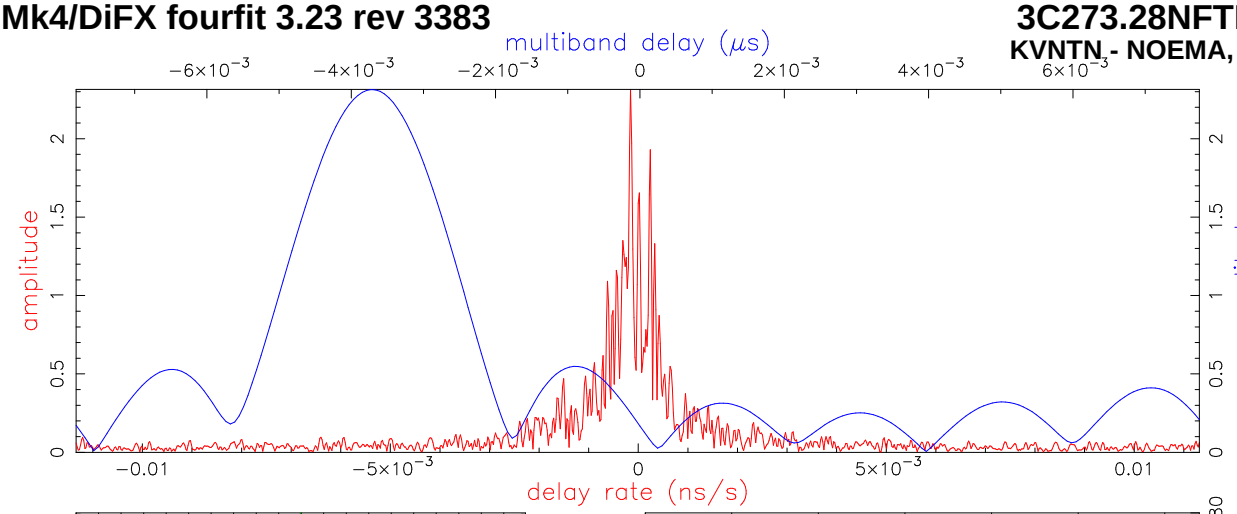
Mk4/DiFX fourfit 3.23 rev 3383

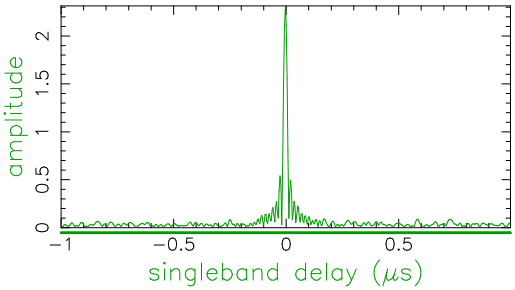
3C273.28NFTE, No0001, tN

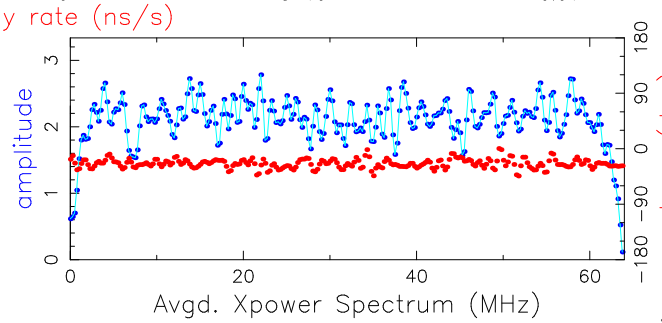
KVNTN - NOEMA, fgroup W, pol LL



Fringe quality 5

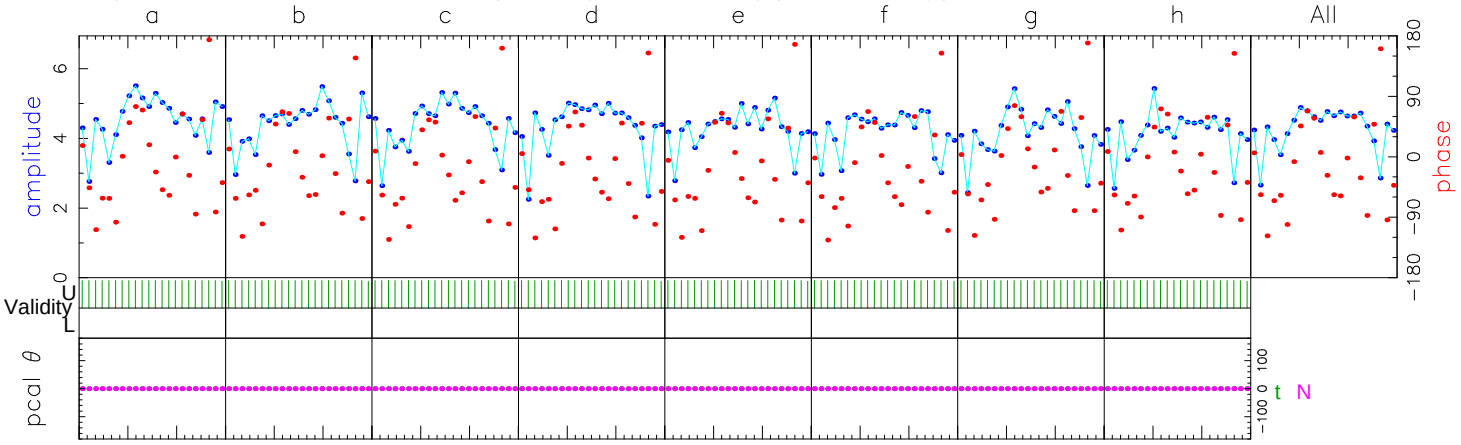
SNR 84.9
Int time 179.966
Amp 2.314
Phase -24.3
PFD 0.0e+00
Delays (us)
SBD -0.003714
MBD -0.003712
Fringe rate (Hz)
-0.012567
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512





Exp. mk013b
Exper # 16383
Yr:day 2021:112
Start 180000.00
Stop 180300.22
FRT 180130.00
Corr/FF/build
2022:027:051547
2022:164:130244
2022:109:102128
RA & Dec (J2000)
12h29m06.699731s
+02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-18.0	-22.5	-27.0	-27.9	-29.8	-33.3	-16.0	-19.7	Phase	-24.3
	2.3	2.4	2.4	2.4	2.3	2.2	2.3	2.3	Ampl.	2.3
	255.9	256.0	256.0	255.9	256.1	256.1	256.2	256.2	Sbd box	256.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
t:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
t	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)	1.19828053733E+03	Apriori delay (usec)	1.19828424905E+03	Resid mbdelay (usec)	-3.71172E-03	+/-	1.3E-05
Sband delay (usec)	1.19828053530E+03	Apriori clock (usec)	1.3060010E+01	Resid sbdelay (usec)	-3.71375E-03	+/-	1.0E-04
Phase delay (usec)	1.19828424827E+03	Apriori clockrate (us/s)	1.2500000E-07	Resid phdelay (usec)	-7.82715E-07	+/-	4.4E-08
Delay rate (us/s)	-2.08699234815E+00	Apriori rate (us/s)	-2.08699220226E+00	Resid rate (us/s)	-1.45891E-07	+/-	4.2E-10
Total phase (deg)	52.5	Apriori accel (us/s/s)	-6.88926537393E-06	Resid phase (deg)	-24.3	+/-	1.3

	RMS	Theor.	Amplitude	2.314 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	65.9	3.2	Search (1024X32)	2.203	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	88.6	5.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	6.7	1.9	Inc. seg. avg.	4.274	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	2.6	3.3	Inc. frq. avg.	2.324	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

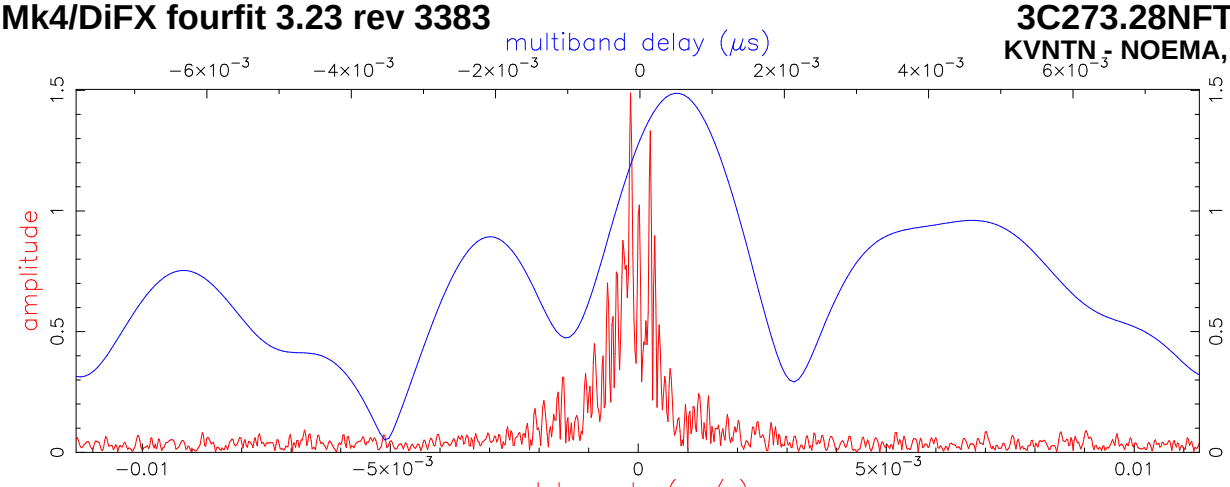
t: az 254.1 el 25.9 pa 53.6 N: az 110.2 el 21.9 pa -41.9 u,v (fr/asec) 11955.364 -1387.402 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/tN..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/tN.W.18.28NFTE

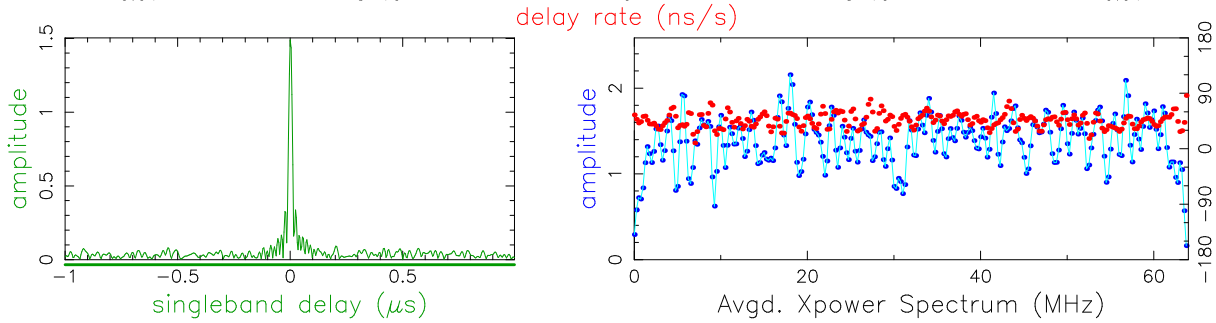
Mk4/DiFX fourfit 3.23 rev 3383

3C273.28NFTE, No0001, tN

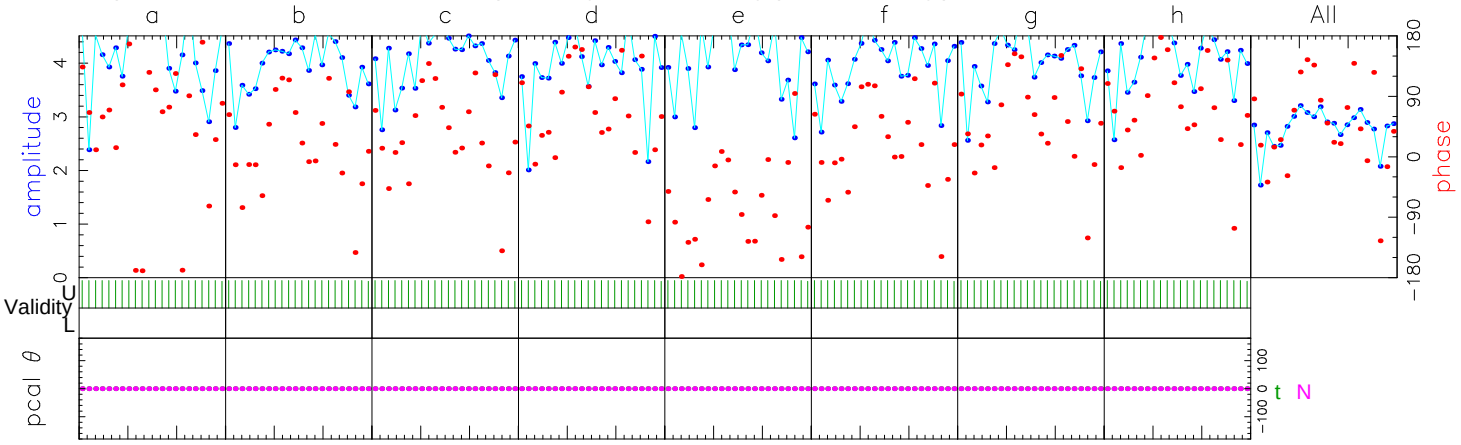
KVNTN - NOEMA, fgroup W, pol RR



Fringe quality	1
SNR	55.2
Int time	179.966
Amp	1.504
Phase	54.7
PFD	0.0e+00
Delays (us)	
SBD	0.001252
MBD	0.000511
Fringe rate (Hz)	-0.012540
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	2022:027:051547 2022:164:130246 2022:109:102128
RA & Dec (J2000)	12h29m06.699731s +02°03'08.598201"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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	54.7
	98.5	27.9	43.7	71.1	-84.3	32.2	63.8	83.7	Ampl.	2.1
	2.2	2.0	2.2	2.1	2.1	2.1	2.1	2.2	Sbd box	257.3
	257.2	257.4	257.4	257.4	257.4	257.5	257.4	257.2		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
t:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
t	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)	1.19828475961E+03	Apriori delay (usec)	1.19828424905E+03	Resid mbdelay (usec)	5.10559E-04	+/-	2.0E-05
Sband delay (usec)	1.19828550130E+03	Apriori clock (usec)	1.3060010E+01	Resid sbdelay (usec)	1.25225E-03	+/-	1.6E-04
Phase delay (usec)	1.19828425082E+03	Apriori clockrate (us/s)	1.2500000E-07	Resid phdelay (usec)	1.76458E-06	+/-	6.7E-08
Delay rate (us/s)	-2.08699234784E+00	Apriori rate (us/s)	-2.08699220226E+00	Resid rate (us/s)	-1.45582E-07	+/-	6.4E-10
Total phase (deg)	131.5	Apriori accel (us/s/s)	-6.88926537393E-06	Resid phase (deg)	54.7	+/-	2.1

	RMS	Theor.	Amplitude	1.504 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	66.5	4.9	Search (1024X32)	1.436	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	88.6	8.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	63.0	2.9	Inc. seg. avg.	2.781	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	42.3	5.1	Inc. frq. avg.	2.133	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

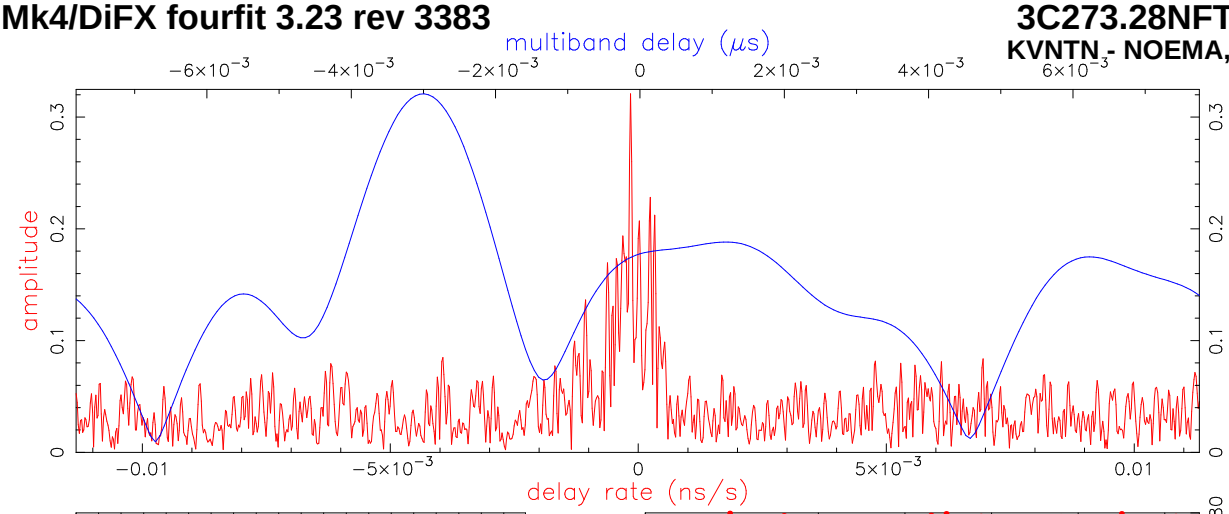
t: az 254.1 el 25.9 pa 53.6 N: az 110.2 el 21.9 pa -41.9 u,v (fr/asec) 11955.364 -1387.402 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/tN..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/tN.W.34.28NFTE

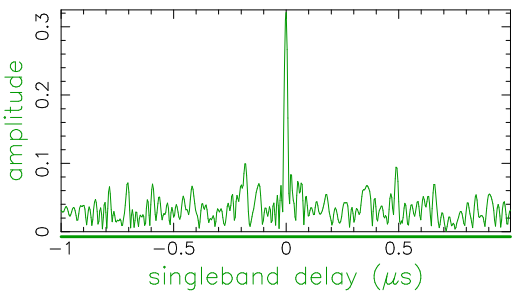
Mk4/DiFX fourfit 3.23 rev 3383

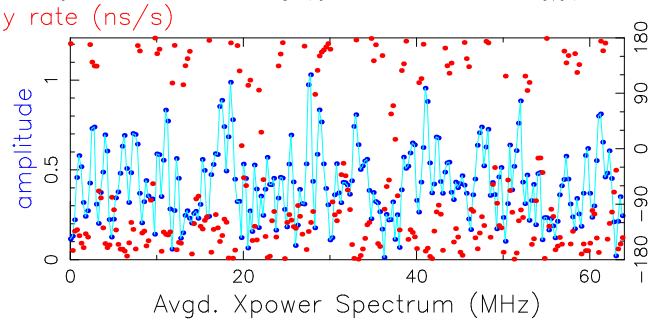
3C273.28NFTE, No0001, tN

KVNTN - NOEMA, fgroup W, pol LR

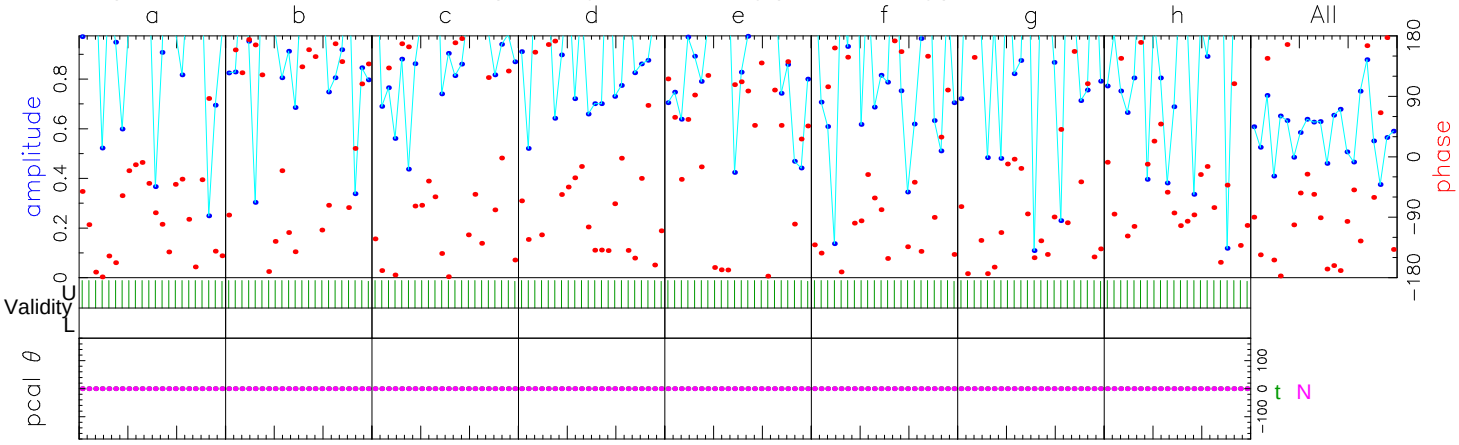


Fringe quality	9
SNR	11.9
Int time	179.966
Amp	0.325
Phase	-133.4
PFD	2.6e-24
Delays (us)	
SBD	-0.001326
MBD	-0.003017
Fringe rate (Hz)	-0.012631
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	2022:027:051547 2022:164:130249 2022:109:102128
RA & Dec (J2000)	12h29m06.699731s +02°03'08.598201"





Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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	-133.4
	-92.5	179.6	-125.9	-112.0	116.5	-147.4	-124.5	-95.8	Ampl.	0.4
	0.5	0.5	0.4	0.5	0.5	0.4	0.5	0.4	Sbd box	256.7
	256.6	256.6	256.6	256.9	256.3	256.5	256.8	255.9	APs used	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	PC freqs	
t	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC phase	
t:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
t	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
t	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)	1.19828123249E+03	Apriori delay (usec)	1.19828424905E+03	Resid mbdelay (usec)	-3.01657E-03	+/-	9.1E-05
Sband delay (usec)	1.19828292280E+03	Apriori clock (usec)	1.3060010E+01	Resid sbdelay (usec)	-1.32625E-03	+/-	7.2E-04
Phase delay (usec)	1.19828424475E+03	Apriori clockrate (us/s)	1.2500000E-07	Resid phdelay (usec)	-4.30222E-06	+/-	3.1E-07
Delay rate (us/s)	-2.08699234889E+00	Apriori rate (us/s)	-2.08699220226E+00	Resid rate (us/s)	-1.46632E-07	+/-	3.0E-09
Total phase (deg)	-56.6	Apriori accel (us/s/s)	-6.88926537393E-06	Resid phase (deg)	-133.4	+/-	9.6

	RMS	Theor.	Amplitude	0.325 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	64.1	22.6	Search (1024X32)	0.312	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	89.3	39.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	55.1	13.6	Inc. seg. avg.	0.549	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	40.8	23.7	Inc. frq. avg.	0.438	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

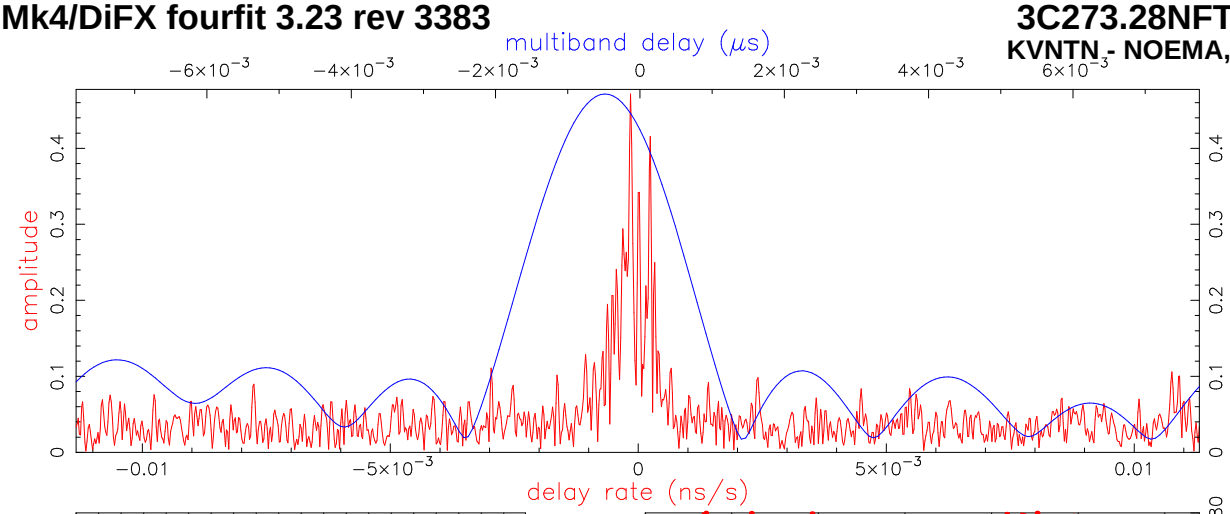
t: az 254.1 el 25.9 pa 53.6 N: az 110.2 el 21.9 pa -41.9 u,v (fr/asec) 11955.364 -1387.402 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/tN..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/tN.W.57.28NFTE

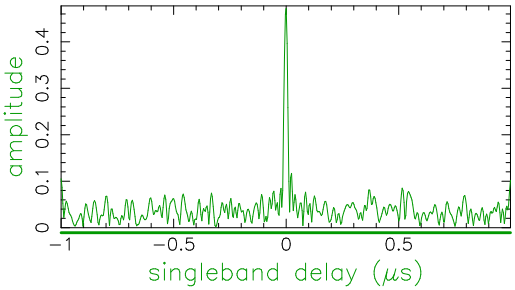
Mk4/DiFX fourfit 3.23 rev 3383

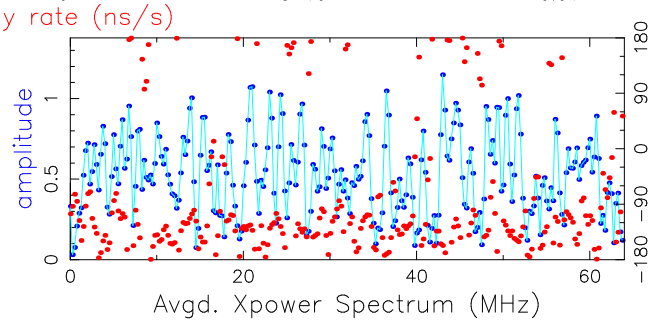
3C273.28NFTE, No0001, tN

KVNTN - NOEMA, fgroup W, pol RL

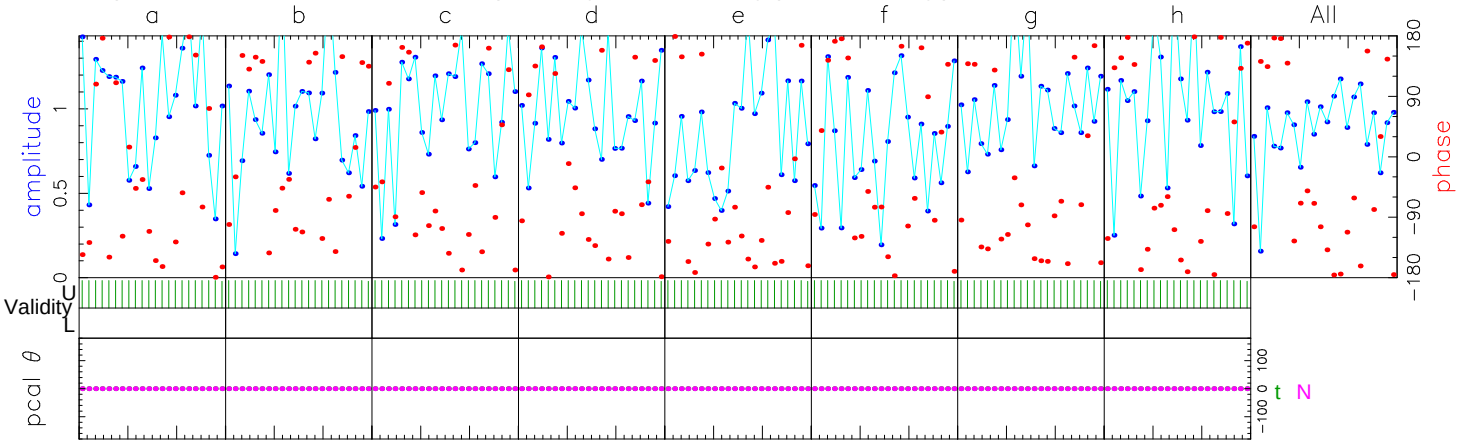


Fringe quality	9
SNR	17.5
Int time	179.966
Amp	0.477
Phase	-144.6
PFD	0.0e+00
Delays (us)	
SBD	-0.001424
MBD	-0.000499
Fringe rate (Hz)	-0.012440
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	2022:027:051547 2022:164:130251 2022:109:102128
RA & Dec (J2000)	12h29m06.699731s +02°03'08.598201"





Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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	-144.6
	-150.9	-135.6	-148.8	-143.4	-139.6	-162.2	-130.4	-147.7	Ampl.	0.5
	0.5	0.3	0.5	0.5	0.6	0.4	0.5	0.6	Sbd box	256.6
	256.6	257.0	256.9	256.2	256.3	256.7	256.5	256.7	APs used	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	PC freqs	
t	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC phase	
t:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
t	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
t	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)	1.19828375024E+03	Apriori delay (usec)	1.19828424905E+03	Resid mbdelay (usec)	-4.98816E-04	+/-	6.2E-05
Sband delay (usec)	1.19828282530E+03	Apriori clock (usec)	1.3060010E+01	Resid sbdelay (usec)	-1.42375E-03	+/-	4.9E-04
Phase delay (usec)	1.19828424439E+03	Apriori clockrate (us/s)	1.2500000E-07	Resid phdelay (usec)	-4.66290E-06	+/-	2.1E-07
Delay rate (us/s)	-2.08699234668E+00	Apriori rate (us/s)	-2.08699220226E+00	Resid rate (us/s)	-1.44421E-07	+/-	2.0E-09
Total phase (deg)	-67.8	Apriori accel (us/s/s)	-6.88926537393E-06	Resid phase (deg)	-144.6	+/-	6.5

	RMS	Theor.	Amplitude	0.477 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	67.1	15.3	Search (1024X32)	0.453	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	97.1	26.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	10.7	9.3	Inc. seg. avg.	0.858	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	16.6	16.1	Inc. frq. avg.	0.471	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

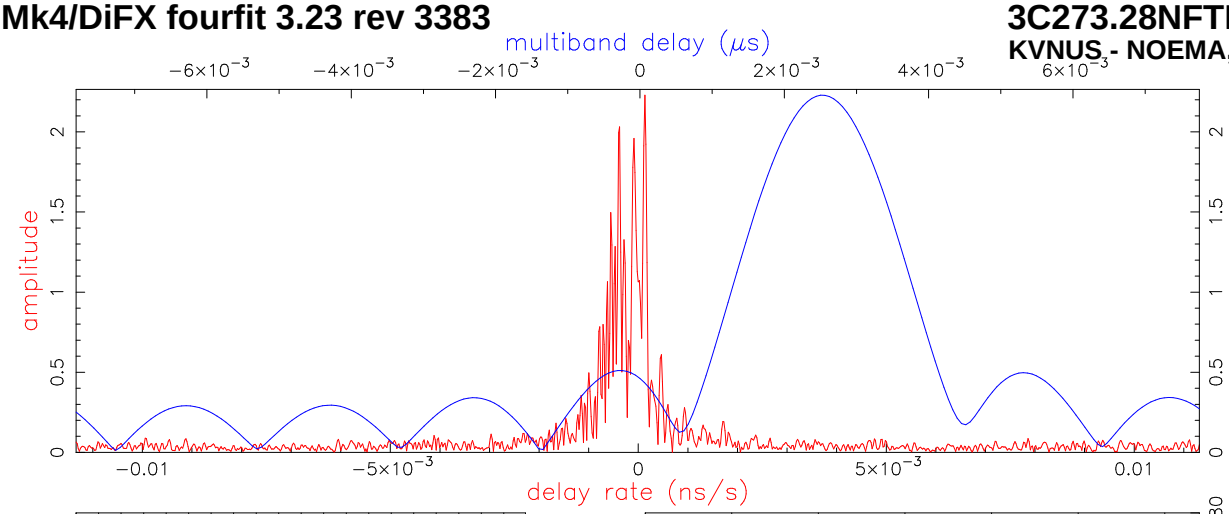
t: az 254.1 el 25.9 pa 53.6 N: az 110.2 el 21.9 pa -41.9 u,v (fr/asec) 11955.364 -1387.402 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/tN..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/tN.W.73.28NFTE

Mk4/DiFX fourfit 3.23 rev 3383

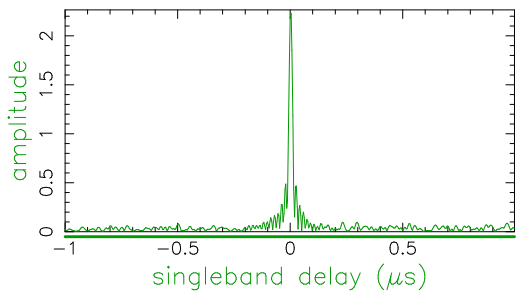
3C273.28NFTE, No0001, uN

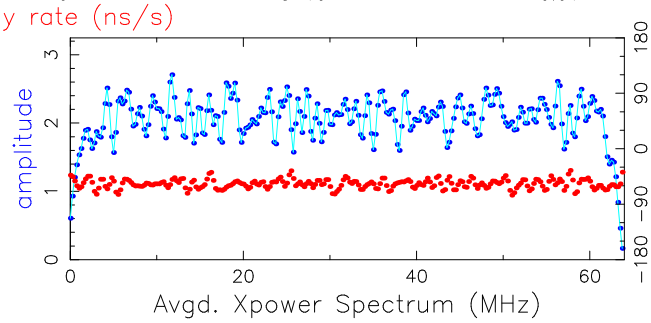
KVNUS - NOEMA, fgroup W, pol LL



Fringe quality 5

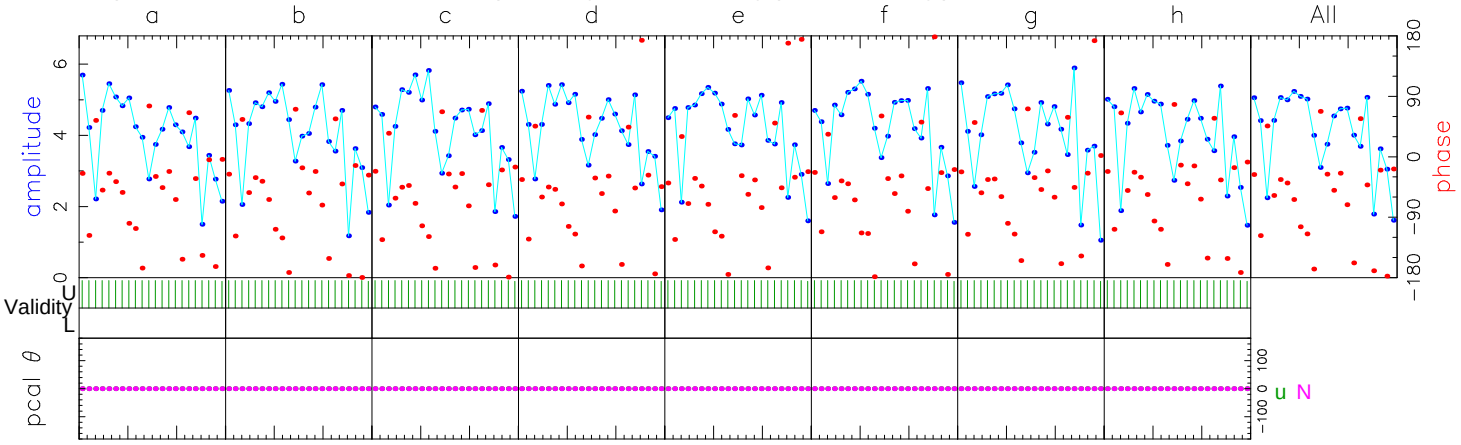
SNR	83.1
Int time	179.986
Amp	2.265
Phase	-59.1
PFD	0.0e+00
Delays (us)	
SBD	0.002325
MBD	0.002518
Fringe rate (Hz)	0.011852
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512





Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	2022:027:051547 2022:164:130244 2022:109:102128
RA & Dec (J2000)	12h29m06.699731s +02°03'08.598201"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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	-59.1
	-51.4	-58.2	-63.3	-65.3	-65.5	-61.5	-56.6	-50.9	Ampl.	2.2
	2.2	2.1	2.2	2.4	2.2	2.3	2.3	2.3	Sbd box	257.6
	257.5	257.5	257.6	257.6	257.6	257.7	257.7	257.7	APs used	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	PC freqs	
u	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC phase	
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
u	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)	2.59513357485E+02	Apriori delay (usec)	2.59510839125E+02	Resid mbdelay (usec)	2.51836E-03	+/-	1.3E-05
Sband delay (usec)	2.59513164125E+02	Apriori clock (usec)	2.7690121E+01	Resid sbdelay (usec)	2.32500E-03	+/-	1.0E-04
Phase delay (usec)	2.59510837218E+02	Apriori clockrate (us/s)	1.3440000E-06	Resid phdelay (usec)	-1.90723E-06	+/-	4.4E-08
Delay rate (us/s)	-2.08623486228E+00	Apriori rate (us/s)	-2.08623499987E+00	Resid rate (us/s)	1.37591E-07	+/-	4.3E-10
Total phase (deg)	186.5	Apriori accel (us/s/s)	-1.69621009184E-06	Resid phase (deg)	-59.1	+/-	1.4

	RMS	Theor.	Amplitude	2.265 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	69.0	3.2	Search (1024X32)	2.206	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	92.4	5.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	6.3	2.0	Inc. seg. avg.	4.055	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	3.0	3.4	Inc. frq. avg.	2.238	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

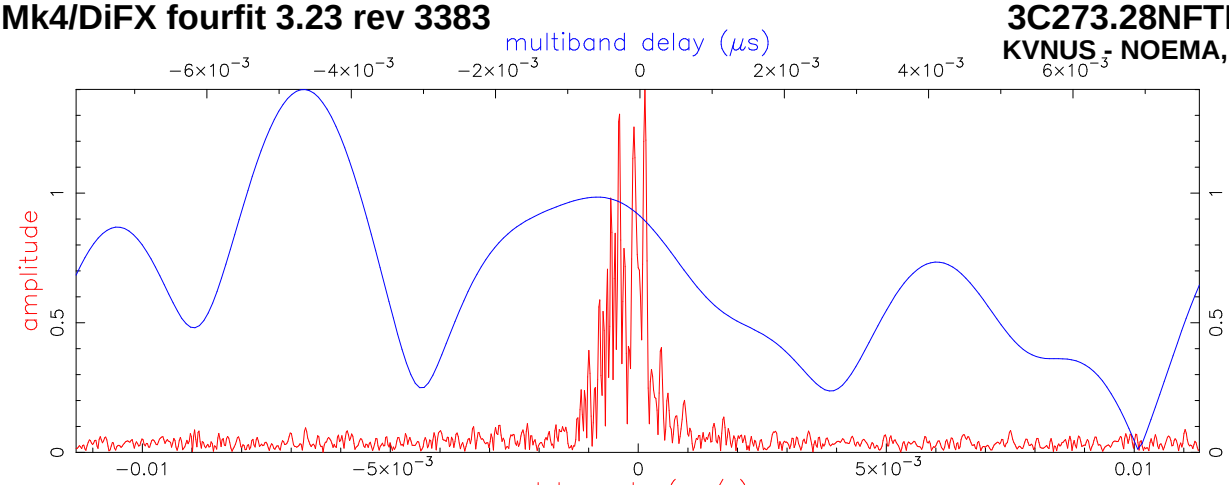
u: az 254.9 el 23.1 pa 52.0 N: az 110.2 el 21.9 pa -41.9 u,v (fr/asec) 11953.761 -1086.315 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/uN..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/uN.W.22.28NFTE

Mk4/DiFX fourfit 3.23 rev 3383

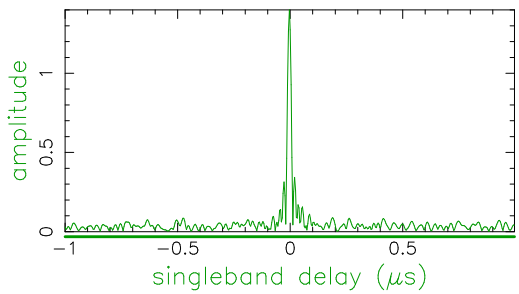
3C273.28NFTE, No0001, uN

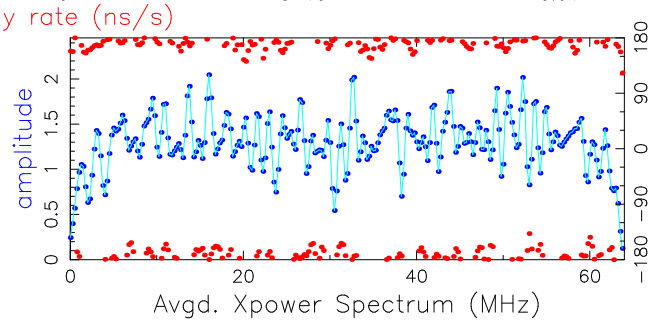
KVNUS - NOEMA, fgroup W, pol RR



Fringe quality 1

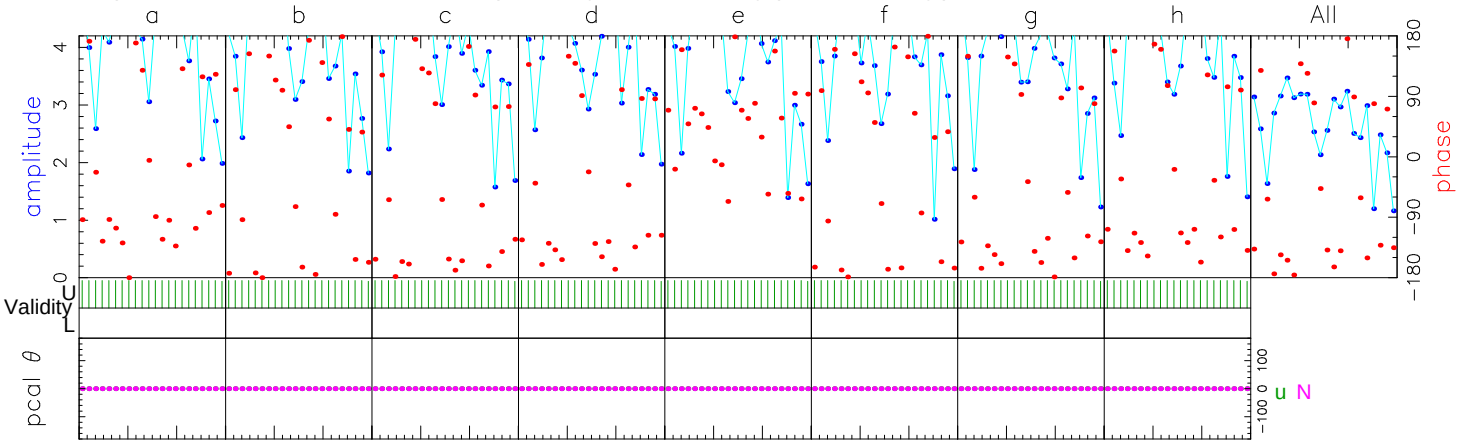
SNR 51.4
Int time 179.986
Amp 1.400
Phase -171.7
PFD 0.0e+00
Delays (us)
SBD -0.003831
MBD -0.004660
Fringe rate (Hz)
0.011817
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512





Exp. mk013b
Exper # 16383
Yr:day 2021:112
Start 180000.00
Stop 180300.22
FRT 180130.00
Corr/FF/build
2022:027:051547
2022:164:130247
2022:109:102128
RA & Dec (J2000)
12h29m06.699731s
+02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-123.9	158.3	177.8	-154.8	45.3	162.5	-163.2	-141.3	Phase	-171.7
	2.1	2.1	2.2	1.9	2.0	2.0	2.0	2.1	Ampl.	2.0
	256.0	256.1	256.1	255.8	256.3	256.1	256.3	256.0	Sbd box	256.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
u	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
u	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)	2.59506179142E+02	Apriori delay (usec)	2.59510839125E+02	Resid mbdelay (usec)	-4.65998E-03	+/-	2.1E-05
Sband delay (usec)	2.59507007875E+02	Apriori clock (usec)	2.7690121E+01	Resid sbdelay (usec)	-3.83125E-03	+/-	1.7E-04
Phase delay (usec)	2.59510833587E+02	Apriori clockrate (us/s)	1.3440000E-06	Resid phdelay (usec)	-5.53808E-06	+/-	7.2E-08
Delay rate (us/s)	-2.08623486269E+00	Apriori rate (us/s)	-2.08623499987E+00	Resid rate (us/s)	1.37180E-07	+/-	6.9E-10
Total phase (deg)	73.9	Apriori accel (us/s/s)	-1.69621009184E-06	Resid phase (deg)	-171.7	+/-	2.2

	RMS	Theor.	Amplitude	1.400 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	69.1	5.2	Search (1024X32)	1.358	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	98.6	9.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	65.4	3.2	Inc. seg. avg.	2.619	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	46.5	5.5	Inc. frq. avg.	2.042	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

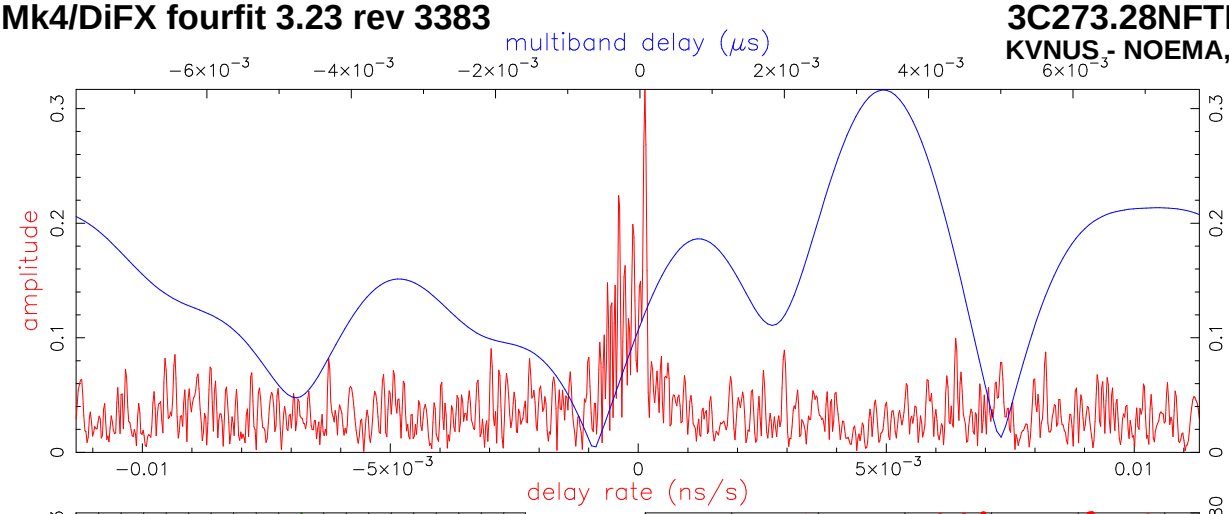
u: az 254.9 el 23.1 pa 52.0 N: az 110.2 el 21.9 pa -41.9 u,v (fr/asec) 11953.761 -1086.315 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/uN..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/uN.W.42.28NFTE

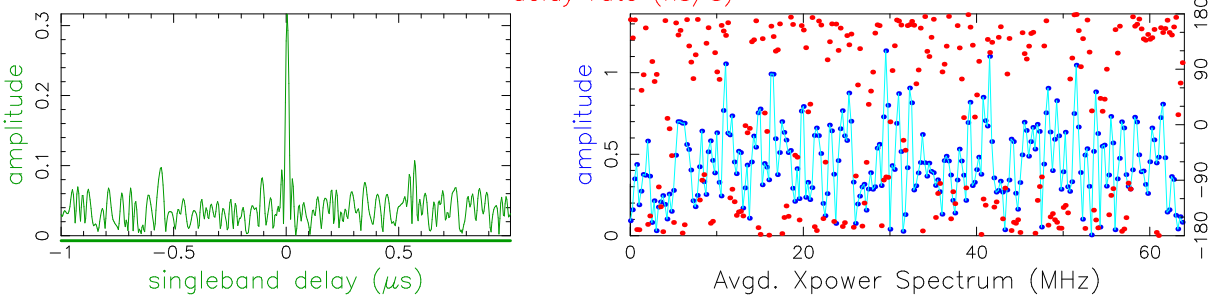
Mk4/DiFX fourfit 3.23 rev 3383

3C273.28NFTE, No0001, uN

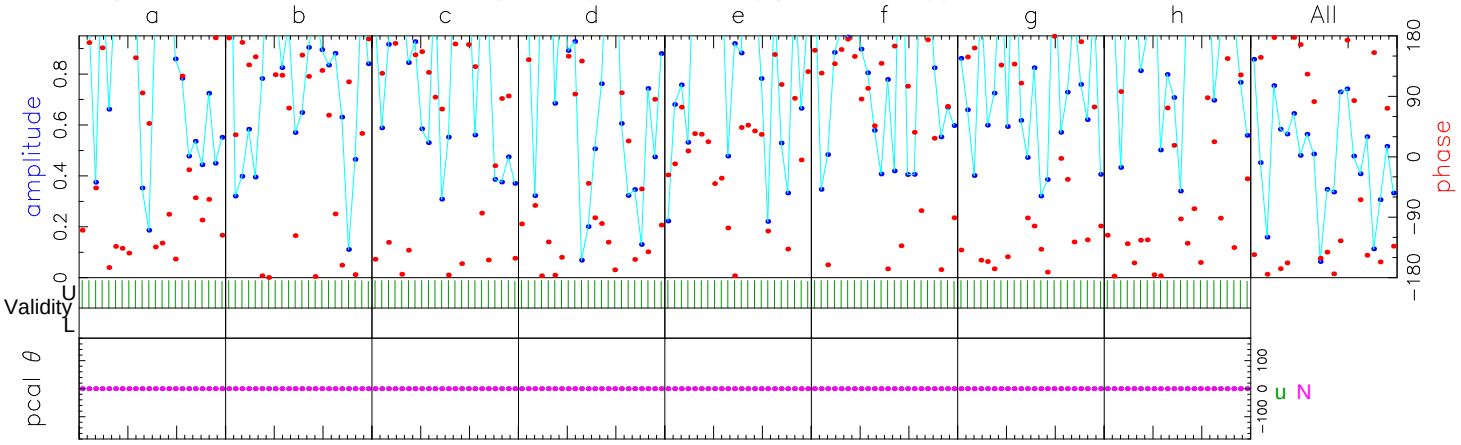
KVNUS - NOEMA, fgroup W, pol LR



Fringe quality	9
SNR	11.6
Int time	179.986
Amp	0.317
Phase	-177.6
PFD	7.9e-23
Delays (us)	
SBD	0.004388
MBD	0.003373
Fringe rate (Hz)	0.011433
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	2022:027:051547 2022:164:130249 2022:109:102128
RA & Dec (J2000)	12h29m06.699731s +02°03'08.598201"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-139.8	150.3	175.3	-152.3	38.9	159.8	-171.5	-149.8	Phase	-177.6
	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	Ampl.	0.4
	257.8	257.8	258.0	258.6	258.2	258.5	258.0	258.3	Sbd box	258.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
u	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
u	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)	2.59514211892E+02	Apriori delay (usec)	2.59510839125E+02	Resid mbdelay (usec)	3.37277E-03	+/-	9.3E-05
Sband delay (usec)	2.59515226625E+02	Apriori clock (usec)	2.7690121E+01	Resid sbdelay (usec)	4.38750E-03	+/-	7.4E-04
Phase delay (usec)	2.59510833399E+02	Apriori clockrate (us/s)	1.3440000E-06	Resid phdelay (usec)	-5.72573E-06	+/-	3.2E-07
Delay rate (us/s)	-2.08623486714E+00	Apriori rate (us/s)	-2.08623499987E+00	Resid rate (us/s)	1.32726E-07	+/-	3.1E-09
Total phase (deg)	68.0	Apriori accel (us/s/s)	-1.69621009184E-06	Resid phase (deg)	-177.6	+/-	9.9

	RMS	Theor.	Amplitude	0.317 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	52.4	23.1	Search (1024X32)	0.315	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	81.7	40.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	64.7	13.9	Inc. seg. avg.	0.441	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	45.8	24.3	Inc. frq. avg.	0.441	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

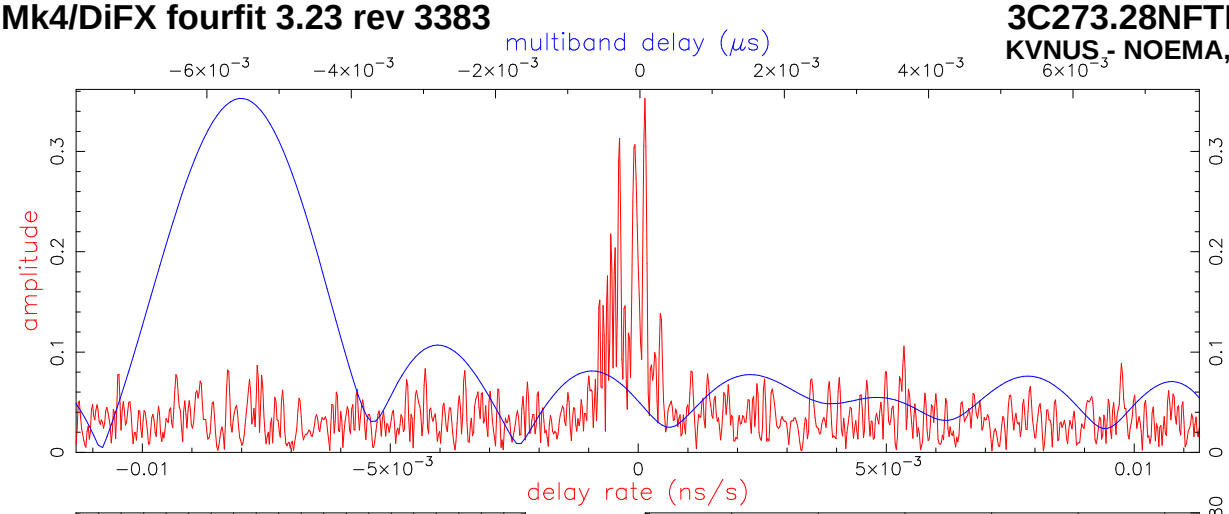
u: az 254.9 el 23.1 pa 52.0 N: az 110.2 el 21.9 pa -41.9 u,v (fr/asec) 11953.761 -1086.315 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/uN..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/uN.W.54.28NFTE

Mk4/DiFX fourfit 3.23 rev 3383

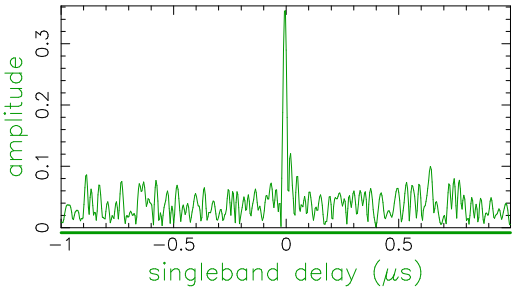
3C273.28NFTE, No0001, uN

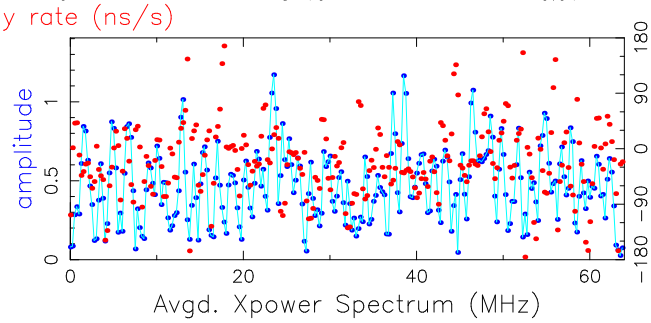
KVNUS - NOEMA, fgroup W, pol RL



Fringe quality 9

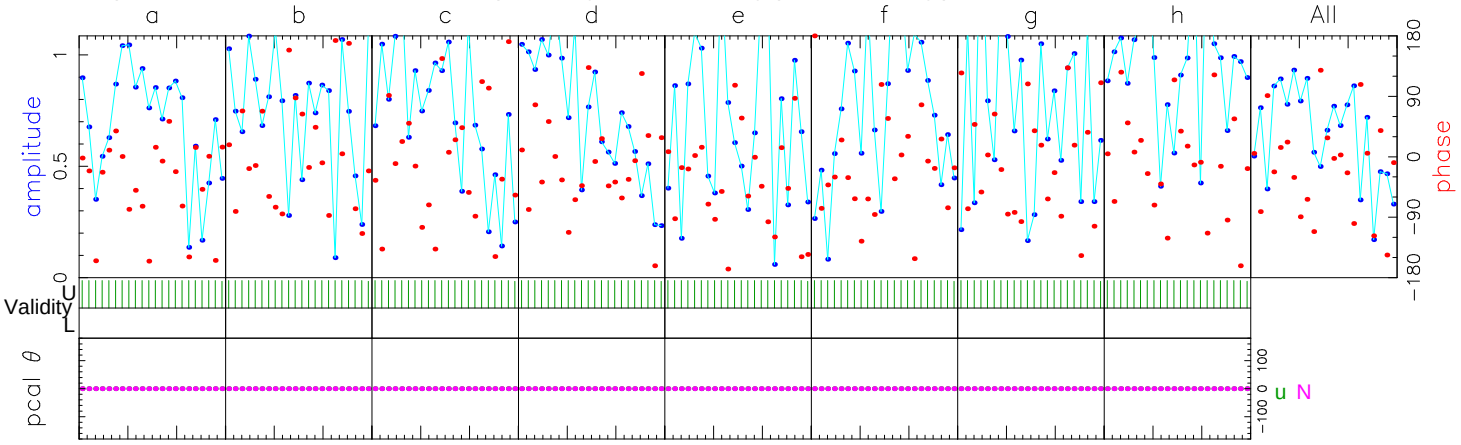
SNR 13.3
Int time 179.986
Amp 0.362
Phase -22.4
PFD 9.0e-32
Delays (us)
SBD -0.005791
MBD -0.005539
Fringe rate (Hz)
0.011860
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512





Exp. mk013b
Exper # 16383
Yr:day 2021:112
Start 180000.00
Stop 180300.22
FRT 180130.00
Corr/FF/build
2022:027:051547
2022:164:130251
2022:109:102128
RA & Dec (J2000)
12h29m06.699731s
+02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-22.5	-17.7	-29.8	-16.9	-36.0	-24.2	-29.2	-10.2	Phase	-22.4
	0.4	0.4	0.2	0.4	0.3	0.4	0.3	0.4	Ampl.	0.3
	255.5	255.3	478.5	255.1	255.7	256.0	255.5	255.4	Sbd box	255.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
u	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
u	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)	2.59505300110E+02	Apriori delay (usec)	2.59510839125E+02	Resid mbdelay (usec)	-5.53901E-03	+/-	8.2E-05
Sband delay (usec)	2.59505048125E+02	Apriori clock (usec)	2.7690121E+01	Resid sbdelay (usec)	-5.79100E-03	+/-	6.5E-04
Phase delay (usec)	2.59510838404E+02	Apriori clockrate (us/s)	1.3440000E-06	Resid phdelay (usec)	-7.21328E-07	+/-	2.8E-07
Delay rate (us/s)	-2.08623486218E+00	Apriori rate (us/s)	-2.08623499987E+00	Resid rate (us/s)	1.37687E-07	+/-	2.7E-09
Total phase (deg)	223.2	Apriori accel (us/s/s)	-1.69621009184E-06	Resid phase (deg)	-22.4	+/-	8.6

	RMS	Theor.	Amplitude	0.362 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	71.6	20.2	Search (1024X32)	0.346	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	97.3	35.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	9.0	12.2	Inc. seg. avg.	0.607	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	20.6	21.3	Inc. frq. avg.	0.348	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

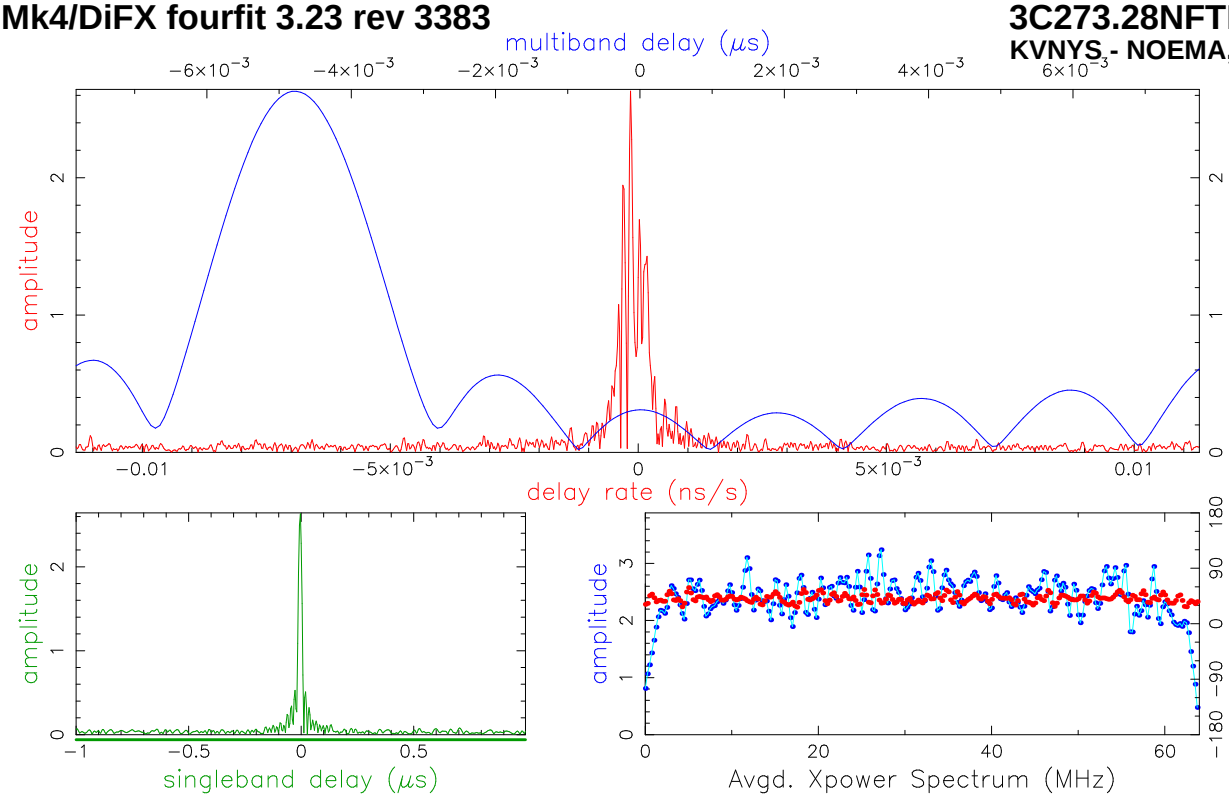
u: az 254.9 el 23.1 pa 52.0 N: az 110.2 el 21.9 pa -41.9 u,v (fr/asec) 11953.761 -1086.315 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/uN..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/uN.W.71.28NFTE

Mk4/DiFX fourfit 3.23 rev 3383

3C273.28NFTE, No0001, yN

KVNYS - NOEMA, fgroup W, pol LL

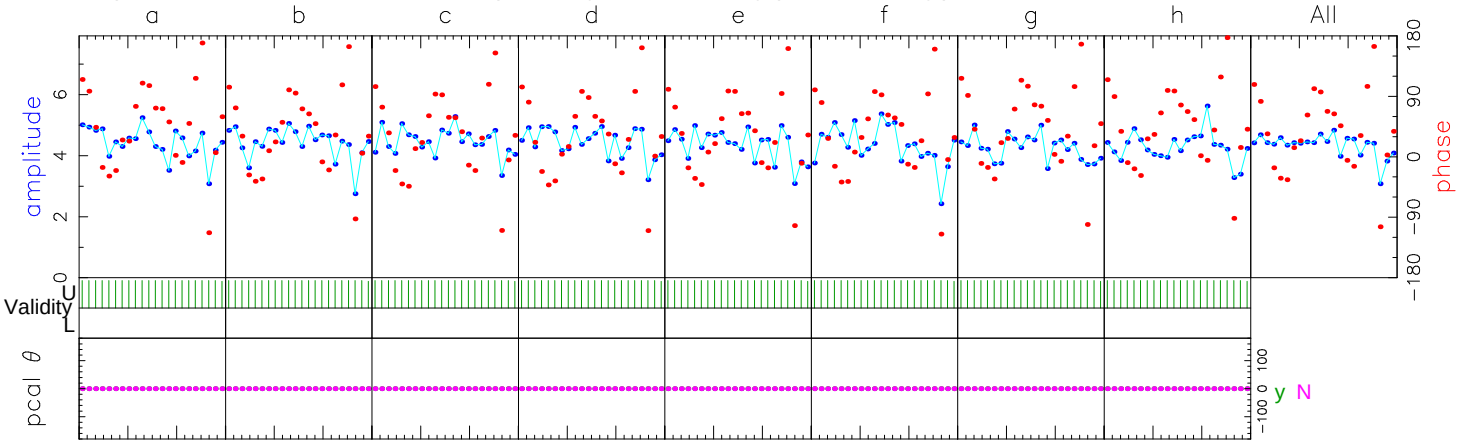


Fringe quality 5

SNR 97.0
Int time 179.986
Amp 2.643
Phase 41.2
PFD 0.0e+00
Delays (us)
SBD -0.004785
MBD -0.004785
Fringe rate (Hz)
-0.012724
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. mk013b
Exper # 16383
Yr:day 2021:112
Start 180000.00
Stop 180300.22
FRT 180130.00
Corr/FF/build
2022:027:051547
2022:164:130250
2022:109:102128
RA & Dec (J2000)
12h29m06.699731s
+02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	52.3	39.4	36.1	34.3	36.8	36.4	49.7	45.2	Phase	41.2
	2.6	2.7	2.7	2.6	2.6	2.8	2.6	2.6	Ampl.	2.6
	255.7	255.6	255.9	255.7	255.7	255.9	255.9	255.8	Sbd box	255.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
y	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)	6.64634959971E+02	Apriori delay (usec)	6.64639745069E+02	Resid mbdelay (usec)	-4.78510E-03	+/-	1.1E-05
Sband delay (usec)	6.64634960069E+02	Apriori clock (usec)	1.4039008E+01	Resid sbdelay (usec)	-4.78500E-03	+/-	8.9E-05
Phase delay (usec)	6.64639746397E+02	Apriori clockrate (us/s)	9.3000003E-08	Resid phdelay (usec)	1.32840E-06	+/-	3.8E-08
Delay rate (us/s)	-2.03396447525E+00	Apriori rate (us/s)	-2.03396432754E+00	Resid rate (us/s)	-1.47714E-07	+/-	3.7E-10
Total phase (deg)	271.7	Apriori accel (us/s/s)	-3.81512581966E-06	Resid phase (deg)	41.2	+/-	1.2

	RMS	Theor.	Amplitude	2.643 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	59.2	2.8	Search (1024X32)	2.565	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	65.8	4.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	7.4	1.7	Inc. seg. avg.	4.338	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	2.1	2.9	Inc. frq. avg.	2.646	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

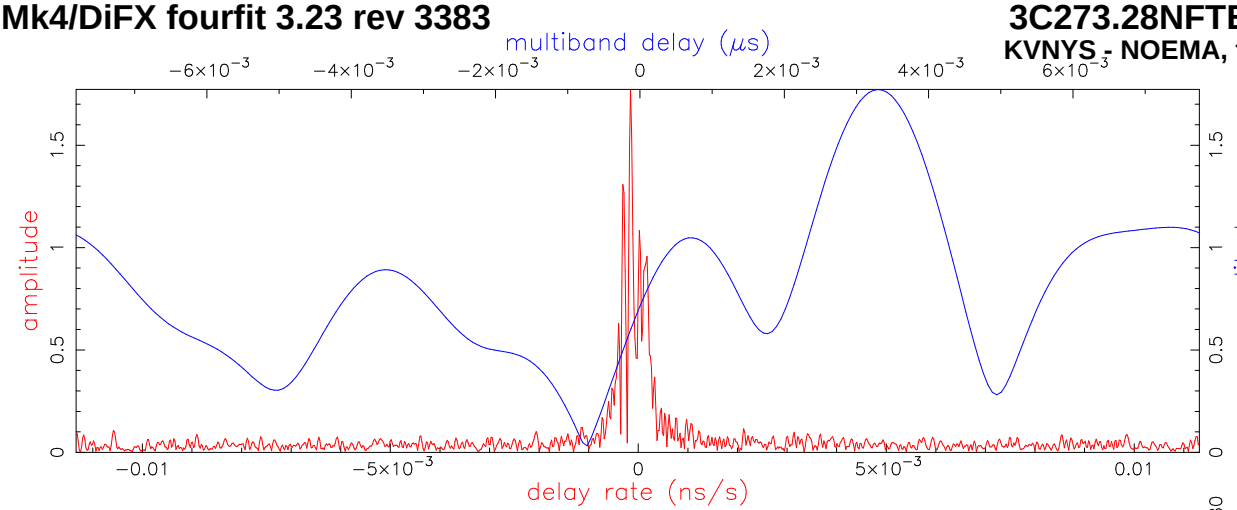
y: az 252.5 el 24.3 pa 49.3 N: az 110.2 el 21.9 pa -41.9 u,v (fr/asec) 11653.200 -841.201 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/yN..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/yN.W.59.28NFTE

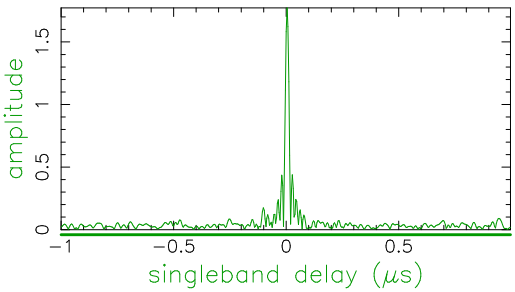
Mk4/DiFX fourfit 3.23 rev 3383

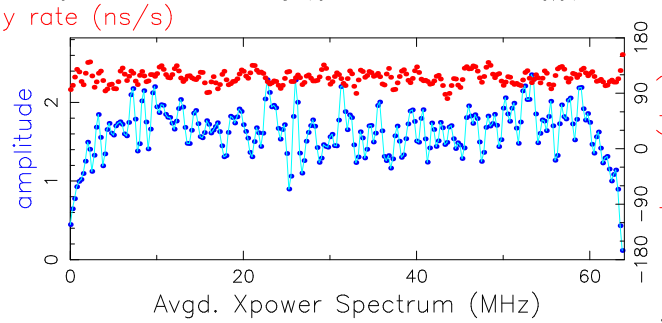
3C273.28NFTE, No0001, yN

KVNYS - NOEMA, fgroup W, pol RR

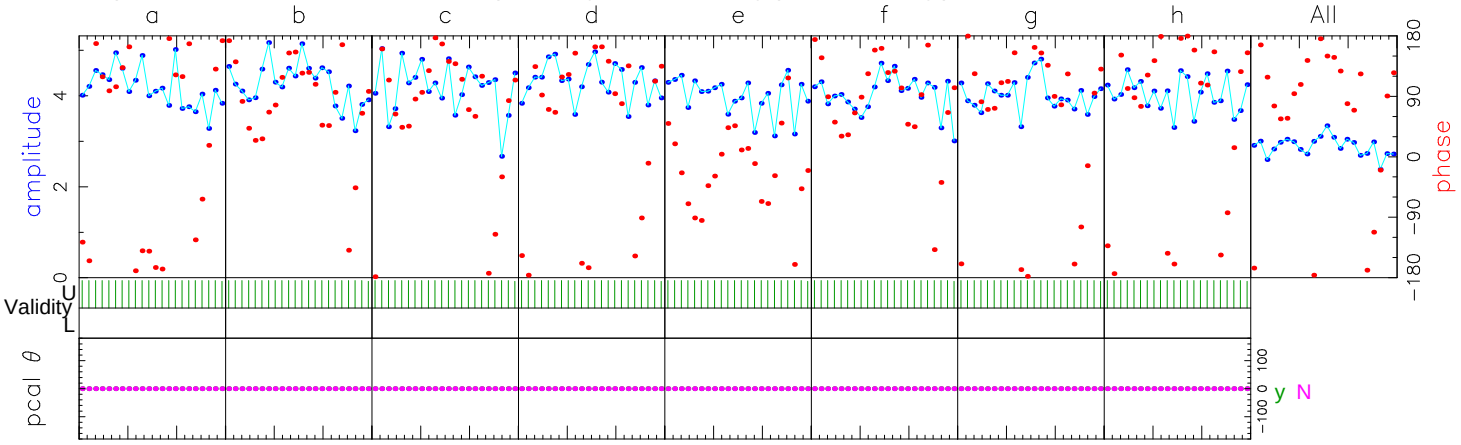


Fringe quality	1
SNR	65.0
Int time	179.986
Amp	1.773
Phase	125.3
PFD	0.0e+00
Delays (us)	
SBD	0.004141
MBD	0.003301
Fringe rate (Hz)	-0.012714
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	2022:027:051547 2022:164:130252 2022:109:102128
RA & Dec (J2000)	12h29m06.699731s +02°03'08.598201"





Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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	125.3
	168.5	98.4	115.9	138.6	-16.1	102.6	133.9	154.4	Ampl.	2.5
	2.6	2.6	2.6	2.5	2.3	2.4	2.5	2.5	Sbd box	258.1
	258.0	258.1	258.2	257.9	258.3	258.2	258.2	258.2	APs used	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	PC freqs	
y	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC phase	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
y	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)	6.64643045971E+02	Apriori delay (usec)	6.64639745069E+02	Resid mbdelay (usec)	3.30090E-03	+/-	1.7E-05
Sband delay (usec)	6.64643886069E+02	Apriori clock (usec)	1.4039008E+01	Resid sbdelay (usec)	4.14100E-03	+/-	1.3E-04
Phase delay (usec)	6.64639749108E+02	Apriori clockrate (us/s)	9.3000003E-08	Resid phdelay (usec)	4.03994E-06	+/-	5.7E-08
Delay rate (us/s)	-2.03396447513E+00	Apriori rate (us/s)	-2.03396432754E+00	Resid rate (us/s)	-1.47593E-07	+/-	5.5E-10
Total phase (deg)	355.8	Apriori accel (us/s/s)	-3.81512581966E-06	Resid phase (deg)	125.3	+/-	1.8

	RMS	Theor.	Amplitude	1.773 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	58.0	4.1	Search (1024X32)	1.729	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	64.0	7.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	63.6	2.5	Inc. seg. avg.	2.881	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	40.8	4.3	Inc. frq. avg.	2.488	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

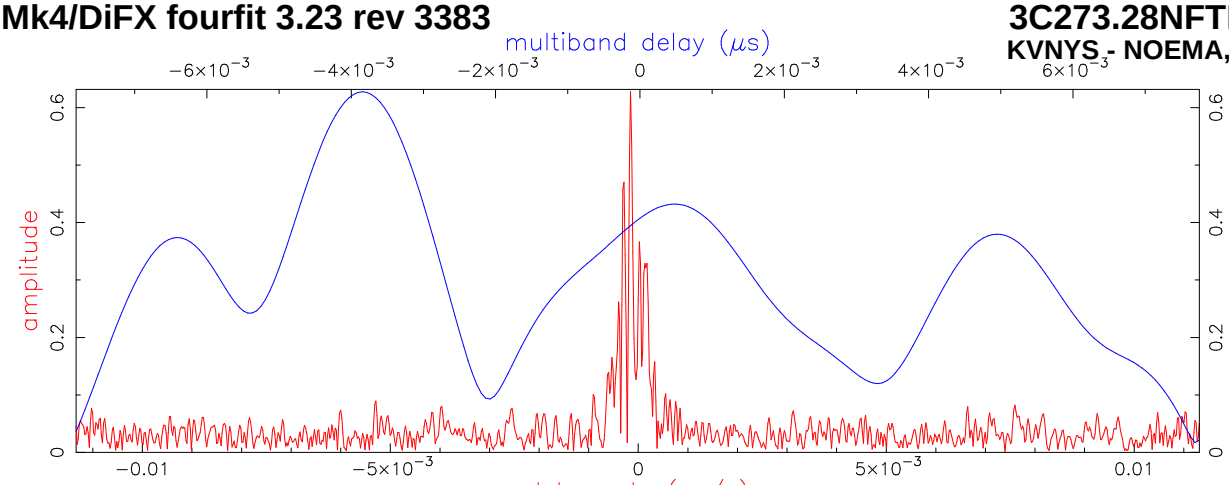
y: az 252.5 el 24.3 pa 49.3 N: az 110.2 el 21.9 pa -41.9 u,v (fr/asec) 11653.200 -841.201 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/yN..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/yN.W.74.28NFTE

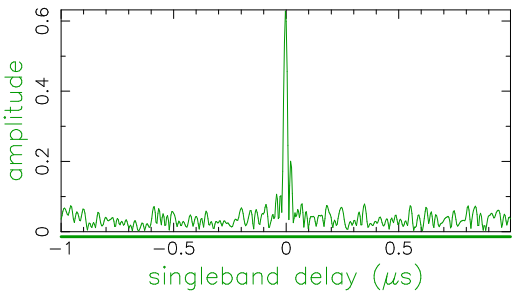
Mk4/DiFX fourfit 3.23 rev 3383

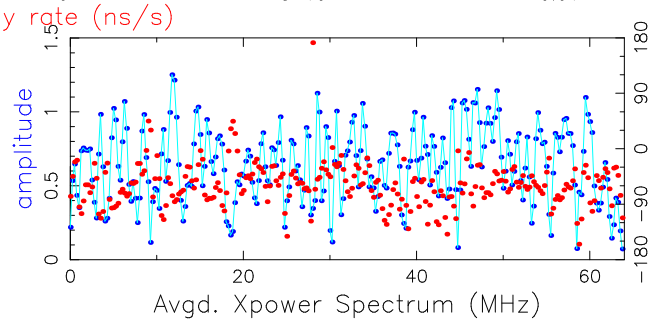
3C273.28NFTE, No0001, yN

KVNYS - NOEMA, fgroup W, pol LR

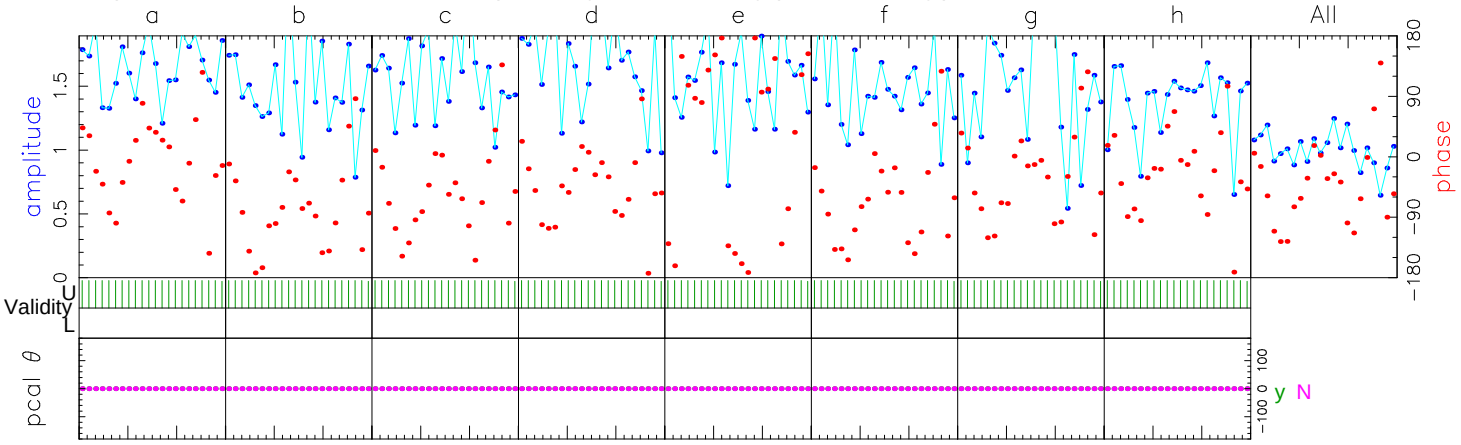


Fringe quality	7
SNR	23.2
Int time	179.986
Amp	0.632
Phase	-50.0
PFD	0.0e+00
Delays (us)	
SBD	-0.002897
MBD	-0.003845
Fringe rate (Hz)	-0.012694
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	2022:027:051547
	2022:164:130254
	2022:109:102128
RA & Dec (J2000)	12h29m06.699731s
	+02°03'08.598201"





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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-0.9	-81.0	-63.6	-43.7	159.2	-74.0	-42.7	-17.5	Phase	-50.0
	1.0	0.9	0.9	1.2	0.8	0.8	0.8	0.9	Ampl.	0.9
	256.4	256.3	256.1	256.3	256.4	256.3	256.7	256.0	Sbd box	256.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
y	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)	6.64635900190E+02	Apriori delay (usec)	6.64639745069E+02	Resid mbdelay (usec)	-3.84488E-03	+/-	4.7E-05
Sband delay (usec)	6.64636848319E+02	Apriori clock (usec)	1.4039008E+01	Resid sbdelay (usec)	-2.89675E-03	+/-	3.7E-04
Phase delay (usec)	6.64639743457E+02	Apriori clockrate (us/s)	9.3000003E-08	Resid phdelay (usec)	-1.61196E-06	+/-	1.6E-07
Delay rate (us/s)	-2.03396447490E+00	Apriori rate (us/s)	-2.03396432754E+00	Resid rate (us/s)	-1.47363E-07	+/-	1.5E-09
Total phase (deg)	180.5	Apriori accel (us/s/s)	-3.81512581966E-06	Resid phase (deg)	-50.0	+/-	4.9

	RMS	Theor.	Amplitude	0.632 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	61.6	11.6	Search (1024X32)	0.612	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	62.2	20.2	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	68.4	7.0	Inc. seg. avg.	0.981	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	47.7	12.2	Inc. frq. avg.	0.905	Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

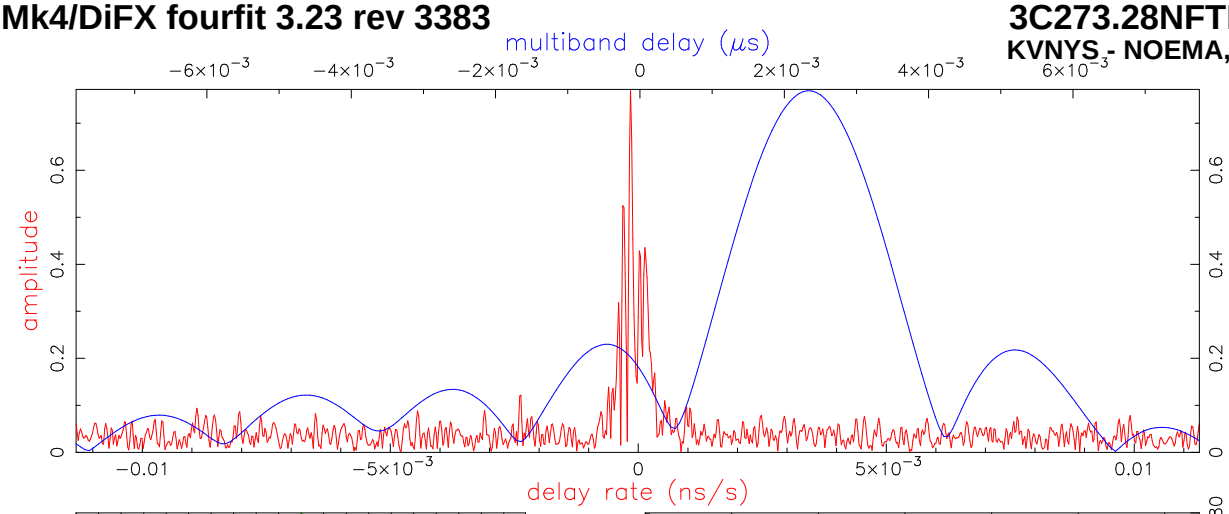
y: az 252.5 el 24.3 pa 49.3 N: az 110.2 el 21.9 pa -41.9 u,v (fr/asec) 11653.200 -841.201 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/yN..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/yN.W.80.28NFTE

Mk4/DiFX fourfit 3.23 rev 3383

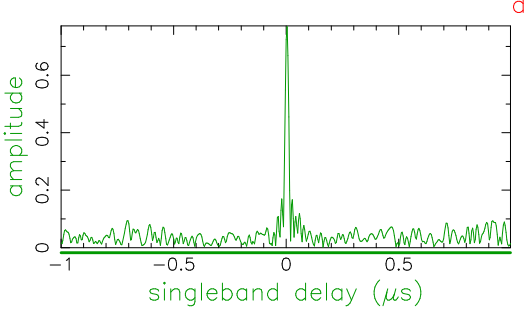
3C273.28NFTE, No0001, yN

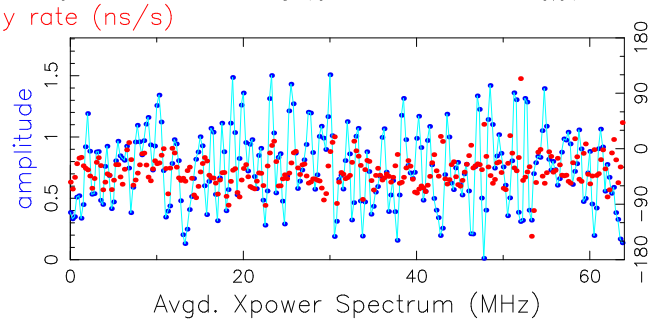
KVNYS - NOEMA, fgroup W, pol RL



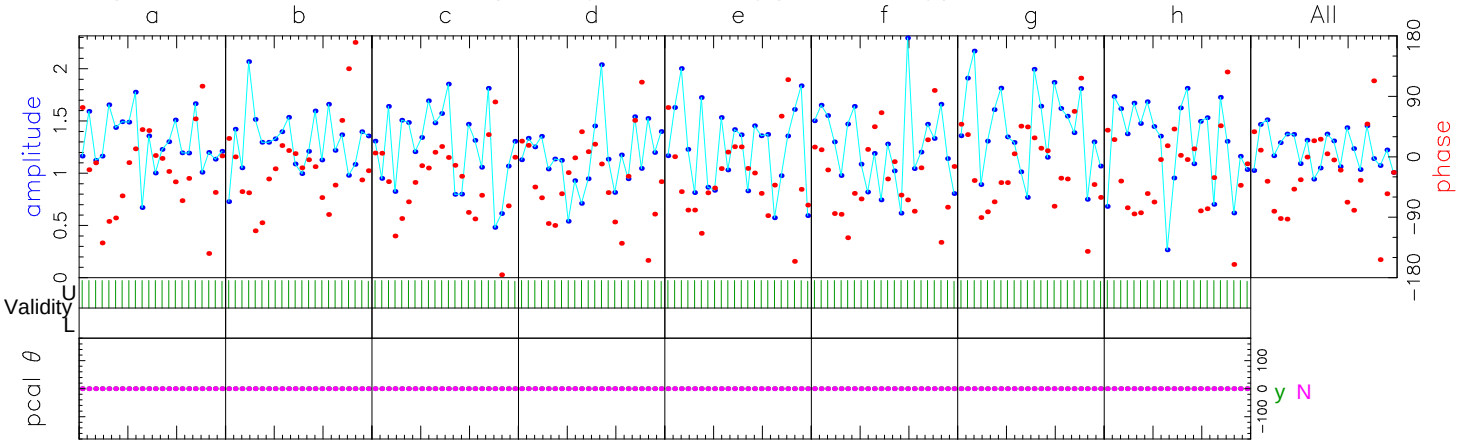
Fringe quality 7

SNR	28.3
Int time	179.986
Amp	0.772
Phase	-27.8
PFD	0.0e+00
Delays (us)	
SBD	0.003153
MBD	0.002341
Fringe rate (Hz)	-0.012785
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	2022:027:051547
	2022:164:130256
	2022:109:102128
RA & Dec (J2000)	12h29m06.699731s
	+02°03'08.598201"





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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-20.8	-28.1	-28.2	-33.1	-36.5	-35.4	-14.7	-28.8	Phase	-27.8
	0.7	0.8	0.9	0.6	0.7	0.7	0.9	0.8	Ampl.	0.8
	257.9	257.7	257.5	258.4	257.7	258.0	257.9	257.6	Sbd box	257.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
y	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)	6.64642085783E+02	Apriori delay (usec)	6.64639745069E+02	Resid mbdelay (usec)	2.34071E-03	+/-	3.8E-05
Sband delay (usec)	6.64642898069E+02	Apriori clock (usec)	1.4039008E+01	Resid sbdelay (usec)	3.15300E-03	+/-	3.0E-04
Phase delay (usec)	6.64639744173E+02	Apriori clockrate (us/s)	9.3000003E-08	Resid phdelay (usec)	-8.95901E-07	+/-	1.3E-07
Delay rate (us/s)	-2.03396447596E+00	Apriori rate (us/s)	-2.03396432754E+00	Resid rate (us/s)	-1.48424E-07	+/-	1.3E-09
Total phase (deg)	202.7	Apriori accel (us/s/s)	-3.81512581966E-06	Resid phase (deg)	-27.8	+/-	4.0

	RMS	Theor.	Amplitude	0.772 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	57.1	9.5	Search (1024X32)	0.754	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	62.9	16.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	8.0	5.7	Inc. seg. avg.	1.210	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	10.9	10.0	Inc. frq. avg.	0.771	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

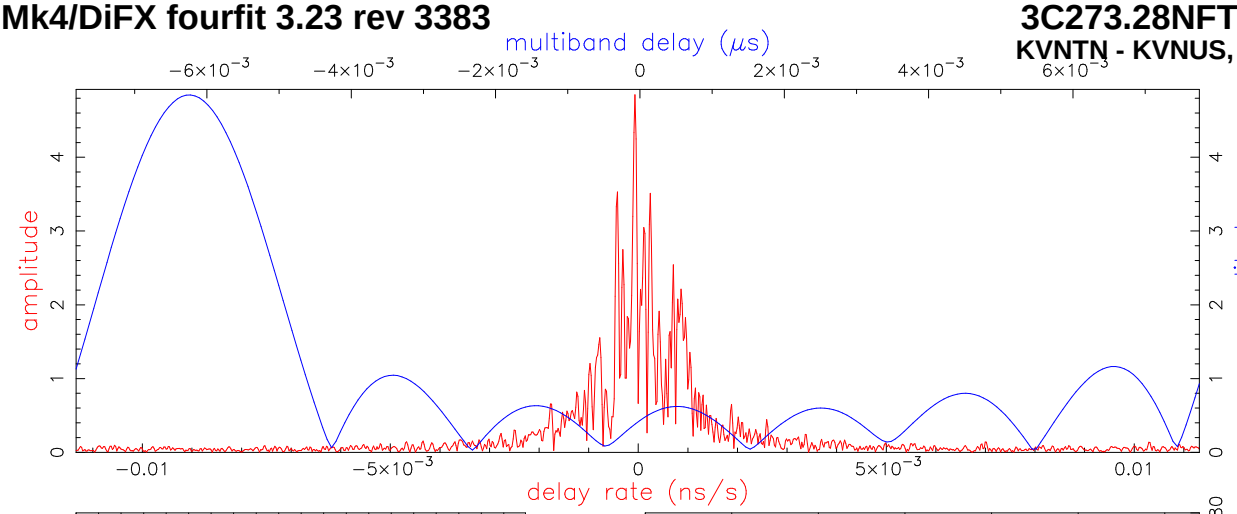
y: az 252.5 el 24.3 pa 49.3 N: az 110.2 el 21.9 pa -41.9 u,v (fr/asec) 11653.200 -841.201 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/yN..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/yN.W.83.28NFTE

Mk4/DiFX fourfit 3.23 rev 3383

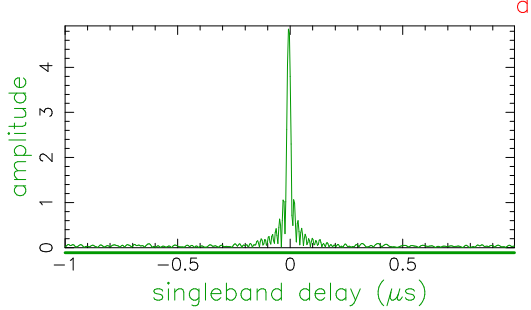
3C273.28NFTE, No0001, tu

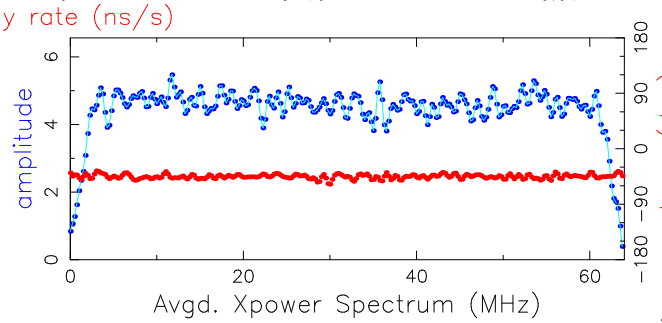
KVNTN - KVNUS, fgroup W, pol LL



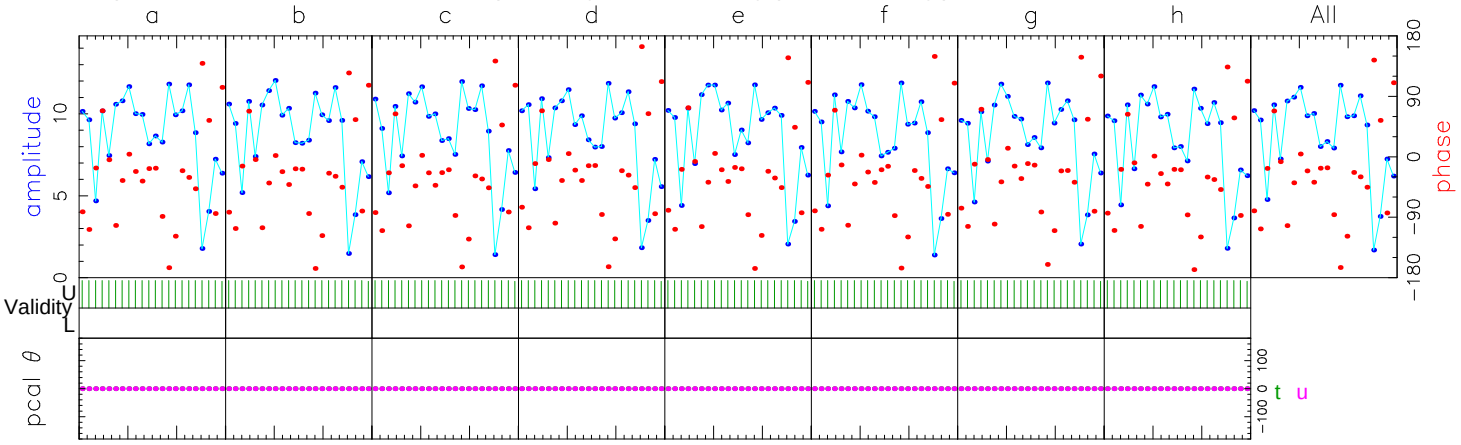
Fringe quality 5

SNR	180.5
Int time	179.974
Amp	4.920
Phase	-45.5
PFD	0.0e+00
Delays (us)	
SBD	-0.006256
MBD	-0.006245
Fringe rate (Hz)	-0.005183
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	2022:027:051547 2022:164:130249 2022:109:102128
RA & Dec (J2000)	12h29m06.699731s +02°03'08.598201"





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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-44.7	-44.8	-48.8	-43.7	-46.3	-46.4	-40.5	-49.0	Phase	-45.5
	4.9	5.0	5.1	4.8	4.9	4.7	4.8	4.7	Ampl.	4.9
	255.5	255.4	255.4	255.5	255.3	255.4	255.4	255.3	Sbd box	255.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	0	0	0	0	0	0	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids Tracks	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids Tracks	

Group delay (usec) (SBD)	9.38767165372E+02	Apriori delay (usec)	9.38773409928E+02	Resid mbdelay (usec)	-6.24456E-03	+/-	6.0E-06
Sband delay (usec)	9.38767153678E+02	Apriori clock (usec)	-1.4630112E+01	Resid sbdelay (usec)	-6.25625E-03	+/-	4.8E-05
Phase delay (usec)	9.38773408459E+02	Apriori clockrate (us/s)	-1.2190001E-06	Resid phdelay (usec)	-1.46840E-06	+/-	2.0E-08
Delay rate (us/s)	-7.57262560812E-04	Apriori rate (us/s)	-7.57202392933E-04	Resid rate (us/s)	-6.01679E-08	+/-	2.0E-10
Total phase (deg)	145.7	Apriori accel (us/s/s)	-5.19305528210E-06	Resid phase (deg)	-45.5	+/-	0.6

	RMS	Theor.	Amplitude	4.920 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	72.1	1.5	Search (1024X32)	4.774	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	92.6	2.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	3.0	0.9	Inc. seg. avg.	8.668	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	2.8	1.6	Inc. frq. avg.	4.850	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

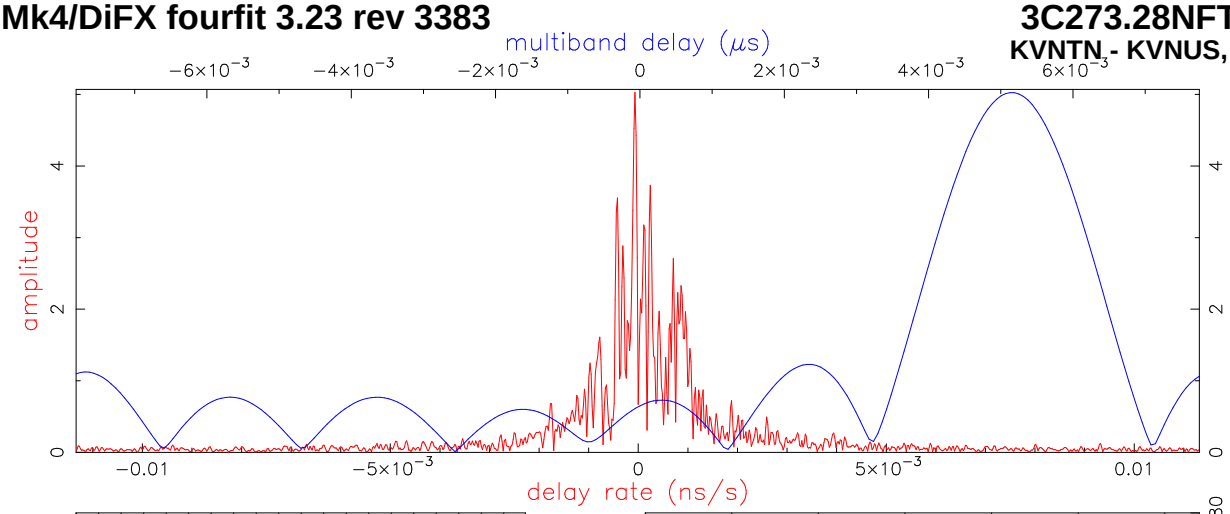
t: az 254.1 el 25.9 pa 53.6 u: az 254.9 el 23.1 pa 52.0 u,v (fr/asec) 1.604 -301.087 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/tu..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/tu.W.53.28NFTE

Mk4/DiFX fourfit 3.23 rev 3383

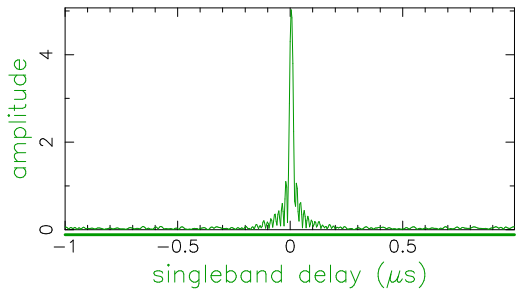
3C273.28NFTE, No0001, tu

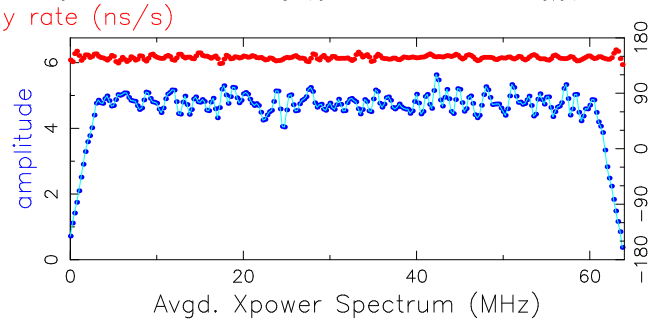
KVNTN - KVNUS, fgroup W, pol RR



Fringe quality 5

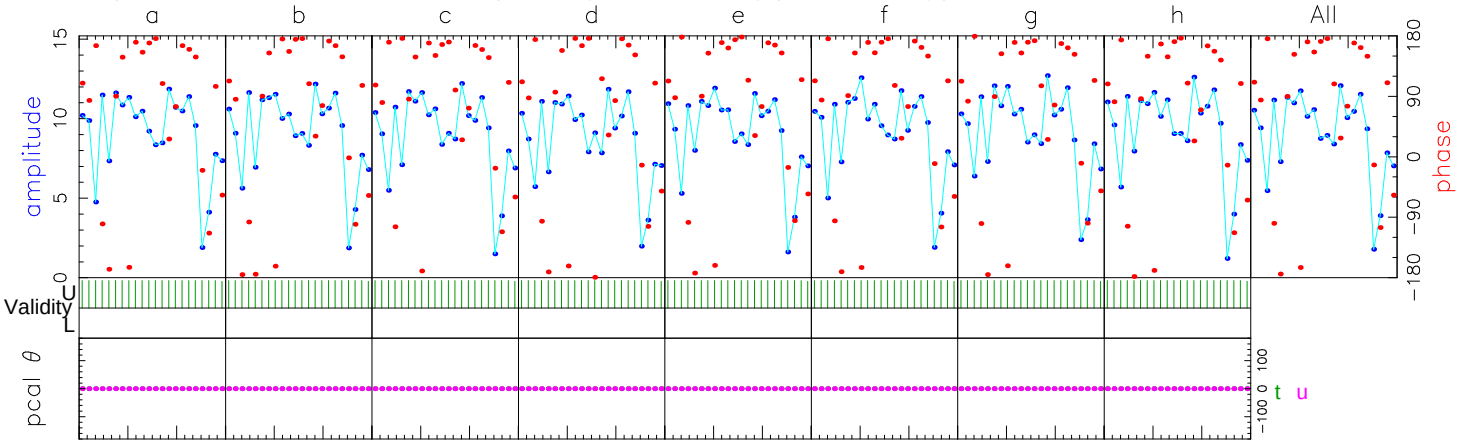
SNR	186.0
Int time	179.974
Amp	5.070
Phase	147.1
PFD	0.0e+00
Delays (us)	
SBD	0.005087
MBD	0.005154
Fringe rate (Hz)	-0.005232
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512





Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	
2022:027:051547	
2022:164:130251	
2022:109:102128	
RA & Dec (J2000)	
12h29m06.699731s	
+02°03'08.598201"	

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	145.0	148.9	142.2	152.1	150.0	148.2	146.2	144.1	Phase	147.1
	5.0	5.0	5.1	4.9	5.0	5.1	5.0	5.2	Ampl.	5.0
	258.3	258.2	258.2	258.5	258.3	258.3	258.3	258.2	Sbd box	258.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	0	0	0	0	0	0	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	

Group delay (usec) (SBD)	9.38778563872E+02	Apriori delay (usec)	9.38773409928E+02	Resid mbdelay (usec)	5.15394E-03	+/-	5.8E-06
Sband delay (usec)	9.38778497178E+02	Apriori clock (usec)	-1.4630112E+01	Resid sbdelay (usec)	5.08725E-03	+/-	4.6E-05
Phase delay (usec)	9.38773414670E+02	Apriori clockrate (us/s)	-1.2190001E-06	Resid phdelay (usec)	4.74245E-06	+/-	2.0E-08
Delay rate (us/s)	-7.57263131909E-04	Apriori rate (us/s)	-7.57202392933E-04	Resid rate (us/s)	-6.07390E-08	+/-	1.9E-10
Total phase (deg)	338.3	Apriori accel (us/s/s)	-5.19305528210E-06	Resid phase (deg)	147.1	+/-	0.6

	RMS	Theor.	Amplitude	5.070 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	71.3	1.4	Search (1024X32)	4.890	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	93.4	2.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	3.6	0.9	Inc. seg. avg.	9.041	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	2.0	1.5	Inc. frq. avg.	5.034	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

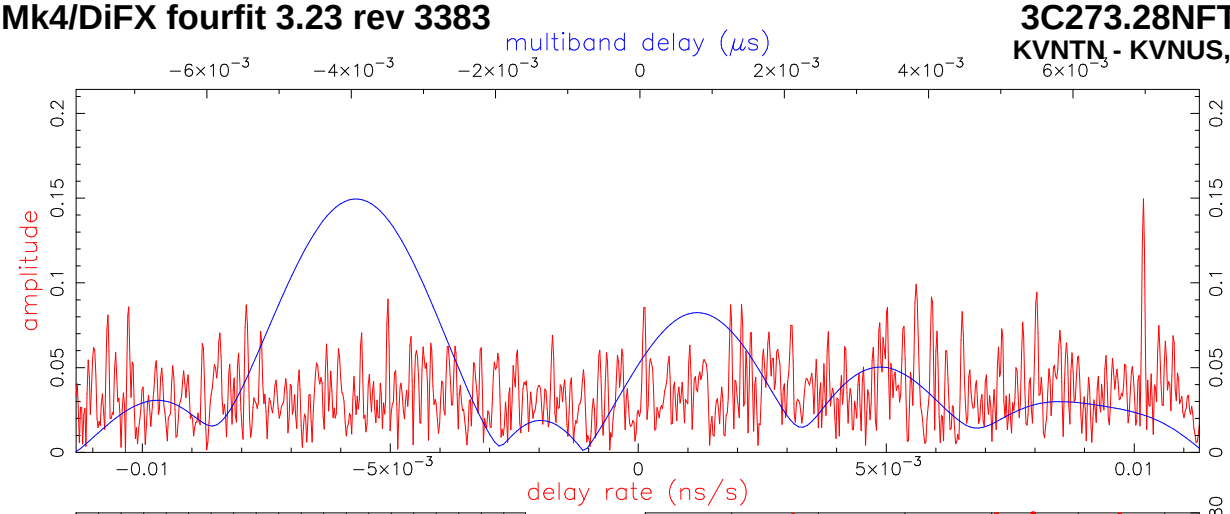
t: az 254.1 el 25.9 pa 53.6 u: az 254.9 el 23.1 pa 52.0 u,v (fr/asec) 1.604 -301.087 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/tu..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/tu.W.69.28NFTE

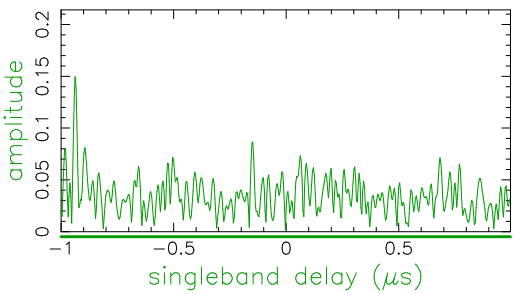
Mk4/DiFX fourfit 3.23 rev 3383

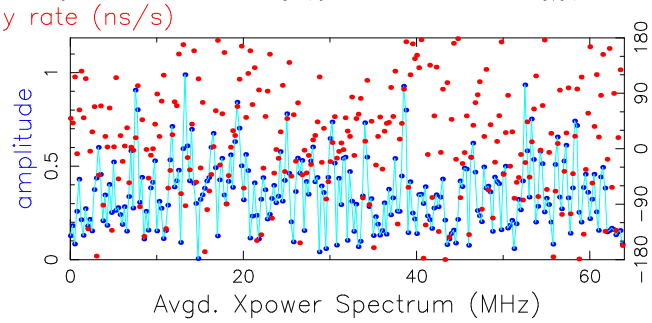
3C273.28NFTE, No0001, tu

KVNTN - KVNUS, fgroup W, pol LR

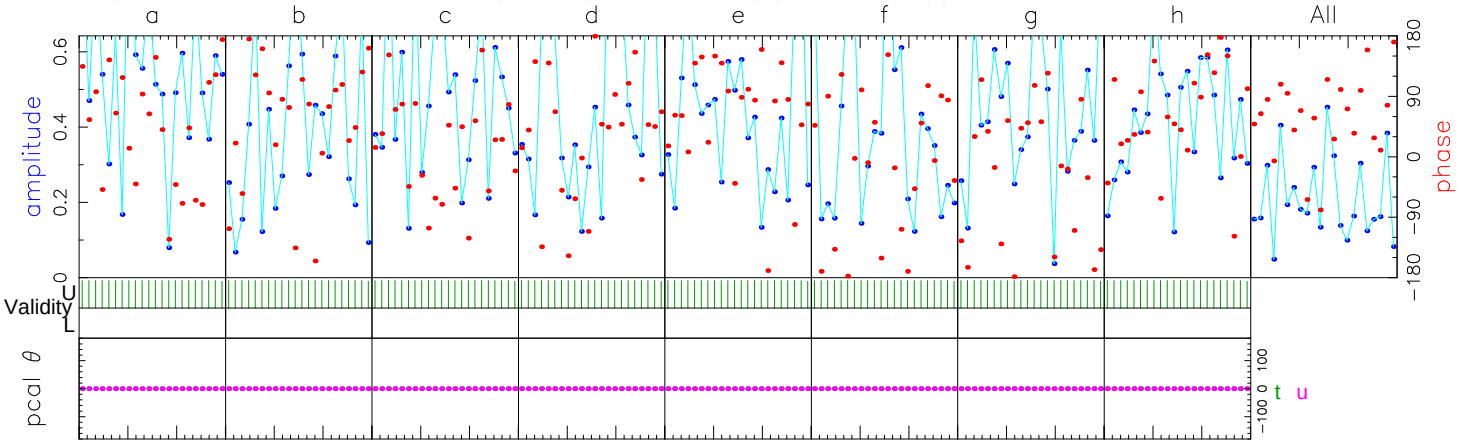


Fringe quality	0
SNR	5.5
Int time	179.974
Amp	0.214
Phase	72.3
PFD	9.9e-01
Delays (us)	
SBD	-0.937103
MBD	-0.003925
Fringe rate (Hz)	0.878433
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	2022:027:051547
	2022:164:130253
	2022:109:102128
RA & Dec (J2000)	12h29m06.699731s
	+02°03'08.598201"





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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	59.1	112.4	30.6	66.1	80.6	85.6	46.9	80.1	Phase	72.3
	0.2	0.3	0.2	0.3	0.3	0.1	0.2	0.3	Ampl.	0.2
	263.7	279.1	398.9	429.3	160.5	123.3	142.9	25.4	Sbd box	17.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	0	0	0	0	0	0	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	

Group delay (usec) (SBD)	9.37831984566E+02	Apriori delay (usec)	9.38773409928E+02	Resid mbdelay (usec)	-3.92536E-03	+/-	2.0E-04
Sband delay (usec)	9.37836307178E+02	Apriori clock (usec)	-1.4630112E+01	Resid sbdelay (usec)	-9.37103E-01	+/-	1.6E-03
Phase delay (usec)	9.38773412259E+02	Apriori clockrate (us/s)	-1.2190001E-06	Resid phdelay (usec)	2.33150E-06	+/-	6.7E-07
Delay rate (us/s)	-7.47004654532E-04	Apriori rate (us/s)	-7.57202392933E-04	Resid rate (us/s)	1.01977E-05	+/-	6.5E-09
Total phase (deg)	263.5	Apriori accel (us/s/s)	-5.19305528210E-06	Resid phase (deg)	72.3	+/-	20.9

	RMS	Theor.	Amplitude	0.214 +/- 0.039	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	60.7	48.9	Search (1024X32)	0.142	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	83.0	85.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	27.4	29.5	Inc. seg. avg.	0.223	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	30.8	51.5	Inc. frq. avg.	0.206	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

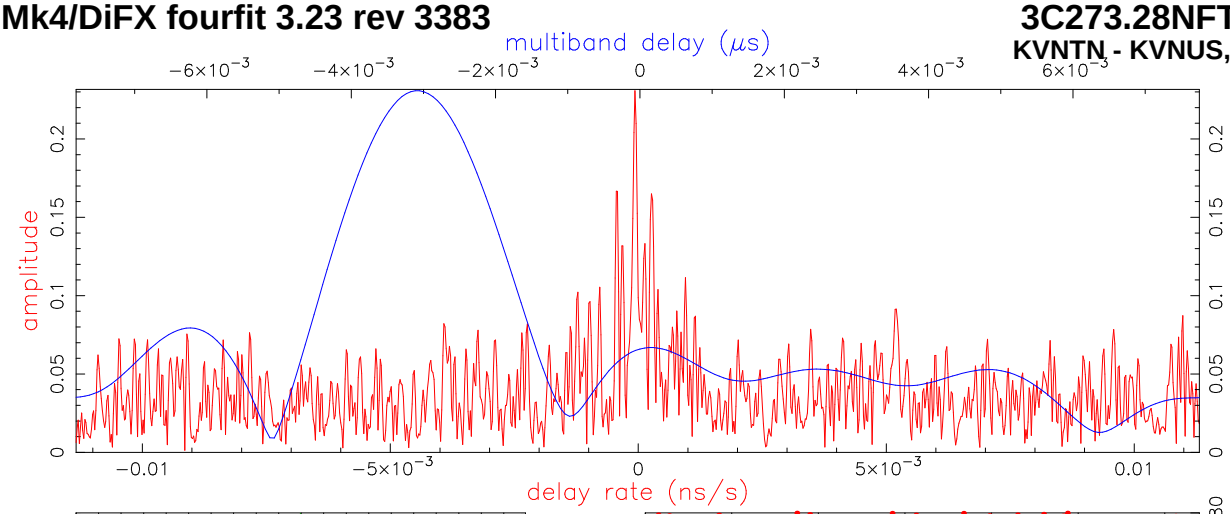
t: az 254.1 el 25.9 pa 53.6 u: az 254.9 el 23.1 pa 52.0 u,v (fr/asec) 1.604 -301.087 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/tu..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/tu.W.78.28NFTE

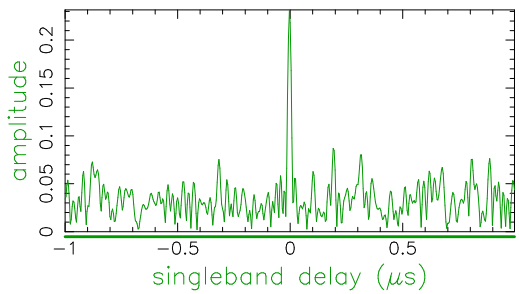
Mk4/DiFX fourfit 3.23 rev 3383

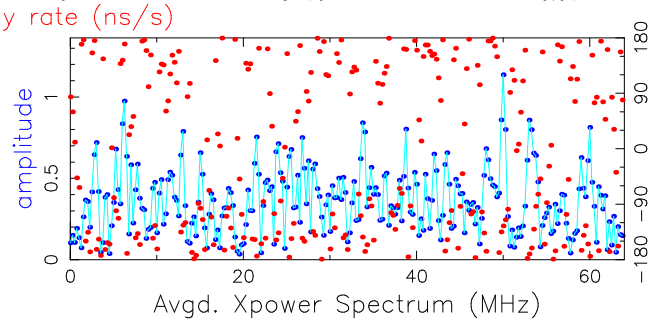
3C273.28NFTE, No0001, tu

KVNTN - KVNUS, fgroup W, pol RL

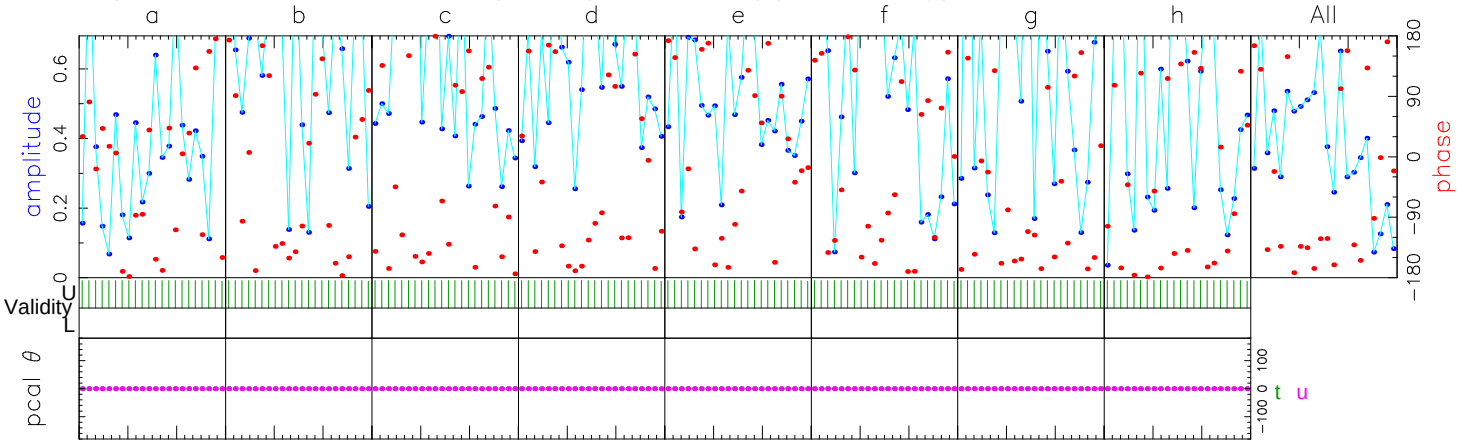


Fringe quality	9
SNR	8.5
Int time	179.974
Amp	0.232
Phase	-168.4
PFD	3.5e-09
Delays (us)	
SBD	-0.003147
MBD	-0.003081
Fringe rate (Hz)	-0.004825
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	2022:027:051547
	2022:164:130255
	2022:109:102128
RA & Dec (J2000)	12h29m06.699731s
	+02°03'08.598201"





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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-154.8	174.9	-165.0	-158.1	173.3	-164.8	-143.4	171.3	Phase	-168.4
	0.1	0.2	0.4	0.3	0.1	0.3	0.3	0.3	Ampl.	0.2
	59.6	254.3	256.0	256.3	107.6	257.3	178.2	256.2	Sbd box	256.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	0	0	0	0	0	0	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	

Group delay (usec) (SBD)	9.38770328547E+02	Apriori delay (usec)	9.38773409928E+02	Resid mbdelay (usec)	-3.08138E-03	+/-	1.3E-04
Sband delay (usec)	9.38770263428E+02	Apriori clock (usec)	-1.4630112E+01	Resid sbdelay (usec)	-3.14650E-03	+/-	1.0E-03
Phase delay (usec)	9.38773404496E+02	Apriori clockrate (us/s)	-1.2190001E-06	Resid phdelay (usec)	-5.43122E-06	+/-	4.3E-07
Delay rate (us/s)	-7.57258407247E-04	Apriori rate (us/s)	-7.57202392933E-04	Resid rate (us/s)	-5.60143E-08	+/-	4.2E-09
Total phase (deg)	22.8	Apriori accel (us/s/s)	-5.19305528210E-06	Resid phase (deg)	-168.4	+/-	13.5

	RMS	Theor.	Amplitude	0.232 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	69.6	31.6	Search (1024X32)	0.226	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	105.7	55.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	18.1	19.1	Inc. seg. avg.	0.339	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	41.7	33.3	Inc. frq. avg.	0.227	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

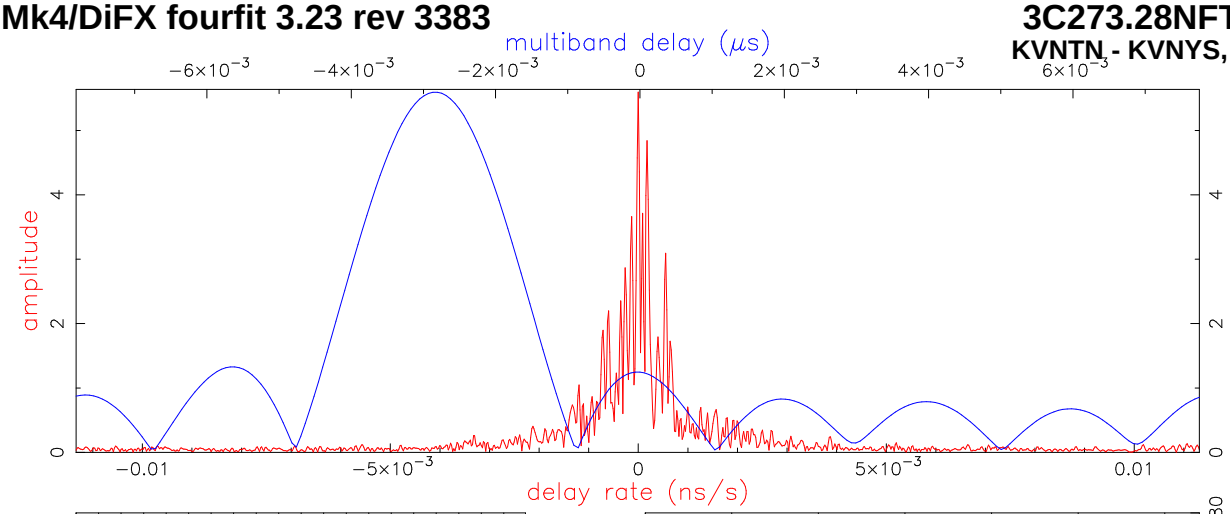
t: az 254.1 el 25.9 pa 53.6 u: az 254.9 el 23.1 pa 52.0 u,v (fr/asec) 1.604 -301.087 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/tu..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/tu.W.82.28NFTE

Mk4/DiFX fourfit 3.23 rev 3383

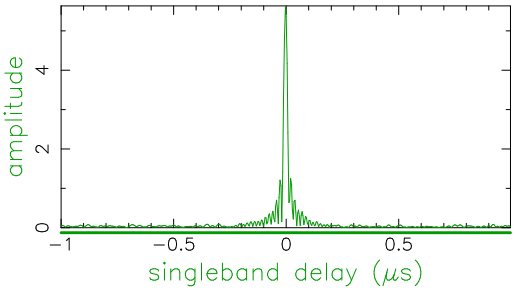
3C273.28NFTE, No0001, ty

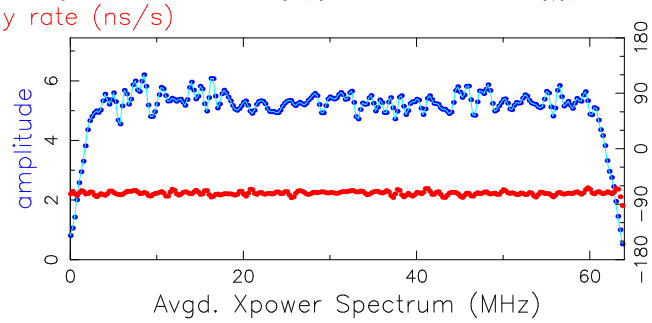
KVNTN - KVNYS, fgroup W, pol RR



Fringe quality 5

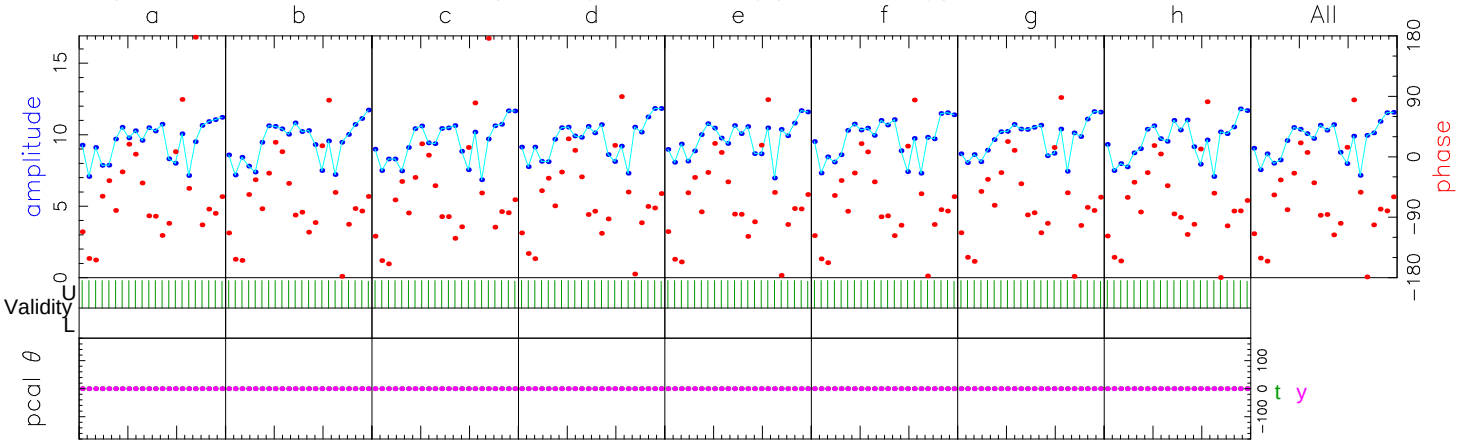
SNR 206.8
Int time 179.974
Amp 5.638
Phase -72.0
PFD 0.0e+00
Delays (us)
SBD -0.002822
MBD -0.002836
Fringe rate (Hz)
-0.000354
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512





Exp. mk013b
Exper # 16383
Yr:day 2021:112
Start 180000.00
Stop 180300.22
FRT 180130.00
Corr/FF/build
2022:027:051547
2022:164:130243
2022:109:102128
RA & Dec (J2000)
12h29m06.699731s
+02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-72.6	-70.5	-76.4	-68.7	-70.9	-73.1	-69.9	-74.2	Phase	-72.0
	5.6	5.6	5.5	5.6	5.5	5.7	5.6	5.7	Ampl.	5.6
	256.3	256.3	256.2	256.5	256.2	256.4	256.2	256.2	Sbd box	256.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	0	0	0	0	0	0	0	0	PC freqs	
y	0	0	0	0	0	0	0	0	PC freqs	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	

Group delay (usec) (SBD)	5.33641667672E+02	Apriori delay (usec)	5.33644503984E+02	Resid mbdelay (usec)	-2.83631E-03	+/-	5.2E-06
Sband delay (usec)	5.33641682234E+02	Apriori clock (usec)	-9.7899818E-01	Resid sbdelay (usec)	-2.82175E-03	+/-	4.2E-05
Phase delay (usec)	5.33644501661E+02	Apriori clockrate (us/s)	3.1999997E-08	Resid phdelay (usec)	-2.32261E-06	+/-	1.8E-08
Delay rate (us/s)	-5.30278788247E-02	Apriori rate (us/s)	-5.30278747194E-02	Resid rate (us/s)	-4.10538E-09	+/-	1.7E-10
Total phase (deg)	134.3	Apriori accel (us/s/s)	-3.07413955427E-06	Resid phase (deg)	-72.0	+/-	0.6

	RMS	Theor.	Amplitude	5.638 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	61.4	1.3	Search (1024X32)	5.534	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	73.7	2.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	2.7	0.8	Inc. seg. avg.	9.605	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	1.3	1.4	Inc. frq. avg.	5.601	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

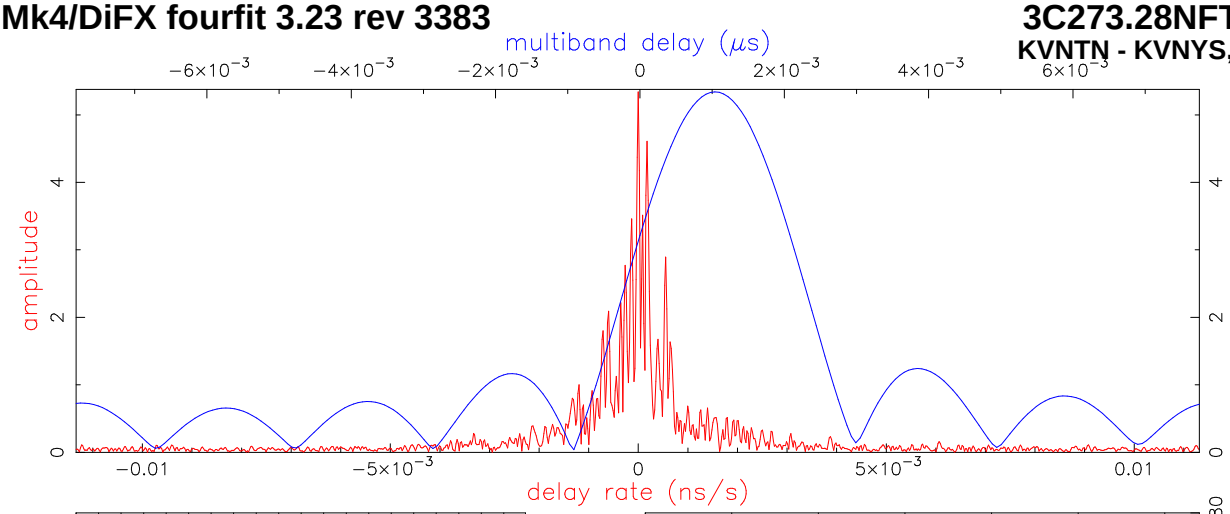
t: az 254.1 el 25.9 pa 53.6 y: az 252.5 el 24.3 pa 49.3 u,v (fr/asec) 302.164 -546.201 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/ty..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/ty.W.13.28NFTE

Mk4/DiFX fourfit 3.23 rev 3383

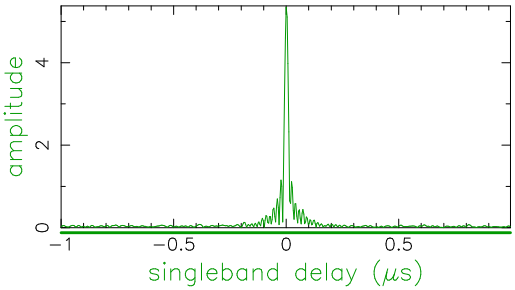
3C273.28NFTE, No0001, ty

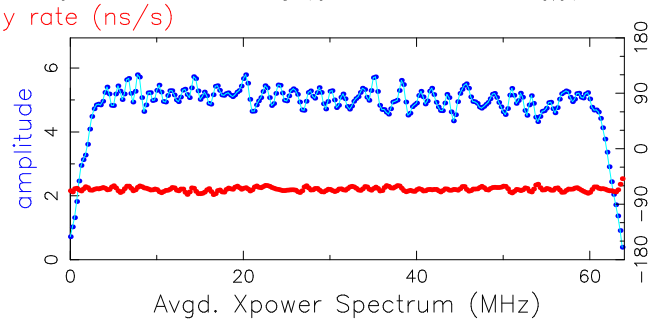
KVNTN - KVNYS, fgroup W, pol LL



Fringe quality 5

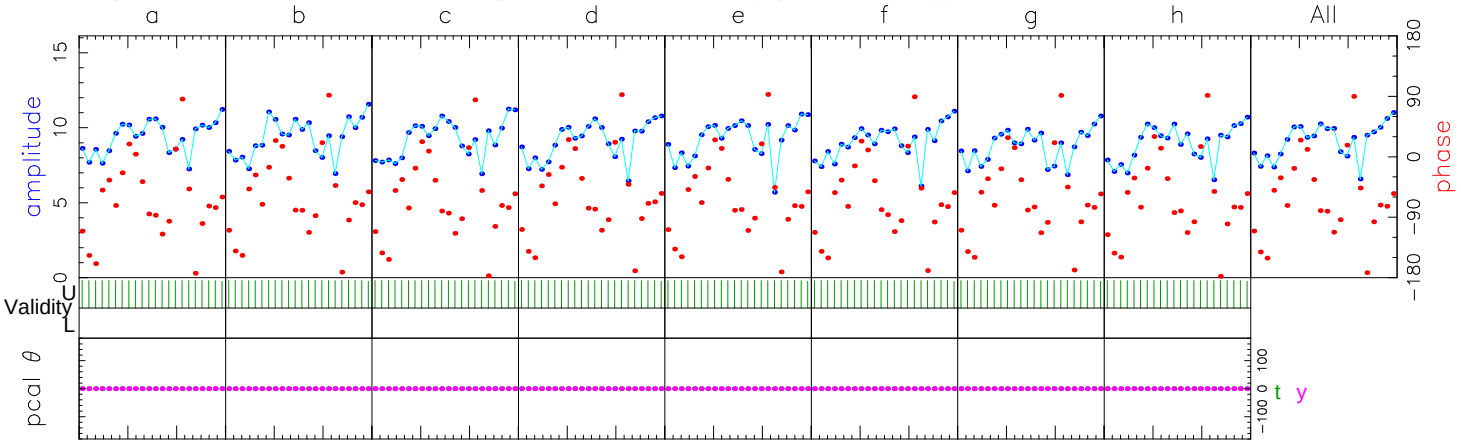
SNR 197.3
Int time 179.974
Amp 5.377
Phase -66.0
PFD 0.0e+00
Delays (us)
SBD 0.001035
MBD 0.001042
Fringe rate (Hz)
-0.000378
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512





Exp. mk013b
Exper # 16383
Yr:day 2021:112
Start 180000.00
Stop 180300.22
FRT 180130.00
Corr/FF/build
2022:027:051547
2022:164:130238
2022:109:102128
RA & Dec (J2000)
12h29m06.699731s
+02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-69.3	-63.1	-67.2	-63.5	-64.7	-67.1	-66.4	-67.1	Phase	-66.0
	5.6	5.5	5.4	5.3	5.4	5.3	5.1	5.1	Ampl.	5.3
	257.2	257.4	257.2	257.4	257.2	257.3	257.3	257.2	Sbd box	257.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	0	0	0	0	0	0	0	0	PC freqs	
y	0	0	0	0	0	0	0	0	PC freqs	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	

Group delay (usec) (SBD)	5.33645545953E+02	Apriori delay (usec)	5.33644503984E+02	Resid mbdelay (usec)	1.04197E-03	+/-	5.5E-06
Sband delay (usec)	5.33645538984E+02	Apriori clock (usec)	-9.7899818E-01	Resid sbdelay (usec)	1.03500E-03	+/-	4.4E-05
Phase delay (usec)	5.33644501854E+02	Apriori clockrate (us/s)	3.1999997E-08	Resid phdelay (usec)	-2.12992E-06	+/-	1.9E-08
Delay rate (us/s)	-5.30278791039E-02	Apriori rate (us/s)	-5.30278747194E-02	Resid rate (us/s)	-4.38455E-09	+/-	1.8E-10
Total phase (deg)	140.3	Apriori accel (us/s/s)	-3.07413955427E-06	Resid phase (deg)	-66.0	+/-	0.6

	RMS	Theor.	Amplitude	5.377 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	60.9	1.4	Search (1024X32)	5.286	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	73.2	2.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	2.3	0.8	Inc. seg. avg.	9.143	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	3.0	1.4	Inc. frq. avg.	5.344	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

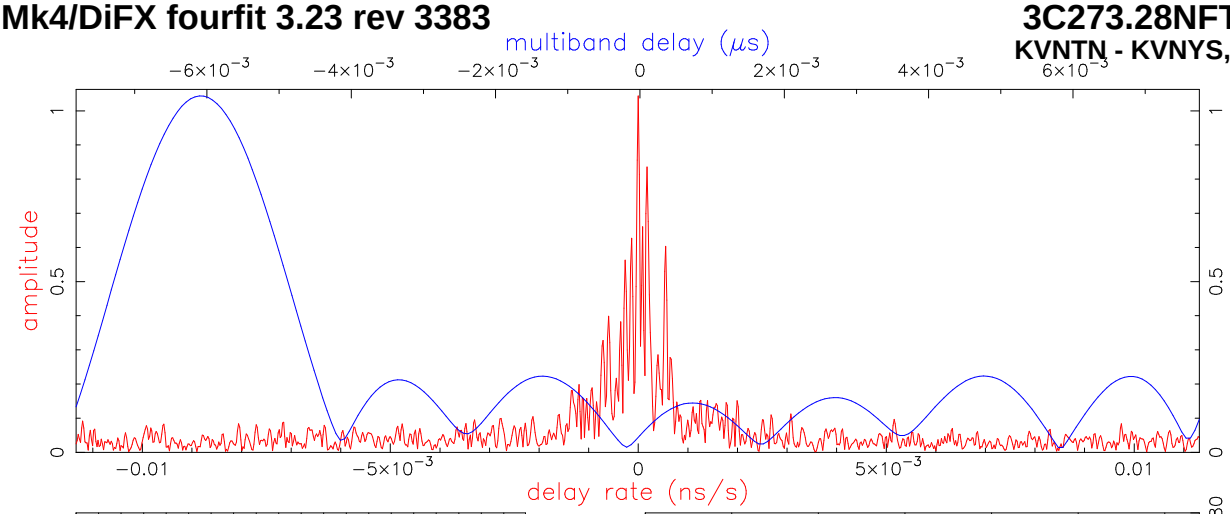
t: az 254.1 el 25.9 pa 53.6 y: az 252.5 el 24.3 pa 49.3 u,v (fr/asec) 302.164 -546.201 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/ty..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/ty.W.2.28NFTE

Mk4/DiFX fourfit 3.23 rev 3383

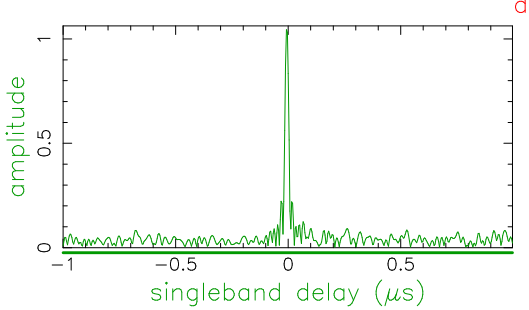
3C273.28NFTE, No0001, ty

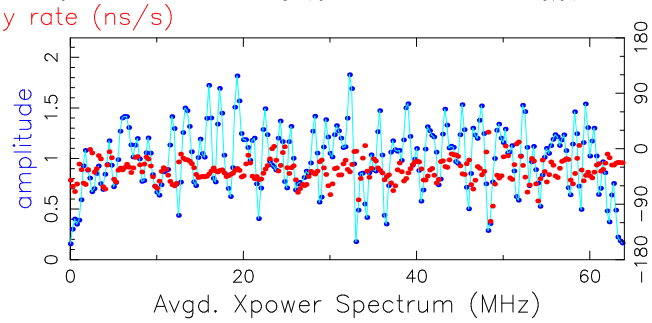
KVNTN - KVNYS, fgroup W, pol LR



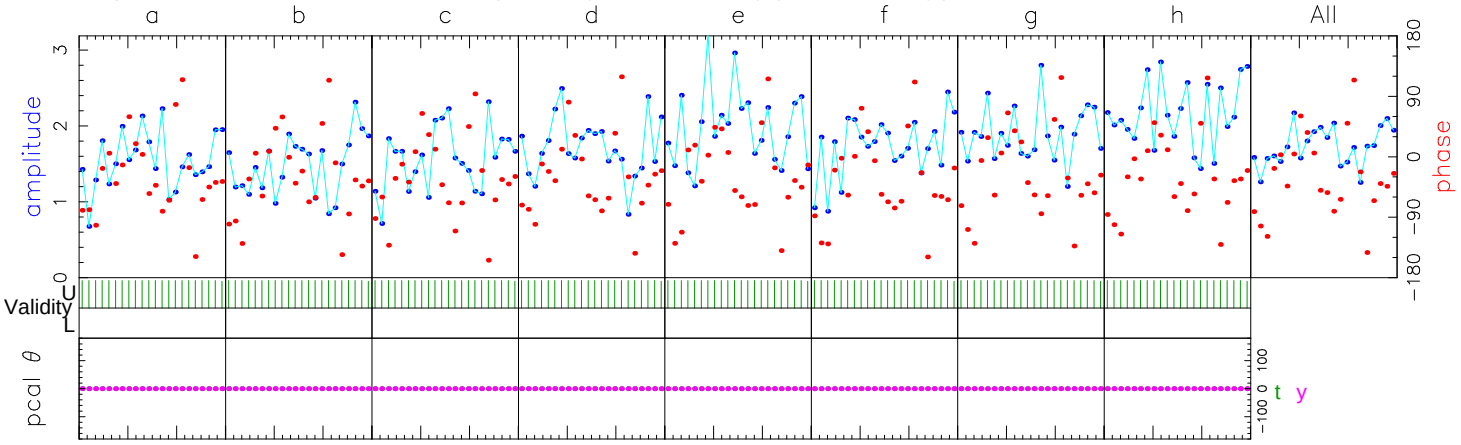
Fringe quality 7

SNR	39.0
Int time	179.974
Amp	1.063
Phase	-35.2
PFD	0.0e+00
Delays (us)	
SBD	-0.006107
MBD	-0.006082
Fringe rate (Hz)	-0.000297
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:112
Start	180000.00
Stop	180300.22
FRT	180130.00
Corr/FF/build	2022:027:051547
	2022:164:130246
	2022:109:102128
RA & Dec (J2000)	12h29m06.699731s
	+02°03'08.598201"





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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-33.3	-35.9	-39.1	-33.7	-31.6	-39.3	-35.0	-35.2	Phase	-35.2
	1.0	0.9	0.9	1.1	1.2	0.9	1.0	1.3	Ampl.	1.0
	255.5	255.6	255.2	255.5	255.1	255.4	255.6	255.6	Sbd box	255.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	0	0	0	0	0	0	0	0	PC freqs	
y	0	0	0	0	0	0	0	0	PC freqs	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	

Group delay (usec) (SBD)	5.33638421797E+02	Apriori delay (usec)	5.33644503984E+02	Resid mbdelay (usec)	-6.08219E-03	+/-	2.8E-05
Sband delay (usec)	5.33638397484E+02	Apriori clock (usec)	-9.7899818E-01	Resid sbdelay (usec)	-6.10650E-03	+/-	2.2E-04
Phase delay (usec)	5.33644502849E+02	Apriori clockrate (us/s)	3.1999997E-08	Resid phdelay (usec)	-1.13509E-06	+/-	9.5E-08
Delay rate (us/s)	-5.30278781686E-02	Apriori rate (us/s)	-5.30278747194E-02	Resid rate (us/s)	-3.44926E-09	+/-	9.1E-10
Total phase (deg)	171.1	Apriori accel (us/s/s)	-3.07413955427E-06	Resid phase (deg)	-35.2	+/-	2.9

	RMS	Theor.	Amplitude	1.063 +/- 0.027	Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5		
ph/seg (deg)	59.9	6.9	Search (1024X32)	1.015	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
amp/seg (%)	67.2	12.0	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	2.9	4.2	Inc. seg. avg.	1.720	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011
amp/frq (%)	12.2	7.3	Inc. frq. avg.	1.042	Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

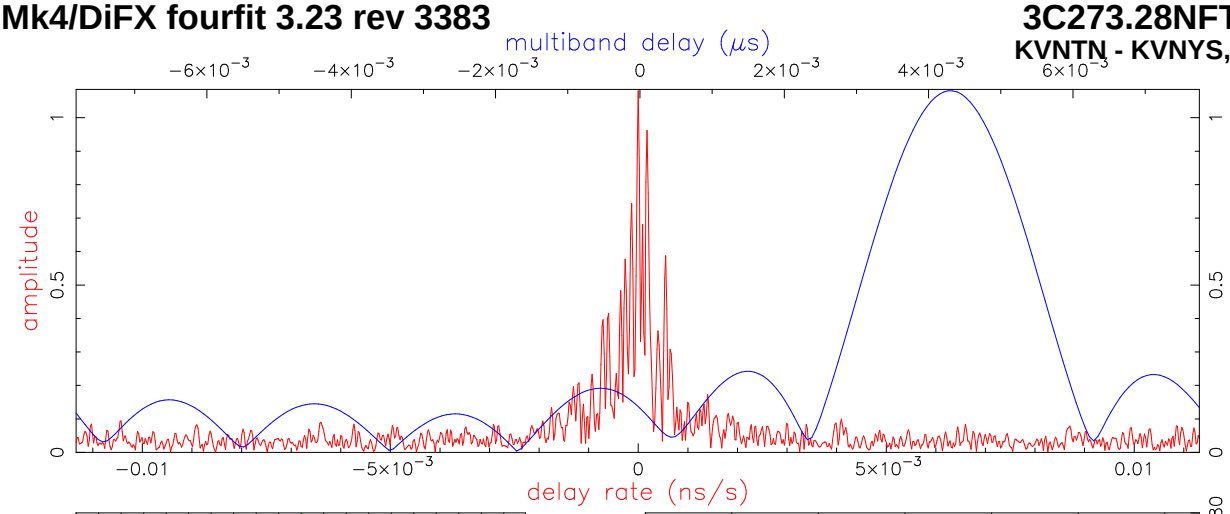
t: az 254.1 el 25.9 pa 53.6 y: az 252.5 el 24.3 pa 49.3 u,v (fr/asec) 302.164 -546.201 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/ty..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/ty.W.32.28NFTE

Mk4/DiFX fourfit 3.23 rev 3383

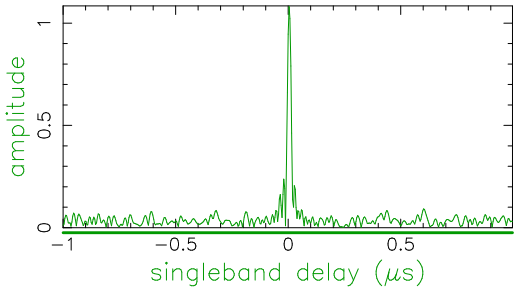
3C273.28NFTE, No0001, ty

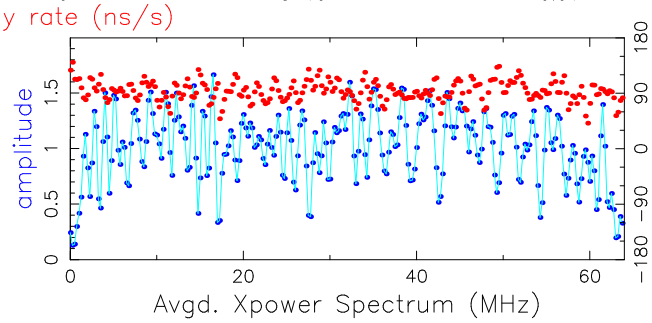
KVNTN - KVNYS, fgroup W, pol RL



Fringe quality 7

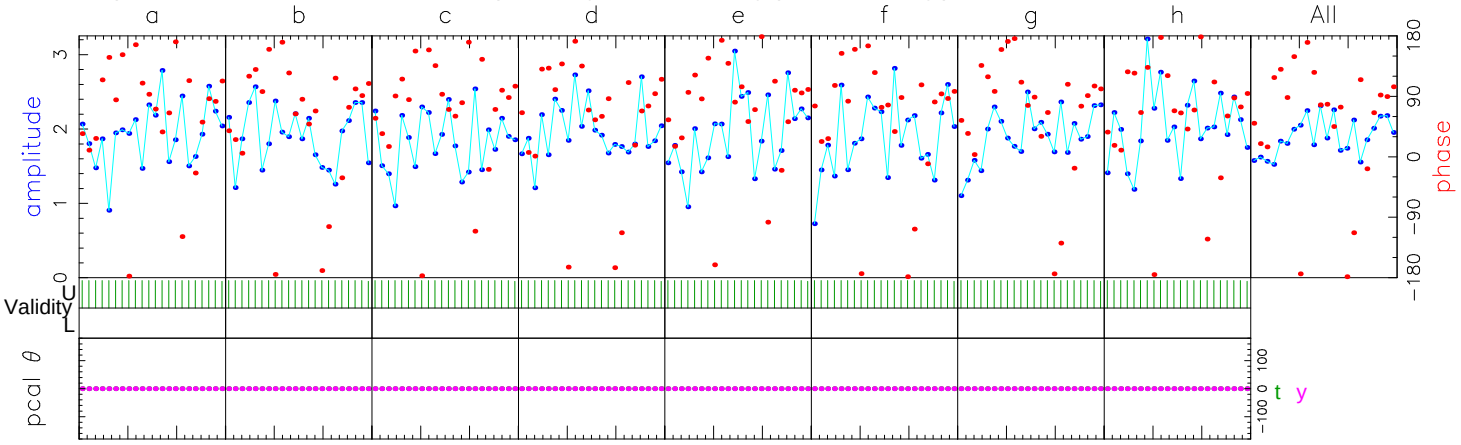
SNR 39.8
Int time 179.974
Amp 1.085
Phase 97.2
PFD 0.0e+00
Delays (us)
SBD 0.004672
MBD 0.004302
Fringe rate (Hz)
-0.000508
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512





Exp. mk013b
Exper # 16383
Yr:day 2021:112
Start 180000.00
Stop 180300.22
FRT 180130.00
Corr/FF/build
2022:027:051547
2022:164:130250
2022:109:102128
RA & Dec (J2000)
12h29m06.699731s
+02°03'08.598201"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	91.5	98.2	99.7	100.2	95.5	102.5	100.1	89.5	Phase	97.2
	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	Ampl.	1.1
	258.4	258.4	258.1	258.4	258.4	257.8	258.0	258.0	Sbd box	258.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	0	0	0	0	0	0	0	0	PC freqs	
y	0	0	0	0	0	0	0	0	PC freqs	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	

Group delay (usec) (SBD)	5.33648805890E+02	Apriori delay (usec)	5.33644503984E+02	Resid mbdelay (usec)	4.30191E-03	+/-	2.7E-05
Sband delay (usec)	5.33649175484E+02	Apriori clock (usec)	-9.7899818E-01	Resid sbdelay (usec)	4.67150E-03	+/-	2.2E-04
Phase delay (usec)	5.33644507118E+02	Apriori clockrate (us/s)	3.1999997E-08	Resid phdelay (usec)	3.13393E-06	+/-	9.3E-08
Delay rate (us/s)	-5.30278806146E-02	Apriori rate (us/s)	-5.30278747194E-02	Resid rate (us/s)	-5.89520E-09	+/-	8.9E-10
Total phase (deg)	303.5	Apriori accel (us/s/s)	-3.07413955427E-06	Resid phase (deg)	97.2	+/-	2.9

	RMS	Theor.	Amplitude	1.085 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	61.0	6.8	Search (1024X32)	1.059	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	78.4	11.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	5.0	4.1	Inc. seg. avg.	1.886	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	2.9	7.1	Inc. frq. avg.	1.081	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 254.1 el 25.9 pa 53.6 y: az 252.5 el 24.3 pa 49.3 u,v (fr/asec) 302.164 -546.201 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0001/ty..28NFTE Output file: /Exps/mk013b/v1_pc1/5099/No0001/ty.W.58.28NFTE