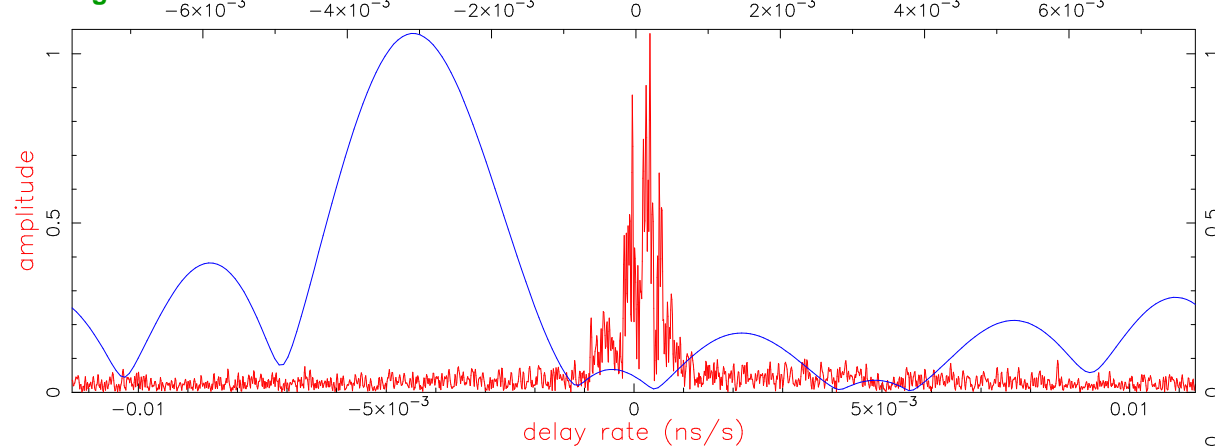
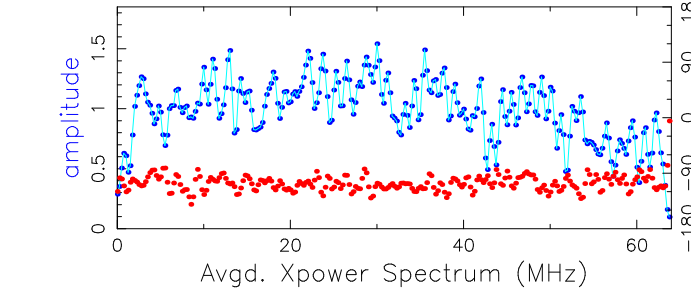
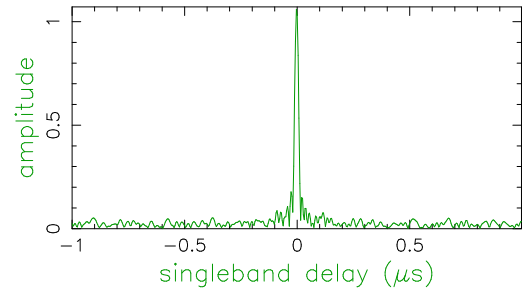


multiband delay (μ s)



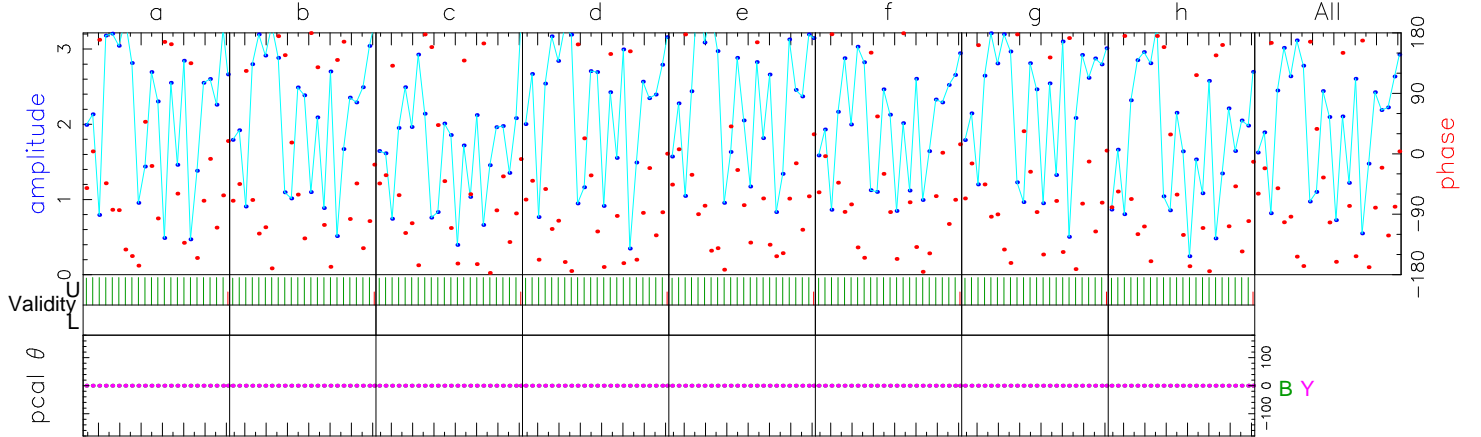
Fringe quality 4

SNR 58.8
 Int time 402.380
 Amp 1.072
 Phase -101.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.002488
 MBD -0.003047
 Fringe rate (Hz)
 0.027680
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130918
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:Y	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		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	2.82309242173E+02	Apriori delay (usec)	2.82312289537E+02	Resid mbdelay (usec)	-3.04736E-03	+/-	1.8E-05
Sband delay (usec)	2.82309801287E+02	Apriori clock (usec)	-3.5824831E+00	Resid sbdelay (usec)	-2.48825E-03	+/-	1.5E-04
Phase delay (usec)	2.82312286258E+02	Apriori clockrate (us/s)	-3.1999999E-07	Resid phdelay (usec)	-3.27921E-06	+/-	6.3E-08
Delay rate (us/s)	1.71955972512E-01	Apriori rate (us/s)	1.71955651177E-01	Resid rate (us/s)	3.21335E-07	+/-	2.7E-10
Total phase (deg)	121.8	Apriori accel (us/s/s)	7.63139082389E-06	Resid phase (deg)	-101.7	+/-	1.9

ph/seg (deg)	67.6	Theor.	4.7	Amplitude	1.072 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	110.8		8.2	Search (2048X32)	1.030	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	16.7		2.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	12.9		4.8	Inc. seg. avg.	1.974	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	1.093	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 309.6 el 21.9 pa 40.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -1303.400 1356.057 simultaneous interpolator

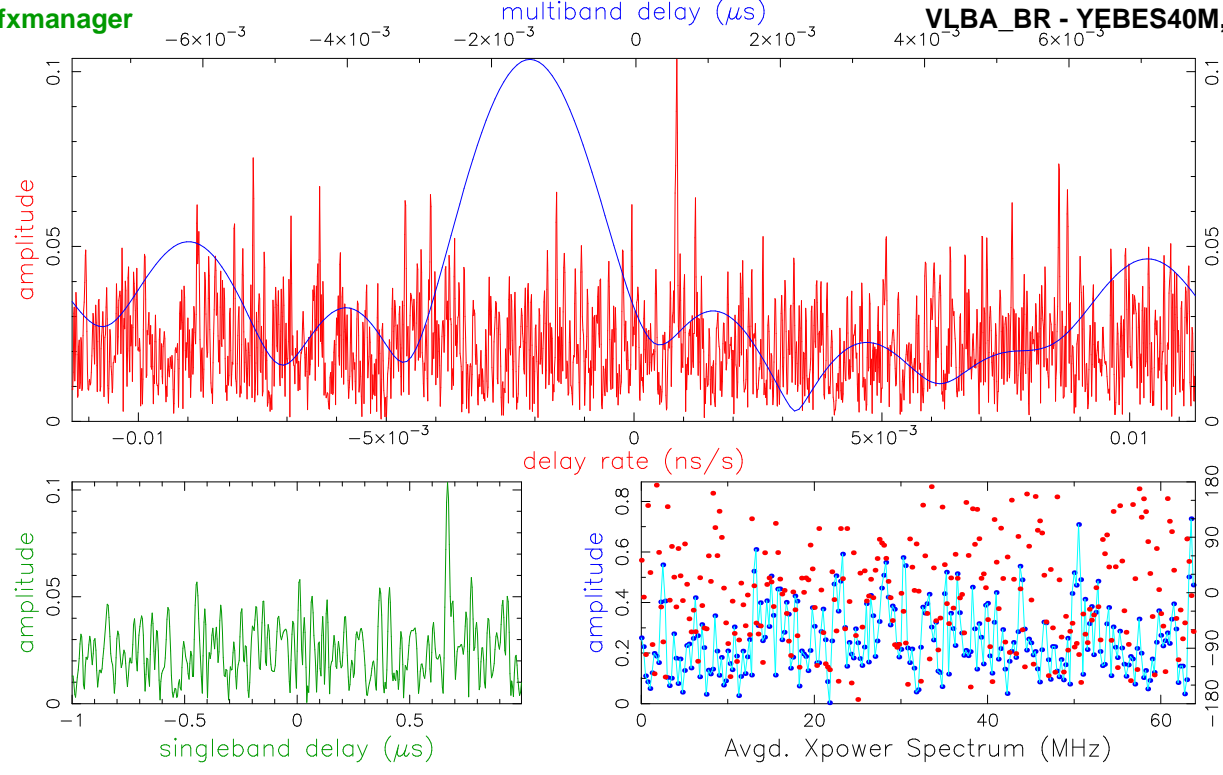
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/BY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/BY.W.104.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

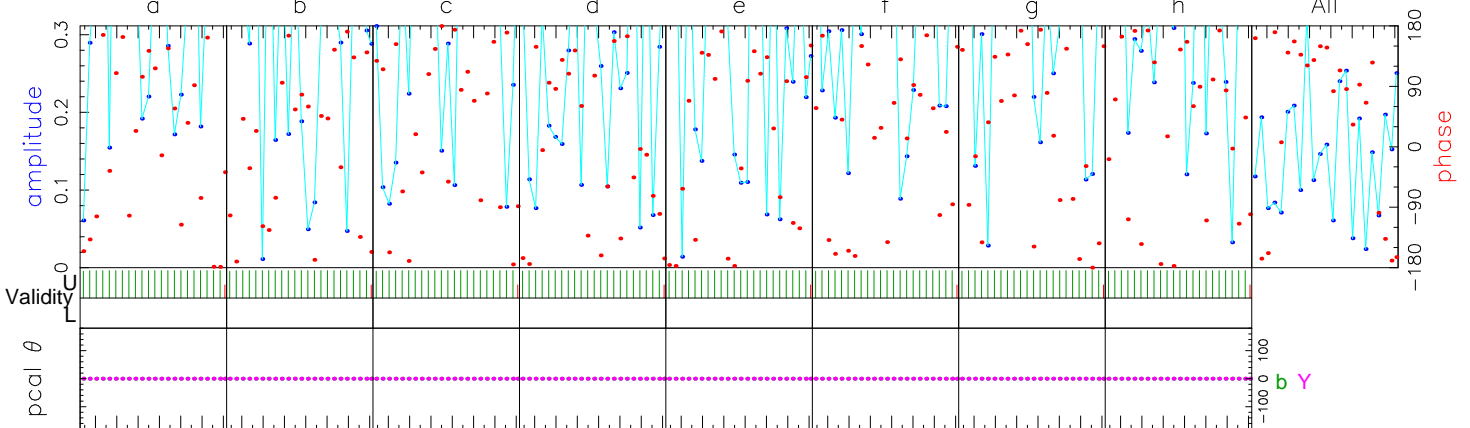
3C84.1ILPVT, No0079, bY

VLBA_BR - YEYES40M, fgroup W, pol LR



Fringe quality 0
 SNR 5.7
 Int time 402.380
 Amp 0.104
 Phase 142.3
 PFD 9.6e-01
 Delays (us)
 SBD 0.668187
 MBD -0.001466
 Fringe rate (Hz)
 0.074309
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130920
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	152.6	106.9	122.1	-173.5	146.5	101.5	164.6	137.9	Phase	142.3
	0.2	0.0	0.1	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
	353.1	477.1	158.5	496.7	428.7	46.1	142.1	265.4	Sbd box	428.1
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.31362642034E+04		Apriori delay (usec)		1.31355937944E+04		Resid mbdelay (usec)		-1.46600E-03	+/- 1.9E-04
Sband delay (usec)	1.31362619812E+04		Apriori clock (usec)		-1.5397541E+01		Resid sbdelay (usec)		6.68187E-01	+/- 1.5E-03
Phase delay (usec)	1.31355937990E+04		Apriori clockrate (us/s)		-1.2000000E-07		Resid phdelay (usec)		4.59006E-06	+/- 6.5E-07
Delay rate (us/s)	1.11992111630E+00		Apriori rate (us/s)		1.11992025365E+00		Resid rate (us/s)		8.62653E-07	+/- 2.8E-09
Total phase (deg)	305.6		Apriori accel (us/s/s)		-6.28222608846E-05		Resid phase (deg)		142.3	+/- 20.2

ph/seg (deg) 59.4 48.4 Search (2048X32) 0.101 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 84.7 84.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 31.4 28.5 Inc. seg. avg. 0.108 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 46.2 49.8 Inc. frq. avg. 0.100 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 108.1 el 74.7 pa -57.7 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -8694.436 -3654.529 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/bY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/bY.W.110.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

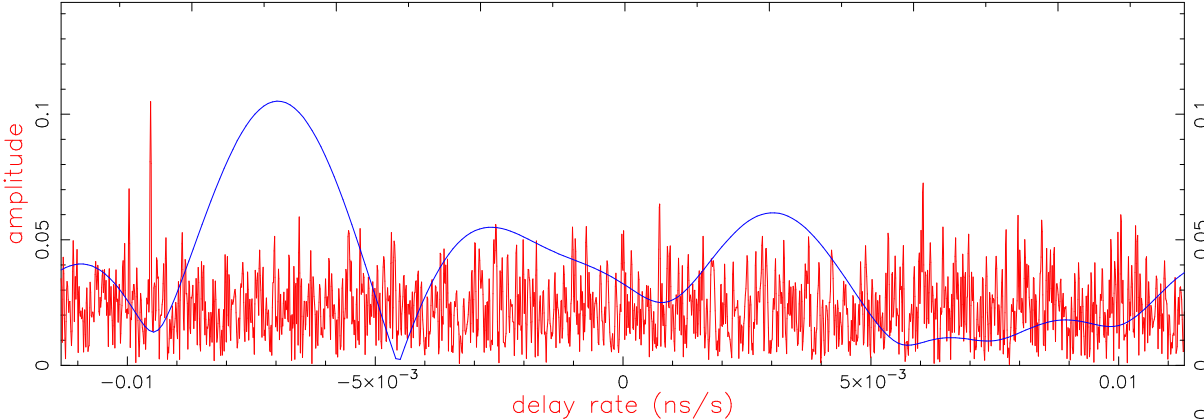
3C84.1ILPVT, No0079, BY

EFLSBERG - YEBES40M, fgroup W, pol LR

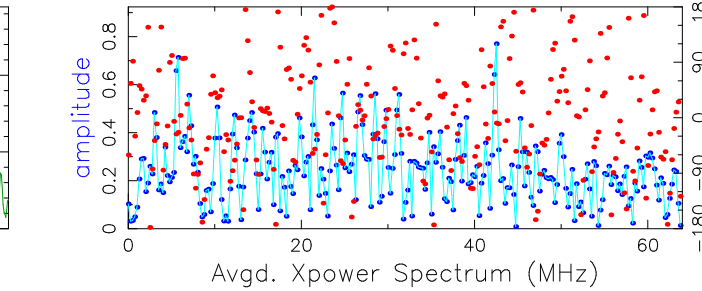
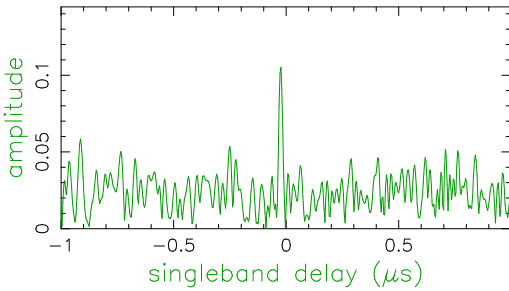
multiband delay (μ s)

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

Fringe quality 0

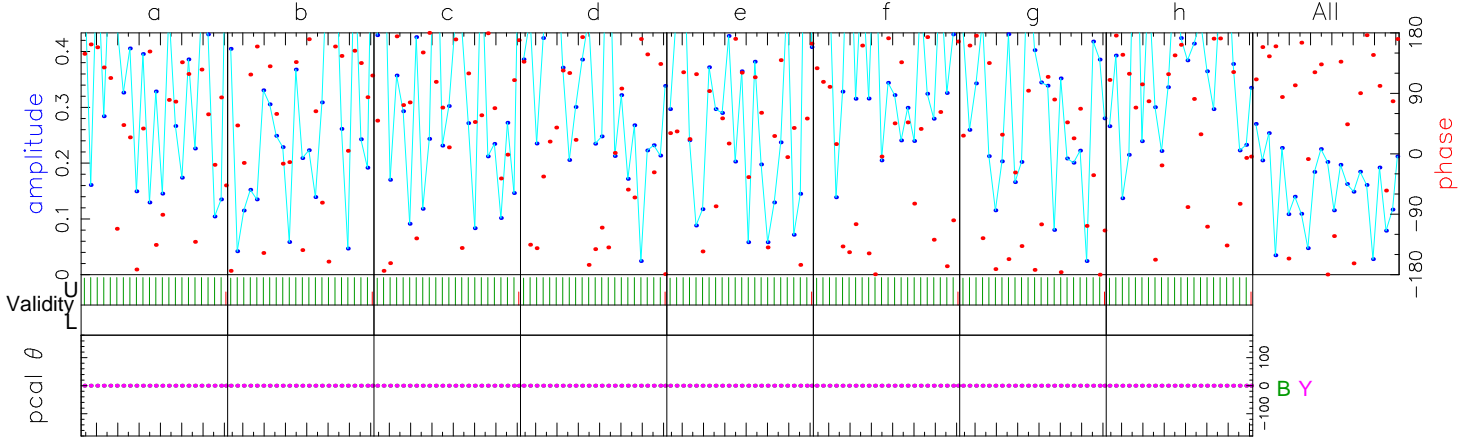


SNR 5.8
Int time 402.380
Amp 0.145
Phase 133.5
PFD 7.9e-01
Delays (us)
SBD -0.024627
MBD -0.004861
Fringe rate (Hz)
-0.822166
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130922
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	115.6	156.1	130.3	-174.8	67.9	157.4	165.5	131.9	Phase	133.5
	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	Ampl.	0.2
	377.1	252.1	2.2	476.2	10.9	251.5	273.9	200.2	Sbd box	250.7
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	2.82291803896E+02		Apriori delay (usec)		2.82312289537E+02		Resid mbdelay (usec)		-4.86064E-03	+/- 1.9E-04
Sband delay (usec)	2.82287663037E+02		Apriori clock (usec)		-3.5824831E+00		Resid sbdelay (usec)		-2.46265E-02	+/- 1.5E-03
Phase delay (usec)	2.82312293843E+02		Apriori clockrate (us/s)		-3.1999999E-07		Resid phdelay (usec)		4.30555E-06	+/- 6.4E-07
Delay rate (us/s)	1.71946106644E-01		Apriori rate (us/s)		1.71955651177E-01		Resid rate (us/s)		-9.54453E-06	+/- 2.7E-09
Total phase (deg)	357.0		Apriori accel (us/s/s)		7.63139082389E-06		Resid phase (deg)		133.5	+/- 19.7

	RMS	Theor.	Amplitude	0.145 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	65.0	47.3	Search (2048X32)	0.104	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	78.3	82.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	39.6	27.9	Inc. seg. avg.	0.158	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	41.1	48.7	Inc. frq. avg.	0.151	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

B: az 309.6 el 21.9 pa 40.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -1303.400 1356.057 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/BY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/BY.W.122.1ILPVT

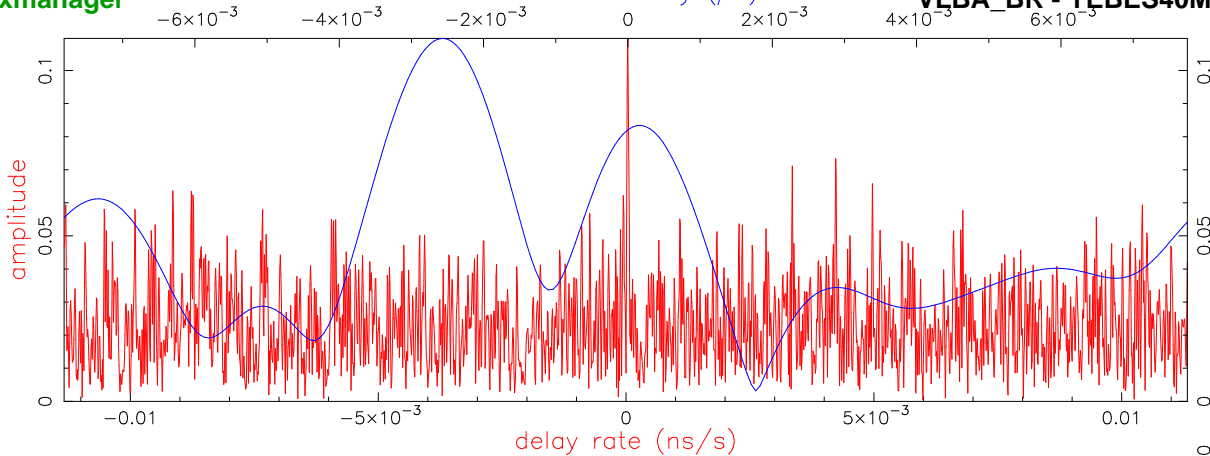
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, bY

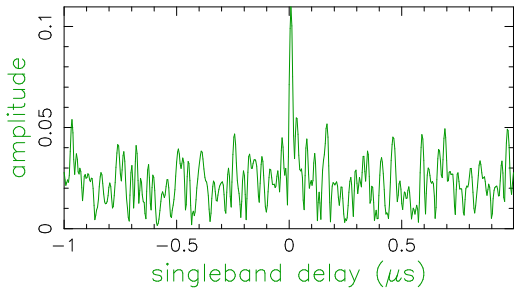
VLBA_BR - YEYES40M, fgroup W, pol RL

multiband delay (μ s)

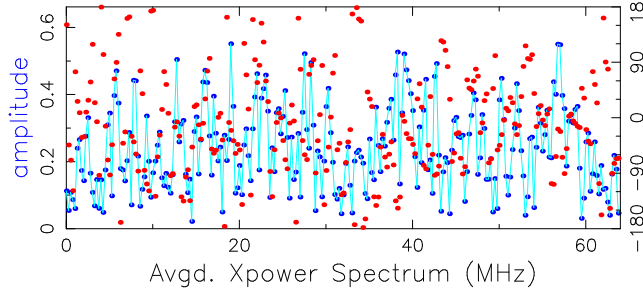


Fringe quality 0

SNR 6.0
Int time 402.380
Amp 0.110
Phase 98.9
PFD 3.7e-01
Delays (us)
SBD 0.007911
MBD -0.002567
Fringe rate (Hz)
0.002920
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

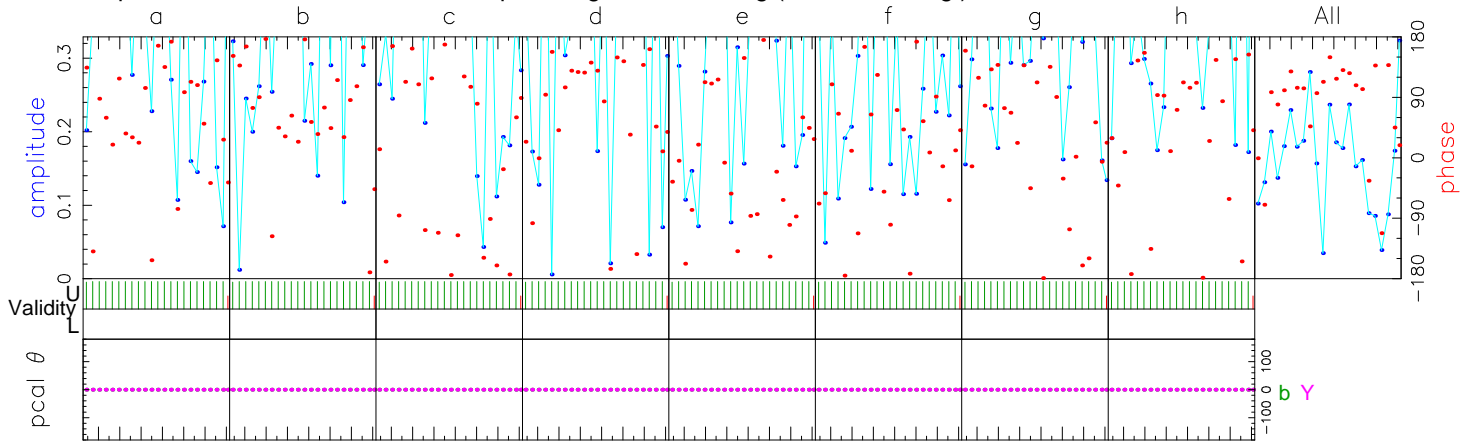


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130923
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



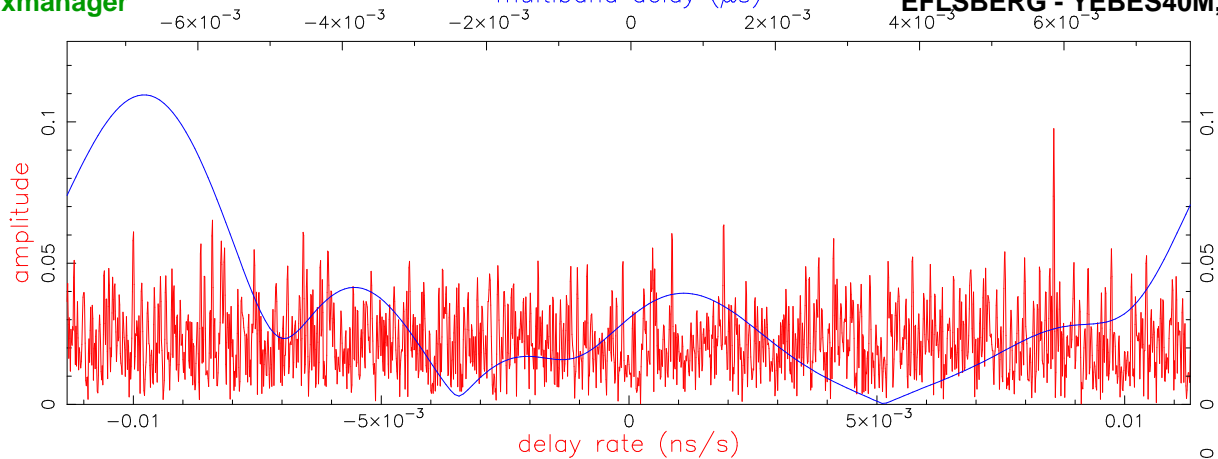
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.31356068527E+04	Apriori delay (usec)	1.31355937944E+04	Resid mbdelay (usec)	-2.56675E-03	+/-	1.8E-04
Sband delay (usec)	1.31356017059E+04	Apriori clock (usec)	-1.5397541E+01	Resid sbdelay (usec)	7.91150E-03	+/-	1.4E-03
Phase delay (usec)	1.31355937976E+04	Apriori clockrate (us/s)	-1.2000000E-07	Resid phdelay (usec)	3.18811E-06	+/-	6.1E-07
Delay rate (us/s)	1.11992028755E+00	Apriori rate (us/s)	1.11992025365E+00	Resid rate (us/s)	3.38981E-08	+/-	2.6E-09
Total phase (deg)	262.2	Apriori accel (us/s/s)	-6.28222608846E-05	Resid phase (deg)	98.9	+/-	19.0

ph/seg (deg)	65.4	Theor.	45.7	Amplitude	0.110 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	76.2		79.7	Search (2048X32)	0.109	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	69.3		26.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	57.5		47.0	Inc. seg. avg.	0.122	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.124	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

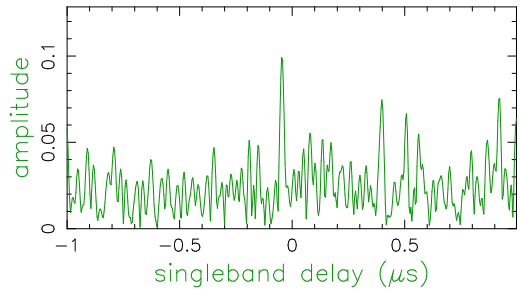
b: az 108.1 el 74.7 pa -57.7 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -8694.436 -3654.529 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/bY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/bY.W.129.1ILPVT

multiband delay (μ s)

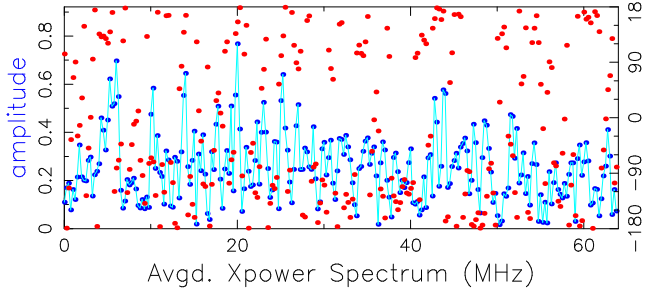


Fringe quality 0

SNR 5.5
 Int time 402.380
 Amp 0.129
 Phase -67.4
 PFD 1.0e+00
 Delays (us)
 SBD -0.045385
 MBD 0.008301
 Fringe rate (Hz)
 0.739453
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

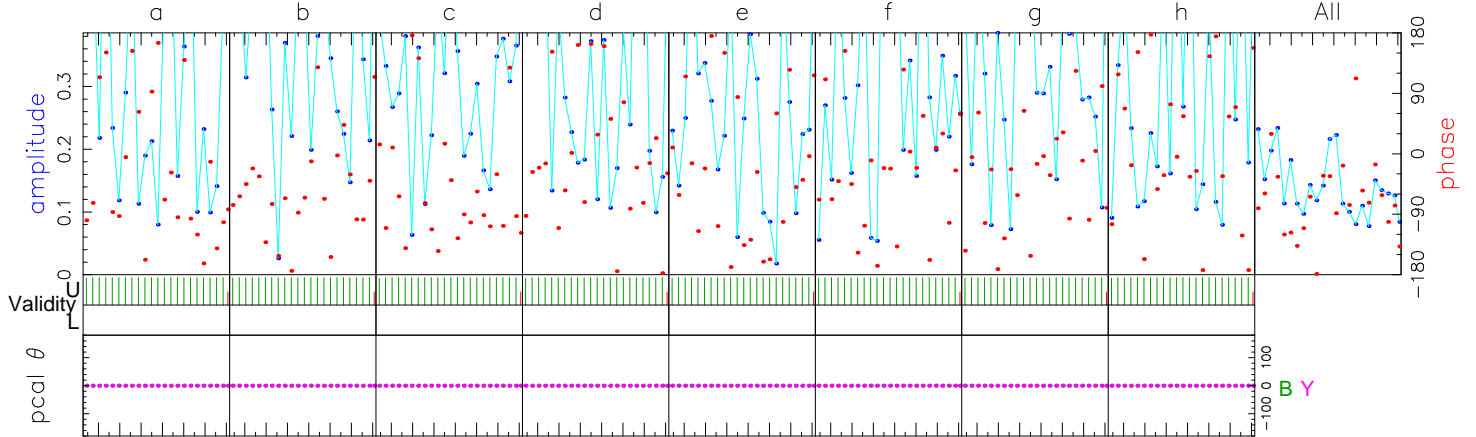


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130926
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-115.5	-72.4	-89.1	-49.2	-97.2	-31.7	-46.6	24.4	Phase	-67.4
	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1
	457.3	246.8	283.2	355.1	275.3	510.7	41.8	301.3	Sbd box	245.4
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	2.82273715318E+02	Apriori delay (usec)	2.82312289537E+02	Resid mbdelay (usec)	8.30078E-03	+/-	2.0E-04
Sband delay (usec)	2.82266905037E+02	Apriori clock (usec)	-3.5824831E+00	Resid sbdelay (usec)	-4.53845E-02	+/-	1.6E-03
Phase delay (usec)	2.82312287365E+02	Apriori clockrate (us/s)	-3.1999999E-07	Resid phdelay (usec)	-2.17203E-06	+/-	6.7E-07
Delay rate (us/s)	1.71964235492E-01	Apriori rate (us/s)	1.71955651177E-01	Resid rate (us/s)	8.58431E-06	+/-	2.9E-09
Total phase (deg)	156.1	Apriori accel (us/s/s)	7.63139082389E-06	Resid phase (deg)	-67.4	+/-	20.8

ph/seg (deg)	59.4	Theor.	49.9	Amplitude	0.129 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	64.2		87.2	Search (2048X32)	0.105	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	48.6		29.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	50.6		51.4	Inc. seg. avg.	0.133	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.132	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

B: az 309.6 el 21.9 pa 40.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -1303.400 1356.057 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/BY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/BY.W.141.1ILPVT

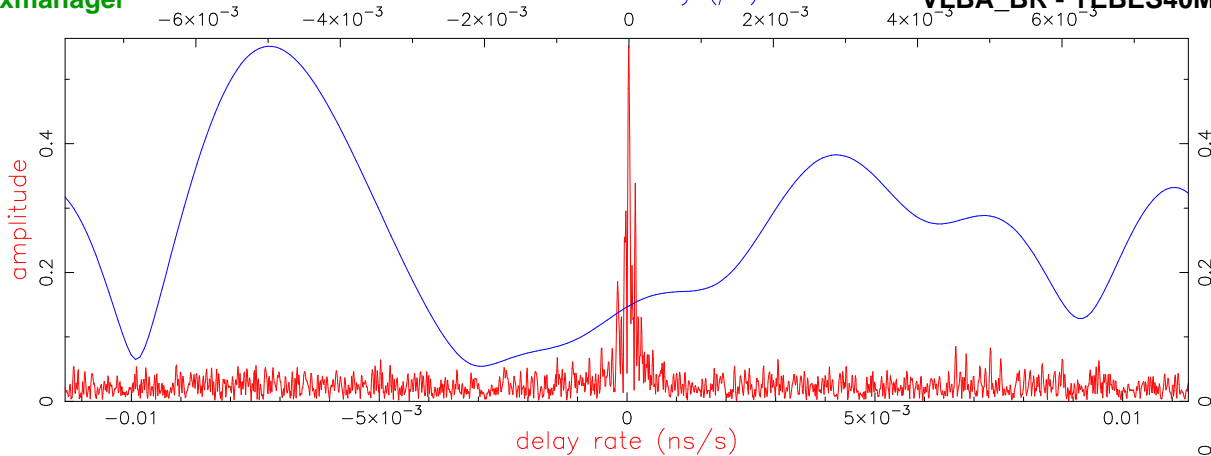
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, bY

VLBA_BR - YEBES40M, fgroup W, pol LL

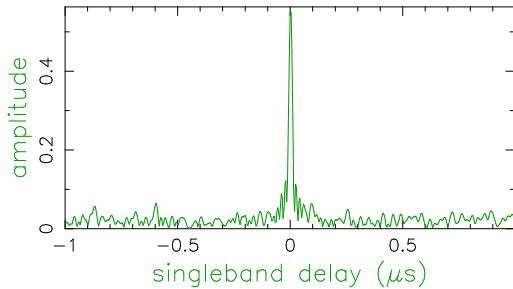
multiband delay (μ s)



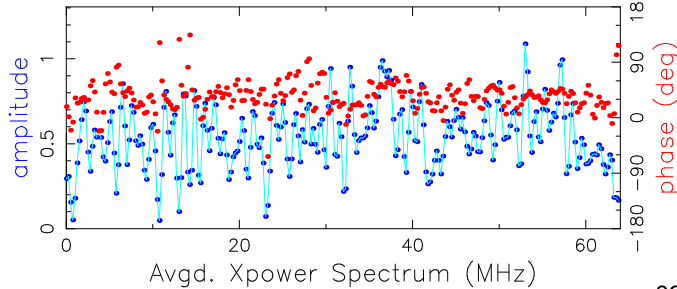
Fringe quality 3

SNR 30.9
 Int time 402.380
 Amp 0.563
 Phase 114.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.001882
 MBD -0.004956
 Fringe rate (Hz)
 0.002846
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

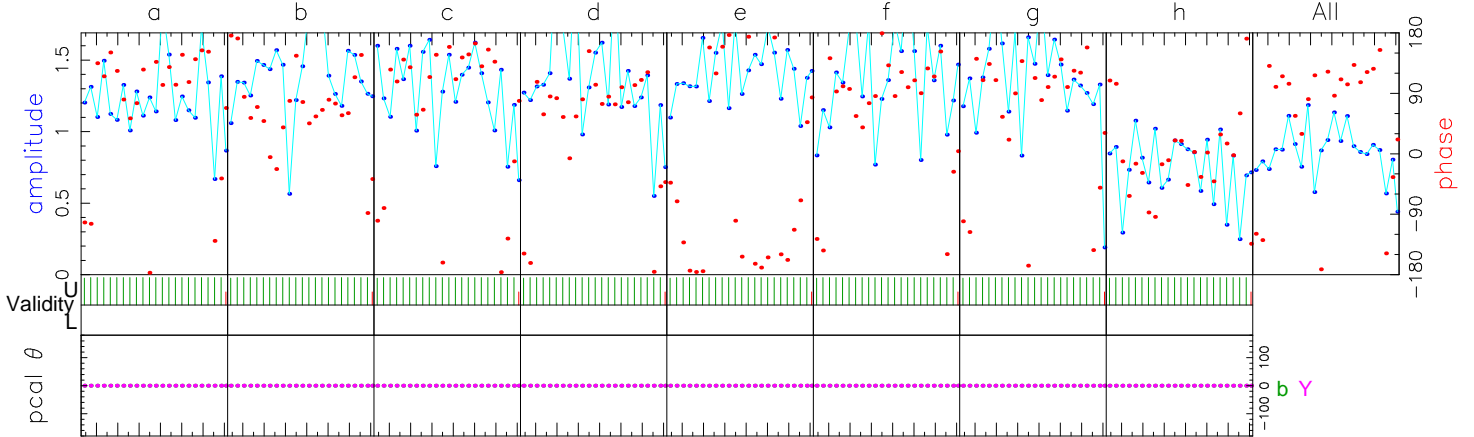
Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130913
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



delay rate (ns/s)



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



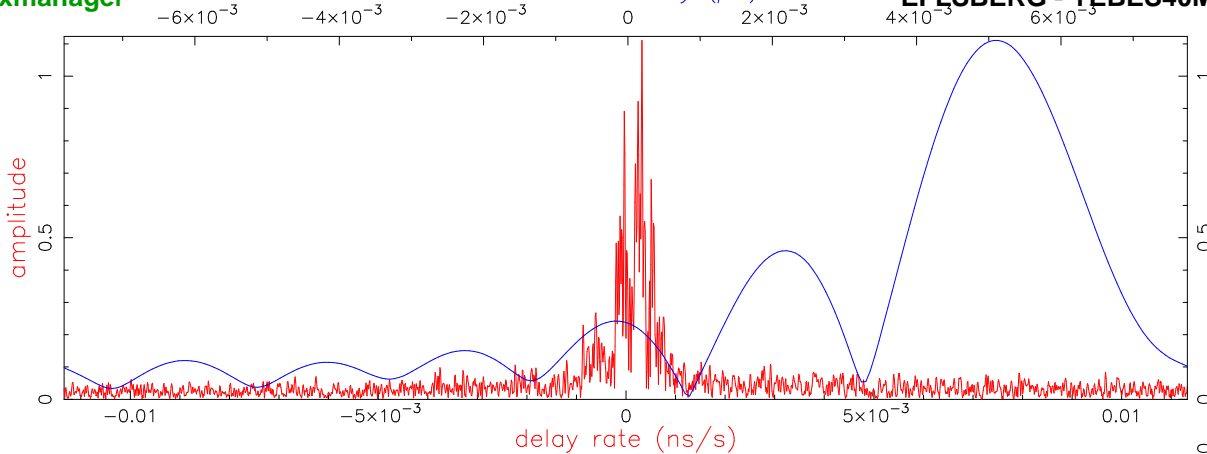
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	129.6	68.0	141.5	86.8	-162.2	107.2	120.5	-9.9	Phase	114.6
	0.8	0.9	0.8	0.9	0.9	0.9	0.8	0.4	Ampl.	0.8
	257.1	257.1	257.3	257.1	256.7	256.5	256.3	254.1	Sbd box	257.5
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.31355888387E+04	Apriori delay (usec)	1.31355937944E+04	Resid mbdelay (usec)	-4.95572E-03	+/-	3.5E-05
Sband delay (usec)	1.31355956759E+04	Apriori clock (usec)	-1.5397541E+01	Resid sbdelay (usec)	1.88150E-03	+/-	2.8E-04
Phase delay (usec)	1.31355937981E+04	Apriori clockrate (us/s)	-1.2000000E-07	Resid phdelay (usec)	3.69490E-06	+/-	1.2E-07
Delay rate (us/s)	1.11992028669E+00	Apriori rate (us/s)	1.11992025365E+00	Resid rate (us/s)	3.30372E-08	+/-	5.1E-10
Total phase (deg)	277.9	Apriori accel (us/s/s)	-6.28222608846E-05	Resid phase (deg)	114.6	+/-	3.7

ph/seg (deg)	RMS 61.9	Theor. 8.9	Amplitude Search (2048X32)	0.563 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	61.9	8.9	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	66.3	5.2	Inc. seg. avg.	0.857	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	49.2	9.2	Inc. frq. avg.	0.792	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

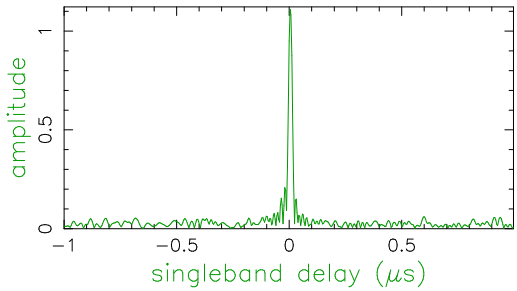
b: az 108.1 el 74.7 pa -57.7 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -8694.436 -3654.529 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/bY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/bY.W.78.1ILPVT

multiband delay (μ s)

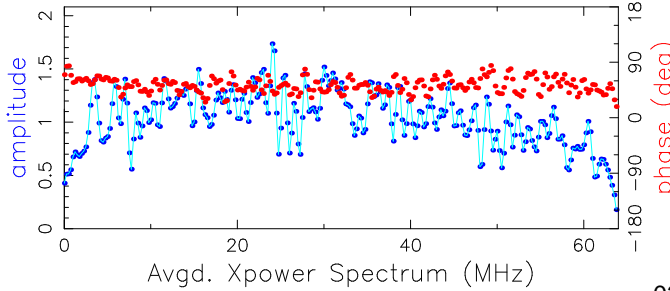


Fringe quality 4

SNR 61.6
 Int time 402.380
 Amp 1.123
 Phase 53.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.005275
 MBD 0.005137
 Fringe rate (Hz)
 0.027635
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

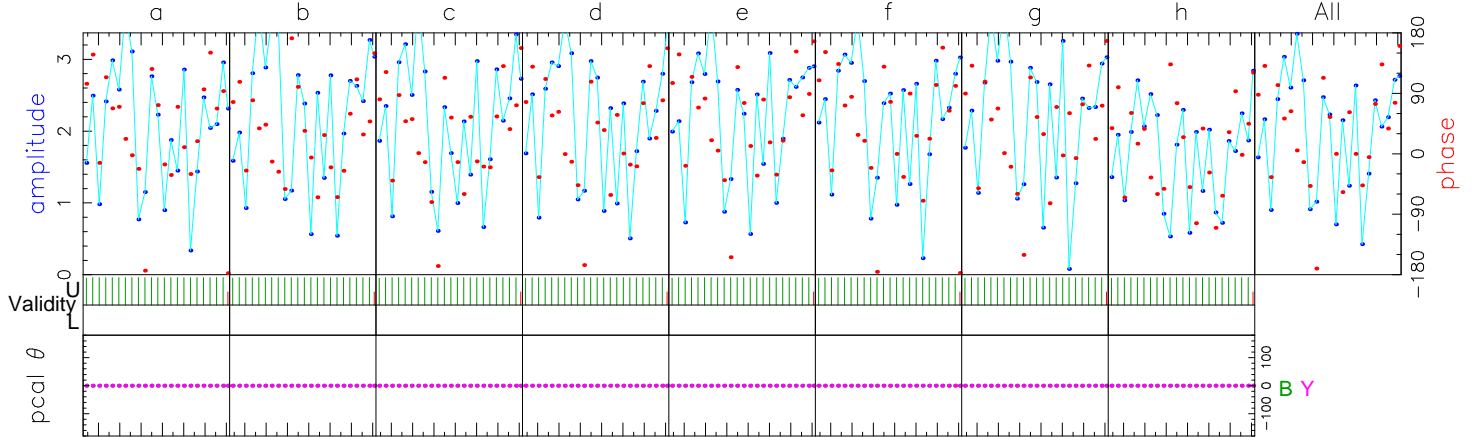


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130914
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:Y	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		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	2.82317426454E+02	Apriori delay (usec)	2.82312289537E+02	Resid mbdelay (usec)	5.13692E-03	+/-	1.8E-05
Sband delay (usec)	2.82317564787E+02	Apriori clock (usec)	-3.5824831E+00	Resid sbdelay (usec)	5.27525E-03	+/-	1.4E-04
Phase delay (usec)	2.82312291246E+02	Apriori clockrate (us/s)	-3.1999999E-07	Resid phdelay (usec)	1.70916E-06	+/-	6.0E-08
Delay rate (us/s)	1.71955971990E-01	Apriori rate (us/s)	1.71955651177E-01	Resid rate (us/s)	3.20813E-07	+/-	2.6E-10
Total phase (deg)	276.5	Apriori accel (us/s/s)	7.63139082389E-06	Resid phase (deg)	53.0	+/-	1.9

ph/seg (deg)	67.0	Theor.	4.5	Amplitude	1.123 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	105.1		7.8	Search (2048X32)	1.091	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	22.4		2.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	11.4		4.6	Inc. seg. avg.	1.987	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	1.171	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 309.6 el 21.9 pa 40.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -1303.400 1356.057 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/BY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/BY.W.86.1ILPVT

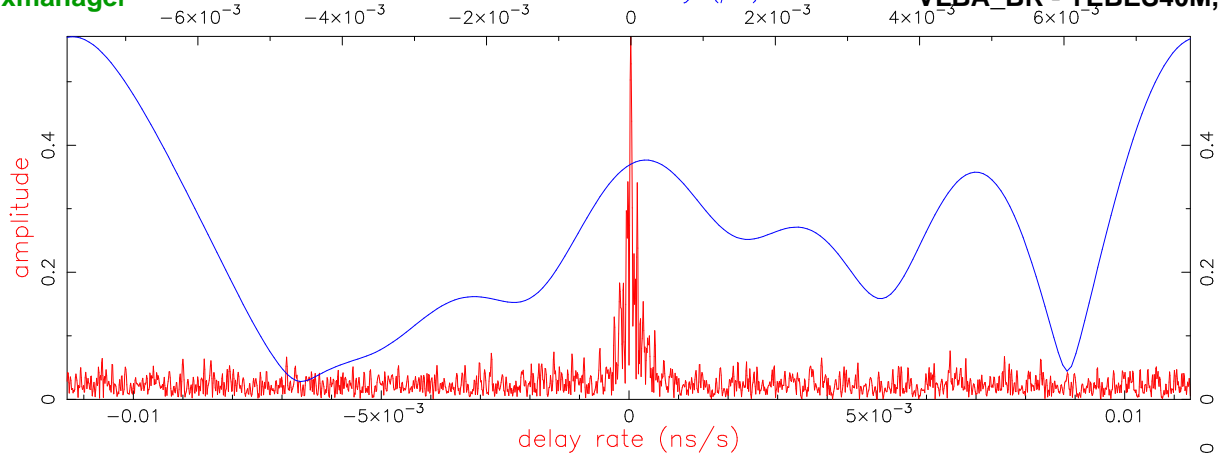
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, bY

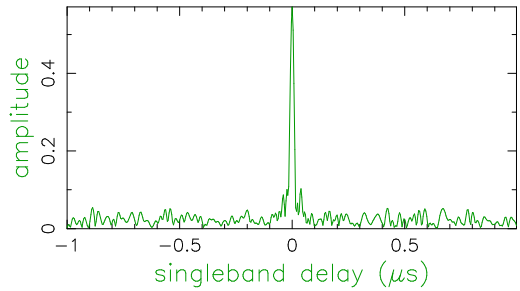
VLBA_BR - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

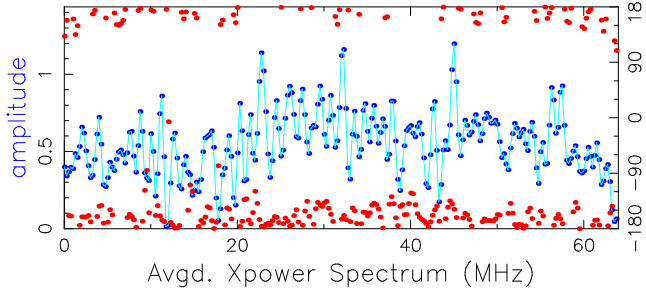


Fringe quality 3

SNR 31.3
 Int time 402.380
 Amp 0.571
 Phase -82.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.000418
 MBD -0.007739
 Fringe rate (Hz)
 0.002839
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

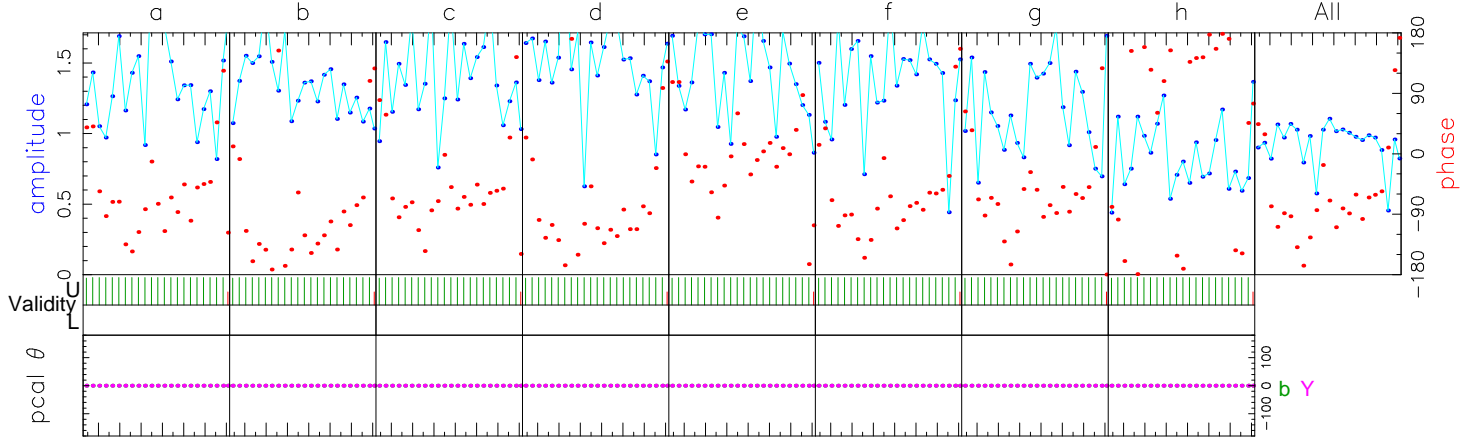


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130917
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-70.9	-127.3	-65.8	-111.6	-0.4	-80.8	-69.5	160.9	Phase	-82.5
	0.8	0.8	0.9	0.9	0.9	0.9	0.7	0.5	Ampl.	0.8
	256.7	256.3	256.6	256.4	256.5	256.1	255.5	254.5	Sbd box	256.9
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.31355860555E+04		Apriori delay (usec)		1.31355937944E+04		Resid mbdelay (usec)		-7.73897E-03	+/- 3.5E-05
Sband delay (usec)	1.31355933762E+04		Apriori clock (usec)		-1.5397541E+01		Resid sbdelay (usec)		-4.18250E-04	+/- 2.7E-04
Phase delay (usec)	1.31355937918E+04		Apriori clockrate (us/s)		-1.2000000E-07		Resid phdelay (usec)		-2.66091E-06	+/- 1.2E-07
Delay rate (us/s)	1.11992028661E+00		Apriori rate (us/s)		1.11992025365E+00		Resid rate (us/s)		3.29628E-08	+/- 5.1E-10
Total phase (deg)	80.8		Apriori accel (us/s/s)		-6.28222608846E-05		Resid phase (deg)		-82.5	+/- 3.7

ph/seg (deg) 61.7 8.8 Search (2048X32) 0.569 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 68.2 15.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 63.0 5.2 Inc. seg. avg. 0.920 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 48.3 9.0 Inc. frq. avg. 0.815 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 108.1 el 74.7 pa -57.7 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -8694.436 -3654.529 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/bY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/bY.W.91.1ILPVT

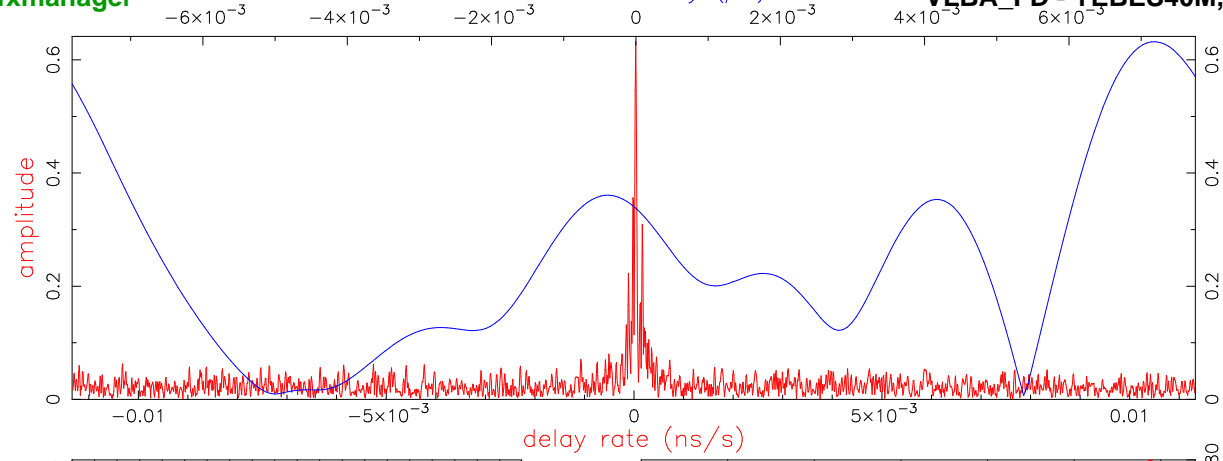
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

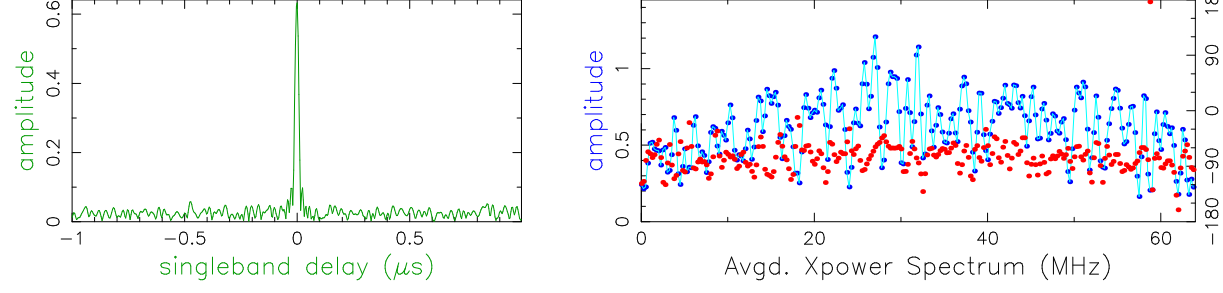
3C84.1ILPVT, No0079, fY

VLBA_FD - YEBES40M, fgroup W, pol RR

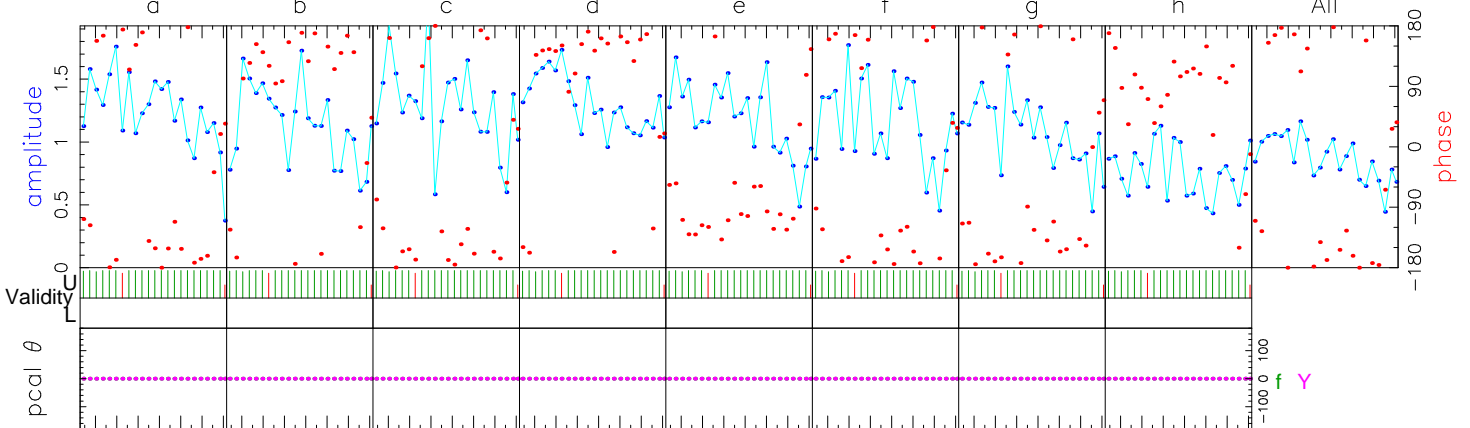
multiband delay (μ s)



Fringe quality 4
 SNR 35.1
 Int time 399.842
 Amp 0.641
 Phase -176.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.001607
 MBD 0.007165
 Fringe rate (Hz) 0.002854
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130921
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	783/0	783/0	783/0	783/0	783/0	783/0	783/0	783/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:Y	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		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.34331504214E+04			1.34331588814E+04				7.16497E-03	+/- 3.1E-05
Sband delay (usec)		1.34331572744E+04			-5.8196573E+00				-1.60700E-03	+/- 2.5E-04
Phase delay (usec)		1.34331588757E+04			2.7999998E-07				-5.69233E-06	+/- 1.1E-07
Delay rate (us/s)		9.21575207530E-01			9.21575174401E-01				3.31293E-08	+/- 4.6E-10
Total phase (deg)			-160.2		-8.19519230729E-05				-176.5	+/- 3.3
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
RMS	55.1	7.8								
ph/seg (deg)	55.1	7.8								
amp/seg (%)	45.4	13.6								
ph/frq (deg)	50.8	4.6								
amp/frq (%)	34.1	8.1								
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
Tracks										
Chan ids										
Tracks										
Chan ids										
Tracks										
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								

f: az 14.7 el 78.6 pa -161.7 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -7209.461 -6561.556 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/fY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/fY.W.113.1ILPVT

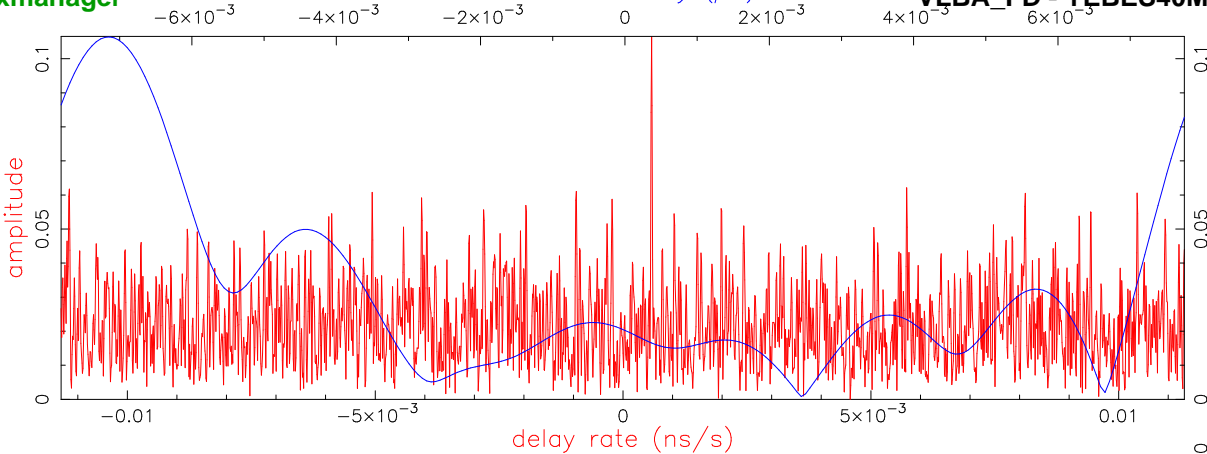
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, fY

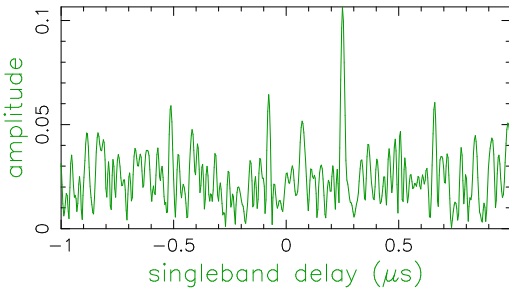
VLBA_FD - YEYES40M, fgroup W, pol LR

multiband delay (μ s)

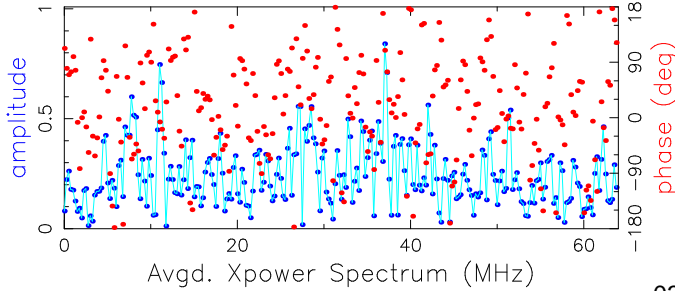


Fringe quality 0

SNR 5.8
Int time 399.842
Amp 0.107
Phase 117.1
PFD 7.7e-01
Delays (us)
SBD 0.250338
MBD -0.007141
Fringe rate (Hz) 0.049318
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

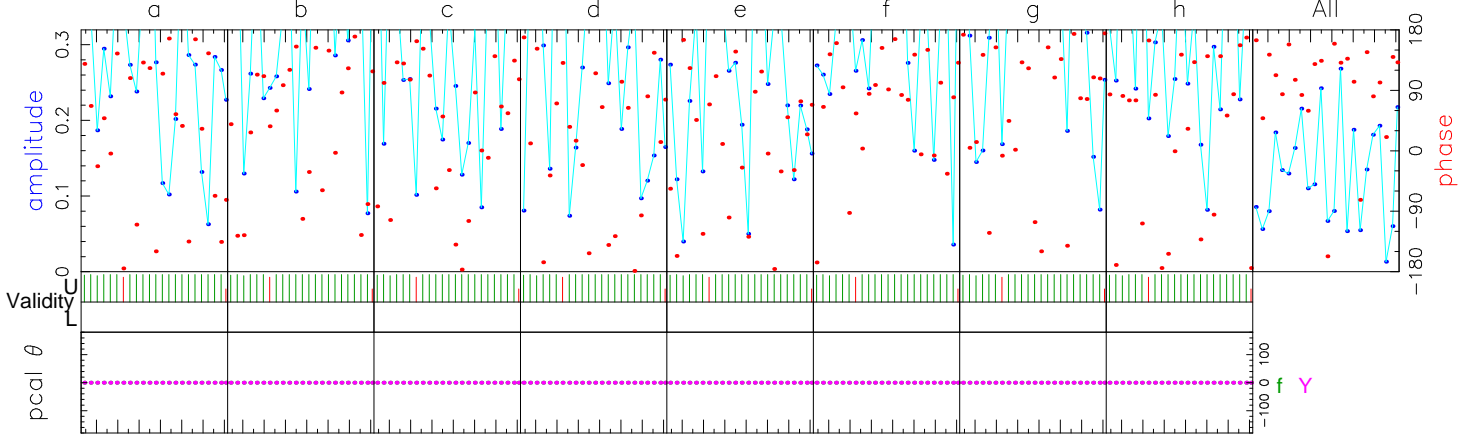


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130924
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	127.7	129.6	121.1	111.6	66.4	103.8	138.0	122.9	Phase	117.1
	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	Ampl.	0.1
	51.1	433.8	359.7	315.5	242.9	320.2	279.0	447.9	Sbd box	321.1
U/L	783/0	783/0	783/0	783/0	783/0	783/0	783/0	783/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.34334017401E+04	Apriori delay (usec)	1.34331588814E+04	Resid mbdelay (usec)	-7.14129E-03	+/-	1.9E-04
Sband delay (usec)	1.34334092192E+04	Apriori clock (usec)	-5.8196573E+00	Resid sbdelay (usec)	2.50338E-01	+/-	1.5E-03
Phase delay (usec)	1.34331588852E+04	Apriori clockrate (us/s)	2.7999998E-07	Resid phdelay (usec)	3.77682E-06	+/-	6.3E-07
Delay rate (us/s)	9.21575746929E-01	Apriori rate (us/s)	9.21575174401E-01	Resid rate (us/s)	5.72529E-07	+/-	2.7E-09
Total phase (deg)	133.5	Apriori accel (us/s/s)	-8.19519230729E-05	Resid phase (deg)	117.1	+/-	19.7

ph/seg (deg)	RMS 54.6	Theor. 47.1	Amplitude Search (2048X32)	0.107 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	67.5	82.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	24.3	27.8	Inc. seg. avg.	0.097	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	28.1	48.6	Inc. frq. avg.	0.101	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 14.7 el 78.6 pa -161.7 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -7209.461 -6561.556 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/fY..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/fY.W.132.11LPVT

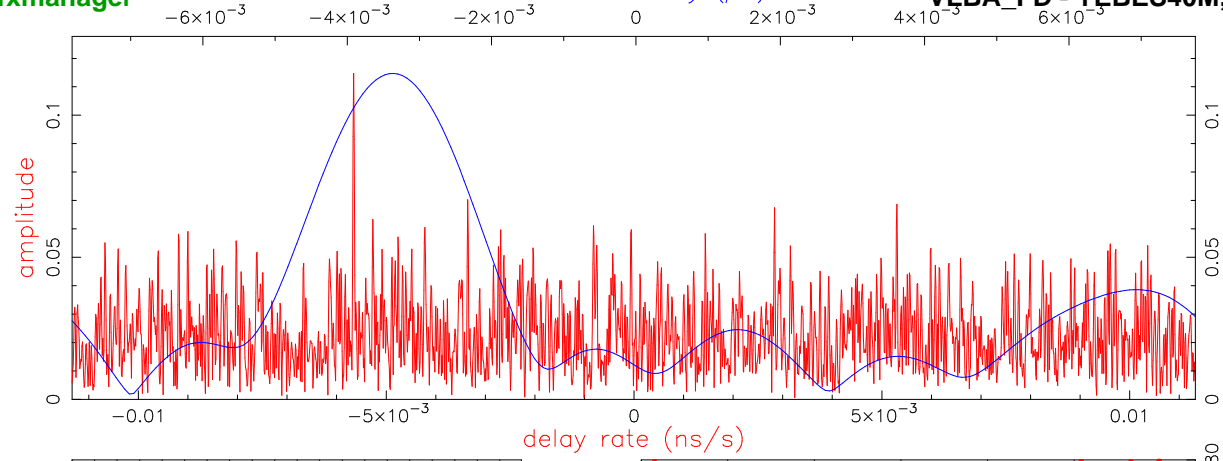
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, fY

VLBA_FD - YEYES40M, fgroup W, pol RL

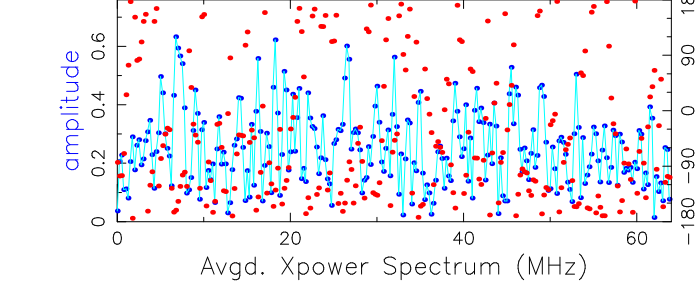
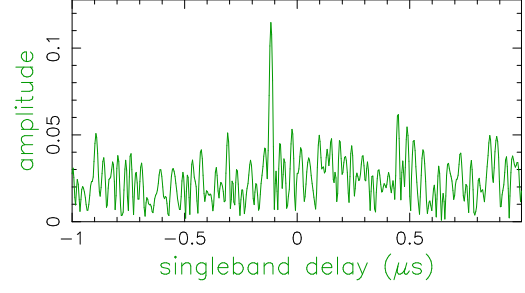
multiband delay (μ s)



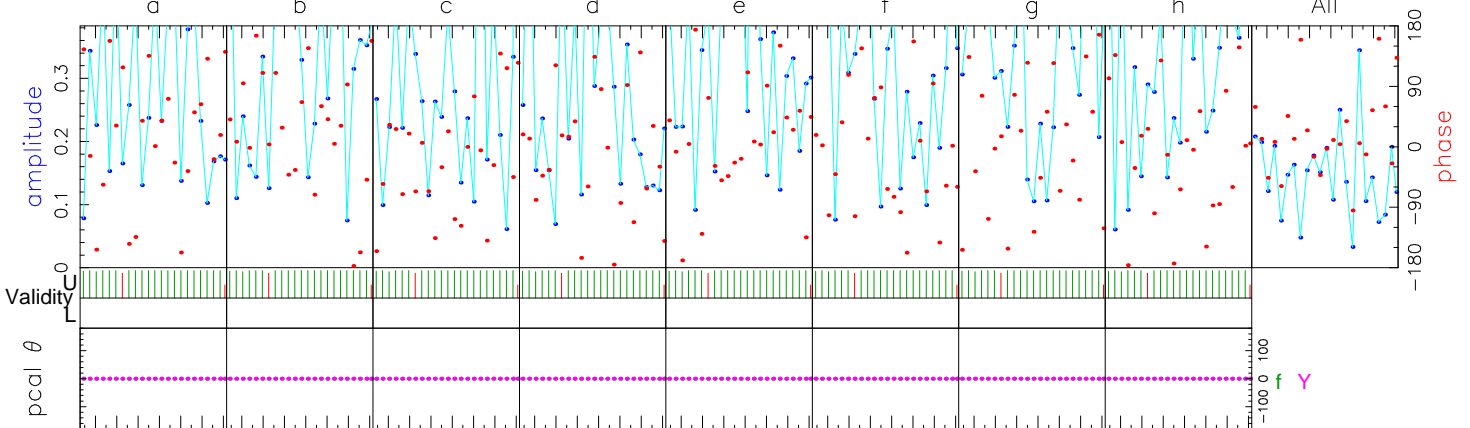
Fringe quality 0

SNR 6.3
 Int time 399.842
 Amp 0.128
 Phase 9.6
 PFD 8.2e-02
 Delays (us)
 SBD -0.116514
 MBD -0.003355
 Fringe rate (Hz)
 -0.487906
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130927
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	783/0	783/0	783/0	783/0	783/0	783/0	783/0	783/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:Y	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		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.34330461509E+04	Apriori delay (usec)	1.34331588814E+04	Resid mbdelay (usec)	-3.35550E-03	+/-	1.7E-04
Sband delay (usec)	1.34330423669E+04	Apriori clock (usec)	-5.8196573E+00	Resid sbdelay (usec)	-1.16514E-01	+/-	1.4E-03
Phase delay (usec)	1.34331588817E+04	Apriori clockrate (us/s)	2.7999998E-07	Resid phdelay (usec)	3.08859E-07	+/-	5.9E-07
Delay rate (us/s)	9.21569510295E-01	Apriori rate (us/s)	9.21575174401E-01	Resid rate (us/s)	-5.66411E-06	+/-	2.5E-09
Total phase (deg)	25.9	Apriori accel (us/s/s)	-8.19519230729E-05	Resid phase (deg)	9.6	+/-	18.2

ph/seg (deg)	61.8	Theor.	43.6	Amplitude	0.128 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	66.6		76.1	Search (2048X32)	0.109	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	19.7		25.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	29.8		45.0	Inc. seg. avg.	0.128	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.121	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 14.7 el 78.6 pa -161.7 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -7209.461 -6561.556 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/fY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/fY.W.148.1ILPVT

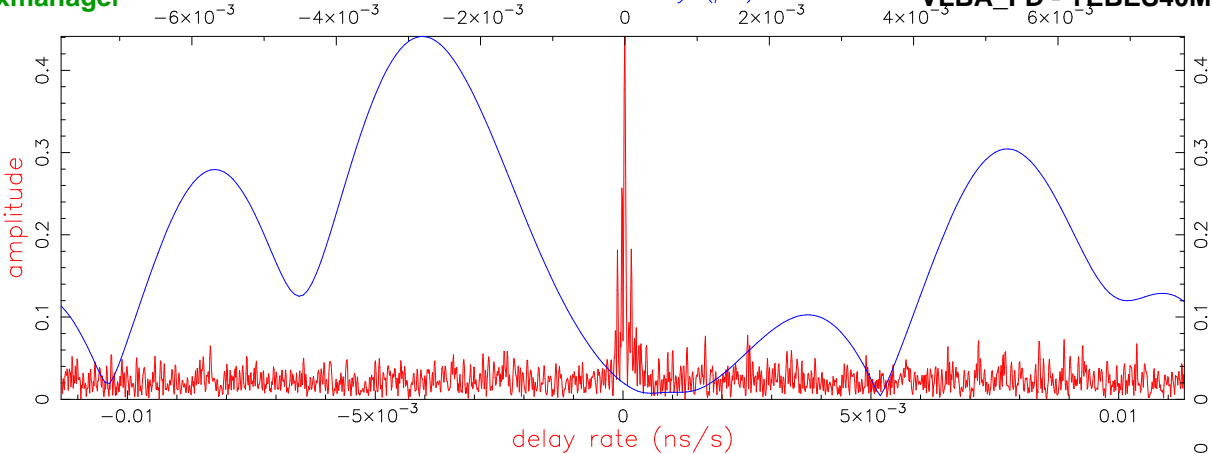
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, fY

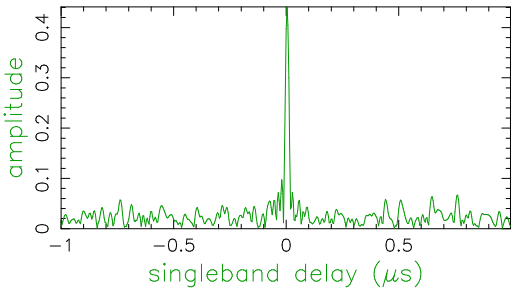
VLBA_FD - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

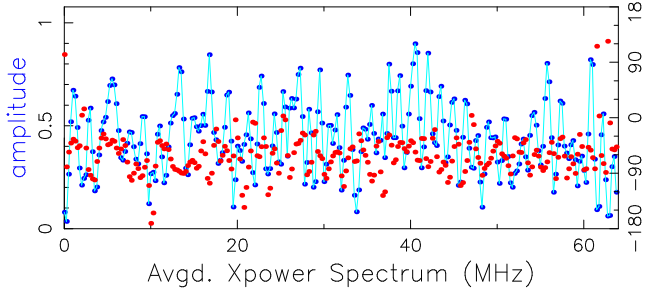


Fringe quality 5

SNR 24.1
 Int time 399.842
 Amp 0.441
 Phase 16.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.004055
 MBD -0.002806
 Fringe rate (Hz)
 0.002853
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

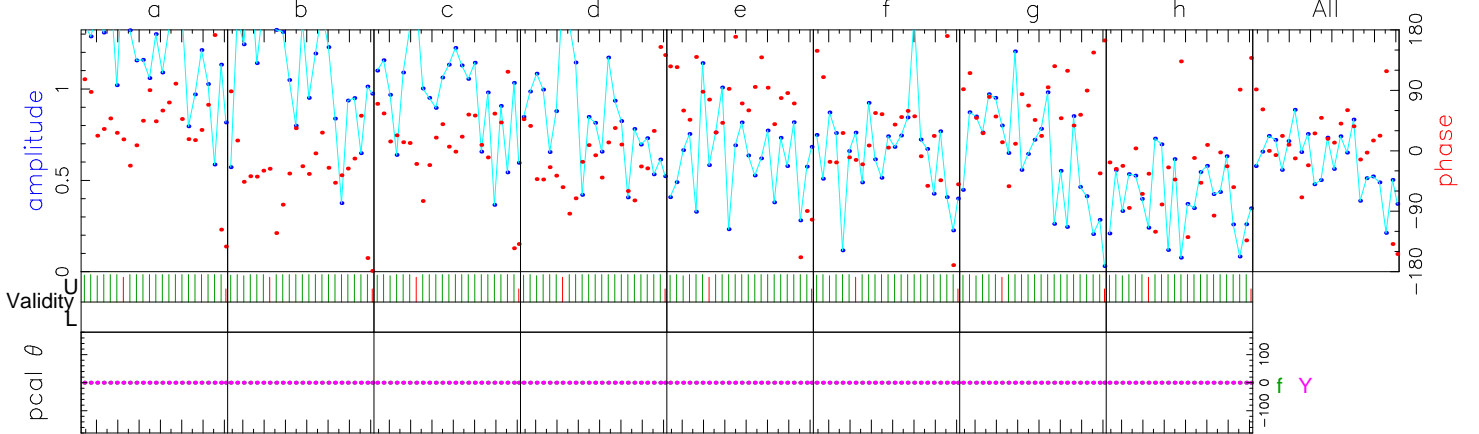


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130917
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	47.3	-27.4	18.4	-23.2	81.3	17.9	53.8	-49.3	Phase	16.5
	0.9	0.8	0.7	0.6	0.4	0.4	0.5	0.3	Ampl.	0.6
	258.0	257.3	257.7	257.9	257.5	257.7	257.0	255.6	Sbd box	258.0
U/L	783/0	783/0	783/0	783/0	783/0	783/0	783/0	783/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.34331560759E+04		Apriori delay (usec)		1.34331588814E+04		Resid mbdelay (usec)		-2.80550E-03	+/- 4.5E-05
Sband delay (usec)	1.34331629367E+04		Apriori clock (usec)		-5.8196573E+00		Resid sbdelay (usec)		4.05525E-03	+/- 3.6E-04
Phase delay (usec)	1.34331588820E+04		Apriori clockrate (us/s)		2.7999998E-07		Resid phdelay (usec)		5.31870E-03	+/- 1.5E-07
Delay rate (us/s)	9.21575207516E-01		Apriori rate (us/s)		9.21575174401E-01		Resid rate (us/s)		3.31151E-08	+/- 6.6E-10
Total phase (deg)	32.9		Apriori accel (us/s/s)		-8.19519230729E-05		Resid phase (deg)		16.5	+/- 4.7

ph/seg (deg) 56.6 11.4 Search (2048X32) 0.439 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 50.5 19.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 49.0 6.7 Inc. seg. avg. 0.591 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 50.1 11.7 Inc. frq. avg. 0.559 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 14.7 el 78.6 pa -161.7 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -7209.461 -6561.556 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/fY..1LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/fY.W.94.1LPVT

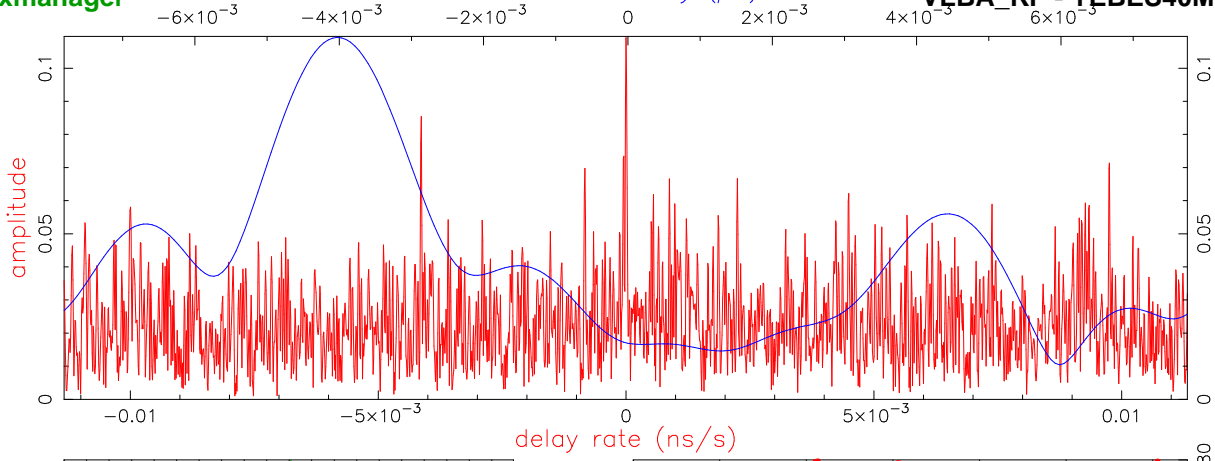
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

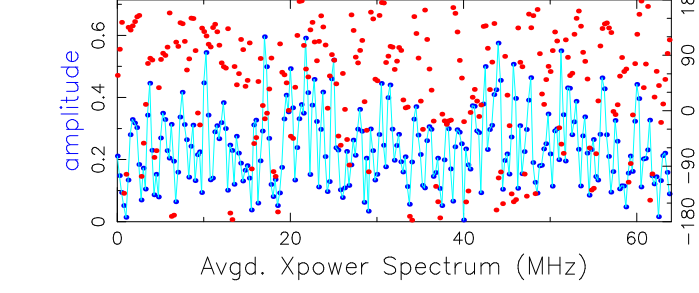
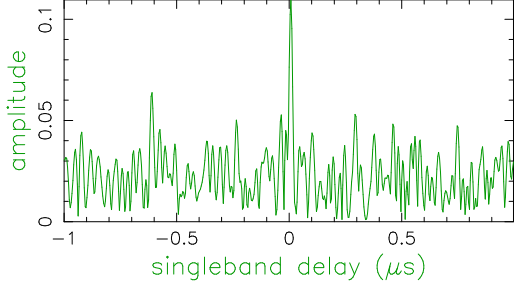
3C84.1ILPVT, No0079, kY

VLBA_KP - YEBES40M, fgroup W, pol LL

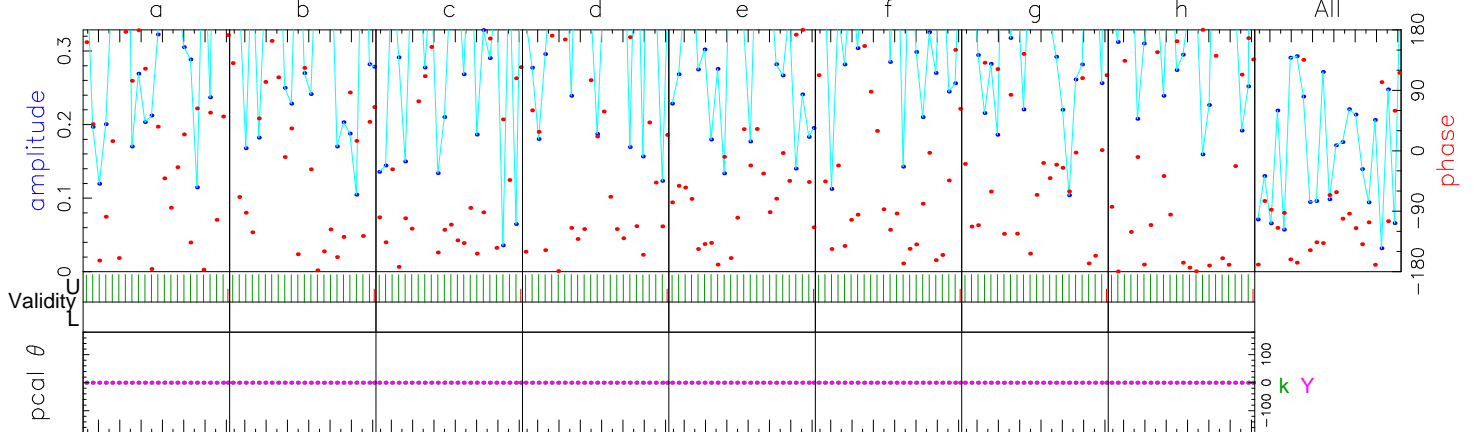
multiband delay (μ s)



Fringe quality 0
 SNR 6.0
 Int time 400.114
 Amp 0.110
 Phase -132.6
 PFD 4.1e-01
 Delays (us)
 SBD 0.007132
 MBD -0.004045
 Fringe rate (Hz) 0.000348
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130931
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		1.33084542139E+04			1.33084426335E+04					
Sband delay (usec)		1.33084497657E+04			-1.3350571E+01					
Phase delay (usec)		1.33084426292E+04			-2.0000006E-08					
Delay rate (us/s)		1.05189173317E+00			1.05189172912E+00					
Total phase (deg)			28.5		-7.98529457854E-05					
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)										

ph/seg (deg) 61.3 45.8
 amp/seg (%) 90.9 80.0
 ph/frq (deg) 37.0 27.0
 amp/frq (%) 41.2 47.2

RMS Theor. Amplitude 0.110 +/- 0.018
 Search (2048X32) 0.105
 Interp. 0.000
 Inc. seg. avg. 0.123
 Inc. frq. avg. 0.117

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

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

k: az 40.4 el 76.7 pa -134.9 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -8203.283 -6273.740 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/kY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/kY.W.159.1ILPVT

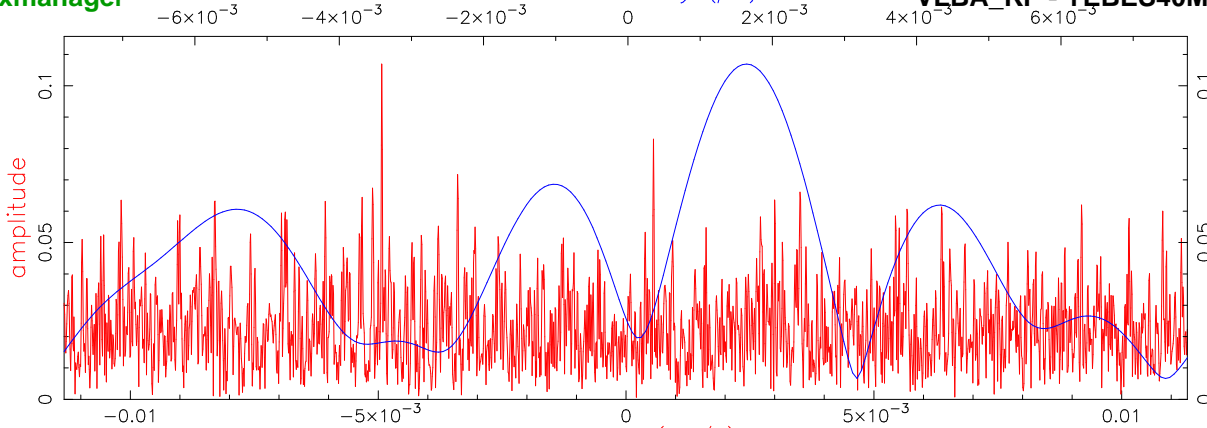
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, kY

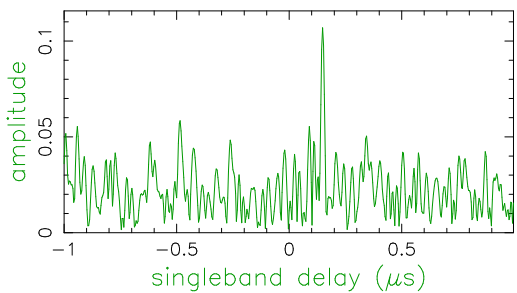
VLBA_KP - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

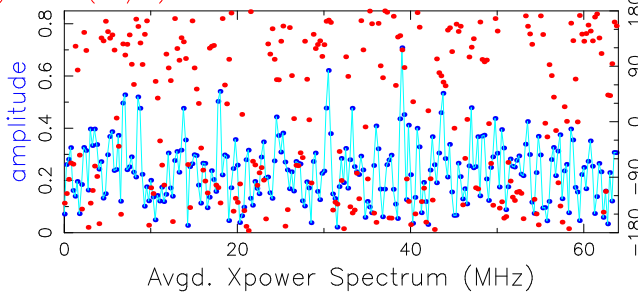


Fringe quality 0

SNR 5.9
Int time 400.114
Amp 0.116
Phase 57.5
PFD 7.1e-01
Delays (us)
SBD 0.148596
MBD 0.001646
Fringe rate (Hz)
-0.424547
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

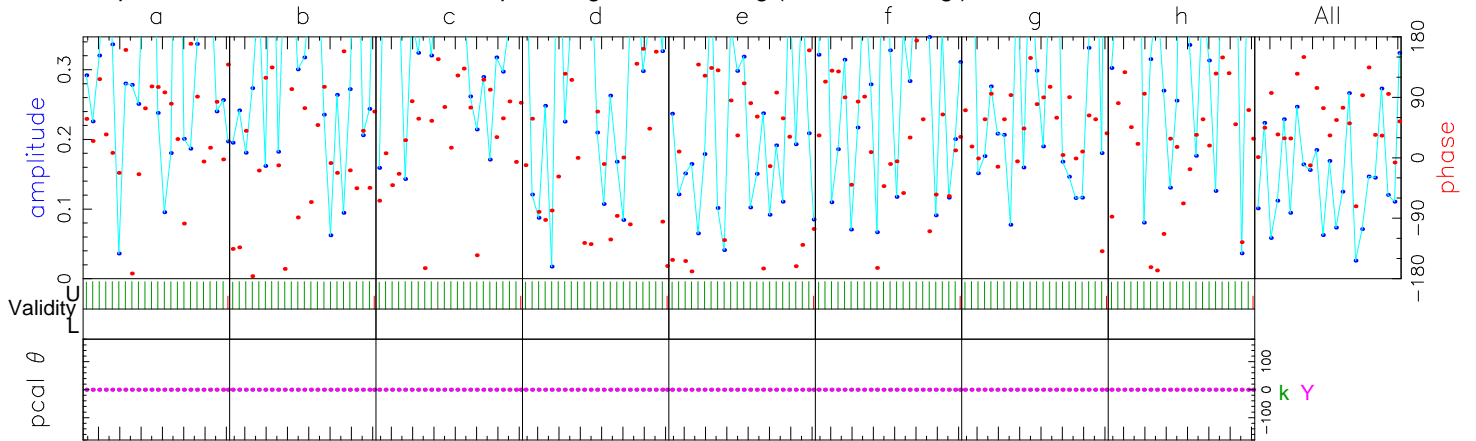


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130935
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	1.33085849047E+04	Apriori delay (usec)	1.33084426335E+04	Resid mbdelay (usec)	1.64627E-03	+/-	1.9E-04
Sband delay (usec)	1.33085912295E+04	Apriori clock (usec)	-1.3350571E+01	Resid sbdelay (usec)	1.48596E-01	+/-	1.5E-03
Phase delay (usec)	1.33084426353E+04	Apriori clockrate (us/s)	-2.0000006E-08	Resid phdelay (usec)	1.85347E-06	+/-	6.3E-07
Delay rate (us/s)	1.05188680055E+00	Apriori rate (us/s)	1.05189172912E+00	Resid rate (us/s)	-4.92857E-06	+/-	2.7E-09
Total phase (deg)	218.6	Apriori accel (us/s/s)	-7.98529457854E-05	Resid phase (deg)	57.5	+/-	19.6

ph/seg (deg)	51.2	Theor.	47.0	Amplitude	0.116 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	77.9	Search (2048X32)	0.104	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	67.6	Inc. seg. avg.	0.119	Inc. frq. avg.	0.121	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	60.9	Inc. frq. avg.	0.121	u,v (fr/asec)	-8203.283 -6273.740	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

k: az 40.4 el 76.7 pa -134.9 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -8203.283 -6273.740 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/kY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/kY.W.177.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

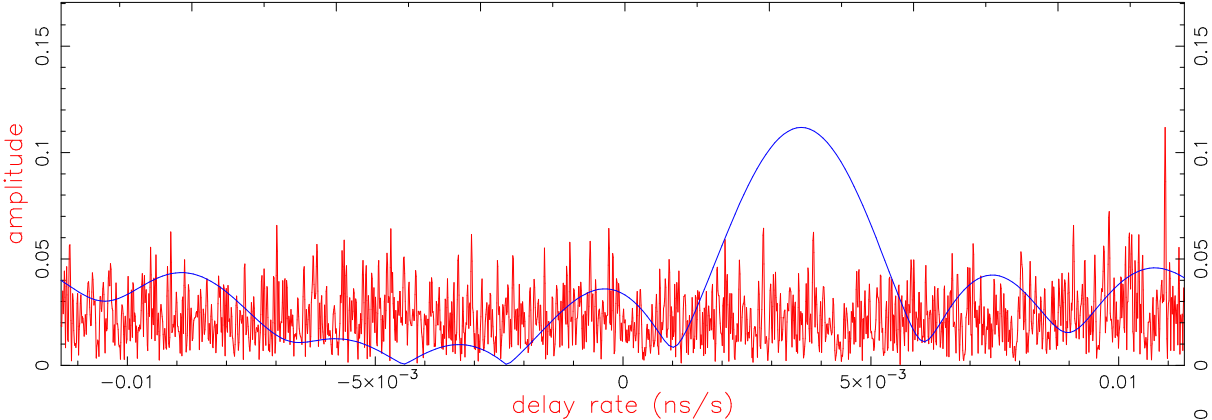
3C84.1ILPVT, No0079, kY

VLBA_KP - YEBES40M, fgroup W, pol LR

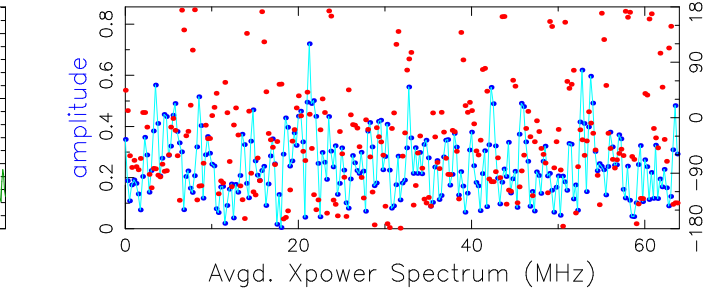
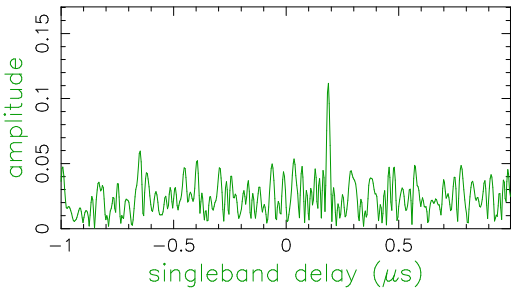
multiband delay (μ s)

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

Fringe quality 0

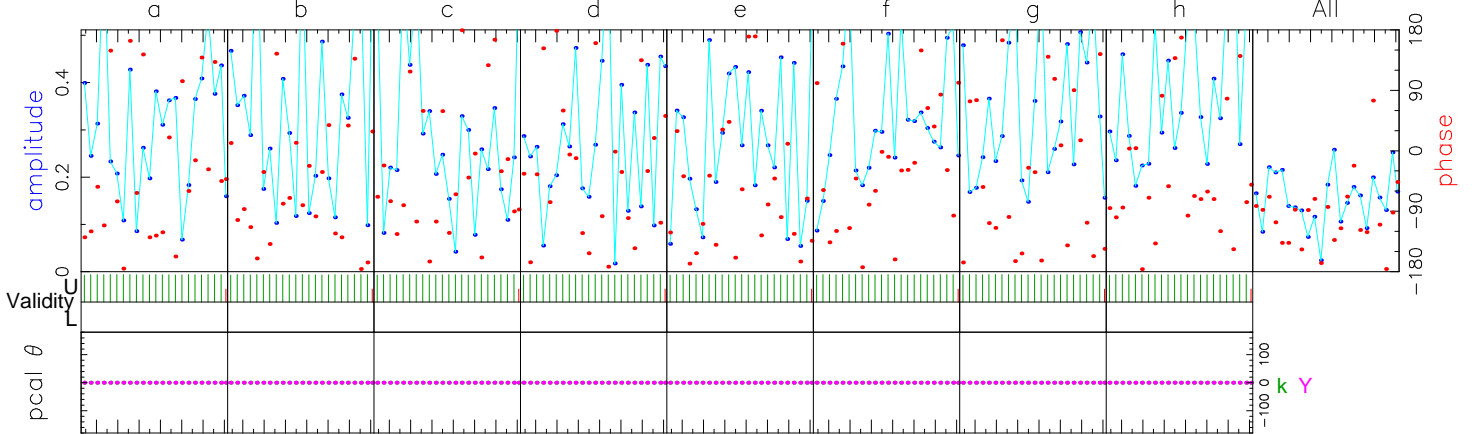


SNR 6.1
Int time 400.114
Amp 0.171
Phase -101.2
PFD 2.0e-01
Delays (us)
SBD 0.186722
MBD 0.002429
Fringe rate (Hz)
0.943192
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130939
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-114.5	-99.0	-104.9	-87.4	-96.6	-58.1	-146.6	-94.6	Phase	-101.2
	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	Ampl.	0.2
	419.1	295.4	43.0	65.0	336.8	346.9	90.7	299.0	Sbd box	304.8
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.33086325625E+04	Apriori delay (usec)	1.33084426335E+04	Resid mbdelay (usec)	2.42898E-03	+/-	1.8E-04
Sband delay (usec)	1.33086293552E+04	Apriori clock (usec)	-1.3350571E+01	Resid sbdelay (usec)	1.86722E-01	+/-	1.4E-03
Phase delay (usec)	1.33084426302E+04	Apriori clockrate (us/s)	-2.0000006E-08	Resid phdelay (usec)	-3.26445E-06	+/-	6.0E-07
Delay rate (us/s)	1.05190267864E+00	Apriori rate (us/s)	1.05189172912E+00	Resid rate (us/s)	1.09495E-05	+/-	2.6E-09
Total phase (deg)		Apriori accel (us/s/s)	-7.98529457854E-05	Resid phase (deg)	-101.2	+/-	18.7

ph/seg (deg)	51.4	Theor.	44.7	Amplitude	0.171 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	63.1		78.1	Search (2048X32)	0.110	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	27.0		26.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	25.8		46.1	Inc. seg. avg.	0.179	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.167	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

k: az 40.4 el 76.7 pa -134.9 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -8203.283 -6273.740 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/kY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/kY.W.196.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

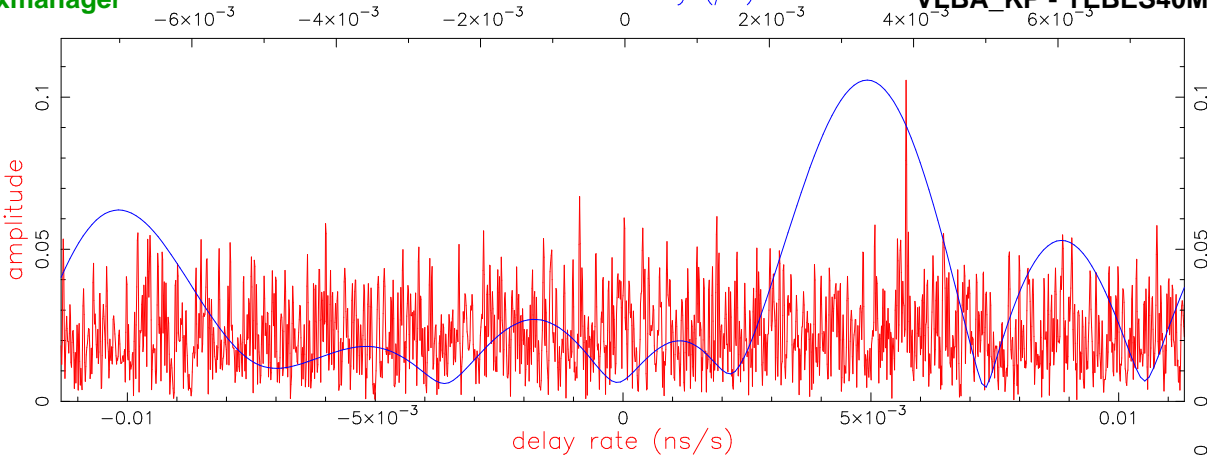
fxmanager

3C84.1ILPVT, No0079, kY

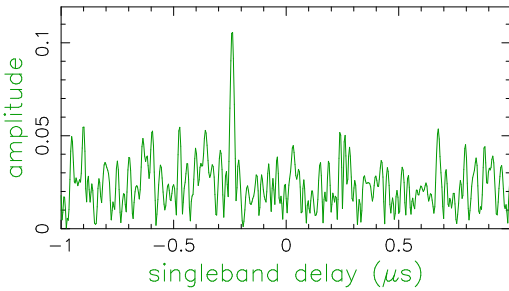
VLBA_KP - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

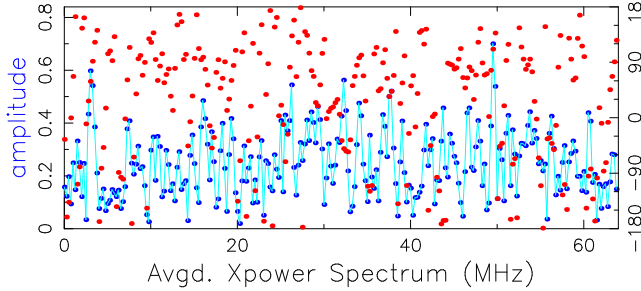
Fringe quality 0



SNR 5.9
Int time 400.114
Amp 0.119
Phase 156.0
PFD 6.8e-01
Delays (us)
SBD -0.240109
MBD 0.003328
Fringe rate (Hz)
0.493049
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

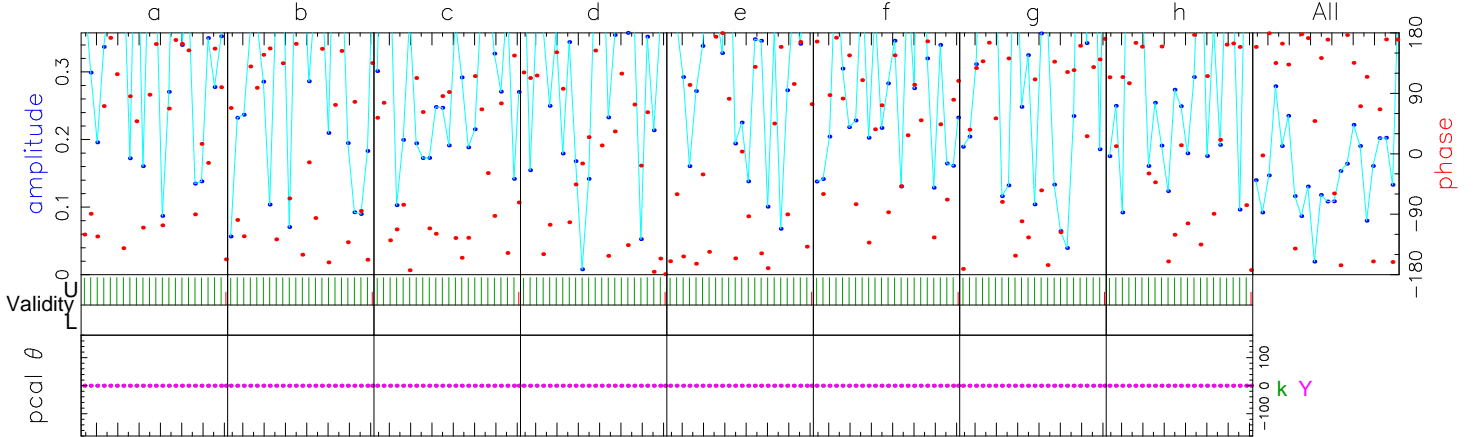


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130943
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	147.1	168.8	179.4	139.1	-179.0	87.5	156.0	-175.9	Phase	156.0
k	0.2	0.2	0.0	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1
Y	92.5	194.3	201.8	294.3	112.4	204.5	396.0	80.0	Sbd box	195.5
k	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.33081959614E+04	Apriori delay (usec)	1.33084426335E+04	Resid mbdelay (usec)	3.32792E-03	+/-	1.9E-04
Sband delay (usec)	1.33082025247E+04	Apriori clock (usec)	-1.3350571E+01	Resid sbdelay (usec)	-2.40109E-01	+/-	1.5E-03
Phase delay (usec)	1.33084426385E+04	Apriori clockrate (us/s)	-2.0000006E-08	Resid phdelay (usec)	5.03046E-06	+/-	6.3E-07
Delay rate (us/s)	1.05189745293E+00	Apriori rate (us/s)	1.05189172912E+00	Resid rate (us/s)	5.72381E-06	+/-	2.7E-09
Total phase (deg)	317.1	Apriori accel (us/s/s)	-7.98529457854E-05	Resid phase (deg)	156.0	+/-	19.5

ph/seg (deg)	62.5	RMS	Theor.	Amplitude	0.119 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	74.7	62.5	46.9	Search (2048X32)	0.103	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	34.6	74.7	81.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	32.6	34.6	27.6	Inc. seg. avg.	0.128	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
		32.6	48.2	Inc. frq. avg.	0.118	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 40.4 el 76.7 pa -134.9 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -8203.283 -6273.740 simultaneous interpolator

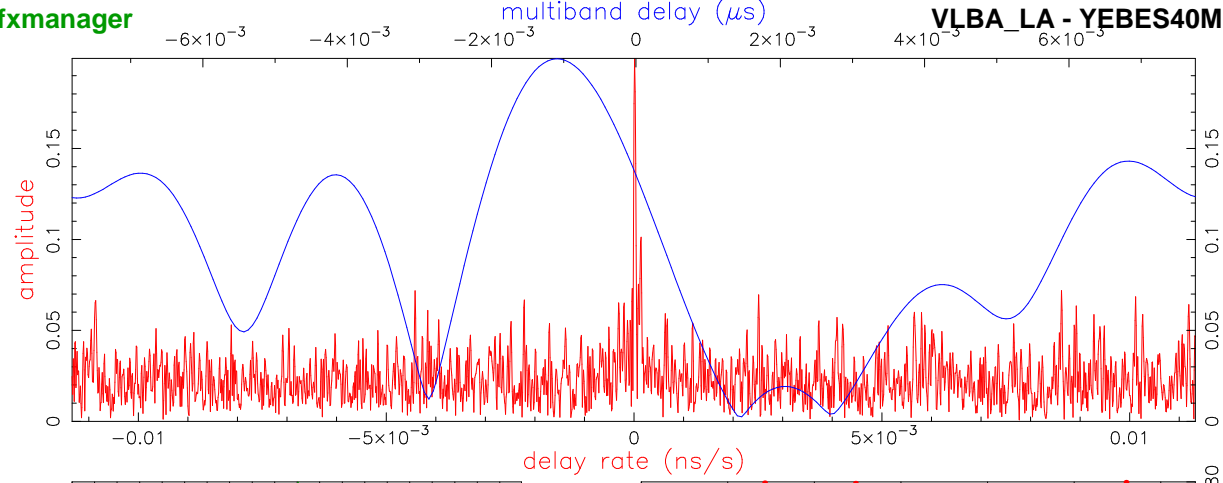
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/kY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/kY.W.215.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, IY

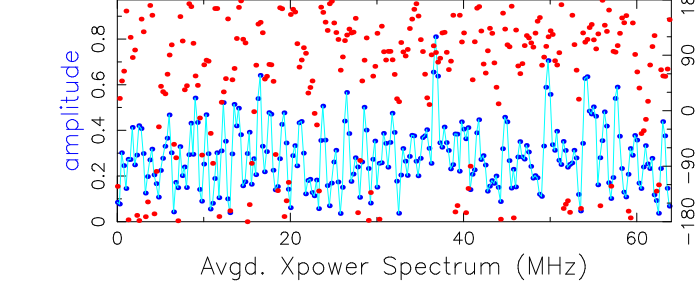
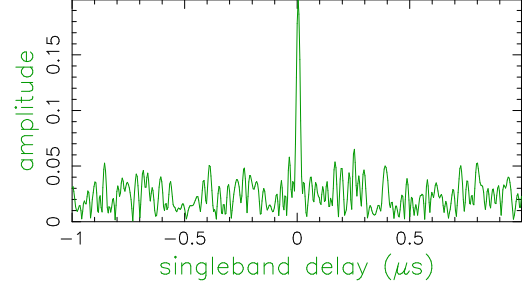
VLBA_LA - YEBES40M, fgroup W, pol LL



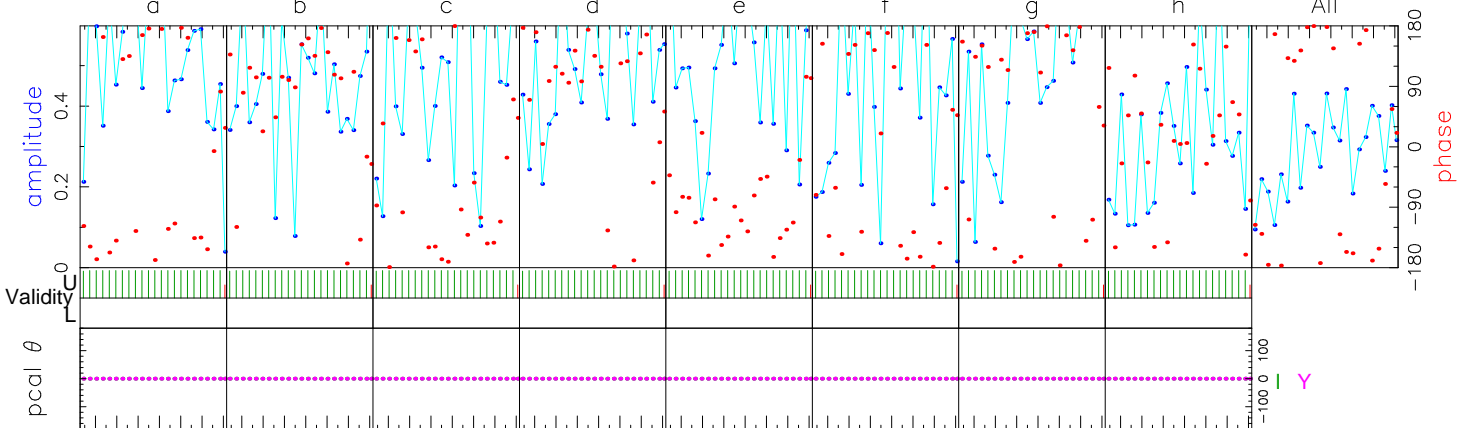
Fringe quality 9

SNR 10.9
 Int time 402.380
 Amp 0.200
 Phase 178.3
 PFD 3.3e-19
 Delays (us)
 SBD 0.004391
 MBD -0.001090
 Fringe rate (Hz) 0.000570
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130934
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-168.1	120.3	-154.6	136.5	-100.8	176.7	175.5	37.0	Phase	178.3
	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.1	Ampl.	0.3
	257.7	258.5	258.0	258.0	257.7	257.0	257.8	255.0	Sbd box	258.1
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.36691647037E+04	Apriori delay (usec)	1.36691657937E+04	Resid mbdelay (usec)	-1.08996E-03	+/-	9.9E-05
Sband delay (usec)	1.36691701850E+04	Apriori clock (usec)	-1.4088512E+01	Resid sbdelay (usec)	4.39125E-03	+/-	7.9E-04
Phase delay (usec)	1.36691657995E+04	Apriori clockrate (us/s)	-2.1999999E-07	Resid phdelay (usec)	5.74947E-06	+/-	3.4E-07
Delay rate (us/s)	9.56675454040E-01	Apriori rate (us/s)	9.56675447426E-01	Resid rate (us/s)	6.61368E-09	+/-	1.5E-09
Total phase (deg)	347.5	Apriori accel (us/s/s)	-7.76333749231E-05	Resid phase (deg)	178.3	+/-	10.5

ph/seg (deg)	52.7	Theor.	25.1	Amplitude	0.200 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	67.9	Search (2048X32)	0.194	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	73.7	Inc. seg. avg.	0.263	Inc. frq. avg.	0.285	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	60.6	Inc. frq. avg.	0.285			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

I: az 37.6 el 82.5 pa -141.7 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -7470.932 -5760.564 simultaneous interpolator

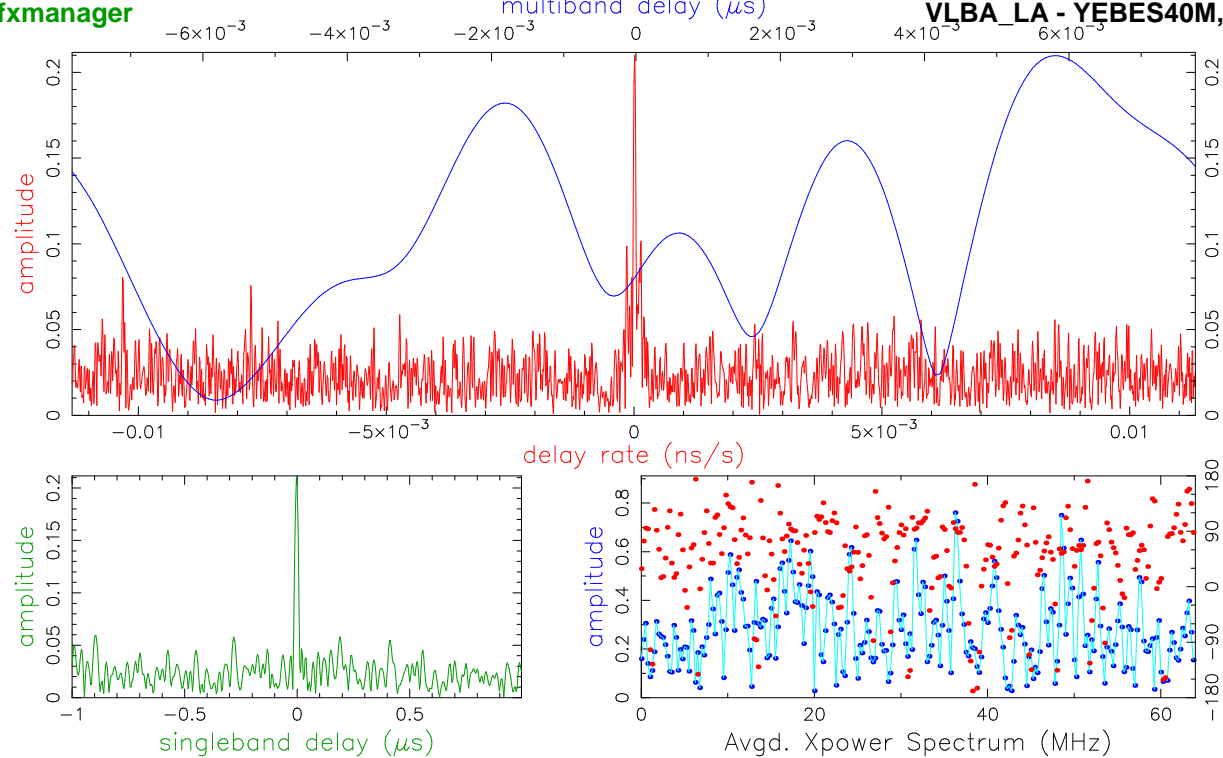
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/IY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/IY.W.171.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

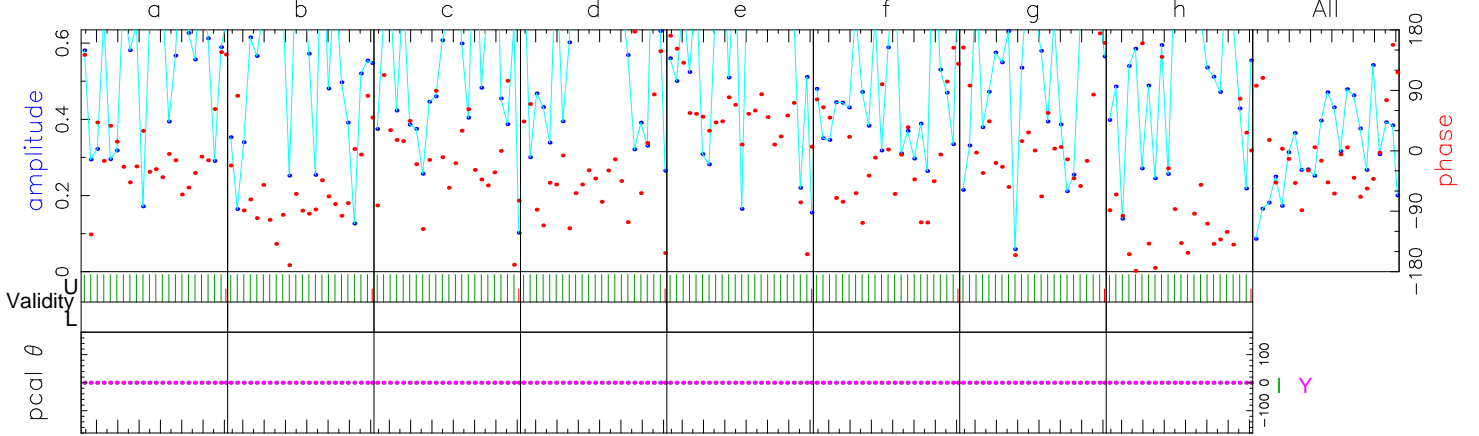
3C84.1ILPVT, No0079, IY

VLBA_LA - YEBES40M, fgroup W, pol RR



Fringe quality 9
 SNR 11.6
 Int time 402.380
 Amp 0.212
 Phase -25.8
 PFD 1.8e-22
 Delays (us)
 SBD -0.002652
 MBD 0.005846
 Fringe rate (Hz) 0.001189
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130938
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-22.0	-75.3	-6.9	-43.1	62.1	-24.0	-1.1	-126.2	Phase	-25.8
	0.4	0.4	0.3	0.3	0.5	0.2	0.3	0.3	Ampl.	0.3
	256.3	255.3	256.4	255.2	256.2	255.5	255.1	255.2	Sbd box	256.3
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.36691560144E+04		Apriori delay (usec)		1.36691657937E+04		Resid mbdelay (usec)		5.84573E-03	+/- 9.3E-05
Sband delay (usec)	1.36691631415E+04		Apriori clock (usec)		-1.4088512E+01		Resid sbdelay (usec)		-2.65225E-03	+/- 7.4E-04
Phase delay (usec)	1.36691657929E+04		Apriori clockrate (us/s)		-2.1999999E-07		Resid phdelay (usec)		-8.32860E-07	+/- 3.2E-07
Delay rate (us/s)	9.56675461226E-01		Apriori rate (us/s)		9.56675447426E-01		Resid rate (us/s)		1.37999E-08	+/- 1.4E-09
Total phase (deg)	143.4		Apriori accel (us/s/s)		-7.76333749231E-05		Resid phase (deg)		-25.8	+/- 9.9

	RMS	Theor.	Amplitude	0.212 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	66.6	23.7	Search (2048X32)	0.209	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	75.3	41.3	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	59.9	14.0	Inc. seg. avg.	0.297	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	67.0	24.4	Inc. frq. avg.	0.328	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

I: az 37.6 el 82.5 pa -141.7 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -7470.932 -5760.564 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/IY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/IY.W.190.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

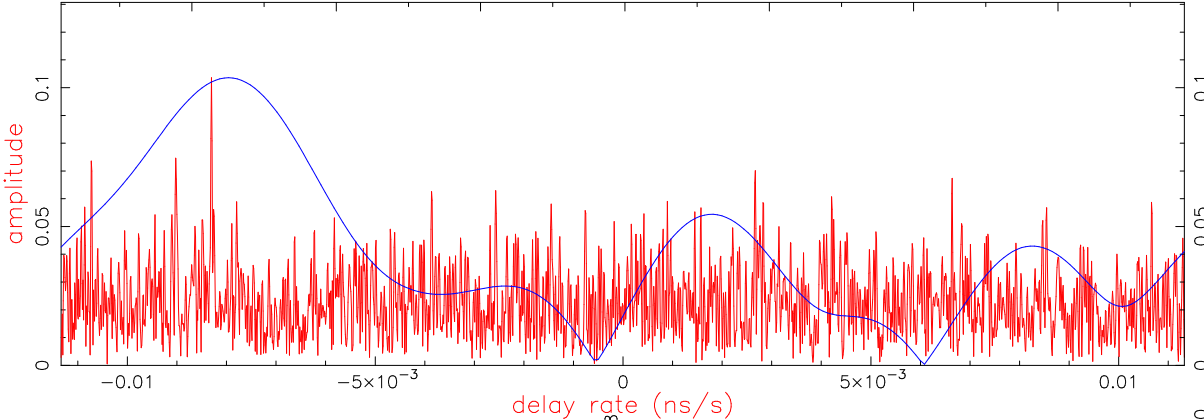
3C84.1ILPVT, No0079, IY

VLBA_LA - YEBES40M, fgroup W, pol LR

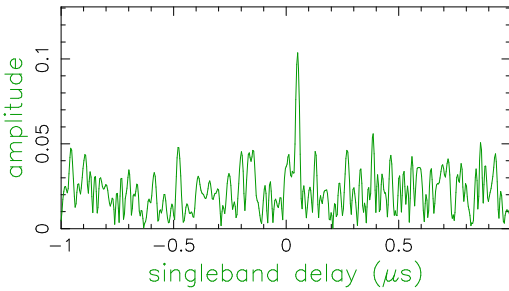
multiband delay (μ s)

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

Fringe quality 0

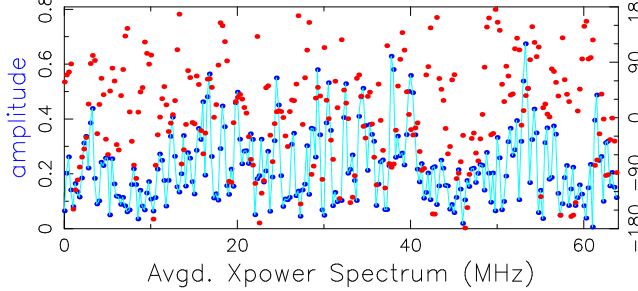


SNR 5.7
Int time 402.380
Amp 0.131
Phase -58.8
PFD 9.6e-01
Delays (us)
SBD 0.050466
MBD -0.005513
Fringe rate (Hz)
-0.716576
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



singleband delay (μ s)

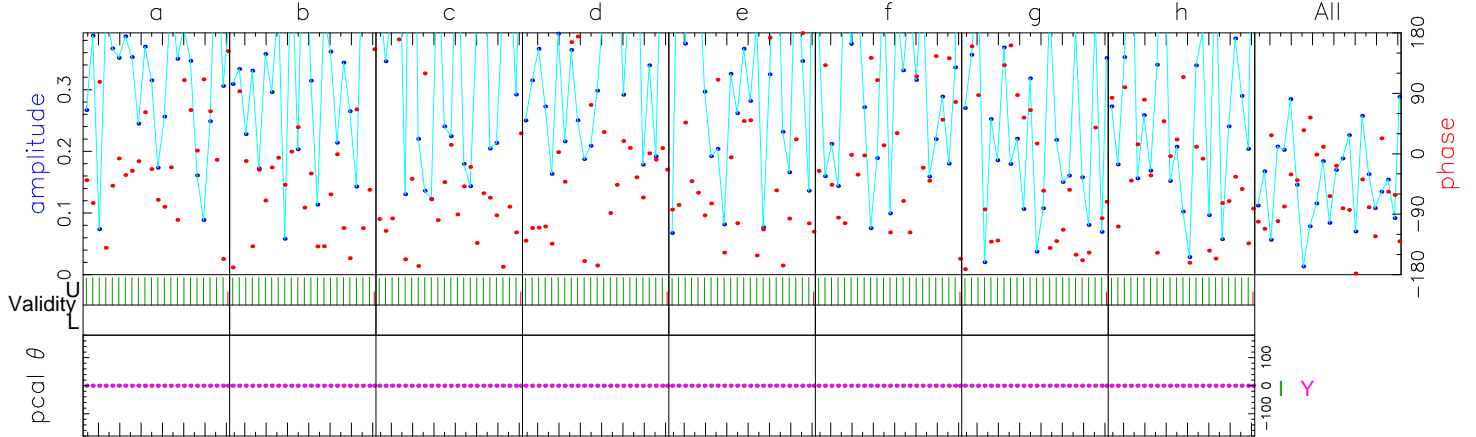
delay rate (ns/s)



Avgd. Xpower Spectrum (MHz)

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130941
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0			
I	1000	1000	1000	1000	1000	1000	1000	1000			
Y	1000	1000	1000	1000	1000	1000	1000	1000			
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
I	1000	1000	1000	1000	1000	1000	1000	1000			
Y	1000	1000	1000	1000	1000	1000	1000	1000			
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		1.36692227806E+04			1.36691657937E+04				Resid mbdelay (usec)	-5.51315E-03	+/- 1.9E-04
Sband delay (usec)		1.36692162592E+04			-1.4088512E+01				Resid sbdelay (usec)	5.04655E-02	+/- 1.5E-03
Phase delay (usec)		1.36691657918E+04			-2.1999999E-07				Resid phdelay (usec)	-1.89545E-06	+/- 6.5E-07
Delay rate (us/s)		9.56667128688E-01			9.56675447426E-01				Resid rate (us/s)	-8.31874E-06	+/- 2.8E-09
Total phase (deg)			110.4		-7.76333749231E-05				Resid phase (deg)	-58.8	+/- 20.2
RMS	58.2	48.3		0.131 +/- 0.023					PCal mode: MANUAL, MANUAL		
ph/seg (deg)	58.2	48.3		0.099					PCal rate: 0.000E+00, 0.000E+00 (us/s)		
amp/seg (%)	79.4	84.4		0.000					Bits/sample: 2x2	sb window (us)	-1.000 1.000
ph/frq (deg)	58.1	28.5		0.139					SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	53.0	49.8		0.145					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	

I: az 37.6 el 82.5 pa -141.7 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -7470.932 -5760.564 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/IY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/IY.W.208.1ILPVT

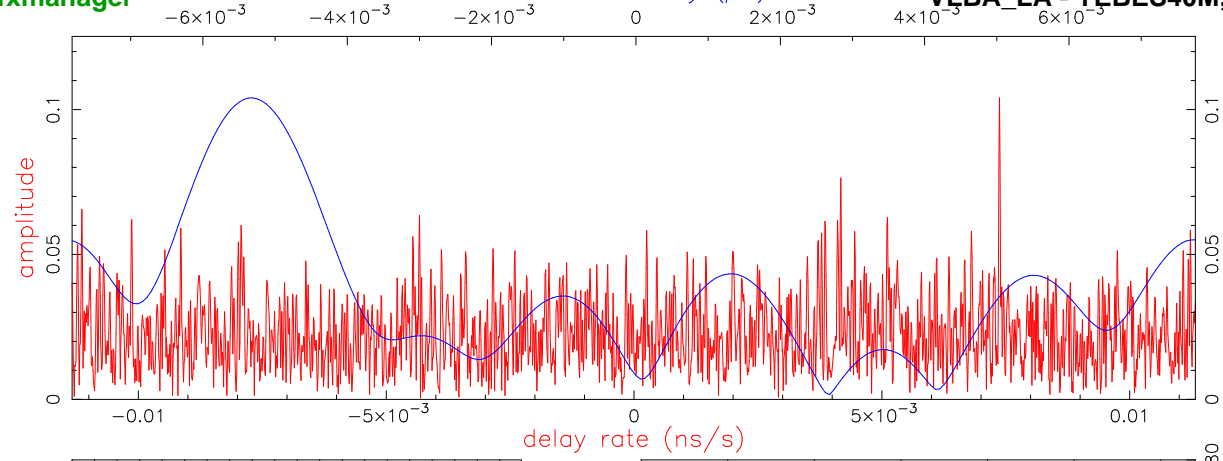
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, IY

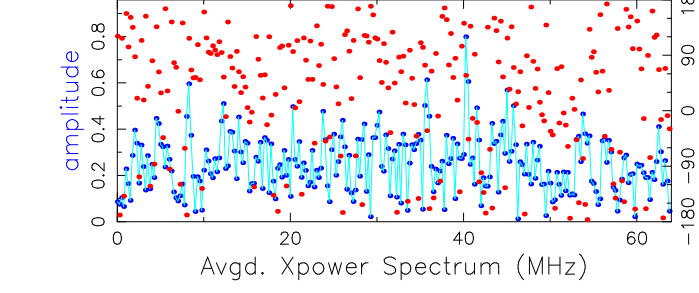
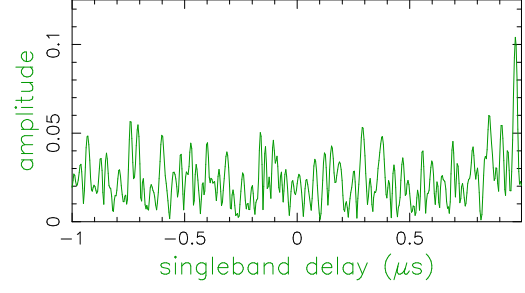
VLBA_LA - YEBES40M, fgroup W, pol RL

multiband delay (μ s)



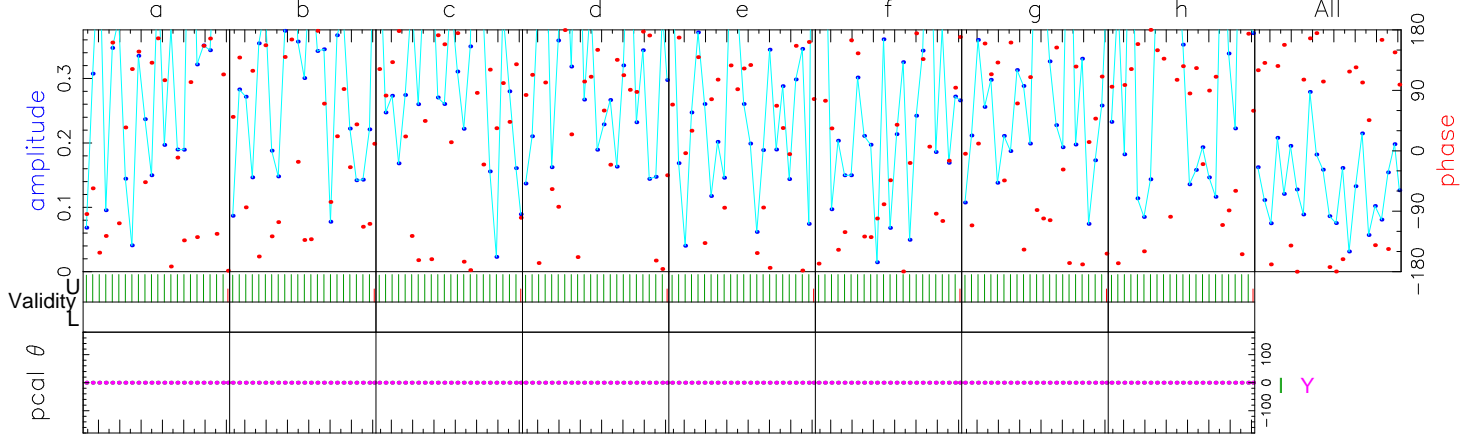
Fringe quality 0

SNR 5.7
 Int time 402.380
 Amp 0.125
 Phase 155.2
 PFD 9.2e-01
 Delays (us)
 SBD 0.969667
 MBD -0.005337
 Fringe rate (Hz)
 0.636317
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130945
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	178.8	177.8	123.5	139.4	115.2	-172.9	-160.5	160.7	Phase	155.2
I	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	Ampl.	0.1
Y	329.7	496.6	219.7	111.7	102.8	147.6	24.5	505.5	Sbd box	505.2
I	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.36701292065E+04	Apriori delay (usec)	1.36691657937E+04	Resid mbdelay (usec)	-5.33720E-03	+/-	1.9E-04
Sband delay (usec)	1.36701354607E+04	Apriori clock (usec)	-1.4088512E+01	Resid sbdelay (usec)	9.69667E-01	+/-	1.5E-03
Phase delay (usec)	1.36691657987E+04	Apriori clockrate (us/s)	-2.1999999E-07	Resid phdelay (usec)	5.00418E-06	+/-	6.4E-07
Delay rate (us/s)	9.56682834439E-01	Apriori rate (us/s)	9.56675447426E-01	Resid rate (us/s)	7.38701E-06	+/-	2.8E-09
Total phase (deg)	324.4	Apriori accel (us/s/s)	-7.76333749231E-05	Resid phase (deg)	155.2	+/-	20.0

ph/seg (deg)	44.5	Theor.	47.9	Amplitude	0.125 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	64.1	Search (2048X32)	0.102	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	34.0	Inc. seg. avg.	0.121	Inc. frq. avg.	0.125	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	39.6	Inc. frq. avg.	0.125	Sample rate(MISamp/s): 128		Data rate(Mb/s): 2048	nlags: 256
							t_cohere infinite

I: az 37.6 el 82.5 pa -141.7 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -7470.932 -5760.564 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/IY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/IY.W.224.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

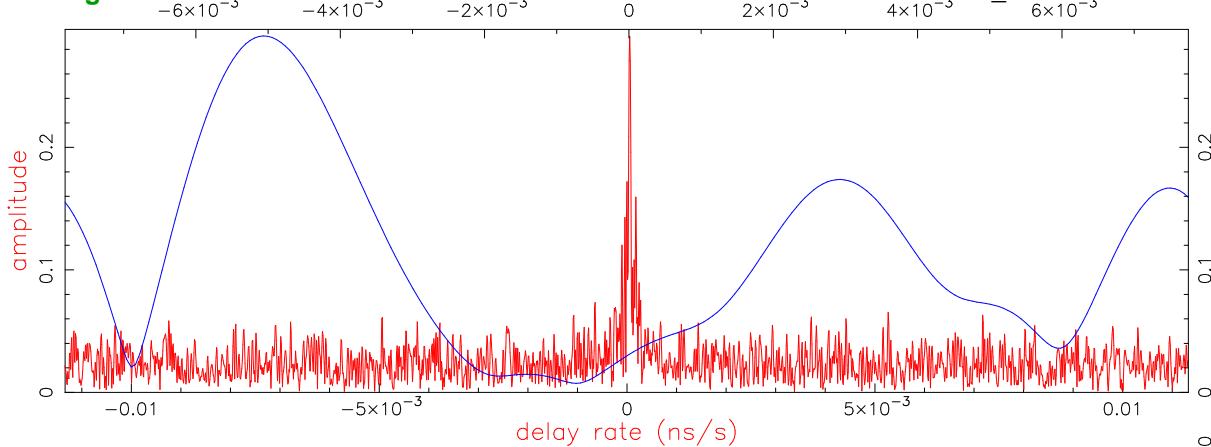
fxmanager

3C84.1ILPVT, No0079, mY

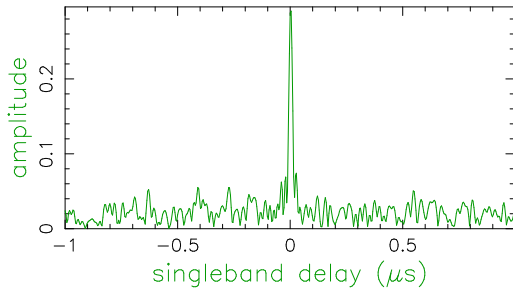
VLBA_MK - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

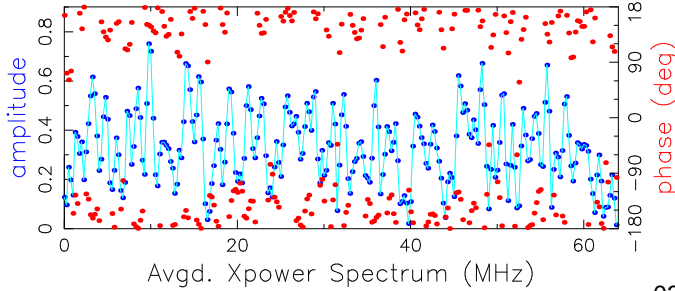
Fringe quality 8



SNR 16.3
Int time 402.380
Amp 0.296
Phase -95.6
PFD 0.0e+00
Delays (us)
SBD 0.002130
MBD -0.005111
Fringe rate (Hz) 0.005023
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

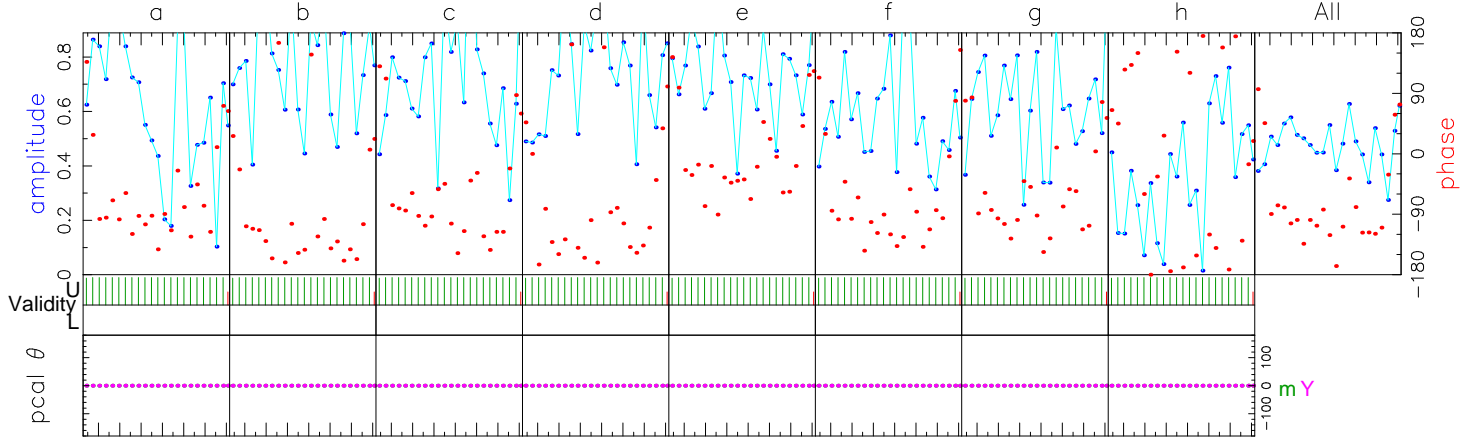


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130949
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-81.5	-127.7	-85.9	-132.4	-22.9	-93.6	-71.2	-175.6	Phase	-95.6
	0.4	0.5	0.4	0.4	0.4	0.4	0.3	0.2	Ampl.	0.4
	257.1	257.0	257.5	257.0	256.7	256.4	256.8	254.2	Sbd box	257.5
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	6.11173315993E+03	Apriori delay (usec)	6.11173827100E+03	Resid mbdelay (usec)	-5.11107E-03	+/-	6.7E-05
Sband delay (usec)	6.11174040075E+03	Apriori clock (usec)	-3.2056999E-01	Resid sbdelay (usec)	2.12975E-03	+/-	5.3E-04
Phase delay (usec)	6.11173826792E+03	Apriori clockrate (us/s)	-2.0000006E-08	Resid phdelay (usec)	-3.08258E-06	+/-	2.3E-07
Delay rate (us/s)	1.76099866454E+00	Apriori rate (us/s)	1.76099860622E+00	Resid rate (us/s)	5.83178E-08	+/-	9.8E-10
Total phase (deg)	143.4	Apriori accel (us/s/s)	-5.57489223320E-05	Resid phase (deg)	-95.6	+/-	7.0

ph/seg (deg)	67.7	Theor.	16.9	Amplitude	0.296 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	66.5	Search (2048X32)	0.287	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	49.9	Inc. seg. avg.	0.456	Inc. frq. avg.	0.366	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	36.8	Inc. frq. avg.	0.366			Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

m: az 52.0 el 38.7 pa -97.2 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -13582.662 -5794.203 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/mY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/mY.W.236.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

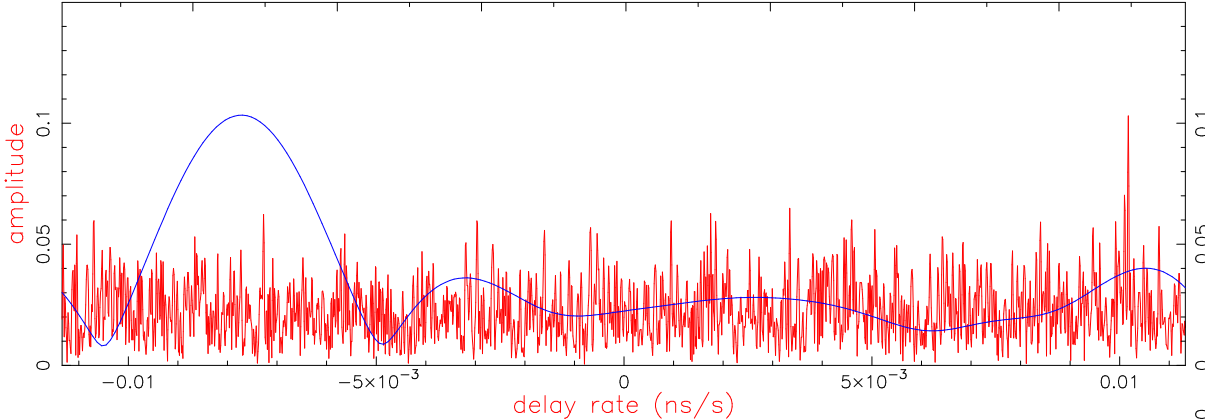
3C84.1ILPVT, No0079, mY

VLBA_MK - YEYES40M, fgroup W, pol LR

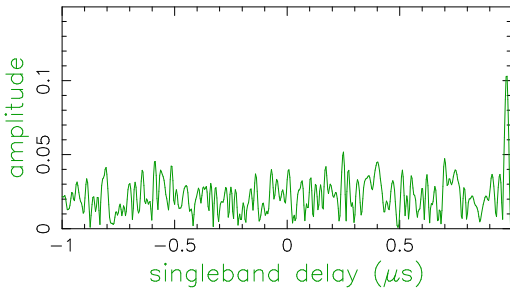
multiband delay (μ s)

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

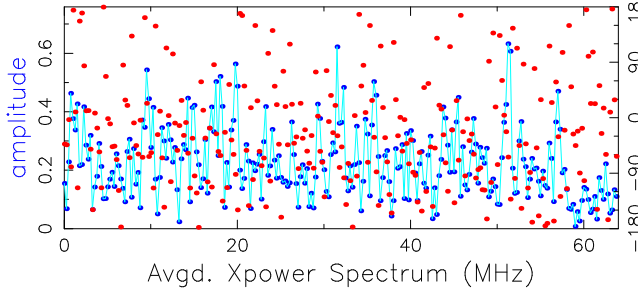
Fringe quality 0



SNR 5.8
Int time 402.380
Amp 0.150
Phase 82.2
PFD 8.9e-01
Delays (us)
SBD 0.974694
MBD -0.005421
Fringe rate (Hz)
0.877395
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

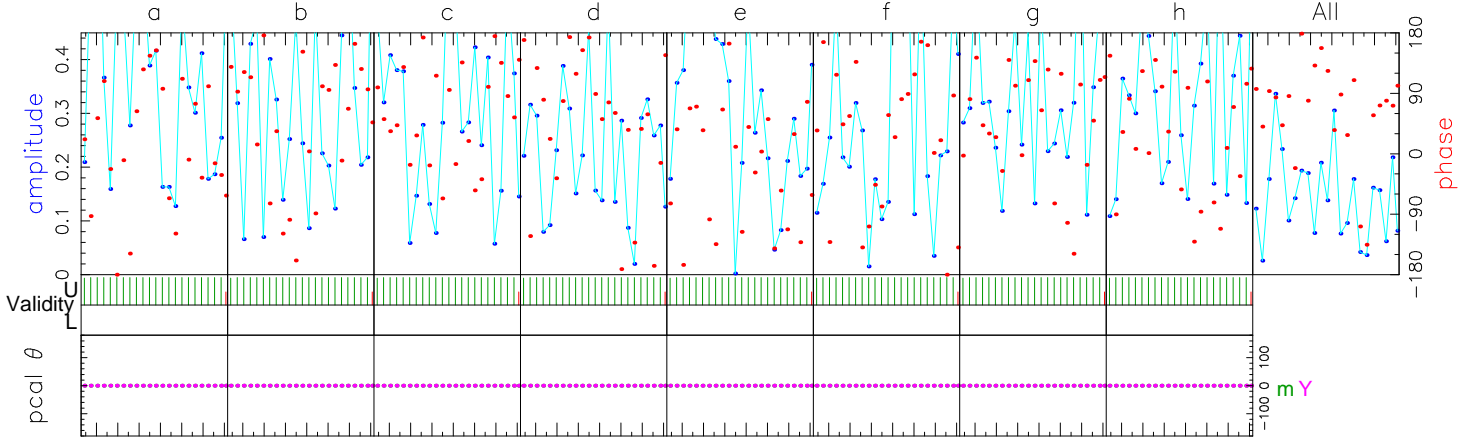


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130957
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	68.7	93.4	63.3	112.8	31.7	99.0	91.0	75.2	Phase	82.2
	0.1	0.1	0.2	0.1	0.1	0.2	0.3	0.1	Ampl.	0.1
	376.3	366.2	319.7	150.0	439.6	505.0	349.6	435.9	Sbd box	506.5
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	6.11271722488E+03	Apriori delay (usec)	6.11173827100E+03	Resid mbdelay (usec)	-5.42112E-03	+/-	1.9E-04
Sband delay (usec)	6.11271296475E+03	Apriori clock (usec)	-3.2056999E-01	Resid sbdelay (usec)	9.74694E-01	+/-	1.5E-03
Phase delay (usec)	6.11173827365E+03	Apriori clockrate (us/s)	-2.0000006E-08	Resid phdelay (usec)	2.64923E-06	+/-	6.4E-07
Delay rate (us/s)	1.76100879191E+00	Apriori rate (us/s)	1.76099860622E+00	Resid rate (us/s)	1.01857E-05	+/-	2.8E-09
Total phase (deg)	321.2	Apriori accel (us/s/s)	-5.57489223320E-05	Resid phase (deg)	82.2	+/-	19.9

ph/seg (deg)	63.1	Theor.	47.8	Amplitude	0.150 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	87.0		83.4	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	27.6		28.2	Inc. seg. avg.	0.157	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	40.0		49.2	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		

m: az 52.0 el 38.7 pa -97.2 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -13582.662 -5794.203 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/mY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/mY.W.277.1ILPVT

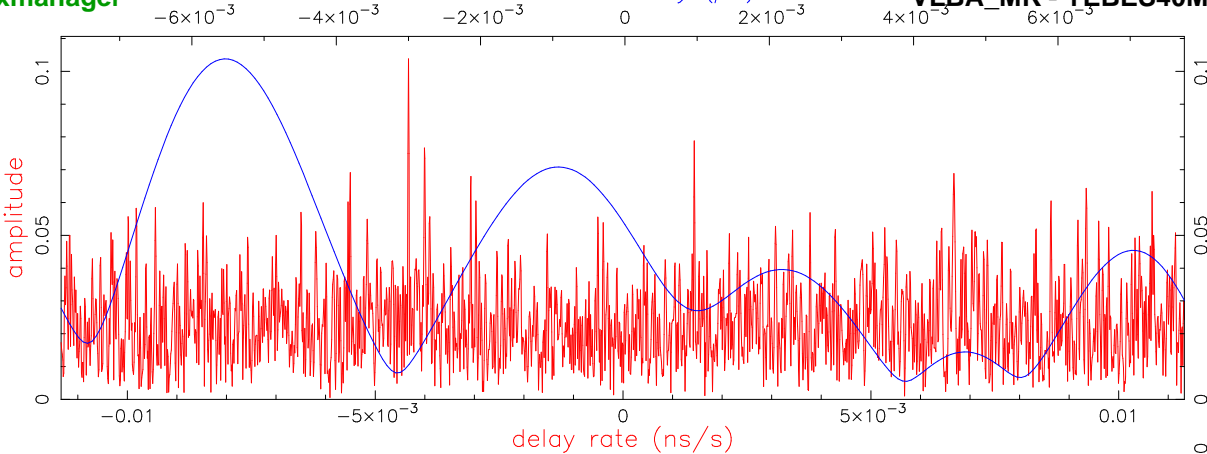
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, mY

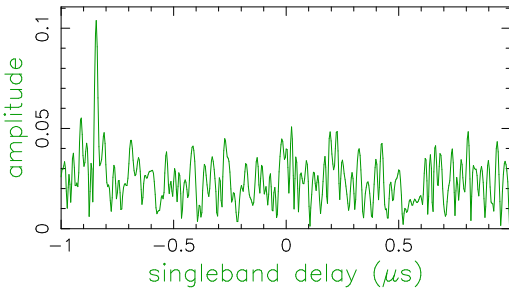
VLBA_MK - YEYES40M, fgroup W, pol RL

multiband delay (μ s)

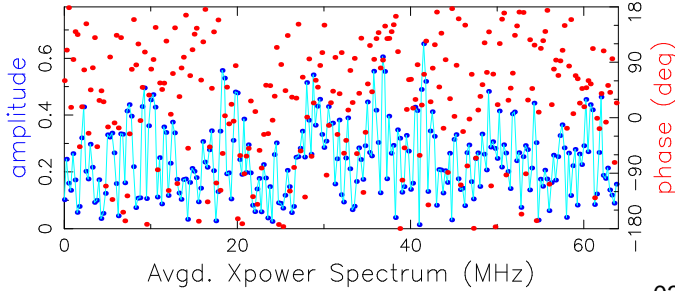


Fringe quality 0

SNR 5.7
 Int time 402.380
 Amp 0.111
 Phase 129.8
 PFD 9.4e-01
 Delays (us)
 SBD -0.844420
 MBD -0.005550
 Fringe rate (Hz)
 -0.373794
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

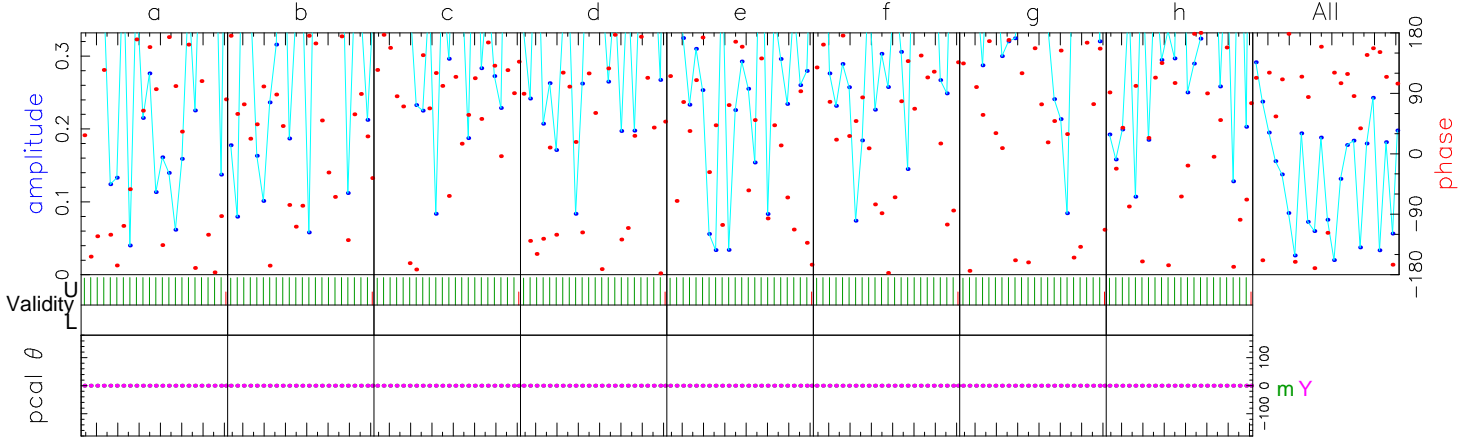


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131001
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	6.11088897131E+03	Apriori delay (usec)	6.11173827100E+03	Resid mbdelay (usec)	-5.54969E-03	+/-	1.9E-04
Sband delay (usec)	6.11089385125E+03	Apriori clock (usec)	-3.2056999E-01	Resid sbdelay (usec)	-8.44420E-01	+/-	1.5E-03
Phase delay (usec)	6.11173827519E+03	Apriori clockrate (us/s)	-2.0000006E-08	Resid phdelay (usec)	4.18587E-06	+/-	6.5E-07
Delay rate (us/s)	1.76099426684E+00	Apriori rate (us/s)	1.76099860622E+00	Resid rate (us/s)	-4.33938E-06	+/-	2.8E-09
Total phase (deg)	8.8	Apriori accel (us/s/s)	-5.57489223320E-05	Resid phase (deg)	129.8	+/-	20.1

ph/seg (deg)	49.7	Theor.	48.1	Amplitude	0.111 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	80.1		84.0	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	37.3		28.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	71.2		49.5	Inc. seg. avg.	0.107	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.112	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

m: az 52.0 el 38.7 pa -97.2 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -13582.662 -5794.203 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/mY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/mY.W.296.1ILPVT

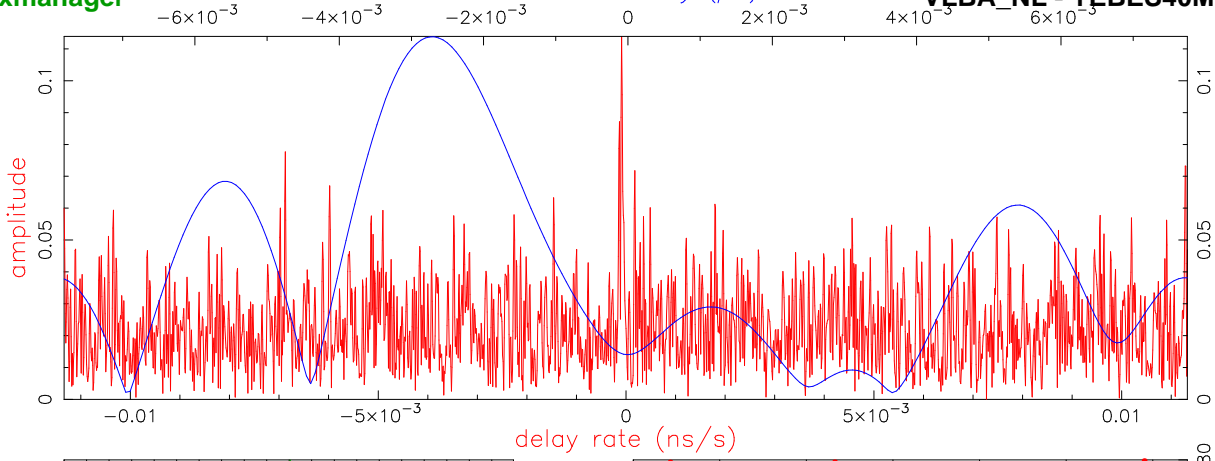
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

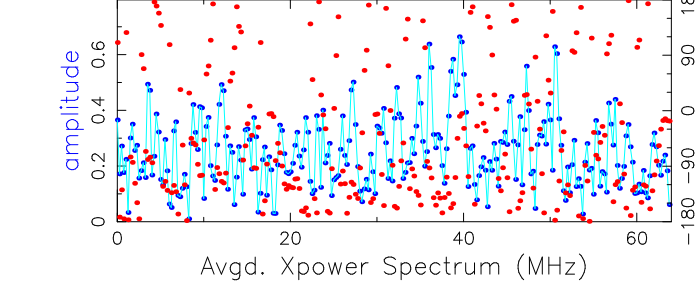
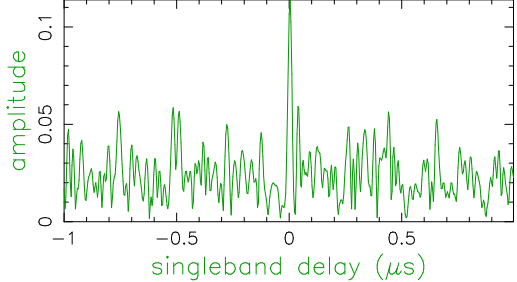
3C84.1ILPVT, No0079, nY

VLBA_NL - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

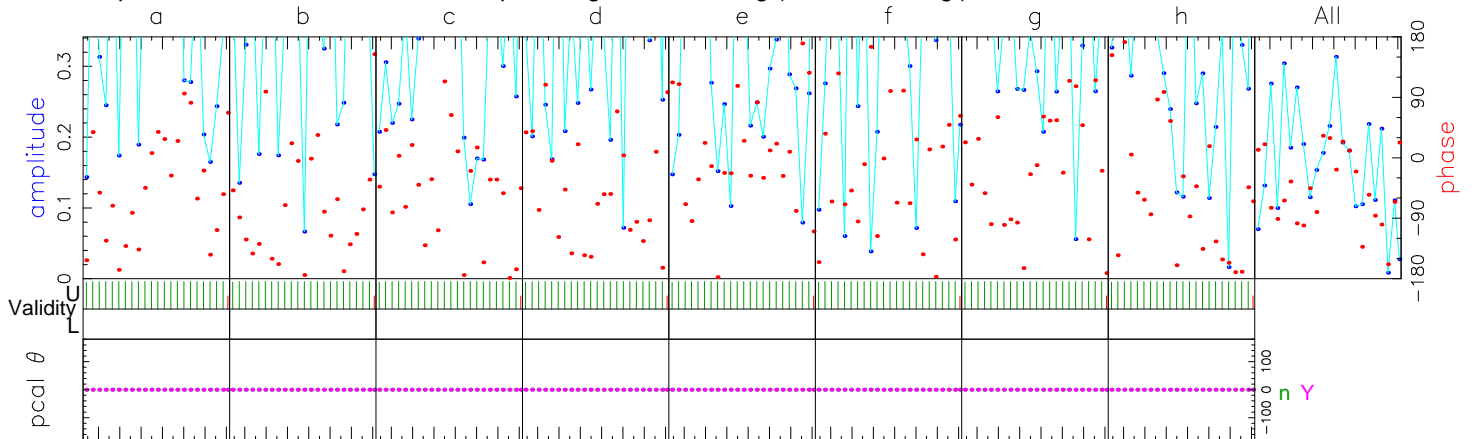


Fringe quality 0
 SNR 6.2
 Int time 402.380
 Amp 0.114
 Phase -46.9
 PFD 1.1e-01
 Delays (us)
 SBD 0.003499
 MBD -0.002715
 Fringe rate (Hz)
 -0.007305
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130950
 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, 35 APs / seg (17.92 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	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:Y	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		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.36530419903E+04	Apriori delay (usec)		1.36530447058E+04	Resid mbdelay (usec)		-2.71549E-03	+/-	1.7E-04
Sband delay (usec)	1.36530482048E+04	Apriori clock (usec)		-1.3520686E+01	Resid sbdelay (usec)		3.49900E-03	+/-	1.4E-03
Phase delay (usec)	1.36530447043E+04	Apriori clockrate (us/s)		3.8000001E-07	Resid phdelay (usec)		-1.51269E-06	+/-	5.9E-07
Delay rate (us/s)	7.28888478428E-01	Apriori rate (us/s)		7.28888563230E-01	Resid rate (us/s)		-8.48023E-08	+/-	2.5E-09
Total phase (deg)	297.1	Apriori accel (us/s/s)		-7.14497631118E-05	Resid phase (deg)		-46.9	+/-	18.3

ph/seg (deg)	54.4	Theor.	44.0	Amplitude	0.114 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	83.2		76.8	Search (2048X32)	0.109	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	42.0		25.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	31.4		45.3	Inc. seg. avg.	0.129	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.126	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

n: az 271.2 el 83.6 pa 84.9 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -5716.535 -4809.415 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/nY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/nY.W.242.1ILPVT

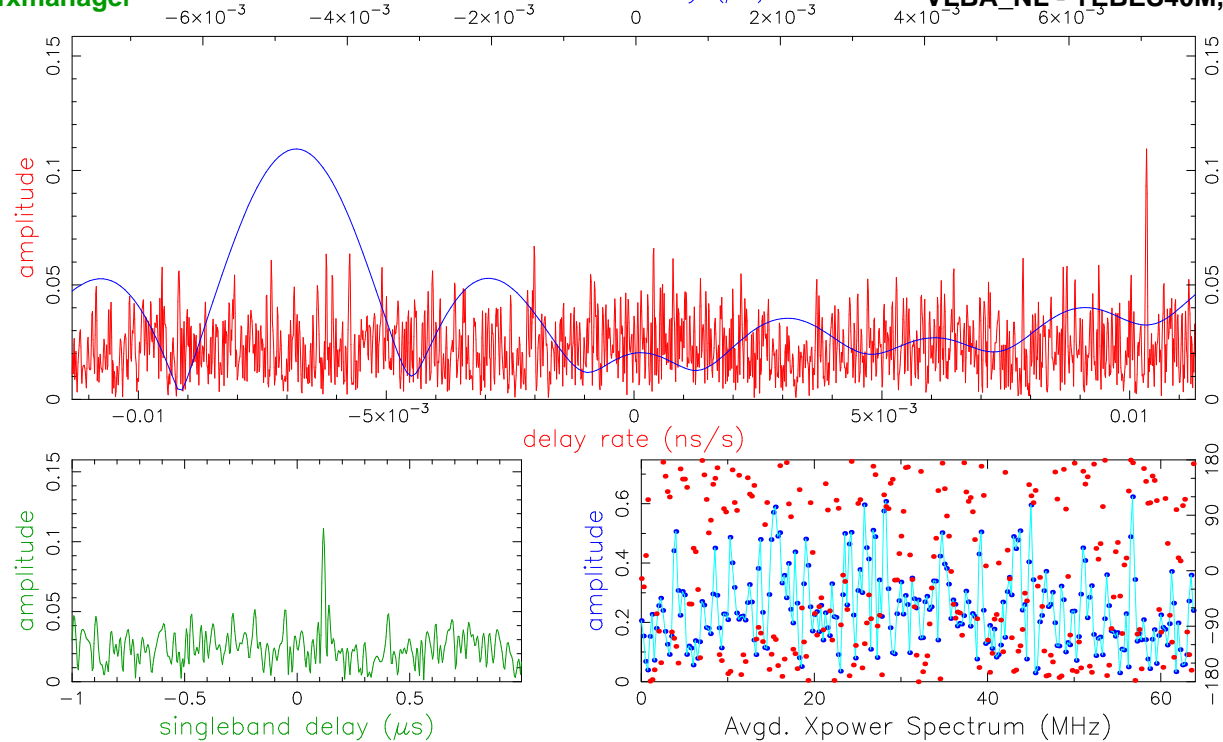
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, nY

VLBA_NL - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

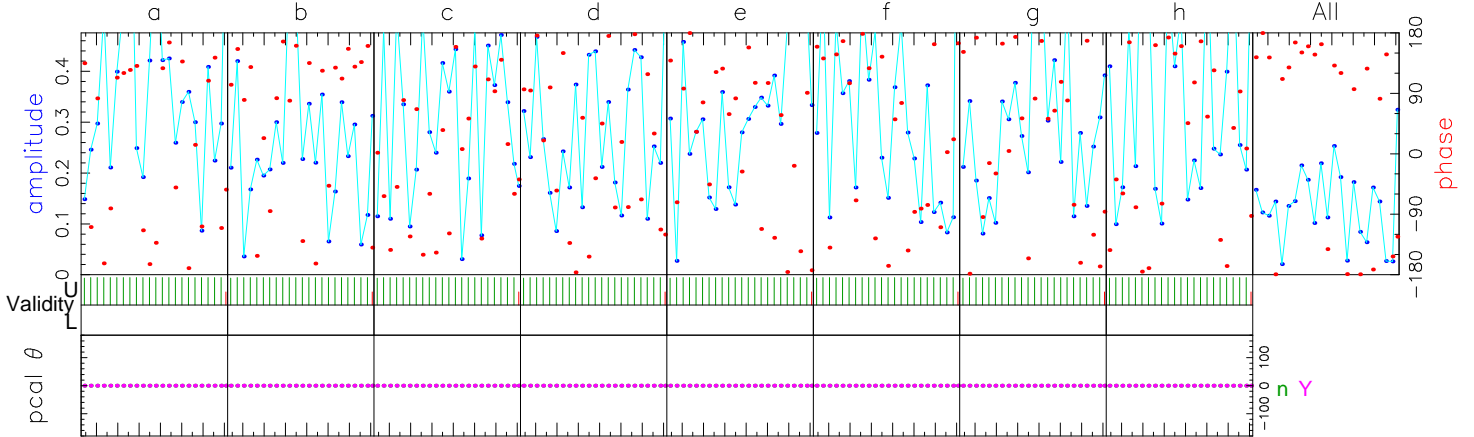


Fringe quality 0

SNR 6.0
 Int time 402.380
 Amp 0.159
 Phase 152.8
 PFD 3.9e-01
 Delays (us)
 SBD 0.116954
 MBD -0.004711
 Fringe rate (Hz) 0.892321
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130953
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:Y	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		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	1.36531649951E+04	Apriori delay (usec)	1.36530447058E+04	Resid mbdelay (usec)	-4.71064E-03	+/-	1.8E-04
Sband delay (usec)	1.36531616603E+04	Apriori clock (usec)	-1.3520686E+01	Resid sbdelay (usec)	1.16954E-01	+/-	1.4E-03
Phase delay (usec)	1.36530447107E+04	Apriori clockrate (us/s)	3.8000001E-07	Resid phdelay (usec)	4.92582E-06	+/-	6.2E-07
Delay rate (us/s)	7.28898922198E-01	Apriori rate (us/s)	7.28888563230E-01	Resid rate (us/s)	1.03590E-05	+/-	2.6E-09
Total phase (deg)	136.7	Apriori accel (us/s/s)	-7.14497631118E-05	Resid phase (deg)	152.8	+/-	19.1

ph/seg (deg)	35.4	Theor.	45.8	Amplitude	0.159 +/- 0.026	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	68.6	Search (2048X32)	0.105	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	28.9	Inc. seg. avg.	0.147	Inc. frq. avg.	0.152	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.7	Inc. frq. avg.	0.152			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

n: az 271.2 el 83.6 pa 84.9 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -5716.535 -4809.415 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/nY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/nY.W.259.1ILPVT

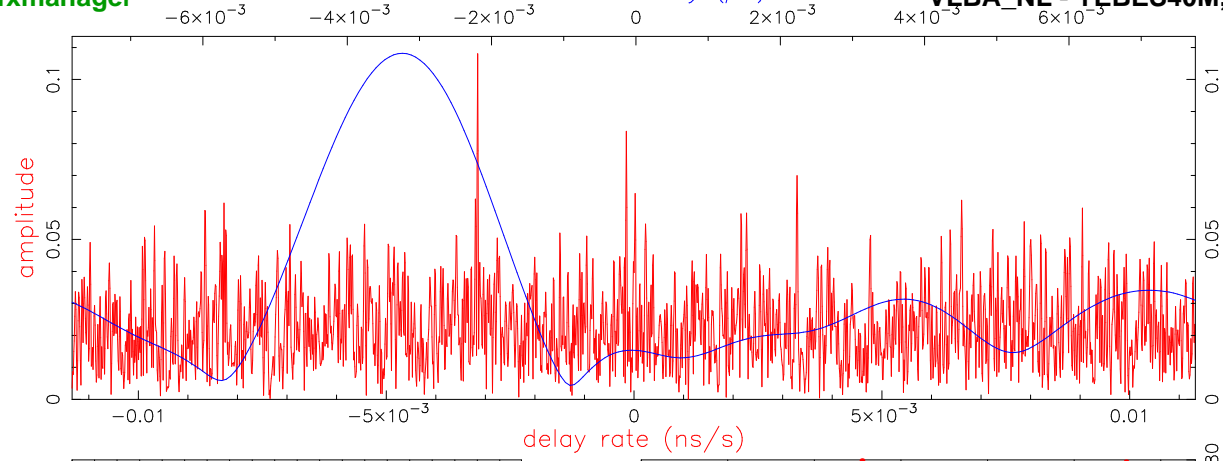
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

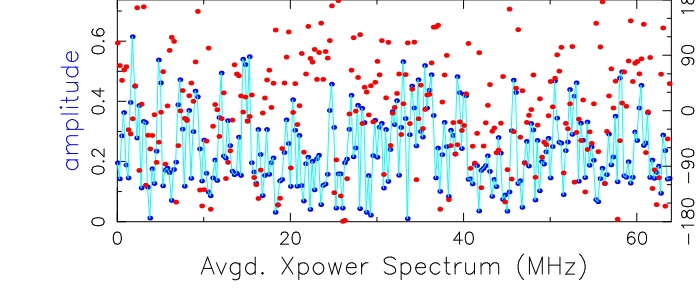
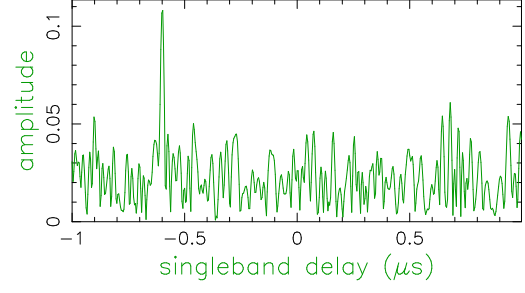
3C84.1ILPVT, No0079, nY

VLBA_NL - YEYES40M, fgroup W, pol LR

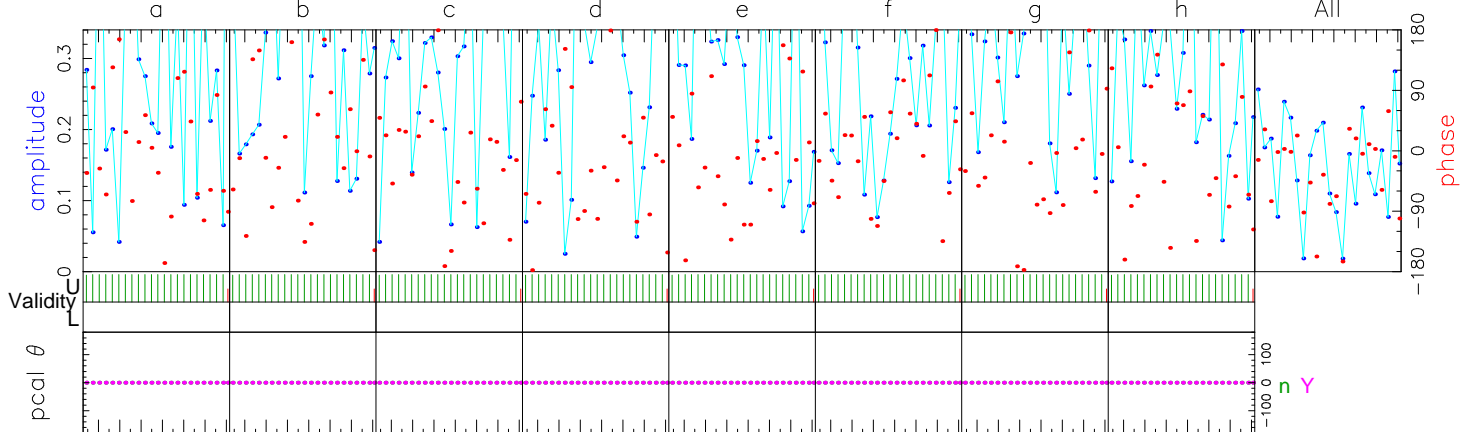
multiband delay (μ s)



Fringe quality 0
 SNR 6.0
 Int time 402.380
 Amp 0.113
 Phase -16.4
 PFD 3.5e-01
 Delays (us)
 SBD -0.599320
 MBD -0.003294
 Fringe rate (Hz)
 -0.272673
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130958
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-28.7	-19.8	3.9	-46.7	-25.8	12.9	-31.3	1.8	Phase	-16.4
	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
	47.0	184.2	104.5	145.2	322.6	510.5	219.9	27.1	Sbd box	103.6
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)		1.36524476613E+04				1.36530447058E+04			Resid mbdelay (usec)	-3.29444E-03 +/- 1.8E-04
Sband delay (usec)		1.36524453860E+04				-1.3520686E+01			Resid sbdelay (usec)	-5.99320E-01 +/- 1.4E-03
Phase delay (usec)		1.36530447052E+04				3.8000001E-07			Resid phdelay (usec)	-5.30138E-07 +/- 6.1E-07
Delay rate (us/s)		7.28885397767E-01				7.28888563230E-01			Resid rate (us/s)	-3.16546E-06 +/- 2.6E-09
Total phase (deg)			327.5			-7.14497631118E-05			Resid phase (deg)	-16.4 +/- 19.0
	RMS	Theor.	Amplitude	0.113 +/- 0.019					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	59.4	45.6	Search (2048X32)	0.106					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	75.1	79.6	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	22.3	26.9	Inc. seg. avg.	0.120					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	40.7	46.9	Inc. frq. avg.	0.107					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 271.2 el 83.6 pa 84.9 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -5716.535 -4809.415 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/nY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/nY.W.280.1ILPVT

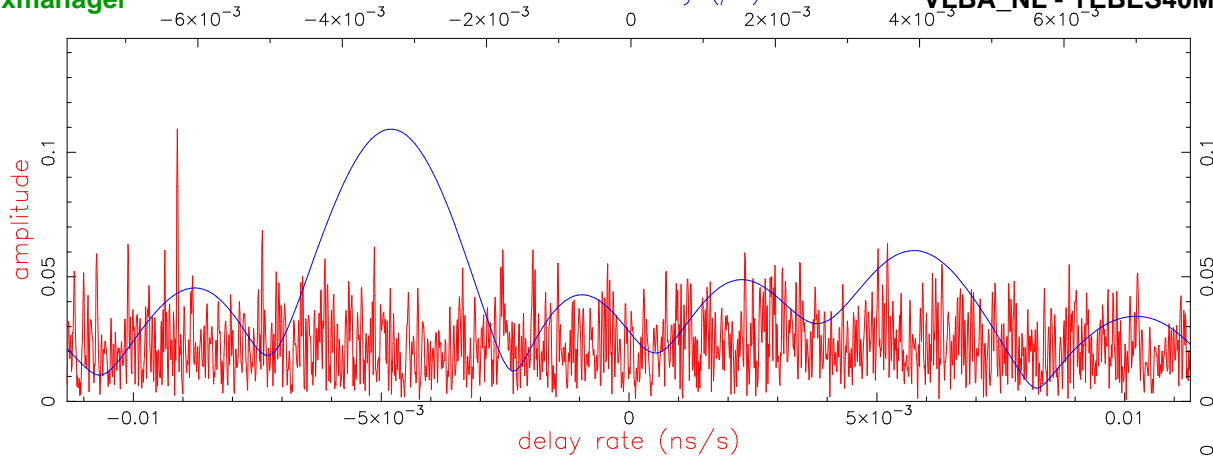
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, nY

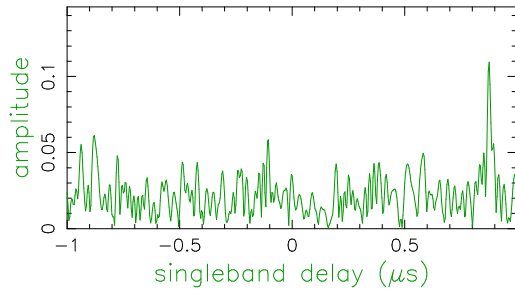
VLBA_NL - YEYES40M, fgroup W, pol RL

multiband delay (μ s)

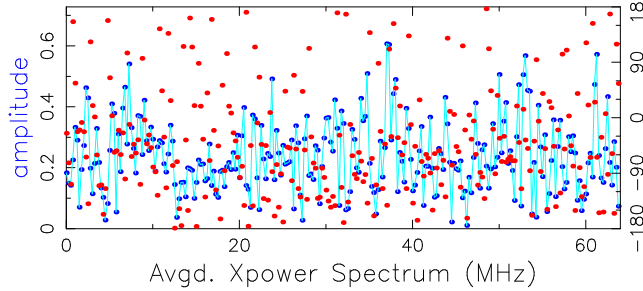


Fringe quality 0

SNR 6.0
 Int time 402.380
 Amp 0.146
 Phase -41.6
 PFD 3.5e-01
 Delays (us)
 SBD 0.874087
 MBD -0.003334
 Fringe rate (Hz)
 -0.785950
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

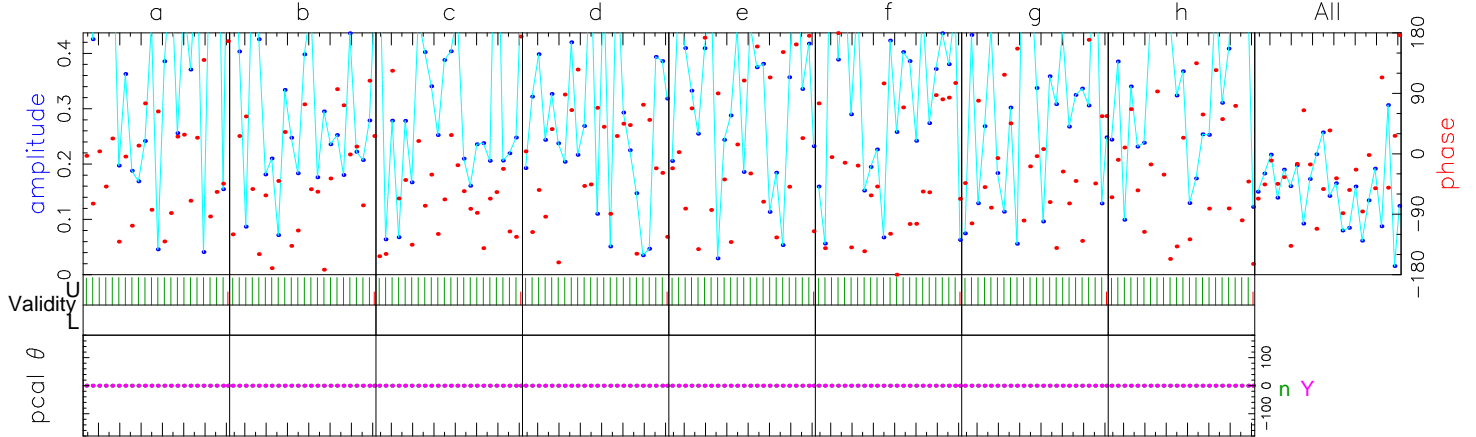


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131001
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



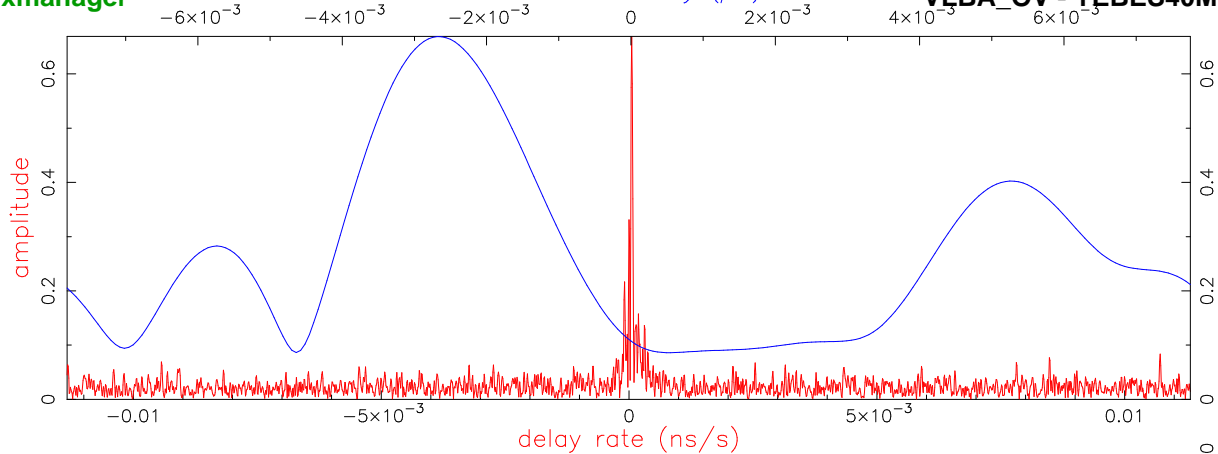
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-36.3	-41.2	-70.1	-0.5	-85.3	-17.9	-57.2	-13.2	Phase	-41.6
	0.3	0.1	0.2	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1
	481.5	365.7	482.4	402.4	417.9	329.9	481.9	32.5	Sbd box	480.8
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.36539163715E+04	Apriori delay (usec)	1.36530447058E+04	Resid mbdelay (usec)	-3.33432E-03	+/-	1.8E-04
Sband delay (usec)	1.36539187930E+04	Apriori clock (usec)	-1.3520686E+01	Resid sbdelay (usec)	8.74087E-01	+/-	1.4E-03
Phase delay (usec)	1.36530447044E+04	Apriori clockrate (us/s)	3.8000001E-07	Resid phdelay (usec)	-1.34116E-06	+/-	6.1E-07
Delay rate (us/s)	7.28879439126E-01	Apriori rate (us/s)	7.28888563230E-01	Resid rate (us/s)	-9.12410E-06	+/-	2.6E-09
Total phase (deg)	302.4	Apriori accel (us/s/s)	-7.14497631118E-05	Resid phase (deg)	-41.6	+/-	19.0

ph/seg (deg)	59.3	Theor.	45.6	Amplitude	0.146 +/- 0.024	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	71.7		79.5	Search (2048X32)	0.108	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	31.8		26.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	56.1		46.9	Inc. seg. avg.	0.155	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011			
				Inc. frq. avg.	0.144	Data rate (Mb/s):	2048	nlags:	256	t_cohere infinite	ion window (TEC)	0.00 0.00

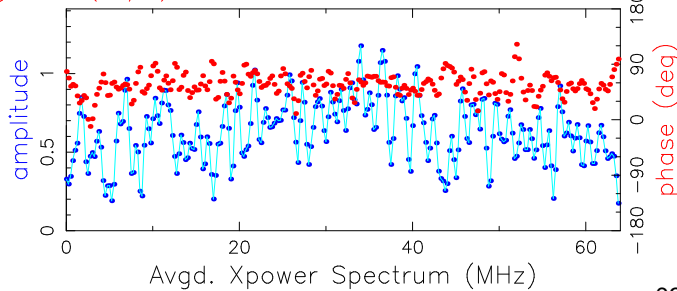
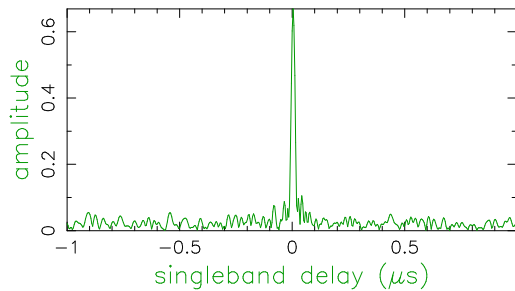
n: az 271.2 el 83.6 pa 84.9 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -5716.535 -4809.415 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/nY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/nY.W.299.1ILPVT

multiband delay (μ s)



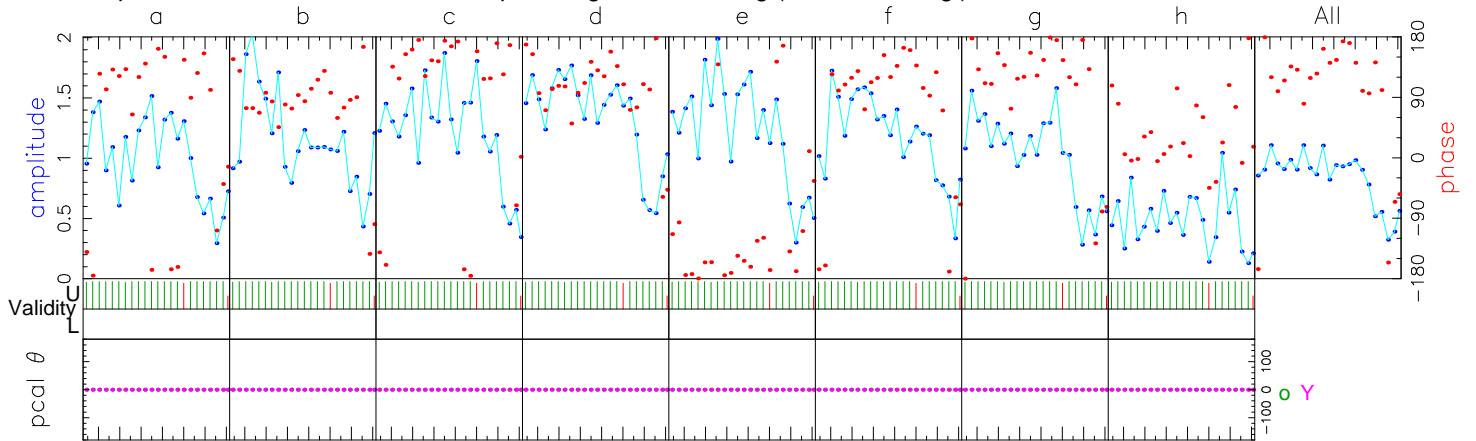
Fringe quality 3

SNR 36.6
 Int time 400.715
 Amp 0.669
 Phase 135.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.004202
 MBD -0.002654
 Fringe rate (Hz)
 0.005123
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130951
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



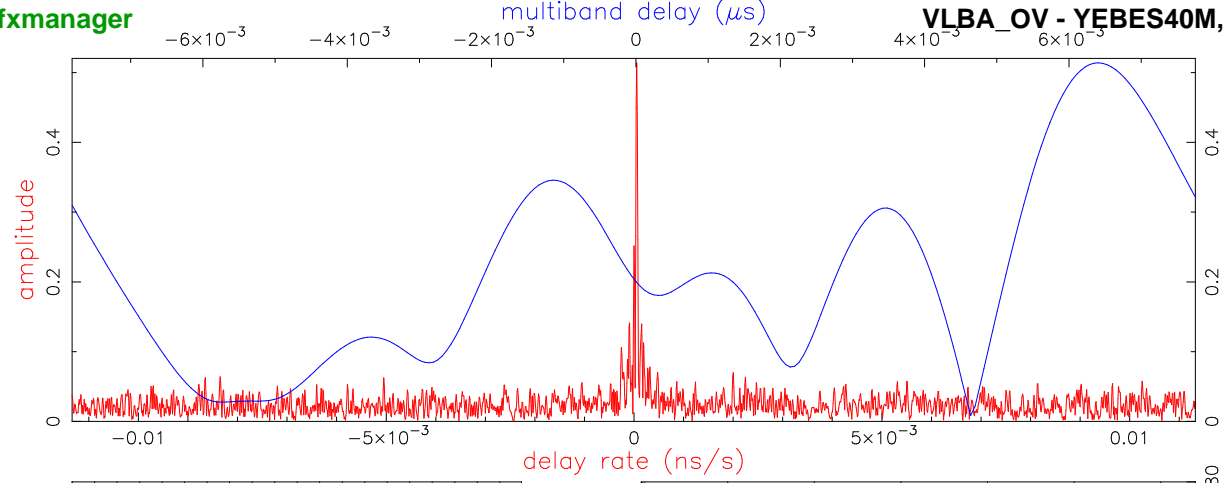
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	147.7	89.2	160.0	112.3	-159.9	126.0	143.3	36.5	Phase	135.2
	0.7	0.9	1.0	1.0	1.0	0.9	0.8	0.4	Ampl.	0.9
	257.7	257.7	257.8	257.8	257.4	257.5	257.3	255.8	Sbd box	258.1
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.32289486025E+04	Apriori delay (usec)	1.32289512565E+04	Resid mbdelay (usec)	-2.65404E-03	+/-	3.0E-05
Sband delay (usec)	1.32289554583E+04	Apriori clock (usec)	7.7124882E+00	Resid sbdelay (usec)	4.20175E-03	+/-	2.4E-04
Phase delay (usec)	1.32289512609E+04	Apriori clockrate (us/s)	-2.1999999E-07	Resid phdelay (usec)	4.36032E-06	+/-	1.0E-07
Delay rate (us/s)	1.14549783809E+00	Apriori rate (us/s)	1.14549777863E+00	Resid rate (us/s)	5.94678E-08	+/-	4.3E-10
Total phase (deg)	220.5	Apriori accel (us/s/s)	-7.36522398612E-05	Resid phase (deg)	135.2	+/-	3.1

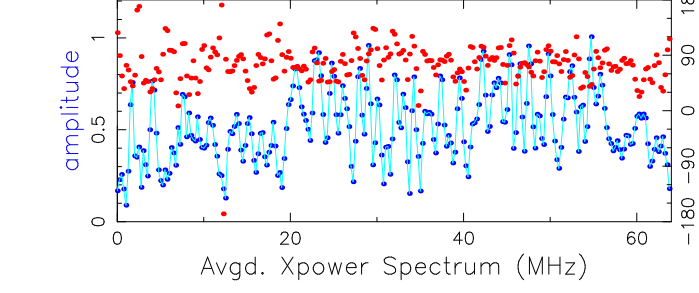
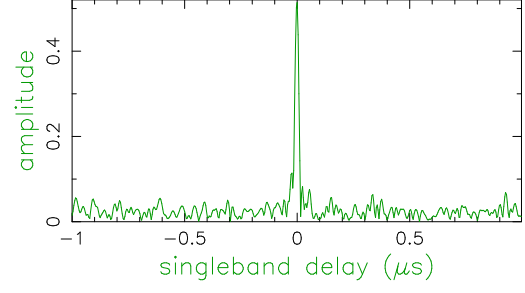
ph/seg (deg)	52.8	RMS	7.5	Theor.	0.669 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	41.3	Search (2048X32)	0.644	Amplitude		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	54.0	Interp.	0.000	Inc. seg. avg.	0.838	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	41.9	Inc. frq. avg.	0.852	Inc. frq. avg.	0.852	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

o: az 67.1 el 75.3 pa -100.5 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -8909.016 -5332.380 simultaneous interpolator

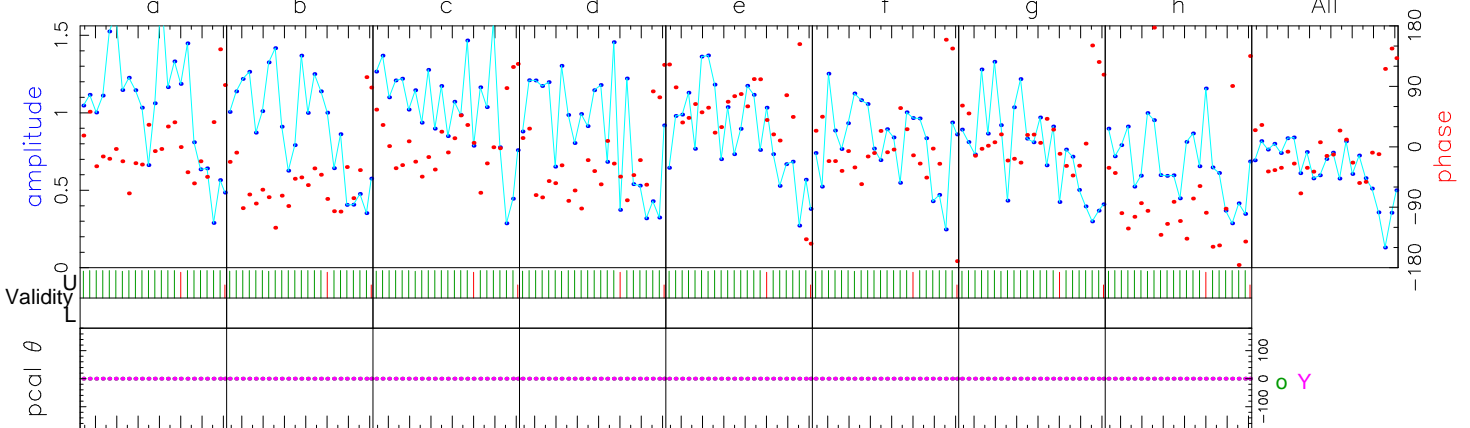
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/oY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/oY.W.248.1ILPVT



Fringe quality 3
SNR 28.5
Int time 400.715
Amp 0.520
Phase -15.7
PFD 0.0e+00
Delays (us)
SBD -0.001463
MBD 0.006388
Fringe rate (Hz)
0.005124
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130954
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-7.9	-63.4	1.1	-41.4	60.5	-10.3	6.4	-107.8	Phase	-15.7
	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	Ampl.	0.7
	256.7	256.0	256.2	256.2	255.7	255.5	255.1	254.0	Sbd box	256.6
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.32289420199E+04		Apriori delay (usec)		1.32289512565E+04		Resid mbdelay (usec)		6.38839E-03	+/- 3.8E-05
Sband delay (usec)	1.32289497933E+04		Apriori clock (usec)		7.7124882E+00		Resid sbdelay (usec)		-1.46325E-03	+/- 3.0E-04
Phase delay (usec)	1.32289512560E+04		Apriori clockrate (us/s)		-2.1999999E-07		Resid phdelay (usec)		-5.05507E-07	+/- 1.3E-07
Delay rate (us/s)	1.14549783811E+00		Apriori rate (us/s)		1.14549777863E+00		Resid rate (us/s)		5.94855E-08	+/- 5.6E-10
Total phase (deg)	69.6		Apriori accel (us/s/s)		-7.36522398612E-05		Resid phase (deg)		-15.7	+/- 4.0

ph/seg (deg) 55.2 9.6 Search (2048X32) 0.506 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 40.7 16.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 54.9 5.7 Inc. seg. avg. 0.630 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 40.3 9.9 Inc. frq. avg. 0.691 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
o: az 67.1 el 75.3 pa -100.5 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -8909.016 -5332.380 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/oY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/oY.W.265.1ILPVT

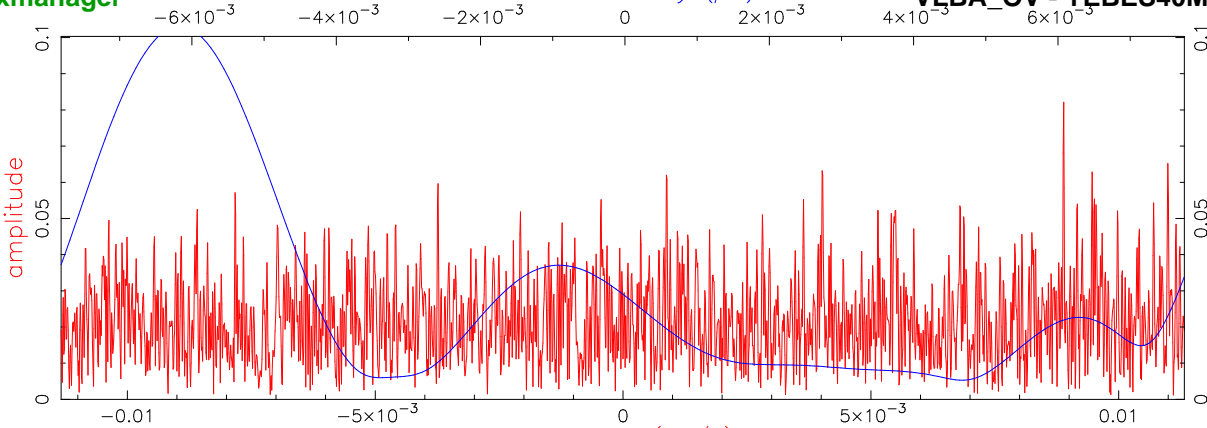
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, oY

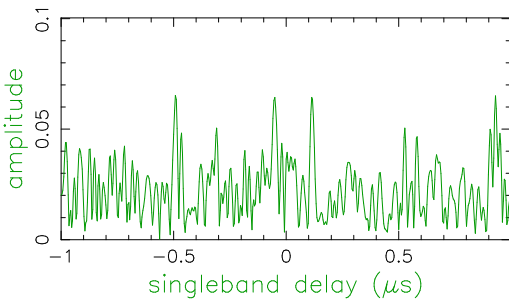
VLBA_OV - YEYES40M, fgroup W, pol LR

multiband delay (μ s)

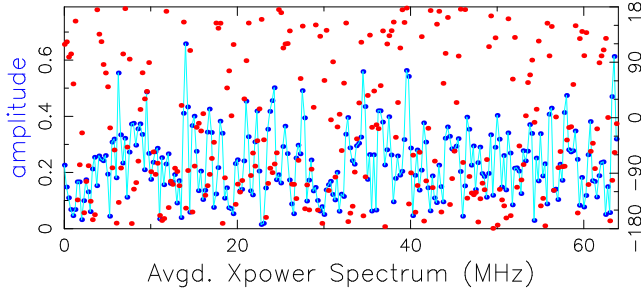


Fringe quality 0

SNR 3.6
Int time 400.715
Amp 0.100
Phase -132.4
PFD 1.0e+00
Delays (us)
SBD -0.490911
MBD 0.008301
Fringe rate (Hz)
0.948432
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

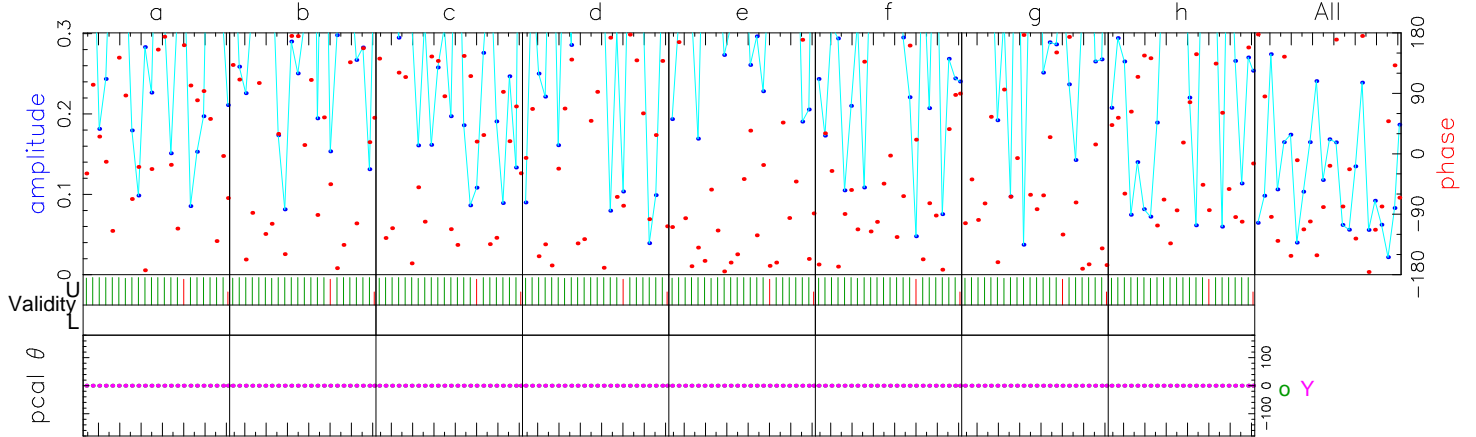


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130958
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	113.4	148.4	-175.5	167.6	-119.5	-90.1	-91.1	-59.4	Phase	-132.4
	0.1	0.2	0.1	0.2	0.3	0.2	0.2	0.1	Ampl.	0.1
	392.5	325.2	243.0	494.6	130.9	22.3	495.8	454.0	Sbd box	131.3
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.32284595573E+04	Apriori delay (usec)	1.32289512565E+04	Resid mbdelay (usec)	8.30078E-03	+/-	3.0E-04
Sband delay (usec)	1.32284603458E+04	Apriori clock (usec)	7.7124882E+00	Resid sbdelay (usec)	-4.90911E-01	+/-	2.4E-03
Phase delay (usec)	1.32289512523E+04	Apriori clockrate (us/s)	-2.1999999E-07	Resid phdelay (usec)	-4.26807E-06	+/-	1.0E-06
Delay rate (us/s)	1.14550878898E+00	Apriori rate (us/s)	1.14549777863E+00	Resid rate (us/s)	1.10104E-05	+/-	4.4E-09
Total phase (deg)	-47.1	Apriori accel (us/s/s)	-7.36522398612E-05	Resid phase (deg)	-132.4	+/-	31.9

ph/seg (deg)	RMS 77.2	Theor. 76.4	Amplitude Search (2048X32)	0.100 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	135.8	133.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	75.0	45.1	Inc. seg. avg.	0.100	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	92.9	78.6	Inc. frq. avg.	0.125	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

o: az 67.1 el 75.3 pa -100.5 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -8909.016 -5332.380 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/oY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/oY.W.281.1ILPVT

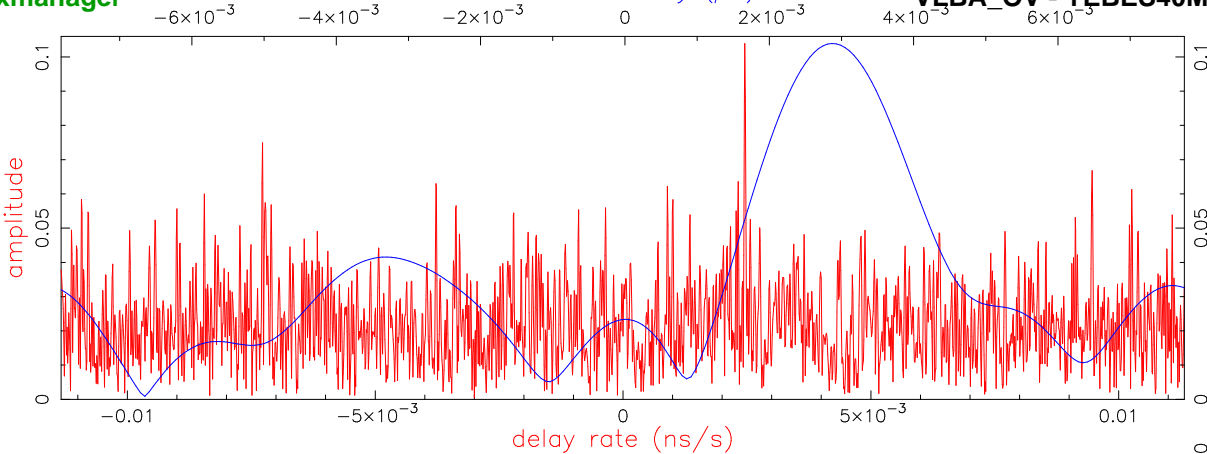
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, oY

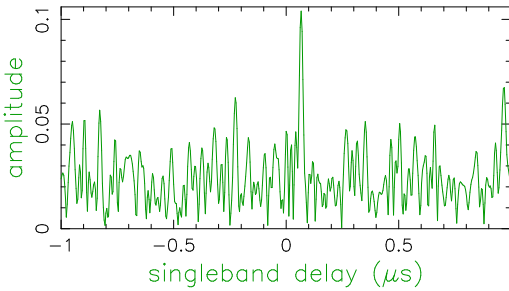
VLBA_OV - YEYES40M, fgroup W, pol RL

multiband delay (μ s)

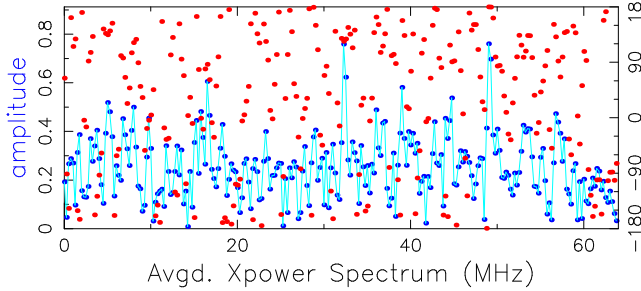


Fringe quality 0

SNR 5.7
 Int time 400.715
 Amp 0.106
 Phase 134.5
 PFD 9.6e-01
 Delays (us)
 SBD 0.066159
 MBD 0.002869
 Fringe rate (Hz)
 0.211575
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

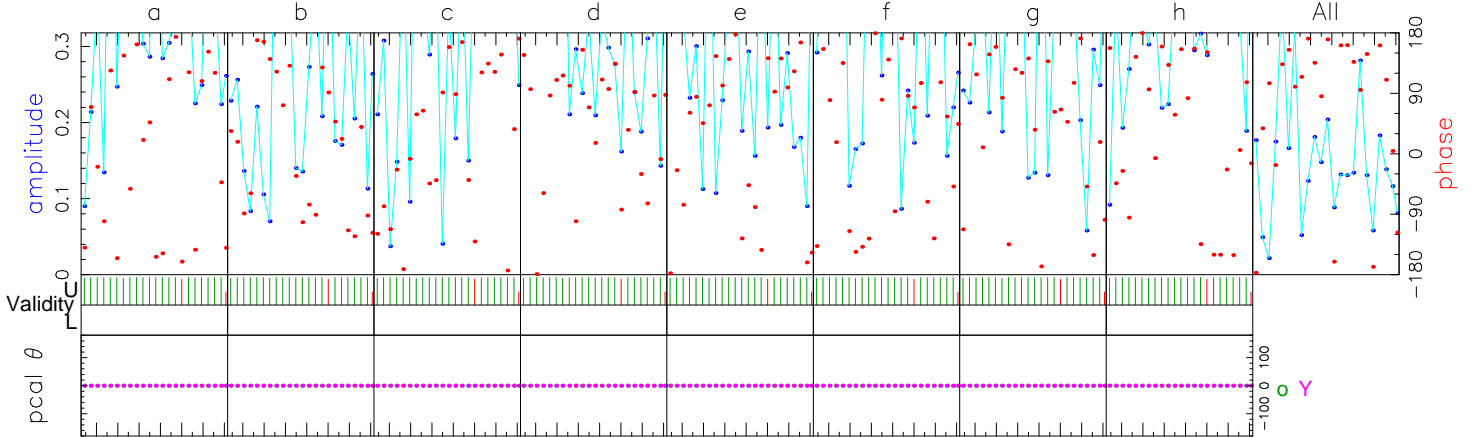


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131001
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.32290166251E+04	Apriori delay (usec)	1.32289512565E+04	Resid mbdelay (usec)	2.86861E-03	+/-	1.9E-04
Sband delay (usec)	1.32290174150E+04	Apriori clock (usec)	7.7124882E+00	Resid sbdelay (usec)	6.61585E-02	+/-	1.5E-03
Phase delay (usec)	1.32289512609E+04	Apriori clockrate (us/s)	-2.1999999E-07	Resid phdelay (usec)	4.33886E-06	+/-	6.5E-07
Delay rate (us/s)	1.14550023480E+00	Apriori rate (us/s)	1.14549777863E+00	Resid rate (us/s)	2.45618E-06	+/-	2.8E-09
Total phase (deg)	219.8	Apriori accel (us/s/s)	-7.36522398612E-05	Resid phase (deg)	134.5	+/-	20.1

ph/seg (deg)	58.7	RMS	48.3	Theor.	58.7	Amplitude	0.106 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	92.5	Search (2048X32)	0.103	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled	sb window (us) -1.000 1.000
ph/frq (deg)	24.7	Inc. seg. avg.	0.114	Inc. frq. avg.	0.100	Bits/sample: 2x2		Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
amp/frq (%)	42.2	Inc. frq. avg.	0.100			Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	dr window (ns/s) -0.011 0.011

o: az 67.1 el 75.3 pa -100.5 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -8909.016 -5332.380 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/oY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/oY.W.298.1ILPVT

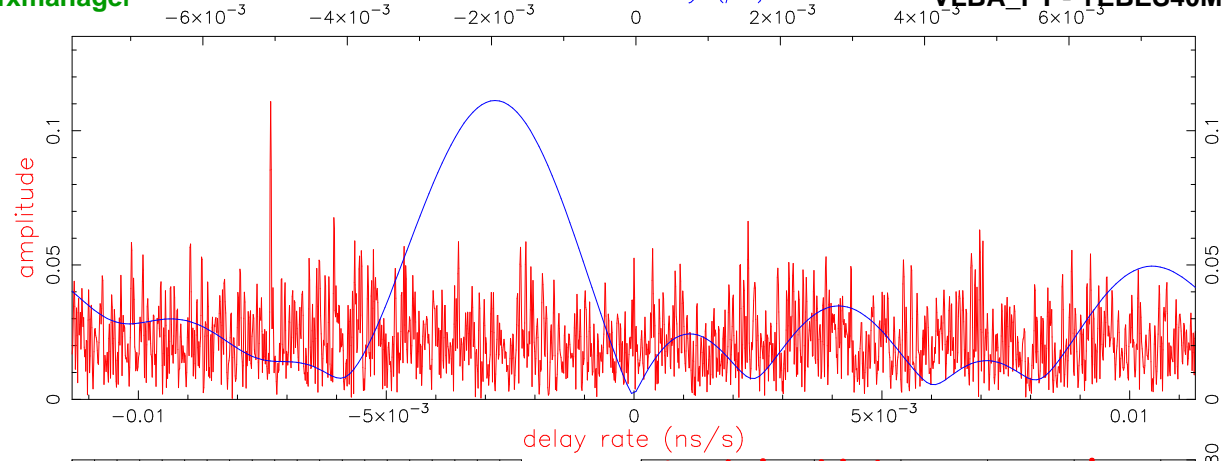
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, pY

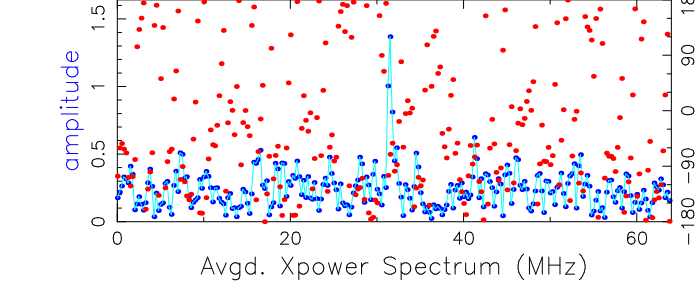
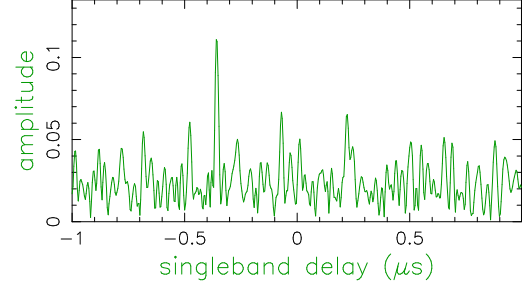
VLBA_PT - YEBES40M, fgroup W, pol LL

multiband delay (μ s)



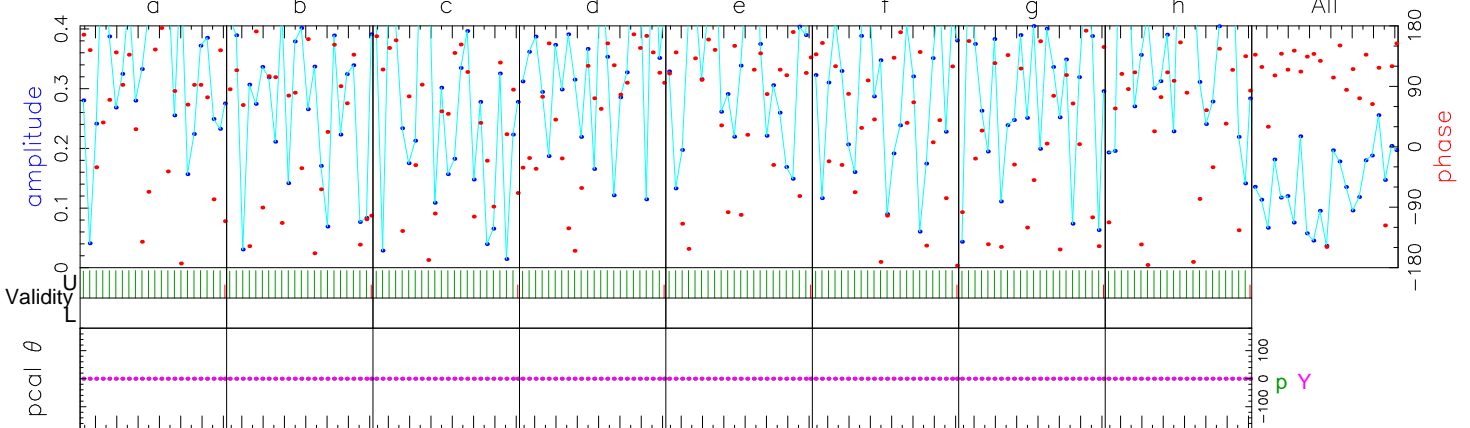
Fringe quality 0

SNR 6.2
 Int time 402.380
 Amp 0.135
 Phase 118.8
 PFD 1.4e-01
 Delays (us)
 SBD -0.357674
 MBD -0.001866
 Fringe rate (Hz)
 -0.631937
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130957
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	112.9	141.5	131.0	108.6	131.3	77.1	140.3	115.2	Phase	118.8
	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	Ampl.	0.1
	320.9	119.9	232.8	510.2	184.2	136.5	380.0	164.5	Sbd box	165.4
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.35629880692E+04	Apriori delay (usec)	1.35633493101E+04	Resid mbdelay (usec)	-1.86592E-03	+/-	1.8E-04
Sband delay (usec)	1.35629916364E+04	Apriori clock (usec)	-1.3608658E+01	Resid sbdelay (usec)	-3.57674E-01	+/-	1.4E-03
Phase delay (usec)	1.35633493140E+04	Apriori clockrate (us/s)	2.7999998E-07	Resid phdelay (usec)	3.83113E-06	+/-	6.0E-07
Delay rate (us/s)	9.89384973997E-01	Apriori rate (us/s)	9.89392310154E-01	Resid rate (us/s)	-7.33616E-06	+/-	2.6E-09
Total phase (deg)	325.5	Apriori accel (us/s/s)	-7.86423218651E-05	Resid phase (deg)	118.8	+/-	18.5

ph/seg (deg)	RMS 43.5	Theor. 44.3	Amplitude 0.135 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	55.8	77.4	Search (2048X32) 0.107	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	23.0	26.1	Inc. seg. avg. 0.125	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	36.6	45.6	Inc. frq. avg. 0.126	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

p: az 38.5 el 80.4 pa -139.1 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -7723.012 -5967.425 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/pY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/pY.W.278.1ILPVT

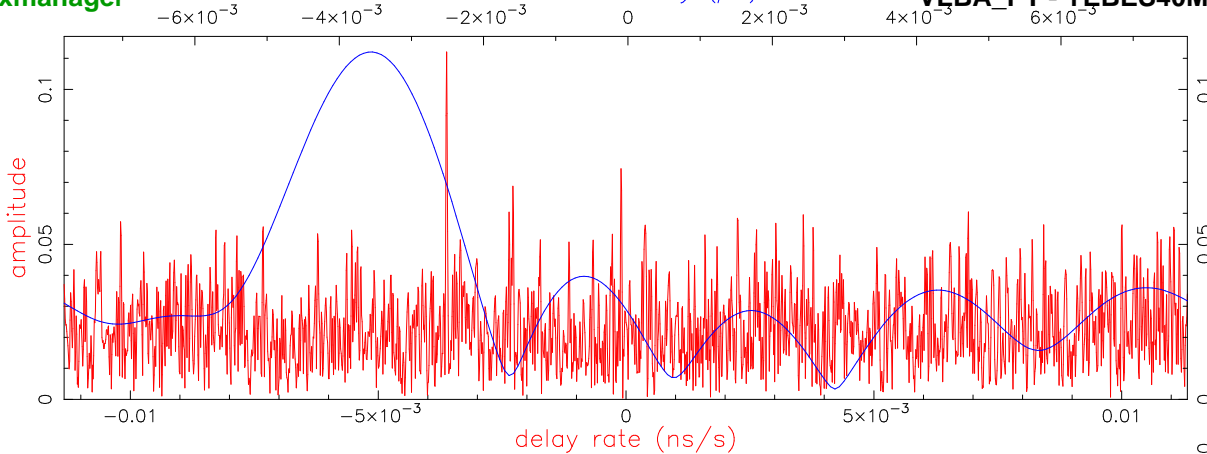
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, pY

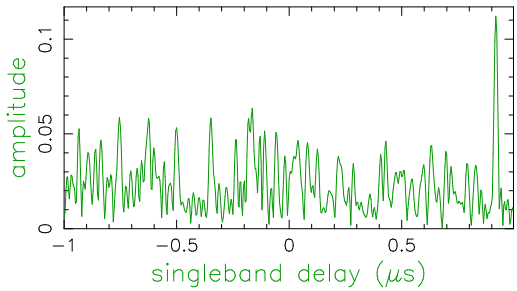
VLBA_PT - YEBES40M, fgroup W, pol RR

multiband delay (μs)

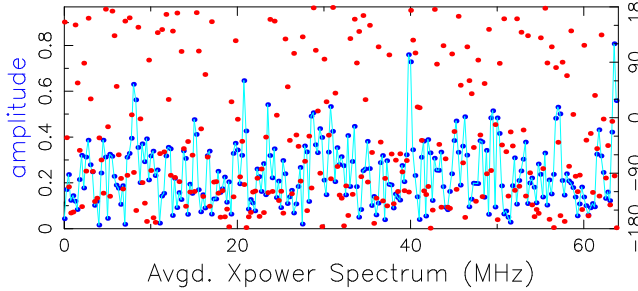


Fringe quality 0

SNR 6.2
Int time 402.380
Amp 0.117
Phase 48.2
PFD 1.8e-01
Delays (us)
SBD 0.918423
MBD -0.003566
Fringe rate (Hz)
-0.312789
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

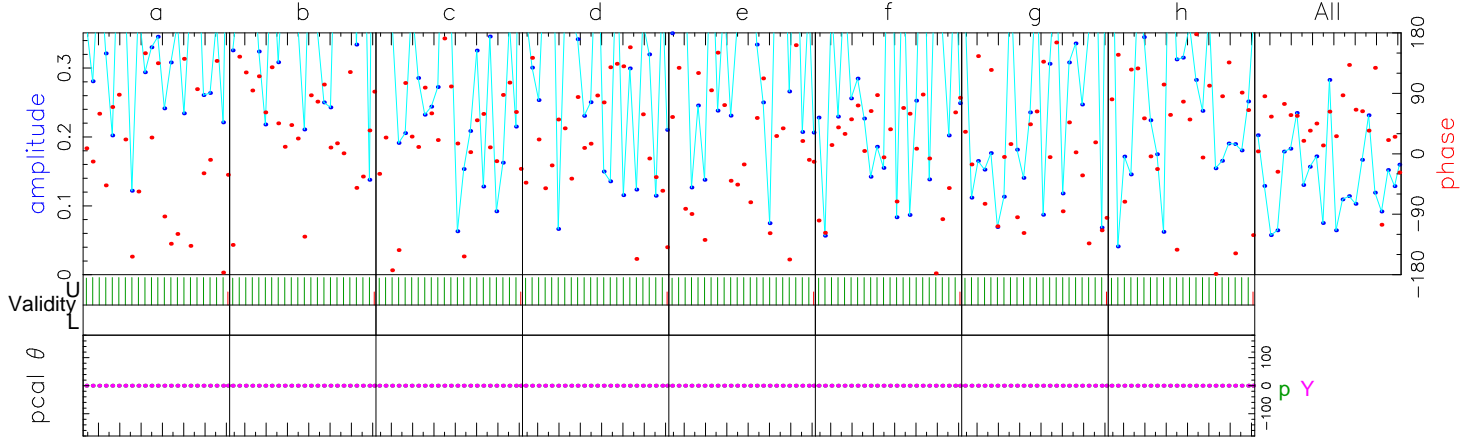


delay rate (ns/s)



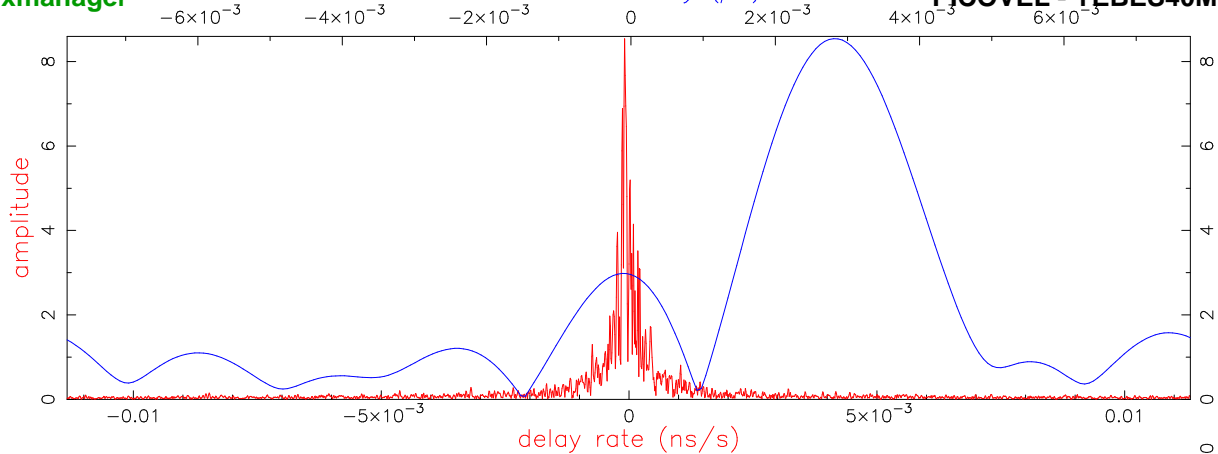
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:131001
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



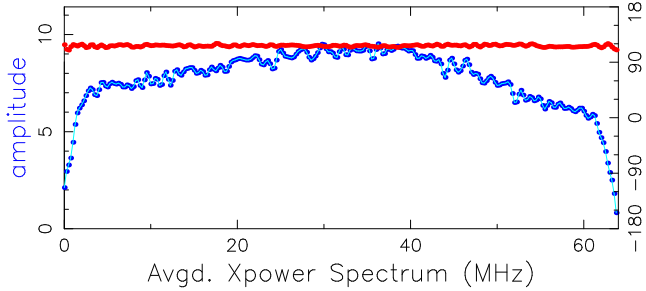
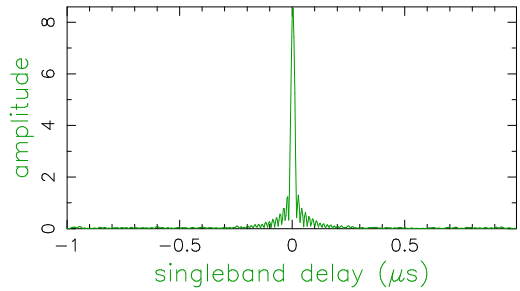
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0			
p	1000	1000	1000	1000	1000	1000	1000	1000			
Y	1000	1000	1000	1000	1000	1000	1000	1000			
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
p	1000	1000	1000	1000	1000	1000	1000	1000			
Y	1000	1000	1000	1000	1000	1000	1000	1000			
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		1.35642676191E+04				1.35633493101E+04			Resid mbdelay (usec)	-3.56599E-03	+/- 1.8E-04
Sband delay (usec)		1.35642677334E+04				-1.3608658E+01			Resid sbdelay (usec)	9.18423E-01	+/- 1.4E-03
Phase delay (usec)		1.35633493117E+04				2.7999998E-07			Resid phdelay (usec)	1.55578E-06	+/- 6.0E-07
Delay rate (us/s)		9.89388678989E-01				9.89392310154E-01			Resid rate (us/s)	-3.63117E-06	+/- 2.6E-09
Total phase (deg)			255.0			-7.86423218651E-05			Resid phase (deg)	48.2	+/- 18.6
	RMS	Theor.	Amplitude	0.117 +/- 0.019					PCal mode: MANUAL, MANUAL		PC period (AP's) 5, 5
ph/seg (deg)	50.0	44.6	Search (2048X32)	0.112					PCal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000
amp/seg (%)	58.7	77.9	Interp.	0.000					Bits/sample: 2x2		mb window (us) -0.008 0.008
ph/frq (deg)	26.2	26.3	Inc. seg. avg.	0.115					Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
amp/frq (%)	41.6	46.0	Inc. frq. avg.	0.114					Data rate(Mb/s): 2048		ion window (TEC) 0.00 0.00
p: az 38.5 el 80.4 pa -139.1			Y: az 307.2 el 21.2 pa 53.6			u, v (fr/asec) -7723.012 -5967.425					simultaneous interpolator

multiband delay (μ s)



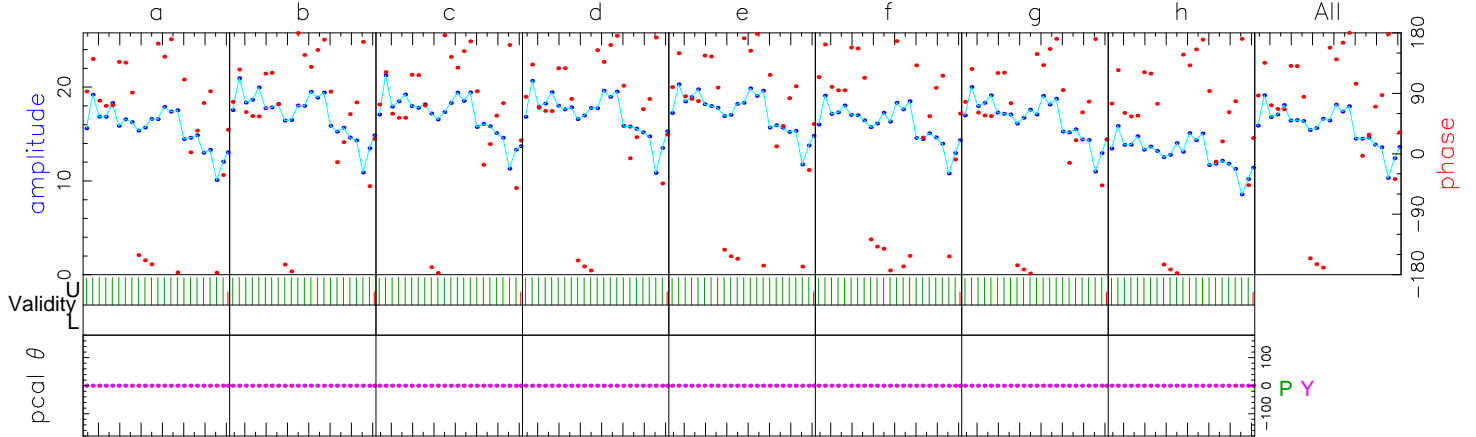
Fringe quality 4

SNR 471.3
 Int time 401.965
 Amp 8.597
 Phase 117.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.002826
 MBD 0.002797
 Fringe rate (Hz)
 -0.007833
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131003
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	123.1	106.6	104.7	114.3	131.2	145.3	107.9	107.3	Phase	117.5
P	8.5	9.3	9.3	9.2	9.3	8.7	8.9	7.0	Ampl.	8.8
Y	257.9	257.7	257.8	257.8	257.9	257.4	257.5	257.1	Sbd box	257.7
P:Y	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
P:Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-6.92326785554E+02	Apriori delay (usec)	-6.92329582942E+02	Resid mbdelay (usec)	2.79739E-03	+/-	2.3E-06
Sband delay (usec)	-6.92326756442E+02	Apriori clock (usec)	-1.3893745E+01	Resid sbdelay (usec)	2.82650E-03	+/-	1.8E-05
Phase delay (usec)	-6.92329579152E+02	Apriori clockrate (us/s)	-5.2000000E-07	Resid phdelay (usec)	3.79008E-06	+/-	7.8E-09
Delay rate (us/s)	-4.42901619279E-02	Apriori rate (us/s)	-4.42900709959E-02	Resid rate (us/s)	-9.09320E-08	+/-	3.4E-11
Total phase (deg)	18.7	Apriori accel (us/s/s)	9.83886384052E-08	Resid phase (deg)	117.5	+/-	0.2

ph/seg (deg)	64.8	RMS	Theor.	Amplitude	8.597 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	86.6	64.8	0.6	Search (2048X32)	8.448	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	15.7	86.6	1.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	8.9	15.7	0.3	Inc. seg. avg.	15.761	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
		8.9	0.6	Inc. frq. avg.	8.786	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

P: az 308.1 el 19.3 pa 58.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) 339.873 -307.403 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/PY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/PY.W.303.1ILPVT

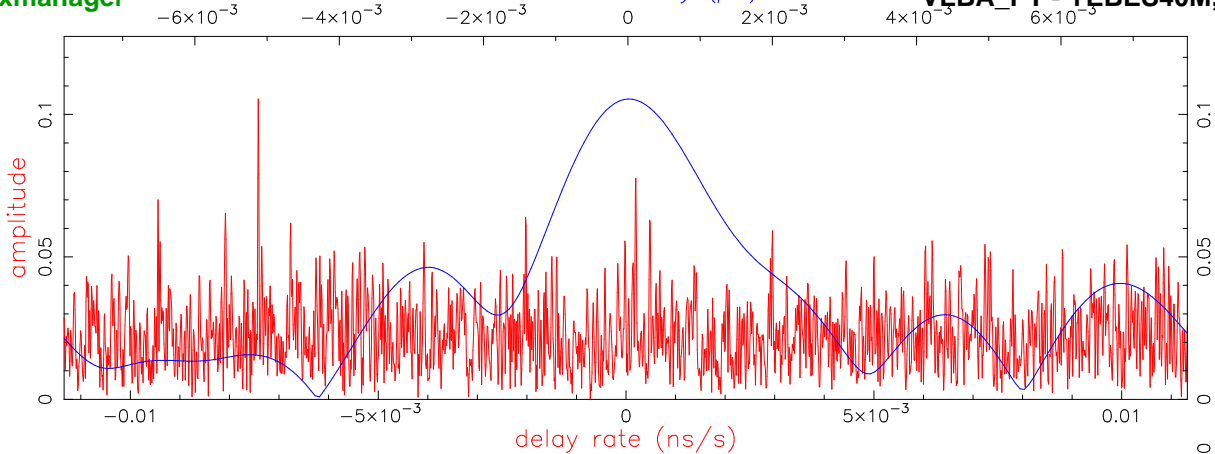
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, pY

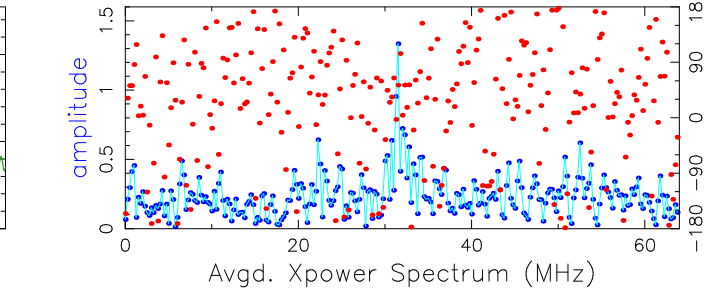
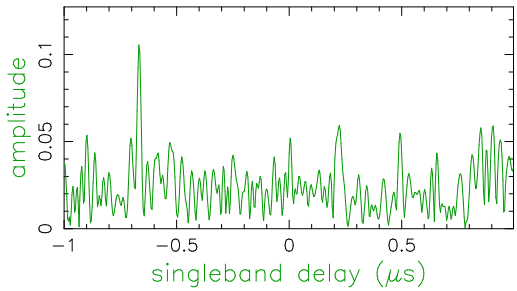
VLBA_PT - YEBES40M, fgroup W, pol LR

multiband delay (μ s)



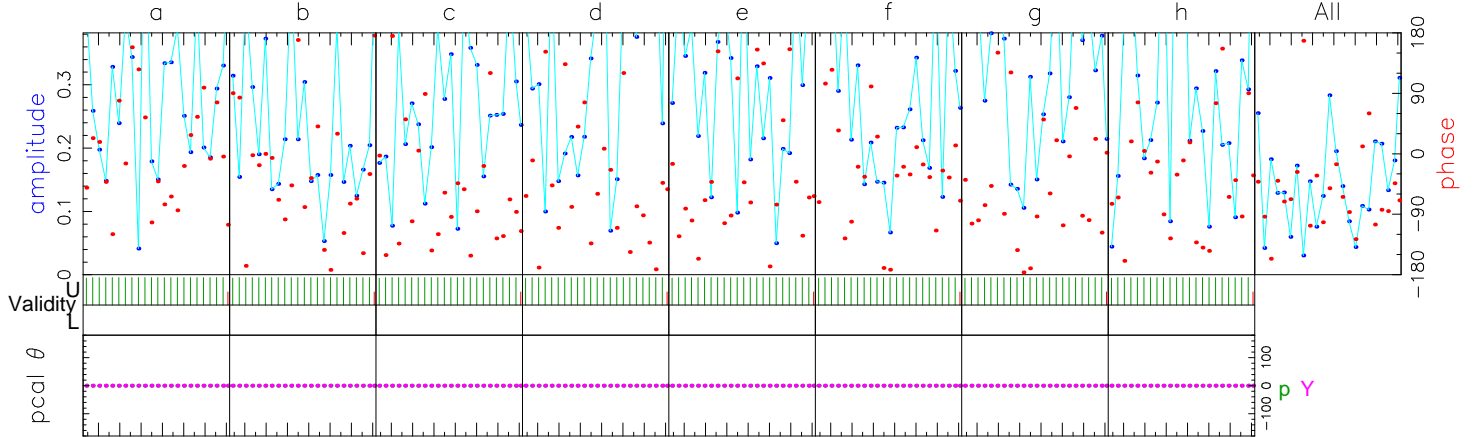
Fringe quality 0

SNR 5.8
 Int time 402.380
 Amp 0.127
 Phase -64.3
 PFD 7.8e-01
 Delays (us)
 SBD -0.666889
 MBD 0.000020
 Fringe rate (Hz)
 -0.639723
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131004
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-10.1	-48.8	-95.5	-89.8	-94.6	-31.9	-69.4	-35.6	Phase	-64.3
	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	Ampl.	0.1
	229.7	382.2	347.1	423.8	502.9	283.1	189.1	238.7	Sbd box	86.3
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.35626774554E+04	Apriori delay (usec)	1.35633493101E+04	Resid mbdelay (usec)	2.03114E-05	+/-	1.9E-04
Sband delay (usec)	1.35626824206E+04	Apriori clock (usec)	-1.3608658E+01	Resid sbdelay (usec)	-6.66889E-01	+/-	1.5E-03
Phase delay (usec)	1.35633493081E+04	Apriori clockrate (us/s)	2.7999998E-07	Resid phdelay (usec)	-2.07370E-06	+/-	6.4E-07
Delay rate (us/s)	9.89384883605E-01	Apriori rate (us/s)	9.89392310154E-01	Resid rate (us/s)	-7.42655E-06	+/-	2.7E-09
Total phase (deg)	142.4	Apriori accel (us/s/s)	-7.86423218651E-05	Resid phase (deg)	-64.3	+/-	19.7

ph/seg (deg)	53.1	Theor.	47.2	Amplitude	0.127 +/- 0.022	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	74.5	Search (2048X32)	0.104	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	35.6	Inc. seg. avg.	0.127	Inc. frq. avg.	0.132	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	29.9	Inc. frq. avg.	0.132			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

p: az 38.5 el 80.4 pa -139.1 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -7723.012 -5967.425 simultaneous interpolator

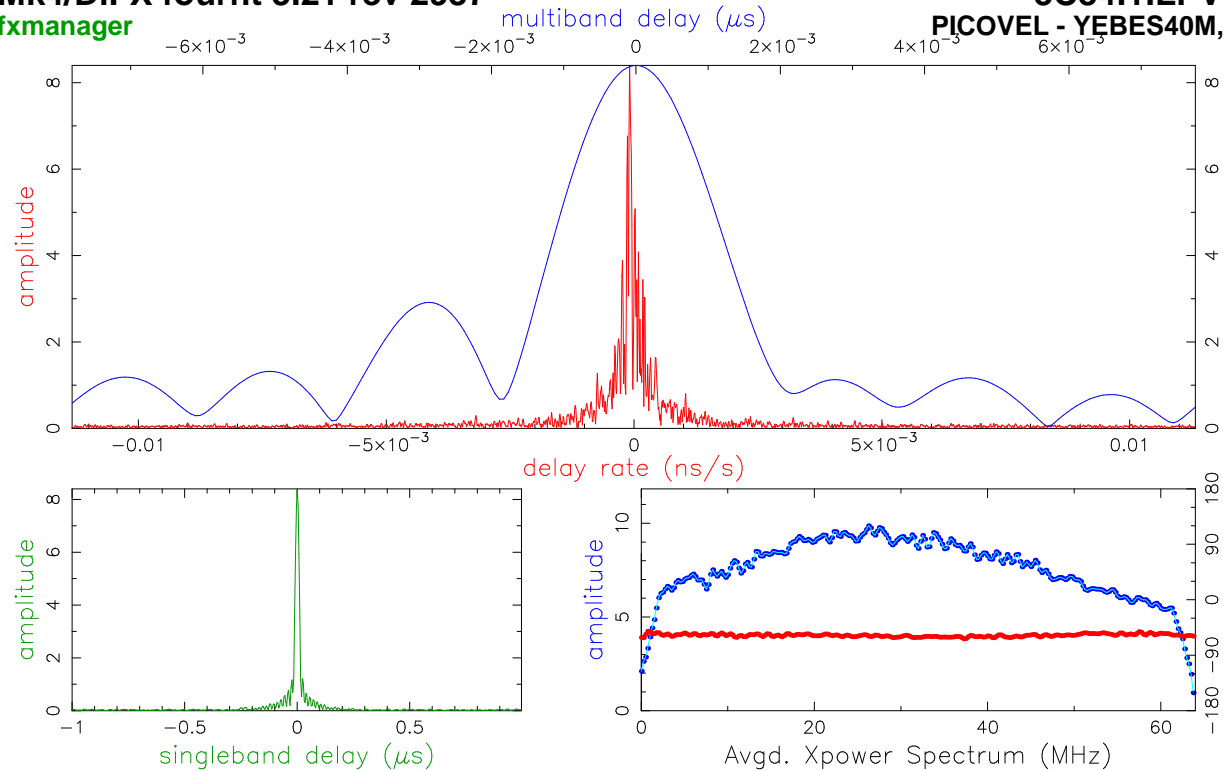
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/pY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/pY.W.308.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

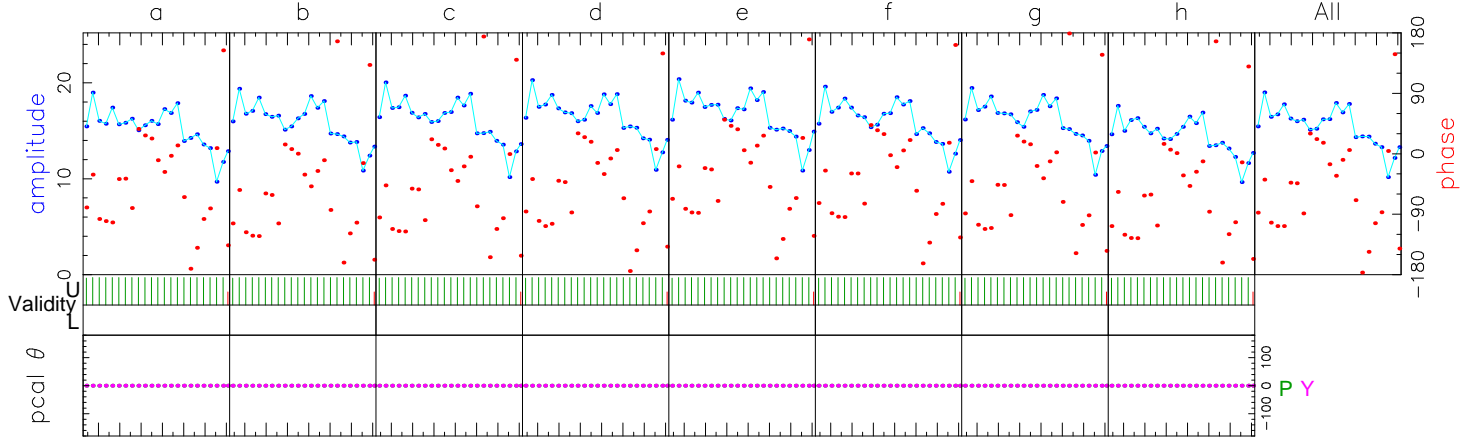
3C84.1ILPVT, No0079, PY

PICOVEL - YEBES40M, fgroup W, pol RR



Fringe quality 4
 SNR 460.6
 Int time 401.965
 Amp 8.400
 Phase -56.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.000142
 MBD 0.000005
 Fringe rate (Hz)
 -0.007846
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131007
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-49.8	-71.9	-64.9	-54.5	-36.3	-42.6	-59.4	-74.0	Phase	-56.4
	8.3	8.7	8.7	8.9	9.0	8.7	8.7	7.8	Ampl.	8.6
	257.2	256.7	257.2	257.1	256.8	256.8	256.8	256.7	Sbd box	257.0
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) -6.92329577585E+02 Apriori delay (usec) -6.92329582942E+02 Resid mbdelay (usec) 5.35701E-06 +/- 2.4E-06
 Sband delay (usec) -6.92329440692E+02 Apriori clock (usec) -1.3893745E+01 Resid sbdelay (usec) 1.42250E-04 +/- 1.9E-05
 Phase delay (usec) -6.92329584760E+02 Apriori clockrate (us/s) -5.2000000E-07 Resid phdelay (usec) -1.81825E-06 +/- 8.0E-09
 Delay rate (us/s) -4.42901620810E-02 Apriori rate (us/s) -4.42900709959E-02 Resid rate (us/s) -9.10851E-08 +/- 3.4E-11
 Total phase (deg) -155.3 Apriori accel (us/s/s) 9.83886384052E-08 Resid phase (deg) -56.4 +/- 0.2

RMS Theor. Amplitude 8.400 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 64.8 0.6 Search (2048X32) 8.322 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 87.5 1.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 14.6 0.4 Inc. seg. avg. 15.476 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 5.1 0.6 Inc. frq. avg. 8.607 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

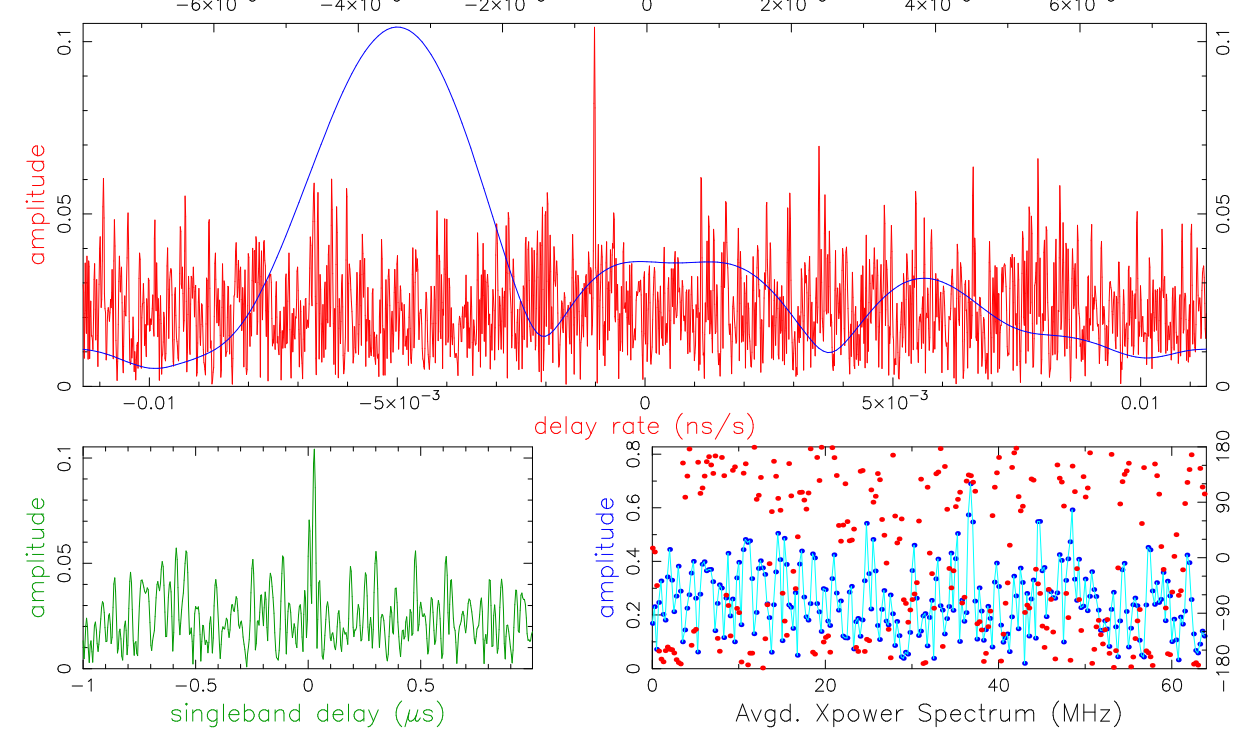
P: az 308.1 el 19.3 pa 58.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) 339.873 -307.403 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/PY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/PY.W.317.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

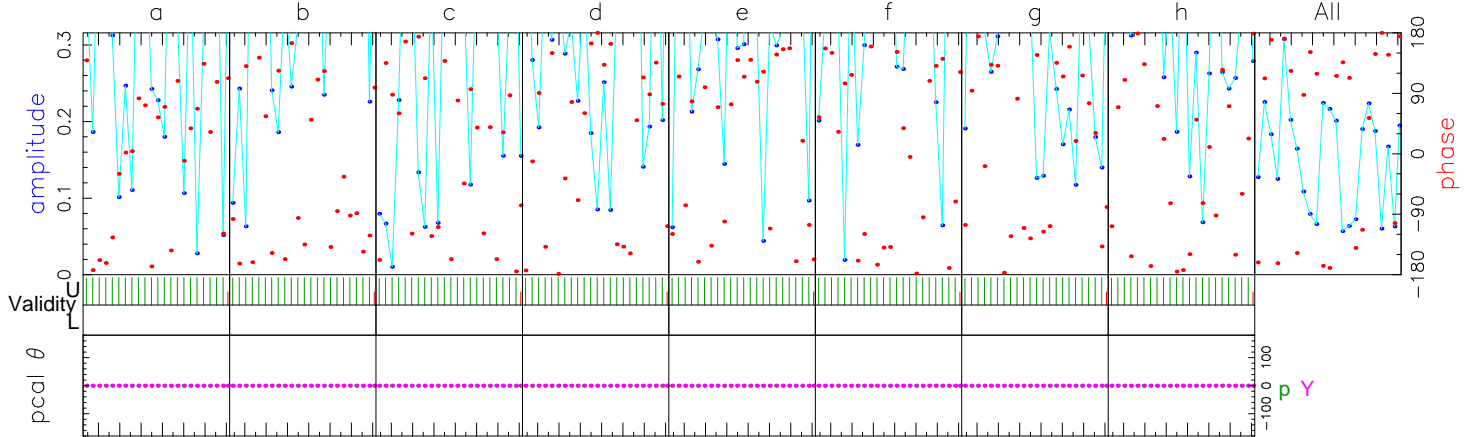
3C84.1ILPVT, No0079, pY

VLBA_PT - YEBES40M, fgroup W, pol RL



Fringe quality 0
 SNR 5.8
 Int time 402.380
 Amp 0.105
 Phase 160.5
 PFD 8.8e-01
 Delays (us)
 SBD 0.026392
 MBD -0.003500
 Fringe rate (Hz)
 -0.087849
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131008
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	119.8	-153.4	161.9	151.1	149.0	173.6	157.2	160.7	Phase	160.5
p	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
Y	390.0	108.7	476.6	138.6	119.8	224.2	10.8	195.3	Sbd box	263.8
p	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.35633770605E+04	Apriori delay (usec)	1.35633493101E+04	Resid mbdelay (usec)	-3.49961E-03	+/-	1.9E-04
Sband delay (usec)	1.35633757024E+04	Apriori clock (usec)	-1.3608658E+01	Resid sbdelay (usec)	2.63922E-02	+/-	1.5E-03
Phase delay (usec)	1.35633493153E+04	Apriori clockrate (us/s)	2.7999998E-07	Resid phdelay (usec)	5.17419E-06	+/-	6.4E-07
Delay rate (us/s)	9.89391290315E-01	Apriori rate (us/s)	9.89392310154E-01	Resid rate (us/s)	-1.01984E-06	+/-	2.8E-09
Total phase (deg)	7.2	Apriori accel (us/s/s)	-7.86423218651E-05	Resid phase (deg)	160.5	+/-	19.9

ph/seg (deg)	49.8	RMS	47.7	Theor.	47.7	Amplitude	0.105 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	80.0	49.8	83.3	Search (2048X32)	0.102	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	26.4	26.4	28.2	Inc. seg. avg.	0.113	Inc. frq. avg.	0.102	Bits/sample:	2x2	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	33.6	33.6	49.1	Inc. frq. avg.	0.102	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite	ion window (TEC)	0.00	0.00

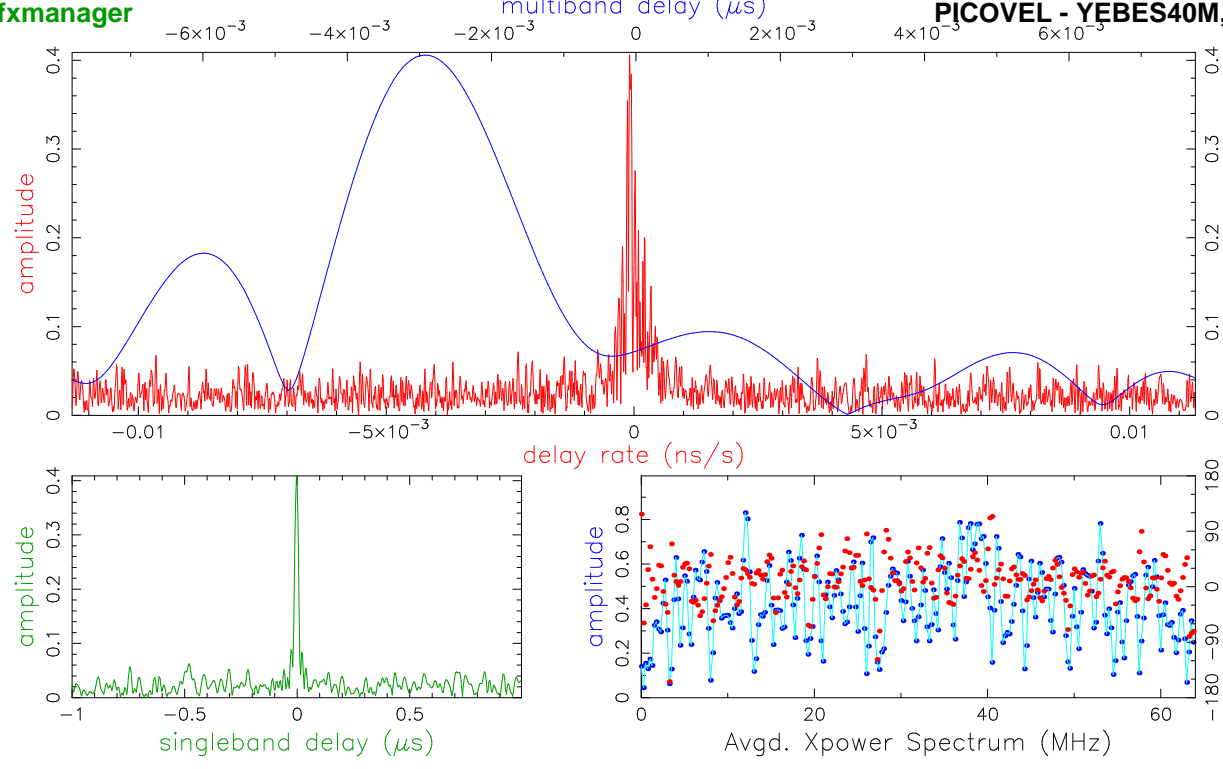
p: az 38.5 el 80.4 pa -139.1 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -7723.012 -5967.425 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/pY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/pY.W.323.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, PY

PICOVEL - YEBES40M, fgroup W, pol LR

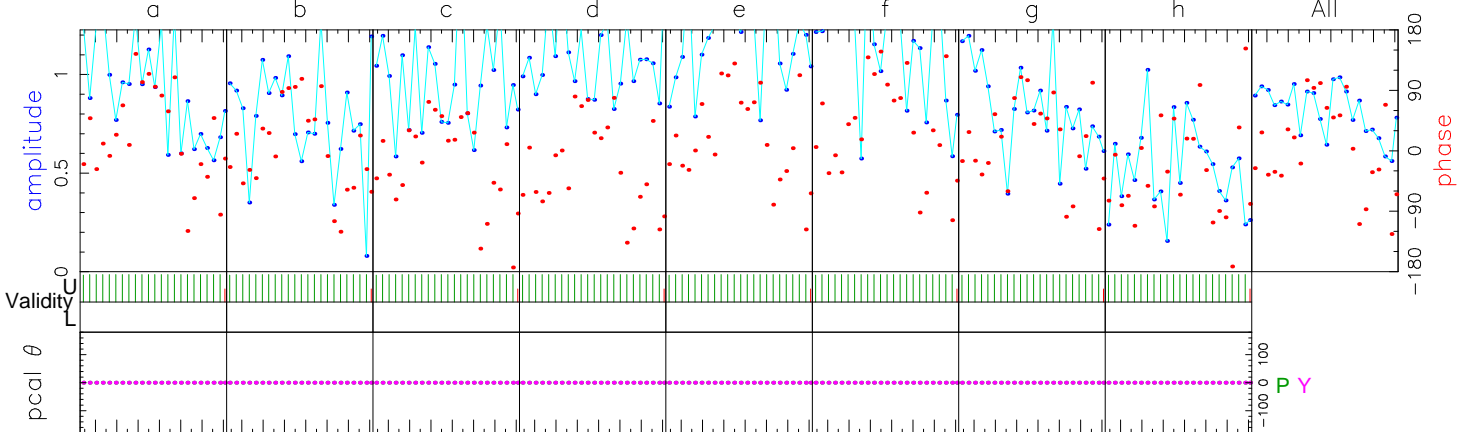


Fringe quality 8

SNR 22.4
 Int time 401.965
 Amp 0.409
 Phase 14.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.002769
 MBD -0.002897
 Fringe rate (Hz)
 -0.008042
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131010
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



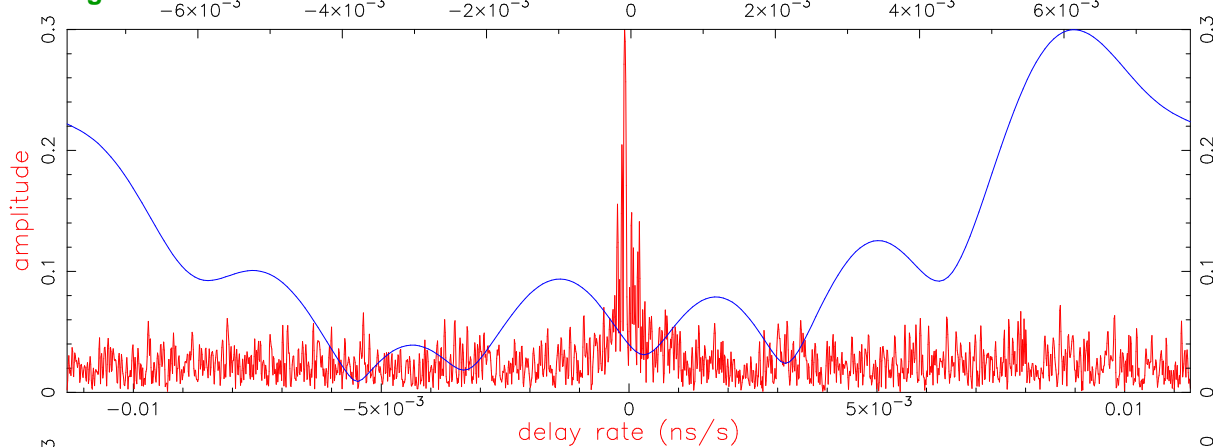
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	35.4	15.9	-2.2	-22.0	26.0	45.7	23.5	-27.5	Phase	14.1
P	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.2	Ampl.	0.4
Y	256.5	255.8	256.4	256.4	256.0	255.4	256.2	256.9	Sbd box	256.3
P:Y	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
P:Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) -6.92332479741E+02 Apriori delay (usec) -6.92329582942E+02 Resid mbdelay (usec) -2.89680E-03 +/- 4.8E-05
 Sband delay (usec) -6.92332351442E+02 Apriori clock (usec) -1.3893745E+01 Resid sbdelay (usec) -2.76850E-03 +/- 3.8E-04
 Phase delay (usec) -6.92329582487E+02 Apriori clockrate (us/s) -5.2000000E-07 Resid phdelay (usec) 4.55359E-07 +/- 1.6E-07
 Delay rate (us/s) -4.42901643526E-02 Apriori rate (us/s) -4.42900709959E-02 Resid rate (us/s) -9.33567E-08 +/- 7.1E-10
 Total phase (deg) -84.7 Apriori accel (us/s/s) 9.83886384052E-08 Resid phase (deg) 14.1 +/- 5.1

RMS Theor. Amplitude 0.409 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 66.2 12.3 Search (2048X32) 0.395 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 104.0 21.4 Interp. 0.000 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 28.8 7.2 Inc. seg. avg. 0.797 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 23.2 12.6 Inc. frq. avg. 0.440 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

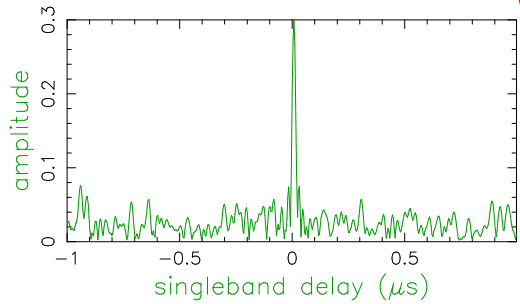
P: az 308.1 el 19.3 pa 58.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) 339.873 -307.403 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/PY..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/PY.W.334.11LPVT

multiband delay (μ s)

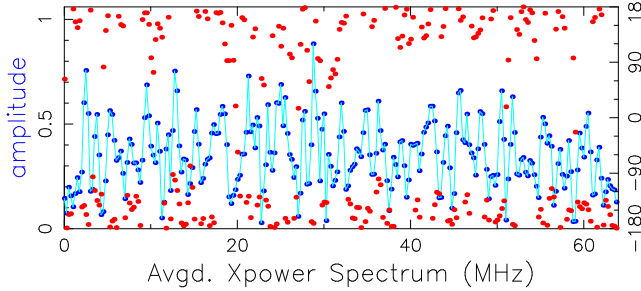


Fringe quality 7

SNR 16.5
 Int time 401.965
 Amp 0.300
 Phase -162.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.007484
 MBD 0.006126
 Fringe rate (Hz)
 -0.007447
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

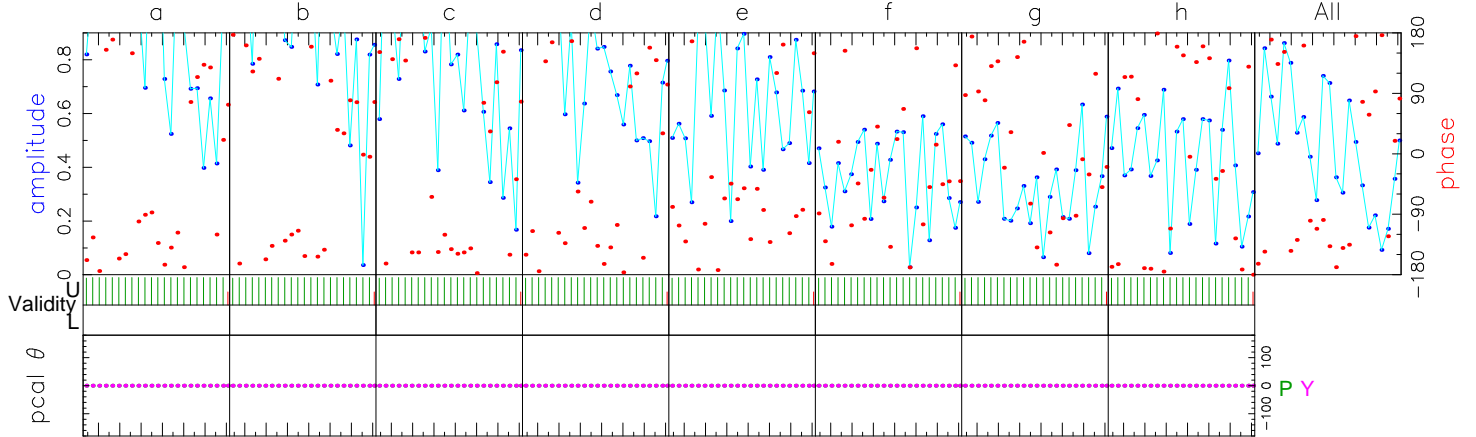


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131014
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec

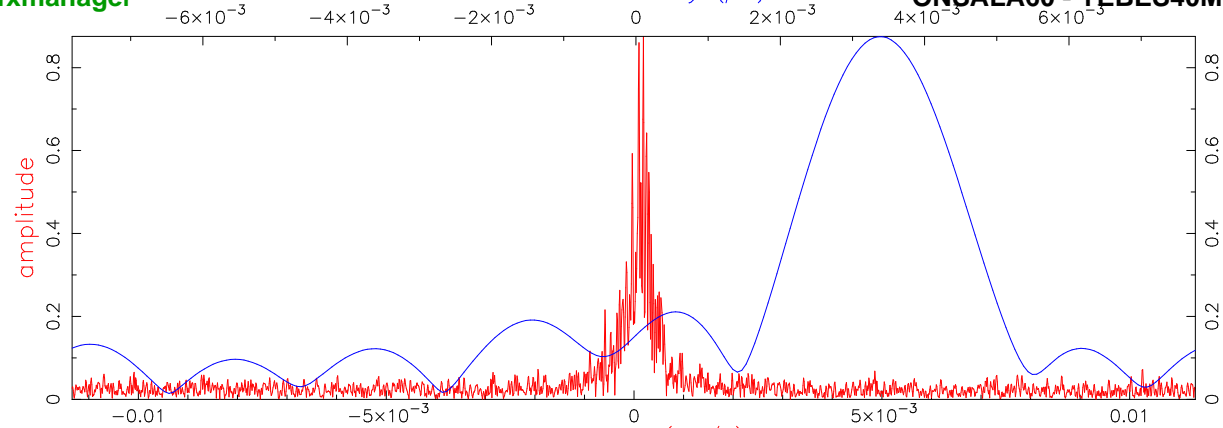


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-157.7	175.3	-169.5	-159.6	-107.4	-52.9	136.3	158.0	Phase	-162.0
	0.5	0.5	0.5	0.5	0.4	0.1	0.0	0.3	Ampl.	0.4
	258.6	258.8	259.2	257.8	258.8	401.7	225.2	259.2	Sbd box	258.9
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-6.92323456460E+02	Apriori delay (usec)	-6.92329582942E+02	Resid mbdelay (usec)	6.12648E-03	+/-	6.6E-05
Sband delay (usec)	-6.92322099442E+02	Apriori clock (usec)	-1.3893745E+01	Resid sbdelay (usec)	7.48350E-03	+/-	5.2E-04
Phase delay (usec)	-6.92329588167E+02	Apriori clockrate (us/s)	-5.2000000E-07	Resid phdelay (usec)	-5.22444E-06	+/-	2.2E-07
Delay rate (us/s)	-4.42901574534E-02	Apriori rate (us/s)	-4.42900709959E-02	Resid rate (us/s)	-8.64575E-08	+/-	9.7E-10
Total phase (deg)	-260.9	Apriori accel (us/s/s)	9.83886384052E-08	Resid phase (deg)	-162.0	+/-	7.0

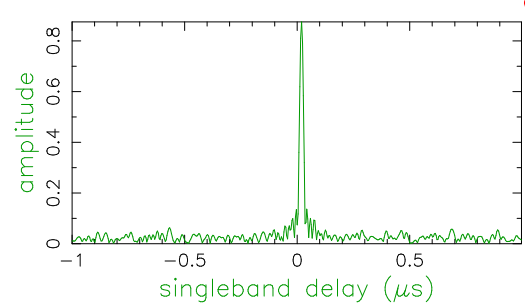
ph/seg (deg)	69.5	RMS	16.7	Theor.	0.300 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	95.0	69.5	16.7	Search (2048X32)	0.296	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	59.0	95.0	29.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	62.1	59.0	9.8	Inc. seg. avg.	0.460	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
		62.1	17.2	Inc. frq. avg.	0.352	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

multiband delay (μ s)

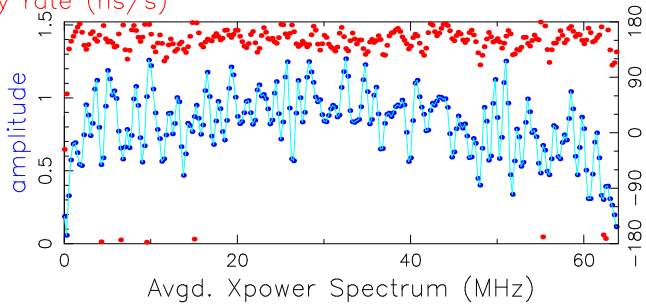


Fringe quality 4

SNR 48.0
 Int time 402.380
 Amp 0.875
 Phase -24.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.019252
 MBD 0.003380
 Fringe rate (Hz)
 0.016315
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

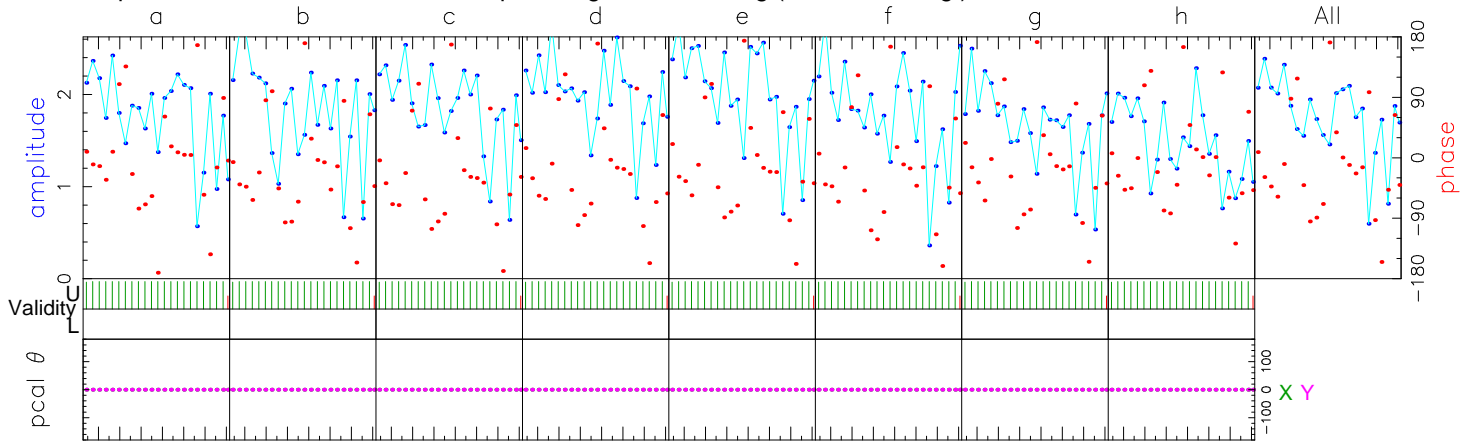


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131006
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec

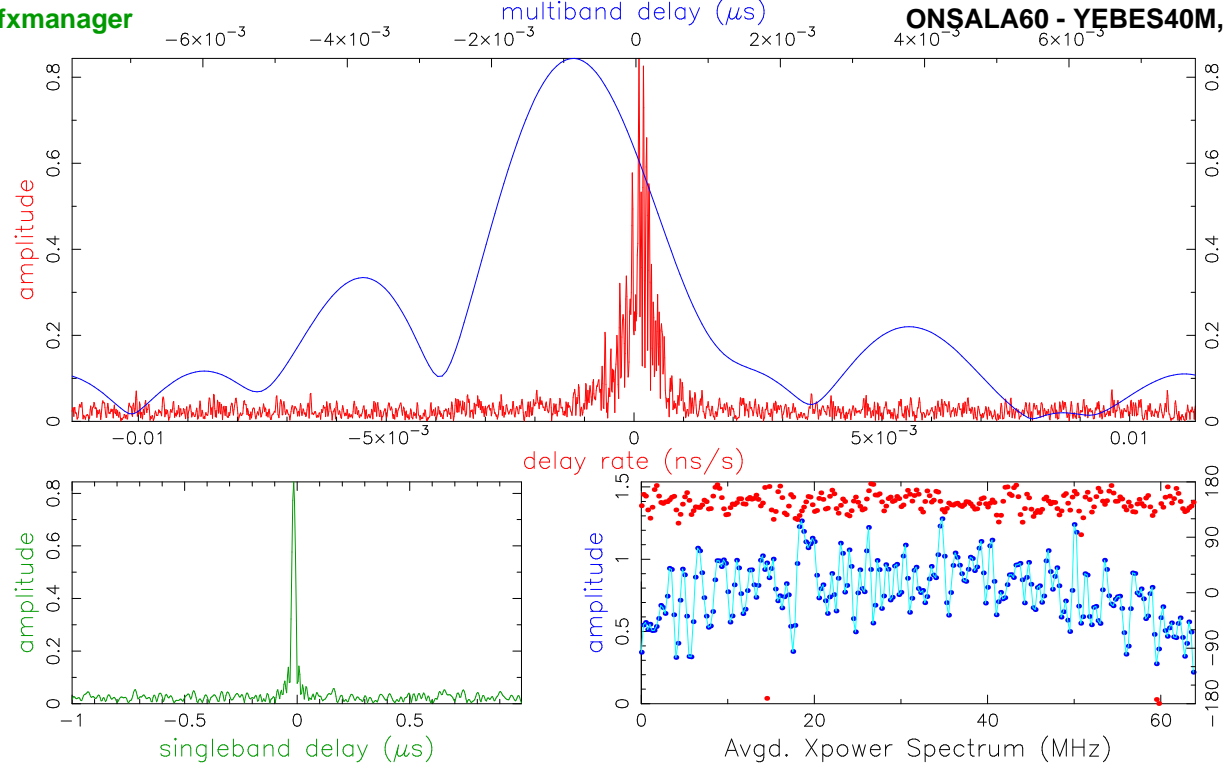


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-5.5	-32.6	-40.7	-27.4	-21.6	-32.5	-19.1	-16.4	Phase	-24.6
	0.9	0.9	0.9	0.9	1.0	0.9	0.8	0.8	Ampl.	0.9
	261.8	261.9	261.9	261.8	261.9	261.7	262.1	261.9	Sbd box	261.9
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.08786701774E+03	Apriori delay (usec)	1.08784801254E+03	Resid mbdelay (usec)	3.38020E-03	+/-	2.3E-05
Sband delay (usec)	1.08786726479E+03	Apriori clock (usec)	3.4650017E+01	Resid sbdelay (usec)	1.92522E-02	+/-	1.8E-04
Phase delay (usec)	1.08784801175E+03	Apriori clockrate (us/s)	4.0800002E-07	Resid phdelay (usec)	-7.91701E-07	+/-	7.7E-08
Delay rate (us/s)	2.98306815476E-01	Apriori rate (us/s)	2.98306626080E-01	Resid rate (us/s)	1.89396E-07	+/-	3.3E-10
Total phase (deg)	263.5	Apriori accel (us/s/s)	8.84204307378E-06	Resid phase (deg)	-24.6	+/-	2.4

ph/seg (deg)	RMS 74.2	Theor. 5.7	Amplitude Search (2048X32)	0.875 +/- 0.018	0.867	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	111.8	10.0	Interp.	0.000	0.867	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
ph/frq (deg)	12.0	3.4	Inc. seg. avg.	1.752	0.867	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
amp/frq (%)	8.6	5.9	Inc. frq. avg.	0.888	0.867	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011		
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

X: az 310.6 el 24.1 pa 32.9 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -2269.263 1919.218 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/XY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/XY.W.309.1ILPVT

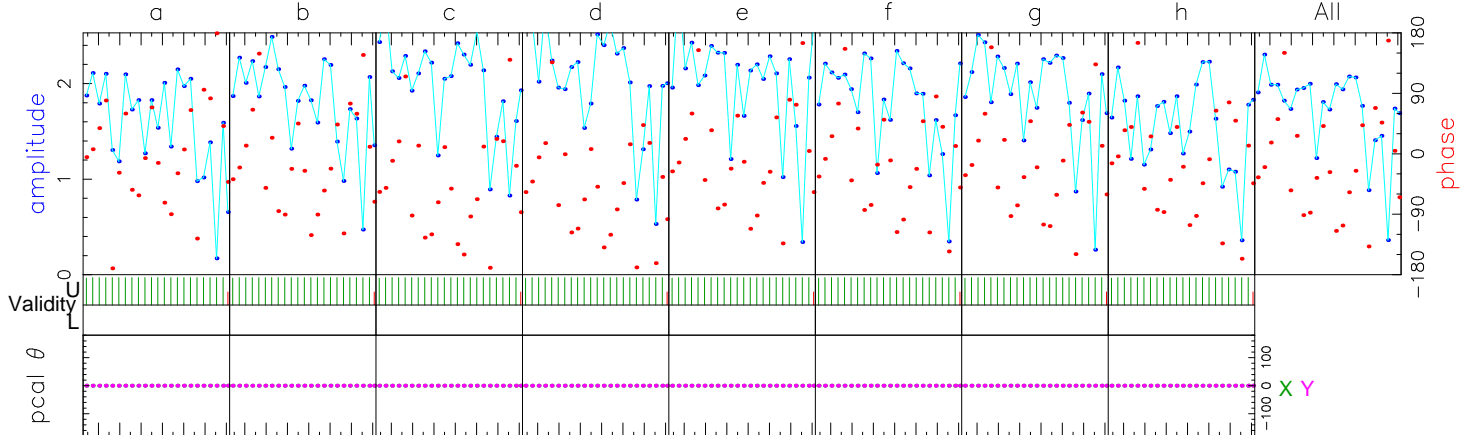


Fringe quality 6

SNR 46.3
 Int time 402.380
 Amp 0.844
 Phase -23.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.015663
 MBD -0.000872
 Fringe rate (Hz)
 0.008517
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131009
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	8.6	-17.4	-54.6	-51.8	-10.6	-18.4	-16.4	-17.5	Phase	-23.3
	0.8	0.9	0.9	1.1	1.0	0.8	1.0	0.8	Ampl.	0.9
	253.3	252.0	252.9	252.9	253.3	252.4	252.9	253.2	Sbd box	253.0
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.08783151604E+03		Apriori delay (usec)		1.08784801254E+03		Resid mbdelay (usec)		-8.71503E-04	+/- 2.3E-05
Sband delay (usec)	1.08783234929E+03		Apriori clock (usec)		3.4650017E+01		Resid sbdelay (usec)		-1.56632E-02	+/- 1.9E-04
Phase delay (usec)	1.08784801179E+03		Apriori clockrate (us/s)		4.0800002E-07		Resid phdelay (usec)		-7.50714E-07	+/- 8.0E-08
Delay rate (us/s)	2.98306724951E-01		Apriori rate (us/s)		2.98306626080E-01		Resid rate (us/s)		9.88707E-08	+/- 3.4E-10
Total phase (deg)	264.8		Apriori accel (us/s/s)		8.84204307378E-06		Resid phase (deg)		-23.3	+/- 2.5

ph/seg (deg) 76.4 5.9 Search (2048X32) 0.838 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 116.5 10.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 22.8 3.5 Inc. seg. avg. 1.721 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 12.6 6.1 Inc. frq. avg. 0.895 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 X: az 310.6 el 24.1 pa 32.9 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -2269.263 1919.218 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/XY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/XY.W.326.1ILPVT

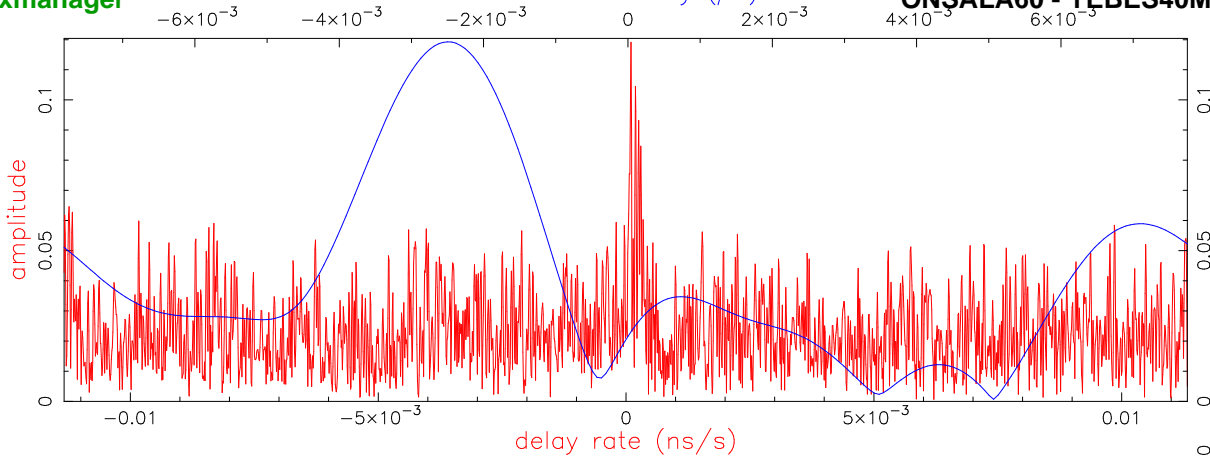
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, XY

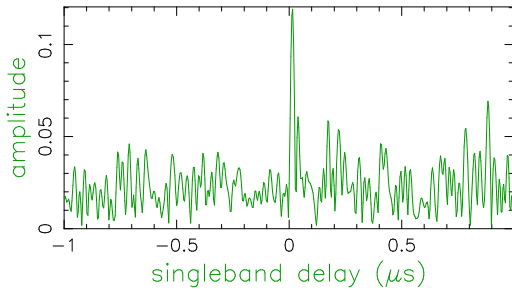
ONŞALA60 - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

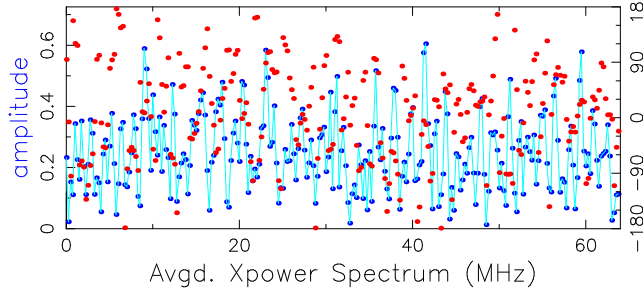


Fringe quality 0

SNR 6.6
 Int time 402.380
 Amp 0.120
 Phase -149.8
 PFD 1.1e-02
 Delays (us)
 SBD 0.014294
 MBD -0.002554
 Fringe rate (Hz)
 0.008595
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

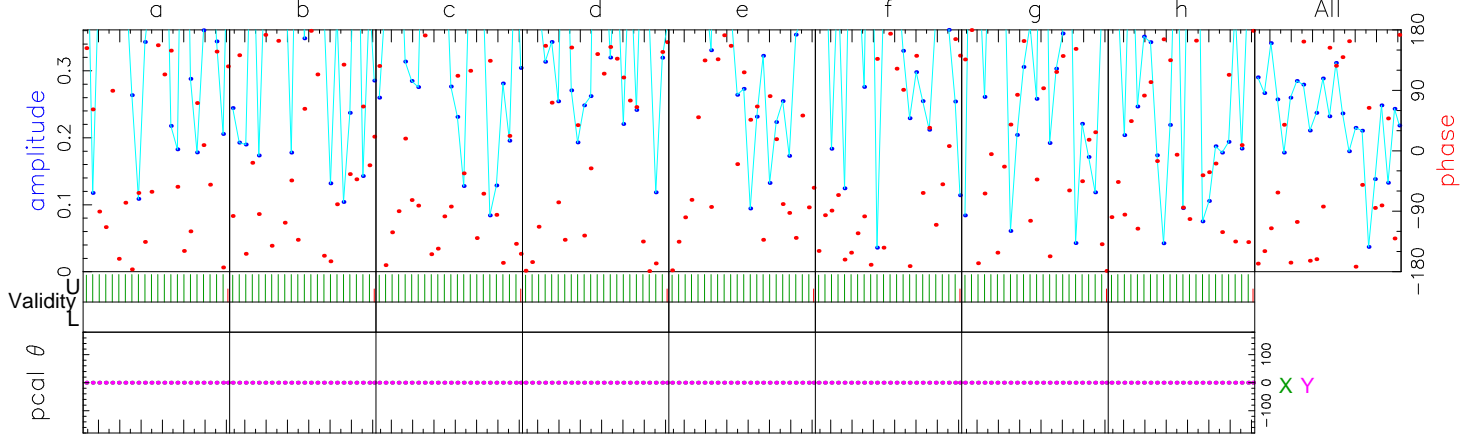


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131012
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-160.4	-122.4	-134.3	163.6	-147.1	-139.8	-158.0	-113.4	Phase	-149.8
	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
	262.9	62.8	260.8	262.4	466.5	260.5	115.9	158.2	Sbd box	260.7
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.08786108338E+03	Apriori delay (usec)	1.08784801254E+03	Resid mbdelay (usec)	-2.55416E-03	+/-	1.6E-04
Sband delay (usec)	1.08786230604E+03	Apriori clock (usec)	3.4650017E+01	Resid sbdelay (usec)	1.42935E-02	+/-	1.3E-03
Phase delay (usec)	1.08784800771E+03	Apriori clockrate (us/s)	4.0800002E-07	Resid phdelay (usec)	-4.83120E-06	+/-	5.6E-07
Delay rate (us/s)	2.98306725863E-01	Apriori rate (us/s)	2.98306626080E-01	Resid rate (us/s)	9.97826E-08	+/-	2.4E-09
Total phase (deg)	138.3	Apriori accel (us/s/s)	8.84204307378E-06	Resid phase (deg)	-149.8	+/-	17.3

ph/seg (deg)	RMS 77.1	Theor. 41.6	Amplitude Search (2048X32)	0.120 +/- 0.018	0.119	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	106.5	72.6	Interp.	0.000	0.119	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	28.2	24.5	Inc. seg. avg.	0.183	0.119	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	49.9	42.8	Inc. frq. avg.	0.121	0.119	Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
					0.119	Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
					0.119	nlags: 256	t_cohere infinite
					0.119		ion window (TEC) 0.00 0.00

X: az 310.6 el 24.1 pa 32.9 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -2269.263 1919.218 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/XY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/XY.W.342.1ILPVT

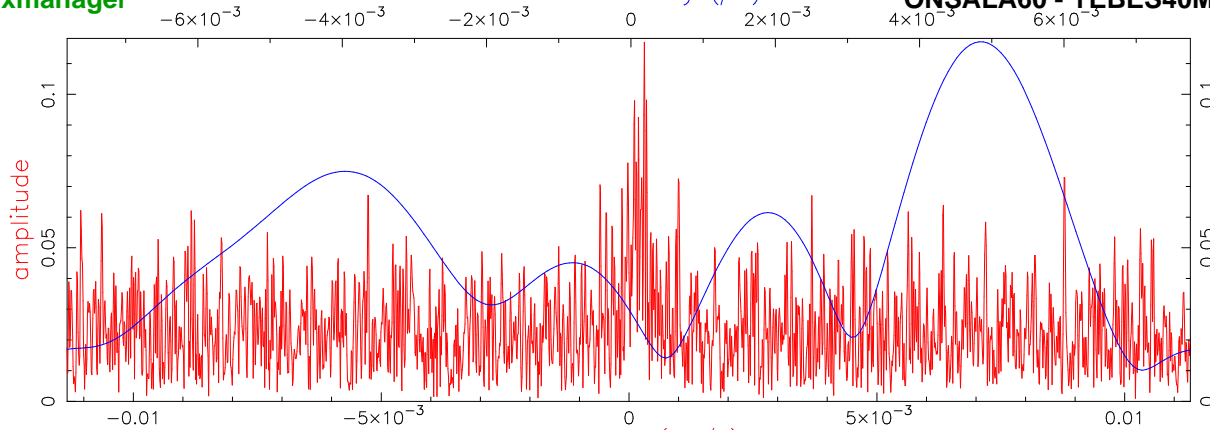
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, XY

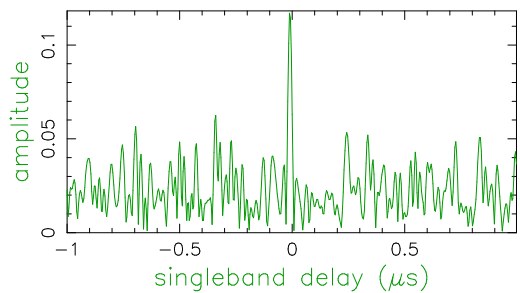
ONŞALA60 - YEŞES40M, fgroup W, pol RL

multiband delay (μ s)

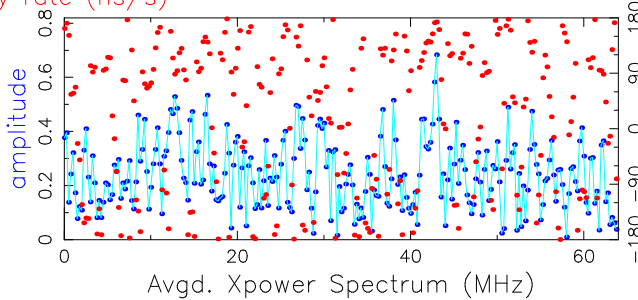


Fringe quality 0

SNR 6.5
 Int time 402.380
 Amp 0.118
 Phase -35.7
 PFD 2.5e-02
 Delays (us)
 SBD -0.010345
 MBD 0.004905
 Fringe rate (Hz)
 0.026412
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

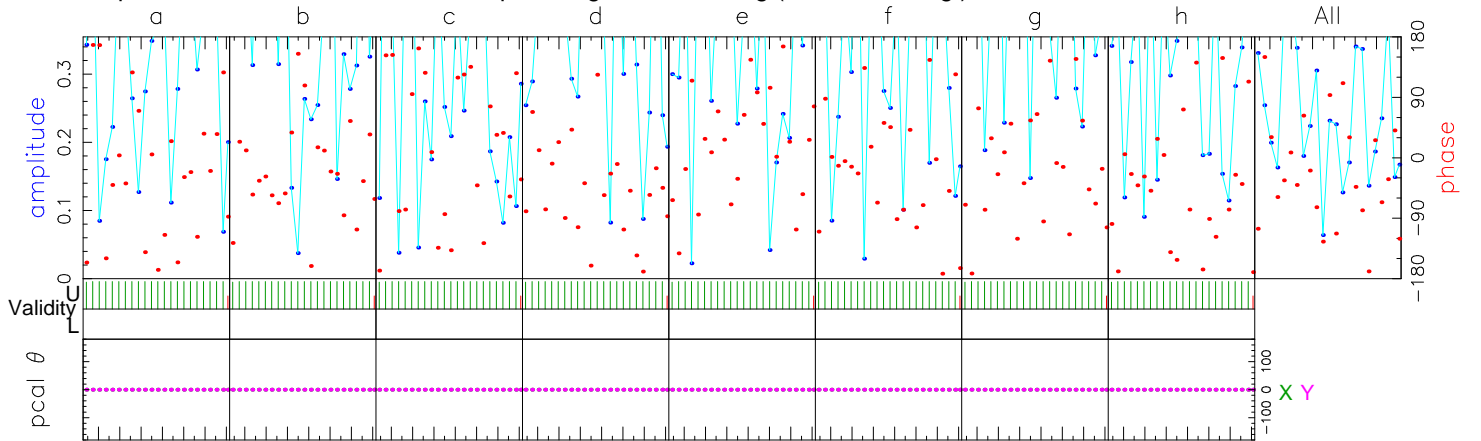


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131016
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-45.9	-32.5	166.6	-40.7	11.8	-33.6	-30.3	-88.5	Phase	-35.7
	0.1	0.3	0.1	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1
	381.2	254.0	181.8	41.7	287.3	431.1	254.4	441.8	Sbd box	254.4
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.08783729254E+03	Apriori delay (usec)	1.08784801254E+03	Resid mbdelay (usec)	4.90500E-03	+/-	1.7E-04
Sband delay (usec)	1.08783766729E+03	Apriori clock (usec)	3.4650017E+01	Resid sbdelay (usec)	-1.03453E-02	+/-	1.3E-03
Phase delay (usec)	1.08784801139E+03	Apriori clockrate (us/s)	4.0800002E-07	Resid phdelay (usec)	-1.15027E-06	+/-	5.7E-07
Delay rate (us/s)	2.98306932702E-01	Apriori rate (us/s)	2.98306626080E-01	Resid rate (us/s)	3.06621E-07	+/-	2.5E-09
Total phase (deg)	252.4	Apriori accel (us/s/s)	8.84204307378E-06	Resid phase (deg)	-35.7	+/-	17.7

ph/seg (deg)	80.0	Theor.	42.4	Amplitude	0.118 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	132.6	Search (2048X32)	0.113	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	70.8	Inc. seg. avg.	0.191	Inc. frq. avg.	0.133	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	58.9	Inc. frq. avg.	0.133			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	
						nlags:	256	t_cohere	infinite	

X: az 310.6 el 24.1 pa 32.9 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -2269.263 1919.218 simultaneous interpolator

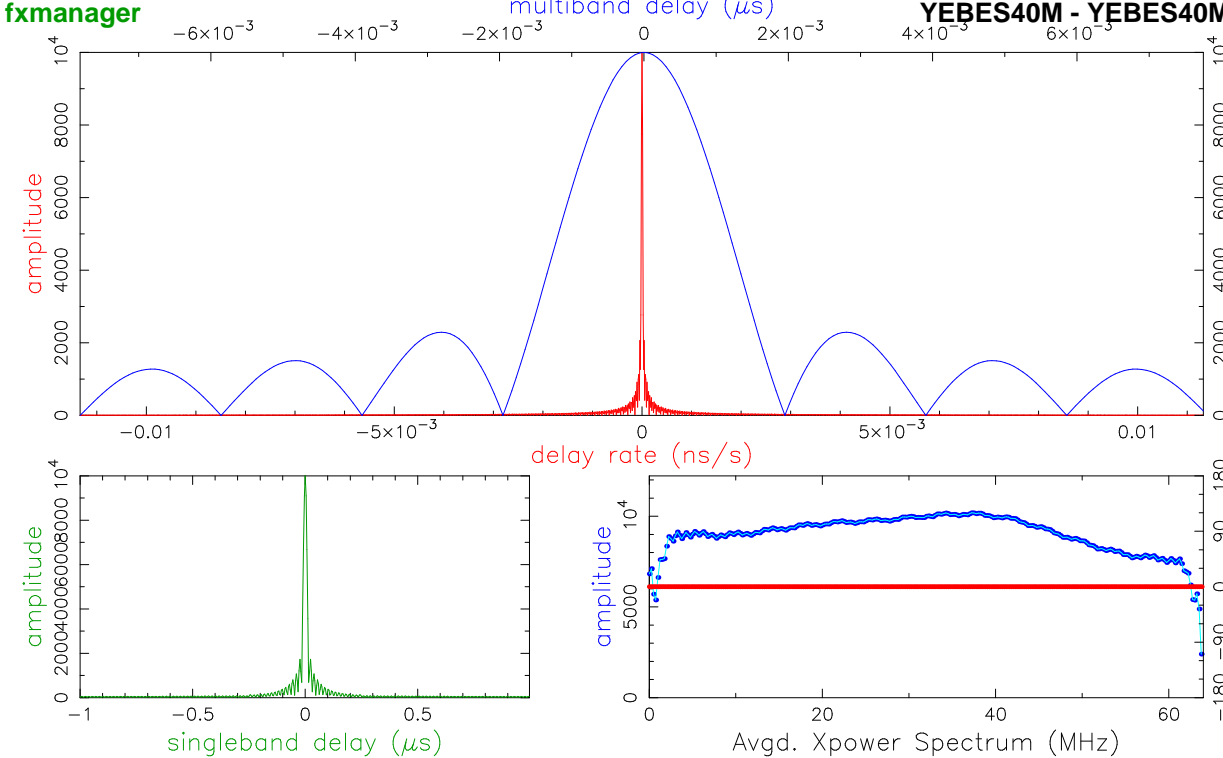
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/XY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/XY.W.358.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, YY

YEBES40M - YEBES40M, fgroup W, pol LL

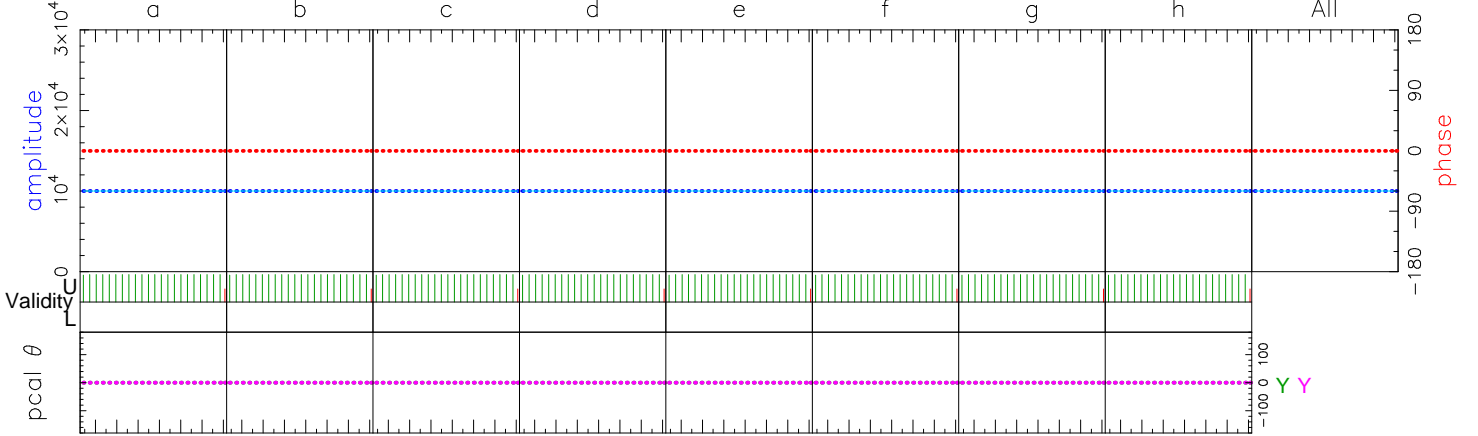


Fringe quality 9

SNR 548549.2
 Int time 402.380
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131006
 2020:247:085004
 RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	Ampl.	10000.0
Y	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
Y	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
Y	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 +/- 2.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.6E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.7E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.9E-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 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 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. 10000.001 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

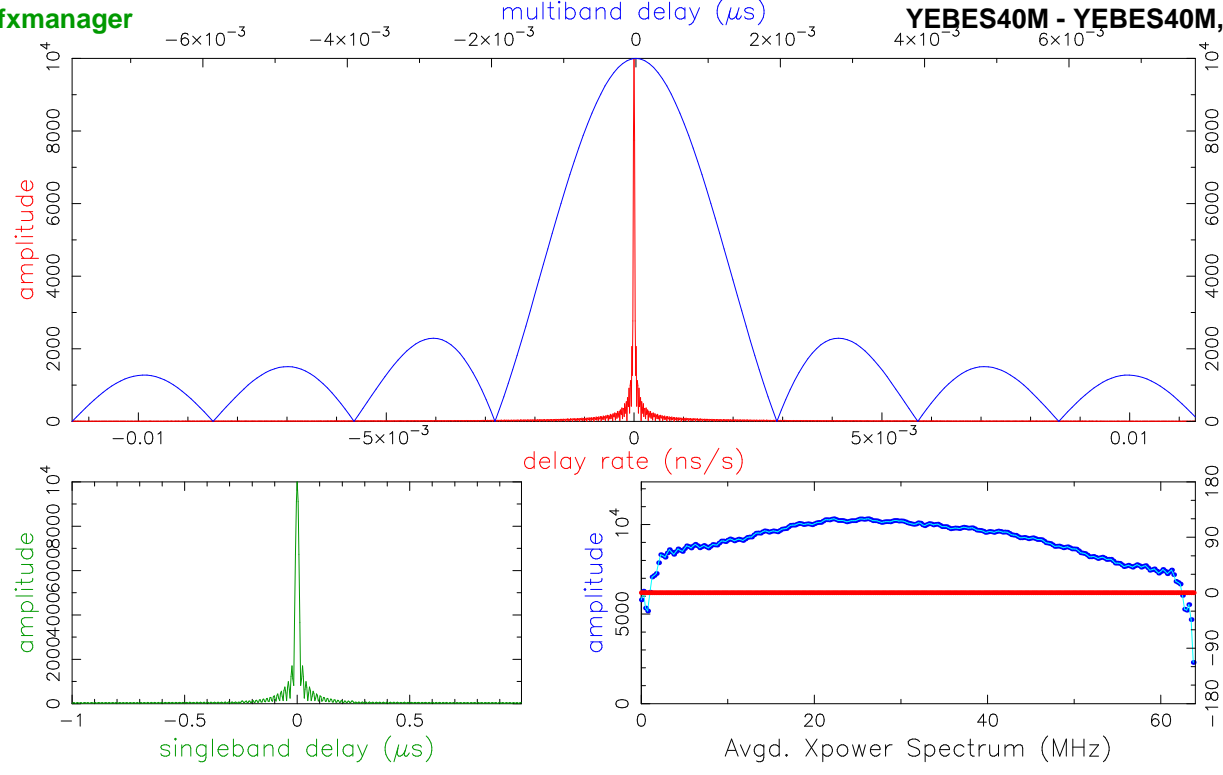
Y: az 307.2 el 21.2 pa 53.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/YY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/YY.W.310.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

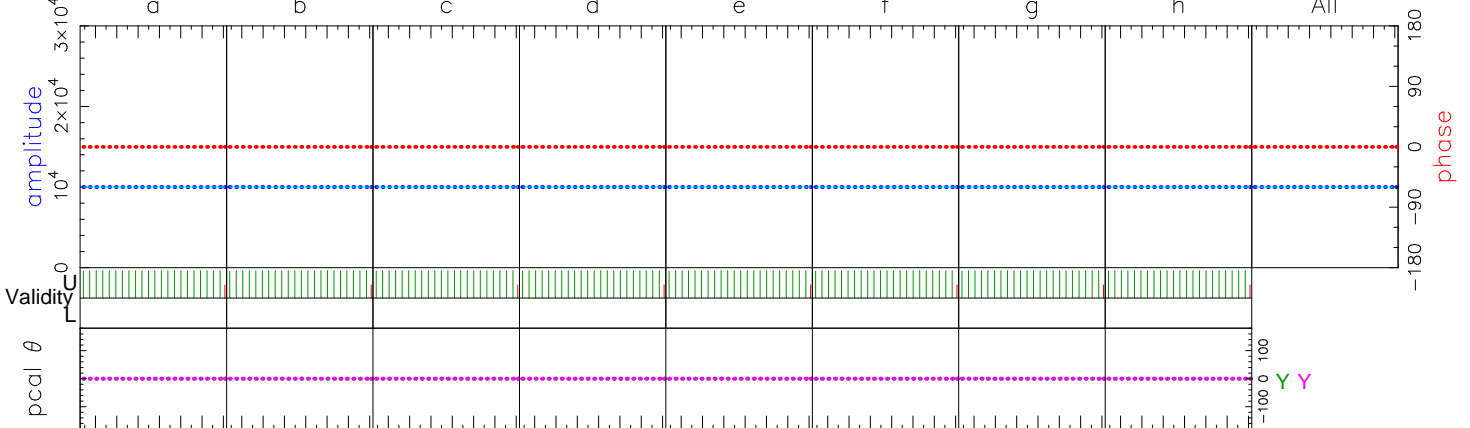
3C84.1ILPVT, No0079, YY

YEBES40M - YEBES40M, fgroup W, pol RR



Fringe quality 9
 SNR 548549.2
 Int time 402.380
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131009
 2020:247:085004
 RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 0.000000000000E+00 Apriori delay (usec) 0.000000000000E+00 Resid mbdelay (usec) 0.000000E+00 +/- 2.0E-09
 Sband delay (usec) 0.000000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.000000E+00 +/- 1.6E-08
 Phase delay (usec) 0.000000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.000000E+00 +/- 6.7E-12
 Delay rate (us/s) 0.000000000000E+00 Apriori rate (us/s) 0.000000000000E+00 Resid rate (us/s) 0.000000E+00 +/- 2.9E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.000000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 10000.000 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 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. 10000.001 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Y: az 307.2 el 21.2 pa 53.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/YY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/YY.W.325.1ILPVT

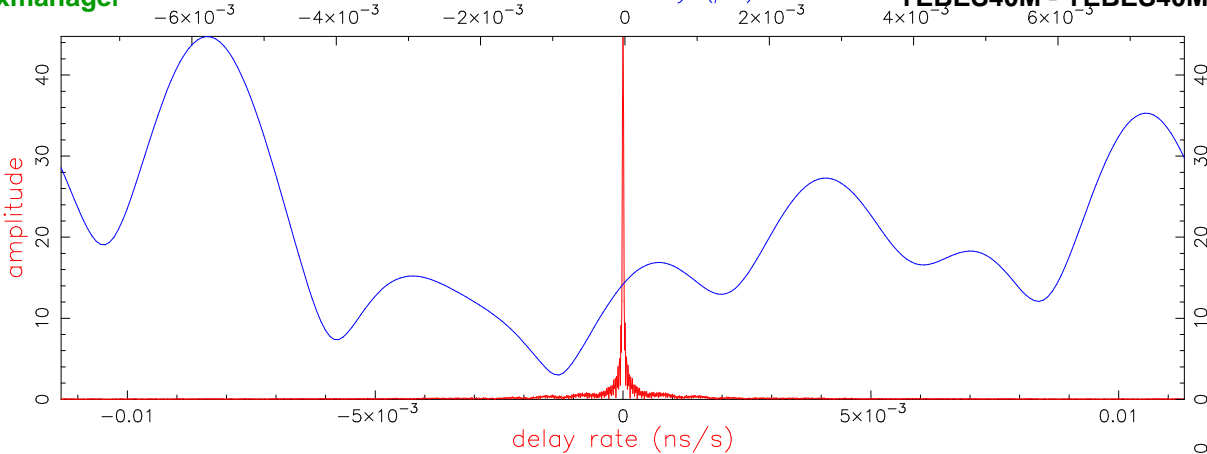
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, YY

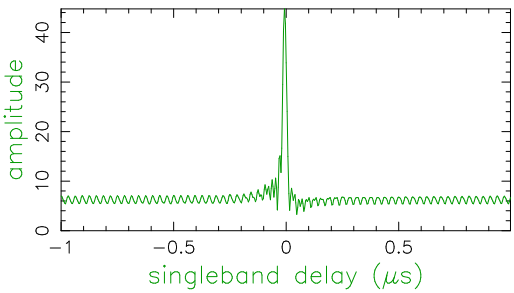
YEBES40M - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

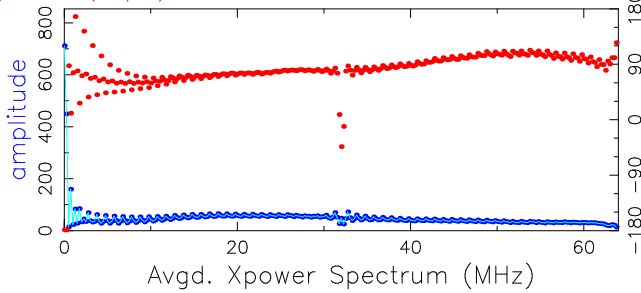


Fringe quality 5

SNR 2455.6
 Int time 402.380
 Amp 44.766
 Phase 69.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.007494
 MBD -0.005781
 Fringe rate (Hz)
 0.000006
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

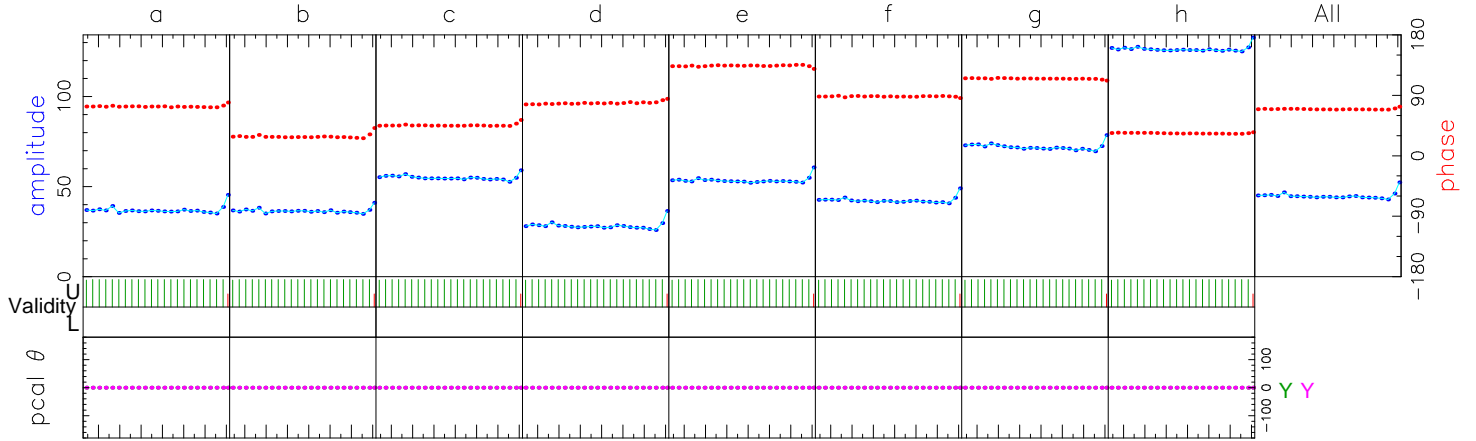


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131012
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



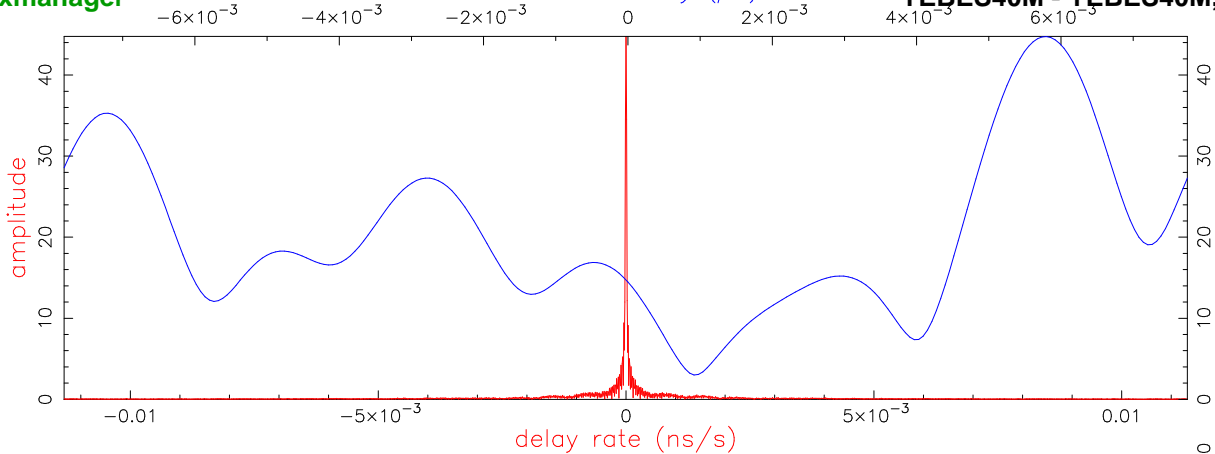
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	73.3	28.5	45.3	78.4	133.9	88.3	114.8	33.5	Phase	69.4
	36.9	36.4	54.9	28.1	53.4	42.3	71.9	126.3	Ampl.	56.3
	255.5	254.9	255.1	256.5	255.5	255.3	253.9	256.0	Sbd box	255.1
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Y:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) -5.78146875000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -5.78147E-03 +/- 4.4E-07
 Sband delay (usec) -7.49425000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -7.49425E-03 +/- 3.5E-06
 Phase delay (usec) 2.23661388734E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 2.23661E-06 +/- 1.5E-09
 Delay rate (us/s) 6.73129738605E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 6.73130E-11 +/- 6.5E-12
 Total phase (deg) 69.4 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 69.4 +/- 0.0

RMS Theor. Amplitude 44.766 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.7 0.1 Search (2048X32) 44.621 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 3.1 0.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 41.3 0.1 Inc. seg. avg. 44.744 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 70.5 0.1 Inc. frq. avg. 56.266 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

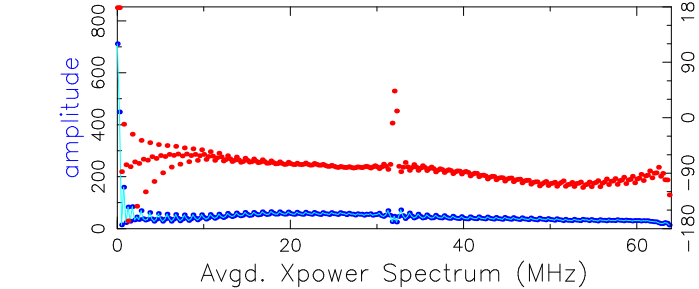
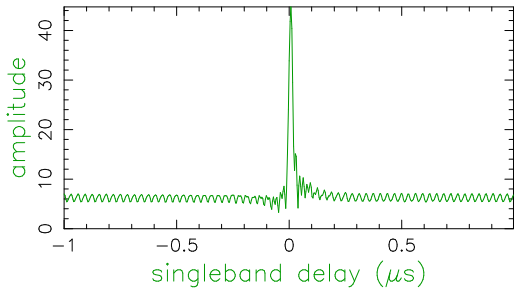
Y: az 307.2 el 21.2 pa 53.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/YY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/YY.W.340.1ILPVT

multiband delay (μ s)



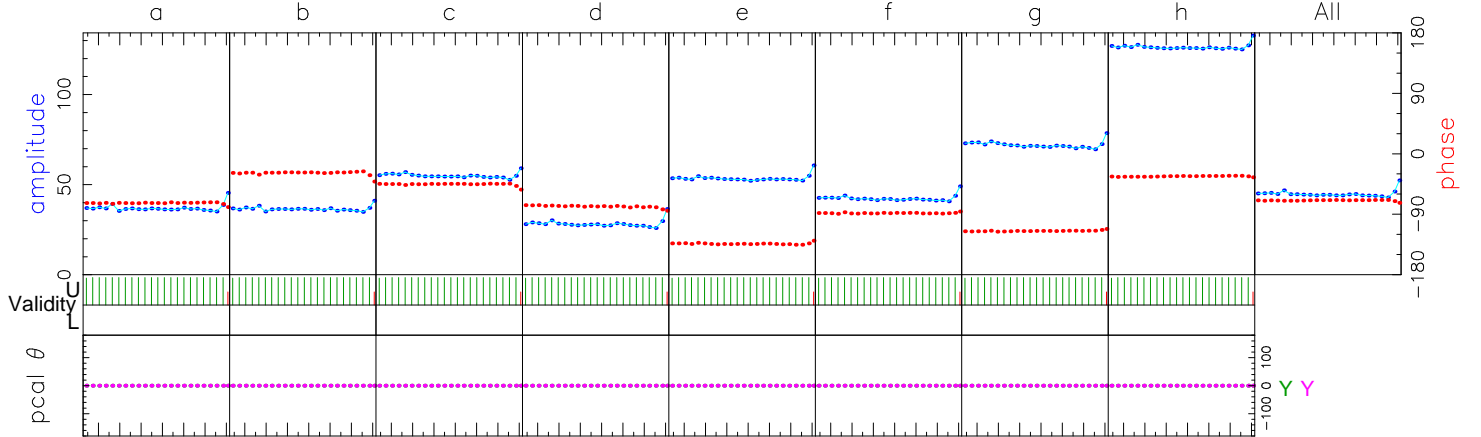
Fringe quality 5

SNR 2455.6
 Int time 402.380
 Amp 44.766
 Phase -69.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.007494
 MBD 0.005781
 Fringe rate (Hz)
 -0.000006
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131015
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-73.3	-28.5	-45.3	-78.4	-133.9	-88.3	-114.8	-33.5	Phase	-69.4
	36.9	36.4	54.9	28.1	53.4	42.3	71.9	126.3	Ampl.	56.3
	258.5	259.1	258.9	257.5	258.5	258.7	260.1	258.0	Sbd box	258.9
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Y:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

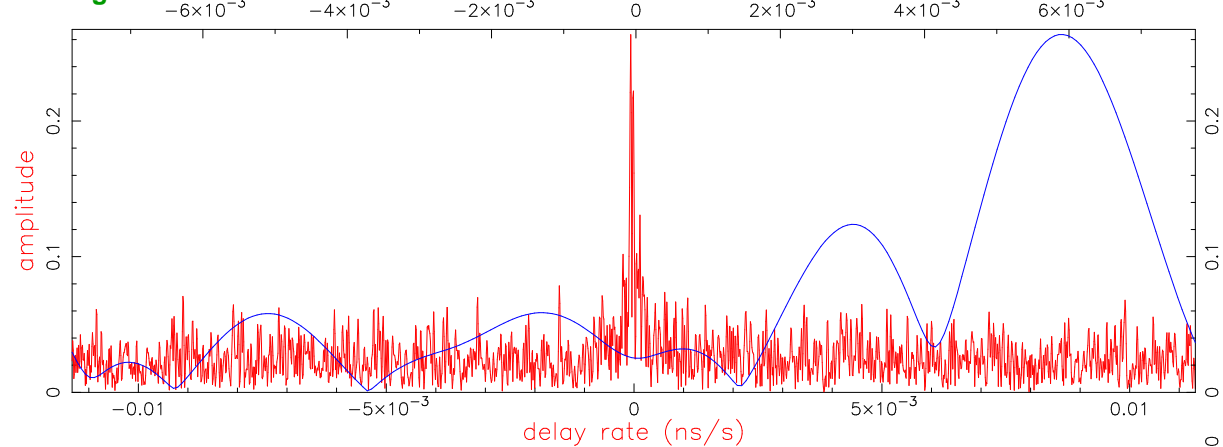
Group delay (usec)(sbd)	5.78146875000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	5.78147E-03	+/-	4.4E-07
Sband delay (usec)	7.49425000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	7.49425E-03	+/-	3.5E-06
Phase delay (usec)	-2.23661388680E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.23661E-06	+/-	1.5E-09
Delay rate (us/s)	-6.73129738605E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-6.73130E-11	+/-	6.5E-12
Total phase (deg)	-69.4	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-69.4	+/-	0.0

ph/seg (deg)	0.7	Theor.	0.1	Amplitude	44.766 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	3.1		0.2	Search (2048X32)	44.621	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	41.3		0.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	70.5		0.1	Inc. seg. avg.	44.744	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	56.266	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

Y: az 307.2 el 21.2 pa 53.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

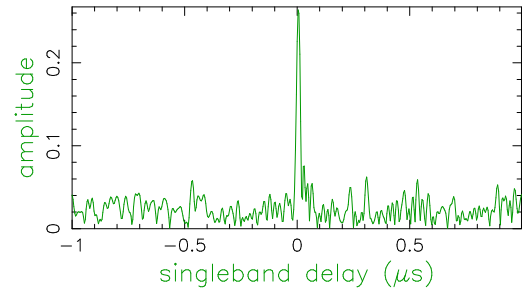
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/YY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/YY.W.355.1ILPVT

multiband delay (μ s)

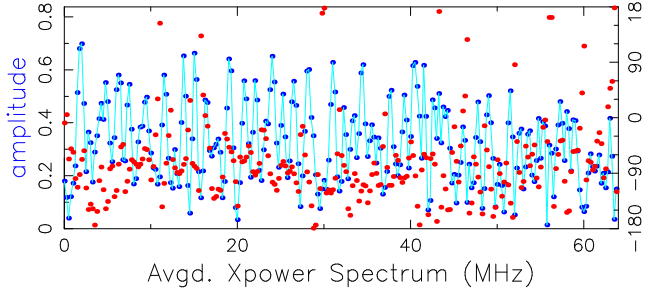


Fringe quality 9

SNR 14.1
 Int time 370.980
 Amp 0.268
 Phase -94.6
 PFD 2.6e-36
 Delays (us)
 SBD 0.005516
 MBD 0.005922
 Fringe rate (Hz) -0.005428
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

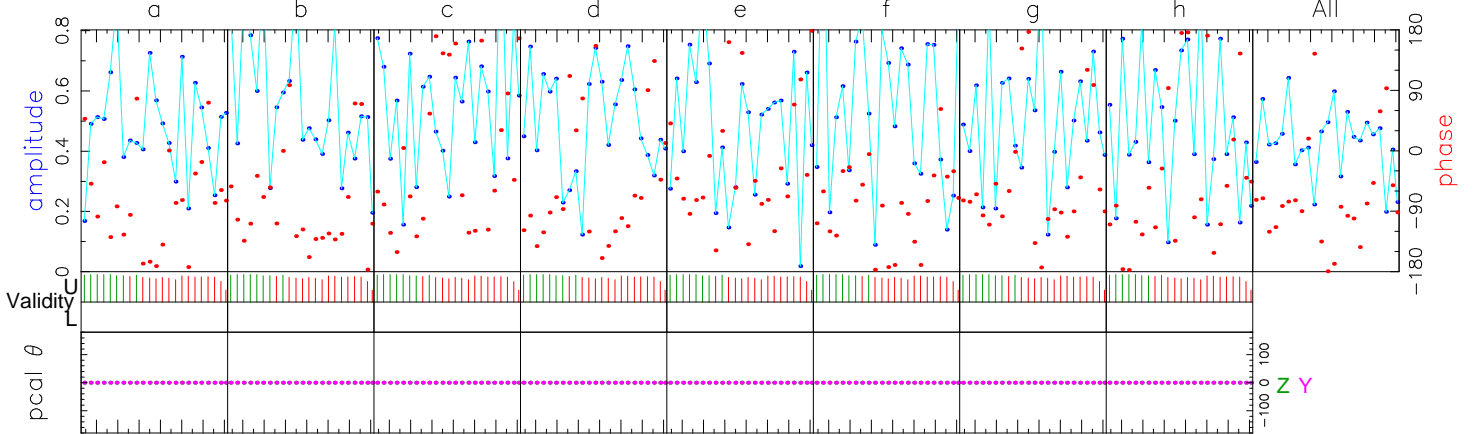


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131007
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-85.2	-103.5	-105.3	-111.5	-61.8	-74.7	-100.4	-117.3	Phase	-94.6
	0.2	0.3	0.2	0.3	0.3	0.4	0.3	0.3	Ampl.	0.3
	257.1	258.3	322.2	258.9	258.4	258.9	258.7	257.1	Sbd box	258.4
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.64953327835E+02	Apriori delay (usec)	1.64947406114E+02	Resid mbdelay (usec)	5.92172E-03	+/-	7.7E-05
Sband delay (usec)	1.64952922114E+02	Apriori clock (usec)	-1.3543357E+01	Resid sbdelay (usec)	5.51600E-03	+/-	6.1E-04
Phase delay (usec)	1.64947403062E+02	Apriori clockrate (us/s)	-1.0399999E-07	Resid phdelay (usec)	-3.05205E-06	+/-	2.6E-07
Delay rate (us/s)	4.04887573350E-01	Apriori rate (us/s)	4.04887636359E-01	Resid rate (us/s)	-6.30085E-08	+/-	1.1E-09
Total phase (deg)	107.9	Apriori accel (us/s/s)	1.54100121645E-05	Resid phase (deg)	-94.6	+/-	8.1

ph/seg (deg)	67.9	RMS	19.5	Theor.	0.268 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	73.4	Search (2048X32)	0.258	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	20.8	Inc. seg. avg.	0.409	Inc. frq. avg.	0.272	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	20.5	Inc. frq. avg.	0.272	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011
									ion window (TEC)	0.00 0.00	

Z: az 318.5 el 21.4 pa 28.3 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -3072.922 2555.450 simultaneous interpolator

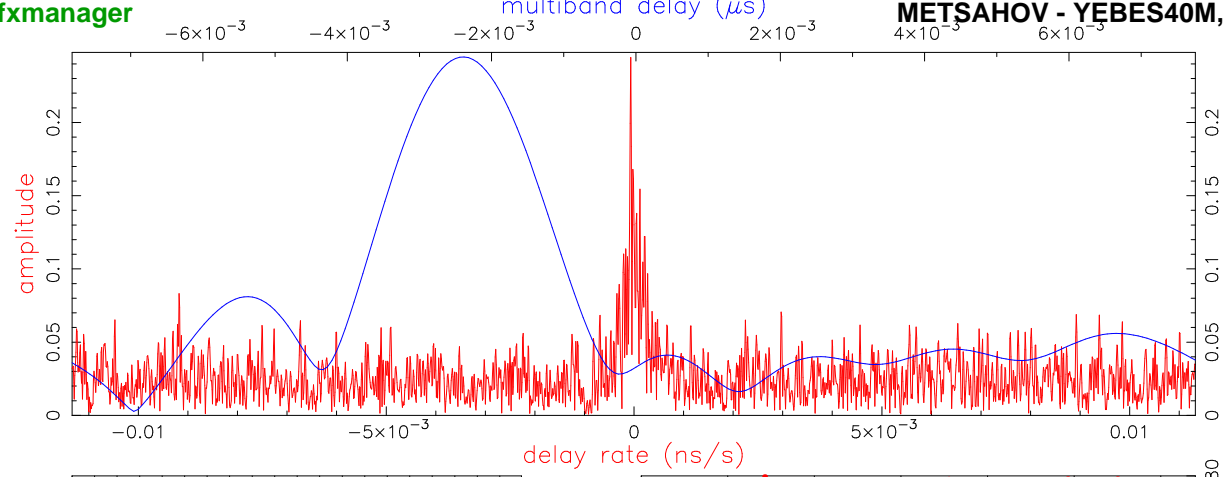
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/ZY..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/ZY.W.319.11LPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, ZY

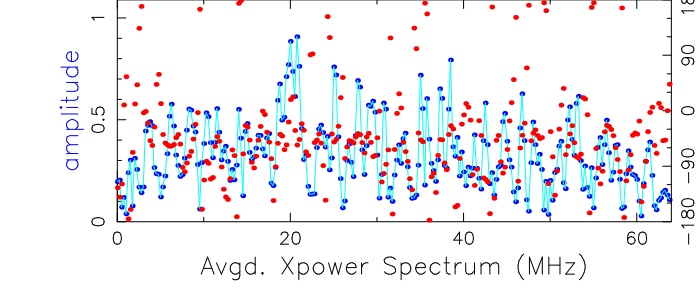
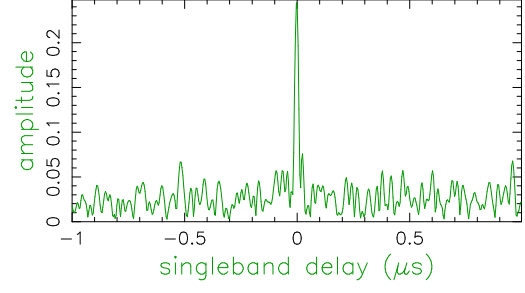
METSÁHOV - YEBES40M, fgroup W, pol RR



Fringe quality 9

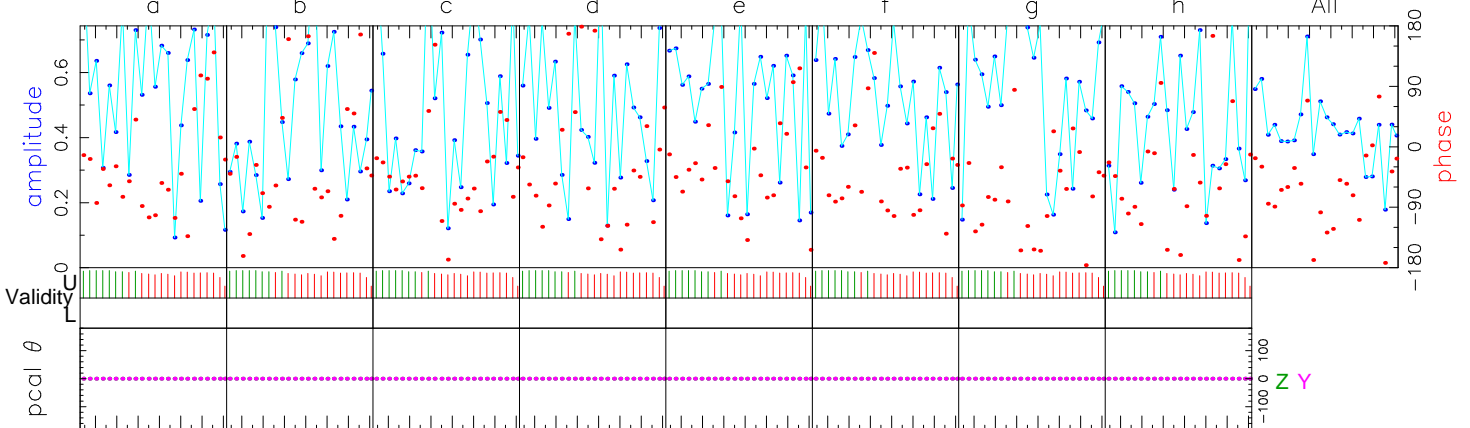
SNR 13.1
 Int time 370.980
 Amp 0.248
 Phase -57.6
 PFD 3.3e-30
 Delays (us)
 SBD -0.002339
 MBD -0.002340
 Fringe rate (Hz)
 -0.005477
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131011
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



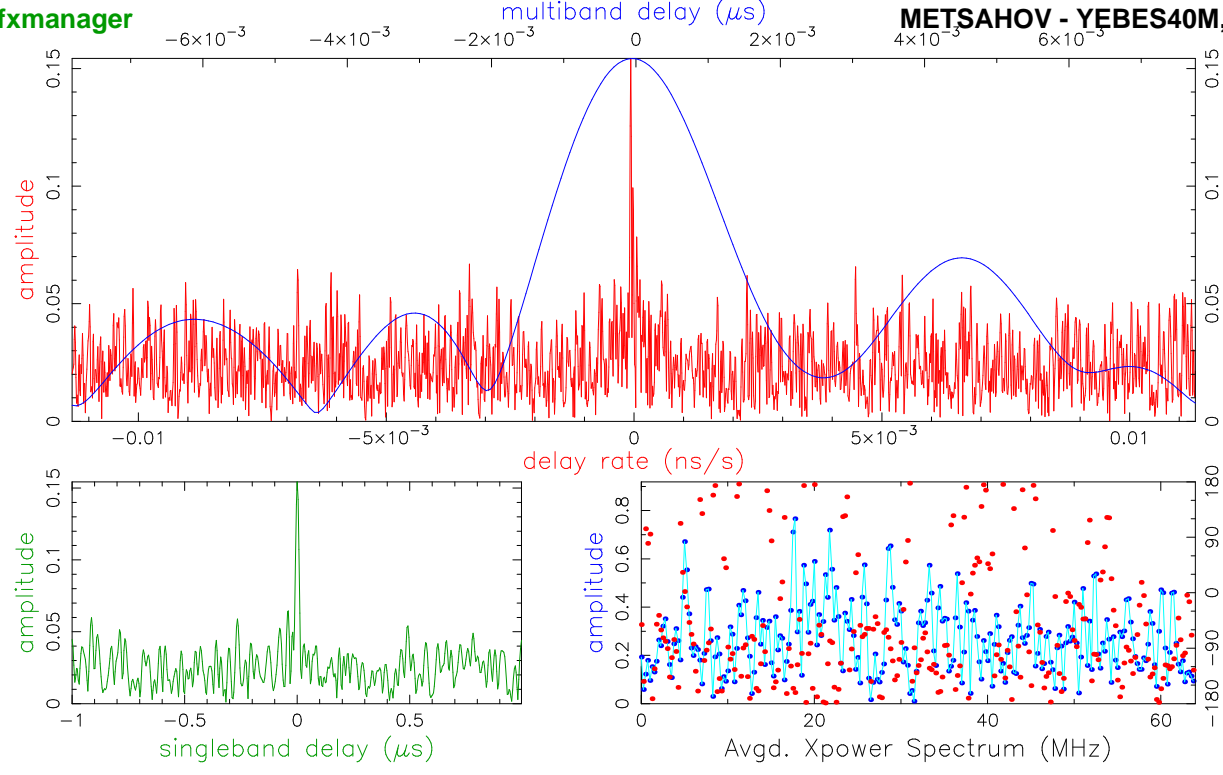
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 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
	-48.9	-83.0	-44.3	-67.7	-29.7	-47.6	-85.5	-65.0	Phase	-57.6
	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.2	Ampl.	0.3
	256.4	257.2	255.8	256.9	257.0	255.6	255.8	411.9	Sbd box	256.4
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.64945065929E+02		Apriori delay (usec)		1.64947406114E+02		Resid mbdelay (usec)		-2.34019E-03	+/- 8.3E-05
Sband delay (usec)	1.64945067364E+02		Apriori clock (usec)		-1.3543357E+01		Resid sbdelay (usec)		-2.33875E-03	+/- 6.6E-04
Phase delay (usec)	1.64947404258E+02		Apriori clockrate (us/s)		-1.0399999E-07		Resid phdelay (usec)		-1.85645E-06	+/- 2.8E-07
Delay rate (us/s)	4.04887572777E-01		Apriori rate (us/s)		4.04887636359E-01		Resid rate (us/s)		-6.35817E-08	+/- 1.2E-09
Total phase (deg)	145.0		Apriori accel (us/s/s)		1.54100121645E-05		Resid phase (deg)		-57.6	+/- 8.8

ph/seg (deg) 61.2 21.0 Search (2048X32) 0.240 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 84.6 36.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.3 12.4 Inc. seg. avg. 0.401 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 19.2 21.7 Inc. frq. avg. 0.253 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 318.5 el 21.4 pa 28.3 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -3072.922 2555.450 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/ZY..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/ZY.W.336.11LPVT

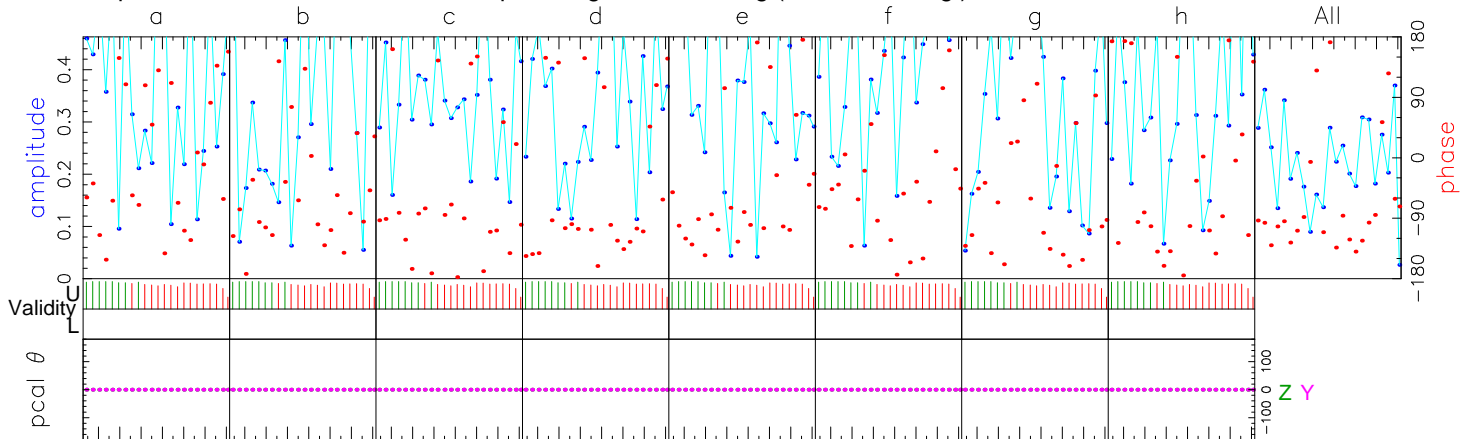


Fringe quality 9

SNR 8.1
 Int time 370.980
 Amp 0.154
 Phase -109.6
 PFD 1.5e-07
 Delays (us)
 SBD 0.000233
 MBD -0.000046
 Fringe rate (Hz)
 -0.005542
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131014
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

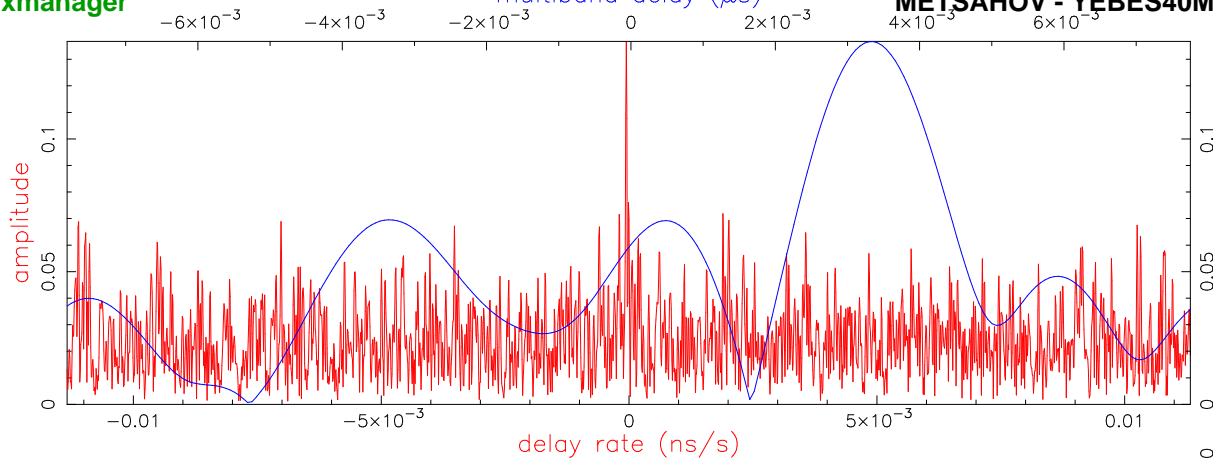
Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-114.1	-85.9	-124.8	-144.0	-100.9	-77.6	-94.2	-122.7	Phase	-109.6
	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	Ampl.	0.2
	236.6	165.2	441.7	257.6	256.8	426.9	457.9	406.2	Sbd box	257.1
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.64947359804E+02		Apriori delay (usec)		1.64947406114E+02		Resid mbdelay (usec)		-4.63104E-05	+/- 1.3E-04
Sband delay (usec)	1.64947639364E+02		Apriori clock (usec)		-1.3543357E+01		Resid sbdelay (usec)		2.33250E-04	+/- 1.1E-03
Phase delay (usec)	1.64947402580E+02		Apriori clockrate (us/s)		-1.0399999E-07		Resid phdelay (usec)		-3.53442E-06	+/- 4.5E-07
Delay rate (us/s)	4.04887572025E-01		Apriori rate (us/s)		4.04887636359E-01		Resid rate (us/s)		-6.43335E-08	+/- 2.0E-09
Total phase (deg)			Apriori accel (us/s/s)		1.54100121645E-05		Resid phase (deg)		-109.6	+/- 14.1

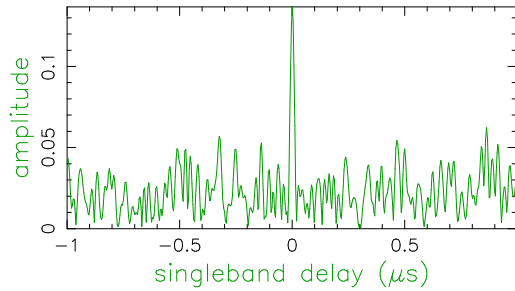
ph/seg (deg) 59.9 33.8 Search (2048X32) 0.153 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 71.3 59.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.2 19.9 Inc. seg. avg. 0.196 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.9 34.8 Inc. frq. avg. 0.156 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 318.5 el 21.4 pa 28.3 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) -3072.922 2555.450 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/ZY..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/ZY.W.350.11LPVT

multiband delay (μs)

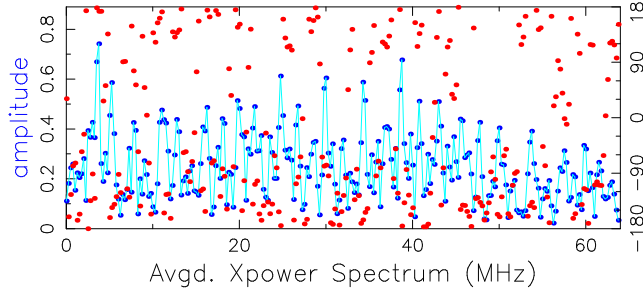


Fringe quality 0

SNR 7.2
 Int time 370.980
 Amp 0.137
 Phase 165.1
 PFD 1.8e-04
 Delays (us)
 SBD 0.000291
 MBD 0.003341
 Fringe rate (Hz)
 -0.004938
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

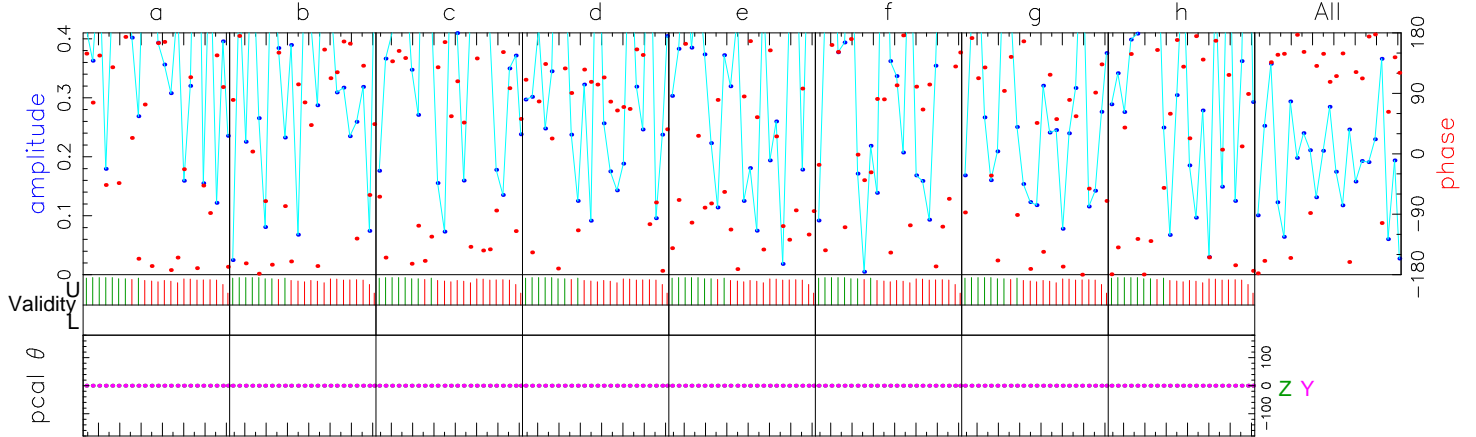


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131017
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	163.3	152.6	179.2	122.7	-113.0	-177.8	139.6	155.1	Phase	165.1
	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	Ampl.	0.2
	175.8	474.3	256.7	125.0	151.7	20.7	241.8	143.9	Sbd box	257.1
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.64950747064E+02	Apriori delay (usec)	1.64947406114E+02	Resid mbdelay (usec)	3.34095E-03	+/-	1.5E-04
Sband delay (usec)	1.64947697364E+02	Apriori clock (usec)	-1.3543357E+01	Resid sbdelay (usec)	2.91250E-04	+/-	1.2E-03
Phase delay (usec)	1.64947411439E+02	Apriori clockrate (us/s)	-1.0399999E-07	Resid phdelay (usec)	5.32464E-06	+/-	5.1E-07
Delay rate (us/s)	4.04887579038E-01	Apriori rate (us/s)	4.04887636359E-01	Resid rate (us/s)	-5.73209E-08	+/-	2.2E-09
Total phase (deg)	7.7	Apriori accel (us/s/s)	1.54100121645E-05	Resid phase (deg)	165.1	+/-	15.9

ph/seg (deg)	47.5	RMS	38.2	Theor.	0.135	Amplitude	0.137 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	75.6	Search (2048X32)	0.135	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	40.6	Inc. seg. avg.	0.161	Inc. frq. avg.	0.150	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	24.2	Inc. frq. avg.	0.150	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite
Z: az 318.5 el 21.4 pa 28.3	Y: az 307.2 el 21.2 pa 53.6	u, v (fr/asec)	-3072.922 2555.450	ion window (TEC)	0.00	0.00		simultaneous interpolator			