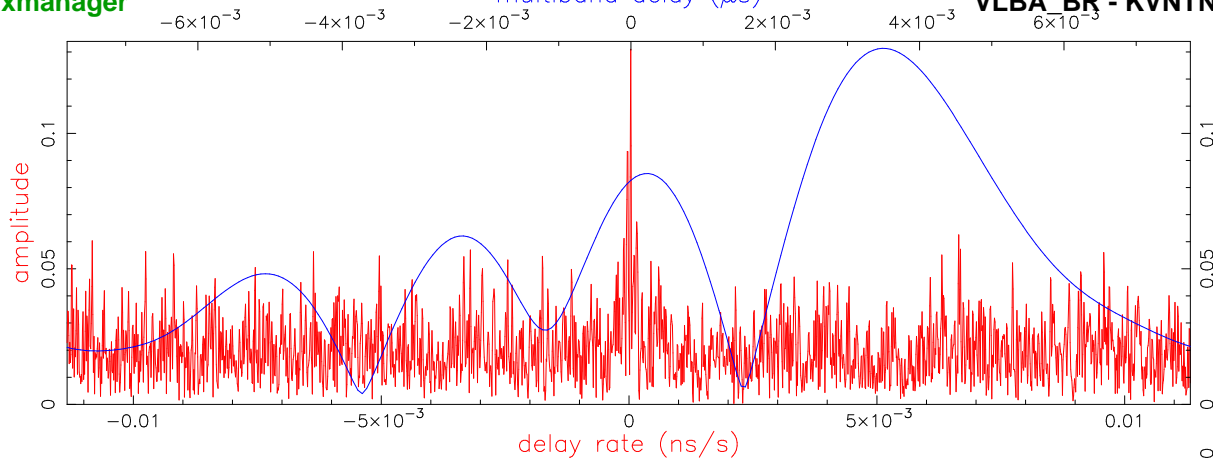
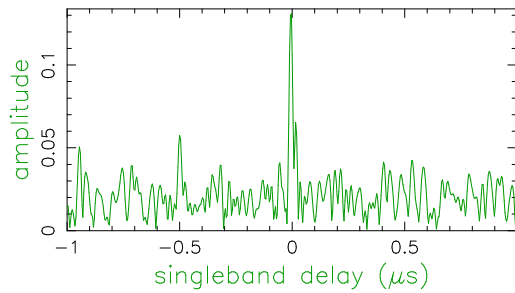


multiband delay (μ s)

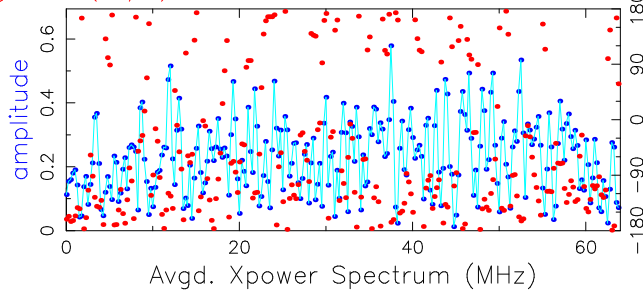


Fringe quality 9

SNR 8.0
Int time 479.974
Amp 0.134
Phase 118.7
PFD 3.5e-07
Delays (us)
SBD -0.005703
MBD 0.003396
Fringe rate (Hz)
0.002542
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

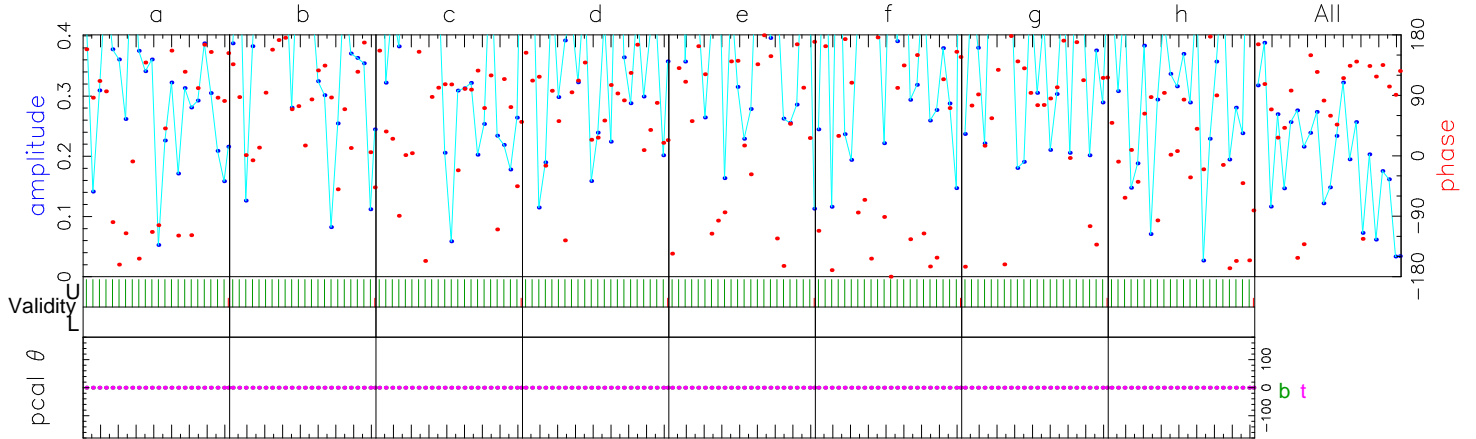


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133458
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
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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
b:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:t	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

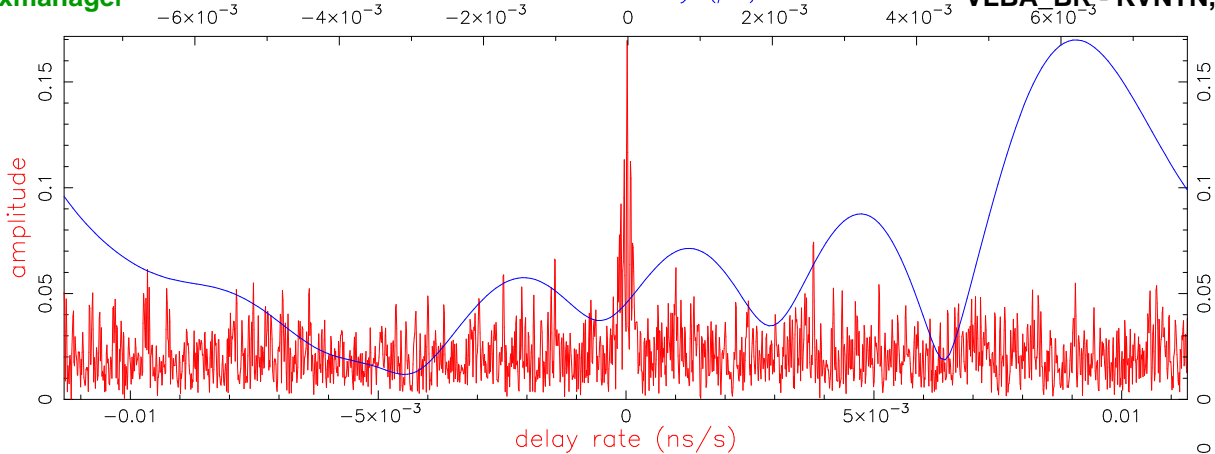
Group delay (usec)(sbd)	1.30601058576E+03	Apriori delay (usec)	1.30602281508E+03	Resid mbdelay (usec)	3.39568E-03	+/-	1.4E-04
Sband delay (usec)	1.30601711258E+03	Apriori clock (usec)	-3.0877743E+00	Resid sbdelay (usec)	-5.70250E-03	+/-	1.1E-03
Phase delay (usec)	1.30602281890E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	3.82743E-06	+/-	4.6E-07
Delay rate (us/s)	-1.46404182266E+00	Apriori rate (us/s)	-1.46404185217E+00	Resid rate (us/s)	2.95079E-08	+/-	1.7E-09
Total phase (deg)	223.4	Apriori accel (us/s/s)	7.70502404426E-06	Resid phase (deg)	118.7	+/-	14.3

ph/seg (deg)	RMS 54.7	Theor. 34.3	Amplitude Search (2048X32)	0.134 +/- 0.017	0.128	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	84.3	59.8	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)	60.1	20.2	Inc. seg. avg.	0.171	0.171	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	45.9	35.3	Inc. frq. avg.	0.163	0.163	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

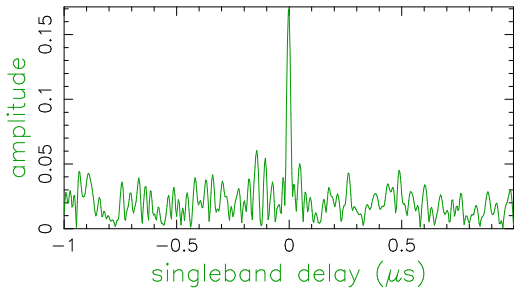
b: az 281.8 el 50.9 pa 60.8 t: az 62.0 el 43.9 pa -80.0 u,v (fr/asec) 11220.482 1695.018 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/bt..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/bt.W.12.11M8OF

multiband delay (μ s)

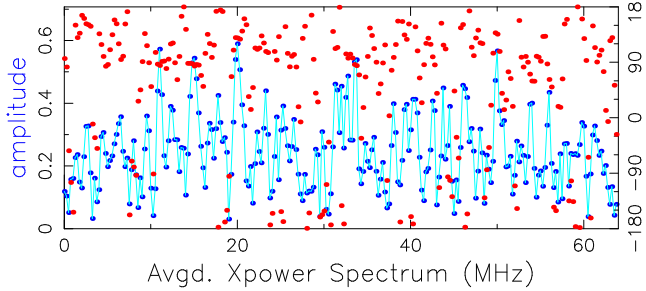
Fringe quality 9



SNR 10.3
Int time 479.974
Amp 0.171
Phase 17.0
PFD 4.0e-16
Delays (us)
SBD -0.002471
MBD 0.006287
Fringe rate (Hz)
0.002197
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

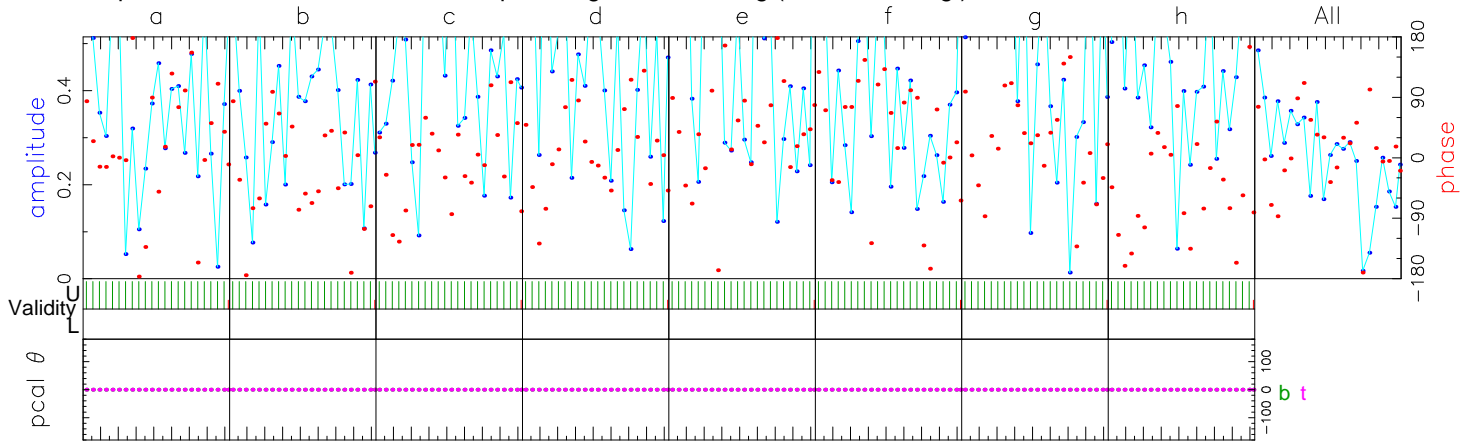


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133502
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	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
b:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:t	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 1.30601347707E+03 Apriori delay (usec) 1.30602281508E+03 Resid mbdelay (usec) 6.28700E-03 +/- 1.1E-04
 Sband delay (usec) 1.30602034408E+03 Apriori clock (usec) -3.0877743E+00 Resid sbdelay (usec) -2.47100E-03 +/- 8.4E-04
 Phase delay (usec) 1.30602281563E+03 Apriori clockrate (us/s) -9.9999991E-08 Resid phdelay (usec) 5.49625E-07 +/- 3.6E-07
 Delay rate (us/s) -1.46404182666E+00 Apriori rate (us/s) -1.46404185217E+00 Resid rate (us/s) 2.55010E-08 +/- 1.3E-09
 Total phase (deg) 121.7 Apriori accel (us/s/s) 7.70502404426E-06 Resid phase (deg) 17.0 +/- 11.2

RMS Theor. Amplitude 0.171 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 61.1 26.7 Search (2048X32) 0.165 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 81.8 46.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 49.0 15.8 Inc. seg. avg. 0.235 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 36.9 27.5 Inc. frq. avg. 0.206 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 281.8 el 50.9 pa 60.8 t: az 62.0 el 43.9 pa -80.0 u,v (fr/asec) 11220.482 1695.018 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/bt..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/bt.W.31.11M8OF

Mk4/DiFX fourfit 3.21 rev 2937

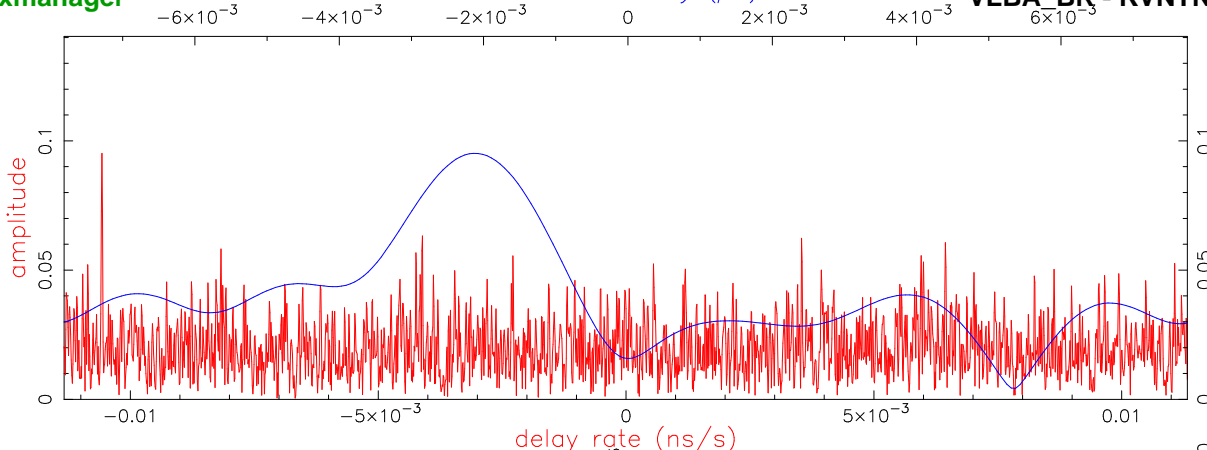
fxmanager

3C84.11M8OF, No0119, bt

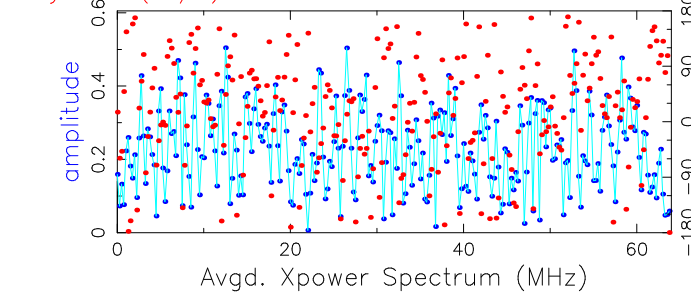
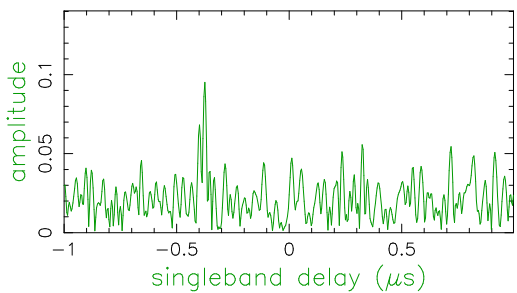
VLBA_BR - KVNTN, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

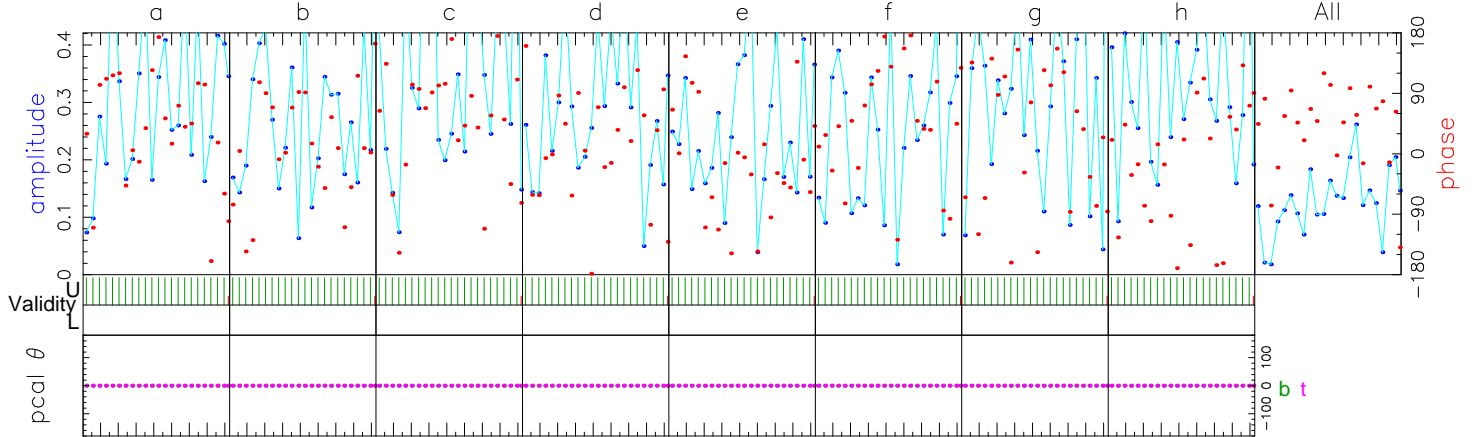


SNR 5.7
 Int time 479.974
 Amp 0.140
 Phase 56.9
 PFD 9.4e-01
 Delays (us)
 SBD -0.375255
 MBD -0.002133
 Fringe rate (Hz)
 -0.911668
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133506
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
b:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:t	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.30564568208E+03				1.30602281508E+03			Resid mbdelay (usec)	-2.13300E-03 +/- 1.9E-04
Sband delay (usec)		1.30564756008E+03				-3.0877743E+00			Resid sbdelay (usec)	-3.75255E-01 +/- 1.5E-03
Phase delay (usec)		1.30602281691E+03				-9.9999991E-08			Resid phdelay (usec)	1.83622E-06 +/- 6.5E-07
Delay rate (us/s)		-1.46405243573E+00				-1.46404185217E+00			Resid rate (us/s)	-1.05836E-05 +/- 2.3E-09
Total phase (deg)			161.6			7.70502404426E-06			Resid phase (deg)	56.9 +/- 20.1
	RMS	Theor.	Amplitude	0.140 +/- 0.025					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	51.9	48.2	Search (2048X32)	0.094					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	70.3	84.1	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	47.7	28.4	Inc. seg. avg.	0.139					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	54.7	49.6	Inc. frq. avg.	0.155					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 281.8 el 50.9 pa 60.8 t: az 62.0 el 43.9 pa -80.0 u,v (fr/asec) 11220.482 1695.018 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/bt..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/bt.W.50.11M8OF

Mk4/DiFX fourfit 3.21 rev 2937

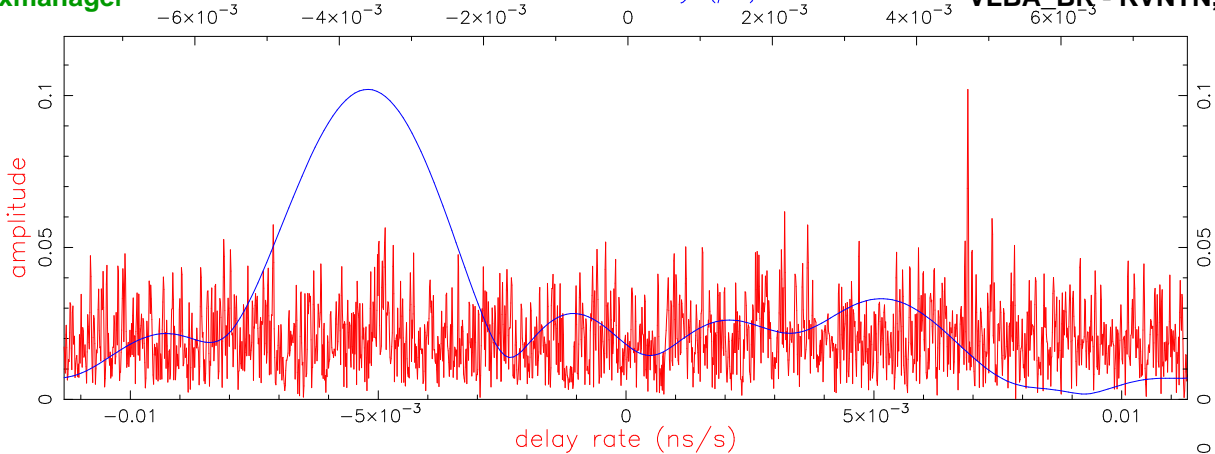
fxmanager

3C84.11M8OF, No0119, bt

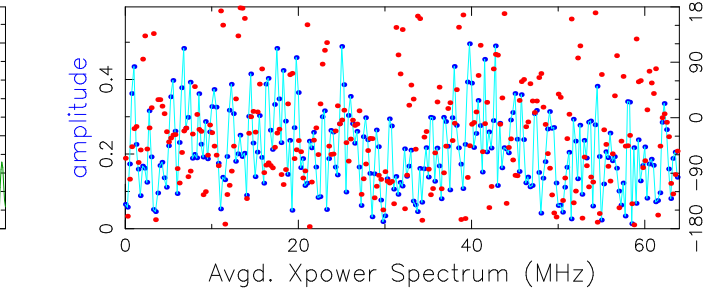
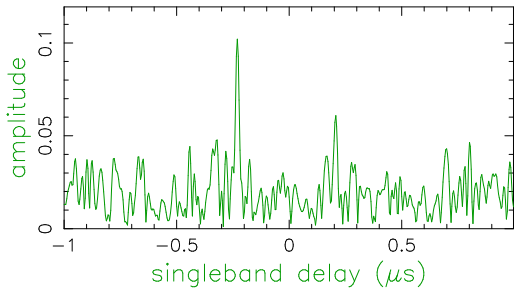
VLBA_BR - KVNTN, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

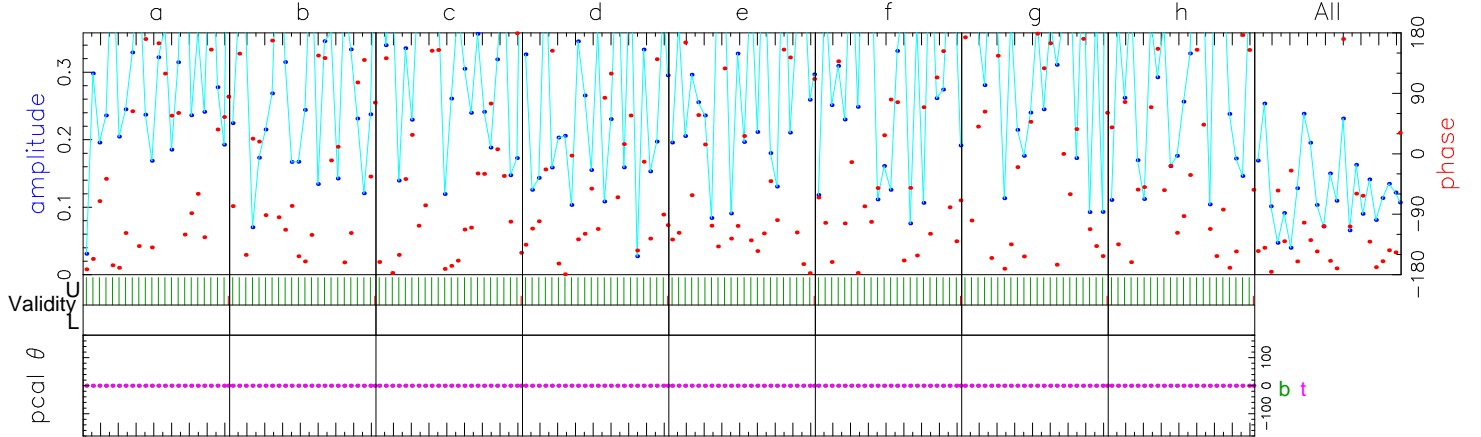


SNR 6.1
Int time 479.974
Amp 0.119
Phase -136.8
PFD 2.3e-01
Delays (us)
SBD -0.230460
MBD -0.003605
Fringe rate (Hz)
0.595114
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133510
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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
b:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:t	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		1.30578483502E+03				1.30602281508E+03			Resid mbdelay (usec)	-3.60506E-03 +/- 1.8E-04
Sband delay (usec)		1.30579235458E+03				-3.0877743E+00			Resid sbdelay (usec)	-2.30460E-01 +/- 1.4E-03
Phase delay (usec)		1.30602281067E+03				-9.9999991E-08			Resid phdelay (usec)	-4.41192E-06 +/- 6.0E-07
Delay rate (us/s)		-1.46403494348E+00				-1.46404185217E+00			Resid rate (us/s)	6.90868E-06 +/- 2.2E-09
Total phase (deg)			-32.1			7.70502404426E-06			Resid phase (deg)	-136.8 +/- 18.7

ph/seg (deg) 47.9 45.0 Search (2048X32) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.7 78.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.8 26.5 Inc. seg. avg. 0.115 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 22.3 46.3 Inc. frq. avg. 0.116 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 281.8 el 50.9 pa 60.8 t: az 62.0 el 43.9 pa -80.0 u,v (fr/asec) 11220.482 1695.018 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/bt..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/bt.W.70.11M8OF

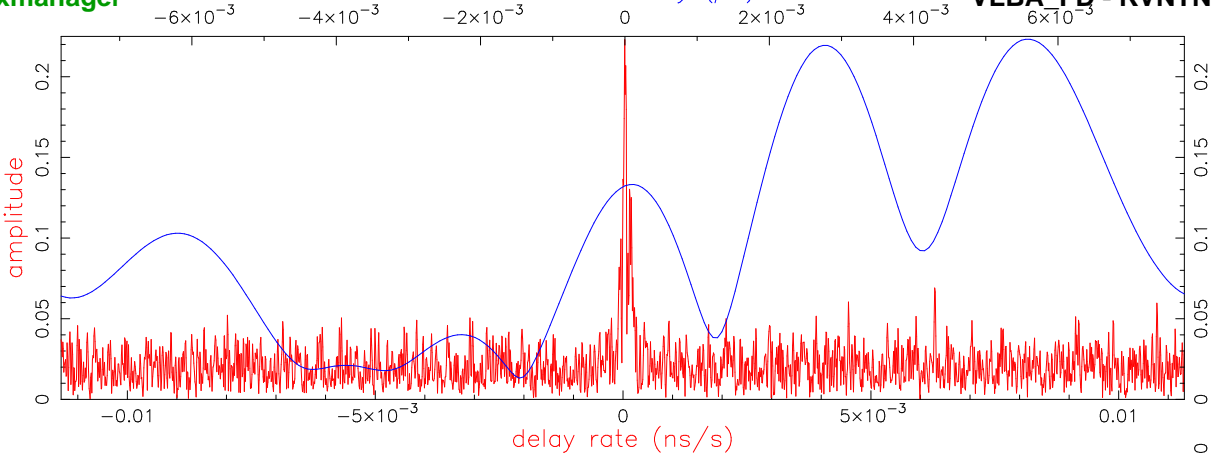
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M8OF, No0119, ft

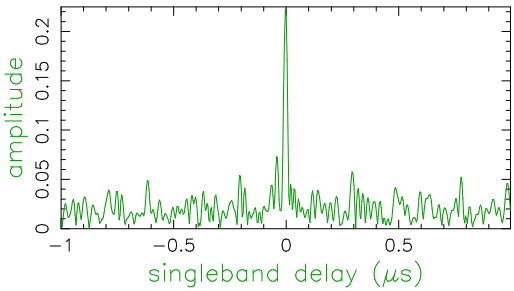
VLBA_FD - KVNTN, fgroup W, pol LL

multiband delay (μ s)

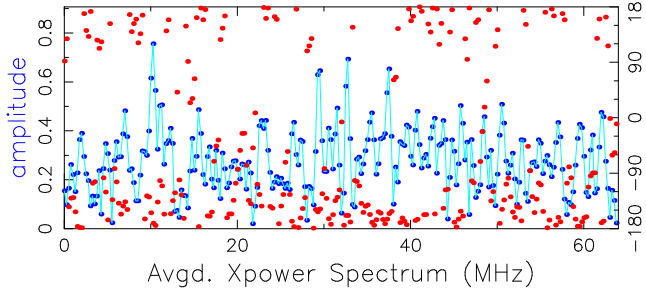


Fringe quality 9

SNR 13.4
 Int time 476.220
 Amp 0.225
 Phase 105.1
 PFD 2.5e-32
 Delays (us)
 SBD -0.002675
 MBD 0.005643
 Fringe rate (Hz)
 0.002779
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

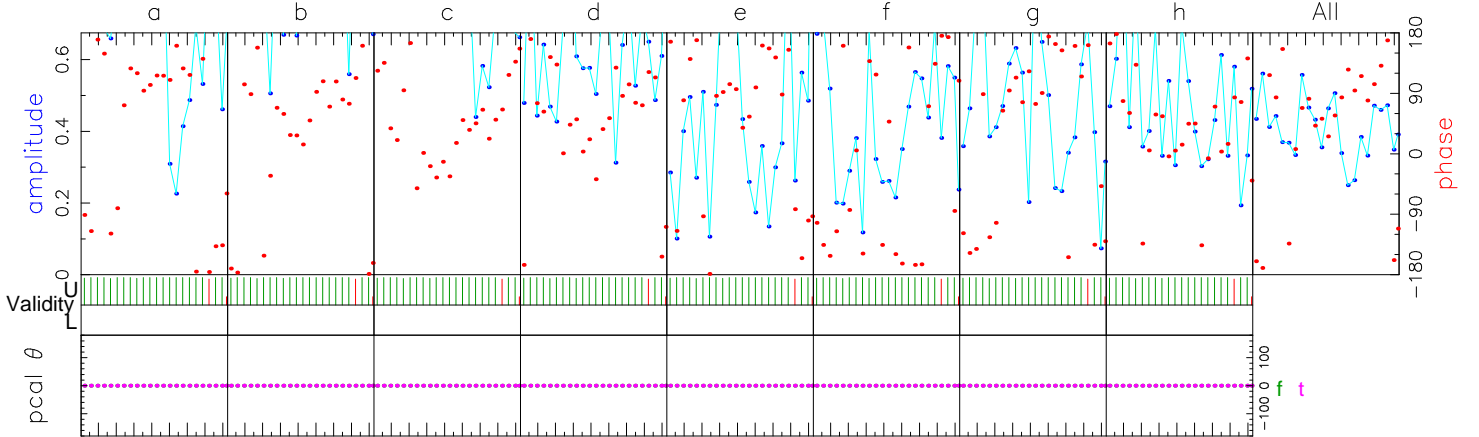


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.51
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133459
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
f:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
ft	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-3.71454405326E+03	Apriori delay (usec)	-3.71453407124E+03	Resid mbdelay (usec)	5.64298E-03	+/-	8.1E-05
Sband delay (usec)	-3.71453674599E+03	Apriori clock (usec)	6.4973221E+00	Resid sbdelay (usec)	-2.67475E-03	+/-	6.4E-04
Phase delay (usec)	-3.71453406785E+03	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	3.38974E-06	+/-	2.8E-07
Delay rate (us/s)	-1.76804610334E+00	Apriori rate (us/s)	-1.76804613560E+00	Resid rate (us/s)	3.22592E-08	+/-	1.0E-09
Total phase (deg)	-217.6	Apriori accel (us/s/s)	1.68542280353E-05	Resid phase (deg)	105.1	+/-	8.5

ph/seg (deg)	61.1	Theor.	20.4	Amplitude	0.225 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	89.8	Search (2048X32)	0.218	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	55.7	Inc. seg. avg.	0.385	Inc. frq. avg.	0.312	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	60.1	Inc. frq. avg.	0.312			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
f: az 302.4 el 32.9 pa 75.8		t: az 62.0 el 43.9 pa -80.0		u,v (fr/asec)	13570.458 746.119	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/ft..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ft.W.19.11M8OF

simultaneous interpolator

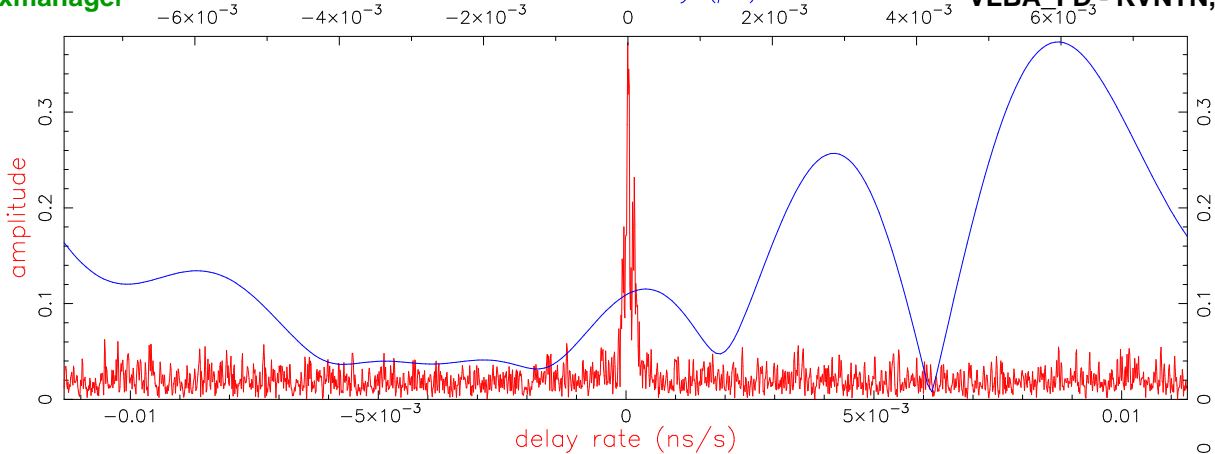
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M8OF, No0119, ft

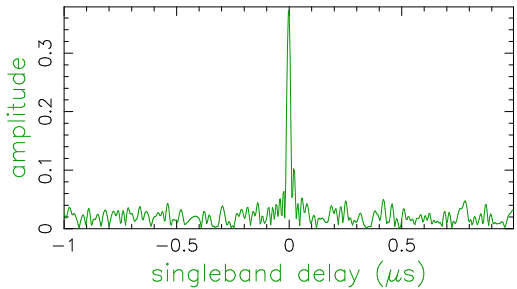
VLBA_FD - KVNTN, fgroup W, pol RR

multiband delay (μ s)

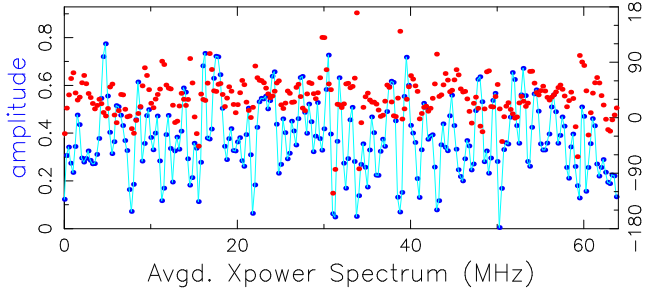


Fringe quality 8

SNR 22.6
 Int time 476.220
 Amp 0.379
 Phase -62.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.002242
 MBD 0.006036
 Fringe rate (Hz)
 0.002696
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

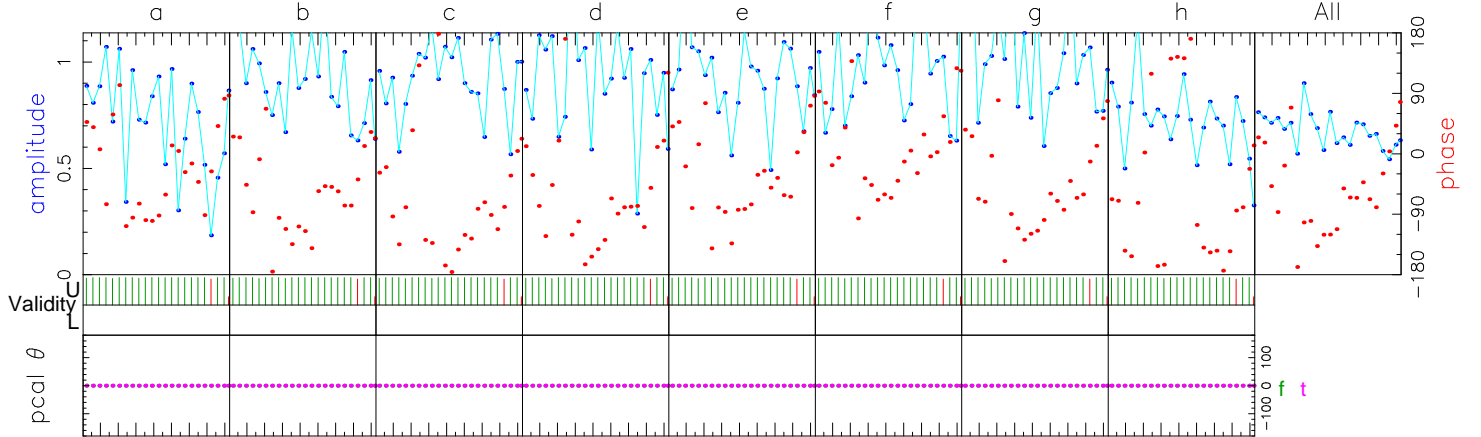


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.51
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133504
 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
	-27.6	-58.5	-107.1	-88.4	-36.8	-9.6	-54.0	-138.1	Phase	-62.1
	0.3	0.5	0.5	0.6	0.5	0.5	0.5	0.4	Ampl.	0.5
	254.4	256.2	256.9	257.0	256.7	256.5	256.0	254.2	Sbd box	256.4
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	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ft	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	
t	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-3.71454366032E+03		Apriori delay (usec)		-3.71453407124E+03		Resid mbdelay (usec)		6.03591E-03	+/- 4.8E-05
Sband delay (usec)	-3.71453631299E+03		Apriori clock (usec)		6.4973221E+00		Resid sbdelay (usec)		-2.24175E-03	+/- 3.8E-04
Phase delay (usec)	-3.71453407324E+03		Apriori clockrate (us/s)		2.9999999E-07		Resid phdelay (usec)		-2.00289E-06	+/- 1.6E-07
Delay rate (us/s)	-1.76804610431E+00		Apriori rate (us/s)		-1.76804613560E+00		Resid rate (us/s)		3.12934E-08	+/- 5.9E-10
Total phase (deg)			Apriori accel (us/s/s)		1.68542280353E-05		Resid phase (deg)		-62.1	+/- 5.1

ph/seg (deg) 62.1 12.1 Search (2048X32) 0.369 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 82.1 21.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.8 7.2 Inc. seg. avg. 0.665 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.3 12.5 Inc. frq. avg. 0.469 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 302.4 el 32.9 pa 75.8 t: az 62.0 el 43.9 pa -80.0 u,v (fr/asec) 13570.458 746.119 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ft..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ft.W.38.11M8OF

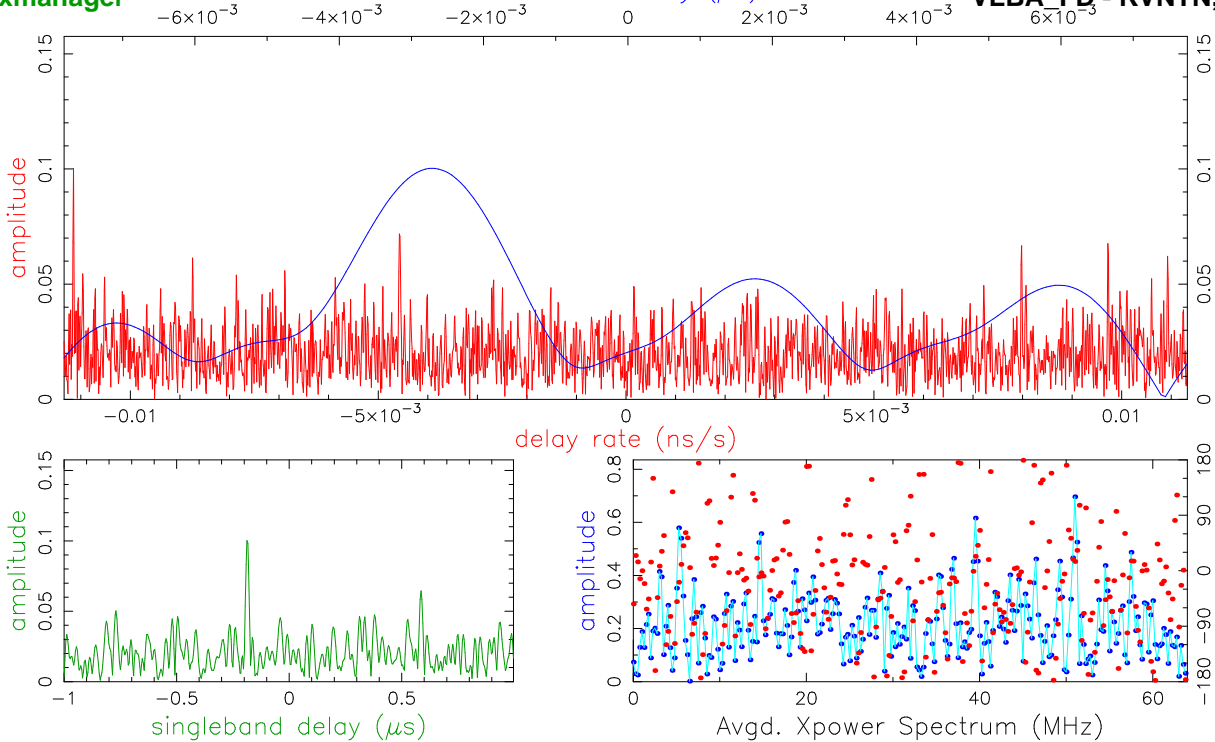
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M8OF, No0119, ft

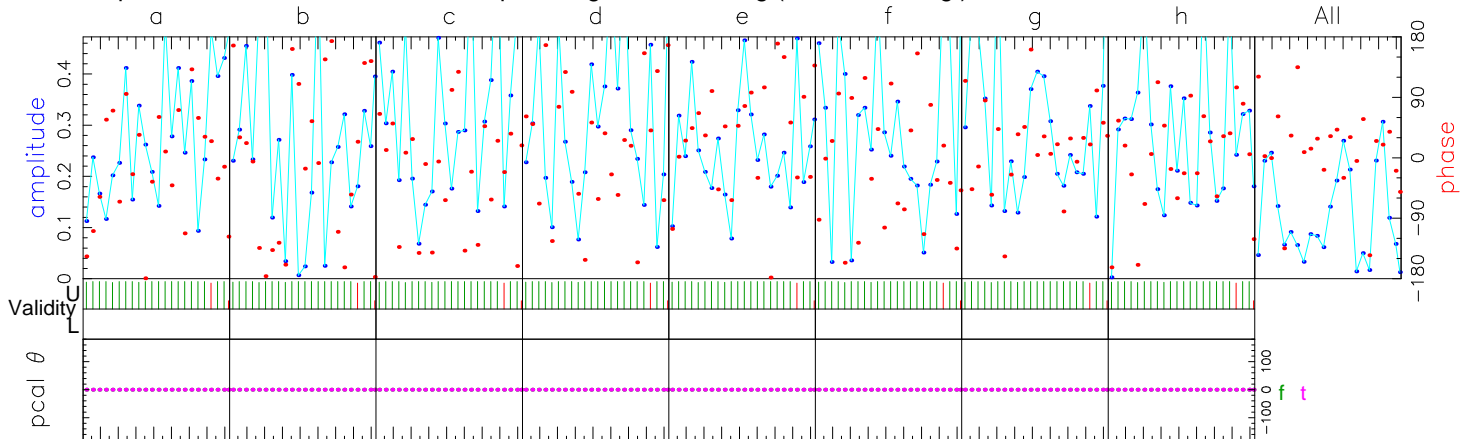
VLBA_FD - KVNTN, fgroup W, pol LR

multiband delay (μ s)



Fringe quality 0
 SNR 6.1
 Int time 476.220
 Amp 0.158
 Phase 18.9
 PFD 2.7e-01
 Delays (us)
 SBD -0.185952
 MBD -0.002731
 Fringe rate (Hz)
 -0.961483
 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
 2021:023:133508
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
f:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
ft	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-3.71472430252E+03									
Sband delay (usec)	-3.71472002374E+03									
Phase delay (usec)	-3.71453407063E+03									
Delay rate (us/s)	-1.76805729747E+00									
Total phase (deg)			-303.8							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

f: az 302.4 el 32.9 pa 75.8 t: az 62.0 el 43.9 pa -80.0 u,v (fr/asec) 13570.458 746.119 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ft..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ft.W.57.11M8OF

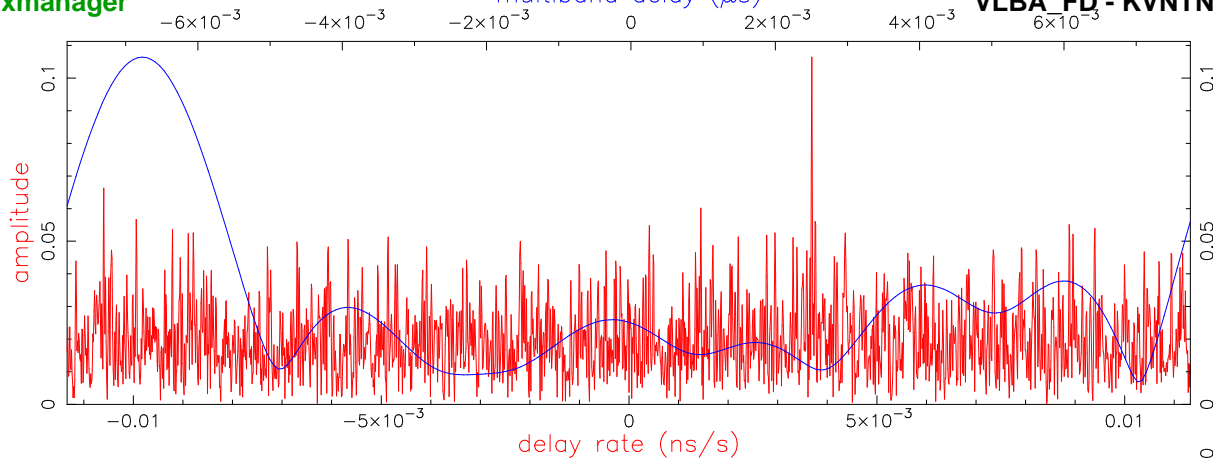
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M8OF, No0119, ft

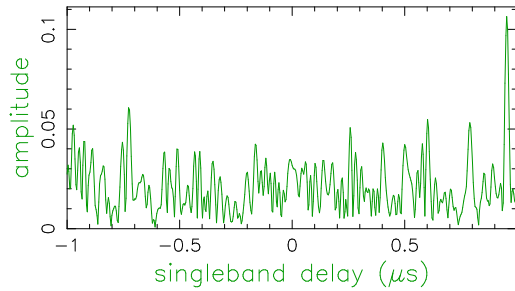
VLBA_FD - KVNTN, fgroup W, pol RL

multiband delay (μ s)

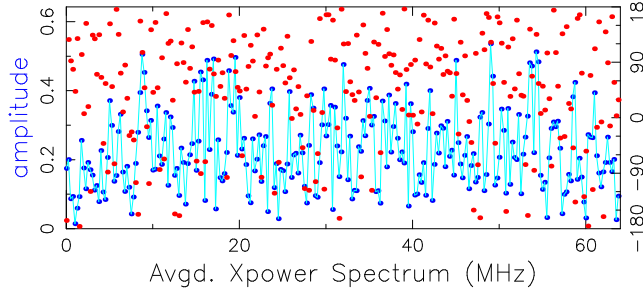


Fringe quality 0

SNR 6.4
Int time 476.220
Amp 0.111
Phase -4.7
PFD 5.6e-02
Delays (us)
SBD 0.953400
MBD -0.006761
Fringe rate (Hz)
0.317943
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

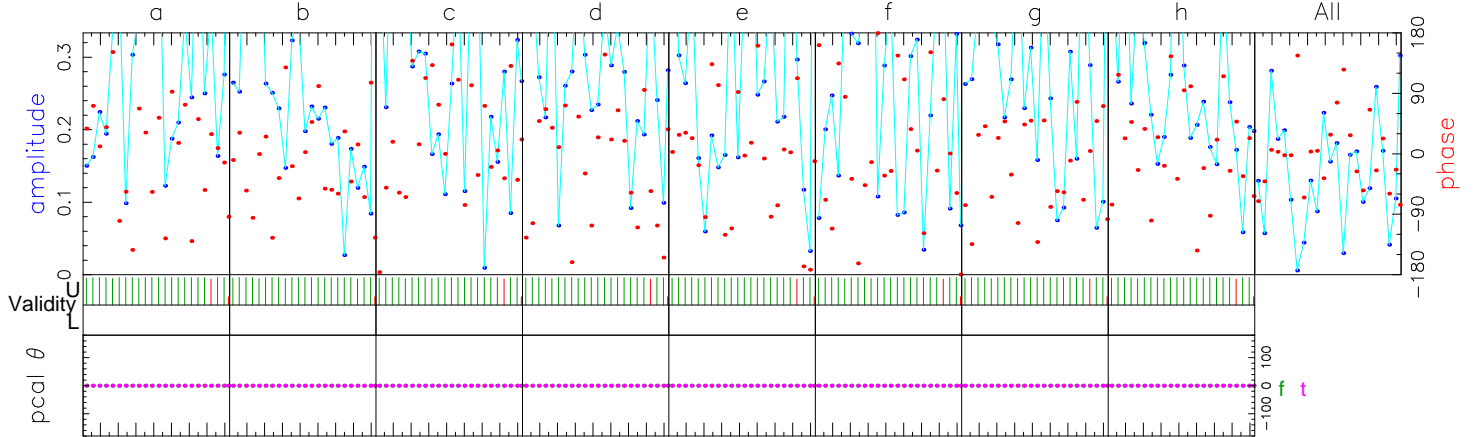


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.51
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133512
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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
f:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
ft	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) -3.71358770682E+03 Apriori delay (usec) -3.71453407124E+03 Resid mbdelay (usec) -6.76058E-03 +/- 1.7E-04
 Sband delay (usec) -3.71358067124E+03 Apriori clock (usec) 6.4973221E+00 Resid sbdelay (usec) 9.53400E-01 +/- 1.4E-03
 Phase delay (usec) -3.71453407139E+03 Apriori clockrate (us/s) 2.9999999E-07 Resid phdelay (usec) -1.51176E-07 +/- 5.8E-07
 Delay rate (us/s) -1.76804244459E+00 Apriori rate (us/s) -1.76804613560E+00 Resid rate (us/s) 3.69101E-06 +/- 2.1E-09
 Total phase (deg) -327.4 Apriori accel (us/s/s) 1.68542280353E-05 Resid phase (deg) -4.7 +/- 18.0

RMS Theor. Amplitude 0.111 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 57.3 43.2 Search (2048X32) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 75.1 75.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 20.2 25.5 Inc. seg. avg. 0.111 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 28.5 44.5 Inc. frq. avg. 0.107 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 t: az 62.0 el 43.9 pa -80.0 u,v (fr/asec) 13570.458 746.119 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ft..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ft.W.76.11M8OF

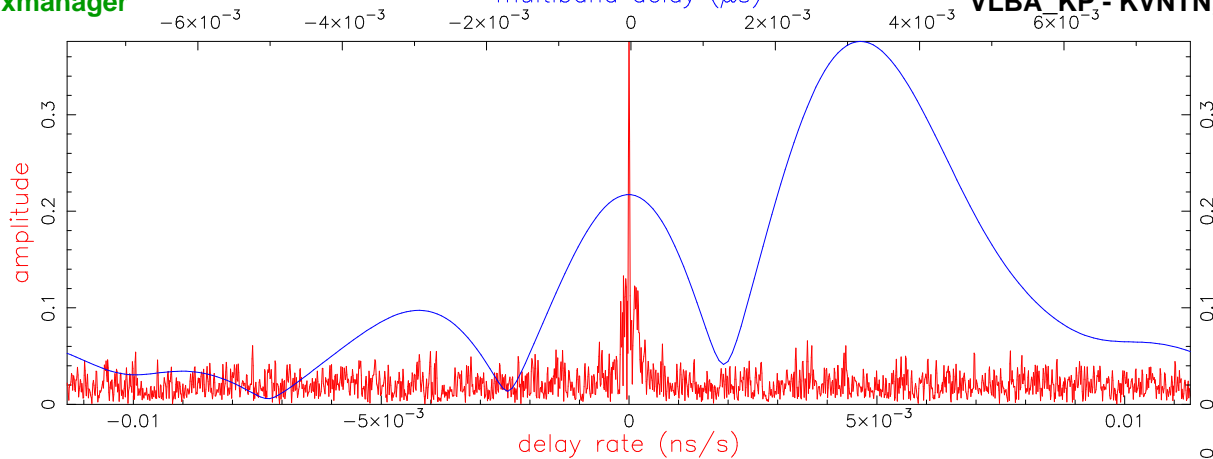
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M8OF, No0119, kt

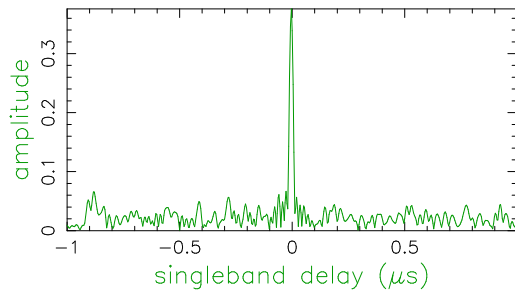
VLBA_KP - KVNTN, fgroup W, pol RR

multiband delay (μ s)

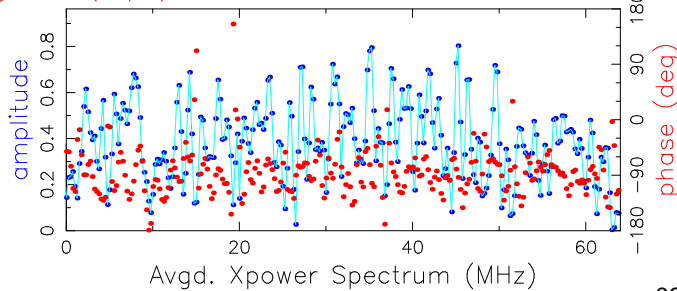


Fringe quality 8

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

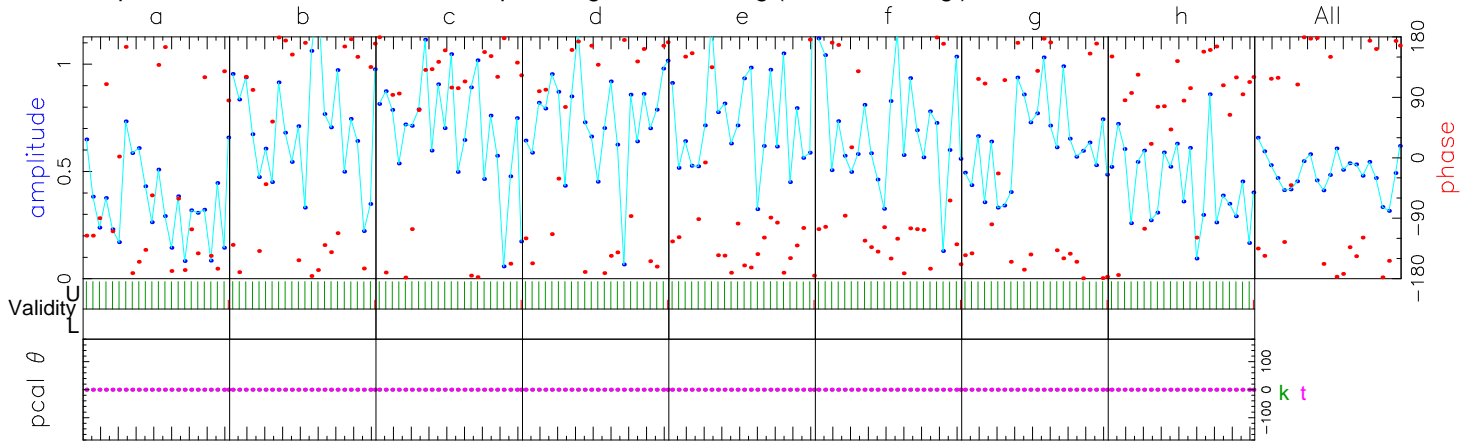


delay rate (ns/s)



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		Chan ids
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
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)					-1.81557536510E+03				3.16853E-03	+/- 4.8E-05
Apriori clock (usec)					-1.0389996E+00				-4.13600E-03	+/- 3.8E-04
Apriori clockrate (us/s)					0.0000000E+00				-5.57813E-06	+/- 1.6E-07
Apriori rate (us/s)					-1.70720671717E+00				Resid rate (us/s)	+/- 5.9E-10
Apriori accel (us/s/s)					8.19240466423E-06				Resid phase (deg)	+/- 173.0
RMS	45.5	12.2								
Theor.	12.2									
Amplitude					0.376 +/- 0.017					
Search (2048X32)					0.363					
Interp.					0.000					
Inc. seg. avg.					0.484					
Inc. frq. avg.					0.436					
PCal mode:					MANUAL, MANUAL					
PCal rate:					0.000E+00, 0.000E+00 (us/s)					
Bits/sample:					2x2					
Sample rate (MSamp/s):					128					
Data rate (Mb/s):					2048					
nlags:					256					
t_cohere					infinite					
sb window (us)					-1.000					1.000
mb window (us)					-0.008					0.008
dr window (ns/s)					-0.011					0.011
ion window (TEC)					0.00					0.00

k: az 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

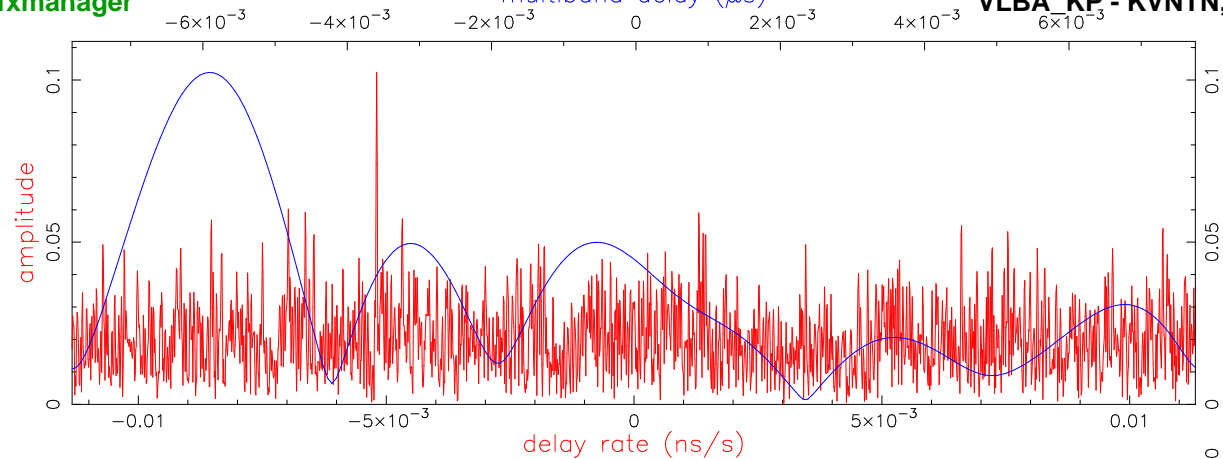
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM8OF, No0119, kt

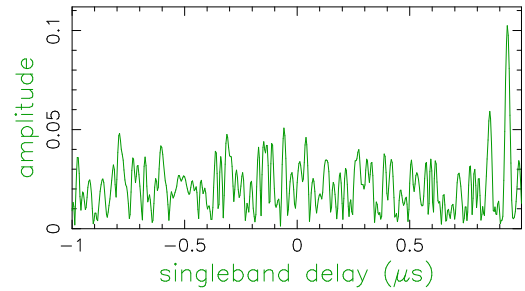
VLBA_KP - KVNTN, fgroup W, pol LR

multiband delay (μ s)

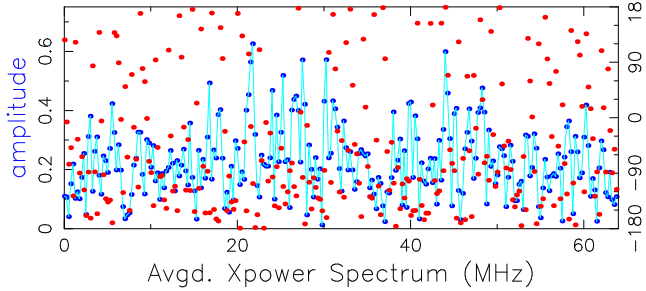


Fringe quality 0

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

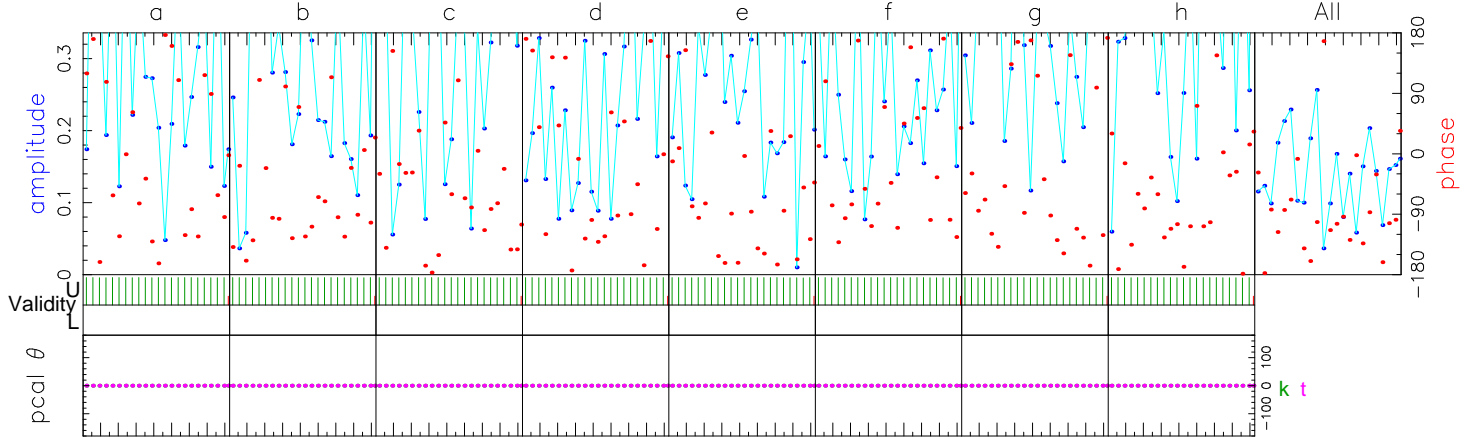


delay rate (ns/s)



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
	-125.4	-91.2	-79.4	-141.2	-82.2	-79.6	-131.7	-86.3	Phase	-99.7
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	148.5	330.0	55.2	406.2	102.7	74.3	495.0	497.1	Sbd box	496.1
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	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:t	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	
t	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.81464375963E+03		Apriori delay (usec)		-1.81557536510E+03		Resid mbdelay (usec)		-5.89453E-03	+/- 1.8E-04
Sband delay (usec)	-1.81464122210E+03		Apriori clock (usec)		-1.0389996E+00		Resid sbdelay (usec)		9.34143E-01	+/- 1.4E-03
Phase delay (usec)	-1.81557536832E+03		Apriori clockrate (us/s)		0.000000E+00		Resid phdelay (usec)		-3.21349E-06	+/- 6.0E-07
Delay rate (us/s)	-1.70721191782E+00		Apriori rate (us/s)		-1.70720671717E+00		Resid rate (us/s)		-5.20065E-06	+/- 2.2E-09
Total phase (deg)			Apriori accel (us/s/s)		8.19240466423E-06		Resid phase (deg)		-99.7	+/- 18.7

ph/seg (deg) 52.5 44.9 Search (2048X32) 0.098 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..1IM8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kt.W.126.1IM8OF

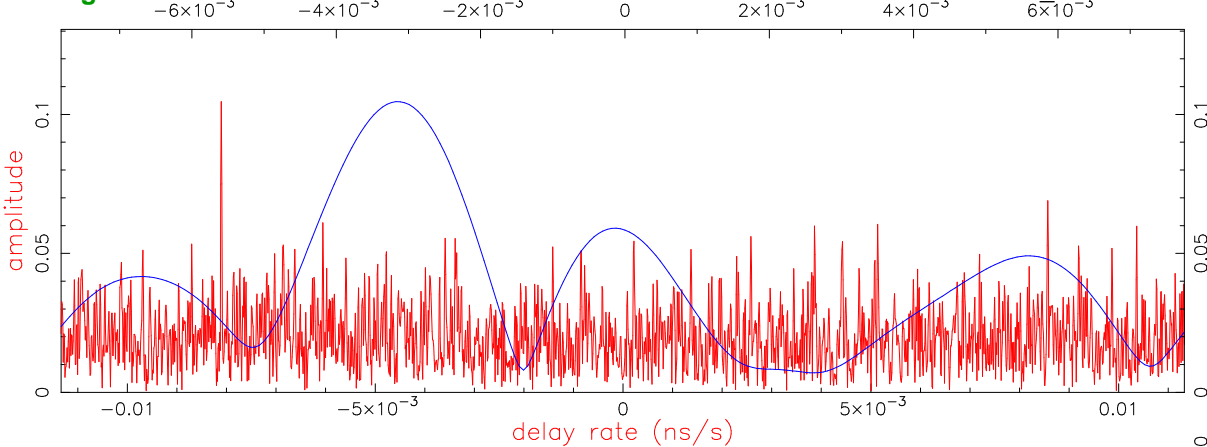
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM8OF, No0119, kt

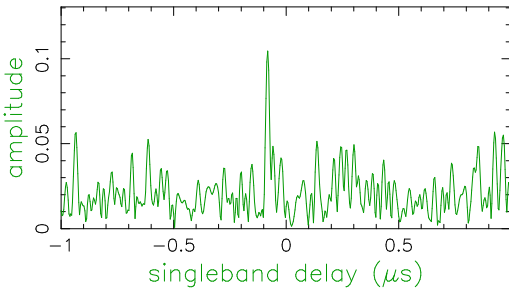
VLBA_KP - KVNTN, fgroup W, pol RL

multiband delay (μ s)

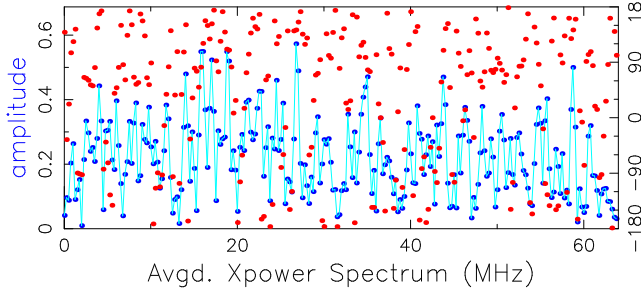


Fringe quality 0

SNR 6.3
 Int time 477.465
 Amp 0.131
 Phase -78.5
 PFD 9.8e-02
 Delays (us)
 SBD -0.082558
 MBD -0.003158
 Fringe rate (Hz)
 -0.698839
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

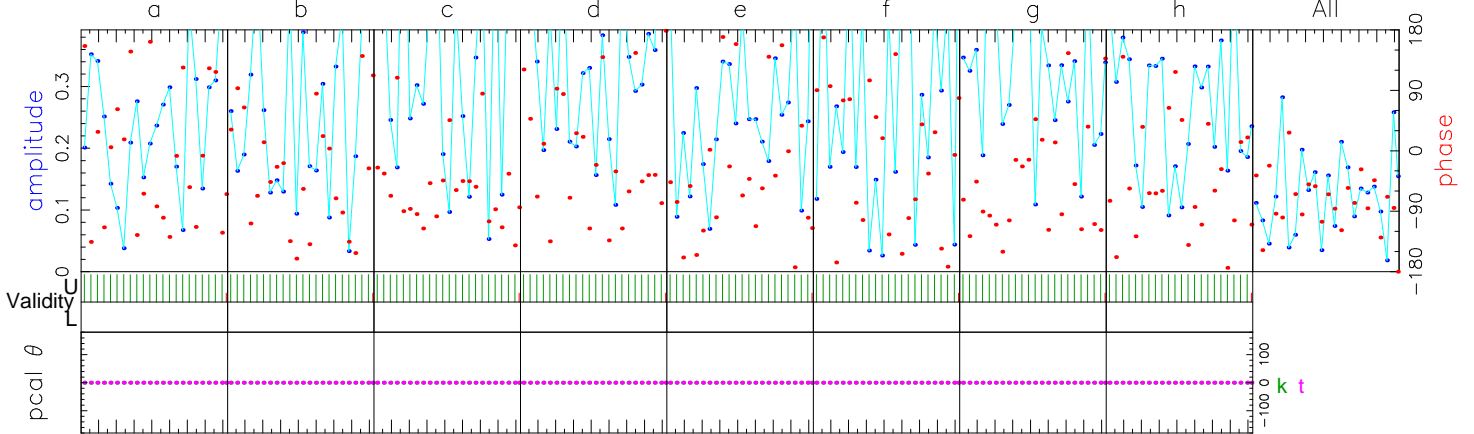


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133529
 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
	-114.9	-54.1	-68.6	-57.1	-97.4	-167.2	-66.3	-74.0	Phase	-78.5
	0.1	0.1	0.3	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	468.4	102.0	235.9	439.3	209.2	253.6	207.2	156.6	Sbd box	235.9
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	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:t	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	
t	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.81565664783E+03		Apriori delay (usec)		-1.81557536510E+03		Resid mbdelay (usec)		-3.15773E-03	+/- 1.7E-04
Sband delay (usec)	-1.81565792360E+03		Apriori clock (usec)		-1.0389996E+00		Resid sbdelay (usec)		-8.25585E-02	+/- 1.4E-03
Phase delay (usec)	-1.81557536764E+03		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-2.53301E-06	+/- 5.9E-07
Delay rate (us/s)	-1.70721483000E+00		Apriori rate (us/s)		-1.70720671717E+00		Resid rate (us/s)		-8.11283E-06	+/- 2.1E-09
Total phase (deg)			Apriori accel (us/s/s)		8.19240466423E-06		Resid phase (deg)		-78.5	+/- 18.3

ph/seg (deg) 40.4 43.9 Search (2048X32) 0.131 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 68.0 76.6 Interp. 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 42.6 25.9 Inc. seg. avg. 0.121 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 55.2 45.2 Inc. frq. avg. 0.133 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..1IM8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kt.W.147.1IM8OF

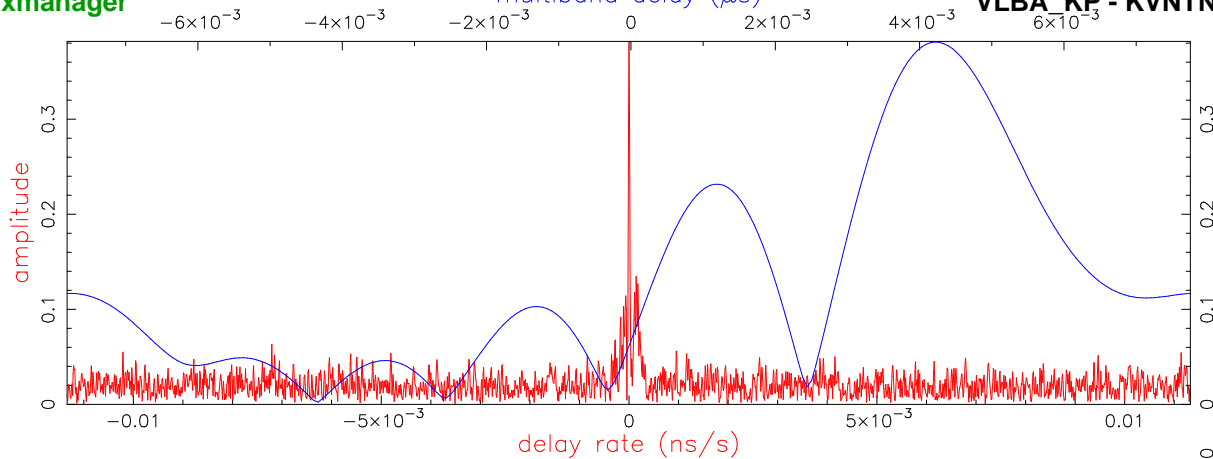
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, kt

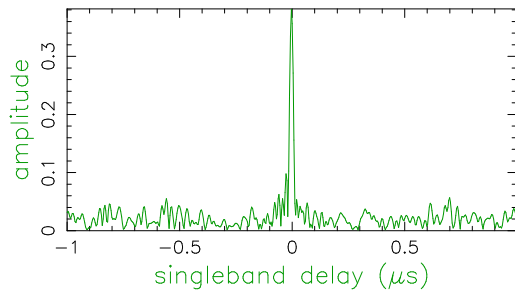
VLBA_KP - KVNTN, fgroup W, pol LL

multiband delay (μ s)

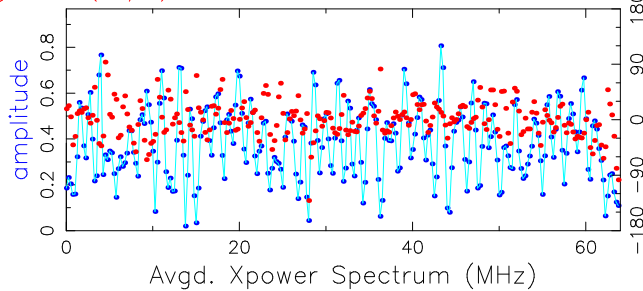


Fringe quality 8

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

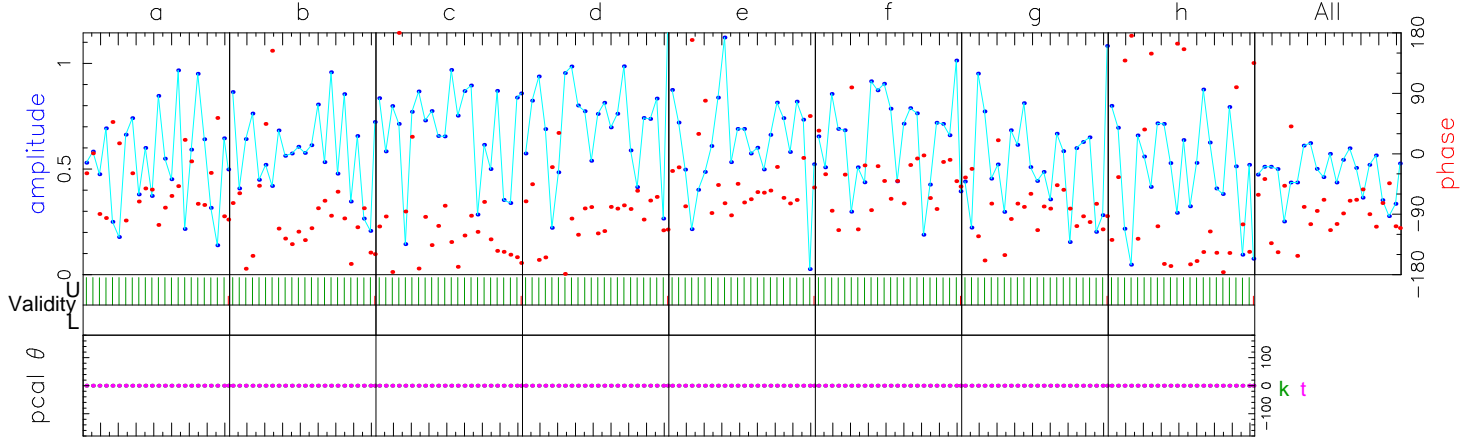


delay rate (ns/s)



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
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	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)	0.000000E+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)		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..1IM8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/kt.W.86.1IM8OF

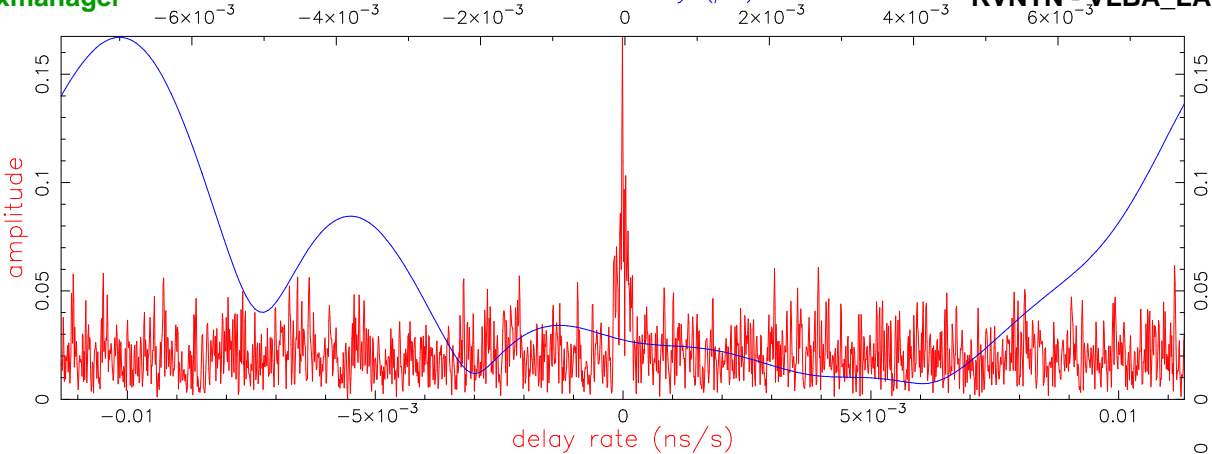
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M8OF, No0119, tl

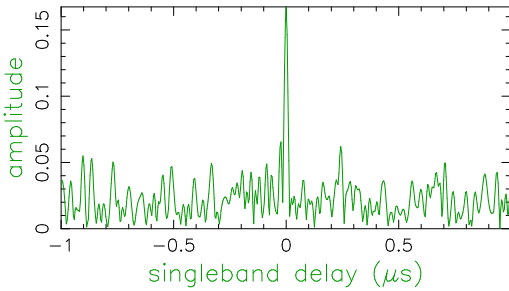
KVNTN - VLBA_LA, fgroup W, pol LL

multiband delay (μ s)

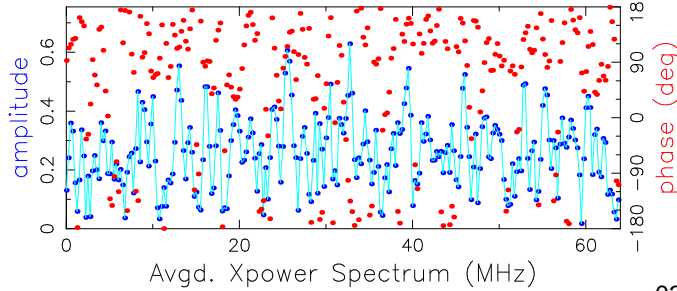


Fringe quality 9

SNR 10.0
 Int time 479.976
 Amp 0.167
 Phase -162.5
 PFD 4.8e-15
 Delays (us)
 SBD -0.000662
 MBD -0.007037
 Fringe rate (Hz)
 -0.000530
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

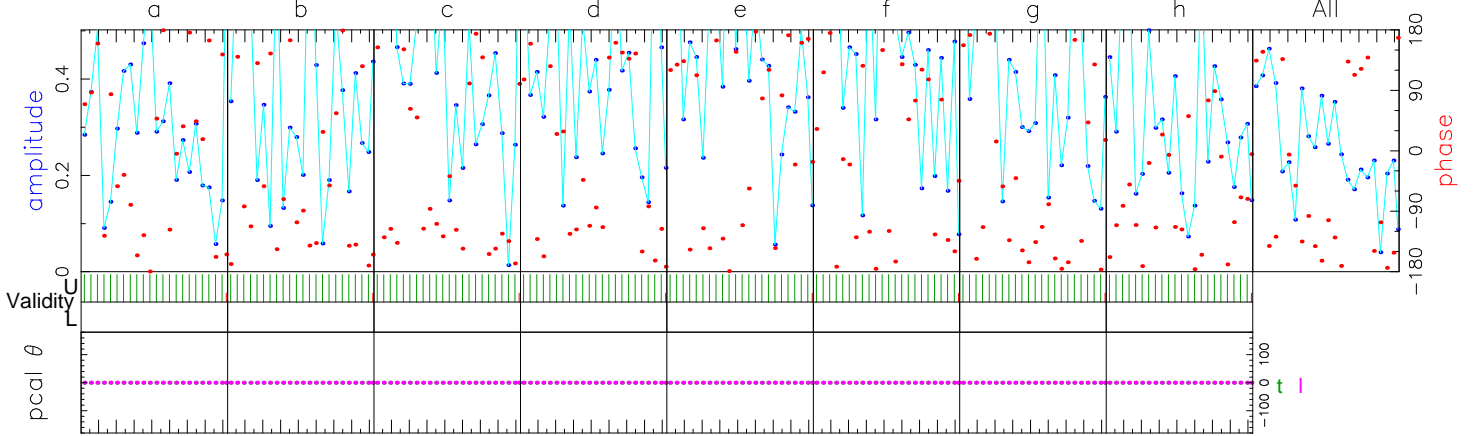


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133536
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	2.40632494446E+03	Apriori delay (usec)	2.40633198115E+03	Resid mbdelay (usec)	-7.03669E-03	+/-	1.1E-04
Sband delay (usec)	2.40633131915E+03	Apriori clock (usec)	1.7805481E+00	Resid sbdelay (usec)	-6.62000E-04	+/-	8.6E-04
Phase delay (usec)	2.40633197591E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-5.23969E-06	+/-	3.7E-07
Delay rate (us/s)	1.70186710673E+00	Apriori rate (us/s)	1.70186711288E+00	Resid rate (us/s)	-6.14815E-09	+/-	1.3E-09
Total phase (deg)	145.7	Apriori accel (us/s/s)	-1.54714056702E-05	Resid phase (deg)	-162.5	+/-	11.4

ph/seg (deg)	61.1	RMS	27.4	Theor.	27.4	Amplitude	0.167 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	83.7	Search (2048X32)	0.153	Search	0.153	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	37.4	Inc. seg. avg.	0.235	Inc. seg. avg.	0.235	Inc. frq. avg.	0.185	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	41.6	Inc. frq. avg.	0.185	Inc. frq. avg.	0.185	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011
t: az 62.0 el 43.9 pa -80.0		l: az 298.7 el 37.2 pa 72.5		u, v (fr/asec)	-13059.865 -1153.203							ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tl.11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tl.W.161.11M8OF simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

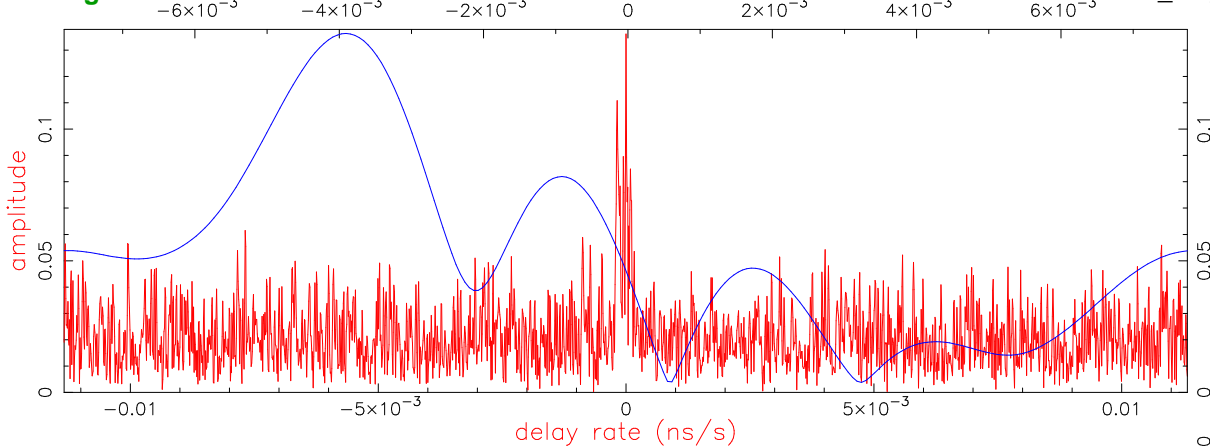
fxmanager

3C84.1M8OF, No0119, tl

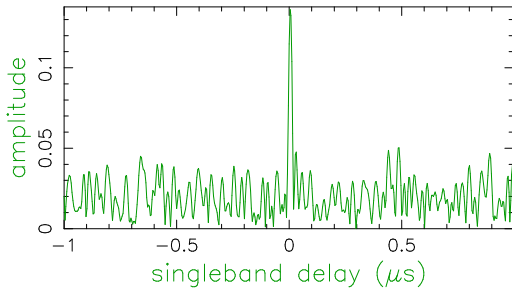
KVNTN - VLBA_LA, fgroup W, pol RR

multiband delay (μ s)

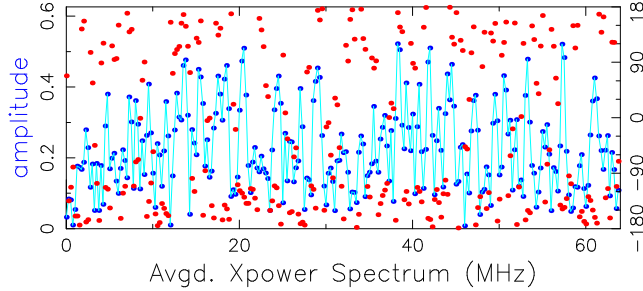
Fringe quality 9



SNR 8.3
 Int time 479.976
 Amp 0.138
 Phase -63.0
 PFD 5.1e-08
 Delays (us)
 SBD 0.005300
 MBD -0.003845
 Fringe rate (Hz)
 -0.000271
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

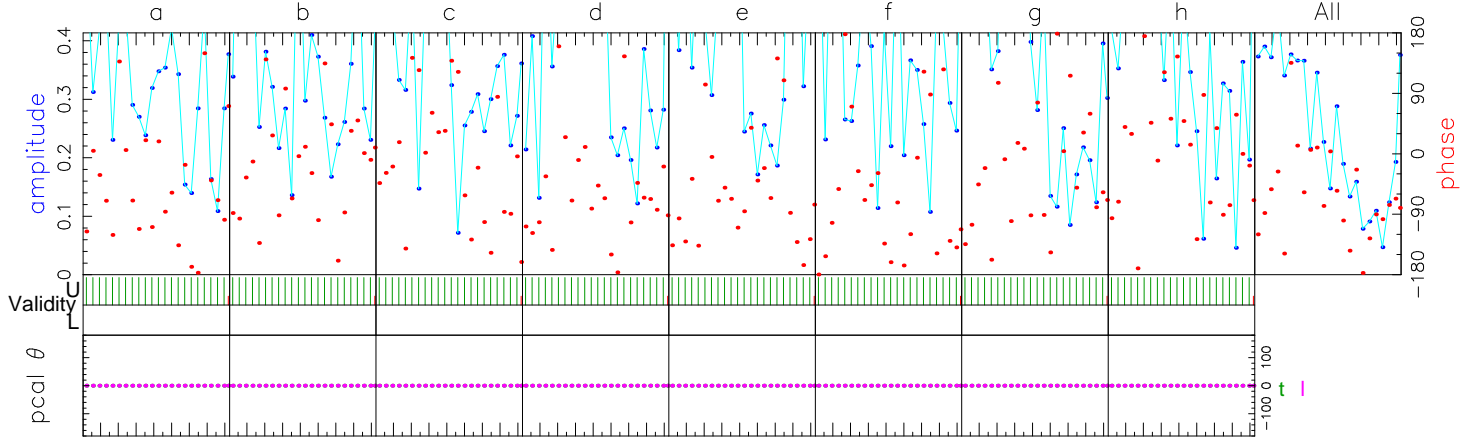


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133539
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-78.7	-24.3	-5.9	-62.3	-101.3	-111.1	-48.1	0.8	Phase	-63.0
	0.1	0.2	0.1	0.2	0.3	0.2	0.2	0.1	Ampl.	0.2
	260.0	369.9	381.2	257.6	257.9	257.4	257.8	261.1	Sbd box	258.4
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	2.40634376115E+03	Apriori delay (usec)	2.40633198115E+03	Resid mbdelay (usec)	-3.84500E-03	+/-	1.3E-04
Sband delay (usec)	2.40633728165E+03	Apriori clock (usec)	1.7805481E+00	Resid sbdelay (usec)	5.30050E-03	+/-	1.0E-03
Phase delay (usec)	2.40633197911E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-2.03268E-06	+/-	4.5E-07
Delay rate (us/s)	1.70186710973E+00	Apriori rate (us/s)	1.70186711288E+00	Resid rate (us/s)	-3.15166E-09	+/-	1.6E-09
Total phase (deg)	245.1	Apriori accel (us/s/s)	-1.54714056702E-05	Resid phase (deg)	-63.0	+/-	13.9

ph/seg (deg)	62.7	RMS	33.3	Theor.	0.138 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	119.0	Search (2048X32)	0.132	Amplitude	0.138 +/- 0.017	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	46.7	Interp.	0.000	Search	0.132	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	46.0	Inc. seg. avg.	0.212	Inc. seg. avg.	0.212	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.160	Inc. frq. avg.	0.160	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	
t: az 62.0 el 43.9 pa -80.0				u, v (fr/asec)	-13059.865 -1153.203	nlags:	256	t_cohere	infinite	
l: az 298.7 el 37.2 pa 72.5									simultaneous interpolator	

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tl.1I8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tl.W.179.1I8OF

Mk4/DiFX fourfit 3.21 rev 2937

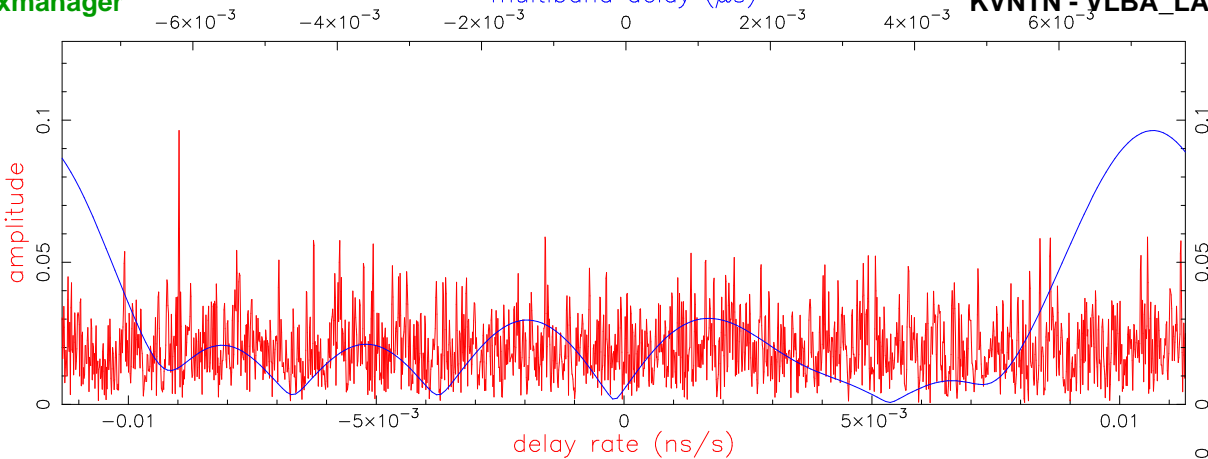
fxmanager

multiband delay (μs)

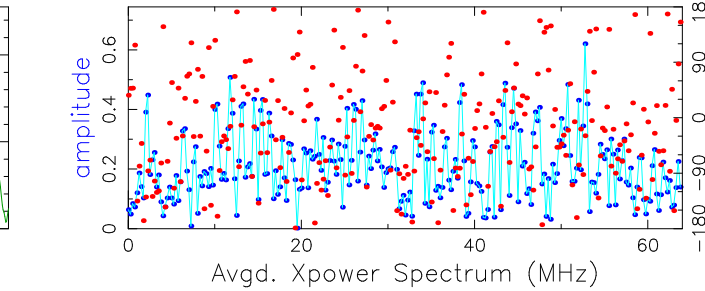
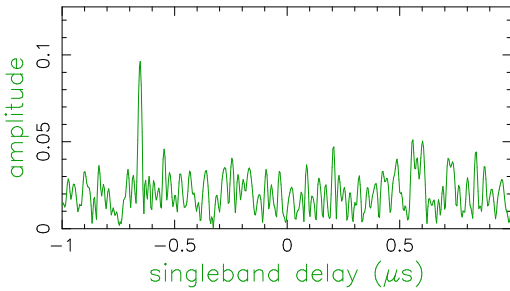
3C84.1M8OF, No0119, tl

KVNTN - VLBA_LA, fgroup W, pol LR

Fringe quality 0

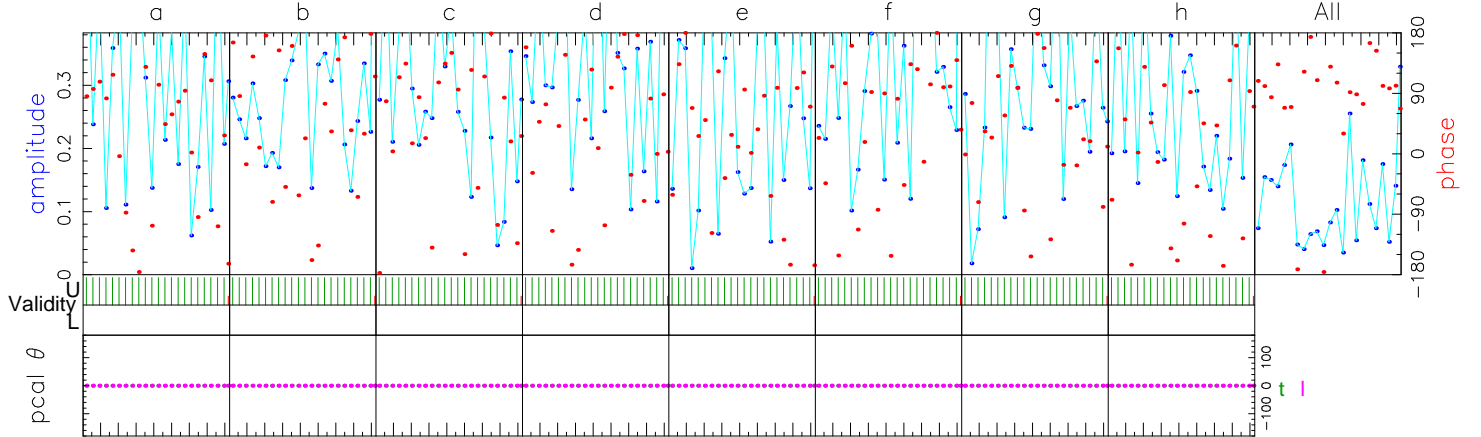


SNR 5.8
 Int time 479.976
 Amp 0.128
 Phase 100.9
 PFD 7.7e-01
 Delays (us)
 SBD -0.653564
 MBD -0.008301
 Fringe rate (Hz)
 -0.774408
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133543
 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			
t	1000	1000	1000	1000	1000	1000	1000	1000			
l	1000	1000	1000	1000	1000	1000	1000	1000			
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
t	1000	1000	1000	1000	1000	1000	1000	1000			
l	1000	1000	1000	1000	1000	1000	1000	1000			
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		2.40568305537E+03				2.40633198115E+03			Resid mbdelay (usec)	-8.30078E-03	+/- 1.9E-04
Sband delay (usec)		2.40567841740E+03				1.7805481E+00			Resid sbdelay (usec)	-6.53564E-01	+/- 1.5E-03
Phase delay (usec)		2.40633198440E+03				1.9999998E-07			Resid phdelay (usec)	3.25329E-06	+/- 6.3E-07
Delay rate (us/s)		1.70185812277E+00				1.70186711288E+00			Resid rate (us/s)	-8.99011E-06	+/- 2.3E-09
Total phase (deg)			49.0			-1.54714056702E-05			Resid phase (deg)	100.9	+/- 19.7
ph/seg (deg)	41.2	47.2							PCal mode: MANUAL, MANUAL		
amp/seg (%)	69.8	82.4							PCal rate: 0.000E+00, 0.000E+00 (us/s)		
ph/frq (deg)	19.2	27.8							Bits/sample: 2x2		
amp/frq (%)	27.5	48.6							Sample rate(MISamp/s): 128		
									Data rate(Mb/s): 2048		
									nlags: 256		
									t_cohere infinite		
t: az 62.0 el 43.9 pa -80.0									ion window (TEC)	0.00	0.00
l: az 298.7 el 37.2 pa 72.5											
u, v (fr/asec)											simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

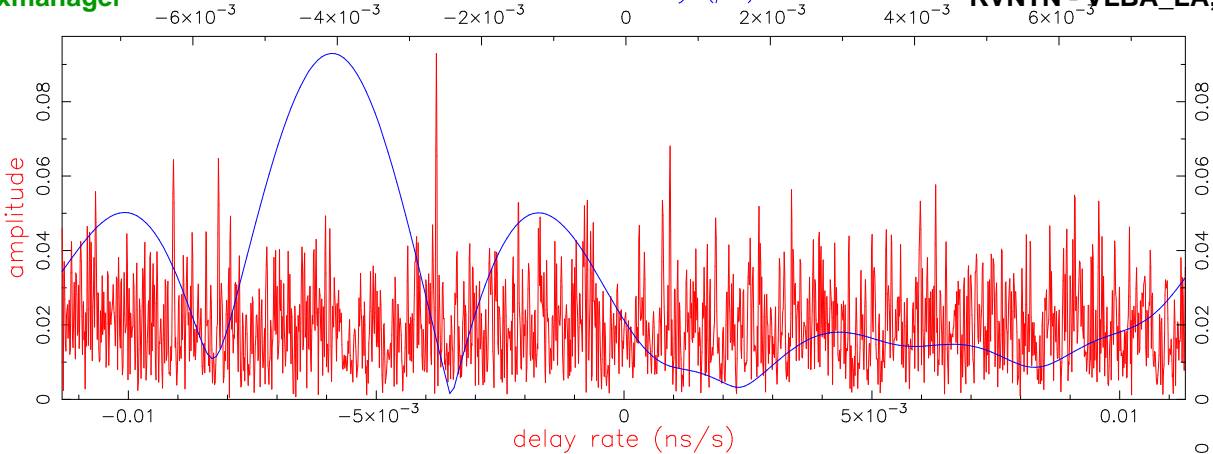
fxmanager

multiband delay (μ s)

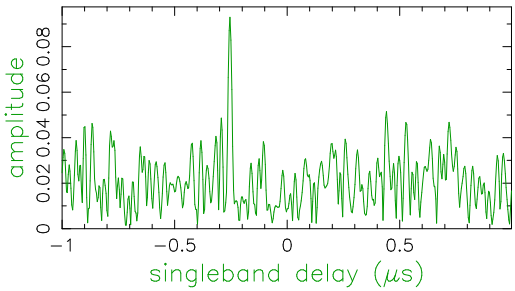
3C84.1M8OF, No0119, tl

KVNTN - VLBA_LA, fgroup W, pol RL

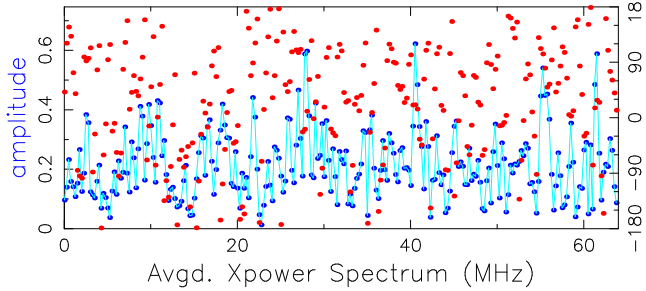
Fringe quality 0



SNR 5.6
 Int time 479.976
 Amp 0.098
 Phase 47.7
 PFD 1.0e+00
 Delays (us)
 SBD -0.254449
 MBD -0.004084
 Fringe rate (Hz)
 -0.326368
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

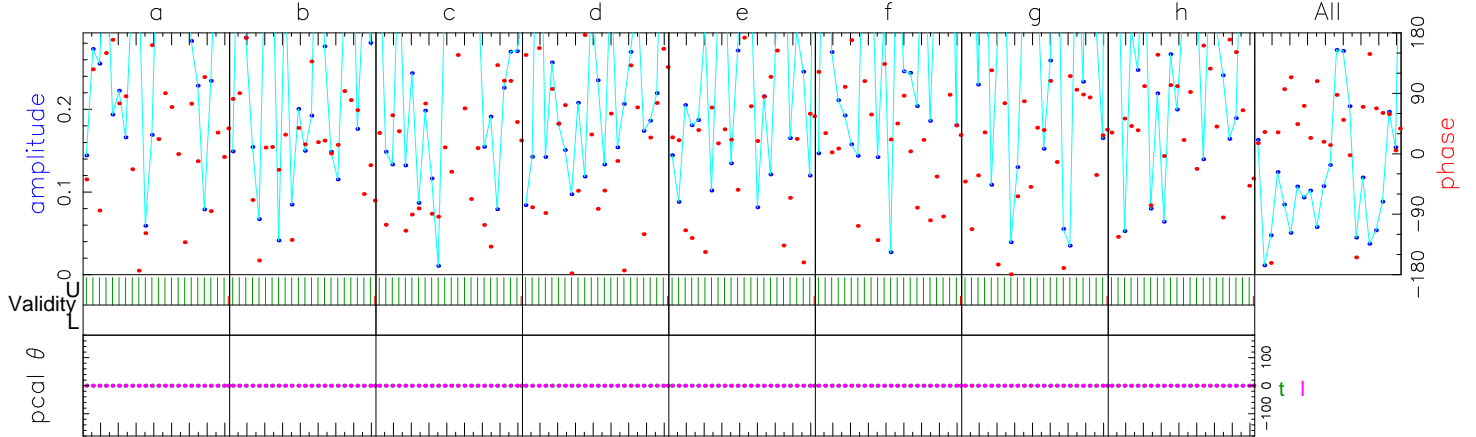


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133546
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	2.40607789742E+03	Apriori delay (usec)	2.40633198115E+03	Resid mbdelay (usec)	-4.08372E-03	+/-	1.9E-04
Sband delay (usec)	2.40607753240E+03	Apriori clock (usec)	1.7805481E+00	Resid sbdelay (usec)	-2.54449E-01	+/-	1.5E-03
Phase delay (usec)	2.40633198268E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	1.53673E-06	+/-	6.6E-07
Delay rate (us/s)	1.70186332407E+00	Apriori rate (us/s)	1.70186711288E+00	Resid rate (us/s)	-3.78881E-06	+/-	2.4E-09
Total phase (deg)	355.8	Apriori accel (us/s/s)	-1.54714056702E-05	Resid phase (deg)	47.7	+/-	20.5

ph/seg (deg)	59.8	RMS	Theor.	Amplitude	0.098 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	90.1	59.8	49.2	Search (2048X32)	0.089	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	30.6	90.1	86.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	41.5	30.6	29.0	Inc. seg. avg.	0.091	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
		41.5	50.7	Inc. frq. avg.	0.093	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 62.0 el 43.9 pa -80.0 l: az 298.7 el 37.2 pa 72.5 u, v (fr/asec) -13059.865 -1153.203 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tl.11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tl.W.216.11M8OF

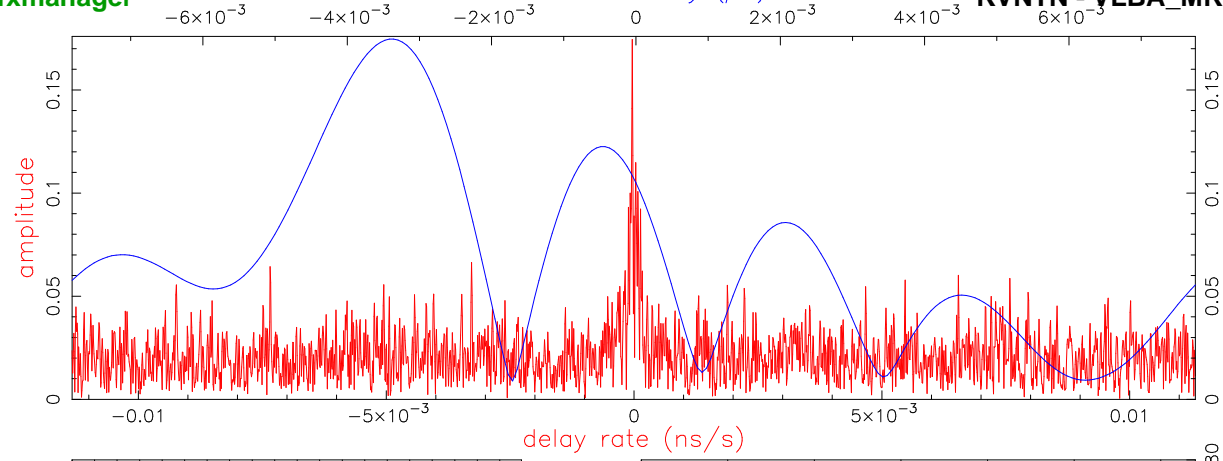
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM8OF, No0119, tm

KVNTN - VLBA_MK, fgroup W, pol LL

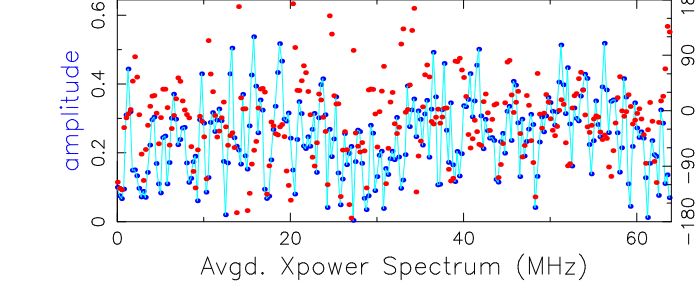
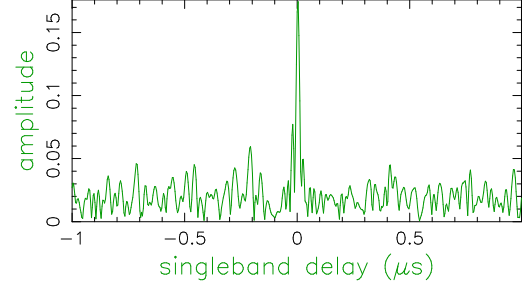
multiband delay (μ s)



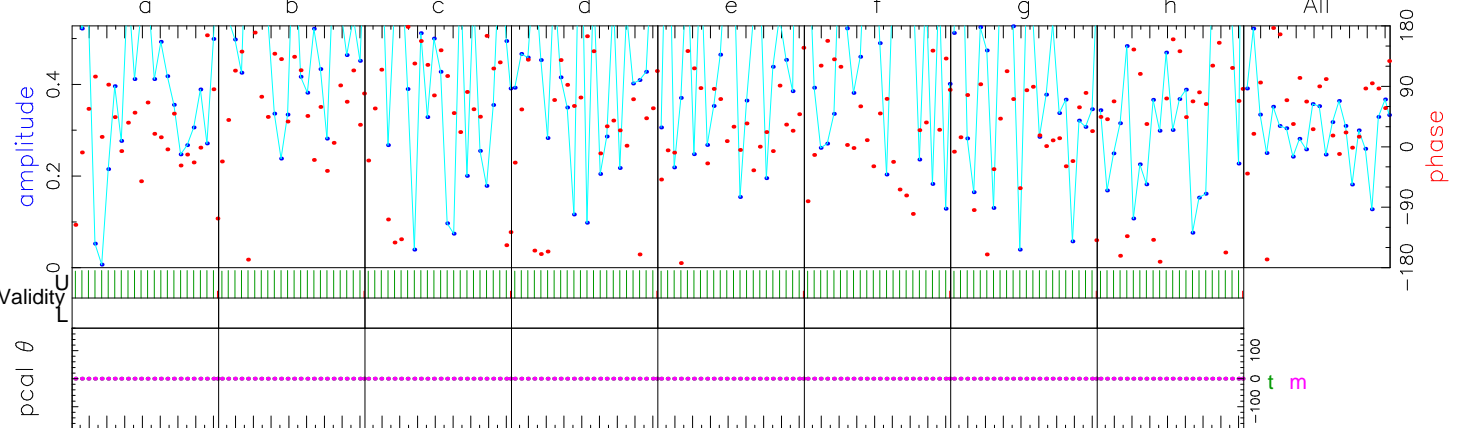
Fringe quality 9

SNR 10.5
 Int time 477.966
 Amp 0.176
 Phase 57.7
 PFD 3.2e-17
 Delays (us)
 SBD 0.002827
 MBD -0.003442
 Fringe rate (Hz)
 -0.003130
 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
 2021:023:133535
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-3.78060114945E+03									
Sband delay (usec)	-3.78059488048E+03									
Phase delay (usec)	-3.78059770562E+03									
Delay rate (us/s)	1.20789904328E+00									
Total phase (deg)			-130.3							
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)									57.7	+/- 10.9
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)									-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

ph/seg (deg) 60.2 26.1 Amplitude 0.176 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 86.6 45.6 Interp. 0.169 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 49.5 15.4 Inc. seg. avg. 0.278 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 37.5 26.9 Inc. frq. avg. 0.217 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 62.0 el 43.9 pa -80.0 m: az 326.6 el 62.5 pa 135.3 u,v (fr/asec) -9172.022 3993.376 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/tm..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tm.W.159.11M8OF simultaneous interpolator

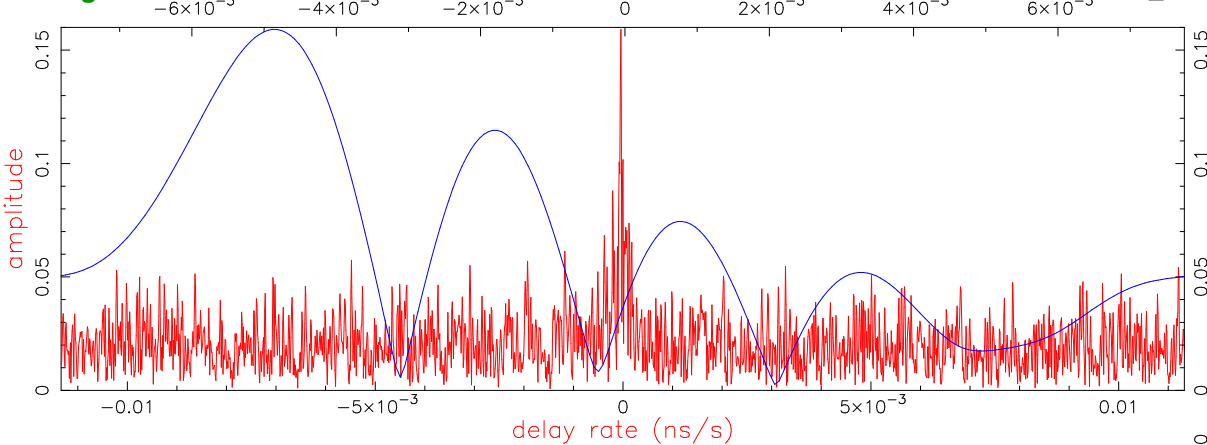
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM8OF, No0119, tm

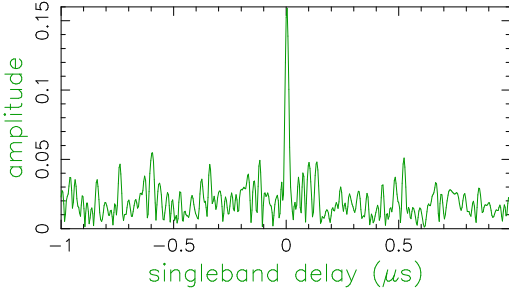
KVNTN - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)

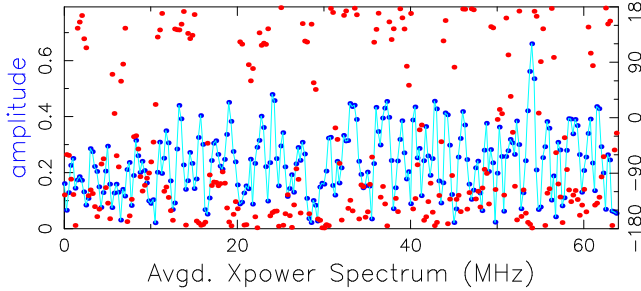


Fringe quality 9

SNR 9.6
 Int time 477.966
 Amp 0.160
 Phase -70.1
 PFD 4.4e-13
 Delays (us)
 SBD 0.002890
 MBD -0.004900
 Fringe rate (Hz)
 -0.003757
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

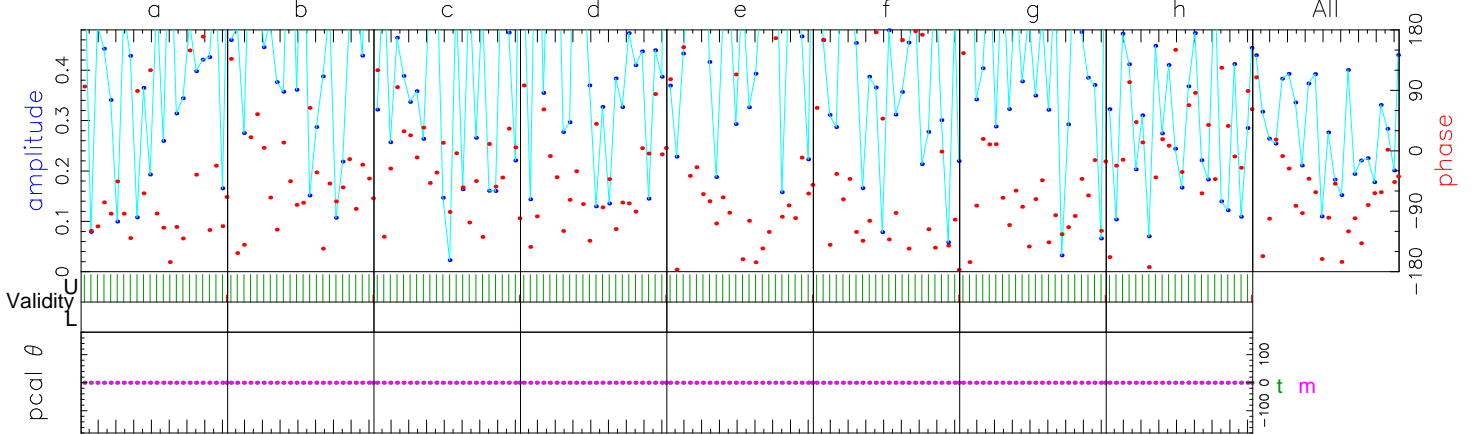


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134502.54
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133539
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-3.78060260778E+03	Apriori delay (usec)	-3.78059770748E+03	Resid mbdelay (usec)	-4.90030E-03	+/-	1.1E-04
Sband delay (usec)	-3.78059481773E+03	Apriori clock (usec)	-1.1991000E+01	Resid sbdelay (usec)	2.88975E-03	+/-	9.0E-04
Phase delay (usec)	-3.78059770974E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.26171E-06	+/-	3.9E-07
Delay rate (us/s)	1.20789903601E+00	Apriori rate (us/s)	1.20789907962E+00	Resid rate (us/s)	-4.36110E-08	+/-	1.4E-09
Total phase (deg)	-258.1	Apriori accel (us/s/s)	3.57294120761E-05	Resid phase (deg)	-70.1	+/-	12.0

ph/seg (deg)	62.8	RMS	28.7	Theor.	0.160 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	93.8	Search (2048X32)	0.159	Amplitude	0.160 +/- 0.017	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	53.3	Inc. seg. avg.	0.248	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	38.4	Inc. frq. avg.	0.200	Inc. seg. avg.	0.248	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.200	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 62.0 el 43.9 pa -80.0 m: az 326.6 el 62.5 pa 135.3 u, v (fr/asec) -9172.022 3993.376 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tm..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tm.W.178.11M8OF

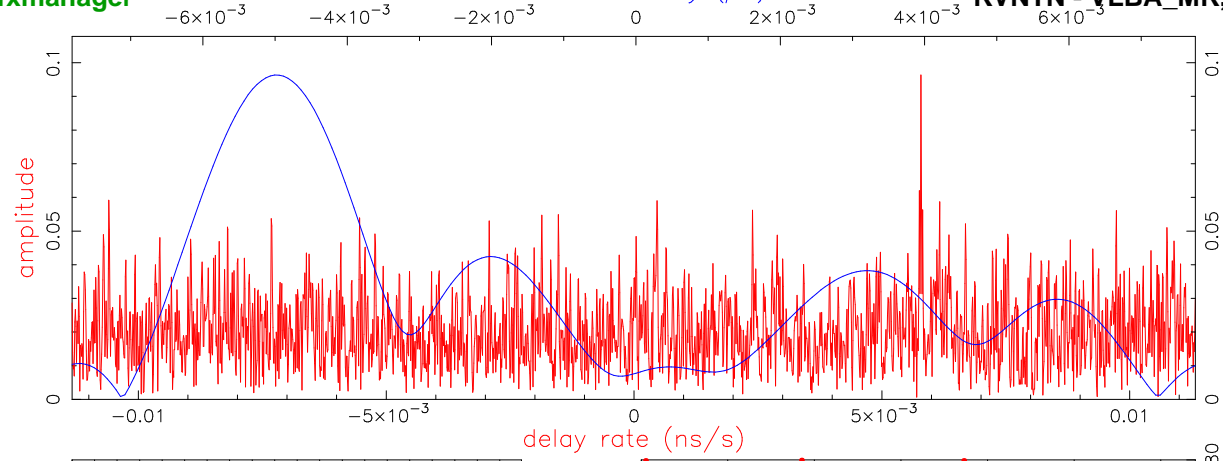
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

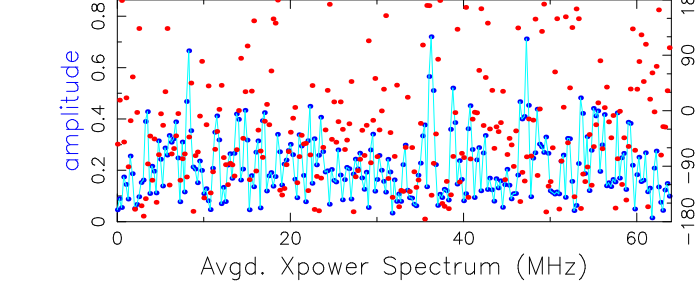
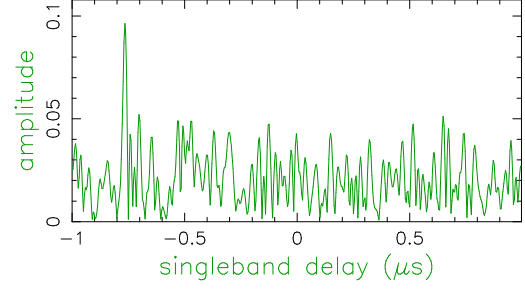
3C84.1IM8OF, No0119, tm

KVNTN - VLBA_MK, fgroup W, pol LR

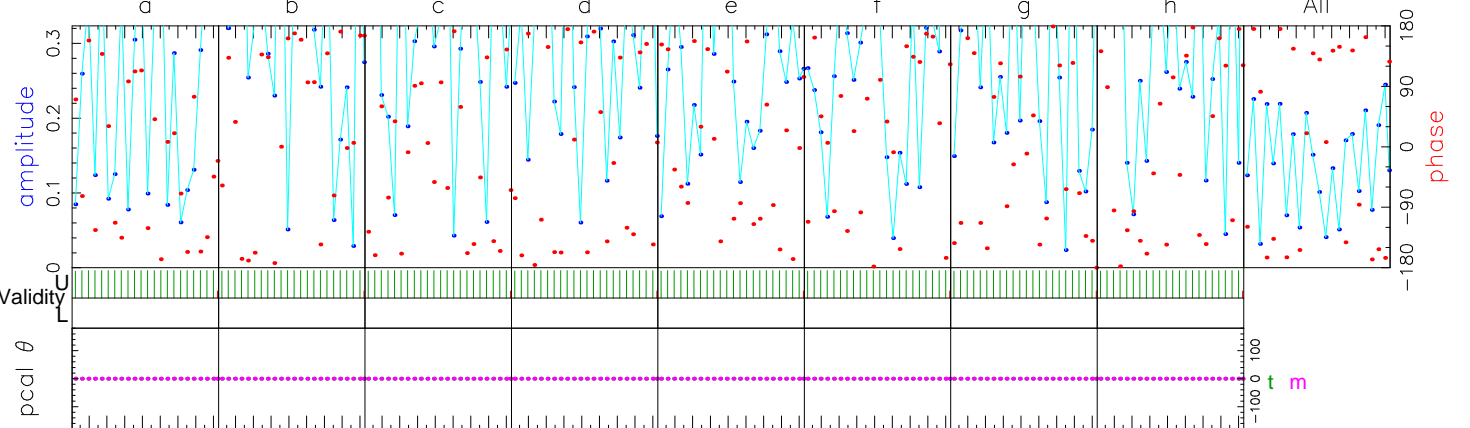
multiband delay (μ s)



Fringe quality 0
 SNR 5.8
 Int time 477.966
 Amp 0.108
 Phase 178.7
 PFD 8.5e-01
 Delays (us)
 SBD -0.764951
 MBD -0.004970
 Fringe rate (Hz)
 0.499781
 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
 2021:023:133542
 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
	-179.7	155.4	-147.9	-168.9	-157.8	153.8	175.3	177.6	Phase	178.7
	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1
	135.7	267.3	169.3	61.0	233.2	16.3	412.3	136.9	Sbd box	61.2
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.78136830200E+03		Apriori delay (usec)		-3.78059770748E+03		Resid mbdelay (usec)		-4.96952E-03	+/- 1.9E-04
Sband delay (usec)	-3.78136265848E+03		Apriori clock (usec)		-1.1991000E+01		Resid sbdelay (usec)		-7.64951E-01	+/- 1.5E-03
Phase delay (usec)	-3.78059770172E+03		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		5.76329E-06	+/- 6.4E-07
Delay rate (us/s)	1.20790488158E+00		Apriori rate (us/s)		1.20789907962E+00		Resid rate (us/s)		5.80196E-06	+/- 2.3E-09
Total phase (deg)			Apriori accel (us/s/s)		3.57294120761E-05		Resid phase (deg)		178.7	+/- 19.8

ph/seg (deg) 64.5 47.6 Search (2048X32) 0.094 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 82.4 83.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 22.4 28.1 Inc. seg. avg. 0.118 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 44.8 49.0 Inc. frq. avg. 0.102 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 62.0 el 43.9 pa -80.0 m: az 326.6 el 62.5 pa 135.3 u,v (fr/asec) -9172.022 3993.376 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tm..1IM8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tm.W.197.1IM8OF

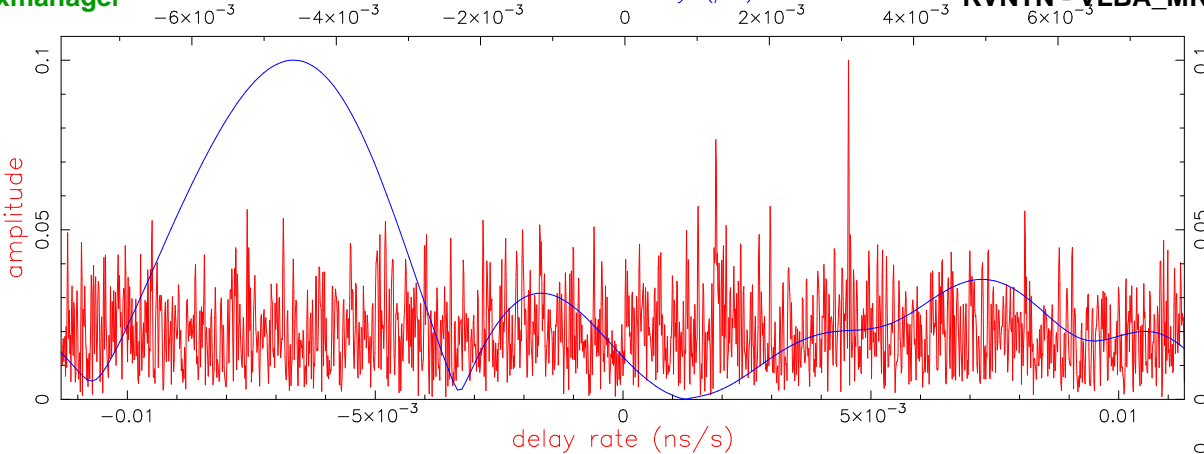
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM8OF, No0119, tm

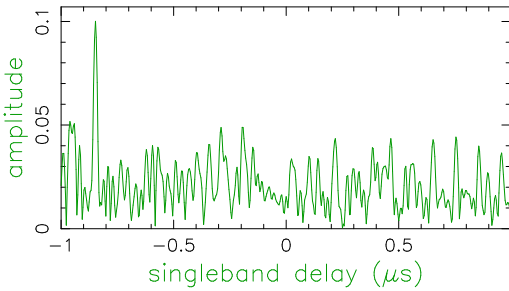
KVNTN - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

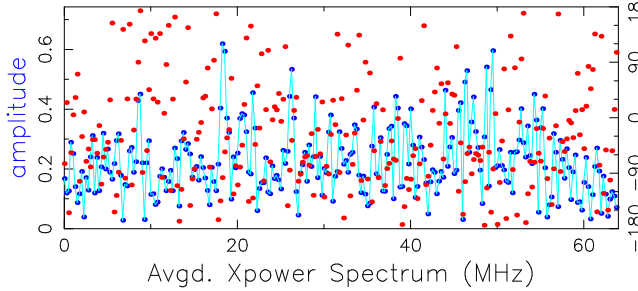


Fringe quality 0

SNR 6.0
 Int time 477.966
 Amp 0.107
 Phase -49.6
 PFD 4.3e-01
 Delays (us)
 SBD -0.847494
 MBD -0.004587
 Fringe rate (Hz)
 0.392956
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

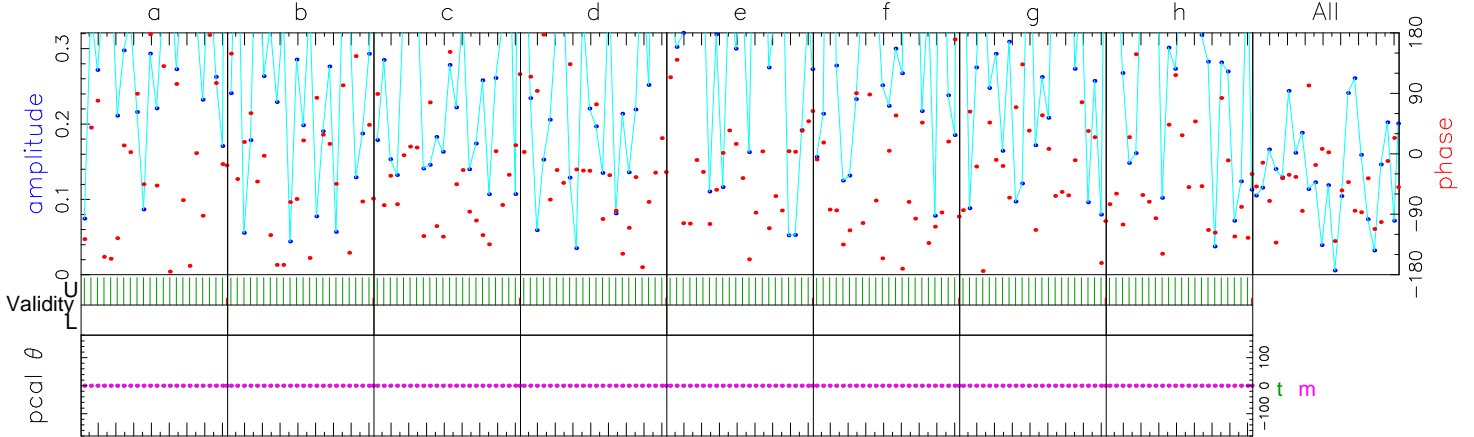


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134502.54
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133546
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-3.78144604415E+03									
Sband delay (usec)	-3.78144520173E+03									
Phase delay (usec)	-3.78059770908E+03									
Delay rate (us/s)	1.20790364144E+00									
Total phase (deg)			-237.6							
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										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

ph/seg (deg) 53.3 45.9 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.5 80.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.6 27.1 Inc. seg. avg. 0.109 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.8 47.3 Inc. frq. avg. 0.108 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 62.0 el 43.9 pa -80.0 m: az 326.6 el 62.5 pa 135.3 u,v (fr/asec) -9172.022 3993.376 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tm..1IM8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tm.W.217.1IM8OF

Mk4/DiFX fourfit 3.21 rev 2937

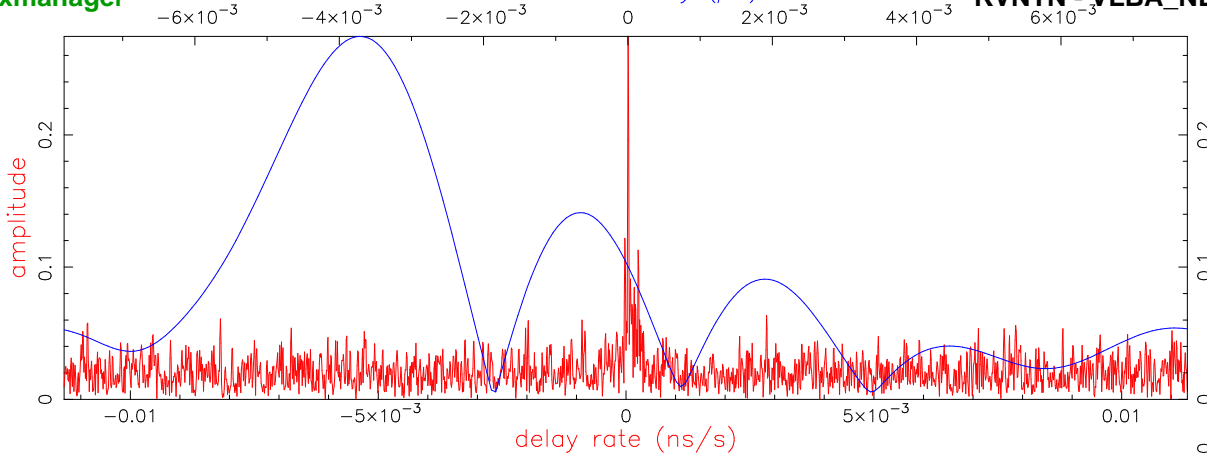
fxmanager

3C84.11M8OF, No0119, tn

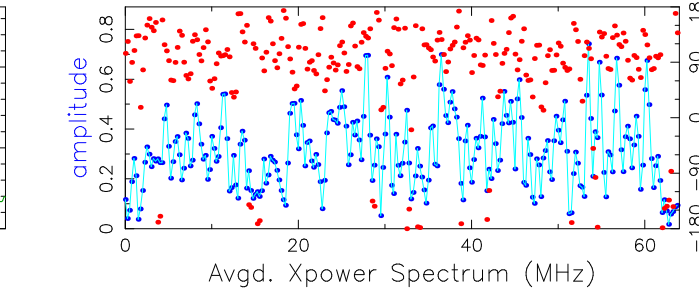
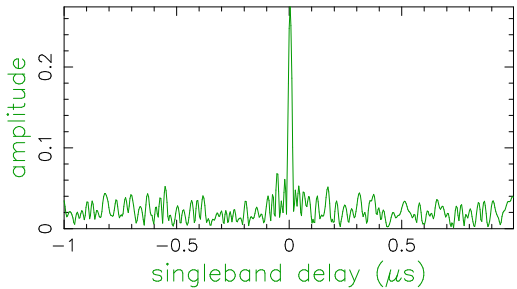
KVNTN - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 8

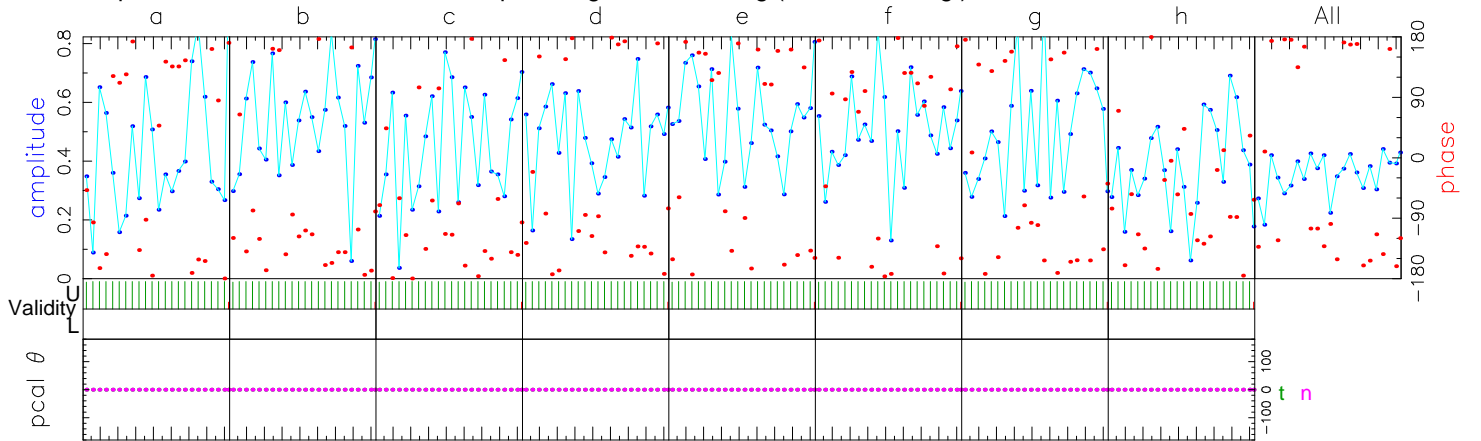


SNR 16.4
 Int time 477.980
 Amp 0.274
 Phase -159.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.004037
 MBD -0.003707
 Fringe rate (Hz) 0.003440
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134502.54
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133536
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 4.57593570164E+03 Apriori delay (usec) 4.57593940899E+03 Resid mbdelay (usec) -3.70736E-03 +/- 6.6E-05
 Sband delay (usec) 4.57594344574E+03 Apriori clock (usec) 1.2019043E+00 Resid sbdelay (usec) 4.03675E-03 +/- 5.3E-04
 Phase delay (usec) 4.57593940386E+03 Apriori clockrate (us/s) -4.0000002E-07 Resid phdelay (usec) -5.12820E-06 +/- 2.3E-07
 Delay rate (us/s) 1.67749762404E+00 Apriori rate (us/s) 1.67749758410E+00 Resid rate (us/s) 3.99364E-08 +/- 8.1E-10
 Total phase (deg) 89.6 Apriori accel (us/s/s) -3.31063300398E-05 Resid phase (deg) -159.0 +/- 7.0

ph/seg (deg) 50.0 16.7 Search (2048X32) 0.257 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 37.5 29.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.0 9.9 Inc. seg. avg. 0.339 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 29.2 17.2 Inc. frq. avg. 0.309 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 62.0 el 43.9 pa -80.0 n: az 300.7 el 30.2 pa 59.1 u,v (fr/asec) -12910.130 -2923.698 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tn..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tn.W.162.11M8OF

Mk4/DiFX fourfit 3.21 rev 2937

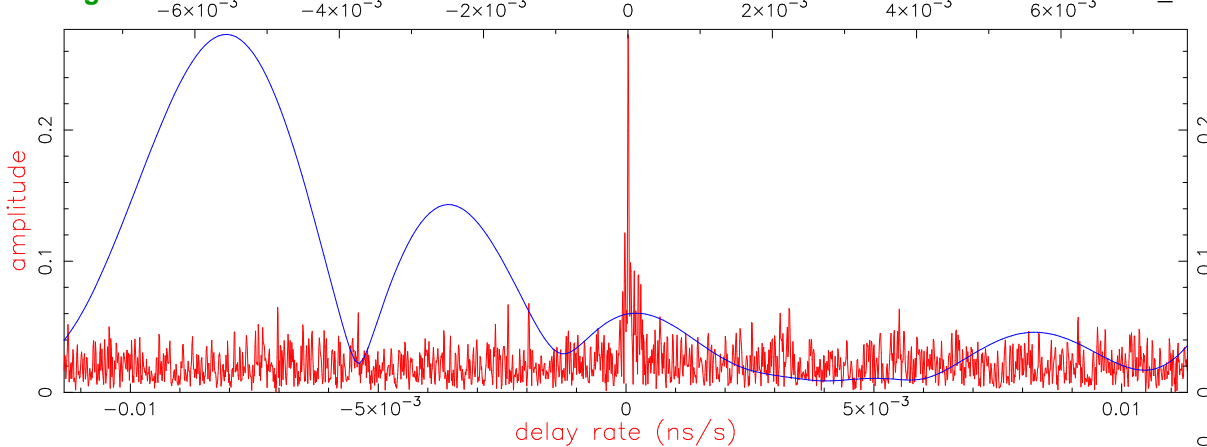
fxmanager

3C84.11M8OF, No0119, tn

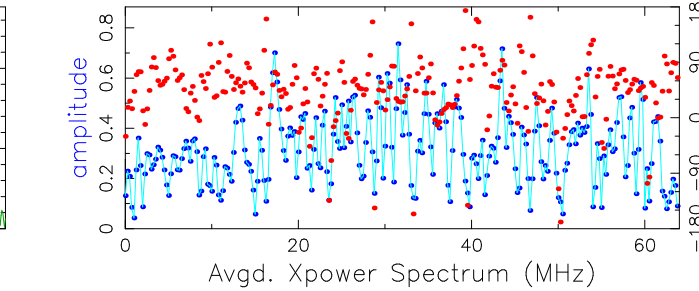
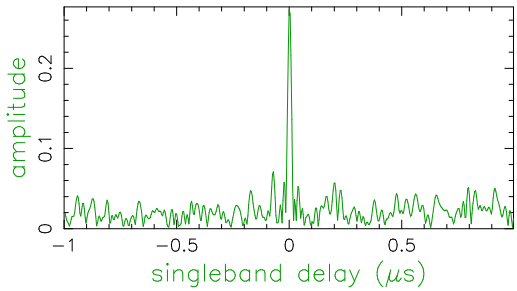
KVNTN - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 8

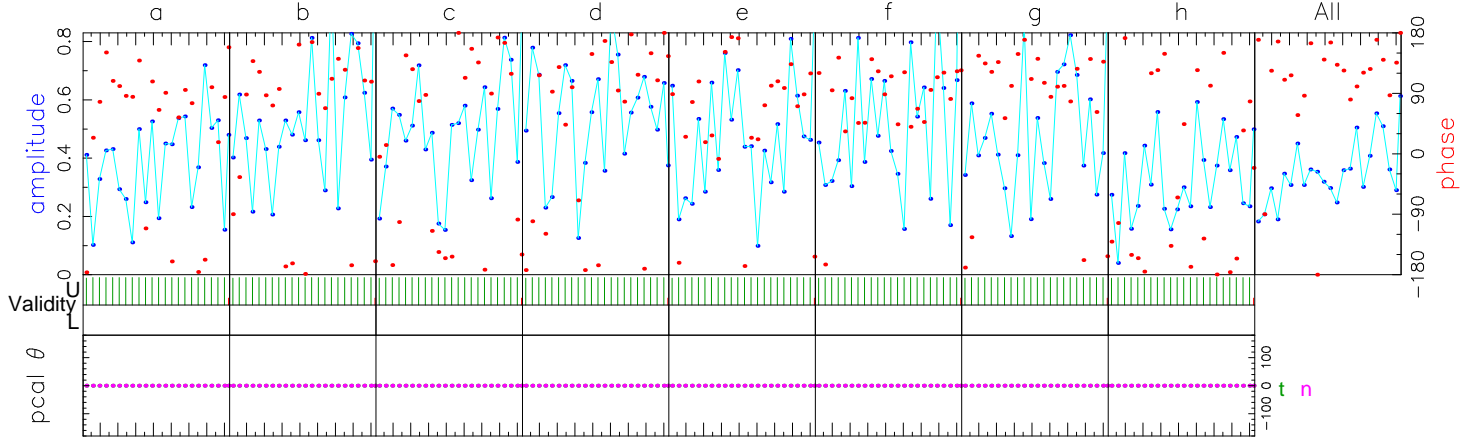


SNR 16.5
 Int time 477.980
 Amp 0.277
 Phase 129.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.001581
 MBD -0.005509
 Fringe rate (Hz) 0.003461
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134502.54
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133540
 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			
t	1000	1000	1000	1000	1000	1000	1000	1000			
n	1000	1000	1000	1000	1000	1000	1000	1000			
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
tn	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
t	1000	1000	1000	1000	1000	1000	1000	1000			
n	1000	1000	1000	1000	1000	1000	1000	1000			
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		4.57593390023E+03			4.57593940899E+03				Resid mbdelay (usec)	-5.50876E-03	+/- 6.6E-05
Sband delay (usec)		4.57594098974E+03			1.2019043E+00				Resid sbdelay (usec)	1.58075E-03	+/- 5.2E-04
Phase delay (usec)		4.57593941316E+03			-4.0000002E-07				Resid phdelay (usec)	4.16582E-06	+/- 2.2E-07
Delay rate (us/s)		1.67749762429E+00			1.67749758410E+00				Resid rate (us/s)	4.01837E-08	+/- 8.1E-10
Total phase (deg)			17.8		-3.31063300398E-05				Resid phase (deg)	129.2	+/- 6.9
ph/seg (deg)	44.1	16.6			0.277 +/- 0.017				Pcal mode: MANUAL, MANUAL		
amp/seg (%)	43.7	29.0			0.000				Pcal rate: 0.000E+00, 0.000E+00 (us/s)		
ph/frq (deg)	28.1	9.8			0.331				Bits/sample: 2x2		
amp/frq (%)	26.2	17.1			0.294				SampCntNorm: enabled		
t: az 62.0 el 43.9 pa -80.0									Sample rate(MISamp/s): 128		
n: az 300.7 el 30.2 pa 59.1									Data rate(Mb/s): 2048		
u,v (fr/asec) -12910.130 -2923.698									nlags: 256 t_cohere infinite		
Control file: cf_1234_gmva									ion window (TEC)	0.00	0.00
Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tn..11M8OF											
Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tn.W.183.11M8OF											

simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

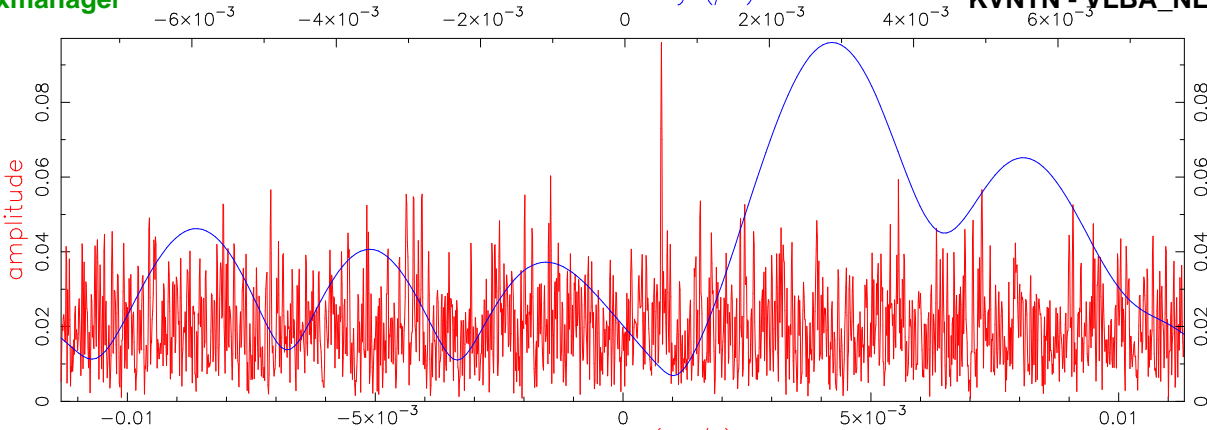
fxmanager

3C84.11M8OF, No0119, tn

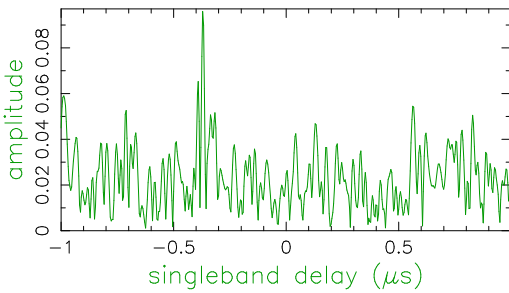
KVNTN - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

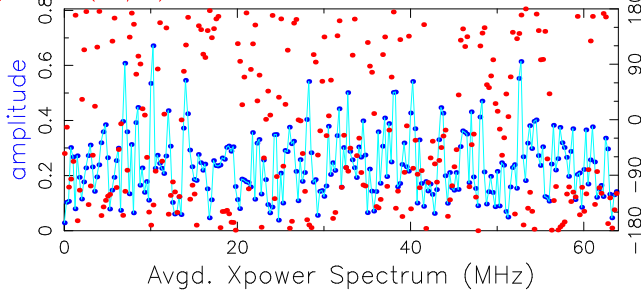
Fringe quality 0



SNR 5.8
 Int time 477.980
 Amp 0.097
 Phase -134.5
 PFD 8.2e-01
 Delays (us)
 SBD -0.370075
 MBD 0.002868
 Fringe rate (Hz)
 0.066585
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

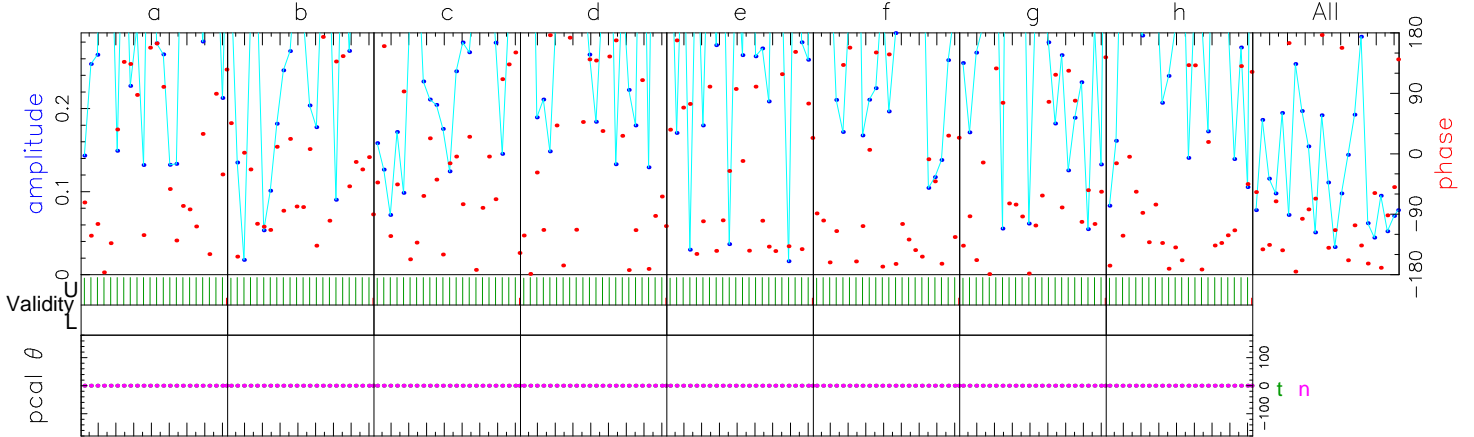


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134502.54
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133544
 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
	-162.8	-53.5	-89.2	-172.2	171.9	-142.9	-102.5	-131.6	Phase	-134.5
	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	Ampl.	0.1
	80.1	210.6	156.0	72.6	470.7	162.8	291.3	401.5	Sbd box	162.3
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tn	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	4.57556727738E+03		Apriori delay (usec)		4.57593940899E+03		Resid mbdelay (usec)		2.86839E-03	+/- 1.9E-04
Sband delay (usec)	4.57556933349E+03		Apriori clock (usec)		1.2019043E+00		Resid sbdelay (usec)		-3.70075E-01	+/- 1.5E-03
Phase delay (usec)	4.57593940465E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		-4.33805E-06	+/- 6.4E-07
Delay rate (us/s)	1.67749835708E+00		Apriori rate (us/s)		1.67749758410E+00		Resid rate (us/s)		7.72982E-07	+/- 2.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.31063300398E-05		Resid phase (deg)		-134.5	+/- 19.8

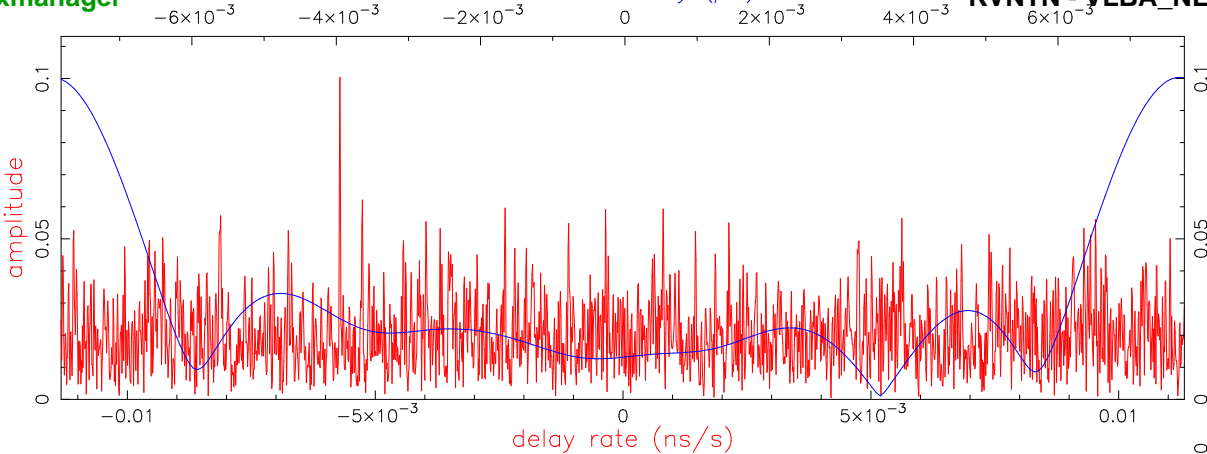
	RMS	Theor.	Amplitude	0.097 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	48.2	47.4	Search (2048X32)	0.092	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	77.8	82.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	49.7	28.0	Inc. seg. avg.	0.094	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	48.4	48.8	Inc. frq. avg.	0.109	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
					nlags: 256	t_cohere infinite

t: az 62.0 el 43.9 pa -80.0 n: az 300.7 el 30.2 pa 59.1 u,v (fr/asec) -12910.130 -2923.698 simultaneous interpolator

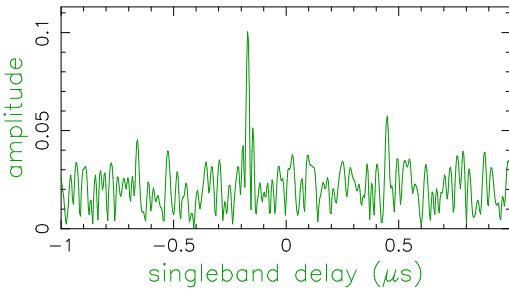
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tn..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tn.W.205.11M8OF

multiband delay (μ s)

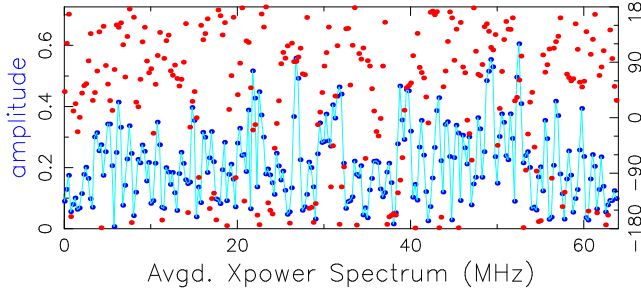
Fringe quality 0



SNR 6.1
Int time 477.980
Amp 0.113
Phase 34.4
PFD 2.8e-01
Delays (us)
SBD -0.170595
MBD -0.007922
Fringe rate (Hz)
-0.492989
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

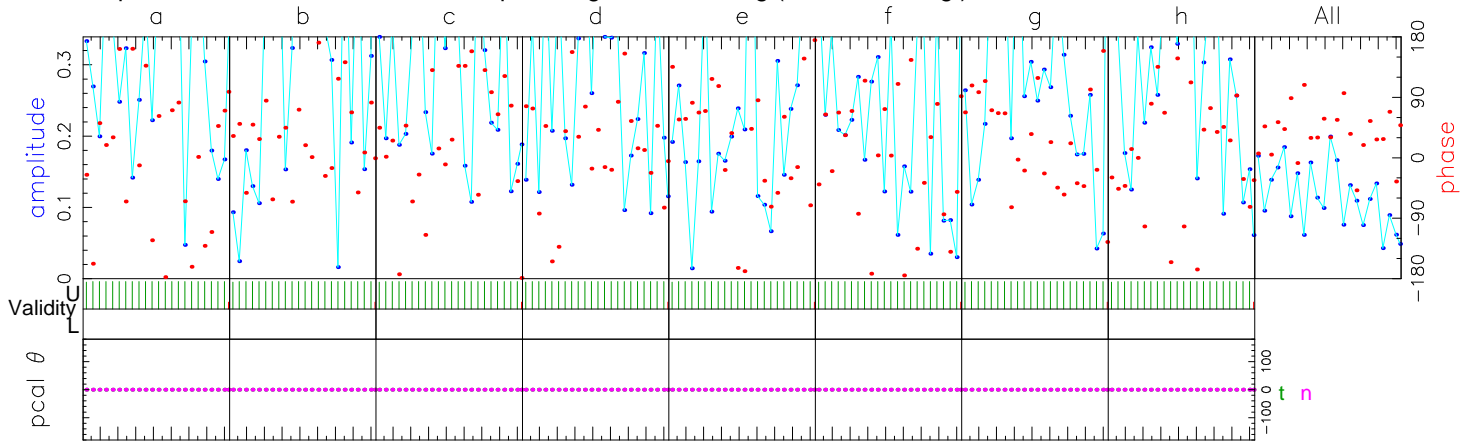


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134502.54
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133548
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
	62.0	21.8	34.7	35.3	54.3	15.3	27.9	43.8	Phase	34.4
	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1
	263.2	212.6	241.2	213.8	8.6	62.6	213.5	317.5	Sbd box	213.3
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tn	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 4.57577523725E+03 Apriori delay (usec) 4.57593940899E+03 Resid mbdelay (usec) -7.92174E-03 +/- 1.8E-04
 Sband delay (usec) 4.57576881424E+03 Apriori clock (usec) 1.2019043E+00 Resid sbdelay (usec) -1.70595E-01 +/- 1.4E-03
 Phase delay (usec) 4.57593941010E+03 Apriori clockrate (us/s) -4.0000002E-07 Resid phdelay (usec) 1.10884E-06 +/- 6.1E-07
 Delay rate (us/s) 1.67749186098E+00 Apriori rate (us/s) 1.67749758410E+00 Resid rate (us/s) -5.72312E-06 +/- 2.2E-09
 Total phase (deg) 283.0 Apriori accel (us/s/s) -3.31063300398E-05 Resid phase (deg) 34.4 +/- 18.9

RMS Theor. Amplitude 0.113 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 37.4 45.2 Search (2048X32) 0.097 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 45.3 78.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 17.4 26.7 Inc. seg. avg. 0.100 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 37.5 46.6 Inc. frq. avg. 0.103 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

t: az 62.0 el 43.9 pa -80.0 n: az 300.7 el 30.2 pa 59.1 u,v (fr/asec) -12910.130 -2923.698 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tn..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tn.W.224.11M8OF

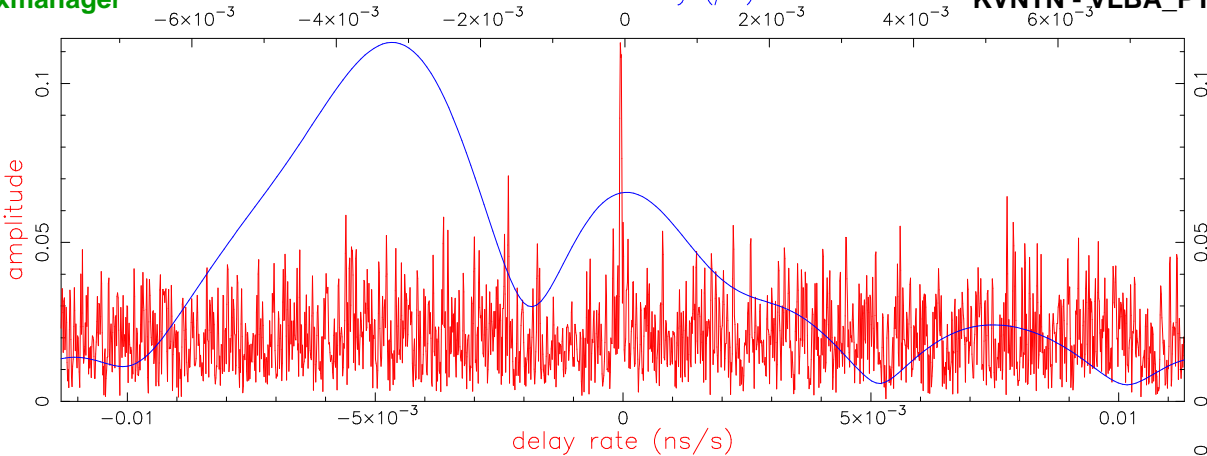
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M8OF, No0119, tp

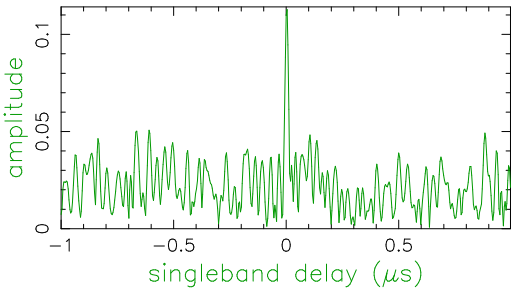
KVNTN - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

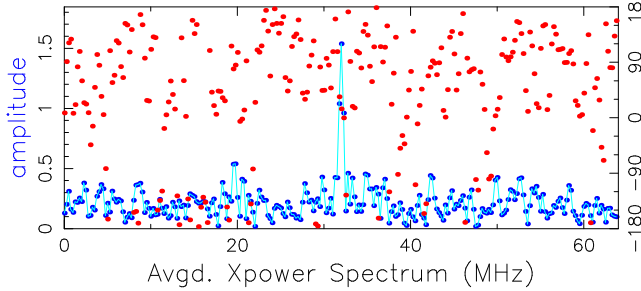


Fringe quality 0

SNR 6.8
 Int time 479.976
 Amp 0.114
 Phase 153.3
 PFD 2.3e-03
 Delays (us)
 SBD 0.002495
 MBD -0.003289
 Fringe rate (Hz)
 -0.004896
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

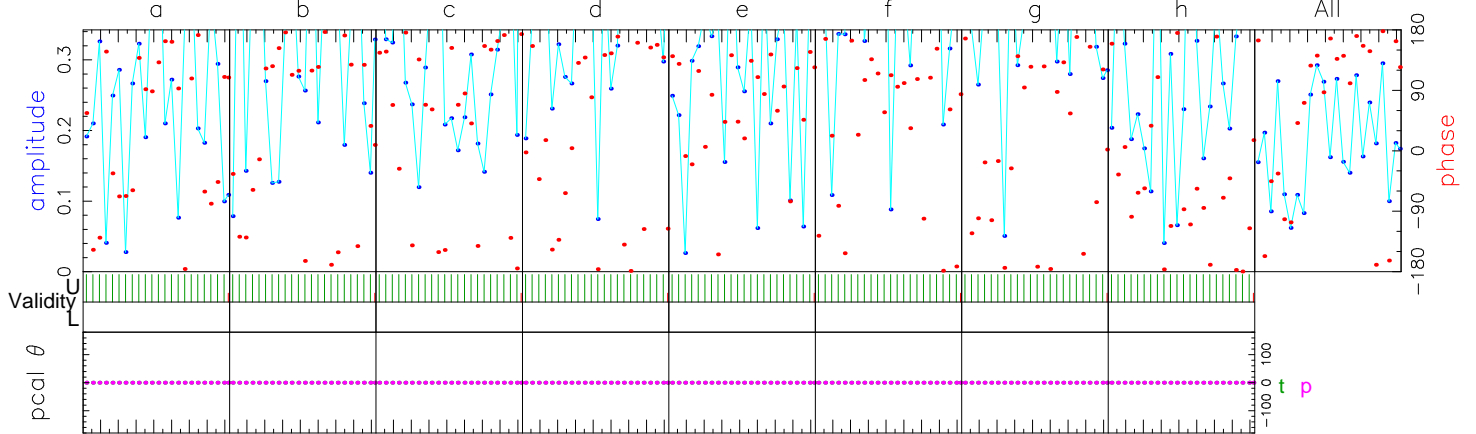


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133537
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
tp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	2.21979842901E+03	Apriori delay (usec)	2.21980171822E+03	Resid mbdelay (usec)	-3.28921E-03	+/-	1.6E-04
Sband delay (usec)	2.21980421347E+03	Apriori clock (usec)	1.2916784E+00	Resid sbdelay (usec)	2.49525E-03	+/-	1.3E-03
Phase delay (usec)	2.21980172316E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	4.94305E-06	+/-	5.4E-07
Delay rate (us/s)	1.70696873975E+00	Apriori rate (us/s)	1.70696879658E+00	Resid rate (us/s)	-5.68369E-08	+/-	1.9E-09
Total phase (deg)	155.8	Apriori accel (us/s/s)	-1.29079835136E-05	Resid phase (deg)	153.3	+/-	16.7

ph/seg (deg)	70.8	Theor.	Amplitude	0.114 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	88.9	40.2	Search (2048X32)	0.112	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	48.0	23.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	41.3	41.3	Inc. seg. avg.	0.148	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
			Inc. frq. avg.	0.130	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

t: az 62.0 el 43.9 pa -80.0 p: az 299.2 el 37.8 pa 74.2 u,v (fr/asec) -13093.699 -834.794 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tp..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tp.W.171.11M8OF

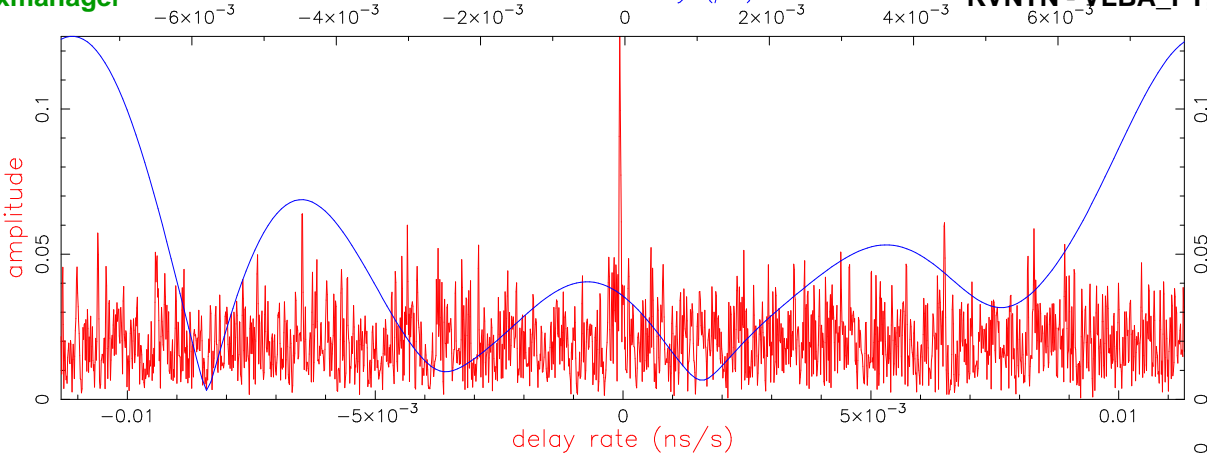
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M8OF, No0119, tp

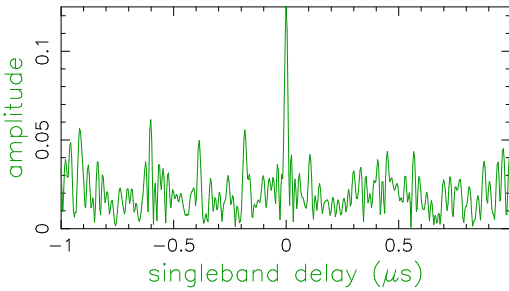
KVNTN - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

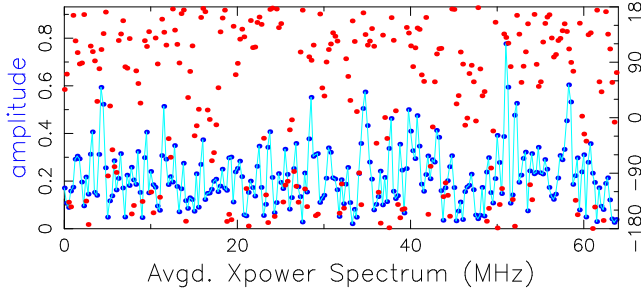


Fringe quality 9

SNR 7.5
 Int time 479.976
 Amp 0.125
 Phase -129.8
 PFD 2.2e-05
 Delays (us)
 SBD -0.000005
 MBD -0.007659
 Fringe rate (Hz)
 -0.005422
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

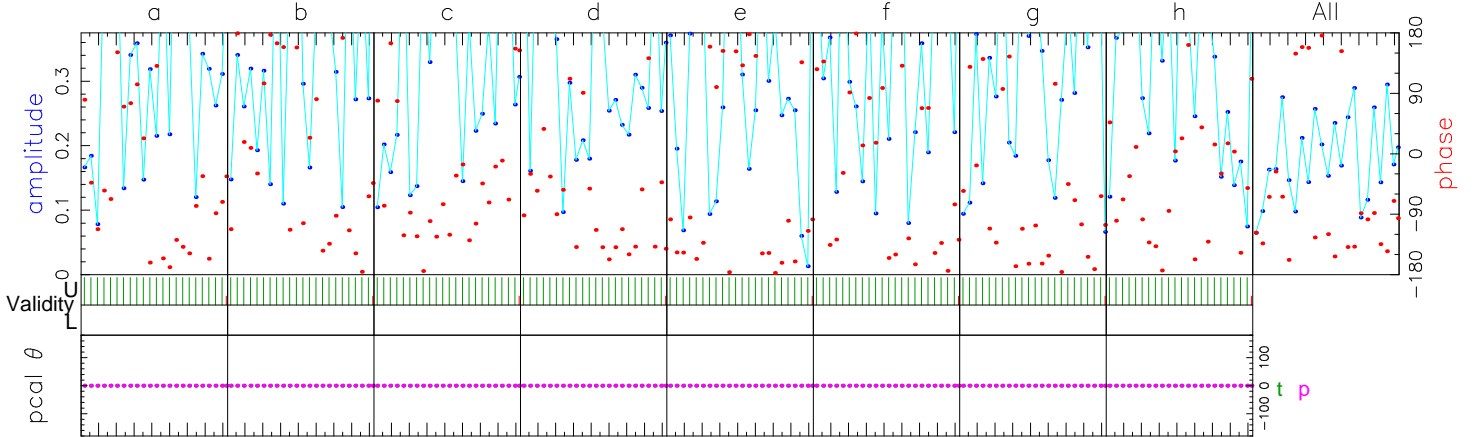


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133541
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
t:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	2.21979405972E+03	Apriori delay (usec)		2.21980171822E+03	Resid mbdelay (usec)		-7.65850E-03	+/- 1.4E-04	
Sband delay (usec)	2.21980171297E+03	Apriori clock (usec)		1.2916784E+00	Resid sbdelay (usec)		-5.25000E-06	+/- 1.2E-03	
Phase delay (usec)	2.21980171403E+03	Apriori clockrate (us/s)		-2.9999999E-07	Resid phdelay (usec)		-4.18561E-06	+/- 4.9E-07	
Delay rate (us/s)	1.70696873364E+00	Apriori rate (us/s)		1.70696879658E+00	Resid rate (us/s)		-6.29454E-08	+/- 1.8E-09	
Total phase (deg)	-127.3	Apriori accel (us/s/s)		-1.29079835136E-05	Resid phase (deg)		-129.8	+/- 15.3	

ph/seg (deg)	49.9	Theor.	36.7	Amplitude	0.125 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	70.0		64.0	Search (2048X32)	0.120	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	46.1		21.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	39.6		37.8	Inc. seg. avg.	0.151	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.144	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 62.0 el 43.9 pa -80.0 p: az 299.2 el 37.8 pa 74.2 u, v (fr/asec) -13093.699 -834.794 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tp..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tp.W.188.11M8OF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

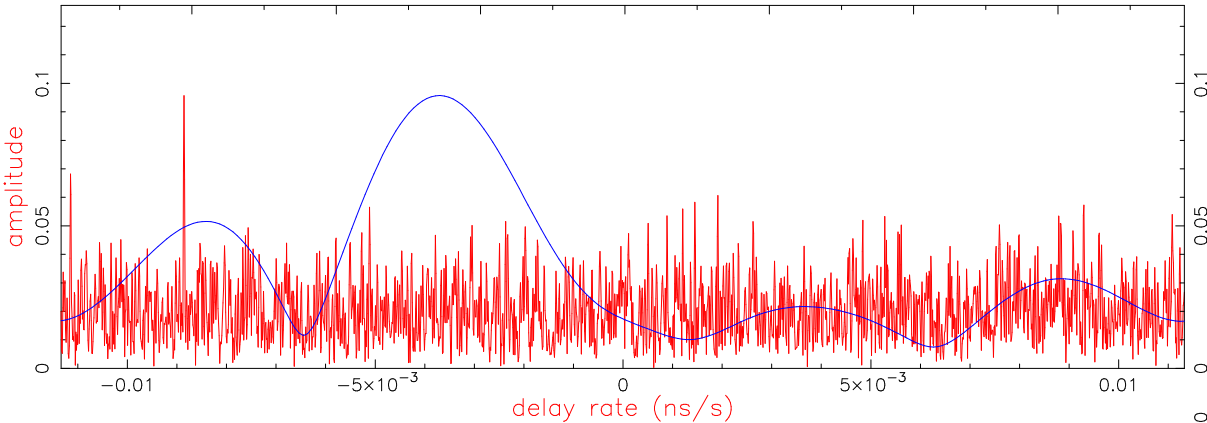
3C84.11M8OF, No0119, tp

KVNTN - VLBA_PT, fgroup W, pol LR

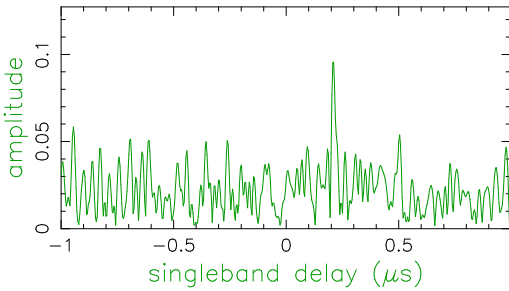
multiband delay (μ s)

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

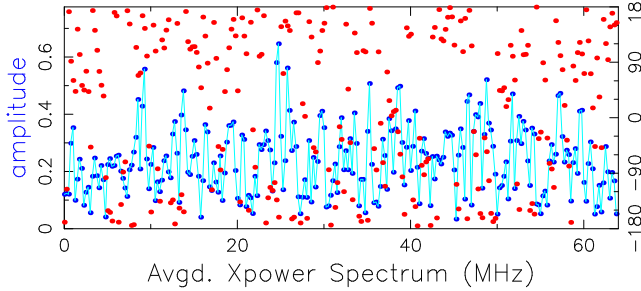
Fringe quality 0



SNR 5.9
 Int time 479.976
 Amp 0.127
 Phase 80.8
 PFD 7.1e-01
 Delays (us)
 SBD 0.209072
 MBD -0.002604
 Fringe rate (Hz)
 -0.763670
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



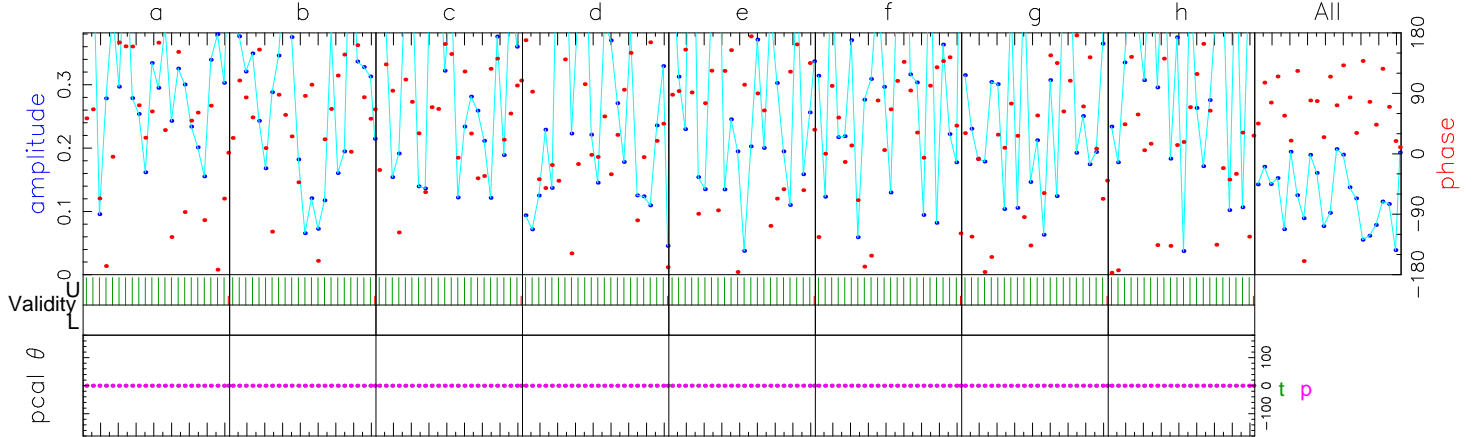
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133544
 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



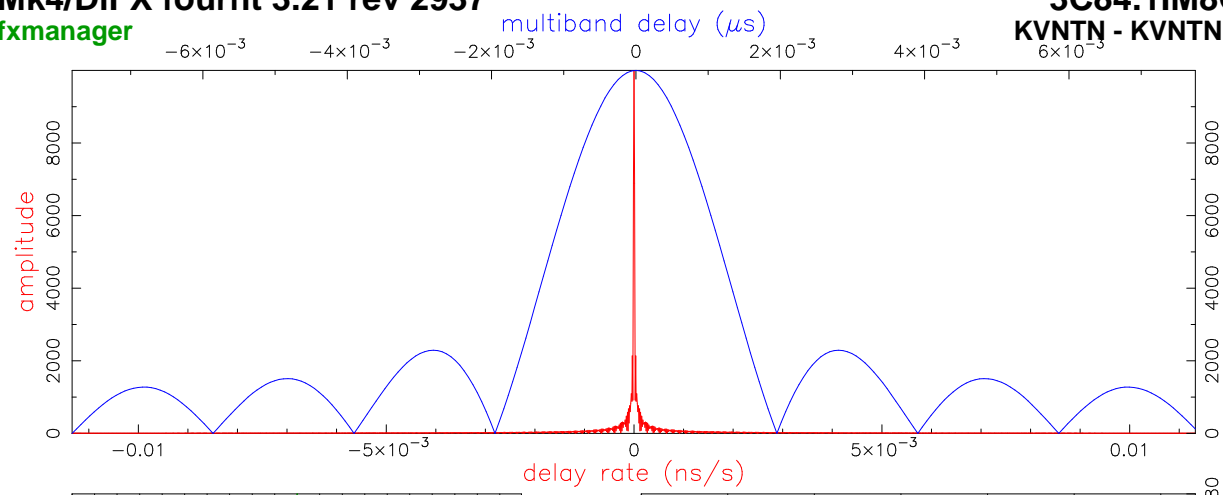
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
t:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0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

Group delay (usec)(sbd)	2.22001786416E+03	Apriori delay (usec)		2.21980171822E+03	Resid mbdelay (usec)		-2.60406E-03	+/- 1.9E-04	
Sband delay (usec)	2.22001079022E+03	Apriori clock (usec)		1.2916784E+00	Resid sbdelay (usec)		2.09072E-01	+/- 1.5E-03	
Phase delay (usec)	2.21980172082E+03	Apriori clockrate (us/s)		-2.9999999E-07	Resid phdelay (usec)		2.60594E-06	+/- 6.3E-07	
Delay rate (us/s)	1.70695993113E+00	Apriori rate (us/s)		1.70696879658E+00	Resid rate (us/s)		-8.86545E-06	+/- 2.3E-09	
Total phase (deg)	83.3		Apriori accel (us/s/s)		-1.29079835136E-05	Resid phase (deg)		80.8	+/- 19.6

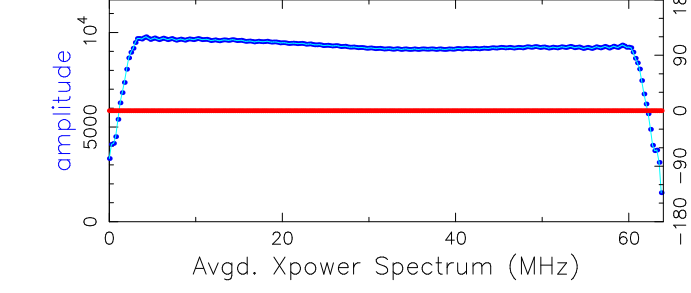
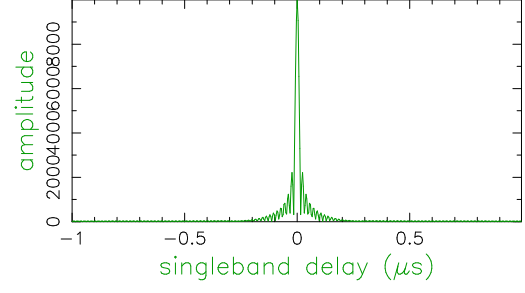
ph/seg (deg)	45.1	47.0	Search (2048X32)	0.094	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
amp/seg (%)	56.2	82.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000			
ph/frq (deg)	33.4	27.7	Inc. seg. avg.	0.122	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	46.6	48.3	Inc. frq. avg.	0.125	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011			
t: az 62.0 el 43.9 pa -80.0		p: az 299.2 el 37.8 pa 74.2		u,v (fr/asec) -13093.699 -834.794		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

simultaneous interpolator

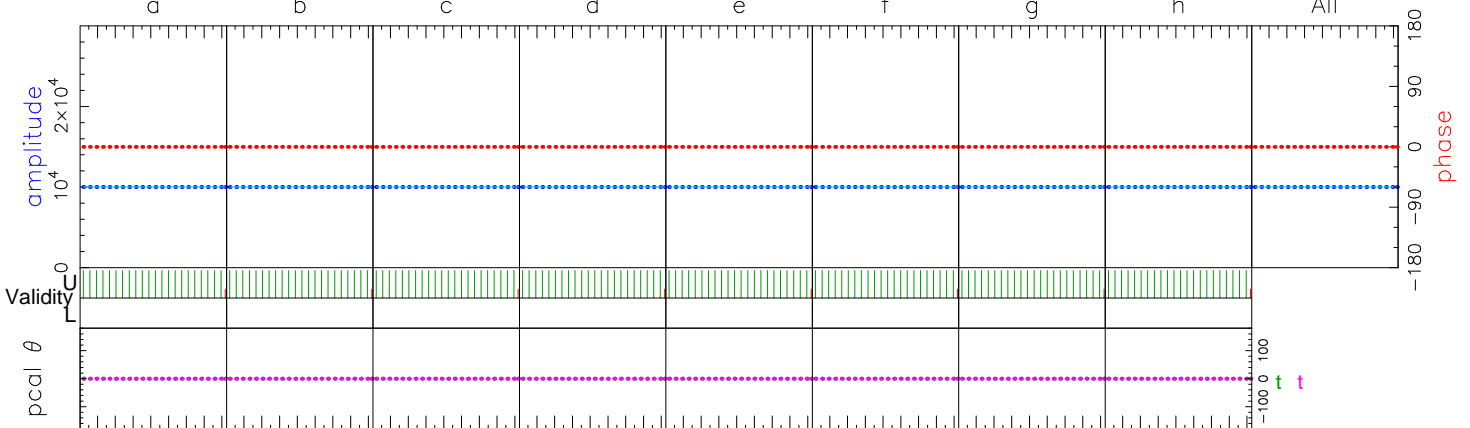
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tp..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tp.W.204.11M8OF



Fringe quality 9
SNR 599111.2
Int time 479.976
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Yr:day # 16383
Start 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133536
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

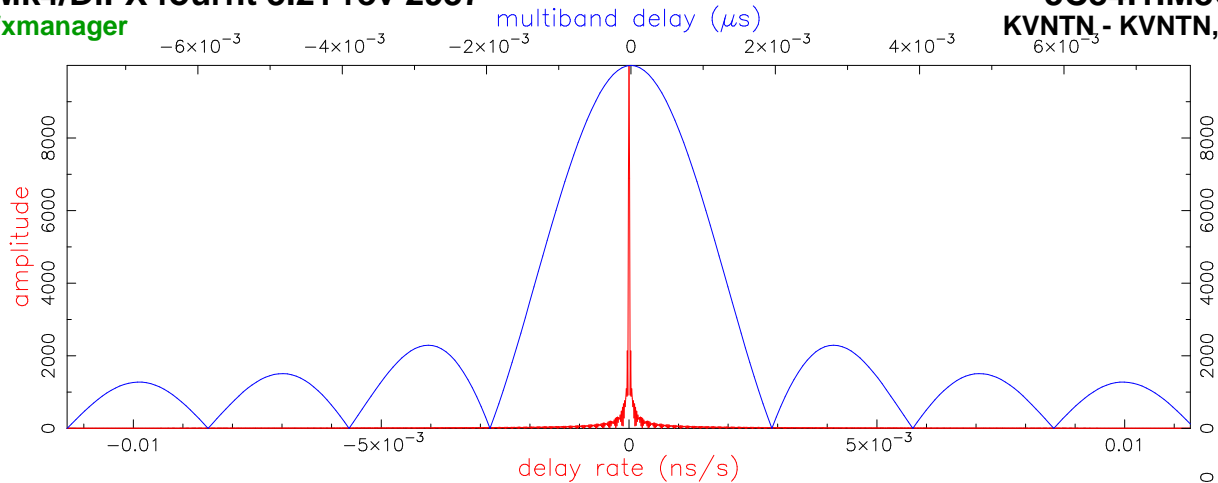


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

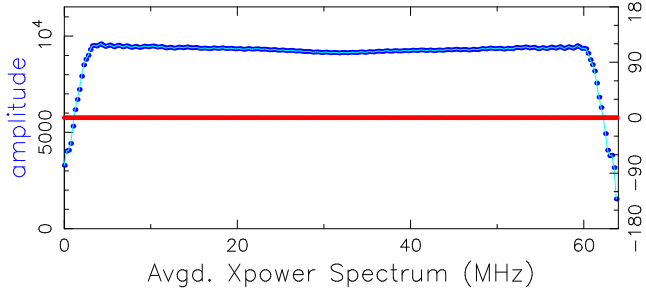
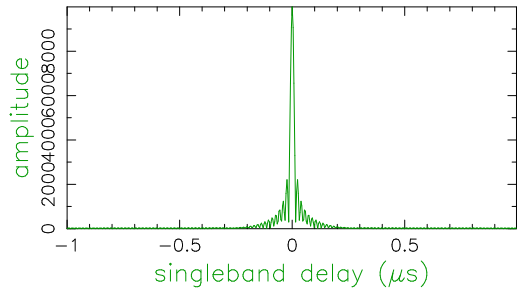
Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 1.8E-09
Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.4E-08
Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.2E-12
Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.2E-14
Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 9999.999 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
ph/seg (deg) 0.0 0.0 Search (2048X32) 9999.999 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. 9999.999 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

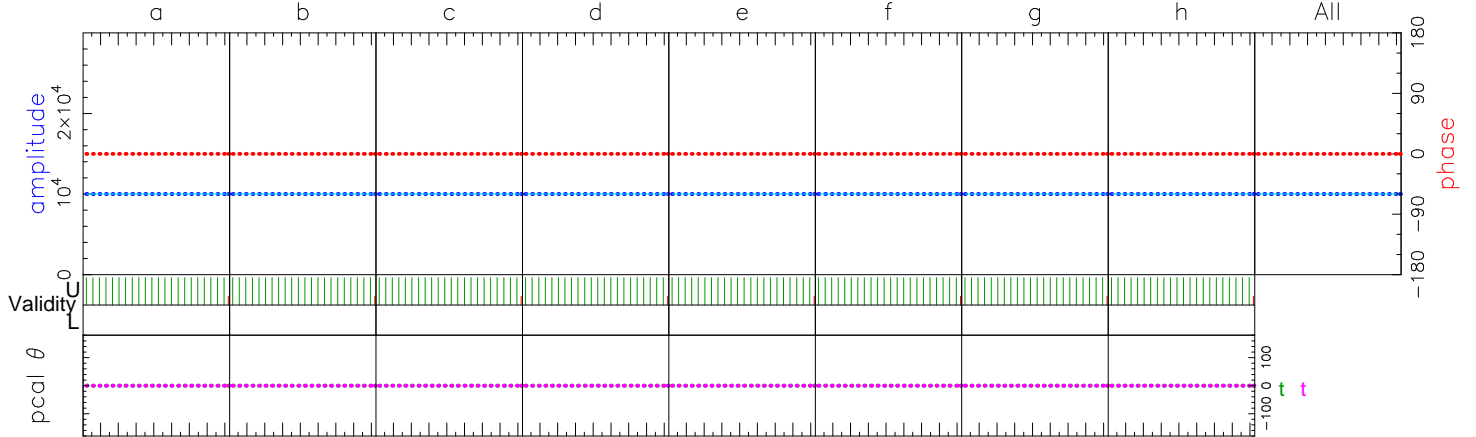
t: az 62.0 el 43.9 pa -80.0 t: az 62.0 el 43.9 pa -80.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tt..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tt.W.164.11M8OF



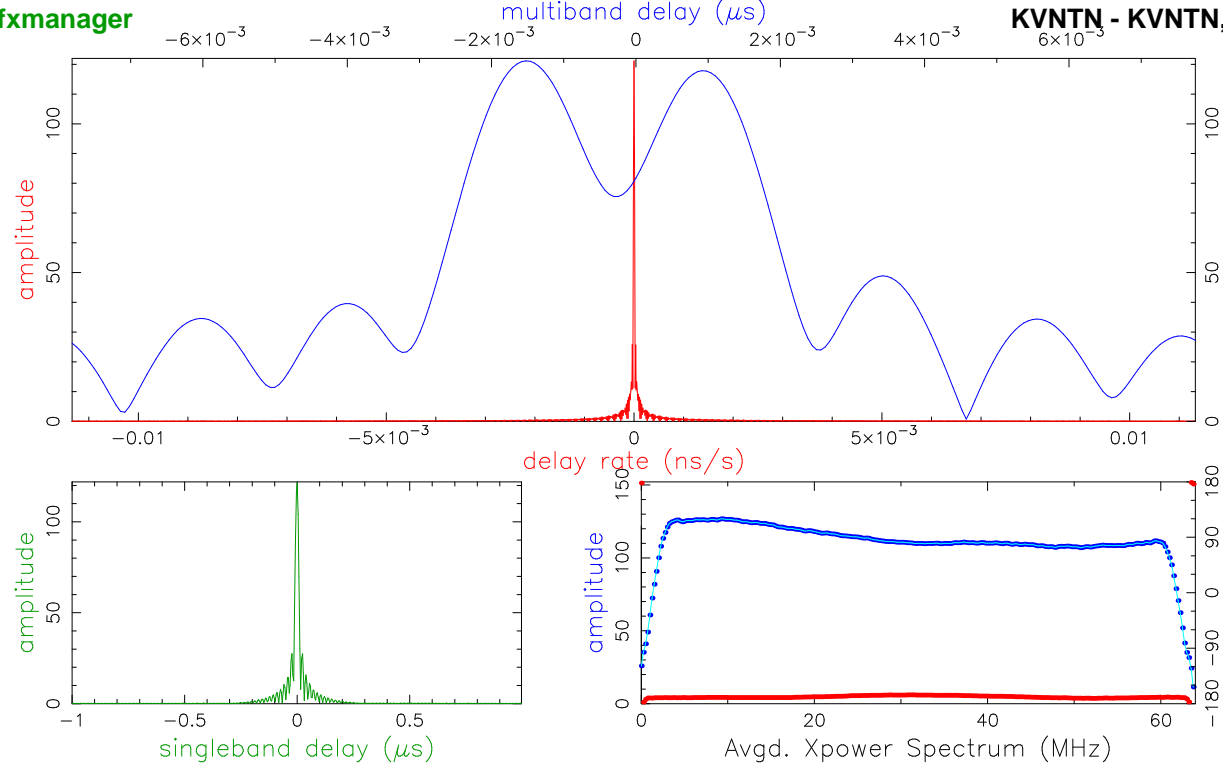
Fringe quality 9
SNR 599111.2
Int time 479.976
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Yr:day 16383
Start 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133540
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		
t	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	10000.0
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	0.000000000000E+00								Resid mbdelay (usec)	0.00000E+00 +/- 1.8E-09
Sband delay (usec)	0.000000000000E+00								Resid sbdelay (usec)	0.00000E+00 +/- 1.4E-08
Phase delay (usec)	0.000000000000E+00								Resid phdelay (usec)	0.00000E+00 +/- 6.2E-12
Delay rate (us/s)	0.000000000000E+00								Resid rate (us/s)	0.00000E+00 +/- 2.2E-14
Total phase (deg)			0.0						Resid phase (deg)	0.0 +/- 0.0
	RMS	Theor.	Amplitude	9999.999 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	0.0	0.0	Search (2048X32)	9999.999	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.	9999.999	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
t: az 62.0 el 43.9 pa -80.0			t: az 62.0 el 43.9 pa -80.0		u,v (fr/asec) 0.000	0.000				simultaneous interpolator

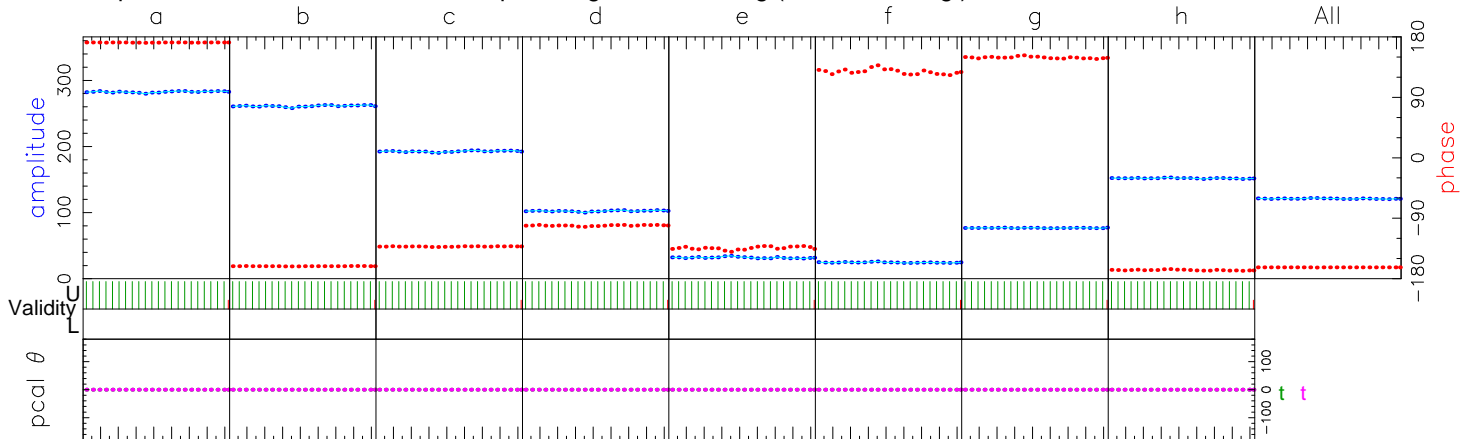


Fringe quality 5

SNR 7308.1
Int time 479.976
Amp 121.983
Phase -163.0
PFD 0.0e+00
Delays (us)
SBD -0.001032
MBD -0.001520
Fringe rate (Hz) 0.000001
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c202b
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133543
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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.52040625000E-03									
Sband delay (usec)	-1.03150000000E-03									
Phase delay (usec)	-5.25578640684E-06									
Delay rate (us/s)	1.06283642938E-11									
Total phase (deg)			-163.0							
Apriori delay (usec)					0.00000000000E+00					
Apriori clock (usec)					0.0000000E+00					
Apriori clockrate (us/s)					0.0000000E+00					
Apriori rate (us/s)					0.00000000000E+00					
Apriori accel (us/s/s)					0.00000000000E+00					
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										

ph/seg (deg) 0.1 0.0
amp/seg (%) 0.8 0.1
ph/frq (deg) 47.1 0.0
amp/frq (%) 77.3 0.0

t: az 62.0 el 43.9 pa -80.0
Control file: cf_1234_gmva

Search (2048X32)
Inc. seg. avg.
Inc. frq. avg.

121.983 +/- 0.017
120.995
0.000
121.166
140.557

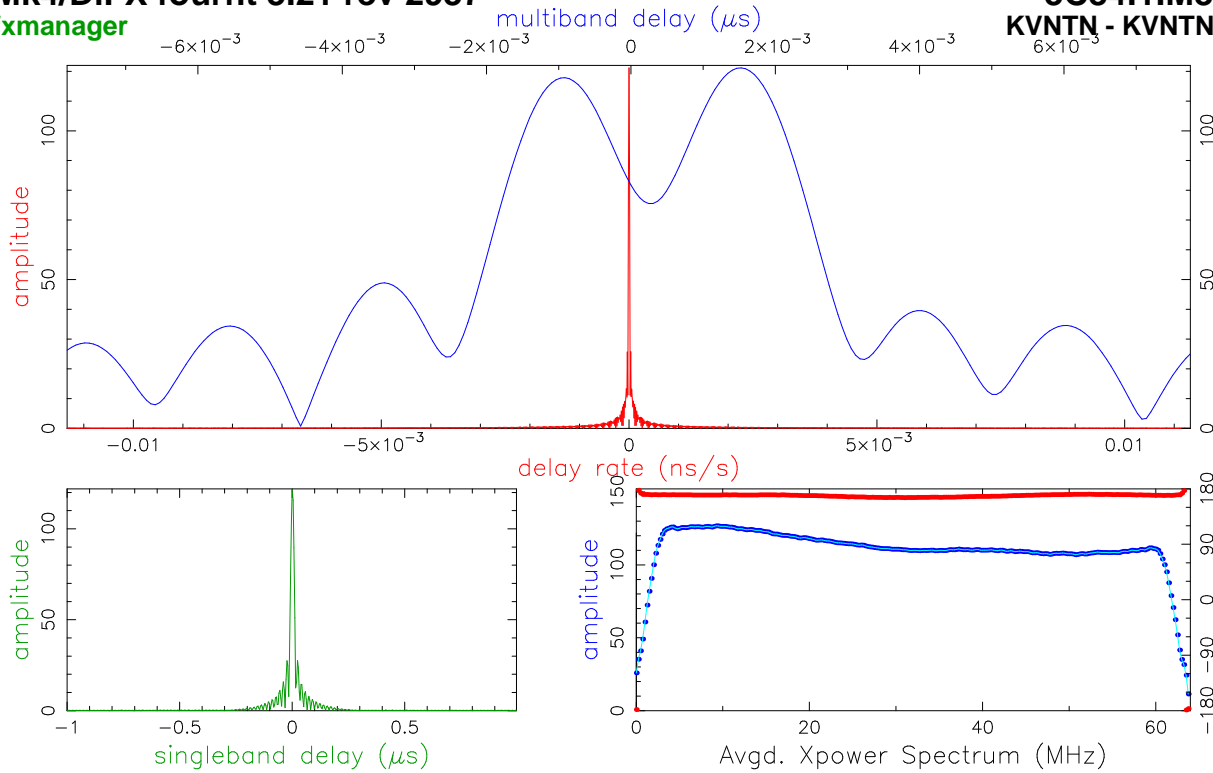
u,v (fr/asec) 0.000 0.000

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) -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

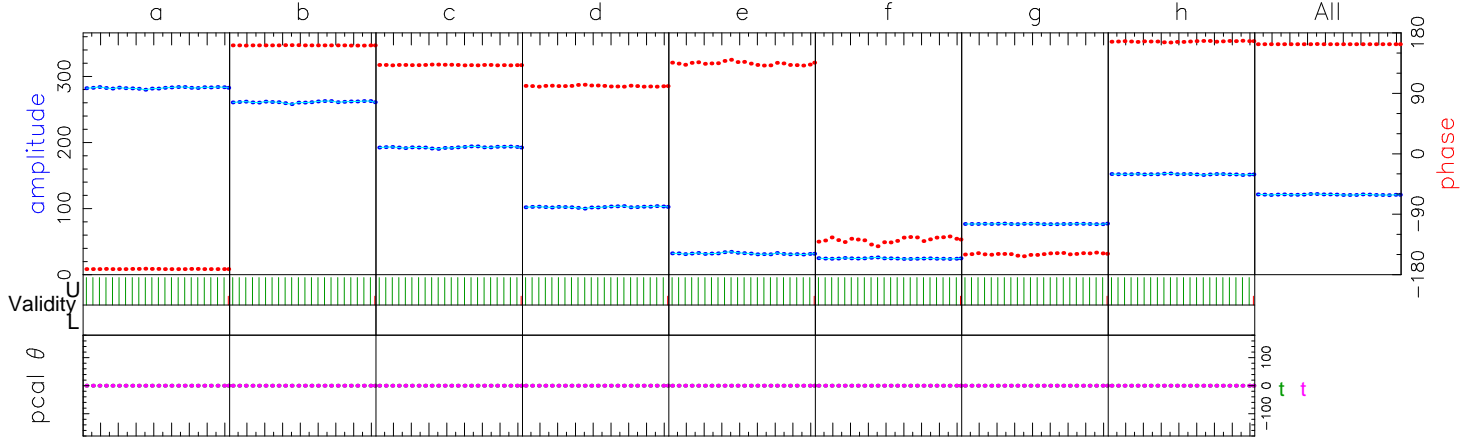
simultaneous interpolator

Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tt.11M8OF
Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tt.W.199.11M8OF



Fringe quality 5
SNR 7308.1
Int time 479.976
Amp 121.983
Phase 163.0
PFD 0.0e+00
Delays (us)
SBD 0.001032
MBD 0.001520
Fringe rate (Hz)
-0.000001
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133547
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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



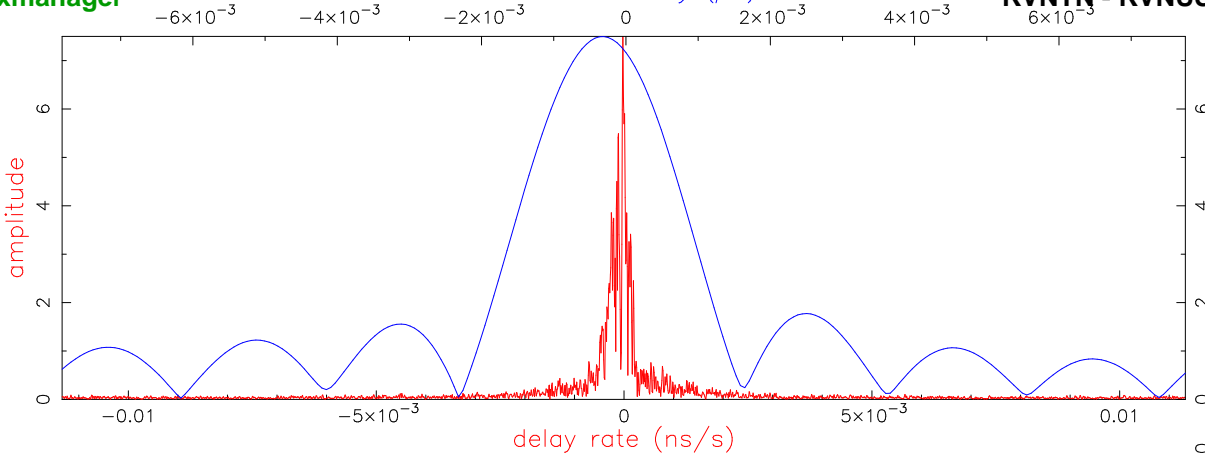
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-171.4	161.3	132.0	100.8	134.4	-128.3	-149.2	167.1	Phase	163.0
	282.7	261.2	192.7	102.5	32.0	24.6	76.8	152.0	Ampl.	140.6
	257.2	257.2	257.1	257.2	257.4	259.0	257.2	257.2	Sbd box	257.3
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.52040625000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.52041E-03	+/-	1.5E-07
Sband delay (usec)	1.03150000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.03150E-03	+/-	1.2E-06
Phase delay (usec)	5.25578640678E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	5.25579E-06	+/-	5.1E-10
Delay rate (us/s)	-1.06283642938E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.06284E-11	+/-	1.8E-12
Total phase (deg)	163.0	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	163.0	+/-	0.0

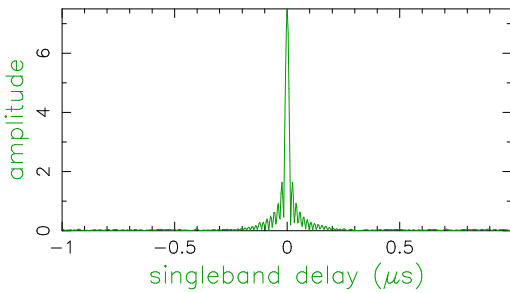
ph/seg (deg)	0.1	RMS	Theor.	Amplitude	121.983 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	0.8	0.1	0.0	Search (2048X32)	120.995	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	47.1	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	77.3	0.0	0.0	Inc. seg. avg.	121.166	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	140.557	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		
t: az 62.0 el 43.9 pa -80.0										
				t: az 62.0 el 43.9 pa -80.0						
										simultaneous interpolator

multiband delay (μs)

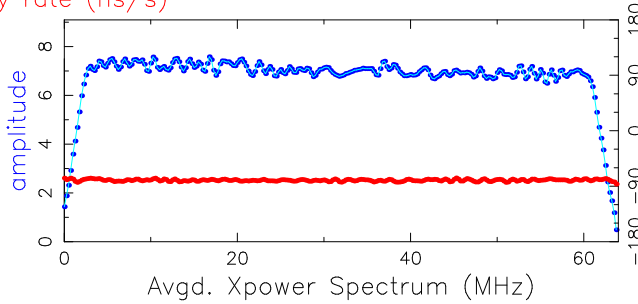
Fringe quality 5



SNR 449.3
Int time 479.970
Amp 7.500
Phase -79.5
PFD 0.0e+00
Delays (us)
SBD -0.000263
MBD -0.000325
Fringe rate (Hz)
-0.002239
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

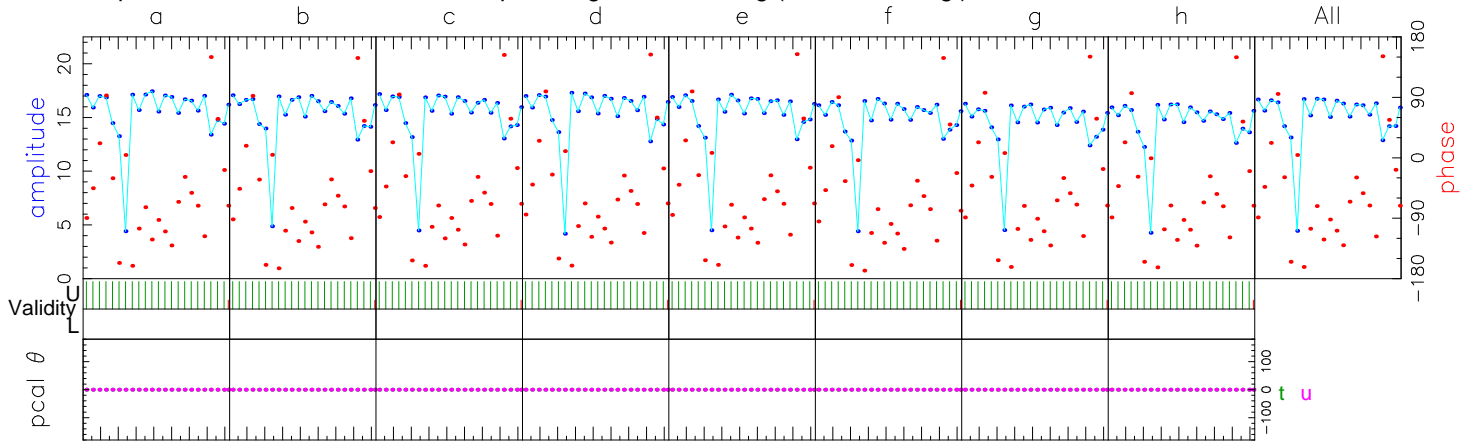


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133537
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
	-80.2	-82.7	-77.8	-75.9	-76.0	-84.9	-79.3	-79.5	Phase	-79.5
	7.7	7.6	7.7	7.7	7.6	7.4	7.2	7.2	Ampl.	7.5
	257.0	256.8	257.1	256.9	256.9	256.8	257.0	256.9	Sbd box	256.9
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

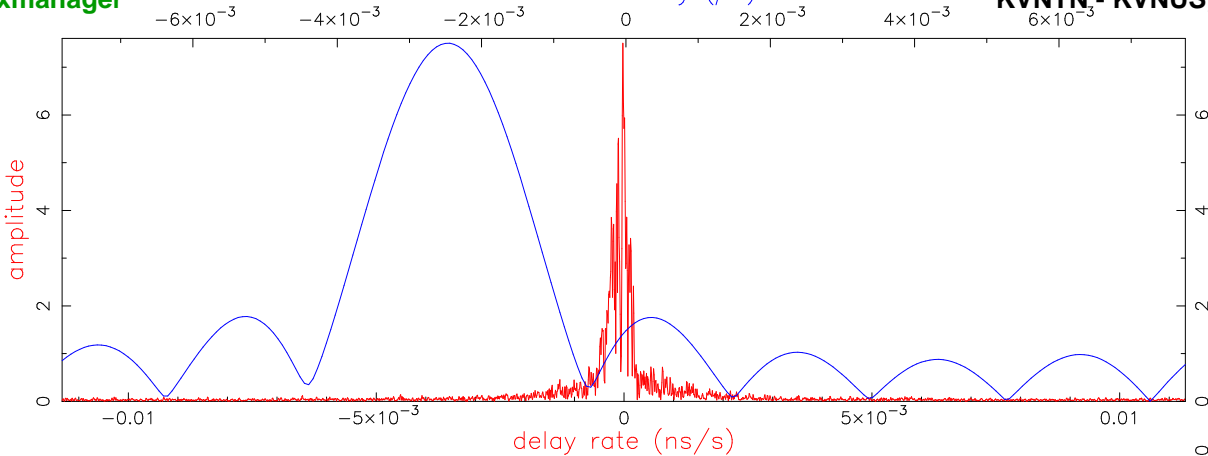
Group delay (usec)(sbd)	-7.85826846134E+02	Apriori delay (usec)	-7.85826521294E+02	Resid mbdelay (usec)	-3.24840E-04	+/-	2.4E-06
Sband delay (usec)	-7.85826784544E+02	Apriori clock (usec)	-1.1853223E+00	Resid sbdelay (usec)	-2.63250E-04	+/-	1.9E-05
Phase delay (usec)	-7.85826523858E+02	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-2.56437E-06	+/-	8.2E-09
Delay rate (us/s)	4.76411649611E-02	Apriori rate (us/s)	4.76411909588E-02	Resid rate (us/s)	-2.59977E-08	+/-	3.0E-11
Total phase (deg)	-275.5	Apriori accel (us/s/s)	1.74311360391E-06	Resid phase (deg)	-79.5	+/-	0.3

ph/seg (deg)	RMS 71.6	Theor. 0.6	Amplitude Search (2048X32)	7.206	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	106.2	1.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	3.4	0.4	Inc. seg. avg.	15.038	Bits/sample: 2x2	Sample rate(MSamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	2.7	0.6	Inc. frq. avg.	7.507	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

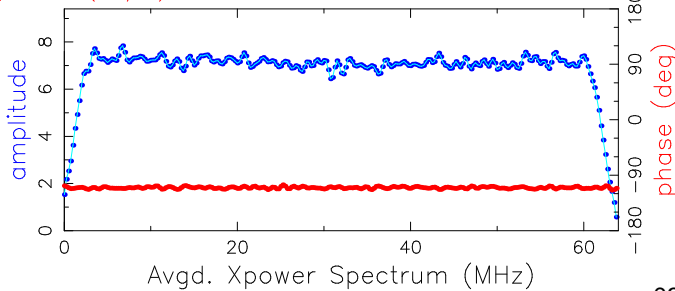
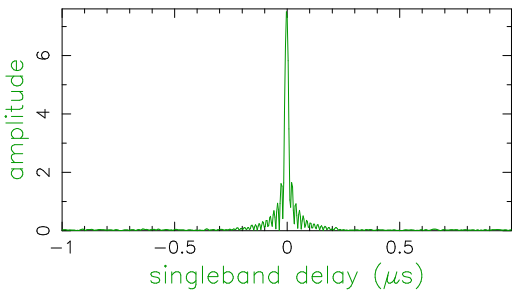
t: az 62.0 el 43.9 pa -80.0 u: az 64.5 el 47.0 pa -79.7 u,v (fr/asec) -360.475 -88.967 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tu..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tu.W.168.11M8OF

multiband delay (μ s)

Fringe quality 5

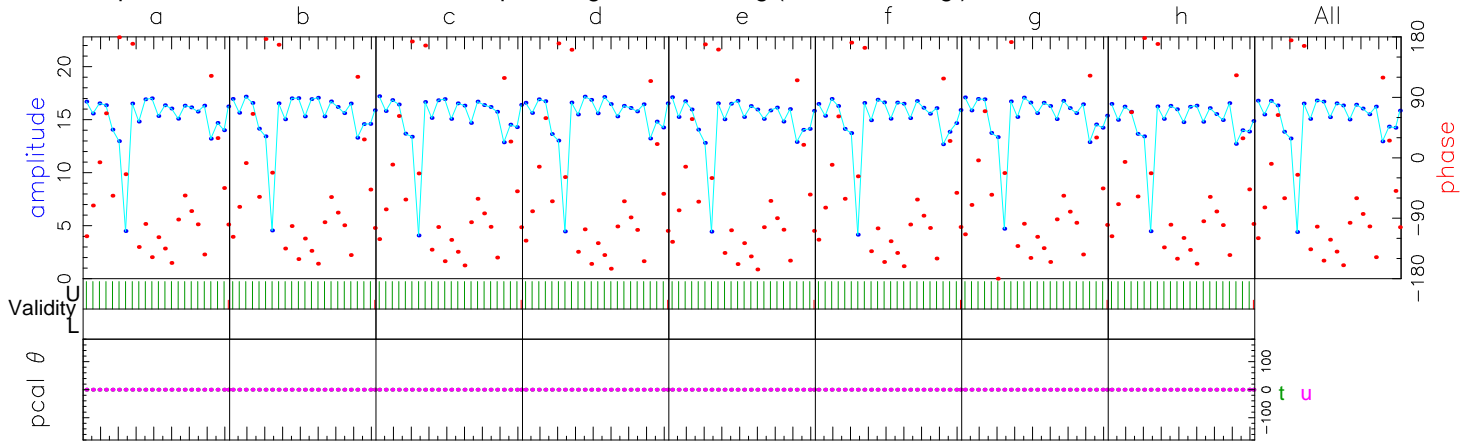


SNR 455.6
Int time 479.970
Amp 7.605
Phase -110.3
PFD 0.0e+00
Delays (us)
SBD -0.002446
MBD -0.002465
Fringe rate (Hz)
-0.002240
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133540
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
	-106.0	-108.6	-110.6	-115.2	-115.7	-112.4	-105.5	-108.0	Phase	-110.3
	7.5	7.6	7.6	7.5	7.4	7.5	7.6	7.4	Ampl.	7.5
	256.4	256.3	256.3	256.3	256.4	256.4	256.4	256.4	Sbd box	256.4
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-7.85828985821E+02	Apriori delay (usec)	-7.85826521294E+02	Resid mbdelay (usec)	-2.46453E-03	+/-	2.4E-06
Sband delay (usec)	-7.85828967794E+02	Apriori clock (usec)	-1.1853223E+00	Resid sbdelay (usec)	-2.44650E-03	+/-	1.9E-05
Phase delay (usec)	-7.85826524849E+02	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-3.55539E-06	+/-	8.1E-09
Delay rate (us/s)	4.76411649519E-02	Apriori rate (us/s)	4.76411909588E-02	Resid rate (us/s)	-2.60069E-08	+/-	2.9E-11
Total phase (deg)	-306.2	Apriori accel (us/s/s)	1.74311360391E-06	Resid phase (deg)	-110.3	+/-	0.3

ph/seg (deg)	RMS 71.6	Theor. 0.6	Amplitude Search (2048X32)	7.296	7.605 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	103.6	1.1	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	4.2	0.4	Inc. seg. avg.	15.051		Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	1.6	0.6	Inc. frq. avg.	7.519		Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

t: az 62.0 el 43.9 pa -80.0 u: az 64.5 el 47.0 pa -79.7 u,v (fr/asec) -360.475 -88.967 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tu..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tu.W.184.11M8OF

Mk4/DiFX fourfit 3.21 rev 2937

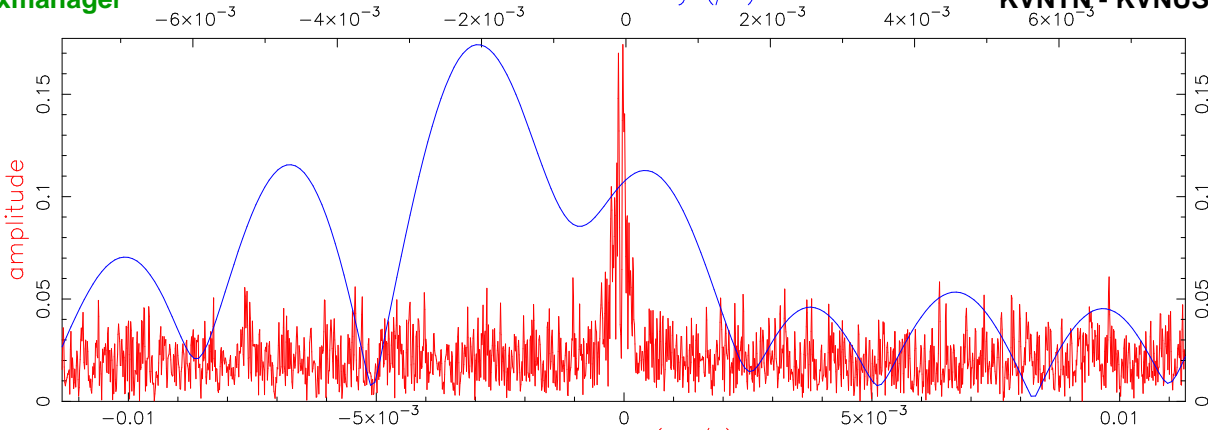
fxmanager

3C84.11M8OF, No0119, tu

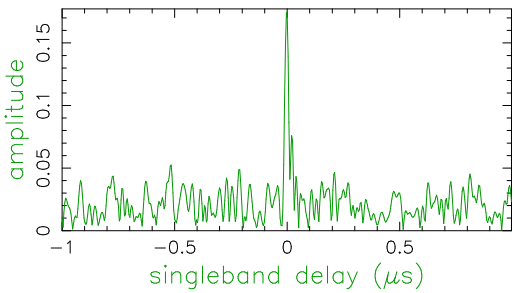
KVNTN - KVNUS, fgroup W, pol LR

multiband delay (μ s)

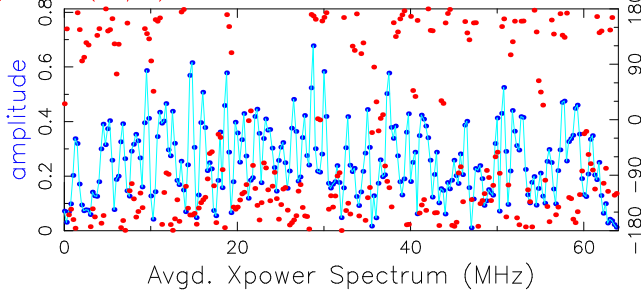
Fringe quality 9



SNR 10.6
Int time 479.970
Amp 0.177
Phase -161.6
PFD 1.1e-17
Delays (us)
SBD -0.002189
MBD -0.002062
Fringe rate (Hz)
-0.002122
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

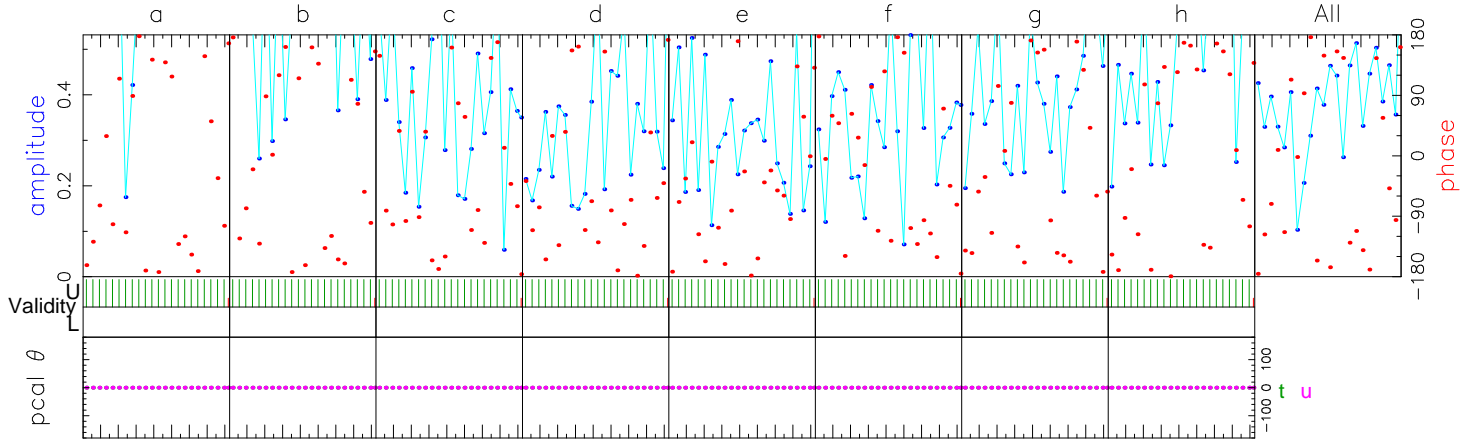


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133544
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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

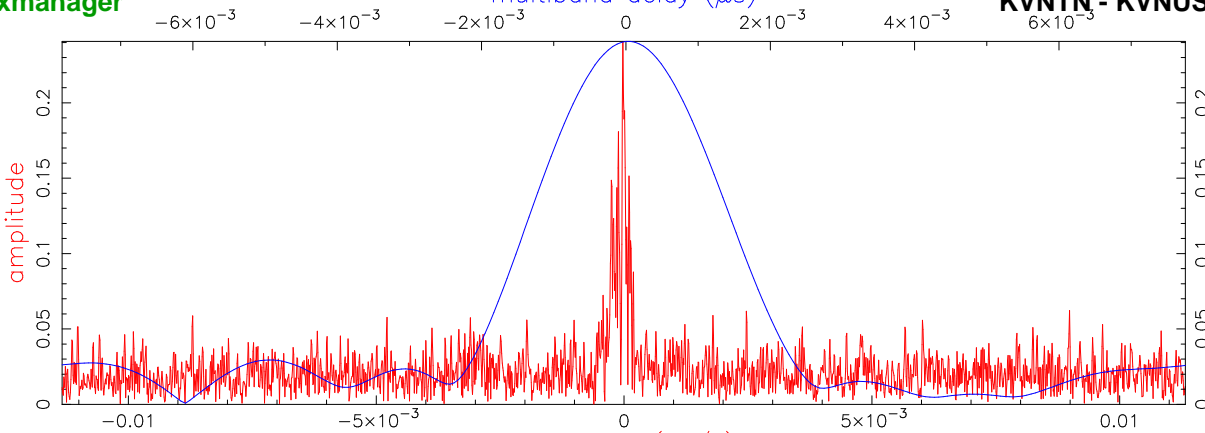


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-171.9	-176.1	-154.5	-109.5	-94.2	-131.1	-160.8	169.8	Phase	-161.6
	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.3	Ampl.	0.2
	256.5	256.0	343.5	149.5	149.3	395.3	201.6	256.6	Sbd box	256.4
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.85828582978E+02			Apriori delay (usec)	-7.85826521294E+02			Resid mbdelay (usec)	-2.06168E-03	+/- 1.0E-04
Sband delay (usec)	-7.85828710044E+02			Apriori clock (usec)	-1.1853223E+00			Resid sbdelay (usec)	-2.18875E-03	+/- 8.1E-04
Phase delay (usec)	-7.85826526504E+02			Apriori clockrate (us/s)	-2.9999999E-07			Resid phdelay (usec)	-5.20967E-06	+/- 3.5E-07
Delay rate (us/s)	4.76411663223E-02			Apriori rate (us/s)	4.76411909588E-02			Resid rate (us/s)	-2.46365E-08	+/- 1.3E-09
Total phase (deg)		-357.5		Apriori accel (us/s/s)	1.74311360391E-06			Resid phase (deg)	-161.6	+/- 10.8

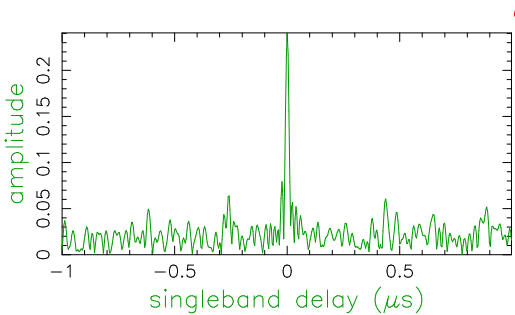
ph/seg (deg) 78.5 25.9 Search (2048X32) 0.171 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 126.7 45.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.5 15.3 Inc. seg. avg. 0.342 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 58.1 26.6 Inc. frq. avg. 0.189 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 62.0 el 43.9 pa -80.0 u: az 64.5 el 47.0 pa -79.7 u,v (fr/asec) -360.475 -88.967 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tu..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tu.W.202.11M8OF

multiband delay (μ s)

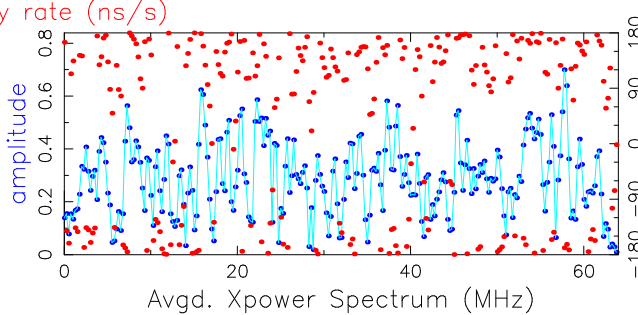
Fringe quality 9



SNR 14.4
Int time 479.970
Amp 0.241
Phase 163.2
PFD 2.2e-38
Delays (us)
SBD 0.000016
MBD 0.000035
Fringe rate (Hz)
-0.002240
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

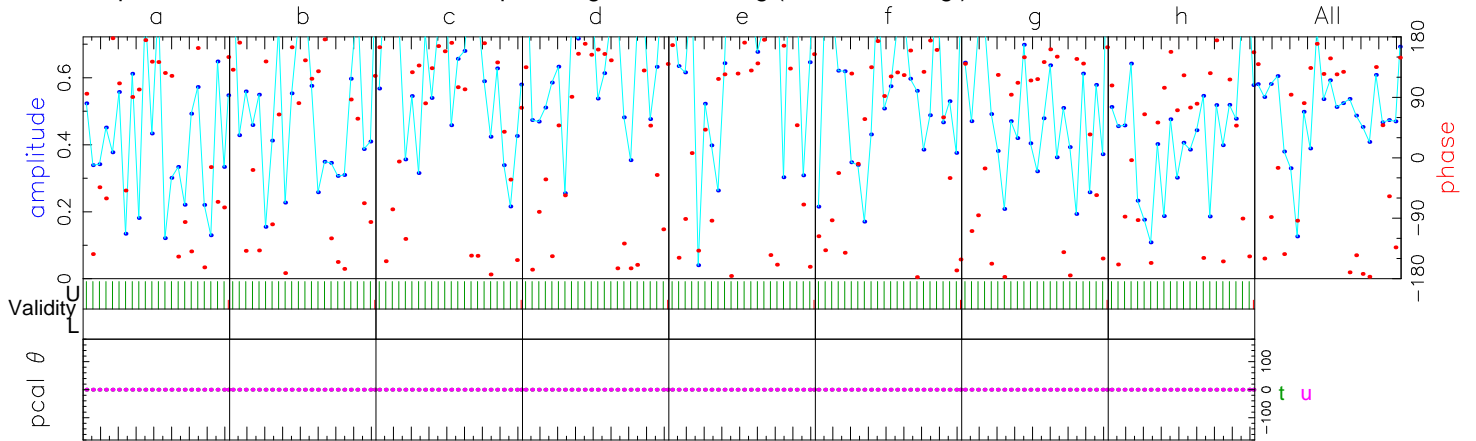


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133548
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
	169.9	145.0	166.1	168.1	166.7	163.5	163.2	153.2	Phase	163.2
	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.1	Ampl.	0.2
	258.7	257.3	256.8	257.3	256.8	256.9	256.9	402.1	Sbd box	257.0
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

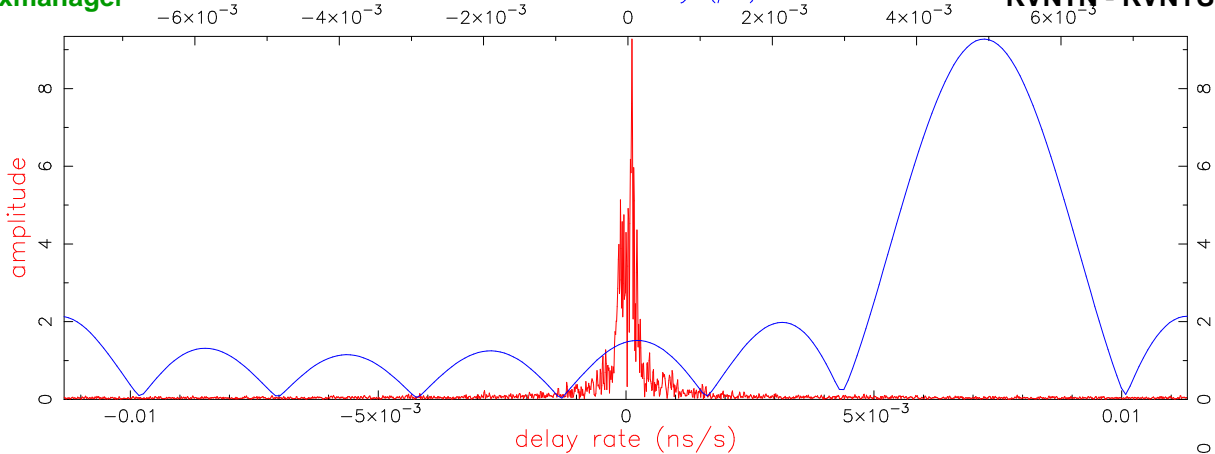
Group delay (usec)(sbd)	-7.85826486540E+02	Apriori delay (usec)	-7.85826521294E+02	Resid mbdelay (usec)	3.47540E-05	+/-	7.5E-05
Sband delay (usec)	-7.85826505544E+02	Apriori clock (usec)	-1.1853223E+00	Resid sbdelay (usec)	1.57500E-05	+/-	6.0E-04
Phase delay (usec)	-7.85826516031E+02	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	5.26332E-06	+/-	2.6E-07
Delay rate (us/s)	4.76411649512E-02	Apriori rate (us/s)	4.76411909588E-02	Resid rate (us/s)	-2.60076E-08	+/-	9.2E-10
Total phase (deg)	-32.7	Apriori accel (us/s/s)	1.74311360391E-06	Resid phase (deg)	163.2	+/-	7.9

ph/seg (deg)	RMS 73.0	Theor. 19.1	Amplitude Search (2048X32)	0.241 +/- 0.017	0.235	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	117.5	33.2	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	9.3	11.2	Inc. seg. avg.	0.470	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	32.8	19.6	Inc. frq. avg.	0.238	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

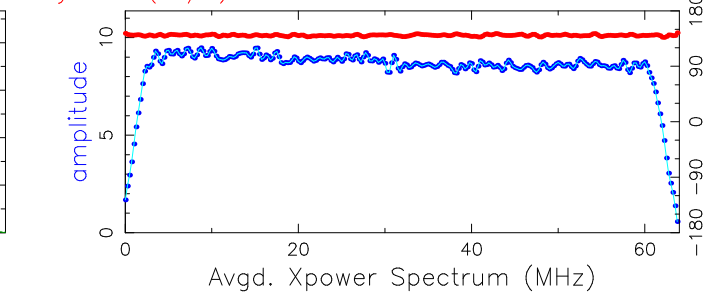
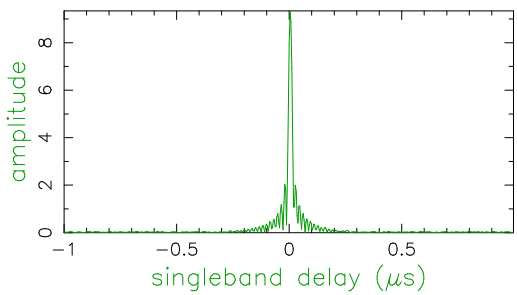
t: az 62.0 el 43.9 pa -80.0 u: az 64.5 el 47.0 pa -79.7 u,v (fr/asec) -360.475 -88.967 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/tu..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/tu.W.222.11M8OF

multiband delay (μ s)

Fringe quality 5

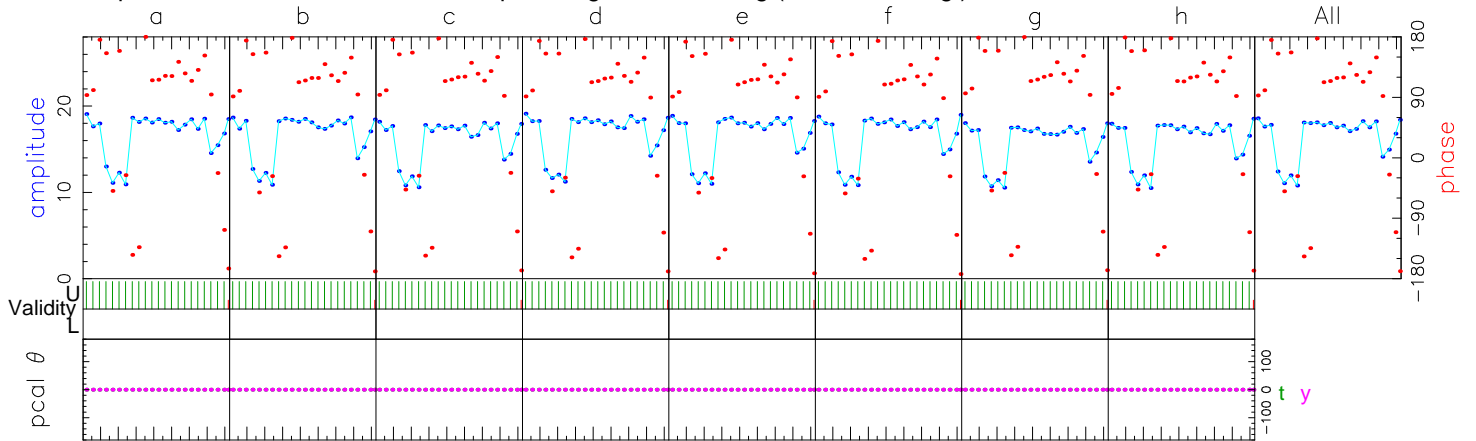


SNR 559.7
Int time 479.960
Amp 9.343
Phase 140.4
PFD 0.0e+00
Delays (us)
SBD 0.004973
MBD 0.004937
Fringe rate (Hz) 0.010067
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133536
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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-5.69509544138E+02	Apriori delay (usec)	-5.69514480648E+02	Resid mbdelay (usec)	4.93651E-03	+/-	1.9E-06
Sband delay (usec)	-5.69509507648E+02	Apriori clock (usec)	1.3599968E-01	Resid sbdelay (usec)	4.97300E-03	+/-	1.5E-05
Phase delay (usec)	-5.69514476121E+02	Apriori clockrate (us/s)	0.000000E+00	Resid phdelay (usec)	4.52694E-06	+/-	6.6E-09
Delay rate (us/s)	4.62221787351E-02	Apriori rate (us/s)	4.62220618712E-02	Resid rate (us/s)	1.16864E-07	+/-	2.4E-11
Total phase (deg)	9.7	Apriori accel (us/s/s)	-1.51910815311E-06	Resid phase (deg)	140.4	+/-	0.2

ph/seg (deg)	74.1	RMS	74.1	Theor.	0.5	Amplitude	9.343 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	80.1		80.1		0.9	Search (2048X32)	8.726	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	2.2		2.2		0.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	2.2		2.2		0.5	Inc. seg. avg.	16.399	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Inc. frq. avg.	9.281	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 62.0 el 43.9 pa -80.0 y: az 65.9 el 46.1 pa -75.8 u,v (fr/asec) -356.234 -503.935 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ty..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ty.W.166.11M8OF

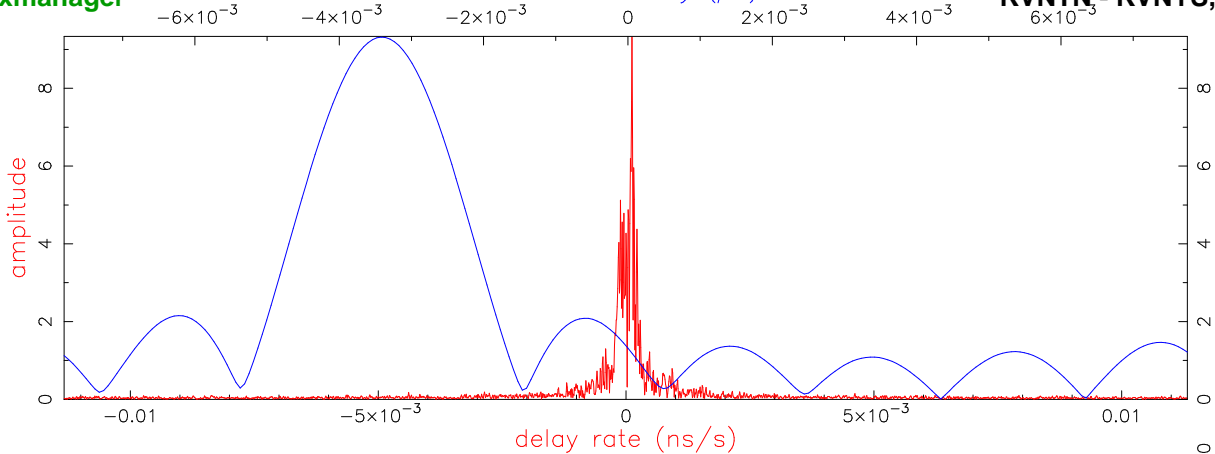
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M8OF, No0119, ty

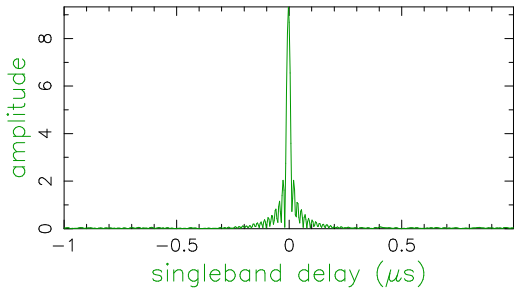
KVNTN - KVNYs, fgroup W, pol RR

multiband delay (μ s)

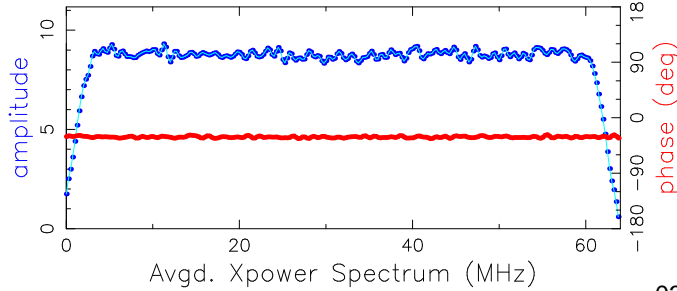


Fringe quality 5

SNR 559.2
 Int time 479.960
 Amp 9.335
 Phase -30.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.003371
 MBD -0.003409
 Fringe rate (Hz)
 0.010064
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

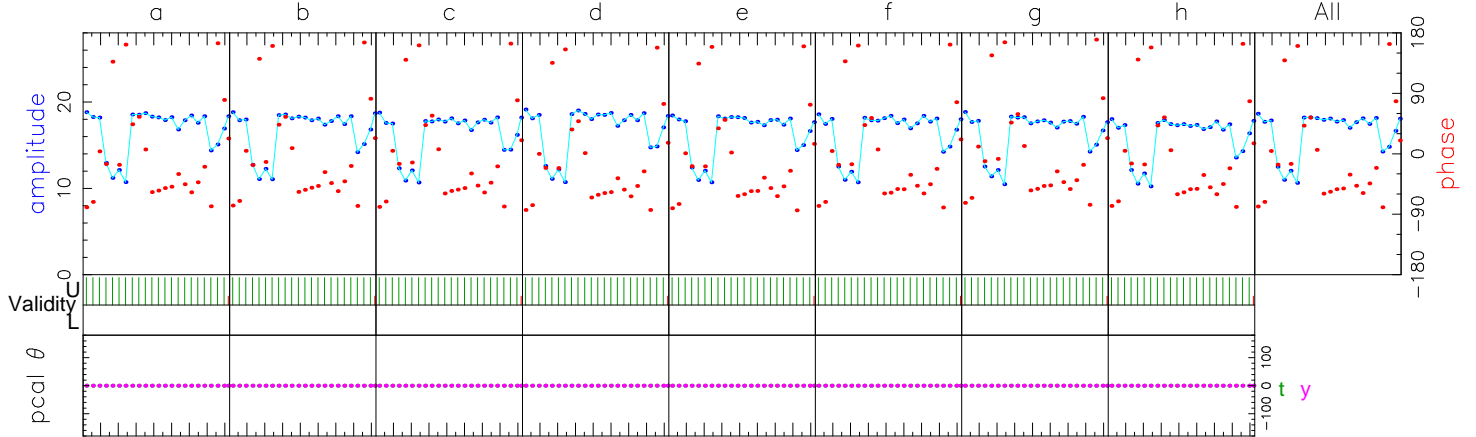


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133541
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-29.5	-28.3	-30.5	-35.9	-34.7	-31.3	-25.7	-31.2	Phase	-30.9
	9.5	9.4	9.2	9.6	9.4	9.3	9.3	9.0	Ampl.	9.3
	256.2	256.1	256.0	256.1	256.1	256.2	256.1	256.1	Sbd box	256.1
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.69517889857E+02		Apriori delay (usec)		-5.69514480648E+02		Resid mbdelay (usec)		-3.40921E-03	+/- 1.9E-06
Sband delay (usec)	-5.69517851898E+02		Apriori clock (usec)		1.3599968E-01		Resid sbdelay (usec)		-3.37125E-03	+/- 1.5E-05
Phase delay (usec)	-5.69514481645E+02		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-9.96895E-07	+/- 6.6E-09
Delay rate (us/s)	4.62221787081E-02		Apriori rate (us/s)		4.62220618712E-02		Resid rate (us/s)		1.16837E-07	+/- 2.4E-11
Total phase (deg)			Apriori accel (us/s/s)		-1.51910815311E-06		Resid phase (deg)		-30.9	+/- 0.2

ph/seg (deg) 74.2 0.5
 amp/seg (%) 80.5 0.9
 ph/frq (deg) 3.6 0.3
 amp/frq (%) 1.7 0.5

RMS Theor. Amplitude 9.335 +/- 0.017
 Search (2048X32) 8.762
 Interp. 0.000
 Inc. seg. avg. 16.419
 Inc. frq. avg. 9.331

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Sample rate(MISamp/s): 128
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

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

t: az 62.0 el 43.9 pa -80.0 y: az 65.9 el 46.1 pa -75.8 u,v (fr/asec) -356.234 -503.935 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ty..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ty.W.191.11M8OF

Mk4/DiFX fourfit 3.21 rev 2937

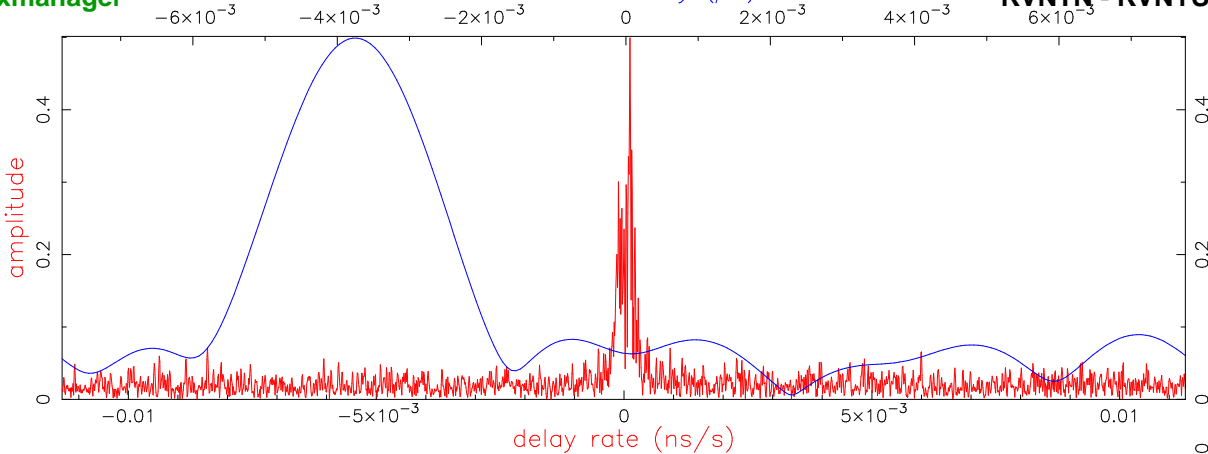
fxmanager

3C84.11M8OF, No0119, ty

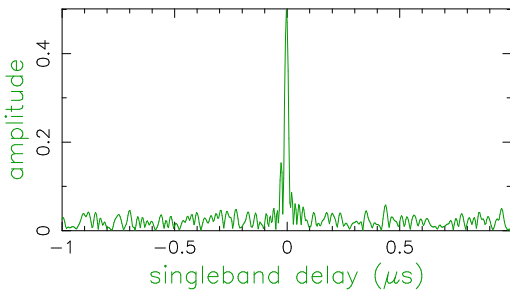
KVNTN - KVNYS, fgroup W, pol LR

multiband delay (μ s)

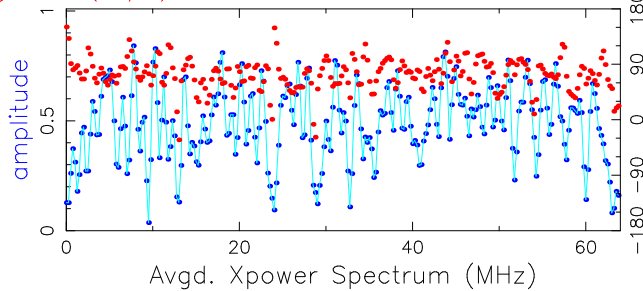
Fringe quality 6



SNR 30.0
 Int time 479.960
 Amp 0.501
 Phase 82.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.003102
 MBD -0.003748
 Fringe rate (Hz)
 0.010121
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

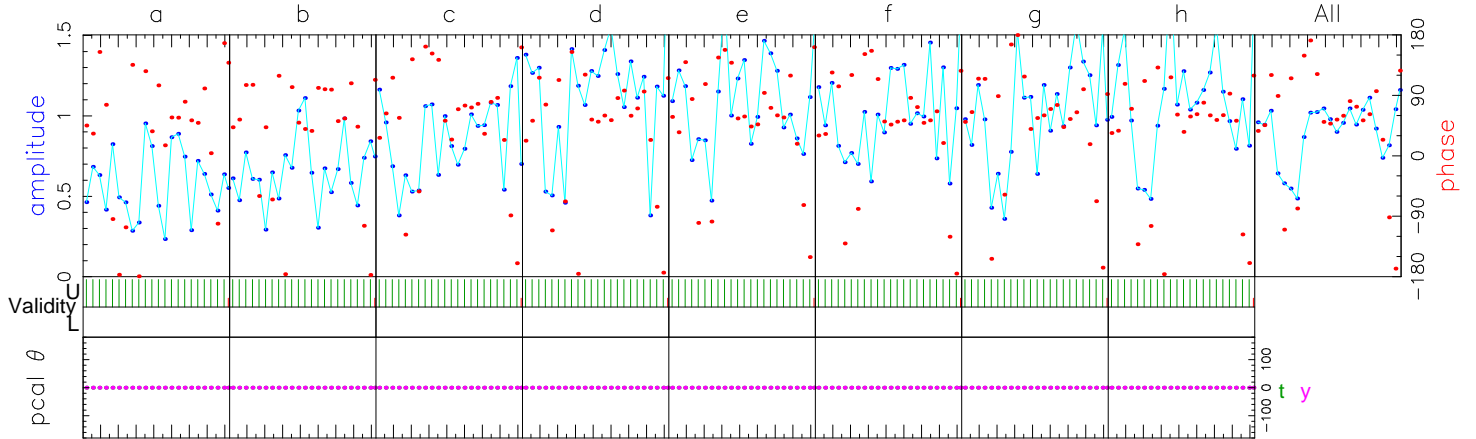


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 134501.00
 Stop 135301.26
 FRT 134901.00
 Corr/FF/build
 2021:023:101405
 2021:023:133545
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-5.69518229013E+02									
Sband delay (usec)	-5.69517582898E+02									
Phase delay (usec)	-5.69514478003E+02									
Delay rate (us/s)	4.62221793621E-02									
Total phase (deg)			-48.6							
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)									82.0	+/- 3.8
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 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 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 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 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)										

ph/seg (deg) 74.9 9.2 Search (2048X32) 0.473 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 86.6 16.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 4.7 5.4 Inc. seg. avg. 0.886 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 28.7 9.4 Inc. frq. avg. 0.498 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 62.0 el 43.9 pa -80.0 y: az 65.9 el 46.1 pa -75.8 u,v (fr/asec) -356.234 -503.935 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0119/ty..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ty.W.211.11M8OF

Mk4/DiFX fourfit 3.21 rev 2937

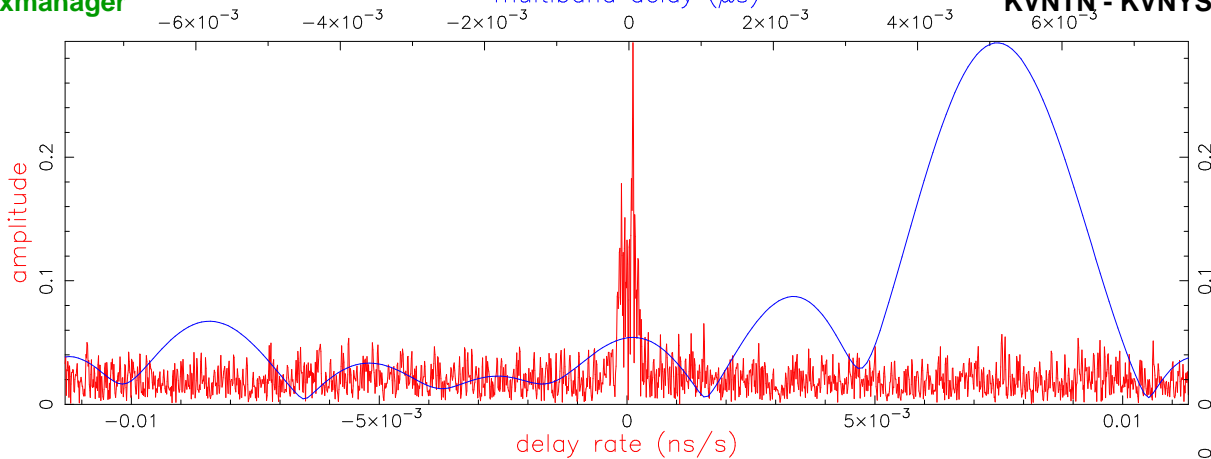
fxmanager

3C84.1M8OF, No0119, ty

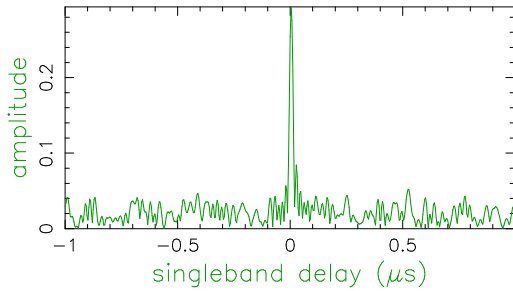
KVNTN - KVNYS, fgroup W, pol RL

multiband delay (μ s)

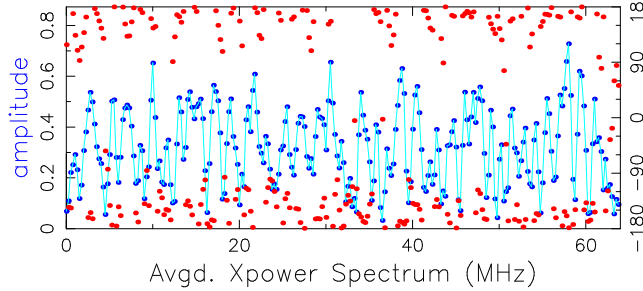
Fringe quality 9



SNR 17.6
Int time 479.960
Amp 0.294
Phase -179.0
PFD 0.0e+00
Delays (us)
SBD 0.004690
MBD 0.005105
Fringe rate (Hz) 0.010126
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

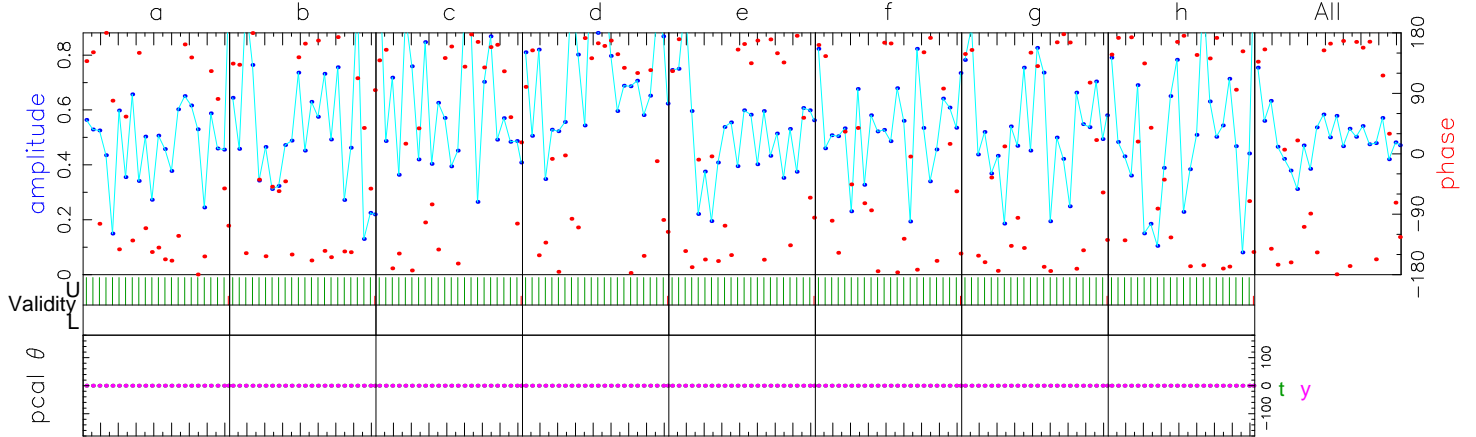


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 134501.00
Stop 135301.26
FRT 134901.00
Corr/FF/build
2021:023:101405
2021:023:133549
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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-169.3	-173.2	163.4	176.6	-176.4	-171.3	-176.1	179.9		-179.0
Sband delay (usec)	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3		0.3
Phase delay (usec)	257.7	258.1	258.6	257.9	258.7	258.3	258.0	258.0		258.2
Delay rate (us/s)										
Total phase (deg)			-309.7							
Apriori delay (usec)					-5.69514480648E+02				5.10457E-03	+/- 6.2E-05
Apriori clock (usec)					1.3599968E-01				4.68950E-03	+/- 4.9E-04
Apriori clockrate (us/s)					0.0000000E+00				-5.77157E-06	+/- 2.1E-07
Apriori rate (us/s)					4.62220618712E-02				1.17557E-07	+/- 7.6E-10
Apriori accel (us/s/s)					-1.51910815311E-06				-179.0	+/- 6.5
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5							
Pcal rate:	0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000							
Bits/sample:	2x2		SampCntNorm: enabled mb window (us) -0.008 0.008							
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							
nlags:	256		t_cohere infinite							
simultaneous interpolator										

ph/seg (deg) 72.5 15.6 Search (2048X32) 0.275 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 77.5 27.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 9.4 9.2 Inc. seg. avg. 0.484 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 15.5 16.1 Inc. frq. avg. 0.292 Sample rate (MSamp/s): 128 dr window (ns/s) -0.011 0.011
 t: az 62.0 el 43.9 pa -80.0 y: az 65.9 el 46.1 pa -75.8 u,v (fr/asec) -356.234 -503.935 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/ty..11M8OF Output file: /Exps/c202b/v1/v1_3mm/1234/No0119/ty.W.225.11M8OF simultaneous interpolator