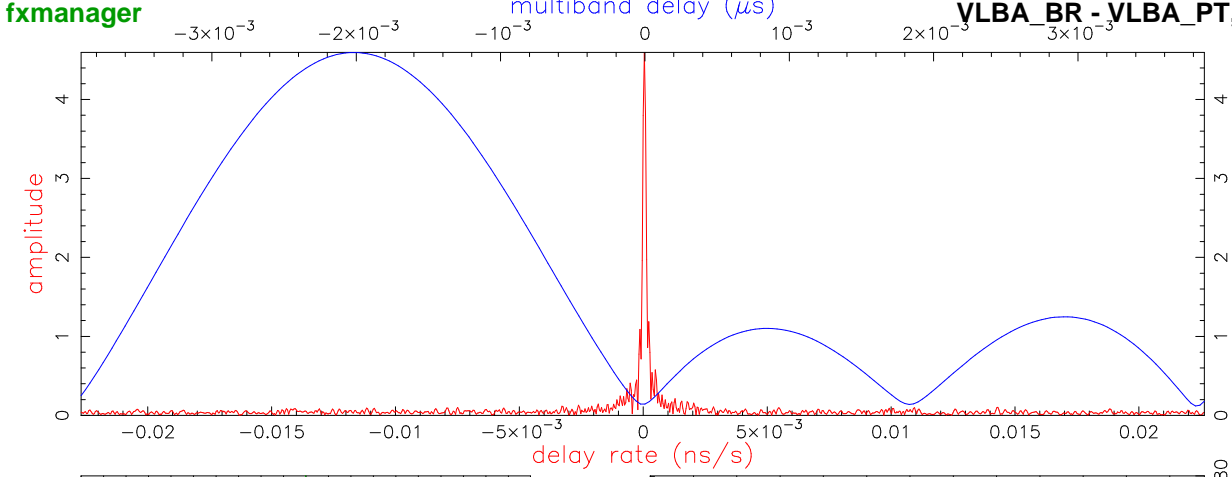


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bp

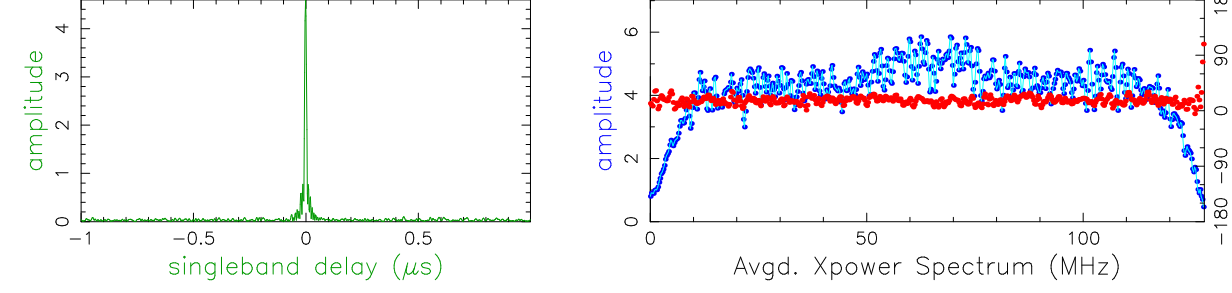
VLBA_BR - VLBA_PT, fgroup Q, pol RR



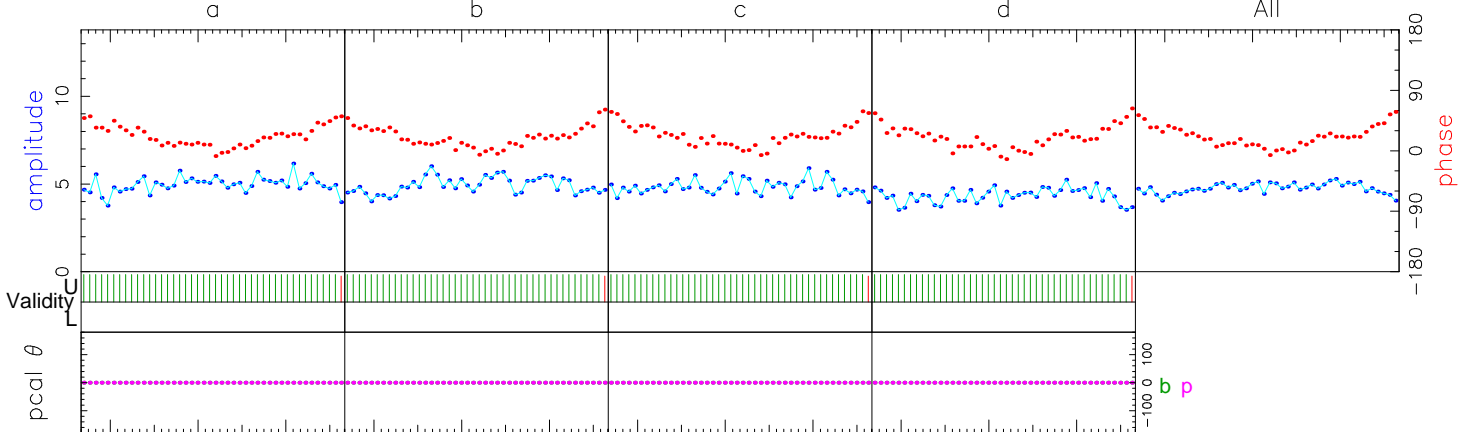
Fringe quality 8

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

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



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



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

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

	RMS	Theor.	Amplitude	4.596 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	15.3	2.3	Search (1024X16)	4.569	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	7.2	3.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	2.0	0.7	Inc. seg. avg.	4.754	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	5.6	1.2	Inc. frq. avg.	4.596	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

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

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

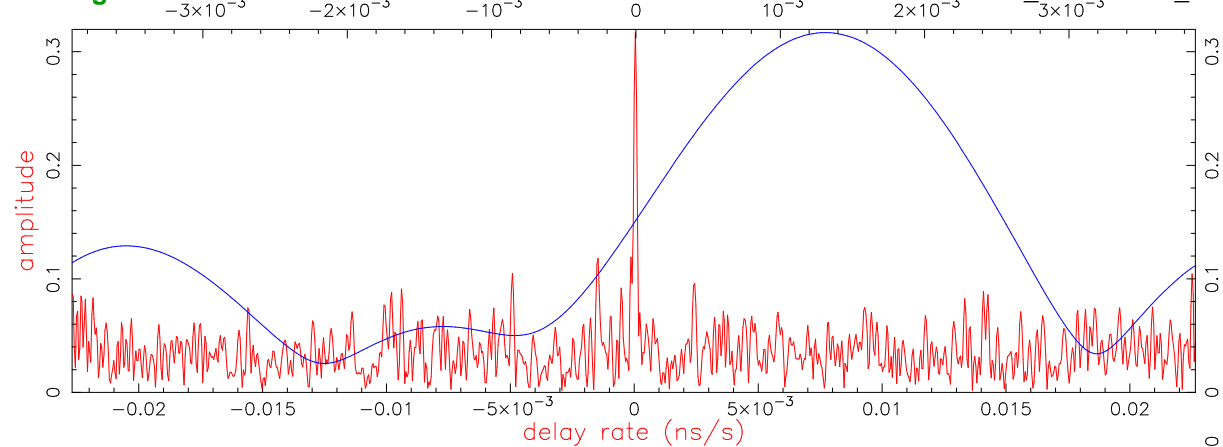
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bp

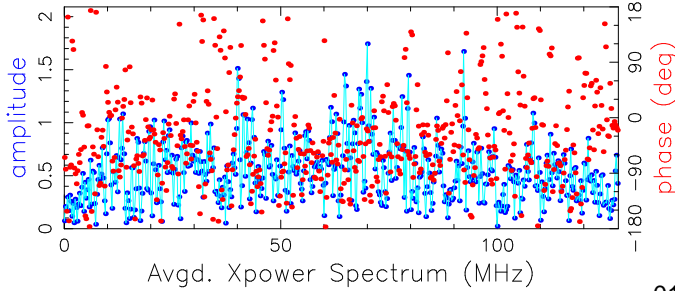
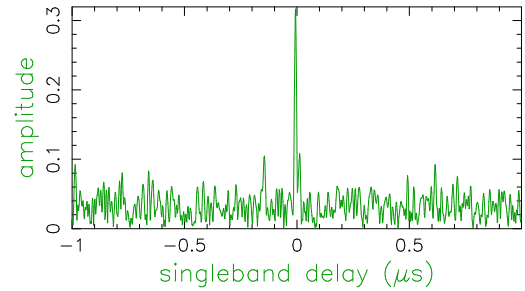
VLBA_BR - VLBA_PT, fgroup Q, pol LR

multiband delay (μ s)



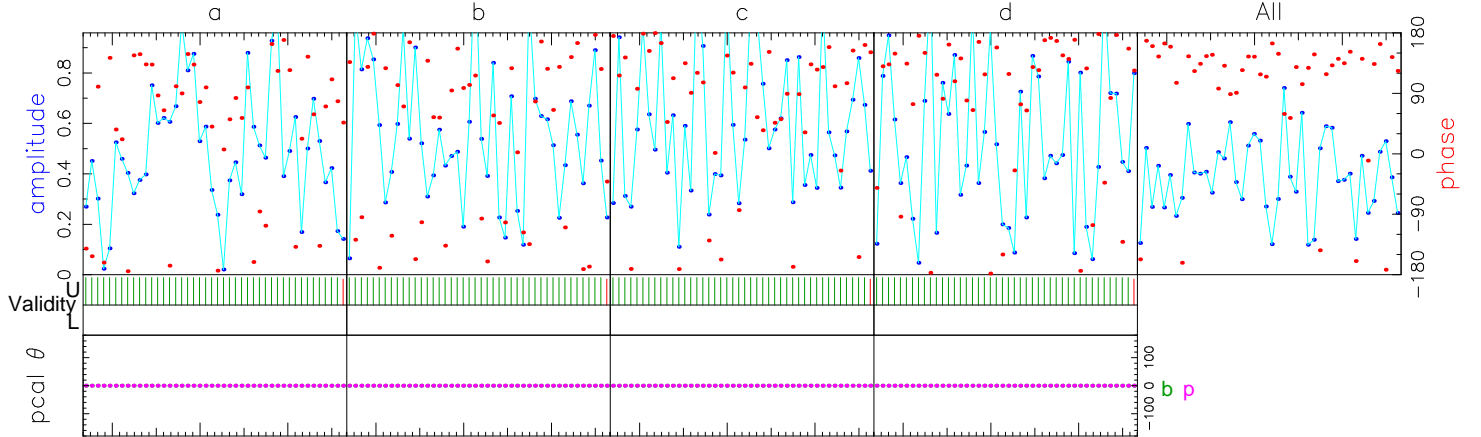
Fringe quality 9

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



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

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



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

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

	RMS	Theor.	Amplitude	0.320 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	40.1	32.4	Search (1024X16)	0.313	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	51.7	56.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
ph/frq (deg)	18.6	9.8	Inc. seg. avg.	0.336	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
amp/frq (%)	18.5	17.1	Inc. frq. avg.	0.320	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

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

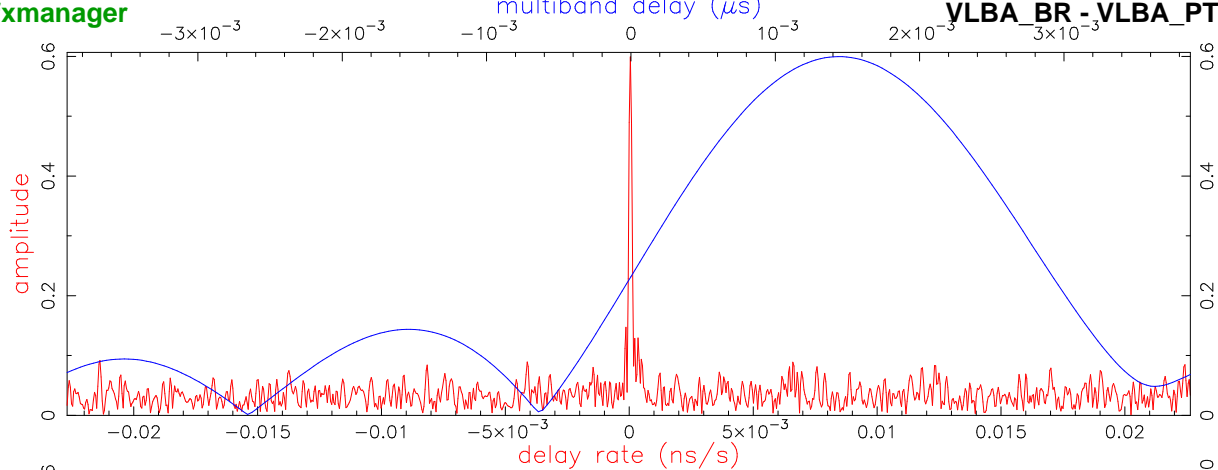
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bp.Q.46.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bp

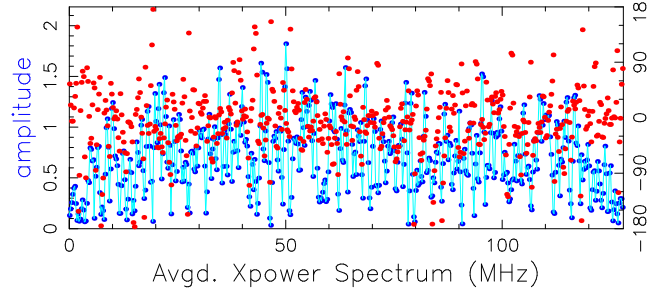
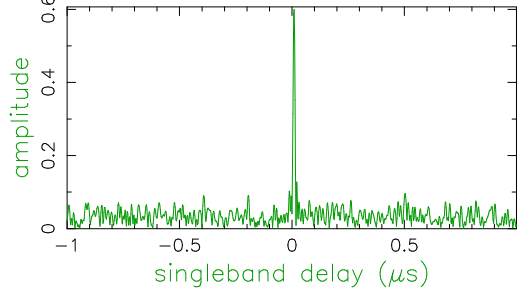
VLBA_BR - VLBA_PT, fgroup Q, pol RL



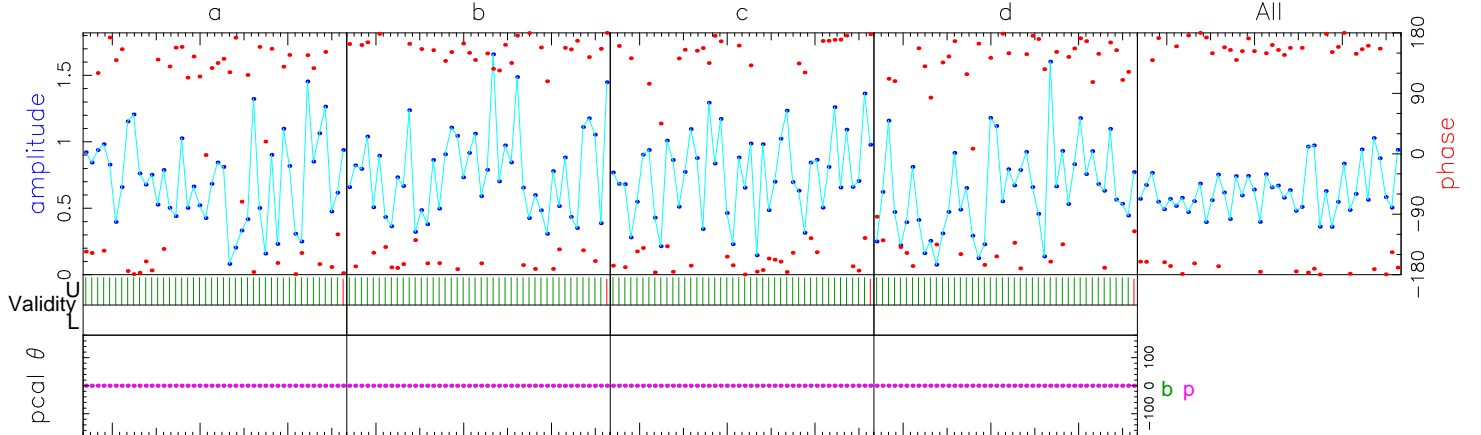
Fringe quality 9

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

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



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



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

Group delay (usec)(sbd)	1.01970797658E+03	Apriori delay (usec)	1.01969876910E+03	Resid mbdelay (usec)	1.39498E-03	+/-	5.0E-05
Sband delay (usec)	1.01970779185E+03	Apriori clock (usec)	-1.7522354E+00	Resid sbdelay (usec)	9.02275E-03	+/-	1.9E-04
Phase delay (usec)	1.01969878015E+03	Apriori clockrate (us/s)	-3.9999997E-07	Resid phdelay (usec)	1.10509E-05	+/-	3.3E-07
Delay rate (us/s)	6.51715313388E-02	Apriori rate (us/s)	6.51714857837E-02	Resid rate (us/s)	4.55551E-08	+/-	3.2E-09
Total phase (deg)	179.2	Apriori accel (us/s/s)	1.19841699137E-05	Resid phase (deg)	171.2	+/-	5.1

ph/seg (deg)	RMS 18.4	Theor. 17.1	Amplitude Search (1024X16)	0.607 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	27.9	29.8	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	7.7	5.1	Inc. seg. avg.	0.605	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	13.1	9.0	Inc. frq. avg.	0.600	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00

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

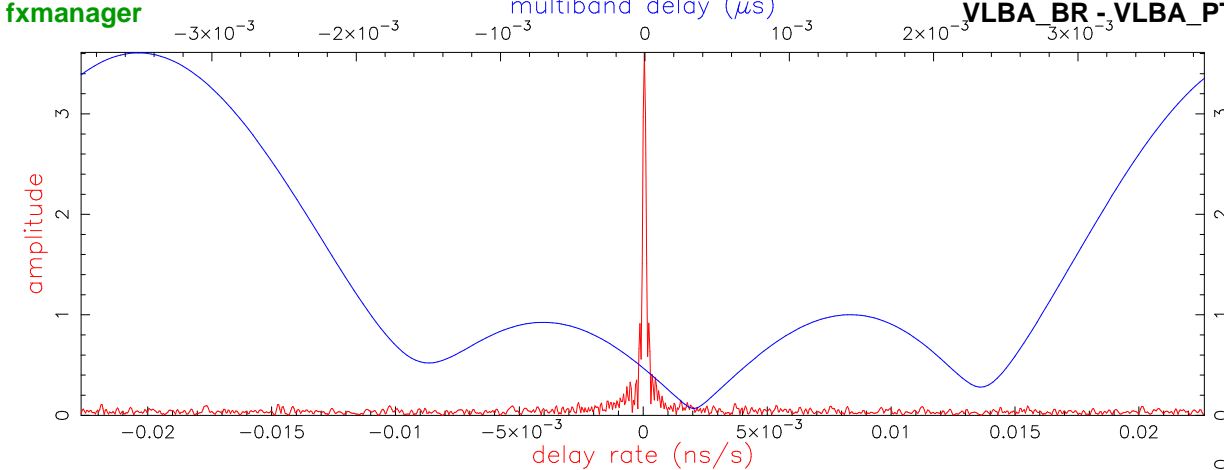
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bp.Q.67.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

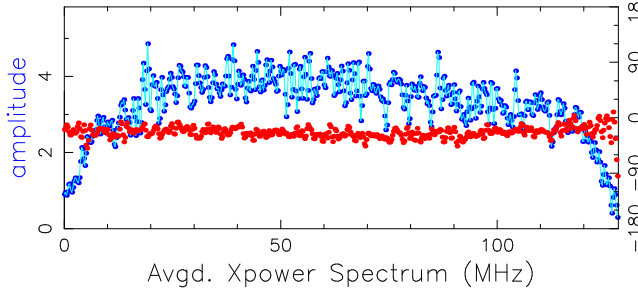
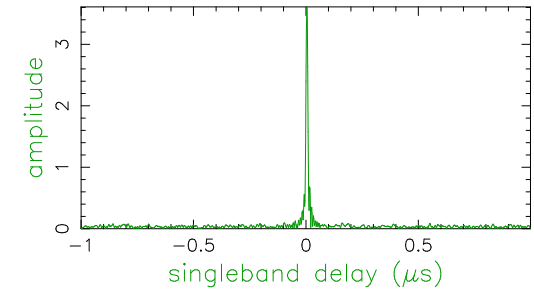
0102+584.1HP6Q8, No0090, bp

VLBA_BR - VLBA_PT, fgroup Q, pol LL



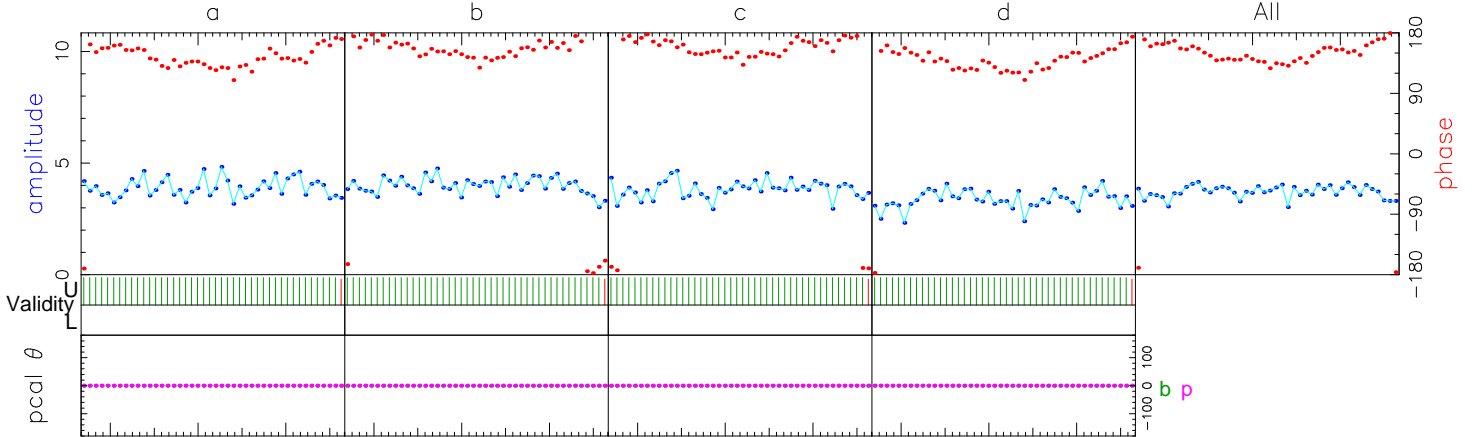
Fringe quality 7

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



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

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



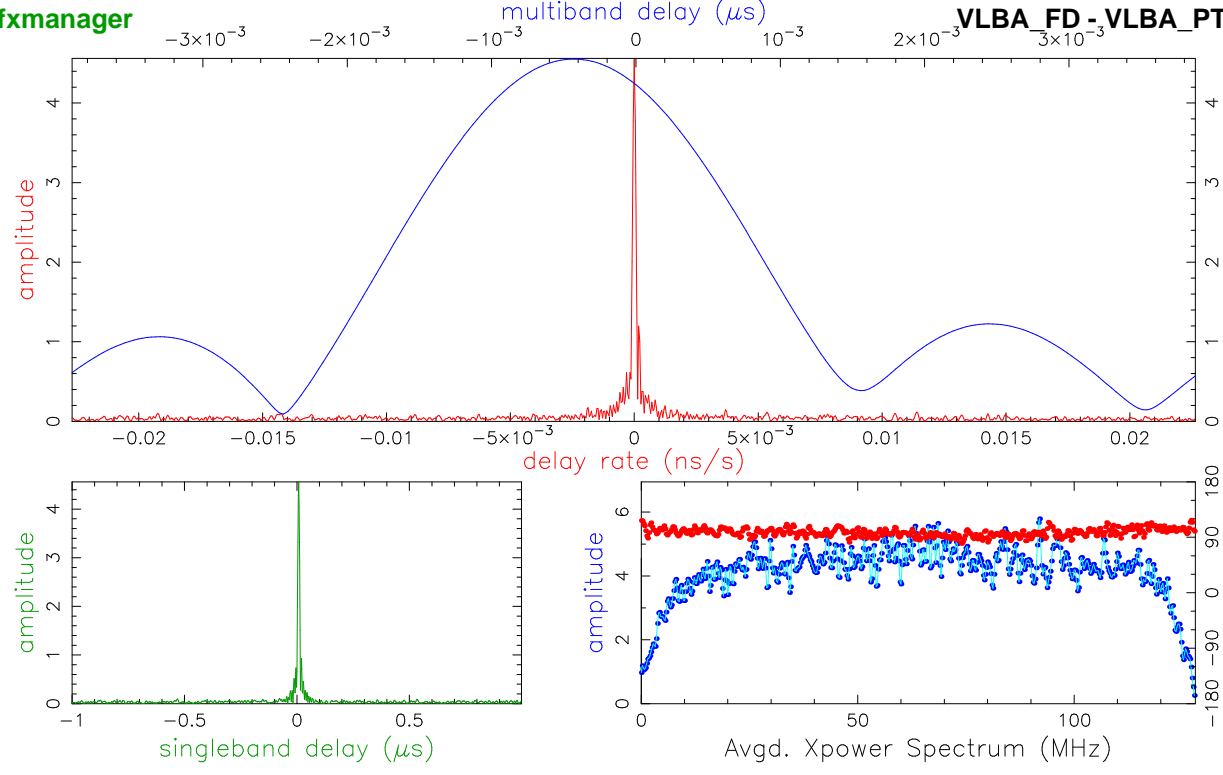
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
p	1000	1000	1000	1000	PC freqs	
b:p	0:0	0:0	0:0	0:0	PC phase	
b:p	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UL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

	1.01970308661E+03	1.01970293248E+03	1.01969877893E+03	6.51715257175E-02	160.2	1.01969876910E+03	-1.7522354E+00	-3.9999997E-07	6.51714857837E-02	1.9841699137E-05	Resid mbdelay (usec)	Resid sbdelay (usec)	Resid phdelay (usec)	Resid rate (us/s)	Resid phase (deg)
Group delay (usec)(sbd)											-3.49499E-03	4.16338E-03	9.82555E-06	3.99338E-08	152.2
Sband delay (usec)															+/- 8.4E-06
Phase delay (usec)															+/- 3.3E-05
Delay rate (us/s)															+/- 5.6E-08
Total phase (deg)															+/- 5.4E-10

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

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

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

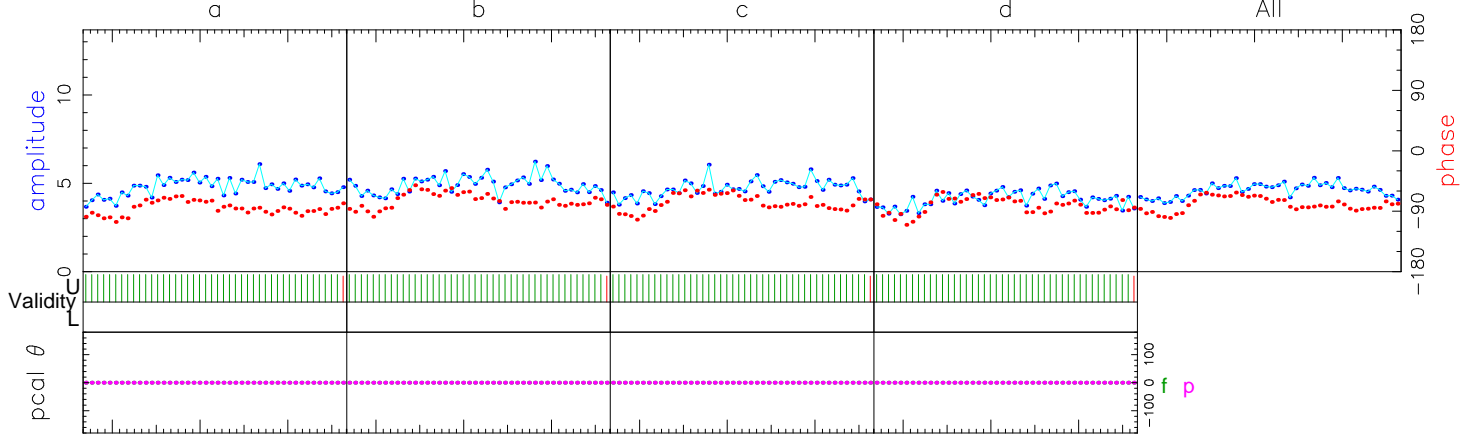


Fringe quality 9

SNR 167.3
Int time 179.975
Amp 4.561
Phase -79.1
PFD 0.0e+00
Delays (us)
SBD 0.007515
MBD -0.000447
Fringe rate (Hz) 0.000284
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

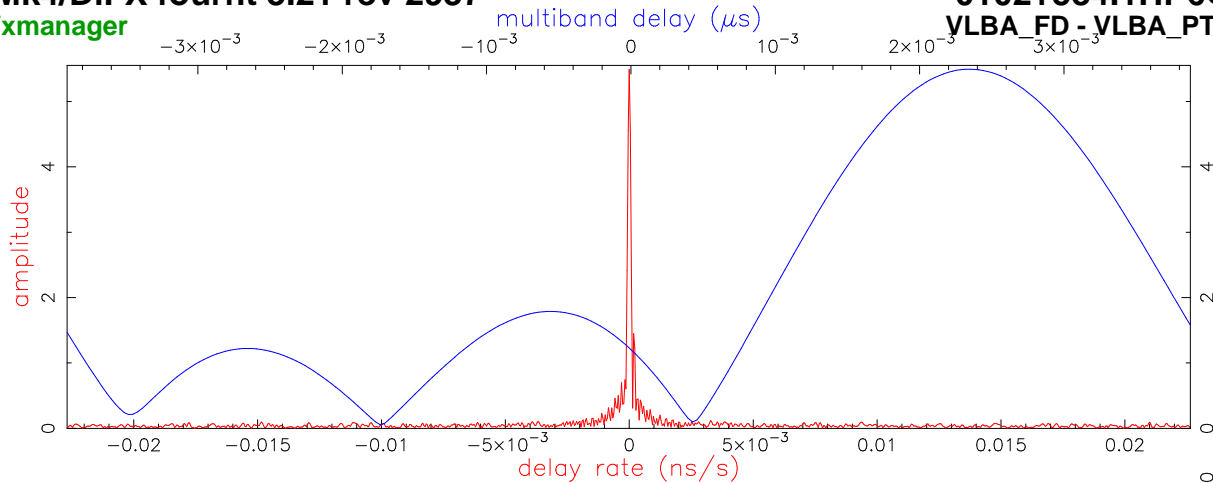


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-84.9	-73.6	-76.7	-81.8	Phase	-79.1
	4.7	4.8	4.6	4.0	Ampl.	4.6
	517.2	516.8	516.7	516.6	Sbd box	516.8
U/L	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
f:p	0:0	0:0	0:0	0:0	PC phase	
f:p	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

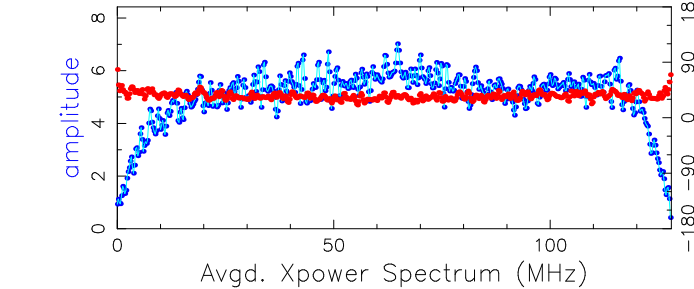
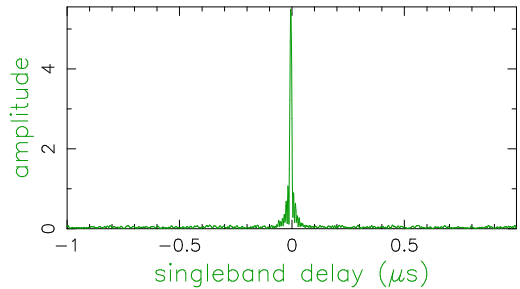
Group delay (usec)(sbd)	-4.34293392337E+02	Apriori delay (usec)	-4.34300757368E+02	Resid mbdelay (usec)	-4.47469E-04	+/- 6.6E-06
Sband delay (usec)	-4.34293241868E+02	Apriori clock (usec)	7.7890005E+00	Resid sbdelay (usec)	7.51550E-03	+/- 2.6E-05
Phase delay (usec)	-4.34300762476E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.10777E-06	+/- 4.4E-08
Delay rate (us/s)	-4.15414826690E-02	Apriori rate (us/s)	-4.15414892603E-02	Resid rate (us/s)	6.59134E-09	+/- 4.2E-10
Total phase (deg)	-294.1	Apriori accel (us/s/s)	-2.84411067260E-06	Resid phase (deg)	-79.1	+/- 0.7

	RMS	Theor.	Amplitude	4.561 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	10.2	2.3	Search (1024X16)	4.528	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	8.3	4.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	6.2	0.7	Inc. seg. avg.	4.619	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	6.8	1.2	Inc. frq. avg.	4.565	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

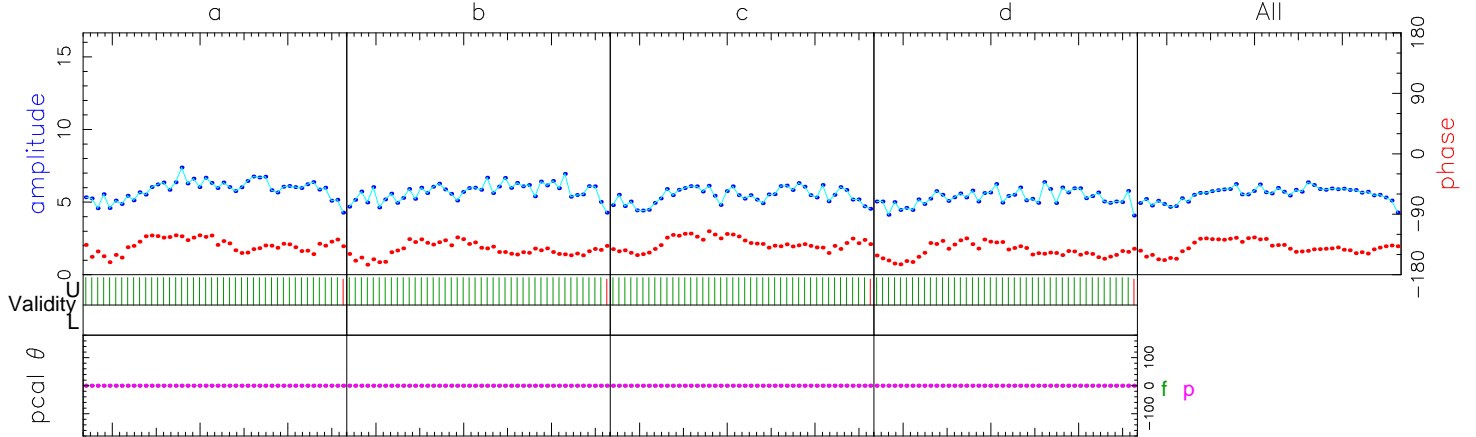
f: az 13.6 el 60.8 pa -157.8 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) 225.934 -308.630 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fp.Q.21.1HP6Q8



Fringe quality 9
SNR 203.7
Int time 179.975
Amp 5.553
Phase -138.9
PFD 0.0e+00
Delays (us)
SBD -0.005169
MBD 0.002381
Fringe rate (Hz)
0.000240
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 055640.00
Stop 055940.22
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163104
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



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



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

	42912.00	43040.00	43168.00	43296.00	Resid mbdelay (usec)	2.38125E-03	+/- 5.5E-06
Group delay (usec)(sbd)	-4.34306188618E+02	-142.9	-132.9	-144.4	Resid sbdelay (usec)	-5.16888E-03	+/- 2.1E-05
Sband delay (usec)	-4.34305926243E+02	5.7	5.4	5.2	Resid phdelay (usec)	-8.96304E-06	+/- 3.6E-08
Phase delay (usec)	-4.34300766331E+02	0:0	0:0	0:0	Resid rate (us/s)	5.57598E-09	+/- 3.5E-10
Delay rate (us/s)	-4.15414836843E-02	0:0	0:0	0:0	Resid phase (deg)	-138.9	+/- 0.6
Total phase (deg)		-353.8					

	RMS	Theor.	Amplitude	5.553 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	9.5	1.9	Search (1024X16)	5.459	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	8.1	3.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	6.9	0.6	Inc. seg. avg.	5.563	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.1	1.0	Inc. frq. avg.	5.511	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

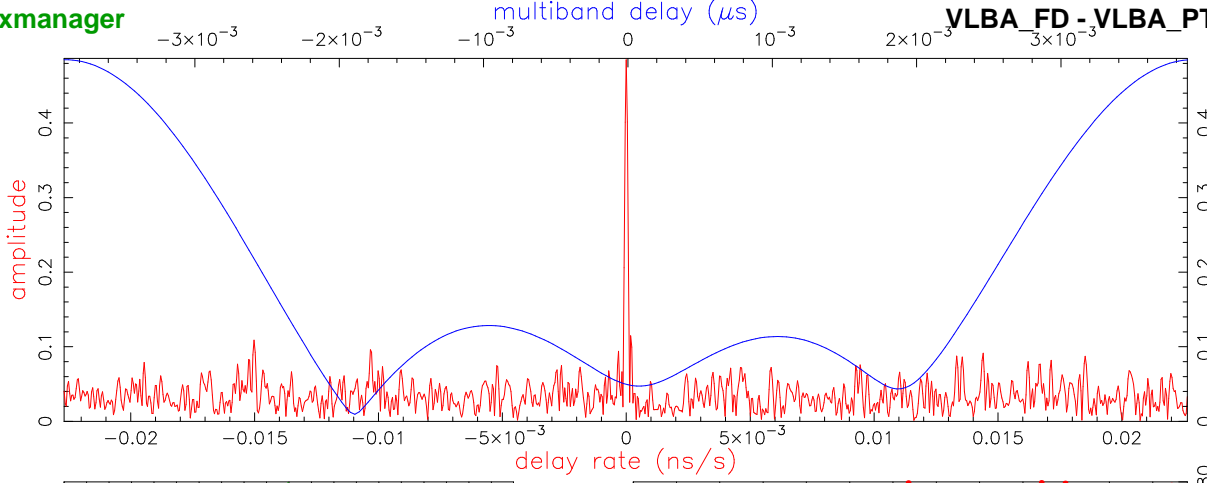
f: az 13.6 el 60.8 pa -157.8 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) 225.934 -308.630 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fp.Q.47.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, fp

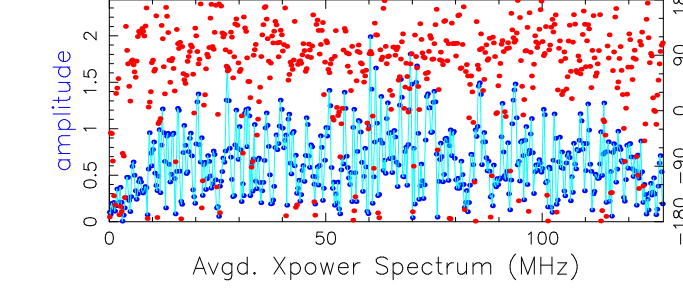
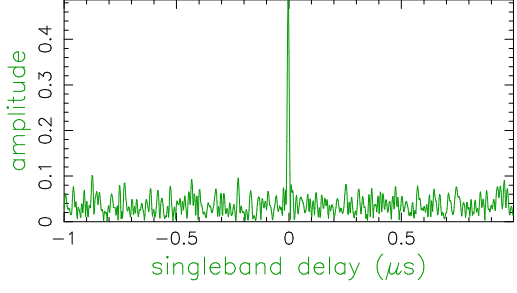
VLBA_FD - VLBA_PT, fgroup Q, pol LR



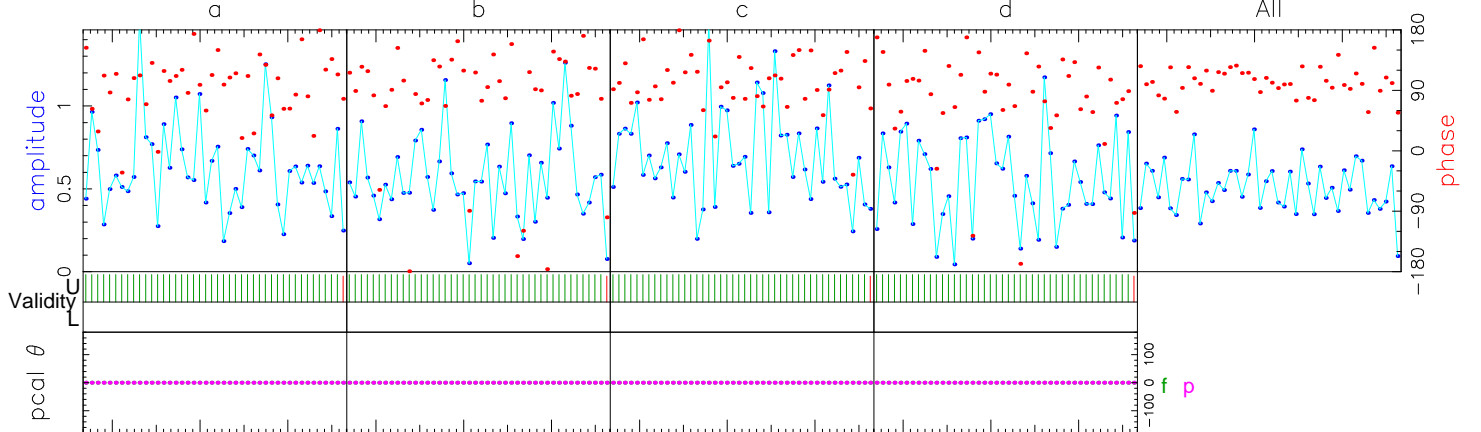
Fringe quality 9

SNR 17.9
 Int time 179.975
 Amp 0.487
 Phase 104.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.003488
 MBD -0.003880
 Fringe rate (Hz)
 0.000492
 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		
p	1000	1000	1000	1000		
f:p	0:0	0:0	0:0	0:0		
fp	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000		
p	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UR	Q01UR	Q02UR	Q03UR		
Group delay (usec)(sbd)	-4.34304637368E+02		-4.34300757368E+02		-3.88000E-03	+/- 6.2E-05
Sband delay (usec)	-4.34304245368E+02		7.7890005E+00		-3.48800E-03	+/- 2.4E-04
Phase delay (usec)	-4.34300750626E+02		0.0000000E+00		6.74271E-06	+/- 4.1E-07
Delay rate (us/s)	-4.15414778304E-02		-4.15414892603E-02		1.14299E-08	+/- 4.0E-09
Total phase (deg)		-110.5			104.5	+/- 6.4
	RMS	Theor.	Amplitude	0.487 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	21.0	21.3	Search (1024X16)	0.479	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	30.6	37.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.6	6.4	Inc. seg. avg.	0.478	Sample rate(MSamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	11.6	11.2	Inc. frq. avg.	0.484	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		p: az 19.7 el 63.3 pa -148.5		u,v (fr/asec) 225.934 -308.630		simultaneous interpolator

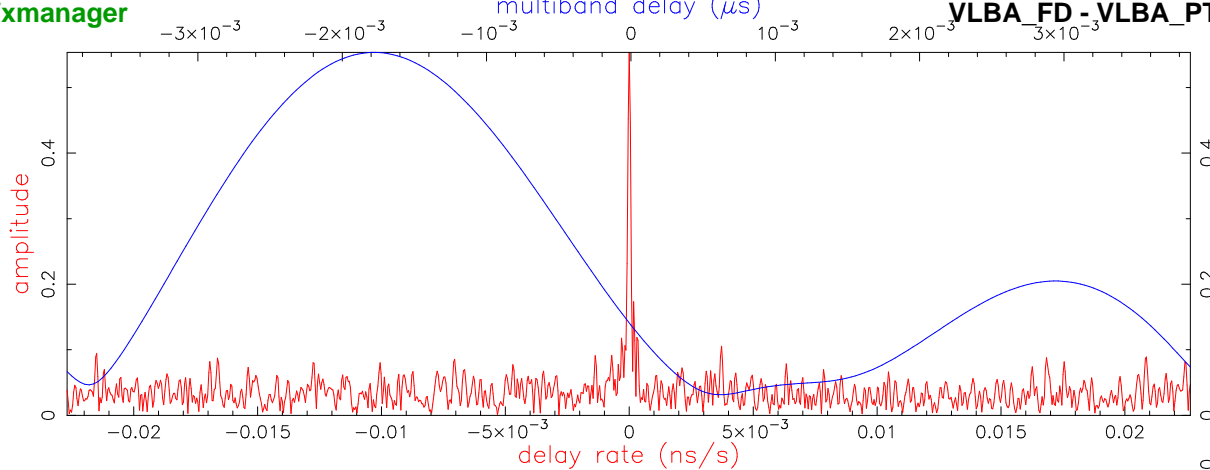
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fp.Q.72.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

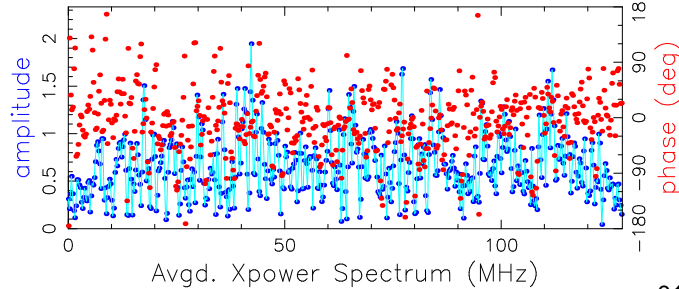
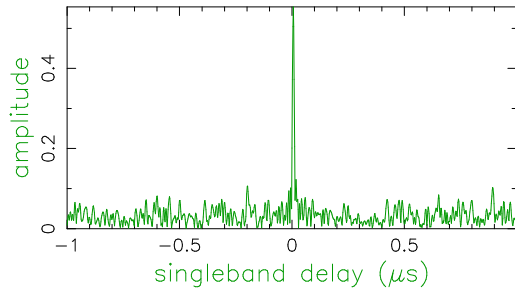
0102+584.1HP6Q8, No0090, fp

VLBA_FD - VLBA_PT, fgroup Q, pol RL



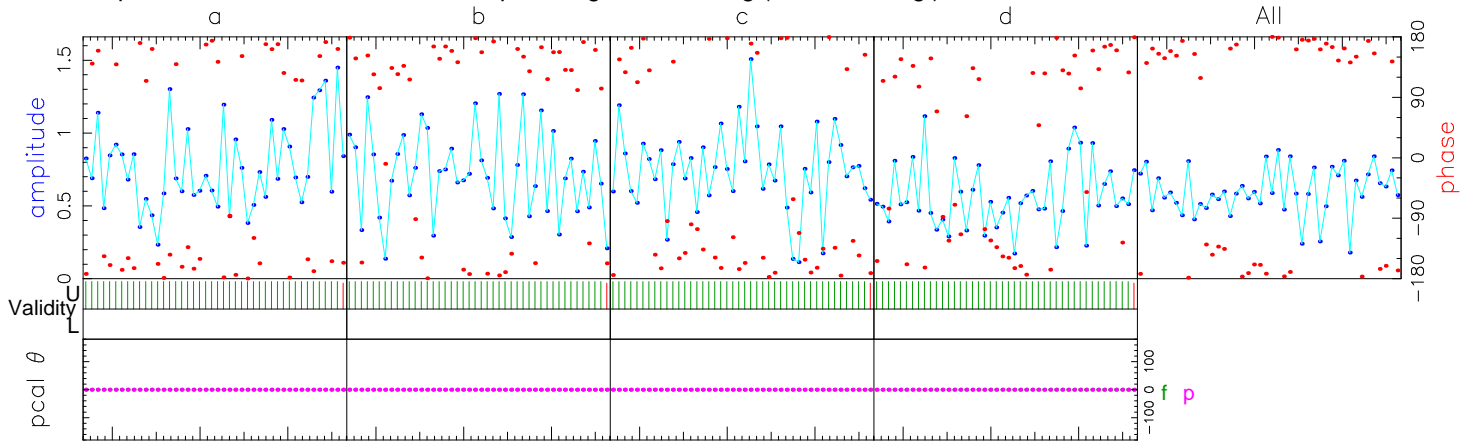
Fringe quality 7

SNR 20.3
 Int time 179.975
 Amp 0.554
 Phase 174.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.005859
 MBD -0.001779
 Fringe rate (Hz) 0.000243
 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
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
f:p	0:0	0:0	0:0	0:0	PC phase	
f:p	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

Group delay (usec)(sbd)	-4.34294723712E+02	Apriori delay (usec)	-4.34300757368E+02	Resid mbdelay (usec)	-1.77884E-03	+/- 5.5E-05
Sband delay (usec)	-4.34294898618E+02	Apriori clock (usec)	7.7890005E+00	Resid sbdelay (usec)	5.85875E-03	+/- 2.1E-04
Phase delay (usec)	-4.34300746102E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.12662E-05	+/- 3.6E-07
Delay rate (us/s)	-4.15414836248E-02	Apriori rate (us/s)	-4.15414892603E-02	Resid rate (us/s)	5.63554E-09	+/- 3.5E-09
Total phase (deg)	-40.4	Apriori accel (us/s/s)	-2.84411067260E-06	Resid phase (deg)	174.6	+/- 5.6

	RMS	Theor.	Amplitude	0.554 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	24.0	18.7	Search (1024X16)	0.546	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	30.1	32.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	15.7	5.6	Inc. seg. avg.	0.571	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	22.7	9.8	Inc. frq. avg.	0.562	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 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) 225.934 -308.630 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fp.Q.80.1HP6Q8

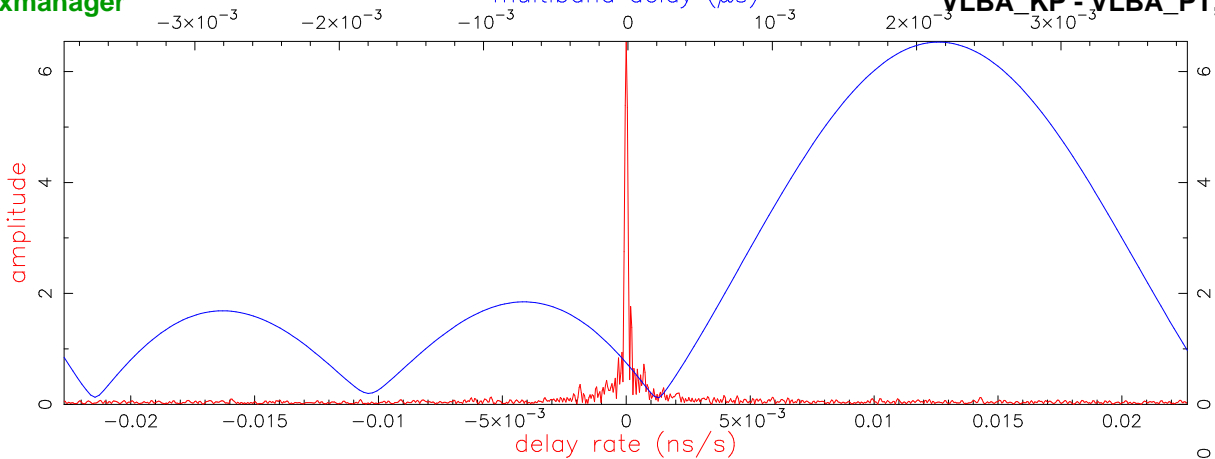
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, kp

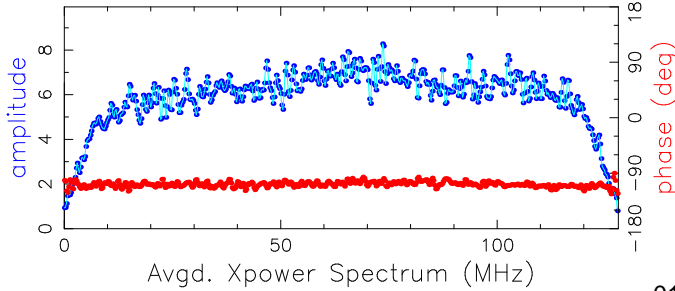
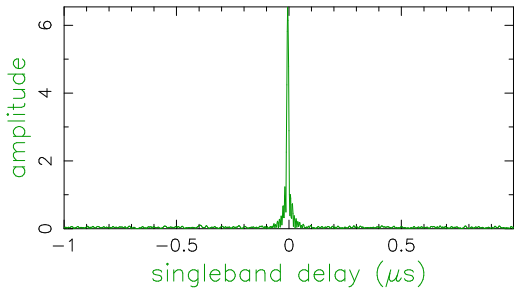
VLBA_KP - VLBA_PT, fgroup Q, pol RR

multiband delay (μ s)



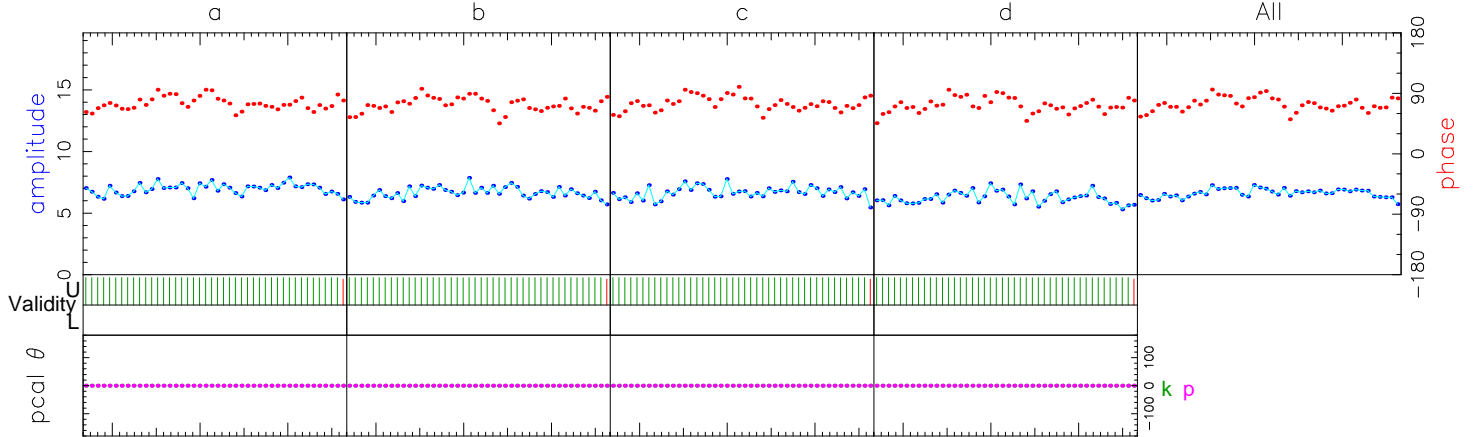
Fringe quality 9

SNR 239.9
 Int time 179.800
 Amp 6.543
 Phase 74.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.005568
 MBD 0.002165
 Fringe rate (Hz)
 -0.000765
 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		
p	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0		
k:p	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000		
p	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-5.61001940327E+02	Apriori delay (usec)	-5.60996293015E+02	Resid mbdelay (usec)	2.16519E-03	+/- 4.6E-06
Sband delay (usec)	-5.61001860640E+02	Apriori clock (usec)	2.8507328E-01	Resid sbdelay (usec)	-5.56763E-03	+/- 1.8E-05
Phase delay (usec)	-5.60996288229E+02	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	4.78523E-06	+/- 3.1E-08
Delay rate (us/s)	4.49491561256E-02	Apriori rate (us/s)	4.49491738916E-02	Resid rate (us/s)	-1.77660E-08	+/- 3.0E-10
Total phase (deg)	-88.3	Apriori accel (us/s/s)	-3.14077523953E-07	Resid phase (deg)	74.1	+/- 0.5

ph/seg (deg)	RMS 9.9	Theor. 1.6	Amplitude 6.543 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
amp/seg (%)	5.4	2.8	Search (1024X16) 6.233	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004 0.004
ph/frq (deg)	1.8	0.5	Interp. 0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023
amp/frq (%)	4.0	0.8	Inc. seg. avg. 6.628	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00 0.00
			Inc. frq. avg. 6.532				

k: az 21.3 el 60.1 pa -144.4 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -246.355 -97.691 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/kp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/kp.Q.107.1HP6Q8

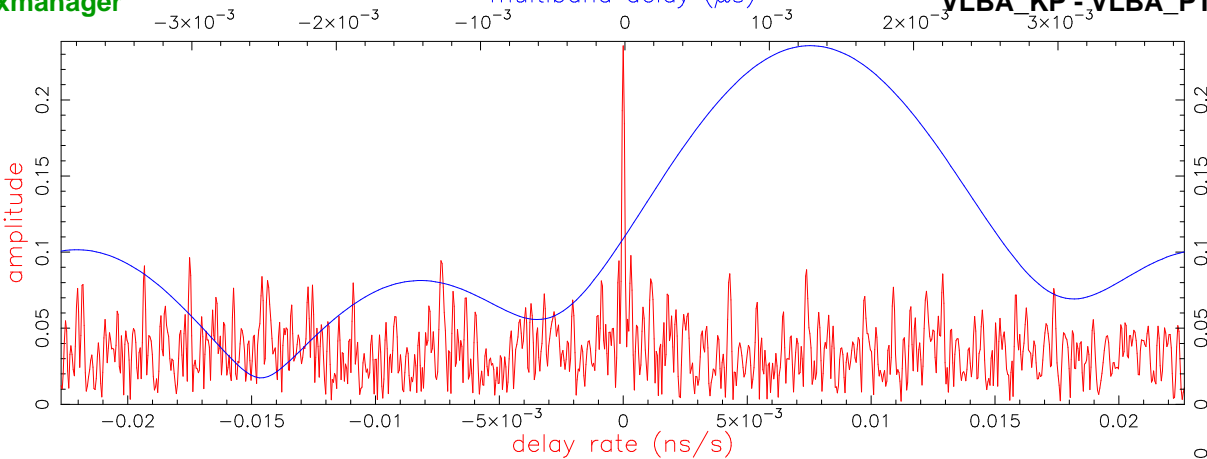
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, kp

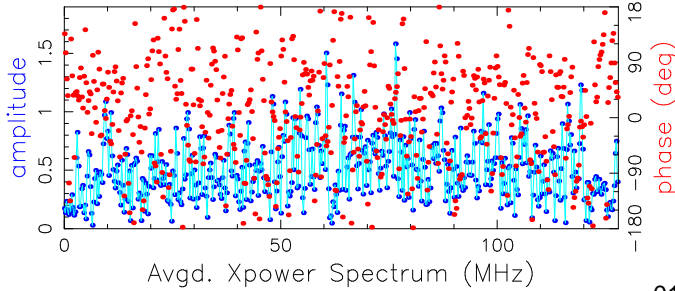
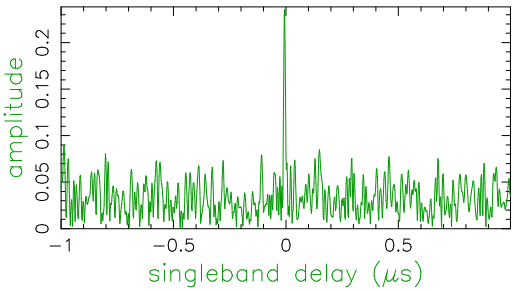
VLBA_KP - VLBA_PT, fgroup Q, pol LR

multiband delay (μ s)



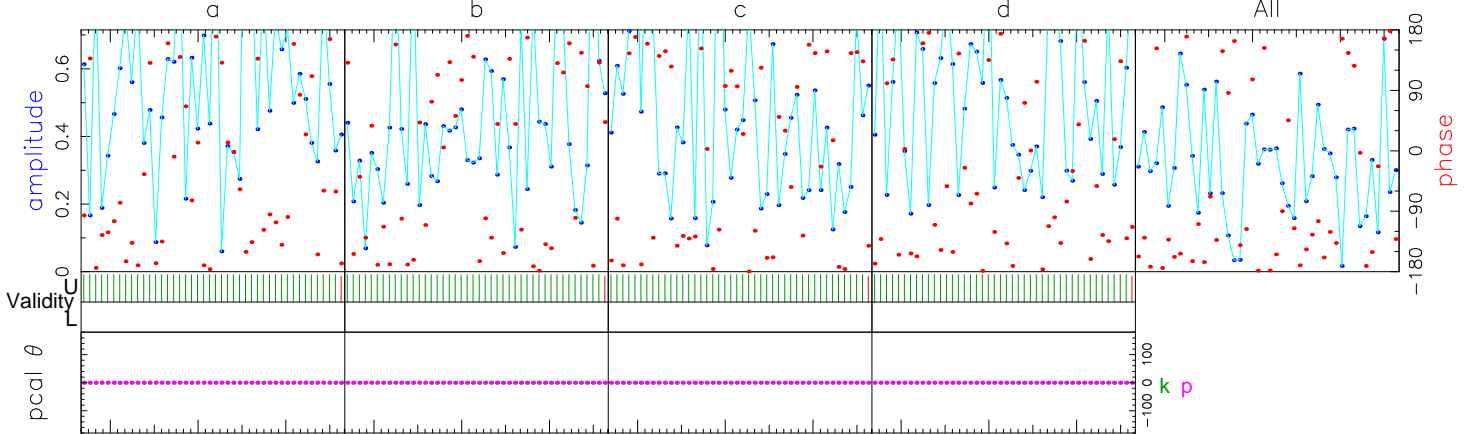
Fringe quality 9

SNR 8.7
 Int time 179.800
 Amp 0.238
 Phase -162.5
 PFD 4.2e-10
 Delays (us)
 SBD -0.006568
 MBD 0.001243
 Fringe rate (Hz)
 -0.000771
 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		
k	1000	1000	1000	1000		
p	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0		
k:p	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000		
p	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UR	Q01UR	Q02UR	Q03UR		

	42912.00	43040.00	43168.00	43296.00	Resid mbdelay (usec)	1.24303E-03	+/- 1.3E-04
Group delay (usec)(sbd)	-5.61002862483E+02				Resid sbdelay (usec)	-6.56800E-03	+/- 4.9E-04
Sband delay (usec)	-5.61002861015E+02				Resid phdelay (usec)	-1.04874E-05	+/- 8.5E-07
Phase delay (usec)	-5.60996303502E+02				Resid rate (us/s)	-1.79021E-08	+/- 8.1E-09
Delay rate (us/s)	4.49491559894E-02				Resid phase (deg)	-162.5	+/- 13.1
Total phase (deg)		-325.0					

	RMS	Theor.	Amplitude	0.238 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	56.8	43.5	Search (1024X16)	0.223	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	75.4	75.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	30.4	13.1	Inc. seg. avg.	0.249	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	10.9	22.9	Inc. frq. avg.	0.246	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 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -246.355 -97.691 simultaneous interpolator

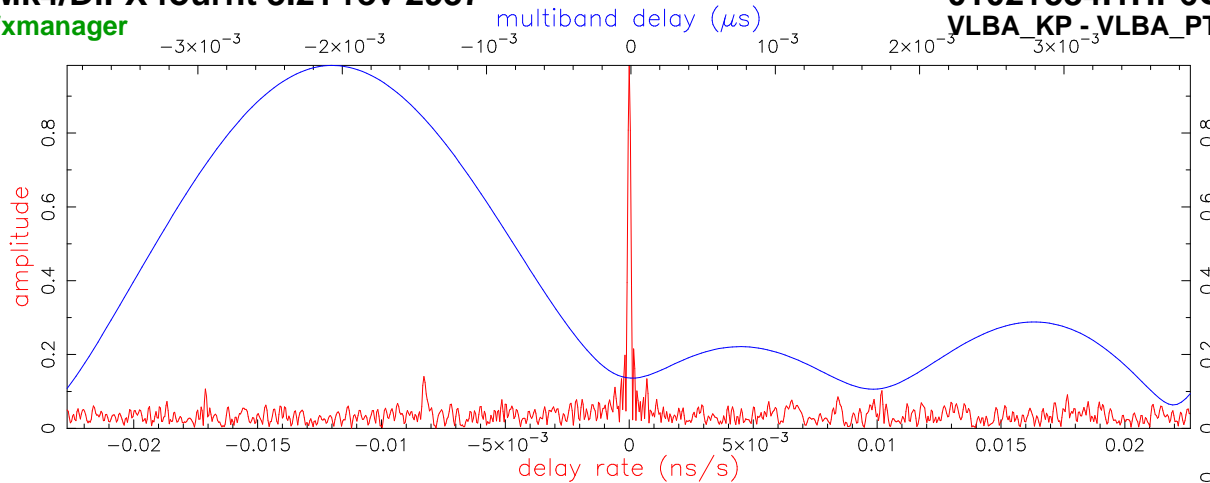
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/kp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/kp.Q.121.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

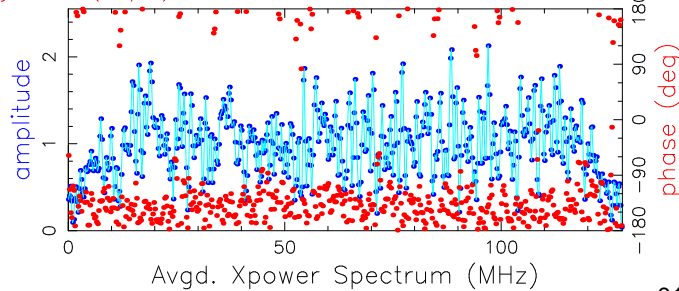
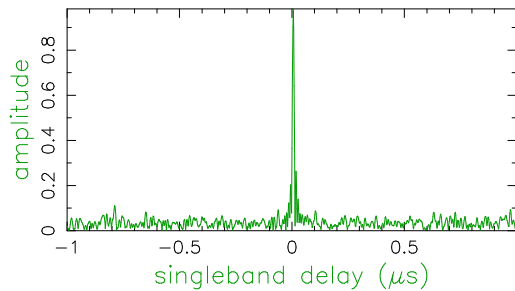
0102+584.1HP6Q8, No0090, kp

VLBA_KP - VLBA_PT, fgroup Q, pol RL



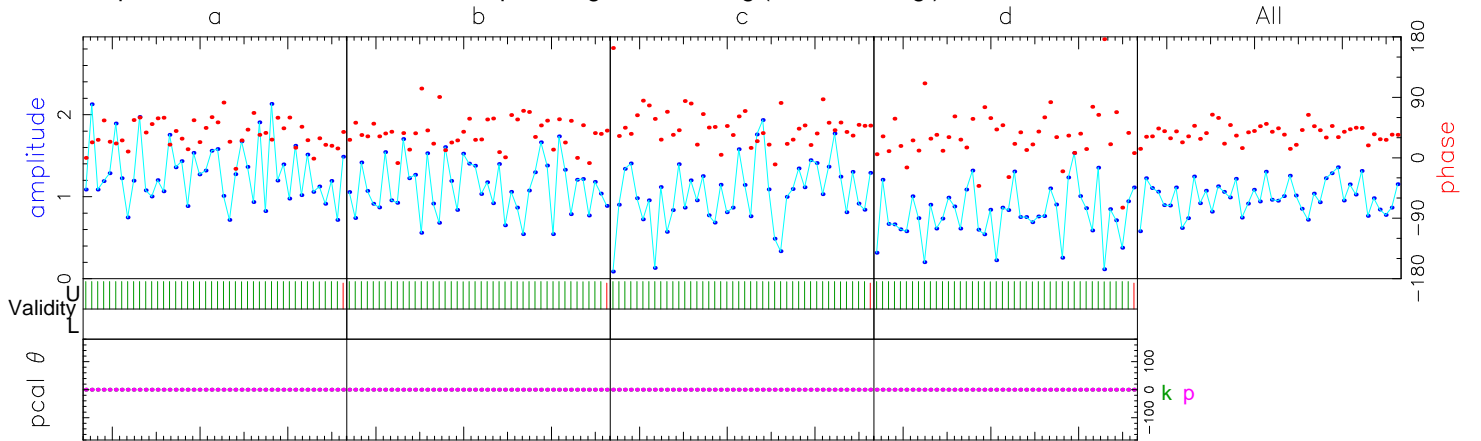
Fringe quality 9

SNR 36.1
 Int time 179.800
 Amp 0.983
 Phase 37.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.005775
 MBD -0.002074
 Fringe rate (Hz)
 -0.000702
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Yr:day 16383
 Start 2020:283
 Stop 2020:283
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163116
 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
35.0	36.9	43.8	31.2	Phase	37.0
1.2	1.0	1.0	0.7	Ampl.	1.0
516.0	516.0	516.0	515.6	Sbd box	516.0
U/L 352/0	352/0	352/0	352/0	APs used	
k 1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	PC freqs	
k:p 0:0	0:0	0:0	0:0	PC phase	
k:p 0:0	0:0	0:0	0:0	ManI PC	
k 1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000		
k Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	-5.60990554390E+02	Apriori delay (usec)	-5.60996293015E+02	Resid mbdelay (usec)	-2.07387E-03	+/-	3.1E-05
Sband delay (usec)	-5.60990518265E+02	Apriori clock (usec)	2.8507328E-01	Resid sbdelay (usec)	5.77475E-03	+/-	1.2E-04
Phase delay (usec)	-5.60996290626E+02	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	2.38897E-06	+/-	2.1E-07
Delay rate (us/s)	4.49491575749E-02	Apriori rate (us/s)	4.49491738916E-02	Resid rate (us/s)	-1.63167E-08	+/-	2.0E-09
Total phase (deg)	-125.5	Apriori accel (us/s/s)	-3.14077523953E-07	Resid phase (deg)	37.0	+/-	3.2

	RMS	Theor.	Amplitude	0.983 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	11.9	10.5	Search (1024X16)	0.952	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	19.3	18.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	6.5	3.2	Inc. seg. avg.	0.986	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023	0.023	
amp/frq (%)	19.1	5.5	Inc. frq. avg.	0.984	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 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -246.355 -97.691 simultaneous interpolator

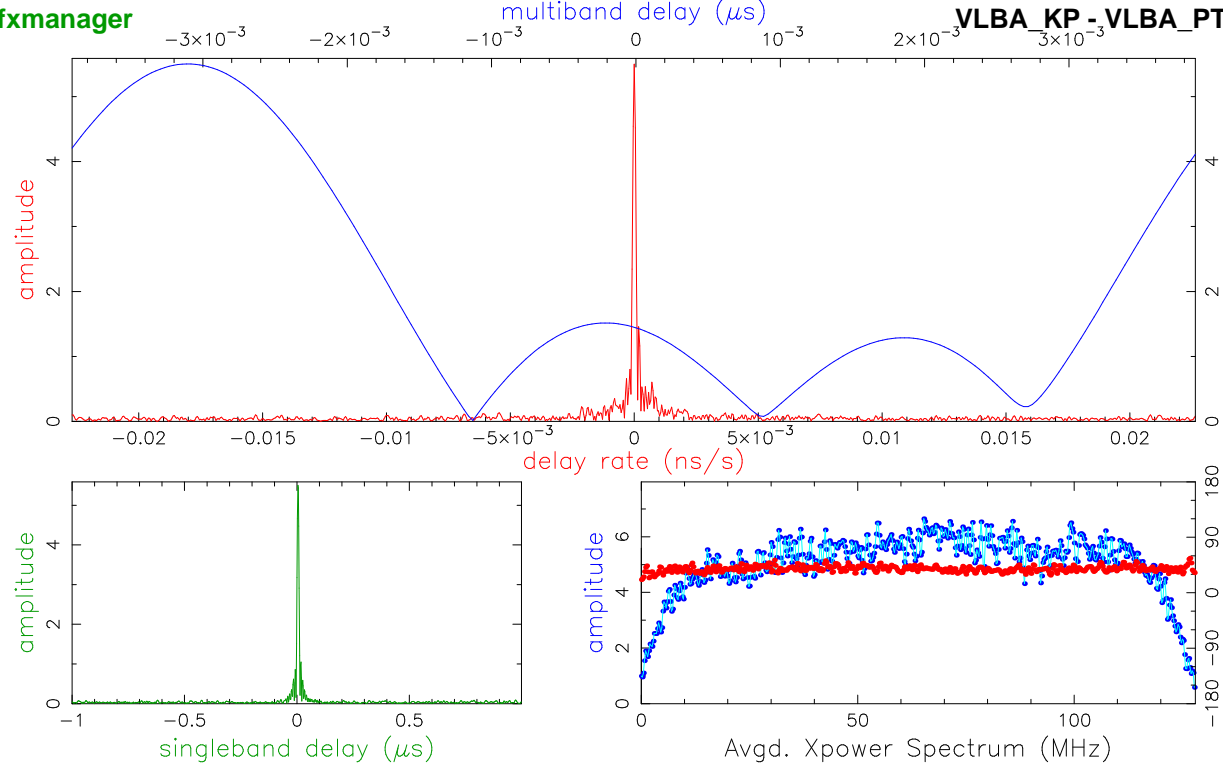
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/kp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/kp.Q.141.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, kp

VLBA_KP - VLBA_PT, fgroup Q, pol LL

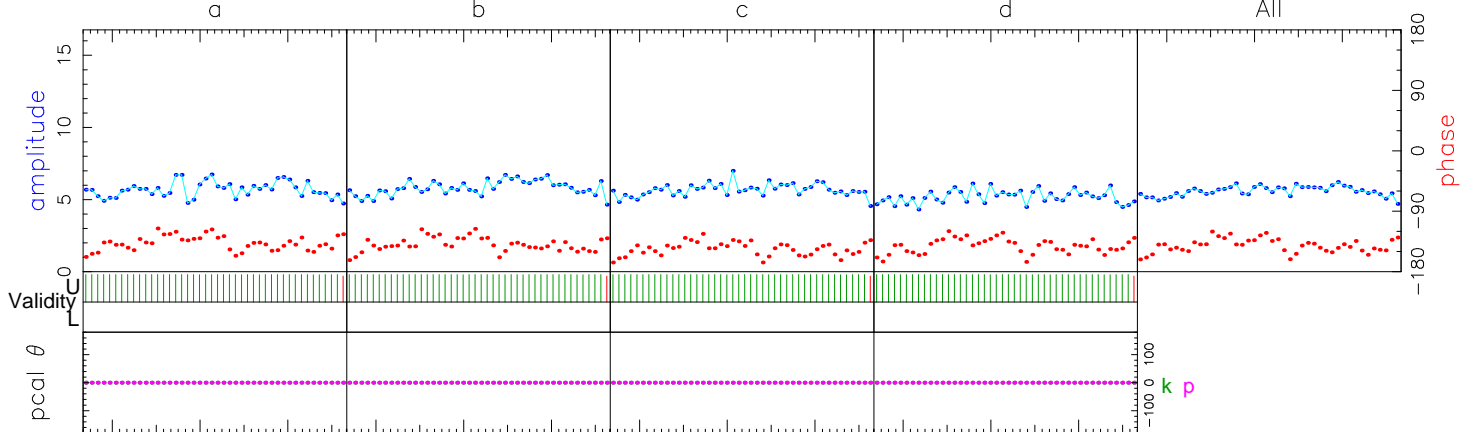


Fringe quality 9

SNR 205.0
 Int time 179.800
 Amp 5.590
 Phase -140.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.004750
 MBD -0.003062
 Fringe rate (Hz)
 -0.000752
 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
-137.2	-139.3	-145.8	-141.3	Phase	-140.9
5.6	5.7	5.6	5.1	Ampl.	5.5
515.5	515.4	515.5	515.3	Sbd box	515.4
U/L 352/0	352/0	352/0	352/0	APs used	
k 1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	PC freqs	
k:p 0:0	0:0	0:0	0:0	PC phase	
k:p 0:0	0:0	0:0	0:0	ManI PC	
k 1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000		
k Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-5.60991542233E+02	Apriori delay (usec)	-5.60996293015E+02	Resid mbdelay (usec)	-3.06172E-03 +/- 5.4E-06
Sband delay (usec)	-5.60991543265E+02	Apriori clock (usec)	2.8507328E-01	Resid sbdelay (usec)	4.74975E-03 +/- 2.1E-05
Phase delay (usec)	-5.60996302106E+02	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-9.09160E-06 +/- 3.6E-08
Delay rate (us/s)	4.49491564120E-02	Apriori rate (us/s)	4.49491738916E-02	Resid rate (us/s)	-1.74795E-08 +/- 3.5E-10
Total phase (deg)	-303.4	Apriori accel (us/s/s)	-3.14077523953E-07	Resid phase (deg)	-140.9 +/- 0.6

ph/seg (deg) 10.0 1.9 Amplitude 5.590 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 6.1 3.2 Search (1024X16) 5.282 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 4.5 0.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
 amp/frq (%) 4.4 1.0 Inc. seg. avg. 5.582 Sample rate(MISamp/s): 256 dr window (ns/s) -0.023 0.023
 k: az 21.3 el 60.1 pa -144.4 Inc. frq. avg. 5.509 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 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -246.355 -97.691 simultaneous interpolator

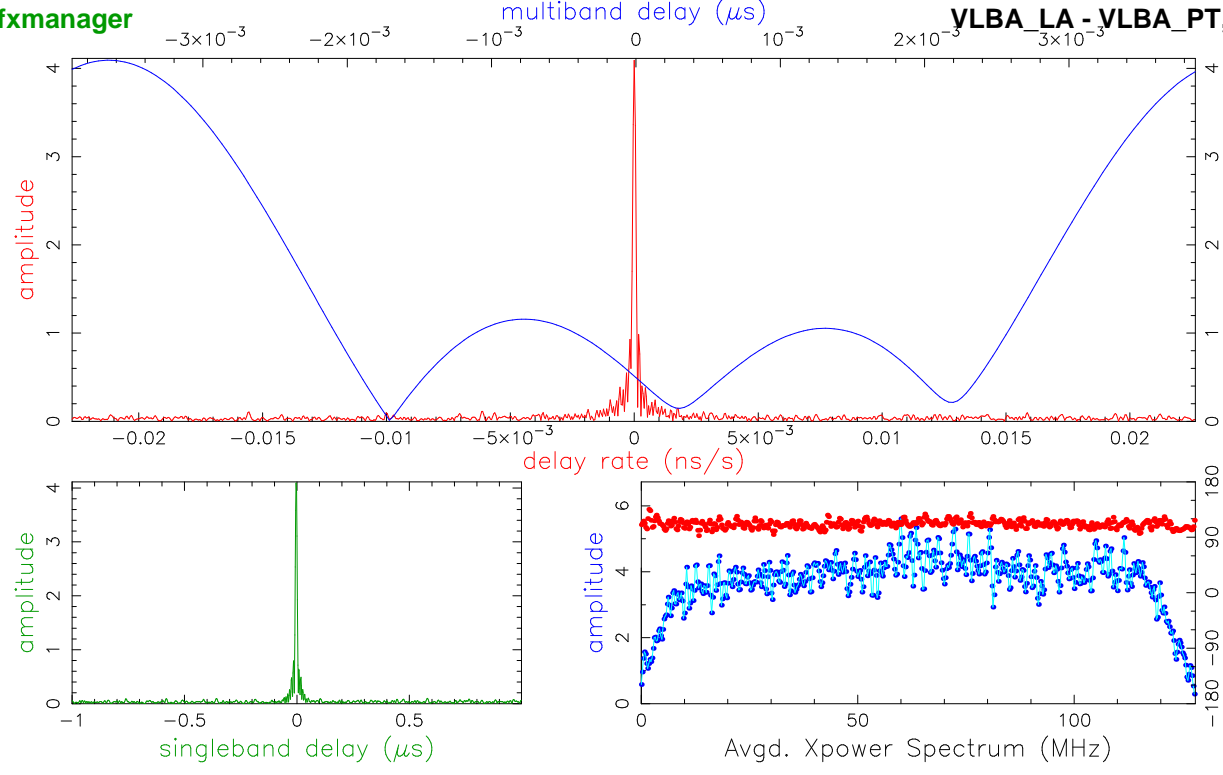
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/kp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/kp.Q.93.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, lp

VLBA_LA - VLBA_PT, fgroup Q, pol RR

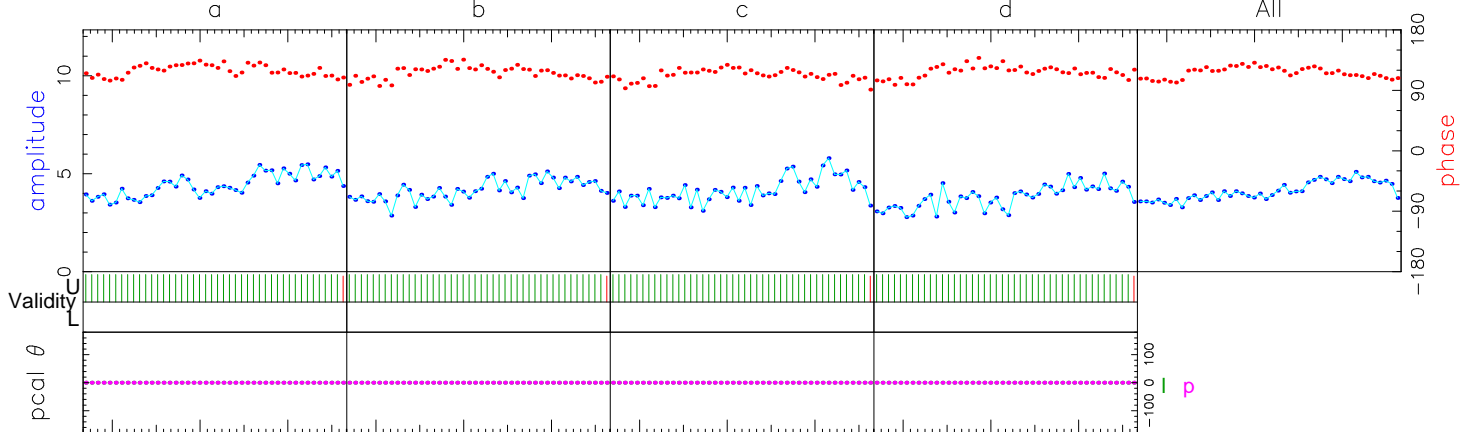


Fringe quality 9

SNR 150.9
 Int time 179.974
 Amp 4.114
 Phase 116.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.003426
 MBD -0.003629
 Fringe rate (Hz)
 -0.000693
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163115
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000		
p	1000	1000	1000	1000		
l:p	0:0	0:0	0:0	0:0		
lp	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000		
p	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	3.00386999499E+02	Apriori delay (usec)	3.00390628280E+02	Resid mbdelay (usec)	-3.62878E-03	+/-	7.4E-06
Sband delay (usec)	3.00387202280E+02	Apriori clock (usec)	-4.2854500E-01	Resid sbdelay (usec)	-3.42600E-03	+/-	2.9E-05
Phase delay (usec)	3.00390635784E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	7.50317E-06	+/-	4.9E-08
Delay rate (us/s)	-2.41169183887E-02	Apriori rate (us/s)	-2.41169022819E-02	Resid rate (us/s)	-1.61068E-08	+/-	4.7E-10
Total phase (deg)	347.1	Apriori accel (us/s/s)	4.22889358194E-07	Resid phase (deg)	116.3	+/-	0.8

ph/seg (deg)	8.0	Theor.	2.5	Amplitude	4.114 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	11.4		4.4	Search (1024X16)	3.902	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	3.7		0.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	5.3		1.3	Inc. seg. avg.	4.126	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023		
				Inc. frq. avg.	4.097	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 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) 132.328 74.783 simultaneous interpolator

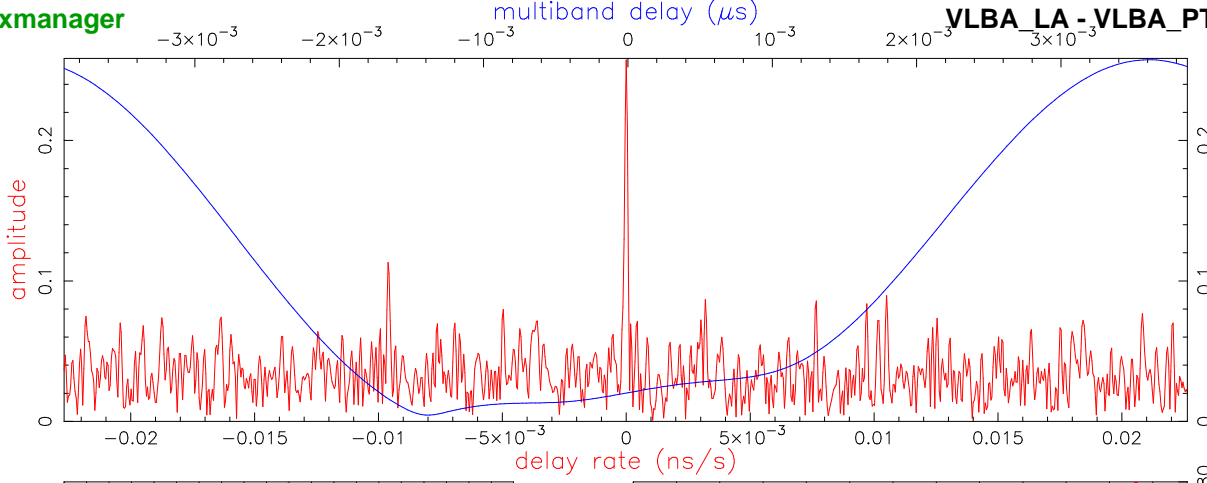
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/lp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/lp.Q.135.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, lp

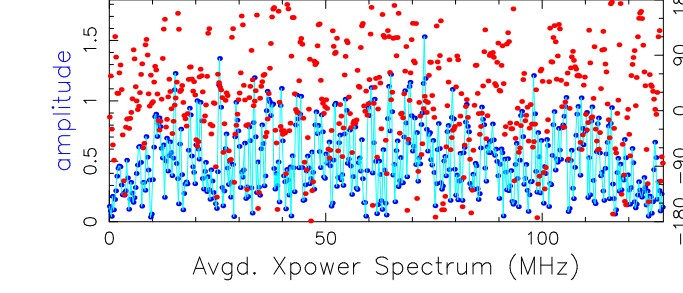
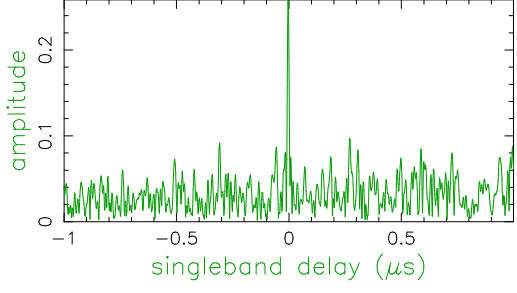
VLBA_LA - VLBA_PT, fgroup Q, pol LR



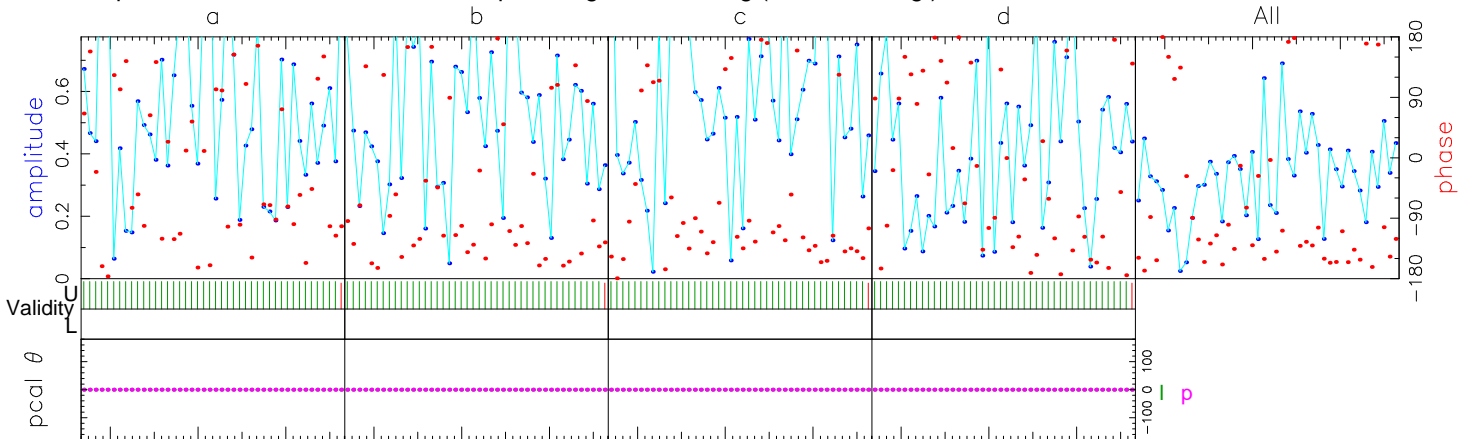
Fringe quality 9

SNR 9.5
 Int time 179.974
 Amp 0.258
 Phase -136.2
 PFD 5.1e-13
 Delays (us)
 SBD -0.003479
 MBD 0.003658
 Fringe rate (Hz) -0.000249
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163116
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



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



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

	3.00386473530E+02	Apriori delay (usec)	3.00390628280E+02	Resid mbdelay (usec)	3.65775E-03	+/- 1.2E-04
Group delay (usec)(sbd)	3.00386473530E+02	Apriori clock (usec)	-4.2854500E-01	Resid sbdelay (usec)	-3.47938E-03	+/- 4.5E-04
Sband delay (usec)	3.00387148905E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-8.79201E-06	+/- 7.8E-07
Phase delay (usec)	3.00390619488E+02	Apriori rate (us/s)	-2.41169022819E-02	Resid rate (us/s)	-5.78019E-09	+/- 7.5E-09
Delay rate (us/s)	-2.41169080621E-02	Apriori accel (us/s/s)	4.22889358194E-07	Resid phase (deg)	-136.2	+/- 12.1
Total phase (deg)	94.6					

	RMS	Theor.	Amplitude	0.258 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	50.8	40.1	Search (1024X16)	0.255	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	59.4	70.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	8.2	12.1	Inc. seg. avg.	0.263	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	41.3	21.1	Inc. frq. avg.	0.253	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 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) 132.328 74.783 simultaneous interpolator

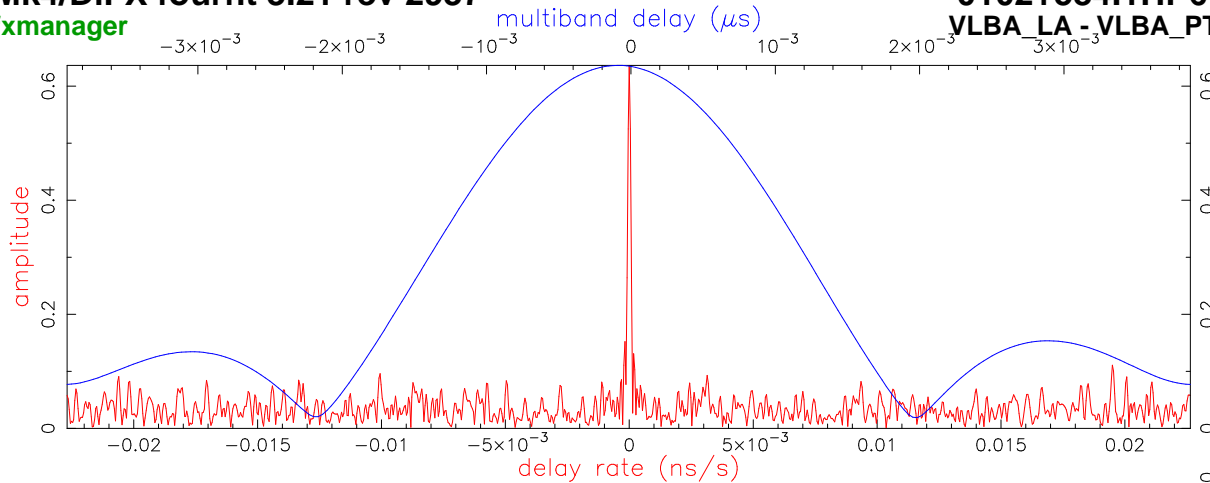
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/lp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/lp.Q.149.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

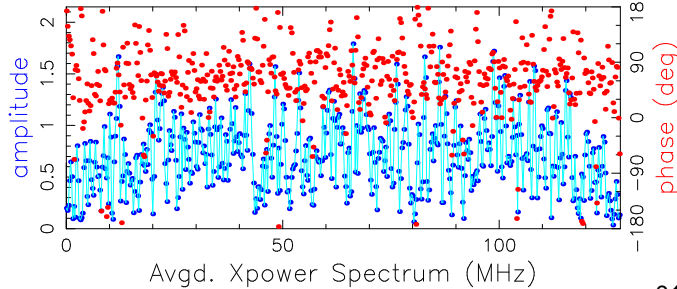
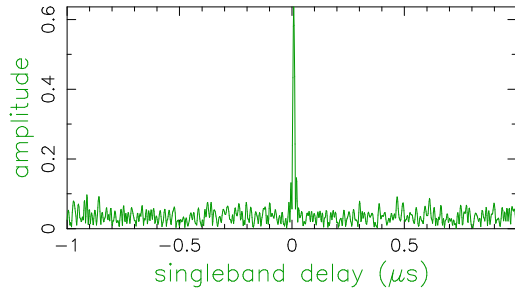
0102+584.1HP6Q8, No0090, lp

VLBA_LA - VLBA_PT, fgroup Q, pol RL



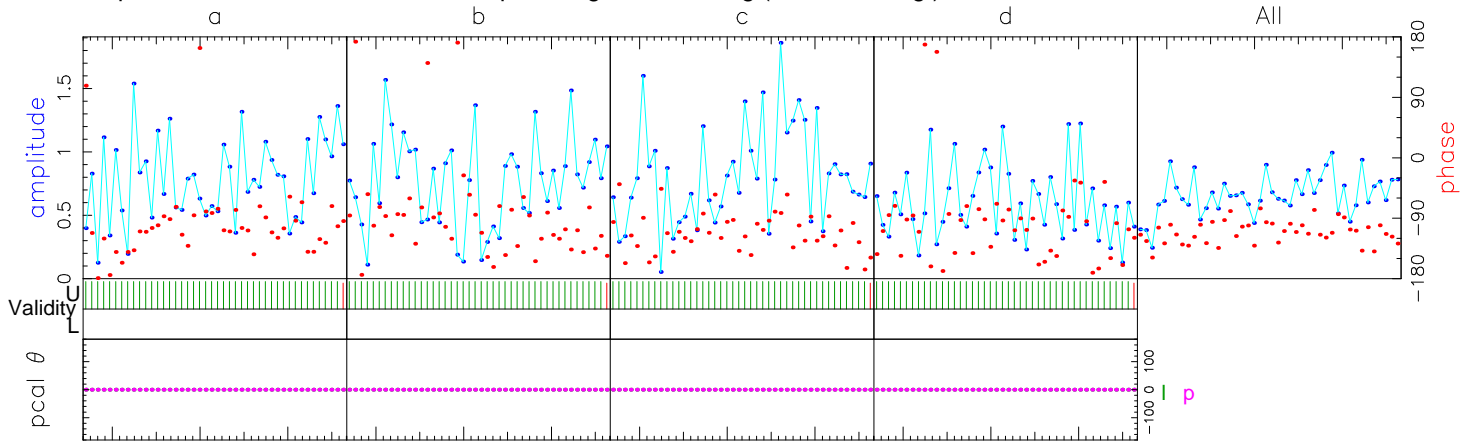
Fringe quality 9

SNR 23.3
 Int time 179.974
 Amp 0.636
 Phase -110.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.007839
 MBD -0.000087
 Fringe rate (Hz)
 -0.000619
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163118
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



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

Group delay (usec)(sbd)	3.0039835350E+02	Apriori delay (usec)	3.00390628280E+02	Resid mbdelay (usec)	-8.72500E-05	+/-	4.8E-05
Sband delay (usec)	3.00398467530E+02	Apriori clock (usec)	-4.2854500E-01	Resid sbdelay (usec)	7.83925E-03	+/-	1.8E-04
Phase delay (usec)	3.00390621184E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-7.09623E-06	+/-	3.2E-07
Delay rate (us/s)	-2.41169166530E-02	Apriori rate (us/s)	-2.41169022819E-02	Resid rate (us/s)	-1.43711E-08	+/-	3.0E-09
Total phase (deg)	120.9	Apriori accel (us/s/s)	4.22889358194E-07	Resid phase (deg)	-110.0	+/-	4.9

ph/seg (deg)	RMS 16.9	Theor. 16.3	Amplitude	0.636 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	25.1	28.4	Search (1024X16)	0.623	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	1.7	4.9	Inc. seg. avg.	0.637	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023	
amp/frq (%)	15.8	8.6	Inc. frq. avg.	0.634	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 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) 132.328 74.783 simultaneous interpolator

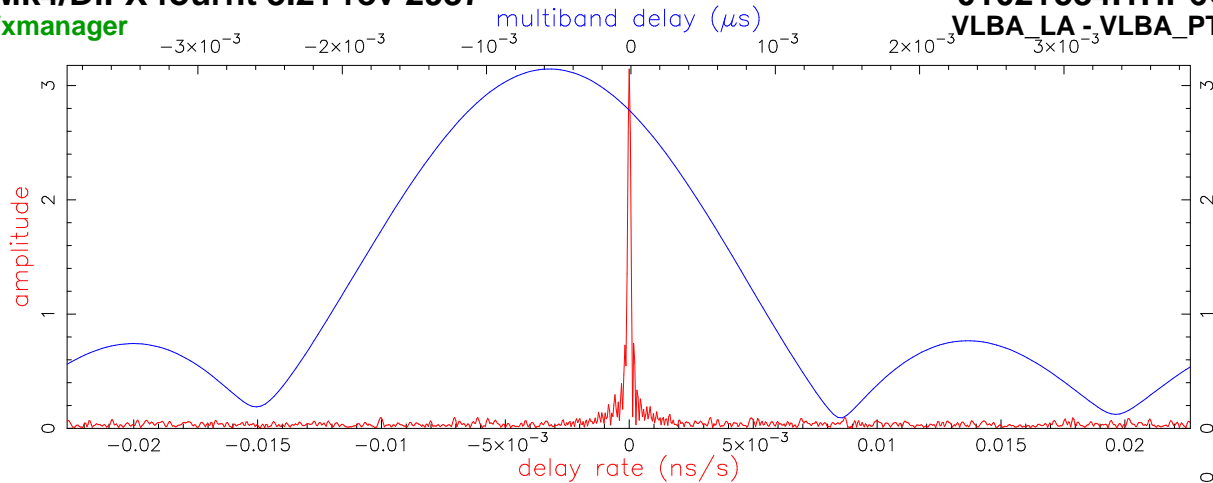
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/lp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/lp.Q.162.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

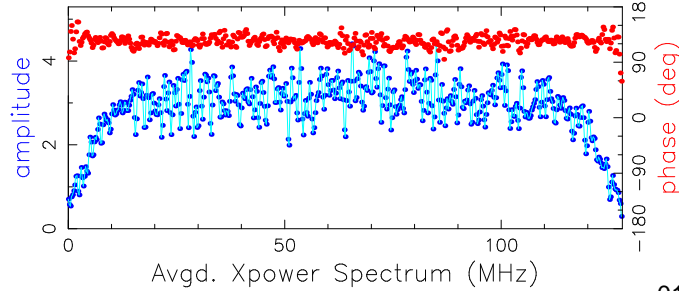
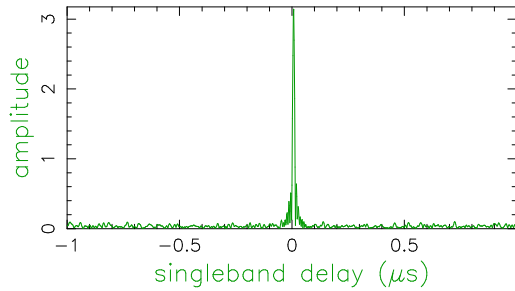
0102+584.1HP6Q8, No0090, lp

VLBA_LA - VLBA_PT, fgroup Q, pol LL



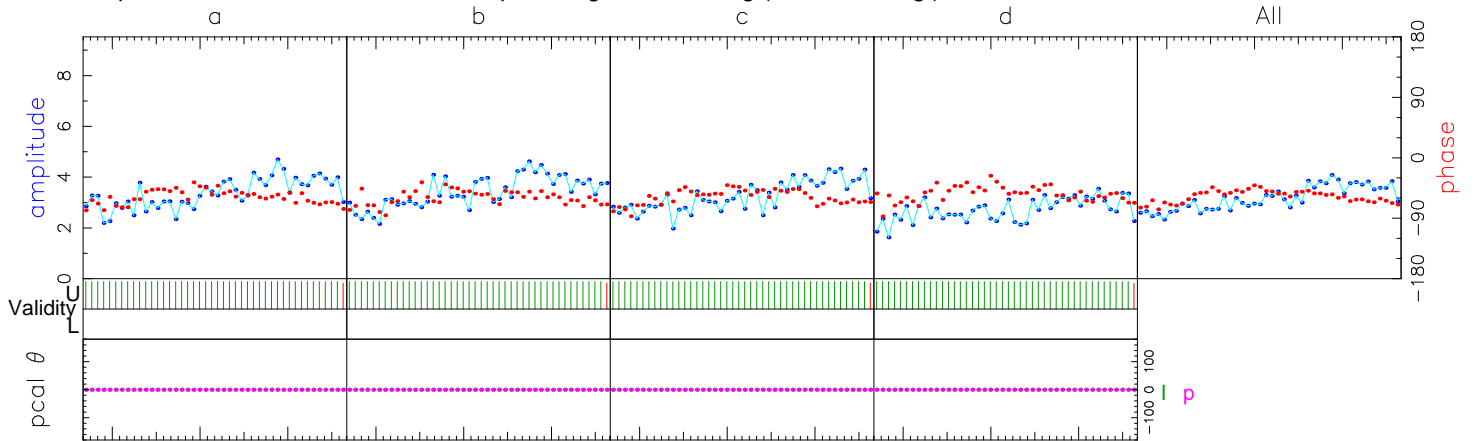
Fringe quality 9

SNR 116.5
 Int time 179.974
 Amp 3.176
 Phase -57.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.007138
 MBD -0.000595
 Fringe rate (Hz)
 -0.000750
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163111
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



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

Group delay (usec)(sbd)	3.00397845780E+02	Apriori delay (usec)	3.00390628280E+02	Resid mbdelay (usec)	-5.95000E-04	+/-	9.5E-06
Sband delay (usec)	3.00397766155E+02	Apriori clock (usec)	-4.2854500E-01	Resid sbdelay (usec)	7.13788E-03	+/-	3.7E-05
Phase delay (usec)	3.00390624564E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-3.71673E-06	+/-	6.3E-08
Delay rate (us/s)	-2.41169197047E-02	Apriori rate (us/s)	-2.41169022819E-02	Resid rate (us/s)	-1.74228E-08	+/-	6.1E-10
Total phase (deg)	173.2	Apriori accel (us/s/s)	4.22889358194E-07	Resid phase (deg)	-57.6	+/-	1.0

ph/seg (deg)	8.8	Theor.	3.3	Amplitude	3.176 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	14.8		5.7	Search (1024X16)	3.047	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	3.0		1.0	Inc. seg. avg.	3.173	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	9.1		1.7	Inc. frq. avg.	3.144	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023		
						Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 18.7 el 65.2 pa -150.7 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) 132.328 74.783 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/lp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/lp.Q.95.1HP6Q8

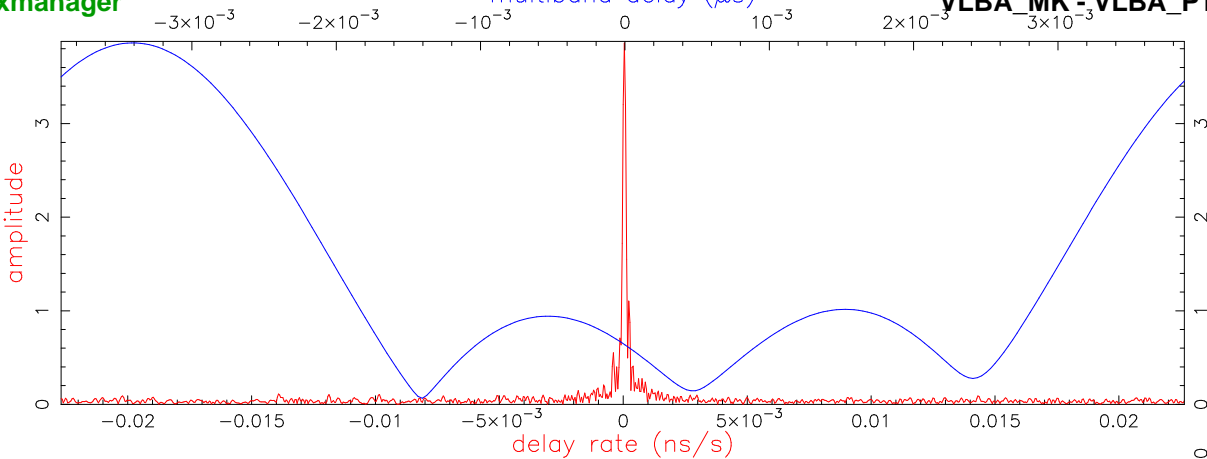
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, mp

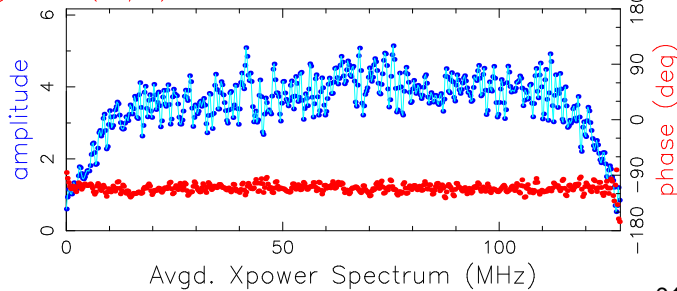
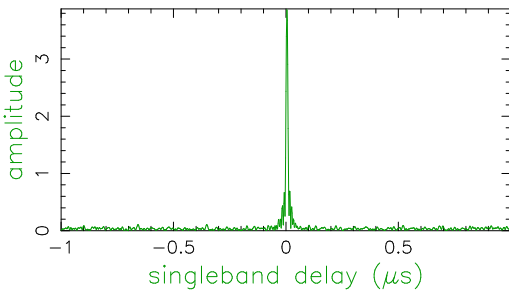
VLBA_MK - VLBA_PT, fgroup Q, pol LL

multiband delay (μ s)



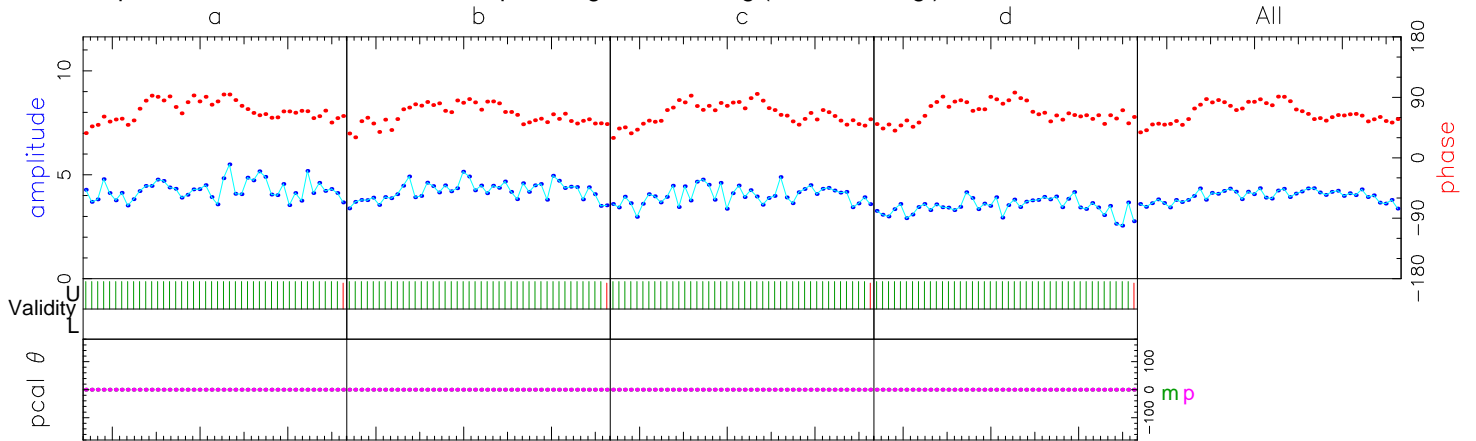
Fringe quality 8

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



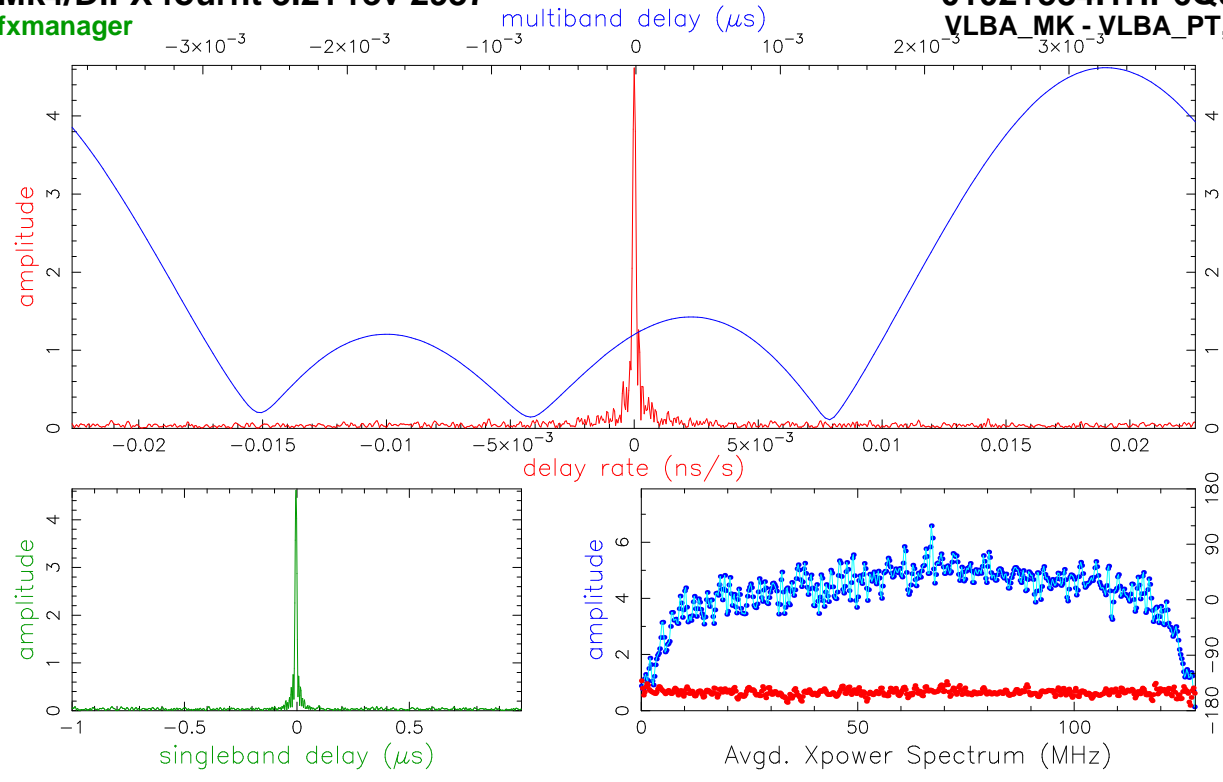
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m:p	0:0	0:0	0:0	0:0		
m:p	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
p	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UL	Q01UL	Q02UL	Q03UL		

Group delay (usec)(sbd)	-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

ph/seg (deg)	14.1	2.7	Amplitude	3.879 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	7.4	4.7	Search (1024X16)	3.691	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	3.4	0.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	8.0	1.4	Inc. seg. avg.	3.975	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
			Inc. frq. avg.	3.866	Data rate(Mb/s): 2048	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.102.1HP6Q8

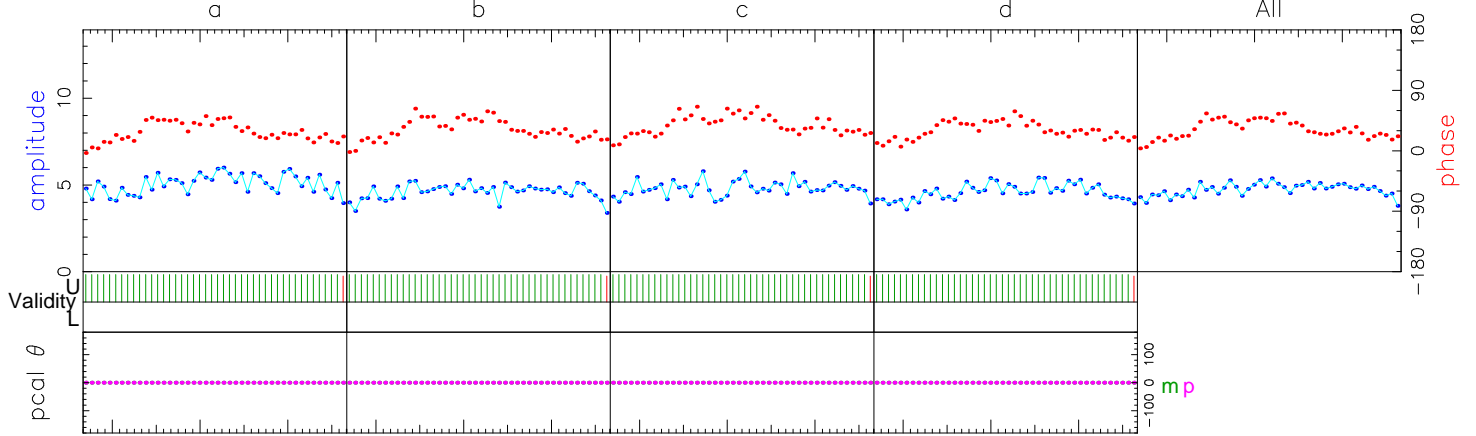


Fringe quality 8

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		

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

	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

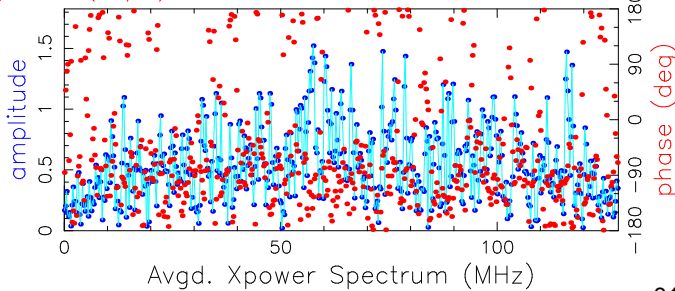
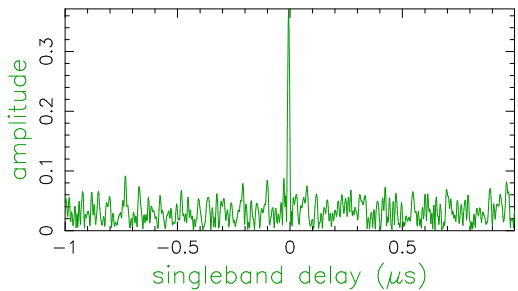
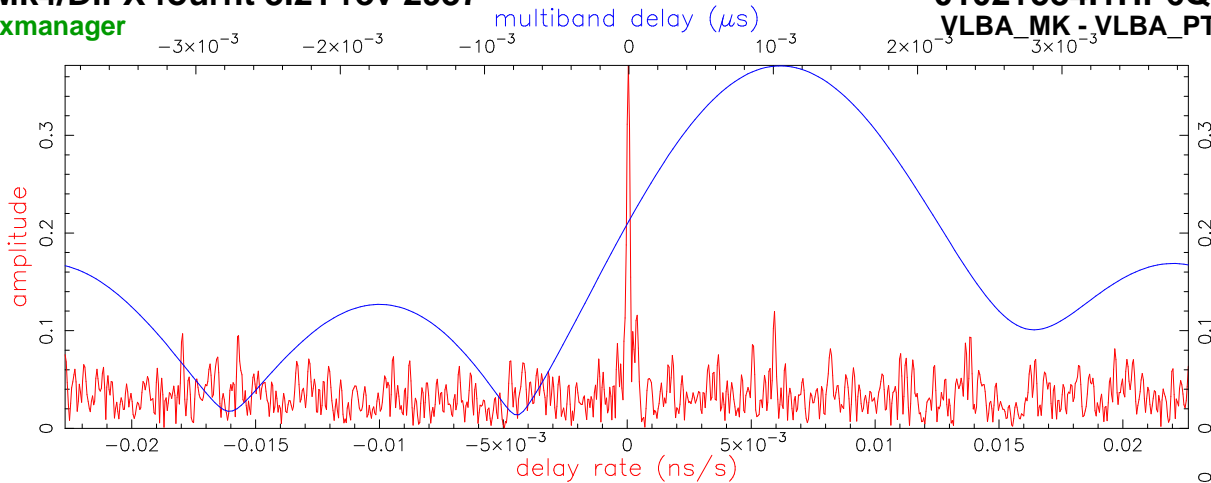
m: az 32.9 el 30.2 pa -101.9 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -2701.271 921.691 simultaneous interpolator

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.117.1HP6Q8

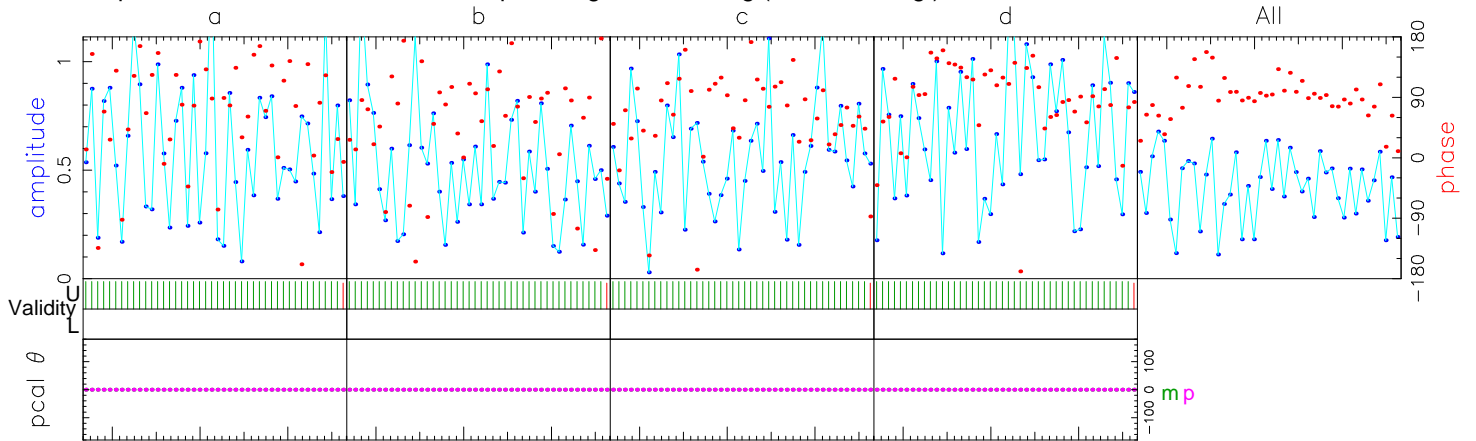
Fringe quality 9

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		

Group delay (usec)(sbd)	-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)		Apriori accel (us/s/s)	2.21896495853E-05	Resid phase (deg)	91.7	+/-	8.4

ph/seg (deg)	RMS 30.9	Theor. 27.9	Amplitude Search (1024X16)	0.372 +/- 0.027	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	43.8	48.7	Interp.	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	14.5	8.4	Inc. seg. avg.	0.382	Bits/sample: 2x2	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

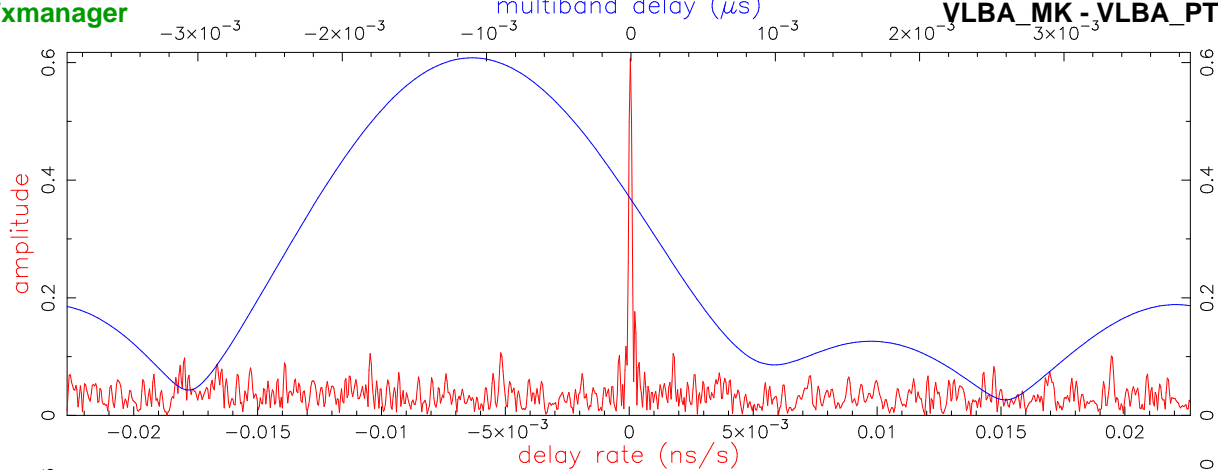
m: az 32.9 el 30.2 pa -101.9 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -2701.271 921.691 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mp.Q.131.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

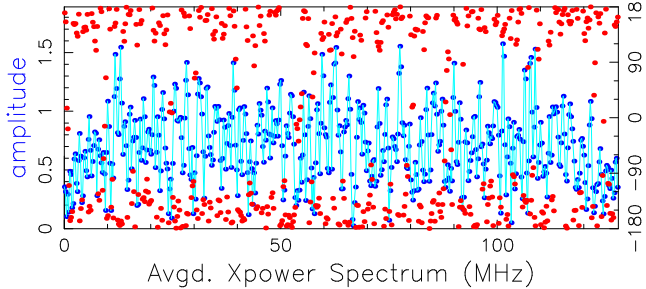
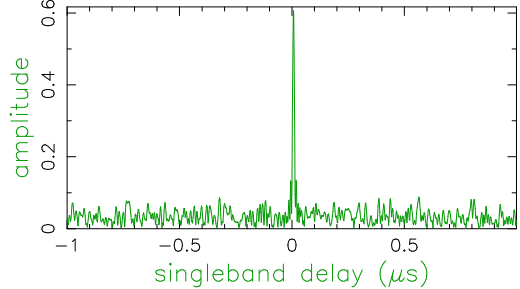
0102+584.1HP6Q8, No0090, mp

VLBA_MK - VLBA_PT, fgroup Q, pol RL



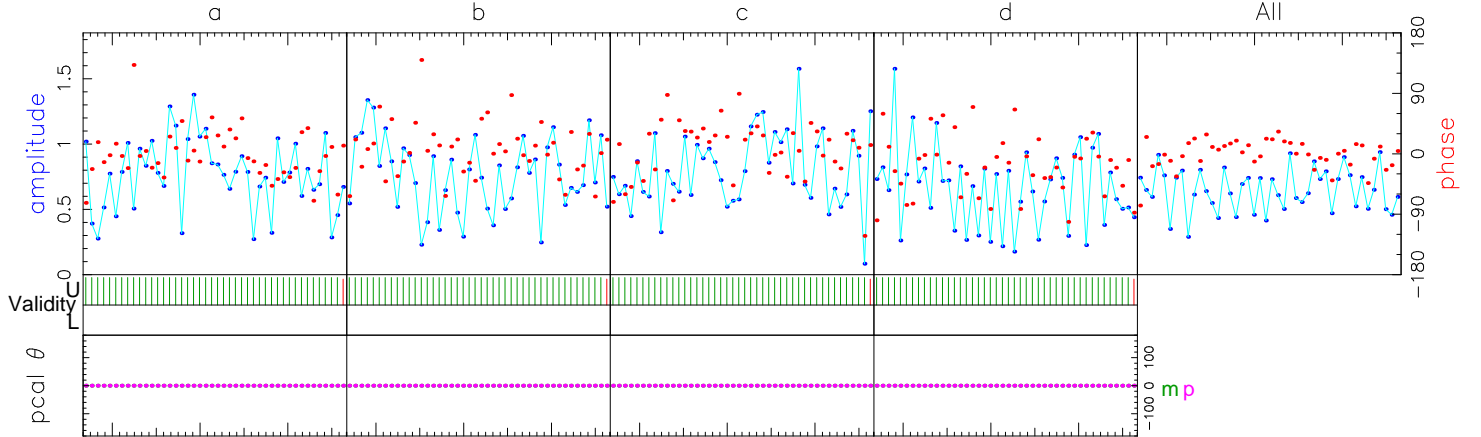
Fringe quality 8

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		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

	-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

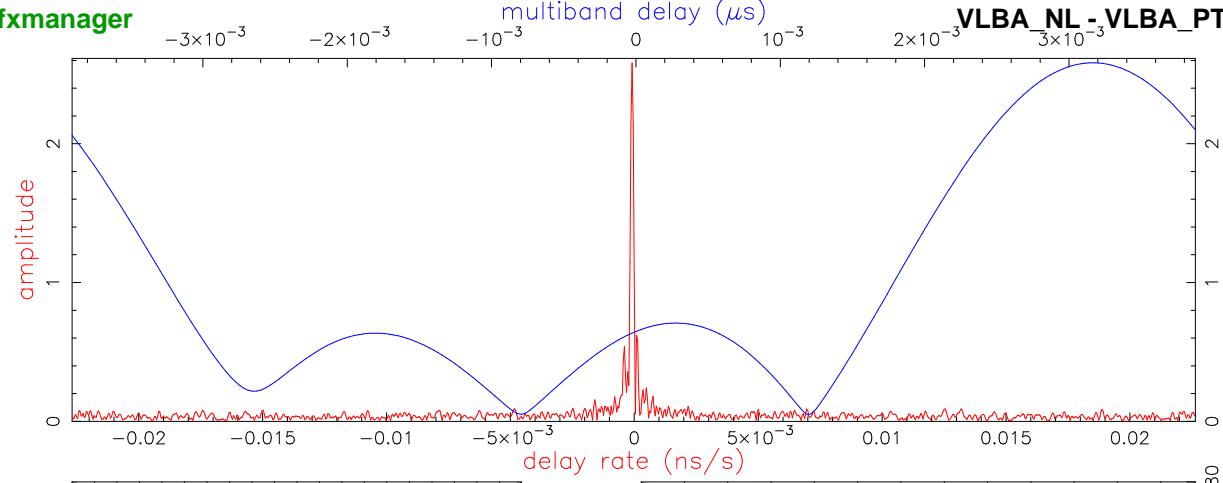
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/mp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/mp.Q.150.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, np

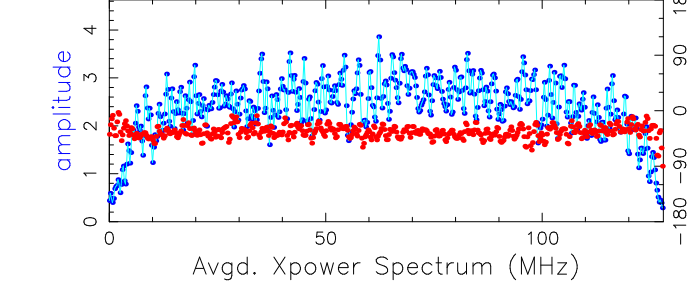
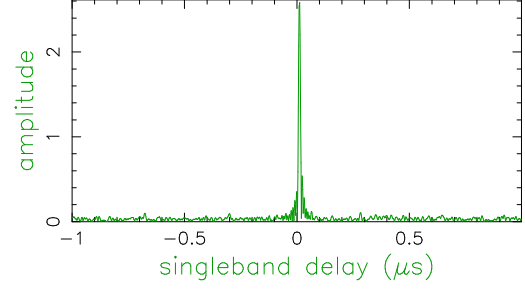
VLBA_NL - VLBA_PT, fgroup Q, pol LL



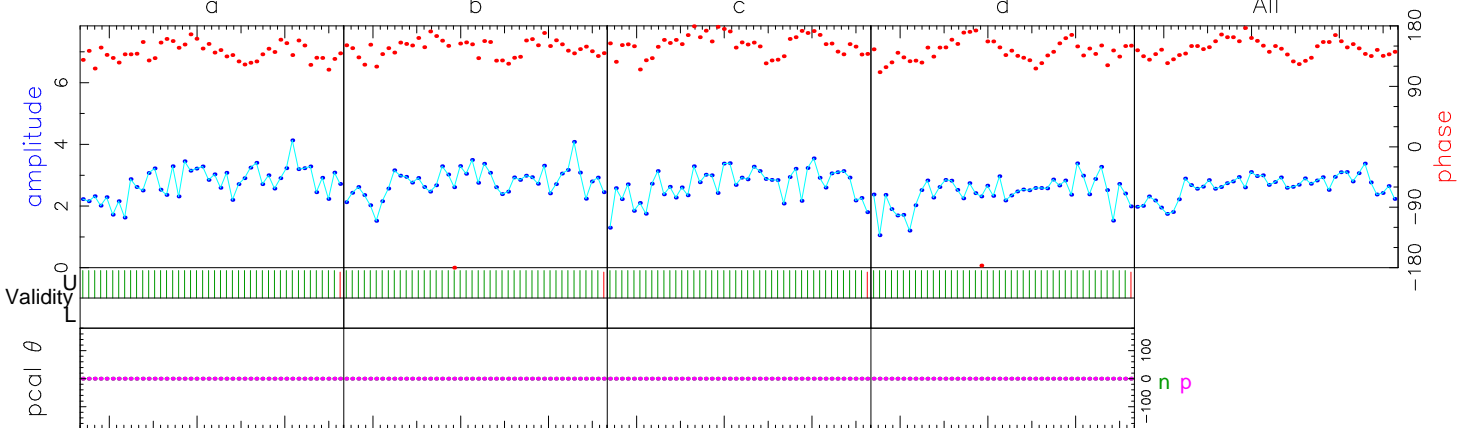
Fringe quality 8

SNR 95.9
 Int time 179.973
 Amp 2.615
 Phase 146.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.010972
 MBD 0.003129
 Fringe rate (Hz)
 -0.003153
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163113
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



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



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

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

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

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

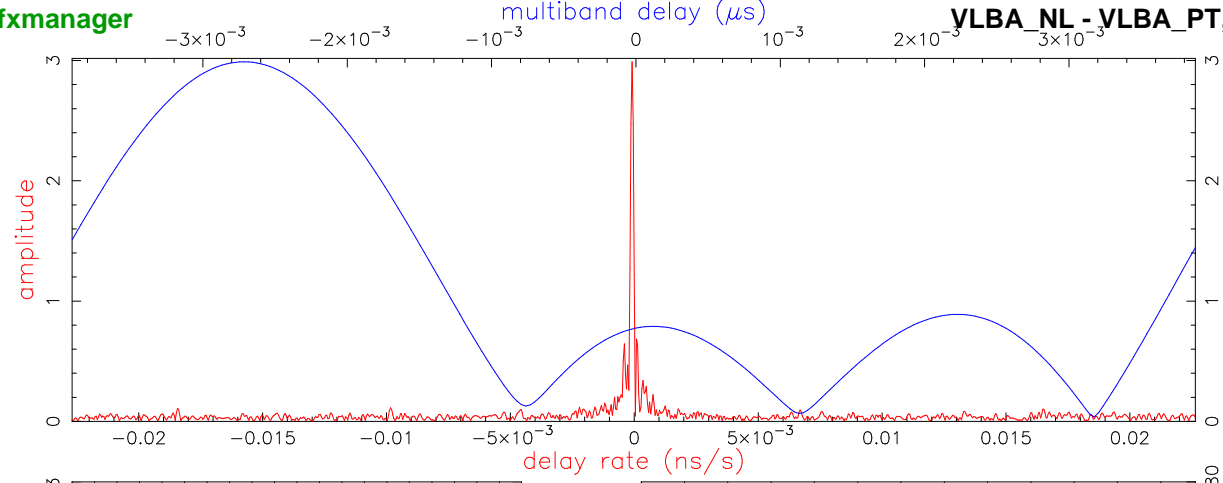
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/np..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/np.Q.120.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

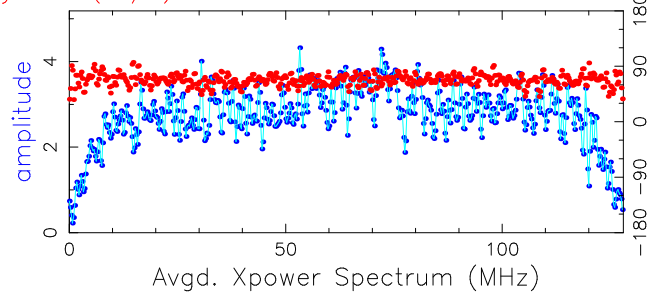
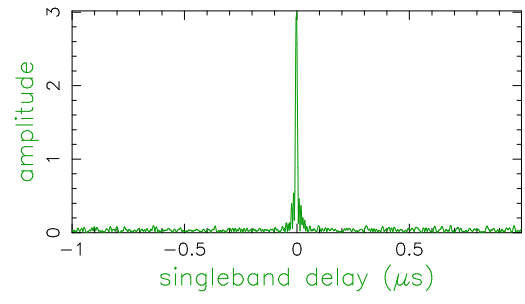
0102+584.1HP6Q8, No0090, np

VLBA_NL - VLBA_PT, fgroup Q, pol RR



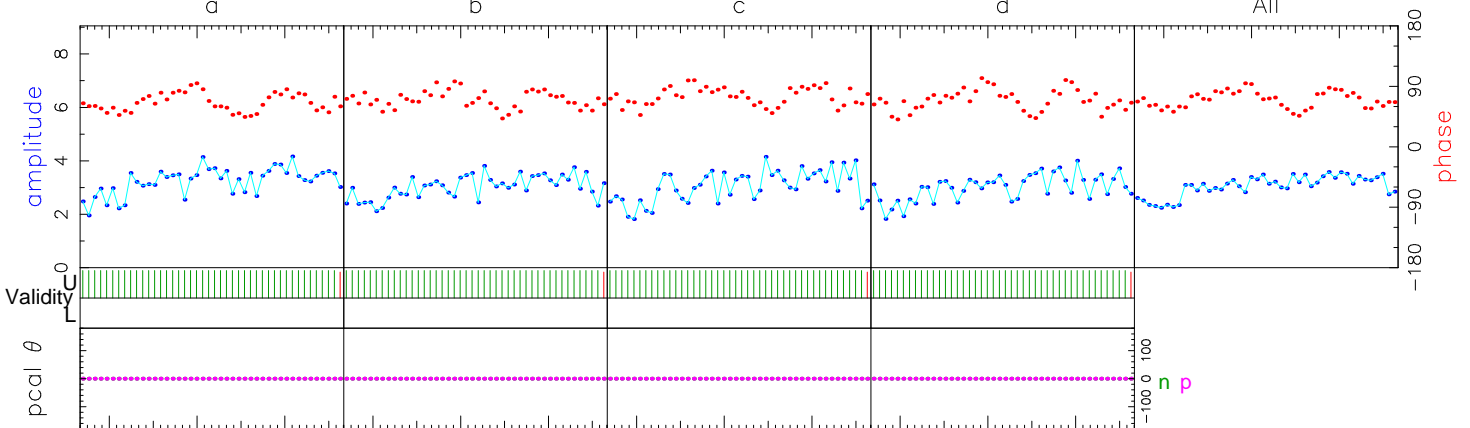
Fringe quality 8

SNR 110.7
 Int time 179.973
 Amp 3.018
 Phase 70.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.002609
 MBD -0.002746
 Fringe rate (Hz)
 -0.003096
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163116
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
66.9	70.3	75.4	69.7	Phase	70.5
3.2	3.0	3.0	2.9	Ampl.	3.0
511.5	511.6	511.7	511.8	Sbd box	511.7
U/L 352/0	352/0	352/0	352/0	APs used	
n 1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	PC freqs	
n:p 0:0	0:0	0:0	0:0	PC phase	
n:p 0:0	0:0	0:0	0:0	Manl PC	
n 1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000		
n Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	1.32880481222E+03	Apriori delay (usec)	1.32880755808E+03	Resid mbdelay (usec)	-2.74586E-03	+/-	1.0E-05
Sband delay (usec)	1.32880494883E+03	Apriori clock (usec)	8.3310127E-02	Resid sbdelay (usec)	-2.60925E-03	+/-	3.9E-05
Phase delay (usec)	1.32880756263E+03	Apriori clockrate (us/s)	1.0000003E-07	Resid phdelay (usec)	4.55226E-06	+/-	6.7E-08
Delay rate (us/s)	-1.90711633154E-01	Apriori rate (us/s)	-1.90711561216E-01	Resid rate (us/s)	-7.19375E-08	+/-	6.4E-10
Total phase (deg)	178.5	Apriori accel (us/s/s)	2.78802414035E-06	Resid phase (deg)	70.5	+/-	1.0

	RMS	Theor.	Amplitude	3.018 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	12.0	3.4	Search (1024X16)	2.850	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	12.9	6.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
ph/frq (deg)	4.3	1.0	Inc. seg. avg.	3.051	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
amp/frq (%)	3.4	1.8	Inc. frq. avg.	2.992	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

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

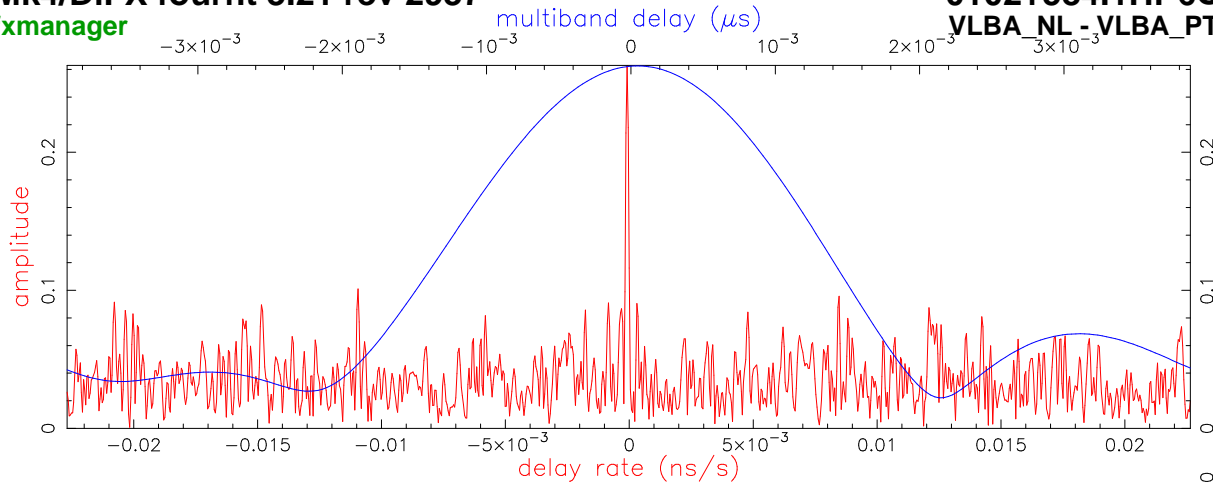
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/np..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/np.Q.140.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

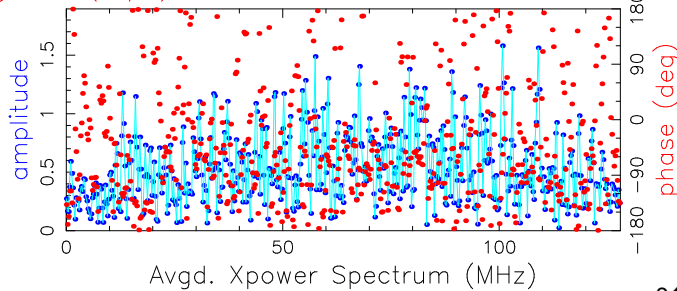
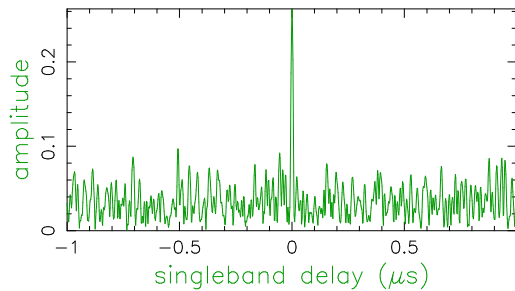
0102+584.1HP6Q8, No0090, np

VLBA_NL - VLBA_PT, fgroup Q, pol LR



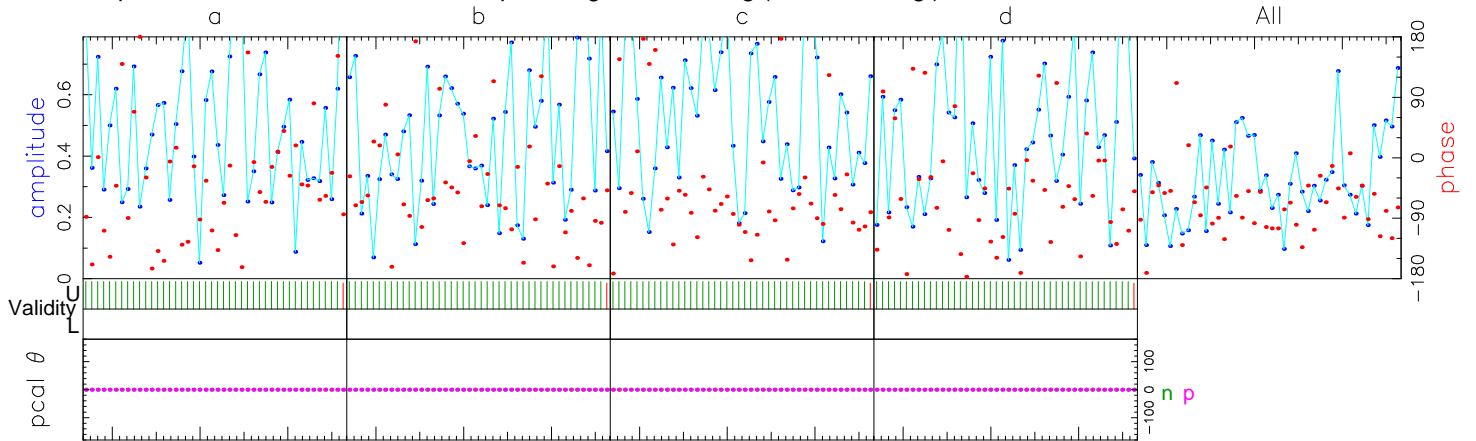
Fringe quality 9

SNR 9.6
 Int time 179.973
 Amp 0.263
 Phase -74.4
 PFD 1.0e-13
 Delays (us)
 SBD 0.000284
 MBD 0.000052
 Fringe rate (Hz)
 -0.003579
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163117
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-77.3	-65.7	-79.4	-72.4	Phase	-74.4
	0.2	0.2	0.4	0.2	Ampl.	0.3
	514.3	513.0	512.7	484.8	Sbd box	513.1
U/L	352/0	352/0	352/0	352/0	APs used	
n	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
n:p	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

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

	RMS	Theor.	Amplitude	0.263 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	47.2	39.4	Search (1024X16)	0.261	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
amp/seg (%)	58.8	68.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	7.5	11.9	Inc. seg. avg.	0.264	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
amp/frq (%)	24.0	20.7	Inc. frq. avg.	0.258	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

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

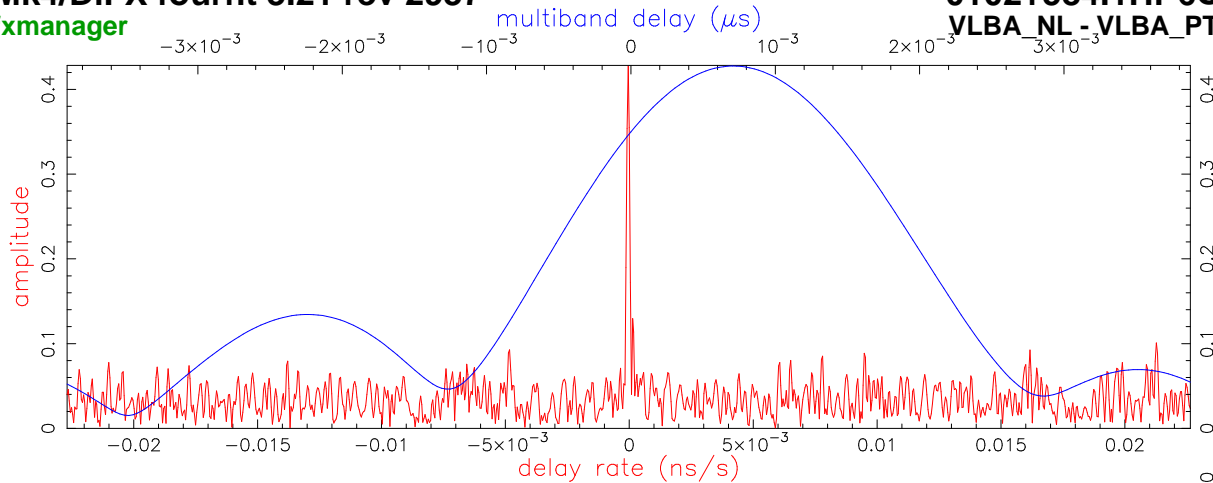
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/np..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/np.Q.153.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

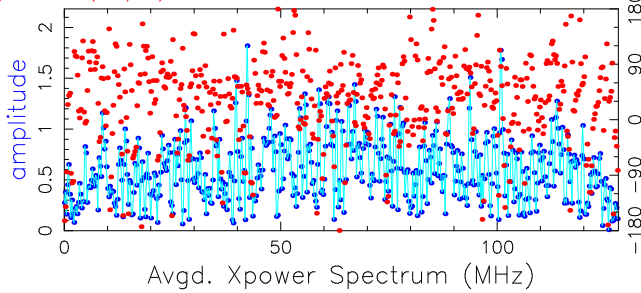
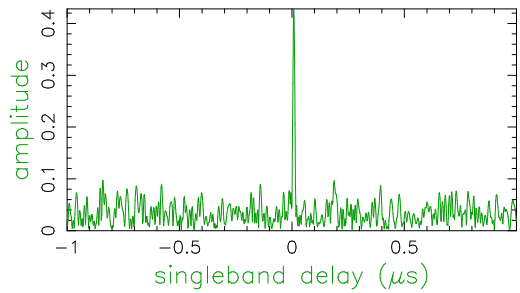
0102+584.1HP6Q8, No0090, np

VLBA_NL - VLBA_PT, fgroup Q, pol RL



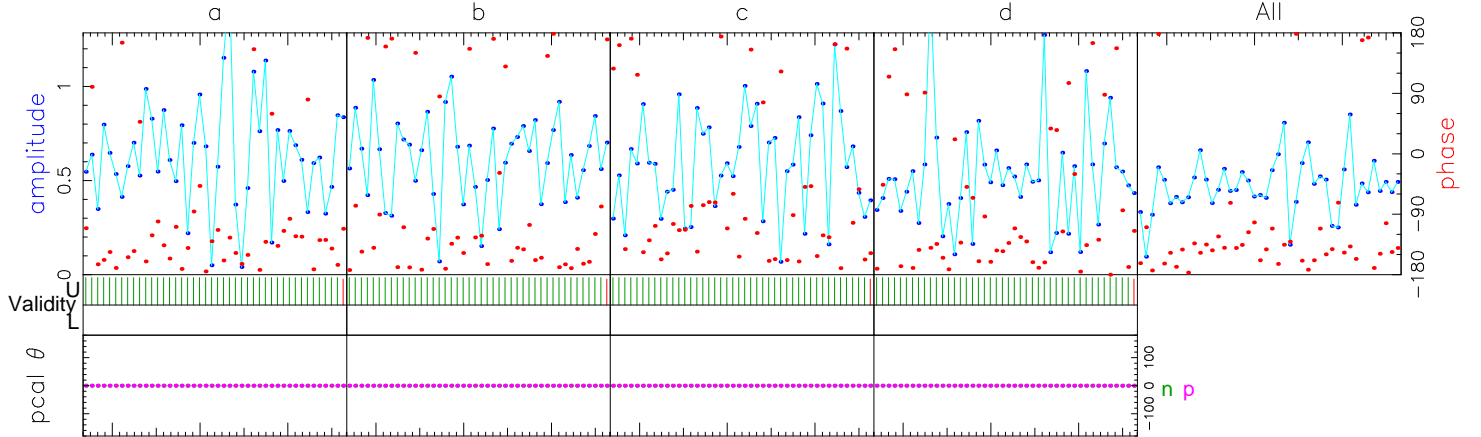
Fringe quality 9

SNR 15.7
 Int time 179.973
 Amp 0.428
 Phase -145.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.008105
 MBD 0.000726
 Fringe rate (Hz)
 -0.002795
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163118
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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

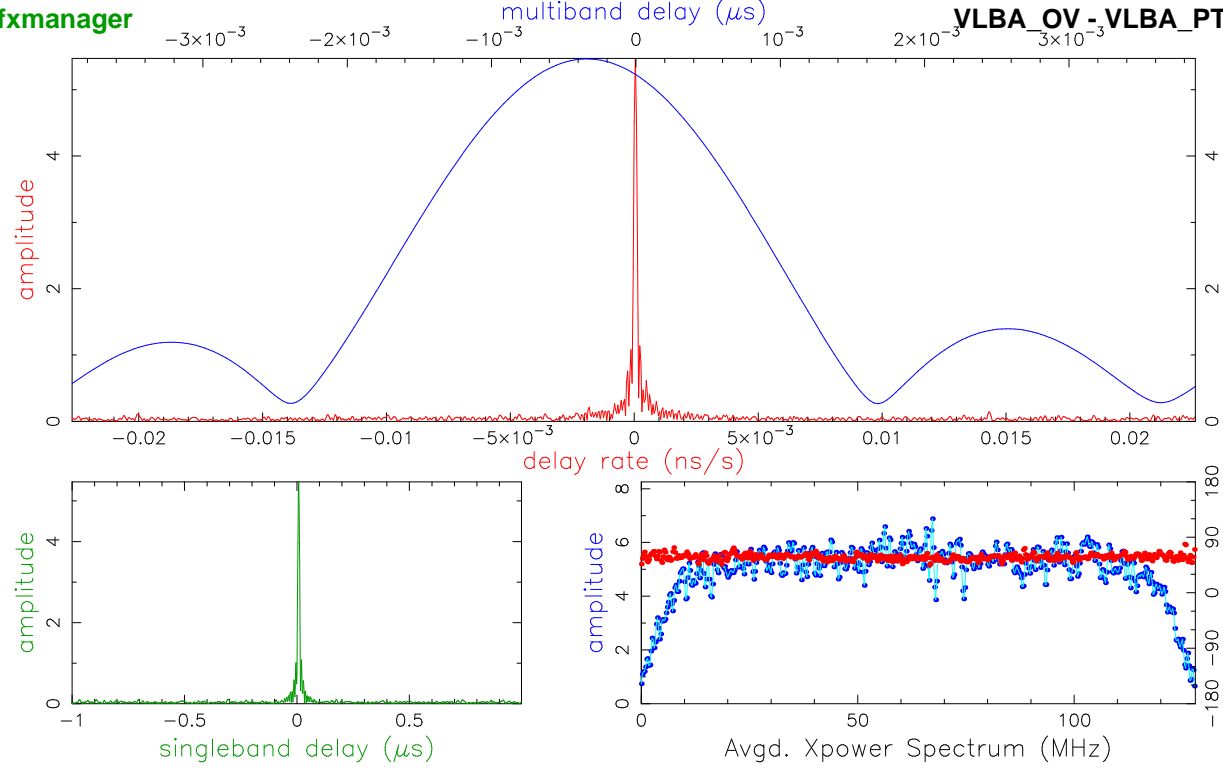


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000		
p	1000	1000	1000	1000		
n:p	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000		
p	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UL	Q01UL	Q02UL	Q03UL		

	1.32881609692E+03	1.32880755808E+03	1.32880755808E+03	7.26335E-04	+/-	7.1E-05	
Group delay (usec)(sbd)	1.32881609692E+03	1.32880755808E+03	1.32880755808E+03	7.26335E-04	+/-	7.1E-05	
Sband delay (usec)	1.32881566333E+03	8.3310127E-02	8.3310127E-02	8.10525E-03	+/-	2.7E-04	
Phase delay (usec)	1.32880754867E+03	1.0000003E-07	1.0000003E-07	-9.41204E-06	+/-	4.7E-07	
Delay rate (us/s)	-1.90711626160E-01	Apriori rate (us/s)	-1.90711561216E-01	Resid rate (us/s)	-6.49434E-08	+/-	4.5E-09
Total phase (deg)	-37.9	Apriori accel (us/s/s)	2.78802414035E-06	Resid phase (deg)	-145.8	+/-	7.3

	RMS	Theor.	Amplitude	0.428 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	26.9	24.2	Search (1024X16)	0.404	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
amp/seg (%)	34.7	42.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	8.8	7.3	Inc. seg. avg.	0.433	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
amp/frq (%)	16.5	12.7	Inc. frq. avg.	0.427	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

n: az 360.5 el 73.3 pa -179.4 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) 1046.269 408.192 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/np..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/np.Q.163.1HP6Q8

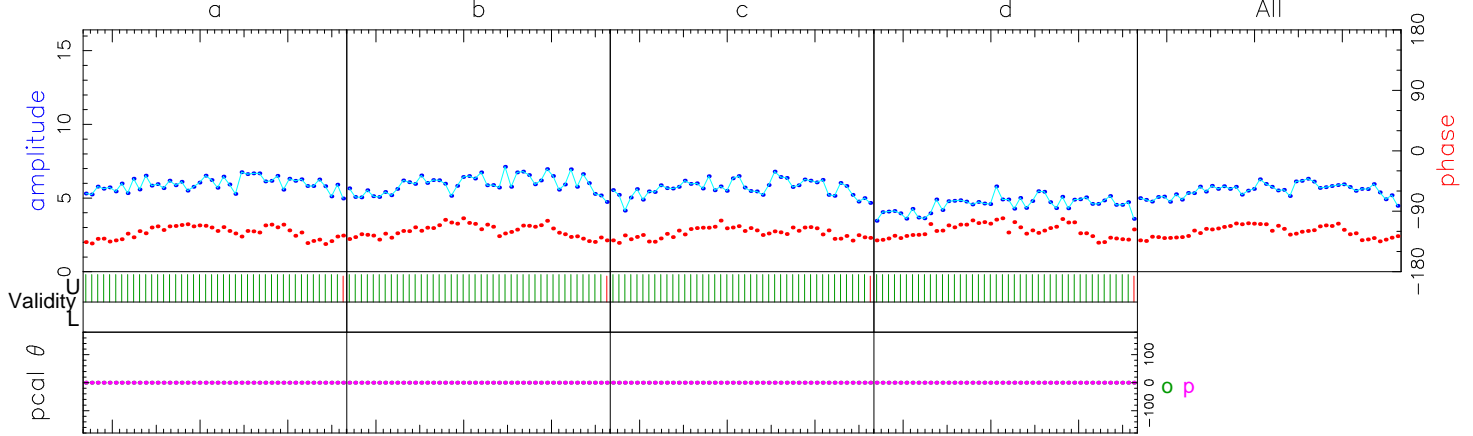


Fringe quality 9

SNR 200.8
Int time 179.975
Amp 5.473
Phase -120.4
PFD 0.0e+00
Delays (us)
SBD 0.007547
MBD -0.000353
Fringe rate (Hz) 0.001225
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 055640.00
Stop 055940.22
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163118
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-121.8	-118.8	-122.1	-118.4	Phase	-120.4
	5.9	5.9	5.6	4.5	Ampl.	5.5
	516.9	516.8	516.8	516.8	Sbd box	516.9
U/L	352/0	352/0	352/0	352/0	APs used	
o	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
o	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

Group delay (usec)(sbd)	-1.20630633353E+02	Apriori delay (usec)	-1.20638093080E+02	Resid mbdelay (usec)	-3.52773E-04	+/- 5.5E-06
Sband delay (usec)	-1.20630546205E+02	Apriori clock (usec)	2.1364456E+01	Resid sbdelay (usec)	7.54688E-03	+/- 2.1E-05
Phase delay (usec)	-1.20638100850E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-7.77030E-06	+/- 3.7E-08
Delay rate (us/s)	9.97336631596E-02	Apriori rate (us/s)	9.97336347039E-02	Resid rate (us/s)	2.84557E-08	+/- 3.5E-10
Total phase (deg)	-309.8	Apriori accel (us/s/s)	4.73623624830E-06	Resid phase (deg)	-120.4	+/- 0.6

ph/seg (deg)	8.5	1.9	Search (1024X16)	5.291	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	7.9	3.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	2.4	0.6	Inc. seg. avg.	5.521	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	10.5	1.0	Inc. frq. avg.	5.466	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
					nlags: 512	t_cohere infinite

o: az 30.8 el 62.4 pa -129.3 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -543.509 402.892 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/op..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/op.Q.160.1HP6Q8

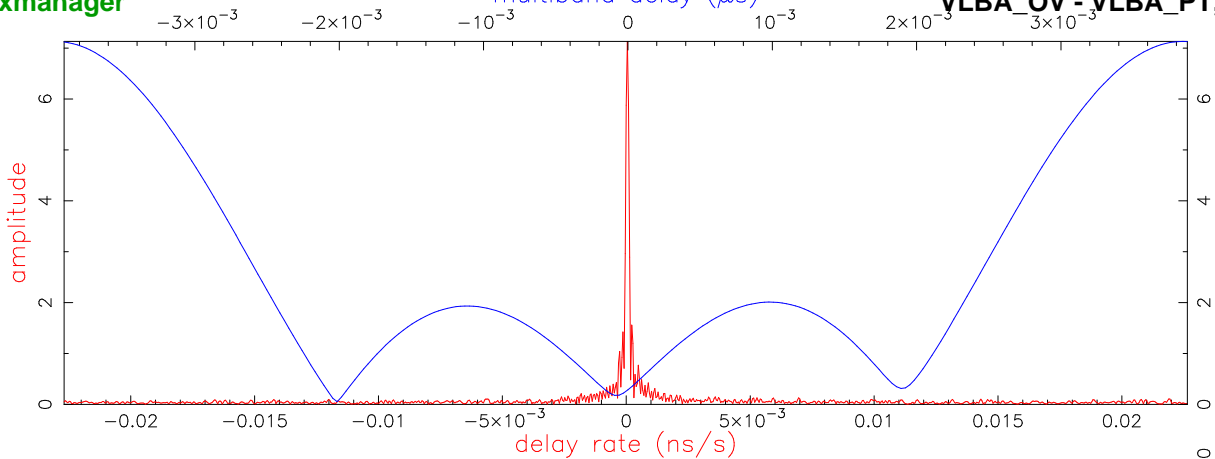
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, op

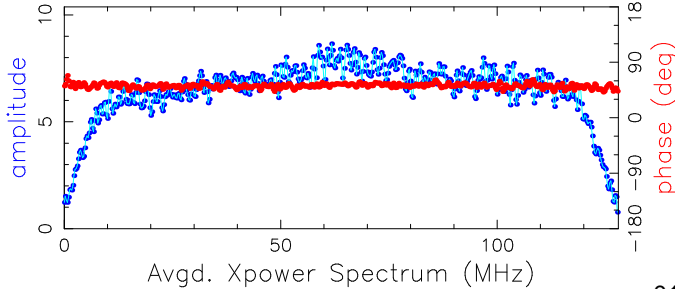
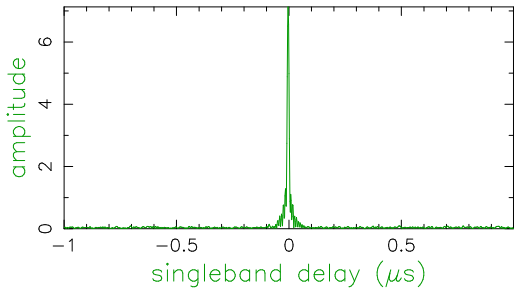
VLBA_OV - VLBA_PT, fgroup Q, pol RR

multiband delay (μ s)



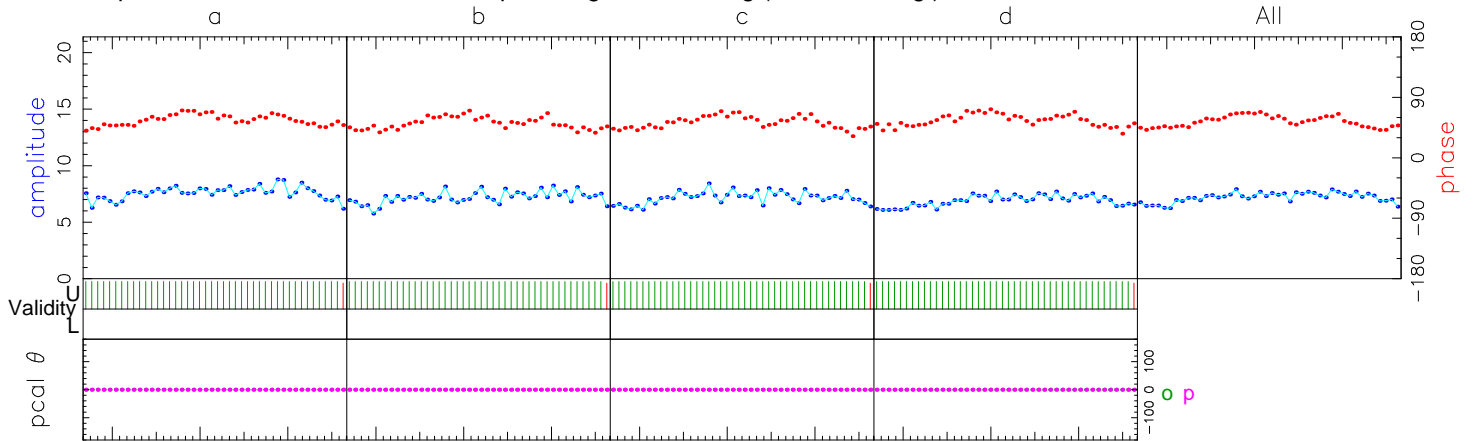
Fringe quality 9

SNR 261.7
 Int time 179.975
 Amp 7.134
 Phase 54.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.003865
 MBD -0.003967
 Fringe rate (Hz)
 0.001184
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163119
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
o	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
o	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-1.20642060509E+02				Resid mbdelay (usec)	-3.96743E-03 +/- 4.2E-06
Sband delay (usec)	-1.20641958330E+02				Resid sbdelay (usec)	-3.86525E-03 +/- 1.6E-05
Phase delay (usec)	-1.20638089581E+02				Resid phdelay (usec)	3.49901E-06 +/- 2.8E-08
Delay rate (us/s)	9.97336622236E-02				Resid rate (us/s)	2.75197E-08 +/- 2.7E-10
Total phase (deg)		-135.2			Resid phase (deg)	54.2 +/- 0.4
					Apriori delay (usec)	-1.20638093080E+02
					Apriori clock (usec)	2.1364456E+01
					Apriori clockrate (us/s)	-5.0000000E-07
					Apriori rate (us/s)	9.97336347039E-02
					Apriori accel (us/s/s)	4.73623624830E-06
					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) 8.1 1.5 Search (1024X16) 6.927
 amp/seg (%) 6.1 2.5 Interp. 0.000
 ph/frq (deg) 3.0 0.4 Inc. seg. avg. 7.203
 amp/frq (%) 3.5 0.8 Inc. frq. avg. 7.138

o: az 30.8 el 62.4 pa -129.3 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -543.509 402.892 simultaneous interpolator

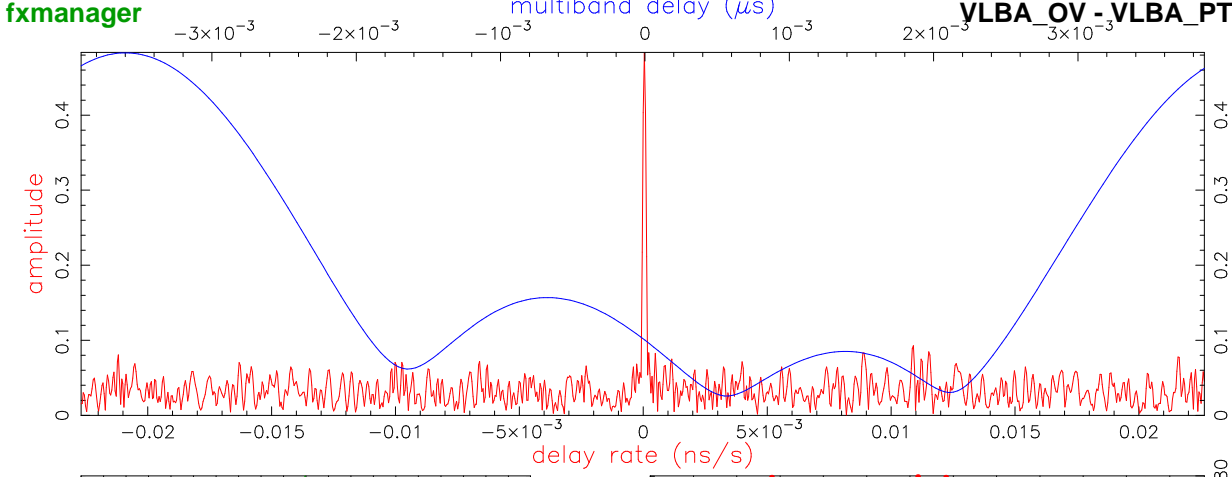
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/op..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/op.Q.166.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, op

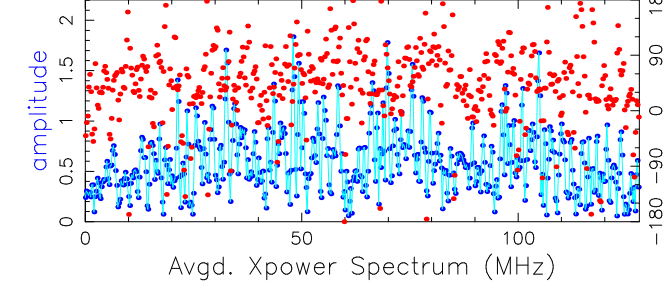
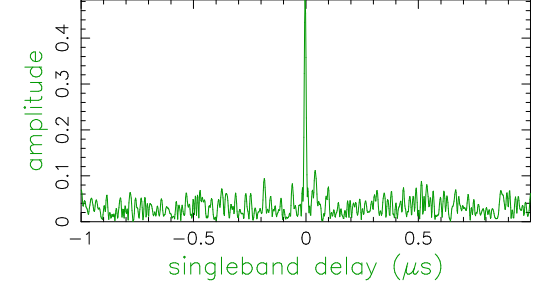
VLBA_OV - VLBA_PT, fgroup Q, pol LR



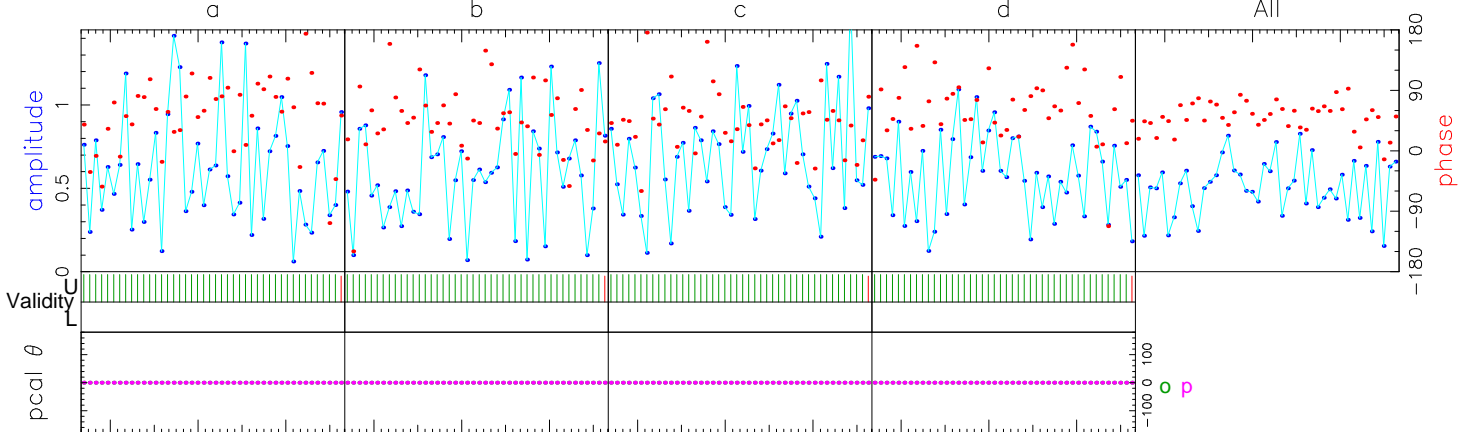
Fringe quality 9

SNR 17.7
 Int time 179.975
 Amp 0.484
 Phase 50.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.003652
 MBD -0.003593
 Fringe rate (Hz) 0.001161
 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
 2021:010:163121
 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		
o	1000	1000	1000	1000		
p	1000	1000	1000	1000		
o:p	0:0	0:0	0:0	0:0		
o:p	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000		
p	1000	1000	1000	1000		
o	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec)(sbd)	-1.20641685790E+02	Apriori delay (usec)	-1.20638093080E+02	Resid mbdelay (usec)	-3.59271E-03	+/-	6.3E-05
Sband delay (usec)	-1.20641745080E+02	Apriori clock (usec)	2.1364456E+01	Resid sbdelay (usec)	-3.65200E-03	+/-	2.4E-04
Phase delay (usec)	-1.20638089792E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	3.28722E-06	+/-	4.2E-07
Delay rate (us/s)	9.97336616904E-02	Apriori rate (us/s)	9.97336347039E-02	Resid rate (us/s)	2.69865E-08	+/-	4.0E-09
Total phase (deg)	-138.5	Apriori accel (us/s/s)	4.73623624830E-06	Resid phase (deg)	50.9	+/-	6.5

ph/seg (deg)	22.1	Theor.	21.4	Amplitude	0.484 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	34.9	Search (1024X16)	0.463	Search	0.463	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	11.9	Inc. seg. avg.	0.479	Inc. seg. avg.	0.479	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	11.8	Inc. frq. avg.	0.485	Inc. frq. avg.	0.485	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
o: az 30.8 el 62.4 pa -129.3		p: az 19.7 el 63.3 pa -148.5		u, v (fr/asec)	-543.509 402.892	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite
Control file: cf_1234_gmva7mm		Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/op..1HP6Q8		Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/op.Q.171.1HP6Q8		ion window (TEC)	0.00 0.00

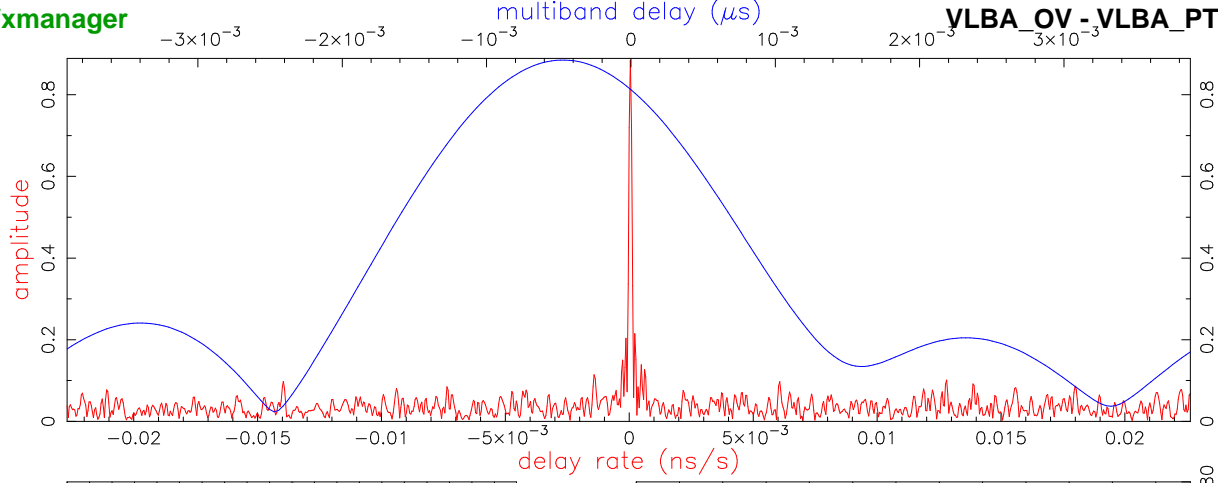
simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, op

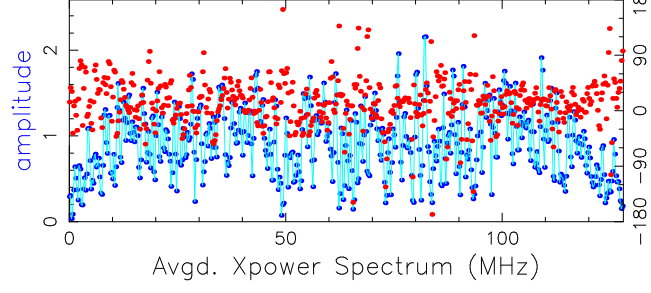
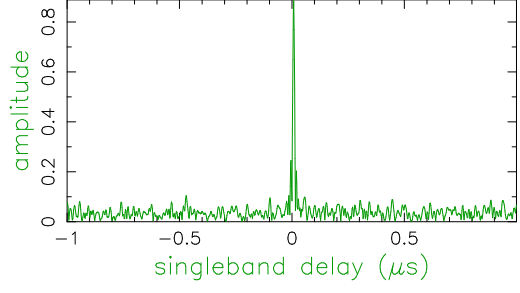
VLBA_OV - VLBA_PT, fgroup Q, pol RL



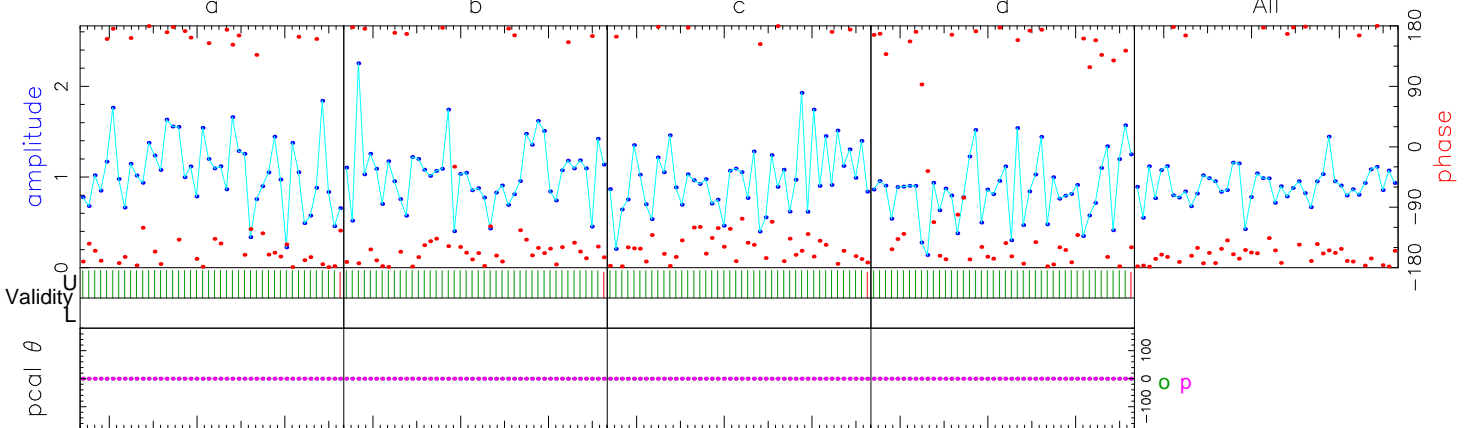
Fringe quality 9

SNR 32.6
 Int time 179.975
 Amp 0.889
 Phase -166.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.007371
 MBD -0.000494
 Fringe rate (Hz) 0.001237
 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
 2021:010:163122
 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
	-173.6	-162.3	-156.3	-174.3	Phase	-166.3
	1.0	1.0	0.9	0.7	Ampl.	0.9
	517.0	516.8	517.0	516.2	Sbd box	516.8
U/L	352/0	352/0	352/0	352/0	APs used	
o	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
o	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-1.20630775071E+02		Apriori delay (usec)	-1.20638093080E+02	Resid mbdelay (usec)	-4.94492E-04 +/- 3.4E-05
Sband delay (usec)	-1.20630721955E+02		Apriori clock (usec)	2.1364456E+01	Resid sbdelay (usec)	7.37112E-03 +/- 1.3E-04
Phase delay (usec)	-1.20638103810E+02		Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-1.07300E-05 +/- 2.3E-07
Delay rate (us/s)	9.97336634460E-02		Apriori rate (us/s)	9.97336347039E-02	Resid rate (us/s)	2.87421E-08 +/- 2.2E-09
Total phase (deg)		-355.7	Apriori accel (us/s/s)	4.73623624830E-06	Resid phase (deg)	-166.3 +/- 3.5

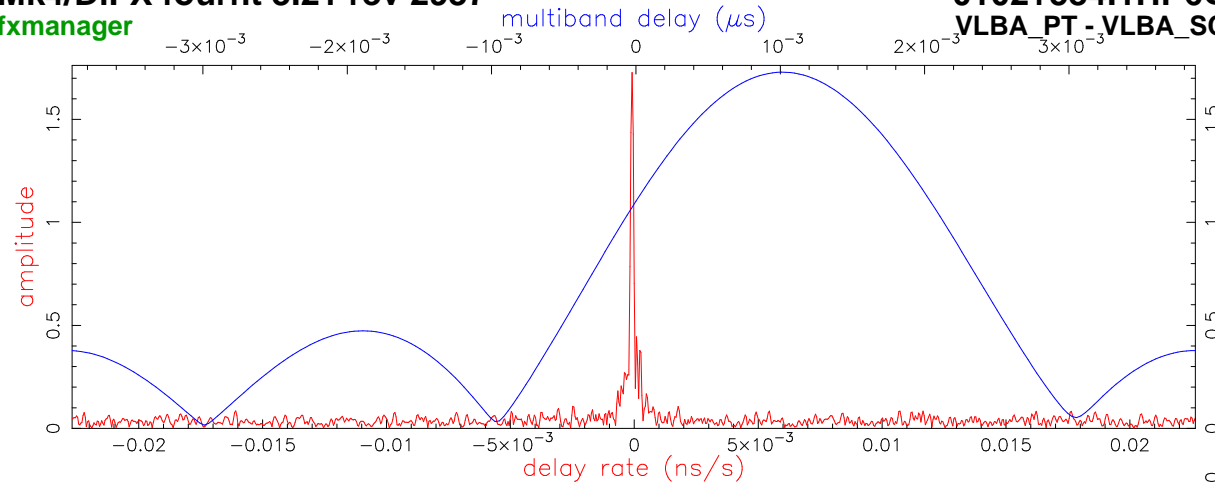
ph/seg (deg) 14.0 11.7 Search (1024X16) 0.863 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 19.8 20.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 10.8 3.5 Inc. seg. avg. 0.893 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
 amp/frq (%) 11.7 6.1 Inc. frq. avg. 0.893 Sample rate(MISamp/s): 256 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite dr window (ns/s) -0.023 0.023
 o: az 30.8 el 62.4 pa -129.3 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) -543.509 402.892 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/op..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/op.Q.176.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

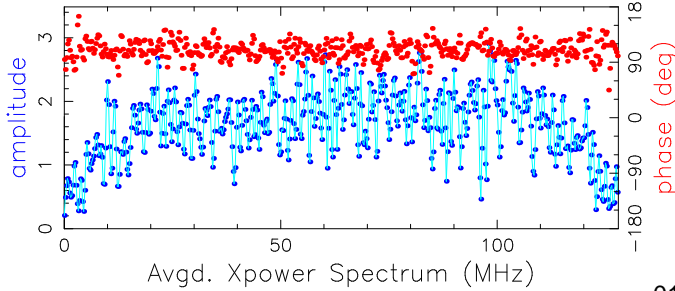
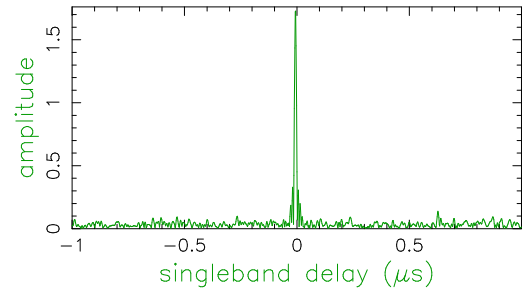
0102+584.1HP6Q8, No0090, pc

VLBA_PT - VLBA_SC, fgroup Q, pol LL



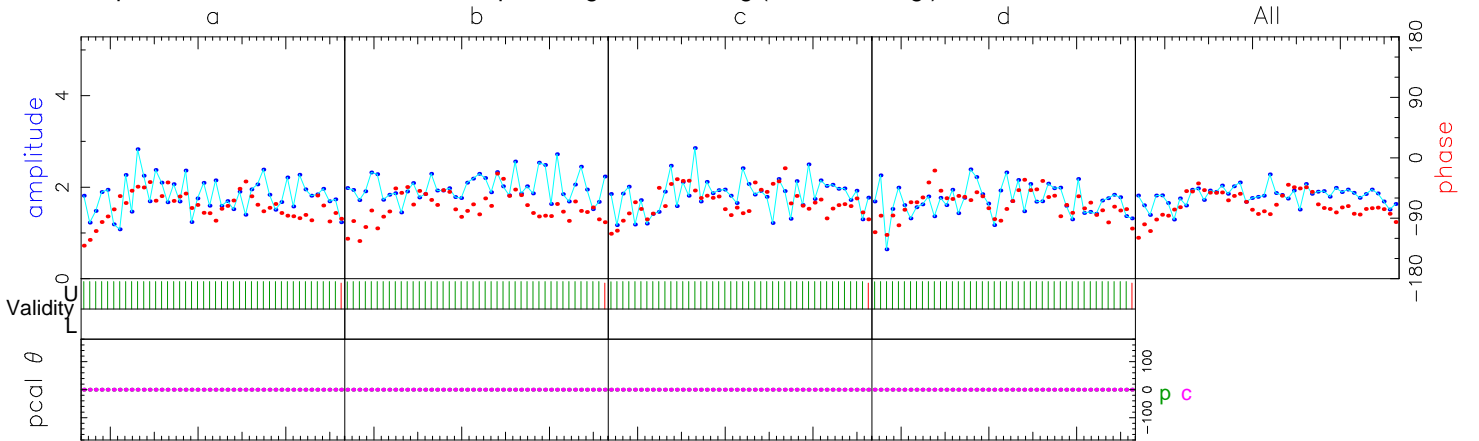
Fringe quality 9

SNR 64.6
 Int time 179.972
 Amp 1.762
 Phase -69.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.006799
 MBD 0.000969
 Fringe rate (Hz)
 -0.003626
 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
 2021:010:163120
 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		
p	1000	1000	1000	1000	Phase	-69.6
c	1000	1000	1000	1000	Ampl.	1.7
p:c	0:0	0:0	0:0	0:0	Sbd box	509.5
p:c	0:0	0:0	0:0	0:0	APs used	
p	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
p	Q00UL	Q01UL	Q02UL	Q03UL	PC phase	
c	Q00UL	Q01UL	Q02UL	Q03UL	ManI PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	4.07826940312E+03	Apriori delay (usec)	4.07827624648E+03	Resid mbdelay (usec)	9.69140E-04	+/- 1.7E-05
Sband delay (usec)	4.07826944786E+03	Apriori clock (usec)	-8.4043093E+00	Resid sbdelay (usec)	-6.79862E-03	+/- 6.7E-05
Phase delay (usec)	4.07827624199E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	-4.48882E-06	+/- 1.1E-07
Delay rate (us/s)	5.41430250517E-01	Apriori rate (us/s)	5.41430334755E-01	Resid rate (us/s)	-8.42382E-08	+/- 1.1E-09
Total phase (deg)	164.0	Apriori accel (us/s/s)	3.11576648004E-06	Resid phase (deg)	-69.6	+/- 1.8

ph/seg (deg)	18.5	Theor.	5.9	Amplitude	1.762 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	10.8	Search (1024X16)	1.722	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	4.7	Inc. seg. avg.	1.808	Inc. frq. avg.	1.730	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	5.5	Inc. frq. avg.	1.730			Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
						nlags: 512	t_cohere infinite

p: az 19.7 el 63.3 pa -148.5 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -2964.895 817.212 simultaneous interpolator

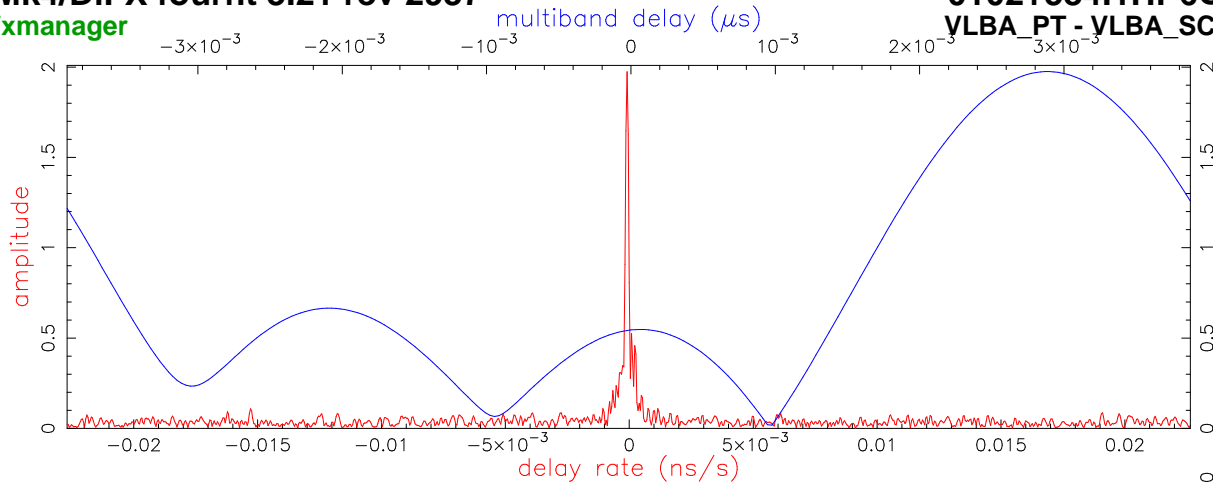
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/pc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/pc.Q.168.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

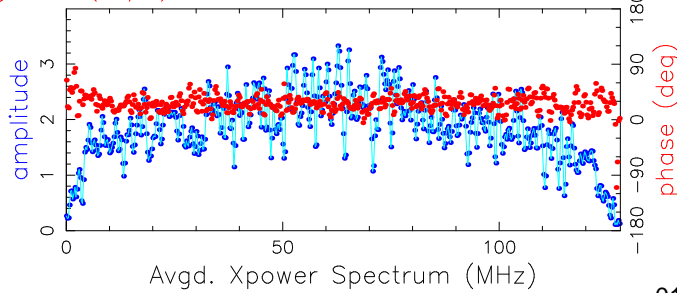
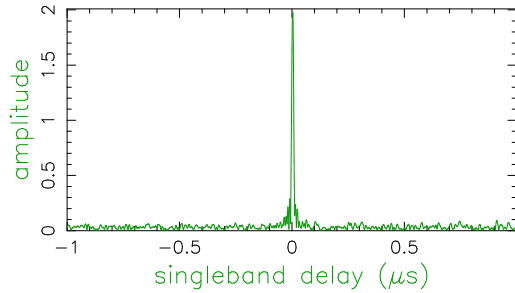
0102+584.1HP6Q8, No0090, pc

VLBA_PT - VLBA_SC, fgroup Q, pol RR



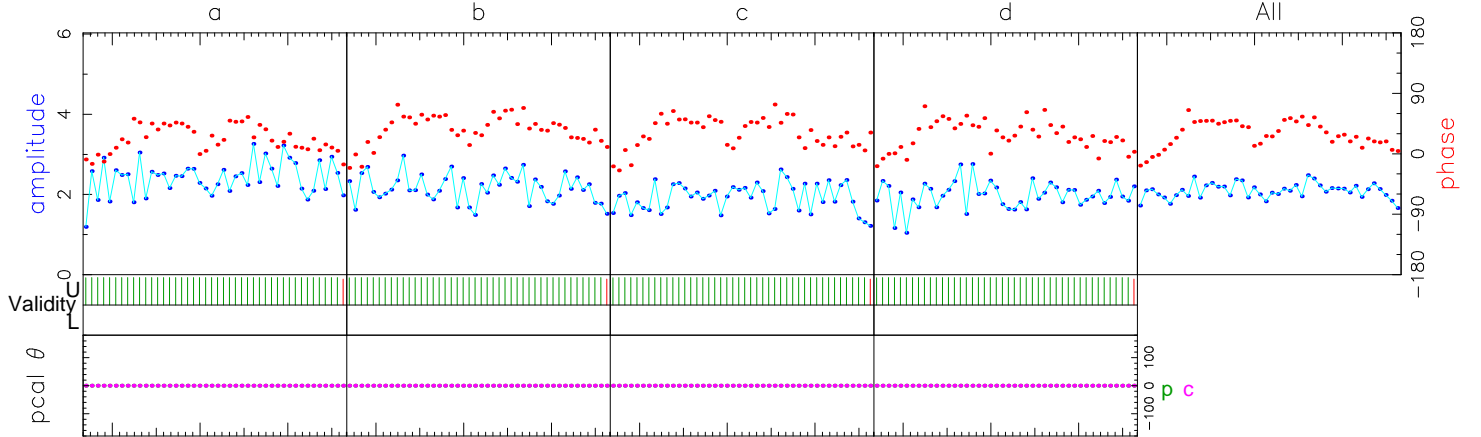
Fringe quality 8

SNR 73.7
 Int time 179.972
 Amp 2.010
 Phase 30.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.002992
 MBD 0.002859
 Fringe rate (Hz)
 -0.003554
 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
 2021:010:163121
 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		
p	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
p:c	0:0	0:0	0:0	0:0	PC phase	
p:c	0:0	0:0	0:0	0:0	Manl PC	
p	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	

	4.07827910559E+03	Apriori delay (usec)	4.07827624648E+03	Resid mbdelay (usec)	2.85911E-03	+/- 1.5E-05
Group delay (usec)(sbd)	4.07827910559E+03	Apriori clock (usec)	-8.4043093E+00	Resid sbdelay (usec)	2.99238E-03	+/- 5.8E-05
Sband delay (usec)	4.07827923886E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	1.93483E-06	+/- 1.0E-07
Phase delay (usec)	4.07827624842E+03	Apriori rate (us/s)	5.41430334755E-01	Resid rate (us/s)	-8.25818E-08	+/- 9.6E-10
Delay rate (us/s)	5.41430252173E-01	Apriori accel (us/s/s)	3.11576648004E-06	Resid phase (deg)	30.0	+/- 1.6
Total phase (deg)	263.5					

	RMS	Theor.	Amplitude	2.010 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	19.7	5.2	Search (1024X16)	1.966	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	10.0	9.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.7	1.6	Inc. seg. avg.	2.083	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	9.5	2.7	Inc. frq. avg.	1.984	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
p: az 19.7 el 63.3 pa -148.5			c: az 340.7 el 44.8 pa 142.6		u,v (fr/asec) -2964.895 817.212	simultaneous interpolator

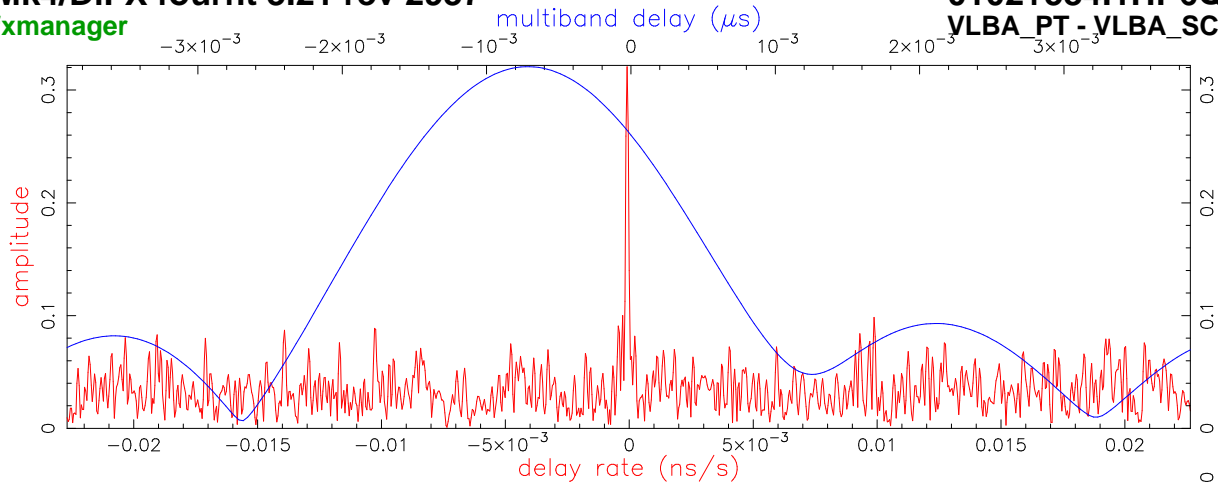
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/pc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/pc.Q.174.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

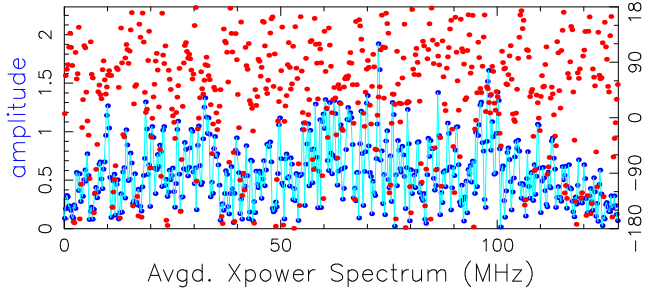
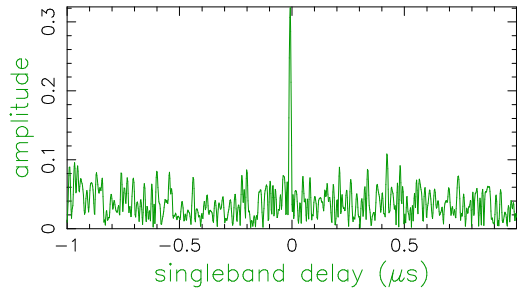
0102+584.1HP6Q8, No0090, pc

VLBA_PT - VLBA_SC, fgroup Q, pol LR



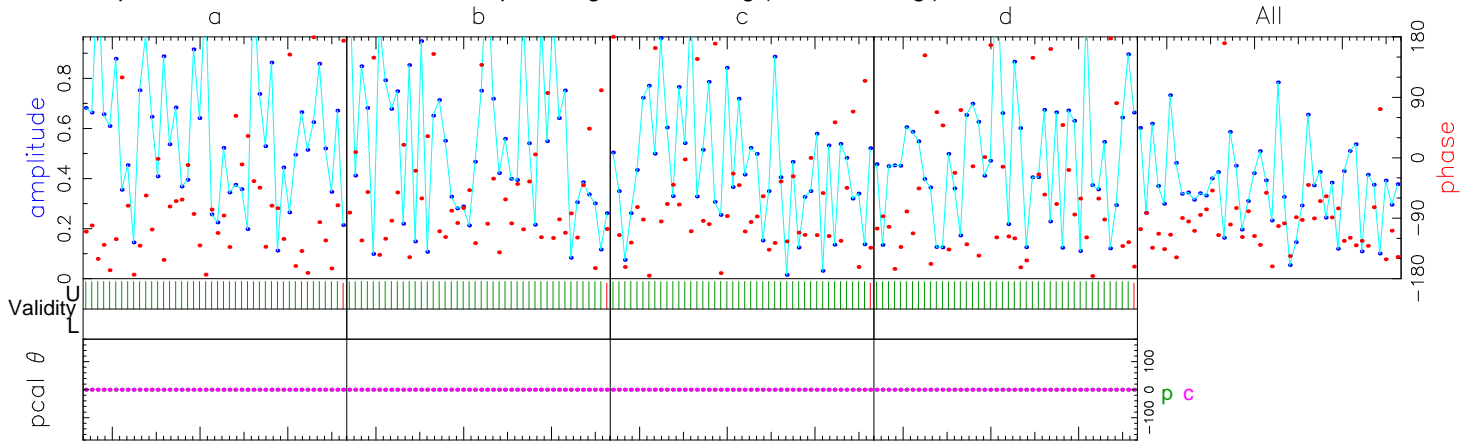
Fringe quality 9

SNR 11.8
 Int time 179.972
 Amp 0.322
 Phase -103.9
 PFD 8.8e-24
 Delays (us)
 SBD -0.008225
 MBD -0.000725
 Fringe rate (Hz)
 -0.003307
 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
 2021:010:163123
 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		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p:c	0:0	0:0	0:0	0:0		
p:c	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

	4.07826770931E+03	4.07826762464E+03	4.07826762464E+03	4.07826762464E+03	Resid mbdelay (usec)	-7.24673E-04	+/- 9.4E-05
Group delay (usec)(sbd)	4.07826770931E+03	4.07826762464E+03	4.07826762464E+03	4.07826762464E+03	Resid sbdelay (usec)	-8.22475E-03	+/- 3.6E-04
Sband delay (usec)	4.07826802173E+03	4.07826762464E+03	4.07826762464E+03	4.07826762464E+03	Resid phdelay (usec)	-6.70460E-06	+/- 6.3E-07
Phase delay (usec)	4.07827623978E+03	4.07826762464E+03	4.07826762464E+03	4.07826762464E+03	Resid rate (us/s)	-7.68385E-08	+/- 6.0E-09
Delay rate (us/s)	5.41430257917E-01	4.07826762464E+03	4.07826762464E+03	4.07826762464E+03	Resid phase (deg)	-103.9	+/- 9.7
Total phase (deg)	129.6	4.07826762464E+03	4.07826762464E+03	4.07826762464E+03			

	RMS	Theor.	Amplitude	0.322 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	41.2	32.2	Search (1024X16)	0.311	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	52.7	56.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.3	9.7	Inc. seg. avg.	0.323	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	12.5	16.9	Inc. frq. avg.	0.318	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
p: az 19.7 el 63.3 pa -148.5			c: az 340.7 el 44.8 pa 142.6		u,v (fr/asec) -2964.895 817.212	simultaneous interpolator

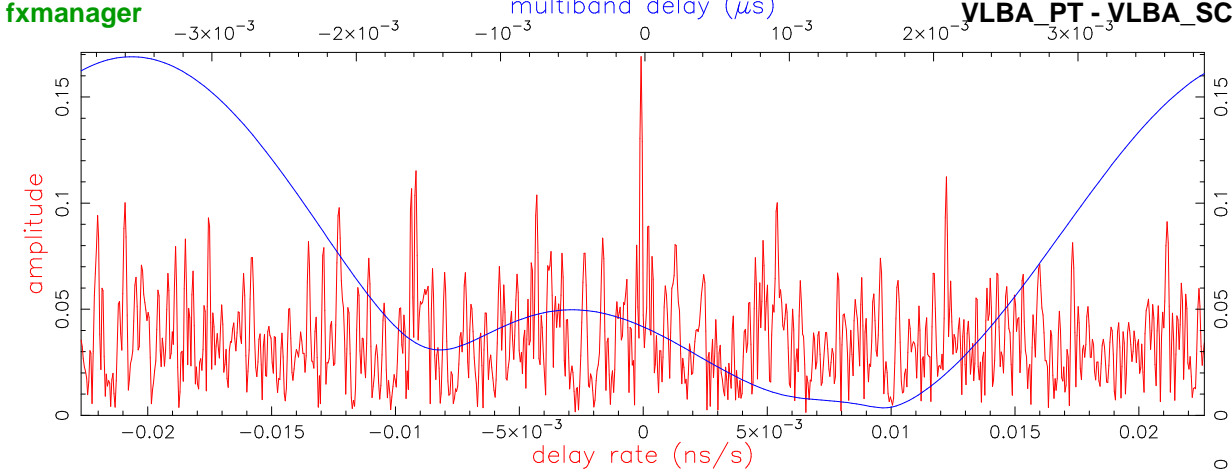
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/pc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/pc.Q.178.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

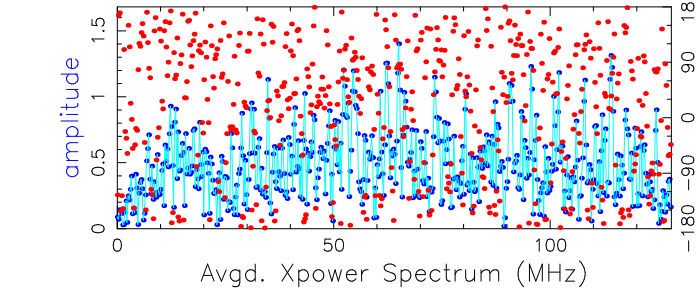
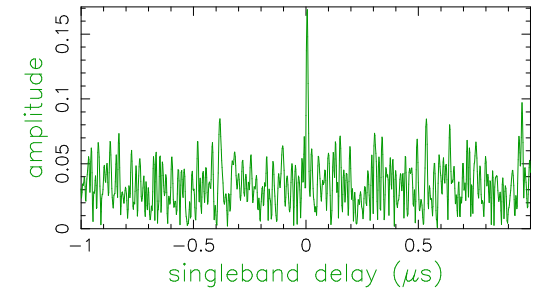
0102+584.1HP6Q8, No0090, pc

VLBA_PT - VLBA_SC, fgroup Q, pol RL



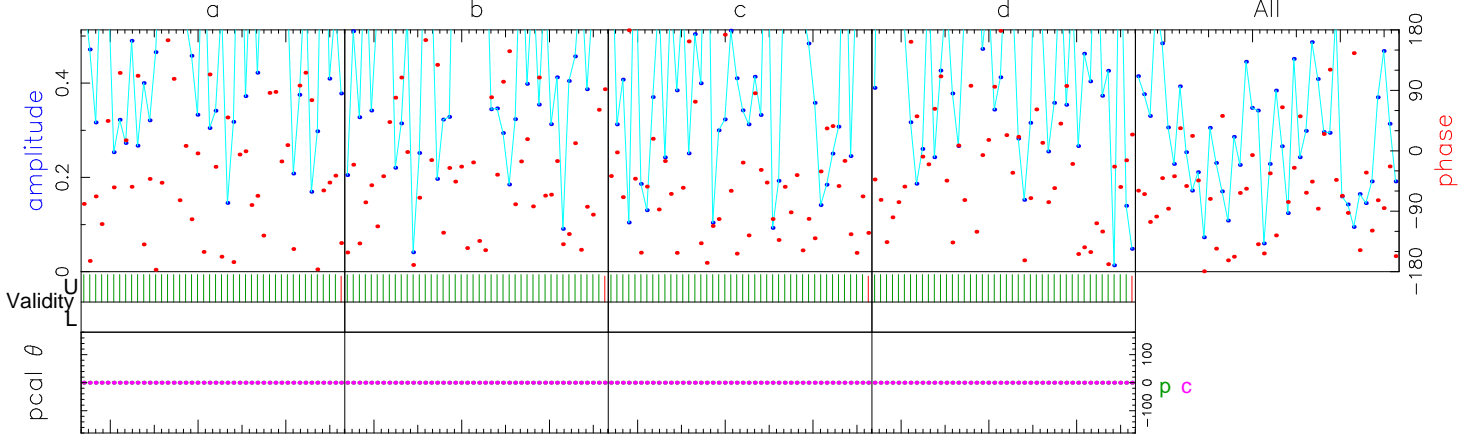
Fringe quality 0

SNR 6.3
 Int time 179.972
 Amp 0.171
 Phase -63.3
 PFD 4.7e-02
 Delays (us)
 SBD 0.005082
 MBD -0.003542
 Fringe rate (Hz)
 -0.003354
 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
 2021:010:163125
 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

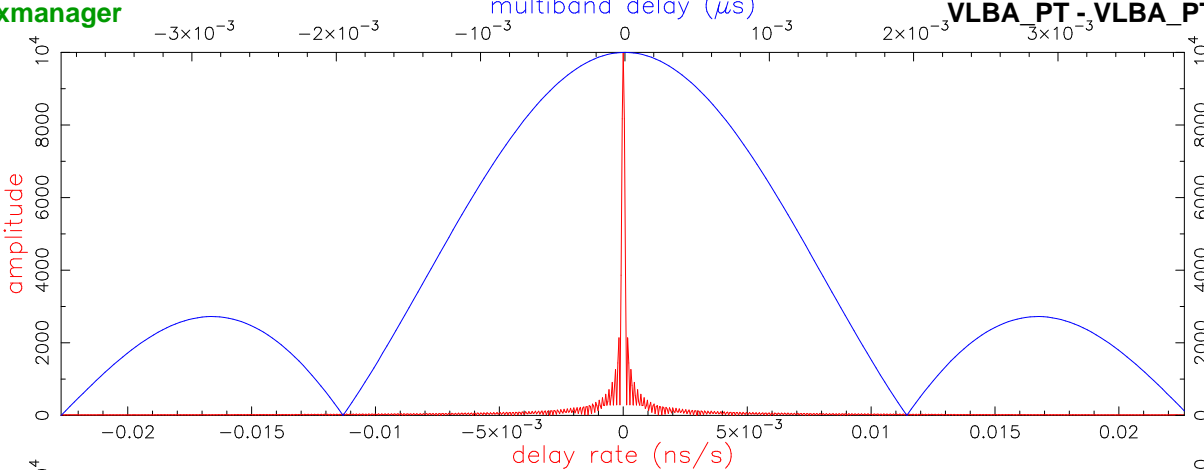


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p:c	0:0	0:0	0:0	0:0		
p:c	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UL	Q01UL	Q02UL	Q03UL		

	42912.00	43040.00	43168.00	43296.00	Resid mbdelay (usec)	-3.54245E-03	+/- 1.8E-04
Group delay (usec)(sbd)	4.07828051653E+03		4.07827624648E+03		Resid sbdelay (usec)	5.08237E-03	+/- 6.9E-04
Sband delay (usec)	4.07828132886E+03		-8.4043093E+00		Resid phdelay (usec)	-4.08383E-06	+/- 1.2E-06
Phase delay (usec)	4.07827624240E+03		-1.0000003E-07		Resid rate (us/s)	-7.79163E-08	+/- 1.1E-08
Delay rate (us/s)	5.41430256839E-01		5.41430334755E-01		Resid phase (deg)	-63.3	+/- 18.3
Total phase (deg)	170.2		3.11576648004E-06				

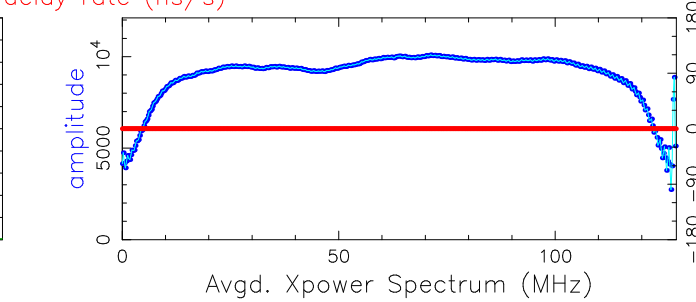
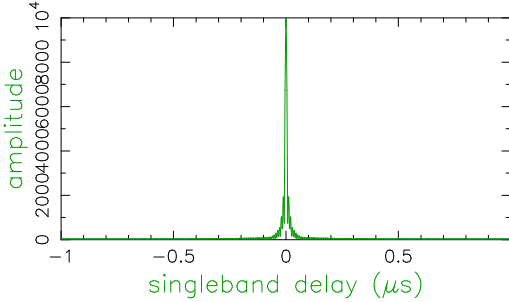
	RMS	Theor.	Amplitude	0.171 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	69.6	60.6	Search (1024X16)	0.166	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
amp/seg (%)	101.1	105.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	14.4	18.3	Inc. seg. avg.	0.184	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
amp/frq (%)	27.0	31.9	Inc. frq. avg.	0.164	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

p: az 19.7 el 63.3 pa -148.5 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -2964.895 817.212 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/pc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/pc.Q.180.1HP6Q8



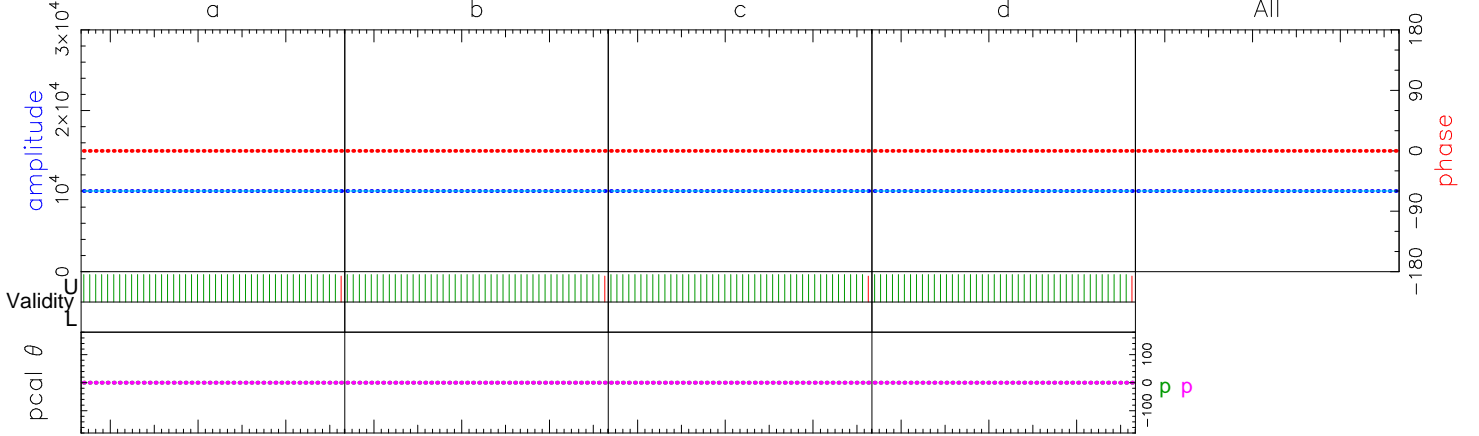
Fringe quality 9

SNR 366862.4
 Int time 179.975
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163120
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

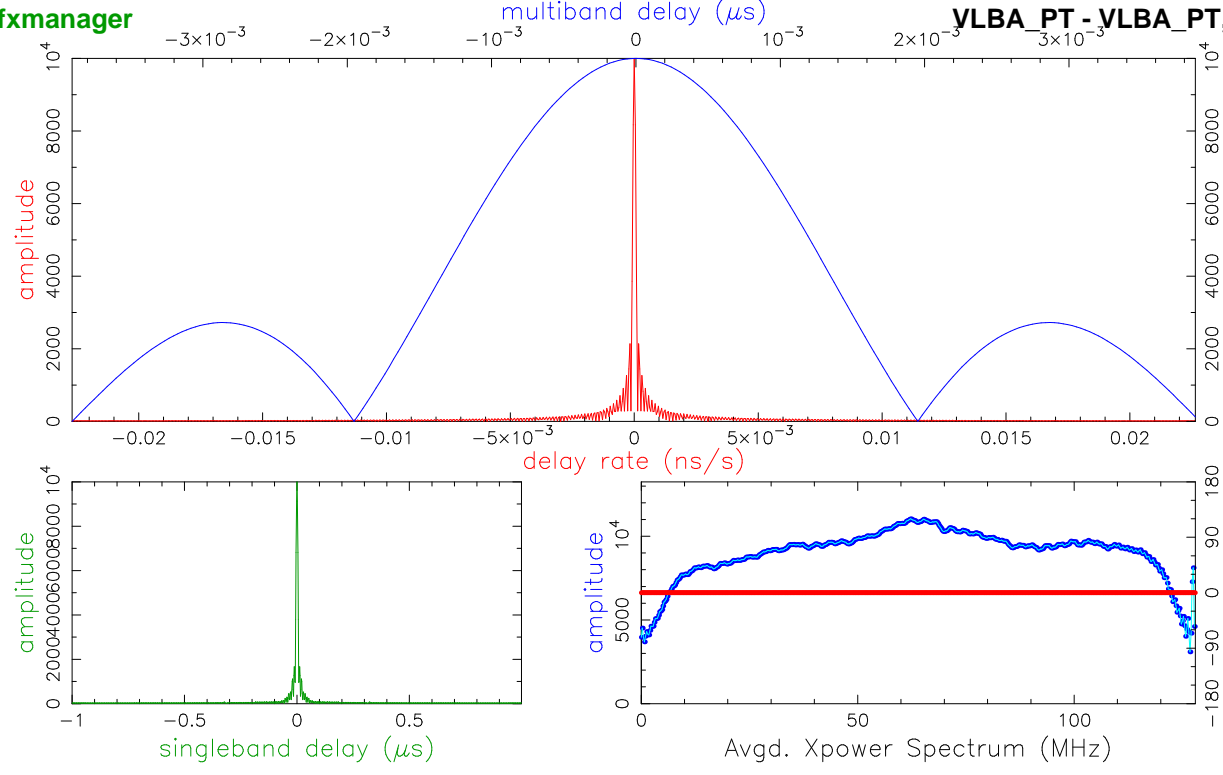
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
p	1000	1000	1000	1000		
p:p	0:0	0:0	0:0	0:0		
p:p	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000		
p	1000	1000	1000	1000		
p	Q00UL	Q01UL	Q02UL	Q03UL		
p	Q00UL	Q01UL	Q02UL	Q03UL		

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

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

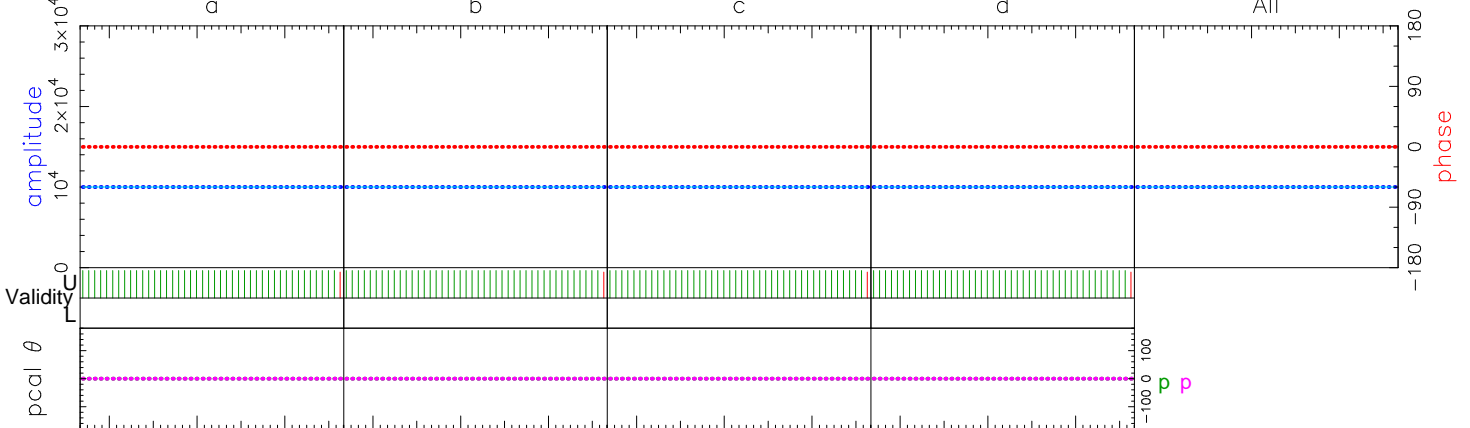


Fringe quality 9

SNR 366862.4
Int time 179.975
Amp 10000.000
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 055640.00
Stop 055940.22
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163121
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		
p	1000	1000	1000	1000		
p:p	0:0	0:0	0:0	0:0		
p:p	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000		
p	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR		
p	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					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)	0.0000000E+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

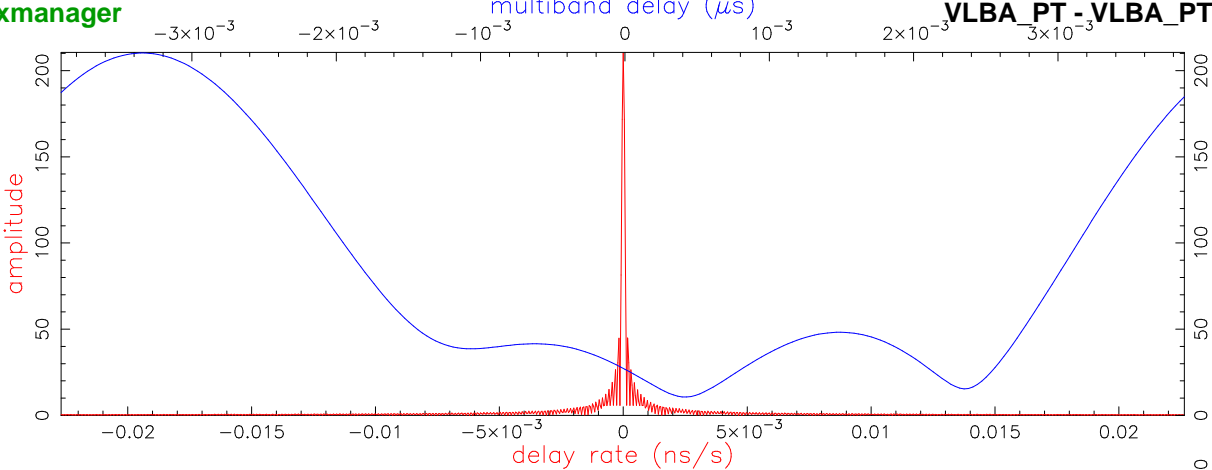
	RMS	Theor.	Amplitude	10000.000 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.0	0.0	Search (1024X16)	10000.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	0.0	0.0	Inc.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

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

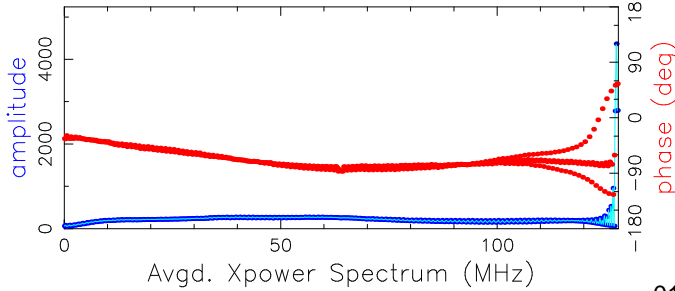
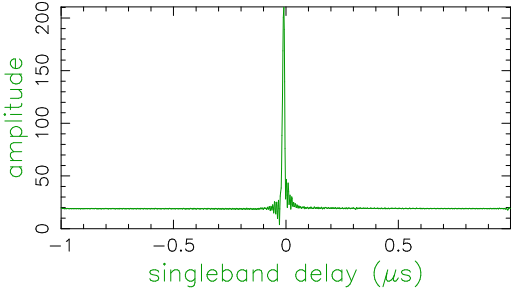
0102+584.1HP6Q8, No0090, pp

VLBA_PT - VLBA_PT, fgroup Q, pol LR



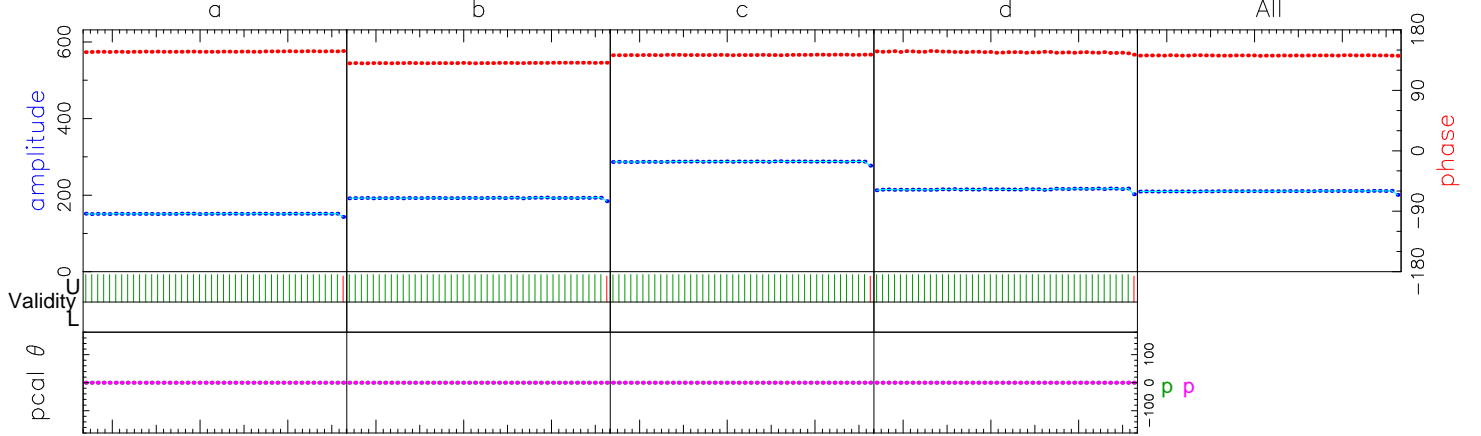
Fringe quality 8

SNR 7725.4
 Int time 179.975
 Amp 210.580
 Phase 141.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.010099
 MBD -0.003378
 Fringe rate (Hz)
 -0.000021
 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
 2021:010:163123
 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

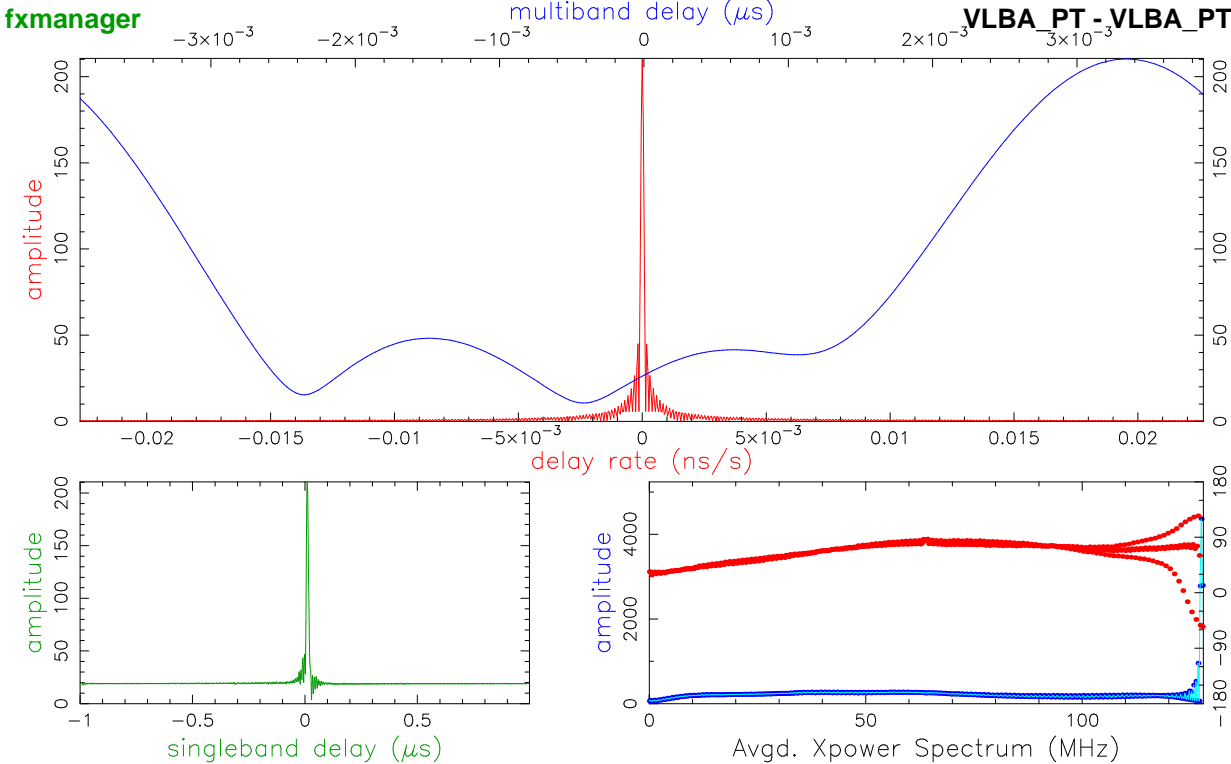


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	147.5	130.6	142.5	146.7	Phase	141.8
	151.1	192.4	287.3	215.0	Ampl.	211.4
	506.7	507.7	507.2	509.2	Sbd box	507.8
U/L	352/0	352/0	352/0	352/0	APs used	
p	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
p:p	0:0	0:0	0:0	0:0	PC phase	
p:p	0:0	0:0	0:0	0:0	Manl PC	
p	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
p	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.11901250000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-3.37763E-03	+/-	1.4E-07
Sband delay (usec)	-1.00992500000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.00992E-02	+/-	5.6E-07
Phase delay (usec)	9.15114794656E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	9.15115E-06	+/-	9.6E-10
Delay rate (us/s)	-4.76482609803E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-4.76483E-10	+/-	9.2E-12
Total phase (deg)	141.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	141.8	+/-	0.0

ph/seg (deg)	0.2	Theor.	0.0	Amplitude	210.580 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	0.7		0.1	Search (1024X16)	209.792	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	9.6		0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	23.5		0.0	Inc. seg. avg.	210.127	Sample rate(MSamp/s): 256	dr window (ns/s) -0.023 0.023
				Inc. frq. avg.	211.441	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
p: az 19.7 el 63.3 pa -148.5				u,v (fr/asec)	0.000 0.000	nlags: 512	t_cohere infinite
Control file: cf_1234_gmva7mm							simultaneous interpolator

Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/pp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/pp.Q.177.1HP6Q8

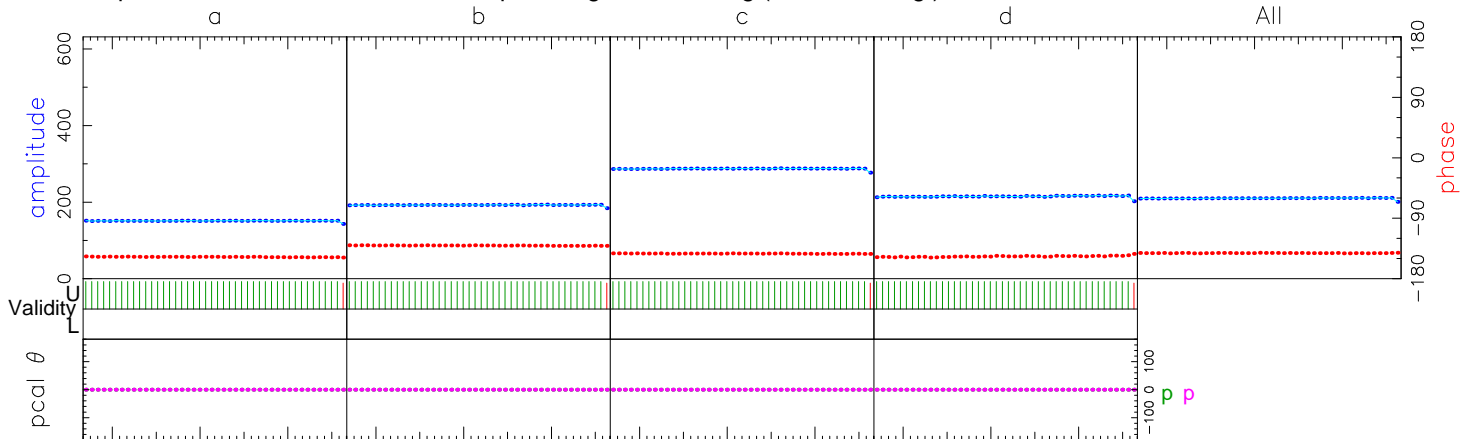


Fringe quality 8

SNR 7725.4
Int time 179.975
Amp 210.580
Phase -141.8
PFD 0.0e+00
Delays (us)
SBD 0.010099
MBD 0.003378
Fringe rate (Hz)
0.000021
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
2021:010:163124
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
	-147.5	-130.6	-142.5	-146.7	Phase	-141.8
	151.1	192.4	287.3	215.0	Ampl.	211.4
	519.3	518.3	518.8	516.8	Sbd box	518.2
U/L	352/0	352/0	352/0	352/0	APs used	
p	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
p:p	0:0	0:0	0:0	0:0	PC phase	
p:p	0:0	0:0	0:0	0:0	Manl PC	
p	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	1.11901250000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	3.37763E-03	+/- 1.4E-07
Sband delay (usec)	1.00992500000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.00992E-02	+/- 5.6E-07
Phase delay (usec)	-9.15114794626E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-9.15115E-06	+/- 9.6E-10
Delay rate (us/s)	4.76482609803E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	4.76483E-10	+/- 9.2E-12
Total phase (deg)		-141.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-141.8 +/- 0.0

ph/seg (deg) 0.2 0.0 Amplitude 210.580 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 0.7 0.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 9.6 0.0 Inc. seg. avg. 210.127 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
amp/frq (%) 23.5 0.0 Inc. frq. avg. 211.441 Sample rate(MISamp/s): 256 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite dr window (ns/s) -0.023 0.023
p: az 19.7 el 63.3 pa -148.5 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/pp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/pp.Q.179.1HP6Q8