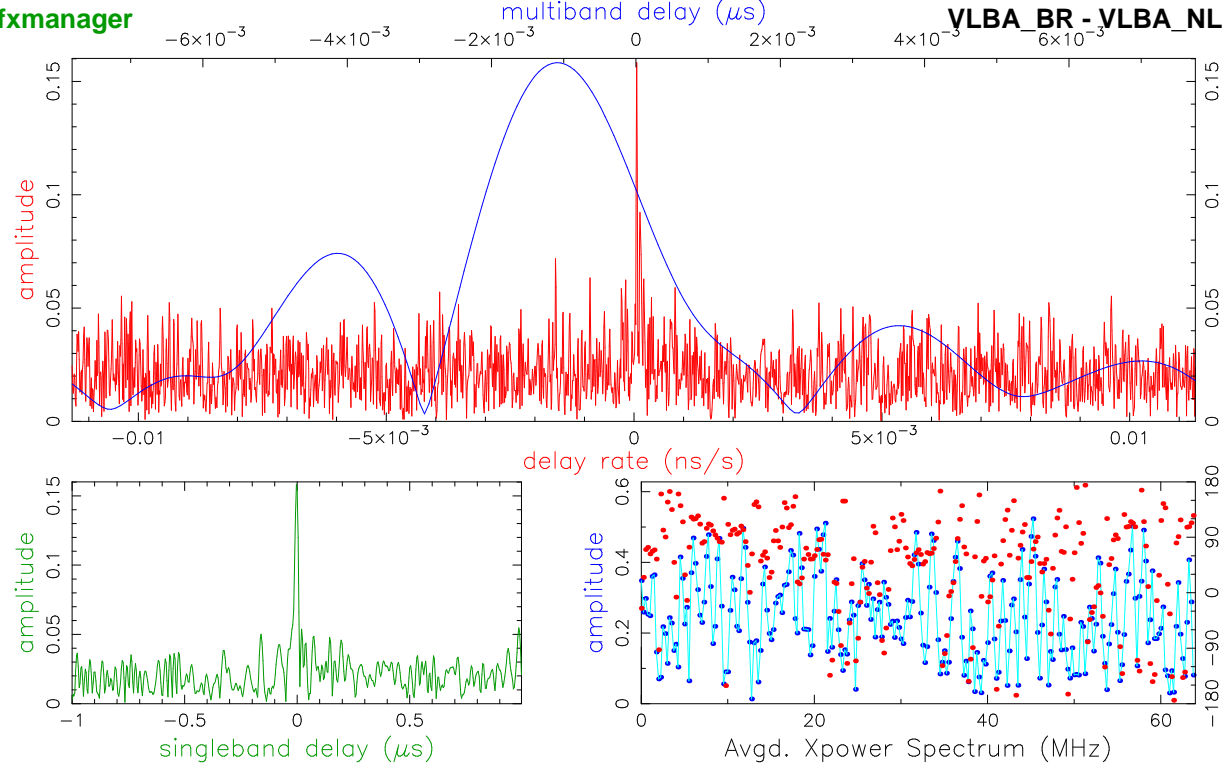


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M249, No0105, bn

VLBA_BR - VLBA_NL, fgroup W, pol LL

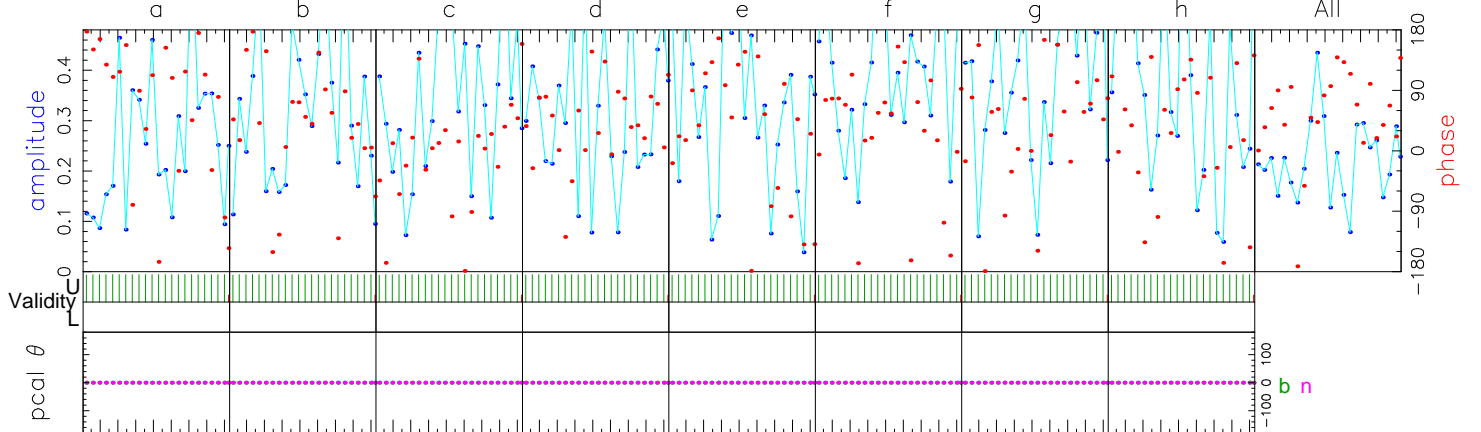


Fringe quality 9

SNR 9.6
 Int time 477.980
 Amp 0.160
 Phase 57.8
 PFD 4.2e-13
 Delays (us)
 SBD -0.002517
 MBD -0.001090
 Fringe rate (Hz) 0.004778
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120002.54
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build 2021:023:075223
 2021:023:132444
 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		
b	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	4.08870978713E+03		Apriori delay (usec)		4.08871087710E+03		Resid mbdelay (usec)		-1.08997E-03	+/- 1.1E-04
Sband delay (usec)	4.08870835985E+03		Apriori clock (usec)		-1.8827200E+00		Resid sbdelay (usec)		-2.51725E-03	+/- 9.0E-04
Phase delay (usec)	4.08871087896E+03		Apriori clockrate (us/s)		-5.0000000E-07		Resid phdelay (usec)		1.86503E-06	+/- 3.9E-07
Delay rate (us/s)	3.45782749482E-01		Apriori rate (us/s)		3.45782694018E-01		Resid rate (us/s)		5.54638E-08	+/- 1.4E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.58657690432E-05		Resid phase (deg)		57.8	+/- 12.0

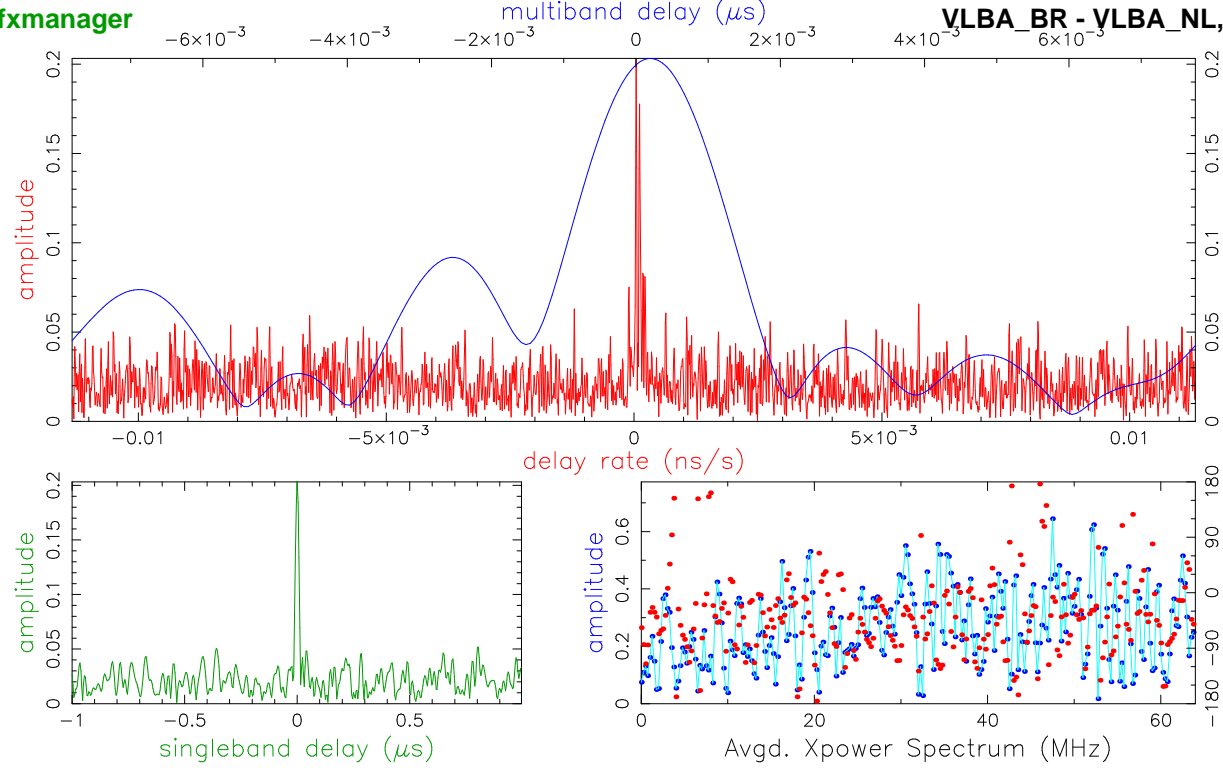
ph/seg (deg) 52.9 28.7 Search (2048X32) 0.157 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.0 50.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 30.6 16.9 Inc. seg. avg. 0.198 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 23.5 29.5 Inc. frq. avg. 0.166 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 263.6 el 68.2 pa 62.3 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -2674.973 -559.388 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/bn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/bn.W.15.11M249

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M249, No0105, bn

VLBA_BR - VLBA_NL, fgroup W, pol RR

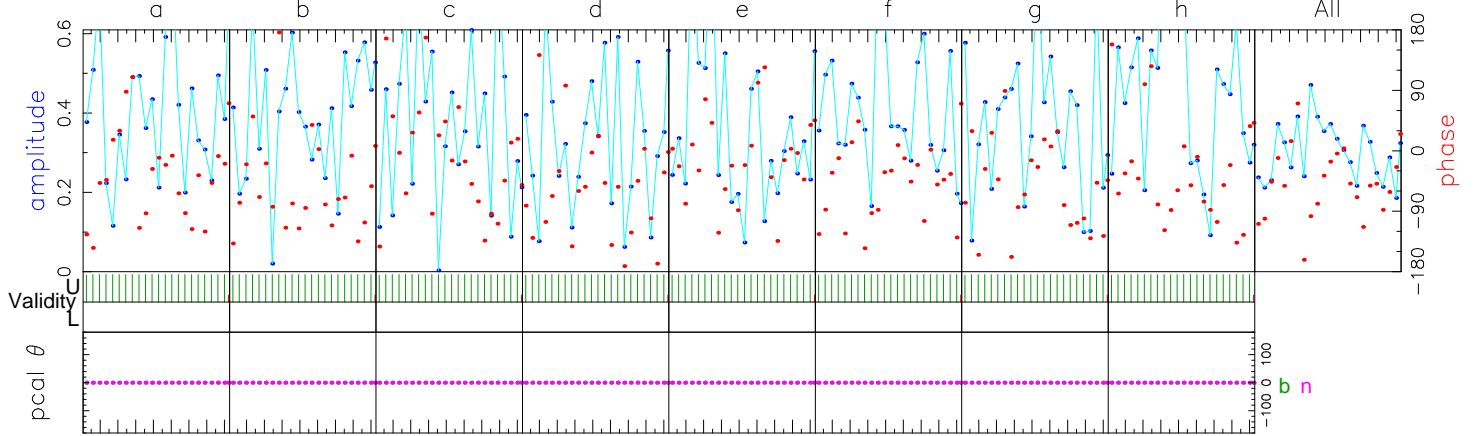


Fringe quality 9

SNR 12.1
 Int time 477.980
 Amp 0.203
 Phase -49.5
 PFD 3.0e-25
 Delays (us)
 SBD -0.000104
 MBD 0.000196
 Fringe rate (Hz)
 0.004199
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120002.54
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132449
 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
	-47.2	-73.4	-44.8	-58.1	-0.3	-47.4	-50.5	-66.0	Phase	-49.5
	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.3	Ampl.	0.2
	256.8	257.6	313.1	256.5	256.4	257.3	257.9	256.7	Sbd box	257.0
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.08871107302E+03		Apriori delay (usec)		4.08871087710E+03		Resid mbdelay (usec)		1.95924E-04	+/- 8.9E-05
Sband delay (usec)	4.08871077285E+03		Apriori clock (usec)		-1.8827200E+00		Resid sbdelay (usec)		-1.04250E-04	+/- 7.1E-04
Phase delay (usec)	4.08871087550E+03		Apriori clockrate (us/s)		-5.0000000E-07		Resid phdelay (usec)		-1.59584E-06	+/- 3.0E-07
Delay rate (us/s)	3.45782742765E-01		Apriori rate (us/s)		3.45782694018E-01		Resid rate (us/s)		4.87466E-08	+/- 1.1E-09
Total phase (deg)	293.7		Apriori accel (us/s/s)		-1.58657690432E-05		Resid phase (deg)		-49.5	+/- 9.4

ph/seg (deg) 50.3 22.6 Search (2048X32) 0.192 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 60.3 39.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.7 13.3 Inc. seg. avg. 0.280 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 20.5 23.3 Inc. frq. avg. 0.211 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 263.6 el 68.2 pa 62.3 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -2674.973 -559.388 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/bn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/bn.W.34.11M249

Mk4/DiFX fourfit 3.21 rev 2937

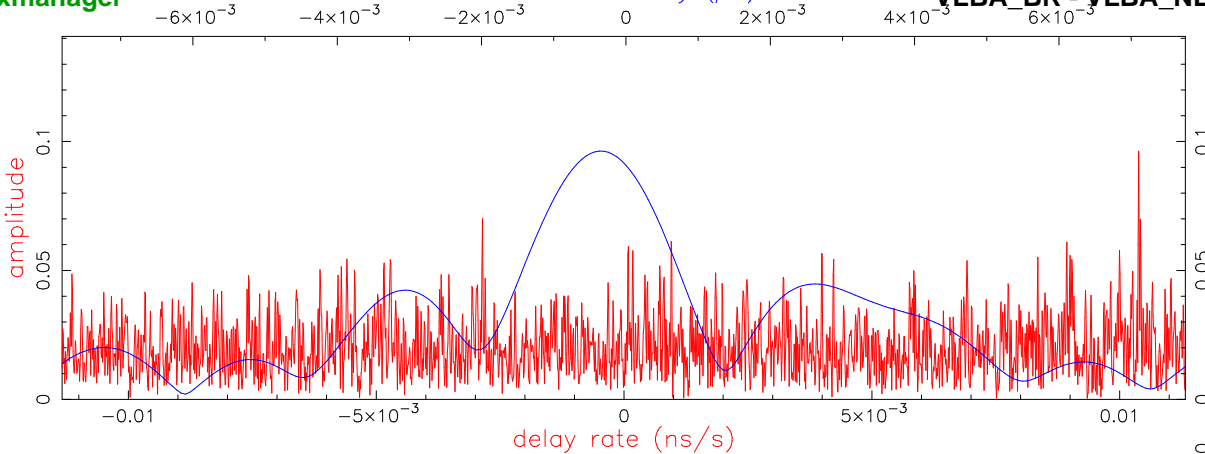
fxmanager

3C84.11M249, No0105, bn

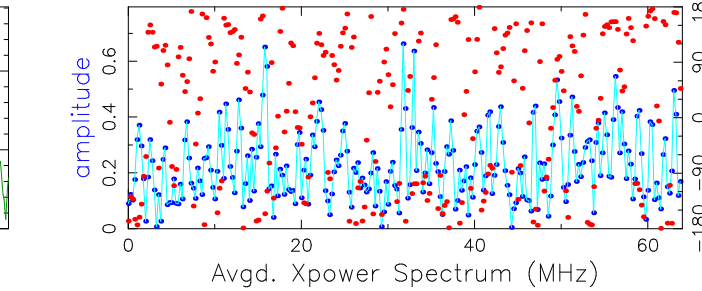
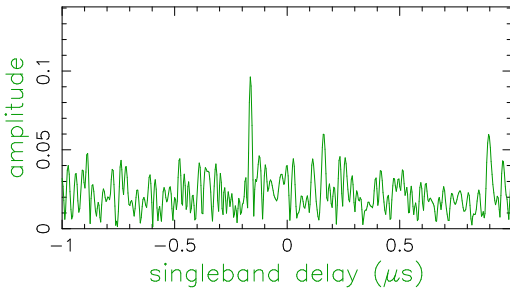
VLBA_BR - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

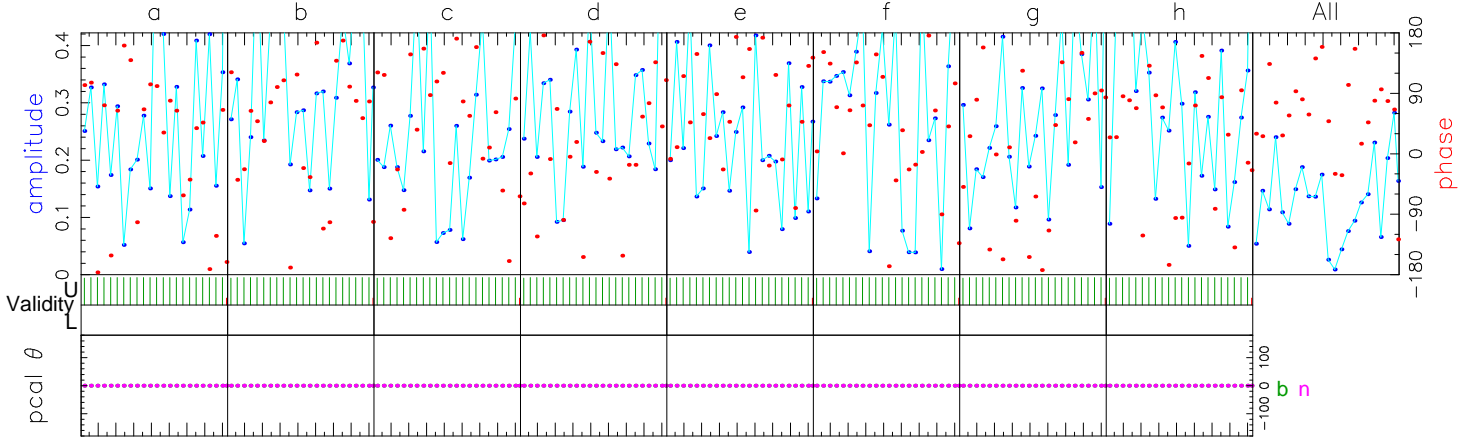


SNR 5.8
 Int time 477.980
 Amp 0.141
 Phase 77.3
 PFD 8.2e-01
 Delays (us)
 SBD -0.163110
 MBD -0.000303
 Fringe rate (Hz)
 0.895702
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120002.54
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132453
 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
	89.6	88.9	82.2	12.1	53.0	84.5	101.5	75.6	Phase	77.3
	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	215.6	216.1	128.6	58.5	254.1	75.3	124.4	454.8	Sbd box	215.2
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	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)	4.08855432429E+03		Apriori delay (usec)		4.08871087710E+03		Resid mbdelay (usec)		-3.02808E-04	+/- 1.9E-04
Sband delay (usec)	4.08854776710E+03		Apriori clock (usec)		-1.8827200E+00		Resid sbdelay (usec)		-1.63110E-01	+/- 1.5E-03
Phase delay (usec)	4.08871087959E+03		Apriori clockrate (us/s)		-5.0000000E-07		Resid phdelay (usec)		2.49115E-06	+/- 6.4E-07
Delay rate (us/s)	3.45793092235E-01		Apriori rate (us/s)		3.45782694018E-01		Resid rate (us/s)		1.03982E-05	+/- 2.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.58657690432E-05		Resid phase (deg)		77.3	+/- 19.8

	RMS	Theor.	Amplitude	0.141 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	54.0	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 (%)	79.0	82.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	31.1	28.0	Inc. seg. avg.	0.140	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	31.1	48.8	Inc. frq. avg.	0.136	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
						ion window (TEC) 0.00 0.00

b: az 263.6 el 68.2 pa 62.3 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -2674.973 -559.388 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/bn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/bn.W.54.11M249

Mk4/DiFX fourfit 3.21 rev 2937

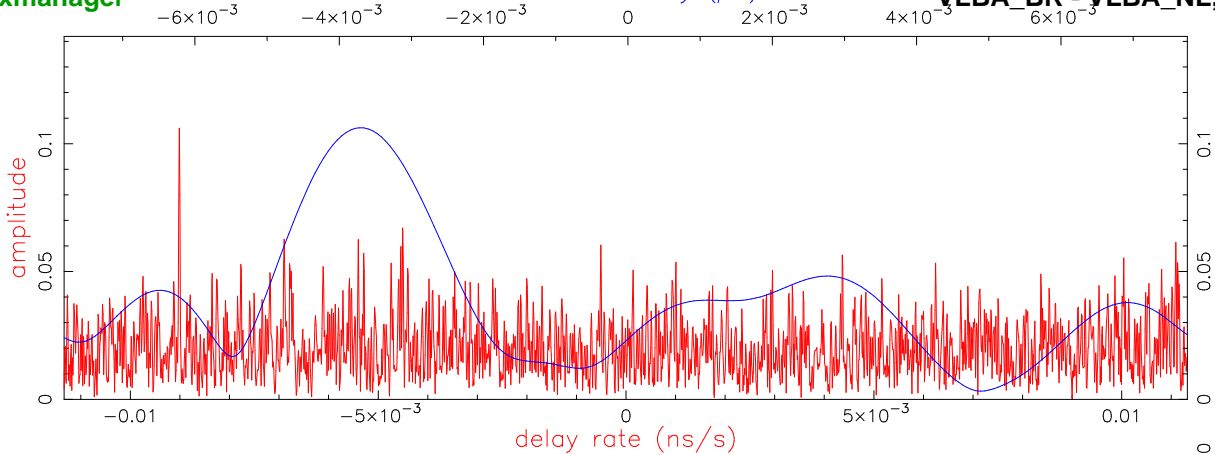
fxmanager

3C84.11M249, No0105, bn

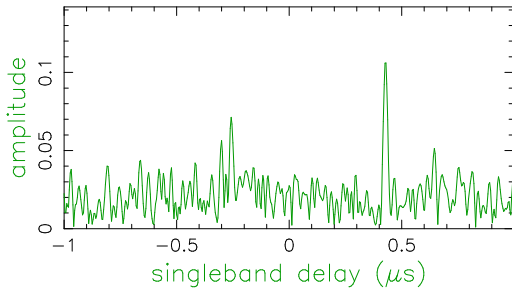
VLBA_BR - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

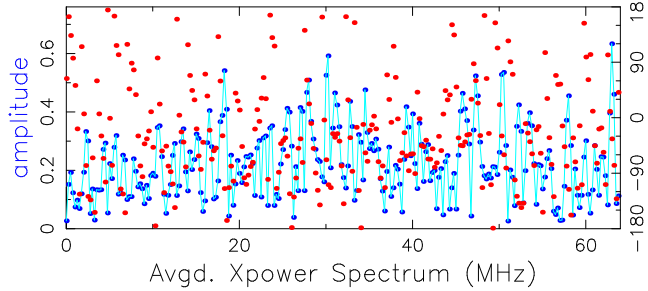
Fringe quality 0



SNR 6.4
 Int time 477.980
 Amp 0.142
 Phase -117.1
 PFD 3.2e-02
 Delays (us)
 SBD 0.427773
 MBD -0.003771
 Fringe rate (Hz)
 -0.777493
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

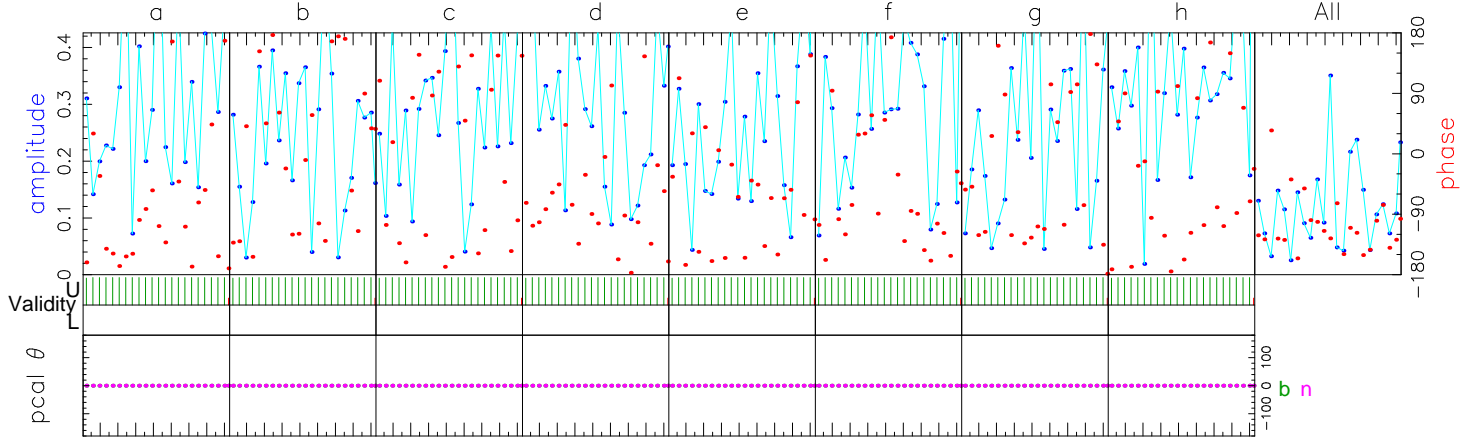


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Year:day 2020:284
 Start 120002.54
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132457
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-121.2	-137.6	-177.5	-86.3	-97.9	-103.8	-121.5	-135.3	Phase	-117.1
	0.2	0.1	0.1	0.3	0.1	0.2	0.1	0.1	Ampl.	0.1
	366.0	94.9	168.1	366.4	288.7	422.2	377.5	465.2	Sbd box	366.5
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.08914460652E+03		Apriori delay (usec)		4.08871087710E+03		Resid mbdelay (usec)		-3.77058E-03	+/- 1.7E-04
Sband delay (usec)	4.08913865010E+03		Apriori clock (usec)		-1.8827200E+00		Resid sbdelay (usec)		4.27773E-01	+/- 1.3E-03
Phase delay (usec)	4.08871087332E+03		Apriori clockrate (us/s)		-5.0000000E-07		Resid phdelay (usec)		-3.77541E-06	+/- 5.7E-07
Delay rate (us/s)	3.45773668095E-01		Apriori rate (us/s)		3.45782694018E-01		Resid rate (us/s)		-9.02592E-06	+/- 2.1E-09
Total phase (deg)	226.1		Apriori accel (us/s/s)		-1.58657690432E-05		Resid phase (deg)		-117.1	+/- 17.8

	RMS	Theor.	Amplitude	0.142 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	44.3	42.7	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	71.0	74.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	31.4	25.2	Inc. seg. avg.	0.123	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	43.9	43.9	Inc. frq. avg.	0.143	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

b: az 263.6 el 68.2 pa 62.3 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -2674.973 -559.388 simultaneous interpolator

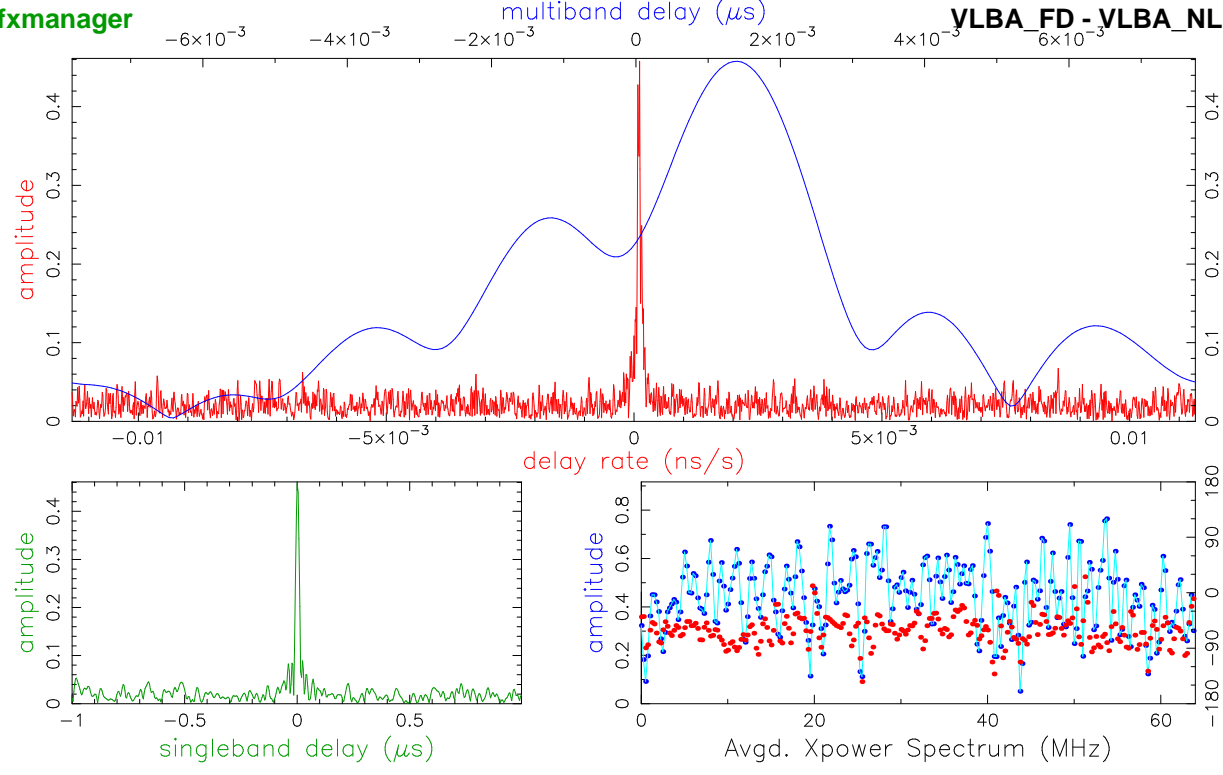
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/bn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/bn.W.74.11M249

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

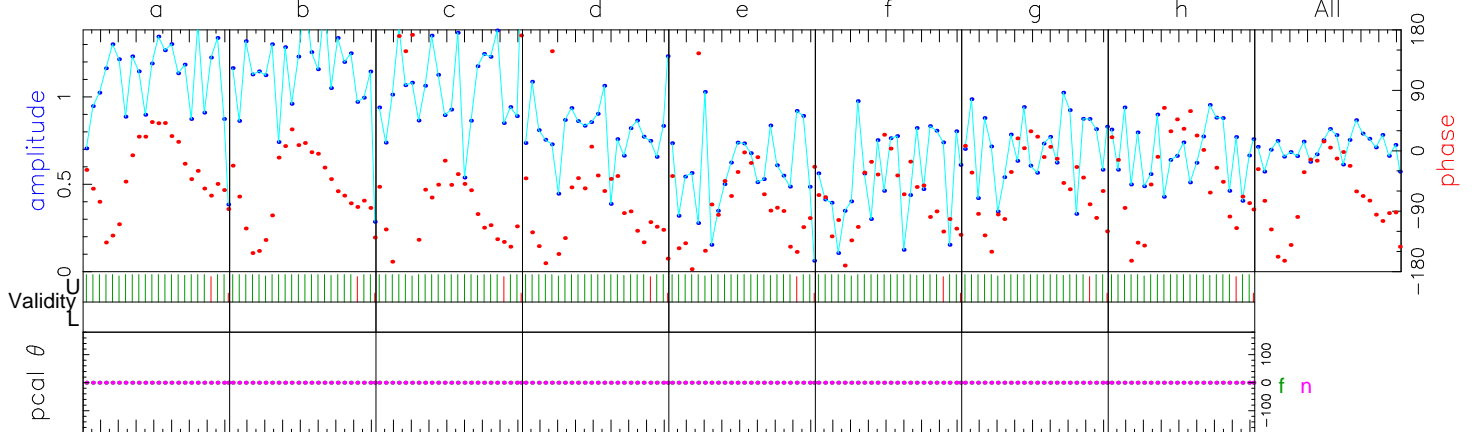
3C84.11M249, No0105, fn

VLBA_FD - VLBA_NL, fgroup W, pol LL



Fringe quality 6
 SNR 27.5
 Int time 476.556
 Amp 0.461
 Phase -63.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.001132
 MBD 0.001407
 Fringe rate (Hz) 0.009555
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132445
 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
	-27.9	-51.8	-105.0	-92.5	-89.0	-72.3	-42.1	-33.5	Phase	-63.3
	0.7	0.7	0.6	0.5	0.4	0.4	0.5	0.3	Ampl.	0.5
	257.2	257.1	257.3	257.5	257.2	257.8	257.5	257.4	Sbd box	257.3
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.09511703159E+03		Apriori delay (usec)		1.09511562442E+03		Resid mbdelay (usec)		1.40717E-03	+/- 3.9E-05
Sband delay (usec)	1.09511675642E+03		Apriori clock (usec)		7.6998563E+00		Resid sbdelay (usec)		1.13200E-03	+/- 3.1E-04
Phase delay (usec)	1.09511562238E+03		Apriori clockrate (us/s)		-1.0000003E-07		Resid phdelay (usec)		-2.04212E-06	+/- 1.3E-07
Delay rate (us/s)	1.76644246873E-02		Apriori rate (us/s)		1.76643137584E-02		Resid rate (us/s)		1.10929E-07	+/- 4.9E-10
Total phase (deg)			Apriori accel (us/s/s)		-1.74948535379E-05		Resid phase (deg)		-63.3	+/- 4.2

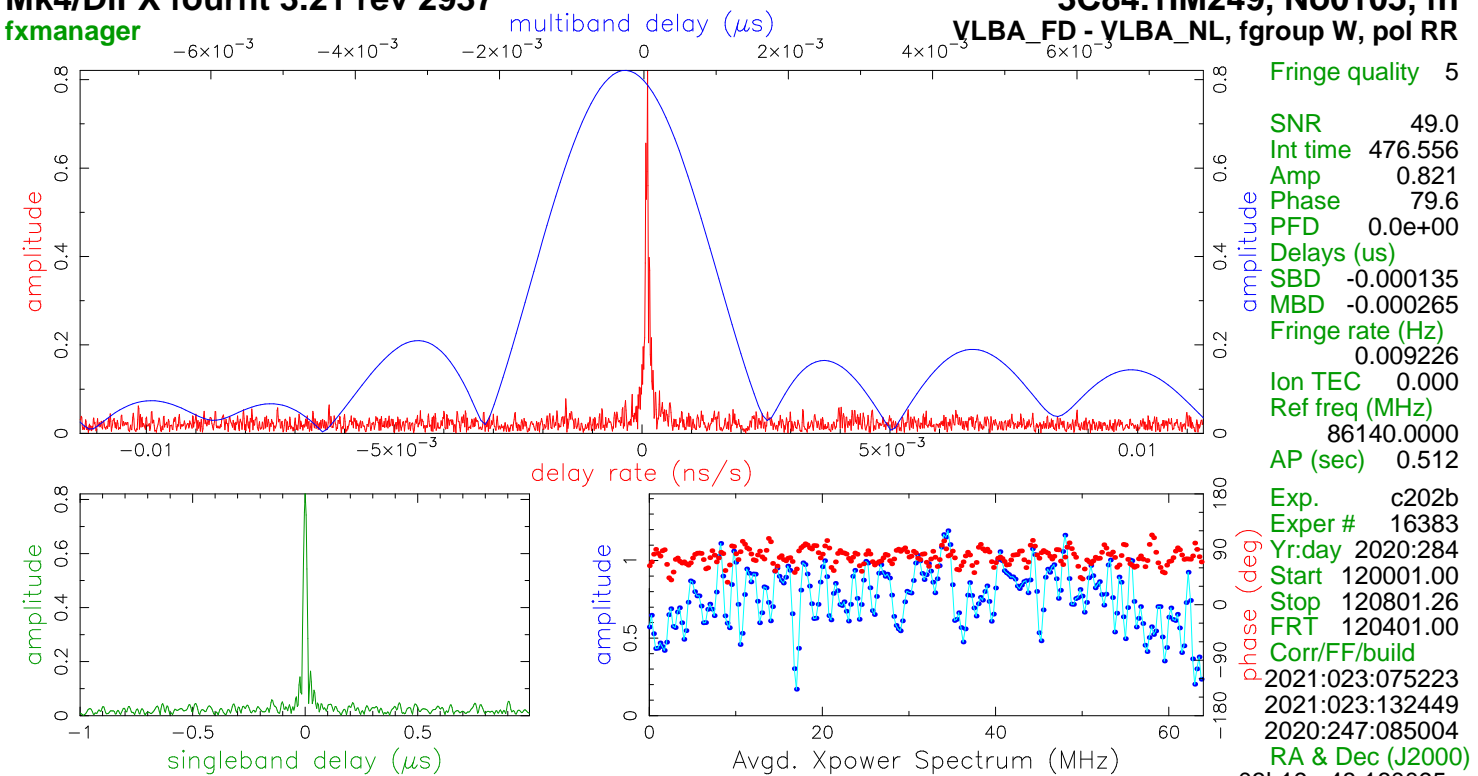
ph/seg (deg) 52.5 10.0 Search (2048X32) 0.453 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 57.2 17.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 31.7 5.9 Inc. seg. avg. 0.705 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.0 10.3 Inc. frq. avg. 0.516 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 299.7 el 52.3 pa 91.3 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -162.647 -2254.322 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/fn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/fn.W.19.11M249

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M249, No0105, fn

VLBA_FD - VLBA_NL, fgroup W, pol RR



Fringe quality 5

SNR 49.0

Int time 476.556

Amp 0.821

Phase 79.6

PFD 0.0e+00

Delays (us)

SBD -0.000135

MBD -0.000265

Fringe rate (Hz) 0.009226

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.512

Exp. c202b

Exper # 16383

Yr:day 2020:284

Start 120001.00

Stop 120801.26

FRT 120401.00

Corr/FF/build

2021:023:075223

2021:023:132449

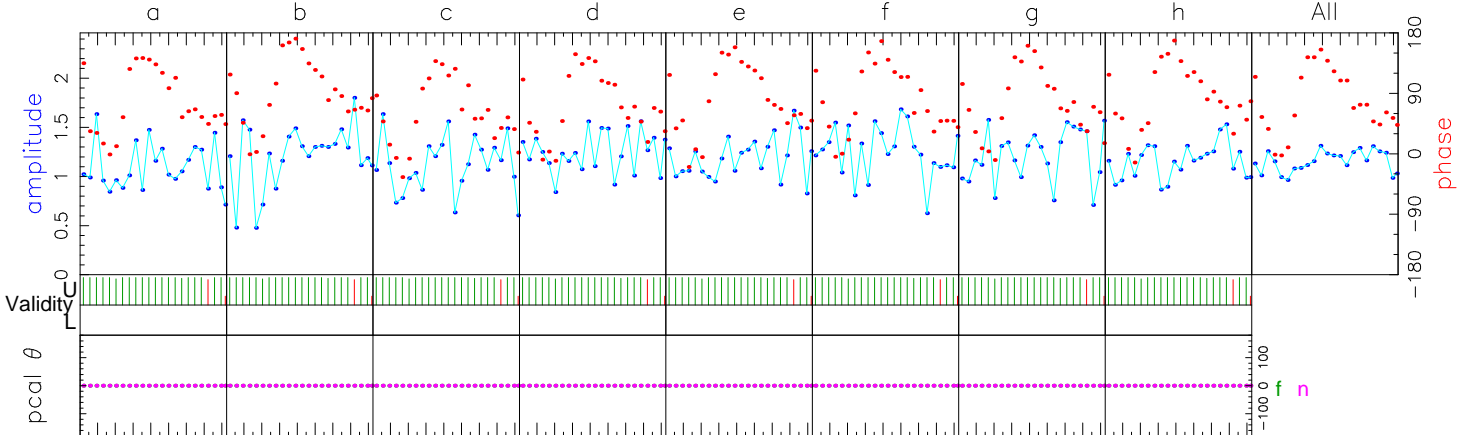
2020:247:085004

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			
f	1000	1000	1000	1000	1000	1000	1000	1000			
n	1000	1000	1000	1000	1000	1000	1000	1000			
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
f:n	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			
n	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		1.09511535918E+03				1.09511562442E+03			Resid mbdelay (usec)	-2.65239E-04	+/- 2.2E-05
Sband delay (usec)		1.09511548992E+03				7.6998563E+00			Resid sbdelay (usec)	-1.34500E-04	+/- 1.8E-04
Phase delay (usec)		1.09511562699E+03				-1.0000003E-07			Resid phdelay (usec)	2.56689E-06	+/- 7.5E-08
Delay rate (us/s)		1.76644208576E-02				1.76643137584E-02			Resid rate (us/s)	1.07099E-07	+/- 2.7E-10
Total phase (deg)			39.2			-1.74948535379E-05			Resid phase (deg)	79.6	+/- 2.3
	RMS	Theor.	Amplitude			0.821 +/- 0.017			PCal mode: MANUAL, MANUAL		PC period (AP's) 5, 5
ph/seg (deg)	46.5	5.6	Search (2048X32)			0.772			PCal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000
amp/seg (%)	43.1	9.8	Interp.			0.000			Bits/sample: 2x2		SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	9.7	3.3	Inc. seg. avg.			1.153			Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
amp/frq (%)	3.4	5.8	Inc. frq. avg.			0.829			Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
f: az 299.7 el 52.3 pa 91.3			n: az 289.9 el 47.8 pa 69.9			u,v (fr/asec) -162.647 -2254.322					simultaneous interpolator

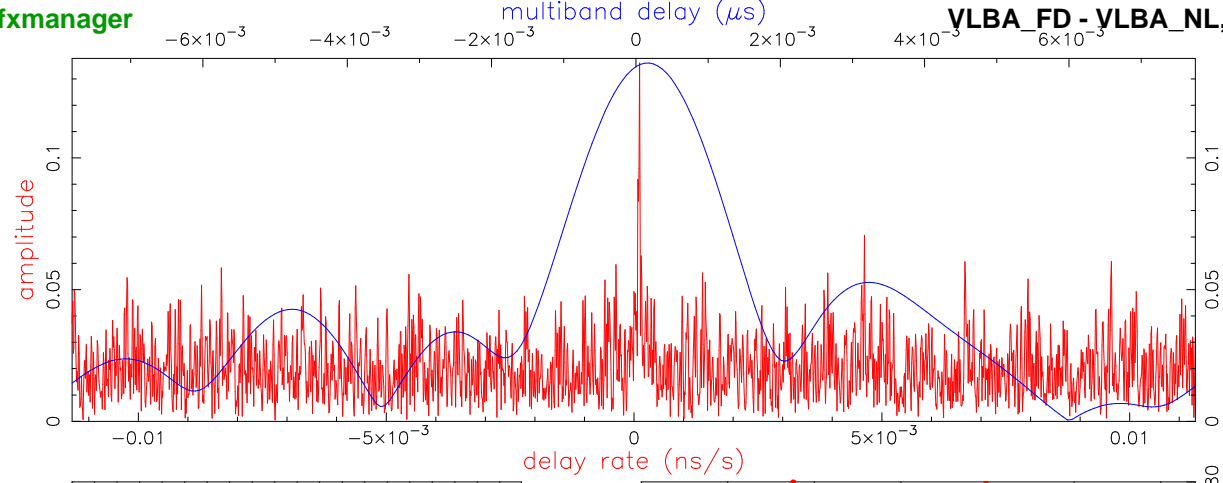
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/fn..1M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/fn.W.38.1M249

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M249, No0105, fn

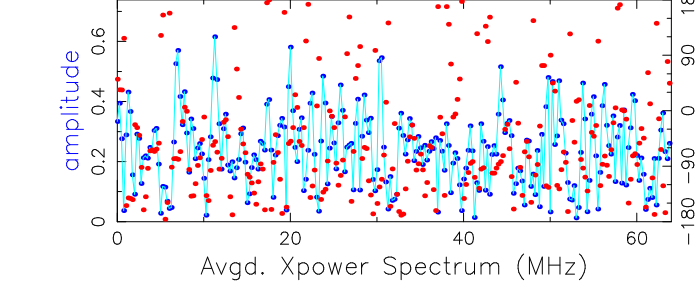
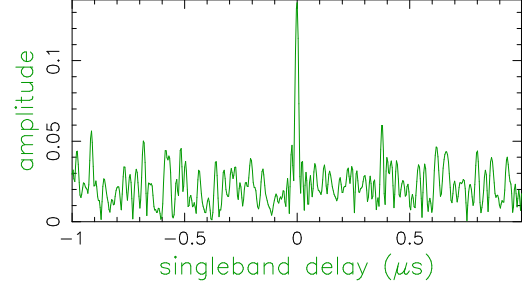
VLBA_FD - VLBA_NL, fgroup W, pol LR



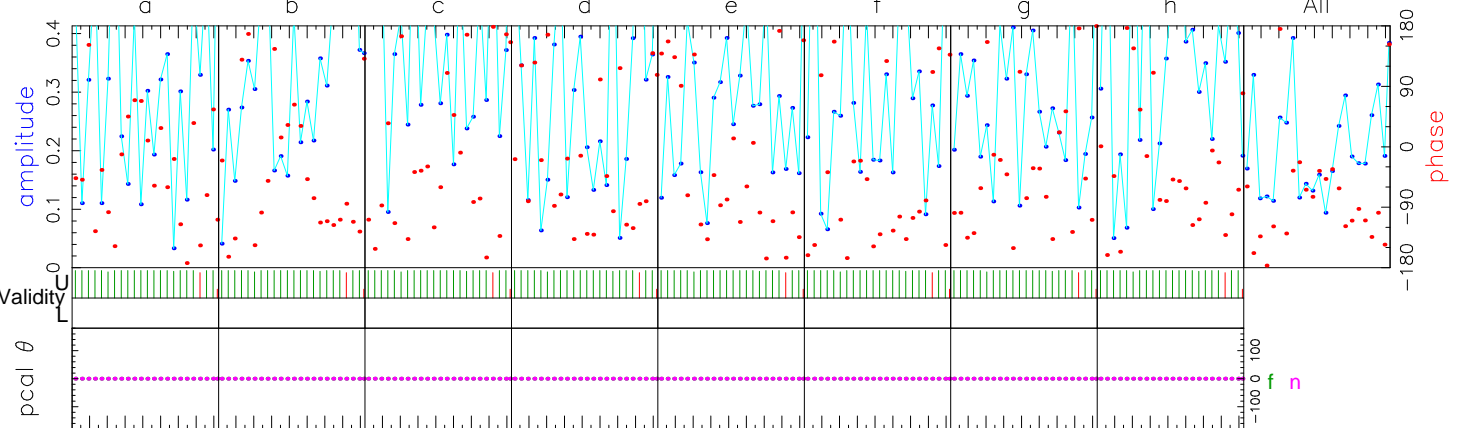
Fringe quality 9

SNR 8.2
 Int time 476.556
 Amp 0.138
 Phase -102.4
 PFD 6.9e-08
 Delays (us)
 SBD -0.001429
 MBD 0.000131
 Fringe rate (Hz) 0.009246
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132453
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-67.9	-108.4	-111.4	-95.0	-116.5	-138.0	-89.8	-77.0	Phase	-102.4
	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	Ampl.	0.1
	145.9	255.9	5.4	290.8	288.6	256.8	21.8	257.9	Sbd box	256.6
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	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)		1.09511575512E+03		Apriori delay (usec)	1.09511562442E+03		Resid mbdelay (usec)	1.30699E-04		+/- 1.3E-04
Sband delay (usec)		1.09511419592E+03		Apriori clock (usec)	7.6998563E+07		Resid sbdelay (usec)	-1.42850E-03		+/- 1.0E-03
Phase delay (usec)		1.09511562112E+03		Apriori clockrate (us/s)	-1.0000003E-07		Resid phdelay (usec)	-3.30289E-06		+/- 4.5E-07
Delay rate (us/s)		1.76644210914E-02		Apriori rate (us/s)	1.76643137584E-02		Resid rate (us/s)	1.07333E-07		+/- 1.6E-09
Total phase (deg)			217.2	Apriori accel (us/s/s)	-1.74948535379E-05		Resid phase (deg)	-102.4		+/- 13.9

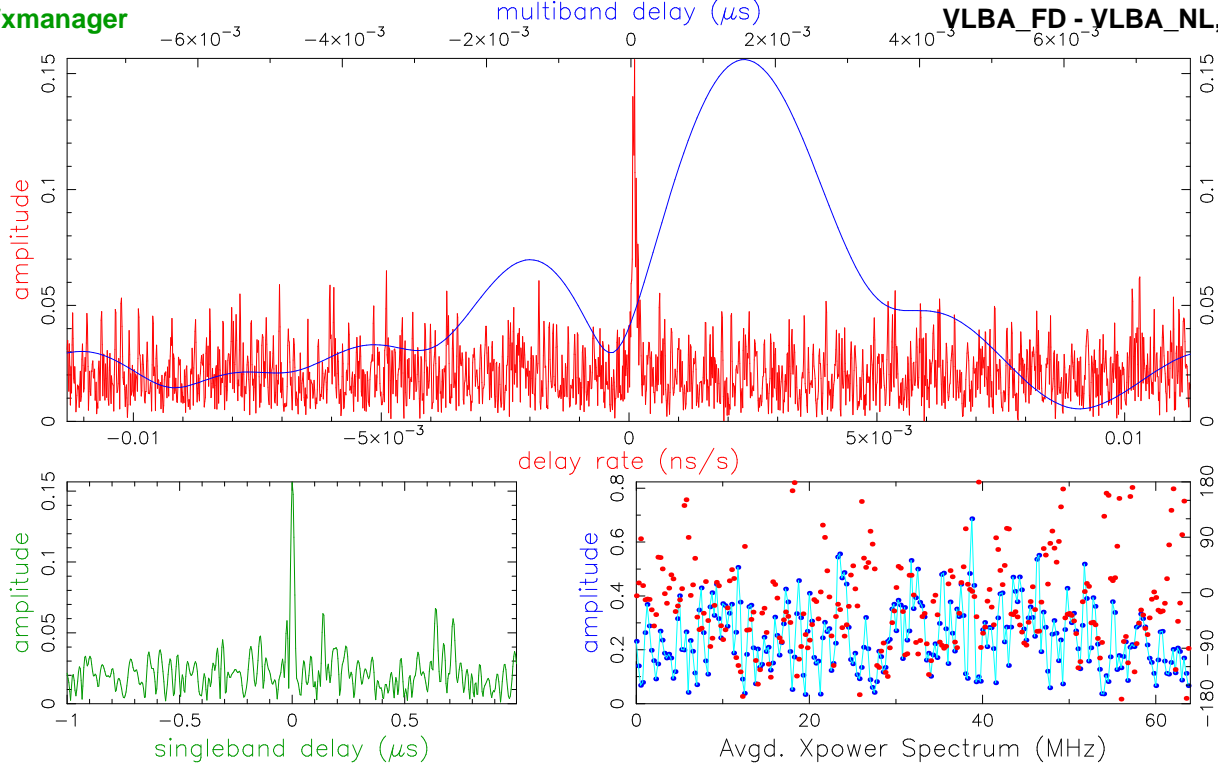
ph/seg (deg) 48.7 33.4 Search (2048X32) 0.130 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.6 58.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.6 19.7 Inc. seg. avg. 0.173 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 23.1 34.4 Inc. frq. avg. 0.138 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 299.7 el 52.3 pa 91.3 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -162.647 -2254.322 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/fn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/fn.W.55.11M249

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

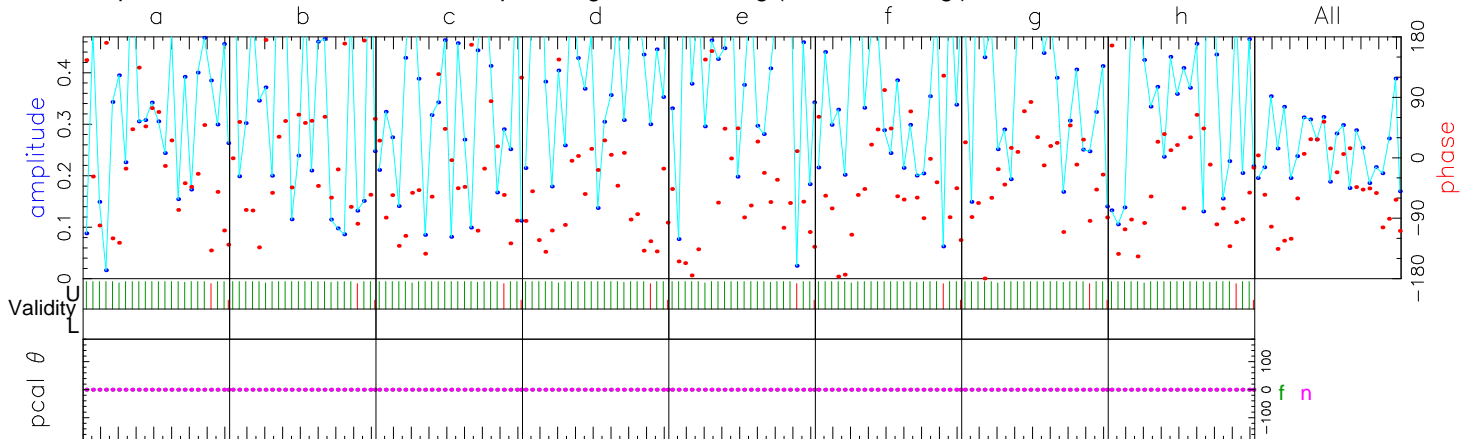
3C84.1M249, No0105, fn

VLBA_FD - VLBA_NL, fgroup W, pol RL



Fringe quality 9
 SNR 9.3
 Int time 476.556
 Amp 0.157
 Phase -41.7
 PFD 3.6e-12
 Delays (us)
 SBD 0.000725
 MBD 0.001587
 Fringe rate (Hz) 0.009685
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132456
 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
	-14.8	-11.3	-56.1	-67.0	-77.5	-44.6	-2.9	-49.5	Phase	-41.7
	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	293.0	256.7	255.6	258.1	256.7	257.3	257.0	257.9	Sbd box	257.2
U/L	935/0	935/0	935/0	935/0	935/0	935/0	935/0	935/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.09511721190E+03		Apriori delay (usec)		1.09511562442E+03		Resid mbdelay (usec)		1.58748E-03	+/- 1.2E-04
Sband delay (usec)	1.09511634917E+03		Apriori clock (usec)		7.6998563E+00		Resid sbdelay (usec)		7.24750E-04	+/- 9.2E-04
Phase delay (usec)	1.09511562308E+03		Apriori clockrate (us/s)		-1.0000003E-07		Resid phdelay (usec)		-1.34624E-06	+/- 4.0E-07
Delay rate (us/s)	1.76644261895E-02		Apriori rate (us/s)		1.76643137584E-02		Resid rate (us/s)		1.12431E-07	+/- 1.4E-09
Total phase (deg)	277.8		Apriori accel (us/s/s)		-1.74948535379E-05		Resid phase (deg)		-41.7	+/- 12.3

ph/seg (deg) 54.3 29.4 Search (2048X32) 0.153 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 76.3 51.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 29.9 17.3 Inc. seg. avg. 0.230 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 24.6 30.3 Inc. frq. avg. 0.167 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 299.7 el 52.3 pa 91.3 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -162.647 -2254.322 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/fn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/fn.W.72.11M249

Mk4/DiFX fourfit 3.21 rev 2937

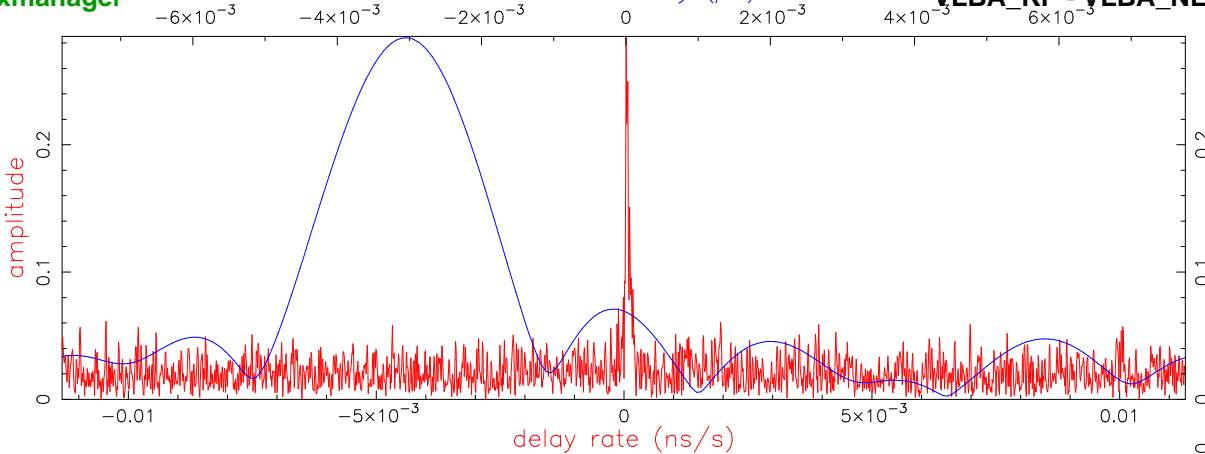
fxmanager

3C84.1M249, No0105, kn

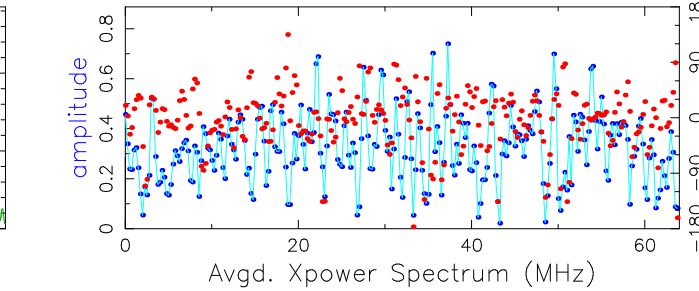
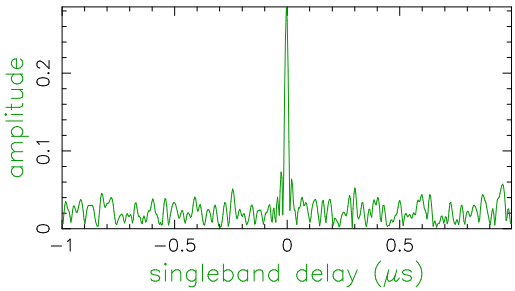
VLBA_KP - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

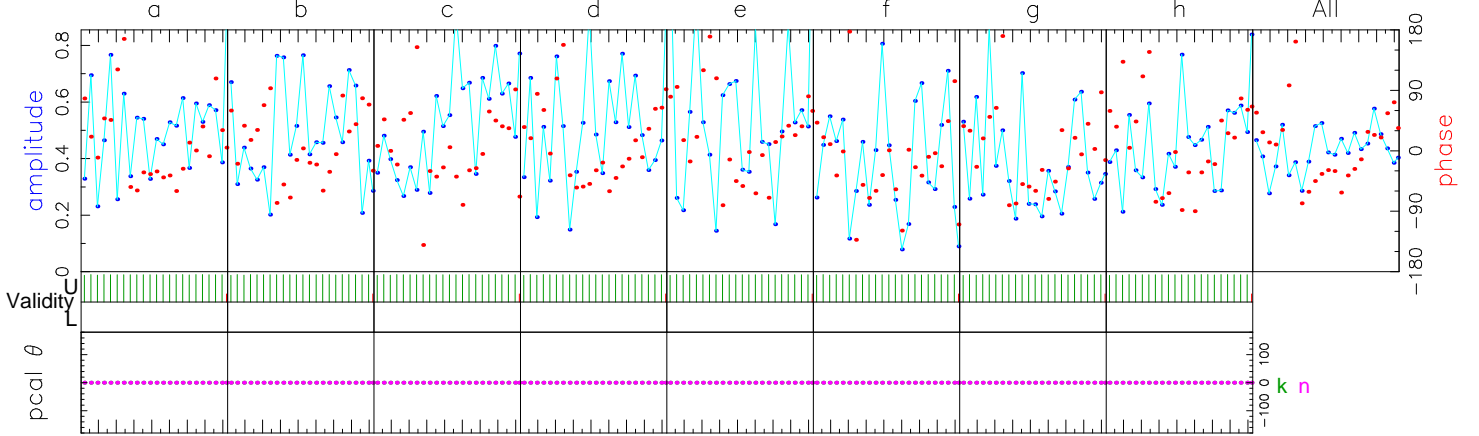


SNR 17.0
 Int time 475.147
 Amp 0.285
 Phase 1.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.003122
 MBD -0.003035
 Fringe rate (Hz) 0.004072
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.51
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132507
 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	937/0	937/0	937/0	937/0	937/0	937/0	937/0	937/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	2.45523129467E+03		Apriori delay (usec)		2.45523432998E+03		Resid mbdelay (usec)		-3.03531E-03	+/- 6.4E-05
Sband delay (usec)	2.45523120748E+03		Apriori clock (usec)		1.6542435E-01		Resid sbdelay (usec)		-3.12250E-03	+/- 5.1E-04
Phase delay (usec)	2.45523433002E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		4.03309E-08	+/- 2.2E-07
Delay rate (us/s)	1.24866115426E-01		Apriori rate (us/s)		1.24866068157E-01		Resid rate (us/s)		4.72693E-08	+/- 7.8E-10
Total phase (deg)			Apriori accel (us/s/s)		-2.32914356287E-05		Resid phase (deg)		1.3	+/- 6.7

	RMS	Theor.	Amplitude	0.285 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	56.7	16.2	Search (2048X32)	0.274	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	57.0	28.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	9.9	9.5	Inc. seg. avg.	0.414	Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
amp/frq (%)	13.8	16.6	Inc. frq. avg.	0.283	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite
							ion window (TEC) 0.00 0.00

k: az 298.7 el 58.6 pa 94.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -993.380 -2519.789 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/kn..1M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/kn.W.106.1M249

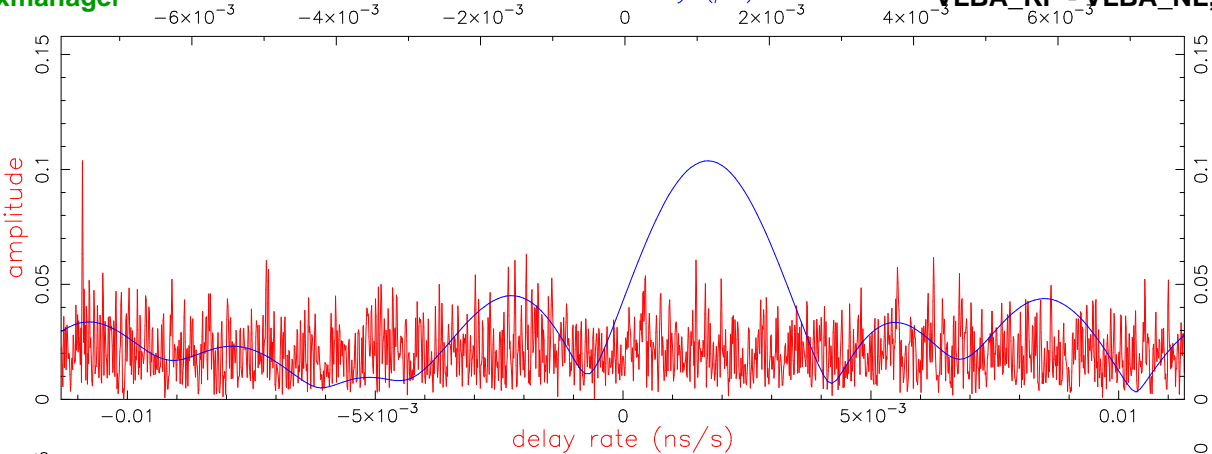
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M249, No0105, kn

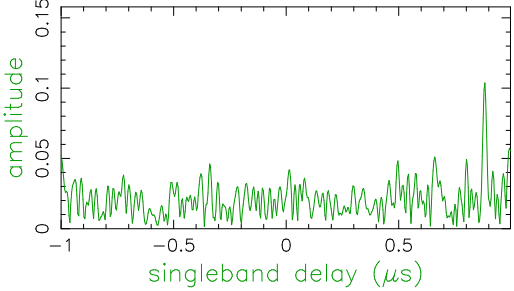
VLBA_KP - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

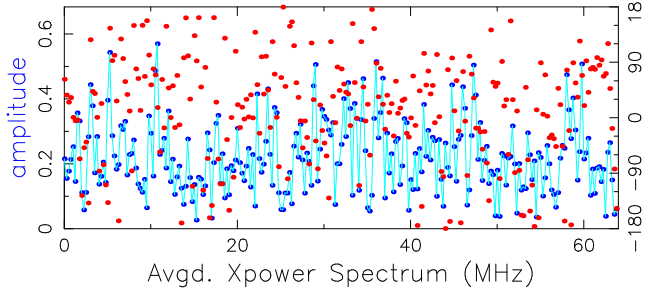


Fringe quality 0

SNR 6.2
 Int time 475.147
 Amp 0.158
 Phase 105.7
 PFD 1.3e-01
 Delays (us)
 SBD 0.881991
 MBD 0.001126
 Fringe rate (Hz)
 -0.941195
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

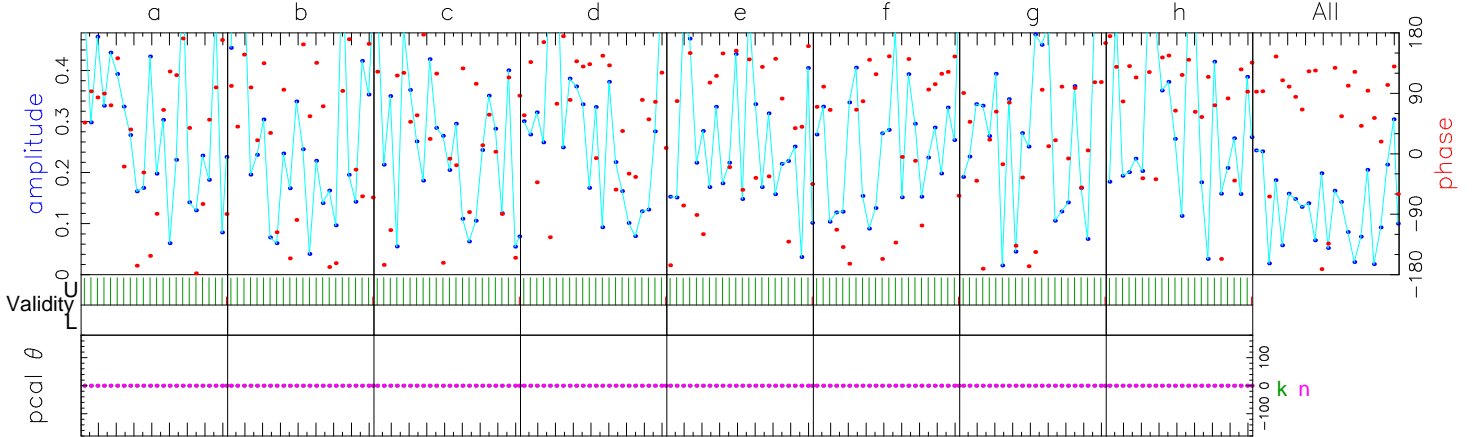


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.51
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132511
 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	937/0	937/0	937/0	937/0	937/0	937/0	937/0	937/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 2.45611045583E+03 Apriori delay (usec) 2.45523432998E+03 Resid mbdelay (usec) 1.12584E-03 +/- 1.7E-04
 Sband delay (usec) 2.45611632073E+03 Apriori clock (usec) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 Phase delay (usec) 2.45523433339E+03 Apriori clockrate (us/s) -4.0000002E-07 Resid sbdelay (usec) 8.81991E-01 +/- 1.4E-03
 Delay rate (us/s) 1.24855141819E-01 Apriori rate (us/s) 1.24866068157E-01 Resid phdelay (usec) 3.40801E-06 +/- 6.0E-07
 Total phase (deg) 172.2 Apriori accel (us/s/s) -2.32914356287E-05 Resid rate (us/s) -1.09263E-05 +/- 2.1E-09
 Resid phase (deg) 105.7 +/- 18.5

RMS Theor. Amplitude 0.158 +/- 0.025 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 60.3 44.3 Search (2048X32) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 80.4 77.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 28.7 26.1 Inc. seg. avg. 0.158 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 28.8 45.6 Inc. frq. avg. 0.152 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 298.7 el 58.6 pa 94.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -993.380 -2519.789 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/kn..1M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/kn.W.124.1M249

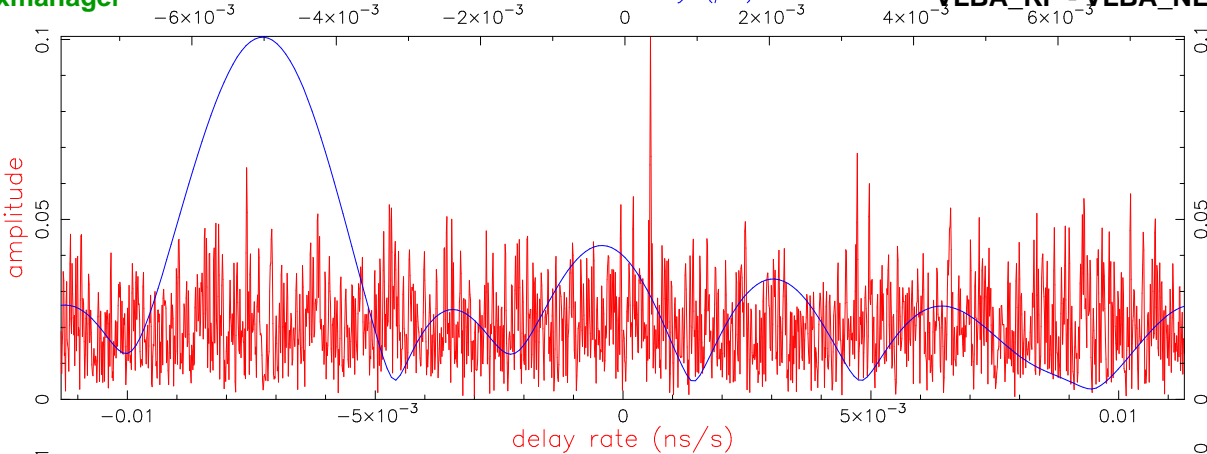
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M249, No0105, kn

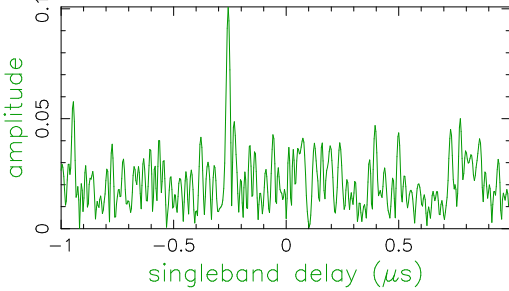
VLBA_KP - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

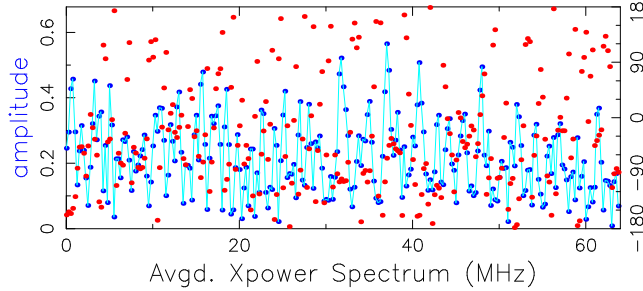


Fringe quality 0

SNR 6.0
Int time 475.147
Amp 0.101
Phase -95.8
PFD 3.9e-01
Delays (us)
SBD -0.257295
MBD -0.004994
Fringe rate (Hz)
0.047790
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

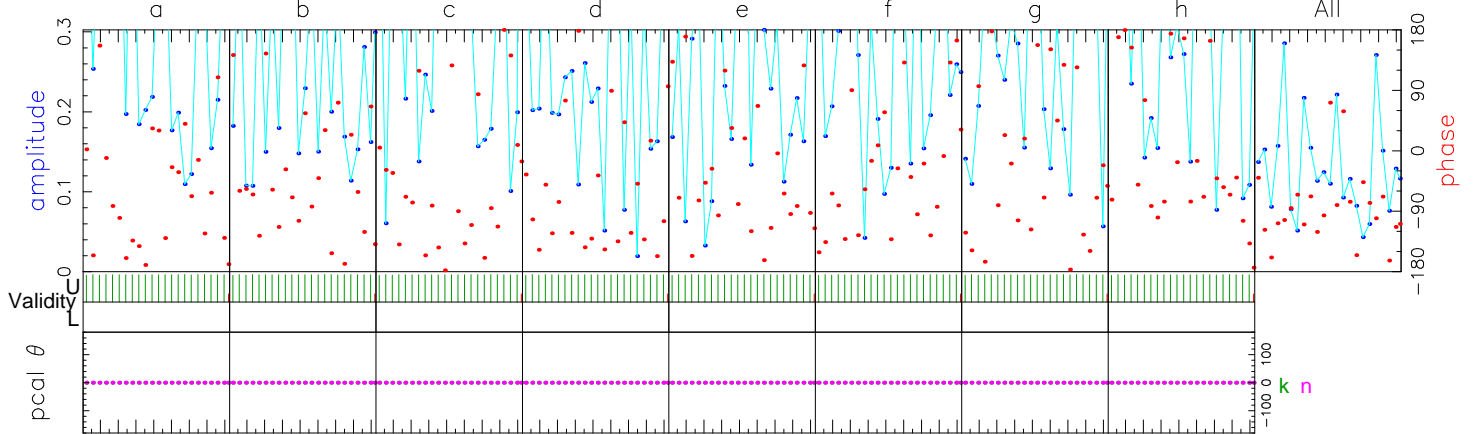


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 120001.51
Stop 120801.26
FRT 120401.00
Corr/FF/build
2021:023:075223
2021:023:132514
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
	-99.3	-66.6	-109.8	-108.5	-79.2	-86.9	-141.6	-83.1	Phase	-95.8
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	31.2	169.7	10.9	433.8	167.3	142.3	265.6	269.7	Sbd box	191.1
U/L	937/0	937/0	937/0	937/0	937/0	937/0	937/0	937/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	2.45497933585E+03	Apriori delay (usec)	2.45523432998E+03	Resid mbdelay (usec)	-4.99413E-03	+/-	1.8E-04
Sband delay (usec)	2.45497703523E+03	Apriori clock (usec)	1.6542435E-01	Resid sbdelay (usec)	-2.57295E-01	+/-	1.4E-03
Phase delay (usec)	2.45523432689E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-3.09089E-06	+/-	6.2E-07
Delay rate (us/s)	1.24866622954E-01	Apriori rate (us/s)	1.24866068157E-01	Resid rate (us/s)	5.54797E-07	+/-	2.2E-09
Total phase (deg)	-29.3	Apriori accel (us/s/s)	-2.32914356287E-05	Resid phase (deg)	-95.8	+/-	19.1

ph/seg (deg)	57.9	Theor.	45.7	Amplitude	0.101 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	71.5		79.8	Search (2048X32)	0.097	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	25.3		27.0	Inc. seg. avg.	0.100	Sample rate (MSamp/s):	128	nlags:	256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	22.9		47.1	Inc. frq. avg.	0.097	Data rate (Mb/s):	2048	t_cohere	infinite	ion window (TEC)	0.00	0.00

k: az 298.7 el 58.6 pa 94.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -993.380 -2519.789 simultaneous interpolator

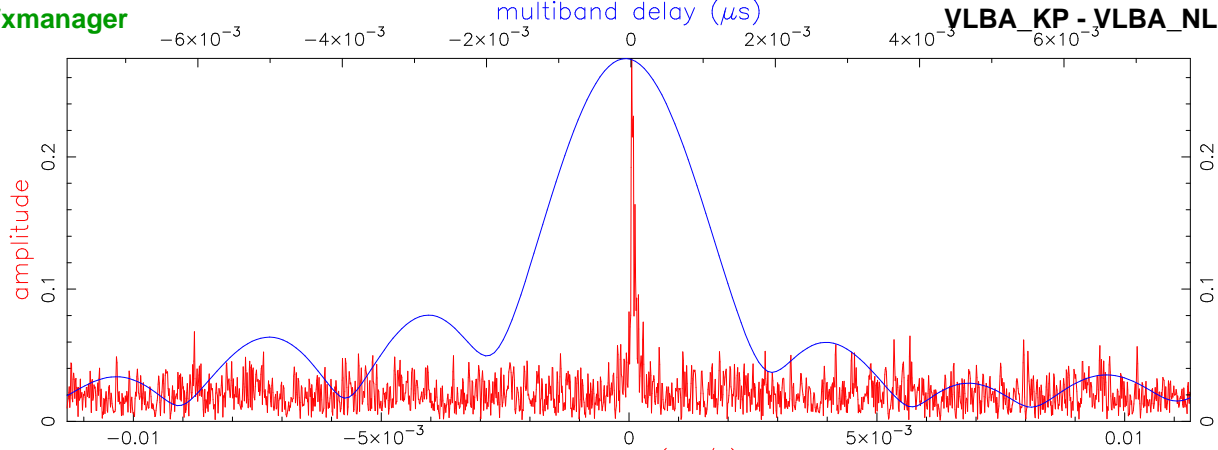
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/kn..1M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/kn.W.143.1M249

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

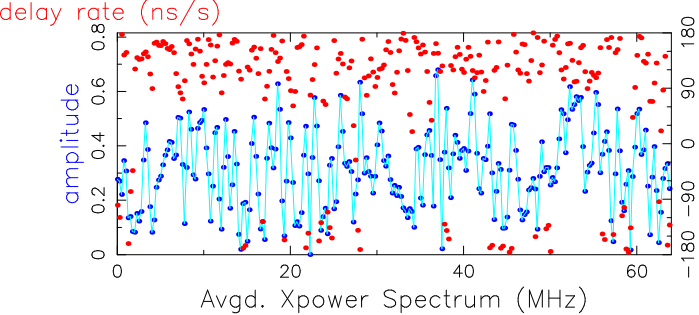
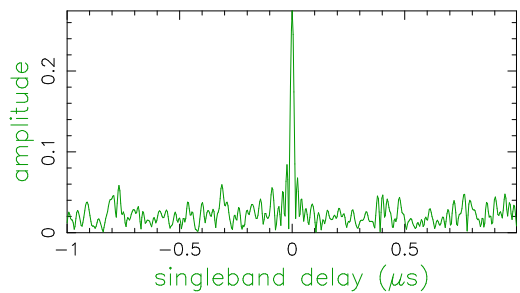
3C84.1M249, No0105, kn

VLBA_KP - VLBA_NL, fgroup W, pol LL



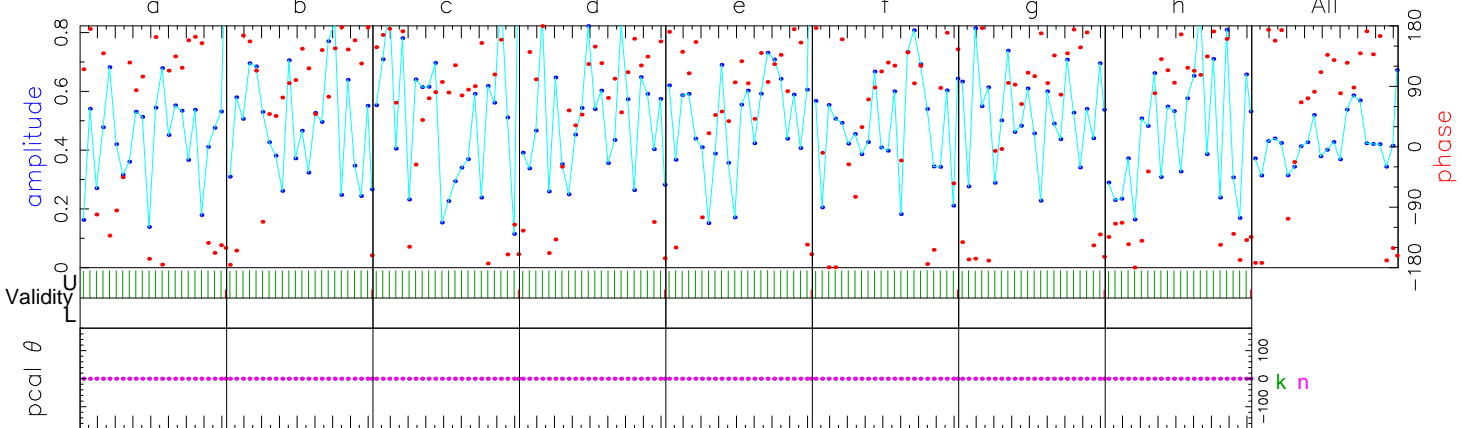
Fringe quality 9

SNR 16.4
 Int time 475.147
 Amp 0.274
 Phase 140.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.000232
 MBD -0.000080
 Fringe rate (Hz) 0.004565
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.51
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132503
 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	937/0	937/0	937/0	937/0	937/0	937/0	937/0	937/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	2.45523425035E+03	Apriori delay (usec)	2.45523432998E+03	Resid mbdelay (usec)	-7.96321E-05	+/-	6.6E-05
Sband delay (usec)	2.45523409823E+03	Apriori clock (usec)	1.6542435E-01	Resid sbdelay (usec)	-2.31750E-04	+/-	5.3E-04
Phase delay (usec)	2.45523433451E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	4.52932E-06	+/-	2.3E-07
Delay rate (us/s)	1.24866121154E-01	Apriori rate (us/s)	1.24866068157E-01	Resid rate (us/s)	5.29966E-08	+/-	8.2E-10
Total phase (deg)	207.0	Apriori accel (us/s/s)	-2.32914356287E-05	Resid phase (deg)	140.5	+/-	7.0

ph/seg (deg)	58.9	RMS	16.8	Theor.	0.274 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	62.0	Search (2048X32)	0.268	Amplitude		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	16.8	Interp.	0.000	Search		Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	9.4	Inc. seg. avg.	0.408	Inc. seg. avg.		Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.279	Inc. frq. avg.		Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

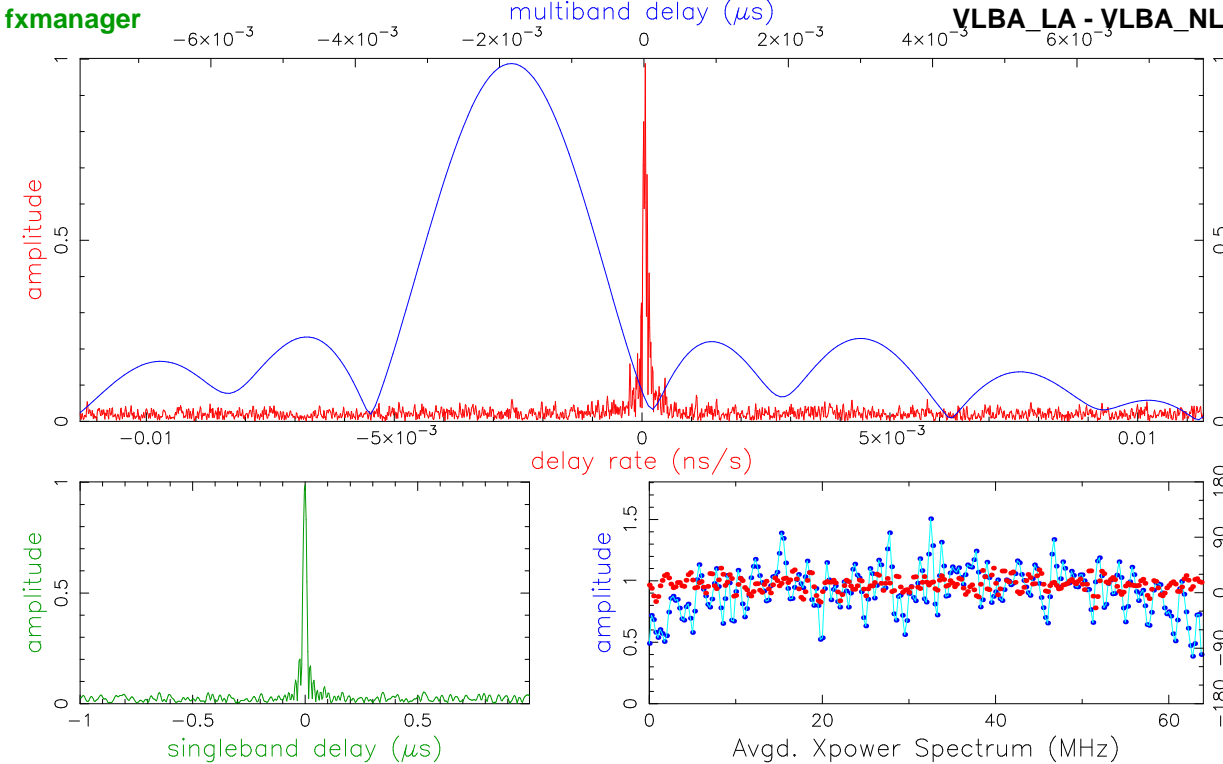
k: az 298.7 el 58.6 pa 94.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -993.380 -2519.789 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/kn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/kn.W.87.11M249

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M249, No0105, In

VLBA_LA - VLBA_NL, fgroup W, pol RR

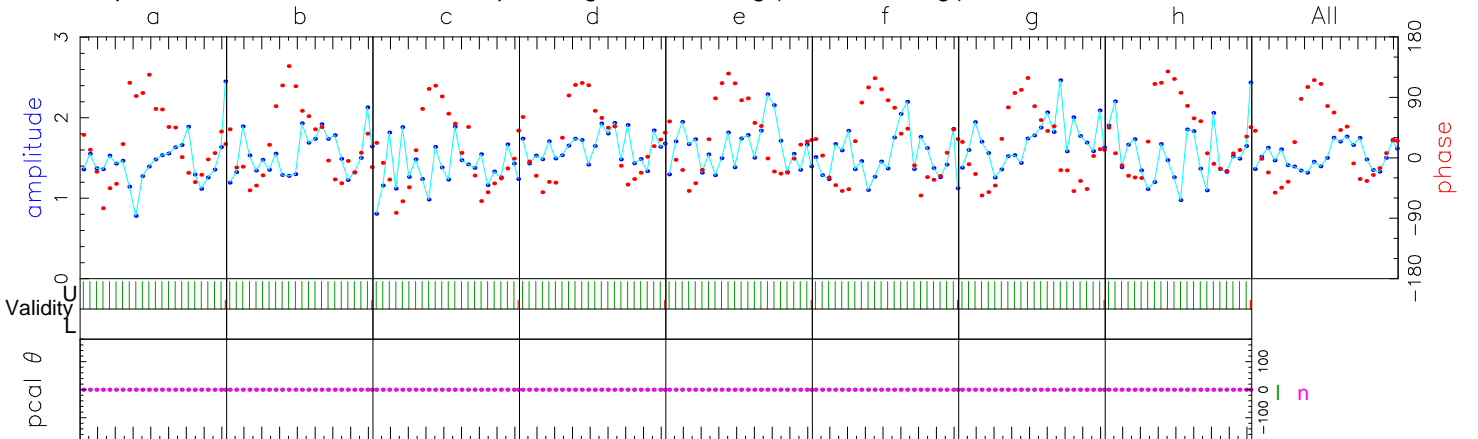


Fringe quality 5

SNR 60.0
 Int time 479.982
 Amp 1.002
 Phase 17.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.001529
 MBD -0.001870
 Fringe rate (Hz) 0.005866
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132507
 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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.97393622757E+03			1.97393809805E+03				-1.87048E-03	+/- 1.8E-05
Sband delay (usec)		1.97393656930E+03			-5.7486343E-01				-1.52875E-03	+/- 1.4E-04
Phase delay (usec)		1.97393809862E+03			-6.0000003E-07				5.66408E-07	+/- 6.2E-08
Delay rate (us/s)		8.53905252979E-02			8.53904571949E-02				6.81030E-08	+/- 2.2E-10
Total phase (deg)			293.3		-1.65944926572E-05				17.6	+/- 1.9
pcal mode:					MANUAL				MANUAL	
PCal rate:					0.000E+00				0.000E+00	(us/s)
Bits/sample:					2x2				SampCntNorm: enabled	
Sample rate (MSamp/s):					128				dr window (ns/s)	-0.011
Data rate (Mb/s):					2048				nlags: 256	t_cohere infinite
									ion window (TEC)	0.00

ph/seg (deg) 52.3 4.6 Search (2048X32) 0.972 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 53.9 8.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 9.5 2.7 Inc. seg. avg. 1.516 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.8 4.7 Inc. frq. avg. 0.996 Sample rate (MSamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 l: az 293.2 el 56.3 pa 86.0 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -680.627 -1689.499 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/In..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/In.W.109.11M249

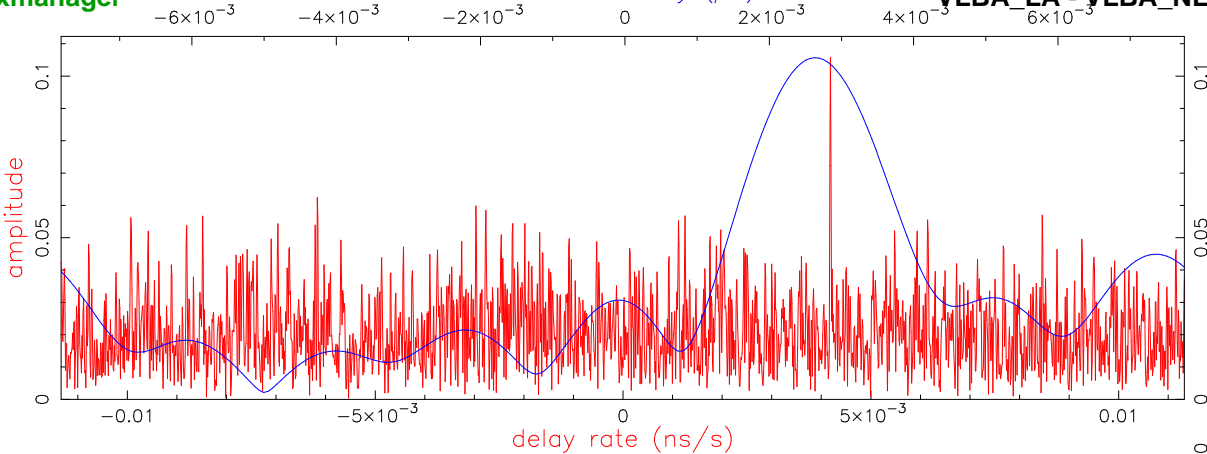
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M249, No0105, In

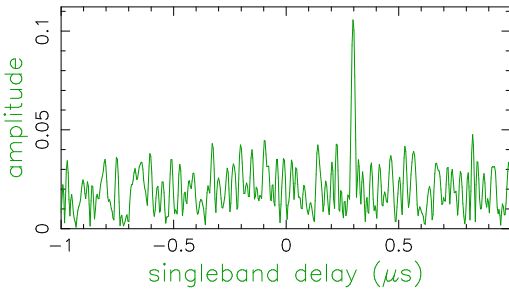
VLBA_LA - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

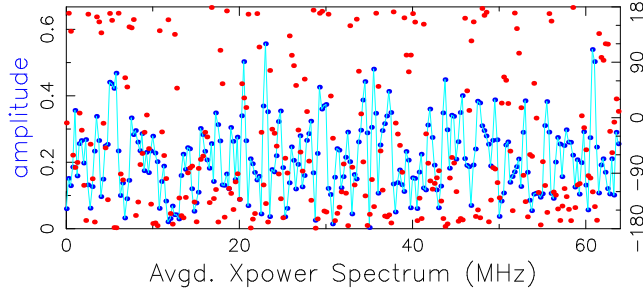


Fringe quality 0

SNR 6.4
 Int time 479.982
 Amp 0.112
 Phase 18.5
 PFD 5.5e-02
 Delays (us)
 SBD 0.297705
 MBD 0.002661
 Fringe rate (Hz)
 0.360665
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

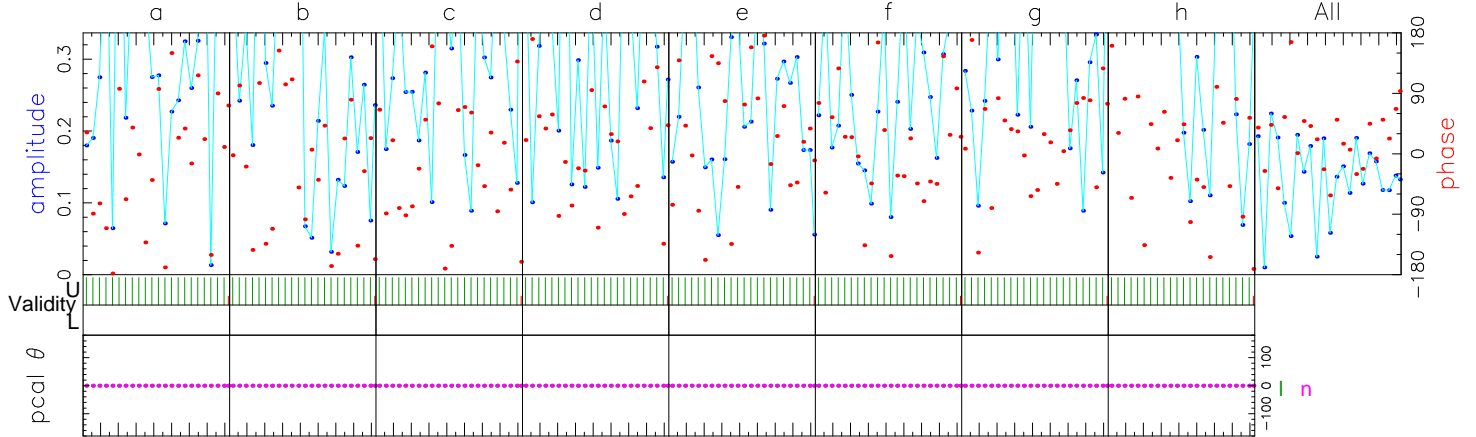


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132512
 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	32.1	33.8	-9.3	20.2	24.9	8.9	13.8	28.2	Phase	18.5
l	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1
n	494.5	218.2	250.2	11.6	36.9	402.7	333.4	65.2	Sbd box	333.2
l	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.97423763386E+03	Apriori delay (usec)	1.97393809805E+03	Resid mbdelay (usec)	2.66081E-03	+/-	1.7E-04
Sband delay (usec)	1.97423580305E+03	Apriori clock (usec)	-5.7486343E-01	Resid sbdelay (usec)	2.97705E-01	+/-	1.4E-03
Phase delay (usec)	1.97393809865E+03	Apriori clockrate (us/s)	-6.0000003E-07	Resid phdelay (usec)	5.96080E-07	+/-	5.8E-07
Delay rate (us/s)	8.53946441540E-02	Apriori rate (us/s)	8.53904571949E-02	Resid rate (us/s)	4.18696E-06	+/-	2.1E-09
Total phase (deg)	294.2	Apriori accel (us/s/s)	-1.65944926572E-05	Resid phase (deg)	18.5	+/-	18.0

ph/seg (deg)	48.6	RMS	43.2	Theor.	43.2	Amplitude	0.112 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	59.8		75.5		75.5	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	15.5		25.5		25.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	43.0		44.5		44.5	Inc. seg. avg.	0.112	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011	
						Inc. frq. avg.	0.104	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 293.2 el 56.3 pa 86.0 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -680.627 -1689.499 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/In..1IM249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/In.W.129.1IM249

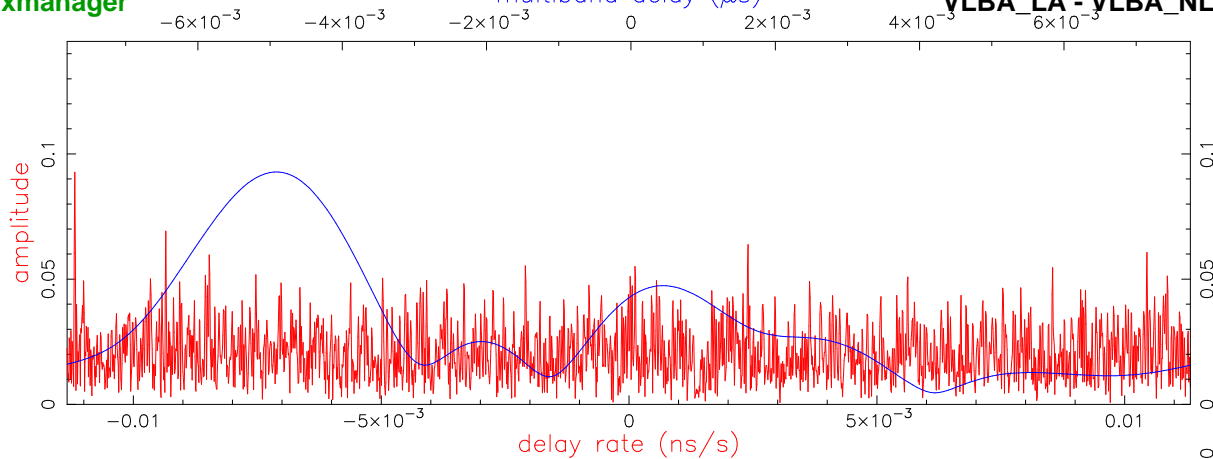
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M249, No0105, In

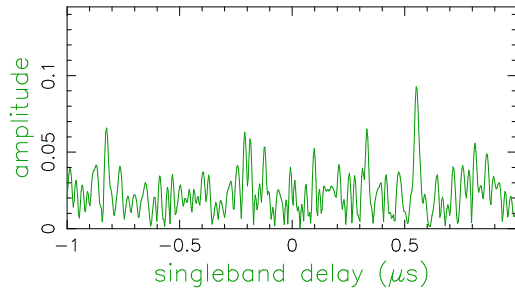
VLBA_LA - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

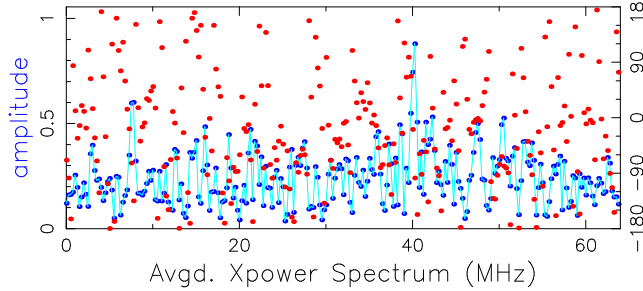


Fringe quality 0

SNR 5.6
 Int time 479.982
 Amp 0.145
 Phase -97.1
 PFD 9.9e-01
 Delays (us)
 SBD 0.552121
 MBD -0.004871
 Fringe rate (Hz)
 -0.964317
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

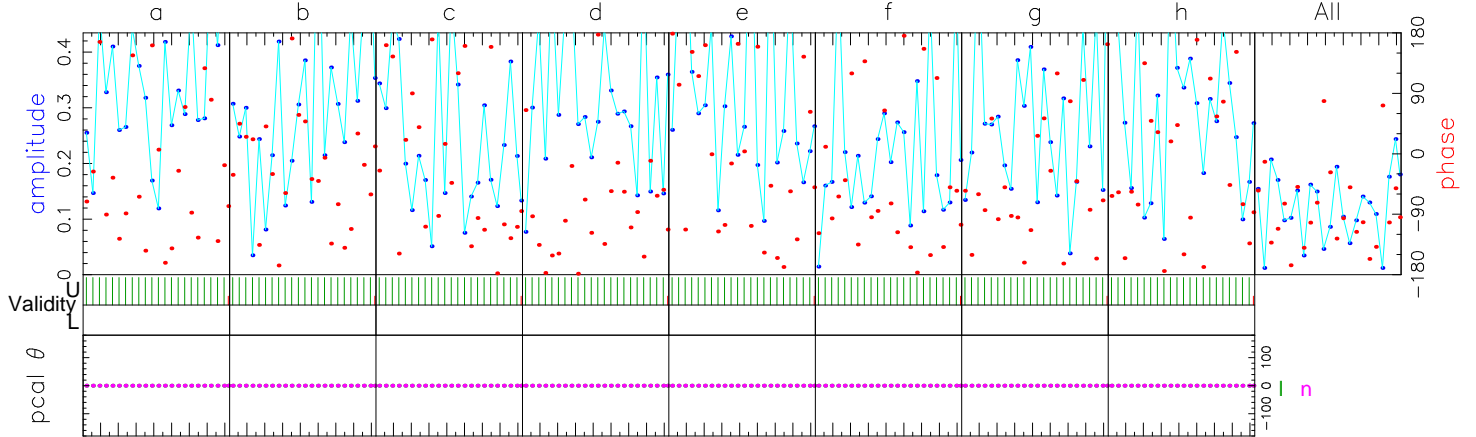


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132516
 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



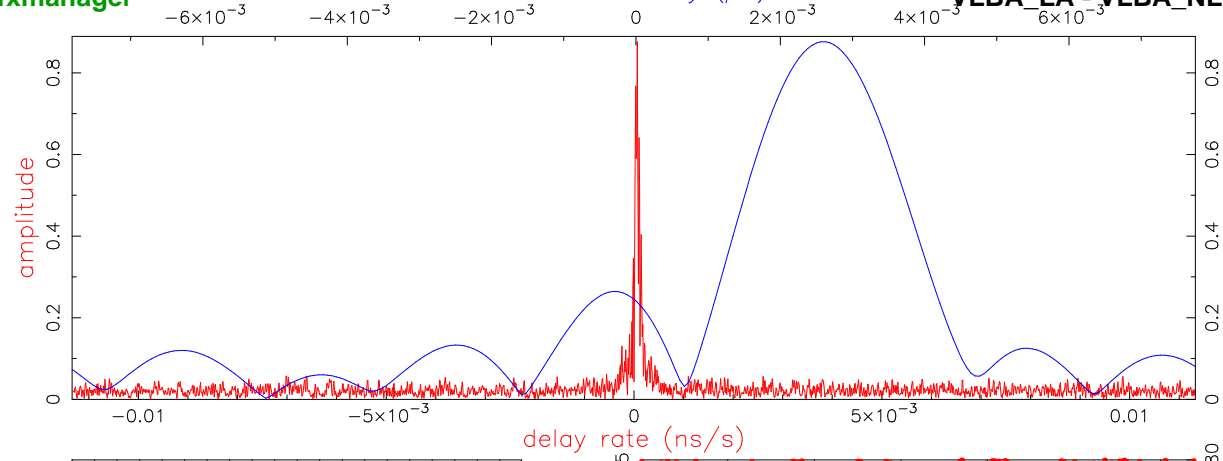
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0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

Group delay (usec)(sbd) 1.97449572741E+03 Apriori delay (usec) 1.97393809805E+03 Resid mbdelay (usec) -4.87064E-03 +/- 1.9E-04
 Sband delay (usec) 1.97449021905E+03 Apriori clock (usec) -5.7486343E-01 Resid sbdelay (usec) 5.52121E-01 +/- 1.5E-03
 Phase delay (usec) 1.97393809492E+03 Apriori clockrate (us/s) -6.0000003E-07 Resid phdelay (usec) -3.12969E-06 +/- 6.6E-07
 Delay rate (us/s) 8.53792624309E-02 Apriori rate (us/s) 8.53904571949E-02 Resid rate (us/s) -1.11948E-05 +/- 2.4E-09
 Total phase (deg) 178.7 Apriori accel (us/s/s) -1.65944926572E-05 Resid phase (deg) -97.1 +/- 20.5

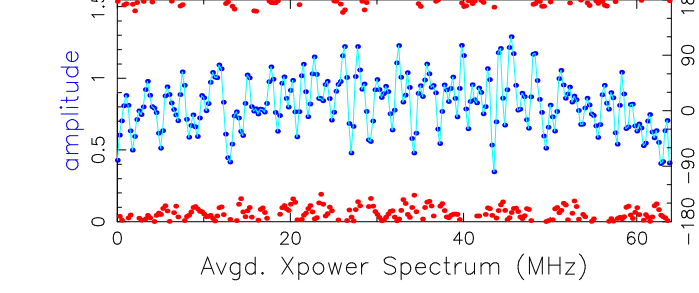
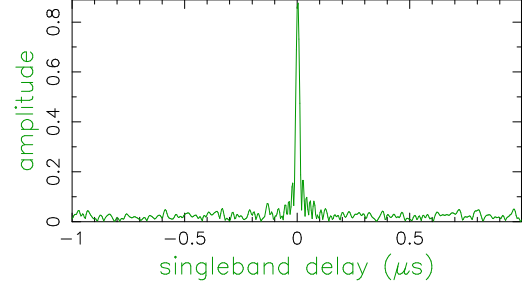
RMS Theor. Amplitude 0.145 +/- 0.026 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 65.4 49.1 Search (2048X32) 0.091 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 71.7 85.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 35.2 29.0 Inc. seg. avg. 0.137 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 44.8 50.5 Inc. frq. avg. 0.144 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

l: az 293.2 el 56.3 pa 86.0 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -680.627 -1689.499 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/In..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/In.W.146.11M249

multiband delay (μ s)

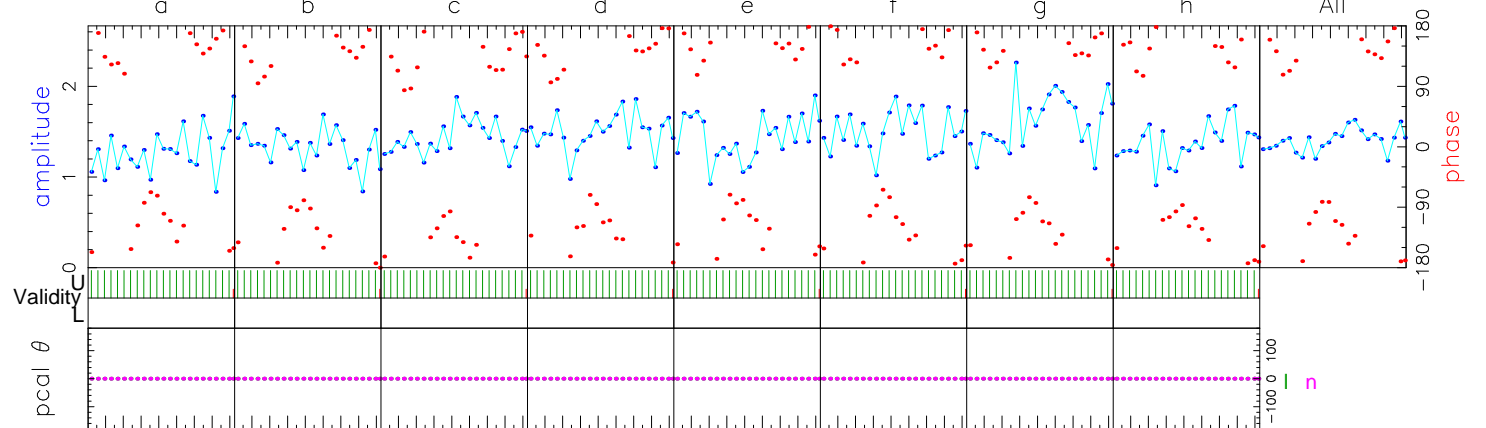


Fringe quality 5
SNR 53.3
Int time 479.982
Amp 0.889
Phase -173.1
PFD 0.0e+00
Delays (us)
SBD 0.002348
MBD 0.002558
Fringe rate (Hz) 0.006193
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 120001.00
Stop 120801.26
FRT 120401.00
Corr/FF/build
2021:023:075223
2021:023:132504
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		1.97394065644E+03			1.97393809805E+03				2.55839E-03	+/- 2.0E-05
Sband delay (usec)		1.97394044605E+03			-5.7486343E-01				2.34800E-03	+/- 1.6E-04
Phase delay (usec)		1.97393809247E+03			-6.0000003E-07				-5.58253E-06	+/- 6.9E-08
Delay rate (us/s)		8.53905290866E-02			8.53904571949E-02				7.18917E-08	+/- 2.5E-10
Total phase (deg)			102.6		-1.65944926572E-05				-173.1	+/- 2.2
ph/seg (deg)	53.3	5.2		0.889 +/- 0.017						
amp/seg (%)	59.4	9.0		0.000						
ph/frq (deg)	9.2	3.0		1.397						
amp/frq (%)	9.1	5.3		0.883						
l	az 293.2	el 56.3	pa 86.0		u,v (fr/asec) -680.627 -1689.499					
n	az 289.9	el 47.8	pa 69.9							simultaneous interpolator
Control file:	cf_1234_gmva				Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/In..1IM249					Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/In.W.92.1IM249

RMS Theor. Amplitude 0.889 +/- 0.017
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

Mk4/DiFX fourfit 3.21 rev 2937

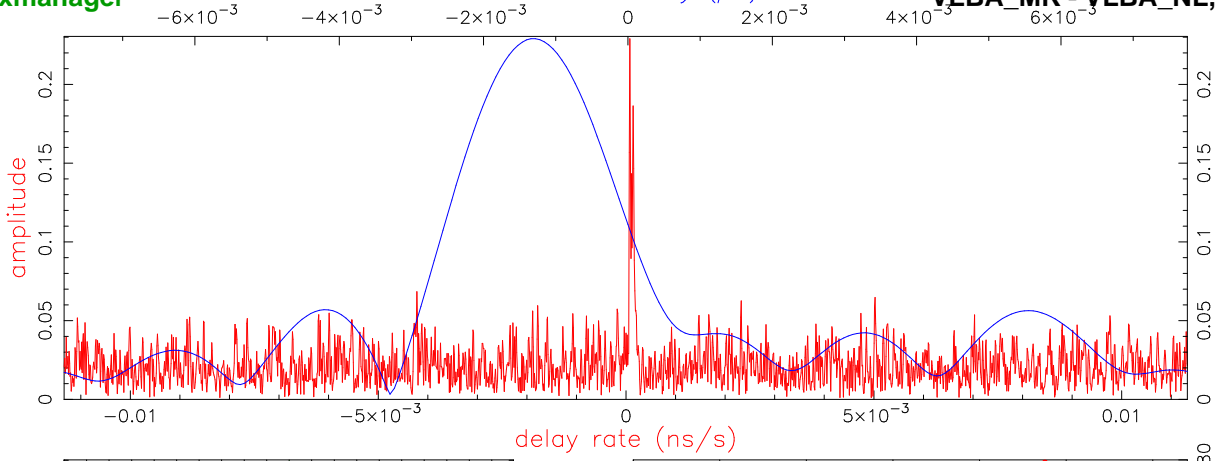
fxmanager

3C84.1IM249, No0105, mn

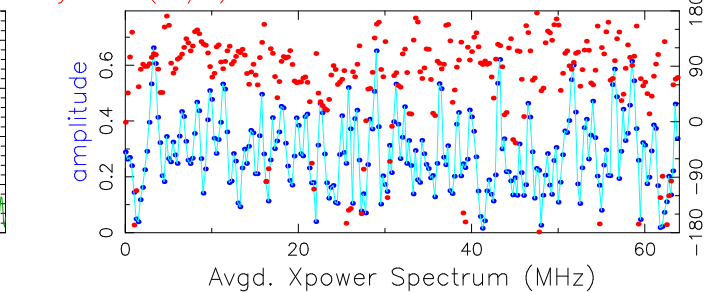
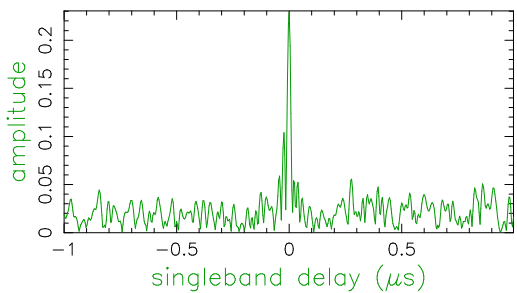
VLBA_MK - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

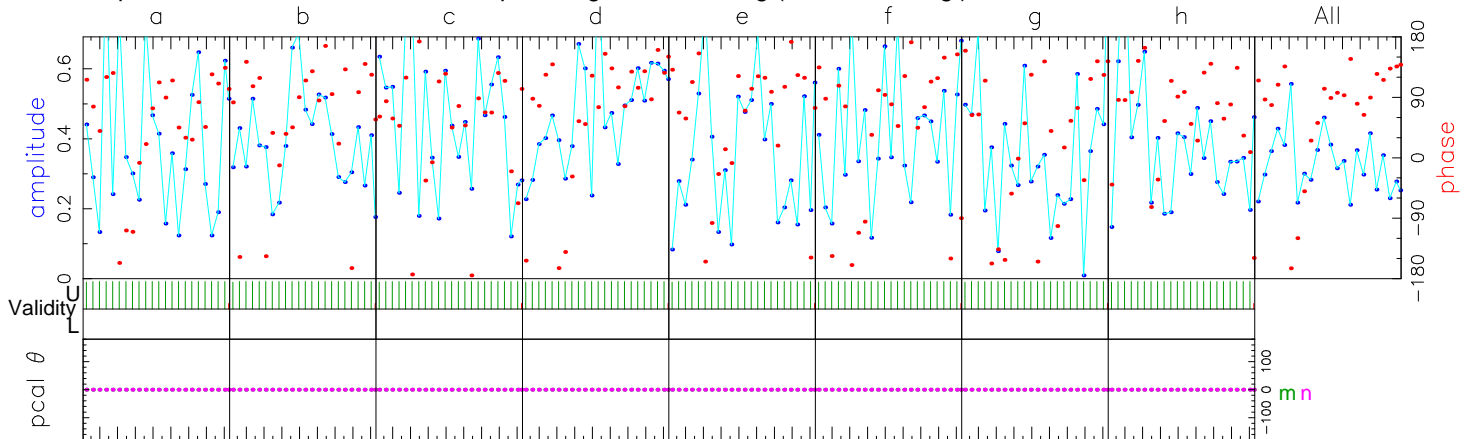


SNR 13.8
 Int time 476.980
 Amp 0.231
 Phase 103.8
 PFD 2.3e-34
 Delays (us)
 SBD -0.000934
 MBD -0.001341
 Fringe rate (Hz) 0.006481
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120003.56
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132508
 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
	93.5	107.8	86.2	110.2	118.8	117.6	108.7	90.1	Phase	103.8
	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	Ampl.	0.2
	257.5	257.2	256.4	256.7	257.2	256.5	203.8	256.2	Sbd box	256.8
U/L	933/0	933/0	933/0	933/0	933/0	933/0	933/0	933/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.15884924083E+03		Apriori delay (usec)		4.15885058213E+03		Resid mbdelay (usec)		-1.34131E-03	+/- 7.9E-05
Sband delay (usec)	4.15884964838E+03		Apriori clock (usec)		1.3195424E+01		Resid sbdelay (usec)		-9.33750E-04	+/- 6.3E-04
Phase delay (usec)	4.15885058548E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		3.34604E-06	+/- 2.7E-07
Delay rate (us/s)	8.39480318463E-01		Apriori rate (us/s)		8.39480243222E-01		Resid rate (us/s)		7.52410E-08	+/- 9.7E-10
Total phase (deg)	155.9		Apriori accel (us/s/s)		-4.65145212447E-05		Resid phase (deg)		103.8	+/- 8.3

	RMS	Theor.	Amplitude	0.231 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	55.7	20.0	Search (2048X32)	0.223	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	57.4	34.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	13.5	11.8	Inc. seg. avg.	0.313	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	21.4	20.5	Inc. frq. avg.	0.229	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

m: az 12.2 el 67.6 pa -163.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -6500.540 -5345.349 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/mn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/mn.W.113.11M249

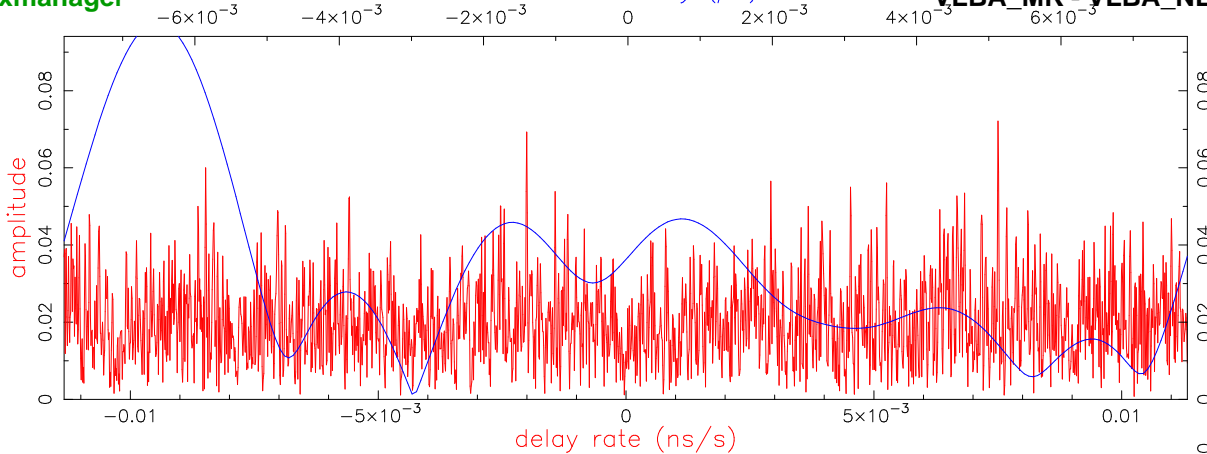
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1IM249, No0105, mn

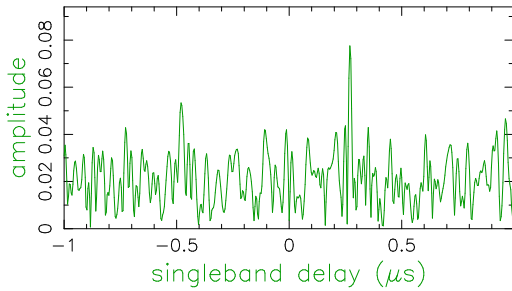
VLBA_MK - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

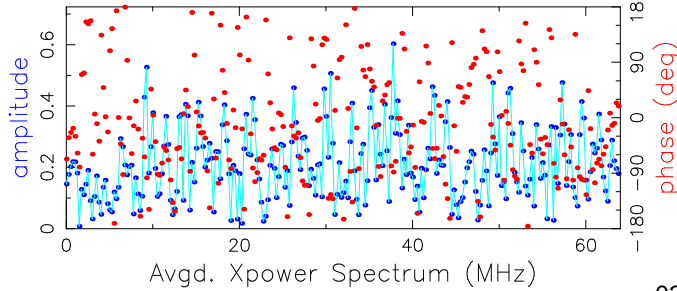


Fringe quality 0

SNR 4.7
 Int time 476.980
 Amp 0.094
 Phase 104.1
 PFD 1.0e+00
 Delays (us)
 SBD 0.270348
 MBD 0.008301
 Fringe rate (Hz)
 0.647370
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

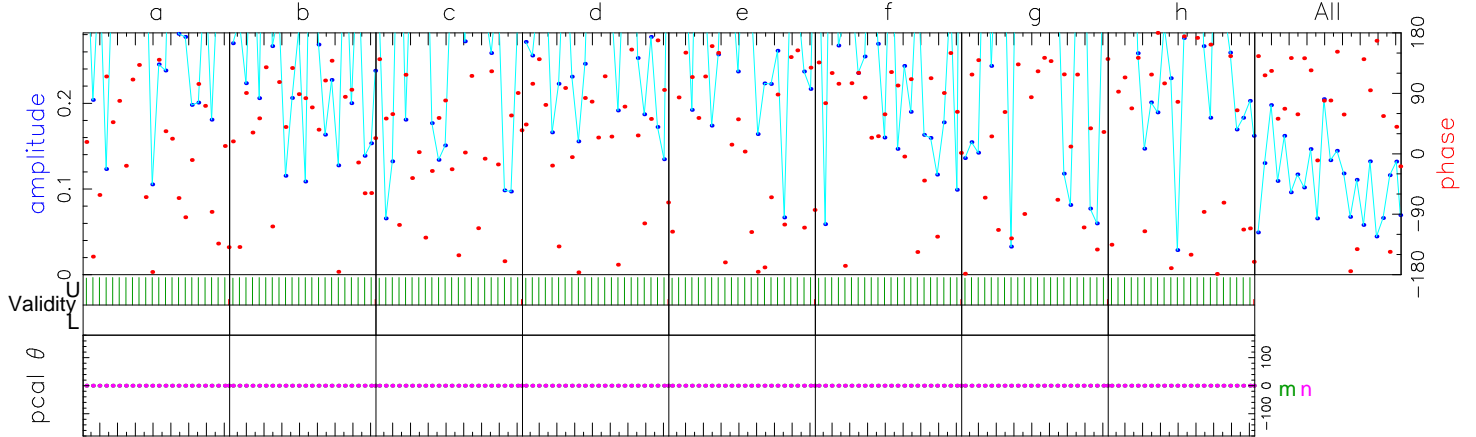


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120003.56
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132512
 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
	14.7	78.4	-17.7	84.1	139.0	104.3	139.0	170.5	Phase	104.1
	0.1	0.2	0.0	0.2	0.1	0.2	0.1	0.2	Ampl.	0.1
	366.3	325.8	377.4	320.6	385.8	327.3	190.5	326.6	Sbd box	326.2
U/L	933/0	933/0	933/0	933/0	933/0	933/0	933/0	933/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)		4.15912450791E+03		Apriori delay (usec)	4.15885058213E+03		Resid mbdelay (usec)	8.30078E-03		+/- 2.3E-04
Sband delay (usec)		4.15912093063E+03		Apriori clock (usec)	1.3195424E+01		Resid sbdelay (usec)	2.70348E-01		+/- 1.8E-03
Phase delay (usec)		4.15885058549E+03		Apriori clockrate (us/s)	-4.0000002E-07		Resid phdelay (usec)	3.35802E-06		+/- 7.9E-07
Delay rate (us/s)		8.39487758541E-01		Apriori rate (us/s)	8.39480243222E-01		Resid rate (us/s)	7.51532E-06		+/- 2.9E-09
Total phase (deg)			156.3	Apriori accel (us/s/s)	-4.65145212447E-05		Resid phase (deg)	104.1		+/- 24.6

	RMS	Theor.	Amplitude	0.094 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	58.9	59.0	Search (2048X32)	0.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	71.4	103.0	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	71.6	34.8	Inc. seg. avg.	0.090	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	65.6	60.7	Inc. frq. avg.	0.109	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

m: az 12.2 el 67.6 pa -163.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -6500.540 -5345.349 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/mn..1IM249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/mn.W.132.1IM249

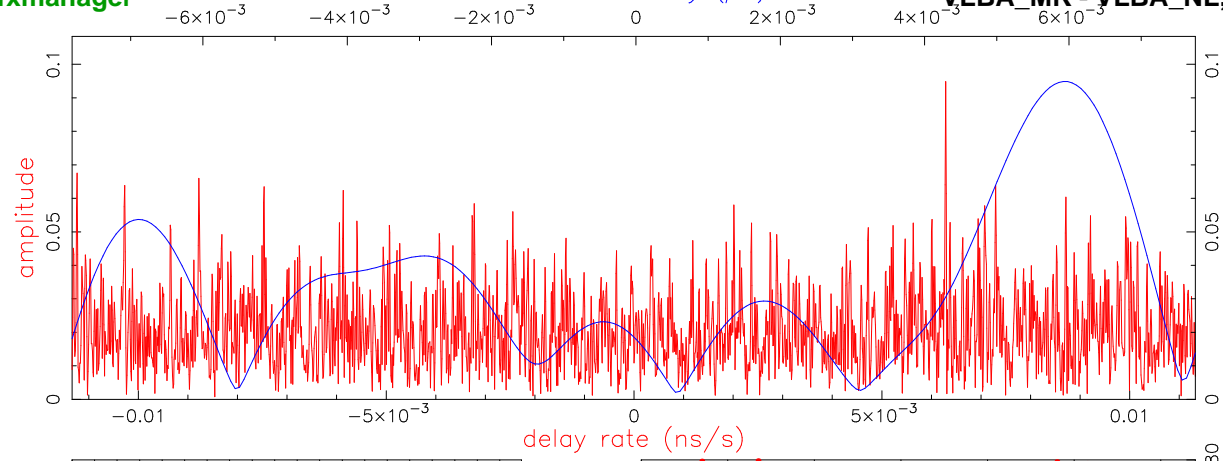
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

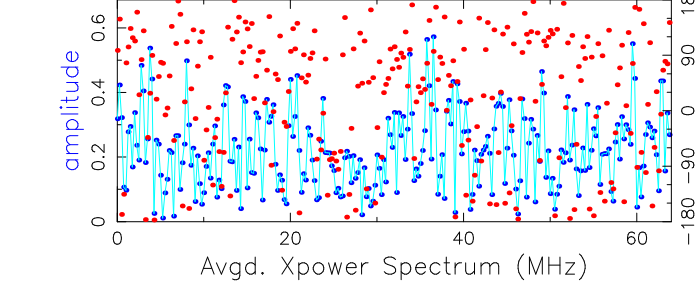
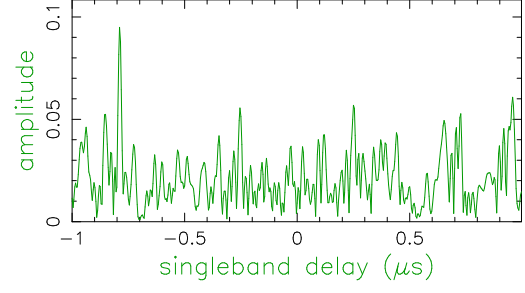
3C84.1IM249, No0105, mn

VLBA_MK - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

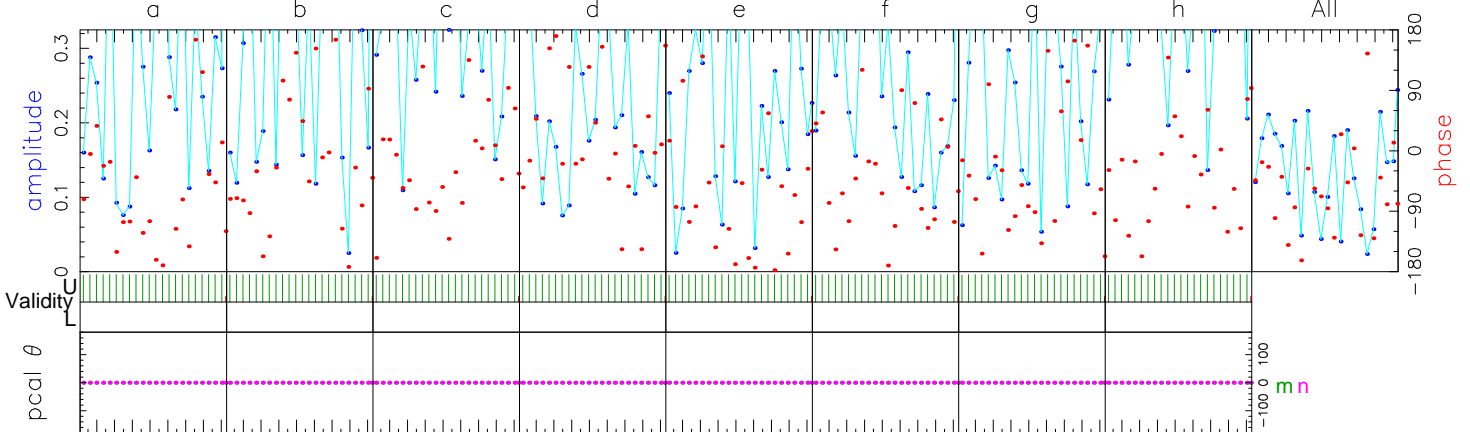


Fringe quality 0
 SNR 5.7
 Int time 476.980
 Amp 0.108
 Phase -57.3
 PFD 9.6e-01
 Delays (us)
 SBD -0.788484
 MBD 0.005974
 Fringe rate (Hz) 0.542720
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120003.56
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132516
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

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

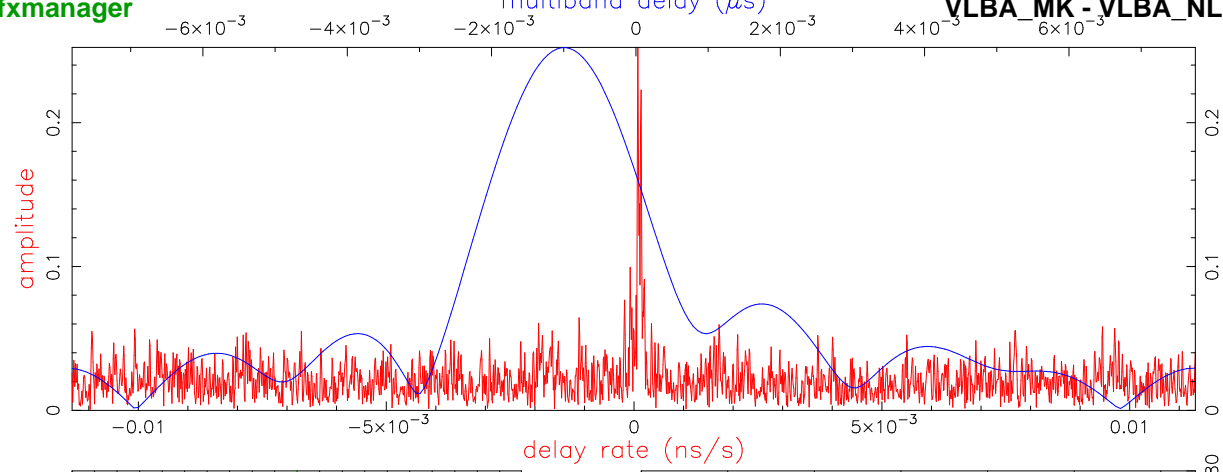


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-89.9	-68.0	-16.6	-12.9	-85.7	-51.8	-99.4	-48.8	Phase	-57.3
	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	257.5	128.0	349.3	438.4	498.5	319.5	144.6	55.1	Sbd box	55.1
U/L	933/0	933/0	933/0	933/0	933/0	933/0	933/0	933/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 4.15805968153E+03 Apriori delay (usec) 4.15885058213E+03 Resid mbdelay (usec) 5.97440E-03 +/- 1.9E-04
 Sband delay (usec) 4.15806209863E+03 Apriori clock (usec) 1.3195424E+01 Resid sbdelay (usec) -7.88484E-01 +/- 1.5E-03
 Phase delay (usec) 4.15885058028E+03 Apriori clockrate (us/s) -4.0000002E-07 Resid phdelay (usec) -1.84802E-06 +/- 6.5E-07
 Delay rate (us/s) 8.39486543668E-01 Apriori rate (us/s) 8.39480243222E-01 Resid rate (us/s) 6.30045E-06 +/- 2.4E-09
 Total phase (deg) -5.2 Apriori accel (us/s/s) -4.65145212447E-05 Resid phase (deg) -57.3 +/- 20.2

RMS Theor. Amplitude 0.108 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 60.8 48.4 Search (2048X32) 0.093 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 76.6 84.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 35.3 28.5 Inc. seg. avg. 0.112 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 41.1 49.8 Inc. frq. avg. 0.110 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

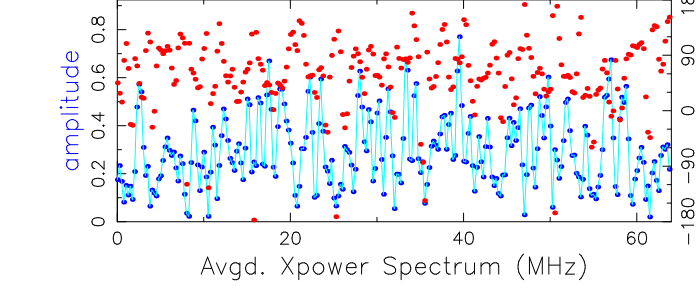
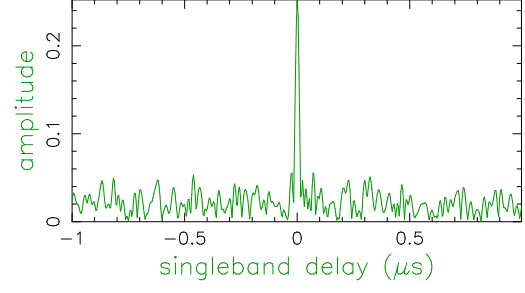
m: az 12.2 el 67.6 pa -163.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -6500.540 -5345.349 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/mn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/mn.W.147.11M249



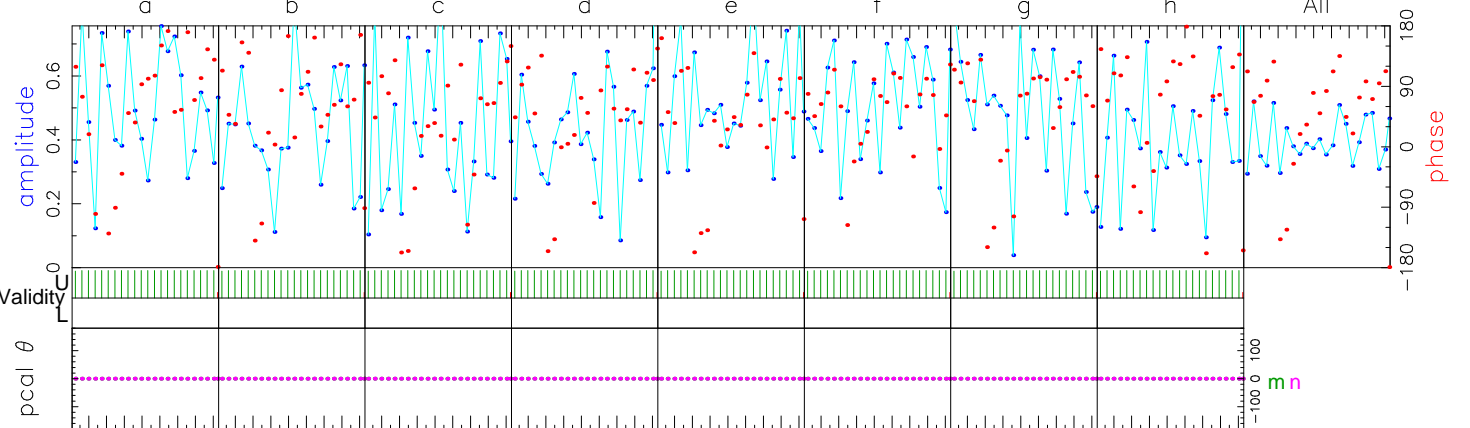
Fringe quality 9

SNR 15.1
 Int time 476.980
 Amp 0.252
 Phase 81.7
 PFD 1.7e-42
 Delays (us)
 SBD 0.000340
 MBD -0.000985
 Fringe rate (Hz) 0.006892
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120003.56
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132504
 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
	98.5	87.8	66.6	78.2	72.1	67.0	90.8	97.4	Phase	81.7
	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	Ampl.	0.3
	256.7	257.7	256.0	257.1	256.0	257.3	257.9	257.2	Sbd box	257.1
U/L	933/0	933/0	933/0	933/0	933/0	933/0	933/0	933/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.15884959673E+03		Apriori delay (usec)		4.15885058213E+03		Resid mbdelay (usec)		-9.85400E-04	+/- 7.2E-05
Sband delay (usec)	4.15885092188E+03		Apriori clock (usec)		1.3195424E+01		Resid sbdelay (usec)		3.39750E-04	+/- 5.7E-04
Phase delay (usec)	4.15885058477E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		2.63483E-06	+/- 2.5E-07
Delay rate (us/s)	8.39480323237E-01		Apriori rate (us/s)		8.39480243222E-01		Resid rate (us/s)		8.00146E-08	+/- 8.9E-10
Total phase (deg)	133.9		Apriori accel (us/s/s)		-4.65145212447E-05		Resid phase (deg)		81.7	+/- 7.6

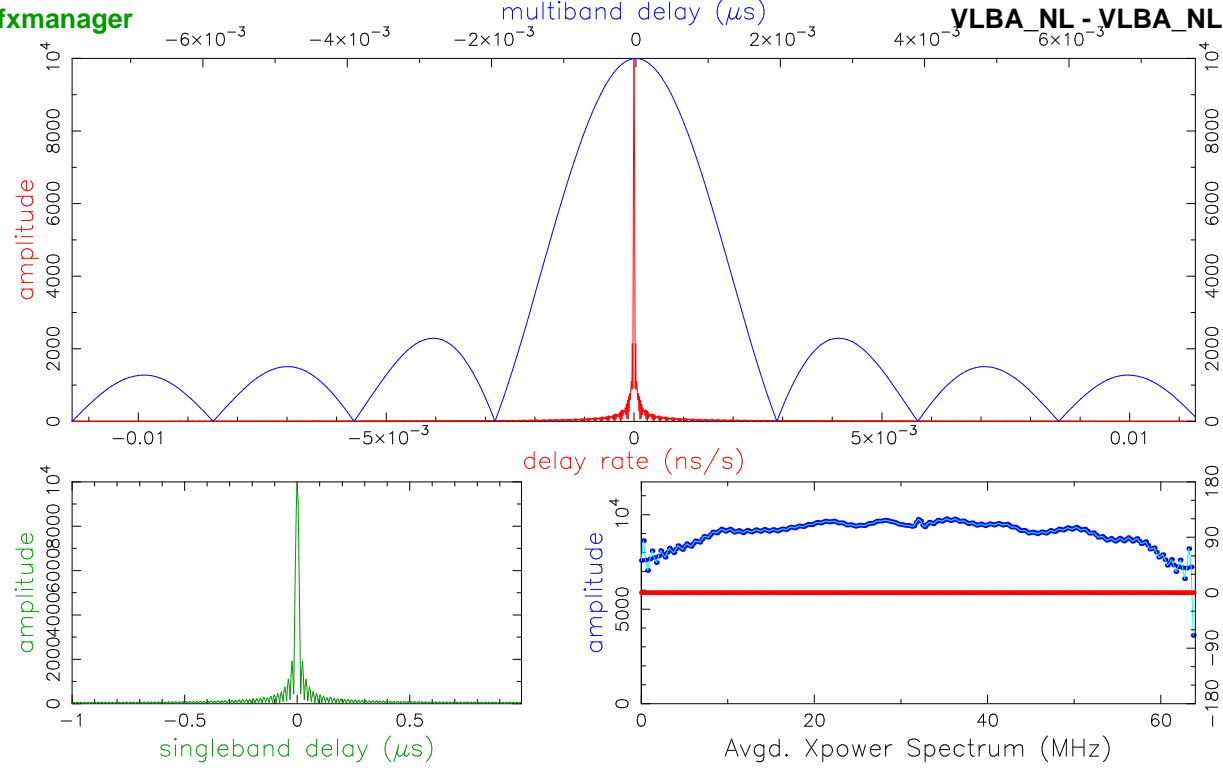
ph/seg (deg) 59.5 18.2 Search (2048X32) 0.246 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 63.2 31.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 14.1 10.8 Inc. seg. avg. 0.376 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 16.7 18.8 Inc. frq. avg. 0.254 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 12.2 el 67.6 pa -163.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -6500.540 -5345.349 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/mn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/mn.W.93.11M249

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M249, No0105, nn

VLBA_NL - VLBA_NL, fgroup W, pol LL

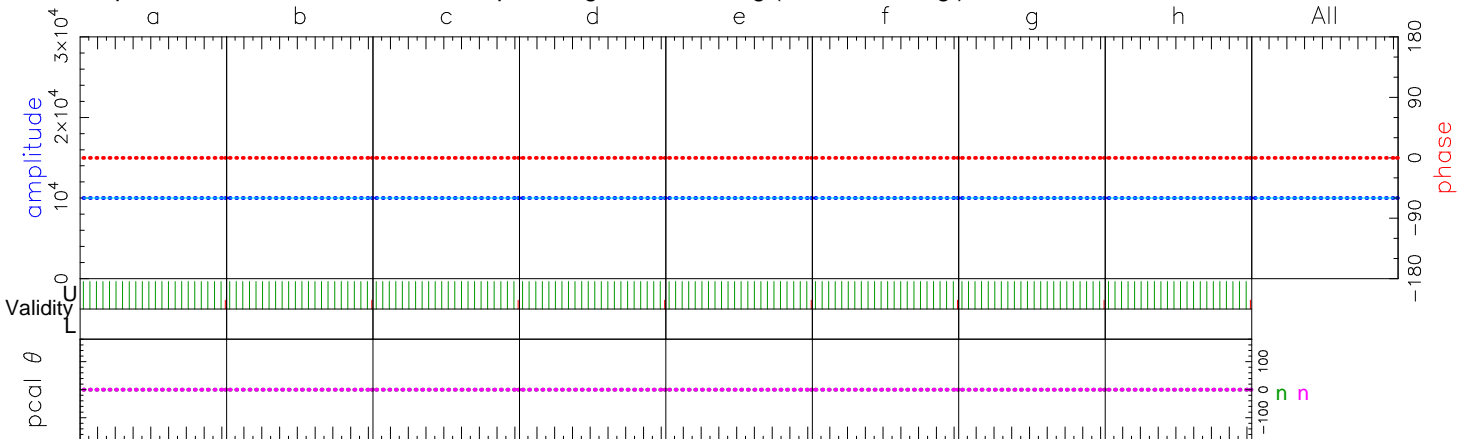


Fringe quality 9

SNR 599116.3
 Int time 479.984
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Yr:day 16383
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132518
 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	Ampl.	10000.0
n	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
									Chan ids	
									Tracks	

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

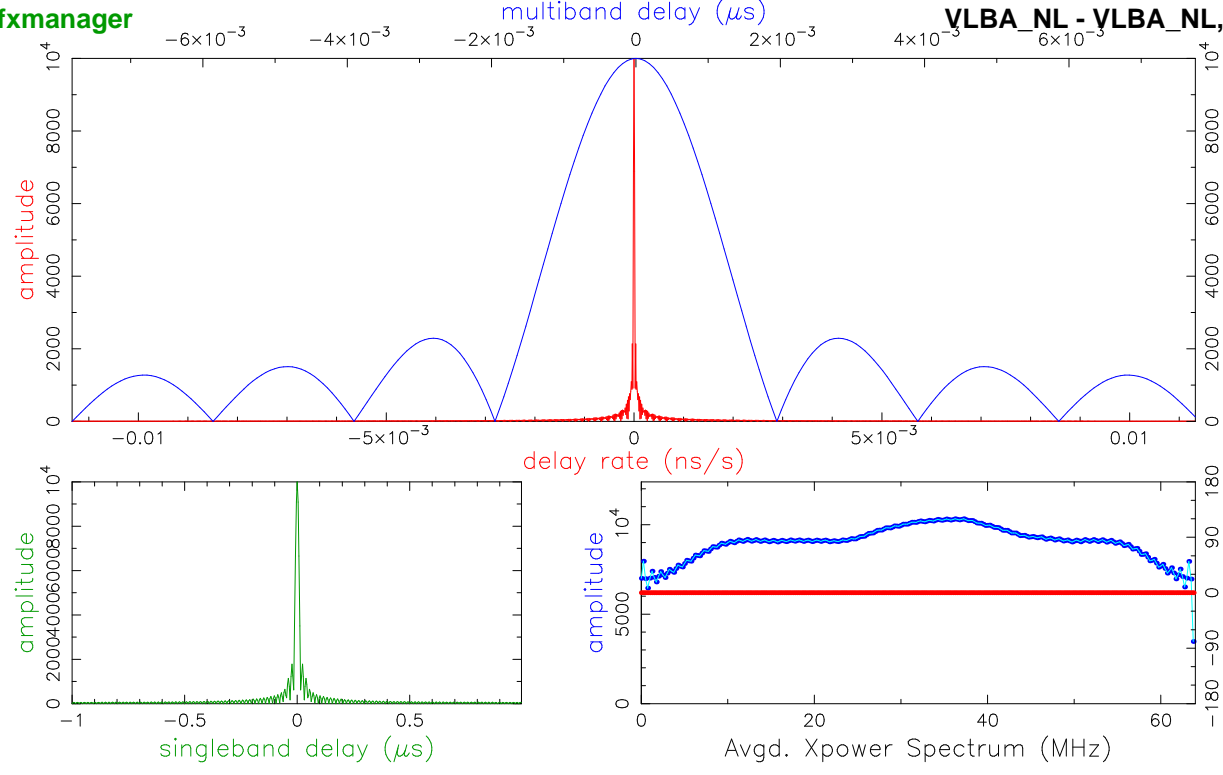
n: az 289.9 el 47.8 pa 69.9 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/nn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/nn.W.154.11M249

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M249, No0105, nn

VLBA_NL - VLBA_NL, fgroup W, pol RR

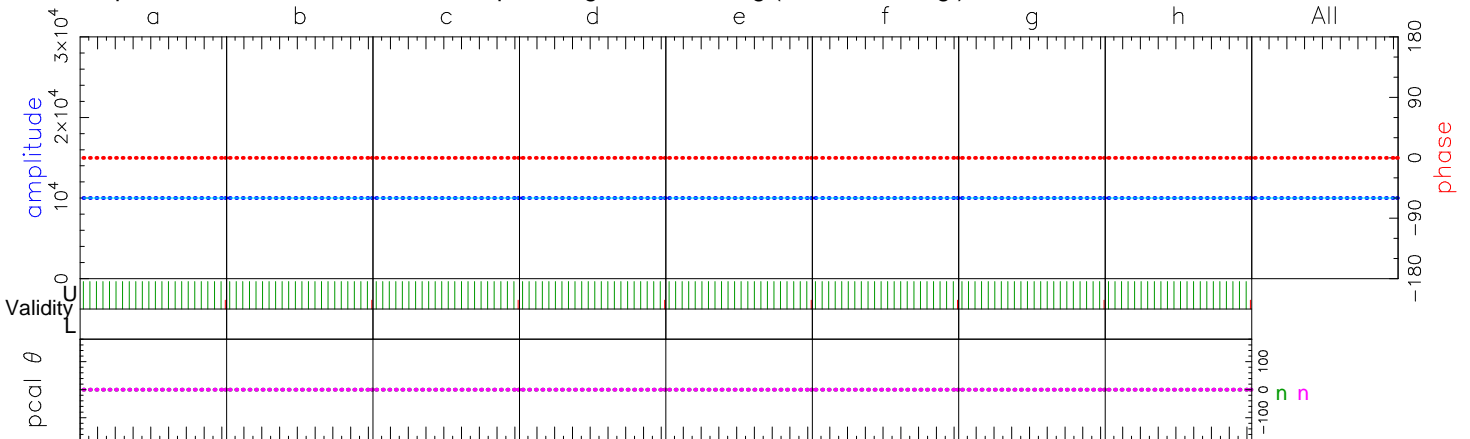


Fringe quality 9

SNR 599116.3
 Int time 479.984
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Yr:day 16383
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132522
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 1.8E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.4E-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 10000.000 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

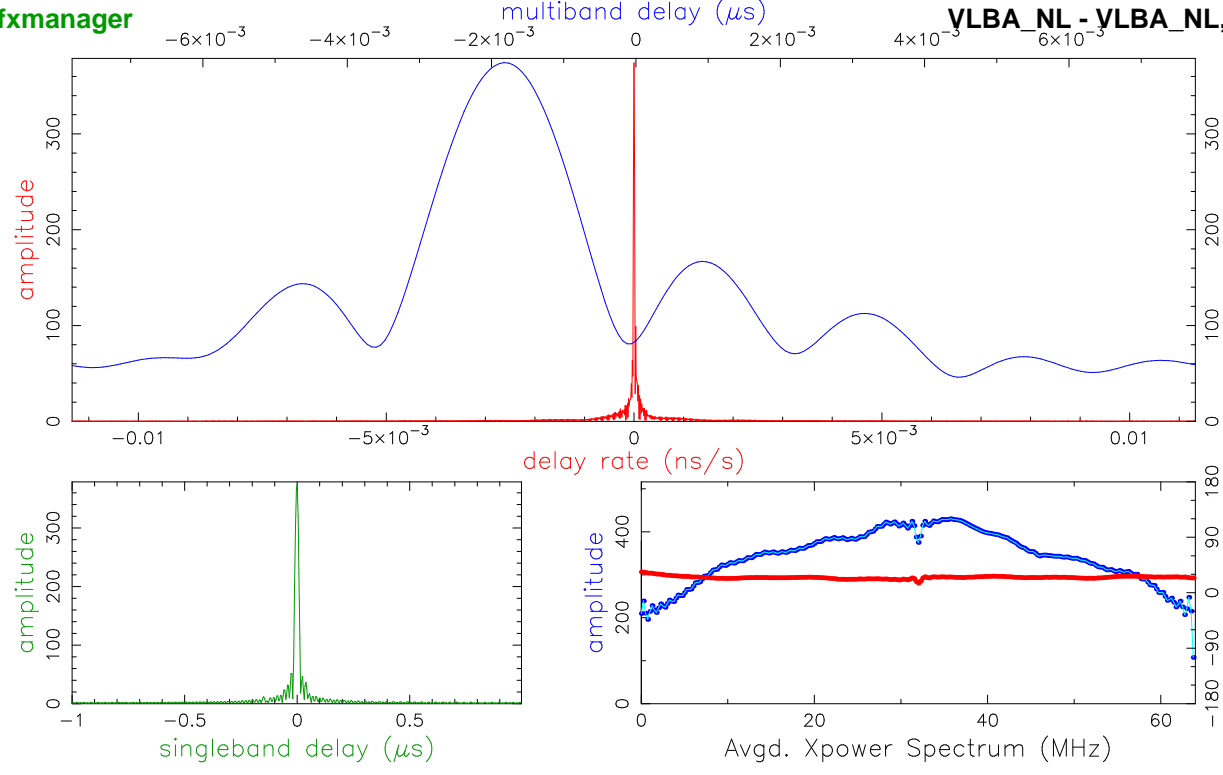
n: az 289.9 el 47.8 pa 69.9 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/nn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/nn.W.164.11M249

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M249, No0105, nn

VLBA_NL - VLBA_NL, fgroup W, pol LR

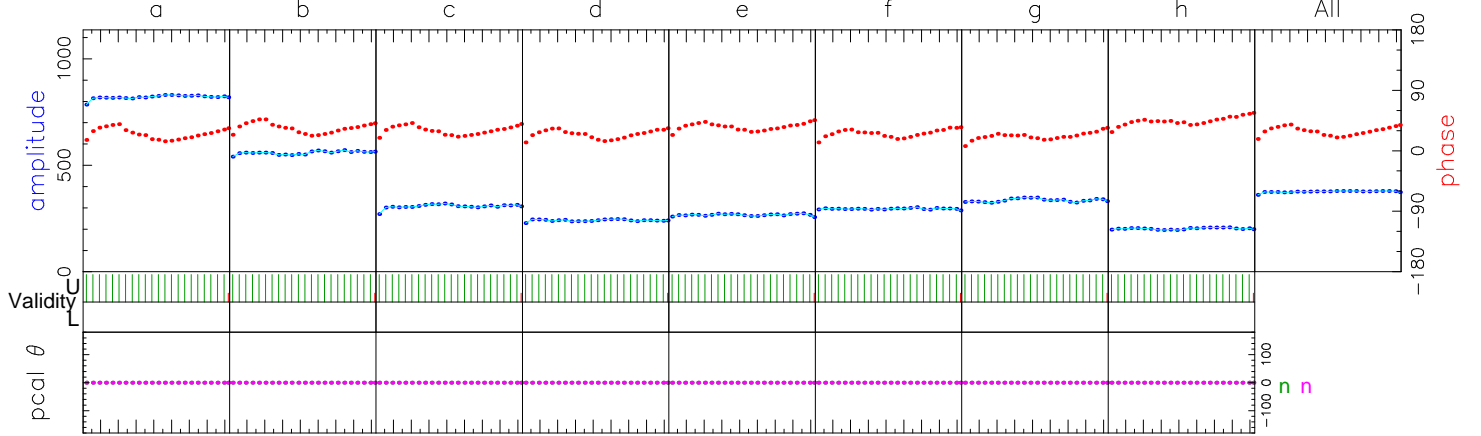


Fringe quality 7

SNR 22696.2
 Int time 479.984
 Amp 378.828
 Phase 29.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.001465
 MBD -0.001839
 Fringe rate (Hz)
 -0.000358
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132525
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	1000
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	1000
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	1000
n	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	1000
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	1000
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-1.83909375000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-1.83909E-03	+/- 4.8E-08
Sband delay (usec)	-1.46475000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.46475E-03	+/- 3.8E-07
Phase delay (usec)	9.36278356606E-07		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		9.36278E-07	+/- 1.6E-10
Delay rate (us/s)	-4.16135889982E-09		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-4.16136E-09	+/- 5.9E-13
Total phase (deg)	29.0		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		29.0	+/- 0.0

ph/seg (deg) 6.0 0.0 Theor. Amplitude 378.828 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.2 0.0 Search (2048X32) 353.456 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 8.1 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 50.9 0.0 Inc. seg. avg. 376.352 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 n: az 289.9 el 47.8 pa 69.9 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) 0.000 0.000 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/No0105/nn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/nn.W.183.11M249 simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

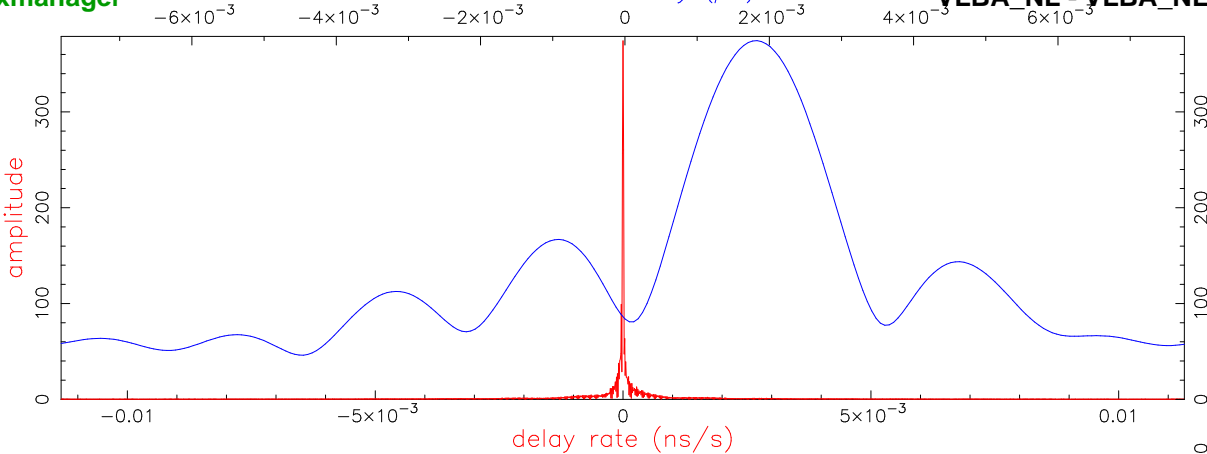
fxmanager

3C84.11M249, No0105, nn

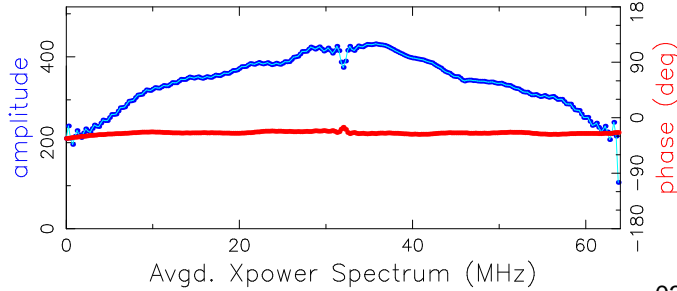
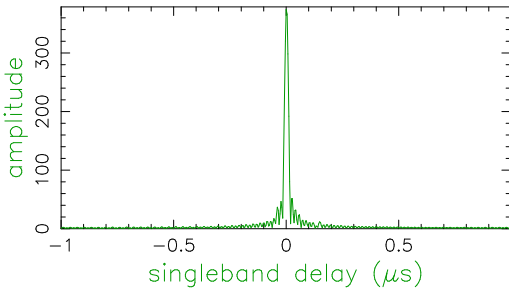
VLBA_NL - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 7

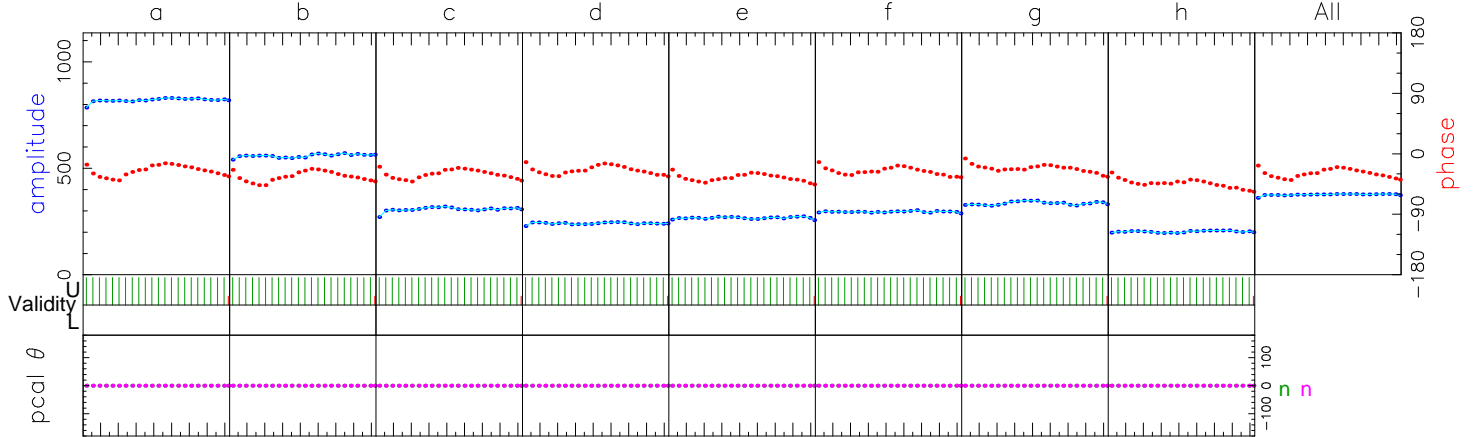


SNR 22696.2
 Int time 479.984
 Amp 378.828
 Phase -29.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.001465
 MBD 0.001839
 Fringe rate (Hz)
 0.000358
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132529
 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
	-25.3	-33.7	-30.2	-24.4	-35.5	-25.8	-21.6	-43.9	Phase	-29.0
	813.1	554.5	305.9	240.0	266.4	294.6	334.5	201.6	Ampl.	376.3
	256.9	257.7	257.8	257.5	257.1	257.5	257.3	257.6	Sbd box	257.4
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.83909375000E-03								Resid mbdelay (usec)	1.83909E-03 +/- 4.8E-08
Sband delay (usec)	1.46475000000E-03								Resid sbdelay (usec)	1.46475E-03 +/- 3.8E-07
Phase delay (usec)	-9.36278356639E-07								Resid phdelay (usec)	-9.36278E-07 +/- 1.6E-10
Delay rate (us/s)	4.16135889982E-09								Resid rate (us/s)	4.16136E-09 +/- 5.9E-13
Total phase (deg)			-29.0						Resid phase (deg)	-29.0 +/- 0.0

ph/seg (deg) 6.0 0.0
 amp/seg (%) 1.2 0.0
 ph/frq (deg) 8.1 0.0
 amp/frq (%) 50.9 0.0

RMS Theor. Amplitude 378.828 +/- 0.017
 Search (2048X32) 353.456
 Interp. 0.000
 Inc. seg. avg. 376.352
 Inc. frq. avg. 376.324

Group delay (usec)(sbd) 1.83909375000E-03
 Sband delay (usec) 1.46475000000E-03
 Phase delay (usec) -9.36278356639E-07
 Delay rate (us/s) 4.16135889982E-09
 Total phase (deg) -29.0

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) 1.83909E-03 +/- 4.8E-08
 Resid sbdelay (usec) 1.46475E-03 +/- 3.8E-07
 Resid phdelay (usec) -9.36278E-07 +/- 1.6E-10
 Resid rate (us/s) 4.16136E-09 +/- 5.9E-13
 Resid phase (deg) -29.0 +/- 0.0

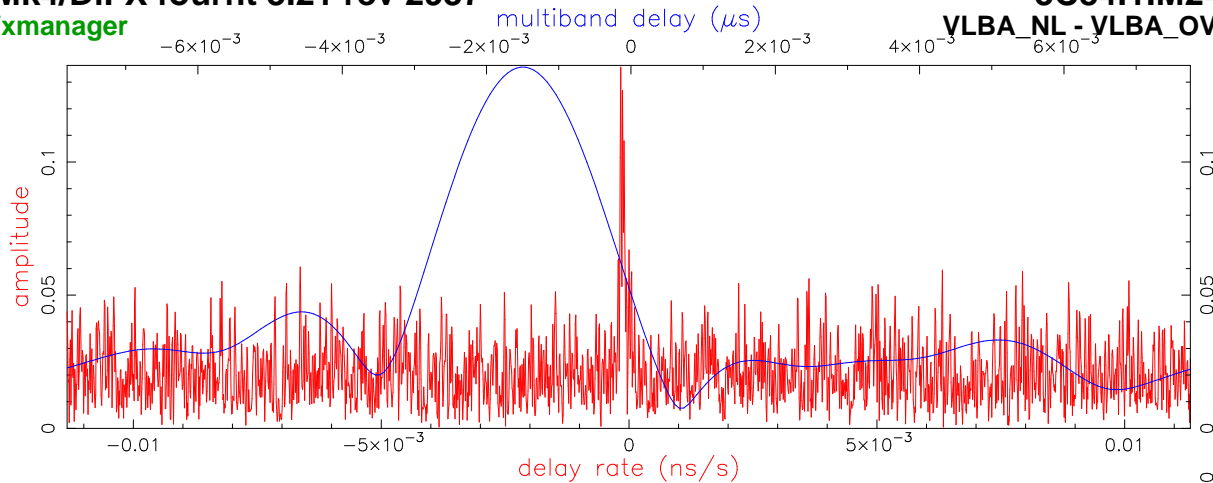
PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 PCal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Sample rate(MISamp/s): 128
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

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

n: az 289.9 el 47.8 pa 69.9
 n: az 289.9 el 47.8 pa 69.9
 u,v (fr/asec) 0.000 0.000

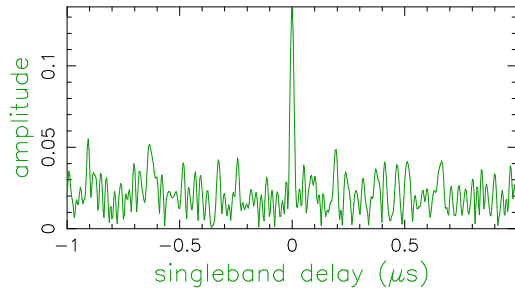
simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/nn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/nn.W.201.11M249

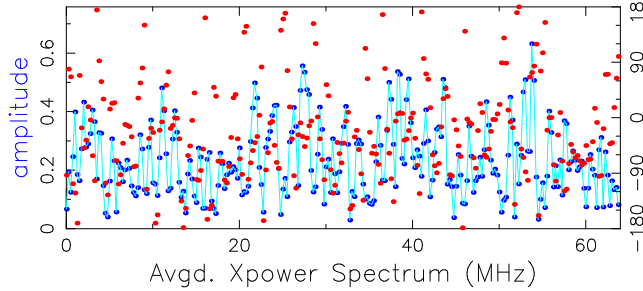


Fringe quality 9

SNR 8.1
Int time 477.661
Amp 0.136
Phase -27.6
PFD 1.3e-07
Delays (us)
SBD -0.000956
MBD -0.001528
Fringe rate (Hz)
-0.014271
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

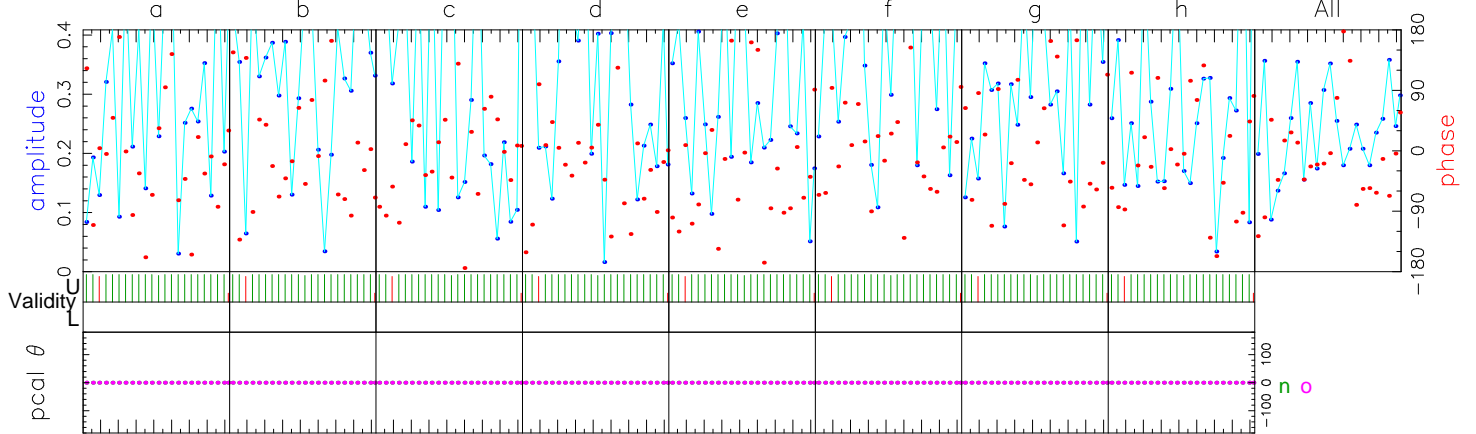


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 120001.00
Stop 120801.26
FRT 120401.00
Corr/FF/build
2021:023:075223
2021:023:132519
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-21.5	-27.2	-19.6	-42.9	-70.2	8.2	-26.7	-28.1	Phase	-27.6
	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	Ampl.	0.1
	277.2	39.7	276.4	256.9	257.0	256.9	443.9	422.8	Sbd box	256.8
U/L	936/0	936/0	936/0	936/0	936/0	936/0	936/0	936/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-3.74599848171E+03	Apriori delay (usec)	-3.74599695421E+03	Resid mbdelay (usec)	-1.52750E-03	+/-	1.3E-04
Sband delay (usec)	-3.74599791046E+03	Apriori clock (usec)	-2.1226135E+01	Resid sbdelay (usec)	-9.56250E-04	+/-	1.1E-03
Phase delay (usec)	-3.74599695510E+03	Apriori clockrate (us/s)	6.0000003E-07	Resid phdelay (usec)	-8.91537E-07	+/-	4.5E-07
Delay rate (us/s)	-2.50449950224E-01	Apriori rate (us/s)	-2.50449784552E-01	Resid rate (us/s)	-1.65673E-07	+/-	1.6E-09
Total phase (deg)	-256.4	Apriori accel (us/s/s)	2.43769872516E-05	Resid phase (deg)	-27.6	+/-	14.1

ph/seg (deg)	66.9	Theor.	33.7	Amplitude	0.136 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	92.3		58.8	Search (2048X32)	0.134	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	23.9		19.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	25.1		34.7	Inc. seg. avg.	0.203	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.138	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

n: az 289.9 el 47.8 pa 69.9 o: az 290.0 el 65.8 pa 89.4 u,v (fr/asec) 1957.639 2084.814 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/no..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/no.W.156.11M249

Mk4/DiFX fourfit 3.21 rev 2937

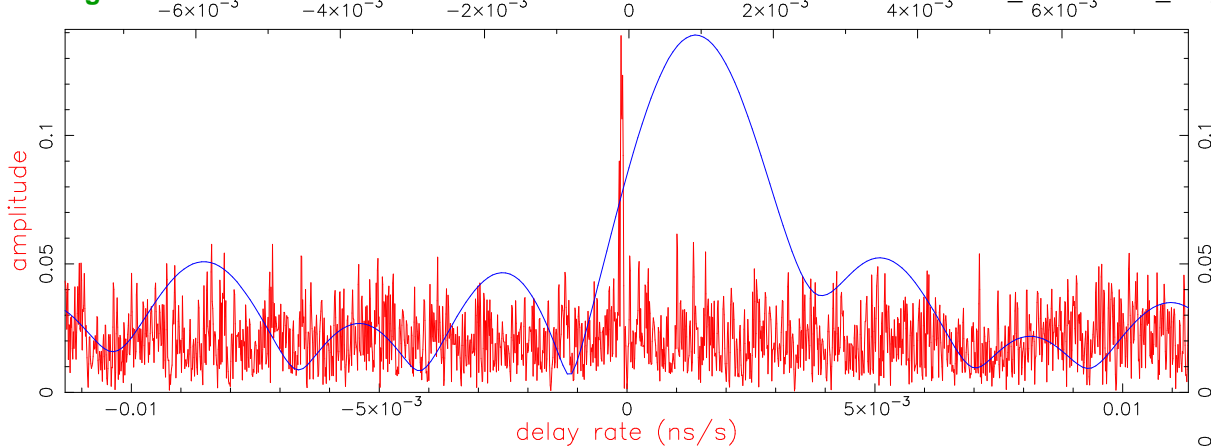
fxmanager

3C84.11M249, No0105, no

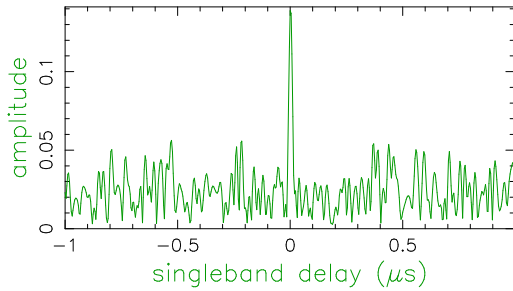
VLBA_NL - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

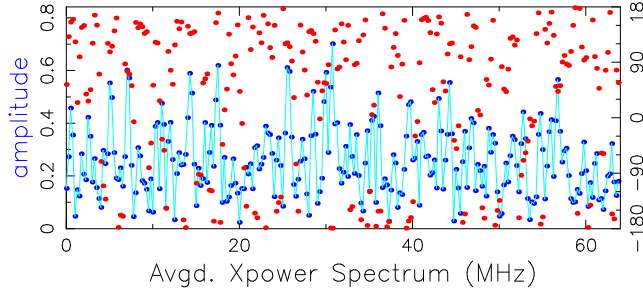
Fringe quality 9



SNR 8.4
 Int time 477.661
 Amp 0.141
 Phase 139.5
 PFD 1.1e-08
 Delays (us)
 SBD 0.001695
 MBD 0.000987
 Fringe rate (Hz)
 -0.010843
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

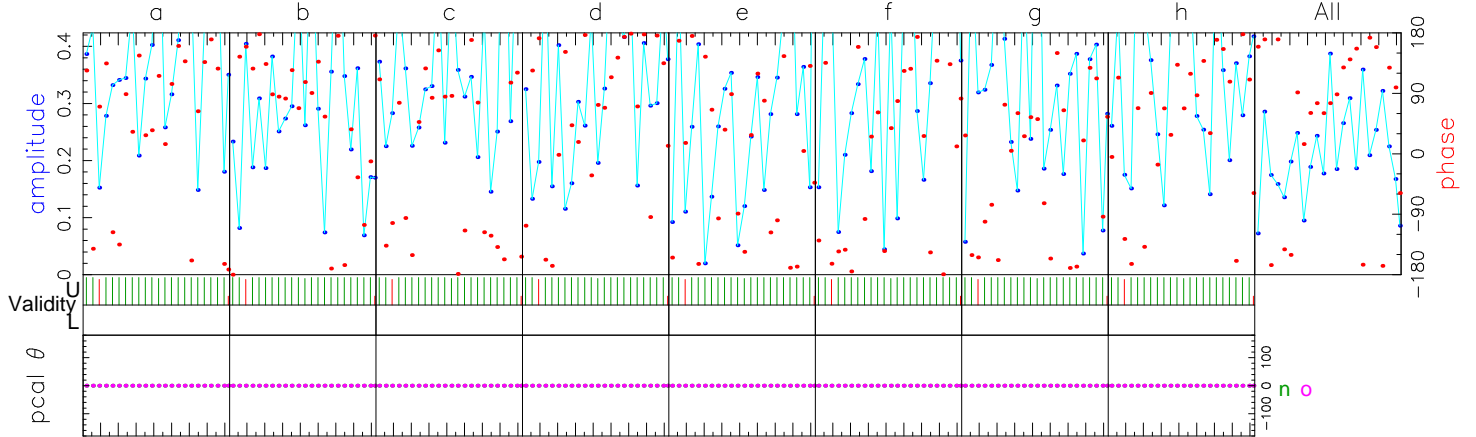


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132523
 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
	134.7	125.9	158.4	154.0	171.2	138.7	135.4	116.9	Phase	139.5
	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	Ampl.	0.1
	256.1	257.4	88.1	258.4	86.0	257.1	184.7	257.9	Sbd box	257.4
U/L	936/0	936/0	936/0	936/0	936/0	936/0	936/0	936/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.74599596706E+03			Apriori delay (usec)	-3.74599695421E+03			Resid mbdelay (usec)	9.87147E-04	+/- 1.3E-04
Sband delay (usec)	-3.74599525871E+03			Apriori clock (usec)	-2.1226135E+01			Resid sbdelay (usec)	1.69550E-03	+/- 1.0E-03
Phase delay (usec)	-3.74599694971E+03			Apriori clockrate (us/s)	6.0000003E-07			Resid phdelay (usec)	4.49923E-06	+/- 4.4E-07
Delay rate (us/s)	-2.50449910424E-01			Apriori rate (us/s)	-2.50449784552E-01			Resid rate (us/s)	-1.25872E-07	+/- 1.6E-09
Total phase (deg)		-89.3		Apriori accel (us/s/s)	2.43769872516E-05			Resid phase (deg)	139.5	+/- 13.6

ph/seg (deg) 58.2 32.5 Amplitude 0.141 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 78.1 56.7 Search (2048X32) 0.133 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 19.6 19.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 31.4 33.5 Inc. seg. avg. 0.188 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 n: az 289.9 el 47.8 pa 69.9 o: az 290.0 el 65.8 pa 89.4 u,v (fr/asec) 1957.639 2084.814 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/No0105/no..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/no.W.169.11M249

Mk4/DiFX fourfit 3.21 rev 2937

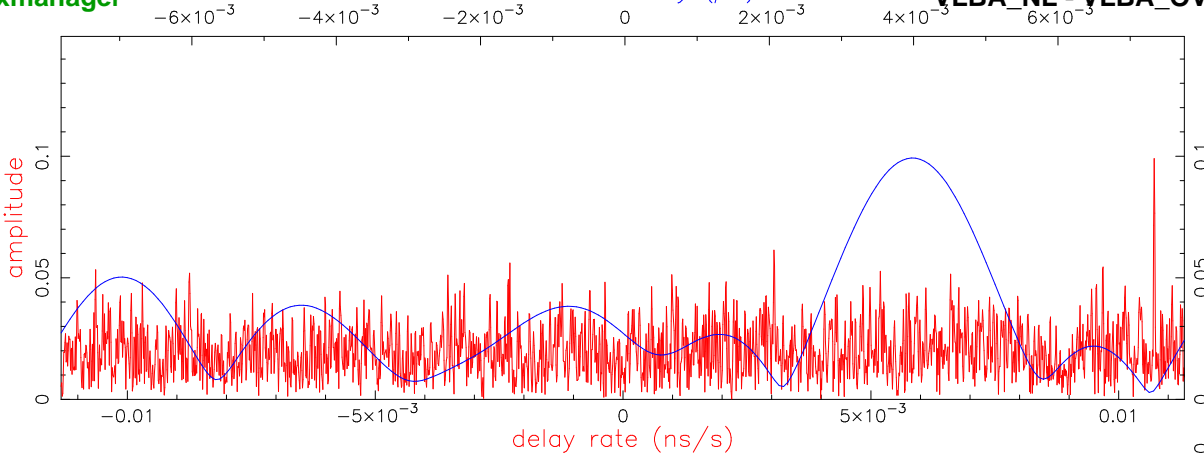
fxmanager

3C84.11M249, No0105, no

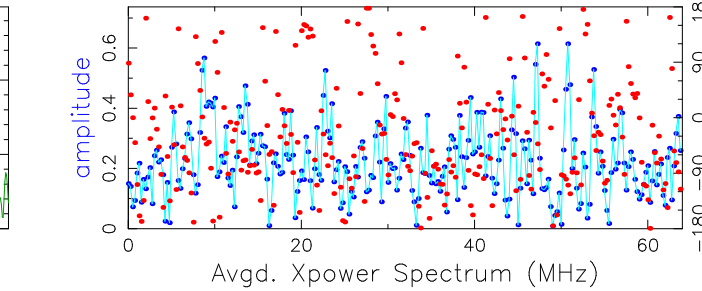
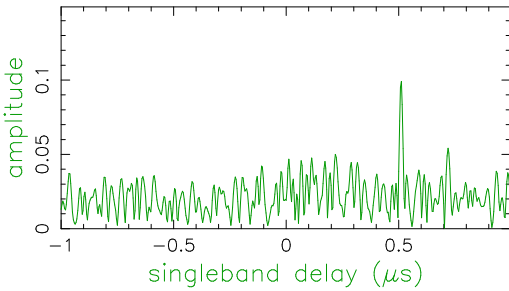
VLBA_NL - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

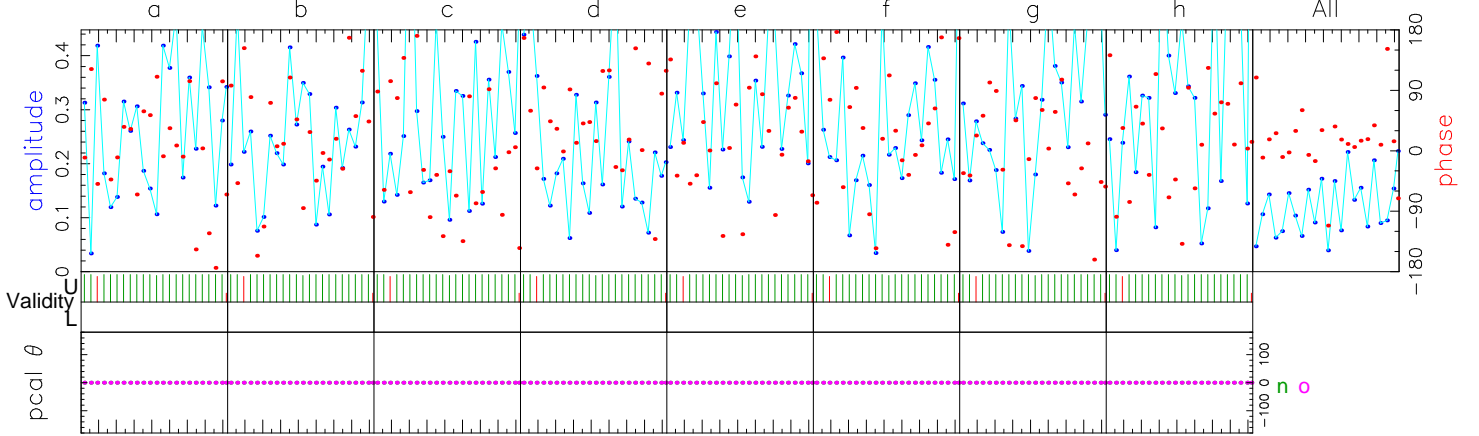


SNR 6.0
 Int time 477.661
 Amp 0.149
 Phase 15.5
 PFD 4.4e-01
 Delays (us)
 SBD 0.510527
 MBD 0.003920
 Fringe rate (Hz)
 0.924876
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132527
 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	936/0	936/0	936/0	936/0	936/0	936/0	936/0	936/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-3.74549303439E+03									
Sband delay (usec)	-3.74548642721E+03									
Phase delay (usec)	-3.74599695371E+03									
Delay rate (us/s)	-2.50439047664E-01									
Total phase (deg)			-213.2							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
RMS	48.3	45.9								
Theor.										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
ph/seg (deg)										
amp/seg (%)										
ph/frq (deg)										
amp/frq (%)										
n: az 289.9 el 47.8 pa 69.9										
o: az 290.0 el 65.8 pa 89.4										
u,v (fr/asec) 1957.639 2084.814										
Control file: cf_1234_gmva										
Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/no..11M249										
Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/no.W.187.11M249										

simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

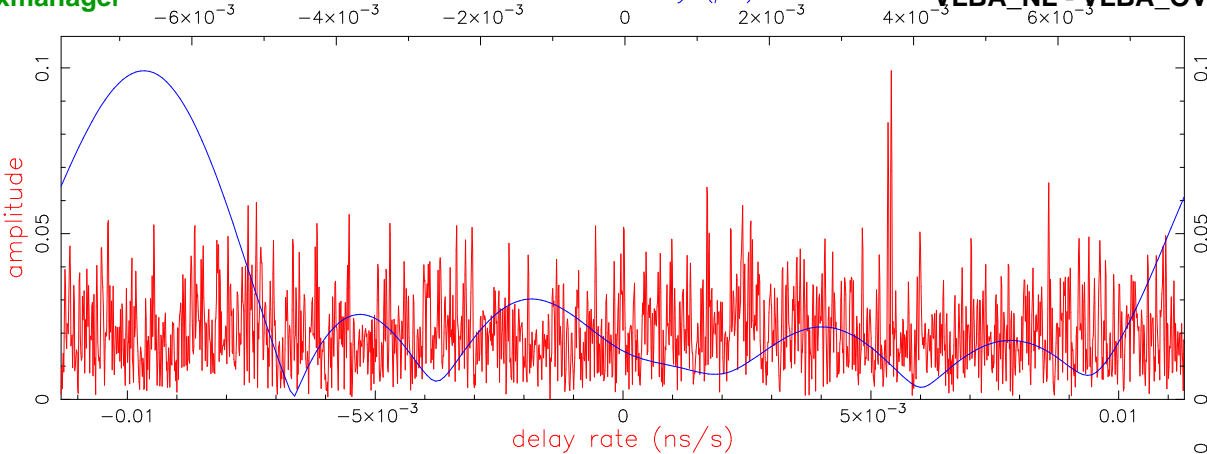
fxmanager

3C84.11M249, No0105, no

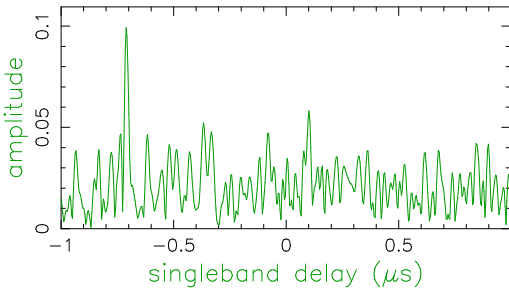
VLBA_NL - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

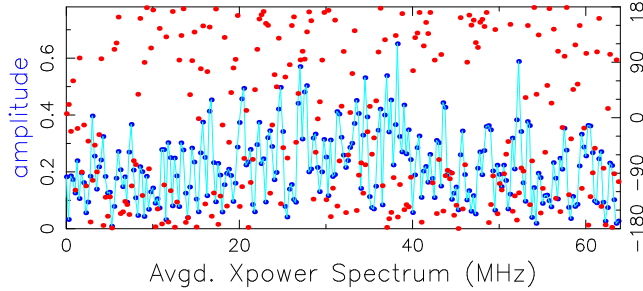
Fringe quality 0



SNR 5.9
Int time 477.661
Amp 0.110
Phase 13.9
PFD 5.0e-01
Delays (us)
SBD -0.710117
MBD -0.006691
Fringe rate (Hz)
0.467488
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

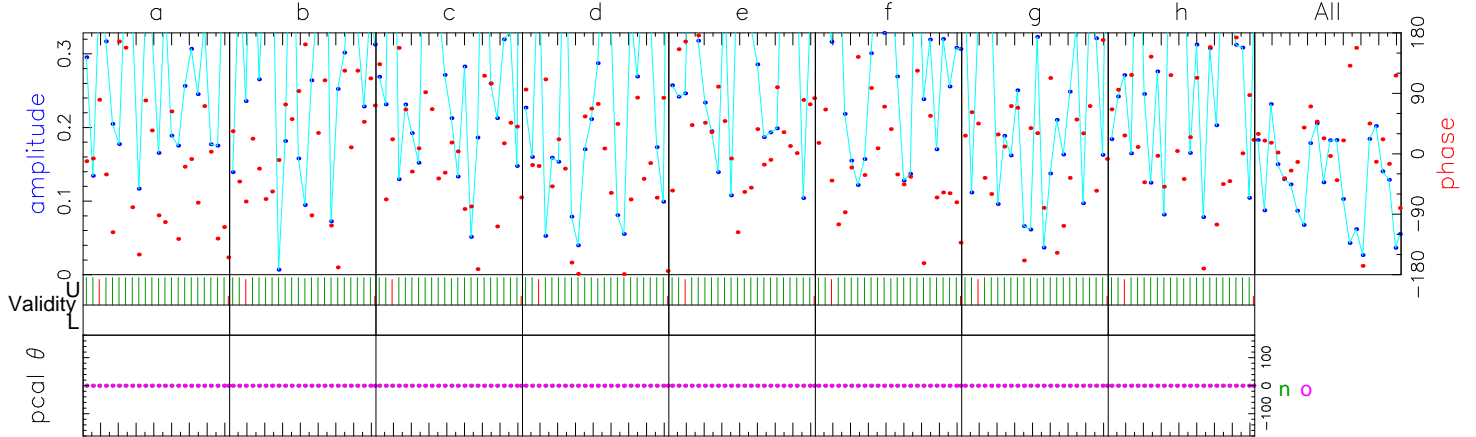


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 120001.00
Stop 120801.26
FRT 120401.00
Corr/FF/build
2021:023:075223
2021:023:132530
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
	-49.9	35.0	36.1	-4.9	24.4	-4.9	16.3	19.4	Phase	13.9
	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
	172.1	481.3	237.1	147.1	283.2	454.6	445.9	450.9	Sbd box	75.2
U/L	936/0	936/0	936/0	936/0	936/0	936/0	936/0	936/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.74670677019E+03		Apriori delay (usec)		-3.74599695421E+03		Resid mbdelay (usec)		-6.69098E-03	+/- 1.8E-04
Sband delay (usec)	-3.74670707071E+03		Apriori clock (usec)		-2.1226135E+01		Resid sbdelay (usec)		-7.10117E-01	+/- 1.4E-03
Phase delay (usec)	-3.74599695376E+03		Apriori clockrate (us/s)		6.0000003E-07		Resid phdelay (usec)		4.49836E-07	+/- 6.2E-07
Delay rate (us/s)	-2.50444357480E-01		Apriori rate (us/s)		-2.50449784552E-01		Resid rate (us/s)		5.42707E-06	+/- 2.2E-09
Total phase (deg)			Apriori accel (us/s/s)		2.43769872516E-05		Resid phase (deg)		13.9	+/- 19.3

	RMS	Theor.	Amplitude	0.110 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	65.7	46.2	Search (2048X32)	0.097	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	65.8	80.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	31.3	27.3	Inc. seg. avg.	0.107	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	24.2	47.6	Inc. frq. avg.	0.106	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00

n: az 289.9 el 47.8 pa 69.9 o: az 290.0 el 65.8 pa 89.4 u,v (fr/asec) 1957.639 2084.814 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/no..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/no.W.206.11M249

Mk4/DiFX fourfit 3.21 rev 2937

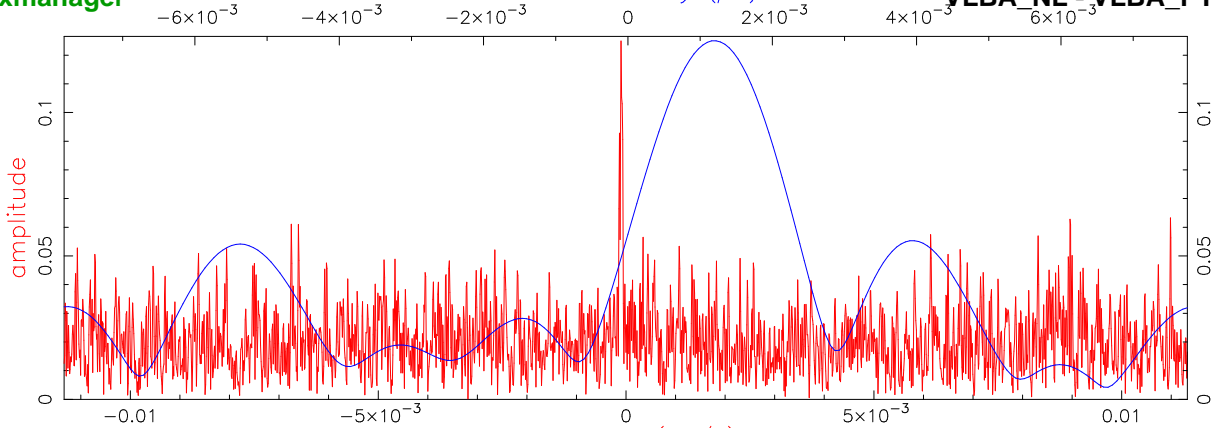
fxmanager

3C84.11M249, No0105, np

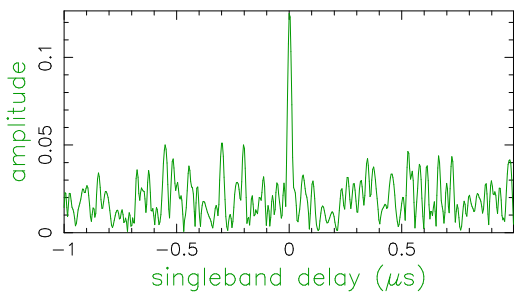
VLBA_NL - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

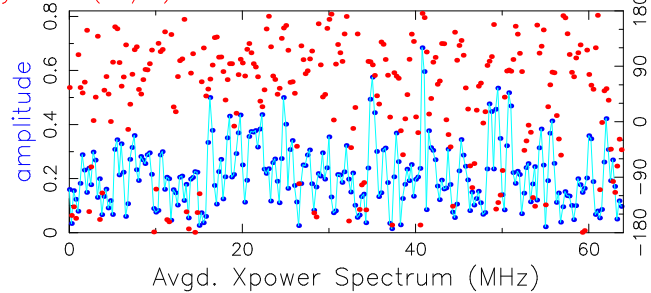
Fringe quality 9



SNR 7.6
 Int time 478.982
 Amp 0.127
 Phase 96.0
 PFD 1.2e-05
 Delays (us)
 SBD 0.001551
 MBD 0.001238
 Fringe rate (Hz)
 -0.009070
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

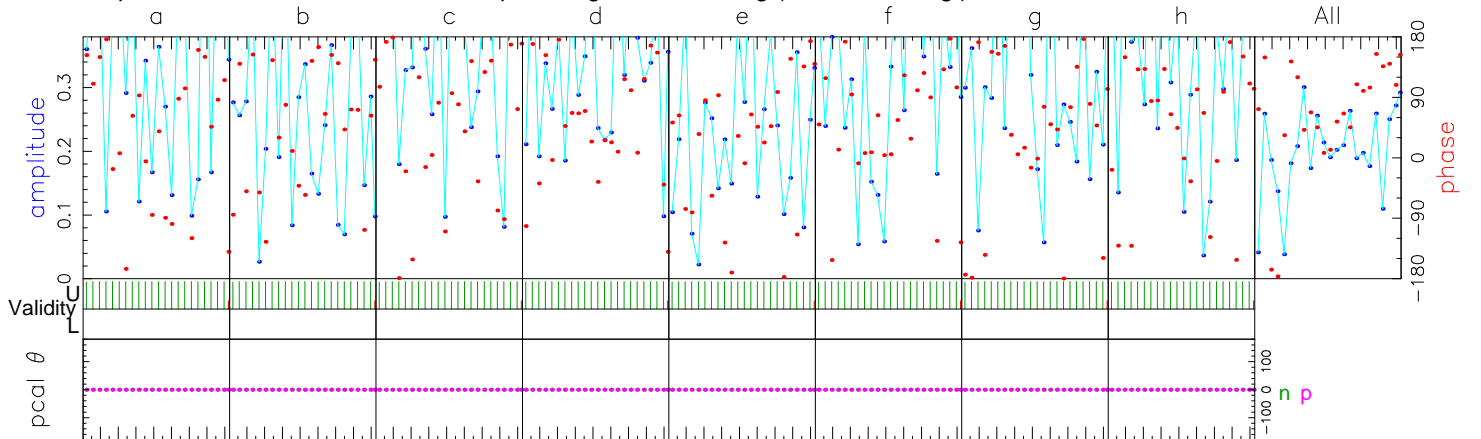


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.51
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132519
 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	937/0	937/0	937/0	937/0	937/0	937/0	937/0	937/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) -2.14150622657E+03 Apriori delay (usec) -2.14150746414E+03 Resid mbdelay (usec) 1.23757E-03 +/- 1.4E-04
 Sband delay (usec) -2.14150591364E+03 Apriori clock (usec) 8.9143753E-02 Resid sbdelay (usec) 1.55050E-03 +/- 1.1E-03
 Phase delay (usec) -2.14150746104E+03 Apriori clockrate (us/s) 1.0000003E-07 Resid phdelay (usec) 3.09726E-06 +/- 4.9E-07
 Delay rate (us/s) -9.64053572400E-02 Apriori rate (us/s) -9.64052519455E-02 Resid rate (us/s) -1.05294E-07 +/- 1.8E-09
 Total phase (deg) -249.9 Apriori accel (us/s/s) 1.90571076159E-05 Resid phase (deg) 96.0 +/- 15.1

RMS Theor. Amplitude 0.127 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 52.9 36.3 Search (2048X32) 0.115 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 77.1 63.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 22.8 21.4 Inc. seg. avg. 0.165 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 33.6 37.3 Inc. frq. avg. 0.122 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

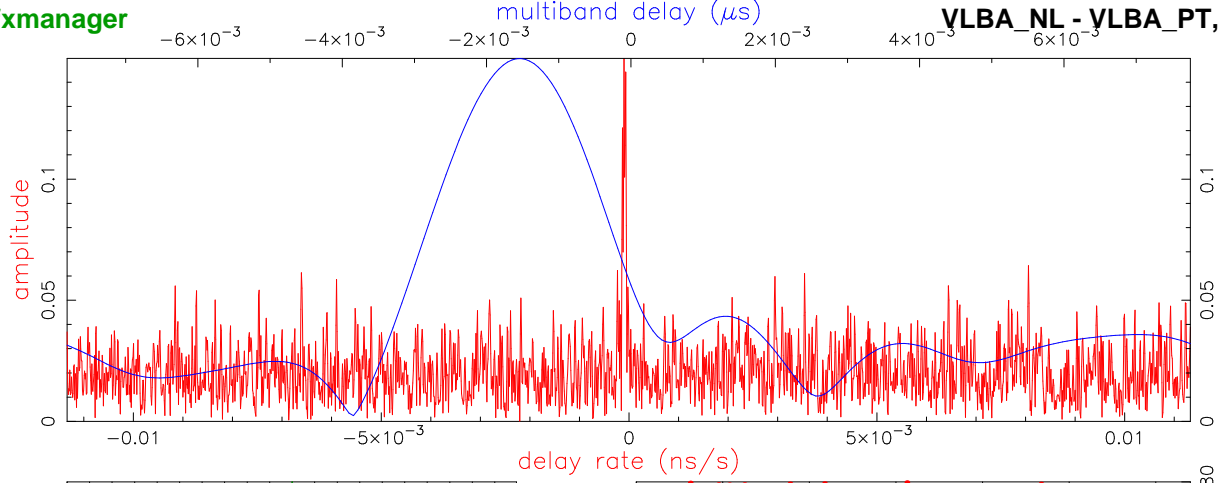
n: az 289.9 el 47.8 pa 69.9 p: az 295.1 el 57.1 pa 88.4 u,v (fr/asec) 768.818 1999.602 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/np..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/np.W.155.11M249

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M249, No0105, np

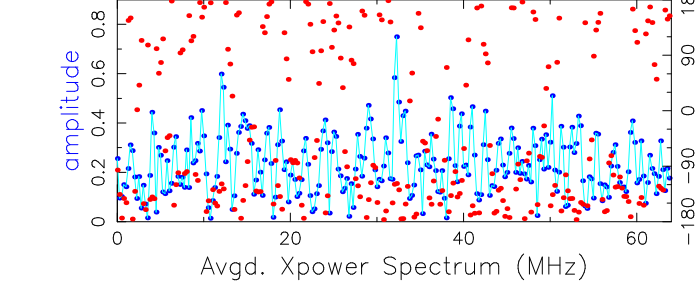
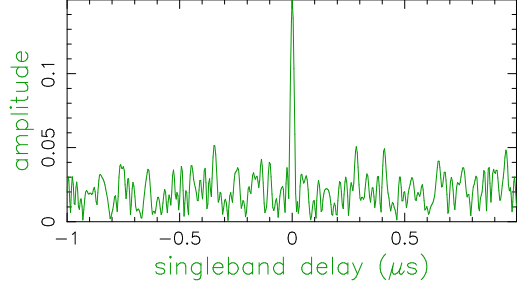
VLBA_NL - VLBA_PT, fgroup W, pol RR



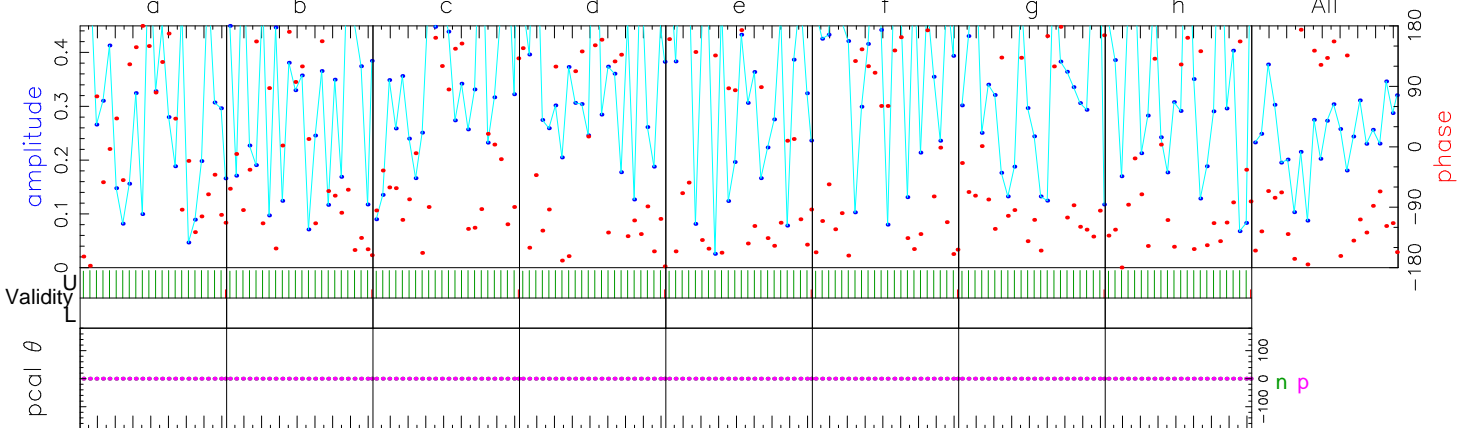
Fringe quality 9

SNR 9.0
Int time 478.982
Amp 0.150
Phase -136.8
PFD 1.2e-10
Delays (us)
SBD 0.000167
MBD -0.001535
Fringe rate (Hz)
-0.008707
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 120001.51
Stop 120801.26
FRT 120401.00
Corr/FF/build
2021:023:075223
2021:023:132523
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
Group delay (usec)(sbd)	-160.3	-119.6	-104.5	-161.7	-134.1	-160.4	-116.5	-134.8	Phase	-136.8	
Sband delay (usec)	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2	
Phase delay (usec)	339.2	359.9	255.1	258.2	257.1	257.3	256.7	257.0	Sbd box	257.0	
Delay rate (us/s)	U/L 937/0	937/0	937/0	937/0	937/0	937/0	937/0	937/0	APs used		
Total phase (deg)	n 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
	p 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
	n:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
	n:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
	n 1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
	p 1000	1000	1000	1000	1000	1000	1000	1000			
	n W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
	p W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec)(sbd)	-2.14150899938E+03		Apriori delay (usec)		-2.14150746414E+03		Resid mbdelay (usec)		-1.53524E-03 +/- 1.2E-04		
Sband delay (usec)	-2.14150729664E+03		Apriori clock (usec)		8.9143753E-02		Resid sbdelay (usec)		1.67500E-04 +/- 9.6E-04		
Phase delay (usec)	-2.14150746855E+03		Apriori clockrate (us/s)		1.0000003E-07		Resid phdelay (usec)		-4.41007E-06 +/- 4.1E-07		
Delay rate (us/s)	-9.64053530212E-02		Apriori rate (us/s)		-9.64052519455E-02		Resid rate (us/s)		-1.01076E-07 +/- 1.5E-09		
Total phase (deg)	-122.7		Apriori accel (us/s/s)		1.90571076159E-05		Resid phase (deg)		-136.8 +/- 12.8		
	RMS	Theor.	Amplitude	0.150 +/- 0.017		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	54.3	30.6	Search (2048X32)	0.148		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	77.7	53.5	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	24.1	18.1	Inc. seg. avg.	0.214		Sample rate(MISamp/s): 128		Data rate(Mb/s): 2048		dr window (ns/s)	-0.011 0.011
amp/frq (%)	31.1	31.5	Inc. frq. avg.	0.152		nlags: 256		t_cohere infinite		ion window (TEC)	0.00 0.00
n: az 289.9 el 47.8 pa 69.9	p: az 295.1 el 57.1 pa 88.4		u, v (fr/asec) 768.818 1999.602								simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/np..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/np.W.168.11M249											

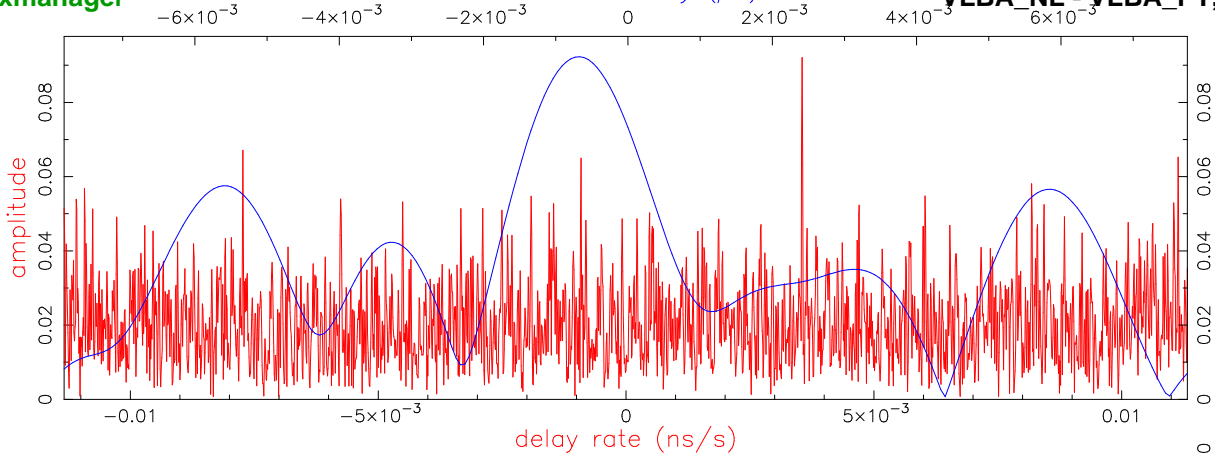
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M249, No0105, np

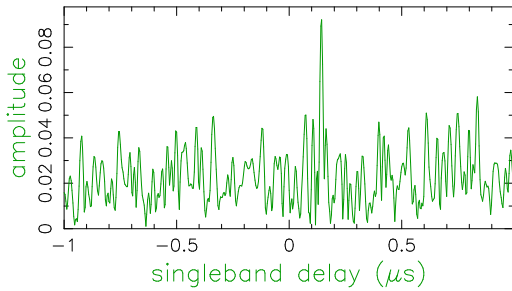
VLBA_NL - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

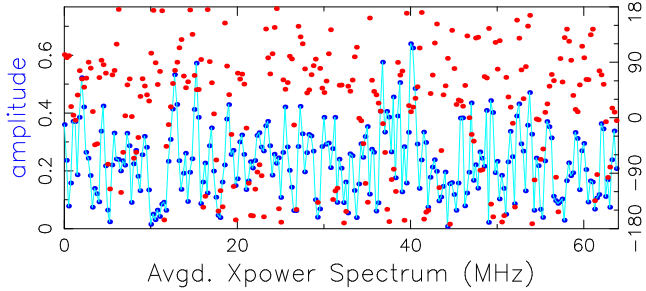


Fringe quality 0

SNR 5.6
 Int time 478.982
 Amp 0.098
 Phase -75.5
 PFD 9.9e-01
 Delays (us)
 SBD 0.143036
 MBD -0.000747
 Fringe rate (Hz)
 0.307003
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

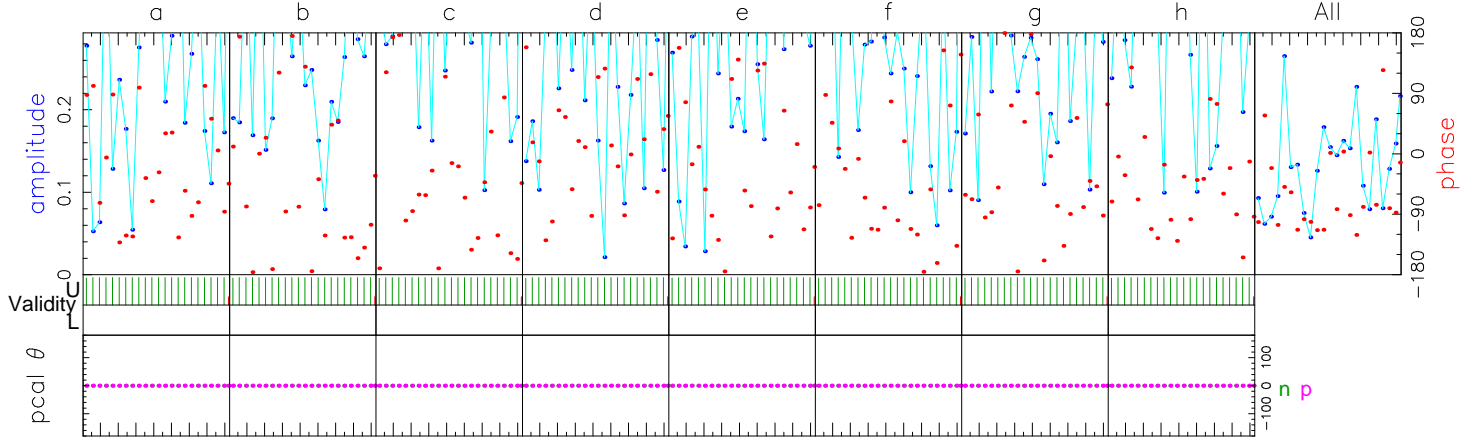


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.51
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132527
 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
	-39.3	-116.9	-119.1	14.5	-87.5	-86.2	-83.8	-61.5	Phase	-75.5
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	67.1	439.8	202.3	393.1	496.6	177.3	502.5	292.3	Sbd box	293.6
U/L	937/0	937/0	937/0	937/0	937/0	937/0	937/0	937/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-2.14136758582E+03		Apriori delay (usec)		-2.14150746414E+03		Resid mbdelay (usec)		-7.46686E-04	+/- 1.9E-04
Sband delay (usec)	-2.14136442864E+03		Apriori clock (usec)		8.9143753E-02		Resid sbdelay (usec)		1.43036E-01	+/- 1.5E-03
Phase delay (usec)	-2.14150746657E+03		Apriori clockrate (us/s)		1.0000003E-07		Resid phdelay (usec)		-2.43516E-06	+/- 6.6E-07
Delay rate (us/s)	-9.64016879460E-02		Apriori rate (us/s)		-9.64052519455E-02		Resid rate (us/s)		3.56400E-06	+/- 2.4E-09
Total phase (deg)			Apriori accel (us/s/s)		1.90571076159E-05		Resid phase (deg)		-75.5	+/- 20.4

	RMS	Theor.	Amplitude	0.098 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	58.4	48.9	Search (2048X32)	0.091	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	70.2	85.4	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	47.5	28.9	Inc. seg. avg.	0.100	Sample rate(MSamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	48.9	50.4	Inc. frq. avg.	0.105	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

n: az 289.9 el 47.8 pa 69.9 p: az 295.1 el 57.1 pa 88.4 u,v (fr/asec) 768.818 1999.602 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/np..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/np.W.189.11M249

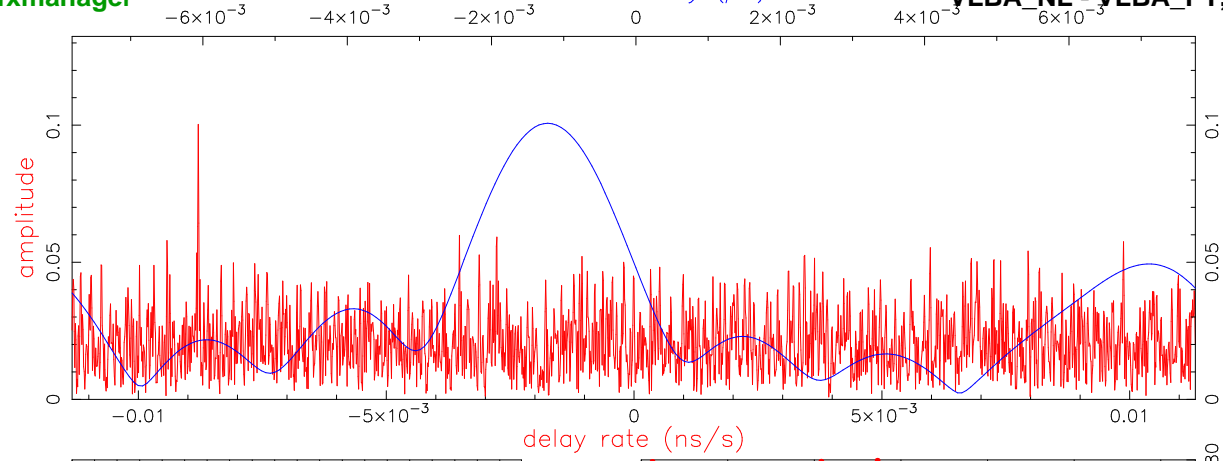
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M249, No0105, np

VLBA_NL - VLBA_PT, fgroup W, pol RL

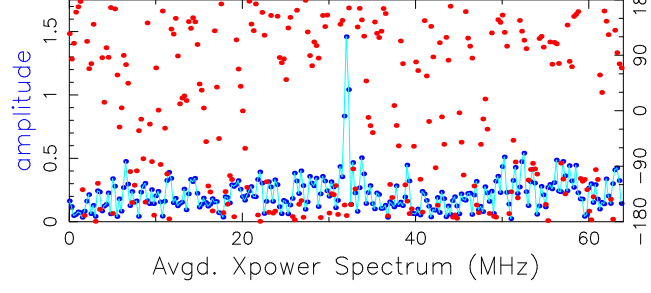
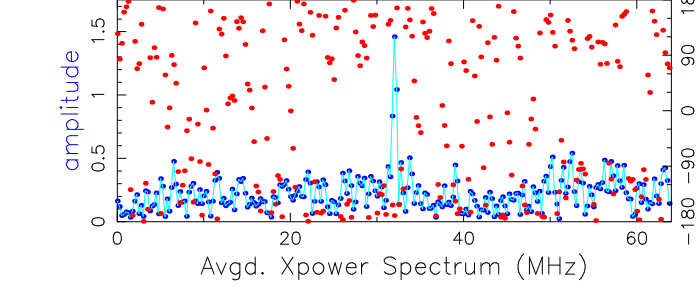
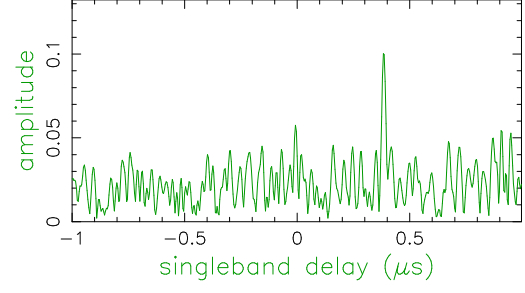
multiband delay (μ s)



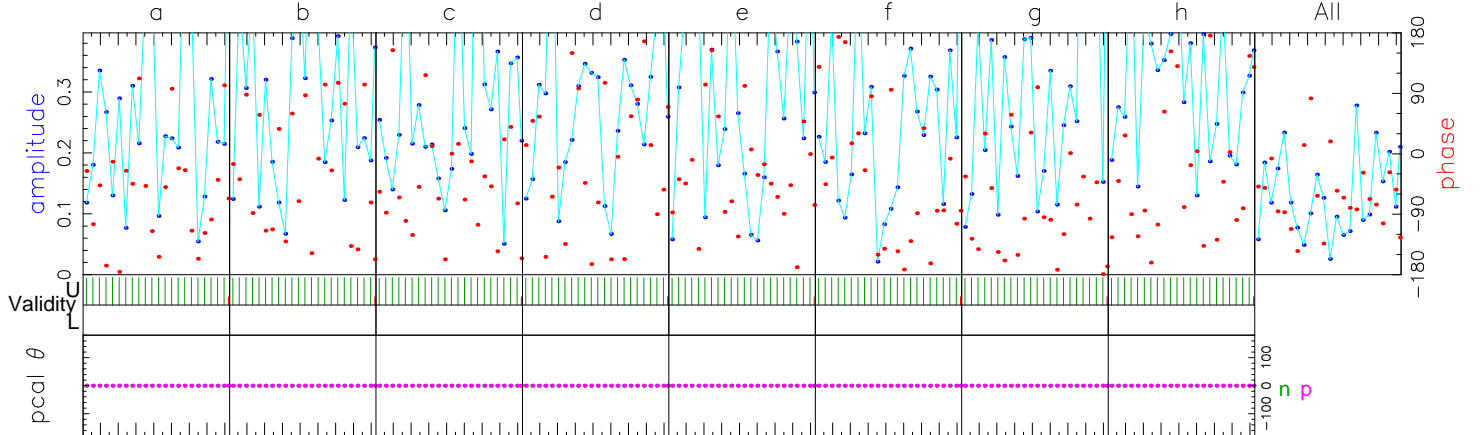
Fringe quality 0

SNR 6.1
 Int time 478.982
 Amp 0.132
 Phase -70.5
 PFD 2.4e-01
 Delays (us)
 SBD 0.384593
 MBD -0.001126
 Fringe rate (Hz) -0.758229
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.51
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132531
 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
	-73.2	-82.1	-65.2	-54.3	-54.0	-59.5	-74.0	-104.7	Phase	-70.5
	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	Ampl.	0.1
	1.8	203.8	355.8	268.0	405.1	359.2	354.1	271.9	Sbd box	355.5
U/L	937/0	937/0	937/0	937/0	937/0	937/0	937/0	937/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-2.14111796474E+03		Apriori delay (usec)		-2.14150746414E+03		Resid mbdelay (usec)		-1.12560E-03	+/- 1.8E-04
Sband delay (usec)	-2.14112287089E+03		Apriori clock (usec)		8.9143753E-02		Resid sbdelay (usec)		3.84593E-01	+/- 1.4E-03
Phase delay (usec)	-2.14150746641E+03		Apriori clockrate (us/s)		1.0000003E-07		Resid phdelay (usec)		-2.27446E-06	+/- 6.1E-07
Delay rate (us/s)	-9.64140542363E-02		Apriori rate (us/s)		-9.64052519455E-02		Resid rate (us/s)		-8.80229E-06	+/- 2.2E-09
Total phase (deg)			Apriori accel (us/s/s)		1.90571076159E-05		Resid phase (deg)		-70.5	+/- 18.8

ph/seg (deg) 52.5 45.1 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 69.6 78.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 18.3 26.6 Inc. seg. avg. 0.129 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 46.1 46.4 Inc. frq. avg. 0.122 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 289.9 el 47.8 pa 69.9 p: az 295.1 el 57.1 pa 88.4 u,v (fr/asec) 768.818 1999.602 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/np..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/np.W.210.11M249

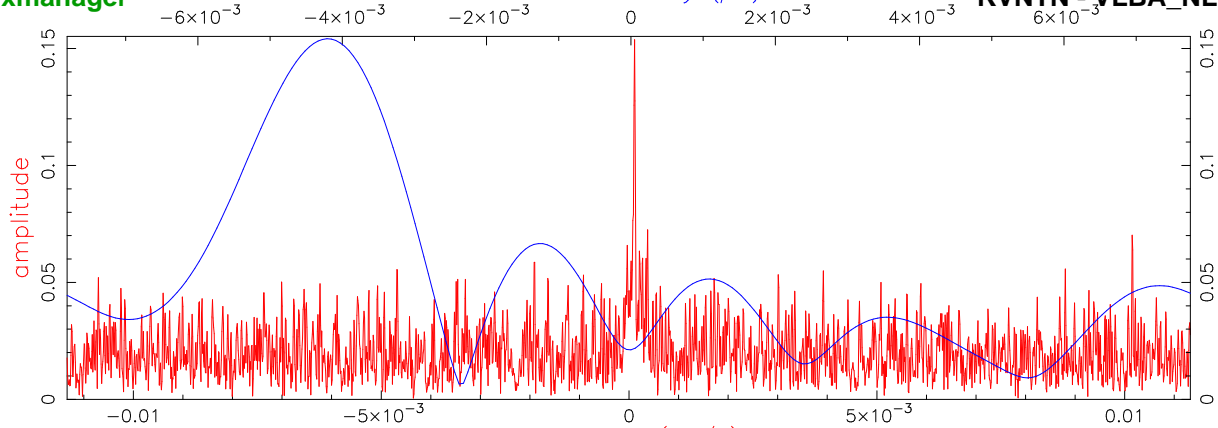
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M249, No0105, tn

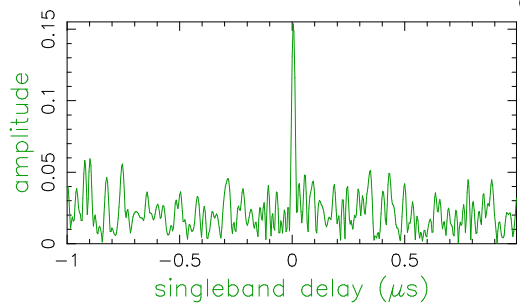
KVNTN - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

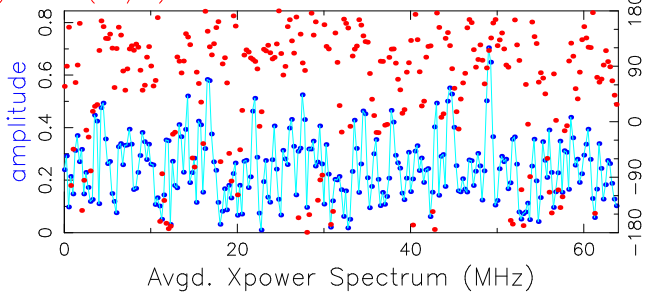


Fringe quality 9

SNR 9.3
 Int time 479.984
 Amp 0.155
 Phase -140.0
 PFD 5.7e-12
 Delays (us)
 SBD 0.005112
 MBD -0.004120
 Fringe rate (Hz)
 0.009917
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

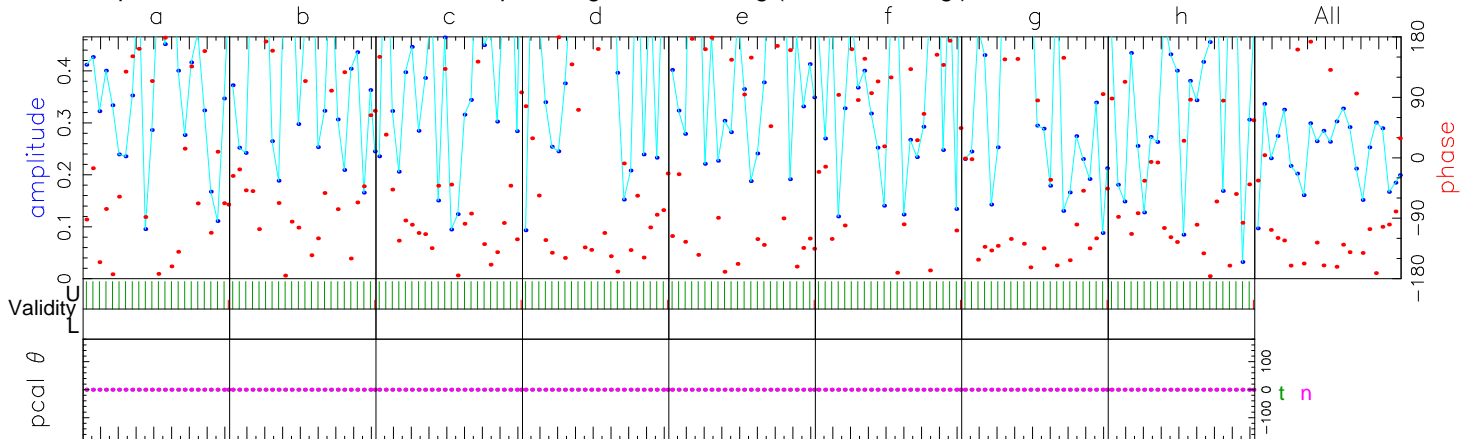


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132520
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) -6.26997092414E+03 Apriori delay (usec) -6.26998242900E+03 Resid mbdelay (usec) -4.12014E-03 +/- 1.2E-04
 Sband delay (usec) -6.26997731650E+03 Apriori clock (usec) 1.2044249E+00 Resid sbdelay (usec) 5.11250E-03 +/- 9.3E-04
 Phase delay (usec) -6.26998243351E+03 Apriori clockrate (us/s) -4.0000002E-07 Resid phdelay (usec) -4.51435E-06 +/- 4.0E-07
 Delay rate (us/s) 1.70488196397E+00 Apriori rate (us/s) 1.70488184884E+00 Resid rate (us/s) 1.15129E-07 +/- 1.4E-09
 Total phase (deg) -296.2 Apriori accel (us/s/s) 2.45662918843E-05 Resid phase (deg) -140.0 +/- 12.3

RMS Theor. Amplitude 0.155 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 60.9 29.6 Search (2048X32) 0.147 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 71.7 51.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 37.5 17.4 Inc. seg. avg. 0.218 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 27.2 30.4 Inc. frq. avg. 0.169 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

t: az 55.4 el 25.2 pa -66.4 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -13008.007 1059.711 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/tn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/tn.W.162.11M249

Mk4/DiFX fourfit 3.21 rev 2937

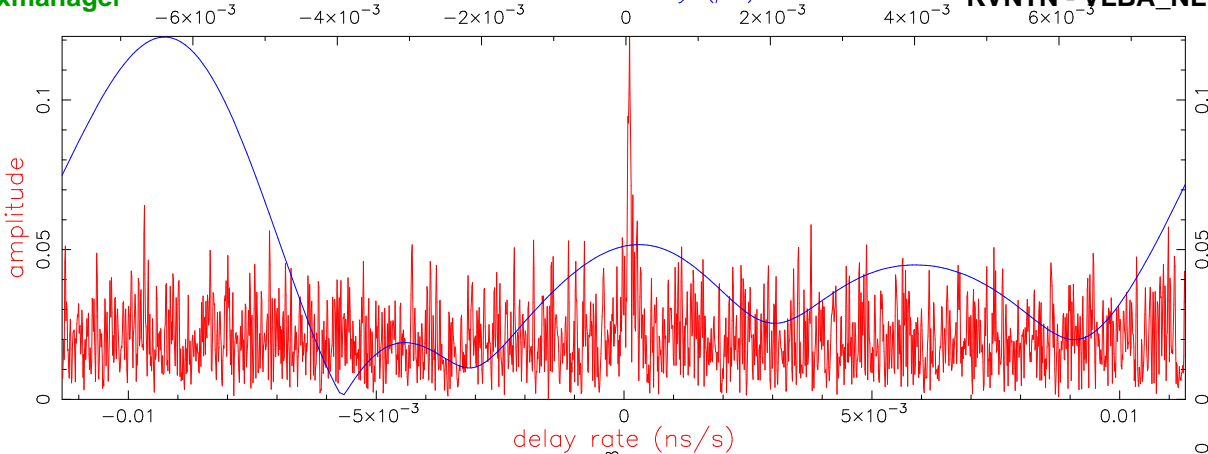
fxmanager

3C84.11M249, No0105, tn

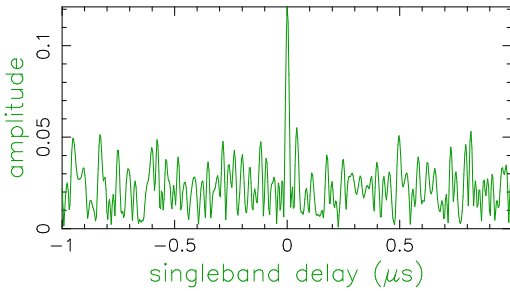
KVNTN - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

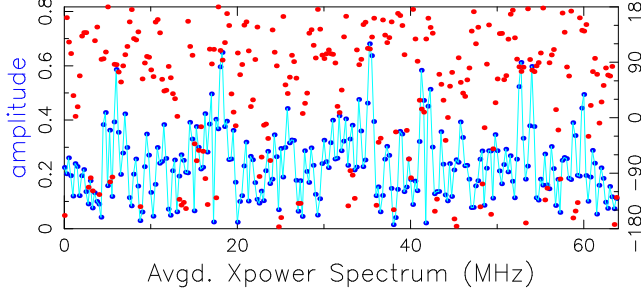
Fringe quality 0



SNR 7.3
 Int time 479.984
 Amp 0.121
 Phase -171.9
 PFD 1.2e-04
 Delays (us)
 SBD 0.000565
 MBD -0.006380
 Fringe rate (Hz)
 0.009283
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

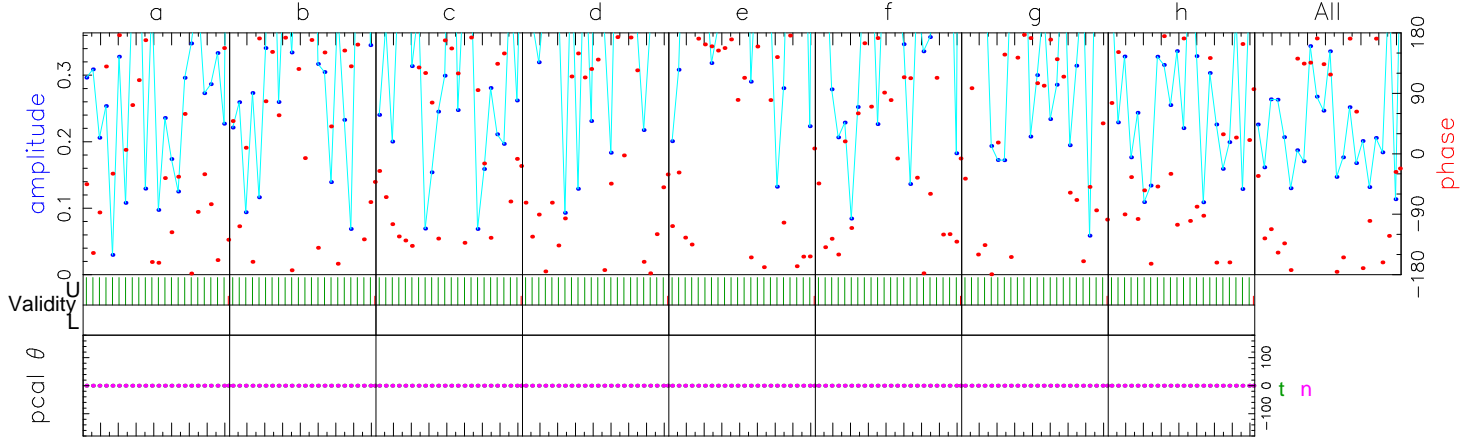


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132524
 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		
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)	-6.26998880905E+03	Apriori delay (usec)	-6.26998242900E+03	Resid mbdelay (usec)	-6.38005E-03	+/-	1.5E-04
Sband delay (usec)	-6.26998186350E+03	Apriori clock (usec)	1.2044249E+00	Resid sbdelay (usec)	5.65500E-04	+/-	1.2E-03
Phase delay (usec)	-6.26998243454E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-5.54255E-06	+/-	5.1E-07
Delay rate (us/s)	1.70488195661E+00	Apriori rate (us/s)	1.70488184884E+00	Resid rate (us/s)	1.07769E-07	+/-	1.8E-09
Total phase (deg)	-328.1	Apriori accel (us/s/s)	2.45662918843E-05	Resid phase (deg)	-171.9	+/-	15.8

ph/seg (deg)	65.5	Theor.	37.8	Amplitude	0.121 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	107.1		66.0	Search (2048X32)	0.119	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	34.8		22.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	69.8		38.9	Inc. seg. avg.	0.183	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.122	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 55.4 el 25.2 pa -66.4 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -13008.007 1059.711 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/tn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/tn.W.179.11M249

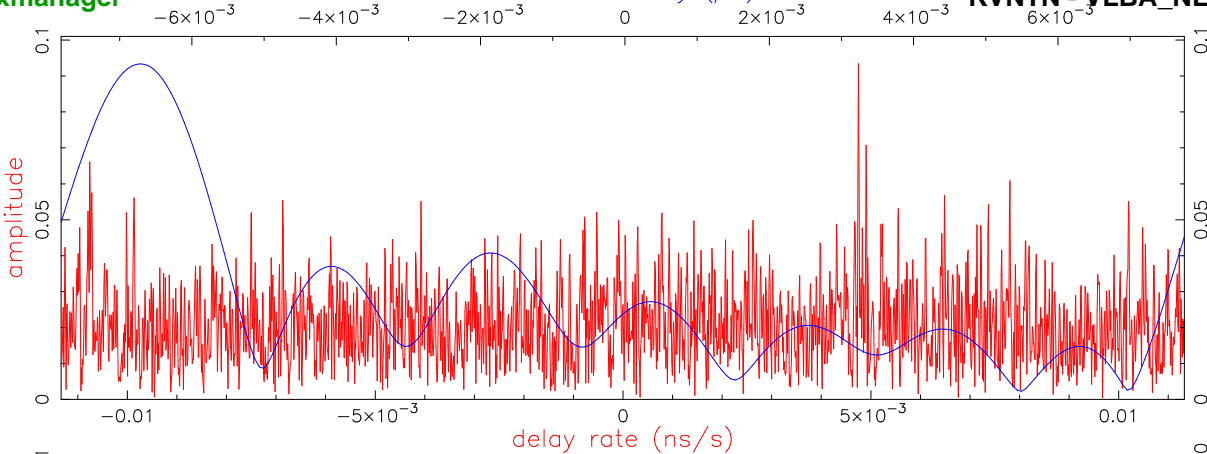
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M249, No0105, tn

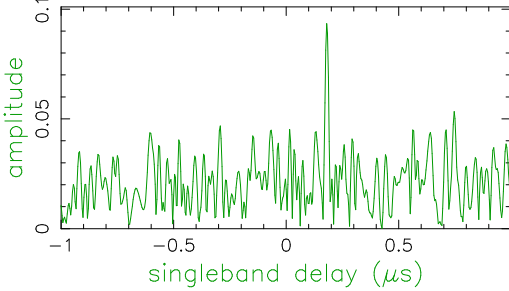
KVNTN - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

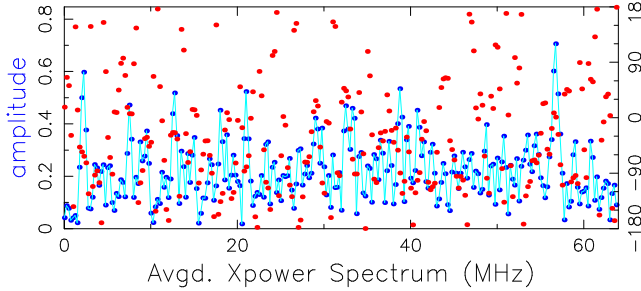


Fringe quality 0

SNR 5.6
Int time 479.984
Amp 0.101
Phase -57.8
PFD 9.9e-01
Delays (us)
SBD 0.180638
MBD -0.006682
Fringe rate (Hz)
0.409996
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

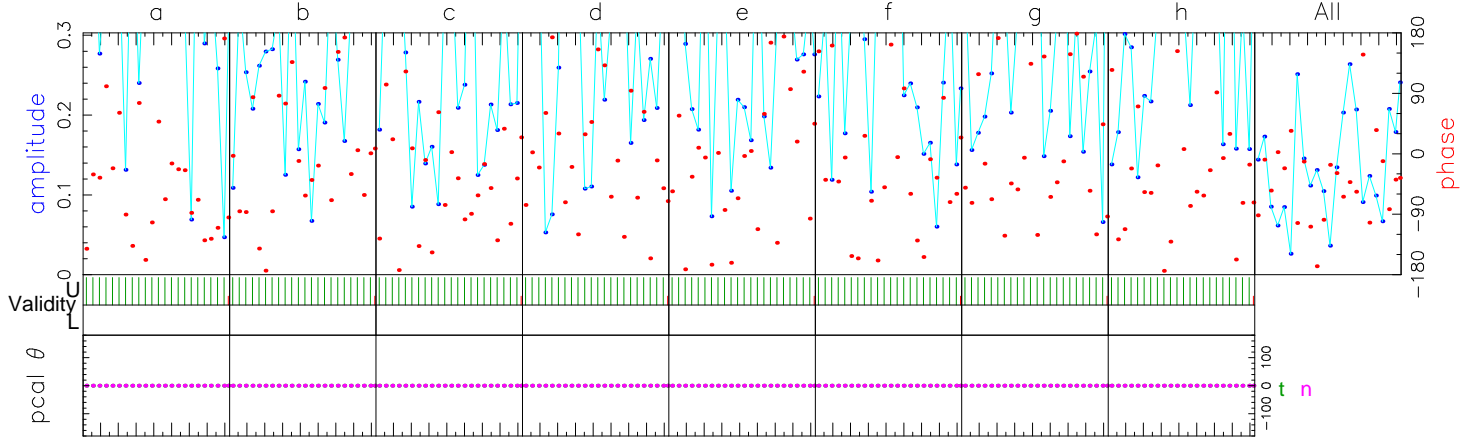


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 120001.00
Stop 120801.26
FRT 120401.00
Corr/FF/build
2021:023:075223
2021:023:132528
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		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-6.26980161132E+03	Apriori delay (usec)	-6.26998242900E+03	Resid mbdelay (usec)	-6.68233E-03	+/-	1.9E-04
Sband delay (usec)	-6.26980179100E+03	Apriori clock (usec)	1.2044249E+00	Resid sbdelay (usec)	1.80638E-01	+/-	1.5E-03
Phase delay (usec)	-6.26998243086E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-1.86304E-06	+/-	6.6E-07
Delay rate (us/s)	1.70488660849E+00	Apriori rate (us/s)	1.70488184884E+00	Resid rate (us/s)	4.75965E-06	+/-	2.4E-09
Total phase (deg)	-214.0	Apriori accel (us/s/s)	2.45662918843E-05	Resid phase (deg)	-57.8	+/-	20.4

ph/seg (deg)	59.1	Theor.	48.9	Amplitude	0.101 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	81.7		85.3	Search (2048X32)	0.092	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	19.1		28.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	33.8		50.3	Inc. seg. avg.	0.106	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.093	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 55.4 el 25.2 pa -66.4 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -13008.007 1059.711 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/tn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/tn.W.198.11M249

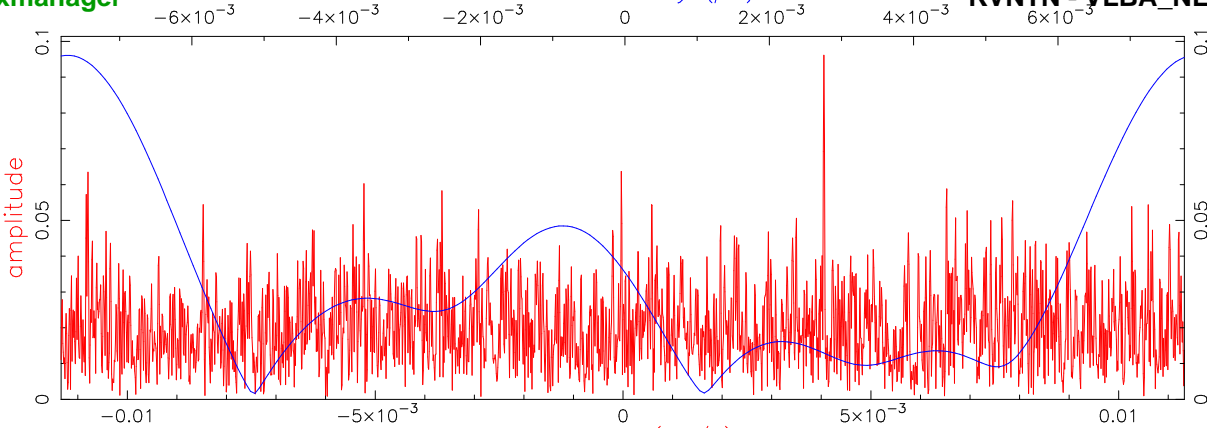
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M249, No0105, tn

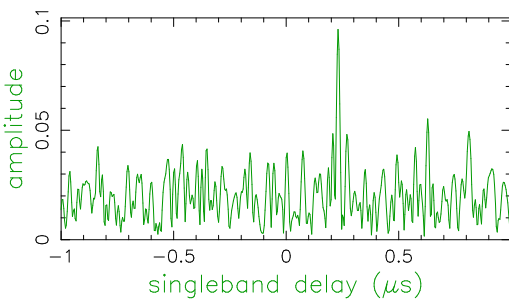
KVNTN - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

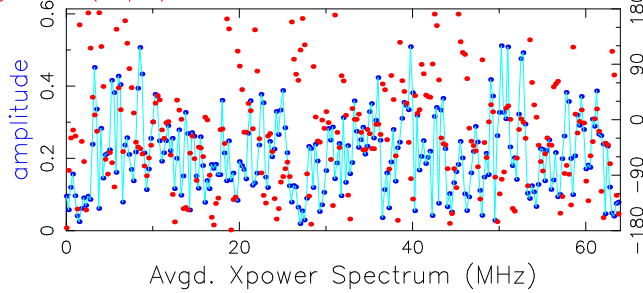


Fringe quality 0

SNR 5.8
 Int time 479.984
 Amp 0.101
 Phase 12.8
 PFD 8.8e-01
 Delays (us)
 SBD 0.230653
 MBD 0.007917
 Fringe rate (Hz)
 0.349185
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

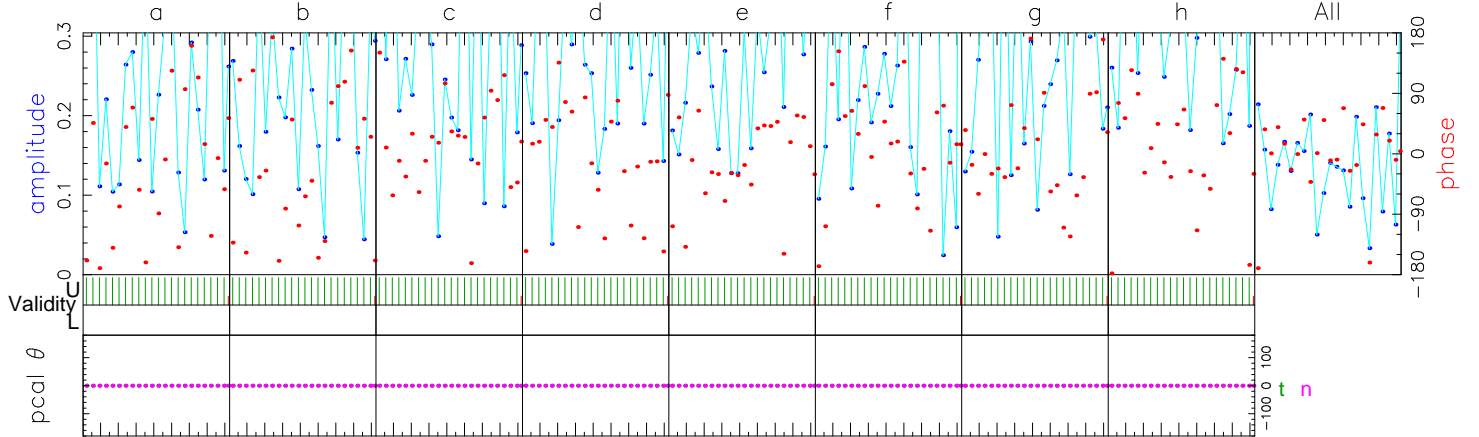


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132532
 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	
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	
t:n	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) -6.26975576151E+03 Apriori delay (usec) -6.26998242900E+03 Resid mbdelay (usec) 7.91749E-03 +/- 1.9E-04
 Sband delay (usec) -6.26975177600E+03 Apriori clock (usec) 1.2044249E+00 Resid sbdelay (usec) 2.30653E-01 +/- 1.5E-03
 Phase delay (usec) -6.26998242859E+03 Apriori clockrate (us/s) -4.0000002E-07 Resid phdelay (usec) 4.12810E-07 +/- 6.4E-07
 Delay rate (us/s) 1.70488590253E+00 Apriori rate (us/s) 1.70488184884E+00 Resid rate (us/s) 4.05369E-06 +/- 2.3E-09
 Total phase (deg) -143.4 Apriori accel (us/s/s) 2.45662918843E-05 Resid phase (deg) 12.8 +/- 19.9

RMS Theor. Amplitude 0.101 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 60.5 47.7 Search (2048X32) 0.094 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 71.2 83.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 46.3 28.1 Inc. seg. avg. 0.106 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 59.3 49.1 Inc. frq. avg. 0.099 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

t: az 55.4 el 25.2 pa -66.4 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -13008.007 1059.711 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/tn..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/tn.W.215.11M249

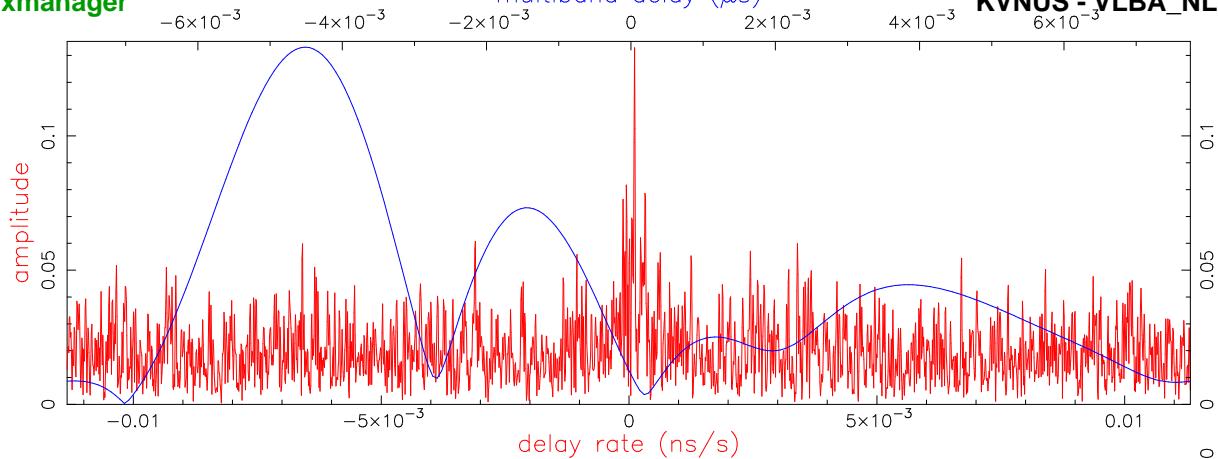
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11M249, No0105, un

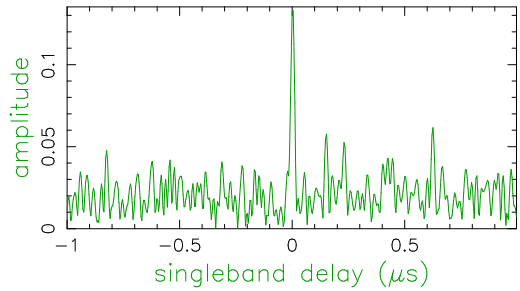
KVNUS - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

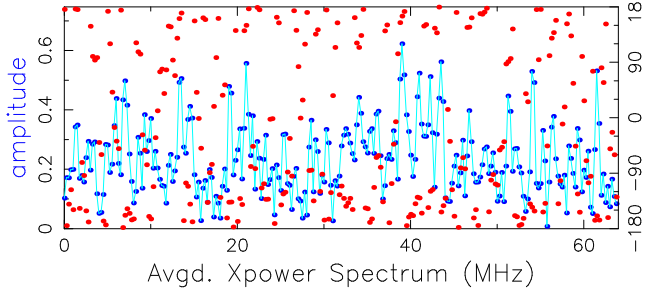


Fringe quality 9

SNR 8.1
 Int time 479.947
 Amp 0.135
 Phase -86.6
 PFD 1.9e-07
 Delays (us)
 SBD 0.002105
 MBD -0.004587
 Fringe rate (Hz)
 0.009173
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

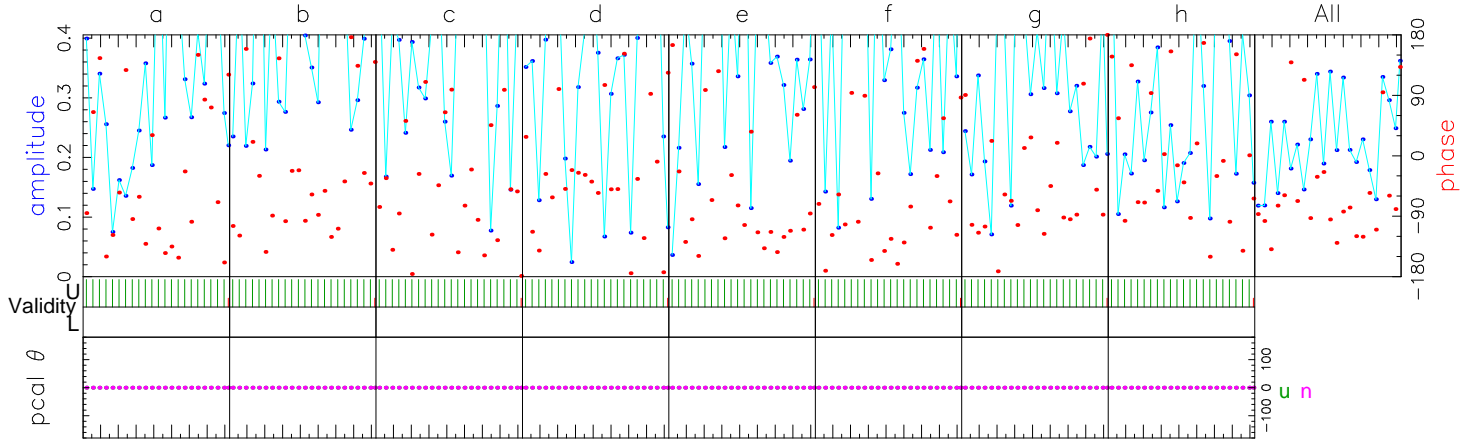


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132523
 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
	-128.6	-68.9	-93.3	-38.8	-112.1	-109.9	-81.2	-53.0	Phase	-86.6
	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	Ampl.	0.1
	260.5	258.6	406.6	206.8	257.1	365.5	257.5	497.3	Sbd box	257.5
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-5.22845526993E+03	Apriori delay (usec)	-5.22845068319E+03	Resid mbdelay (usec)	-4.58674E-03	+/-	1.3E-04
Sband delay (usec)	-5.22844857844E+03	Apriori clock (usec)	2.3878565E+00	Resid sbdelay (usec)	2.10475E-03	+/-	1.1E-03
Phase delay (usec)	-5.22845068599E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	-2.79185E-06	+/-	4.6E-07
Delay rate (us/s)	1.67277954020E+00	Apriori rate (us/s)	1.67277943371E+00	Resid rate (us/s)	1.06493E-07	+/-	1.6E-09
Total phase (deg)	-32.7	Apriori accel (us/s/s)	2.14635597964E-05	Resid phase (deg)	-86.6	+/-	14.1

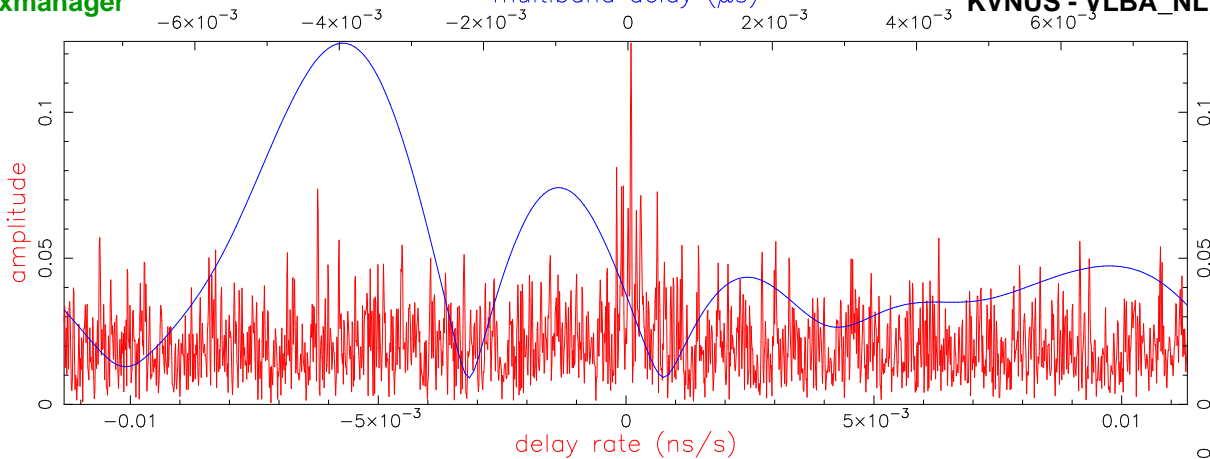
ph/seg (deg)	66.9	Theor.	33.9	Amplitude	0.135 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	85.7		59.2	Search (2048X32)	0.126	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	33.6		20.0	Inc. seg. avg.	0.192	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	34.2		34.9	Inc. frq. avg.	0.141	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

u: az 57.3 el 28.4 pa -66.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -12767.957 1056.117 simultaneous interpolator

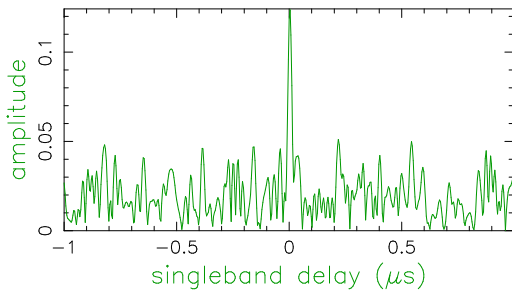
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/un..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/un.W.171.11M249

multiband delay (μ s)

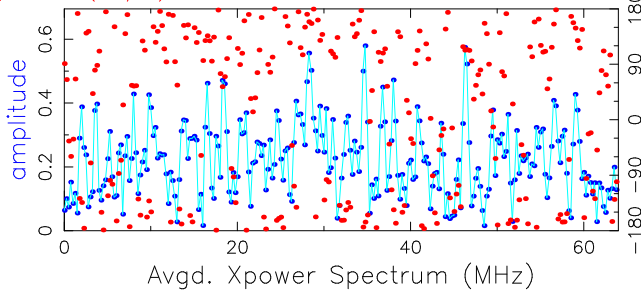
Fringe quality 9



SNR 7.4
Int time 479.947
Amp 0.124
Phase -123.2
PFD 3.1e-05
Delays (us)
SBD 0.002943
MBD -0.003973
Fringe rate (Hz)
0.008885
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

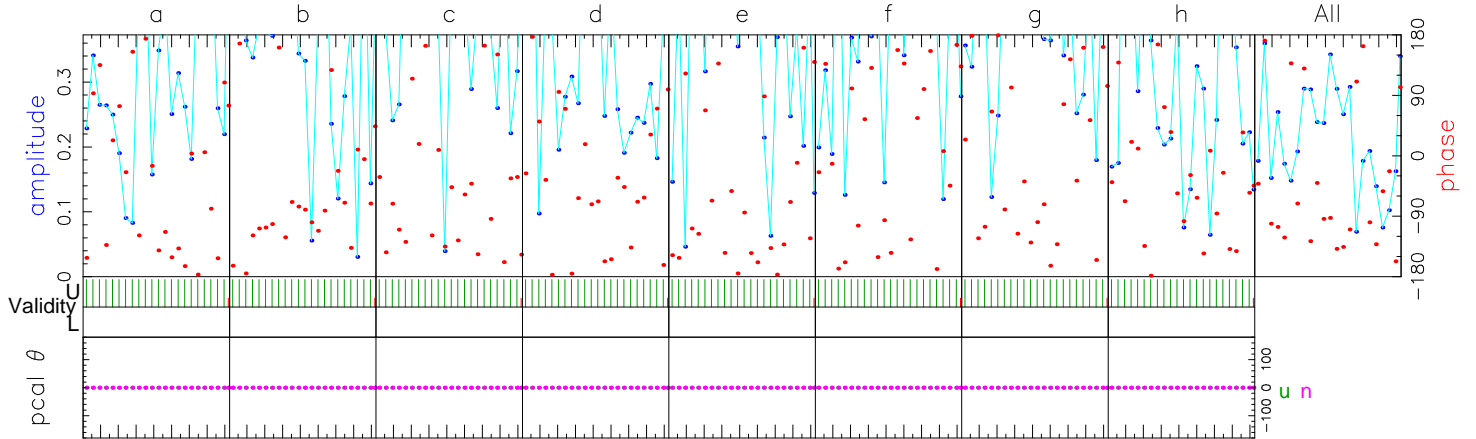


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 120001.00
Stop 120801.26
FRT 120401.00
Corr/FF/build
2021:023:075223
2021:023:132527
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

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



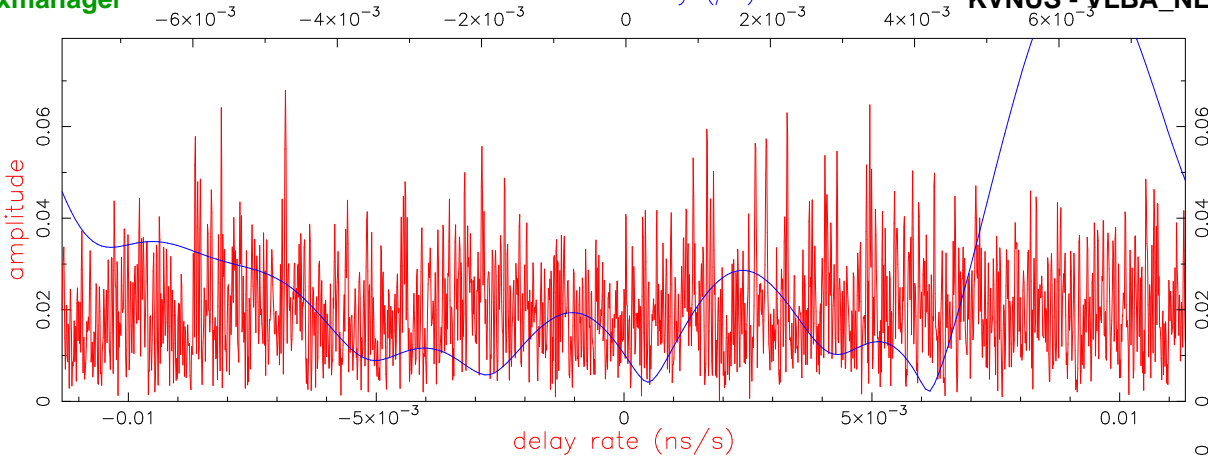
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-149.1	-111.5	-115.5	-74.8	-126.1	160.2	-133.3	-69.3	Phase	-123.2
	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
	260.3	258.2	257.9	53.3	258.1	6.1	316.7	282.1	Sbd box	257.8
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.22845465649E+03		Apriori delay (usec)		-5.22845068319E+03		Resid mbdelay (usec)		-3.97330E-03	+/- 1.5E-04
Sband delay (usec)	-5.22844774019E+03		Apriori clock (usec)		2.3878565E+00		Resid sbdelay (usec)		2.94300E-03	+/- 1.2E-03
Phase delay (usec)	-5.22845068717E+03		Apriori clockrate (us/s)		-1.0000003E-07		Resid phdelay (usec)		-3.97146E-06	+/- 5.0E-07
Delay rate (us/s)	1.67277953685E+00		Apriori rate (us/s)		1.67277943371E+00		Resid rate (us/s)		1.03140E-07	+/- 1.8E-09
Total phase (deg)			Apriori accel (us/s/s)		2.14635597964E-05		Resid phase (deg)		-123.2	+/- 15.4

	RMS	Theor.	Amplitude	0.124 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	63.1	36.9	Search (2048X32)	0.120	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	95.3	64.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	44.9	21.8	Inc. seg. avg.	0.175	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	41.6	38.0	Inc. frq. avg.	0.141	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

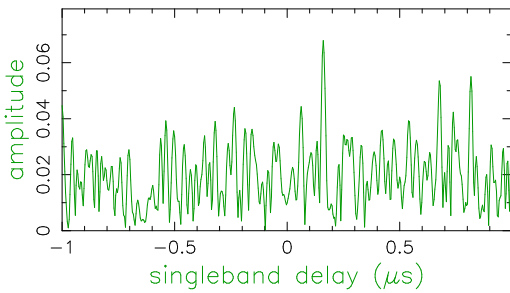
u: az 57.3 el 28.4 pa -66.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -12767.957 1056.117 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/un..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/un.W.190.11M249

multiband delay (μ s)

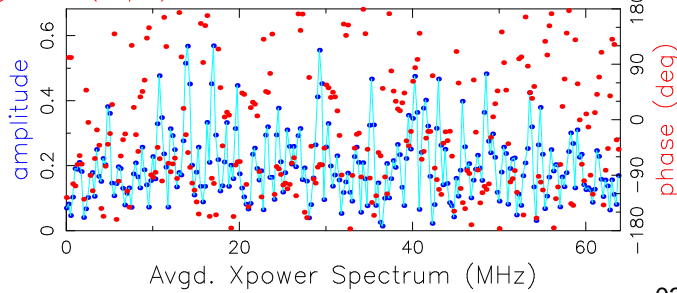
Fringe quality 0



SNR 4.1
Int time 479.947
Amp 0.079
Phase 70.9
PFD 1.0e+00
Delays (us)
SBD 0.160354
MBD -0.008301
Fringe rate (Hz)
-0.589767
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

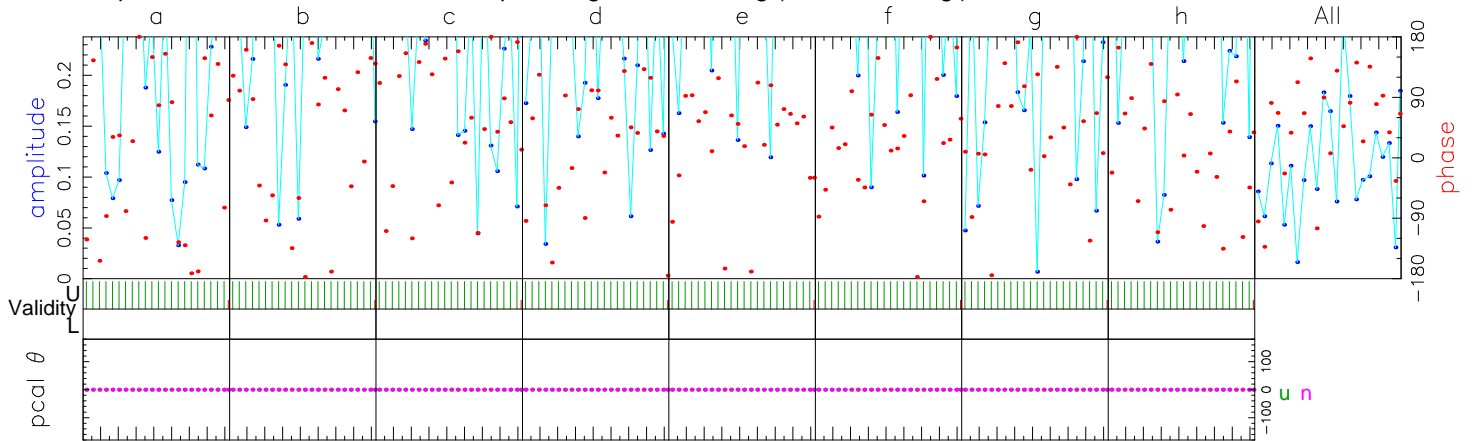


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 120001.00
Stop 120801.26
FRT 120401.00
Corr/FF/build
2021:023:075223
2021:023:132531
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



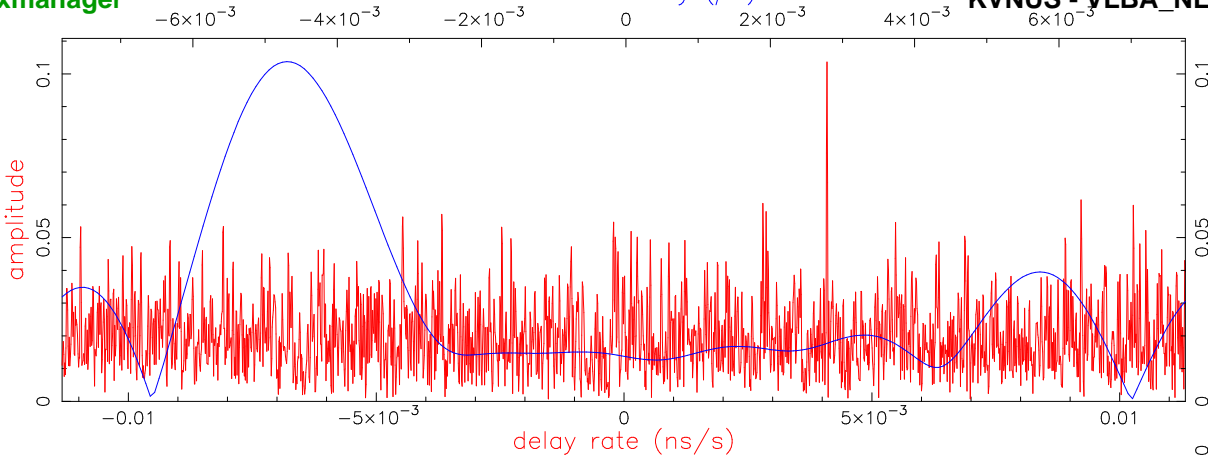
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-178.7	137.0	113.8	64.3	63.7	50.2	52.2	4.3	Phase	70.9
	0.1	0.1	0.0	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
	323.1	394.5	267.3	45.0	297.6	176.1	473.0	23.4	Sbd box	298.1
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.22828710898E+03		Apriori delay (usec)		-5.22845068319E+03		Resid mbdelay (usec)		-8.30078E-03	+/- 2.7E-04
Sband delay (usec)	-5.22829032944E+03		Apriori clock (usec)		2.3878565E+00		Resid sbdelay (usec)		1.60354E-01	+/- 2.1E-03
Phase delay (usec)	-5.22845068091E+03		Apriori clockrate (us/s)		-1.0000003E-07		Resid phdelay (usec)		2.28517E-06	+/- 9.1E-07
Delay rate (us/s)	1.67277258710E+00		Apriori rate (us/s)		1.67277943371E+00		Resid rate (us/s)		-6.84661E-06	+/- 3.3E-09
Total phase (deg)			Apriori accel (us/s/s)		2.14635597964E-05		Resid phase (deg)		70.9	+/- 28.2

	RMS	Theor.	Amplitude	0.079 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	77.3	67.5	Search (2048X32)	0.095	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	105.4	117.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	62.9	39.8	Inc. seg. avg.	0.079	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	80.9	69.5	Inc. frq. avg.	0.094	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

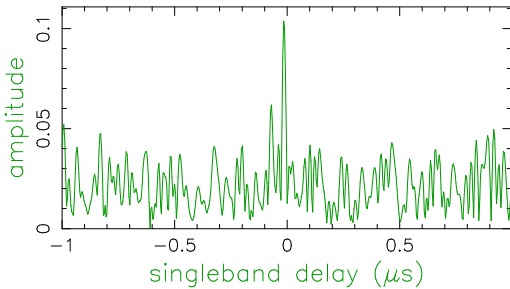
u: az 57.3 el 28.4 pa -66.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -12767.957 1056.117 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/un..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/un.W.208.11M249

multiband delay (μ s)

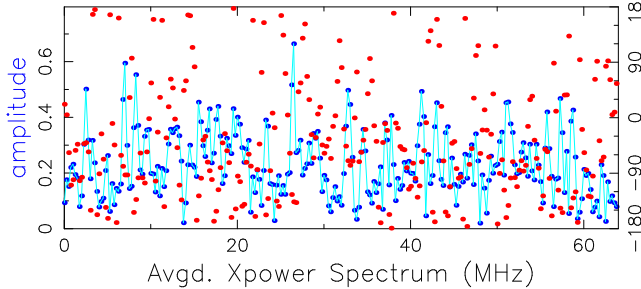
Fringe quality 0



SNR 6.3
Int time 479.947
Amp 0.111
Phase 159.0
PFD 8.4e-02
Delays (us)
SBD -0.014256
MBD -0.004646
Fringe rate (Hz)
0.353513
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

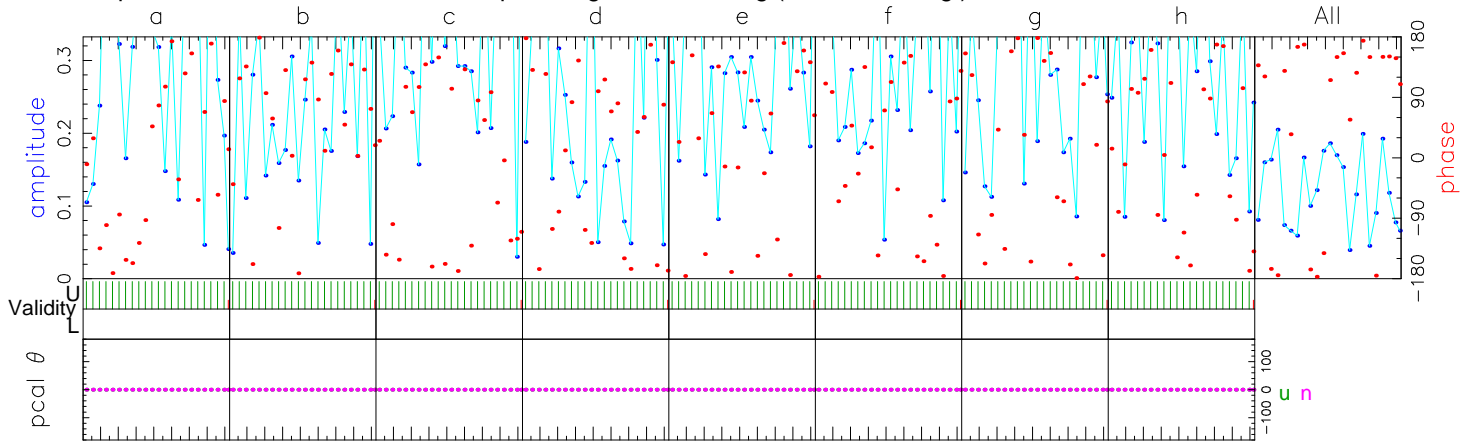


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 120001.00
Stop 120801.26
FRT 120401.00
Corr/FF/build
2021:023:075223
2021:023:132534
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
	-152.5	123.4	159.8	161.1	141.4	162.2	172.1	147.7	Phase	159.0
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1
	370.9	492.6	23.9	59.3	401.2	32.0	356.7	17.9	Sbd box	253.4
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-5.22847095412E+03	Apriori delay (usec)	-5.22845068319E+03	Resid mbdelay (usec)	-4.64593E-03	+/-	1.7E-04
Sband delay (usec)	-5.22846493944E+03	Apriori clock (usec)	2.3878565E+00	Resid sbdelay (usec)	-1.42563E-02	+/-	1.4E-03
Phase delay (usec)	-5.22845067807E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	5.12588E-06	+/-	5.9E-07
Delay rate (us/s)	1.67278353764E+00	Apriori rate (us/s)	1.67277943371E+00	Resid rate (us/s)	4.10393E-06	+/-	2.1E-09
Total phase (deg)	-147.2	Apriori accel (us/s/s)	2.14635597964E-05	Resid phase (deg)	159.0	+/-	18.2

ph/seg (deg)	42.9	Theor.	43.7	Amplitude	0.111 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	53.4	Search (2048X32)	0.097	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	26.6	Inc. seg. avg.	0.102	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	19.4	Inc. frq. avg.	0.108	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
				Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

u: az 57.3 el 28.4 pa -66.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -12767.957 1056.117 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/un..11M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/un.W.224.11M249

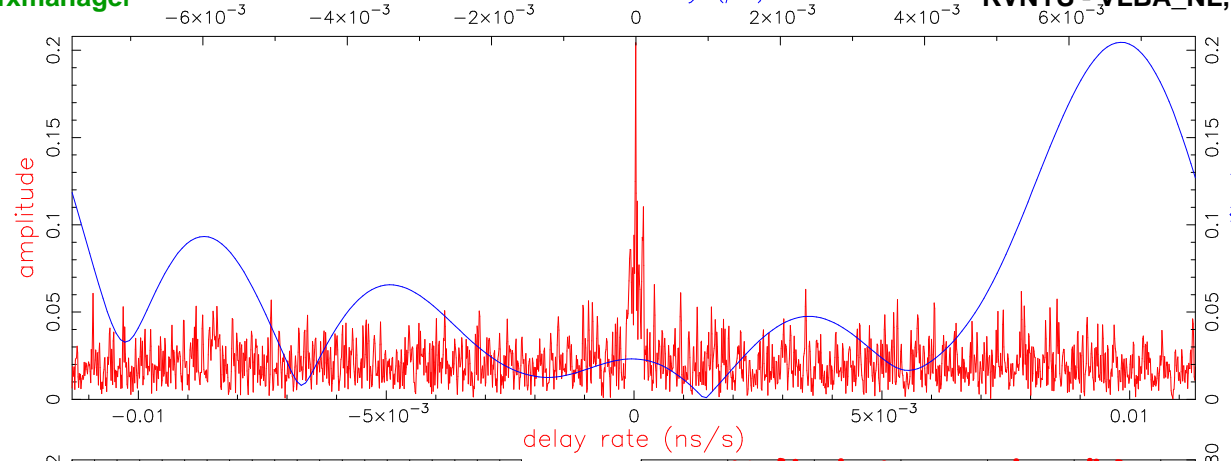
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M249, No0105, yn

KVNYS - VLBA_NL, fgroup W, pol LL

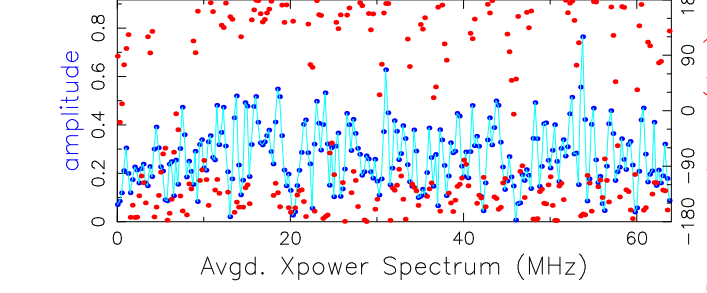
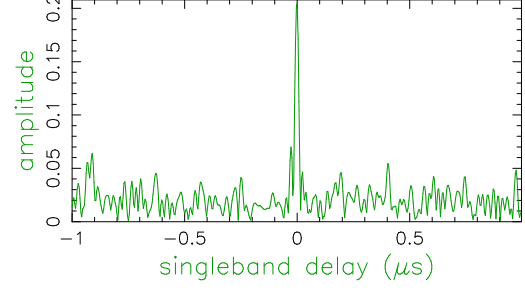
multiband delay (μ s)



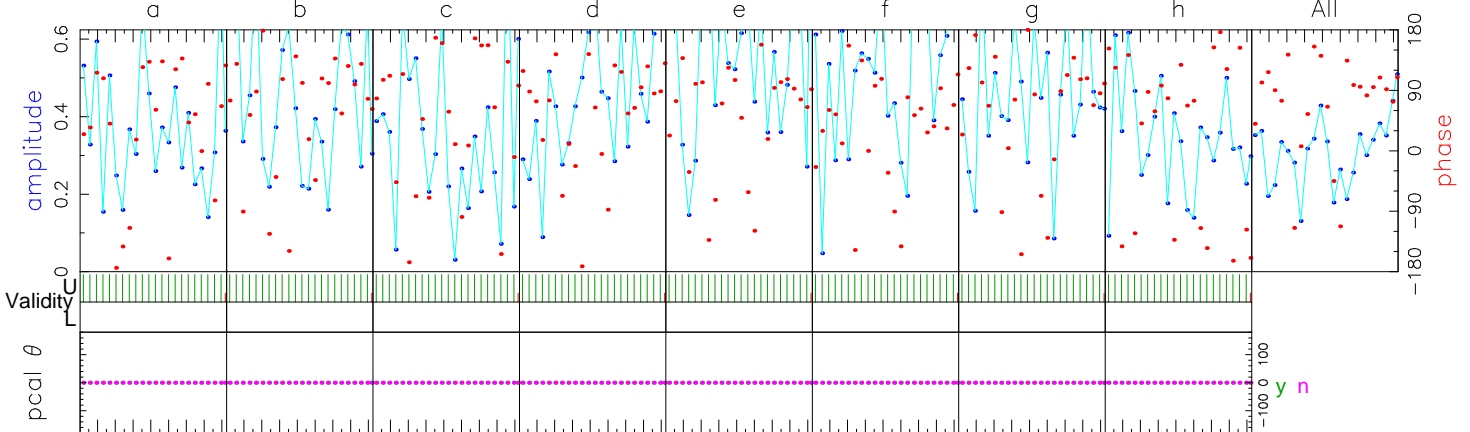
Fringe quality 9

SNR 12.5
 Int time 479.921
 Amp 0.208
 Phase 97.4
 PFD 6.7e-27
 Delays (us)
 SBD -0.001733
 MBD 0.006656
 Fringe rate (Hz) 0.003135
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132538
 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
	89.7	102.5	130.7	88.8	89.3	56.7	103.2	151.9	Phase	97.4
	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.2	Ampl.	0.2
	257.9	257.1	255.8	256.4	256.4	257.0	257.1	258.6	Sbd box	256.6
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.38979280623E+03		Apriori delay (usec)		-5.38978383735E+03		Resid mbdelay (usec)		6.65612E-03	+/- 8.7E-05
Sband delay (usec)	-5.38978557060E+03		Apriori clock (usec)		1.0684242E+00		Resid sbdelay (usec)		-1.73325E-03	+/- 6.9E-04
Phase delay (usec)	-5.38978383421E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		3.14012E-06	+/- 3.0E-07
Delay rate (us/s)	1.65421476753E+00		Apriori rate (us/s)		1.65421473113E+00		Resid rate (us/s)		3.63965E-08	+/- 1.1E-09
Total phase (deg)			Apriori accel (us/s/s)		2.44334429869E-05		Resid phase (deg)		97.4	+/- 9.2

	RMS	Theor.	Amplitude	0.208 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	63.5	22.1	Search (2048X32)	0.195	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	61.7	38.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	31.6	13.0	Inc. seg. avg.	0.285	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	22.2	22.7	Inc. frq. avg.	0.221	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

y: az 57.3 el 27.9 pa -63.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -12621.212 1449.235 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/yn..1M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/yn.W.234.1M249

Mk4/DiFX fourfit 3.21 rev 2937

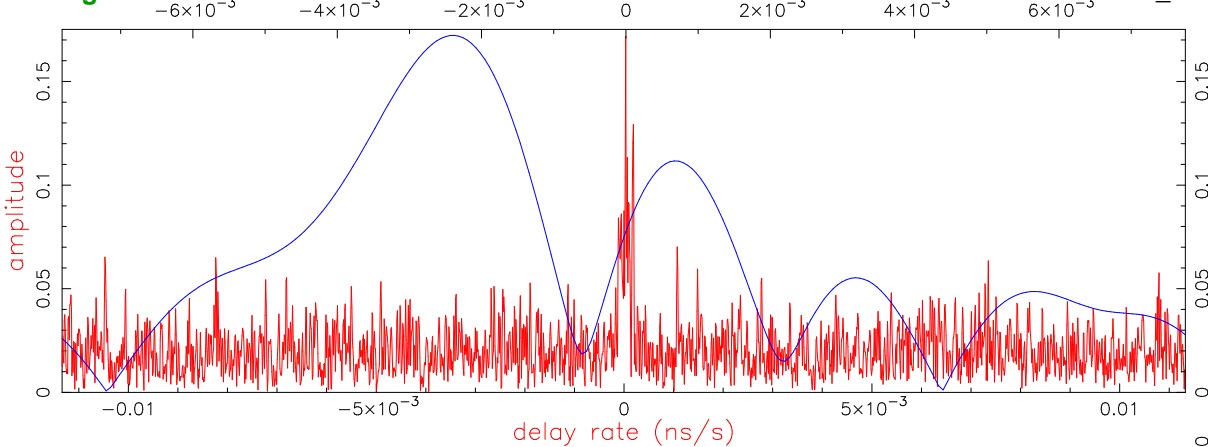
fxmanager

3C84.1M249, No0105, yn

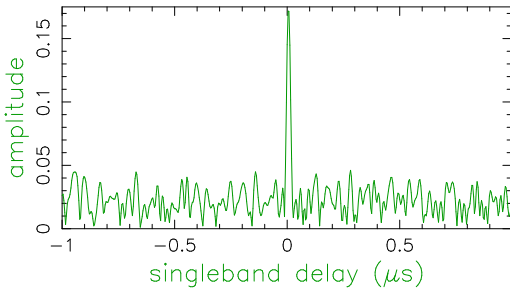
KVNYS - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

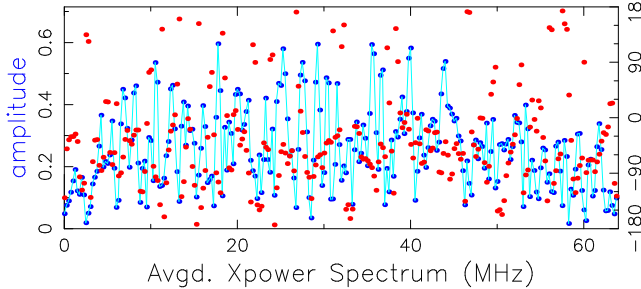
Fringe quality 9



SNR 10.5
 Int time 479.921
 Amp 0.175
 Phase 35.4
 PFD 4.2e-17
 Delays (us)
 SBD 0.005798
 MBD -0.002313
 Fringe rate (Hz) 0.003030
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

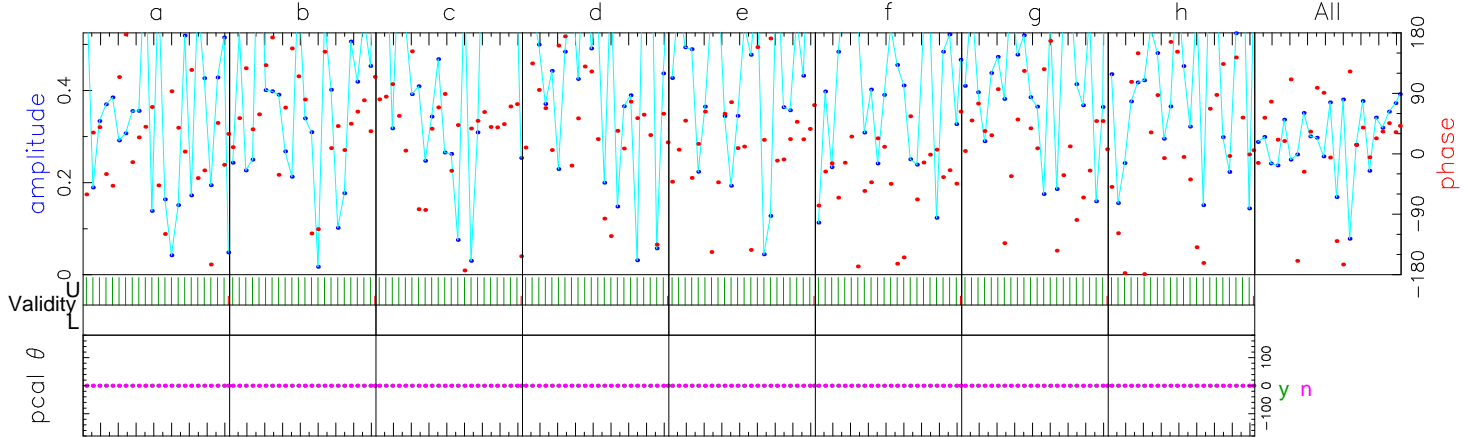


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132541
 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
	-6.2	74.0	61.6	59.1	15.1	-28.5	21.6	95.6	Phase	35.4
	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	Ampl.	0.2
	259.8	259.1	258.1	258.7	259.2	258.2	257.9	260.8	Sbd box	258.5
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.38977052576E+03		Apriori delay (usec)		-5.3897838735E+03		Resid mbdelay (usec)		-2.31341E-03	+/- 1.0E-04
Sband delay (usec)	-5.38977803935E+03		Apriori clock (usec)		1.0684242E+00		Resid sbdelay (usec)		5.79800E-03	+/- 8.2E-04
Phase delay (usec)	-5.38978383620E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		1.14210E-06	+/- 3.5E-07
Delay rate (us/s)	1.65421476631E+00		Apriori rate (us/s)		1.65421473113E+00		Resid rate (us/s)		3.51763E-08	+/- 1.3E-09
Total phase (deg)			Apriori accel (us/s/s)		2.44334429869E-05		Resid phase (deg)		35.4	+/- 10.9

	RMS	Theor.	Amplitude	0.175 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	71.3	26.2	Search (2048X32)	0.170	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	78.8	45.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	46.2	15.4	Inc. seg. avg.	0.265	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	35.3	27.0	Inc. frq. avg.	0.211	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

y: az 57.3 el 27.9 pa -63.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -12621.212 1449.235 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/yn..1M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/yn.W.241.1M249

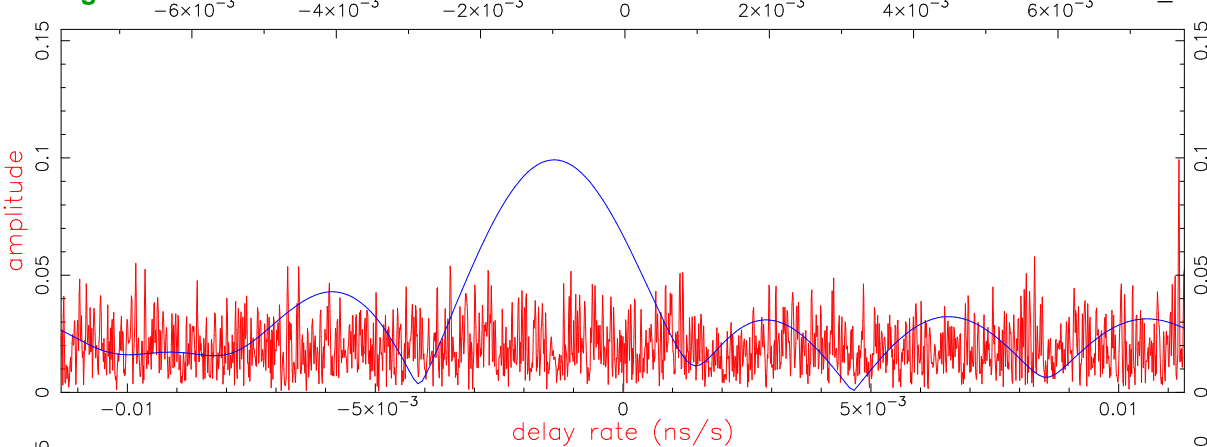
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M249, No0105, yn

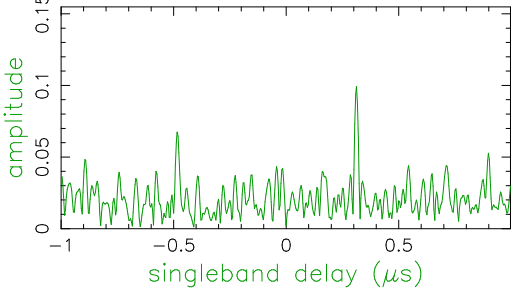
KVNYS - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

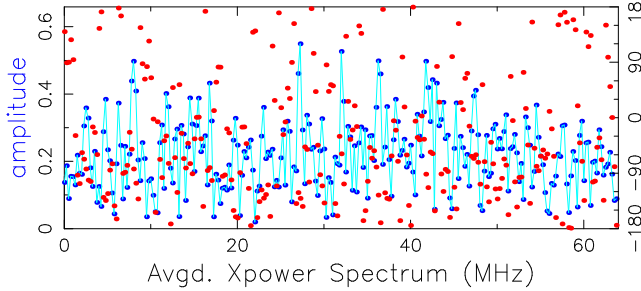


Fringe quality 0

SNR 6.0
 Int time 479.921
 Amp 0.155
 Phase -87.5
 PFD 4.7e-01
 Delays (us)
 SBD 0.311749
 MBD -0.000968
 Fringe rate (Hz)
 0.967345
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

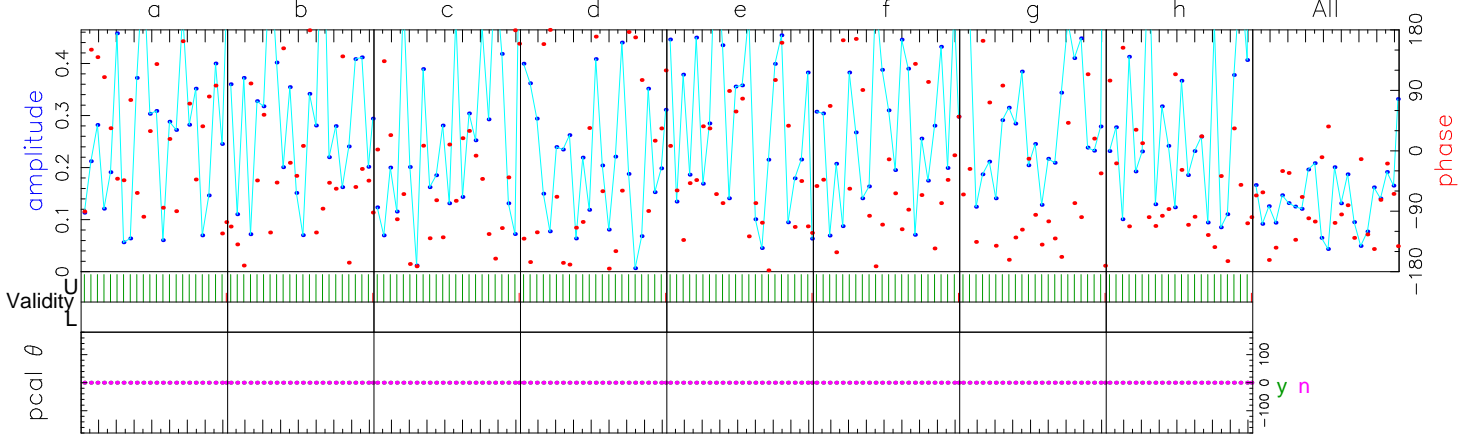


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132545
 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
	-43.4	-83.6	-75.5	-133.4	-64.2	-85.2	-99.0	-79.3	Phase	-87.5
	0.0	0.2	0.2	0.2	0.1	0.2	0.2	0.2	Ampl.	0.1
	422.7	336.2	270.7	86.4	246.6	379.4	487.2	87.7	Sbd box	336.8
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-5.38947230502E+03	Apriori delay (usec)	-5.38978383735E+03	Resid mbdelay (usec)	-9.67677E-04	+/-	1.8E-04
Sband delay (usec)	-5.38947208860E+03	Apriori clock (usec)	1.0684242E+00	Resid sbdelay (usec)	3.11749E-01	+/-	1.4E-03
Phase delay (usec)	-5.38978384017E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-2.82029E-06	+/-	6.2E-07
Delay rate (us/s)	1.65422596105E+00	Apriori rate (us/s)	1.65421473113E+00	Resid rate (us/s)	1.12299E-05	+/-	2.2E-09
Total phase (deg)	-357.1	Apriori accel (us/s/s)	2.44334429869E-05	Resid phase (deg)	-87.5	+/-	19.2

ph/seg (deg)	51.6	Theor.	46.1	Amplitude	0.155 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	64.8		46.1	Search (2048X32)	0.093	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	28.7		27.2	Inc. seg. avg.	0.159	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	41.8		47.4	Inc. frq. avg.	0.148	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
						nlags: 256	t_cohere infinite

y: az 57.3 el 27.9 pa -63.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -12621.212 1449.235 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/yn..1M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/yn.W.248.1M249

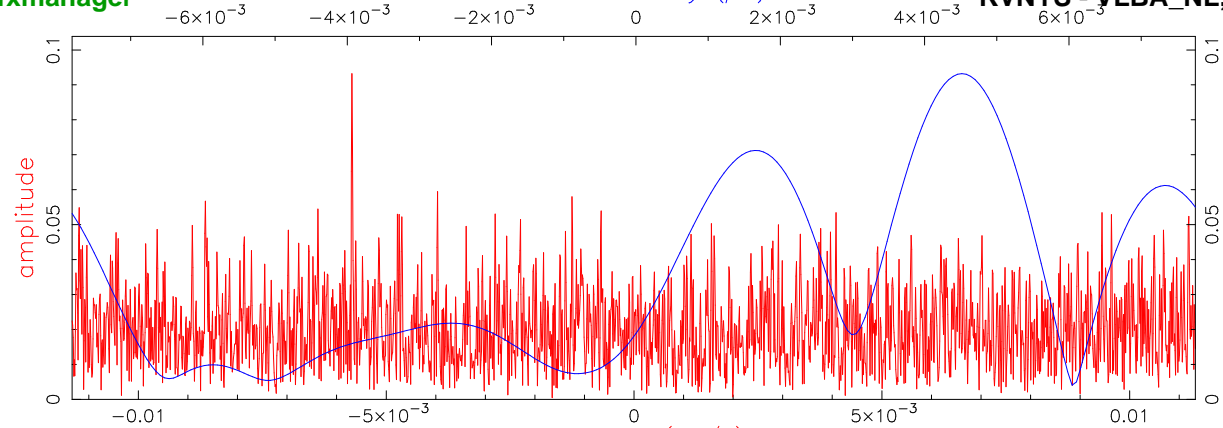
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1M249, No0105, yn

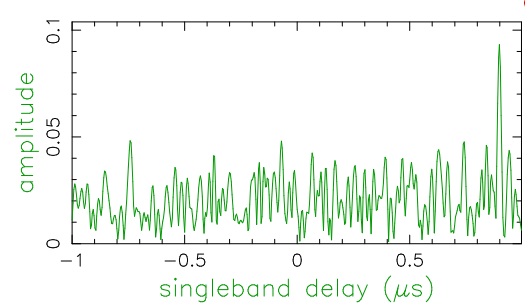
KVNS - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

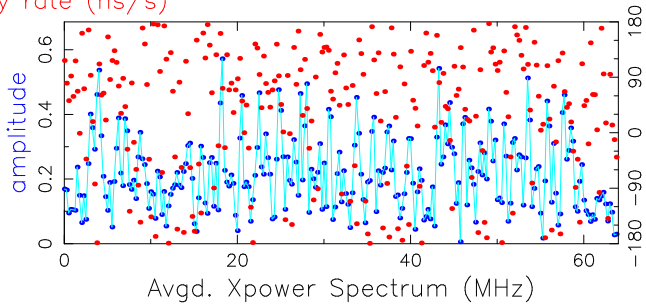


Fringe quality 0

SNR 5.6
 Int time 479.921
 Amp 0.104
 Phase -46.5
 PFD 1.0e+00
 Delays (us)
 SBD 0.897882
 MBD 0.004508
 Fringe rate (Hz)
 -0.491285
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

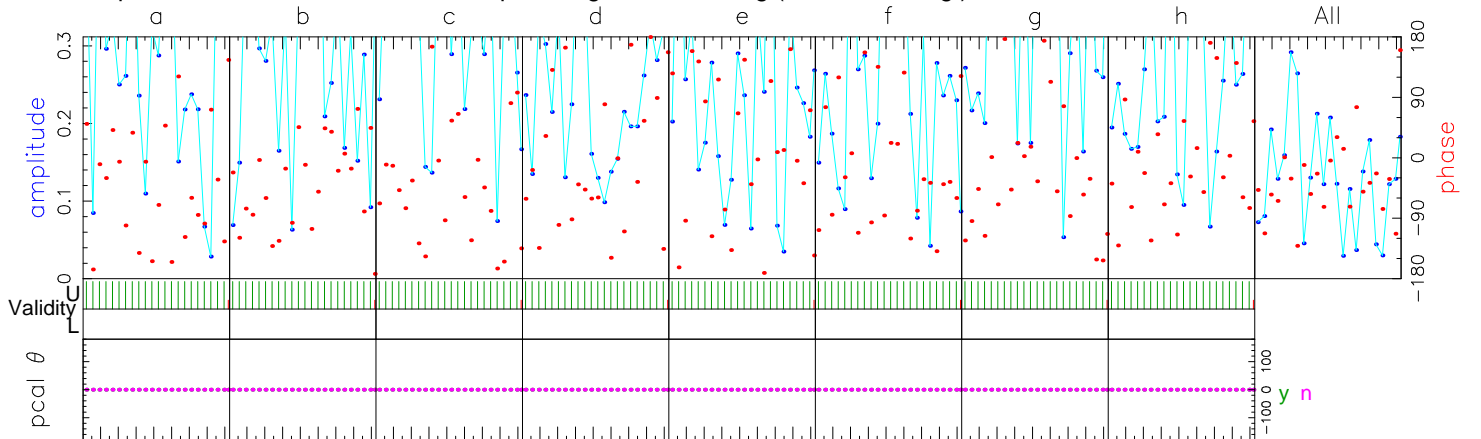


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 120001.00
 Stop 120801.26
 FRT 120401.00
 Corr/FF/build
 2021:023:075223
 2021:023:132548
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-38.7	-42.2	-45.2	-83.8	149.0	-31.3	-51.9	-37.1	Phase	-46.5
	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	421.9	486.8	119.9	455.9	406.6	236.6	274.4	486.5	Sbd box	486.9
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-5.3888870385E+03	Apriori delay (usec)	-5.38978383735E+03	Resid mbdelay (usec)	4.50850E-03	+/-	1.9E-04
Sband delay (usec)	-5.3888859510E+03	Apriori clock (usec)	1.0684242E+00	Resid sbdelay (usec)	8.97882E-01	+/-	1.5E-03
Phase delay (usec)	-5.38978383884E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-1.49877E-06	+/-	6.6E-07
Delay rate (us/s)	1.65420902780E+00	Apriori rate (us/s)	1.65421473113E+00	Resid rate (us/s)	-5.70334E-06	+/-	2.4E-09
Total phase (deg)		Apriori accel (us/s/s)	2.44334429869E-05	Resid phase (deg)	-46.5	+/-	20.5

ph/seg (deg)	50.7	Theor.	49.1	Amplitude	0.104 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	86.3		85.7	Search (2048X32)	0.092	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	69.4		29.0	Inc. seg. avg.	0.106	Sample rate (MSamp/s):	128	nlags:	256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	47.8		50.5	Inc. frq. avg.	0.112	Data rate (Mb/s):	2048	t_cohere	infinite	ion window (TEC)	0.00	0.00

y: az 57.3 el 27.9 pa -63.7 n: az 289.9 el 47.8 pa 69.9 u,v (fr/asec) -12621.212 1449.235 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0105/yn..1M249 Output file: /Exps/c202b/v1/v1_3mm/1234/No0105/yn.W.256.1M249