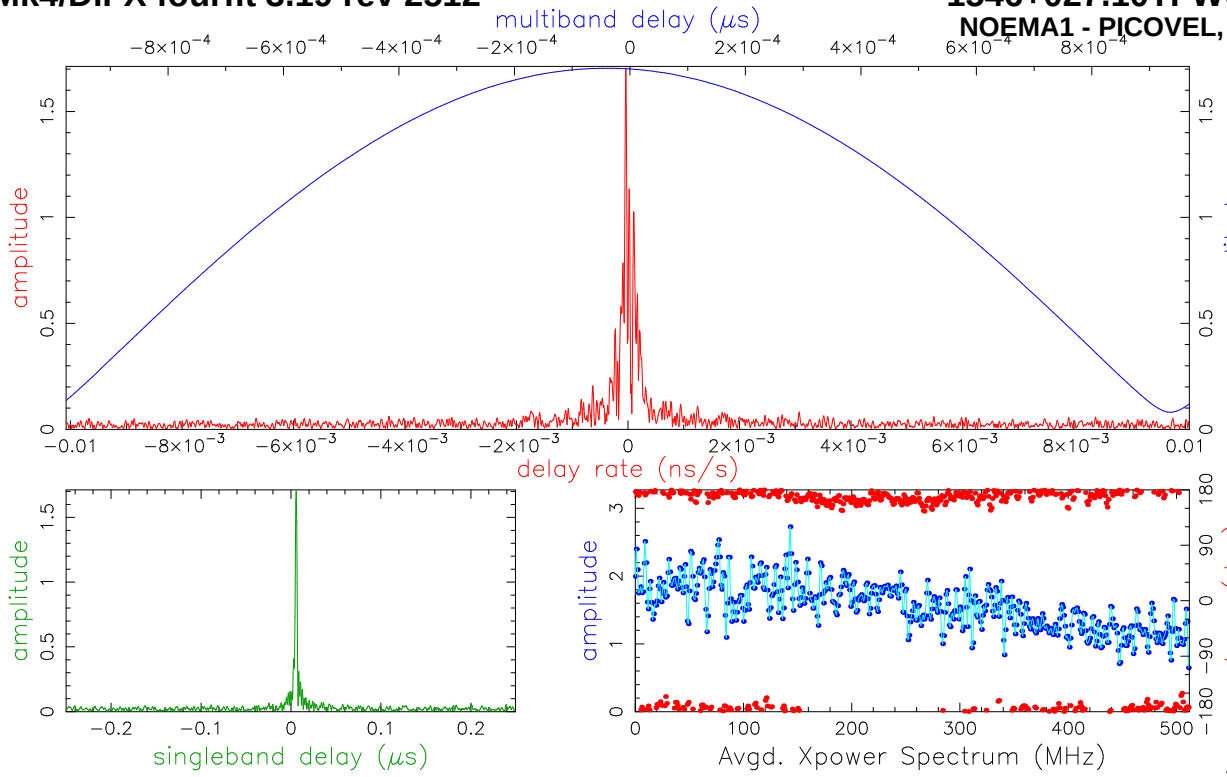
Mk4/DiFX fourfit 3.19 rev 2512

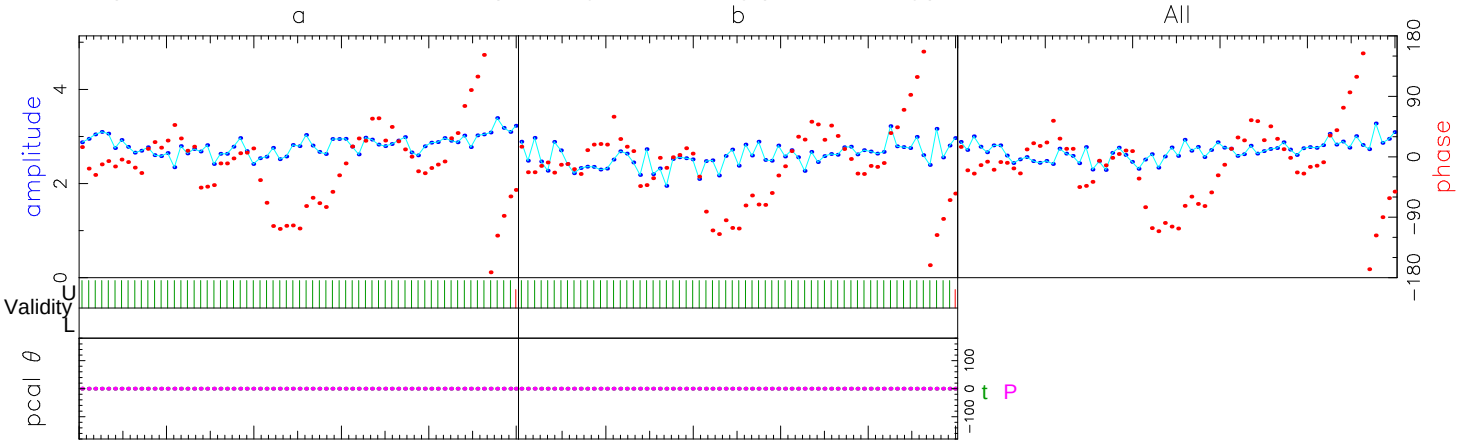
1546+027.10TFWU, No0030, tP

NOEMA1 - PICOVEL, fgroup W, pol LL



Fringe quality	5
SNR	114.7
Int time	299.981
Amp	1.713
Phase	-12.0
PFD	0.0e+00
Delays (us)	
SBD	0.005748
MBD	-0.000039
Fringe rate (Hz)	-0.004288
Ion TEC	0.000
Ref freq (MHz)	99200.0000
AP (sec)	0.500
Exp.	tjan24
Exper #	16383
Yr:day	2020:024
Start	071500.00
Stop	072000.00
FRT	071730.00
Corr/FF/build	2020:042:131502
	2020:043:092953
	2019:065:170717
RA & Dec (J2000)	15h49m29.436846s
	+02°37'01.163319"

Amp. and Phase vs. time for each freq., 67 segs, 9 APs / seg (4.50 sec / seg.), time ticks 5 sec



	99200.00	99712.00	Freq (MHz)	All
	-11.9	-12.2	Phase	-12.0
	1.8	1.6	Ampl.	1.7
	524.4	525.2	Sbd box	524.8
U/L	600/0	600/0	APs used	
t	0	0	PC freqs	
P	0	0	PC freqs	
t:P	0:0	0:0	PC phase	
t:P	0:0	0:0	Manl PC	
t	1000	1000	PC amp	
P	1000	1000		
t	W00UL	W01UL	Chan ids	
			Tracks	
P	W00UL	W01UL	Chan ids	
			Tracks	

Group delay (usec)(sbd)	-1.55162561033E+03	Apriori delay (usec)	-1.55163143103E+03	Resid mbdelay (usec)	-3.86780E-05	+/-	5.4E-06
Sband delay (usec)	-1.55162568322E+03	Apriori clock (usec)	-1.7181767E+00	Resid sbdelay (usec)	5.74781E-03	+/-	9.4E-06
Phase delay (usec)	-1.55163143137E+03	Apriori clockrate (us/s)	-3.7999999E-08	Resid phdelay (usec)	-3.36168E-07	+/-	2.8E-08
Delay rate (us/s)	-1.98630979716E-01	Apriori rate (us/s)	-1.98630936488E-01	Resid rate (us/s)	-4.32277E-08	+/-	1.6E-10
Total phase (deg)	-357.0	Apriori accel (us/s/s)	8.74425184469E-06	Resid phase (deg)	-12.0	+/-	1.0

	RMS	Theor.							
			Amplitude	1.713 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	56.2	4.1	Search (2048X8)	1.669	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-0.250	0.250
amp/seg (%)	58.3	7.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.001	0.001
ph/frq (deg)	0.0	0.7	Inc. seg. avg.	2.685	Sample rate(MSamp/s): 1024		dr window (ns/s)	-0.010	0.010
amp/frq (%)	4.7	1.2	Inc. frq. avg.	1.704	Data rate(Mb/s): 4096	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

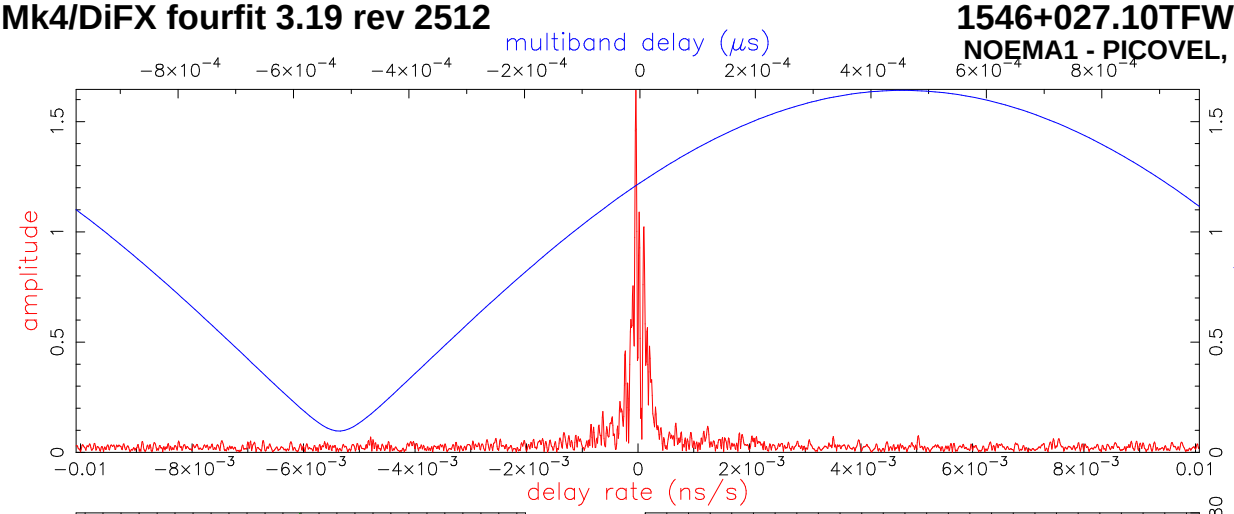
t: az 179.8 el 47.9 pa -0.1 P: az 163.7 el 54.4 pa -12.3 u,v (fr/asec) 1324.855 1050.354 simultaneous interpolator

Control file: cf_1234 Input file: /Exps/tjan24/FRINGE/1004/No0030/tP..10TFWU Output file: /Exps/tjan24/FRINGE/1004/No0030/tP.W.1.10TFWU

Mk4/DiFX fourfit 3.19 rev 2512

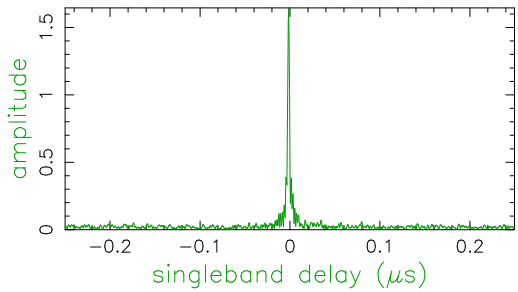
1546+027.10TFWU, No0030, tP

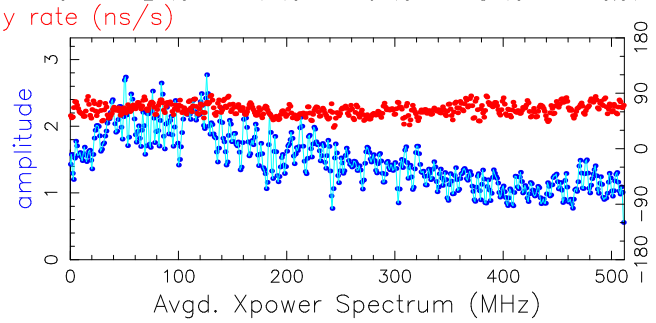
NOEMA1 - PICOVEL, fgroup W, pol RR



Fringe quality 5

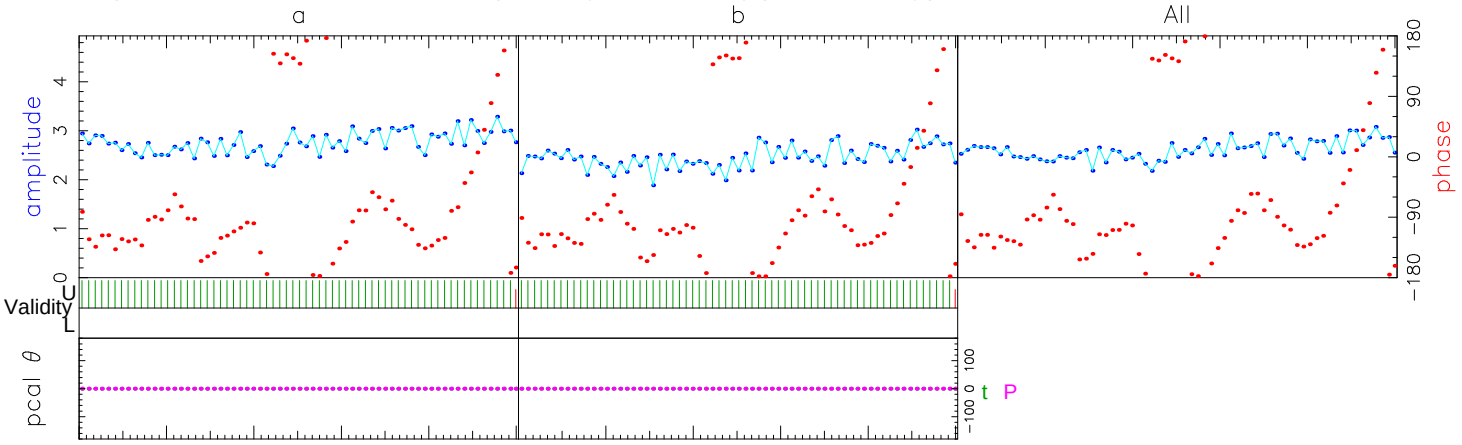
SNR 110.2
Int time 299.976
Amp 1.646
Phase -120.0
PFD 0.0e+00
Delays (us)
SBD -0.001547
MBD 0.000457
Fringe rate (Hz)
-0.004200
Ion TEC 0.000
Ref freq (MHz)
99200.0000
AP (sec) 0.500





Exp. tjan24
Exper # 16383
Yr:day 2020:024
Start 071500.00
Stop 072000.00
FRT 071730.00
Corr/FF/build
2020:042:131502
2020:043:092954
2019:065:170717
RA & Dec (J2000)
15h49m29.436846s
+02°37'01.163319"

Amp. and Phase vs. time for each freq., 67 segs, 9 APs / seg (4.50 sec / seg.), time ticks 5 sec



	99200.00	99712.00	Freq (MHz)	All
	-119.9	-120.1	Phase	-120.0
	1.7	1.5	Ampl.	1.6
	509.7	510.0	Sbd box	509.8
U/L	600/0	600/0	APs used	
t	0	0	PC freqs	
P	0	0	PC freqs	
t:P	0:0	0:0	PC phase	
t:P	0:0	0:0	Manl PC	
t	1000	1000	PC amp	
P	1000	1000		
t	W00UR	W01UR	Chan ids	
			Tracks	
P	W00UR	W01UR	Chan ids	
			Tracks	

Group delay (usec)(sbd)	-1.55163292746E+03	Apriori delay (usec)	-1.55163143103E+03	Resid mbdelay (usec)	4.56697E-04	+/-	5.6E-06
Sband delay (usec)	-1.55163297762E+03	Apriori clock (usec)	-1.7181767E+00	Resid sbdelay (usec)	-1.54659E-03	+/-	9.8E-06
Phase delay (usec)	-1.55163143439E+03	Apriori clockrate (us/s)	-3.7999999E-08	Resid phdelay (usec)	-3.35979E-06	+/-	2.9E-08
Delay rate (us/s)	-1.98630978828E-01	Apriori rate (us/s)	-1.98630936488E-01	Resid rate (us/s)	-4.23400E-08	+/-	1.7E-10
Total phase (deg)	-105.0	Apriori accel (us/s/s)	8.74425184469E-06	Resid phase (deg)	-120.0	+/-	1.0

	RMS	Theor.	Amplitude	1.646 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	56.4	4.3	Search (2048X8)	1.622	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-0.250	0.250
amp/seg (%)	60.0	7.4	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: disabled	mb window (us)	-0.001	0.001
ph/frq (deg)	0.0	0.7	Inc. seg. avg.	2.606	Sample rate(MSamp/s): 1024	dr window (ns/s)	-0.010	0.010
amp/frq (%)	5.9	1.3	Inc. frq. avg.	1.641	Data rate(Mb/s): 4096 nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

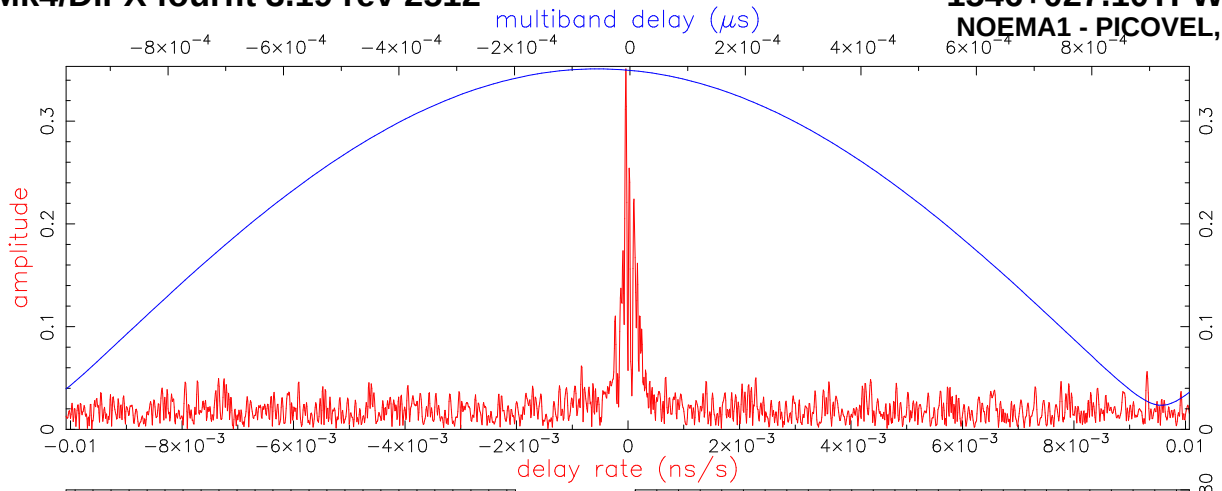
t: az 179.8 el 47.9 pa -0.1 P: az 163.7 el 54.4 pa -12.3 u,v (fr/asec) 1324.855 1050.354 simultaneous interpolator

Control file: cf_1234 Input file: /Exps/tjan24/FRINGE/1004/No0030/tP..10TFWU Output file: /Exps/tjan24/FRINGE/1004/No0030/tP.W.2.10TFWU

Mk4/DiFX fourfit 3.19 rev 2512

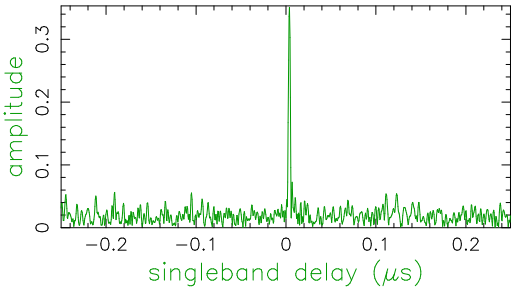
1546+027.10TFWU, No0030, tP

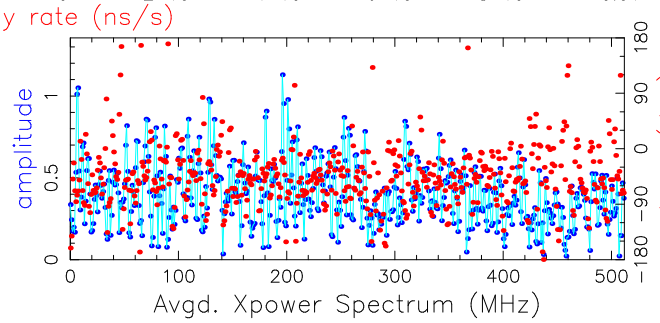
NOEMA1 - PICOVEL, fgroup W, pol LR



Fringe quality 9

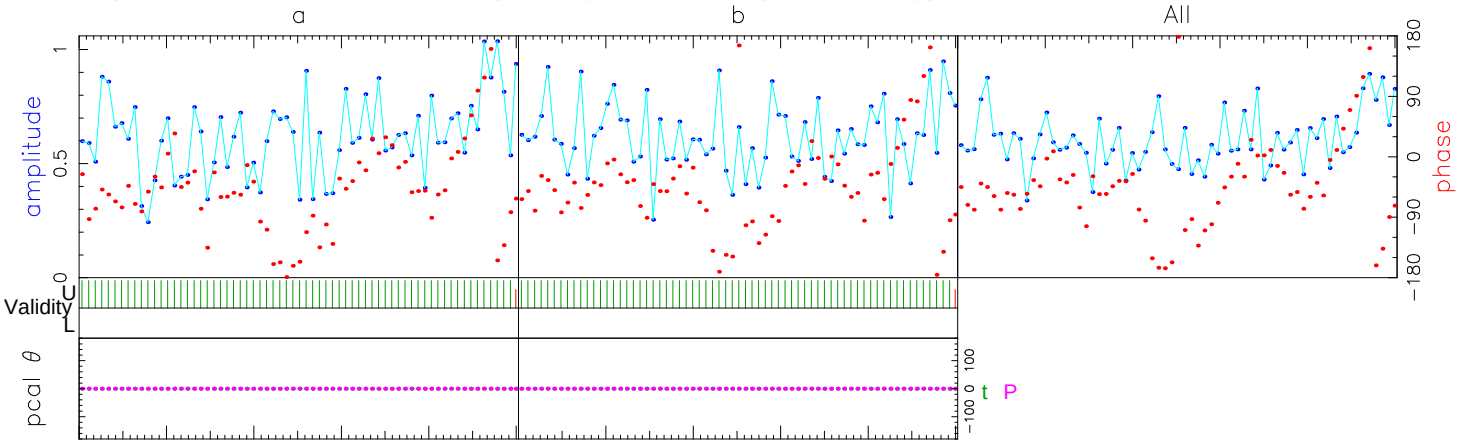
SNR 23.7
Int time 299.976
Amp 0.353
Phase -55.2
PFD 0.0e+00
Delays (us)
SBD 0.003772
MBD -0.000056
Fringe rate (Hz)
-0.004376
Ion TEC 0.000
Ref freq (MHz)
99200.0000
AP (sec) 0.500





Exp. tjan24
Exper # 16383
Yr:day 2020:024
Start 071500.00
Stop 072000.00
FRT 071730.00
Corr/FF/build
2020:042:131502
2020:043:092956
2019:065:170717
RA & Dec (J2000)
15h49m29.436846s
+02°37'01.163319"

Amp. and Phase vs. time for each freq., 67 segs, 9 APs / seg (4.50 sec / seg.), time ticks 5 sec



	99200.00	99712.00	Freq (MHz)	All
	-55.2	-55.3	Phase	-55.2
	0.3	0.4	Ampl.	0.4
	520.1	521.2	Sbd box	520.7
U/L	600/0	600/0	APs used	
t	0	0	PC freqs	
P	0	0	PC freqs	
t:P	0:0	0:0	PC phase	
t:P	0:0	0:0	Manl PC	
t	1000	1000	PC amp	
P	1000	1000		
t	W00UL	W01UL	Chan ids	
			Tracks	
P	W00UR	W01UR	Chan ids	
			Tracks	

Group delay (usec)(sbd)	-1.55162758058E+03	Apriori delay (usec)	-1.55163143103E+03	Resid mbdelay (usec)	-5.58030E-05	+/-	2.6E-05
Sband delay (usec)	-1.55162765881E+03	Apriori clock (usec)	-1.7181767E+00	Resid sbdelay (usec)	3.77222E-03	+/-	4.5E-05
Phase delay (usec)	-1.55163143258E+03	Apriori clockrate (us/s)	-3.7999999E-08	Resid phdelay (usec)	-1.54674E-06	+/-	1.4E-07
Delay rate (us/s)	-1.98630980601E-01	Apriori rate (us/s)	-1.98630936488E-01	Resid rate (us/s)	-4.41129E-08	+/-	7.8E-10
Total phase (deg)	-40.2	Apriori accel (us/s/s)	8.74425184469E-06	Resid phase (deg)	-55.2	+/-	4.8

	RMS	Theor.	Amplitude	0.353 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	60.2	19.8	Search (2048X8)	0.341	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-0.250 0.250
amp/seg (%)	79.1	34.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.001 0.001
ph/frq (deg)	0.0	3.4	Inc. seg. avg.	0.571	Sample rate(MSamp/s): 1024		dr window (ns/s)	-0.010 0.010
amp/frq (%)	6.7	6.0	Inc. frq. avg.	0.350	Data rate(Mb/s): 4096	nlags: 512 t_cohere infinite	ion window (TEC)	0.00 0.00

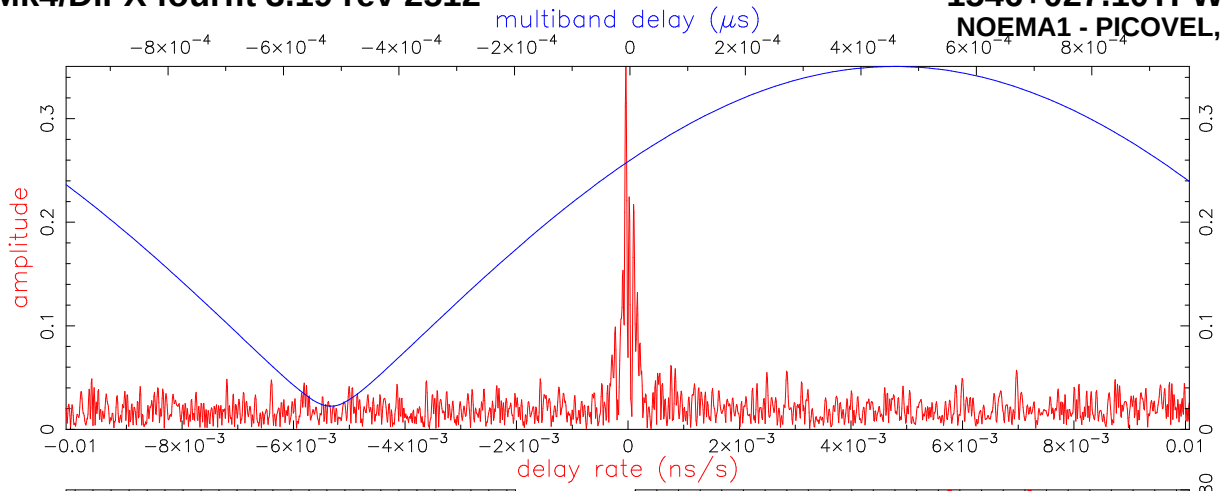
t: az 179.8 el 47.9 pa -0.1 P: az 163.7 el 54.4 pa -12.3 u,v (fr/asec) 1324.855 1050.354 simultaneous interpolator

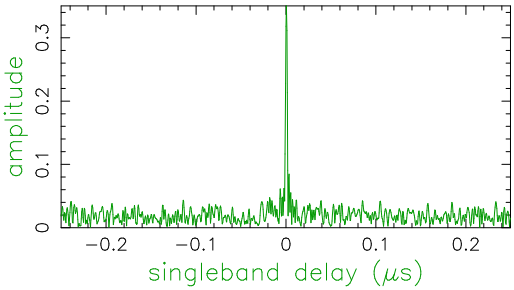
Control file: cf_1234 Input file: /Exps/tjan24/FRINGE/1004/No0030/tP..10TFWU Output file: /Exps/tjan24/FRINGE/1004/No0030/tP.W.3.10TFWU

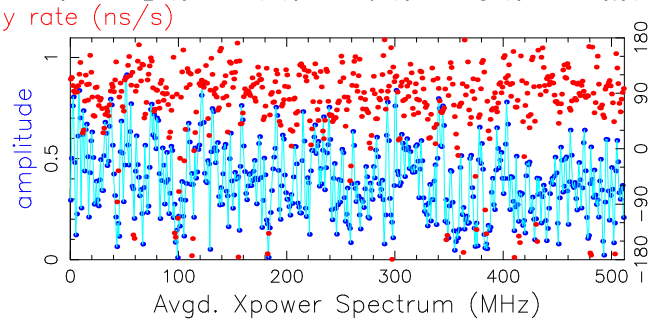
Mk4/DiFX fourfit 3.19 rev 2512

1546+027.10TFWU, No0030, tP

NOEMA1 - PICOVEL, fgroup W, pol RL

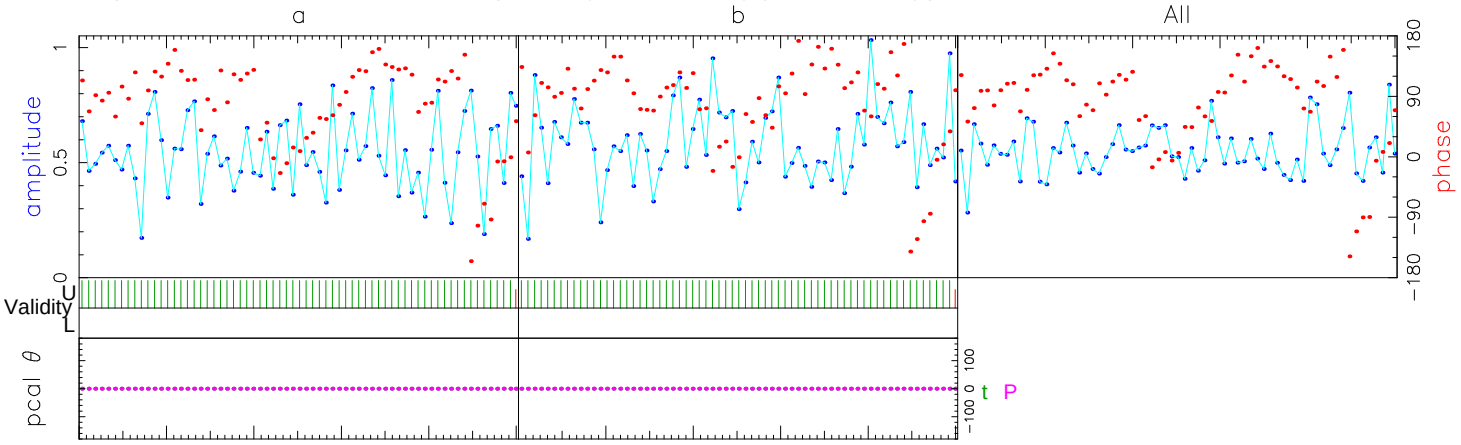






Fringe quality	9
SNR	23.5
Int time	299.981
Amp	0.351
Phase	95.1
PFD	0.0e+00
Delays (us)	
SBD	0.000466
MBD	0.000460
Fringe rate (Hz)	-0.004362
Ion TEC	0.000
Ref freq (MHz)	99200.0000
AP (sec)	0.500
Exp.	tjan24
Exper #	16383
Yr:day	2020:024
Start	071500.00
Stop	072000.00
FRT	071730.00
Corr/FF/build	2020:042:131502
	2020:043:092957
	2019:065:170717
RA & Dec (J2000)	15h49m29.436846s
	+02°37'01.163319"

Amp. and Phase vs. time for each freq., 67 segs, 9 APs / seg (4.50 sec / seg.), time ticks 5 sec



	99200.00	99712.00	Freq (MHz)	All
	95.3	95.0	Phase	95.1
	0.3	0.4	Ampl.	0.3
	513.5	514.3	Sbd box	514.0
U/L	600/0	600/0	APs used	
t	0	0	PC freqs	
P	0	0	PC freqs	
t:P	0:0	0:0	PC phase	
t:P	0:0	0:0	Manl PC	
t	1000	1000	PC amp	
P	1000	1000		
t	W00UR	W01UR	Chan ids	
			Tracks	
P	W00UL	W01UL	Chan ids	
			Tracks	

Group delay (usec)(sbd)	-1.55163097132E+03	Apriori delay (usec)	-1.55163143103E+03	Resid mbdelay (usec)	4.59713E-04	+/-	2.6E-05
Sband delay (usec)	-1.55163096528E+03	Apriori clock (usec)	-1.7181767E+00	Resid sbdelay (usec)	4.65750E-04	+/-	4.6E-05
Phase delay (usec)	-1.55163142837E+03	Apriori clockrate (us/s)	-3.7999999E-08	Resid phdelay (usec)	2.66420E-06	+/-	1.4E-07
Delay rate (us/s)	-1.98630980461E-01	Apriori rate (us/s)	-1.98630936488E-01	Resid rate (us/s)	-4.39730E-08	+/-	7.9E-10
Total phase (deg)	-249.8	Apriori accel (us/s/s)	8.74425184469E-06	Resid phase (deg)	95.1	+/-	4.9

	RMS	Theor.	Amplitude	0.351 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	58.4	20.0	Search (2048X8)	0.342	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-0.250 0.250
amp/seg (%)	65.5	34.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.001 0.001
ph/frq (deg)	0.0	3.5	Inc. seg. avg.	0.524	Sample rate(MSamp/s): 1024		dr window (ns/s)	-0.010 0.010
amp/frq (%)	6.4	6.0	Inc. frq. avg.	0.350	Data rate(Mb/s): 4096	nlags: 512 t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 179.8 el 47.9 pa -0.1 P: az 163.7 el 54.4 pa -12.3 u,v (fr/asec) 1324.855 1050.354 simultaneous interpolator

Control file: cf_1234 Input file: /Exps/tjan24/FRINGE/1004/No0030/tP..10TFWU Output file: /Exps/tjan24/FRINGE/1004/No0030/tP.W.4.10TFWU