

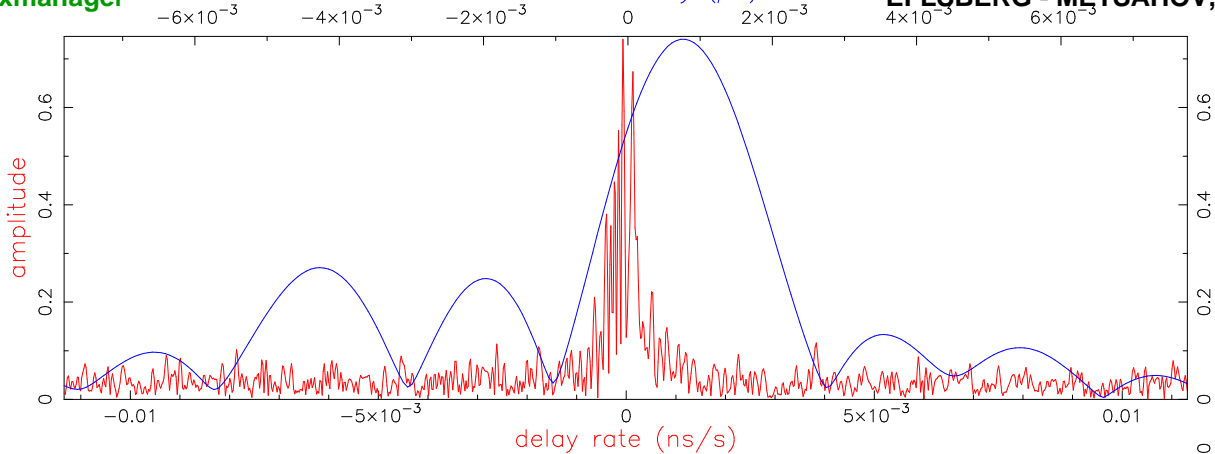
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, BZ

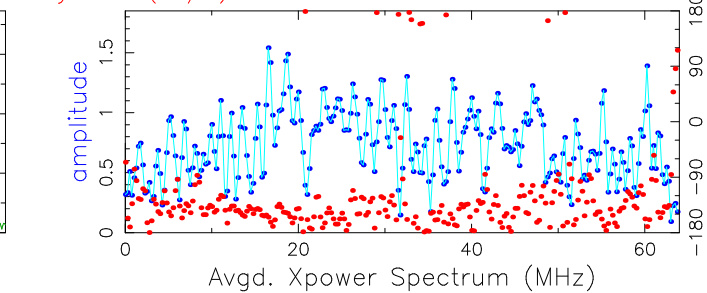
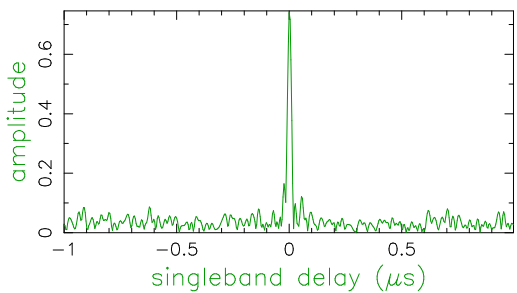
EFLSBERG - METSAHOV, fgroup W, pol RR

multiband delay (μ s)



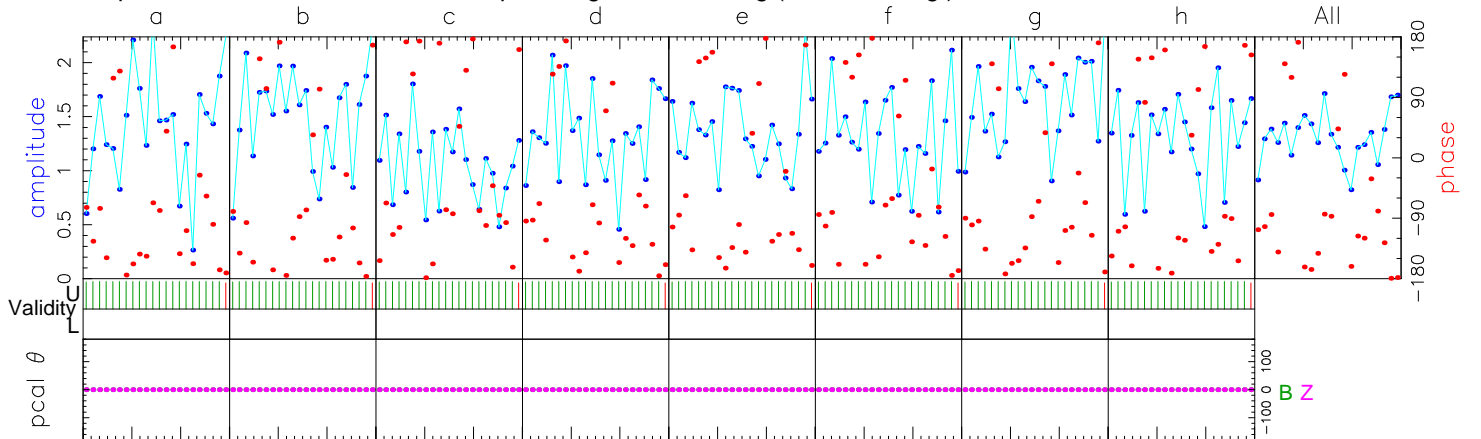
Fringe quality 7

SNR 27.3
 Int time 179.600
 Amp 0.746
 Phase -139.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.001218
 MBD 0.000799
 Fringe rate (Hz)
 -0.006367
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131718
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-128.2	-148.5	-140.5	-138.5	-146.3	-130.3	-123.9	-159.2	Phase	-139.6
	0.8	0.9	0.5	0.7	0.8	0.6	0.9	0.8	Ampl.	0.8
	257.7	257.3	257.9	256.6	257.1	257.5	257.4	256.1	Sbd box	257.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-2.14836241967E+02	Apriori delay (usec)	-2.14837041412E+02	Resid mbdelay (usec)	7.99445E-04	+/-	4.0E-05
Sband delay (usec)	-2.14835823162E+02	Apriori clock (usec)	9.9779596E+00	Resid sbdelay (usec)	1.21825E-03	+/-	3.1E-04
Phase delay (usec)	-2.14837045915E+02	Apriori clockrate (us/s)	-2.160000E-07	Resid phdelay (usec)	-4.50323E-06	+/-	1.4E-07
Delay rate (us/s)	-1.40613203553E-01	Apriori rate (us/s)	-1.40613129641E-01	Resid rate (us/s)	-7.39125E-08	+/-	1.3E-09
Total phase (deg)	-48.6	Apriori accel (us/s/s)	-8.06464903392E-06	Resid phase (deg)	-139.6	+/-	4.2

ph/seg (deg)	64.8	RMS	9.8	Theor.	9.8	Amplitude	0.746 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	81.1	Search (1024X32)	0.707	Inc. seg. avg.	1.288	Inc. frq. avg.	0.752	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	12.7	Interp.	0.000	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	18.3	Inc. seg. avg.	1.288	nlags:	256	t_cohere	infinite	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.752					Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

B: az 317.7 el 39.4 pa 55.4 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) 1535.655 -1486.307 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/BZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/BZ.W.108.1HQXF

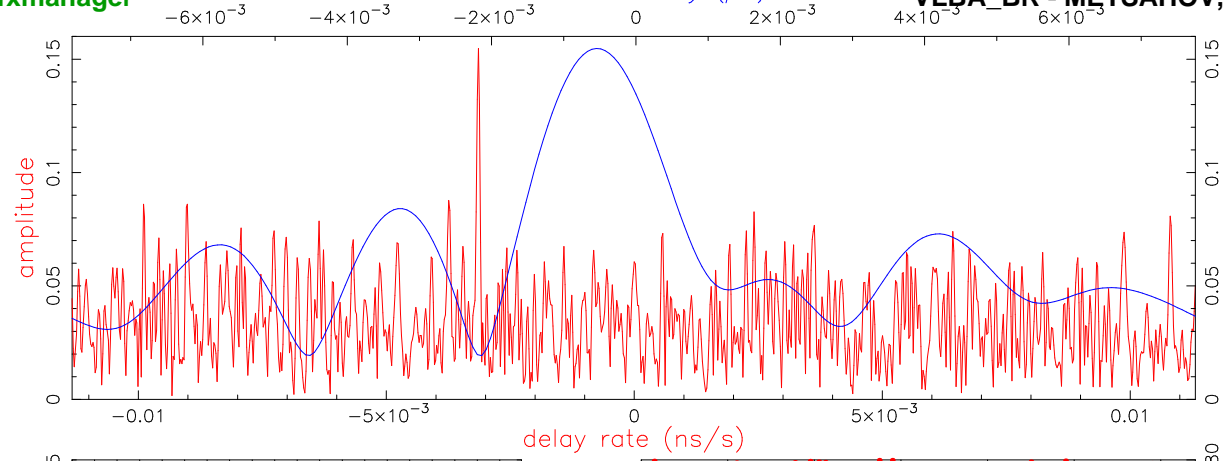
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

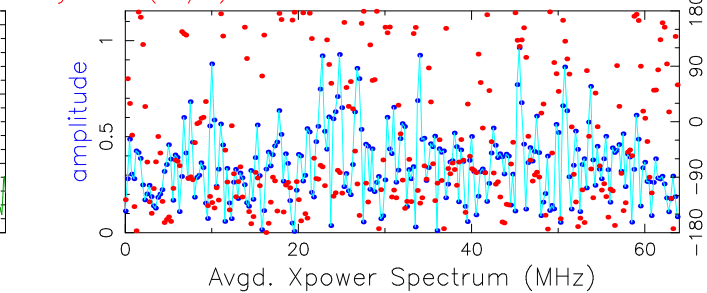
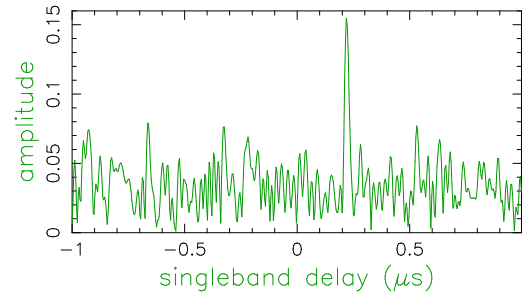
0102+584.1HQXF, No0087, bZ

VLBA_BR - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

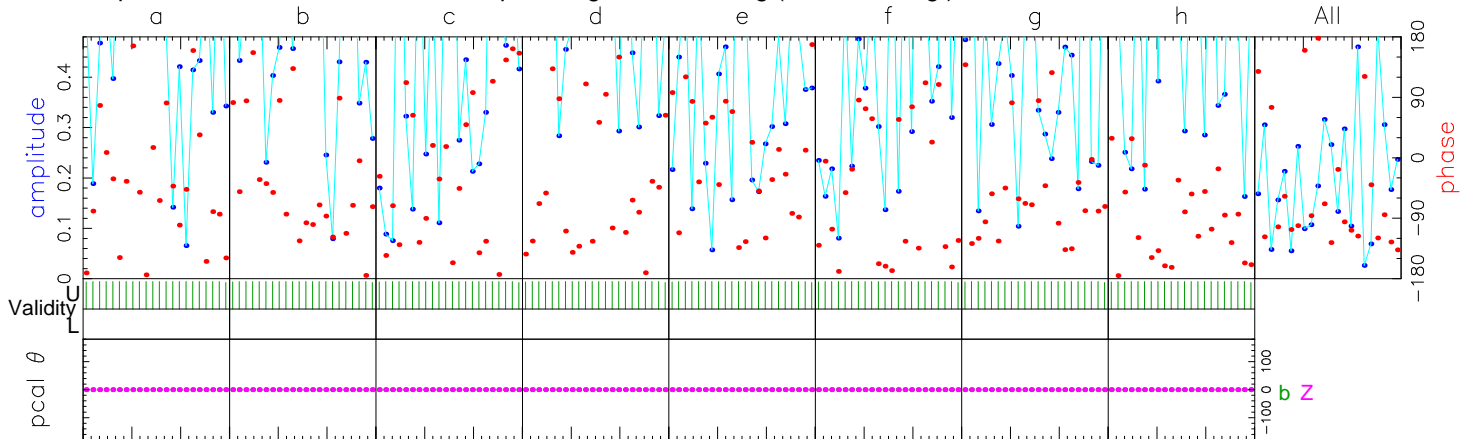


Fringe quality 0
 SNR 5.7
 Int time 179.703
 Amp 0.160
 Phase -109.0
 PFD 8.0e-01
 Delays (us)
 SBD 0.219505
 MBD -0.000510
 Fringe rate (Hz)
 -0.270786
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131718
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
b	1000	1000	1000	1000	1000	1000	1000	1000			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
b:Z	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			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)	6.14131143583E+03					6.14109319585E+03			Resid mbdelay (usec)	-5.10019E-04	+/- 1.9E-04
Sband delay (usec)	6.14131270035E+03					-1.8566217E+00			Resid sbdelay (usec)	2.19505E-01	+/- 1.5E-03
Phase delay (usec)	6.14109319233E+03					-1.6000005E-08			Resid phdelay (usec)	-3.51644E-06	+/- 6.5E-07
Delay rate (us/s)	6.61230206709E-01					6.61233350261E-01			Resid rate (us/s)	-3.14355E-06	+/- 6.2E-09
Total phase (deg)			211.6			-4.45512549788E-05			Resid phase (deg)	-109.0	+/- 20.2
ph/seg (deg)	66.4	47.3							PCal mode: MANUAL, MANUAL		
amp/seg (%)	85.8	82.5							PCal rate: 0.000E+00, 0.000E+00 (us/s)		
ph/frq (deg)	42.1	28.5							Bits/sample: 2x2		
amp/frq (%)	51.7	49.8							SampCntNorm: enabled		
b: az 49.3 el 68.3 pa -104.3									Sample rate(MISamp/s): 128		
Z: az 320.6 el 40.1 pa 37.5									Data rate(Mb/s): 2048		
u,v (fr/asec) -7286.128 -6252.325									nlags: 256		
Control file: cf_1234_gmva									t_cohere infinite		
Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/bZ..1HQXF									ion window (TEC)	0.00	0.00
Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/bZ.W.110.1HQXF									simultaneous interpolator		

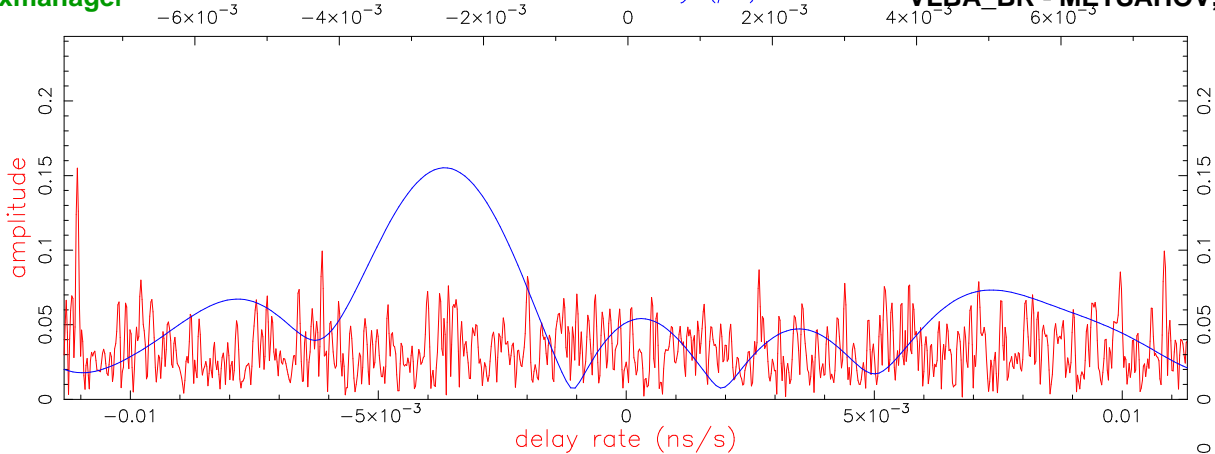
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, bZ

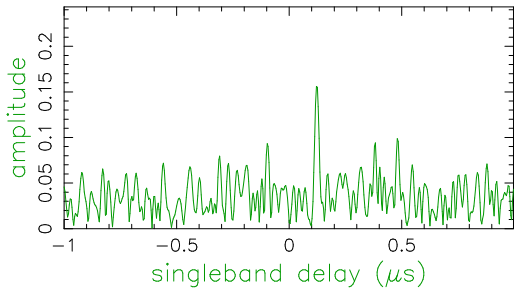
VLBA_BR - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

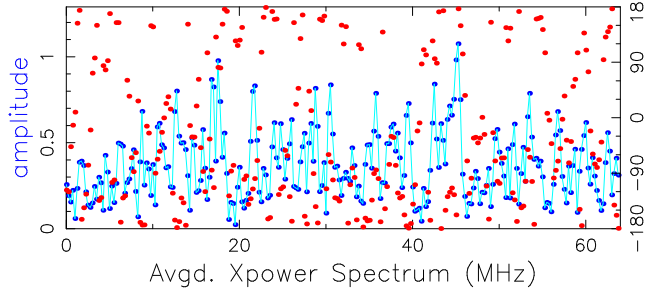


Fringe quality 0

SNR 5.8
 Int time 179.703
 Amp 0.243
 Phase -133.8
 PFD 5.6e-01
 Delays (us)
 SBD 0.122874
 MBD -0.002595
 Fringe rate (Hz)
 -0.955267
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

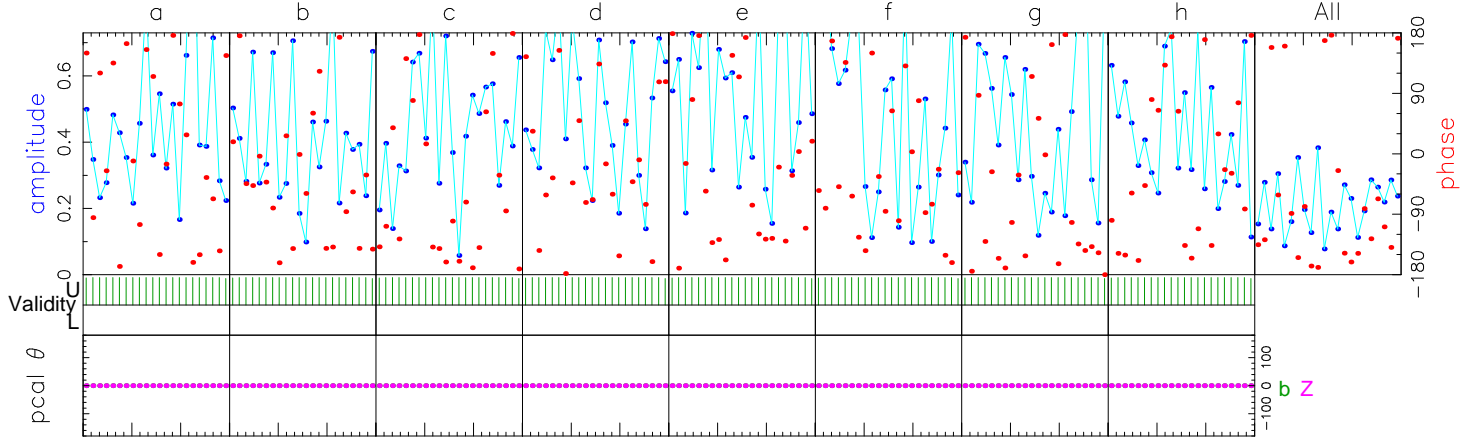


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131720
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-167.0	-97.7	-156.8	-17.4	-126.3	-104.8	-150.2	-132.1	Phase	-133.8
	0.3	0.3	0.3	0.1	0.3	0.3	0.4	0.3	Ampl.	0.2
	208.6	224.6	442.8	228.2	290.8	70.2	287.9	150.4	Sbd box	288.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	6.14121560107E+03	Apriori delay (usec)	6.14109319585E+03	Resid mbdelay (usec)	-2.59478E-03	+/-	1.9E-04
Sband delay (usec)	6.14121607035E+03	Apriori clock (usec)	-1.8566217E+08	Resid sbdelay (usec)	1.22874E-01	+/-	1.5E-03
Phase delay (usec)	6.14109319154E+03	Apriori clockrate (us/s)	-1.6000005E-08	Resid phdelay (usec)	-4.31448E-06	+/-	6.4E-07
Delay rate (us/s)	6.61222260557E-01	Apriori rate (us/s)	6.61233350261E-01	Resid rate (us/s)	-1.10897E-05	+/-	6.1E-09
Total phase (deg)	186.8	Apriori accel (us/s/s)	-4.45512549788E-05	Resid phase (deg)	-133.8	+/-	19.8

ph/seg (deg)	48.5	RMS	46.3	Theor.	48.5	Amplitude	0.243 +/- 0.042	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	62.6	Search (1024X32)	0.153	sb window (us)	-1.000	1.000		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	mb window (us)	-0.008 0.008
ph/frq (deg)	54.2	Interp.	0.000	dr window (ns/s)	-0.011	0.011		Bits/sample:	2x2	SampCntNorm: enabled	
amp/frq (%)	40.4	Inc. seg. avg.	0.247	ion window (TEC)	0.00	0.00		Sample rate (MSamp/s):	128	nlags:	256
		Inc. frq. avg.	0.242					Data rate (Mb/s):	2048	t_cohere	infinite

b: az 49.3 el 68.3 pa -104.3 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -7286.128 -6252.325 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/bZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/bZ.W.125.1HQXF

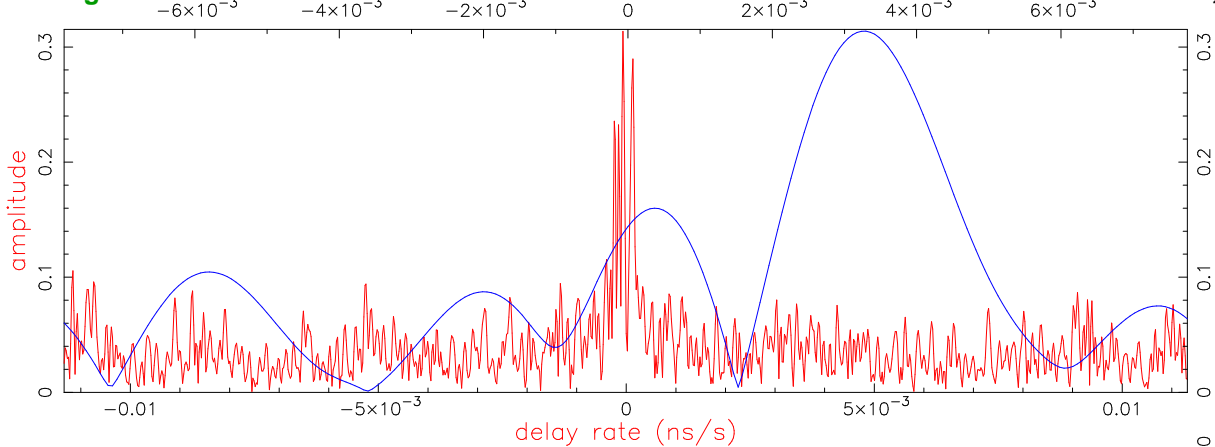
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, BZ

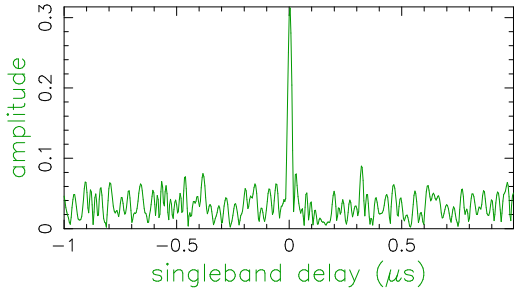
EFLSBERG - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

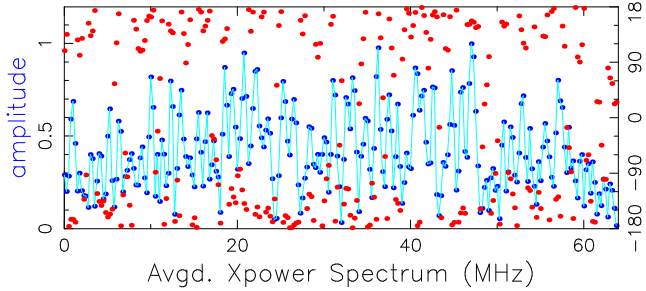


Fringe quality 9

SNR 11.6
 Int time 179.600
 Amp 0.315
 Phase 179.0
 PFD 1.7e-22
 Delays (us)
 SBD 0.002878
 MBD 0.003232
 Fringe rate (Hz)
 -0.006421
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

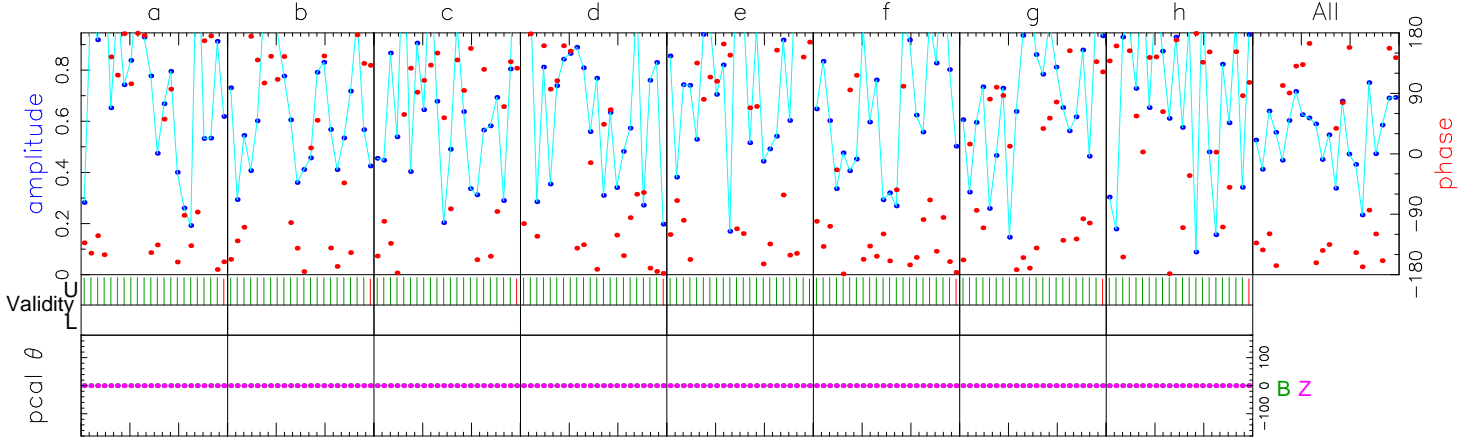


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131720
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-171.8	162.7	138.8	-162.0	-174.4	-139.8	177.1	144.2	Phase	179.0
	0.5	0.4	0.4	0.3	0.4	0.4	0.2	0.3	Ampl.	0.3
	258.0	258.2	257.0	113.1	258.2	258.2	255.9	256.9	Sbd box	257.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-2.14833809248E+02	Apriori delay (usec)	-2.14837041412E+02	Resid mbdelay (usec)	3.23216E-03	+/-	9.4E-05
Sband delay (usec)	-2.14834163662E+02	Apriori clock (usec)	9.9779596E+00	Resid sbdelay (usec)	2.87775E-03	+/-	7.5E-04
Phase delay (usec)	-2.14837035639E+02	Apriori clockrate (us/s)	-2.160000E-07	Resid phdelay (usec)	5.77297E-06	+/-	3.2E-07
Delay rate (us/s)	-1.40613204178E-01	Apriori rate (us/s)	-1.40613129641E-01	Resid rate (us/s)	-7.45374E-08	+/-	3.1E-09
Total phase (deg)	-90.0	Apriori accel (us/s/s)	-8.06464903392E-06	Resid phase (deg)	179.0	+/-	9.9

ph/seg (deg)	59.6	RMS	23.3	Theor.	Amplitude	0.315 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	84.4	Search (1024X32)	0.301	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)	29.7	Inc. seg. avg.	0.507	Inc. frq. avg.	0.338	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	26.4	Inc. frq. avg.	0.338	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00		

B: az 317.7 el 39.4 pa 55.4 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) 1535.655 -1486.307 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/BZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/BZ.W.127.1HQXF

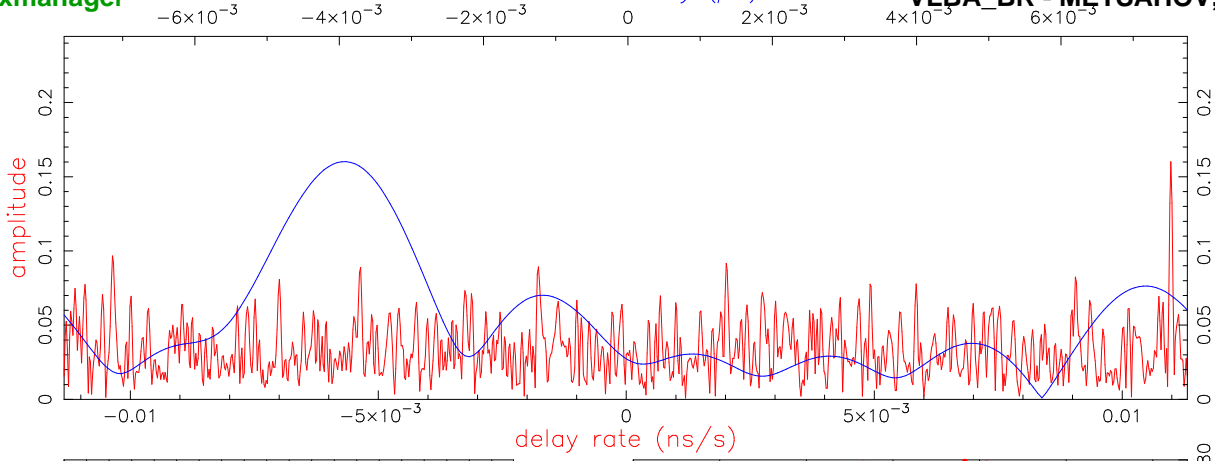
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, bZ

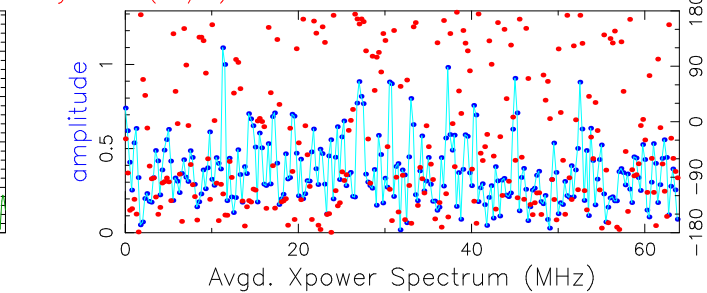
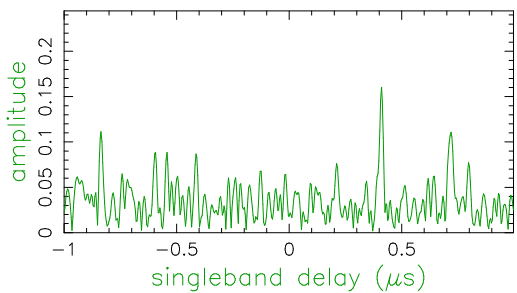
VLBA_BR - METSAHOV, fgroup W, pol RL

multiband delay (μ s)



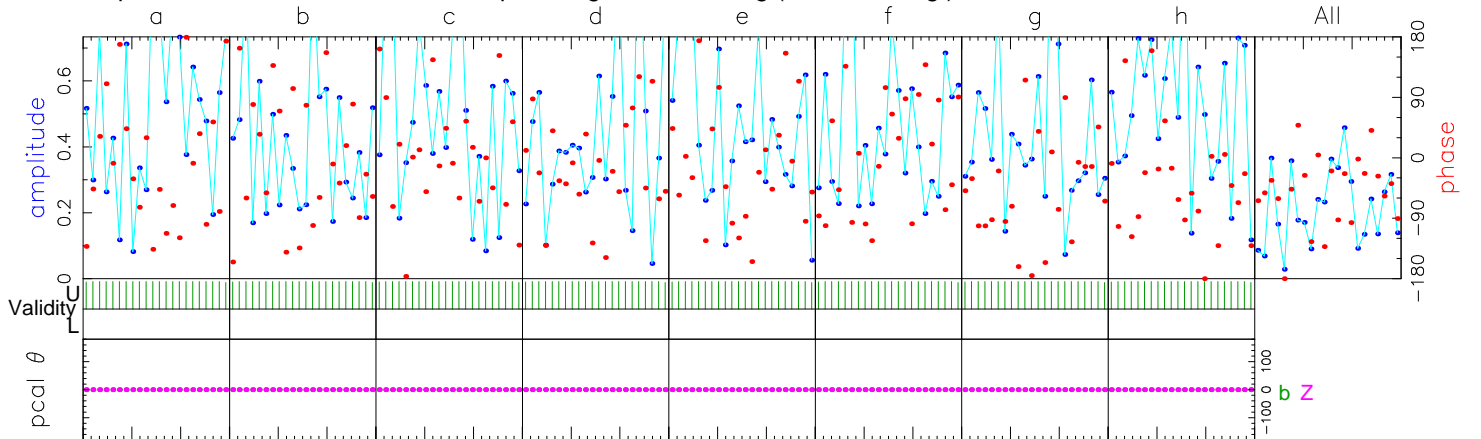
Fringe quality 0

SNR 5.9
 Int time 179.703
 Amp 0.245
 Phase -42.1
 PFD 4.2e-01
 Delays (us)
 SBD 0.410152
 MBD -0.003928
 Fringe rate (Hz) 0.947991
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131721
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-69.6	-77.9	-17.0	-20.2	-35.5	-15.1	-45.1	-58.5	Phase	-42.1
	0.3	0.1	0.3	0.3	0.2	0.1	0.3	0.4	Ampl.	0.2
	168.3	413.3	264.4	363.2	91.5	210.7	429.6	361.0	Sbd box	362.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.14151114259E+03		Apriori delay (usec)		6.14109319585E+03		Resid mbdelay (usec)		-3.92826E-03	+/- 1.8E-04
Sband delay (usec)	6.14150334835E+03		Apriori clock (usec)		-1.8566217E+00		Resid sbdelay (usec)		4.10152E-01	+/- 1.5E-03
Phase delay (usec)	6.14109319449E+03		Apriori clockrate (us/s)		-1.6000005E-08		Resid phdelay (usec)		-1.35762E-06	+/- 6.3E-07
Delay rate (us/s)	6.61244355500E-01		Apriori rate (us/s)		6.61233350261E-01		Resid rate (us/s)		1.10052E-05	+/- 6.0E-09
Total phase (deg)	278.5		Apriori accel (us/s/s)		-4.45512549788E-05		Resid phase (deg)		-42.1	+/- 19.5

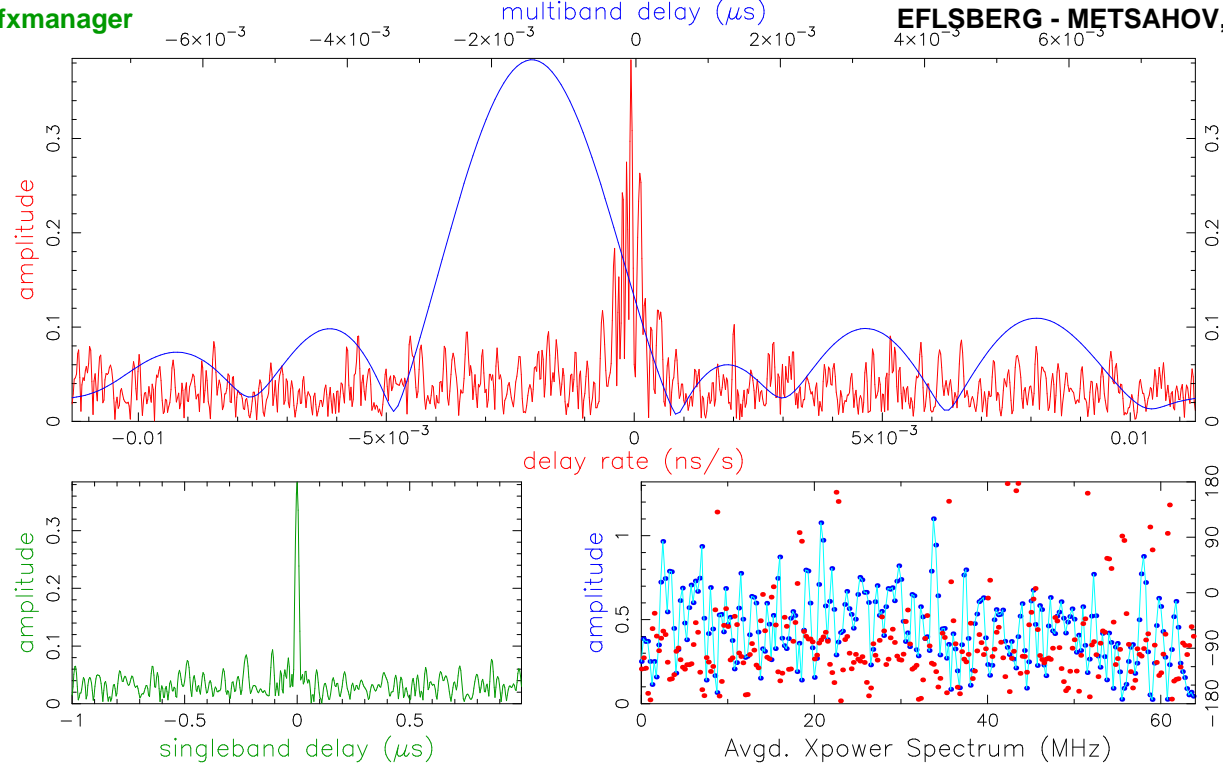
ph/seg (deg) 53.7 45.8 Search (1024X32) 0.159 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 79.5 79.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.5 27.6 Inc. seg. avg. 0.251 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.8 48.2 Inc. frq. avg. 0.235 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 49.3 el 68.3 pa -104.3 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -7286.128 -6252.325 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/bZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/bZ.W.141.1HQXF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, BZ

EFLSBERG - METSAHOV, fgroup W, pol RL

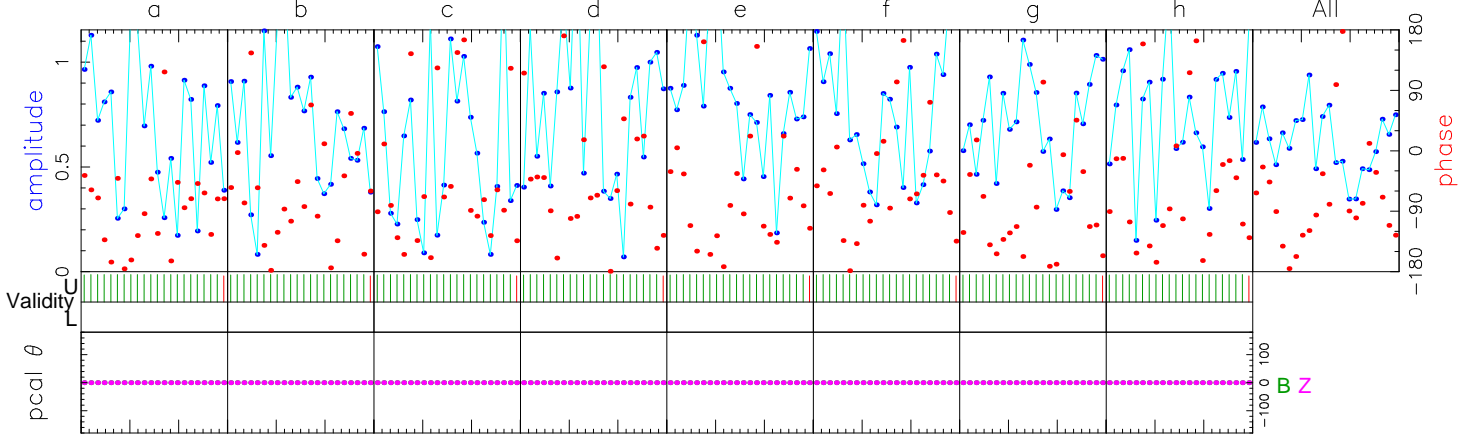


Fringe quality 9

SNR 14.1
 Int time 179.600
 Amp 0.385
 Phase -93.3
 PFD 1.1e-36
 Delays (us)
 SBD -0.000838
 MBD -0.001469
 Fringe rate (Hz)
 -0.006274
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131722
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-94.9	-87.6	-117.8	-84.9	-100.8	-72.0	-105.9	-90.3	Phase	-93.3
	0.5	0.4	0.3	0.4	0.4	0.4	0.4	0.4	Ampl.	0.4
	256.6	257.8	256.4	256.6	257.3	256.9	256.8	255.4	Sbd box	256.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.14838510498E+02		Apriori delay (usec)		-2.14837041412E+02		Resid mbdelay (usec)		-1.46909E-03	+/- 7.7E-05
Sband delay (usec)	-2.14837879412E+02		Apriori clock (usec)		9.9779596E+00		Resid sbdelay (usec)		-8.38000E-04	+/- 6.1E-04
Phase delay (usec)	-2.14837044422E+02		Apriori clockrate (us/s)		-2.1600000E-07		Resid phdelay (usec)		-3.01011E-06	+/- 2.6E-07
Delay rate (us/s)	-1.40613202481E-01		Apriori rate (us/s)		-1.40613129641E-01		Resid rate (us/s)		-7.28397E-08	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-8.06464903392E-06		Resid phase (deg)		-93.3	+/- 8.1

ph/seg (deg) 60.1 19.1 Amplitude 0.385 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 71.7 33.3 Search (1024X32) 0.376 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 15.2 11.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 14.9 20.1 Inc. seg. avg. 0.587 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.385 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 317.7 el 39.4 pa 55.4 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) 1535.655 -1486.307 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/BZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/BZ.W.142.1HQXF

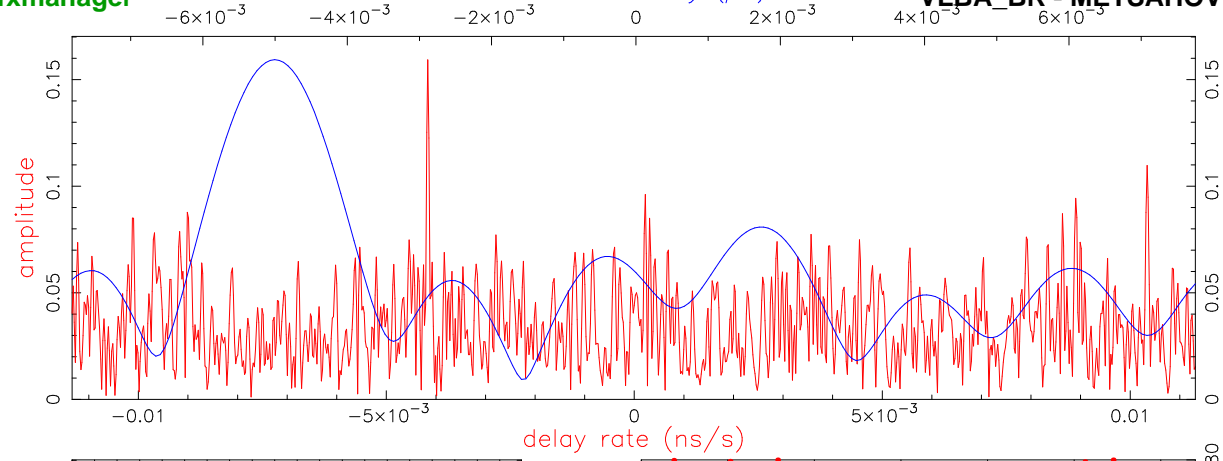
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

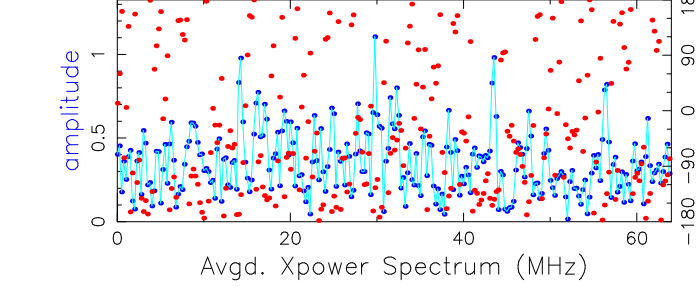
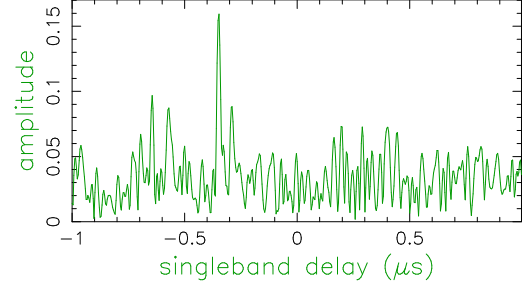
0102+584.1HQXF, No0087, bZ

VLBA_BR - METSAHOV, fgroup W, pol LL

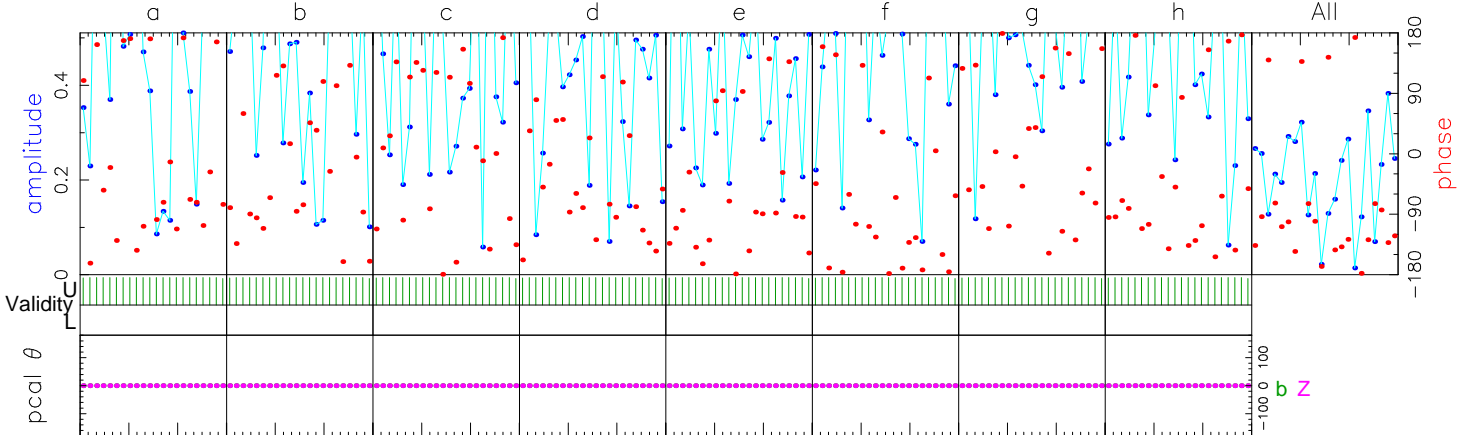
multiband delay (μ s)



Fringe quality 0
 SNR 5.9
 Int time 179.703
 Amp 0.170
 Phase -127.5
 PFD 3.7e-01
 Delays (us)
 SBD -0.348979
 MBD -0.005033
 Fringe rate (Hz)
 -0.358430
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131715
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-129.6	-76.6	167.9	-89.9	-123.2	-142.0	-119.0	-123.5	Phase	-127.5
	0.3	0.1	0.2	0.1	0.2	0.2	0.2	0.3	Ampl.	0.2
	460.7	40.8	359.8	385.8	447.3	261.8	4.6	169.8	Sbd box	167.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	6.14074441242E+03	Apriori delay (usec)	6.14109319585E+03	Resid mbdelay (usec)	-5.03343E-03	+/-	1.8E-04
Sband delay (usec)	6.14074421710E+03	Apriori clock (usec)	-1.8566217E+00	Resid sbdelay (usec)	-3.48979E-01	+/-	1.5E-03
Phase delay (usec)	6.14109319174E+03	Apriori clockrate (us/s)	-1.6000005E-08	Resid phdelay (usec)	-4.11235E-06	+/-	6.3E-07
Delay rate (us/s)	6.61229189239E-01	Apriori rate (us/s)	6.61233350261E-01	Resid rate (us/s)	-4.16102E-06	+/-	6.0E-09
Total phase (deg)	193.1	Apriori accel (us/s/s)	-4.45512549788E-05	Resid phase (deg)	-127.5	+/-	19.4

ph/seg (deg)	RMS 46.5	Theor. 45.5	Amplitude Search (1024X32)	0.170 +/- 0.029	0.153	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	67.1	79.5	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	37.6	27.5	Inc. seg. avg.	0.166	0.166	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	41.5	47.9	Inc. frq. avg.	0.169	0.169	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 49.3 el 68.3 pa -104.3 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -7286.128 -6252.325 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/bZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/bZ.W.84.1HQXF

Mk4/DiFX fourfit 3.21 rev 2937

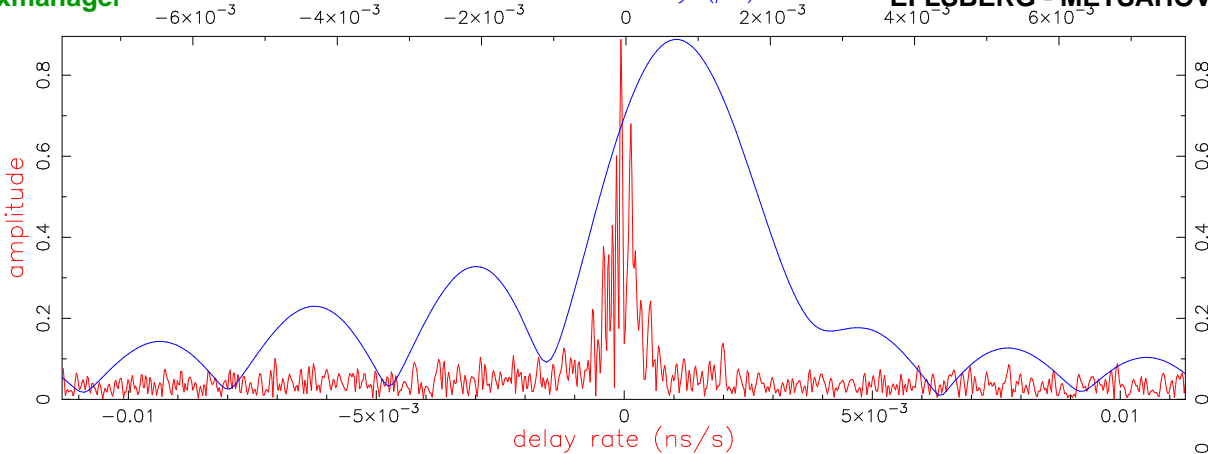
fxmanager

0102+584.1HQXF, No0087, BZ

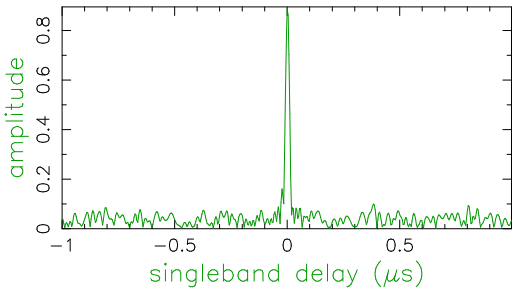
EFLSBERG - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

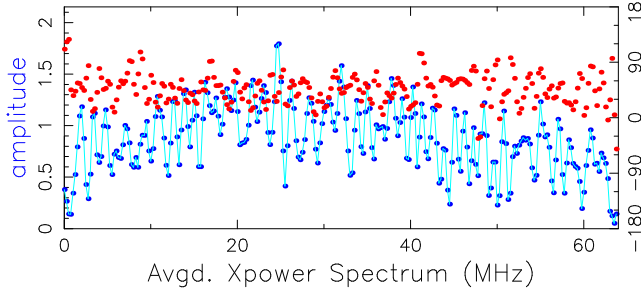
Fringe quality 6



SNR 32.8
Int time 179.600
Amp 0.896
Phase 51.3
PFD 0.0e+00
Delays (us)
SBD 0.001248
MBD 0.000728
Fringe rate (Hz)
-0.006211
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

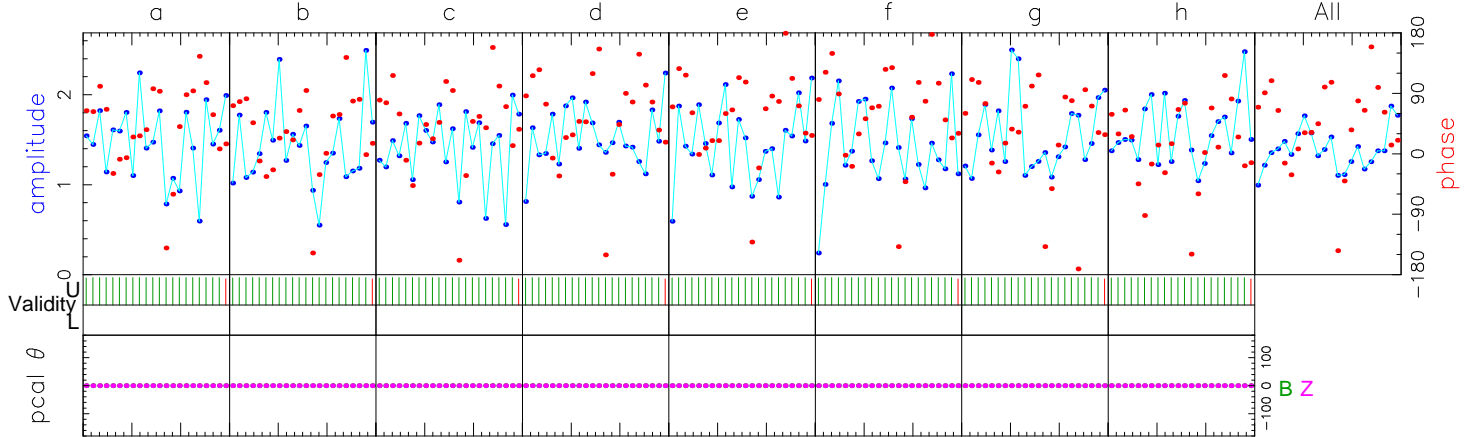


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 054000.00
Stop 054300.22
FRT 054130.00
Corr/FF/build
2021:006:113129
2021:010:131716
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-2.14836313623E+02	Apriori delay (usec)	-2.14837041412E+02	Resid mbdelay (usec)	7.27789E-04	+/-	3.3E-05
Sband delay (usec)	-2.14835793662E+02	Apriori clock (usec)	9.9779596E+00	Resid sbdelay (usec)	1.24775E-03	+/-	2.6E-04
Phase delay (usec)	-2.14837039759E+02	Apriori clockrate (us/s)	-2.160000E-07	Resid phdelay (usec)	1.65272E-06	+/-	1.1E-07
Delay rate (us/s)	-1.40613201749E-01	Apriori rate (us/s)	-1.40613129641E-01	Resid rate (us/s)	-7.21085E-08	+/-	1.1E-09
Total phase (deg)	-217.7	Apriori accel (us/s/s)	-8.06464903392E-06	Resid phase (deg)	51.3	+/-	3.5

ph/seg (deg)	59.5	RMS	8.2	Theor.	8.2	Amplitude	0.896 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	60.6	Search (1024X32)	0.858	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	19.1	Inc. seg. avg.	1.379	Inc. frq. avg.	0.922	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	7.3	Inc. frq. avg.	0.922	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite

B: az 317.7 el 39.4 pa 55.4 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) 1535.655 -1486.307 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/BZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/BZ.W.88.1HQXF

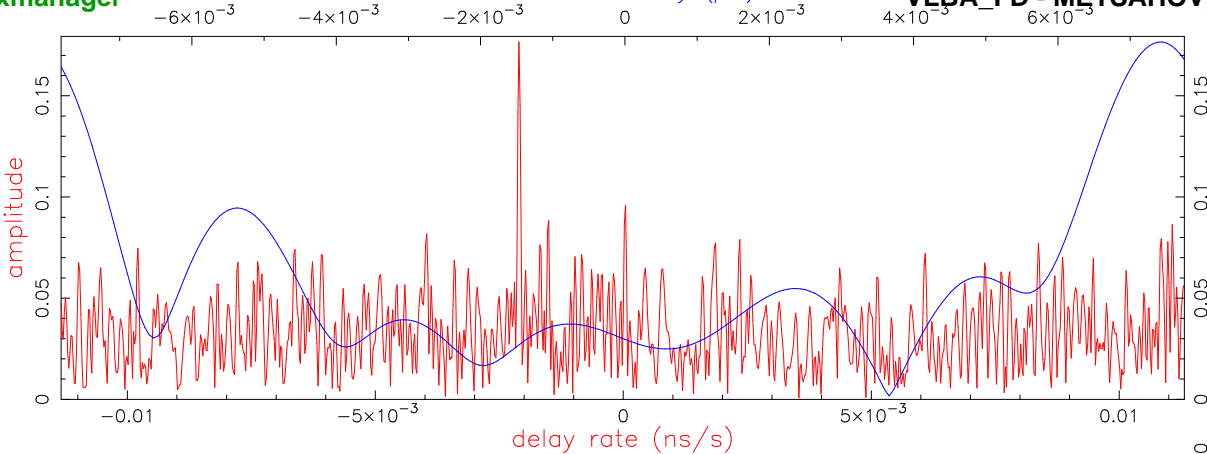
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, fZ

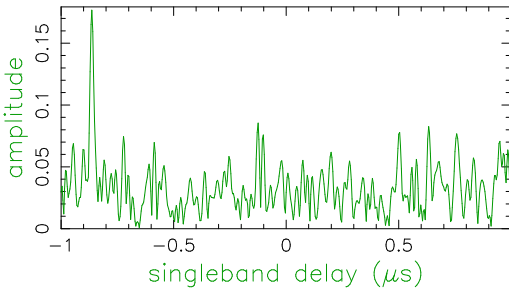
VLBA_FD - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

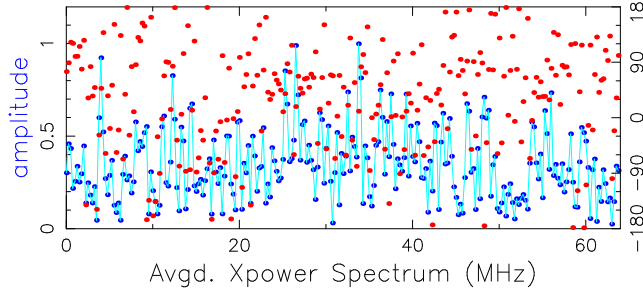


Fringe quality 0

SNR 6.5
Int time 179.703
Amp 0.179
Phase -81.3
PFD 1.2e-02
Delays (us)
SBD -0.863730
MBD -0.008209
Fringe rate (Hz)
-0.181302
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

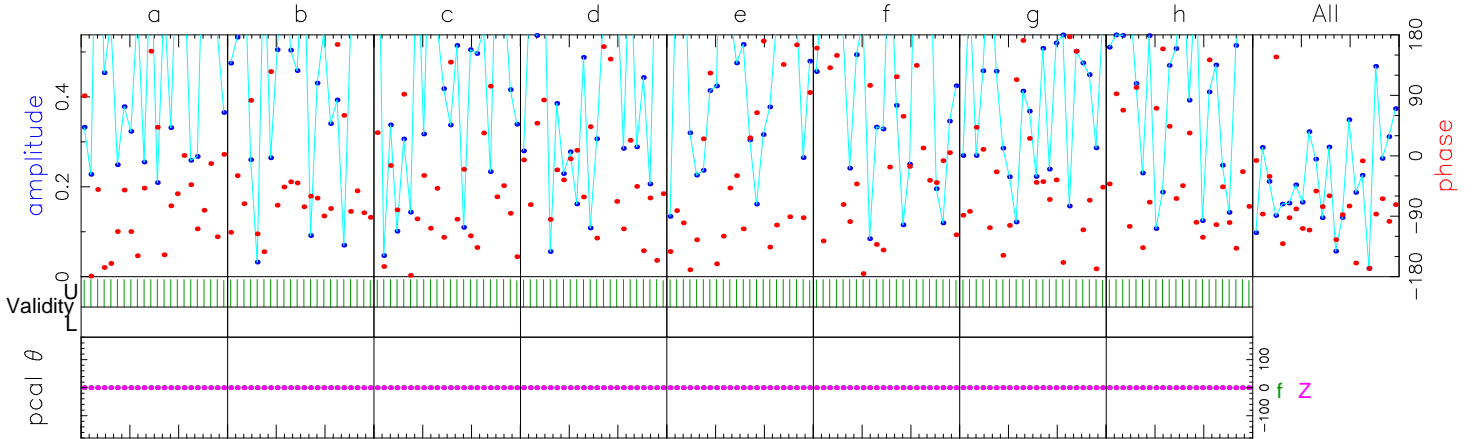


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 054000.00
Stop 054300.22
FRT 054130.00
Corr/FF/build
2021:006:113129
2021:010:131719
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-86.7	-76.2	-72.7	-55.2	-123.0	-81.5	-81.2	-63.9	Phase	-81.3
	0.2	0.4	0.2	0.1	0.2	0.0	0.2	0.2	Ampl.	0.2
	107.6	35.5	34.6	431.2	225.1	238.7	103.3	502.4	Sbd box	35.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	4.78543365573E+03	Apriori delay (usec)	4.78630124020E+03	Resid mbdelay (usec)	-8.20947E-03	+/-	1.7E-04
Sband delay (usec)	4.78543751020E+03	Apriori clock (usec)	7.6842136E+00	Resid sbdelay (usec)	-8.63730E-01	+/-	1.3E-03
Phase delay (usec)	4.78630123758E+03	Apriori clockrate (us/s)	3.8399996E-07	Resid phdelay (usec)	-2.62169E-06	+/-	5.7E-07
Delay rate (us/s)	5.69617009089E-01	Apriori rate (us/s)	5.69619113831E-01	Resid rate (us/s)	-2.10474E-06	+/-	5.5E-09
Total phase (deg)	217.9	Apriori accel (us/s/s)	-5.99070696180E-05	Resid phase (deg)	-81.3	+/-	17.7

ph/seg (deg)	48.9	RMS	41.5	Theor.	41.5	Amplitude	0.179 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	64.6	Search (1024X32)	0.171	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)	21.8	Inc. seg. avg.	0.176	Inc. frq. avg.	0.173	Bits/sample:	2x2	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	47.0	Inc. frq. avg.	0.173	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite	ion window (TEC)	0.00	0.00		

f: az 17.4 el 59.9 pa -150.1 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -6292.963 -9313.301 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/fZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/fZ.W.118.1HQXF

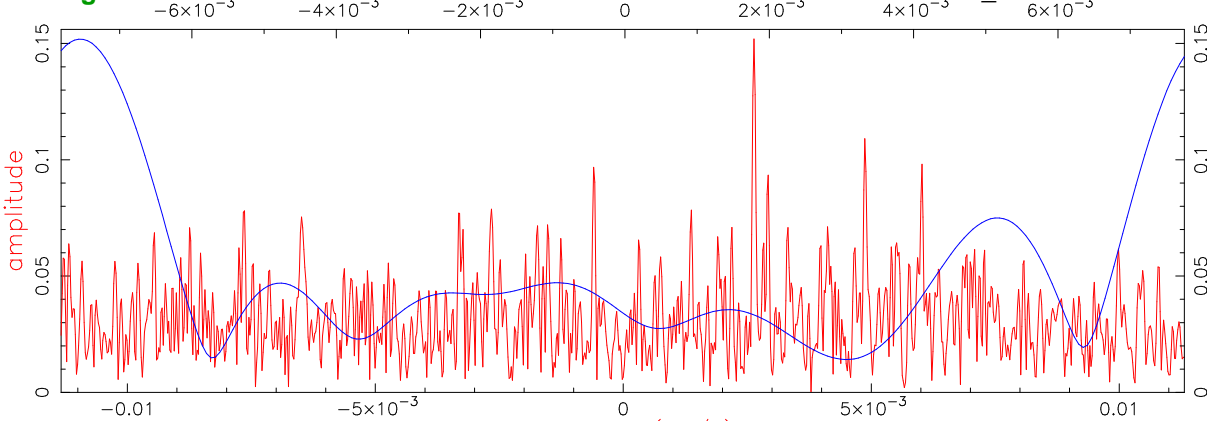
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, fZ

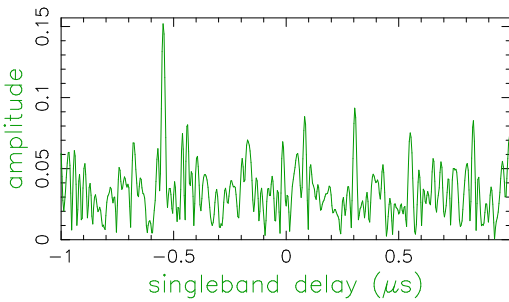
VLBA_FD - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

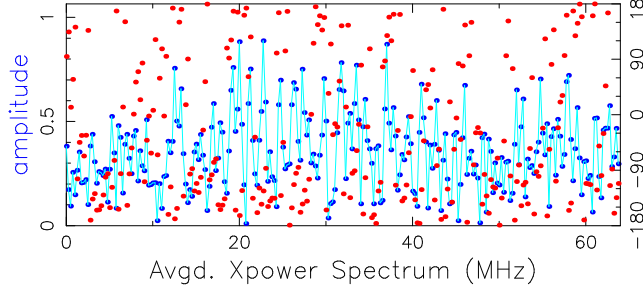


Fringe quality 0

SNR 5.6
 Int time 179.703
 Amp 0.156
 Phase 135.5
 PFD 9.3e-01
 Delays (us)
 SBD -0.545983
 MBD -0.007557
 Fringe rate (Hz)
 0.227263
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

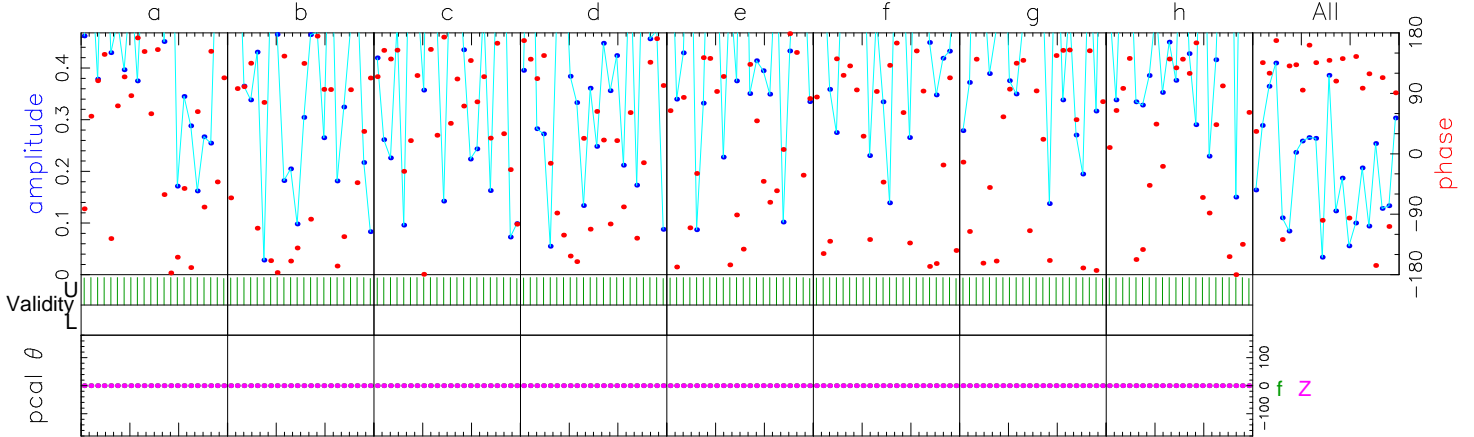


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131721
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
f	1000	1000	1000	1000	1000	1000	1000	1000			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
f:Z	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			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		4.78576243295E+03			4.78630124020E+03				Resid mbdelay (usec)	-7.55725E-03	+/- 1.9E-04
Sband delay (usec)		4.78575525670E+03			7.6842136E+00				Resid sbdelay (usec)	-5.45983E-01	+/- 1.5E-03
Phase delay (usec)		4.78630124457E+03			3.8399996E-07				Resid phdelay (usec)	4.37101E-06	+/- 6.6E-07
Delay rate (us/s)		5.69621752127E-01			5.69619113831E-01				Resid rate (us/s)	2.63830E-06	+/- 6.3E-09
Total phase (deg)			74.7		-5.99070696180E-05				Resid phase (deg)	135.5	+/- 20.5
ph/seg (deg)	RMS 59.5	Theor. 48.0	Amplitude 0.156 +/- 0.028						Pcal mode: MANUAL, MANUAL		
amp/seg (%)	76.9	83.8	Search (1024X32) 0.150						Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000	1.000
ph/frq (deg)	27.2	29.0	Interp. 0.000						Bits/sample: 2x2	mb window (us) -0.008	0.008
amp/frq (%)	41.5	50.6	Inc. seg. avg. 0.153						Sample rate(MISamp/s): 128	dr window (ns/s) -0.011	0.011
			Inc. frq. avg. 0.147						Data rate(Mb/s): 2048	ion window (TEC) 0.00	0.00
f: az 17.4 el 59.9 pa -150.1		Z: az 320.6 el 40.1 pa 37.5		u, v (fr/asec) -6292.963 -9313.301					nlags: 256	t_cohere infinite	
Control file: cf_1234_gmva		Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/fZ..1HQXF		Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/fZ.W.133.1HQXF							simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

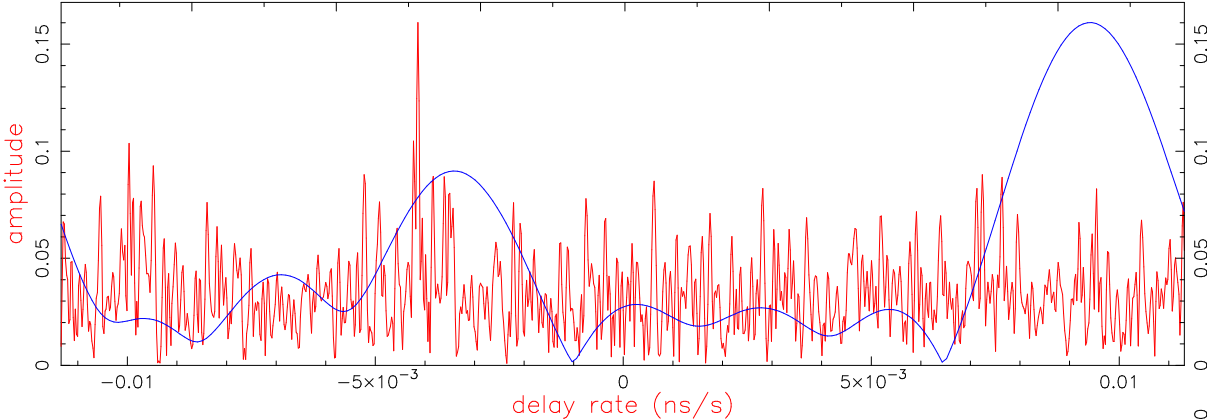
0102+584.1HQXF, No0087, fZ

VLBA_FD - METSAHOV, fgroup W, pol RL

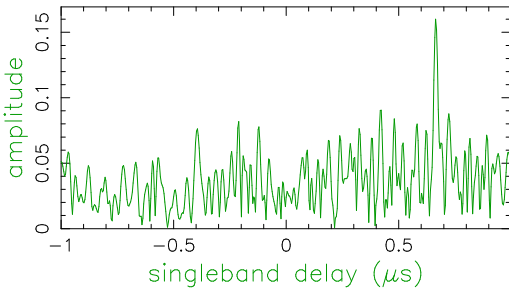
multiband delay (μ s)

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

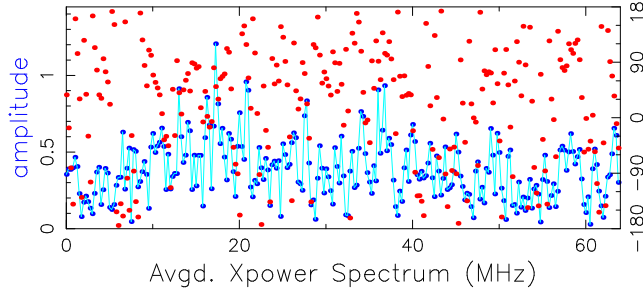
Fringe quality 0



SNR 5.9
Int time 179.703
Amp 0.169
Phase 84.8
PFD 4.2e-01
Delays (us)
SBD 0.664562
MBD 0.006454
Fringe rate (Hz)
-0.358130
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



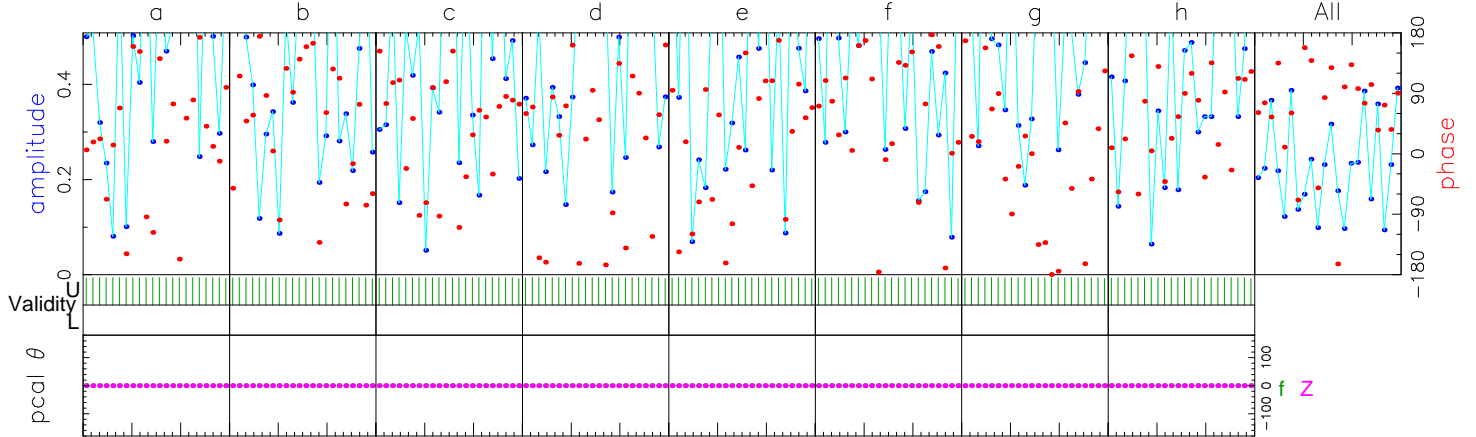
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 054000.00
Stop 054300.22
FRT 054130.00
Corr/FF/build
2021:006:113129
2021:010:131722
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	4.78696394387E+03	Apriori delay (usec)	4.78630124020E+03	Resid mbdelay (usec)	6.45367E-03	+/-	1.8E-04
Sband delay (usec)	4.78696580245E+03	Apriori clock (usec)	7.6842136E+00	Resid sbdelay (usec)	6.64562E-01	+/-	1.5E-03
Phase delay (usec)	4.78630124294E+03	Apriori clockrate (us/s)	3.8399996E-07	Resid phdelay (usec)	2.73371E-06	+/-	6.3E-07
Delay rate (us/s)	5.69614956296E-01	Apriori rate (us/s)	5.69619113831E-01	Resid rate (us/s)	-4.15754E-06	+/-	6.0E-09
Total phase (deg)	24.0	Apriori accel (us/s/s)	-5.99070696180E-05	Resid phase (deg)	84.8	+/-	19.5

ph/seg (deg)	61.4	Theor.	45.7	Amplitude	0.169 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	74.5	Search (1024X32)	0.157	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	27.3	Inc. seg. avg.	0.185	Inc. frq. avg.	0.163	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	37.4	Inc. frq. avg.	0.163			Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 17.4 el 59.9 pa -150.1 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -6292.963 -9313.301 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/fZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/fZ.W.149.1HQXF

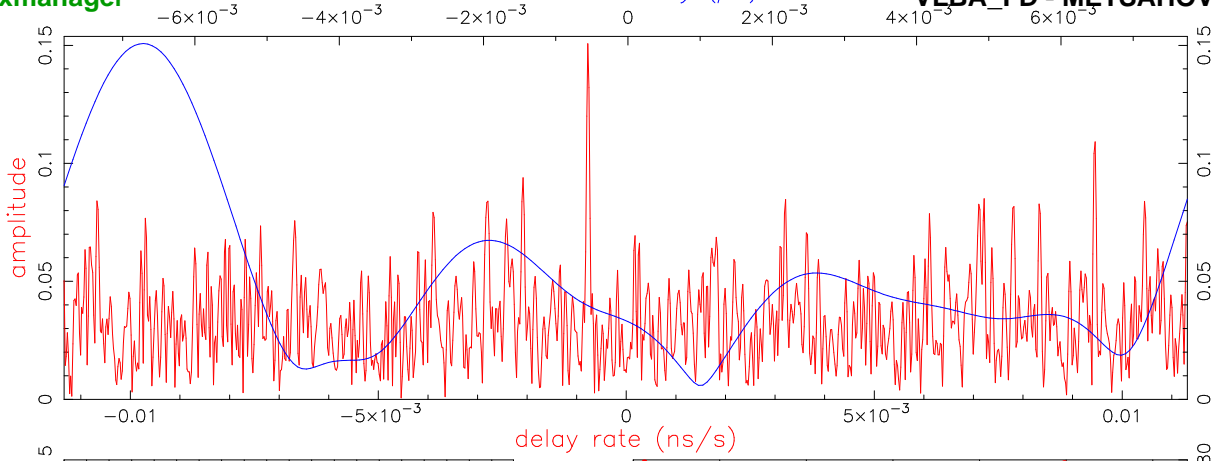
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

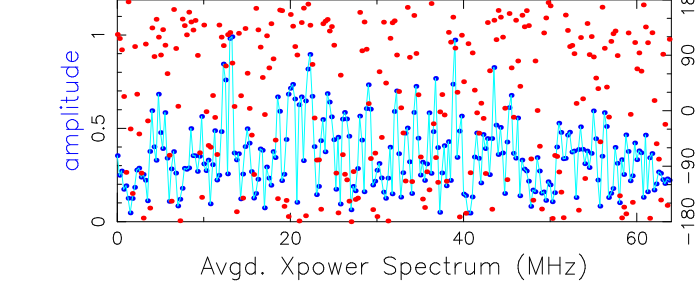
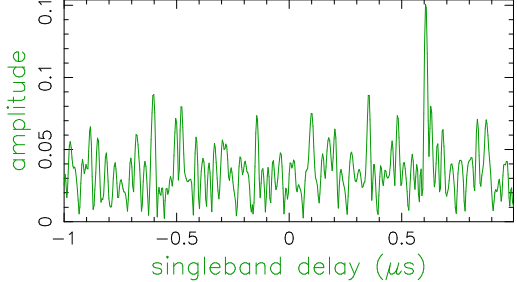
0102+584.1HQXF, No0087, fZ

VLBA_FD - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

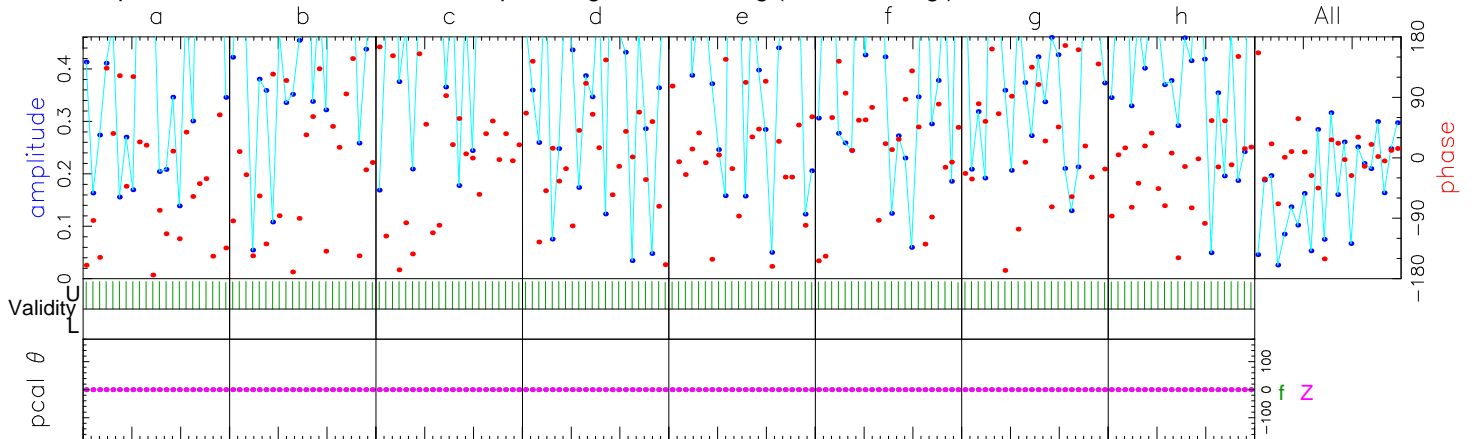


Fringe quality 0
 SNR 5.6
 Int time 179.703
 Amp 0.154
 Phase 4.5
 PFD 8.9e-01
 Delays (us)
 SBD 0.607107
 MBD -0.006689
 Fringe rate (Hz)
 -0.066830
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131716
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	4.78690392668E+03	Apriori delay (usec)		4.78630124020E+03	Resid mbdelay (usec)		-6.68852E-03	+/-	1.9E-04	
Sband delay (usec)	4.78690834745E+03	Apriori clock (usec)		7.6842136E+00	Resid sbdelay (usec)		6.07107E-01	+/-	1.5E-03	
Phase delay (usec)	4.78630124035E+03	Apriori clockrate (us/s)		3.8399996E-07	Resid phdelay (usec)		1.45893E-07	+/-	6.6E-07	
Delay rate (us/s)	5.69618338002E-01	Apriori rate (us/s)		5.69619113831E-01	Resid rate (us/s)		-7.75830E-07	+/-	6.3E-09	
Total phase (deg)	303.7		Apriori accel (us/s/s)		-5.99070696180E-05	Resid phase (deg)		4.5	+/-	20.4

ph/seg (deg)	53.7	Theor.	47.8	Amplitude	0.154 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	59.8	Search (1024X32)	0.147	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	22.7	Inc. seg. avg.	0.130	Inc. frq. avg.	0.141	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	52.5	Inc. frq. avg.	0.141			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

f: az 17.4 el 59.9 pa -150.1 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -6292.963 -9313.301 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/fZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/fZ.W.95.1HQXF

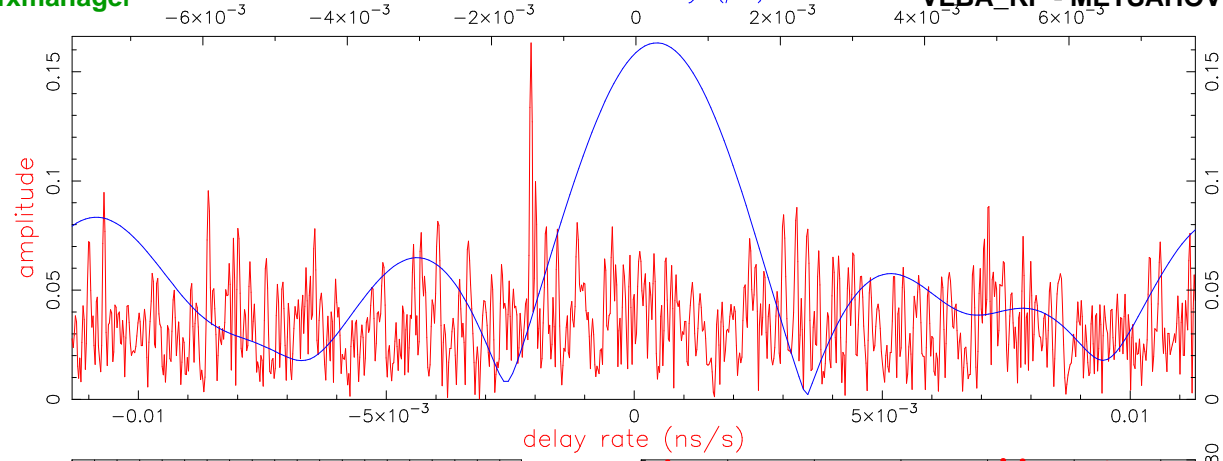
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, kZ

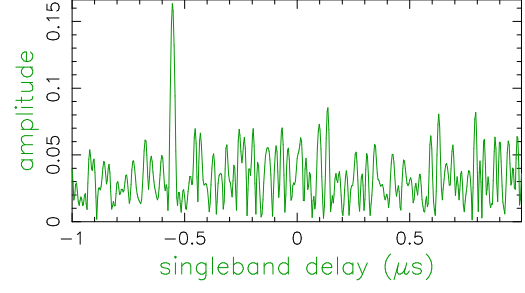
VLBA_KP - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

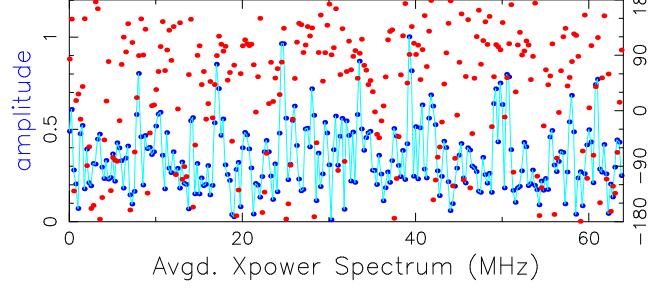


Fringe quality 0

SNR 6.0
 Int time 179.606
 Amp 0.166
 Phase -161.6
 PFD 2.2e-01
 Delays (us)
 SBD -0.553719
 MBD 0.000274
 Fringe rate (Hz)
 -0.178697
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

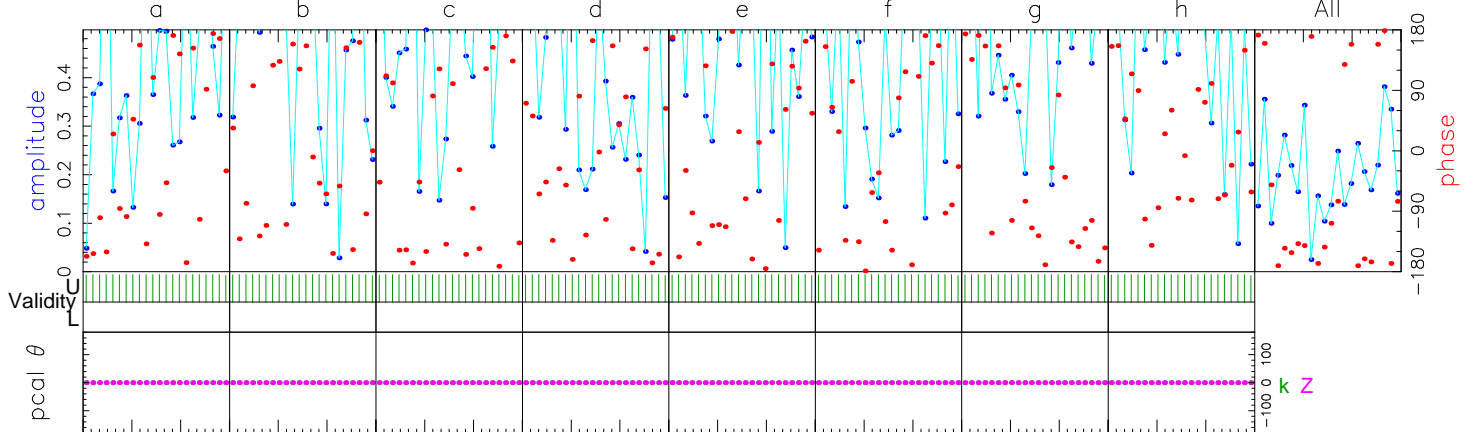


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131726
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	4.57390952849E+03	Apriori delay (usec)	4.57445612925E+03	Resid mbdelay (usec)	2.74239E-04	+/-	1.8E-04
Sband delay (usec)	4.57390241075E+03	Apriori clock (usec)	1.8058681E-01	Resid sbdelay (usec)	-5.53719E-01	+/-	1.4E-03
Phase delay (usec)	4.57445612404E+03	Apriori clockrate (us/s)	8.3999986E-08	Resid phdelay (usec)	-5.21091E-06	+/-	6.2E-07
Delay rate (us/s)	6.53350056481E-01	Apriori rate (us/s)	6.53352130979E-01	Resid rate (us/s)	-2.07450E-06	+/-	5.9E-09
Total phase (deg)	189.0	Apriori accel (us/s/s)	-5.69242548430E-05	Resid phase (deg)	-161.6	+/-	19.1

ph/seg (deg)	44.4	Theor.	44.7	Amplitude	0.166 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	60.4		78.1	Search (1024X32)	0.159	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	70.2		27.0	Inc. seg. avg.	0.160	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	53.4		47.1	Inc. frq. avg.	0.166	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

k: az 24.5 el 58.8 pa -138.2 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -7208.720 -8835.556 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/kZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/kZ.W.168.1HQXF

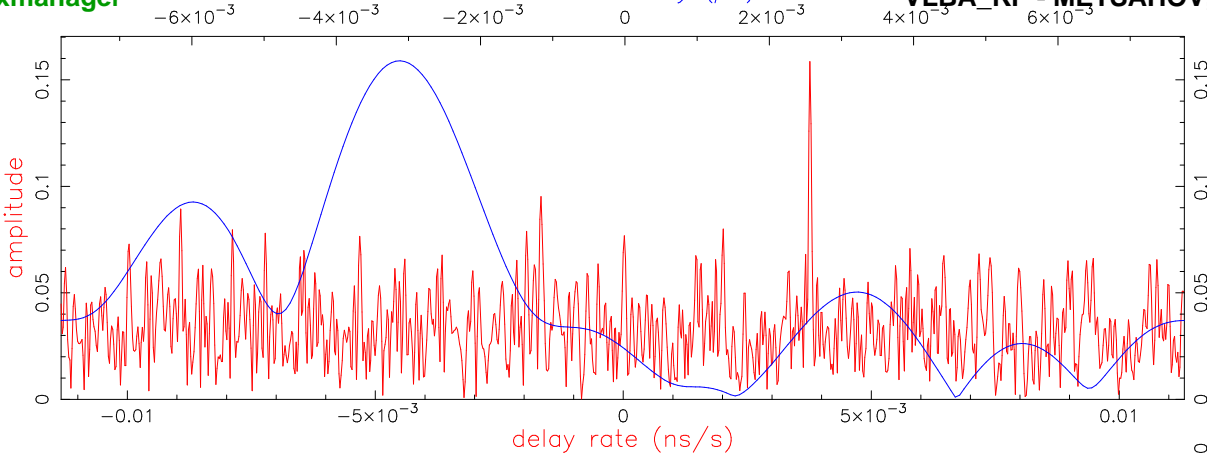
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, kZ

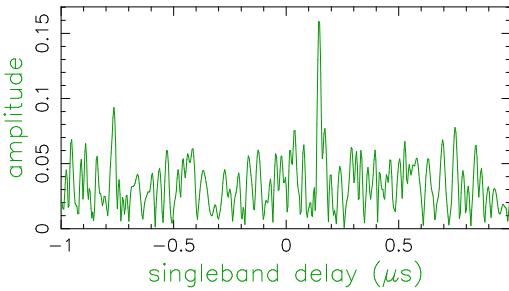
VLBA_KP - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

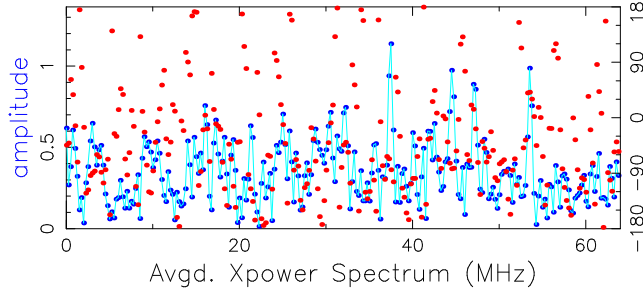


Fringe quality 0

SNR 6.0
 Int time 179.606
 Amp 0.170
 Phase -140.9
 PFD 2.7e-01
 Delays (us)
 SBD 0.146402
 MBD -0.003195
 Fringe rate (Hz) 0.324484
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

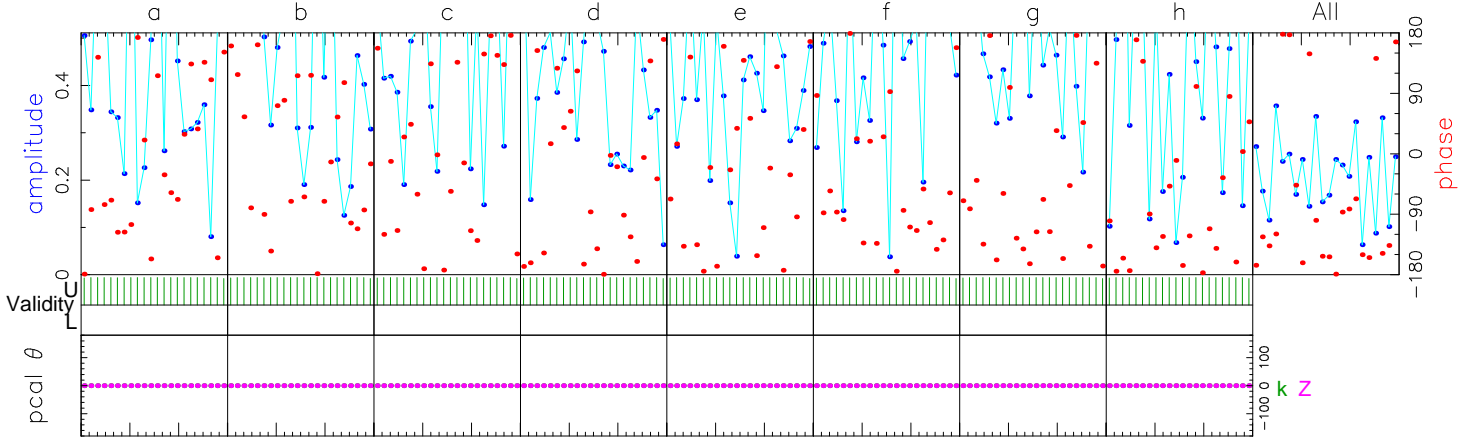


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131728
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
k	1000	1000	1000	1000	1000	1000	1000	1000			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
k:Z	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			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	
Group delay (usec)(sbd)	4.57460918407E+03				4.57445612925E+03				Resid mbdelay (usec)	-3.19518E-03	+/- 1.8E-04
Sband delay (usec)	4.57460253175E+03				1.8058681E-01				Resid sbdelay (usec)	1.46402E-01	+/- 1.4E-03
Phase delay (usec)	4.57445612471E+03				8.3999986E-08				Resid phdelay (usec)	-4.54348E-06	+/- 6.2E-07
Delay rate (us/s)	6.53355897912E-01				6.53352130979E-01				Resid rate (us/s)	3.76693E-06	+/- 6.0E-09
Total phase (deg)			209.7		-5.69242548430E-05				Resid phase (deg)	-140.9	+/- 19.2
ph/seg (deg)	44.5	45.1			0.170 +/- 0.029				PCal mode: MANUAL, MANUAL		
amp/seg (%)	59.2	78.6			0.000				PCal rate: 0.000E+00, 0.000E+00 (us/s)		
ph/frq (deg)	21.8	27.2			0.171				Bits/sample: 2x2		
amp/frq (%)	46.3	47.4			0.159				SampCntNorm: enabled		
									Sample rate(MISamp/s): 128		
									Data rate(Mb/s): 2048		
									nlags: 256		
									t_cohere infinite		
k: az 24.5 el 58.8 pa -138.2		Z: az 320.6 el 40.1 pa 37.5			u,v (fr/asec) -7208.720 -8835.556				ion window (TEC)	0.00	0.00
Control file: cf_1234_gmva		Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/kZ..1HQXF			Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/kZ.W.186.1HQXF				simultaneous interpolator		

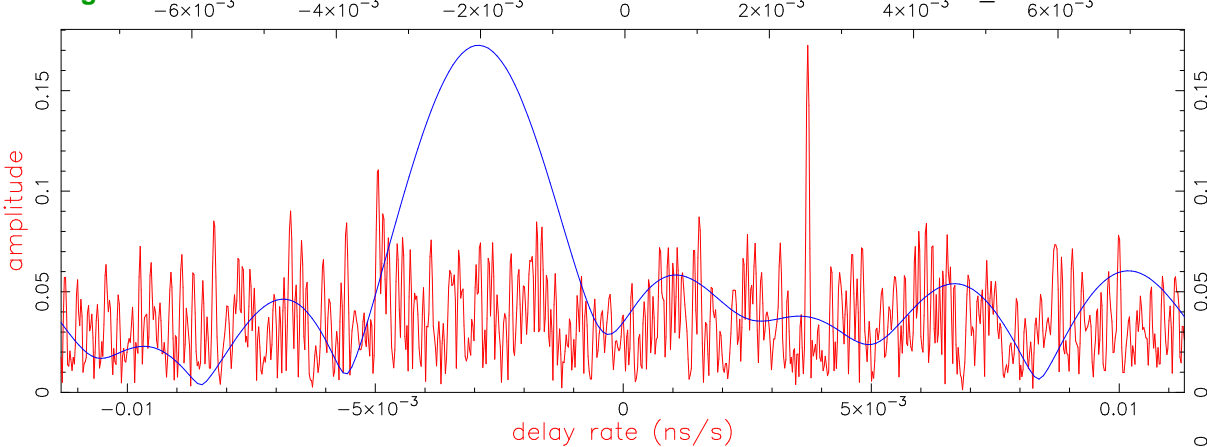
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, kZ

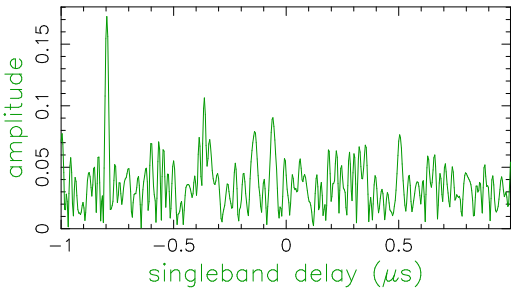
VLBA_KP - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

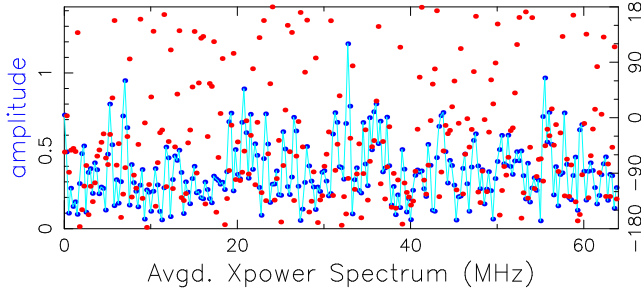


Fringe quality 0

SNR 6.3
 Int time 179.606
 Amp 0.180
 Phase 118.2
 PFD 3.4e-02
 Delays (us)
 SBD -0.796794
 MBD -0.002026
 Fringe rate (Hz)
 0.320434
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

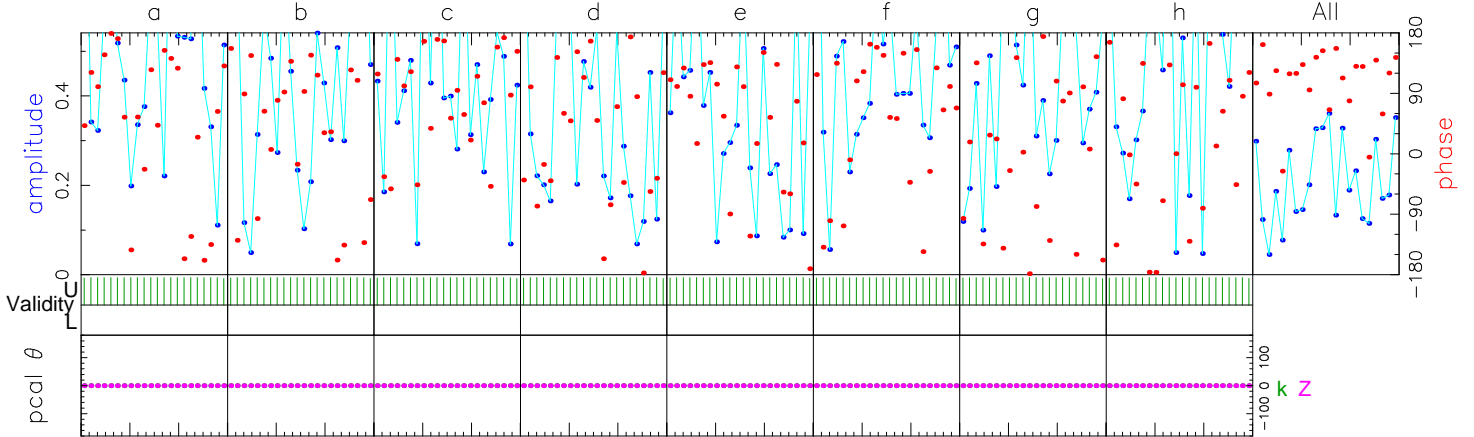


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131730
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
123.2	132.3	122.8	67.0	105.0	119.6	135.7	122.3	122.3	Phase	118.2
0.2	0.1	0.2	0.1	0.2	0.3	0.1	0.2	0.2	Ampl.	0.2
211.7	239.2	483.2	404.0	342.4	14.1	491.4	386.8	386.8	Sbd box	53.0
U/L 352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:Z 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Z 0:0	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	1000	PC amp	
Z 1000	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	4.57365722850E+03	Apriori delay (usec)	4.57445612925E+03	Resid mbdelay (usec)	-2.02575E-03	+/-	1.7E-04
Sband delay (usec)	4.57365933500E+03	Apriori clock (usec)	1.8058681E-01	Resid sbdelay (usec)	-7.96794E-01	+/-	1.4E-03
Phase delay (usec)	4.57445613306E+03	Apriori clockrate (us/s)	8.3999986E-08	Resid phdelay (usec)	3.81127E-06	+/-	5.8E-07
Delay rate (us/s)	6.53355850898E-01	Apriori rate (us/s)	6.53352130979E-01	Resid rate (us/s)	3.71992E-06	+/-	5.6E-09
Total phase (deg)	108.8	Apriori accel (us/s/s)	-5.69242548430E-05	Resid phase (deg)	118.2	+/-	18.1

ph/seg (deg)	48.8	Theor.	42.5	Amplitude	0.180 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	58.6	Search (1024X32)	0.171	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)	23.7	Inc. seg. avg.	0.173	Inc. frq. avg.	0.170	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	32.0	Inc. frq. avg.	0.170			Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 24.5 el 58.8 pa -138.2 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -7208.720 -8835.556 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/kZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/kZ.W.204.1HQXF

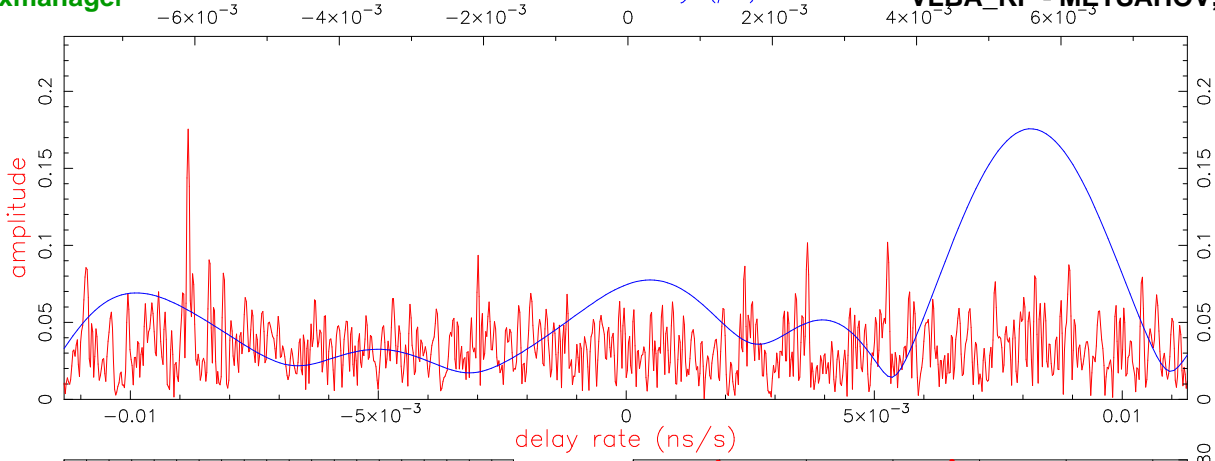
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

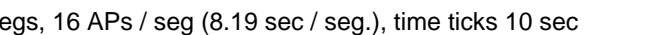
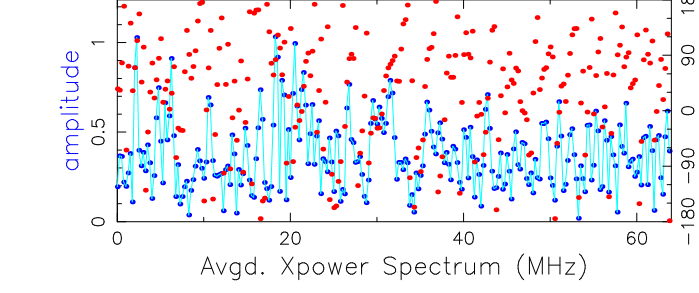
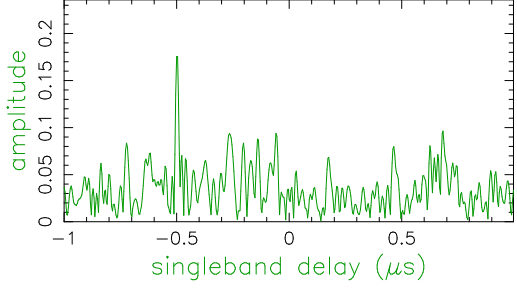
0102+584.1HQXF, No0087, kZ

VLBA_KP - METSAHOV, fgroup W, pol RL

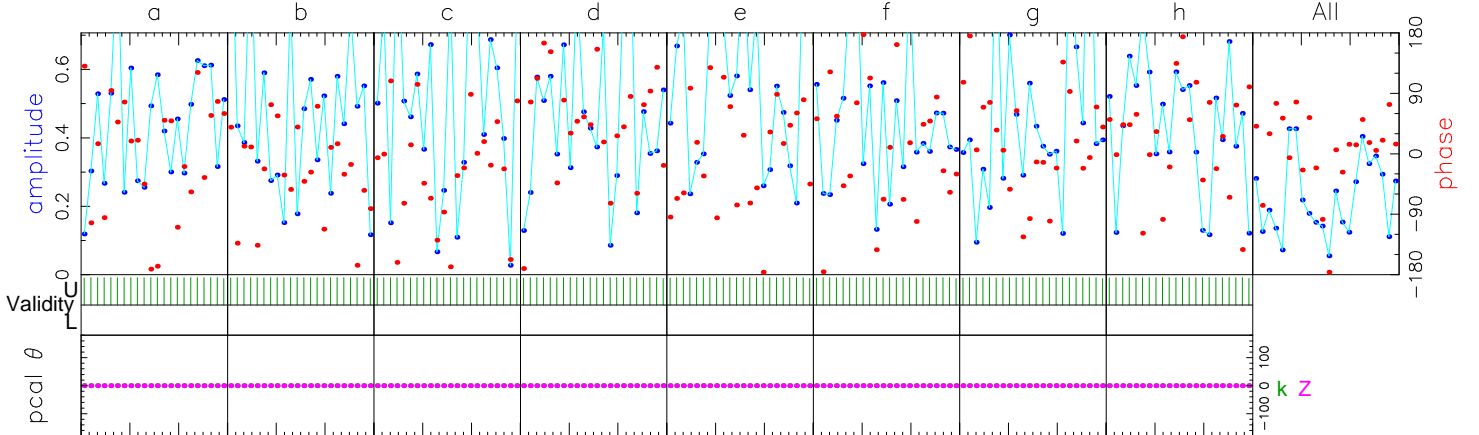
multiband delay (μ s)



Fringe quality 0
 SNR 6.6
 Int time 179.606
 Amp 0.236
 Phase 20.2
 PFD 4.9e-03
 Delays (us)
 SBD -0.498038
 MBD 0.005522
 Fringe rate (Hz) -0.762762
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131732
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	38.2	-15.4	6.6	68.1	-1.8	20.3	16.6	27.3	Phase	20.2
	0.2	0.4	0.2	0.4	0.2	0.2	0.3	0.2	Ampl.	0.2
	188.2	235.7	470.7	128.6	350.3	431.1	72.9	306.4	Sbd box	129.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.57396165086E+03		Apriori delay (usec)		4.57445612925E+03		Resid mbdelay (usec)		5.52161E-03	+/- 1.6E-04
Sband delay (usec)	4.57395809125E+03		Apriori clock (usec)		1.8058681E-01		Resid sbdelay (usec)		-4.98038E-01	+/- 1.3E-03
Phase delay (usec)	4.57445612990E+03		Apriori clockrate (us/s)		8.3999986E-08		Resid phdelay (usec)		6.52321E-07	+/- 5.6E-07
Delay rate (us/s)	6.53343276073E-01		Apriori rate (us/s)		6.53352130979E-01		Resid rate (us/s)		-8.85491E-06	+/- 5.4E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.69242548430E-05		Resid phase (deg)		20.2	+/- 17.3

ph/seg (deg) 56.5 40.5 Search (1024X32) 0.174 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.4 70.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 27.8 24.5 Inc. seg. avg. 0.235 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.3 42.7 Inc. frq. avg. 0.235 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 24.5 el 58.8 pa -138.2 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -7208.720 -8835.556 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/kZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/kZ.W.227.1HQXF

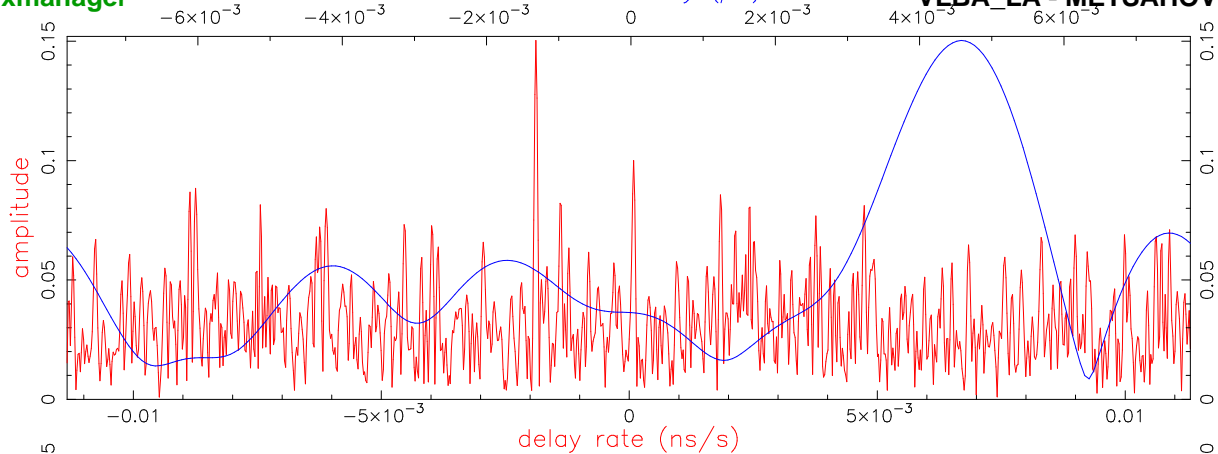
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, IZ

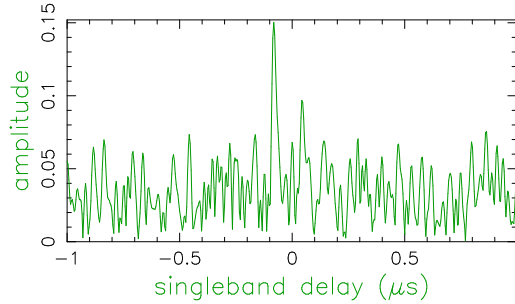
VLBA_LA - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

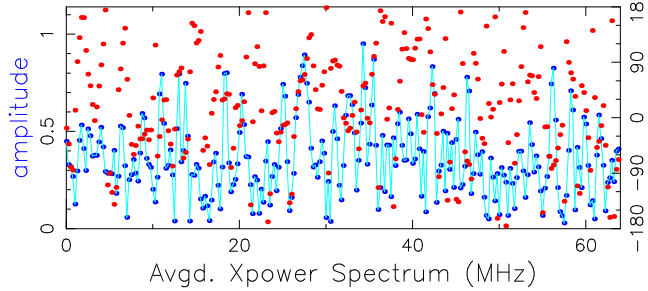


Fringe quality 0

SNR 5.5
 Int time 178.926
 Amp 0.152
 Phase 114.2
 PFD 9.9e-01
 Delays (us)
 SBD -0.081913
 MBD 0.004583
 Fringe rate (Hz)
 -0.162274
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

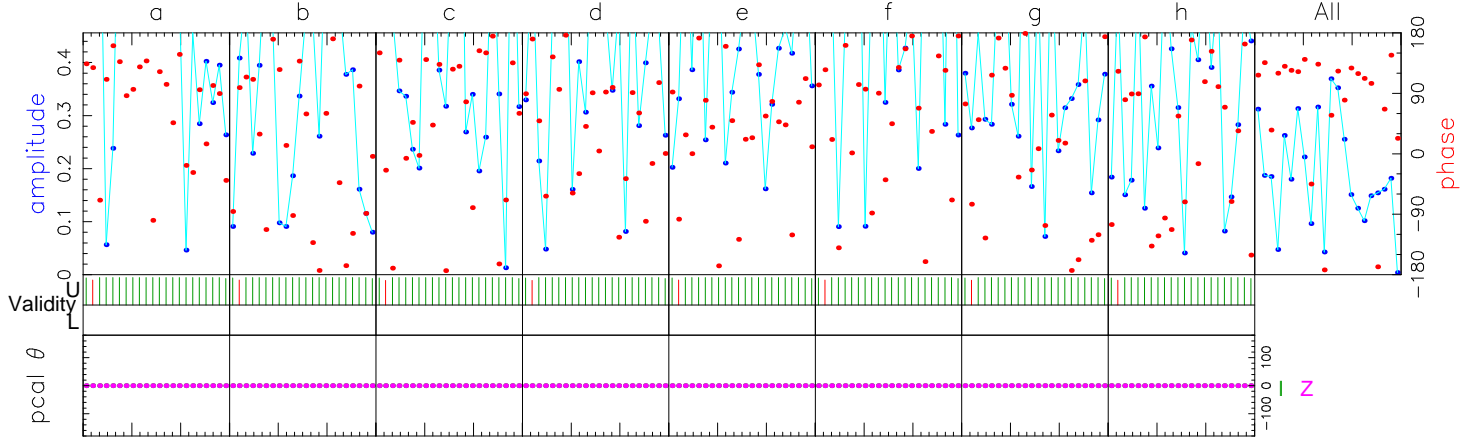


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131727
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	5.50512708680E+03	Apriori delay (usec)	5.50521625367E+03	Resid mbdelay (usec)	4.58312E-03	+/-	2.0E-04
Sband delay (usec)	5.50513434042E+03	Apriori clock (usec)	-5.3283119E-01	Resid sbdelay (usec)	-8.19132E-02	+/-	1.6E-03
Phase delay (usec)	5.50521625735E+03	Apriori clockrate (us/s)	-1.1600001E-07	Resid phdelay (usec)	3.68248E-06	+/-	6.7E-07
Delay rate (us/s)	5.83731404241E-01	Apriori rate (us/s)	5.83733288082E-01	Resid rate (us/s)	-1.88384E-06	+/-	6.5E-09
Total phase (deg)	147.1	Apriori accel (us/s/s)	-5.65561782770E-05	Resid phase (deg)	114.2	+/-	20.8

ph/seg (deg)	52.8	Theor.	48.9	Amplitude	0.152 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	71.2	Search (1024X32)	0.148	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	31.5	Inc. seg. avg.	0.141	Inc. frq. avg.	0.147	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	44.8	Inc. frq. avg.	0.147			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	

I: az 22.8 el 64.1 pa -143.6 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -6445.376 -8535.811 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/IZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/IZ.W.182.1HQXF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

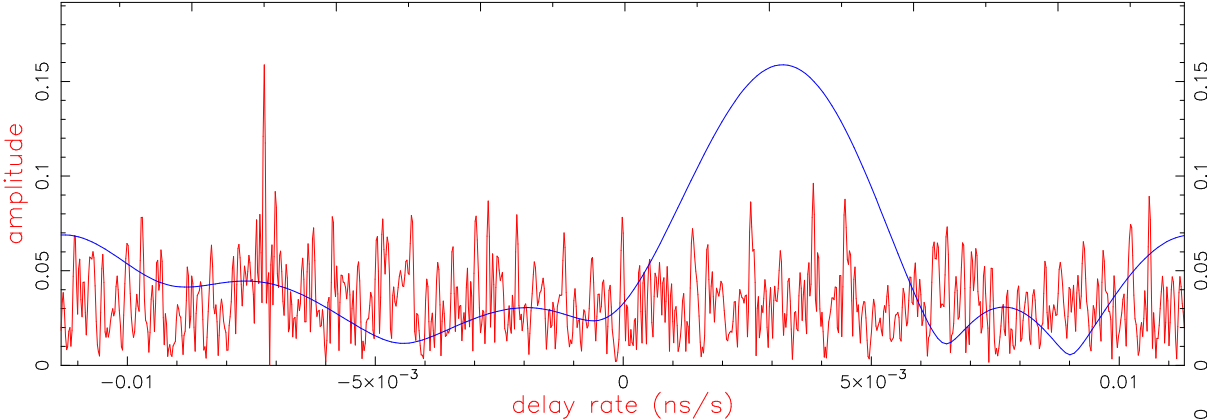
0102+584.1HQXF, No0087, IZ

VLBA_LA - METSAHOV, fgroup W, pol RR

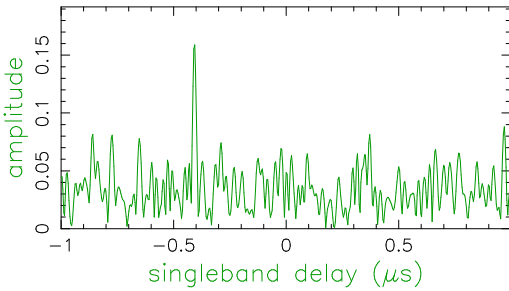
multiband delay (μ s)

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

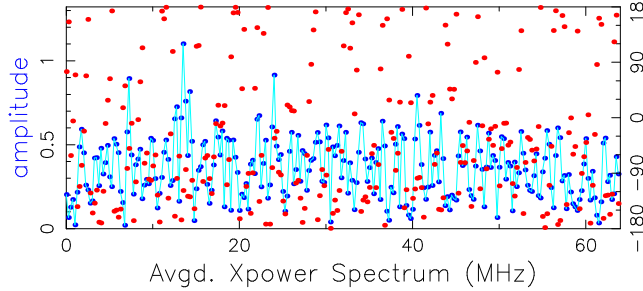
Fringe quality 0



SNR 5.9
 Int time 178.926
 Amp 0.192
 Phase -153.0
 PFD 3.9e-01
 Delays (us)
 SBD -0.407754
 MBD 0.002185
 Fringe rate (Hz)
 -0.625542
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

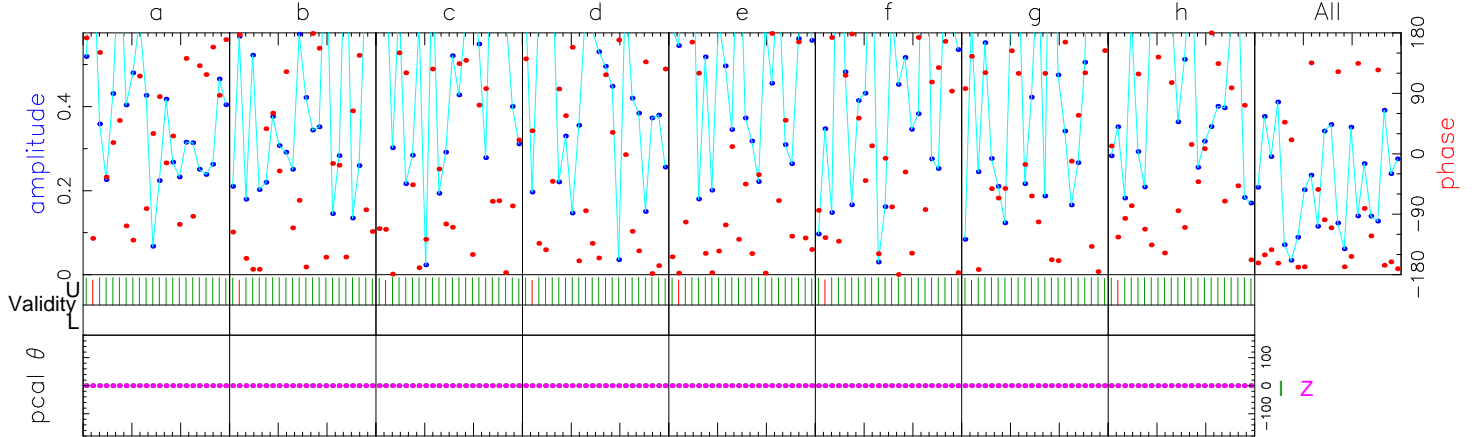


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131729
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	155.8	-145.9	-150.5	-150.9	-141.5	-139.1	-177.9	-123.4		
Sband delay (usec)	0.1	0.2	0.2	0.2	0.4	0.1	0.3	0.1		
Phase delay (usec)	275.7	296.1	142.0	444.1	152.3	235.4	153.1	364.2		
Delay rate (us/s)	5.50521624874E-03	5.83726026163E-01								
Total phase (deg)			-120.1							
Apriori delay (usec)	5.50481218823E+03				5.50521625367E+03					
Apriori clock (usec)	5.50480849992E+03				-5.3283119E-01					
Apriori clockrate (us/s)	5.50521624874E+03				-1.1600001E-07					
Apriori rate (us/s)	5.83726026163E-01				5.83733288082E-01					
Apriori accel (us/s/s)					-5.65561782770E-05					
Resid mbdelay (usec)									2.18456E-03	+/- 1.8E-04
Resid sbdelay (usec)									-4.07754E-01	+/- 1.5E-03
Resid phdelay (usec)									-4.93373E-06	+/- 6.3E-07
Resid rate (us/s)									-7.26192E-06	+/- 6.0E-09
Resid phase (deg)									-153.0	+/- 19.5
Pcal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5							
Pcal rate:	0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000		1.000			
Bits/sample:	2x2		SampCntNorm: enabled		mb window (us)		-0.008		0.008	
Sample rate (MSamp/s):	128		dr window (ns/s)		-0.011		0.011			
Data rate (Mb/s):	2048		ion window (TEC)		0.00		0.00			
nlags:	256		t_cohere infinite							

ph/seg (deg) 68.5 45.6 Search (1024X32) 0.158 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 80.0 79.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 27.4 27.5 Inc. seg. avg. 0.198 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 55.2 48.0 Inc. frq. avg. 0.179 Sample rate (MSamp/s): 128 dr window (ns/s) -0.011 0.011
 I: az 22.8 el 64.1 pa -143.6 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -6445.376 -8535.811 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/IZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/IZ.W.199.1HQXF

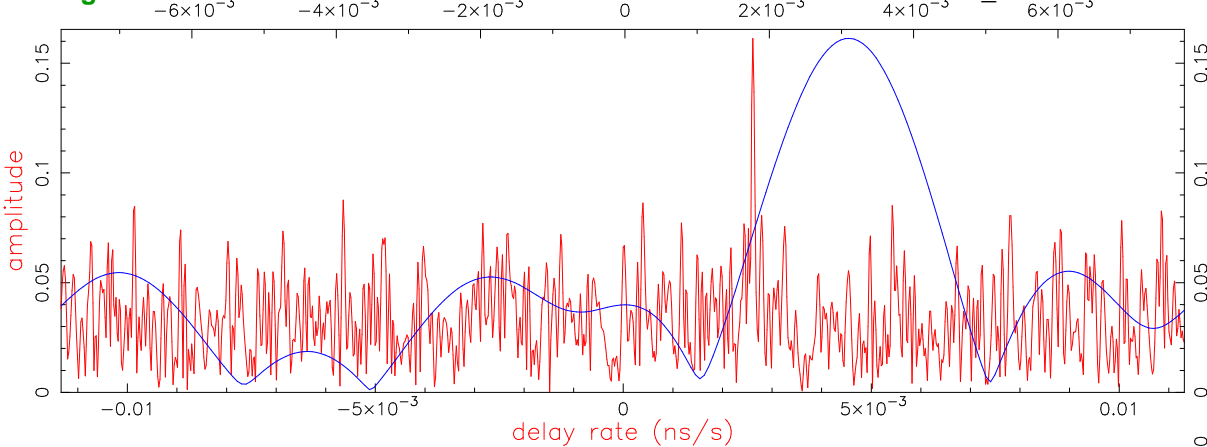
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, IZ

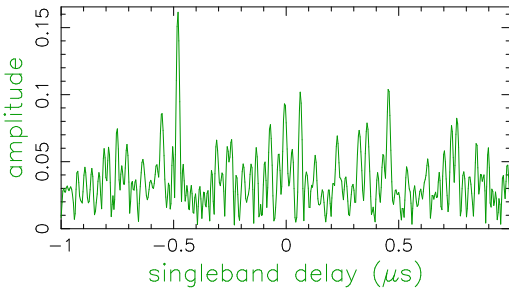
VLBA_LA - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

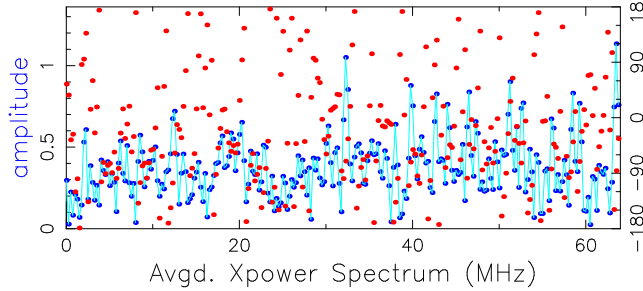


Fringe quality 0

SNR 5.9
 Int time 178.926
 Amp 0.165
 Phase 131.2
 PFD 3.4e-01
 Delays (us)
 SBD -0.481147
 MBD 0.003090
 Fringe rate (Hz)
 0.225008
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

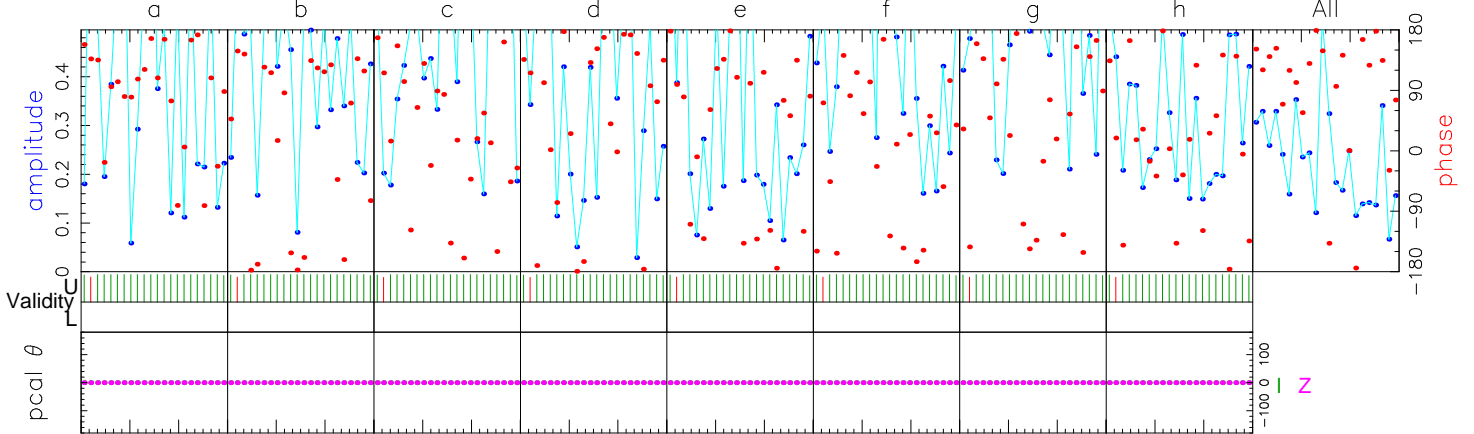


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131731
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	5.50473496837E+03	Apriori delay (usec)	5.50521625367E+03	Resid mbdelay (usec)	3.08970E-03	+/-	1.8E-04
Sband delay (usec)	5.50473510717E+03	Apriori clock (usec)	-5.3283119E-01	Resid sbdelay (usec)	-4.81147E-01	+/-	1.5E-03
Phase delay (usec)	5.50521625790E+03	Apriori clockrate (us/s)	-1.1600001E-07	Resid phdelay (usec)	4.23139E-06	+/-	6.2E-07
Delay rate (us/s)	5.83735900205E-01	Apriori rate (us/s)	5.83733288082E-01	Resid rate (us/s)	2.61212E-06	+/-	6.0E-09
Total phase (deg)	164.1	Apriori accel (us/s/s)	-5.65561782770E-05	Resid phase (deg)	131.2	+/-	19.4

ph/seg (deg)	58.9	Theor.	45.4	Amplitude	0.165 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	77.9	Search (1024X32)	0.160	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	10.5	Inc. seg. avg.	0.181	Inc. frq. avg.	0.150	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.2	Inc. frq. avg.	0.150			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	

I: az 22.8 el 64.1 pa -143.6 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -6445.376 -8535.811 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/IZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/IZ.W.214.1HQXF

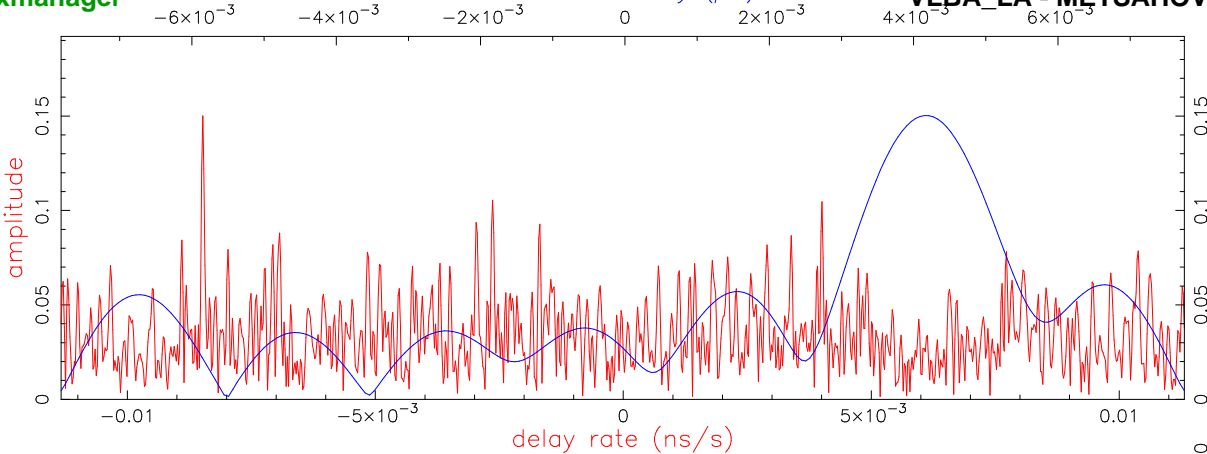
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, IZ

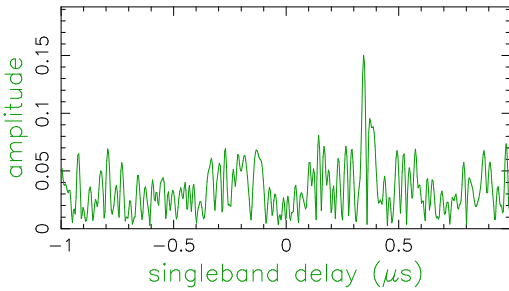
VLBA_LA - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

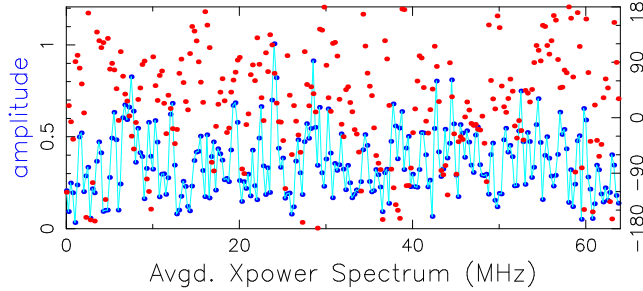


Fringe quality 0

SNR 5.5
 Int time 178.926
 Amp 0.192
 Phase 6.1
 PFD 9.8e-01
 Delays (us)
 SBD 0.344700
 MBD 0.004218
 Fringe rate (Hz)
 -0.730791
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

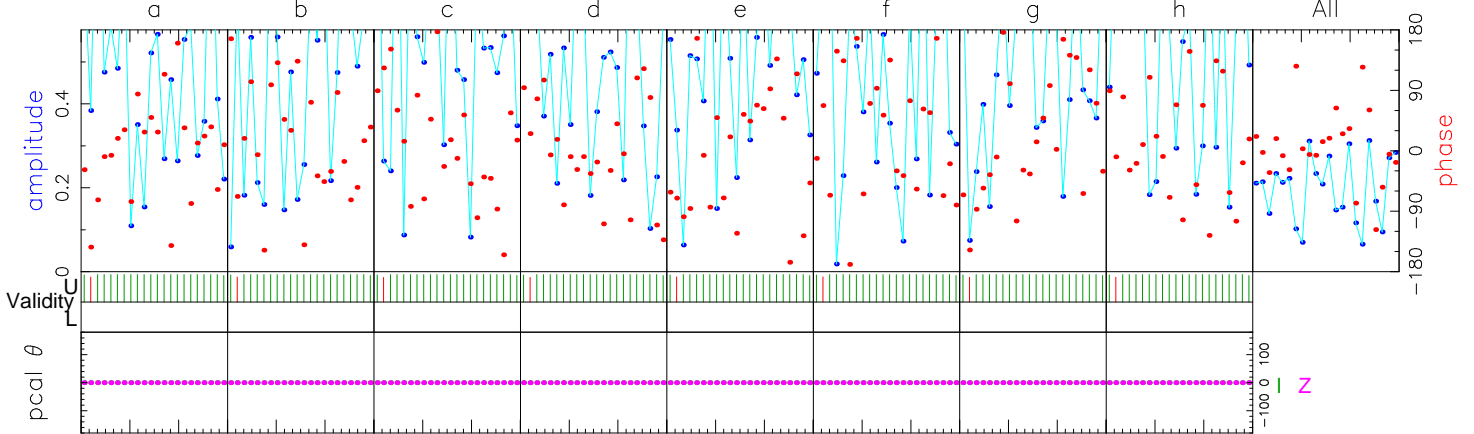


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131733
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	5.50556422200E+03	Apriori delay (usec)	5.50521625367E+03	Resid mbdelay (usec)	4.21833E-03	+/-	2.0E-04
Sband delay (usec)	5.50556095417E+03	Apriori clock (usec)	-5.3283119E-01	Resid sbdelay (usec)	3.44700E-01	+/-	1.6E-03
Phase delay (usec)	5.50521625387E+03	Apriori clockrate (us/s)	-1.1600001E-07	Resid phdelay (usec)	1.95556E-07	+/-	6.7E-07
Delay rate (us/s)	5.83724804321E-01	Apriori rate (us/s)	5.83733288082E-01	Resid rate (us/s)	-8.48376E-06	+/-	6.4E-09
Total phase (deg)		Apriori accel (us/s/s)	-5.65561782770E-05	Resid phase (deg)	6.1	+/-	20.8

ph/seg (deg)	55.0	Theor.	48.7	Amplitude	0.192 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	59.7		85.0	Search (1024X32)	0.148	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	19.3		29.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	38.4		51.2	Inc. seg. avg.	0.185	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011			
				Inc. frq. avg.	0.174	Data rate (Mb/s):	2048	nlags:	256	t_cohere infinite	ion window (TEC)	0.00 0.00

I: az 22.8 el 64.1 pa -143.6 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) -6445.376 -8535.811 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/IZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/IZ.W.231.1HQXF

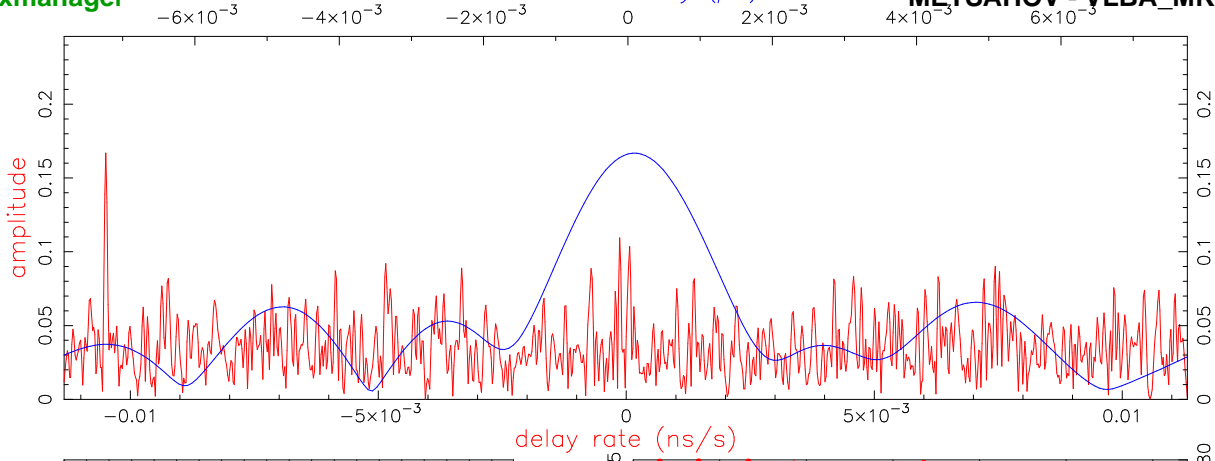
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, Zm

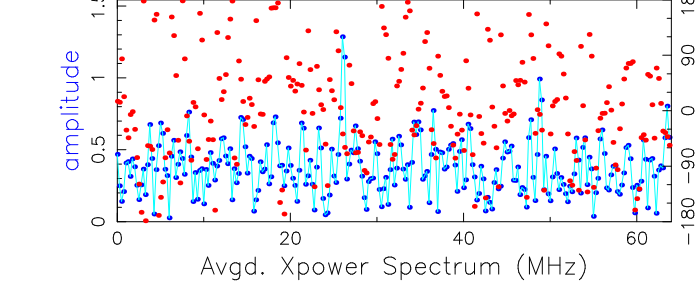
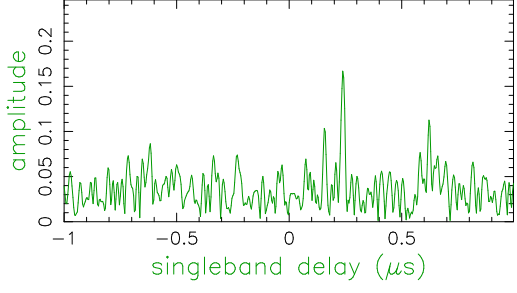
METSAHOV - VLBA_MK, fgroup W, pol LL

multiband delay (μ s)



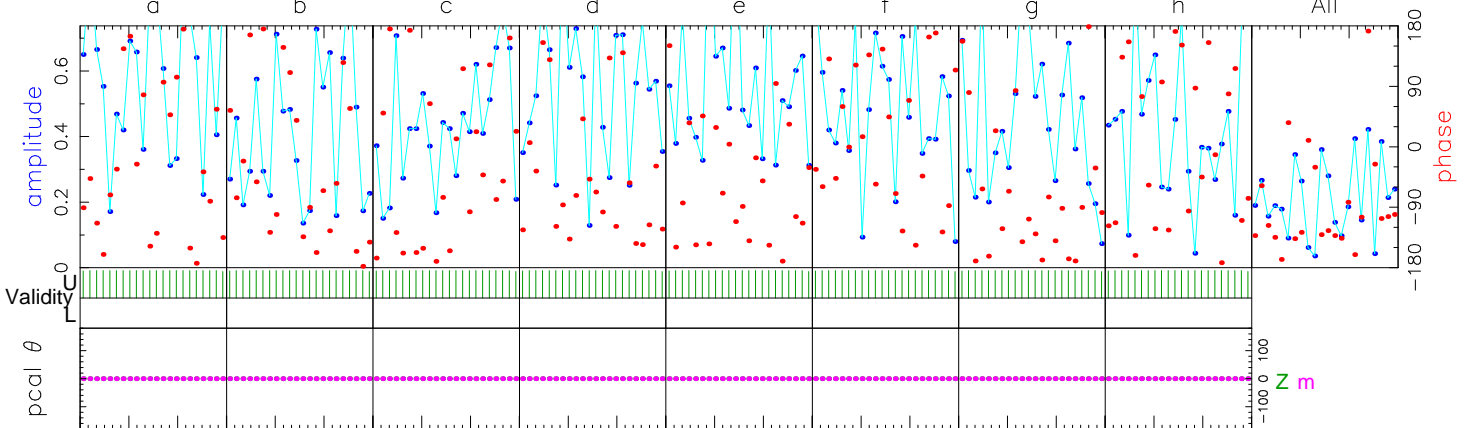
Fringe quality 0

SNR 6.1
 Int time 179.703
 Amp 0.246
 Phase -125.7
 PFD 1.0e-01
 Delays (us)
 SBD 0.239242
 MBD 0.000083
 Fringe rate (Hz)
 -0.905987
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131744
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-134.9	-143.1	-135.8	-111.5	-101.4	-111.4	-129.6	-146.1	Phase	-125.7
	0.3	0.2	0.2	0.4	0.3	0.1	0.4	0.3	Ampl.	0.2
	318.7	199.4	249.6	412.9	404.1	265.4	140.0	433.9	Sbd box	318.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 3.52306929551E+03 Apriori delay (usec) 3.52283483740E+03 Resid mbdelay (usec) 8.31038E-05 +/- 1.8E-04
 Sband delay (usec) 3.52307407990E+03 Apriori clock (usec) -1.3210587E+01 Resid sbdelay (usec) 2.39242E-01 +/- 1.4E-03
 Phase delay (usec) 3.52283483335E+03 Apriori clockrate (us/s) -8.3999986E-08 Resid phdelay (usec) -4.05224E-06 +/- 6.0E-07
 Delay rate (us/s) -1.08047322537E+00 Apriori rate (us/s) -1.08046270777E+00 Resid rate (us/s) -1.05176E-05 +/- 5.8E-09
 Total phase (deg) 196.1 Apriori accel (us/s/s) 3.20854023740E-05 Resid phase (deg) -125.7 +/- 18.6

ph/seg (deg) 60.0 43.7 Search (1024X32) 0.165 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.0 76.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.9 26.4 Inc. seg. avg. 0.242 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.1 46.0 Inc. frq. avg. 0.230 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 320.6 el 40.1 pa 37.5 m: az 33.4 el 28.1 pa -97.8 u,v (fr/asec) 11870.362 6509.326 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zm..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zm.W.324.1HQXF

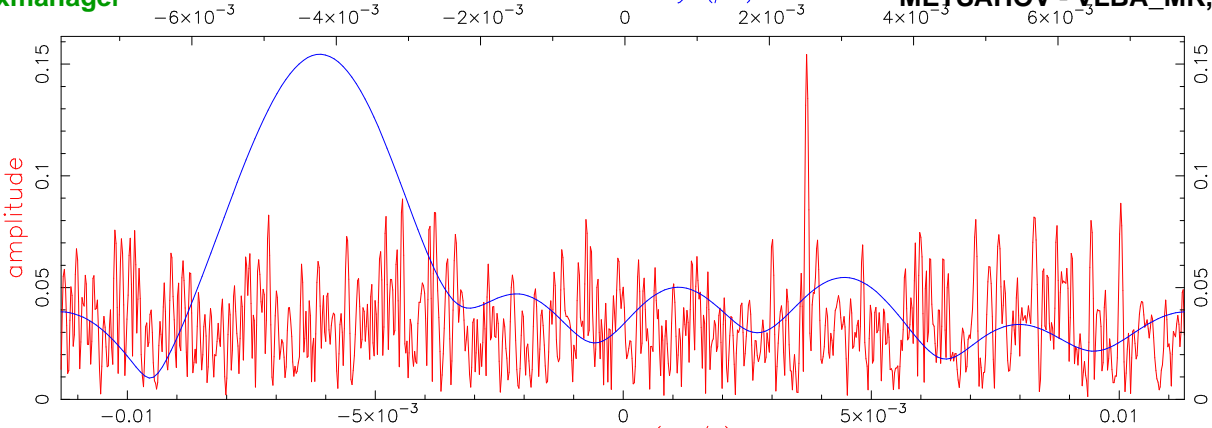
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

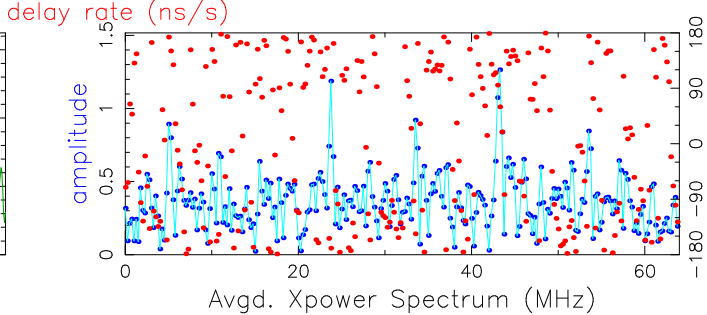
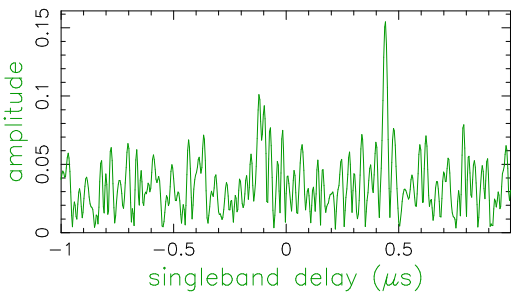
0102+584.1HQXF, No0087, Zm

MEṬSAHOV - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)

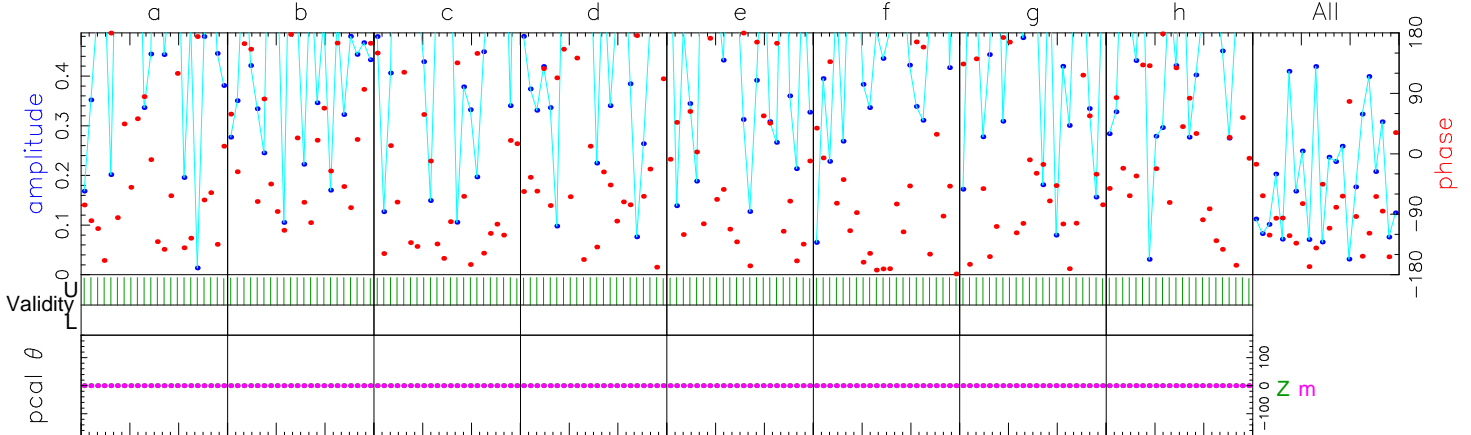


Fringe quality 0
 SNR 5.7
 Int time 179.703
 Amp 0.162
 Phase -103.6
 PFD 7.8e-01
 Delays (us)
 SBD 0.440178
 MBD -0.004258
 Fringe rate (Hz)
 0.318931
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131746
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-92.8	-73.3	-120.2	-93.9	-108.5	-114.5	-114.8	-30.5	Phase	-103.6
	0.2	0.0	0.2	0.1	0.2	0.3	0.1	0.1	Ampl.	0.2
	273.4	427.5	133.4	265.7	372.0	369.5	353.2	112.5	Sbd box	369.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	3.52326807988E+03	Apriori delay (usec)	3.52283483740E+03	Resid mbdelay (usec)	-4.25752E-03	+/-	1.9E-04
Sband delay (usec)	3.52327501565E+03	Apriori clock (usec)	-1.3210587E+01	Resid sbdelay (usec)	4.40178E-01	+/-	1.5E-03
Phase delay (usec)	3.52283483406E+03	Apriori clockrate (us/s)	-8.3999986E-08	Resid phdelay (usec)	-3.34018E-06	+/-	6.5E-07
Delay rate (us/s)	-1.08045900529E+00	Apriori rate (us/s)	-1.08046270777E+00	Resid rate (us/s)	3.70247E-06	+/-	6.2E-09
Total phase (deg)	218.2	Apriori accel (us/s/s)	3.20854023740E-05	Resid phase (deg)	-103.6	+/-	20.1

ph/seg (deg)	60.2	Theor.	47.2	Amplitude	0.162 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	79.8	Search (1024X32)	0.151	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	34.2	Inc. seg. avg.	0.154	Inc. frq. avg.	0.155	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	45.2	Inc. frq. avg.	0.155			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

Z: az 320.6 el 40.1 pa 37.5 m: az 33.4 el 28.1 pa -97.8 u,v (fr/asec) 11870.362 6509.326 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zm..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zm.W.329.1HQXF

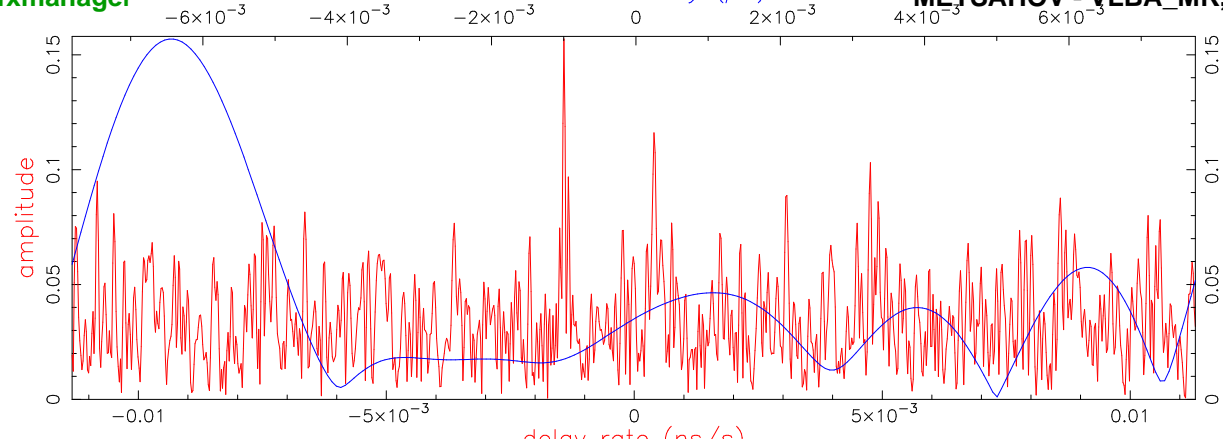
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

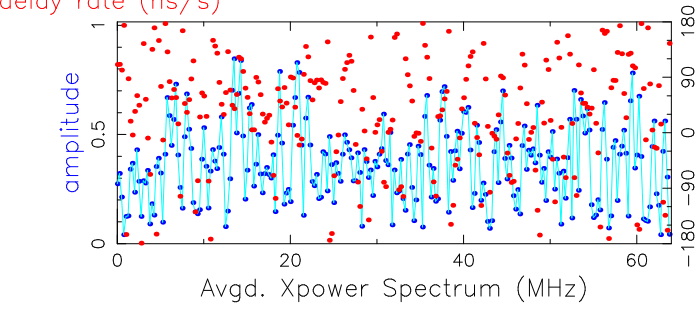
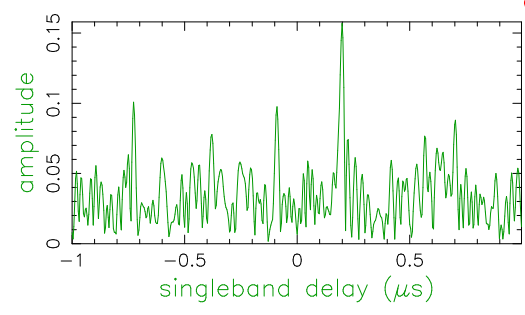
0102+584.1HQXF, No0087, Zm

METSAHOV - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

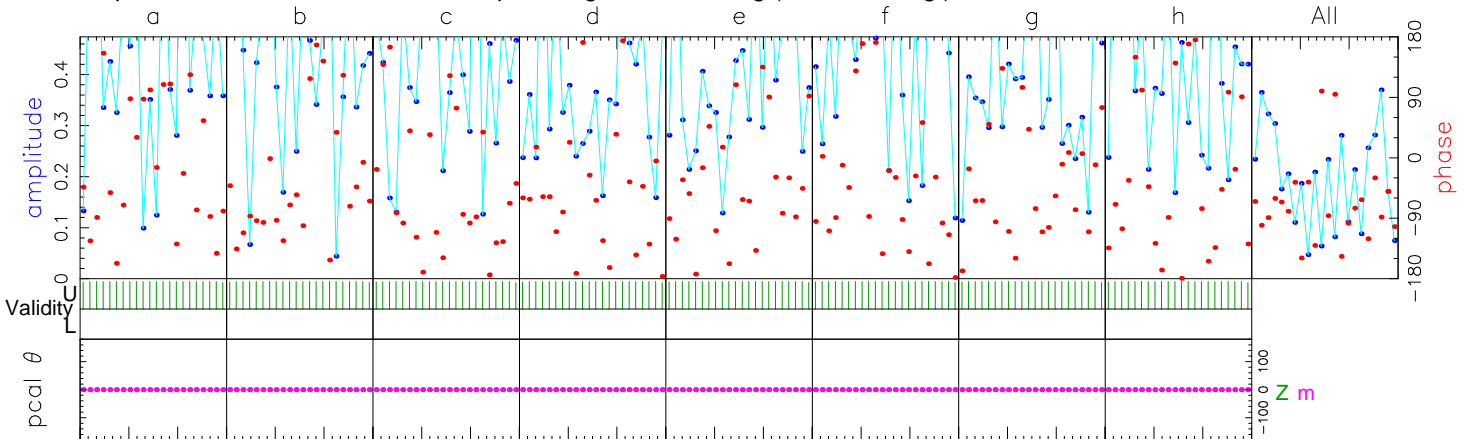


Fringe quality 0
 SNR 5.8
 Int time 179.703
 Amp 0.158
 Phase -86.7
 PFD 6.6e-01
 Delays (us)
 SBD 0.199555
 MBD -0.006422
 Fringe rate (Hz)
 -0.122022
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131748
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-70.6	-93.1	-100.0	-84.5	-77.3	-88.1	-49.2	-118.9	Phase	-86.7
	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	Ampl.	0.1
	314.8	144.8	14.9	404.5	6.5	305.0	184.9	263.9	Sbd box	308.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 3.52303154051E+03 Apriori delay (usec) 3.52283483740E+03 Resid mbdelay (usec) -6.42190E-03 +/- 1.9E-04
 Sband delay (usec) 3.52303439215E+03 Apriori clock (usec) -1.3210587E+01 Resid sbdelay (usec) 1.99555E-01 +/- 1.5E-03
 Phase delay (usec) 3.52283483461E+03 Apriori clockrate (us/s) -8.3999986E-08 Resid phdelay (usec) -2.79736E-06 +/- 6.4E-07
 Delay rate (us/s) -1.08046412432E+00 Apriori rate (us/s) -1.08046270777E+00 Resid rate (us/s) -1.41655E-06 +/- 6.2E-09
 Total phase (deg) 235.0 Apriori accel (us/s/s) 3.20854023740E-05 Resid phase (deg) -86.7 +/- 19.9

RMS Theor. Amplitude 0.158 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 62.4 46.7 Search (1024X32) 0.156 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 66.9 81.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 22.4 28.2 Inc. seg. avg. 0.151 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 27.5 49.1 Inc. frq. avg. 0.149 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 320.6 el 40.1 pa 37.5 m: az 33.4 el 28.1 pa -97.8 u,v (fr/asec) 11870.362 6509.326 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zm..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zm.W.339.1HQXF

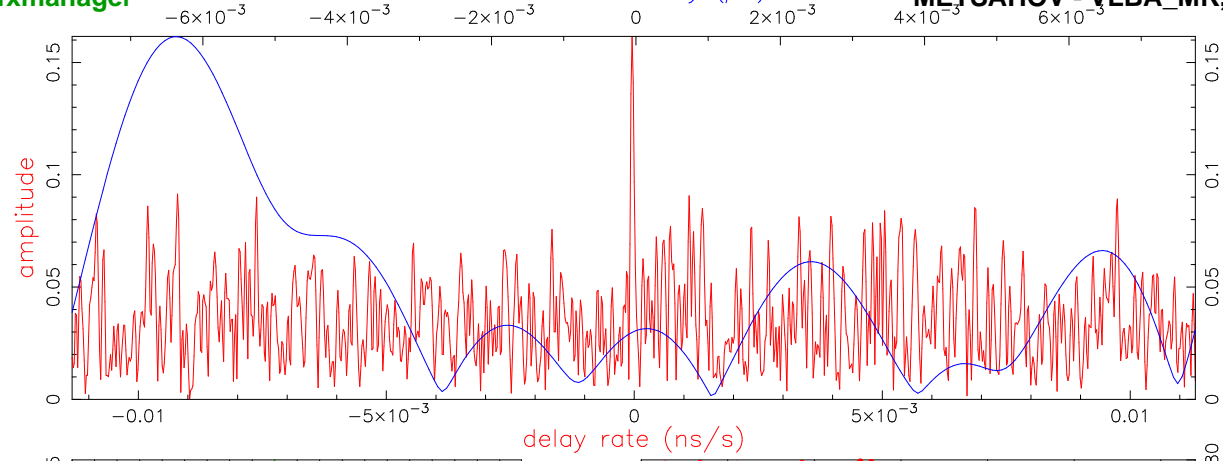
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

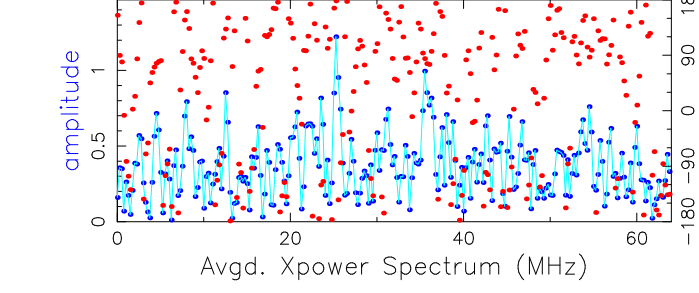
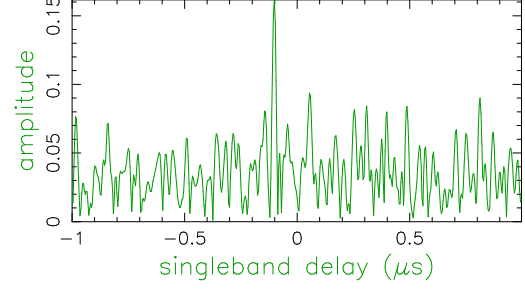
0102+584.1HQXF, No0087, Zm

METSAHOV - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

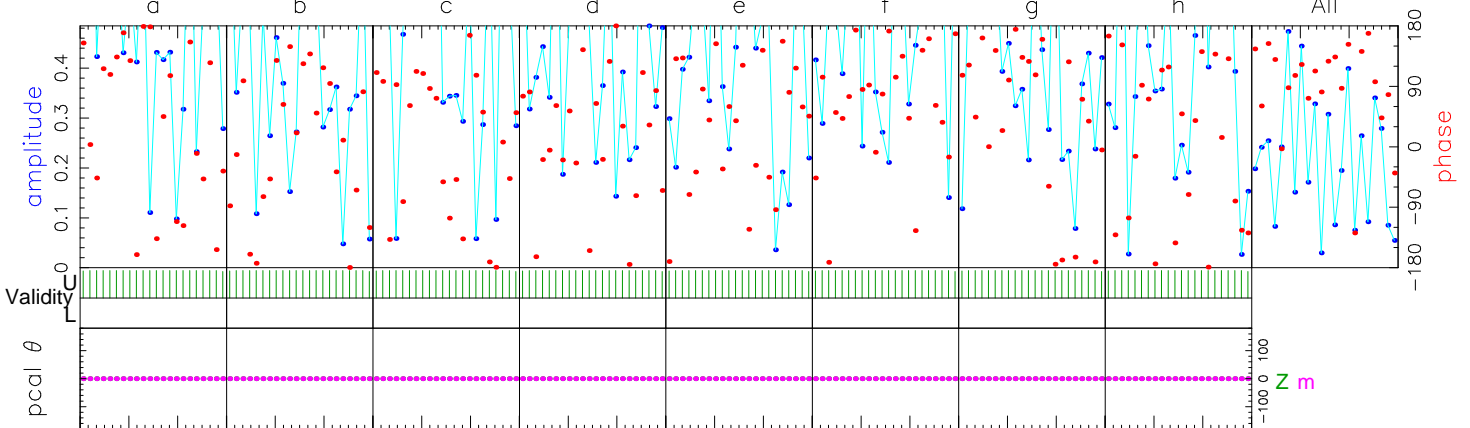


Fringe quality 0
 SNR 5.9
 Int time 179.703
 Amp 0.162
 Phase 108.5
 PFD 3.3e-01
 Delays (us)
 SBD -0.101906
 MBD -0.006379
 Fringe rate (Hz)
 -0.003169
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131749
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

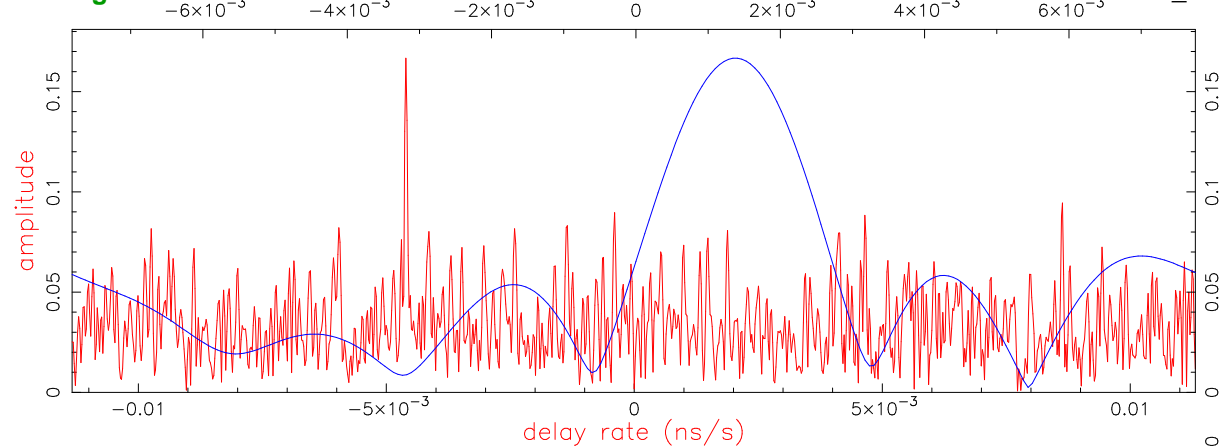


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 3.52273470843E+03 Apriori delay (usec) 3.52283483740E+03 Resid mbdelay (usec) -6.37897E-03 +/- 1.8E-04
 Sband delay (usec) 3.52273293140E+03 Apriori clock (usec) -1.3210587E+01 Resid sbdelay (usec) -1.01906E-01 +/- 1.5E-03
 Phase delay (usec) 3.52283484090E+03 Apriori clockrate (us/s) -8.3999986E-08 Resid phdelay (usec) 3.49983E-06 +/- 6.2E-07
 Delay rate (us/s) -1.08046274455E+00 Apriori rate (us/s) -1.08046270777E+00 Resid rate (us/s) -3.67841E-08 +/- 6.0E-09
 Total phase (deg) 70.3 Apriori accel (us/s/s) 3.20854023740E-05 Resid phase (deg) 108.5 +/- 19.3

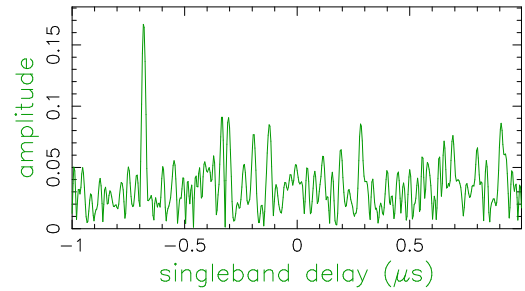
ph/seg (deg) 56.8 45.4 Search (1024X32) 0.158 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 85.8 79.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 27.2 27.4 Inc. seg. avg. 0.166 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 36.0 47.7 Inc. frq. avg. 0.158 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 320.6 el 40.1 pa 37.5 m: az 33.4 el 28.1 pa -97.8 u,v (fr/asec) 11870.362 6509.326 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zm..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zm.W.349.1HQXF

multiband delay (μ s)

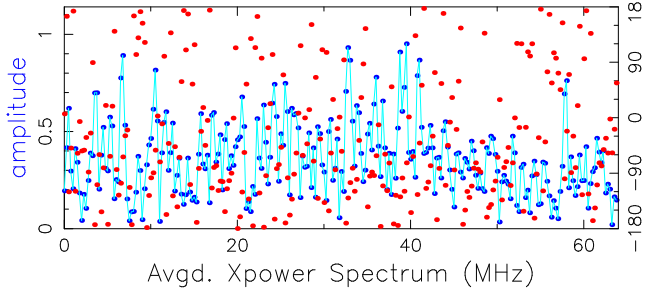


Fringe quality 0

SNR 6.2
Int time 179.703
Amp 0.181
Phase -52.8
PFD 7.5e-02
Delays (us)
SBD -0.681993
MBD 0.001404
Fringe rate (Hz)
-0.396971
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

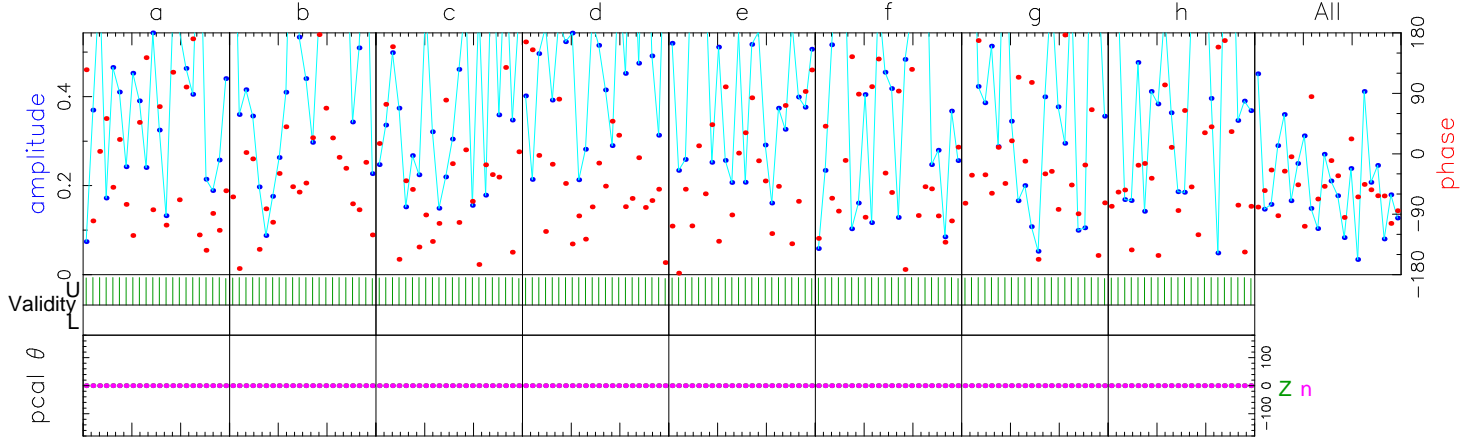


delay rate (ns/s)



Exp. c202a
Yr:day 16383
Yr:day 2020:283
Start 054000.00
Stop 054300.22
FRT 054130.00
Corr/FF/build
2021:006:113129
2021:010:131746
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-81.0	-28.6	-70.6	-63.4	-50.3	-69.9	-46.7	-51.0	Phase	-52.8
	0.1	0.3	0.1	0.3	0.1	0.2	0.3	0.2	Ampl.	0.2
	117.5	82.6	306.8	221.8	306.8	231.6	81.6	207.1	Sbd box	82.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-6.70194837663E+03	Apriori delay (usec)	-6.70126228096E+03	Resid mbdelay (usec)	1.40433E-03	+/-	1.8E-04
Sband delay (usec)	-6.70194427446E+03	Apriori clock (usec)	2.1576881E-02	Resid sbdelay (usec)	-6.81993E-01	+/-	1.4E-03
Phase delay (usec)	-6.70126228266E+03	Apriori clockrate (us/s)	-4.8399999E-07	Resid phdelay (usec)	-1.70134E-06	+/-	6.0E-07
Delay rate (us/s)	-4.15222934686E-01	Apriori rate (us/s)	-4.15218326249E-01	Resid rate (us/s)	-4.60844E-06	+/-	5.7E-09
Total phase (deg)	-10.2	Apriori accel (us/s/s)	5.50824097377E-05	Resid phase (deg)	-52.8	+/-	18.5

ph/seg (deg)	43.7	Theor.	43.4	Amplitude	0.181 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	66.9		75.7	Search (1024X32)	0.164	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	18.9		26.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	45.2		45.7	Inc. seg. avg.	0.176	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.168	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 320.6 el 40.1 pa 37.5 n: az 7.7 el 73.0 pa -169.2 u,v (fr/asec) 4596.898 7978.370 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zn..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zn.W.332.1HQXF

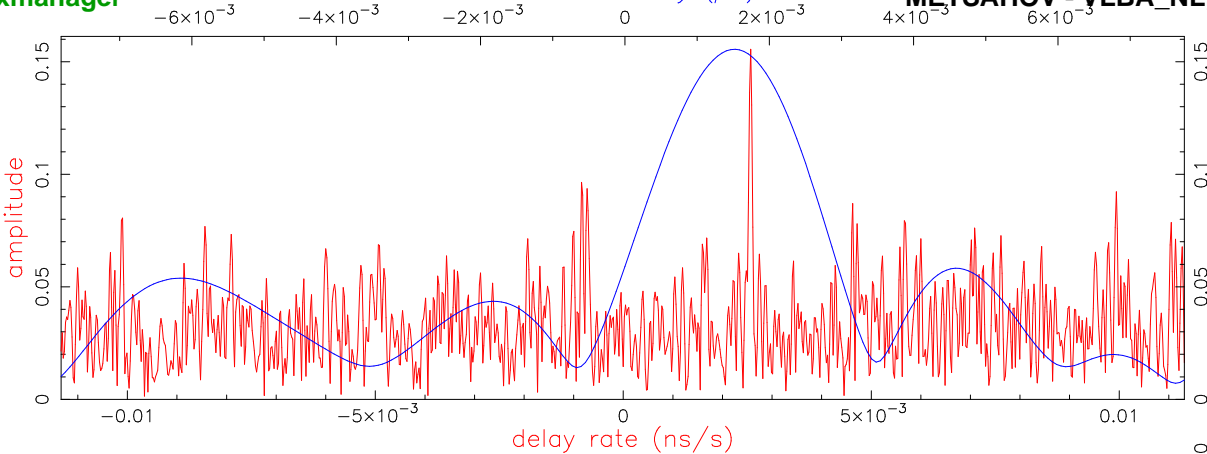
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, Zn

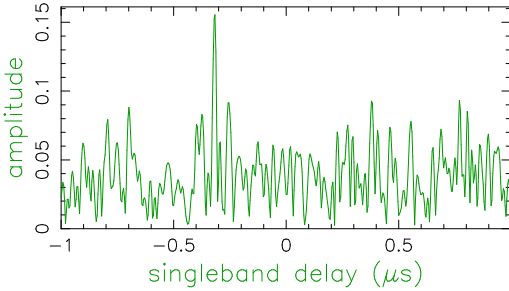
METSAHOV - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

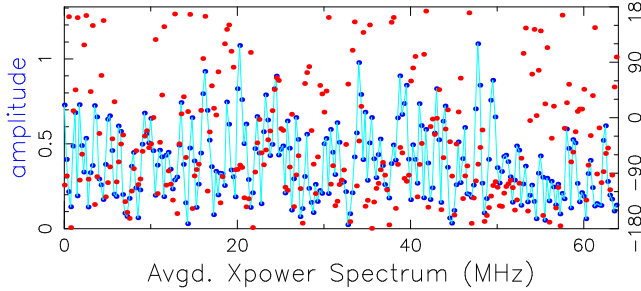


Fringe quality 0

SNR 5.8
 Int time 179.703
 Amp 0.161
 Phase -159.7
 PFD 5.9e-01
 Delays (us)
 SBD -0.317926
 MBD 0.001497
 Fringe rate (Hz)
 0.221629
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

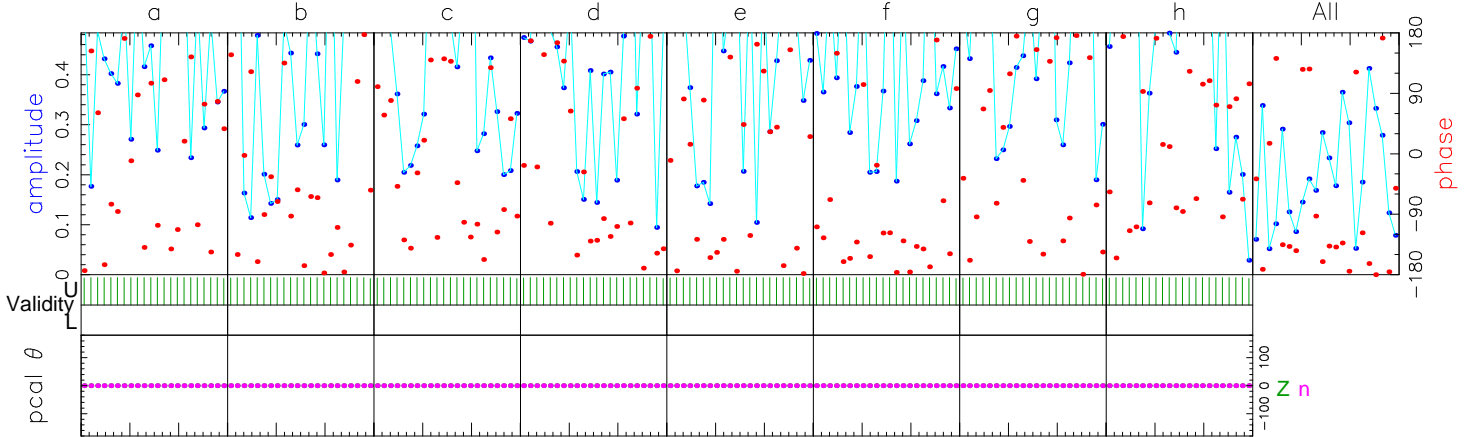


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131748
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-6.70157328414E+03	Apriori delay (usec)	-6.70126228096E+03	Resid mbdelay (usec)	1.49682E-03	+/-	1.9E-04
Sband delay (usec)	-6.70158020646E+03	Apriori clock (usec)	2.1576881E-02	Resid sbdelay (usec)	-3.17926E-01	+/-	1.5E-03
Phase delay (usec)	-6.70126228611E+03	Apriori clockrate (us/s)	-4.8399999E-07	Resid phdelay (usec)	-5.14978E-06	+/-	6.4E-07
Delay rate (us/s)	-4.15215753361E-01	Apriori rate (us/s)	-4.15218326249E-01	Resid rate (us/s)	2.57289E-06	+/-	6.1E-09
Total phase (deg)	-117.2	Apriori accel (us/s/s)	5.50824097377E-05	Resid phase (deg)	-159.7	+/-	19.8

ph/seg (deg)	63.6	Theor.	46.4	Amplitude	0.161 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	73.5		81.0	Search (1024X32)	0.152	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	24.3		28.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	41.5		48.9	Inc. seg. avg.	0.154	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.150	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 320.6 el 40.1 pa 37.5 n: az 7.7 el 73.0 pa -169.2 u,v (fr/asec) 4596.898 7978.370 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zn..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zn.W.342.1HQXF

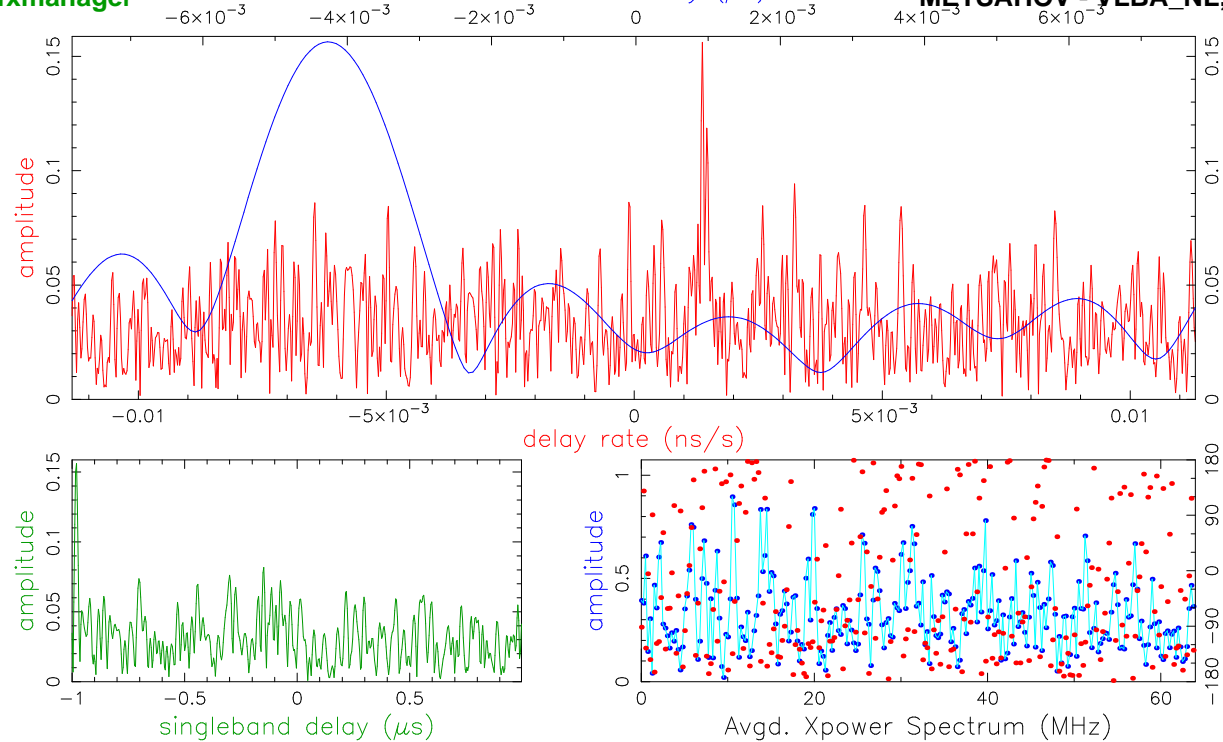
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, Zn

MEṬSAHOV - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

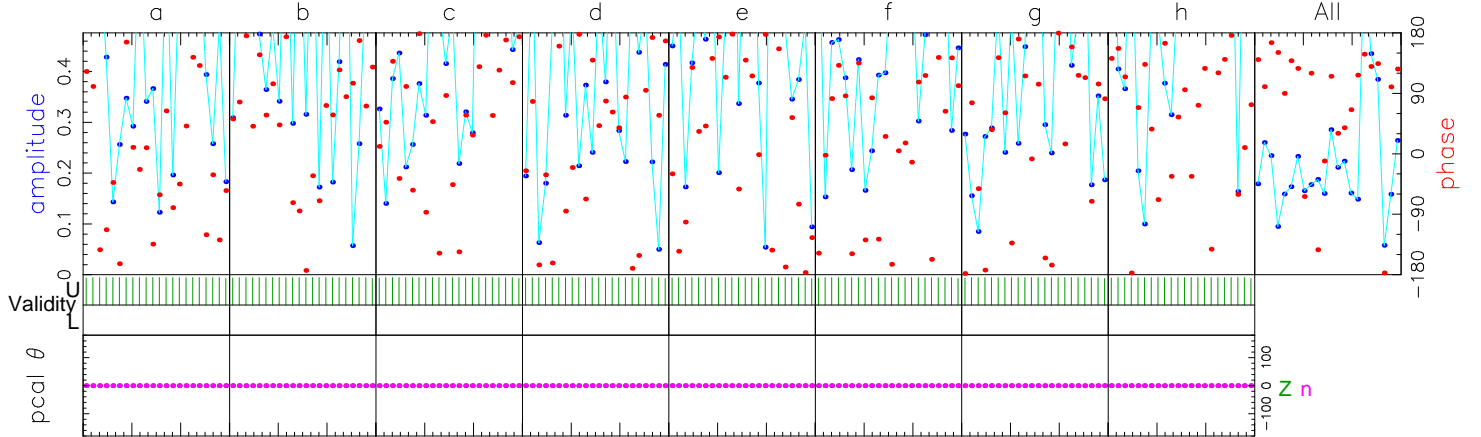


Fringe quality 0

SNR 5.8
 Int time 179.703
 Amp 0.159
 Phase 122.7
 PFD 6.0e-01
 Delays (us)
 SBD -0.981701
 MBD -0.004327
 Fringe rate (Hz)
 0.117713
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131750
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
Z:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000			
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
Group delay (usec)(sbd)	-6.70225098341E+03										
Sband delay (usec)	-6.70224398171E+03										
Phase delay (usec)	-6.70126227700E+03										
Delay rate (us/s)	-4.15216959714E-01										
Total phase (deg)			-194.8								
Apriori delay (usec)					-6.70126228096E+03				Resid mbdelay (usec)	-4.32745E-03	+/- 1.9E-04
Apriori clock (usec)					2.1576881E-02				Resid sbdelay (usec)	-9.81701E-01	+/- 1.5E-03
Apriori clockrate (us/s)					-4.8399999E-07				Resid phdelay (usec)	3.95614E-06	+/- 6.4E-07
Apriori rate (us/s)					-4.15218326249E-01				Resid rate (us/s)	1.36653E-06	+/- 6.1E-09
Apriori accel (us/s/s)					5.50824097377E-05				Resid phase (deg)	122.7	+/- 19.8
RMS	62.5	46.5			0.159 +/- 0.027				PCal mode: MANUAL, MANUAL		
Theor.	62.5	46.5							PCal rate: 0.000E+00, 0.000E+00 (us/s)		
Amplitude									SampCntNorm: enabled		
Search (1024X32)					0.152				mb window (us)	-1.000	1.000
Interp.					0.000				dr window (ns/s)	-0.008	0.008
Inc. seg. avg.					0.172				ion window (TEC)	0.00	0.00
Inc. frq. avg.					0.149						
ph/seg (deg)	21.9	28.0									
amp/seg (%)	38.5	48.9									
ph/frq (deg)											
amp/frq (%)											
Z: az 320.6 el 40.1 pa 37.5											
n: az 7.7 el 73.0 pa -169.2											
u,v (fr/asec)					4596.898	7978.370					simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zn..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zn.W.353.1HQXF

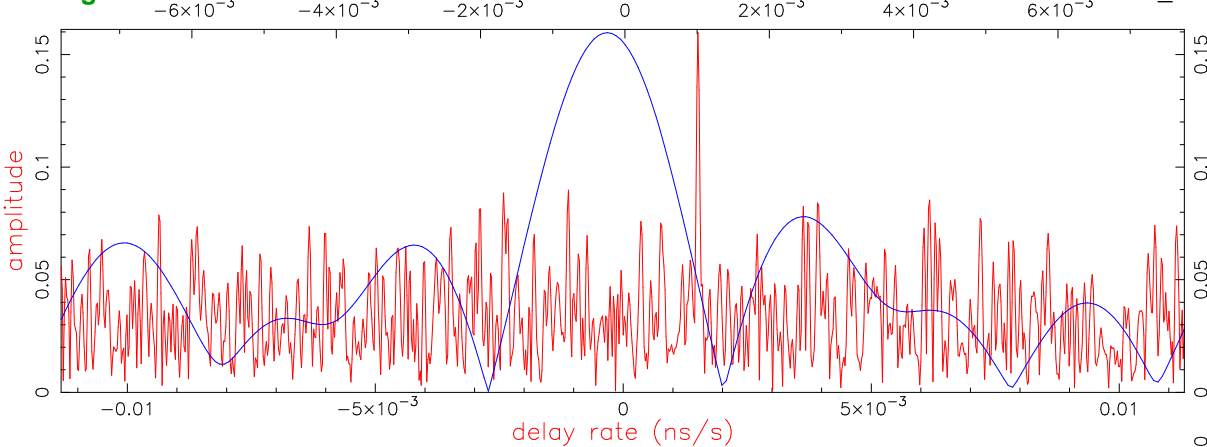
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, Zn

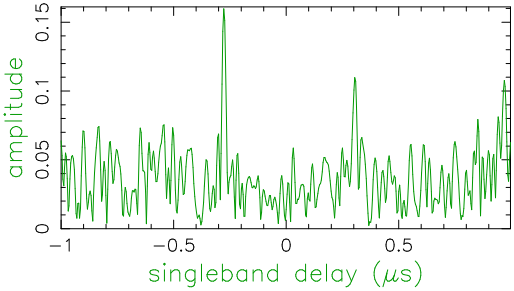
MEṬSAHOV - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

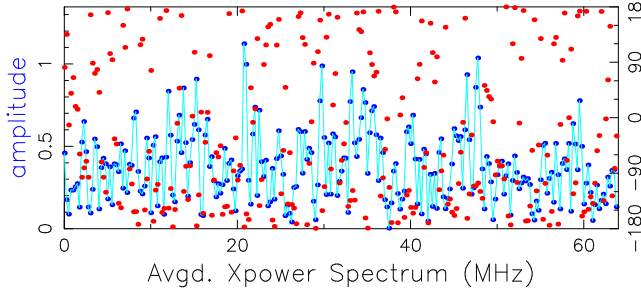


Fringe quality 0

SNR 5.9
 Int time 179.703
 Amp 0.161
 Phase -92.9
 PFD 4.4e-01
 Delays (us)
 SBD -0.276742
 MBD -0.000232
 Fringe rate (Hz)
 0.130062
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

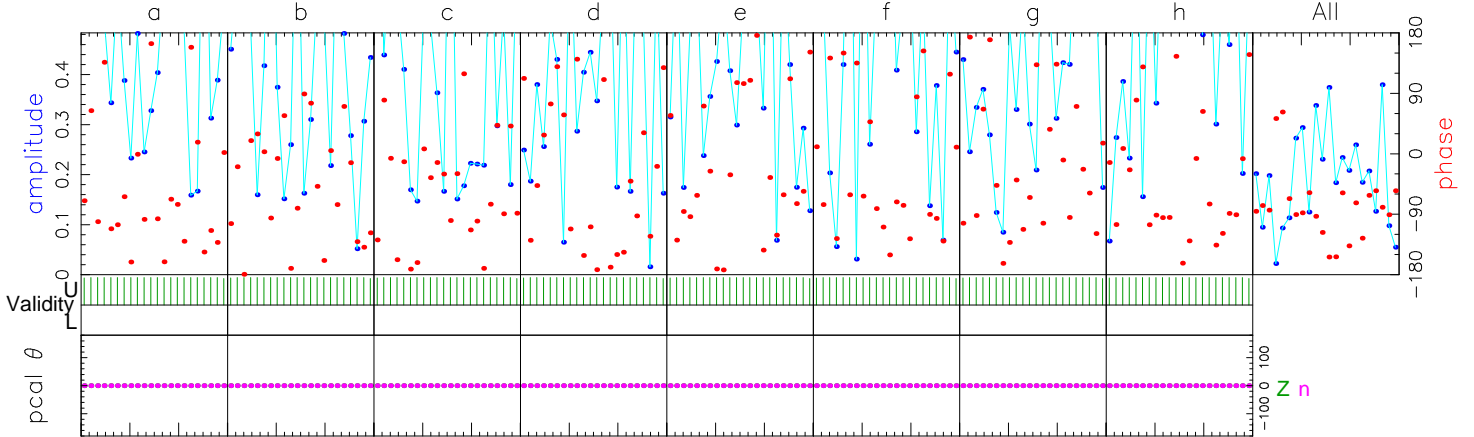


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131752
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-104.2	-68.3	-74.0	-149.2	-107.2	-92.6	-73.1	-103.3	Phase	-92.9
	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	Ampl.	0.2
	336.6	504.2	259.3	487.1	5.8	474.4	296.7	135.9	Sbd box	186.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-6.70154376346E+03	Apriori delay (usec)	-6.70126228096E+03	Resid mbdelay (usec)	-2.32499E-04	+/-	1.9E-04
Sband delay (usec)	-6.70153902346E+03	Apriori clock (usec)	2.1576881E-02	Resid sbdelay (usec)	-2.76742E-01	+/-	1.5E-03
Phase delay (usec)	-6.70126228396E+03	Apriori clockrate (us/s)	-4.8399999E-07	Resid phdelay (usec)	-2.99553E-06	+/-	6.3E-07
Delay rate (us/s)	-4.15216816359E-01	Apriori rate (us/s)	-4.15218326249E-01	Resid rate (us/s)	1.50989E-06	+/-	6.1E-09
Total phase (deg)	-50.4	Apriori accel (us/s/s)	5.50824097377E-05	Resid phase (deg)	-92.9	+/-	19.5

ph/seg (deg)	54.0	Theor.	45.8	Amplitude	0.161 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	64.4	Search (1024X32)	0.157	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	28.8	Inc. seg. avg.	0.149	Inc. frq. avg.	0.154	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	35.7	Inc. frq. avg.	0.154			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

Z: az 320.6 el 40.1 pa 37.5 n: az 7.7 el 73.0 pa -169.2 u,v (fr/asec) 4596.898 7978.370 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zn..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zn.W.359.1HQXF

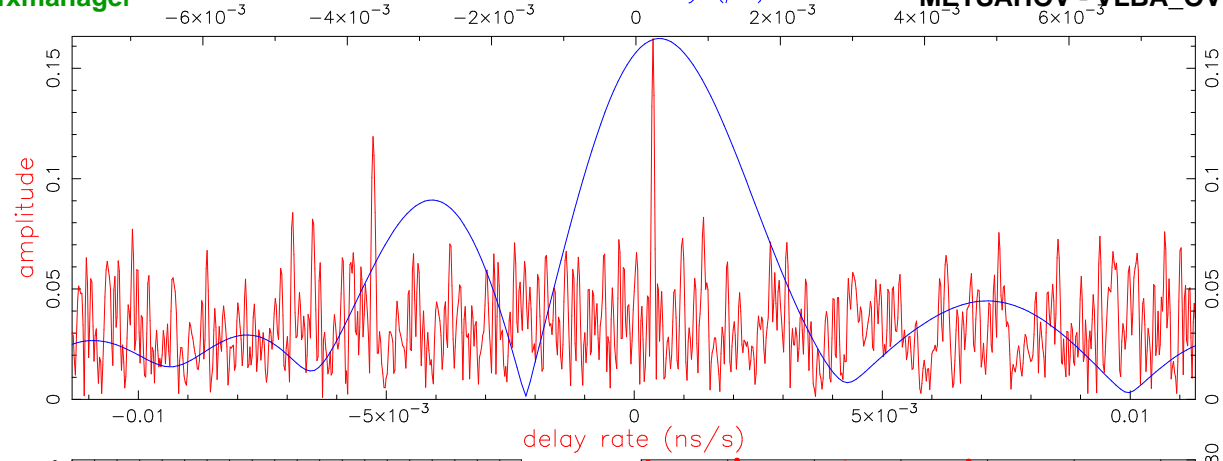
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

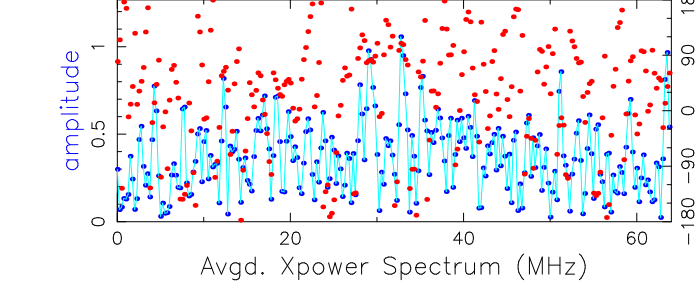
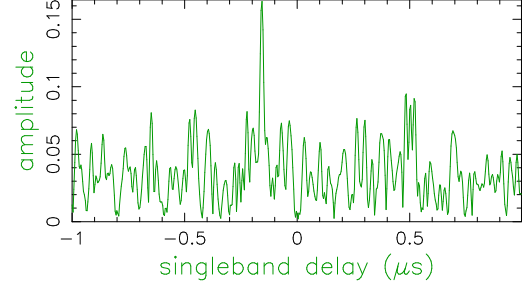
0102+584.1HQXF, No0087, Zo

MEṬSAHOV - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

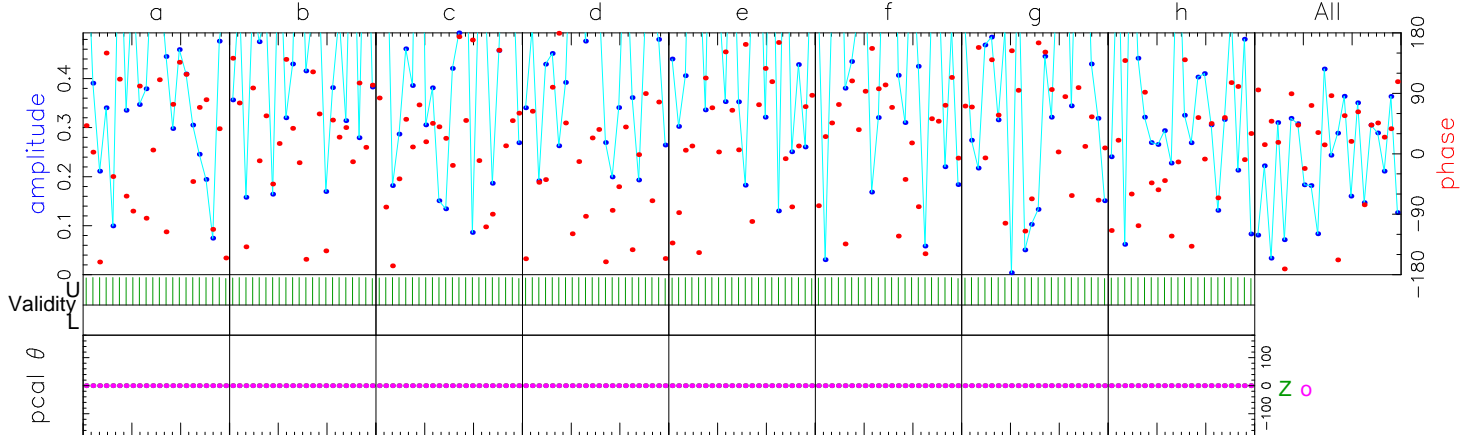


Fringe quality 0
 SNR 6.0
 Int time 179.703
 Amp 0.164
 Phase 44.4
 PFD 2.0e-01
 Delays (us)
 SBD -0.157292
 MBD 0.000378
 Fringe rate (Hz) 0.032175
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131747
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	78.9	42.5	34.1	1.2	53.9	64.2	64.7	-6.6	Ampl.	44.4
	0.1	0.3	0.2	0.1	0.2	0.3	0.2	0.1	Ampl.	0.2
	148.1	216.8	390.2	195.4	374.6	216.9	273.5	351.0	Sbd box	216.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd) -4.96275831835E+03 Apriori delay (usec) -4.96260244604E+03 Resid mbdelay (usec) 3.77688E-04 +/- 1.8E-04
 Sband delay (usec) -4.96275973804E+03 Apriori clock (usec) -2.1260168E+01 Resid sbdelay (usec) -1.57292E-01 +/- 1.4E-03
 Phase delay (usec) -4.96260244461E+03 Apriori clockrate (us/s) 1.1600001E-07 Resid phdelay (usec) 1.43042E-06 +/- 6.1E-07
 Delay rate (us/s) -7.02944786237E-01 Apriori rate (us/s) -7.02945159755E-01 Resid rate (us/s) 3.73518E-07 +/- 5.9E-09
 Total phase (deg) -208.3 Apriori accel (us/s/s) 5.15963056010E-05 Resid phase (deg) 44.4 +/- 19.0

RMS Theor. Amplitude 0.164 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 60.3 44.6 Search (1024X32) 0.160 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 76.7 77.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 33.3 26.9 Inc. seg. avg. 0.177 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 38.6 46.9 Inc. frq. avg. 0.162 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 320.6 el 40.1 pa 37.5 o: az 33.4 el 60.7 pa -122.6 u,v (fr/asec) 7748.519 7799.826 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zo..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zo.W.333.1HQXF

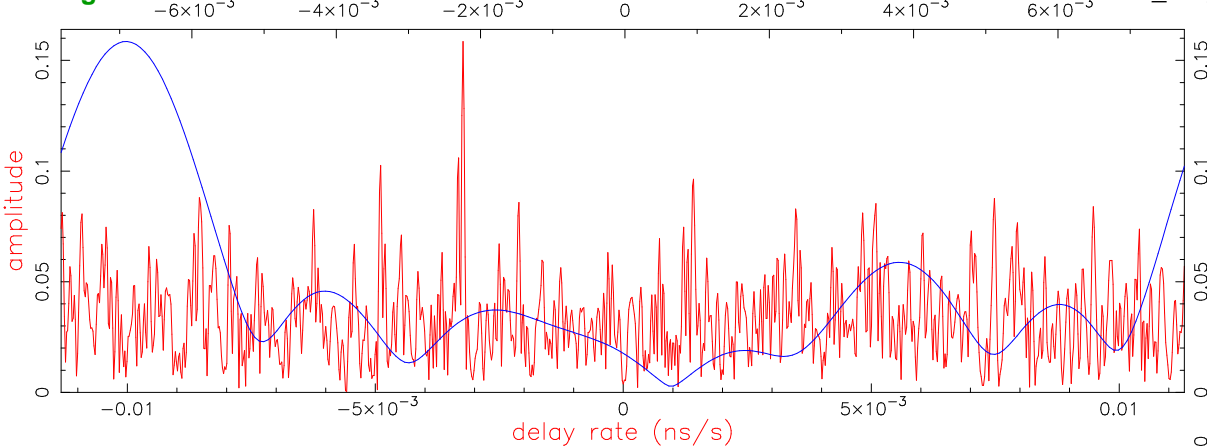
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, Zo

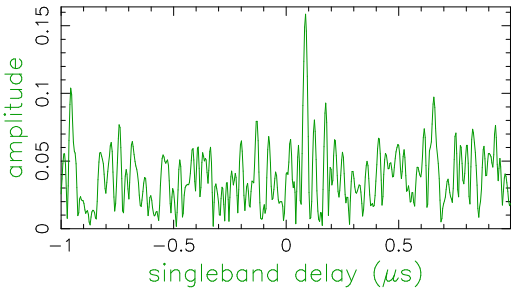
METSAHOV - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

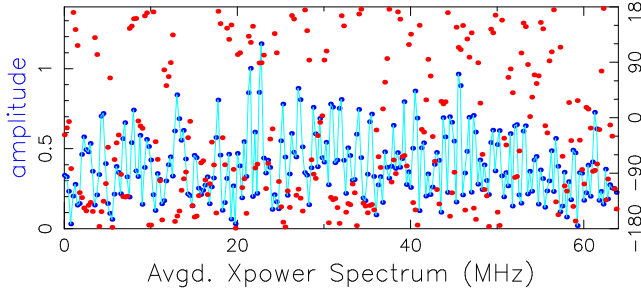


Fringe quality 0

SNR 5.8
 Int time 179.703
 Amp 0.164
 Phase -164.9
 PFD 5.4e-01
 Delays (us)
 SBD 0.085763
 MBD -0.006916
 Fringe rate (Hz)
 -0.278729
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

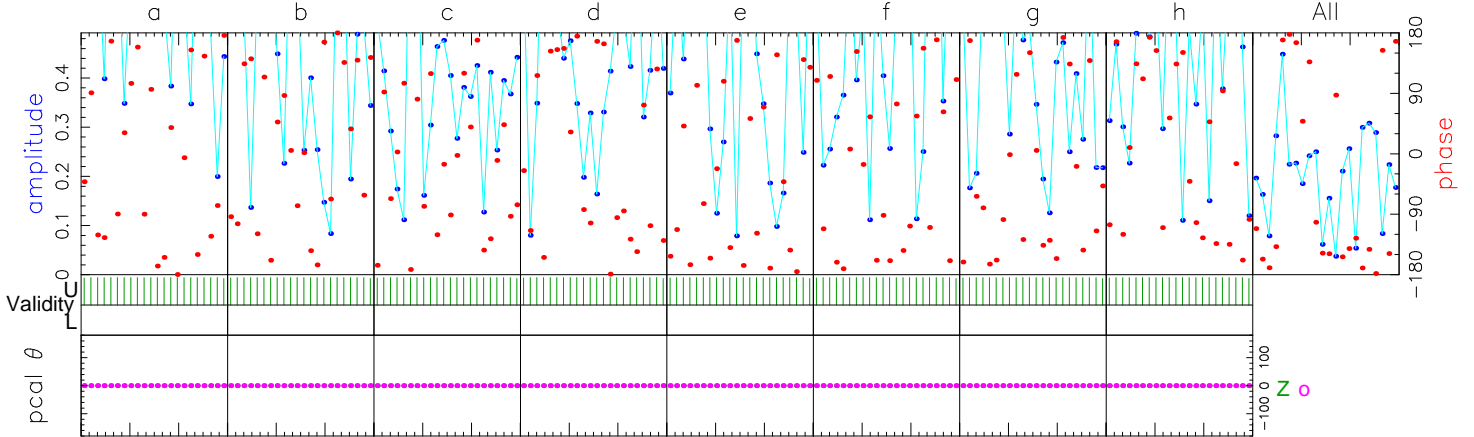


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131748
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-162.4	-173.1	-152.1	-160.2	-172.5	-171.1	-154.8	-169.9	Phase	-164.9
	0.2	0.1	0.0	0.2	0.2	0.2	0.2	0.1	Ampl.	0.1
	13.4	136.8	271.3	276.4	446.5	182.6	104.2	426.0	Sbd box	279.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.96251561163E+03		Apriori delay (usec)		-4.96260244604E+03		Resid mbdelay (usec)		-6.91559E-03	+/- 1.9E-04
Sband delay (usec)	-4.96251668254E+03		Apriori clock (usec)		-2.1260168E+01		Resid sbdelay (usec)		8.57635E-02	+/- 1.5E-03
Phase delay (usec)	-4.96260245136E+03		Apriori clockrate (us/s)		1.1600001E-07		Resid phdelay (usec)		-5.31655E-06	+/- 6.4E-07
Delay rate (us/s)	-7.02948395522E-01		Apriori rate (us/s)		-7.02945159755E-01		Resid rate (us/s)		-3.23577E-06	+/- 6.1E-09
Total phase (deg)			Apriori accel (us/s/s)		5.15963056010E-05		Resid phase (deg)		-164.9	+/- 19.7

ph/seg (deg) 48.8 46.2 Amplitude 0.164 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 67.2 80.7 Search (1024X32) 0.153 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 9.0 27.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 37.3 48.7 Inc. seg. avg. 0.158 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Z: az 320.6 el 40.1 pa 37.5 o: az 33.4 el 60.7 pa -122.6 u,v (fr/asec) 7748.519 7799.826 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zo..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zo.W.341.1HQXF simultaneous interpolator

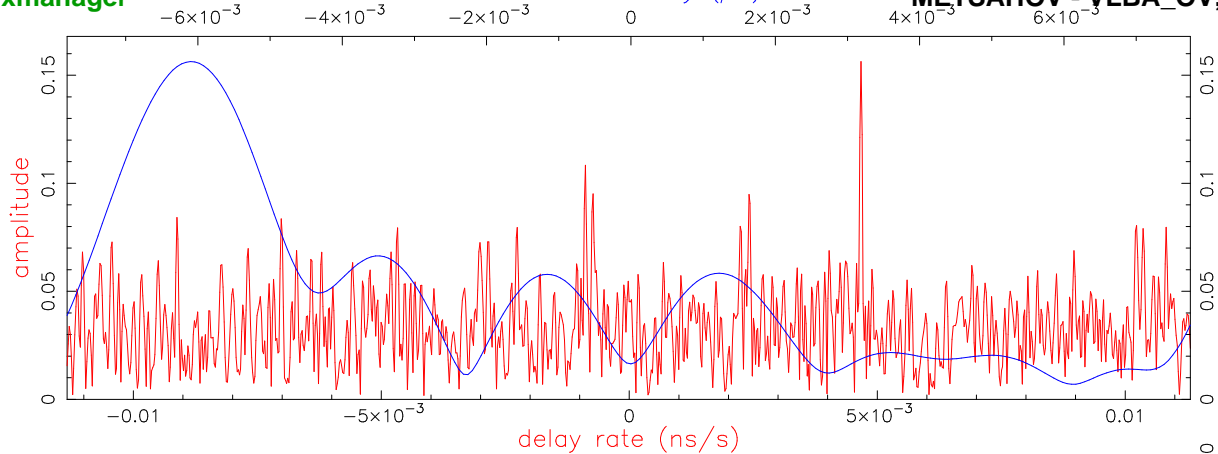
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, Zo

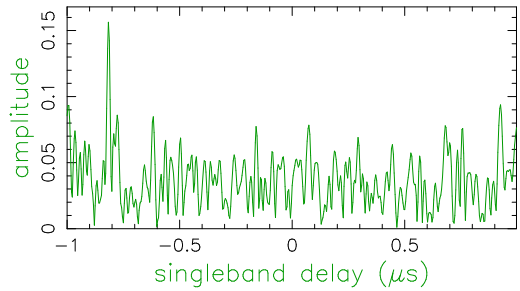
METSAHOV - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

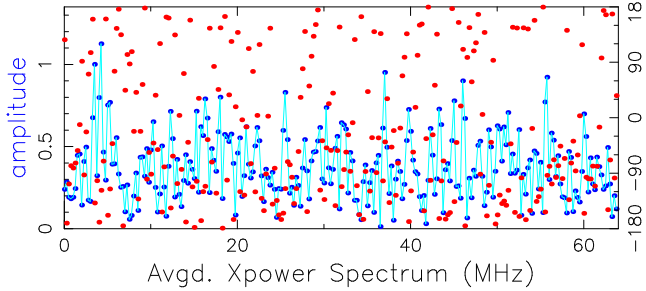


Fringe quality 0

SNR 5.7
 Int time 179.703
 Amp 0.168
 Phase -95.3
 PFD 7.0e-01
 Delays (us)
 SBD -0.816031
 MBD -0.006100
 Fringe rate (Hz)
 0.402711
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

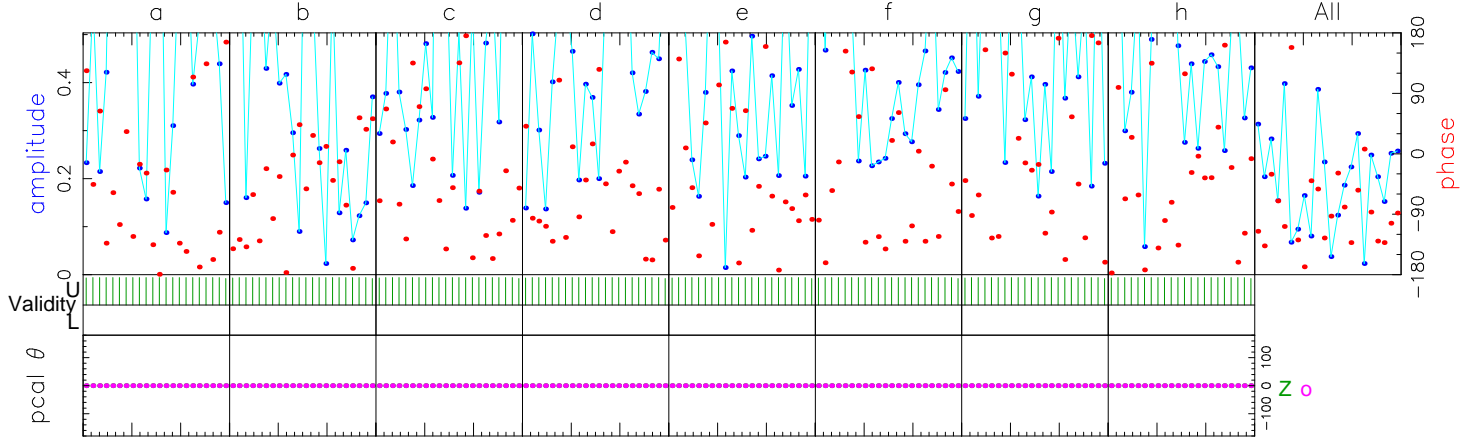


delay rate (ns/s)



Exp. c202a
 Yr:day 16383
 Start 2021:006:113129
 Stop 2021:010:131750
 FRT 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-4.96342104603E+03	-4.96341847679E+03	-4.96260244911E+03	-4.96260244604E+03	-4.96260244604E+03	-4.96260244604E+03	-4.96260244604E+03	-4.96260244604E+03		
Sband delay (usec)	-4.96341847679E+03	-4.96341847679E+03	-4.96260244911E+03	-4.96260244604E+03	-4.96260244604E+03	-4.96260244604E+03	-4.96260244604E+03	-4.96260244604E+03		
Phase delay (usec)	-4.96260244911E+03	-4.96260244911E+03	-4.96260244911E+03	-4.96260244604E+03	-4.96260244604E+03	-4.96260244604E+03	-4.96260244604E+03	-4.96260244604E+03		
Delay rate (us/s)	-7.02940484683E-01	-7.02940484683E-01	-7.02940484683E-01	-7.02945159755E-01	-7.02945159755E-01	-7.02945159755E-01	-7.02945159755E-01	-7.02945159755E-01		
Total phase (deg)			-347.9							
Apriori delay (usec)				0.153	0.153	0.153	0.153	0.153		
Apriori clock (usec)				0.153	0.153	0.153	0.153	0.153		
Apriori clockrate (us/s)				0.000	0.000	0.000	0.000	0.000		
Apriori rate (us/s)				0.160	0.160	0.160	0.160	0.160		
Apriori accel (us/s/s)				0.165	0.165	0.165	0.165	0.165		
Resid mbdelay (usec)				-6.09999E-03	-6.09999E-03	-6.09999E-03	-6.09999E-03	-6.09999E-03		+/- 1.9E-04
Resid sbdelay (usec)				-8.16031E-01	-8.16031E-01	-8.16031E-01	-8.16031E-01	-8.16031E-01		+/- 1.5E-03
Resid phdelay (usec)				-3.07161E-06	-3.07161E-06	-3.07161E-06	-3.07161E-06	-3.07161E-06		+/- 6.4E-07
Resid rate (us/s)				4.67507E-06	4.67507E-06	4.67507E-06	4.67507E-06	4.67507E-06		+/- 6.2E-09
Resid phase (deg)				-95.3	-95.3	-95.3	-95.3	-95.3		+/- 20.0
Pcal mode:	MANUAL	MANUAL	MANUAL	MANUAL	MANUAL	MANUAL	MANUAL	MANUAL		
Pcal rate:	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
Bits/sample:	2x2	2x2	2x2	2x2	2x2	2x2	2x2	2x2		
Sample rate(MISamp/s):	128	128	128	128	128	128	128	128		
Data rate(Mb/s):	2048	2048	2048	2048	2048	2048	2048	2048		
nlags:	256	256	256	256	256	256	256	256		
t_cohere	infinite	infinite	infinite	infinite	infinite	infinite	infinite	infinite		
sb window (us)	-1.000	1.000	-1.000	1.000	-1.000	1.000	-1.000	1.000		
mb window (us)	-0.008	0.008	-0.008	0.008	-0.008	0.008	-0.008	0.008		
dr window (ns/s)	-0.011	0.011	-0.011	0.011	-0.011	0.011	-0.011	0.011		
ion window (TEC)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
simultaneous interpolator										

Z: az 320.6 el 40.1 pa 37.5 o: az 33.4 el 60.7 pa -122.6 u,v (fr/asec) 7748.519 7799.826 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zo..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zo.W.350.1HQXF

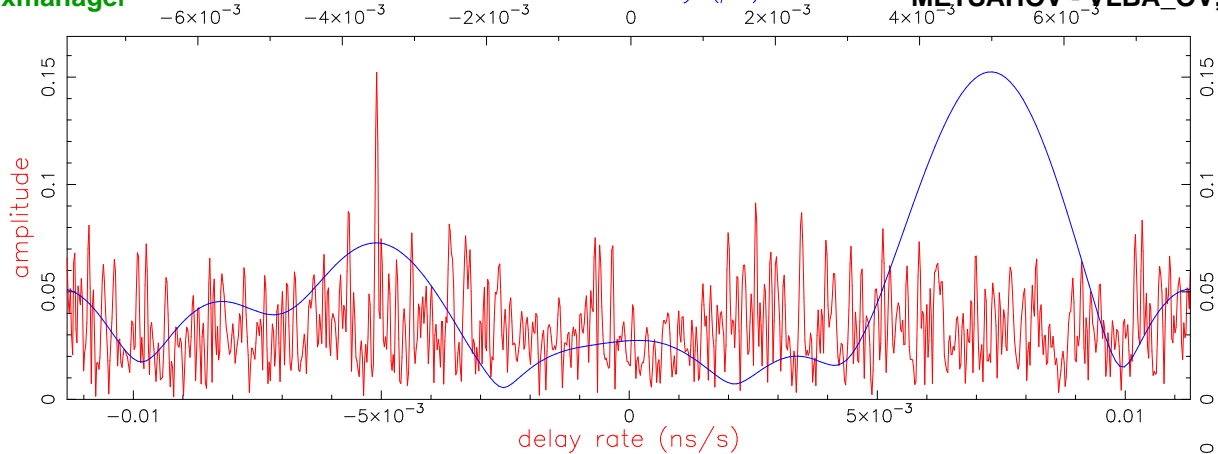
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, Zo

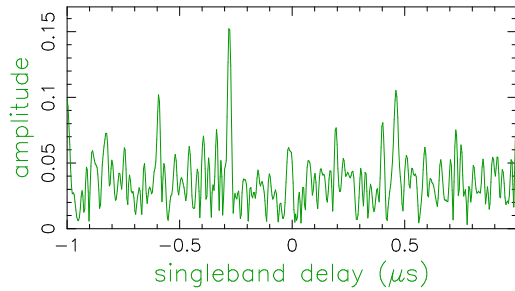
METSAHOV - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

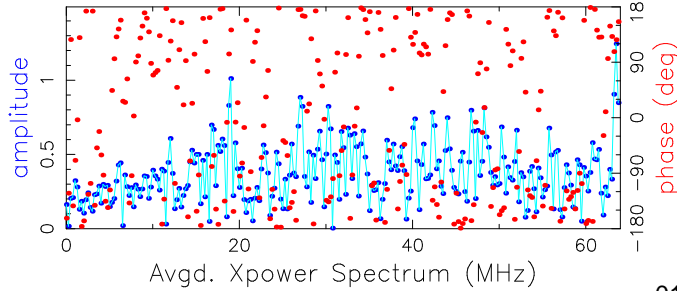


Fringe quality 0

SNR 5.7
 Int time 179.703
 Amp 0.169
 Phase 143.0
 PFD 7.9e-01
 Delays (us)
 SBD -0.279441
 MBD 0.004926
 Fringe rate (Hz)
 -0.438556
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

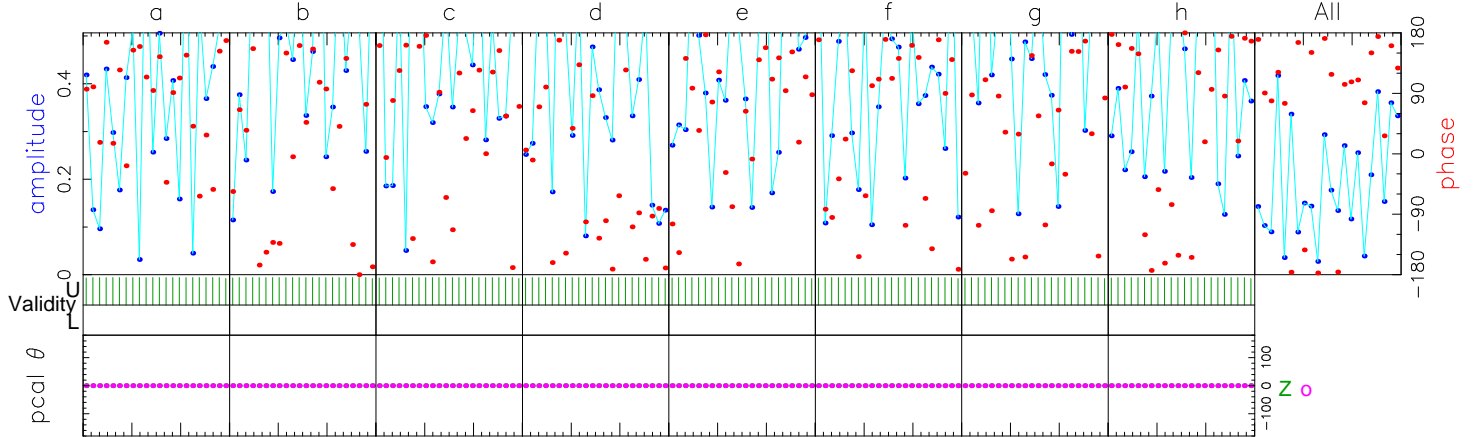


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131751
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-4.96287876986E+03	Apriori delay (usec)	-4.96260244604E+03	Resid mbdelay (usec)	4.92617E-03	+/-	1.9E-04
Sband delay (usec)	-4.96288188704E+03	Apriori clock (usec)	-2.1260168E+01	Resid sbdelay (usec)	-2.79441E-01	+/-	1.5E-03
Phase delay (usec)	-4.96260244143E+03	Apriori clockrate (us/s)	1.1600001E-07	Resid phdelay (usec)	4.61058E-06	+/-	6.5E-07
Delay rate (us/s)	-7.02950250961E-01	Apriori rate (us/s)	-7.02945159755E-01	Resid rate (us/s)	-5.09121E-06	+/-	6.2E-09
Total phase (deg)	-109.7	Apriori accel (us/s/s)	5.15963056010E-05	Resid phase (deg)	143.0	+/-	20.1

ph/seg (deg)	47.1	Theor.	47.2	Amplitude	0.169 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	78.9		82.4	Search (1024X32)	0.151	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	32.1		28.5	Inc. seg. avg.	0.157	Sample rate (MSamp/s):	128	nlags:	256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	29.9		49.7	Inc. frq. avg.	0.161	Data rate (Mb/s):	2048	t_cohere	infinite	ion window (TEC)	0.00	0.00

Z: az 320.6 el 40.1 pa 37.5 o: az 33.4 el 60.7 pa -122.6 u,v (fr/asec) 7748.519 7799.826 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zo..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zo.W.357.1HQXF

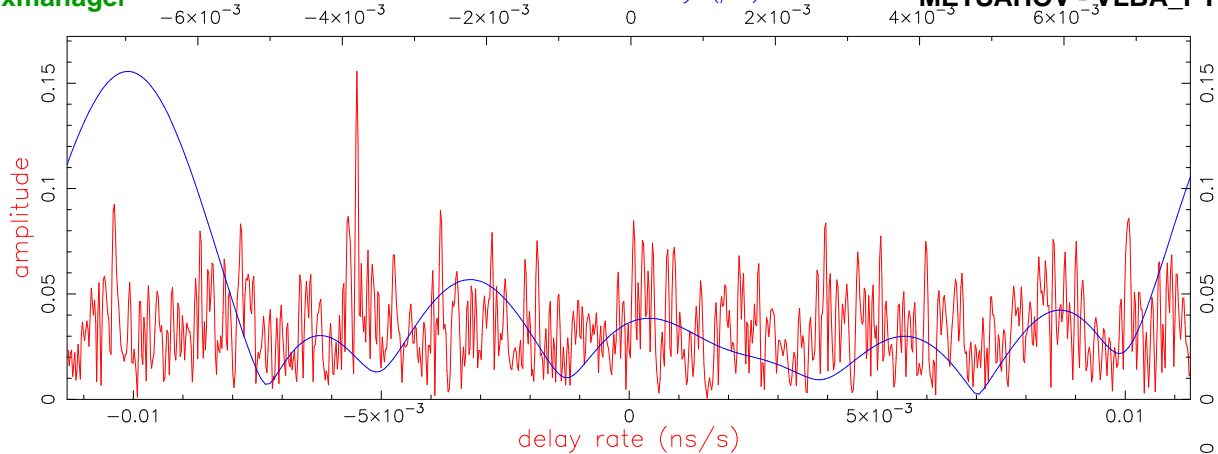
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, Zp

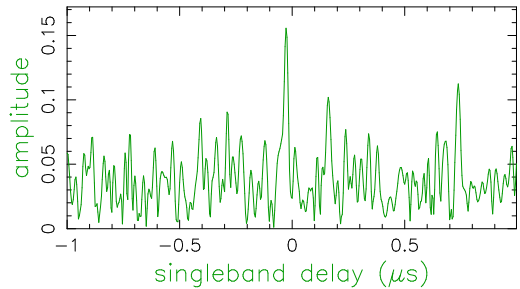
ME TSAHOV - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

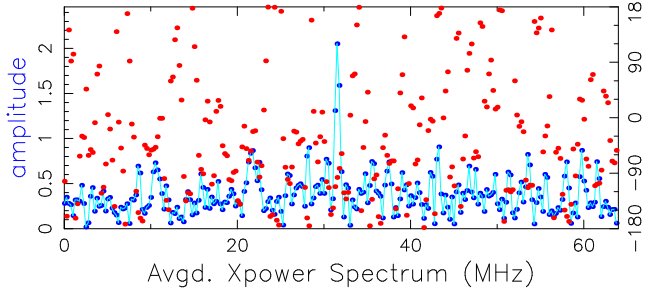


Fringe quality 0

SNR 5.7
 Int time 179.703
 Amp 0.172
 Phase 53.1
 PFD 7.4e-01
 Delays (us)
 SBD -0.026592
 MBD -0.006965
 Fringe rate (Hz)
 -0.474172
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

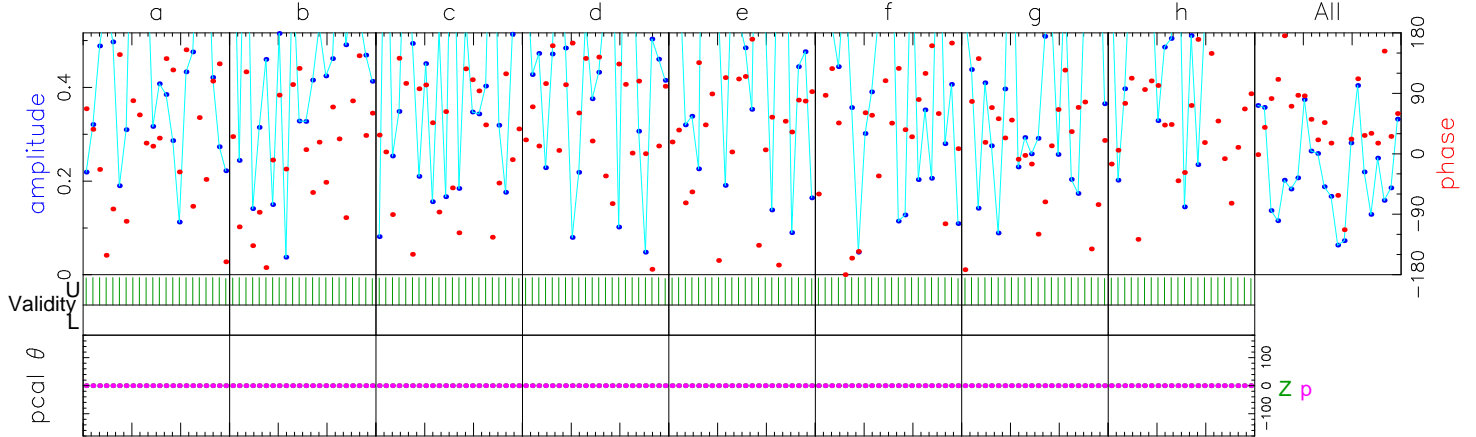


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131747
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-5.18054132934E+03	Apriori delay (usec)	-5.18051873954E+03	Resid mbdelay (usec)	-6.96480E-03	+/-	1.9E-04
Sband delay (usec)	-5.18054533129E+03	Apriori clock (usec)	1.0478687E-01	Resid sbdelay (usec)	-2.65917E-02	+/-	1.5E-03
Phase delay (usec)	-5.18051873783E+03	Apriori clockrate (us/s)	-3.8399996E-07	Resid phdelay (usec)	1.71193E-06	+/-	6.5E-07
Delay rate (us/s)	-6.08214118721E-01	Apriori rate (us/s)	-6.08208614056E-01	Resid rate (us/s)	-5.50467E-06	+/-	6.2E-09
Total phase (deg)	-27.6	Apriori accel (us/s/s)	5.68498185104E-05	Resid phase (deg)	53.1	+/-	20.0

ph/seg (deg)	62.5	Theor.	47.0	Amplitude	0.172 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	74.7		82.0	Search (1024X32)	0.148	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	15.3		28.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	27.1		49.5	Inc. seg. avg.	0.184	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.157	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

Z: az 320.6 el 40.1 pa 37.5 p: az 23.4 el 62.1 pa -141.7 u,v (fr/asec) 6713.860 8669.550 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zp..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zp.W.334.1HQXF

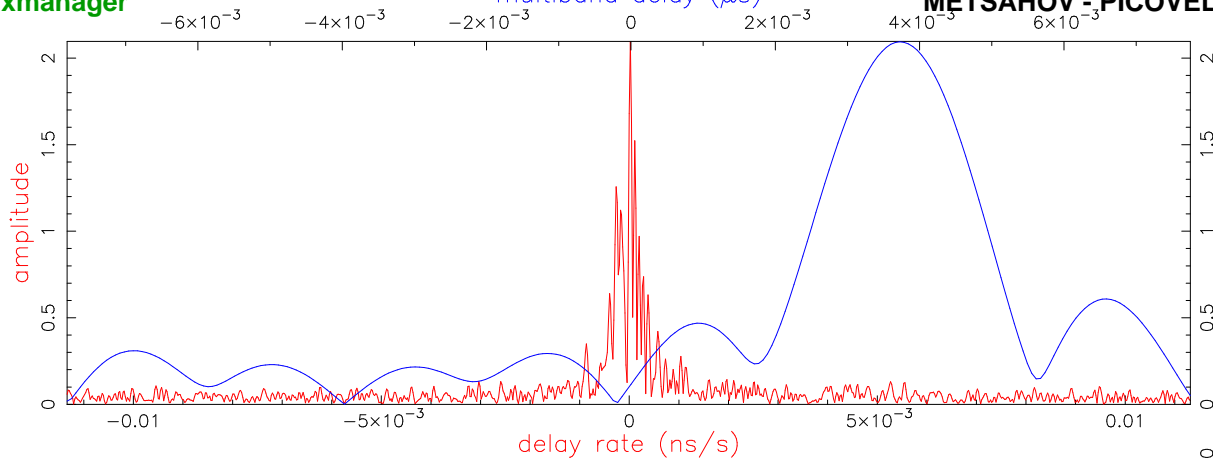
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZP

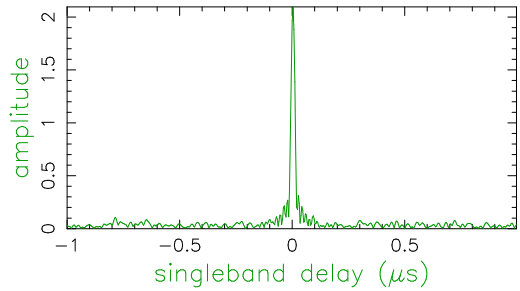
MEṬSAHOV - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

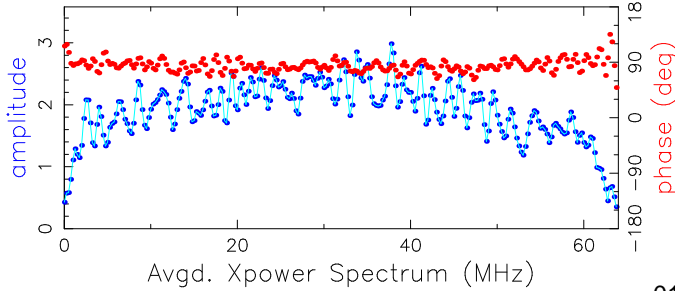


Fringe quality 5

SNR 76.8
 Int time 179.513
 Amp 2.096
 Phase 80.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.003409
 MBD 0.003720
 Fringe rate (Hz)
 0.002437
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

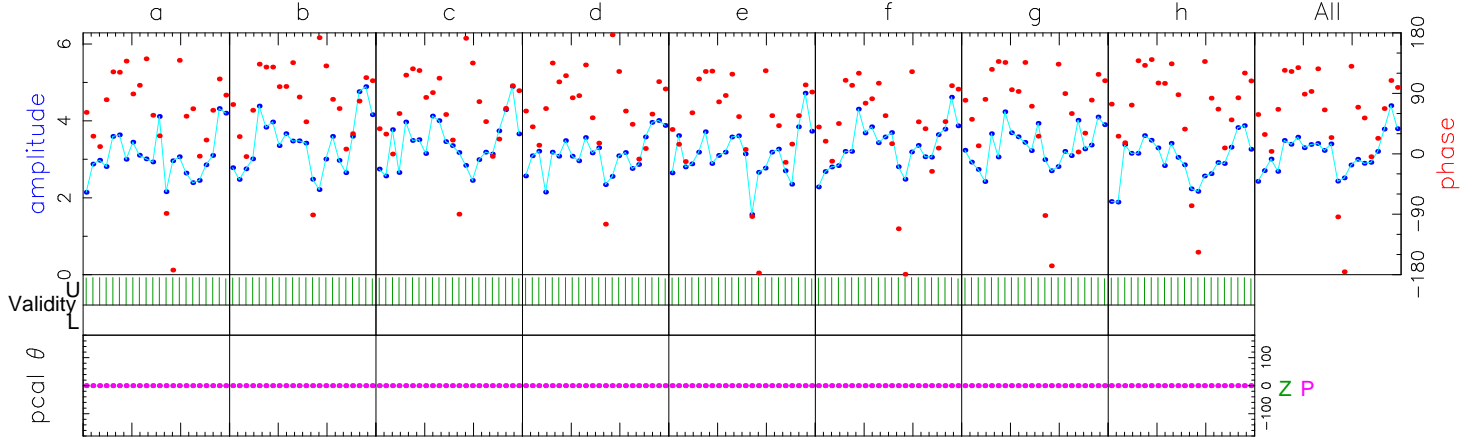


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131747
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.83644794561E+03	Apriori delay (usec)	1.83644422556E+03	Resid mbdelay (usec)	3.72005E-03	+/-	1.4E-05
Sband delay (usec)	1.83644763481E+03	Apriori clock (usec)	3.1977844E-01	Resid sbdelay (usec)	3.40925E-03	+/-	1.1E-04
Phase delay (usec)	1.83644422816E+03	Apriori clockrate (us/s)	4.1600000E-07	Resid phdelay (usec)	2.59279E-06	+/-	4.8E-08
Delay rate (us/s)	2.70452978277E-01	Apriori rate (us/s)	2.70452949984E-01	Resid rate (us/s)	2.82927E-08	+/-	4.6E-10
Total phase (deg)	292.9	Apriori accel (us/s/s)	1.57630133591E-05	Resid phase (deg)	80.4	+/-	1.5

ph/seg (deg)	59.3	Theor.	3.5	Amplitude	2.096 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	56.2		6.1	Search (1024X32)	2.029	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	10.6		2.1	Inc. seg. avg.	3.168	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	6.2		3.7	Inc. frq. avg.	2.120	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
Z: az 320.6 el 40.1 pa 37.5		P: az 321.2 el 33.9 pa 73.4		u, v (fr/asec)	-2953.882 3262.101	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZP..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZP.W.337.1HQXF simultaneous interpolator

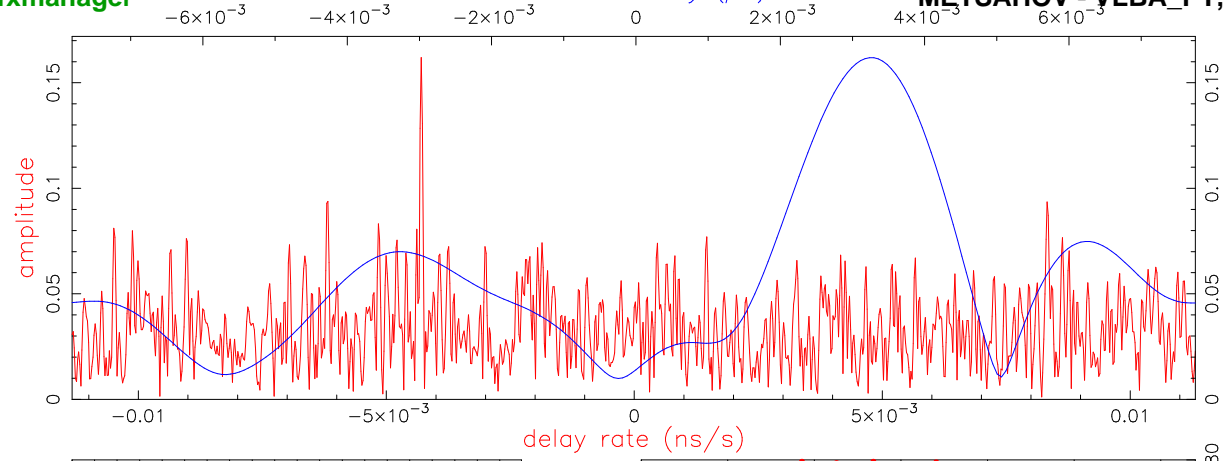
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

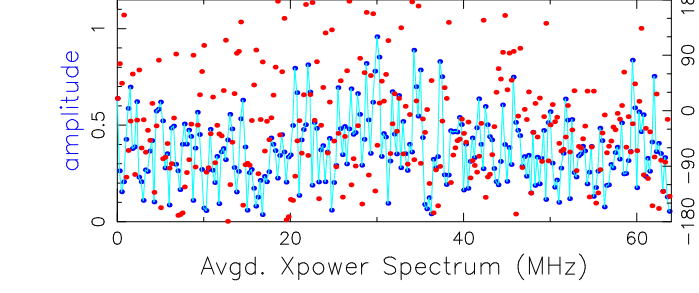
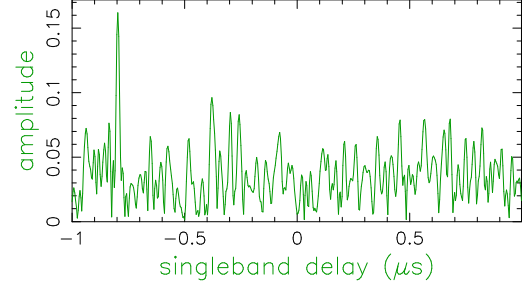
0102+584.1HQXF, No0087, Zp

ME TSAHOV - VLBA_PT, fgroup W, pol RR

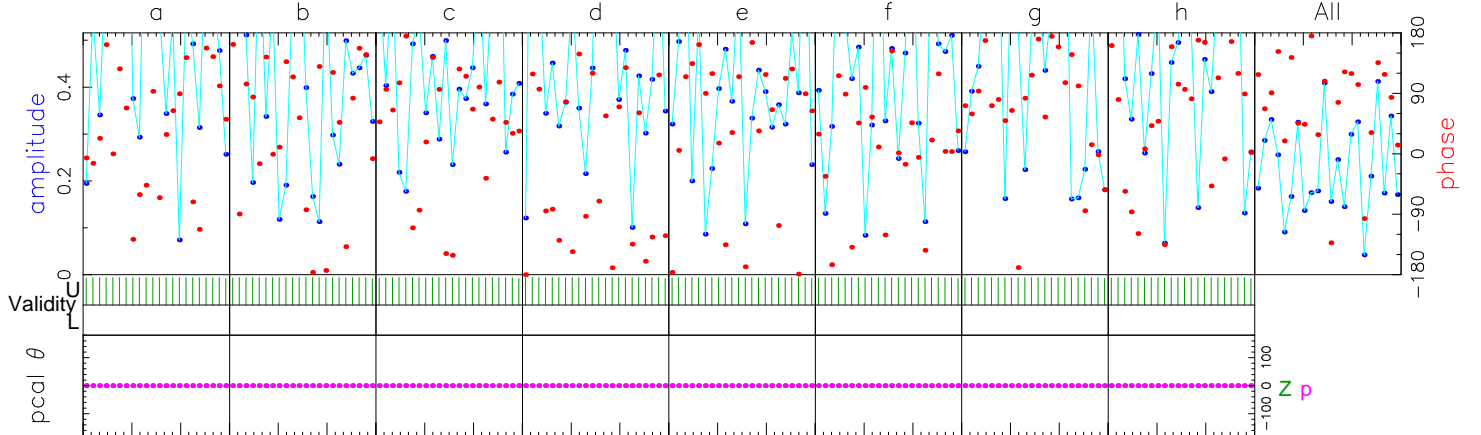
multiband delay (μ s)



Fringe quality 0
 SNR 5.9
 Int time 179.703
 Amp 0.172
 Phase 96.8
 PFD 3.1e-01
 Delays (us)
 SBD -0.796984
 MBD 0.003259
 Fringe rate (Hz) -0.370720
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131749
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-5.18131235549E+03		Apriori delay (usec)		-5.18051873954E+03		Resid mbdelay (usec)		3.25906E-03	+/- 1.8E-04
Sband delay (usec)	-5.18131572329E+03		Apriori clock (usec)		1.0478687E-01		Resid sbdelay (usec)		-7.96984E-01	+/- 1.5E-03
Phase delay (usec)	-5.18051873642E+03		Apriori clockrate (us/s)		-3.8399996E-07		Resid phdelay (usec)		3.12042E-06	+/- 6.2E-07
Delay rate (us/s)	-6.08212917747E-01		Apriori rate (us/s)		-6.08208614056E-01		Resid rate (us/s)		-4.30369E-06	+/- 6.0E-09
Total phase (deg)			Apriori accel (us/s/s)		5.68498185104E-05		Resid phase (deg)		96.8	+/- 19.3
ph/seg (deg)	RMS 63.6	Theor. 45.3	Amplitude 0.172 +/- 0.029		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
amp/seg (%)	73.5	79.0	Search (1024X32) 0.153		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	35.5	27.3	Inc. seg. avg. 0.186		Sample rate(MISamp/s): 128		Data rate(Mb/s): 2048		dr window (ns/s)	-0.011 0.011
amp/frq (%)	32.8	47.6	Inc. frq. avg. 0.178		nlags: 256 t_cohere infinite		ion window (TEC)		0.00 0.00	
Z: az 320.6 el 40.1 pa 37.5	p: az 23.4 el 62.1 pa -141.7		u,v (fr/asec) 6713.860 8669.550						simultaneous interpolator	
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zp..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zp.W.344.1HQXF										

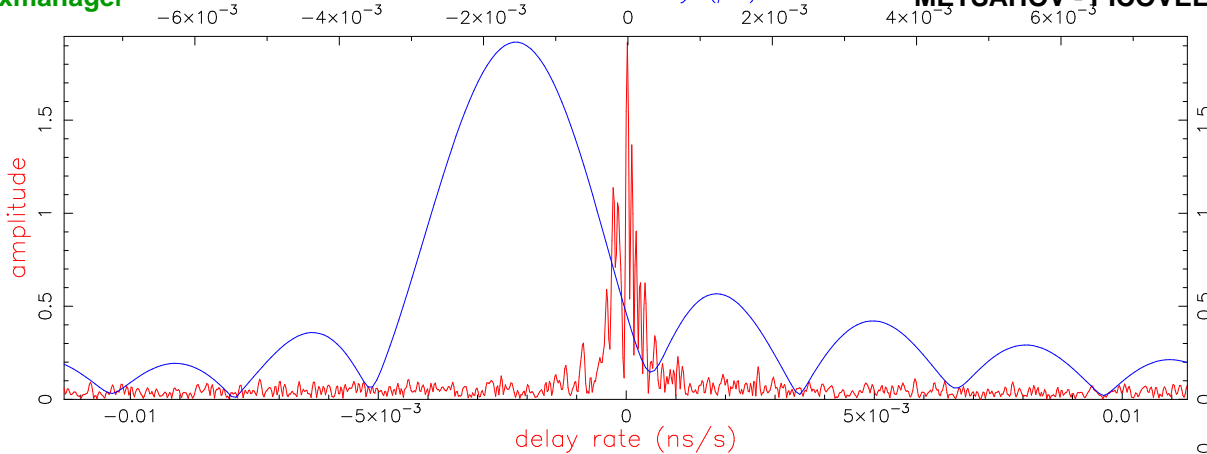
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZP

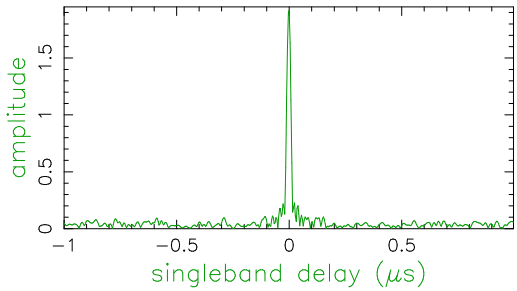
MEṬSAHOV - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

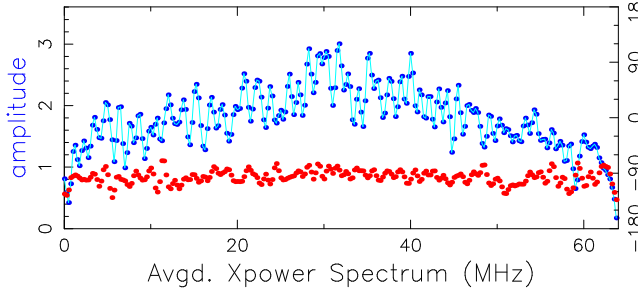


Fringe quality 5

SNR 71.5
 Int time 179.513
 Amp 1.950
 Phase -96.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.001752
 MBD -0.001594
 Fringe rate (Hz) 0.002457
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

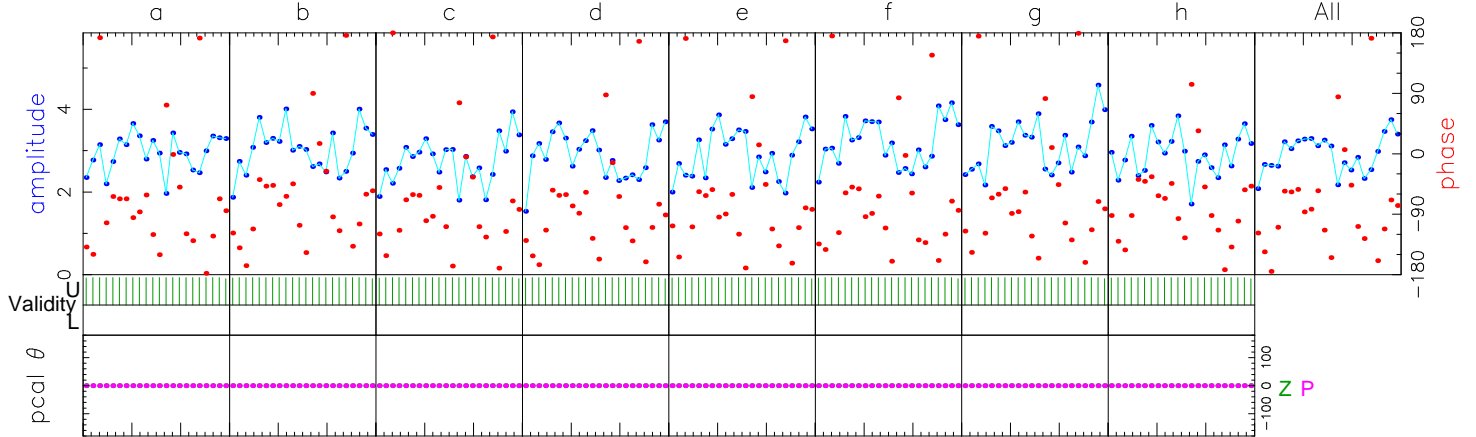


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131749
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-103.4	-84.8	-100.9	-101.3	-100.9	-103.5	-99.8	-80.8	Phase	-96.9
	1.9	1.9	1.8	2.0	1.9	2.0	2.1	2.0	Ampl.	1.9
	256.0	256.3	256.5	256.7	256.9	256.6	256.8	256.5	Sbd box	256.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.83644263202E+03	Apriori delay (usec)	1.83644422556E+03	Resid mbdelay (usec)	-1.59354E-03	+/-	1.5E-05
Sband delay (usec)	1.83644247331E+03	Apriori clock (usec)	3.1977844E-01	Resid sbdelay (usec)	-1.75225E-03	+/-	1.2E-04
Phase delay (usec)	1.83644422244E+03	Apriori clockrate (us/s)	4.1600000E-07	Resid phdelay (usec)	-3.12477E-06	+/-	5.2E-08
Delay rate (us/s)	2.70452978512E-01	Apriori rate (us/s)	2.70452949984E-01	Resid rate (us/s)	2.85279E-08	+/-	5.0E-10
Total phase (deg)	115.6	Apriori accel (us/s/s)	1.57630133591E-05	Resid phase (deg)	-96.9	+/-	1.6

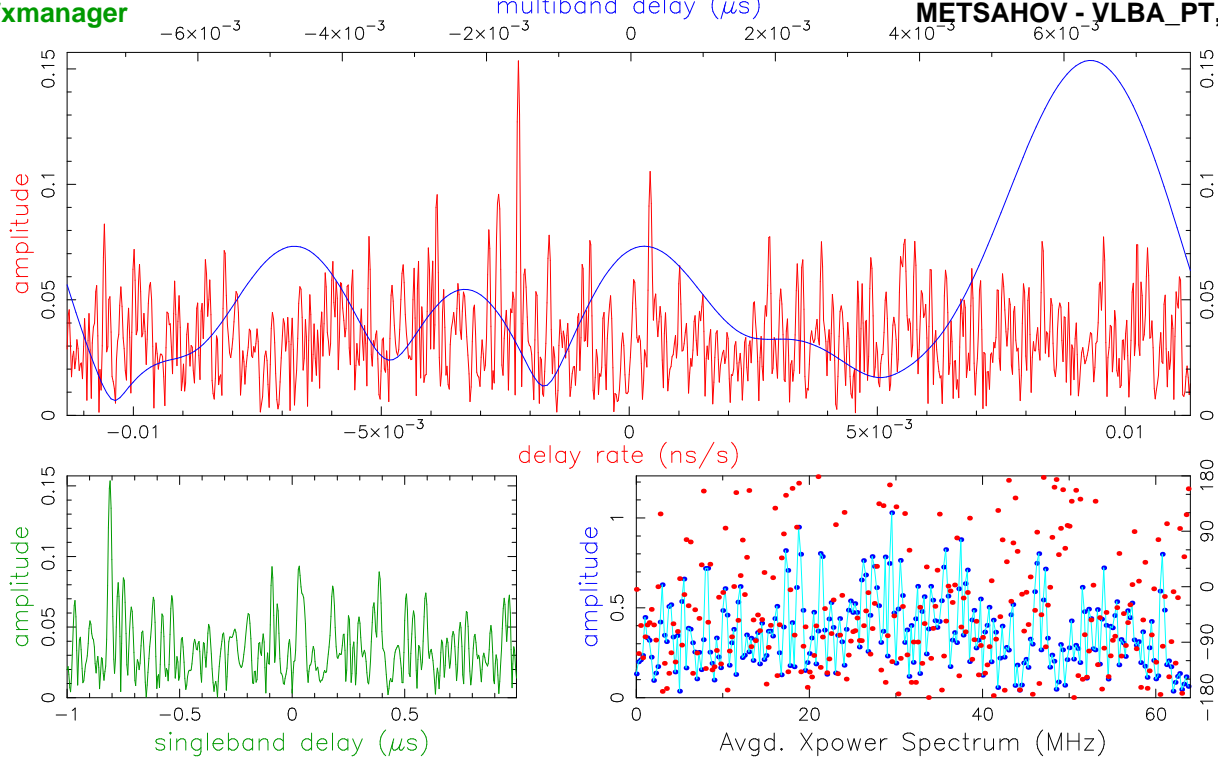
ph/seg (deg)	60.2	RMS	3.8	Theor.	1.950 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	54.5	Search (1024X32)	1.878	Amplitude	1.950 +/- 0.027	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	9.6	Inc. seg. avg.	2.916	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	4.4	Inc. frq. avg.	1.937	Inc. seg. avg.	2.916	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
Z: az 320.6 el 40.1 pa 37.5		P: az 321.2 el 33.9 pa 73.4		Inc. frq. avg.	1.937	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	
Control file: cf_1234_gmva		Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZP..1HQXF		u,v (fr/asec)	-2953.882 3262.101	nlags:	256	t_cohere	infinite	
						simultaneous interpolator				
						Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZP.W.347.1HQXF				

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

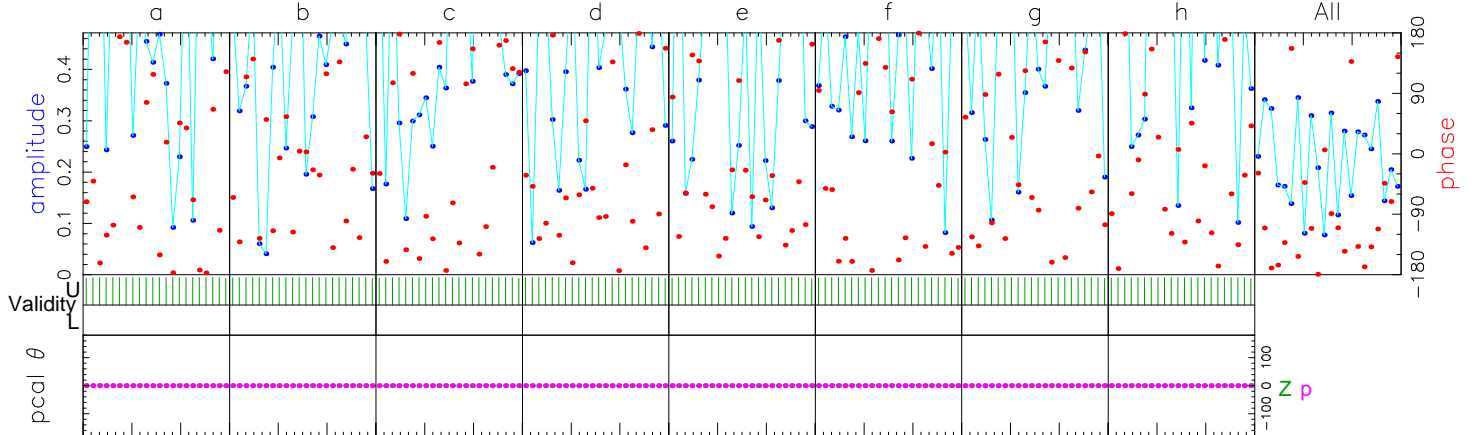
0102+584.1HQXF, No0087, Zp

MEṬSAHOV - VLBA_PT, fgroup W, pol LR



Fringe quality 0
 SNR 5.7
 Int time 179.703
 Amp 0.157
 Phase -132.2
 PFD 8.3e-01
 Delays (us)
 SBD -0.809739
 MBD 0.006319
 Fringe rate (Hz)
 -0.193556
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131750
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-162.2	-48.5	-164.9	-116.6	-109.7	-164.5	-151.7	-120.2	Phase	-132.2
	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.2	Ampl.	0.2
	304.8	399.5	120.9	257.2	49.8	436.9	409.8	50.0	Sbd box	49.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.18132492028E+03		Apriori delay (usec)		-5.18051873954E+03		Resid mbdelay (usec)		6.31927E-03	+/- 1.9E-04
Sband delay (usec)	-5.18132847829E+03		Apriori clock (usec)		1.0478687E-01		Resid sbdelay (usec)		-8.09739E-01	+/- 1.5E-03
Phase delay (usec)	-5.18051874381E+03		Apriori clockrate (us/s)		-3.8399996E-07		Resid phdelay (usec)		-4.26299E-06	+/- 6.5E-07
Delay rate (us/s)	-6.08210861047E-01		Apriori rate (us/s)		-6.08208614056E-01		Resid rate (us/s)		-2.24699E-06	+/- 6.3E-09
Total phase (deg)			Apriori accel (us/s/s)		5.68498185104E-05		Resid phase (deg)		-132.2	+/- 20.2

ph/seg (deg) 60.2 47.4 Search (1024X32) 0.145 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.6 82.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.4 28.6 Inc. seg. avg. 0.170 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 40.0 49.9 Inc. frq. avg. 0.162 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 320.6 el 40.1 pa 37.5 p: az 23.4 el 62.1 pa -141.7 u,v (fr/asec) 6713.860 8669.550 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zp..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zp.W.352.1HQXF

Mk4/DiFX fourfit 3.21 rev 2937

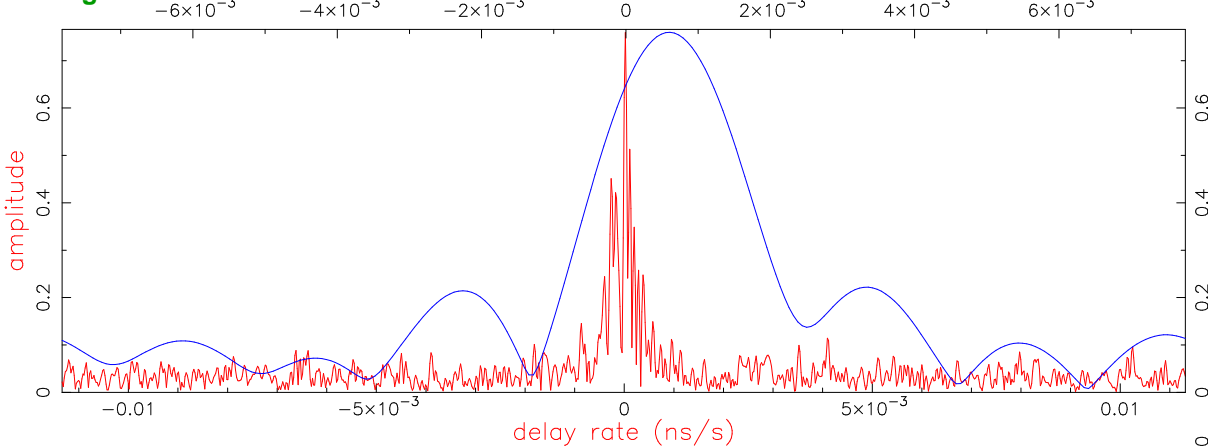
fxmanager

0102+584.1HQXF, No0087, ZP

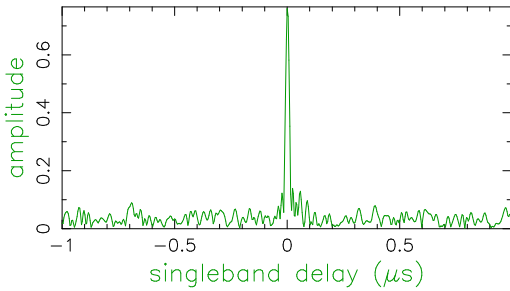
MEṬSAHOV - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

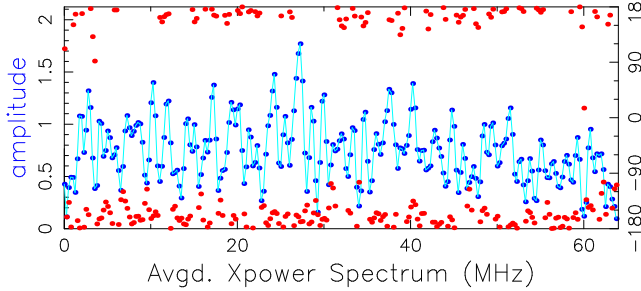
Fringe quality 7



SNR 28.1
 Int time 179.513
 Amp 0.766
 Phase -165.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.001205
 MBD 0.000632
 Fringe rate (Hz) 0.002363
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

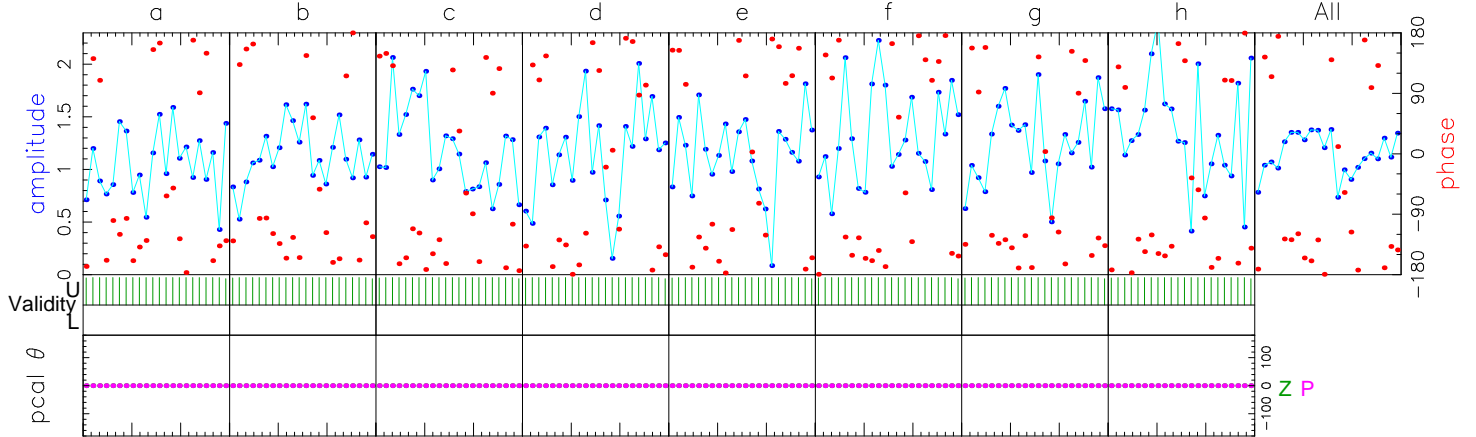


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131751
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
Group delay (usec)(sbd)	-155.4	-149.2	-168.8	177.4	178.8	-168.1	-160.7	-160.3	Phase	-165.6
Sband delay (usec)	0.6	0.8	0.7	0.7	0.7	1.0	0.8	0.9	Ampl.	0.8
Phase delay (usec)	258.1	257.6	257.2	256.9	257.8	257.0	257.4	257.1	Sbd box	257.3
Delay rate (us/s)	258.1	257.6	257.2	256.9	257.8	257.0	257.4	257.1	APs used	
Total phase (deg)	46.9								PC freqs	
									PC freqs	
									PC phase	
									Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.83644485740E+03		Apriori delay (usec)	1.83644422556E+03	Resid mbdelay (usec)	6.31831E-04	+/-	3.9E-05		
Sband delay (usec)	1.83644543031E+03		Apriori clock (usec)	3.1977844E-01	Resid sbdelay (usec)	1.20475E-03	+/-	3.1E-04		
Phase delay (usec)	1.83644422023E+03		Apriori clockrate (us/s)	4.1600000E-07	Resid phdelay (usec)	-5.33975E-06	+/-	1.3E-07		
Delay rate (us/s)	2.70452977414E-01		Apriori rate (us/s)	2.70452949984E-01	Resid rate (us/s)	2.74297E-08	+/-	1.3E-09		
Total phase (deg)	46.9		Apriori accel (us/s/s)	1.57630133591E-05	Resid phase (deg)	-165.6	+/-	4.1		

ph/seg (deg) 60.2 9.6 Search (1024X32) 0.748 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 55.6 16.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 12.8 5.8 Inc. seg. avg. 1.132 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 14.1 10.1 Inc. frq. avg. 0.769 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 320.6 el 40.1 pa 37.5 P: az 321.2 el 33.9 pa 73.4 u,v (fr/asec) -2953.882 3262.101 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZP..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZP.W.356.1HQXF

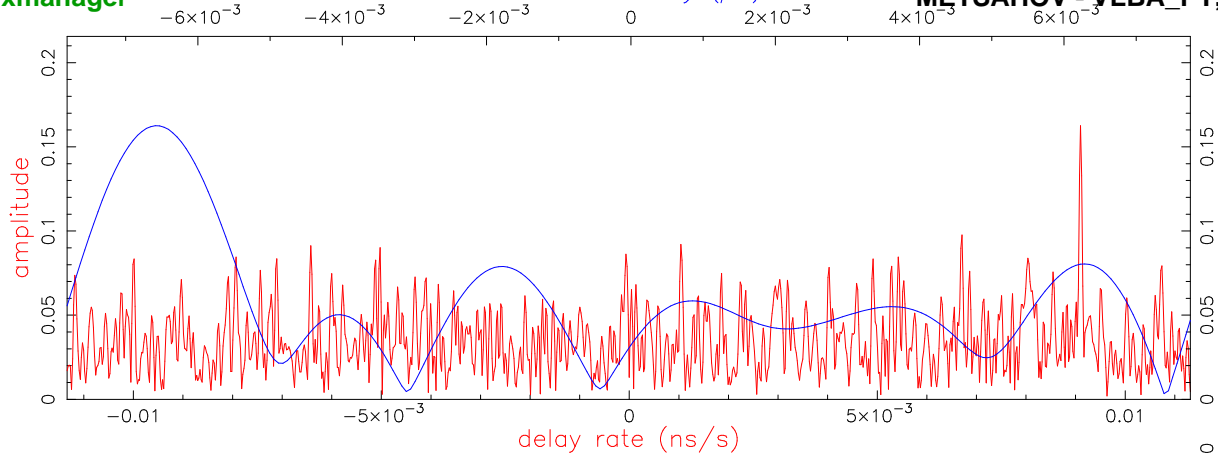
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, Zp

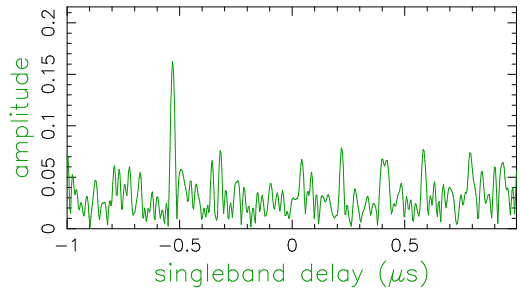
MEṬSAHOV - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

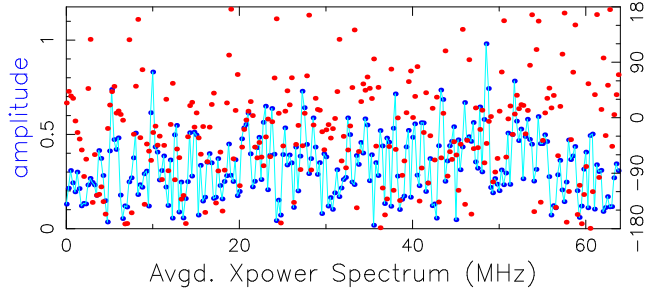


Fringe quality 0

SNR 6.0
 Int time 179.703
 Amp 0.216
 Phase 55.8
 PFD 2.8e-01
 Delays (us)
 SBD -0.531022
 MBD -0.006566
 Fringe rate (Hz)
 0.785938
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

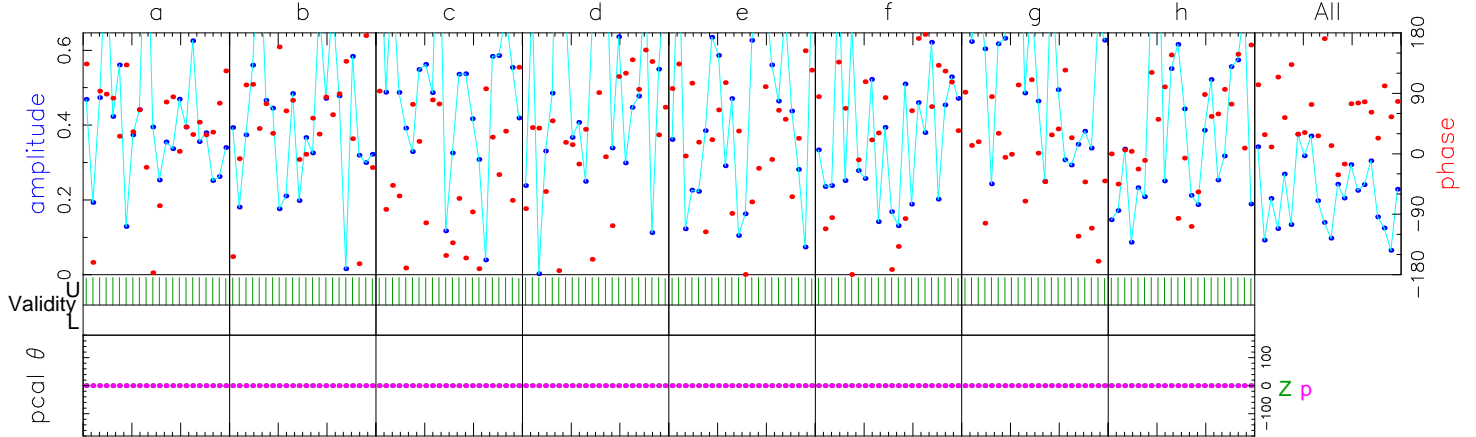


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131752
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-5.1810565556E+03	Apriori delay (usec)	-5.18051873954E+03	Resid mbdelay (usec)	-6.56601E-03	+/-	1.8E-04
Sband delay (usec)	-5.18104976129E+03	Apriori clock (usec)	1.0478687E-01	Resid sbdelay (usec)	-5.31022E-01	+/-	1.4E-03
Phase delay (usec)	-5.18051873774E+03	Apriori clockrate (us/s)	-3.8399996E-07	Resid phdelay (usec)	1.80039E-06	+/-	6.2E-07
Delay rate (us/s)	-6.08199490100E-01	Apriori rate (us/s)	-6.08208614056E-01	Resid rate (us/s)	9.12396E-06	+/-	6.0E-09
Total phase (deg)		Apriori accel (us/s/s)	5.68498185104E-05	Resid phase (deg)	55.8	+/-	19.2

ph/seg (deg)	47.5	Theor.	45.1	Amplitude	0.216 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	64.5		78.7	Search (1024X32)	0.161	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	40.2		27.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	37.2		47.5	Inc. seg. avg.	0.219	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
				Inc. frq. avg.	0.220	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
Z: az 320.6 el 40.1 pa 37.5		p: az 23.4 el 62.1 pa -141.7		u,v (fr/asec)	6713.860 8669.550		simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zp..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/Zp.W.358.1HQXF

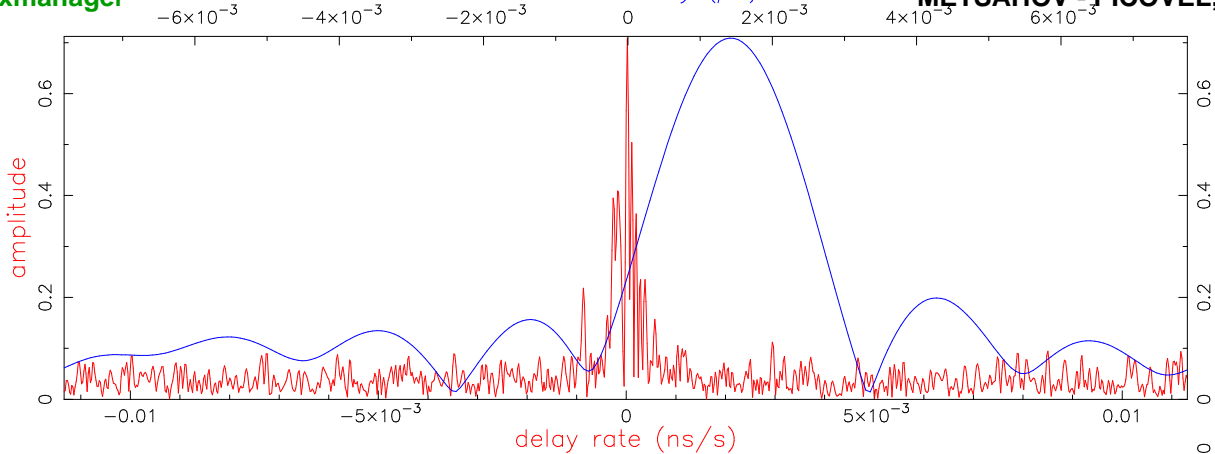
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZP

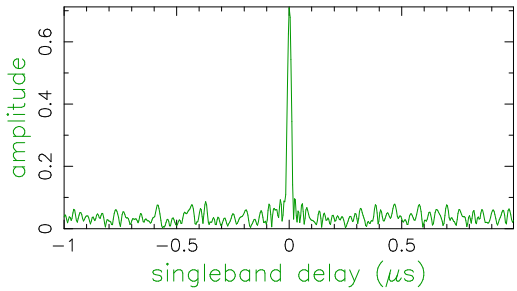
MEṬSAHOV - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

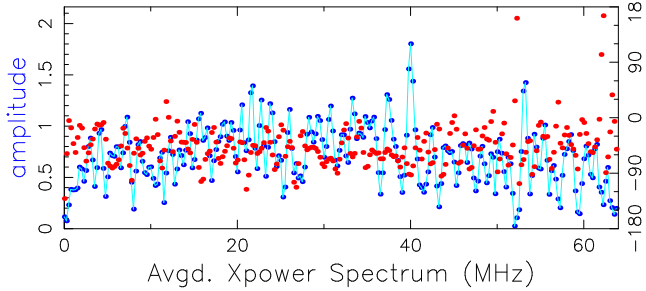


Fringe quality 7

SNR 26.1
 Int time 179.513
 Amp 0.712
 Phase -57.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.000947
 MBD 0.001444
 Fringe rate (Hz) 0.002349
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

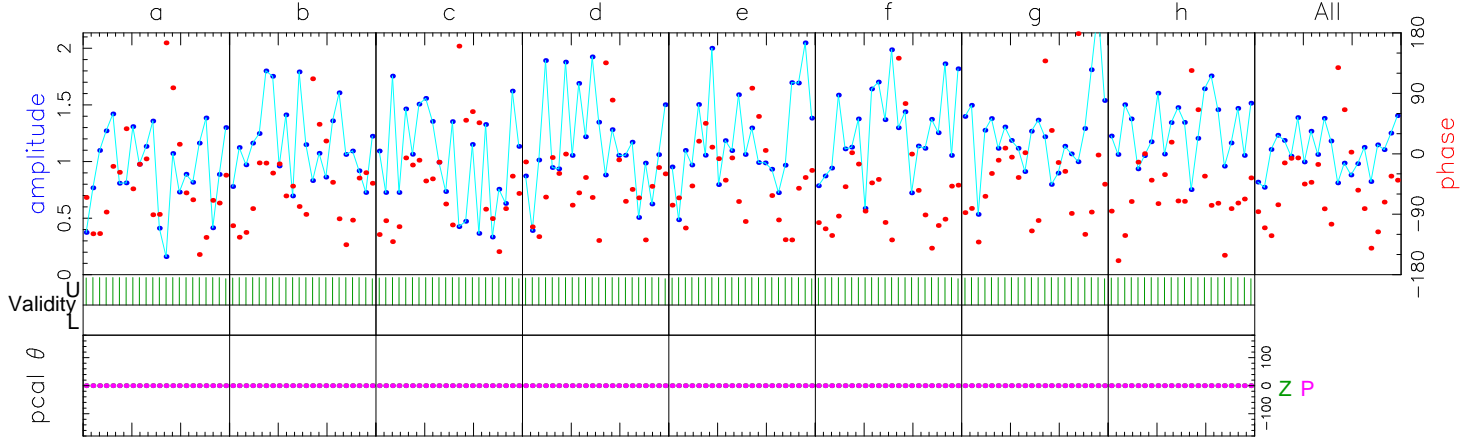


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131752
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-61.7	-57.5	-57.3	-49.9	-38.7	-75.9	-52.4	-62.0	Phase	-57.1
	0.6	0.8	0.6	0.8	0.7	0.8	0.7	0.9	Ampl.	0.7
	257.3	256.9	257.2	257.0	257.4	257.0	257.8	257.3	Sbd box	257.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.83644566955E+03	Apriori delay (usec)	1.83644422556E+03	Resid mbdelay (usec)	1.44399E-03	+/-	4.2E-05
Sband delay (usec)	1.83644517281E+03	Apriori clock (usec)	3.1977844E-01	Resid sbdelay (usec)	9.47250E-04	+/-	3.3E-04
Phase delay (usec)	1.83644422372E+03	Apriori clockrate (us/s)	4.1600000E-07	Resid phdelay (usec)	-1.84182E-06	+/-	1.4E-07
Delay rate (us/s)	2.70452977254E-01	Apriori rate (us/s)	2.70452949984E-01	Resid rate (us/s)	2.72695E-08	+/-	1.4E-09
Total phase (deg)	155.3	Apriori accel (us/s/s)	1.57630133591E-05	Resid phase (deg)	-57.1	+/-	4.4

ph/seg (deg)	60.9	RMS	10.3	Theor.	10.3	Amplitude	0.712 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	59.0	Search (1024X32)	0.699	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	11.6	Inc. seg. avg.	1.071	Inc. frq. avg.	0.716	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	13.1	Inc. frq. avg.	0.716	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 320.6 el 40.1 pa 37.5 P: az 321.2 el 33.9 pa 73.4 u,v (fr/asec) -2953.882 3262.101 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZP..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZP.W.361.1HQXF

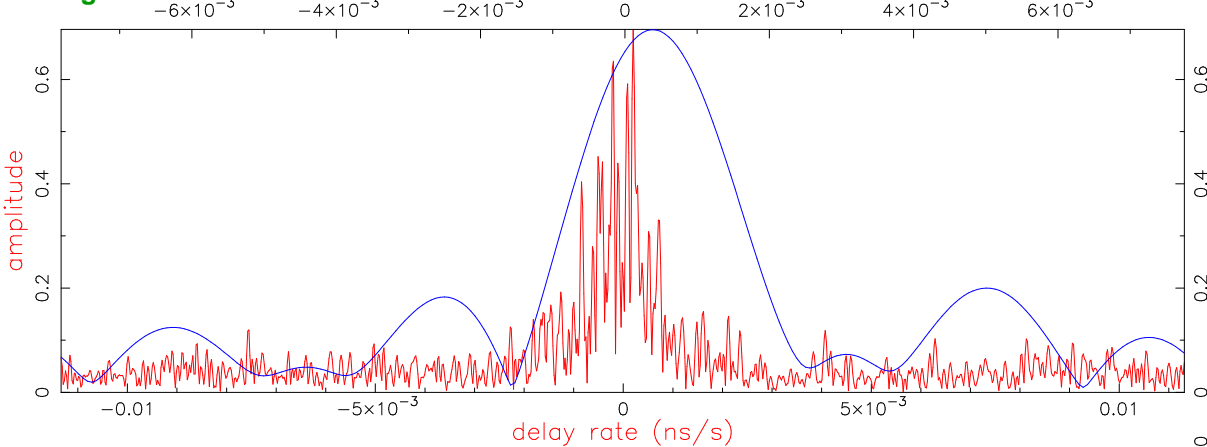
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZX

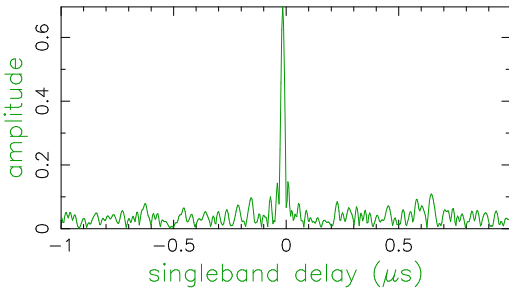
METSAHOV - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

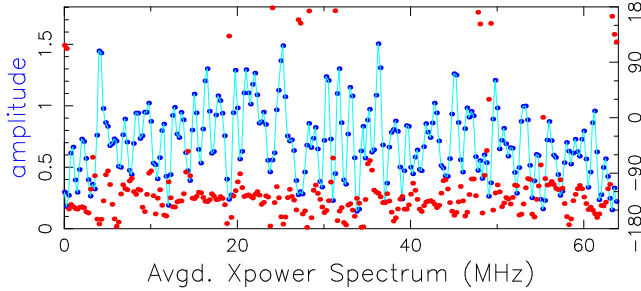


Fringe quality 7

SNR 25.5
 Int time 179.703
 Amp 0.696
 Phase 44.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.015307
 MBD 0.000394
 Fringe rate (Hz) 0.016272
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

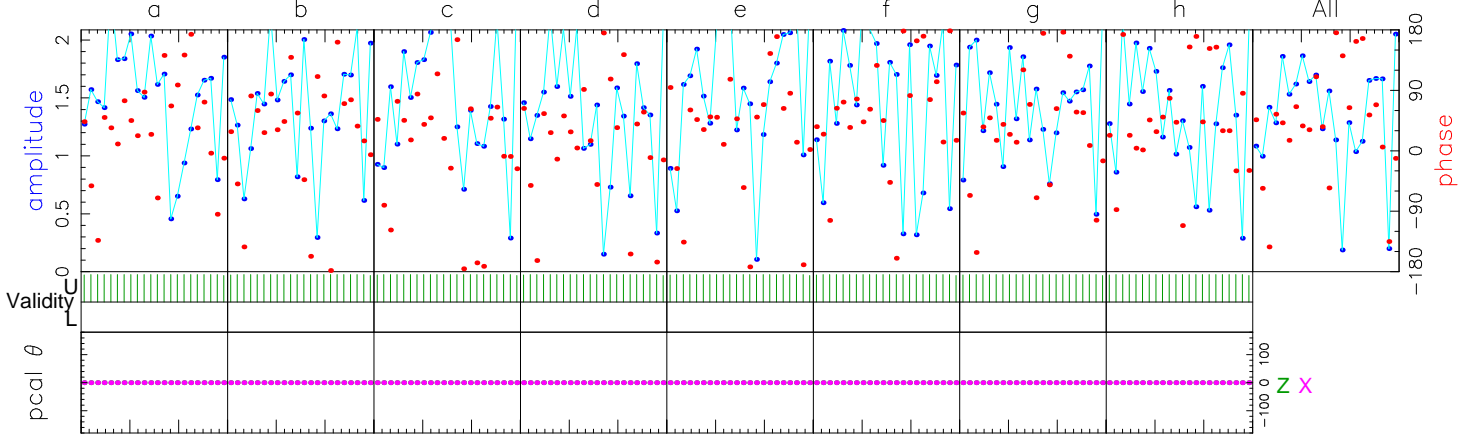


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131747
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-6.63053538373E+02	Apriori delay (usec)	-6.63038307695E+02	Resid mbdelay (usec)	3.94322E-04	+/-	4.3E-05
Sband delay (usec)	-6.63053614695E+02	Apriori clock (usec)	-4.8138390E+01	Resid sbdelay (usec)	-1.53070E-02	+/-	3.4E-04
Phase delay (usec)	-6.63038306260E+02	Apriori clockrate (us/s)	-5.1200000E-07	Resid phdelay (usec)	1.43466E-06	+/-	1.4E-07
Delay rate (us/s)	5.75742076560E-02	Apriori rate (us/s)	5.75740187531E-02	Resid rate (us/s)	1.88903E-07	+/-	1.4E-09
Total phase (deg)	-252.4	Apriori accel (us/s/s)	5.73232406541E-06	Resid phase (deg)	44.5	+/-	4.5

ph/seg (deg)	82.4	Theor.	10.5	Amplitude	0.696 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	115.6	Search (1024X32)	0.662	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	14.3	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	12.7	Inc. seg. avg.	1.331	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.709	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00	

Z: az 320.6 el 40.1 pa 37.5 X: az 315.8 el 42.3 pa 46.4 u,v (fr/asec) -626.707 856.279 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZX..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZX.W.338.1HQXF

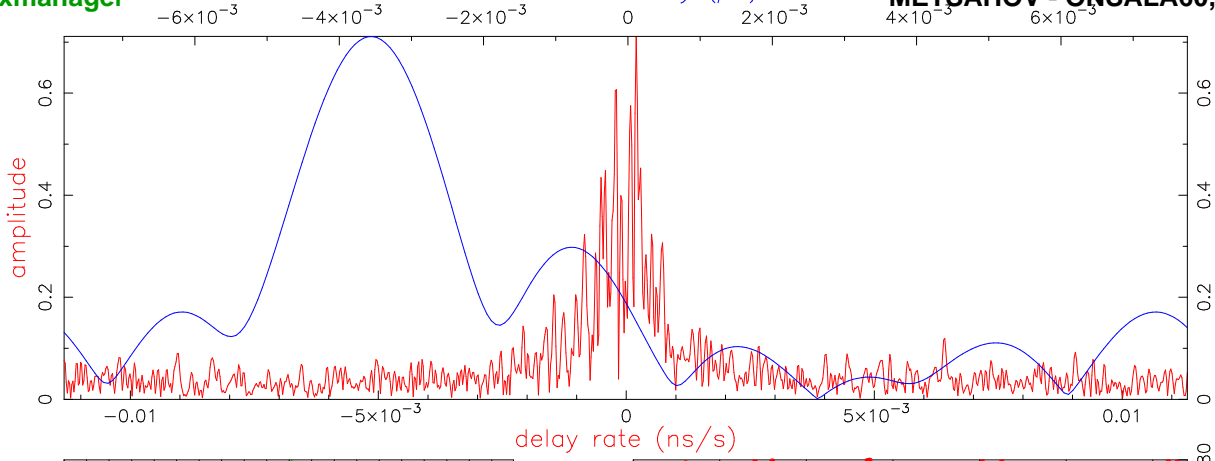
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZX

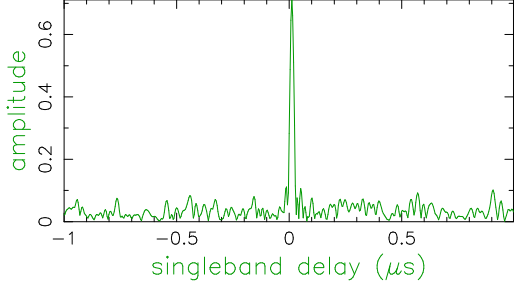
METSÁHOV - ONSALA60, fgroup W, pol RR

multiband delay (μ s)

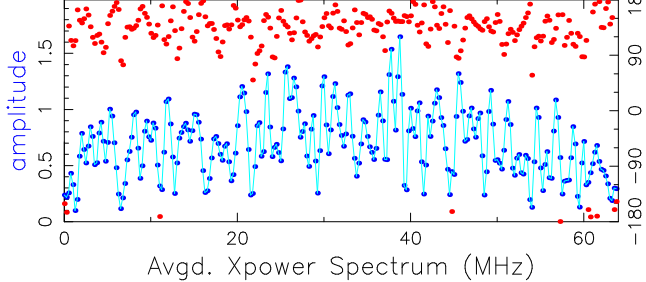


Fringe quality 7

SNR 26.1
 Int time 179.703
 Amp 0.711
 Phase -43.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.011978
 MBD -0.003553
 Fringe rate (Hz)
 0.016280
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

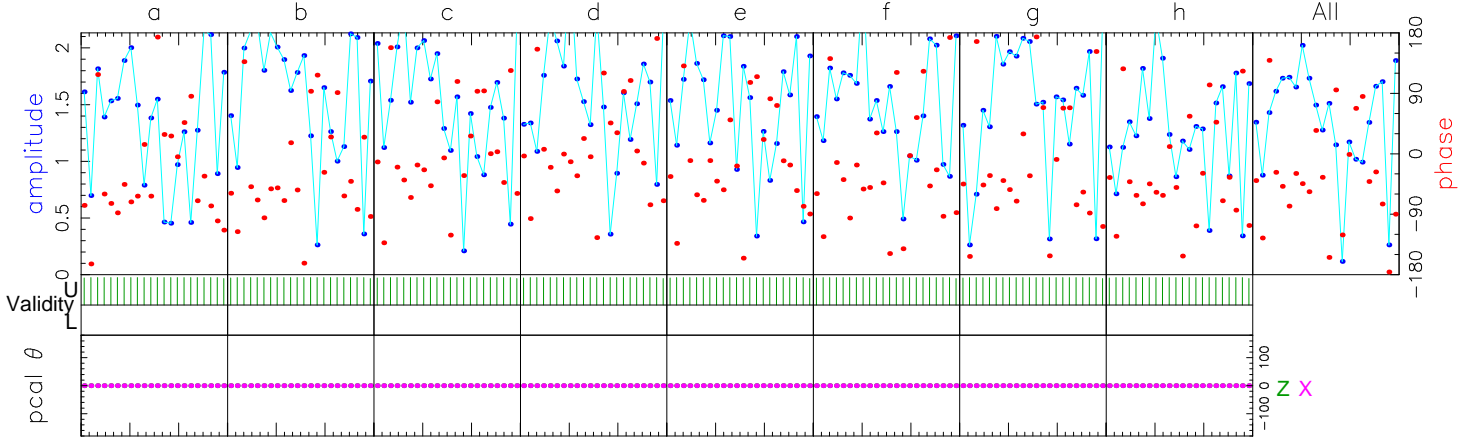


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131749
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-64.7	-58.9	-15.4	-18.2	-28.3	-53.0	-48.9	-57.9	Phase	-43.6
	0.8	0.9	0.8	0.8	0.7	0.6	0.8	0.8	Ampl.	0.7
	259.4	260.3	260.3	260.0	260.2	260.2	259.9	259.6	Sbd box	260.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-6.63026236029E+02	Apriori delay (usec)	-6.63038307695E+02	Resid mbdelay (usec)	-3.55333E-03	+/-	4.2E-05
Sband delay (usec)	-6.63026330195E+02	Apriori clock (usec)	-4.8138390E+01	Resid sbdelay (usec)	1.19775E-02	+/-	3.3E-04
Phase delay (usec)	-6.63038309100E+02	Apriori clockrate (us/s)	-5.1200000E-07	Resid phdelay (usec)	-1.40572E-06	+/-	1.4E-07
Delay rate (us/s)	5.75742077467E-02	Apriori rate (us/s)	5.75740187531E-02	Resid rate (us/s)	1.88994E-07	+/-	1.4E-09
Total phase (deg)	-340.5	Apriori accel (us/s/s)	5.73232406541E-06	Resid phase (deg)	-43.6	+/-	4.4

ph/seg (deg)	RMS 78.5	Theor. 10.3	Amplitude Search (1024X32)	0.711 +/- 0.027	0.673	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	111.7	18.0	Interp.	0.000	0.000E+00	0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	21.1	6.2	Inc. seg. avg.	1.330	128	2048	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	10.8	10.8	Inc. frq. avg.	0.745	infinite	ion window (TEC)		ion window (TEC)	0.00	0.00

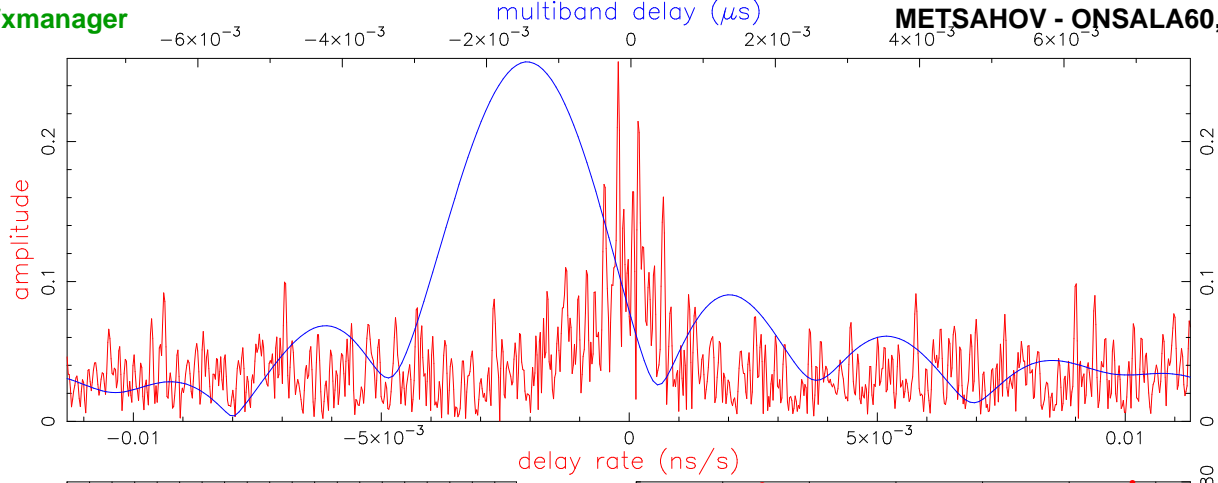
Z: az 320.6 el 40.1 pa 37.5 X: az 315.8 el 42.3 pa 46.4 u,v (fr/asec) -626.707 856.279 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZX..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZX.W.346.1HQXF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZX

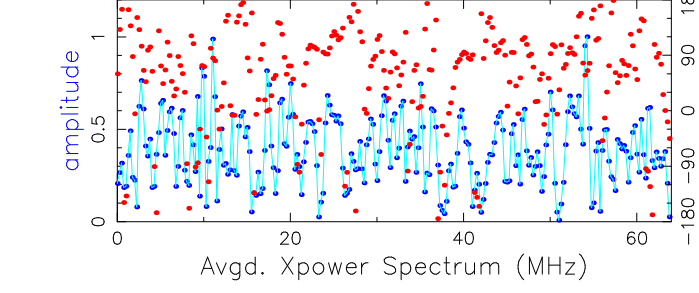
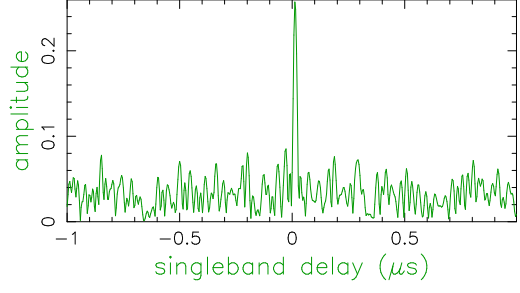
METSAHOV - ONSALA60, fgroup W, pol LR



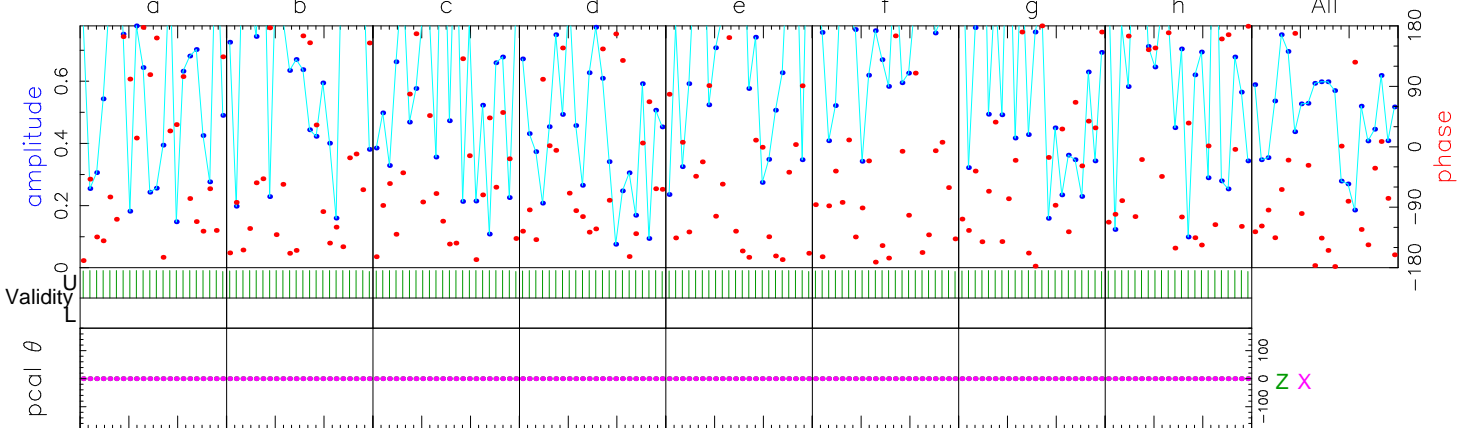
Fringe quality 9

SNR 9.5
 Int time 179.703
 Amp 0.260
 Phase -109.6
 PFD 3.8e-13
 Delays (us)
 SBD 0.012967
 MBD -0.001411
 Fringe rate (Hz)
 -0.018677
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131750
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-130.7	-108.9	-93.1	-97.2	-100.2	-107.6	-118.1	-120.1	Phase	-109.6
	0.2	0.4	0.2	0.2	0.2	0.3	0.2	0.3	Ampl.	0.3
	204.5	260.5	28.6	300.5	262.4	260.4	428.8	259.8	Sbd box	260.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-6.63024094066E+02		Apriori delay (usec)		-6.63038307695E+02		Resid mbdelay (usec)		-1.41137E-03	+/- 1.1E-04
Sband delay (usec)	-6.63025340945E+02		Apriori clock (usec)		-4.8138390E+01		Resid sbdelay (usec)		1.29668E-02	+/- 9.1E-04
Phase delay (usec)	-6.63038311230E+02		Apriori clockrate (us/s)		-5.1200000E-07		Resid phdelay (usec)		-3.53544E-06	+/- 3.9E-07
Delay rate (us/s)	5.75738019359E-02		Apriori rate (us/s)		5.75740187531E-02		Resid rate (us/s)		-2.16817E-07	+/- 3.7E-09
Total phase (deg)			Apriori accel (us/s/s)		5.73232406541E-06		Resid phase (deg)		-109.6	+/- 12.0

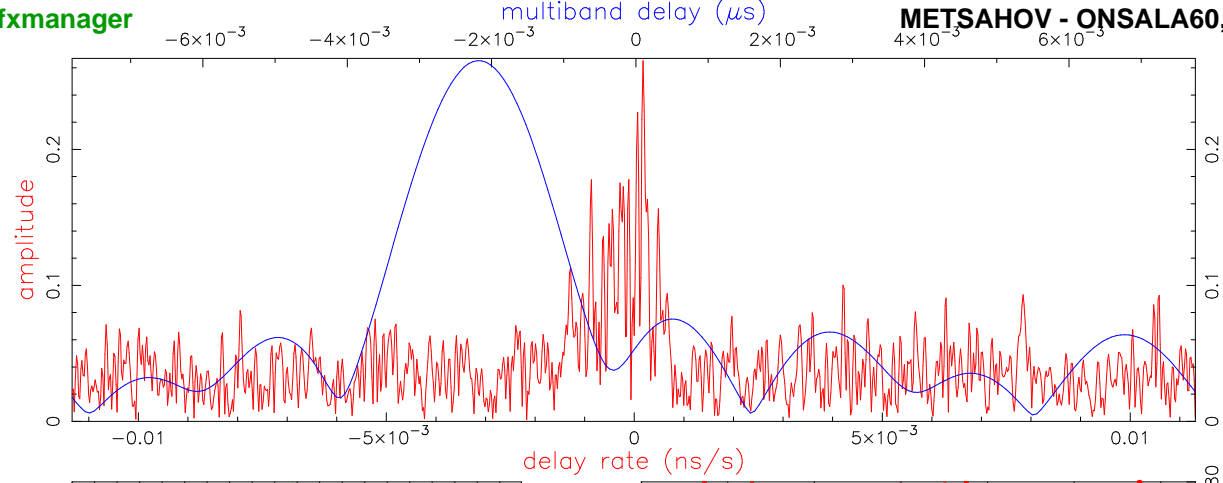
ph/seg (deg) 64.1 28.3 Search (1024X32) 0.254 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 103.8 49.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 13.8 17.0 Inc. seg. avg. 0.437 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 22.0 29.7 Inc. frq. avg. 0.251 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 320.6 el 40.1 pa 37.5 X: az 315.8 el 42.3 pa 46.4 u,v (fr/asec) -626.707 856.279 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZX..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZX.W.354.1HQXF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZX

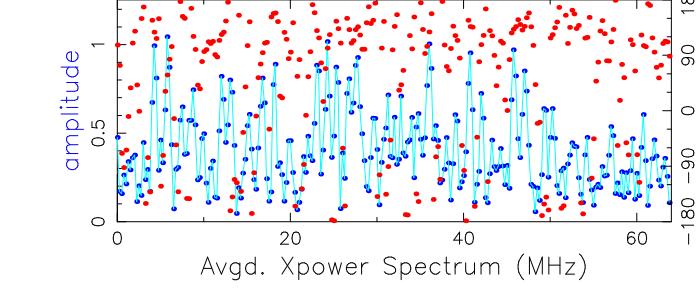
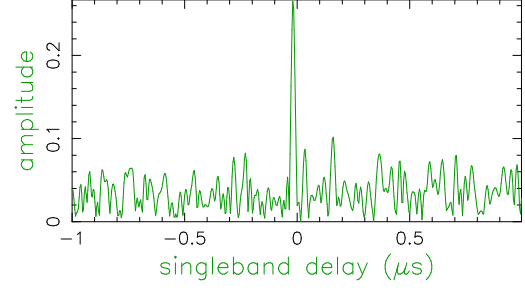
METSAHOV - ONSALA60, fgroup W, pol RL



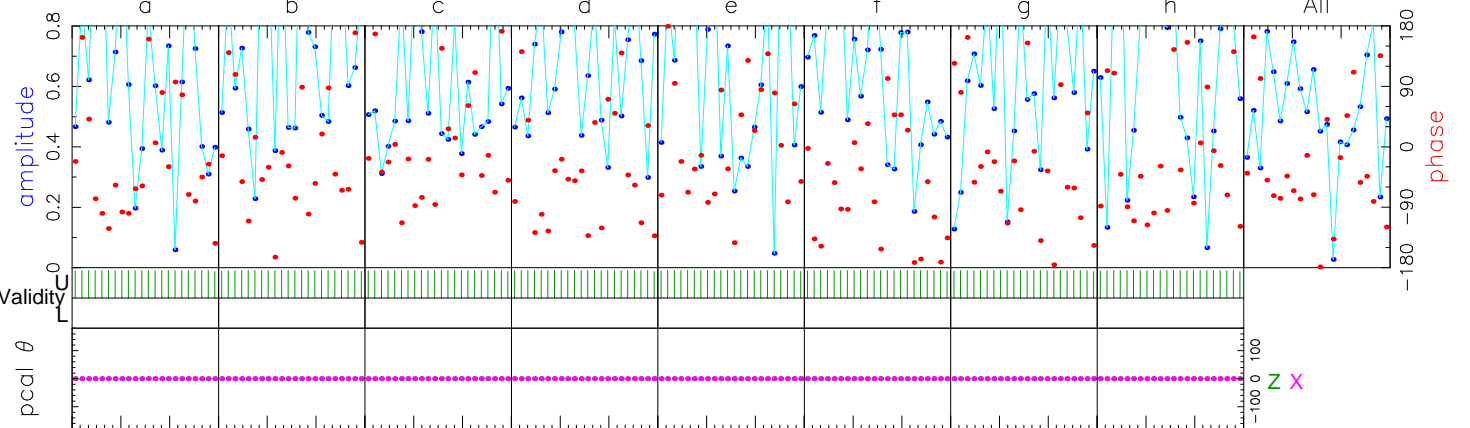
Fringe quality 9

SNR 9.8
Int time 179.703
Amp 0.267
Phase -58.1
PFD 2.7e-14
Delays (us)
SBD -0.018448
MBD -0.002149
Fringe rate (Hz) 0.015757
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 054000.00
Stop 054300.22
FRT 054130.00
Corr/FF/build
2021:006:113129
2021:010:131752
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-75.6	-45.2	-48.3	-63.5	-33.8	-60.8	-61.3	-72.1	Phase	-58.1
	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	Ampl.	0.3
	252.7	197.0	252.6	252.3	373.9	300.0	252.5	251.5	Sbd box	252.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) -6.63056081766E+02 Apriori delay (usec) -6.63038307695E+02 Resid mbdelay (usec) -2.14907E-03 +/- 1.1E-04
 Sband delay (usec) -6.63056756195E+02 Apriori clock (usec) -4.8138390E+01 Resid sbdelay (usec) -1.84485E-02 +/- 8.8E-04
 Phase delay (usec) -6.63038309567E+02 Apriori clockrate (us/s) -5.1200000E-07 Resid phdelay (usec) -1.87251E-06 +/- 3.8E-07
 Delay rate (us/s) 5.75742016800E-02 Apriori rate (us/s) 5.75740187531E-02 Resid rate (us/s) 1.82927E-07 +/- 3.6E-09
 Total phase (deg) -355.0 Apriori accel (us/s/s) 5.73232406541E-06 Resid phase (deg) -58.1 +/- 11.7

ph/seg (deg) 83.3 27.5 Search (1024X32) 0.256 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 113.8 47.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 15.3 16.6 Inc. seg. avg. 0.459 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 8.8 28.9 Inc. frq. avg. 0.262 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 320.6 el 40.1 pa 37.5 X: az 315.8 el 42.3 pa 46.4 u,v (fr/asec) -626.707 856.279 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZX..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZX.W.362.1HQXF

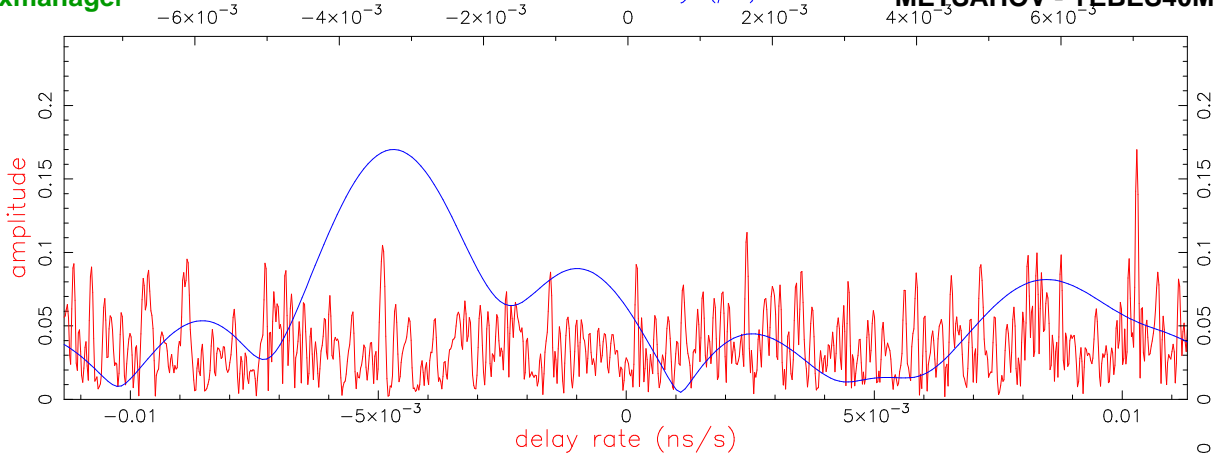
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZY

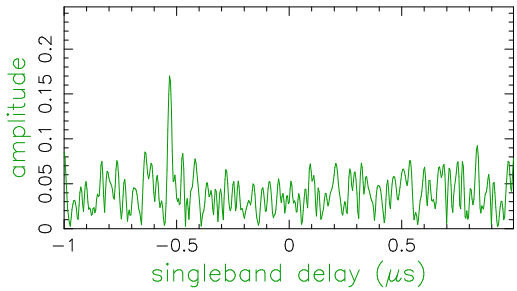
METSAHOV - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

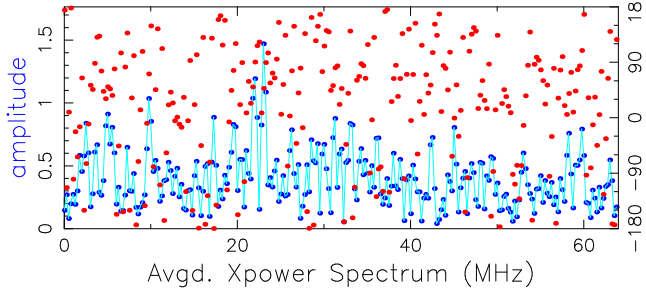


Fringe quality 0

SNR 6.0
 Int time 162.262
 Amp 0.247
 Phase 123.7
 PFD 2.8e-01
 Delays (us)
 SBD -0.530160
 MBD -0.003217
 Fringe rate (Hz)
 0.889030
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

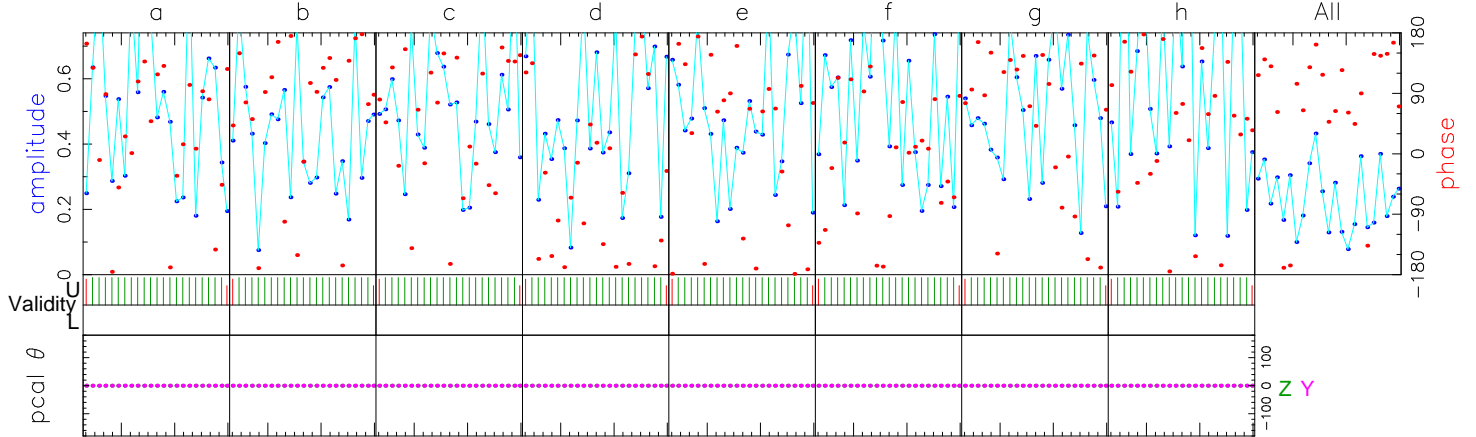


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054016.90
 Stop 054259.71
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131747
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	91.5	132.9	121.7	-172.5	148.3	67.6	126.1	93.9	Phase	123.7
	0.3	0.4	0.3	0.2	0.4	0.1	0.3	0.3	Ampl.	0.3
	123.8	160.2	168.4	279.1	120.9	367.8	41.3	136.3	Sbd box	121.3
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	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)	1.06320125624E+03	Apriori delay (usec)	1.06373572292E+03	Resid mbdelay (usec)	-3.21667E-03	+/-	1.8E-04
Sband delay (usec)	1.06320556242E+03	Apriori clock (usec)	-1.1529204E+01	Resid sbdelay (usec)	-5.30160E-01	+/-	1.4E-03
Phase delay (usec)	1.06373572690E+03	Apriori clockrate (us/s)	-1.0399999E-07	Resid phdelay (usec)	3.98855E-06	+/-	6.2E-07
Delay rate (us/s)	2.40179743005E-01	Apriori rate (us/s)	2.40169422244E-01	Resid rate (us/s)	1.03208E-05	+/-	6.6E-09
Total phase (deg)	185.6	Apriori accel (us/s/s)	1.53003028666E-05	Resid phase (deg)	123.7	+/-	19.2

ph/seg (deg)	49.3	RMS	46.1	Theor.	46.1	Amplitude	0.247 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	68.0	Search (1024X32)	0.168	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	40.5	Inc. seg. avg.	0.258	Inc. frq. avg.	0.253	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	37.3	Inc. frq. avg.	0.253	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite
Z: az 320.6 el 40.1 pa 37.5		Y: az 319.8 el 36.5 pa 70.0		u, v (fr/asec)	-2621.966 2984.455			ion window (TEC)	0.00	0.00	simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZY..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZY.W.335.1HQXF

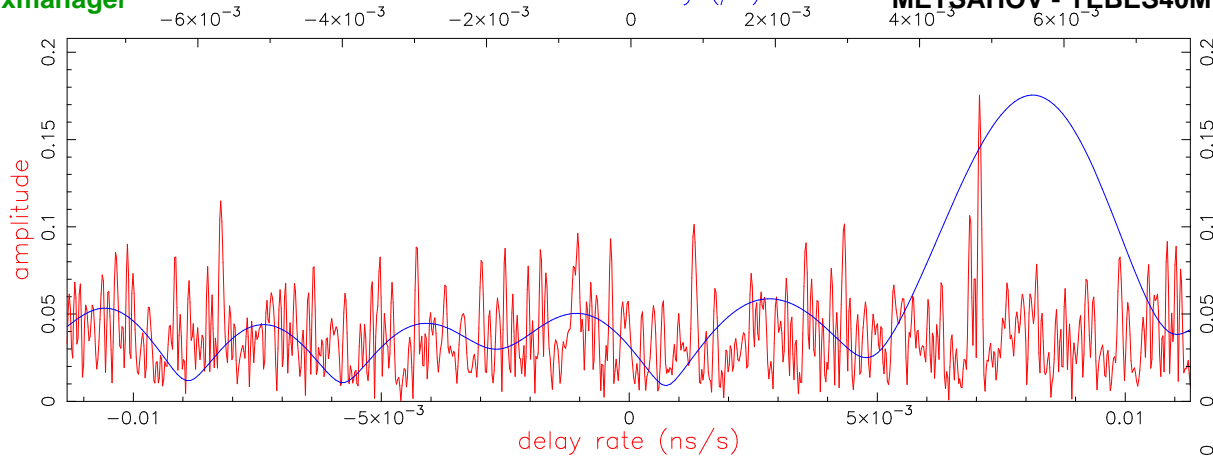
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZY

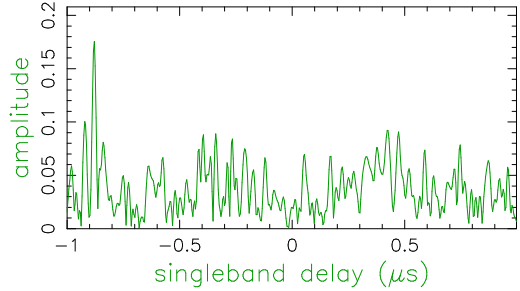
METSAHOV - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

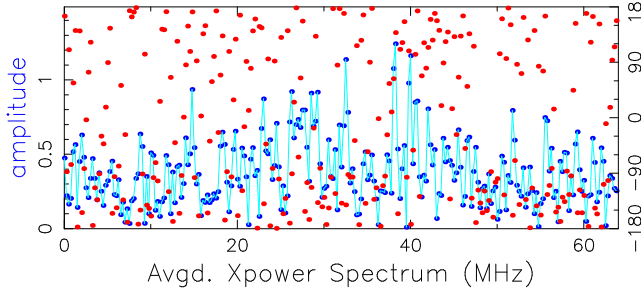


Fringe quality 0

SNR 6.1
 Int time 162.262
 Amp 0.208
 Phase 65.8
 PFD 1.1e-01
 Delays (us)
 SBD -0.879739
 MBD 0.005533
 Fringe rate (Hz) 0.610063
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

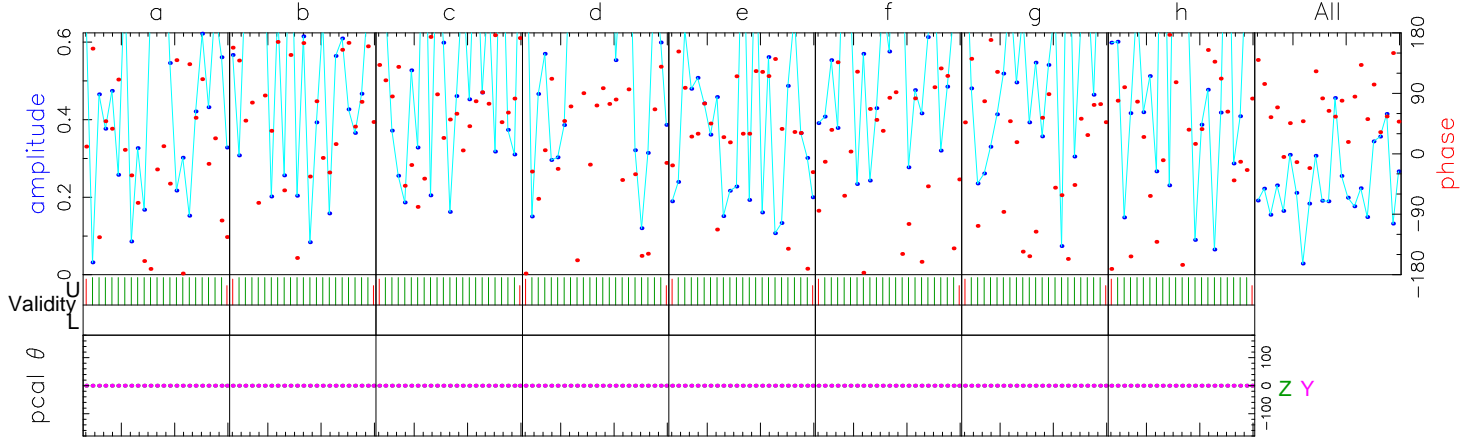


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054016.90
 Stop 054259.71
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131748
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	1.06285063109E+03	Apriori delay (usec)	1.06373572292E+03	Resid mbdelay (usec)	5.53317E-03	+/-	1.8E-04
Sband delay (usec)	1.06285598367E+03	Apriori clock (usec)	-1.1529204E+01	Resid sbdelay (usec)	-8.79739E-01	+/-	1.4E-03
Phase delay (usec)	1.06373572504E+03	Apriori clockrate (us/s)	-1.0399999E-07	Resid phdelay (usec)	2.12312E-06	+/-	6.0E-07
Delay rate (us/s)	2.40176504467E-01	Apriori rate (us/s)	2.40169422244E-01	Resid rate (us/s)	7.08222E-06	+/-	6.4E-09
Total phase (deg)	127.7	Apriori accel (us/s/s)	1.53003028666E-05	Resid phase (deg)	65.8	+/-	18.7

ph/seg (deg)	45.6	Theor.	44.8	Search (1024X32)	0.173	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	62.8		78.2	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)	30.6		26.4	Inc. seg. avg.	0.210	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	35.5		46.1	Inc. frq. avg.	0.205	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 320.6 el 40.1 pa 37.5 Y: az 319.8 el 36.5 pa 70.0 u,v (fr/asec) -2621.966 2984.455 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZY..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZY.W.343.1HQXF

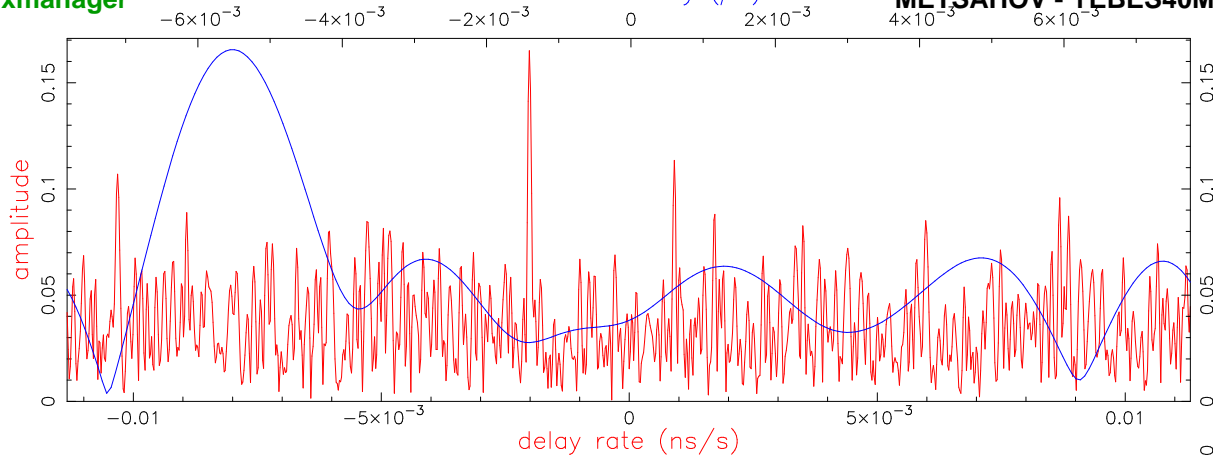
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZY

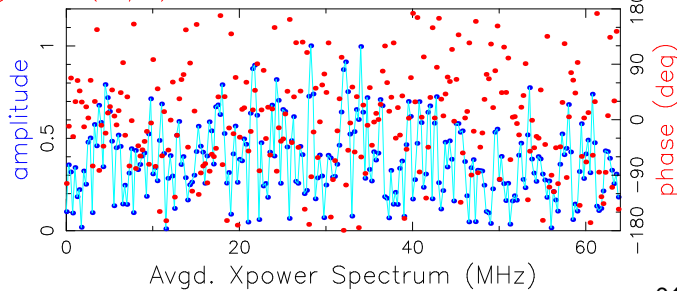
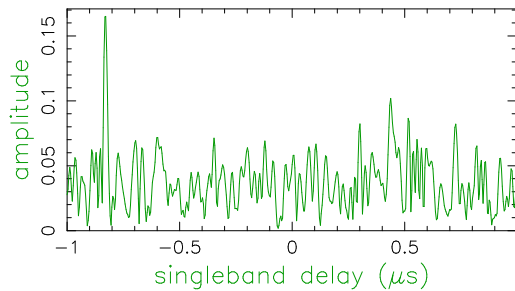
METSAHOV - YEBES40M, fgroup W, pol LR

multiband delay (μ s)



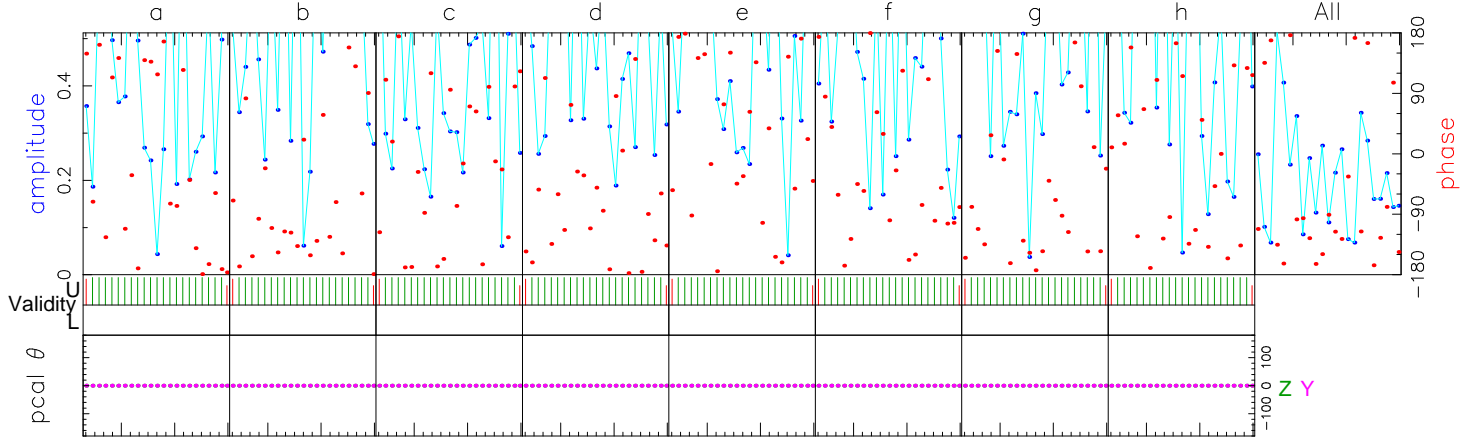
Fringe quality 0

SNR 5.9
 Int time 162.262
 Amp 0.171
 Phase -138.2
 PFD 4.1e-01
 Delays (us)
 SBD -0.830048
 MBD -0.005603
 Fringe rate (Hz)
 -0.172959
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054016.90
 Stop 054259.71
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131750
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-159.6	-134.2	173.4	-105.1	-165.7	-119.0	-124.3	-159.4	Phase	-138.2
	0.3	0.3	0.1	0.2	0.1	0.1	0.2	0.1	Ampl.	0.2
	493.8	44.3	380.2	209.6	295.9	224.3	311.4	258.9	Sbd box	44.5
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	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)		1.06290199479E+03		Apriori delay (usec)	1.06373572292E+03		Resid mbdelay (usec)	-5.60313E-03	+/-	1.8E-04
Sband delay (usec)		1.06290567467E+03		Apriori clock (usec)	-1.1529204E+01		Resid sbdelay (usec)	-8.30048E-01	+/-	1.5E-03
Phase delay (usec)		1.06373571846E+03		Apriori clockrate (us/s)	-1.0399999E-07		Resid phdelay (usec)	-4.45783E-06	+/-	6.3E-07
Delay rate (us/s)		2.40167414361E-01		Apriori rate (us/s)	2.40169422244E-01		Resid rate (us/s)	-2.00788E-06	+/-	6.7E-09
Total phase (deg)			-76.3	Apriori accel (us/s/s)	1.53003028666E-05		Resid phase (deg)	-138.2	+/-	19.5

ph/seg (deg) 49.7 46.8 Amplitude 0.171 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 72.4 81.6 Search (1024X32) 0.161 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 30.8 27.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 48.2 48.1 Inc. seg. avg. 0.161 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Z: az 320.6 el 40.1 pa 37.5 Y: az 319.8 el 36.5 pa 70.0 u,v (fr/asec) -2621.966 2984.455 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZY..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZY.W.351.1HQXF

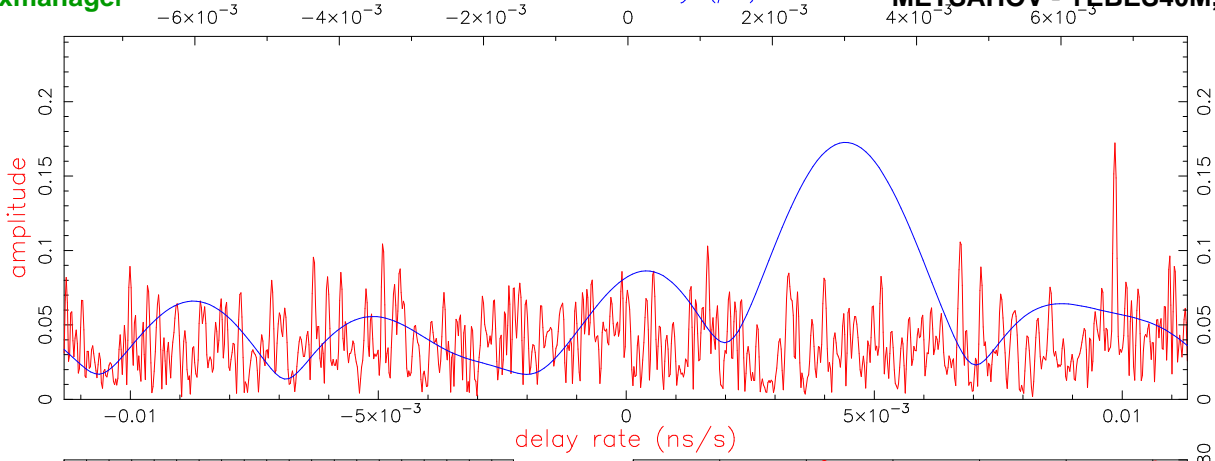
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZY

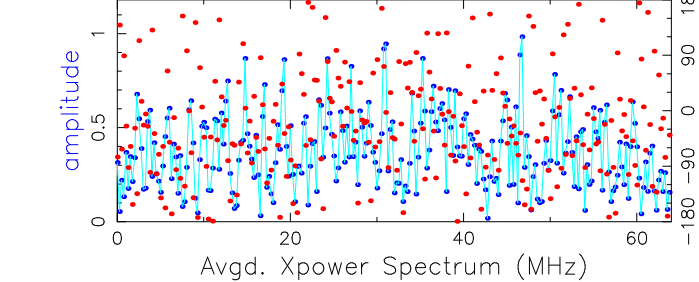
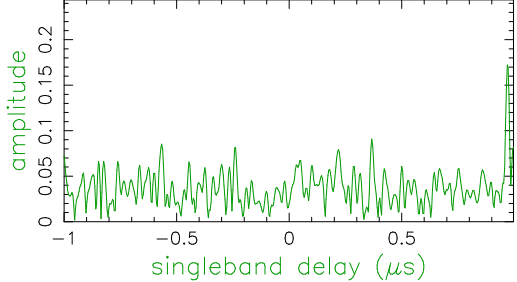
METSAHOV - YEBES40M, fgroup W, pol RL

multiband delay (μ s)



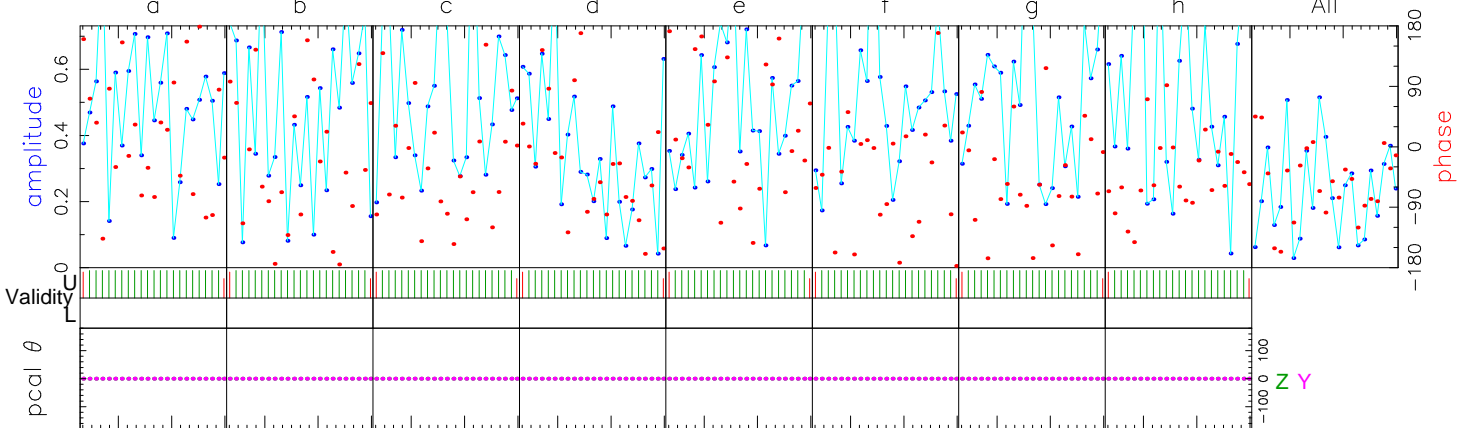
Fringe quality 0

SNR 6.1
 Int time 162.262
 Amp 0.244
 Phase -45.2
 PFD 1.4e-01
 Delays (us)
 SBD 0.970301
 MBD 0.003087
 Fringe rate (Hz) 0.849261
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054016.90
 Stop 054259.71
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131752
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-27.7	-45.2	-57.0	-35.7	-14.7	-35.6	-54.1	-52.0	Phase	-45.2
	0.2	0.1	0.3	0.1	0.1	0.2	0.3	0.6	Ampl.	0.2
	450.9	62.3	505.7	73.2	500.2	182.2	499.9	505.9	Sbd box	505.4
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	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)	1.06470755950E+03	Apriori delay (usec)	1.06373572292E+03	Resid mbdelay (usec)	3.08658E-03	+/-	1.8E-04
Sband delay (usec)	1.06470602417E+03	Apriori clock (usec)	-1.1529204E+01	Resid sbdelay (usec)	9.70301E-01	+/-	1.4E-03
Phase delay (usec)	1.06373572146E+03	Apriori clockrate (us/s)	-1.0399999E-07	Resid phdelay (usec)	-1.45665E-06	+/-	6.1E-07
Delay rate (us/s)	2.40179281327E-01	Apriori rate (us/s)	2.40169422244E-01	Resid rate (us/s)	9.85908E-06	+/-	6.5E-09
Total phase (deg)	16.7	Apriori accel (us/s/s)	1.53003028666E-05	Resid phase (deg)	-45.2	+/-	18.8

ph/seg (deg)	54.0	Theor.	45.1	Amplitude	0.244 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	86.0		78.8	Search (1024X32)	0.168	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	16.8		26.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	57.7		46.5	Inc. seg. avg.	0.248	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.222	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 320.6 el 40.1 pa 37.5 Y: az 319.8 el 36.5 pa 70.0 u,v (fr/asec) -2621.966 2984.455 simultaneous interpolator

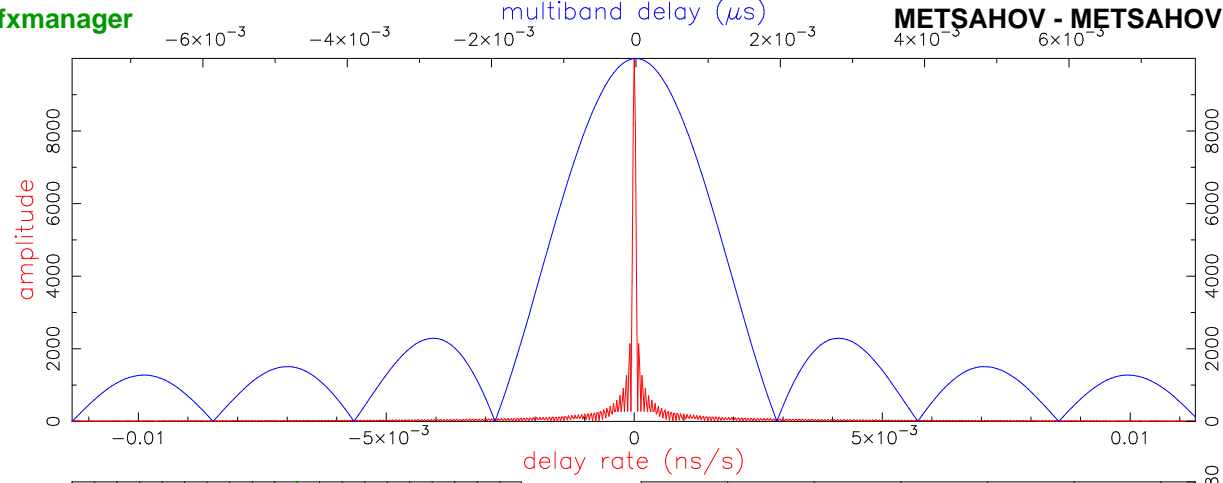
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZY..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZY.W.360.1HQXF

Mk4/DiFX fourfit 3.21 rev 2937

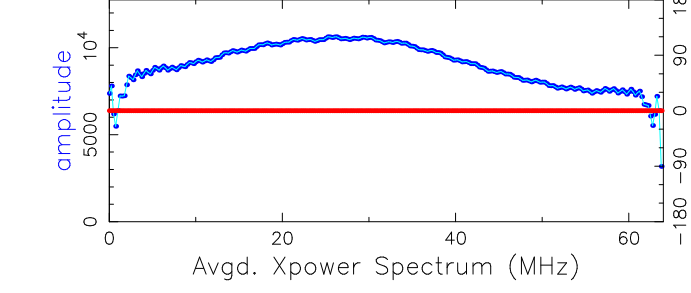
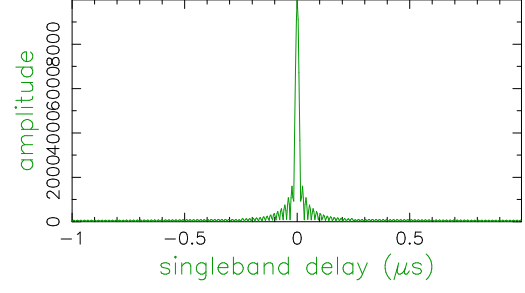
fxmanager

0102+584.1HQXF, No0087, ZZ

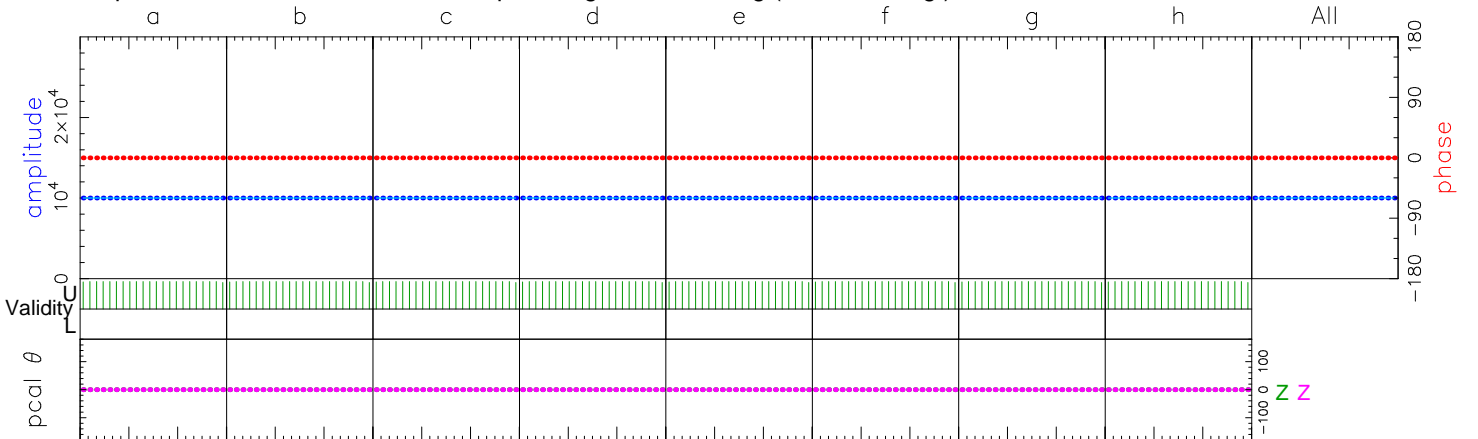
METSAHOV - METSAHOV, fgroup W, pol LL



Fringe quality 9
 SNR 366585.9
 Int time 179.703
 Amp 9999.998
 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. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131747
 2020:247:085004
 RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	Ampl.	10000.0
Z	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
Z	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
Z	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 +/- 3.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.0E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 9.7E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 9999.998 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (1024X32) 9999.998 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.998 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

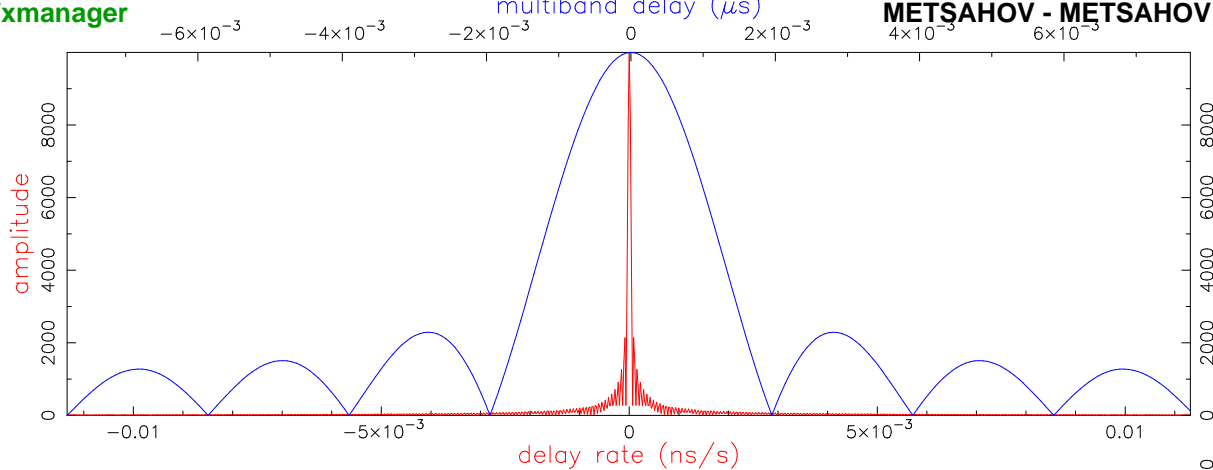
Z: az 320.6 el 40.1 pa 37.5 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZZ.W.336.1HQXF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

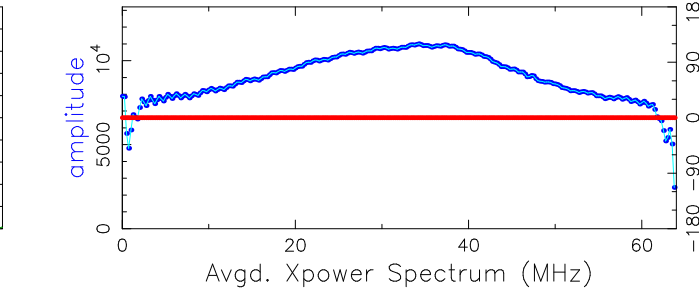
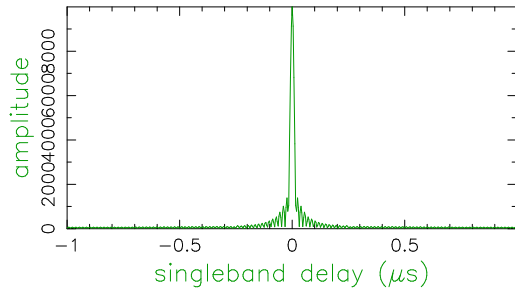
0102+584.1HQXF, No0087, ZZ

METSAHOV - METSAHOV, fgroup W, pol RR



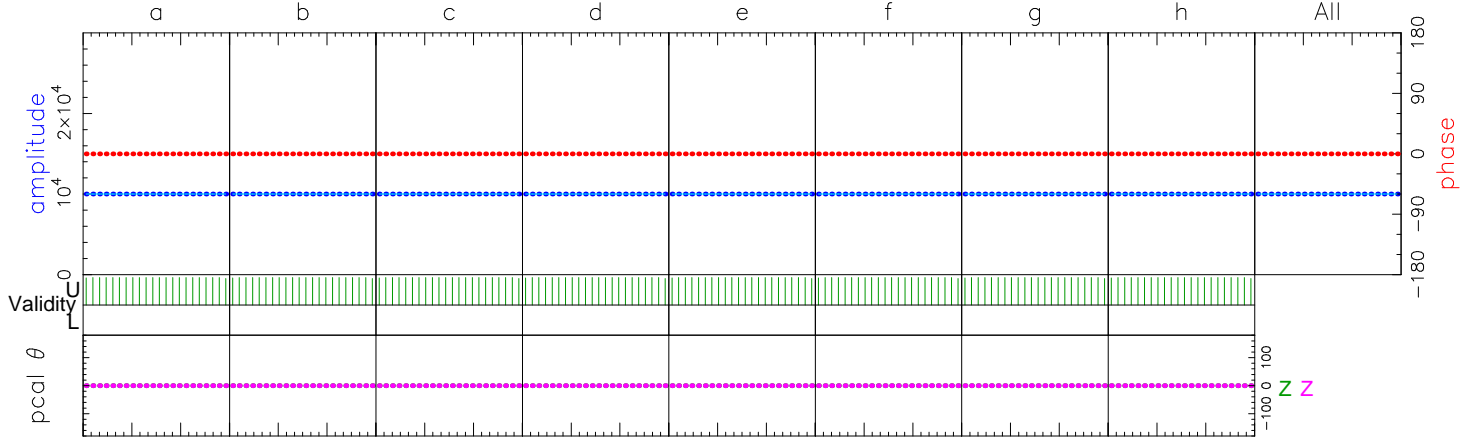
Fringe quality 9

SNR 366585.9
 Int time 179.703
 Amp 9999.998
 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. c202a
 Yr:day 16383
 Start 2020:283
 Stop 2021:006:113129
 FRT 2021:010:131749
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	10000.0	10000.0
Z	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.0E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 9.7E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 9999.998 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (1024X32) 9999.998 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.998 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Z: az 320.6 el 40.1 pa 37.5 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZZ..1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZZ.W.345.1HQXF

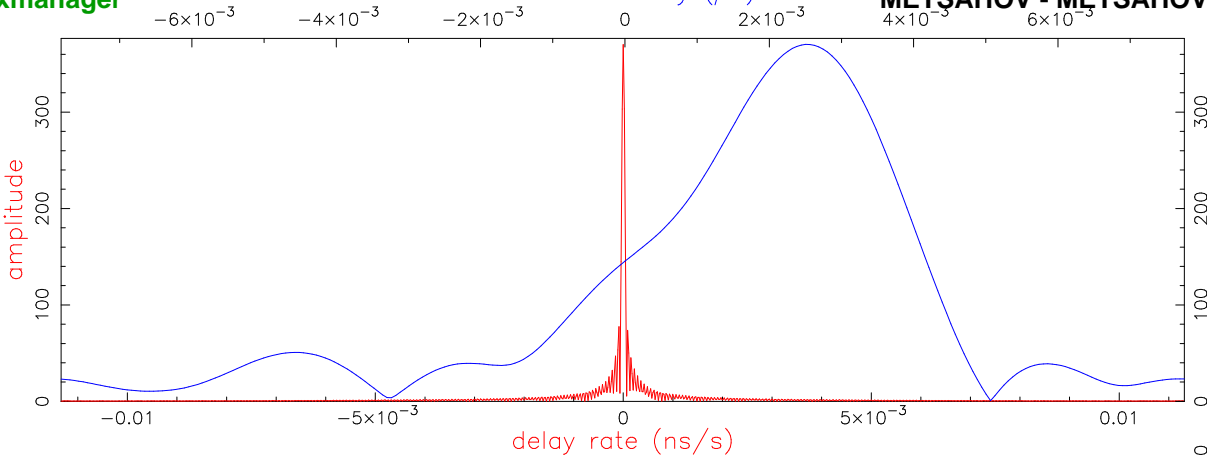
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZZ

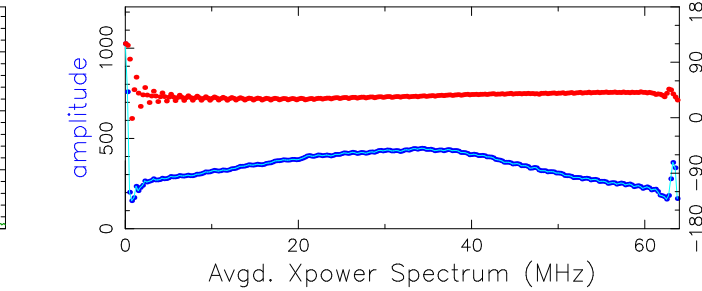
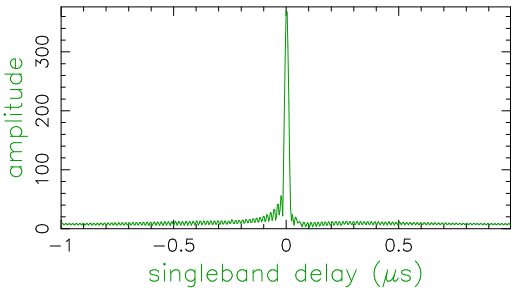
METSAHOV - METSAHOV, fgroup W, pol LR

multiband delay (μ s)



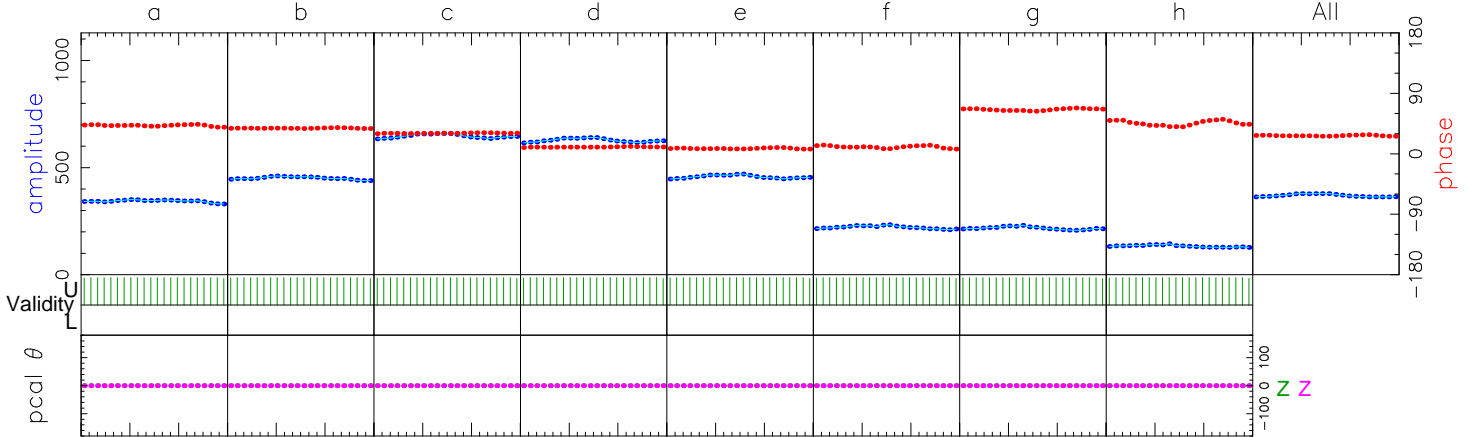
Fringe quality 6

SNR 13800.1
 Int time 179.703
 Amp 376.448
 Phase 27.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.001766
 MBD 0.002573
 Fringe rate (Hz)
 -0.000040
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131750
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	42.1	38.1	30.6	10.1	7.9	10.2	65.8	45.6	Phase	27.0
	343.7	451.1	646.8	627.7	457.2	221.5	217.5	133.5	Ampl.	387.4
	257.8	257.6	257.2	257.5	257.7	257.7	257.3	257.2	Sbd box	257.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	2.57268750000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		2.57269E-03	+/- 7.9E-08
Sband delay (usec)	1.76575000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		1.76575E-03	+/- 6.2E-07
Phase delay (usec)	8.70355994157E-07		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		8.70356E-07	+/- 2.7E-10
Delay rate (us/s)	-4.61979567969E-10		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-4.61980E-10	+/- 2.6E-12
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		27.0	+/- 0.0

	RMS	Theor.	Amplitude	376.448 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	0.7	0.0	Search (1024X32)	369.504	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	2.3	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	22.9	0.0	Inc. seg. avg.	370.099	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	47.7	0.0	Inc. frq. avg.	387.355	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00	

Z: az 320.6 el 40.1 pa 37.5 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZZ.1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZZ.W.355.1HQXF

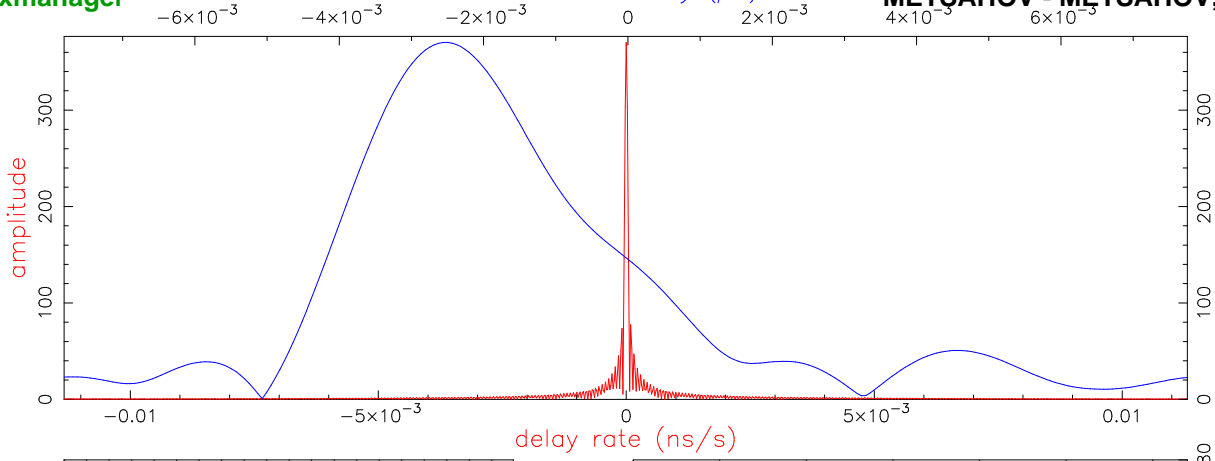
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HQXF, No0087, ZZ

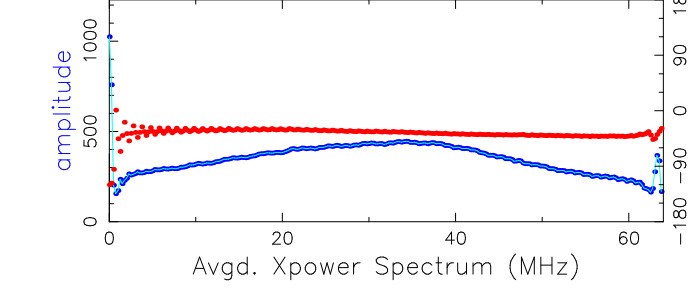
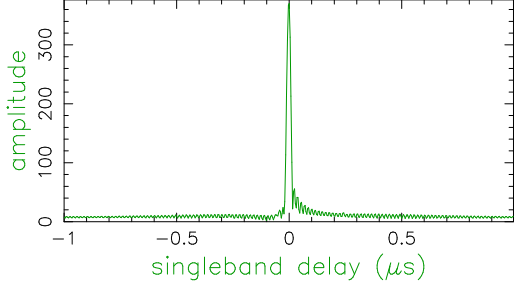
METSAHOV - METSAHOV, fgroup W, pol RL

multiband delay (μ s)



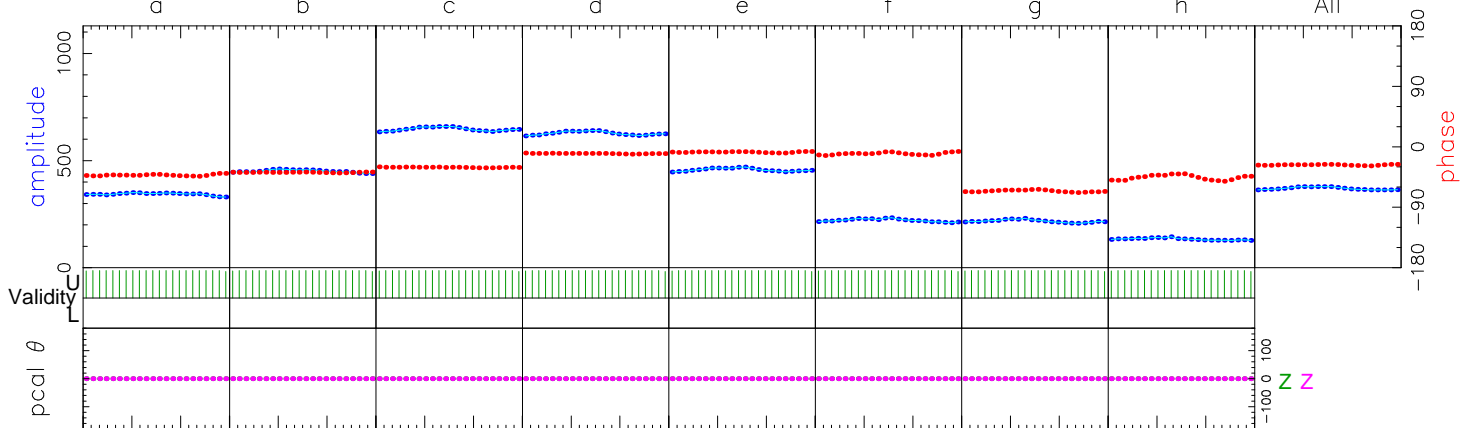
Fringe quality 6

SNR 13800.1
 Int time 179.703
 Amp 376.448
 Phase -27.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.001766
 MBD -0.002573
 Fringe rate (Hz)
 0.000040
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 054000.00
 Stop 054300.22
 FRT 054130.00
 Corr/FF/build
 2021:006:113129
 2021:010:131752
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-42.1	-38.1	-30.6	-10.1	-7.9	-10.2	-65.8	-45.6	Phase	-27.0
	343.7	451.1	646.8	627.7	457.2	221.5	217.5	133.5	Ampl.	387.4
	256.2	256.4	256.8	256.5	256.3	256.3	256.7	256.8	Sbd box	256.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.57268750000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-2.57269E-03	+/- 7.9E-08
Sband delay (usec)	-1.76575000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.76575E-03	+/- 6.2E-07
Phase delay (usec)	-8.70355994173E-07		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-8.70356E-07	+/- 2.7E-10
Delay rate (us/s)	4.61979567969E-10		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		4.61980E-10	+/- 2.6E-12
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-27.0	+/- 0.0

ph/seg (deg) 0.7 0.0 Theor. Amplitude 376.448 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 2.3 0.0 Search (1024X32) 369.504 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 22.9 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 47.7 0.0 Inc. seg. avg. 370.099 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Z: az 320.6 el 40.1 pa 37.5 Z: az 320.6 el 40.1 pa 37.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZZ.1HQXF Output file: /Exps/c202a/v1/v1_3mm/1234/No0087/ZZ.W.363.1HQXF