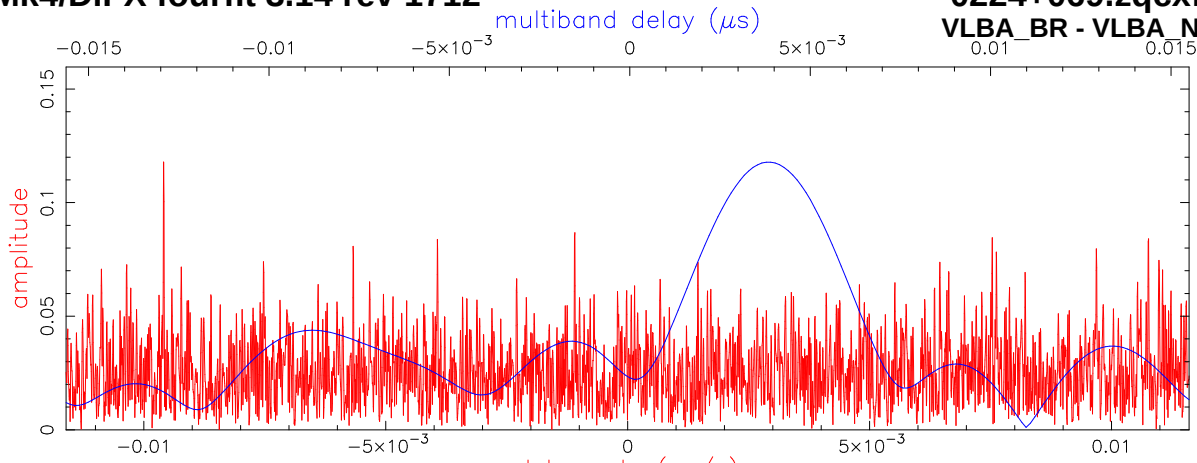
Mk4/DiFX fourfit 3.14 rev 1712

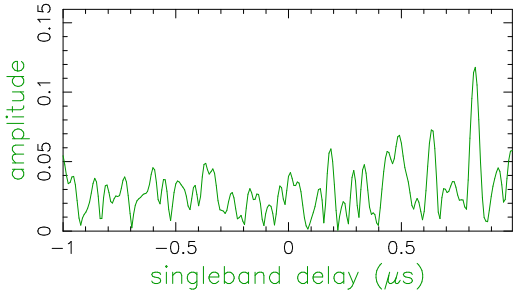
0224+069.zqcxfd, No0210, bn

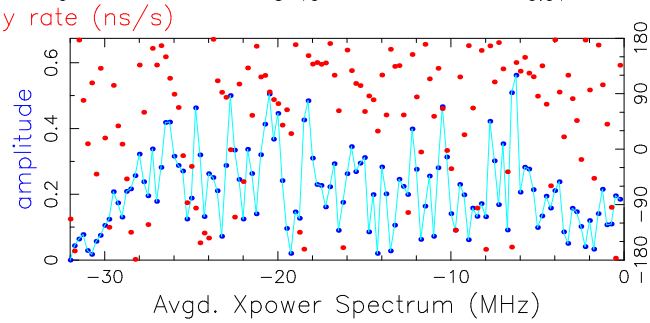
VLBA_BR - VLBA_NL, fgroup W, pol LL



Fringe quality 0

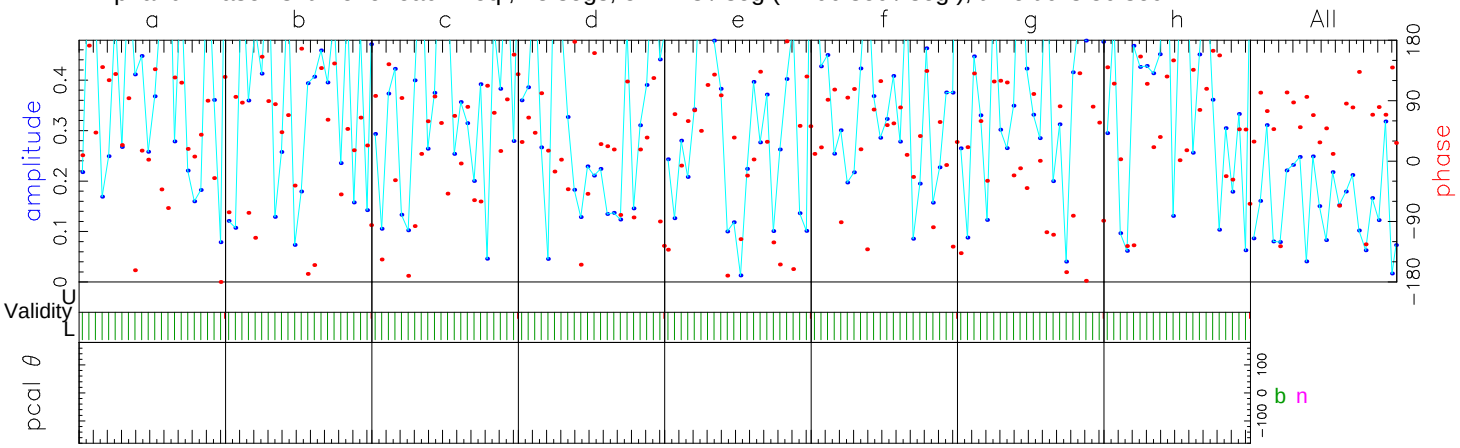
SNR 5.6
Int time 599.983
Amp 0.160
Phase -4611.2
PFD 9.9e-01
Delays (us)
SBD 0.825927
MBD 0.003812
Fringe rate (Hz)
-0.826052
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:052407
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	77.7	99.2	45.9	29.6	92.4	48.6	77.8	86.6	Phase	68.8
	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	Ampl.	0.2
	183.6	110.0	208.7	17.9	232.6	66.3	88.7	185.9	Sbd box	234.7
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-3.38469672182E+03	Apriori delay (usec)	-3.38551303397E+03	Resid mbdelay (usec)	3.81215E-03	+/-	3.9E-04
Sband delay (usec)	-3.38468710647E+03	Apriori clock (usec)	-9.7584915E+00	Resid sbdelay (usec)	8.25927E-01	+/-	3.1E-03
Phase delay (usec)	-3.38551303175E+03	Apriori clockrate (us/s)	-2.8431971E-07	Resid phdelay (usec)	2.21840E-06	+/-	6.6E-07
Delay rate (us/s)	4.74999904968E-01	Apriori rate (us/s)	4.75009494612E-01	Resid rate (us/s)	-9.58964E-06	+/-	1.9E-09
Total phase (deg)	-4879.8	Apriori accel (us/s/s)	1.90410233631E-05	Resid phase (deg)	-4611.2	+/-	20.4

	RMS	Theor.	Amplitude	0.160 +/- 0.028
ph/seg (deg)	65.2	49.0	Search (4096X32)	0.116
amp/seg (%)	77.6	85.4	Interp.	0.000
ph/frq (deg)	27.1	28.9	Inc. seg. avg.	0.156
amp/frq (%)	22.6	50.4	Inc. frq. avg.	0.154

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Pcal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MSamp/s): 64
Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite

sb window (us)	-1.000	1.000
mb window (us)	-0.016	0.016
dr window (ns/s)	-0.012	0.012
ion window (TEC)	0.00	0.00

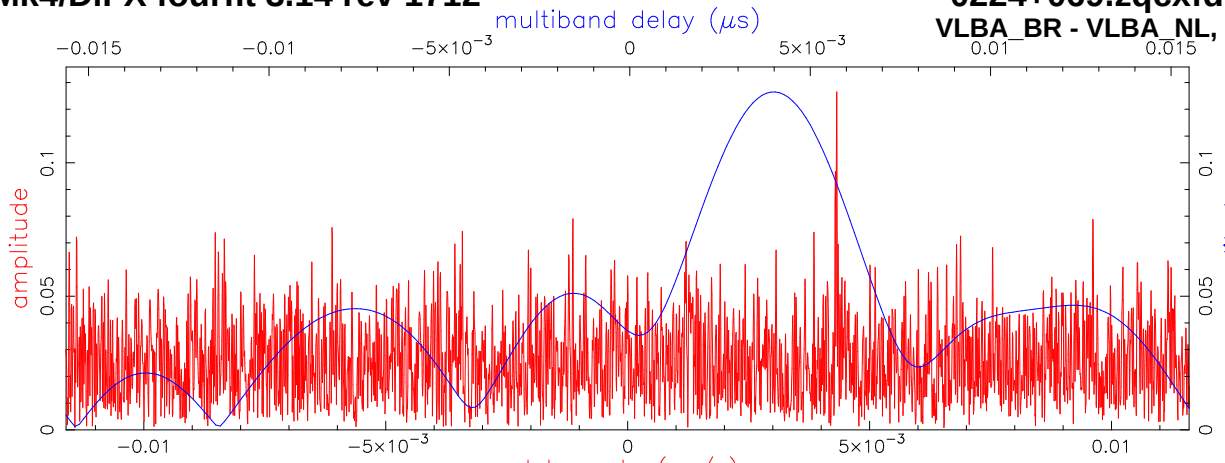
b: az 136.4 el 40.9 pa -27.6 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -2708.642 881.173 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/bn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/bn.W.21.zqcxfd

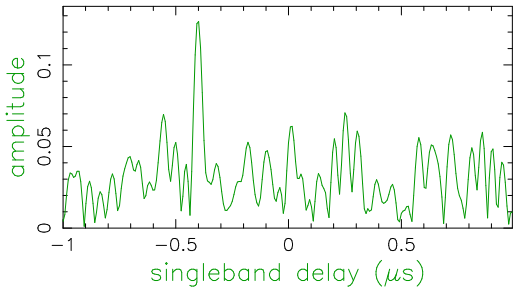
Mk4/DiFX fourfit 3.14 rev 1712

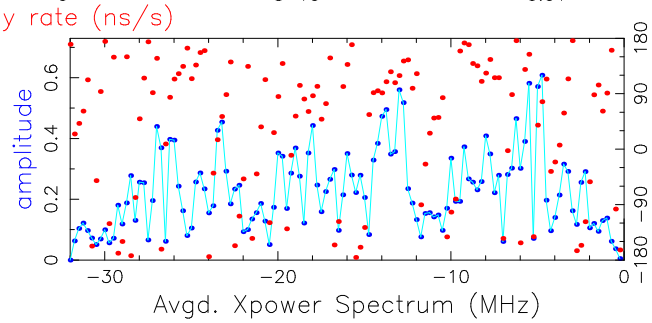
0224+069.zqcxfd, No0210, bn

VLBA_BR - VLBA_NL, fgroup W, pol RR

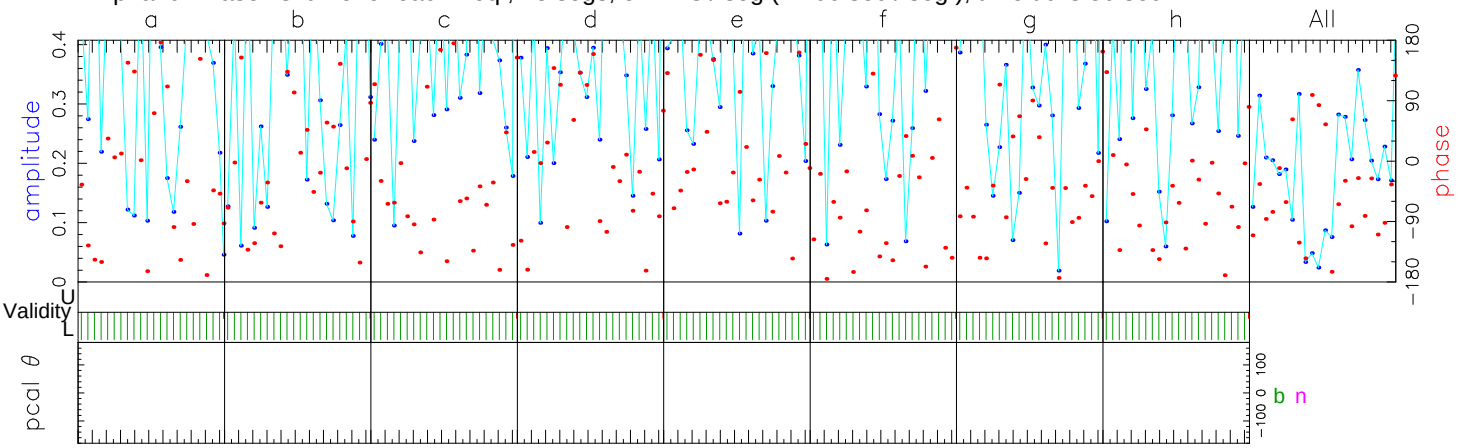


Fringe quality	0
SNR	6.1
Int time	599.983
Amp	0.136
Phase	2277.2
PFD	2.8e-01
Delays (us)	
SBD	-0.401854
MBD	0.003926
Fringe rate (Hz)	0.372160
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339 2017:214:052421 2017:170:130423
RA & Dec (J2000)	02h24m28.4282s +6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



									Freq (MHz)	All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00		
	-59.3	-47.2	-102.5	-36.3	-28.6	-83.0	-64.4	-60.1	Phase	-62.8
	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.3	Ampl.	0.1
	55.3	160.7	199.5	43.9	80.8	213.3	77.6	76.7	Sbd box	77.6
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-3.38591535774E+03	Apriori delay (usec)	-3.38551303397E+03	Resid mbdelay (usec)	3.92623E-03	+/-	3.6E-04
Sband delay (usec)	-3.38591488747E+03	Apriori clock (usec)	-9.7584915E+00	Resid sbdelay (usec)	-4.01854E-01	+/-	2.8E-03
Phase delay (usec)	-3.38551303599E+03	Apriori clockrate (us/s)	-2.8431971E-07	Resid phdelay (usec)	-2.02361E-06	+/-	6.1E-07
Delay rate (us/s)	4.75013815025E-01	Apriori rate (us/s)	4.75009494612E-01	Resid rate (us/s)	4.32041E-06	+/-	1.8E-09
Total phase (deg)	2008.6	Apriori accel (us/s/s)	1.90410233631E-05	Resid phase (deg)	2277.2	+/-	18.9

	RMS	Theor.							
			Amplitude	0.136 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	73.3	45.2	Search (4096X32)	0.124	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	88.3	79.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	26.2	26.7	Inc. seg. avg.	0.152	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	47.8	46.6	Inc. frq. avg.	0.131	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

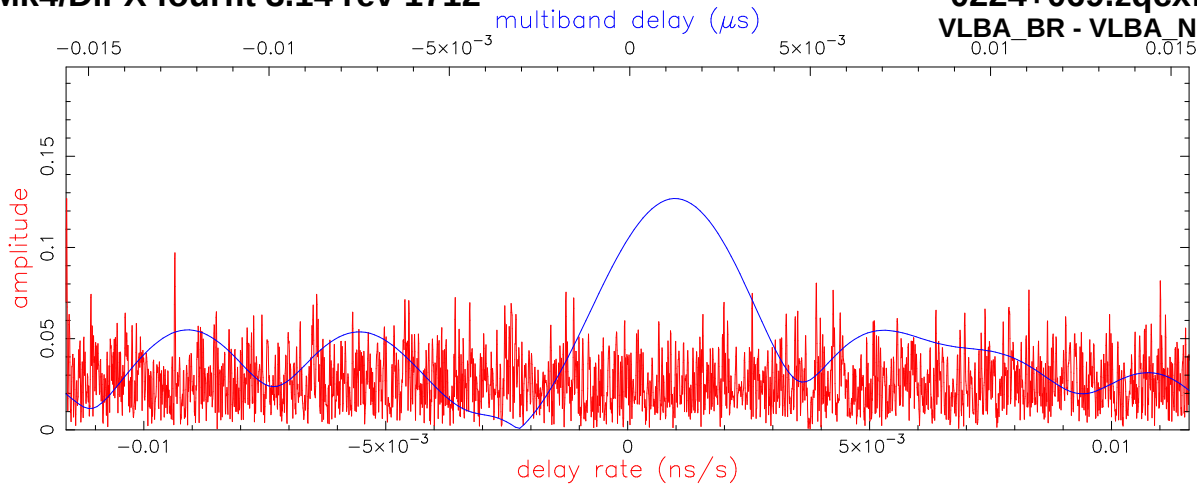
b: az 136.4 el 40.9 pa -27.6 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -2708.642 881.173 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/bn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/bn.W.22.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

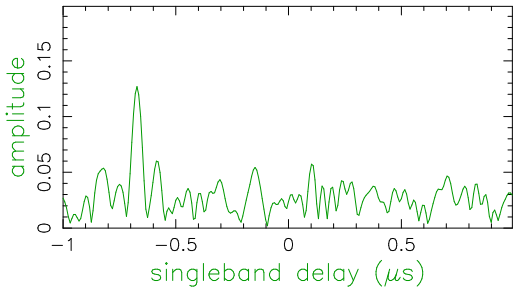
0224+069.zqcxfd, No0210, bn

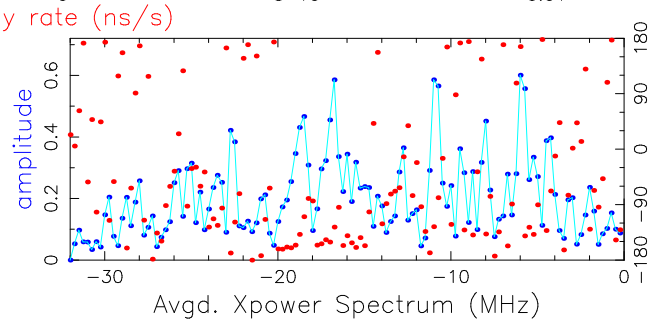
VLBA_BR - VLBA_NL, fgroup W, pol LR



Fringe quality 0

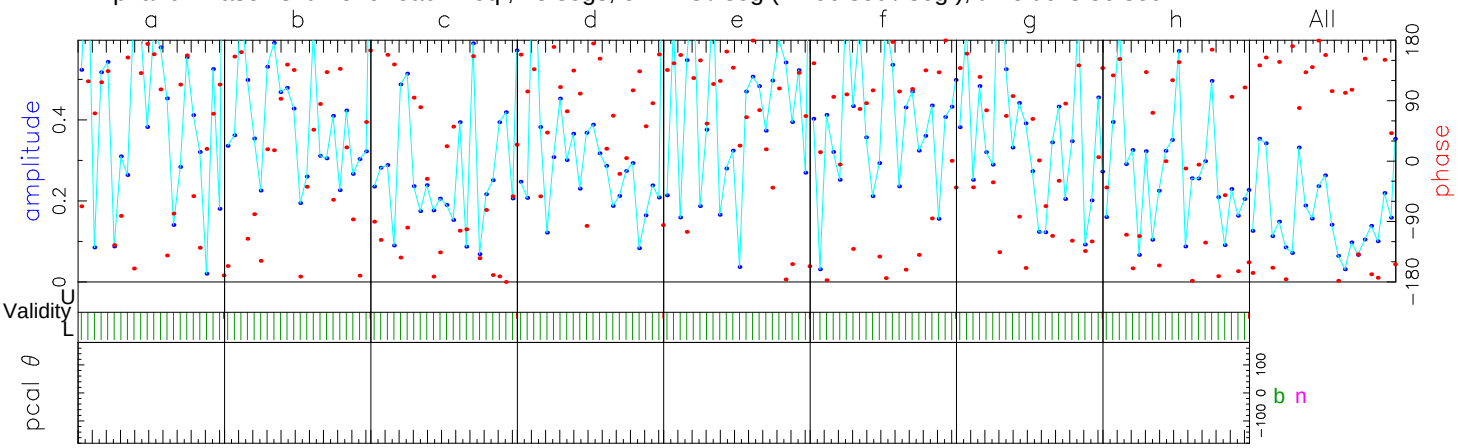
SNR 6.0
Int time 599.983
Amp 0.199
Phase 4109.0
PFD 3.9e-01
Delays (us)
SBD -0.672148
MBD 0.001255
Fringe rate (Hz)
-0.998614
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:052437
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	154.4	121.1	-146.1	118.9	129.6	147.8	171.2	160.9	Phase	149.0
	0.3	0.1	0.2	0.2	0.3	0.3	0.1	0.2	Ampl.	0.2
	43.3	87.8	77.4	37.6	43.8	189.5	33.9	203.9	Sbd box	43.0
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-3.38619927905E+03	Apriori delay (usec)	-3.38551303397E+03	Resid mbdelay (usec)	1.25492E-03	+/-	3.6E-04
Sband delay (usec)	-3.38618518197E+03	Apriori clock (usec)	-9.7584915E+00	Resid sbdelay (usec)	-6.72148E-01	+/-	2.9E-03
Phase delay (usec)	-3.38551302917E+03	Apriori clockrate (us/s)	-2.8431971E-07	Resid phdelay (usec)	4.80516E-06	+/-	6.2E-07
Delay rate (us/s)	4.74997901695E-01	Apriori rate (us/s)	4.75009494612E-01	Resid rate (us/s)	-1.15929E-05	+/-	1.8E-09
Total phase (deg)	3840.4	Apriori accel (us/s/s)	1.90410233631E-05	Resid phase (deg)	4109.0	+/-	19.1

	RMS	Theor.							
			Amplitude	0.199 +/- 0.033	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	42.8	45.7	Search (4096X32)	0.125	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	78.5	79.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	34.0	27.0	Inc. seg. avg.	0.194	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	44.9	47.1	Inc. frq. avg.	0.200	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

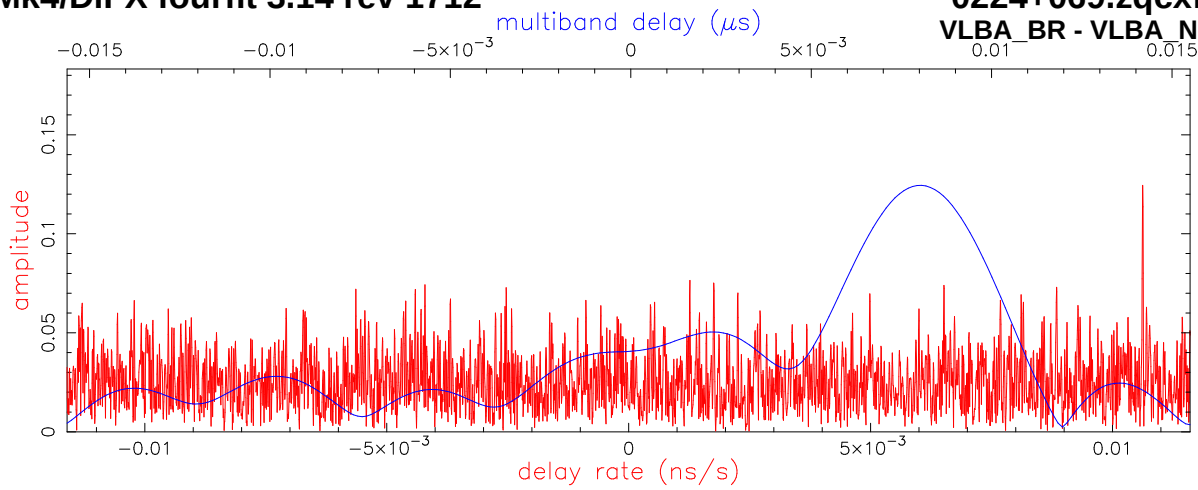
b: az 136.4 el 40.9 pa -27.6 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -2708.642 881.173 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/bn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/bn.W.23.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

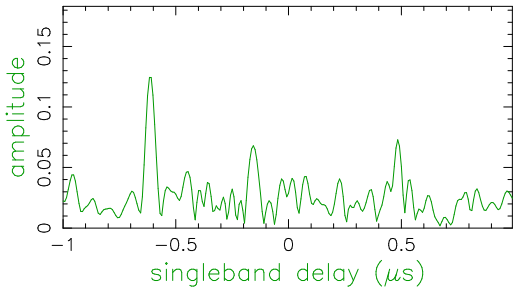
0224+069.zqcxfd, No0210, bn

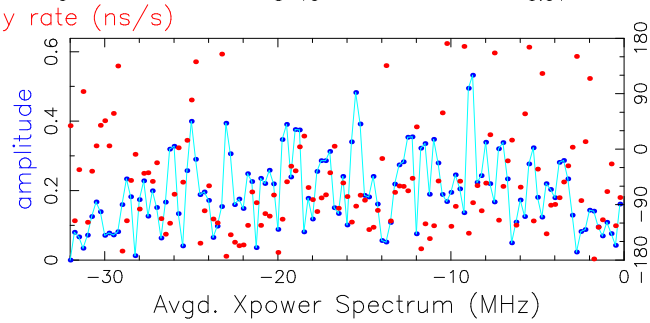
VLBA_BR - VLBA_NL, fgroup W, pol RL



Fringe quality 0

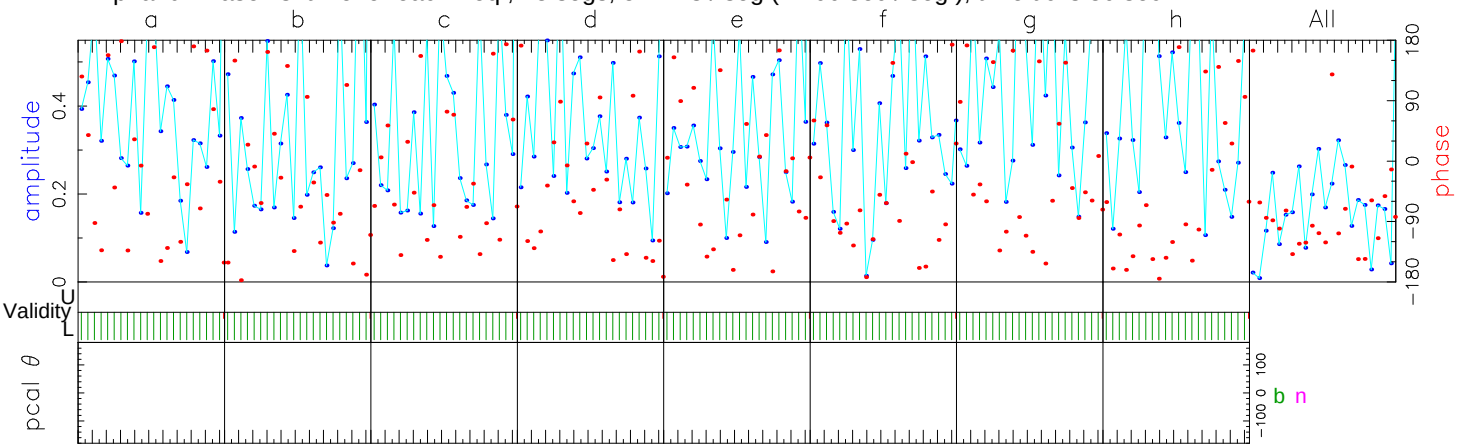
SNR 6.0
Int time 599.983
Amp 0.183
Phase 3495.5
PFD 4.3e-01
Delays (us)
SBD -0.613312
MBD 0.008088
Fringe rate (Hz)
0.914831
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:052452
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	-124.8	-99.2	-99.0	-103.2	-109.1	-76.6	-90.8	-132.2	Phase	-104.5
	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.3	Ampl.	0.2
	7.5	171.3	239.8	132.5	108.4	28.5	82.5	50.3	Sbd box	50.5
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-3.38612994607E+03	Apriori delay (usec)	-3.38551303397E+03	Resid mbdelay (usec)	8.08790E-03	+/-	3.6E-04
Sband delay (usec)	-3.38612634597E+03	Apriori clock (usec)	-9.7584915E+00	Resid sbdelay (usec)	-6.13312E-01	+/-	2.9E-03
Phase delay (usec)	-3.38551303734E+03	Apriori clockrate (us/s)	-2.8431971E-07	Resid phdelay (usec)	-3.37109E-06	+/-	6.2E-07
Delay rate (us/s)	4.75020114897E-01	Apriori rate (us/s)	4.75009494612E-01	Resid rate (us/s)	1.06203E-05	+/-	1.8E-09
Total phase (deg)	3586.8	Apriori accel (us/s/s)	1.90410233631E-05	Resid phase (deg)	3495.5	+/-	19.1

	RMS	Theor.							
			Amplitude	0.183 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	50.8	45.9	Search (4096X32)	0.122	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	82.1	80.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	19.3	27.1	Inc. seg. avg.	0.180	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	32.1	47.3	Inc. frq. avg.	0.171	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

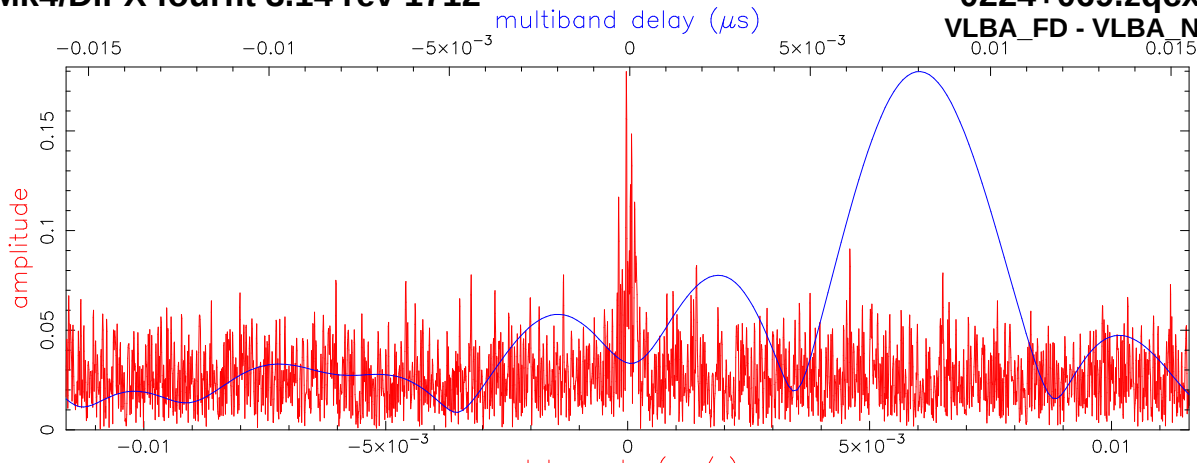
b: az 136.4 el 40.9 pa -27.6 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -2708.642 881.173 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/bn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/bn.W.24.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

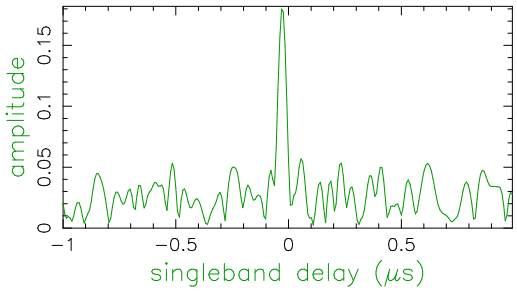
0224+069.zqcxfd, No0210, fn

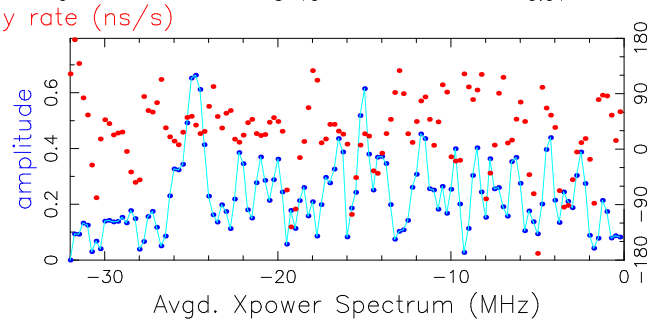
VLBA_FD - VLBA_NL, fgroup W, pol LL



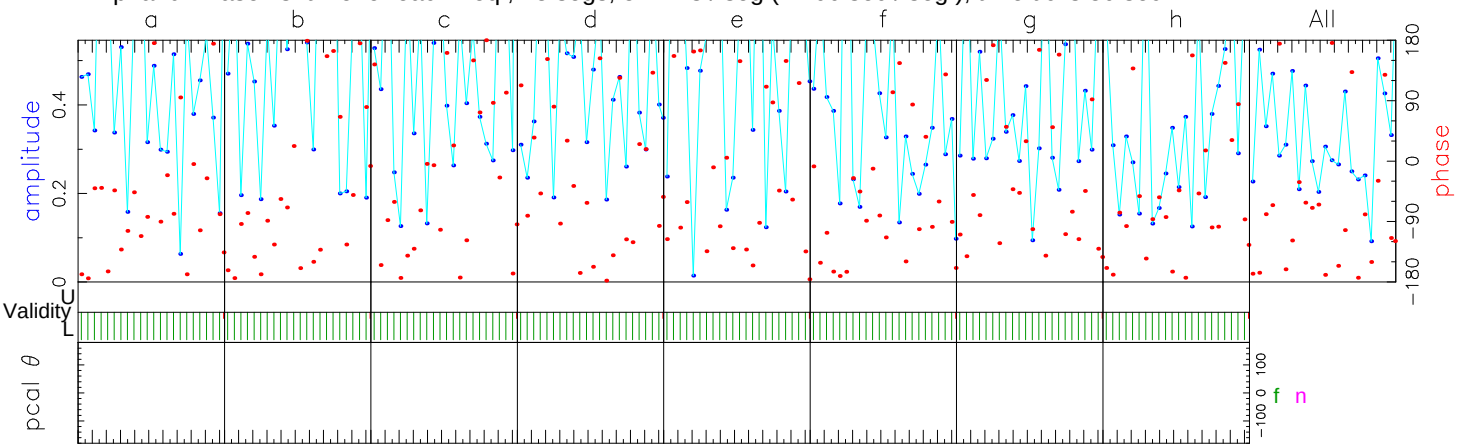
Fringe quality 9

SNR	8.6
Int time	599.964
Amp	0.182
Phase	58.7
PFD	2.3e-09
Delays (us)	
SBD	-0.028046
MBD	0.007980
Fringe rate (Hz)	-0.002487
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:053100
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	-99.3	-139.3	-133.2	-138.7	-126.8	-114.4	-112.2	-117.1	Phase	-121.3
	0.3	0.3	0.1	0.1	0.2	0.2	0.2	0.2	Ampl.	0.2
	124.7	124.9	2.1	238.1	126.8	47.0	125.7	122.9	Sbd box	125.4
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.42262669088E+03	Apriori delay (usec)	1.42264996075E+03	Resid mbdelay (usec)	7.98013E-03	+/-	2.5E-04
Sband delay (usec)	1.42262191425E+03	Apriori clock (usec)	-6.0674849E+00	Resid sbdelay (usec)	-2.80465E-02	+/-	2.0E-03
Phase delay (usec)	1.42264995684E+03	Apriori clockrate (us/s)	-7.1775409E-07	Resid phdelay (usec)	-3.91160E-06	+/-	4.3E-07
Delay rate (us/s)	2.89715623008E-01	Apriori rate (us/s)	2.89715651882E-01	Resid rate (us/s)	-2.88734E-08	+/-	1.2E-09
Total phase (deg)	281.7	Apriori accel (us/s/s)	-9.76701618874E-06	Resid phase (deg)	58.7	+/-	13.3

	RMS	Theor.							
			Amplitude	0.182 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	59.0	31.9	Search (4096X32)	0.179	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	102.0	55.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	15.4	18.8	Inc. seg. avg.	0.283	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	29.4	32.8	Inc. frq. avg.	0.176	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

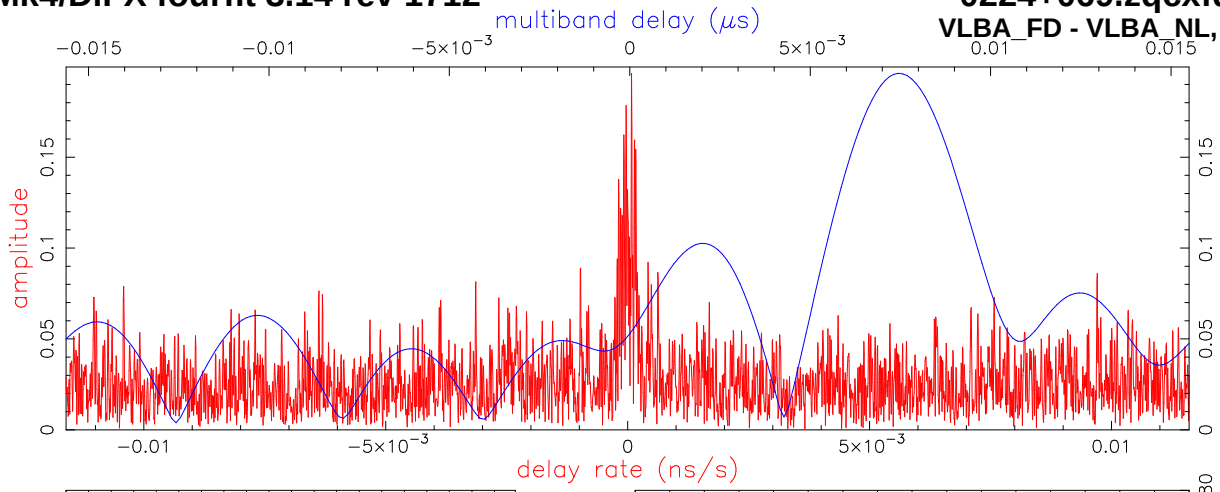
f: az 144.4 el 62.1 pa -28.9 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -1686.955 -1467.704 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/fn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/fn.W.49.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

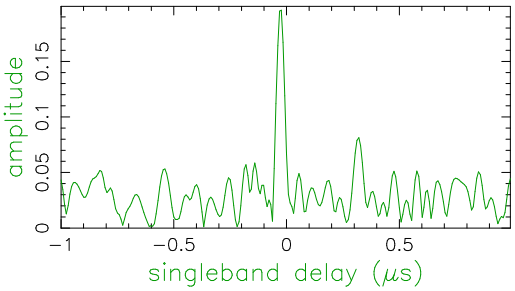
0224+069.zqcxfd, No0210, fn

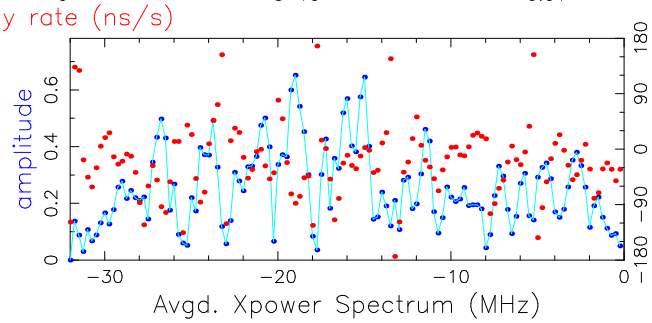
VLBA_FD - VLBA_NL, fgroup W, pol RR



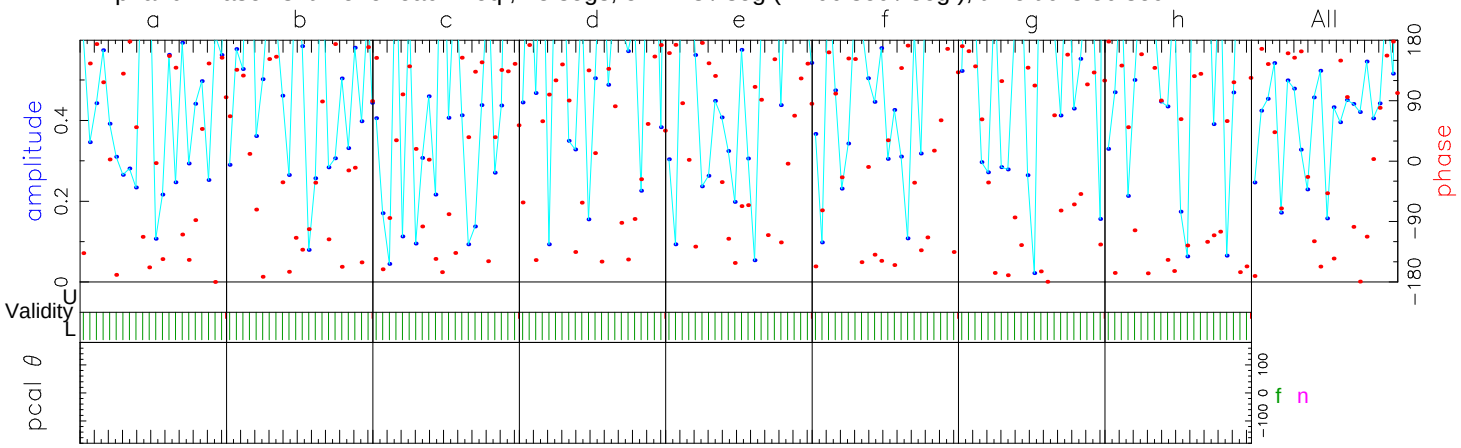
Fringe quality 9

SNR	9.5
Int time	599.964
Amp	0.200
Phase	352.1
PFD	1.3e-12
Delays (us)	
SBD	-0.027160
MBD	0.007411
Fringe rate (Hz)	0.006978
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339 2017:214:053116 2017:170:130423
RA & Dec (J2000)	02h24m28.4282s +6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



									Freq (MHz)	All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00		
	-174.9	177.3	159.8	152.1	129.0	-172.3	173.8	179.3	Phase	172.1
	0.2	0.1	0.2	0.2	0.1	0.2	0.3	0.4	Ampl.	0.2
	124.5	98.2	125.7	89.1	24.8	170.3	126.5	125.5	Sbd box	125.5
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.42262612167E+03	Apriori delay (usec)	1.42264996075E+03	Resid mbdelay (usec)	7.41091E-03	+/-	2.3E-04
Sband delay (usec)	1.42262280125E+03	Apriori clock (usec)	-6.0674849E+00	Resid sbdelay (usec)	-2.71595E-02	+/-	1.8E-03
Phase delay (usec)	1.42264996630E+03	Apriori clockrate (us/s)	-7.1775409E-07	Resid phdelay (usec)	5.54838E-06	+/-	3.9E-07
Delay rate (us/s)	2.89715732888E-01	Apriori rate (us/s)	2.89715651882E-01	Resid rate (us/s)	8.10062E-08	+/-	1.1E-09
Total phase (deg)	215.0	Apriori accel (us/s/s)	-9.76701618874E-06	Resid phase (deg)	352.1	+/-	12.1

	RMS	Theor.							
			Amplitude	0.200 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	80.8	29.1	Search (4096X32)	0.188	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	132.6	50.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	22.0	17.1	Inc. seg. avg.	0.378	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	45.3	29.9	Inc. frq. avg.	0.194	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

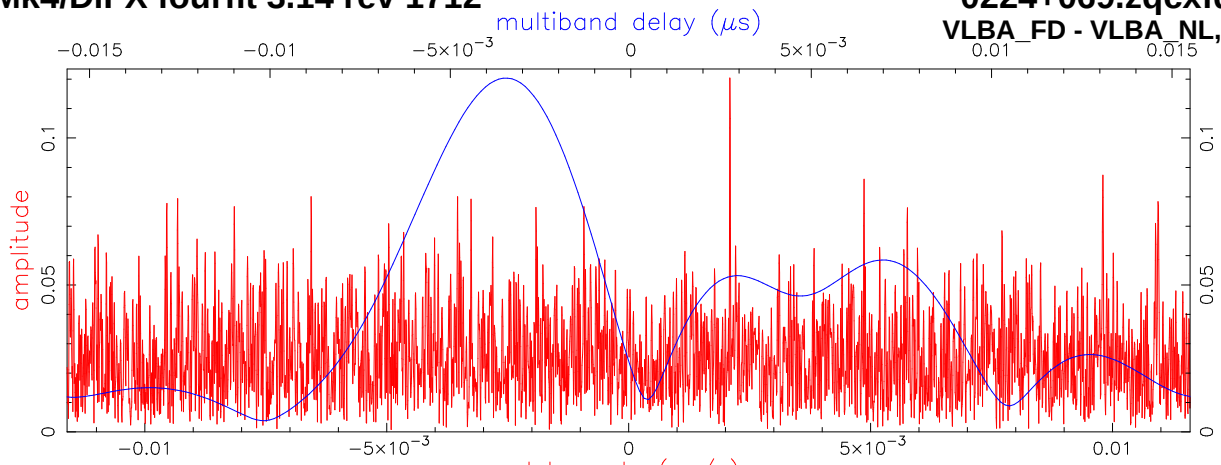
f: az 144.4 el 62.1 pa -28.9 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -1686.955 -1467.704 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/fn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/fn.W.50.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

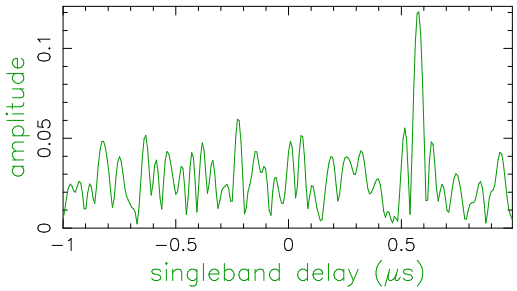
0224+069.zqcxfd, No0210, fn

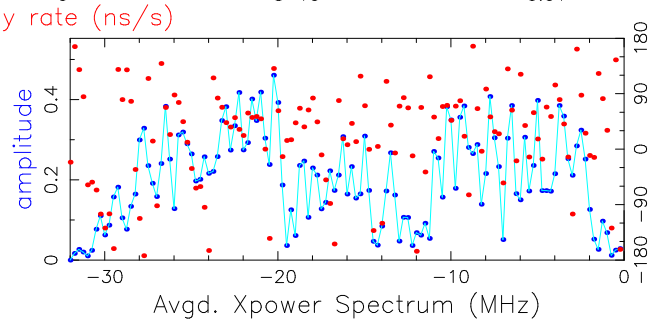
VLBA_FD - VLBA_NL, fgroup W, pol LR



Fringe quality 0

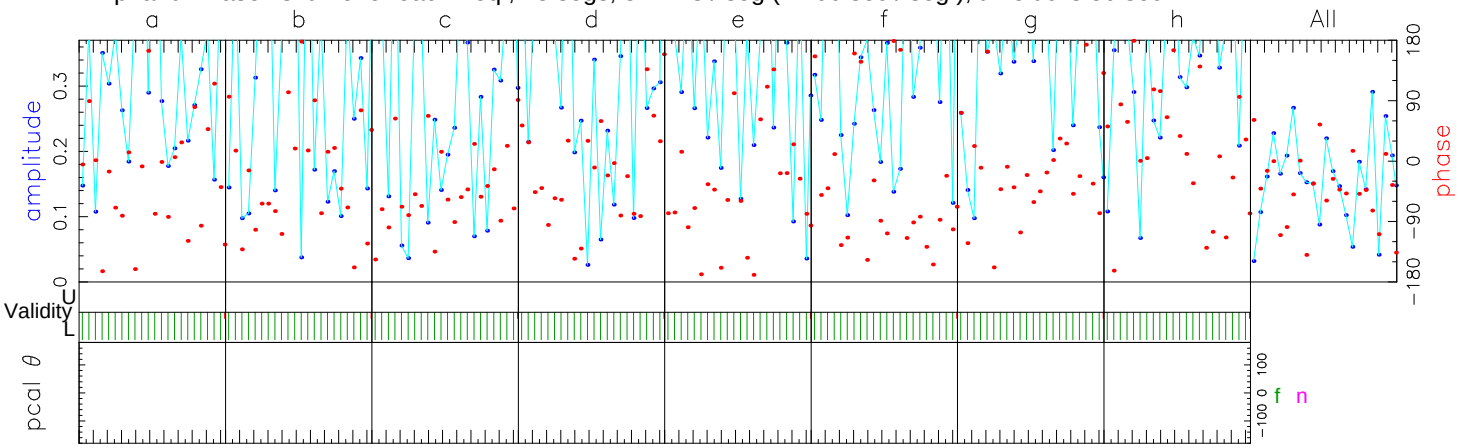
SNR	5.8
Int time	599.964
Amp	0.123
Phase	-3282.6
PFD	8.6e-01
Delays (us)	
SBD	0.574665
MBD	-0.003442
Fringe rate (Hz)	0.180224
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500





Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:053131
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	-35.2	-27.5	-51.6	-27.6	-57.8	-97.4	-28.6	47.8	Phase	-42.6
	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	Ampl.	0.1
	67.2	200.9	122.1	24.6	254.9	151.9	201.8	56.8	Sbd box	202.6
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.42320901836E+03	Apriori delay (usec)	1.42264996075E+03	Resid mbdelay (usec)	-3.44240E-03	+/-	3.8E-04
Sband delay (usec)	1.42322462625E+03	Apriori clock (usec)	-6.0674849E+00	Resid sbdelay (usec)	5.74665E-01	+/-	3.0E-03
Phase delay (usec)	1.42264995938E+03	Apriori clockrate (us/s)	-7.1775409E-07	Resid phdelay (usec)	-1.37223E-06	+/-	6.4E-07
Delay rate (us/s)	2.89717744105E-01	Apriori rate (us/s)	2.89715651882E-01	Resid rate (us/s)	2.09222E-06	+/-	1.8E-09
Total phase (deg)	-3059.6	Apriori accel (us/s/s)	-9.76701618874E-06	Resid phase (deg)	-3282.6	+/-	19.9

	RMS	Theor.							
			Amplitude	0.123 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	50.2	47.6	Search (4096X32)	0.119	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	63.7	83.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	45.0	28.1	Inc. seg. avg.	0.120	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	38.5	49.0	Inc. frq. avg.	0.127	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

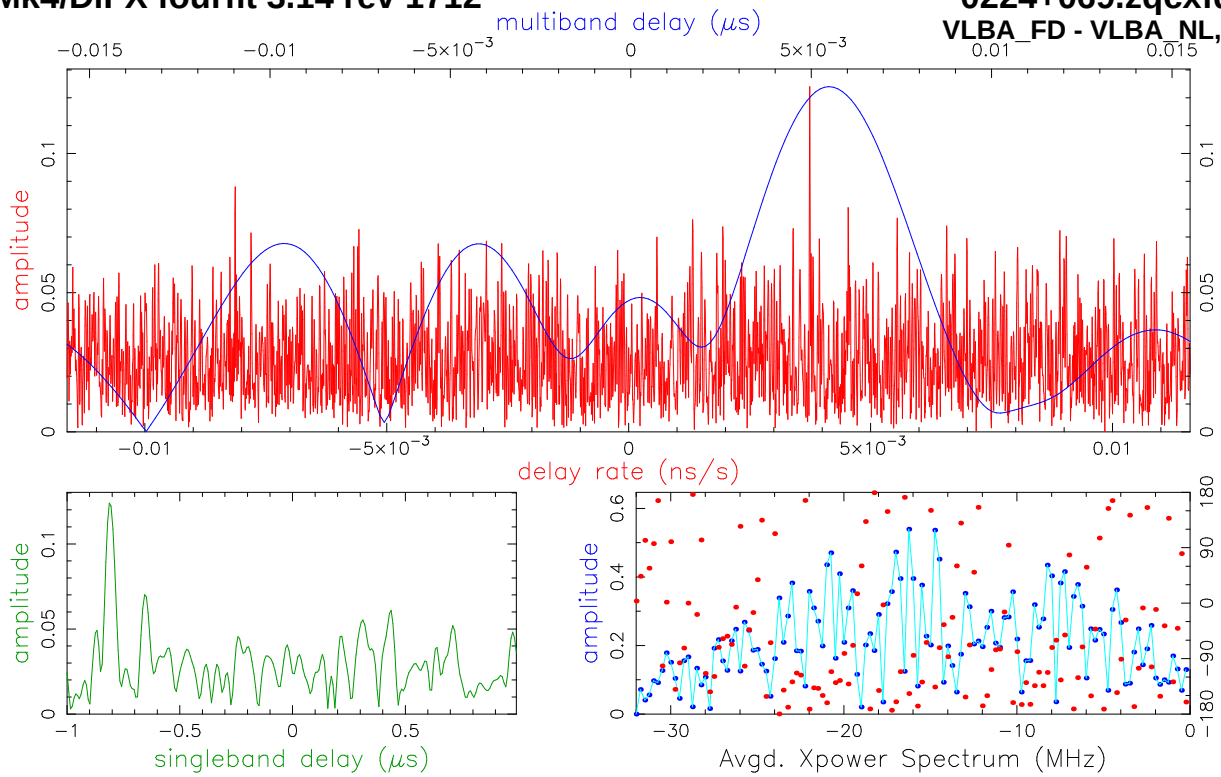
f: az 144.4 el 62.1 pa -28.9 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -1686.955 -1467.704 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/fn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/fn.W.51.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

0224+069.zqcxfd, No0210, fn

VLBA_FD - VLBA_NL, fgroup W, pol RL

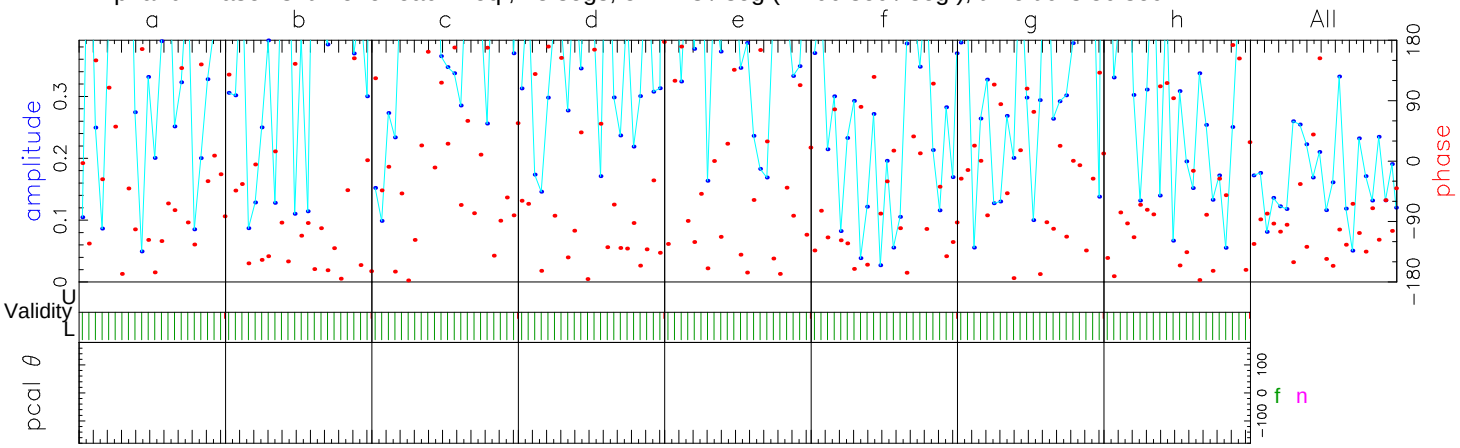


Fringe quality 0

SNR 5.9
Int time 599.964
Amp 0.130
Phase 4571.2
PFD 5.8e-01
Delays (us)
SBD -0.809673
MBD 0.005510
Fringe rate (Hz)
0.322427
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500

Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:053147
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	-86.9	-127.2	-66.0	-131.7	-122.7	-115.0	-33.2	-132.8	Phase	-108.8
	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	Ampl.	0.1
	53.9	25.7	105.2	24.8	58.0	63.1	81.3	241.8	Sbd box	25.4
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.42184297030E+03	Apriori delay (usec)	1.42264996075E+03	Resid mbdelay (usec)	5.50955E-03	+/-	3.7E-04
Sband delay (usec)	1.42184028725E+03	Apriori clock (usec)	-6.0674849E+00	Resid sbdelay (usec)	-8.09673E-01	+/-	2.9E-03
Phase delay (usec)	1.42264995725E+03	Apriori clockrate (us/s)	-7.1775409E-07	Resid phdelay (usec)	-3.50710E-06	+/-	6.2E-07
Delay rate (us/s)	2.89719394935E-01	Apriori rate (us/s)	2.89715651882E-01	Resid rate (us/s)	3.74305E-06	+/-	1.8E-09
Total phase (deg)	4794.2	Apriori accel (us/s/s)	-9.76701618874E-06	Resid phase (deg)	4571.2	+/-	19.4

	RMS	Theor.						
			Amplitude	0.130 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	48.9	46.5	Search (4096X32)	0.119	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	63.8	81.1	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	40.2	27.4	Inc. seg. avg.	0.135	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.012	0.012
amp/frq (%)	40.1	47.8	Inc. frq. avg.	0.138	Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

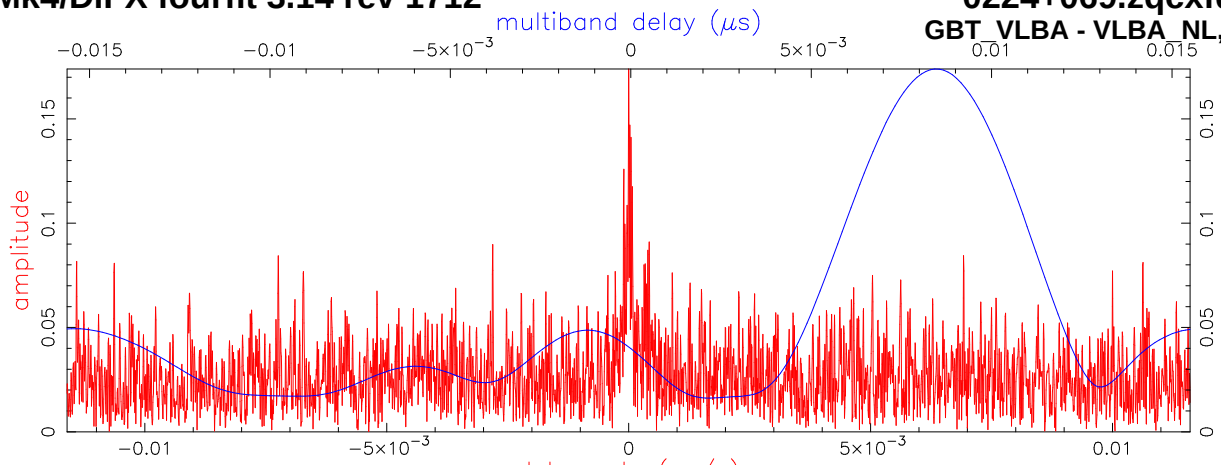
f: az 144.4 el 62.1 pa -28.9 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -1686.955 -1467.704 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/fn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/fn.W.52.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

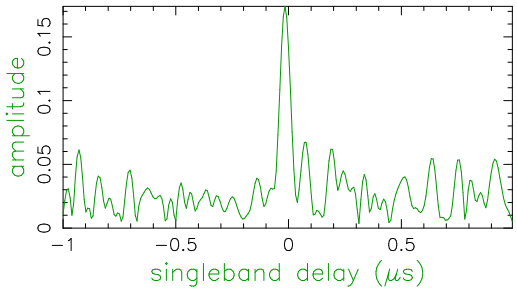
0224+069.zqcxfd, No0210, Gn

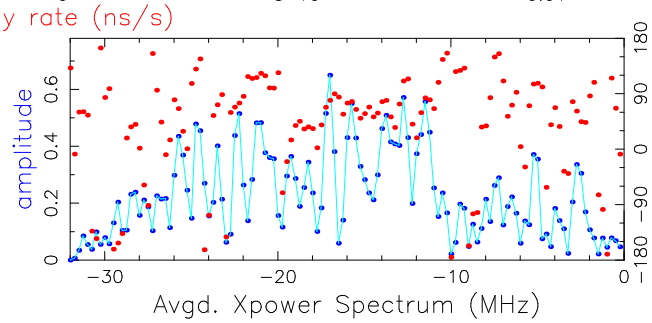
GBT_VLBA - VLBA_NL, fgroup W, pol LL



Fringe quality 9

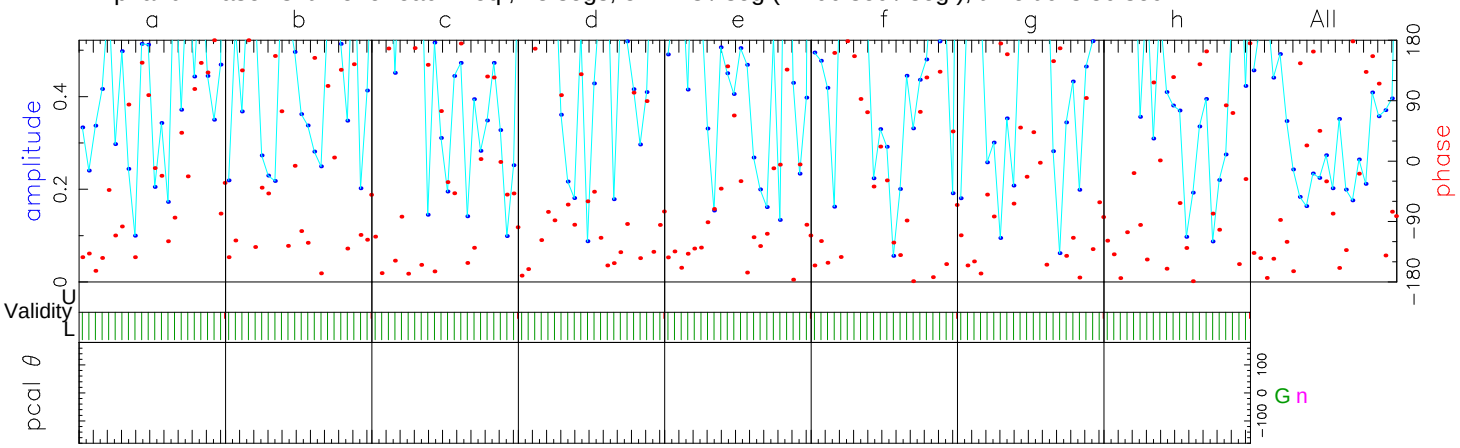
SNR	8.2
Int time	599.982
Amp	0.174
Phase	35.7
PFD	6.2e-08
Delays (us)	
SBD	-0.015851
MBD	0.008471
Fringe rate (Hz)	0.000231
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500





Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:053652
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



									Freq (MHz)	All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00		
	-126.2	-159.2	-151.8	-132.0	-133.2	173.4	-123.0	-142.1	Phase	-144.3
	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.2	Ampl.	0.2
	65.7	247.2	126.3	127.5	126.7	245.8	238.5	92.0	Sbd box	127.0
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
G	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.47362556865E+02	Apriori delay (usec)	4.47385336302E+02	Resid mbdelay (usec)	8.47056E-03	+/-	2.6E-04
Sband delay (usec)	4.47369485302E+02	Apriori clock (usec)	-1.6608397E+01	Resid sbdelay (usec)	-1.58510E-02	+/-	2.1E-03
Phase delay (usec)	4.47385331650E+02	Apriori clockrate (us/s)	-6.4946529E-08	Resid phdelay (usec)	-4.65264E-06	+/-	4.5E-07
Delay rate (us/s)	-2.44131557853E-01	Apriori rate (us/s)	-2.44131560530E-01	Resid rate (us/s)	2.67624E-09	+/-	1.3E-09
Total phase (deg)	348.6	Apriori accel (us/s/s)	-3.08491229770E-06	Resid phase (deg)	35.7	+/-	13.9

	RMS	Theor.	Amplitude	0.174 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	76.8	33.4	Search (4096X32)	0.165	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	118.0	58.2	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	22.8	19.7	Inc. seg. avg.	0.282	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.012	0.012
amp/frq (%)	38.4	34.3	Inc. frq. avg.	0.174	Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

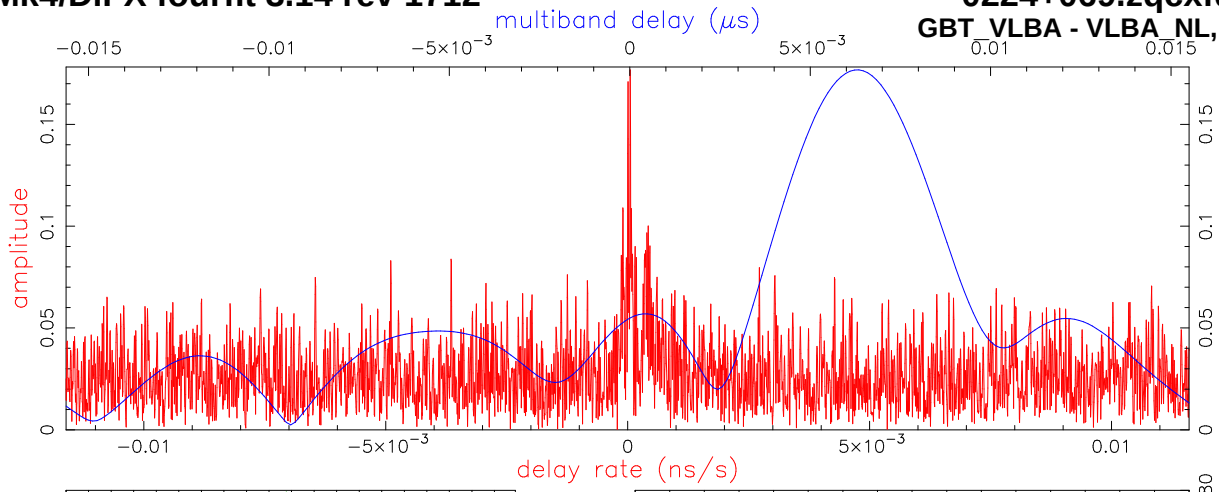
G: az 195.4 el 57.8 pa 13.7 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) 1403.653 -423.815 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/Gn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/Gn.W.73.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

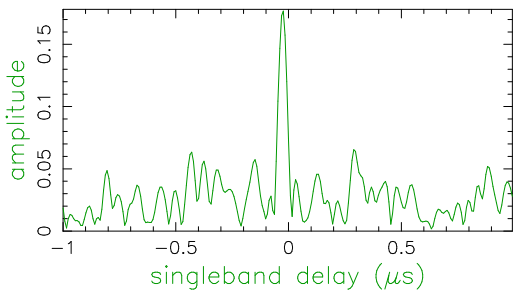
0224+069.zqcxfd, No0210, Gn

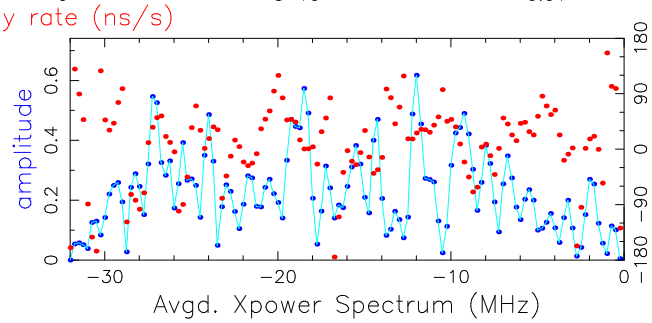
GBT_VLBA - VLBA_NL, fgroup W, pol RR



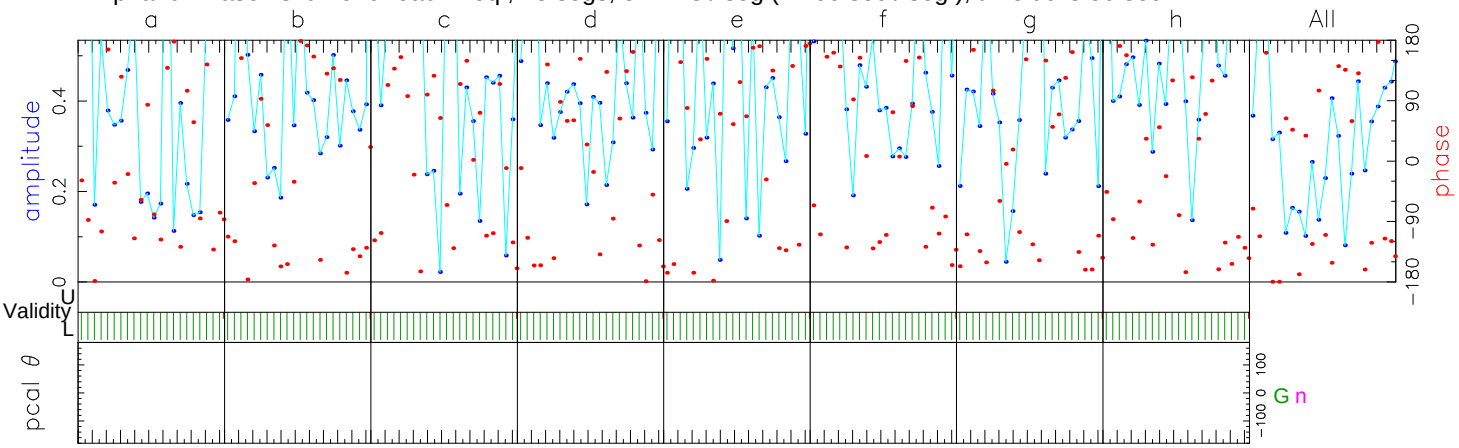
Fringe quality 9

SNR	8.4
Int time	599.982
Amp	0.178
Phase	20.4
PFD	1.2e-08
Delays (us)	
SBD	-0.026119
MBD	0.006324
Fringe rate (Hz)	0.004186
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:053708
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



									Freq (MHz)	All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00		
	-114.9	-175.7	-163.9	-162.5	169.8	-153.0	-161.6	-131.3	Phase	-159.6
	0.2	0.3	0.1	0.1	0.2	0.2	0.2	0.1	Ampl.	0.2
	74.1	125.1	63.2	227.9	126.5	126.9	126.1	185.2	Sbd box	125.7
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
G	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.47360410594E+02	Apriori delay (usec)	4.47385336302E+02	Resid mbdelay (usec)	6.32429E-03	+/-	2.6E-04
Sband delay (usec)	4.47359217302E+02	Apriori clock (usec)	-1.6608397E+01	Resid sbdelay (usec)	-2.61190E-02	+/-	2.0E-03
Phase delay (usec)	4.47385331156E+02	Apriori clockrate (us/s)	-6.4946529E-08	Resid phdelay (usec)	-5.14619E-06	+/-	4.4E-07
Delay rate (us/s)	-2.44131511936E-01	Apriori rate (us/s)	-2.44131560530E-01	Resid rate (us/s)	4.85935E-08	+/-	1.3E-09
Total phase (deg)	333.3	Apriori accel (us/s/s)	-3.08491229770E-06	Resid phase (deg)	20.4	+/-	13.6

	RMS	Theor.	Amplitude	0.178 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	77.2	32.6	Search (4096X32)	0.169	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	114.6	56.8	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	26.1	19.2	Inc. seg. avg.	0.268	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.012	0.012
amp/frq (%)	26.6	33.5	Inc. frq. avg.	0.180	Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

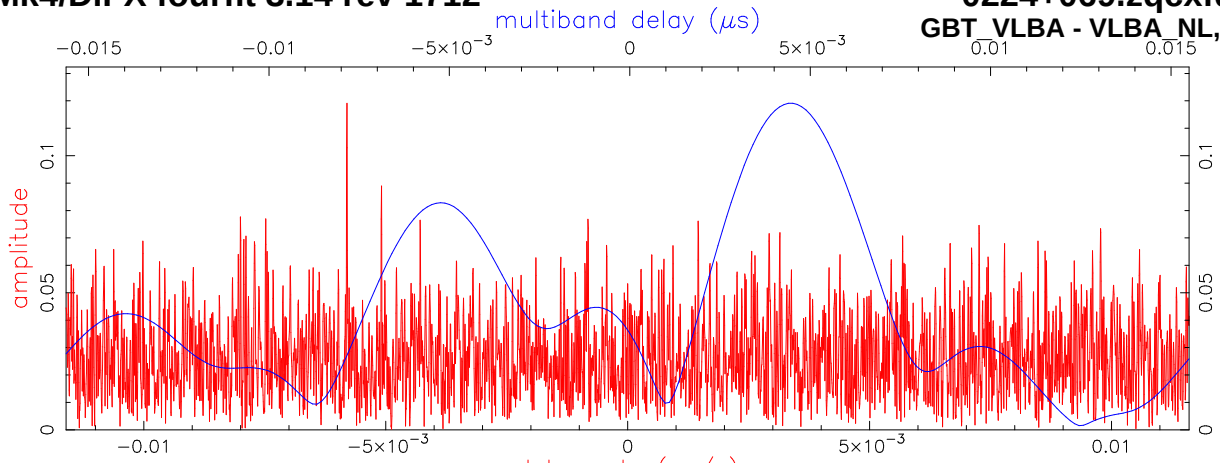
G: az 195.4 el 57.8 pa 13.7 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) 1403.653 -423.815 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/Gn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/Gn.W.74.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

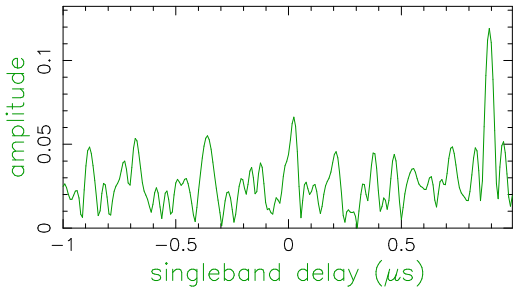
0224+069.zqcxfd, No0210, Gn

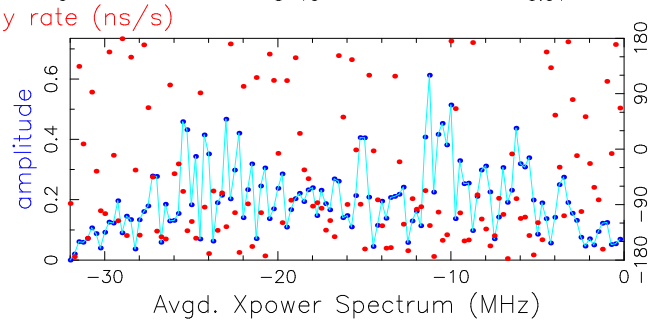
GBT_VLBA - VLBA_NL, fgroup W, pol LR



Fringe quality 0

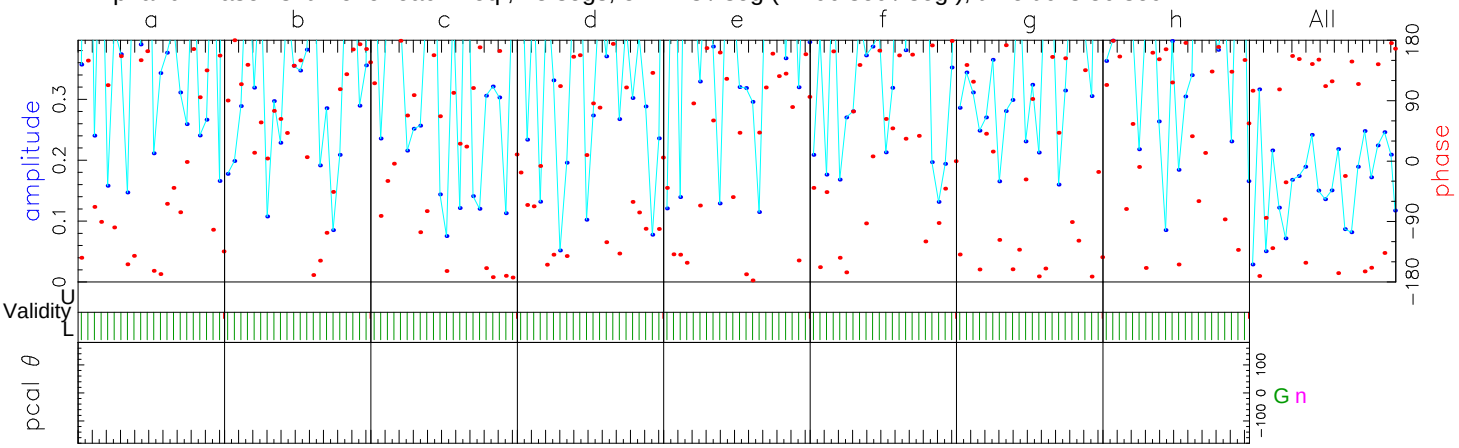
SNR 5.6
Int time 599.982
Amp 0.132
Phase -4867.8
PFD 9.8e-01
Delays (us)
SBD 0.890248
MBD 0.004452
Fringe rate (Hz)
-0.500007
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:053723
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	-154.5	128.4	140.7	-138.4	151.9	165.2	-164.0	175.5	Phase	172.2
	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
	241.3	174.0	205.6	197.3	156.2	23.8	41.2	129.4	Sbd box	243.0
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
G	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.48264788027E+02	Apriori delay (usec)	4.47385336302E+02	Resid mbdelay (usec)	4.45172E-03	+/-	3.8E-04
Sband delay (usec)	4.48275583802E+02	Apriori clock (usec)	-1.6608397E+01	Resid sbdelay (usec)	8.90248E-01	+/-	3.1E-03
Phase delay (usec)	4.47385341856E+02	Apriori clockrate (us/s)	-6.4946529E-08	Resid phdelay (usec)	5.55422E-06	+/-	6.5E-07
Delay rate (us/s)	-2.44137365119E-01	Apriori rate (us/s)	-2.44131560530E-01	Resid rate (us/s)	-5.80459E-06	+/-	1.9E-09
Total phase (deg)	-4914.9	Apriori accel (us/s/s)	-3.08491229770E-06	Resid phase (deg)	-4867.8	+/-	20.3

	RMS	Theor.						
			Amplitude	0.132 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	65.0	48.7	Search (4096X32)	0.117	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	71.8	85.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016 0.016
ph/frq (deg)	35.3	28.7	Inc. seg. avg.	0.136	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012 0.012
amp/frq (%)	45.5	50.1	Inc. frq. avg.	0.136	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00 0.00

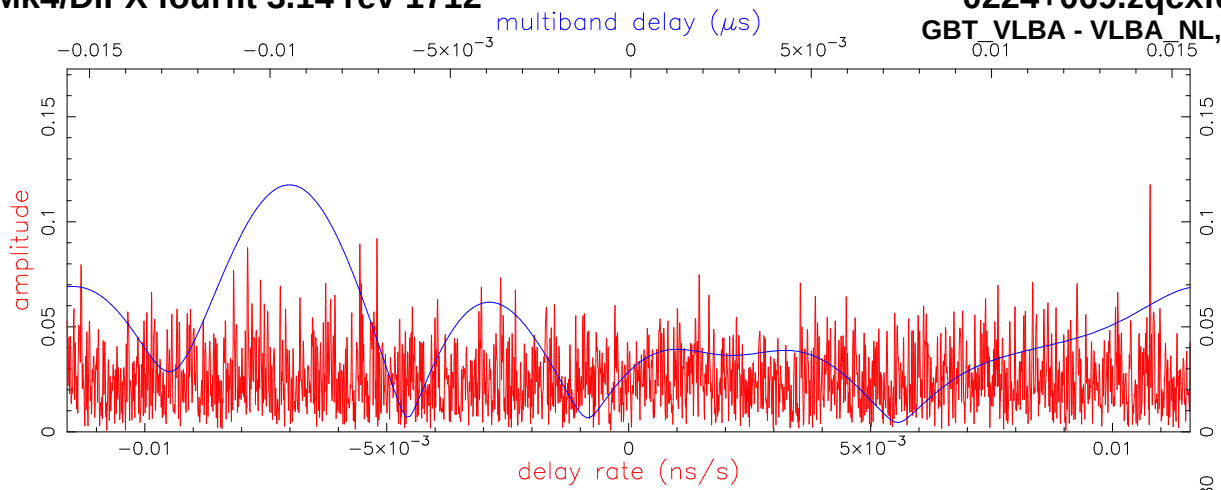
G: az 195.4 el 57.8 pa 13.7 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) 1403.653 -423.815 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/Gn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/Gn.W.75.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

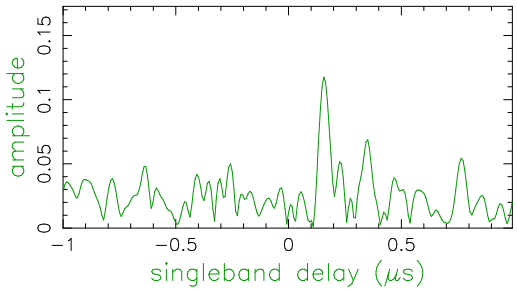
0224+069.zqcxfd, No0210, Gn

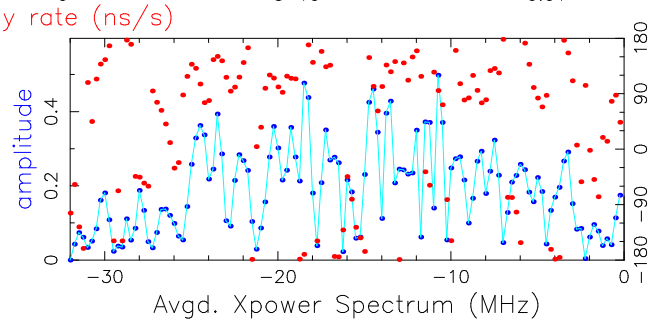
GBT_VLBA - VLBA_NL, fgroup W, pol RL



Fringe quality 0

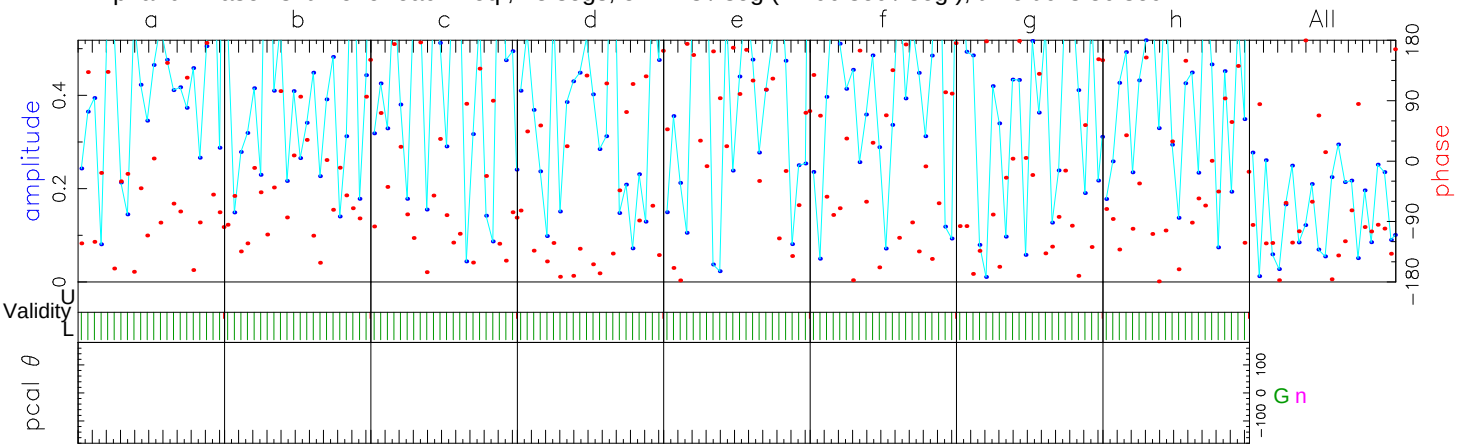
SNR 5.6
Int time 599.982
Amp 0.173
Phase -1010.7
PFD 1.0e+00
Delays (us)
SBD 0.157311
MBD -0.009453
Fringe rate (Hz)
0.928238
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:053740
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	-117.8	-68.4	-118.6	-143.7	102.8	-101.9	-110.5	-92.7	Phase	-110.7
	0.2	0.3	0.3	0.2	0.1	0.2	0.3	0.2	Ampl.	0.2
	59.8	125.5	148.7	208.2	60.1	147.6	150.0	5.2	Sbd box	149.1
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
G	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
G	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.47532133332E+02	Apriori delay (usec)	4.47385336302E+02	Resid mbdelay (usec)	-9.45297E-03	+/-	3.9E-04
Sband delay (usec)	4.47542647802E+02	Apriori clock (usec)	-1.6608397E+01	Resid sbdelay (usec)	1.57311E-01	+/-	3.1E-03
Phase delay (usec)	4.47385332732E+02	Apriori clockrate (us/s)	-6.4946529E-08	Resid phdelay (usec)	-3.57057E-06	+/-	6.6E-07
Delay rate (us/s)	-2.44120784610E-01	Apriori rate (us/s)	-2.44131560530E-01	Resid rate (us/s)	1.07759E-05	+/-	1.9E-09
Total phase (deg)	-697.9	Apriori accel (us/s/s)	-3.08491229770E-06	Resid phase (deg)	-1010.7	+/-	20.6

	RMS	Theor.	Amplitude	0.173 +/- 0.031
ph/seg (deg)	75.2	49.3	Search (4096X32)	0.117
amp/seg (%)	82.6	86.0	Interp.	0.000
ph/frq (deg)	64.4	29.1	Inc. seg. avg.	0.168
amp/frq (%)	37.2	50.7	Inc. frq. avg.	0.191

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Pcal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MSamp/s): 64
Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite

sb window (us)	-1.000	1.000
mb window (us)	-0.016	0.016
dr window (ns/s)	-0.012	0.012
ion window (TEC)	0.00	0.00

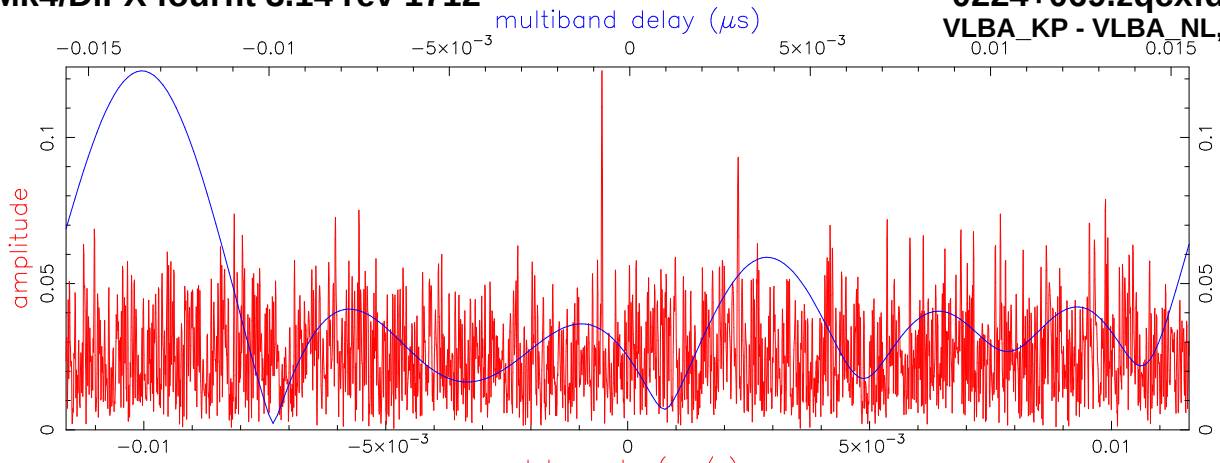
G: az 195.4 el 57.8 pa 13.7 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) 1403.653 -423.815 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/Gn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/Gn.W.76.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

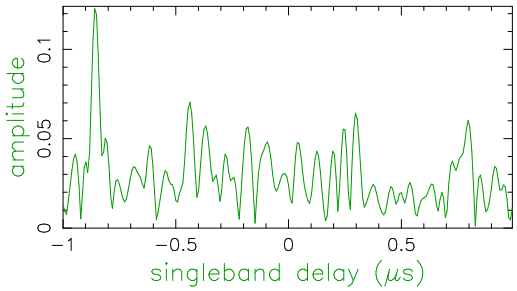
0224+069.zqcxfd, No0210, kn

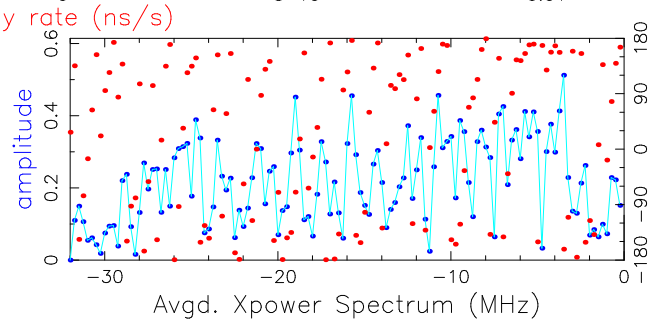
VLBA_KP - VLBA_NL, fgroup W, pol LL



Fringe quality 0

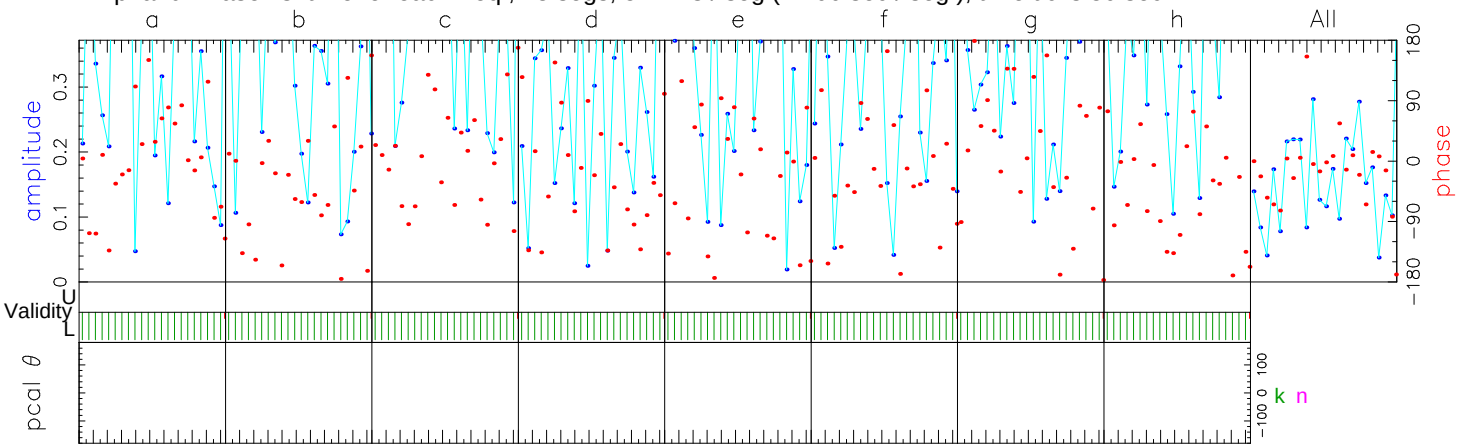
SNR 5.9
Int time 599.982
Amp 0.124
Phase 4846.5
PFD 6.7e-01
Delays (us)
SBD -0.856740
MBD -0.013535
Fringe rate (Hz)
-0.045730
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:054148
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	-2.3	-42.5	11.0	-28.2	-75.5	-20.6	32.5	-18.1	Phase	-13.5
	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	196.8	81.7	18.8	112.4	231.9	35.1	169.1	12.4	Sbd box	19.3
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.66984800882E+02	Apriori delay (usec)	4.67842085599E+02	Resid mbdelay (usec)	-1.35347E-02	+/-	3.7E-04
Sband delay (usec)	4.66985346099E+02	Apriori clock (usec)	-8.4046278E+00	Resid sbdelay (usec)	-8.56740E-01	+/-	2.9E-03
Phase delay (usec)	4.67842085165E+02	Apriori clockrate (us/s)	-2.3381969E-07	Resid phdelay (usec)	-4.33789E-07	+/-	6.3E-07
Delay rate (us/s)	4.50946685216E-01	Apriori rate (us/s)	4.50947216100E-01	Resid rate (us/s)	-5.30884E-07	+/-	1.8E-09
Total phase (deg)	4937.8	Apriori accel (us/s/s)	-4.42881348280E-06	Resid phase (deg)	4846.5	+/-	19.5

	RMS	Theor.							
			Amplitude	0.124 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	50.8	46.8	Search (4096X32)	0.119	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	63.0	81.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	36.1	27.6	Inc. seg. avg.	0.116	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	31.6	48.2	Inc. frq. avg.	0.123	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

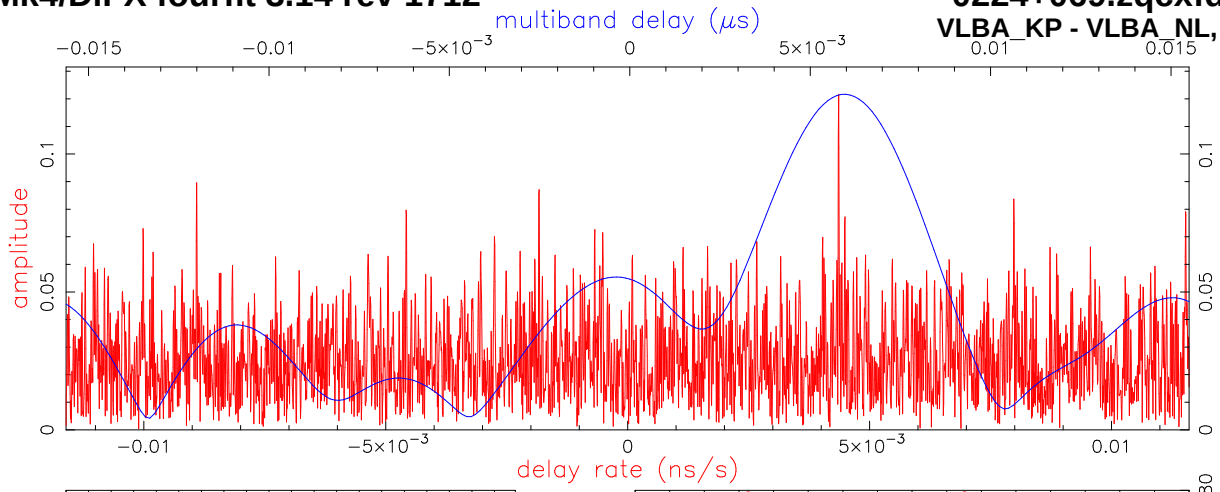
k: az 133.5 el 56.8 pa -37.4 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -2608.211 -1240.853 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/kn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/kn.W.93.zqcxfd

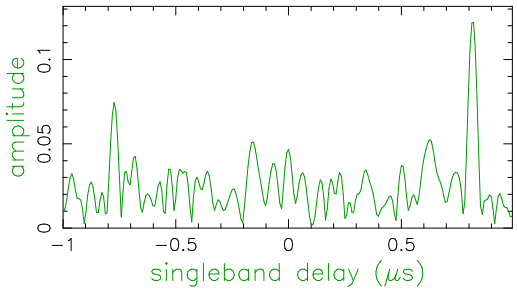
Mk4/DiFX fourfit 3.14 rev 1712

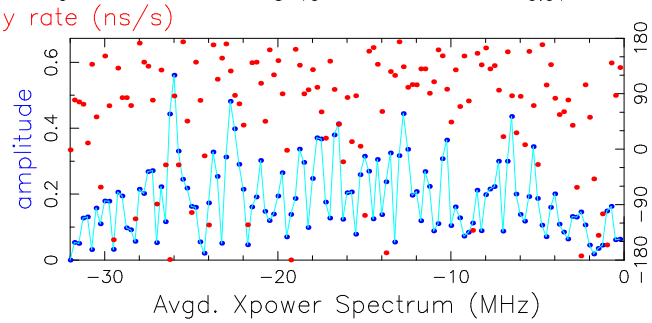
0224+069.zqcxfd, No0210, kn

VLBA_KP - VLBA_NL, fgroup W, pol RR

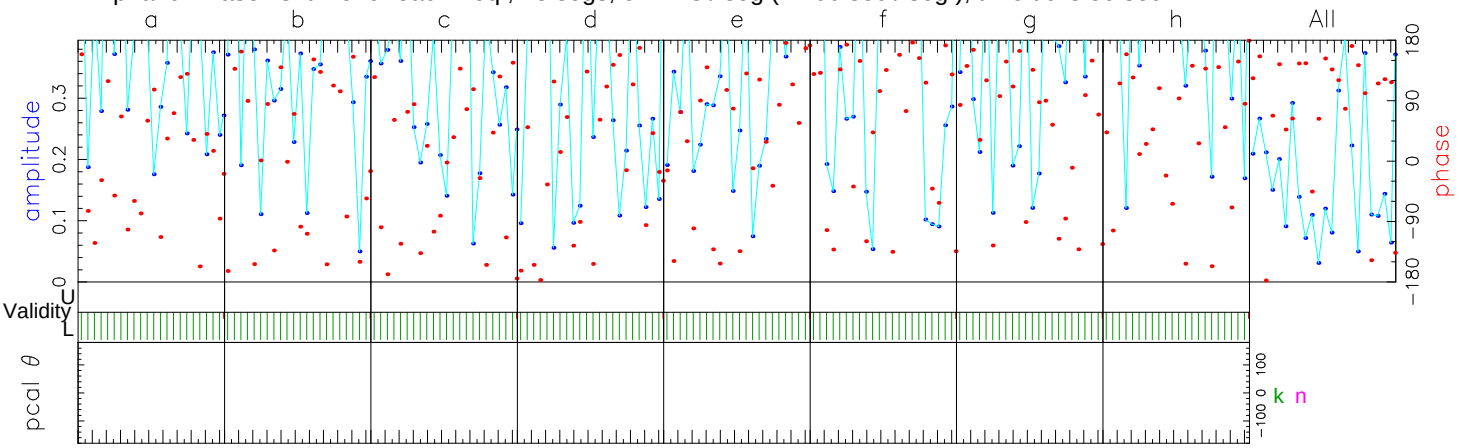


Fringe quality	0
SNR	5.9
Int time	599.982
Amp	0.132
Phase	-4557.8
PFD	6.5e-01
Delays (us)	
SBD	0.816631
MBD	0.005901
Fringe rate (Hz)	0.375481
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:054201
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	61.1	140.7	108.8	104.8	118.9	151.1	130.6	90.3	Phase	122.2
	0.1	0.2	0.1	0.1	0.1	0.3	0.2	0.2	Ampl.	0.1
	209.4	194.4	144.9	22.5	63.0	234.3	147.1	240.5	Sbd box	233.5
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.68660486161E+02	Apriori delay (usec)	4.67842085599E+02	Resid mbdelay (usec)	5.90056E-03	+/-	3.7E-04
Sband delay (usec)	4.68658716599E+02	Apriori clock (usec)	-8.4046278E+00	Resid sbdelay (usec)	8.16631E-01	+/-	2.9E-03
Phase delay (usec)	4.67842089539E+02	Apriori clockrate (us/s)	-2.3381969E-07	Resid phdelay (usec)	3.94033E-06	+/-	6.3E-07
Delay rate (us/s)	4.50951575066E-01	Apriori rate (us/s)	4.50947216100E-01	Resid rate (us/s)	4.35897E-06	+/-	1.8E-09
Total phase (deg)	-4466.5	Apriori accel (us/s/s)	-4.42881348280E-06	Resid phase (deg)	-4557.8	+/-	19.5

	RMS	Theor.							
			Amplitude	0.132 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	54.9	46.8	Search (4096X32)	0.120	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	92.3	81.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	32.9	27.6	Inc. seg. avg.	0.137	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	45.0	48.1	Inc. frq. avg.	0.128	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

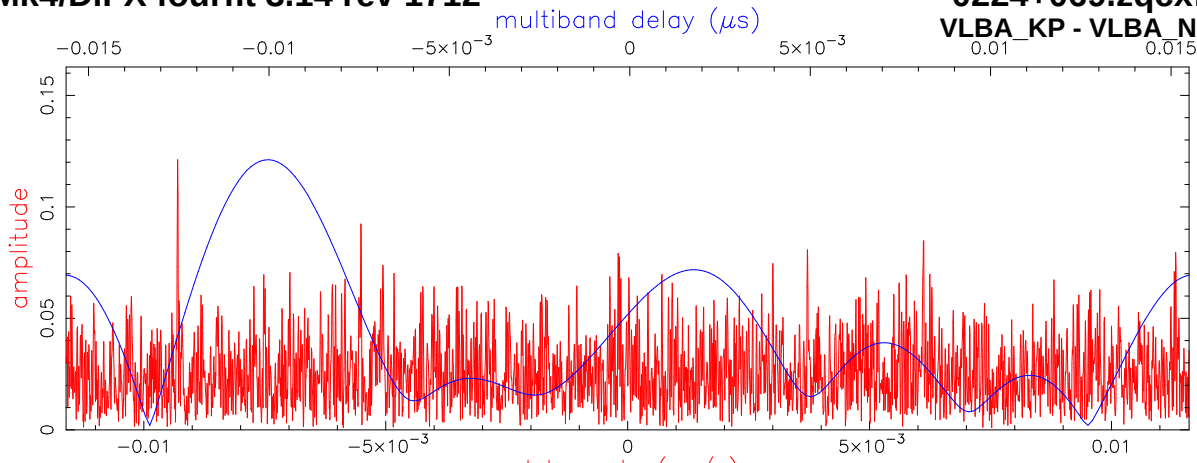
k: az 133.5 el 56.8 pa -37.4 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -2608.211 -1240.853 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/kn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/kn.W.94.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

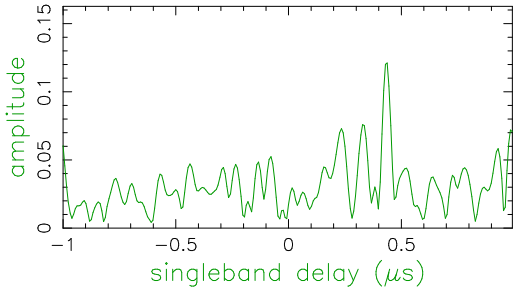
0224+069.zqcxfd, No0210, kn

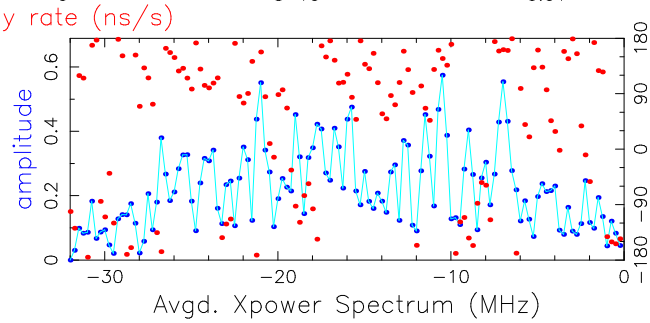
VLBA_KP - VLBA_NL, fgroup W, pol LR



Fringe quality 0

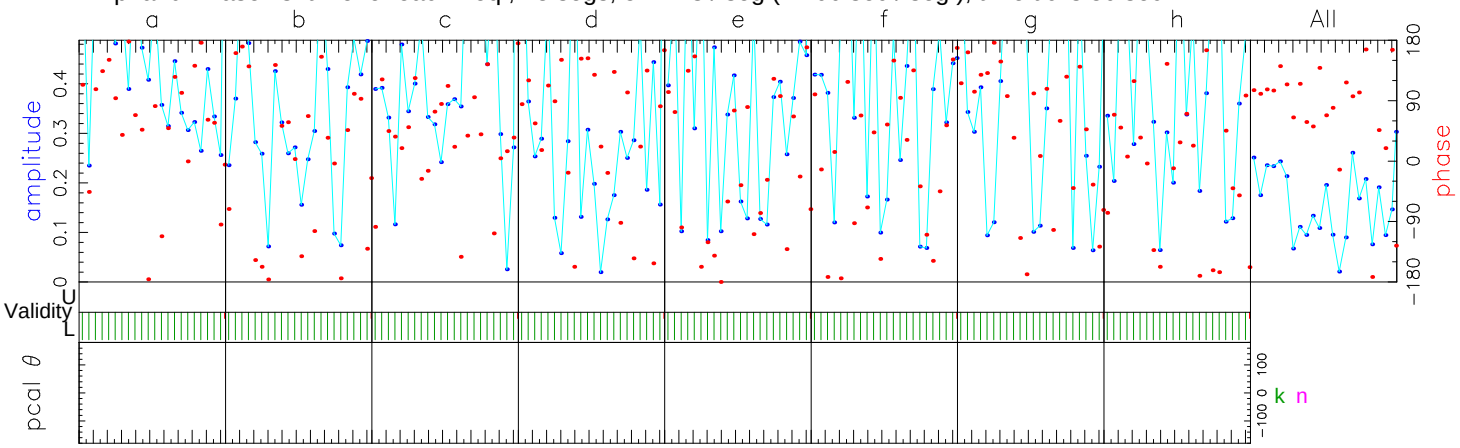
SNR 5.8
Int time 599.982
Amp 0.163
Phase -2414.9
PFD 7.6e-01
Delays (us)
SBD 0.433993
MBD -0.010071
Fringe rate (Hz)
-0.801349
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:054216
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	98.9	134.3	55.2	122.4	154.6	105.7	126.1	50.2	Phase	105.1
	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.1	Ampl.	0.2
	184.3	119.3	131.8	208.3	113.3	85.6	171.2	162.5	Sbd box	184.6
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.68269515029E+02	Apriori delay (usec)	4.67842085599E+02	Resid mbdelay (usec)	-1.00706E-02	+/-	3.7E-04
Sband delay (usec)	4.68276079099E+02	Apriori clock (usec)	-8.4046278E+00	Resid sbdelay (usec)	4.33993E-01	+/-	3.0E-03
Phase delay (usec)	4.67842088989E+02	Apriori clockrate (us/s)	-2.3381969E-07	Resid phdelay (usec)	3.38955E-06	+/-	6.3E-07
Delay rate (us/s)	4.50937913235E-01	Apriori rate (us/s)	4.50947216100E-01	Resid rate (us/s)	-9.30286E-06	+/-	1.8E-09
Total phase (deg)	-2323.6	Apriori accel (us/s/s)	-4.42881348280E-06	Resid phase (deg)	-2414.9	+/-	19.7

	RMS	Theor.						
			Amplitude	0.163 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	49.4	47.1	Search (4096X32)	0.118	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	62.8	82.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016 0.016
ph/frq (deg)	40.0	27.8	Inc. seg. avg.	0.155	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012 0.012
amp/frq (%)	41.9	48.5	Inc. frq. avg.	0.167	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00 0.00

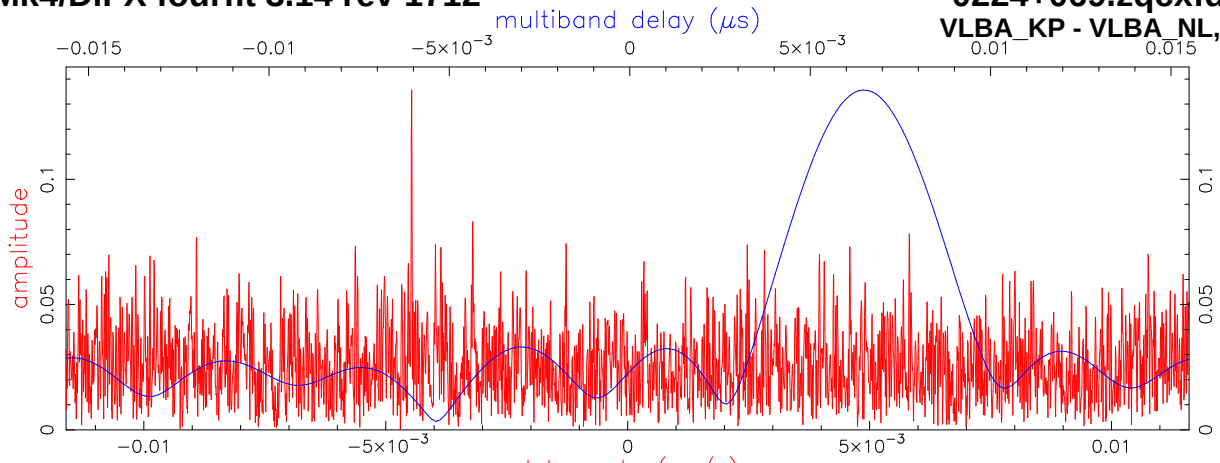
k: az 133.5 el 56.8 pa -37.4 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -2608.211 -1240.853 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/kn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/kn.W.95.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

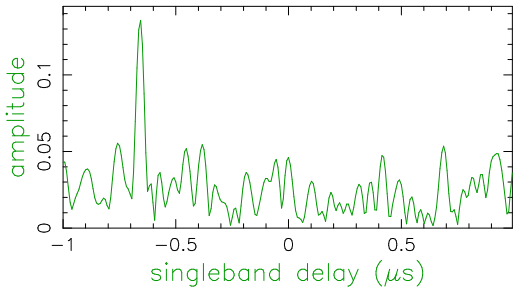
0224+069.zqcxfd, No0210, kn

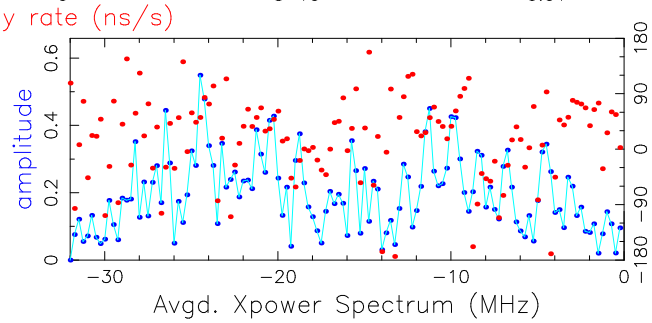
VLBA_KP - VLBA_NL, fgroup W, pol RL



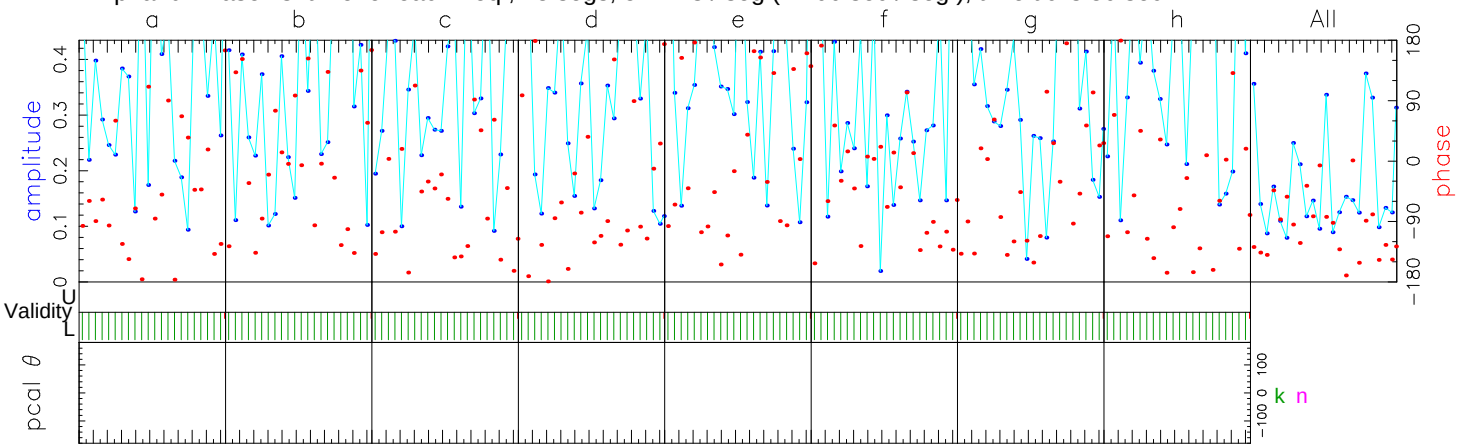
Fringe quality 0

SNR	6.4
Int time	599.982
Amp	0.145
Phase	3680.0
PFD	3.1e-02
Delays (us)	
SBD	-0.657915
MBD	0.006478
Fringe rate (Hz)	-0.384913
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:054229
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



									Freq (MHz)	All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00		
	-94.0	-95.0	-93.3	-122.2	-114.9	-88.2	-87.8	-98.4	Phase	-100.0
	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	Ampl.	0.1
	115.2	42.6	121.2	57.1	204.4	127.7	105.2	239.3	Sbd box	44.8
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.67192314067E+02	Apriori delay (usec)	4.67842085599E+02	Resid mbdelay (usec)	6.47847E-03	+/-	3.4E-04
Sband delay (usec)	4.67184170099E+02	Apriori clock (usec)	-8.4046278E+00	Resid sbdelay (usec)	-6.57915E-01	+/-	2.7E-03
Phase delay (usec)	4.67842082375E+02	Apriori clockrate (us/s)	-2.3381969E-07	Resid phdelay (usec)	-3.22379E-06	+/-	5.7E-07
Delay rate (us/s)	4.50942747646E-01	Apriori rate (us/s)	4.50947216100E-01	Resid rate (us/s)	-4.46845E-06	+/-	1.7E-09
Total phase (deg)	3771.3	Apriori accel (us/s/s)	-4.42881348280E-06	Resid phase (deg)	3680.0	+/-	17.8

	RMS	Theor.						
			Amplitude	0.145 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	46.3	42.6	Search (4096X32)	0.133	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	73.5	74.4	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	13.6	25.1	Inc. seg. avg.	0.145	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.012	0.012
amp/frq (%)	19.8	43.9	Inc. frq. avg.	0.134	Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

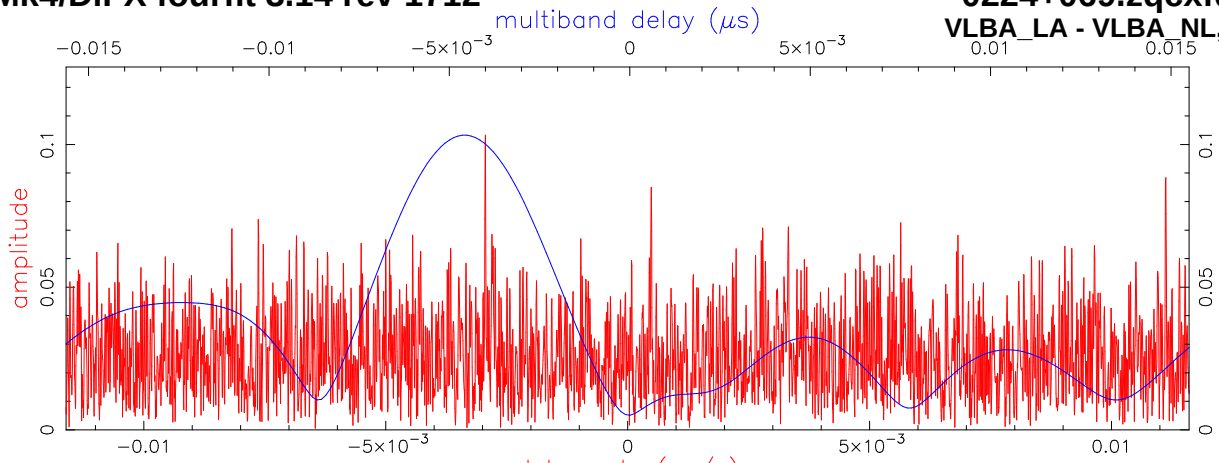
k: az 133.5 el 56.8 pa -37.4 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -2608.211 -1240.853 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/kn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/kn.W.96.zqcxfd

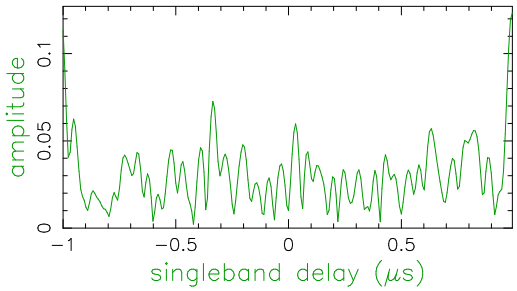
Mk4/DiFX fourfit 3.14 rev 1712

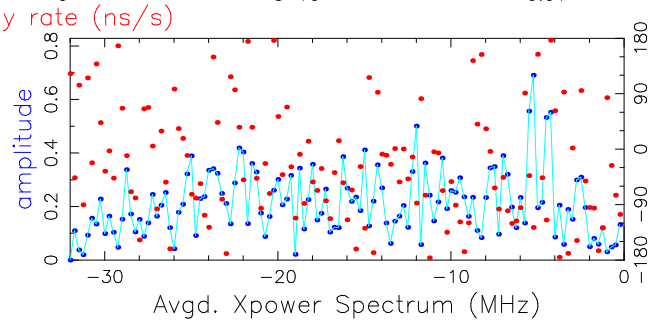
0224+069.zqcxfd, No0210, ln

VLBA_LA - VLBA_NL, fgroup W, pol LL

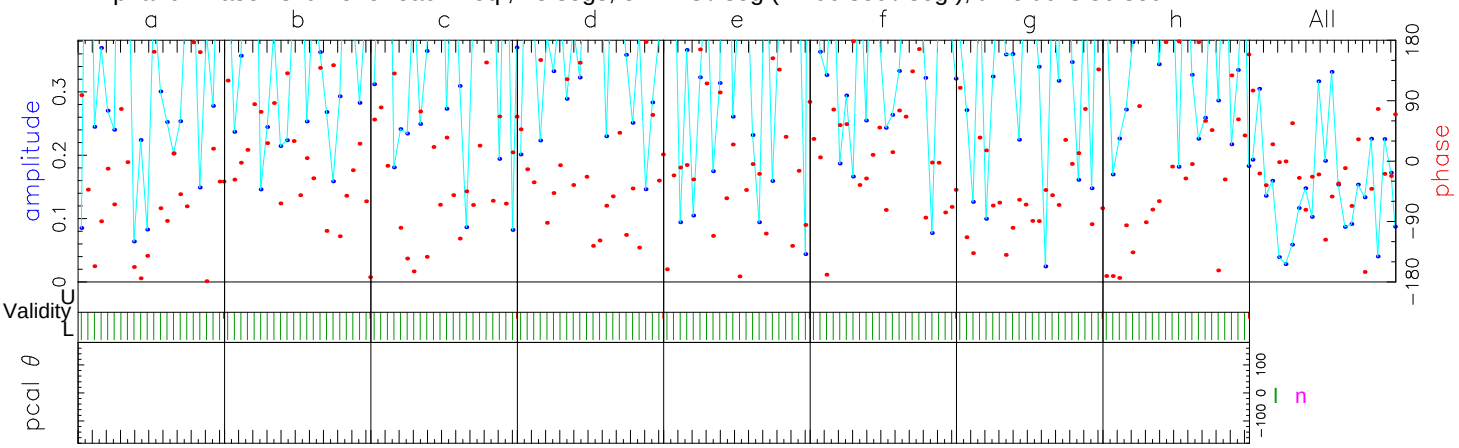


Fringe quality	0
SNR	5.9
Int time	599.982
Amp	0.127
Phase	-5786.2
PFD	6.8e-01
Delays (us)	
SBD	0.990556
MBD	-0.004564
Fringe rate (Hz)	-0.253472
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:054548
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	-49.4	8.6	-28.1	-47.9	-47.8	22.8	-42.8	-42.4	Phase	-26.2
	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1
	1.4	61.6	189.9	254.6	86.3	235.5	21.7	134.6	Sbd box	255.8
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.29245652718E+02	Apriori delay (usec)	4.28250217125E+02	Resid mbdelay (usec)	-4.56441E-03	+/-	3.7E-04
Sband delay (usec)	4.29240772875E+02	Apriori clock (usec)	-9.6556692E+00	Resid sbdelay (usec)	9.90556E-01	+/-	2.9E-03
Phase delay (usec)	4.28250216280E+02	Apriori clockrate (us/s)	-3.9755964E-07	Resid phdelay (usec)	-8.44644E-07	+/-	6.3E-07
Delay rate (us/s)	3.18984220171E-01	Apriori rate (us/s)	3.18987162731E-01	Resid rate (us/s)	-2.94256E-06	+/-	1.8E-09
Total phase (deg)	-5533.1	Apriori accel (us/s/s)	-3.45766747658E-06	Resid phase (deg)	-5786.2	+/-	19.5

	RMS	Theor.	Amplitude	0.127 +/- 0.022
ph/seg (deg)	58.9	46.8	Search (4096X32)	0.122
amp/seg (%)	72.7	81.8	Interp.	0.000
ph/frq (deg)	30.6	27.6	Inc. seg. avg.	0.119
amp/frq (%)	29.2	48.2	Inc. frq. avg.	0.107

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Pcal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MSamp/s): 64
Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite

sb window (us)	-1.000	1.000
mb window (us)	-0.016	0.016
dr window (ns/s)	-0.012	0.012
ion window (TEC)	0.00	0.00

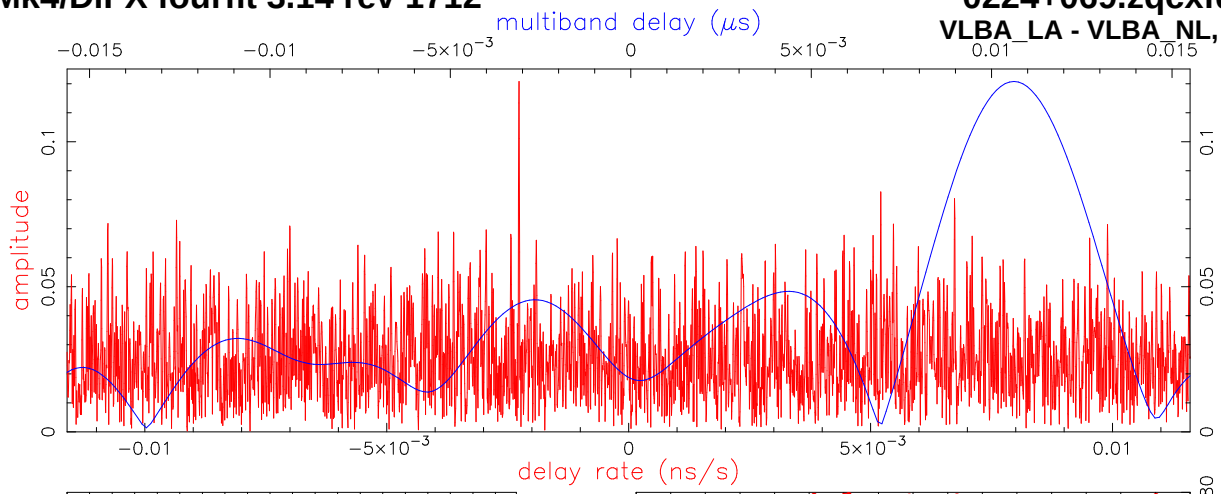
l: az 145.5 el 56.8 pa -25.9 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -1845.669 -746.322 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/ln..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/ln.W.109.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

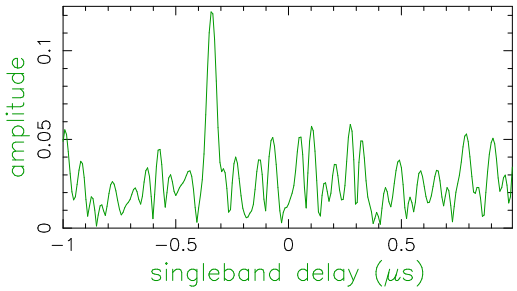
0224+069.zqcxfd, No0210, ln

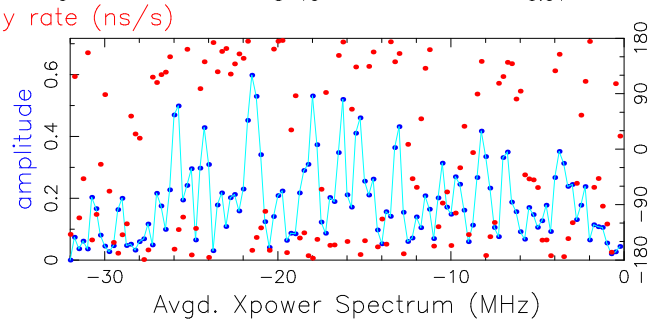
VLBA_LA - VLBA_NL, fgroup W, pol RR



Fringe quality 0

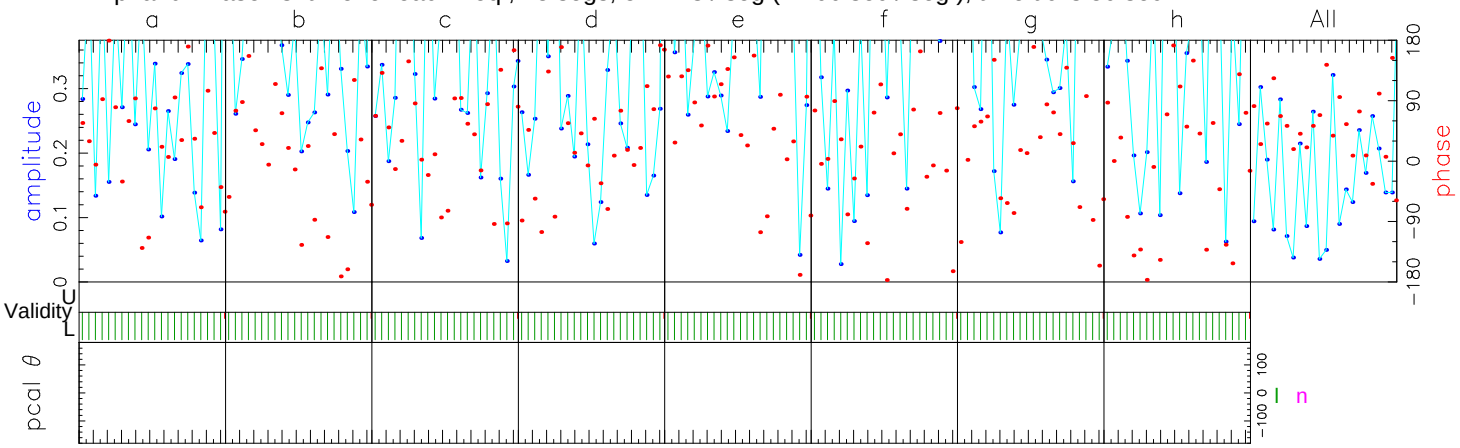
SNR 5.8
Int time 599.982
Amp 0.125
Phase 2026.9
PFD 7.5e-01
Delays (us)
SBD -0.340489
MBD 0.010638
Fringe rate (Hz)
-0.195146
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:054605
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	62.0	33.0	49.8	-4.7	80.9	47.1	12.6	62.6	Phase	46.9
	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
	164.5	84.1	83.6	27.0	35.4	142.2	149.6	179.9	Sbd box	85.4
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.27917105101E+02	Apriori delay (usec)	4.28250217125E+02	Resid mbdelay (usec)	1.06380E-02	+/-	3.7E-04
Sband delay (usec)	4.27909728125E+02	Apriori clock (usec)	-9.6556692E+00	Resid sbdelay (usec)	-3.40489E-01	+/-	3.0E-03
Phase delay (usec)	4.28250218636E+02	Apriori clockrate (us/s)	-3.9755964E-07	Resid phdelay (usec)	1.51106E-06	+/-	6.3E-07
Delay rate (us/s)	3.18984897283E-01	Apriori rate (us/s)	3.18987162731E-01	Resid rate (us/s)	-2.26545E-06	+/-	1.8E-09
Total phase (deg)	2280.0	Apriori accel (us/s/s)	-3.45766747658E-06	Resid phase (deg)	2026.9	+/-	19.6

	RMS	Theor.							
			Amplitude	0.125 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	47.7	47.1	Search (4096X32)	0.119	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	79.6	82.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	30.8	27.8	Inc. seg. avg.	0.124	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	21.5	48.5	Inc. frq. avg.	0.121	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

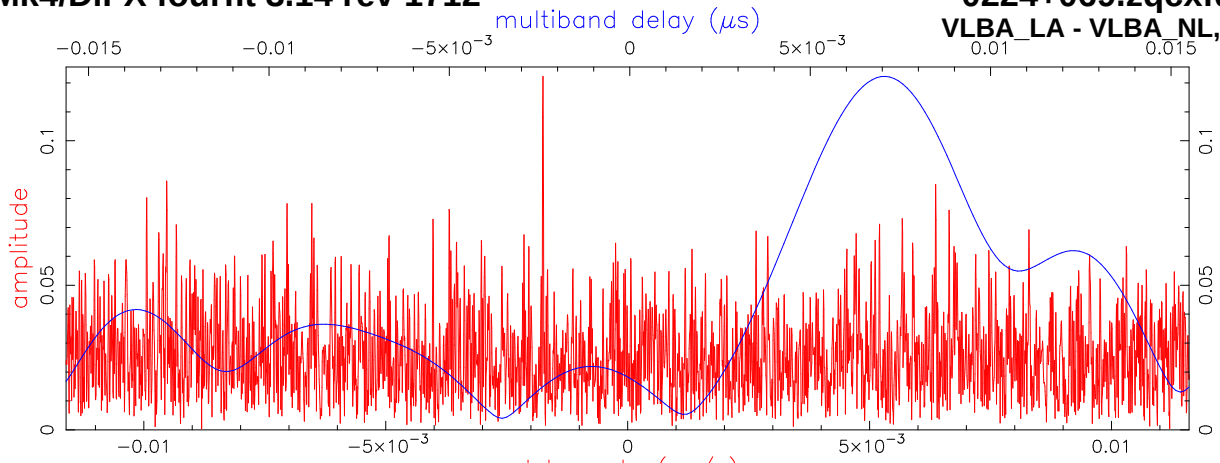
l: az 145.5 el 56.8 pa -25.9 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -1845.669 -746.322 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/ln..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/ln.W.110.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

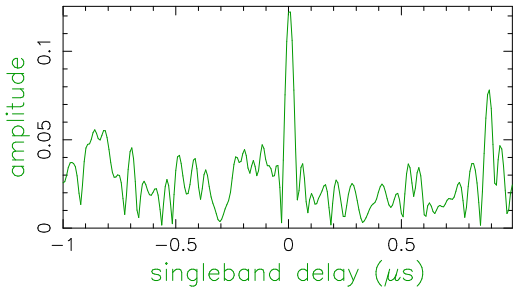
0224+069.zqcxfd, No0210, ln

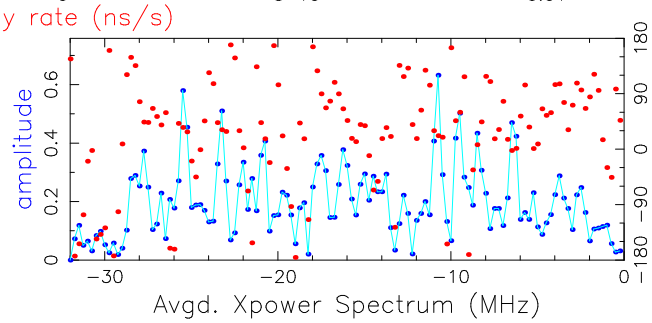
VLBA_LA - VLBA_NL, fgroup W, pol LR



Fringe quality 0

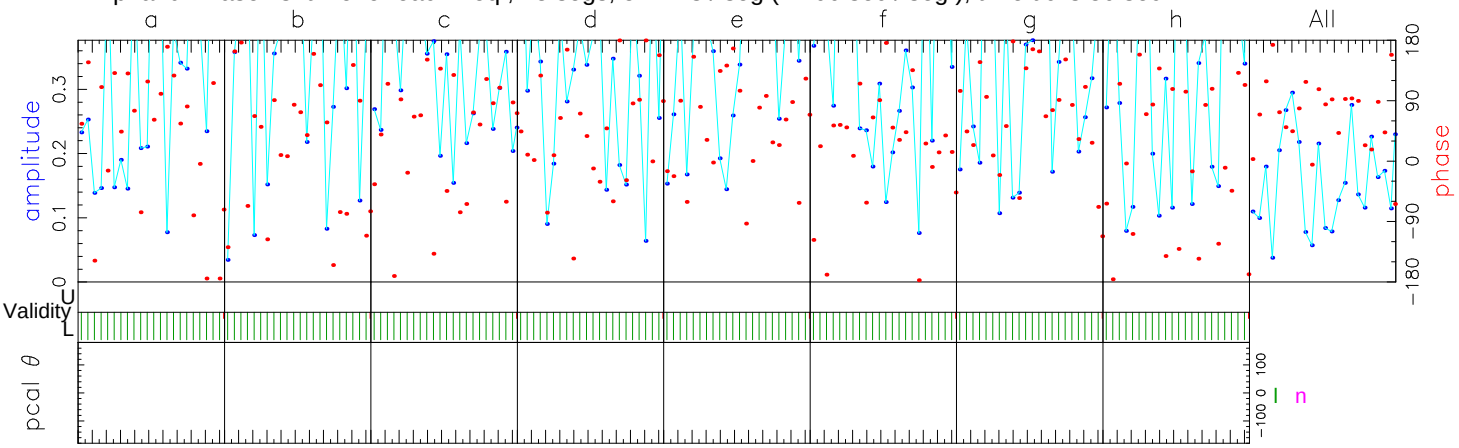
SNR 5.9
Int time 599.982
Amp 0.126
Phase 70.3
PFD 6.3e-01
Delays (us)
SBD 0.003861
MBD 0.007091
Fringe rate (Hz)
-0.150694
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:054620
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	91.6	90.8	81.0	39.1	68.9	34.1	83.5	144.4	Phase	70.3
	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	Ampl.	0.1
	61.8	111.4	39.3	24.0	129.3	129.5	63.9	86.9	Sbd box	129.5
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.28257307659E+02	Apriori delay (usec)	4.28250217125E+02	Resid mbdelay (usec)	7.09053E-03	+/-	3.7E-04
Sband delay (usec)	4.28254078125E+02	Apriori clock (usec)	-9.6556692E+00	Resid sbdelay (usec)	3.86100E-03	+/-	2.9E-03
Phase delay (usec)	4.28250219393E+02	Apriori clockrate (us/s)	-3.9755964E-07	Resid phdelay (usec)	2.26771E-06	+/-	6.3E-07
Delay rate (us/s)	3.18985413322E-01	Apriori rate (us/s)	3.18987162731E-01	Resid rate (us/s)	-1.74941E-06	+/-	1.8E-09
Total phase (deg)	323.5	Apriori accel (us/s/s)	-3.45766747658E-06	Resid phase (deg)	70.3	+/-	19.5

	RMS	Theor.							
			Amplitude	0.126 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	46.7	46.7	Search (4096X32)	0.120	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	62.9	81.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	38.6	27.5	Inc. seg. avg.	0.118	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	44.3	48.0	Inc. frq. avg.	0.127	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

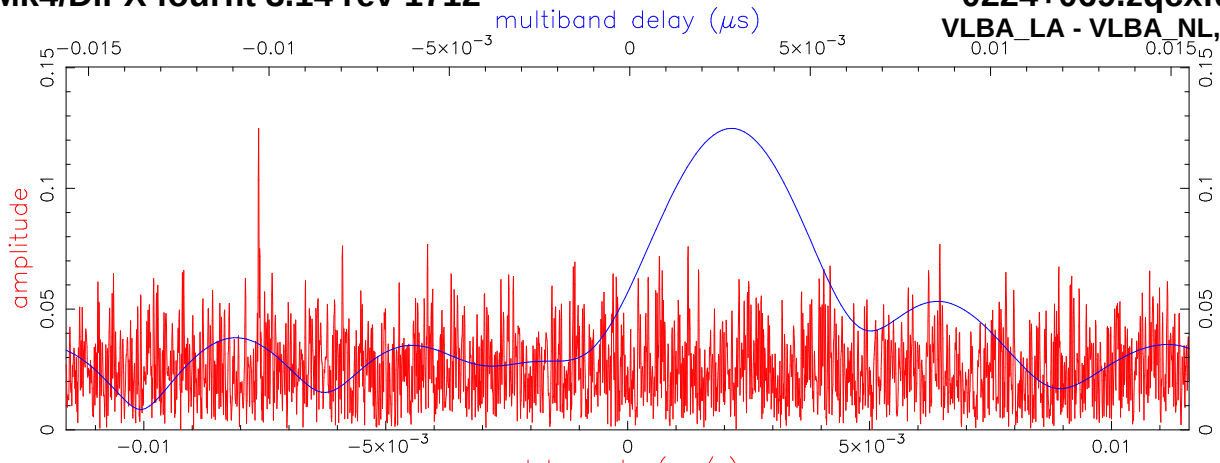
l: az 145.5 el 56.8 pa -25.9 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -1845.669 -746.322 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/ln..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/ln.W.111.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

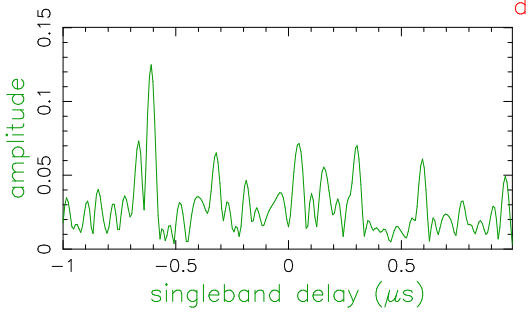
0224+069.zqcxfd, No0210, ln

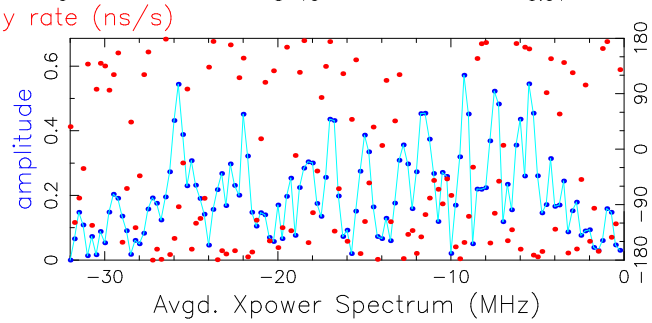
VLBA_LA - VLBA_NL, fgroup W, pol RL



Fringe quality 0

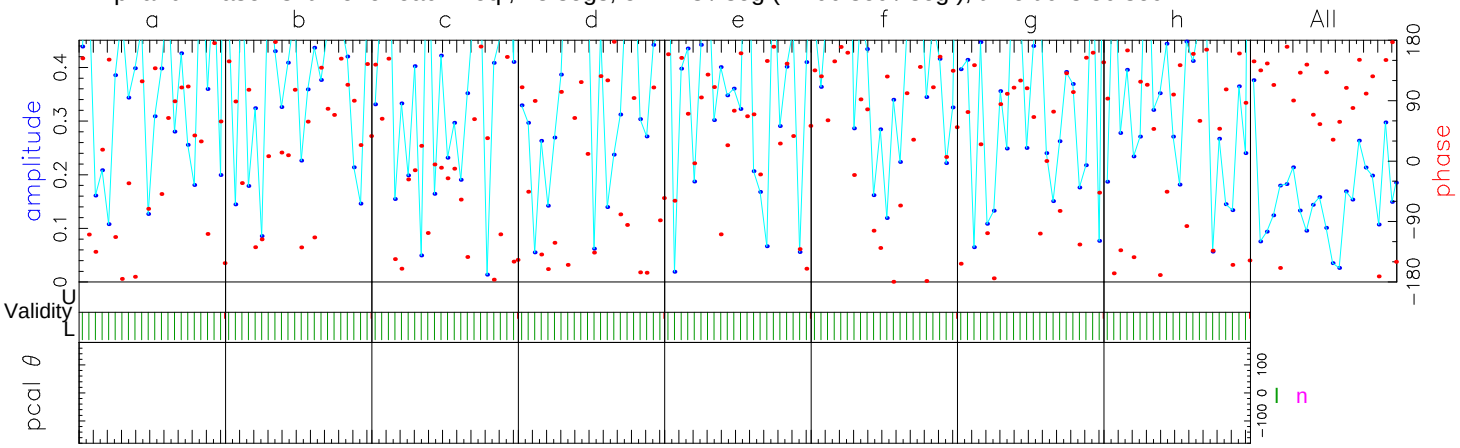
SNR 5.9
Int time 599.982
Amp 0.150
Phase 3732.0
PFD 5.6e-01
Delays (us)
SBD -0.610232
MBD 0.002815
Fringe rate (Hz)
-0.657203
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:054636
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	152.3	96.5	-164.8	156.6	109.4	128.0	118.7	152.4	Phase	132.0
	0.1	0.2	0.1	0.1	0.2	0.3	0.2	0.2	Ampl.	0.2
	18.9	20.3	244.1	113.1	21.9	51.8	23.1	173.5	Sbd box	50.9
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.27628032170E+02	Apriori delay (usec)	4.28250217125E+02	Resid mbdelay (usec)	2.81505E-03	+/-	3.7E-04
Sband delay (usec)	4.27639985125E+02	Apriori clock (usec)	-9.6556692E+00	Resid sbdelay (usec)	-6.10232E-01	+/-	2.9E-03
Phase delay (usec)	4.28250221382E+02	Apriori clockrate (us/s)	-3.9755964E-07	Resid phdelay (usec)	4.25682E-06	+/-	6.2E-07
Delay rate (us/s)	3.18979533256E-01	Apriori rate (us/s)	3.18987162731E-01	Resid rate (us/s)	-7.62948E-06	+/-	1.8E-09
Total phase (deg)	3625.1	Apriori accel (us/s/s)	-3.45766747658E-06	Resid phase (deg)	3732.0	+/-	19.4

	RMS	Theor.							
			Amplitude	0.150 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	45.5	46.4	Search (4096X32)	0.124	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	69.6	81.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	35.1	27.4	Inc. seg. avg.	0.144	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	43.3	47.8	Inc. frq. avg.	0.150	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

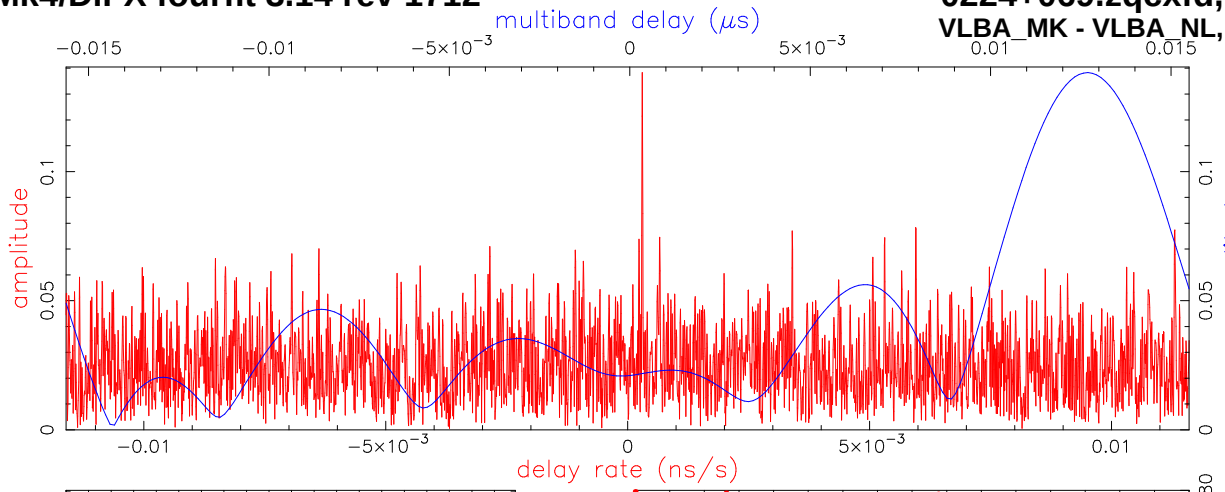
l: az 145.5 el 56.8 pa -25.9 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -1845.669 -746.322 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/ln..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/ln.W.112.zqcxfd

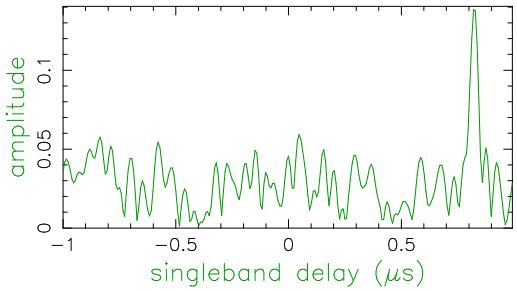
Mk4/DiFX fourfit 3.14 rev 1712

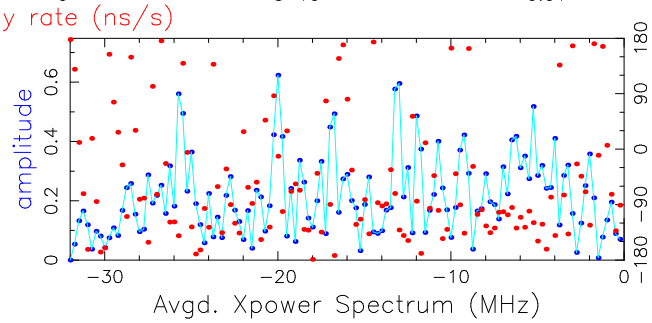
0224+069.zqcxfd, No0210, mn

VLBA_MK - VLBA_NL, fgroup W, pol LL

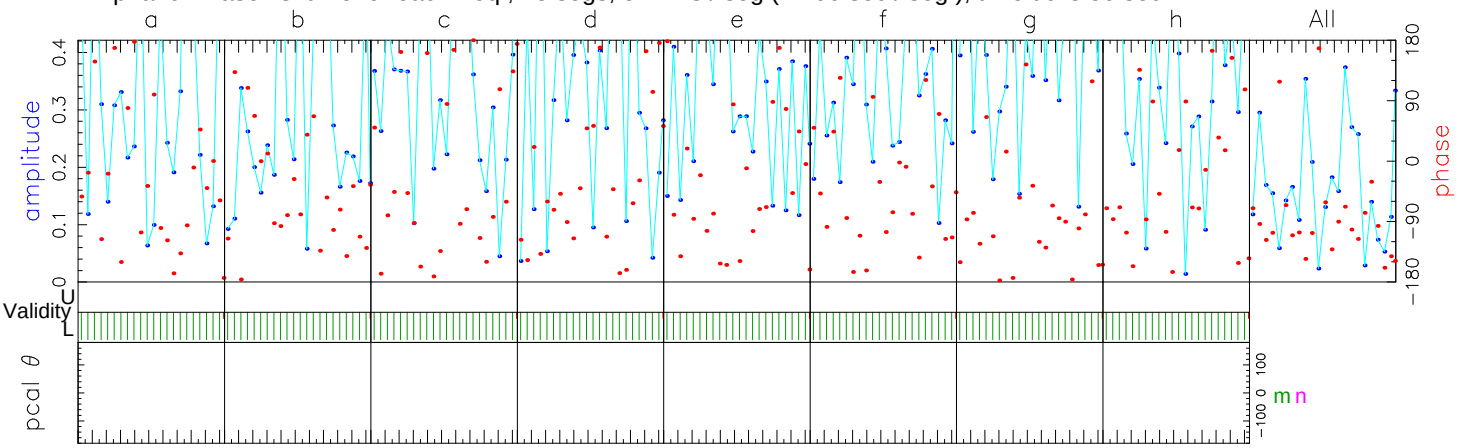


Fringe quality	0
SNR	6.7
Int time	599.983
Amp	0.140
Phase	-4783.2
PFD	8.3e-03
Delays (us)	
SBD	0.823973
MBD	0.012651
Fringe rate (Hz)	0.025733
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339 2017:214:054851 2017:170:130423
RA & Dec (J2000)	02h24m28.4282s +6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



									Freq (MHz)	All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00		
	-106.8	-89.5	-139.6	-96.5	-86.3	-77.9	-120.8	-93.8	Phase	-103.2
	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1
	9.8	26.6	149.1	234.8	213.2	35.0	234.7	80.8	Sbd box	234.5
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-8.58144572562E+03	Apriori delay (usec)	-8.58227087630E+03	Resid mbdelay (usec)	1.26507E-02	+/-	3.3E-04
Sband delay (usec)	-8.58144690280E+03	Apriori clock (usec)	-4.2852726E+00	Resid sbdelay (usec)	8.23973E-01	+/-	2.6E-03
Phase delay (usec)	-8.58227087963E+03	Apriori clockrate (us/s)	-3.5968662E-07	Resid phdelay (usec)	-3.32763E-06	+/-	5.6E-07
Delay rate (us/s)	1.28043536934E+00	Apriori rate (us/s)	1.28043507061E+00	Resid rate (us/s)	2.98731E-07	+/-	1.6E-09
Total phase (deg)	-4885.6	Apriori accel (us/s/s)	4.10795109158E-05	Resid phase (deg)	-4783.2	+/-	17.2

	RMS	Theor.							
			Amplitude	0.140 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	46.0	41.3	Search (4096X32)	0.136	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	70.6	72.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	22.0	24.4	Inc. seg. avg.	0.131	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	32.2	42.5	Inc. frq. avg.	0.134	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

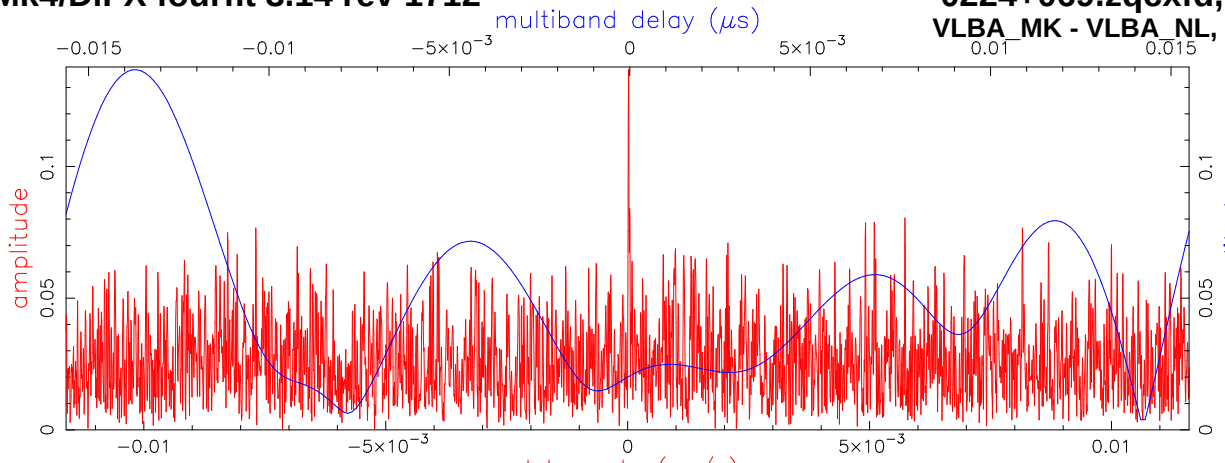
m: az 90.8 el 23.6 pa -71.4 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -7314.233 -2461.266 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/mn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/mn.W.121.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

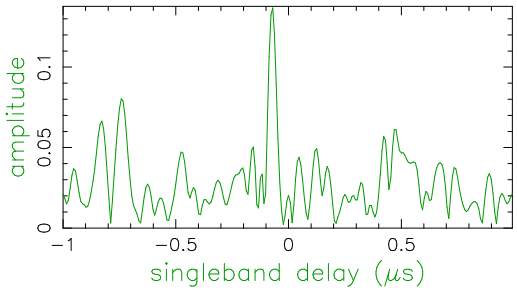
0224+069.zqcxfd, No0210, mn

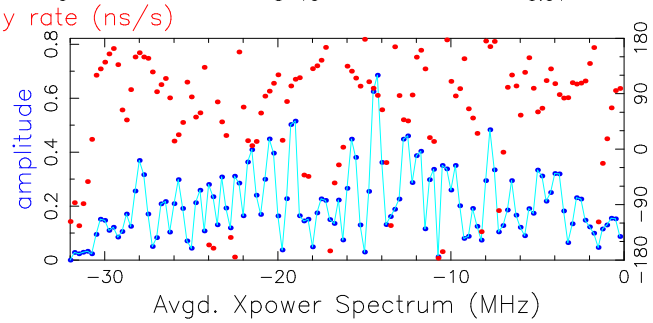
VLBA_MK - VLBA_NL, fgroup W, pol RR



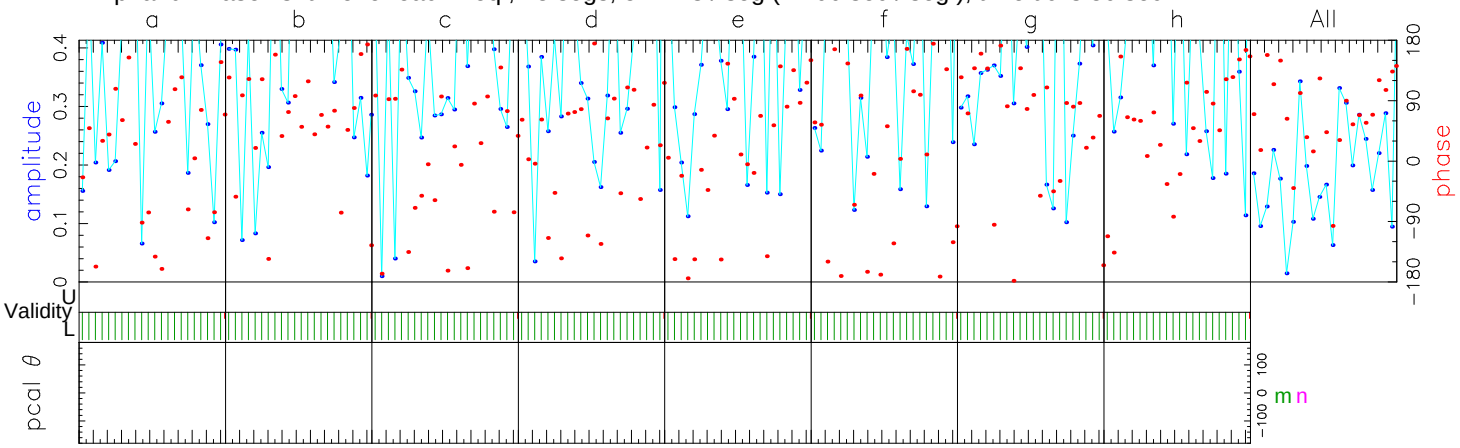
Fringe quality 0

SNR	6.5
Int time	599.983
Amp	0.138
Phase	441.2
PFD	1.9e-02
Delays (us)	
SBD	-0.072696
MBD	-0.013714
Fringe rate (Hz)	0.001324
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339 2017:214:054905 2017:170:130423
RA & Dec (J2000)	02h24m28.4282s +6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



									Freq (MHz)	All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00		
	80.1	85.4	55.4	64.4	66.5	161.8	80.4	52.5	Phase	81.2
	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	77.7	119.3	98.0	8.3	85.8	118.5	173.2	121.2	Sbd box	119.7
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-8.58234709076E+03	Apriori delay (usec)	-8.58227087630E+03	Resid mbdelay (usec)	-1.37145E-02	+/-	3.3E-04
Sband delay (usec)	-8.58234357230E+03	Apriori clock (usec)	-4.2852726E+00	Resid sbdelay (usec)	-7.26960E-02	+/-	2.6E-03
Phase delay (usec)	-8.58227087368E+03	Apriori clockrate (us/s)	-3.5968662E-07	Resid phdelay (usec)	2.61747E-06	+/-	5.7E-07
Delay rate (us/s)	1.28043508598E+00	Apriori rate (us/s)	1.28043507061E+00	Resid rate (us/s)	1.53721E-08	+/-	1.6E-09
Total phase (deg)	338.8	Apriori accel (us/s/s)	4.10795109158E-05	Resid phase (deg)	441.2	+/-	17.6

	RMS	Theor.							
			Amplitude	0.138 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	61.0	42.1	Search (4096X32)	0.135	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	75.7	73.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	37.6	24.8	Inc. seg. avg.	0.148	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	37.8	43.3	Inc. frq. avg.	0.151	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

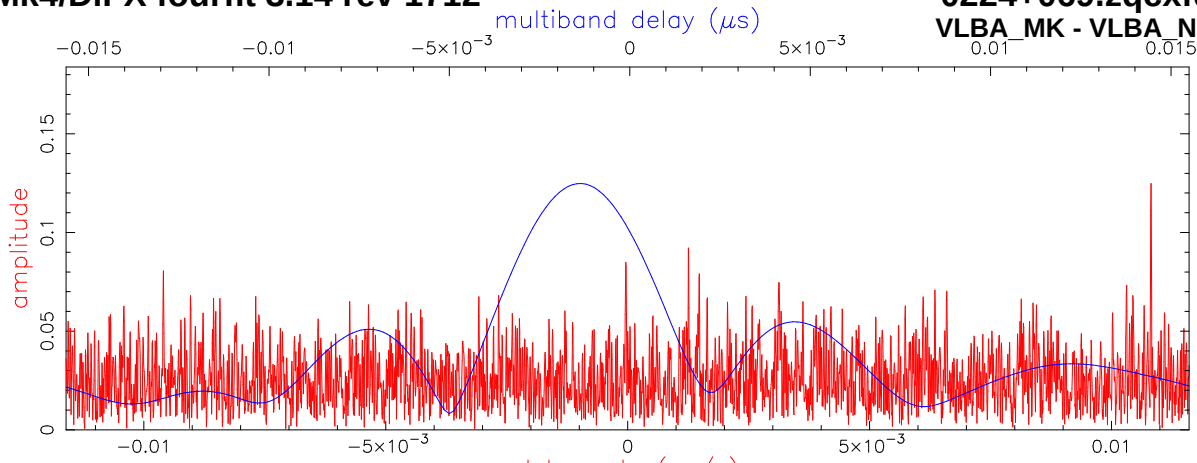
m: az 90.8 el 23.6 pa -71.4 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -7314.233 -2461.266 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/mn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/mn.W.122.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

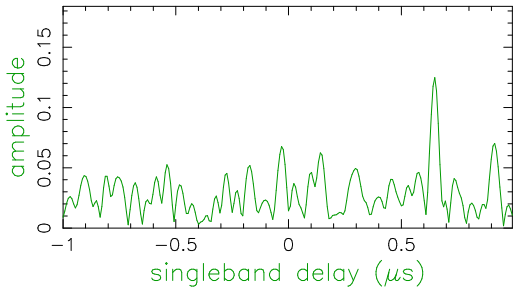
0224+069.zqcxfd, No0210, mn

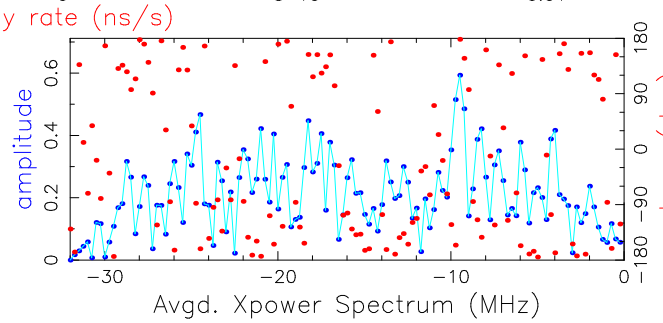
VLBA_MK - VLBA_NL, fgroup W, pol LR



Fringe quality 0

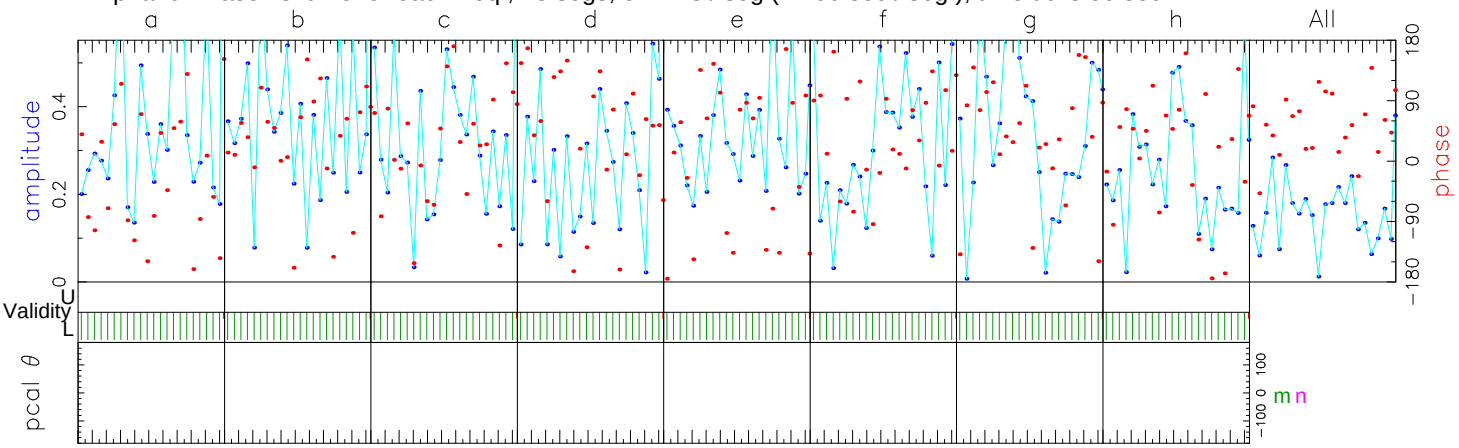
SNR	5.9
Int time	599.983
Amp	0.184
Phase	-3726.1
PFD	5.7e-01
Delays (us)	
SBD	0.647618
MBD	-0.001363
Fringe rate (Hz)	0.931498
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500





Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:054921
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	44.7	49.8	47.5	75.5	115.7	30.3	66.7	35.0	Phase	53.9
	0.1	0.3	0.2	0.2	0.1	0.3	0.2	0.2	Ampl.	0.2
	185.4	1.4	207.2	133.0	196.9	124.0	5.9	153.3	Sbd box	211.9
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-8.58161598956E+03	Apriori delay (usec)	-8.58227087630E+03	Resid mbdelay (usec)	-1.36326E-03	+/-	3.7E-04
Sband delay (usec)	-8.58162325830E+03	Apriori clock (usec)	-4.2852726E+00	Resid sbdelay (usec)	6.47618E-01	+/-	2.9E-03
Phase delay (usec)	-8.58227087456E+03	Apriori clockrate (us/s)	-3.5968662E-07	Resid phdelay (usec)	1.73680E-06	+/-	6.2E-07
Delay rate (us/s)	1.28044588438E+00	Apriori rate (us/s)	1.28043507061E+00	Resid rate (us/s)	1.08138E-05	+/-	1.8E-09
Total phase (deg)	-3828.5	Apriori accel (us/s/s)	4.10795109158E-05	Resid phase (deg)	-3726.1	+/-	19.4

	RMS	Theor.	Amplitude	0.184 +/- 0.031
ph/seg (deg)	44.6	46.4	Search (4096X32)	0.122
amp/seg (%)	60.5	81.0	Interp.	0.000
ph/frq (deg)	30.3	27.4	Inc. seg. avg.	0.171
amp/frq (%)	32.4	47.8	Inc. frq. avg.	0.178

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Pcal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MSamp/s): 64
Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite

sb window (us)	-1.000	1.000
mb window (us)	-0.016	0.016
dr window (ns/s)	-0.012	0.012
ion window (TEC)	0.00	0.00

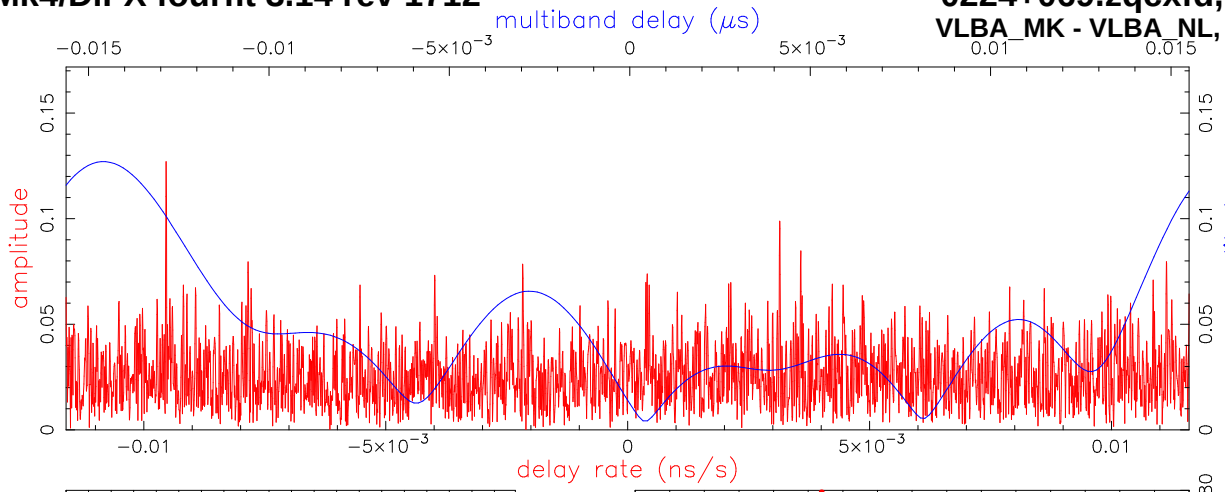
m: az 90.8 el 23.6 pa -71.4 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -7314.233 -2461.266 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/mn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/mn.W.123.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

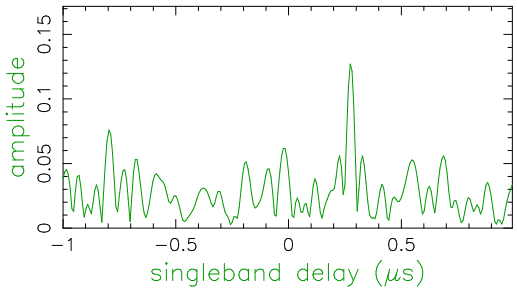
0224+069.zqcxfd, No0210, mn

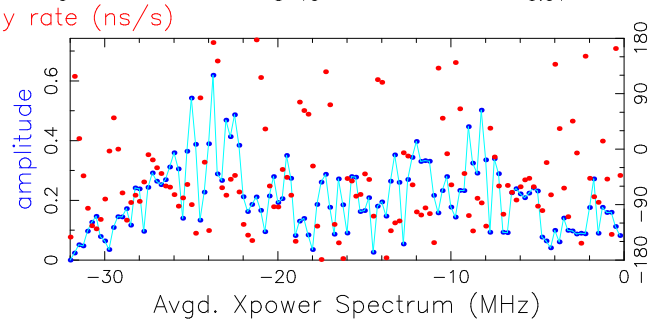
VLBA_MK - VLBA_NL, fgroup W, pol RL



Fringe quality 0

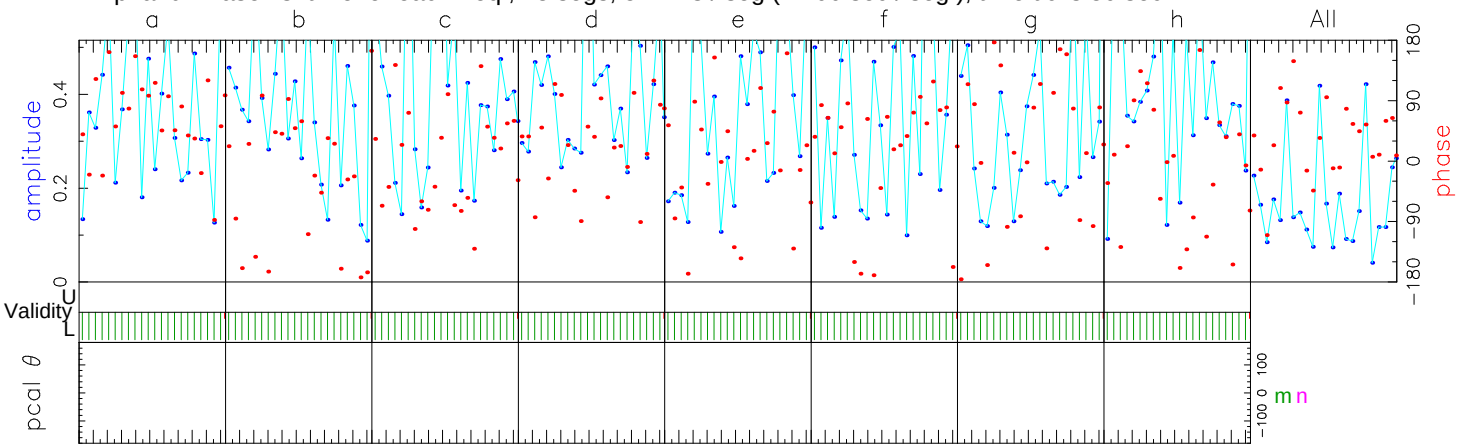
SNR 6.1
Int time 599.983
Amp 0.172
Phase -1573.1
PFD 3.0e-01
Delays (us)
SBD 0.275591
MBD -0.014606
Fringe rate (Hz)
-0.821598
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:054940
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	78.6	10.1	12.1	37.6	32.0	68.2	97.9	-13.1	Phase	46.9
	0.3	0.1	0.3	0.3	0.1	0.3	0.1	0.1	Ampl.	0.2
	163.4	228.7	155.4	163.8	195.1	164.4	102.3	184.5	Sbd box	164.3
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-8.58200423261E+03	Apriori delay (usec)	-8.58227087630E+03	Resid mbdelay (usec)	-1.46063E-02	+/-	3.6E-04
Sband delay (usec)	-8.58199528580E+03	Apriori clock (usec)	-4.2852726E+00	Resid sbdelay (usec)	2.75591E-01	+/-	2.8E-03
Phase delay (usec)	-8.58227087479E+03	Apriori clockrate (us/s)	-3.5968662E-07	Resid phdelay (usec)	1.51320E-06	+/-	6.1E-07
Delay rate (us/s)	1.28042553267E+00	Apriori rate (us/s)	1.28043507061E+00	Resid rate (us/s)	-9.53794E-06	+/-	1.8E-09
Total phase (deg)	-1675.5	Apriori accel (us/s/s)	4.10795109158E-05	Resid phase (deg)	-1573.1	+/-	18.9

	RMS	Theor.						
			Amplitude	0.172 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	56.6	45.3	Search (4096X32)	0.124	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	89.9	79.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016 0.016
ph/frq (deg)	41.9	26.7	Inc. seg. avg.	0.176	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012 0.012
amp/frq (%)	52.0	46.7	Inc. frq. avg.	0.180	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00 0.00

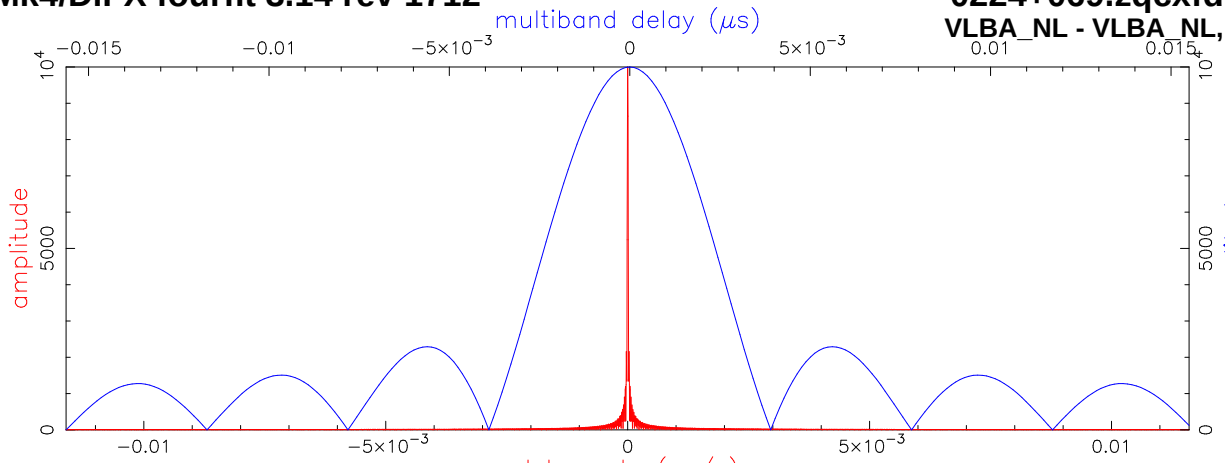
m: az 90.8 el 23.6 pa -71.4 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) -7314.233 -2461.266 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/mn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/mn.W.124.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

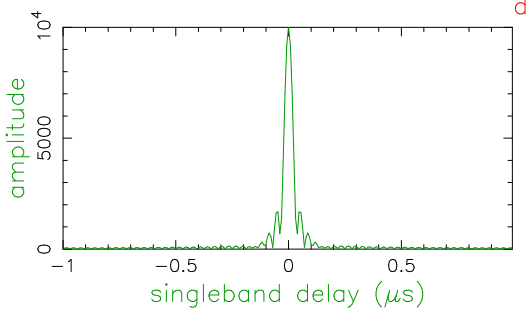
0224+069.zqcxfd, No0210, nn

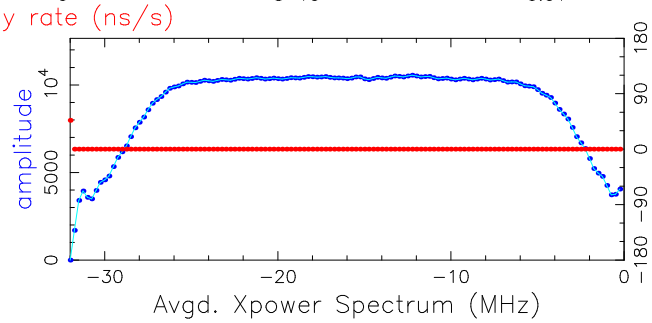
VLBA_NL - VLBA_NL, fgroup W, pol LL



Fringe quality 9

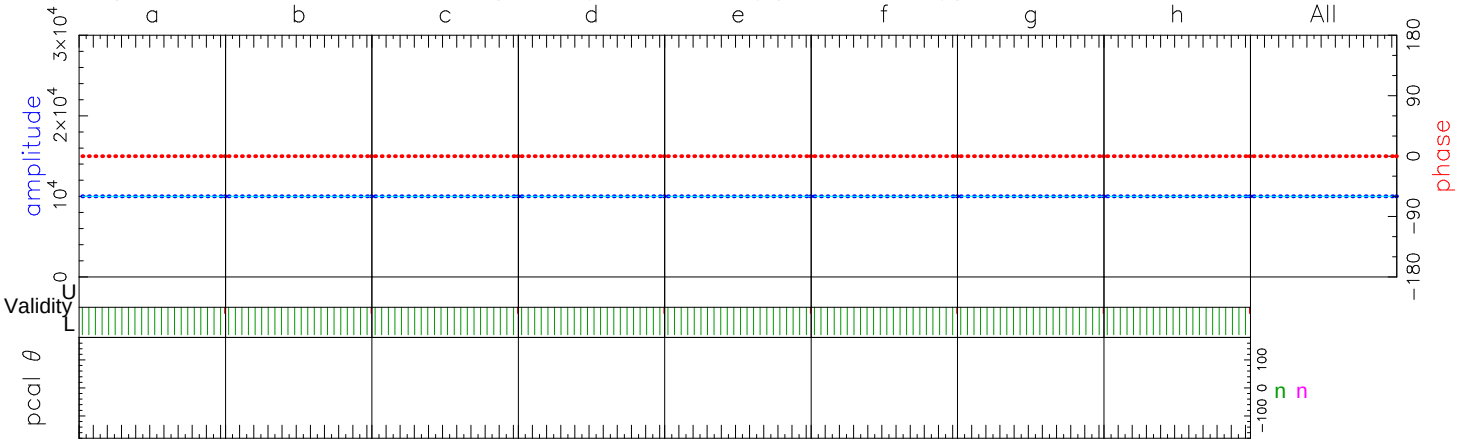
SNR 473643.9
Int time 599.982
Amp 10000.001
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:060042
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



									Freq (MHz)	All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Phase	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Ampl.	10000.0
	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Sbd box	129.0
	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0		
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	0.00000000000E+00	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	4.6E-09
Sband delay (usec)	0.00000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	3.6E-08
Phase delay (usec)	0.00000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	7.8E-12
Delay rate (us/s)	0.00000000000E+00	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	2.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	0.0	+/-	0.0

	RMS	Theor.							
			Amplitude	10000.001 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	0.0	0.0	Search (4096X32)	10000.001	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.001	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

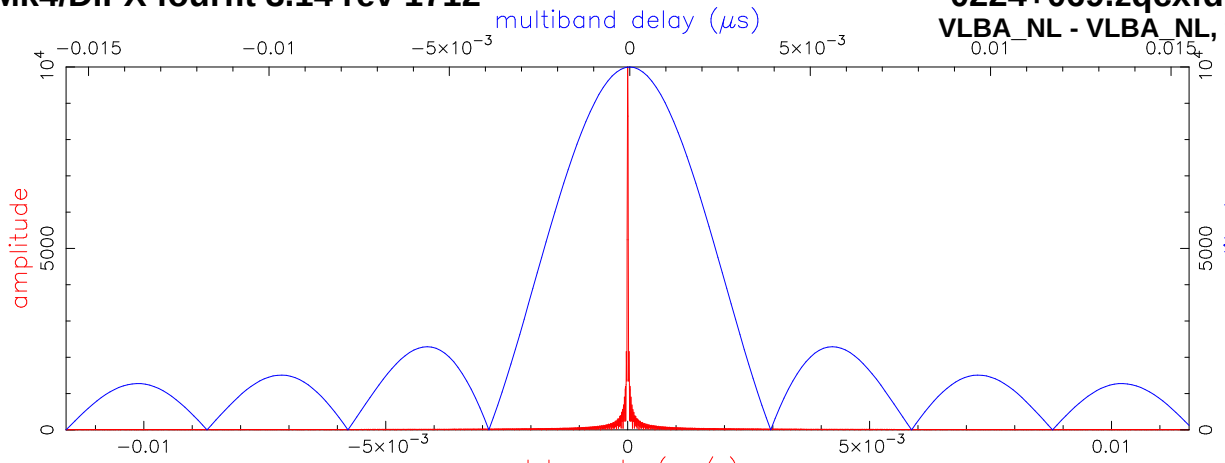
n: az 173.8 el 55.1 pa -4.2 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/nn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/nn.W.169.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

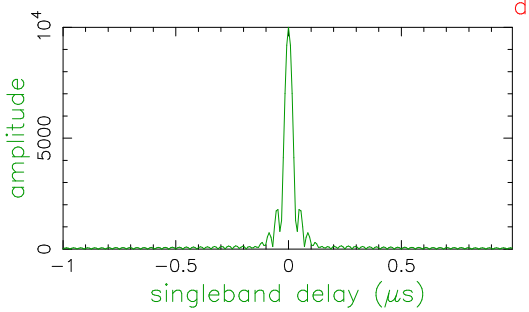
0224+069.zqcxfd, No0210, nn

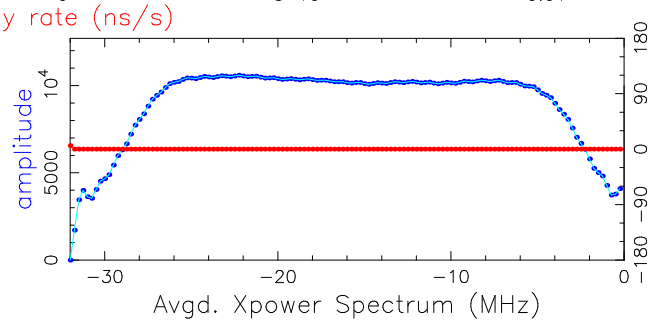
VLBA_NL - VLBA_NL, fgroup W, pol RR



Fringe quality 9

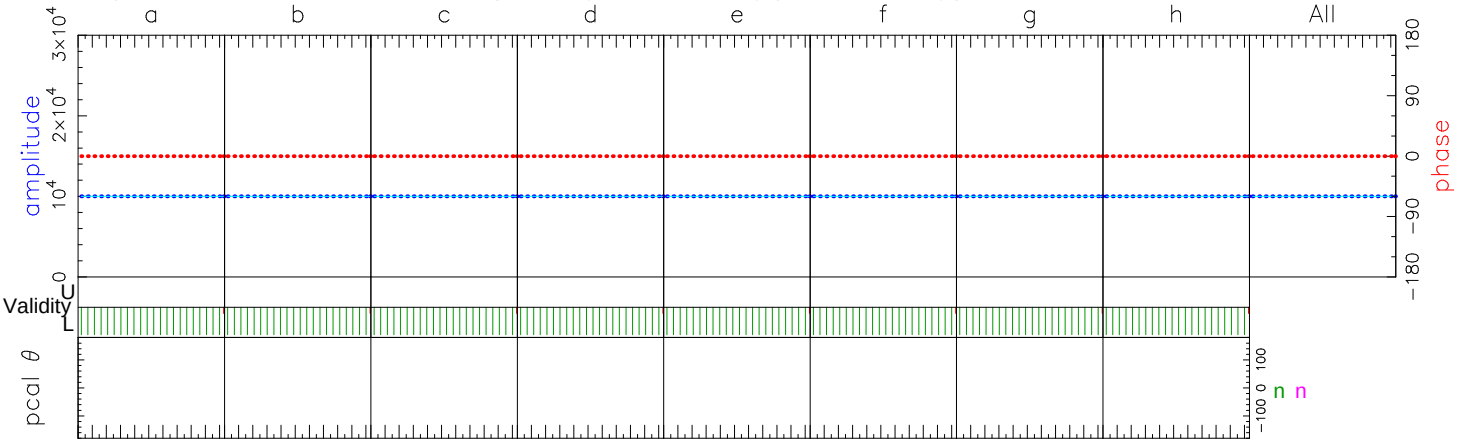
SNR 473643.9
Int time 599.982
Amp 10000.001
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:060055
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



									Freq (MHz)	All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Phase	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Ampl.	10000.0
	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Sbd box	129.0
	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0		
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	0.00000000000E+00	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	4.6E-09
Sband delay (usec)	0.00000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	3.6E-08
Phase delay (usec)	0.00000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	7.8E-12
Delay rate (us/s)	0.00000000000E+00	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	2.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	0.0	+/-	0.0

	RMS	Theor.							
			Amplitude	10000.001 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	0.0	0.0	Search (4096X32)	10000.001	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.001	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

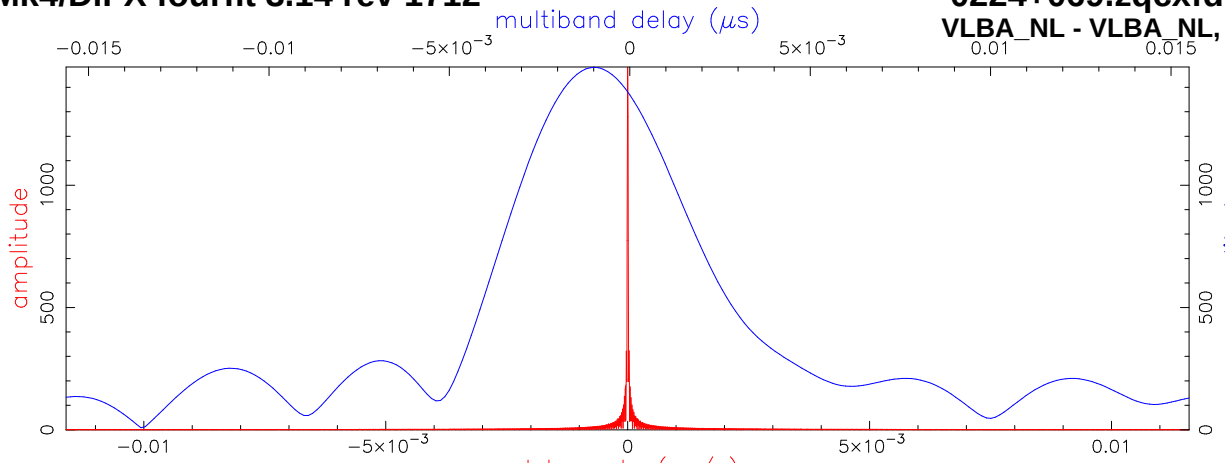
n: az 173.8 el 55.1 pa -4.2 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/nn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/nn.W.170.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

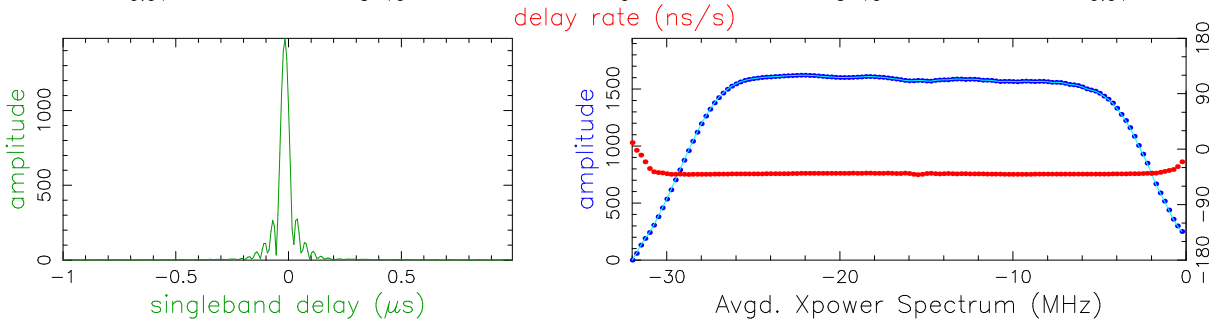
0224+069.zqcxfd, No0210, nn

VLBA_NL - VLBA_NL, fgroup W, pol LR

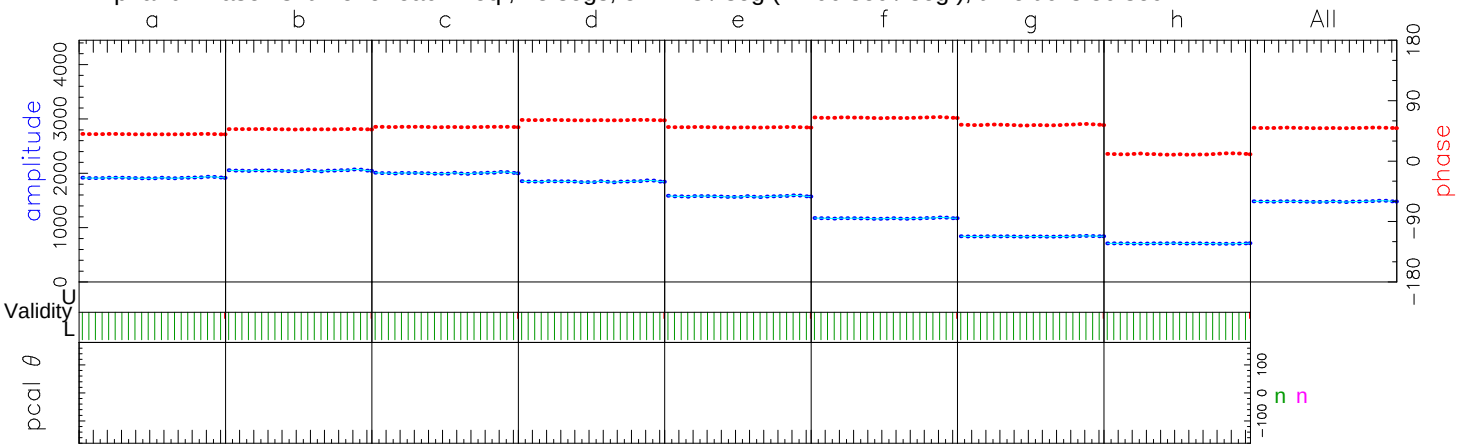


Fringe quality 7

SNR	70245.9
Int time	599.982
Amp	1483.095
Phase	49.4
PFD	0.0e+00
Delays (us)	
SBD	-0.016487
MBD	-0.000993
Fringe rate (Hz)	0.000003
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:060107
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"



Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	40.1	47.5	50.8	61.0	50.4	64.6	53.9	10.4	Phase	49.4
	1916.8	2050.7	2004.6	1849.5	1576.8	1172.6	839.7	709.8	Ampl.	1515.1
	127.0	127.0	127.0	126.8	127.0	127.1	126.4	126.4	Sbd box	126.9
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-9.93125000000E-04	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-9.93125E-04	+/-	3.1E-08
Sband delay (usec)	-1.64875000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.64875E-02	+/-	2.5E-07
Phase delay (usec)	1.59202498640E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.59202E-06	+/-	5.3E-11
Delay rate (us/s)	3.37386812166E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	3.37387E-11	+/-	1.5E-13
Total phase (deg)	49.4	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	49.4	+/-	0.0

	RMS	Theor.						
			Amplitude	1483.095 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	0.3	0.0	Search (4096X32)	1481.710	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	0.4	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016 0.016
ph/frq (deg)	18.3	0.0	Inc. seg. avg.	1481.741	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012 0.012
amp/frq (%)	34.0	0.0	Inc. frq. avg.	1515.070	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00 0.00

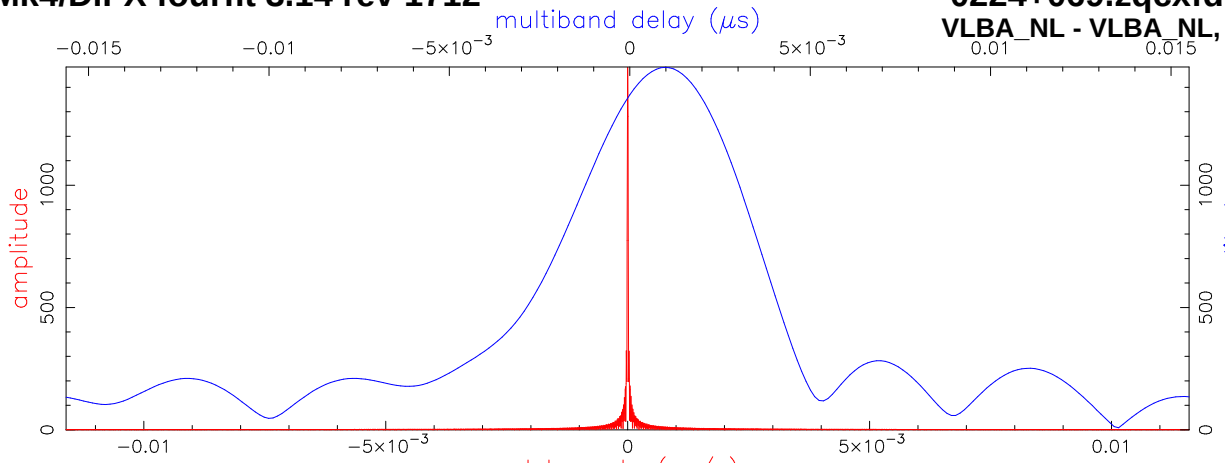
n: az 173.8 el 55.1 pa -4.2 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/nn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/nn.W.171.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

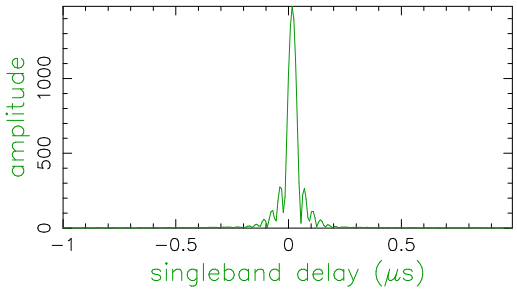
0224+069.zqcxfd, No0210, nn

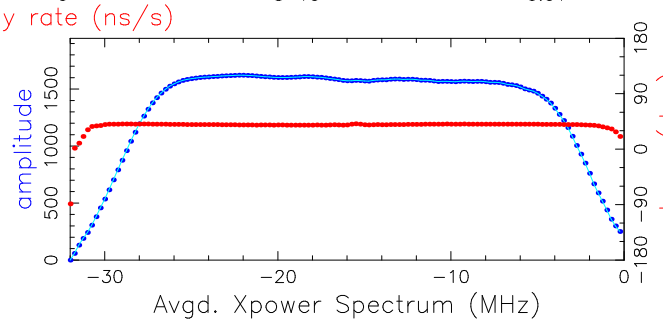
VLBA_NL - VLBA_NL, fgroup W, pol RL



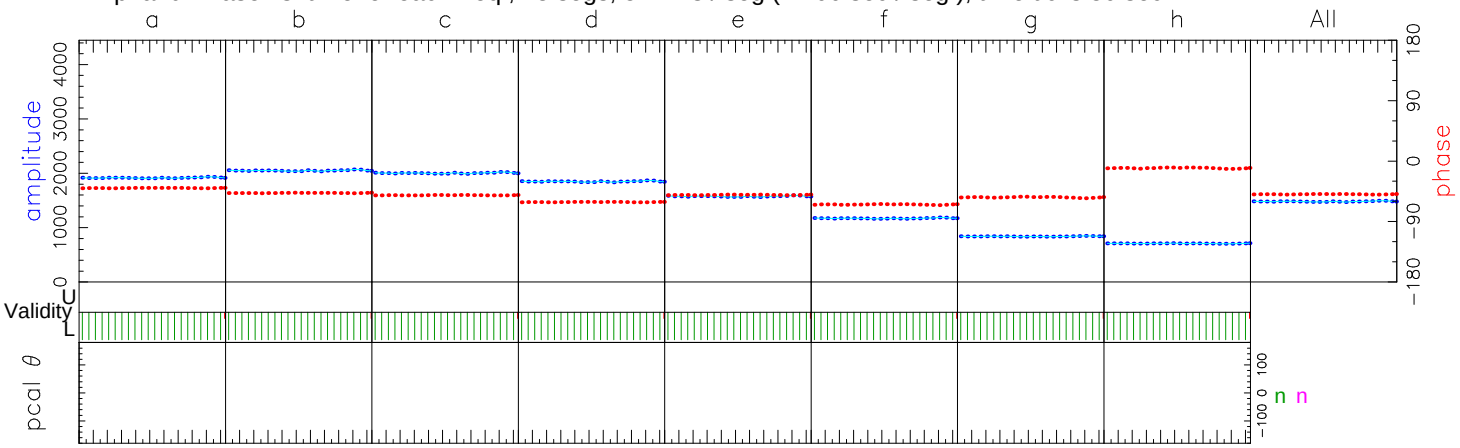
Fringe quality 7

SNR	70245.9
Int time	599.982
Amp	1483.095
Phase	-49.4
PFD	0.0e+00
Delays (us)	
SBD	0.016487
MBD	0.000993
Fringe rate (Hz)	-0.000003
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:060121
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	a	b	c	d	e	f	g	h		All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	
	-40.1	-47.5	-50.8	-61.0	-50.4	-64.6	-53.9	-10.4	Phase	-49.4
	1916.8	2050.7	2004.6	1849.5	1576.8	1172.6	839.7	709.8	Ampl.	1515.1
	131.0	131.0	131.0	131.2	131.0	130.9	131.6	131.6	Sbd box	131.1
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	9.93125000000E-04	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	9.93125E-04	+/-	3.1E-08
Sband delay (usec)	1.64875000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.64875E-02	+/-	2.5E-07
Phase delay (usec)	-1.59202498628E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.59202E-06	+/-	5.3E-11
Delay rate (us/s)	-3.37386812166E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-3.37387E-11	+/-	1.5E-13
Total phase (deg)	-49.4	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-49.4	+/-	0.0

	RMS	Theor.						
			Amplitude	1483.095 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	0.3	0.0	Search (4096X32)	1481.710	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	0.4	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016 0.016
ph/frq (deg)	18.3	0.0	Inc. seg. avg.	1481.741	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012 0.012
amp/frq (%)	34.0	0.0	Inc. frq. avg.	1515.070	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00 0.00

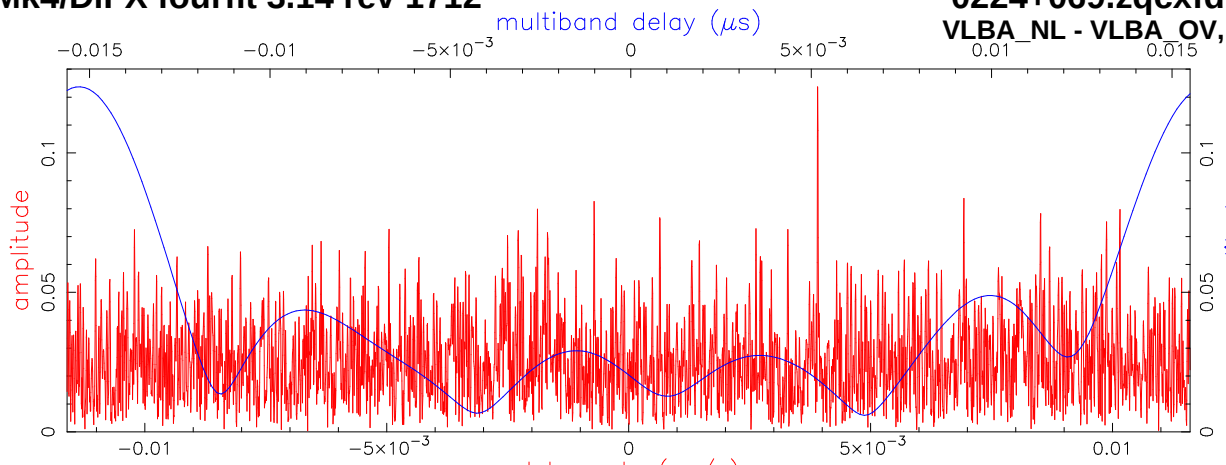
n: az 173.8 el 55.1 pa -4.2 n: az 173.8 el 55.1 pa -4.2 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/nn..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/nn.W.172.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

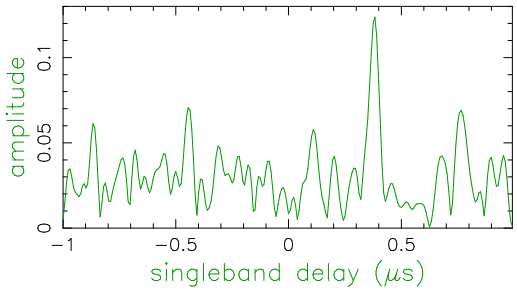
0224+069.zqcxfd, No0210, no

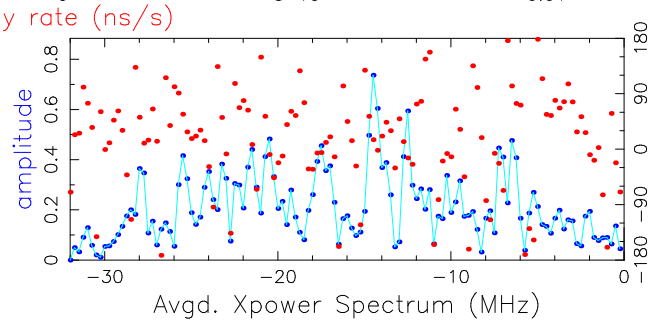
VLBA_NL - VLBA_OV, fgroup W, pol LL



Fringe quality 0

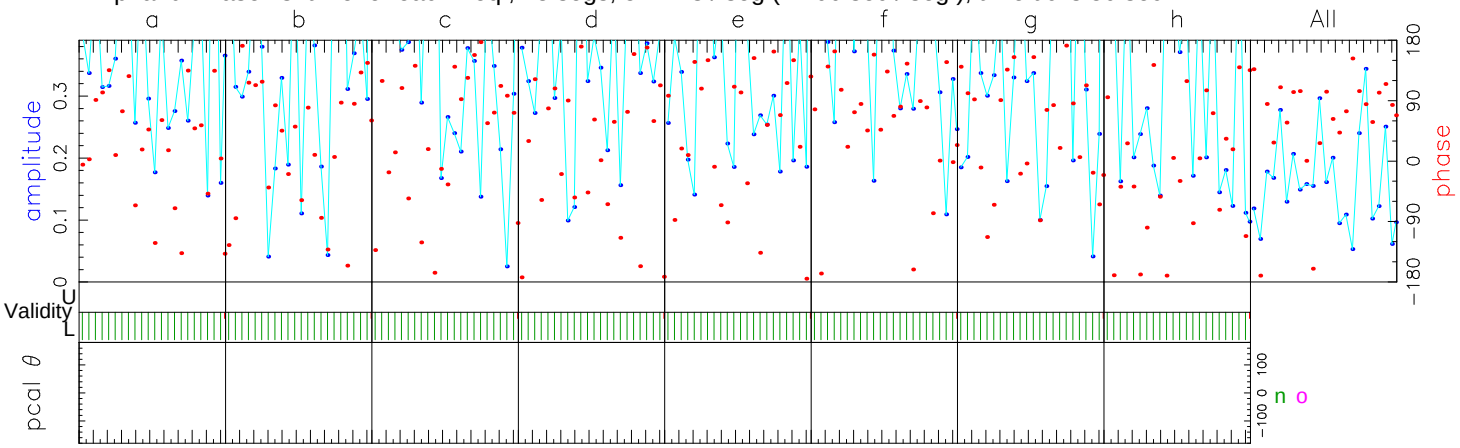
SNR	5.9
Int time	599.983
Amp	0.130
Phase	-2074.2
PFD	6.5e-01
Delays (us)	
SBD	0.380958
MBD	0.015917
Fringe rate (Hz)	0.336425
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500





Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:055151
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	64.0	86.8	106.8	103.8	102.3	88.9	62.3	74.3	Phase	85.8
	0.2	0.2	0.1	0.1	0.1	0.3	0.1	0.1	Ampl.	0.1
	178.0	19.3	215.5	138.1	146.3	178.6	229.9	225.0	Sbd box	177.8
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
o	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.19656131662E+03	Apriori delay (usec)	1.19617039987E+03	Resid mbdelay (usec)	1.59167E-02	+/-	3.7E-04
Sband delay (usec)	1.19655135837E+03	Apriori clock (usec)	3.1843691E+00	Resid sbdelay (usec)	3.80958E-01	+/-	2.9E-03
Phase delay (usec)	1.19617040264E+03	Apriori clockrate (us/s)	3.7102591E-08	Resid phdelay (usec)	2.76811E-06	+/-	6.3E-07
Delay rate (us/s)	-5.49053969232E-01	Apriori rate (us/s)	-5.49057874797E-01	Resid rate (us/s)	3.90556E-06	+/-	1.8E-09
Total phase (deg)	-1986.0	Apriori accel (us/s/s)	-5.49702127063E-06	Resid phase (deg)	-2074.2	+/-	19.5

	RMS	Theor.	Amplitude	0.130 +/- 0.022
ph/seg (deg)	48.5	46.7	Search (4096X32)	0.122
amp/seg (%)	69.7	81.6	Interp.	0.000
ph/frq (deg)	19.2	27.6	Inc. seg. avg.	0.130
amp/frq (%)	43.8	48.1	Inc. frq. avg.	0.121

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Pcal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MSamp/s): 64
Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite

sb window (us)	-1.000	1.000
mb window (us)	-0.016	0.016
dr window (ns/s)	-0.012	0.012
ion window (TEC)	0.00	0.00

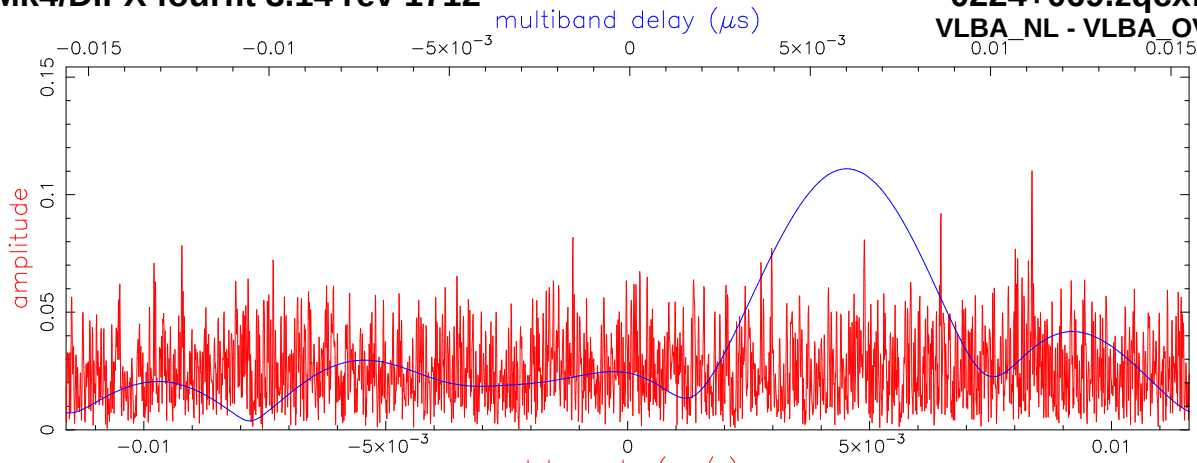
n: az 173.8 el 55.1 pa -4.2 o: az 130.1 el 49.2 pa -36.9 u,v (fr/asec) 3157.899 477.890 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/no..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/no.W.133.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

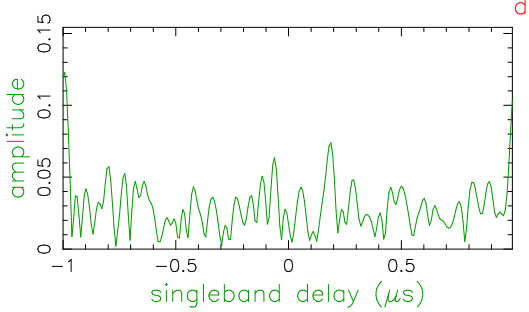
0224+069.zqcxfd, No0210, no

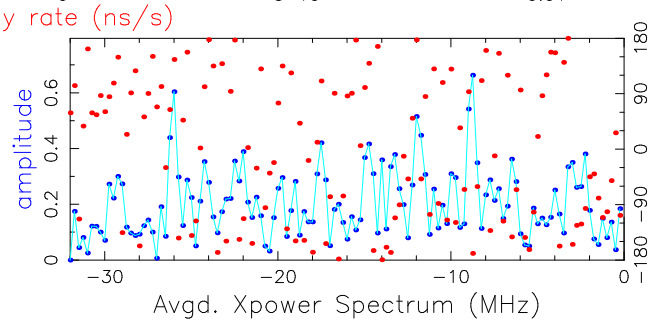
VLBA_NL - VLBA_OV, fgroup W, pol RR



Fringe quality 0

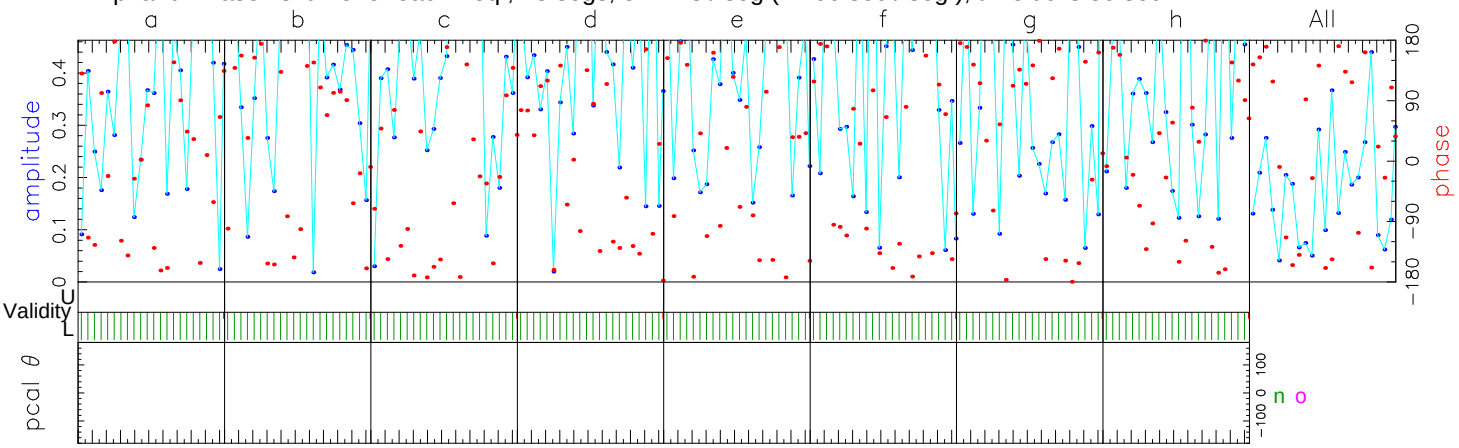
SNR 5.8
Int time 599.983
Amp 0.154
Phase 5933.7
PFD 7.2e-01
Delays (us)
SBD -0.994414
MBD 0.006316
Fringe rate (Hz)
0.719721
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.500





Exp. c171b
Exper # 16383
Yr:day 2017:090
Start 194000.00
Stop 195000.00
FRT 194500.00
Corr/FF/build
2017:208:190339
2017:214:055206
2017:170:130423
RA & Dec (J2000)
02h24m28.4282s
+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	-142.1	164.7	-152.0	-164.5	153.8	167.5	153.0	-165.3	Phase	173.7
	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	Ampl.	0.1
	29.2	153.5	120.5	114.6	105.6	1.5	125.9	199.0	Sbd box	1.7
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
o	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.19517671556E+03	Apriori delay (usec)	1.19617039987E+03	Resid mbdelay (usec)	6.31569E-03	+/-	3.7E-04
Sband delay (usec)	1.19517598587E+03	Apriori clock (usec)	3.1843691E+00	Resid sbdelay (usec)	-9.94414E-01	+/-	2.9E-03
Phase delay (usec)	1.19617040547E+03	Apriori clockrate (us/s)	3.7102591E-08	Resid phdelay (usec)	5.60135E-06	+/-	6.3E-07
Delay rate (us/s)	-5.49049519548E-01	Apriori rate (us/s)	-5.49057874797E-01	Resid rate (us/s)	8.35525E-06	+/-	1.8E-09
Total phase (deg)	6021.9	Apriori accel (us/s/s)	-5.49702127063E-06	Resid phase (deg)	5933.7	+/-	19.6

	RMS	Theor.							
			Amplitude	0.154 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	82.1	47.0	Search (4096X32)	0.122	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	95.0	82.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	28.8	27.7	Inc. seg. avg.	0.166	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	34.6	48.4	Inc. frq. avg.	0.132	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

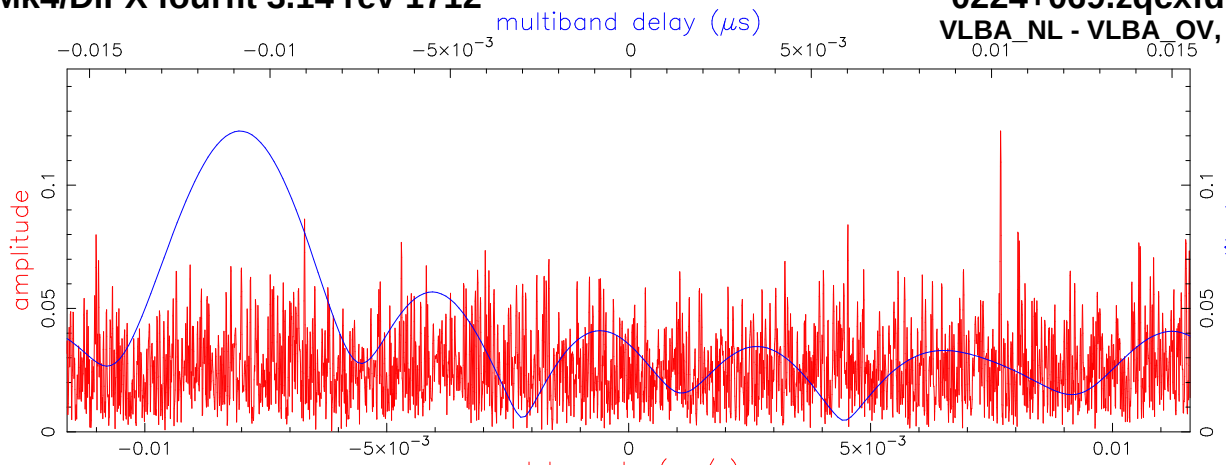
n: az 173.8 el 55.1 pa -4.2 o: az 130.1 el 49.2 pa -36.9 u,v (fr/asec) 3157.899 477.890 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/no..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/no.W.134.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

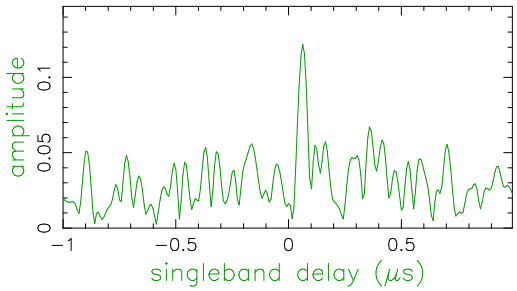
0224+069.zqcxfd, No0210, no

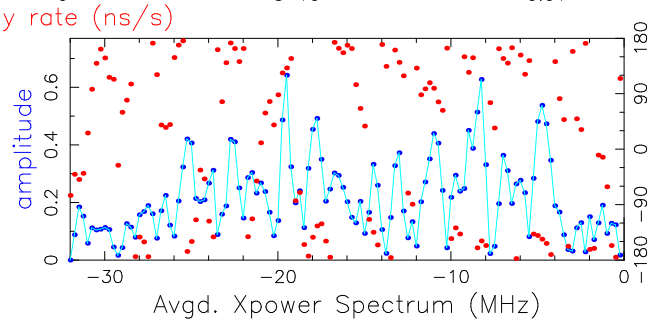
VLBA_NL - VLBA_OV, fgroup W, pol LR



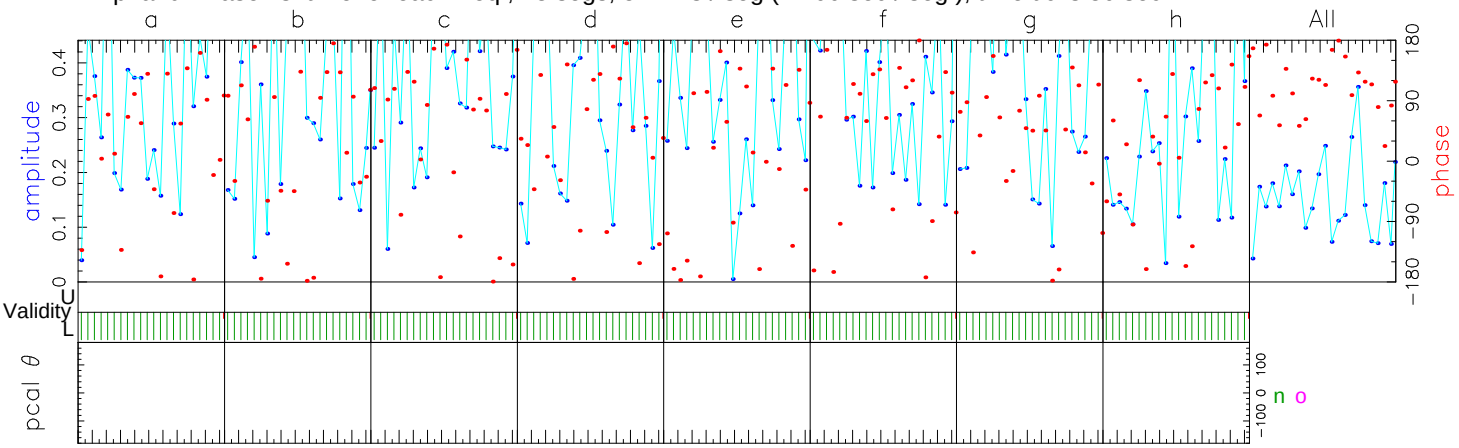
Fringe quality 0

SNR	5.8
Int time	599.983
Amp	0.147
Phase	-251.9
PFD	8.5e-01
Delays (us)	
SBD	0.063103
MBD	-0.010816
Fringe rate (Hz)	0.661999
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339 2017:214:055220 2017:170:130423
RA & Dec (J2000)	02h24m28.4282s +6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



									Freq (MHz)	All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00		
	80.0	112.4	124.5	122.3	145.2	131.6	66.3	108.2	Phase	108.1
	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	Ampl.	0.1
	51.9	149.5	14.6	196.7	230.6	197.8	180.6	109.8	Sbd box	137.1
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
o	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.19622208363E+03	Apriori delay (usec)	1.19617039987E+03	Resid mbdelay (usec)	-1.08162E-02	+/-	3.8E-04
Sband delay (usec)	1.19623350287E+03	Apriori clock (usec)	3.1843691E+00	Resid sbdelay (usec)	6.31030E-02	+/-	3.0E-03
Phase delay (usec)	1.19617040336E+03	Apriori clockrate (us/s)	3.7102591E-08	Resid phdelay (usec)	3.48740E-06	+/-	6.4E-07
Delay rate (us/s)	-5.49050189647E-01	Apriori rate (us/s)	-5.49057874797E-01	Resid rate (us/s)	7.68515E-06	+/-	1.8E-09
Total phase (deg)	-163.7	Apriori accel (us/s/s)	-5.49702127063E-06	Resid phase (deg)	-251.9	+/-	19.8

	RMS	Theor.	Amplitude	0.147 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	42.0	47.6	Search (4096X32)	0.118	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	65.6	83.0	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	28.7	28.0	Inc. seg. avg.	0.139	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.012	0.012
amp/frq (%)	26.6	48.9	Inc. frq. avg.	0.146	Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

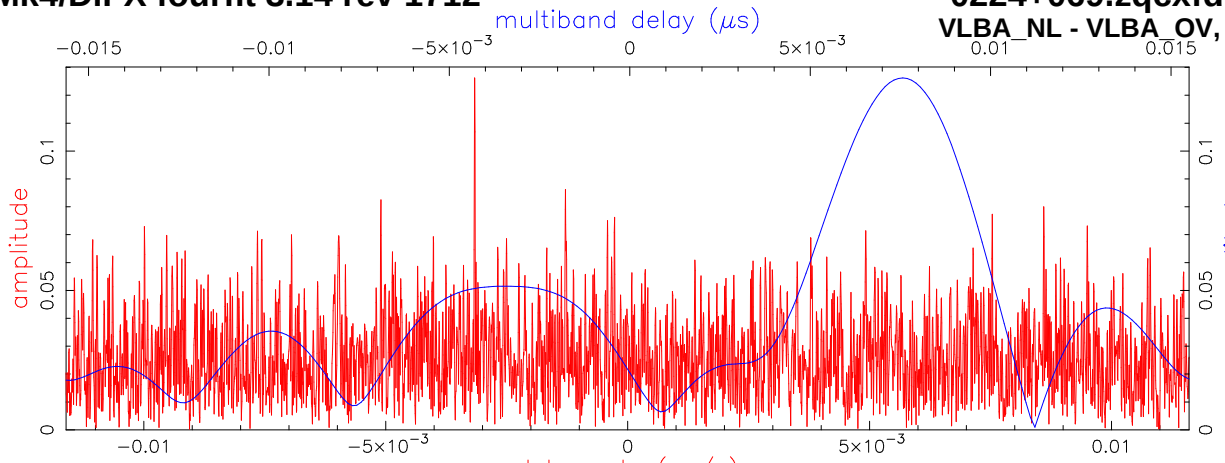
n: az 173.8 el 55.1 pa -4.2 o: az 130.1 el 49.2 pa -36.9 u,v (fr/asec) 3157.899 477.890 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/no..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/no.W.135.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

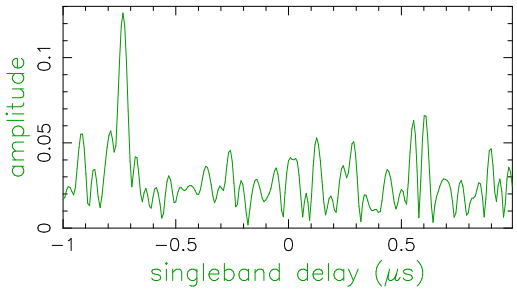
0224+069.zqcxfd, No0210, no

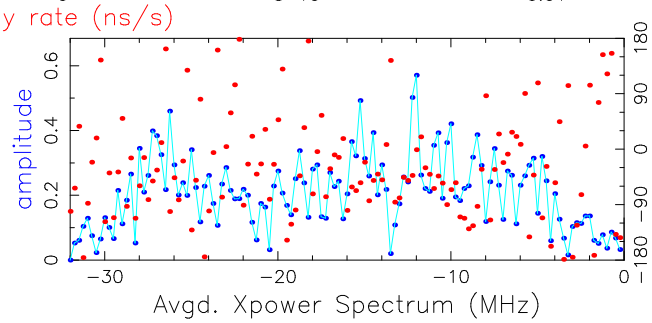
VLBA_NL - VLBA_OV, fgroup W, pol RL



Fringe quality 0

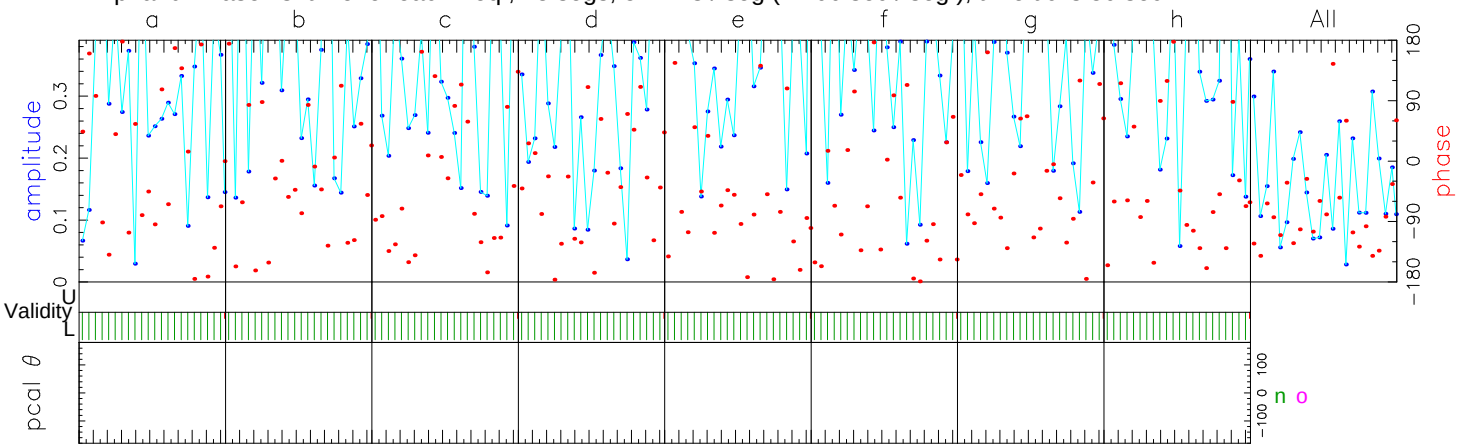
SNR	6.0
Int time	599.983
Amp	0.130
Phase	4224.1
PFD	4.4e-01
Delays (us)	
SBD	-0.734367
MBD	0.007564
Fringe rate (Hz)	-0.272412
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500





Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:055236
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	a	b	c	d	e	f	g	h		All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	
	-131.8	-83.2	-98.6	-42.0	-110.4	-109.8	-69.7	-111.3	Phase	-95.9
	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	Ampl.	0.1
	8.4	33.4	52.9	112.4	34.4	143.9	84.9	34.9	Sbd box	35.0
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
o	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.19542796401E+03	Apriori delay (usec)	1.19617039987E+03	Resid mbdelay (usec)	7.56414E-03	+/-	3.6E-04
Sband delay (usec)	1.19543603287E+03	Apriori clock (usec)	3.1843691E+00	Resid sbdelay (usec)	-7.34367E-01	+/-	2.9E-03
Phase delay (usec)	1.19617039678E+03	Apriori clockrate (us/s)	3.7102591E-08	Resid phdelay (usec)	-3.09257E-06	+/-	6.2E-07
Delay rate (us/s)	-5.49061037230E-01	Apriori rate (us/s)	-5.49057874797E-01	Resid rate (us/s)	-3.16243E-06	+/-	1.8E-09
Total phase (deg)	4312.3	Apriori accel (us/s/s)	-5.49702127063E-06	Resid phase (deg)	4224.1	+/-	19.2

	RMS	Theor.						
			Amplitude	0.130 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	56.0	46.0	Search (4096X32)	0.124	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	74.5	80.2	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	30.8	27.1	Inc. seg. avg.	0.128	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.012	0.012
amp/frq (%)	29.1	47.3	Inc. frq. avg.	0.129	Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

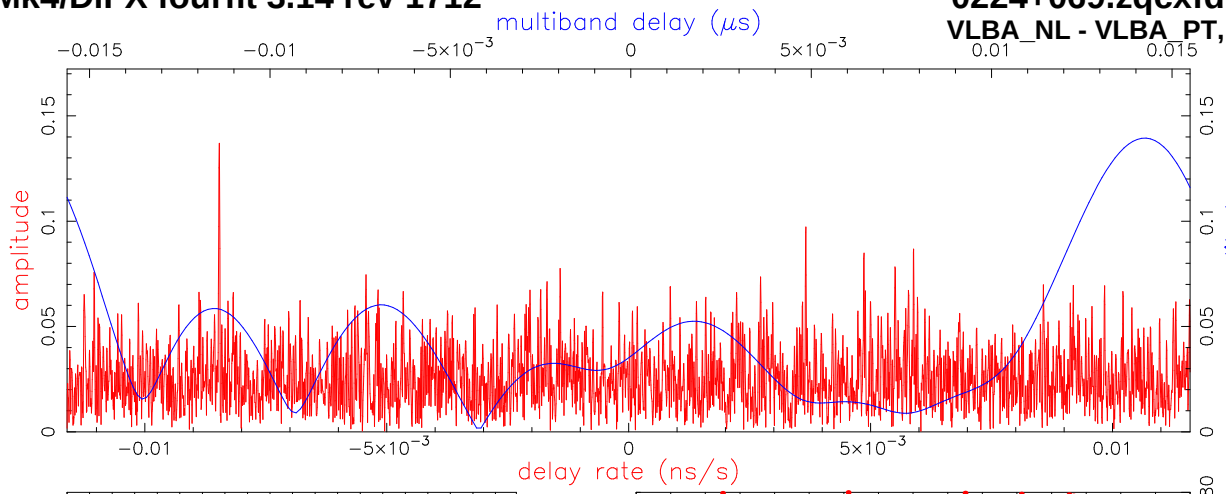
n: az 173.8 el 55.1 pa -4.2 o: az 130.1 el 49.2 pa -36.9 u,v (fr/asec) 3157.899 477.890 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/no..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/no.W.136.zqcxfd

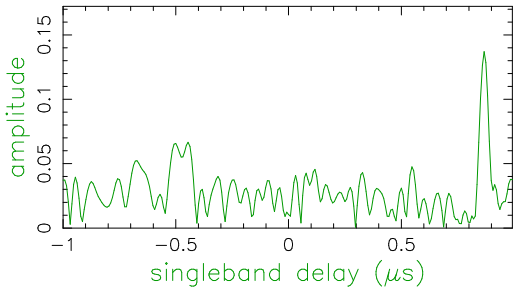
Mk4/DiFX fourfit 3.14 rev 1712

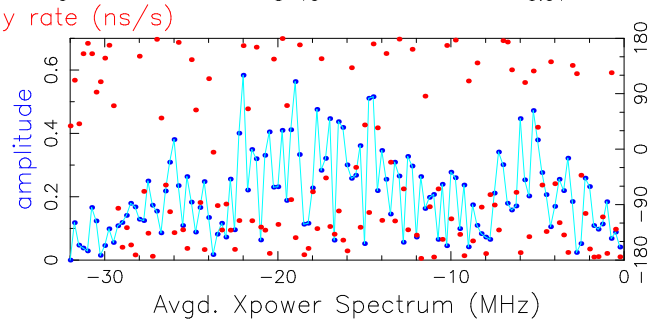
0224+069.zqcxfd, No0210, np

VLBA_NL - VLBA_PT, fgroup W, pol LL

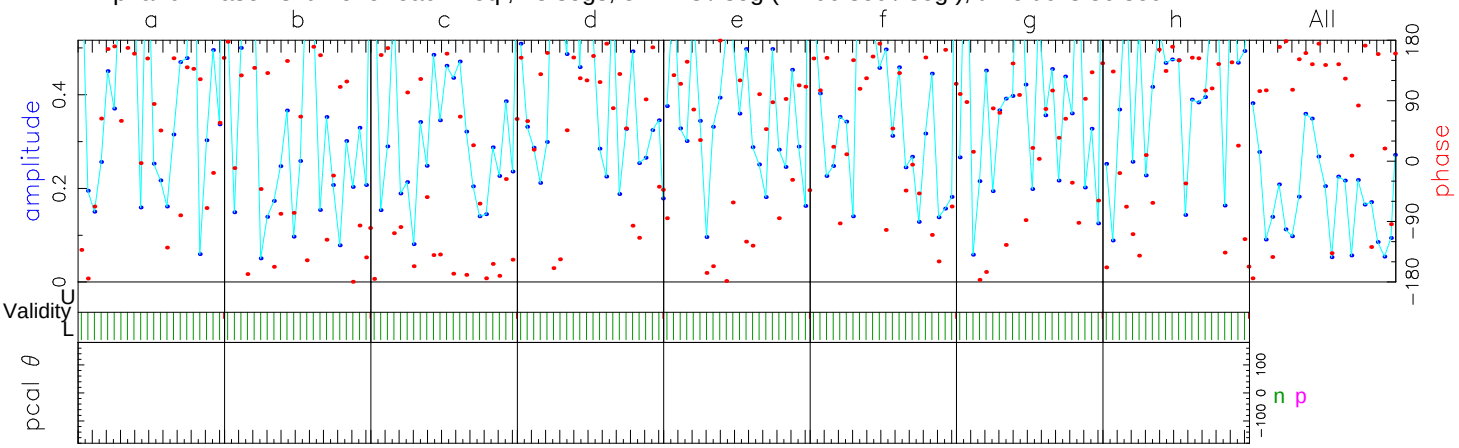


Fringe quality	0
SNR	6.5
Int time	599.982
Amp	0.172
Phase	-4885.1
PFD	2.4e-02
Delays (us)	
SBD	0.867700
MBD	-0.016602
Fringe rate (Hz)	-0.728646
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:055254
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	151.7	-178.6	-164.1	140.3	139.9	144.4	90.7	169.7	Phase	154.9
	0.2	0.2	0.2	0.3	0.1	0.2	0.2	0.2	Ampl.	0.2
	240.7	238.8	72.5	240.3	89.0	68.4	63.5	255.6	Sbd box	240.1
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
p	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-5.02086625159E+02	Apriori delay (usec)	-5.02945023596E+02	Resid mbdelay (usec)	-1.66016E-02	+/-	3.3E-04
Sband delay (usec)	-5.02077324096E+02	Apriori clock (usec)	2.9891224E+00	Resid sbdelay (usec)	8.67700E-01	+/-	2.7E-03
Phase delay (usec)	-5.02945018602E+02	Apriori clockrate (us/s)	3.0411871E-08	Resid phdelay (usec)	4.99462E-06	+/-	5.7E-07
Delay rate (us/s)	-3.65266532356E-01	Apriori rate (us/s)	-3.65258073500E-01	Resid rate (us/s)	-8.45886E-06	+/-	1.6E-09
Total phase (deg)	-5004.8	Apriori accel (us/s/s)	4.11102889791E-06	Resid phase (deg)	-4885.1	+/-	17.7

	RMS	Theor.	Amplitude	0.172 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	61.3	42.3	Search (4096X32)	0.138	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	78.8	73.9	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	34.8	25.0	Inc. seg. avg.	0.181	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.012	0.012
amp/frq (%)	31.2	43.6	Inc. frq. avg.	0.178	Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

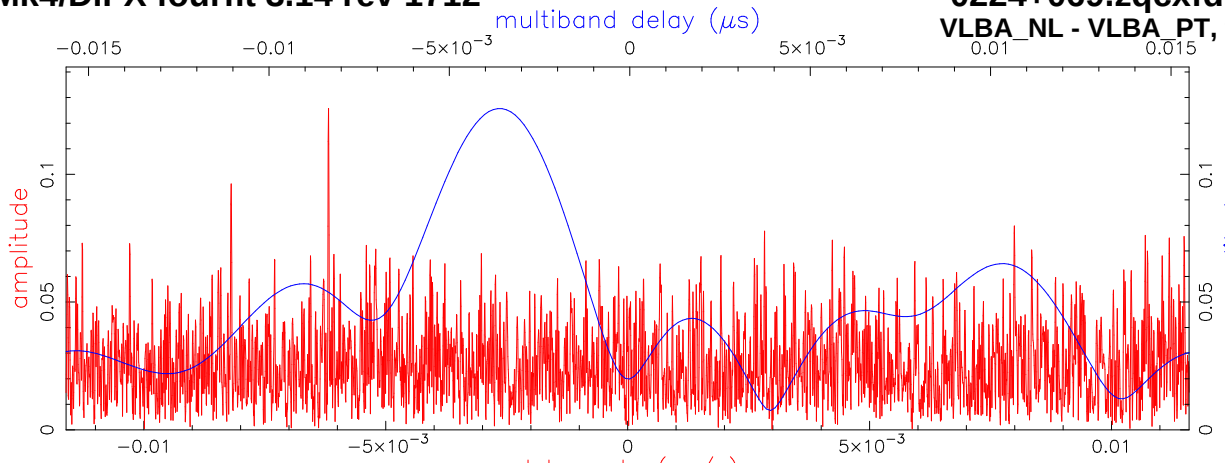
n: az 173.8 el 55.1 pa -4.2 p: az 141.2 el 57.1 pa -30.0 u,v (fr/asec) 2113.570 937.090 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/np..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/np.W.137.zqcxfd

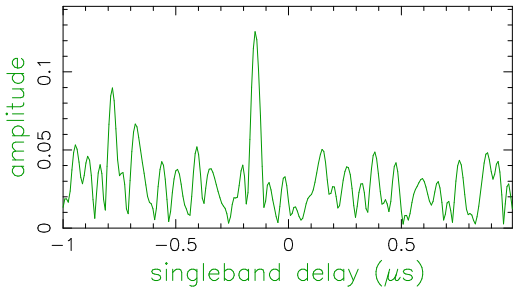
Mk4/DiFX fourfit 3.14 rev 1712

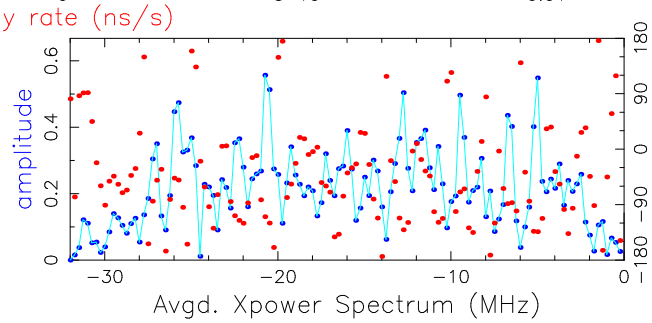
0224+069.zqcxfd, No0210, np

VLBA_NL - VLBA_PT, fgroup W, pol RR

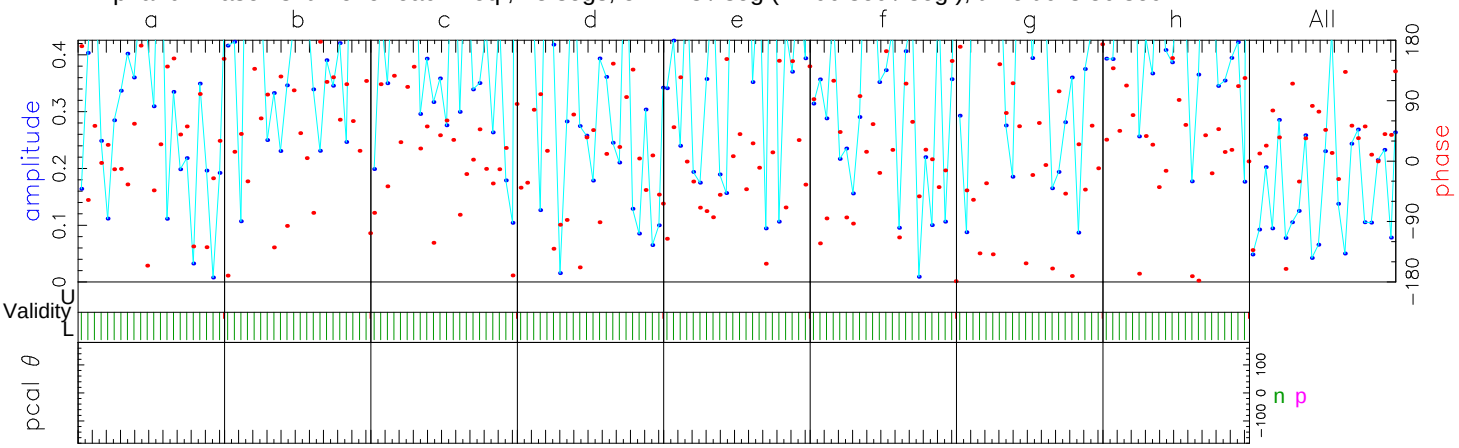


Fringe quality	0
SNR	6.0
Int time	599.982
Amp	0.142
Phase	932.3
PFD	4.6e-01
Delays (us)	
SBD	-0.147073
MBD	-0.003585
Fringe rate (Hz)	-0.532748
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:055311
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



									Freq (MHz)	All
	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00		
	29.1	67.6	37.7	14.9	-9.9	44.9	-26.5	52.6	Phase	32.3
	0.1	0.2	0.2	0.1	0.2	0.1	0.0	0.3	Ampl.	0.1
	164.7	195.7	142.3	27.0	109.2	104.0	32.4	110.5	Sbd box	110.2
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
p	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-5.03104859025E+02	Apriori delay (usec)	-5.02945023596E+02	Resid mbdelay (usec)	-3.58543E-03	+/-	3.6E-04
Sband delay (usec)	-5.03092096596E+02	Apriori clock (usec)	2.9891224E+00	Resid sbdelay (usec)	-1.47073E-01	+/-	2.9E-03
Phase delay (usec)	-5.02945022556E+02	Apriori clockrate (us/s)	3.0411871E-08	Resid phdelay (usec)	1.04061E-06	+/-	6.2E-07
Delay rate (us/s)	-3.65264258177E-01	Apriori rate (us/s)	-3.65258073500E-01	Resid rate (us/s)	-6.18468E-06	+/-	1.8E-09
Total phase (deg)	812.5	Apriori accel (us/s/s)	4.11102889791E-06	Resid phase (deg)	932.3	+/-	19.2

	RMS	Theor.							
			Amplitude	0.142 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	64.1	46.1	Search (4096X32)	0.124	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	83.8	80.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.016	0.016
ph/frq (deg)	35.1	27.2	Inc. seg. avg.	0.137	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.012	0.012
amp/frq (%)	54.4	47.4	Inc. frq. avg.	0.143	Data rate(Mb/s): 1024	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

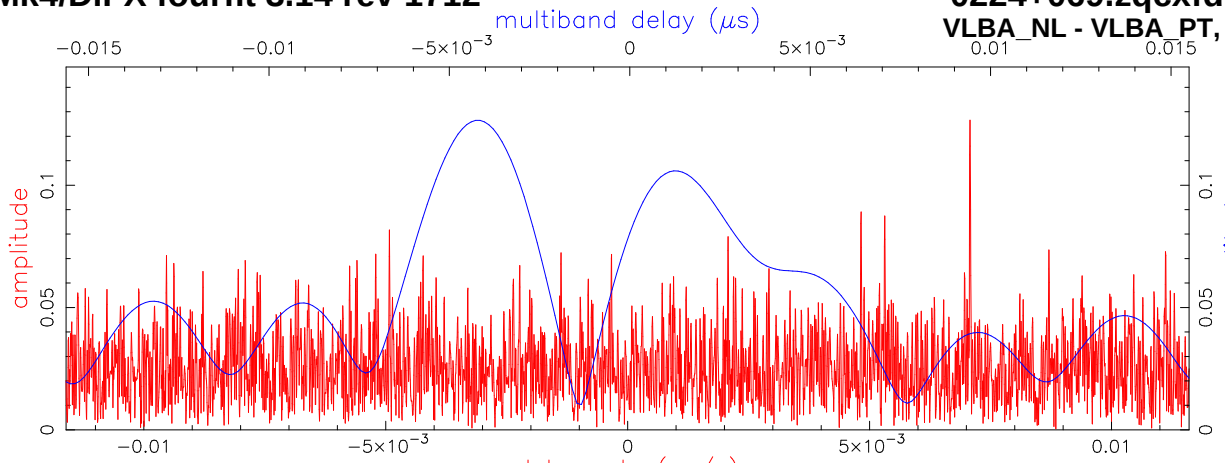
n: az 173.8 el 55.1 pa -4.2 p: az 141.2 el 57.1 pa -30.0 u,v (fr/asec) 2113.570 937.090 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/np..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/np.W.138.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

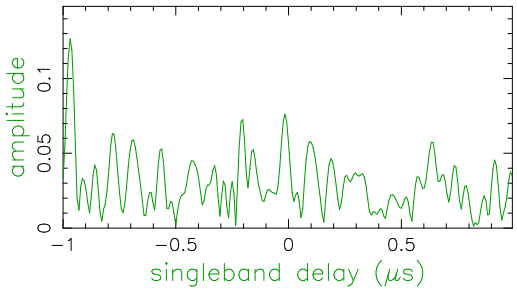
0224+069.zqcxfd, No0210, np

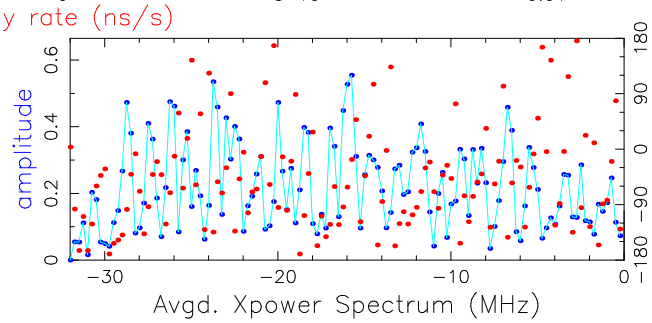
VLBA_NL - VLBA_PT, fgroup W, pol LR



Fringe quality 0

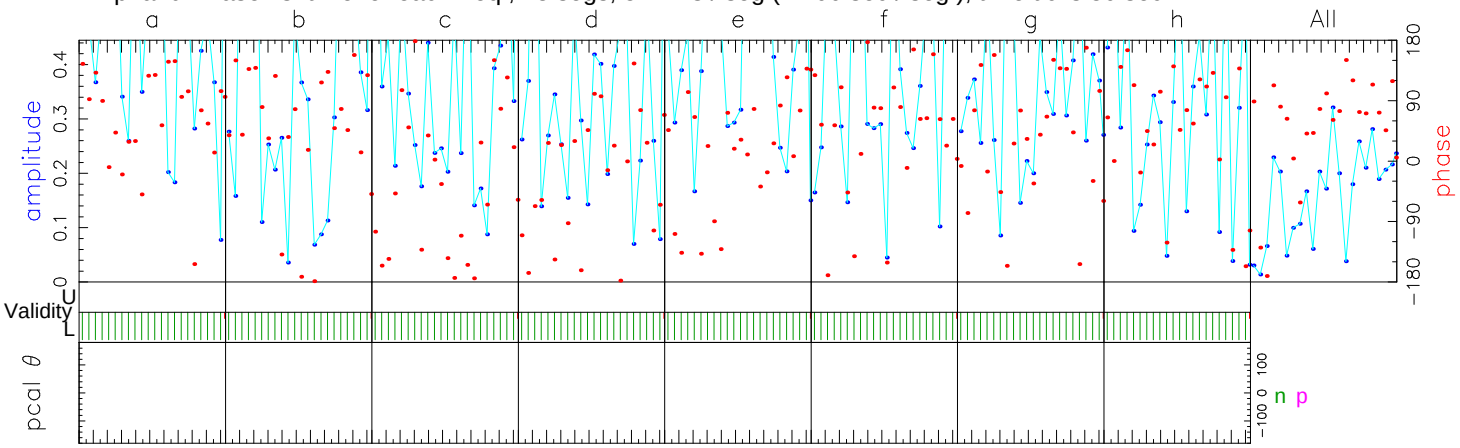
SNR	6.0
Int time	599.982
Amp	0.148
Phase	5660.0
PFD	4.0e-01
Delays (us)	
SBD	-0.967825
MBD	-0.004207
Fringe rate (Hz)	0.609220
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500





Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:055326
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"

Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	80.0	88.4	-172.6	2.2	30.0	82.3	82.1	97.8	Phase	80.0
	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.2	Ampl.	0.2
	5.6	3.7	254.3	96.0	6.6	77.6	30.4	4.5	Sbd box	5.1
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	
p	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-5.03917980405E+02	Apriori delay (usec)	-5.02945023596E+02	Resid mbdelay (usec)	-4.20681E-03	+/-	3.6E-04
Sband delay (usec)	-5.03912848096E+02	Apriori clock (usec)	2.9891224E+00	Resid sbdelay (usec)	-9.67825E-01	+/-	2.9E-03
Phase delay (usec)	-5.02945021017E+02	Apriori clockrate (us/s)	3.0411871E-08	Resid phdelay (usec)	2.57941E-06	+/-	6.2E-07
Delay rate (us/s)	-3.65251001058E-01	Apriori rate (us/s)	-3.65258073500E-01	Resid rate (us/s)	7.07244E-06	+/-	1.8E-09
Total phase (deg)	5540.3	Apriori accel (us/s/s)	4.11102889791E-06	Resid phase (deg)	5660.0	+/-	19.1

	RMS	Theor.	Amplitude	0.148 +/- 0.025
ph/seg (deg)	59.1	45.8	Search (4096X32)	0.120
amp/seg (%)	72.3	79.9	Interp.	0.000
ph/frq (deg)	58.4	27.0	Inc. seg. avg.	0.142
amp/frq (%)	62.0	47.1	Inc. frq. avg.	0.163

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Pcal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MSamp/s): 64
Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite

sb window (us)	-1.000	1.000
mb window (us)	-0.016	0.016
dr window (ns/s)	-0.012	0.012
ion window (TEC)	0.00	0.00

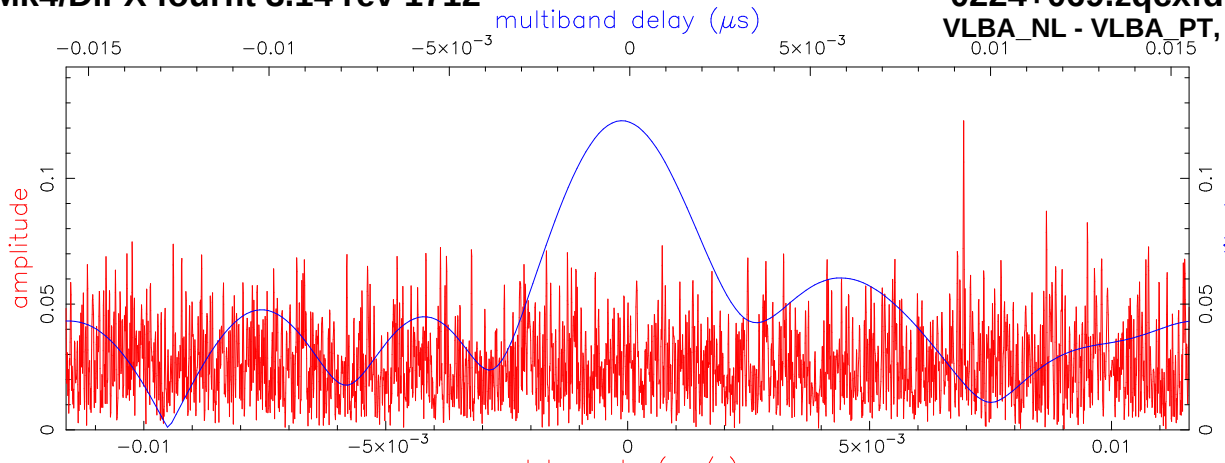
n: az 173.8 el 55.1 pa -4.2 p: az 141.2 el 57.1 pa -30.0 u,v (fr/asec) 2113.570 937.090 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/np..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/np.W.139.zqcxfd

Mk4/DiFX fourfit 3.14 rev 1712

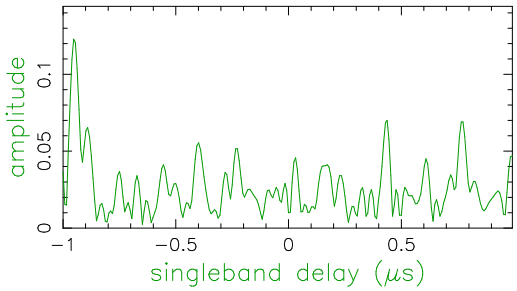
0224+069.zqcxfd, No0210, np

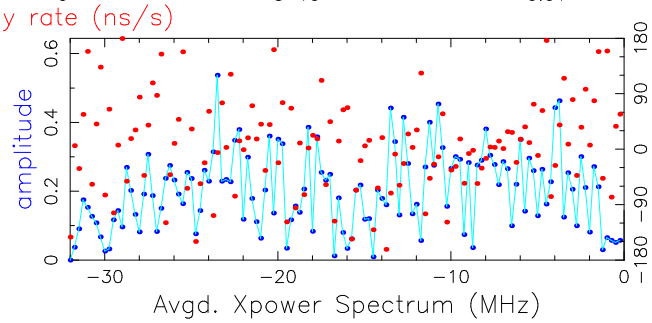
VLBA_NL - VLBA_PT, fgroup W, pol RL



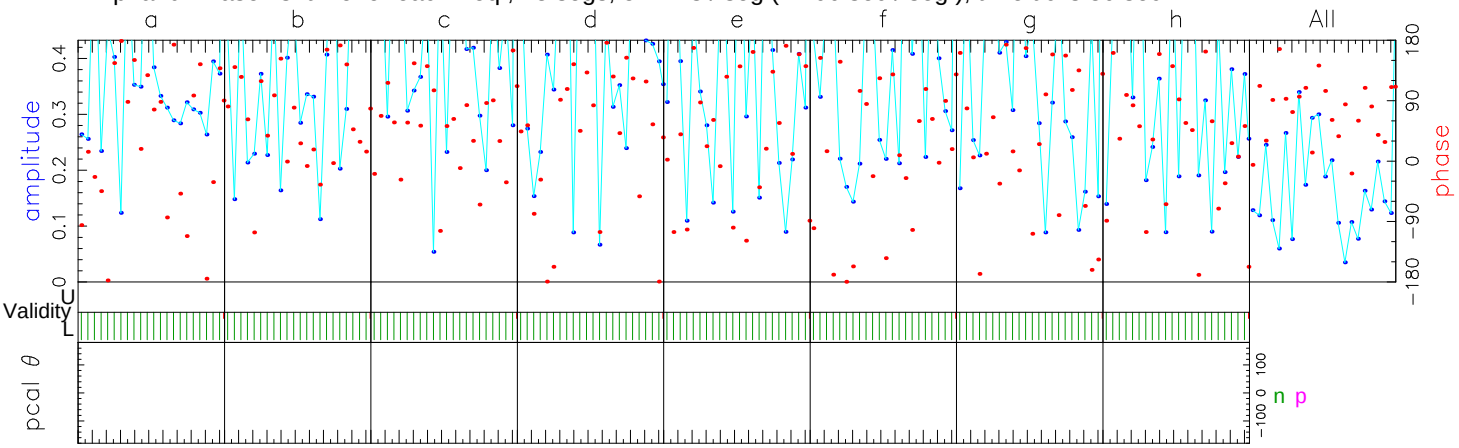
Fringe quality 0

SNR	5.9
Int time	599.982
Amp	0.144
Phase	5475.8
PFD	6.6e-01
Delays (us)	
SBD	-0.950265
MBD	-0.000187
Fringe rate (Hz)	0.598212
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.500
Exp.	c171b
Exper #	16383
Yr:day	2017:090
Start	194000.00
Stop	195000.00
FRT	194500.00
Corr/FF/build	2017:208:190339
	2017:214:055340
	2017:170:130423
RA & Dec (J2000)	02h24m28.4282s
	+6°59'23.342"





Amp. and Phase vs. time for each freq., 23 segs, 54 APs / seg (27.00 sec / seg.), time ticks 30 sec



	86156.00	86188.00	86220.00	86252.00	86284.00	86316.00	86348.00	86380.00	Freq (MHz)	All
	118.6	59.5	49.3	101.6	118.8	64.1	64.7	70.6	Phase	75.8
	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.2	Ampl.	0.1
	99.7	8.2	182.0	5.9	154.2	80.9	198.1	124.1	Sbd box	7.4
U/L	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	0/1200	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00LR	W01LR	W02LR	W03LR	W04LR	W05LR	W06LR	W07LR	Chan ids	
									Tracks	
p	W00LL	W01LL	W02LL	W03LL	W04LL	W05LL	W06LL	W07LL	Chan ids	
									Tracks	

Group delay (usec)(sbd)	-5.03882710235E+02	Apriori delay (usec)	-5.02945023596E+02	Resid mbdelay (usec)	-1.86639E-04	+/-	3.7E-04
Sband delay (usec)	-5.03895288596E+02	Apriori clock (usec)	2.9891224E+00	Resid sbdelay (usec)	-9.50265E-01	+/-	2.9E-03
Phase delay (usec)	-5.02945021151E+02	Apriori clockrate (us/s)	3.0411871E-08	Resid phdelay (usec)	2.44503E-06	+/-	6.3E-07
Delay rate (us/s)	-3.65251128856E-01	Apriori rate (us/s)	-3.65258073500E-01	Resid rate (us/s)	6.94464E-06	+/-	1.8E-09
Total phase (deg)	5356.1	Apriori accel (us/s/s)	4.11102889791E-06	Resid phase (deg)	5475.8	+/-	19.5

	RMS	Theor.	Amplitude	0.144 +/- 0.025
ph/seg (deg)	45.8	46.8	Search (4096X32)	0.120
amp/seg (%)	78.8	81.7	Interp.	0.000
ph/frq (deg)	30.6	27.6	Inc. seg. avg.	0.147
amp/frq (%)	57.7	48.2	Inc. frq. avg.	0.140

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Pcal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MSamp/s): 64
Data rate(Mb/s): 1024 nlags: 128 t_cohere infinite

sb window (us)	-1.000	1.000
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n: az 173.8 el 55.1 pa -4.2 p: az 141.2 el 57.1 pa -30.0 u,v (fr/asec) 2113.570 937.090 simultaneous interpolator

Control file: ../cf_1234 Input file: /Exps/c171b/gmva_3mm/1234/No0210/np..zqcxfd Output file: /Exps/c171b/gmva_3mm/1234/No0210/np.W.140.zqcxfd