

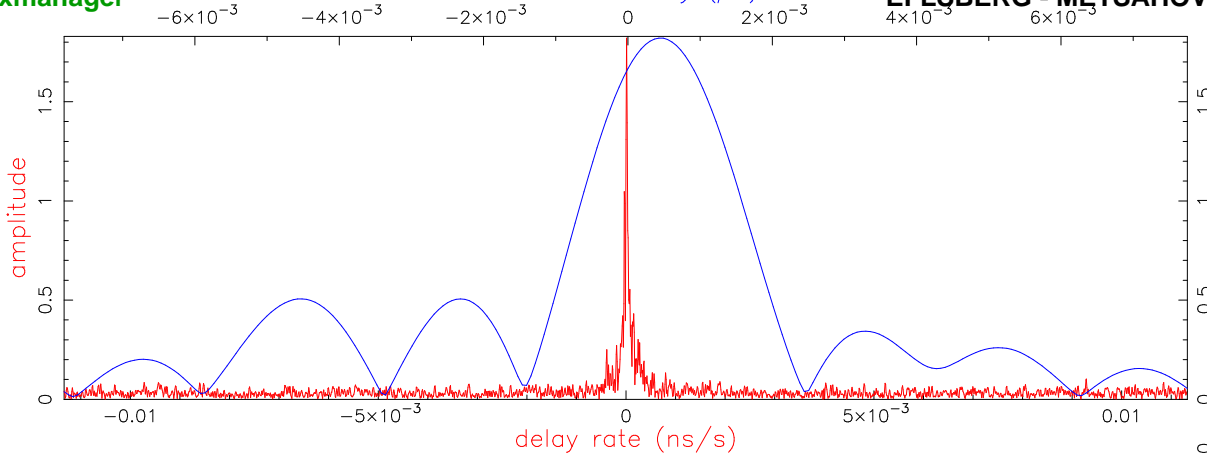
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUE93, No0163, BZ

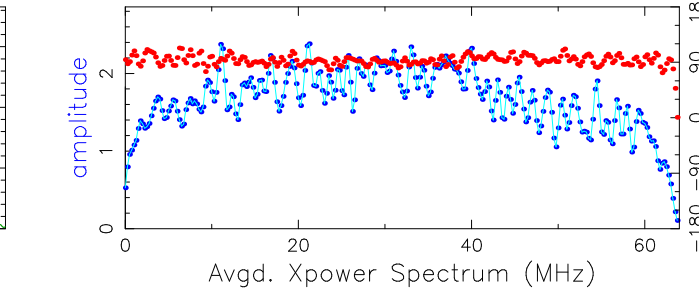
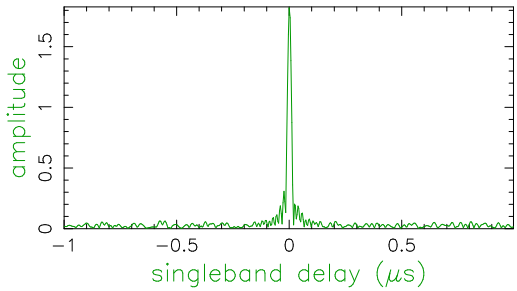
EFLSBERG - METSAHOV, fgroup W, pol RR

multiband delay (μ s)



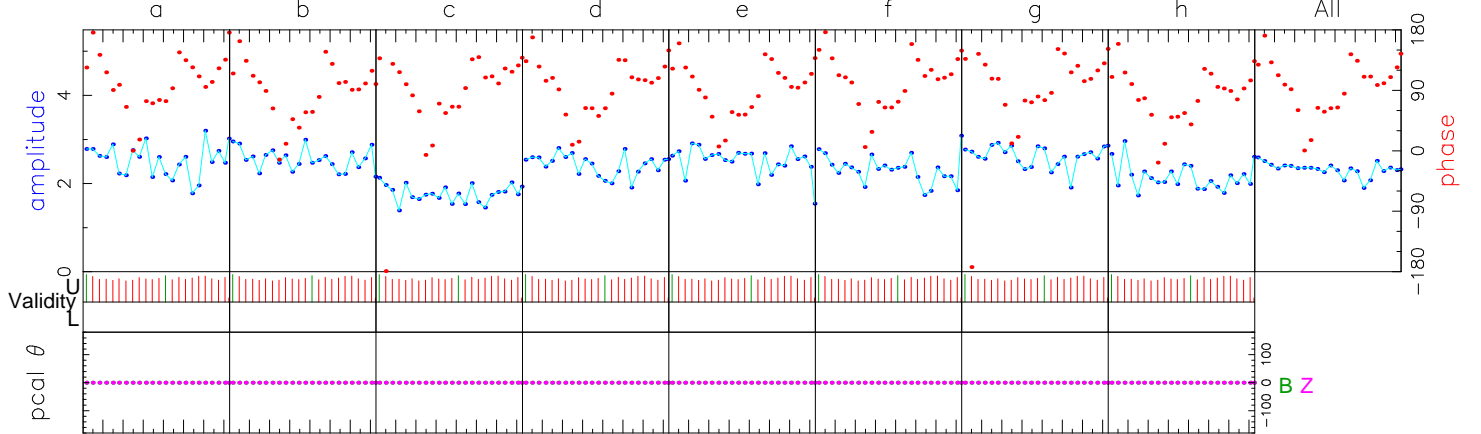
Fringe quality 6

SNR 95.1
 Int time 361.387
 Amp 1.829
 Phase 97.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.000909
 MBD 0.000473
 Fringe rate (Hz)
 0.001078
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031726
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	82.2	97.7
B	1000	1000	1000	1000	1000	1000	1000	1000	1.7	1.8
Z	1000	1000	1000	1000	1000	1000	1000	1000	257.2	257.2
B:Z	0:0	0:0	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	0:0	0:0
B	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Z	1000	1000	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)	-1.61787122831E+03	Apriori delay (usec)	-1.61787170132E+03	Resid mbdelay (usec)	4.73010E-04	+/-	1.1E-05
Sband delay (usec)	-1.61787079257E+03	Apriori clock (usec)	9.9519310E+00	Resid sbdelay (usec)	9.08750E-04	+/-	9.1E-05
Phase delay (usec)	-1.61787169817E+03	Apriori clockrate (us/s)	-2.1600000E-07	Resid phdelay (usec)	3.15011E-06	+/-	3.9E-08
Delay rate (us/s)	1.78700465304E-01	Apriori rate (us/s)	1.78700452793E-01	Resid rate (us/s)	1.25110E-08	+/-	1.6E-10
Total phase (deg)	-28.8	Apriori accel (us/s/s)	-6.04159802031E-07	Resid phase (deg)	97.7	+/-	1.2

ph/seg (deg)	RMS 39.9	Theor. 2.9	Amplitude Search (2048X32)	1.810	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	28.6	5.0	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)	9.3	1.7	Inc. seg. avg.	2.326	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	11.8	3.0	Inc. frq. avg.	1.838	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 55.1 el 62.9 pa -86.8 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) -1960.257 -492.105 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/BZ..1IUE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/BZ.W.29.1IUE93

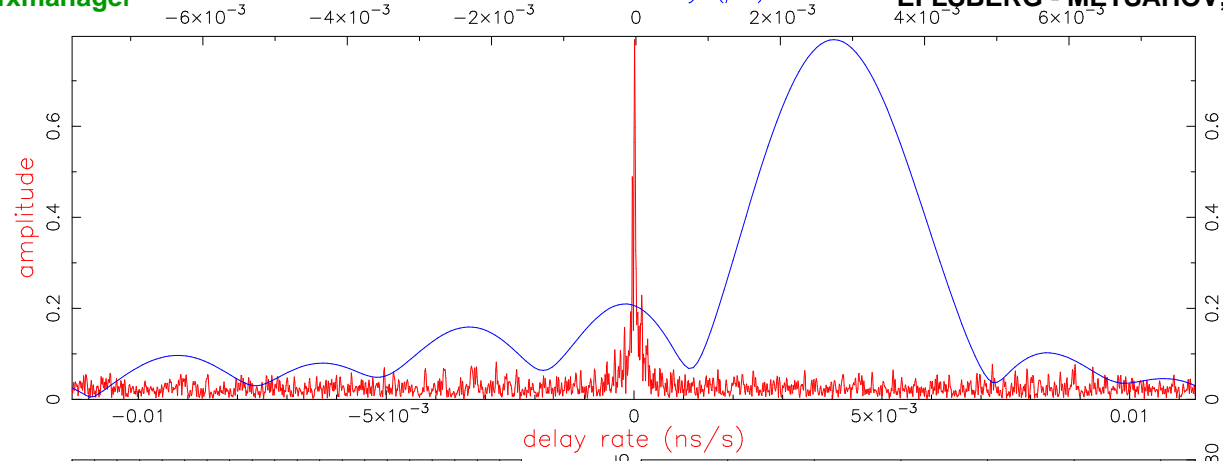
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUE93, No0163, BZ

EFLSBERG - METSAHOV, fgroup W, pol LR

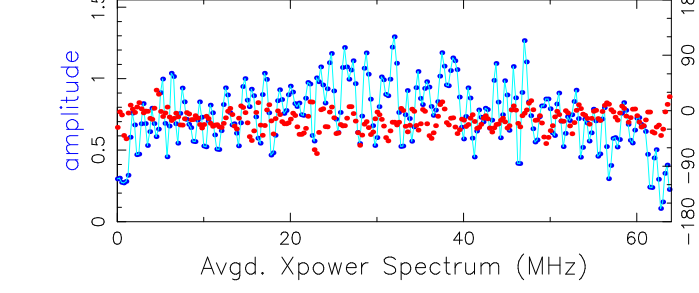
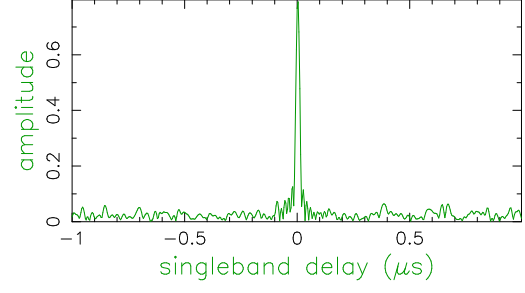
multiband delay (μ s)



Fringe quality 7

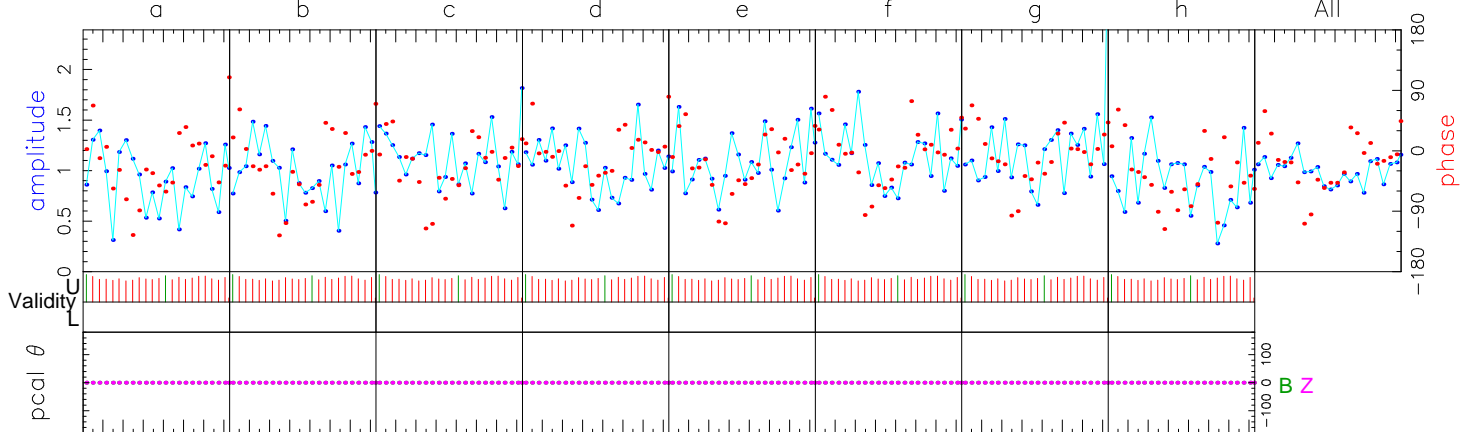
SNR 41.5
 Int time 361.387
 Amp 0.797
 Phase -15.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.002630
 MBD 0.002713
 Fringe rate (Hz) 0.001052
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031730
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-22.0	-21.3	-20.5	-7.0	-17.0	-0.2	-3.8	-39.2	Phase	-15.3
	0.7	0.7	0.9	0.9	0.9	0.8	0.8	0.7	Ampl.	0.8
	258.3	257.5	257.9	257.3	257.7	257.7	257.6	256.8	Sbd box	257.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.61786898865E+03		Apriori delay (usec)		-1.61787170132E+03		Resid mbdelay (usec)		2.71267E-03	+/- 2.6E-05
Sband delay (usec)	-1.61786907157E+03		Apriori clock (usec)		9.9519310E+00		Resid sbdelay (usec)		2.62975E-03	+/- 2.1E-04
Phase delay (usec)	-1.61787170181E+03		Apriori clockrate (us/s)		-2.160000E-07		Resid phdelay (usec)		-4.93924E-07	+/- 8.9E-08
Delay rate (us/s)	1.78700465011E-01		Apriori rate (us/s)		1.78700452793E-01		Resid rate (us/s)		1.22177E-08	+/- 3.7E-10
Total phase (deg)			Apriori accel (us/s/s)		-6.04159802031E-07		Resid phase (deg)		-15.3	+/- 2.8

ph/seg (deg) 39.4 6.6
 amp/seg (%) 29.5 11.6
 ph/frq (deg) 13.6 3.9
 amp/frq (%) 11.6 6.8

RMS Theor. Amplitude 0.797 +/- 0.019
 Search (2048X32) 0.777
 Interp. 0.000
 Inc. seg. avg. 0.993
 Inc. frq. avg. 0.804

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

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

B: az 55.1 el 62.9 pa -86.8 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) -1960.257 -492.105 simultaneous interpolator

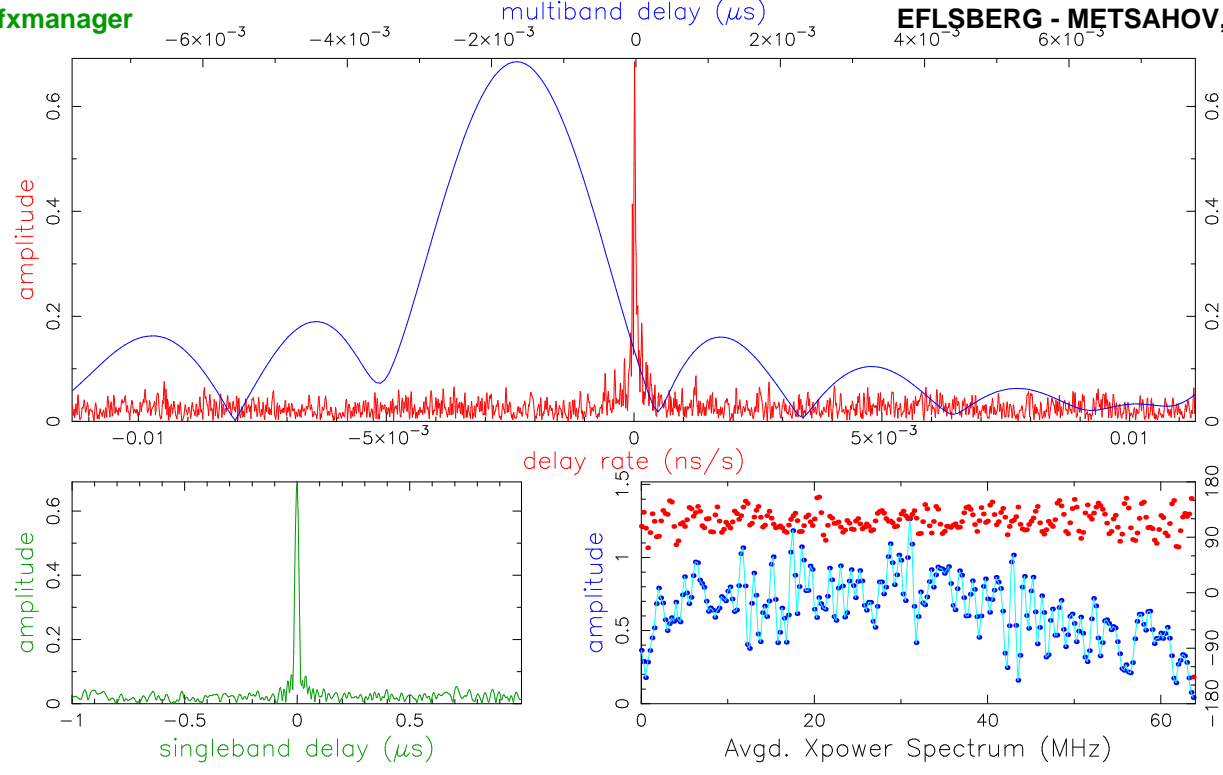
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/BZ..1IUE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/BZ.W.49.1IUE93

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUE93, No0163, BZ

EFLSBERG - METSAHOV, fgroup W, pol RL

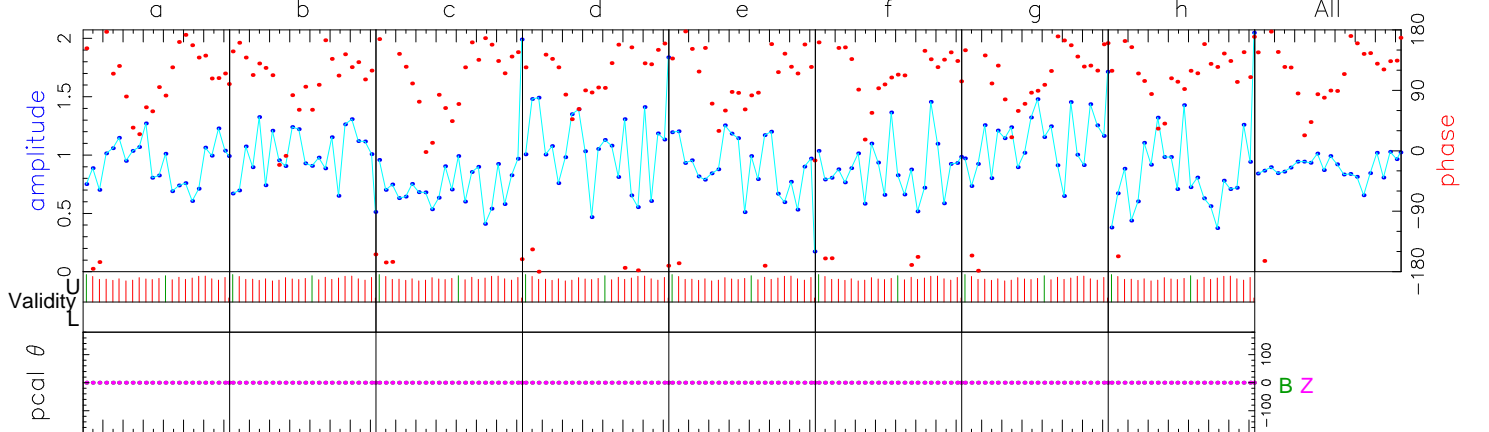


Fringe quality 8

SNR 35.9
 Int time 361.387
 Amp 0.691
 Phase 122.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.001329
 MBD -0.001681
 Fringe rate (Hz)
 0.001075
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031734
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-1.61787338221E+03									
Sband delay (usec)	-1.61787303057E+03									
Phase delay (usec)	-1.61787169737E+03									
Delay rate (us/s)	1.78700465278E-01									
Total phase (deg)			-4.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
pcal mode										
pcal rate										
bits/sample										
sample rate										
data rate										
pcal period										
sb window										
mb window										
dr window										
ion window										
pcal θ										
pcal mode										
pcal rate										
bits/sample										
sample rate										
data rate										
pcal period										
sb window										
mb window										
dr window										
ion window										

B: az 55.1 el 62.9 pa -86.8 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) -1960.257 -492.105 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/BZ..1IUE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/BZ.W.70.1IUE93

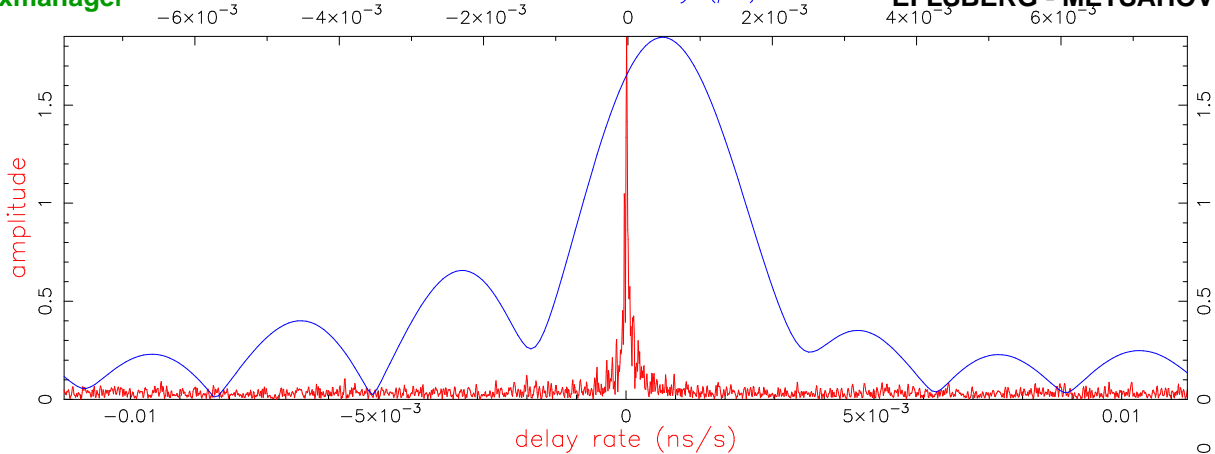
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUE93, No0163, BZ

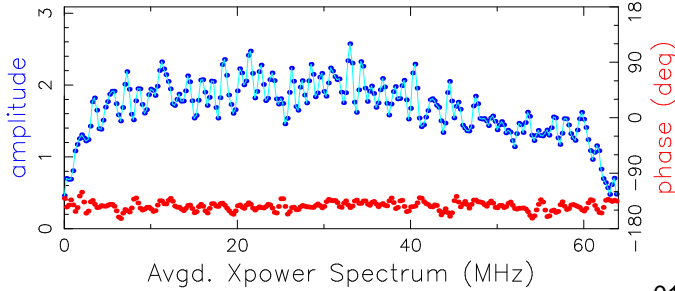
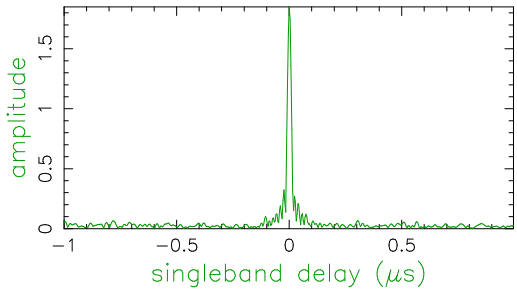
EFLSBERG - METSAHOV, fgroup W, pol LL

multiband delay (μ s)



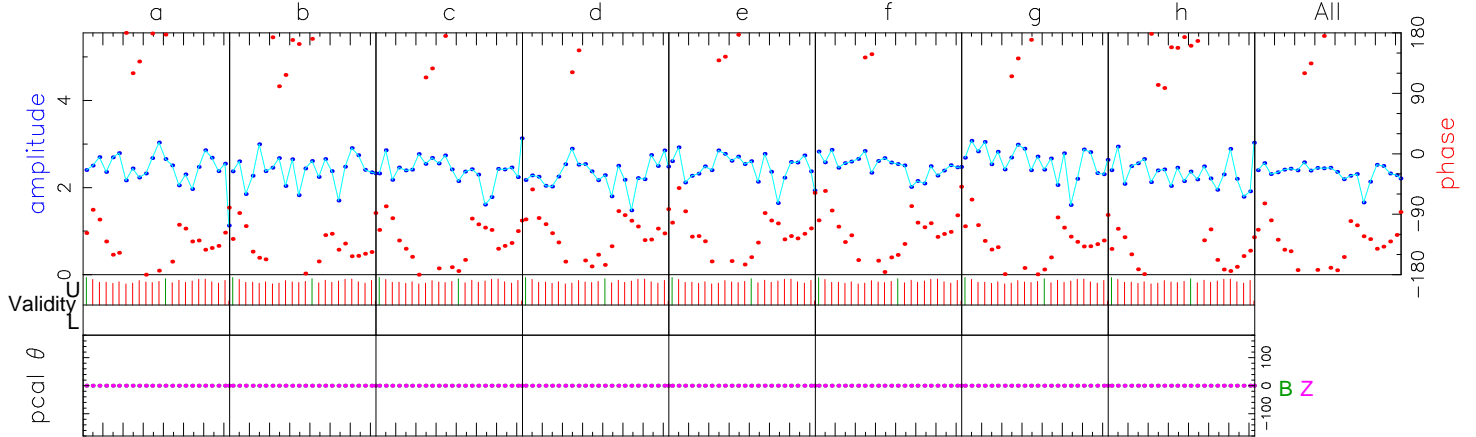
Fringe quality 5

SNR 96.2
 Int time 361.387
 Amp 1.850
 Phase -142.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000652
 MBD 0.000496
 Fringe rate (Hz)
 0.001062
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031722
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-145.8	-155.1	-141.8	-127.8	-130.1	-124.7	-142.5	-168.4	Phase	-142.0
	2.0	1.9	1.8	1.8	1.9	1.9	2.0	1.8	Ampl.	1.9
	257.2	257.1	257.5	257.1	257.0	257.2	256.9	256.6	Sbd box	257.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	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	Manl 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	
									Tracks	
Group delay (usec)(sbd)	-1.61787120484E+03					-1.61787170132E+03			Resid mbdelay (usec)	4.96478E-04 +/- 1.1E-05
Sband delay (usec)	-1.61787104982E+03					9.9519310E+00			Resid sbdelay (usec)	6.51500E-04 +/- 9.0E-05
Phase delay (usec)	-1.61787170590E+03					-2.1600000E-07			Resid phdelay (usec)	-4.57855E-06 +/- 3.8E-08
Delay rate (us/s)	1.78700465117E-01					1.78700452793E-01			Resid rate (us/s)	1.23239E-08 +/- 1.6E-10
Total phase (deg)			-268.5			-6.04159802031E-07			Resid phase (deg)	-142.0 +/- 1.2
									PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	39.3	2.9		Search (2048X32)	1.839				PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	28.8	5.0		Interp.	0.000				Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	16.0	1.7		Inc. seg. avg.	2.347				Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	5.2	2.9		Inc. frq. avg.	1.899				Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite

B: az 55.1 el 62.9 pa -86.8 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) -1960.257 -492.105 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/BZ..1IUE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/BZ.W.8.1IUE93

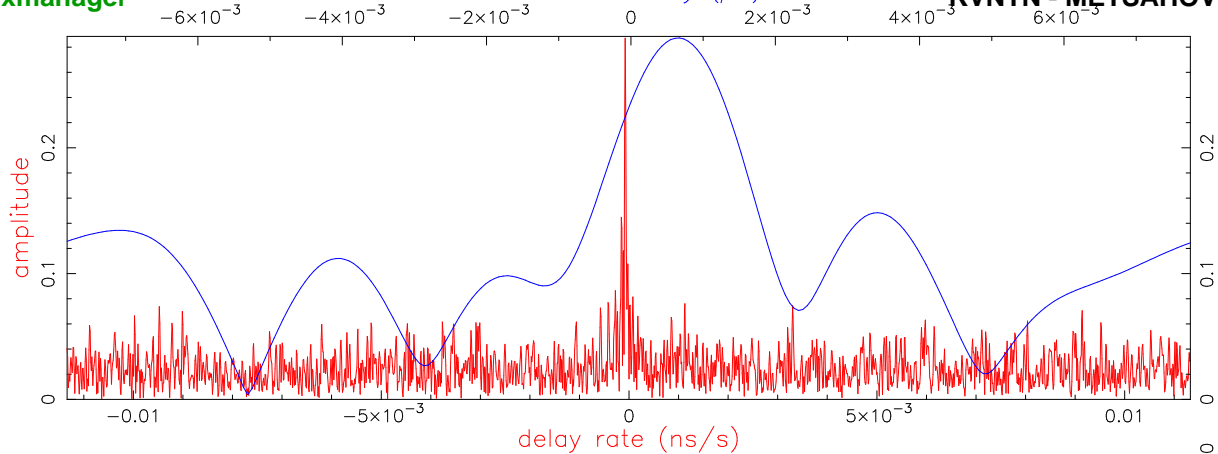
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.11UE93, No0163, tZ

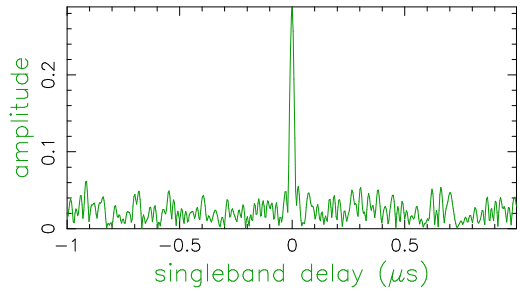
KVNTN - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

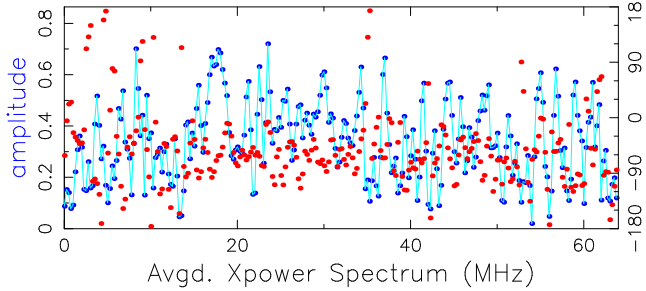


Fringe quality 8

SNR 15.0
 Int time 361.387
 Amp 0.289
 Phase -81.9
 PFD 4.4e-42
 Delays (us)
 SBD -0.000994
 MBD 0.000629
 Fringe rate (Hz)
 -0.006847
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

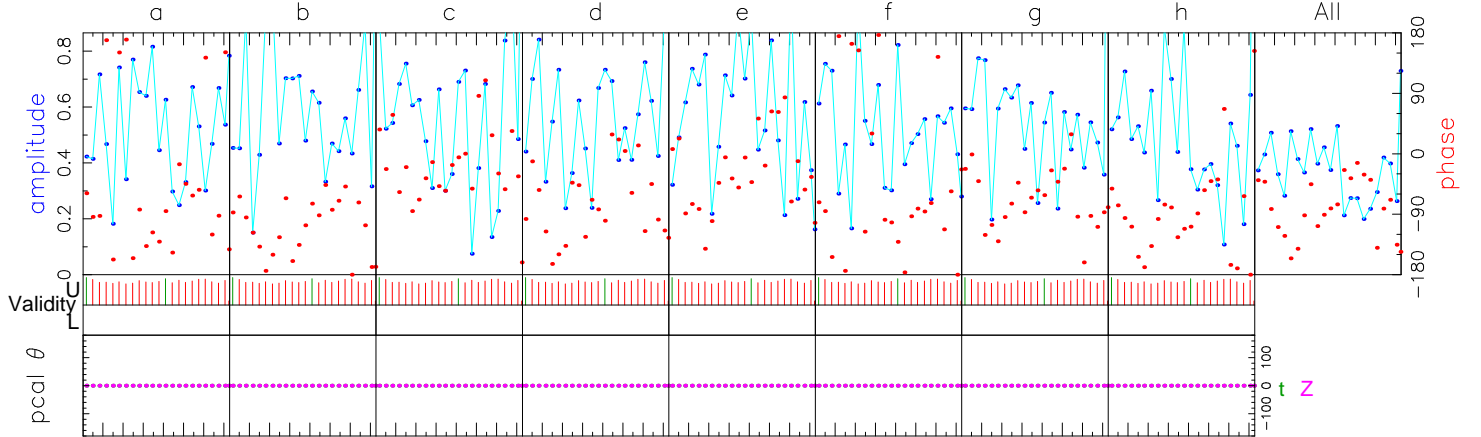


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031724
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-8.29143196462E+03	Apriori delay (usec)	-8.29143259374E+03	Resid mbdelay (usec)	6.29120E-04	+/-	7.2E-05
Sband delay (usec)	-8.29143358749E+03	Apriori clock (usec)	1.2352648E+00	Resid sbdelay (usec)	-9.93750E-04	+/-	5.7E-04
Phase delay (usec)	-8.29143259638E+03	Apriori clockrate (us/s)	8.3999986E-08	Resid phdelay (usec)	-2.64097E-06	+/-	2.5E-07
Delay rate (us/s)	-8.38667099002E-01	Apriori rate (us/s)	-8.38667019511E-01	Resid rate (us/s)	-7.94910E-08	+/-	1.0E-09
Total phase (deg)	-306.7	Apriori accel (us/s/s)	1.33664545431E-05	Resid phase (deg)	-81.9	+/-	7.6

ph/seg (deg)	41.8	RMS	18.3	Theor.	18.3	Amplitude	0.289 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	46.2	Search (2048X32)	0.279	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	44.5	Inc. seg. avg.	0.353	Inc. frq. avg.	0.355	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	29.0	Inc. frq. avg.	0.355	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

t: az 321.6 el 36.1 pa 84.6 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) 9233.493 91.564 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/tZ..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/tZ.W.19.11UE93

Mk4/DiFX fourfit 3.21 rev 2937

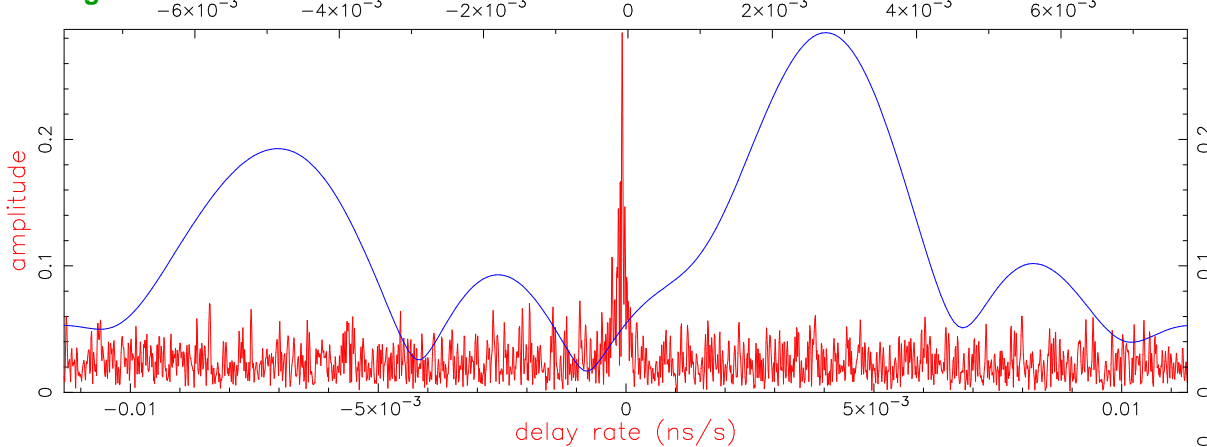
fxmanager

0102+584.11UE93, No0163, tZ

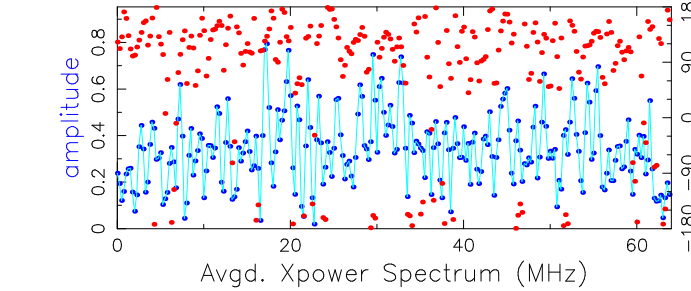
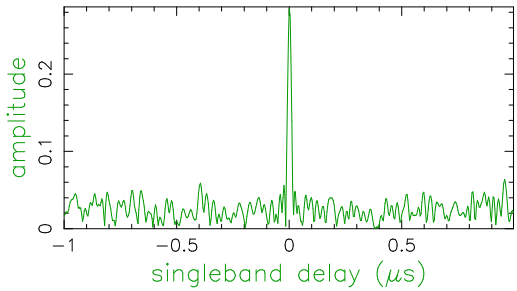
KVNTN - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 8

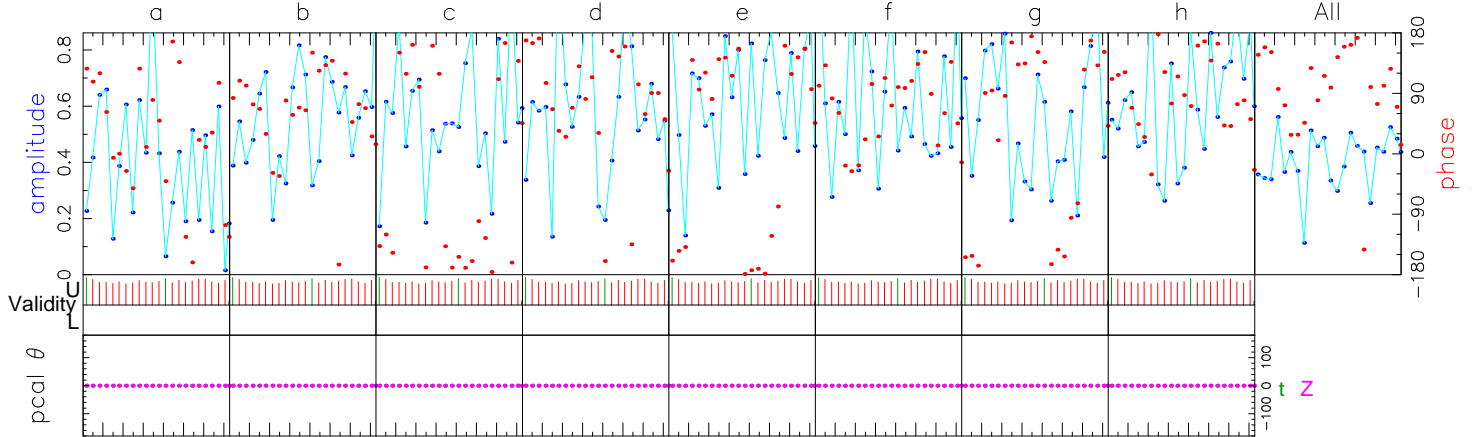


SNR 14.9
 Int time 361.387
 Amp 0.287
 Phase 114.5
 PFD 1.5e-41
 Delays (us)
 SBD 0.001284
 MBD 0.002781
 Fringe rate (Hz)
 -0.006842
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031728
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-8.29142981305E+03									
Sband delay (usec)	-8.29143130949E+03									
Phase delay (usec)	-8.29143259004E+03									
Delay rate (us/s)	-8.38667098938E-01									
Total phase (deg)			-110.2							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
Tracks										
Chan ids										
Tracks										
Chan ids										
Tracks										
RMS	48.3	18.4								
Theor.										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
ph/seg (deg)	48.3	18.4								
amp/seg (%)	53.8	32.1								
ph/frq (deg)	44.8	10.9								
amp/frq (%)	38.6	19.0								
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
SampCntNorm: enabled										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

Mk4/DiFX fourfit 3.21 rev 2937

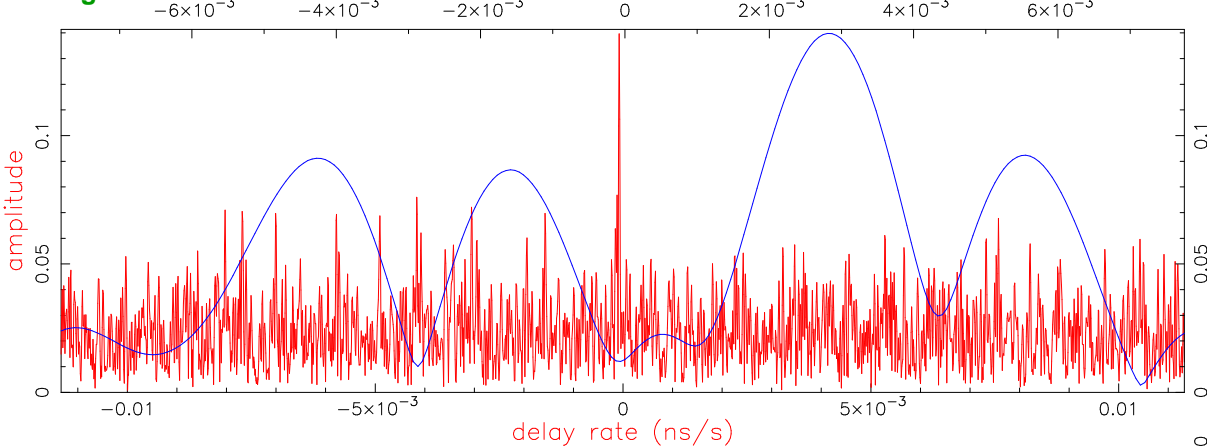
fxmanager

0102+584.11UE93, No0163, tZ

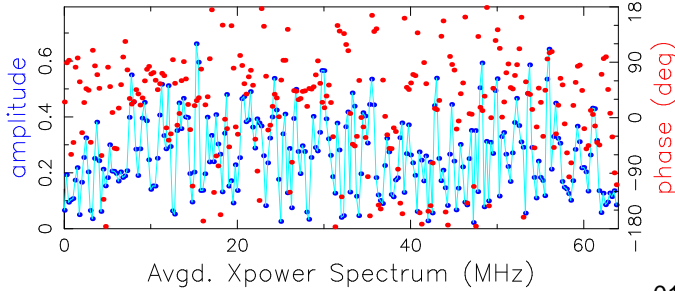
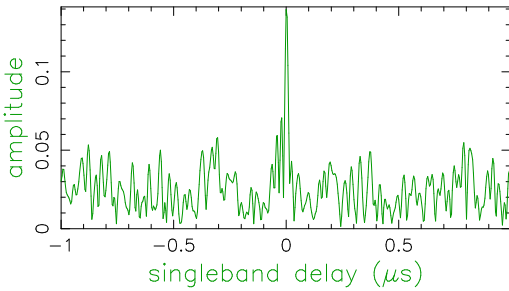
KVNTN - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 9

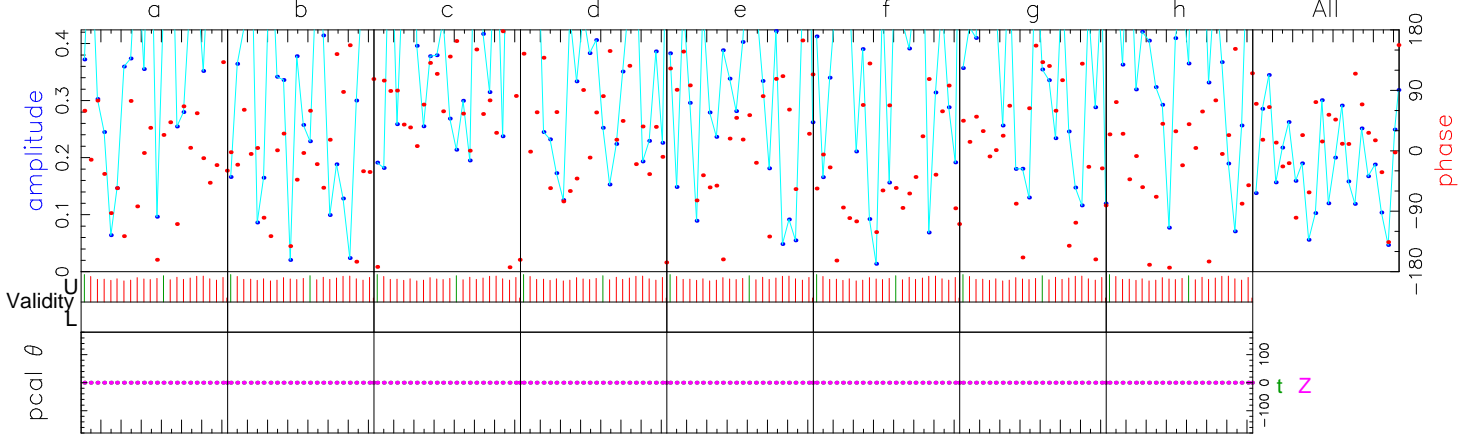


SNR 7.3
 Int time 361.387
 Amp 0.141
 Phase 22.6
 PFD 6.3e-05
 Delays (us)
 SBD 0.001319
 MBD 0.002881
 Fringe rate (Hz)
 -0.007077
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031732
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		257.3
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	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)	-8.29142971224E+03					-8.29143259374E+03			Resid mbdelay (usec)	2.88150E-03 +/- 1.5E-04
Sband delay (usec)	-8.29143127474E+03					1.2352648E+08			Resid sbdelay (usec)	1.31900E-03 +/- 1.2E-03
Phase delay (usec)	-8.29143259301E+03					8.3999986E-08			Resid phdelay (usec)	7.28345E-07 +/- 5.0E-07
Delay rate (us/s)	-8.38667101673E-01					-8.38667019511E-01			Resid rate (us/s)	-8.21615E-08 +/- 2.1E-09
Total phase (deg)		-202.2				1.33664545431E-05			Resid phase (deg)	22.6 +/- 15.6
	RMS	Theor.	Amplitude	0.141 +/- 0.019					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	57.5	37.4	Search (2048X32)	0.132					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	64.7	65.3	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	45.9	22.1	Inc. seg. avg.	0.155					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	41.2	38.5	Inc. frq. avg.	0.169					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

t: az 321.6 el 36.1 pa 84.6 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) 9233.493 91.564 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/tZ..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/tZ.W.60.11UE93

Mk4/DiFX fourfit 3.21 rev 2937

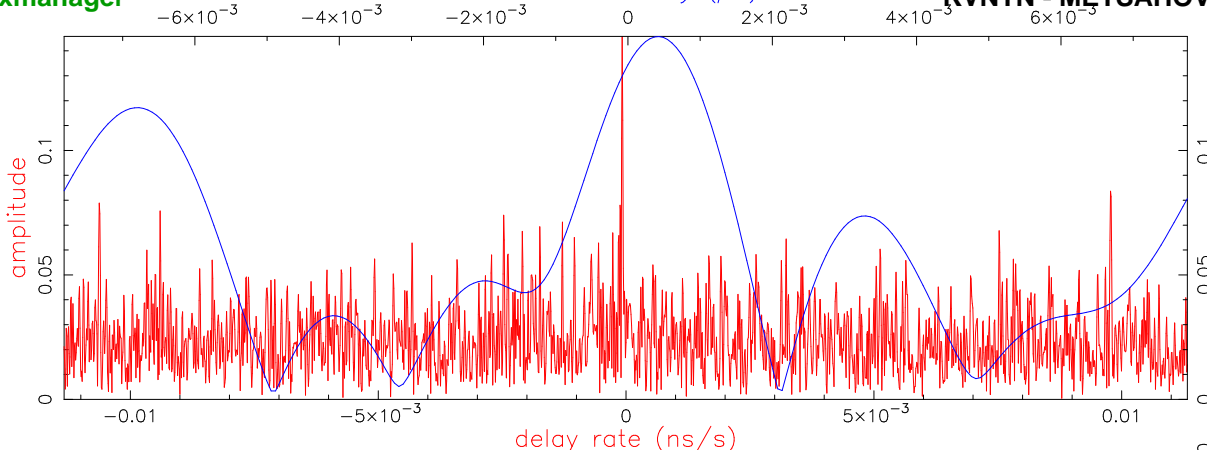
fxmanager

0102+584.1IUE93, No0163, tZ

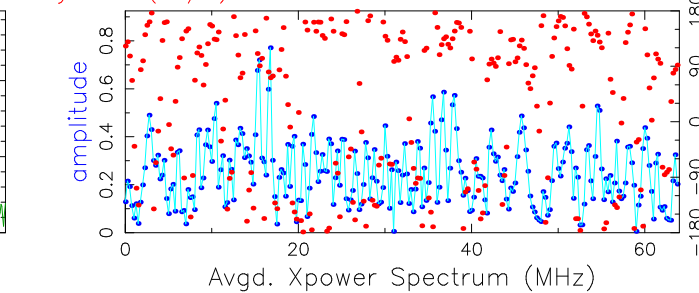
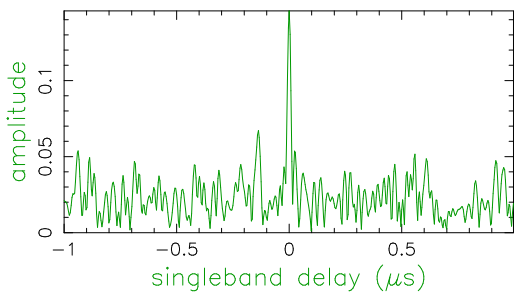
KVNTN - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 9

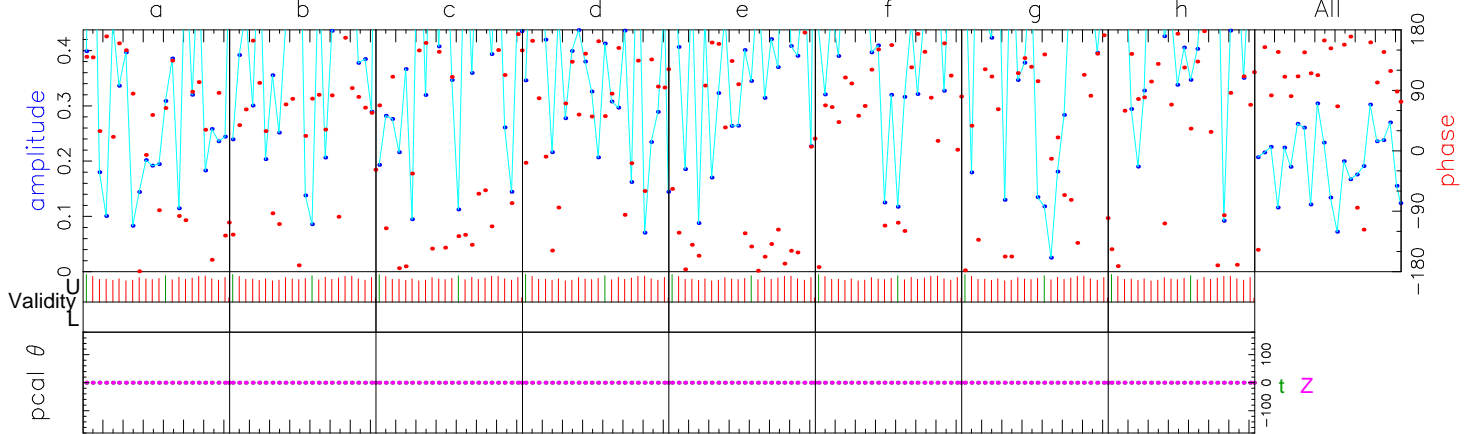


SNR 7.6
 Int time 361.387
 Amp 0.146
 Phase 136.8
 PFD 1.1e-05
 Delays (us)
 SBD -0.000302
 MBD 0.000408
 Fringe rate (Hz)
 -0.006809
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031735
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-8.29143218543E+03	Apriori delay (usec)	-8.29143259374E+03	Resid mbdelay (usec)	4.08308E-04	+/-	1.4E-04
Sband delay (usec)	-8.29143289549E+03	Apriori clock (usec)	1.2352648E+00	Resid sbdelay (usec)	-3.01750E-04	+/-	1.1E-03
Phase delay (usec)	-8.29143258932E+03	Apriori clockrate (us/s)	8.3999986E-08	Resid phdelay (usec)	4.41167E-06	+/-	4.9E-07
Delay rate (us/s)	-8.38667098554E-01	Apriori rate (us/s)	-8.38667019511E-01	Resid rate (us/s)	-7.90431E-08	+/-	2.0E-09
Total phase (deg)	-88.0	Apriori accel (us/s/s)	1.33664545431E-05	Resid phase (deg)	136.8	+/-	15.1

ph/seg (deg)	51.4	Theor.	36.2	Amplitude	0.146 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	56.9		63.3	Search (2048X32)	0.144	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	47.2		21.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	42.8		37.3	Inc. seg. avg.	0.169	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.181	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 321.6 el 36.1 pa 84.6 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) 9233.493 91.564 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/tZ..1IUE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/tZ.W.79.1IUE93

Mk4/DiFX fourfit 3.21 rev 2937

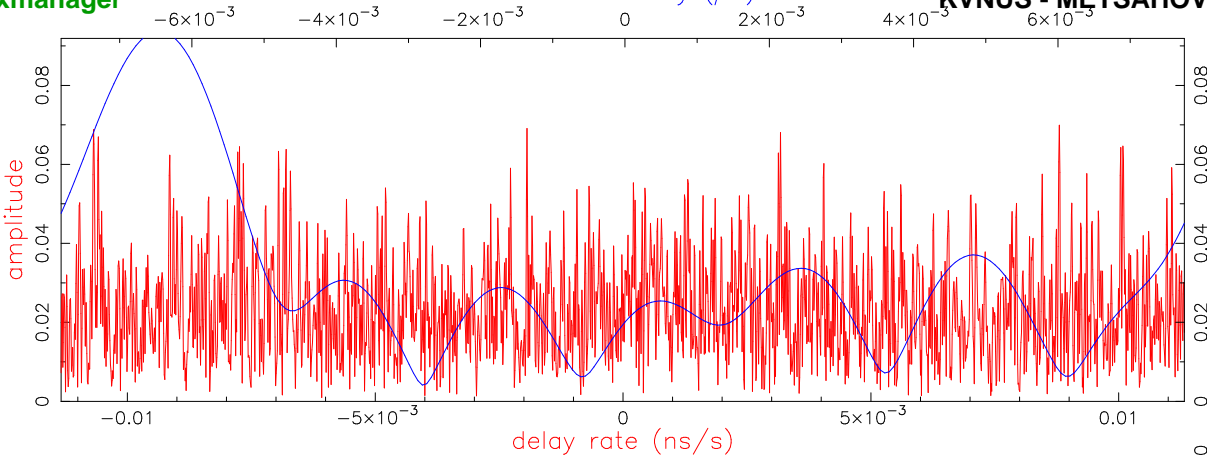
fxmanager

0102+584.11UE93, No0163, uZ

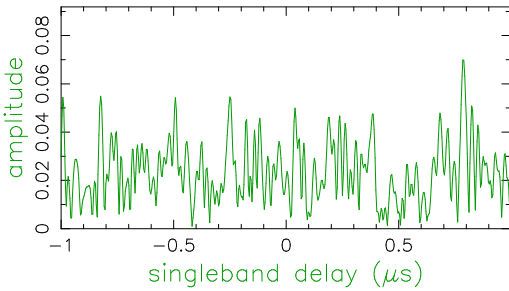
KVNUS - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

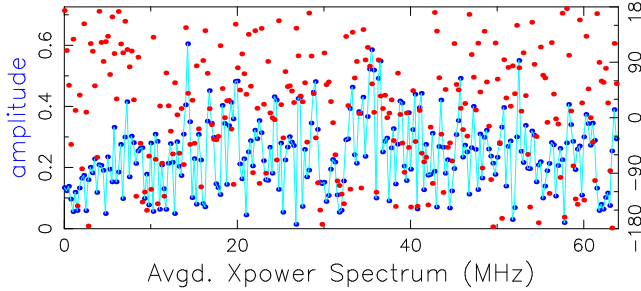
Fringe quality 0



SNR 3.7
 Int time 361.387
 Amp 0.092
 Phase 11.4
 PFD 1.0e+00
 Delays (us)
 SBD 0.786937
 MBD 0.008301
 Fringe rate (Hz)
 0.759314
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

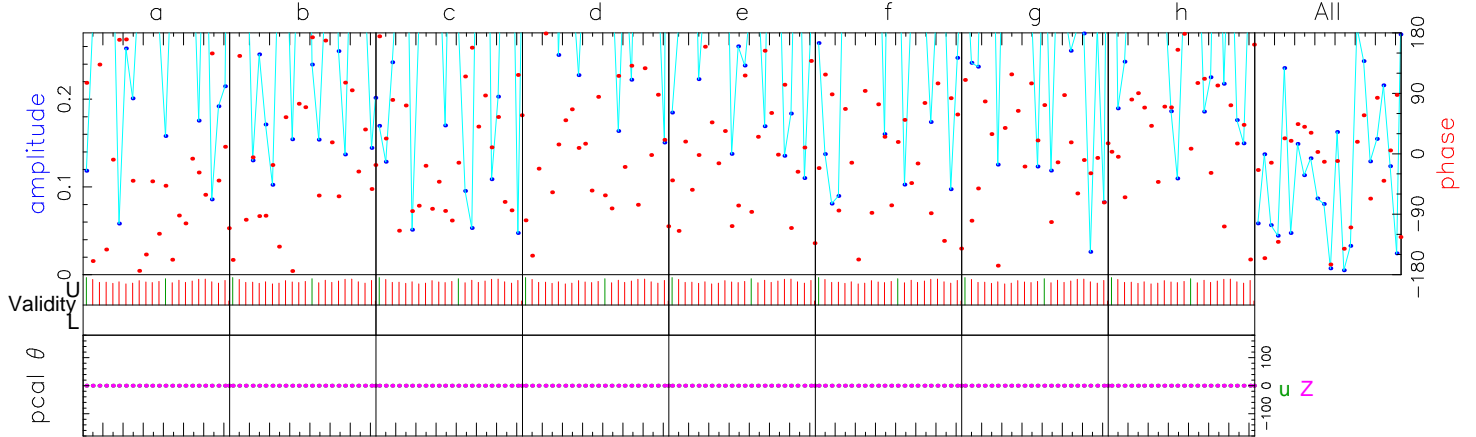


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031744
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-103.8	65.6	-22.2	-20.9	-3.3	14.6	41.5	56.8	Phase	11.4
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	228.9	59.4	470.3	82.7	459.8	262.0	439.7	318.1	Sbd box	458.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	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)	-8.19487214501E+03			Apriori delay (usec)	-8.19566169580E+03			Resid mbdelay (usec)	8.30078E-03	+/- 3.0E-04
Sband delay (usec)	-8.19487475880E+03			Apriori clock (usec)	2.4275980E+00			Resid sbdelay (usec)	7.86937E-01	+/- 2.3E-03
Phase delay (usec)	-8.19566169543E+03			Apriori clockrate (us/s)	3.8399996E-07			Resid phdelay (usec)	3.66408E-07	+/- 1.0E-06
Delay rate (us/s)	-8.28849564435E-01			Apriori rate (us/s)	-8.28858379324E-01			Resid rate (us/s)	8.81489E-06	+/- 4.1E-09
Total phase (deg)		-160.0		Apriori accel (us/s/s)	1.59846128291E-05			Resid phase (deg)	11.4	+/- 31.2

ph/seg (deg) 82.0 74.8 Search (2048X32) 0.106 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 126.9 130.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 60.0 44.1 Inc. seg. avg. 0.081 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 67.0 77.0 Inc. frq. avg. 0.105 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 u: az 320.8 el 36.4 pa 79.2 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) 9133.137 579.032 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/uZ..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/uZ.W.114.11UE93

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

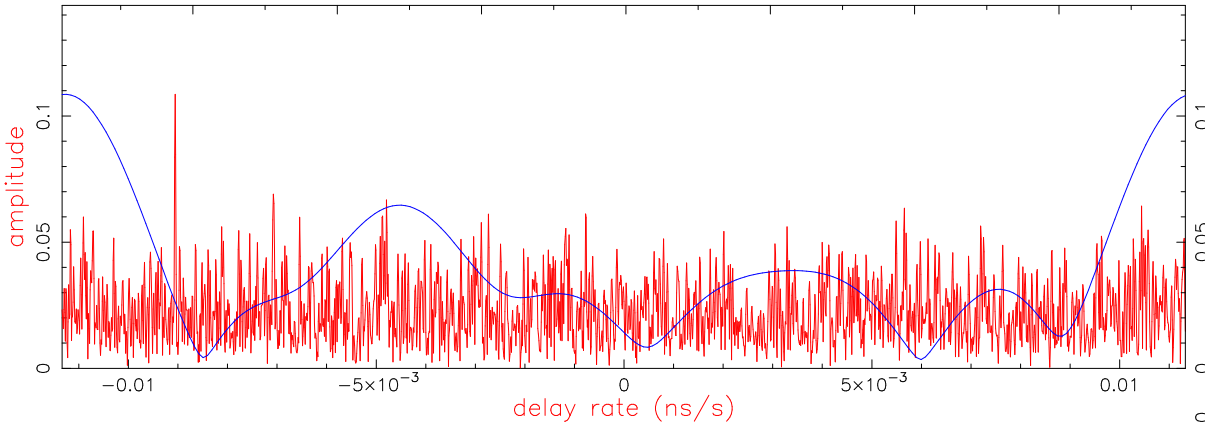
0102+584.11UE93, No0163, uZ

KVNUS - METSAHOV, fgroup W, pol RL

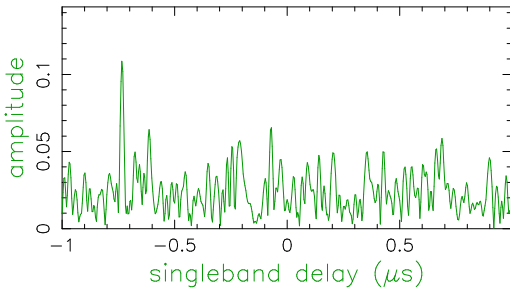
multiband delay (μ s)

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

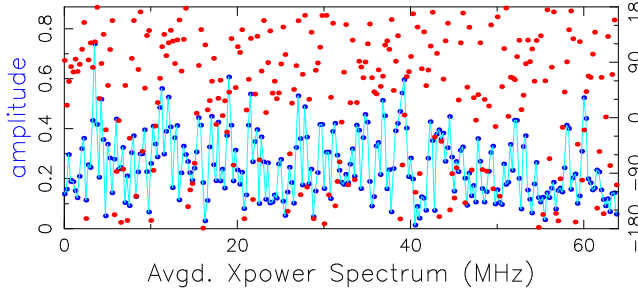
Fringe quality 0



SNR 5.7
Int time 361.387
Amp 0.144
Phase 19.1
PFD 9.8e-01
Delays (us)
SBD -0.733748
MBD -0.007766
Fringe rate (Hz)
-0.781278
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

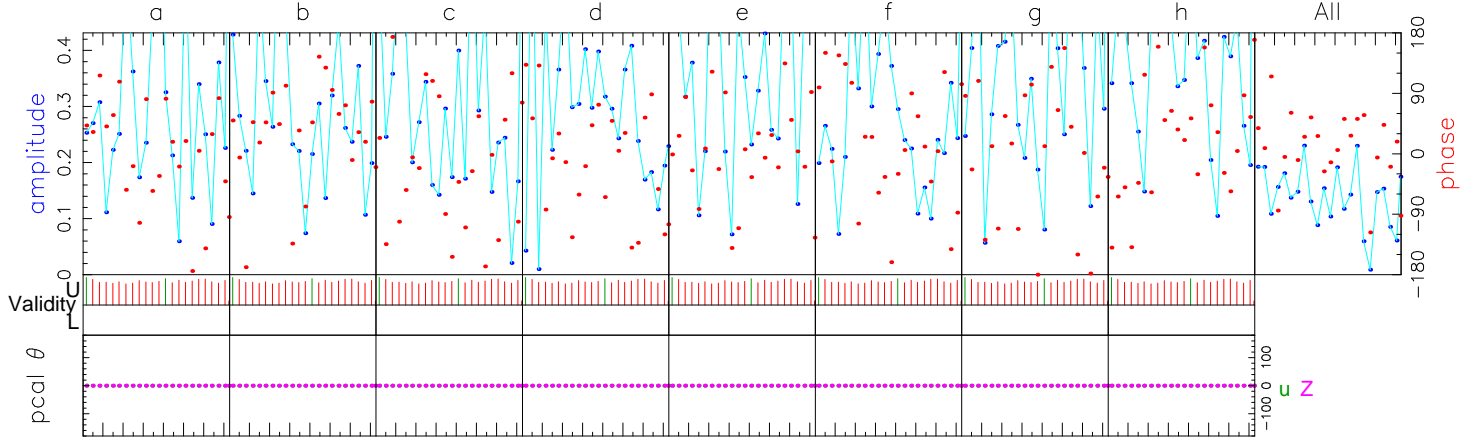


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 201501.00
Stop 202200.84
FRT 201831.00
Corr/FF/build
2021:027:195518
2021:029:031748
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

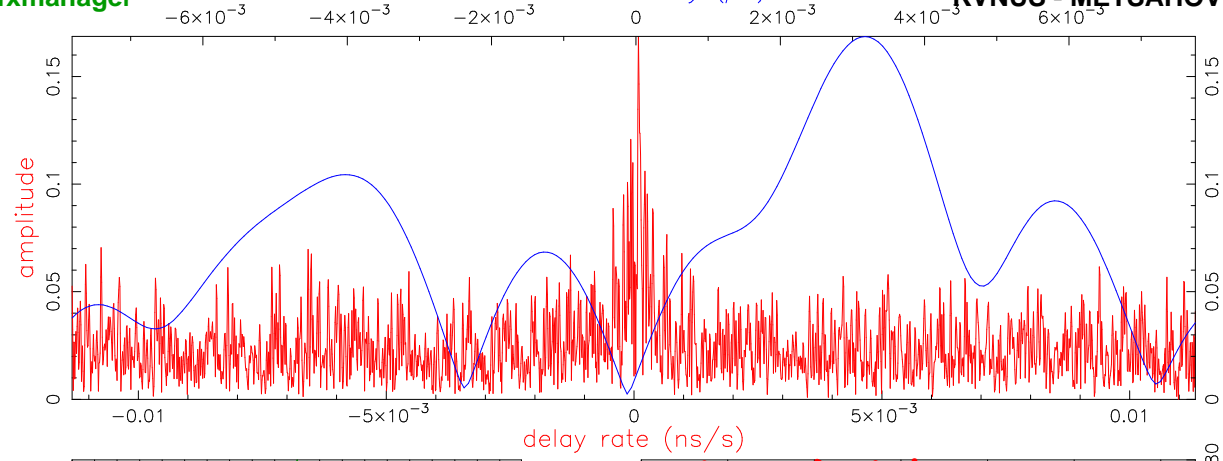
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



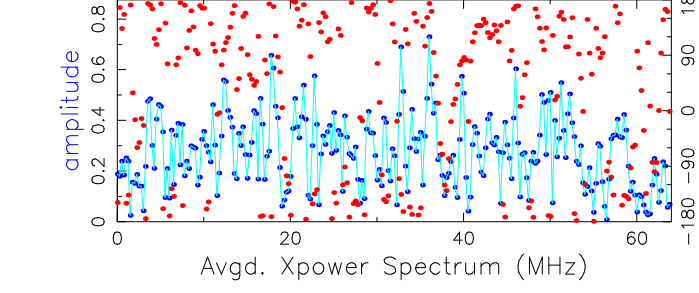
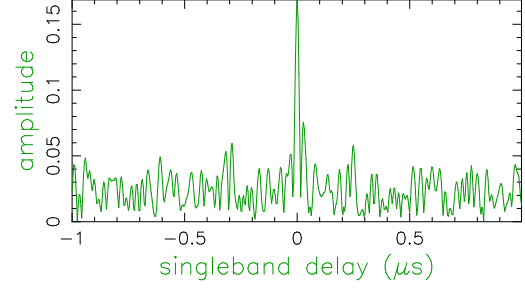
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	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)	-8.19638821186E+03									
Sband delay (usec)	-8.19639544405E+03									
Phase delay (usec)	-8.19566169518E+03									
Delay rate (us/s)	-8.28867449191E-01									
Total phase (deg)		-152.2								
			Apriori delay (usec)		-8.19566169580E+03		Resid mbdelay (usec)		-7.76607E-03	+/- 1.9E-04
			Apriori clock (usec)		2.4275980E+00		Resid sbdelay (usec)		-7.33748E-01	+/- 1.5E-03
			Apriori clockrate (us/s)		3.8399996E-07		Resid phdelay (usec)		6.17221E-07	+/- 6.5E-07
			Apriori rate (us/s)		-8.28858379324E-01		Resid rate (us/s)		-9.06987E-06	+/- 2.7E-09
			Apriori accel (us/s/s)		1.59846128291E-05		Resid phase (deg)		19.1	+/- 20.3
ph/seg (deg)	50.0	48.6	Search (2048X32)	0.106						
amp/seg (%)	56.8	84.8	Interp.	0.000						
ph/frq (deg)	37.3	28.6	Inc. seg. avg.	0.134						
amp/frq (%)	46.0	50.0	Inc. frq. avg.	0.145						
u: az 320.8 el 36.4 pa 79.2		Z: az 84.4 el 75.6 pa -70.6		u,v (fr/asec) 9133.137 579.032						simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/uZ..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/uZ.W.130.11UE93

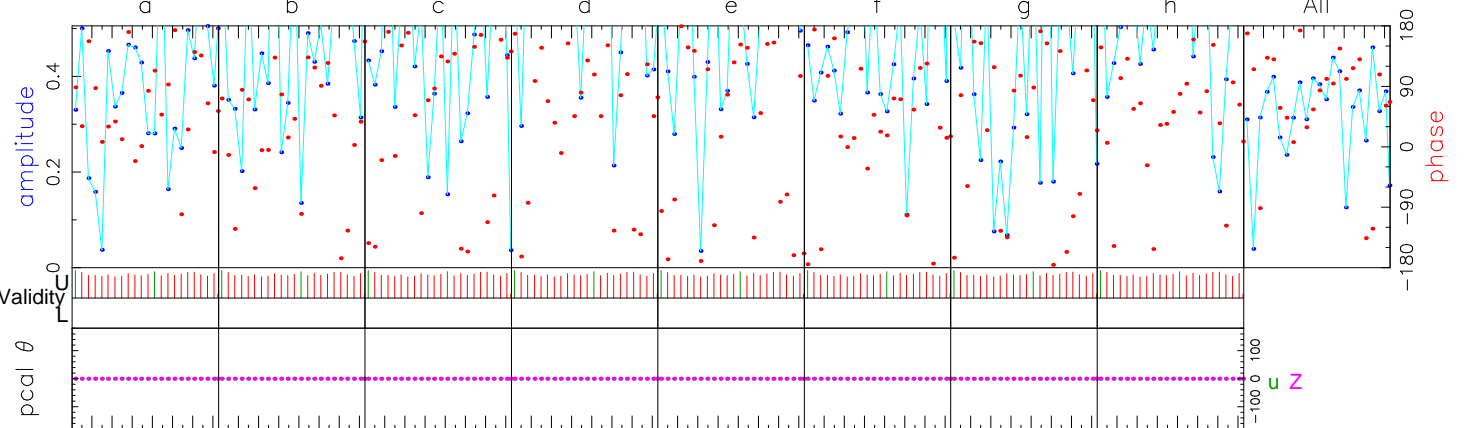
multiband delay (μ s)



Fringe quality 9
 SNR 8.8
 Int time 361.387
 Amp 0.169
 Phase 111.8
 PFD 6.9e-10
 Delays (us)
 SBD -0.000349
 MBD 0.003164
 Fringe rate (Hz) 0.007995
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031738
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-8.19565853141E+03									
Sband delay (usec)	-8.19566204480E+03									
Phase delay (usec)	-8.19566169219E+03									
Delay rate (us/s)	-8.28858286504E-01									
Total phase (deg)			-59.5							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
u Z										
ph/seg (deg)	65.1	31.3								
amp/seg (%)	108.9	54.7								
ph/frq (deg)	47.8	18.5								
amp/frq (%)	44.2	32.3								
u: az 320.8 el 36.4 pa 79.2										
Z: az 84.4 el 75.6 pa -70.6										
u,v (fr/asec) 9133.137 579.032										
simultaneous interpolator										

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/uZ..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/uZ.W.84.11UE93

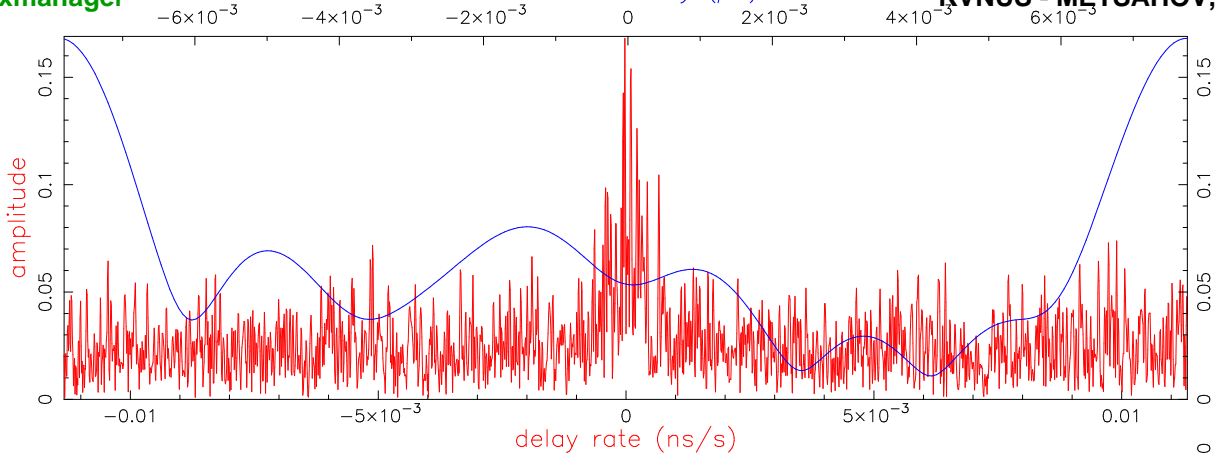
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.11UE93, No0163, uZ

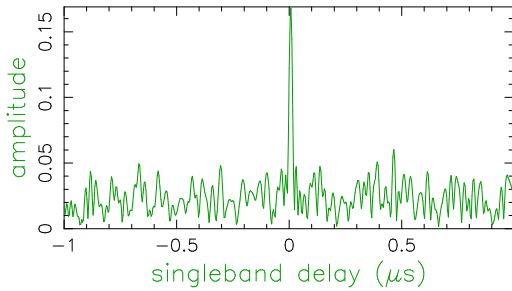
KVNUS - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

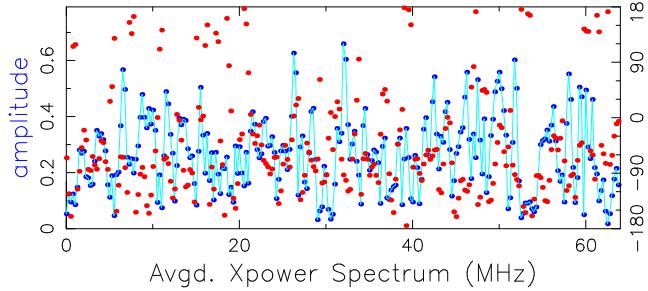


Fringe quality 9

SNR 8.8
 Int time 361.387
 Amp 0.169
 Phase 94.3
 PFD 5.8e-10
 Delays (us)
 SBD 0.006911
 MBD -0.007897
 Fringe rate (Hz)
 -0.001843
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

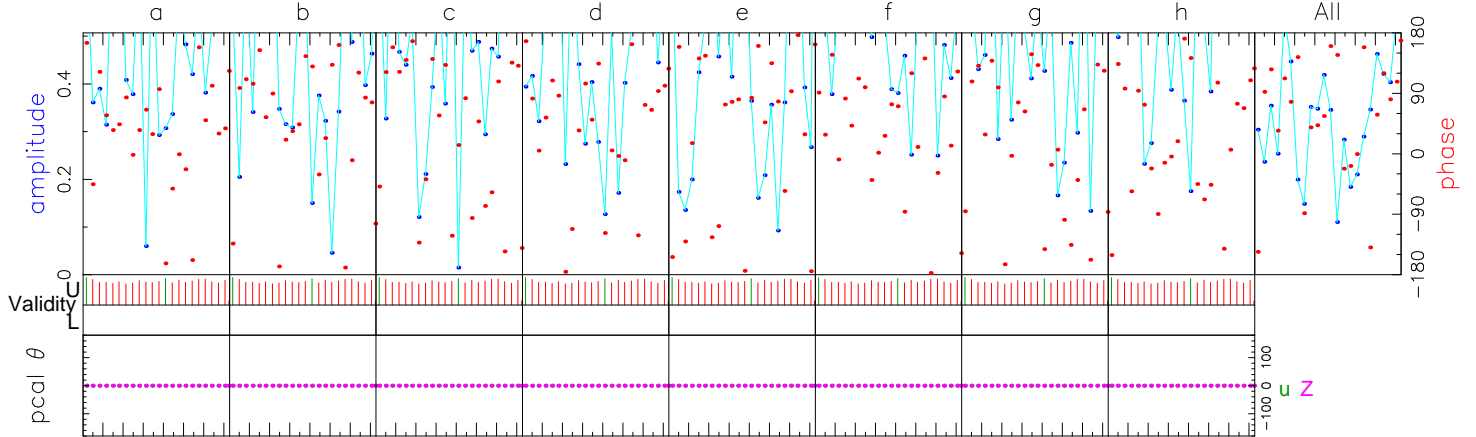


delay rate (ns/s)



Exp. c202b
 Yr:day 16383
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031741
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-8.19565396811E+03									
Sband delay (usec)	-8.19565478430E+03									
Phase delay (usec)	-8.19566169276E+03									
Delay rate (us/s)	-8.28858400716E-01									
Total phase (deg)			-77.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)									94.3	+/- 13.0
Pcal mode:	MANUAL	MANUAL								
Pcal rate:	0.000E+00	0.000E+00	(us/s)							
Bits/sample:	2x2									
Sample rate(MSamp/s):	128									
Data rate(Mb/s):	2048									
nlags:	256									
t_cohere	infinite									
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								

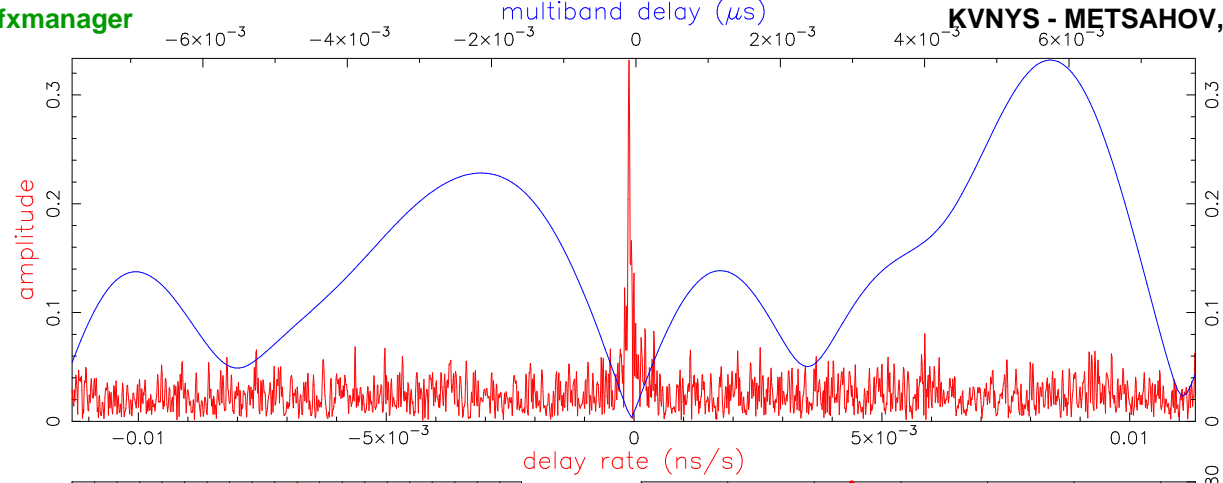
u: az 320.8 el 36.4 pa 79.2 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) 9133.137 579.032 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/uZ..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/uZ.W.97.11UE93

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUE93, No0163, yZ

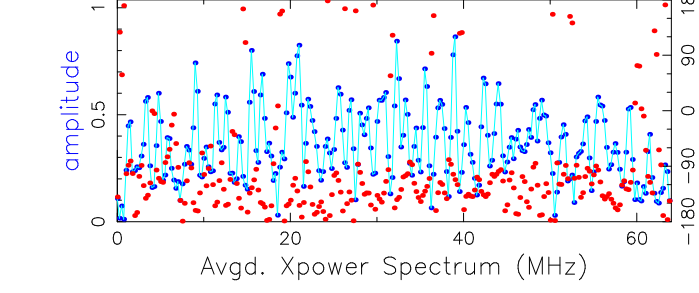
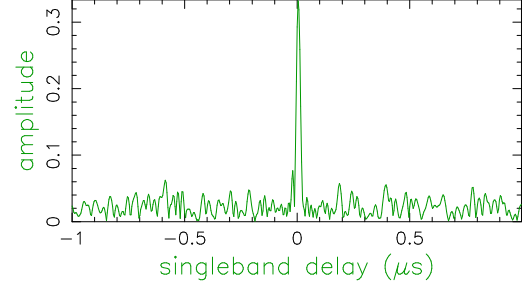
KVNYS - METSAHOV, fgroup W, pol RR



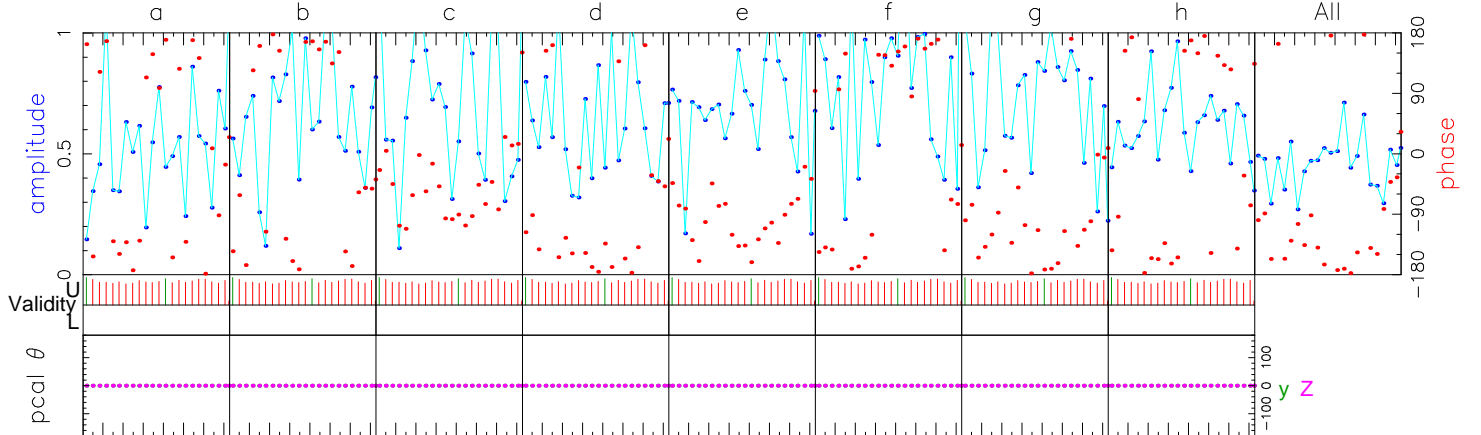
Fringe quality 7

SNR 17.3
 Int time 361.387
 Amp 0.334
 Phase -140.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.004858
 MBD 0.005766
 Fringe rate (Hz) -0.008387
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031743
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

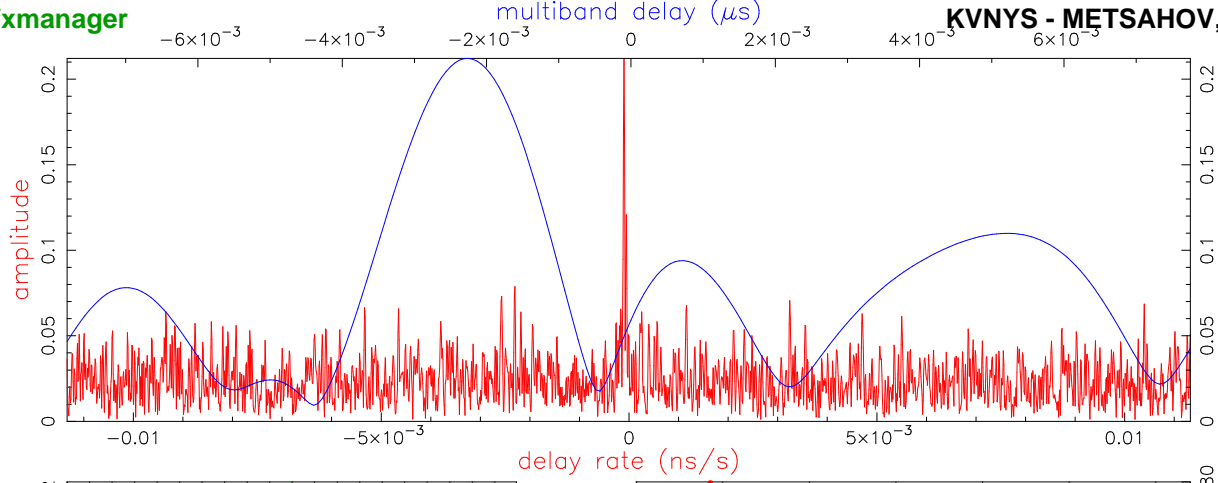


Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	177.6	-173.6	-52.9	-150.3	-99.3	176.4	-118.0	-171.4	Phase	-140.2
	0.3	0.4	0.5	0.4	0.5	0.5	0.5	0.4	Ampl.	0.5
	259.7	258.7	257.6	257.2	257.3	257.2	257.7	258.4	Sbd box	258.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.38864469983E+03		Apriori delay (usec)		-7.38865046587E+03		Resid mbdelay (usec)		5.78604E-03	+/- 6.3E-05
Sband delay (usec)	-7.38864560812E+03		Apriori clock (usec)		1.0992641E+00		Resid sbdelay (usec)		4.85775E-03	+/- 5.0E-04
Phase delay (usec)	-7.38865047039E+03		Apriori clockrate (us/s)		8.3999986E-08		Resid phdelay (usec)		-4.52055E-06	+/- 2.1E-07
Delay rate (us/s)	-8.06278950208E-01		Apriori rate (us/s)		-8.06278852841E-01		Resid rate (us/s)		-9.73672E-08	+/- 8.8E-10
Total phase (deg)			Apriori accel (us/s/s)		1.44088427337E-05		Resid phase (deg)		-140.2	+/- 6.6

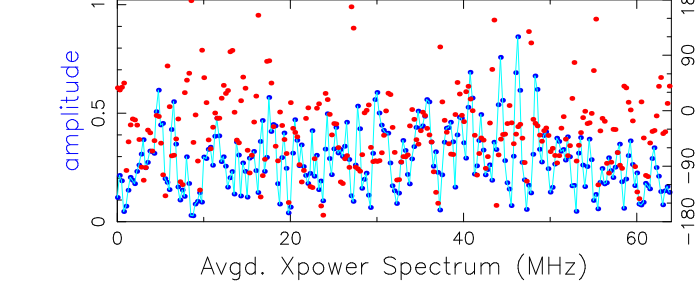
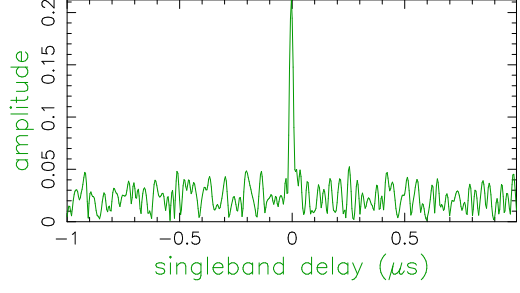
ph/seg (deg) 46.9 15.8 Search (2048X32) 0.328 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 49.6 27.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 51.1 9.3 Inc. seg. avg. 0.446 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.4 16.3 Inc. frq. avg. 0.456 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 y: az 319.6 el 39.2 pa 79.4 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) 8881.021 511.827 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/yZ..1IUE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/yZ.W.109.1IUE93



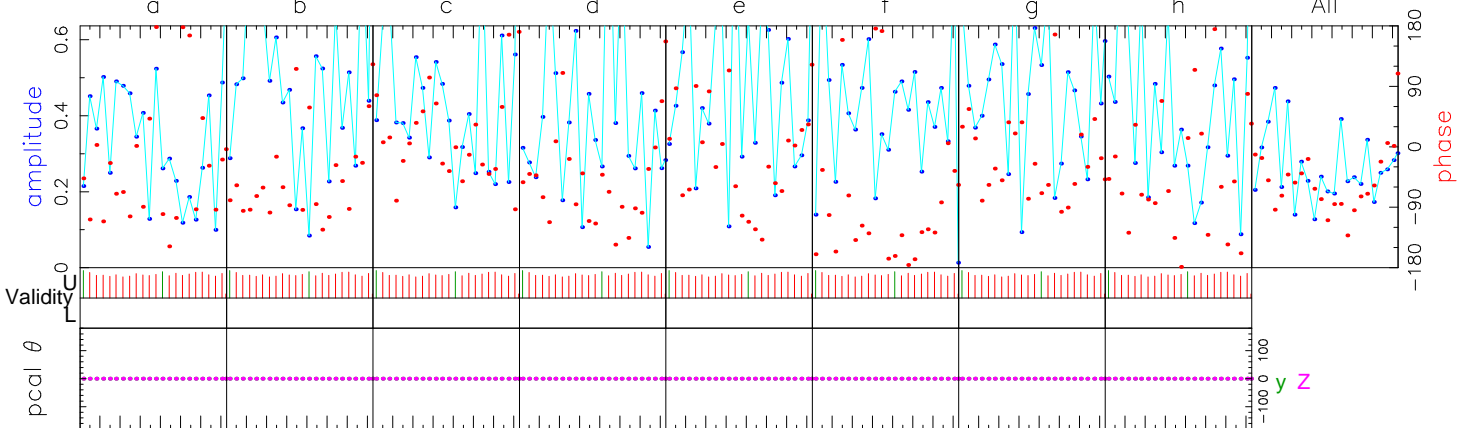
Fringe quality 9

SNR 11.0
 Int time 361.387
 Amp 0.212
 Phase -56.6
 PFD 1.3e-19
 Delays (us)
 SBD -0.003878
 MBD -0.002265
 Fringe rate (Hz)
 -0.008242
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031746
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-7.38865273114E+03				-7.38865046587E+03				Resid mbdelay (usec)	-2.26527E-03 +/- 9.8E-05
Sband delay (usec)	-7.38865434412E+03				1.0992641E+00				Resid sbdelay (usec)	-3.87825E-03 +/- 7.8E-04
Phase delay (usec)	-7.38865046769E+03				8.3999986E-08				Resid phdelay (usec)	-1.82585E-06 +/- 3.4E-07
Delay rate (us/s)	-8.06278948523E-01				-8.06278852841E-01				Resid rate (us/s)	-9.56815E-08 +/- 1.4E-09
Total phase (deg)			-103.3		1.44088427337E-05				Resid phase (deg)	-56.6 +/- 10.4
	RMS	Theor.	Amplitude	0.212 +/- 0.019					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	38.7	24.9	Search (2048X32)	0.202					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	48.2	43.5	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	41.0	14.7	Inc. seg. avg.	0.241					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	33.8	25.6	Inc. frq. avg.	0.251					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

y: az 319.6 el 39.2 pa 79.4 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) 8881.021 511.827 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/yZ..1IUE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/yZ.W.124.1IUE93

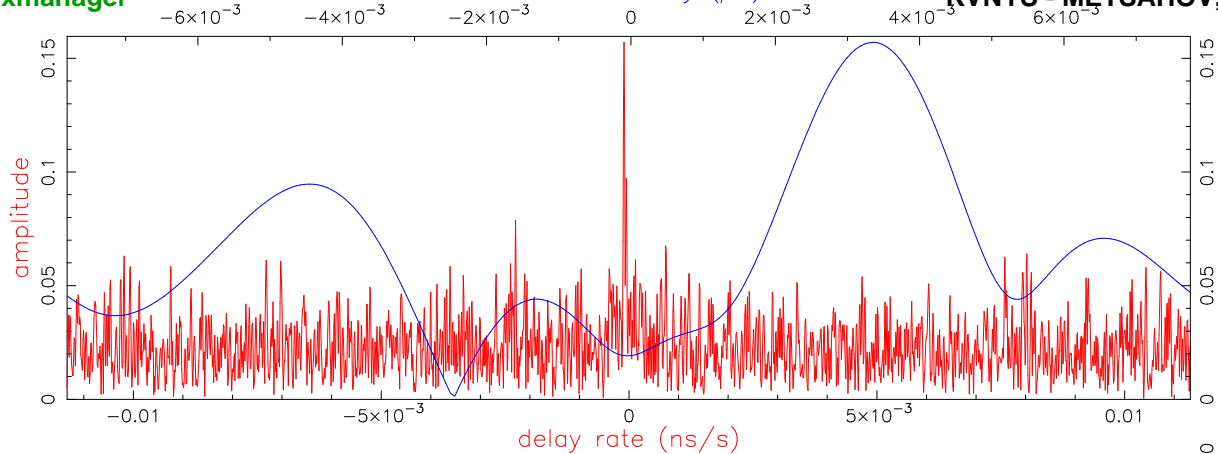
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUE93, No0163, yZ

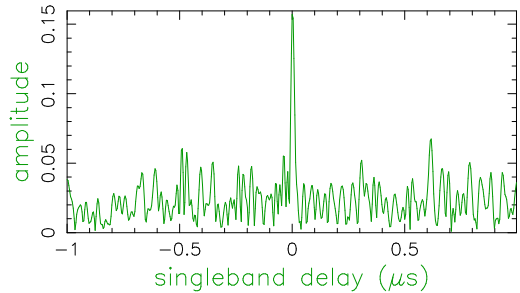
KVNYS - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

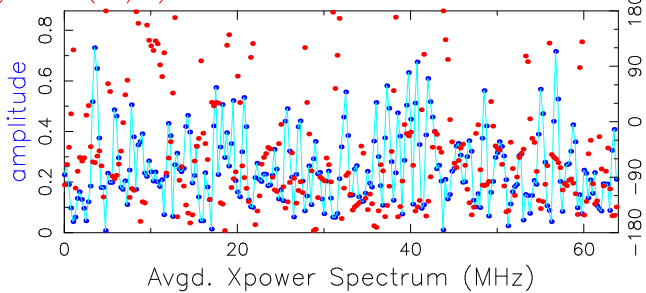


Fringe quality 9

SNR 8.3
 Int time 361.387
 Amp 0.160
 Phase -116.0
 PFD 3.7e-08
 Delays (us)
 SBD 0.001595
 MBD 0.003357
 Fringe rate (Hz)
 -0.008412
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

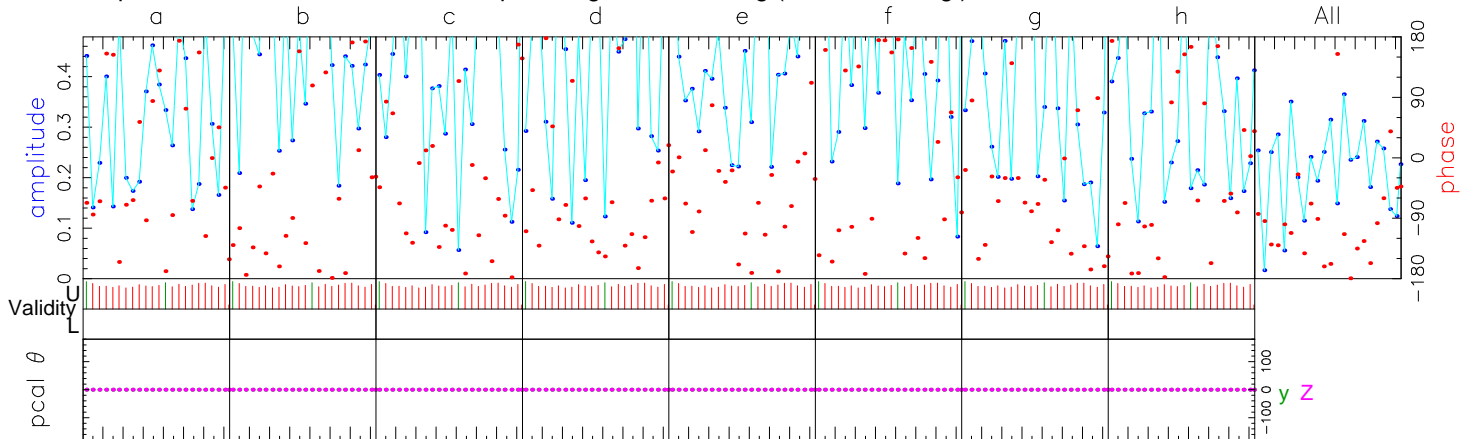


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031749
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-127.2	-156.3	-81.8	-105.2	-52.7	-164.6	-90.4	-141.9	Phase	-116.0
	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.1	Ampl.	0.2
	297.8	257.4	459.8	257.1	189.9	257.0	257.4	181.7	Sbd box	257.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-7.38864710908E+03	Apriori delay (usec)	-7.38865046587E+03	Resid mbdelay (usec)	3.35679E-03	+/-	1.3E-04
Sband delay (usec)	-7.38864887137E+03	Apriori clock (usec)	1.0992641E+00	Resid sbdelay (usec)	1.59450E-03	+/-	1.0E-03
Phase delay (usec)	-7.38865046961E+03	Apriori clockrate (us/s)	8.3999986E-08	Resid phdelay (usec)	-3.74117E-06	+/-	4.5E-07
Delay rate (us/s)	-8.06278950492E-01	Apriori rate (us/s)	-8.06278852841E-01	Resid rate (us/s)	-9.76513E-08	+/-	1.8E-09
Total phase (deg)	-162.7	Apriori accel (us/s/s)	1.44088427337E-05	Resid phase (deg)	-116.0	+/-	13.8

ph/seg (deg)	53.9	Theor.	33.1	Amplitude	0.160 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	66.0	Search (2048X32)	0.155	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	42.3	Inc. seg. avg.	0.187	Inc. seg. avg.	0.187	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	49.8	Inc. frq. avg.	0.187	Inc. frq. avg.	0.187	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

y: az 319.6 el 39.2 pa 79.4 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) 8881.021 511.827 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/yZ..1IUE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/yZ.W.140.1IUE93

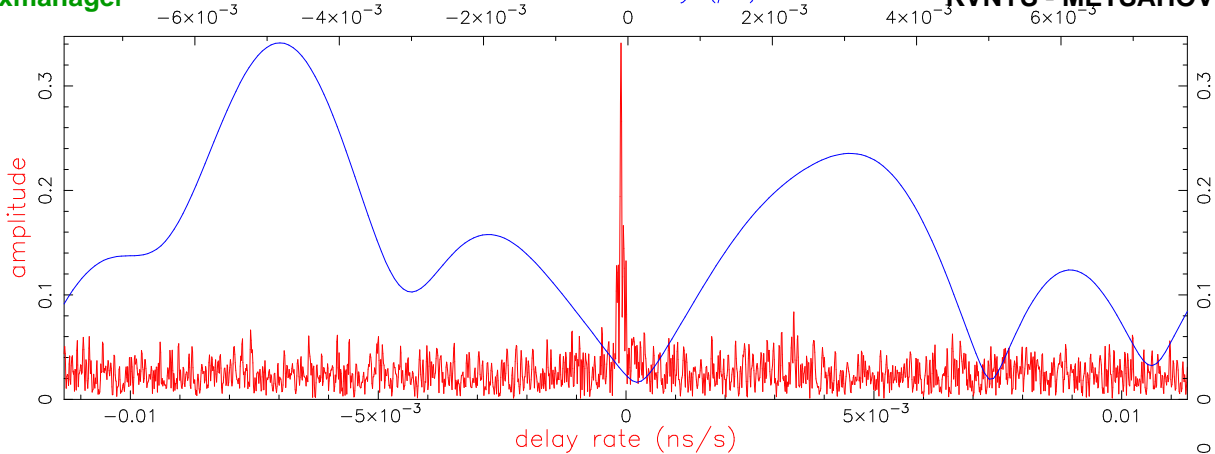
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUE93, No0163, yZ

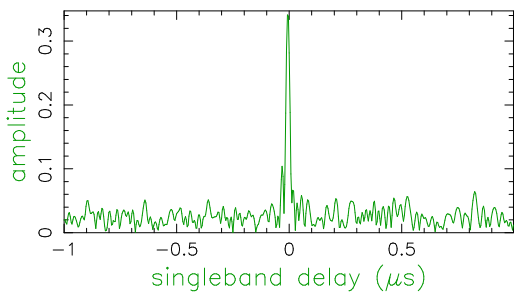
KVNYS - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

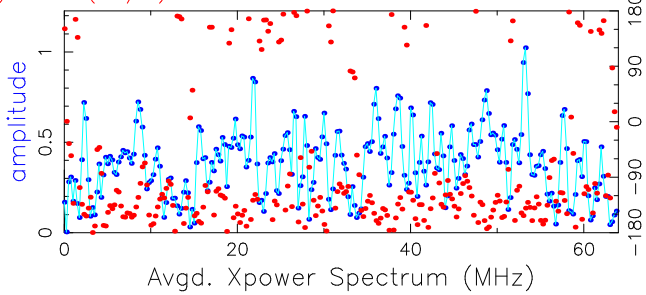


Fringe quality 7

SNR 18.1
 Int time 361.387
 Amp 0.347
 Phase -156.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.006005
 MBD -0.004783
 Fringe rate (Hz)
 -0.008267
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

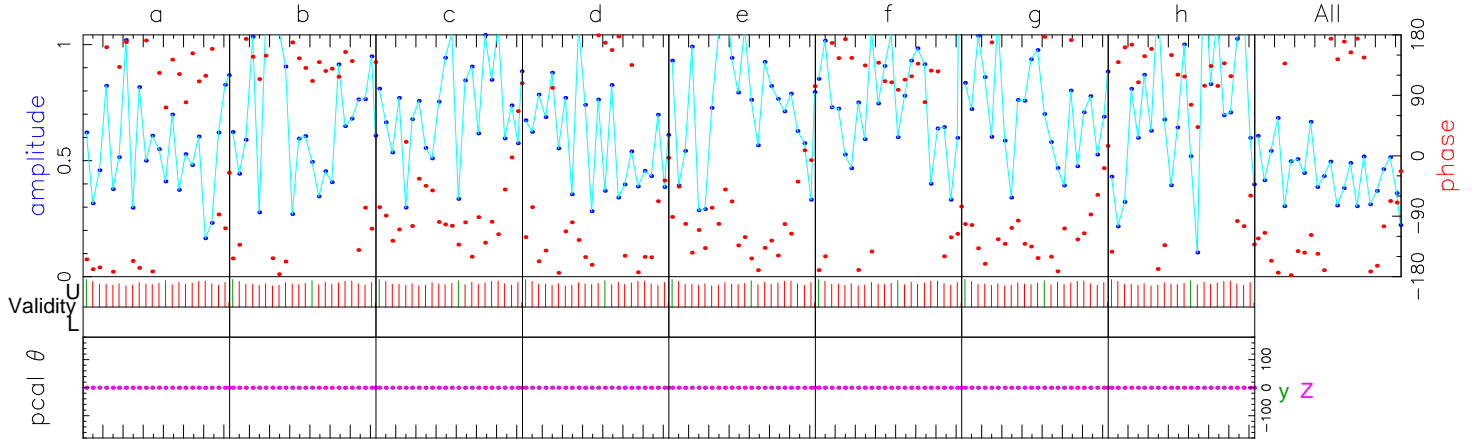


delay rate (ns/s)



Exp. c202b
 Yr:day 16383
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031739
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-7.38865524883E+03	Apriori delay (usec)	-7.38865046587E+03	Resid mbdelay (usec)	-4.78296E-03	+/-	6.0E-05
Sband delay (usec)	-7.38865647062E+03	Apriori clock (usec)	1.0992641E+00	Resid sbdelay (usec)	-6.00475E-03	+/-	4.8E-04
Phase delay (usec)	-7.38865047090E+03	Apriori clockrate (us/s)	8.3999986E-08	Resid phdelay (usec)	-5.03457E-06	+/-	2.0E-07
Delay rate (us/s)	-8.06278948816E-01	Apriori rate (us/s)	-8.06278852841E-01	Resid rate (us/s)	-9.59748E-08	+/-	8.4E-10
Total phase (deg)	-202.8	Apriori accel (us/s/s)	1.44088427337E-05	Resid phase (deg)	-156.1	+/-	6.3

ph/seg (deg)	44.5	Theor.	15.2	Amplitude	0.347 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	44.0	Search (2048X32)	0.331	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	50.3	Inc. seg. avg.	0.437	Inc. frq. avg.	0.467	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	41.7	Inc. frq. avg.	0.467			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

y: az 319.6 el 39.2 pa 79.4 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) 8881.021 511.827 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/yZ..1IUE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/yZ.W.92.1IUE93

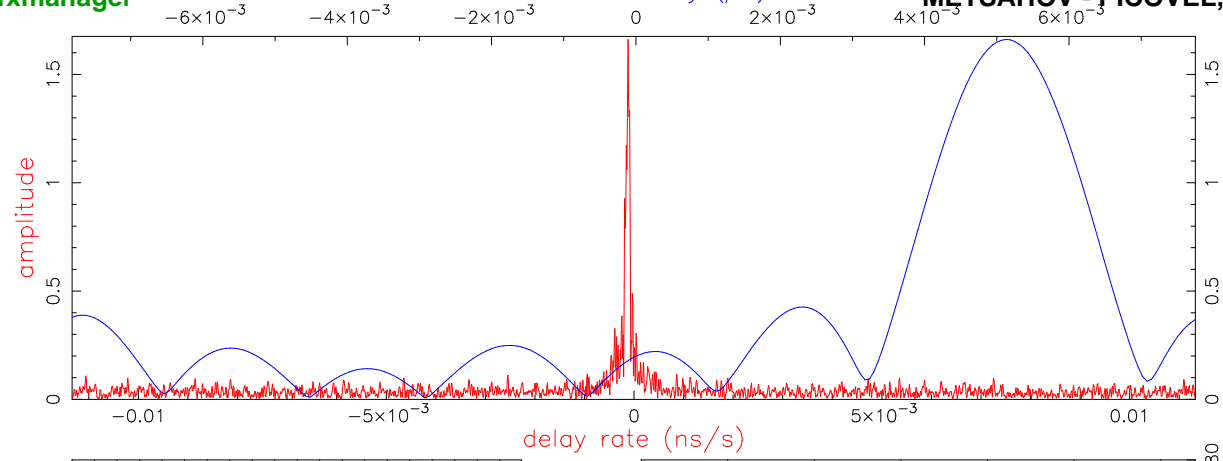
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

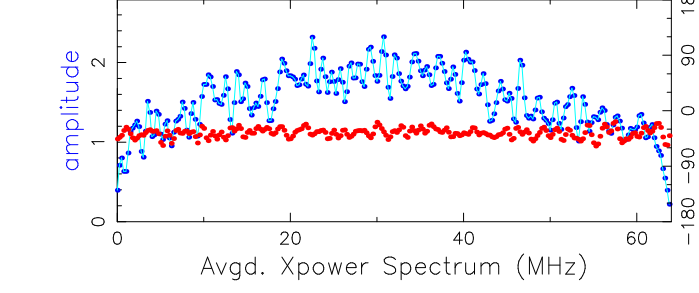
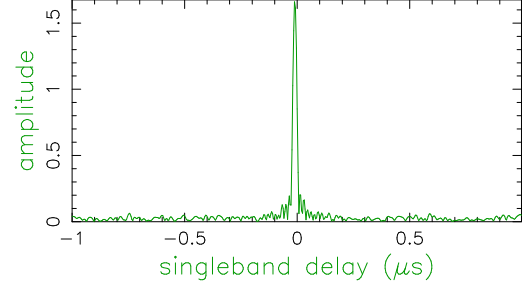
0102+584.11UE93, No0163, ZP

MEṬSAHOV - PICOVEL, fgroup W, pol RR

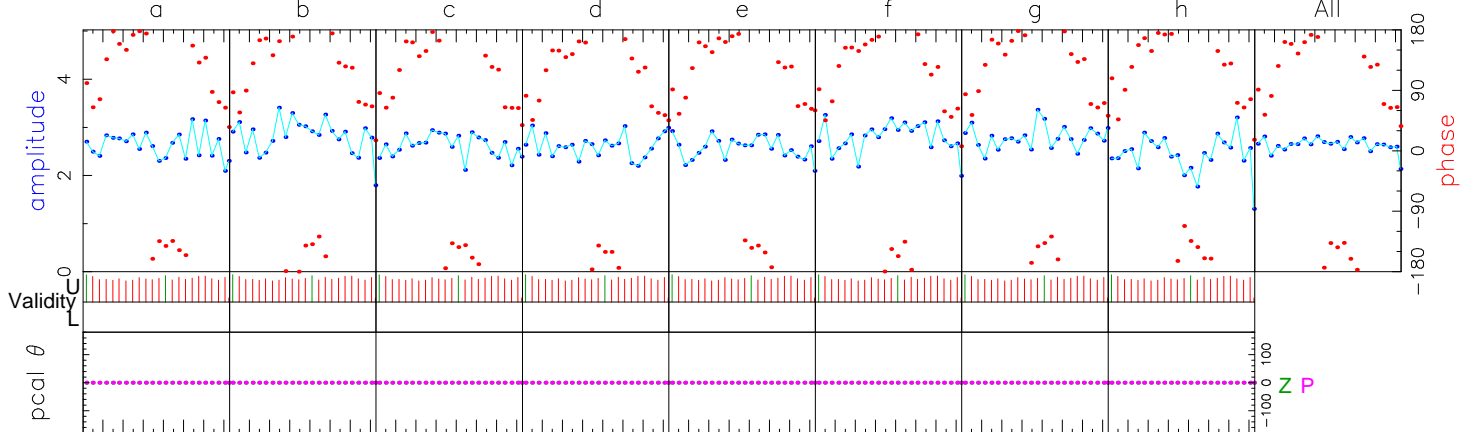
multiband delay (μ s)



Fringe quality 5
 SNR 87.1
 Int time 361.008
 Amp 1.676
 Phase 144.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.010452
 MBD 0.005161
 Fringe rate (Hz)
 -0.010124
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031742
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



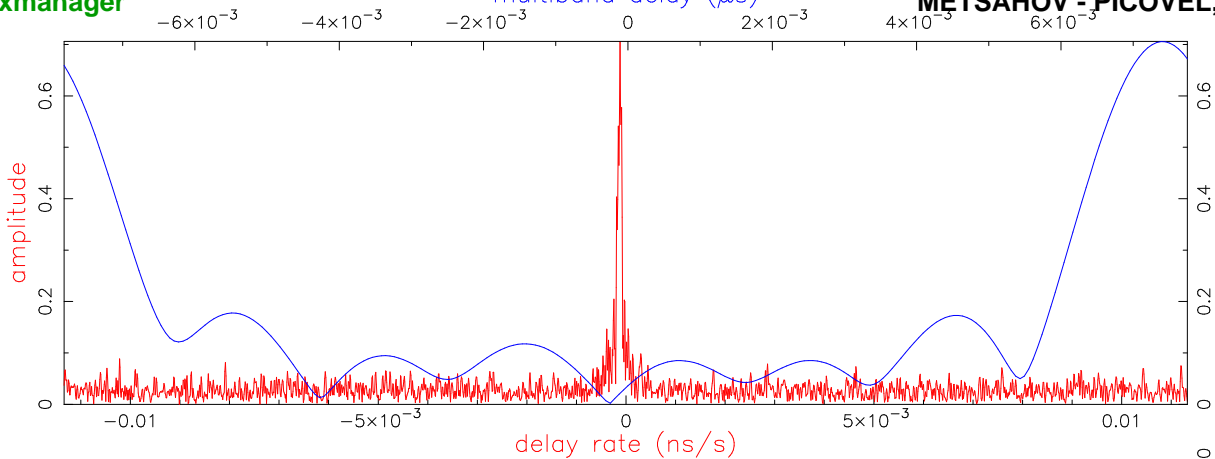
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl 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)	4.61811490866E+03	Apriori delay (usec)		4.61812537295E+03	Resid mbdelay (usec)		5.16071E-03	+/-	1.2E-05	
Sband delay (usec)	4.61811492120E+03	Apriori clock (usec)		3.6761093E-01	Resid sbdelay (usec)		-1.04517E-02	+/-	9.9E-05	
Phase delay (usec)	4.61812537760E+03	Apriori clockrate (us/s)		4.1600000E-07	Resid phdelay (usec)		4.65248E-06	+/-	4.2E-08	
Delay rate (us/s)	-3.45965704238E-01	Apriori rate (us/s)		-3.45965586712E-01	Resid rate (us/s)		-1.17526E-07	+/-	1.8E-10	
Total phase (deg)		9.7	Apriori accel (us/s/s)		9.71700480795E-07	Resid phase (deg)		144.3	+/-	1.3

ph/seg (deg)	53.3	3.2	Amplitude	1.676 +/- 0.019	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	58.7	5.5	Search (2048X32)	1.572	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	6.1	1.9	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	4.1	3.2	Inc. seg. avg.	2.649	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011		
			Inc. frq. avg.	1.667	Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

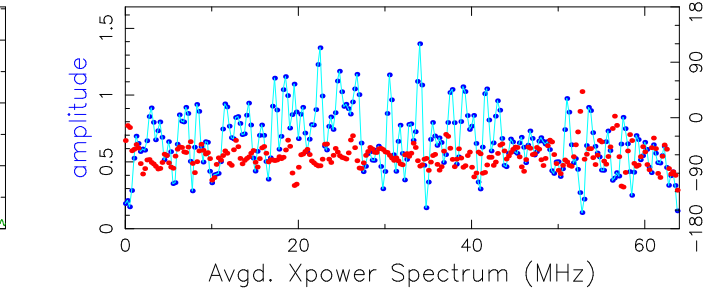
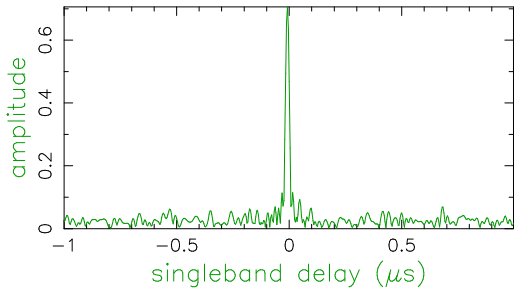
Z: az 84.4 el 75.6 pa -70.6 P: az 40.6 el 48.3 pa -96.5 u,v (fr/asec) 3794.091 1292.815 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZP..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZP.W.108.11UE93

multiband delay (μ s)



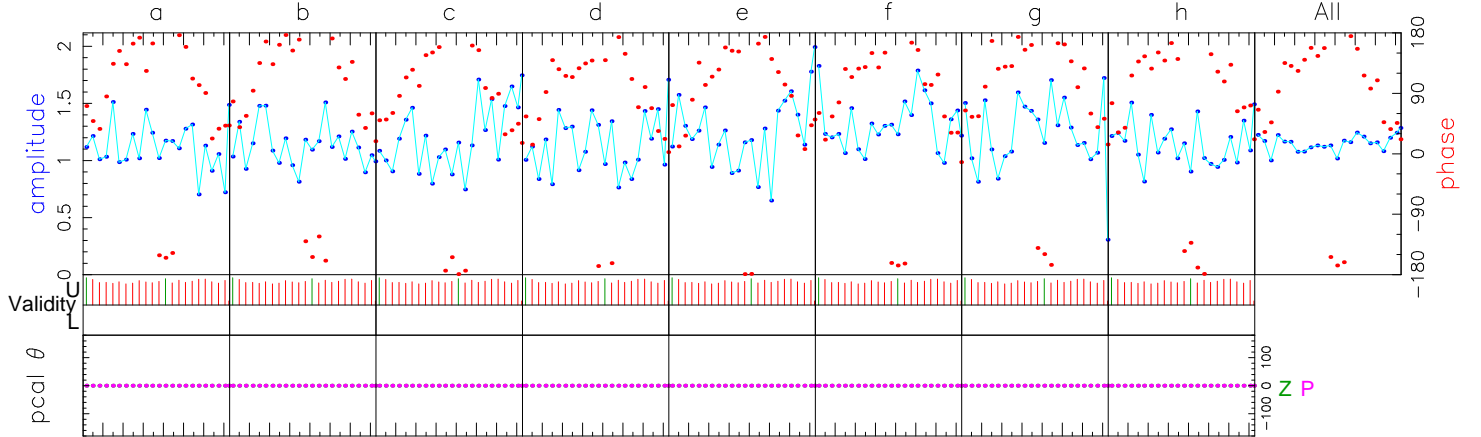
Fringe quality 6

SNR 36.7
 Int time 361.008
 Amp 0.706
 Phase 118.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.008075
 MBD 0.007402
 Fringe rate (Hz)
 -0.010168
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031746
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 4.61811715000E+03 Apriori delay (usec) 4.61812537295E+03 Resid mbdelay (usec) 7.40205E-03 +/- 3.0E-05
 Sband delay (usec) 4.61811729745E+03 Apriori clock (usec) 3.6761093E-01 Resid sbdelay (usec) -8.07550E-03 +/- 2.3E-04
 Phase delay (usec) 4.61812537676E+03 Apriori clockrate (us/s) 4.1600000E-07 Resid phdelay (usec) 3.80452E-06 +/- 1.0E-07
 Delay rate (us/s) -3.45965704752E-01 Apriori rate (us/s) -3.45965586712E-01 Resid rate (us/s) -1.18039E-07 +/- 4.2E-10
 Total phase (deg) 343.4 Apriori accel (us/s/s) 9.71700480795E-07 Resid phase (deg) 118.0 +/- 3.1

RMS Theor. Amplitude 0.706 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 54.1 7.5 Search (2048X32) 0.680 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 63.5 13.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 13.7 4.4 Inc. seg. avg. 1.139 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 9.0 7.7 Inc. frq. avg. 0.719 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 84.4 el 75.6 pa -70.6 P: az 40.6 el 48.3 pa -96.5 u,v (fr/asec) 3794.091 1292.815 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZP..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZP.W.125.11UE93

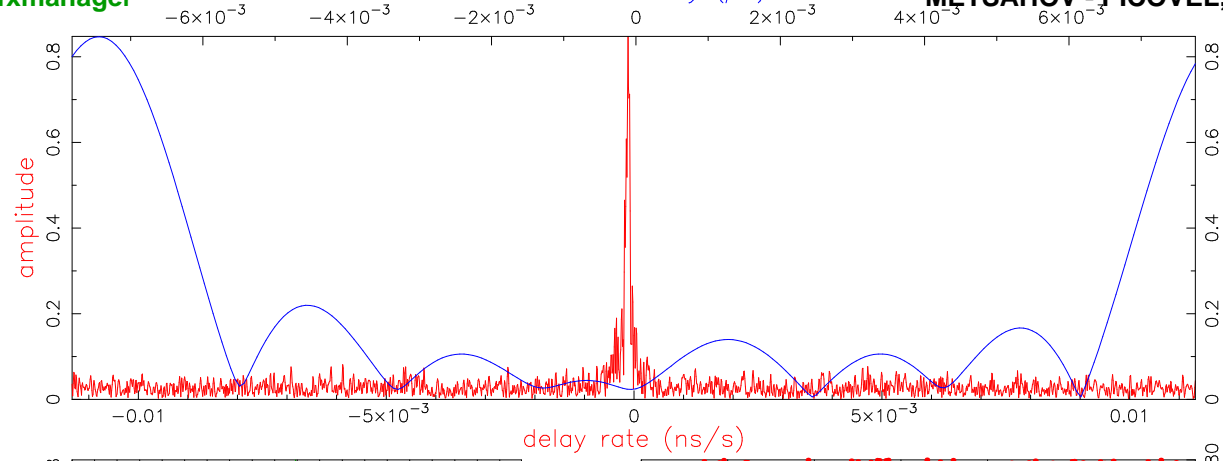
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.11UE93, No0163, ZP

MEṬSAHOV - PICOVEL, fgroup W, pol RL

multiband delay (μ s)



Fringe quality 7

SNR 44.0

Int time 361.008

Amp 0.848

Phase 176.1

PFD 0.0e+00

Delays (us)

SBD -0.007408

MBD -0.007435

Fringe rate (Hz)

-0.010090

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Exper # 16383

Yr:day 2020:284

Start 201501.00

Stop 202200.84

FRT 201831.00

Corr/FF/build

2021:027:195518

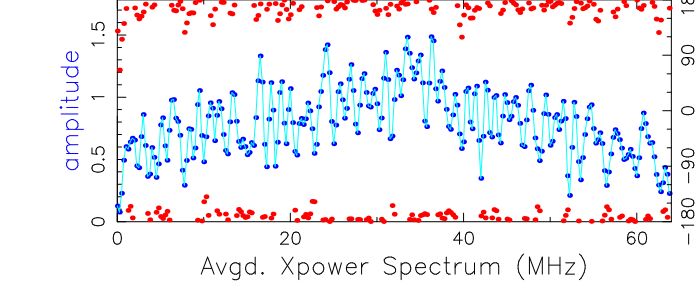
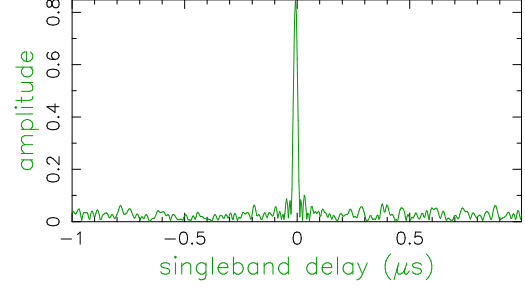
2021:029:031749

2020:247:085004

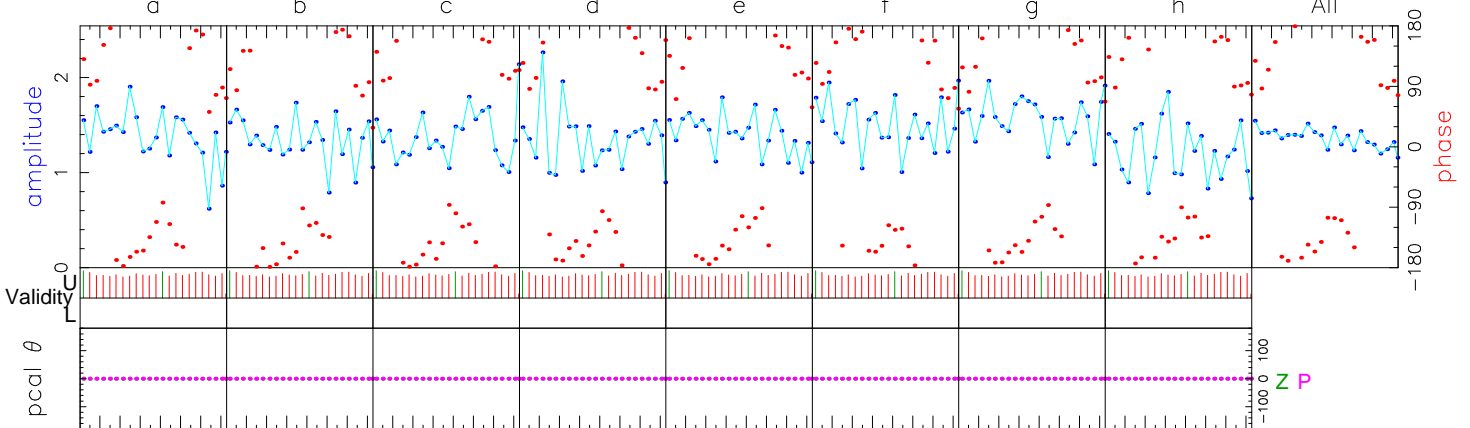
RA & Dec (J2000)

01h02m45.762375s

+58°24'11.136621"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	178.7	174.7	-180.0	173.3	-179.7	162.8	-179.7	-179.8	Phase	176.1
	0.8	0.8	0.9	0.8	0.9	0.9	0.9	0.7	Ampl.	0.8
	254.6	254.9	255.1	255.2	255.3	255.0	255.4	254.6	Sbd box	255.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	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)	4.61811793769E+03	Apriori delay (usec)	4.61812537295E+03	Resid mbdelay (usec)	-7.43526E-03	+/-	2.5E-05
Sband delay (usec)	4.61811796470E+03	Apriori clock (usec)	3.6761093E-01	Resid sbdelay (usec)	-7.40825E-03	+/-	2.0E-04
Phase delay (usec)	4.61812537863E+03	Apriori clockrate (us/s)	4.1600000E-07	Resid phdelay (usec)	5.67962E-06	+/-	8.4E-08
Delay rate (us/s)	-3.45965703842E-01	Apriori rate (us/s)	-3.45965586712E-01	Resid rate (us/s)	-1.17130E-07	+/-	3.5E-10
Total phase (deg)	41.5	Apriori accel (us/s/s)	9.71700480795E-07	Resid phase (deg)	176.1	+/-	2.6

ph/seg (deg)	54.4	RMS	6.2	Theor.	6.2	Amplitude	0.848 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	62.7	Search (2048X32)	0.807	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	6.6	Inc. seg. avg.	1.363	Inc. frq. avg.	0.850	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	8.2	Inc. frq. avg.	0.850	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite
Z: az 84.4 el 75.6 pa -70.6		P: az 40.6 el 48.3 pa -96.5		u,v (fr/asec)	3794.091 1292.815	ion window (TEC)	0.00	0.00			simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZP..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZP.W.141.11UE93

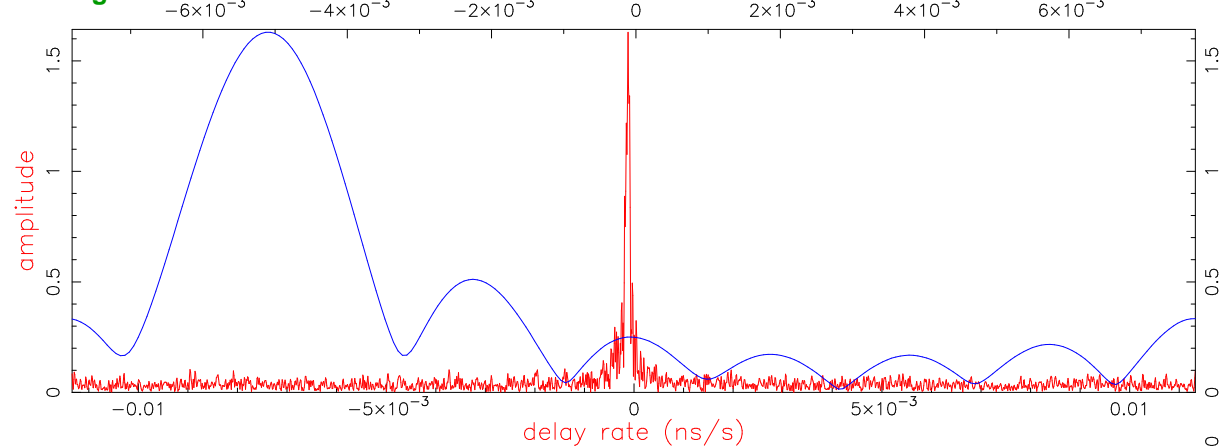
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.11UE93, No0163, ZP

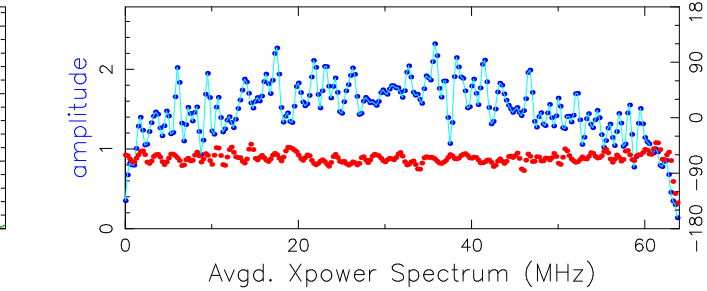
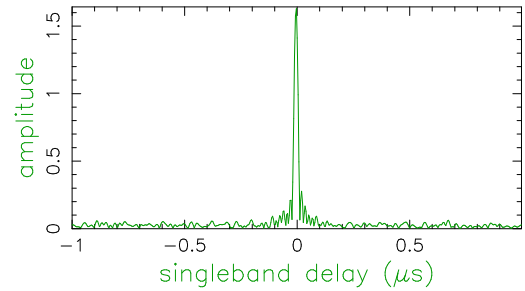
MEṬSAHOV - PICOVEL, fgroup W, pol LL

multiband delay (μ s)



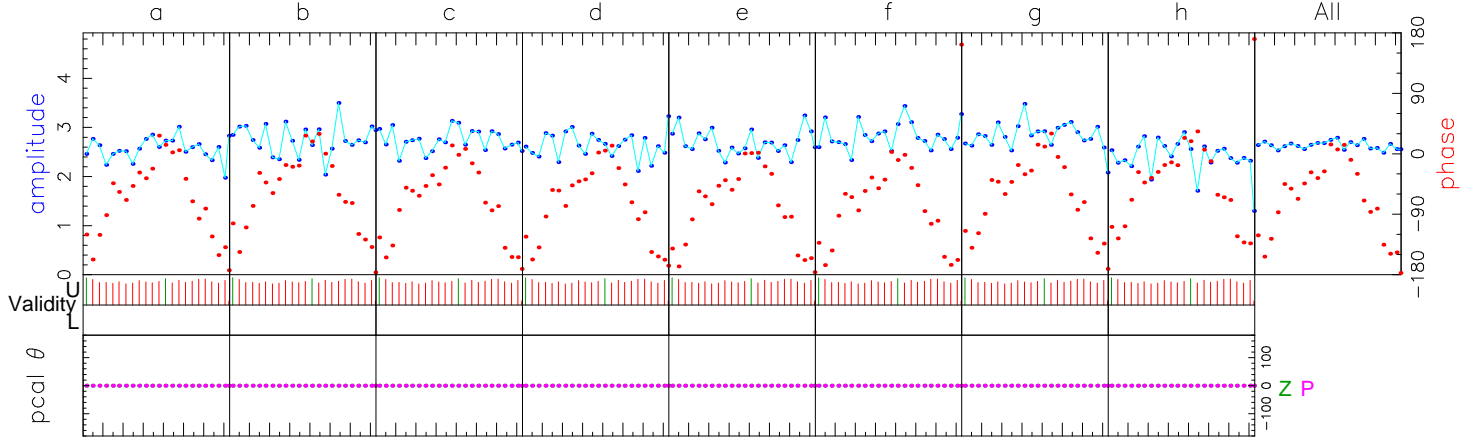
Fringe quality 4

SNR 85.3
 Int time 361.008
 Amp 1.643
 Phase -65.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.005101
 MBD -0.005127
 Fringe rate (Hz)
 -0.010084
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031739
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-63.8	-56.1	-66.5	-71.2	-78.6	-78.1	-57.6	-47.8	Phase	-65.0
	1.5	1.7	1.7	1.6	1.6	1.7	1.8	1.6	Ampl.	1.7
	255.5	255.5	255.4	255.7	255.8	255.8	256.2	255.5	Sbd box	255.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 4.61812024622E+03 Apriori delay (usec) 4.61812537295E+03 Resid mbdelay (usec) -5.12673E-03 +/- 1.3E-05
 Sband delay (usec) 4.61812027195E+03 Apriori clock (usec) 3.6761093E-01 Resid sbdelay (usec) -5.10100E-03 +/- 1.0E-04
 Phase delay (usec) 4.61812537086E+03 Apriori clockrate (us/s) 4.160000E-07 Resid phdelay (usec) -2.09449E-06 +/- 4.3E-08
 Delay rate (us/s) -3.45965703774E-01 Apriori rate (us/s) -3.45965586712E-01 Resid rate (us/s) -1.17062E-07 +/- 1.8E-10
 Total phase (deg) 160.4 Apriori accel (us/s/s) 9.71700480795E-07 Resid phase (deg) -65.0 +/- 1.3

RMS Theor. Amplitude 1.643 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 53.7 3.2 Search (2048X32) 1.536 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 60.9 5.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 11.8 1.9 Inc. seg. avg. 2.636 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 5.1 3.3 Inc. frq. avg. 1.654 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Z: az 84.4 el 75.6 pa -70.6 P: az 40.6 el 48.3 pa -96.5 u,v (fr/asec) 3794.091 1292.815 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZP..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZP.W.93.11UE93

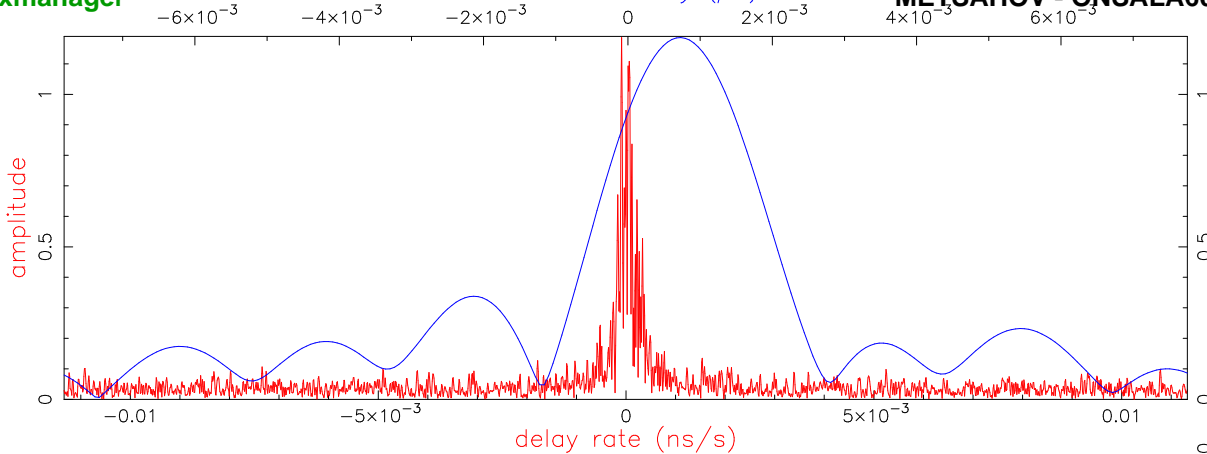
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.11UE93, No0163, ZX

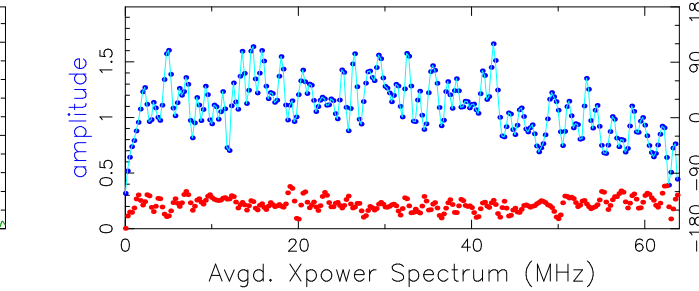
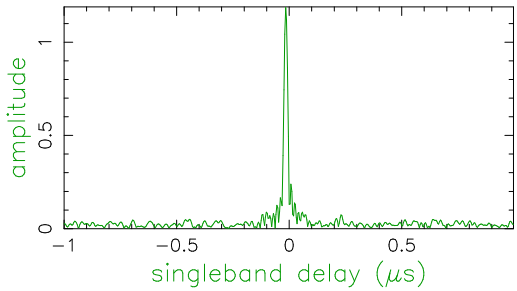
METSAHOV - ONSALA60, fgroup W, pol LL

multiband delay (μ s)



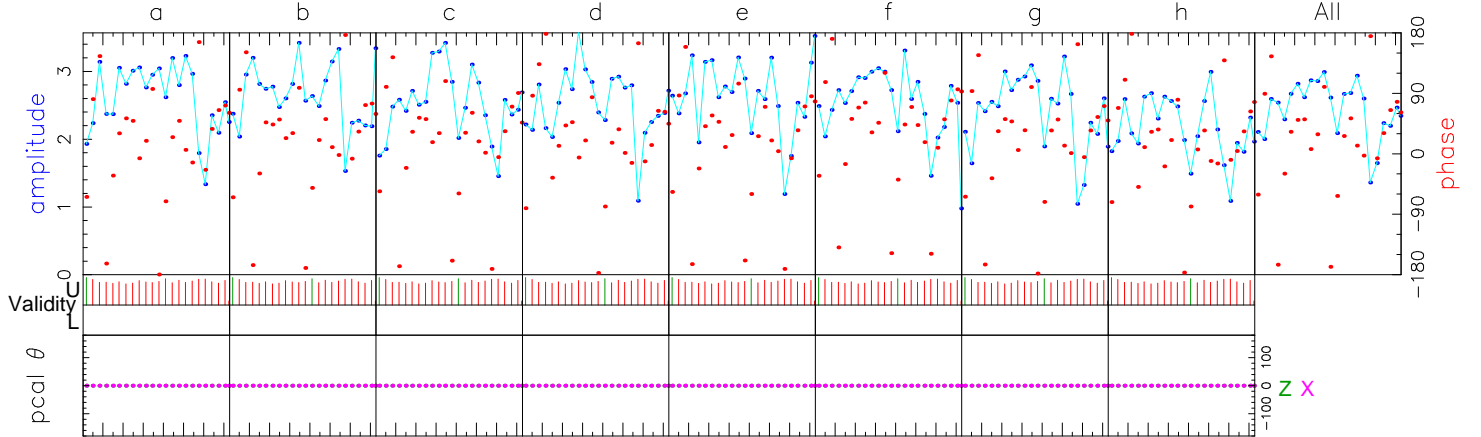
Fringe quality 4

SNR 61.9
Int time 361.387
Amp 1.190
Phase 38.8
PFD 0.0e+00
Delays (us)
SBD -0.014882
MBD 0.000737
Fringe rate (Hz)
-0.007319
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 201501.00
Stop 202200.84
FRT 201831.00
Corr/FF/build
2021:027:195518
2021:029:031742
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
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)	7.14115709606E+02	Apriori delay (usec)		7.14130597965E+02	Resid mbdelay (usec)		7.36642E-04	+/-	1.8E-05	
Sband delay (usec)	7.14115715715E+02	Apriori clock (usec)		-4.8214569E+01	Resid sbdelay (usec)		-1.48822E-02	+/-	1.4E-04	
Phase delay (usec)	7.14130599215E+02	Apriori clockrate (us/s)		-5.1200000E-07	Resid phdelay (usec)		1.25087E-06	+/-	6.0E-08	
Delay rate (us/s)	-9.49641852799E-02	Apriori rate (us/s)		-9.49641003153E-02	Resid rate (us/s)		-8.49646E-08	+/-	2.5E-10	
Total phase (deg)	293.9		Apriori accel (us/s/s)		-1.59116805841E-06	Resid phase (deg)		38.8	+/-	1.9

ph/seg (deg)	RMS 73.6	Theor. 4.4	Amplitude Search (2048X32)	1.133	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		sb window (us)	-1.000	1.000
amp/seg (%)	109.9	7.8	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)	11.6	2.6	Inc. seg. avg.	2.423	Bits/sample: 2x2	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	3.6	4.6	Inc. frq. avg.	1.203	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00

Z: az 84.4 el 75.6 pa -70.6 X: az 69.7 el 68.7 pa -75.7 u,v (fr/asec) 1036.474 -101.890 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZX..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZX.W.104.11UE93

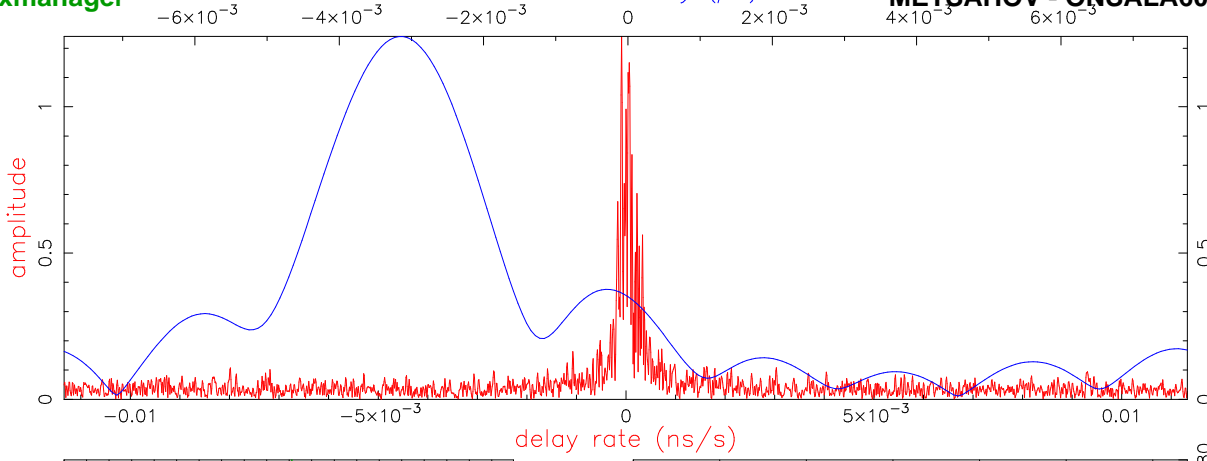
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.11UE93, No0163, ZX

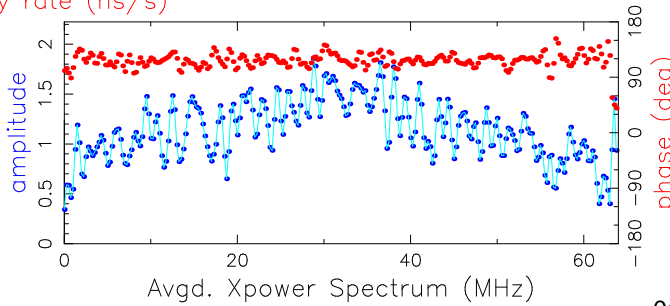
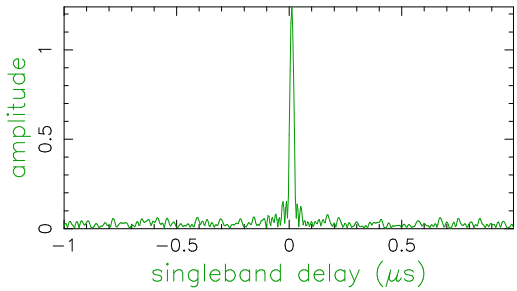
METSAHOV - ONSALA60, fgroup W, pol RR

multiband delay (μ s)



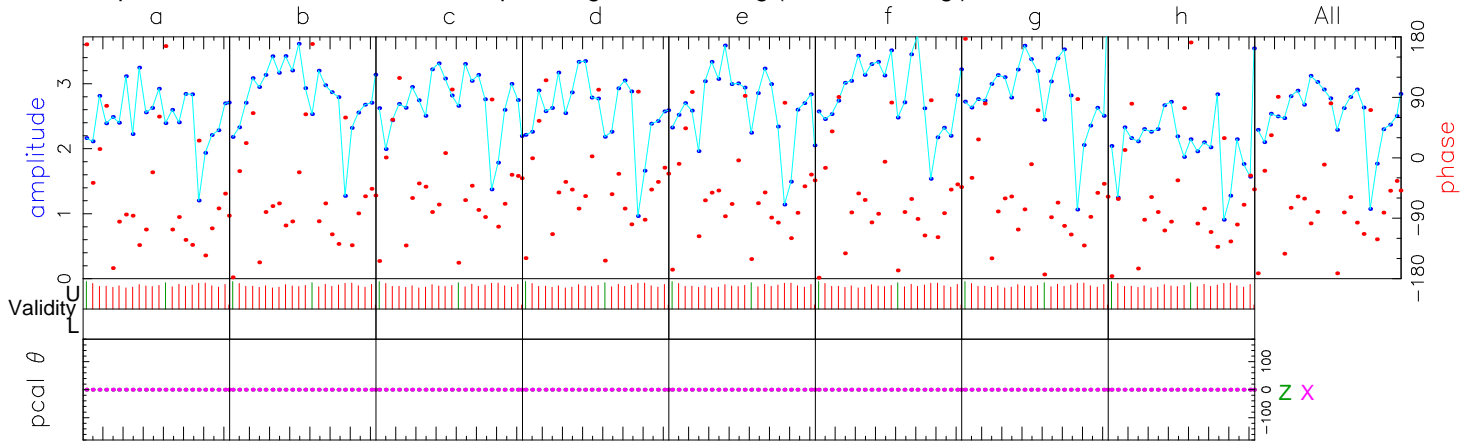
Fringe quality 4

SNR 64.5
 Int time 361.387
 Amp 1.241
 Phase -73.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.011529
 MBD -0.003151
 Fringe rate (Hz)
 -0.007308
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031745
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-99.0	-80.0	-59.5	-50.6	-60.5	-74.5	-77.6	-92.7	Phase	-73.4
	1.2	1.4	1.3	1.3	1.4	1.3	1.4	1.0	Ampl.	1.3
	259.8	260.2	260.4	260.3	259.9	260.2	260.1	259.1	Sbd box	260.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	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) 7.14143072169E+02 Apriori delay (usec) 7.14130597965E+02 Resid mbdelay (usec) -3.15080E-03 +/- 1.7E-05
 Sband delay (usec) 7.14142127465E+02 Apriori clock (usec) -4.8214569E+01 Resid sbdelay (usec) 1.15295E-02 +/- 1.3E-04
 Phase delay (usec) 7.14130595598E+02 Apriori clockrate (us/s) -5.1200000E-07 Resid phdelay (usec) -2.36662E-06 +/- 5.7E-08
 Delay rate (us/s) -9.49641851516E-02 Apriori rate (us/s) -9.49641003153E-02 Resid rate (us/s) -8.48363E-08 +/- 2.4E-10
 Total phase (deg) 181.7 Apriori accel (us/s/s) -1.59116805841E-06 Resid phase (deg) -73.4 +/- 1.8

RMS Theor. Amplitude 1.241 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 75.0 4.3 Search (2048X32) 1.192 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 108.2 7.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 18.1 2.5 Inc. seg. avg. 2.497 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 10.0 4.4 Inc. frq. avg. 1.284 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 84.4 el 75.6 pa -70.6 X: az 69.7 el 68.7 pa -75.7 u,v (fr/asec) 1036.474 -101.890 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZX..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZX.W.121.11UE93

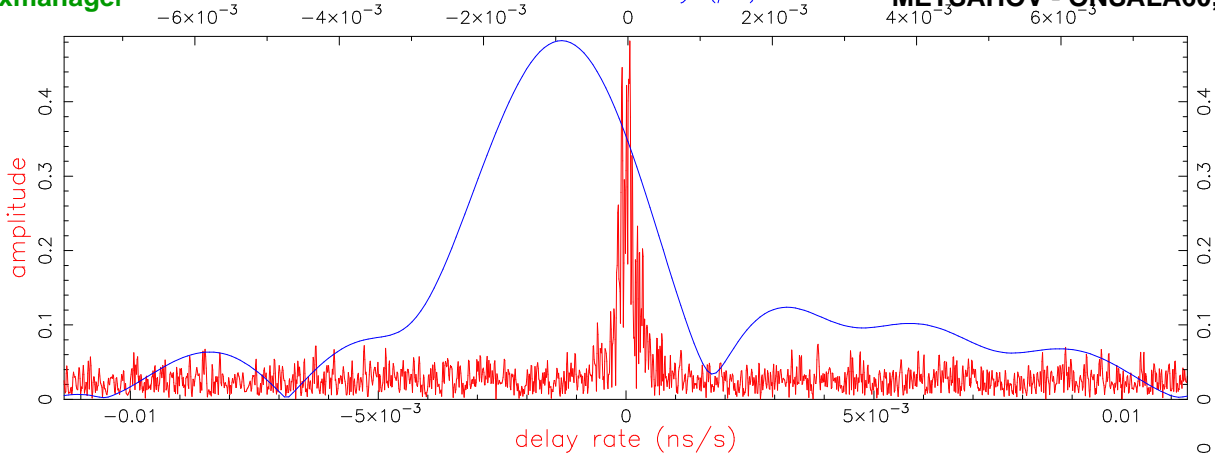
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.11UE93, No0163, ZX

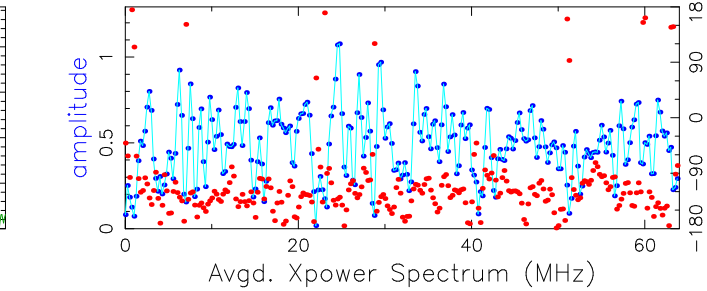
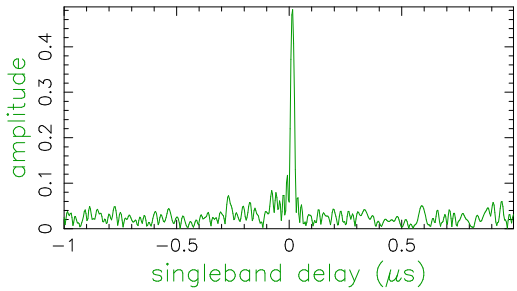
METSAHOV - ONSALA60, fgroup W, pol LR

multiband delay (μ s)



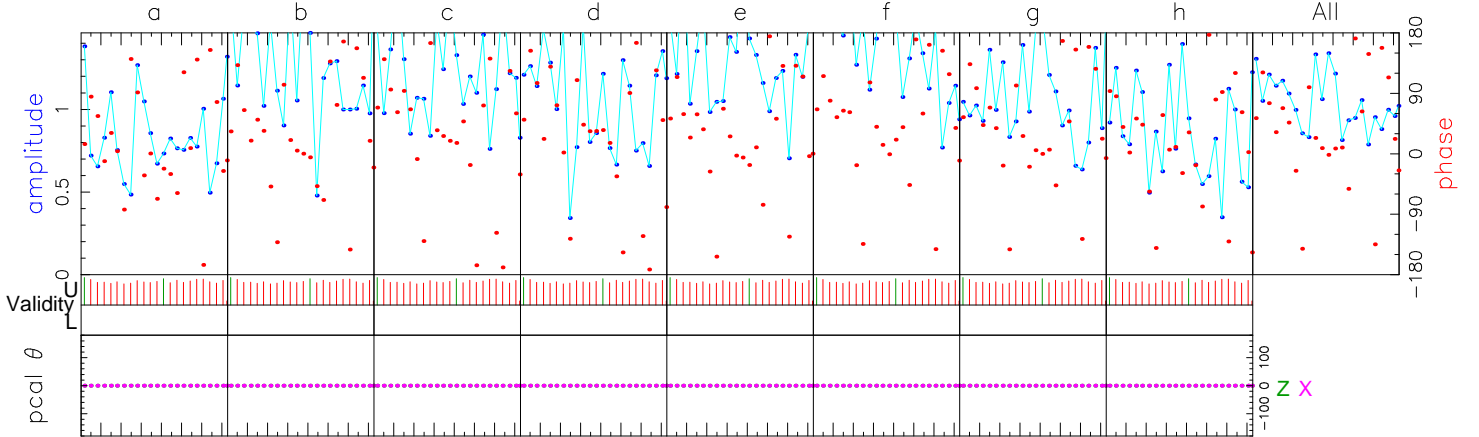
Fringe quality 7

SNR 25.4
 Int time 361.387
 Amp 0.488
 Phase 49.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.014179
 MBD -0.000971
 Fringe rate (Hz)
 0.006400
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031749
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



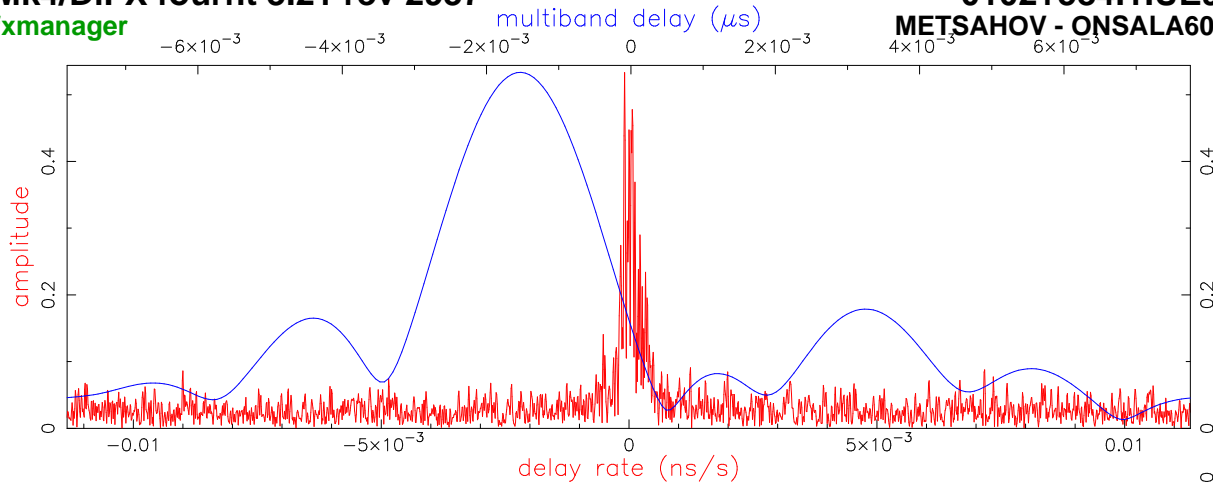
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	7.14145251563E+02	Apriori delay (usec)		7.14130597965E+02	Resid mbdelay (usec)		-9.71401E-04	+/-	4.3E-05	
Sband delay (usec)	7.14144776715E+02	Apriori clock (usec)		-4.8214569E+01	Resid sbdelay (usec)		1.41788E-02	+/-	3.4E-04	
Phase delay (usec)	7.14130599547E+02	Apriori clockrate (us/s)		-5.1200000E-07	Resid phdelay (usec)		1.58245E-06	+/-	1.5E-07	
Delay rate (us/s)	-9.49640260223E-02	Apriori rate (us/s)		-9.49641003153E-02	Resid rate (us/s)		7.42930E-08	+/-	6.0E-10	
Total phase (deg)	304.2		Apriori accel (us/s/s)		-1.59116805841E-06	Resid phase (deg)		49.1	+/-	4.5

ph/seg (deg)	78.4	10.8	Search (2048X32)	0.473	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	119.0	18.9	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	21.0	6.4	Inc. seg. avg.	1.026	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	22.6	11.2	Inc. frq. avg.	0.501	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 84.4 el 75.6 pa -70.6 X: az 69.7 el 68.7 pa -75.7 u,v (fr/asec) 1036.474 -101.890 simultaneous interpolator

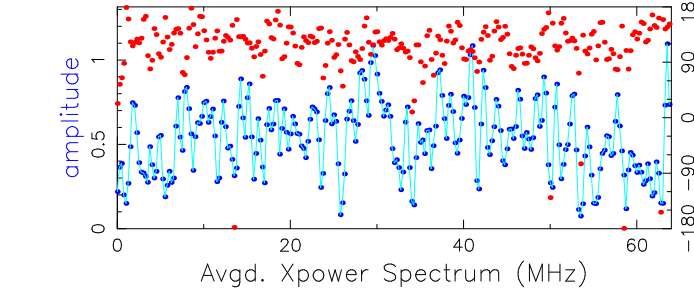
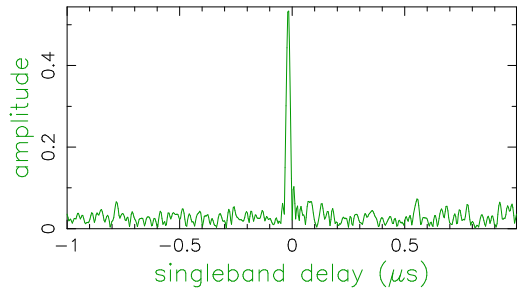
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZX..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZX.W.137.11UE93



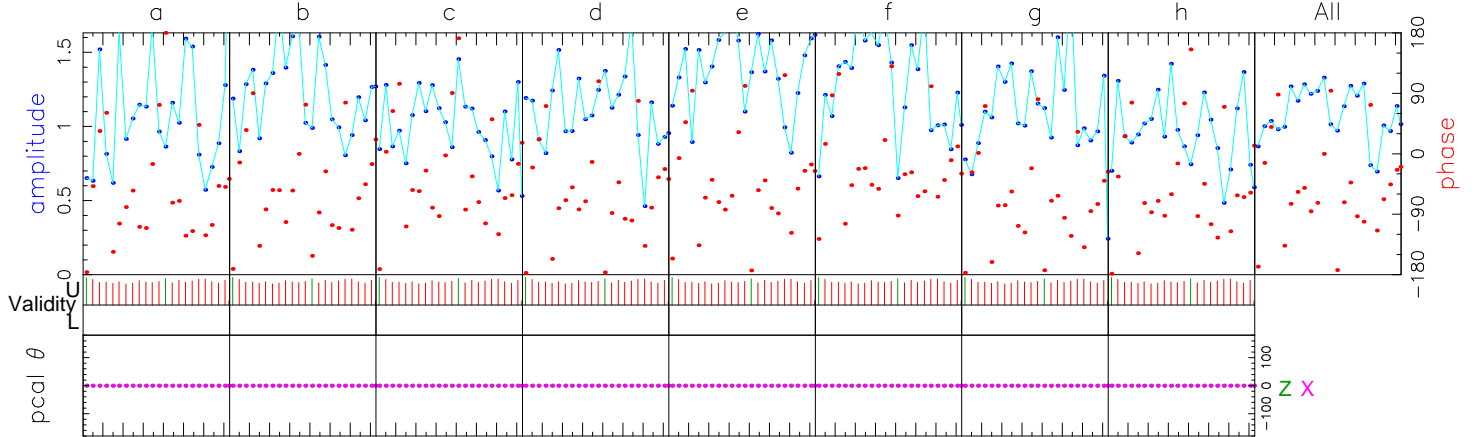
Fringe quality 7

SNR 28.3
Int time 361.387
Amp 0.544
Phase -61.8
PFD 0.0e+00
Delays (us)
SBD -0.017491
MBD -0.001571
Fringe rate (Hz)
-0.007405
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 201501.00
Stop 202200.84
FRT 201831.00
Corr/FF/build
2021:027:195518
2021:029:031752
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



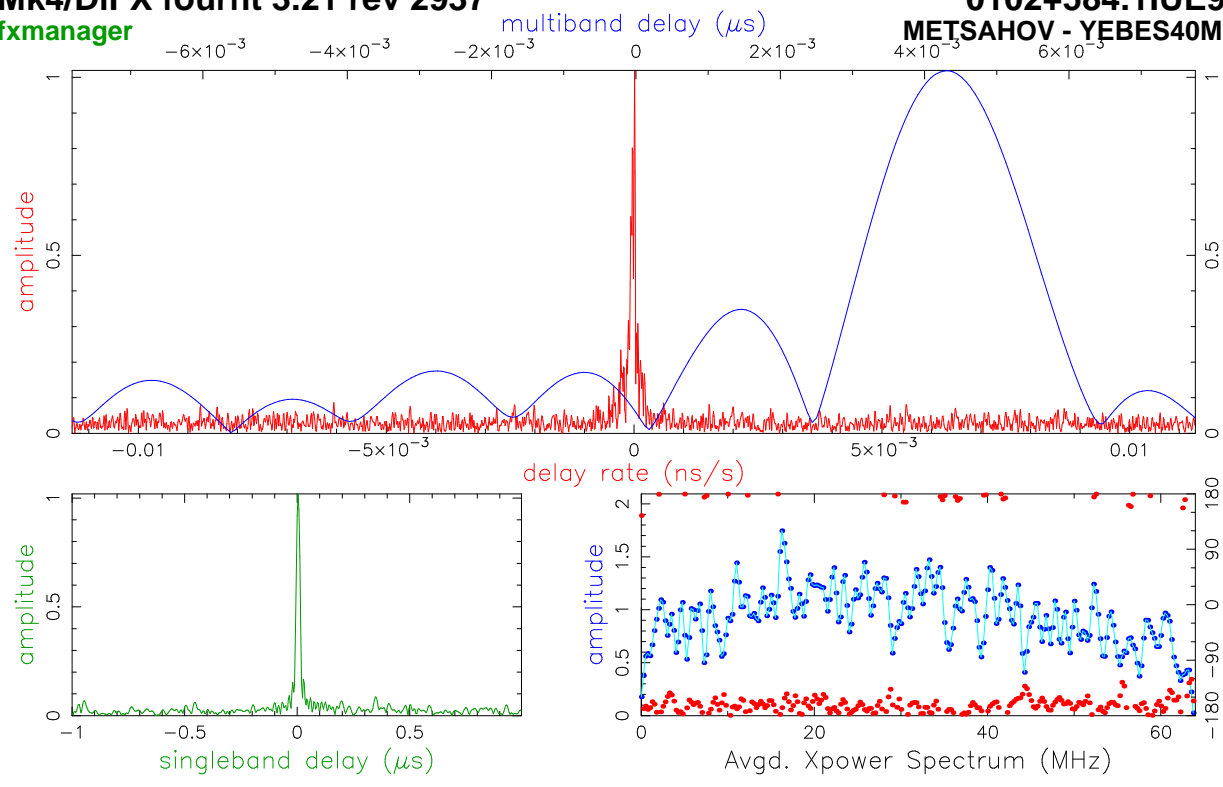
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-78.4	-59.3	-54.6	-75.2	-55.7	-28.7	-81.0	-69.8	Phase	-61.8
	0.5	0.6	0.4	0.5	0.6	0.7	0.6	0.5	Ampl.	0.6
	252.6	252.5	252.1	252.7	253.2	252.3	252.6	252.6	Sbd box	252.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	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)	7.14113402044E+02	Apriori delay (usec)		7.14130597965E+02	Resid mbdelay (usec)		-1.57092E-03	+/-	3.8E-05	
Sband delay (usec)	7.14113107215E+02	Apriori clock (usec)		-4.8214569E+01	Resid sbdelay (usec)		-1.74908E-02	+/-	3.0E-04	
Phase delay (usec)	7.14130595973E+02	Apriori clockrate (us/s)		-5.1200000E-07	Resid phdelay (usec)		-1.99198E-06	+/-	1.3E-07	
Delay rate (us/s)	-9.49641862782E-02	Apriori rate (us/s)		-9.49641003153E-02	Resid rate (us/s)		-8.59629E-08	+/-	5.4E-10	
Total phase (deg)	193.3		Apriori accel (us/s/s)		-1.59116805841E-06	Resid phase (deg)		-61.8	+/-	4.1

ph/seg (deg)	RMS 74.3	Theor. 9.7	Amplitude	0.544 +/- 0.019	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	103.3	17.0	Search (2048X32)	0.525	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	18.6	5.7	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	14.3	10.0	Inc. seg. avg.	1.062	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011		
			Inc. frq. avg.	0.555	Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 84.4 el 75.6 pa -70.6 X: az 69.7 el 68.7 pa -75.7 u,v (fr/asec) 1036.474 -101.890 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZX..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZX.W.144.11UE93

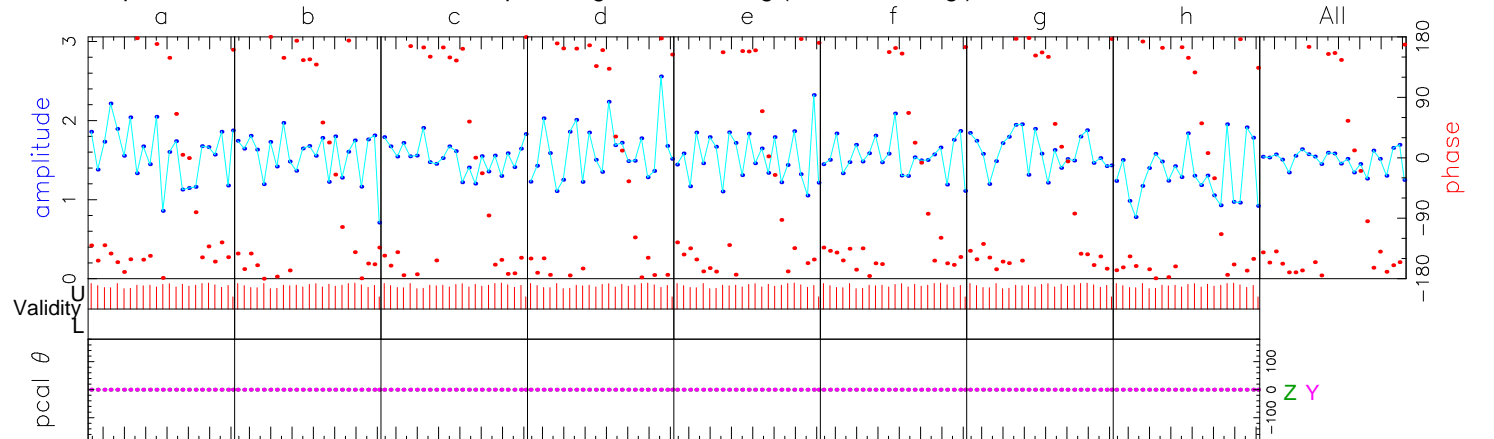


Fringe quality 4

SNR 51.7
Int time 344.081
Amp 1.020
Phase -166.6
PFD 0.0e+00
Delays (us)
SBD 0.004271
MBD 0.004311
Fringe rate (Hz)
0.001260
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 201517.90
Stop 202200.84
FRT 201831.00
Corr/FF/build
2021:027:195518
2021:029:031741
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-153.1	-174.6	-173.3	178.4	-160.2	-154.7	-159.8	-177.1		-166.6		
	1.1	1.0	1.0	1.1	1.0	1.0	1.1	0.9	Ampl.	1.0		
	258.1	257.9	257.7	258.2	258.3	257.8	258.3	257.4	Sbd box	258.1		
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used			
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
Y	1000	1000	1000	1000	1000	1000	1000	1000				
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec)(sbd)	3.96207611896E+03		Apriori delay (usec)		3.96207180751E+03		Resid mbdelay (usec)		4.31145E-03	+/- 2.1E-05		
Sband delay (usec)	3.96207607851E+03		Apriori clock (usec)		-1.3547663E+01		Resid sbdelay (usec)		4.27100E-03	+/- 1.7E-04		
Phase delay (usec)	3.96207180214E+03		Apriori clockrate (us/s)		-1.0399999E-07		Resid phdelay (usec)		-5.37159E-06	+/- 7.1E-08		
Delay rate (us/s)	-3.18906322188E-01		Apriori rate (us/s)		-3.18906336811E-01		Resid rate (us/s)		1.46225E-08	+/- 3.1E-10		
Total phase (deg)	13.0		Apriori accel (us/s/s)		-1.22311345738E-07		Resid phase (deg)		-166.6	+/- 2.2		
	RMS	Theor.	Amplitude	1.020 +/- 0.020		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	62.2	5.3	Search (2048X32)	0.983		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	48.8	9.3	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	11.9	3.1	Inc. seg. avg.	1.497		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	5.0	5.5	Inc. frq. avg.	1.034		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
Z: az 84.4 el 75.6 pa -70.6	Y: az 43.4 el 51.1 pa -93.2		u,v (fr/asec) 3494.619 940.361						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZY..11UE93		Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZY.W.100.11UE93									

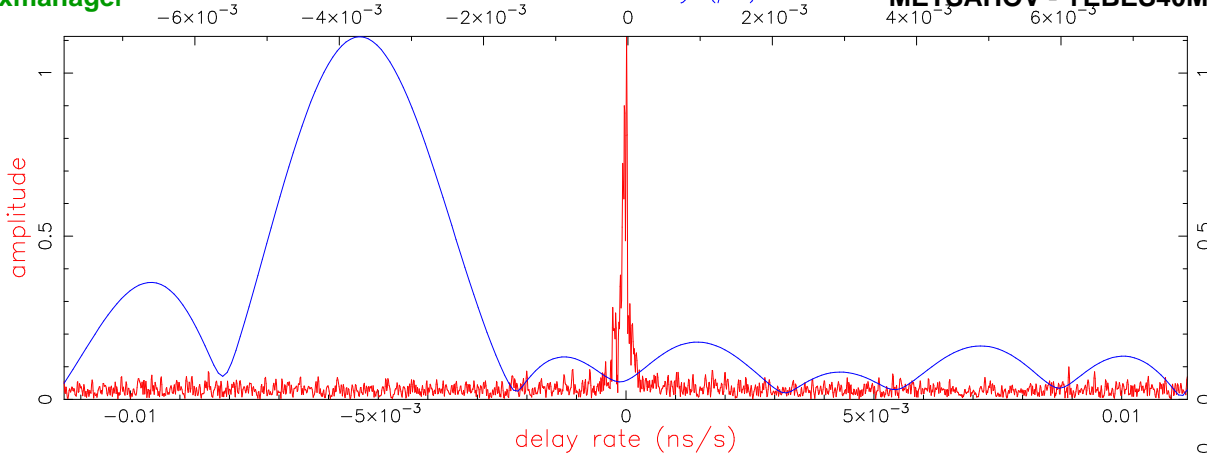
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.11UE93, No0163, ZY

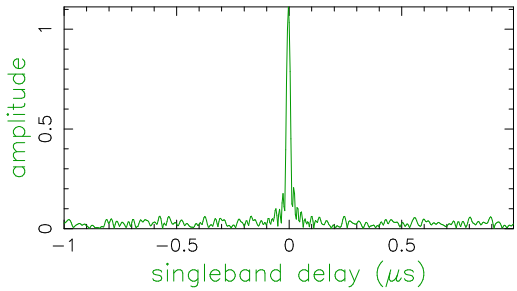
METSAHOV - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

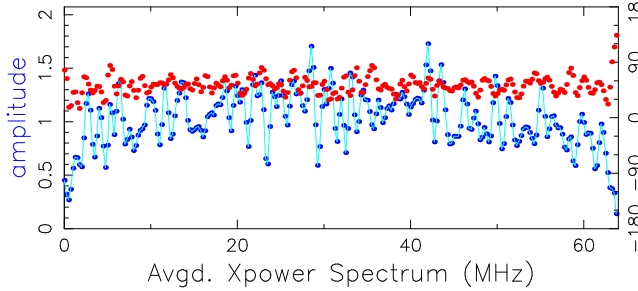


Fringe quality 4

SNR 56.4
 Int time 344.081
 Amp 1.112
 Phase 54.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.003531
 MBD -0.003710
 Fringe rate (Hz)
 0.001223
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

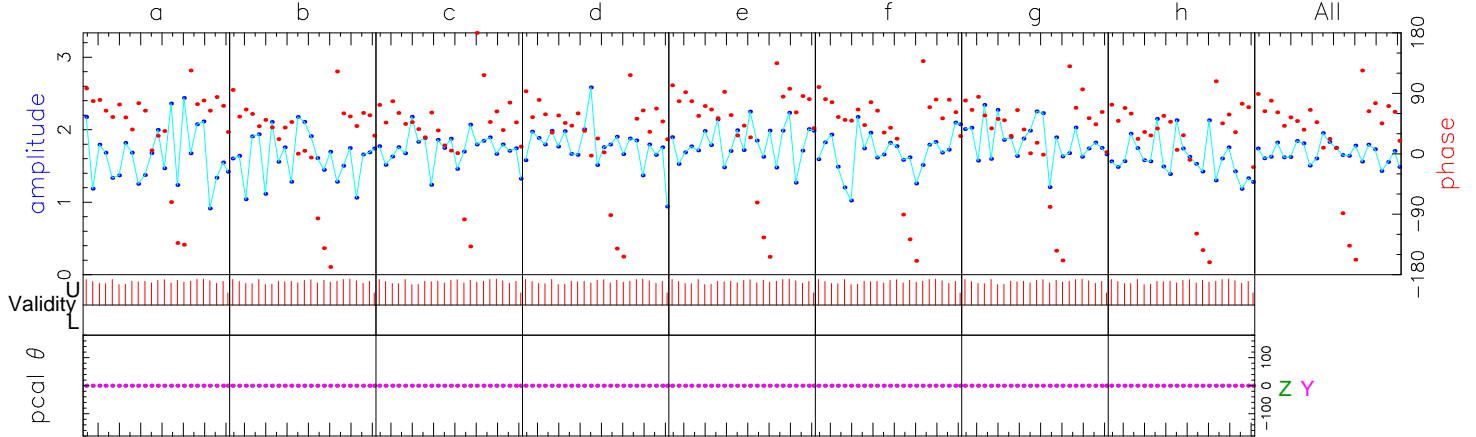


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201517.90
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031745
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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

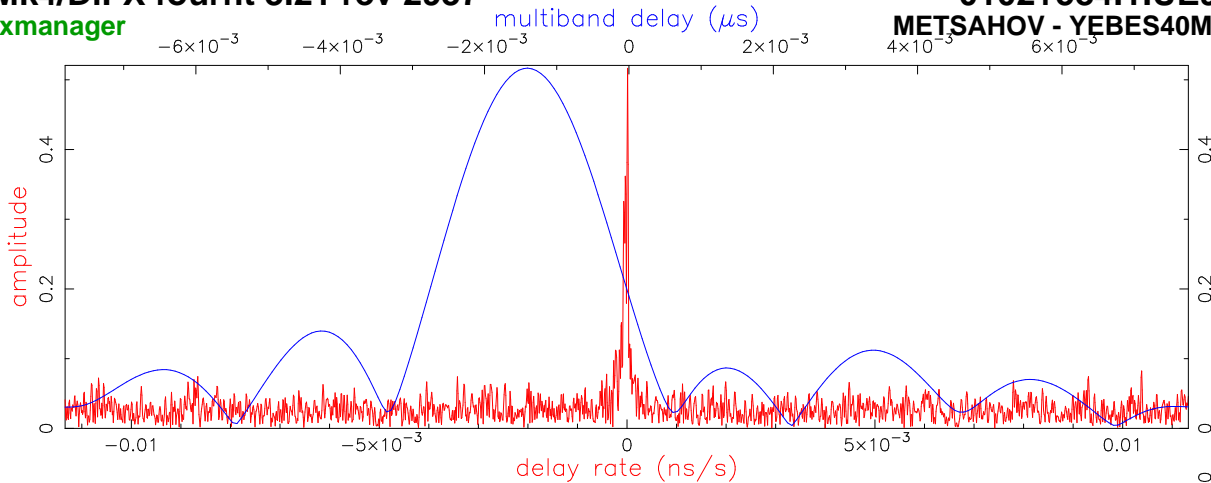


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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)	3.96206809789E+03	Apriori delay (usec)	3.96207180751E+03	Resid mbdelay (usec)	-3.70961E-03	+/-	1.9E-05
Sband delay (usec)	3.96206827651E+03	Apriori clock (usec)	-1.3547663E+01	Resid sbdelay (usec)	-3.53100E-03	+/-	1.5E-04
Phase delay (usec)	3.96207180927E+03	Apriori clockrate (us/s)	-1.0399999E-07	Resid phdelay (usec)	1.76549E-06	+/-	6.5E-08
Delay rate (us/s)	-3.18906322609E-01	Apriori rate (us/s)	-3.18906336811E-01	Resid rate (us/s)	1.42016E-08	+/-	2.8E-10
Total phase (deg)	234.3	Apriori accel (us/s/s)	-1.22311345738E-07	Resid phase (deg)	54.7	+/-	2.0

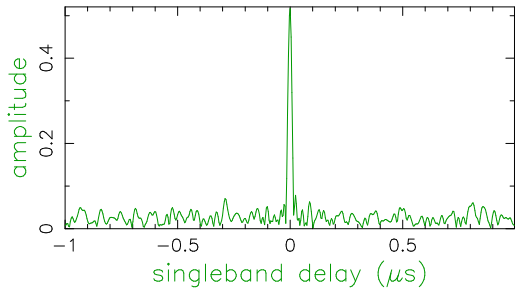
ph/seg (deg)	61.4	Theor.	4.9	Amplitude	1.112 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	52.8		8.5	Search (2048X32)	1.069	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	11.7		2.9	Inc. seg. avg.	1.680	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	7.1		5.0	Inc. frq. avg.	1.128	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 84.4 el 75.6 pa -70.6 Y: az 43.4 el 51.1 pa -93.2 u,v (fr/asec) 3494.619 940.361 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZY..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZY.W.116.11UE93

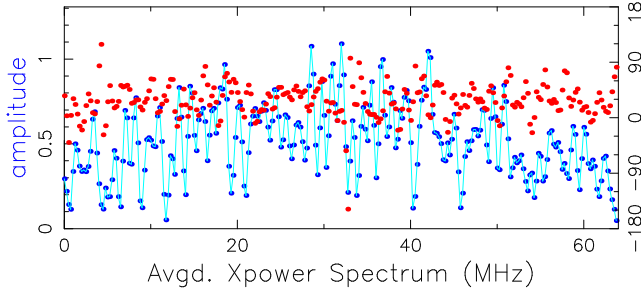


Fringe quality 7

SNR 26.4
 Int time 344.081
 Amp 0.521
 Phase 30.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.001182
 MBD -0.001429
 Fringe rate (Hz)
 0.001299
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

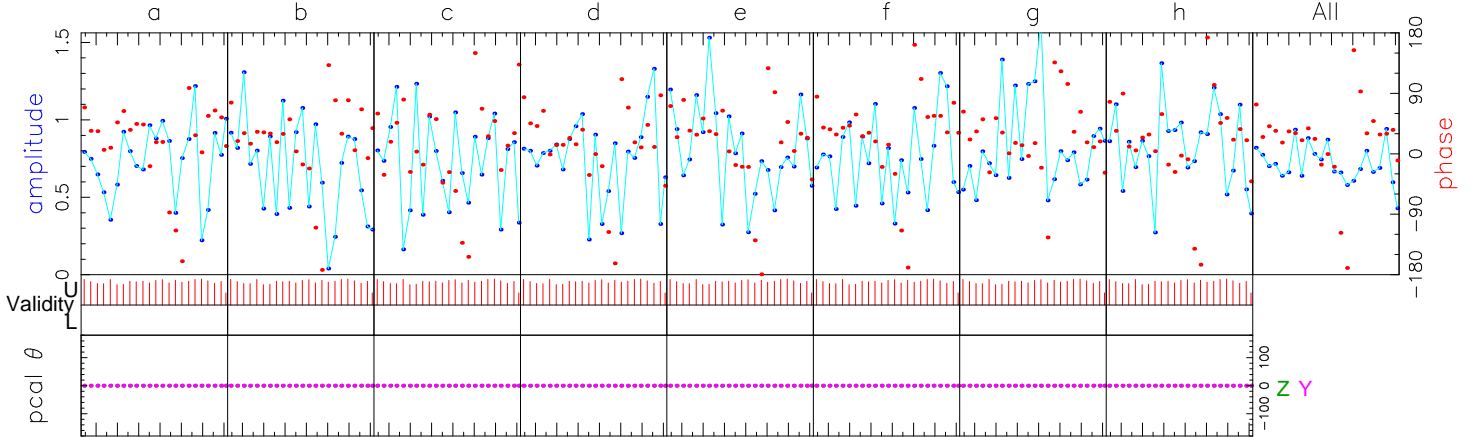


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201517.90
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031748
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



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

Group delay (usec)(sbd)	3.96207037808E+03	Apriori delay (usec)	3.96207180751E+03	Resid mbdelay (usec)	-1.42943E-03	+/-	4.1E-05
Sband delay (usec)	3.96207062526E+03	Apriori clock (usec)	-1.3547663E+01	Resid sbdelay (usec)	-1.18225E-03	+/-	3.3E-04
Phase delay (usec)	3.96207180849E+03	Apriori clockrate (us/s)	-1.0399999E-07	Resid phdelay (usec)	9.84985E-07	+/-	1.4E-07
Delay rate (us/s)	-3.18906321734E-01	Apriori rate (us/s)	-3.18906336811E-01	Resid rate (us/s)	1.50767E-08	+/-	6.0E-10
Total phase (deg)	210.1	Apriori accel (us/s/s)	-1.22311345738E-07	Resid phase (deg)	30.5	+/-	4.3

ph/seg (deg)	58.0	Theor.	10.4	Amplitude	0.521 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	44.2	Search (2048X32)	0.498	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	8.4	Inc. seg. avg.	0.710	Inc. frq. avg.	0.518	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	11.0	Inc. frq. avg.	0.518			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	

Z: az 84.4 el 75.6 pa -70.6 Y: az 43.4 el 51.1 pa -93.2 u,v (fr/asec) 3494.619 940.361 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZY..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZY.W.132.11UE93

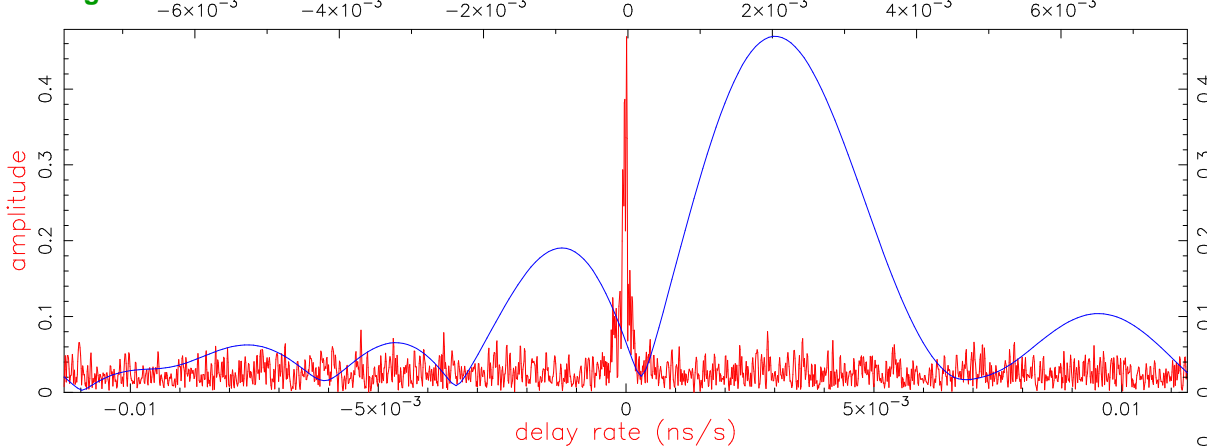
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.11UE93, No0163, ZY

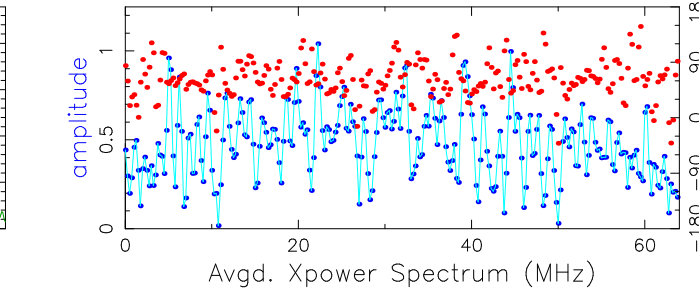
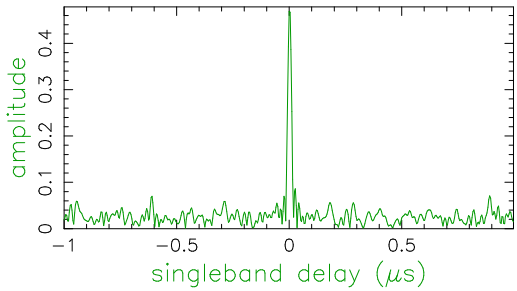
METSAHOV - YEBES40M, fgroup W, pol RL

multiband delay (μ s)



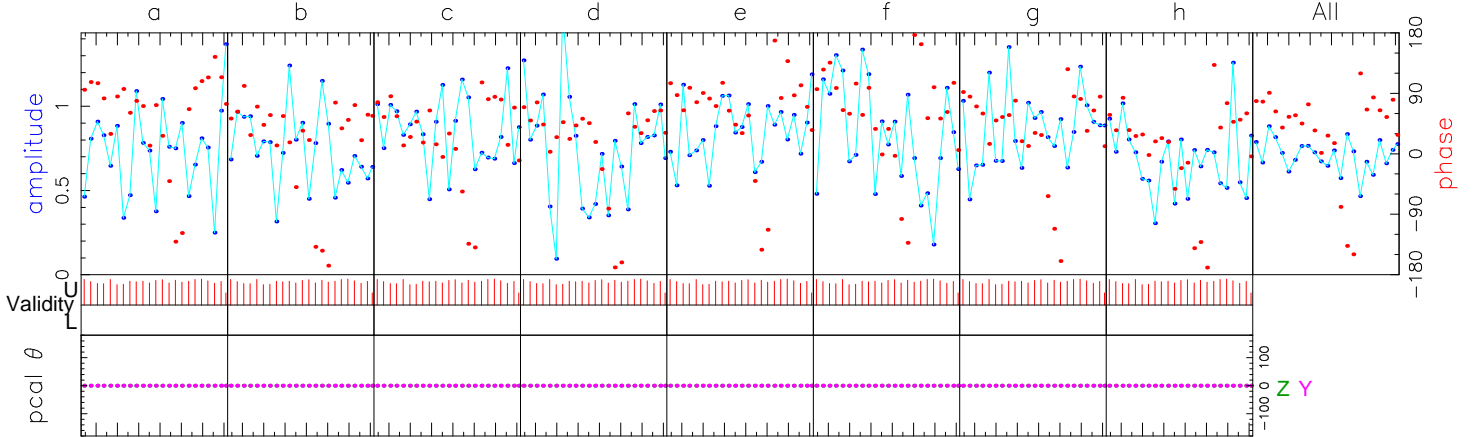
Fringe quality 7

SNR 24.3
 Int time 344.081
 Amp 0.479
 Phase 59.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.001859
 MBD 0.002090
 Fringe rate (Hz)
 0.001161
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201517.90
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031751
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	3.96207389711E+03	Apriori delay (usec)		3.96207180751E+03	Resid mbdelay (usec)		2.08960E-03	+/- 4.5E-05	
Sband delay (usec)	3.96207366701E+03	Apriori clock (usec)		-1.3547663E+01	Resid sbdelay (usec)		1.85950E-03	+/- 3.5E-04	
Phase delay (usec)	3.96207180941E+03	Apriori clockrate (us/s)		-1.0399999E-07	Resid phdelay (usec)		1.90519E-06	+/- 1.5E-07	
Delay rate (us/s)	-3.18906323332E-01	Apriori rate (us/s)		-3.18906336811E-01	Resid rate (us/s)		1.34789E-08	+/- 6.5E-10	
Total phase (deg)		238.6	Apriori accel (us/s/s)		-1.22311345738E-07	Resid phase (deg)		59.1	+/- 4.7

ph/seg (deg)	60.8	RMS	Theor.	11.3	Amplitude	0.479 +/- 0.020	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	51.9	60.8	11.3	Search (2048X32)	0.461	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
ph/frq (deg)	20.9	51.9	19.7	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	14.2	20.9	6.7	Inc. seg. avg.	0.696	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
		14.2	11.6	Inc. frq. avg.	0.490	Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 84.4 el 75.6 pa -70.6 Y: az 43.4 el 51.1 pa -93.2 u,v (fr/asec) 3494.619 940.361 simultaneous interpolator

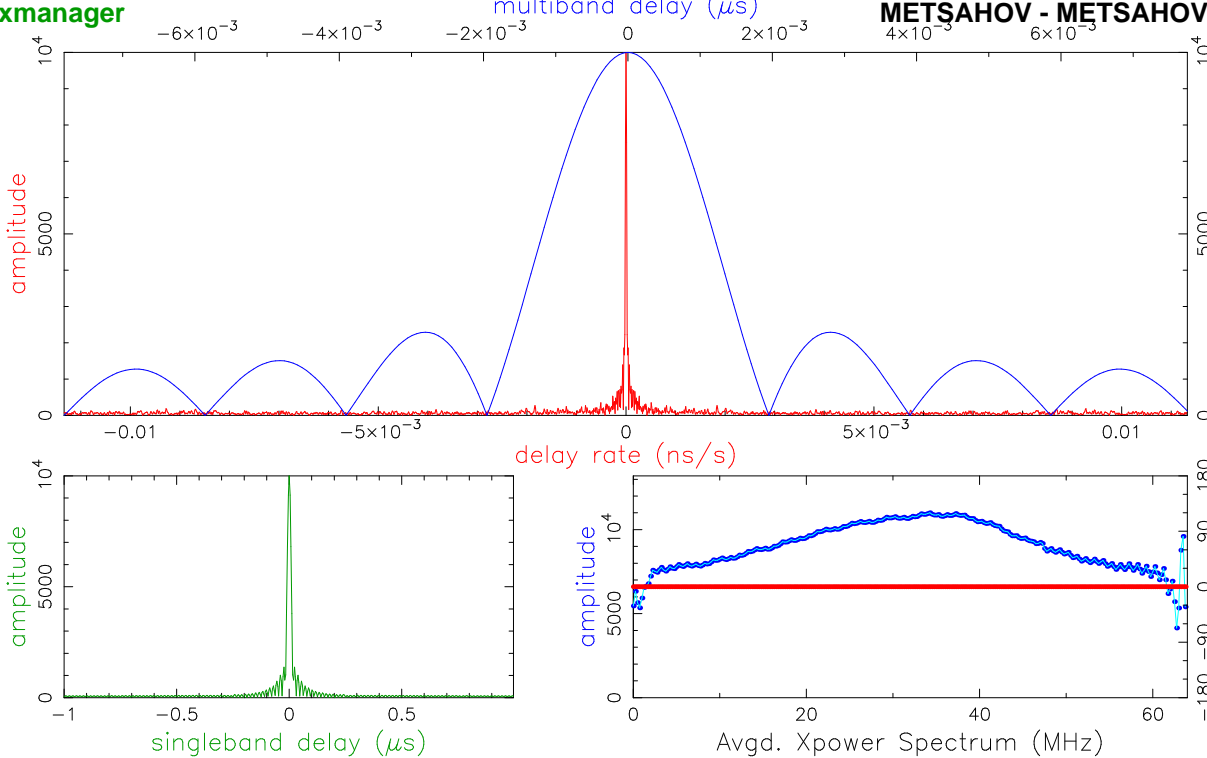
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZY..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZY.W.143.11UE93

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

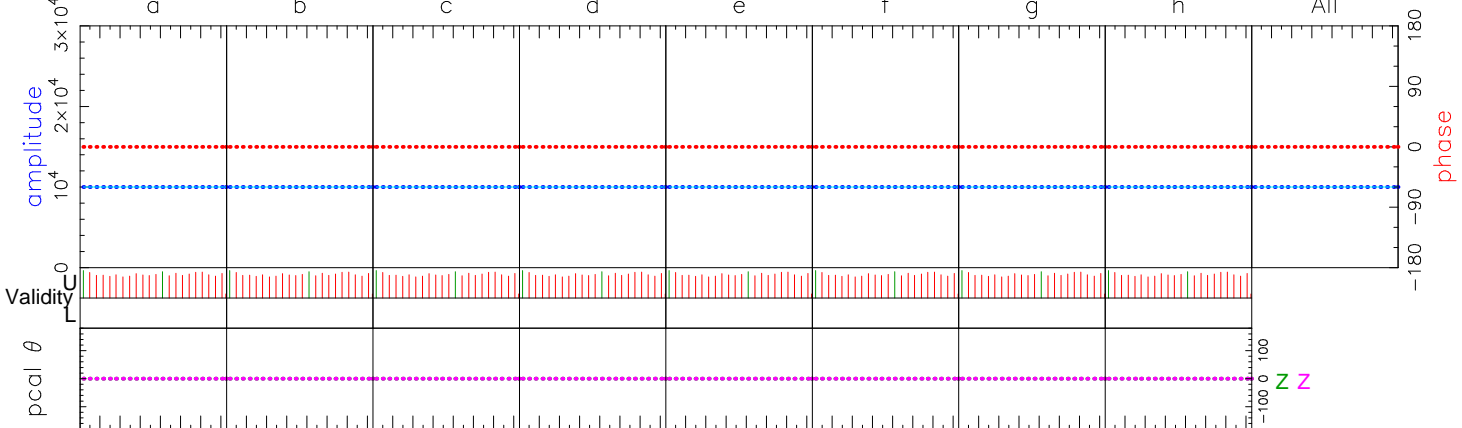
0102+584.11UE93, No0163, ZZ

METSAHOV - METSAHOV, fgroup W, pol RR



Fringe quality 9
 SNR 519857.0
 Int time 361.387
 Amp 10000.006
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Yr:day 16383
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031744
 2020:247:085004
 RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
Z:Z	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			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
Z	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)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00			
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00			
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00			
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00			
Total phase (deg)			0.0								
				Apriori delay (usec)					Resid mbdelay (usec)	0.00000E+00	+/- 2.1E-09
				Apriori clock (usec)					Resid sbdelay (usec)	0.00000E+00	+/- 1.7E-08
				Apriori clockrate (us/s)					Resid phdelay (usec)	0.00000E+00	+/- 7.1E-12
				Apriori rate (us/s)					Resid rate (us/s)	0.00000E+00	+/- 2.9E-14
				Apriori accel (us/s/s)					Resid phase (deg)	0.0	+/- 0.0

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.006 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.006 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Z: az 84.4 el 75.6 pa -70.6 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) 0.000 0.000 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZZ..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZZ.W.113.11UE93 simultaneous interpolator

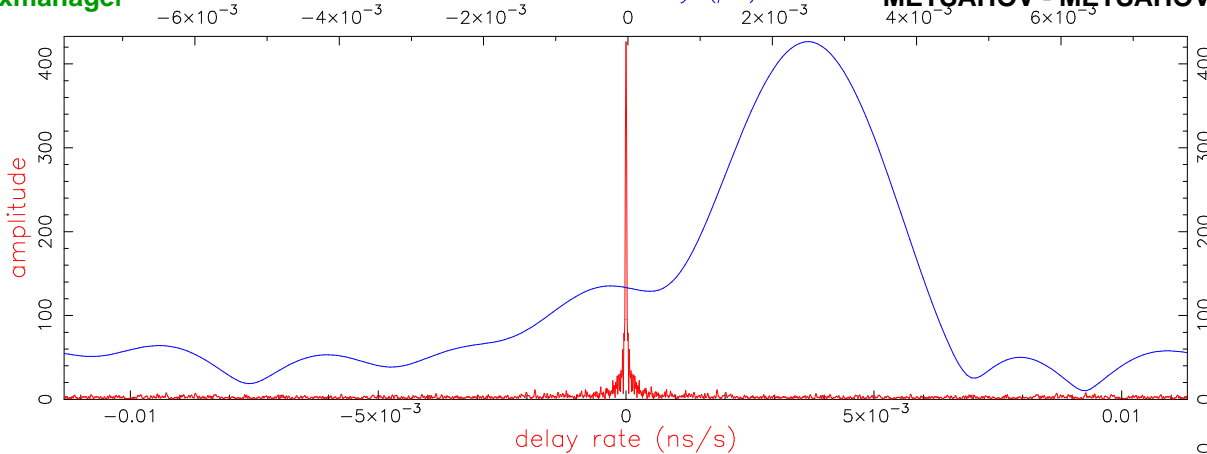
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.11UE93, No0163, ZZ

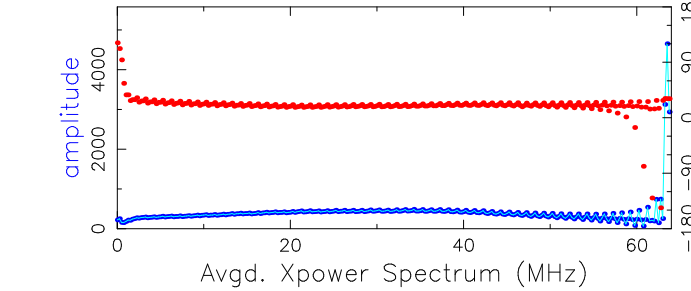
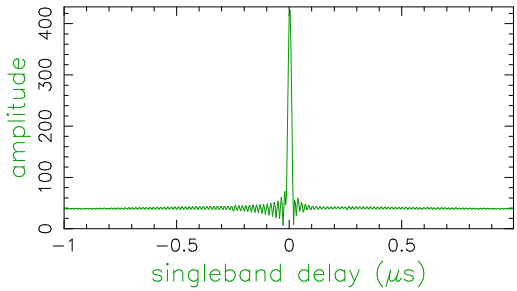
METSAHOV - METSAHOV, fgroup W, pol LR

multiband delay (μ s)



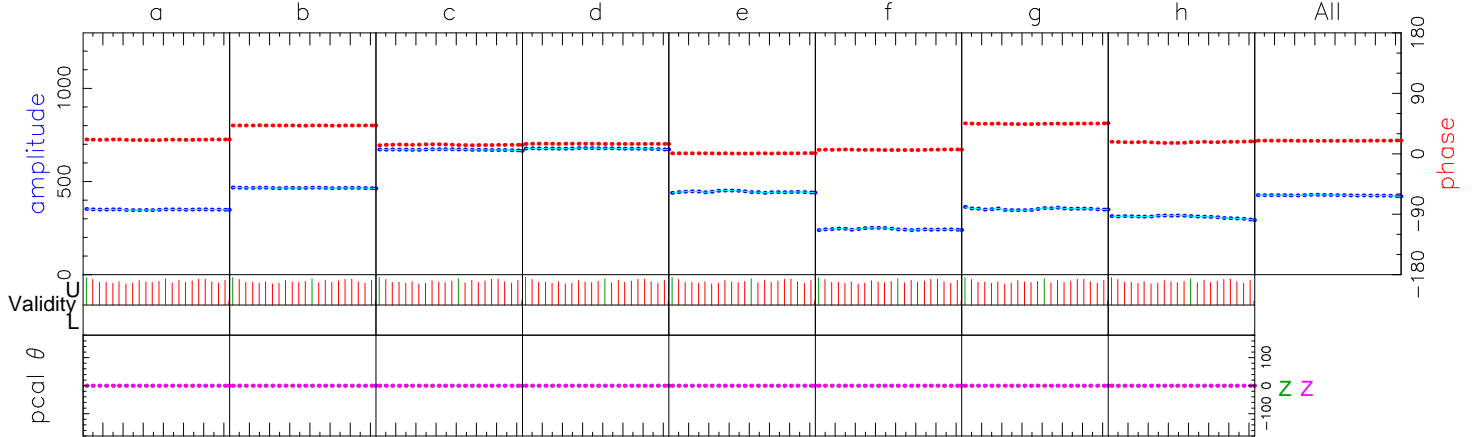
Fringe quality 7

SNR 22502.9
 Int time 361.387
 Amp 432.867
 Phase 19.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.002393
 MBD 0.002522
 Fringe rate (Hz)
 0.000002
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031747
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
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		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	2.52225000000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	2.52225E-03	+/-	4.8E-08
Sband delay (usec)	2.39300000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	2.39300E-03	+/-	3.8E-07
Phase delay (usec)	6.28414277902E-07	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	6.28414E-07	+/-	1.6E-10
Delay rate (us/s)	1.77139404896E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.77139E-11	+/-	6.8E-13
Total phase (deg)	19.5	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	19.5	+/-	0.0

ph/seg (deg)	0.2	0.0	RMS	432.867 +/- 0.019	PCal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	1.5	0.0	Theor.	426.194	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	17.1	0.0	Search (2048X32)	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	34.8	0.0	Interp.	426.493	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
			Inc. seg. avg.	439.809	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00
Z: az 84.4 el 75.6 pa -70.6	Z: az 84.4 el 75.6 pa -70.6	u, v (fr/asec)	0.000 0.000	simultaneous interpolator					

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZZ..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZZ.W.129.11UE93

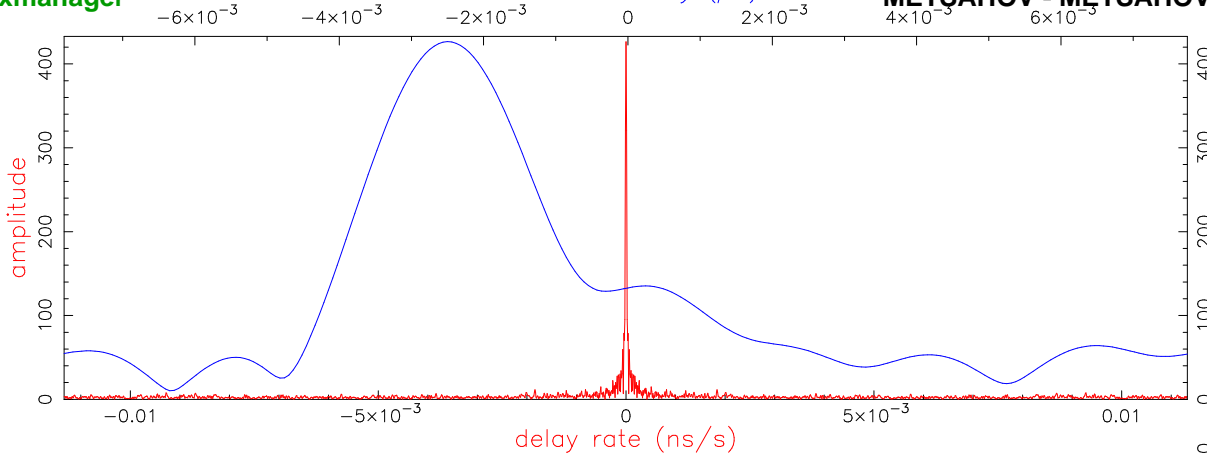
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.11UE93, No0163, ZZ

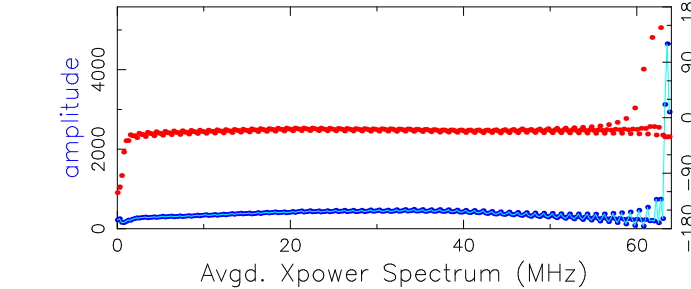
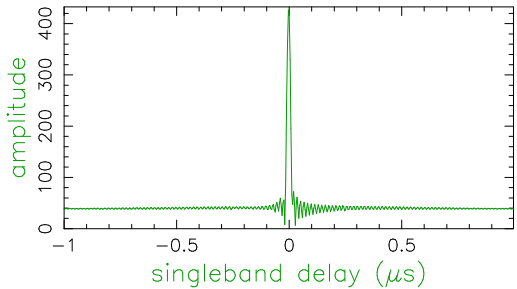
METSAHOV - METSAHOV, fgroup W, pol RL

multiband delay (μ s)



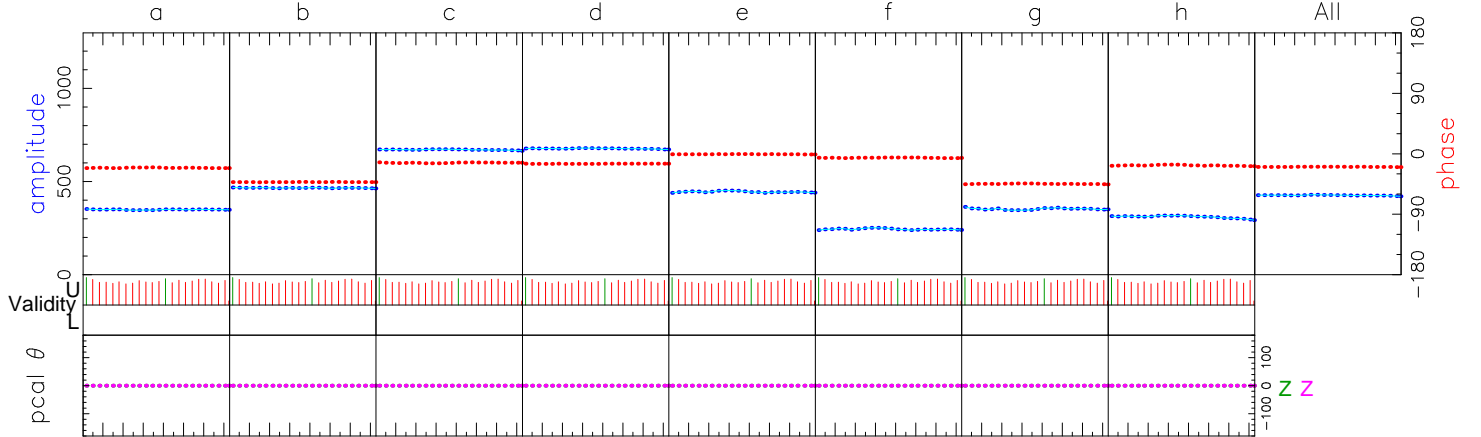
Fringe quality 7

SNR 22502.9
 Int time 361.387
 Amp 432.867
 Phase -19.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.002393
 MBD -0.002522
 Fringe rate (Hz)
 -0.000002
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031750
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-20.9	-42.1	-13.4	-14.8	-0.7	-6.0	-44.8	-17.3	Phase	-19.5
	349.8	466.1	671.2	677.2	445.1	244.7	353.4	310.9	Ampl.	439.8
	255.9	256.4	257.0	256.5	256.5	256.0	255.7	256.9	Sbd box	256.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	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	
									Tracks	
Group delay (usec)(sbd)	-2.52225000000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-2.52225E-03	+/- 4.8E-08
Sband delay (usec)	-2.39300000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-2.39300E-03	+/- 3.8E-07
Phase delay (usec)	-6.28414277967E-07		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-6.28414E-07	+/- 1.6E-10
Delay rate (us/s)	-1.77139404896E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-1.77139E-11	+/- 6.8E-13
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-19.5	+/- 0.0

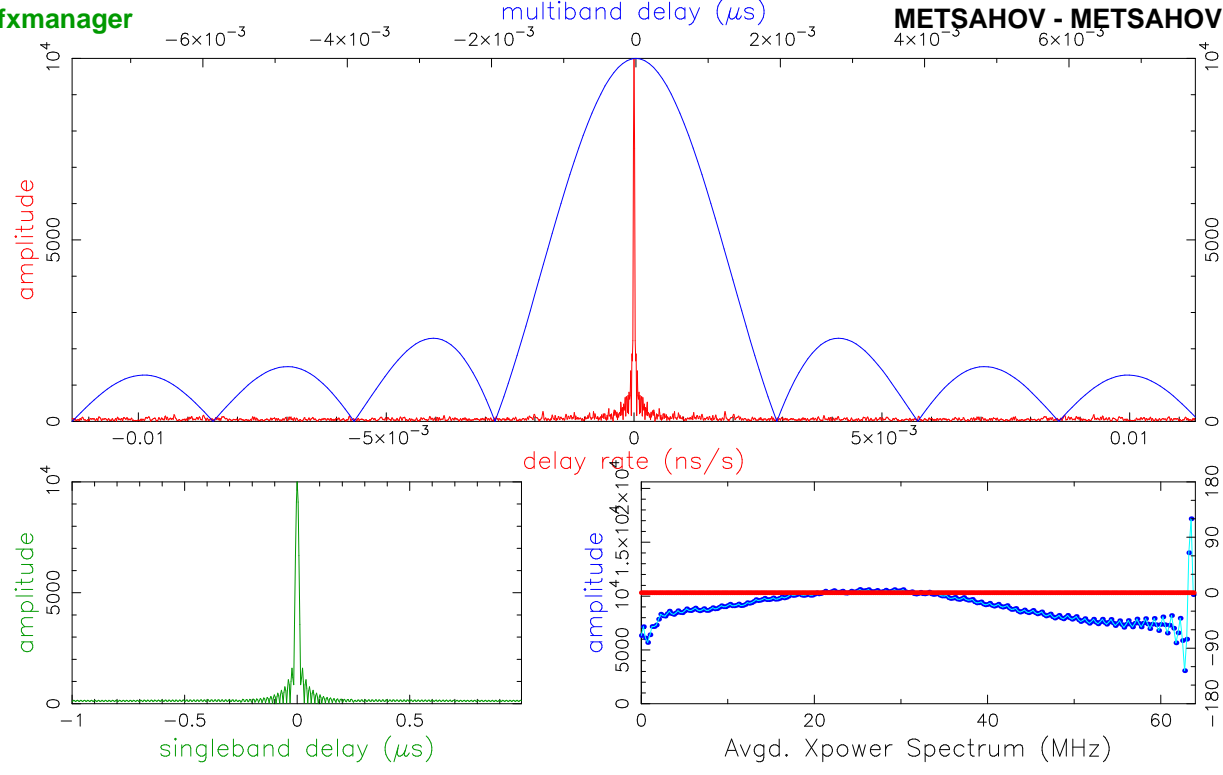
ph/seg (deg) 0.2 0.0 Search (2048X32) 426.194 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.5 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.1 0.0 Inc. seg. avg. 426.493 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.8 0.0 Inc. frq. avg. 439.809 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 84.4 el 75.6 pa -70.6 Z: az 84.4 el 75.6 pa -70.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZZ..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZZ.W.142.11UE93

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

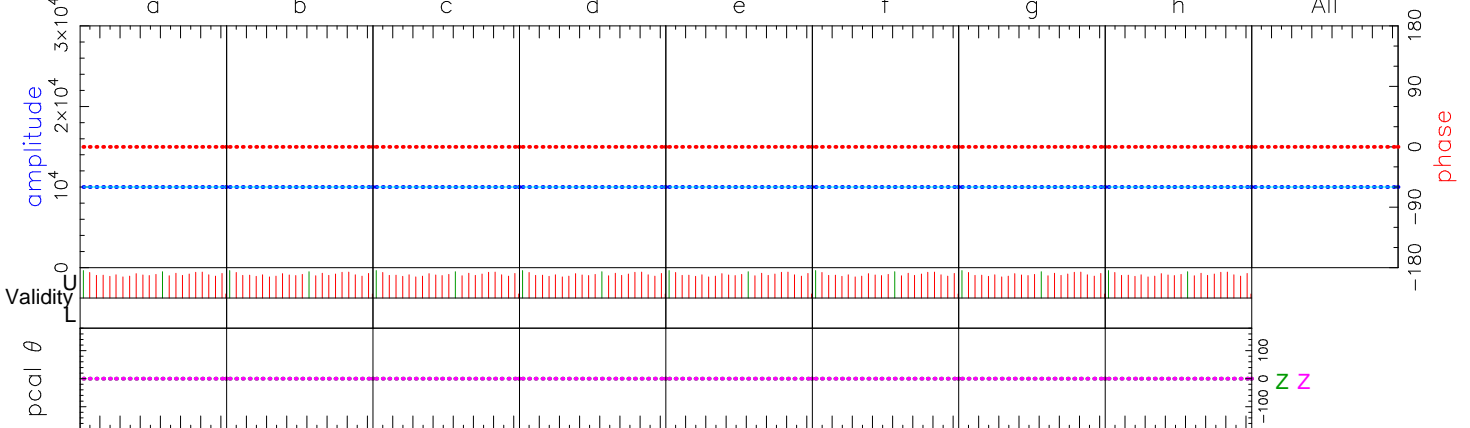
0102+584.11UE93, No0163, ZZ

METSAHOV - METSAHOV, fgroup W, pol LL



Fringe quality 9
 SNR 519857.0
 Int time 361.387
 Amp 10000.006
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 201501.00
 Stop 202200.84
 FRT 201831.00
 Corr/FF/build
 2021:027:195518
 2021:029:031741
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.1E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.7E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 7.1E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.9E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.006 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.006 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 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 84.4 el 75.6 pa -70.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZZ..11UE93 Output file: /Exps/c202b/v1/v1_3mm/1234/No0163/ZZ.W.98.11UE93