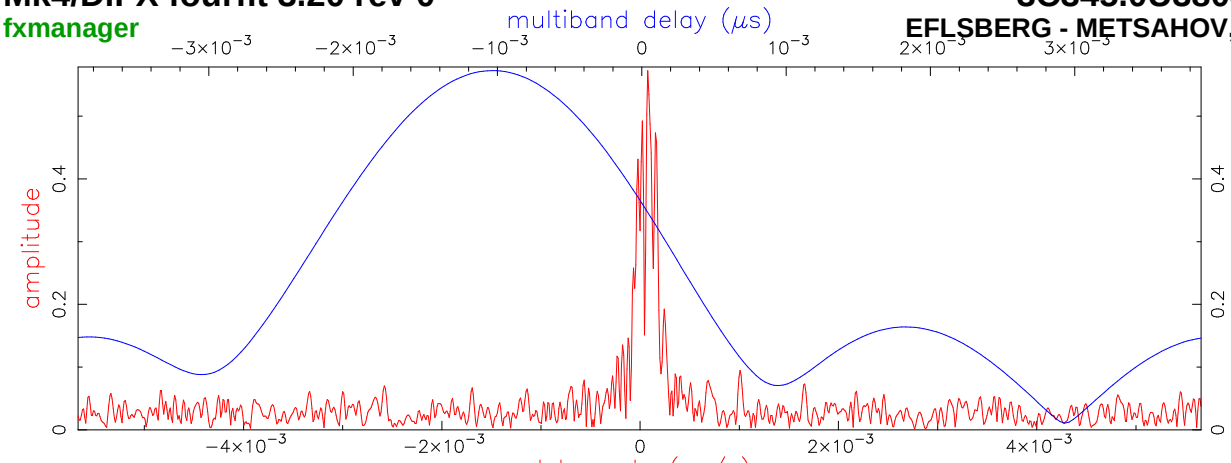
Mk4/DiFX fourfit 3.20 rev 0

fxmanager

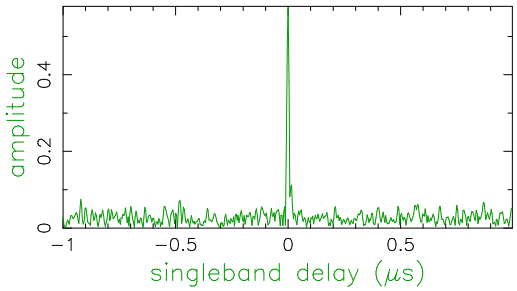
3C345.0U3803, No0002, BZ

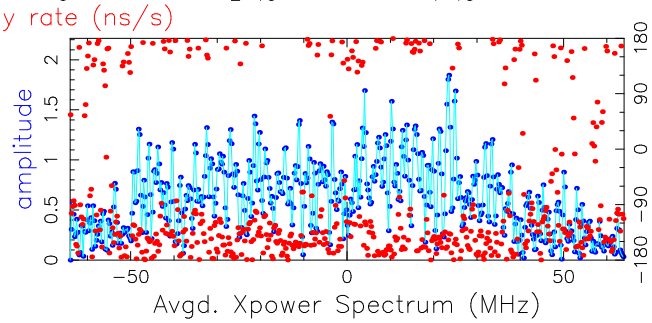
EFLSBERG - METSAHOV, fgroup W, pol LL



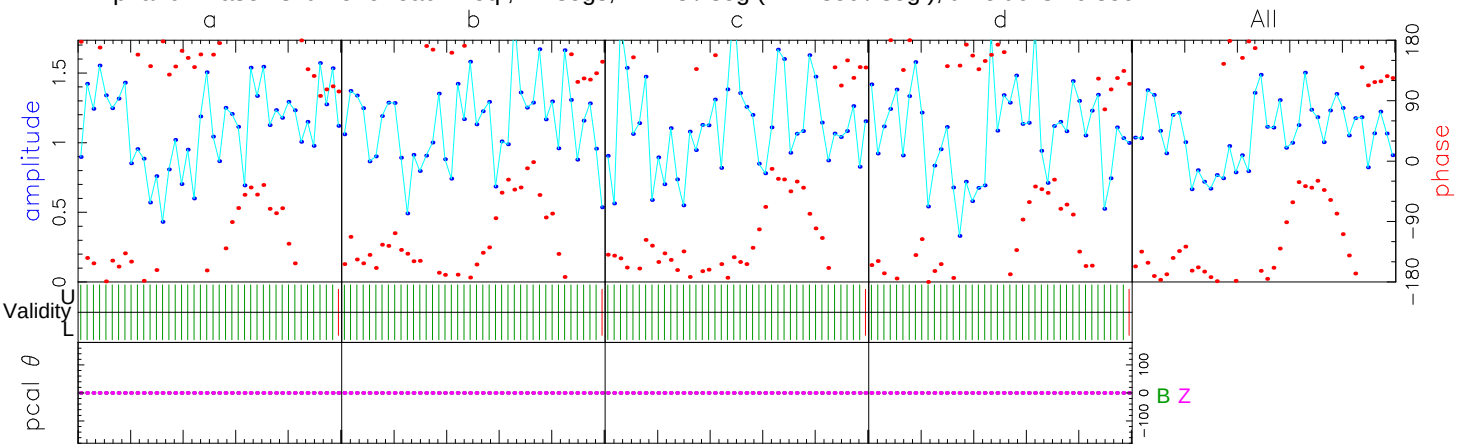
Fringe quality 8

SNR	27.4
Int time	299.712
Amp	0.579
Phase	-152.6
PFD	0.0e+00
Delays (us)	
SBD	-0.000768
MBD	-0.001050
Fringe rate (Hz)	0.006546
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142157
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"





Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-166.1	-140.0	-144.5	-161.9	Phase	-152.6
	0.5	0.6	0.6	0.6	Ampl.	0.6
	256.8	257.0	256.9	256.3	Sbd box	256.8
U/L	293/293	293/293	293/293	293/293	APs used	
B	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
B	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.31943910077E+03	Apriori delay (usec)	-1.31943805079E+03	Resid mbdelay (usec)	-1.04998E-03	+/-	4.1E-05
Sband delay (usec)	-1.31943881829E+03	Apriori clock (usec)	1.6661716E+01	Resid sbdelay (usec)	-7.67500E-04	+/-	1.6E-04
Phase delay (usec)	-1.31943805571E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	-4.92080E-06	+/-	6.7E-08
Delay rate (us/s)	2.63218016405E-01	Apriori rate (us/s)	2.63217940409E-01	Resid rate (us/s)	7.59963E-08	+/-	7.8E-10
Total phase (deg)	-42.8	Apriori accel (us/s/s)	1.56797724582E-07	Resid phase (deg)	-152.6	+/-	2.1

	RMS	Theor.							
			Amplitude	0.579 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	60.8	13.6	Search (1024X16)	0.570	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	92.3	23.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	15.7	4.2	Inc. seg. avg.	1.037	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	5.3	7.3	Inc. frq. avg.	0.582	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 88.6 el 54.8 pa -55.8 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) -1962.588 -621.295 simultaneous interpolator

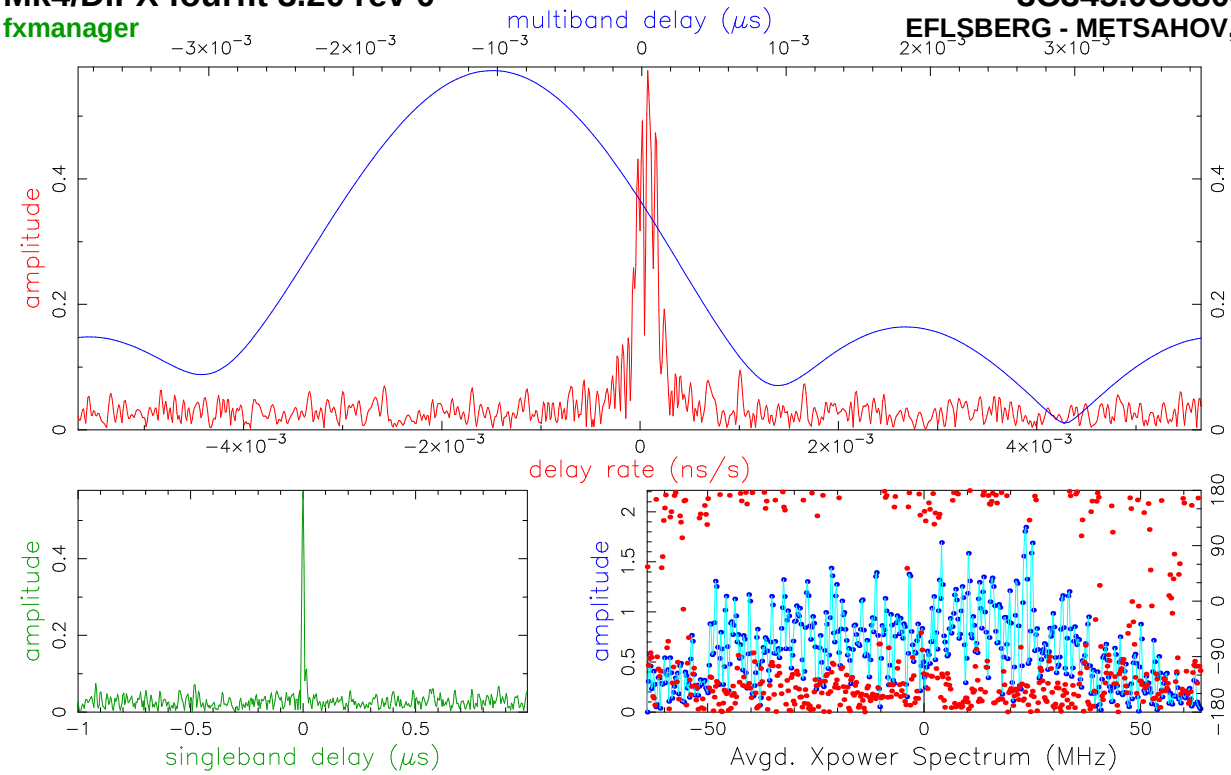
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/BZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/BZ.W.10.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

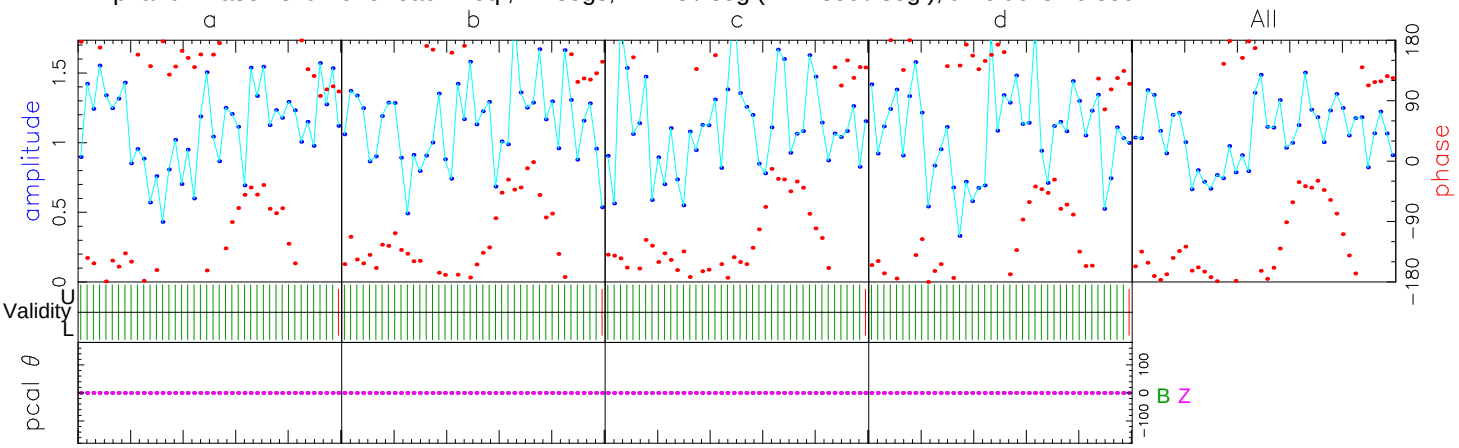
3C345.0U3803, No0002, BZ

EFLSBERG - METSAHOV, fgroup W, pol LL



Fringe quality	8
SNR	27.4
Int time	299.712
Amp	0.579
Phase	-152.6
PFD	0.0e+00
Delays (us)	
SBD	-0.000768
MBD	-0.001050
Fringe rate (Hz)	0.006546
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:141917
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-166.1	-140.0	-144.5	-161.9	Phase	-152.6
	0.5	0.6	0.6	0.6	Ampl.	0.6
	256.8	257.0	256.9	256.3	Sbd box	256.8
U/L	293/293	293/293	293/293	293/293	APs used	
B	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
B	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.31943910077E+03	Apriori delay (usec)	-1.31943805079E+03	Resid mbdelay (usec)	-1.04998E-03	+/-	4.1E-05
Sband delay (usec)	-1.31943881829E+03	Apriori clock (usec)	1.6661716E+01	Resid sbdelay (usec)	-7.67500E-04	+/-	1.6E-04
Phase delay (usec)	-1.31943805571E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	-4.92080E-06	+/-	6.7E-08
Delay rate (us/s)	2.63218016405E-01	Apriori rate (us/s)	2.63217940409E-01	Resid rate (us/s)	7.59963E-08	+/-	7.8E-10
Total phase (deg)	-42.8	Apriori accel (us/s/s)	1.56797724582E-07	Resid phase (deg)	-152.6	+/-	2.1

	RMS	Theor.							
			Amplitude	0.579 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	60.8	13.6	Search (1024X16)	0.570	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	92.3	23.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	15.7	4.2	Inc. seg. avg.	1.037	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	5.3	7.3	Inc. frq. avg.	0.582	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 88.6 el 54.8 pa -55.8 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) -1962.588 -621.295 simultaneous interpolator

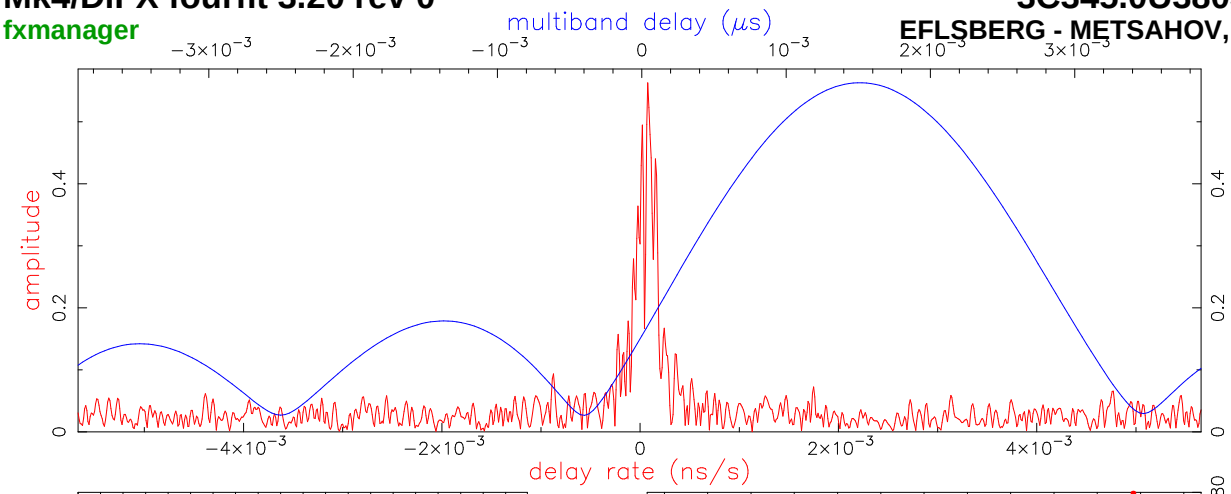
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002//BZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002//BZ.W.1.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

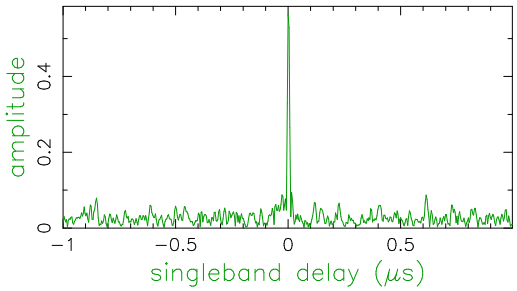
3C345.0U3803, No0002, BZ

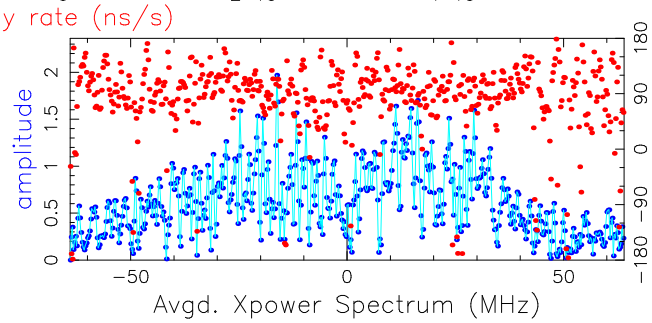
EFLSBERG - METSAHOV, fgroup W, pol RR



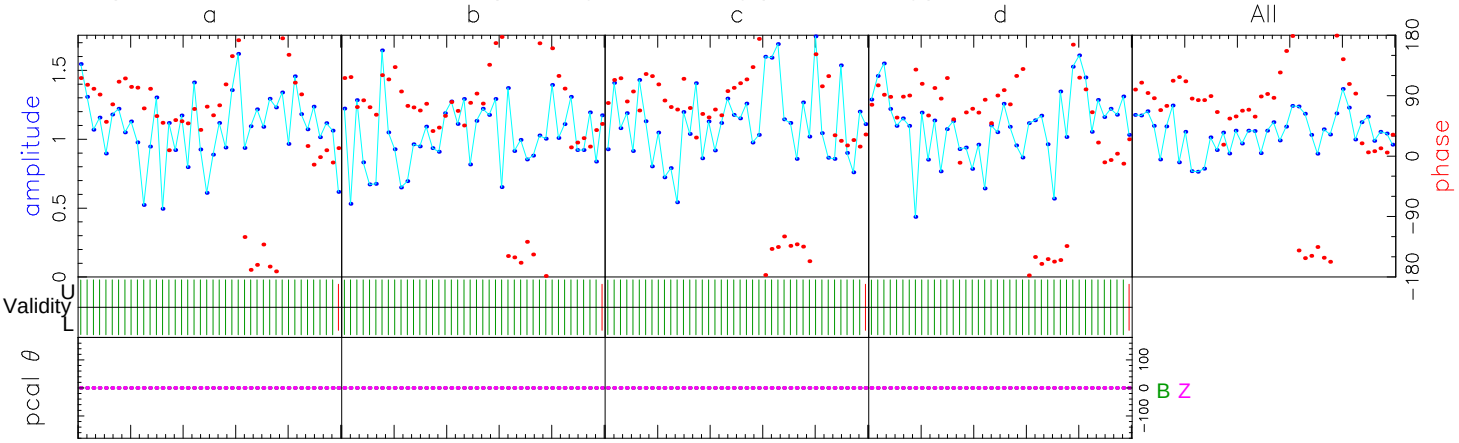
Fringe quality 9

SNR	27.7
Int time	299.712
Amp	0.585
Phase	95.3
PFD	0.0e+00
Delays (us)	
SBD	0.001495
MBD	0.001527
Fringe rate (Hz)	0.006441
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142158
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"





Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	93.8	95.4	103.6	89.0	Phase	95.3
	0.5	0.6	0.5	0.6	Ampl.	0.6
	257.4	257.4	257.6	257.1	Sbd box	257.4
U/L	293/293	293/293	293/293	293/293	APs used	
B	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
B	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.31943652336E+03	Apriori delay (usec)	-1.31943805079E+03	Resid mbdelay (usec)	1.52743E-03	+/-	4.0E-05
Sband delay (usec)	-1.31943655554E+03	Apriori clock (usec)	1.6661716E+01	Resid sbdelay (usec)	1.49525E-03	+/-	1.6E-04
Phase delay (usec)	-1.31943804772E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	3.07192E-06	+/-	6.7E-08
Delay rate (us/s)	2.63218015186E-01	Apriori rate (us/s)	2.63217940409E-01	Resid rate (us/s)	7.47769E-08	+/-	7.7E-10
Total phase (deg)	-154.9	Apriori accel (us/s/s)	1.56797724582E-07	Resid phase (deg)	95.3	+/-	2.1

	RMS	Theor.							
			Amplitude	0.585 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	61.8	13.4	Search (1024X16)	0.559	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	82.8	23.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	7.5	4.1	Inc. seg. avg.	1.021	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	5.2	7.2	Inc. frq. avg.	0.564	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 88.6 el 54.8 pa -55.8 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) -1962.588 -621.295 simultaneous interpolator

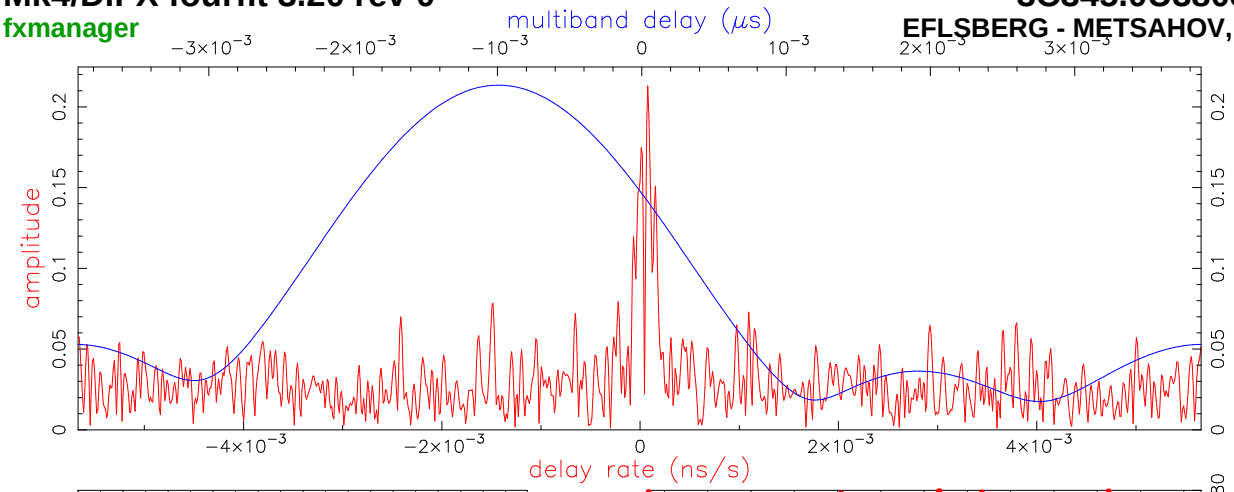
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/BZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/BZ.W.11.0U3803

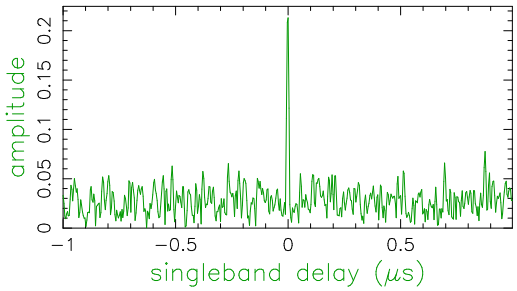
Mk4/DiFX fourfit 3.20 rev 0

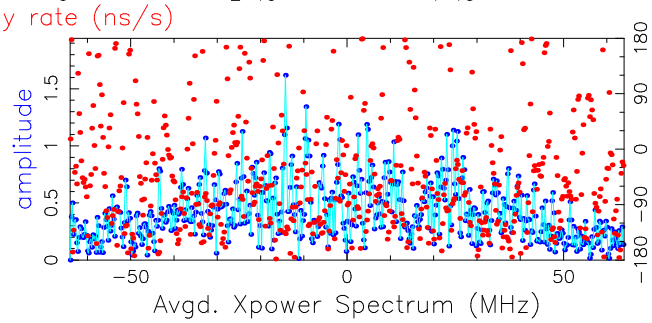
fxmanager

3C345.0U3803, No0002, BZ

EFLSBERG - METSAHOV, fgroup W, pol LR

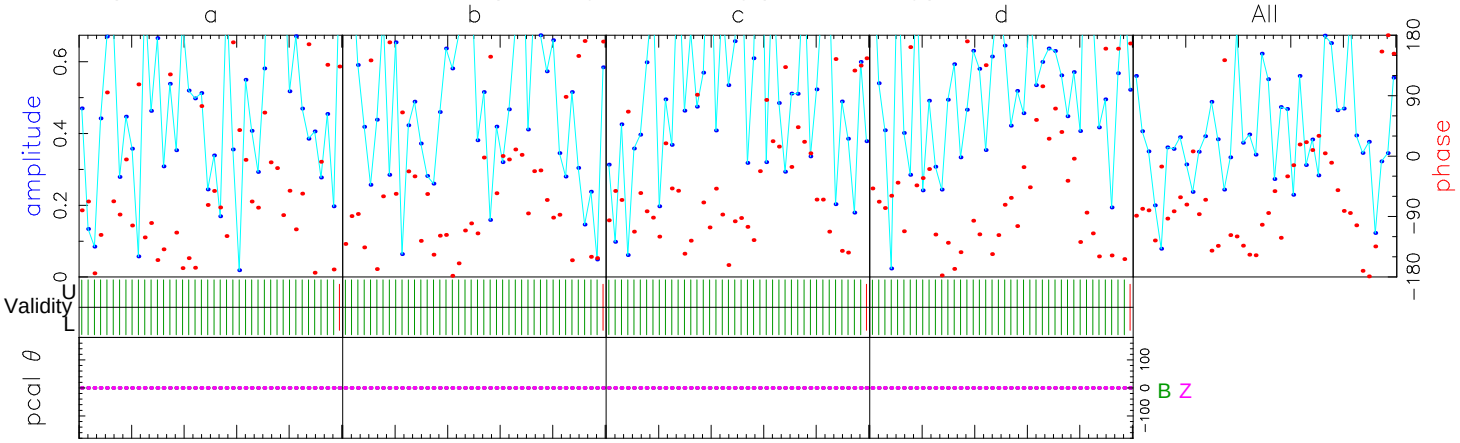






Fringe quality	9
SNR	10.6
Int time	299.712
Amp	0.225
Phase	-87.7
PFD	2.3e-18
Delays (us)	
SBD	-0.001786
MBD	-0.001073
Fringe rate (Hz)	0.006784
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142159
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-101.9	-87.9	-73.4	-93.2	Phase	-87.7
	0.2	0.2	0.2	0.2	Ampl.	0.2
	256.3	256.9	256.5	256.2	Sbd box	256.5
U/L	293/293	293/293	293/293	293/293	APs used	
B	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
B	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.31943912339E+03	Apriori delay (usec)	-1.31943805079E+03	Resid mbdelay (usec)	-1.07260E-03	+/-	1.0E-04
Sband delay (usec)	-1.31943983679E+03	Apriori clock (usec)	1.6661716E+01	Resid sbdelay (usec)	-1.78600E-03	+/-	4.0E-04
Phase delay (usec)	-1.31943805362E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	-2.82658E-06	+/-	1.7E-07
Delay rate (us/s)	2.63218019160E-01	Apriori rate (us/s)	2.63217940409E-01	Resid rate (us/s)	7.87512E-08	+/-	2.0E-09
Total phase (deg)	-337.8	Apriori accel (us/s/s)	1.56797724582E-07	Resid phase (deg)	-87.7	+/-	5.4

	RMS	Theor.							
			Amplitude	0.225 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	64.7	34.9	Search (1024X16)	0.213	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	101.4	60.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	14.8	10.8	Inc. seg. avg.	0.338	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	16.2	18.8	Inc. frq. avg.	0.213	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 88.6 el 54.8 pa -55.8 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) -1962.588 -621.295 simultaneous interpolator

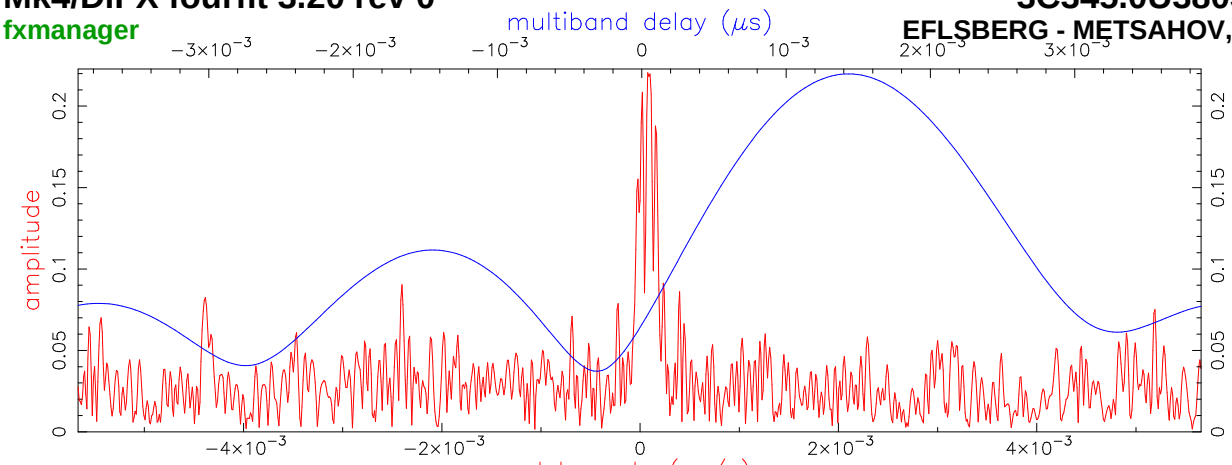
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/BZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/BZ.W.12.0U3803

Mk4/DiFX fourfit 3.20 rev 0

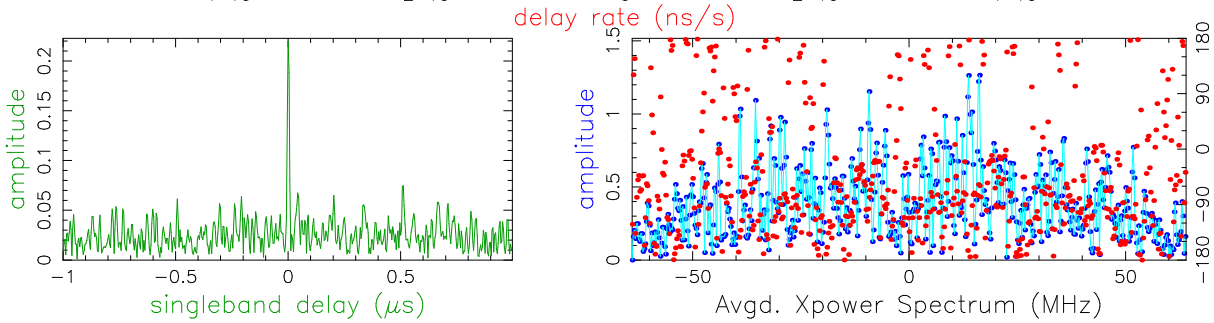
fxmanager

3C345.0U3803, No0002, BZ

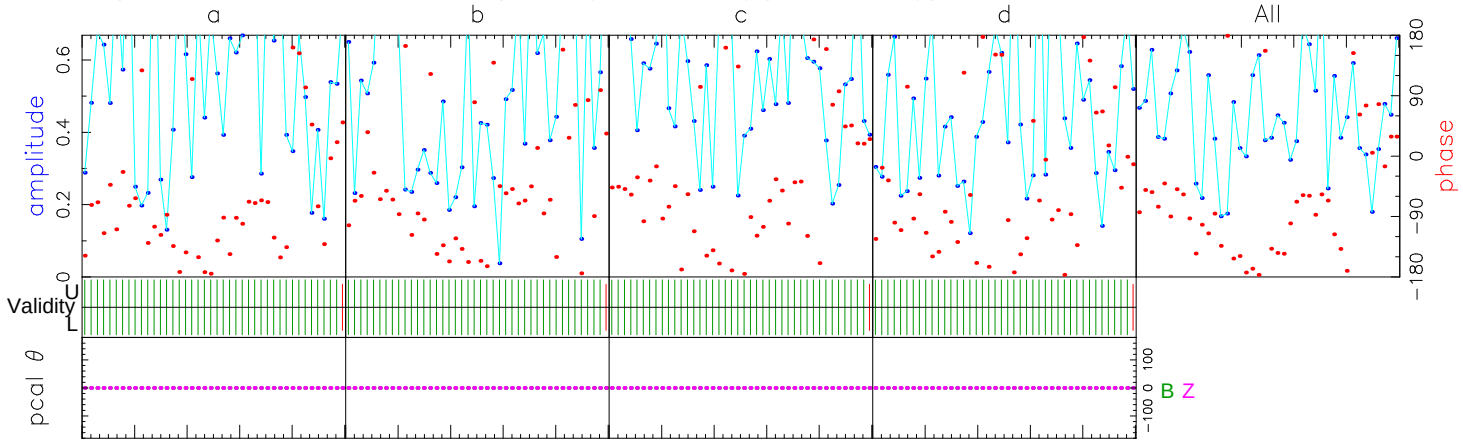
EFLSBERG - METSAHOV, fgroup W, pol RL



Fringe quality	8
SNR	10.5
Int time	299.712
Amp	0.223
Phase	-94.7
PFD	5.8e-18
Delays (us)	
SBD	0.000877
MBD	0.001412
Fringe rate (Hz)	0.008467
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142159
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"



Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-109.5	-71.4	-75.1	-116.5	Phase	-94.7
	0.3	0.2	0.3	0.2	Ampl.	0.2
	257.3	256.6	257.3	257.4	Sbd box	257.2
U/L	293/293	293/293	293/293	293/293	APs used	
B	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
B	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.31943663830E+03	Apriori delay (usec)	-1.31943805079E+03	Resid mbdelay (usec)	1.41249E-03	+/-	1.1E-04
Sband delay (usec)	-1.31943717379E+03	Apriori clock (usec)	1.6661716E+01	Resid sbdelay (usec)	8.77000E-04	+/-	4.1E-04
Phase delay (usec)	-1.31943805384E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	-3.05466E-06	+/-	1.8E-07
Delay rate (us/s)	2.63218038697E-01	Apriori rate (us/s)	2.63217940409E-01	Resid rate (us/s)	9.82883E-08	+/-	2.0E-09
Total phase (deg)	-344.9	Apriori accel (us/s/s)	1.56797724582E-07	Resid phase (deg)	-94.7	+/-	5.4

	RMS	Theor.							
			Amplitude	0.223 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	72.4	35.2	Search (1024X16)	0.219	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	123.2	61.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	28.5	10.9	Inc. seg. avg.	0.379	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	24.7	19.0	Inc. frq. avg.	0.229	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 88.6 el 54.8 pa -55.8 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) -1962.588 -621.295 simultaneous interpolator

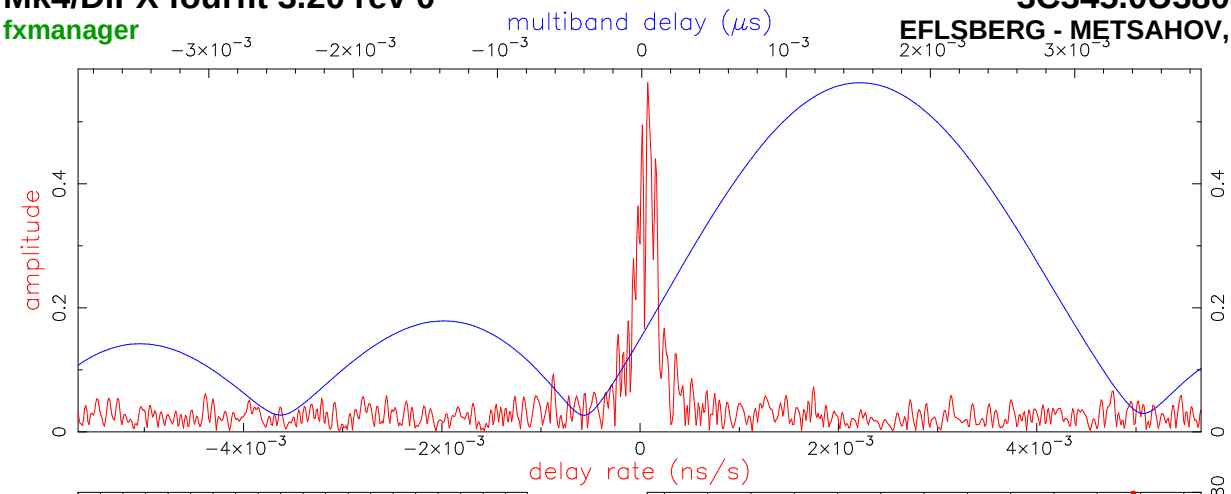
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/BZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/BZ.W.13.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

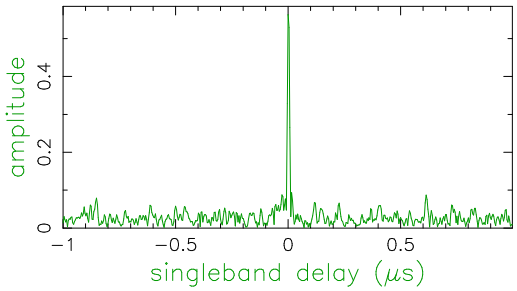
3C345.0U3803, No0002, BZ

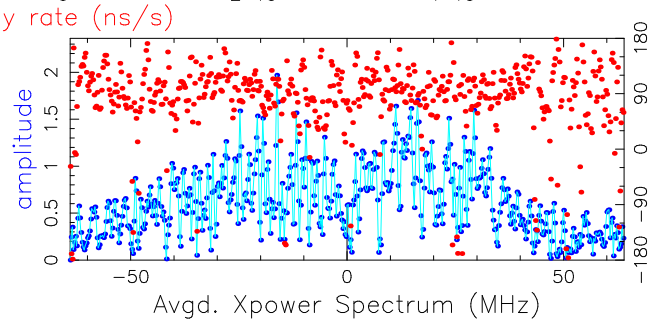
EFLSBERG - METSAHOV, fgroup W, pol RR



Fringe quality 9

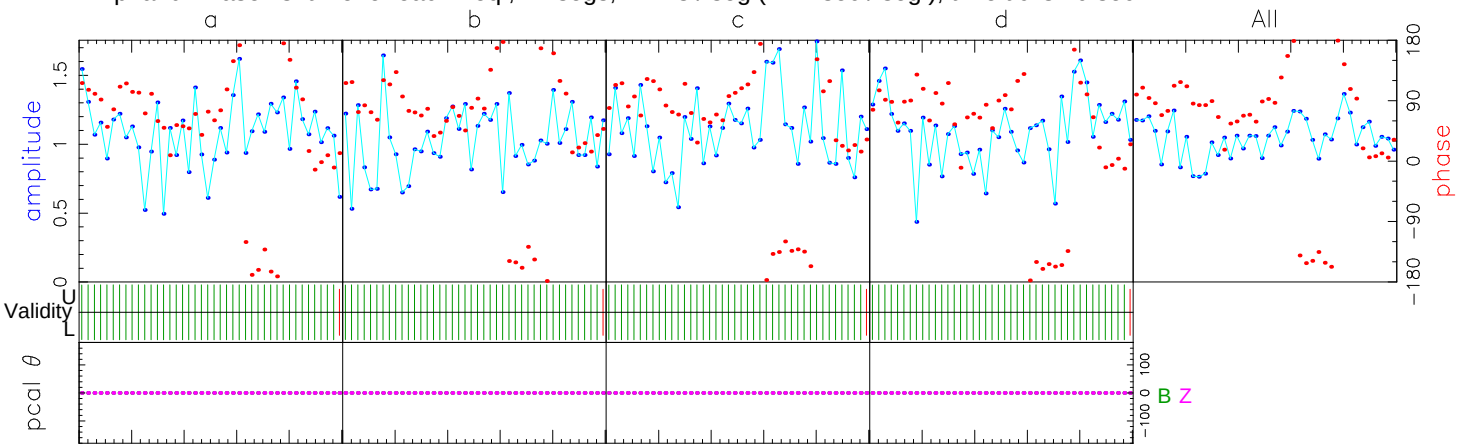
SNR 27.7
Int time 299.712
Amp 0.585
Phase 95.3
PFD 0.0e+00
Delays (us)
SBD 0.001495
MBD 0.001527
Fringe rate (Hz)
0.006441
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 1.024





Exp. f192a
Exper # 16383
Yr:day 2019:276
Start 121500.00
Stop 122000.03
FRT 121730.00
Corr/FF/build
2019:277:141742
2019:277:141918
2019:253:110249
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	a	b	c	d		All
	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	
	93.8	95.4	103.6	89.0	Phase	95.3
	0.5	0.6	0.5	0.6	Ampl.	0.6
	257.4	257.4	257.6	257.1	Sbd box	257.4
U/L	293/293	293/293	293/293	293/293	APs used	
B	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
B	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.31943652336E+03	Apriori delay (usec)	-1.31943805079E+03	Resid mbdelay (usec)	1.52743E-03	+/-	4.0E-05
Sband delay (usec)	-1.31943655554E+03	Apriori clock (usec)	1.6661716E+01	Resid sbdelay (usec)	1.49525E-03	+/-	1.6E-04
Phase delay (usec)	-1.31943804772E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	3.07192E-06	+/-	6.7E-08
Delay rate (us/s)	2.63218015186E-01	Apriori rate (us/s)	2.63217940409E-01	Resid rate (us/s)	7.47769E-08	+/-	7.7E-10
Total phase (deg)	-154.9	Apriori accel (us/s/s)	1.56797724582E-07	Resid phase (deg)	95.3	+/-	2.1

	RMS	Theor.							
			Amplitude	0.585 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	61.8	13.4	Search (1024X16)	0.559	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	82.8	23.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	7.5	4.1	Inc. seg. avg.	1.021	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	5.2	7.2	Inc. frq. avg.	0.564	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 88.6 el 54.8 pa -55.8 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) -1962.588 -621.295 simultaneous interpolator

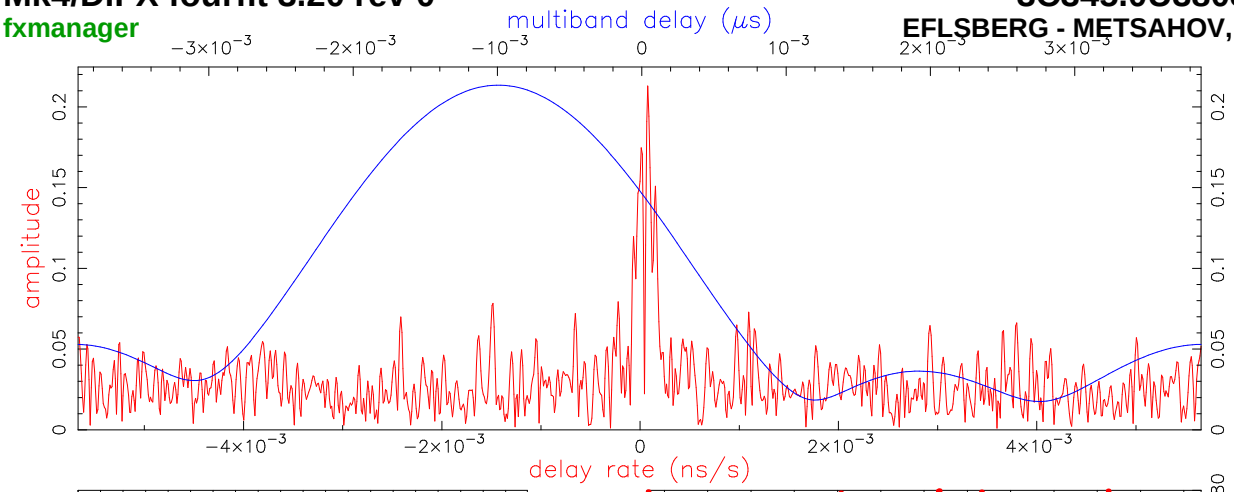
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002//BZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002//BZ.W.2.0U3803

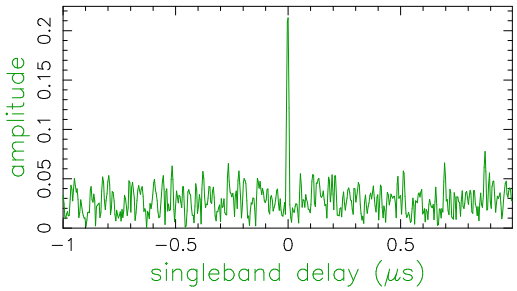
Mk4/DiFX fourfit 3.20 rev 0

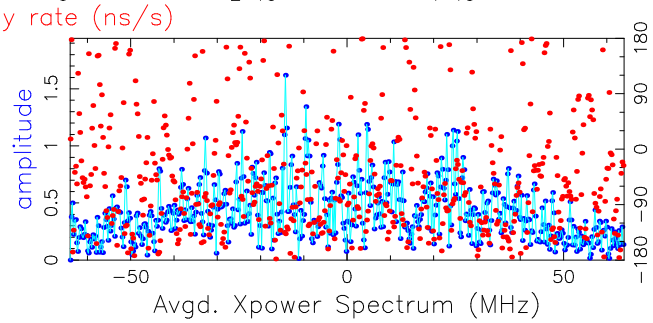
fxmanager

3C345.0U3803, No0002, BZ

EFLSBERG - METSAHOV, fgroup W, pol LR

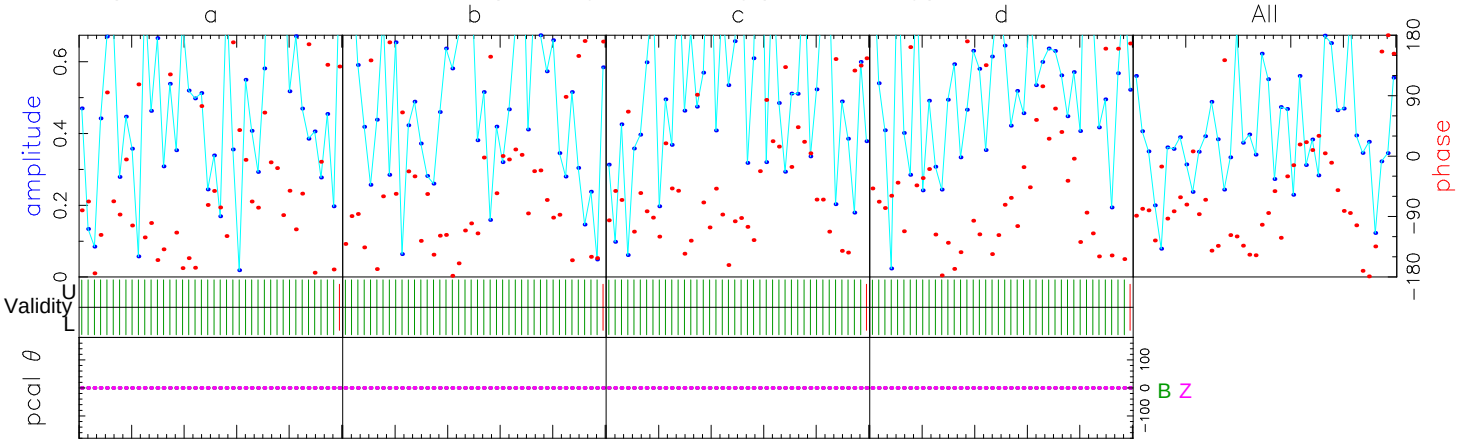






Fringe quality	9
SNR	10.6
Int time	299.712
Amp	0.225
Phase	-87.7
PFD	2.3e-18
Delays (us)	
SBD	-0.001786
MBD	-0.001073
Fringe rate (Hz)	0.006784
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:141919
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	a	b	c	d		All
	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	
	-101.9	-87.9	-73.4	-93.2	Phase	-87.7
	0.2	0.2	0.2	0.2	Ampl.	0.2
	256.3	256.9	256.5	256.2	Sbd box	256.5
U/L	293/293	293/293	293/293	293/293	APs used	
B	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
B	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.31943912339E+03	Apriori delay (usec)	-1.31943805079E+03	Resid mbdelay (usec)	-1.07260E-03	+/-	1.0E-04
Sband delay (usec)	-1.31943983679E+03	Apriori clock (usec)	1.6661716E+01	Resid sbdelay (usec)	-1.78600E-03	+/-	4.0E-04
Phase delay (usec)	-1.31943805362E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	-2.82658E-06	+/-	1.7E-07
Delay rate (us/s)	2.63218019160E-01	Apriori rate (us/s)	2.63217940409E-01	Resid rate (us/s)	7.87512E-08	+/-	2.0E-09
Total phase (deg)	-337.8	Apriori accel (us/s/s)	1.56797724582E-07	Resid phase (deg)	-87.7	+/-	5.4

	RMS	Theor.							
			Amplitude	0.225 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	64.7	34.9	Search (1024X16)	0.213	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	101.4	60.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	14.8	10.8	Inc. seg. avg.	0.338	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	16.2	18.8	Inc. frq. avg.	0.213	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 88.6 el 54.8 pa -55.8 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) -1962.588 -621.295 simultaneous interpolator

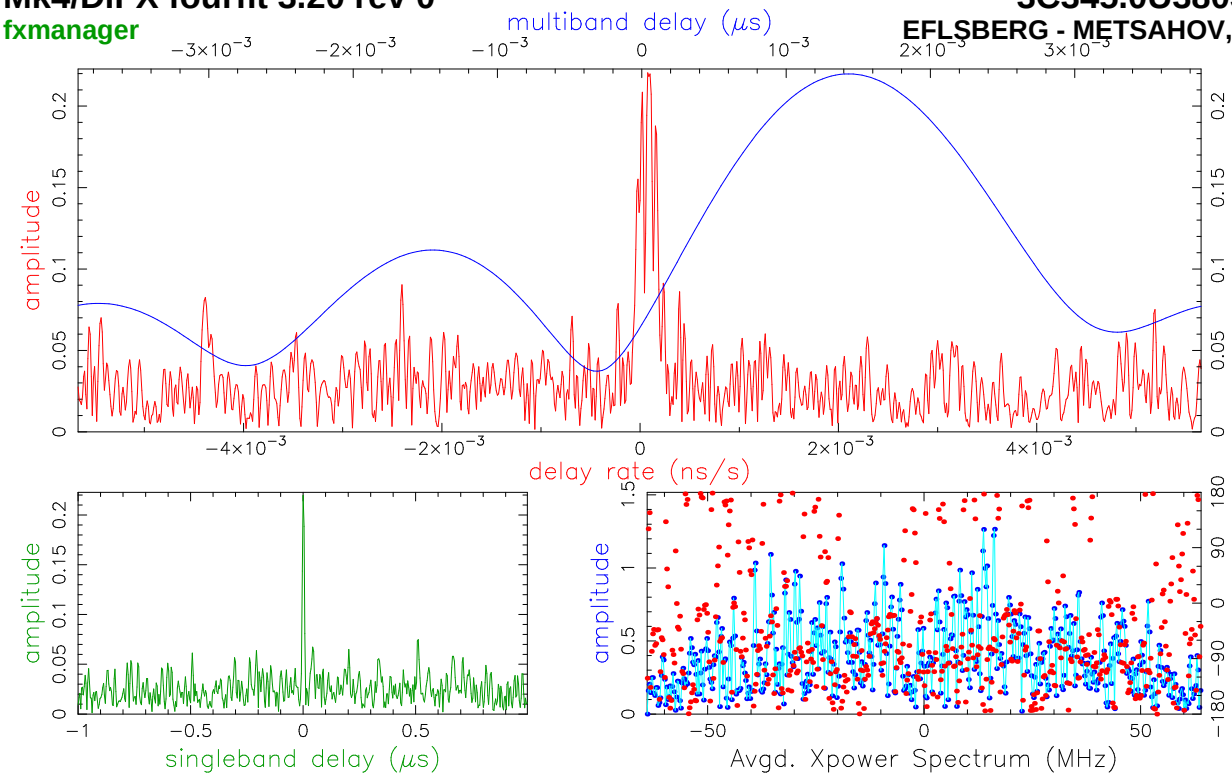
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002//BZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002//BZ.W.3.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

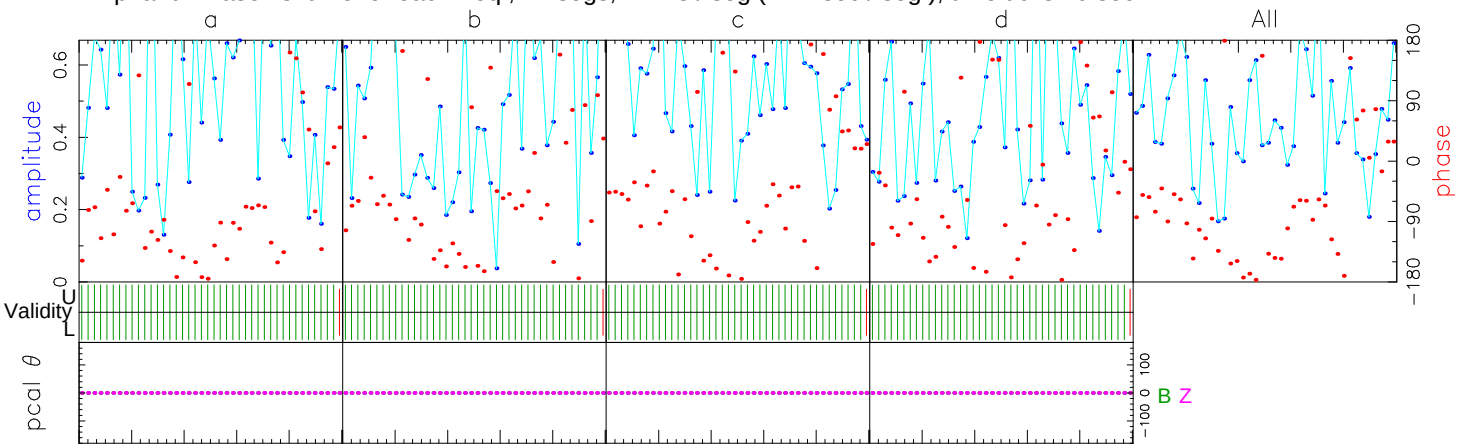
3C345.0U3803, No0002, BZ

EFLSBERG - METSAHOV, fgroup W, pol RL



Fringe quality	8
SNR	10.5
Int time	299.712
Amp	0.223
Phase	-94.7
PFD	5.8e-18
Delays (us)	
SBD	0.000877
MBD	0.001412
Fringe rate (Hz)	0.008467
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:141920
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	a	b	c	d	Freq (MHz)	All
	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-109.5	-71.4	-75.1	-116.5	Phase	-94.7
	0.3	0.2	0.3	0.2	Ampl.	0.2
	257.3	256.6	257.3	257.4	Sbd box	257.2
U/L	293/293	293/293	293/293	293/293	APs used	
B	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
B	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.31943663830E+03	Apriori delay (usec)	-1.31943805079E+03	Resid mbdelay (usec)	1.41249E-03	+/-	1.1E-04
Sband delay (usec)	-1.31943717379E+03	Apriori clock (usec)	1.6661716E+01	Resid sbdelay (usec)	8.77000E-04	+/-	4.1E-04
Phase delay (usec)	-1.31943805384E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	-3.05466E-06	+/-	1.8E-07
Delay rate (us/s)	2.63218038697E-01	Apriori rate (us/s)	2.63217940409E-01	Resid rate (us/s)	9.82883E-08	+/-	2.0E-09
Total phase (deg)	-344.9	Apriori accel (us/s/s)	1.56797724582E-07	Resid phase (deg)	-94.7	+/-	5.4

	RMS	Theor.							
			Amplitude	0.223 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	72.4	35.2	Search (1024X16)	0.219	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	123.2	61.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	28.5	10.9	Inc. seg. avg.	0.379	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	24.7	19.0	Inc. frq. avg.	0.229	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 88.6 el 54.8 pa -55.8 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) -1962.588 -621.295 simultaneous interpolator

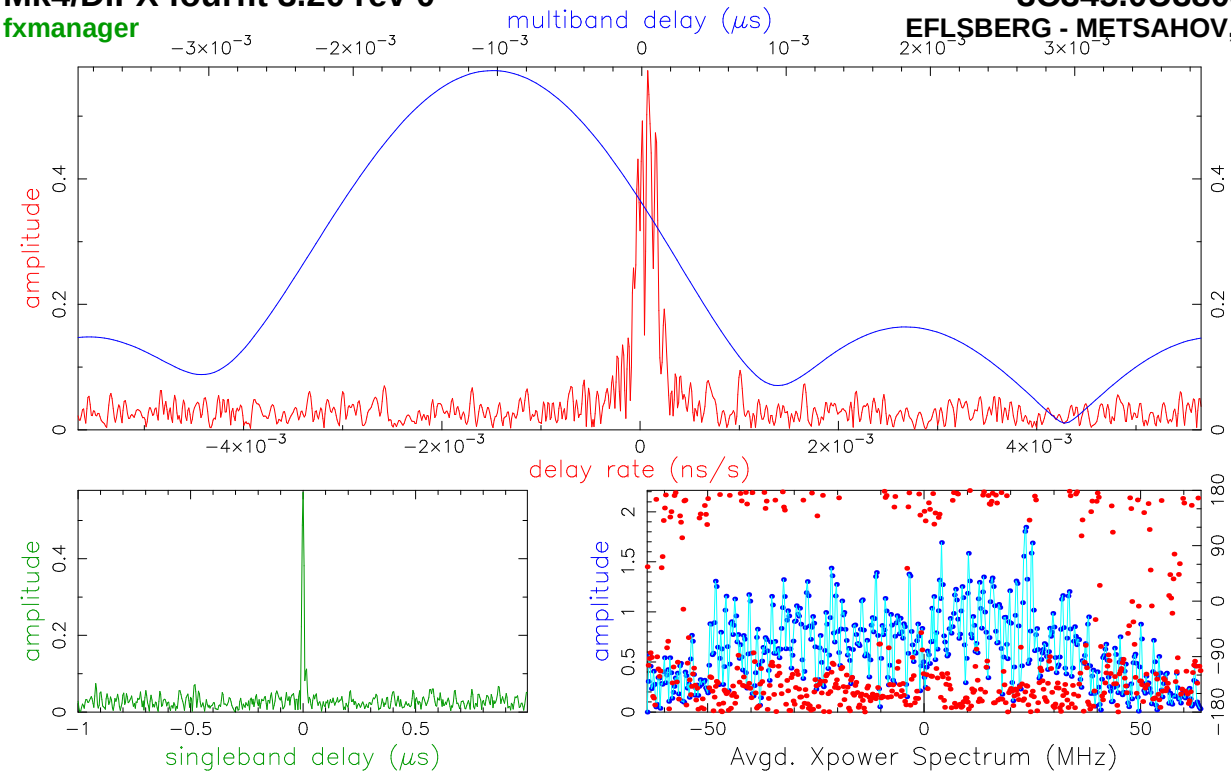
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002//BZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002//BZ.W.4.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

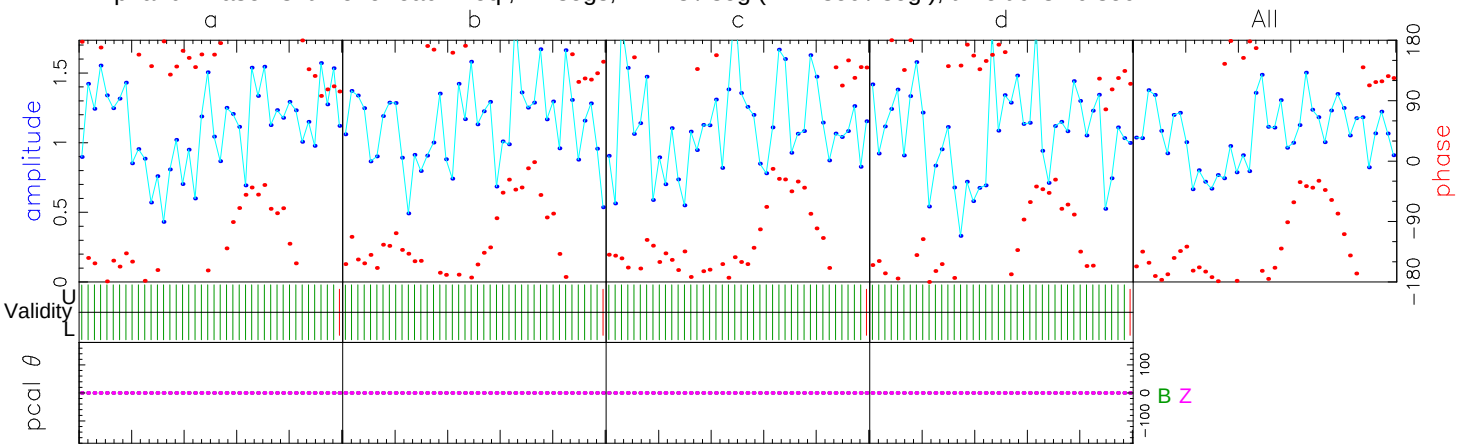
3C345.0U3803, No0002, BZ

EFLSBERG - METSAHOV, fgroup W, pol LL



Fringe quality	8
SNR	27.4
Int time	299.712
Amp	0.579
Phase	-152.6
PFD	0.0e+00
Delays (us)	
SBD	-0.000768
MBD	-0.001050
Fringe rate (Hz)	0.006546
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142101
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-166.1	-140.0	-144.5	-161.9	Phase	-152.6
	0.5	0.6	0.6	0.6	Ampl.	0.6
	256.8	257.0	256.9	256.3	Sbd box	256.8
U/L	293/293	293/293	293/293	293/293	APs used	
B	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
B	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.31943910077E+03	Apriori delay (usec)	-1.31943805079E+03	Resid mbdelay (usec)	-1.04998E-03	+/-	4.1E-05
Sband delay (usec)	-1.31943881829E+03	Apriori clock (usec)	1.6661716E+01	Resid sbdelay (usec)	-7.67500E-04	+/-	1.6E-04
Phase delay (usec)	-1.31943805571E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	-4.92080E-06	+/-	6.7E-08
Delay rate (us/s)	2.63218016405E-01	Apriori rate (us/s)	2.63217940409E-01	Resid rate (us/s)	7.59963E-08	+/-	7.8E-10
Total phase (deg)	-42.8	Apriori accel (us/s/s)	1.56797724582E-07	Resid phase (deg)	-152.6	+/-	2.1

	RMS	Theor.							
			Amplitude	0.579 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	60.8	13.6	Search (1024X16)	0.570	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	92.3	23.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	15.7	4.2	Inc. seg. avg.	1.037	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	5.3	7.3	Inc. frq. avg.	0.582	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 88.6 el 54.8 pa -55.8 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) -1962.588 -621.295 simultaneous interpolator

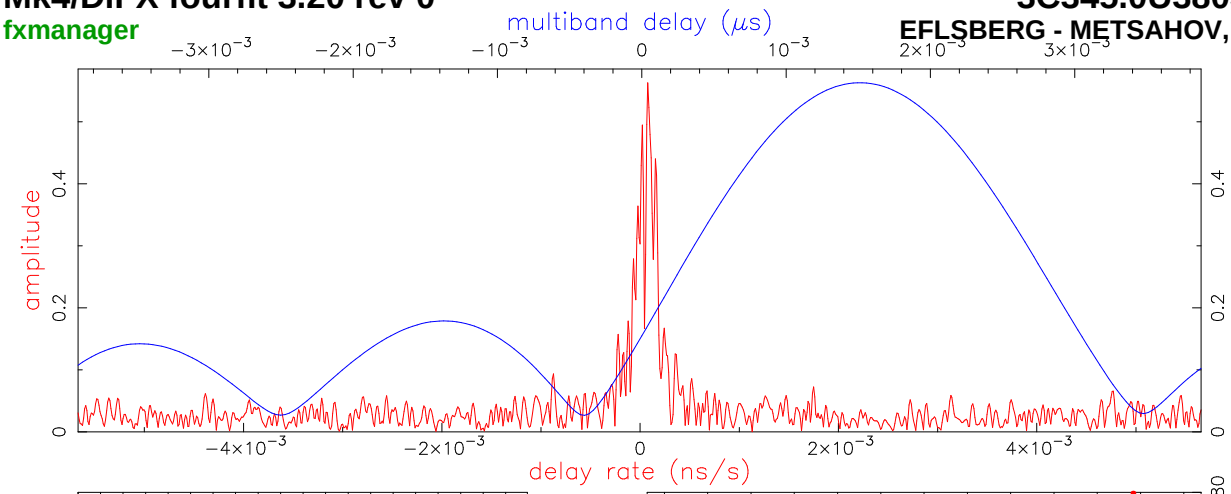
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002//BZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002//BZ.W.5.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

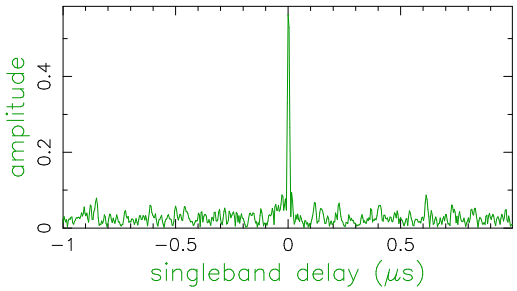
3C345.0U3803, No0002, BZ

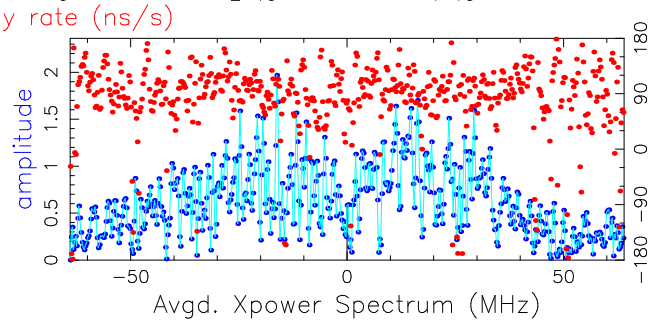
EFLSBERG - METSAHOV, fgroup W, pol RR



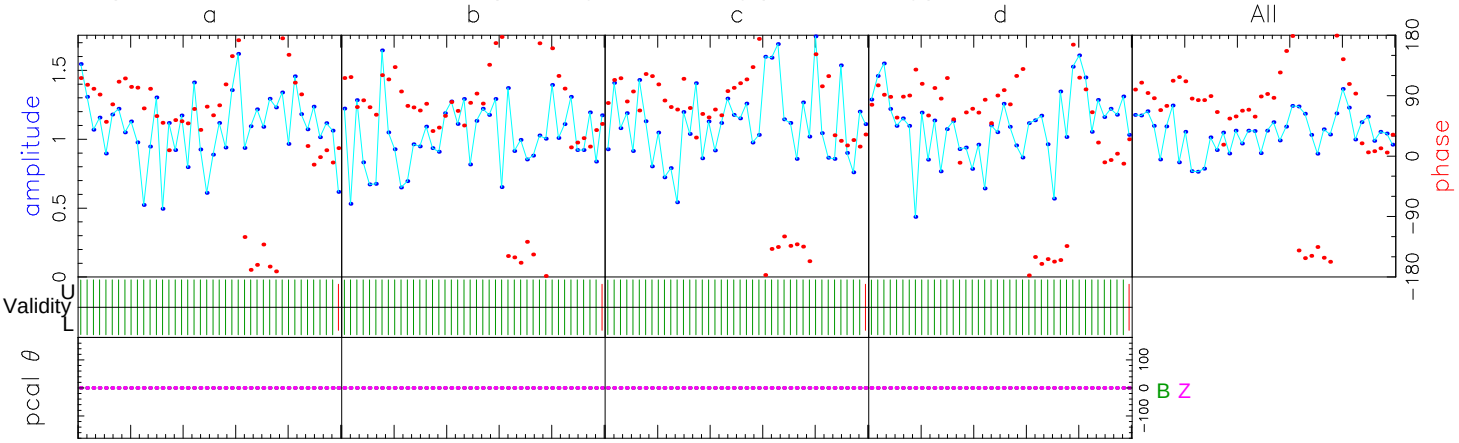
Fringe quality 9

SNR	27.7
Int time	299.712
Amp	0.585
Phase	95.3
PFD	0.0e+00
Delays (us)	
SBD	0.001495
MBD	0.001527
Fringe rate (Hz)	0.006441
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142102
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"





Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	a	b	c	d		All
	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	
	93.8	95.4	103.6	89.0	Phase	95.3
	0.5	0.6	0.5	0.6	Ampl.	0.6
	257.4	257.4	257.6	257.1	Sbd box	257.4
U/L	293/293	293/293	293/293	293/293	APs used	
B	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
B	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.31943652336E+03	Apriori delay (usec)	-1.31943805079E+03	Resid mbdelay (usec)	1.52743E-03	+/-	4.0E-05
Sband delay (usec)	-1.31943655554E+03	Apriori clock (usec)	1.6661716E+01	Resid sbdelay (usec)	1.49525E-03	+/-	1.6E-04
Phase delay (usec)	-1.31943804772E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	3.07192E-06	+/-	6.7E-08
Delay rate (us/s)	2.63218015186E-01	Apriori rate (us/s)	2.63217940409E-01	Resid rate (us/s)	7.47769E-08	+/-	7.7E-10
Total phase (deg)	-154.9	Apriori accel (us/s/s)	1.56797724582E-07	Resid phase (deg)	95.3	+/-	2.1

	RMS	Theor.							
			Amplitude	0.585 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	61.8	13.4	Search (1024X16)	0.559	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	82.8	23.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	7.5	4.1	Inc. seg. avg.	1.021	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	5.2	7.2	Inc. frq. avg.	0.564	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 88.6 el 54.8 pa -55.8 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) -1962.588 -621.295 simultaneous interpolator

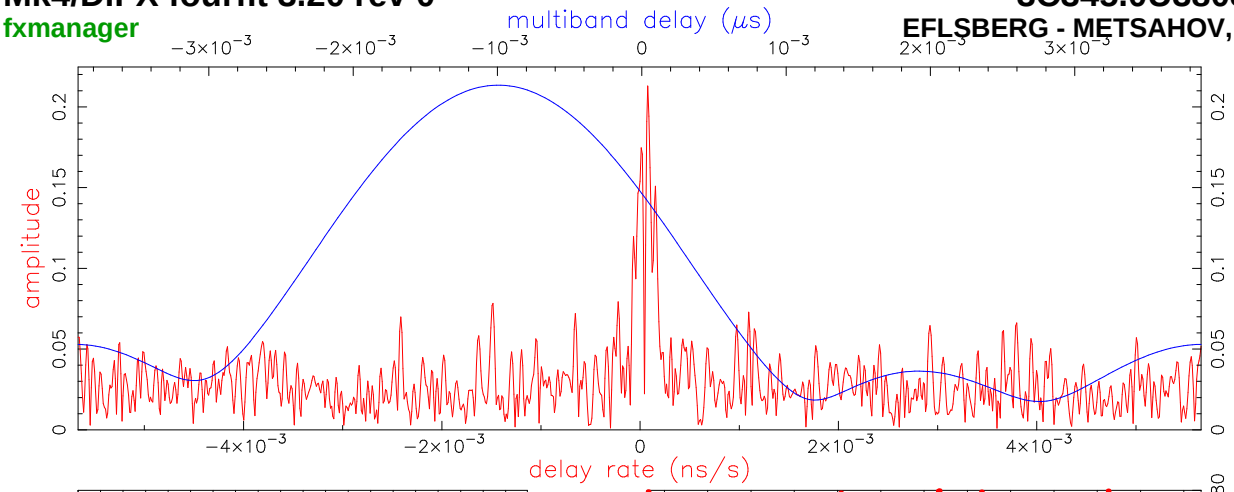
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002//BZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002//BZ.W.6.0U3803

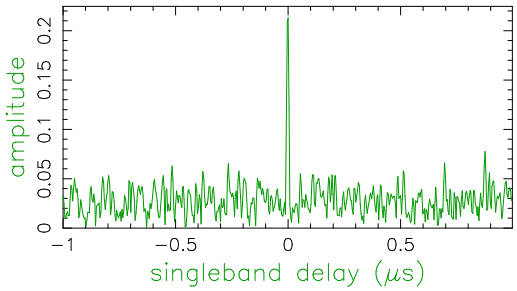
Mk4/DiFX fourfit 3.20 rev 0

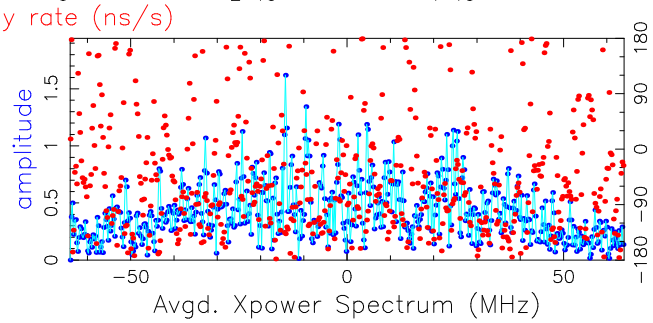
fxmanager

3C345.0U3803, No0002, BZ

EFLSBERG - METSAHOV, fgroup W, pol LR

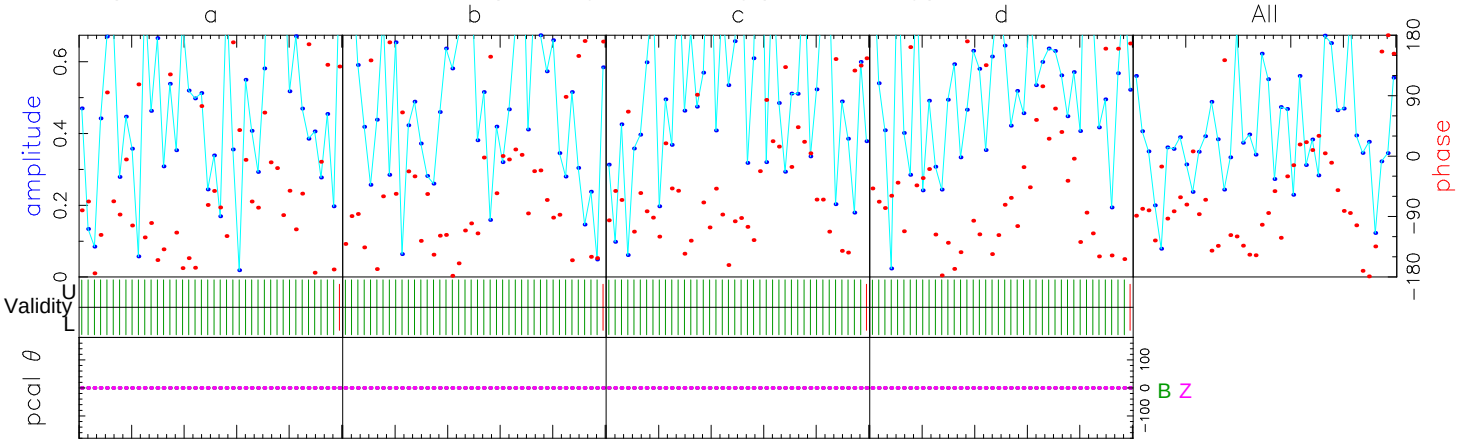






Fringe quality	9
SNR	10.6
Int time	299.712
Amp	0.225
Phase	-87.7
PFD	2.3e-18
Delays (us)	
SBD	-0.001786
MBD	-0.001073
Fringe rate (Hz)	0.006784
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142102
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-101.9	-87.9	-73.4	-93.2	Phase	-87.7
	0.2	0.2	0.2	0.2	Ampl.	0.2
	256.3	256.9	256.5	256.2	Sbd box	256.5
U/L	293/293	293/293	293/293	293/293	APs used	
B	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
B	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.31943912339E+03	Apriori delay (usec)	-1.31943805079E+03	Resid mbdelay (usec)	-1.07260E-03	+/-	1.0E-04
Sband delay (usec)	-1.31943983679E+03	Apriori clock (usec)	1.6661716E+01	Resid sbdelay (usec)	-1.78600E-03	+/-	4.0E-04
Phase delay (usec)	-1.31943805362E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	-2.82658E-06	+/-	1.7E-07
Delay rate (us/s)	2.63218019160E-01	Apriori rate (us/s)	2.63217940409E-01	Resid rate (us/s)	7.87512E-08	+/-	2.0E-09
Total phase (deg)	-337.8	Apriori accel (us/s/s)	1.56797724582E-07	Resid phase (deg)	-87.7	+/-	5.4

	RMS	Theor.							
			Amplitude	0.225 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	64.7	34.9	Search (1024X16)	0.213	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	101.4	60.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	14.8	10.8	Inc. seg. avg.	0.338	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	16.2	18.8	Inc. frq. avg.	0.213	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 88.6 el 54.8 pa -55.8 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) -1962.588 -621.295 simultaneous interpolator

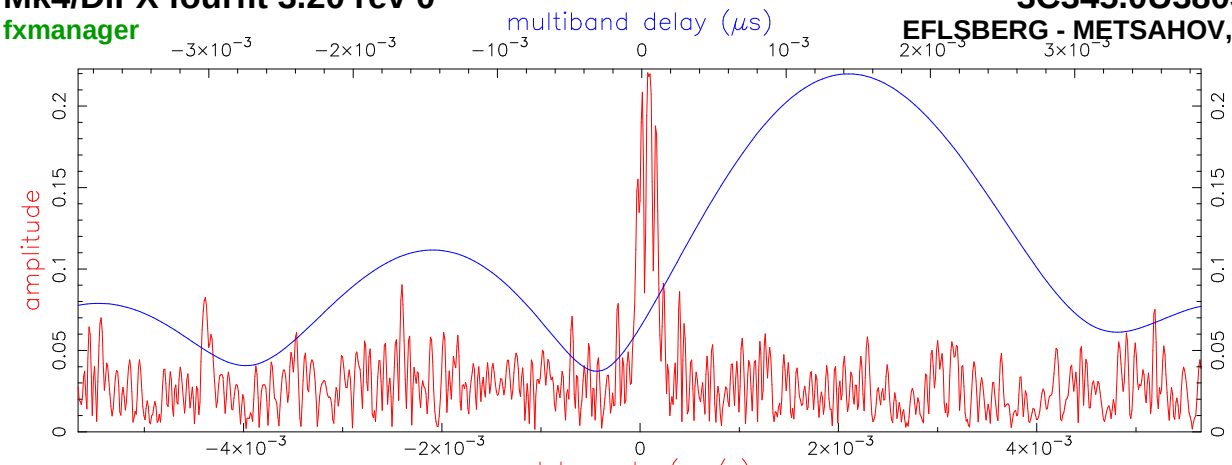
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002//BZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002//BZ.W.7.0U3803

Mk4/DiFX fourfit 3.20 rev 0

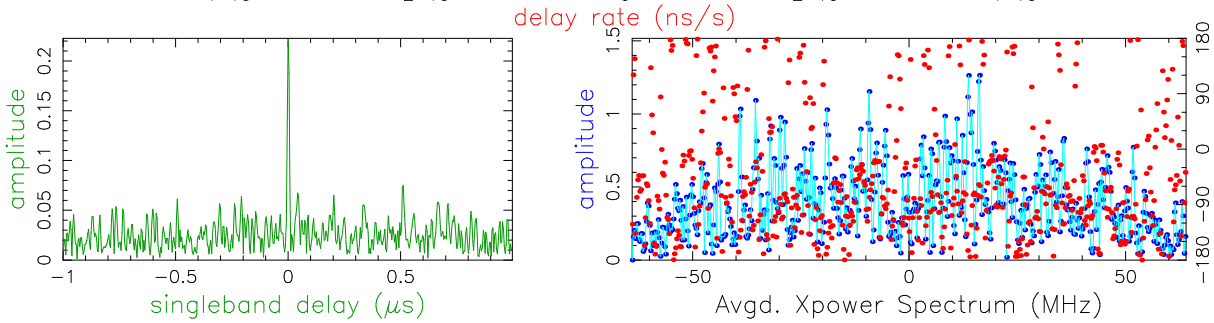
fxmanager

3C345.0U3803, No0002, BZ

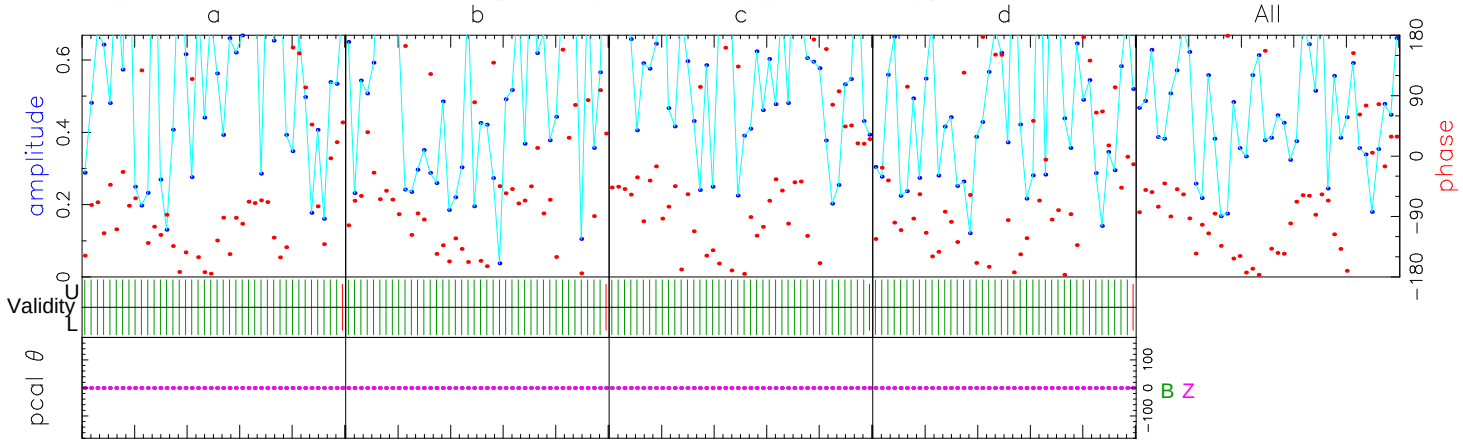
EFLSBERG - METSAHOV, fgroup W, pol RL



Fringe quality	8
SNR	10.5
Int time	299.712
Amp	0.223
Phase	-94.7
PFD	5.8e-18
Delays (us)	
SBD	0.000877
MBD	0.001412
Fringe rate (Hz)	0.008467
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142103
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"



Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-109.5	-71.4	-75.1	-116.5	Phase	-94.7
	0.3	0.2	0.3	0.2	Ampl.	0.2
	257.3	256.6	257.3	257.4	Sbd box	257.2
U/L	293/293	293/293	293/293	293/293	APs used	
B	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	PC phase	
B:Z	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
B	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.31943663830E+03	Apriori delay (usec)	-1.31943805079E+03	Resid mbdelay (usec)	1.41249E-03	+/-	1.1E-04
Sband delay (usec)	-1.31943717379E+03	Apriori clock (usec)	1.6661716E+01	Resid sbdelay (usec)	8.77000E-04	+/-	4.1E-04
Phase delay (usec)	-1.31943805384E+03	Apriori clockrate (us/s)	-2.7000001E-07	Resid phdelay (usec)	-3.05466E-06	+/-	1.8E-07
Delay rate (us/s)	2.63218038697E-01	Apriori rate (us/s)	2.63217940409E-01	Resid rate (us/s)	9.82883E-08	+/-	2.0E-09
Total phase (deg)	-344.9	Apriori accel (us/s/s)	1.56797724582E-07	Resid phase (deg)	-94.7	+/-	5.4

	RMS	Theor.							
			Amplitude	0.223 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	72.4	35.2	Search (1024X16)	0.219	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	123.2	61.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	28.5	10.9	Inc. seg. avg.	0.379	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	24.7	19.0	Inc. frq. avg.	0.229	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 88.6 el 54.8 pa -55.8 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) -1962.588 -621.295 simultaneous interpolator

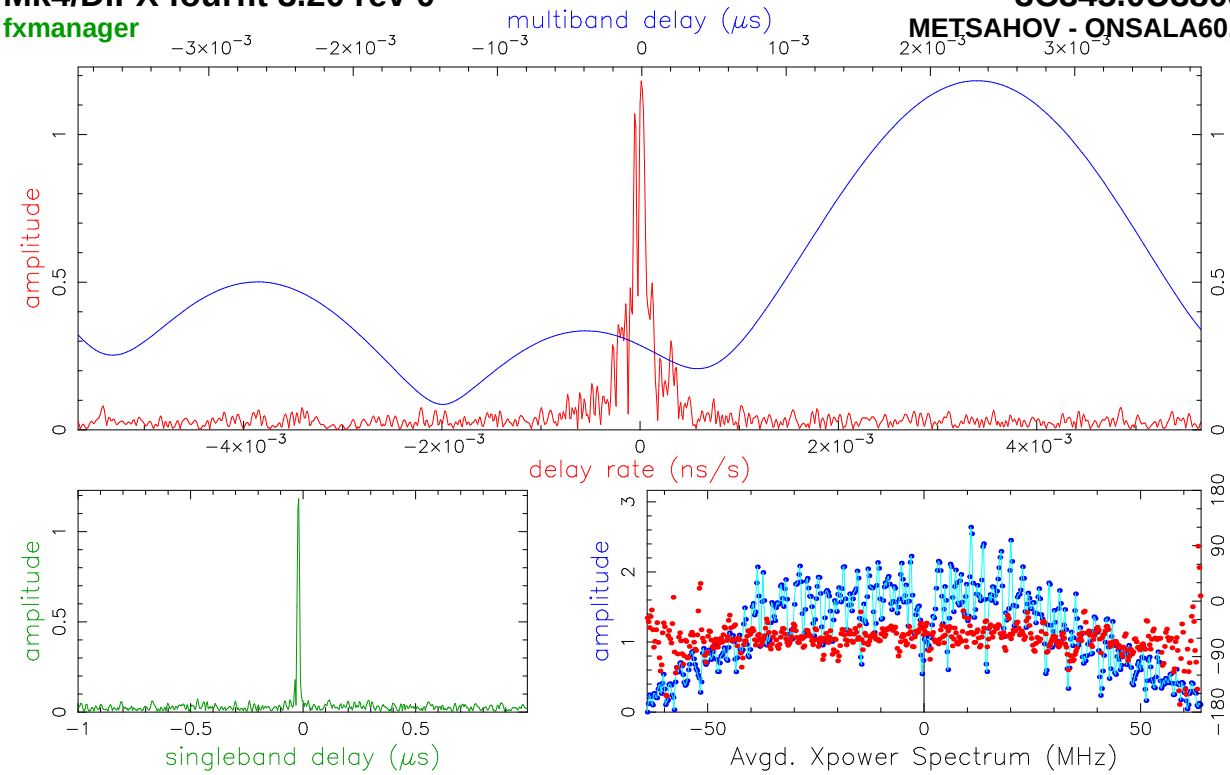
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002//BZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002//BZ.W.8.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

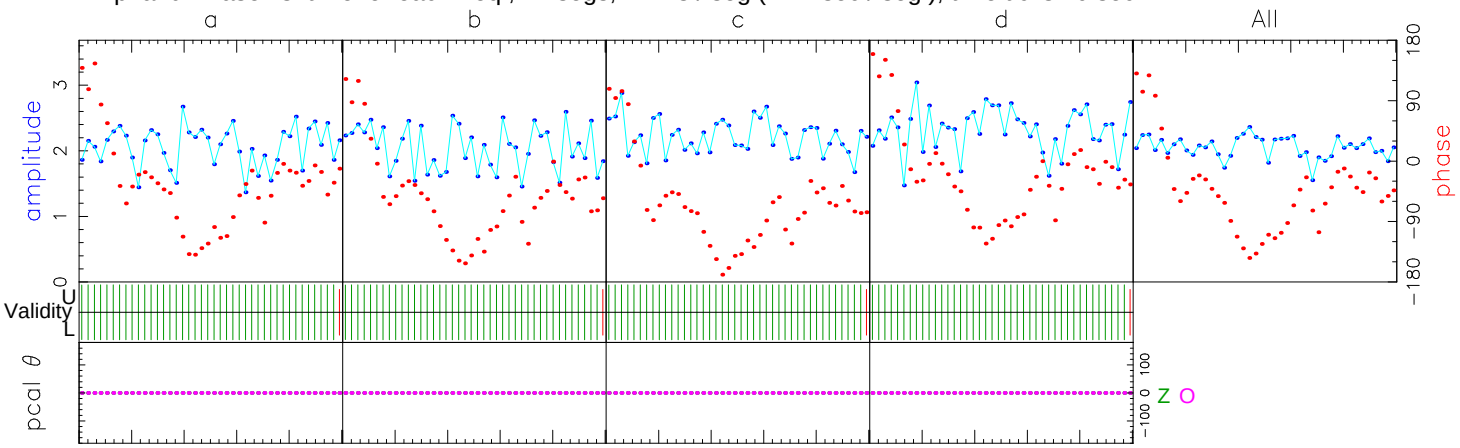
3C345.0U3803, No0002, ZO

METSAHOV - ONSALA60, fgroup W, pol LL



Fringe quality	5
SNR	58.2
Int time	299.691
Amp	1.229
Phase	-237.4
PFD	0.0e+00
Delays (us)	
SBD	-0.021092
MBD	0.002285
Fringe rate (Hz)	0.000819
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742 2019:277:142208 2019:253:110249
RA & Dec (J2000)	16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	a	b	c	d	Freq (MHz)	All
	86076.00	86204.00	86332.00	86460.00		
	-47.4	-64.4	-81.4	-37.5	Phase	-57.4
	1.2	1.1	1.3	1.3	Ampl.	1.2
	251.6	251.3	251.6	252.1	Sbd box	251.6
U/L	293/293	293/293	293/293	293/293	APs used	
Z	1000	1000	1000	1000	PC freqs	
O	1000	1000	1000	1000	PC freqs	
Z:O	0:0	0:0	0:0	0:0	PC phase	
Z:O	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
O	1000	1000	1000	1000		
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids Tracks	
O	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids Tracks	

Group delay (usec)(sbd)	8.59345624302E+02	Apriori delay (usec)	8.59366776740E+02	Resid mbdelay (usec)	2.28506E-03	+/-	1.9E-05
Sband delay (usec)	8.59345685240E+02	Apriori clock (usec)	-3.2131481E+01	Resid sbdelay (usec)	-2.10915E-02	+/-	7.4E-05
Phase delay (usec)	8.59366774888E+02	Apriori clockrate (us/s)	-4.5800001E-07	Resid phdelay (usec)	-1.85218E-06	+/-	3.2E-08
Delay rate (us/s)	-1.37775830372E-01	Apriori rate (us/s)	-1.37775839884E-01	Resid rate (us/s)	9.51239E-09	+/-	3.7E-10
Total phase (deg)	-184.0	Apriori accel (us/s/s)	-2.89284016529E-06	Resid phase (deg)	-237.4	+/-	1.0

	RMS	Theor.							
			Amplitude	1.229 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	65.4	6.4	Search (1024X16)	1.174	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	68.4	11.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	23.7	2.0	Inc. seg. avg.	2.042	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	6.5	3.4	Inc. frq. avg.	1.236	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 O: az 103.2 el 57.0 pa -42.9 u,v (fr/asec) 1022.059 -27.329 simultaneous interpolator

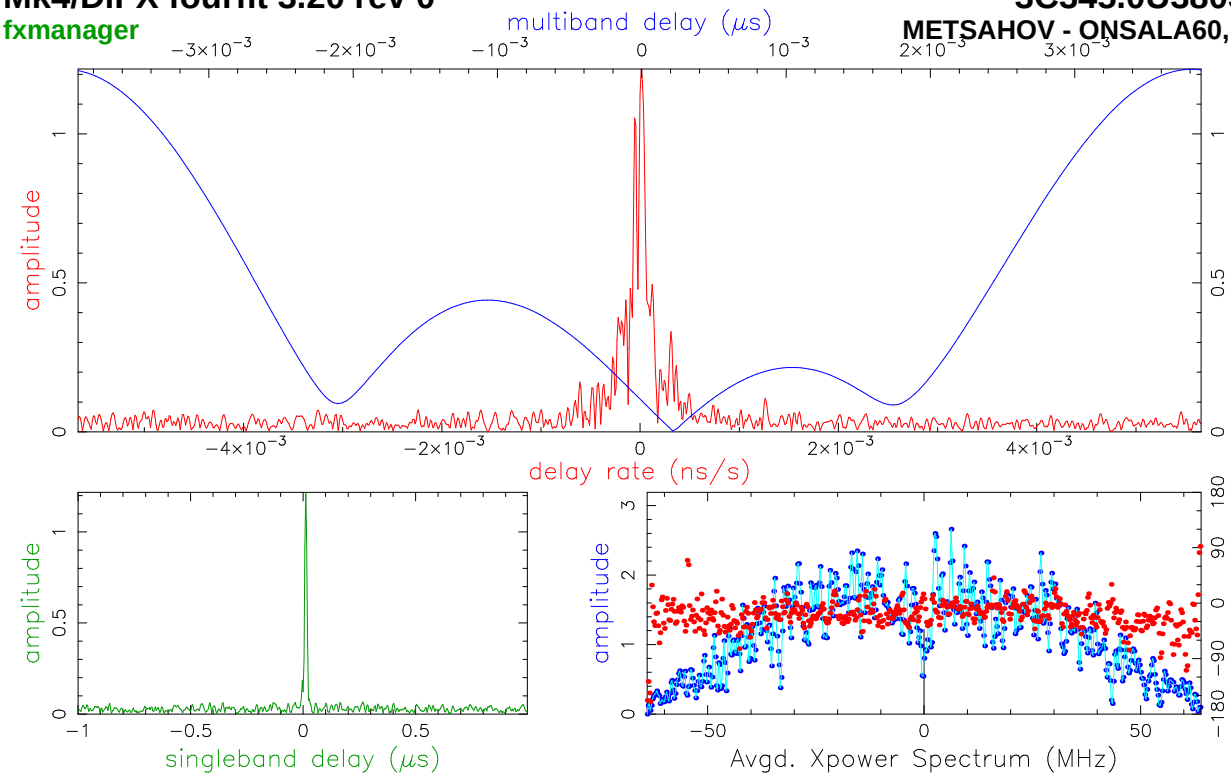
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZO..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZO.W.26.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

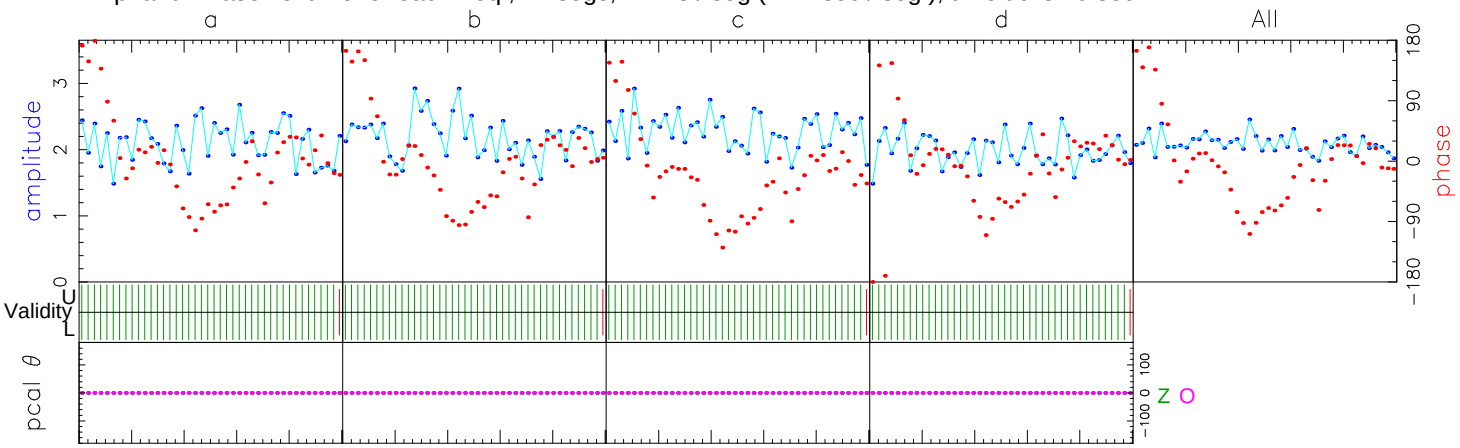
3C345.0U3803, No0002, ZO

METSAHOV - ONSALA60, fgroup W, pol RR



Fringe quality	6
SNR	57.7
Int time	299.691
Amp	1.218
Phase	343.9
PFD	0.0e+00
Delays (us)	
SBD	0.011951
MBD	-0.003997
Fringe rate (Hz)	0.000735
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742 2019:277:142209 2019:253:110249
RA & Dec (J2000)	16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-12.9	-11.7	-31.5	-6.5	Phase	-16.1
	1.2	1.2	1.3	1.2	Ampl.	1.2
	259.9	259.9	259.9	260.7	Sbd box	260.1
U/L	293/293	293/293	293/293	293/293	APs used	
Z	1000	1000	1000	1000	PC freqs	
O	1000	1000	1000	1000	PC freqs	
Z:O	0:0	0:0	0:0	0:0	PC phase	
Z:O	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
O	1000	1000	1000	1000		
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids Tracks	
O	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids Tracks	

Group delay (usec)(sbd)	8.59378405114E+02	Apriori delay (usec)	8.59366776740E+02	Resid mbdelay (usec)	-3.99663E-03	+/-	1.9E-05
Sband delay (usec)	8.59378727240E+02	Apriori clock (usec)	-3.2131481E+01	Resid sbdelay (usec)	1.19505E-02	+/-	7.5E-05
Phase delay (usec)	8.59366776222E+02	Apriori clockrate (us/s)	-4.5800001E-07	Resid phdelay (usec)	-5.18576E-07	+/-	3.2E-08
Delay rate (us/s)	-1.37775831354E-01	Apriori rate (us/s)	-1.37775839884E-01	Resid rate (us/s)	8.52962E-09	+/-	3.7E-10
Total phase (deg)	37.3	Apriori accel (us/s/s)	-2.89284016529E-06	Resid phase (deg)	343.9	+/-	1.0

	RMS	Theor.							
			Amplitude	1.218 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	65.6	6.4	Search (1024X16)	1.209	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	72.5	11.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	13.4	2.0	Inc. seg. avg.	2.078	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	4.9	3.5	Inc. frq. avg.	1.234	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 O: az 103.2 el 57.0 pa -42.9 u,v (fr/asec) 1022.059 -27.329 simultaneous interpolator

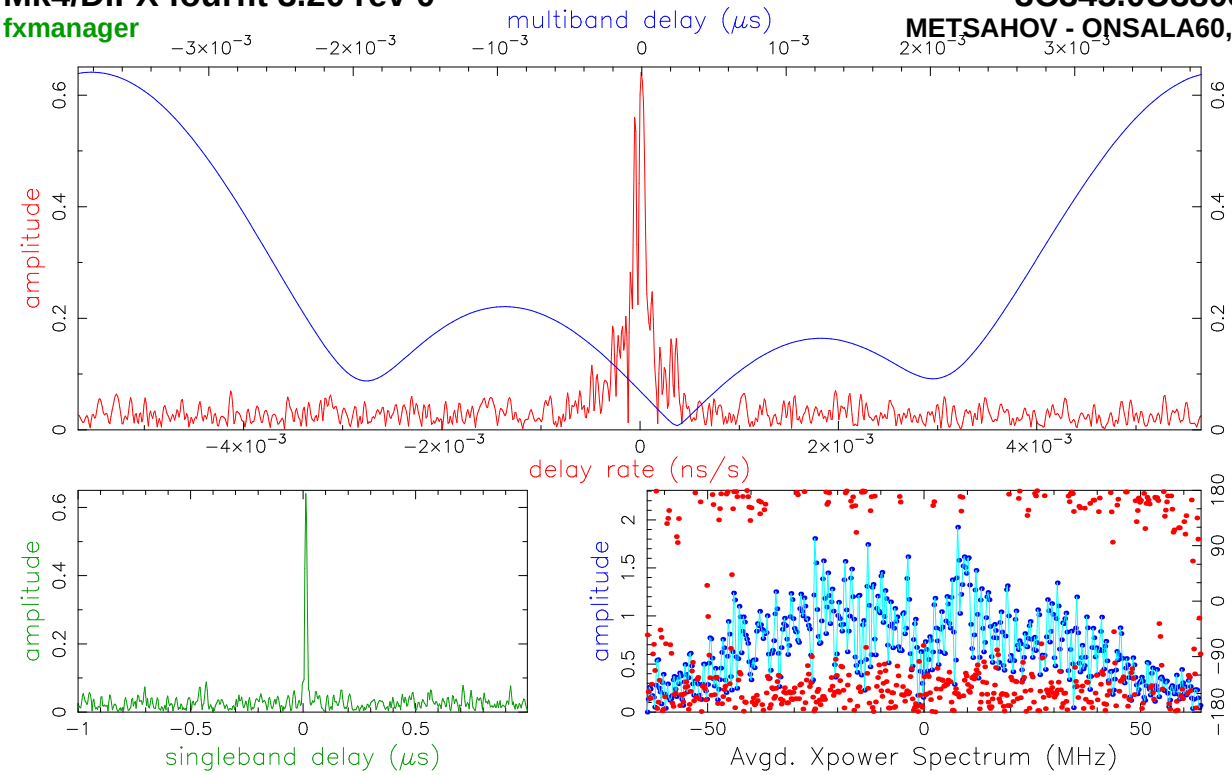
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZO..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZO.W.27.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

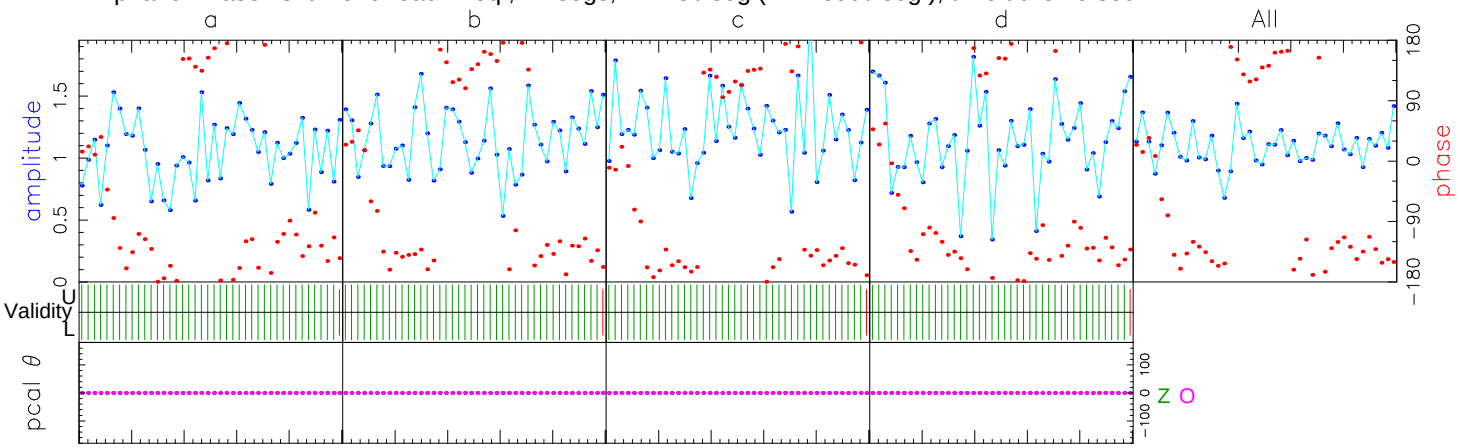
3C345.0U3803, No0002, ZO

METSAHOV - ONSALA60, fgroup W, pol LR



Fringe quality	8
SNR	30.8
Int time	299.691
Amp	0.650
Phase	204.2
PFD	0.0e+00
Delays (us)	
SBD	0.012672
MBD	-0.003779
Fringe rate (Hz)	0.000858
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142210
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-144.2	-161.1	-172.5	-144.9	Phase	-155.8
	0.7	0.6	0.7	0.6	Ampl.	0.7
	260.1	260.1	260.1	260.7	Sbd box	260.2
U/L	293/293	293/293	293/293	293/293	APs used	
Z	1000	1000	1000	1000	PC freqs	
O	1000	1000	1000	1000	PC freqs	
Z:O	0:0	0:0	0:0	0:0	PC phase	
Z:O	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
O	1000	1000	1000	1000		
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
O	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	8.59378622864E+02	Apriori delay (usec)	8.59366776740E+02	Resid mbdelay (usec)	-3.77888E-03	+/-	3.6E-05
Sband delay (usec)	8.59379448740E+02	Apriori clock (usec)	-3.2131481E+01	Resid sbdelay (usec)	1.26720E-02	+/-	1.4E-04
Phase delay (usec)	8.59366771715E+02	Apriori clockrate (us/s)	-4.5800001E-07	Resid phdelay (usec)	-5.02535E-06	+/-	6.0E-08
Delay rate (us/s)	-1.37775829922E-01	Apriori rate (us/s)	-1.37775839884E-01	Resid rate (us/s)	9.96161E-09	+/-	6.9E-10
Total phase (deg)	257.6	Apriori accel (us/s/s)	-2.89284016529E-06	Resid phase (deg)	204.2	+/-	1.9

	RMS	Theor.							
			Amplitude	0.650 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	66.3	12.1	Search (1024X16)	0.639	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	73.3	21.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	16.8	3.7	Inc. seg. avg.	1.078	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	2.5	6.5	Inc. frq. avg.	0.654	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 O: az 103.2 el 57.0 pa -42.9 u,v (fr/asec) 1022.059 -27.329 simultaneous interpolator

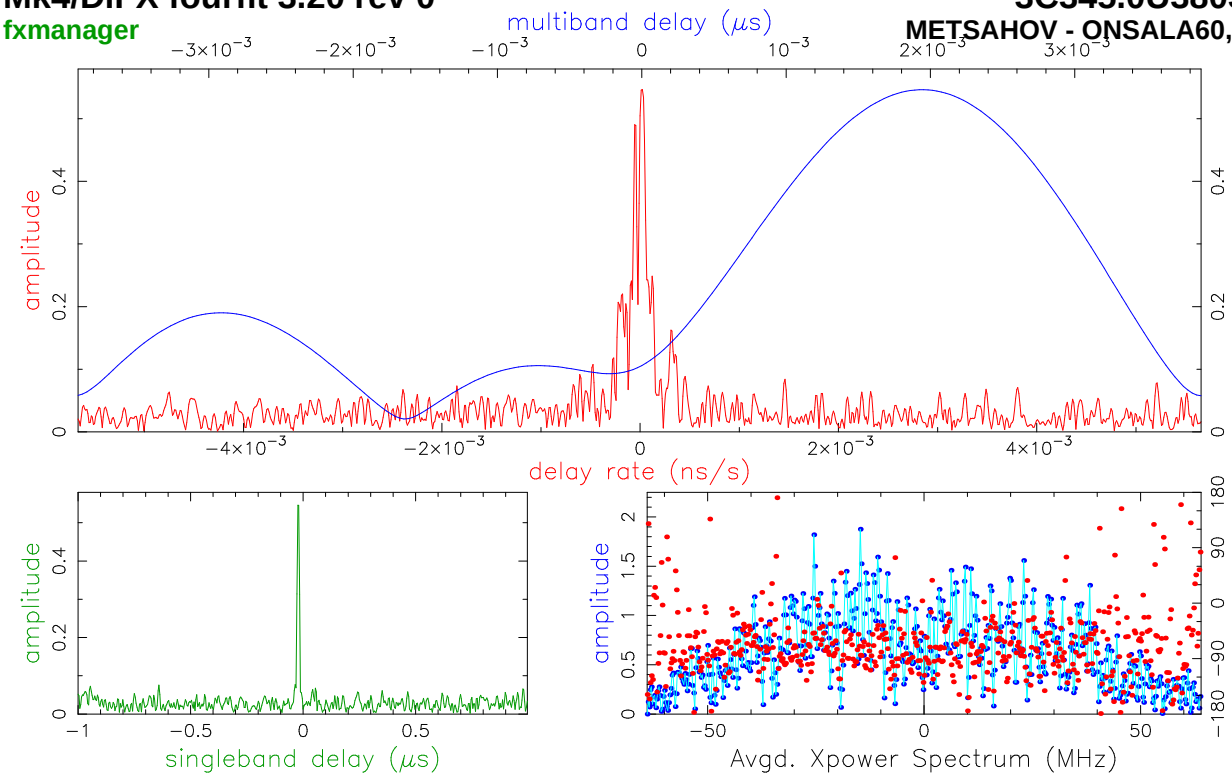
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZO..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZO.W.28.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

3C345.0U3803, No0002, ZO

METSAHOV - ONSALA60, fgroup W, pol RL

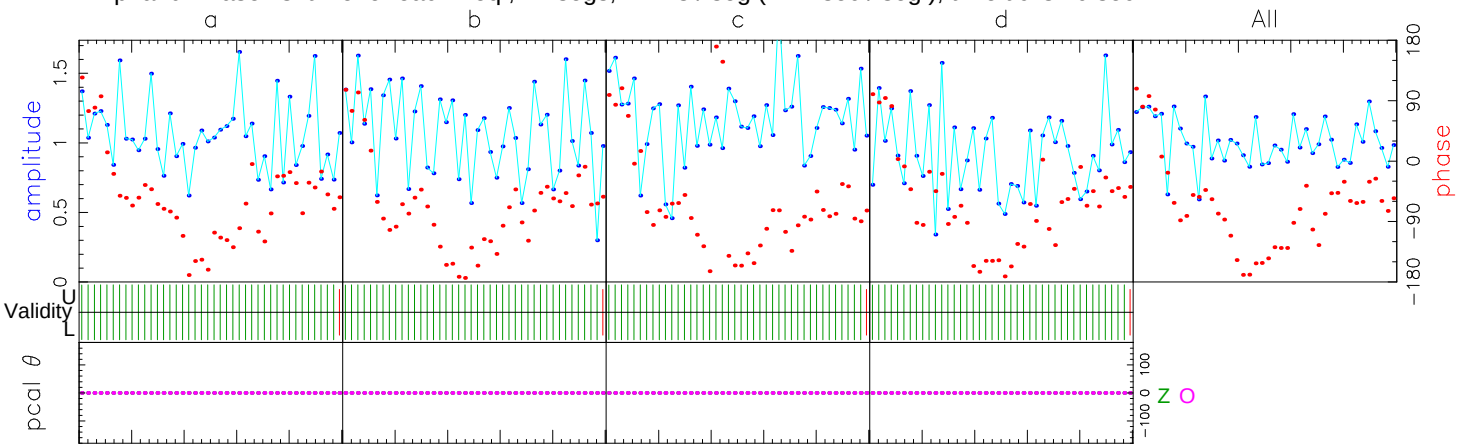


Fringe quality 8

SNR 27.4
Int time 299.691
Amp 0.580
Phase -256.3
PFD 0.0e+00
Delays (us)
SBD -0.021489
MBD 0.002005
Fringe rate (Hz)
0.000658
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 1.024

Exp. f192a
Exper # 16383
Yr:day 2019:276
Start 121500.00
Stop 122000.03
FRT 121730.00
Corr/FF/build
2019:277:141742
2019:277:142210
2019:253:110249
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-64.2	-78.3	-94.9	-63.9	Phase	-76.3
	0.6	0.6	0.6	0.5	Ampl.	0.6
	251.5	251.3	251.3	252.1	Sbd box	251.5
U/L	293/293	293/293	293/293	293/293	APs used	
Z	1000	1000	1000	1000	PC freqs	
O	1000	1000	1000	1000	PC freqs	
Z:O	0:0	0:0	0:0	0:0	PC phase	
Z:O	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
O	1000	1000	1000	1000		
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
O	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	8.59345344520E+02	Apriori delay (usec)	8.59366776740E+02	Resid mbdelay (usec)	2.00528E-03	+/-	4.1E-05
Sband delay (usec)	8.59345287740E+02	Apriori clock (usec)	-3.2131481E+01	Resid sbdelay (usec)	-2.14890E-02	+/-	1.6E-04
Phase delay (usec)	8.59366774281E+02	Apriori clockrate (us/s)	-4.5800001E-07	Resid phdelay (usec)	-2.45964E-06	+/-	6.7E-08
Delay rate (us/s)	-1.37775832249E-01	Apriori rate (us/s)	-1.37775839884E-01	Resid rate (us/s)	7.63542E-09	+/-	7.8E-10
Total phase (deg)	-202.8	Apriori accel (us/s/s)	-2.89284016529E-06	Resid phase (deg)	-256.3	+/-	2.1

	RMS	Theor.							
			Amplitude	0.580 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	66.5	13.5	Search (1024X16)	0.548	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	80.3	23.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	18.1	4.2	Inc. seg. avg.	0.985	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	11.7	7.3	Inc. frq. avg.	0.558	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 O: az 103.2 el 57.0 pa -42.9 u,v (fr/asec) 1022.059 -27.329 simultaneous interpolator

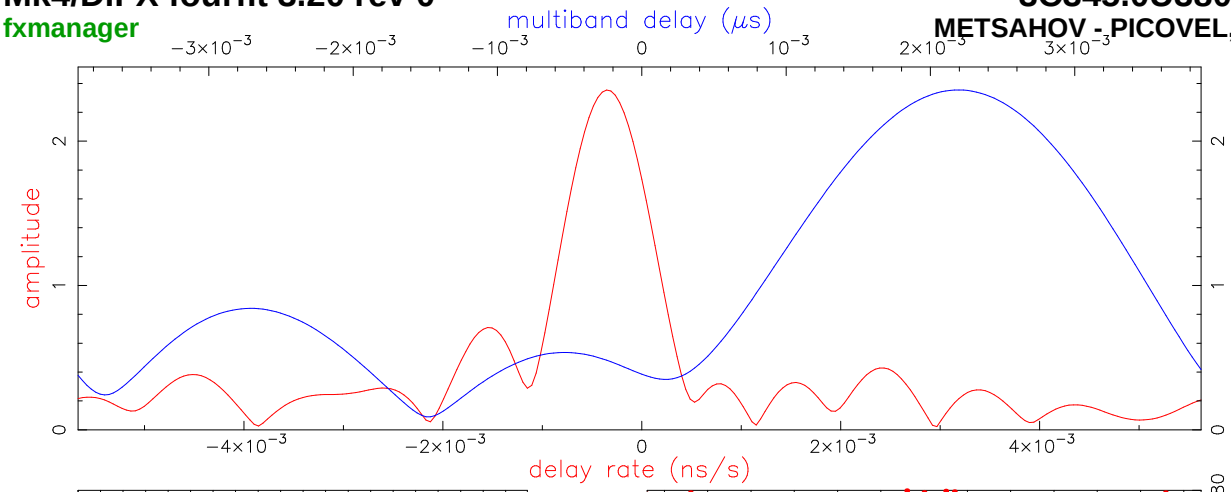
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZO..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZO.W.29.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

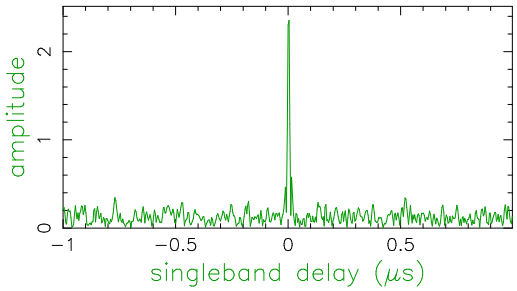
3C345.0U3803, No0002, ZP

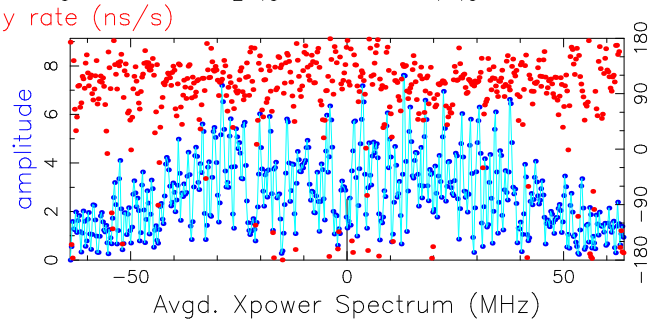
METSAHOV -PICOVEL, fgroup W, pol LL



Fringe quality 8

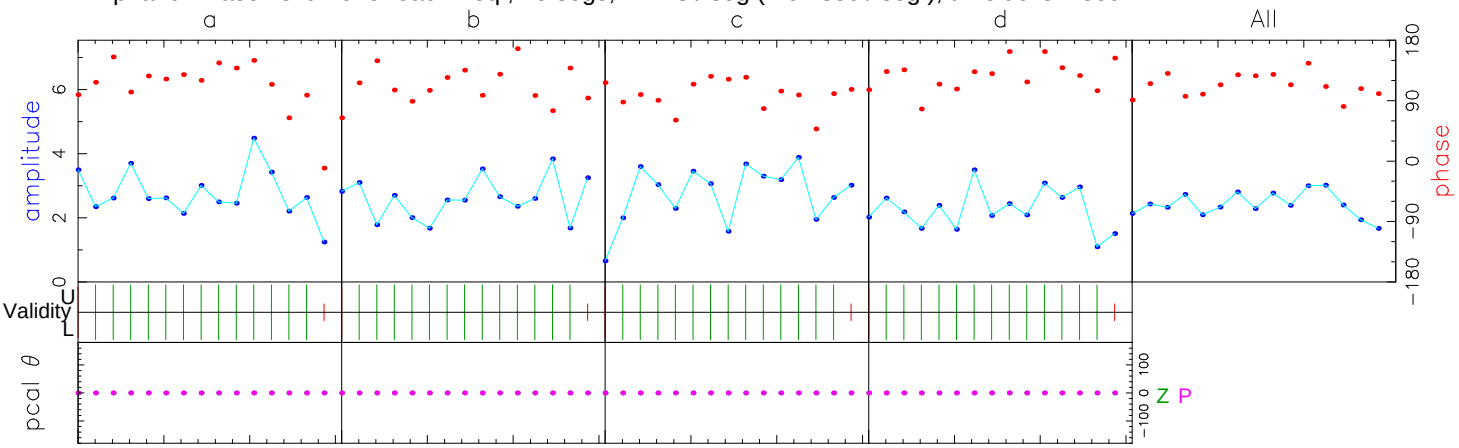
SNR 26.2
Int time 14.538
Amp 2.514
Phase 114.5
PFD 0.0e+00
Delays (us)
SBD 0.002107
MBD 0.002177
Fringe rate (Hz)
-0.030973
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 1.024





Exp. f192a
Exper # 16383
Yr:day 2019:276
Start 121500.00
Stop 121515.36
FRT 121730.00
Corr/FF/build
2019:277:141742
2019:277:142214
2019:253:110249
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 15 segs, 1 APs / seg (1.02 sec / seg.), time ticks 1 sec



	a	b	c	d		All
	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	
	120.8	110.3	99.3	129.6	Phase	114.5
	2.6	2.3	2.6	2.2	Ampl.	2.4
	257.7	257.4	257.7	257.4	Sbd box	257.5
U/L	15/15	15/15	15/15	15/15	APs used	
Z	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000		
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
P	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	3.71390184281E+03	Apriori delay (usec)	3.71389966546E+03	Resid mbdelay (usec)	2.17735E-03	+/-	4.3E-05
Sband delay (usec)	3.71390177271E+03	Apriori clock (usec)	2.7554893E-01	Resid sbdelay (usec)	2.10725E-03	+/-	1.6E-04
Phase delay (usec)	3.71389966915E+03	Apriori clockrate (us/s)	5.2300005E-07	Resid phdelay (usec)	3.69157E-06	+/-	7.1E-08
Delay rate (us/s)	-5.09374909433E-01	Apriori rate (us/s)	-5.09374549871E-01	Resid rate (us/s)	-3.59562E-07	+/-	1.6E-08
Total phase (deg)	180.1	Apriori accel (us/s/s)	-5.94407763619E-07	Resid phase (deg)	114.5	+/-	2.2

	RMS	Theor.							
			Amplitude	2.514 +/- 0.096	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	16.9	8.5	Search (32X16)	2.319	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	13.7	14.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	16.1	4.4	Inc. seg. avg.	2.440	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	8.6	7.6	Inc. frq. avg.	2.398	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 P: az 67.6 el 44.6 pa -74.1 u,v (fr/asec) 3798.737 1721.660 simultaneous interpolator

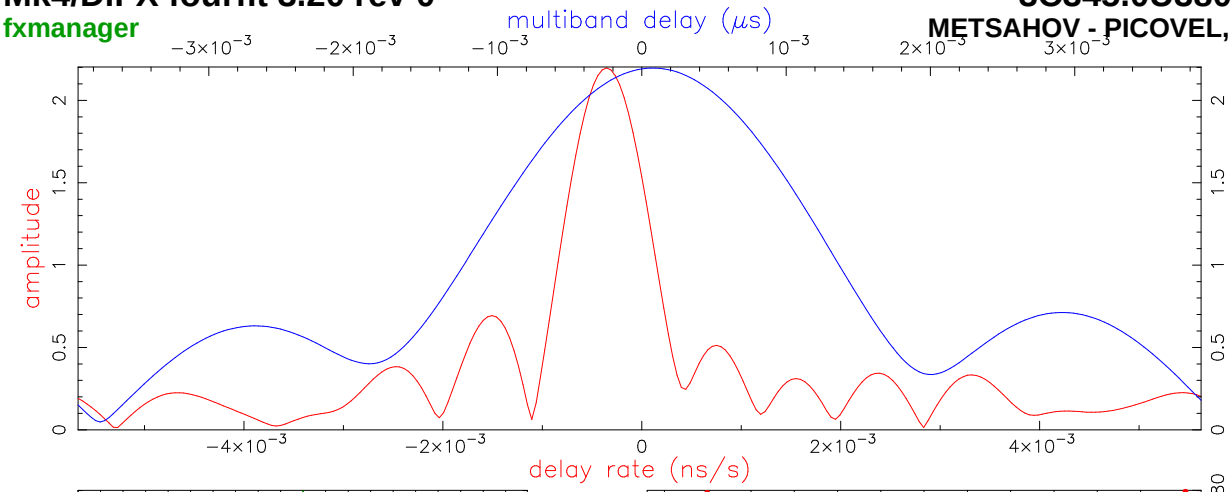
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZP..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZP.W.34.0U3803

Mk4/DiFX fourfit 3.20 rev 0

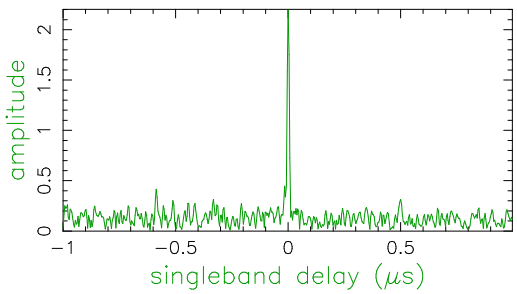
fxmanager

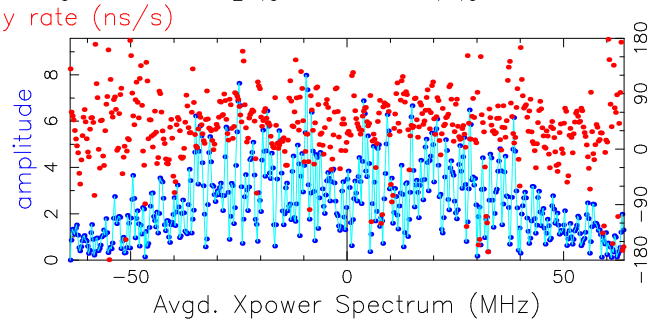
3C345.0U3803, No0002, ZP

METSAHOV - PICOVEL, fgroup W, pol RR

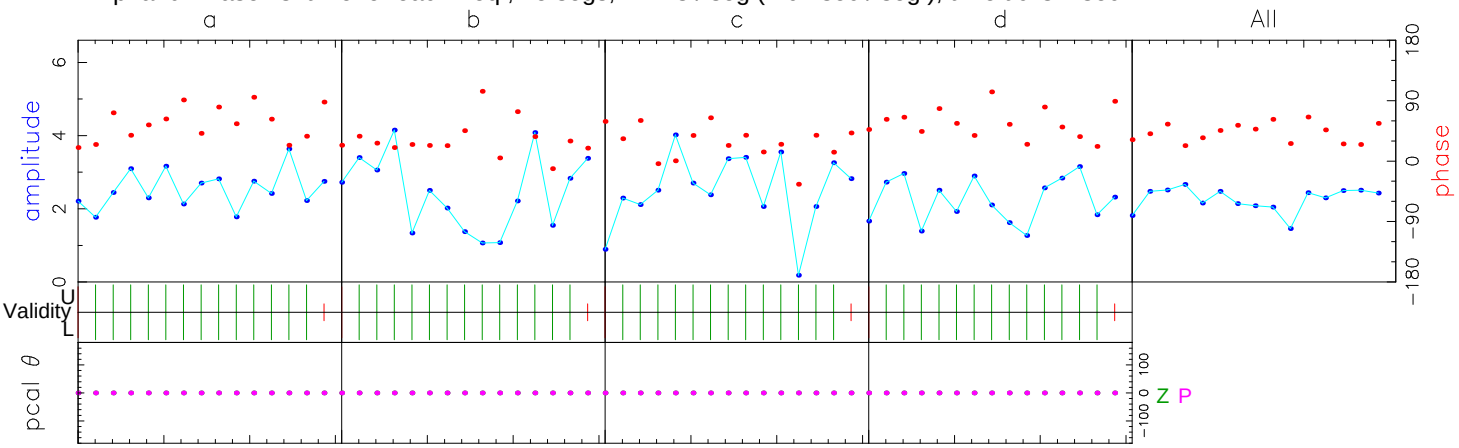


Fringe quality	8
SNR	22.9
Int time	14.538
Amp	2.203
Phase	42.0
PFD	0.0e+00
Delays (us)	
SBD	0.000295
MBD	0.000084
Fringe rate (Hz)	-0.029004
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	121515.36
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142214
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"





Amp. and Phase vs. time for each freq., 15 segs, 1 APs / seg (1.02 sec / seg.), time ticks 1 sec



	a	b	c	d		All
	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	54.9	30.5	27.5	56.5	Phase	42.0
	2.3	2.3	2.4	2.1	Ampl.	2.3
	256.9	257.3	257.1	257.1	Sbd box	257.1
U/L	15/15	15/15	15/15	15/15	APs used	
Z	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000		
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
P	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	3.71389974981E+03	Apriori delay (usec)	3.71389966546E+03	Resid mbdelay (usec)	8.43521E-05	+/-	4.8E-05
Sband delay (usec)	3.71389996046E+03	Apriori clock (usec)	2.7554893E-01	Resid sbdelay (usec)	2.95000E-04	+/-	1.9E-04
Phase delay (usec)	3.71389966681E+03	Apriori clockrate (us/s)	5.2300005E-07	Resid phdelay (usec)	1.35587E-06	+/-	8.1E-08
Delay rate (us/s)	-5.09374886578E-01	Apriori rate (us/s)	-5.09374549871E-01	Resid rate (us/s)	-3.36707E-07	+/-	1.8E-08
Total phase (deg)	107.7	Apriori accel (us/s/s)	-5.94407763619E-07	Resid phase (deg)	42.0	+/-	2.5

	RMS	Theor.							
			Amplitude	2.203 +/- 0.096	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	13.8	9.7	Search (32X16)	2.179	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	14.6	16.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	19.0	5.0	Inc. seg. avg.	2.234	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	5.1	8.7	Inc. frq. avg.	2.252	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 P: az 67.6 el 44.6 pa -74.1 u,v (fr/asec) 3798.737 1721.660 simultaneous interpolator

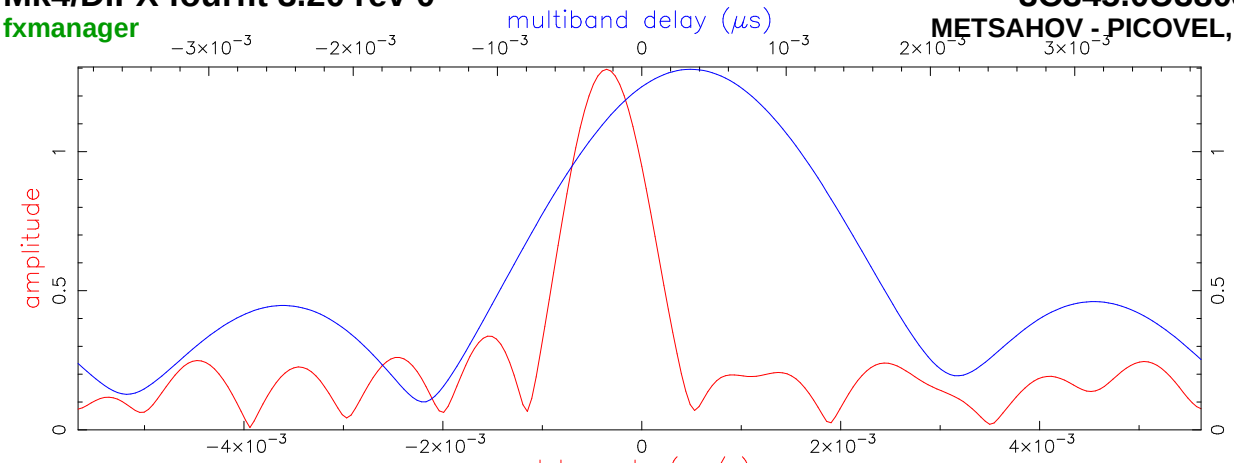
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZP..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZP.W.35.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

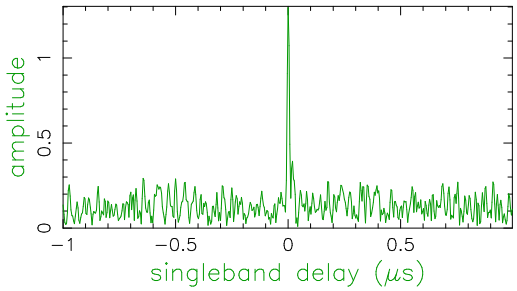
3C345.0U3803, No0002, ZP

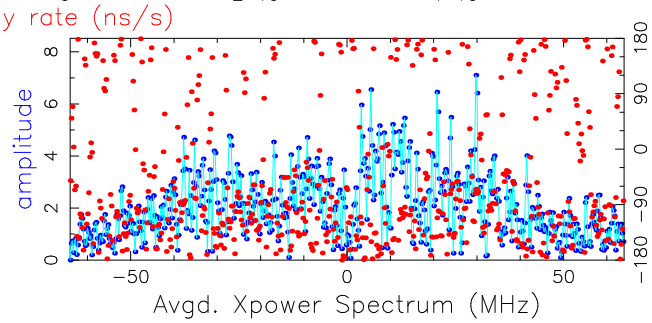
METSAHOV - PICOVEL, fgroup W, pol LR



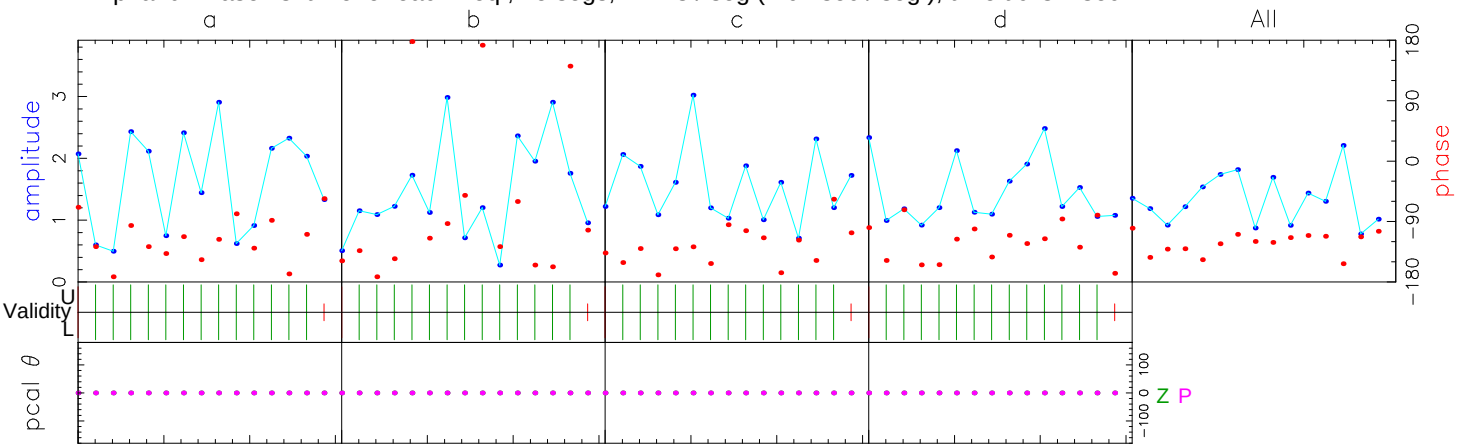
Fringe quality 9

SNR	13.6
Int time	14.538
Amp	1.304
Phase	-124.3
PFD	2.4e-35
Delays (us)	
SBD	0.000537
MBD	0.000341
Fringe rate (Hz)	-0.029682
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	121515.36
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142214
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"





Amp. and Phase vs. time for each freq., 15 segs, 1 APs / seg (1.02 sec / seg.), time ticks 1 sec



	a	b	c	d		All
	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-115.0	-139.3	-131.0	-116.0	Phase	-124.3
	1.5	1.0	1.4	1.4	Ampl.	1.3
	257.2	257.2	256.9	257.2	Sbd box	257.1
U/L	15/15	15/15	15/15	15/15	APs used	
Z	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000		
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
P	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	3.71390000603E+03	Apriori delay (usec)	3.71389966546E+03	Resid mbdelay (usec)	3.40571E-04	+/-	8.2E-05
Sband delay (usec)	3.71390020246E+03	Apriori clock (usec)	2.7554893E-01	Resid sbdelay (usec)	5.37000E-04	+/-	3.2E-04
Phase delay (usec)	3.71389966145E+03	Apriori clockrate (us/s)	5.2300005E-07	Resid phdelay (usec)	-4.00914E-06	+/-	1.4E-07
Delay rate (us/s)	-5.09374894446E-01	Apriori rate (us/s)	-5.09374549871E-01	Resid rate (us/s)	-3.44574E-07	+/-	3.1E-08
Total phase (deg)	-58.7	Apriori accel (us/s/s)	-5.94407763619E-07	Resid phase (deg)	-124.3	+/-	4.2

	RMS	Theor.							
			Amplitude	1.304 +/- 0.096	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	15.2	16.3	Search (32X16)	1.290	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	30.9	28.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	14.6	8.4	Inc. seg. avg.	1.299	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	12.4	14.7	Inc. frq. avg.	1.303	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 P: az 67.6 el 44.6 pa -74.1 u,v (fr/asec) 3798.737 1721.660 simultaneous interpolator

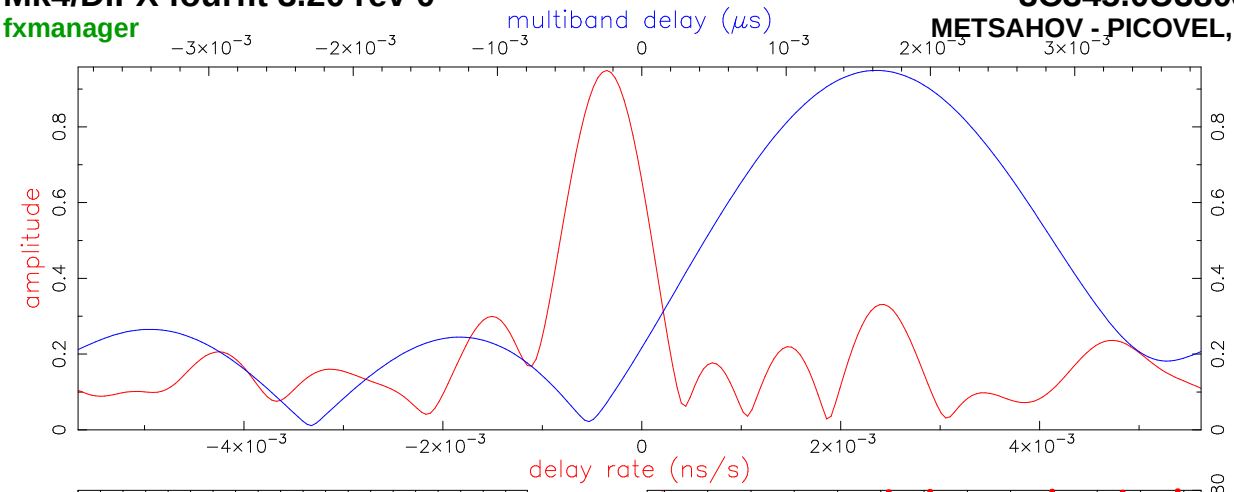
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZP..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZP.W.36.0U3803

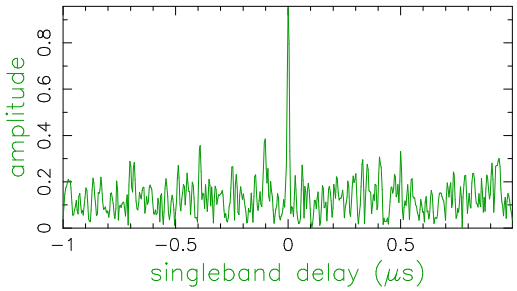
Mk4/DiFX fourfit 3.20 rev 0

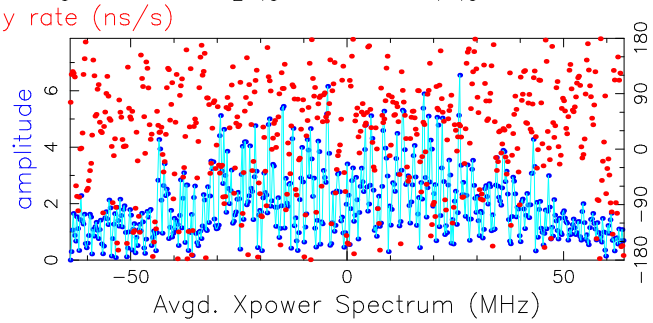
fxmanager

3C345.0U3803, No0002, ZP

METSAHOV - PICOVEL, fgroup W, pol RL

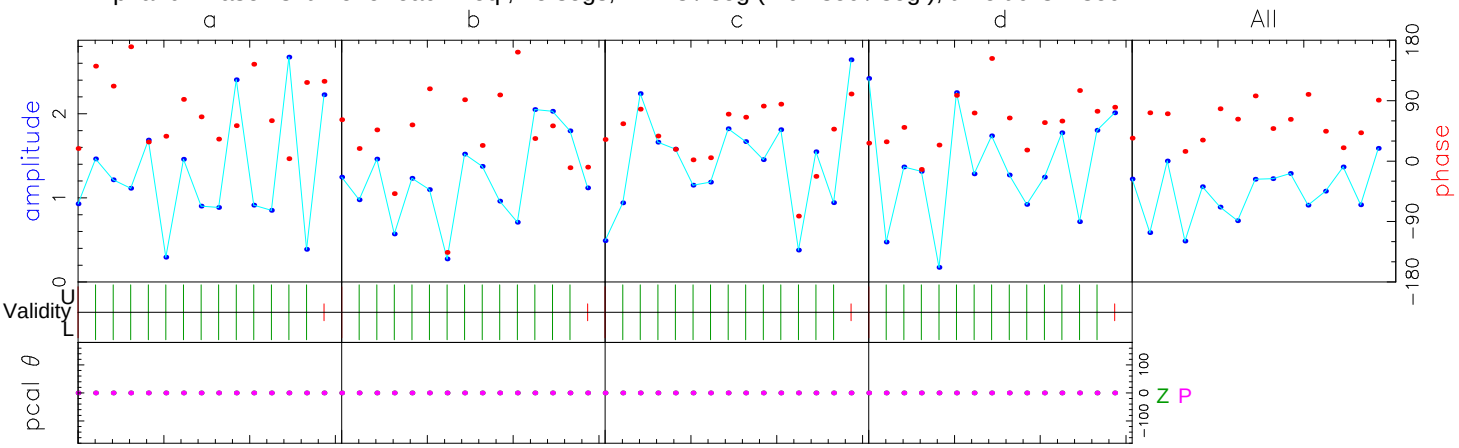






Fringe quality	9
SNR	10.0
Int time	14.538
Amp	0.958
Phase	56.7
PFD	6.6e-17
Delays (us)	
SBD	0.000686
MBD	0.001643
Fringe rate (Hz)	-0.031582
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	121515.36
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142215
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"

Amp. and Phase vs. time for each freq., 15 segs, 1 APs / seg (1.02 sec / seg.), time ticks 1 sec



	a	b	c	d		All
	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	
	68.2	47.9	49.1	63.3	Phase	56.7
	0.8	0.9	1.1	1.1	Ampl.	0.9
	256.9	257.0	257.1	257.4	Sbd box	257.2
U/L	15/15	15/15	15/15	15/15	APs used	
Z	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000		
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
P	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	3.71390130878E+03	Apriori delay (usec)	3.71389966546E+03	Resid mbdelay (usec)	1.64332E-03	+/-	1.1E-04
Sband delay (usec)	3.71390035146E+03	Apriori clock (usec)	2.7554893E-01	Resid sbdelay (usec)	6.86000E-04	+/-	4.3E-04
Phase delay (usec)	3.71389966728E+03	Apriori clockrate (us/s)	5.2300005E-07	Resid phdelay (usec)	1.82705E-06	+/-	1.9E-07
Delay rate (us/s)	-5.09374916507E-01	Apriori rate (us/s)	-5.09374549871E-01	Resid rate (us/s)	-3.66636E-07	+/-	4.2E-08
Total phase (deg)	122.3	Apriori accel (us/s/s)	-5.94407763619E-07	Resid phase (deg)	56.7	+/-	5.7

	RMS	Theor.							
			Amplitude	0.958 +/- 0.096	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	25.7	22.2	Search (32X16)	0.931	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	31.7	38.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	12.5	11.5	Inc. seg. avg.	0.976	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	12.6	20.1	Inc. frq. avg.	0.942	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 P: az 67.6 el 44.6 pa -74.1 u,v (fr/asec) 3798.737 1721.660 simultaneous interpolator

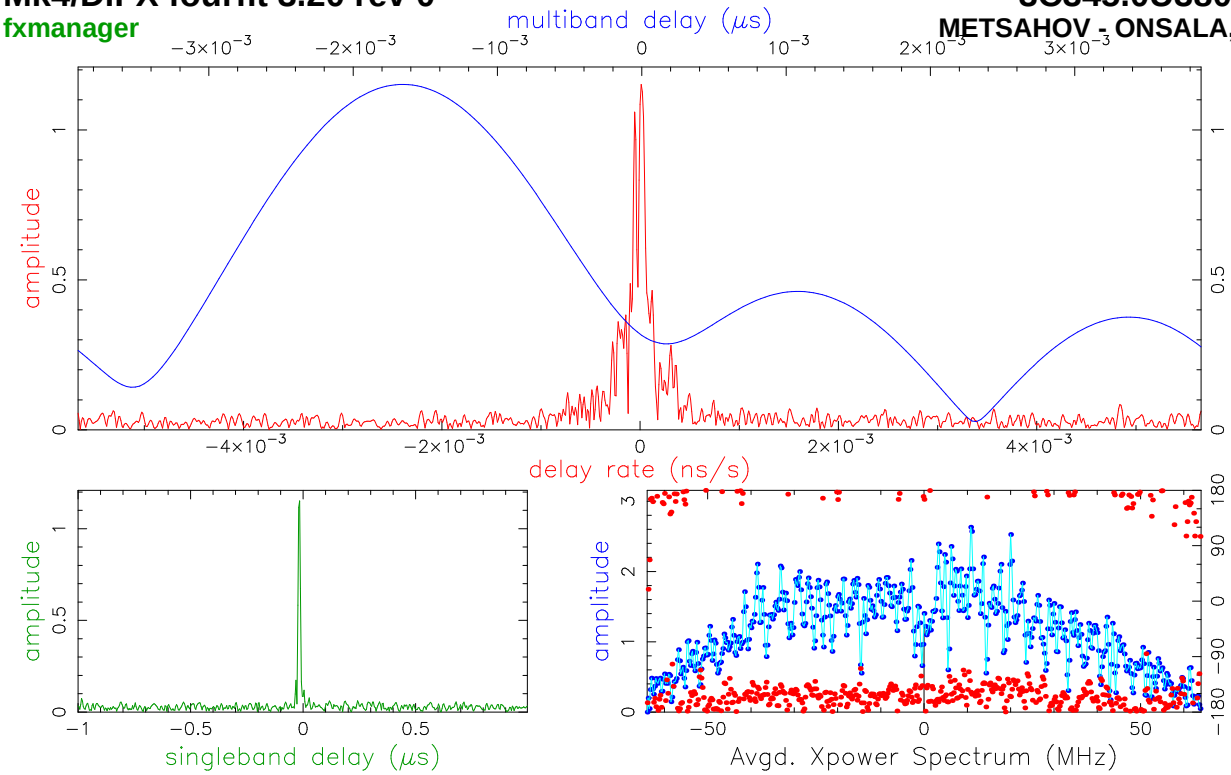
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZP..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZP.W.37.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

3C345.0U3803, No0002, ZX

METSAHOV - ONSALA, fgroup W, pol LL

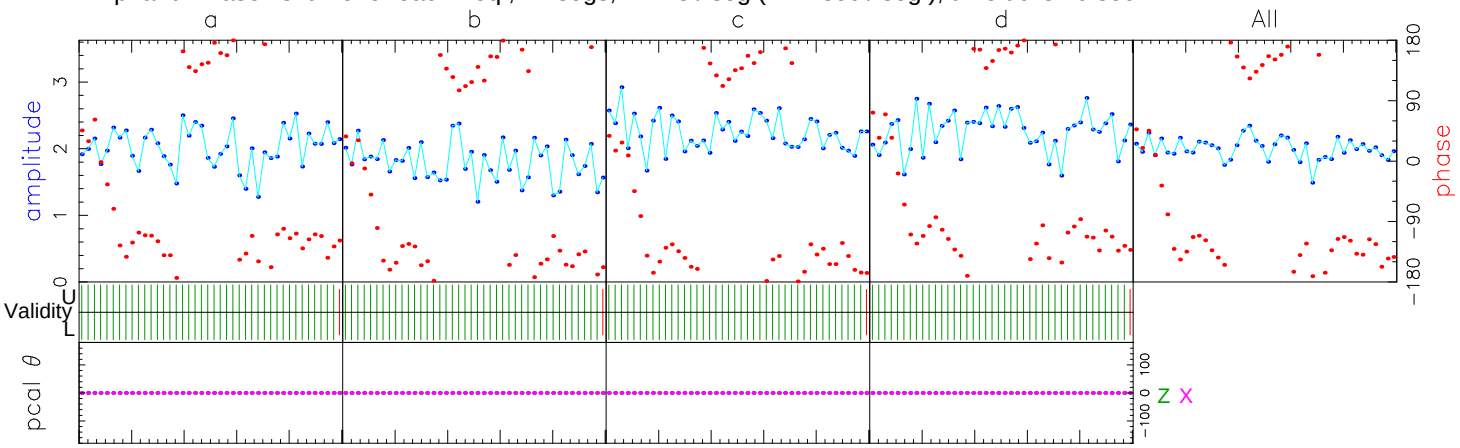


Fringe quality 6

SNR 57.3
Int time 299.652
Amp 1.210
Phase -153.6
PFD 0.0e+00
Delays (us)
SBD -0.017349
MBD -0.001684
Fringe rate (Hz)
0.001004
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 1.024

Exp. f192a
Exper # 16383
Yr:day 2019:276
Start 121500.00
Stop 122000.03
FRT 121730.00
Corr/FF/build
2019:277:141742
2019:277:142211
2019:253:110249
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-140.8	-171.0	-168.5	-137.5	Phase	-153.6
	1.2	1.0	1.3	1.3	Ampl.	1.2
	252.5	252.1	252.7	253.0	Sbd box	252.6
U/L	293/293	293/293	293/293	293/293	APs used	
Z	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	PC freqs	
Z:X	0:0	0:0	0:0	0:0	PC phase	
Z:X	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000		
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
X	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	8.59349464323E+02	Apriori delay (usec)	8.59366773575E+02	Resid mbdelay (usec)	-1.68425E-03	+/-	1.9E-05
Sband delay (usec)	8.59349424575E+02	Apriori clock (usec)	-3.2131481E+01	Resid sbdelay (usec)	-1.73490E-02	+/-	7.5E-05
Phase delay (usec)	8.59366768621E+02	Apriori clockrate (us/s)	-4.5800001E-07	Resid phdelay (usec)	-4.95340E-06	+/-	3.2E-08
Delay rate (us/s)	-1.37775828500E-01	Apriori rate (us/s)	-1.37775840161E-01	Resid rate (us/s)	1.16607E-08	+/-	3.7E-10
Total phase (deg)	-198.4	Apriori accel (us/s/s)	-2.89284008698E-06	Resid phase (deg)	-153.6	+/-	1.0

	RMS	Theor.							
			Amplitude	1.210 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	65.3	6.5	Search (1024X16)	1.133	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	66.8	11.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	21.8	2.0	Inc. seg. avg.	1.989	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	10.5	3.5	Inc. frq. avg.	1.193	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 X: az 103.2 el 57.0 pa -42.9 u,v (fr/asec) 1022.059 -27.329 simultaneous interpolator

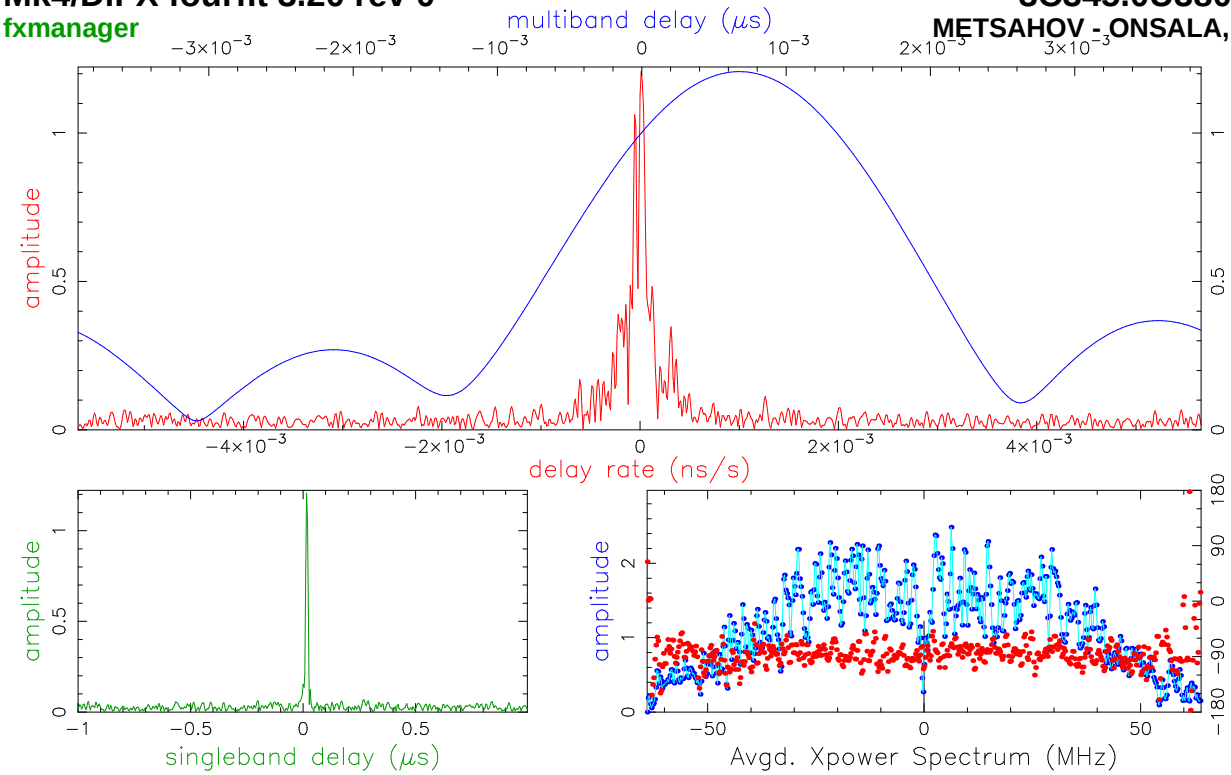
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZX..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZX.W.30.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

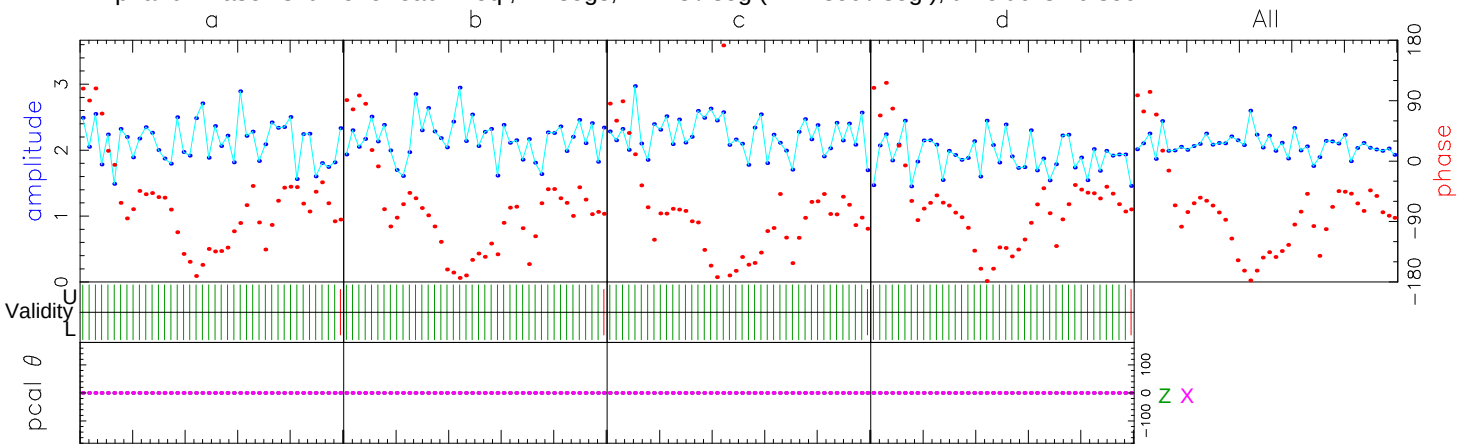
3C345.0U3803, No0002, ZX

METSAHOV - ONSALA, fgroup W, pol RR



Fringe quality	7
SNR	57.9
Int time	299.652
Amp	1.223
Phase	274.0
PFD	0.0e+00
Delays (us)	
SBD	0.016515
MBD	0.000694
Fringe rate (Hz)	0.000793
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742 2019:277:142212 2019:253:110249
RA & Dec (J2000)	16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	a	b	c	d	Freq (MHz)	All
	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-79.5	-88.3	-96.8	-78.3	Phase	-86.0
	1.2	1.2	1.3	1.1	Ampl.	1.2
	261.0	261.1	261.2	261.6	Sbd box	261.2
U/L	293/293	293/293	293/293	293/293	APs used	
Z	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	PC freqs	
Z:X	0:0	0:0	0:0	0:0	PC phase	
Z:X	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000		
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids Tracks	
X	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids Tracks	

Group delay (usec)(sbd)	8.59383092417E+02	Apriori delay (usec)	8.59366773575E+02	Resid mbdelay (usec)	6.93843E-04	+/-	1.9E-05
Sband delay (usec)	8.59383288825E+02	Apriori clock (usec)	-3.2131481E+01	Resid sbdelay (usec)	1.65152E-02	+/-	7.4E-05
Phase delay (usec)	8.59366770801E+02	Apriori clockrate (us/s)	-4.5800001E-07	Resid phdelay (usec)	-2.77336E-06	+/-	3.2E-08
Delay rate (us/s)	-1.37775830953E-01	Apriori rate (us/s)	-1.37775840161E-01	Resid rate (us/s)	9.20771E-09	+/-	3.7E-10
Total phase (deg)	229.3	Apriori accel (us/s/s)	-2.89284008698E-06	Resid phase (deg)	274.0	+/-	1.0

	RMS	Theor.	Amplitude	1.223 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	65.6	6.4	Search (1024X16)	1.189	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	71.6	11.2	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	10.6	2.0	Inc. seg. avg.	2.072	Sample rate(MSamp/s): 128	dr window (ns/s)	-0.006	0.006
amp/frq (%)	5.2	3.5	Inc. frq. avg.	1.217	Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 X: az 103.2 el 57.0 pa -42.9 u,v (fr/asec) 1022.059 -27.329 simultaneous interpolator

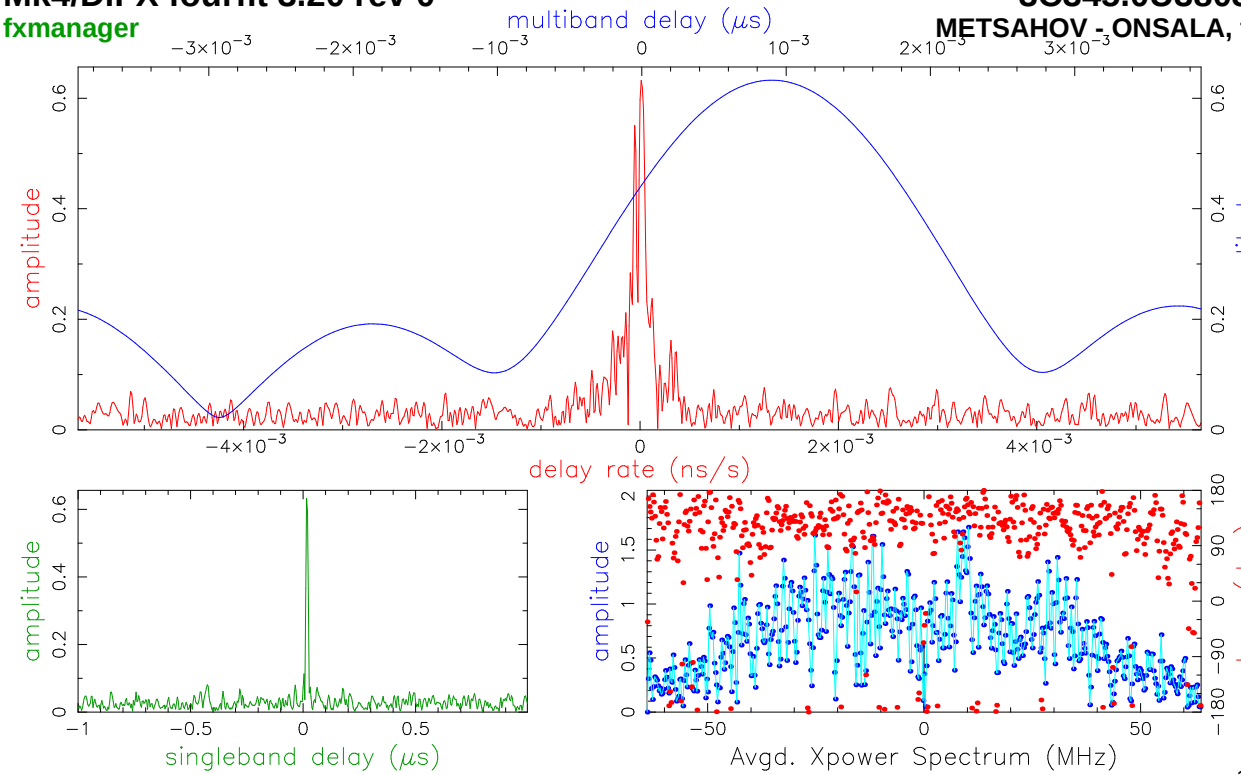
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZX..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZX.W.31.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

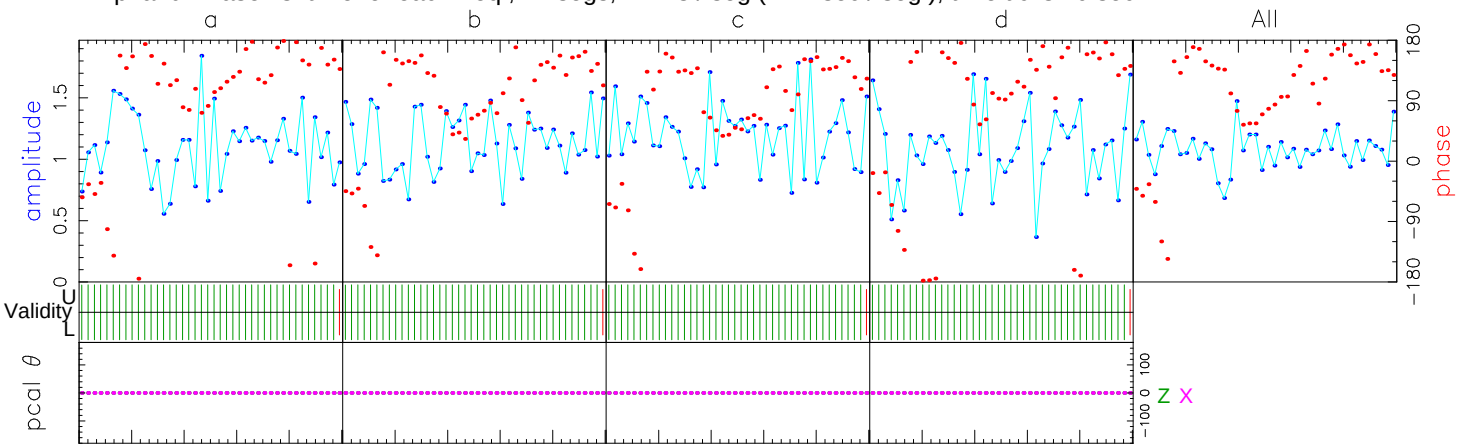
3C345.0U3803, No0002, ZX

METSAHOV - ONSALA, fgroup W, pol LR



Fringe quality	8
SNR	31.1
Int time	299.652
Amp	0.657
Phase	131.2
PFD	0.0e+00
Delays (us)	
SBD	0.017092
MBD	0.000935
Fringe rate (Hz)	0.000973
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142213
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	a	b	c	d		All
	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	
	145.6	119.4	116.0	142.8	Phase	131.2
	0.7	0.6	0.7	0.6	Ampl.	0.6
	261.2	261.3	261.4	261.7	Sbd box	261.4
U/L	293/293	293/293	293/293	293/293	APs used	
Z	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	PC freqs	
Z:X	0:0	0:0	0:0	0:0	PC phase	
Z:X	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000		
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
X	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	8.59383333698E+02	Apriori delay (usec)	8.59366773575E+02	Resid mbdelay (usec)	9.35124E-04	+/-	3.6E-05
Sband delay (usec)	8.59383865575E+02	Apriori clock (usec)	-3.2131481E+01	Resid sbdelay (usec)	1.70920E-02	+/-	1.4E-04
Phase delay (usec)	8.59366777804E+02	Apriori clockrate (us/s)	-4.5800001E-07	Resid phdelay (usec)	4.22996E-06	+/-	5.9E-08
Delay rate (us/s)	-1.37775828862E-01	Apriori rate (us/s)	-1.37775840161E-01	Resid rate (us/s)	1.12994E-08	+/-	6.9E-10
Total phase (deg)	86.4	Apriori accel (us/s/s)	-2.89284008698E-06	Resid phase (deg)	131.2	+/-	1.8

	RMS	Theor.							
ph/seg (deg)	66.2	11.9	Amplitude	0.657 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	68.4	20.9	Search (1024X16)	0.631	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
ph/frq (deg)	18.9	3.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/frq (%)	5.0	6.4	Inc. seg. avg.	1.057	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
			Inc. frq. avg.	0.649	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 X: az 103.2 el 57.0 pa -42.9 u,v (fr/asec) 1022.059 -27.329 simultaneous interpolator

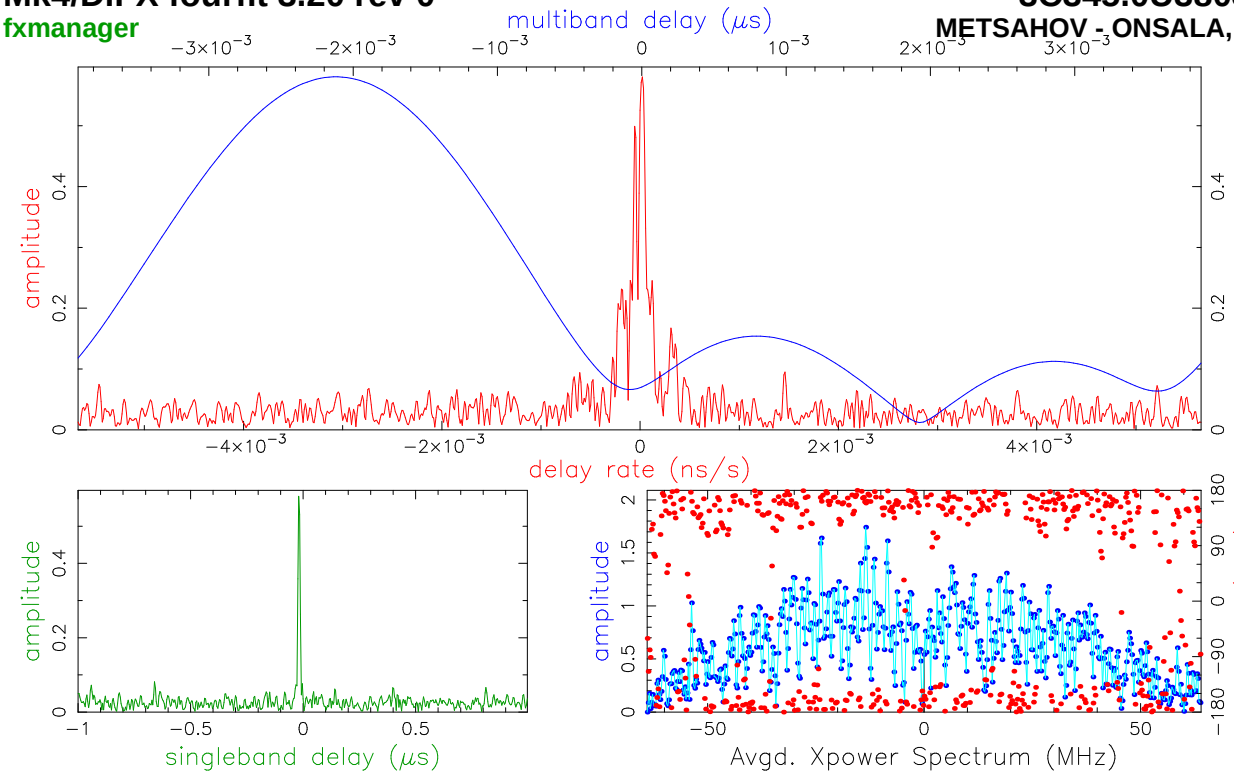
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZX..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZX.W.32.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

3C345.0U3803, No0002, ZX

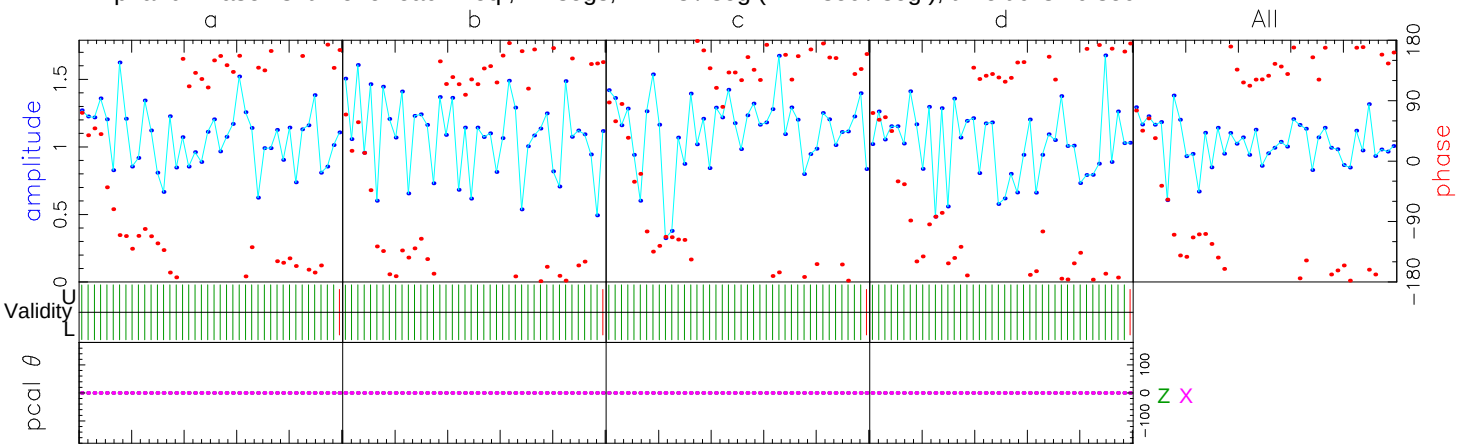
METSAHOV - ONSALA, fgroup W, pol RL



Fringe quality 8

SNR	28.2
Int time	299.652
Amp	0.597
Phase	-189.5
PFD	0.0e+00
Delays (us)	
SBD	-0.018248
MBD	-0.002092
Fringe rate (Hz)	0.001747
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142214
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



					Freq (MHz)	All
	86076.00	86204.00	86332.00	86460.00		
	-179.5	165.9	159.5	179.8	Phase	170.5
	0.5	0.6	0.7	0.5	Ampl.	0.6
	252.3	252.1	252.3	252.8	Sbd box	252.3
U/L	293/293	293/293	293/293	293/293	APs used	
Z	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	PC freqs	
Z:X	0:0	0:0	0:0	0:0	PC phase	
Z:X	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000		
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
X	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	8.59349057041E+02	Apriori delay (usec)	8.59366773575E+02	Resid mbdelay (usec)	-2.09153E-03	+/-	3.9E-05
Sband delay (usec)	8.59348525825E+02	Apriori clock (usec)	-3.2131481E+01	Resid sbdelay (usec)	-1.82477E-02	+/-	1.5E-04
Phase delay (usec)	8.59366779073E+02	Apriori clockrate (us/s)	-4.5800001E-07	Resid phdelay (usec)	5.49845E-06	+/-	6.5E-08
Delay rate (us/s)	-1.37775819879E-01	Apriori rate (us/s)	-1.37775840161E-01	Resid rate (us/s)	2.02818E-08	+/-	7.6E-10
Total phase (deg)	-234.2	Apriori accel (us/s/s)	-2.89284008698E-06	Resid phase (deg)	-189.5	+/-	2.0

	RMS	Theor.	Amplitude	0.597 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	61.7	13.1	Search (1024X16)	0.574	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	78.1	22.9	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	12.8	4.1	Inc. seg. avg.	1.008	Sample rate(MSamp/s): 128	dr window (ns/s)	-0.006	0.006
amp/frq (%)	10.5	7.1	Inc. frq. avg.	0.586	Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 X: az 103.2 el 57.0 pa -42.9 u,v (fr/asec) 1022.059 -27.329 simultaneous interpolator

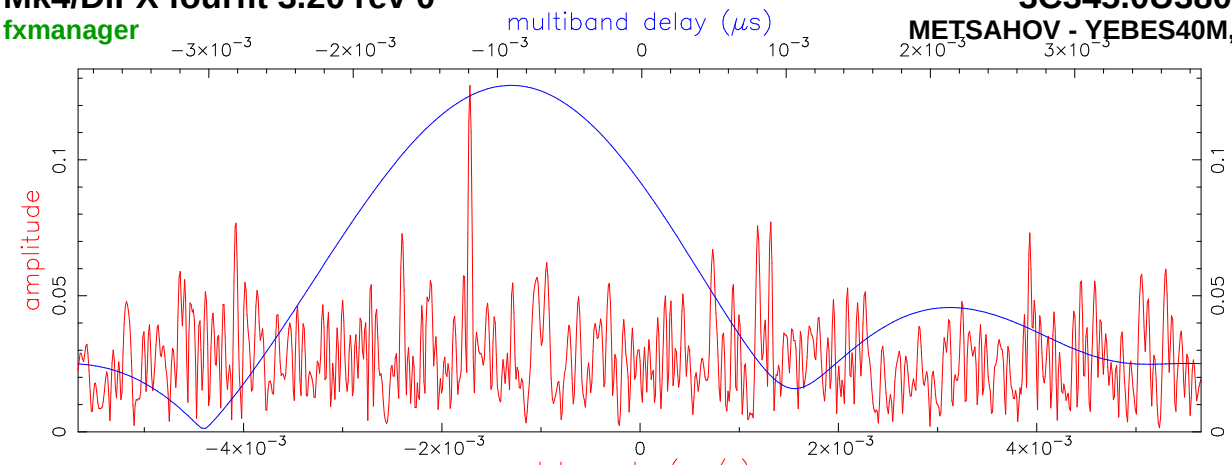
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZX..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZX.W.33.0U3803

Mk4/DiFX fourfit 3.20 rev 0

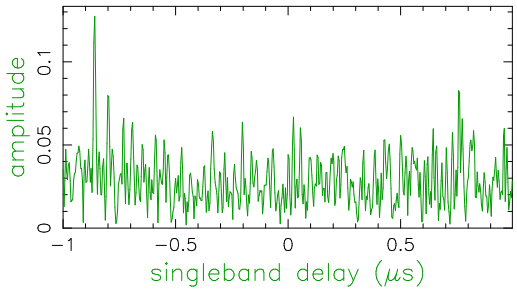
fxmanager

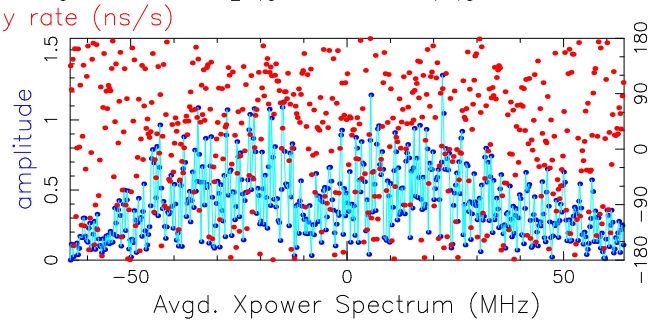
3C345.0U3803, No0002, ZY

METSAHOV - YEBES40M, fgroup W, pol LL

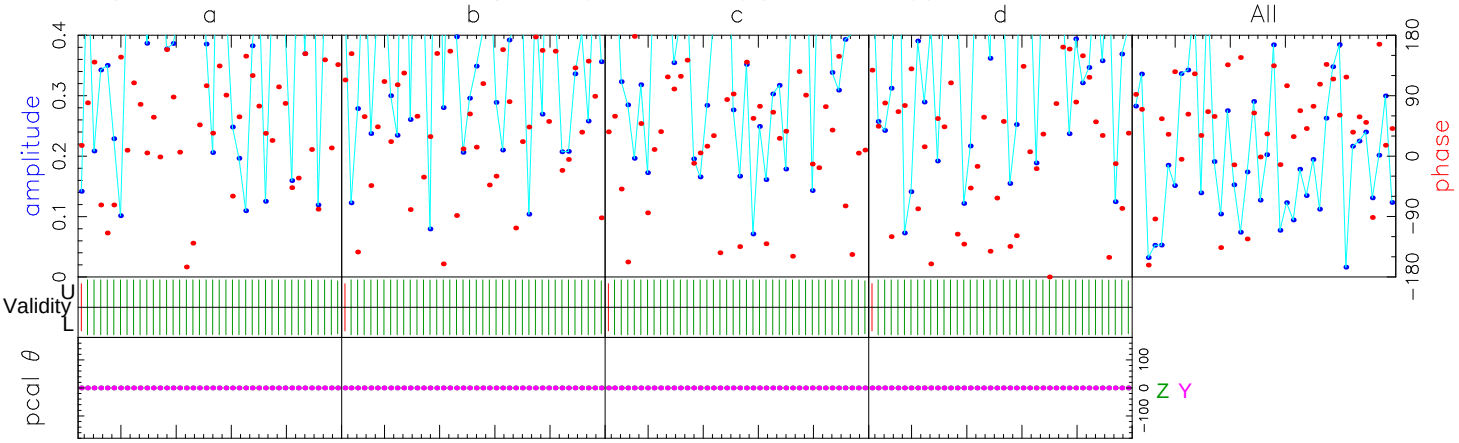


Fringe quality	0
SNR	5.9
Int time	285.110
Amp	0.133
Phase	-287.1
PFD	1.8e-01
Delays (us)	
SBD	-0.860167
MBD	-0.000889
Fringe rate (Hz)	-0.147479
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121513.31
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742 2019:277:142237 2019:253:110249
RA & Dec (J2000)	16h42m58.809967s +39°48'36.993984"





Amp. and Phase vs. time for each freq., 40 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	a	b	c	d		All
	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	
	68.0	88.6	65.1	72.3	Phase	72.9
	0.2	0.1	0.1	0.1	Ampl.	0.1
	79.2	135.2	502.8	53.0	Sbd box	36.8
U/L	280/280	280/280	280/280	280/280	APs used	
Z	1000	1000	1000	1000	PC freqs	
Y	0	0	0	0	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000		
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
Y	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	3.33966453150E+03	Apriori delay (usec)	3.34052479568E+03	Resid mbdelay (usec)	-8.89183E-04	+/-	1.9E-04
Sband delay (usec)	3.33966462843E+03	Apriori clock (usec)	-9.4682102E+00	Resid sbdelay (usec)	-8.60167E-01	+/-	7.3E-04
Phase delay (usec)	3.34052479803E+03	Apriori clockrate (us/s)	-2.0000001E-07	Resid phdelay (usec)	2.35034E-06	+/-	3.1E-07
Delay rate (us/s)	-4.68417278193E-01	Apriori rate (us/s)	-4.68415566107E-01	Resid rate (us/s)	-1.71209E-06	+/-	3.8E-09
Total phase (deg)	-323.1	Apriori accel (us/s/s)	-2.04360460591E-06	Resid phase (deg)	-287.1	+/-	9.7

	RMS	Theor.	Amplitude	0.133 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	70.6	61.1	Search (1024X16)	0.123	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	107.4	106.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004
ph/frq (deg)	12.9	19.3	Inc. seg. avg.	0.135	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006 0.006
amp/frq (%)	23.0	33.7	Inc. frq. avg.	0.127	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 122.5 el 61.9 pa -32.7 Y: az 71.0 el 46.1 pa -69.5 u,v (fr/asec) 3490.299 1311.519 simultaneous interpolator

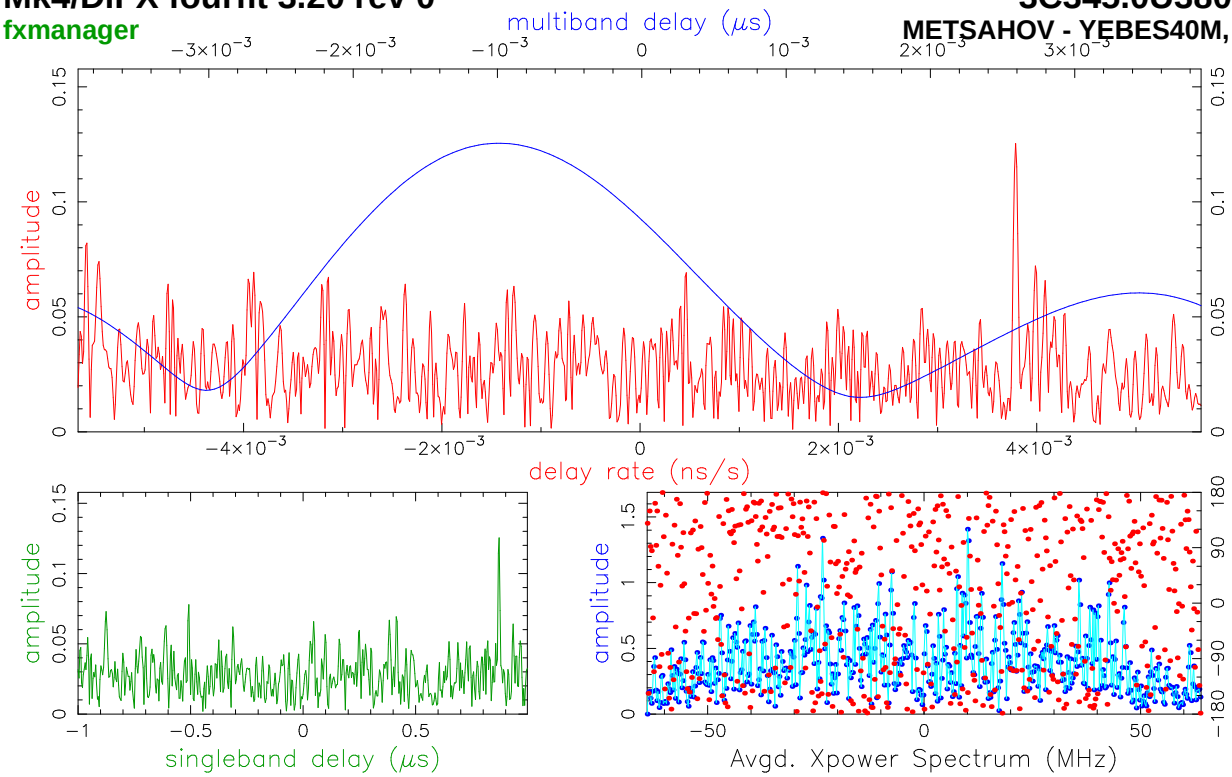
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZY..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZY.W.74.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

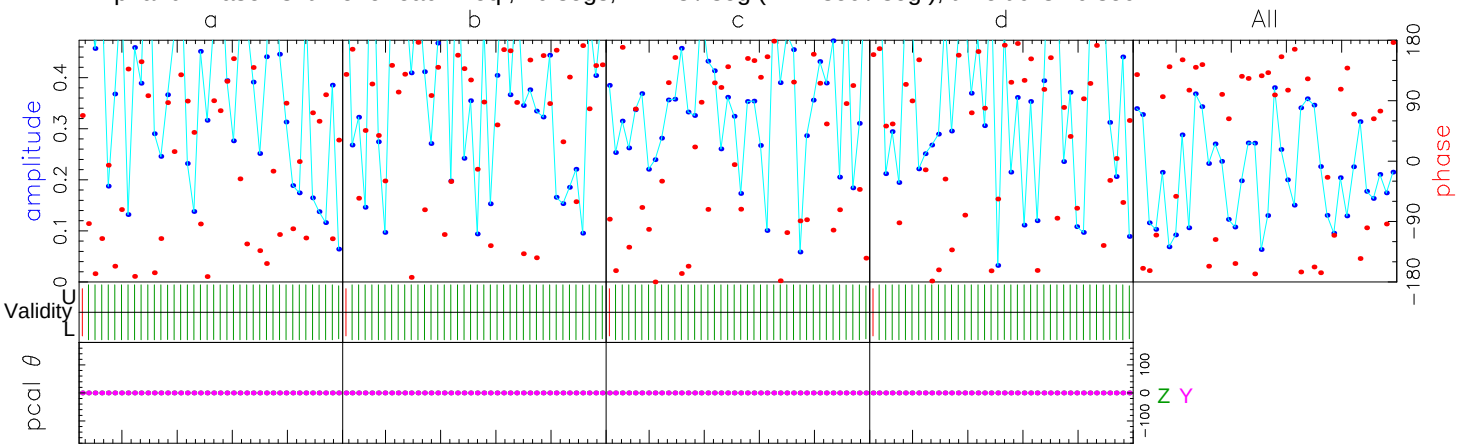
3C345.0U3803, No0002, ZY

METSAHOV - YEBES40M, fgroup W, pol RR



Fringe quality	0
SNR	6.0
Int time	285.110
Amp	0.158
Phase	333.7
PFD	1.1e-01
Delays (us)	
SBD	0.869683
MBD	-0.001037
Fringe rate (Hz)	0.326412
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121513.31
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742 2019:277:142238 2019:253:110249
RA & Dec (J2000)	16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 40 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	178.0	136.9	169.5	156.8	Phase	153.7
	0.1	0.3	0.1	0.2	Ampl.	0.1
	328.1	479.9	476.2	455.8	Sbd box	479.6
U/L	280/280	280/280	280/280	280/280	APs used	
Z	1000	1000	1000	1000	PC freqs	
Y	0	0	0	0	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000		
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids Tracks	
Y	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids Tracks	

Group delay (usec)(sbd)	3.34139094576E+03	Apriori delay (usec)	3.34052479568E+03	Resid mbdelay (usec)	-1.03742E-03	+/-	1.8E-04
Sband delay (usec)	3.34139447843E+03	Apriori clock (usec)	-9.4682102E+00	Resid sbdelay (usec)	8.69683E-01	+/-	7.2E-04
Phase delay (usec)	3.34052480064E+03	Apriori clockrate (us/s)	-2.0000001E-07	Resid phdelay (usec)	4.95687E-06	+/-	3.1E-07
Delay rate (us/s)	-4.68411776792E-01	Apriori rate (us/s)	-4.68415566107E-01	Resid rate (us/s)	3.78932E-06	+/-	3.7E-09
Total phase (deg)	297.7	Apriori accel (us/s/s)	-2.04360460591E-06	Resid phase (deg)	333.7	+/-	9.5

	RMS	Theor.	Amplitude	0.158 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	66.9	60.2	Search (1024X16)	0.124	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	95.2	105.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004
ph/frq (deg)	23.8	19.0	Inc. seg. avg.	0.167	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006 0.006
amp/frq (%)	42.9	33.2	Inc. frq. avg.	0.149	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 122.5 el 61.9 pa -32.7 Y: az 71.0 el 46.1 pa -69.5 u,v (fr/asec) 3490.299 1311.519 simultaneous interpolator

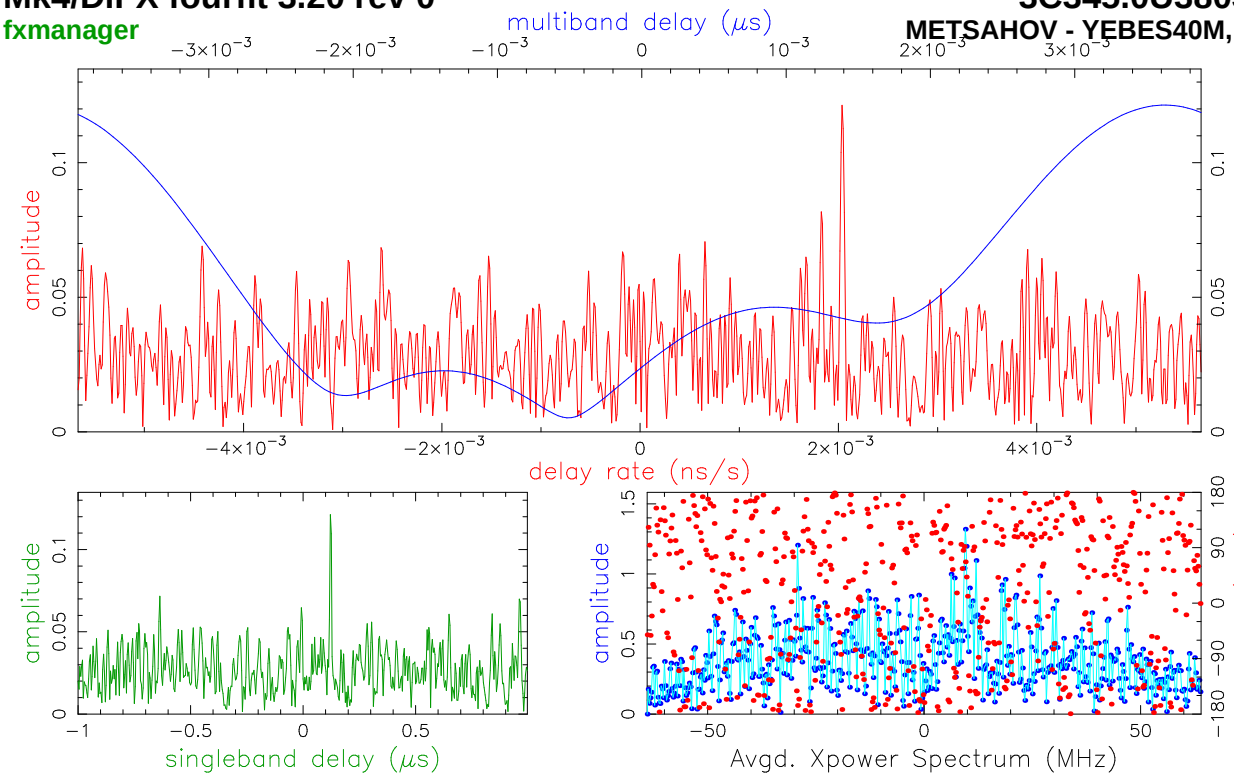
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZY..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZY.W.75.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

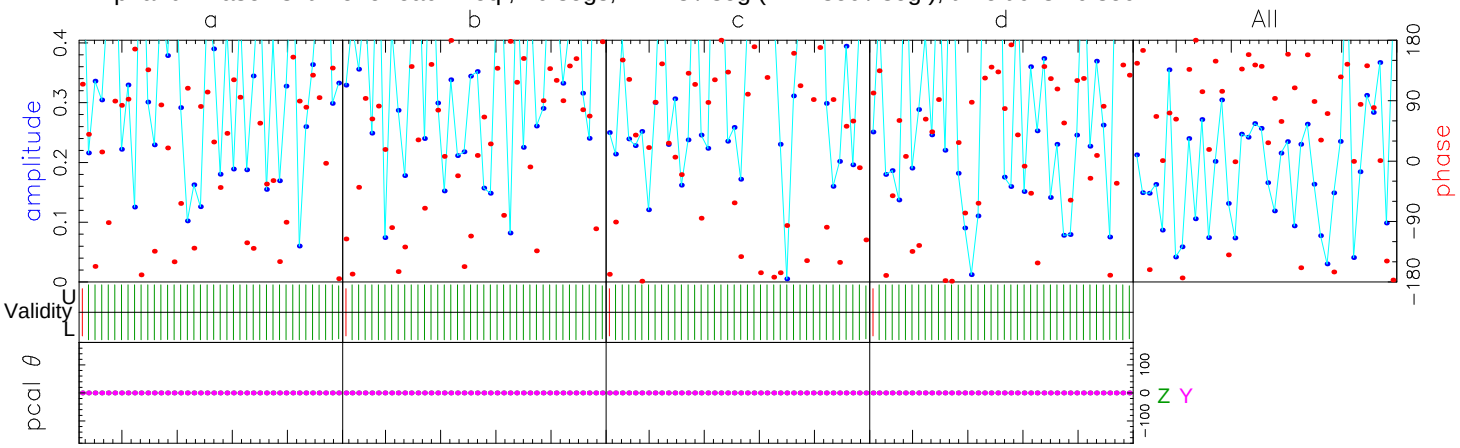
3C345.0U3803, No0002, ZY

METSAHOV - YEBES40M, fgroup W, pol LR



Fringe quality	0
SNR	5.9
Int time	285.110
Amp	0.135
Phase	307.7
PFD	2.1e-01
Delays (us)	
SBD	0.122547
MBD	0.003579
Fringe rate (Hz)	0.175237
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121513.31
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142239
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"

Amp. and Phase vs. time for each freq., 40 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	105.6	135.7	146.9	112.3	Phase	127.7
	0.1	0.1	0.2	0.1	Ampl.	0.1
	49.1	503.1	288.1	354.0	Sbd box	288.4
U/L	280/280	280/280	280/280	280/280	APs used	
Z	1000	1000	1000	1000	PC freqs	
Y	0	0	0	0	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000		
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
Y	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	3.34064556259E+03	Apriori delay (usec)	3.34052479568E+03	Resid mbdelay (usec)	3.57940E-03	+/-	1.9E-04
Sband delay (usec)	3.34064734268E+03	Apriori clock (usec)	-9.4682102E+00	Resid sbdelay (usec)	1.22547E-01	+/-	7.3E-04
Phase delay (usec)	3.34052479980E+03	Apriori clockrate (us/s)	-2.0000001E-07	Resid phdelay (usec)	4.11788E-06	+/-	3.1E-07
Delay rate (us/s)	-4.68413531783E-01	Apriori rate (us/s)	-4.68415566107E-01	Resid rate (us/s)	2.03432E-06	+/-	3.8E-09
Total phase (deg)	271.7	Apriori accel (us/s/s)	-2.04360460591E-06	Resid phase (deg)	307.7	+/-	9.7

	RMS	Theor.	Amplitude	0.135 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	65.3	61.4	Search (1024X16)	0.121	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	103.0	107.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004
ph/frq (deg)	24.1	19.4	Inc. seg. avg.	0.132	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006 0.006
amp/frq (%)	21.0	33.9	Inc. frq. avg.	0.127	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 122.5 el 61.9 pa -32.7 Y: az 71.0 el 46.1 pa -69.5 u,v (fr/asec) 3490.299 1311.519 simultaneous interpolator

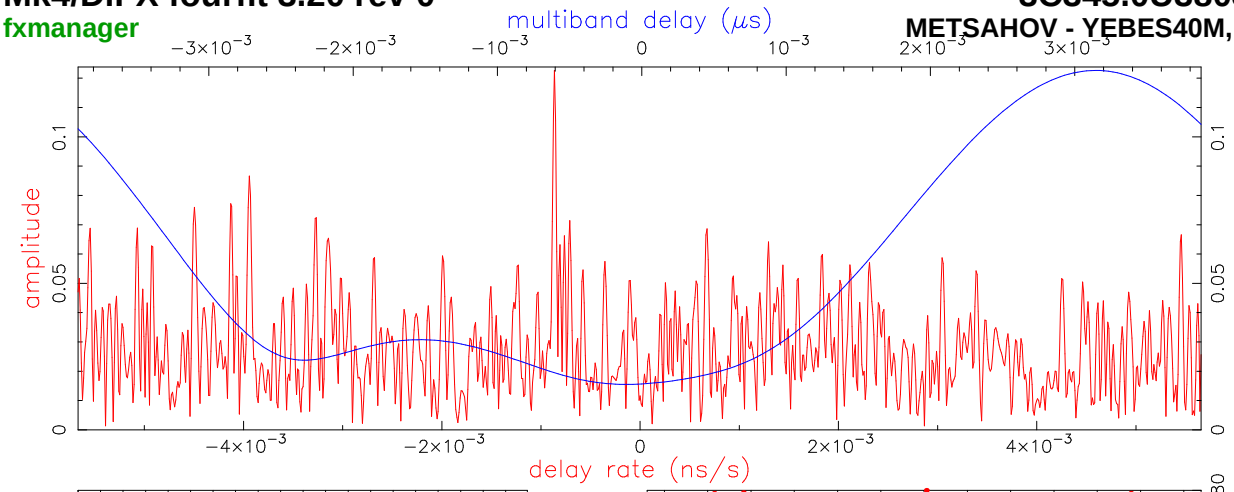
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZY..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZY.W.76.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

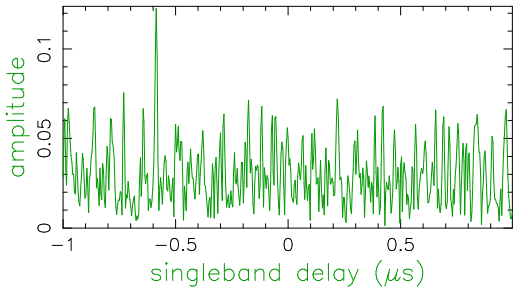
3C345.0U3803, No0002, ZY

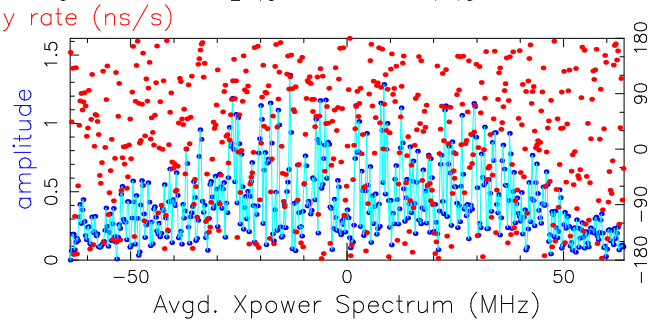
METSAHOV - YEBES40M, fgroup W, pol RL



Fringe quality 0

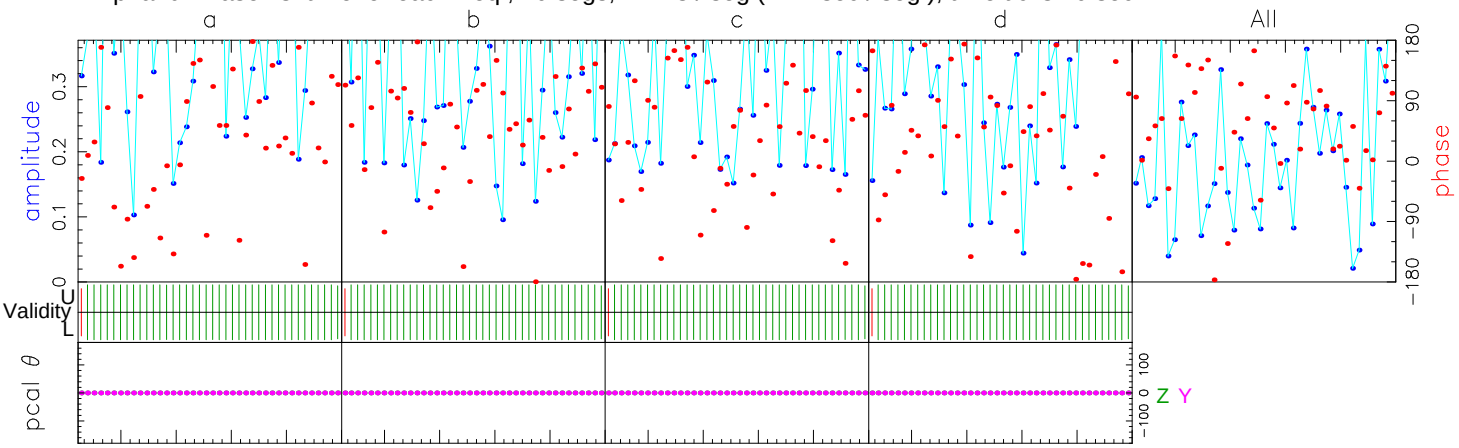
SNR 5.7
Int time 285.110
Amp 0.124
Phase -110.6
PFD 6.0e-01
Delays (us)
SBD -0.586026
MBD 0.003142
Fringe rate (Hz)
-0.074273
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 1.024





Exp. f192a
Exper # 16383
Yr:day 2019:276
Start 121513.31
Stop 122000.03
FRT 121730.00
Corr/FF/build
2019:277:141742
2019:277:142240
2019:253:110249
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 40 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	63.2	77.3	57.7	75.2	Phase	69.4
	0.1	0.2	0.1	0.1	Ampl.	0.1
	459.1	107.3	70.4	215.2	Sbd box	107.0
U/L	280/280	280/280	280/280	280/280	APs used	
Z	1000	1000	1000	1000	PC freqs	
Y	0	0	0	0	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000		
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
Y	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	3.33994200009E+03	Apriori delay (usec)	3.34052479568E+03	Resid mbdelay (usec)	3.14190E-03	+/-	2.0E-04
Sband delay (usec)	3.33993876918E+03	Apriori clock (usec)	-9.4682102E+00	Resid sbdelay (usec)	-5.86026E-01	+/-	7.6E-04
Phase delay (usec)	3.34052479792E+03	Apriori clockrate (us/s)	-2.0000001E-07	Resid phdelay (usec)	2.23938E-06	+/-	3.3E-07
Delay rate (us/s)	-4.68416428349E-01	Apriori rate (us/s)	-4.68415566107E-01	Resid rate (us/s)	-8.62242E-07	+/-	3.9E-09
Total phase (deg)	-146.5	Apriori accel (us/s/s)	-2.04360460591E-06	Resid phase (deg)	-110.6	+/-	10.1

	RMS	Theor.							
			Amplitude	0.124 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	65.0	64.0	Search (1024X16)	0.121	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	103.9	111.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	11.7	20.2	Inc. seg. avg.	0.120	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	42.0	35.3	Inc. frq. avg.	0.118	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 Y: az 71.0 el 46.1 pa -69.5 u,v (fr/asec) 3490.299 1311.519 simultaneous interpolator

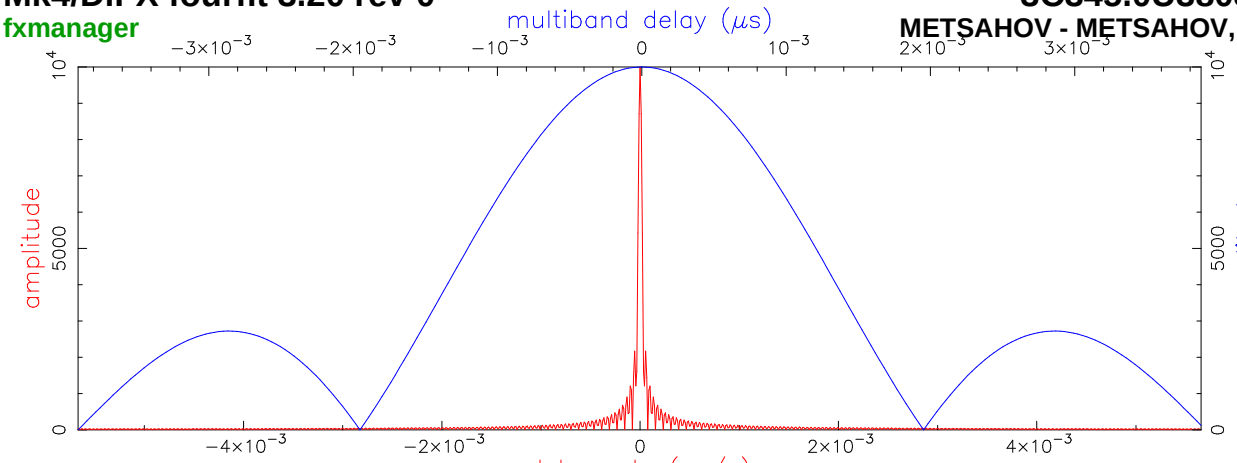
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZY..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZY.W.77.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

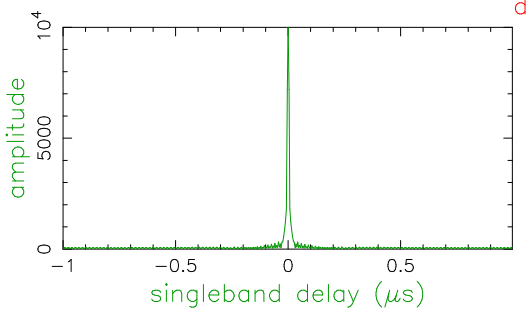
3C345.0U3803, No0002, ZZ

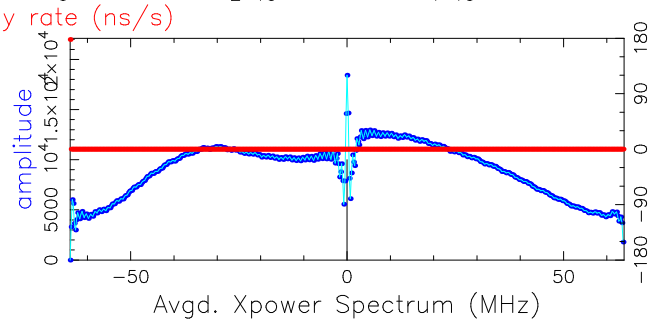
METSAHOV - METSAHOV, fgroup W, pol LL



Fringe quality 9

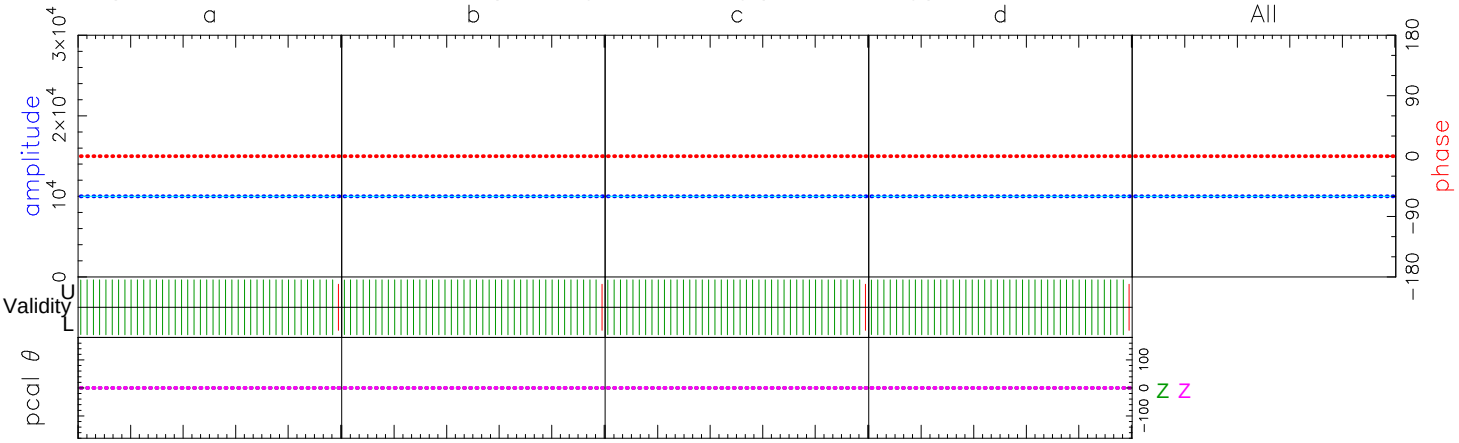
SNR 473423.8
Int time 299.713
Amp 10000.001
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 1.024





Exp. f192a
Exper # 16383
Yr:day 2019:276
Start 121500.00
Stop 122000.03
FRT 121730.00
Corr/FF/build
2019:277:141742
2019:277:142223
2019:253:110249
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	0.0	0.0	0.0	0.0	Phase	0.0
	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
	257.0	257.0	257.0	257.0	Sbd box	257.0
U/L	293/293	293/293	293/293	293/293	APs used	
Z	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	PC phase	
Z:Z	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	0.00000000000E+00	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-09
Sband delay (usec)	0.00000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	9.1E-09
Phase delay (usec)	0.00000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	3.9E-12
Delay rate (us/s)	0.00000000000E+00	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	4.5E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	0.0	+/-	0.0

	RMS	Theor.							
			Amplitude	10000.001 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	0.0	0.0	Search (1024X16)	10000.001	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.001	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

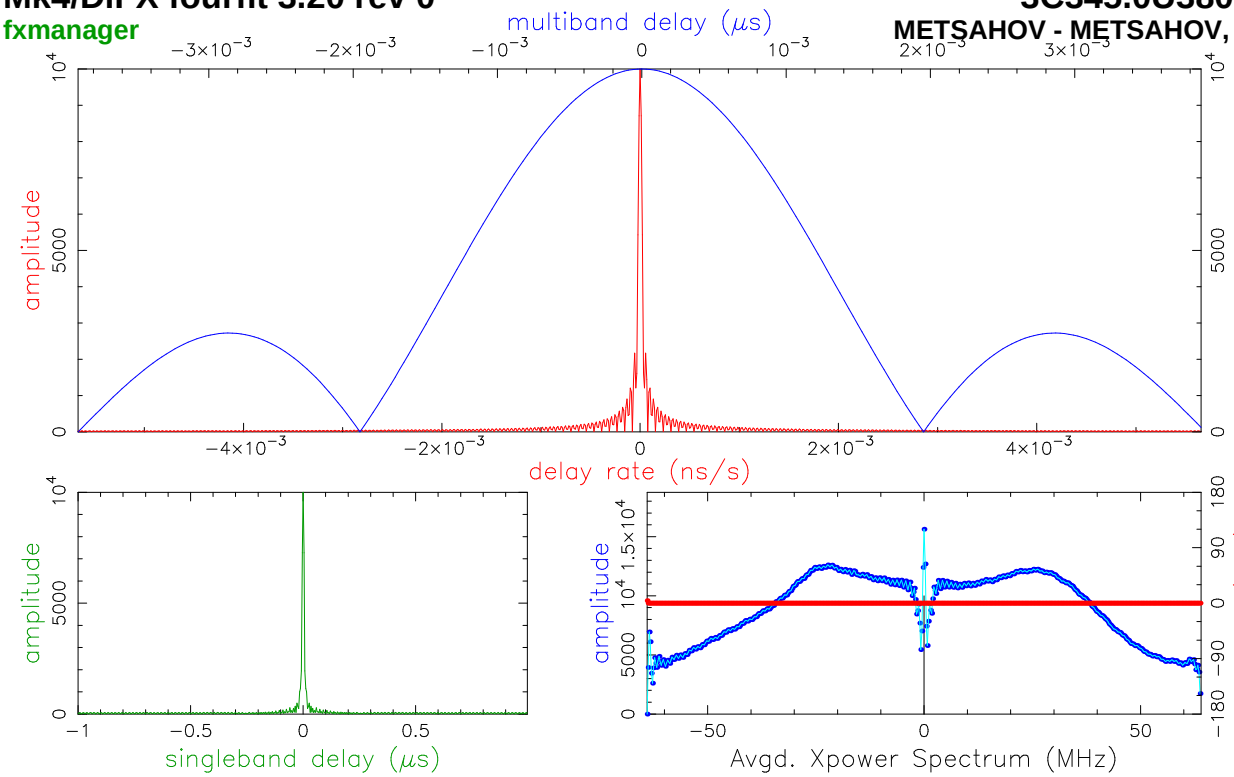
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZZ.W.54.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

3C345.0U3803, No0002, ZZ

METSAHOV - METSAHOV, fgroup W, pol RR

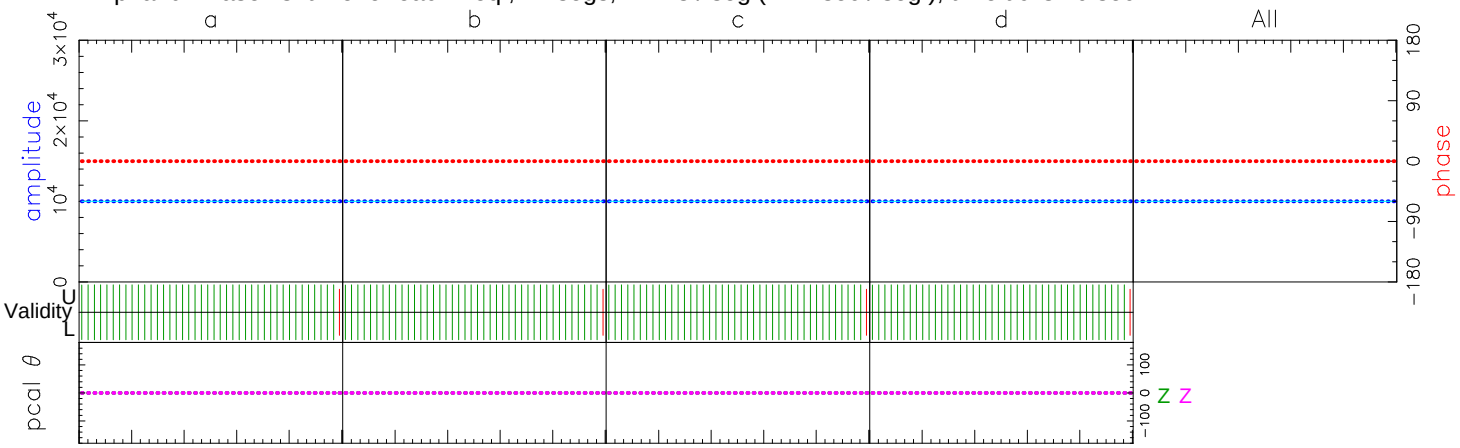


Fringe quality 9

SNR 473423.8
Int time 299.713
Amp 10000.001
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) 1.024

Exp. f192a
Exper # 16383
Yr:day 2019:276
Start 121500.00
Stop 122000.03
FRT 121730.00
Corr/FF/build
2019:277:141742
2019:277:142224
2019:253:110249
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	0.0	0.0	0.0	0.0	Phase	0.0
	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
	257.0	257.0	257.0	257.0	Sbd box	257.0
U/L	293/293	293/293	293/293	293/293	APs used	
Z	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	PC phase	
Z:Z	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	0.00000000000E+00	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-09
Sband delay (usec)	0.00000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	9.1E-09
Phase delay (usec)	0.00000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	3.9E-12
Delay rate (us/s)	0.00000000000E+00	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	4.5E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	0.0	+/-	0.0

	RMS	Theor.							
			Amplitude	10000.001 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	0.0	0.0	Search (1024X16)	10000.001	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.001	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

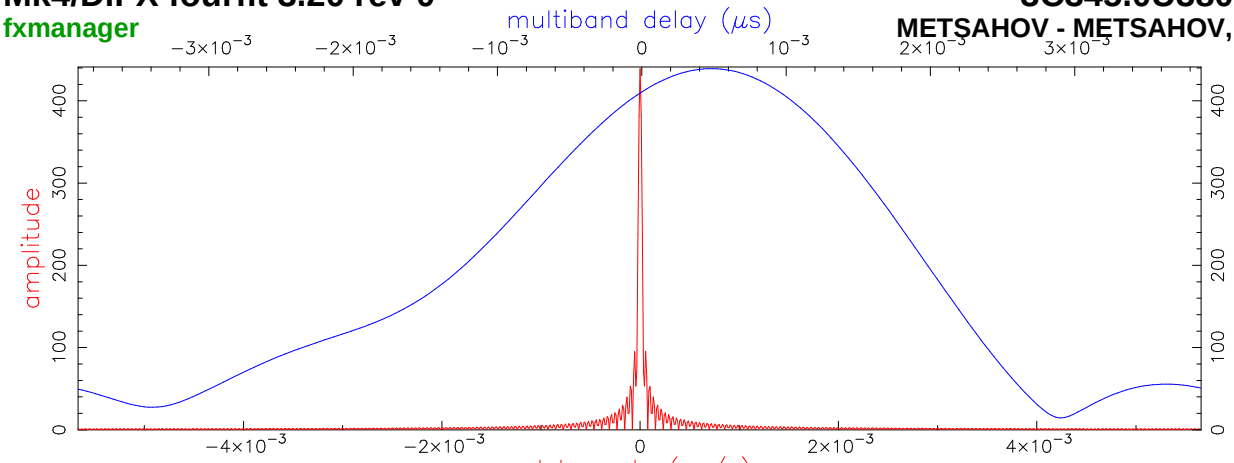
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZZ.W.55.0U3803

Mk4/DiFX fourfit 3.20 rev 0

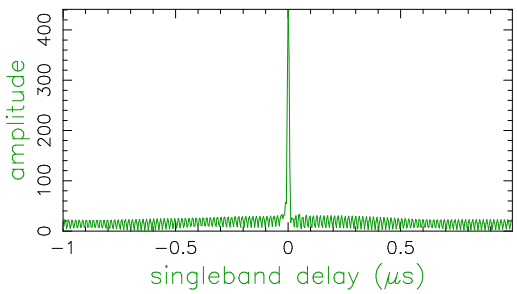
fxmanager

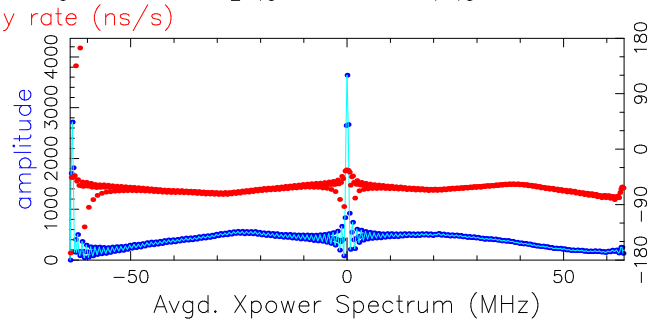
3C345.0U3803, No0002, ZZ

METSAHOV - METSAHOV, fgroup W, pol LR

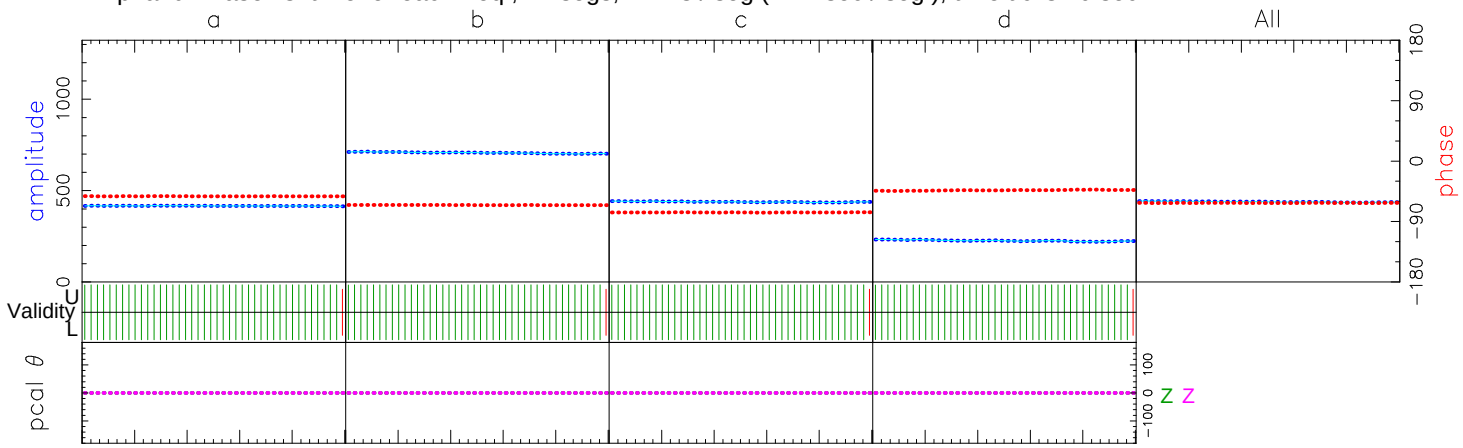


Fringe quality	7
SNR	20884.7
Int time	299.713
Amp	441.141
Phase	-62.3
PFD	0.0e+00
Delays (us)	
SBD	0.000496
MBD	0.000508
Fringe rate (Hz)	0.000006
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142225
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"





Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	-52.4	-65.4	-76.4	-43.4	Phase	-62.3
	416.5	707.1	438.7	226.4	Ampl.	447.2
	257.2	257.0	257.2	257.2	Sbd box	257.1
U/L	293/293	293/293	293/293	293/293	APs used	
Z	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	PC phase	
Z:Z	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	

Group delay (usec)(sbd)	5.08156250000E-04	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	5.08156E-04	+/-	5.3E-08
Sband delay (usec)	4.95750000000E-04	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	4.95750E-04	+/-	2.1E-07
Phase delay (usec)	-2.00905134715E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.00905E-06	+/-	8.8E-11
Delay rate (us/s)	7.01472043388E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	7.01472E-11	+/-	1.0E-12
Total phase (deg)	-62.3	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-62.3	+/-	0.0

	RMS	Theor.							
			Amplitude	441.141 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	0.1	0.0	Search (1024X16)	439.090	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	0.8	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	18.2	0.0	Inc. seg. avg.	439.015	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	38.8	0.0	Inc. frq. avg.	447.185	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

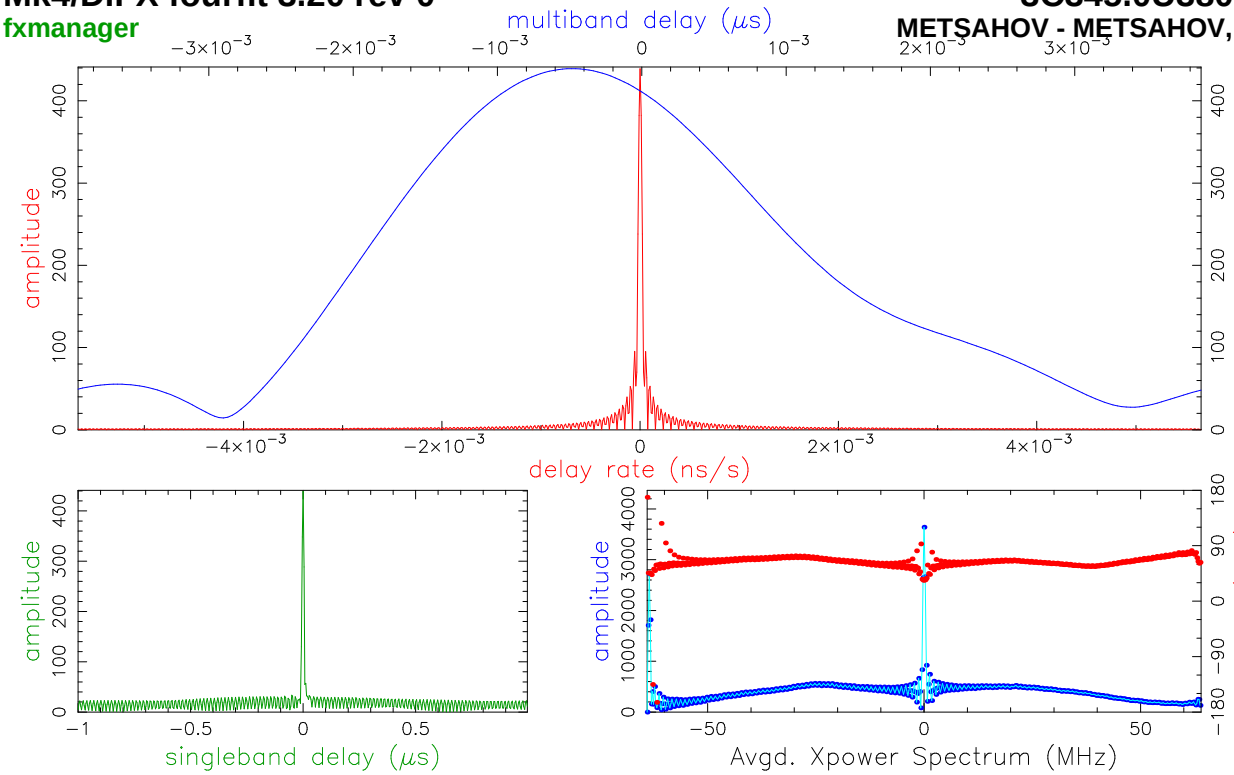
Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZZ.W.56.0U3803

Mk4/DiFX fourfit 3.20 rev 0

fxmanager

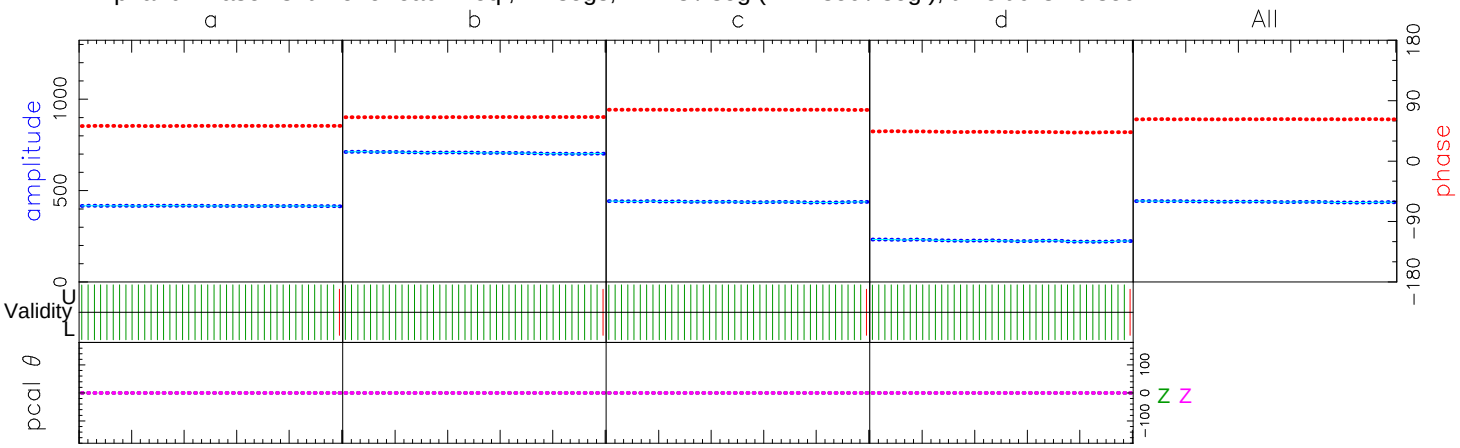
3C345.0U3803, No0002, ZZ

METSAHOV - METSAHOV, fgroup W, pol RL



Fringe quality	7
SNR	20884.7
Int time	299.713
Amp	441.141
Phase	62.3
PFD	0.0e+00
Delays (us)	
SBD	-0.000496
MBD	-0.000508
Fringe rate (Hz)	-0.000006
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	1.024
Exp.	f192a
Exper #	16383
Yr:day	2019:276
Start	121500.00
Stop	122000.03
FRT	121730.00
Corr/FF/build	2019:277:141742
	2019:277:142226
	2019:253:110249
RA & Dec (J2000)	16h42m58.809967s
	+39°48'36.993984"

Amp. and Phase vs. time for each freq., 42 segs, 7 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86076.00	86204.00	86332.00	86460.00	Freq (MHz)	All
	52.4	65.4	76.4	43.4	Phase	62.3
	416.5	707.1	438.7	226.4	Ampl.	447.2
	256.8	257.0	256.8	256.8	Sbd box	256.9
U/L	293/293	293/293	293/293	293/293	APs used	
Z	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	PC phase	
Z:Z	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000		
Z	W00UR,W00LR	W01UR,W01LR	W02UR,W02LR	W03UR,W03LR	Chan ids	
					Tracks	
Z	W00UL,W00LL	W01UL,W01LL	W02UL,W02LL	W03UL,W03LL	Chan ids	
					Tracks	

Group delay (usec)(sbd)	-5.08156250000E-04	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-5.08156E-04	+/-	5.3E-08
Sband delay (usec)	-4.95750000000E-04	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-4.95750E-04	+/-	2.1E-07
Phase delay (usec)	2.00905134720E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	2.00905E-06	+/-	8.8E-11
Delay rate (us/s)	-7.01472043388E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-7.01472E-11	+/-	1.0E-12
Total phase (deg)	62.3	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	62.3	+/-	0.0

	RMS	Theor.							
			Amplitude	441.141 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	0.1	0.0	Search (1024X16)	439.090	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	0.8	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	18.2	0.0	Inc. seg. avg.	439.015	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.006	0.006
amp/frq (%)	38.8	0.0	Inc. frq. avg.	447.185	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 122.5 el 61.9 pa -32.7 Z: az 122.5 el 61.9 pa -32.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/f192a/FRINGE/2222/No0002/ZZ..0U3803 Output file: /Exps/f192a/FRINGE/2222/No0002/ZZ.W.57.0U3803