

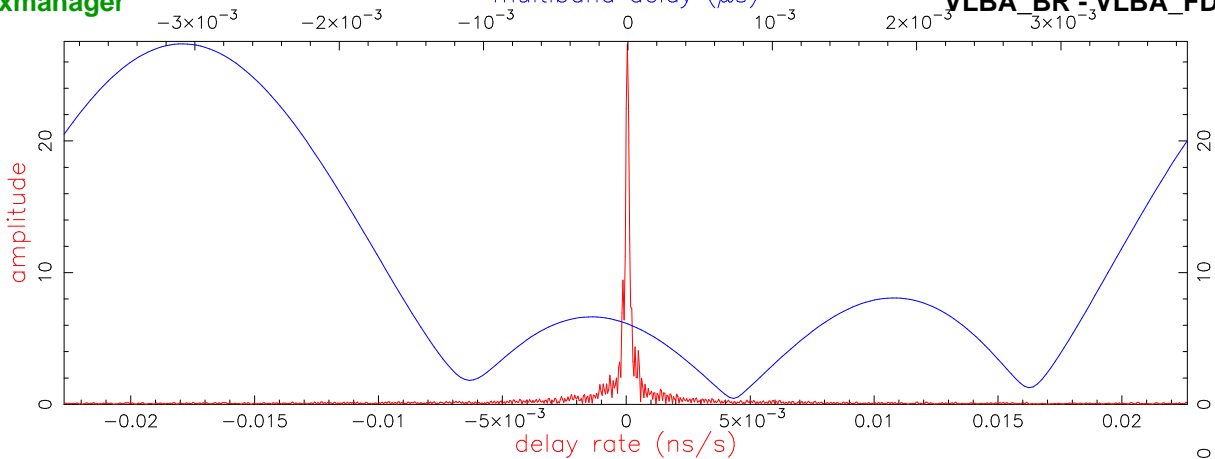
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bf

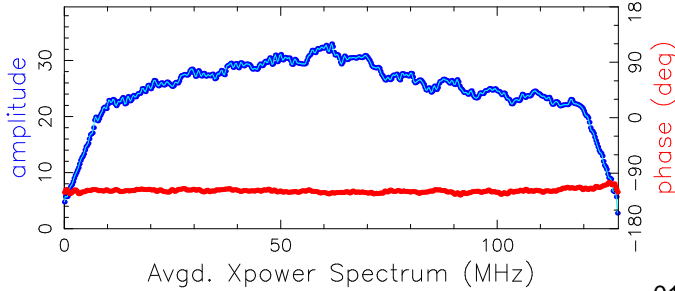
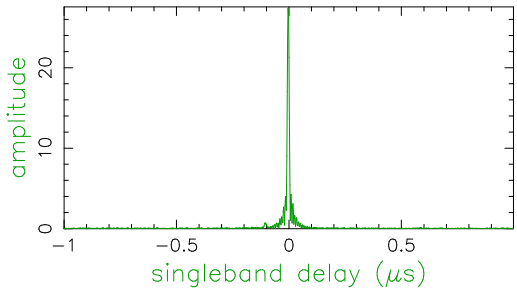
VLBA_BR - VLBA_FD, fgroup Q, pol LL

multiband delay (μ s)



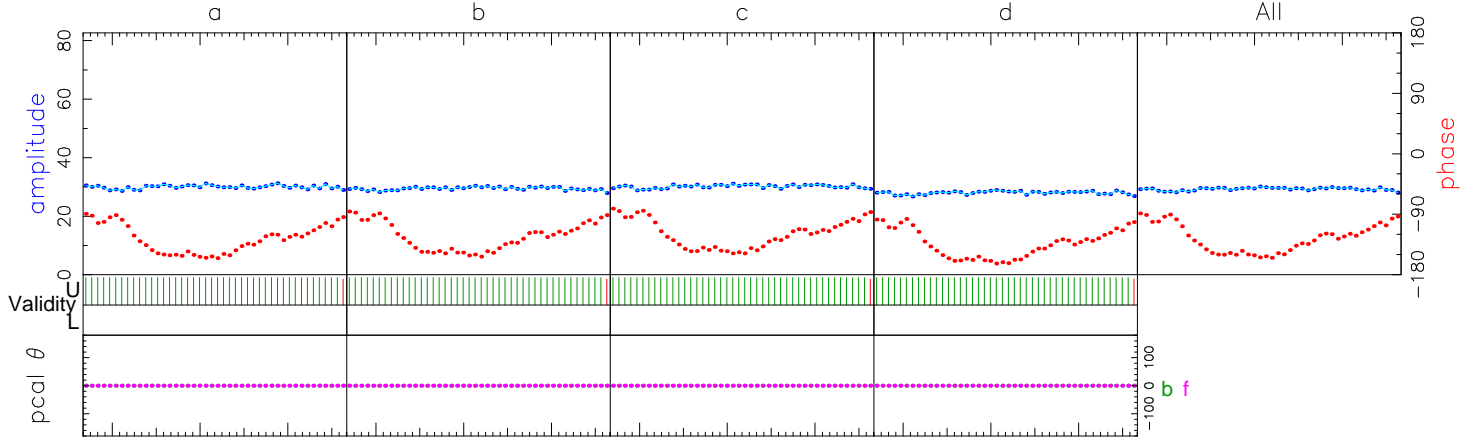
Fringe quality 8

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



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

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

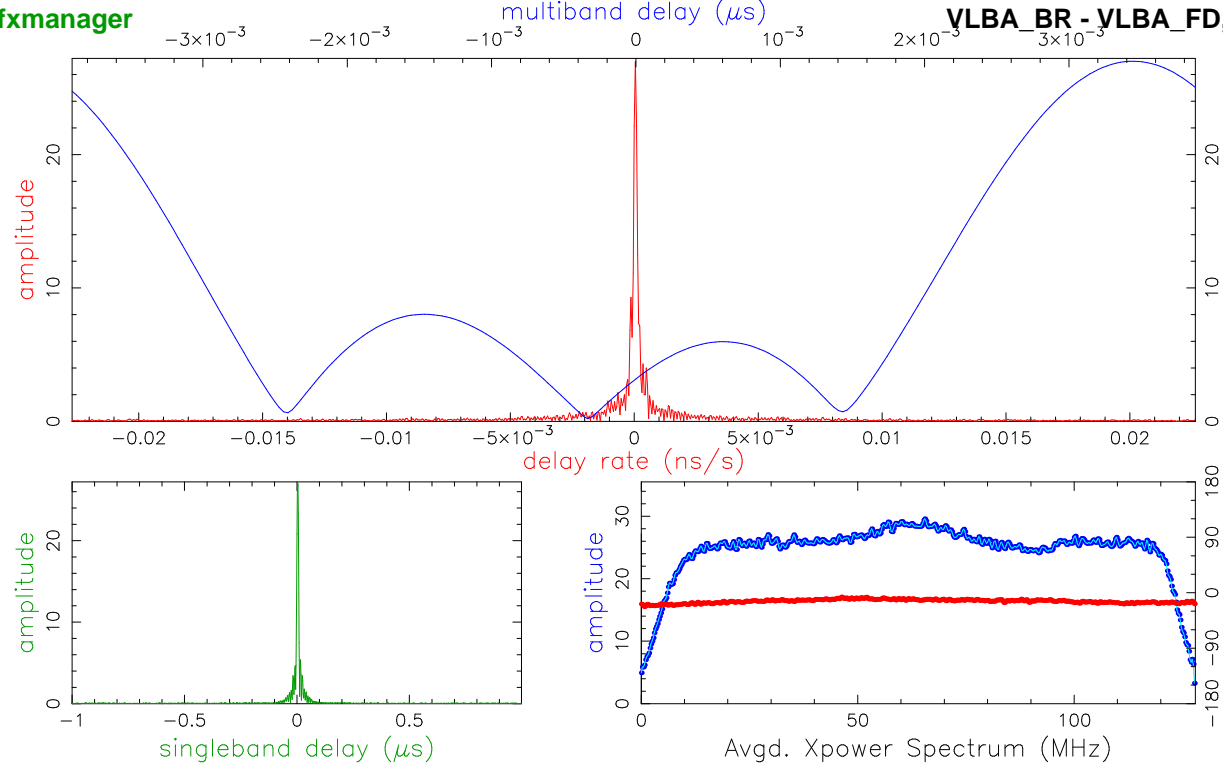


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-126.5	-123.0	-119.3	-134.0	Phase	-125.6
	28.0	27.5	28.2	26.2	Ampl.	27.5
	511.4	511.6	511.2	510.9	Sbd box	511.3
U/L	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0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

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

	RMS	Theor.	Amplitude	27.561 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	21.0	0.4	Search (1024X16)	26.767	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	6.5	0.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.7	0.1	Inc. seg. avg.	29.284	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	2.9	0.2	Inc. frq. avg.	27.480	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			f: az 13.6 el 60.8 pa -157.8			u,v (fr/asec) -575.911 1497.425
						simultaneous interpolator

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

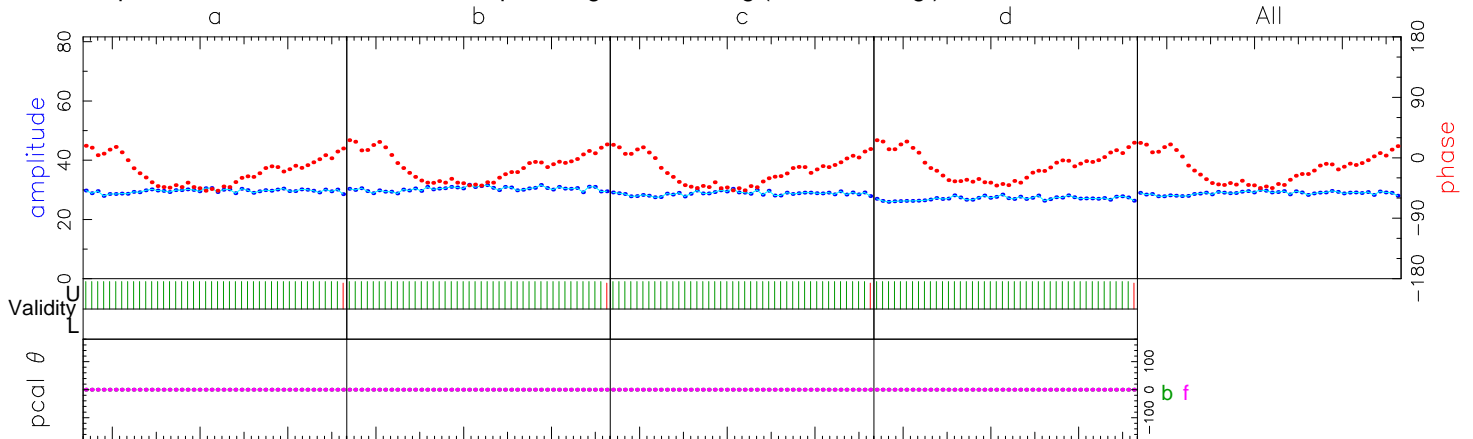


Fringe quality 8

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

Exp. c202a
Yr:day 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	APs used	
f	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	PC freqs	
b:f	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	Manl PC	
f	1000	1000	1000	1000	PC amp	
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
f	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

	1.45400293314E+03	26.656	1.45399952647E+03	3.40666E-03	+/-	1.1E-06
Group delay (usec)(sbd)	1.45400293314E+03	26.656	1.45399952647E+03	3.40666E-03	+/-	1.1E-06
Sband delay (usec)	1.45400283210E+03	26.656	-9.5412359E+00	3.30562E-03	+/-	4.3E-06
Phase delay (usec)	1.45399952545E+03	26.656	-3.9999997E-07	-1.01982E-06	+/-	7.4E-09
Delay rate (us/s)	1.06713008128E-01	27.043	1.06712975044E-01	3.30843E-08	+/-	7.1E-11
Total phase (deg)	207.2	27.043	1.48282805863E-05	-15.8	+/-	0.1

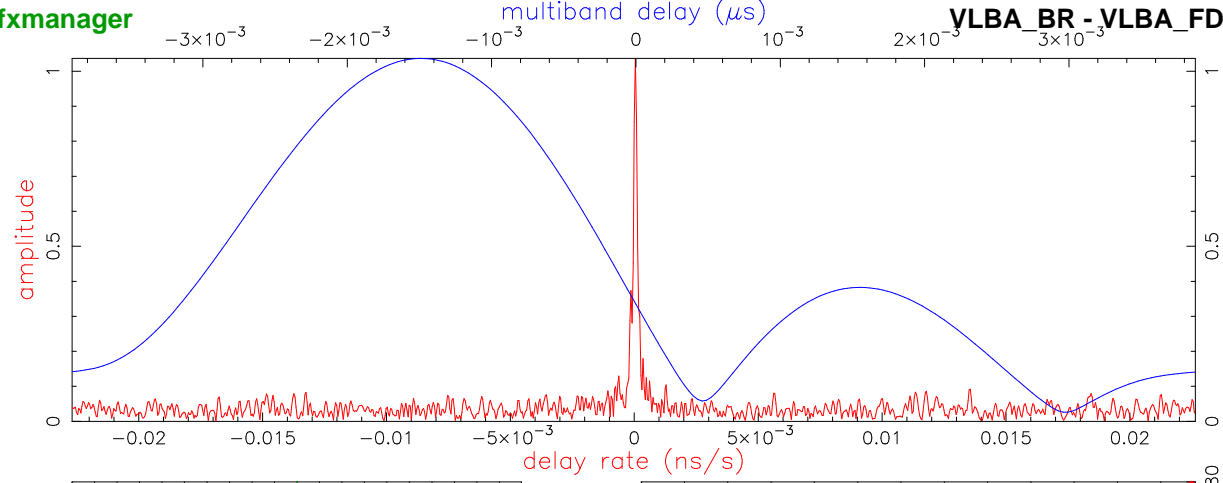
	21.0	0.4	27.215 +/- 0.027	MANUAL	MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	21.0	0.4	27.215 +/- 0.027	MANUAL	MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	6.5	0.7	26.656	0.000E+00	0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	5.3	0.1	0.000	256	256	Sample rate(MISamp/s):	dr window (ns/s)	-0.023	0.023
amp/frq (%)	4.2	0.2	28.887	2048	2048	Data rate(Mb/s):	ion window (TEC)	0.00	0.00

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, bf

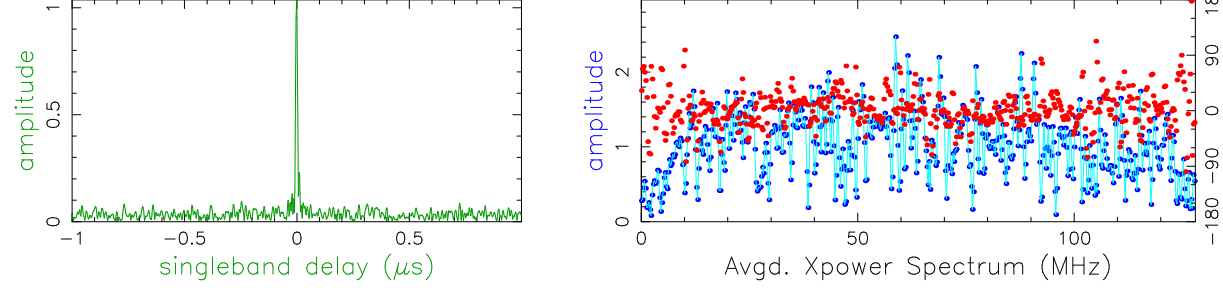
VLBA_BR - VLBA_FD, fgroup Q, pol LR



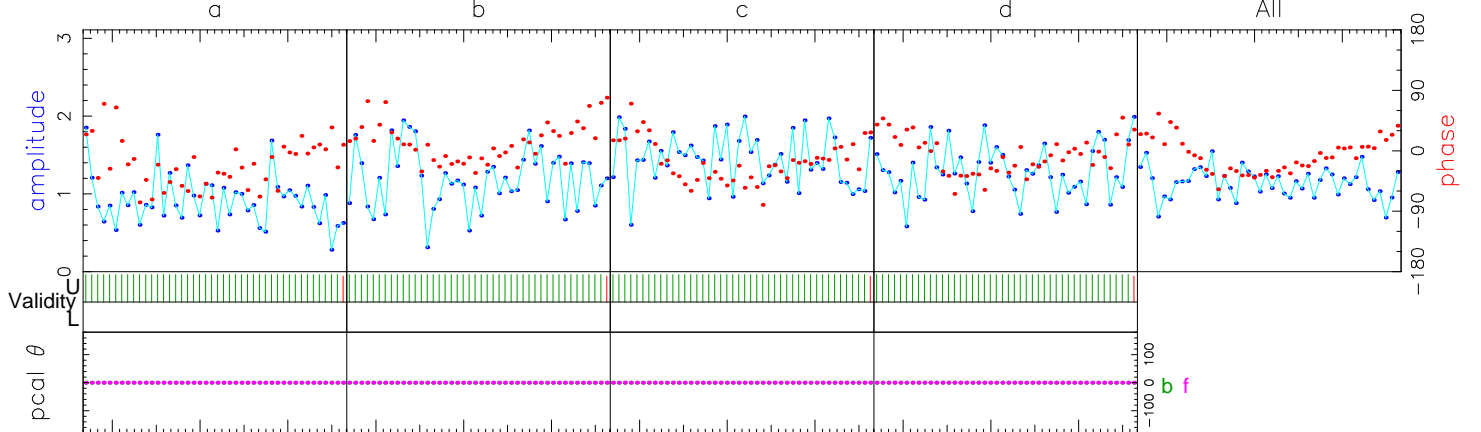
Fringe quality 7

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

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



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



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	APs used	
f	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	Manl PC	
f	1000	1000	1000	1000	PC amp	
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
f	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	1.45399804101E+03		1.45399952647E+03		Resid mbdelay (usec)	-1.48546E-03 +/- 2.9E-05
Sband delay (usec)	1.45399766335E+03		-9.5412359E+00		Resid sbdelay (usec)	-1.86313E-03 +/- 1.1E-04
Phase delay (usec)	1.45399952597E+03		-3.9999997E-07		Resid phdelay (usec)	-5.03379E-07 +/- 1.9E-07
Delay rate (us/s)	1.06713010051E-01		1.06712975044E-01		Resid rate (us/s)	3.50073E-08 +/- 1.9E-09
Total phase (deg)		215.2	1.48282805863E-05		Resid phase (deg)	-7.8 +/- 3.0
ph/seg (deg)	26.1	10.0	Search (1024X16)	1.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	21.0	17.4	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	18.6	3.0	Inc. seg. avg.	1.127	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
amp/frq (%)	17.7	5.3	Inc. frq. avg.	1.062	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
					Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

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

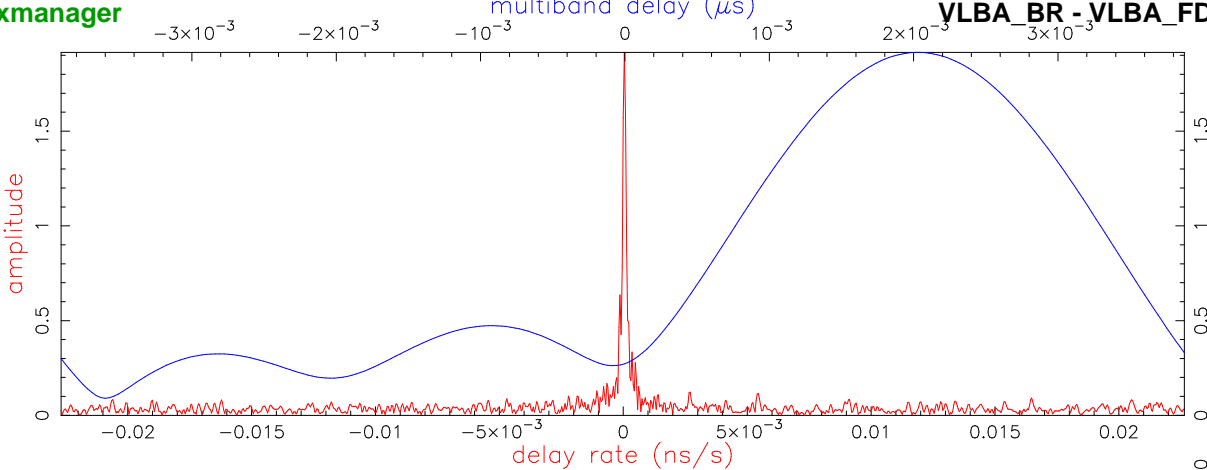
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bf..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bf.Q.62.1HP6Q8

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fxmanager

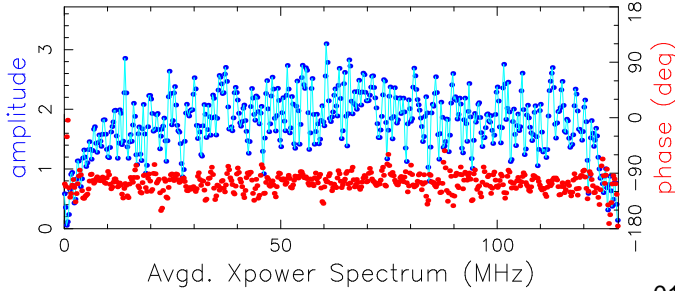
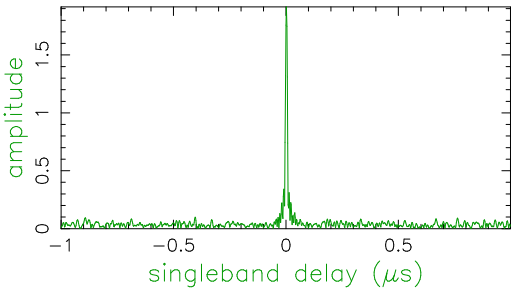
0102+584.1HP6Q8, No0090, bf

VLBA_BR - VLBA_FD, fgroup Q, pol RL



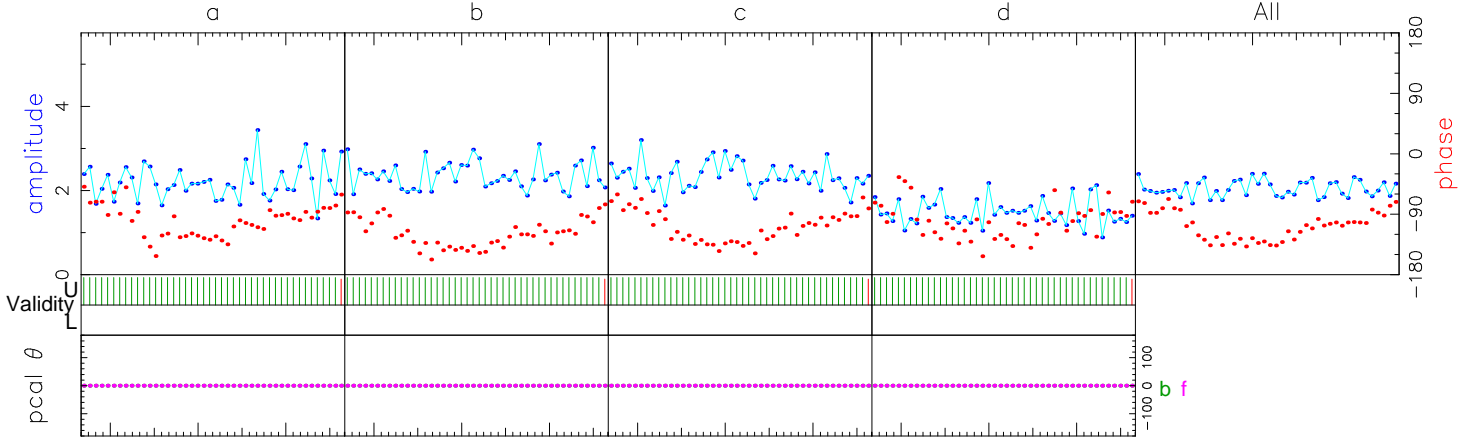
Fringe quality 8

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



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

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



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-99.2	-118.6	-107.7	-100.6	Phase	-107.3
	2.0	2.2	2.2	1.3	Ampl.	1.9
	513.7	513.8	514.5	514.0	Sbd box	514.0
U/L	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
f	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	1.45400155392E+03	Apriori delay (usec)	1.45399952647E+03	Resid mbdelay (usec)	2.02745E-03	+/-	1.6E-05
Sband delay (usec)	1.45400145110E+03	Apriori clock (usec)	-9.5412359E+00	Resid sbdelay (usec)	1.92463E-03	+/-	6.1E-05
Phase delay (usec)	1.45399951955E+03	Apriori clockrate (us/s)	-3.9999997E-07	Resid phdelay (usec)	-6.92611E-06	+/-	1.1E-07
Delay rate (us/s)	1.06713008004E-01	Apriori rate (us/s)	1.06712975044E-01	Resid rate (us/s)	3.29596E-08	+/-	1.0E-09
Total phase (deg)	115.6	Apriori accel (us/s/s)	1.48282805863E-05	Resid phase (deg)	-107.3	+/-	1.6

ph/seg (deg)	21.0	Theor.	5.4	Amplitude	1.916 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	12.2	Search (1024X16)	1.887	Search	1.887	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	10.9	Inc. seg. avg.	2.041	Inc. seg. avg.	2.041	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	18.1	Inc. frq. avg.	1.933	Inc. frq. avg.	1.933	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023		
						Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

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

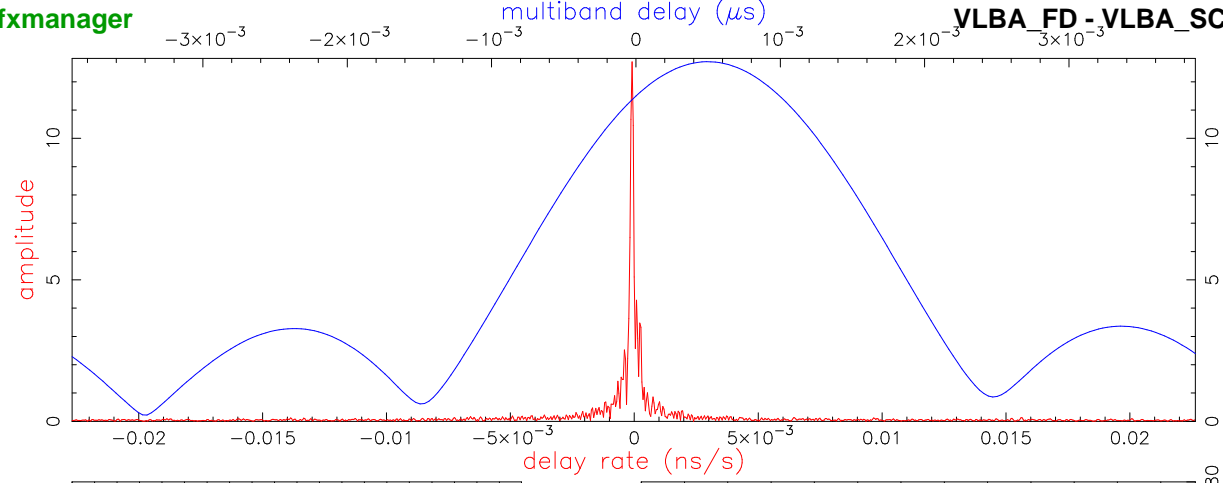
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/bf..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/bf.Q.78.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, fc

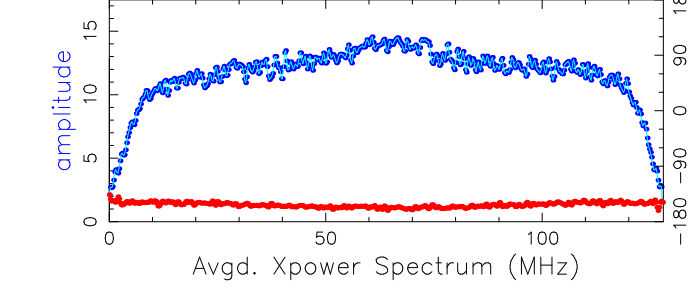
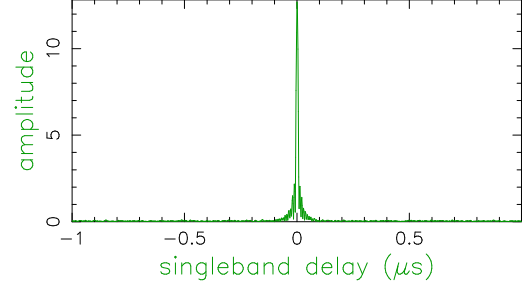
VLBA_FD - VLBA_SC, fgroup Q, pol LL



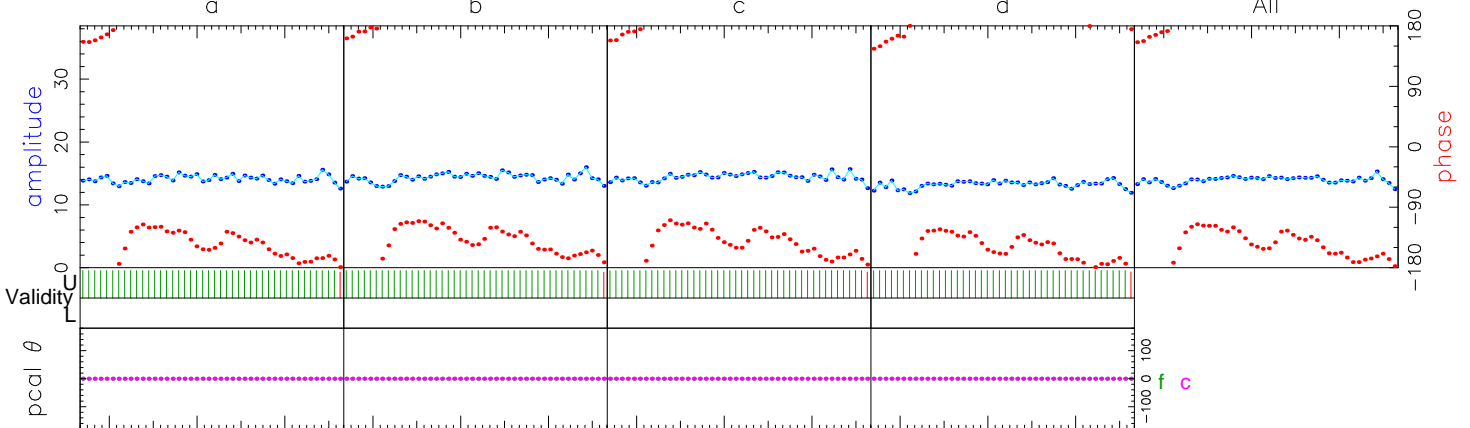
Fringe quality 7

SNR 470.6
 Int time 179.972
 Amp 12.827
 Phase -150.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.000659
 MBD 0.000538
 Fringe rate (Hz)
 -0.003298
 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
	-152.3	-144.4	-147.2	-157.8	Phase	-150.2
	12.8	13.1	13.1	12.1	Ampl.	12.8
	513.5	513.4	513.2	513.1	Sbd box	513.3
U/L	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
f:c	0:0	0:0	0:0	0:0	PC phase	
f:c	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	3.64397602713E+03	Apriori delay (usec)	3.64397548912E+03	Resid mbdelay (usec)	5.38015E-04	+/- 2.4E-06
Group delay (usec)(sbd)	3.64397614812E+03	Apriori clock (usec)	-6.1530912E-01	Resid sbdelay (usec)	6.59000E-04	+/- 9.2E-06
Sband delay (usec)	3.64397547942E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	-9.69669E-06	+/- 1.6E-08
Phase delay (usec)	4.99888768869E-01	Apriori rate (us/s)	4.99888845495E-01	Resid rate (us/s)	-7.66258E-08	+/- 1.5E-10
Delay rate (us/s)		Apriori accel (us/s/s)	2.71655807439E-07	Resid phase (deg)	-150.2	+/- 0.2
Total phase (deg)	-131.7					

	RMS	Theor.	Amplitude	12.827 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	25.1	0.8	Search (1024X16)	12.529	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	9.9	1.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.2	0.2	Inc. seg. avg.	13.979	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.3	0.4	Inc. frq. avg.	12.752	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
f: az 13.6 el 60.8 pa -157.8			c: az 340.7 el 44.8 pa 142.6		u,v (fr/asec) -2738.961 508.582	simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fc.Q.11.1HP6Q8

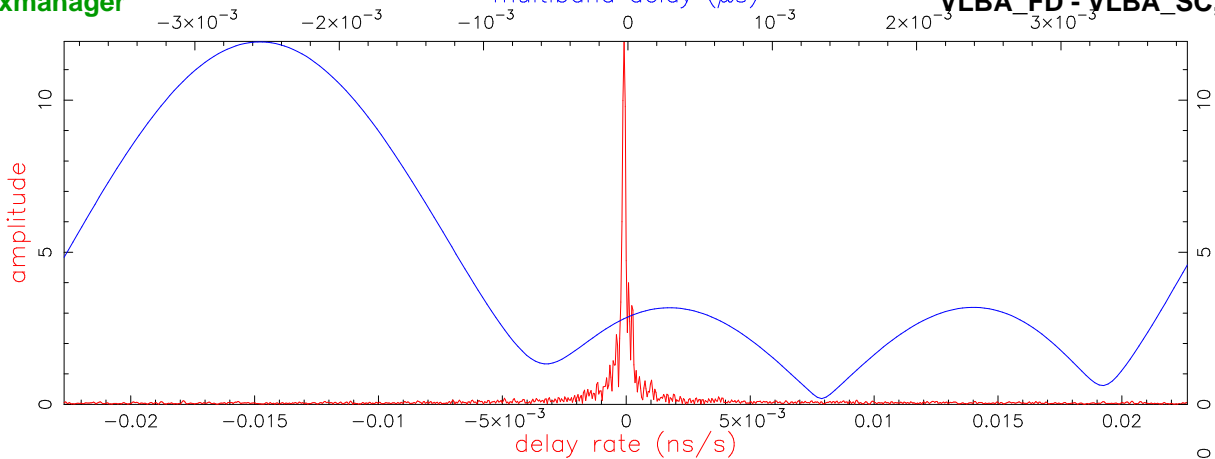
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, fc

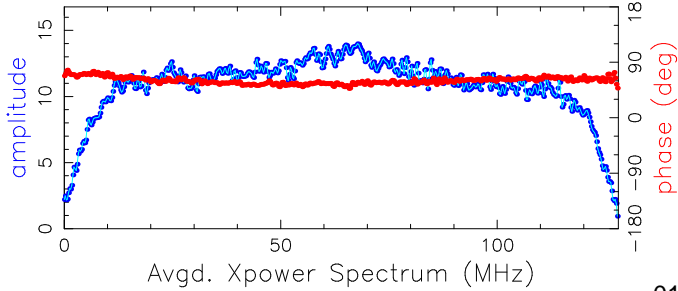
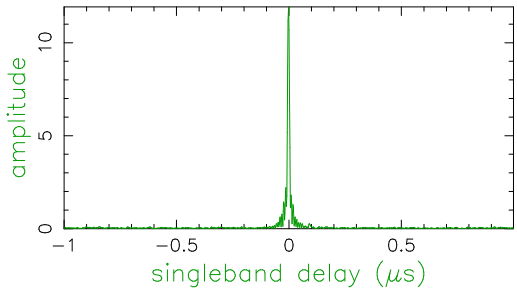
VLBA_FD - VLBA_SC, fgroup Q, pol RR

multiband delay (μ s)



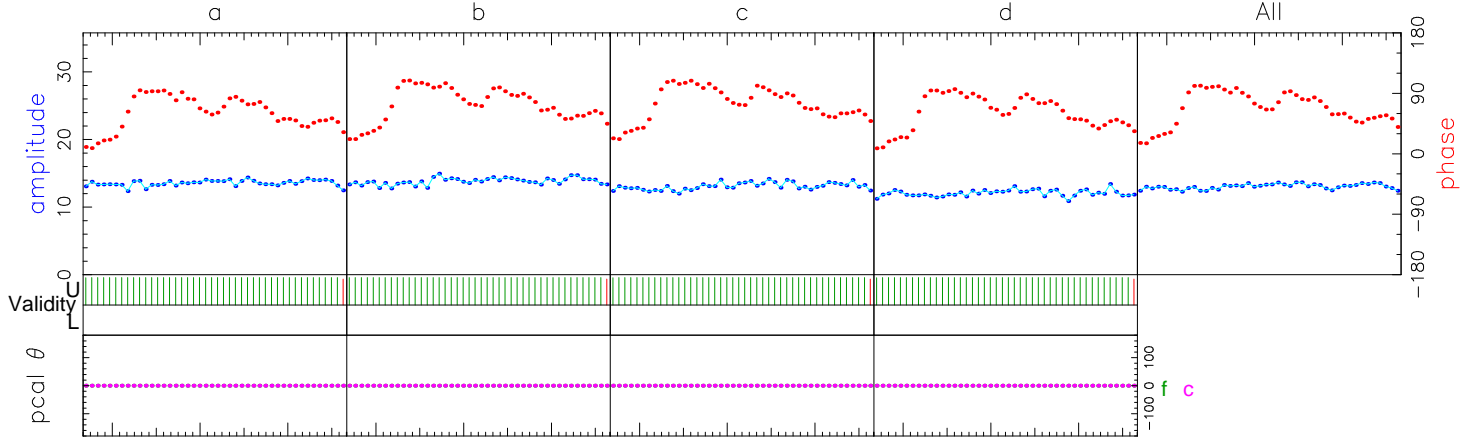
Fringe quality 7

SNR 437.7
 Int time 179.972
 Amp 11.930
 Phase 67.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.002205
 MBD -0.002559
 Fringe rate (Hz)
 -0.003277
 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
60.9	73.6	74.7	61.3	Phase	67.8
12.4	12.6	12.0	11.0	Ampl.	12.0
512.6	511.7	511.7	511.4	Sbd box	511.9
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
f:c 0:0	0:0	0:0	0:0	PC phase	
f:c 0:0	0:0	0:0	0:0	Manl PC	
f 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
f Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	3.64397293060E+03	Apriori delay (usec)	3.64397548912E+03	Resid mbdelay (usec)	-2.55852E-03	+/- 2.5E-06
Sband delay (usec)	3.64397328424E+03	Apriori clock (usec)	-6.1530912E-01	Resid sbdelay (usec)	-2.20487E-03	+/- 9.8E-06
Phase delay (usec)	3.64397549349E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	4.37494E-06	+/- 1.7E-08
Delay rate (us/s)	4.99888769363E-01	Apriori rate (us/s)	4.99888845495E-01	Resid rate (us/s)	-7.61323E-08	+/- 1.6E-10
Total phase (deg)	86.3	Apriori accel (us/s/s)	2.71655807439E-07	Resid phase (deg)	67.8	+/- 0.3

ph/seg (deg)	RMS 24.6	Theor. 0.9	Amplitude	11.930 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	10.0	1.5	Search (1024X16)	11.685	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	9.3	0.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	5.2	0.5	Inc. seg. avg.	13.060	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
			Inc. frq. avg.	11.992	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
f: az 13.6 el 60.8 pa -157.8	c: az 340.7 el 44.8 pa 142.6	u,v (fr/asec)	-2738.961 508.582			simultaneous interpolator

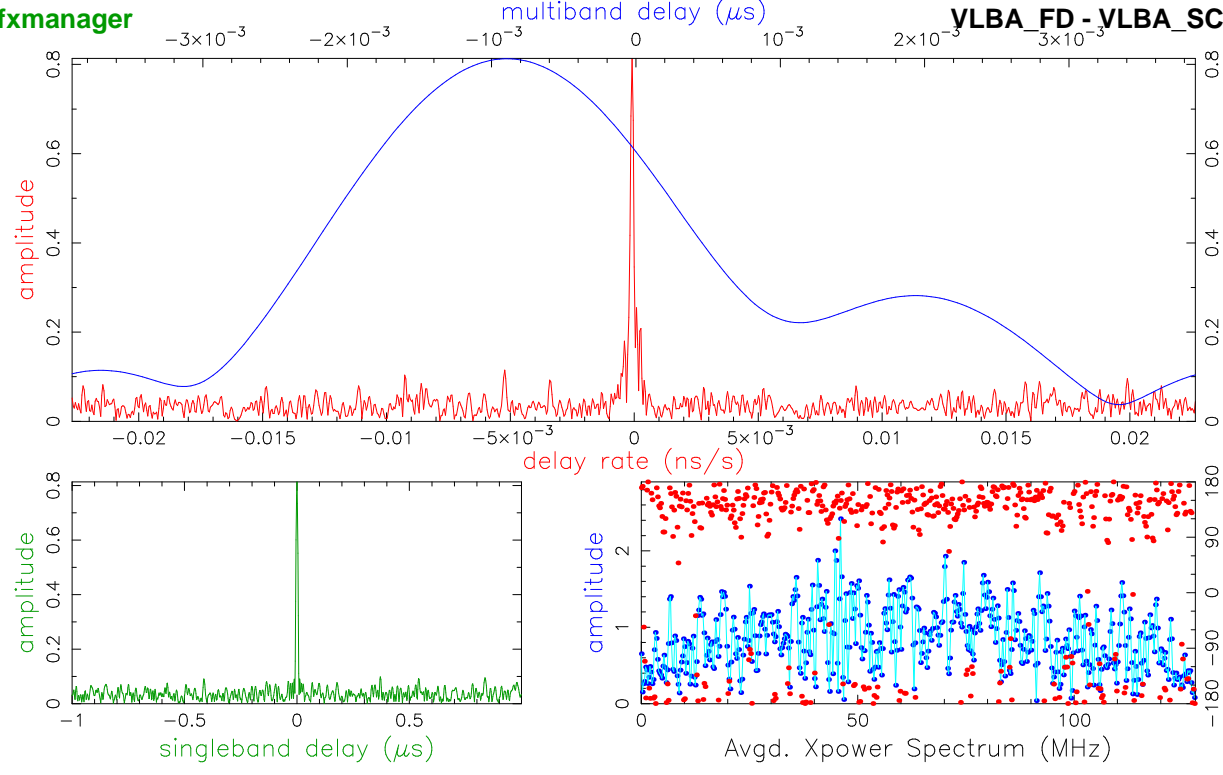
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fc.Q.34.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, fc

VLBA_FD - VLBA_SC, fgroup Q, pol LR

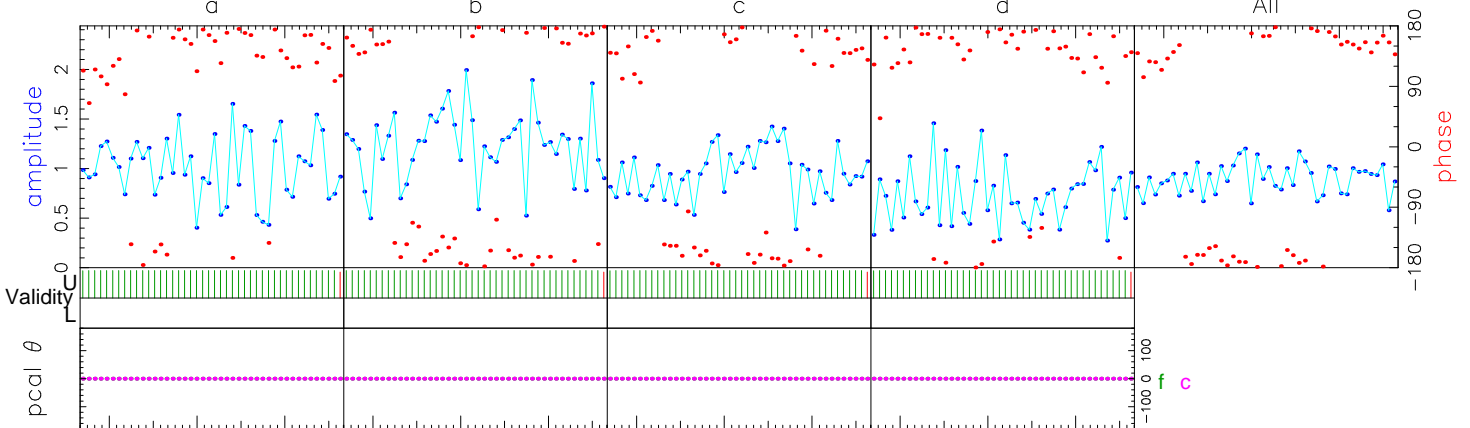


Fringe quality 7

SNR 29.8
 Int time 179.972
 Amp 0.813
 Phase 169.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.000228
 MBD -0.000906
 Fringe rate (Hz)
 -0.003514
 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
 2021:010:163106
 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		
f	1000	1000	1000	1000	Phase	169.6
c	1000	1000	1000	1000	Ampl.	0.8
f:c	0:0	0:0	0:0	0:0	Sbd box	512.9
f:c	0:0	0:0	0:0	0:0	APs used	
f	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
f	Q00UL	Q01UL	Q02UL	Q03UL	PC phase	
c	Q00UR	Q01UR	Q02UR	Q03UR	ManI PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

	3.64397458304E+03	Apriori delay (usec)	3.64397548912E+03	Resid mbdelay (usec)	-9.06079E-04	+/- 3.7E-05
Group delay (usec)(sbd)	3.64397526149E+03	Apriori clock (usec)	-6.1530912E-01	Resid sbdelay (usec)	-2.27625E-04	+/- 1.4E-04
Sband delay (usec)	3.64397550006E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	1.09481E-05	+/- 2.5E-07
Phase delay (usec)	4.99888763840E-01	Apriori rate (us/s)	4.99888845495E-01	Resid rate (us/s)	-8.16544E-08	+/- 2.4E-09
Delay rate (us/s)		Apriori accel (us/s/s)	2.71655807439E-07	Resid phase (deg)	169.6	+/- 3.8
Total phase (deg)	188.2					

	RMS	Theor.	Amplitude	0.813 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	26.3	12.7	Search (1024X16)	0.806	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	21.5	22.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	20.0	3.8	Inc. seg. avg.	0.877	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	21.7	6.7	Inc. frq. avg.	0.838	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 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -2738.961 508.582 simultaneous interpolator

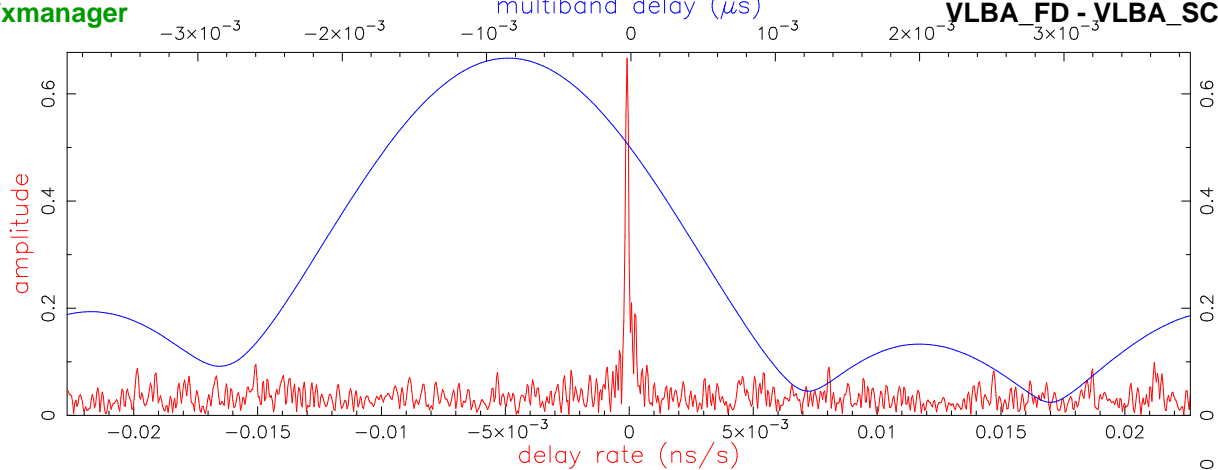
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fc.Q.60.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

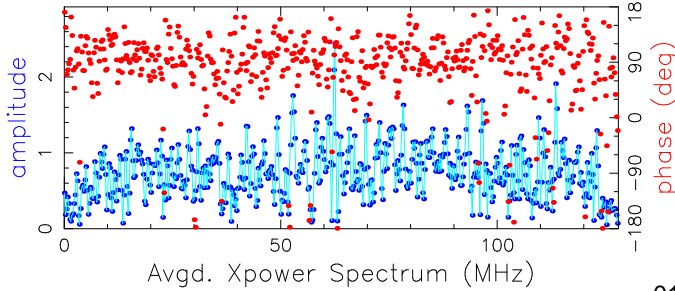
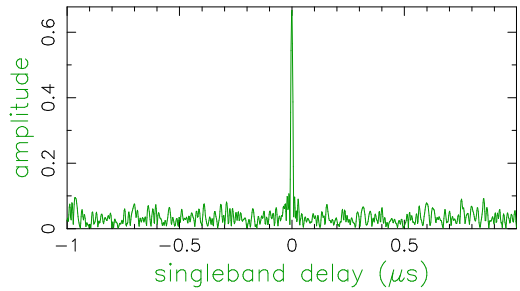
0102+584.1HP6Q8, No0090, fc

VLBA_FD - VLBA_SC, fgroup Q, pol RL



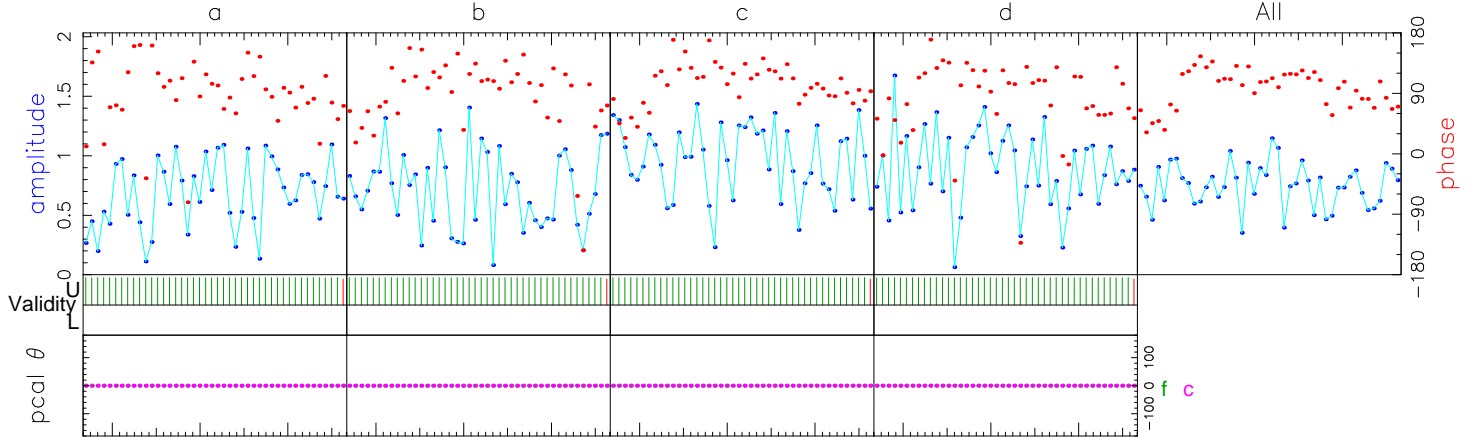
Fringe quality 9

SNR 24.9
Int time 179.972
Amp 0.678
Phase 97.8
PFD 0.0e+00
Delays (us)
SBD -0.000850
MBD -0.000880
Fringe rate (Hz)
-0.003380
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 055640.00
Stop 055940.22
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163107
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



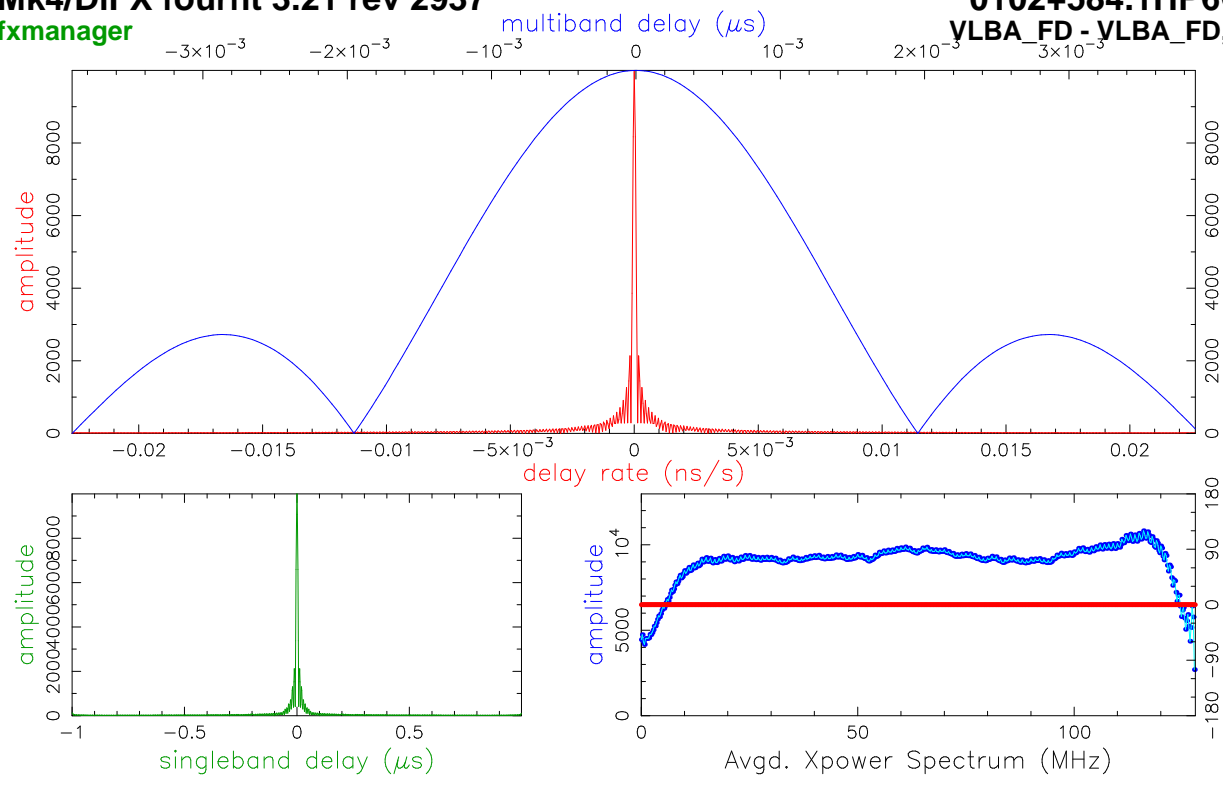
42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
94.1	95.2	103.9	95.8	Phase	97.8
0.6	0.6	0.8	0.7	Ampl.	0.7
512.2	512.5	513.0	512.2	Sbd box	512.6
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
f:c 0:0	0:0	0:0	0:0	PC phase	
f:c 0:0	0:0	0:0	0:0	ManI PC	
f 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
f Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	3.64397460888E+03	Apriori delay (usec)	3.64397548912E+03	Resid mbdelay (usec)	-8.80235E-04	+/-	4.5E-05
Sband delay (usec)	3.64397463874E+03	Apriori clock (usec)	-6.1530912E-01	Resid sbdelay (usec)	-8.50375E-04	+/-	1.7E-04
Phase delay (usec)	3.64397549543E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	6.31479E-06	+/-	3.0E-07
Delay rate (us/s)	4.99888766972E-01	Apriori rate (us/s)	4.99888845495E-01	Resid rate (us/s)	-7.85232E-08	+/-	2.9E-09
Total phase (deg)	116.4	Apriori accel (us/s/s)	2.71655807439E-07	Resid phase (deg)	97.8	+/-	4.6

	RMS	Theor.	Amplitude	0.678 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	28.5	15.3	Search (1024X16)	0.656	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	28.7	26.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
ph/frq (deg)	5.6	4.6	Inc. seg. avg.	0.724	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
amp/frq (%)	16.4	8.0	Inc. frq. avg.	0.666	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 c: az 340.7 el 44.8 pa 142.6 u,v (fr/asec) -2738.961 508.582 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fc..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fc.Q.74.1HP6Q8

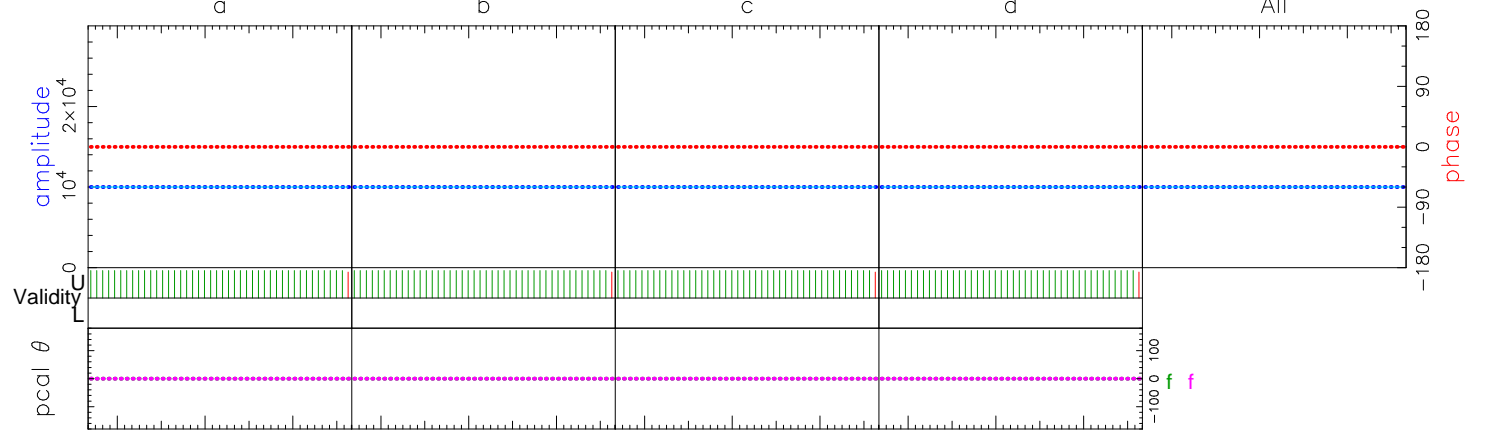


Fringe quality 9

SNR 366862.9
Int time 179.975
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512

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

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



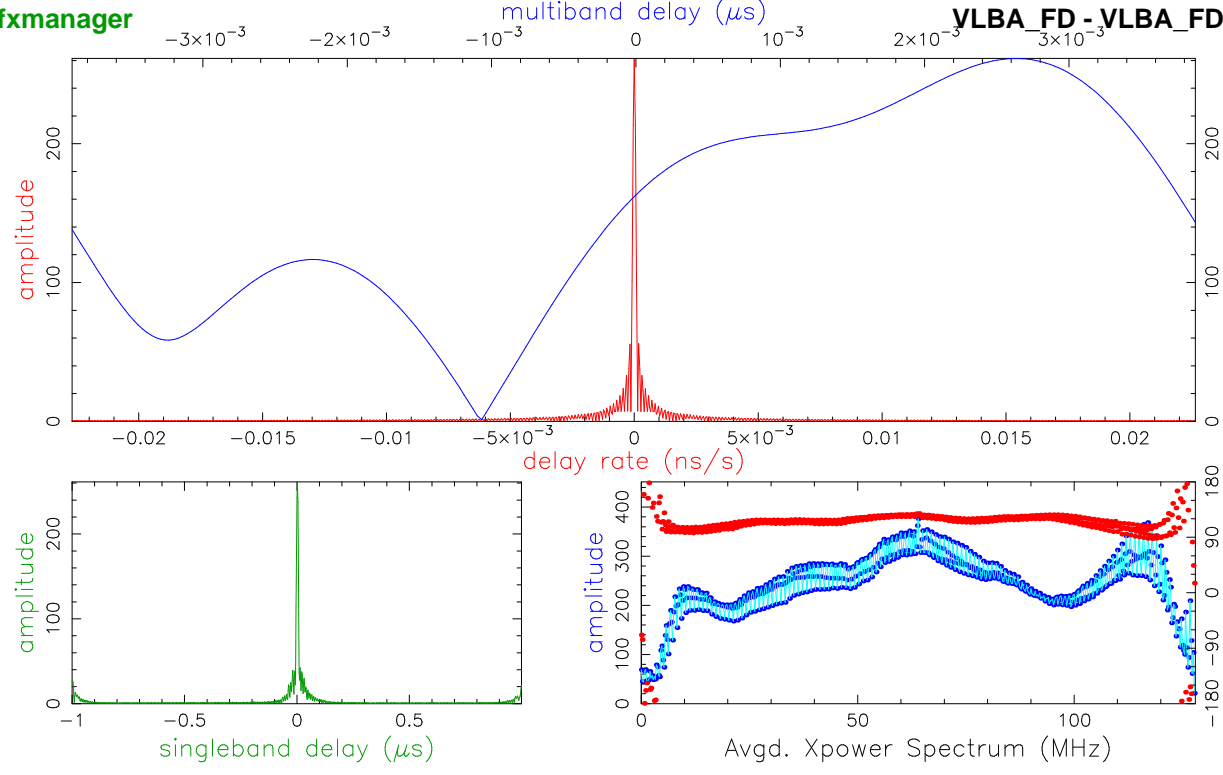
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000		
f:f	0:0	0:0	0:0	0:0		
f:f	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000		
f	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR		
f	Q00UR	Q01UR	Q02UR	Q03UR		
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00 +/- 3.0E-09
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid sbdelay (usec)	0.000000E+00 +/- 1.2E-08
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid phdelay (usec)	0.000000E+00 +/- 2.0E-11
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid rate (us/s)	0.000000E+00 +/- 1.9E-13
Total phase (deg)	0.0	0.0	0.0	0.0	Resid phase (deg)	0.0 +/- 0.0
RMS	0.0	0.0	0.0	0.0		
Theor.	0.0	0.0	0.0	0.0		
Amplitude	9999.999 +/- 0.027	9999.999 +/- 0.027	9999.999 +/- 0.027	9999.999 +/- 0.027		
Search (1024X16)	10000.000	10000.000	10000.000	10000.000		
Interp.	0.000	0.000	0.000	0.000		
Inc. seg. avg.	10000.000	10000.000	10000.000	10000.000		
Inc. frq. avg.	10000.000	10000.000	10000.000	10000.000		
Apriori delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		
Apriori clock (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		
Apriori clockrate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		
Apriori rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		
Apriori accel (us/s/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		
PCal mode: MANUAL, MANUAL						
PCal rate: 0.000E+00, 0.000E+00 (us/s)						
Bits/sample: 2x2						
Sample rate(MISamp/s): 256						
Data rate(Mb/s): 2048						
nlags: 512						
t_cohere infinite						
ion window (TEC)	0.00	0.00	0.00	0.00		
sb window (us)	-1.000	1.000	-1.000	1.000		
mb window (us)	-0.004	0.004	-0.004	0.004		
dr window (ns/s)	-0.023	0.023	-0.023	0.023		
simultaneous interpolator						

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, ff

VLBA_FD - VLBA_FD, fgroup Q, pol LR

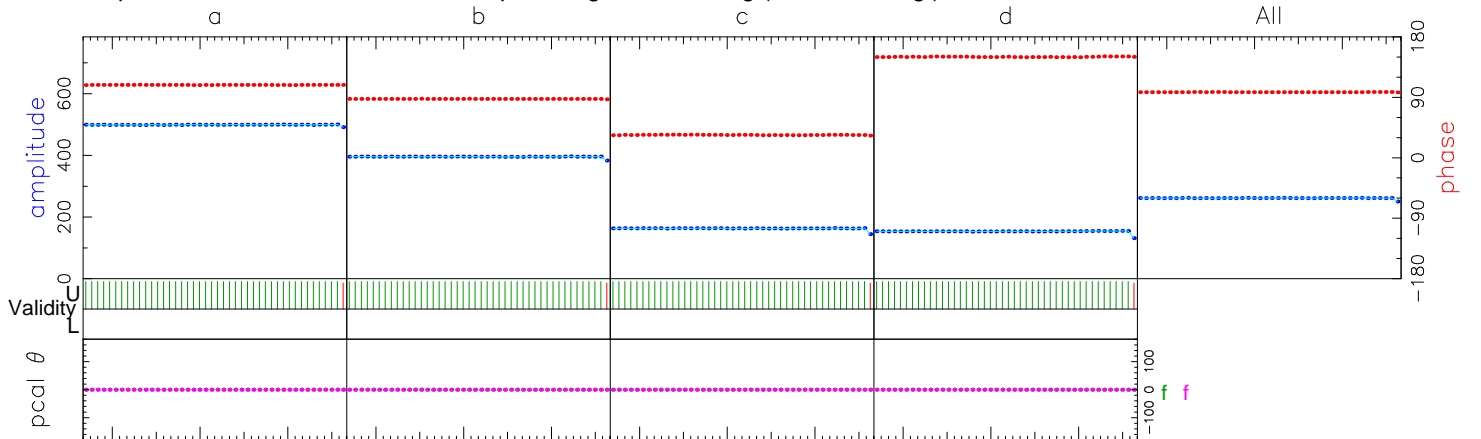


Fringe quality 5

SNR 9592.7
 Int time 179.975
 Amp 261.480
 Phase 97.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.001824
 MBD 0.002628
 Fringe rate (Hz)
 -0.000005
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512

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

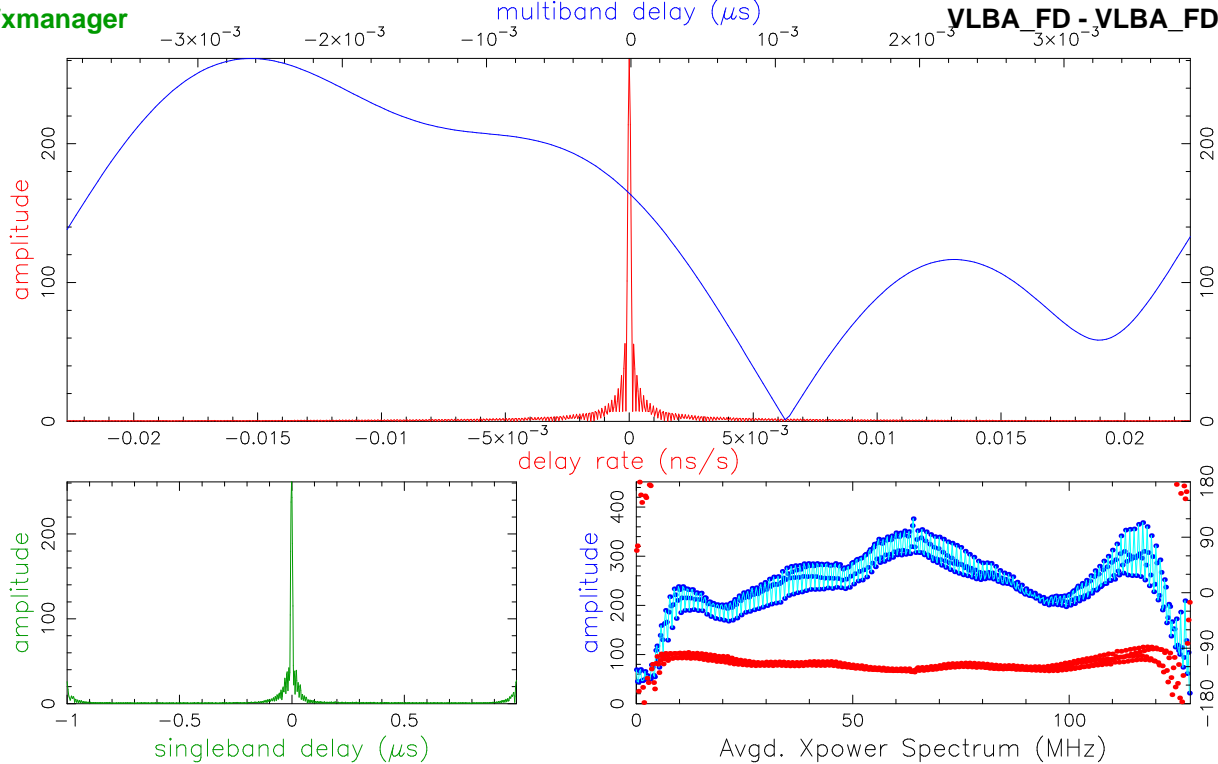
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



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

	2.62815625000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	2.62816E-03	+/- 1.2E-07
Group delay (usec)(sbd)	2.62815625000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.82438E-03	+/- 4.5E-07
Sband delay (usec)	1.82437500000E-03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	6.30088E-06	+/- 7.7E-10
Phase delay (usec)	6.30088487361E-06	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.24793E-10	+/- 7.4E-12
Delay rate (us/s)	-1.24793064472E-10	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	97.6	+/- 0.0
Total phase (deg)	97.6					

ph/seg (deg) 0.1 0.0 Amplitude 261.480 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.6 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) 59.3 0.0 Inc. seg. avg. 261.390 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
 amp/frq (%) 59.2 0.0 Inc. frq. avg. 302.789 Sample rate(MISamp/s): 256 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite dr window (ns/s) -0.023 0.023
 f: az 13.6 el 60.8 pa -157.8 f: az 13.6 el 60.8 pa -157.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/ff..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/ff.Q.52.1HP6Q8

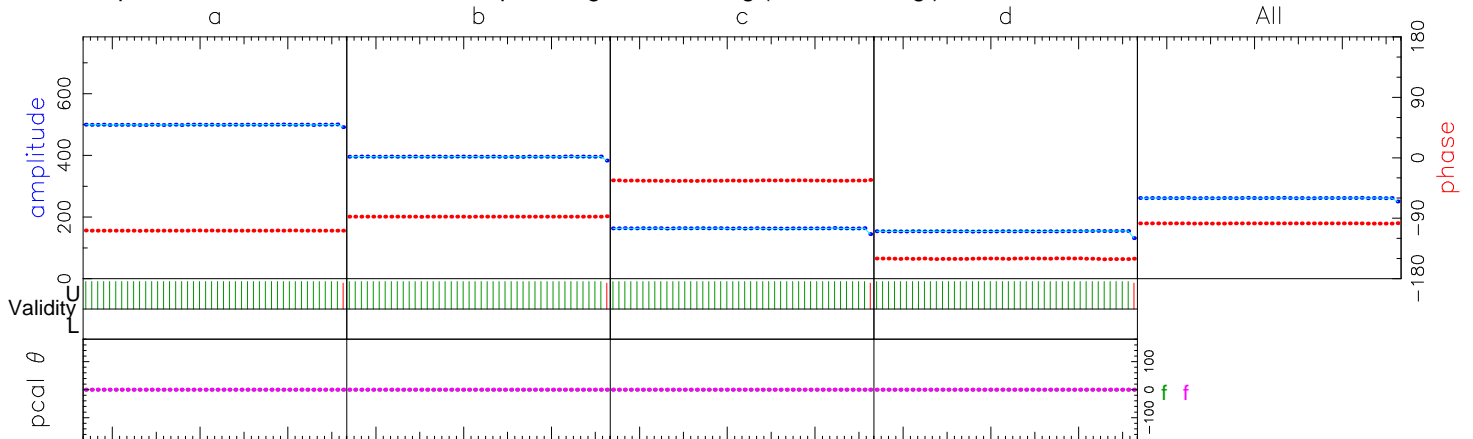


Fringe quality 5

SNR 9592.7
Int time 179.975
Amp 261.480
Phase -97.6
PFD 0.0e+00
Delays (us)
SBD -0.001824
MBD -0.002628
Fringe rate (Hz) 0.000005
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"

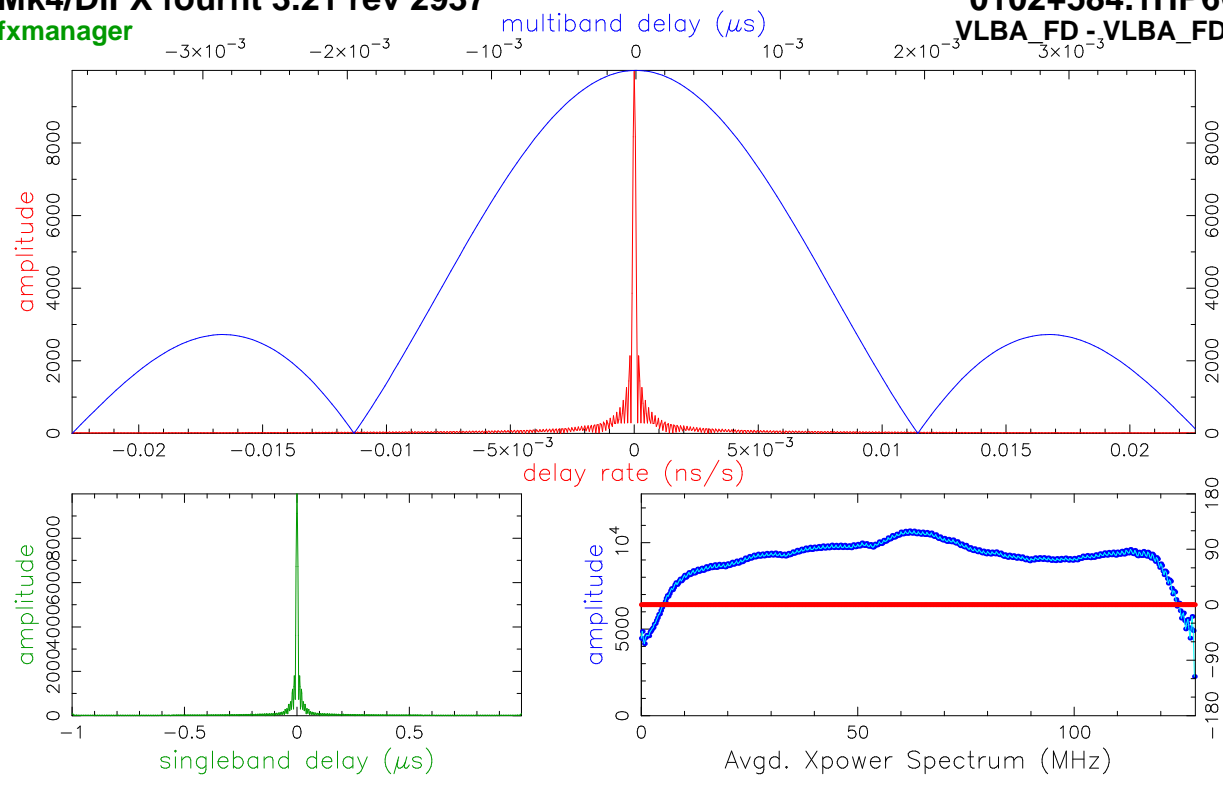
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-108.4	-87.6	-34.0	-150.1	Phase	-97.6
499.1	395.6	163.1	153.4	Ampl.	302.8
512.6	512.4	510.7	511.5	Sbd box	512.1
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
f 1000	1000	1000	1000	PC freqs	
f:f 0:0	0:0	0:0	0:0	PC phase	
f:f 0:0	0:0	0:0	0:0	Manl PC	
f 1000	1000	1000	1000	PC amp	
f 1000	1000	1000	1000		
f Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
f Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	-2.62815625000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-2.62816E-03	+/- 1.2E-07
Sband delay (usec)	-1.82437500000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.82438E-03	+/- 4.5E-07
Phase delay (usec)	-6.30088487356E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-6.30088E-06	+/- 7.7E-10
Delay rate (us/s)	1.24793064472E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.24793E-10	+/- 7.4E-12
Total phase (deg)	-97.6	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-97.6	+/- 0.0

ph/seg (deg)	0.1	Theor.	0.0	Amplitude	261.480 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	0.6		0.1	Search (1024X16)	258.908	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	59.3		0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	59.2		0.0	Inc. seg. avg.	261.390	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
				Inc. frq. avg.	302.789	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
						nlags: 512	t_cohere infinite

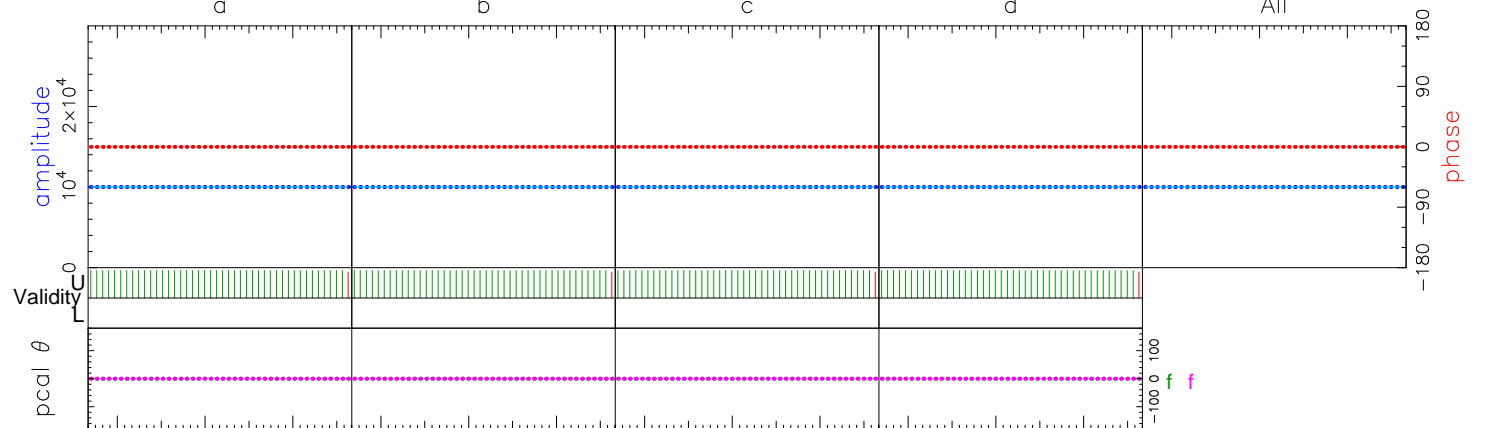


Fringe quality 9

SNR 366862.9
Int time 179.975
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 055640.00
Stop 055940.22
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163100
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



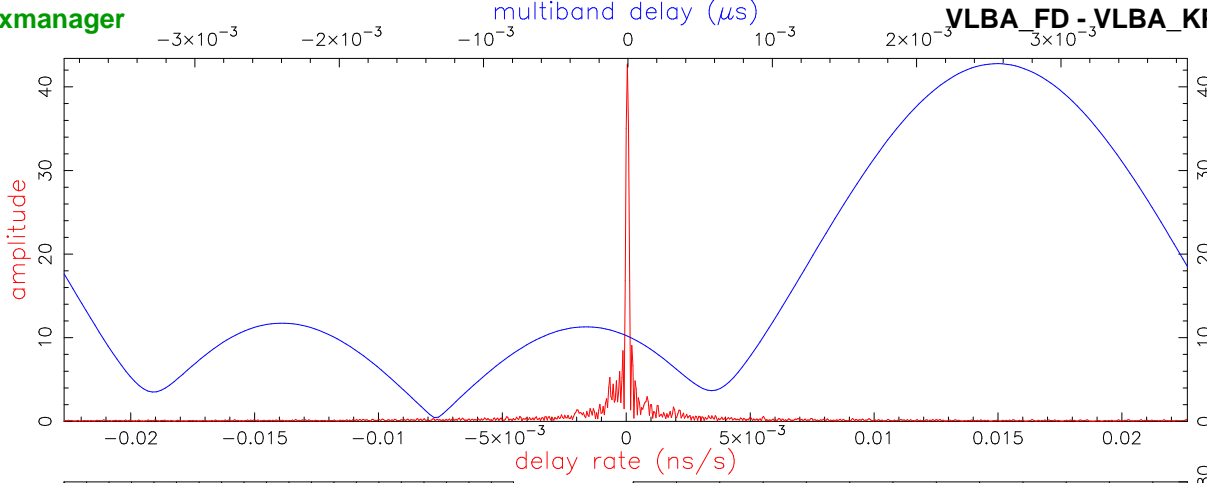
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000		
f:f	0:0	0:0	0:0	0:0		
f:f	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000		
f	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL		
f	Q00UL	Q01UL	Q02UL	Q03UL		
Group delay (usec)(sbd)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00 +/- 3.0E-09
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid sbdelay (usec)	0.00000E+00 +/- 1.2E-08
Phase delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid phdelay (usec)	0.00000E+00 +/- 2.0E-11
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid rate (us/s)	0.00000E+00 +/- 1.9E-13
Total phase (deg)	0.0	0.0	0.0	0.0	Resid phase (deg)	0.0 +/- 0.0
RMS	0.0	0.0	0.0	0.0	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
Theor.	0.0	0.0	0.0	0.0	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
Amplitude	9999.999 +/- 0.027	9999.999 +/- 0.027	9999.999 +/- 0.027	9999.999 +/- 0.027	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
Search (1024X16)	10000.000	10000.000	10000.000	10000.000	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
Interp.	0.000	0.000	0.000	0.000	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
Inc. seg. avg.	10000.000	10000.000	10000.000	10000.000		
Inc. frq. avg.	10000.000	10000.000	10000.000	10000.000		
u,v (fr/asec)	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000		simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

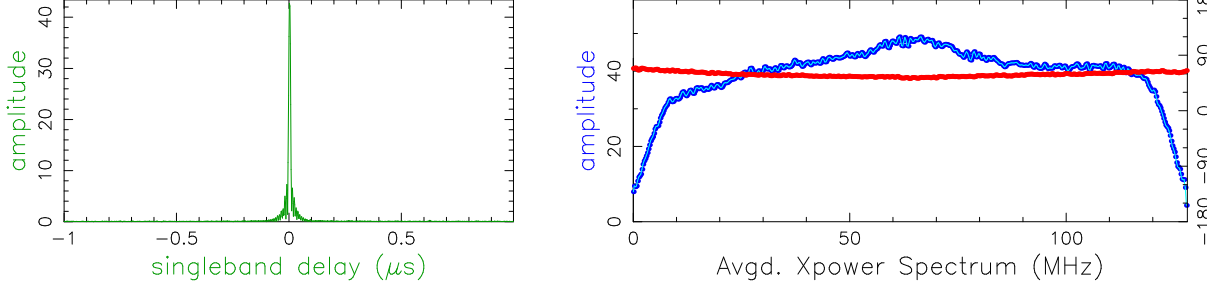
fxmanager

0102+584.1HP6Q8, No0090, fk

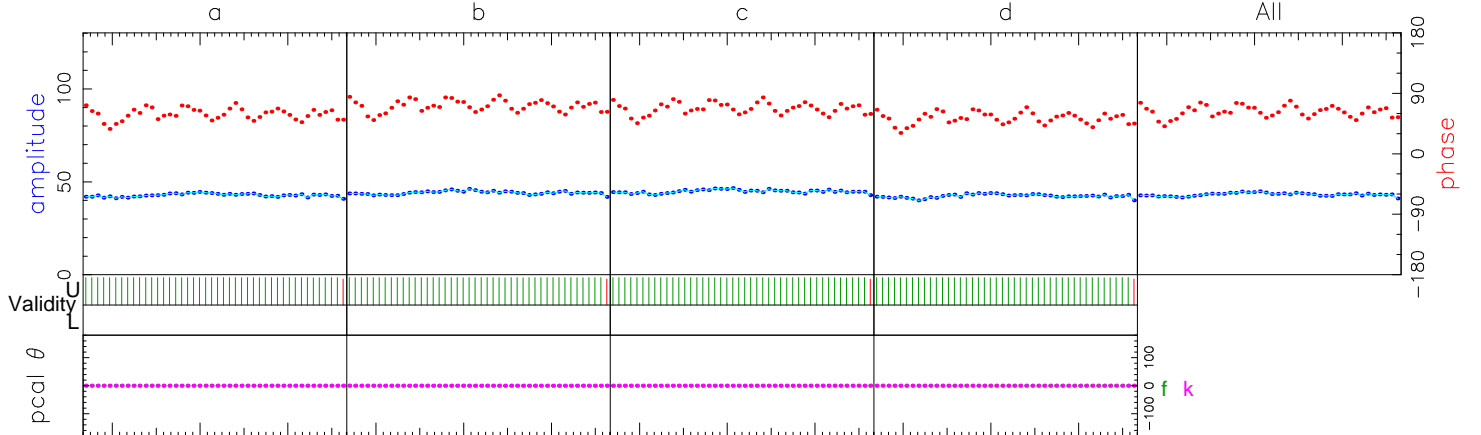
VLBA_FD - VLBA_KP, fgroup Q, pol LL



Fringe quality 9
 SNR 1591.8
 Int time 179.801
 Amp 43.410
 Phase 62.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.002783
 MBD 0.002606
 Fringe rate (Hz) 0.001015
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163101
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



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



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	APs used	
k	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
k	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	1.26698141311E+02		1.26695535646E+02		Resid mbdelay (usec)	2.60566E-03 +/- 7.0E-07
Sband delay (usec)	1.26698319146E+02		7.5039272E+00		Resid sbdelay (usec)	2.78350E-03 +/- 2.7E-06
Phase delay (usec)	1.26695539696E+02		2.9999999E-07		Resid phdelay (usec)	4.04929E-06 +/- 4.6E-09
Delay rate (us/s)	-8.64906395802E-02		-8.64906631519E-02		Resid rate (us/s)	2.35717E-08 +/- 4.5E-11
Total phase (deg)		10.3	-2.53003314865E-06		Resid phase (deg)	62.7 +/- 0.1
	RMS	Theor.	Amplitude	43.410 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	8.5	0.2	Search (1024X16)	40.783	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	2.0	0.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	10.2	0.1	Inc. seg. avg.	43.214	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	2.4	0.1	Inc. frq. avg.	43.079	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			k: az 21.3 el 60.1 pa -144.4			u,v (fr/asec) 472.289 -210.939
Control file: cf_1234_gmva7mm			Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fk..1HP6Q8			Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fk.Q.13.1HP6Q8

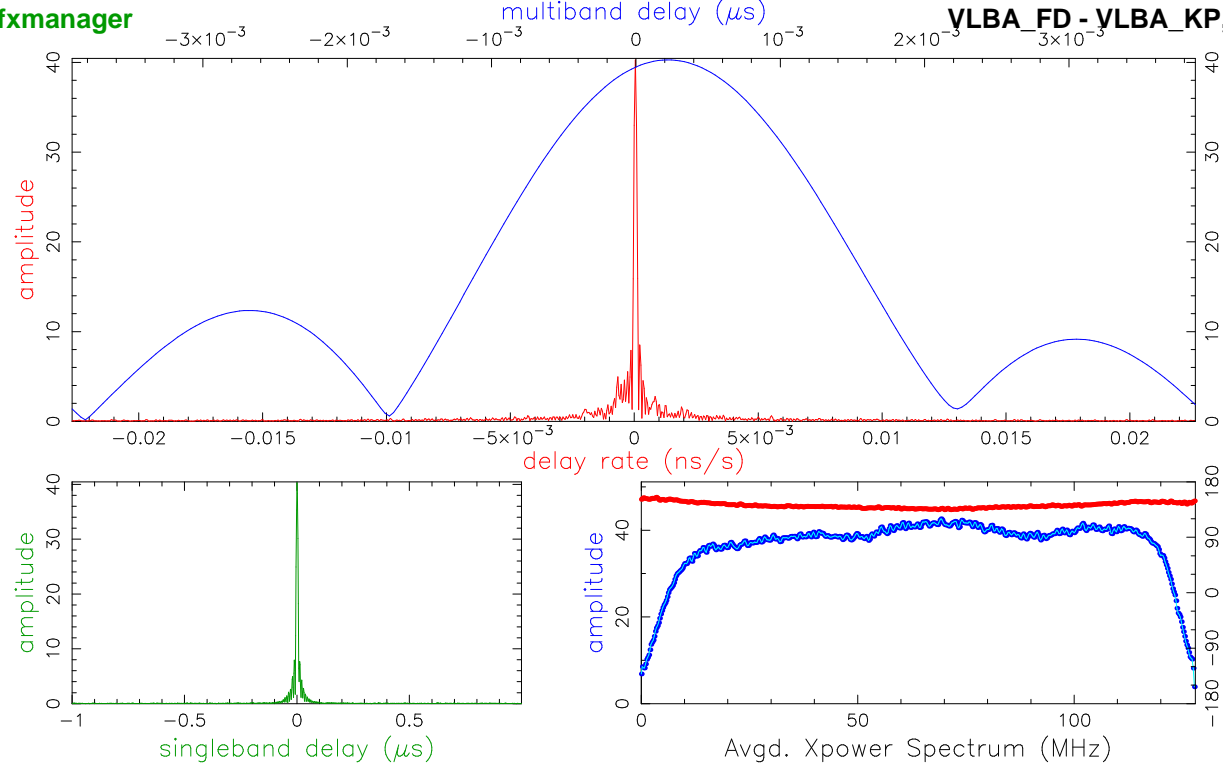
simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, fk

VLBA_FD - VLBA_KP, fgroup Q, pol RR

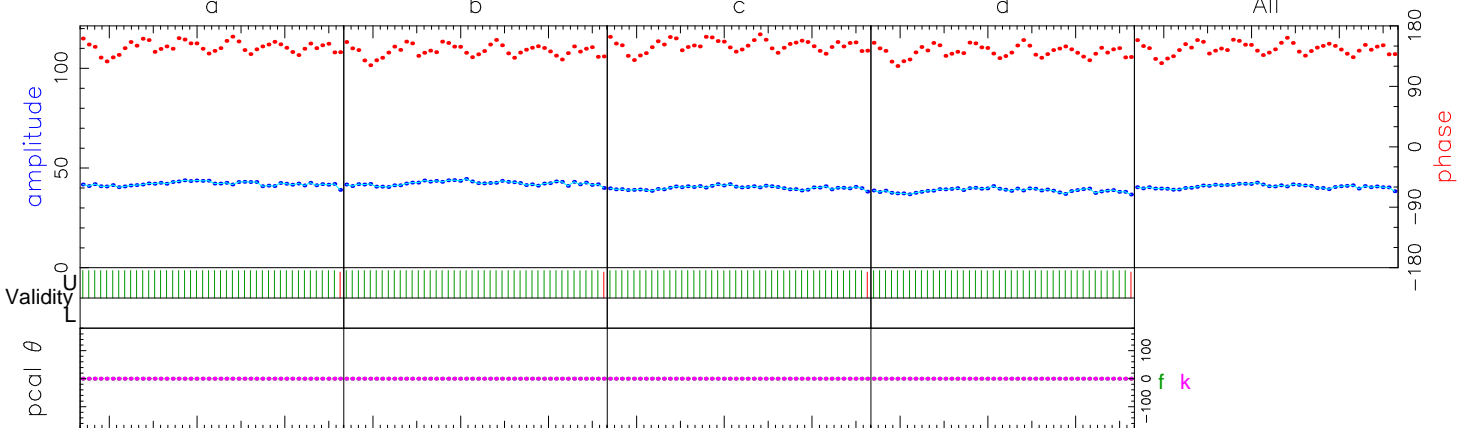


Fringe quality 9

SNR 1483.2
 Int time 179.801
 Amp 40.450
 Phase 145.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.000435
 MBD 0.000247
 Fringe rate (Hz) 0.001021
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

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

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



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

	1.26695783061E+02	Apriori delay (usec)	1.26695535646E+02	Resid mbdelay (usec)	2.47415E-04	+/- 7.5E-07
Group delay (usec)(sbd)						
Sband delay (usec)	1.26695971021E+02	Apriori clock (usec)	7.5039272E+07	Resid sbdelay (usec)	4.35375E-04	+/- 2.9E-06
Phase delay (usec)	1.26695545061E+02	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	9.41451E-06	+/- 5.0E-09
Delay rate (us/s)	-8.64906394242E-02	Apriori rate (us/s)	-8.64906631519E-02	Resid rate (us/s)	2.37277E-08	+/- 4.8E-11
Total phase (deg)	93.4	Apriori accel (us/s/s)	-2.53003314865E-06	Resid phase (deg)	145.9	+/- 0.1

	RMS	Theor.	Amplitude	40.450 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	8.5	0.3	Search (1024X16)	37.887	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	2.3	0.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	5.3	0.1	Inc. seg. avg.	40.719	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.6	0.1	Inc. frq. avg.	40.357	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 13.6 el 60.8 pa -157.8 k: az 21.3 el 60.1 pa -144.4 u,v (fr/asec) 472.289 -210.939 simultaneous interpolator

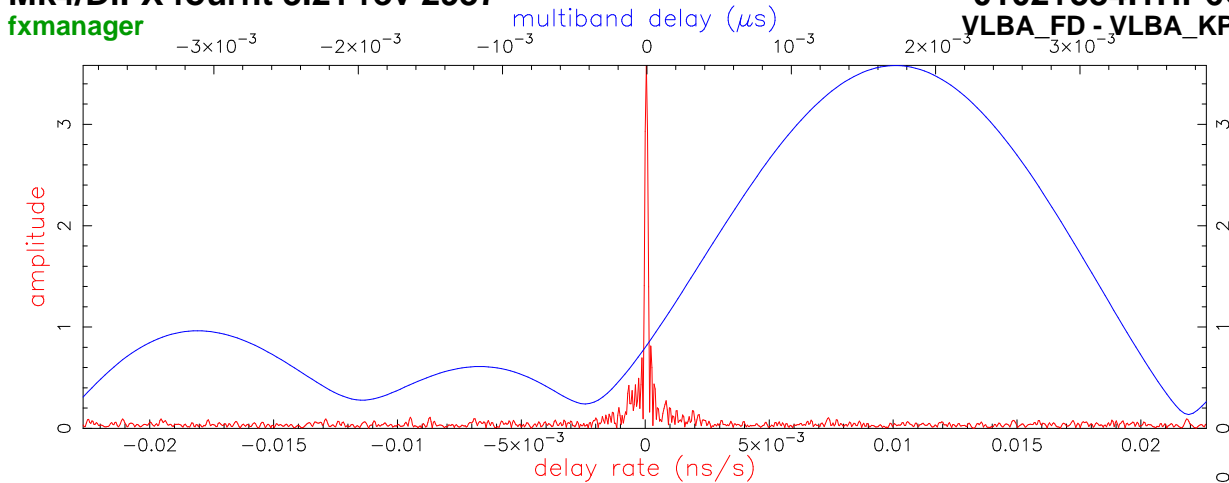
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fk..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fk.Q.33.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

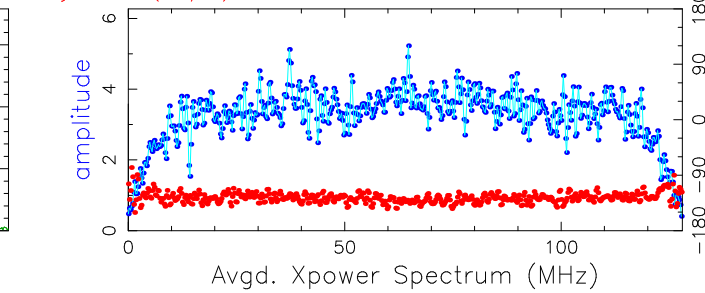
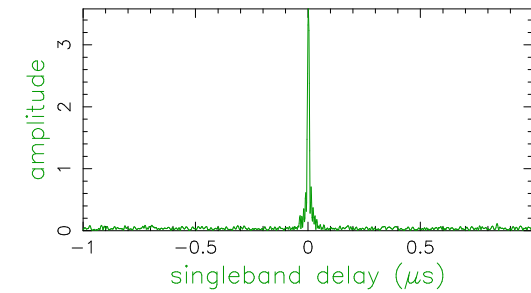
0102+584.1HP6Q8, No0090, fk

VLBA_FD - VLBA_KP, fgroup Q, pol LR



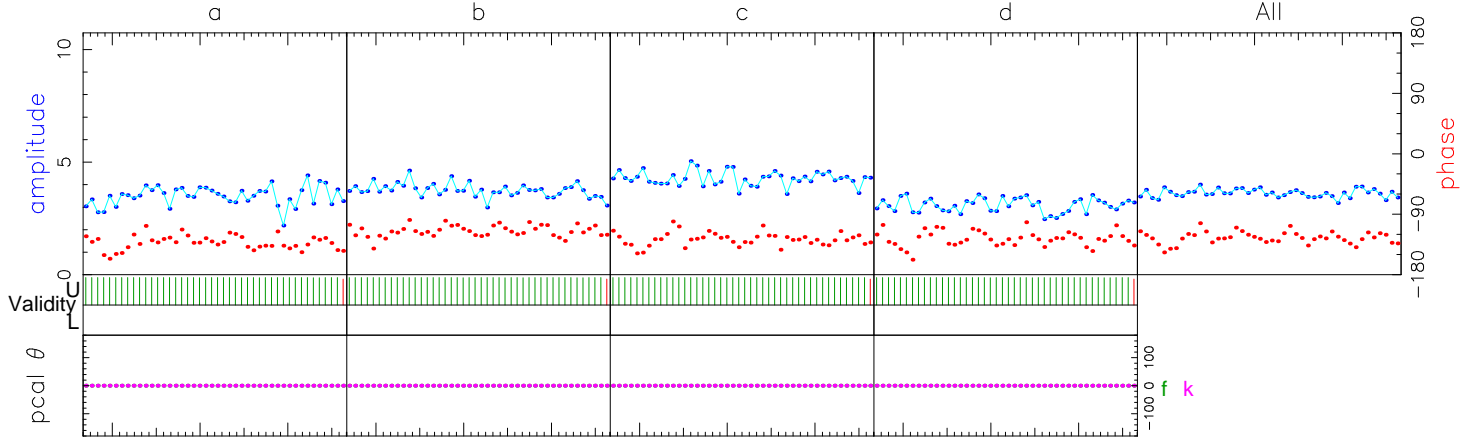
Fringe quality 9

SNR 131.3
 Int time 179.801
 Amp 3.582
 Phase -124.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.001810
 MBD 0.001712
 Fringe rate (Hz) 0.000965
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512



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

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



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-132.0	-114.8	-127.2	-126.2	Phase	-124.9
3.4	3.7	4.2	3.0	Ampl.	3.6
514.3	513.8	513.6	514.0	Sbd box	513.9
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
k 1000	1000	1000	1000	PC freqs	
f:k 0:0	0:0	0:0	0:0	PC phase	
f:k 0:0	0:0	0:0	0:0	ManI PC	
f 1000	1000	1000	1000	PC amp	
k 1000	1000	1000	1000		
f Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
k Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	1.26697247561E+02	Apriori delay (usec)	1.26695535646E+02	Resid mbdelay (usec)	1.71191E-03	+/- 8.5E-06
Sband delay (usec)	1.26697345646E+02	Apriori clock (usec)	7.5039272E+00	Resid sbdelay (usec)	1.81000E-03	+/- 3.3E-05
Phase delay (usec)	1.26695527584E+02	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-8.06187E-06	+/- 5.6E-08
Delay rate (us/s)	-8.64906407317E-02	Apriori rate (us/s)	-8.64906631519E-02	Resid rate (us/s)	2.24202E-08	+/- 5.4E-10
Total phase (deg)	182.6	Apriori accel (us/s/s)	-2.53003314865E-06	Resid phase (deg)	-124.9	+/- 0.9

ph/seg (deg)	8.9	Theor.	2.9	Amplitude	3.582 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	5.2		5.1	Search (1024X16)	3.343	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	8.9		0.9	Inc. seg. avg.	3.620	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	12.1		1.5	Inc. frq. avg.	3.602	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

f: az 13.6 el 60.8 pa -157.8 k: az 21.3 el 60.1 pa -144.4 u,v (fr/asec) 472.289 -210.939 simultaneous interpolator

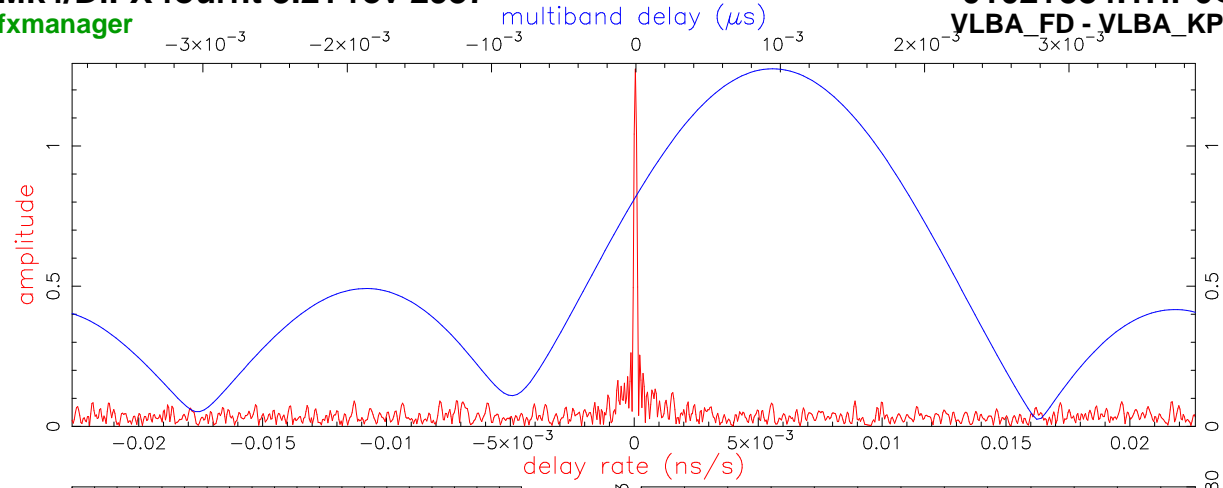
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fk..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fk.Q.57.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, fk

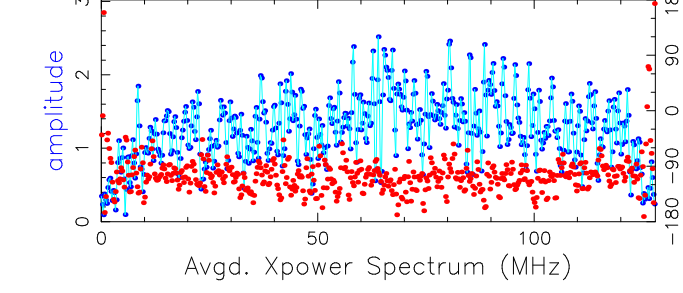
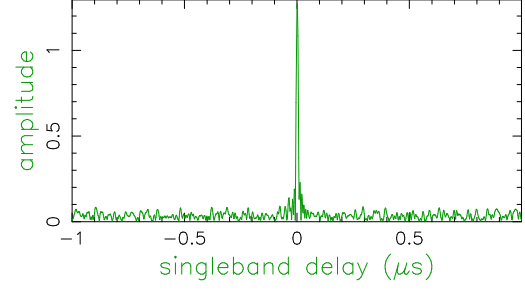
VLBA_FD - VLBA_KP, fgroup Q, pol RL



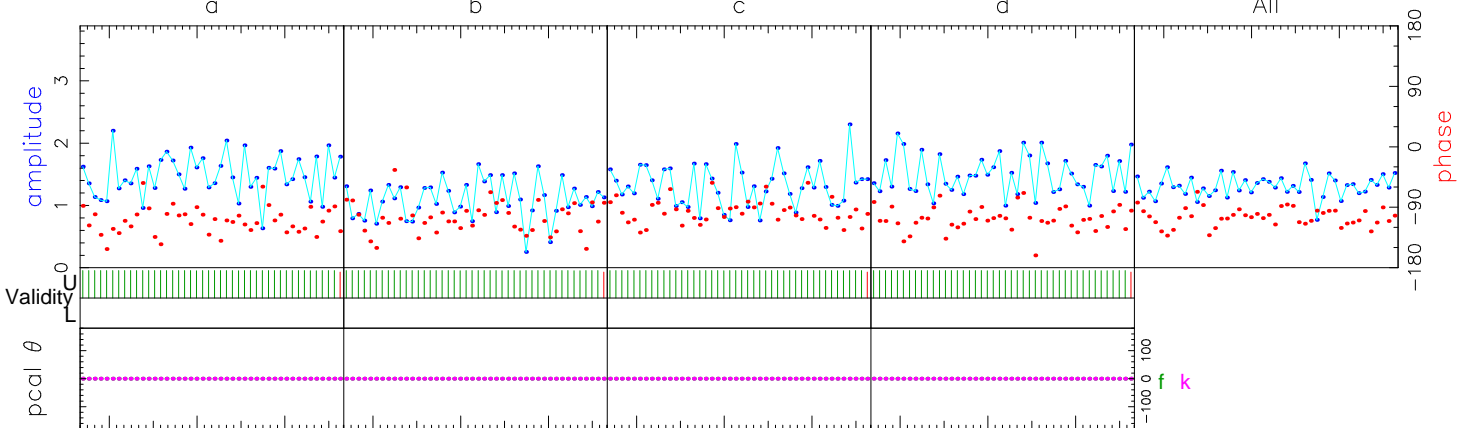
Fringe quality 9

SNR 47.5
 Int time 179.801
 Amp 1.295
 Phase -104.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.001108
 MBD 0.000907
 Fringe rate (Hz) 0.001065
 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



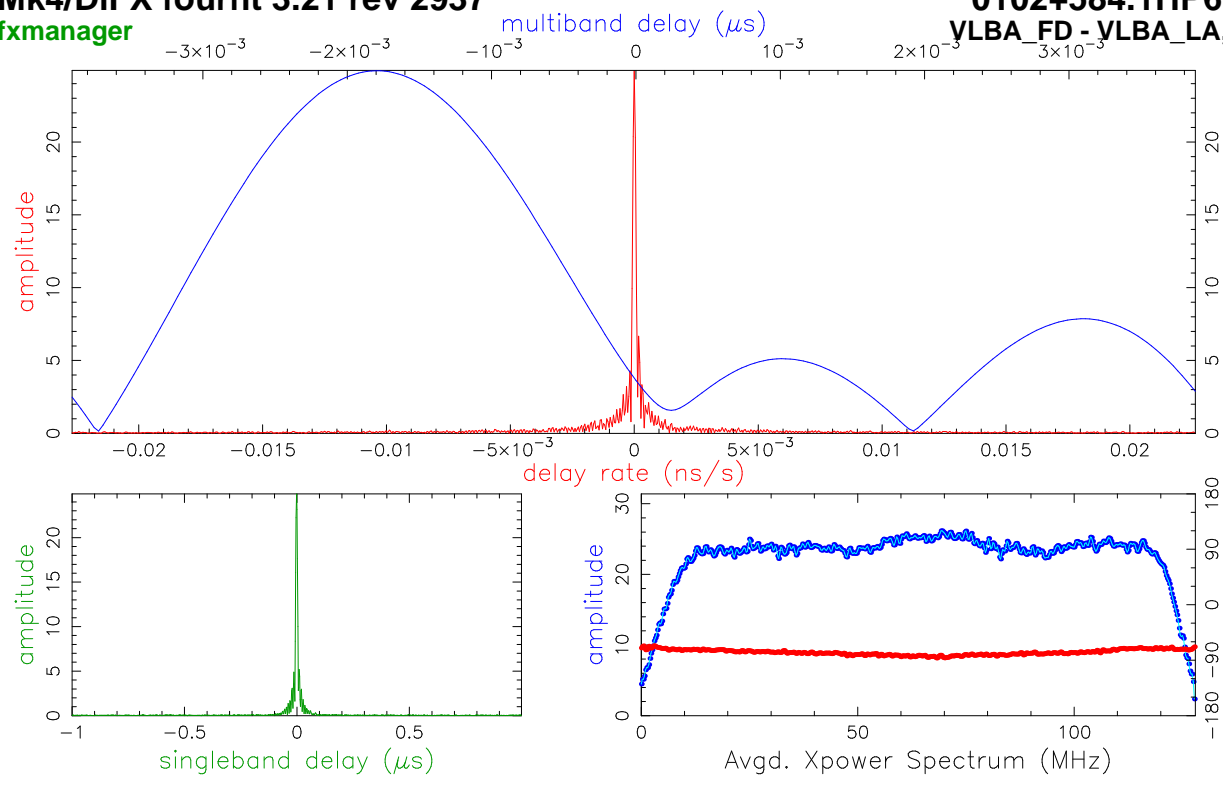
42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-110.8	-103.4	-96.6	-106.9	Phase	-104.7
1.4	1.0	1.3	1.4	Ampl.	1.3
514.1	513.4	513.6	513.1	Sbd box	513.6
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
k 1000	1000	1000	1000	PC freqs	
f:k 0:0	0:0	0:0	0:0	PC phase	
f:k 0:0	0:0	0:0	0:0	Manl PC	
f 1000	1000	1000	1000	PC amp	
k 1000	1000	1000	1000		
f Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
k Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	1.26696442186E+02	Apriori delay (usec)	1.26695535646E+02	Resid mbdelay (usec)	9.06540E-04	+/- 2.3E-05
Sband delay (usec)	1.26696643771E+02	Apriori clock (usec)	7.5039272E+00	Resid sbdelay (usec)	1.10812E-03	+/- 9.1E-05
Phase delay (usec)	1.26695528887E+02	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-6.75933E-06	+/- 1.6E-07
Delay rate (us/s)	-8.64906384145E-02	Apriori rate (us/s)	-8.64906631519E-02	Resid rate (us/s)	2.47374E-08	+/- 1.5E-09
Total phase (deg)	202.8	Apriori accel (us/s/s)	-2.53003314865E-06	Resid phase (deg)	-104.7	+/- 2.4

ph/seg (deg)	13.6	Theor.	8.0	Amplitude	1.295 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	13.1		14.0	Search (1024X16)	1.226	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	7.4		2.4	Inc. seg. avg.	1.297	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	13.0		4.2	Inc. frq. avg.	1.279	Data rate(Mb/s): 2048	nlags: 512	ion window (TEC)	0.00	0.00

f: az 13.6 el 60.8 pa -157.8 k: az 21.3 el 60.1 pa -144.4 u,v (fr/asec) 472.289 -210.939 simultaneous interpolator

Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fk..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fk.Q.76.1HP6Q8

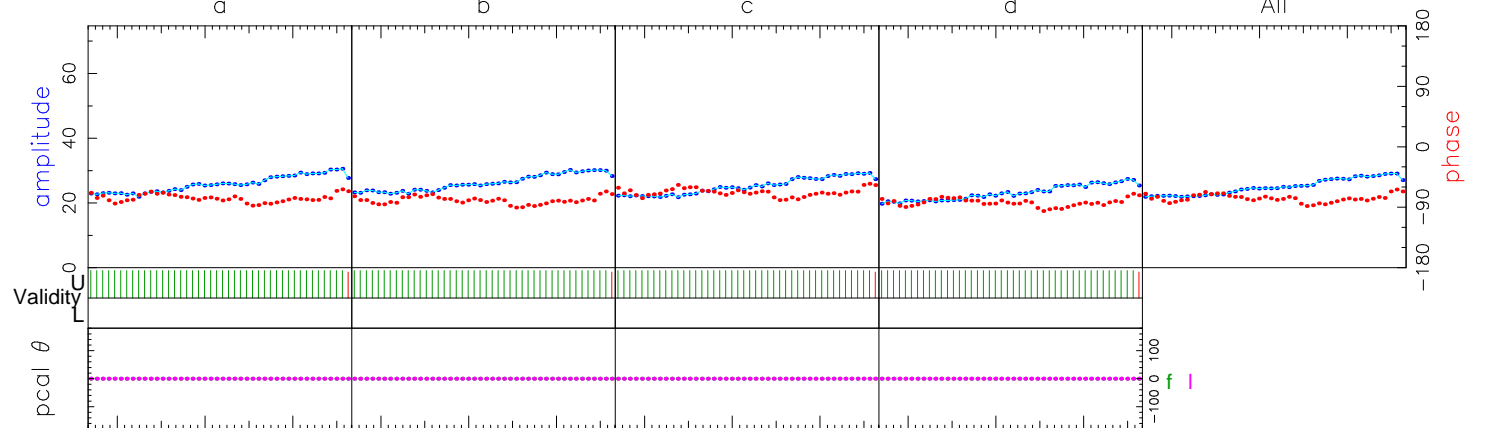


Fringe quality 9

SNR 914.0
Int time 179.974
Amp 24.914
Phase -76.7
PFD 0.0e+00
Delays (us)
SBD -0.001740
MBD -0.001780
Fringe rate (Hz) 0.000941
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512

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

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



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

Group delay (usec)(sbd)	-7.34693165711E+02	Apriori delay (usec)	-7.34691385649E+02	Resid mbdelay (usec)	-1.78006E-03	+/- 1.2E-06
Sband delay (usec)	-7.34693125899E+02	Apriori clock (usec)	8.2175455E+00	Resid sbdelay (usec)	-1.74025E-03	+/- 4.7E-06
Phase delay (usec)	-7.34691390596E+02	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-4.94761E-06	+/- 8.1E-09
Delay rate (us/s)	-1.74245651084E-02	Apriori rate (us/s)	-1.74245869784E-02	Resid rate (us/s)	2.18700E-08	+/- 7.8E-11
Total phase (deg)	-162.5	Apriori accel (us/s/s)	-3.26700003080E-06	Resid phase (deg)	-76.7	+/- 0.1

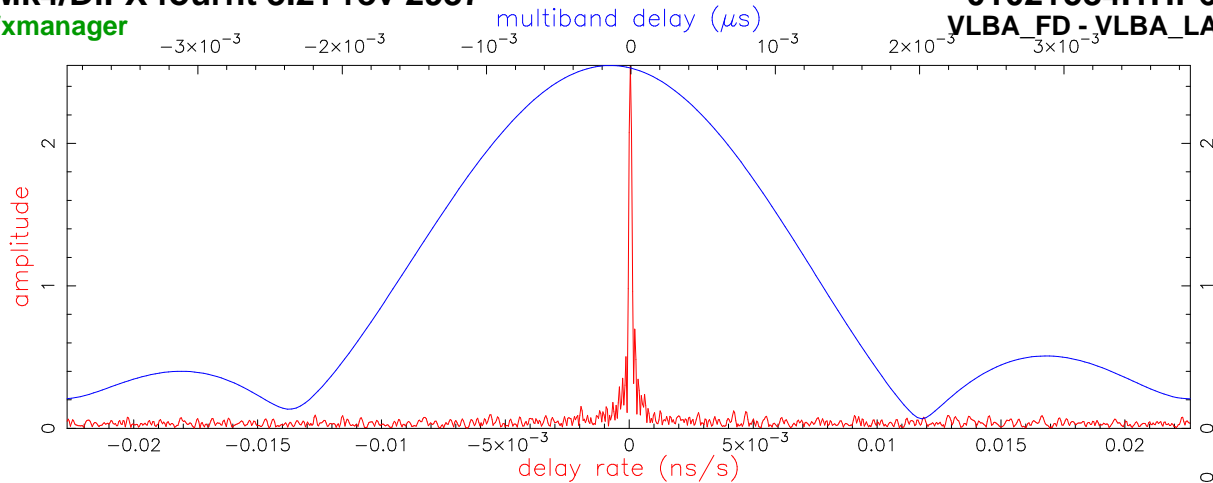
	RMS	Theor.	Amplitude	24.914 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	5.6	0.4	Search (1024X16)	23.497	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	9.7	0.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.9	0.1	Inc. seg. avg.	25.009	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.8	0.2	Inc. frq. avg.	25.004	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

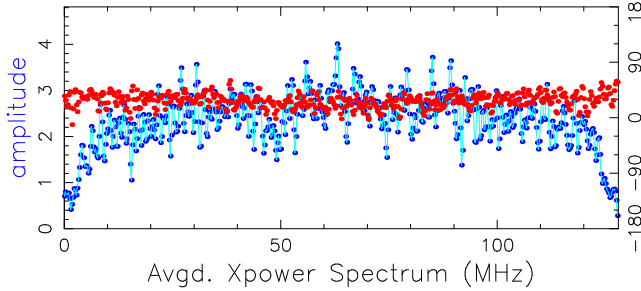
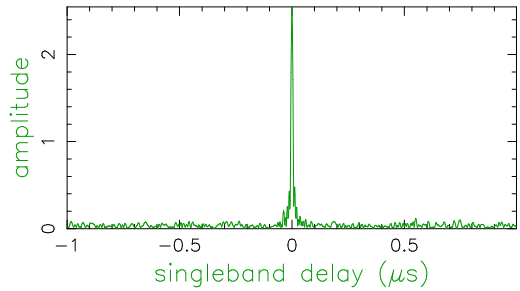
0102+584.1HP6Q8, No0090, fl

VLBA_FD - VLBA_LA, fgroup Q, pol LR



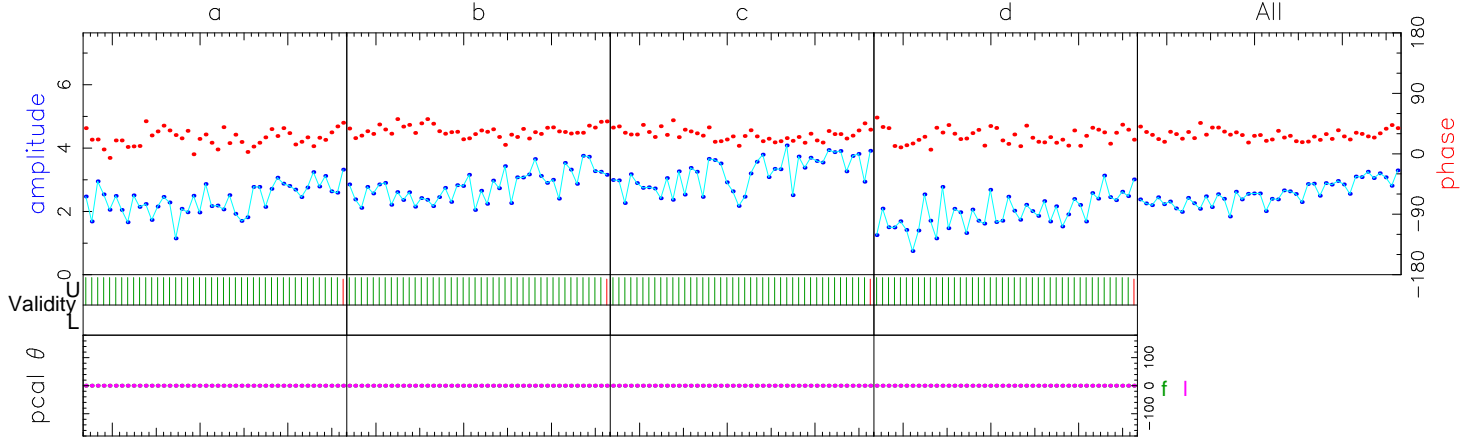
Fringe quality 9

SNR 93.5
 Int time 179.974
 Amp 2.548
 Phase 28.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.000114
 MBD -0.000152
 Fringe rate (Hz)
 0.001022
 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

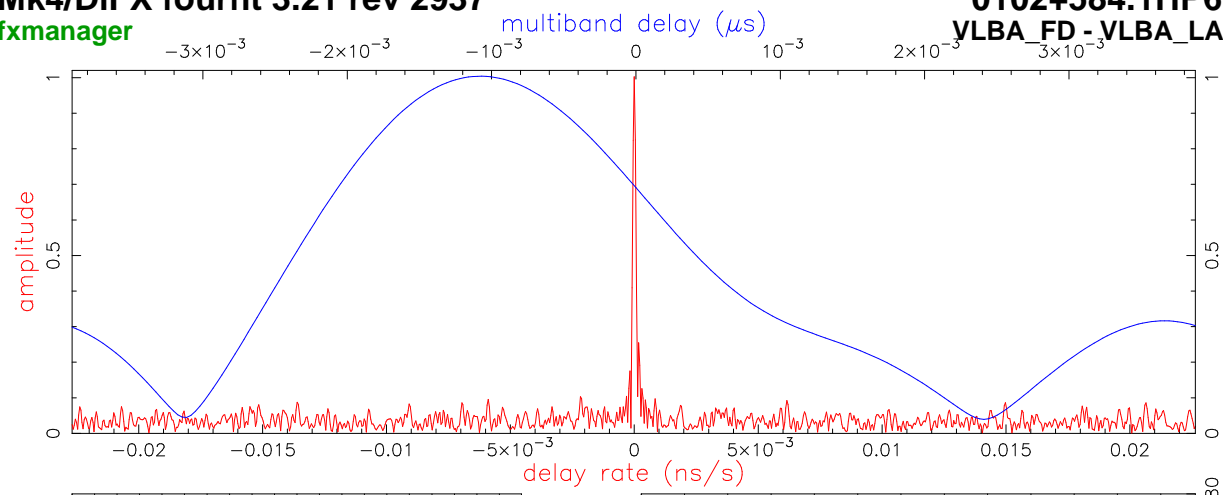


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	APs used	
l	1000	1000	1000	1000	PC freqs	
f:l	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
l	Q00UR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

Group delay (usec)(sbd)	-7.34691537953E+02	Apriori delay (usec)	-7.34691385649E+02	Resid mbdelay (usec)	-1.52304E-04	+/-	1.2E-05
Sband delay (usec)	-7.34691500149E+02	Apriori clock (usec)	8.2175455E+00	Resid sbdelay (usec)	-1.14500E-04	+/-	4.6E-05
Phase delay (usec)	-7.34691383819E+02	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	1.82961E-06	+/-	7.9E-08
Delay rate (us/s)	-1.74245632393E-02	Apriori rate (us/s)	-1.74245869784E-02	Resid rate (us/s)	2.37390E-08	+/-	7.6E-10
Total phase (deg)	-57.4	Apriori accel (us/s/s)	-3.26700003080E-06	Resid phase (deg)	28.3	+/-	1.2

ph/seg (deg)	7.1	Theor.	4.1	Amplitude	2.548 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	14.2	Search (1024X16)	2.418	Search	2.418	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	5.4	Inc. seg. avg.	2.560	Inc. seg. avg.	2.560	Bits/sample: 2x2	mb window (us)	-0.004 0.004
amp/frq (%)	17.9	Inc. frq. avg.	2.552	Inc. frq. avg.	2.552	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023
f: az 13.6 el 60.8 pa -157.8		l: az 18.7 el 65.2 pa -150.7		u, v (fr/asec)	93.606 -383.413	Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00

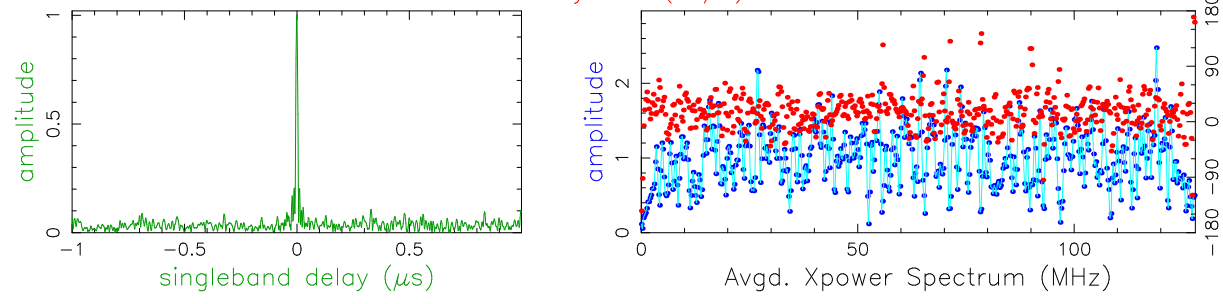
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fl..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fl.Q.44.1HP6Q8



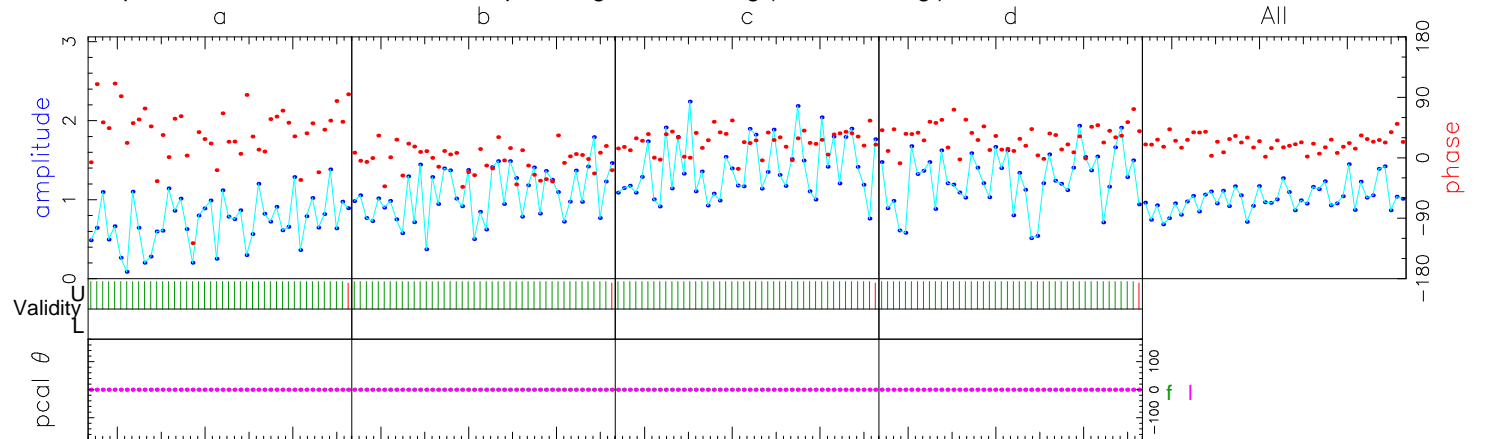
Fringe quality 6

SNR 37.4
Int time 179.974
Amp 1.020
Phase 22.4
PFD 0.0e+00
Delays (us)
SBD -0.000851
MBD -0.001145
Fringe rate (Hz)
0.000672
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

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



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

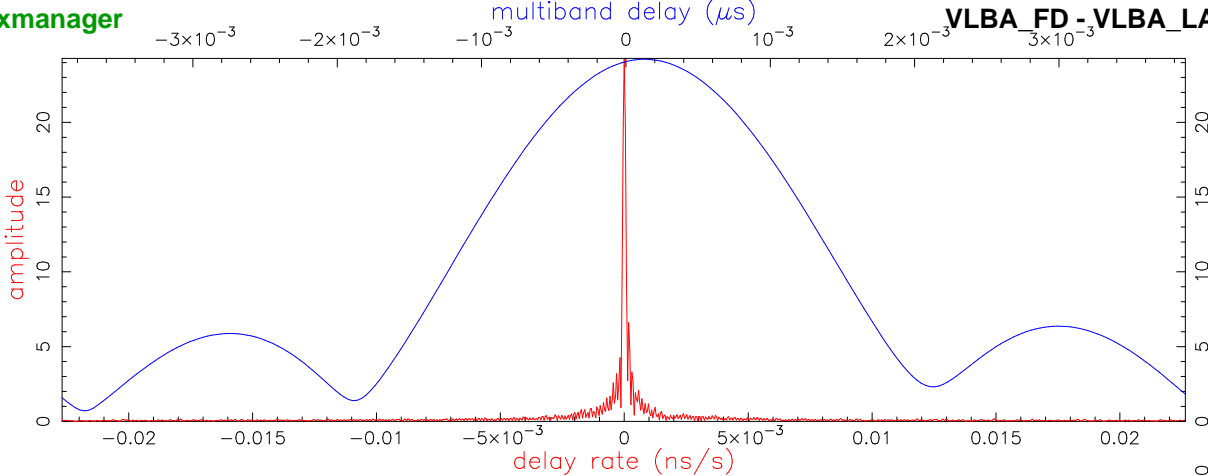


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	PC freqs	
f:l	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
l	Q00UL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

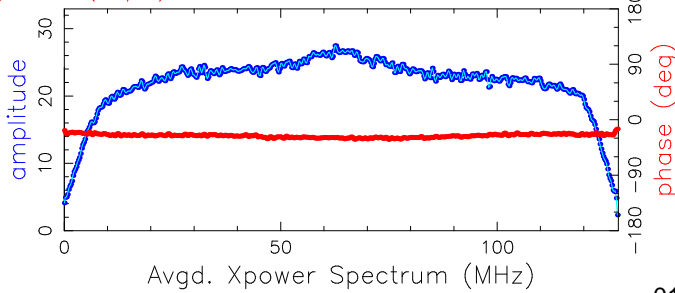
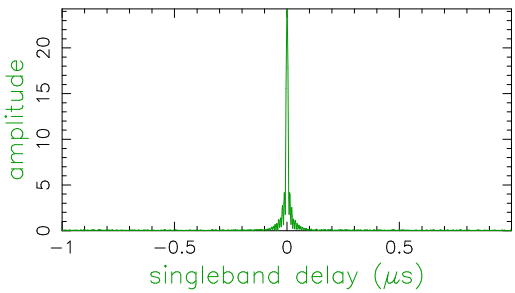
Group delay (usec)(sbd)	-7.34692530805E+02	Apriori delay (usec)	-7.34691385649E+02	Resid mbdelay (usec)	-1.14516E-03	+/-	3.0E-05
Sband delay (usec)	-7.34692236149E+02	Apriori clock (usec)	8.2175455E+00	Resid sbdelay (usec)	-8.50500E-04	+/-	1.2E-04
Phase delay (usec)	-7.34691384205E+02	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	1.44356E-06	+/-	2.0E-07
Delay rate (us/s)	-1.74245713622E-02	Apriori rate (us/s)	-1.74245869784E-02	Resid rate (us/s)	1.56162E-08	+/-	1.9E-09
Total phase (deg)	-63.4	Apriori accel (us/s/s)	-3.26700003080E-06	Resid phase (deg)	22.4	+/-	3.1

ph/seg (deg) 10.7 10.2 Amplitude 1.020 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 16.8 17.7 Search (1024X16) 0.976 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.6 3.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
 amp/frq (%) 26.9 5.3 Inc. seg. avg. 1.004 Sample rate(MISamp/s): 256 Data rate (Mb/s): 2048 nlags: 512 t_cohere infinite dr window (ns/s) -0.023 0.023
 f: az 13.6 el 60.8 pa -157.8 l: az 18.7 el 65.2 pa -150.7 u,v (fr/asec) 93.606 -383.413 simultaneous interpolator
 Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fl..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fl.Q.58.1HP6Q8

Fringe quality 9

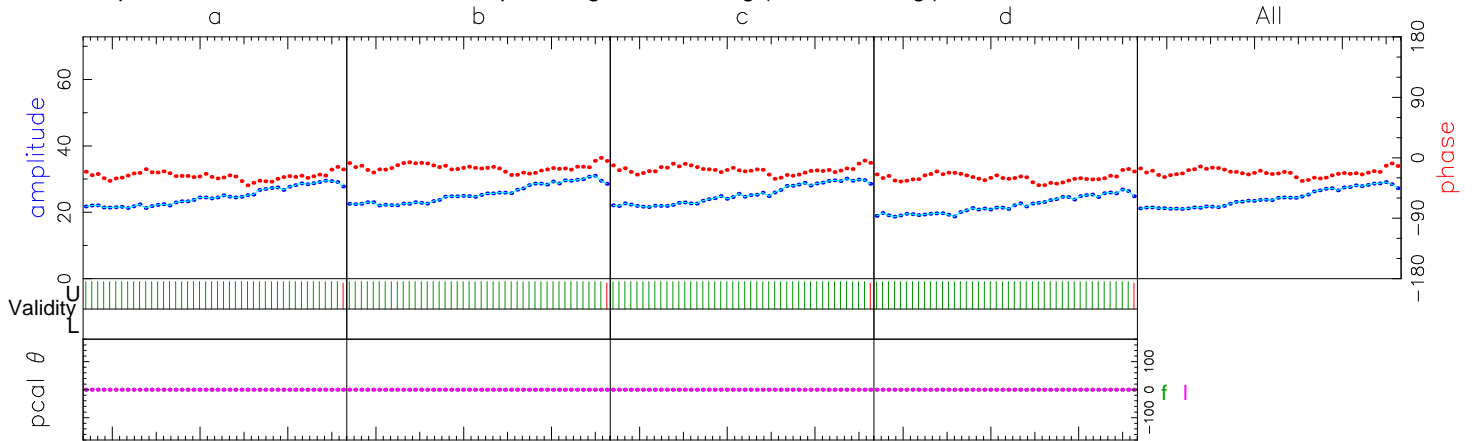


SNR 890.7
Int time 179.974
Amp 24.278
Phase -22.1
PFD 0.0e+00
Delays (us)
SBD 0.000333
MBD 0.000148
Fringe rate (Hz) 0.000947
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512



Exp. c202a
Yr:day 16383
Start 2020:283
Stop 2020:283
FRT 055640.00
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
-27.2	-14.6	-18.1	-29.6	Phase	-22.1
24.6	25.6	25.3	21.9	Ampl.	24.4
513.6	513.1	513.0	513.1	Sbd box	513.2
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
l 1000	1000	1000	1000	PC freqs	
f:l 0:0	0:0	0:0	0:0	PC phase	
f:l 0:0	0:0	0:0	0:0	Manl PC	
f 1000	1000	1000	1000	PC amp	
l 1000	1000	1000	1000		
f Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
l Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	-7.34691238117E+02	Apriori delay (usec)	-7.34691385649E+02	Resid mbdelay (usec)	1.47531E-04	+/- 1.2E-06
Sband delay (usec)	-7.34691052399E+02	Apriori clock (usec)	8.2175455E+00	Resid sbdelay (usec)	3.33250E-04	+/- 4.8E-06
Phase delay (usec)	-7.34691387072E+02	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-1.42360E-06	+/- 8.3E-09
Delay rate (us/s)	-1.74245649808E-02	Apriori rate (us/s)	-1.74245869784E-02	Resid rate (us/s)	2.19976E-08	+/- 8.0E-11
Total phase (deg)	-107.9	Apriori accel (us/s/s)	-3.26700003080E-06	Resid phase (deg)	-22.1	+/- 0.1

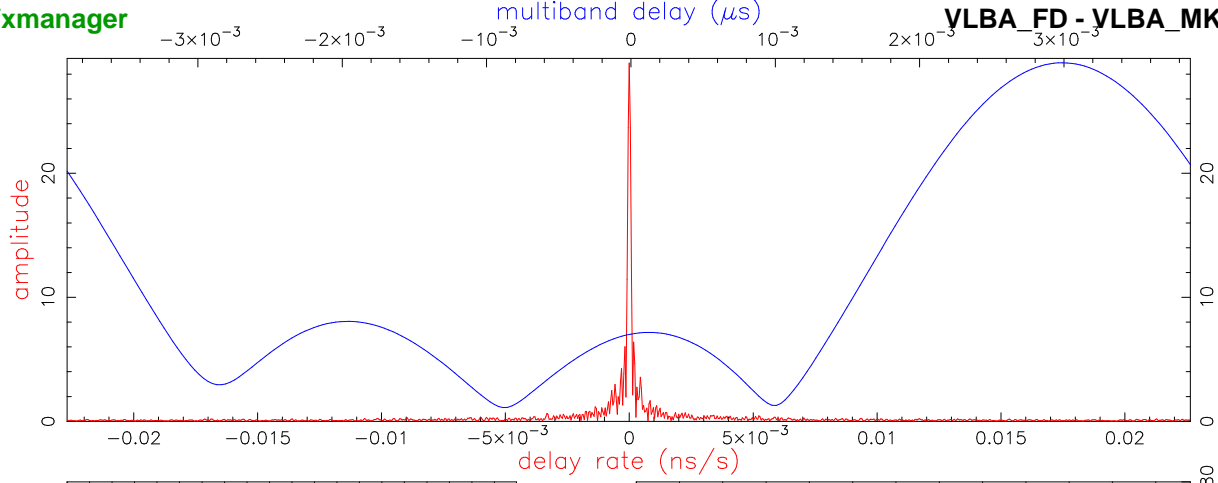
ph/seg (deg)	5.5	RMS	5.5	Theor.	0.4	Amplitude	24.278 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	11.1		0.7			Search (1024X16)	22.934	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	8.8		0.1			Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023	0.023	
amp/frq (%)	5.9		0.2			Inc. seg. avg.	24.333	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						Inc. frq. avg.	24.357						
l: az 18.7 el 65.2 pa -150.7													
u,v (fr/asec)													

Mk4/DiFX fourfit 3.21 rev 2937

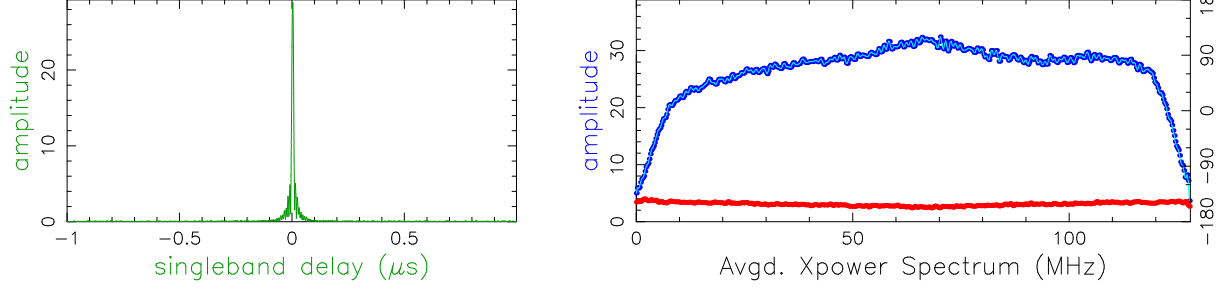
fxmanager

0102+584.1HP6Q8, No0090, fm

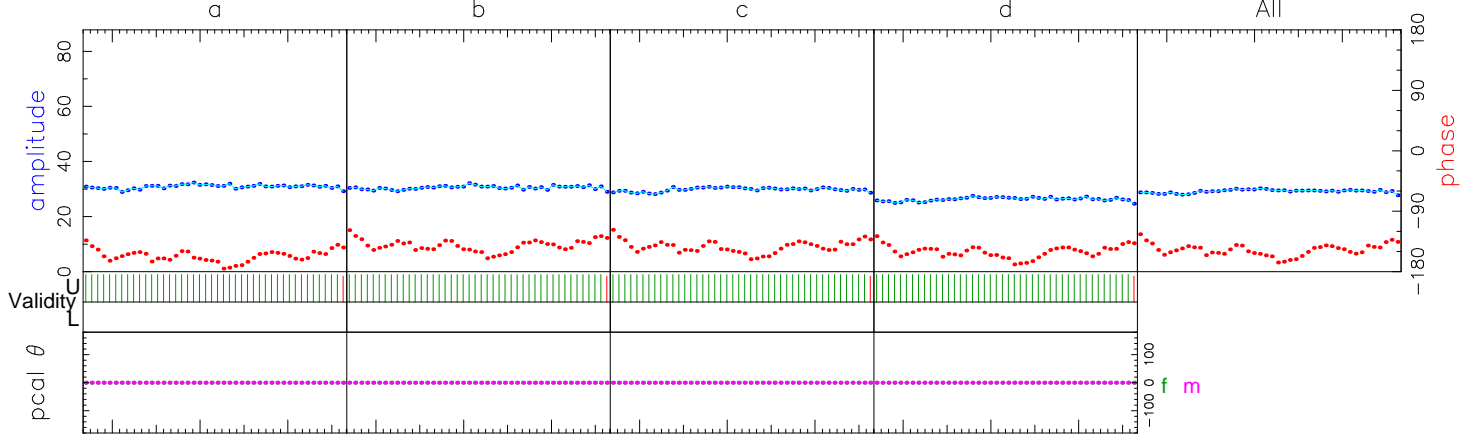
VLBA_FD - VLBA_MK, fgroup Q, pol LL



Fringe quality 9
 SNR 1073.7
 Int time 179.975
 Amp 29.267
 Phase -147.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.003152
 MBD 0.002946
 Fringe rate (Hz)
 -0.000727
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163101
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



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

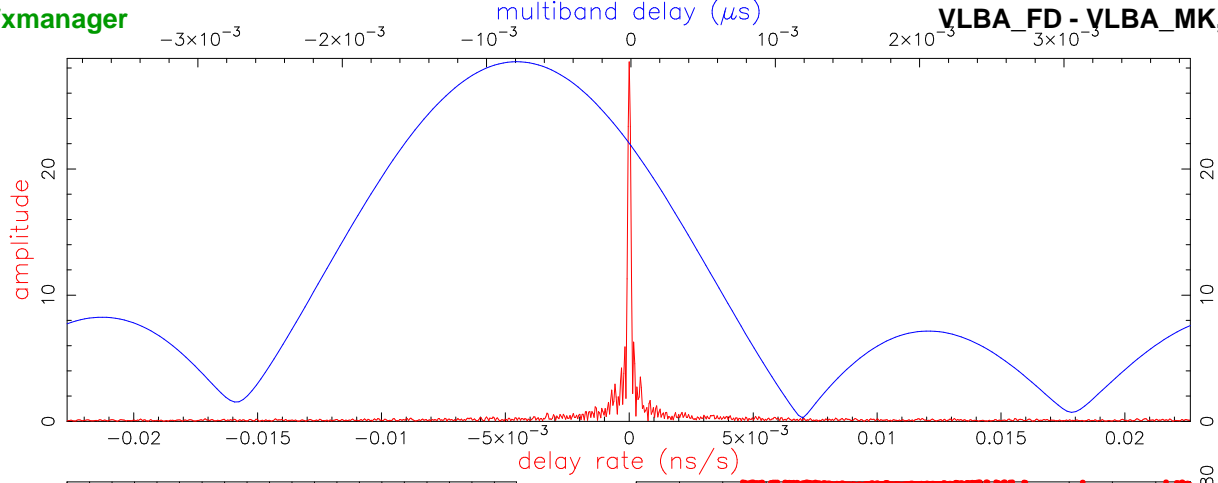


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000		
m	1000	1000	1000	1000		
f:m	0:0	0:0	0:0	0:0		
f:m	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000		
m	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL		
m	Q00UL	Q01UL	Q02UL	Q03UL		

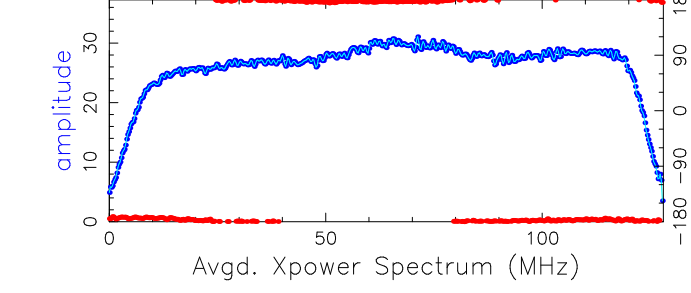
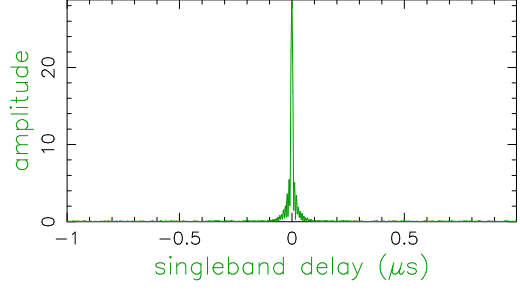
	7.78484336842E+03	7.78484042192E+03	7.78484042192E+03	7.78484042192E+03	2.94650E-03	+/- 1.0E-06
Group delay (usec)(sbd)	7.78484336842E+03	7.78484042192E+03	7.78484042192E+03	7.78484042192E+03	2.94650E-03	+/- 1.0E-06
Sband delay (usec)	7.78484357380E+03	-5.5260735E+00	-5.5260735E+00	-5.5260735E+00	3.15187E-03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

	RMS	Theor.	Amplitude	29.267 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	8.7	0.4	Search (1024X16)	28.078	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	2.0	0.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	8.8	0.1	Inc. seg. avg.	29.224	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	6.2	0.2	Inc. frq. avg.	29.068	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
f: az 13.6 el 60.8 pa -157.8			m: az 32.9 el 30.2 pa -101.9		u,v (fr/asec) 2927.206 -1230.321	simultaneous interpolator

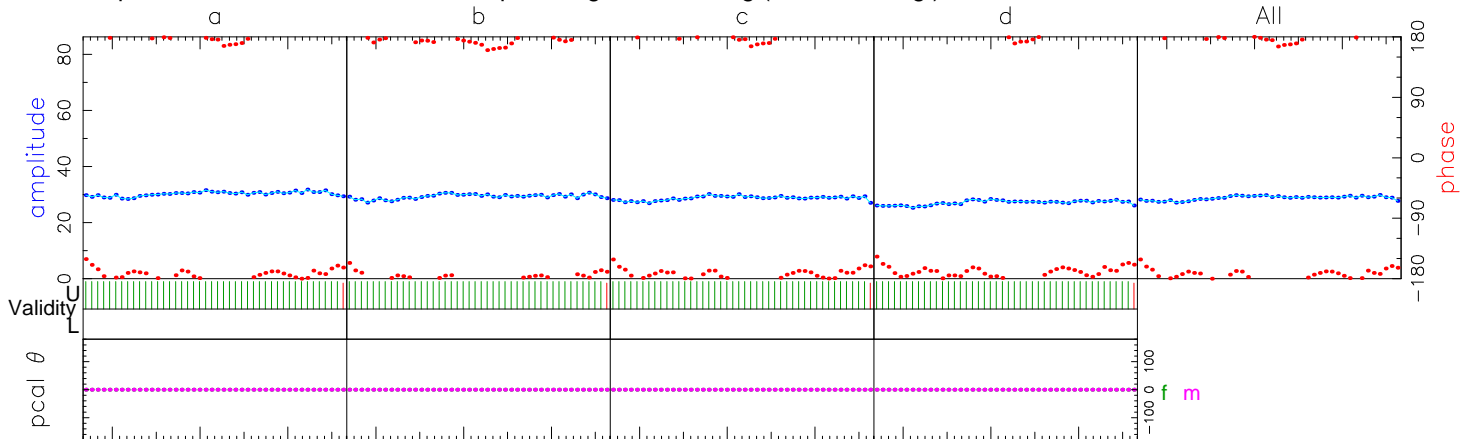
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm.Q.18.1HP6Q8



Fringe quality 9
SNR 1055.2
Int time 179.975
Amp 28.763
Phase -175.7
PFD 0.0e+00
Delays (us)
SBD -0.000647
MBD -0.000830
Fringe rate (Hz)
-0.000697
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 055640.00
Stop 055940.22
FRT 055810.00
Corr/FF/build
2021:005:135111
2021:010:163103
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



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



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-175.2	178.8	-174.9	-171.0	Phase	-175.7
	29.9	29.0	28.4	26.8	Ampl.	28.5
	512.7	512.6	512.8	512.4	Sbd box	512.7
U/L	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	PC phase	
f:m	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	7.78483959236E+03	Apriori delay (usec)	7.78484042192E+03	Resid mbdelay (usec)	-8.29562E-04	+/-	1.1E-06
Sband delay (usec)	7.78483977505E+03	Apriori clock (usec)	-5.5260735E+00	Resid sbdelay (usec)	-6.46875E-04	+/-	4.1E-06
Phase delay (usec)	7.78484041058E+03	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-1.13376E-05	+/-	7.0E-09
Delay rate (us/s)	-5.37283041206E-01	Apriori rate (us/s)	-5.37283025015E-01	Resid rate (us/s)	-1.61919E-08	+/-	6.7E-11
Total phase (deg)	97.7	Apriori accel (us/s/s)	-2.50337602579E-05	Resid phase (deg)	-175.7	+/-	0.1

ph/seg (deg)	8.7	Theor.	0.4	Amplitude	28.763 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	2.6	Search (1024X16)	27.392	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	5.1	Inc. seg. avg.	28.812	Inc. seg. avg.	28.812	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	4.0	Inc. frq. avg.	28.541	Inc. frq. avg.	28.541	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

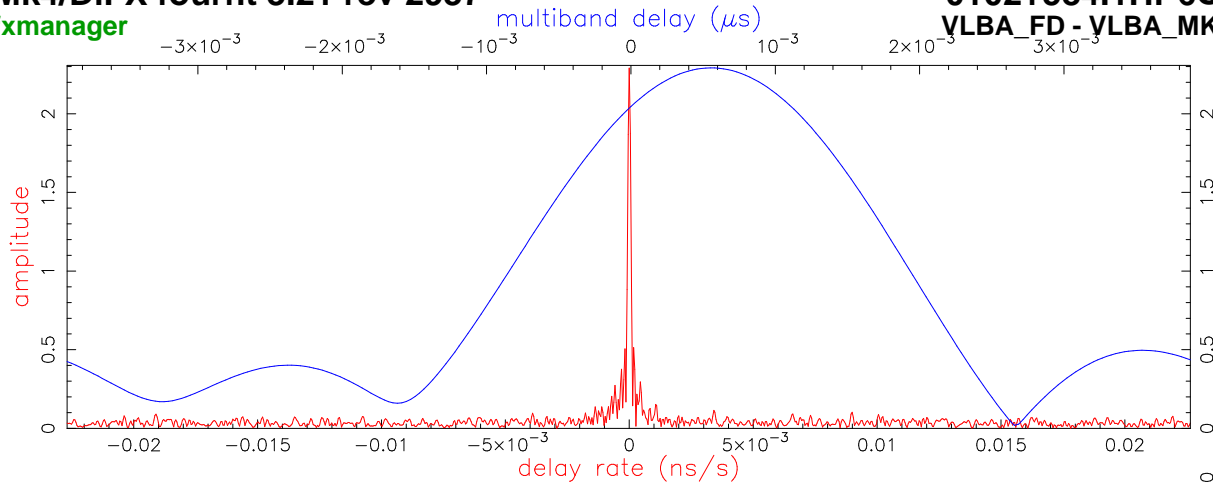
f: az 13.6 el 60.8 pa -157.8 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2927.206 -1230.321 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm.Q.35.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

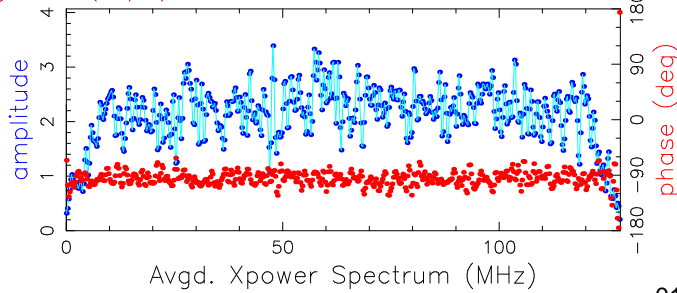
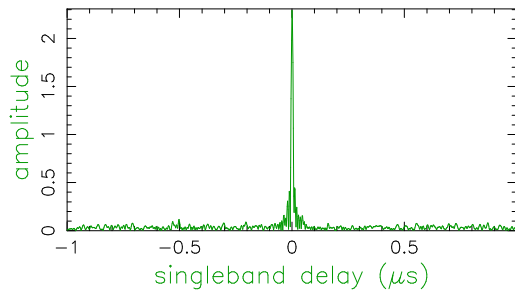
0102+584.1HP6Q8, No0090, fm

VLBA_FD - VLBA_MK, fgroup Q, pol LR



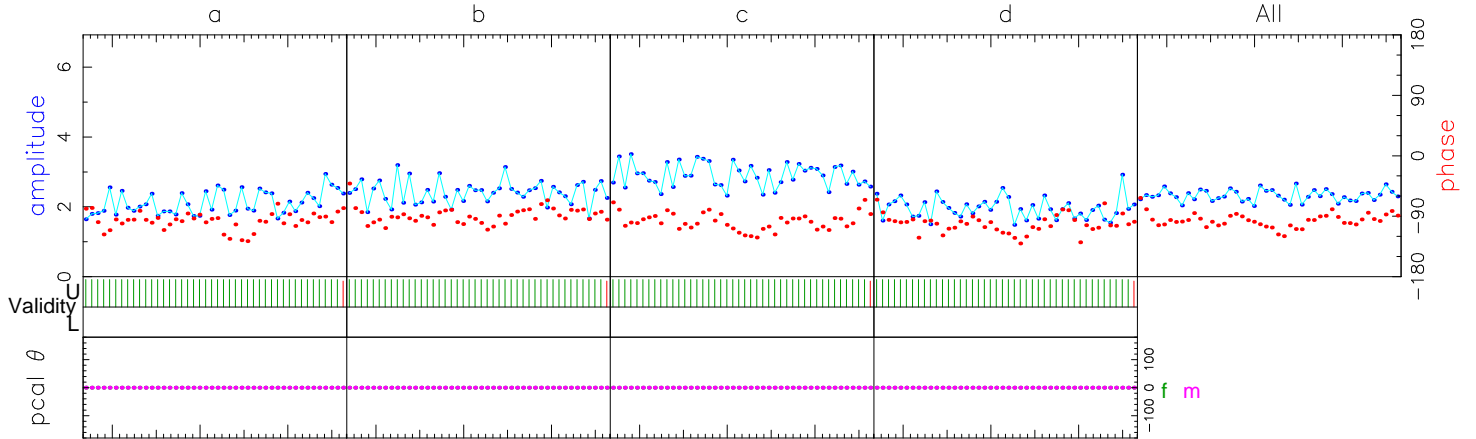
Fringe quality 9

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



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

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



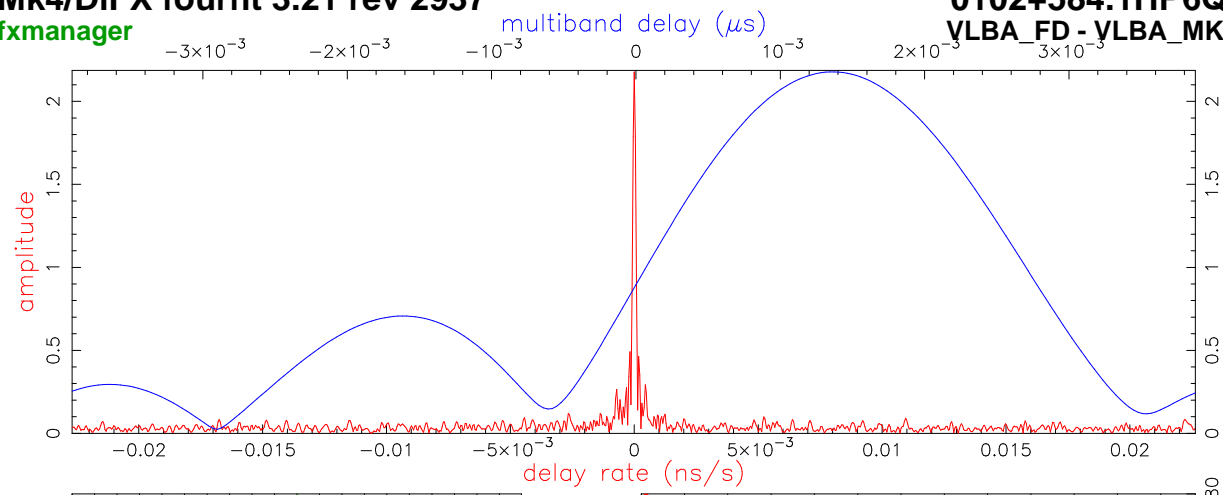
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-97.2	-88.9	-97.5	-101.1	Phase	-96.0
	2.1	2.4	2.8	1.9	Ampl.	2.3
	513.2	513.4	513.0	513.8	Sbd box	513.3
U/L	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	PC phase	
f:m	0:0	0:0	0:0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

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

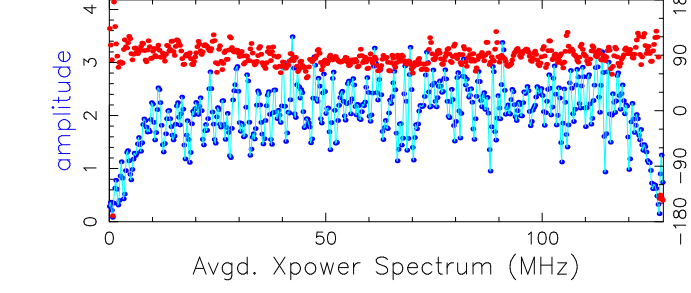
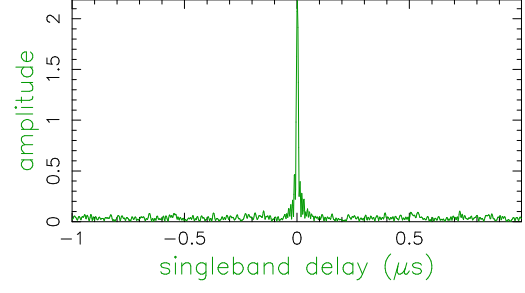
ph/seg (deg)	10.1	Theor.	4.5	Amplitude	2.308 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	7.0	Search (1024X16)	2.229	Search	2.229	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	6.3	Inc. seg. avg.	2.319	Inc. seg. avg.	2.319	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	15.4	Inc. frq. avg.	2.297	Inc. frq. avg.	2.297	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

f: az 13.6 el 60.8 pa -157.8 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2927.206 -1230.321 simultaneous interpolator

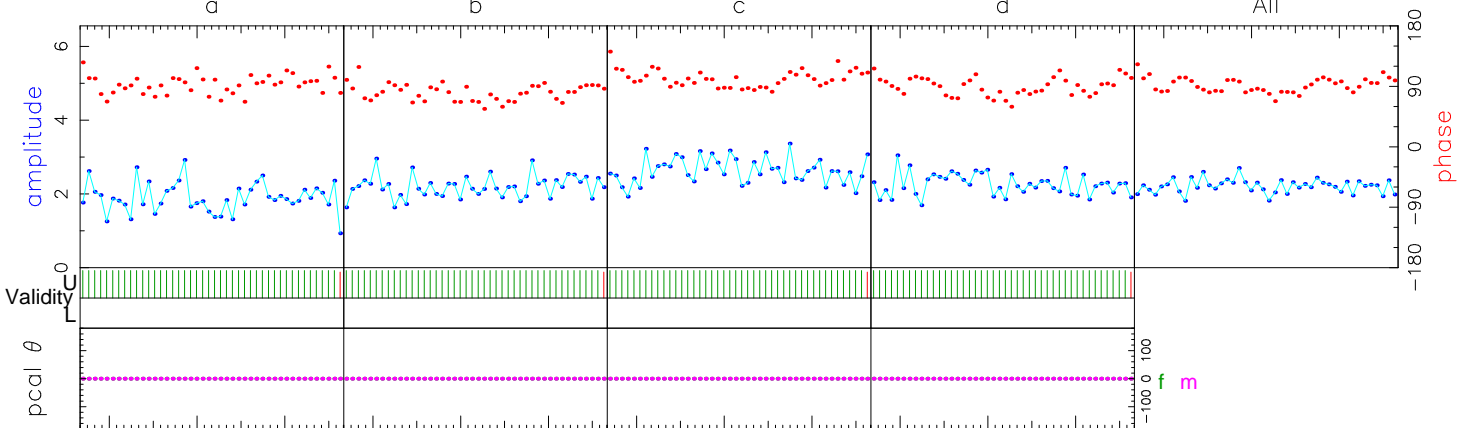
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm.Q.53.1HP6Q8



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



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



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

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

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

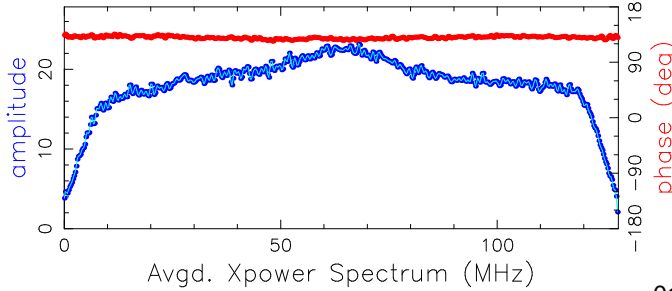
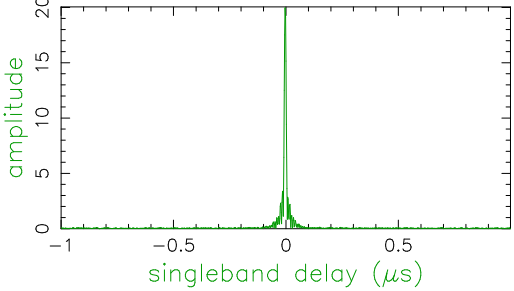
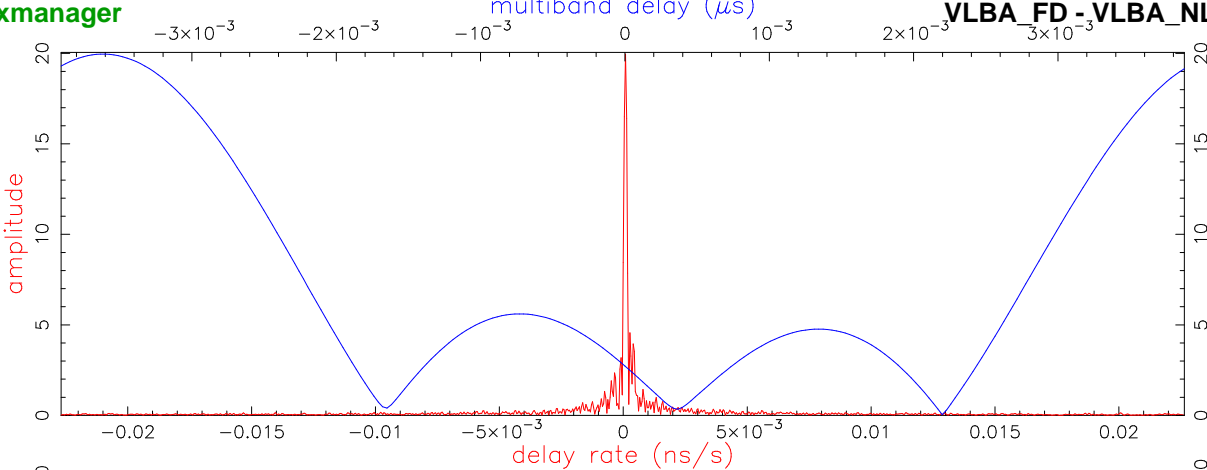
f: az 13.6 el 60.8 pa -157.8 m: az 32.9 el 30.2 pa -101.9 u,v (fr/asec) 2927.206 -1230.321 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fm.Q.69.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

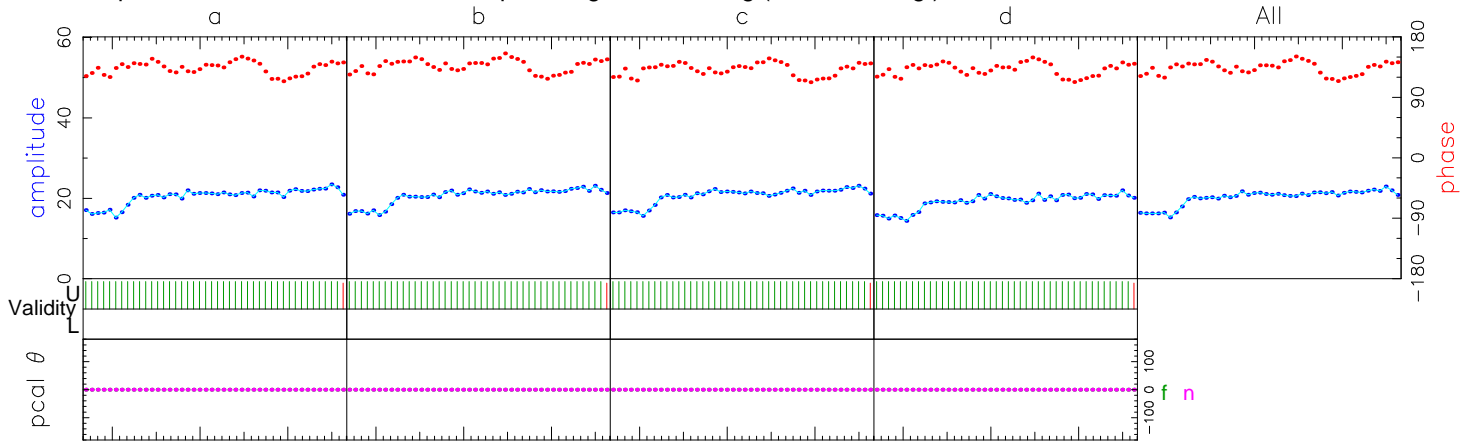
0102+584.1HP6Q8, No0090, fn

VLBA_FD - VLBA_NL, fgroup Q, pol LL



Fringe quality 9
 SNR 735.7
 Int time 179.973
 Amp 20.054
 Phase 133.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.003442
 MBD -0.003590
 Fringe rate (Hz) 0.003380
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 055640.00
 Stop 055940.22
 FRT 055810.00
 Corr/FF/build
 2021:005:135111
 2021:010:163101
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
133.7	137.1	131.2	131.7	Phase	133.5
20.2	20.4	20.4	19.0	Ampl.	20.0
511.3	511.2	511.1	511.3	Sbd box	511.2
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
n 1000	1000	1000	1000	PC freqs	
f:n 0:0	0:0	0:0	0:0	PC phase	
f:n 0:0	0:0	0:0	0:0	ManI PC	
f 1000	1000	1000	1000	PC amp	
n 1000	1000	1000	1000		
f Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
n Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

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

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

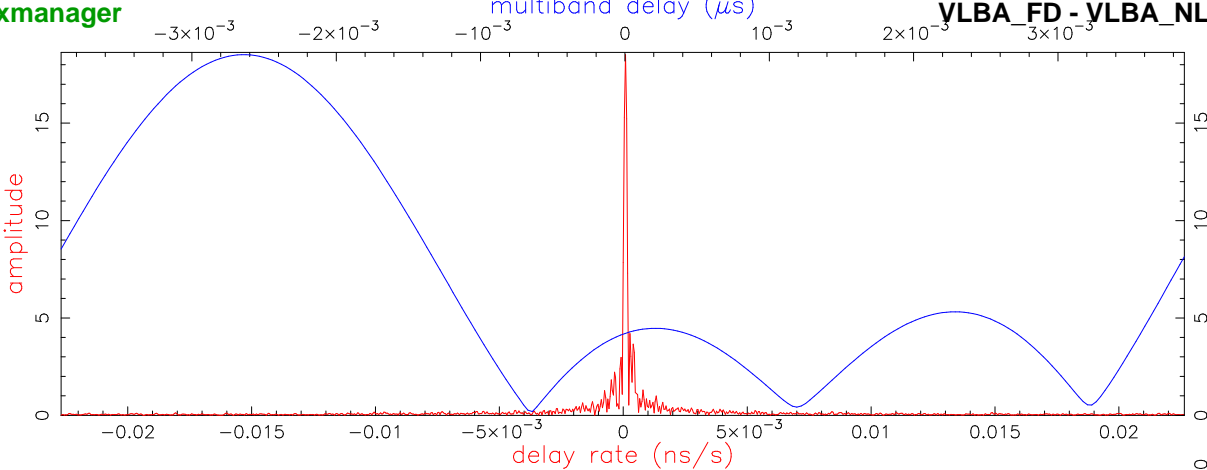
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fn.Q.19.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

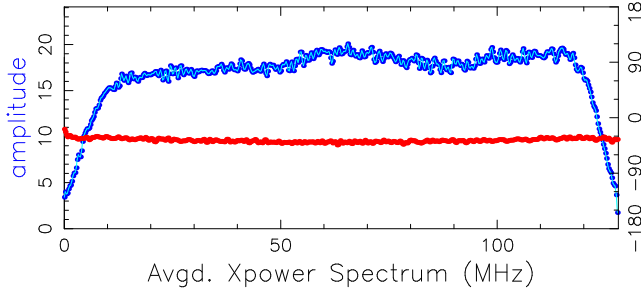
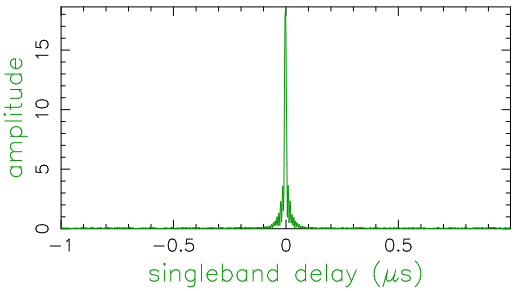
0102+584.1HP6Q8, No0090, fn

VLBA_FD - VLBA_NL, fgroup Q, pol RR



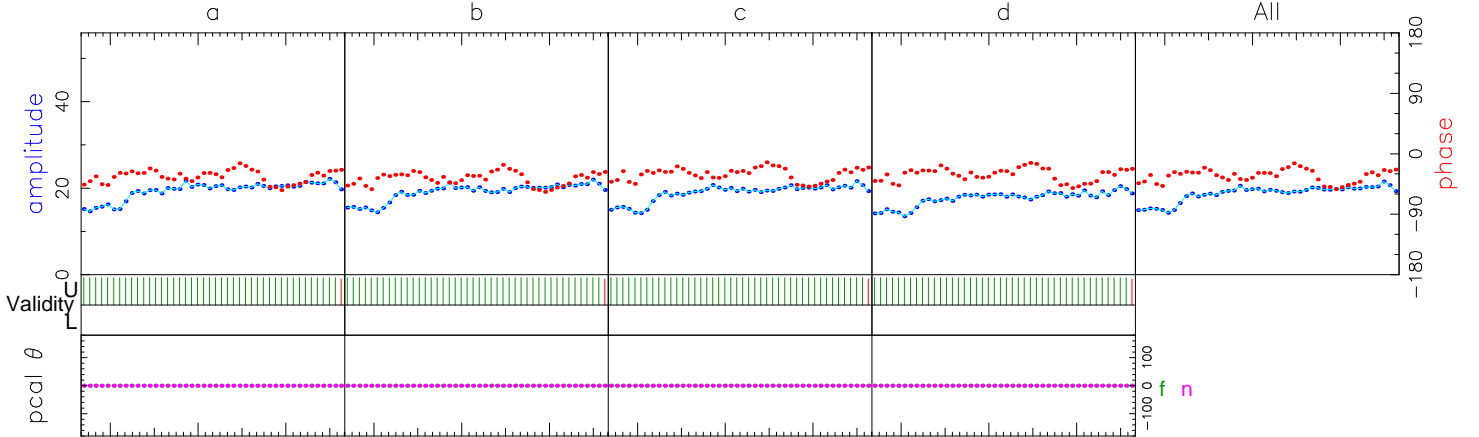
Fringe quality 9

SNR 683.6
 Int time 179.973
 Amp 18.633
 Phase -32.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.002483
 MBD -0.002671
 Fringe rate (Hz)
 0.003340
 Ion TEC 0.000
 Ref freq (MHz)
 43040.0000
 AP (sec) 0.512



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

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



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-33.4	-36.8	-30.2	-30.8	Phase	-32.9
19.2	18.9	18.7	17.4	Ampl.	18.5
512.1	511.6	511.8	511.3	Sbd box	511.7
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
n 1000	1000	1000	1000	PC freqs	
f:n 0:0	0:0	0:0	0:0	PC phase	
f:n 0:0	0:0	0:0	0:0	ManI PC	
f 1000	1000	1000	1000	PC amp	
n 1000	1000	1000	1000		
f Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
n Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

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

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

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

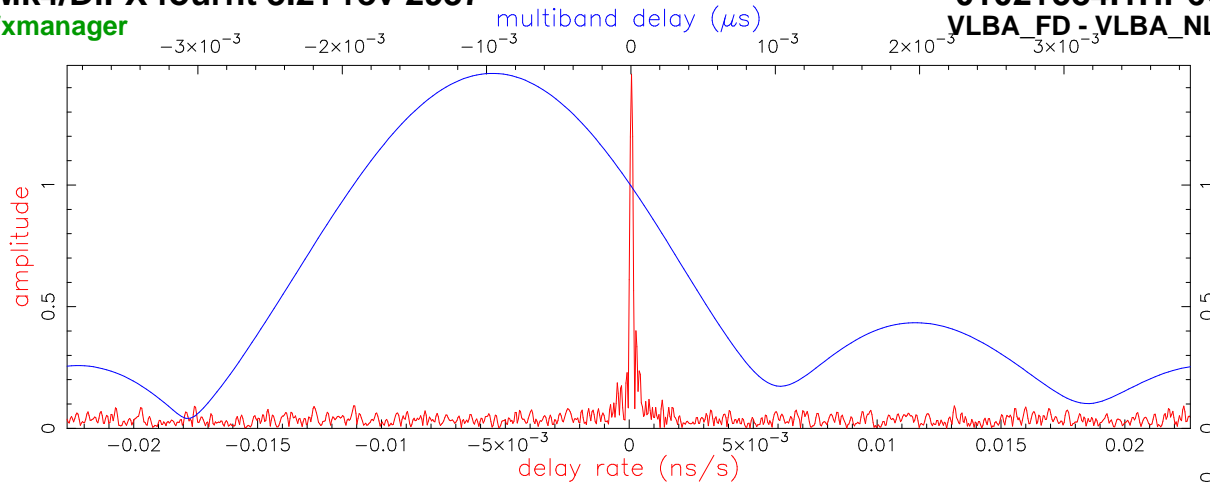
simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

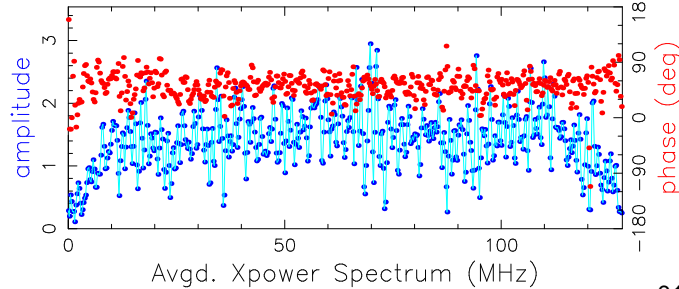
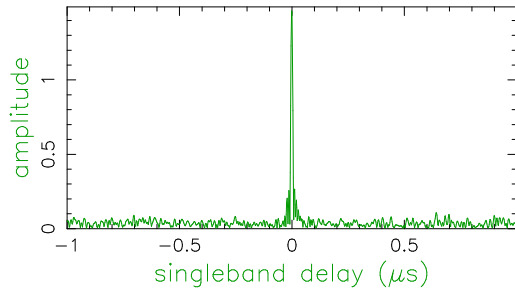
0102+584.1HP6Q8, No0090, fn

VLBA_FD - VLBA_NL, fgroup Q, pol LR



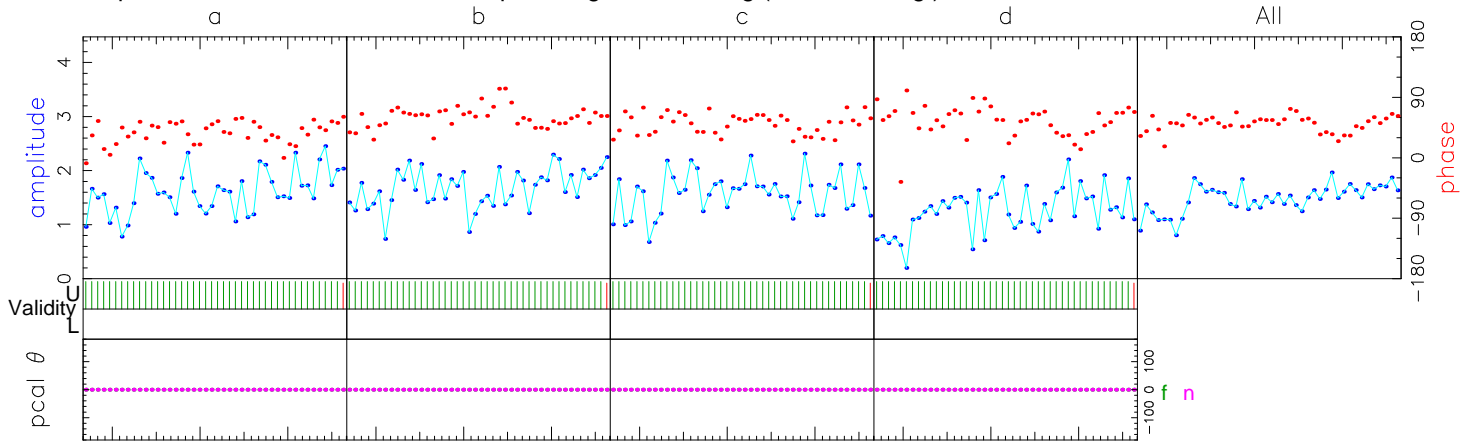
Fringe quality 8

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



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

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



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
38.4	61.1	51.2	53.0	Phase	50.9
1.6	1.6	1.5	1.2	Ampl.	1.5
513.0	512.5	511.8	512.8	Sbd box	512.5
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
n 1000	1000	1000	1000	PC freqs	
f:n 0:0	0:0	0:0	0:0	PC phase	
f:n 0:0	0:0	0:0	0:0	ManI PC	
f 1000	1000	1000	1000	PC amp	
n 1000	1000	1000	1000		
f Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
n Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	-1.76310935337E+03	Apriori delay (usec)	-1.76310831545E+03	Resid mbdelay (usec)	-1.03792E-03	+/- 2.0E-05
Sband delay (usec)	-1.76310935545E+03	Apriori clock (usec)	7.7056904E+00	Resid sbdelay (usec)	-1.04000E-03	+/- 7.9E-05
Phase delay (usec)	-1.76310831216E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	3.28478E-06	+/- 1.4E-07
Delay rate (us/s)	1.49170146463E-01	Apriori rate (us/s)	1.49170071956E-01	Resid rate (us/s)	7.45071E-08	+/- 1.3E-09
Total phase (deg)	-272.0	Apriori accel (us/s/s)	-5.63213481295E-06	Resid phase (deg)	50.9	+/- 2.1

ph/seg (deg)	11.8	Theor.	6.9	Amplitude	1.492 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	17.2		12.1	Search (1024X16)	1.431	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	11.5		2.1	Inc. seg. avg.	1.475	Bits/sample: 2x2	Sample rate(MSamp/s): 256	dr window (ns/s)	-0.023	0.023	
amp/frq (%)	11.8		3.7	Inc. frq. avg.	1.470	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00
f: az 13.6 el 60.8 pa -157.8	n: az 360.5 el 73.3 pa -179.4	u,v (fr/asec)	-820.335 -716.822							simultaneous interpolator	

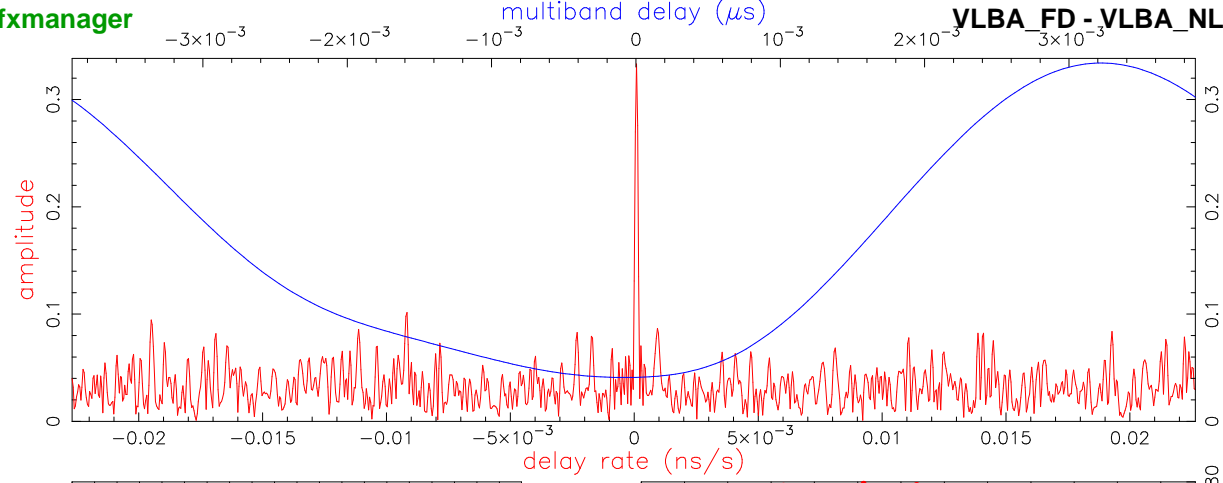
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fn..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fn.Q.64.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HP6Q8, No0090, fn

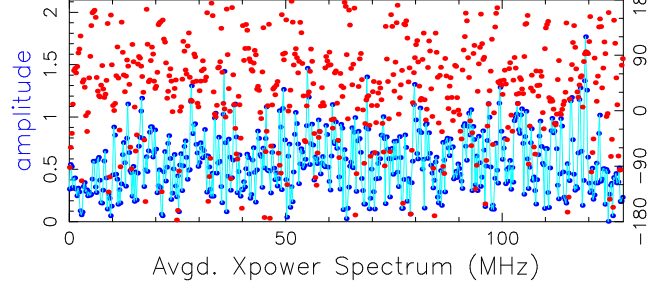
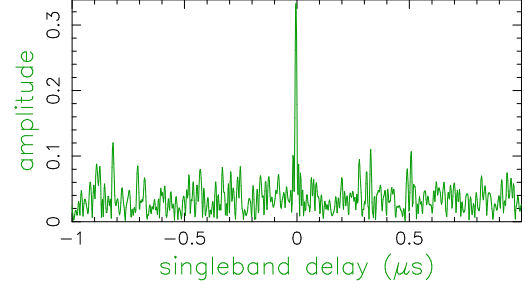
VLBA_FD - VLBA_NL, fgroup Q, pol RL



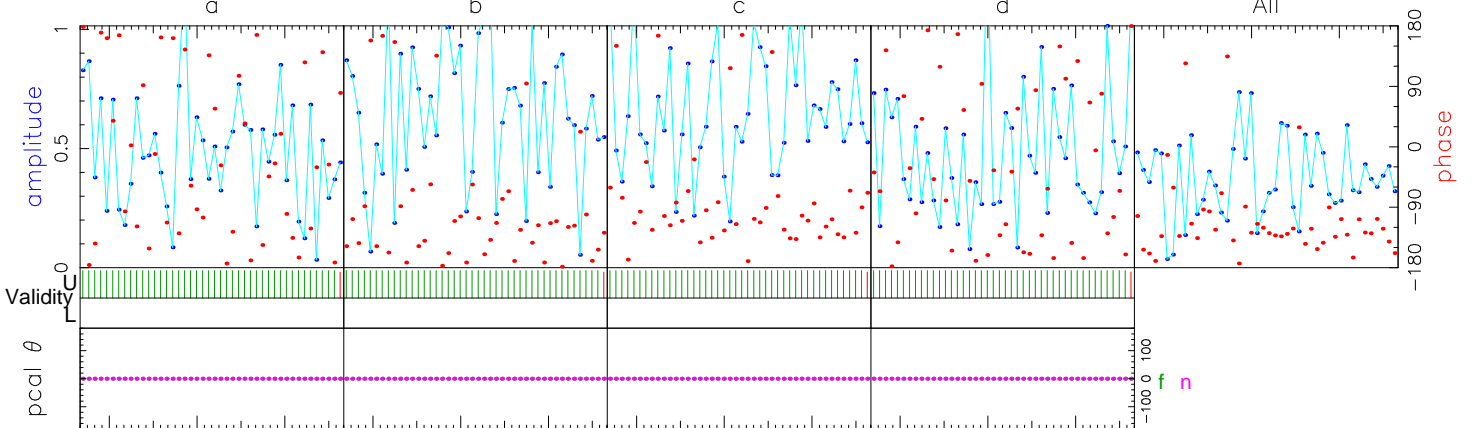
Fringe quality 7

SNR 12.4
 Int time 179.973
 Amp 0.338
 Phase -131.2
 PFD 5.8e-27
 Delays (us)
 SBD -0.004695
 MBD 0.003113
 Fringe rate (Hz) 0.003781
 Ion TEC 0.000
 Ref freq (MHz) 43040.0000
 AP (sec) 0.512

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



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



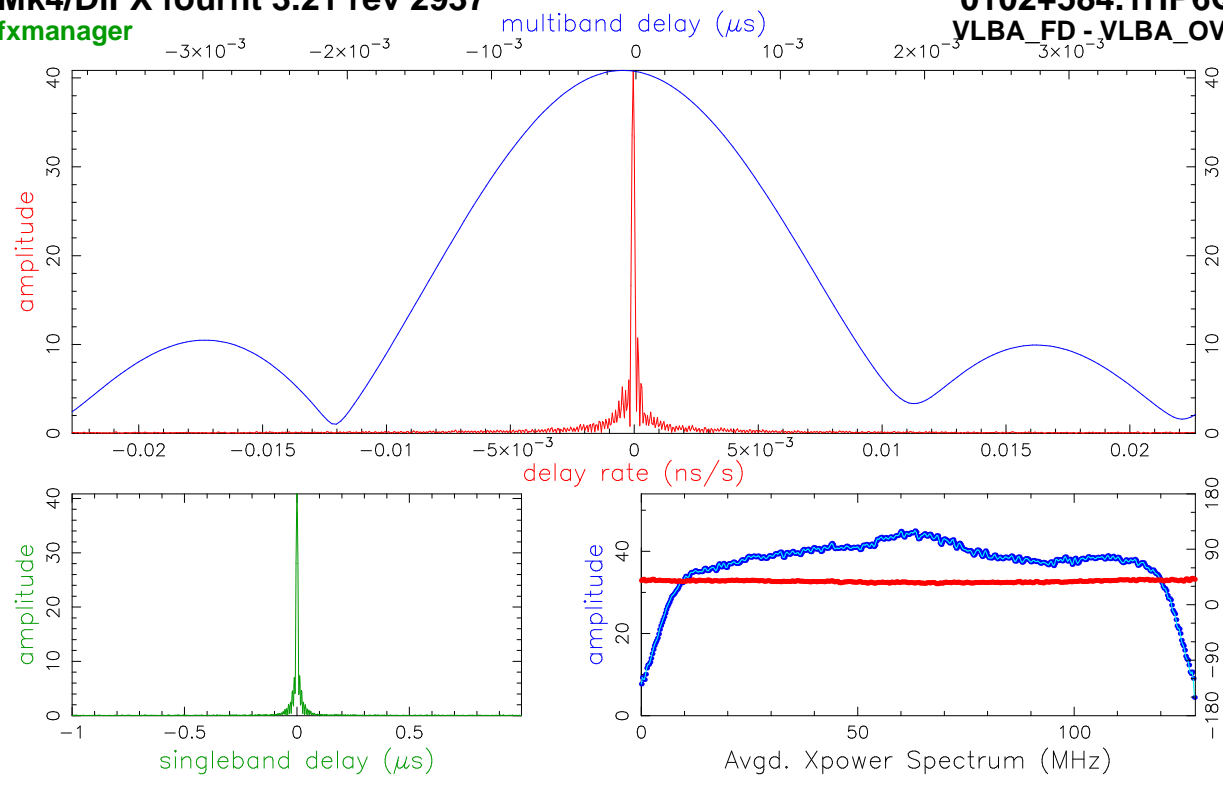
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000		
n	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000		
n	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR		
n	Q00UL	Q01UL	Q02UL	Q03UL		

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

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

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

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

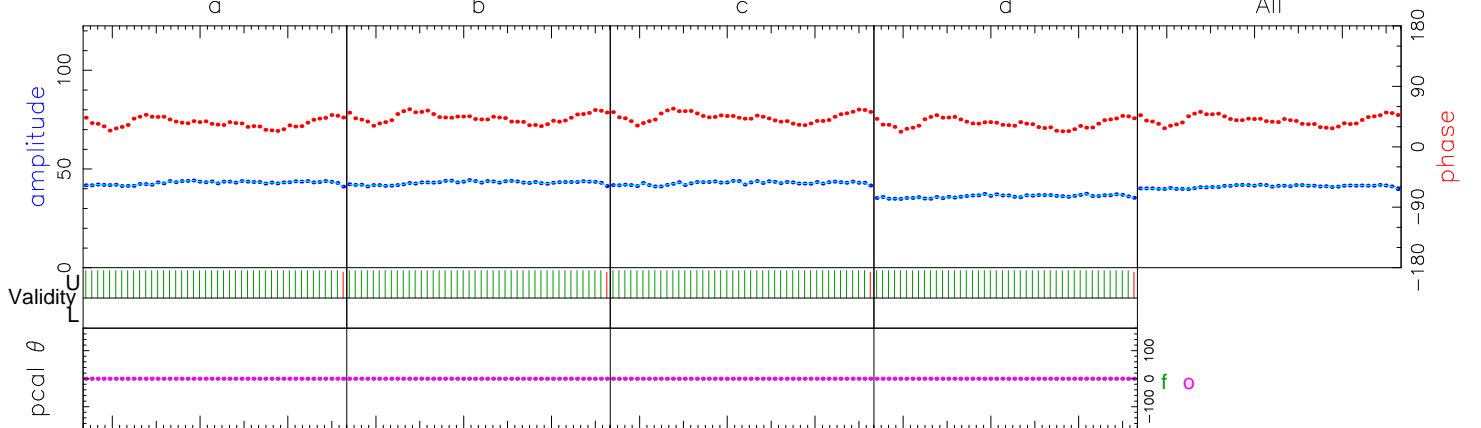


Fringe quality 9

SNR 1498.8
Int time 179.975
Amp 40.854
Phase 39.7
PFD 0.0e+00
Delays (us)
SBD -0.000004
MBD -0.000089
Fringe rate (Hz)
-0.000963
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

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

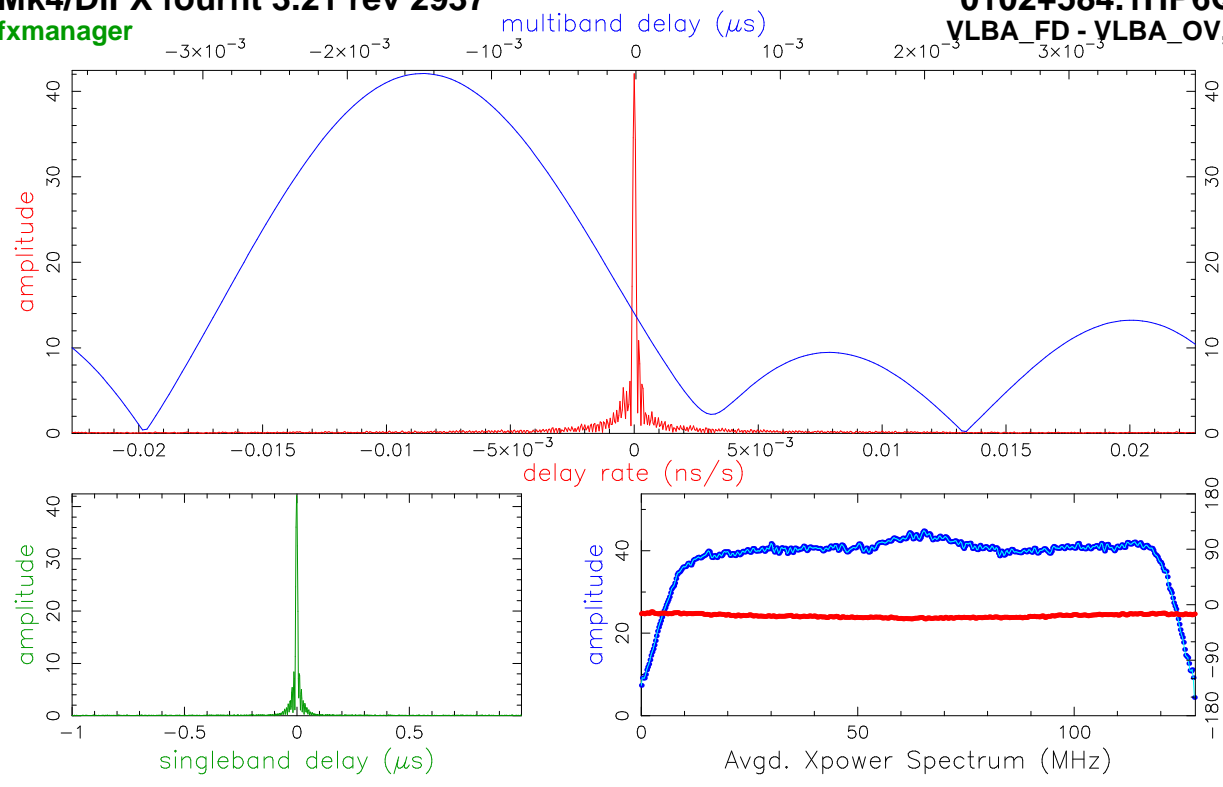
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	Phase	39.7
o	1000	1000	1000	1000	Ampl.	41.0
f:0	0:0	0:0	0:0	0:0	Sbd box	513.0
fo	0:0	0:0	0:0	0:0	APs used	
f	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	PC freqs	
f	Q00UL	Q01UL	Q02UL	Q03UL	PC phase	
o	Q00UL	Q01UL	Q02UL	Q03UL	ManI PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-3.13662753734E+02	Apriori delay (usec)	-3.13662664289E+02	Resid mbdelay (usec)	-8.94458E-05	+/-	7.4E-07
Sband delay (usec)	-3.13662668289E+02	Apriori clock (usec)	-1.3575455E+01	Resid sbdelay (usec)	-4.00000E-06	+/-	2.9E-06
Phase delay (usec)	-3.13662661728E+02	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	2.56055E-06	+/-	4.9E-09
Delay rate (us/s)	-1.41275146331E-01	Apriori rate (us/s)	-1.41275123964E-01	Resid rate (us/s)	-2.23663E-08	+/-	4.7E-11
Total phase (deg)	14.1	Apriori accel (us/s/s)	-7.58034692090E-06	Resid phase (deg)	39.7	+/-	0.1

ph/seg (deg)	6.8	Theor.	0.3	Amplitude	40.854 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	1.9		0.4	Search (1024X16)	38.842	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	6.1		0.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	7.1		0.1	Inc. seg. avg.	41.137	Sample rate(MSamp/s): 256	dr window (ns/s)	-0.023 0.023		
				Inc. frq. avg.	40.967	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

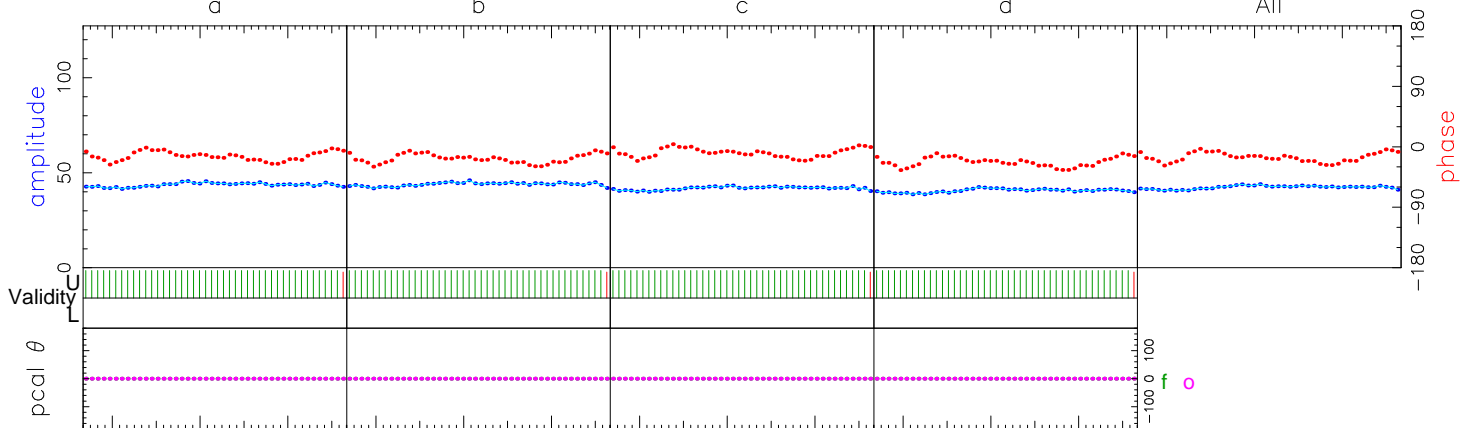


Fringe quality 9

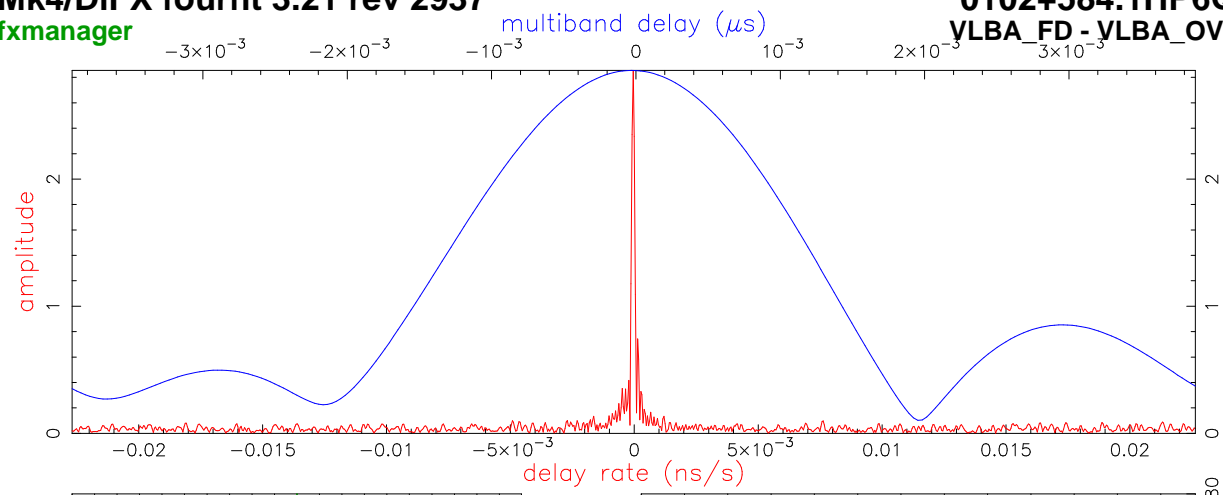
SNR 1557.2
Int time 179.975
Amp 42.447
Phase -15.6
PFD 0.0e+00
Delays (us)
SBD -0.001327
MBD -0.001442
Fringe rate (Hz)
-0.000944
Ion TEC 0.000
Ref freq (MHz)
43040.0000
AP (sec) 0.512

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

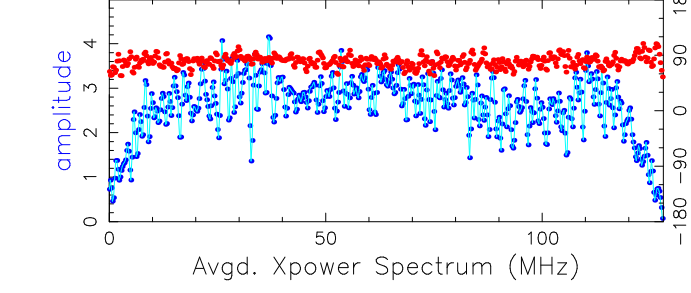
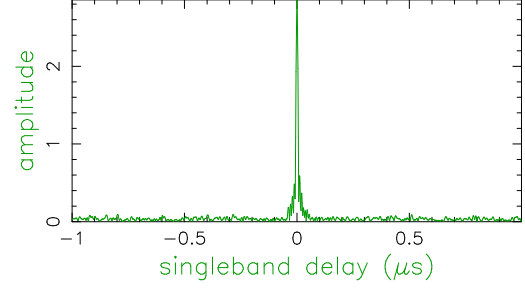
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



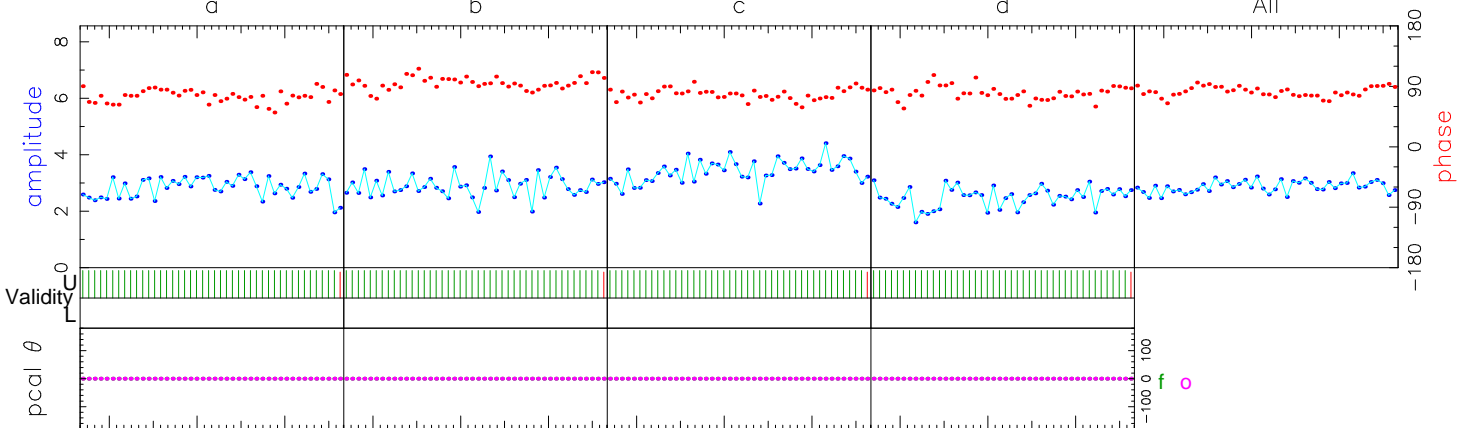
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	PC freqs	
f:0	0:0	0:0	0:0	0:0	PC phase	
f:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
o	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-3.13664105851E+02				Resid mbdelay (usec)	-1.44156E-03 +/- 7.1E-07
Sband delay (usec)	-3.13663991414E+02				Resid sbdelay (usec)	-1.32713E-03 +/- 2.8E-06
Phase delay (usec)	-3.13662665295E+02				Resid phdelay (usec)	-1.00638E-06 +/- 4.7E-09
Delay rate (us/s)	-1.41275145902E-01				Resid rate (us/s)	-2.19381E-08 +/- 4.6E-11
Total phase (deg)		-41.1			Resid phase (deg)	-15.6 +/- 0.1
	RMS	Theor.	Amplitude	42.447 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	6.7	0.2	Search (1024X16)	40.120	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	2.1	0.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.1	0.1	Inc. seg. avg.	42.342	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.2	0.1	Inc. frq. avg.	42.213	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
f: az 13.6 el 60.8 pa -157.8			o: az 30.8 el 62.4 pa -129.3		u,v (fr/asec) 769.444 -711.522	simultaneous interpolator
Control file: cf_1234_gmva7mm			Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fo..1HP6Q8		Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fo.Q.36.1HP6Q8	



Fringe quality 9
SNR 104.7
Int time 179.975
Amp 2.855
Phase 82.1
PFD 0.0e+00
Delays (us)
SBD 0.000071
MBD -0.000024
Fringe rate (Hz)
-0.000957
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"



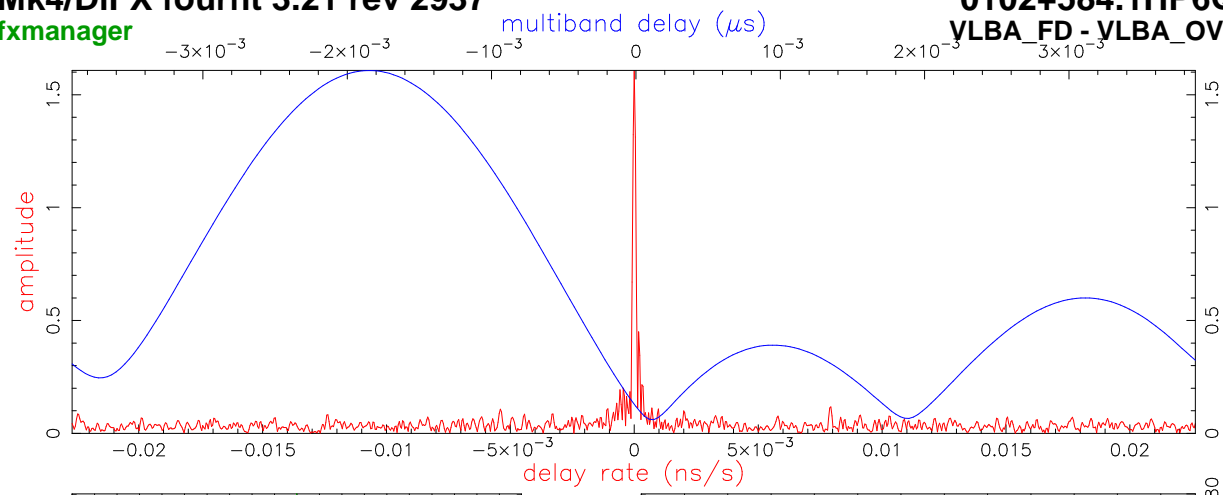
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



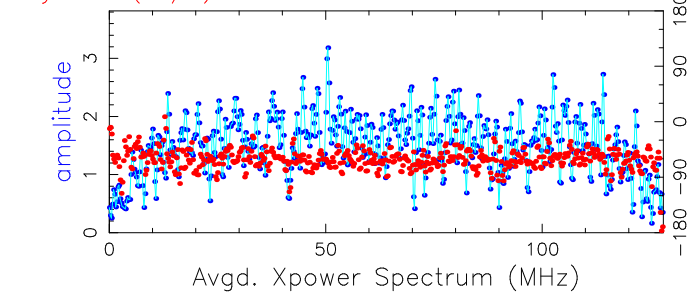
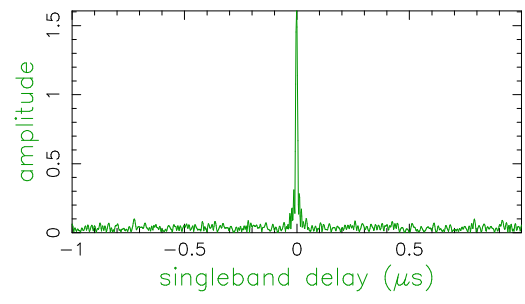
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000		
o	1000	1000	1000	1000		
f:0	0:0	0:0	0:0	0:0		
f:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000		
o	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL		
o	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec)(sbd)	-3.13662688016E+02	Apriori delay (usec)	-3.13662664289E+02	Resid mbdelay (usec)	-2.37271E-05	+/-	1.1E-05
Sband delay (usec)	-3.13662593289E+02	Apriori clock (usec)	-1.3575455E+01	Resid sbdelay (usec)	7.10000E-05	+/-	4.1E-05
Phase delay (usec)	-3.13662658991E+02	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	5.29736E-06	+/-	7.1E-08
Delay rate (us/s)	-1.41275146209E-01	Apriori rate (us/s)	-1.41275123964E-01	Resid rate (us/s)	-2.22444E-08	+/-	6.8E-10
Total phase (deg)	56.5	Apriori accel (us/s/s)	-7.58034692090E-06	Resid phase (deg)	82.1	+/-	1.1

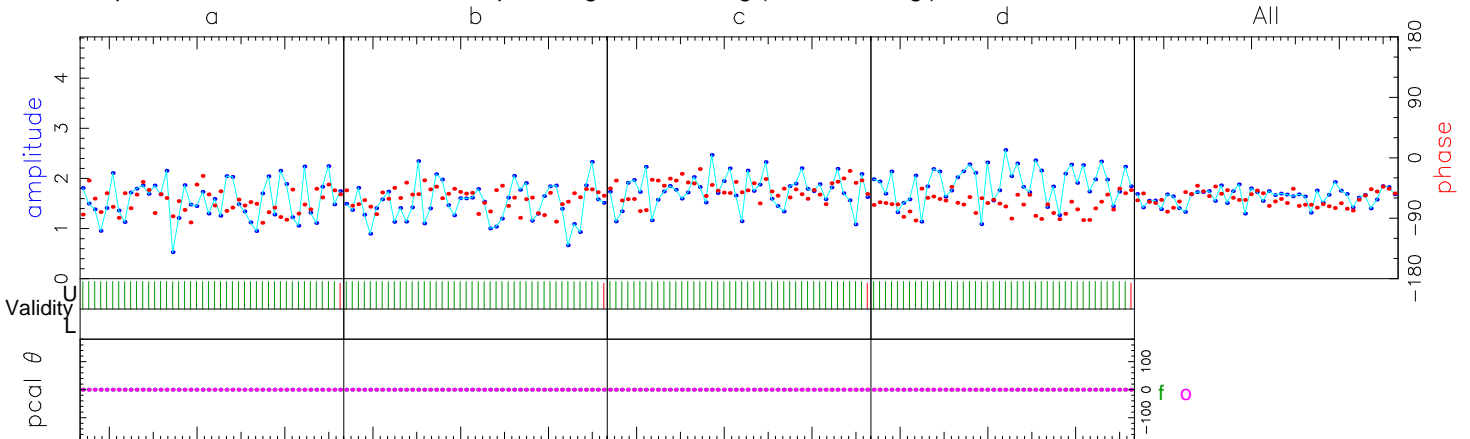
ph/seg (deg)	RMS 7.3	Theor. 3.6	Amplitude	2.855 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	7.3	6.3	Search (1024X16)	2.721	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	11.0	1.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.004 0.004
amp/frq (%)	11.7	1.9	Inc. seg. avg.	2.872	Sample rate(MISamp/s): 256	dr window (ns/s)	-0.023 0.023
f: az 13.6 el 60.8 pa -157.8			Inc. frq. avg.	2.880	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite
o: az 30.8 el 62.4 pa -129.3						ion window (TEC)	0.00 0.00
u,v (fr/asec)							simultaneous interpolator



Fringe quality 8
SNR 59.0
Int time 179.975
Amp 1.608
Phase -60.5
PFD 0.0e+00
Delays (us)
SBD -0.001823
MBD -0.001840
Fringe rate (Hz)
-0.000941
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"



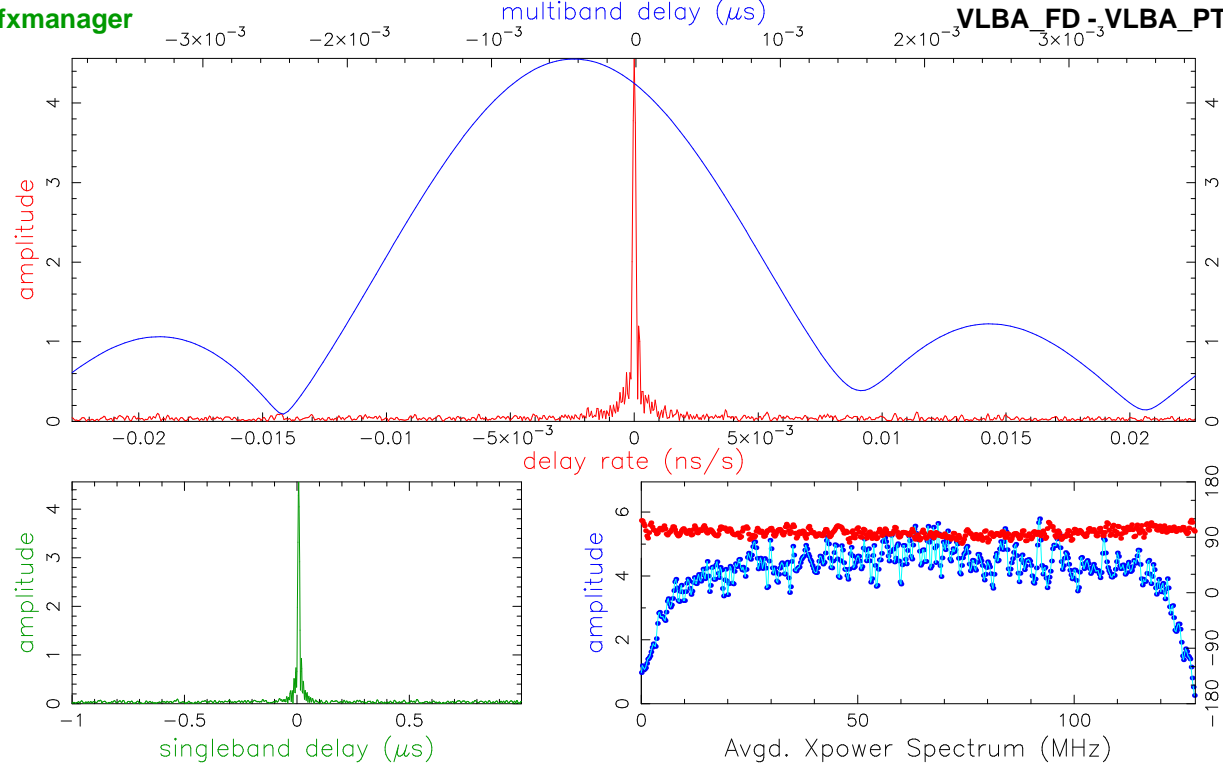
Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-65.6	-59.9	-46.3	-69.8	Phase	-60.5
1.5	1.5	1.7	1.8	Ampl.	1.6
512.3	512.0	512.3	511.8	Sbd box	512.1
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
o 1000	1000	1000	1000	PC freqs	
f:0 0:0	0:0	0:0	0:0	PC phase	
f:0 0:0	0:0	0:0	0:0	Manl PC	
f 1000	1000	1000	1000	PC amp	
o 1000	1000	1000	1000		
f Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
o Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	-3.13664503851E+02	Apriori delay (usec)	-3.13662664289E+02	Resid mbdelay (usec)	-1.83956E-03	+/- 1.9E-05
Sband delay (usec)	-3.13664487289E+02	Apriori clock (usec)	-1.3575455E+01	Resid sbdelay (usec)	-1.82300E-03	+/- 7.3E-05
Phase delay (usec)	-3.13662668192E+02	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-3.90346E-06	+/- 1.3E-07
Delay rate (us/s)	-1.41275145817E-01	Apriori rate (us/s)	-1.41275123964E-01	Resid rate (us/s)	-2.18530E-08	+/- 1.2E-09
Total phase (deg)	-86.0	Apriori accel (us/s/s)	-7.58034692090E-06	Resid phase (deg)	-60.5	+/- 1.9

ph/seg (deg)	RMS 10.6	Theor. 6.4	Amplitude 1.608 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	9.7	11.2	Search (1024X16) 1.526	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	12.5	1.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	9.9	3.4	Inc. seg. avg. 1.625	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
			Inc. frq. avg. 1.627	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
f: az 13.6 el 60.8 pa -157.8	o: az 30.8 el 62.4 pa -129.3	u, v (fr/asec) 769.444 -711.522		nlags: 512	t_cohere infinite

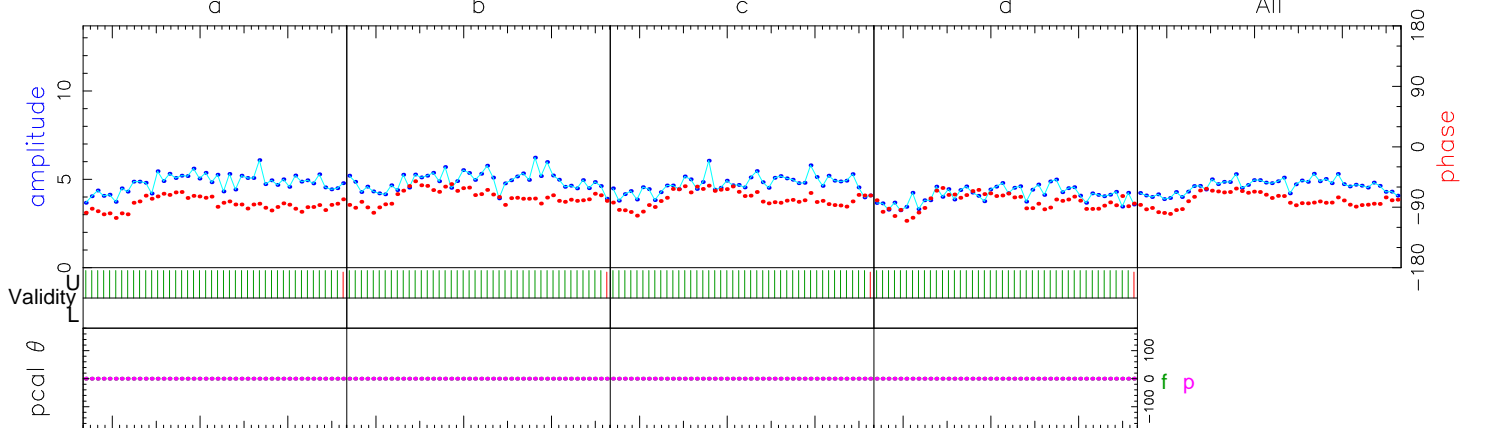


Fringe quality 9

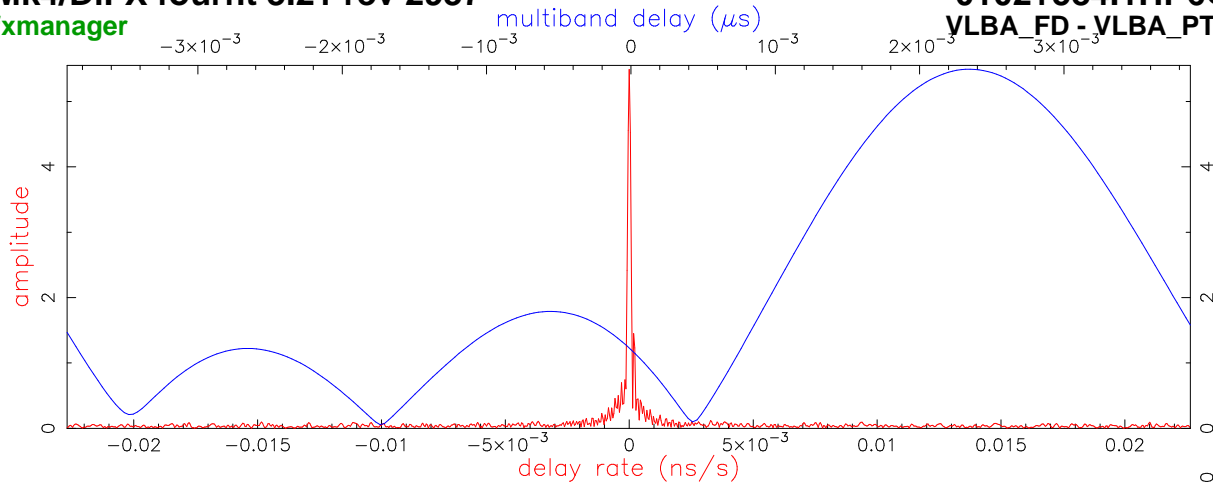
SNR 167.3
Int time 179.975
Amp 4.561
Phase -79.1
PFD 0.0e+00
Delays (us)
SBD 0.007515
MBD -0.000447
Fringe rate (Hz) 0.000284
Ion TEC 0.000
Ref freq (MHz) 43040.0000
AP (sec) 0.512

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

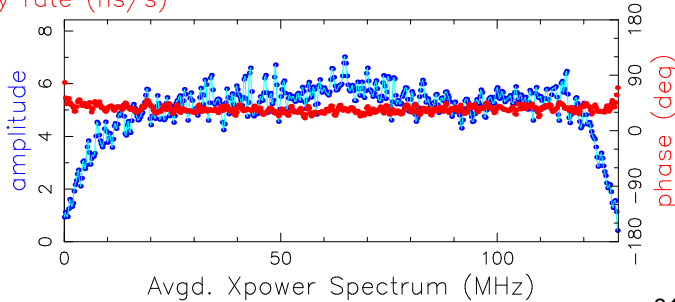
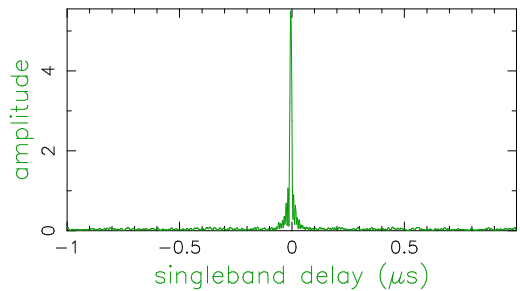


42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-84.9	-73.6	-76.7	-81.8	Phase	-79.1
4.7	4.8	4.6	4.0	Ampl.	4.6
517.2	516.8	516.7	516.6	Sbd box	516.8
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	PC freqs	
f:p 0:0	0:0	0:0	0:0	PC phase	
f:p 0:0	0:0	0:0	0:0	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	
				Chan ids	
				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
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
8.3	4.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
6.2	0.7	Inc. seg. avg.	4.619	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
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			



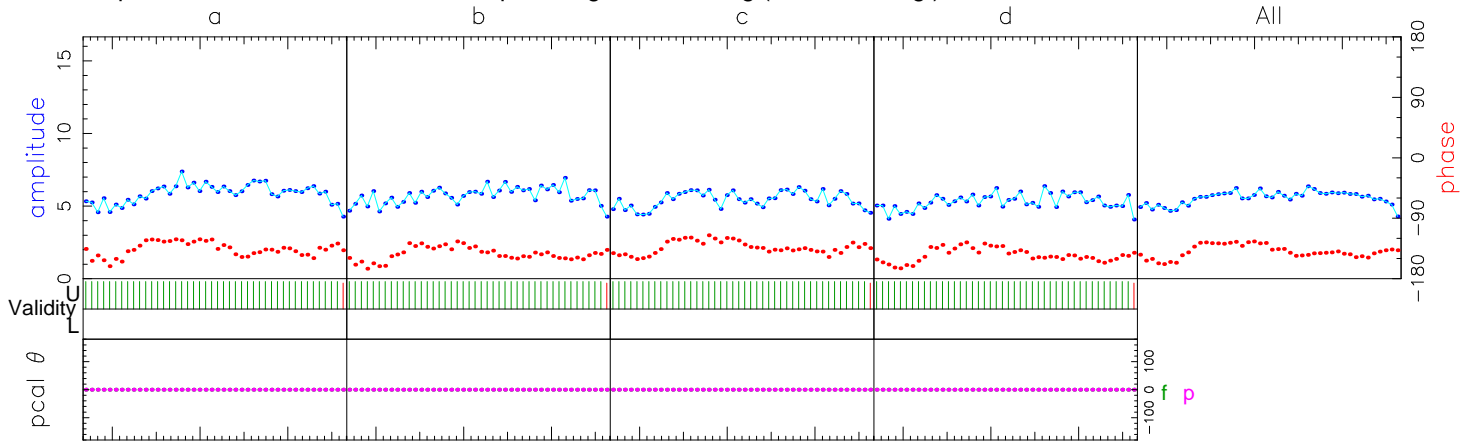
Fringe quality 9

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

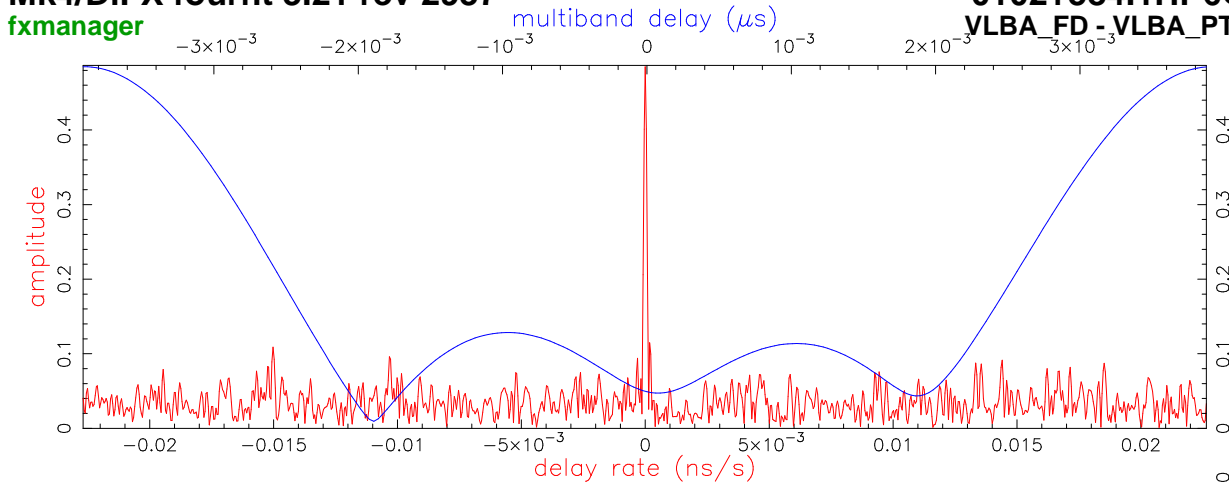


	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
f:p	0:0	0:0	0:0	0:0	PC phase	
f:p	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UR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

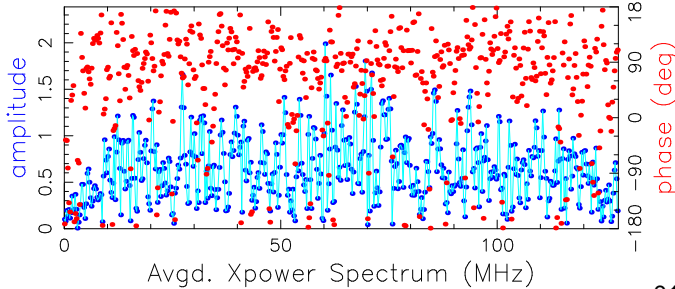
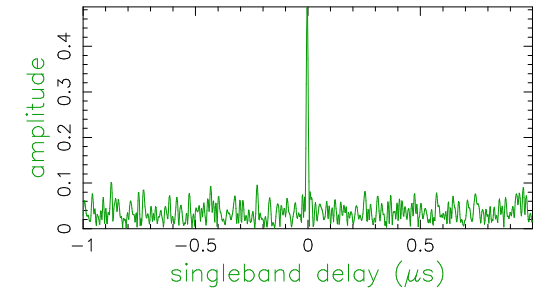
	RMS	Theor.	Amplitude	5.553 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	9.5	1.9	Search (1024X16)	5.459	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	8.1	3.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (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



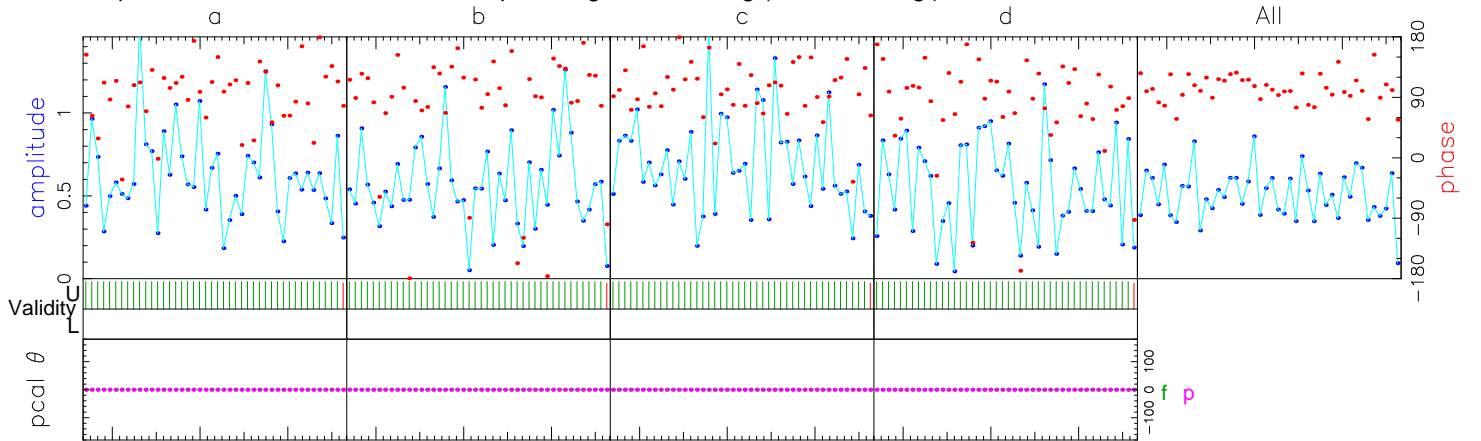
Fringe quality 9

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		

	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
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	-2.84411067260E-06	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(MISamp/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

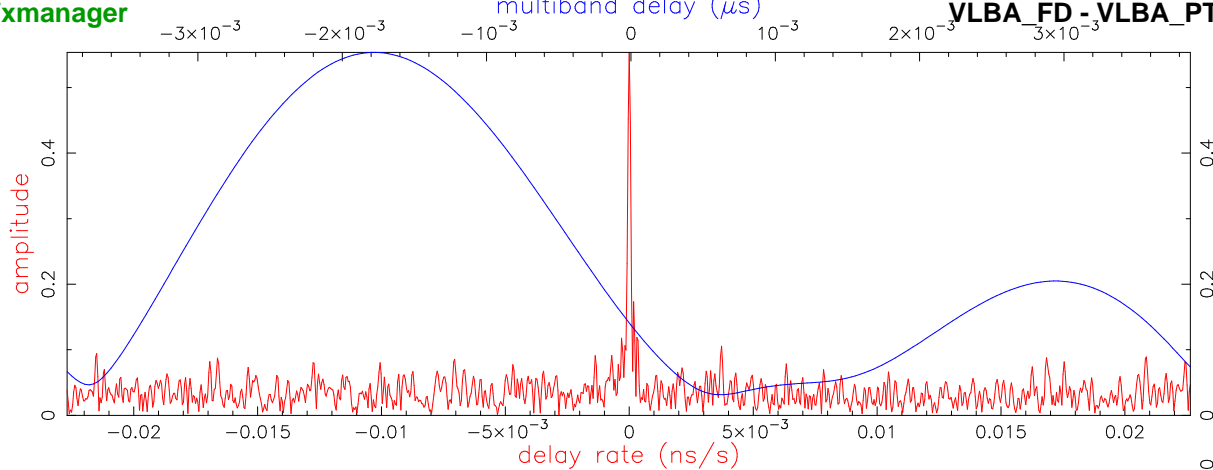
f: az 13.6 el 60.8 pa -157.8 p: az 19.7 el 63.3 pa -148.5 u,v (fr/asec) 225.934 -308.630 simultaneous interpolator
Control file: cf_1234_gmva7mm Input file: /Exps/c202a/v1/v1_7mm/1234/No0090/fp..1HP6Q8 Output file: /Exps/c202a/v1/v1_7mm/1234/No0090/fp.Q.72.1HP6Q8

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

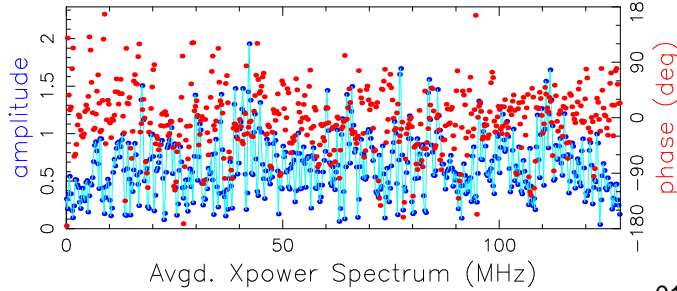
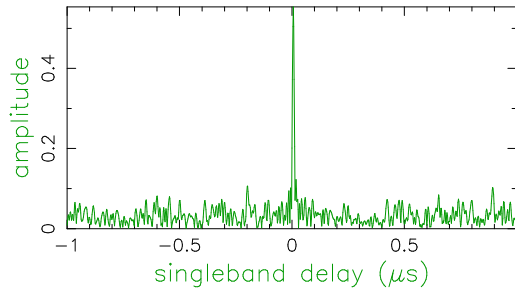
0102+584.1HP6Q8, No0090, fp

VLBA_FD - VLBA_PT, fgroup Q, pol RL



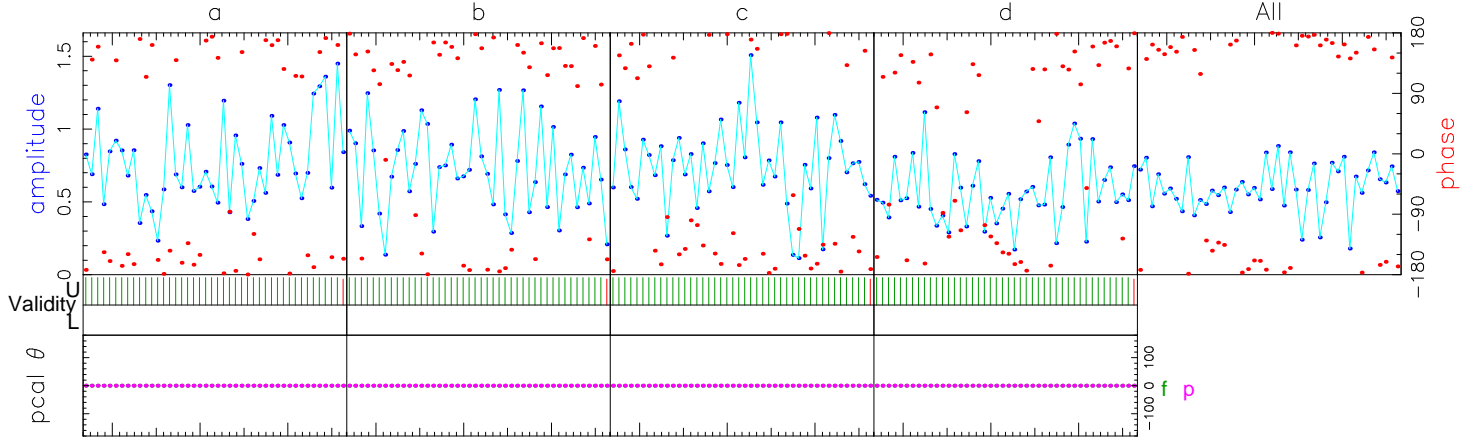
Fringe quality 7

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

ph/seg (deg)	24.0	Theor.	18.7	Amplitude	0.554 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	30.1		32.7	Search (1024X16)	0.546	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	15.7		5.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	22.7		9.8	Inc. seg. avg.	0.571	Sample rate(MISamp/s): 256		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.562	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

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