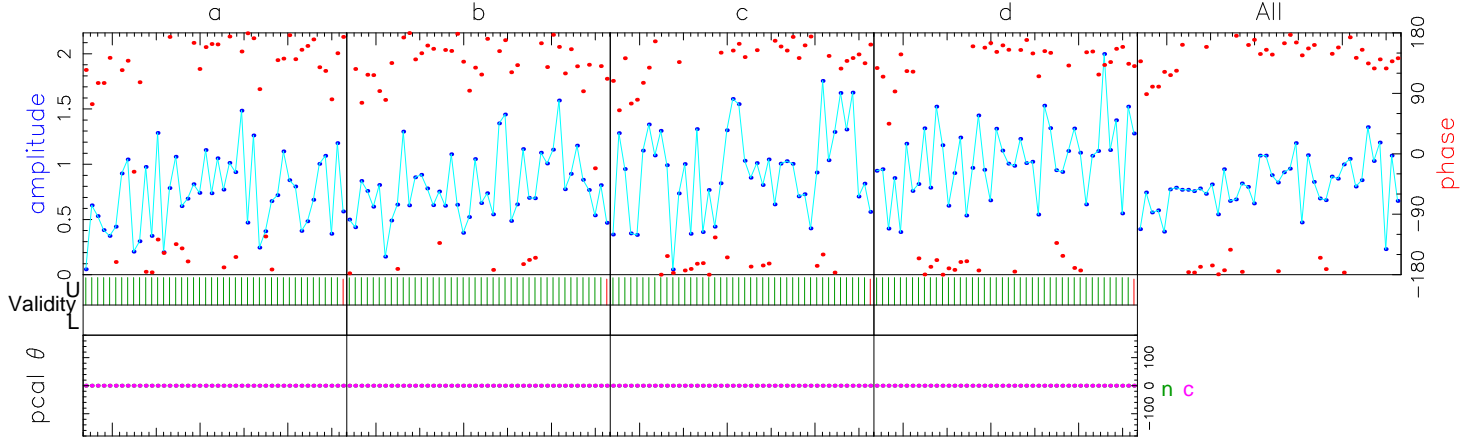


SNR 26.8
 Int time 179.971
 Amp 0.730
 Phase 158.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.001853
 MBD 0.001537
 Fringe rate (Hz)
 -0.006684
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163118
 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		
n	1000	1000	1000	1000	Phase	158.4
c	1000	1000	1000	1000	Ampl.	0.7
n:c	0:0	0:0	0:0	0:0	Sbd box	513.9
n:c	0:0	0:0	0:0	0:0	APs used	
n	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
n	Q00UR	Q01UR	Q02UR	Q03UR	PC phase	
c	Q00UL	Q01UL	Q02UL	Q03UL	Manl PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

	5.40708534187E+03	Apriori delay (usec)	5.40708380456E+03	Resid mbdelay (usec)	1.53731E-03	+/- 4.2E-05
Group delay (usec)(sbd)	5.40708565706E+03	Apriori clock (usec)	-8.3209991E+00	Resid sbdelay (usec)	1.85250E-03	+/- 1.6E-04
Sband delay (usec)	5.40708381478E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.02200E-05	+/- 2.8E-07
Phase delay (usec)	3.50718618245E-01	Apriori rate (us/s)	3.50718773539E-01	Resid rate (us/s)	-1.55294E-07	+/- 2.7E-09
Delay rate (us/s)		Apriori accel (us/s/s)	5.90379062039E-06	Resid phase (deg)	158.4	+/- 4.3
Total phase (deg)	139.8					

	RMS	Theor.	Amplitude	0.730 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	28.3	14.2	Search (1024X16)	0.697	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	32.5	24.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.3	4.3	Inc. seg. avg.	0.788	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	16.6	7.5	Inc. frq. avg.	0.730	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 360.5 el 73.3 pa -179.4 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -1918.626 1225.405 simultaneous interpolator

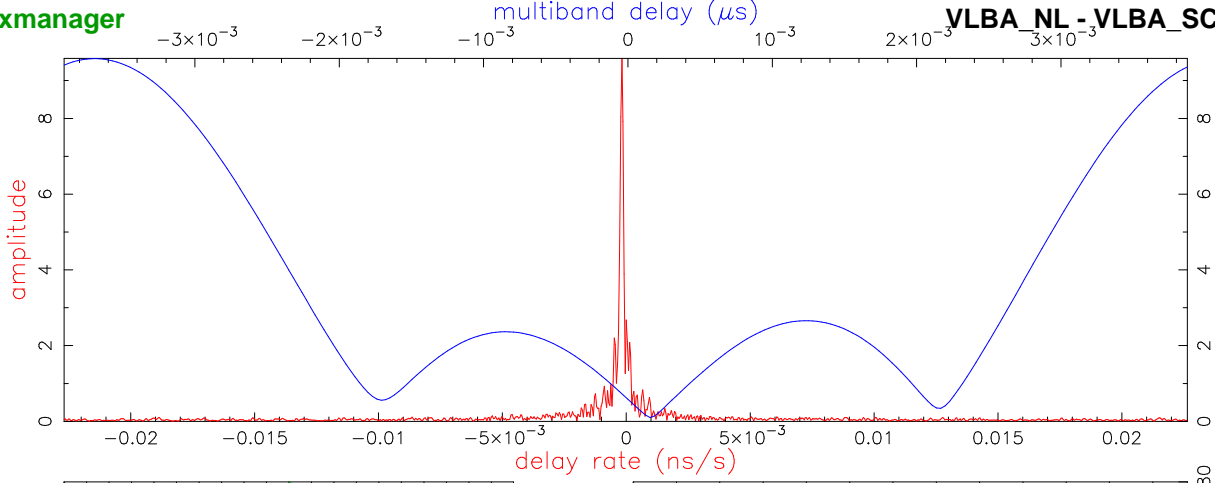
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/nc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/nc.Q.161.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

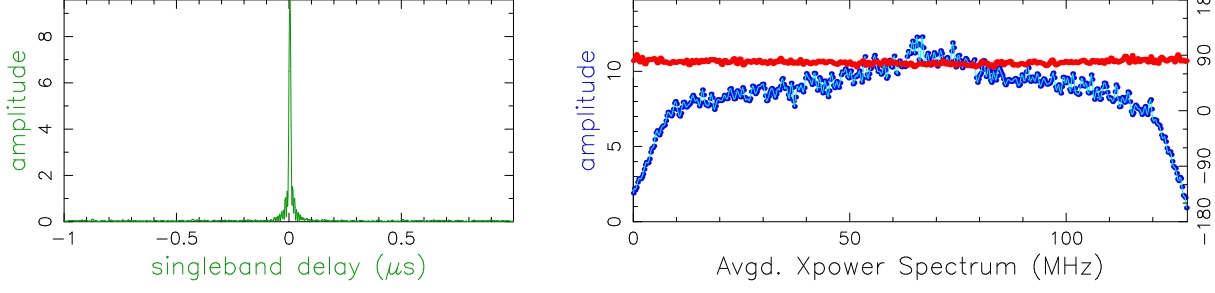
fxmanager

0102+584.1HP6Q8, No0090, nc

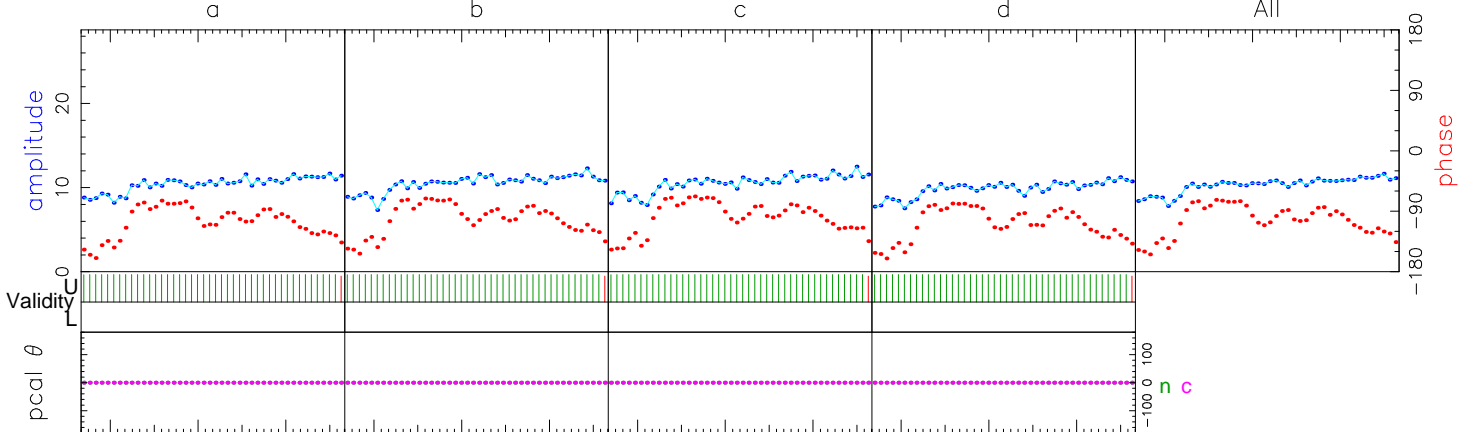
VLBA_NL - VLBA_SC, fgroup Q, pol LL



Fringe quality 8
 SNR 351.7
 Int time 179.971
 Amp 9.586
 Phase -102.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.004074
 MBD -0.003686
 Fringe rate (Hz)
 -0.006772
 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
 2021:010:163111
 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		
n	1000	1000	1000	1000		
c	1000	1000	1000	1000		
n:c	0:0	0:0	0:0	0:0		
n:c	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000		
c	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UL	Q01UL	Q02UL	Q03UL		

Group delay (usec)(sbd)	5.40708793147E+03	Apriori delay (usec)	5.40708380456E+03	Resid mbdelay (usec)	-3.68559E-03	+/- 3.2E-06
Sband delay (usec)	5.40708787806E+03	Apriori clock (usec)	-8.3209991E+00	Resid sbdelay (usec)	4.07350E-03	+/- 1.2E-05
Phase delay (usec)	5.40708379793E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-6.63445E-06	+/- 2.1E-08
Delay rate (us/s)	3.50718616201E-01	Apriori rate (us/s)	3.50718773539E-01	Resid rate (us/s)	-1.57339E-07	+/- 2.0E-10
Total phase (deg)	238.6	Apriori accel (us/s/s)	5.90379062039E-06	Resid phase (deg)	-102.8	+/- 0.3

ph/seg (deg)	22.8	1.1	Amplitude	9.586 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	12.0	1.9	Search (1024X16)	9.035	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	5.7	0.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	2.9	0.6	Inc. seg. avg.	10.313	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
			Inc. frq. avg.	9.603	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

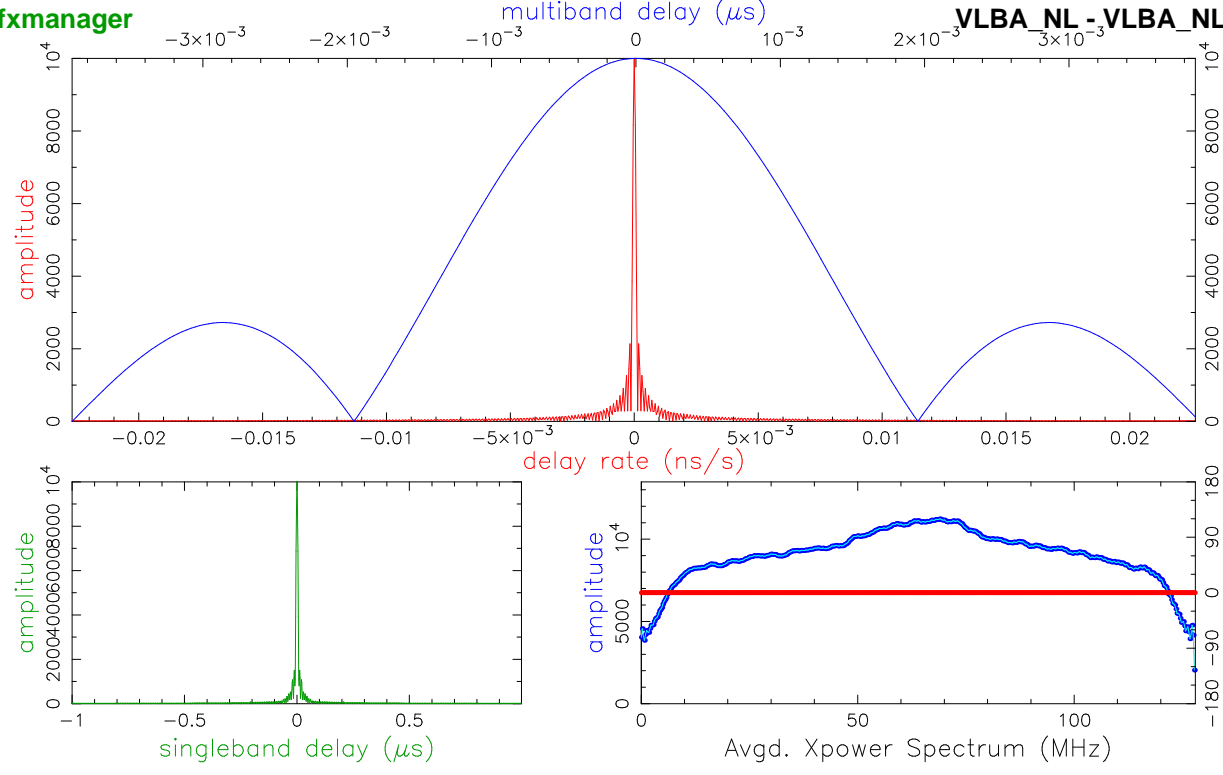
n: az 360.5 el 73.3 pa -179.4 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -1918.626 1225.405 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/nc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/nc.Q.98.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, nn

VLBA_NL - VLBA_NL, fgroup Q, pol LL

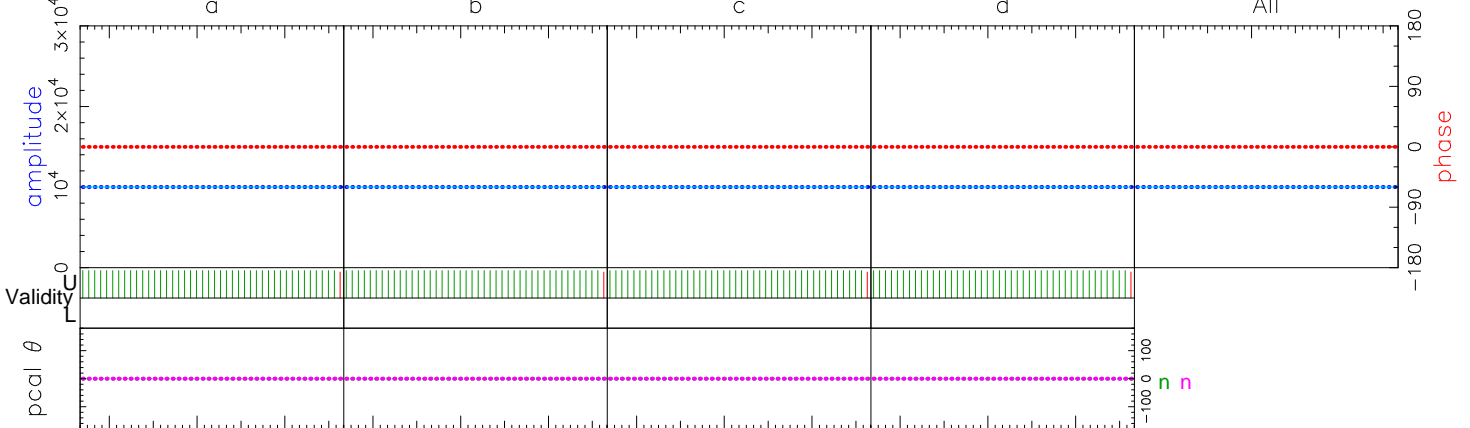


Fringe quality 9

SNR 366861.1
 Int time 179.973
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163111
 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		
n	1000	1000	1000	1000	APs used	
n:n	0:0	0:0	0:0	0:0	PC freqs	
n	1000	1000	1000	1000	PC phase	
n	1000	1000	1000	1000	ManI PC	
n	Q00UL	Q01UL	Q02UL	Q03UL	PC amp	
n	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
					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	10000.000 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	0.0	Search (1024X16)	10000.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	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 (MSamp/s):	256	dr window (ns/s)	-0.023 0.023		
				Inc. frq. avg.	10000.000	Data rate (Mb/s):	2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

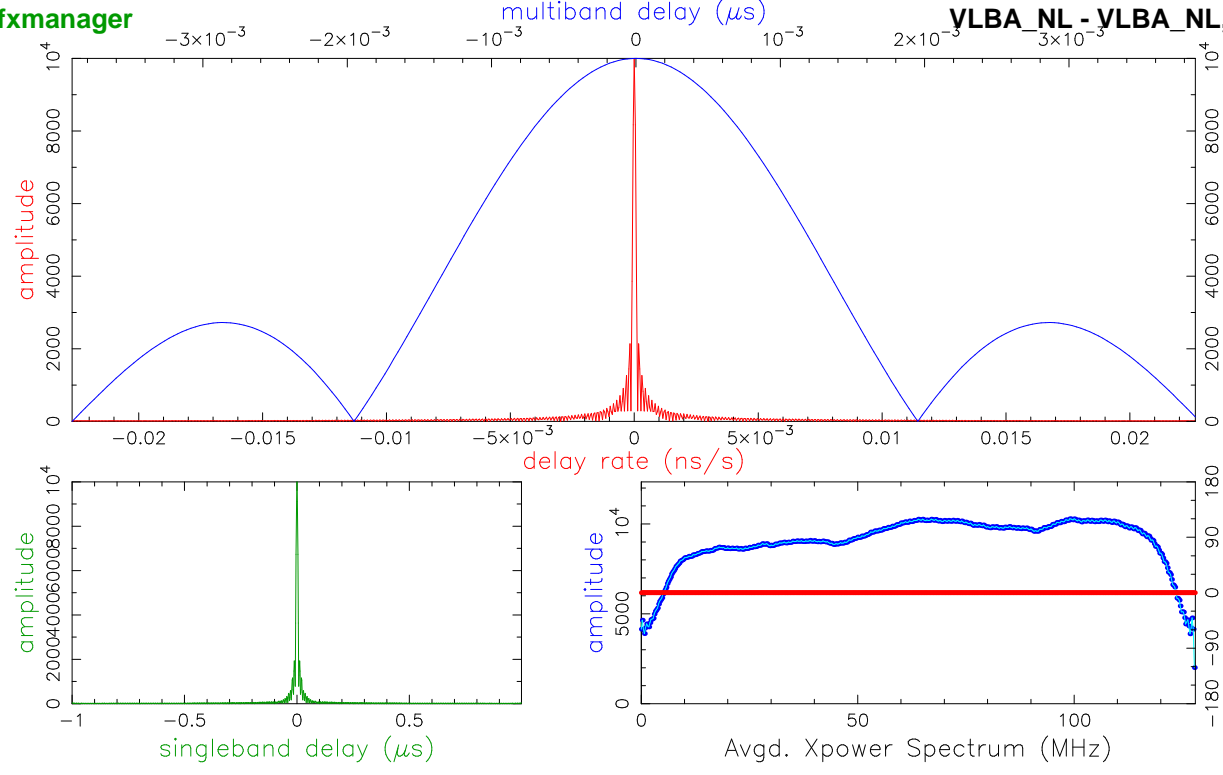
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/nn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/nn.Q.101.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, nn

VLBA_NL - VLBA_NL, fgroup Q, pol RR

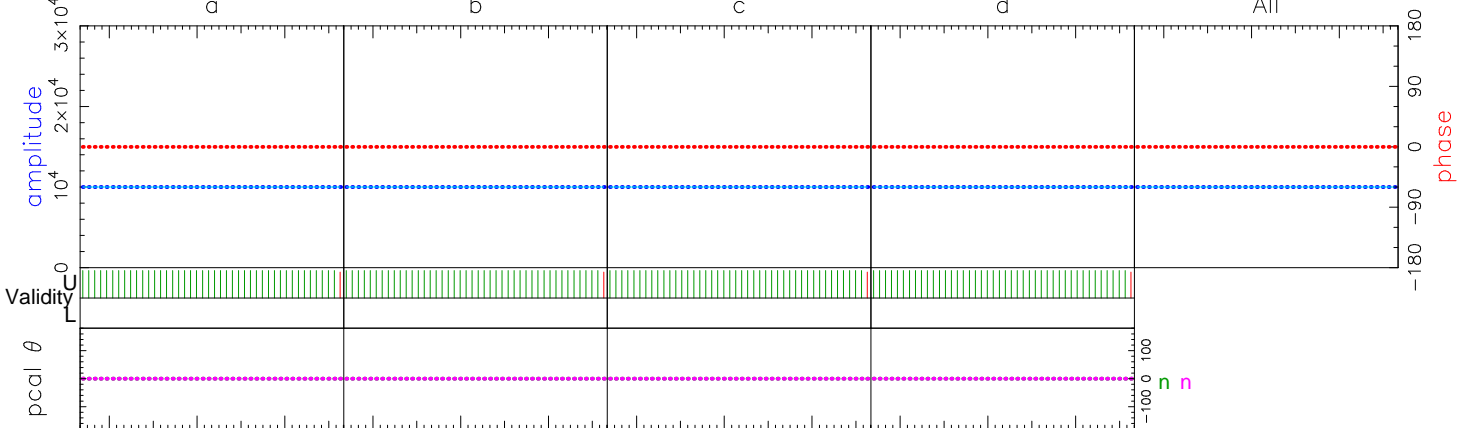


Fringe quality 9

SNR 366861.1
 Int time 179.973
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163115
 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



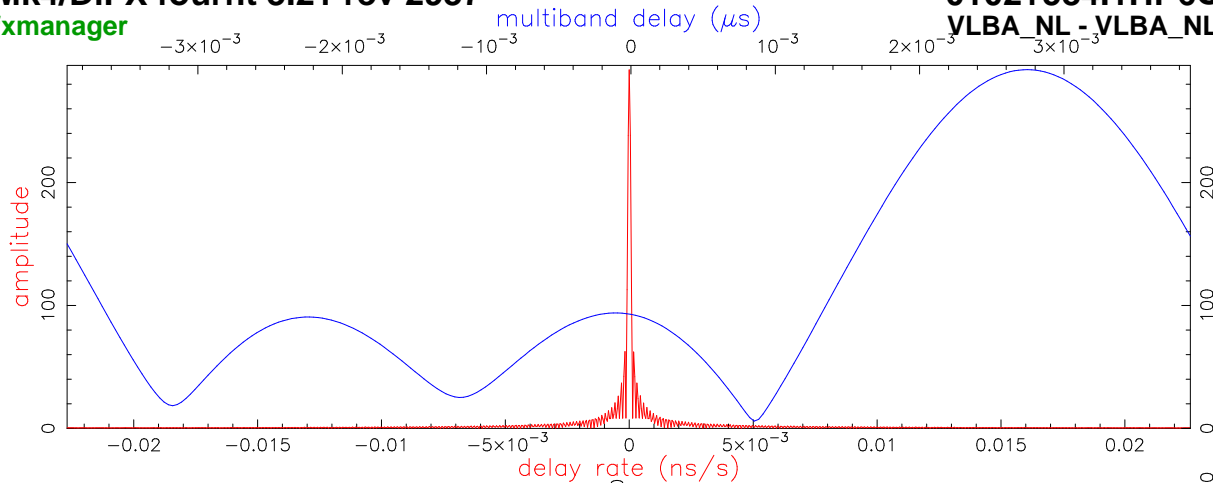
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	APs used	
n:n	0:0	0:0	0:0	0:0	PC freqs	
n	1000	1000	1000	1000	PC phase	
n	1000	1000	1000	1000	ManI PC	
n	Q00UR	Q01UR	Q02UR	Q03UR	PC amp	
n	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
					Tracks	

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)	0.00000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.2E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.00000000E+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

	RMS	Theor.	Amplitude	10000.000 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.0	0.0	Search (1024X16)	10000.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.000	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

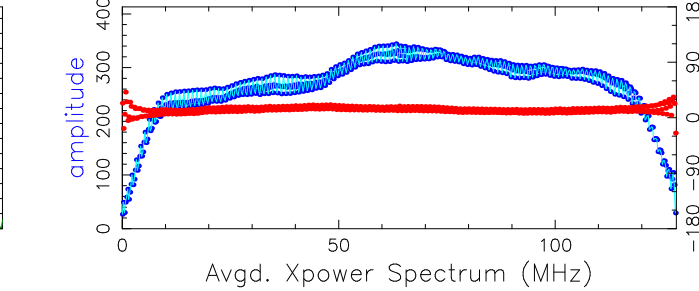
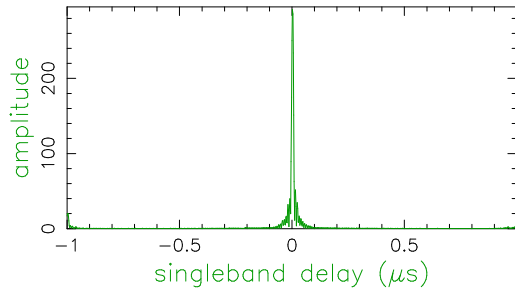
n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/nn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/nn.Q.133.1HP6Q8



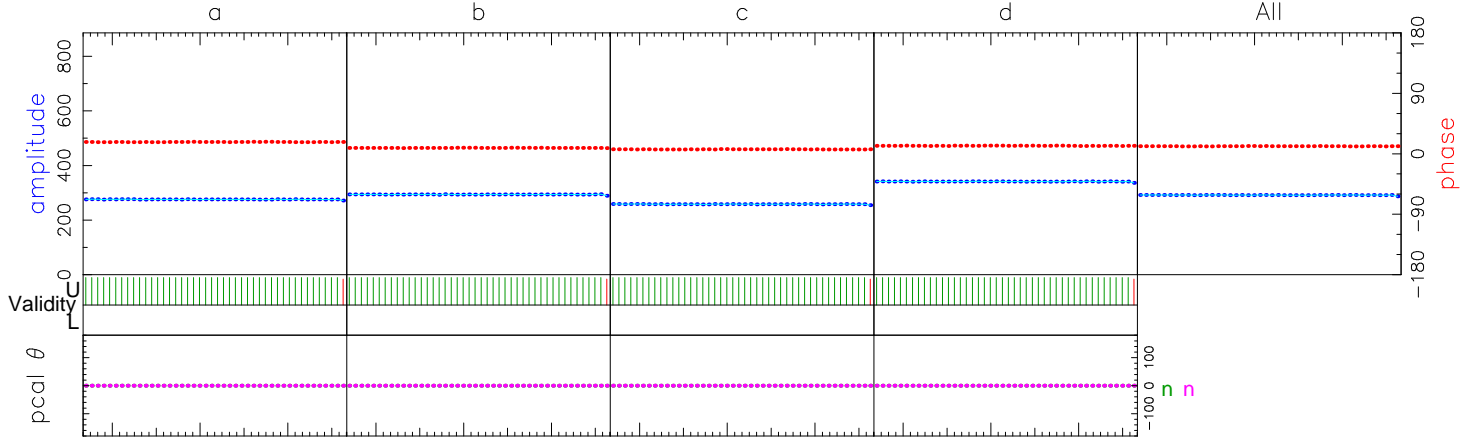
Fringe quality 9

SNR 10833.1
Int time 179.973
Amp 295.292
Phase 11.3
PFD 0.0e+00
Delays (us)
SBD 0.002700
MBD 0.002780
Fringe rate (Hz)
-0.000008
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
2021:010:163117
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		
n	1000	1000	1000	1000	APs used	
n:n	0:0	0:0	0:0	0:0	PC freqs	
n	1000	1000	1000	1000	PC phase	
n	1000	1000	1000	1000	ManI PC	
n	Q00UL	Q01UL	Q02UL	Q03UL	PC amp	
n	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	2.77987500000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	2.77987E-03	+/- 1.0E-07
Sband delay (usec)	2.69987500000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	2.69988E-03	+/- 4.0E-07
Phase delay (usec)	7.26571336168E-07	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	7.26571E-07	+/- 6.8E-10
Delay rate (us/s)	-1.75844772665E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.75845E-10	+/- 6.6E-12
Total phase (deg)	11.3	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	11.3	+/- 0.0

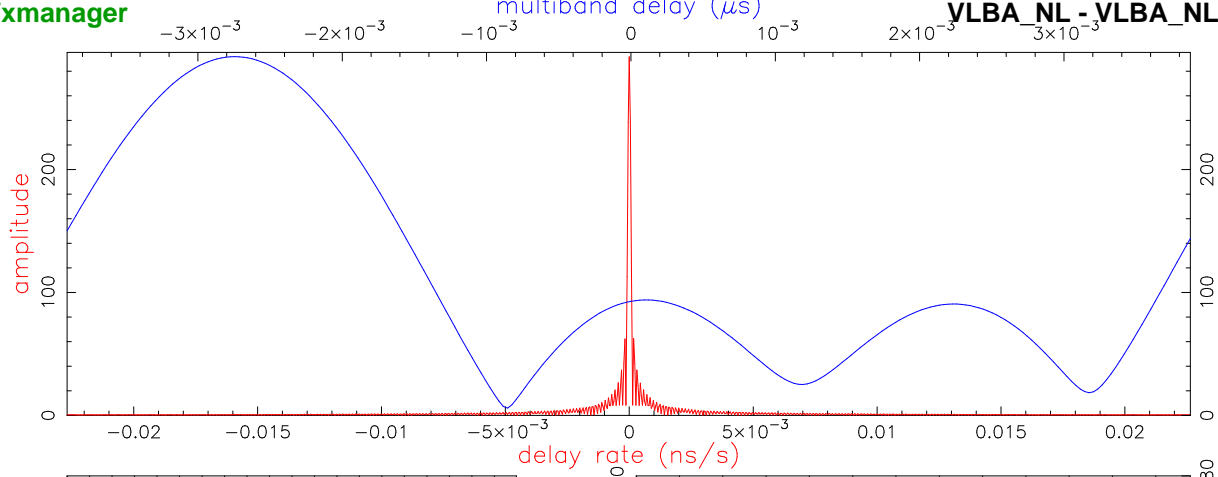
ph/seg (deg)	0.1	0.0	Amplitude	295.292 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	1.2	0.1	Search (1024X16)	287.623	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	5.8	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	10.5	0.0	Inc. seg. avg.	291.670	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
			Inc. frq. avg.	292.364	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
n: az 360.5 el 73.3 pa -179.4			u,v (fr/asec)	0.000 0.000		
Control file: cf_1234_gmva7mm						simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, nn

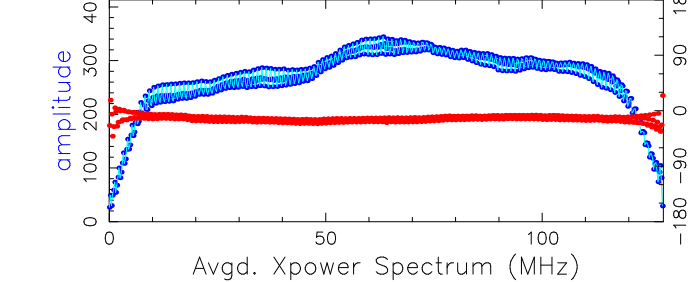
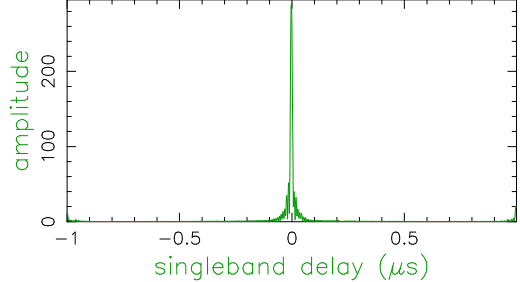
VLBA_NL - VLBA_NL, fgroup Q, pol RL



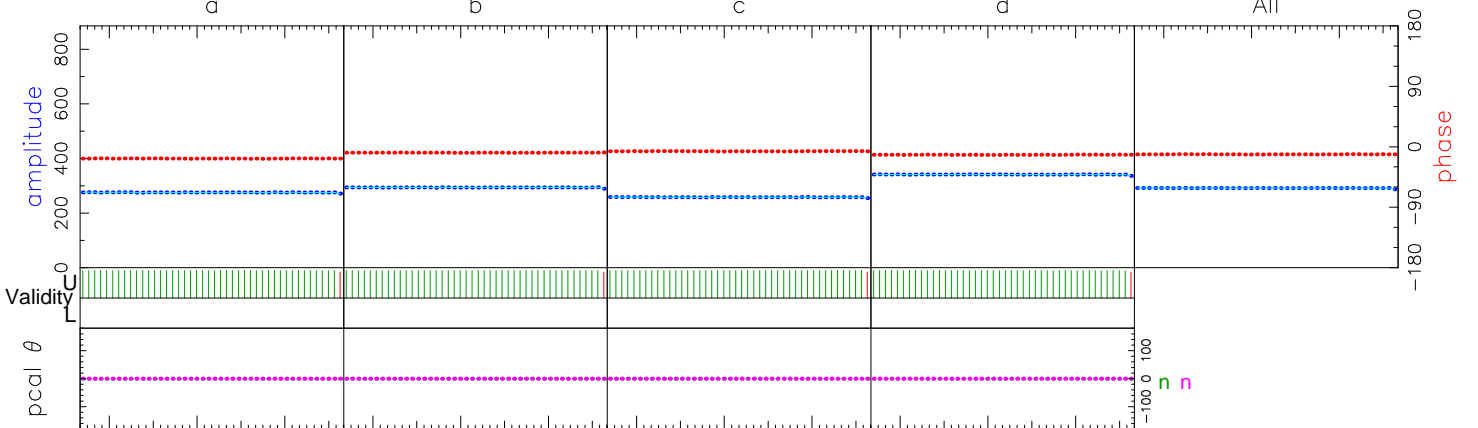
Fringe quality 9

SNR 10833.1
 Int time 179.973
 Amp 295.292
 Phase -11.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.002700
 MBD -0.002780
 Fringe rate (Hz) 0.000008
 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
 2021:010:163119
 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
	-17.5	-8.8	-6.6	-11.9	Phase	-11.3
	275.8	293.9	258.4	341.3	Ampl.	292.4
	511.7	511.5	511.8	511.6	Sbd box	511.6
U/L	352/0	352/0	352/0	352/0	APs used	
n	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	PC freqs	
n:n	0:0	0:0	0:0	0:0	PC phase	
n:n	0:0	0:0	0:0	0:0	ManI PC	
n	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-2.77987500000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-2.77987E-03	+/-	1.0E-07
Sband delay (usec)	-2.69987500000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-2.69988E-03	+/-	4.0E-07
Phase delay (usec)	-7.26571336265E-07	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-7.26571E-07	+/-	6.8E-10
Delay rate (us/s)	1.75844772665E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.75845E-10	+/-	6.6E-12
Total phase (deg)	-11.3	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-11.3	+/-	0.0

ph/seg (deg)	0.1	0.0	Amplitude	295.292 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	1.2	0.1	Search (1024X16)	287.623	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	5.8	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/frq (%)	10.5	0.0	Inc. seg. avg.	291.670	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023	0.023
			Inc. frq. avg.	292.364	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00

n: az 360.5 el 73.3 pa -179.4 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

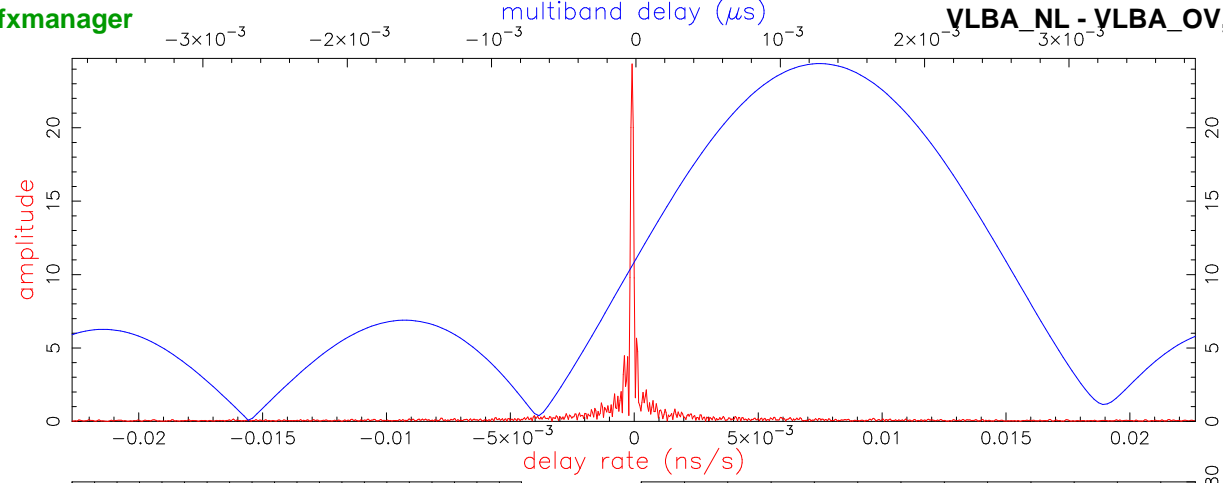
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/nn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/nn.Q.165.1HP6Q8

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fxmanager

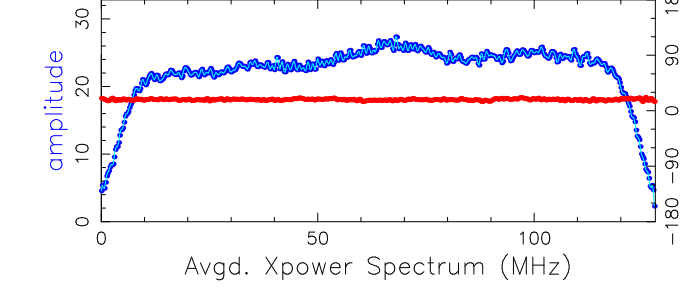
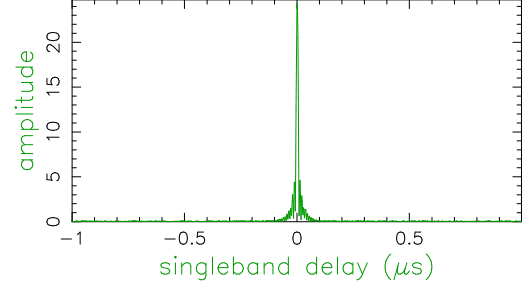
0102+584.1HP6Q8, No0090, no

VLBA_NL - VLBA_OV, fgroup Q, pol RR



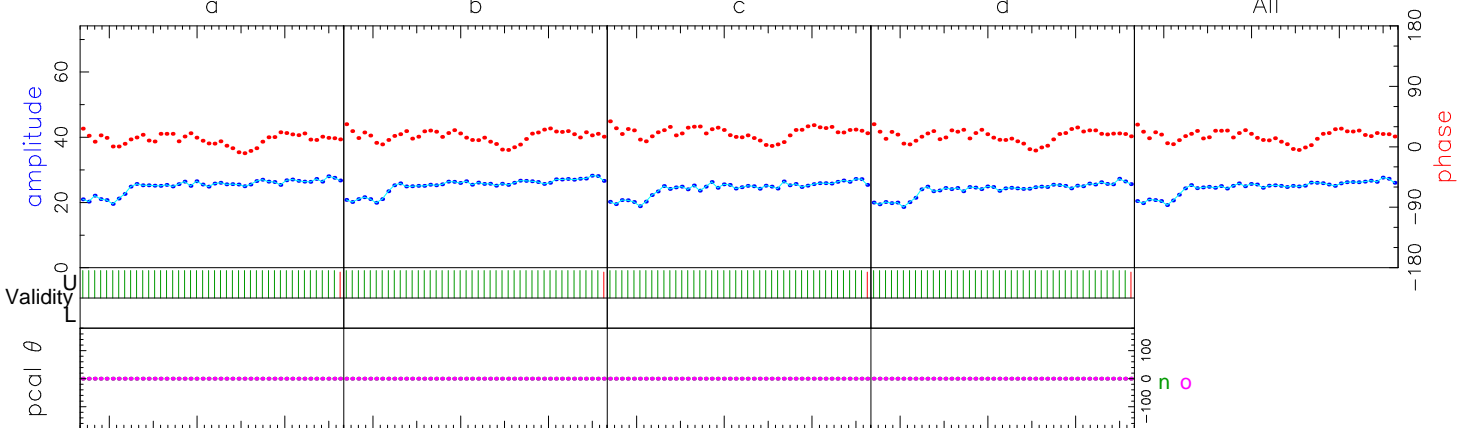
Fringe quality 9

SNR 907.1
 Int time 179.973
 Amp 24.728
 Phase 15.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.001142
 MBD 0.001227
 Fringe rate (Hz)
 -0.004295
 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
 2021:010:163112
 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		
n	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	PC freqs	
n:o	0:0	0:0	0:0	0:0	PC phase	
n	1000	1000	1000	1000	Manl PC	
o	1000	1000	1000	1000	PC amp	
n	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
o	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.44944687814E+03	Apriori delay (usec)	1.44944565116E+03	Resid mbdelay (usec)	1.22698E-03	+/- 1.2E-06
Sband delay (usec)	1.44944679279E+03	Apriori clock (usec)	-2.1281145E+01	Resid sbdelay (usec)	1.14162E-03	+/- 4.7E-06
Phase delay (usec)	1.44944565218E+03	Apriori clockrate (us/s)	6.0000003E-07	Resid phdelay (usec)	1.02068E-06	+/- 8.2E-09
Delay rate (us/s)	-2.90445295701E-01	Apriori rate (us/s)	-2.90445195920E-01	Resid rate (us/s)	-9.97806E-08	+/- 7.8E-11
Total phase (deg)	313.2	Apriori accel (us/s/s)	-1.94821210795E-06	Resid phase (deg)	15.8	+/- 0.1

ph/seg (deg)	8.4	0.4	Amplitude	24.728 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	8.4	0.7	Search (1024X16)	23.728	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	5.2	0.1	Inc. seg. avg.	24.613	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	2.6	0.2	Inc. frq. avg.	24.403	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
n: az 360.5 el 73.3 pa -179.4			o: az 30.8 el 62.4 pa -129.3		Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva7mm			u,v (fr/asec) 1589.779 5.301		nlags: 512	t_cohere infinite

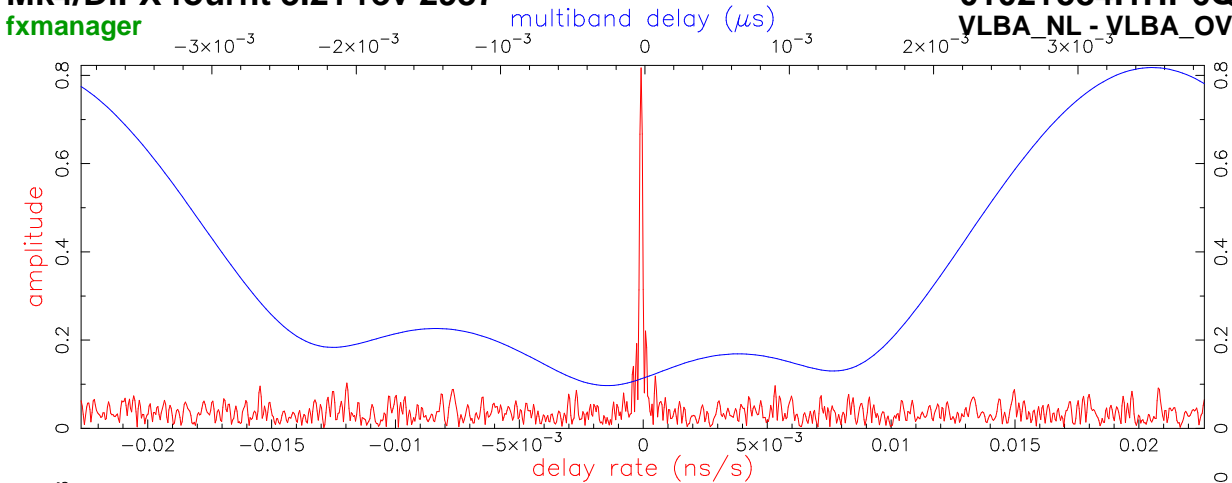
simultaneous interpolator
 Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/no..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/no.Q.111.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

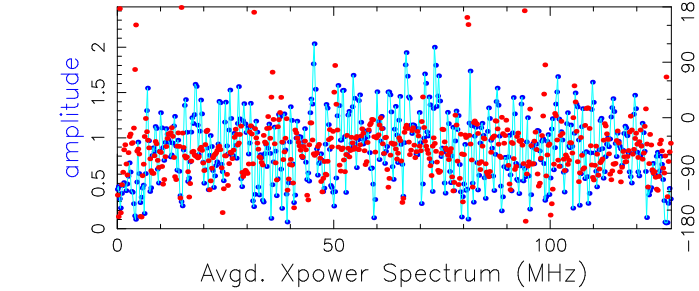
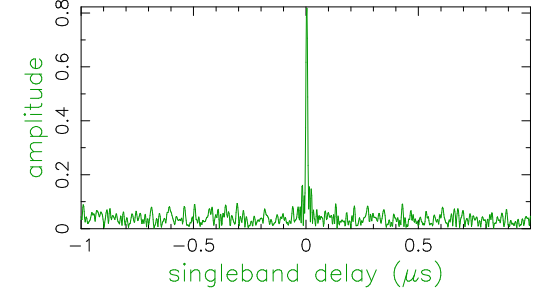
0102+584.1HP6Q8, No0090, no

VLBA_NL - VLBA_OV, fgroup Q, pol LR



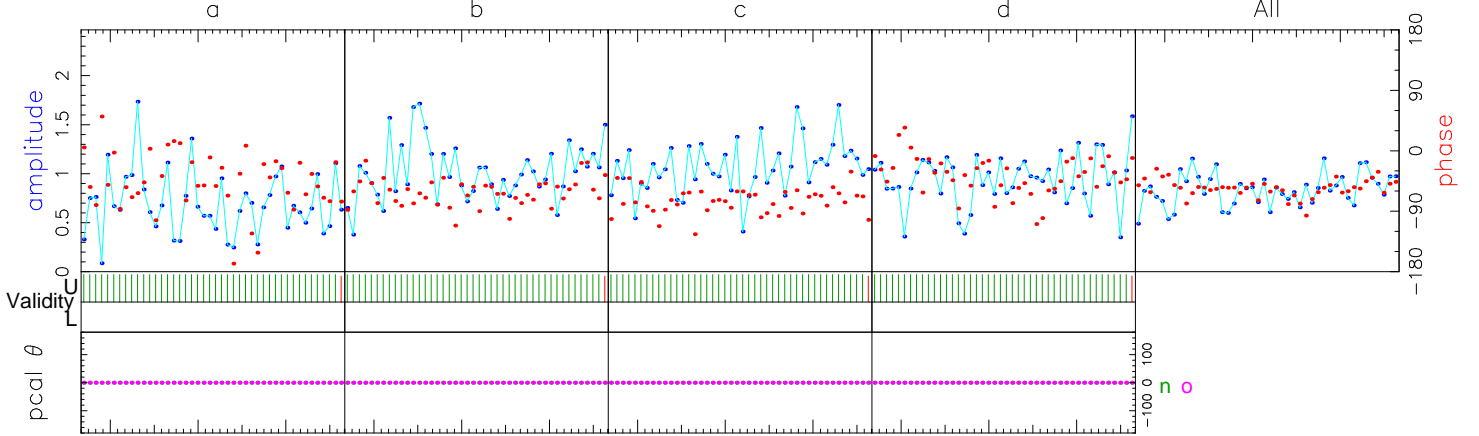
Fringe quality 7

SNR 30.2
 Int time 179.973
 Amp 0.823
 Phase -55.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.003377
 MBD 0.003471
 Fringe rate (Hz)
 -0.004554
 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
 2021:010:163114
 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
-43.1	-61.6	-73.8	-36.2	Phase	-55.8
0.6	1.0	1.0	0.8	Ampl.	0.8
514.5	514.6	514.5	515.6	Sbd box	514.7
U/L 352/0	352/0	352/0	352/0	APs used	
n 1000	1000	1000	1000	PC freqs	
o 1000	1000	1000	1000	PC freqs	
n:o 0:0	0:0	0:0	0:0	PC phase	
n:o 0:0	0:0	0:0	0:0	ManI PC	
n 1000	1000	1000	1000	PC amp	
o 1000	1000	1000	1000		
n Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
o Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	1.44944912192E+03	Apriori delay (usec)	1.44944565116E+03	Resid mbdelay (usec)	3.47076E-03	+/- 3.7E-05
Sband delay (usec)	1.44944902854E+03	Apriori clock (usec)	-2.1281145E+01	Resid sbdelay (usec)	3.37737E-03	+/- 1.4E-04
Phase delay (usec)	1.44944564756E+03	Apriori clockrate (us/s)	6.0000003E-07	Resid phdelay (usec)	-3.59932E-06	+/- 2.5E-07
Delay rate (us/s)	-2.90445301733E-01	Apriori rate (us/s)	-2.90445195920E-01	Resid rate (us/s)	-1.05813E-07	+/- 2.4E-09
Total phase (deg)	241.6	Apriori accel (us/s/s)	-1.94821210795E-06	Resid phase (deg)	-55.8	+/- 3.8

ph/seg (deg)	RMS 13.1	Theor. 12.6	Amplitude 0.823 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	20.0	22.0	Search (1024X16) 0.791	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	21.2	3.8	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	20.1	6.6	Inc. seg. avg. 0.818	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
			Inc. frq. avg. 0.845	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
n: az 360.5 el 73.3 pa -179.4	o: az 30.8 el 62.4 pa -129.3	u, v (fr/asec) 1589.779 5.301			simultaneous interpolator

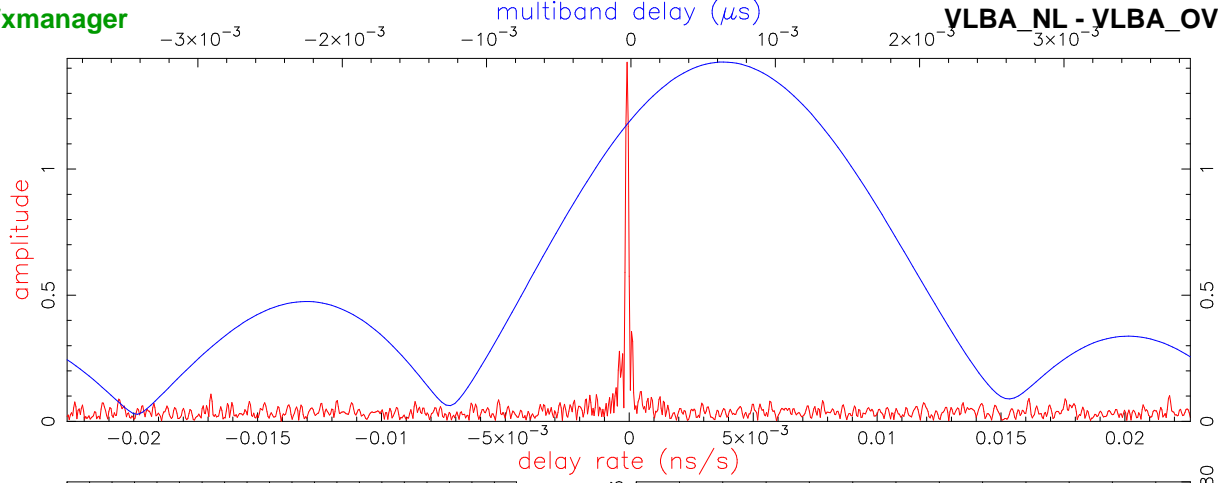
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/no..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/no.Q.128.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

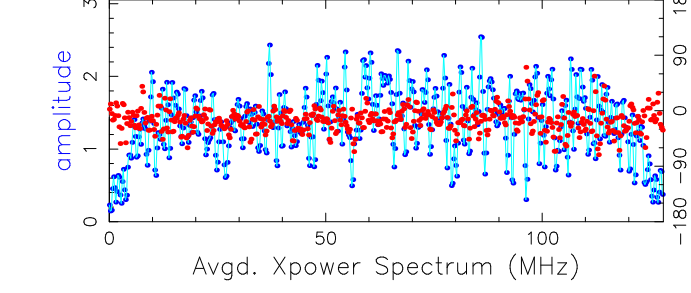
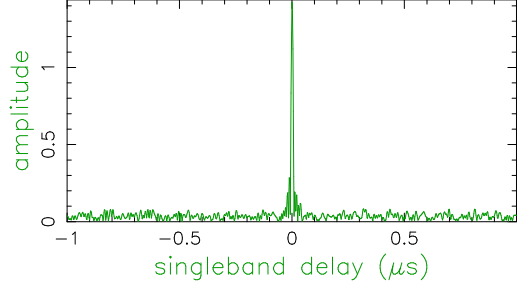
fxmanager

0102+584.1HP6Q8, No0090, no

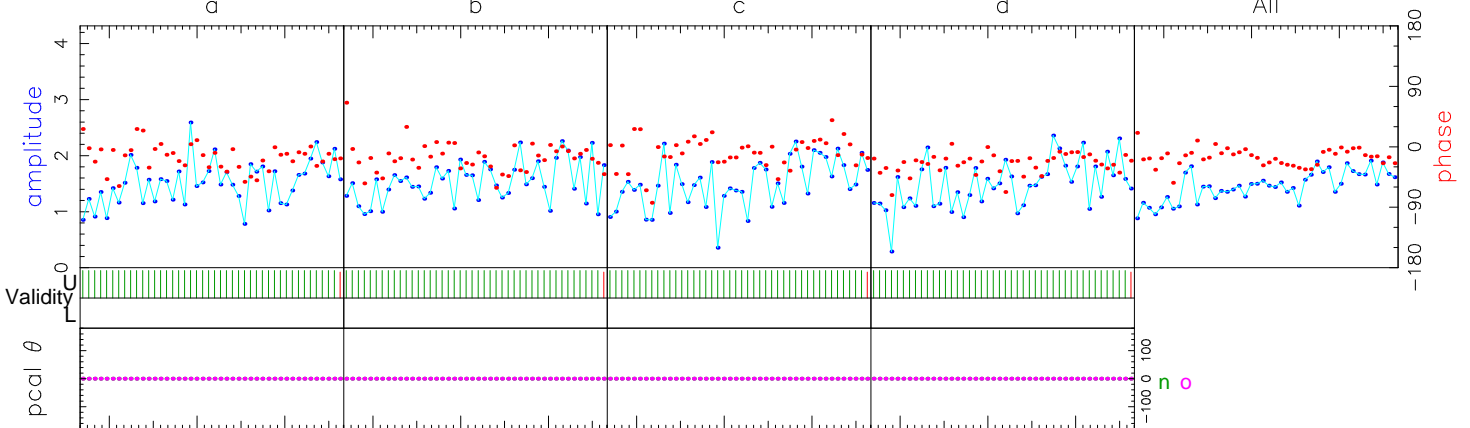
VLBA_NL - VLBA_OV, fgroup Q, pol RL



Fringe quality 9
 SNR 52.8
 Int time 179.973
 Amp 1.439
 Phase -15.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.000680
 MBD 0.000680
 Fringe rate (Hz) -0.004288
 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
 2021:010:163116
 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
	-14.9	-15.9	-5.9	-24.2	Phase	-15.3
	1.4	1.4	1.4	1.4	Ampl.	1.4
	513.3	513.2	513.6	513.4	Sbd box	513.3
U/L	352/0	352/0	352/0	352/0	APs used	
n	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
o	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.44944633074E+03	Apriori delay (usec)	1.44944565116E+03	Resid mbdelay (usec)	6.79577E-04	+/-	2.1E-05
Sband delay (usec)	1.44944633116E+03	Apriori clock (usec)	-2.1281145E-01	Resid sbdelay (usec)	6.80000E-04	+/-	8.2E-05
Phase delay (usec)	1.44944565017E+03	Apriori clockrate (us/s)	6.0000003E-07	Resid phdelay (usec)	-9.85509E-07	+/-	1.4E-07
Delay rate (us/s)	-2.90445295559E-01	Apriori rate (us/s)	-2.90445195920E-01	Resid rate (us/s)	-9.96388E-08	+/-	1.3E-09
Total phase (deg)	282.1	Apriori accel (us/s/s)	-1.94821210795E-06	Resid phase (deg)	-15.3	+/-	2.2

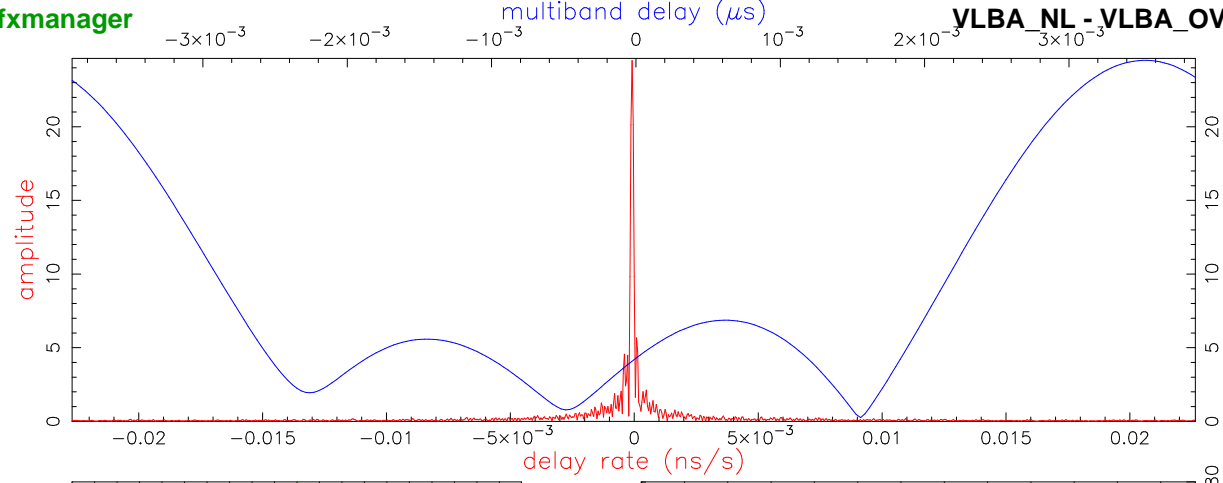
ph/seg (deg)	12.9	Theor.	7.2	Amplitude	1.439 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	18.4	Search (1024X16)	1.391	Search	1.391	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	9.2	Inc. seg. avg.	1.443	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	1.4	Inc. frq. avg.	1.432	Inc. seg. avg.	1.443	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023		
n: az 360.5 el 73.3 pa -179.4		o: az 30.8 el 62.4 pa -129.3		Inc. frq. avg.	1.432	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/no..1HP6Q8		u,v (fr/asec)	1589.779 5.301					simultaneous interpolator
										Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/no.Q.142.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, no

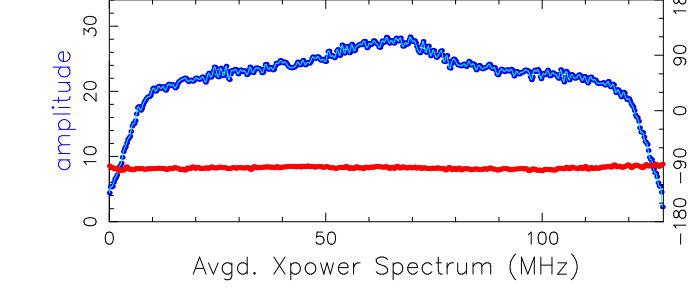
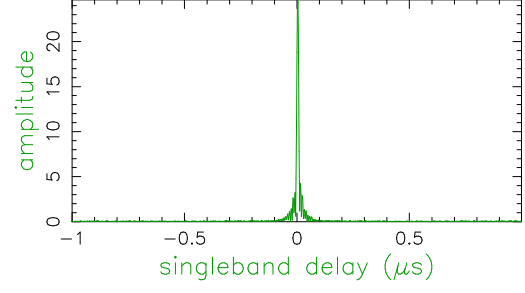
VLBA_NL - VLBA_OV, fgroup Q, pol LL



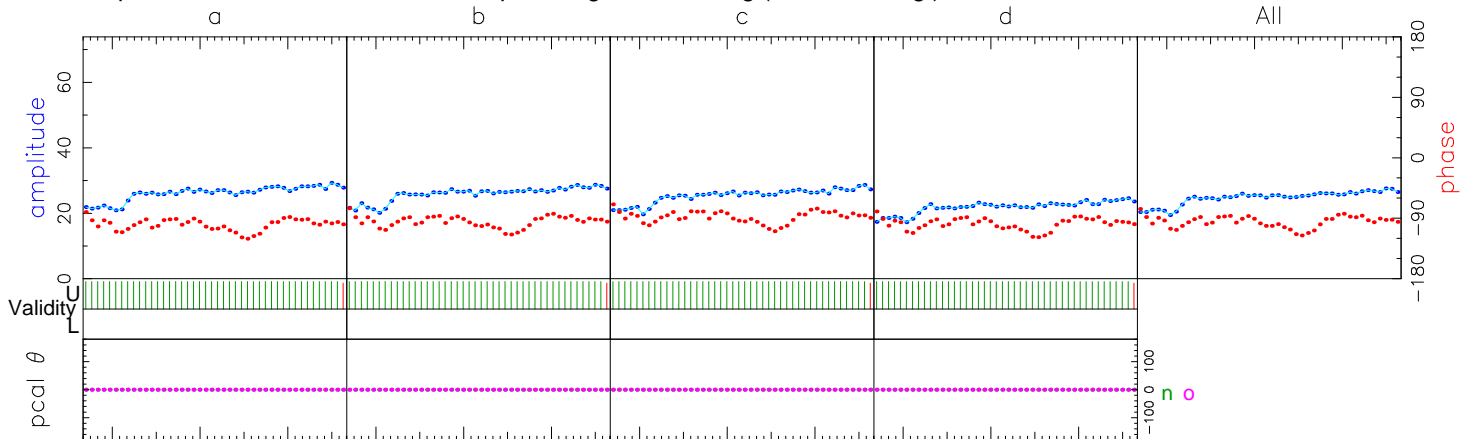
Fringe quality 9

SNR 904.0
 Int time 179.973
 Amp 24.642
 Phase -95.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.003402
 MBD 0.003499
 Fringe rate (Hz)
 -0.004344
 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
 2021:010:163111
 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		
n	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	PC freqs	
n:o	0:0	0:0	0:0	0:0	PC phase	
n	1000	1000	1000	1000	ManI PC	
o	1000	1000	1000	1000	PC amp	
n	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
o	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.44944915021E+03	Apriori delay (usec)	1.44944565116E+03	Resid mbdelay (usec)	3.49905E-03	+/- 1.2E-06
Sband delay (usec)	1.44944905354E+03	Apriori clock (usec)	-2.1281145E+01	Resid sbdelay (usec)	3.40237E-03	+/- 4.8E-06
Phase delay (usec)	1.44944564503E+03	Apriori clockrate (us/s)	6.0000003E-07	Resid phdelay (usec)	-6.13413E-06	+/- 8.2E-09
Delay rate (us/s)	-2.90445296852E-01	Apriori rate (us/s)	-2.90445195920E-01	Resid rate (us/s)	-1.00932E-07	+/- 7.9E-11
Total phase (deg)	202.3	Apriori accel (us/s/s)	-1.94821210795E-06	Resid phase (deg)	-95.0	+/- 0.1

ph/seg (deg)	8.5	Theor.	0.4	Amplitude	24.642 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	8.3		0.7	Search (1024X16)	24.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	6.3		0.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	6.9		0.2	Inc. seg. avg.	24.764	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	24.577	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

n: az 360.5 el 73.3 pa -179.4 o: az 30.8 el 62.4 pa -129.3 u,v (fr/asec) 1589.779 5.301 simultaneous interpolator

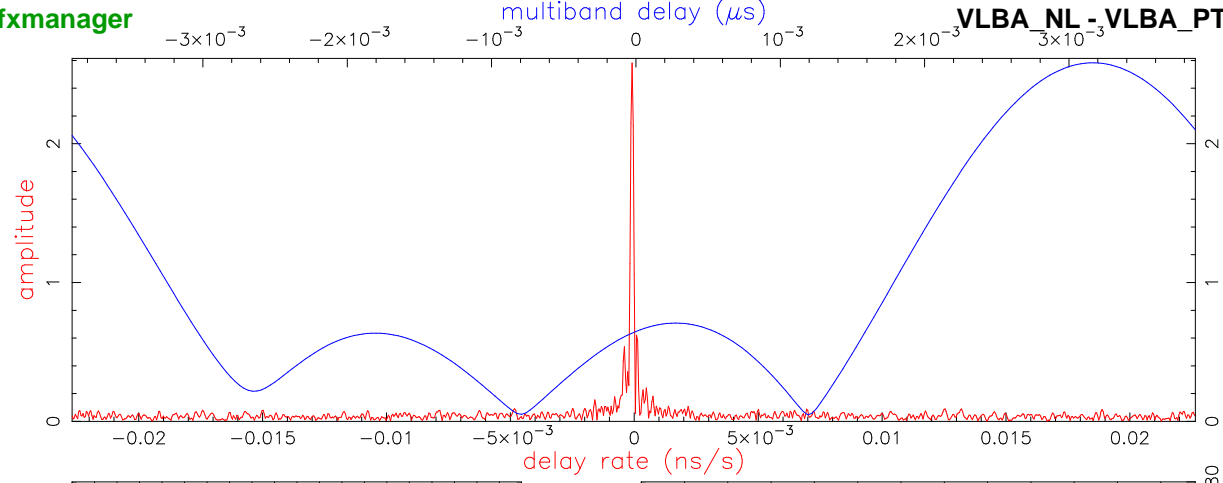
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/no..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/no.Q.96.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, np

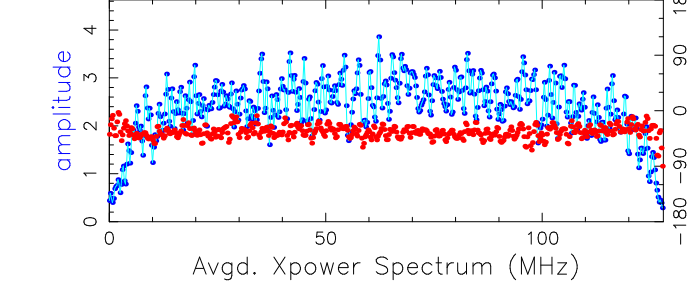
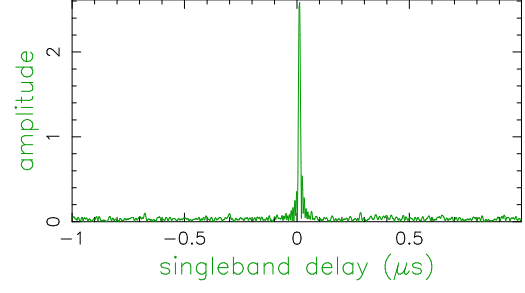
VLBA_NL - VLBA_PT, fgroup Q, pol LL



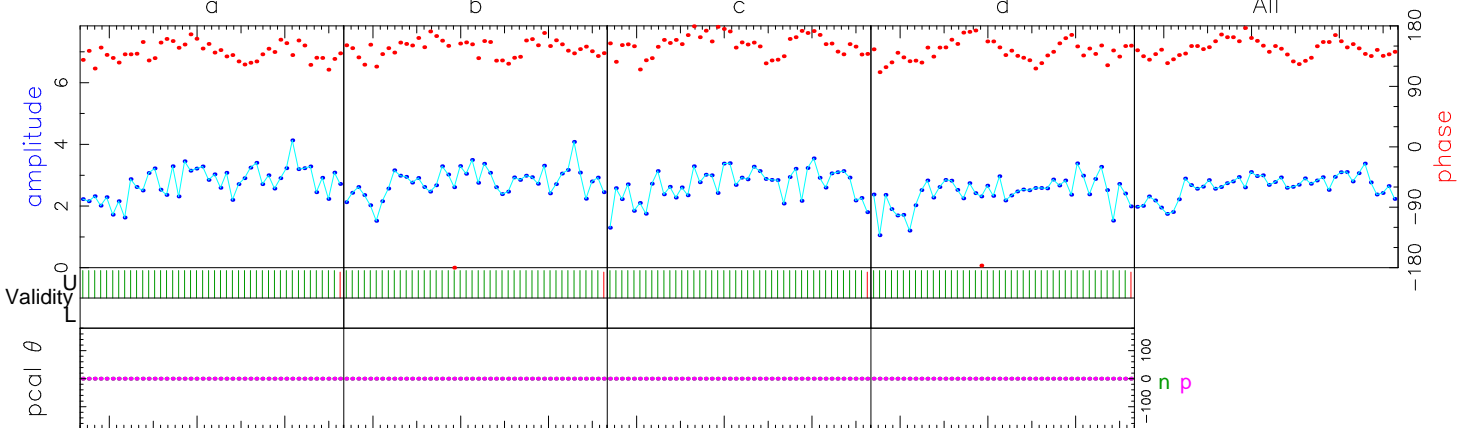
Fringe quality 8

SNR 95.9
 Int time 179.973
 Amp 2.615
 Phase 146.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.010972
 MBD 0.003129
 Fringe rate (Hz)
 -0.003153
 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
 2021:010:163113
 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		
n	1000	1000	1000	1000		
p	1000	1000	1000	1000		
n:p	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000		
p	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UL	Q01UL	Q02UL	Q03UL		

	1.32881849985E+03	1.32880755808E+03	1.32880755808E+03	1.32880755808E+03	3.12926E-03	+/- 1.2E-05
Group delay (usec)(sbd)	1.32881849985E+03	1.32880755808E+03	1.32880755808E+03	1.32880755808E+03	3.12926E-03	+/- 1.2E-05
Sband delay (usec)	1.32881852971E+03	8.3310127E-02	8.3310127E-02	8.3310127E-02	1.09716E-02	+/- 4.5E-05
Phase delay (usec)	1.32880756753E+03	1.0000003E-07	1.0000003E-07	1.0000003E-07	9.45370E-06	+/- 7.7E-08
Delay rate (us/s)	-1.90711634484E-01	Apriori rate (us/s)	-1.90711561216E-01	Resid rate (us/s)	-7.32677E-08	+/- 7.4E-10
Total phase (deg)	254.4	Apriori accel (us/s/s)	2.78802414035E-06	Resid mbdelay (usec)	146.5	+/- 1.2

	RMS	Theor.	Amplitude	2.615 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	12.3	4.0	Search (1024X16)	2.467	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	14.0	6.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	6.6	1.2	Inc. seg. avg.	2.635	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	5.7	2.1	Inc. frq. avg.	2.590	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 360.5 el 73.3 pa -179.4 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) 1046.269 408.192 simultaneous interpolator

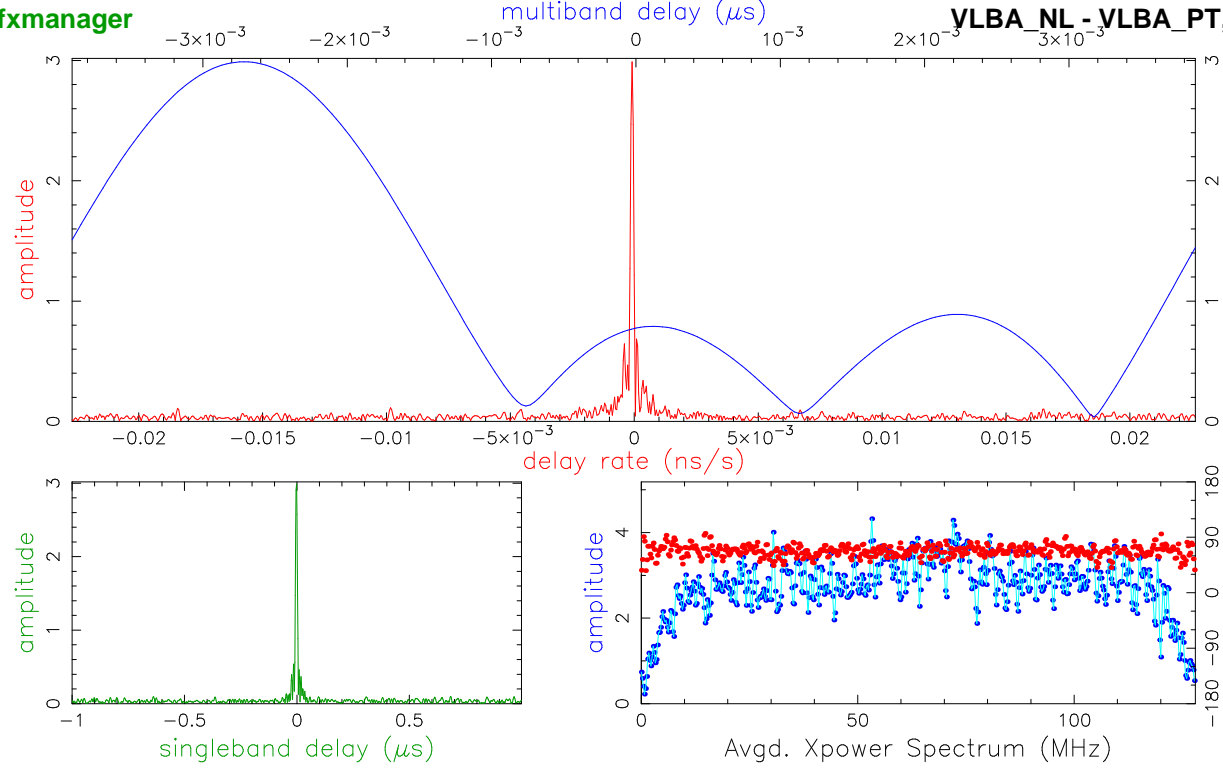
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/np..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/np.Q.120.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, np

VLBA_NL - VLBA_PT, fgroup Q, pol RR

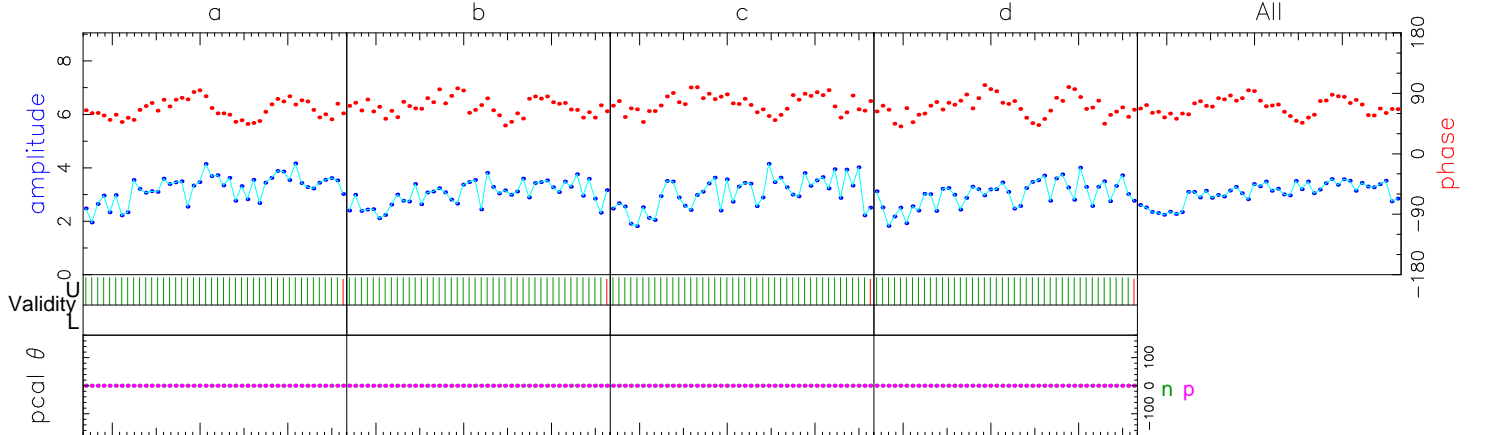


Fringe quality 8

SNR 110.7
 Int time 179.973
 Amp 3.018
 Phase 70.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.002609
 MBD -0.002746
 Fringe rate (Hz)
 -0.003096
 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
 2021:010:163116
 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



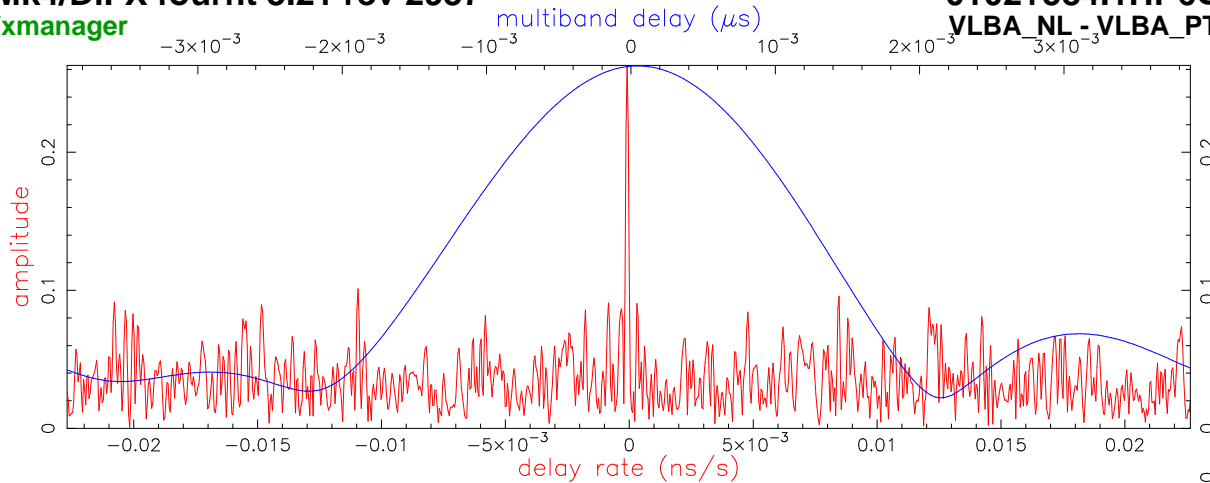
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000		
p	1000	1000	1000	1000		
n:p	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000		
p	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UR	Q01UR	Q02UR	Q03UR		
Group delay (usec)(sbd)	1.32880481222E+03			1.32880755808E+03	-2.74586E-03	+/- 1.0E-05
Sband delay (usec)	1.32880494883E+03			8.3310127E-02	-2.60925E-03	+/- 3.9E-05
Phase delay (usec)	1.32880756263E+03			1.0000003E-07	4.55226E-06	+/- 6.7E-08
Delay rate (us/s)	-1.90711633154E-01			-1.90711561216E-01	-7.19375E-08	+/- 6.4E-10
Total phase (deg)		178.5		2.78802414035E-06	70.5	+/- 1.0
Apriori delay (usec)						
Apriori clock (usec)						
Apriori clockrate (us/s)						
Apriori rate (us/s)						
Apriori accel (us/s/s)						
Search (1024X16)						
Interp.						
Inc. seg. avg.						
Inc. frq. avg.						
Amplitude						
3.018 +/- 0.027						
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						
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
n: az 360.5 el 73.3 pa -179.4						
p: az 19.7 el 63.3 pa -148.5						
u,v (fr/asec) 1046.269 408.192						
Control file: cf_1234_gmva7mm						
Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/np..1HP6Q8						
Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/np.Q.140.1HP6Q8						

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

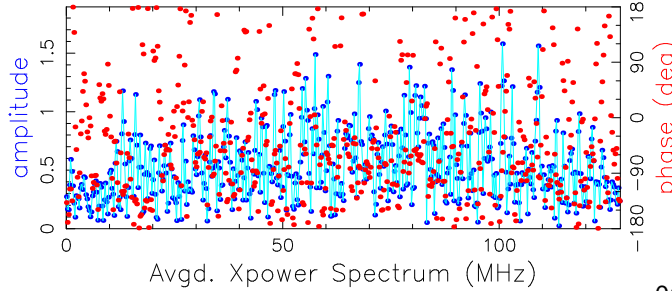
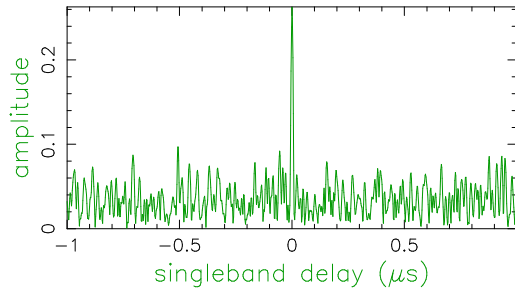
0102+584.1HP6Q8, No0090, np

VLBA_NL - VLBA_PT, fgroup Q, pol LR



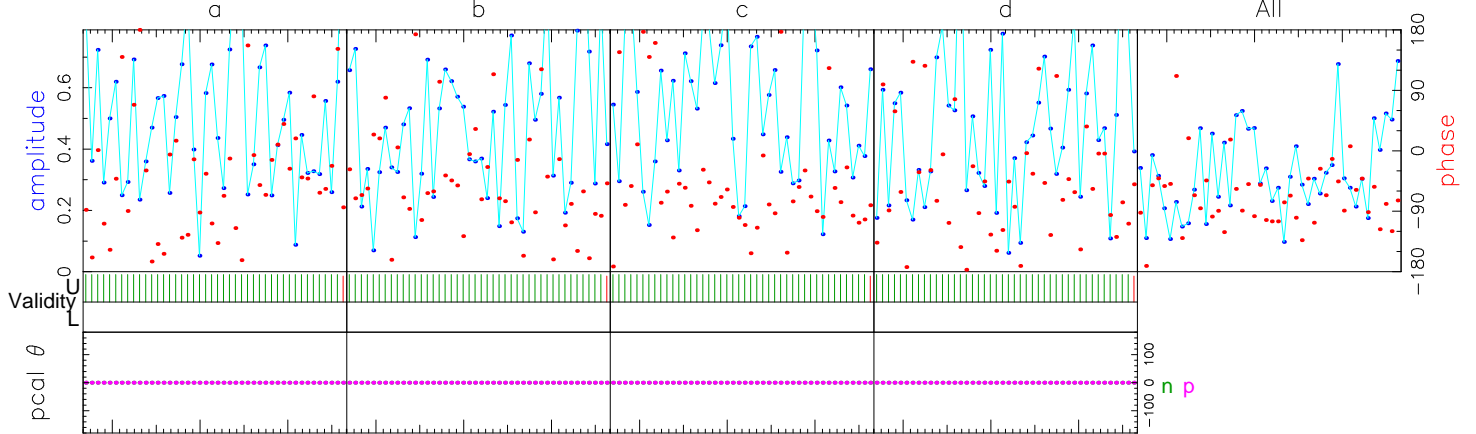
Fringe quality 9

SNR 9.6
 Int time 179.973
 Amp 0.263
 Phase -74.4
 PFD 1.0e-13
 Delays (us)
 SBD 0.000284
 MBD 0.000052
 Fringe rate (Hz)
 -0.003579
 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
 2021:010:163117
 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
	-77.3	-65.7	-79.4	-72.4	Phase	-74.4
	0.2	0.2	0.4	0.2	Ampl.	0.3
	514.3	513.0	512.7	484.8	Sbd box	513.1
U/L	352/0	352/0	352/0	352/0	APs used	
n	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
n:p	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	ManI PC	
n	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.32880761050E+03	Apriori delay (usec)	1.32880755808E+03	Resid mbdelay (usec)	5.24209E-05	+/-	1.2E-04
Sband delay (usec)	1.32880784196E+03	Apriori clock (usec)	8.3310127E-02	Resid sbdelay (usec)	2.83875E-04	+/-	4.5E-04
Phase delay (usec)	1.32880755328E+03	Apriori clockrate (us/s)	1.0000003E-07	Resid phdelay (usec)	-4.79872E-06	+/-	7.7E-07
Delay rate (us/s)	-1.90711644374E-01	Apriori rate (us/s)	-1.90711561216E-01	Resid rate (us/s)	-8.31576E-08	+/-	7.4E-09
Total phase (deg)	33.6	Apriori accel (us/s/s)	2.78802414035E-06	Resid phase (deg)	-74.4	+/-	11.9

ph/seg (deg)	47.2	Theor.	39.4	Amplitude	0.263 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	58.8	Search (1024X16)	0.261	Search	0.261	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	7.5	Inc. seg. avg.	0.264	Inc. seg. avg.	0.264	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	24.0	Inc. frq. avg.	0.258	Inc. frq. avg.	0.258	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
n: az 360.5 el 73.3 pa -179.4		p: az 19.7 el 63.3 pa -148.5		u, v (fr/asec)	1046.269 408.192	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite
Control file: cf_1234_gmva7mm		Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/np..1HP6Q8		Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/np.Q.153.1HP6Q8		ion window (TEC)	0.00 0.00

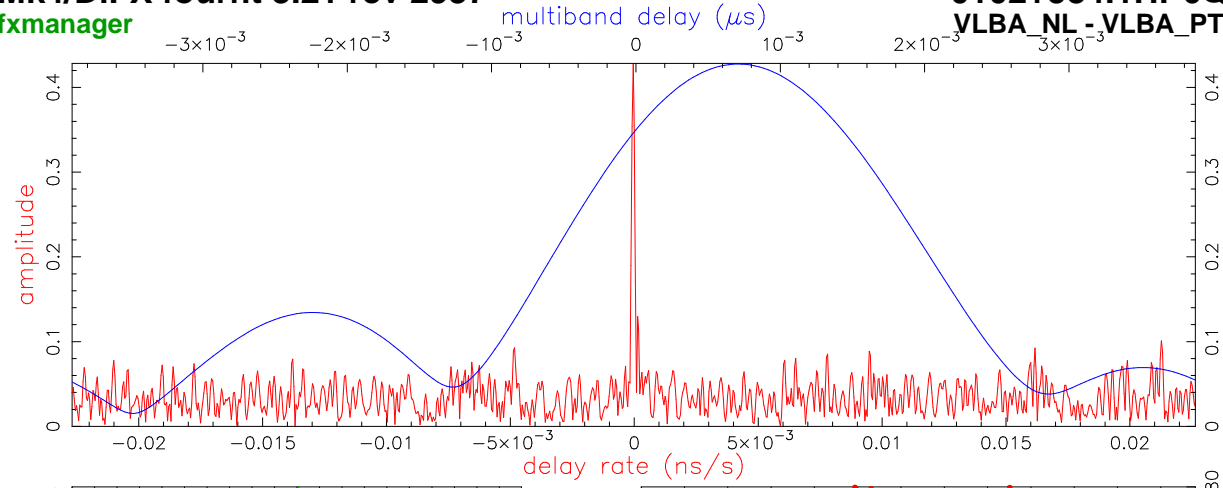
simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

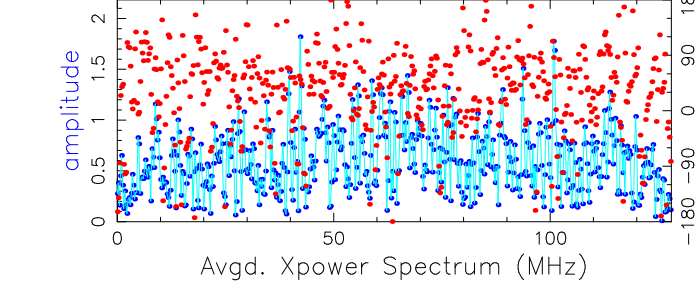
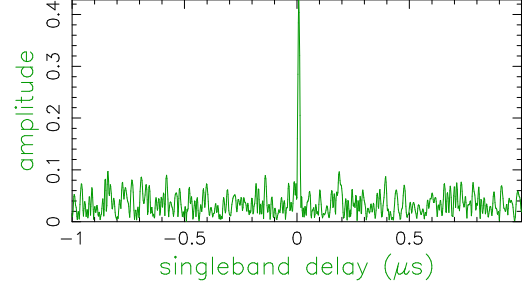
fxmanager

0102+584.1HP6Q8, No0090, np

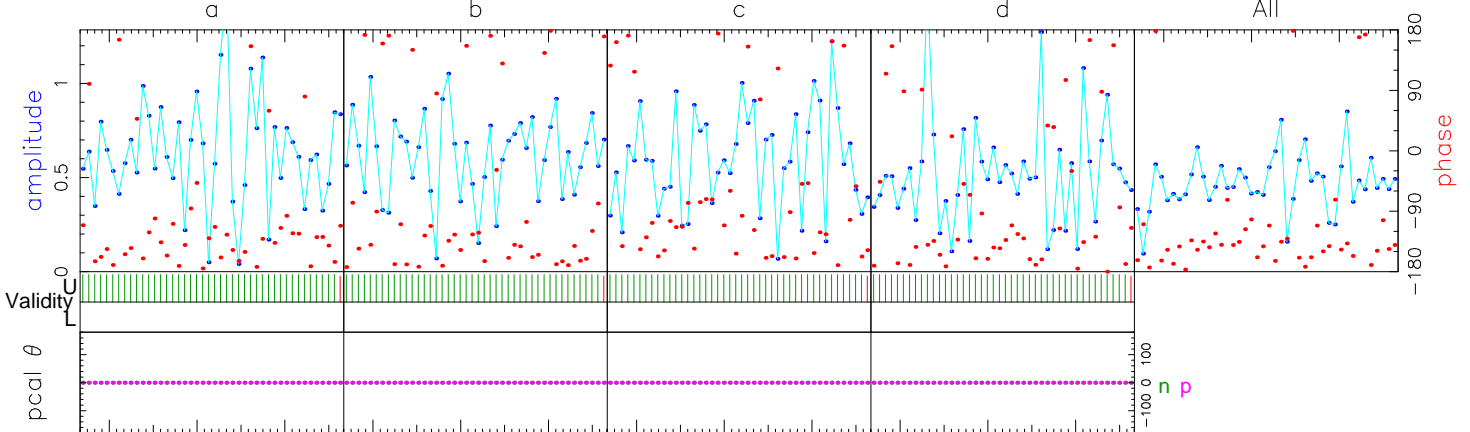
VLBA_NL - VLBA_PT, fgroup Q, pol RL



Fringe quality 9
 SNR 15.7
 Int time 179.973
 Amp 0.428
 Phase -145.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.008105
 MBD 0.000726
 Fringe rate (Hz) -0.002795
 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
 2021:010:163118
 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
-142.0	-153.1	-137.7	-150.5	Phase	-145.8
0.5	0.5	0.4	0.3	Ampl.	0.4
517.3	517.2	517.6	516.4	Sbd box	517.1
U/L 352/0	352/0	352/0	352/0	APs used	
n 1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	PC freqs	
n:p 0:0	0:0	0:0	0:0	PC phase	
n:p 0:0	0:0	0:0	0:0	ManI PC	
n 1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000		
n Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	1.32881609692E+03	Apriori delay (usec)	1.32880755808E+03	Resid mbdelay (usec)	7.26335E-04 +/- 7.1E-05
Sband delay (usec)	1.32881566333E+03	Apriori clock (usec)	8.3310127E-02	Resid sbdelay (usec)	8.10525E-03 +/- 2.7E-04
Phase delay (usec)	1.32880754867E+03	Apriori clockrate (us/s)	1.0000003E-07	Resid phdelay (usec)	-9.41204E-06 +/- 4.7E-07
Delay rate (us/s)	-1.90711626160E-01	Apriori rate (us/s)	-1.90711561216E-01	Resid rate (us/s)	-6.49434E-08 +/- 4.5E-09
Total phase (deg)	-37.9	Apriori accel (us/s/s)	2.78802414035E-06	Resid phase (deg)	-145.8 +/- 7.3

ph/seg (deg) 26.9 24.2 Amplitude 0.428 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 34.7 42.2 Search (1024X16) 0.404 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 8.8 7.3 Inc. seg. avg. 0.433 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
 amp/frq (%) 16.5 12.7 Inc. frq. avg. 0.427 Sample rate(MISamp/s): 256 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite dr window (ns/s) -0.023 0.023
 n: az 360.5 el 73.3 pa -179.4 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) 1046.269 408.192 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/np..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/np.Q.163.1HP6Q8