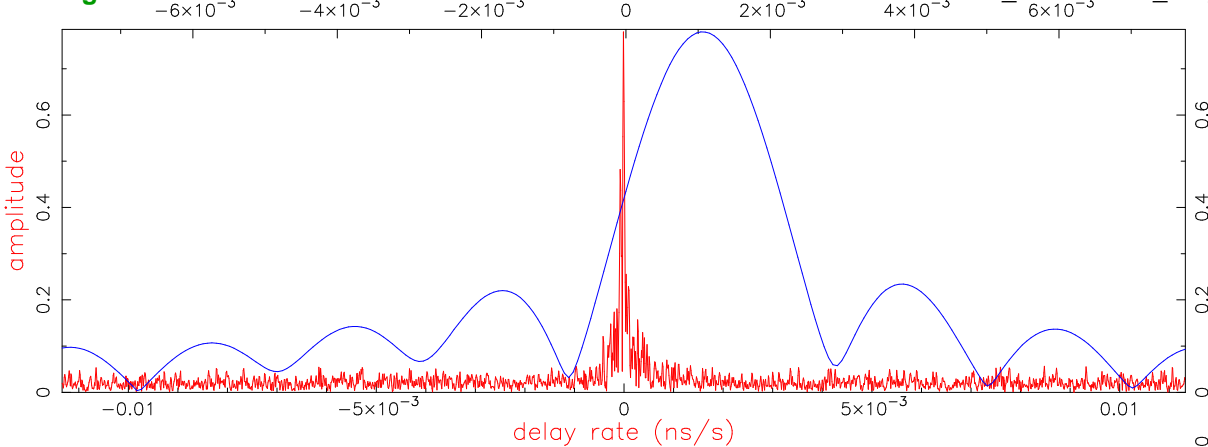
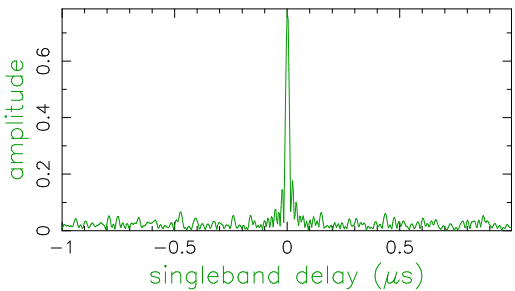


multiband delay (μ s)

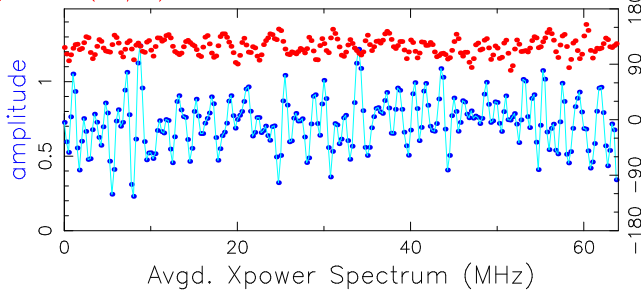
Fringe quality 7



SNR 46.4
Int time 466.972
Amp 0.785
Phase 117.6
PFD 0.0e+00
Delays (us)
SBD 0.001027
MBD 0.001088
Fringe rate (Hz)
-0.000748
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

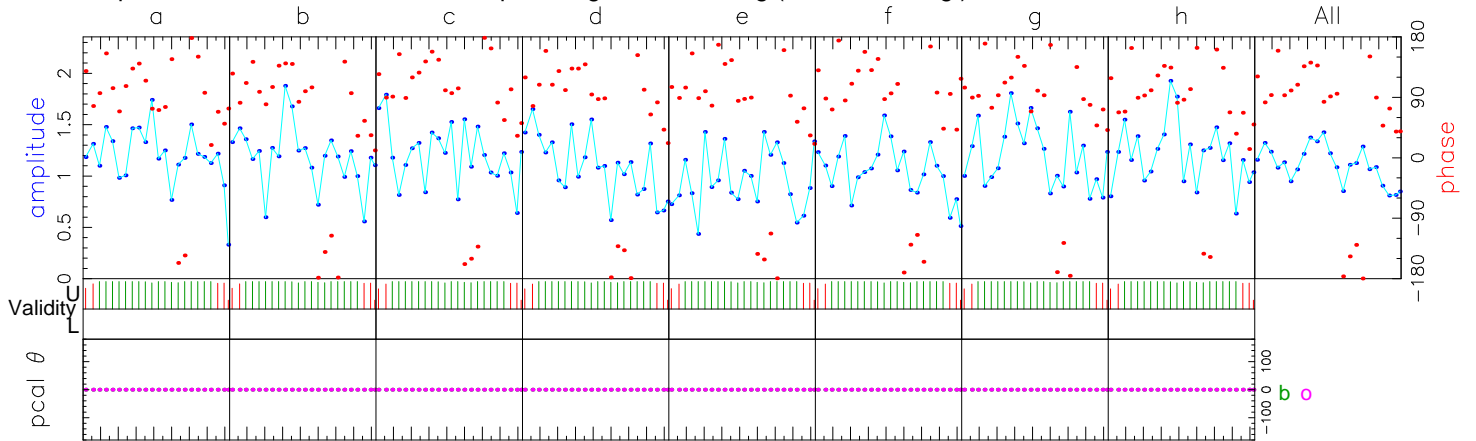


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 114501.00
Stop 115301.26
FRT 114901.00
Corr/FF/build
2021:023:073047
2021:023:132319
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	2.60422776805E+02									
Sband delay (usec)	2.60422716209E+02									
Phase delay (usec)	2.60421693001E+02									
Delay rate (us/s)	8.74730695837E-02									
Total phase (deg)		228.7								
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

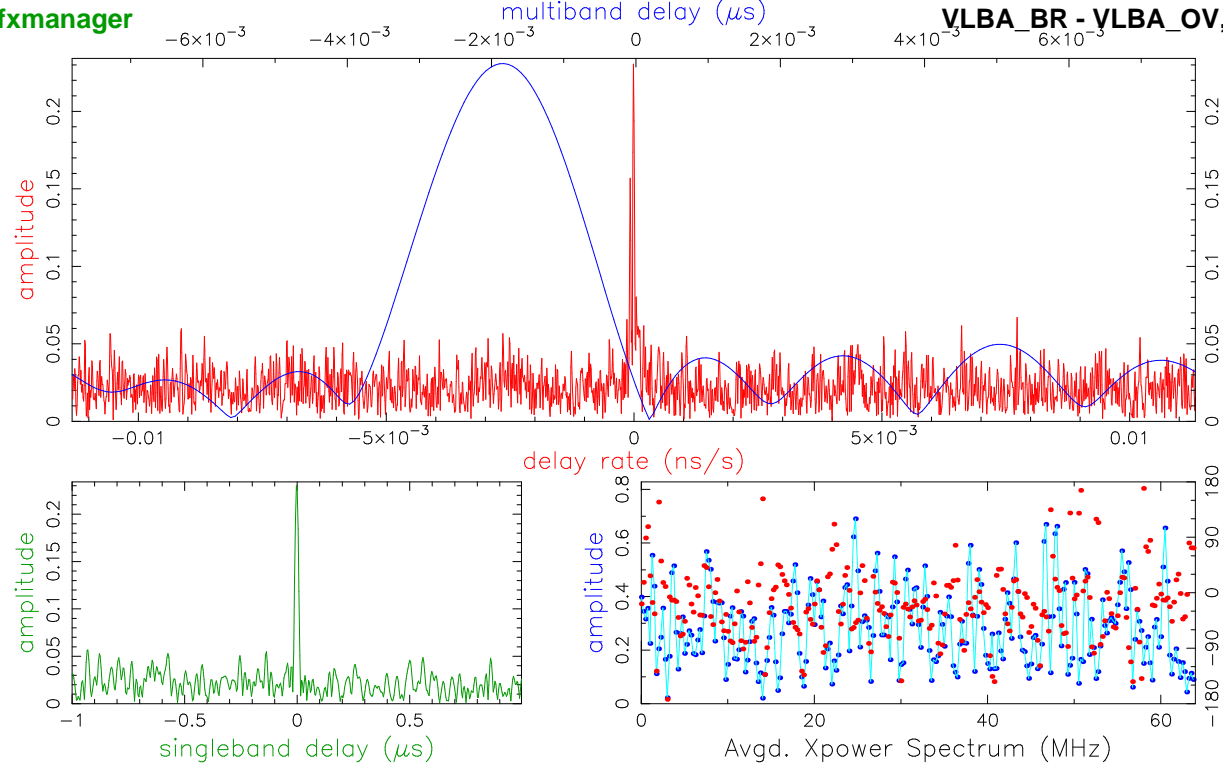
b: az 259.6 el 70.8 pa 61.1 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -652.261 1557.242
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/bo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/bo.W.26.11M149

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M149, No0103, bo

VLBA_BR - VLBA_OV, fgroup W, pol LR

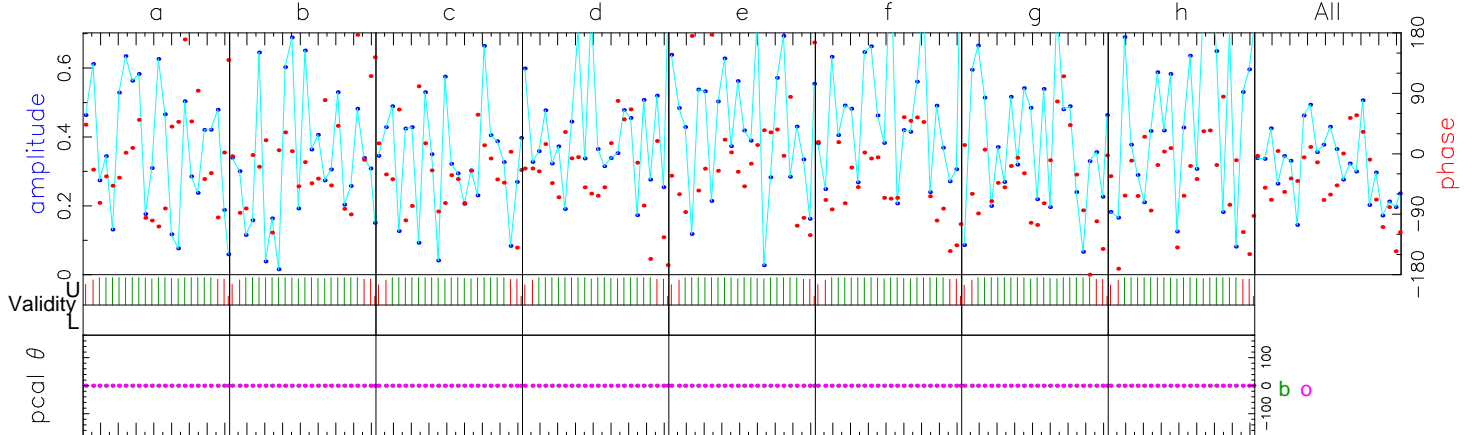


Fringe quality 9

SNR 13.8
 Int time 466.972
 Amp 0.234
 Phase -27.1
 PFD 8.7e-35
 Delays (us)
 SBD -0.002289
 MBD -0.001781
 Fringe rate (Hz)
 -0.000712
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132323
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



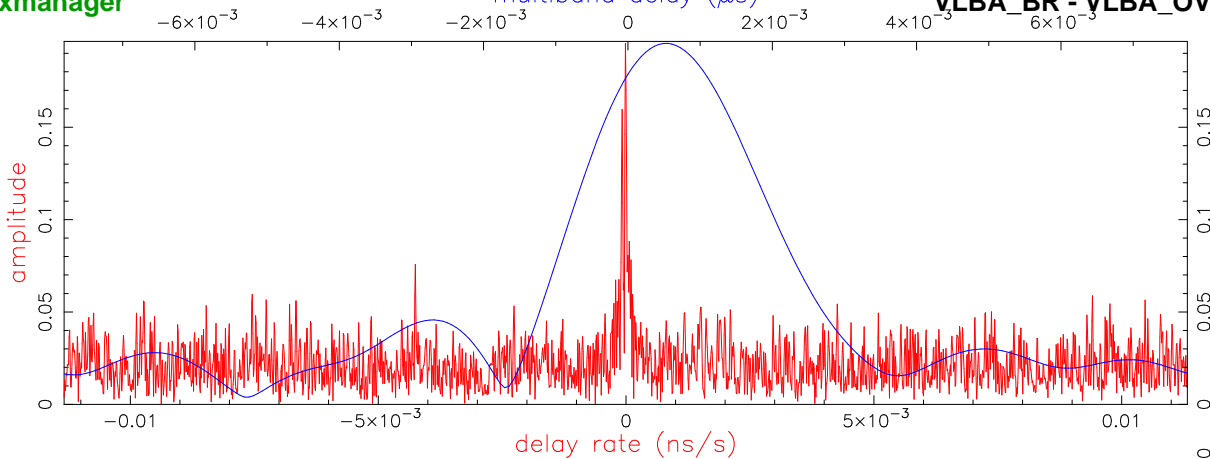
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-29.0	-13.8	-30.4	-20.0	-22.2	-31.3	-40.7	-30.0	Phase	-27.1
	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	Ampl.	0.2
	256.9	255.8	256.2	256.5	256.4	256.7	257.3	255.6	Sbd box	256.4
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	2.60419908586E+02		Apriori delay (usec)		2.60421689209E+02		Resid mbdelay (usec)		-1.78062E-03	+/- 7.8E-05
Sband delay (usec)	2.60419400709E+02		Apriori clock (usec)		-2.3108948E+01		Resid sbdelay (usec)		-2.28850E-03	+/- 6.2E-04
Phase delay (usec)	2.60421688336E+02		Apriori clockrate (us/s)		9.9999998E-08		Resid phdelay (usec)		-8.73268E-07	+/- 2.7E-07
Delay rate (us/s)	8.74730699996E-02		Apriori rate (us/s)		8.74730782685E-02		Resid rate (us/s)		-8.26887E-09	+/- 9.7E-10
Total phase (deg)			Apriori accel (us/s/s)		8.94880415745E-06		Resid phase (deg)		-27.1	+/- 8.3

ph/seg (deg) 50.1 19.8 Amplitude 0.234 +/- 0.017 Pcdl mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 57.4 34.5 Search (2048X32) 0.226 Pcdl rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 8.9 11.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 16.0 20.4 Inc. seg. avg. 0.306 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 b: az 259.6 el 70.8 pa 61.1 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -652.261 1557.242 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

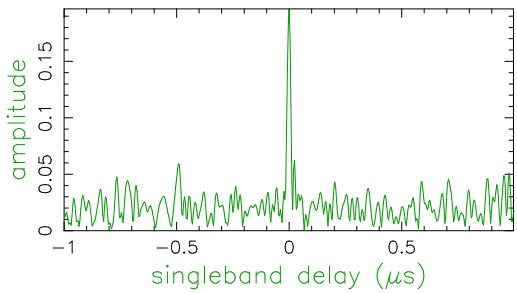
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/bo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/bo.W.44.11M149 simultaneous interpolator

multiband delay (μ s)

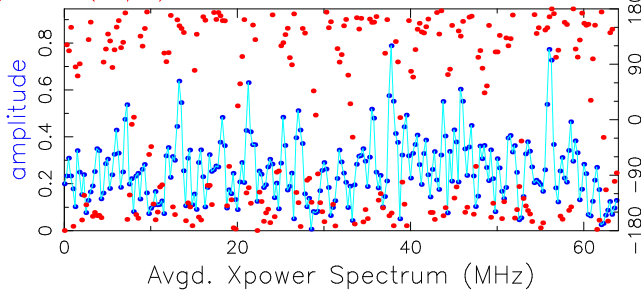
Fringe quality 9



SNR 11.6
Int time 466.976
Amp 0.196
Phase 154.8
PFD 1.8e-22
Delays (us)
SBD -0.000927
MBD 0.000497
Fringe rate (Hz)
-0.000492
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

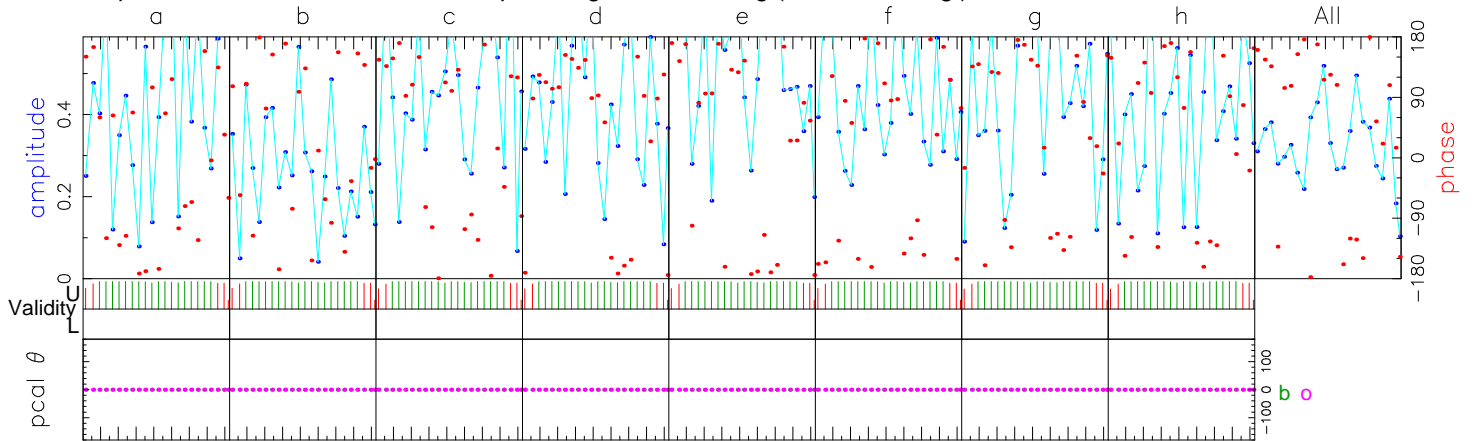


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 114501.00
Stop 115301.26
FRT 114901.00
Corr/FF/build
2021:023:073047
2021:023:132327
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



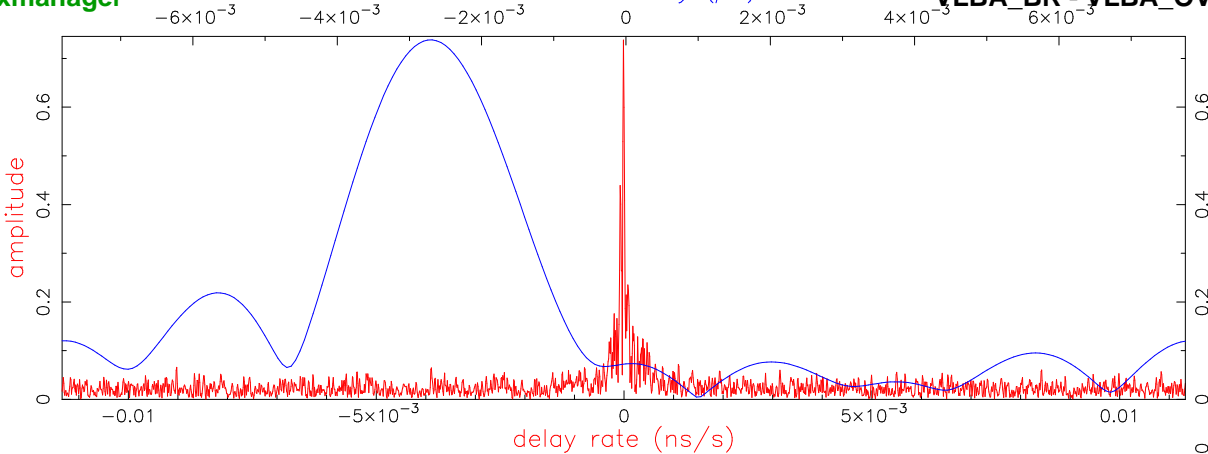
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-174.4	156.1	150.9	130.3	153.9	170.2	164.5	153.7	Phase	154.8
	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.2	Ampl.	0.2
	467.6	163.3	257.5	256.8	256.7	257.7	256.1	256.6	Sbd box	256.8
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	2.60422185897E+02		Apriori delay (usec)		2.60421689209E+02		Resid mbdelay (usec)		4.96687E-04	+/- 9.3E-05
Sband delay (usec)	2.60420762209E+02		Apriori clock (usec)		-2.3108948E+01		Resid sbdelay (usec)		-9.27000E-04	+/- 7.4E-04
Phase delay (usec)	2.60421694203E+02		Apriori clockrate (us/s)		9.9999998E-08		Resid phdelay (usec)		4.99348E-06	+/- 3.2E-07
Delay rate (us/s)	8.74730725525E-02		Apriori rate (us/s)		8.74730782685E-02		Resid rate (us/s)		-5.71593E-09	+/- 1.2E-09
Total phase (deg)	265.9		Apriori accel (us/s/s)		8.94880415745E-06		Resid phase (deg)		154.8	+/- 9.9

	RMS	Theor.	Amplitude	0.196 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	62.9	23.6	Search (2048X32)	0.188	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	82.6	41.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	17.8	14.0	Inc. seg. avg.	0.306	Sample rate(MSamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	36.8	24.4	Inc. frq. avg.	0.196	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

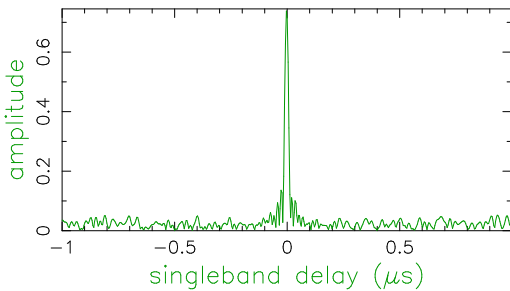
b: az 259.6 el 70.8 pa 61.1 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -652.261 1557.242 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/bo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/bo.W.63.11M149

multiband delay (μ s)

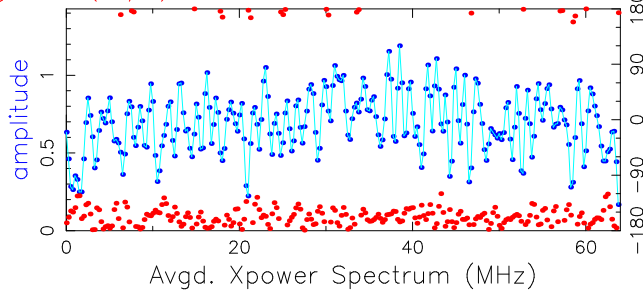
Fringe quality 6



SNR 44.0
Int time 466.976
Amp 0.745
Phase -159.7
PFD 0.0e+00
Delays (us)
SBD -0.002626
MBD -0.002670
Fringe rate (Hz)
-0.000657
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

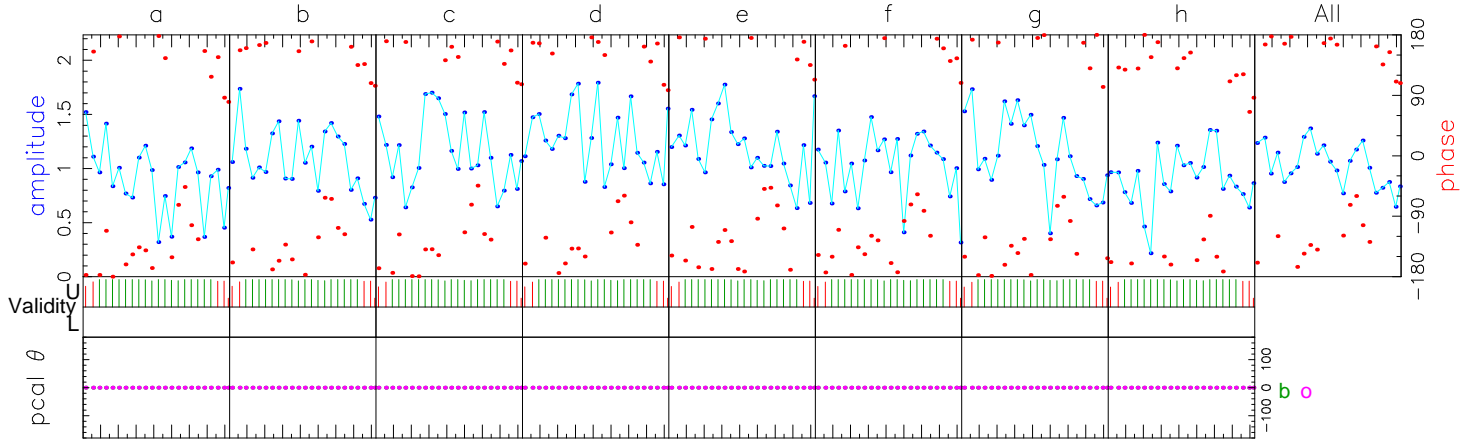


delay rate (ns/s)



Exp. c202b
Yr:day 16383
Start 2020:284
Stop 2020:284
FRT 114501.00
115301.26
114901.00
Corr/FF/build
2021:023:073047
2021:023:132316
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



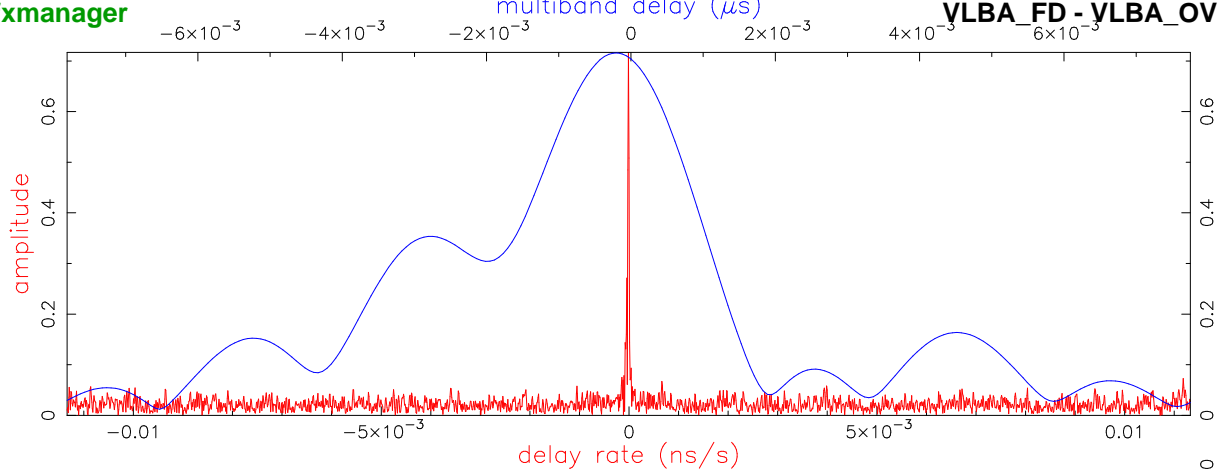
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-159.1	-165.8	-161.3	-162.1	-144.0	-146.4	-155.4	167.6	Phase	-159.7
	0.6	0.7	0.8	0.9	0.8	0.8	0.9	0.6	Ampl.	0.8
	256.5	256.3	256.4	256.4	256.3	256.4	256.2	255.3	Sbd box	256.3
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	2.60419018992E+02					2.60421689209E+02			Resid mbdelay (usec)	-2.67022E-03 +/- 2.5E-05
Sband delay (usec)	2.60419063709E+02					-2.3108948E+01			Resid sbdelay (usec)	-2.62550E-03 +/- 2.0E-04
Phase delay (usec)	2.60421684058E+02					9.9999998E-08			Resid phdelay (usec)	-5.15088E-06 +/- 8.4E-08
Delay rate (us/s)	8.74730706366E-02					8.74730782685E-02			Resid rate (us/s)	-7.63187E-09 +/- 3.0E-10
Total phase (deg)			-48.7			8.94880415745E-06			Resid phase (deg)	-159.7 +/- 2.6
	RMS	Theor.	Amplitude	0.745 +/- 0.017					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	48.0	6.2	Search (2048X32)	0.702					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	46.8	10.9	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	16.1	3.7	Inc. seg. avg.	1.031					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	13.6	6.4	Inc. frq. avg.	0.756					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

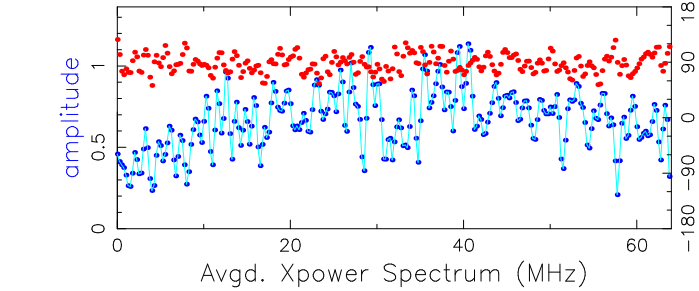
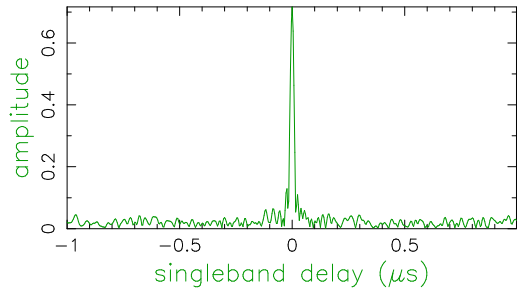
3C84.1M149, No0103, fo

VLBA_FD - VLBA_OV, fgroup W, pol LL



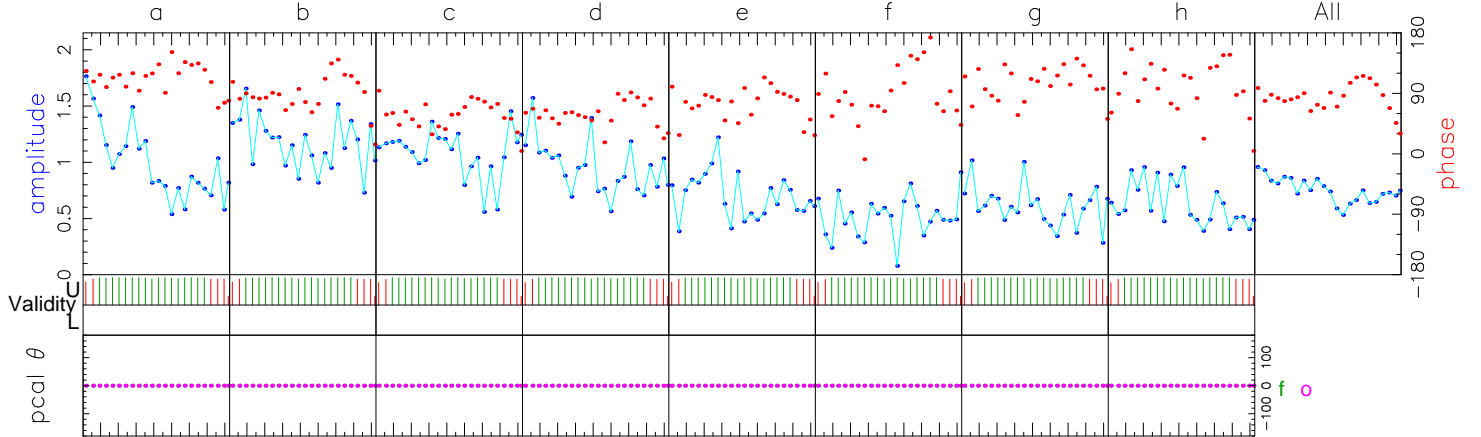
Fringe quality 7

SNR 42.4
 Int time 467.775
 Amp 0.717
 Phase 84.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.000487
 MBD -0.000216
 Fringe rate (Hz)
 -0.000852
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132316
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	931/0	931/0	931/0	931/0	931/0	931/0	931/0	931/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fo	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-2.43873872291E+03	Apriori delay (usec)	-2.43873850669E+03	Resid mbdelay (usec)	-2.16217E-04	+/-	2.6E-05
Sband delay (usec)	-2.43873899394E+03	Apriori clock (usec)	-1.3526731E+01	Resid sbdelay (usec)	-4.87250E-04	+/-	2.0E-04
Phase delay (usec)	-2.43873850396E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	2.72705E-06	+/-	8.7E-08
Delay rate (us/s)	-2.38473812125E-01	Apriori rate (us/s)	-2.38473802235E-01	Resid rate (us/s)	-9.89005E-09	+/-	3.2E-10
Total phase (deg)	-263.3	Apriori accel (us/s/s)	5.75406419077E-06	Resid phase (deg)	84.6	+/-	2.7

ph/seg (deg)	18.4	Theor.	6.5	Amplitude	0.717 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	15.5		11.3	Search (2048X32)	0.702	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	22.5		3.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	33.5		6.7	Inc. seg. avg.	0.747	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.763	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 300.0 el 55.3 pa 94.2 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 1839.125 -253.863 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/fo..1M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/fo.W.15.1M149

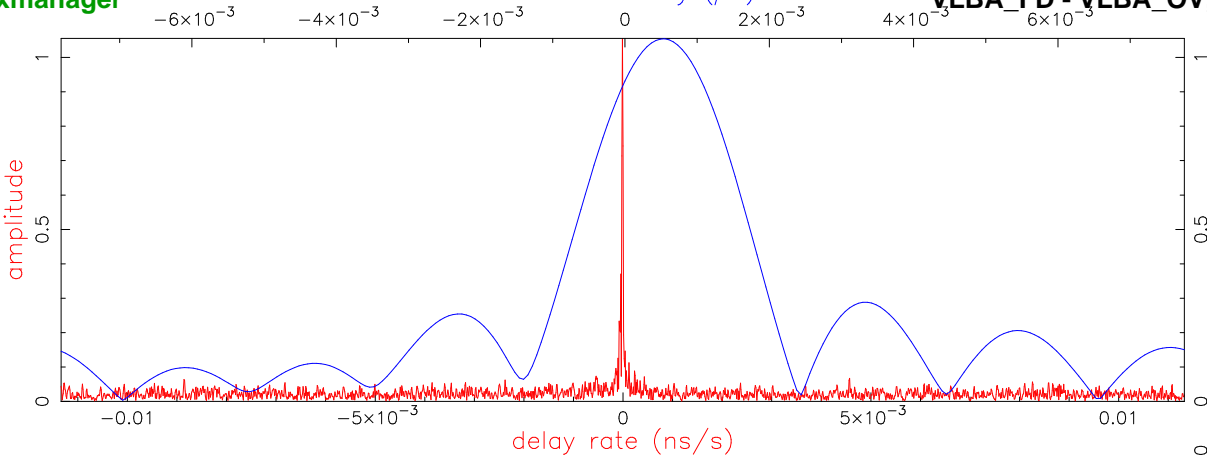
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M149, No0103, fo

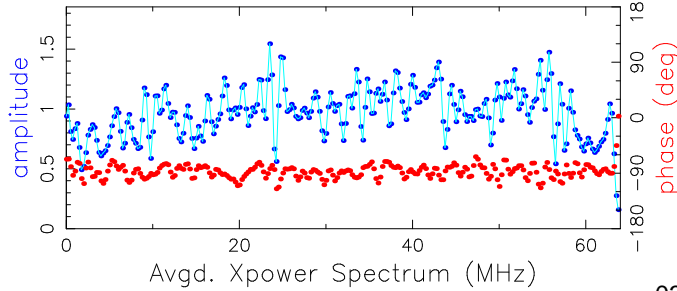
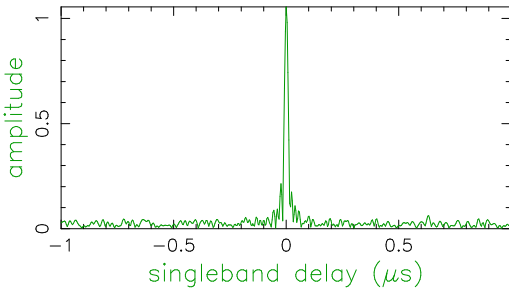
VLBA_FD - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)



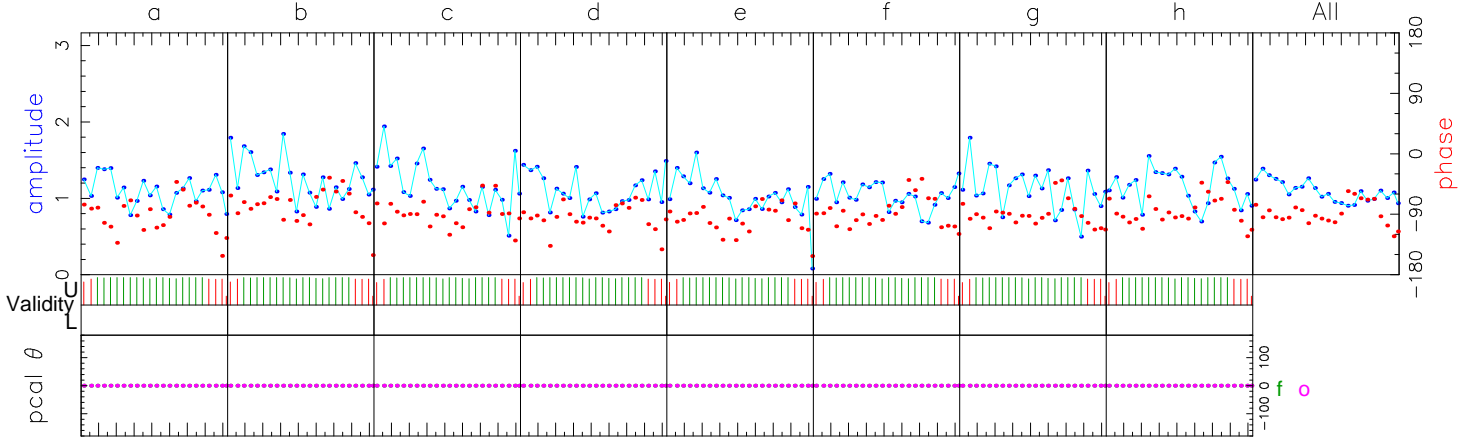
Fringe quality 8

SNR 62.4
 Int time 467.775
 Amp 1.056
 Phase -88.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.000453
 MBD 0.000543
 Fringe rate (Hz)
 -0.000810
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132321
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec

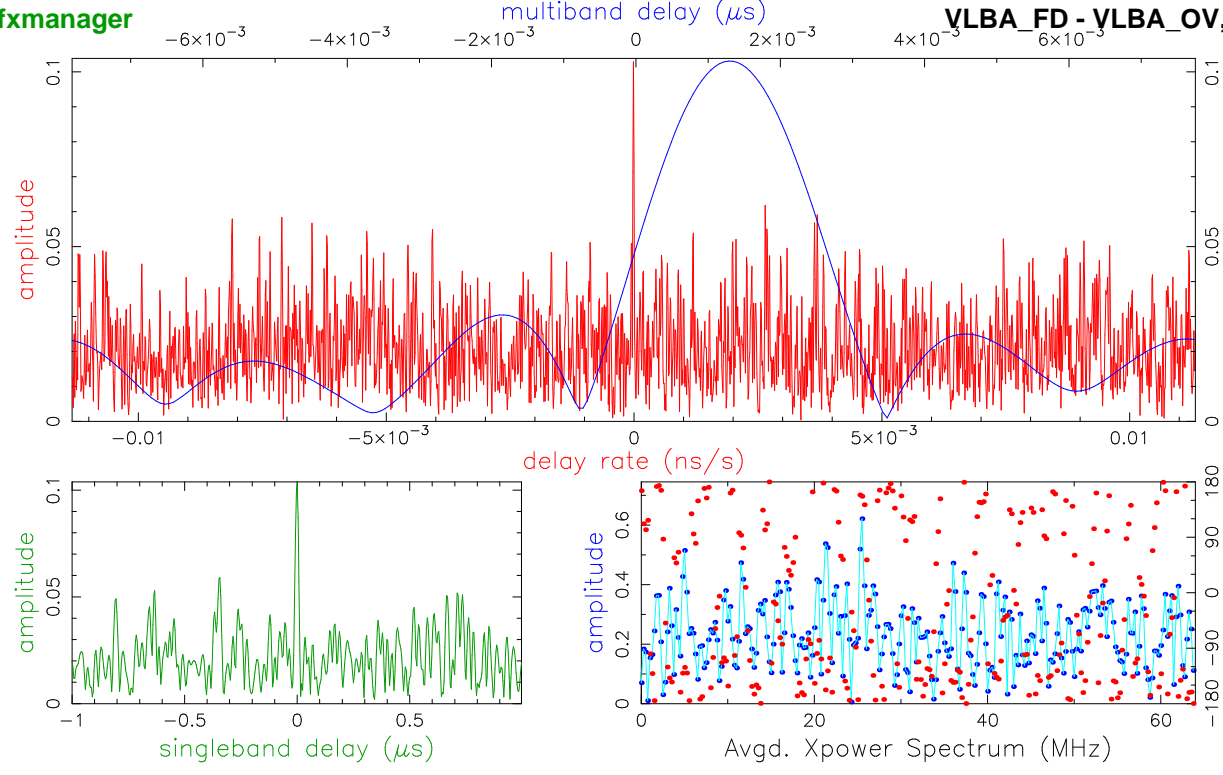


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-91.9	-76.1	-89.4	-94.4	-95.4	-87.7	-91.3	-83.6		-88.5
	1.0	1.2	1.1	1.0	1.0	1.0	1.1	1.1		1.1
	257.4	256.9	256.9	257.1	257.1	257.2	257.3	257.2		257.1
U/L	931/0	931/0	931/0	931/0	931/0	931/0	931/0	931/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
o	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
f	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Chan ids
										Tracks
Group delay (usec)(sbd)	-2.43873796419E+03		Apriori delay (usec)		-2.43873850669E+03		Resid mbdelay (usec)		5.42502E-04	+/- 1.7E-05
Sband delay (usec)	-2.43873805319E+03		Apriori clock (usec)		-1.3526731E+01		Resid sbdelay (usec)		4.53500E-04	+/- 1.4E-04
Phase delay (usec)	-2.43873850954E+03		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-2.85235E-06	+/- 5.9E-08
Delay rate (us/s)	-2.38473811639E-01		Apriori rate (us/s)		-2.38473802235E-01		Resid rate (us/s)		-9.40398E-09	+/- 2.2E-10
Total phase (deg)			Apriori accel (us/s/s)		5.75406419077E-06		Resid phase (deg)		-88.5	+/- 1.8

	RMS	Theor.	Amplitude	1.056 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	16.5	4.4	Search (2048X32)	1.044	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	13.1	7.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	6.8	2.6	Inc. seg. avg.	1.092	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	6.1	4.5	Inc. frq. avg.	1.059	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

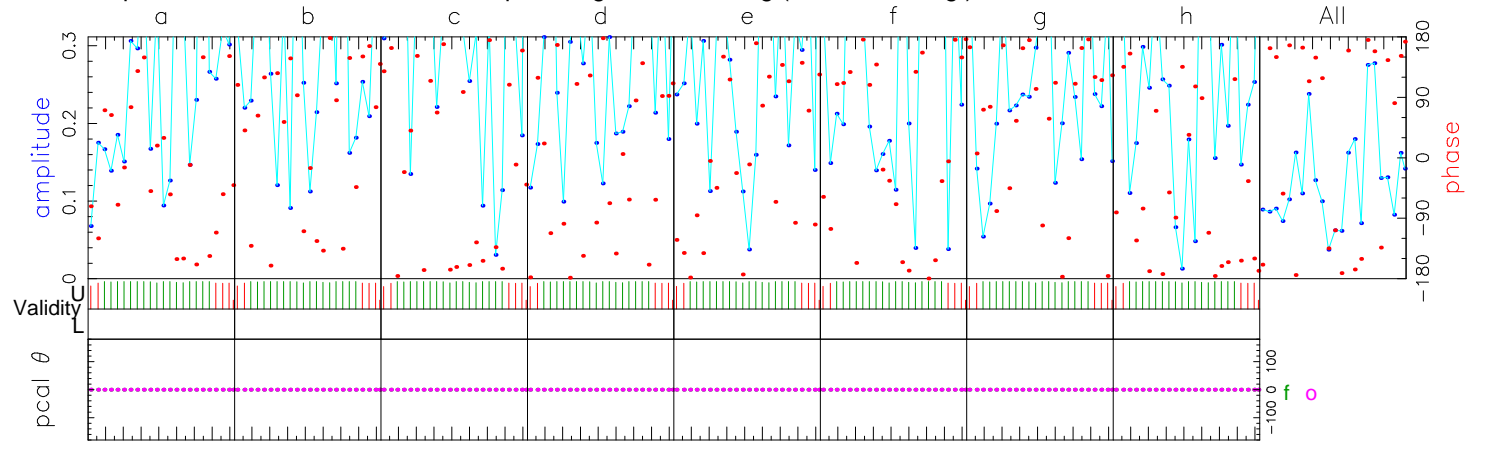
f: az 300.0 el 55.3 pa 94.2 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 1839.125 -253.863 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/fo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/fo.W.37.11M149



Fringe quality 0
SNR 6.1
Int time 467.775
Amp 0.104
Phase 166.2
PFD 1.9e-01
Delays (us)
SBD -0.001216
MBD 0.001224
Fringe rate (Hz)
-0.000997
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 114501.00
Stop 115301.26
FRT 114901.00
Corr/FF/build
2021:023:073047
2021:023:132325
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-171.1	144.1	164.7	167.3	155.5	-178.0	154.3	-175.1	Phase	166.2
	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	254.0	439.1	373.9	161.6	418.5	159.7	457.3	165.2	Sbd box	256.7
U/L	931/0	931/0	931/0	931/0	931/0	931/0	931/0	931/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.43873728247E+03		Apriori delay (usec)		-2.43873850669E+03		Resid mbdelay (usec)		1.22422E-03	+/- 1.8E-04
Sband delay (usec)	-2.43873972244E+03		Apriori clock (usec)		-1.3526731E+01		Resid sbdelay (usec)		-1.21575E-03	+/- 1.4E-03
Phase delay (usec)	-2.43873850133E+03		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		5.36088E-06	+/- 6.0E-07
Delay rate (us/s)	-2.38473813815E-01		Apriori rate (us/s)		-2.38473802235E-01		Resid rate (us/s)		-1.15792E-08	+/- 2.2E-09
Total phase (deg)			Apriori accel (us/s/s)		5.75406419077E-06		Resid phase (deg)		166.2	+/- 18.7

ph/seg (deg) 48.5 44.6 Search (2048X32) 0.102 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 67.3 77.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 17.6 26.4 Inc. seg. avg. 0.099 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 29.8 46.0 Inc. frq. avg. 0.096 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
f: az 300.0 el 55.3 pa 94.2 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 1839.125 -253.863 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/fo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/fo.W.55.11M149

Mk4/DiFX fourfit 3.21 rev 2937

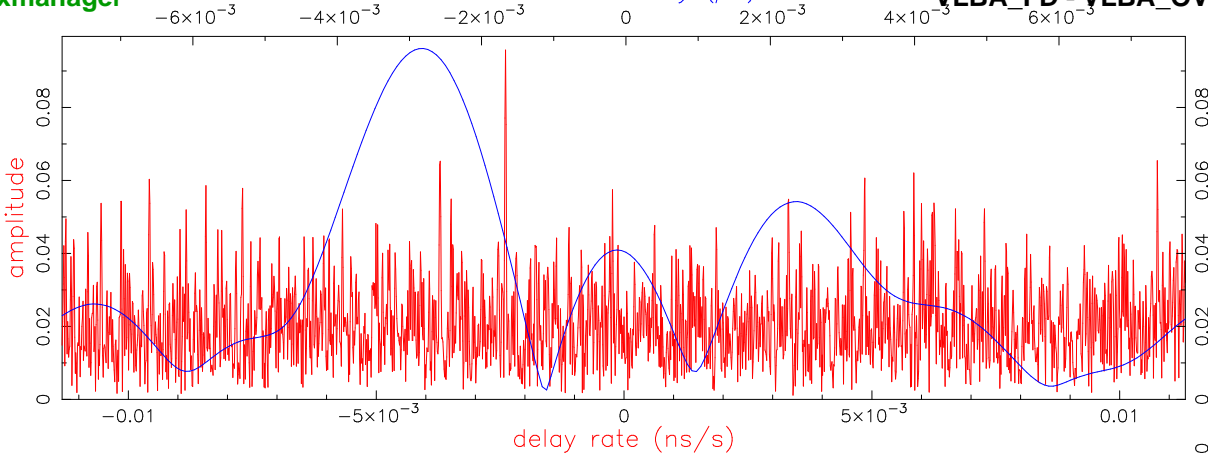
fxmanager

3C84.11M149, No0103, fo

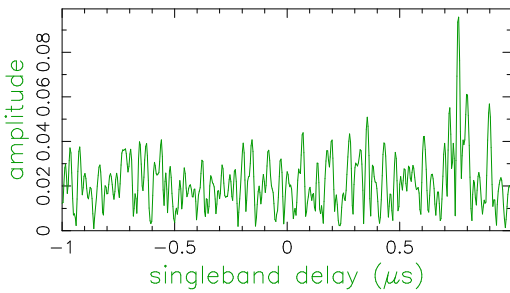
VLBA_FD - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

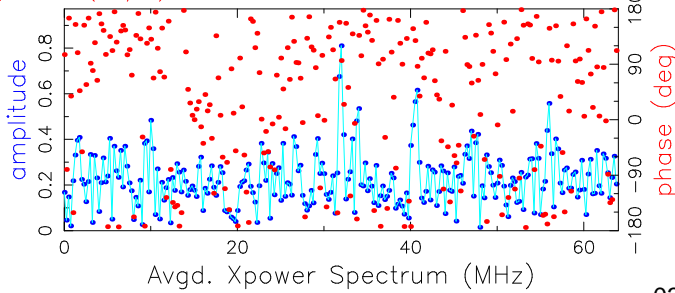
Fringe quality 0



SNR 5.8
 Int time 467.775
 Amp 0.099
 Phase -86.0
 PFD 8.5e-01
 Delays (us)
 SBD 0.760135
 MBD -0.002929
 Fringe rate (Hz)
 -0.206033
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

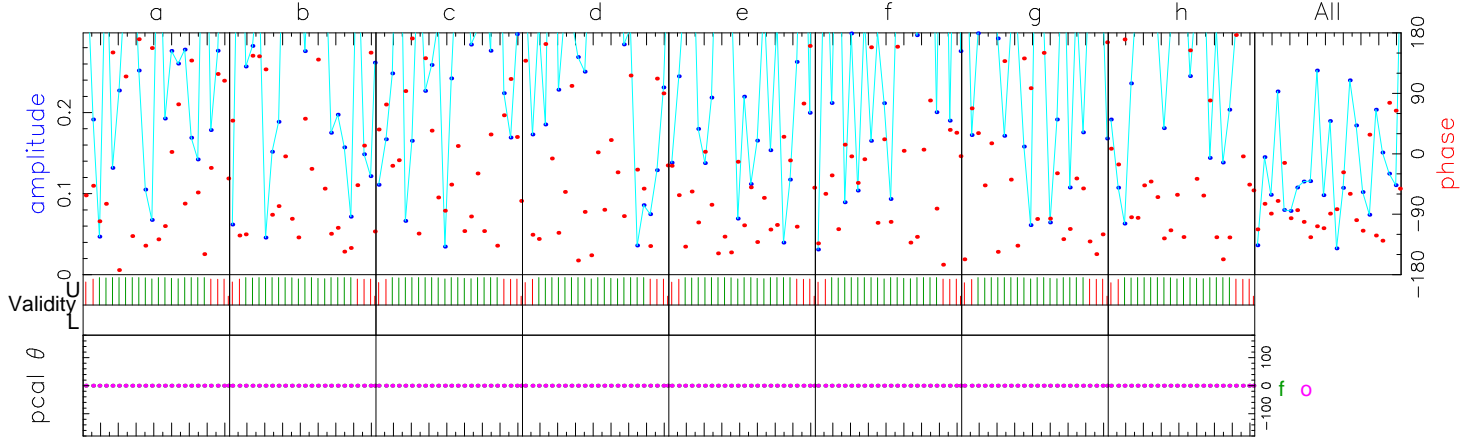


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132329
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-135.8	-91.7	-47.1	-65.2	-98.6	-40.7	-108.6	-78.7	Phase	-86.0
	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	Ampl.	0.1
	90.9	407.7	260.3	487.3	234.0	91.1	494.9	459.2	Sbd box	451.6
U/L	931/0	931/0	931/0	931/0	931/0	931/0	931/0	931/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-2.43797581092E+03	Apriori delay (usec)	-2.43873850669E+03	Resid mbdelay (usec)	-2.92923E-03	+/-	1.9E-04
Sband delay (usec)	-2.43797837169E+03	Apriori clock (usec)	-1.3526731E+01	Resid sbdelay (usec)	7.60135E-01	+/-	1.5E-03
Phase delay (usec)	-2.43873850946E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-2.77276E-06	+/-	6.4E-07
Delay rate (us/s)	-2.38476194070E-01	Apriori rate (us/s)	-2.38473802235E-01	Resid rate (us/s)	-2.39183E-06	+/-	2.3E-09
Total phase (deg)		Apriori accel (us/s/s)	5.75406419077E-06	Resid phase (deg)	-86.0	+/-	19.8

ph/seg (deg)	59.2	Theor.	47.4	Amplitude	0.099 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	76.9		82.7	Search (2048X32)	0.094	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	34.7		28.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	38.0		49.0	Inc. seg. avg.	0.102	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.097	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

f: az 300.0 el 55.3 pa 94.2 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 1839.125 -253.863 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/fo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/fo.W.74.11M149

Mk4/DiFX fourfit 3.21 rev 2937

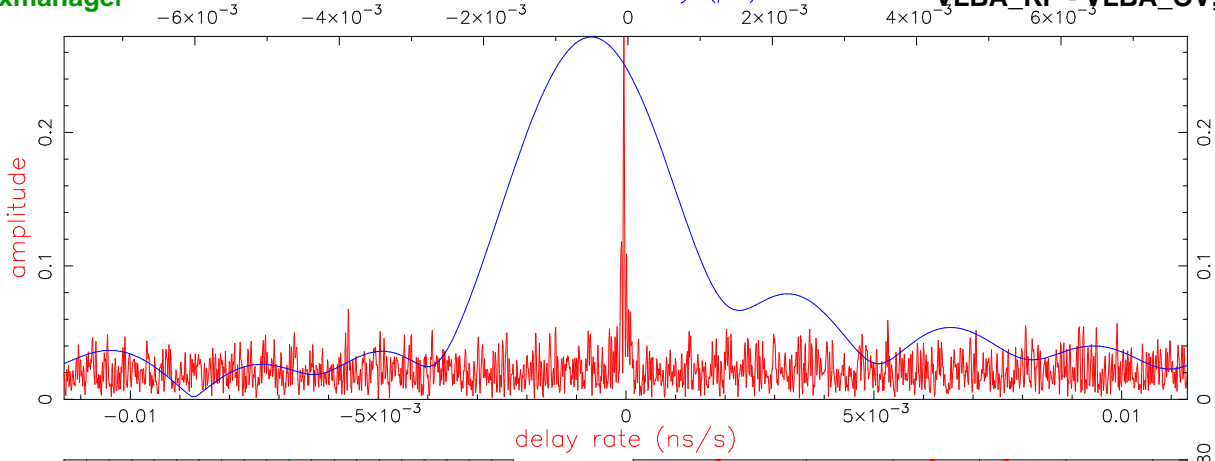
fxmanager

3C84.1IM149, No0103, ko

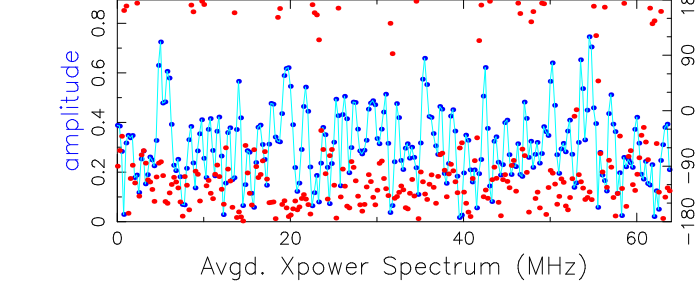
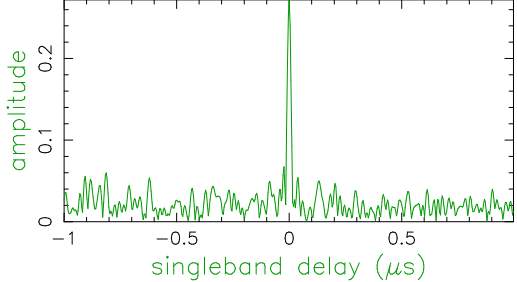
VLBA_KP - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 9

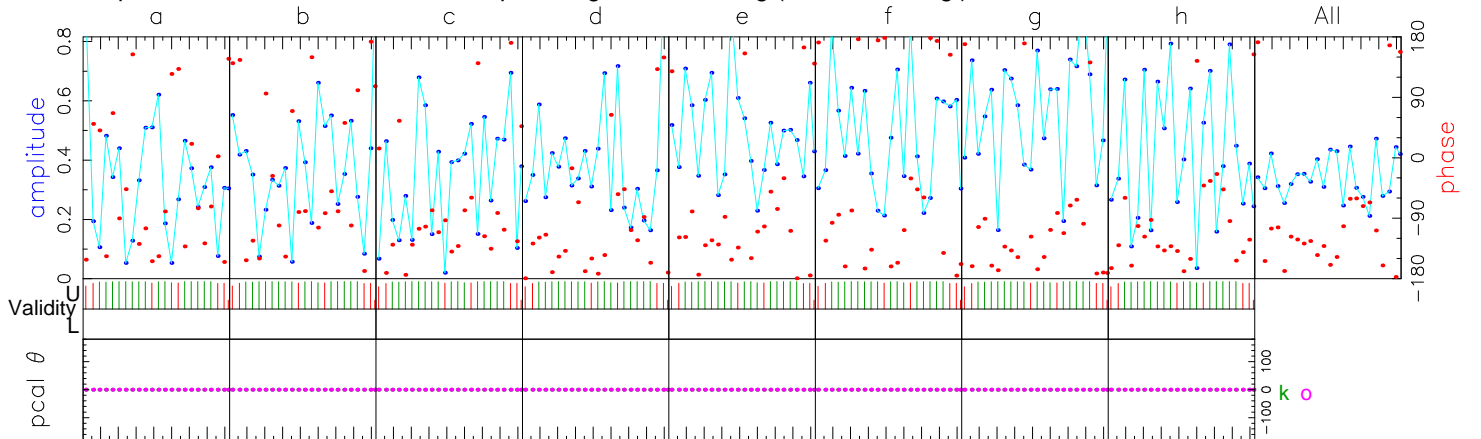


SNR 16.1
 Int time 466.214
 Amp 0.272
 Phase -129.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.000548
 MBD -0.000534
 Fringe rate (Hz) -0.003988
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132340
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
Group delay (usec)(sbd)	-130.7	-121.5	-119.2	-142.5	-131.3	-137.9	-133.0	-112.2		-129.0
Sband delay (usec)	0.2	0.1	0.3	0.2	0.3	0.3	0.4	0.3		0.3
Phase delay (usec)	256.2	303.2	256.0	257.4	257.4	256.7	257.5	256.5		256.9
Delay rate (us/s)	U/L 932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
Total phase (deg)	k 1000	1000	1000	1000	1000	1000	1000	1000		
	o 1000	1000	1000	1000	1000	1000	1000	1000		
	k:o 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
	k:o 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
	k 1000	1000	1000	1000	1000	1000	1000	1000		
	o 1000	1000	1000	1000	1000	1000	1000	1000		
	k W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
	o W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	
									PCal mode: MANUAL, MANUAL	
									PCal rate: 0.000E+00, 0.000E+00 (us/s)	
									Resid mbdelay (usec)	-5.34492E-04 +/- 6.8E-05
									Resid sbdelay (usec)	-5.48000E-04 +/- 5.4E-04
									Resid phdelay (usec)	-4.16115E-06 +/- 2.3E-07
									Resid rate (us/s)	-4.62979E-08 +/- 8.4E-10
									Resid phase (deg)	-129.0 +/- 7.1
									PC period (AP's) 5, 5	
									sb window (us)	-1.000 1.000
									SampCntNorm: enabled	
									mb window (us)	-0.008 0.008
									Sample rate(MSamp/s): 128	
									dr window (ns/s)	-0.011 0.011
									Data rate(Mb/s): 2048	
									nlags: 256 t_cohere infinite	
									ion window (TEC)	0.00 0.00

ph/seg (deg) 39.5 17.1 Search (2048X32) 0.268 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 37.6 29.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 11.0 10.1 Inc. seg. avg. 0.329 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 31.6 17.6 Inc. frq. avg. 0.271 Sample rate(MSamp/s): 128 Resid rate (us/s) -4.62979E-08 +/- 8.4E-10
 k: az 299.4 el 61.6 pa 97.9 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 968.787 -479.850 simultaneous interpolator

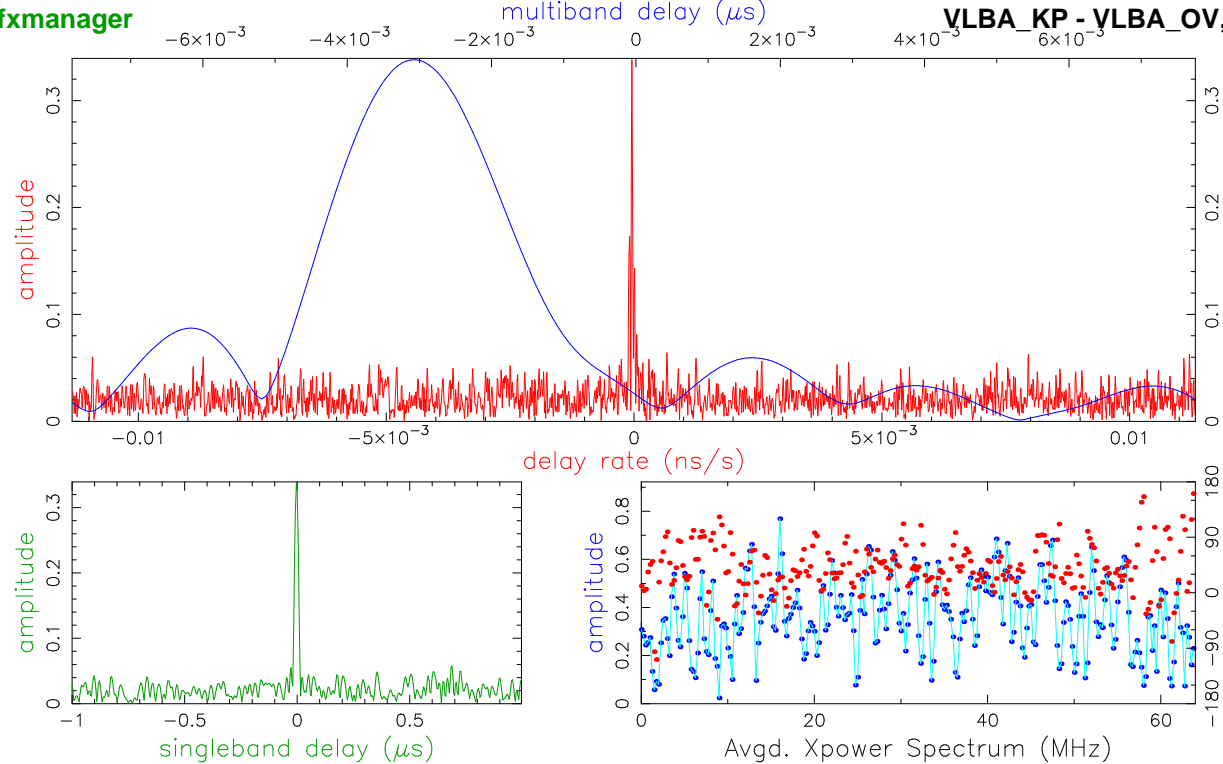
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/ko..1IM149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/ko.W.117.1IM149

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M149, No0103, ko

VLBA_KP - VLBA_OV, fgroup W, pol RL

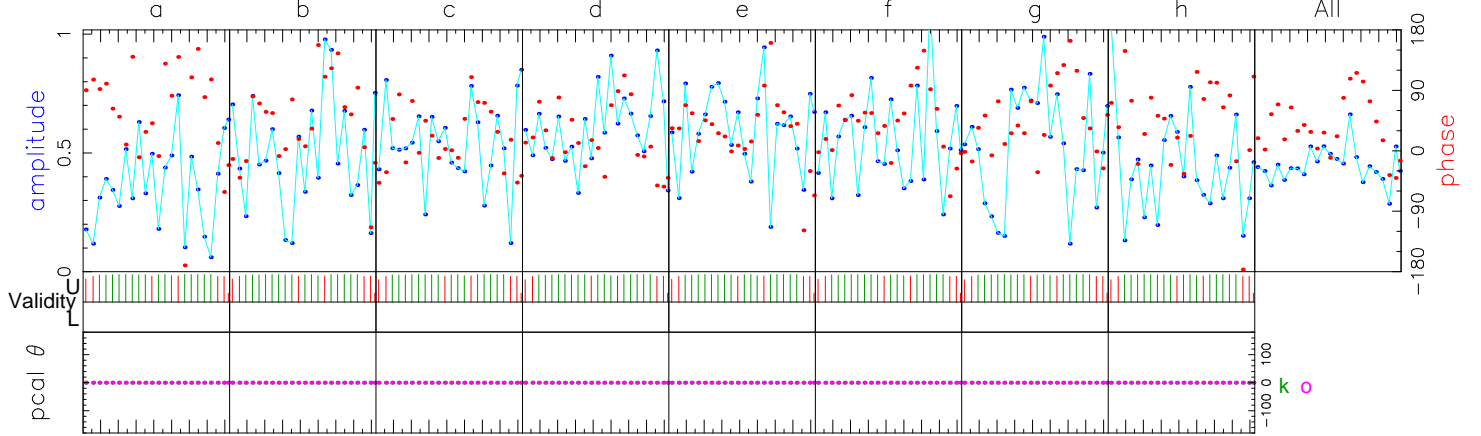


Fringe quality 9

SNR 20.0
 Int time 466.216
 Amp 0.339
 Phase 38.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.003061
 MBD -0.003057
 Fringe rate (Hz)
 -0.003918
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132344
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
k	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	-1.17738196440E+03								Resid mbdelay (usec)	-3.05684E-03 +/- 5.4E-05
Sband delay (usec)	-1.17738196832E+03								Resid sbdelay (usec)	-3.06075E-03 +/- 4.3E-04
Phase delay (usec)	-1.17737890634E+03								Resid phdelay (usec)	1.22857E-06 +/- 1.8E-07
Delay rate (us/s)	-1.26289699745E-01								Resid rate (us/s)	-4.54788E-08 +/- 6.7E-10
Total phase (deg)			2.9						Resid phase (deg)	38.1 +/- 5.7
	RMS	Theor.	Amplitude	0.339 +/- 0.017					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	41.8	13.7	Search (2048X32)	0.334					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	38.6	23.8	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	18.8	8.1	Inc. seg. avg.	0.436					Sample rate(MSamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	24.5	14.1	Inc. frq. avg.	0.346					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite

k: az 299.4 el 61.6 pa 97.9 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 968.787 -479.850 simultaneous interpolator

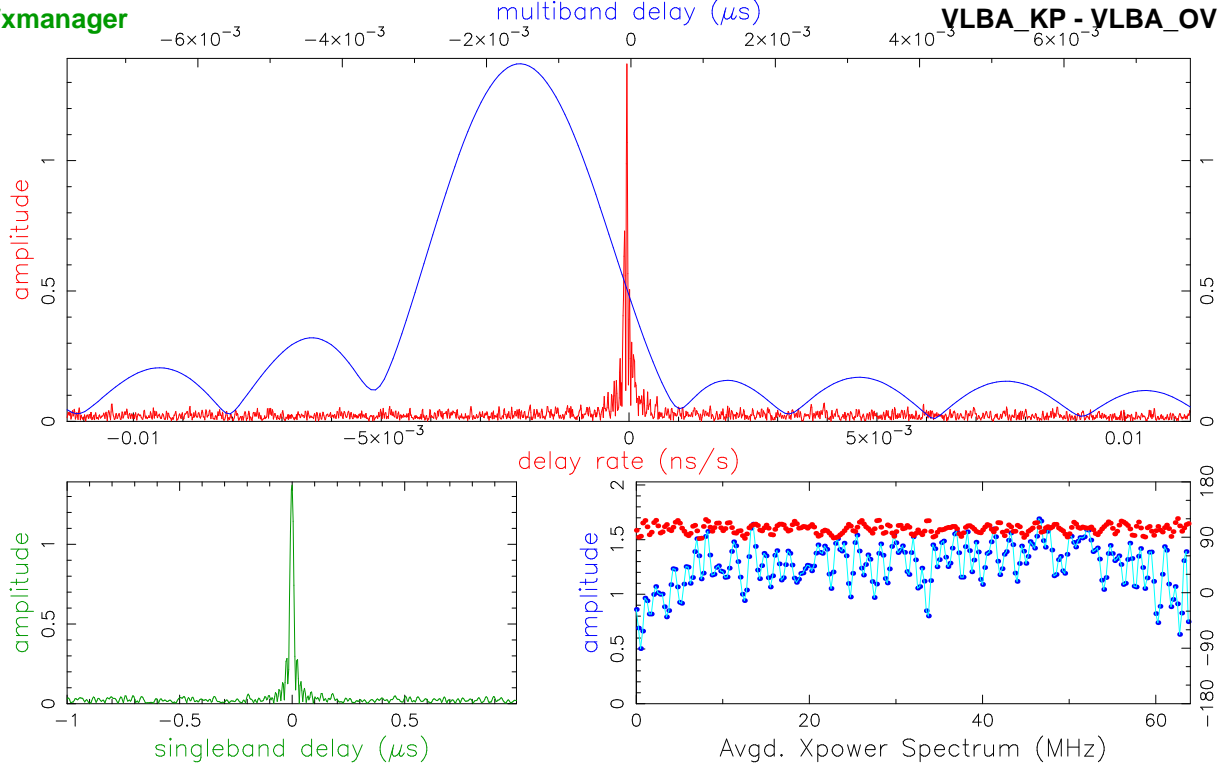
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/ko..1M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/ko.W.134.1M149

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M149, No0103, ko

VLBA_KP - VLBA_OV, fgroup W, pol LL

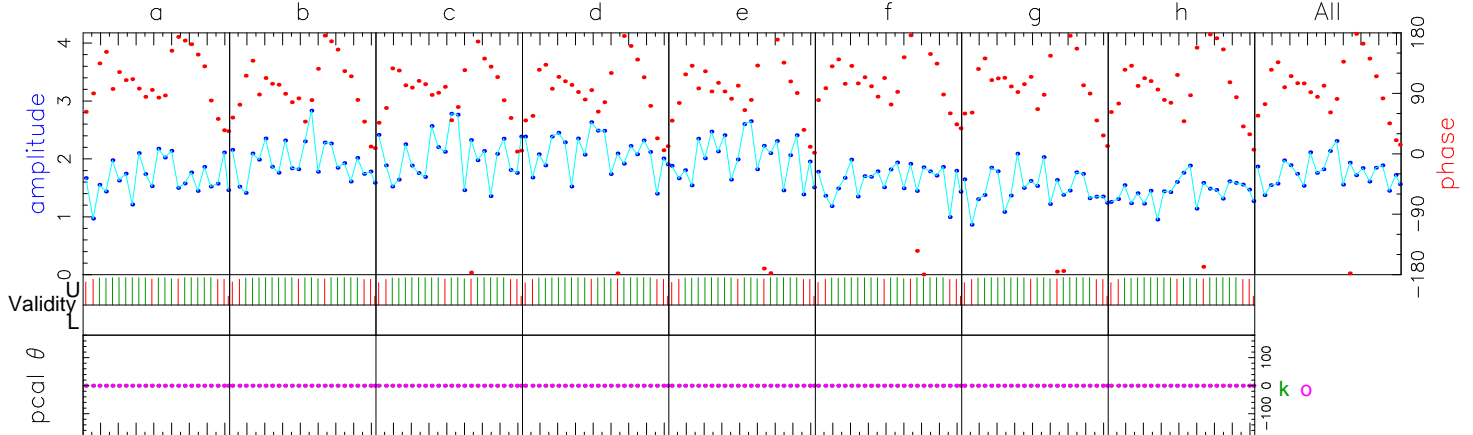


Fringe quality 6

SNR 82.2
 Int time 466.214
 Amp 1.392
 Phase 103.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.001579
 MBD -0.001581
 Fringe rate (Hz)
 -0.003961
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132333
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
108.7	98.4	95.8	99.8	102.4	114.2	108.8	103.3	103.3	Phase	103.4
1.3	1.5	1.6	1.6	1.5	1.3	1.2	1.0	1.0	Ampl.	1.4
256.6	256.7	256.6	256.5	256.6	256.8	256.6	256.2	256.2	Sbd box	256.6
U/L 932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0	APs used	
k 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:0:0	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	1000	PC amp	
o 1000	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.17738048825E+03		Apriori delay (usec)	-1.17737890757E+03	Resid mbdelay (usec)	-1.58068E-03	+/-	1.3E-05		
Sband delay (usec)	-1.17738048632E+03		Apriori clock (usec)	-2.1060892E+01	Resid sbdelay (usec)	-1.57875E-03	+/-	1.0E-04		
Phase delay (usec)	-1.17737890423E+03		Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	3.33559E-06	+/-	4.5E-08		
Delay rate (us/s)	-1.26289700246E-01		Apriori rate (us/s)	-1.26289654267E-01	Resid rate (us/s)	-4.59790E-08	+/-	1.6E-10		
Total phase (deg)		68.2	Apriori accel (us/s/s)	4.82635077680E-07	Resid phase (deg)	103.4	+/-	1.4		

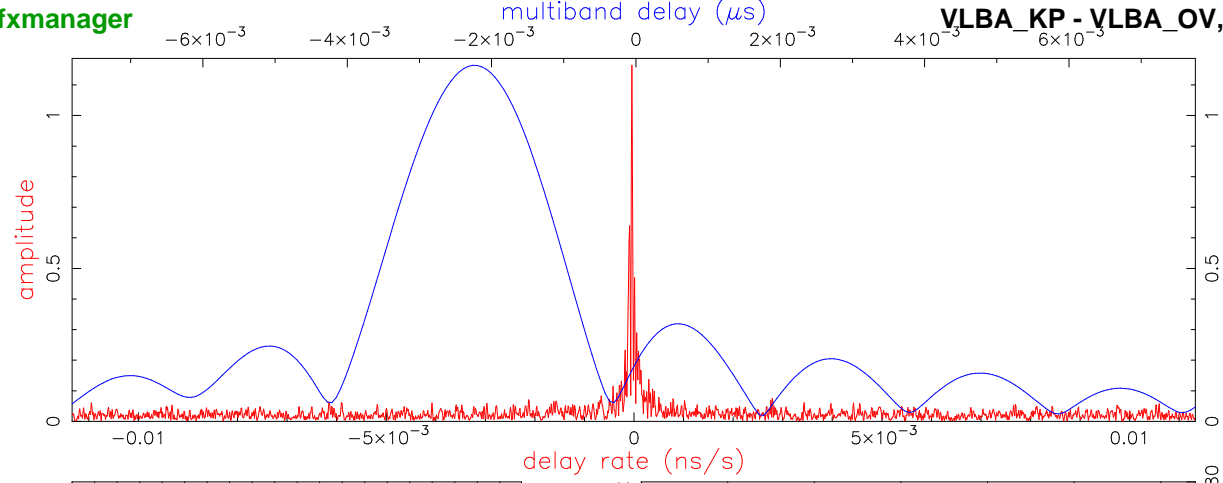
ph/seg (deg) 41.6 3.3 Search (2048X32) 1.359 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 32.3 5.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 6.7 2.0 Inc. seg. avg. 1.778 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 14.0 3.4 Inc. frq. avg. 1.377 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 299.4 el 61.6 pa 97.9 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 968.787 -479.850 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/ko..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/ko.W.81.11M149

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM149, No0103, ko

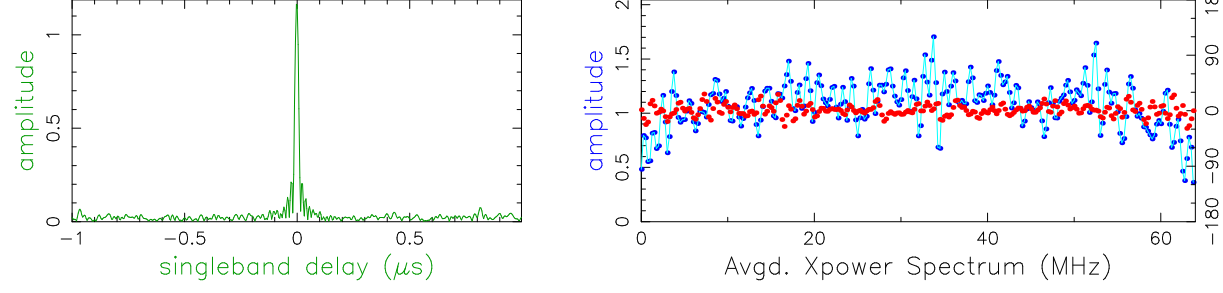
VLBA_KP - VLBA_OV, fgroup W, pol RR



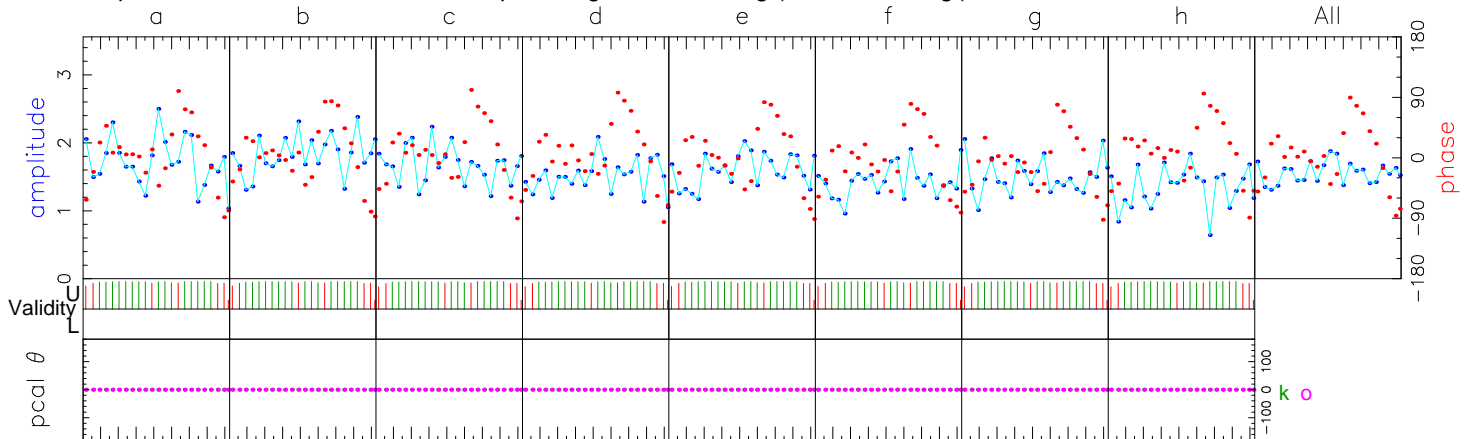
Fringe quality 6

SNR 70.1
 Int time 466.216
 Amp 1.187
 Phase 2.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.002079
 MBD -0.002194
 Fringe rate (Hz)
 -0.003991
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132337
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.17738110118E+03									
Sband delay (usec)	-1.17738098607E+03									
Phase delay (usec)	-1.17737890749E+03									
Delay rate (us/s)	-1.26289700598E-01									
Total phase (deg)			-32.9							
Apriori delay (usec)					-1.17737890757E+03					
Apriori clock (usec)					-2.1060892E+01					
Apriori clockrate (us/s)					1.9999998E-07					
Apriori rate (us/s)					-1.26289654267E-01					
Apriori accel (us/s/s)					4.82635077680E-07					
Resid mbdelay (usec)									-2.19362E-03	+/- 1.5E-05
Resid sbdelay (usec)									-2.07850E-03	+/- 1.2E-04
Resid phdelay (usec)									7.52895E-08	+/- 5.3E-08
Resid rate (us/s)									-4.63312E-08	+/- 1.9E-10
Resid phase (deg)									2.3	+/- 1.6

ph/seg (deg) 43.0 3.9
 amp/seg (%) 34.3 6.8
 ph/frq (deg) 6.8 2.3
 amp/frq (%) 9.2 4.0

RMS Theor. Amplitude 1.187 +/- 0.017
 Search (2048X32) 1.130
 Interp. 0.000
 Inc. seg. avg. 1.558
 Inc. frq. avg. 1.168

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(MISamp/s): 128
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

k: az 299.4 el 61.6 pa 97.9 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 968.787 -479.850 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/ko..1IM149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/ko.W.98.1IM149

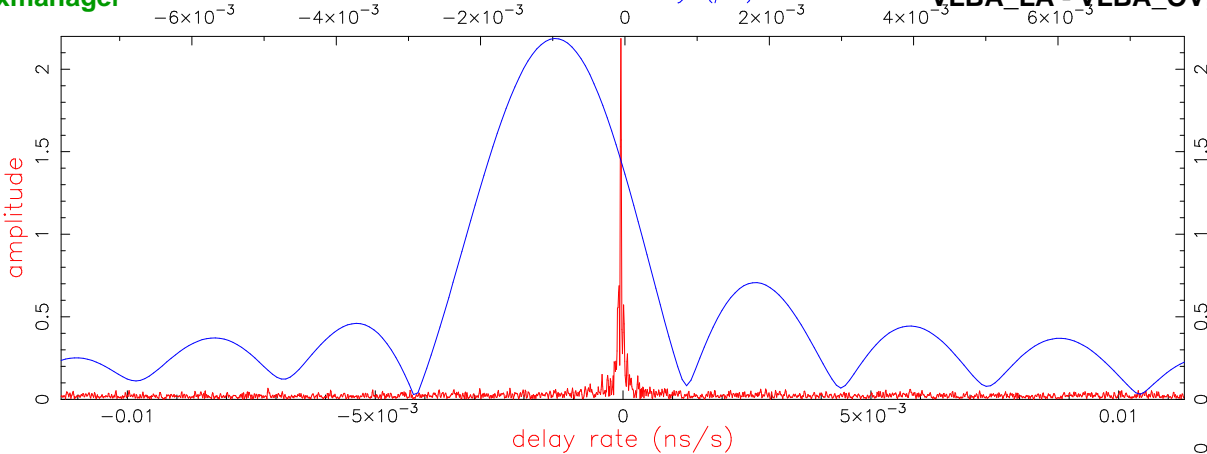
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M149, No0103, lo

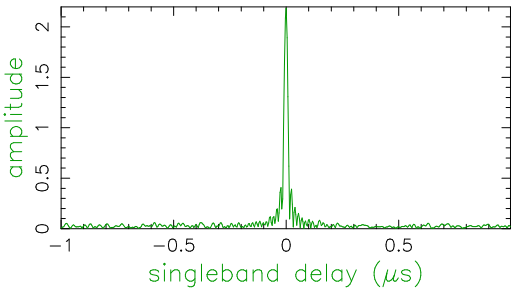
VLBA_LA - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

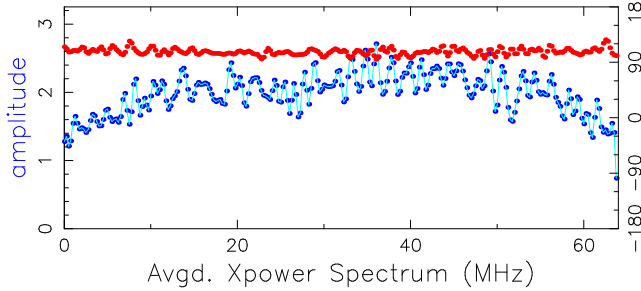


Fringe quality 7

SNR 130.3
 Int time 469.406
 Amp 2.199
 Phase 106.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.000998
 MBD -0.000987
 Fringe rate (Hz)
 -0.003629
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

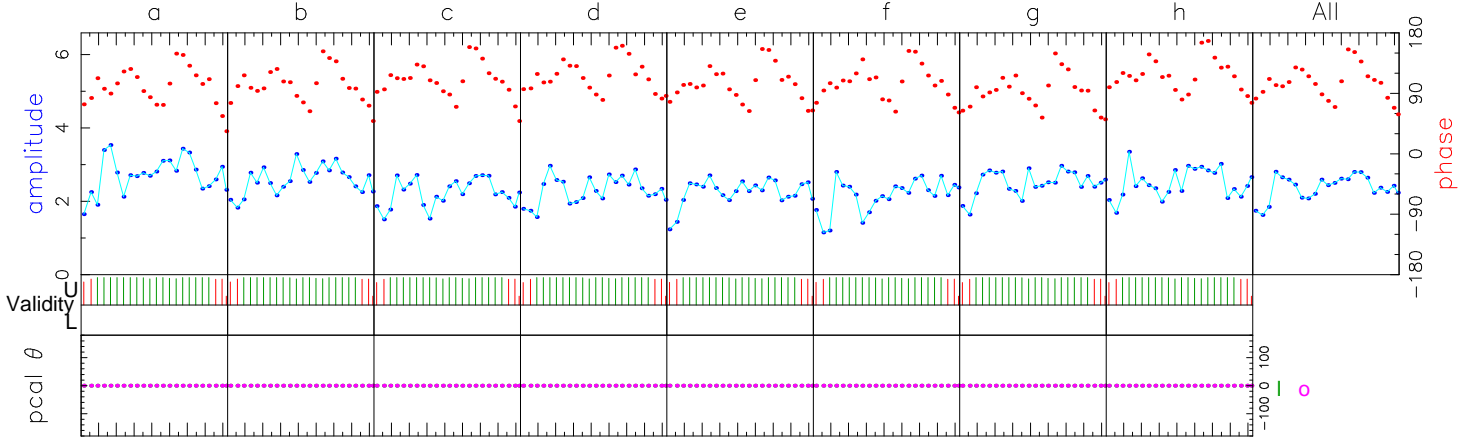


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132339
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-1.62046228674E+03	Apriori delay (usec)	-1.62046130006E+03	Resid mbdelay (usec)	-9.86680E-04	+/-	8.3E-06
Sband delay (usec)	-1.62046229806E+03	Apriori clock (usec)	-2.1801001E+01	Resid sbdelay (usec)	-9.98000E-04	+/-	6.6E-05
Phase delay (usec)	-1.62046129661E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	3.44208E-06	+/-	2.8E-08
Delay rate (us/s)	-1.71703245850E-01	Apriori rate (us/s)	-1.71703203720E-01	Resid rate (us/s)	-4.21301E-08	+/-	1.0E-10
Total phase (deg)	-32.5	Apriori accel (us/s/s)	6.97637417081E-06	Resid phase (deg)	106.7	+/-	0.9

ph/seg (deg)	23.5	RMS	2.1	Theor.	2.1	Amplitude	2.199 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	17.0	Search (2048X32)	2.154	Search	2.154	Search	2.154	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	8.6	Interp.	0.000	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	7.8	Inc. seg. avg.	2.386	Inc. seg. avg.	2.386	Inc. seg. avg.	2.386	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	2.204	Inc. frq. avg.	2.204	Inc. frq. avg.	2.204	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

l: az 292.9 el 59.3 pa 88.4 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 1329.607 334.803 simultaneous interpolator

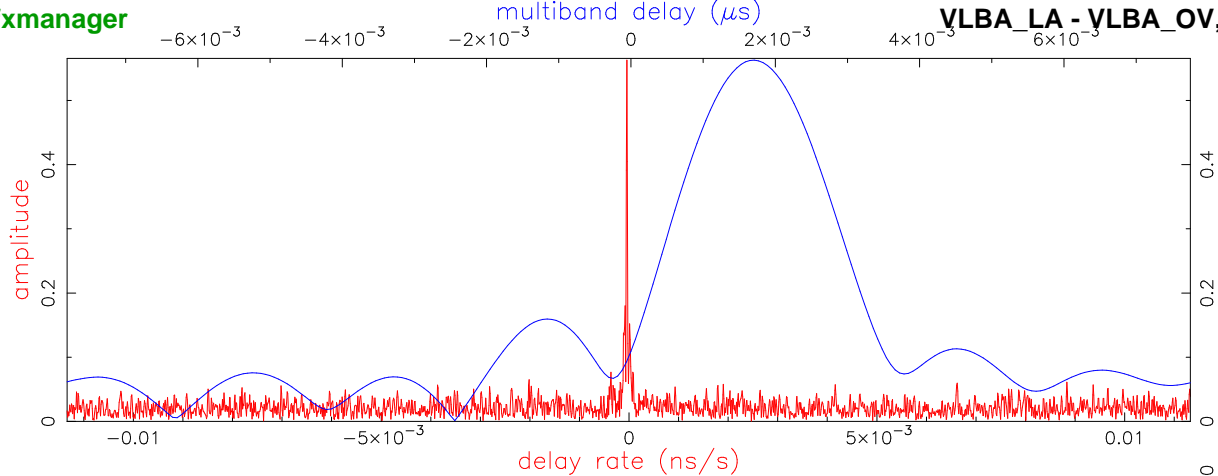
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/lo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/lo.W.107.11M149

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

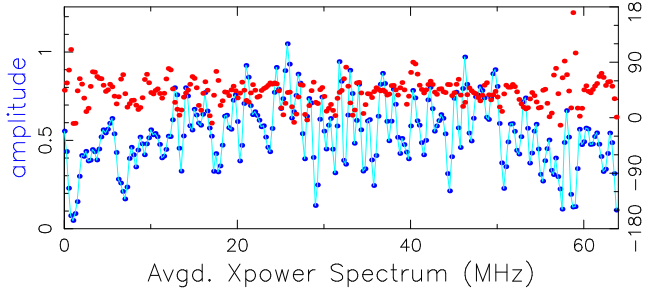
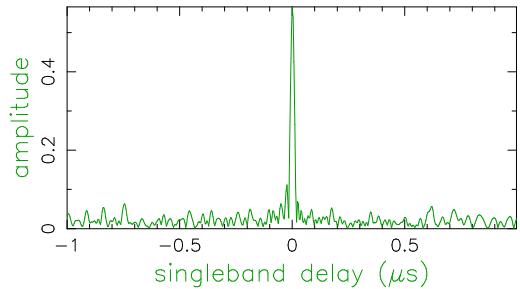
3C84.1M149, No0103, lo

VLBA_LA - VLBA_OV, fgroup W, pol LR



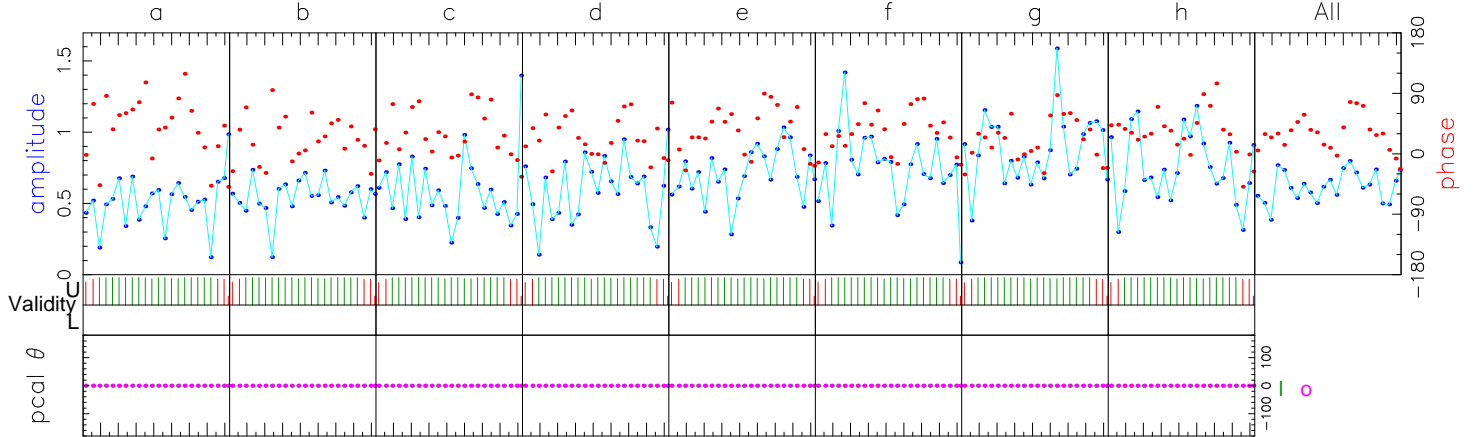
Fringe quality 7

SNR 33.5
 Int time 469.406
 Amp 0.566
 Phase 31.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.000922
 MBD 0.001715
 Fringe rate (Hz)
 -0.003639
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132343
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.62045958461E+03								1.71545E-03	+/- 3.2E-05
Sband delay (usec)	-1.62046037806E+03								9.22000E-04	+/- 2.6E-04
Phase delay (usec)	-1.62046129904E+03								1.01438E-06	+/- 1.1E-07
Delay rate (us/s)	-1.71703245963E-01								-4.22428E-08	+/- 4.0E-10
Total phase (deg)			-107.8						31.5	+/- 3.4
				Apriori delay (usec)	-1.62046130006E+03				Resid mbdelay (usec)	
				Apriori clock (usec)	-2.1801001E+01				Resid sbdelay (usec)	
				Apriori clockrate (us/s)	0.0000000E+00				Resid phdelay (usec)	
				Apriori rate (us/s)	-1.71703203720E-01				Resid rate (us/s)	
				Apriori accel (us/s/s)	6.97637417081E-06				Resid phase (deg)	
ph/seg (deg)	23.9	8.2		Search (2048X32)	0.543				PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	20.7	14.3		Interp.	0.000				PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	9.6	4.8		Inc. seg. avg.	0.612				Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	20.3	8.4		Inc. frq. avg.	0.566				Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
									Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
										ion window (TEC) 0.00 0.00

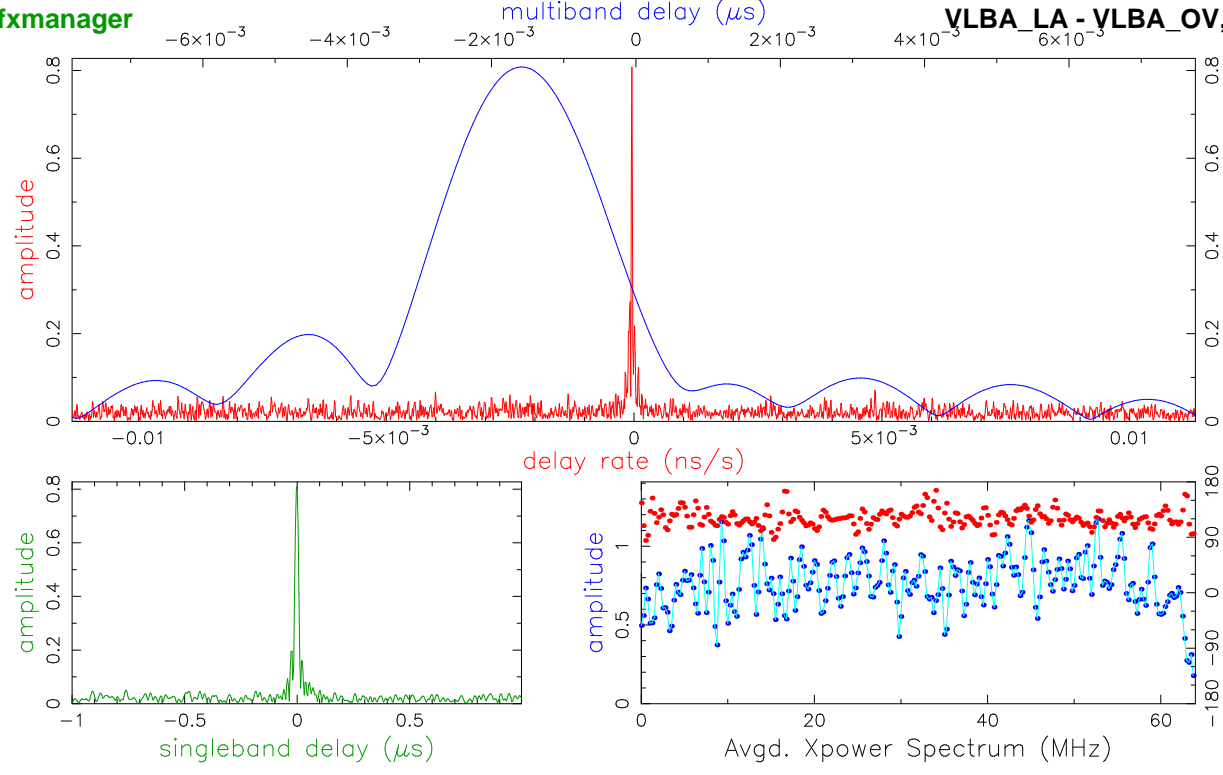
l: az 292.9 el 59.3 pa 88.4 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 1329.607 334.803 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/lo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/lo.W.127.11M149

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M149, No0103, lo

VLBA_LA - VLBA_OV, fgroup W, pol RL

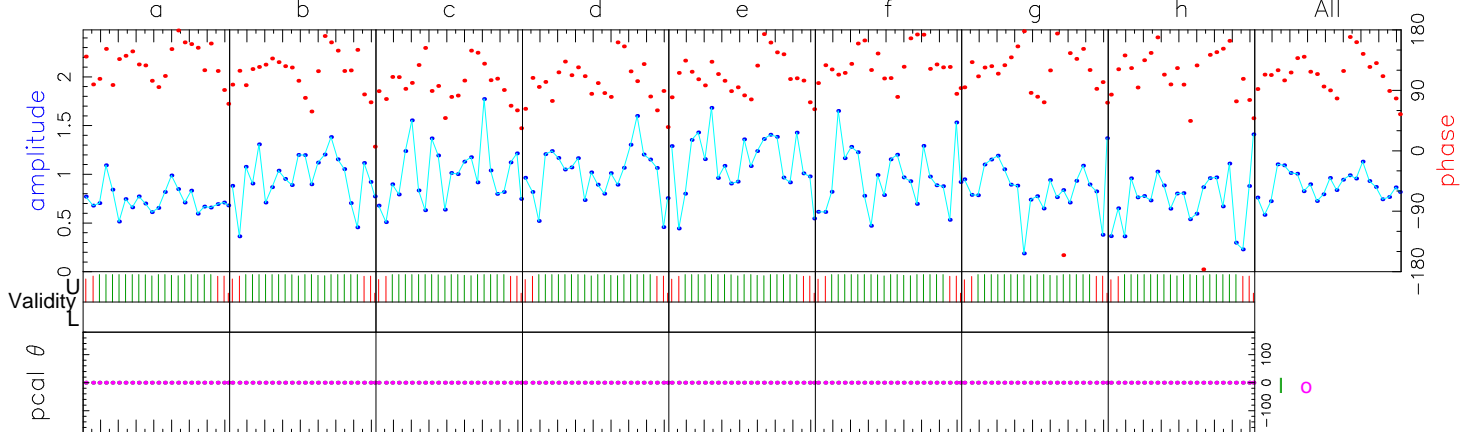


Fringe quality 6

SNR 49.0
 Int time 469.406
 Amp 0.828
 Phase 117.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.001979
 MBD -0.001637
 Fringe rate (Hz)
 -0.003640
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132346
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.62046293686E+03								Resid mbdelay (usec)	-1.63680E-03 +/- 2.2E-05
Sband delay (usec)	-1.62046327931E+03								Resid sbdelay (usec)	-1.97925E-03 +/- 1.8E-04
Phase delay (usec)	-1.62046129628E+03								Resid phdelay (usec)	3.77236E-06 +/- 7.5E-08
Delay rate (us/s)	-1.71703245973E-01								Resid rate (us/s)	-4.22527E-08 +/- 2.7E-10
Total phase (deg)			-22.3						Resid phase (deg)	117.0 +/- 2.3
	RMS	Theor.	Amplitude	0.828 +/- 0.017					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	24.8	5.6	Search (2048X32)	0.794					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	18.0	9.7	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	12.0	3.3	Inc. seg. avg.	0.885					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	15.5	5.8	Inc. frq. avg.	0.819					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite
l: az 292.9 el 59.3 pa 88.4			o: az 290.2 el 68.8 pa 92.1							u,v (fr/asec) 1329.607 334.803
Control file: cf_1234_gmva			Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/lo..11M149							Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/lo.W.145.11M149

Mk4/DiFX fourfit 3.21 rev 2937

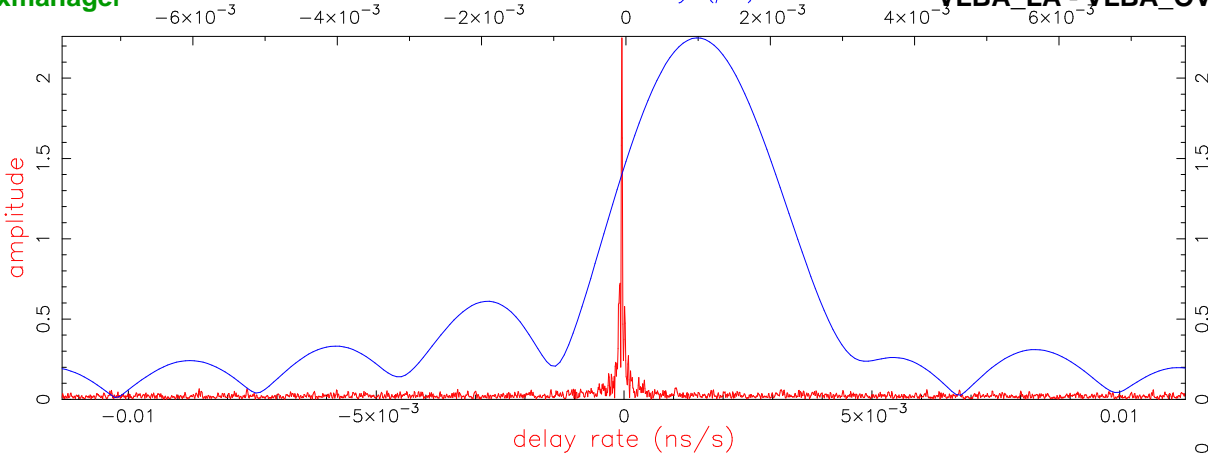
fxmanager

3C84.1M149, No0103, lo

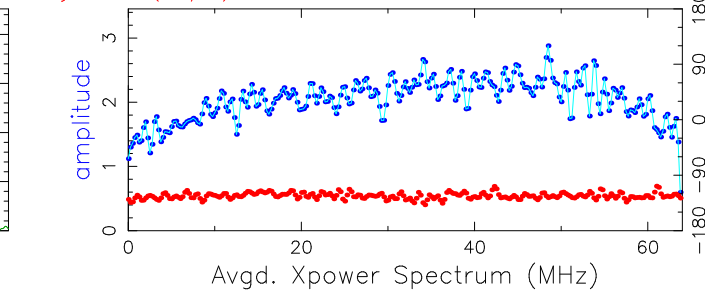
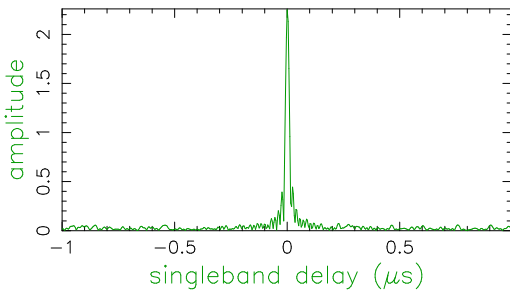
VLBA_LA - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 6

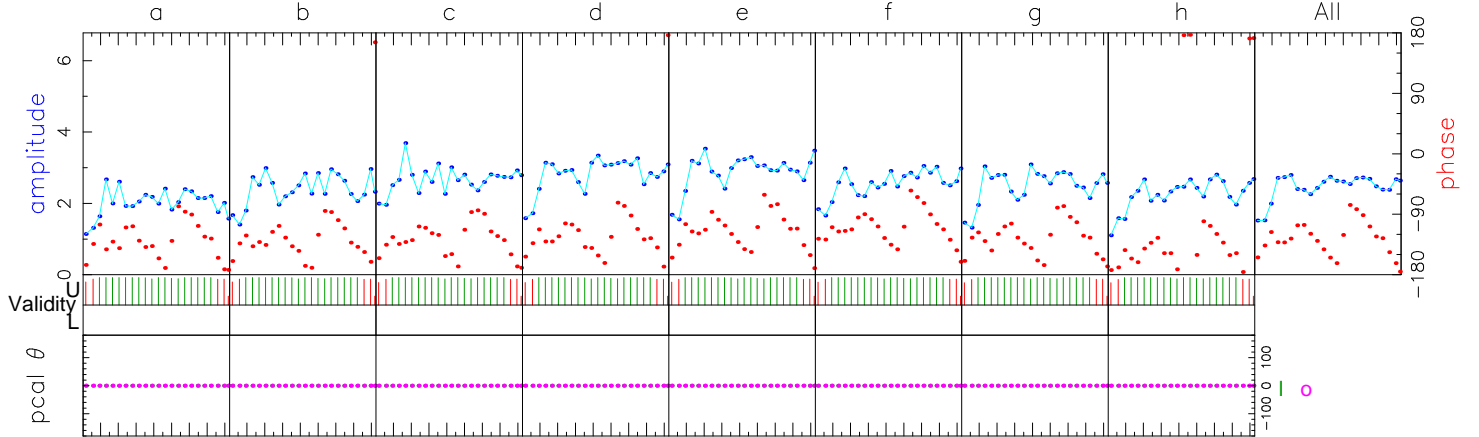


SNR 133.9
Int time 469.406
Amp 2.260
Phase -125.2
PFD 0.0e+00
Delays (us)
SBD 0.000835
MBD 0.001011
Fringe rate (Hz)
-0.003657
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 114501.00
Stop 115301.26
FRT 114901.00
Corr/FF/build
2021:023:073047
2021:023:132335
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) -1.62046028945E+03 Apriori delay (usec) -1.62046130006E+03 Resid mbdelay (usec) 1.01060E-03 +/- 8.1E-06
 Sband delay (usec) -1.62046046481E+03 Apriori clock (usec) -2.1801001E+01 Resid sbdelay (usec) 8.35250E-04 +/- 6.4E-05
 Phase delay (usec) -1.62046130409E+03 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -4.03896E-06 +/- 2.8E-08
 Delay rate (us/s) -1.71703246169E-01 Apriori rate (us/s) -1.71703203720E-01 Resid rate (us/s) -4.24490E-08 +/- 1.0E-10
 Total phase (deg) -264.5 Apriori accel (us/s/s) 6.97637417081E-06 Resid phase (deg) -125.2 +/- 0.9

RMS Theor. Amplitude 2.260 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 23.9 2.0 Search (2048X32) 2.226 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 17.4 3.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 13.5 1.2 Inc. seg. avg. 2.463 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 10.8 2.1 Inc. frq. avg. 2.296 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

l: az 292.9 el 59.3 pa 88.4 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 1329.607 334.803 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/lo..1M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/lo.W.90.1M149

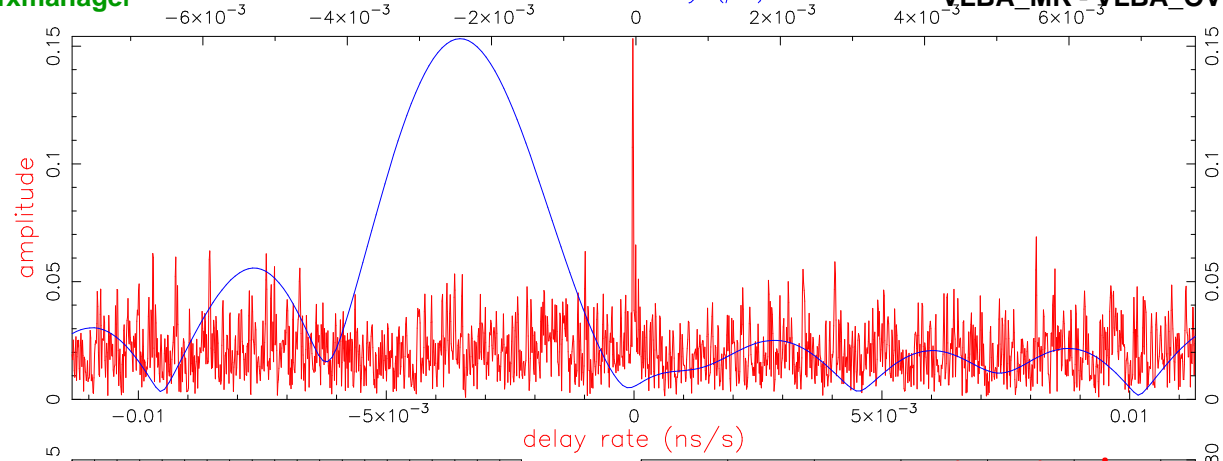
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

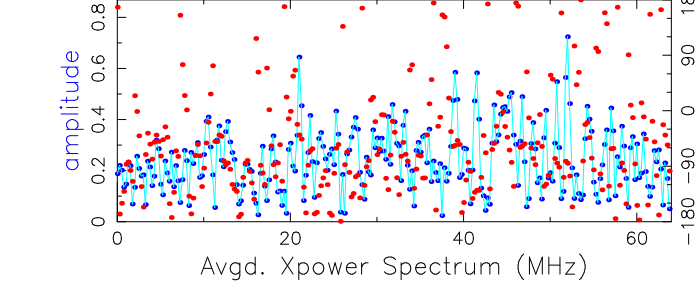
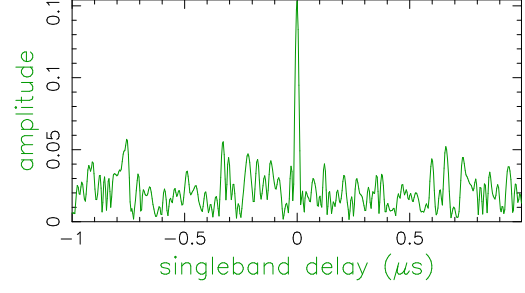
3C84.1IM149, No0103, mo

VLBA_MK - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

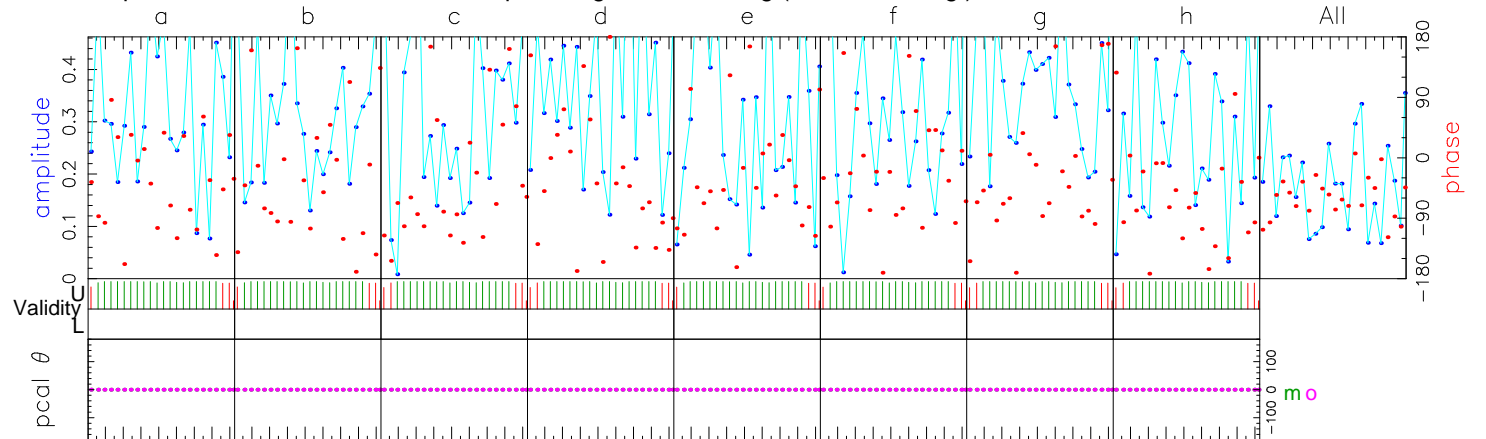


Fringe quality 9
 SNR 9.1
 Int time 468.406
 Amp 0.154
 Phase -61.8
 PFD 2.9e-11
 Delays (us)
 SBD -0.001064
 MBD -0.002442
 Fringe rate (Hz) -0.001625
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.51
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132338
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-40.3	-85.0	-81.6	-60.4	-49.6	-51.3	-58.5	-72.1	Phase	-61.8
	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	Ampl.	0.2
	212.8	255.0	255.2	511.5	445.8	326.1	257.7	257.4	Sbd box	256.7
U/L	931/0	931/0	931/0	931/0	931/0	931/0	931/0	931/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.25858236552E+02		Apriori delay (usec)		-1.25855794067E+02		Resid mbdelay (usec)		-2.44248E-03	+/- 1.2E-04
Sband delay (usec)	-1.25856857817E+02		Apriori clock (usec)		-8.0308924E+00		Resid sbdelay (usec)		-1.06375E-03	+/- 9.4E-04
Phase delay (usec)	-1.25855796059E+02		Apriori clockrate (us/s)		1.9999998E-07		Resid phdelay (usec)		-1.99142E-06	+/- 4.1E-07
Delay rate (us/s)	6.07671853400E-01		Apriori rate (us/s)		6.07671872266E-01		Resid rate (us/s)		-1.88661E-08	+/- 1.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.92729569762E-05		Resid phase (deg)		-61.8	+/- 12.6

ph/seg (deg) 31.4 30.0 Search (2048X32) 0.149 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 57.3 52.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.2 17.8 Inc. seg. avg. 0.158 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 14.0 31.0 Inc. frq. avg. 0.151 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 19.5 el 66.6 pa -154.1 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -4689.238 -3045.949 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/mo...11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/mo.W.103.11M149

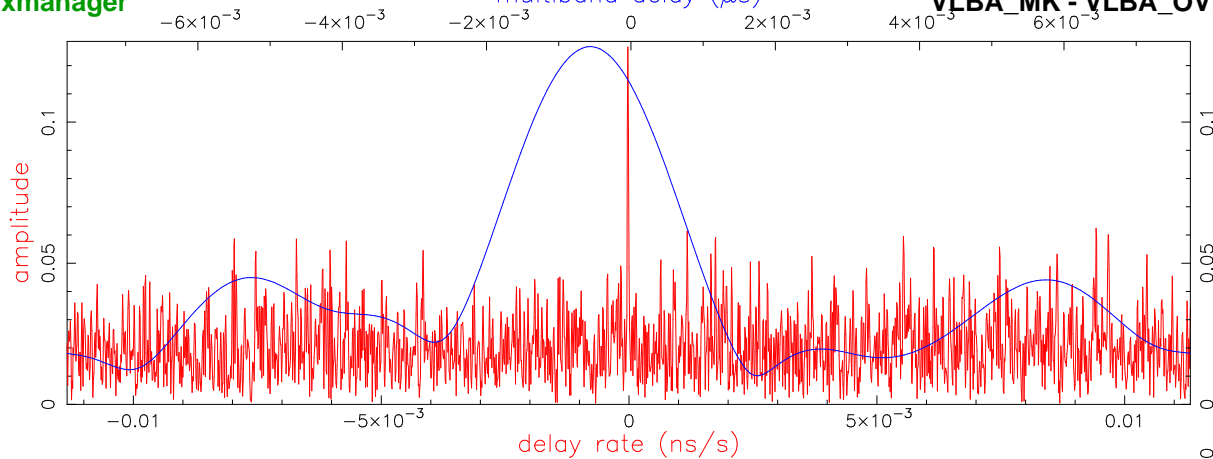
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM149, No0103, mo

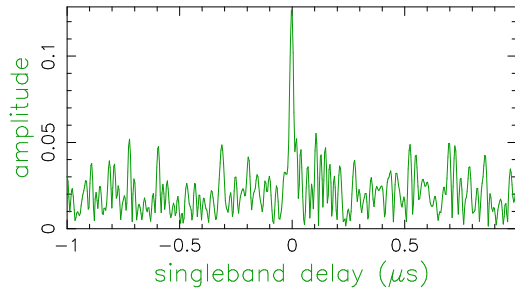
VLBA_MK - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

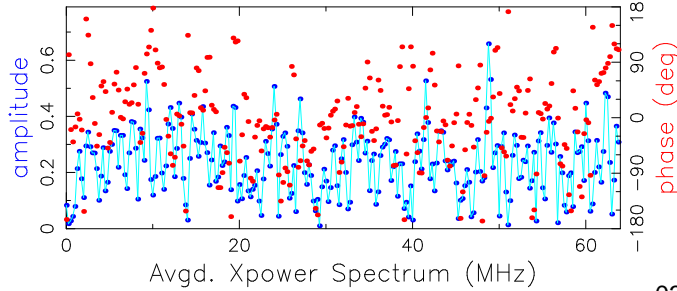


Fringe quality 9

SNR 7.6
 Int time 468.406
 Amp 0.129
 Phase -16.4
 PFD 9.0e-06
 Delays (us)
 SBD -0.002261
 MBD -0.000513
 Fringe rate (Hz)
 -0.001550
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

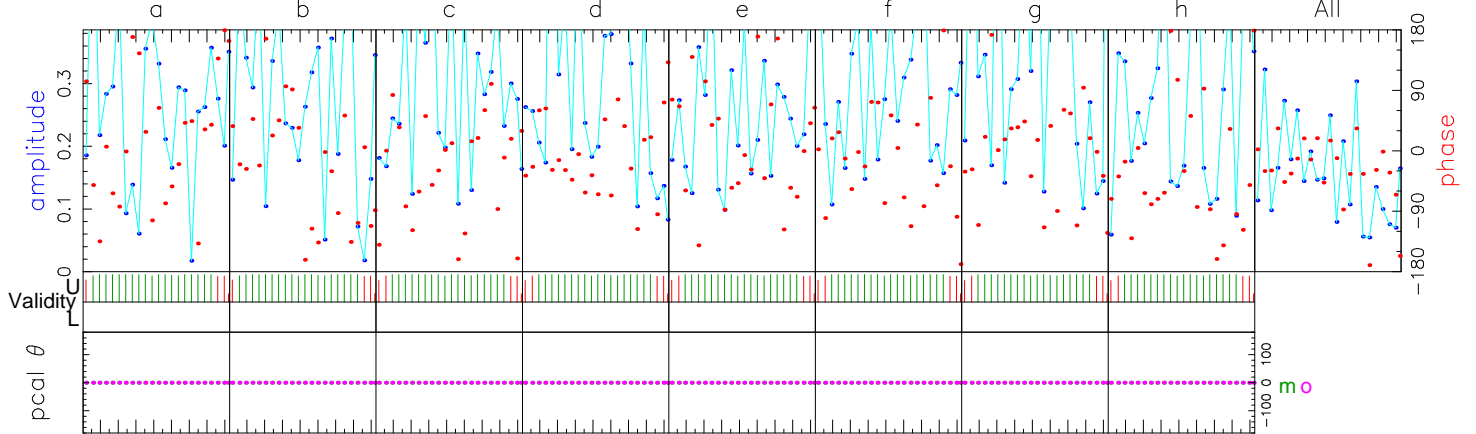


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.51
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132342
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-31.0	-16.2	-21.4	-6.5	-1.2	-20.7	5.5	-60.0	Phase	-16.4
	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1
	74.3	474.5	289.1	255.5	156.4	253.9	257.0	292.8	Sbd box	256.4
U/L	931/0	931/0	931/0	931/0	931/0	931/0	931/0	931/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.25856306740E+02		Apriori delay (usec)		-1.25855794067E+02		Resid mbdelay (usec)		-5.12672E-04	+/- 1.4E-04
Sband delay (usec)	-1.25858054567E+02		Apriori clock (usec)		-8.0308924E+00		Resid sbdelay (usec)		-2.26050E-03	+/- 1.1E-03
Phase delay (usec)	-1.25855794597E+02		Apriori clockrate (us/s)		1.9999998E-07		Resid phdelay (usec)		-5.29397E-07	+/- 4.9E-07
Delay rate (us/s)	6.07671854267E-01		Apriori rate (us/s)		6.07671872266E-01		Resid rate (us/s)		-1.79988E-08	+/- 1.8E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.92729569762E-05		Resid phase (deg)		-16.4	+/- 15.1

	RMS	Theor.	Amplitude	0.129 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	47.4	36.0	Search (2048X32)	0.123	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	65.6	62.8	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	22.2	21.3	Inc. seg. avg.	0.133	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	44.3	37.2	Inc. frq. avg.	0.126	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

m: az 19.5 el 66.6 pa -154.1 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -4689.238 -3045.949 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/mo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/mo.W.122.11M149

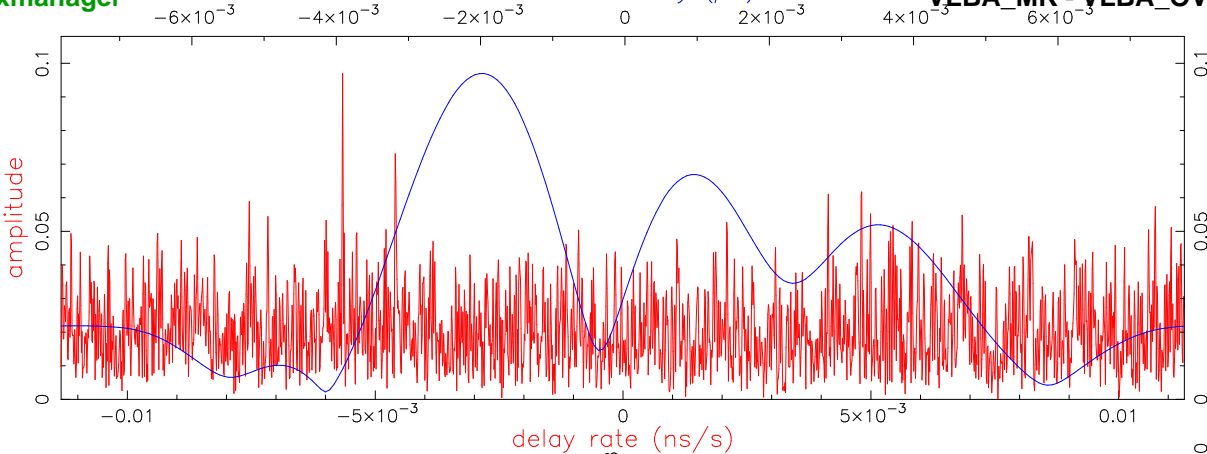
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM149, No0103, mo

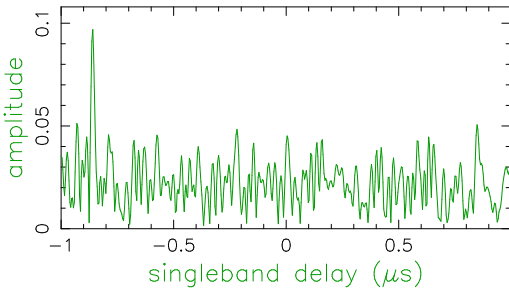
VLBA_MK - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

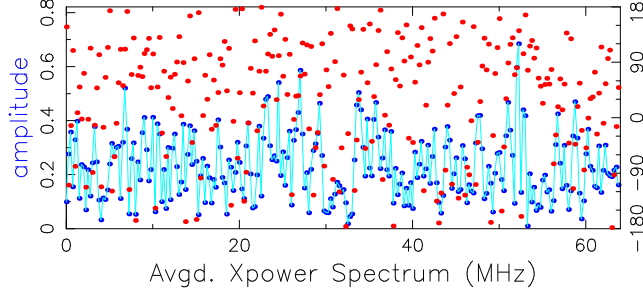


Fringe quality 0

SNR 5.8
 Int time 468.406
 Amp 0.108
 Phase -92.0
 PFD 8.9e-01
 Delays (us)
 SBD -0.860058
 MBD -0.001990
 Fringe rate (Hz)
 -0.488142
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

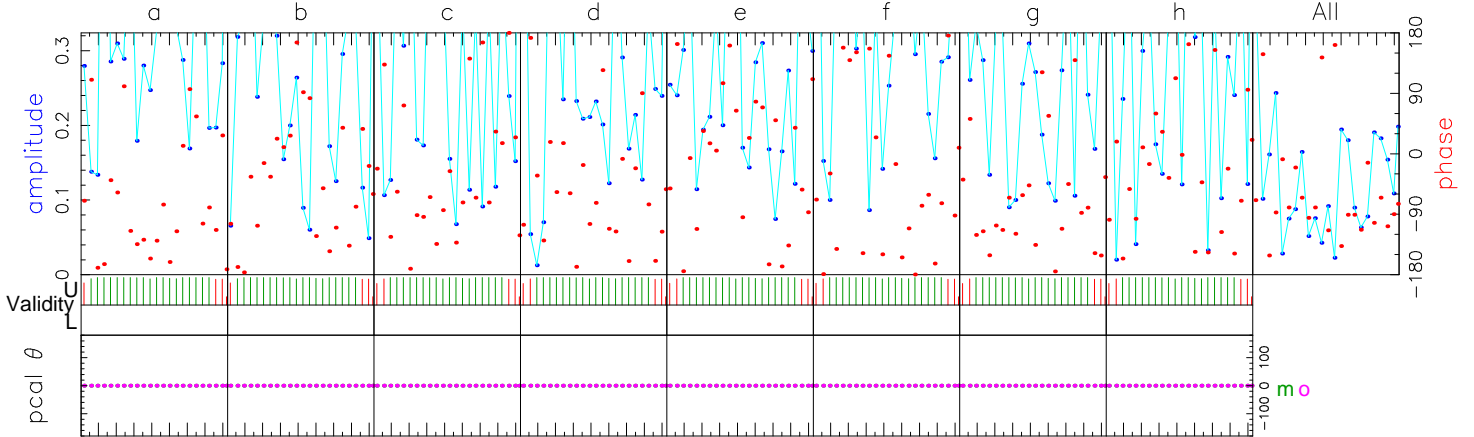


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.51
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132345
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



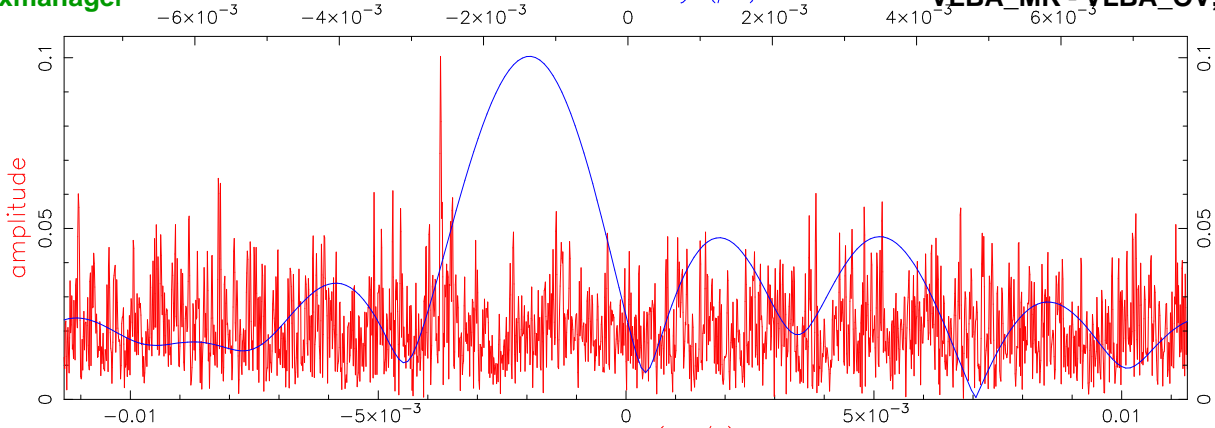
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-119.8	-67.8	-80.3	-73.4	40.0	-137.0	-94.2	-63.9	Phase	-92.0
	0.2	0.1	0.2	0.2	0.0	0.2	0.2	0.1	Ampl.	0.1
	407.3	42.3	190.8	493.6	360.8	6.8	137.6	175.1	Sbd box	36.8
U/L	931/0	931/0	931/0	931/0	931/0	931/0	931/0	931/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.26717159113E+02		Apriori delay (usec)		-1.25855794067E+02		Resid mbdelay (usec)		-1.99005E-03	+/- 1.9E-04
Sband delay (usec)	-1.26715852317E+02		Apriori clock (usec)		-8.0308924E+00		Resid sbdelay (usec)		-8.60058E-01	+/- 1.5E-03
Phase delay (usec)	-1.25855797035E+02		Apriori clockrate (us/s)		1.9999998E-07		Resid phdelay (usec)		-2.96801E-06	+/- 6.4E-07
Delay rate (us/s)	6.07666205418E-01		Apriori rate (us/s)		6.07671872266E-01		Resid rate (us/s)		-5.66685E-06	+/- 2.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.92729569762E-05		Resid phase (deg)		-92.0	+/- 19.9

	RMS	Theor.	Amplitude	0.108 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	55.5	47.6	Search (2048X32)	0.094	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	86.9	83.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	60.7	28.2	Inc. seg. avg.	0.103	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	47.0	49.2	Inc. frq. avg.	0.115	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

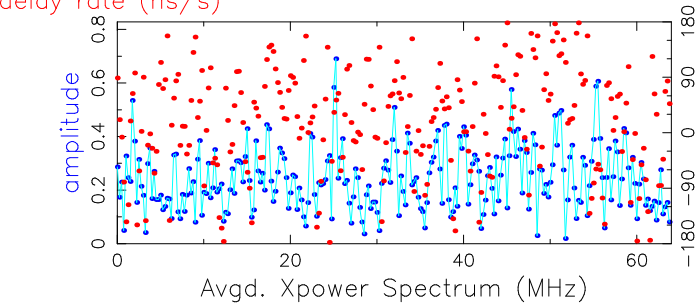
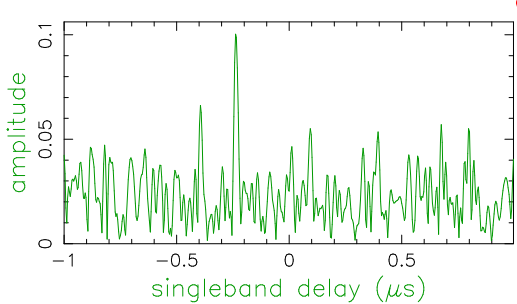
m: az 19.5 el 66.6 pa -154.1 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -4689.238 -3045.949 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/mo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/mo.W.140.11M149

multiband delay (μ s)

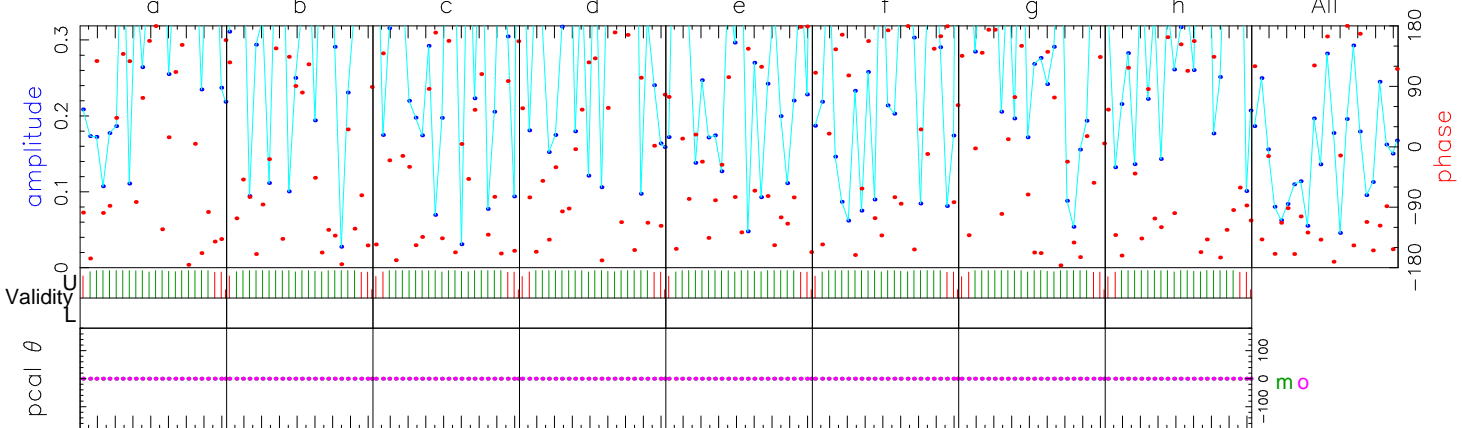


Fringe quality 0
 SNR 6.0
 Int time 468.406
 Amp 0.106
 Phase -153.9
 PFD 3.9e-01
 Delays (us)
 SBD -0.236771
 MBD -0.001339
 Fringe rate (Hz)
 -0.323166
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.51
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132349
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-167.7	-139.0	-171.1	-138.7	-108.9	-164.6	165.0	-147.0	Phase	-153.9
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	478.5	206.6	394.3	425.4	243.3	110.9	221.0	197.6	Sbd box	196.4
U/L	931/0	931/0	931/0	931/0	931/0	931/0	931/0	931/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) -1.26091508408E+02 Apriori delay (usec) -1.25855794067E+02 Resid mbdelay (usec) -1.33934E-03 +/- 1.8E-04
 Sband delay (usec) -1.26092565317E+02 Apriori clock (usec) -8.0308924E+00 Resid sbdelay (usec) -2.36771E-01 +/- 1.4E-03
 Phase delay (usec) -1.25855799032E+02 Apriori clockrate (us/s) 1.9999998E-07 Resid phdelay (usec) -4.96427E-06 +/- 6.2E-07
 Delay rate (us/s) 6.07668120635E-01 Apriori rate (us/s) 6.07671872266E-01 Resid rate (us/s) -3.75163E-06 +/- 2.2E-09
 Total phase (deg) -190.3 Apriori accel (us/s/s) -1.92729569762E-05 Resid phase (deg) -153.9 +/- 19.1

RMS Theor. Amplitude 0.106 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 58.7 45.6 Search (2048X32) 0.099 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 85.6 79.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 28.3 27.0 Inc. seg. avg. 0.121 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 28.6 47.1 Inc. frq. avg. 0.103 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

m: az 19.5 el 66.6 pa -154.1 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -4689.238 -3045.949 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/mo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/mo.W.152.11M149

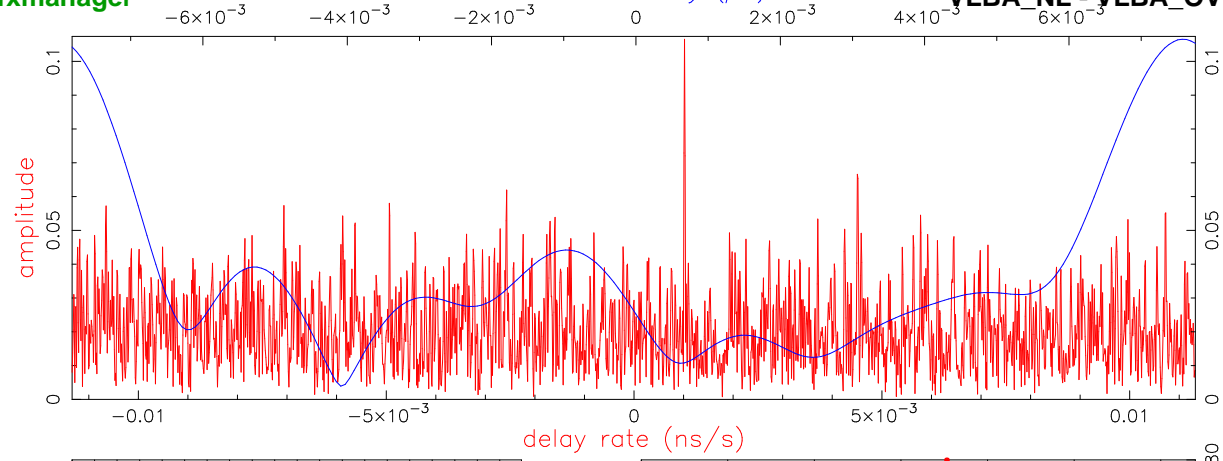
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

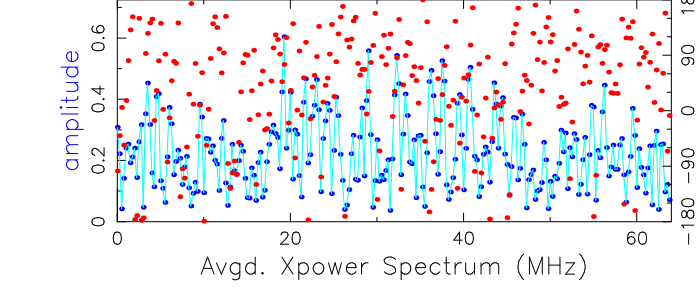
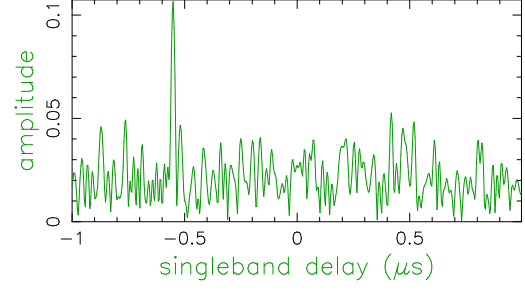
3C84.11M149, No0103, no

VLBA_NL - VLBA_OV, fgroup W, pol LL

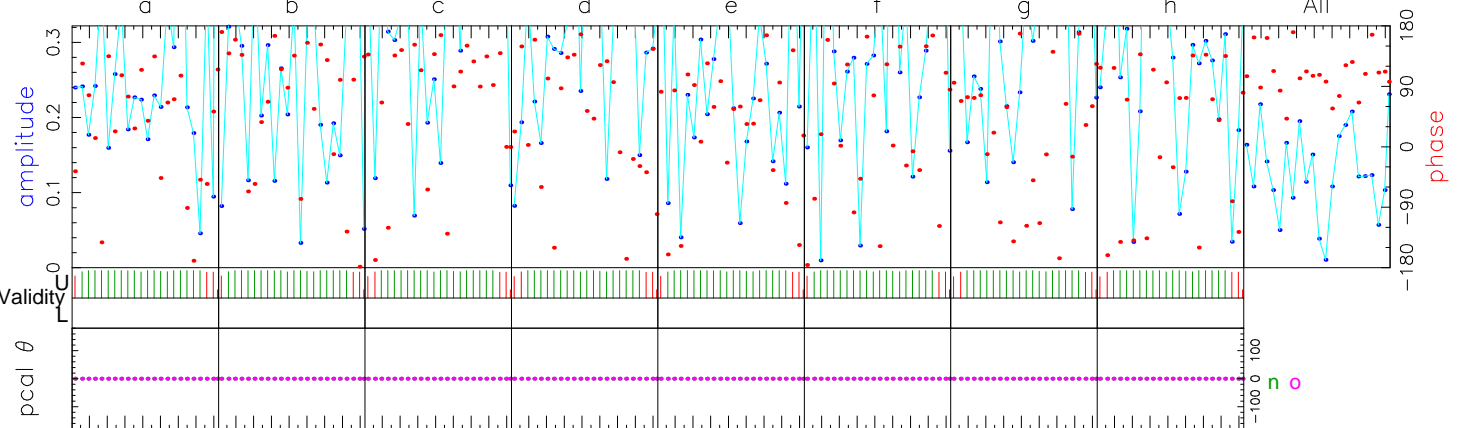
multiband delay (μ s)



Fringe quality 0
 SNR 6.3
 Int time 468.409
 Amp 0.107
 Phase 107.3
 PFD 6.3e-02
 Delays (us)
 SBD -0.551726
 MBD 0.007550
 Fringe rate (Hz)
 0.087503
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.51
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132350
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	931/0	931/0	931/0	931/0	931/0	931/0	931/0	931/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

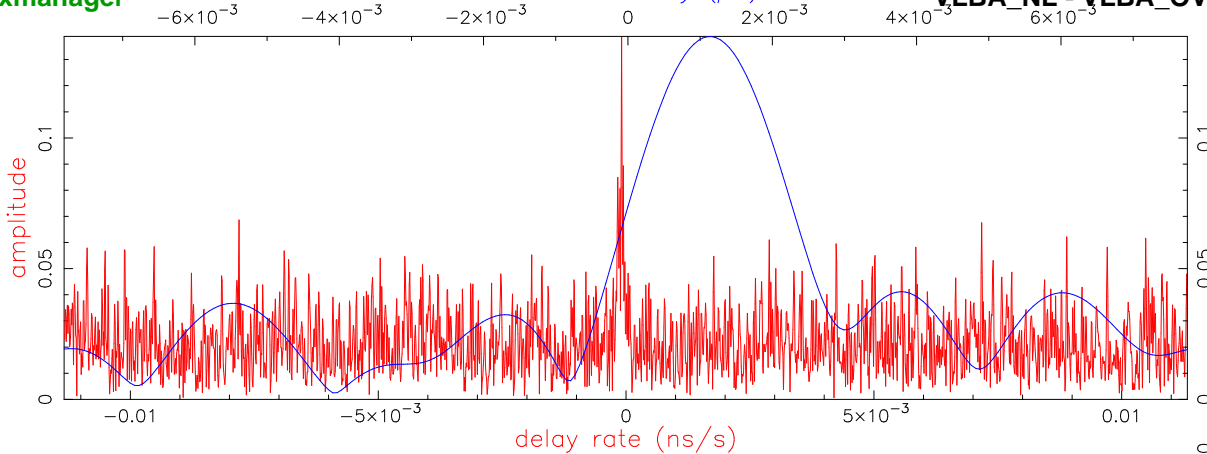
Group delay (usec)(sbd) -3.51143973591E+03 Apriori delay (usec) -3.51088478614E+03 Resid mbdelay (usec) 7.55023E-03 +/- 1.7E-04
 Sband delay (usec) -3.51143651189E+03 Apriori clock (usec) -2.1226677E+01 Resid sbdelay (usec) -5.51726E-01 +/- 1.4E-03
 Phase delay (usec) -3.51088478268E+03 Apriori clockrate (us/s) 6.0000003E-07 Resid phdelay (usec) 3.46098E-06 +/- 5.8E-07
 Delay rate (us/s) -2.71833138693E-01 Apriori rate (us/s) -2.71834154518E-01 Resid rate (us/s) 1.01583E-06 +/- 2.1E-09
 Total phase (deg) -64.7 Apriori accel (us/s/s) 2.31267751260E-05 Resid phase (deg) 107.3 +/- 18.1

ph/seg (deg) 33.6 Theor. 43.2 Amplitude 0.107 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 55.0 75.5 Search (2048X32) 0.103 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 31.6 25.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 44.0 44.7 Inc. seg. avg. 0.099 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

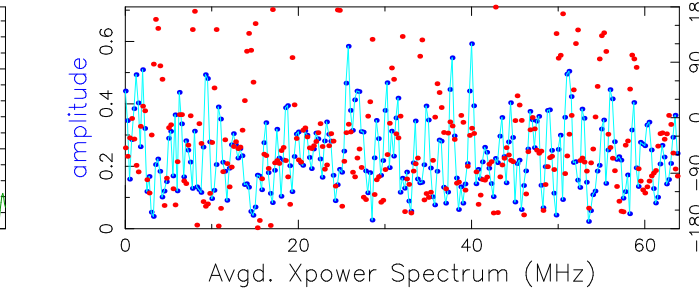
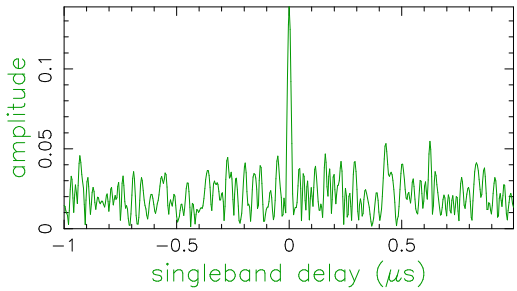
n: az 288.3 el 50.6 pa 71.4 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 2129.681 1989.968 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/no..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/no.W.156.11M149

multiband delay (μ s)

Fringe quality 9

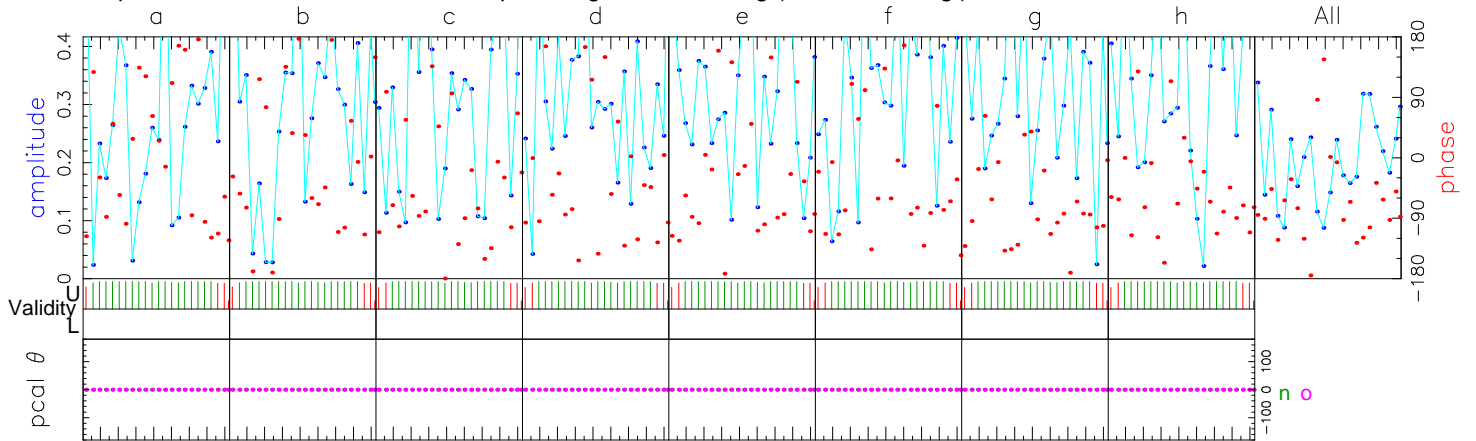


SNR 8.2
Int time 468.409
Amp 0.139
Phase -78.5
PFD 7.3e-08
Delays (us)
SBD -0.000253
MBD 0.001130
Fringe rate (Hz)
-0.007600
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 114501.51
Stop 115301.26
FRT 114901.00
Corr/FF/build
2021:023:073047
2021:023:132355
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-78.2	-66.3	-66.6	-108.9	-69.7	-83.9	-87.2	-66.6	Phase	-78.5
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	192.0	465.6	17.1	212.7	162.7	240.1	257.2	255.8	Sbd box	256.9
U/L	931/0	931/0	931/0	931/0	931/0	931/0	931/0	931/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	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	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-3.51088365626E+03		Apriori delay (usec)		-3.51088478614E+03		Resid mbdelay (usec)		1.12987E-03	+/- 1.3E-04
Sband delay (usec)	-3.51088503864E+03		Apriori clock (usec)		-2.1226677E+01		Resid sbdelay (usec)		-2.52500E-04	+/- 1.0E-03
Phase delay (usec)	-3.51088478867E+03		Apriori clockrate (us/s)		6.0000003E-07		Resid phdelay (usec)		-2.53137E-06	+/- 4.5E-07
Delay rate (us/s)	-2.71834242745E-01		Apriori rate (us/s)		-2.71834154518E-01		Resid rate (us/s)		-8.82268E-08	+/- 1.6E-09
Total phase (deg)			Apriori accel (us/s/s)		2.31267751260E-05		Resid phase (deg)		-78.5	+/- 13.9

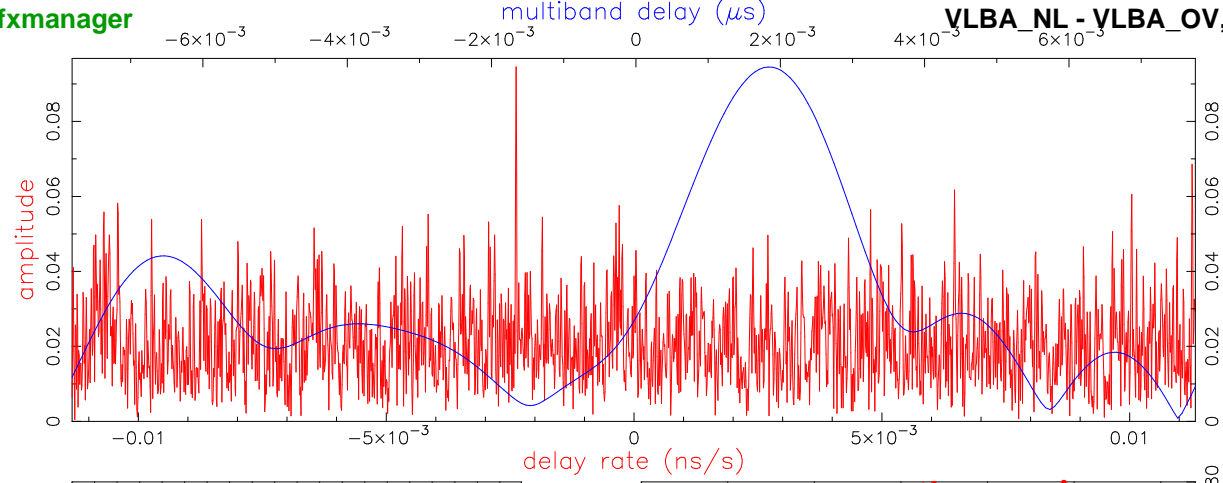
ph/seg (deg) 60.8 33.3 Search (2048X32) 0.136 Pcd mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 70.1 58.2 Interp. 0.000 Pcd rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 16.0 19.7 Inc. seg. avg. 0.174 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 24.0 34.4 Inc. frq. avg. 0.135 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
n: az 288.3 el 50.6 pa 71.4 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 2129.681 1989.968 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/no..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/no.W.171.11M149

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M149, No0103, no

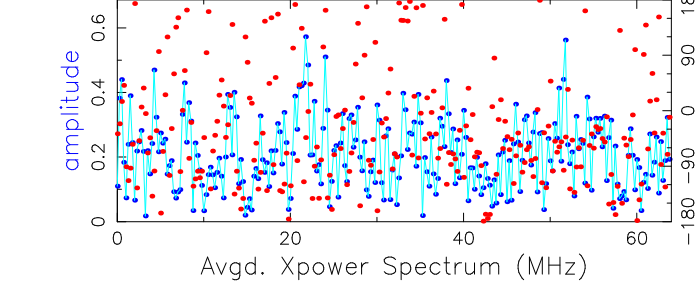
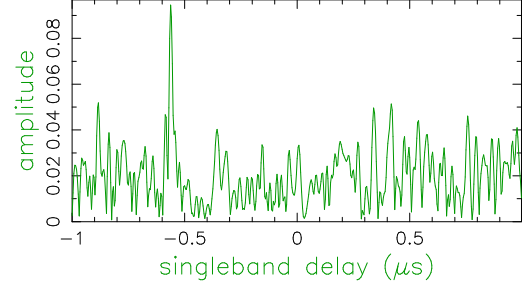
VLBA_NL - VLBA_OV, fgroup W, pol LR



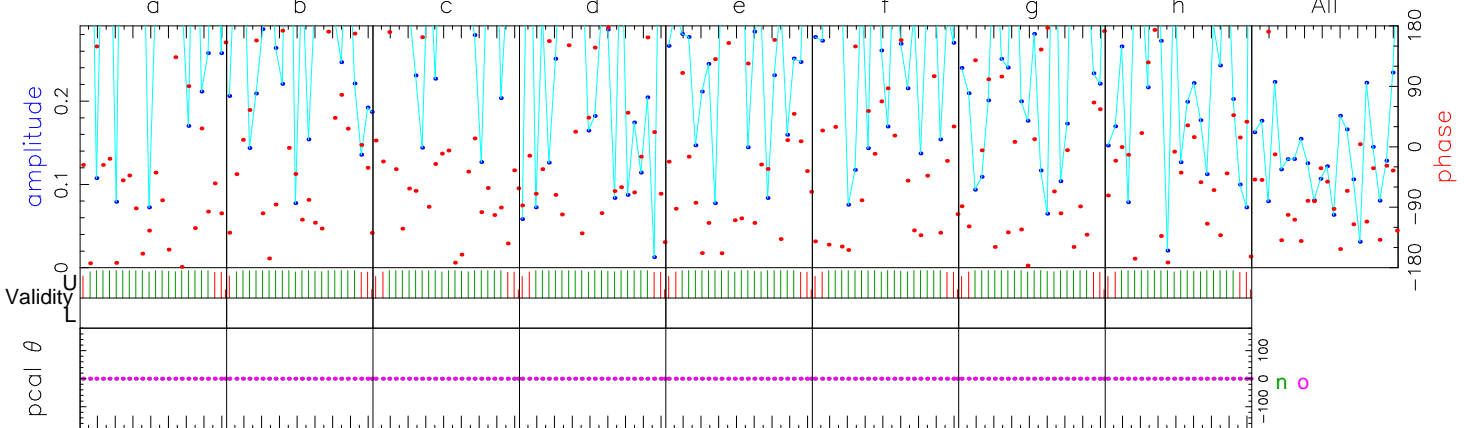
Fringe quality 0

SNR 5.6
 Int time 468.409
 Amp 0.097
 Phase -80.1
 PFD 9.9e-01
 Delays (us)
 SBD -0.561611
 MBD 0.001842
 Fringe rate (Hz)
 -0.204894
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.51
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132359
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	931/0	931/0	931/0	931/0	931/0	931/0	931/0	931/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-3.51144544368E+03	Apriori delay (usec)	-3.51088478614E+03	Resid mbdelay (usec)	1.84246E-03	+/-	1.9E-04
Sband delay (usec)	-3.51144639664E+03	Apriori clock (usec)	-2.1226677E+01	Resid sbdelay (usec)	-5.61611E-01	+/-	1.5E-03
Phase delay (usec)	-3.51088478872E+03	Apriori clockrate (us/s)	6.0000003E-07	Resid phdelay (usec)	-2.58290E-06	+/-	6.6E-07
Delay rate (us/s)	-2.71836533137E-01	Apriori rate (us/s)	-2.71834154518E-01	Resid rate (us/s)	-2.37862E-06	+/-	2.4E-09
Total phase (deg)	-252.2	Apriori accel (us/s/s)	2.31267751260E-05	Resid phase (deg)	-80.1	+/-	20.4

ph/seg (deg)	50.2	Theor.	48.7	Amplitude	0.097 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	75.0		85.0	Search (2048X32)	0.093	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	24.0		28.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	53.2		50.3	Inc. seg. avg.	0.103	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.090	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

n: az 288.3 el 50.6 pa 71.4 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 2129.681 1989.968 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/no..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/no.W.192.11M149

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

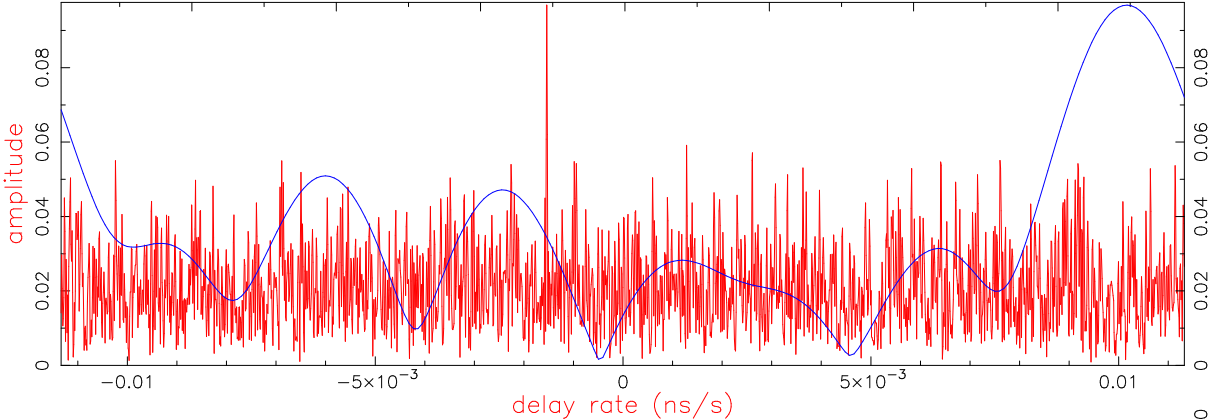
3C84.11M149, No0103, no

VLBA_NL - VLBA_OV, fgroup W, pol RL

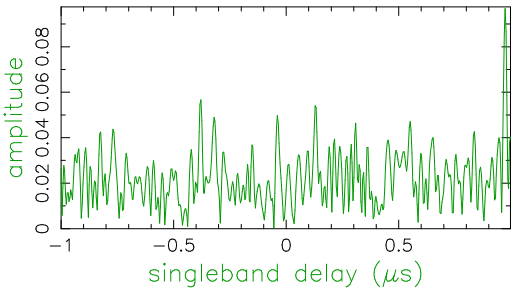
multiband delay (μ s)

-6×10^{-3} -4×10^{-3} -2×10^{-3} 0 2×10^{-3} 4×10^{-3} 6×10^{-3}

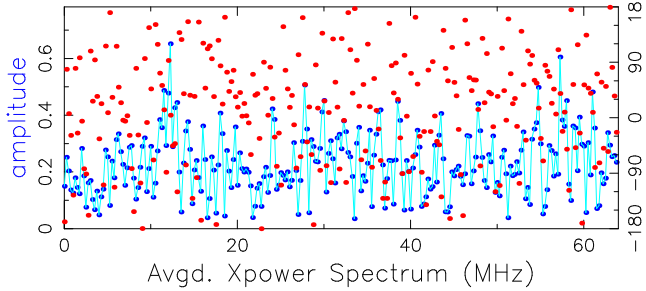
Fringe quality 0



SNR 5.7
Int time 468.409
Amp 0.098
Phase -5.9
PFD 9.2e-01
Delays (us)
SBD 0.972756
MBD 0.006957
Fringe rate (Hz)
-0.132532
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



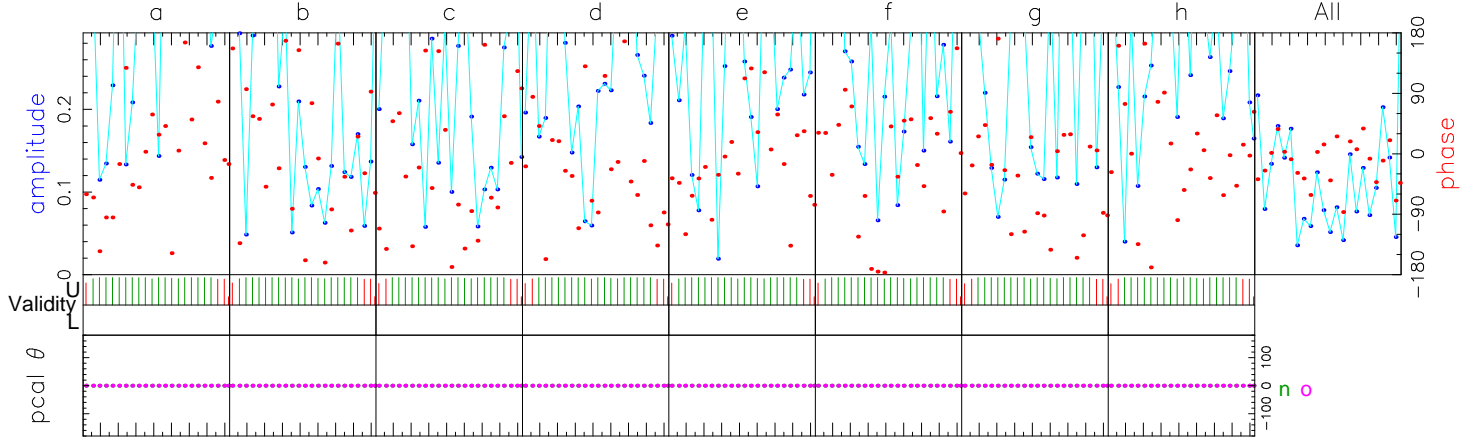
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 114501.51
Stop 115301.26
FRT 114901.00
Corr/FF/build
2021:023:073047
2021:023:132403
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-2.0	90.1	-32.4	-33.0	-12.5	27.7	-35.9	5.2	Phase	-5.9
	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	272.0	493.2	63.5	259.8	228.3	505.3	372.2	423.4	Sbd box	506.0
U/L	931/0	931/0	931/0	931/0	931/0	931/0	931/0	931/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-3.50990907954E+03	Apriori delay (usec)	-3.51088478614E+03	Resid mbdelay (usec)	6.95660E-03	+/-	1.9E-04
Sband delay (usec)	-3.50991203014E+03	Apriori clock (usec)	-2.1226677E+01	Resid sbdelay (usec)	9.72756E-01	+/-	1.5E-03
Phase delay (usec)	-3.51088478633E+03	Apriori clockrate (us/s)	6.0000003E-07	Resid phdelay (usec)	-1.90892E-07	+/-	6.4E-07
Delay rate (us/s)	-2.71835693080E-01	Apriori rate (us/s)	-2.71834154518E-01	Resid rate (us/s)	-1.53856E-06	+/-	2.3E-09
Total phase (deg)	-178.0	Apriori accel (us/s/s)	2.31267751260E-05	Resid phase (deg)	-5.9	+/-	20.0

ph/seg (deg)	34.1	Theor.	47.8	Amplitude	0.098 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	62.5		83.4	Search (2048X32)	0.096	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	46.3		28.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.1		49.4	Inc. seg. avg.	0.083	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.097	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

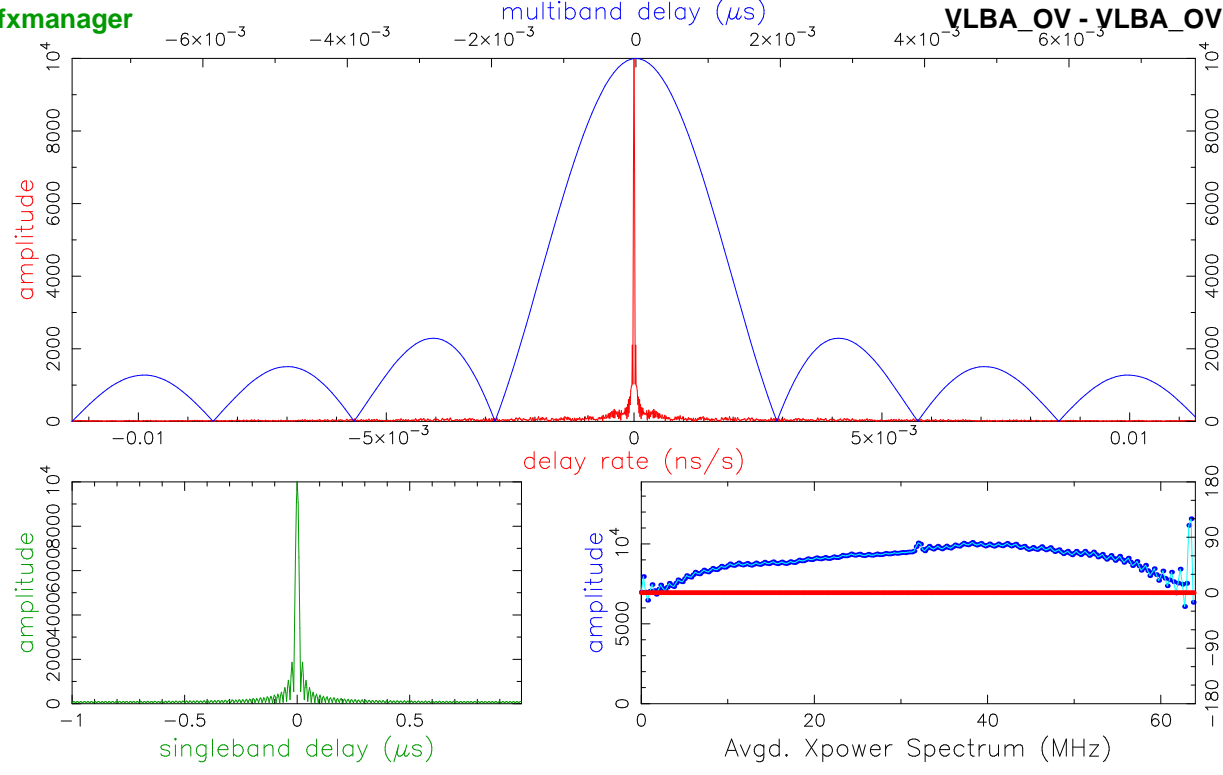
n: az 288.3 el 50.6 pa 71.4 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 2129.681 1989.968 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/no..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/no.W.212.11M149

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M149, No0103, oo

VLBA_OV - VLBA_OV, fgroup W, pol LL

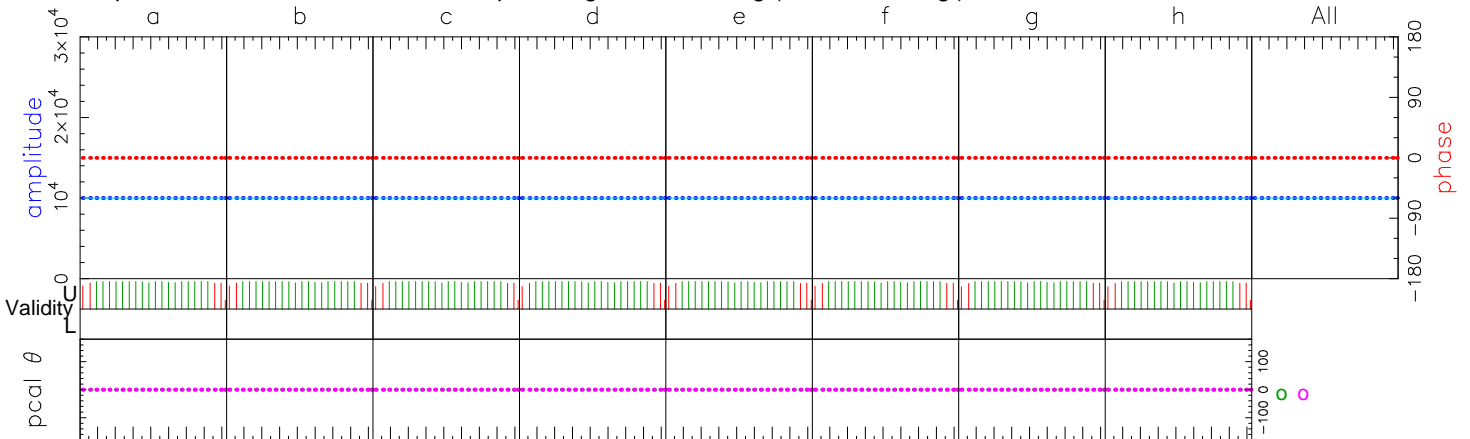


Fringe quality 9

SNR 592477.5
 Int time 469.406
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132350
 2020:247:085004
 RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 1.8E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.2E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.3E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 10000.000 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

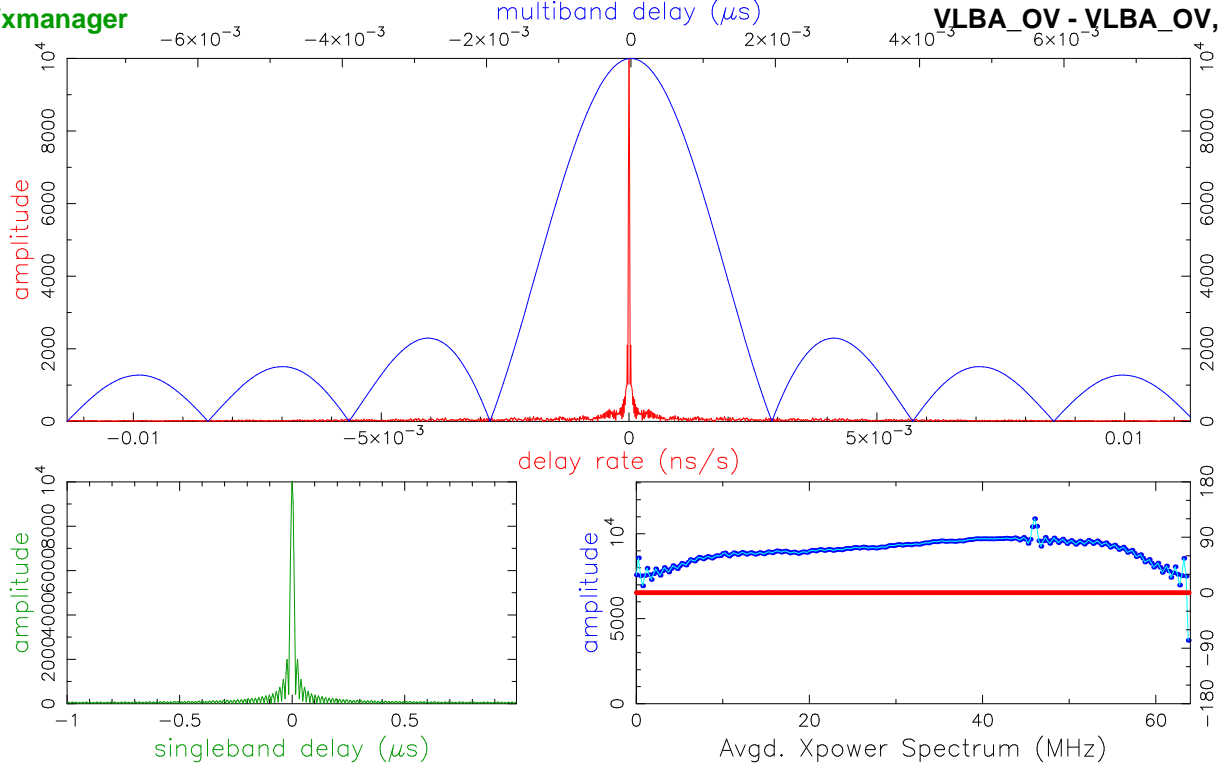
o: az 290.2 el 68.8 pa 92.1 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/oo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/oo.W.155.11M149

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M149, No0103, oo

VLBA_OV - VLBA_OV, fgroup W, pol RR

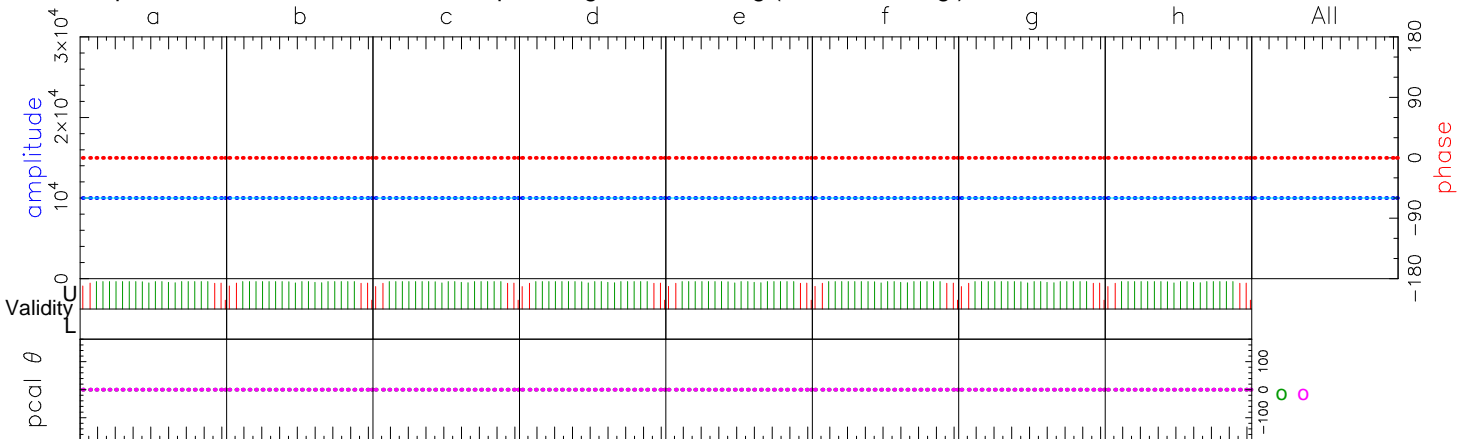


Fringe quality 9

SNR 592477.5
 Int time 469.406
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132354
 2020:247:085004
 RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 1.8E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.2E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.3E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 10000.000 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

o: az 290.2 el 68.8 pa 92.1 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/oo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/oo.W.169.11M149

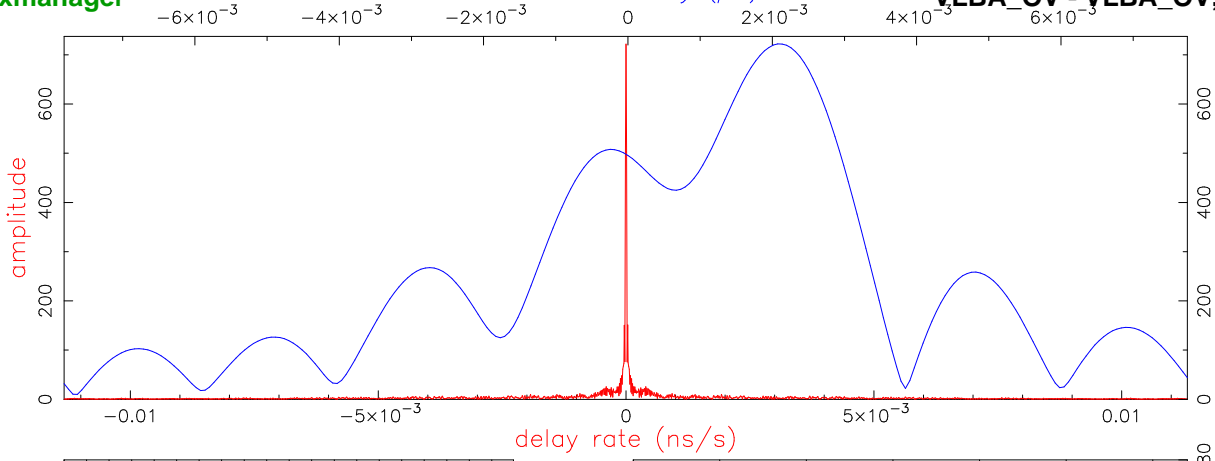
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M149, No0103, oo

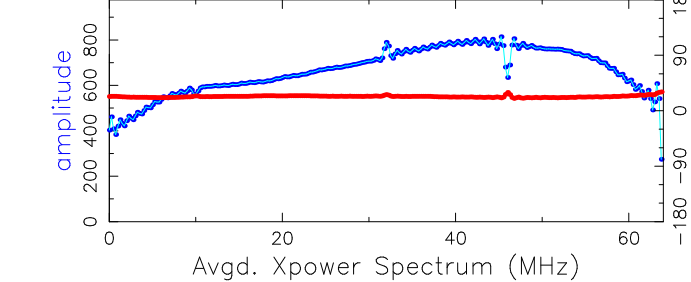
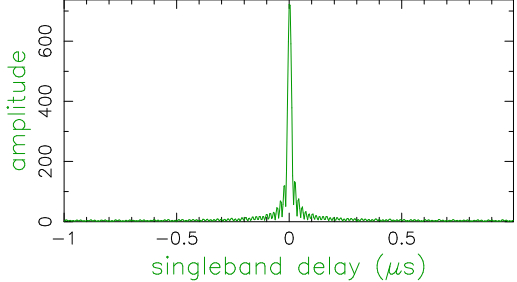
VLBA_OV - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)



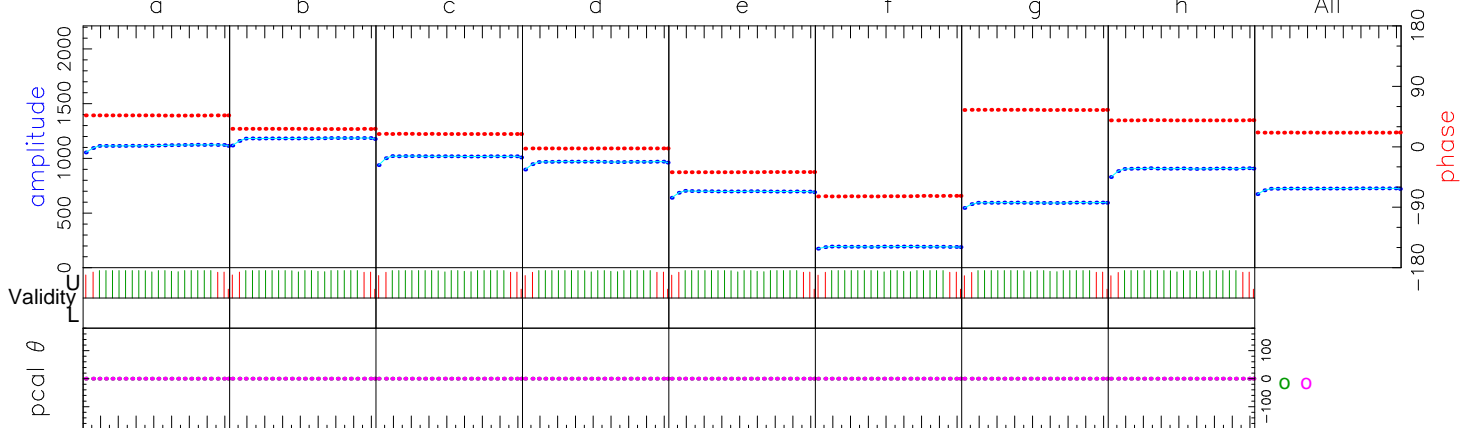
Fringe quality 5

SNR 43690.9
 Int time 469.406
 Amp 737.427
 Phase 21.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.001884
 MBD 0.002141
 Fringe rate (Hz) 0.000001
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132358
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 2.14121875000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 2.14122E-03 +/- 2.5E-08
 Sband delay (usec) 1.88400000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 1.88400E-03 +/- 2.0E-07
 Phase delay (usec) 6.79898408027E-07 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 6.79898E-07 +/- 8.5E-11
 Delay rate (us/s) 8.50269143501E-12 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 8.50269E-12 +/- 3.1E-13
 Total phase (deg) 21.1 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 21.1 +/- 0.0

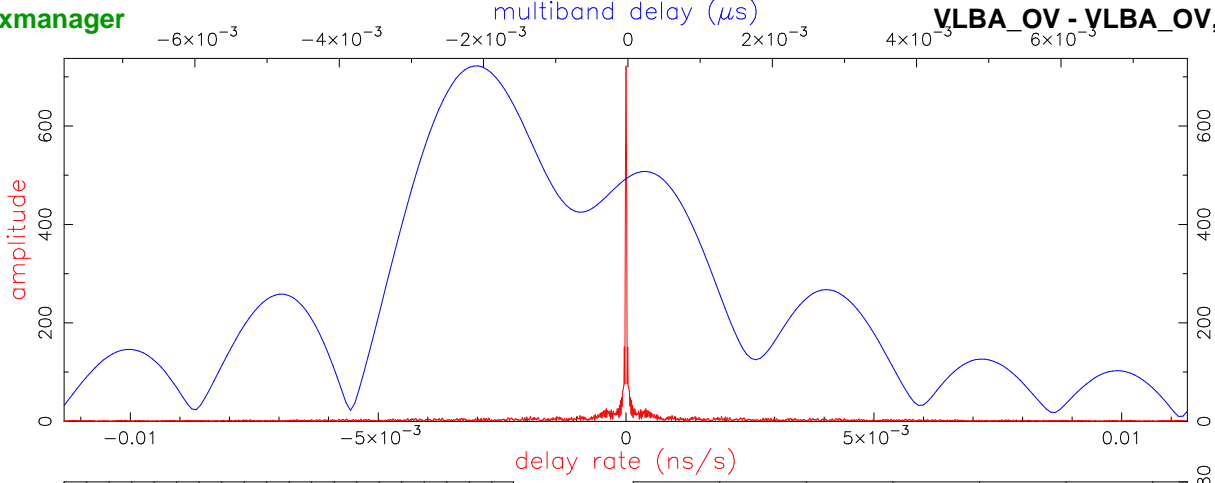
ph/seg (deg) 0.1 0.0 Search (2048X32) 714.969 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 2.5 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 50.2 0.0 Inc. seg. avg. 721.817 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.3 0.0 Inc. frq. avg. 832.280 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/oo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/oo.W.187.11M149

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M149, No0103, oo

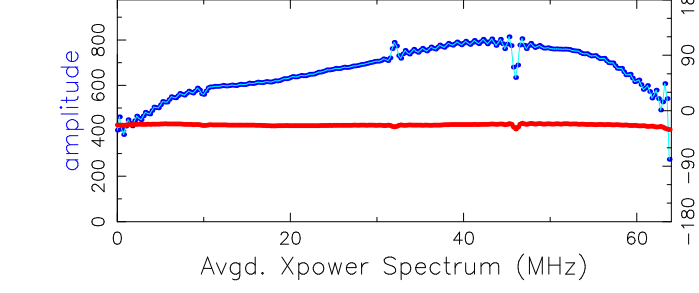
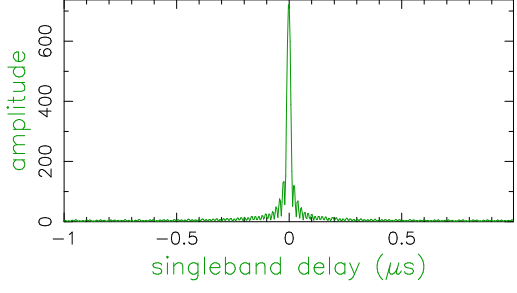
VLBA_OV - VLBA_OV, fgroup W, pol RL



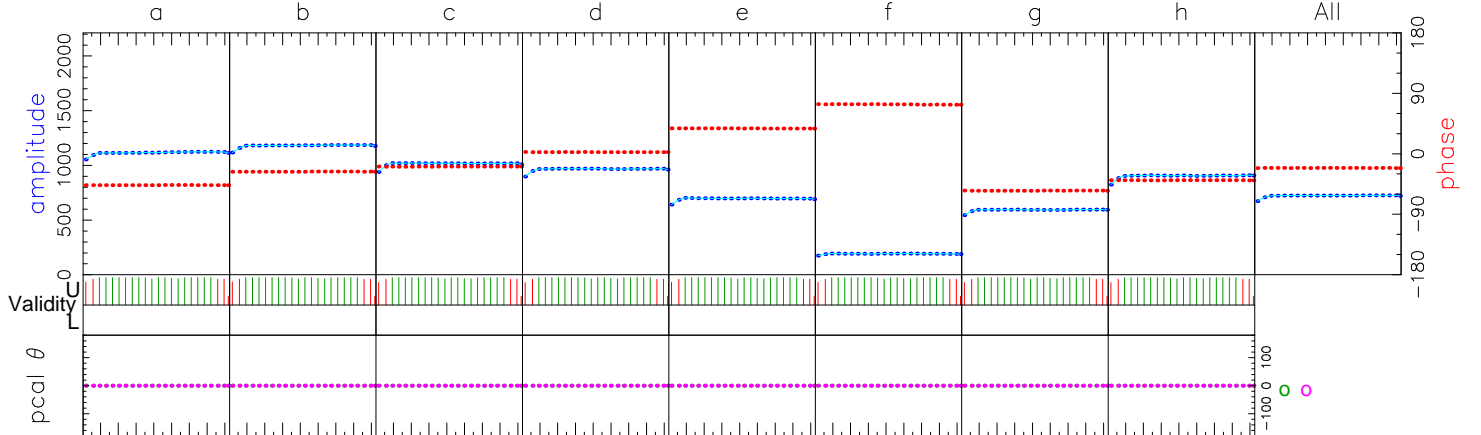
Fringe quality 5

SNR 43690.9
 Int time 469.406
 Amp 737.427
 Phase -21.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.001884
 MBD -0.002141
 Fringe rate (Hz) -0.000001
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132402
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



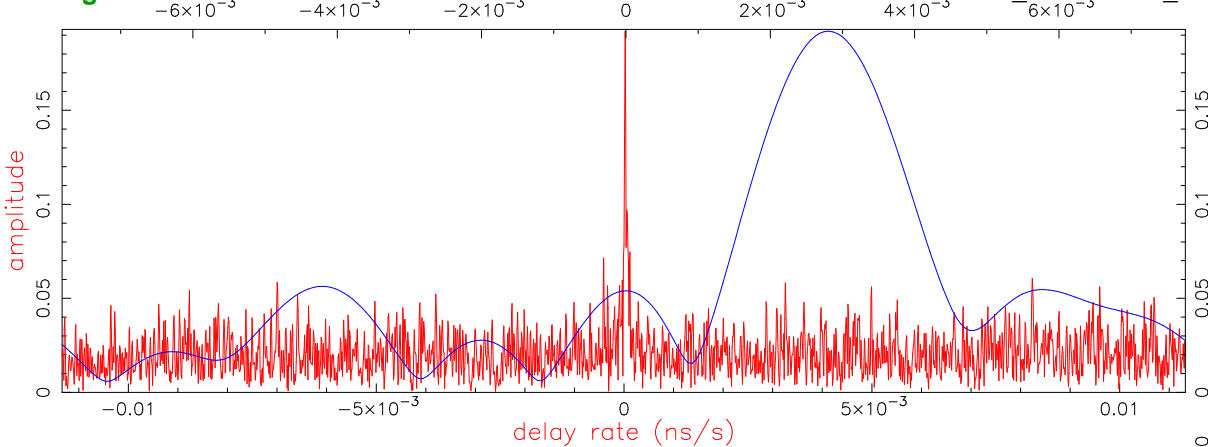
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-46.6	-26.6	-19.1	2.5	37.7	73.5	-54.9	-39.3	Phase	-21.1
	1115.4	1180.1	1015.1	965.1	695.7	191.7	591.9	902.7	Ampl.	832.3
	256.7	256.9	256.6	256.7	256.8	255.3	256.6	256.6	Sbd box	256.5
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-2.14121875000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-2.14122E-03	+/- 2.5E-08
Sband delay (usec)	-1.88400000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.88400E-03	+/- 2.0E-07
Phase delay (usec)	-6.79898407977E-07		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-6.79898E-07	+/- 8.5E-11
Delay rate (us/s)	-8.50269143501E-12		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-8.50269E-12	+/- 3.1E-13
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-21.1	+/- 0.0

ph/seg (deg) 0.1 0.0 Search (2048X32) 714.969 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 2.5 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 50.2 0.0 Inc. seg. avg. 721.817 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.3 0.0 Inc. frq. avg. 832.280 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 o: az 290.2 el 68.8 pa 92.1 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

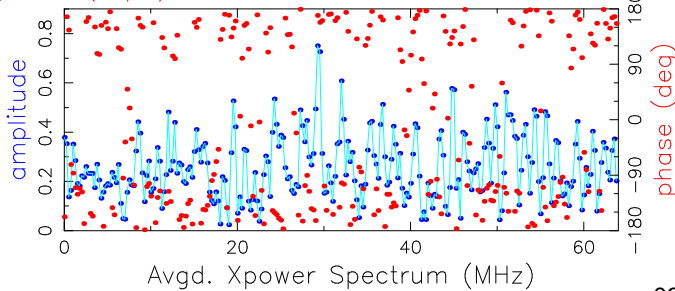
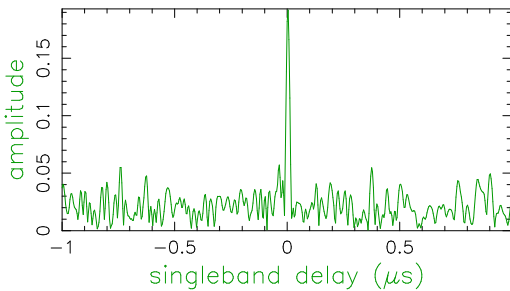
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/oo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/oo.W.206.11M149

multiband delay (μ s)

Fringe quality 9

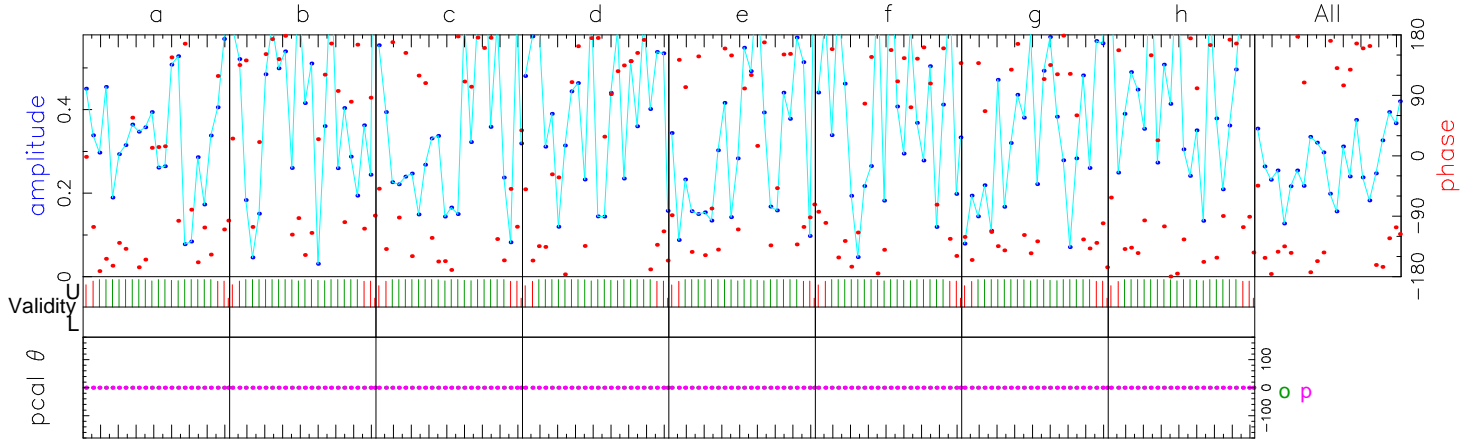


SNR 11.4
Int time 468.682
Amp 0.193
Phase -167.7
PFD 1.5e-21
Delays (us)
SBD 0.003004
MBD 0.002781
Fringe rate (Hz)
0.002239
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 114501.00
Stop 115301.26
FRT 114901.00
Corr/FF/build
2021:023:073047
2021:023:132351
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-137.1	-178.8	-169.7	-177.6	-173.0	177.1	-167.4	-150.9	Phase	-167.7
	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.3	Ampl.	0.2
	118.1	258.1	257.6	257.1	246.4	257.7	258.0	258.5	Sbd box	257.8
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.46379791723E+03		Apriori delay (usec)		1.46379513601E+03		Resid mbdelay (usec)		2.78121E-03	+/- 9.5E-05
Sband delay (usec)	1.46379814051E+03		Apriori clock (usec)		2.1315731E+01		Resid sbdelay (usec)		3.00450E-03	+/- 7.5E-04
Phase delay (usec)	1.46379513060E+03		Apriori clockrate (us/s)		-5.0000000E-07		Resid phdelay (usec)		-5.40724E-06	+/- 3.2E-07
Delay rate (us/s)	1.58497383632E-01		Apriori rate (us/s)		1.58497357636E-01		Resid rate (us/s)		2.59963E-08	+/- 1.2E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.57173461230E-06		Resid phase (deg)		-167.7	+/- 10.0

	RMS	Theor.	Amplitude	0.193 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	46.4	24.0	Search (2048X32)	0.184	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	54.7	41.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	16.8	14.2	Inc. seg. avg.	0.248	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	27.4	24.7	Inc. frq. avg.	0.192	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

o: az 290.2 el 68.8 pa 92.1 p: az 295.2 el 60.1 pa 91.0 u,v (fr/asec) -1223.645 -29.205 simultaneous interpolator

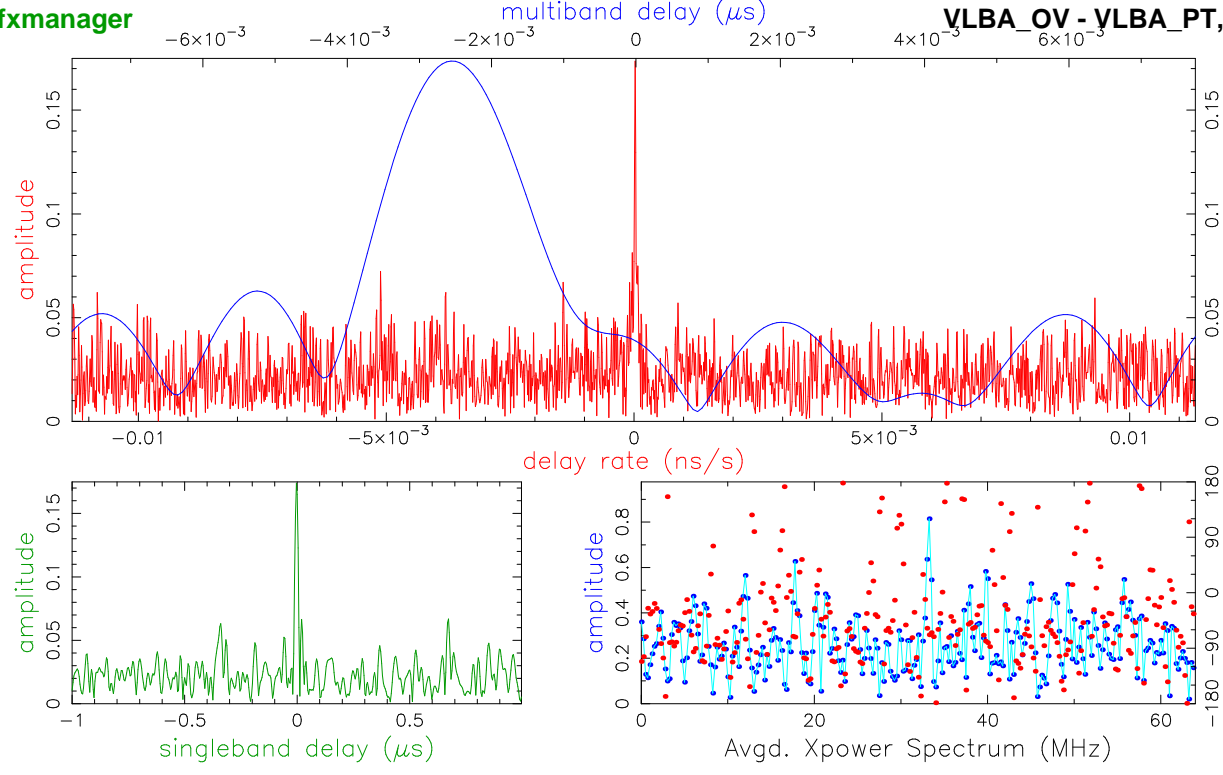
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/op...11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/op.W.159.11M149

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM149, No0103, op

VLBA_OV - VLBA_PT, fgroup W, pol RR

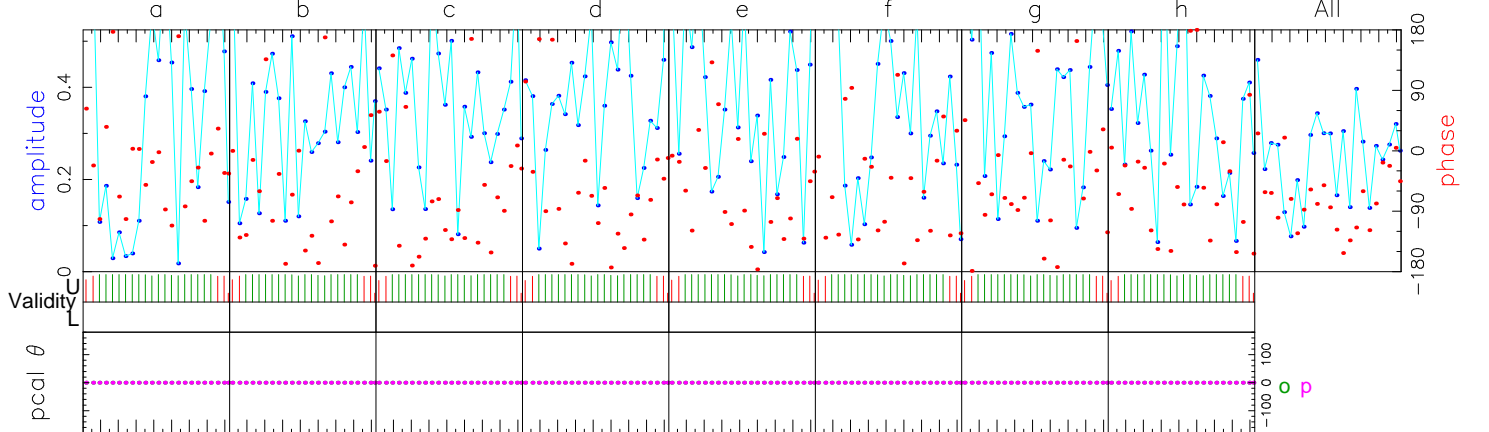


Fringe quality 9

SNR 10.4
 Int time 468.682
 Amp 0.175
 Phase -69.0
 PFD 1.7e-16
 Delays (us)
 SBD -0.002857
 MBD -0.002515
 Fringe rate (Hz) 0.001930
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build 2021:023:073047
 2021:023:132355
 2020:247:085004
 RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.46379262119E+03			1.46379513601E+03				Resid mbdelay (usec)	-2.51482E-03 +/- 1.0E-04
Sband delay (usec)		1.46379227851E+03			2.1315731E+01				Resid sbdelay (usec)	-2.85750E-03 +/- 8.3E-04
Phase delay (usec)		1.46379513378E+03			-5.0000000E-07				Resid phdelay (usec)	-2.22602E-06 +/- 3.6E-07
Delay rate (us/s)		1.58497380041E-01			1.58497357636E-01				Resid rate (us/s)	2.24053E-08 +/- 1.3E-09
Total phase (deg)			-63.3		-4.57173461230E-06				Resid phase (deg)	-69.0 +/- 11.1

ph/seg (deg) 46.7 26.4 Search (2048X32) 0.173 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 67.7 46.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.3 15.6 Inc. seg. avg. 0.225 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 16.7 27.3 Inc. frq. avg. 0.180 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 o: az 290.2 el 68.8 pa 92.1 p: az 295.2 el 60.1 pa 91.0 u,v (fr/asec) -1223.645 -29.205 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/op...11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/op.W.177.11M149

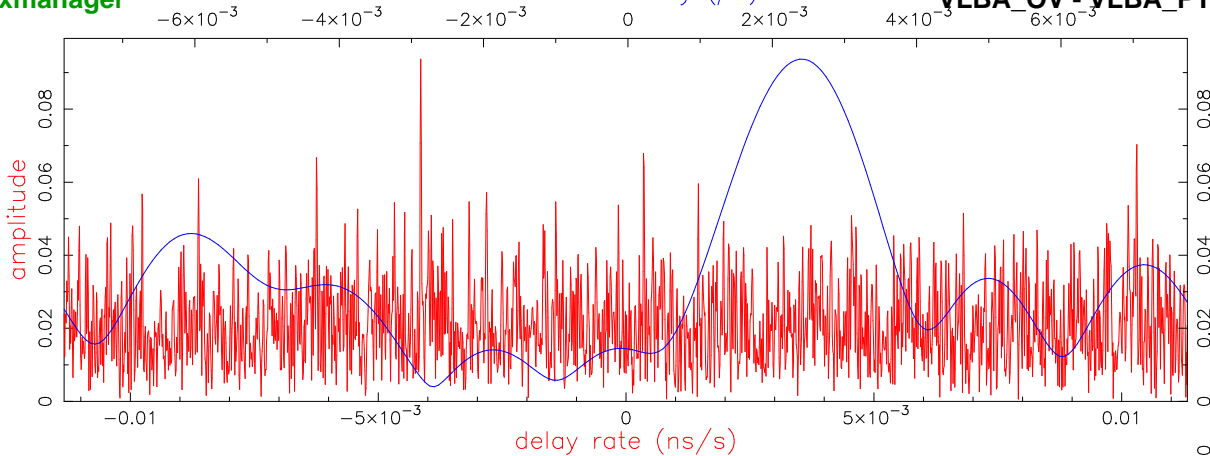
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M149, No0103, op

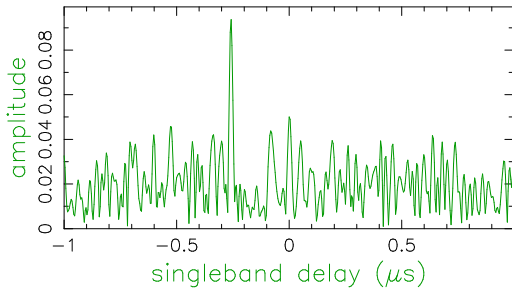
VLBA_OV - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

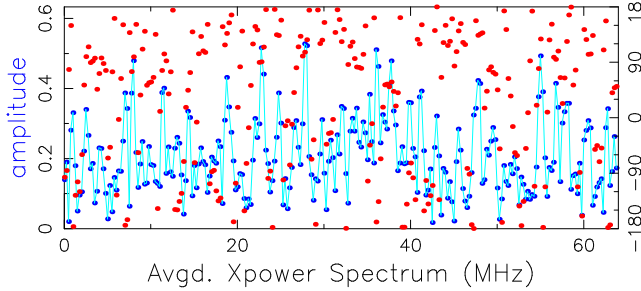


Fringe quality 0

SNR 5.6
 Int time 468.682
 Amp 0.099
 Phase -1.9
 PFD 1.0e+00
 Delays (us)
 SBD -0.258505
 MBD 0.002386
 Fringe rate (Hz)
 -0.357628
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

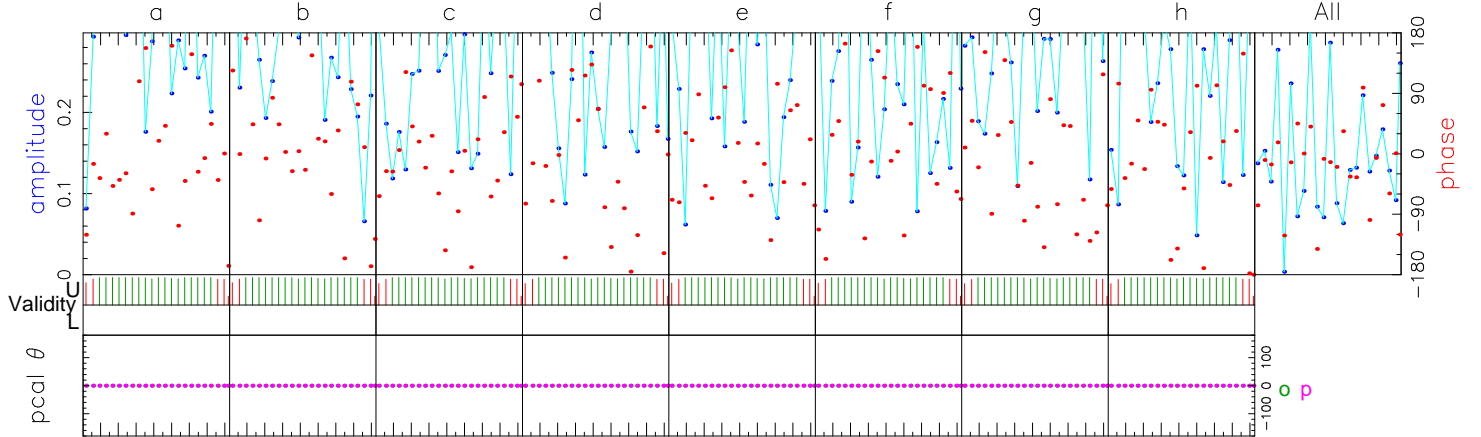


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132400
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.46353189729E+03				1.46379513601E+03			Resid mbdelay (usec)	2.38628E-03 +/- 2.0E-04
Sband delay (usec)		1.46353663051E+03				2.1315731E+01			Resid sbdelay (usec)	-2.58505E-01 +/- 1.5E-03
Phase delay (usec)		1.46379513595E+03				-5.0000000E-07			Resid phdelay (usec)	-6.28333E-08 +/- 6.6E-07
Delay rate (us/s)		1.58493205927E-01				1.58497357636E-01			Resid rate (us/s)	-4.15171E-06 +/- 2.4E-09
Total phase (deg)			3.8			-4.57173461230E-06			Resid phase (deg)	-1.9 +/- 20.6
ph/seg (deg)	RMS 60.2	Theor. 49.2	Amplitude 60.2	0.099 +/- 0.018	Search (2048X32) 0.093	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
amp/seg (%)	100.0	85.9	Interp. 100.0	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	Bits/sample: 2x2	SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	23.1	29.1	Inc. seg. avg. 23.1	0.112	Sample rate(MISamp/s): 128	Data rate(Mb/s): 2048	nlags: 256		dr window (ns/s)	-0.011 0.011
amp/frq (%)	53.8	50.8	Inc. frq. avg. 53.8	0.092					ion window (TEC)	0.00 0.00

o: az 290.2 el 68.8 pa 92.1 p: az 295.2 el 60.1 pa 91.0 u,v (fr/asec) -1223.645 -29.205 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/op..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/op.W.196.11M149

Mk4/DiFX fourfit 3.21 rev 2937

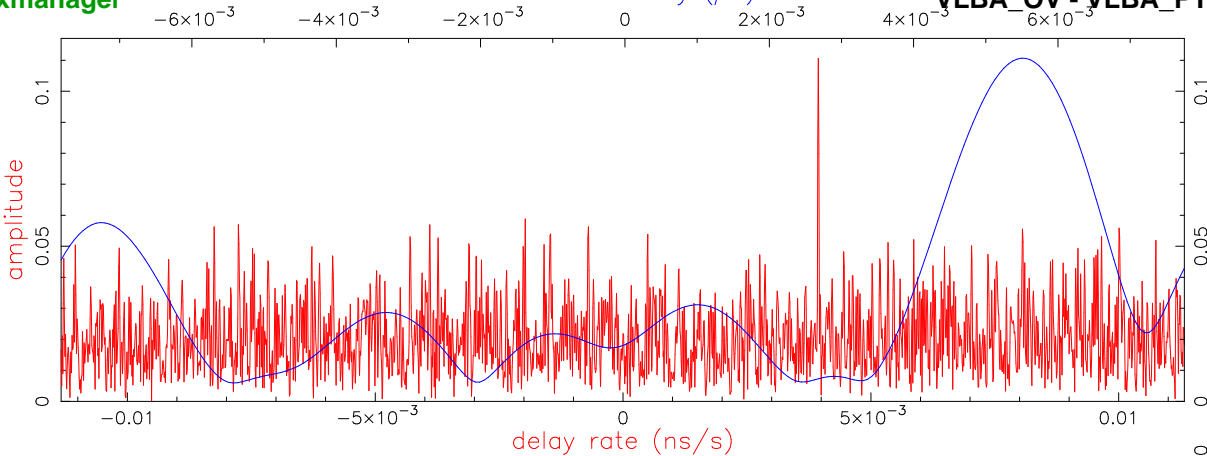
fxmanager

3C84.11M149, No0103, op

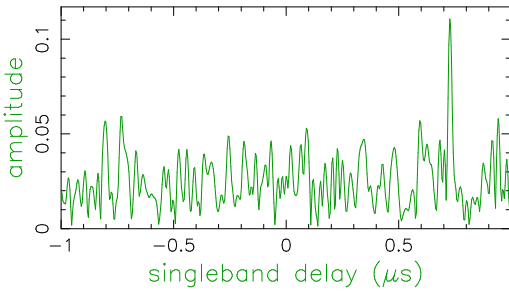
VLBA_OV - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

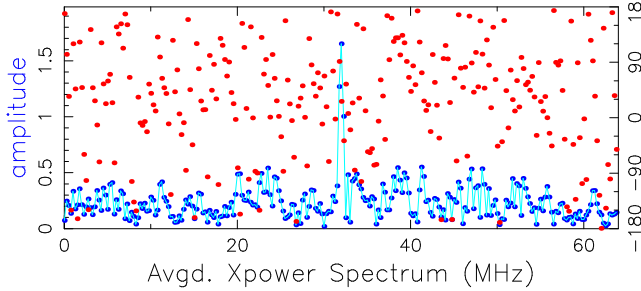
Fringe quality 0



SNR 6.6
 Int time 468.682
 Amp 0.117
 Phase 96.3
 PFD 1.3e-02
 Delays (us)
 SBD 0.727635
 MBD 0.005548
 Fringe rate (Hz) 0.340238
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

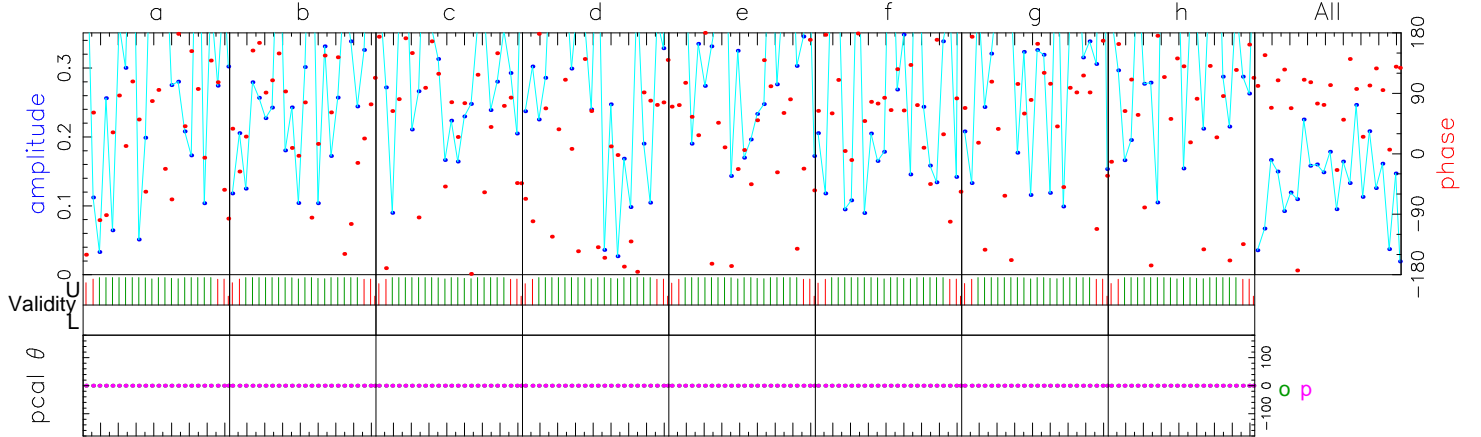


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132404
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.46451943392E+03	Apriori delay (usec)	1.46379513601E+03	Resid mbdelay (usec)	5.54791E-03	+/-	1.6E-04
Sband delay (usec)	1.46452277101E+03	Apriori clock (usec)	2.1315731E+01	Resid sbdelay (usec)	7.27635E-01	+/-	1.3E-03
Phase delay (usec)	1.46379513912E+03	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	3.10541E-06	+/-	5.6E-07
Delay rate (us/s)	1.58501307462E-01	Apriori rate (us/s)	1.58497357636E-01	Resid rate (us/s)	3.94983E-06	+/-	2.0E-09
Total phase (deg)	102.0	Apriori accel (us/s/s)	-4.57173461230E-06	Resid phase (deg)	96.3	+/-	17.4

ph/seg (deg)	46.9	Theor.	41.6	Amplitude	0.117 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	53.6		72.6	Search (2048X32)	0.106	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	27.7		24.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	29.0		42.9	Inc. seg. avg.	0.115	Sample rate(MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.115	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

o: az 290.2 el 68.8 pa 92.1 p: az 295.2 el 60.1 pa 91.0 u,v (fr/asec) -1223.645 -29.205 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/op..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/op.W.216.11M149

Mk4/DiFX fourfit 3.21 rev 2937

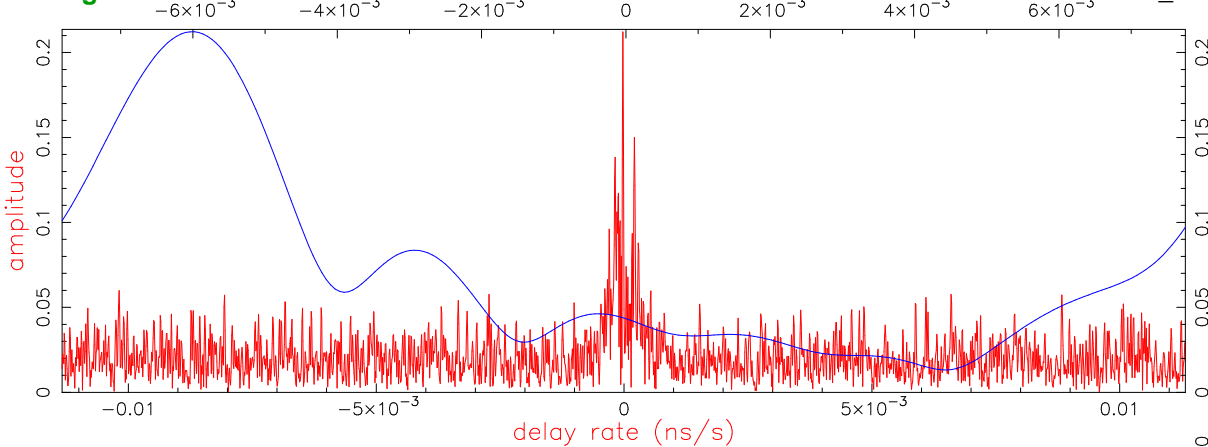
fxmanager

3C84.11M149, No0103, uo

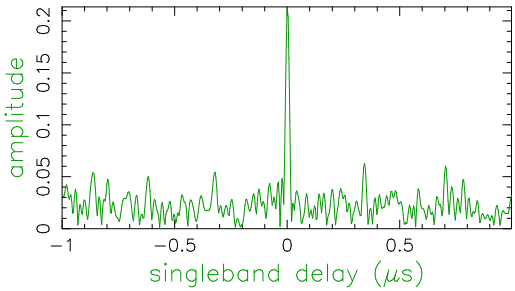
KVNUS - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

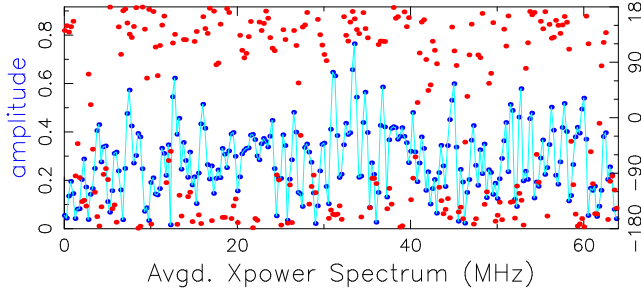
Fringe quality 9



SNR 12.7
 Int time 469.406
 Amp 0.214
 Phase -107.8
 PFD 5.6e-28
 Delays (us)
 SBD 0.001134
 MBD -0.005959
 Fringe rate (Hz)
 -0.002210
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

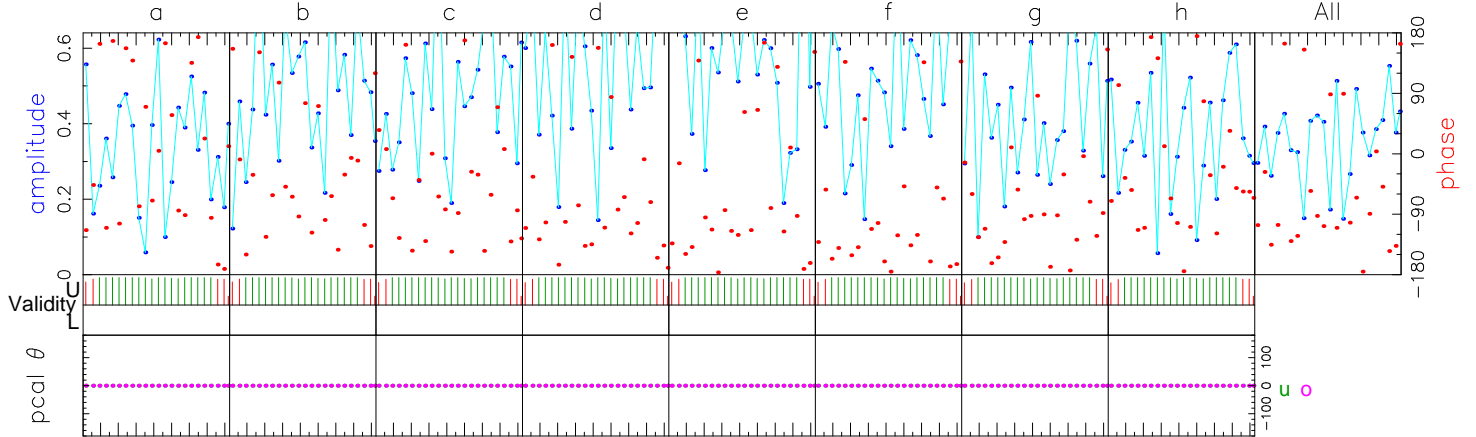


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132356
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-131.8	-68.8	-82.0	-108.8	-144.4	-135.0	-100.3	-60.8	Phase	-107.8
	0.1	0.2	0.2	0.4	0.3	0.4	0.2	0.2	Ampl.	0.2
	260.4	319.0	257.3	257.0	257.3	257.5	258.2	259.1	Sbd box	257.3
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.02350728038E+04	Apriori delay (usec)	-1.02350668452E+04	Resid mbdelay (usec)	-5.95865E-03	+/-	8.6E-05
Sband delay (usec)	-1.02350657117E+04	Apriori clock (usec)	-1.8838730E+01	Resid sbdelay (usec)	1.13350E-03	+/-	6.8E-04
Phase delay (usec)	-1.02350668486E+04	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-3.47525E-06	+/-	2.9E-07
Delay rate (us/s)	1.37804078598E+00	Apriori rate (us/s)	1.37804081164E+00	Resid rate (us/s)	-2.56590E-08	+/-	1.1E-09
Total phase (deg)	-122.7	Apriori accel (us/s/s)	5.25437670986E-05	Resid phase (deg)	-107.8	+/-	9.1

ph/seg (deg)	70.2	Theor.	21.6	Amplitude	0.214 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	82.9	Search (2048X32)	0.204	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	34.4	Inc. seg. avg.	0.332	Inc. frq. avg.	0.233	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	45.0	Inc. frq. avg.	0.233			Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 55.8 el 25.7 pa -64.7 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -10434.957 3635.169 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/uo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/uo.W.179.11M149

Mk4/DiFX fourfit 3.21 rev 2937

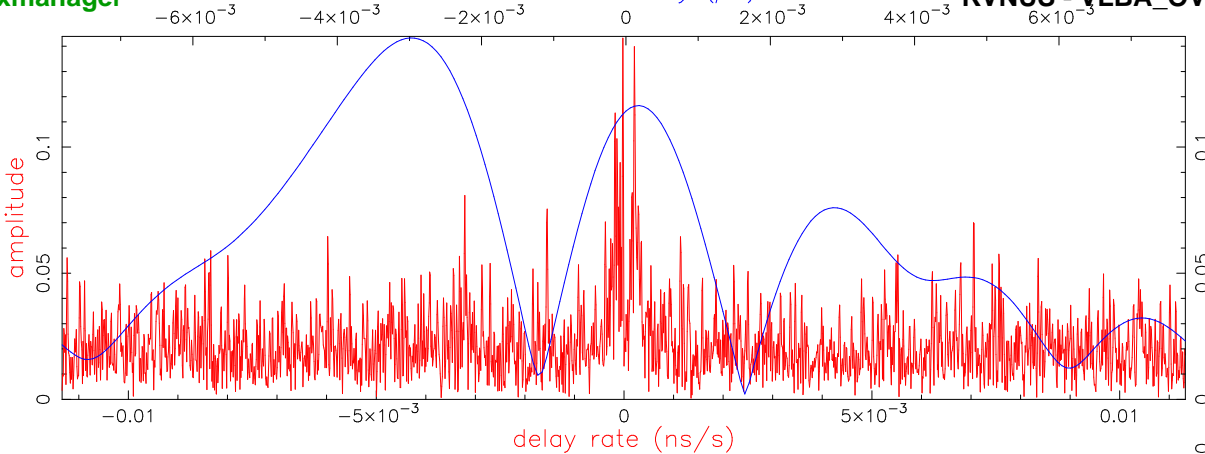
fxmanager

3C84.11M149, No0103, uo

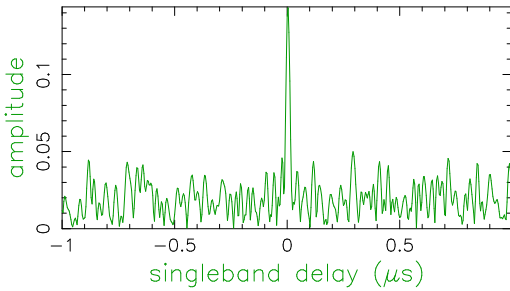
KVNUS - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

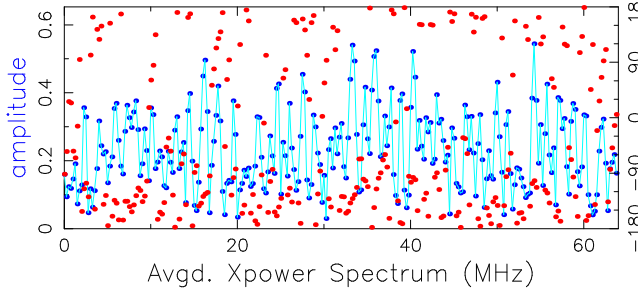
Fringe quality 9



SNR 8.5
 Int time 469.406
 Amp 0.144
 Phase -78.7
 PFD 5.5e-09
 Delays (us)
 SBD 0.002927
 MBD -0.003018
 Fringe rate (Hz)
 -0.002317
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

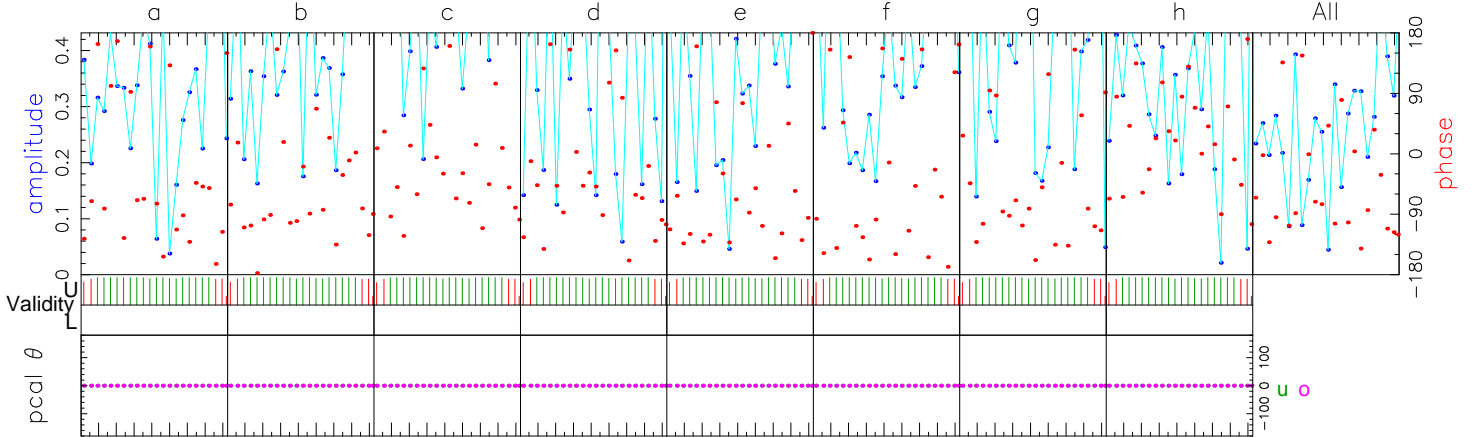


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132400
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-121.5	-66.2	-31.3	-74.2	-103.7	-139.8	-93.5	32.7	Phase	-78.7
	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	259.7	258.1	258.1	257.3	257.4	184.3	258.9	260.0	Sbd box	257.7
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.02350698631E+04		Apriori delay (usec)		-1.02350668452E+04		Resid mbdelay (usec)		-3.01790E-03	+/- 1.3E-04
Sband delay (usec)	-1.02350639179E+04		Apriori clock (usec)		-1.8838730E+01		Resid sbdelay (usec)		2.92725E-03	+/- 1.0E-03
Phase delay (usec)	-1.02350668477E+04		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-2.53880E-06	+/- 4.3E-07
Delay rate (us/s)	1.37804078474E+00		Apriori rate (us/s)		1.37804081164E+00		Resid rate (us/s)		-2.68926E-08	+/- 1.6E-09
Total phase (deg)			Apriori accel (us/s/s)		5.25437670986E-05		Resid phase (deg)		-78.7	+/- 13.4

	RMS	Theor.	Amplitude	0.144 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	75.5	32.1	Search (2048X32)	0.133	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	113.7	56.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	59.5	19.0	Inc. seg. avg.	0.227	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	50.8	33.2	Inc. frq. avg.	0.193	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

u: az 55.8 el 25.7 pa -64.7 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -10434.957 3635.169 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/uo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/uo.W.197.11M149

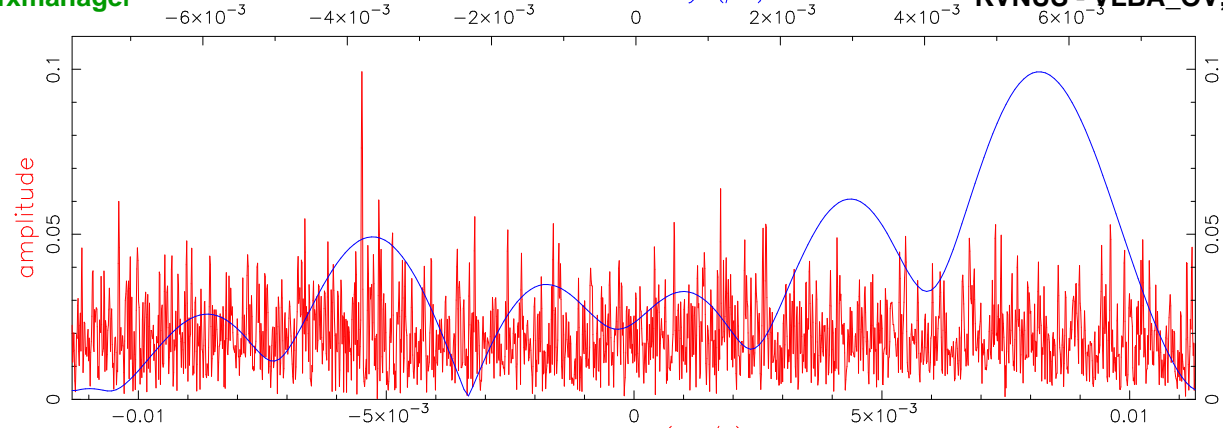
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

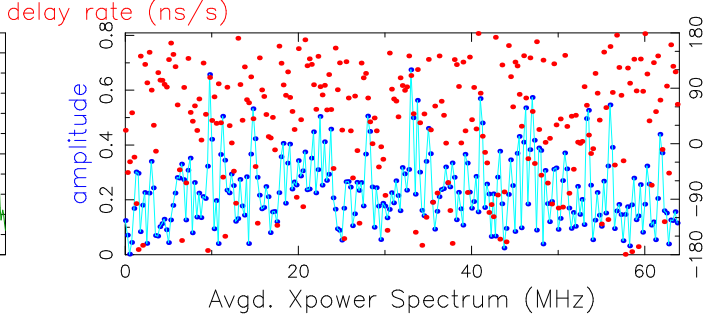
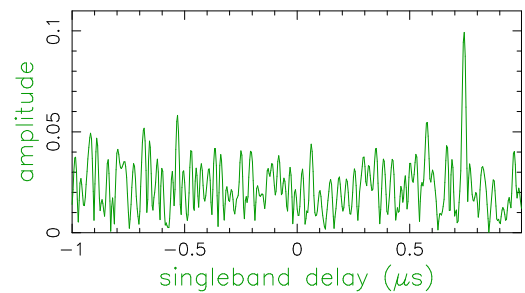
3C84.11M149, No0103, uo

KVNUS - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

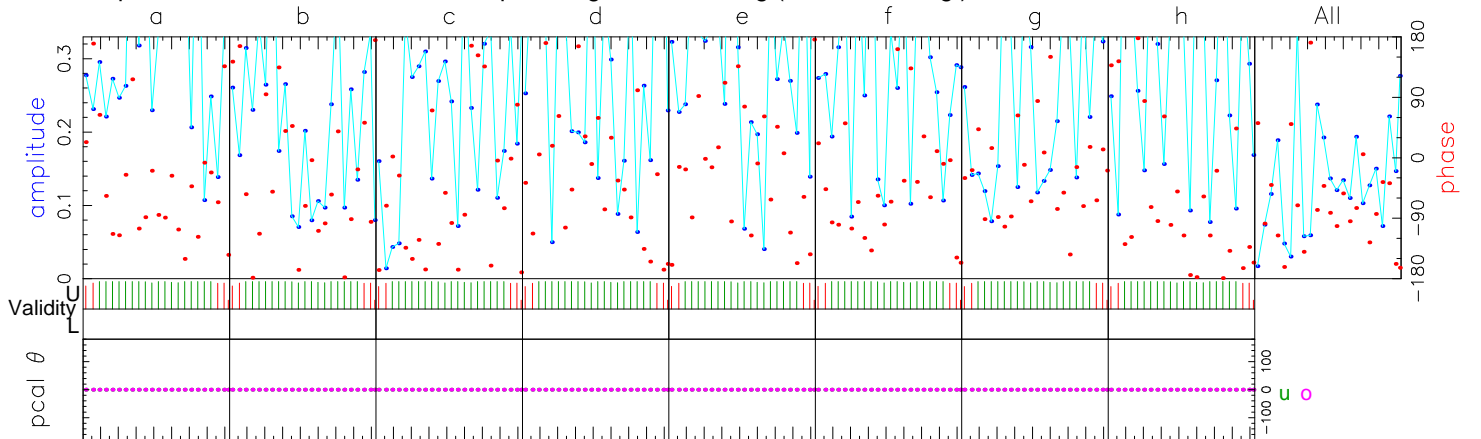


Fringe quality 0
 SNR 5.9
 Int time 469.406
 Amp 0.110
 Phase -80.8
 PFD 6.0e-01
 Delays (us)
 SBD 0.741386
 MBD 0.005582
 Fringe rate (Hz)
 -0.473805
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132404
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.02343268879E+04									
Sband delay (usec)	-1.02343254597E+04									
Phase delay (usec)	-1.02350668478E+04									
Delay rate (us/s)	1.37803531123E+00									
Total phase (deg)			-95.8							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
lags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
pcal mode										
PC period (AP's)										
simultaneous interpolator										

u: az 55.8 el 25.7 pa -64.7 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -10434.957 3635.169 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/uo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/uo.W.218.11M149

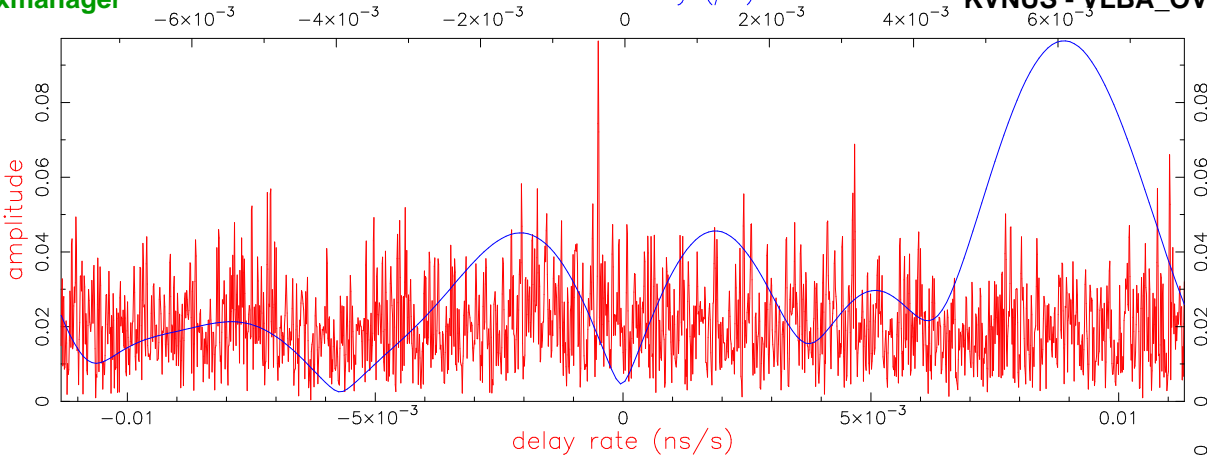
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M149, No0103, uo

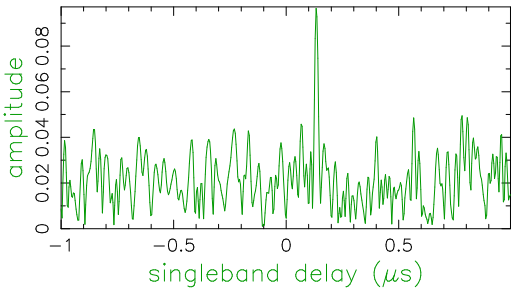
KVNUS - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

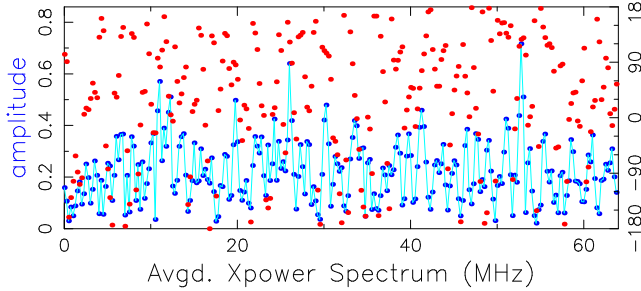


Fringe quality 0

SNR 5.8
 Int time 469.406
 Amp 0.097
 Phase 108.4
 PFD 8.9e-01
 Delays (us)
 SBD 0.133893
 MBD 0.006133
 Fringe rate (Hz)
 -0.043044
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

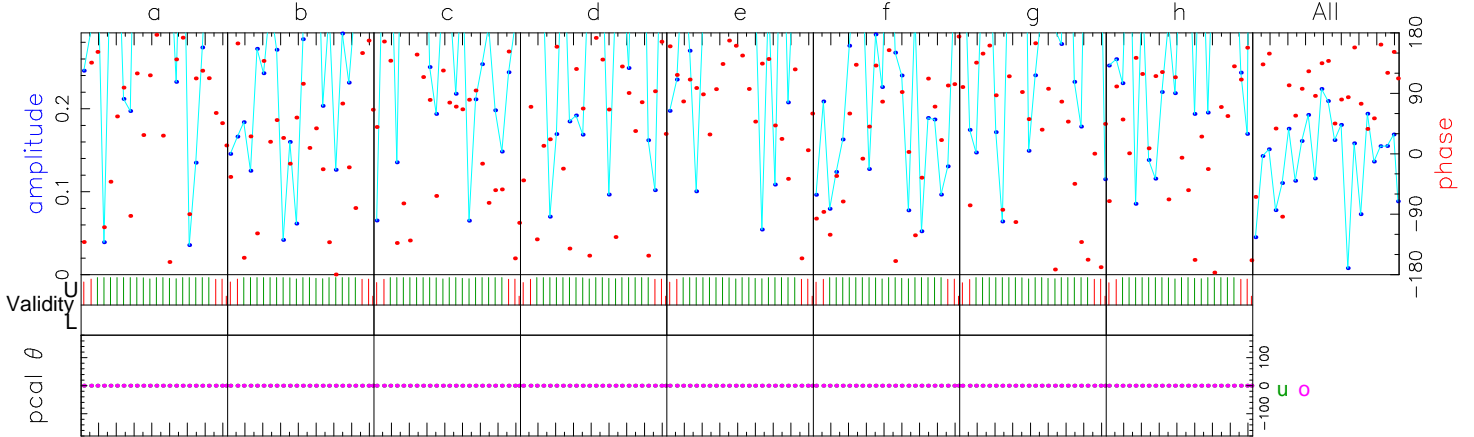


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132408
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.02349357125E+04	Apriori delay (usec)	-1.02350668452E+04	Resid mbdelay (usec)	6.13265E-03	+/-	1.9E-04
Sband delay (usec)	-1.02349329522E+04	Apriori clock (usec)	-1.8838730E+01	Resid sbdelay (usec)	1.33893E-01	+/-	1.5E-03
Phase delay (usec)	-1.02350668417E+04	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	3.49430E-06	+/-	6.4E-07
Delay rate (us/s)	1.37804031194E+00	Apriori rate (us/s)	1.37804081164E+00	Resid rate (us/s)	-4.99693E-07	+/-	2.3E-09
Total phase (deg)		Apriori accel (us/s/s)	5.25437670986E-05	Resid phase (deg)	108.4	+/-	19.9

ph/seg (deg)	62.0	Theor.	47.6	Amplitude	0.097 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	70.0		83.1	Search (2048X32)	0.094	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	32.3		28.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	50.4		49.2	Inc. seg. avg.	0.105	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.093	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

u: az 55.8 el 25.7 pa -64.7 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -10434.957 3635.169 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/uo..11M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/uo.W.233.11M149

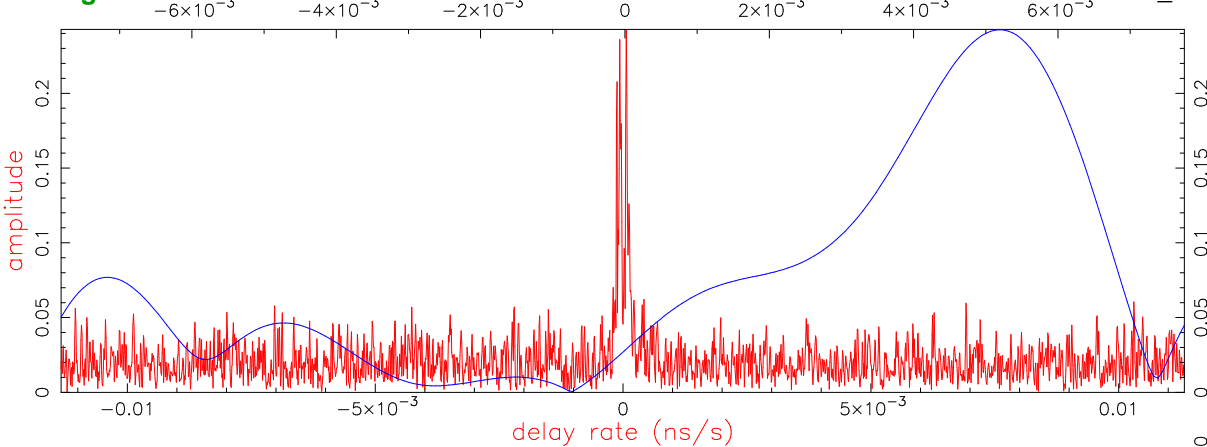
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM149, No0103, yo

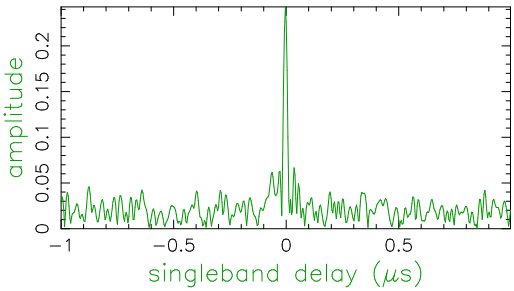
KVNYS - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

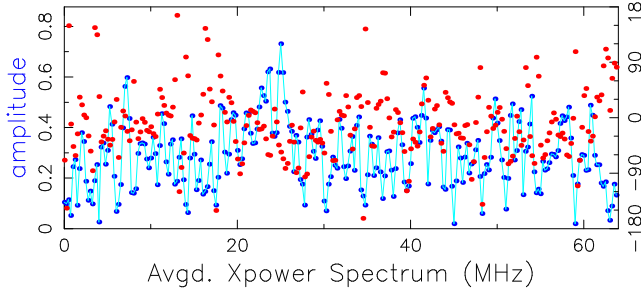


Fringe quality 7

SNR 14.4
 Int time 469.348
 Amp 0.243
 Phase -116.6
 PFD 4.2e-38
 Delays (us)
 SBD -0.003445
 MBD 0.005218
 Fringe rate (Hz)
 0.005400
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

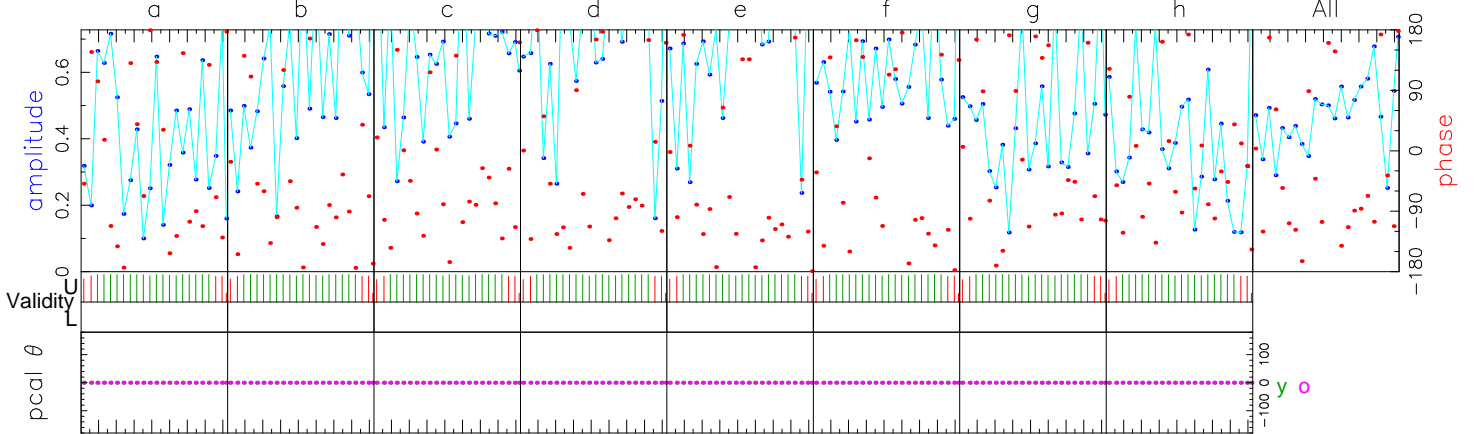


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132408
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-146.8	-108.4	-78.3	-115.3	-135.2	-153.4	-108.7	-70.9	Phase	-116.6
	0.1	0.3	0.3	0.4	0.4	0.3	0.2	0.1	Ampl.	0.3
	258.4	256.5	255.9	255.8	256.3	255.3	256.9	258.4	Sbd box	256.1
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.03785117943E+04	Apriori delay (usec)	-1.03785013870E+04	Resid mbdelay (usec)	5.21774E-03	+/-	7.5E-05
Sband delay (usec)	-1.03785048315E+04	Apriori clock (usec)	-2.0157892E+01	Resid sbdelay (usec)	-3.44450E-03	+/-	6.0E-04
Phase delay (usec)	-1.03785013908E+04	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-3.75987E-06	+/-	2.6E-07
Delay rate (us/s)	1.35684515965E+00	Apriori rate (us/s)	1.35684509695E+00	Resid rate (us/s)	6.26932E-08	+/-	9.3E-10
Total phase (deg)	-288.1	Apriori accel (us/s/s)	5.54184789495E-05	Resid phase (deg)	-116.6	+/-	8.0

ph/seg (deg)	73.6	RMS	19.0	Theor.	0.243 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	101.7	Search (2048X32)	0.233	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	32.4	Inc. seg. avg.	0.443	Inc. frq. avg.	0.264	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	45.7	Inc. frq. avg.	0.264			Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

y: az 55.8 el 25.3 pa -61.7

o: az 290.2 el 68.8 pa 92.1

u,v (fr/asec) -10266.925 4020.976

simultaneous interpolator

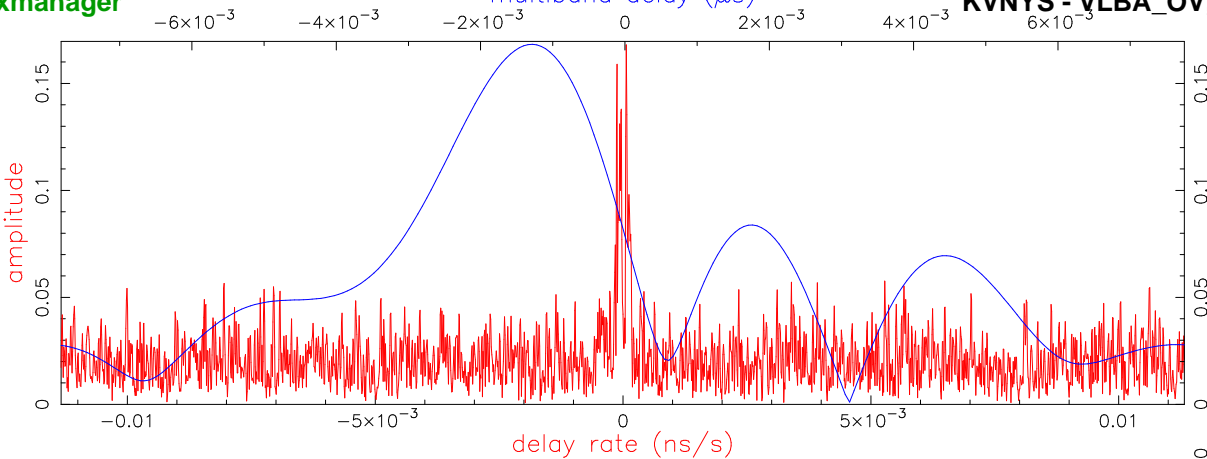
Control file: cf_1234_gmva

Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/yo..1M149

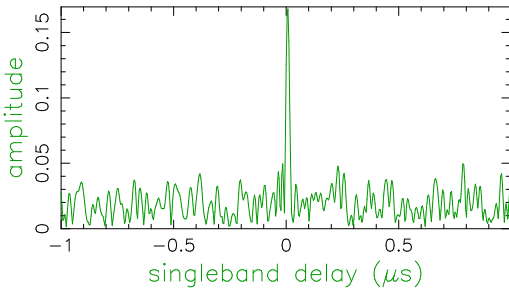
Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/yo.W.234.1M149

multiband delay (μ s)

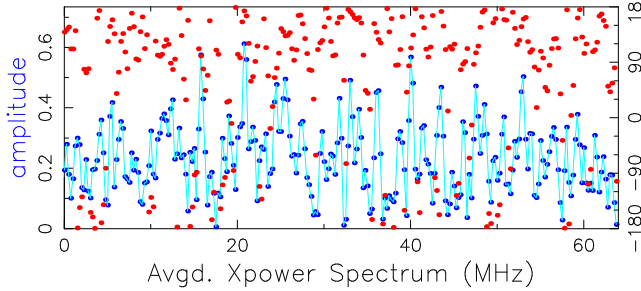
Fringe quality 9



SNR 10.0
Int time 469.348
Amp 0.170
Phase -133.3
PFD 3.9e-15
Delays (us)
SBD 0.006570
MBD -0.001354
Fringe rate (Hz)
0.005453
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

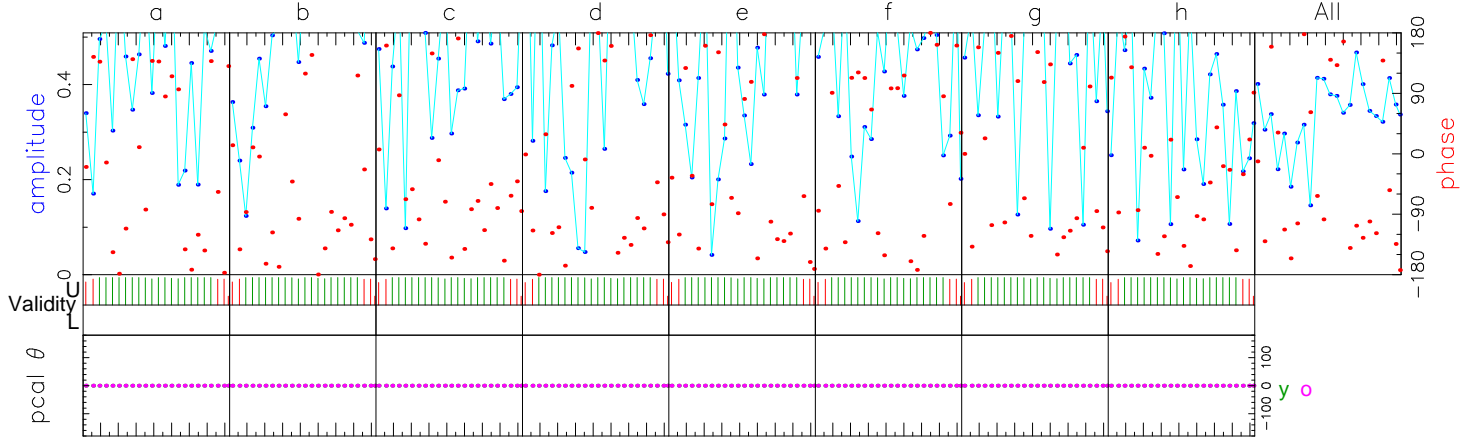


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 114501.00
Stop 115301.26
FRT 114901.00
Corr/FF/build
2021:023:073047
2021:023:132412
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
Group delay (usec)(sbd)	169.0	-124.0	-89.5	-130.1	-127.2	171.6	-136.1	-91.2	Phase	-133.3
Sband delay (usec)	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	Ampl.	0.2
Phase delay (usec)	260.5	259.6	258.2	258.1	258.7	258.6	259.7	211.1	Sbd box	258.7
Delay rate (us/s)	U/L 932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0	APs used	
Total phase (deg)	y 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
	o 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
	y:0 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
	y:0 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
	y 1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
	o 1000	1000	1000	1000	1000	1000	1000	1000		
	y W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
	o W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										

	RMS	Theor.	Amplitude	0.170 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	73.4	27.3	Search (2048X32)	0.163	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/seg (%)	107.6	47.6	Interp.	0.000	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	41.2	16.1	Inc. seg. avg.	0.301	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	34.8	28.1	Inc. frq. avg.	0.194					

y: az 55.8 el 25.3 pa -61.7 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -10266.925 4020.976 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/yo..1M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/yo.W.242.1M149

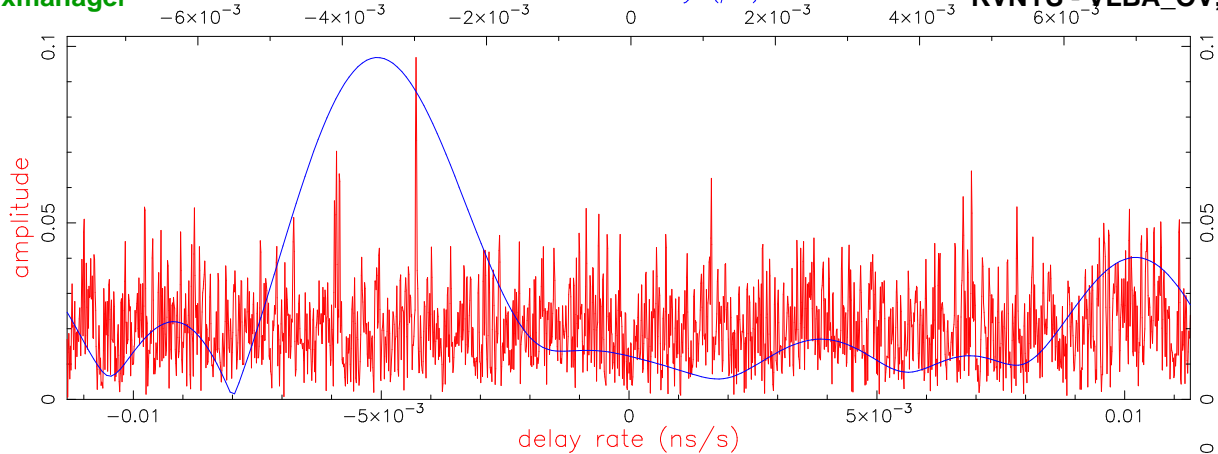
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M149, No0103, yo

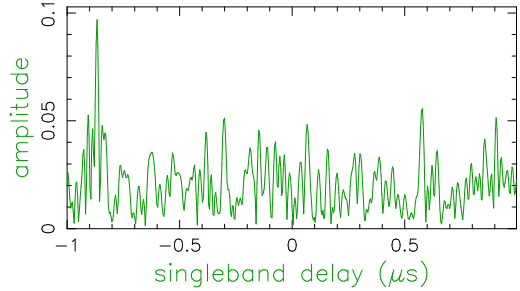
KVNYS - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

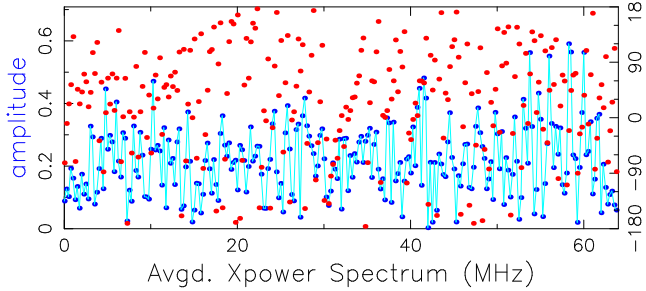


Fringe quality 0

SNR 5.7
 Int time 469.348
 Amp 0.103
 Phase -176.0
 PFD 9.1e-01
 Delays (us)
 SBD -0.867287
 MBD -0.003519
 Fringe rate (Hz)
 -0.370164
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

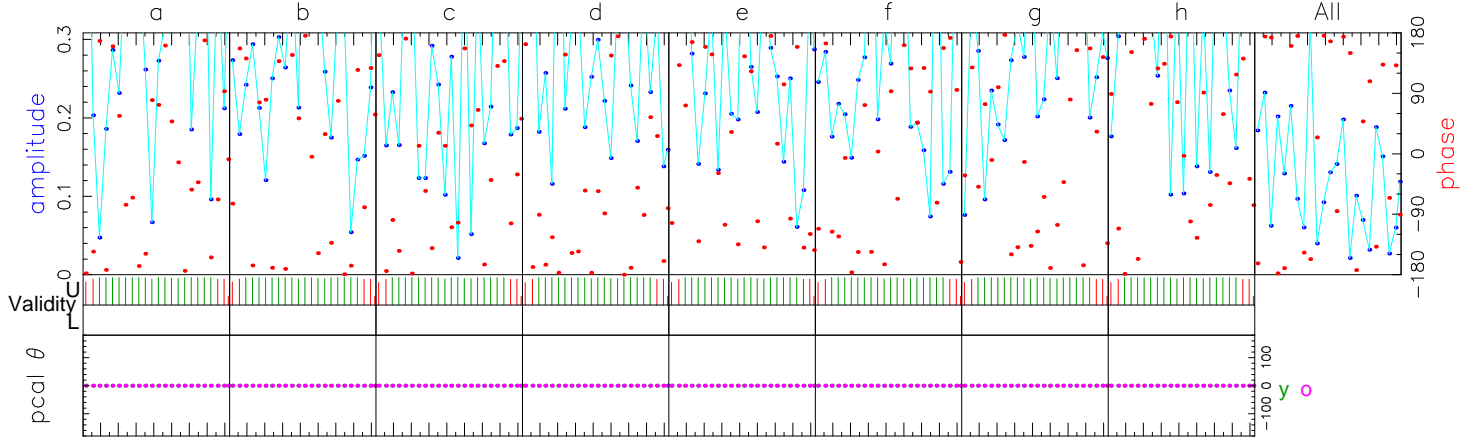


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132415
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All				
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0						
y	1000	1000	1000	1000	1000	1000	1000	1000	APs used					
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
y:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
y:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
o	1000	1000	1000	1000	1000	1000	1000	1000						
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids					
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks					
									Chan ids					
									Tracks					
Group delay (usec)(sbd)	-1.03793642806E+04								Apriori delay (usec)	-1.03785013870E+04	Resid mbdelay (usec)	-3.51857E-03	+/-	1.9E-04
Sband delay (usec)	-1.03793686743E+04								Apriori clock (usec)	-2.0157892E+01	Resid sbdelay (usec)	-8.67287E-01	+/-	1.5E-03
Phase delay (usec)	-1.03785013927E+04								Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-5.67556E-06	+/-	6.4E-07
Delay rate (us/s)	1.35684079972E+00								Apriori rate (us/s)	1.35684509695E+00	Resid rate (us/s)	-4.29723E-06	+/-	2.3E-09
Total phase (deg)			-347.5						Apriori accel (us/s/s)	5.54184789495E-05	Resid phase (deg)	-176.0	+/-	20.0

	RMS	Theor.	Amplitude	0.103 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
ph/seg (deg)	61.3	47.7	Search (2048X32)	0.095	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/seg (%)	84.7	83.3	Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
ph/frq (deg)	22.8	28.2	Inc. seg. avg.	0.098	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	26.8	49.3	Inc. frq. avg.	0.098						

y: az 55.8 el 25.3 pa -61.7 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -10266.925 4020.976 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/yo..1M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/yo.W.249.1M149

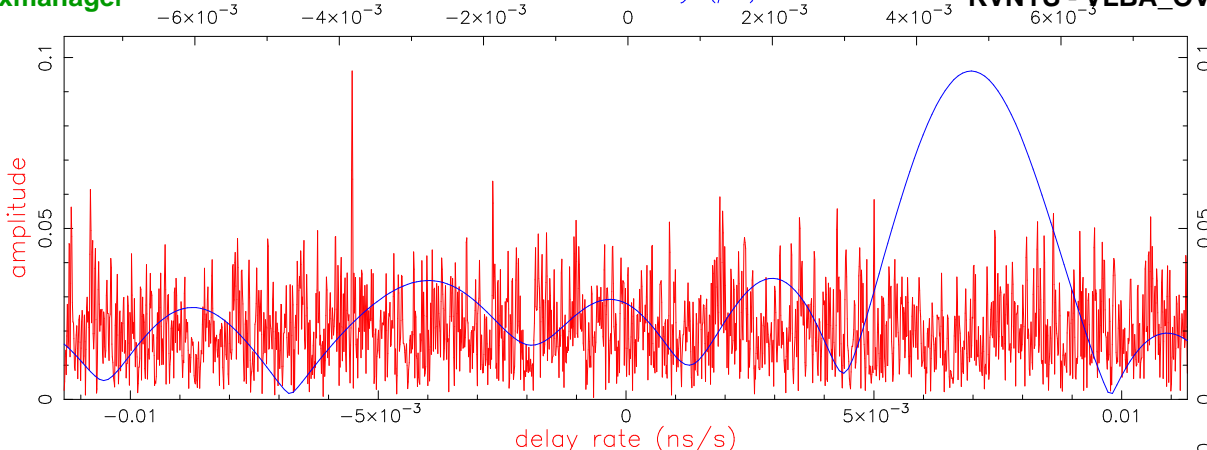
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

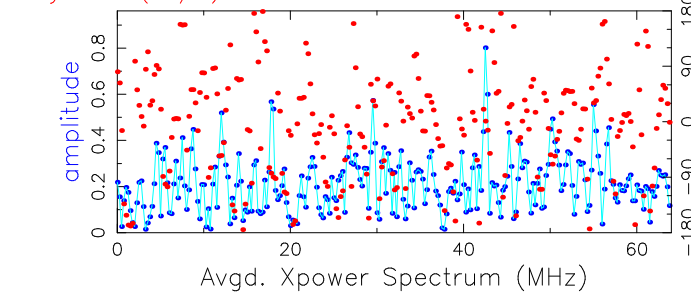
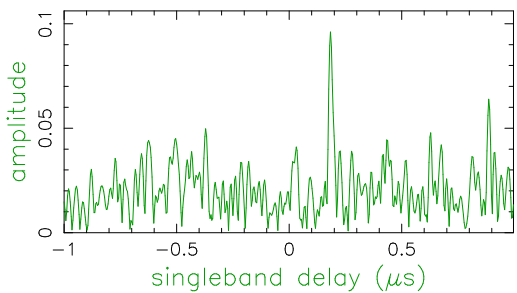
3C84.1IM149, No0103, yo

KVNYS - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

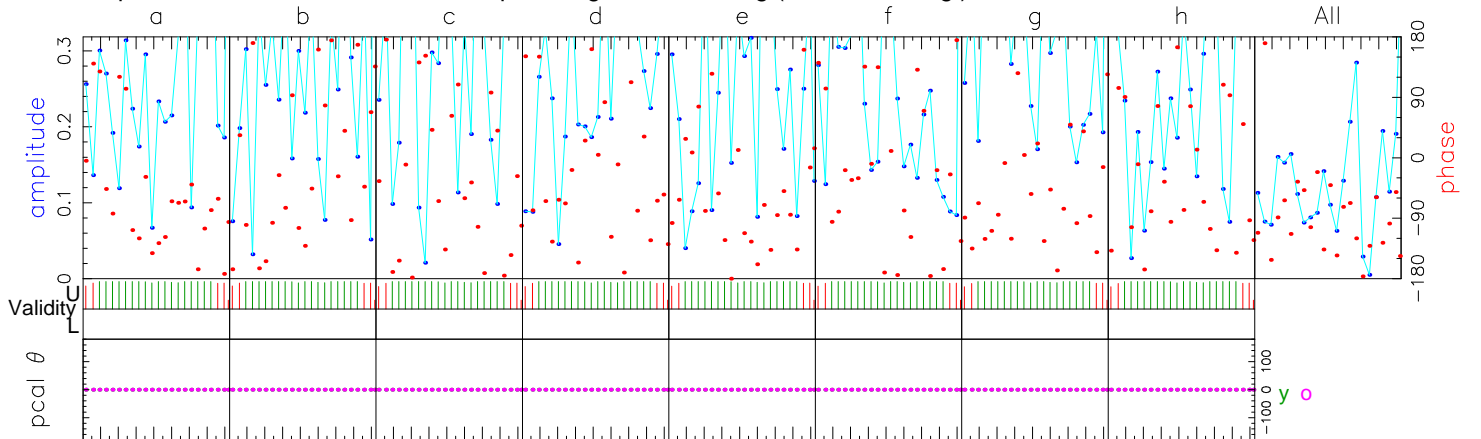


Fringe quality 0
 SNR 5.7
 Int time 469.348
 Amp 0.106
 Phase -94.1
 PFD 9.6e-01
 Delays (us)
 SBD 0.183379
 MBD 0.004759
 Fringe rate (Hz)
 -0.476911
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 114501.00
 Stop 115301.26
 FRT 114901.00
 Corr/FF/build
 2021:023:073047
 2021:023:132418
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-92.7	-93.8	-117.5	-76.4	-87.1	-92.5	-90.0	-109.9	Phase	-94.1
	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	Ampl.	0.1
	304.9	397.5	369.5	496.7	18.2	32.7	79.9	131.0	Sbd box	303.9
U/L	932/0	932/0	932/0	932/0	932/0	932/0	932/0	932/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.03783247526E+04		Apriori delay (usec)		-1.03785013870E+04		Resid mbdelay (usec)		4.75937E-03	+/- 1.9E-04
Sband delay (usec)	-1.03783180085E+04		Apriori clock (usec)		-2.0157892E+01		Resid sbdelay (usec)		1.83379E-01	+/- 1.5E-03
Phase delay (usec)	-1.03785013900E+04		Apriori clockrate (us/s)		1.9999998E-07		Resid phdelay (usec)		-3.03576E-06	+/- 6.5E-07
Delay rate (us/s)	1.35683956049E+00		Apriori rate (us/s)		1.35684509695E+00		Resid rate (us/s)		-5.53646E-06	+/- 2.4E-09
Total phase (deg)			Apriori accel (us/s/s)		5.54184789495E-05		Resid phase (deg)		-94.1	+/- 20.1

	RMS	Theor.	Amplitude	0.106 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	46.1	48.1	Search (2048X32)	0.092	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/seg (%)	76.9	84.0	Interp.	0.000	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	14.0	28.5	Inc. seg. avg.	0.101	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	41.7	49.7	Inc. frq. avg.	0.096					

y: az 55.8 el 25.3 pa -61.7 o: az 290.2 el 68.8 pa 92.1 u,v (fr/asec) -10266.925 4020.976 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0103/yo..1M149 Output file: /Exps/c202b/v1/v1_3mm/1234/No0103/yo.W.257.1M149