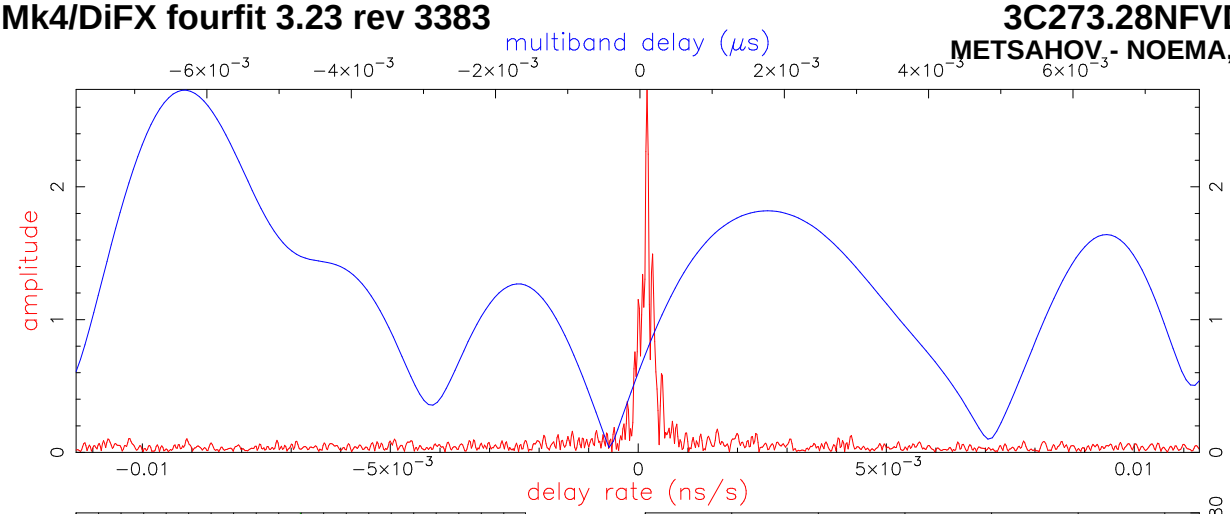
Mk4/DiFX fourfit 3.23 rev 3383

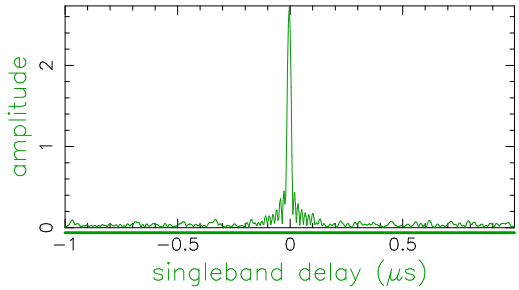
3C273.28NFVD, No0049, ZN

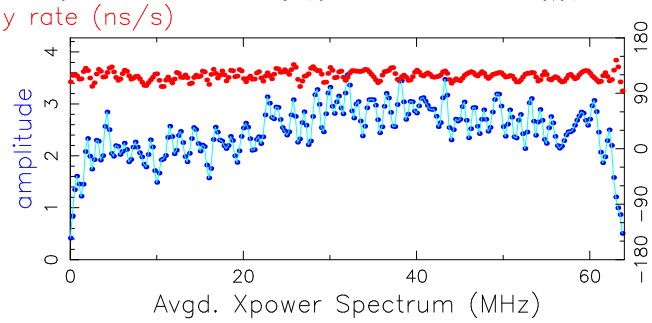
METSAHOV - NOEMA, fgroup W, pol LL



Fringe quality 2

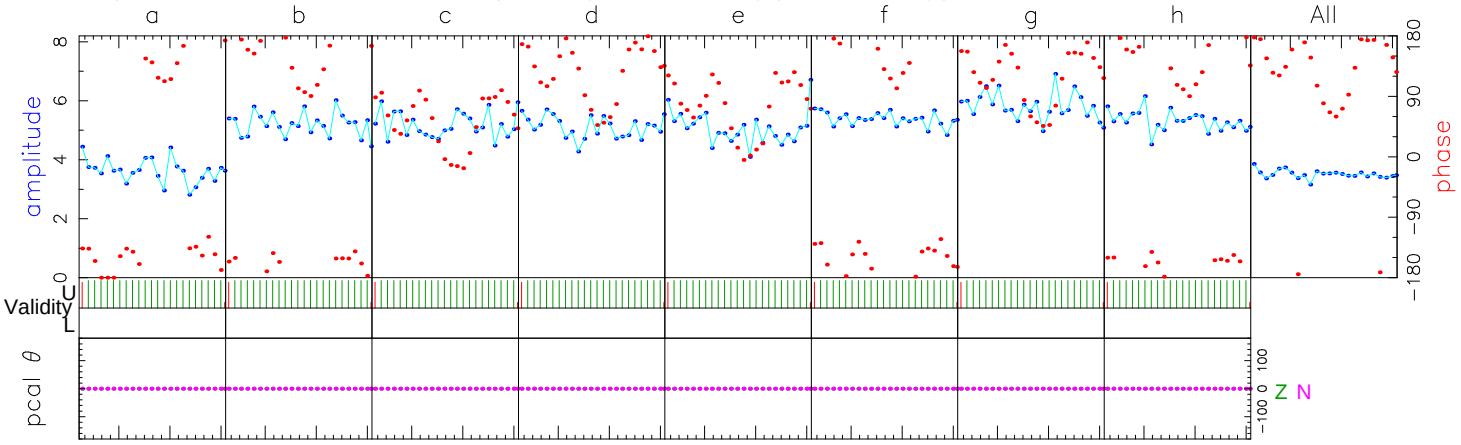
SNR 96.2
Int time 165.720
Amp 2.734
Phase 139.8
PFD 0.0e+00
Delays (us)
SBD -0.004498
MBD -0.006331
Fringe rate (Hz)
0.014904
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512





Exp. mk013b
Exper # 16383
Yr:day 2021:113
Start 012013.31
Stop 012259.71
FRT 012130.00
Corr/FF/build
2022:164:112259
2022:164:132225
2022:109:102128
RA & Dec (J2000)
12h29m06.699731s
+02°03'08.598201"

Amp. and Phase vs. time for each freq., 24 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-172.7	173.0	54.3	127.8	78.5	-170.2	122.1	171.7	Phase	139.8
	2.9	4.0	4.1	3.9	3.9	4.2	4.6	4.1	Ampl.	3.9
	253.9	255.3	256.0	256.4	256.7	256.4	256.3	255.6	Sbd box	255.8
U/L	325/0	325/0	325/0	325/0	325/0	325/0	325/0	325/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	

Group delay (usec) (SBD)	-5.73070317062E+03	Apriori delay (usec)	-5.73069684007E+03	Resid mbdelay (usec)	-6.33055E-03	+/-	1.1E-05
Sband delay (usec)	-5.73070133832E+03	Apriori clock (usec)	1.2615868E+01	Resid sbdelay (usec)	-4.49825E-03	+/-	9.0E-05
Phase delay (usec)	-5.73069683556E+03	Apriori clockrate (us/s)	1.4600001E-07	Resid phdelay (usec)	4.50922E-06	+/-	3.8E-08
Delay rate (us/s)	1.28966180695E-01	Apriori rate (us/s)	1.28966007678E-01	Resid rate (us/s)	1.73017E-07	+/-	4.0E-10
Total phase (deg)	-149.4	Apriori accel (us/s/s)	3.11685043180E-05	Resid phase (deg)	139.8	+/-	1.2

	RMS	Theor.	Amplitude	2.734 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	39.9	2.9	Search (1024X32)	2.704	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	28.9	5.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	55.4	1.7	Inc. seg. avg.	3.507	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	47.6	2.9	Inc. frq. avg.	3.947	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

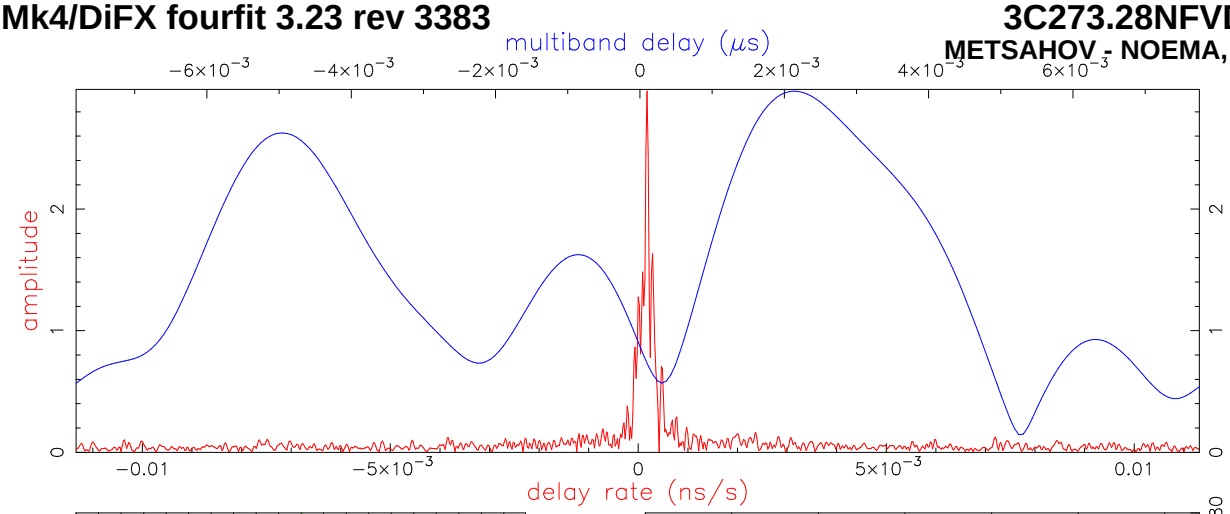
Z: az 251.7 el 12.4 pa 28.2 N: az 240.5 el 28.9 pa 38.4 u,v (fr/asec) -722.717 1548.227 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0049/ZN..28NFVD Output file: /Exps/mk013b/v1_pc1/5099/No0049/ZN.W.209.28NFVD

Mk4/DiFX fourfit 3.23 rev 3383

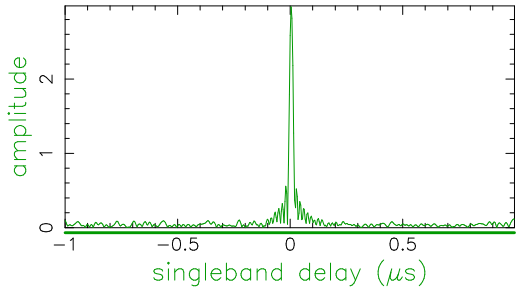
3C273.28NFVD, No0049, ZN

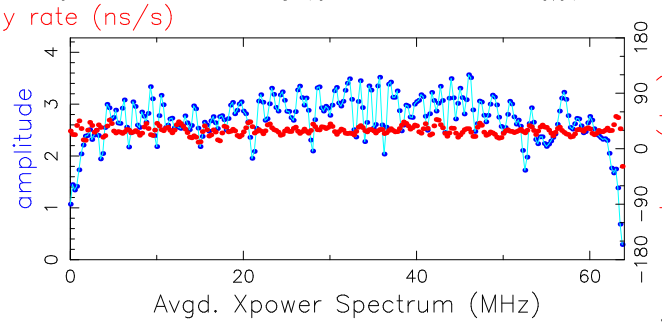
METSAHOV - NOEMA, fgroup W, pol RR



Fringe quality 2

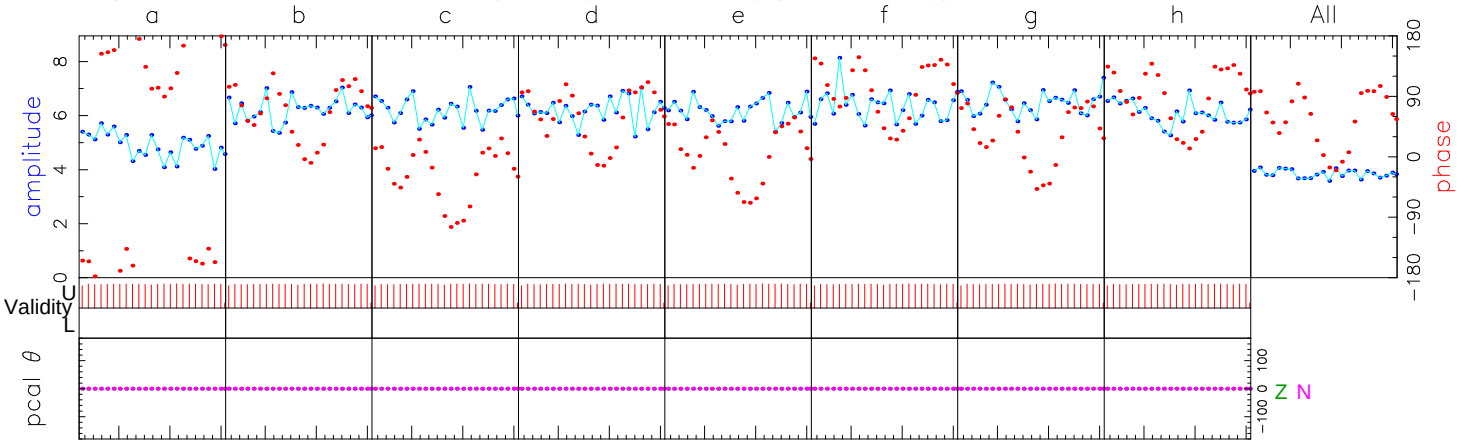
SNR 97.7
Int time 143.325
Amp 2.984
Phase 59.9
PFD 0.0e+00
Delays (us)
SBD 0.004778
MBD 0.002152
Fringe rate (Hz)
0.014911
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512





Exp. mk013b
Exper # 16383
Yr:day 2021:113
Start 012013.31
Stop 012259.71
FRT 012130.00
Corr/FF/build
2022:164:112259
2022:164:132234
2022:109:102128
RA & Dec (J2000)
12h29m06.699731s
+02°03'08.598201"

Amp. and Phase vs. time for each freq., 24 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	172.2	70.2	-23.4	62.9	7.9	100.2	36.8	93.0	Phase	59.9
	3.8	4.8	4.8	4.8	4.7	5.0	4.9	4.6	Ampl.	4.7
	256.4	257.7	258.3	258.7	258.7	258.6	258.5	257.6	Sbd box	258.2
U/L	325/0	325/0	325/0	325/0	325/0	325/0	325/0	325/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	

Group delay (usec) (SBD)	-5.73069468825E+03	Apriori delay (usec)	-5.73069684007E+03	Resid mbdelay (usec)	2.15182E-03	+/-	1.1E-05
Sband delay (usec)	-5.73069206207E+03	Apriori clock (usec)	1.2615868E+01	Resid sbdelay (usec)	4.77800E-03	+/-	8.8E-05
Phase delay (usec)	-5.73069683814E+03	Apriori clockrate (us/s)	1.4600001E-07	Resid phdelay (usec)	1.93048E-06	+/-	3.8E-08
Delay rate (us/s)	1.28966180775E-01	Apriori rate (us/s)	1.28966007678E-01	Resid rate (us/s)	1.73098E-07	+/-	3.9E-10
Total phase (deg)	-229.4	Apriori accel (us/s/s)	3.11685043180E-05	Resid phase (deg)	59.9	+/-	1.2

	RMS	Theor.	Amplitude	2.984 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	40.7	2.9	Search (1024X32)	2.920	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	29.6	5.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	65.4	1.7	Inc. seg. avg.	3.851	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	58.1	2.9	Inc. frq. avg.	4.681	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

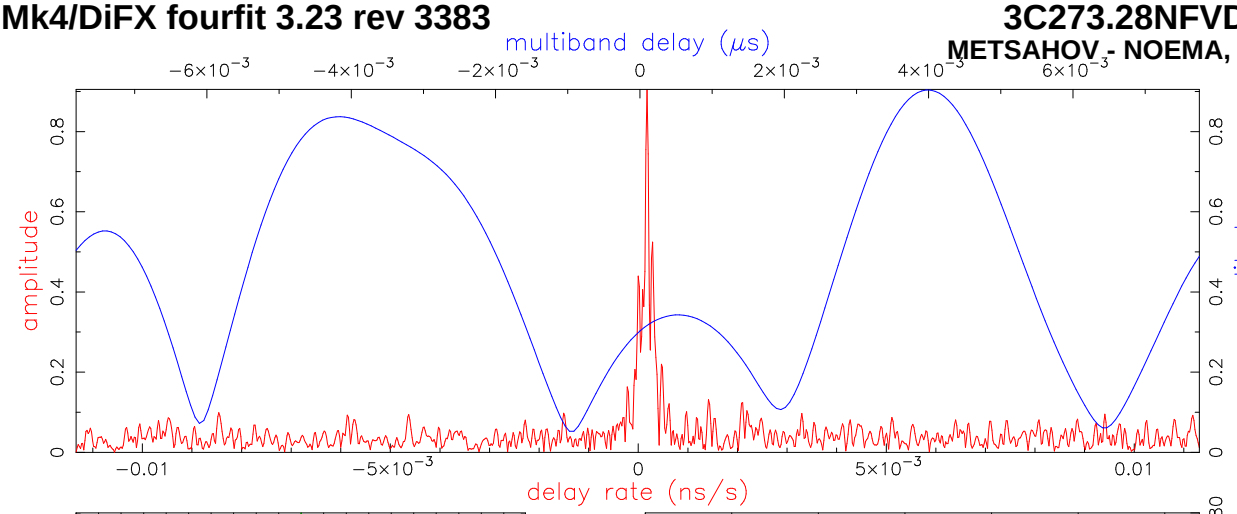
Z: az 251.7 el 12.4 pa 28.2 N: az 240.5 el 28.9 pa 38.4 u,v (fr/asec) -722.717 1548.227 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0049/ZN..28NFVD Output file: /Exps/mk013b/v1_pc1/5099/No0049/ZN.W.294.28NFVD

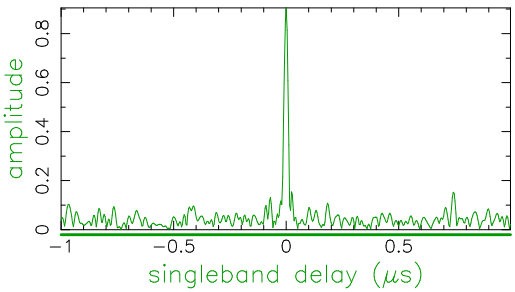
Mk4/DiFX fourfit 3.23 rev 3383

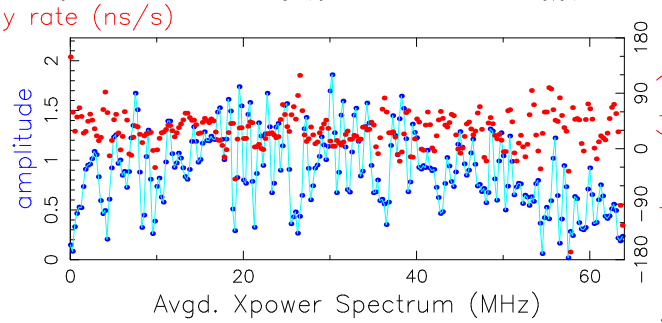
3C273.28NFVD, No0049, ZN

METSAHOV - NOEMA, fgroup W, pol LR

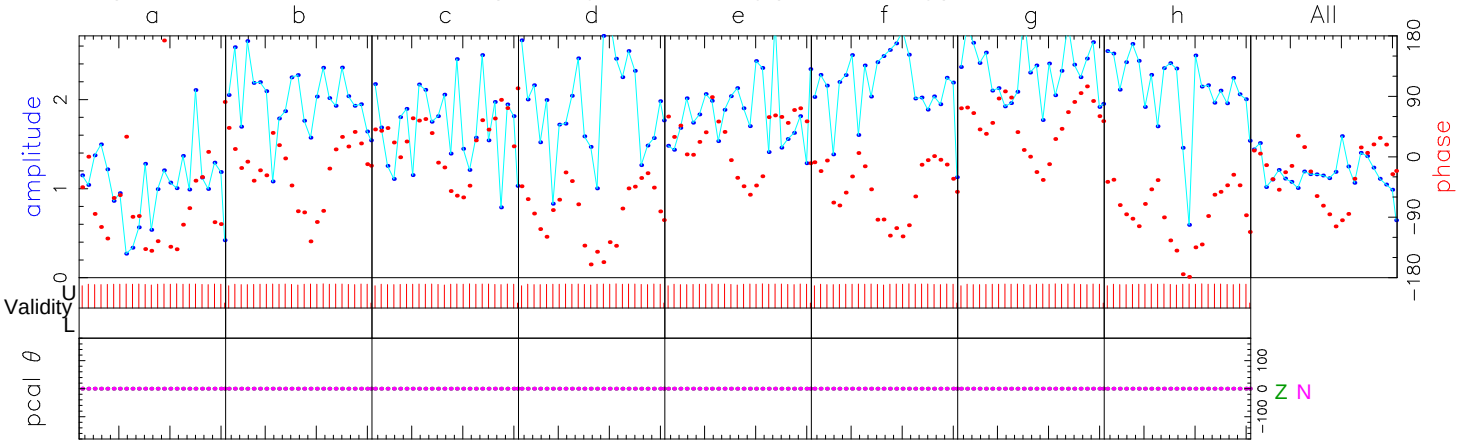


Fringe quality	4
SNR	29.6
Int time	143.325
Amp	0.905
Phase	-23.1
PFD	0.0e+00
Delays (us)	
SBD	-0.000519
MBD	0.003986
Fringe rate (Hz)	0.014742
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:113
Start	012013.31
Stop	012259.71
FRT	012130.00
Corr/FF/build	2022:164:112259
	2022:164:132237
	2022:109:102128
RA & Dec (J2000)	12h29m06.699731s
	+02°03'08.598201"





Amp. and Phase vs. time for each freq., 24 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-87.4	-15.5	24.0	-81.4	24.5	-48.6	52.0	-79.8	Phase	-23.1
	0.7	1.5	1.3	1.5	1.4	1.6	1.9	1.7	Ampl.	1.4
	254.1	256.0	256.3	257.0	257.3	257.1	256.7	255.9	Sbd box	256.9
U/L	325/0	325/0	325/0	325/0	325/0	325/0	325/0	325/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	

Group delay (usec) (SBD)	-5.73069285390E+03	Apriori delay (usec)	-5.73069684007E+03	Resid mbdelay (usec)	3.98616E-03	+/-	3.7E-05
Sband delay (usec)	-5.73069735932E+03	Apriori clock (usec)	1.2615868E+01	Resid sbdelay (usec)	-5.19250E-04	+/-	2.9E-04
Phase delay (usec)	-5.73069684081E+03	Apriori clockrate (us/s)	1.4600001E-07	Resid phdelay (usec)	-7.45736E-07	+/-	1.2E-07
Delay rate (us/s)	1.28966178821E-01	Apriori rate (us/s)	1.28966007678E-01	Resid rate (us/s)	1.71144E-07	+/-	1.3E-09
Total phase (deg)	-312.4	Apriori accel (us/s/s)	3.11685043180E-05	Resid phase (deg)	-23.1	+/-	3.9

	RMS	Theor.	Amplitude	0.905 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	40.8	9.5	Search (1024X32)	0.888	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	36.6	16.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	60.0	5.5	Inc. seg. avg.	1.175	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	68.4	9.5	Inc. frq. avg.	1.431	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

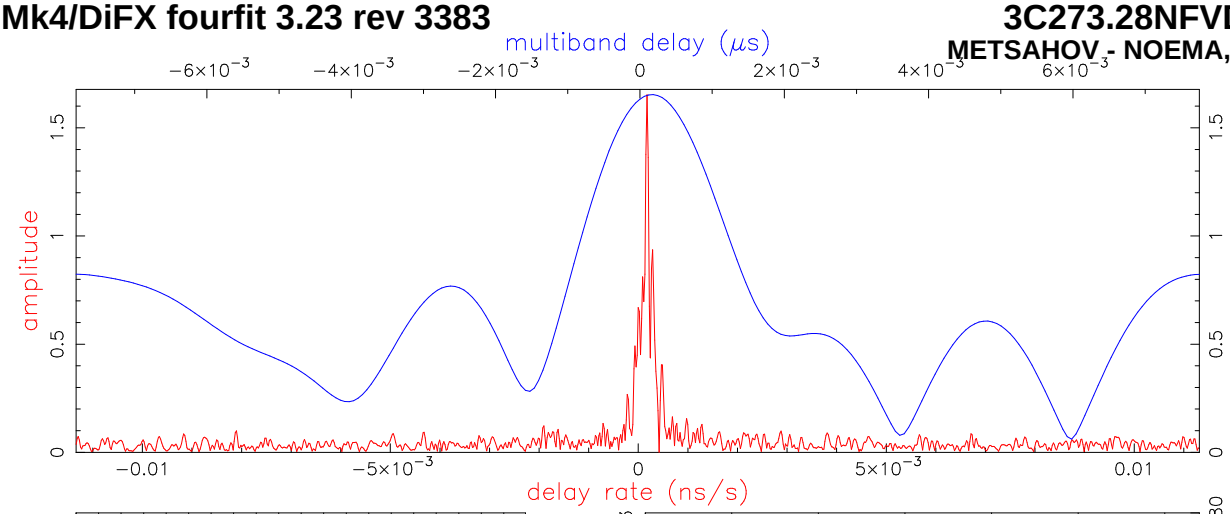
Z: az 251.7 el 12.4 pa 28.2 N: az 240.5 el 28.9 pa 38.4 u,v (fr/asec) -722.717 1548.227 simultaneous interpolator

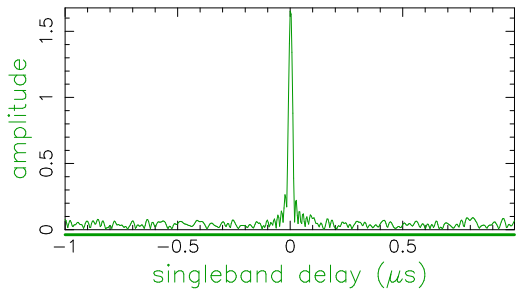
Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0049/ZN..28NFVD Output file: /Exps/mk013b/v1_pc1/5099/No0049/ZN.W.314.28NFVD

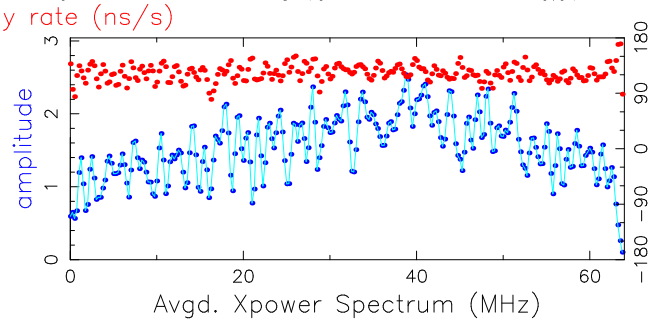
Mk4/DiFX fourfit 3.23 rev 3383

3C273.28NFVD, No0049, ZN

METSAHOV - NOEMA, fgroup W, pol RL

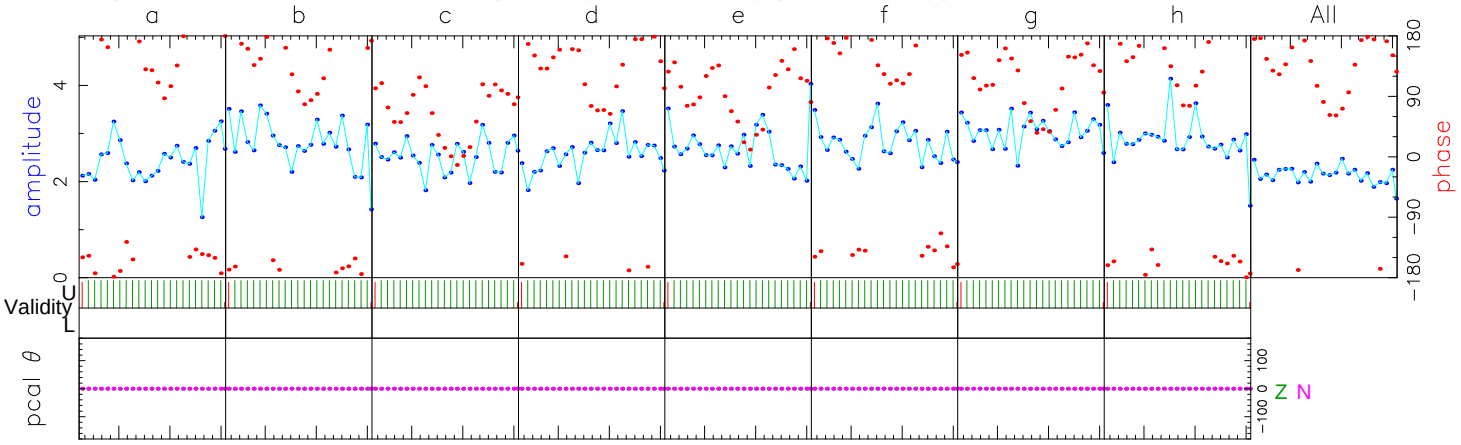






Fringe quality	3
SNR	59.1
Int time	165.720
Amp	1.678
Phase	140.7
PFD	0.0e+00
Delays (us)	
SBD	0.001620
MBD	0.000201
Fringe rate (Hz)	0.014833
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:113
Start	012013.31
Stop	012259.71
FRT	012130.00
Corr/FF/build	2022:164:112259 2022:164:132239 2022:109:102128
RA & Dec (J2000)	12h29m06.699731s +02°03'08.598201"

Amp. and Phase vs. time for each freq., 24 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



									Freq (MHz)	All
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Phase	140.7
	179.4	160.1	68.7	143.4	95.2	179.9	116.0	167.2	Ampl.	2.1
	1.9	2.2	2.0	1.9	2.0	2.1	2.3	2.2	Sbd box	257.4
	255.9	257.2	258.1	258.3	258.2	258.2	257.8	257.0		
U/L	325/0	325/0	325/0	325/0	325/0	325/0	325/0	325/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	

Group delay (usec) (SBD)	-5.73069663881E+03	Apriori delay (usec)	-5.73069684007E+03	Resid mbdelay (usec)	2.01258E-04	+/-	1.8E-05
Sband delay (usec)	-5.73069521982E+03	Apriori clock (usec)	1.2615868E+01	Resid sbdelay (usec)	1.62025E-03	+/-	1.5E-04
Phase delay (usec)	-5.73069683553E+03	Apriori clockrate (us/s)	1.4600001E-07	Resid phdelay (usec)	4.53694E-06	+/-	6.3E-08
Delay rate (us/s)	1.28966179871E-01	Apriori rate (us/s)	1.28966007678E-01	Resid rate (us/s)	1.72194E-07	+/-	6.5E-10
Total phase (deg)	-148.6	Apriori accel (us/s/s)	3.11685043180E-05	Resid phase (deg)	140.7	+/-	1.9

	RMS	Theor.	Amplitude	1.678 +/- 0.028	Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5		
ph/seg (deg)	40.8	4.8	Search (1024X32)	1.616	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
amp/seg (%)	30.0	8.3	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	44.7	2.7	Inc. seg. avg.	2.147	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011
amp/frq (%)	25.7	4.8	Inc. frq. avg.	2.082	Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 251.7 el 12.4 pa 28.2 N: az 240.5 el 28.9 pa 38.4 u,v (fr/asec) -722.717 1548.227 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0049/ZN..28NFVD Output file: /Exps/mk013b/v1_pc1/5099/No0049/ZN.W.324.28NFVD