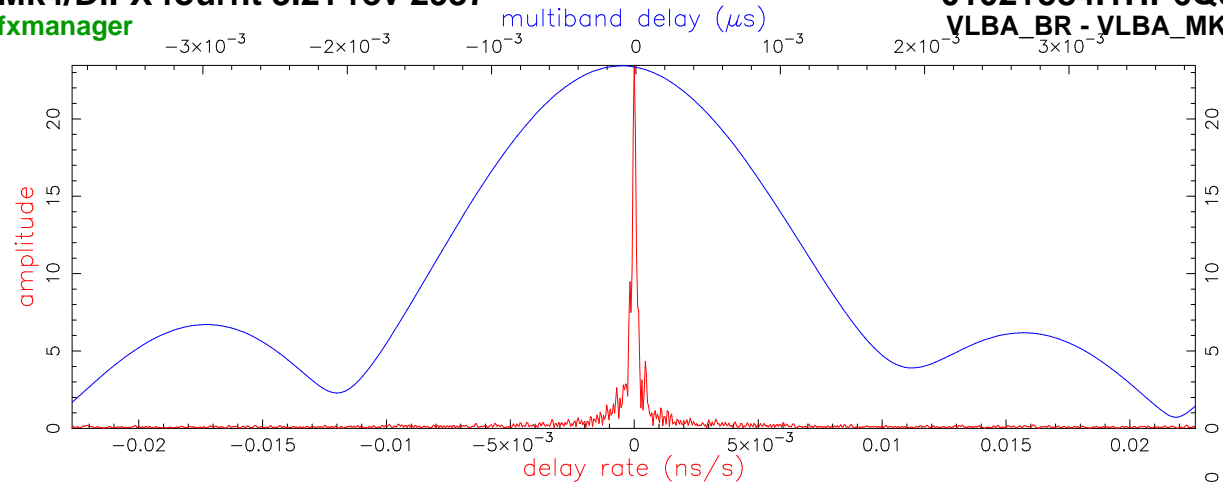


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

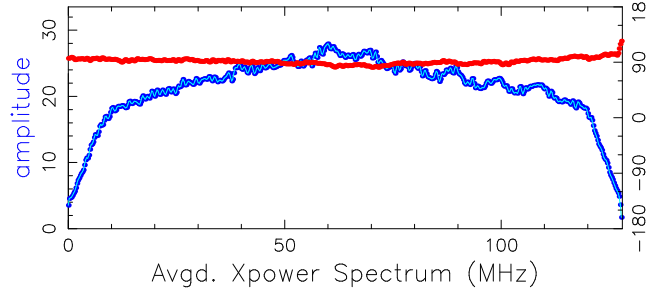
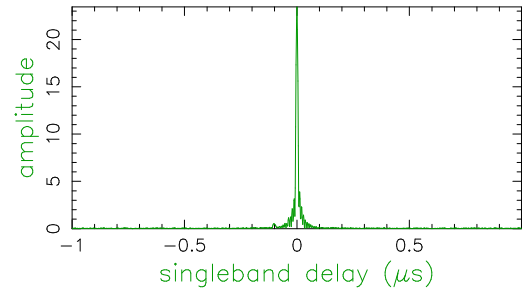
0102+584.1HP6Q8, No0090, bm

VLBA_BR - VLBA_MK, fgroup Q, pol LL



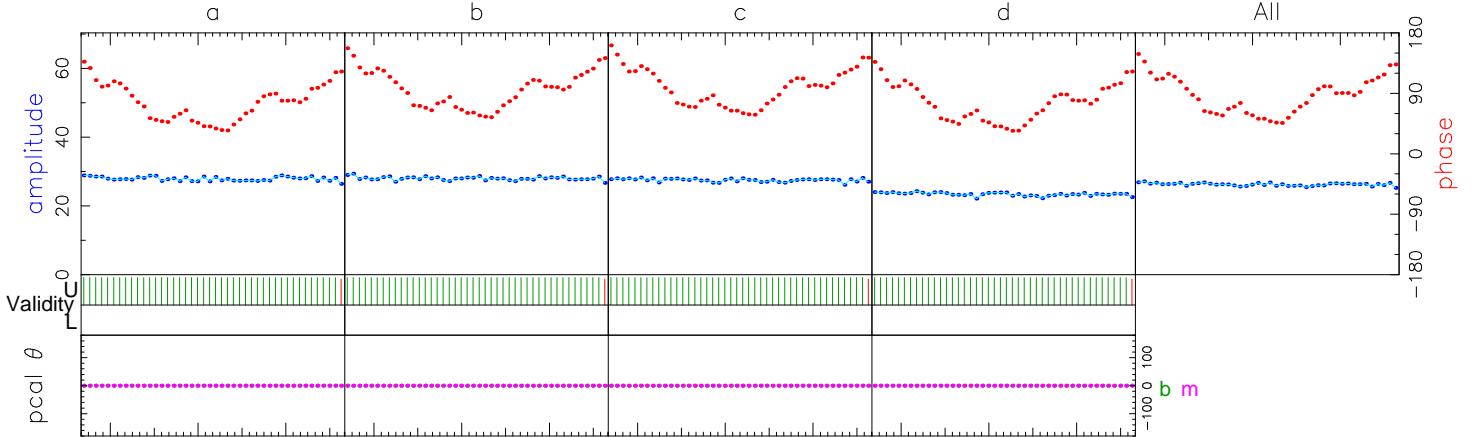
Fringe quality 6

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



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

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



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

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

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

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

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

Mk4/DiFX fourfit 3.21 rev 2937

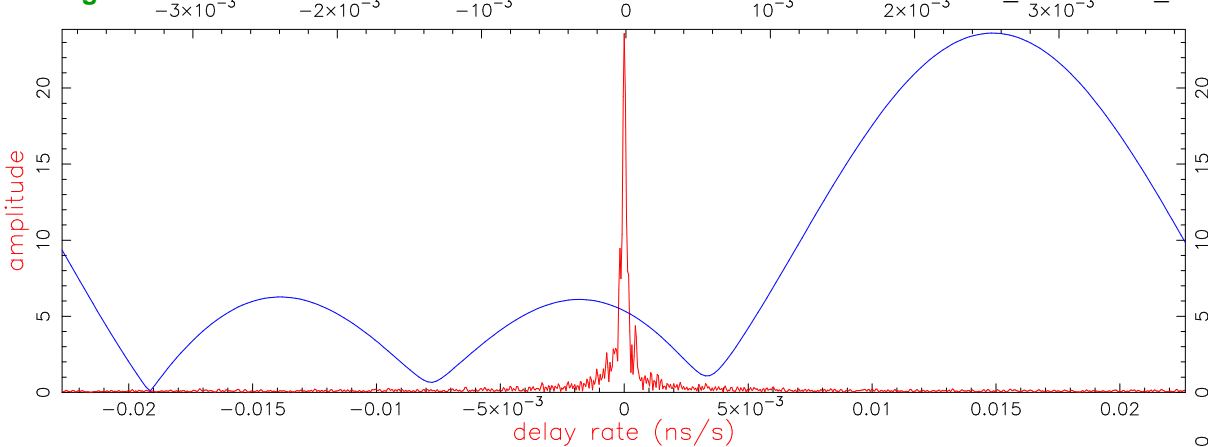
fxmanager

0102+584.1HP6Q8, No0090, bm

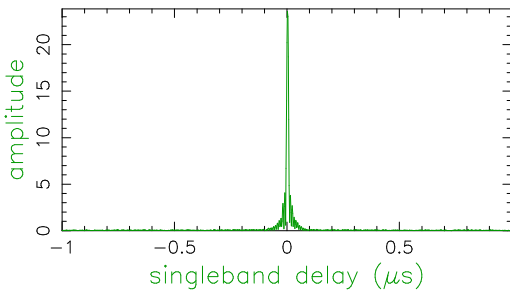
VLBA_BR - VLBA_MK, fgroup Q, pol RR

multiband delay (μ s)

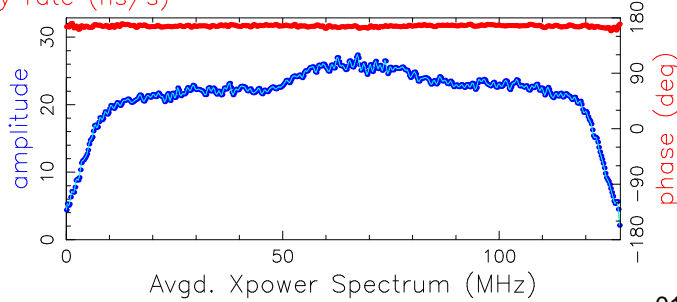
Fringe quality 7



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

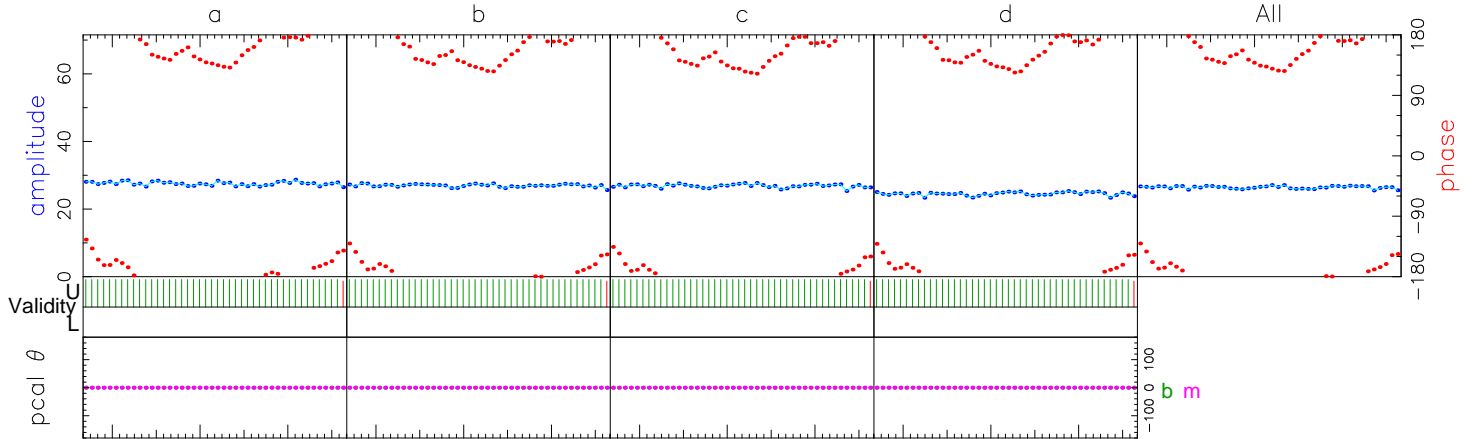


singleband delay (μ s)



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

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



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

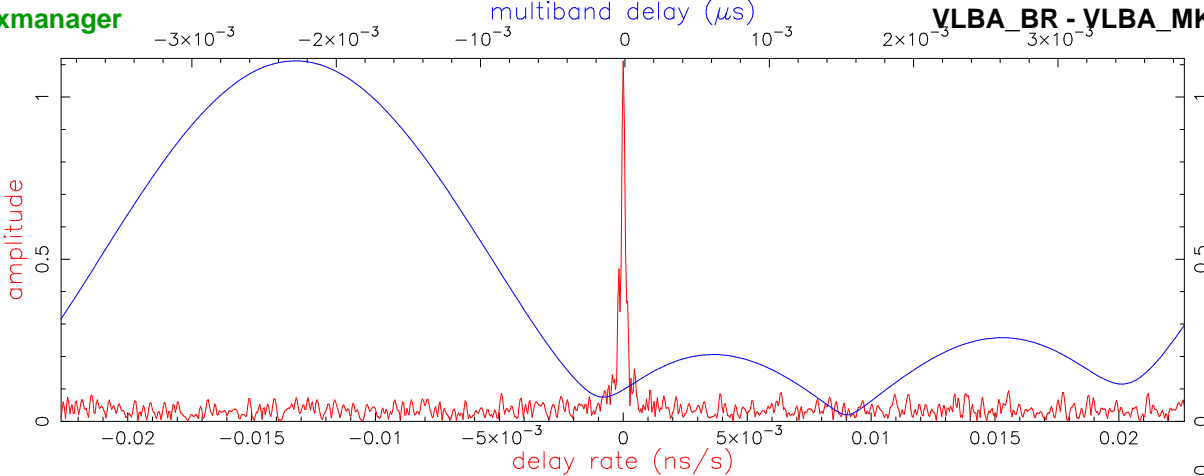
ph/seg (deg) 27.2 0.4 Amplitude 23.855 +/- 0.027
 amp/seg (%) 11.1 0.8 Interp. 0.000
 ph/frq (deg) 4.3 0.1 Inc. seg. avg. 26.463
 amp/frq (%) 4.5 0.2 Inc. frq. avg. 23.625
 b: az 47.6 el 70.3 pa -109.3 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2351.295 267.104 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm.Q.22.1HP6Q8

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fxmanager

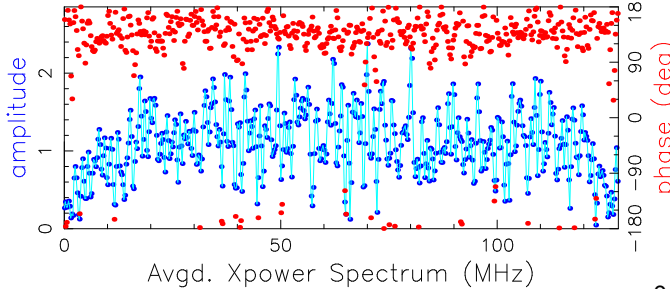
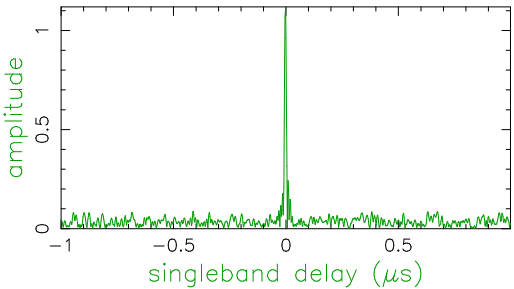
0102+584.1HP6Q8, No0090, bm

VLBA_BR - VLBA_MK, fgroup Q, pol LR



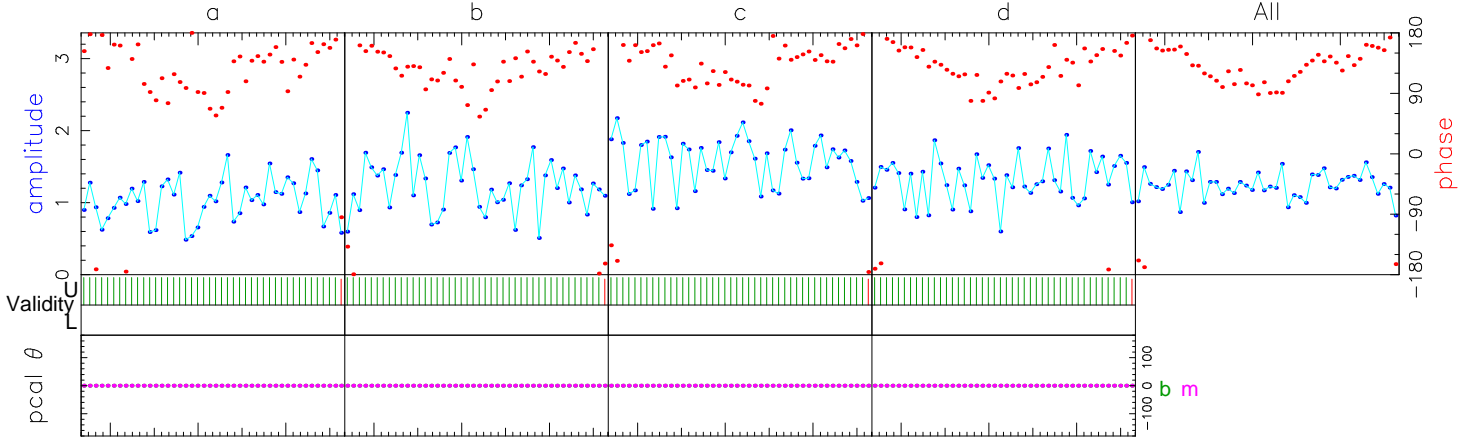
Fringe quality 8

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



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

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



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

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

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

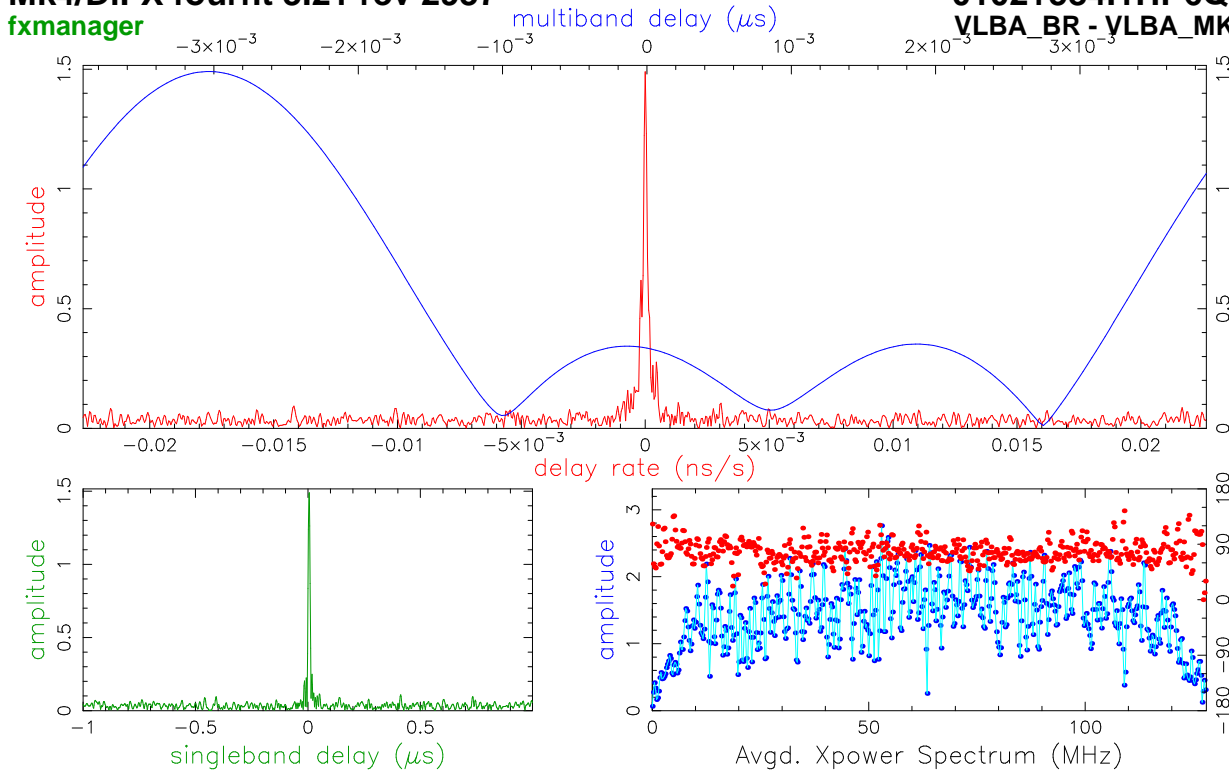
b: az 47.6 el 70.3 pa -109.3 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2351.295 267.104 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm.Q.39.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bm

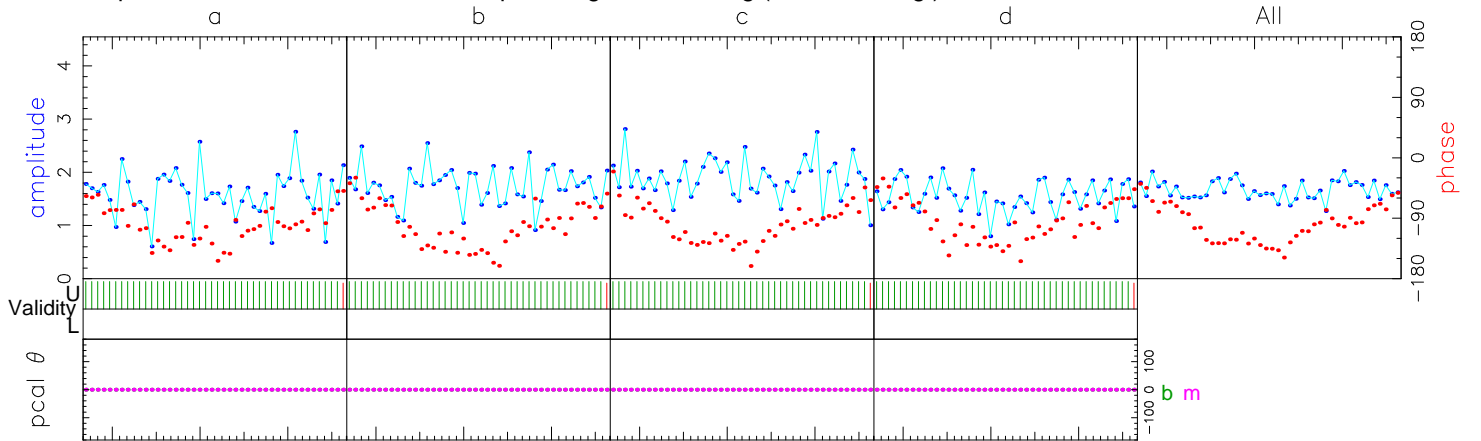
VLBA_BR - VLBA_MK, fgroup Q, pol RL



Fringe quality 8

SNR 55.6
 Int time 179.974
 Amp 1.516
 Phase -98.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.004951
 MBD -0.003081
 Fringe rate (Hz) 0.000698
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163106
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



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

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

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

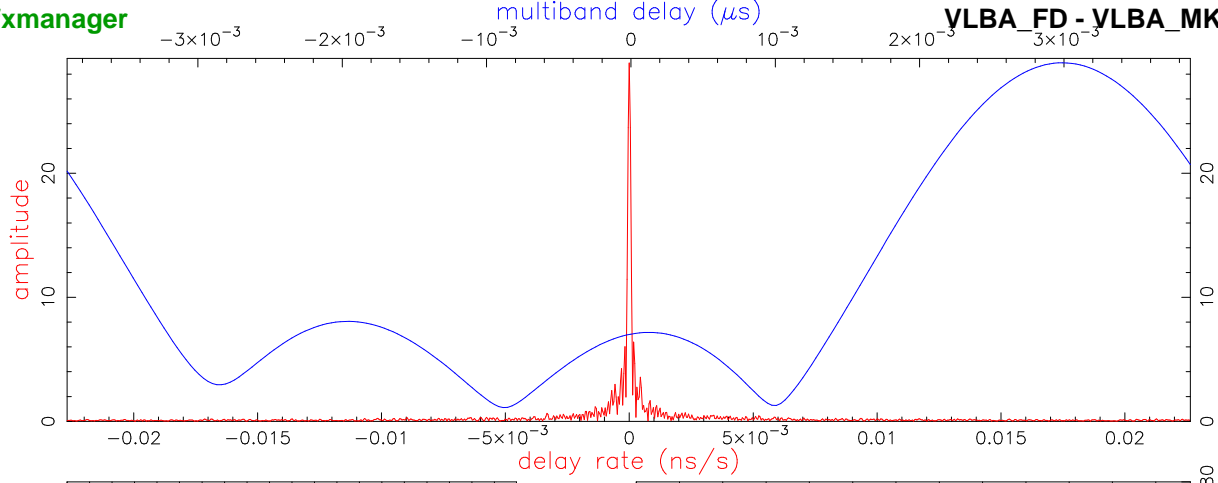
b: az 47.6 el 70.3 pa -109.3 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2351.295 267.104 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bm.Q.63.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

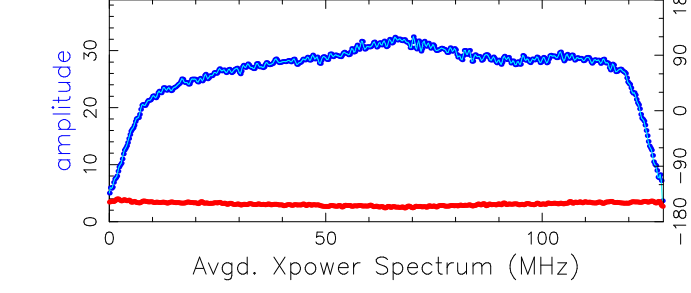
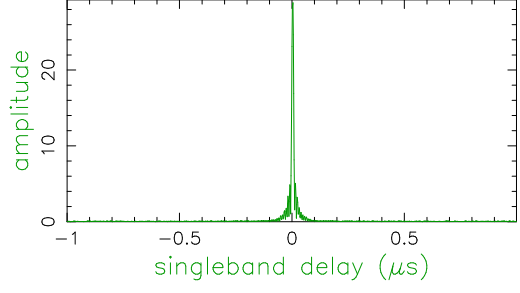
fxmanager

0102+584.1HP6Q8, No0090, fm

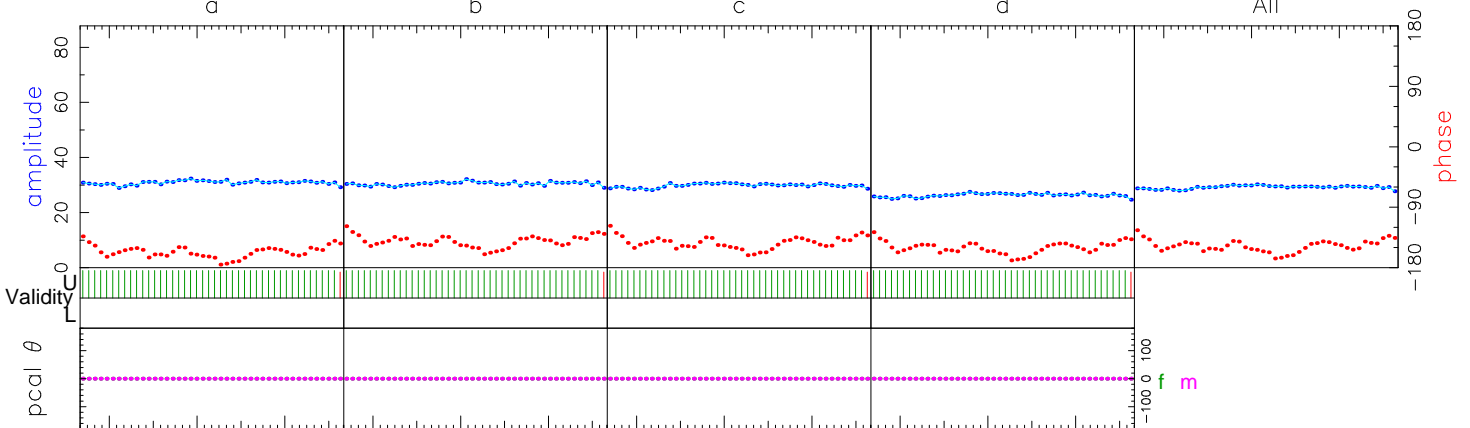
VLBA_FD - VLBA_MK, fgroup Q, pol LL



Fringe quality 9
 SNR 1073.7
 Int time 179.975
 Amp 29.267
 Phase -147.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.003152
 MBD 0.002946
 Fringe rate (Hz)
 -0.000727
 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	PC freqs	
m	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	PC phase	
f:m	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	7.78484336842E+03	7.78484042192E+03	7.78484042192E+03	7.78484042192E+03	2.94650E-03	+/- 1.0E-06
Group delay (usec)(sbd)	7.78484336842E+03	7.78484042192E+03	7.78484042192E+03	7.78484042192E+03	2.94650E-03	+/- 1.0E-06
Sband delay (usec)	7.78484357380E+03	-5.5260735E+00	-5.5260735E+00	-5.5260735E+00	3.15187E-03	+/- 4.0E-06
Phase delay (usec)	7.78484041240E+03	2.9999999E-07	2.9999999E-07	2.9999999E-07	-9.52323E-06	+/- 6.9E-09
Delay rate (us/s)	-5.37283041904E-01	-5.37283025015E-01	-5.37283025015E-01	-5.37283025015E-01	-1.68896E-08	+/- 6.6E-11
Total phase (deg)	125.9	-2.50337602579E-05	-2.50337602579E-05	-2.50337602579E-05	-147.6	+/- 0.1

	RMS	Theor.	Amplitude	29.267 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	8.7	0.4	Search (1024X16)	28.078	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	2.0	0.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	8.8	0.1	Inc. seg. avg.	29.224	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	6.2	0.2	Inc. frq. avg.	29.068	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 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2927.206 -1230.321 simultaneous interpolator

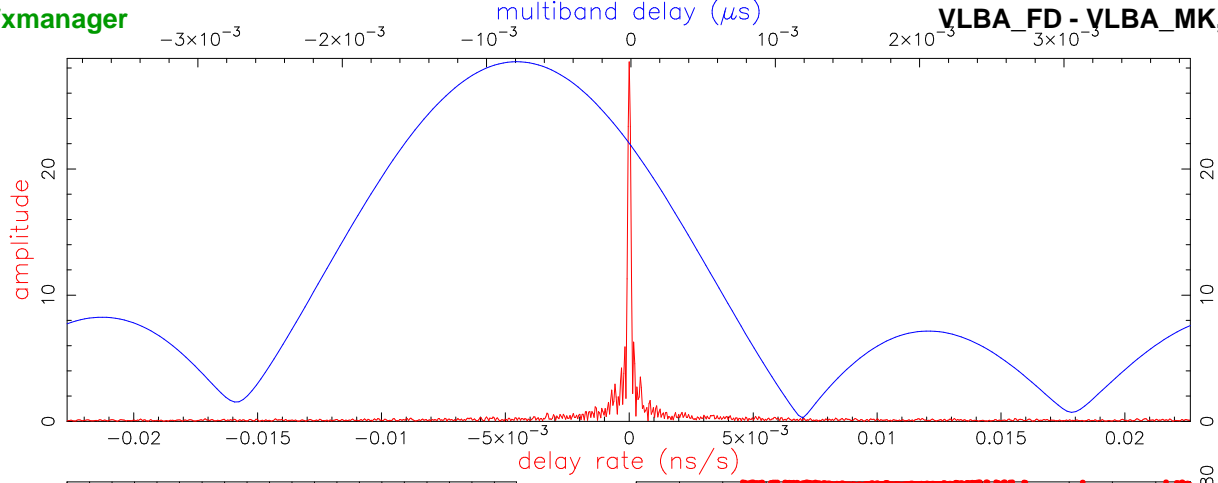
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm.Q.18.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, fm

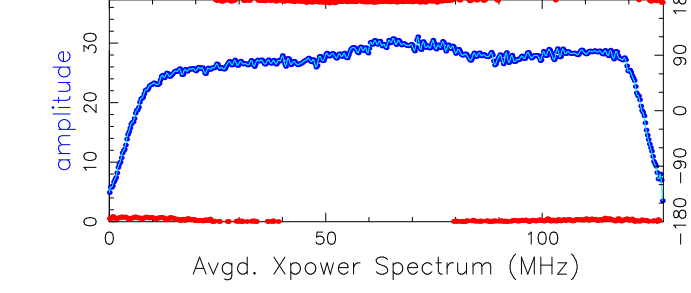
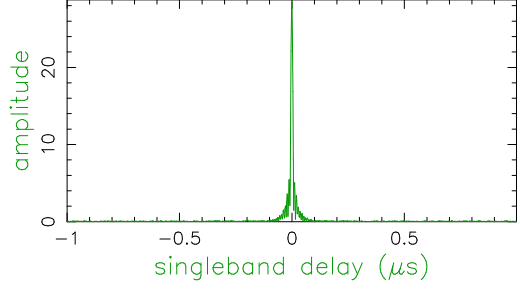
VLBA_FD - VLBA_MK, fgroup Q, pol RR



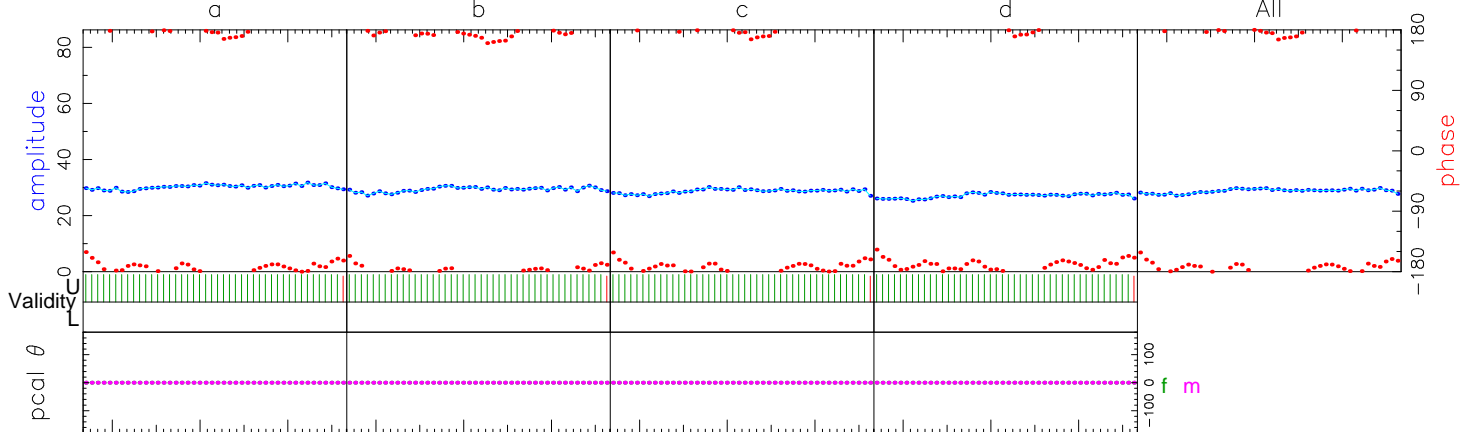
Fringe quality 9

SNR 1055.2
 Int time 179.975
 Amp 28.763
 Phase -175.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.000647
 MBD -0.000830
 Fringe rate (Hz)
 -0.000697
 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



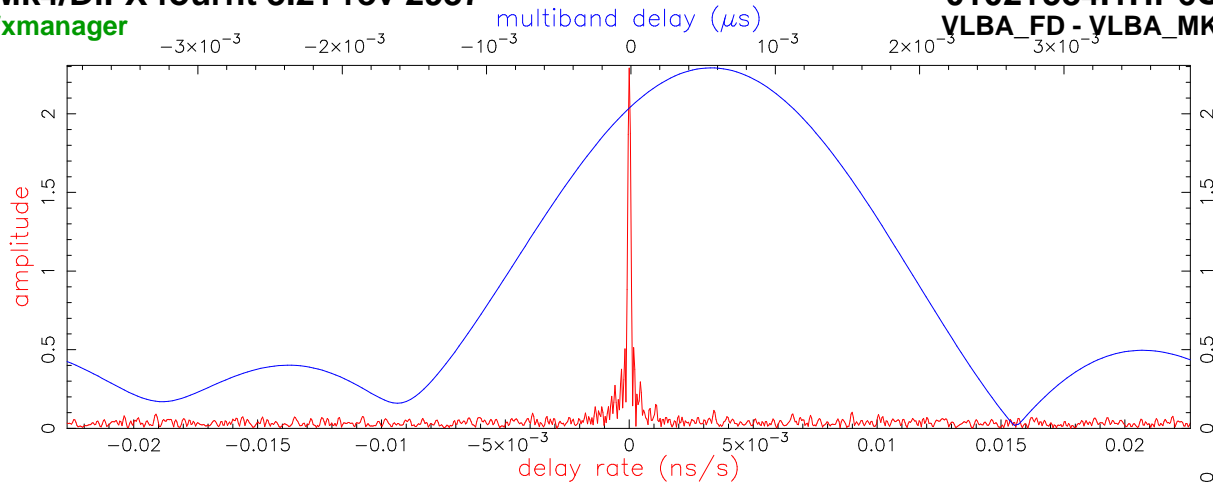
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	APs used	
m	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	PC phase	
f:m	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UR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

	7.78483959236E+03	7.78484042192E+03	7.78484042192E+03	7.78484042192E+03	Resid mbdelay (usec)	-8.29562E-04	+/- 1.1E-06
Group delay (usec)(sbd)	7.78483977505E+03	7.78484041058E+03	7.78484041058E+03	7.78484041058E+03	Resid sbdelay (usec)	-6.46875E-04	+/- 4.1E-06
Sband delay (usec)	7.78484041058E+03	7.78484041058E+03	7.78484041058E+03	7.78484041058E+03	Resid phdelay (usec)	-1.13376E-05	+/- 7.0E-09
Phase delay (usec)	-5.37283041206E-01	-5.37283041206E-01	-5.37283041206E-01	-5.37283041206E-01	Resid rate (us/s)	-1.61919E-08	+/- 6.7E-11
Delay rate (us/s)	97.7	97.7	97.7	97.7	Resid phase (deg)	-175.7	+/- 0.1
Total phase (deg)							

	RMS	Theor.	Amplitude	28.763 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	8.7	0.4	Search (1024X16)	27.392	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	2.6	0.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	5.1	0.1	Inc. seg. avg.	28.812	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.0	0.2	Inc. frq. avg.	28.541	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 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2927.206 -1230.321 simultaneous interpolator

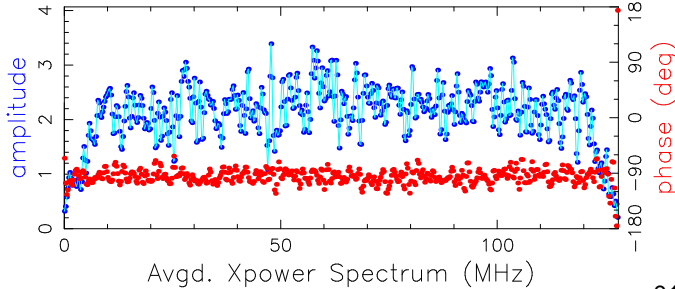
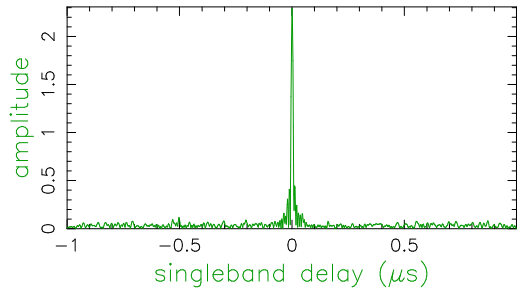
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm.Q.35.1HP6Q8



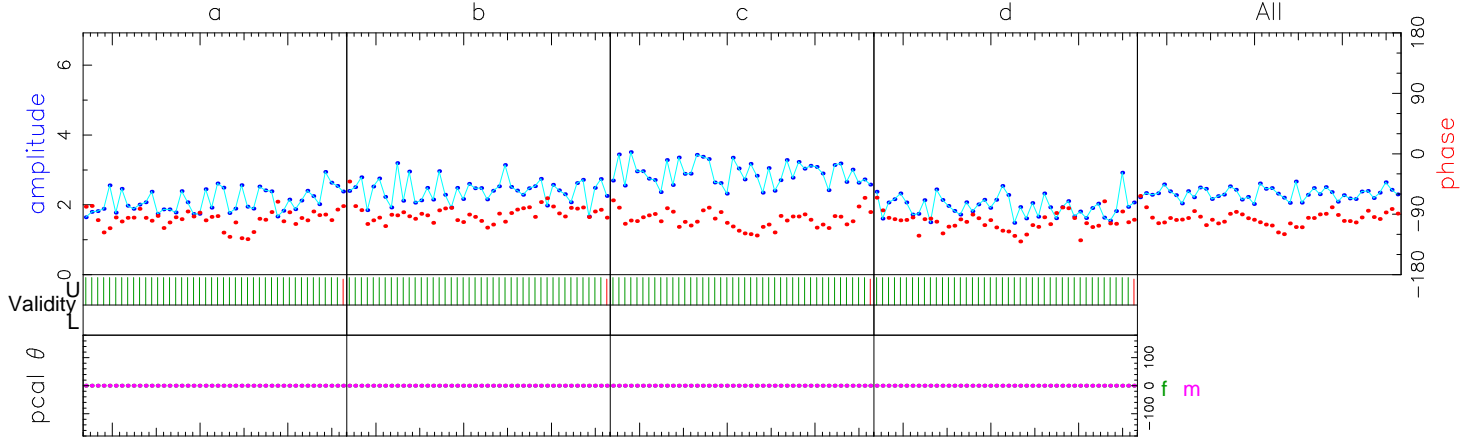
Fringe quality 9

SNR 84.7
Int time 179.975
Amp 2.308
Phase -96.0
PFD 0.0e+00
Delays (us)
SBD 0.000565
MBD 0.000601
Fringe rate (Hz)
-0.000698
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

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



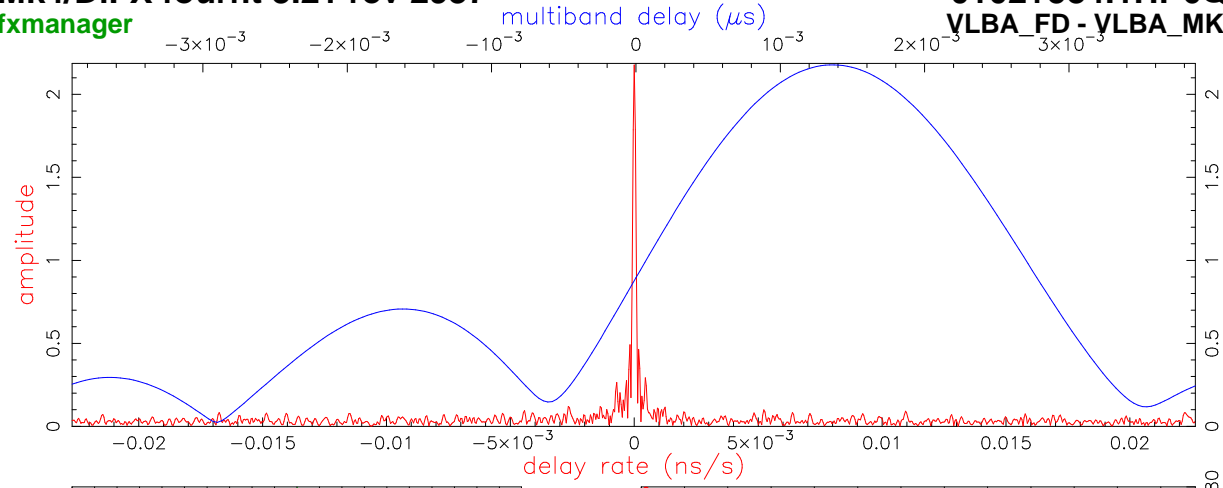
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



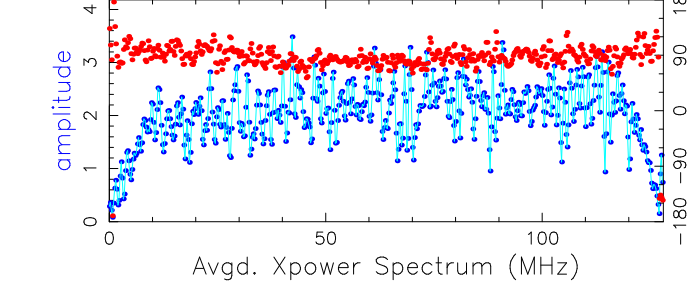
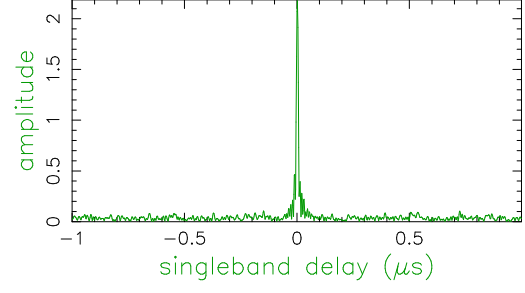
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-97.2	-88.9	-97.5	-101.1	Phase	-96.0
	2.1	2.4	2.8	1.9	Ampl.	2.3
	513.2	513.4	513.0	513.8	Sbd box	513.3
U/L	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	PC phase	
f:m	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

	7.78484102283E+03	Apriori delay (usec)	7.78484042192E+03	Resid mbdelay (usec)	6.00906E-04	+/- 1.3E-05
Group delay (usec)(sbd)	7.78484098730E+03	Apriori clock (usec)	-5.5260735E+00	Resid sbdelay (usec)	5.65375E-04	+/- 5.1E-05
Sband delay (usec)	7.78484041573E+03	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-6.19322E-06	+/- 8.7E-08
Phase delay (usec)	-5.37283041241E-01	Apriori rate (us/s)	-5.37283025015E-01	Resid rate (us/s)	-1.62259E-08	+/- 8.4E-10
Delay rate (us/s)		Apriori accel (us/s/s)	-2.50337602579E-05	Resid phase (deg)	-96.0	+/- 1.4
Total phase (deg)	177.5					

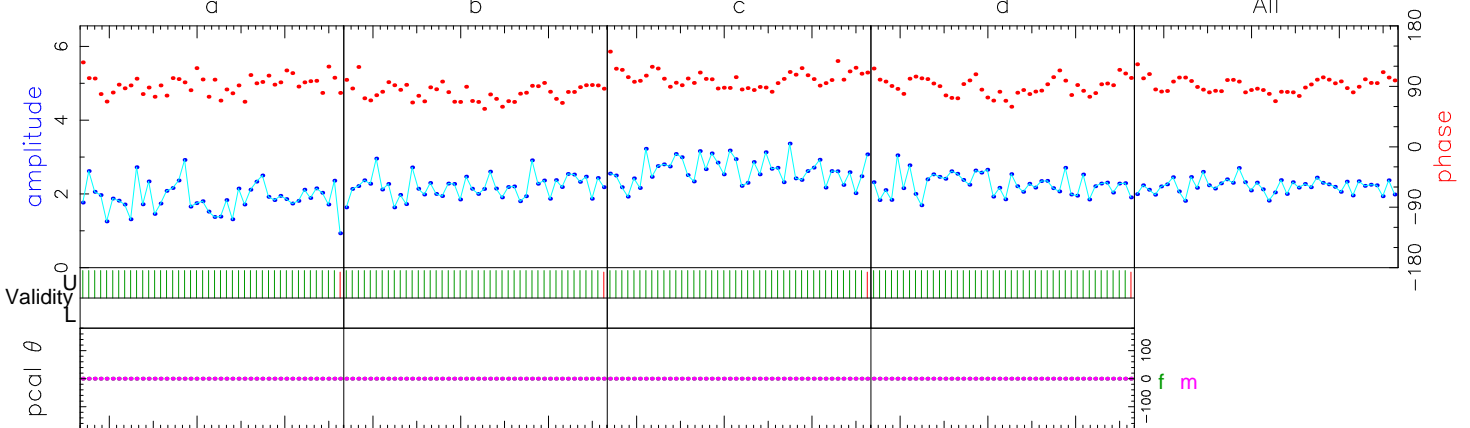
	RMS	Theor.	Amplitude	2.308 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	10.1	4.5	Search (1024X16)	2.229	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	7.0	7.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	6.3	1.4	Inc. seg. avg.	2.319	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	15.4	2.4	Inc. frq. avg.	2.297	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			m: az 32.9 el 30.2 pa -101.9			u,v (fr/asec) 2927.206 -1230.321
						simultaneous interpolator



Fringe quality 9
SNR 80.2
Int time 179.975
Amp 2.187
Phase 91.8
PFD 0.0e+00
Delays (us)
SBD 0.001520
MBD 0.001338
Fringe rate (Hz)
-0.000687
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 055640.00
Stop 055940.22
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163107
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



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



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

	7.78484175992E+03	Apriori delay (usec)	7.78484042192E+03	Resid mbdelay (usec)	1.33800E-03	+/- 1.4E-05
Group delay (usec)(sbd)	7.78484194205E+03	Apriori clock (usec)	-5.5260735E+00	Resid sbdelay (usec)	1.52012E-03	+/- 5.4E-05
Sband delay (usec)	7.78484042785E+03	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	5.92399E-06	+/- 9.2E-08
Phase delay (usec)	-5.37283040974E-01	Apriori rate (us/s)	-5.37283025015E-01	Resid rate (us/s)	-1.59593E-08	+/- 8.9E-10
Delay rate (us/s)		Apriori accel (us/s/s)	-2.50337602579E-05	Resid phase (deg)	91.8	+/- 1.4
Total phase (deg)	5.2					

	RMS	Theor.	Amplitude	2.187 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	10.7	4.7	Search (1024X16)	2.116	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	8.5	8.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	10.6	1.4	Inc. seg. avg.	2.206	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	11.8	2.5	Inc. frq. avg.	2.197	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

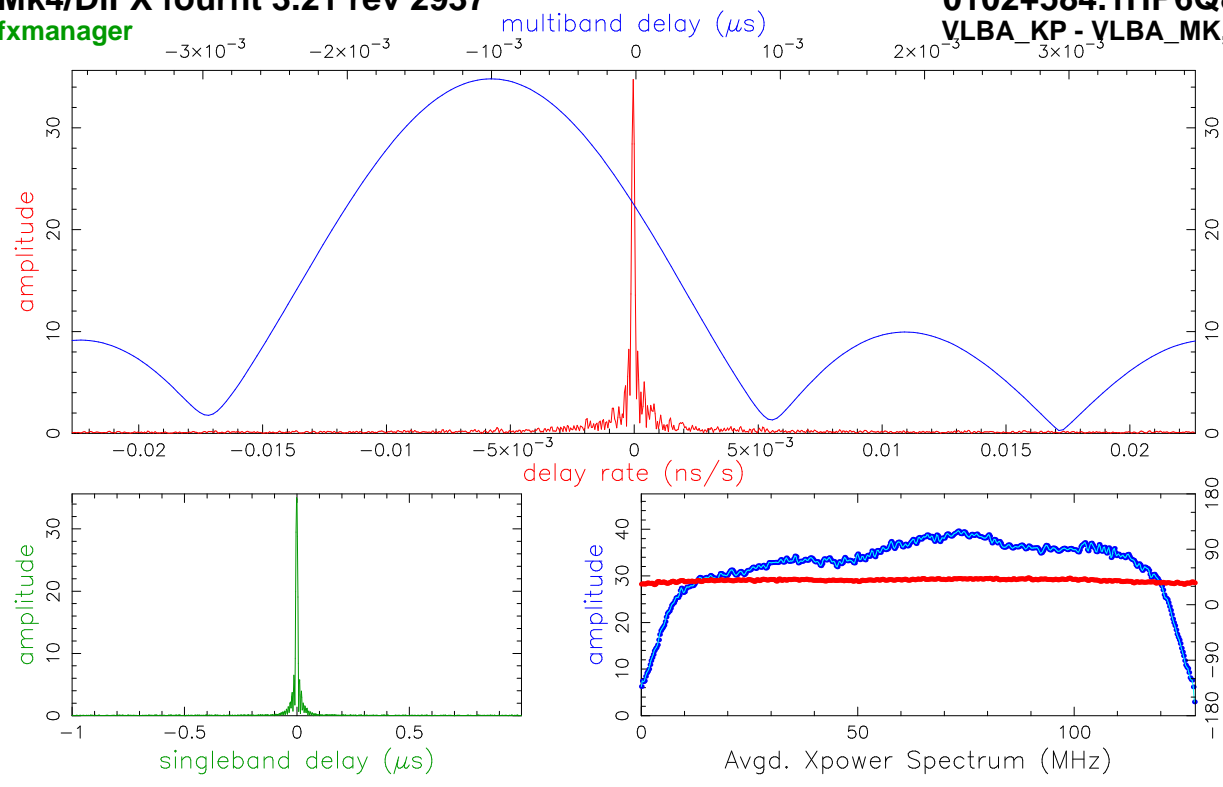
f: az 13.6 el 60.8 pa -157.8 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2927.206 -1230.321 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm.Q.69.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, km

VLBA_KP - VLBA_MK, fgroup Q, pol RR

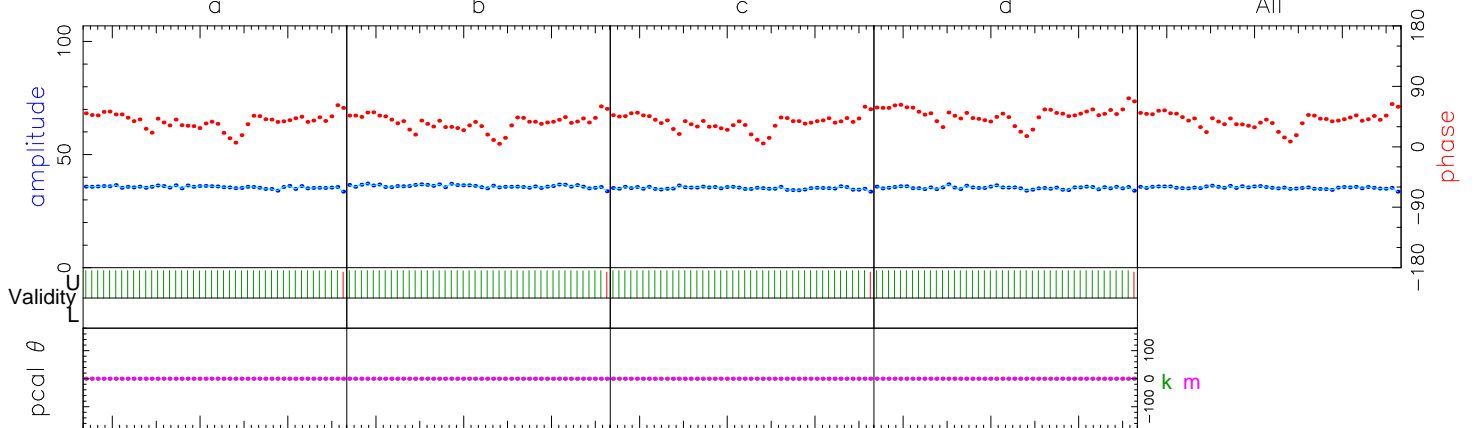


Fringe quality 9

SNR 1306.8
 Int time 179.801
 Amp 35.639
 Phase 39.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.001060
 MBD -0.001068
 Fringe rate (Hz)
 -0.001734
 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		
k	1000	1000	1000	1000		
m	1000	1000	1000	1000		
k:m	0:0	0:0	0:0	0:0		
k:m	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000		
m	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR		
m	Q00UR	Q01UR	Q02UR	Q03UR		
Group delay (usec)(sbd)	7.65814381870E+03	7.65814382665E+03	7.65814488627E+03	7.6581448883E+03	Apriori delay (usec)	34.727
Sband delay (usec)	7.65814382665E+03	7.6581448883E+03	7.6581448883E+03	7.6581448883E+03	Apriori clock (usec)	34.727
Phase delay (usec)	7.6581448883E+03	7.6581448883E+03	7.6581448883E+03	7.6581448883E+03	Apriori clockrate (us/s)	0.000000E+00
Delay rate (us/s)	-4.50792402160E-01	-4.50792402160E-01	-4.50792361863E-01	-4.50792361863E-01	Apriori rate (us/s)	34.882
Total phase (deg)		5.5			Apriori accel (us/s/s)	-2.25037271093E-05
					Resid mbdelay (usec)	-1.06757E-03 +/- 8.5E-07
					Resid sbdelay (usec)	-1.05962E-03 +/- 3.3E-06
					Resid phdelay (usec)	2.55578E-06 +/- 5.7E-09
					Resid rate (us/s)	-4.02968E-08 +/- 5.4E-11
					Resid phase (deg)	39.6 +/- 0.1

ph/seg (deg) 11.1 0.3
 amp/seg (%) 1.5 0.5
 ph/frq (deg) 7.1 0.1
 amp/frq (%) 2.3 0.2

k: az 21.3 el 60.1 pa -144.4
 m: az 32.9 el 30.2 pa -101.9
 u,v (fr/asec) 2454.916 -1019.382

Control file: cf_1234_gmva7mm
 Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/km..1HP6Q8
 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/km.Q.104.1HP6Q8

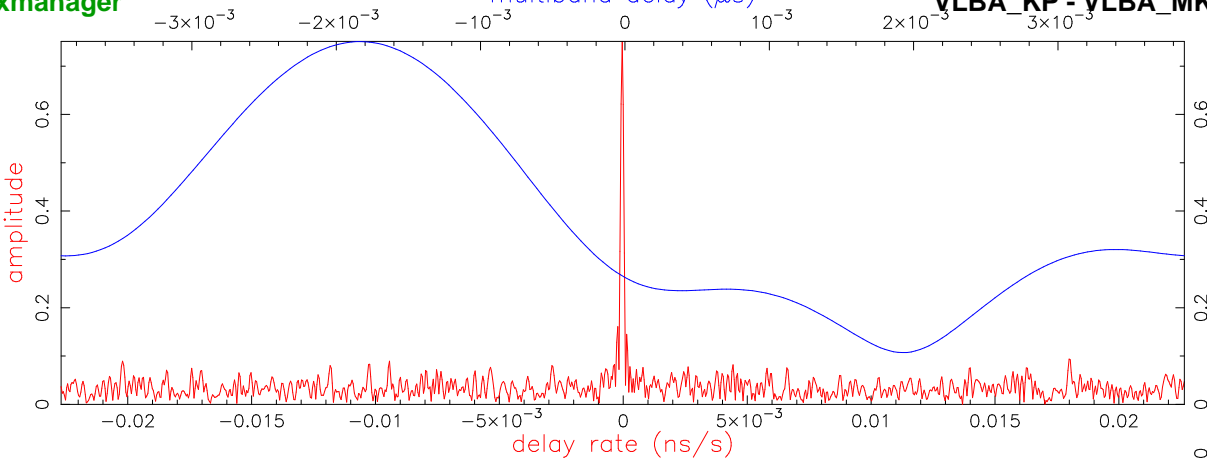
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, km

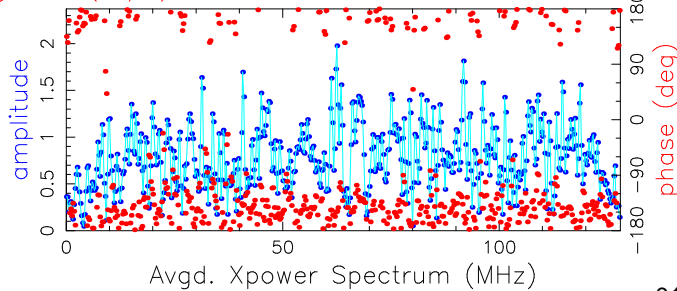
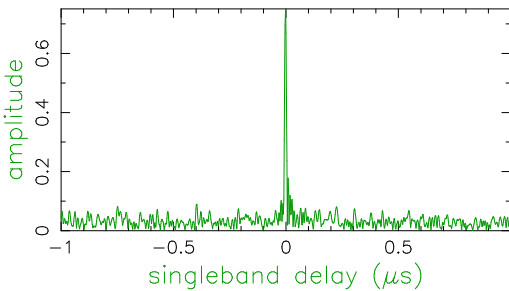
VLBA_KP - VLBA_MK, fgroup Q, pol LR

multiband delay (μ s)



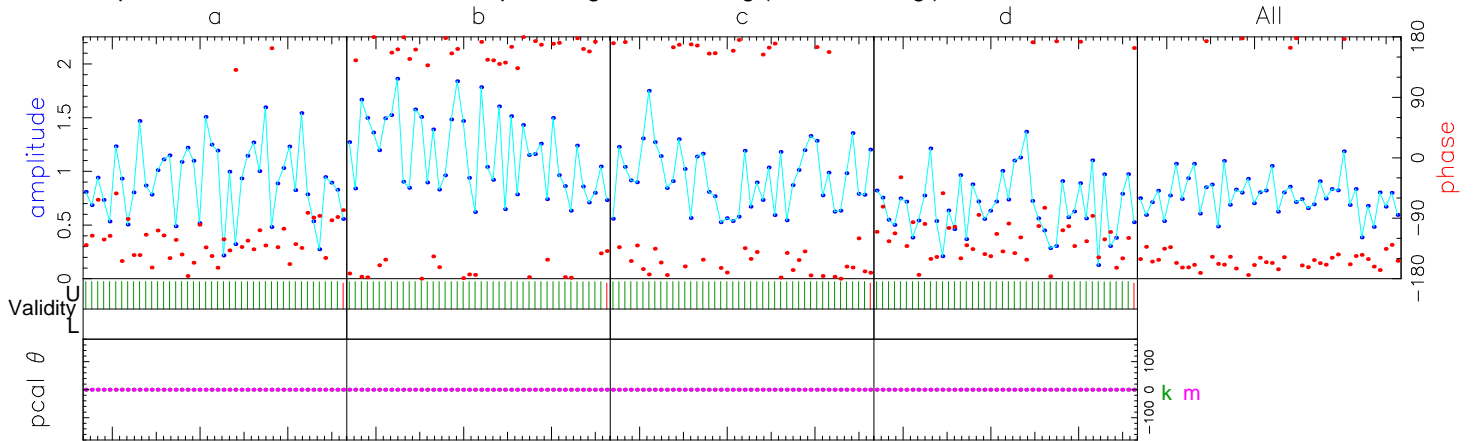
Fringe quality 6

SNR 27.5
 Int time 179.801
 Amp 0.751
 Phase -158.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.002112
 MBD -0.001851
 Fringe rate (Hz)
 -0.001704
 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		
k	1000	1000	1000	1000		
m	1000	1000	1000	1000		
k:m	0:0	0:0	0:0	0:0		
k:m	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000		
m	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL		
m	Q00UR	Q01UR	Q02UR	Q03UR		

	7.65814303505E+03	Apriori delay (usec)	7.65814488627E+03	Resid mbdelay (usec)	-1.85123E-03	+/- 4.0E-05
Sband delay (usec)	7.65814277377E+03	Apriori clock (usec)	-1.3030001E+01	Resid sbdelay (usec)	-2.11250E-03	+/- 1.6E-04
Phase delay (usec)	7.65814487608E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.01951E-05	+/- 2.7E-07
Delay rate (us/s)	-4.50792401448E-01	Apriori rate (us/s)	-4.50792361863E-01	Resid rate (us/s)	-3.95849E-08	+/- 2.6E-09
Total phase (deg)	167.9	Apriori accel (us/s/s)	-2.25037271093E-05	Resid phase (deg)	-158.0	+/- 4.2

	RMS	Theor.	Amplitude	0.751 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	14.5	13.8	Search (1024X16)	0.745	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	22.2	24.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	37.6	4.2	Inc. seg. avg.	0.753	Sample rate(MSamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	27.2	7.3	Inc. frq. avg.	0.834	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 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2454.916 -1019.382 simultaneous interpolator

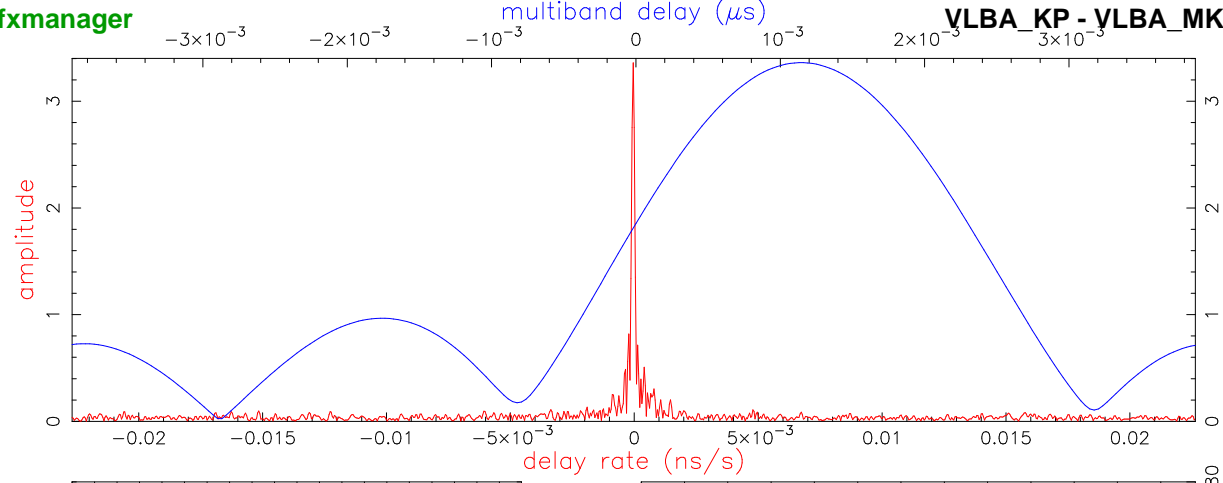
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/km..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/km.Q.134.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, km

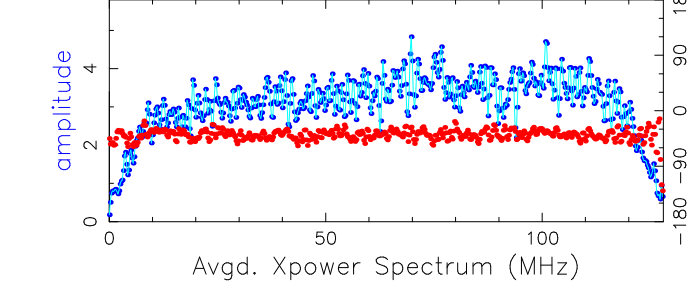
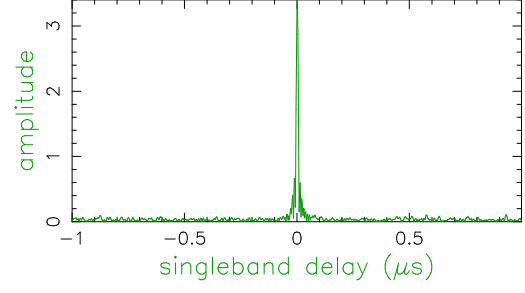
VLBA_KP - VLBA_MK, fgroup Q, pol RL



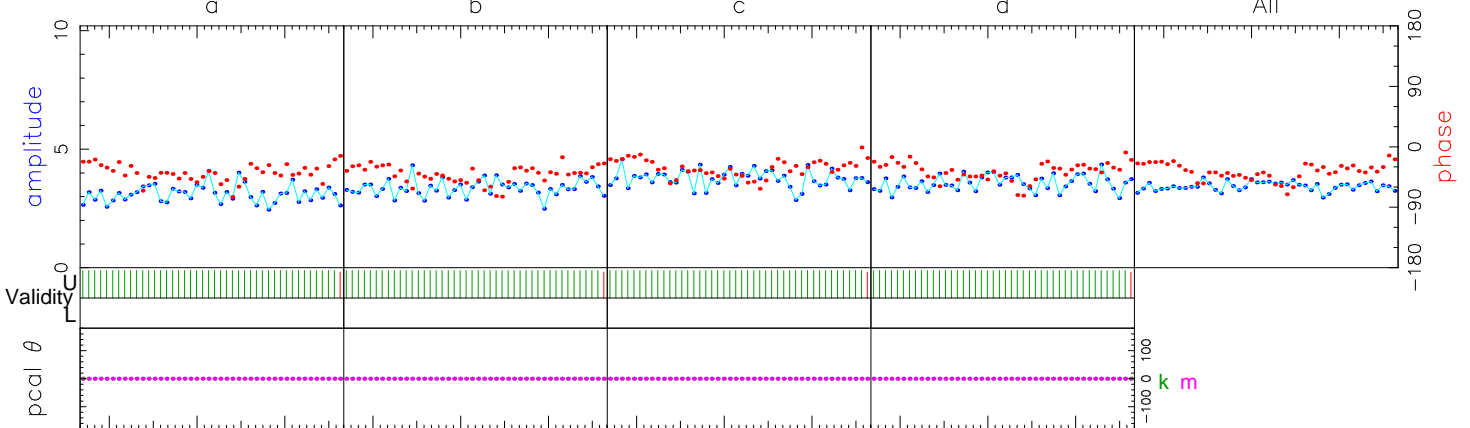
Fringe quality 8

SNR 124.7
 Int time 179.801
 Amp 3.402
 Phase -36.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.001215
 MBD 0.001108
 Fringe rate (Hz)
 -0.001706
 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



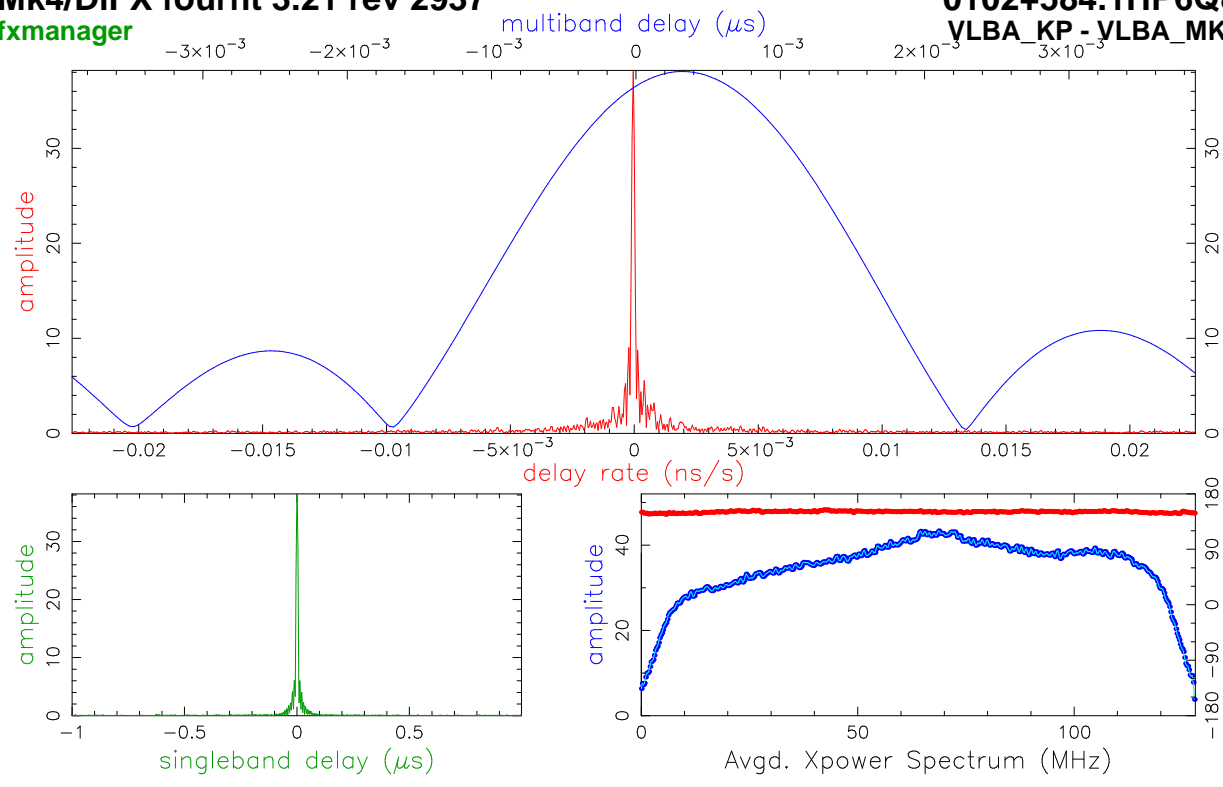
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-38.9	-41.0	-31.8	-36.4	Phase	-36.8
	3.0	3.3	3.7	3.5	Ampl.	3.4
	513.6	513.7	513.6	513.7	Sbd box	513.6
U/L	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
k:m	0:0	0:0	0:0	0:0	PC phase	
k:m	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

	7.65814599445E+03	Apriori delay (usec)	7.65814488627E+03	Resid mbdelay (usec)	1.10818E-03	+/- 8.9E-06
Group delay (usec)(sbd)	7.65814610090E+03	Apriori clock (usec)	-1.3030001E+01	Resid sbdelay (usec)	1.21462E-03	+/- 3.5E-05
Sband delay (usec)	7.65814488390E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.37703E-06	+/- 5.9E-08
Phase delay (usec)	-4.50792401504E-01	Apriori rate (us/s)	-4.50792361863E-01	Resid rate (us/s)	-3.96417E-08	+/- 5.7E-10
Delay rate (us/s)		Apriori accel (us/s/s)	-2.25037271093E-05	Resid phase (deg)	-36.8	+/- 0.9
Total phase (deg)	289.1					

	RMS	Theor.	Amplitude	3.402 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	12.0	3.0	Search (1024X16)	3.314	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	5.4	5.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	4.9	0.9	Inc. seg. avg.	3.432	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	6.9	1.6	Inc. frq. avg.	3.366	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 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2454.916 -1019.382 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/km..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/km.Q.155.1HP6Q8

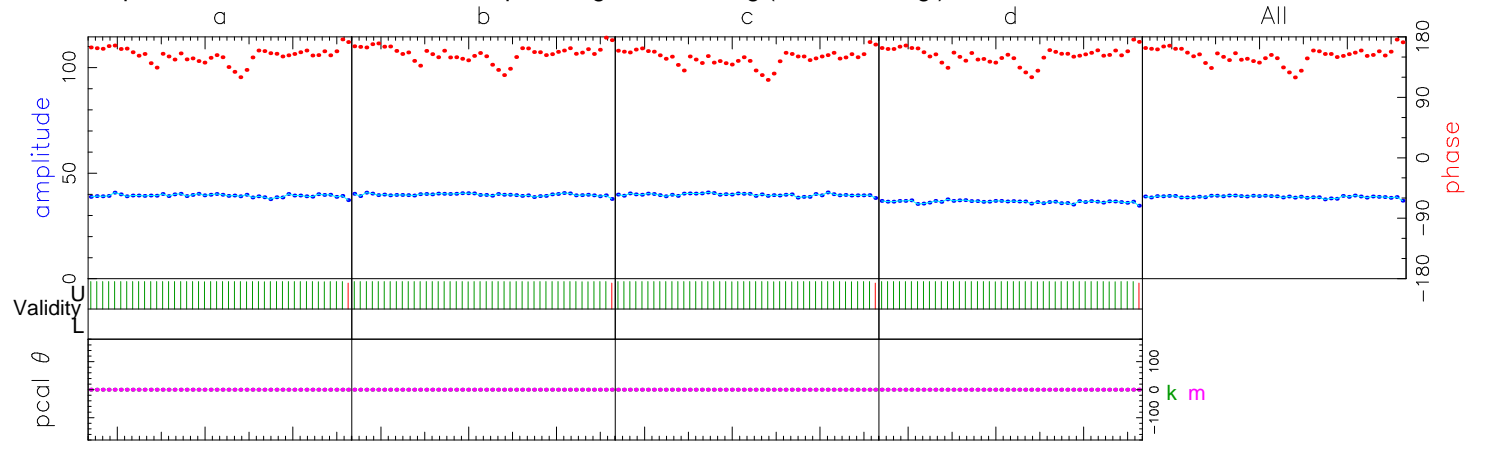


Fringe quality 9

SNR 1400.8
Int time 179.801
Amp 38.203
Phase 152.1
PFD 0.0e+00
Delays (us)
SBD 0.000376
MBD 0.000339
Fringe rate (Hz)
-0.001747
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

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

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



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	152.5	155.3	148.3	152.3	Phase	152.1
	38.6	39.1	39.1	35.8	Ampl.	38.1
	513.2	513.1	513.2	513.2	Sbd box	513.2
U/L	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
k:m	0:0	0:0	0:0	0:0	PC phase	
k:m	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	7.65814522561E+03	Apriori delay (usec)	7.65814488627E+03	Resid mbdelay (usec)	3.39335E-04	+/- 7.9E-07
Sband delay (usec)	7.65814526240E+03	Apriori clock (usec)	-1.3030001E+01	Resid sbdelay (usec)	3.76125E-04	+/- 3.1E-06
Phase delay (usec)	7.65814489609E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	9.81522E-06	+/- 5.3E-09
Delay rate (us/s)	-4.50792402449E-01	Apriori rate (us/s)	-4.50792361863E-01	Resid rate (us/s)	-4.05861E-08	+/- 5.1E-11
Total phase (deg)		118.0	Apriori accel (us/s/s)	-2.25037271093E-05	Resid phase (deg)	152.1 +/- 0.1

ph/seg (deg) 11.1 0.3 Amplitude 38.203 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 2.1 0.5 Search (1024X16) 37.617 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 3.5 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004

amp/frq (%) 3.6 0.1 Inc. seg. avg. 38.803 Sample rate(MISamp/s): 256 dr window (ns/s) -0.023 0.023

 Inc. frq. avg. 38.120 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 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2454.916 -1019.382 simultaneous interpolator

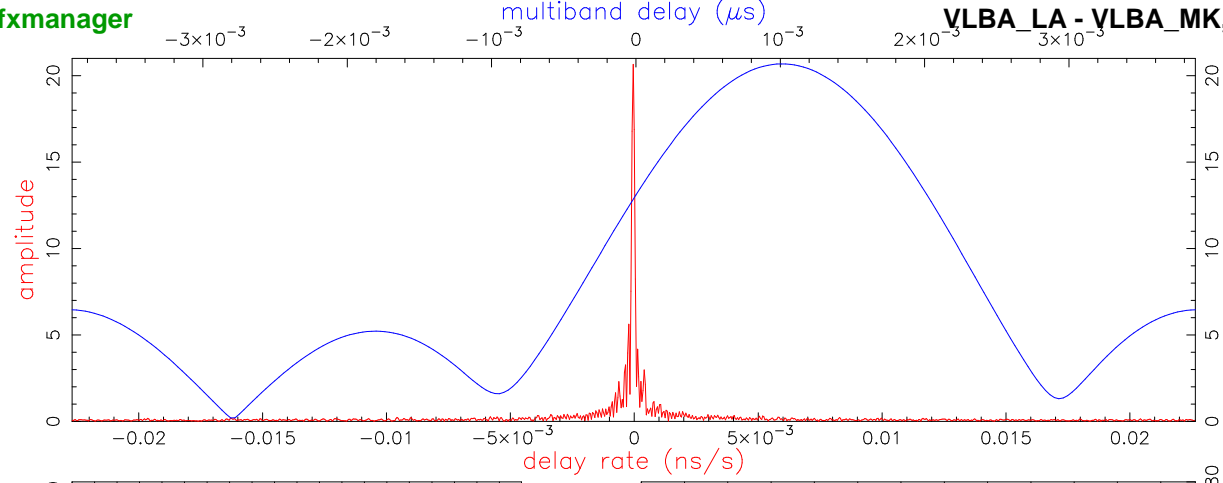
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/km..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/km.Q.83.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

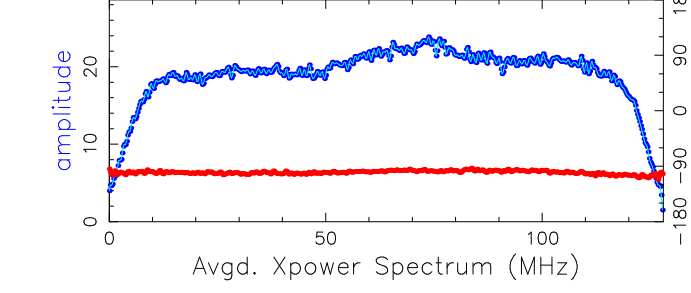
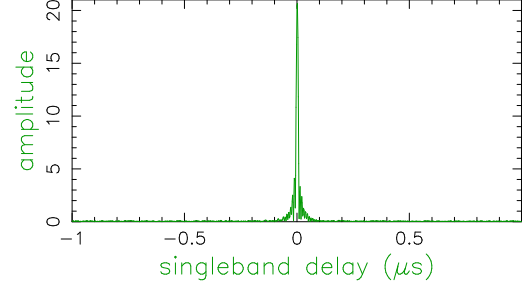
fxmanager

0102+584.1HP6Q8, No0090, Im

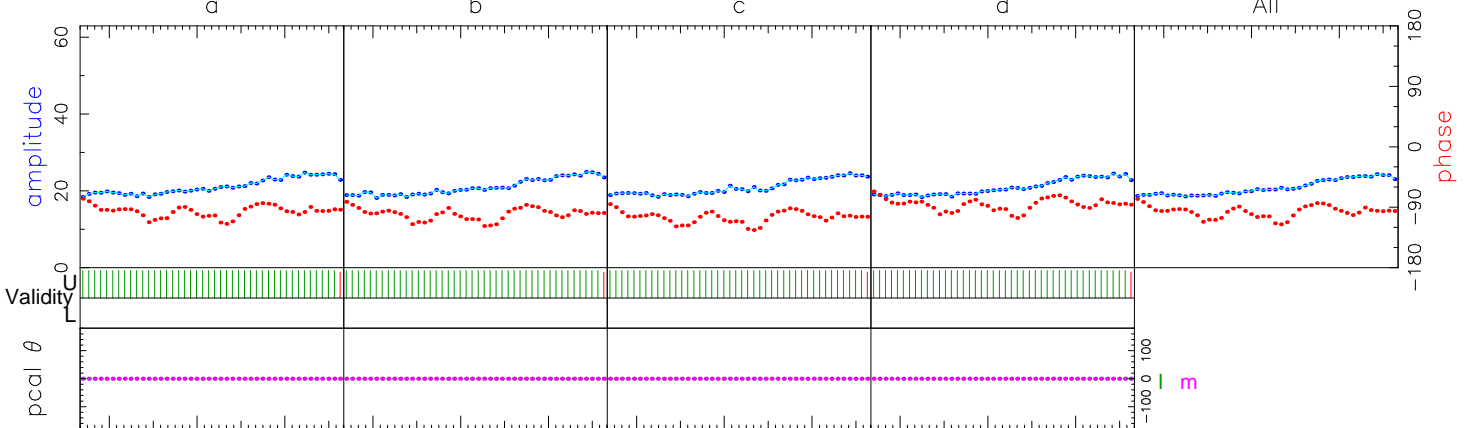
VLBA_LA - VLBA_MK, fgroup Q, pol RR



Fringe quality 9
 SNR 770.3
 Int time 179.974
 Amp 20.997
 Phase -96.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.001104
 MBD 0.000956
 Fringe rate (Hz) -0.001608
 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



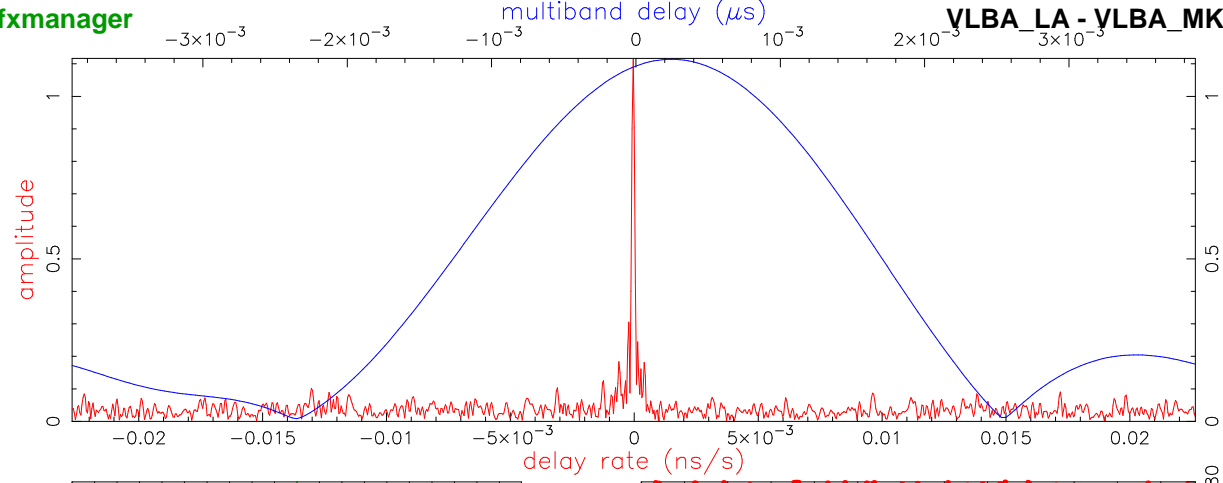
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	APs used	1000
m	1000	1000	1000	1000	PC freqs	1000
l:m	0:0	0:0	0:0	0:0	PC phase	0:0
l:m	0:0	0:0	0:0	0:0	Manl PC	0:0
m	1000	1000	1000	1000	PC amp	1000
l	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR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

Group delay (usec)(sbd)	8.51953276406E+03	Apriori delay (usec)	8.51953180757E+03	Resid mbdelay (usec)	9.56492E-04	+/- 1.4E-06
Sband delay (usec)	8.51953291169E+03	Apriori clock (usec)	-1.3743619E+01	Resid sbdelay (usec)	1.10413E-03	+/- 5.6E-06
Phase delay (usec)	8.51953180134E+03	Apriori clockrate (us/s)	-1.9999998E-07	Resid phdelay (usec)	-6.22579E-06	+/- 9.6E-09
Delay rate (us/s)	-5.19858475389E-01	Apriori rate (us/s)	-5.19858438036E-01	Resid rate (us/s)	-3.73528E-08	+/- 9.2E-11
Total phase (deg)	262.7	Apriori accel (us/s/s)	-2.17667602271E-05	Resid phase (deg)	-96.5	+/- 0.1

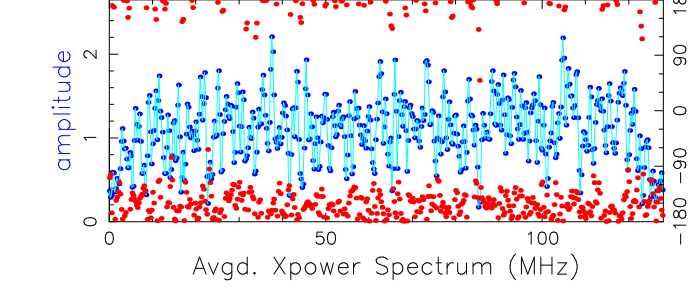
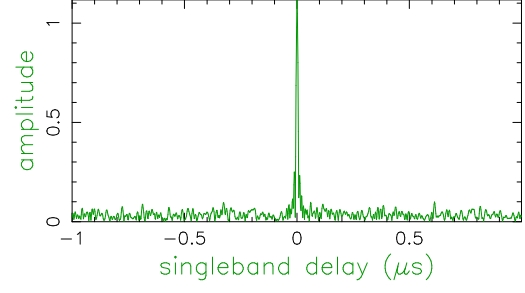
ph/seg (deg)	8.5	Theor.	0.5	Amplitude	20.997 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	9.3		0.9	Search (1024X16)	20.553	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	9.8		0.1	Inc. seg. avg.	20.873	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	1.0		0.3	Inc. frq. avg.	20.805	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00

l: az 18.7 el 65.2 pa -150.7 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2833.600 -846.908 simultaneous interpolator

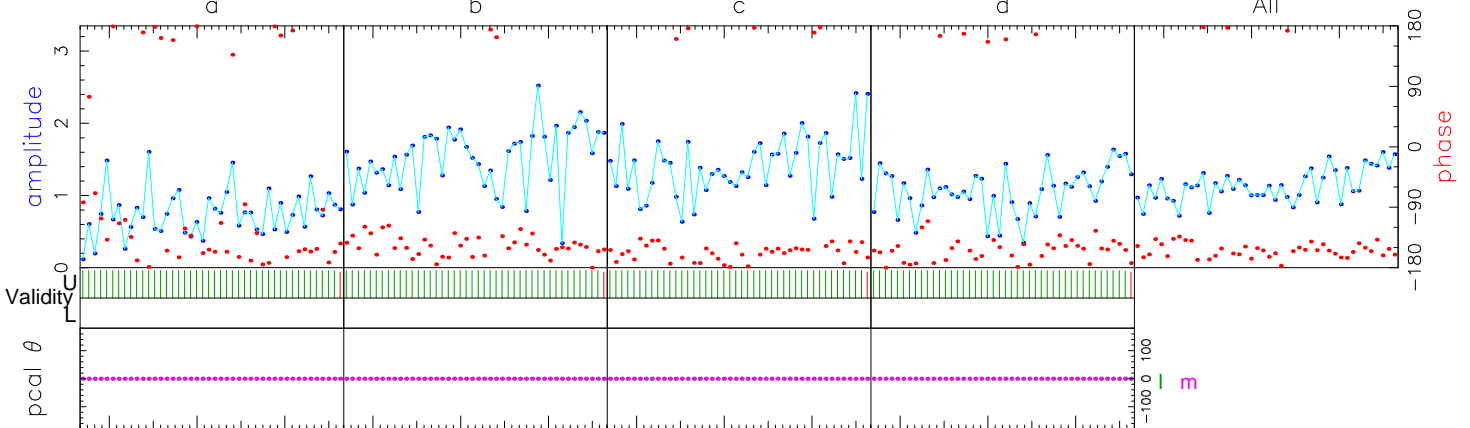
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/lm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/lm.Q.112.1HP6Q8



Fringe quality 8
SNR 41.0
Int time 179.974
Amp 1.117
Phase -156.0
PFD 0.0e+00
Delays (us)
SBD 0.000337
MBD 0.000279
Fringe rate (Hz)
-0.001571
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		
l	1000	1000	1000	1000		
m	1000	1000	1000	1000		
l:m	0:0	0:0	0:0	0:0		
l:m	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000		
m	1000	1000	1000	1000		
l	Q00UL	Q01UL	Q02UL	Q03UL		
m	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	8.51953208625E+03	Apriori delay (usec)	8.51953180757E+03	Resid mbdelay (usec)	2.78679E-04	+/- 2.7E-05
Sband delay (usec)	8.51953214469E+03	Apriori clock (usec)	-1.3743619E+01	Resid sbdelay (usec)	3.37125E-04	+/- 1.1E-04
Phase delay (usec)	8.51953179750E+03	Apriori clockrate (us/s)	-1.9999998E-07	Resid phdelay (usec)	-1.00712E-05	+/- 1.8E-07
Delay rate (us/s)	-5.19858474530E-01	Apriori rate (us/s)	-5.19858438036E-01	Resid rate (us/s)	-3.64935E-08	+/- 1.7E-09
Total phase (deg)	203.2	Apriori accel (us/s/s)	-2.17667602271E-05	Resid phase (deg)	-156.0	+/- 2.8

	RMS	Theor.	Amplitude	1.117 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	12.3	9.3	Search (1024X16)	1.086	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	19.8	16.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	6.5	2.8	Inc. seg. avg.	1.124	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	29.3	4.9	Inc. frq. avg.	1.116	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

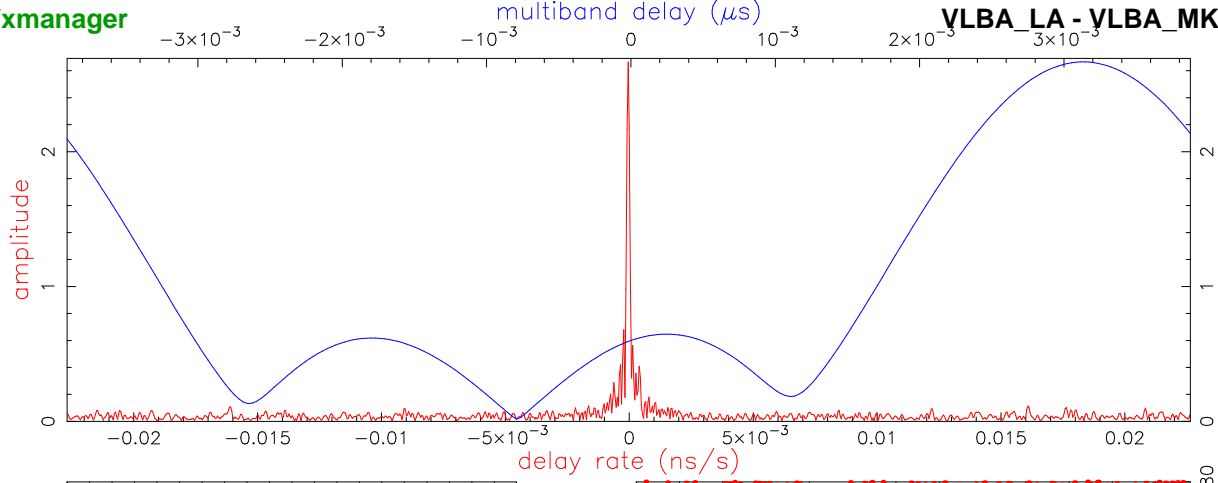
l: az 18.7 el 65.2 pa -150.7 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2833.600 -846.908 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/Im..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/Im.Q.130.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

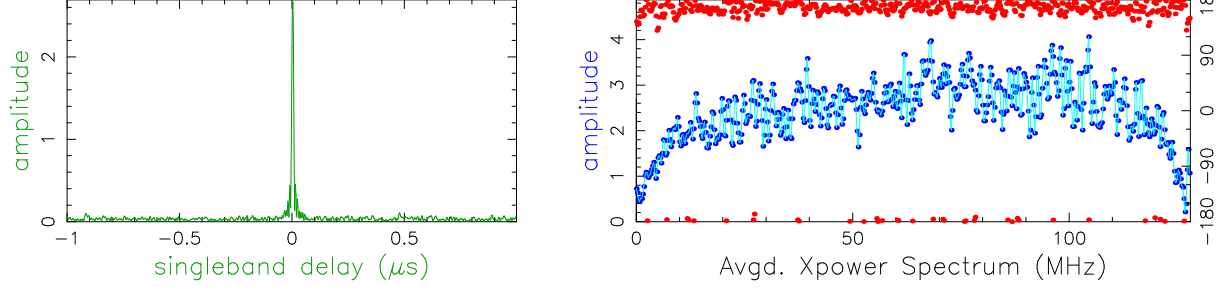
fxmanager

0102+584.1HP6Q8, No0090, Im

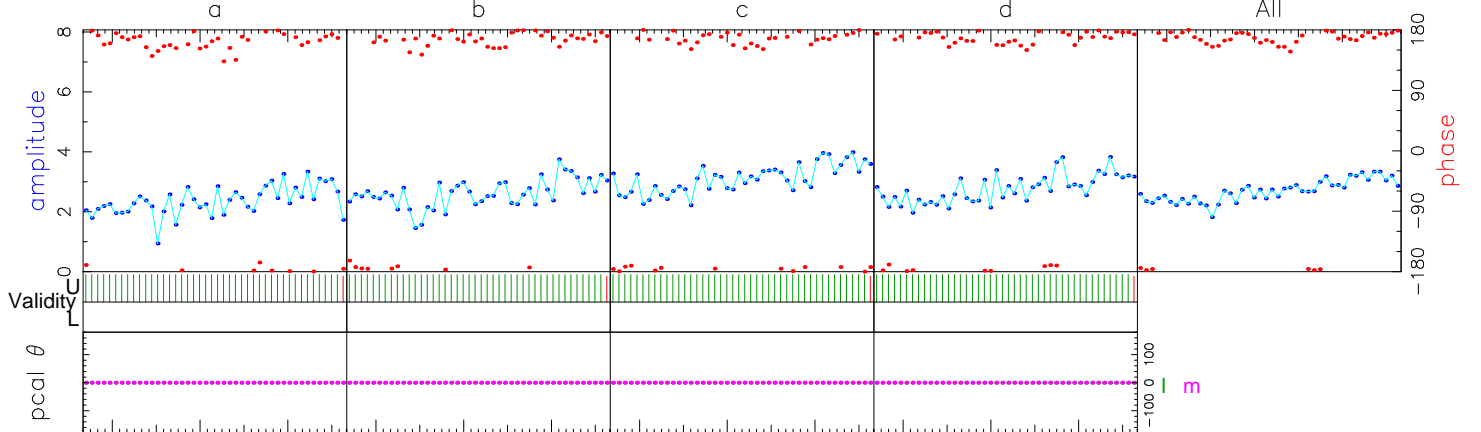
VLBA_LA - VLBA_MK, fgroup Q, pol RL



Fringe quality 9
 SNR 98.7
 Int time 179.974
 Amp 2.692
 Phase 170.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.003228
 MBD 0.003097
 Fringe rate (Hz)
 -0.001635
 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		
l	1000	1000	1000	1000		
m	1000	1000	1000	1000		
l:m	0:0	0:0	0:0	0:0		
l:m	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000		
m	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR		
m	Q00UL	Q01UL	Q02UL	Q03UL		

	8.51953490491E+03	Apriori delay (usec)	8.51953180757E+03	Resid mbdelay (usec)	3.09734E-03	+/- 1.1E-05
Group delay (usec)(sbd)	8.51953503544E+03	Apriori clock (usec)	-1.3743619E+01	Resid sbdelay (usec)	3.22788E-03	+/- 4.4E-05
Sband delay (usec)	8.51953181856E+03	Apriori clockrate (us/s)	-1.9999998E-07	Resid phdelay (usec)	1.09933E-05	+/- 7.5E-08
Phase delay (usec)	-5.19858476030E-01	Apriori rate (us/s)	-5.19858438036E-01	Resid rate (us/s)	-3.79938E-08	+/- 7.2E-10
Delay rate (us/s)		Apriori accel (us/s/s)	-2.17667602271E-05	Resid phase (deg)	170.3	+/- 1.2
Total phase (deg)	169.5					

	RMS	Theor.	Amplitude	2.692 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	9.1	3.8	Search (1024X16)	2.610	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	13.2	6.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	2.9	1.2	Inc. seg. avg.	2.691	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	10.2	2.0	Inc. frq. avg.	2.666	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

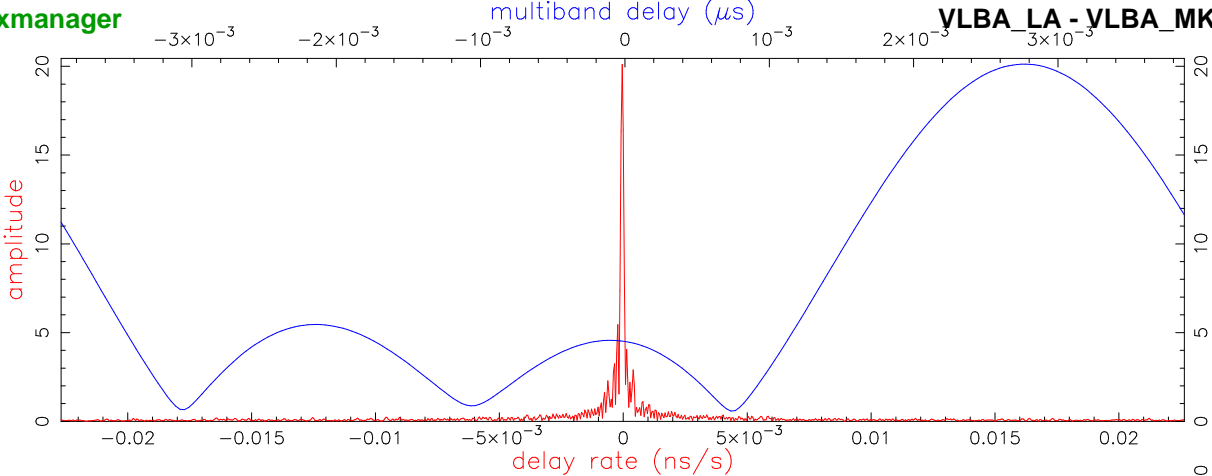
l: az 18.7 el 65.2 pa -150.7 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2833.600 -846.908 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/lm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/lm.Q.151.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

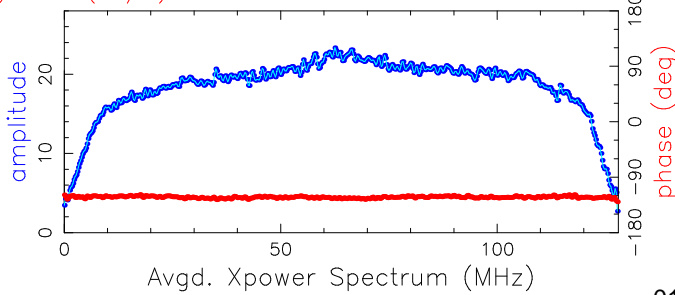
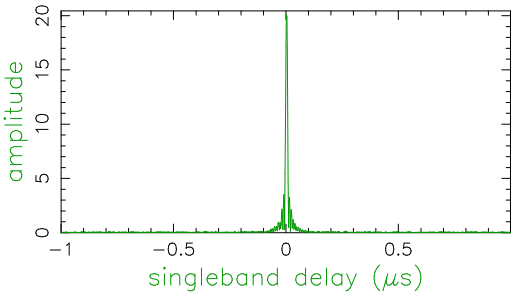
0102+584.1HP6Q8, No0090, Im

VLBA_LA - VLBA_MK, fgroup Q, pol LL



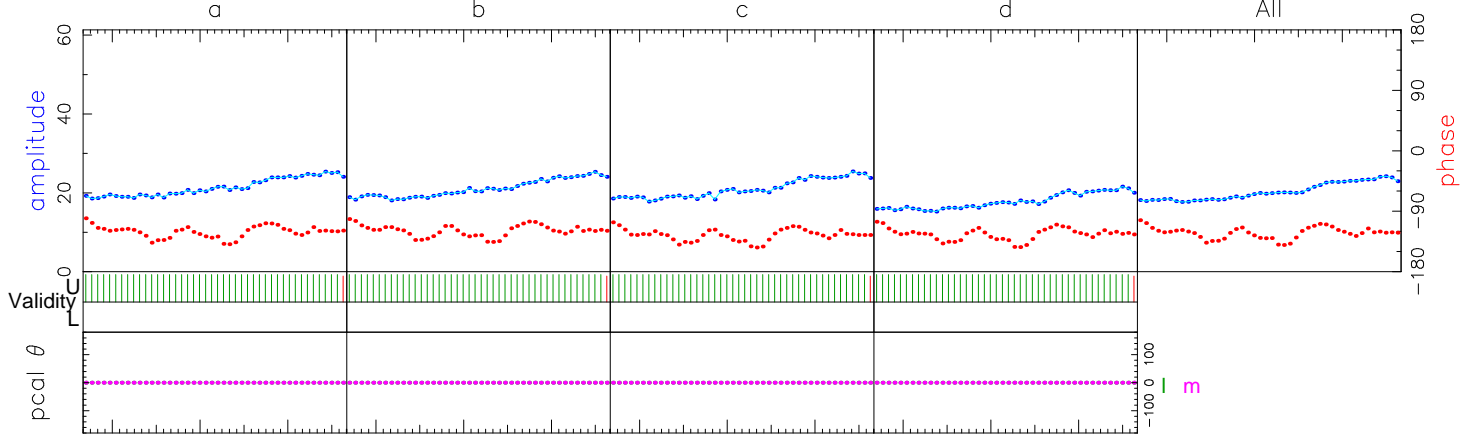
Fringe quality 9

SNR 750.2
 Int time 179.974
 Amp 20.448
 Phase -122.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.002810
 MBD 0.002804
 Fringe rate (Hz)
 -0.001637
 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



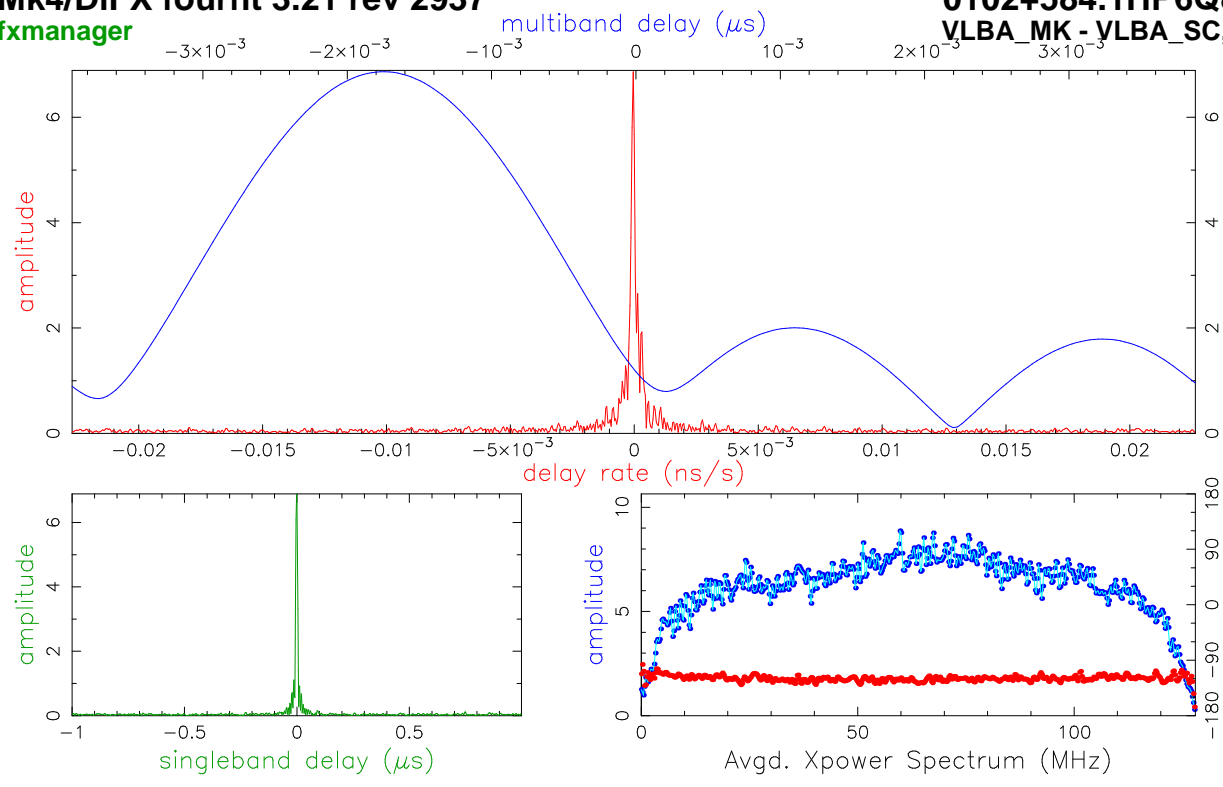
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-120.5	-118.8	-125.3	-123.9	Phase	-122.0
	21.2	20.9	20.8	17.6	Ampl.	20.1
	514.3	514.6	514.4	514.5	Sbd box	514.4
U/L	352/0	352/0	352/0	352/0	APs used	
l	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
l:m	0:0	0:0	0:0	0:0	PC phase	
l:m	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
l	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	8.51953461159E+03	Apriori delay (usec)	8.51953180757E+03	Resid mbdelay (usec)	2.80402E-03	+/- 1.5E-06
Sband delay (usec)	8.51953461707E+03	Apriori clock (usec)	-1.3743619E+01	Resid sbdelay (usec)	2.80950E-03	+/- 5.7E-06
Phase delay (usec)	8.51953179969E+03	Apriori clockrate (us/s)	-1.9999998E-07	Resid phdelay (usec)	-7.87659E-06	+/- 9.9E-09
Delay rate (us/s)	-5.19858476070E-01	Apriori rate (us/s)	-5.19858438036E-01	Resid rate (us/s)	-3.80335E-08	+/- 9.5E-11
Total phase (deg)	237.2	Apriori accel (us/s/s)	-2.17667602271E-05	Resid phase (deg)	-122.0	+/- 0.2

ph/seg (deg)	8.5	Theor.	0.5	Amplitude	20.448 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	10.4		0.9	Search (1024X16)	19.838	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	3.7		0.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	7.2		0.3	Inc. seg. avg.	20.332	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	20.137	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

l: az 18.7 el 65.2 pa -150.7 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2833.600 -846.908 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/lm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/lm.Q.86.1HP6Q8

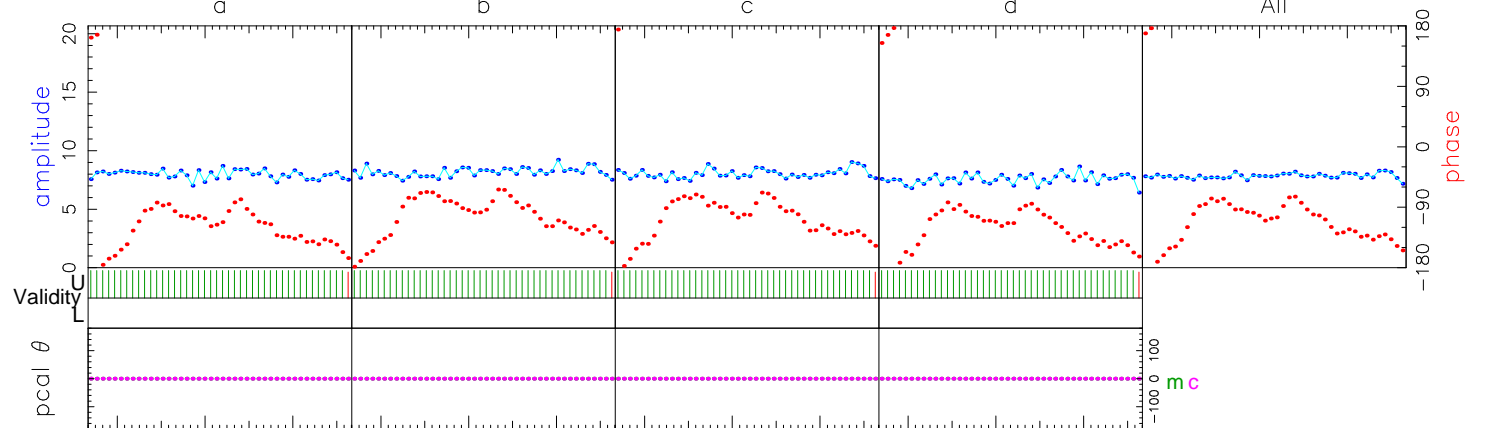


Fringe quality 6

SNR 252.8
Int time 179.976
Amp 6.891
Phase -115.4
PFD 0.0e+00
Delays (us)
SBD -0.001540
MBD -0.001731
Fringe rate (Hz)
-0.002587
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		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m:c	0:0	0:0	0:0	0:0		
m:c	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-4.1408666366E+03	Apriori delay (usec)	-4.14086493281E+03	Resid mbdelay (usec)	-1.73085E-03	+/-	4.4E-06
Sband delay (usec)	-4.14086647293E+03	Apriori clock (usec)	4.9107642E+00	Resid sbdelay (usec)	-1.54012E-03	+/-	1.7E-05
Phase delay (usec)	-4.14086494025E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-7.44869E-06	+/-	2.9E-08
Delay rate (us/s)	1.03717181039E+00	Apriori rate (us/s)	1.03717187051E+00	Resid rate (us/s)	-6.01162E-08	+/-	2.8E-10
Total phase (deg)	-10.3	Apriori accel (us/s/s)	2.53054160654E-05	Resid phase (deg)	-115.4	+/-	0.5

ph/seg (deg) 29.6 1.5 Search (1024X16) 6.596 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 14.3 2.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 12.2 0.5 Inc. seg. avg. 7.845 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
amp/frq (%) 3.1 0.8 Inc. frq. avg. 6.943 Sample rate(MISamp/s): 256 Data rate(Mb/s): 2048 nlags: 512 t_coherence infinite dr window (ns/s) -0.023 0.023
m: az 32.9 el 30.2 pa -101.9 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -5666.166 1738.904 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mc.Q.113.1HP6Q8

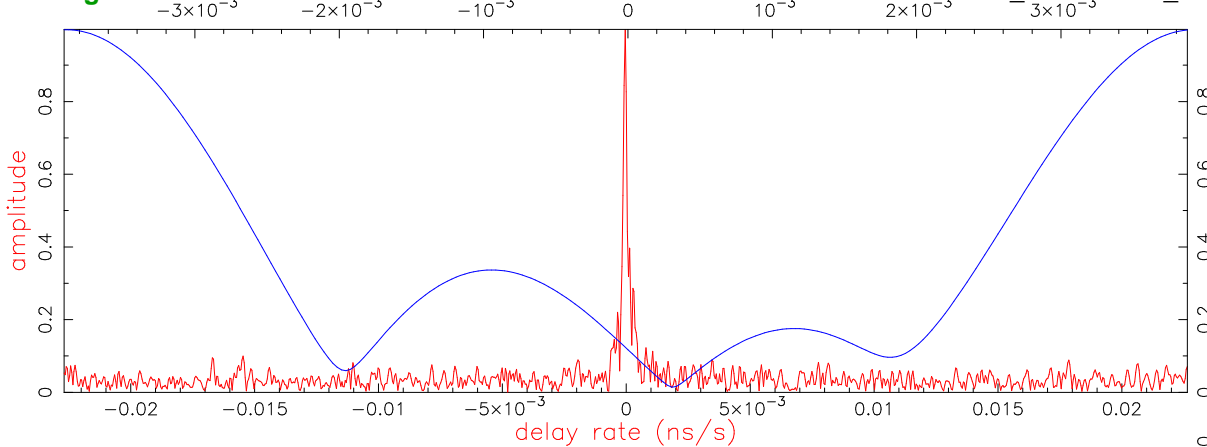
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, mc

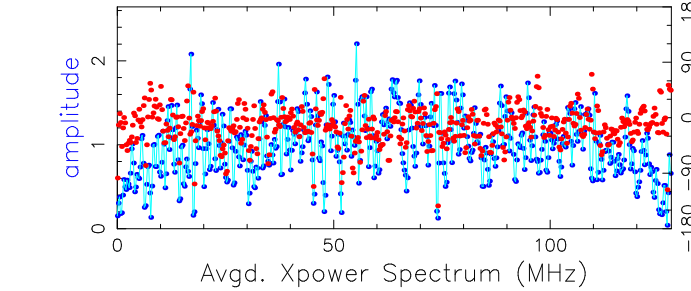
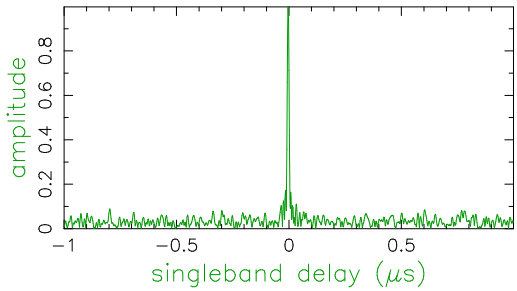
VLBA_MK - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)



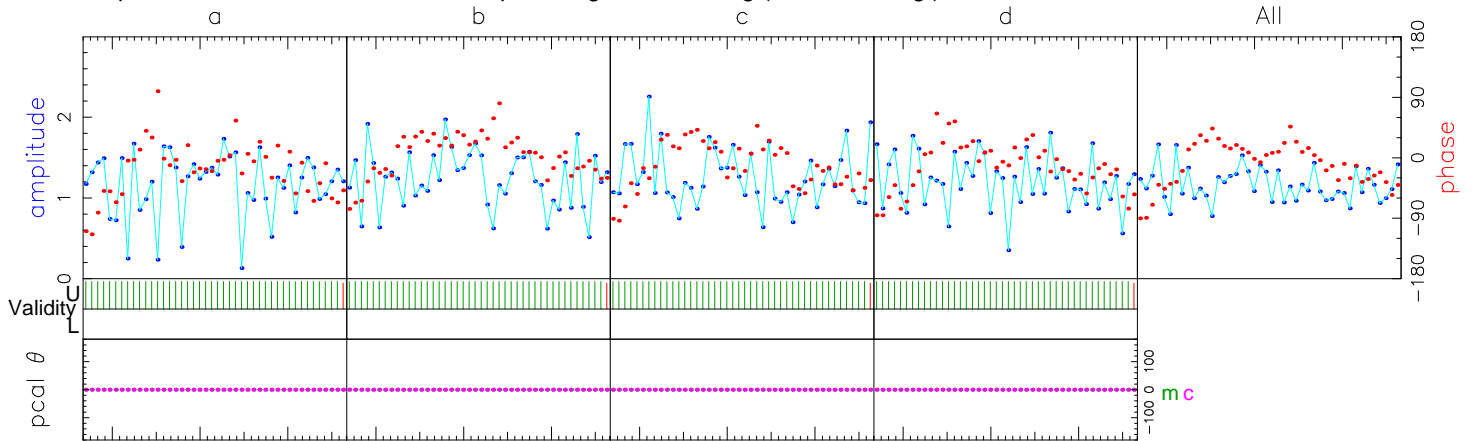
Fringe quality 7

SNR 36.6
 Int time 179.976
 Amp 0.998
 Phase -9.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.003718
 MBD -0.003885
 Fringe rate (Hz)
 -0.002616
 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	APs used	
c	1000	1000	1000	1000	PC freqs	
m:c	0:0	0:0	0:0	0:0	PC phase	
m:c	0:0	0:0	0:0	0:0	ManI PC	
m	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

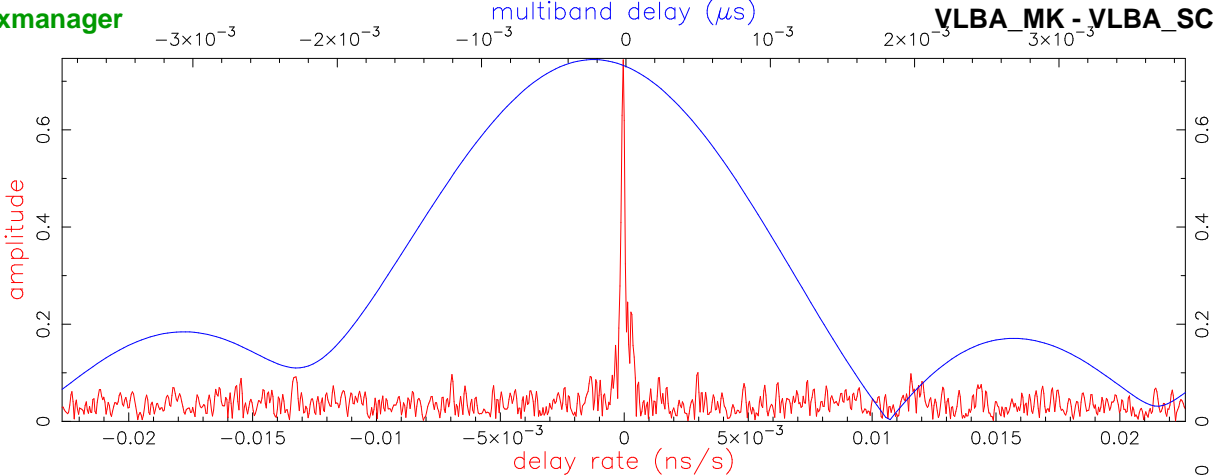
Group delay (usec)(sbd)	-4.14086881781E+03	Apriori delay (usec)	-4.14086493281E+03	Resid mbdelay (usec)	-3.88500E-03	+/-	3.0E-05
Sband delay (usec)	-4.14086865056E+03	Apriori clock (usec)	4.9107642E+00	Resid sbdelay (usec)	-3.71775E-03	+/-	1.2E-04
Phase delay (usec)	-4.14086493340E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-5.92323E-07	+/-	2.0E-07
Delay rate (us/s)	1.03717180972E+00	Apriori rate (us/s)	1.03717187051E+00	Resid rate (us/s)	-6.07856E-08	+/-	1.9E-09
Total phase (deg)	-264.0	Apriori accel (us/s/s)	2.53054160654E-05	Resid phase (deg)	-9.2	+/-	3.1

	RMS	Theor.	Amplitude	0.998 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	32.3	10.4	Search (1024X16)	0.972	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/seg (%)	26.7	18.1	Interp.	0.000	Sample rate(MISamp/s): 256	nlags: 512	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	13.2	3.1	Inc. seg. avg.	1.148	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	5.7	5.5	Inc. frq. avg.	1.010					

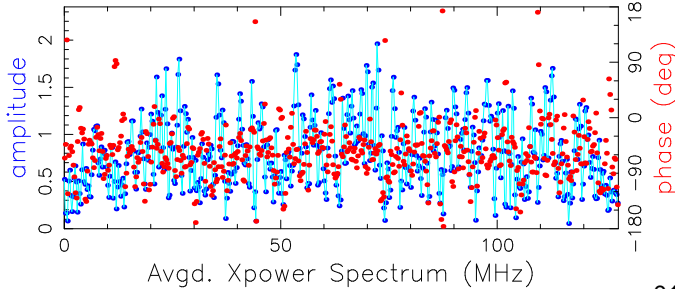
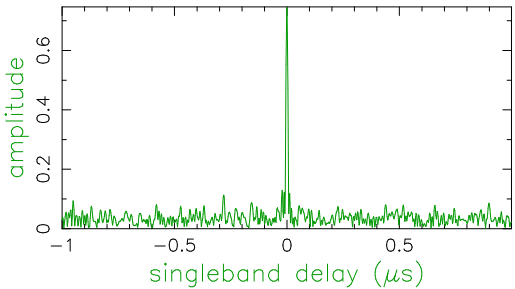
m: az 32.9 el 30.2 pa -101.9 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -5666.166 1738.904 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mc.Q.127.1HP6Q8

Fringe quality 9

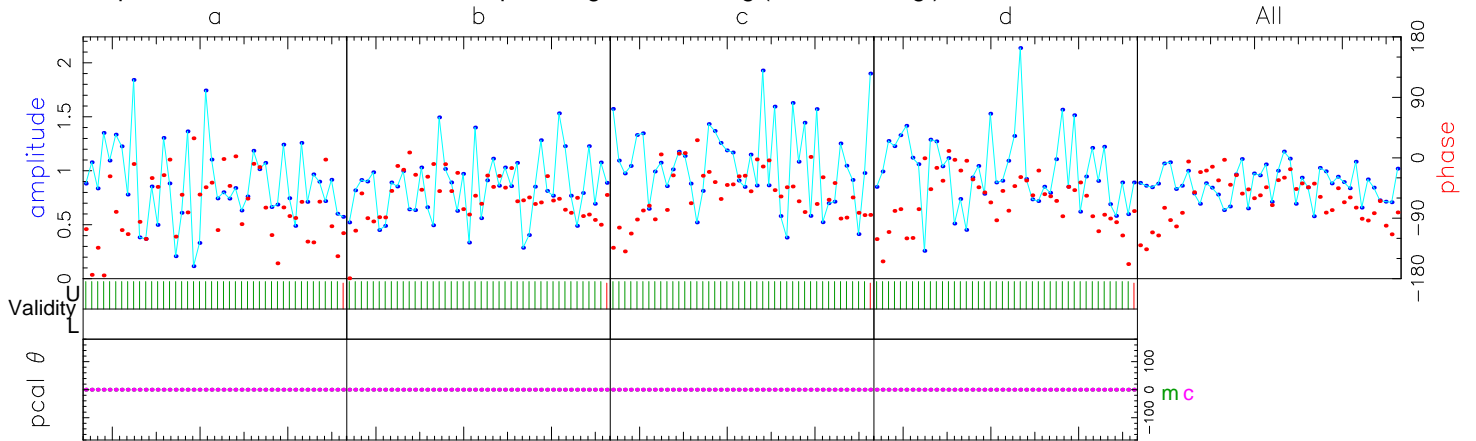


SNR 27.4
Int time 179.976
Amp 0.747
Phase -61.1
PFD 0.0e+00
Delays (us)
SBD -0.000392
MBD -0.000249
Fringe rate (Hz)
-0.002495
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512



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		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m:c	0:0	0:0	0:0	0:0		
m:c	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UL	Q01UL	Q02UL	Q03UL		

Group delay (usec)(sbd)	-4.14086518225E+03	Apriori delay (usec)	-4.14086493281E+03	Resid mbdelay (usec)	-2.49446E-04	+/-	4.1E-05
Sband delay (usec)	-4.14086532506E+03	Apriori clock (usec)	4.9107642E+00	Resid sbdelay (usec)	-3.92250E-04	+/-	1.6E-04
Phase delay (usec)	-4.14086493675E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-3.94263E-06	+/-	2.7E-07
Delay rate (us/s)	1.03717181253E+00	Apriori rate (us/s)	1.03717187051E+00	Resid rate (us/s)	-5.79777E-08	+/-	2.6E-09
Total phase (deg)	-316.0	Apriori accel (us/s/s)	2.53054160654E-05	Resid phase (deg)	-61.1	+/-	4.2

	RMS	Theor.	Amplitude	0.747 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	33.1	13.9	Search (1024X16)	0.719	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	26.5	24.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	8.7	4.2	Inc. seg. avg.	0.853	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	13.5	7.3	Inc. frq. avg.	0.746	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

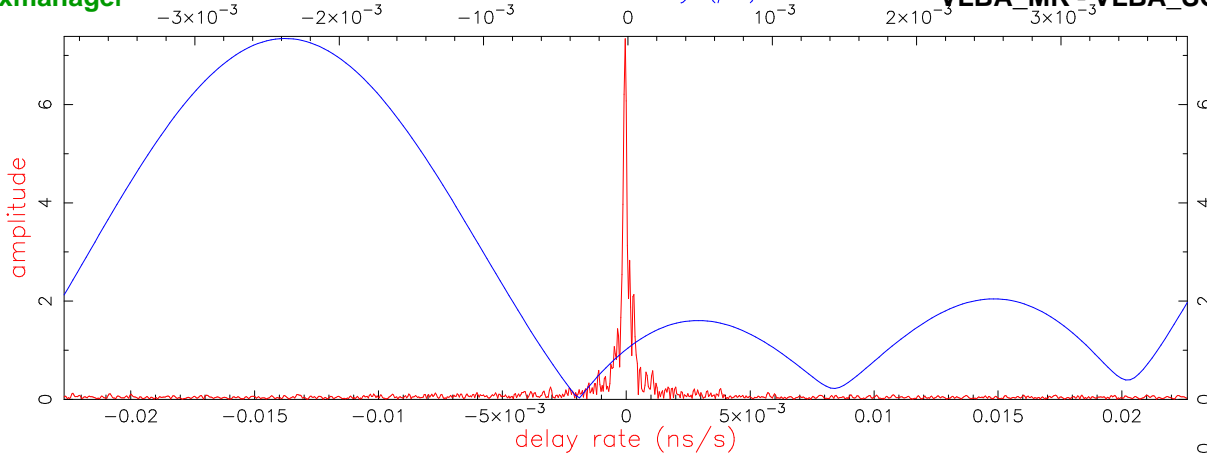
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, mc

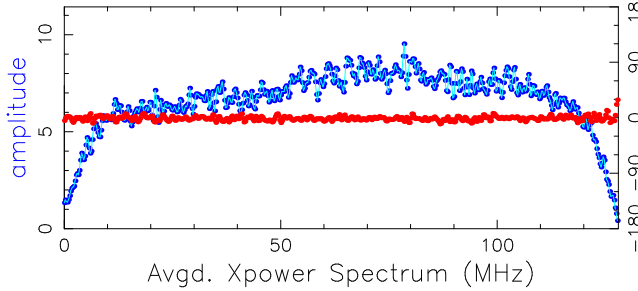
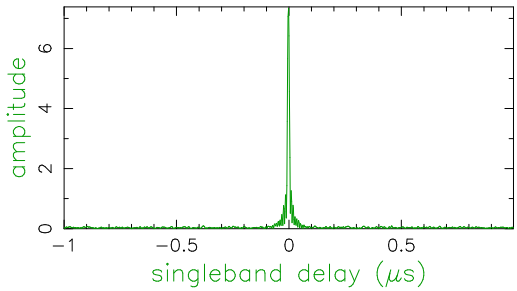
VLBA_MK - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)



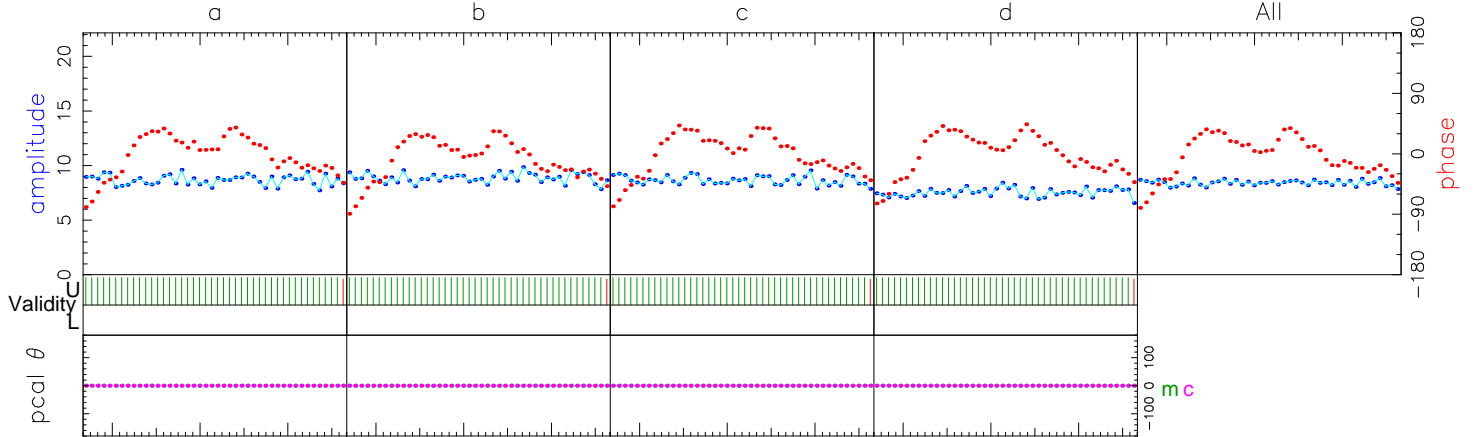
Fringe quality 7

SNR 271.0
 Int time 179.976
 Amp 7.387
 Phase -3.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.002481
 MBD -0.002402
 Fringe rate (Hz)
 -0.002610
 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		
c	1000	1000	1000	1000		
m:c	0:0	0:0	0:0	0:0		
m:c	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UL	Q01UL	Q02UL	Q03UL		

	42912.00	43040.00	43168.00	43296.00		
Group delay (usec)(sbd)	-4.14086733453E+03		-4.14086493281E+03		Resid mbdelay (usec)	-2.40173E-03 +/- 4.1E-06
Sband delay (usec)	-4.14086741431E+03		4.9107642E+07		Resid sbdelay (usec)	-2.48150E-03 +/- 1.6E-05
Phase delay (usec)	-4.14086493302E+03		-4.0000002E-07		Resid phdelay (usec)	-2.12960E-07 +/- 2.7E-08
Delay rate (us/s)	1.03717180987E+00		1.03717187051E+00		Resid rate (us/s)	-6.06409E-08 +/- 2.6E-10
Total phase (deg)		-258.2	2.53054160654E-05		Resid phase (deg)	-3.3 +/- 0.4

	RMS	Theor.	Amplitude	7.387 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	29.8	1.4	Search (1024X16)	7.149	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	14.4	2.4	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.004 0.004
ph/frq (deg)	4.9	0.4	Inc. seg. avg.	8.417	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	6.2	0.7	Inc. frq. avg.	7.355	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

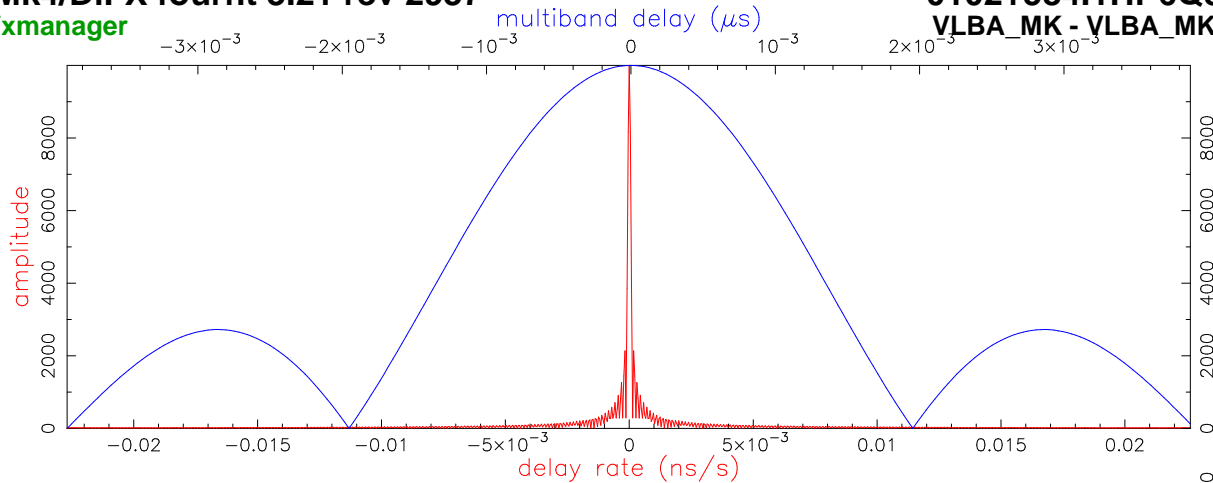
m: az 32.9 el 30.2 pa -101.9 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -5666.166 1738.904 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mc.Q.90.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

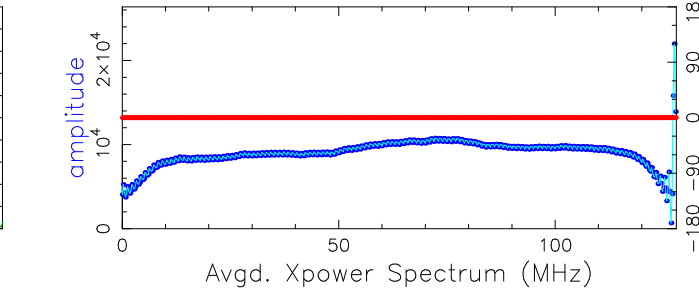
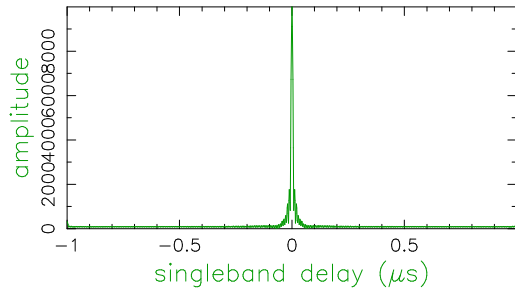
0102+584.1HP6Q8, No0090, mm

VLBA_MK - VLBA_MK, fgroup Q, pol RR



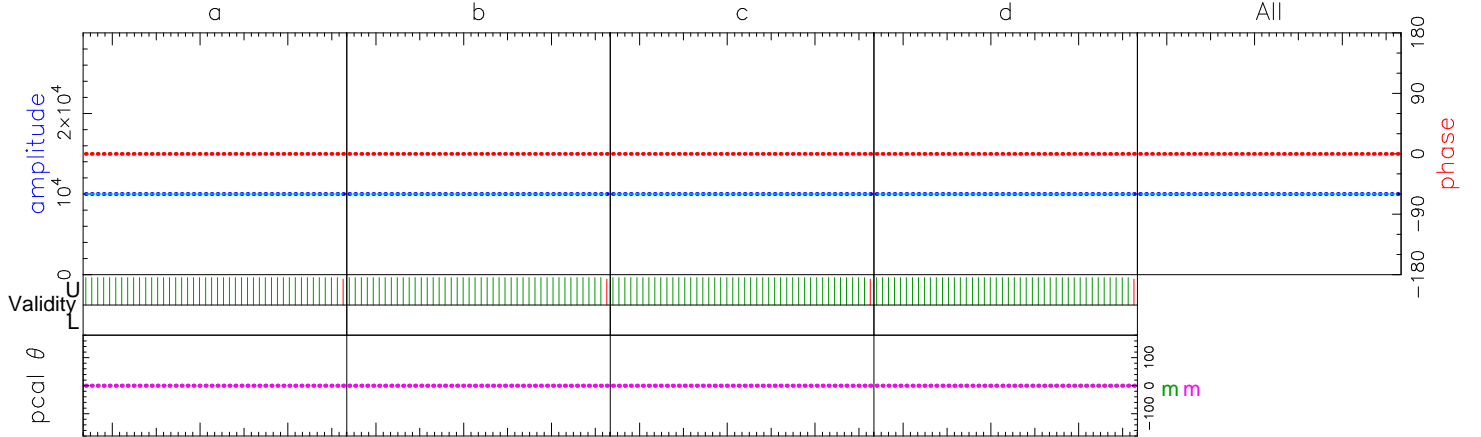
Fringe quality 9

SNR 366870.8
 Int time 179.983
 Amp 9999.999
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163112
 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		
m:m	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
m	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
m	Q00UR	Q01UR	Q02UR	Q03UR		

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

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	9999.999 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	0.0	Search (1024X16)	9999.999	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 256	dr window (ns/s)	-0.023 0.023		
				Inc. frq. avg.	9999.999	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

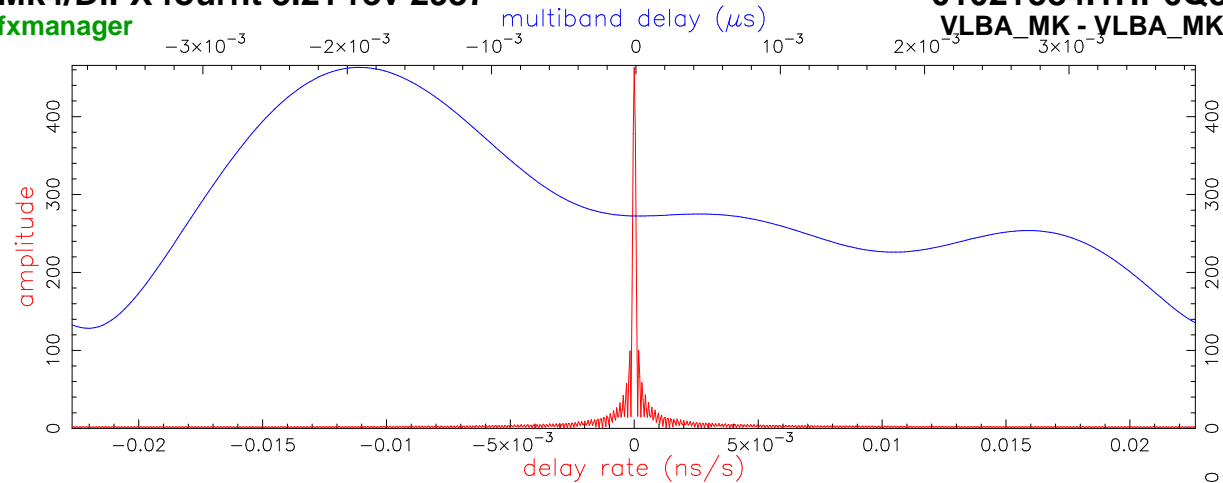
m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mm.Q.108.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

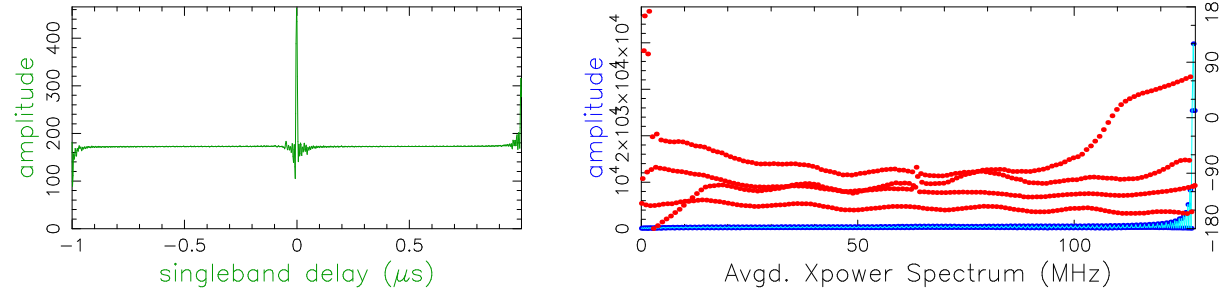
0102+584.1HP6Q8, No0090, mm

VLBA_MK - VLBA_MK, fgroup Q, pol LR



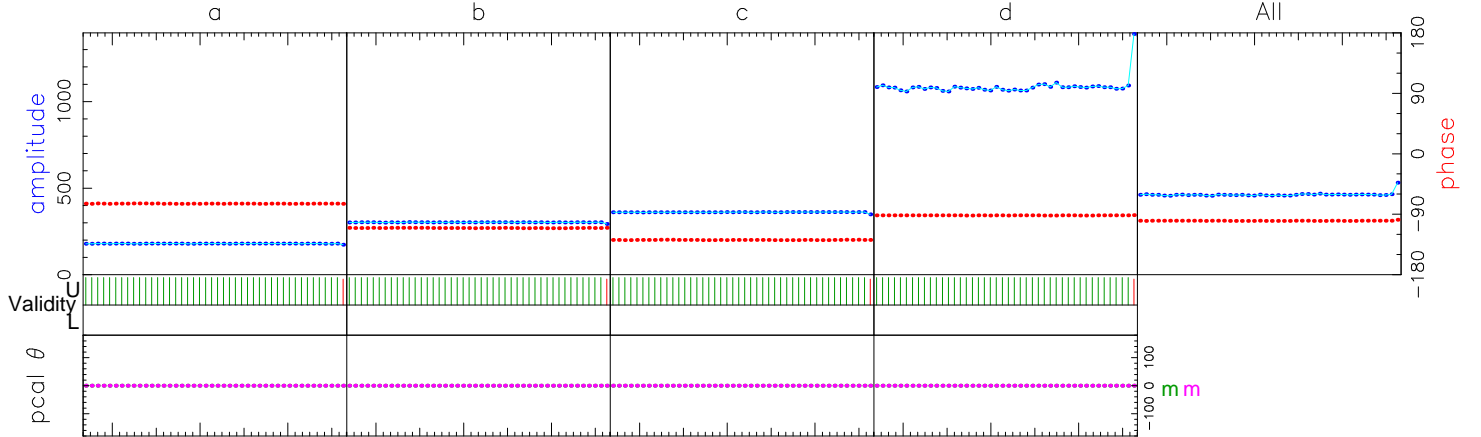
Fringe quality 5

SNR 17086.1
 Int time 179.983
 Amp 465.725
 Phase -99.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.001509
 MBD -0.001951
 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
 2021:010:163114
 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
	-74.2	-110.4	-128.2	-91.6	Phase	-99.7
	179.7	302.5	361.0	1085.8	Ampl.	482.3
	1023.3	511.5	511.8	512.2	Sbd box	512.2
U/L	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
m:m	0:0	0:0	0:0	0:0	PC phase	
m:m	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.951281250000E-03	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	-1.95128E-03	+/-	6.5E-08
Sband delay (usec)	-1.508625000000E-03	Apriori clock (usec)	0.000000000000E+00	Resid sbdelay (usec)	-1.50862E-03	+/-	2.5E-07
Phase delay (usec)	-6.43293866762E-06	Apriori clockrate (us/s)	0.000000000000E+00	Resid phdelay (usec)	-6.43294E-06	+/-	4.3E-10
Delay rate (us/s)	-2.83620601073E-12	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	-2.83621E-12	+/-	4.2E-12
Total phase (deg)	-99.7	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	-99.7	+/-	0.0

ph/seg (deg)	0.2	Theor.	Amplitude	465.725 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	2.4	0.0	Search (1024X16)	462.927	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	28.7	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/frq (%)	76.2	0.0	Inc. seg. avg.	462.952	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023	0.023
			Inc. frq. avg.	482.265	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00

m: az 32.9 el 30.2 pa -101.9 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

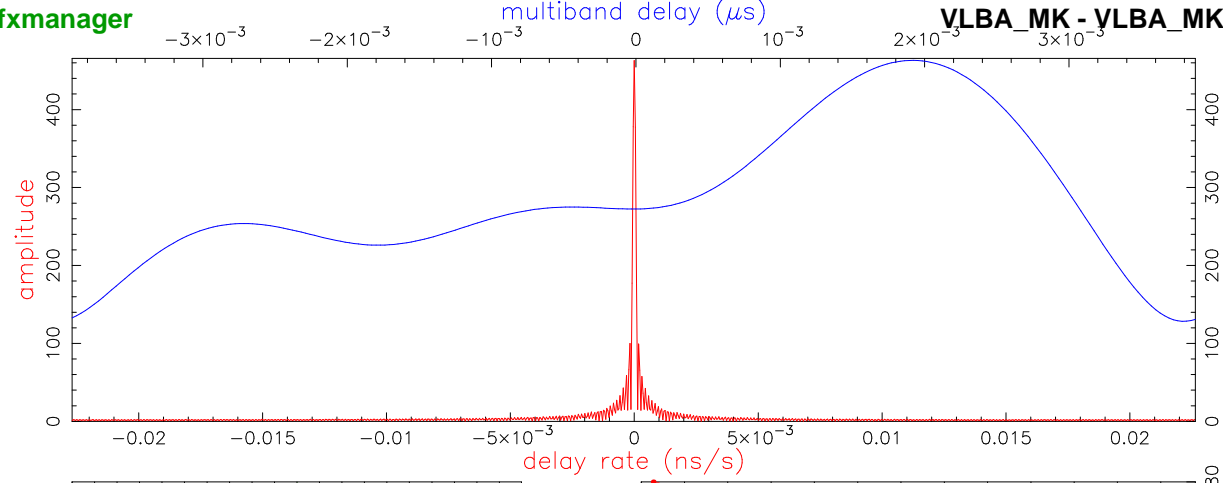
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mm.Q.124.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, mm

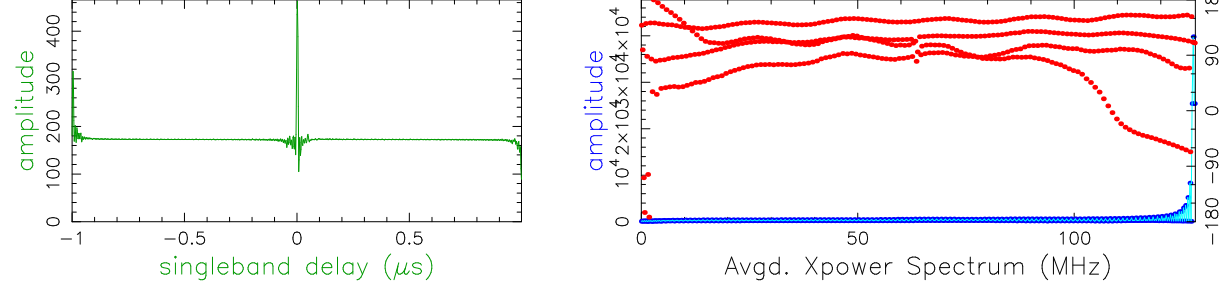
VLBA_MK - VLBA_MK, fgroup Q, pol RL



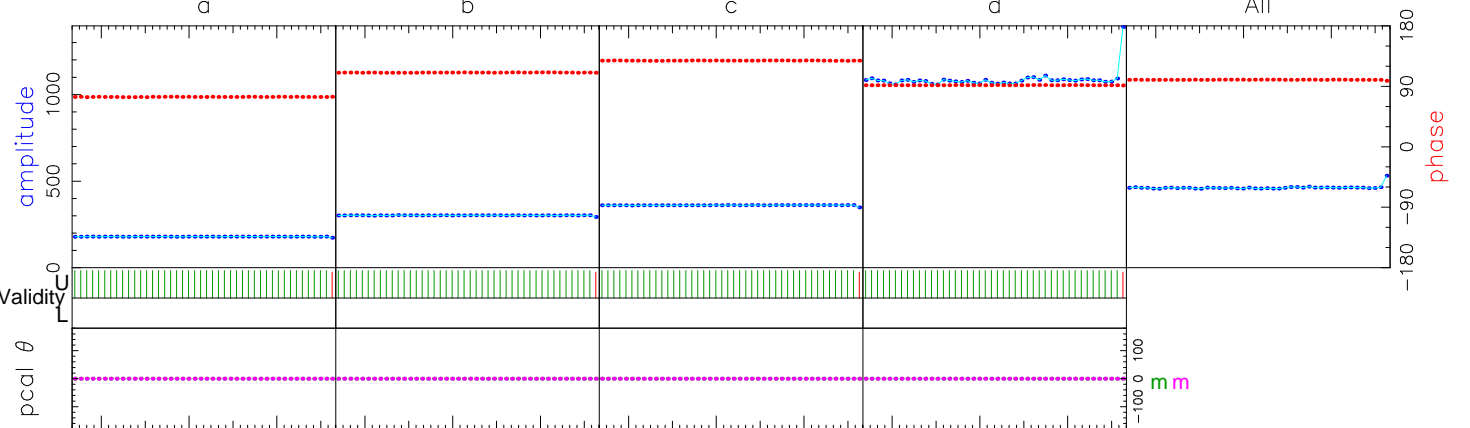
Fringe quality 5

SNR 17086.1
 Int time 179.983
 Amp 465.725
 Phase 99.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.001509
 MBD 0.001951
 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
 2021:010:163116
 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
	74.2	110.4	128.2	91.6	Phase	99.7
	179.7	302.5	361.0	1085.8	Ampl.	482.3
	2.7	514.5	514.2	513.8	Sbd box	513.8
U/L	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
m:m	0:0	0:0	0:0	0:0	PC phase	
m:m	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

	1.95128125000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.95128E-03	+/- 6.5E-08
Group delay (usec)(sbd)	1.95128125000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.50862E-03	+/- 2.5E-07
Sband delay (usec)	1.50862500000E-03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	6.43294E-06	+/- 4.3E-10
Phase delay (usec)	6.43293866784E-06	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	2.83621E-12	+/- 4.2E-12
Delay rate (us/s)	2.83620601073E-12	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	99.7	+/- 0.0
Total phase (deg)	99.7					

	RMS	Theor.	Amplitude	465.725 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.2	0.0	Search (1024X16)	462.927	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	2.4	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	28.7	0.0	Inc. seg. avg.	462.952	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	76.2	0.0	Inc. frq. avg.	482.265	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 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

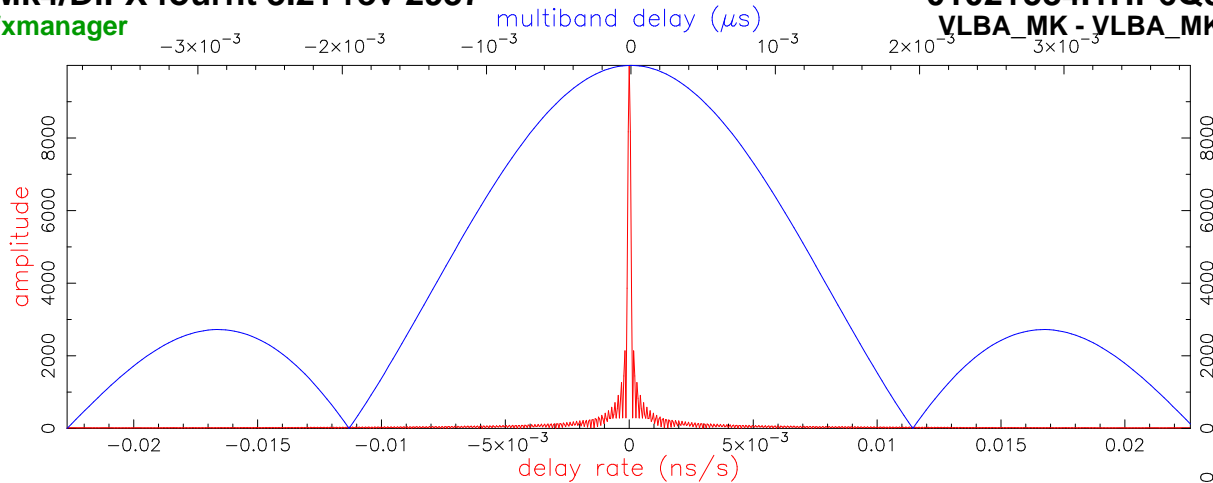
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mm.Q.146.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

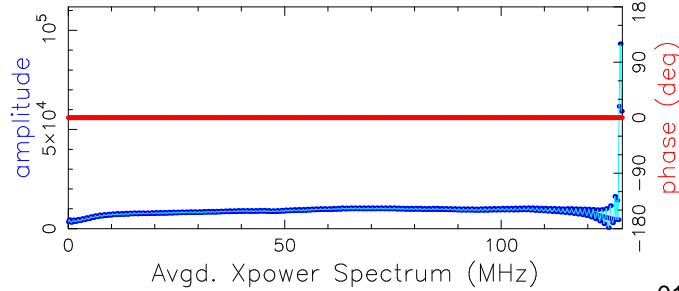
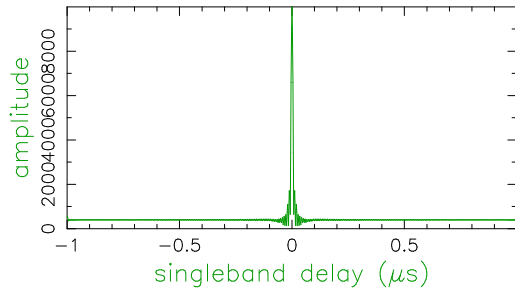
0102+584.1HP6Q8, No0090, mm

VLBA_MK - VLBA_MK, fgroup Q, pol LL



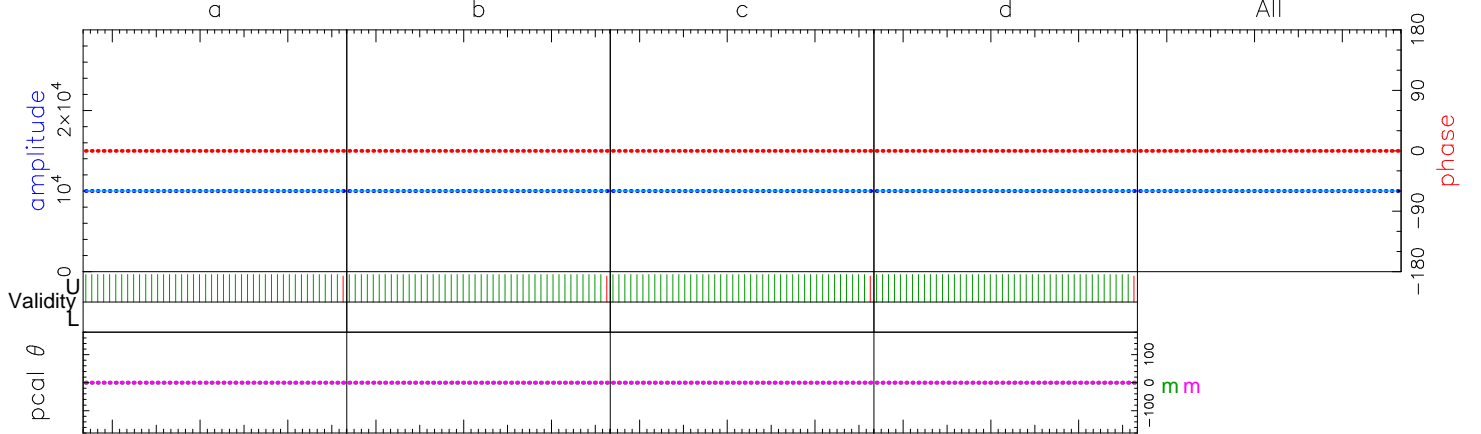
Fringe quality 9

SNR 366870.8
 Int time 179.983
 Amp 9999.999
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163110
 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	PC freqs	
m	1000	1000	1000	1000	PC freqs	
m:m	0:0	0:0	0:0	0:0	PC phase	
m:m	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					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	9999.999 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.0	0.0	Search (1024X16)	9999.999	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
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.	9999.999	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
m: az 32.9 el 30.2 pa -101.9			m: az 32.9 el 30.2 pa -101.9		u,v (fr/asec) 0.000 0.000	simultaneous interpolator

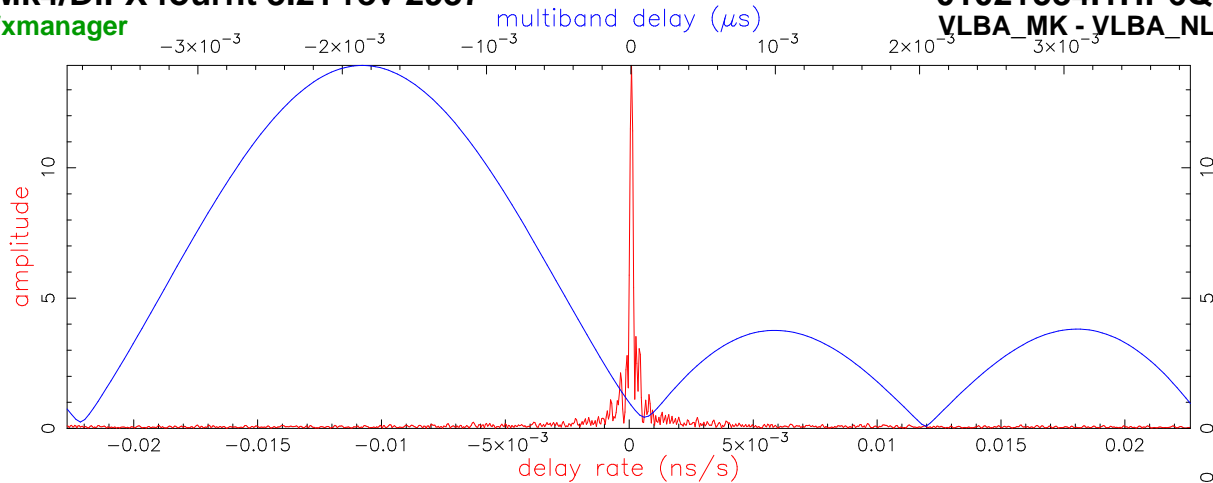
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mm.Q.89.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

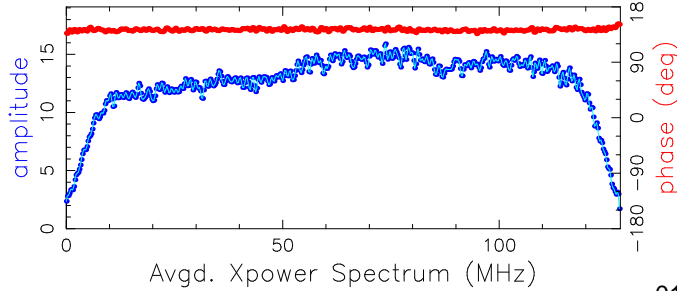
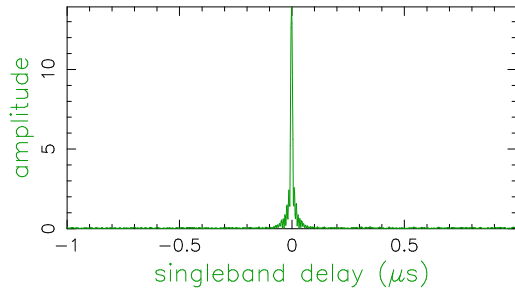
0102+584.1HP6Q8, No0090, mn

VLBA_MK - VLBA_NL, fgroup Q, pol RR



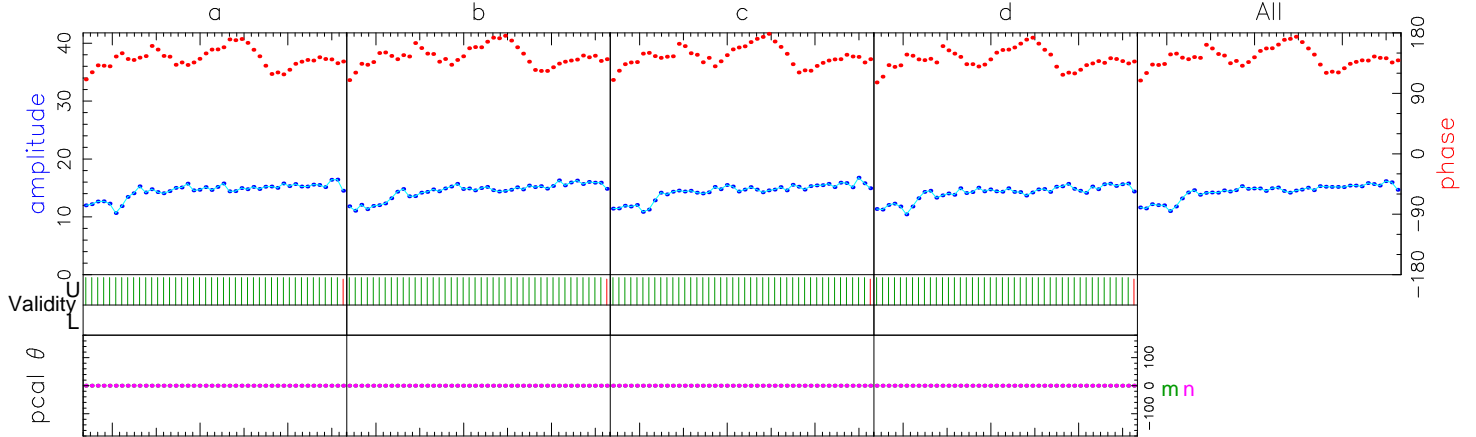
Fringe quality 8

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
	141.5	144.8	144.9	140.5	Phase	143.0
	14.1	14.0	13.9	13.7	Ampl.	13.9
	512.3	512.0	512.0	511.9	Sbd box	512.1
U/L	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	ManI PC	
m	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000		
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		u,v (fr/asec)	-3747.541	513.499	simultaneous interpolator		

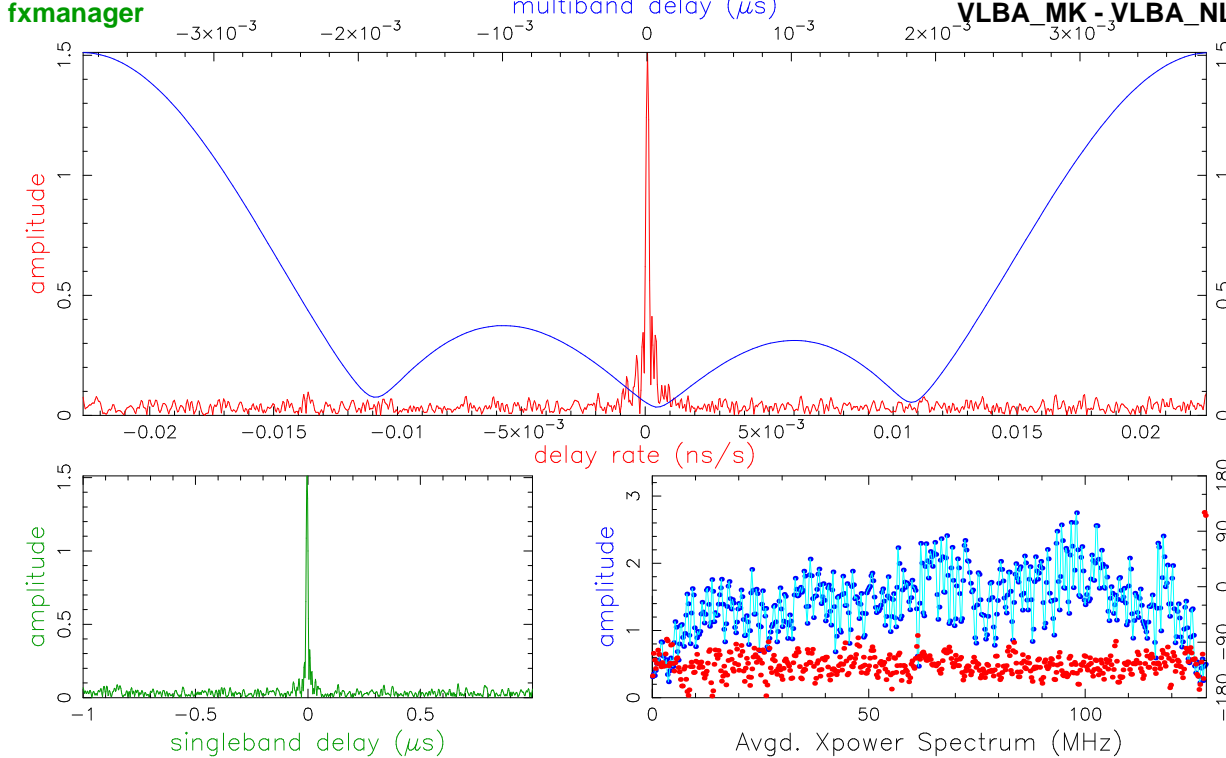
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mn.Q.105.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, mn

VLBA_MK - VLBA_NL, fgroup Q, pol LR

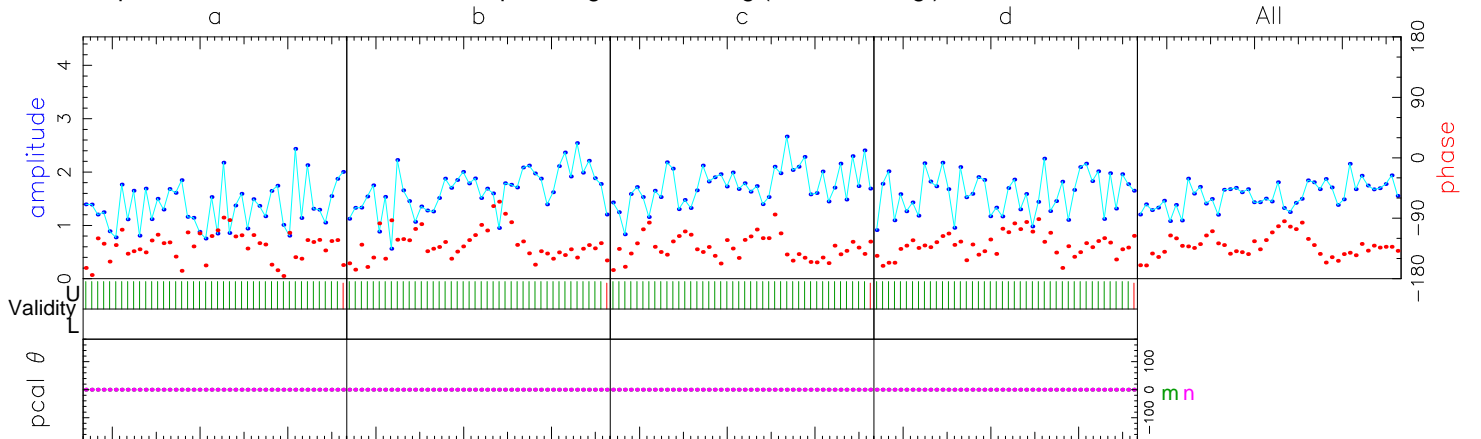


Fringe quality 9

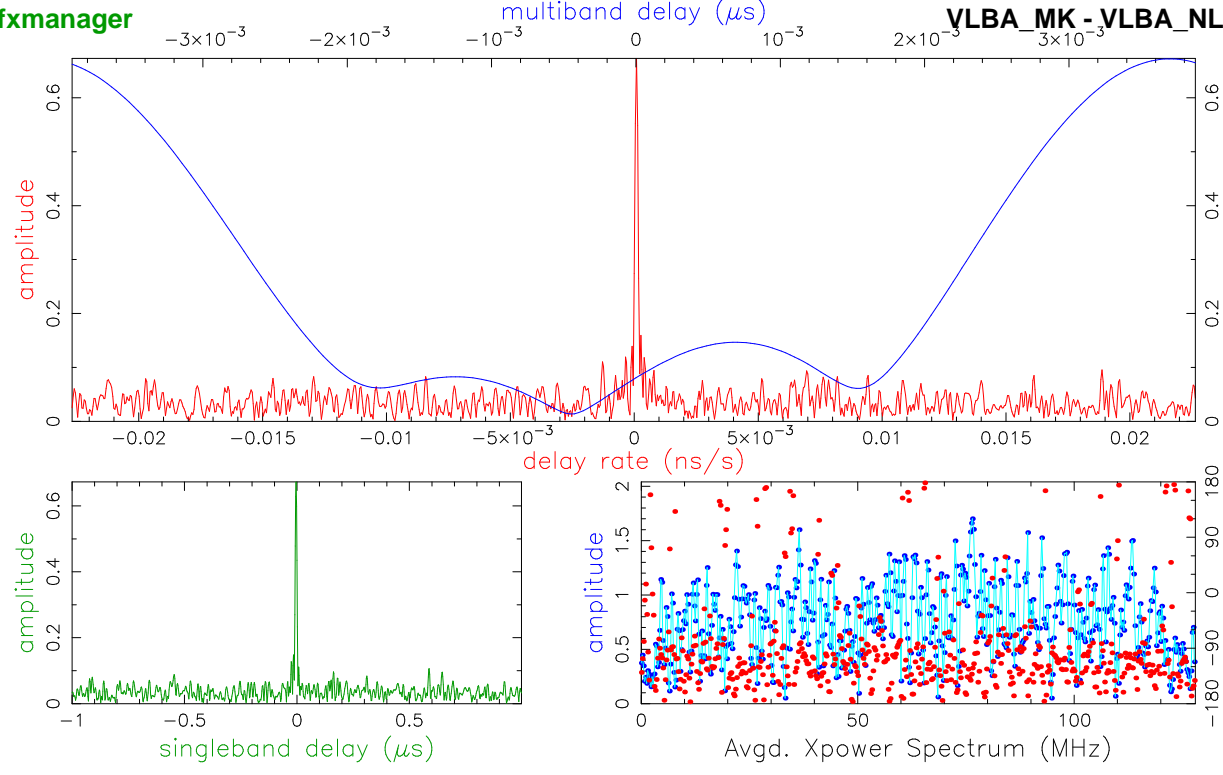
SNR 55.5
 Int time 179.973
 Amp 1.512
 Phase -131.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.004090
 MBD -0.003920
 Fringe rate (Hz) 0.003935
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

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		
Group delay (usec)(sbd)	-9.54795265738E+03					
Sband delay (usec)	-9.54795282724E+03					
Phase delay (usec)	-9.54794874586E+03					
Delay rate (us/s)	6.86453188401E-01					
Total phase (deg)		-7.8				
Apriori delay (usec)						
Apriori clock (usec)						
Apriori clockrate (us/s)						
Apriori rate (us/s)						
Apriori accel (us/s/s)						
Resid mbdelay (usec)						
Resid sbdelay (usec)						
Resid phdelay (usec)						
Resid rate (us/s)						
Resid phase (deg)						
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						
lags: 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				
pcal θ						
pcal mode: MANUAL, MANUAL						
PC period (AP's) 5, 5						
simultaneous interpolator						

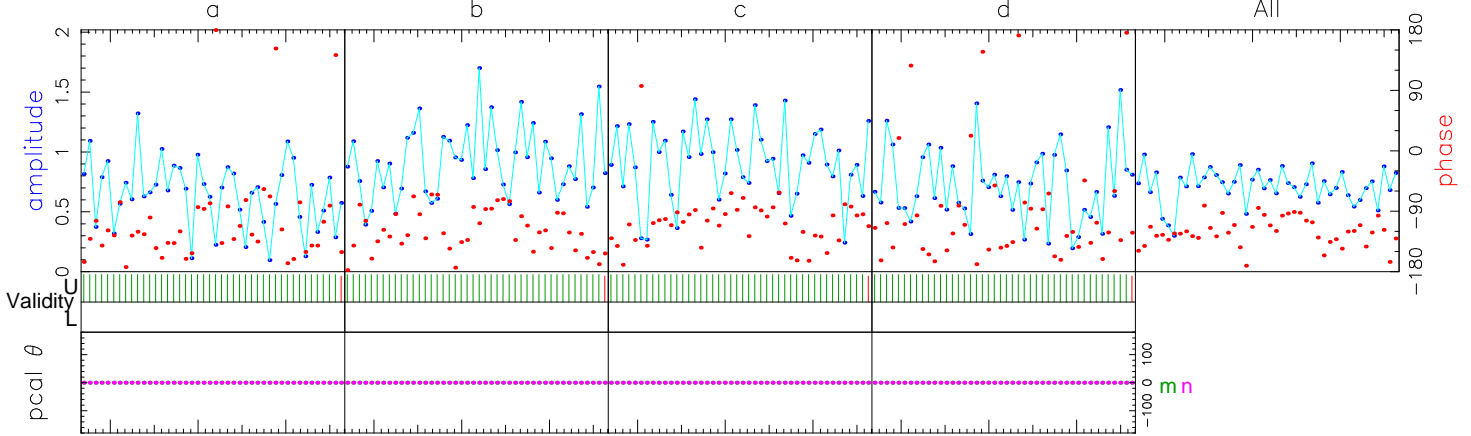


Fringe quality 8

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"

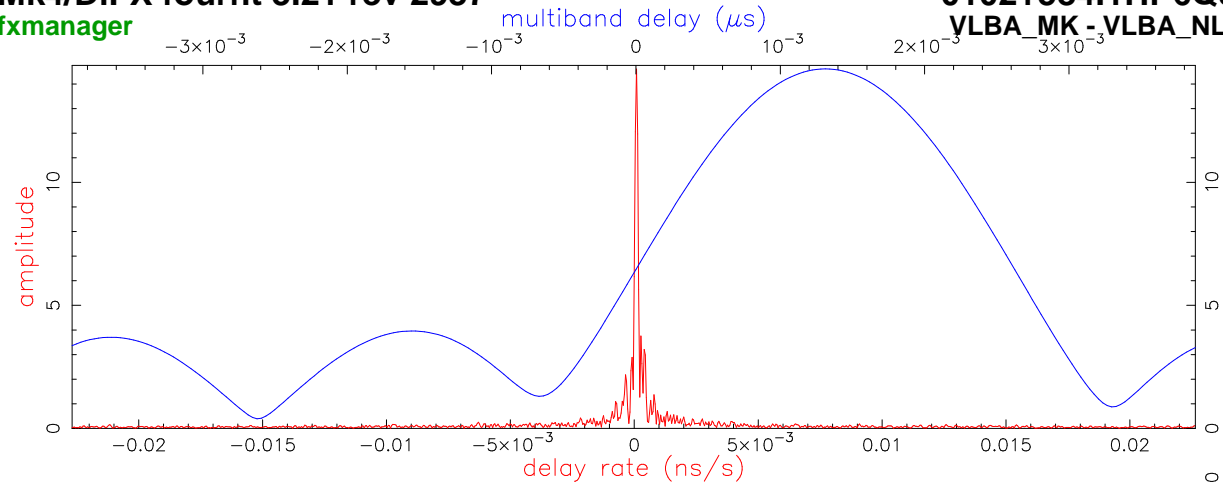
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	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	
n	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	PC phase	
m	1000	1000	1000	1000	ManI PC	
n	1000	1000	1000	1000	PC amp	
m	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

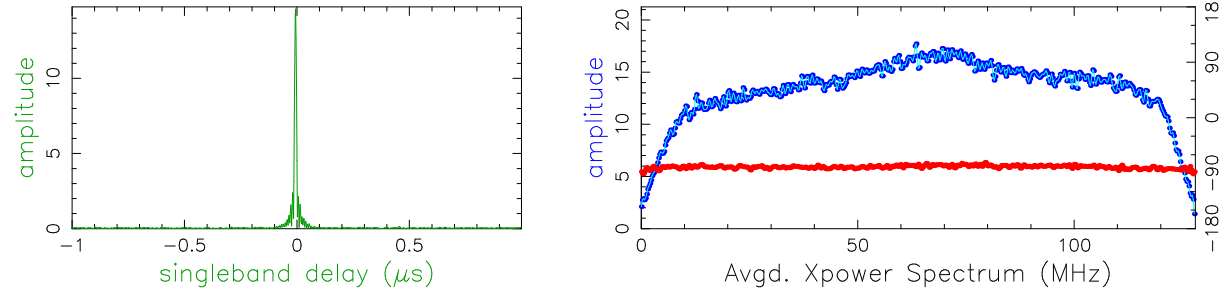
Group delay (usec)(sbd)	-9.54795287395E+03	Apriori delay (usec)	-9.54794873737E+03	Resid mbdelay (usec)	-4.13658E-03	+/- 4.5E-05
Sband delay (usec)	-9.54795289874E+03	Apriori clock (usec)	1.3231764E+01	Resid sbdelay (usec)	-4.16138E-03	+/- 1.7E-04
Phase delay (usec)	-9.54794874511E+03	Apriori clockrate (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 t_cohere infinite ion window (TEC) 0.00 0.00



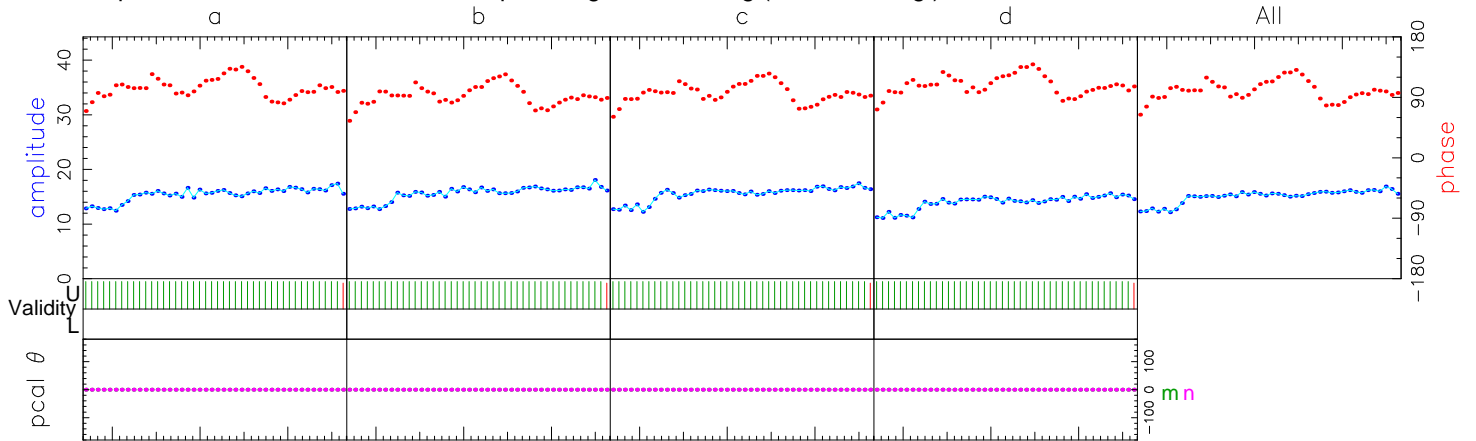
Fringe quality 8

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

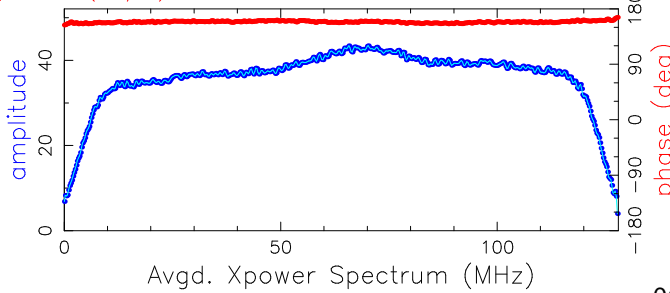
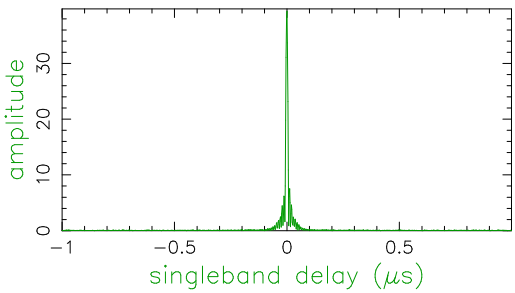
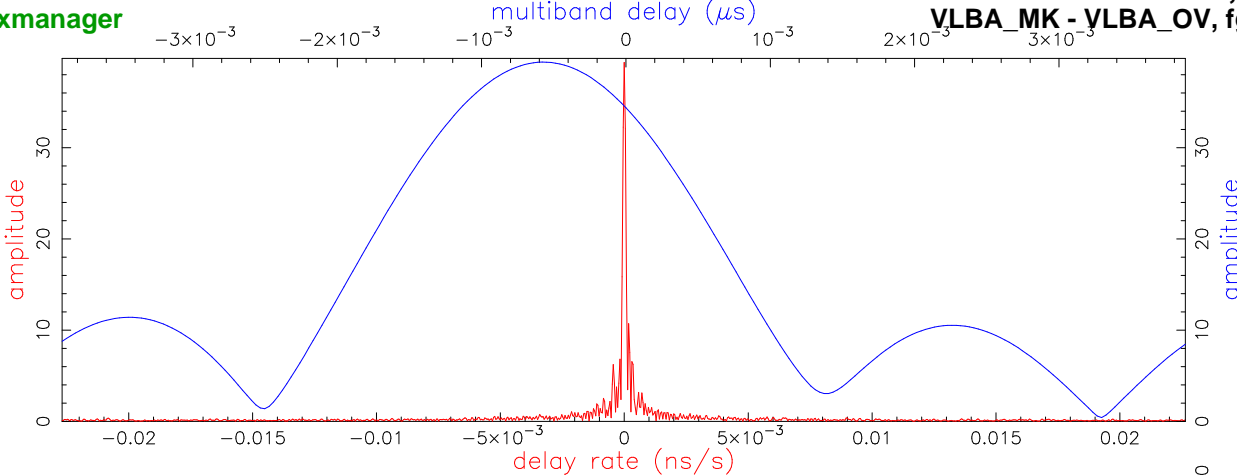
ph/seg (deg)	14.4	Theor.	0.7	Amplitude	14.758 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	8.5	Search (1024X16)	14.401	Search	14.401	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	8.8	Inc. seg. avg.	15.067	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	4.4	Inc. frq. avg.	14.696	Inc. seg. avg.	15.067	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023		
				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

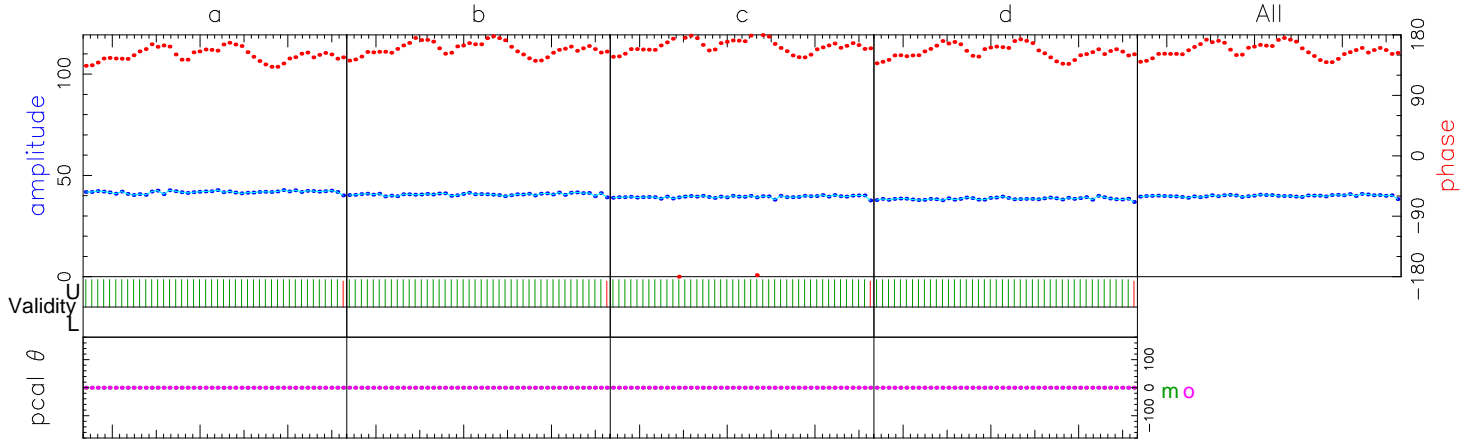
Fringe quality 9

SNR 1460.0
Int time 179.975
Amp 39.797
Phase 156.8
PFD 0.0e+00
Delays (us)
SBD -0.000693
MBD -0.000615
Fringe rate (Hz)
-0.000239
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		
m	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	PC freqs	
m:o	0:0	0:0	0:0	0:0	PC phase	
m	1000	1000	1000	1000	ManI PC	
o	1000	1000	1000	1000	PC amp	
m	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
o	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

	-8.09850370099E+03	Apriori delay (usec)	-8.09850308621E+03	Resid mbdelay (usec)	-6.14781E-04	+/- 7.6E-07
Group delay (usec)(sbd)	-8.09850377896E+03	Apriori clock (usec)	-8.0493813E+00	Resid sbdelay (usec)	-6.92750E-04	+/- 3.0E-06
Sband delay (usec)	-8.09850307609E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	1.01175E-05	+/- 5.1E-09
Phase delay (usec)	3.96007895497E-01	Apriori rate (us/s)	3.96007901050E-01	Resid rate (us/s)	-5.55329E-09	+/- 4.9E-11
Delay rate (us/s)		Apriori accel (us/s/s)	1.74534133370E-05	Resid phase (deg)	156.8	+/- 0.1
Total phase (deg)	-142.2					

	RMS	Theor.	Amplitude	39.797 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	9.7	0.3	Search (1024X16)	39.159	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	1.2	0.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.2	0.1	Inc. seg. avg.	39.932	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.2	0.1	Inc. frq. avg.	39.521	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			o: az 30.8 el 62.4 pa -129.3	u,v (fr/asec) -2157.762 518.800		simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

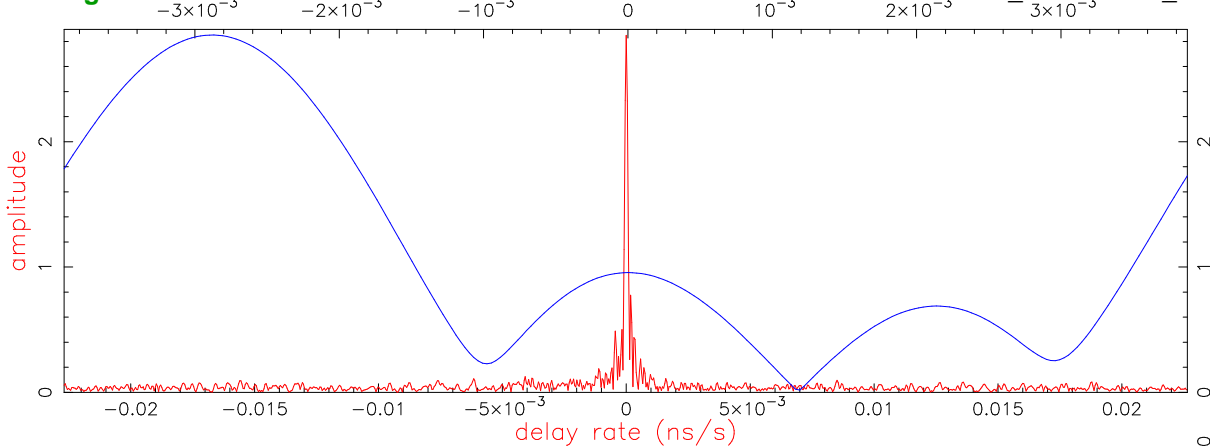
fxmanager

0102+584.1HP6Q8, No0090, mo

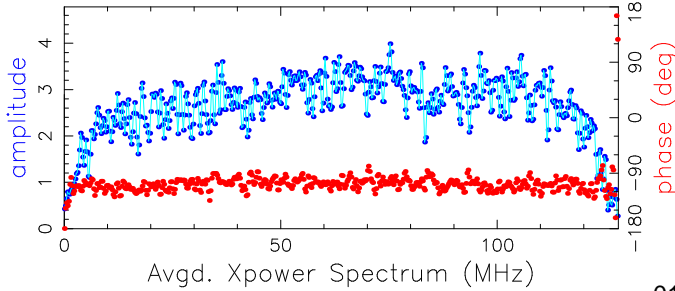
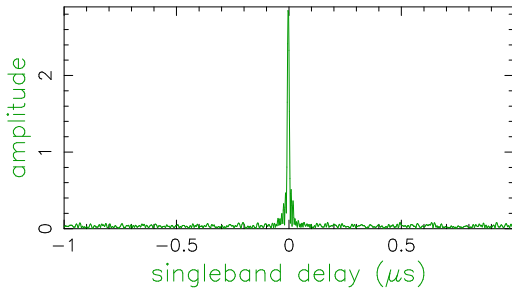
VLBA_MK - VLBA_OV, fgroup Q, pol LR

multiband delay (μ s)

Fringe quality 9

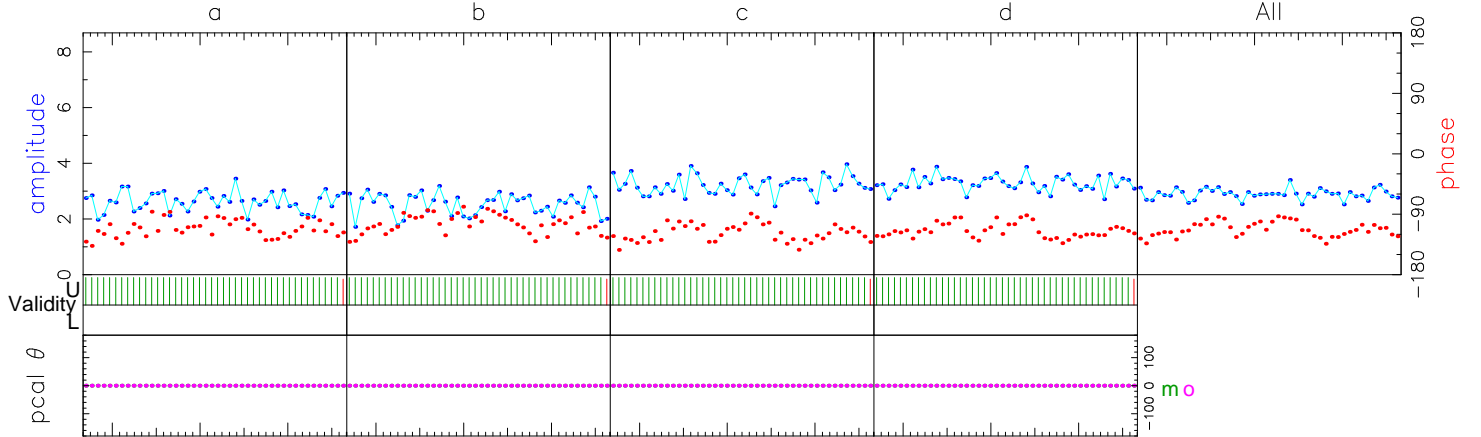


SNR 106.3
 Int time 179.975
 Amp 2.896
 Phase -112.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.003049
 MBD -0.002836
 Fringe rate (Hz)
 -0.000231
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



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		
m	1000	1000	1000	1000		
o	1000	1000	1000	1000		
m:o	0:0	0:0	0:0	0:0		
m:o	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
o	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
o	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-8.09850592258E+03	Apriori delay (usec)	-8.09850308621E+03	Resid mbdelay (usec)	-2.83638E-03	+/-	1.0E-05
Sband delay (usec)	-8.09850613558E+03	Apriori clock (usec)	-8.0493813E+00	Resid sbdelay (usec)	-3.04938E-03	+/-	4.1E-05
Phase delay (usec)	-8.09850309346E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-7.24958E-06	+/-	7.0E-08
Delay rate (us/s)	3.96007895684E-01	Apriori rate (us/s)	3.96007901050E-01	Resid rate (us/s)	-5.36610E-09	+/-	6.7E-10
Total phase (deg)		Apriori accel (us/s/s)	1.74534133370E-05	Resid phase (deg)	-112.3	+/-	1.1

ph/seg (deg)	10.7	Theor.	3.6	Amplitude	2.896 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	6.5		6.2	Search (1024X16)	2.841	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	7.0		1.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004
amp/frq (%)	11.7		1.9	Inc. seg. avg.	2.894	Sample rate (MSamp/s):	256	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	2.859	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

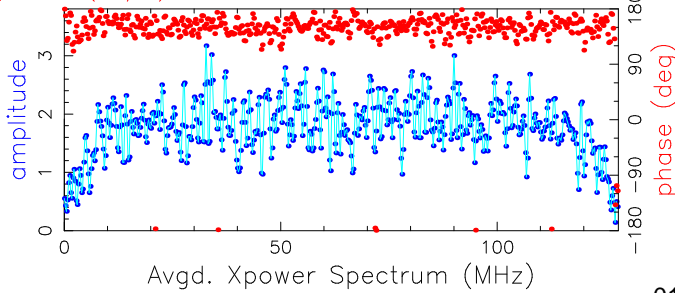
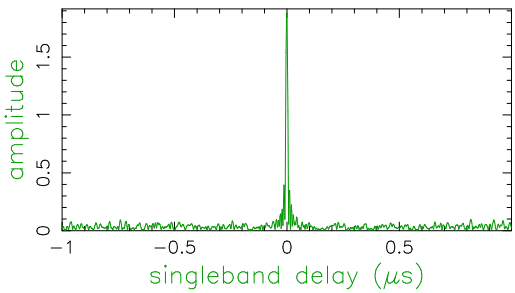
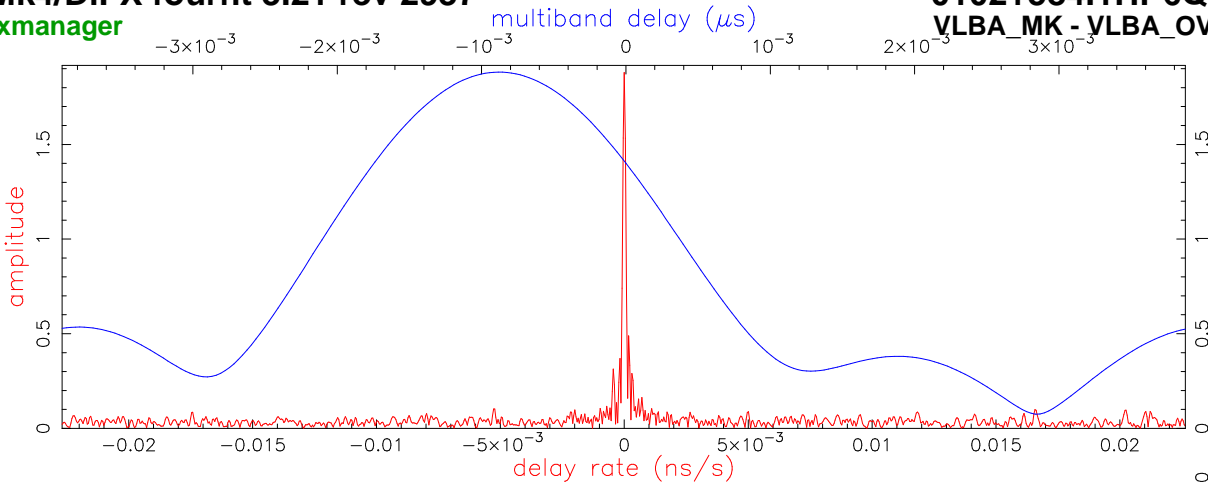
m: az 32.9 el 30.2 pa -101.9 o: az 30.8 el 62.4 pa -129.3 u,v (fr/asec) -2157.762 518.800 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mo..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mo.Q.137.1HP6Q8

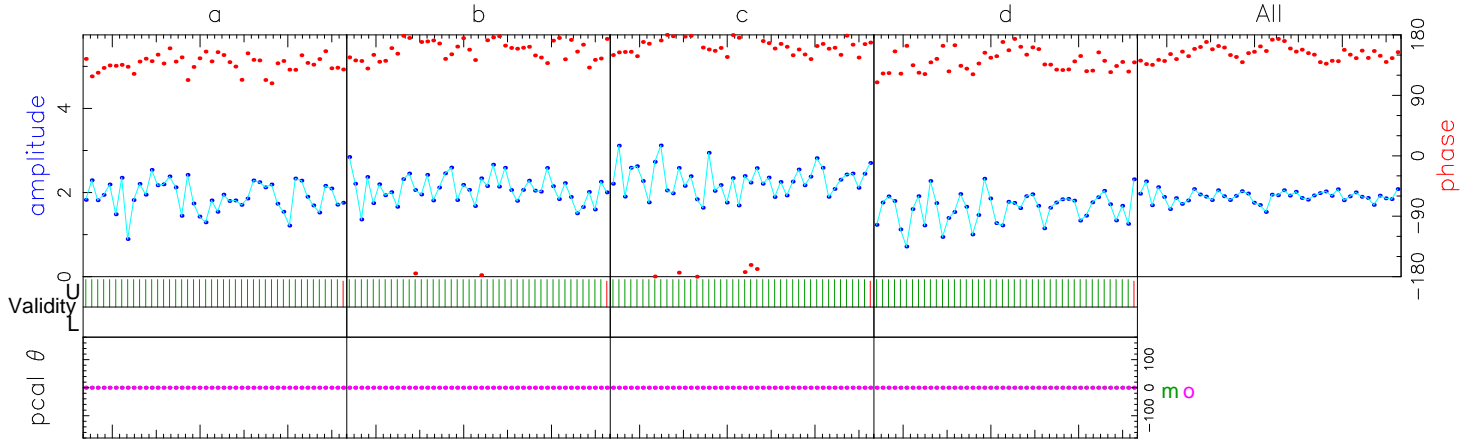
Fringe quality 8

SNR 70.4
Int time 179.975
Amp 1.918
Phase 151.7
PFD 0.0e+00
Delays (us)
SBD -0.000920
MBD -0.000939
Fringe rate (Hz)
-0.000261
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

Exp. c202a
Yr:day 16383
Start 2021:005:135111
Stop 2021:010:163117
FRT 2020:247:085004
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



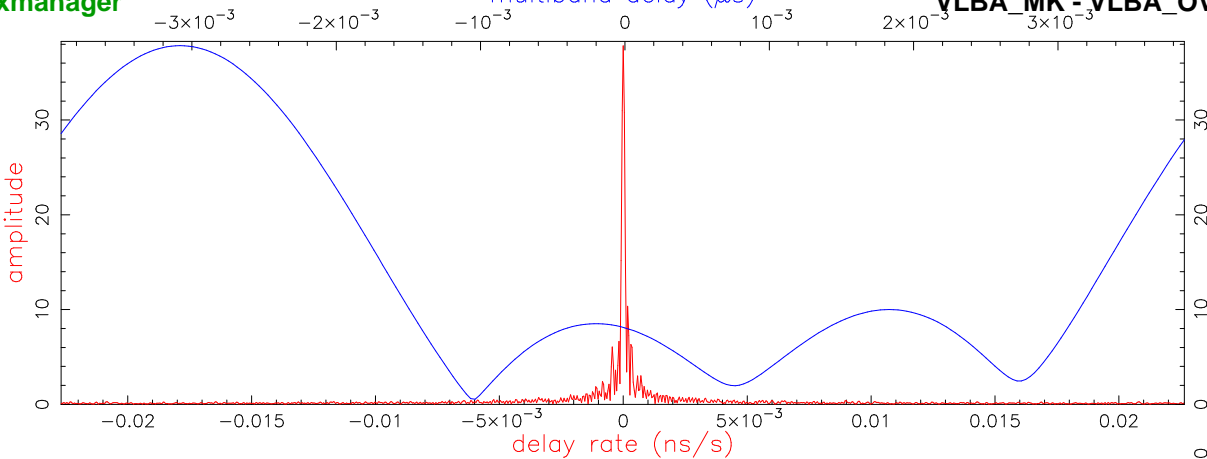
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
m	1000	1000	1000	1000		
o	1000	1000	1000	1000		
m:o	0:0	0:0	0:0	0:0		
m:o	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
o	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
o	Q00UL	Q01UL	Q02UL	Q03UL		
					Chan ids	
					Tracks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

Group delay (usec)(sbd)	-8.09850402518E+03	Apriori delay (usec)	-8.09850308621E+03	Resid mbdelay (usec)	-9.38969E-04	+/- 1.6E-05
Sband delay (usec)	-8.09850400658E+03	Apriori clock (usec)	-8.0493813E+00	Resid sbdelay (usec)	-9.20375E-04	+/- 6.1E-05
Phase delay (usec)	-8.09850307642E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	9.79042E-06	+/- 1.1E-07
Delay rate (us/s)	3.96007894989E-01	Apriori rate (us/s)	3.96007901050E-01	Resid rate (us/s)	-6.06097E-09	+/- 1.0E-09
Total phase (deg)	-147.3	Apriori accel (us/s/s)	1.74534133370E-05	Resid phase (deg)	151.7	+/- 1.6

	RMS	Theor.	Amplitude	1.918 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	9.9	5.4	Search (1024X16)	1.870	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	7.2	9.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	17.5	1.6	Inc. seg. avg.	1.901	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	12.7	2.8	Inc. frq. avg.	1.924	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

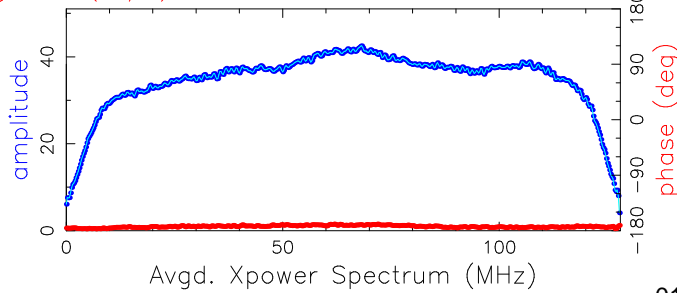
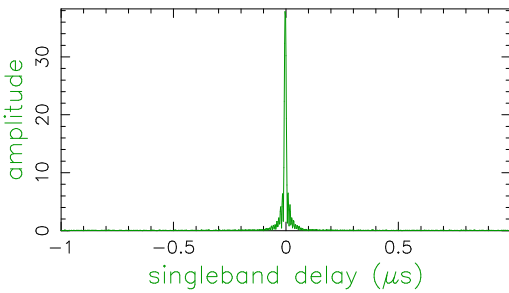
m: az 32.9 el 30.2 pa -101.9 o: az 30.8 el 62.4 pa -129.3 u,v (fr/asec) -2157.762 518.800 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mo..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mo.Q.152.1HP6Q8

multiband delay (μ s)



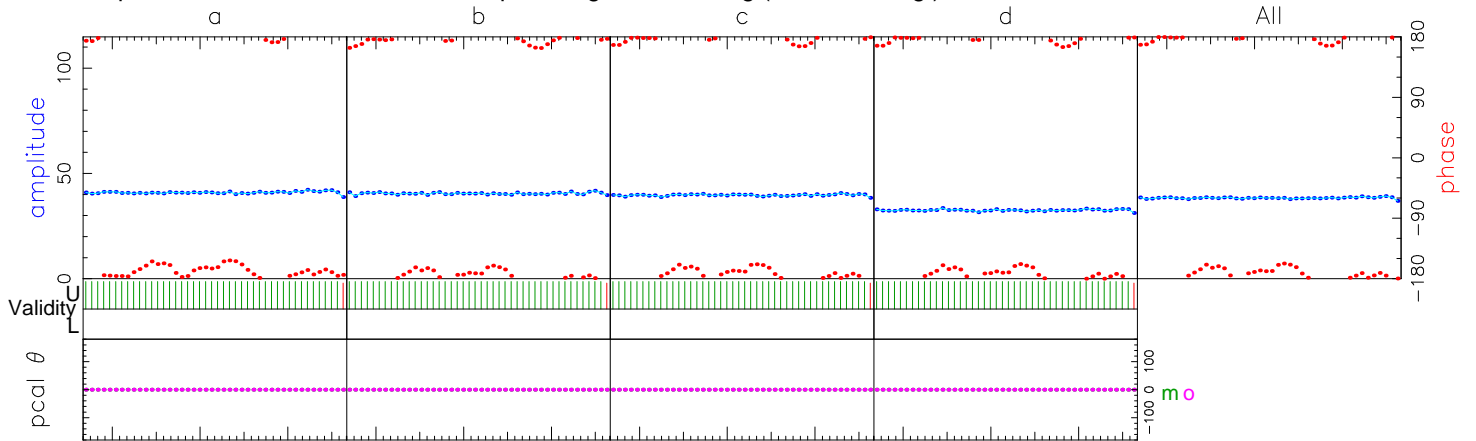
Fringe quality 9

SNR 1404.9
Int time 179.975
Amp 38.296
Phase -175.6
PFD 0.0e+00
Delays (us)
SBD -0.003169
MBD -0.003044
Fringe rate (Hz)
-0.000233
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

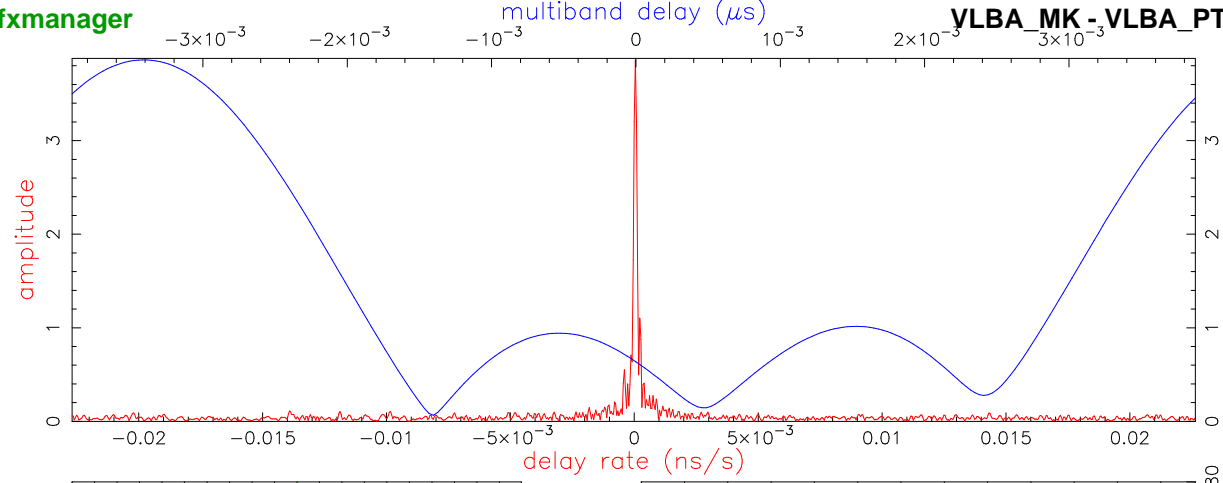


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
m	1000	1000	1000	1000		
o	1000	1000	1000	1000		
m:o	0:0	0:0	0:0	0:0		
m:o	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
o	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
o	Q00UL	Q01UL	Q02UL	Q03UL		
					Chan ids	
					Tracks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

	42912.00	43040.00	43168.00	43296.00		
Group delay (usec)(sbd)	-8.09850613005E+03		-8.09850308621E+03		Resid mbdelay (usec)	-3.04384E-03 +/- 7.9E-07
Sband delay (usec)	-8.09850625546E+03		-8.0493813E+00		Resid sbdelay (usec)	-3.16925E-03 +/- 3.1E-06
Phase delay (usec)	-8.09850309754E+03		1.9999998E-07		Resid phdelay (usec)	-1.13306E-05 +/- 5.3E-09
Delay rate (us/s)	3.96007895633E-01		3.96007901050E-01		Resid rate (us/s)	-5.41715E-09 +/- 5.1E-11
Total phase (deg)		-114.5	1.74534133370E-05		Resid phase (deg)	-175.6 +/- 0.1

	RMS	Theor.	Amplitude	38.296 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	9.7	0.3	Search (1024X16)	37.402	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	1.0	0.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	4.4	0.1	Inc. seg. avg.	38.380	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	8.9	0.1	Inc. frq. avg.	37.889	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

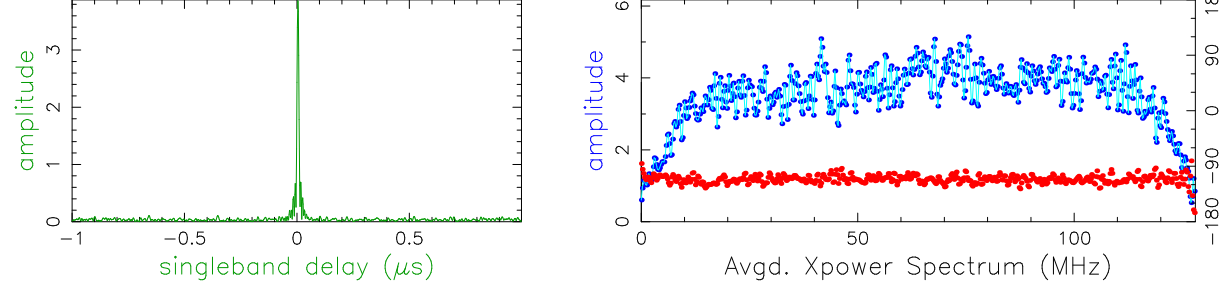
m: az 32.9 el 30.2 pa -101.9 o: az 30.8 el 62.4 pa -129.3 u,v (fr/asec) -2157.762 518.800 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mo..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mo.Q.91.1HP6Q8



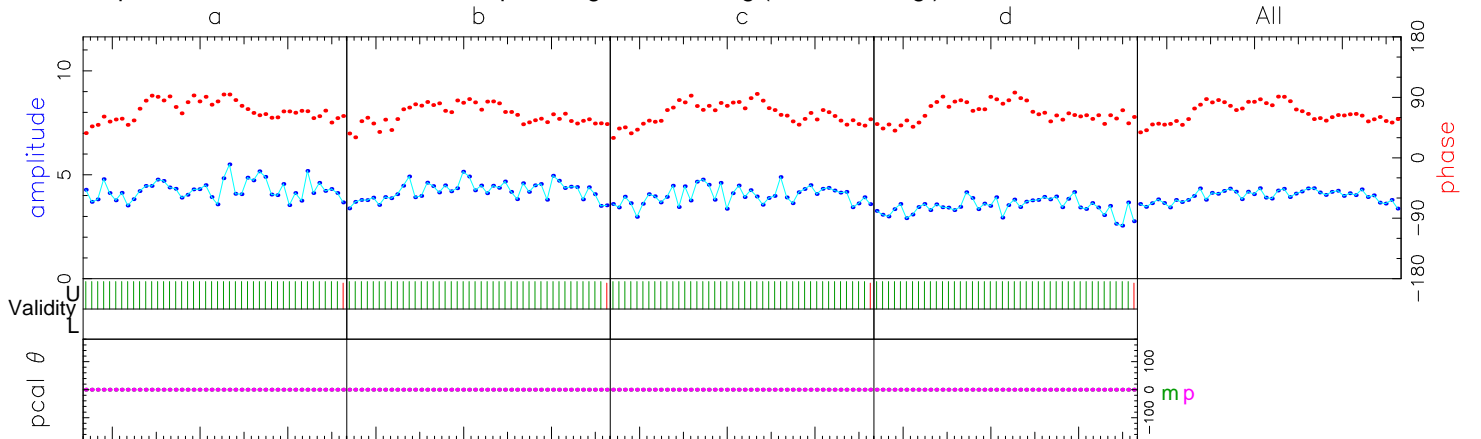
Fringe quality 8

SNR 142.3
Int time 179.975
Amp 3.879
Phase 67.1
PFD 0.0e+00
Delays (us)
SBD 0.004343
MBD -0.003390
Fringe rate (Hz) 0.000972
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"



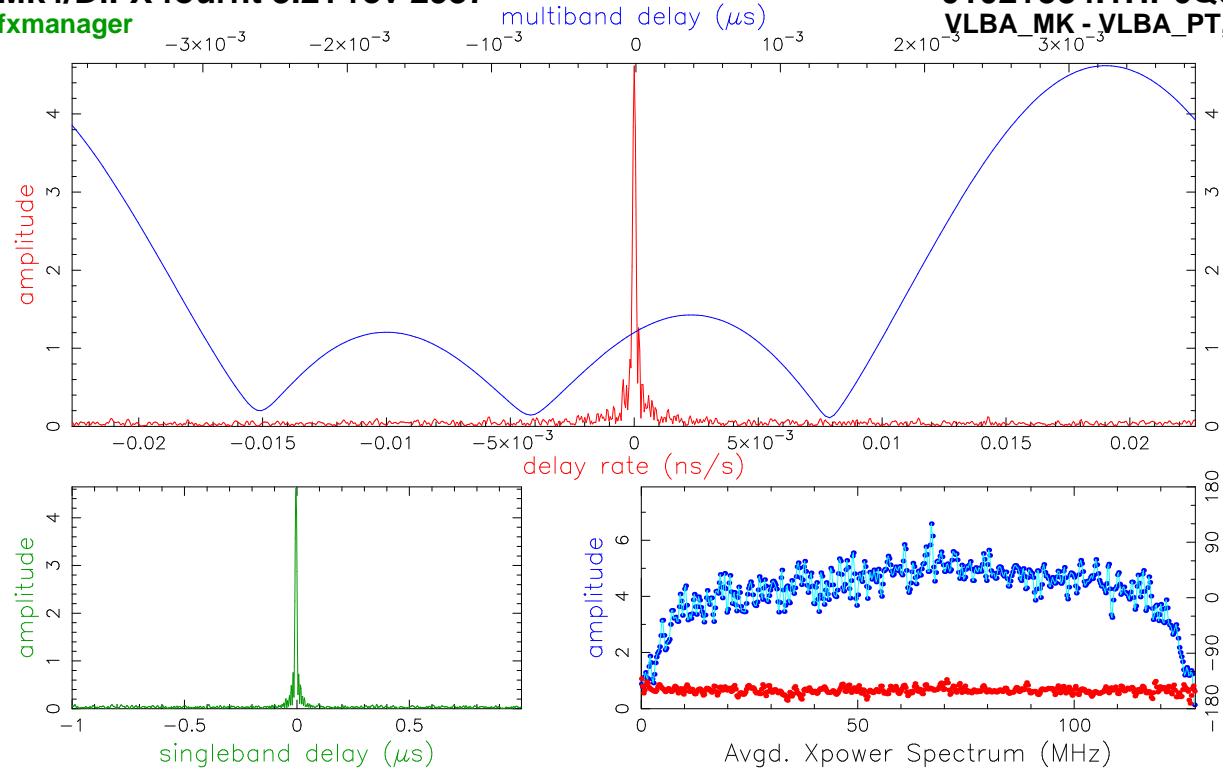
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



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

Group delay (usec)(sbd)	-8.21913675687E+03	Apriori delay (usec)	-8.21914117929E+03	Resid mbdelay (usec)	-3.39009E-03	+/- 7.8E-06
Sband delay (usec)	-8.21913683666E+03	Apriori clock (usec)	1.3315074E+01	Resid sbdelay (usec)	4.34262E-03	+/- 3.0E-05
Phase delay (usec)	-8.21914117496E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	4.32987E-06	+/- 5.2E-08
Delay rate (us/s)	4.95741558345E-01	Apriori rate (us/s)	4.95741535754E-01	Resid rate (us/s)	2.25904E-08	+/- 5.0E-10
Total phase (deg)	-61.3	Apriori accel (us/s/s)	2.21896495853E-05	Resid phase (deg)	67.1	+/- 0.8

	RMS	Theor.	Amplitude	3.879 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	14.1	2.7	Search (1024X16)	3.691	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	7.4	4.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	3.4	0.8	Inc. seg. avg.	3.975	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	8.0	1.4	Inc. frq. avg.	3.866	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			p: az 19.7 el 63.3 pa -148.5		u,v (fr/asec) -2701.271 921.691	simultaneous interpolator

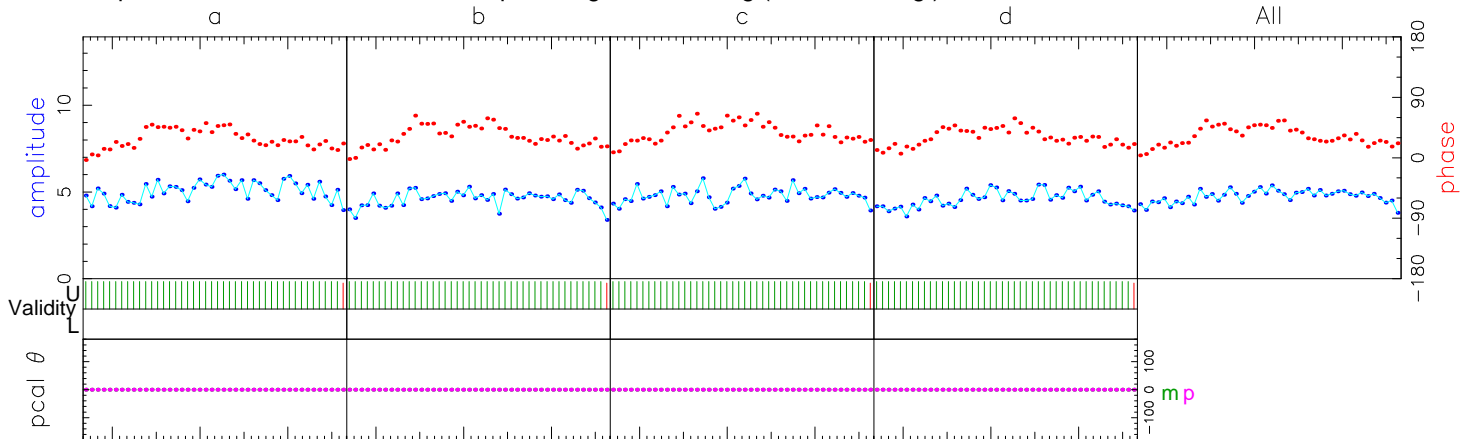


Fringe quality 8

SNR 170.5
Int time 179.975
Amp 4.648
Phase 32.5
PFD 0.0e+00
Delays (us)
SBD -0.004455
MBD 0.003226
Fringe rate (Hz) 0.000939
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		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m:p	0:0	0:0	0:0	0:0		
m:p	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

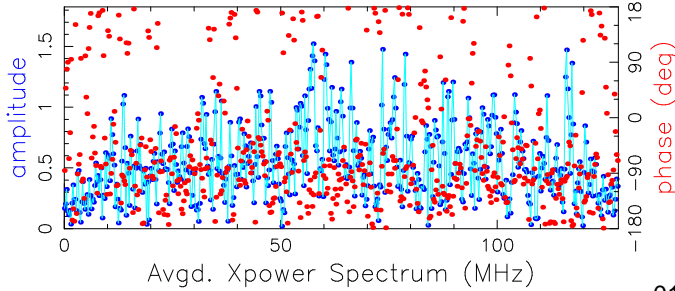
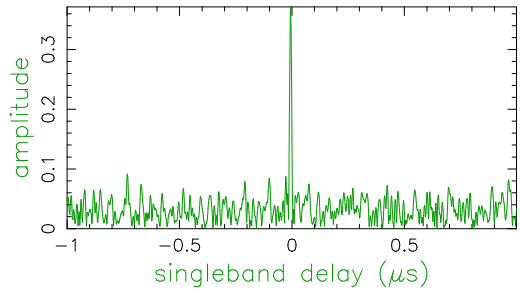
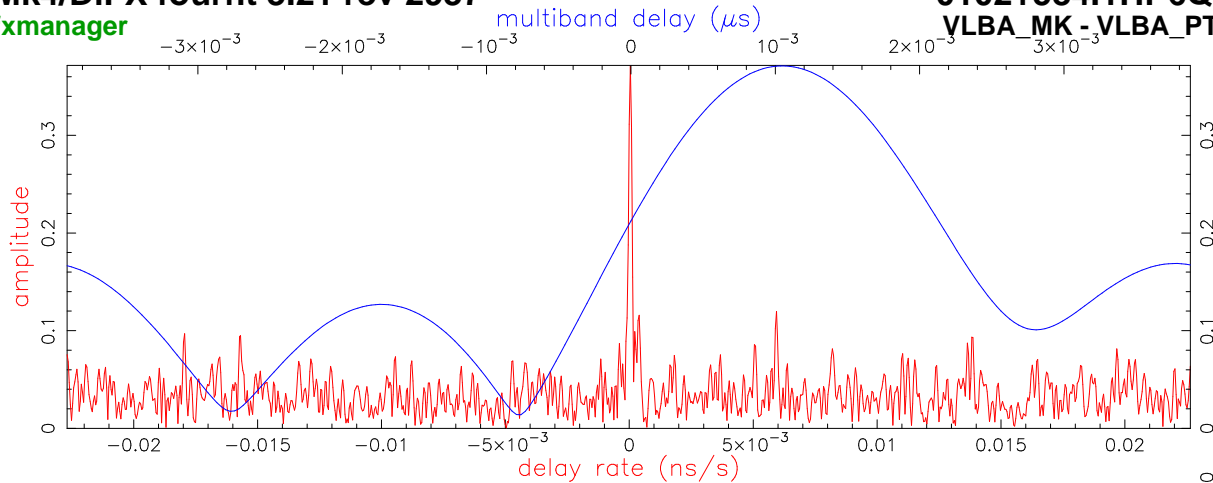
Group delay (usec)(sbd)	-8.21914576579E+03	Apriori delay (usec)	-8.21914117929E+03	Resid mbdelay (usec)	3.22600E-03	+/-	6.5E-06
Sband delay (usec)	-8.21914563441E+03	Apriori clock (usec)	1.3315074E+01	Resid sbdelay (usec)	-4.45512E-03	+/-	2.5E-05
Phase delay (usec)	-8.21914117719E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	2.10065E-06	+/-	4.3E-08
Delay rate (us/s)	4.95741557582E-01	Apriori rate (us/s)	4.95741535754E-01	Resid rate (us/s)	2.18274E-08	+/-	4.2E-10
Total phase (deg)	-95.8	Apriori accel (us/s/s)	2.21896495853E-05	Resid phase (deg)	32.5	+/-	0.7

	RMS	Theor.	Amplitude	4.648 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	13.5	2.2	Search (1024X16)	4.369	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	7.8	3.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	5.1	0.7	Inc. seg. avg.	4.742	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.9	1.2	Inc. frq. avg.	4.626	Data rate(Mb/s): 2048	nlags: 512 t_coherence infinite ion window (TEC) 0.00 0.00

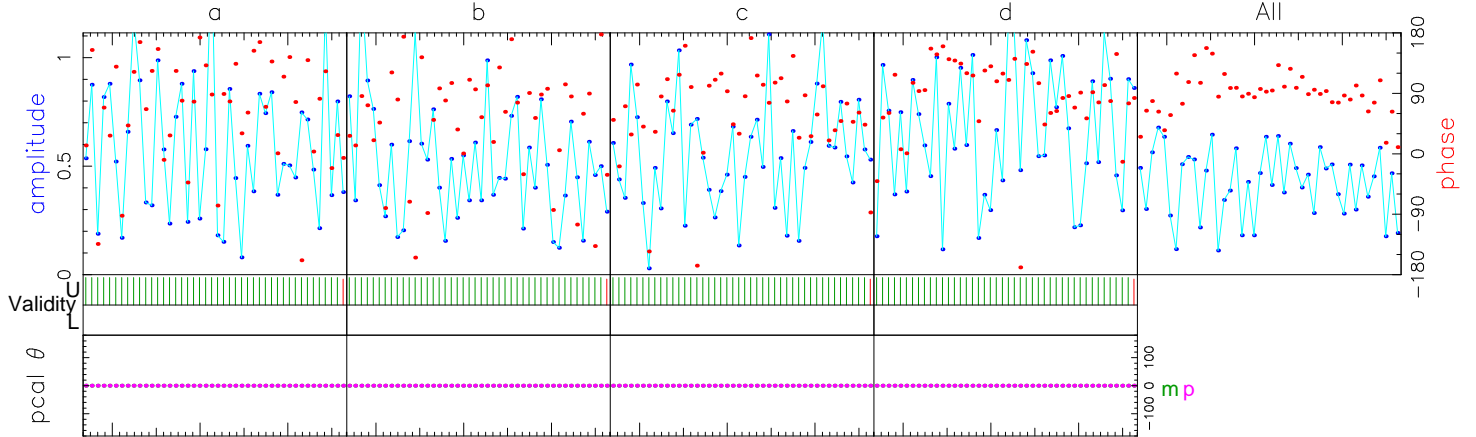
Fringe quality 9

SNR 13.6
Int time 179.975
Amp 0.372
Phase 91.7
PFD 7.5e-34
Delays (us)
SBD -0.006126
MBD 0.001040
Fringe rate (Hz)
0.001257
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		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m:p	0:0	0:0	0:0	0:0		
m:p	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

	-8.21914795134E+03	Apriori delay (usec)	-8.21914117929E+03	Resid mbdelay (usec)	1.04045E-03	+/- 8.2E-05
Sband delay (usec)	-8.21914730566E+03	Apriori clock (usec)	1.3315074E+01	Resid sbdelay (usec)	-6.12637E-03	+/- 3.2E-04
Phase delay (usec)	-8.21914117337E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	5.91574E-06	+/- 5.4E-07
Delay rate (us/s)	4.95741564959E-01	Apriori rate (us/s)	4.95741535754E-01	Resid rate (us/s)	2.92044E-08	+/- 5.2E-09
Total phase (deg)	-36.7	Apriori accel (us/s/s)	2.21896495853E-05	Resid phase (deg)	91.7	+/- 8.4

	RMS	Theor.	Amplitude	0.372 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	30.9	27.9	Search (1024X16)	0.363	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	43.8	48.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	14.5	8.4	Inc. seg. avg.	0.382	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	26.0	14.7	Inc. frq. avg.	0.373	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

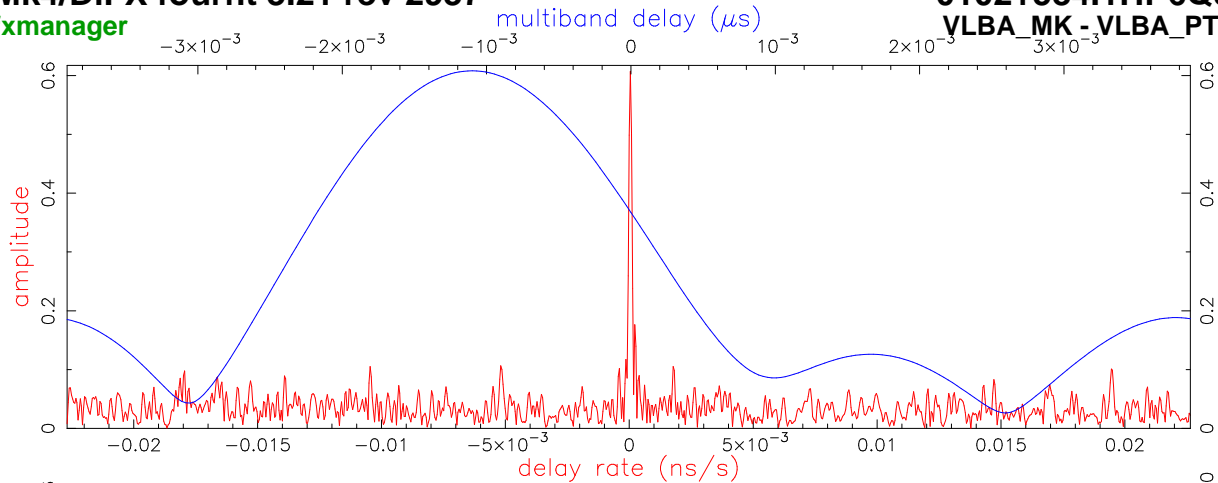
m: az 32.9 el 30.2 pa -101.9 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -2701.271 921.691 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mp.Q.131.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

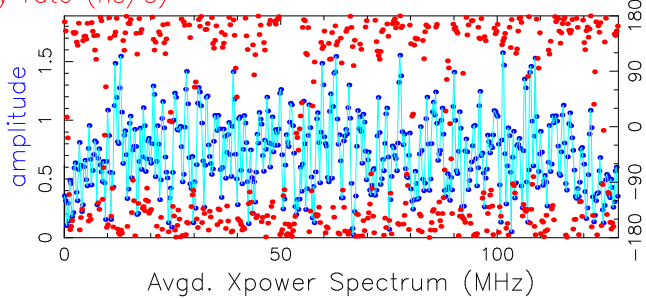
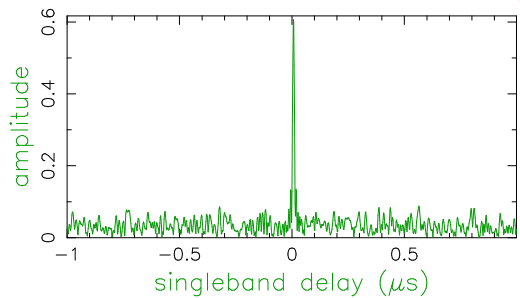
0102+584.1HP6Q8, No0090, mp

VLBA_MK - VLBA_PT, fgroup Q, pol RL



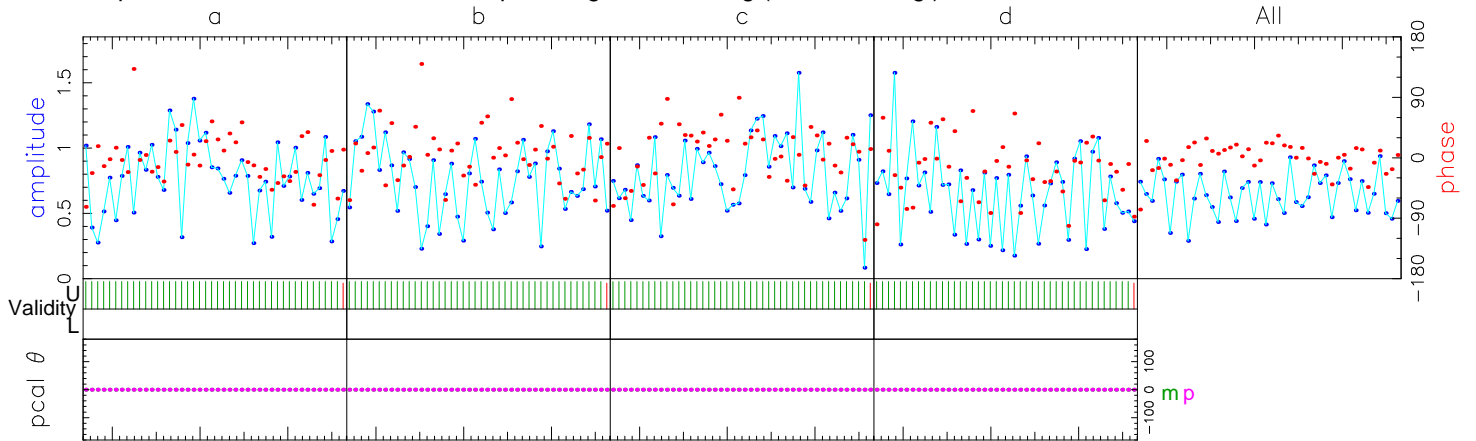
Fringe quality 8

SNR 22.6
 Int time 179.975
 Amp 0.617
 Phase -0.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.006679
 MBD -0.001035
 Fringe rate (Hz)
 0.001030
 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		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m:p	0:0	0:0	0:0	0:0		
m:p	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UL	Q01UL	Q02UL	Q03UL		

	-8.21913440134E+03	Apriori delay (usec)	-8.21914117929E+03	Resid mbdelay (usec)	-1.03455E-03	+/- 4.9E-05
Sband delay (usec)	-8.21913450004E+03	Apriori clock (usec)	1.3315074E+01	Resid sbdelay (usec)	6.67925E-03	+/- 1.9E-04
Phase delay (usec)	-8.21914117932E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-3.08551E-08	+/- 3.3E-07
Delay rate (us/s)	4.95741559678E-01	Apriori rate (us/s)	4.95741535754E-01	Resid rate (us/s)	2.39234E-08	+/- 3.1E-09
Total phase (deg)	-128.9	Apriori accel (us/s/s)	2.21896495853E-05	Resid phase (deg)	-0.5	+/- 5.1

	RMS	Theor.	Amplitude	0.617 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	21.3	16.8	Search (1024X16)	0.581	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	26.3	29.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	14.8	5.1	Inc. seg. avg.	0.622	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	9.8	8.8	Inc. frq. avg.	0.614	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 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -2701.271 921.691 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mp.Q.150.1HP6Q8