

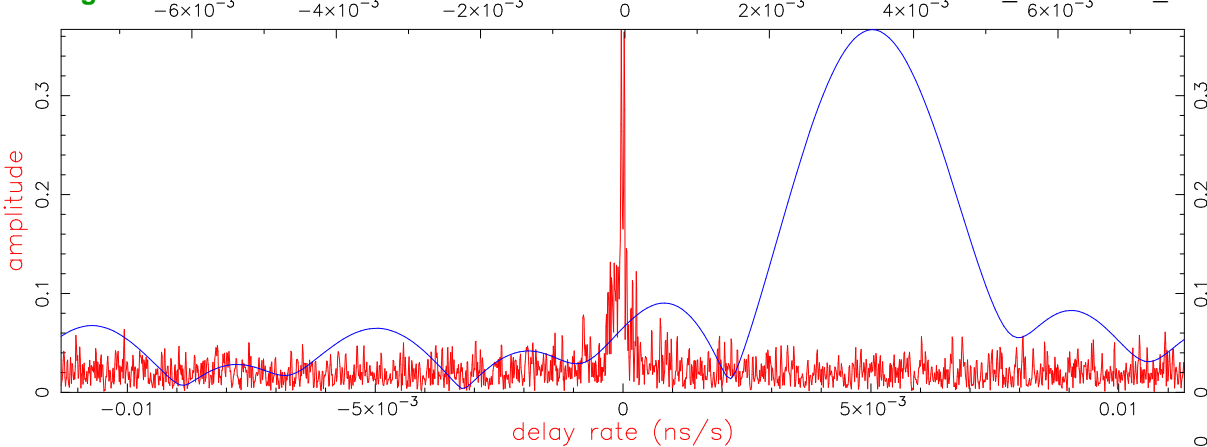
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, bk

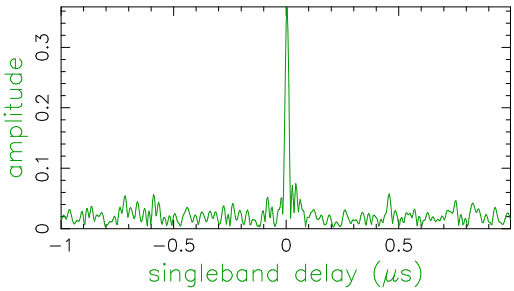
VLBA_BR - VLBA_KP, fgroup W, pol RR

multiband delay (μ s)

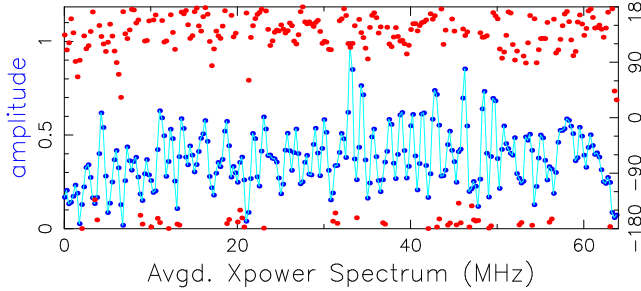


Fringe quality 9

SNR 21.9
 Int time 477.472
 Amp 0.367
 Phase 149.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.003491
 MBD 0.003417
 Fringe rate (Hz) -0.002494
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

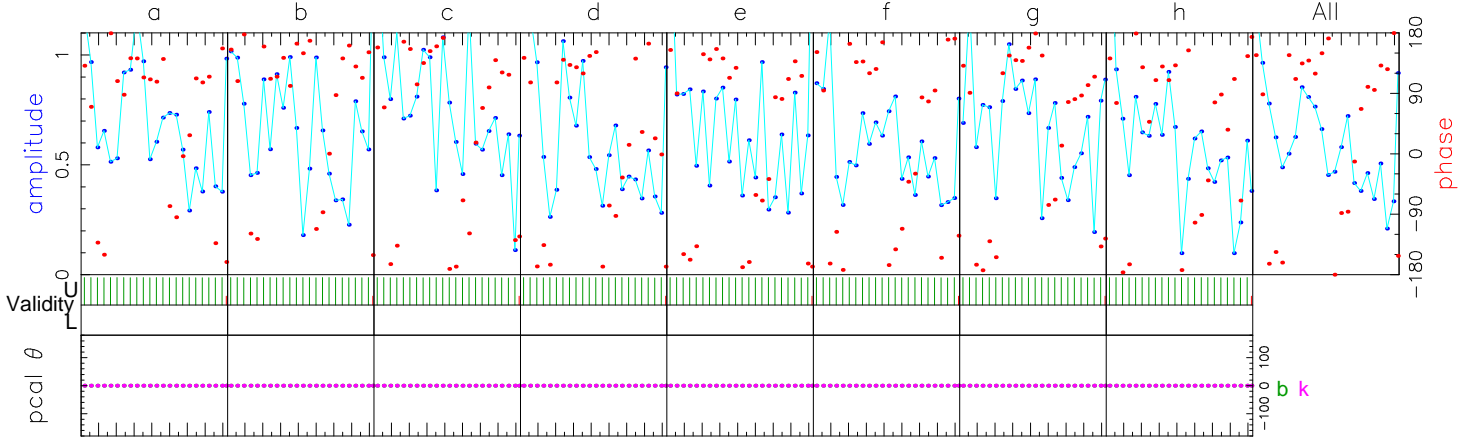


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133501
 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	132.7	151.1	157.4	145.1	159.4	160.9	151.0	131.1	Phase	149.2
b	0.4	0.4	0.5	0.3	0.4	0.3	0.4	0.3	Ampl.	0.4
k	258.1	257.9	257.6	257.7	258.0	257.8	258.0	258.2	Sbd box	257.9
b:1000	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
k:1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	3.12160159756E+03		Apriori delay (usec)		3.12159818018E+03		Resid mbdelay (usec)		3.41738E-03	+/- 4.9E-05
Sband delay (usec)	3.12160167093E+03		Apriori clock (usec)		-2.0487747E+00		Resid sbdelay (usec)		3.49075E-03	+/- 3.9E-04
Phase delay (usec)	3.12159818499E+03		Apriori clockrate (us/s)		-9.9999991E-08		Resid phdelay (usec)		4.81078E-06	+/- 1.7E-07
Delay rate (us/s)	2.43164836046E-01		Apriori rate (us/s)		2.43164865004E-01		Resid rate (us/s)		-2.89580E-08	+/- 6.1E-10
Total phase (deg)	235.8		Apriori accel (us/s/s)		-4.87380619967E-07		Resid phase (deg)		149.2	+/- 5.2

	RMS	Theor.	Amplitude	0.367 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	62.8	12.5	Search (2048X32)	0.350	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/seg (%)	90.9	21.9	Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	12.4	7.4	Inc. seg. avg.	0.592	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00
amp/frq (%)	12.8	12.9	Inc. frq. avg.	0.370					

b: az 281.8 el 50.9 pa 60.8 k: az 300.0 el 39.2 pa 78.6 u,v (fr/asec) -1865.368 1416.028 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/bk..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/bk.W.21.1M8OF

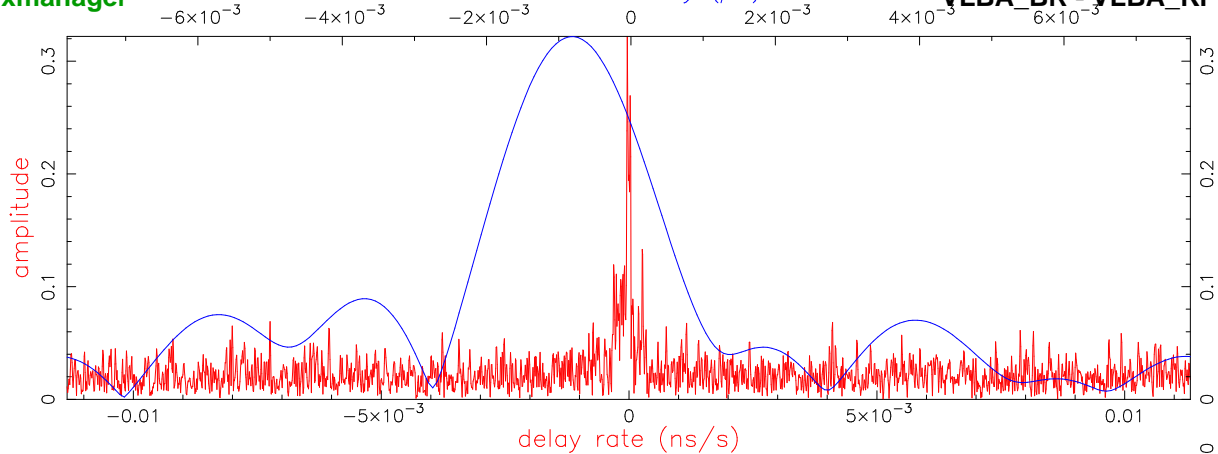
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, bk

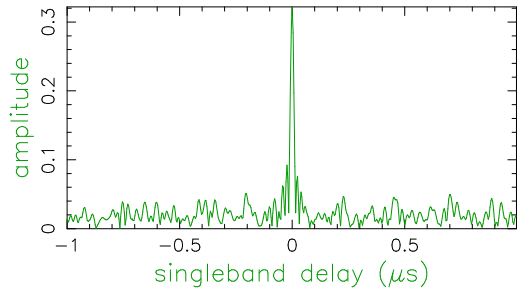
VLBA_BR - VLBA_KP, fgroup W, pol LL

multiband delay (μ s)

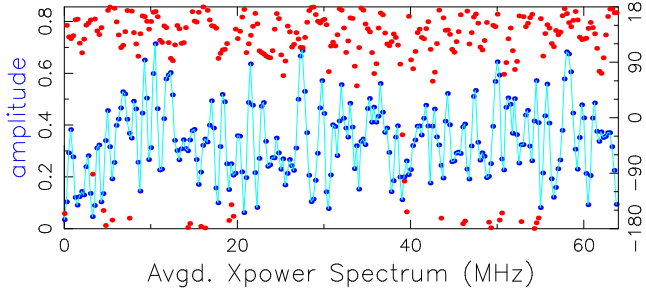


Fringe quality 9

SNR 19.2
 Int time 477.473
 Amp 0.322
 Phase 147.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.000377
 MBD -0.000828
 Fringe rate (Hz)
 -0.002541
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

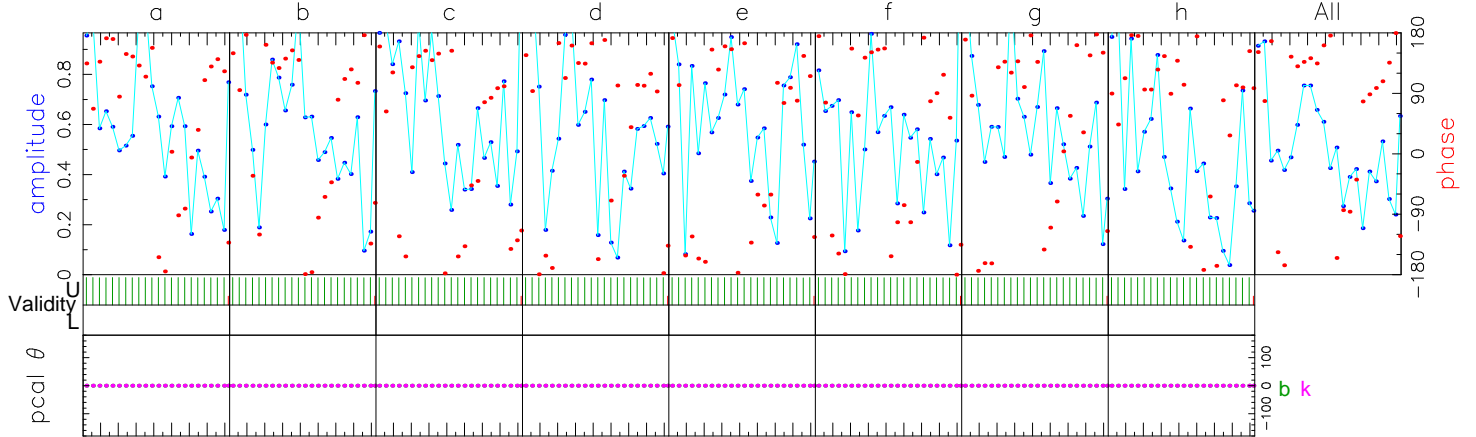


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133457
 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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:k	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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	3.12159735231E+03	Apriori delay (usec)	3.12159818018E+03	Resid mbdelay (usec)	-8.27869E-04	+/-	5.6E-05
Sband delay (usec)	3.12159780343E+03	Apriori clock (usec)	-2.0487747E+00	Resid sbdelay (usec)	-3.76750E-04	+/-	4.5E-04
Phase delay (usec)	3.12159818494E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	4.75968E-06	+/-	1.9E-07
Delay rate (us/s)	2.43164835507E-01	Apriori rate (us/s)	2.43164865004E-01	Resid rate (us/s)	-2.94973E-08	+/-	6.9E-10
Total phase (deg)	234.2	Apriori accel (us/s/s)	-4.87380619967E-07	Resid phase (deg)	147.6	+/-	6.0

ph/seg (deg)	65.4	RMS	14.3	Theor.	14.3	Amplitude	0.322 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	83.8	Search (2048X32)	0.306	Search	0.306	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000	
ph/frq (deg)	16.2	Interp.	0.000	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	13.7	Inc. seg. avg.	0.493	Inc. seg. avg.	0.493	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.327	Inc. frq. avg.	0.327	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00	

b: az 281.8 el 50.9 pa 60.8 k: az 300.0 el 39.2 pa 78.6 u,v (fr/asec) -1865.368 1416.028 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/bk..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/bk.W.2.1M8OF

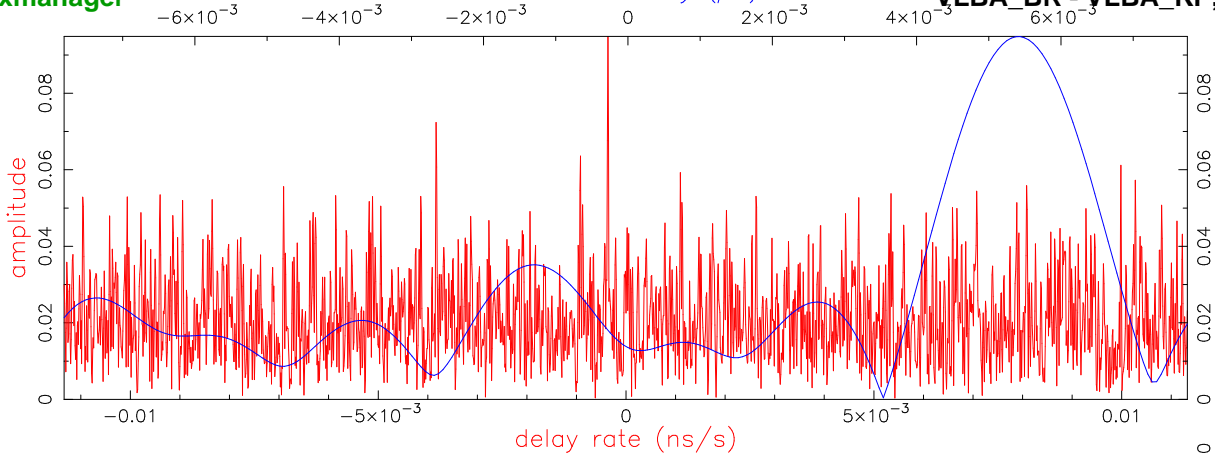
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, bk

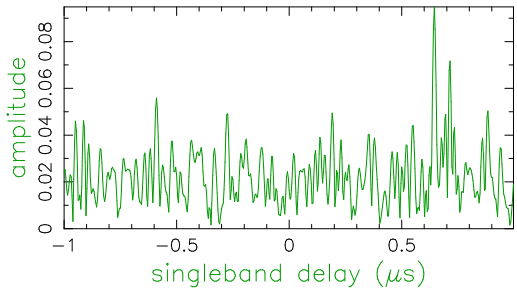
VLBA_BR - VLBA_KP, fgroup W, pol LR

multiband delay (μ s)

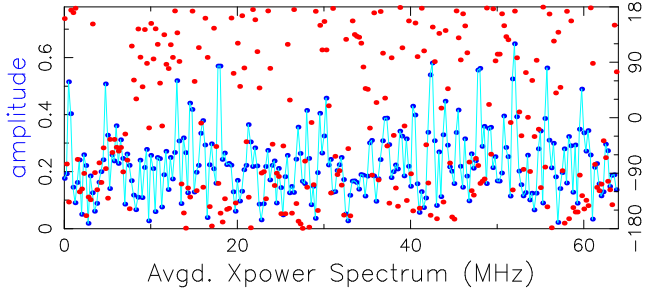


Fringe quality 0

SNR 5.7
Int time 477.472
Amp 0.095
Phase 3.3
PFD 9.7e-01
Delays (us)
SBD 0.644525
MBD 0.005409
Fringe rate (Hz)
-0.031367
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

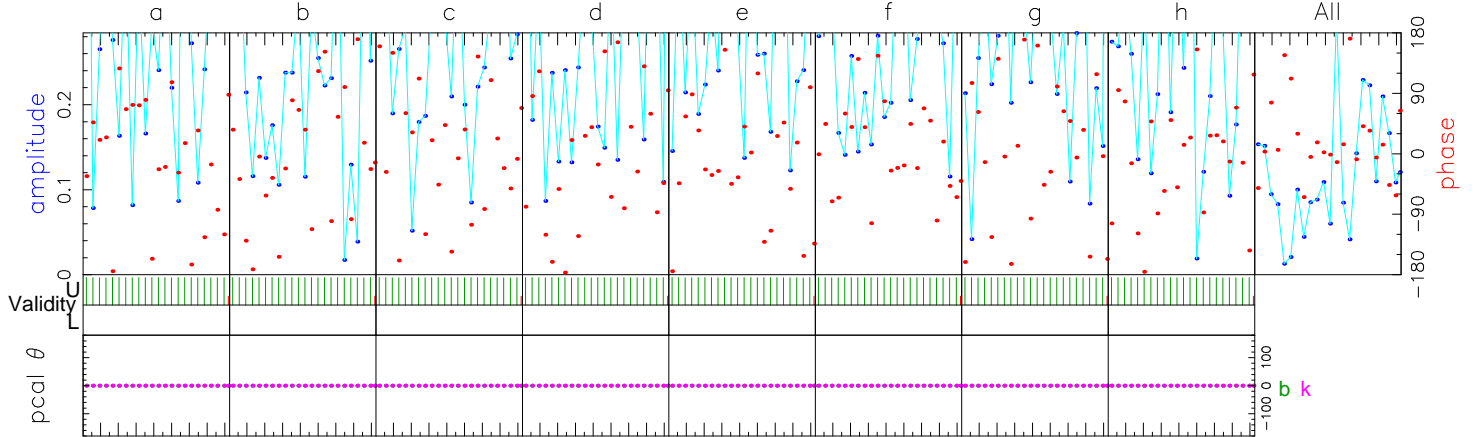


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133505
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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:k	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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		3.12224421418E+03				3.12159818018E+03			5.40900E-03	+/- 1.9E-04
Sband delay (usec)		3.12224270468E+03				-2.0487747E+00			6.44525E-01	+/- 1.5E-03
Phase delay (usec)		3.12159818029E+03				-9.9999991E-08			1.06227E-07	+/- 6.5E-07
Delay rate (us/s)		2.43164500862E-01				2.43164865004E-01			-3.64143E-07	+/- 2.4E-09
Total phase (deg)			89.9			-4.87380619967E-07			3.3	+/- 20.2
	RMS	Theor.	Amplitude	0.095 +/- 0.017		Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5	
ph/seg (deg)	61.9	48.5	Search (2048X32)	0.092		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000 1.000
amp/seg (%)	79.4	84.6	Interp.	0.000		Bits/sample: 2x2			SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	15.9	28.6	Inc. seg. avg.	0.088		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011
amp/frq (%)	32.7	49.9	Inc. frq. avg.	0.086		Data rate(Mb/s): 2048			nlags: 256	t_cohere infinite
b: az 281.8 el 50.9 pa 60.8		k: az 300.0 el 39.2 pa 78.6				u,v (fr/asec) -1865.368 1416.028			ion window (TEC)	0.00 0.00
Control file: cf_1234_gmva		Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/bk..1M8OF				Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/bk.W.42.1M8OF				simultaneous interpolator

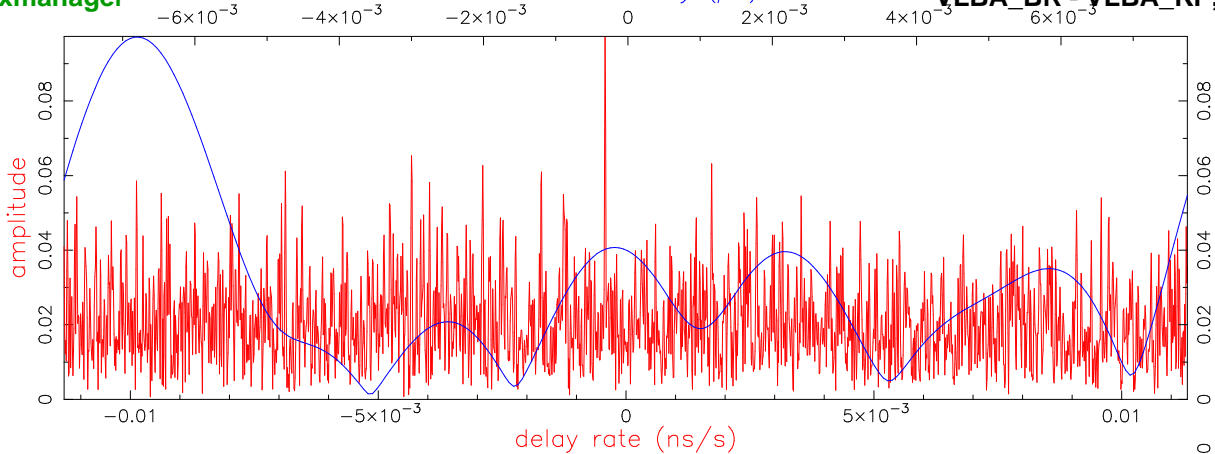
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, bk

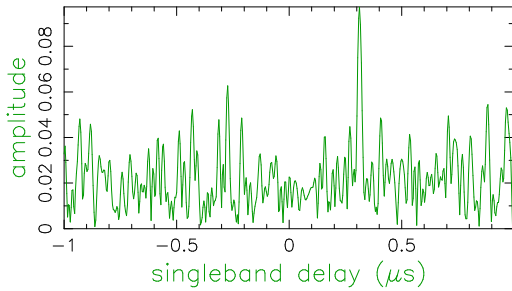
VLBA_BR - VLBA_KP, fgroup W, pol RL

multiband delay (μ s)

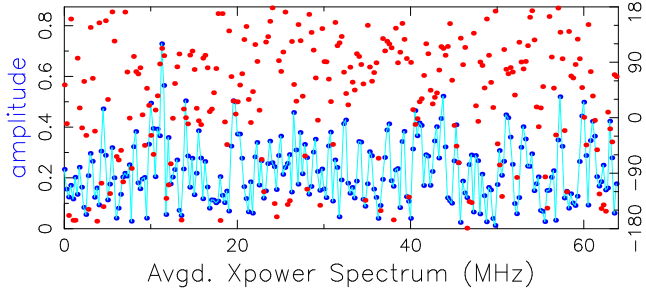


Fringe quality 0

SNR 5.8
 Int time 477.473
 Amp 0.097
 Phase 147.6
 PFD 7.9e-01
 Delays (us)
 SBD 0.311981
 MBD -0.006816
 Fringe rate (Hz)
 -0.036353
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

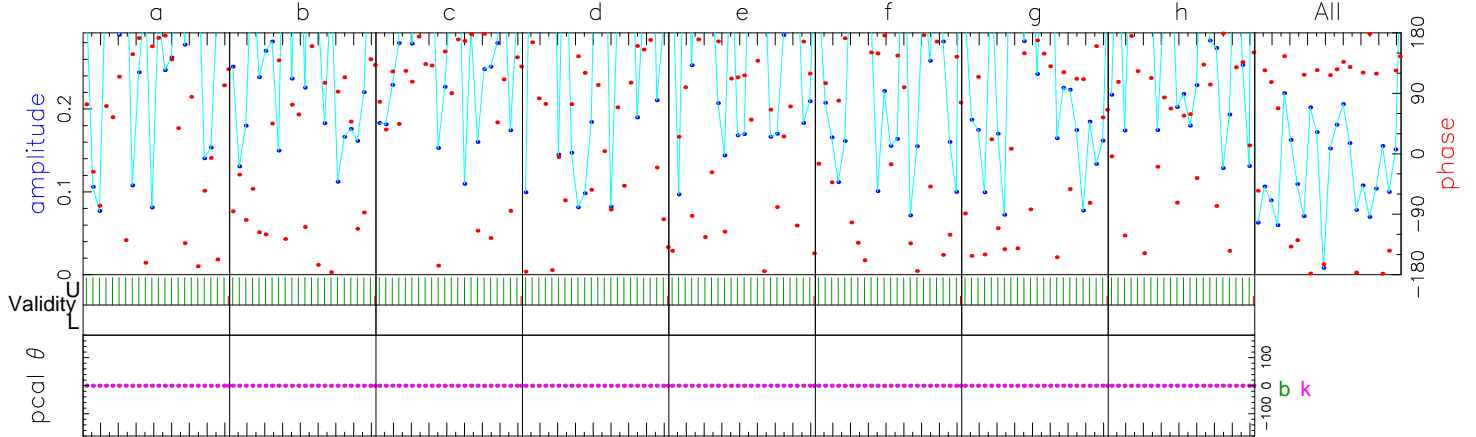


delay rate (ns/s)



Exp. c202b
 Yr:day 16383
 Start 2020:284
 Stop 2020:284
 FRT 134501.00
 FRT 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133509
 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



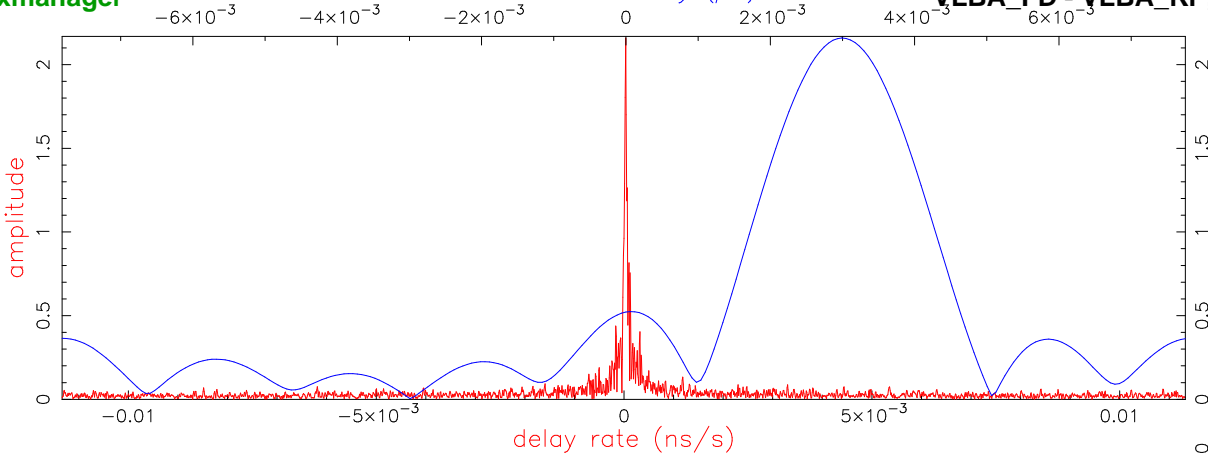
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	132.0	-169.0	137.1	137.2	149.3	179.9	175.6	123.8	Phase	147.6
	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	94.9	96.9	337.2	382.1	137.0	95.4	267.7	33.5	Sbd box	336.9
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.12190386447E+03		Apriori delay (usec)		3.12159818018E+03		Resid mbdelay (usec)		-6.81571E-03	+/- 1.9E-04
Sband delay (usec)	3.12191016118E+03		Apriori clock (usec)		-2.0487747E+00		Resid sbdelay (usec)		3.11981E-01	+/- 1.5E-03
Phase delay (usec)	3.12159818494E+03		Apriori clockrate (us/s)		-9.9999991E-08		Resid phdelay (usec)		4.75882E-06	+/- 6.4E-07
Delay rate (us/s)	2.43164442979E-01		Apriori rate (us/s)		2.43164865004E-01		Resid rate (us/s)		-4.22025E-07	+/- 2.3E-09
Total phase (deg)	234.2		Apriori accel (us/s/s)		-4.87380619967E-07		Resid phase (deg)		147.6	+/- 19.7

	RMS	Theor.	Amplitude	0.097 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	53.1	47.3	Search (2048X32)	0.095	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	69.5	82.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	28.2	27.9	Inc. seg. avg.	0.095	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011	
amp/frq (%)	41.2	48.7	Inc. frq. avg.	0.094	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite
b: az 281.8 el 50.9 pa 60.8	k: az 300.0 el 39.2 pa 78.6		u,v (fr/asec) -1865.368 1416.028		ion window (TEC) 0.00 0.00		

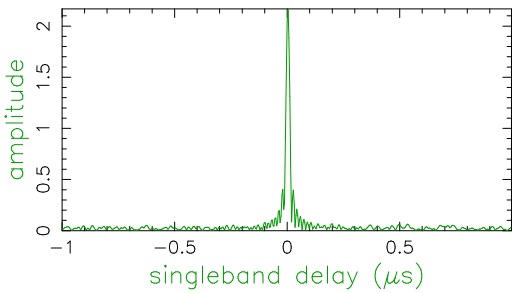
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/bk..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/bk.W.63.1M8OF simultaneous interpolator

multiband delay (μ s)

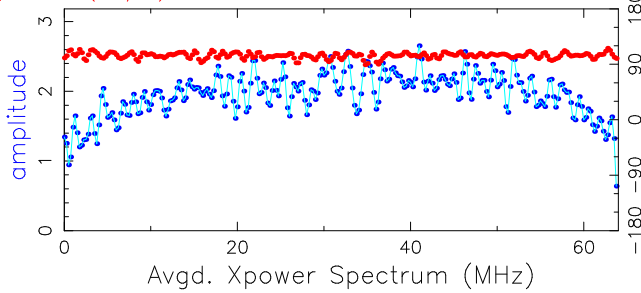
Fringe quality 5



SNR 129.1
Int time 473.755
Amp 2.169
Phase 104.9
PFD 0.0e+00
Delays (us)
SBD 0.003059
MBD 0.002976
Fringe rate (Hz)
0.002681
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

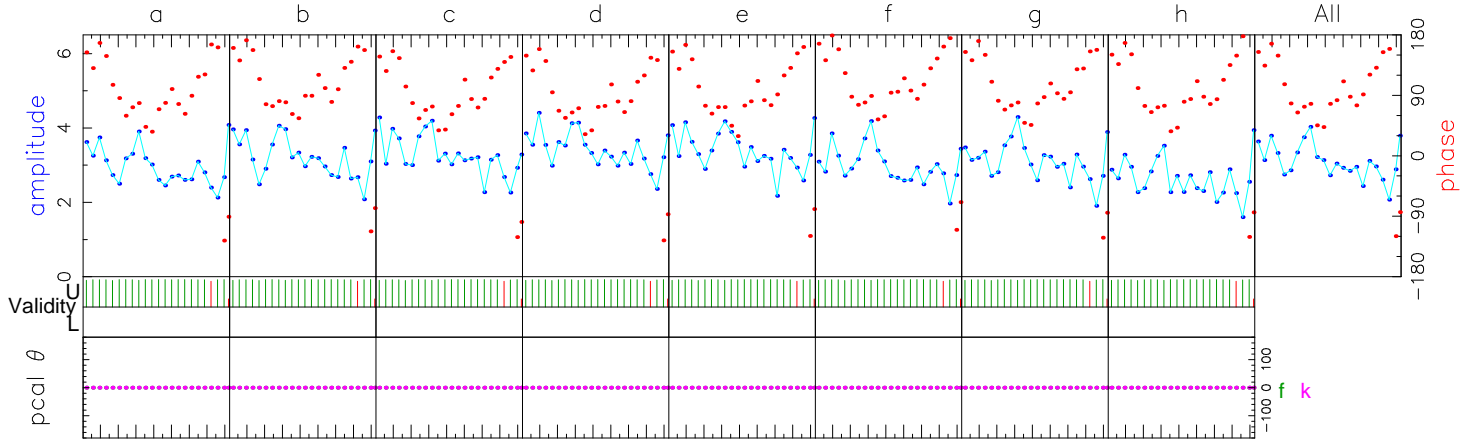


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.51
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133502
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	934/0	934/0	934/0	934/0	934/0	934/0	934/0	934/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:k	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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) -1.89895572975E+03 Apriori delay (usec) -1.89895870614E+03 Resid mbdelay (usec) 2.97638E-03 +/- 8.4E-06
 Sband delay (usec) -1.89895564739E+03 Apriori clock (usec) 7.5363216E+00 Resid sbdelay (usec) 3.05875E-03 +/- 6.7E-05
 Phase delay (usec) -1.89895870275E+03 Apriori clockrate (us/s) 2.9999999E-07 Resid phdelay (usec) 3.38343E-06 +/- 2.9E-08
 Delay rate (us/s) -6.08393873027E-02 Apriori rate (us/s) -6.08394184297E-02 Resid rate (us/s) 3.11269E-08 +/- 1.0E-10
 Total phase (deg) -235.9 Apriori accel (us/s/s) 8.66182337111E-06 Resid phase (deg) 104.9 +/- 0.9

RMS Theor. Amplitude 2.169 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 50.5 2.1 Search (2048X32) 2.136 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 47.0 3.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 6.9 1.3 Inc. seg. avg. 3.080 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 8.9 2.2 Inc. frq. avg. 2.170 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 302.4 el 32.9 pa 75.8 k: az 300.0 el 39.2 pa 78.6 u,v (fr/asec) 484.607 467.130 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/fk..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/fk.W.27.11M8OF

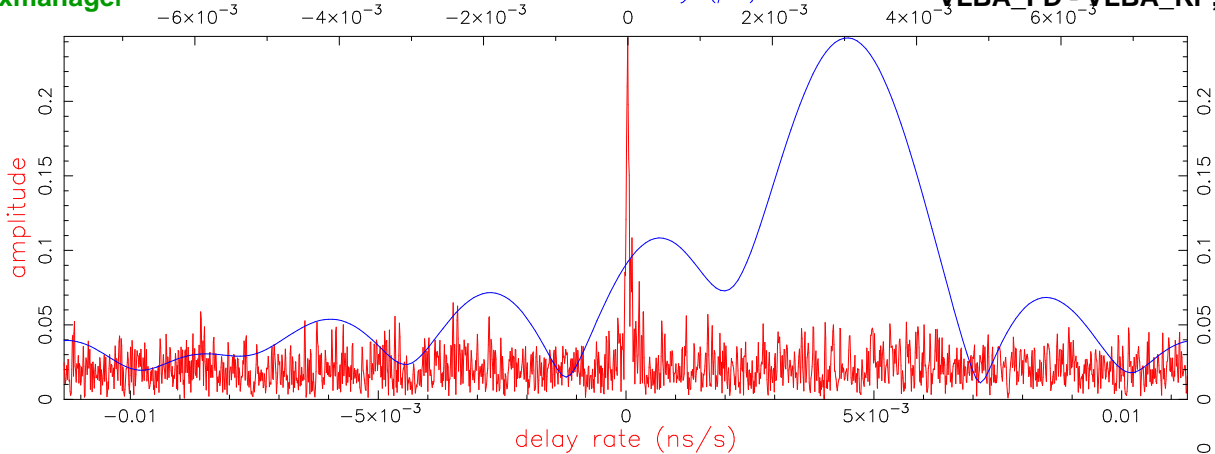
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M8OF, No0119, fk

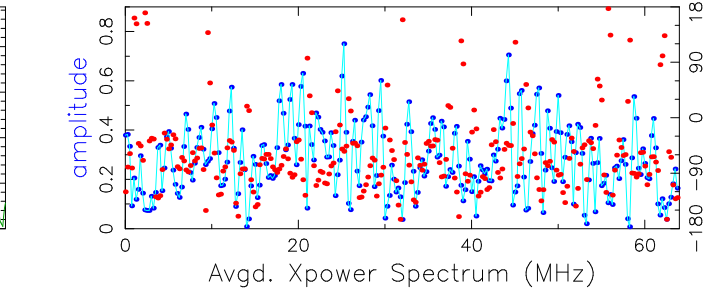
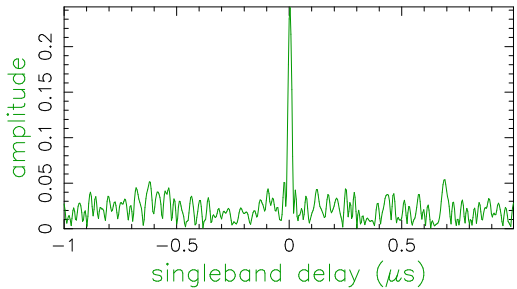
VLBA_FD - VLBA_KP, fgroup W, pol LR

multiband delay (μ s)



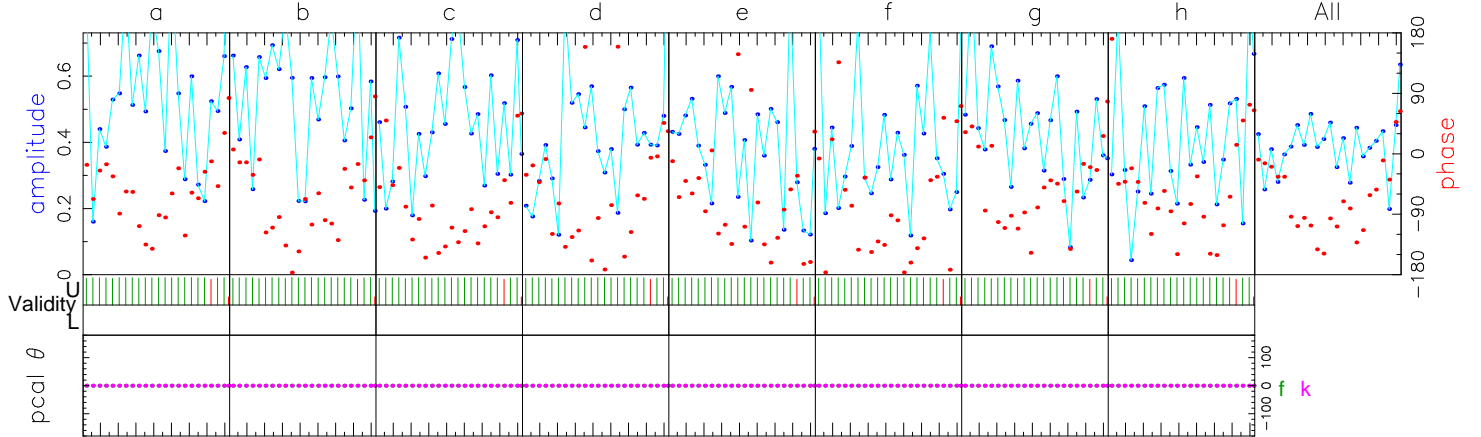
Fringe quality 9

SNR 14.5
 Int time 473.755
 Amp 0.244
 Phase -73.7
 PFD 7.2e-39
 Delays (us)
 SBD 0.003097
 MBD 0.003033
 Fringe rate (Hz) 0.002702
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.51
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133505
 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
	-57.0	-69.8	-92.3	-98.9	-86.0	-91.8	-44.9	-68.8	Phase	-73.7
	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.2	Ampl.	0.2
	257.9	257.2	257.8	256.7	258.1	482.5	258.5	257.7	Sbd box	257.8
U/L	934/0	934/0	934/0	934/0	934/0	934/0	934/0	934/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

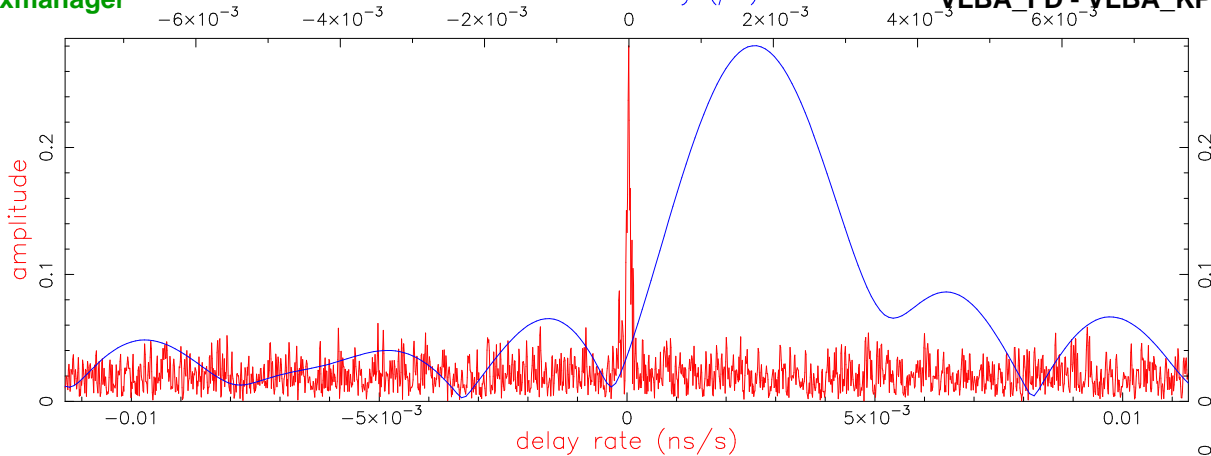
Group delay (usec)(sbd)	-1.89895567360E+03	Apriori delay (usec)	-1.89895870614E+03	Resid mbdelay (usec)	3.03254E-03	+/-	7.5E-05
Sband delay (usec)	-1.89895560889E+03	Apriori clock (usec)	7.5363216E+00	Resid sbdelay (usec)	3.09725E-03	+/-	5.9E-04
Phase delay (usec)	-1.89895870851E+03	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-2.37686E-06	+/-	2.5E-07
Delay rate (us/s)	-6.08393870632E-02	Apriori rate (us/s)	-6.08394184297E-02	Resid rate (us/s)	3.13664E-08	+/-	9.2E-10
Total phase (deg)	-54.5	Apriori accel (us/s/s)	8.66182337111E-06	Resid phase (deg)	-73.7	+/-	7.9

ph/seg (deg)	51.9	Theor.	18.9	Amplitude	0.244 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	65.5	Search (2048X32)	0.240	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	20.9	Inc. seg. avg.	0.364	Inc. frq. avg.	0.250	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	28.2	Inc. frq. avg.	0.250			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
f: az 302.4 el 32.9 pa 75.8		k: az 300.0 el 39.2 pa 78.6		u, v (fr/asec)	484.607 467.130	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

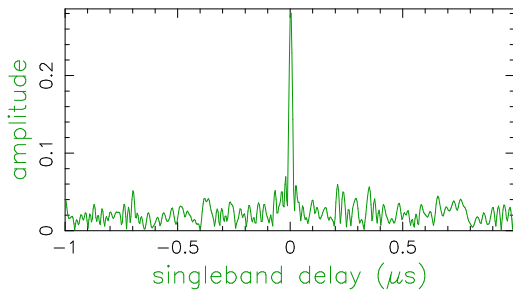
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/fk..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/fk.W.44.11M8OF simultaneous interpolator

multiband delay (μ s)

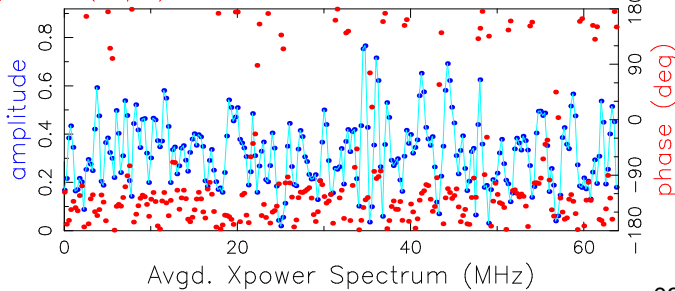
Fringe quality 9



SNR 17.0
Int time 473.756
Amp 0.286
Phase -133.9
PFD 0.0e+00
Delays (us)
SBD 0.002158
MBD 0.001707
Fringe rate (Hz) 0.002609
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

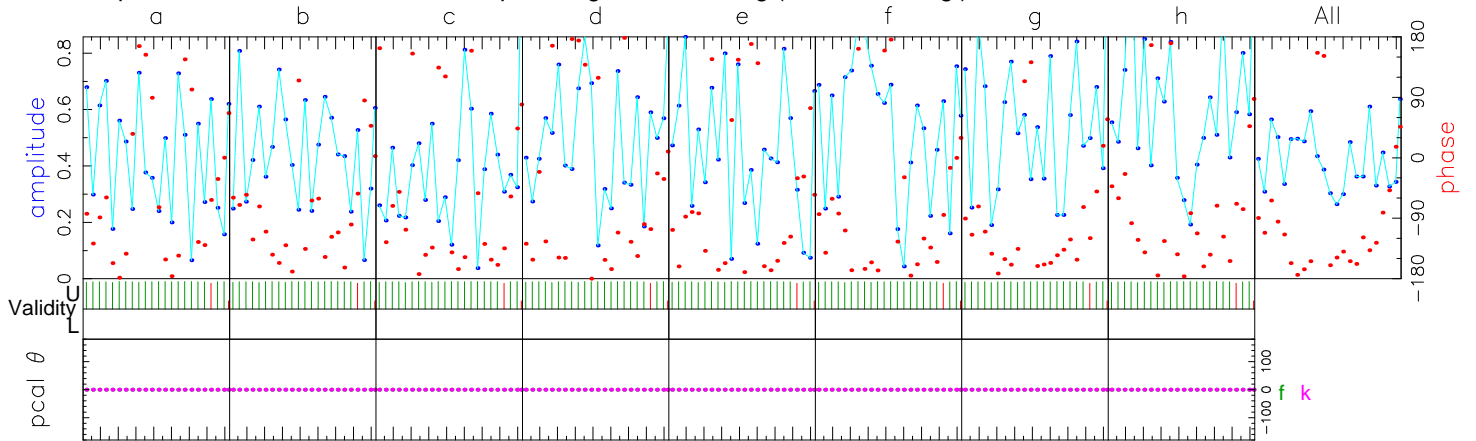


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.51
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133509
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
	-132.3	-111.2	-155.1	-145.9	-144.7	-142.6	-130.2	-117.0	Phase	-133.9
	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.4	Ampl.	0.3
	258.4	257.3	256.8	257.6	257.6	257.4	257.9	257.8	Sbd box	257.6
U/L	934/0	934/0	934/0	934/0	934/0	934/0	934/0	934/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.89895699888E+03	Apriori delay (usec)	-1.89895870614E+03	Resid mbdelay (usec)	1.70726E-03	+/-	6.4E-05
Sband delay (usec)	-1.89895654839E+03	Apriori clock (usec)	7.5363216E+00	Resid sbdelay (usec)	2.15775E-03	+/-	5.1E-04
Phase delay (usec)	-1.89895871046E+03	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-4.31860E-06	+/-	2.2E-07
Delay rate (us/s)	-6.08393881395E-02	Apriori rate (us/s)	-6.08394184297E-02	Resid rate (us/s)	3.02901E-08	+/-	7.9E-10
Total phase (deg)	-114.7	Apriori accel (us/s/s)	8.66182337111E-06	Resid phase (deg)	-133.9	+/-	6.7

ph/seg (deg)	55.2	RMS	16.1	Theor.	16.1	Amplitude	0.286 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	58.7	Search (2048X32)	0.270	Search	0.270	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	16.3	Inc. seg. avg.	0.403	Inc. seg. avg.	0.403	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	17.1	Inc. frq. avg.	0.285	Inc. frq. avg.	0.285	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
						Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

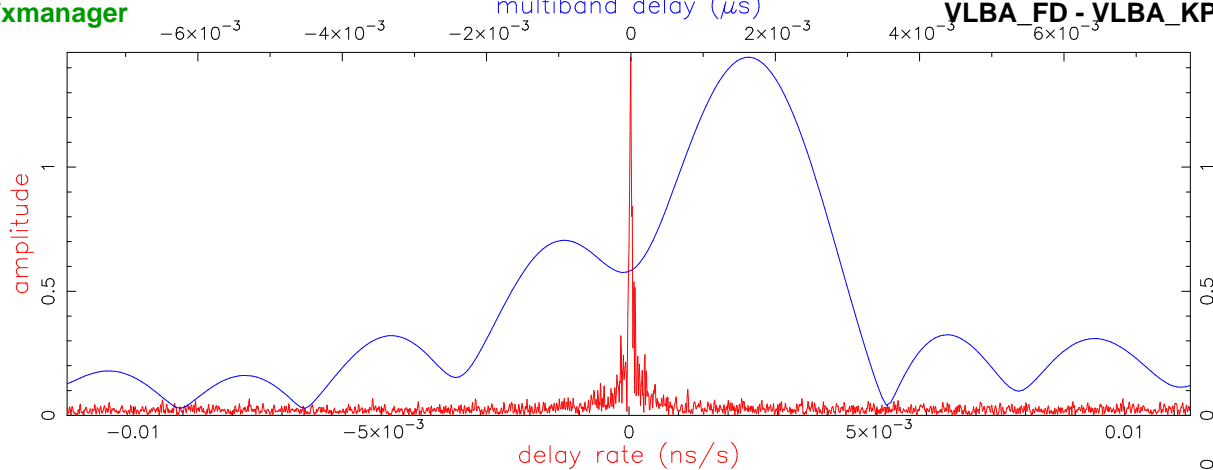
f: az 302.4 el 32.9 pa 75.8 k: az 300.0 el 39.2 pa 78.6 u,v (fr/asec) 484.607 467.130 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/fk..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/fk.W.62.11M8OF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

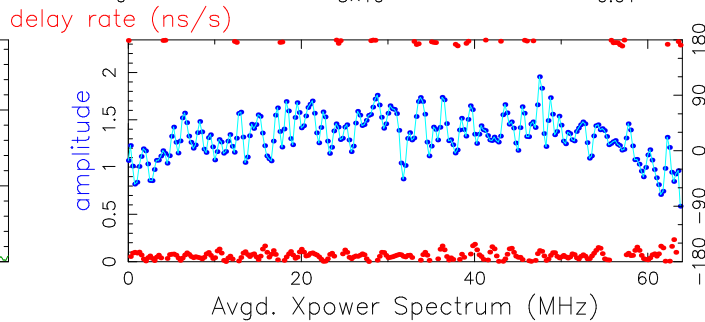
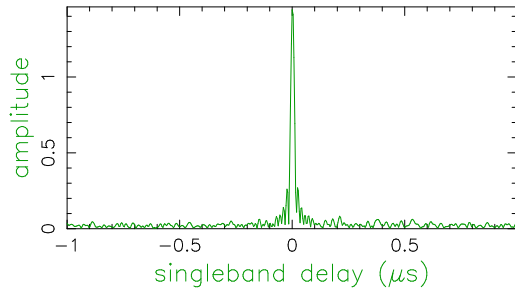
3C84.1IM8OF, No0119, fk

VLBA_FD - VLBA_KP, fgroup W, pol LL



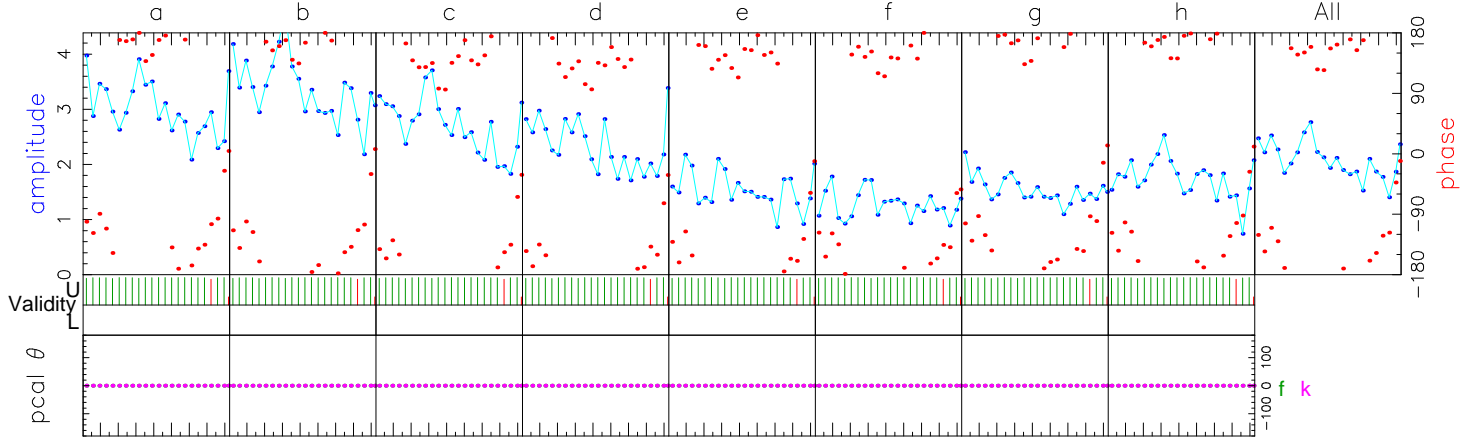
Fringe quality 3

SNR 87.0
 Int time 473.756
 Amp 1.462
 Phase -174.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.001471
 MBD 0.001650
 Fringe rate (Hz) 0.002697
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.51
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133458
 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



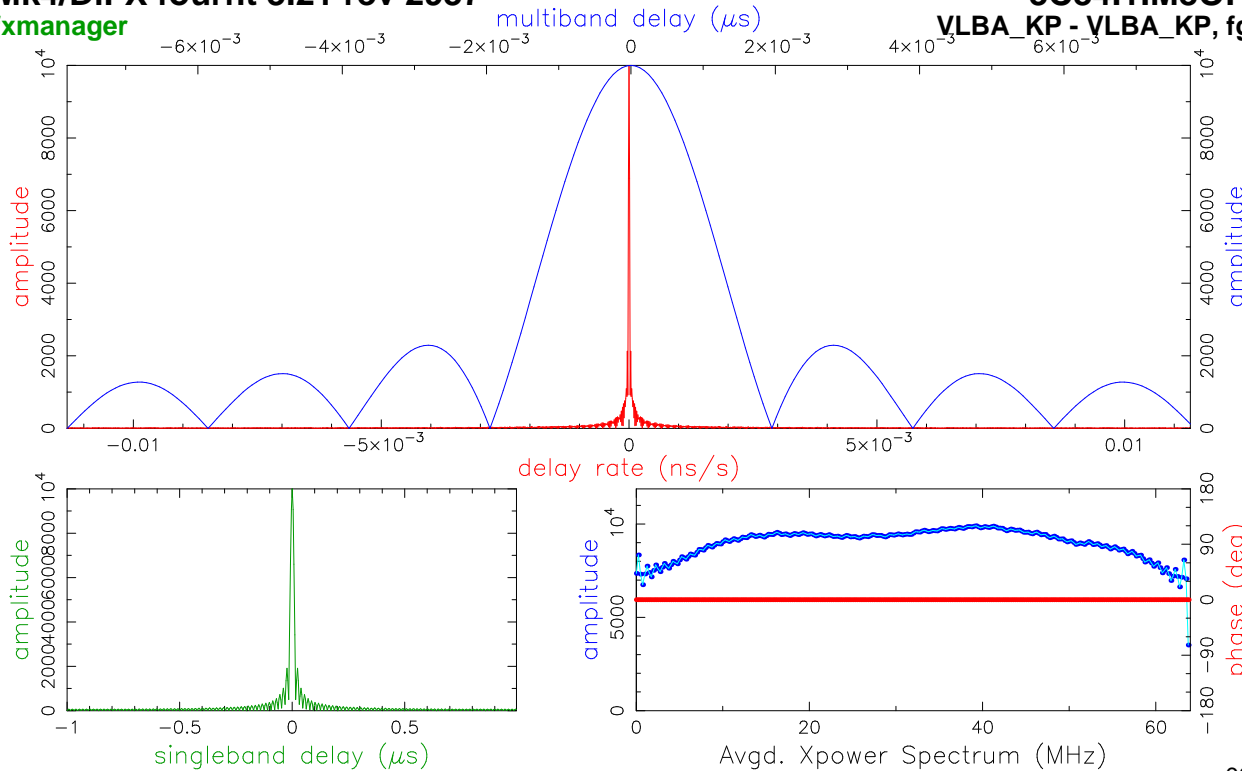
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-154.6	-164.7	162.6	163.1	174.1	-179.9	-154.6	-164.0	Phase	-174.1
	2.0	2.4	1.8	1.6	1.1	0.9	1.0	1.2	Ampl.	1.5
	257.4	256.9	257.3	257.4	257.7	257.6	257.6	257.5	Sbd box	257.4
U/L	934/0	934/0	934/0	934/0	934/0	934/0	934/0	934/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.89895705641E+03	Apriori delay (usec)	-1.89895870614E+03	Resid mbdelay (usec)	1.64973E-03	+/-	1.2E-05
Sband delay (usec)	-1.89895723489E+03	Apriori clock (usec)	7.5363216E+00	Resid sbdelay (usec)	1.47125E-03	+/-	9.9E-05
Phase delay (usec)	-1.89895871175E+03	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-5.61562E-06	+/-	4.2E-08
Delay rate (us/s)	-6.08393871185E-02	Apriori rate (us/s)	-6.08394184297E-02	Resid rate (us/s)	3.13112E-08	+/-	1.5E-10
Total phase (deg)	-154.9	Apriori accel (us/s/s)	8.66182337111E-06	Resid phase (deg)	-174.1	+/-	1.3

ph/seg (deg)	50.4	Theor.	3.2	Amplitude	1.462 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	47.1		5.5	Search (2048X32)	1.417	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	19.1		1.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	34.1		3.2	Inc. seg. avg.	2.067	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	1.508	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	
f: az 302.4 el 32.9 pa 75.8		k: az 300.0 el 39.2 pa 78.6		u, v (fr/asec)	484.607 467.130					

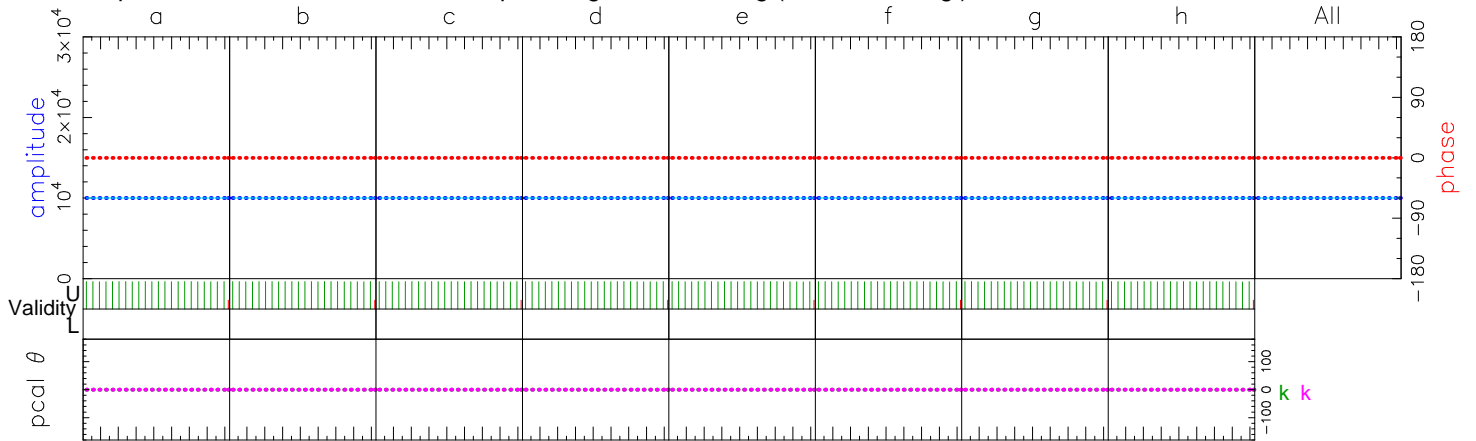
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/fk..1IM8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/fk.W.7.1IM8OF

simultaneous interpolator



Fringe quality 9
SNR 597548.4
Int time 477.475
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
Yr:day # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133521
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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0			
k	1000	1000	1000	1000	1000	1000	1000	1000			
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
k:k	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			
k	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		+/- 1.8E-09	
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		+/- 1.4E-08	
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		+/- 6.2E-12	
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		+/- 2.2E-14	
Total phase (deg)			0.0								+/- 0.0
	RMS	Theor.	Amplitude	10000.000 +/- 0.017	10000.000	10000.000	10000.000	10000.000			
ph/seg (deg)	0.0	0.0	Search (2048X32)	10000.000	10000.000	10000.000	10000.000	10000.000			
amp/seg (%)	0.0	0.0	Interp.	0.000	0.000	0.000	0.000	0.000			
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	10000.000	10000.000	10000.000	10000.000			
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.000	10000.000	10000.000	10000.000	10000.000			

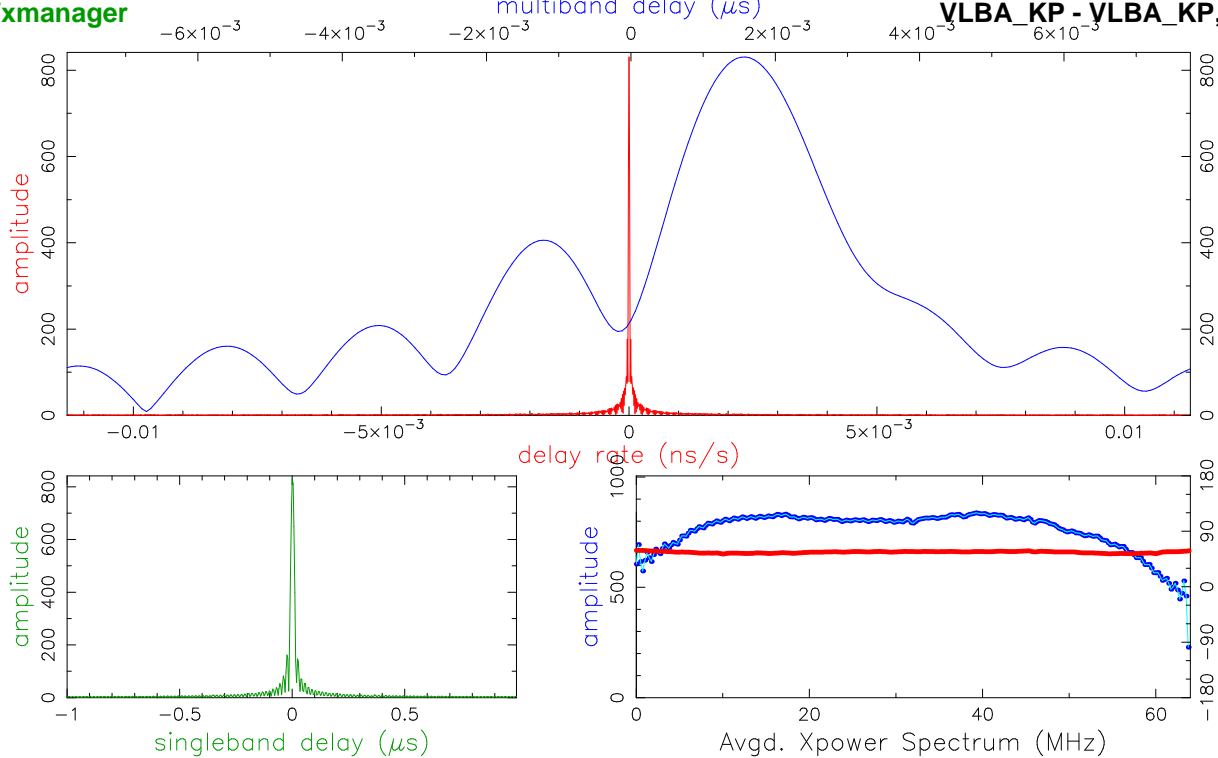
k: az 300.0 el 39.2 pa 78.6 k: az 300.0 el 39.2 pa 78.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kk..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kk.W.105.11M8OF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

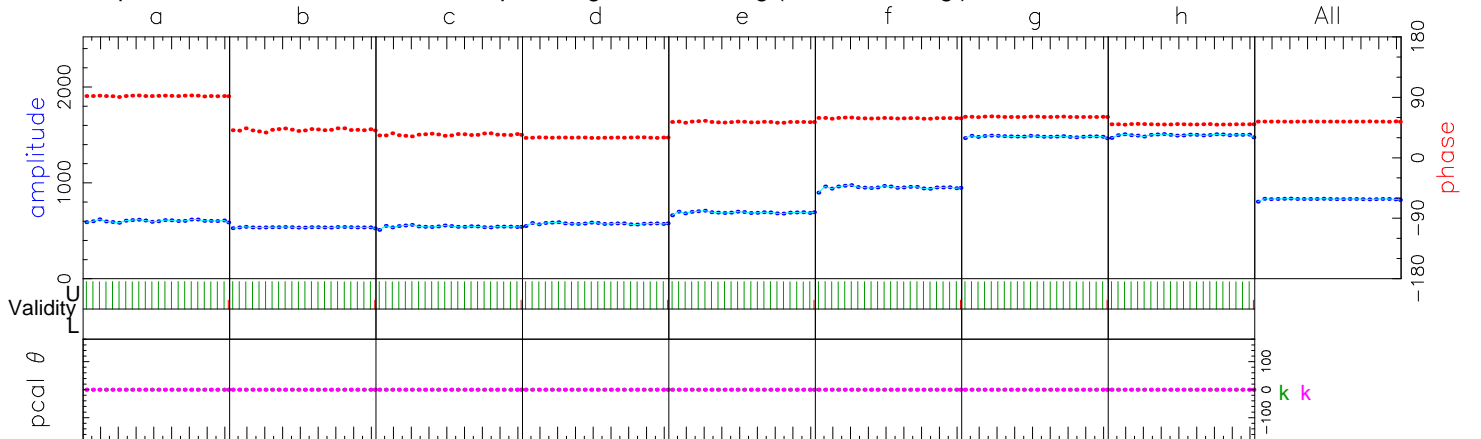
3C84.11M8OF, No0119, kk

VLBA_KP - VLBA_KP, fgroup W, pol LR



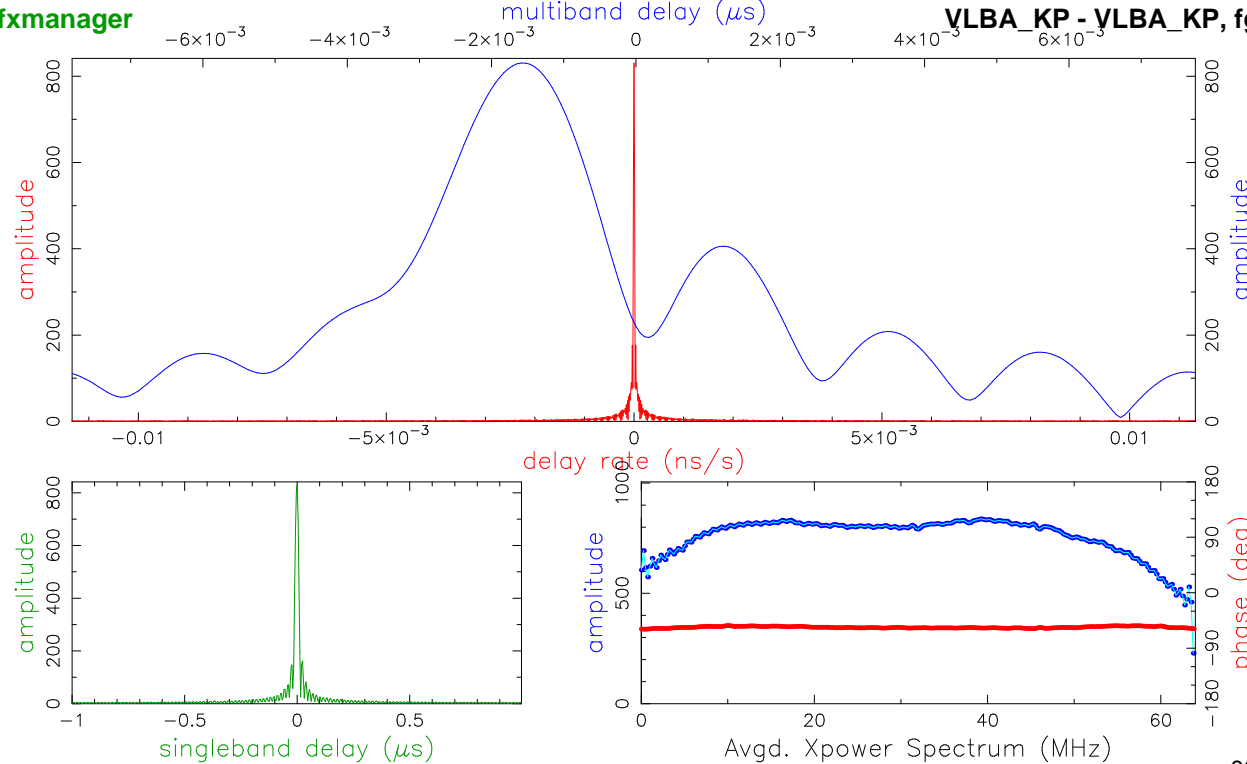
Fringe quality 6
 SNR 50275.6
 Int time 477.476
 Amp 841.364
 Phase 53.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.001451
 MBD 0.001598
 Fringe rate (Hz) 0.000002
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133525
 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



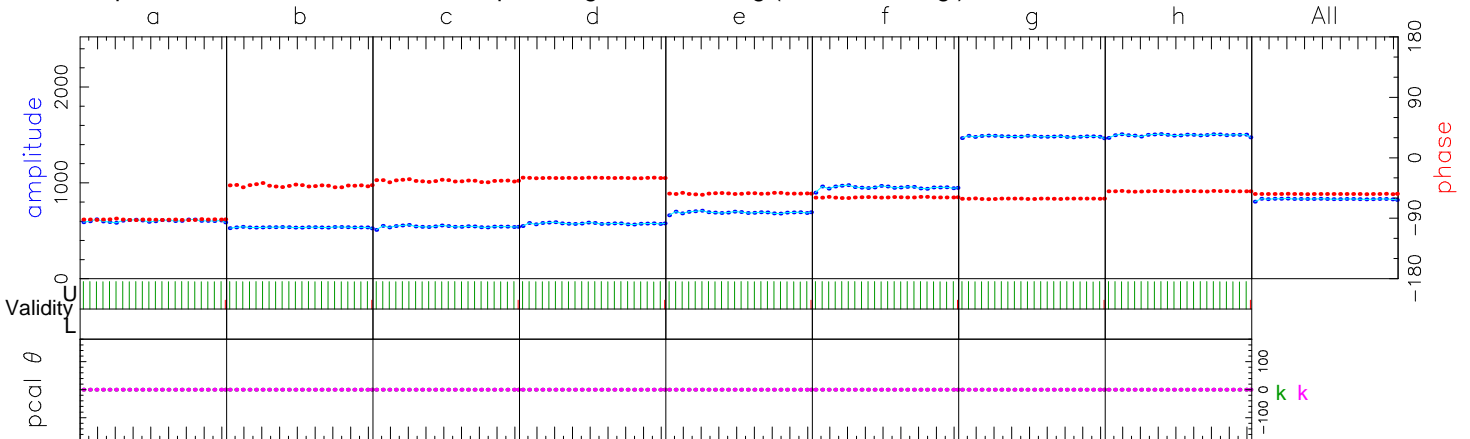
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	1.59818750000E-03								1.59819E-03	+/- 2.2E-08
Sband delay (usec)	1.45075000000E-03								1.45075E-03	+/- 1.7E-07
Phase delay (usec)	1.73627060634E-06								1.73627E-06	+/- 7.4E-11
Delay rate (us/s)	2.40909590659E-11								2.40910E-11	+/- 2.7E-13
Total phase (deg)			53.8						53.8	+/- 0.0
Apriori delay (usec)					0.00000000000E+00				1.59819E-03	+/- 2.2E-08
Apriori clock (usec)					0.0000000E+00				1.45075E-03	+/- 1.7E-07
Apriori clockrate (us/s)					0.0000000E+00				1.73627E-06	+/- 7.4E-11
Apriori rate (us/s)					0.00000000000E+00				2.40910E-11	+/- 2.7E-13
Apriori accel (us/s/s)					0.00000000000E+00				53.8	+/- 0.0
RMS	0.1	0.0								
Theor.										
Amplitude				841.364 +/- 0.017						
Search (2048X32)				827.326						
Interp.				0.000						
Inc. seg. avg.				830.605						
Inc. frq. avg.				860.644						
PCal mode:	MANUAL	MANUAL								
PCal rate:	0.000E+00	0.000E+00								
Bits/sample:	2x2									
Sample rate (MSamp/s):	128									
Data rate (Mb/s):	2048									
PC period (AP's)	5	5								
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 300.0 el 39.2 pa 78.6 k: az 300.0 el 39.2 pa 78.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kk..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kk.W.123.11M8OF



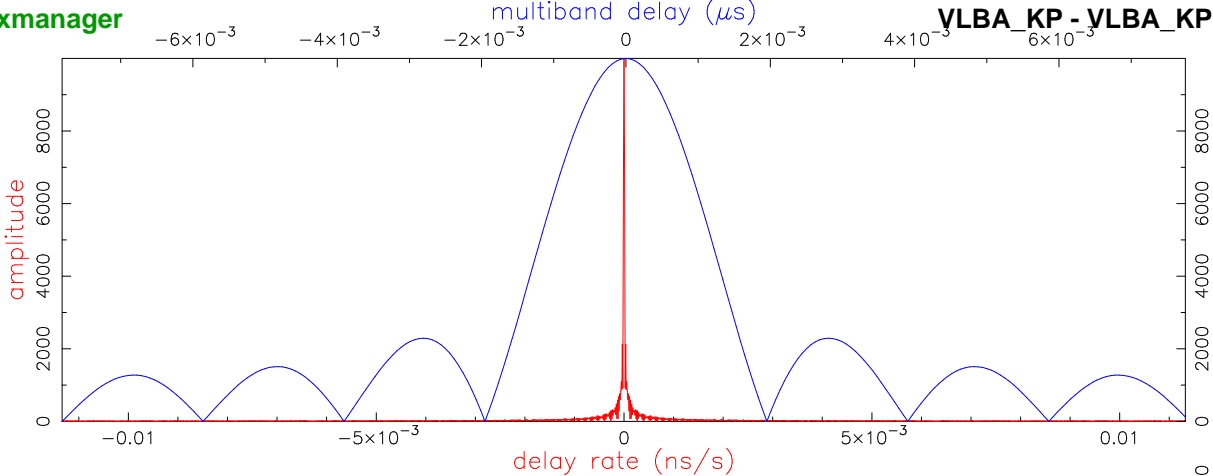
Fringe quality 6
SNR 50275.7
Int time 477.475
Amp 841.366
Phase -53.8
PFD 0.0e+00
Delays (us)
SBD -0.001451
MBD -0.001598
Fringe rate (Hz)
-0.000002
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Yr:day 16383
Start 2020:284
Stop 2020:284
FRT 134501.00
134901.00
Corr/FF/build
2021:023:101405
2021:023:133529
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

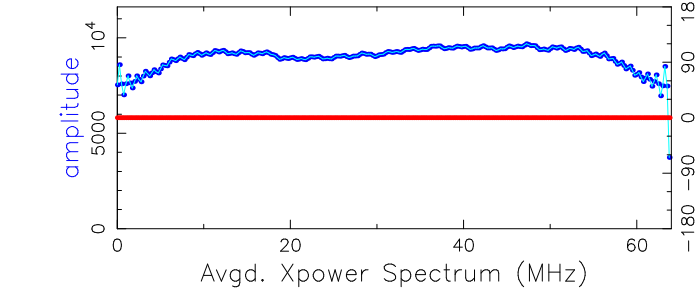
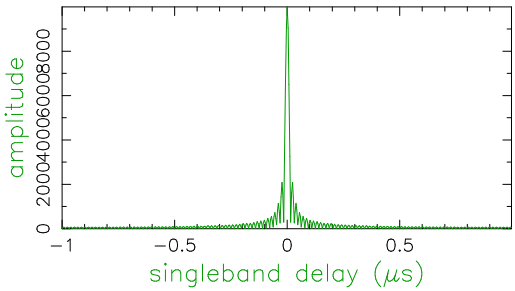


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-92.0	-41.6	-34.3	-30.0	-53.2	-58.9	-60.9	-49.8	Phase	-53.8
	604.4	536.0	543.9	575.5	690.8	952.3	1483.9	1498.3	Ampl.	860.6
	256.7	257.1	256.6	256.6	256.2	256.8	256.5	256.8	Sbd box	256.6
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.59818750000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-1.59819E-03	+/- 2.2E-08
Sband delay (usec)	-1.45075000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.45075E-03	+/- 1.7E-07
Phase delay (usec)	-1.73627060632E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-1.73627E-06	+/- 7.4E-11
Delay rate (us/s)	-2.40909590659E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-2.40910E-11	+/- 2.7E-13
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-53.8	+/- 0.0

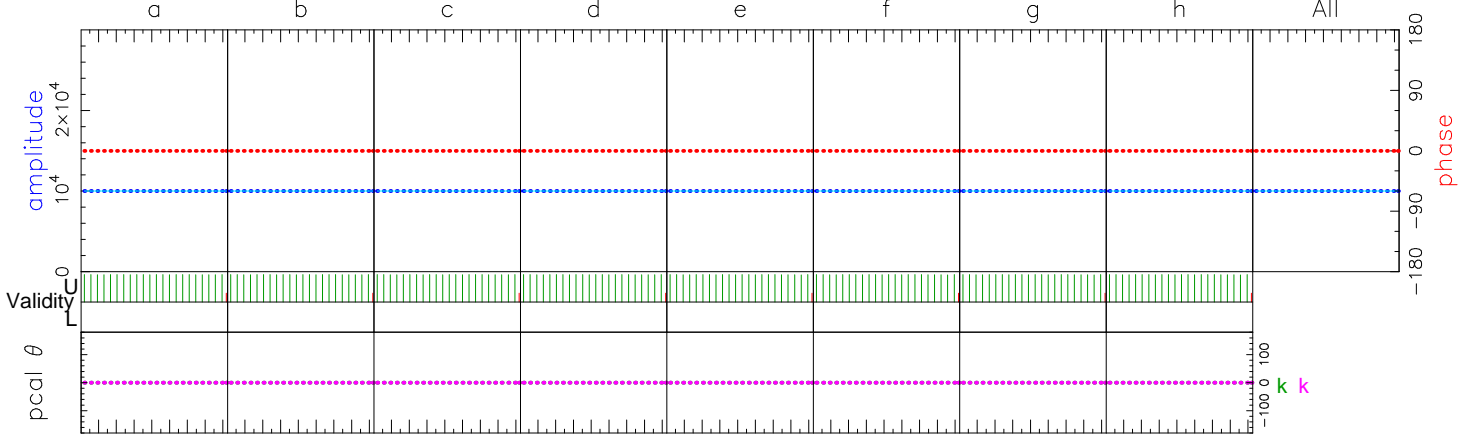
ph/seg (deg) 0.1 0.0 Search (2048X32) 827.328 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 1.5 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 21.0 0.0 Inc. seg. avg. 830.606 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 45.8 0.0 Inc. frq. avg. 860.646 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 300.0 el 39.2 pa 78.6 k: az 300.0 el 39.2 pa 78.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kk..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kk.W.143.11M8OF



Fringe quality 9
SNR 597548.4
Int time 477.476
Amp 9999.990
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
Yr:day 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133517
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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:k	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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	1.8E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.4E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	6.2E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.2E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

	RMS	Theor.	Amplitude	9999.990 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	0.0	0.0	Search (2048X32)	9999.990	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.	9999.990	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 300.0 el 39.2 pa 78.6 k: az 300.0 el 39.2 pa 78.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kk..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kk.W.88.11M8OF

Mk4/DiFX fourfit 3.21 rev 2937

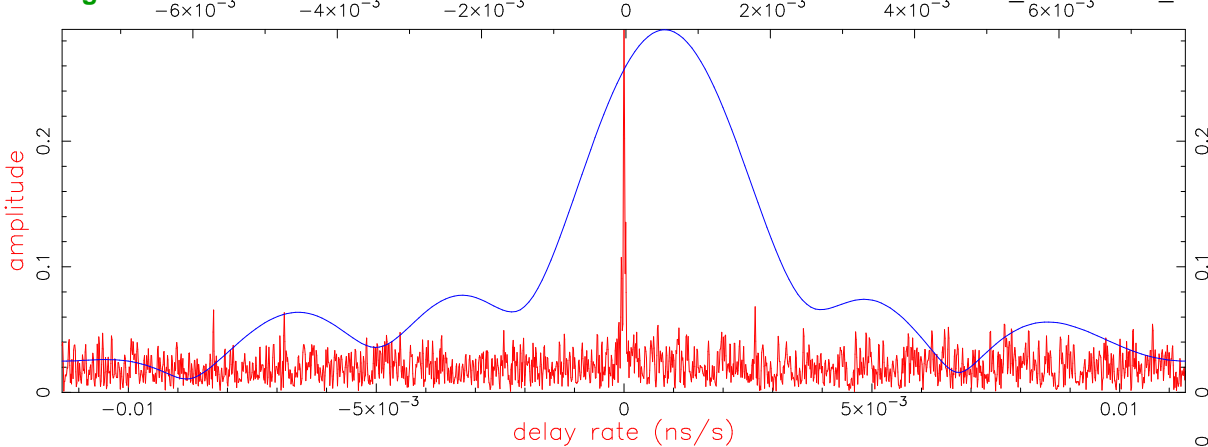
fxmanager

3C84.1M8OF, No0119, kl

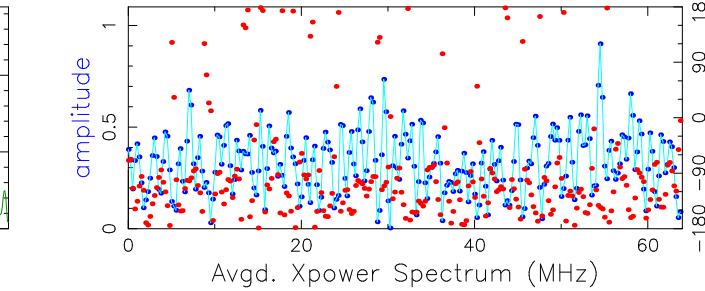
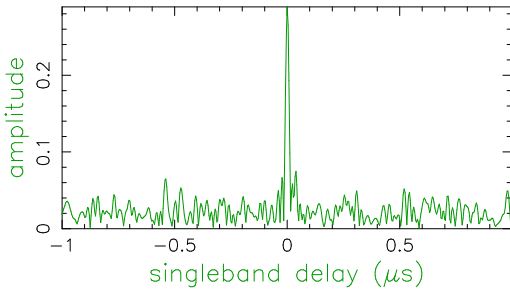
VLBA_KP - VLBA_LA, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 8

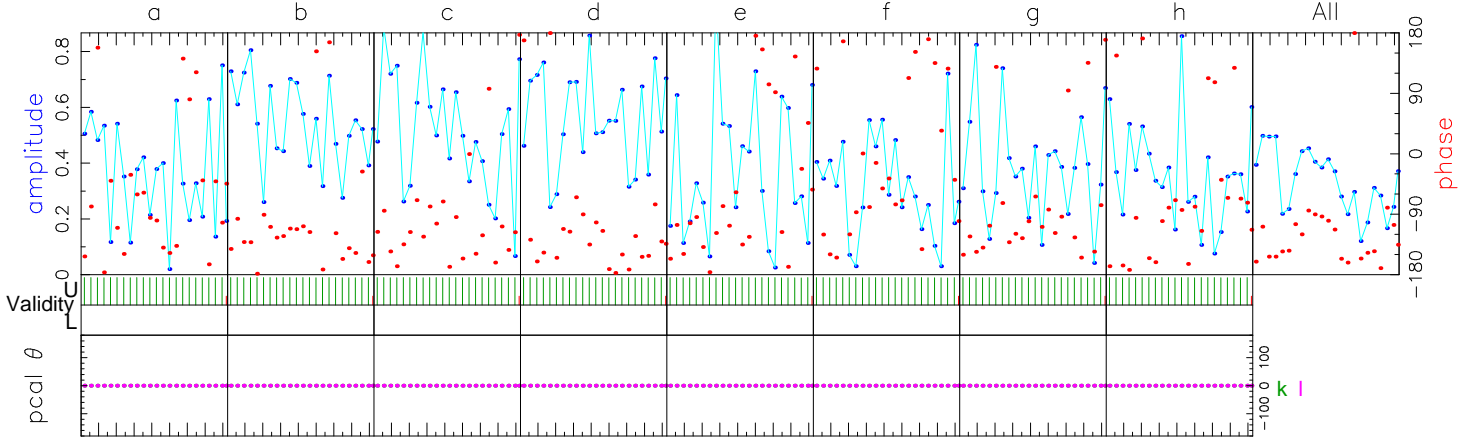


SNR 17.3
 Int time 477.476
 Amp 0.289
 Phase -128.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000358
 MBD 0.000539
 Fringe rate (Hz) -0.000411
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133523
 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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	5.90757155545E+02	Apriori delay (usec)	5.90756616045E+02	Resid mbdelay (usec)	5.39500E-04	+/-	6.3E-05
Sband delay (usec)	5.90756974545E+02	Apriori clock (usec)	7.4154854E-01	Resid sbdelay (usec)	3.58500E-04	+/-	5.0E-04
Phase delay (usec)	5.90756611917E+02	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-4.12756E-06	+/-	2.1E-07
Delay rate (us/s)	-5.33960906598E-03	Apriori rate (us/s)	-5.33960429101E-03	Resid rate (us/s)	-4.77497E-09	+/-	7.7E-10
Total phase (deg)	198.2	Apriori accel (us/s/s)	-7.27900100599E-06	Resid phase (deg)	-128.0	+/-	6.6

ph/seg (deg)	30.0	Theor.	15.9	Amplitude	0.289 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	40.9		27.8	Search (2048X32)	0.271	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	5.8		9.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	42.8		16.4	Inc. seg. avg.	0.319	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.286	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 300.0 el 39.2 pa 78.6 l: az 298.7 el 37.2 pa 72.5 u,v (fr/asec) 25.986 -874.214 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kl..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kl.W.115.1M8OF

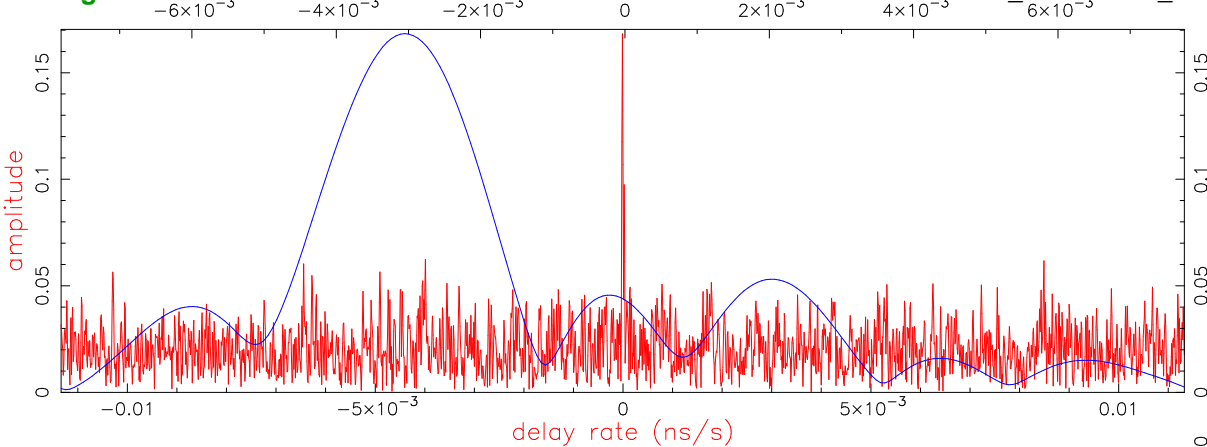
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, kl

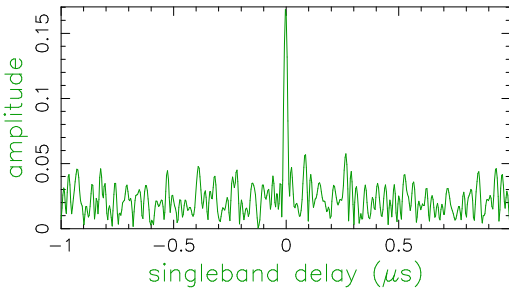
VLBA_KP - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

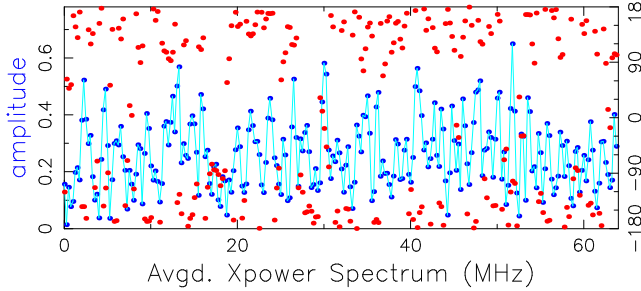


Fringe quality 9

SNR 10.2
 Int time 477.475
 Amp 0.170
 Phase 179.1
 PFD 1.1e-15
 Delays (us)
 SBD -0.002481
 MBD -0.003018
 Fringe rate (Hz)
 -0.000584
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

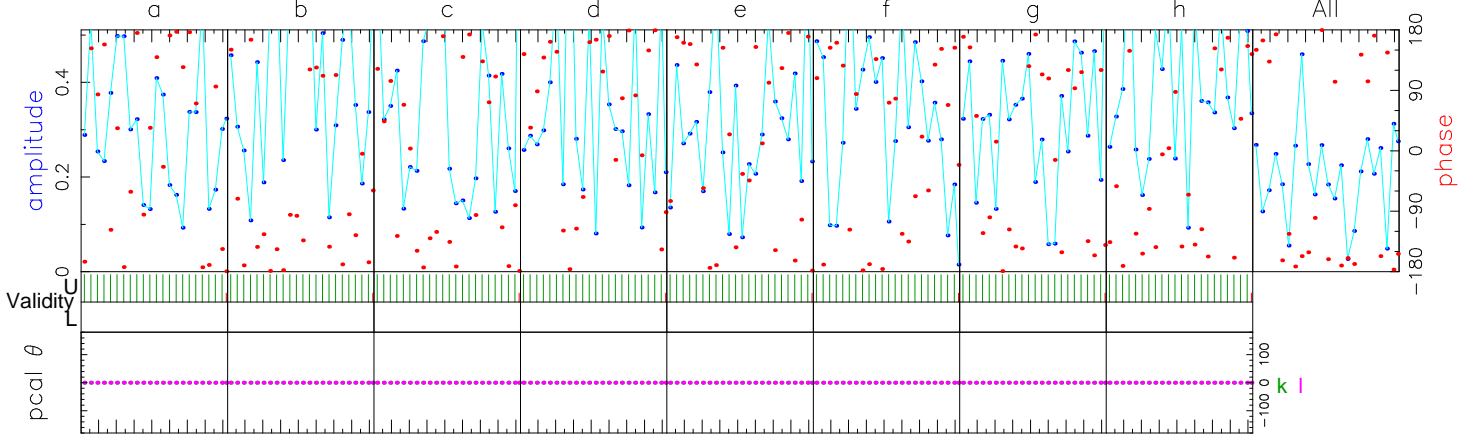


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133526
 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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	5.90753598297E+02	Apriori delay (usec)		5.90756616045E+02	Resid mbdelay (usec)		-3.01775E-03	+/-	1.1E-04
Sband delay (usec)	5.90754134545E+02	Apriori clock (usec)		7.4154854E-01	Resid sbdelay (usec)		-2.48150E-03	+/-	8.5E-04
Phase delay (usec)	5.90756621819E+02	Apriori clockrate (us/s)		1.9999998E-07	Resid phdelay (usec)		5.77410E-06	+/-	3.6E-07
Delay rate (us/s)	-5.33961106978E-03	Apriori rate (us/s)		-5.33960429101E-03	Resid rate (us/s)		-6.77877E-09	+/-	1.3E-09
Total phase (deg)	145.3	Apriori accel (us/s/s)		-7.27900100599E-06	Resid phase (deg)		179.1	+/-	11.3

ph/seg (deg)	37.2	Theor.	27.0	Amplitude	0.170 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	59.4	Search (2048X32)	0.159	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	16.4	Inc. seg. avg.	0.182	Inc. frq. avg.	0.168	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	17.5	Inc. frq. avg.	0.168			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

k: az 300.0 el 39.2 pa 78.6 l: az 298.7 el 37.2 pa 72.5 u, v (fr/asec) 25.986 -874.214 simultaneous interpolator

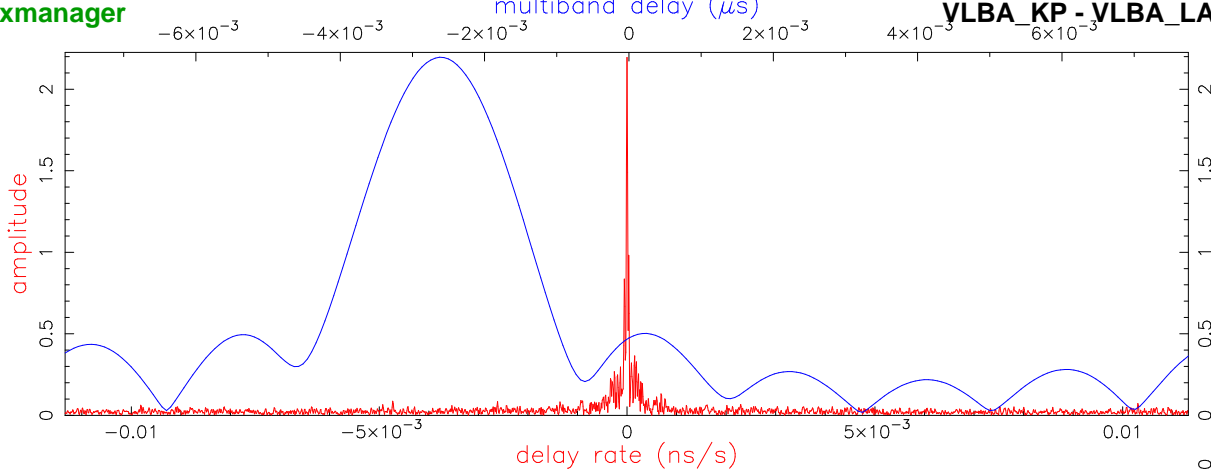
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kl..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kl.W.132.1M8OF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

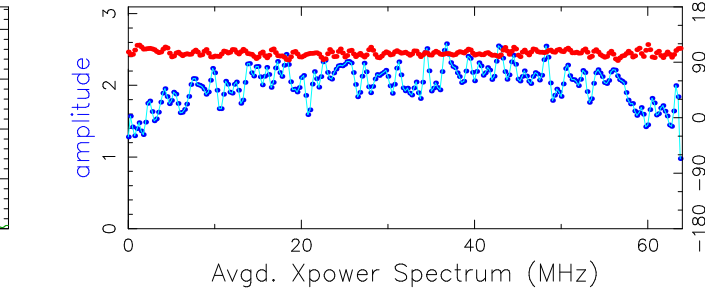
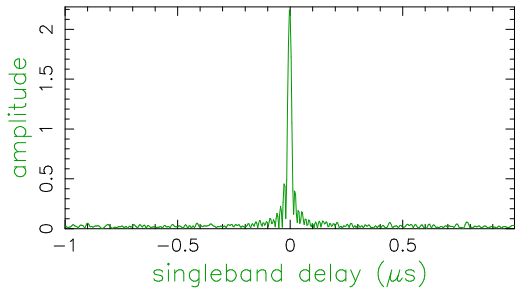
3C84.1M8OF, No0119, kl

VLBA_KP - VLBA_LA, fgroup W, pol LL



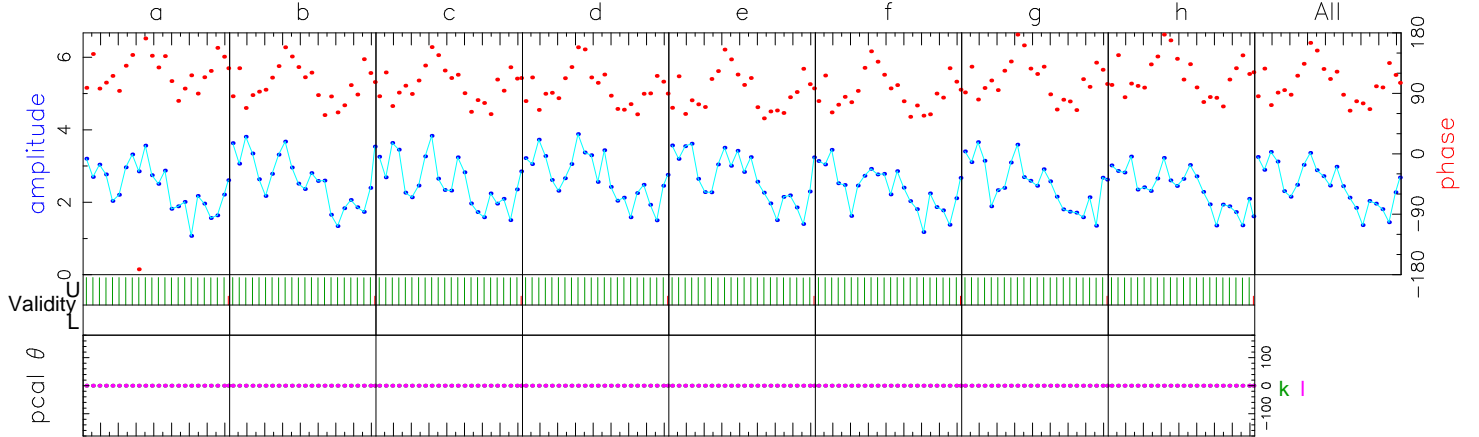
Fringe quality 5

SNR 133.0
 Int time 477.476
 Amp 2.226
 Phase 106.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.002403
 MBD -0.002575
 Fringe rate (Hz)
 -0.000438
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133516
 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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	5.90754040982E+02	Apriori delay (usec)		5.90756616045E+02	Resid mbdelay (usec)		-2.57506E-03	+/-	8.2E-06	
Sband delay (usec)	5.90754213295E+02	Apriori clock (usec)		7.4154854E-01	Resid sbdelay (usec)		-2.40275E-03	+/-	6.5E-05	
Phase delay (usec)	5.90756619488E+02	Apriori clockrate (us/s)		1.9999998E-07	Resid phdelay (usec)		3.44310E-06	+/-	2.8E-08	
Delay rate (us/s)	-5.33960937491E-03	Apriori rate (us/s)		-5.33960429101E-03	Resid rate (us/s)		-5.08390E-09	+/-	1.0E-10	
Total phase (deg)		73.0	Apriori accel (us/s/s)		-7.27900100599E-06	Resid phase (deg)		106.8	+/-	0.9

ph/seg (deg)	27.1	2.1	Amplitude		2.226 +/- 0.017	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	28.3	3.6	Search (2048X32)		2.010	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	12.3	1.2	Interp.		0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	4.8	2.1	Inc. seg. avg.		2.473	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011		
			Inc. frq. avg.		2.231	Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 300.0 el 39.2 pa 78.6 l: az 298.7 el 37.2 pa 72.5 u,v (fr/asec) 25.986 -874.214 simultaneous interpolator

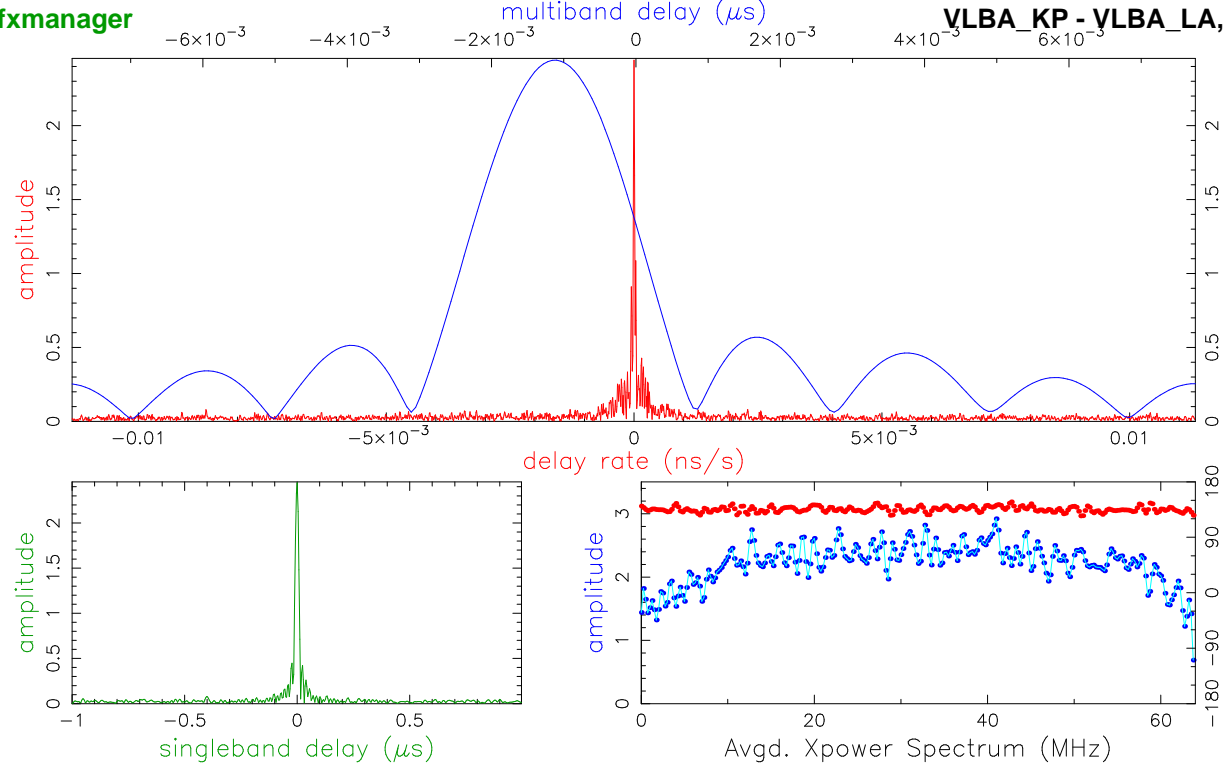
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kl..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kl.W.80.1M8OF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, kl

VLBA_KP - VLBA_LA, fgroup W, pol RR

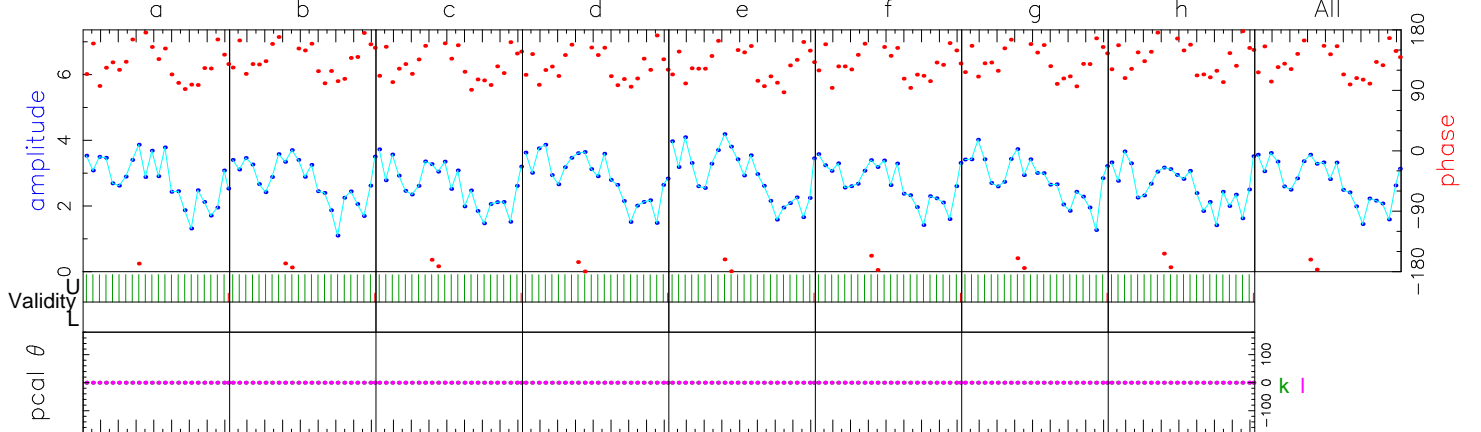


Fringe quality 6

SNR 146.7
 Int time 477.475
 Amp 2.455
 Phase 138.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.000906
 MBD -0.001142
 Fringe rate (Hz) -0.000448
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133519
 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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	135.2	144.8	135.2	133.9	136.0	137.2	140.0	143.5		
Sband delay (usec)	2.5	2.5	2.3	2.5	2.6	2.4	2.5	2.3		
Phase delay (usec)	256.9	256.7	256.5	257.1	256.4	257.1	256.7	257.0		
Delay rate (us/s)										
Total phase (deg)			104.4							
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										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
Channels										
Tracks										
Channels										
Tracks										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

k: az 300.0 el 39.2 pa 78.6 l: az 298.7 el 37.2 pa 72.5 u,v (fr/asec) 25.986 -874.214

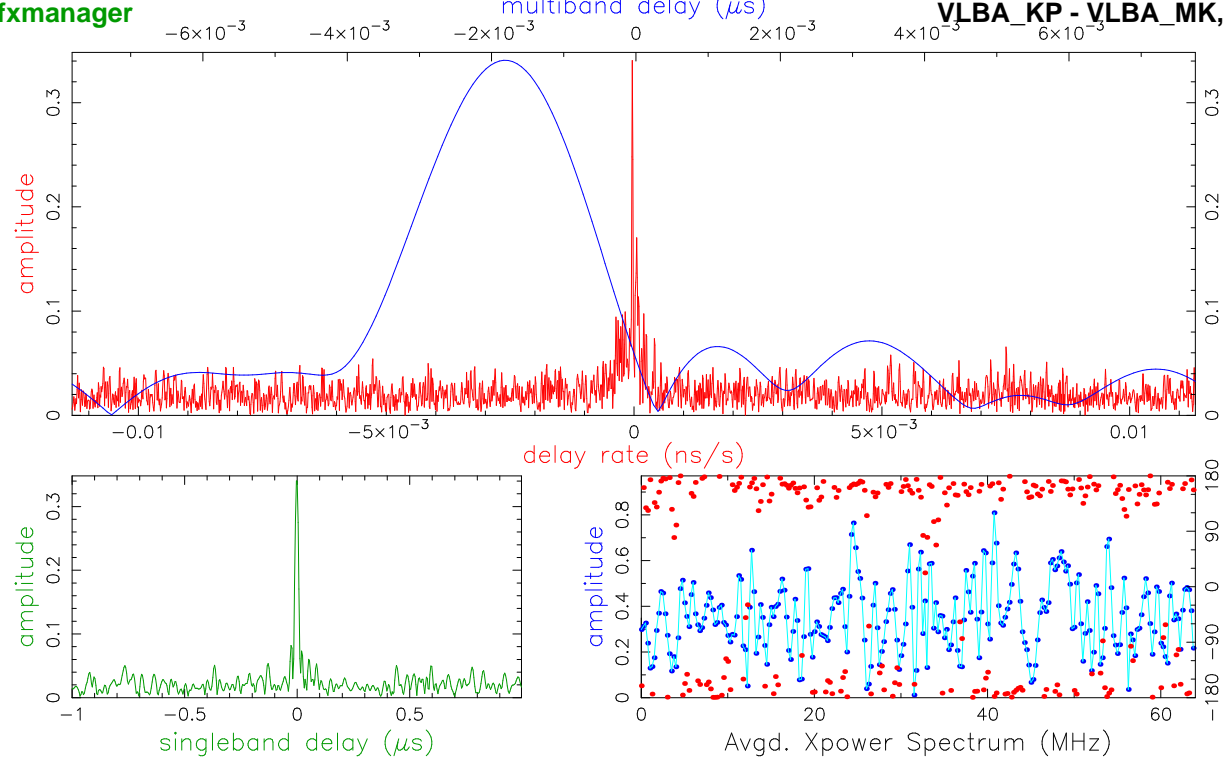
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kl..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kl.W.97.1M8OF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM8OF, No0119, km

VLBA_KP - VLBA_MK, fgroup W, pol RR

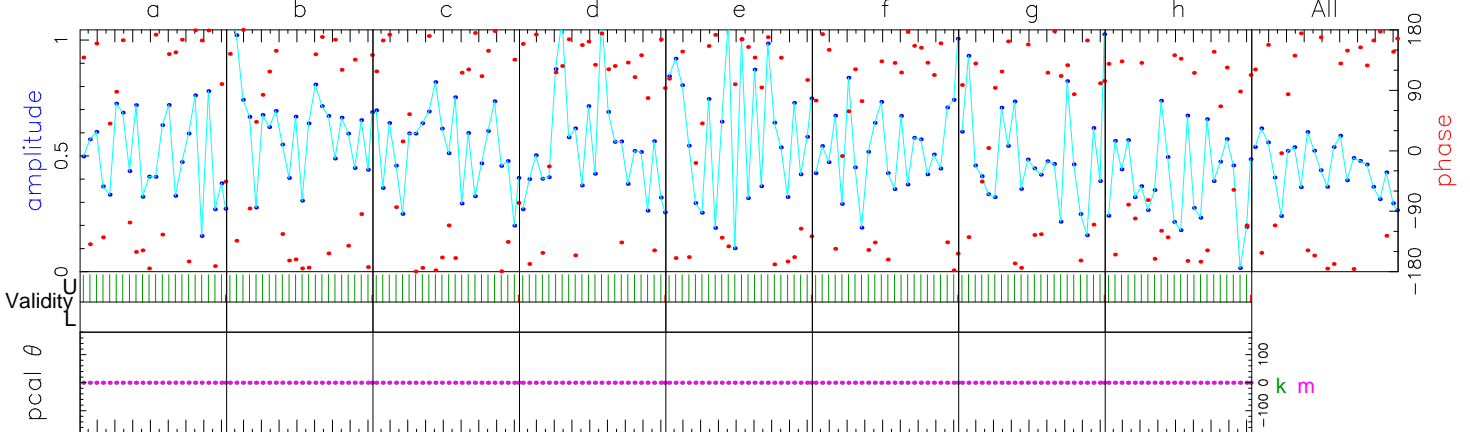


Fringe quality 9

SNR 20.8
 Int time 475.464
 Amp 0.348
 Phase 169.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.002023
 MBD -0.001773
 Fringe rate (Hz)
 -0.003044
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134502.54
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133521
 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	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:m	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		
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-5.59617484574E+03	Apriori delay (usec)	-5.59617307258E+03	Resid mbdelay (usec)	-1.77316E-03	+/-	5.2E-05
Sband delay (usec)	-5.59617509558E+03	Apriori clock (usec)	-1.3030000E+01	Resid sbdelay (usec)	-2.02300E-03	+/-	4.1E-04
Phase delay (usec)	-5.59617306713E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	5.45374E-06	+/-	1.8E-07
Delay rate (us/s)	-4.99307672884E-01	Apriori rate (us/s)	-4.99307637552E-01	Resid rate (us/s)	-3.53322E-08	+/-	6.4E-10
Total phase (deg)		Apriori accel (us/s/s)	4.39218167403E-05	Resid phase (deg)	169.1	+/-	5.5

ph/seg (deg)	52.4	Theor.	13.2	Amplitude	0.348 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	43.0	Search (2048X32)	0.334	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	14.6	Inc. seg. avg.	0.444	Inc. frq. avg.	0.344	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	22.2	Inc. frq. avg.	0.344			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

k: az 300.0 el 39.2 pa 78.6 m: az 326.6 el 62.5 pa 135.3 u,v (fr/asec) 3913.829 4272.366 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/km..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/km.W.104.11M8OF

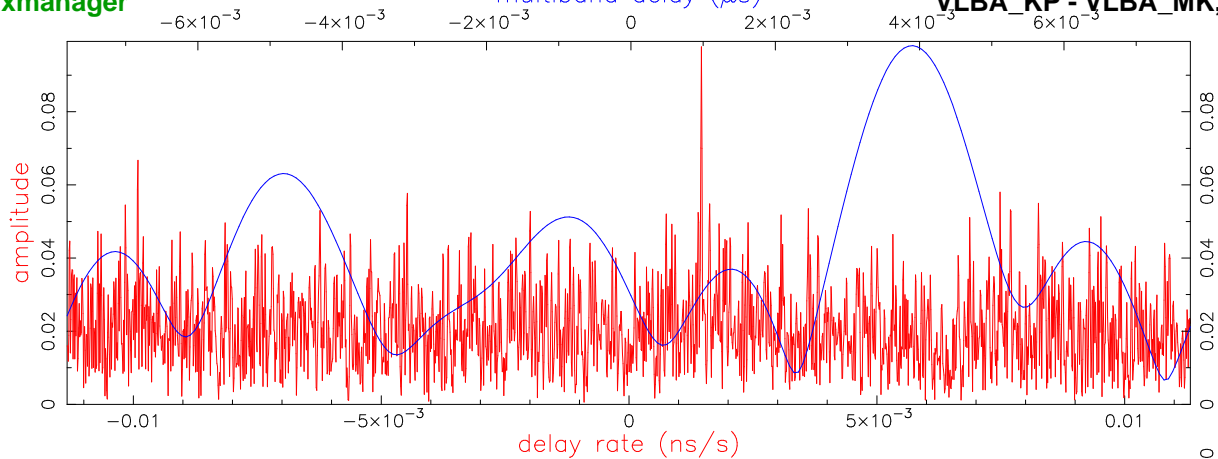
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM8OF, No0119, km

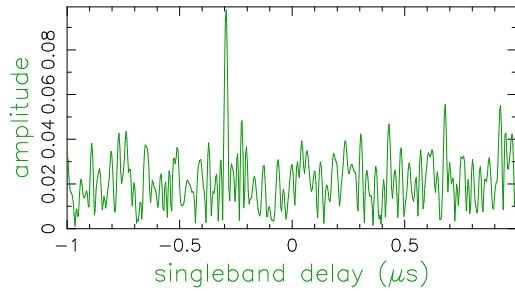
VLBA_KP - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

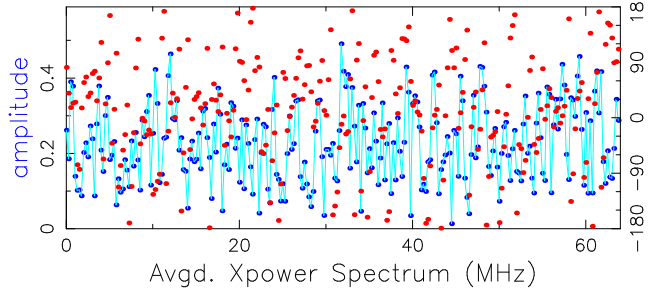


Fringe quality 0

SNR 5.9
Int time 475.464
Amp 0.099
Phase -168.3
PFD 6.5e-01
Delays (us)
SBD -0.294044
MBD 0.003824
Fringe rate (Hz)
0.125709
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

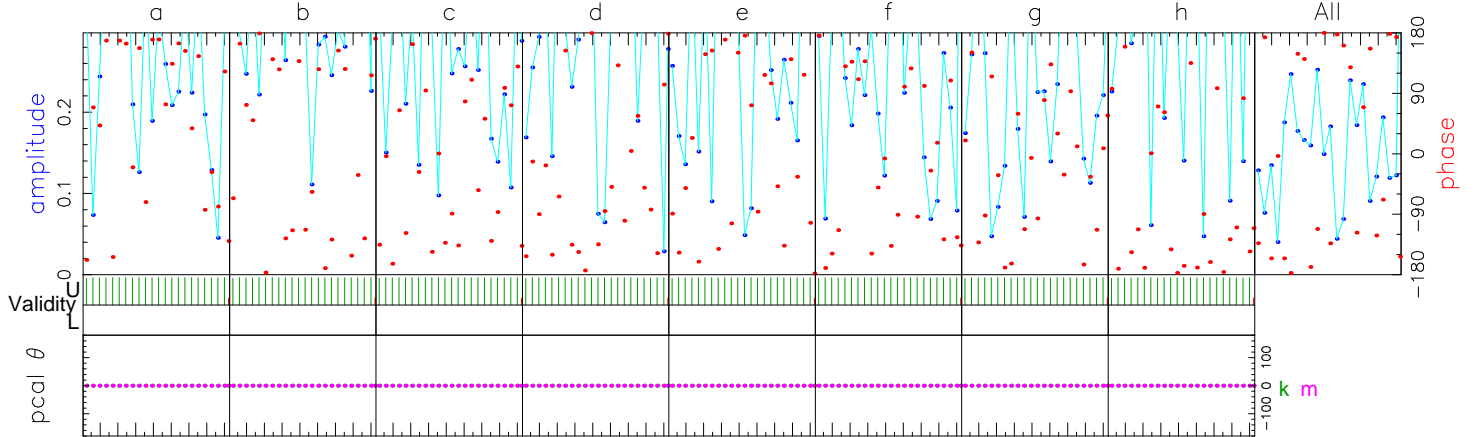


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134502.54
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133525
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	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:m	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		
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-5.59646612387E+03	Apriori delay (usec)	-5.59617307258E+03	Resid mbdelay (usec)	3.82371E-03	+/-	1.8E-04
Sband delay (usec)	-5.59646711683E+03	Apriori clock (usec)	-1.3030000E+01	Resid sbdelay (usec)	-2.94044E-01	+/-	1.5E-03
Phase delay (usec)	-5.59617307801E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.42829E-06	+/-	6.3E-07
Delay rate (us/s)	-4.99306178200E-01	Apriori rate (us/s)	-4.99307637552E-01	Resid rate (us/s)	1.45935E-06	+/-	2.3E-09
Total phase (deg)	-338.3	Apriori accel (us/s/s)	4.39218167403E-05	Resid phase (deg)	-168.3	+/-	19.5

ph/seg (deg)	58.0	Theor.	46.8	Amplitude	0.099 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	87.5		81.6	Search (2048X32)	0.095	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	75.0		27.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	56.3		48.1	Inc. seg. avg.	0.116	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.104	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 300.0 el 39.2 pa 78.6 m: az 326.6 el 62.5 pa 135.3 u,v (fr/asec) 3913.829 4272.366 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/km..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/km.W.122.11M8OF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

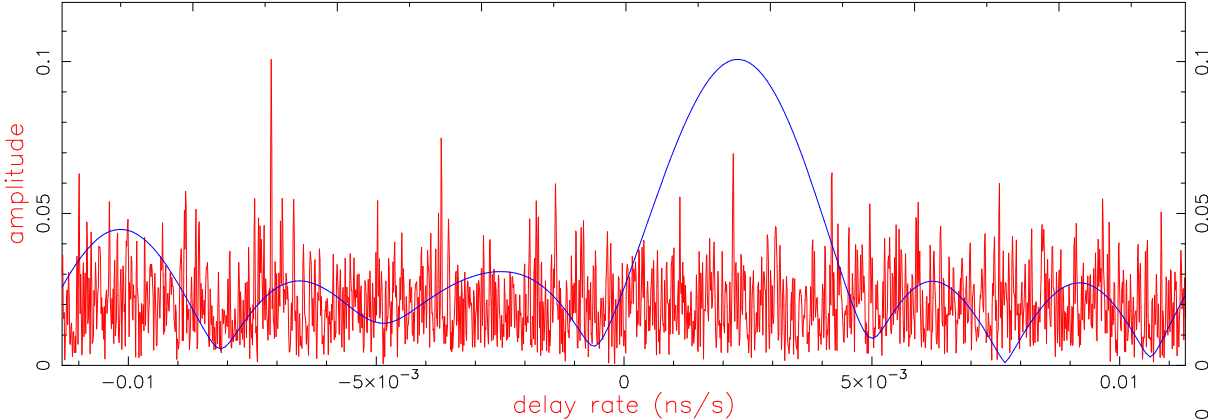
3C84.1IM8OF, No0119, km

VLBA_KP - VLBA_MK, fgroup W, pol RL

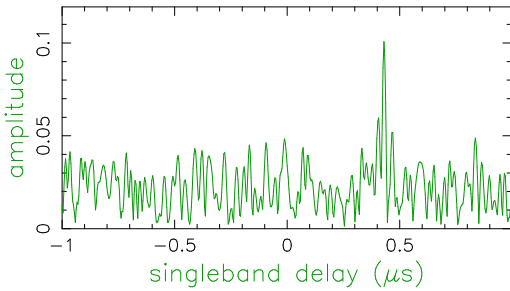
multiband delay (μ s)

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

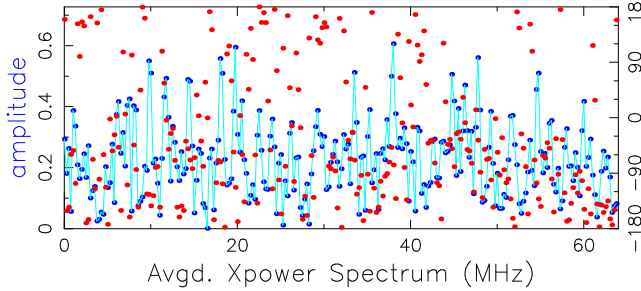
Fringe quality 0



SNR 6.0
Int time 475.463
Amp 0.119
Phase 156.0
PFD 3.6e-01
Delays (us)
SBD 0.430310
MBD 0.001575
Fringe rate (Hz)
-0.614087
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

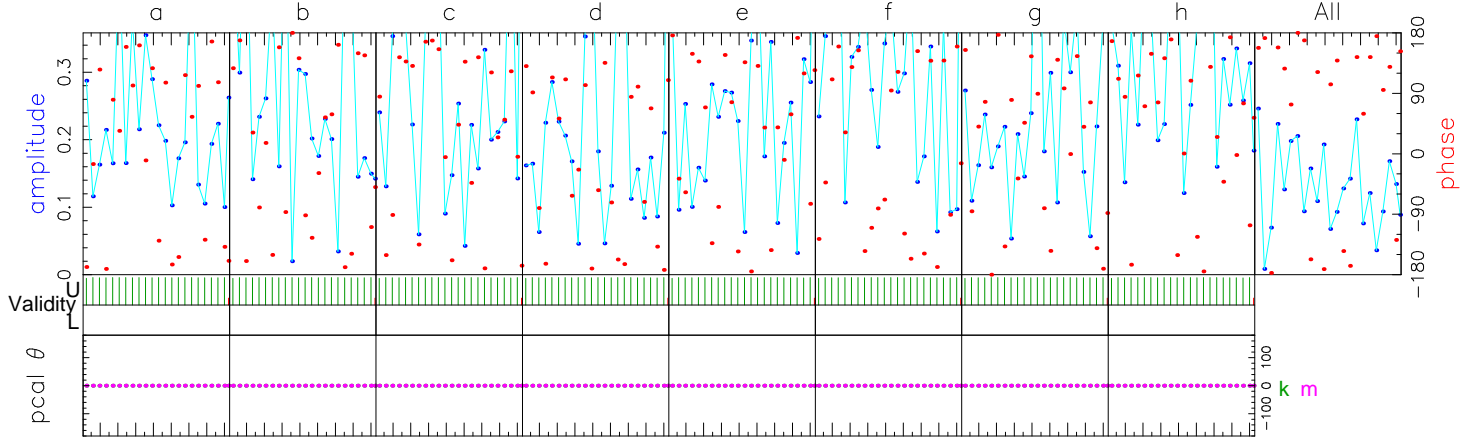


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134502.54
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133529
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	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:m	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		
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-5.59574962260E+03	Apriori delay (usec)	-5.59617307258E+03	Resid mbdelay (usec)	1.57499E-03	+/-	1.8E-04
Sband delay (usec)	-5.59574276258E+03	Apriori clock (usec)	-1.3030000E+01	Resid sbdelay (usec)	4.30310E-01	+/-	1.4E-03
Phase delay (usec)	-5.59617306755E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	5.02934E-06	+/-	6.1E-07
Delay rate (us/s)	-4.99314766491E-01	Apriori rate (us/s)	-4.99307637552E-01	Resid rate (us/s)	-7.12894E-06	+/-	2.2E-09
Total phase (deg)	-14.0	Apriori accel (us/s/s)	4.39218167403E-05	Resid phase (deg)	156.0	+/-	19.0

ph/seg (deg)	43.5	Theor.	45.6	Amplitude	0.119 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	69.4		79.6	Search (2048X32)	0.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	27.1		26.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	28.3		47.0	Inc. seg. avg.	0.119	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.117	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 300.0 el 39.2 pa 78.6 m: az 326.6 el 62.5 pa 135.3 u,v (fr/asec) 3913.829 4272.366 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/km..1IM8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/km.W.145.1IM8OF

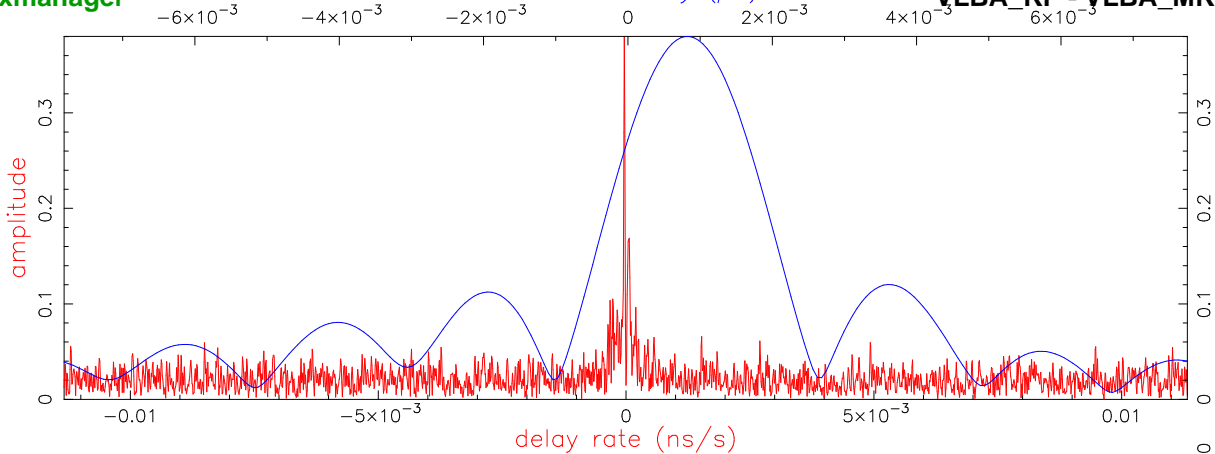
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM8OF, No0119, km

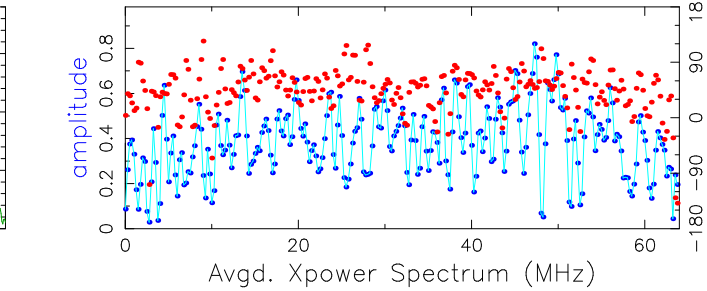
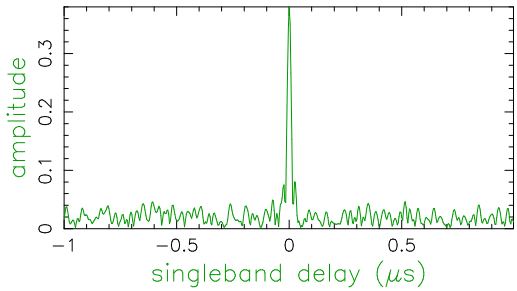
VLBA_KP - VLBA_MK, fgroup W, pol LL

multiband delay (μ s)



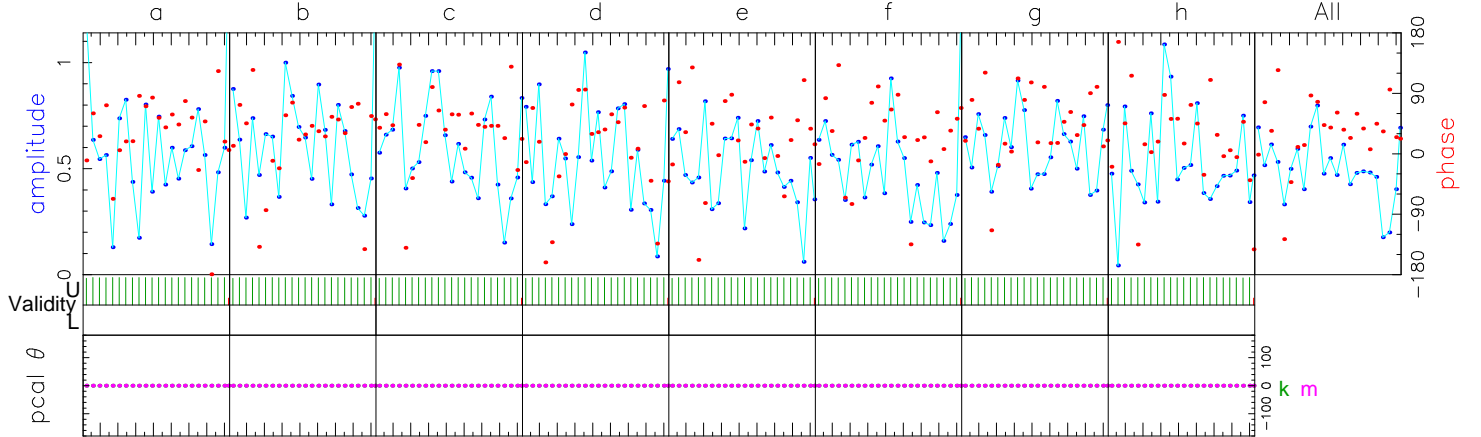
Fringe quality 9

SNR 22.7
 Int time 475.464
 Amp 0.380
 Phase 41.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.000166
 MBD 0.000828
 Fringe rate (Hz)
 -0.003127
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134502.54
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133516
 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
	38.3	41.5	50.5	36.9	32.0	44.1	47.9	35.4	Phase	41.3
	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.4	Ampl.	0.4
	256.9	257.0	257.0	257.4	256.7	257.1	257.2	256.8	Sbd box	257.0
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-5.59617224465E+03	Apriori delay (usec)	-5.59617307258E+03	Resid mbdelay (usec)	8.27932E-04	+/-	4.8E-05
Sband delay (usec)	-5.59617290658E+03	Apriori clock (usec)	-1.3030000E+01	Resid sbdelay (usec)	1.66000E-04	+/-	3.8E-04
Phase delay (usec)	-5.59617307125E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.33135E-06	+/-	1.6E-07
Delay rate (us/s)	-4.99307673856E-01	Apriori rate (us/s)	-4.99307637552E-01	Resid rate (us/s)	-3.63037E-08	+/-	5.9E-10
Total phase (deg)	-128.7	Apriori accel (us/s/s)	4.39218167403E-05	Resid phase (deg)	41.3	+/-	5.1

ph/seg (deg)	RMS 50.3	Theor. 12.1	Amplitude Search (2048X32)	0.380 +/- 0.017	0.367	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	49.0	21.2	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	6.9	7.1	Inc. seg. avg.	0.487	0.487	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	15.5	12.5	Inc. frq. avg.	0.379	0.379	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 300.0 el 39.2 pa 78.6 m: az 326.6 el 62.5 pa 135.3 u,v (fr/asec) 3913.829 4272.366 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/km..1IM8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/km.W.83.1IM8OF

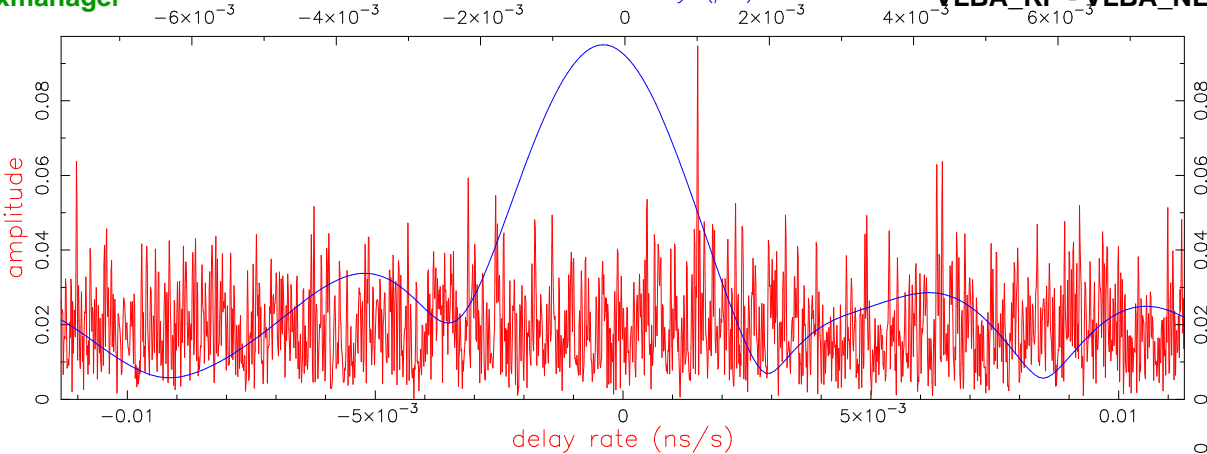
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, kn

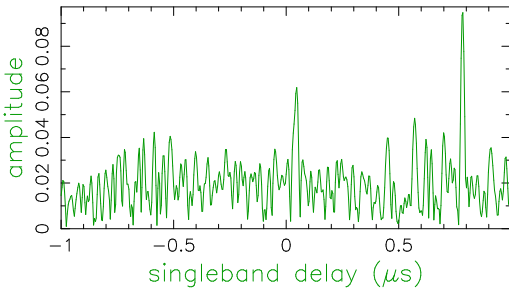
VLBA_KP - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

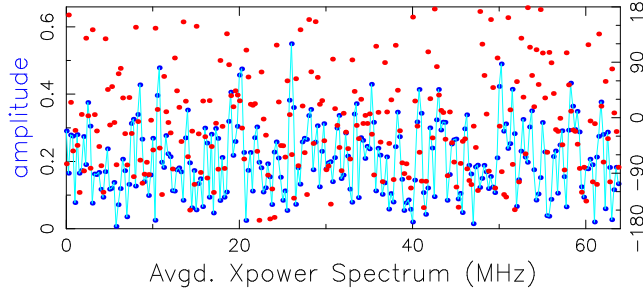


Fringe quality 0

SNR 5.8
 Int time 475.479
 Amp 0.097
 Phase 8.5
 PFD 8.8e-01
 Delays (us)
 SBD 0.783450
 MBD -0.000400
 Fringe rate (Hz)
 0.129828
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

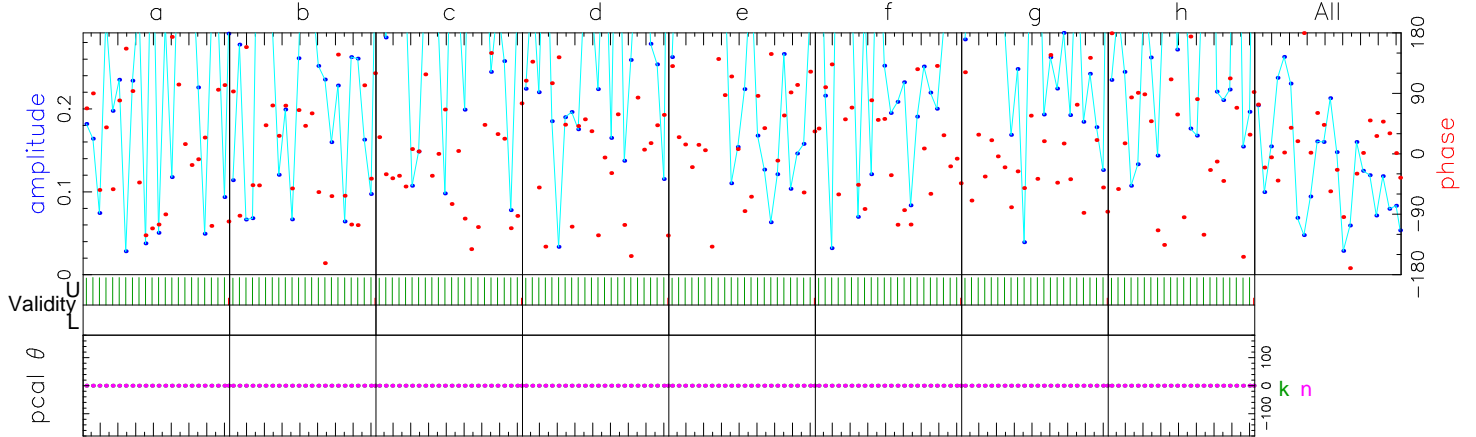


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134502.54
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133524
 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	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0			
k	1000	1000	1000	1000	1000	1000	1000	1000			
n	1000	1000	1000	1000	1000	1000	1000	1000			
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
k:n	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			
n	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		2.76114489378E+03				2.76036404389E+03					
Sband delay (usec)		2.76114749364E+03				1.6290474E-01					
Phase delay (usec)		2.76036404417E+03				-4.0000002E-07					
Delay rate (us/s)		-2.97076258901E-02				-2.97091330680E-02					
Total phase (deg)			275.2			-2.49139253755E-05					
				Apriori delay (usec)					Resid mbdelay (usec)	-4.00115E-04	+/- 1.9E-04
				Apriori clock (usec)					Resid sbdelay (usec)	7.83450E-01	+/- 1.5E-03
				Apriori clockrate (us/s)					Resid phdelay (usec)	2.74596E-07	+/- 6.4E-07
				Apriori rate (us/s)					Resid rate (us/s)	1.50718E-06	+/- 2.3E-09
				Apriori accel (us/s/s)					Resid phase (deg)	8.5	+/- 19.9
									PCal mode: MANUAL, MANUAL		
									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		
									ion window (TEC)	0.00	0.00
									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 300.0 el 39.2 pa 78.6 n: az 300.7 el 30.2 pa 59.1 u,v (fr/asec) 175.721 -2644.709 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kn..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kn.W.118.1M8OF

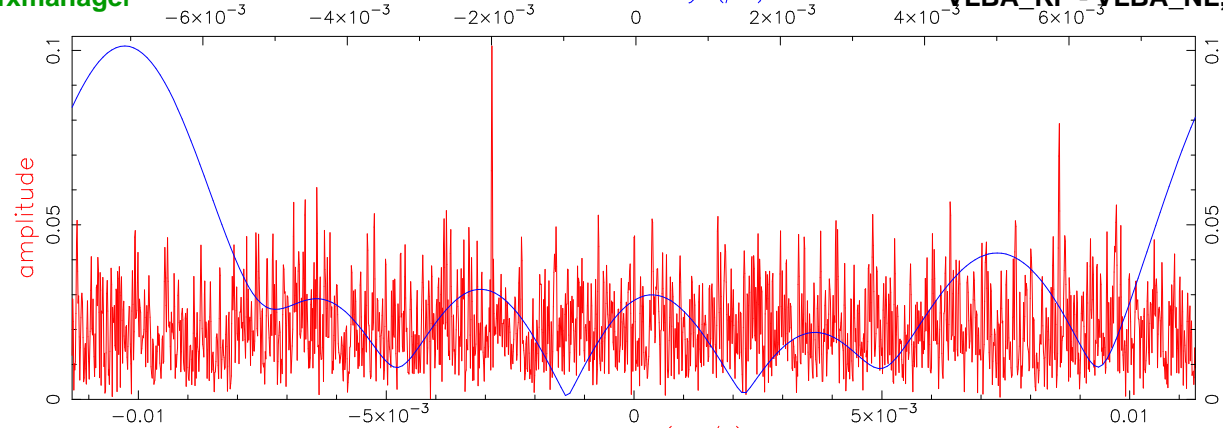
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

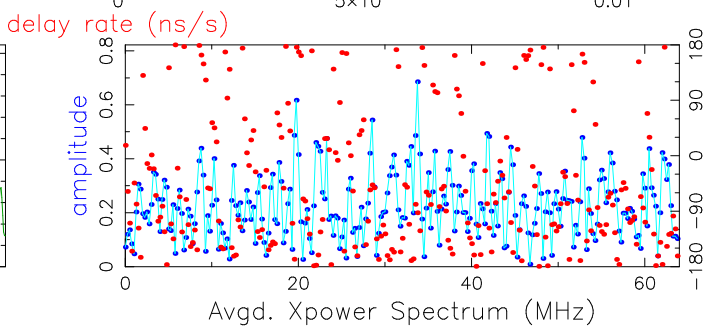
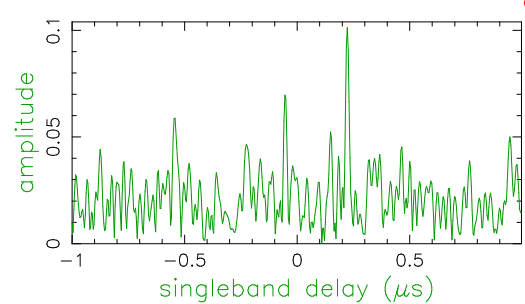
3C84.1M8OF, No0119, kn

VLBA_KP - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

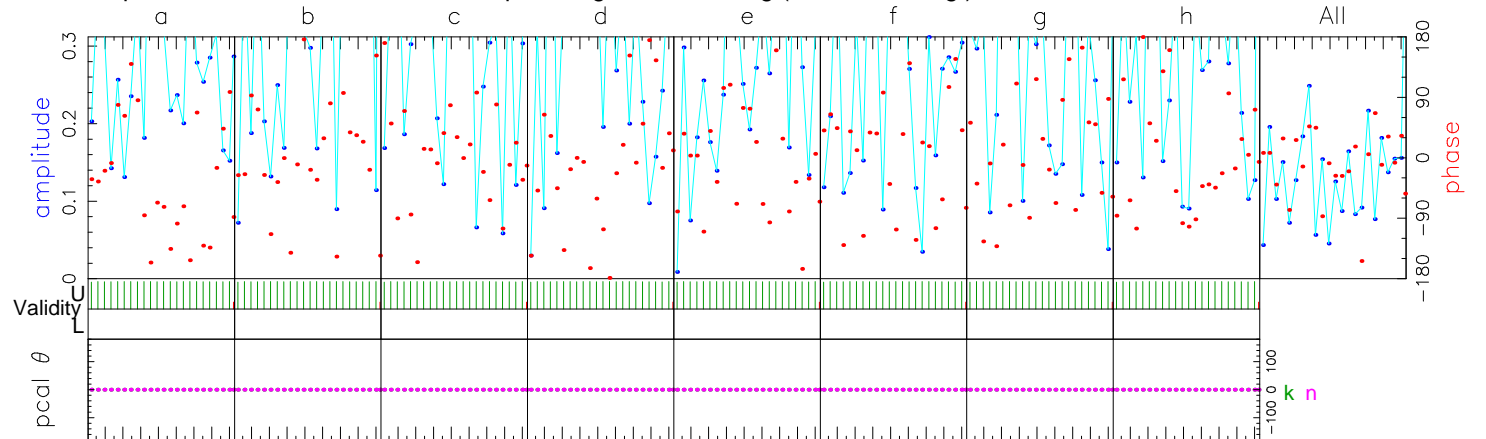


Fringe quality 0
 SNR 6.0
 Int time 475.478
 Amp 0.104
 Phase -0.5
 PFD 3.3e-01
 Delays (us)
 SBD 0.222426
 MBD -0.007091
 Fringe rate (Hz)
 -0.247148
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134502.54
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133528
 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
	-81.2	20.9	5.5	-8.8	-1.6	25.8	1.7	-18.7		-0.5
	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	72.6	397.6	306.1	216.0	381.6	405.8	390.0	191.4	Sbd box	313.9
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	2.76059132744E+03		Apriori delay (usec)		2.76036404389E+03		Resid mbdelay (usec)		-7.09145E-03	+/- 1.8E-04
Sband delay (usec)	2.76058646939E+03		Apriori clock (usec)		1.6290474E-01		Resid sbdelay (usec)		2.22426E-01	+/- 1.4E-03
Phase delay (usec)	2.76036404387E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		-1.59252E-08	+/- 6.1E-07
Delay rate (us/s)	-2.97120022169E-02		Apriori rate (us/s)		-2.97091330680E-02		Resid rate (us/s)		-2.86915E-06	+/- 2.2E-09
Total phase (deg)	266.2		Apriori accel (us/s/s)		-2.49139253755E-05		Resid phase (deg)		-0.5	+/- 19.0

ph/seg (deg) 49.4 45.5 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.1 79.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 36.8 26.8 Inc. seg. avg. 0.104 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 36.9 46.8 Inc. frq. avg. 0.104 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 300.0 el 39.2 pa 78.6 n: az 300.7 el 30.2 pa 59.1 u,v (fr/asec) 175.721 -2644.709 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kn..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kn.W.138.1M8OF

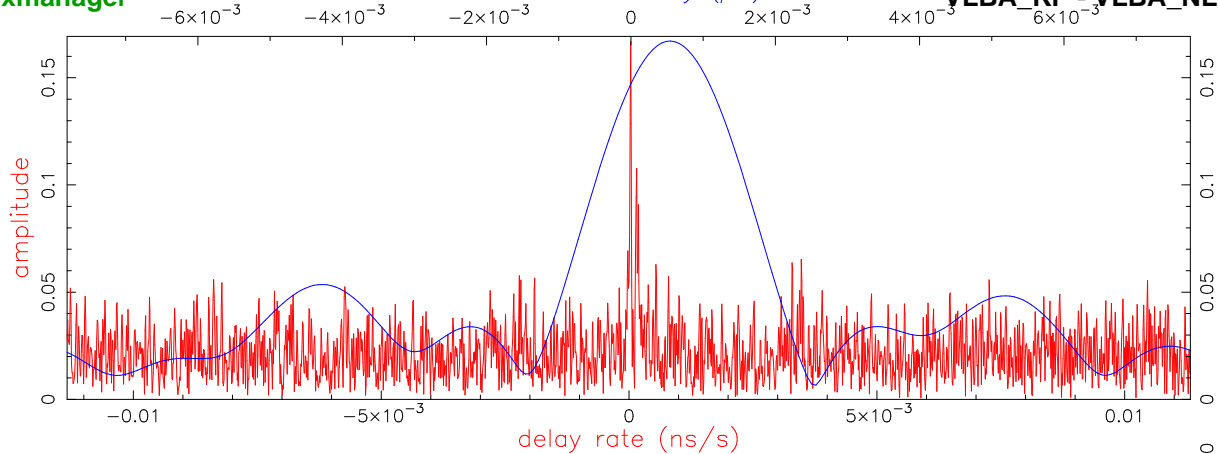
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, kn

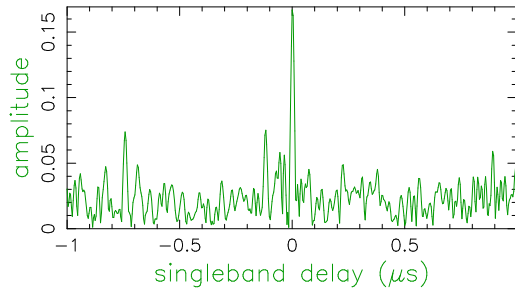
VLBA_KP - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

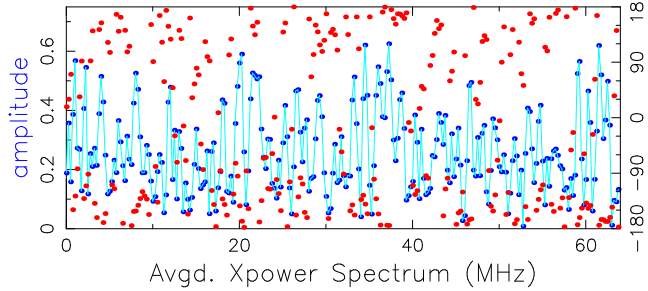


Fringe quality 9

SNR 10.1
 Int time 475.479
 Amp 0.169
 Phase -160.5
 PFD 2.5e-15
 Delays (us)
 SBD 0.001456
 MBD 0.000594
 Fringe rate (Hz)
 0.002976
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

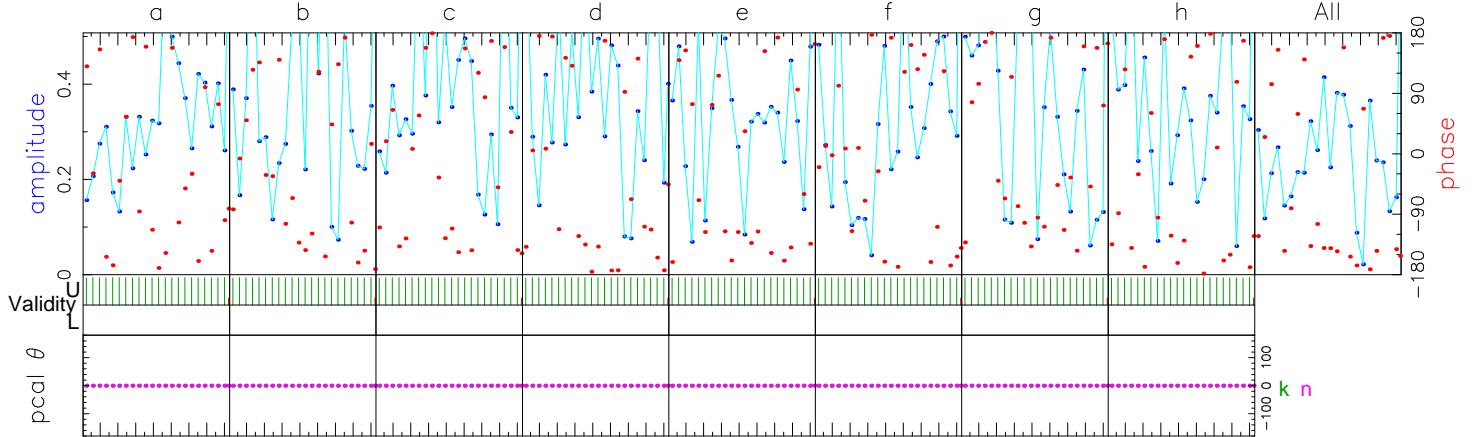


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134502.54
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133516
 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
	-149.5	-149.0	-175.8	-153.2	-162.4	164.0	-151.6	-160.3	Phase	-160.5
	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	Ampl.	0.2
	225.6	96.3	396.3	256.8	258.1	496.8	256.6	258.0	Sbd box	257.4
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	2.76036463774E+03		Apriori delay (usec)		2.76036404389E+03		Resid mbdelay (usec)		5.93849E-04	+/- 1.1E-04
Sband delay (usec)	2.76036549989E+03		Apriori clock (usec)		1.6290474E-01		Resid sbdelay (usec)		1.45600E-03	+/- 8.5E-04
Phase delay (usec)	2.76036403872E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		-5.17527E-06	+/- 3.7E-07
Delay rate (us/s)	-2.97090985244E-02		Apriori rate (us/s)		-2.97091330680E-02		Resid rate (us/s)		3.45436E-08	+/- 1.3E-09
Total phase (deg)	106.2		Apriori accel (us/s/s)		-2.49139253755E-05		Resid phase (deg)		-160.5	+/- 11.4

	RMS	Theor.	Amplitude	0.169 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	66.7	27.2	Search (2048X32)	0.166	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	77.0	47.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	17.7	16.1	Inc. seg. avg.	0.216	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	27.1	28.0	Inc. frq. avg.	0.165	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

k: az 300.0 el 39.2 pa 78.6 n: az 300.7 el 30.2 pa 59.1 u,v (fr/asec) 175.721 -2644.709 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kn..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kn.W.78.1M8OF

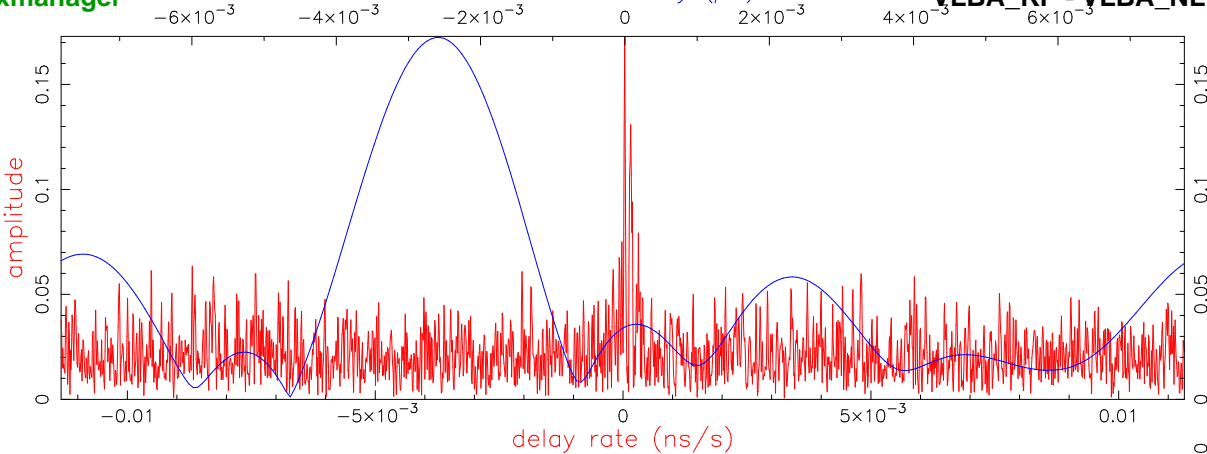
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, kn

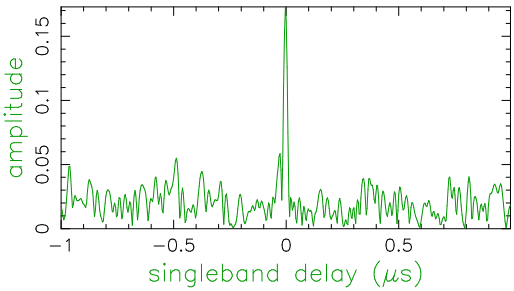
VLBA_KP - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

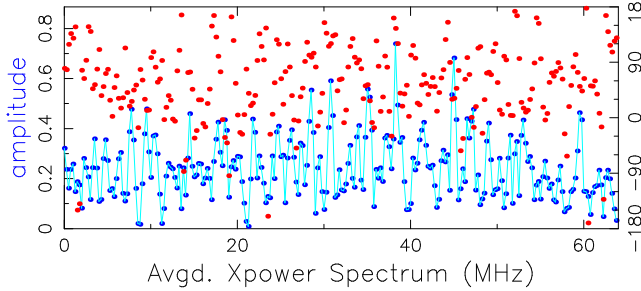


Fringe quality 9

SNR 10.3
 Int time 475.478
 Amp 0.173
 Phase 52.7
 PFD 2.8e-16
 Delays (us)
 SBD -0.003206
 MBD -0.002575
 Fringe rate (Hz)
 0.002945
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

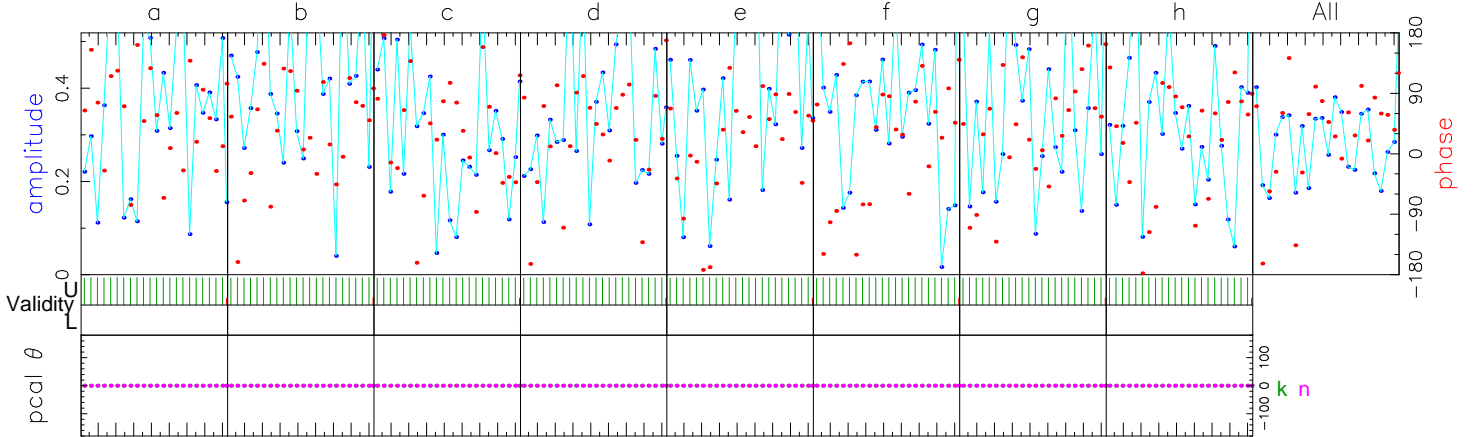


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134502.54
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133520
 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	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0				
k	1000	1000	1000	1000	1000	1000	1000	1000				
n	1000	1000	1000	1000	1000	1000	1000	1000				
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
k:n	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				
n	1000	1000	1000	1000	1000	1000	1000	1000				
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
Group delay (usec)(sbd)		2.76036146902E+03				2.76036404389E+03			Resid mbdelay (usec)	-2.57487E-03 +/- 1.1E-04		
Sband delay (usec)		2.76036083814E+03				1.6290474E-01			Resid sbdelay (usec)	-3.20575E-03 +/- 8.4E-04		
Phase delay (usec)		2.76036404559E+03				-4.0000002E-07			Resid phdelay (usec)	1.70074E-06 +/- 3.6E-07		
Delay rate (us/s)		-2.97090988737E-02				-2.97091330680E-02			Resid rate (us/s)	3.41943E-08 +/- 1.3E-09		
Total phase (deg)			319.4			-2.49139253755E-05			Resid phase (deg)	52.7 +/- 11.1		
	RMS	Theor.	Amplitude	0.173 +/- 0.017		PCal mode: MANUAL, MANUAL			PC period (AP's)	5, 5		
ph/seg (deg)	66.0	26.7	Search (2048X32)	0.170		PCal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000 1.000		
amp/seg (%)	77.9	46.5	Interp.	0.000		Bits/sample: 2x2			SampCntNorm: enabled	mb window (us)	-0.008 0.008	
ph/frq (deg)	7.1	15.7	Inc. seg. avg.	0.256		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011		
amp/frq (%)	40.4	27.4	Inc. frq. avg.	0.167		Data rate(Mb/s): 2048			nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 300.0 el 39.2 pa 78.6 n: az 300.7 el 30.2 pa 59.1 u,v (fr/asec) 175.721 -2644.709 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kn..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kn.W.98.1M8OF

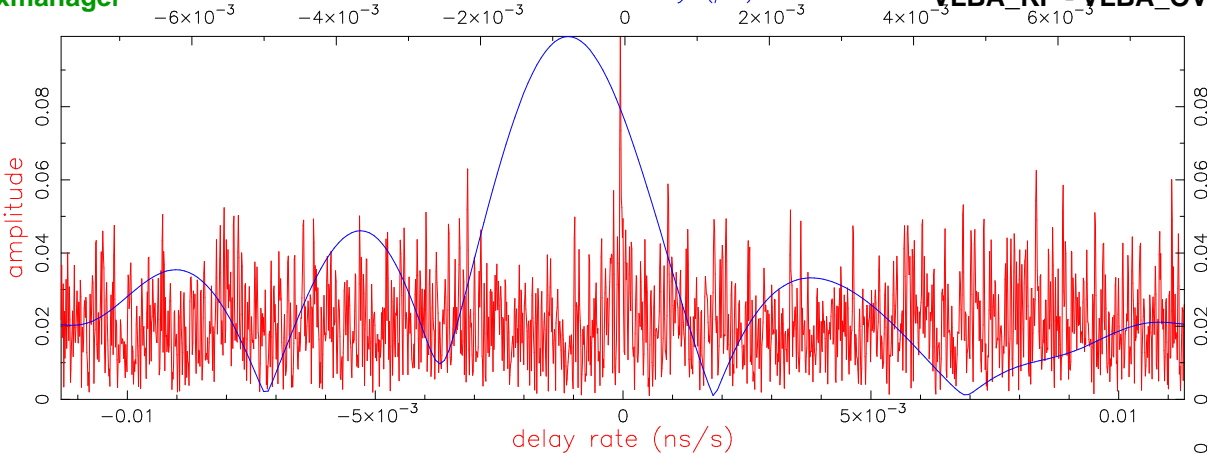
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, ko

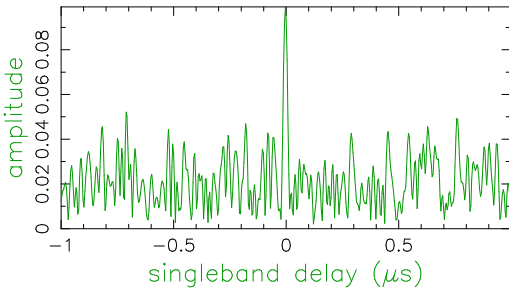
VLBA_KP - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

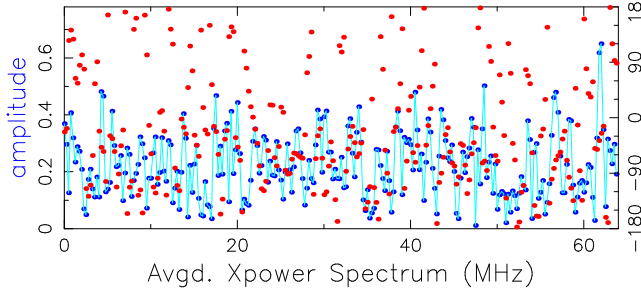


Fringe quality 0

SNR 5.9
 Int time 474.308
 Amp 0.099
 Phase -90.0
 PFD 5.9e-01
 Delays (us)
 SBD -0.003580
 MBD -0.000784
 Fringe rate (Hz)
 -0.004411
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

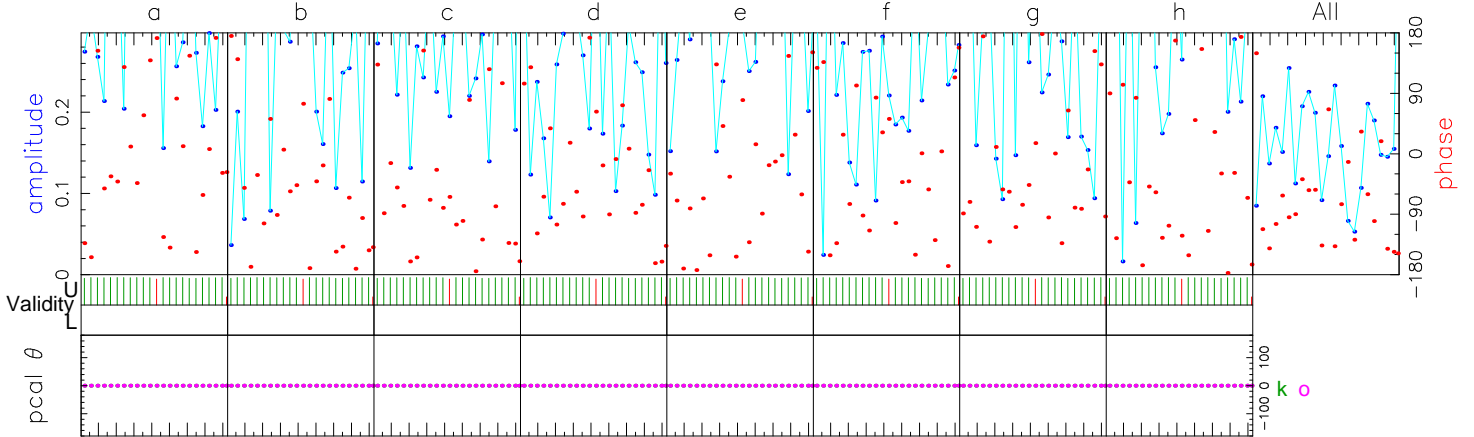


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.51
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133524
 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	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-2.03323662824E+03	Apriori delay (usec)	-2.03323584403E+03	Resid mbdelay (usec)	-7.84212E-04	+/-	1.8E-04
Sband delay (usec)	-2.03323942453E+03	Apriori clock (usec)	-2.1059452E+01	Resid sbdelay (usec)	-3.58050E-03	+/-	1.5E-03
Phase delay (usec)	-2.03323584693E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-2.90323E-06	+/-	6.3E-07
Delay rate (us/s)	-1.05961971737E-01	Apriori rate (us/s)	-1.05961920533E-01	Resid rate (us/s)	-5.12046E-08	+/-	2.3E-09
Total phase (deg)	-307.7	Apriori accel (us/s/s)	5.03363734918E-06	Resid phase (deg)	-90.0	+/-	19.4

ph/seg (deg)	64.8	Theor.	46.5	Amplitude	0.099 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	88.7		81.1	Search (2048X32)	0.093	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	25.1		27.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	40.8		47.9	Inc. seg. avg.	0.121	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.094	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 300.0 el 39.2 pa 78.6 o: az 294.2 el 46.5 pa 75.7 u,v (fr/asec) 822.975 -160.801 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ko..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ko.W.120.1M8OF

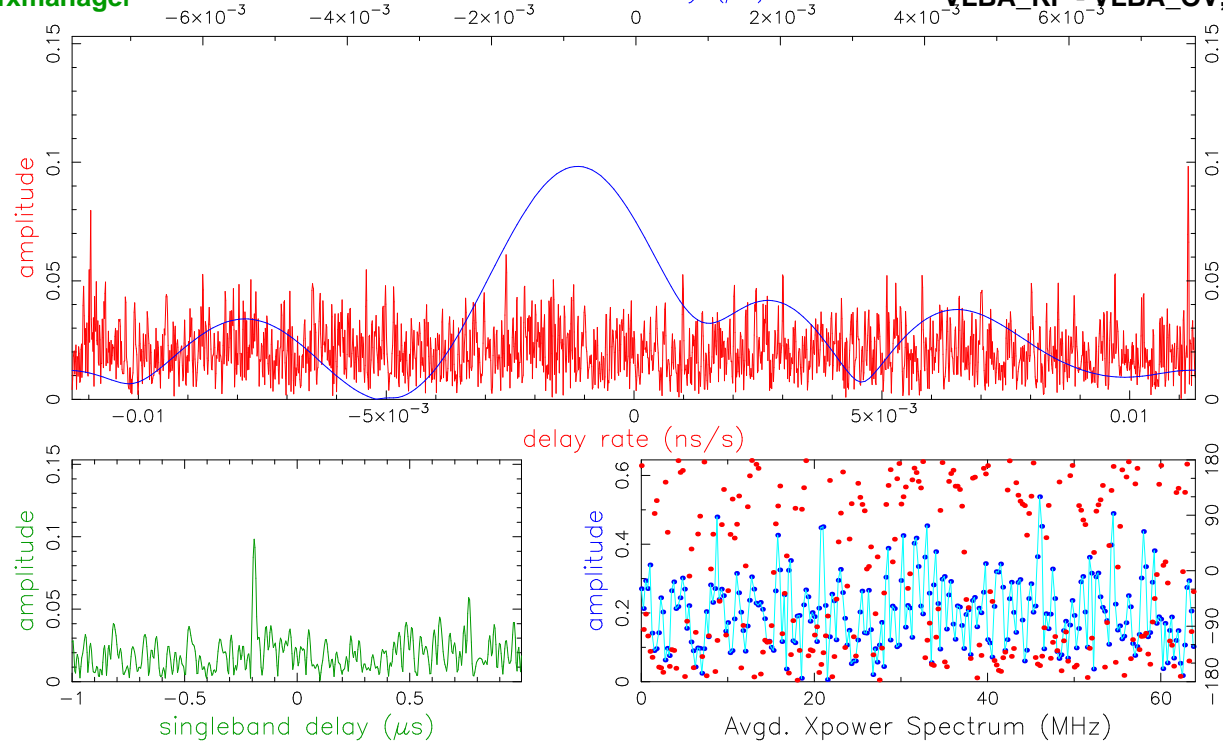
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, ko

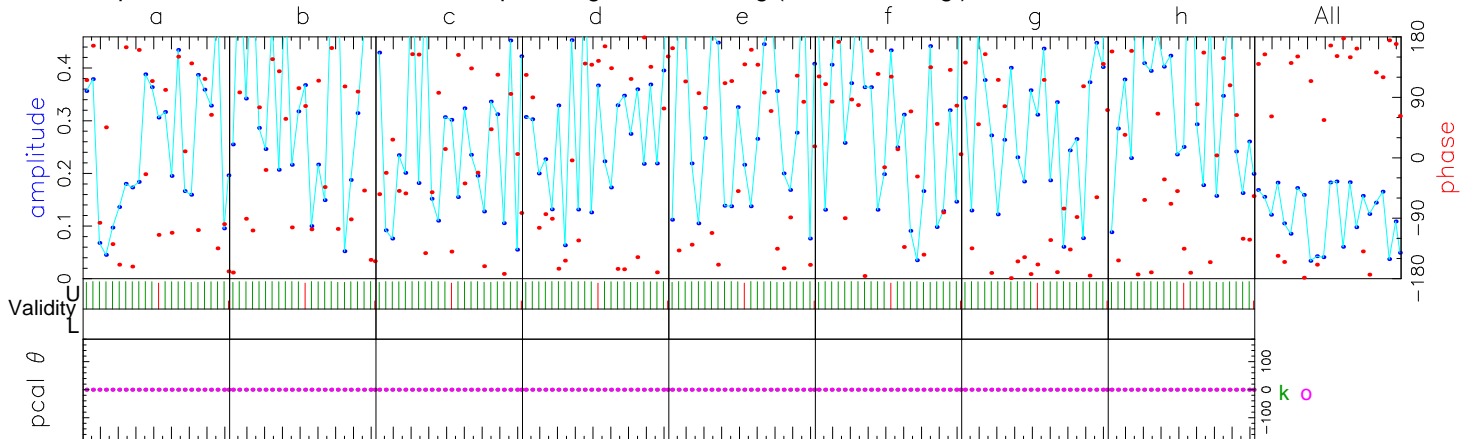
VLBA_KP - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)



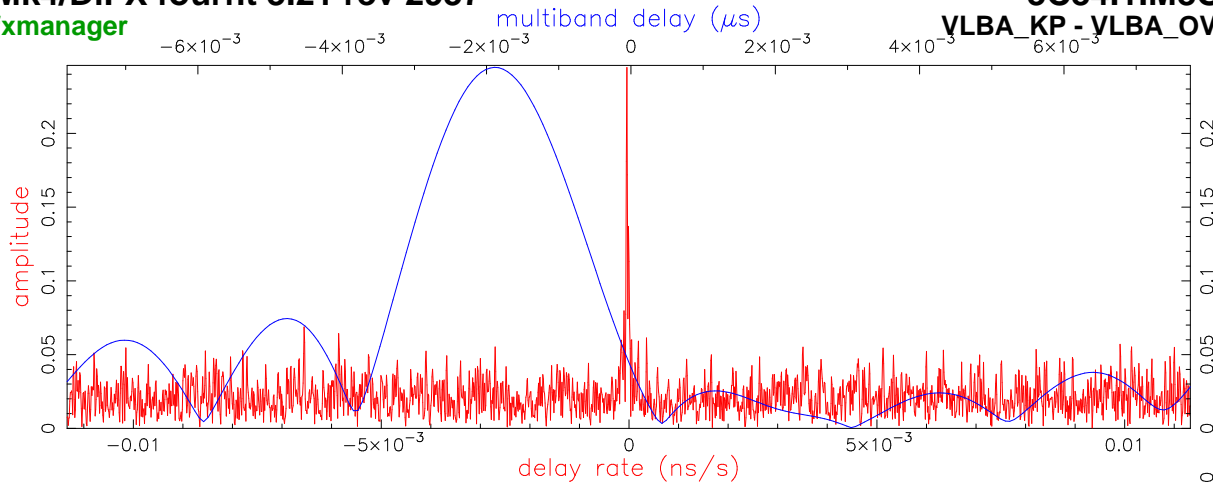
Fringe quality 0
 SNR 5.9
 Int time 474.307
 Amp 0.153
 Phase 159.8
 PFD 6.6e-01
 Delays (us)
 SBD -0.190679
 MBD -0.000796
 Fringe rate (Hz)
 0.965062
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.51
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133528
 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



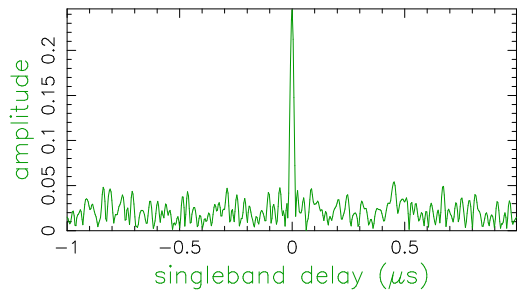
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	168.1	173.8	-165.8	159.4	144.7	121.7	171.8	-172.7	Phase	159.8
k	0.2	0.1	0.0	0.2	0.2	0.2	0.2	0.1	Ampl.	0.1
o	181.3	221.5	466.2	208.4	3.4	414.1	312.1	269.1	Sbd box	208.2
k	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	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	Manl 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	
									Tracks	
Group delay (usec)(sbd)	-2.03342413953E+03		Apriori delay (usec)		-2.03323584403E+03		Resid mbdelay (usec)		-7.95504E-04	+/- 1.8E-04
Sband delay (usec)	-2.03342652253E+03		Apriori clock (usec)		-2.1059452E+01		Resid sbdelay (usec)		-1.90679E-01	+/- 1.5E-03
Phase delay (usec)	-2.03323583888E+03		Apriori clockrate (us/s)		1.9999998E-07		Resid phdelay (usec)		5.15219E-06	+/- 6.3E-07
Delay rate (us/s)	-1.05950717118E-01		Apriori rate (us/s)		-1.05961920533E-01		Resid rate (us/s)		1.12034E-05	+/- 2.3E-09
Total phase (deg)			Apriori accel (us/s/s)		5.03363734918E-06		Resid phase (deg)		159.8	+/- 19.5

ph/seg (deg) 43.1 46.7 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.3 81.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 25.9 27.6 Inc. seg. avg. 0.142 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.6 48.2 Inc. frq. avg. 0.146 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 300.0 el 39.2 pa 78.6 o: az 294.2 el 46.5 pa 75.7 u,v (fr/asec) 822.975 -160.801 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ko..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ko.W.139.1M8OF

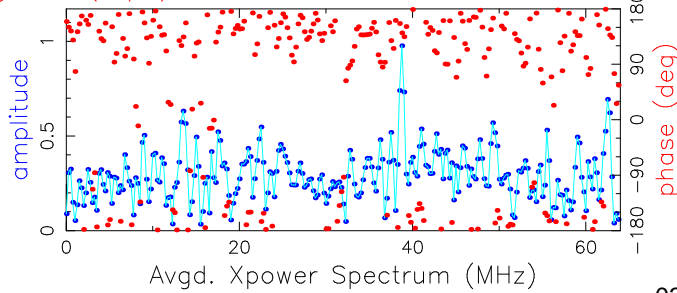


Fringe quality 9

SNR 14.7
Int time 474.308
Amp 0.246
Phase 162.4
PFD 7.8e-40
Delays (us)
SBD -0.000976
MBD -0.001917
Fringe rate (Hz)
-0.004192
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

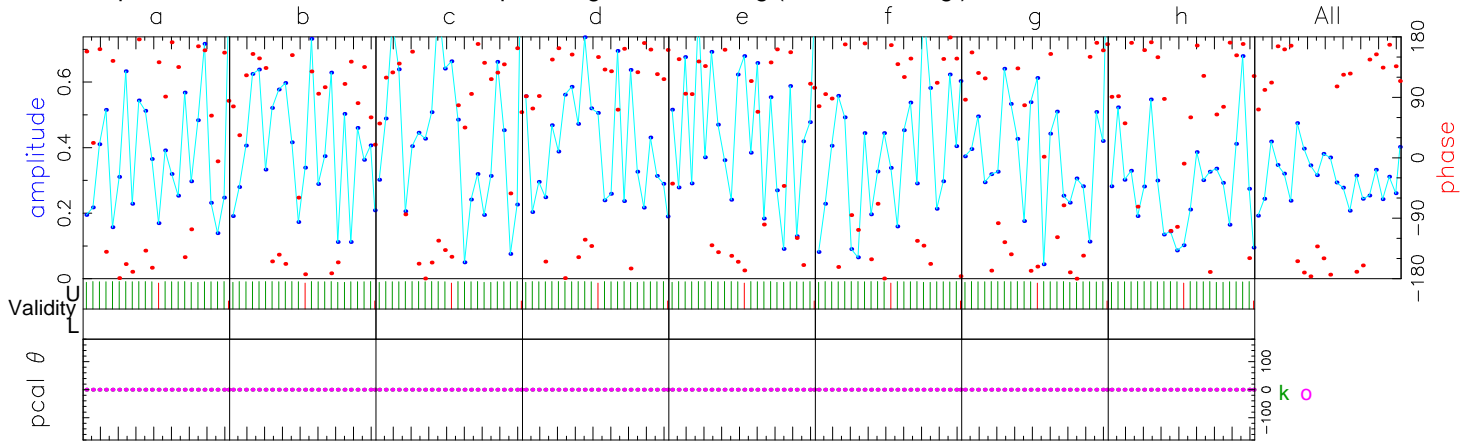


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.51
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133516
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
	176.1	144.6	158.7	156.8	158.0	175.0	-177.8	142.4	Phase	162.4
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	Ampl.	0.2
	256.4	257.5	256.6	256.3	256.8	256.4	256.3	257.9	Sbd box	256.8
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
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	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	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	

Group delay (usec)(sbd)	-2.03323776147E+03	Apriori delay (usec)	-2.03323584403E+03	Resid mbdelay (usec)	-1.91744E-03	+/-	7.4E-05
Sband delay (usec)	-2.03323682003E+03	Apriori clock (usec)	-2.1059452E+01	Resid sbdelay (usec)	-9.76000E-04	+/-	5.9E-04
Phase delay (usec)	-2.03323583879E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	5.23536E-06	+/-	2.5E-07
Delay rate (us/s)	-1.05961969198E-01	Apriori rate (us/s)	-1.05961920533E-01	Resid rate (us/s)	-4.86652E-08	+/-	9.1E-10
Total phase (deg)	-55.3	Apriori accel (us/s/s)	5.03363734918E-06	Resid phase (deg)	162.4	+/-	7.8

ph/seg (deg)	40.0	Theor.	18.7	Amplitude	0.246 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	38.6	Search (2048X32)	0.232	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	15.9	Inc. seg. avg.	0.294	Inc. frq. avg.	0.247	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	12.2	Inc. frq. avg.	0.247			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

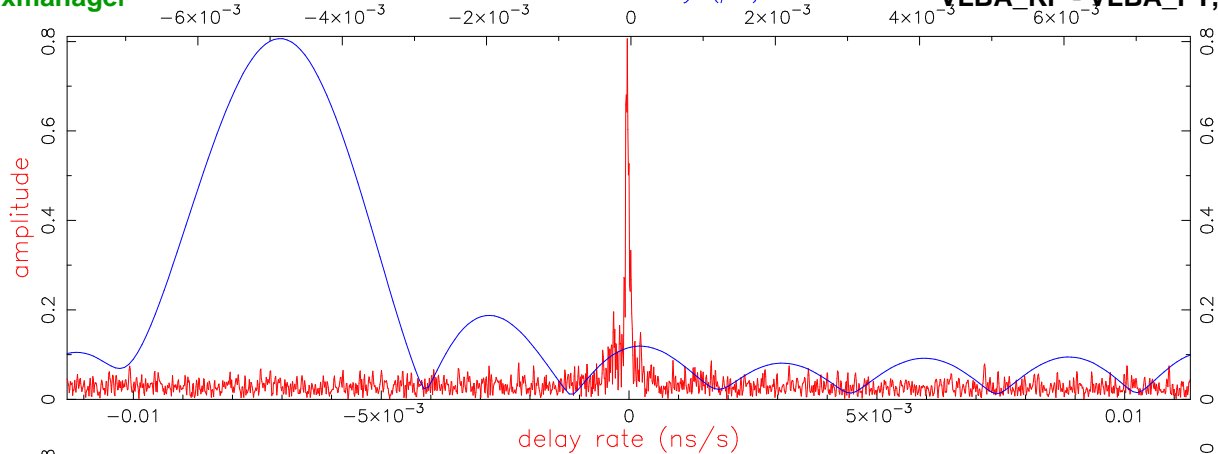
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, kp

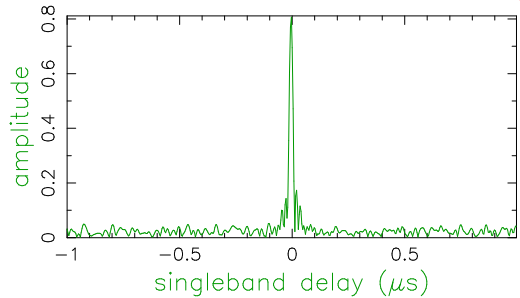
VLBA_KP - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

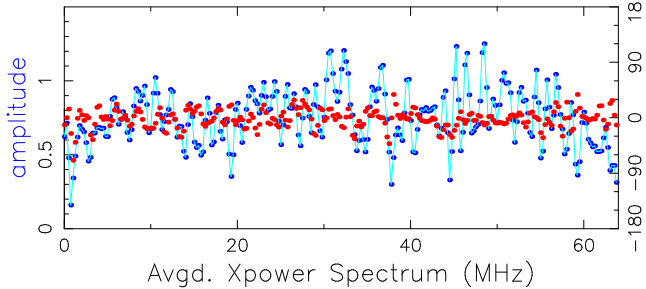


Fringe quality 5

SNR 48.5
 Int time 477.475
 Amp 0.811
 Phase -2.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.004928
 MBD -0.004890
 Fringe rate (Hz)
 -0.003263
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

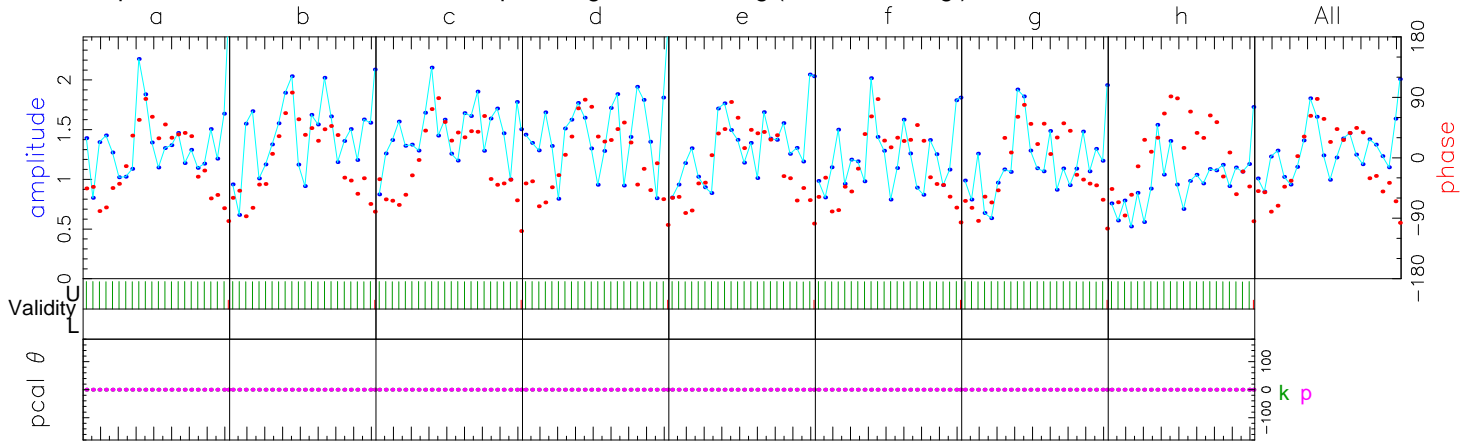


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133521
 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
	-5.5	-0.1	-0.5	-3.0	-5.3	-12.1	-2.7	12.7	Phase	-2.4
	0.8	0.9	0.9	1.0	0.8	0.8	0.7	0.6	Ampl.	0.8
	255.7	255.6	255.7	255.8	255.5	256.1	255.9	255.7	Sbd box	255.7
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	4.04221463025E+02		Apriori delay (usec)		4.04226353113E+02		Resid mbdelay (usec)		-4.89009E-03	+/- 2.2E-05
Sband delay (usec)	4.04221424863E+02		Apriori clock (usec)		2.5267887E-01		Resid sbdelay (usec)		-4.92825E-03	+/- 1.8E-04
Phase delay (usec)	4.04226353034E+02		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		-7.88175E-08	+/- 7.6E-08
Delay rate (us/s)	-2.37958464249E-04		Apriori rate (us/s)		-2.37920586176E-04		Resid rate (us/s)		-3.78781E-08	+/- 2.7E-10
Total phase (deg)	18.1		Apriori accel (us/s/s)		-4.71557884932E-06		Resid phase (deg)		-2.4	+/- 2.4

RMS Theor. Amplitude 0.811 +/- 0.017
 ph/seg (deg) 50.0 5.7 Search (2048X32) 0.762 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.5 9.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 7.6 3.3 Inc. seg. avg. 1.268 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 12.9 5.8 Inc. frq. avg. 0.809 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 300.0 el 39.2 pa 78.6 p: az 299.2 el 37.8 pa 74.2 u,v (fr/asec) -7.848 -555.805 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kp..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kp.W.106.1M8OF

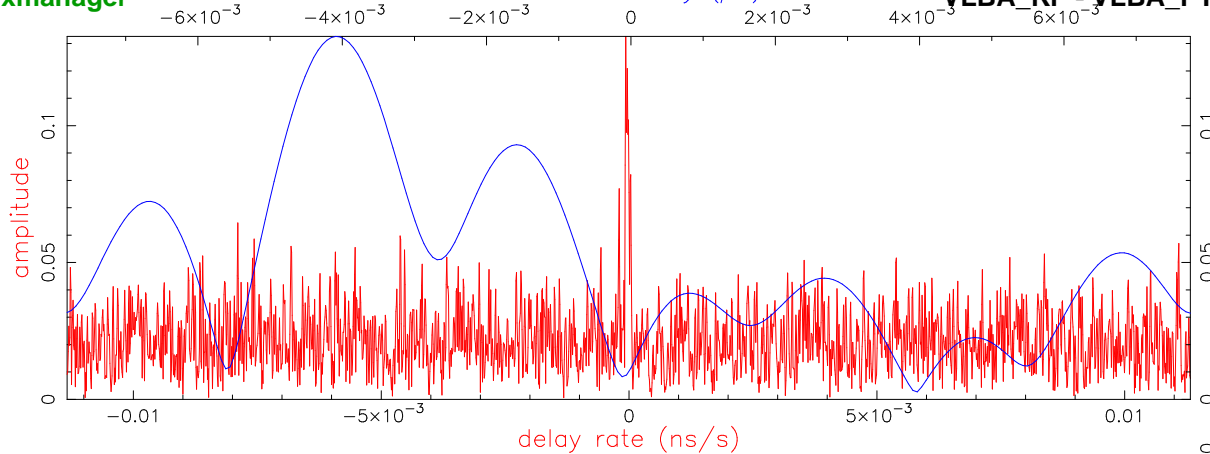
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, kp

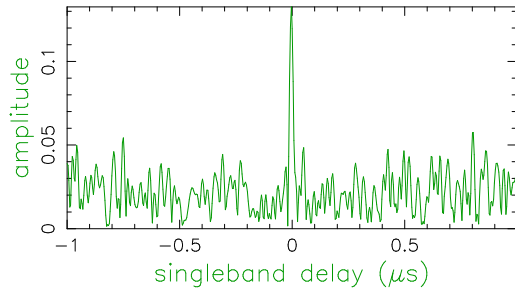
VLBA_KP - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

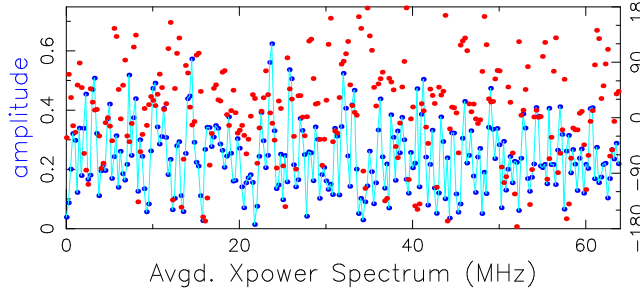


Fringe quality 9

SNR 7.9
 Int time 477.476
 Amp 0.133
 Phase 21.2
 PFD 7.7e-07
 Delays (us)
 SBD -0.004037
 MBD -0.004079
 Fringe rate (Hz)
 -0.005732
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

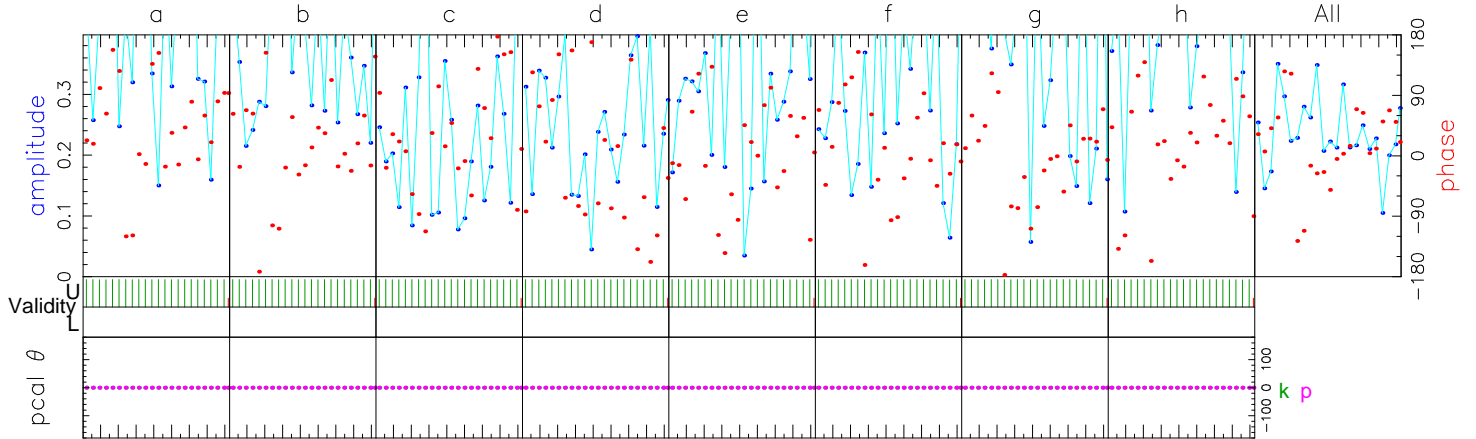


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133524
 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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0					
k	1000	1000	1000	1000	1000	1000	1000	1000					
p	1000	1000	1000	1000	1000	1000	1000	1000					
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0					
kp	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					
p	1000	1000	1000	1000	1000	1000	1000	1000					
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL					
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR					
Group delay (usec)(sbd)		4.0422273875E+02				4.04226353113E+02			Resid mbdelay (usec)	-4.07924E-03	+/- 1.4E-04		
Sband delay (usec)		4.04222315613E+02				2.5267887E-01			Resid sbdelay (usec)	-4.03750E-03	+/- 1.1E-03		
Phase delay (usec)		4.04226353797E+02				-2.9999999E-07			Resid phdelay (usec)	6.83501E-07	+/- 4.7E-07		
Delay rate (us/s)		-2.37987132491E-04				-2.37920586176E-04			Resid rate (us/s)	-6.65463E-08	+/- 1.7E-09		
Total phase (deg)			41.8			-4.71557884932E-06			Resid phase (deg)	21.2	+/- 14.5		
	RMS	Theor.	Amplitude	0.133 +/- 0.017					PCal mode: MANUAL, MANUAL				
ph/seg (deg)	61.0	34.7	Search (2048X32)	0.130					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
amp/seg (%)	88.5	60.5	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
ph/frq (deg)	51.6	20.4	Inc. seg. avg.	0.199					Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011	
amp/frq (%)	56.0	35.7	Inc. frq. avg.	0.141					Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 300.0 el 39.2 pa 78.6 p: az 299.2 el 37.8 pa 74.2 u,v (fr/asec) -7.848 -555.805 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kp..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kp.W.121.1M8OF

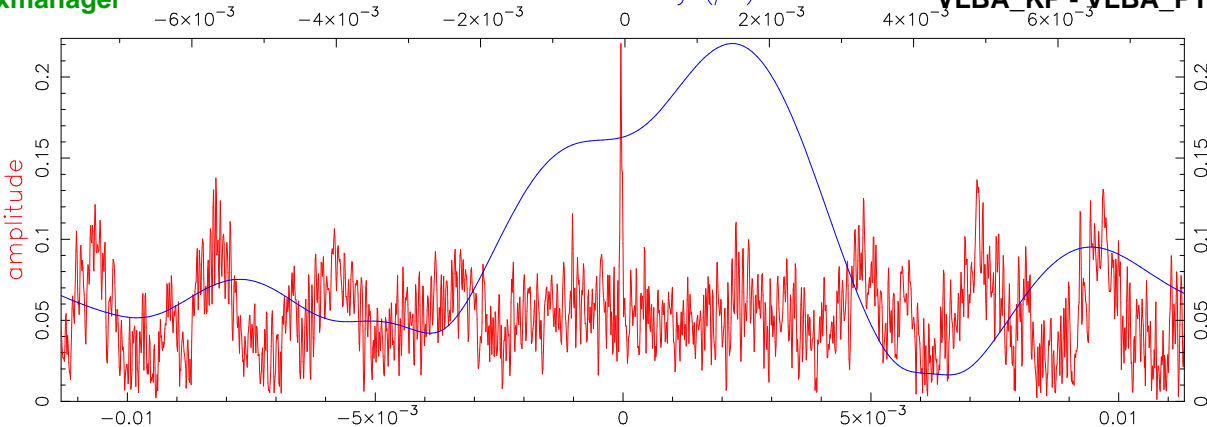
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, kp

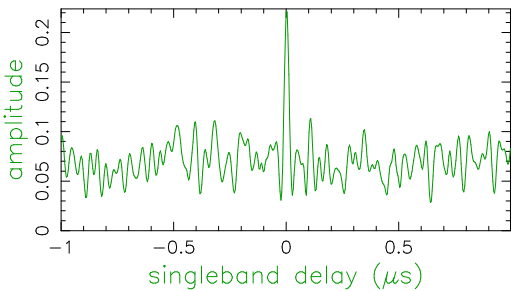
VLBA_KP - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

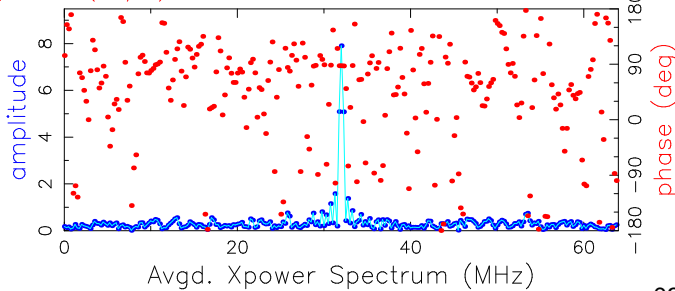


Fringe quality 9

SNR 13.4
 Int time 477.475
 Amp 0.224
 Phase 86.9
 PFD 4.7e-32
 Delays (us)
 SBD 0.001932
 MBD 0.001470
 Fringe rate (Hz)
 -0.003345
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

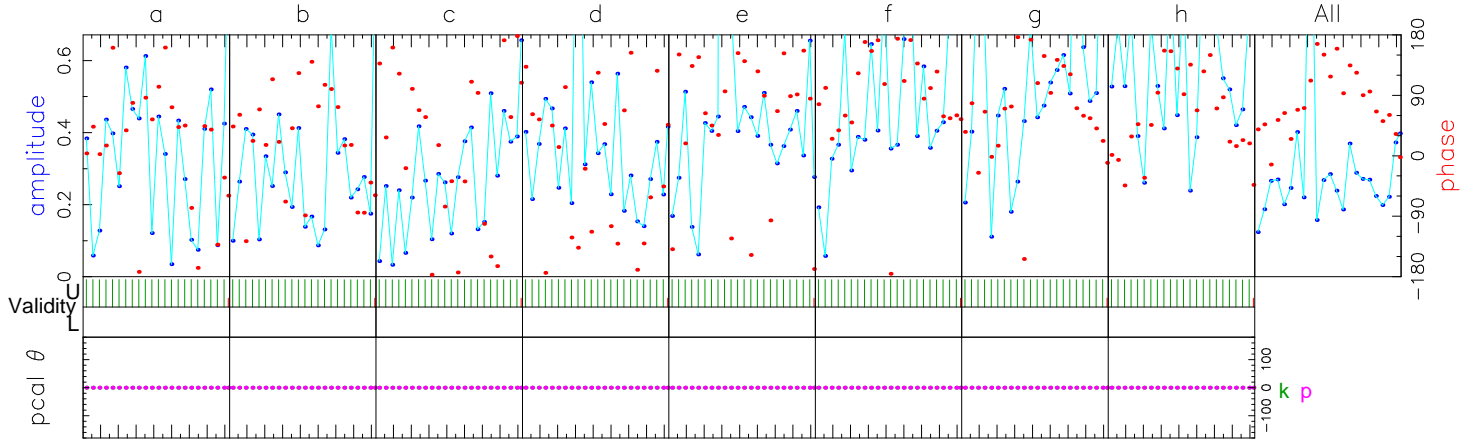


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133528
 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

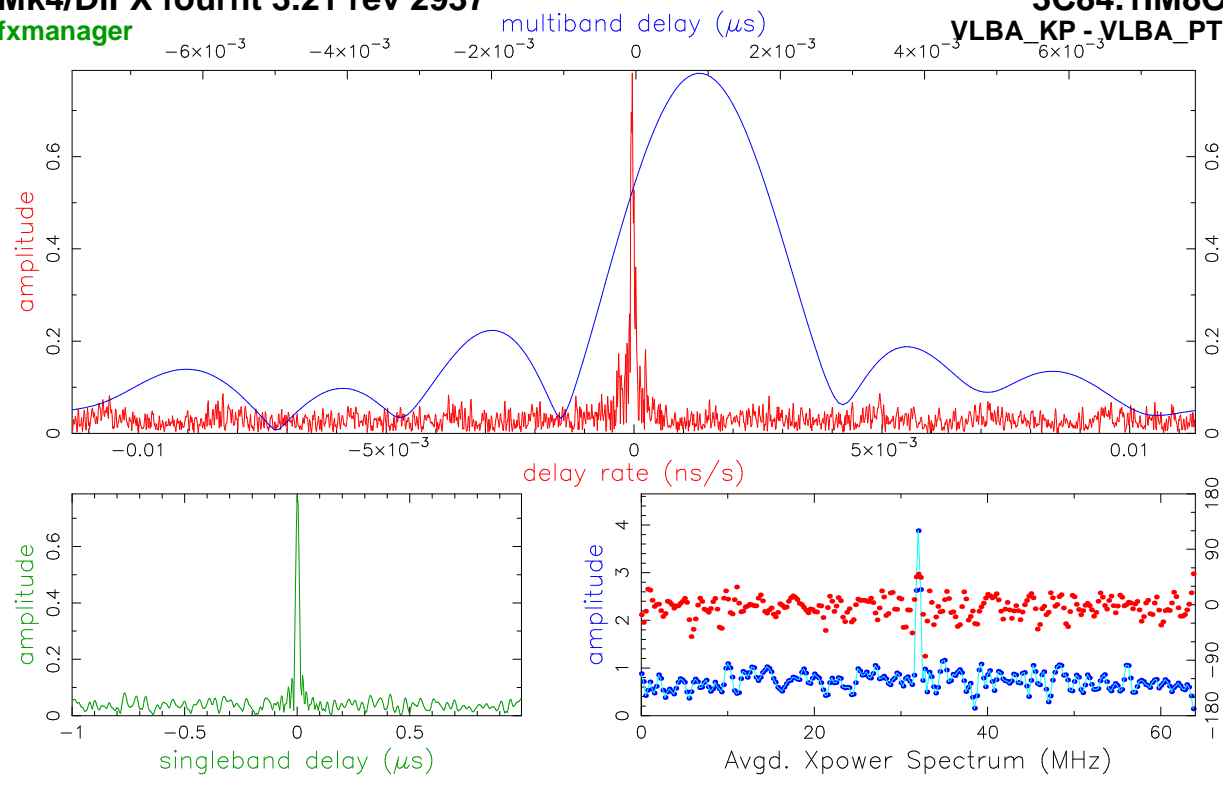


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	4.04227823181E+02	Apriori delay (usec)		4.04226353113E+02	Resid mbdelay (usec)		1.47007E-03	+/-	8.1E-05	
Sband delay (usec)	4.04228285363E+02	Apriori clock (usec)		2.5267887E-01	Resid sbdelay (usec)		1.93225E-03	+/-	6.4E-04	
Phase delay (usec)	4.04226355917E+02	Apriori clockrate (us/s)		-2.9999999E-07	Resid phdelay (usec)		2.80356E-06	+/-	2.8E-07	
Delay rate (us/s)	-2.37959420094E-04	Apriori rate (us/s)		-2.37920586176E-04	Resid rate (us/s)		-3.88339E-08	+/-	1.0E-09	
Total phase (deg)	107.5		Apriori accel (us/s/s)		-4.71557884932E-06	Resid phase (deg)		86.9	+/-	8.6

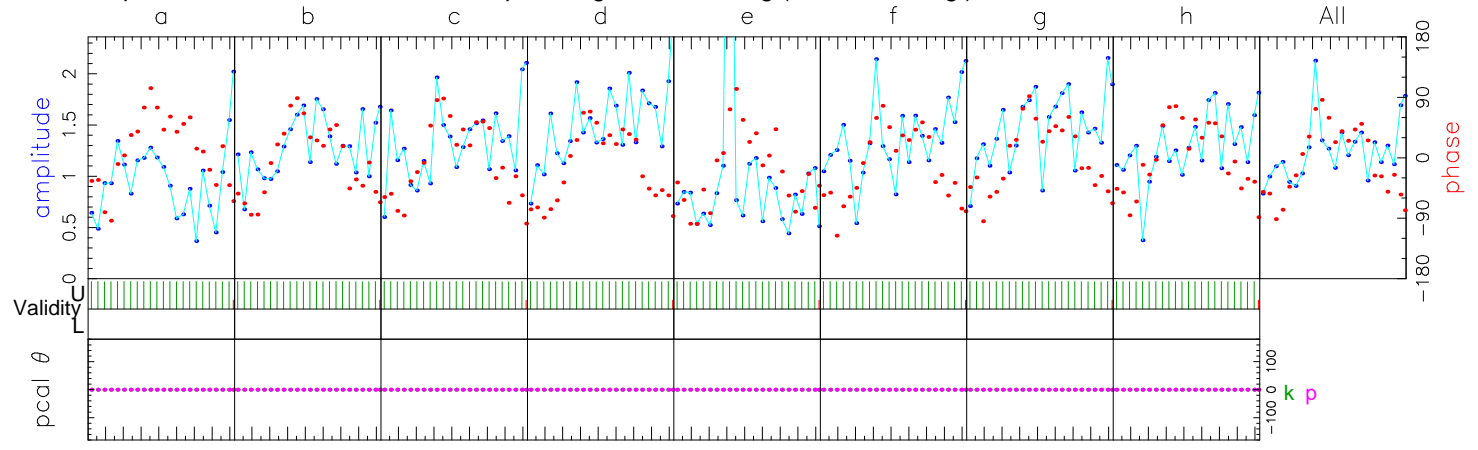
ph/seg (deg)	46.8	20.5	Search (2048X32)	0.212	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
amp/seg (%)	106.0	35.9	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000			
ph/frq (deg)	52.1	12.1	Inc. seg. avg.	0.281	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	80.4	21.1	Inc. frq. avg.	0.244	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011			
k: az 300.0 el 39.2 pa 78.6		p: az 299.2 el 37.8 pa 74.2		u,v (fr/asec) -7.848 -555.805		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/No0119/kp..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kp.W.140.1M8OF simultaneous interpolator



Fringe quality 7
SNR 47.0
Int time 477.476
Amp 0.787
Phase 0.9
PFD 0.0e+00
Delays (us)
SBD 0.001135
MBD 0.000905
Fringe rate (Hz)
-0.003317
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133517
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
	16.1	1.7	-0.7	-9.2	9.0	-11.1	5.5	3.9	Phase	0.9
	0.6	0.8	0.8	1.0	0.5	0.8	0.9	0.9	Ampl.	0.8
	257.2	257.1	257.4	257.1	257.2	257.3	257.3	257.5	Sbd box	257.3
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	4.04227258215E+02		Apriori delay (usec)		4.04226353113E+02		Resid mbdelay (usec)		9.05102E-04	+/- 2.3E-05
Sband delay (usec)	4.04227488363E+02		Apriori clock (usec)		2.5267887E-01		Resid sbdelay (usec)		1.13525E-03	+/- 1.8E-04
Phase delay (usec)	4.04226353144E+02		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		3.04909E-08	+/- 7.9E-08
Delay rate (us/s)	-2.37959094866E-04		Apriori rate (us/s)		-2.37920586176E-04		Resid rate (us/s)		-3.85087E-08	+/- 2.8E-10
Total phase (deg)	21.5		Apriori accel (us/s/s)		-4.71557884932E-06		Resid phase (deg)		0.9	+/- 2.4

ph/seg (deg) 50.6 5.8 Search (2048X32) 0.727 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 67.5 10.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 9.8 3.4 Inc. seg. avg. 1.229 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 17.8 6.0 Inc. frq. avg. 0.787 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 300.0 el 39.2 pa 78.6 p: az 299.2 el 37.8 pa 74.2 u,v (fr/asec) -7.848 -555.805 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kp..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kp.W.87.1M8OF

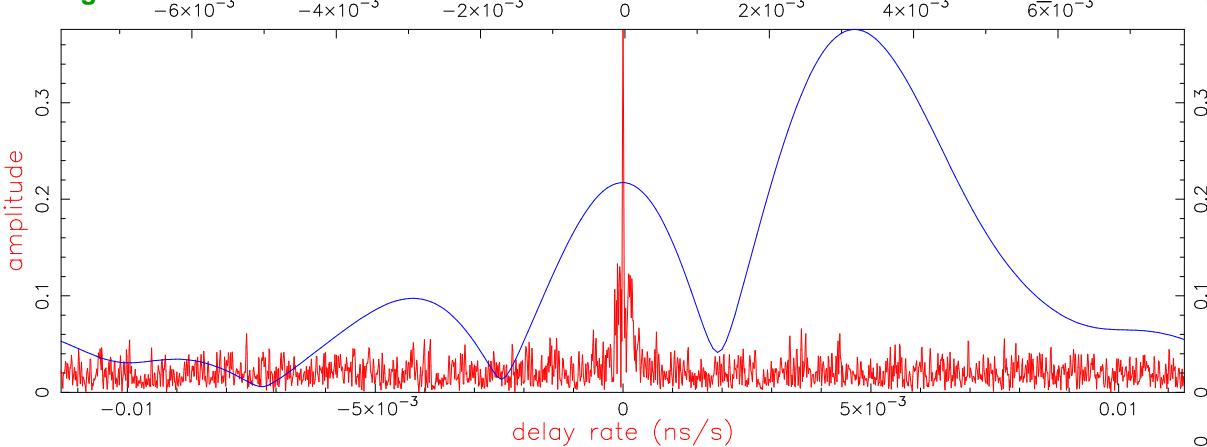
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M8OF, No0119, kt

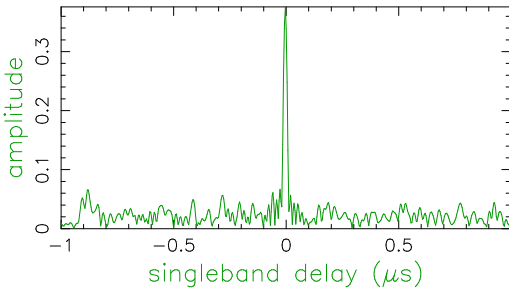
VLBA_KP - KVNTN, fgroup W, pol RR

multiband delay (μ s)

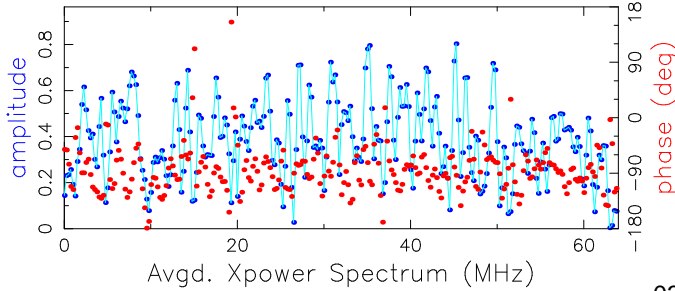


Fringe quality 8

SNR 22.5
 Int time 477.465
 Amp 0.376
 Phase -173.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.004136
 MBD 0.003169
 Fringe rate (Hz)
 -0.000201
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

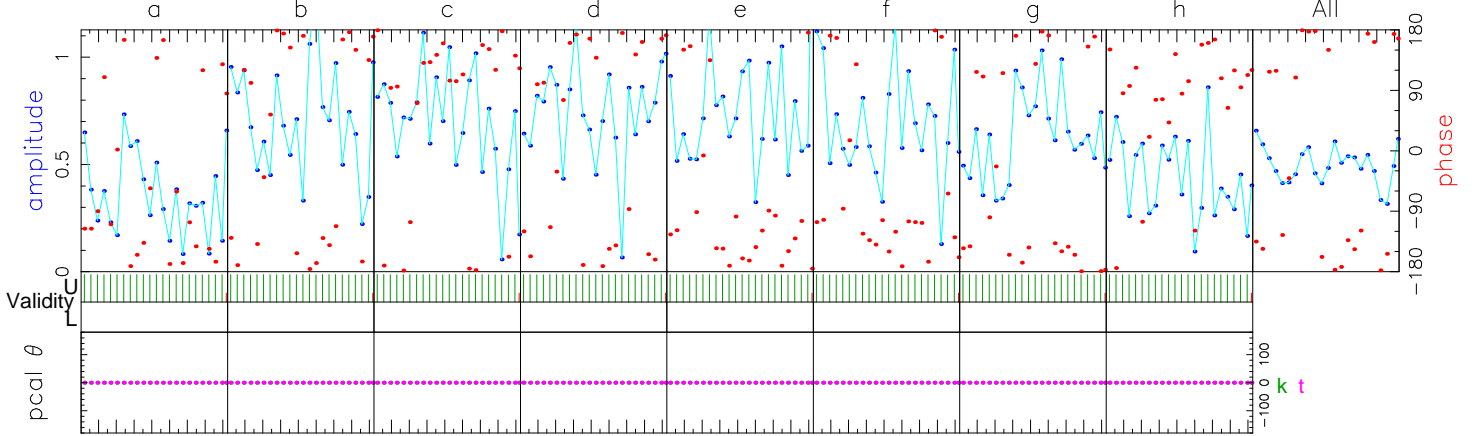


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133520
 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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
k:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:t	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.81557219657E+03									
Sband delay (usec)	-1.81557950110E+03									
Phase delay (usec)	-1.81557537068E+03									
Delay rate (us/s)	-1.70720671950E+00									
Total phase (deg)			-154.9							
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)										
pcal θ										
k										
t										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.376 +/- 0.017										
0.363										
0.000										
0.484										
0.436										
PC period (AP's) 5, 5										
simultaneous interpolator										

k: az 300.0 el 39.2 pa 78.6 t: az 62.0 el 43.9 pa -80.0 u,v (fr/asec) 13085.850 278.990 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kt..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kt.W.103.11M8OF

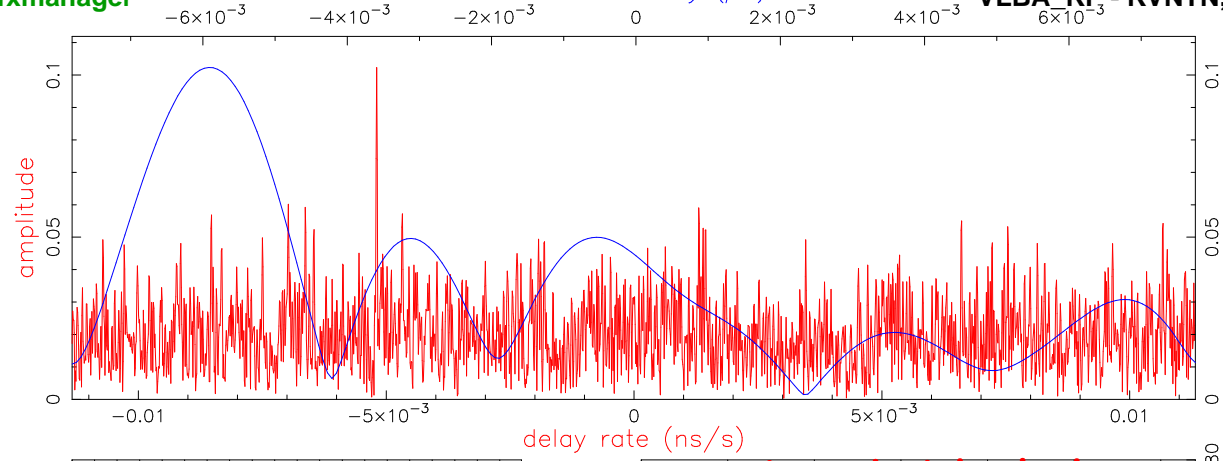
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M8OF, No0119, kt

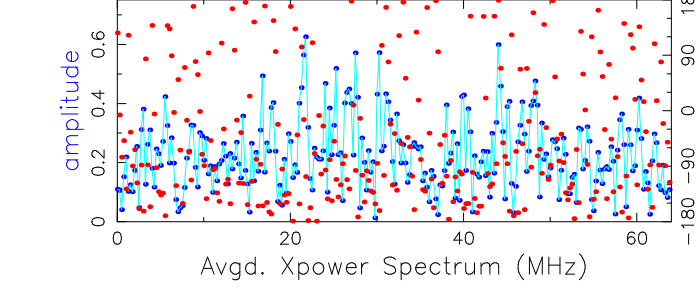
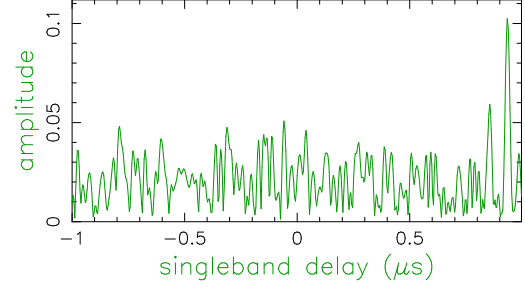
VLBA_KP - KVNTN, fgroup W, pol LR

multiband delay (μ s)



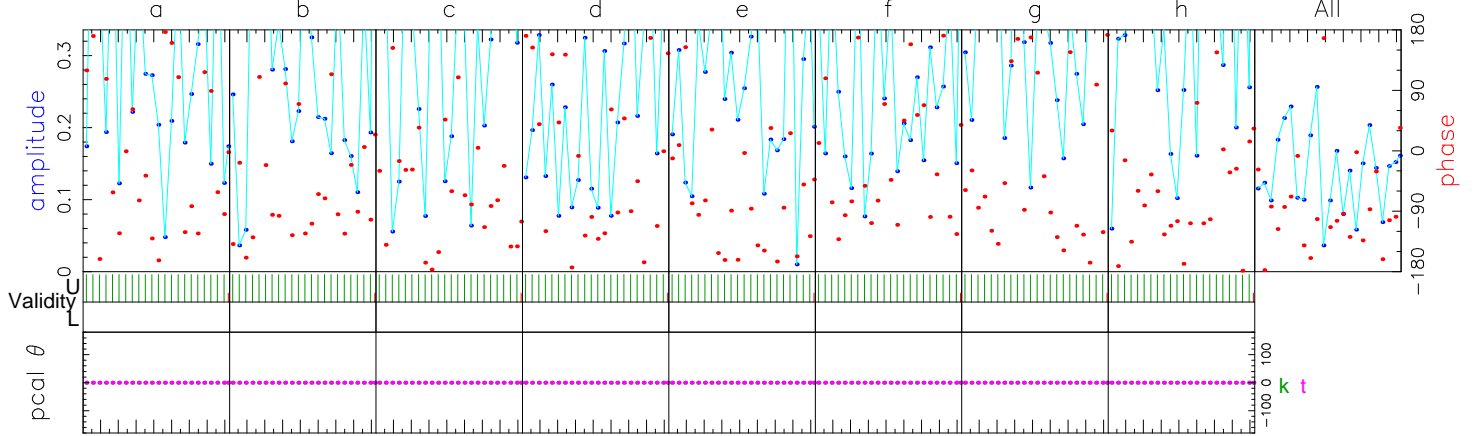
Fringe quality 0

SNR 6.1
 Int time 477.466
 Amp 0.112
 Phase -99.7
 PFD 2.1e-01
 Delays (us)
 SBD 0.934143
 MBD -0.005895
 Fringe rate (Hz)
 -0.447984
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Yr:day 16383
 Start 2021:023:101405
 Stop 2021:023:133525
 FRT 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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0					
k	1000	1000	1000	1000	1000	1000	1000	1000					
t	1000	1000	1000	1000	1000	1000	1000	1000					
k:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0					
k:t	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					
t	1000	1000	1000	1000	1000	1000	1000	1000					
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL					
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR					
Group delay (usec)(sbd)	-1.81464375963E+03	-1.81464122210E+03	-1.81557536832E+03	-1.70721191782E+00	-81.6	Apriori delay (usec)	-1.81557536510E+03	Apriori clock (usec)	0.098	Resid mbdelay (usec)	-5.89453E-03	+/-	1.8E-04
Sband delay (usec)	-1.81464122210E+03	-1.81557536832E+03	-1.70721191782E+00	-81.6	Apriori clockrate (us/s)	0.000000E+00	Resid sbdelay (usec)	9.34143E-01	+/-	1.4E-03			
Phase delay (usec)	-1.81557536832E+03	-1.70721191782E+00	-81.6	Apriori rate (us/s)	-1.70720671717E+00	Resid phdelay (usec)	-3.21349E-06	+/-	6.0E-07				
Delay rate (us/s)	-1.70721191782E+00	-81.6	Apriori accel (us/s/s)	8.19240466423E-06	Resid rate (us/s)	-5.20065E-06	+/-	2.2E-09					
Total phase (deg)	-99.7	+/-	18.7	Resid phase (deg)	-99.7	+/-	18.7						

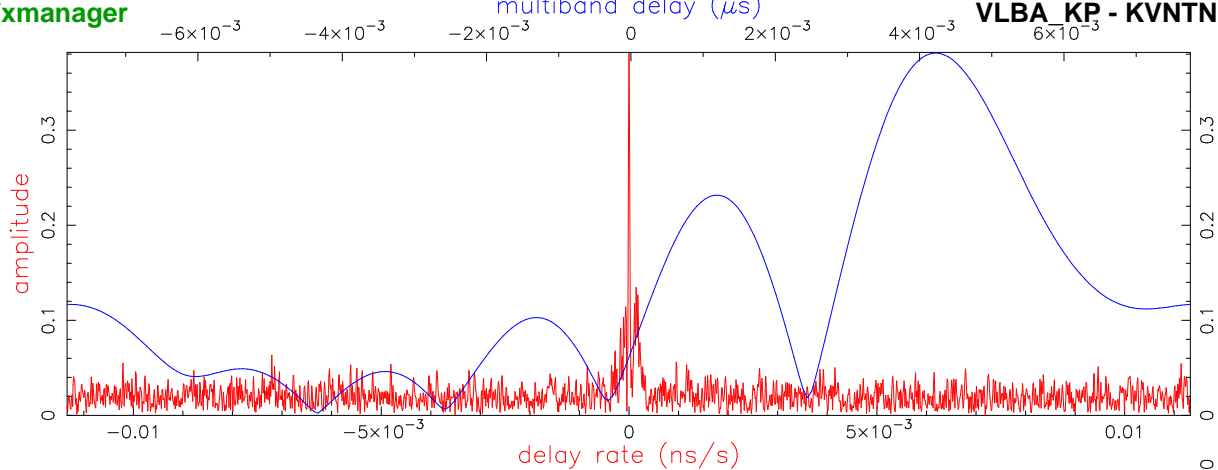
ph/seg (deg) 52.5 44.9 Search (2048X32) 0.112 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.4 78.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 28.2 26.5 Inc. seg. avg. 0.117 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.7 46.2 Inc. frq. avg. 0.110 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 300.0 el 39.2 pa 78.6 t: az 62.0 el 43.9 pa -80.0 u,v (fr/asec) 13085.850 278.990 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kt..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kt.W.126.11M8OF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

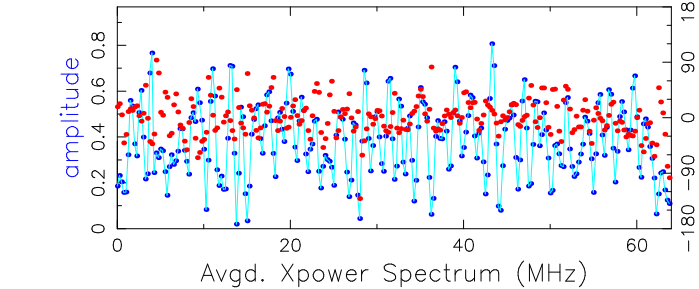
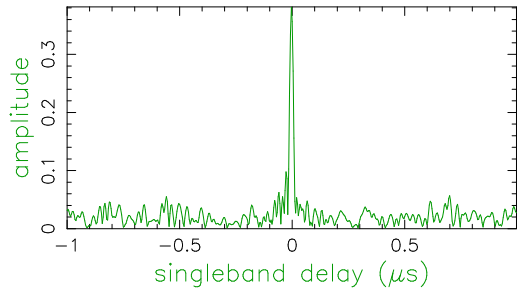
3C84.1M8OF, No0119, kt

VLBA_KP - KVNTN, fgroup W, pol LL



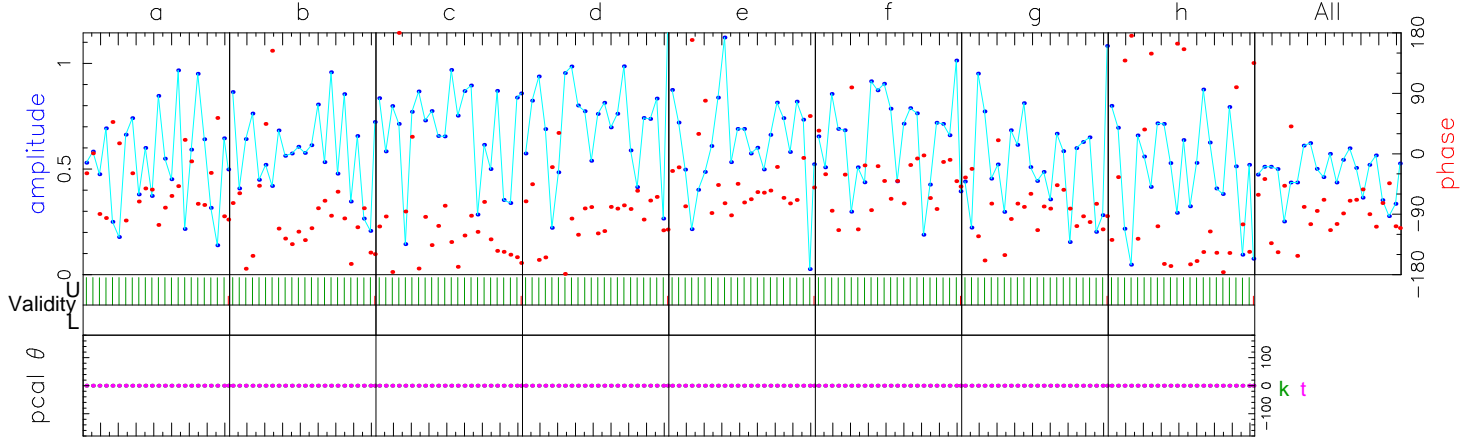
Fringe quality 8

SNR 22.8
 Int time 477.466
 Amp 0.382
 Phase -87.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.003321
 MBD 0.004249
 Fringe rate (Hz)
 -0.000109
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133517
 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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
k:t	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.81557111576E+03	Apriori delay (usec)	-1.81557536510E+03	Resid mbdelay (usec)	4.24934E-03	+/-	4.8E-05
Sband delay (usec)	-1.81557868585E+03	Apriori clock (usec)	-1.0389996E+00	Resid sbdelay (usec)	-3.32075E-03	+/-	3.8E-04
Phase delay (usec)	-1.81557536792E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.81423E-06	+/-	1.6E-07
Delay rate (us/s)	-1.70720671844E+00	Apriori rate (us/s)	-1.70720671717E+00	Resid rate (us/s)	-1.26832E-09	+/-	5.8E-10
Total phase (deg)	-69.2	Apriori accel (us/s/s)	8.19240466423E-06	Resid phase (deg)	-87.3	+/-	5.0

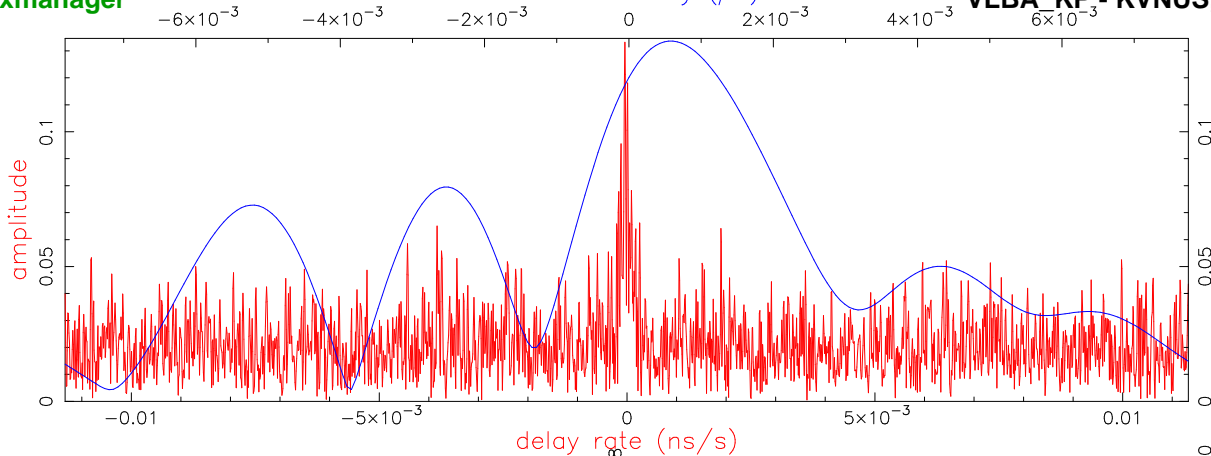
ph/seg (deg)	41.1	Theor.	12.0	Amplitude	0.382 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	35.6		21.0	Search (2048X32)	0.376	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	41.3		7.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	26.7		12.4	Inc. seg. avg.	0.463	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.455	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 300.0 el 39.2 pa 78.6 t: az 62.0 el 43.9 pa -80.0 u,v (fr/asec) 13085.850 278.990 simultaneous interpolator

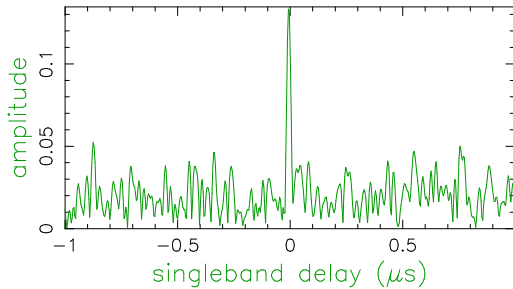
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/kt..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kt.W.86.11M8OF

multiband delay (μs)

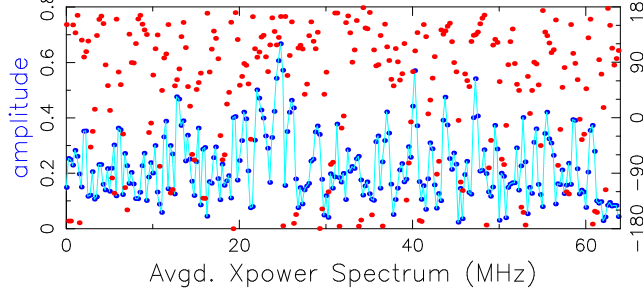
Fringe quality 9



SNR 8.0
Int time 477.467
Amp 0.135
Phase 41.2
PFD 3.0e-07
Delays (us)
SBD -0.006432
MBD 0.000695
Fringe rate (Hz)
-0.003553
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

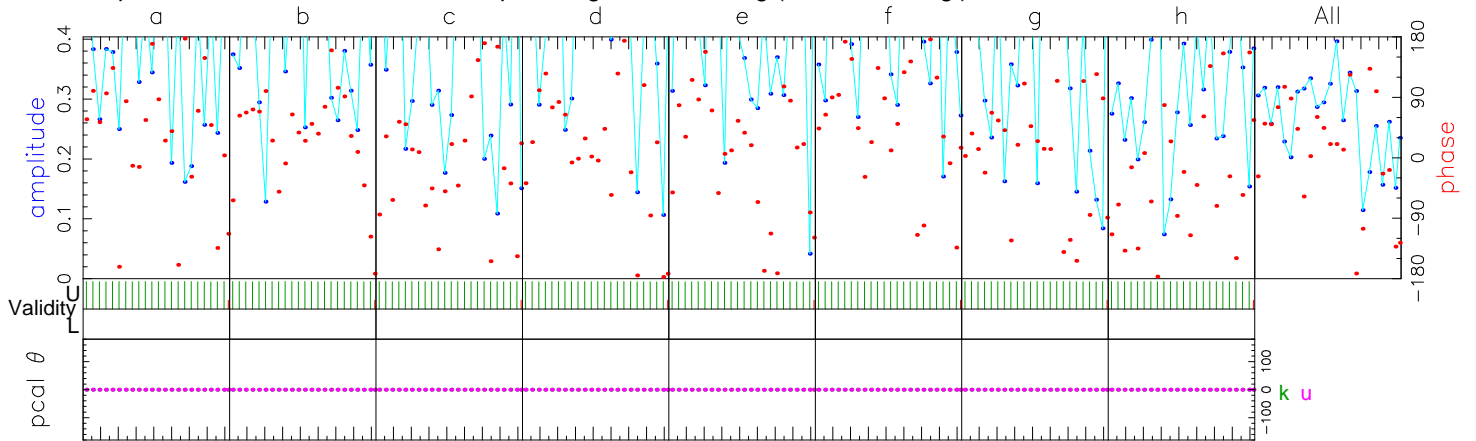


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133521
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

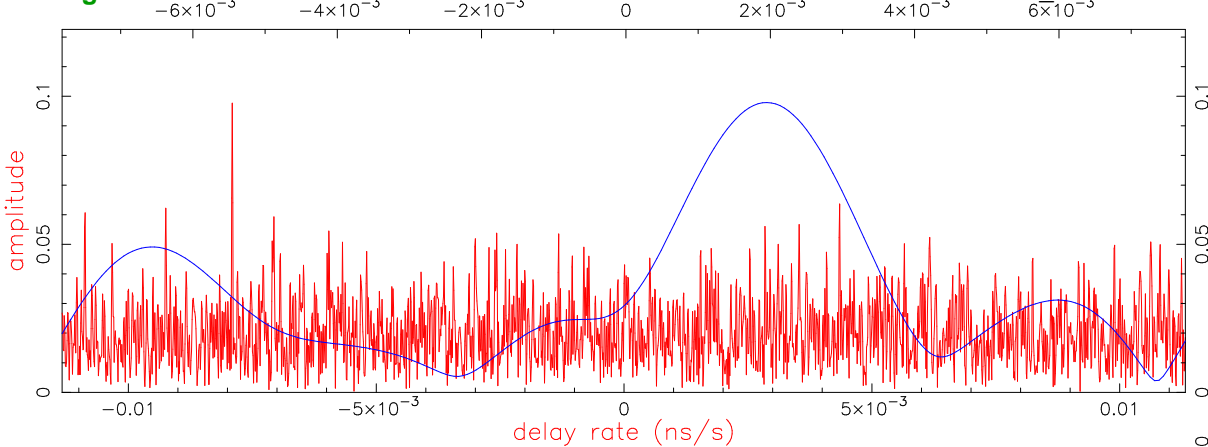


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	67.9	41.5	-23.3	29.2	49.4	94.2	40.1	-86.1		Phase
	0.2	0.3	0.1	0.2	0.2	0.2	0.2	0.1		Ampl.
	253.5	255.1	416.8	255.8	255.6	256.1	254.6	414.1		Sbd box
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		APs used
k	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
u	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
k:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
ku	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
u	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Tracks
Group delay (usec)(sbd)	-2.60140119173E+03		Apriori delay (usec)		-2.60140188640E+03		Resid mbdelay (usec)		6.94664E-04	+/- 1.3E-04
Sband delay (usec)	-2.60140831865E+03		Apriori clock (usec)		-2.2243218E+00		Resid sbdelay (usec)		-6.43225E-03	+/- 1.1E-03
Phase delay (usec)	-2.60140188507E+03		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		1.32944E-06	+/- 4.6E-07
Delay rate (us/s)	-1.65956556745E+00		Apriori rate (us/s)		-1.65956552621E+00		Resid rate (us/s)		-4.12430E-08	+/- 1.7E-09
Total phase (deg)			Apriori accel (us/s/s)		9.93551826814E-06		Resid phase (deg)		41.2	+/- 14.2

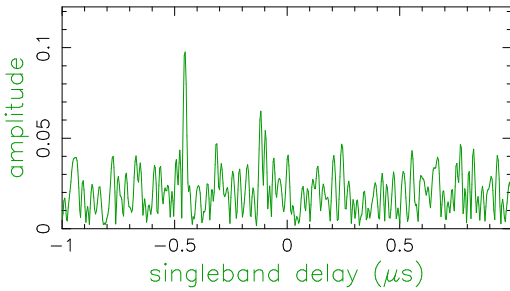
ph/seg (deg) 77.5 34.2 Amplitude 0.135 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 112.9 59.6 Search (2048X32) 0.133 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 63.4 20.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 45.4 35.2 Inc. seg. avg. 0.229 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
k: az 300.0 el 39.2 pa 78.6 u: az 64.5 el 47.0 pa -79.7 u,v (fr/asec) 12725.376 190.022 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ku..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ku.W.110.1M8OF

multiband delay (μ s)

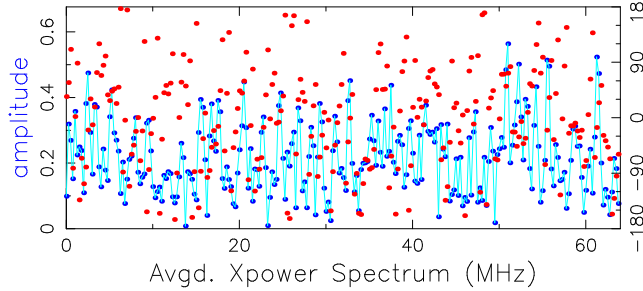
Fringe quality 0



SNR 5.9
Int time 477.468
Amp 0.123
Phase 141.8
PFD 5.2e-01
Delays (us)
SBD -0.454727
MBD 0.001861
Fringe rate (Hz)
-0.682142
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

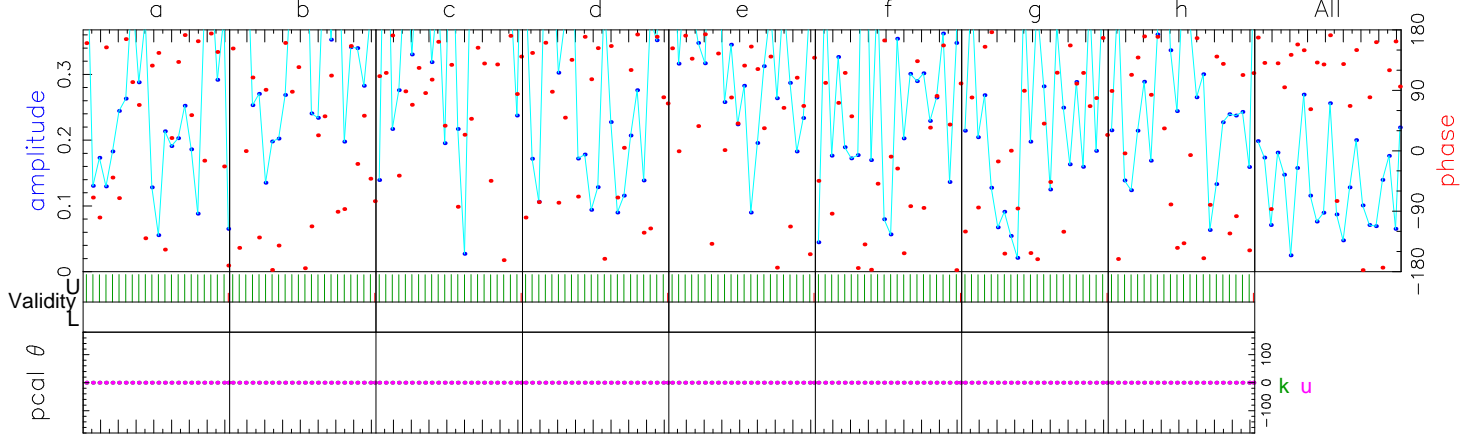


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133525
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
	161.8	163.4	120.6	155.7	133.8	168.0	124.3	176.8	Phase	141.8
	0.1	0.1	0.3	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
	161.4	60.6	141.2	93.8	226.8	232.1	336.8	346.2	Sbd box	140.6
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ku	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.60185315047E+03			Apriori delay (usec)	-2.60140188640E+03			Resid mbdelay (usec)	1.86093E-03	+/- 1.8E-04
Sband delay (usec)	-2.60185661315E+03			Apriori clock (usec)	-2.2243218E+00			Resid sbdelay (usec)	-4.54727E-01	+/- 1.5E-03
Phase delay (usec)	-2.60140188182E+03			Apriori clockrate (us/s)	-2.9999999E-07			Resid phdelay (usec)	4.57394E-06	+/- 6.2E-07
Delay rate (us/s)	-1.65957344520E+00			Apriori rate (us/s)	-1.65956552621E+00			Resid rate (us/s)	-7.91899E-06	+/- 2.2E-09
Total phase (deg)		-36.1		Apriori accel (us/s/s)	9.93551826814E-06			Resid phase (deg)	141.8	+/- 19.3

	RMS	Theor.	Amplitude	0.123 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		sb window (us)	-1.000	1.000
ph/seg (deg)	53.7	46.3	Search (2048X32)	0.093	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008	
amp/seg (%)	72.9	80.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011	
ph/frq (deg)	25.1	27.3	Inc. seg. avg.	0.122	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00	
amp/frq (%)	59.7	47.6	Inc. frq. avg.	0.115	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite				

k: az 300.0 el 39.2 pa 78.6 u: az 64.5 el 47.0 pa -79.7 u,v (fr/asec) 12725.376 190.022 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ku..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ku.W.128.1M8OF

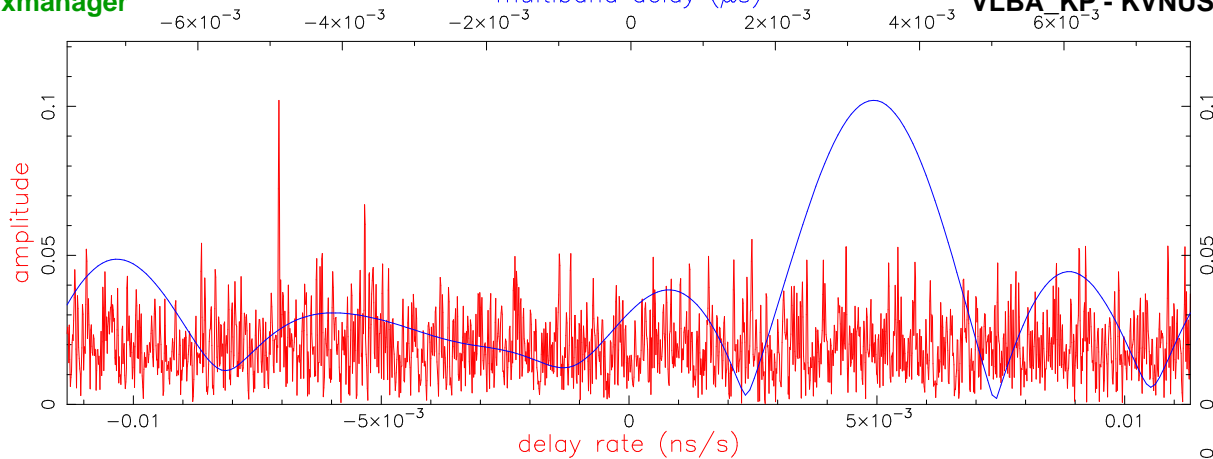
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, ku

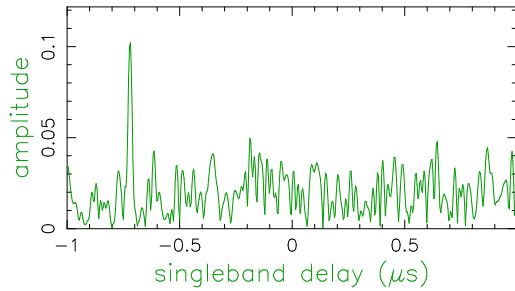
VLBA_KP - KVNUS, fgroup W, pol RL

multiband delay (μ s)

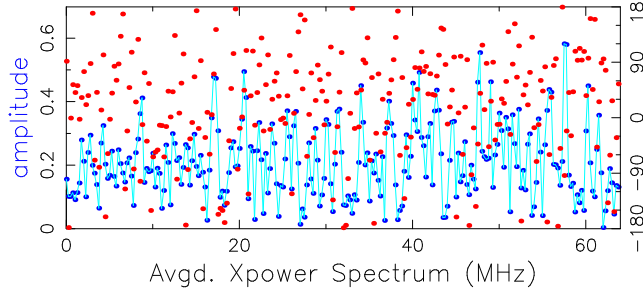


Fringe quality 0

SNR 6.2
 Int time 477.467
 Amp 0.122
 Phase -12.0
 PFD 1.7e-01
 Delays (us)
 SBD -0.720230
 MBD 0.003338
 Fringe rate (Hz)
 -0.609331
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

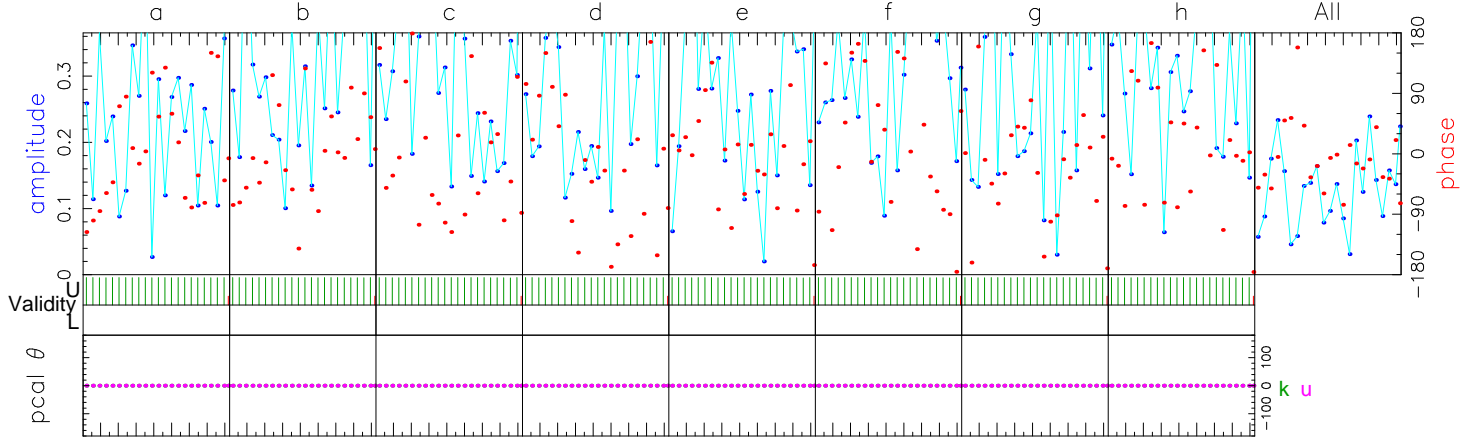


delay rate (ns/s)



Exp. c202b
 Yr:day 16383
 Start 2021:023:101405
 Stop 2021:023:133529
 FRT 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
	-21.8	7.7	-37.2	-22.5	6.8	-58.2	-19.3	7.4	Phase	-12.0
	0.1	0.2	0.1	0.0	0.2	0.1	0.2	0.1	Ampl.	0.1
	163.7	72.9	299.5	123.6	123.8	260.7	72.8	490.1	Sbd box	72.6
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ku	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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

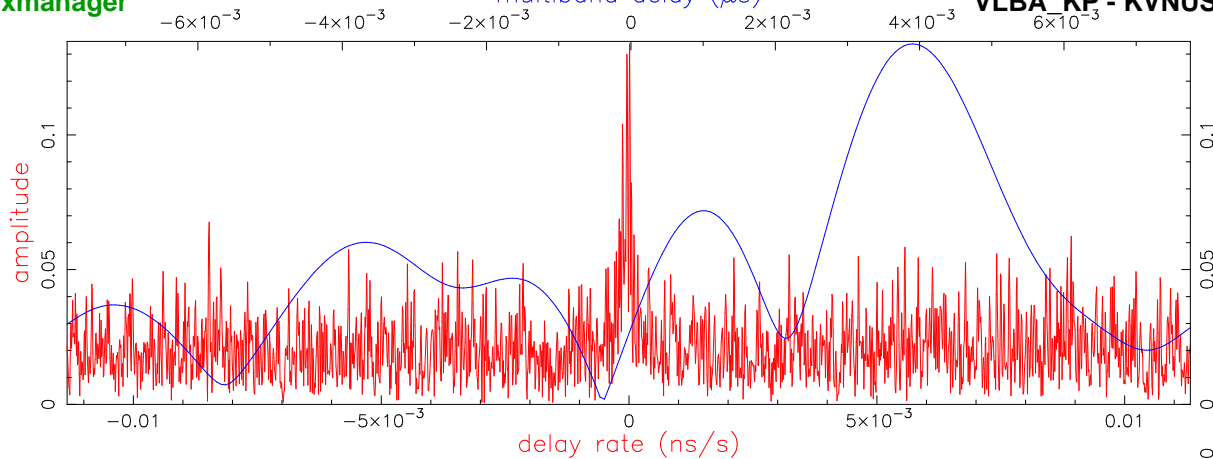
Group delay (usec)(sbd)	-2.60211729815E+03	Apriori delay (usec)	-2.60140188640E+03	Resid mbdelay (usec)	3.33824E-03	+/-	1.8E-04
Sband delay (usec)	-2.60212211615E+03	Apriori clock (usec)	-2.2243218E+00	Resid sbdelay (usec)	-7.20230E-01	+/-	1.4E-03
Phase delay (usec)	-2.60140188678E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-3.87027E-07	+/-	6.0E-07
Delay rate (us/s)	-1.65957259994E+00	Apriori rate (us/s)	-1.65956552621E+00	Resid rate (us/s)	-7.07373E-06	+/-	2.2E-09
Total phase (deg)	-189.9	Apriori accel (us/s/s)	9.93551826814E-06	Resid phase (deg)	-12.0	+/-	18.6

ph/seg (deg)	50.6	Theor.	44.5	Amplitude	0.122 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	59.8	Search (2048X32)	0.099	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	26.3	Inc. seg. avg.	0.115	Inc. frq. avg.	0.115	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	45.1	Inc. frq. avg.	0.115			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

k: az 300.0 el 39.2 pa 78.6 u: az 64.5 el 47.0 pa -79.7 u,v (fr/asec) 12725.376 190.022 simultaneous interpolator

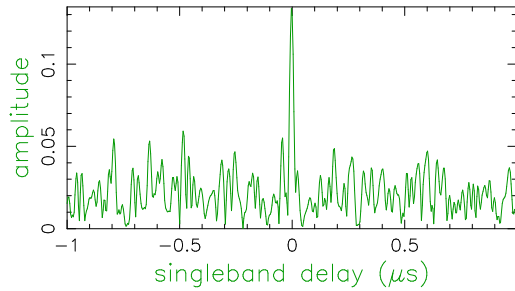
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ku..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ku.W.146.1M8OF

multiband delay (μ s)

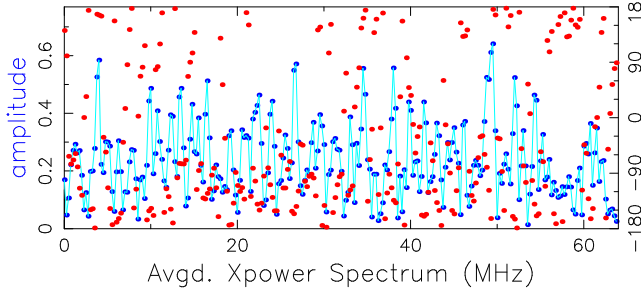


Fringe quality 9

SNR 8.1
Int time 477.468
Amp 0.135
Phase 142.8
PFD 2.8e-07
Delays (us)
SBD -0.002756
MBD 0.003922
Fringe rate (Hz)
0.001195
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

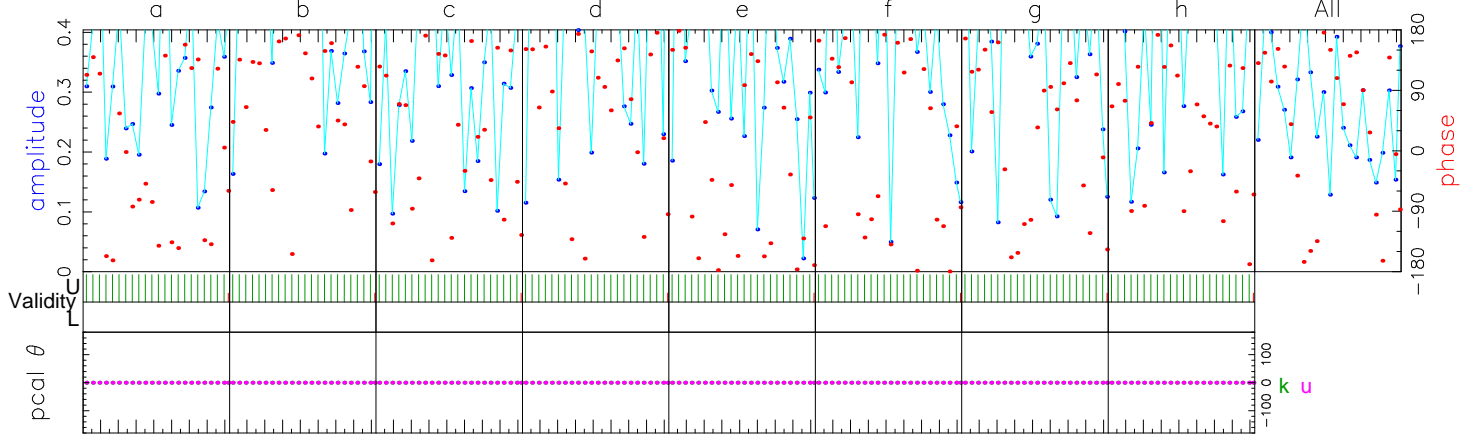


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133517
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

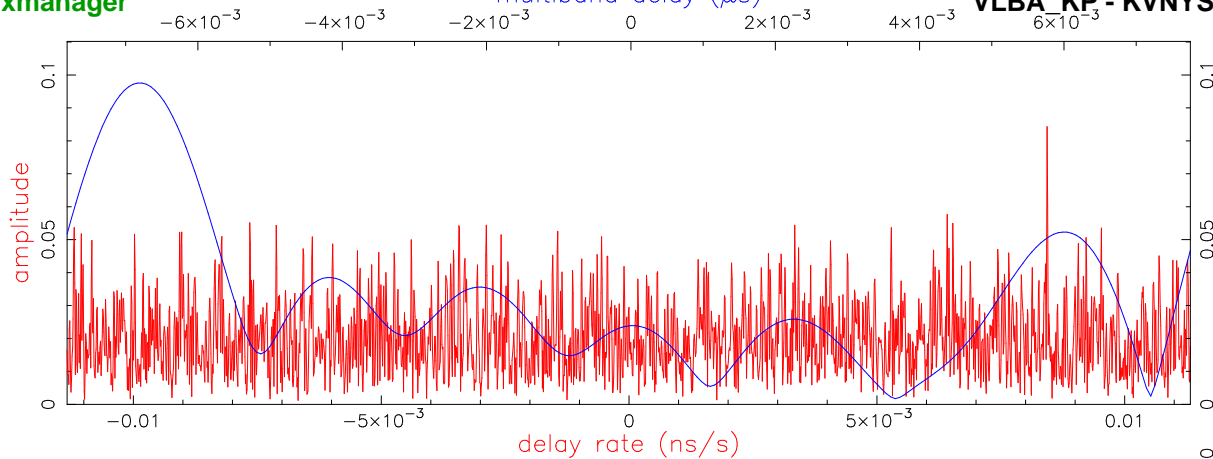
Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	163.3	116.4	159.0	132.1	-174.0	175.5	137.6	96.2	Phase	142.8
	0.1	0.2	0.0	0.2	0.1	0.2	0.1	0.2	Ampl.	0.1
	153.2	256.1	22.8	256.0	257.6	255.9	35.9	255.0	Sbd box	256.3
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ku	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.60139796477E+03		Apriori delay (usec)		-2.60140188640E+03		Resid mbdelay (usec)		3.92162E-03	+/- 1.3E-04
Sband delay (usec)	-2.60140464215E+03		Apriori clock (usec)		-2.2243218E+00		Resid sbdelay (usec)		-2.75575E-03	+/- 1.1E-03
Phase delay (usec)	-2.60140188179E+03		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		4.60380E-06	+/- 4.6E-07
Delay rate (us/s)	-1.65956551234E+00		Apriori rate (us/s)		-1.65956552621E+00		Resid rate (us/s)		1.38686E-08	+/- 1.7E-09
Total phase (deg)			Apriori accel (us/s/s)		9.93551826814E-06		Resid phase (deg)		142.8	+/- 14.2

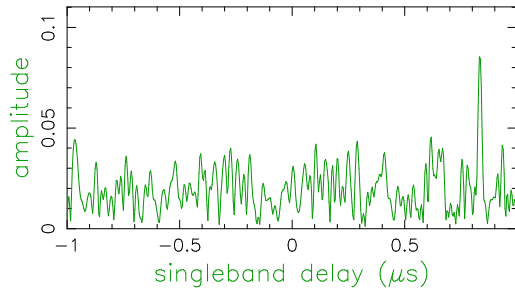
ph/seg (deg) 75.8 34.1 Amplitude 0.135 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 121.7 59.6 Search (2048X32) 0.131 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 33.2 20.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 51.6 35.1 Inc. seg. avg. 0.230 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 k: az 300.0 el 39.2 pa 78.6 u: az 64.5 el 47.0 pa -79.7 u,v (fr/asec) 12725.376 190.022 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ku..1M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ku.W.90.1M8OF

multiband delay (μ s)

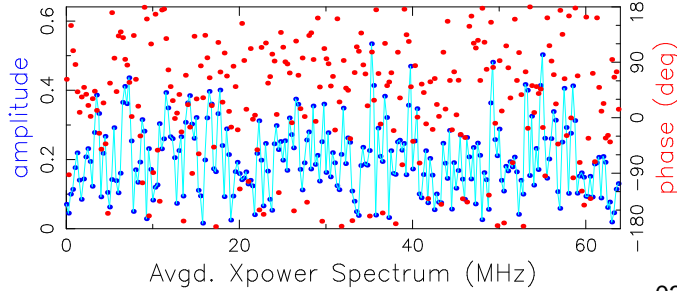


Fringe quality 0

SNR 5.2
Int time 477.458
Amp 0.110
Phase -140.6
PFD 1.0e+00
Delays (us)
SBD 0.833704
MBD 0.008301
Fringe rate (Hz)
0.727704
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

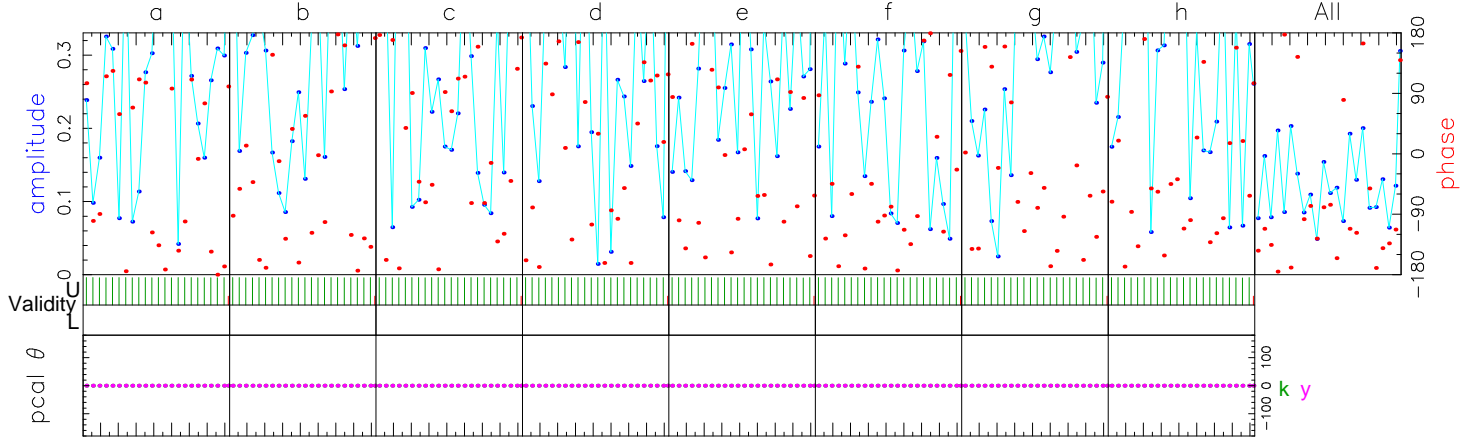


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133527
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	167.6	-136.8	178.4	155.0	-120.4	-114.6	-100.7	-107.8	Phase	-140.6
k	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	Ampl.	0.1
y	285.9	29.8	452.0	315.7	303.7	415.0	389.7	502.1	Sbd box	470.4
k	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:y	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-2.38425341997E+03	Apriori delay (usec)	-2.38508984575E+03	Resid mbdelay (usec)	8.30078E-03	+/-	2.1E-04
Sband delay (usec)	-2.38425614200E+03	Apriori clock (usec)	-9.0299988E-01	Resid sbdelay (usec)	8.33704E-01	+/-	1.7E-03
Phase delay (usec)	-2.38508985028E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-4.53373E-06	+/-	7.1E-07
Delay rate (us/s)	-1.66097620738E+00	Apriori rate (us/s)	-1.66098465530E+00	Resid rate (us/s)	8.44792E-06	+/-	2.6E-09
Total phase (deg)	-253.2	Apriori accel (us/s/s)	6.67329651112E-06	Resid phase (deg)	-140.6	+/-	22.1

ph/seg (deg)	51.8	Theor.	53.0	Amplitude	0.110 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	72.3	Search (2048X32)	0.095	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	45.2	Interp.	0.000	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	40.6	Inc. seg. avg.	0.110	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
		Inc. frq. avg.	0.119	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

k: az 300.0 el 39.2 pa 78.6 y: az 65.9 el 46.1 pa -75.8 u,v (fr/asec) 12729.617 -224.945 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ky..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ky.W.136.11M8OF

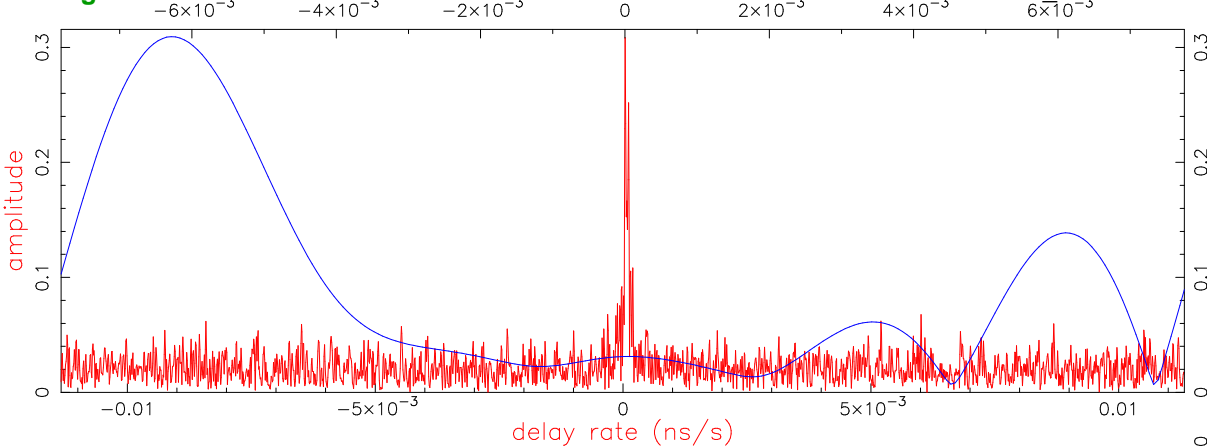
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M8OF, No0119, ky

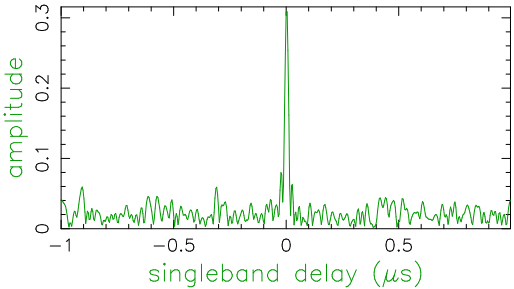
VLBA_KP - KVNYS, fgroup W, pol LL

multiband delay (μ s)

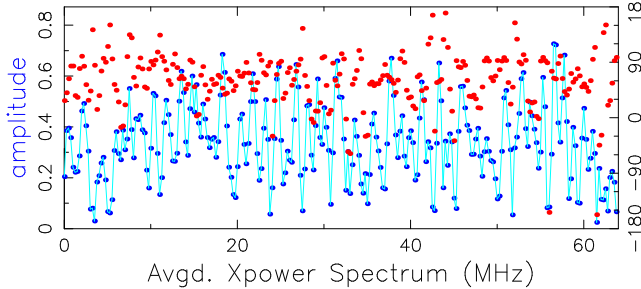


Fringe quality 8

SNR 18.9
 Int time 477.459
 Amp 0.316
 Phase 160.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.001975
 MBD -0.006372
 Fringe rate (Hz) 0.004113
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

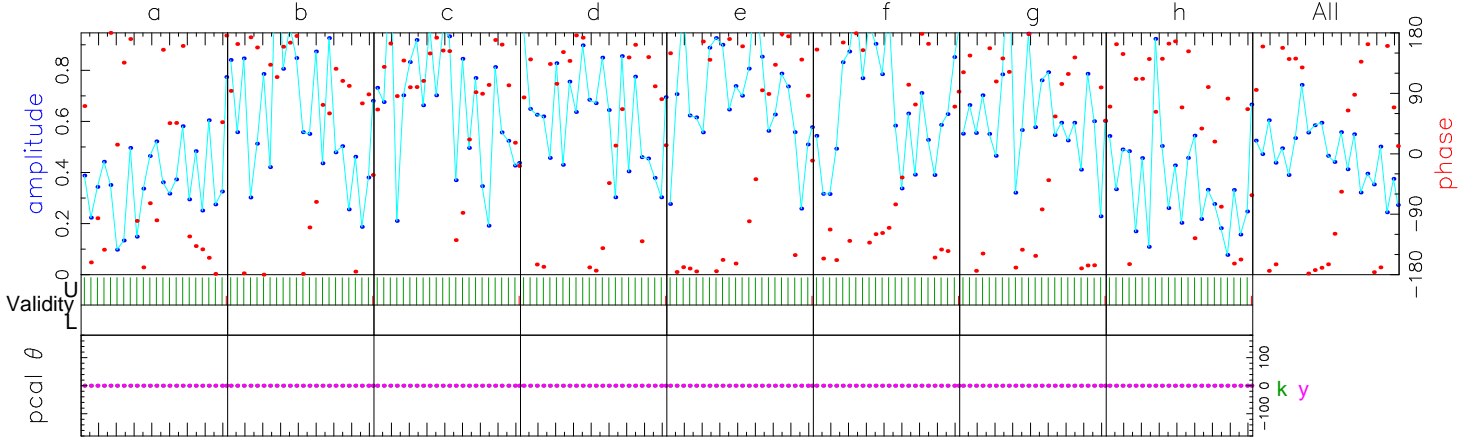


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133516
 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	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
k:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
ky	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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-2.38508059241E+03	Apriori delay (usec)	-2.38508984575E+03	Resid mbdelay (usec)	-6.37166E-03	+/-	5.8E-05
Sband delay (usec)	-2.38508787100E+03	Apriori clock (usec)	-9.0299988E-01	Resid sbdelay (usec)	1.97475E-03	+/-	4.6E-04
Phase delay (usec)	-2.38508984057E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	5.18320E-06	+/-	2.0E-07
Delay rate (us/s)	-1.66098460755E+00	Apriori rate (us/s)	-1.66098465530E+00	Resid rate (us/s)	4.77518E-08	+/-	7.1E-10
Total phase (deg)	48.1	Apriori accel (us/s/s)	6.67329651112E-06	Resid phase (deg)	160.7	+/-	6.1

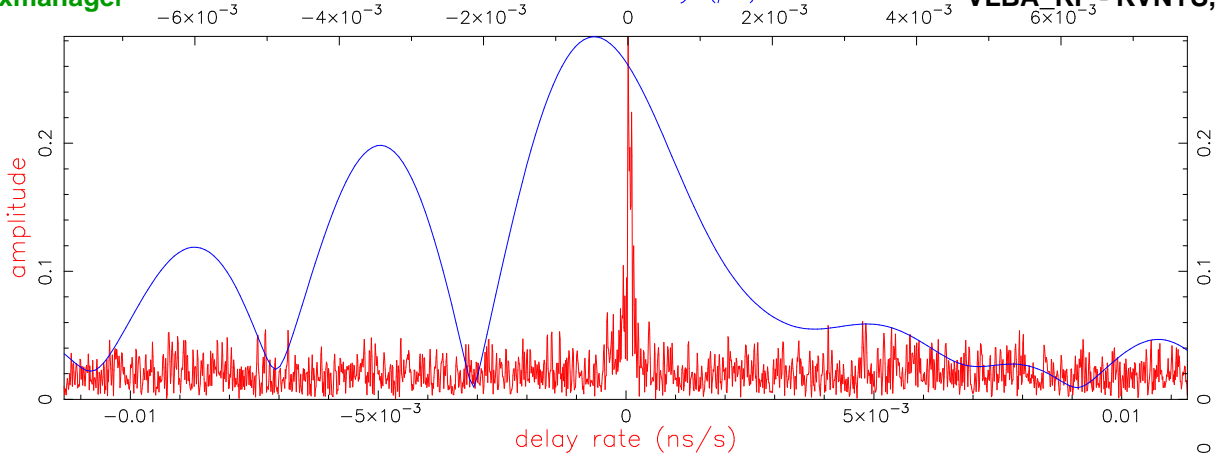
ph/seg (deg)	RMS 56.1	Theor. 14.6	Amplitude Search (2048X32)	0.316 +/- 0.017	0.302	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	62.1	25.4	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	30.0	8.6	Inc. seg. avg.	0.462	0.462	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	32.8	15.0	Inc. frq. avg.	0.335	0.335	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 300.0 el 39.2 pa 78.6 y: az 65.9 el 46.1 pa -75.8 u,v (fr/asec) 12729.617 -224.945 simultaneous interpolator

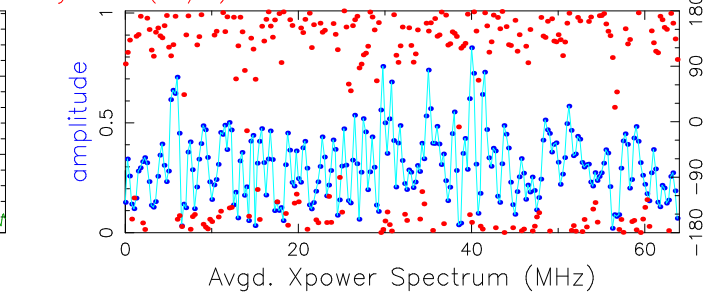
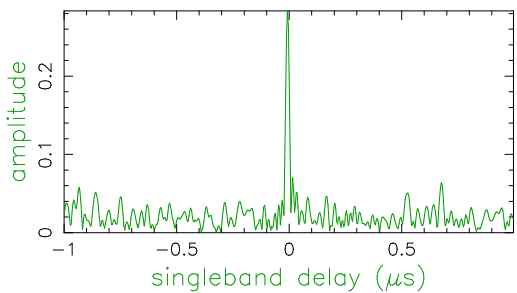
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ky..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ky.W.82.11M8OF

multiband delay (μ s)

Fringe quality 8

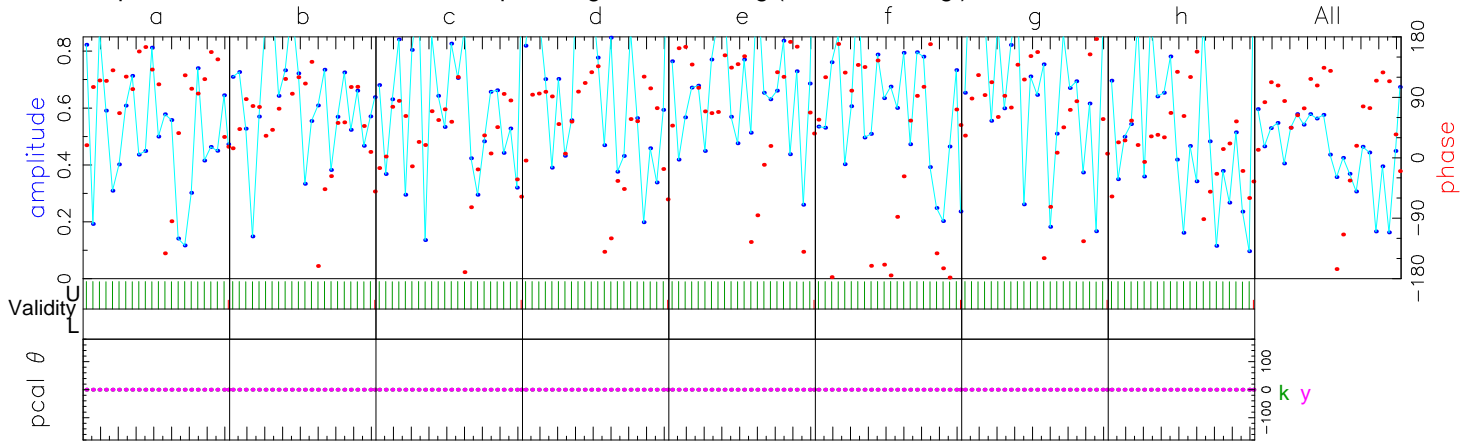


SNR 16.9
Int time 477.458
Amp 0.283
Phase 85.4
PFD 0.0e+00
Delays (us)
SBD -0.007389
MBD -0.000455
Fringe rate (Hz)
0.004014
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133520
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	113.5	66.3	44.7	80.1	116.5	140.9	95.5	20.9		85.4
k	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.3		0.3
y	253.6	255.0	255.4	255.7	255.5	255.2	254.6	253.8		255.1
k	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
k:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:y	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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-2.38509030088E+03		Apriori delay (usec)		-2.38508984575E+03		Resid mbdelay (usec)		-4.55133E-04	+/- 6.4E-05
Sband delay (usec)	-2.38509723425E+03		Apriori clock (usec)		-9.0299988E-01		Resid sbdelay (usec)		-7.38850E-03	+/- 5.1E-04
Phase delay (usec)	-2.38508984300E+03		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		2.75423E-06	+/- 2.2E-07
Delay rate (us/s)	-1.66098460870E+00		Apriori rate (us/s)		-1.66098465530E+00		Resid rate (us/s)		4.65969E-08	+/- 7.9E-10
Total phase (deg)			Apriori accel (us/s/s)		6.67329651112E-06		Resid phase (deg)		85.4	+/- 6.8

ph/seg (deg) 60.2 16.2 Search (2048X32) 0.279 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 73.7 28.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 43.1 9.6 Inc. seg. avg. 0.435 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 27.1 16.7 Inc. frq. avg. 0.341 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 300.0 el 39.2 pa 78.6 y: az 65.9 el 46.1 pa -75.8 u,v (fr/asec) 12729.617 -224.945 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ky..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ky.W.99.11M8OF