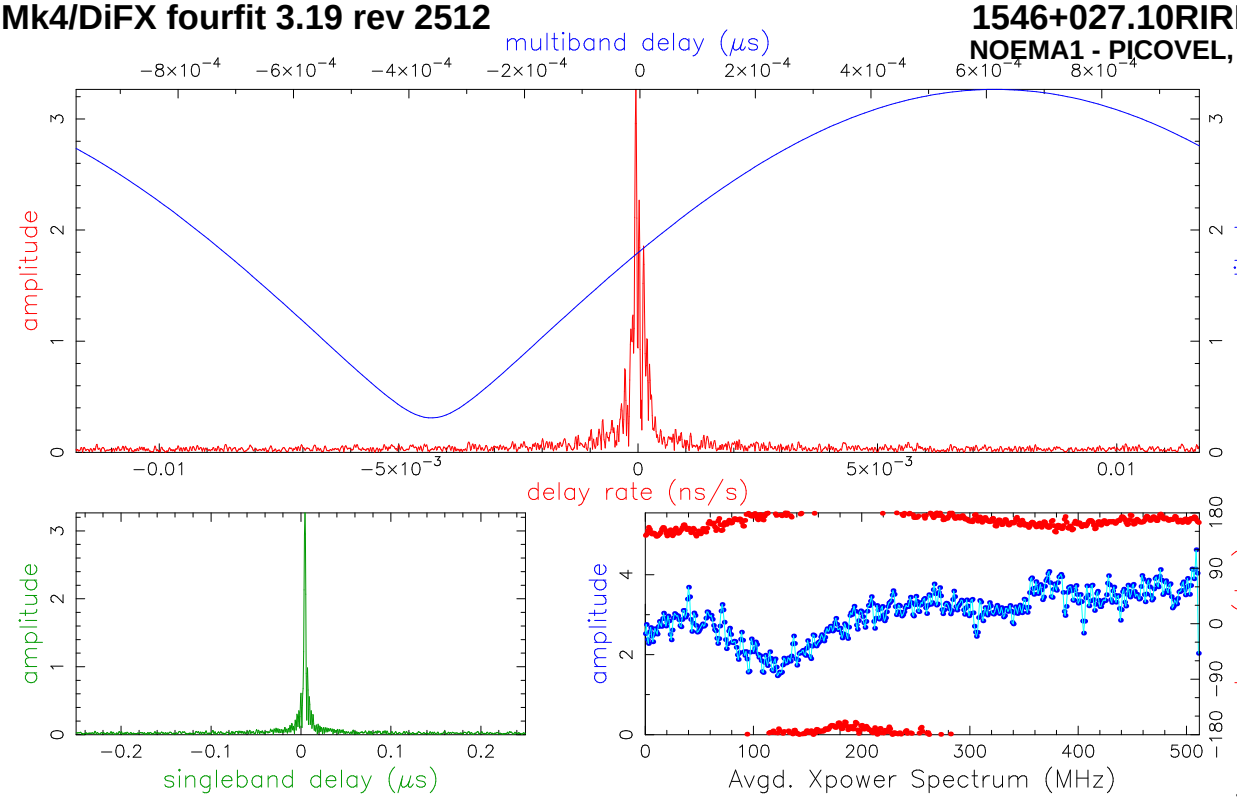
Mk4/DiFX fourfit 3.19 rev 2512

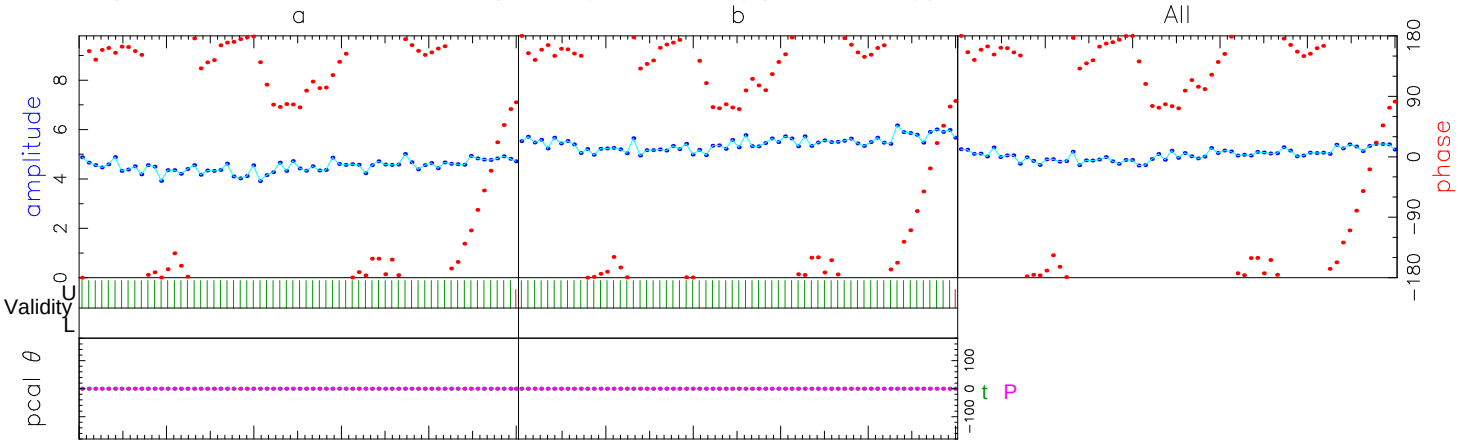
1546+027.10RIRH, No0030, tP

NOEMA1 - PICOVEL, fgroup W, pol LL



Fringe quality	5
SNR	218.7
Int time	299.929
Amp	3.266
Phase	158.8
PFD	0.0e+00
Delays (us)	
SBD	0.004408
MBD	0.000620
Fringe rate (Hz)	-0.004308
Ion TEC	0.000
Ref freq (MHz)	85200.0000
AP (sec)	0.500
Exp.	tjan24
Exper #	16383
Yr:day	2020:024
Start	071500.00
Stop	072000.00
FRT	071730.00
Corr/FF/build	2020:041:194448 2020:042:083621 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



	85200.00	85712.00	Freq (MHz)	All
	159.3	158.4	Phase	158.8
	3.0	3.6	Ampl.	3.3
	520.6	522.6	Sbd box	522.0
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	W00UL	W01UL	Chan ids	
			Tracks	
P	W00UL	W01UL	Chan ids	
			Tracks	

Group delay (usec)(sbd)	-1.55153690440E+03	Apriori delay (usec)	-1.55154143103E+03	Resid mbdelay (usec)	6.20384E-04	+/-	2.8E-06
Sband delay (usec)	-1.55153702347E+03	Apriori clock (usec)	-1.6281767E+00	Resid sbdelay (usec)	4.40756E-03	+/-	4.9E-06
Phase delay (usec)	-1.55154142585E+03	Apriori clockrate (us/s)	-3.7999999E-08	Resid phdelay (usec)	5.17789E-06	+/-	1.7E-08
Delay rate (us/s)	-1.98630987053E-01	Apriori rate (us/s)	-1.98630936488E-01	Resid rate (us/s)	-5.05648E-08	+/-	9.9E-11
Total phase (deg)	-173.8	Apriori accel (us/s/s)	8.74425184469E-06	Resid phase (deg)	158.8	+/-	0.5

	RMS	Theor.							
			Amplitude	3.266 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	55.2	2.1	Search (2048X8)	3.160	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-0.250	0.250
amp/seg (%)	53.0	3.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.001	0.001
ph/frq (deg)	0.0	0.4	Inc. seg. avg.	4.977	Sample rate(MSamp/s): 1024		dr window (ns/s)	-0.012	0.012
amp/frq (%)	9.5	0.6	Inc. frq. avg.	3.266	Data rate(Mb/s): 4096	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

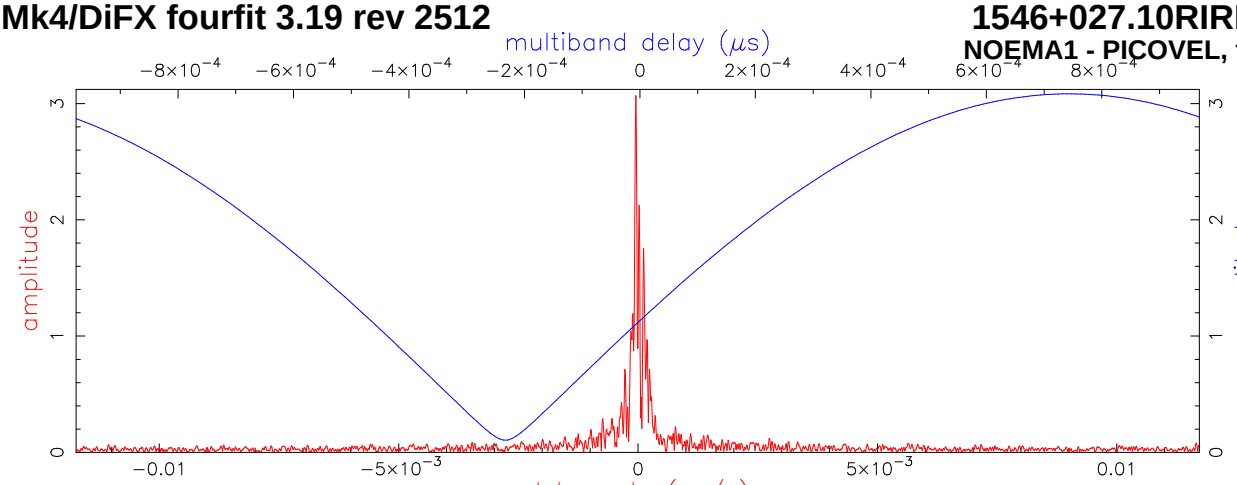
t: az 179.8 el 47.9 pa -0.1 P: az 163.7 el 54.4 pa -12.3 u,v (fr/asec) 1137.879 902.118 simultaneous interpolator

Control file: cf_1234 Input file: /Exps/tjan24/FRINGE/1002/No0030/tP..10RIRH Output file: /Exps/tjan24/FRINGE/1002/No0030/tP.W.1.10RIRH

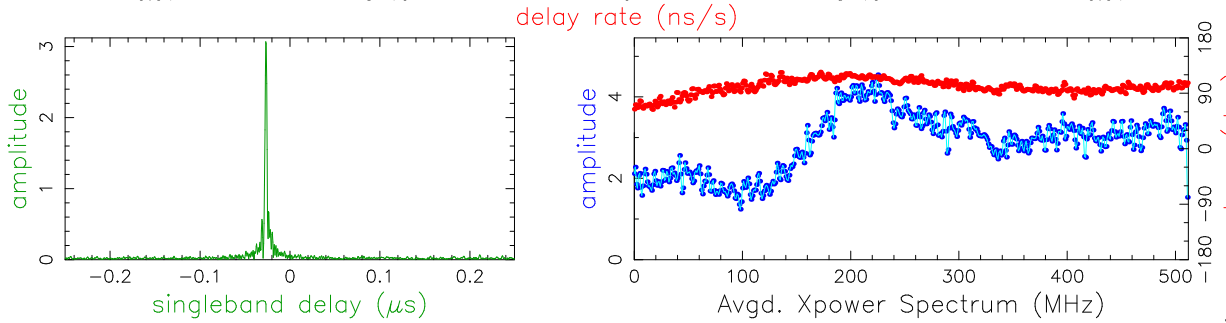
Mk4/DiFX fourfit 3.19 rev 2512

1546+027.10RIRH, No0030, tP

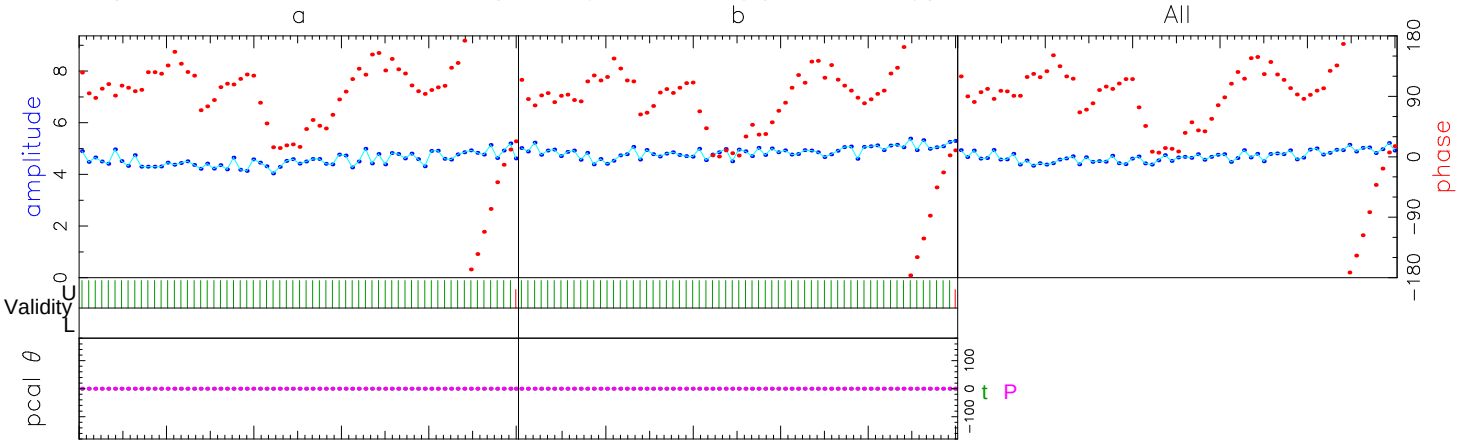
NOEMA1 - PICOVEL, fgroup W, pol RR



Fringe quality	5
SNR	209.1
Int time	299.847
Amp	3.122
Phase	94.9
PFD	0.0e+00
Delays (us)	
SBD	-0.026636
MBD	0.000807
Fringe rate (Hz)	-0.004282
Ion TEC	0.000
Ref freq (MHz)	85200.0000
AP (sec)	0.500
Exp.	tjan24
Exper #	16383
Yr:day	2020:024
Start	071500.00
Stop	072000.00
FRT	071730.00
Corr/FF/build	2020:041:194448 2020:042:083622 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



	85200.00	85712.00	Freq (MHz)	All
	101.0	89.2	Phase	94.9
	3.0	3.2	Ampl.	3.1
	457.0	459.1	Sbd box	458.4
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)	-1.55156796747E+03	Apriori delay (usec)	-1.55154143103E+03	Resid mbdelay (usec)	8.07306E-04	+/-	3.0E-06
Sband delay (usec)	-1.55156806706E+03	Apriori clock (usec)	-1.6281767E+00	Resid sbdelay (usec)	-2.66360E-02	+/-	5.2E-06
Phase delay (usec)	-1.55154142794E+03	Apriori clockrate (us/s)	-3.7999999E-08	Resid phdelay (usec)	3.09386E-06	+/-	1.8E-08
Delay rate (us/s)	-1.98630986743E-01	Apriori rate (us/s)	-1.98630936488E-01	Resid rate (us/s)	-5.02553E-08	+/-	1.0E-10
Total phase (deg)	-237.7	Apriori accel (us/s/s)	8.74425184469E-06	Resid phase (deg)	94.9	+/-	0.5

	RMS	Theor.	Amplitude	3.122 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	55.4	2.2	Search (2048X8)	3.035	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-0.250	0.250
amp/seg (%)	50.9	3.9	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: disabled	mb window (us)	-0.001	0.001
ph/frq (deg)	0.0	0.4	Inc. seg. avg.	4.694	Sample rate(MSamp/s): 1024	dr window (ns/s)	-0.012	0.012
amp/frq (%)	3.6	0.7	Inc. frq. avg.	3.084	Data rate(Mb/s): 4096 nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

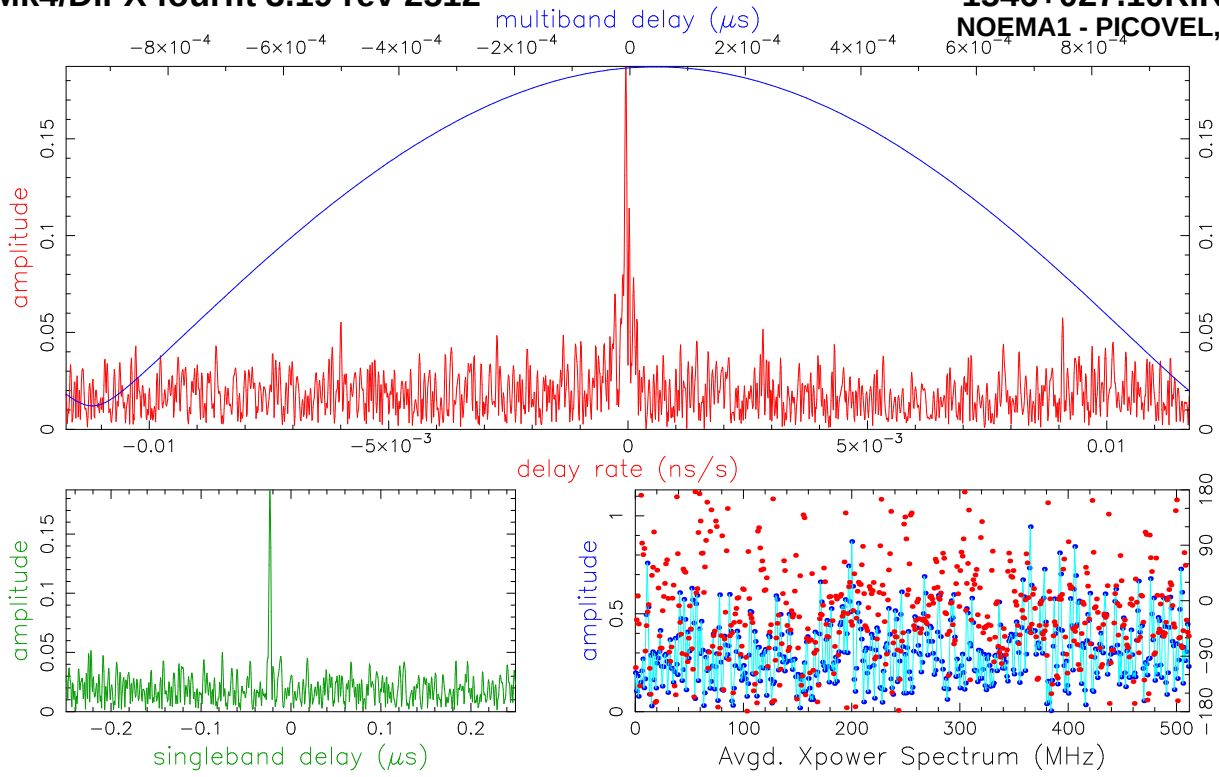
t: az 179.8 el 47.9 pa -0.1 P: az 163.7 el 54.4 pa -12.3 u,v (fr/asec) 1137.879 902.118 simultaneous interpolator

Control file: cf_1234 Input file: /Exps/tjan24/FRINGE/1002/No0030/tP..10RIRH Output file: /Exps/tjan24/FRINGE/1002/No0030/tP.W.2.10RIRH

Mk4/DiFX fourfit 3.19 rev 2512

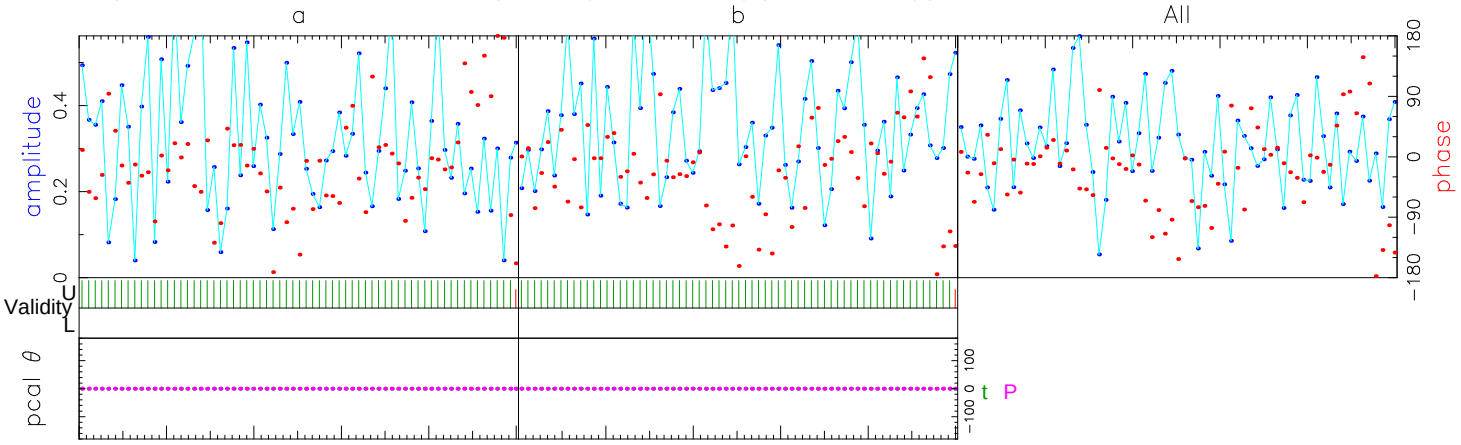
1546+027.10RIRH, No0030, tP

NOEMA1 - PICOVEL, fgroup W, pol LR



Fringe quality	9
SNR	12.5
Int time	299.934
Amp	0.187
Phase	-23.3
PFD	1.1e-27
Delays (us)	
SBD	-0.023355
MBD	0.000074
Fringe rate (Hz)	-0.004157
Ion TEC	0.000
Ref freq (MHz)	85200.0000
AP (sec)	0.500
Exp.	tjan24
Exper #	16383
Yr:day	2020:024
Start	071500.00
Stop	072000.00
FRT	071730.00
Corr/FF/build	2020:041:194448
	2020:042:083624
	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



	85200.00	85712.00	Freq (MHz)	All
	-20.8	-26.1	Phase	-23.3
	0.2	0.2	Ampl.	0.2
	463.5	466.4	Sbd box	465.2
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)	-1.55156479446E+03	Apriori delay (usec)	-1.55154143103E+03	Resid mbdelay (usec)	7.40718E-05	+/-	5.0E-05
Sband delay (usec)	-1.55156478575E+03	Apriori clock (usec)	-1.6281767E+00	Resid sbdelay (usec)	-2.33547E-02	+/-	8.6E-05
Phase delay (usec)	-1.55154143179E+03	Apriori clockrate (us/s)	-3.7999999E-08	Resid phdelay (usec)	-7.59335E-07	+/-	3.0E-07
Delay rate (us/s)	-1.98630985275E-01	Apriori rate (us/s)	-1.98630936488E-01	Resid rate (us/s)	-4.87874E-08	+/-	1.7E-09
Total phase (deg)	-355.9	Apriori accel (us/s/s)	8.74425184469E-06	Resid phase (deg)	-23.3	+/-	9.1

	RMS	Theor.							
			Amplitude	0.187 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	63.5	37.4	Search (2048X8)	0.185	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-0.250	0.250
amp/seg (%)	86.4	65.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.001	0.001
ph/frq (deg)	0.0	6.5	Inc. seg. avg.	0.256	Sample rate(MSamp/s): 1024		dr window (ns/s)	-0.012	0.012
amp/frq (%)	6.5	11.3	Inc. frq. avg.	0.186	Data rate(Mb/s): 4096	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

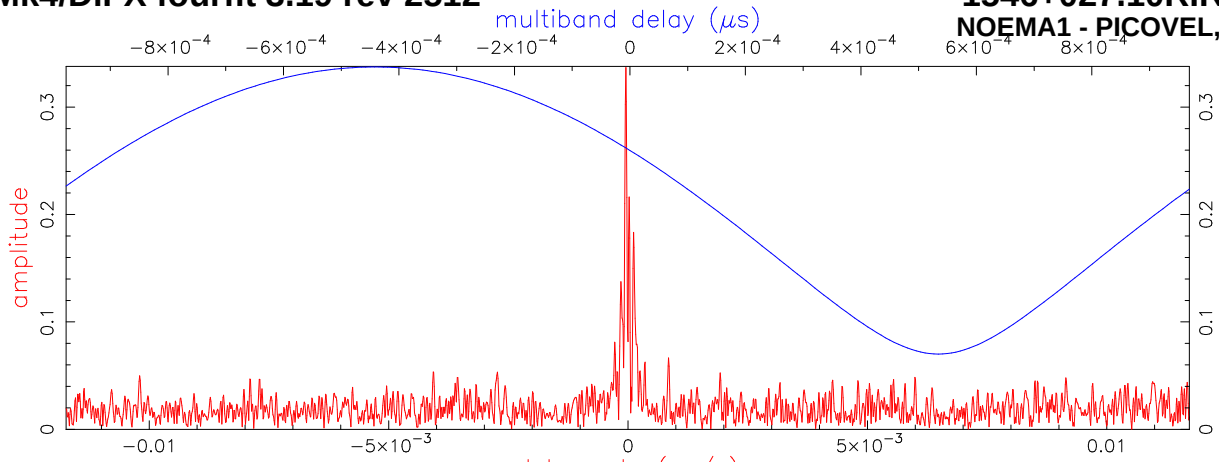
t: az 179.8 el 47.9 pa -0.1 P: az 163.7 el 54.4 pa -12.3 u,v (fr/asec) 1137.879 902.118 simultaneous interpolator

Control file: cf_1234 Input file: /Exps/tjan24/FRINGE/1002/No0030/tP..10RIRH Output file: /Exps/tjan24/FRINGE/1002/No0030/tP.W.3.10RIRH

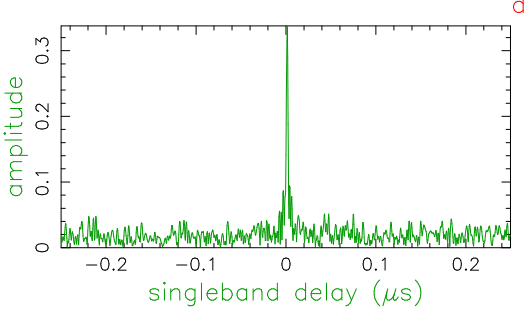
Mk4/DiFX fourfit 3.19 rev 2512

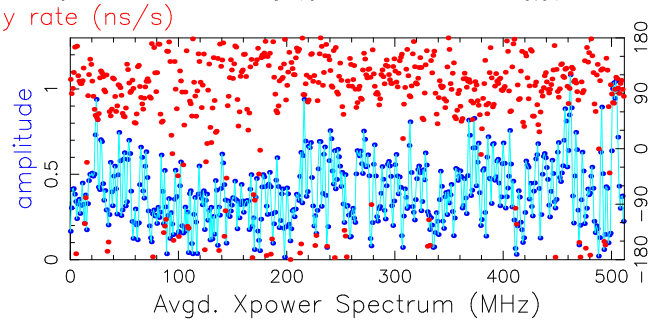
1546+027.10RIRH, No0030, tP

NOEMA1 - PICOVEL, fgroup W, pol RL

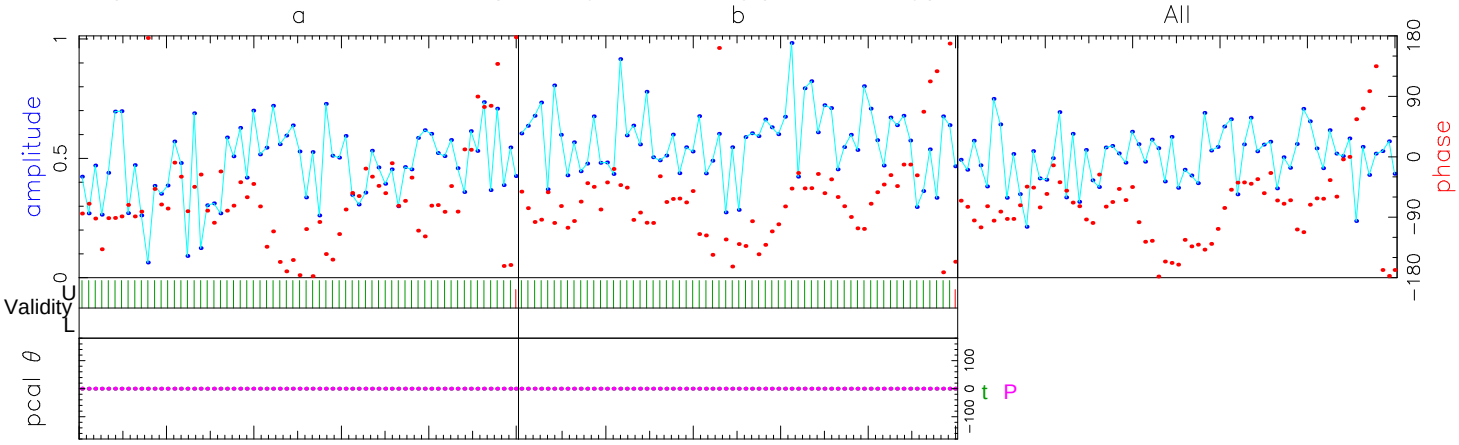


Fringe quality	8
SNR	22.6
Int time	299.842
Amp	0.338
Phase	-78.9
PFD	0.0e+00
Delays (us)	
SBD	0.001376
MBD	-0.000480
Fringe rate (Hz)	-0.004209
Ion TEC	0.000
Ref freq (MHz)	85200.0000
AP (sec)	0.500
Exp.	tjan24
Exper #	16383
Yr:day	2020:024
Start	071500.00
Stop	072000.00
FRT	071730.00
Corr/FF/build	2020:041:194448 2020:042:083625 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



	85200.00	85712.00	Freq (MHz)	All
	-83.2	-76.1	Phase	-78.9
	0.3	0.4	Ampl.	0.3
	514.0	516.2	Sbd box	515.8
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	W00UL	W01UL	Chan ids	
			Tracks	

Group delay (usec)(sbd)	-1.55153995826E+03	Apriori delay (usec)	-1.55154143103E+03	Resid mbdelay (usec)	-4.80350E-04	+/-	2.7E-05
Sband delay (usec)	-1.55154005462E+03	Apriori clock (usec)	-1.6281767E+00	Resid sbdelay (usec)	1.37641E-03	+/-	4.8E-05
Phase delay (usec)	-1.55154143360E+03	Apriori clockrate (us/s)	-3.7999999E-08	Resid phdelay (usec)	-2.57315E-06	+/-	1.7E-07
Delay rate (us/s)	-1.98630985892E-01	Apriori rate (us/s)	-1.98630936488E-01	Resid rate (us/s)	-4.94043E-08	+/-	9.5E-10
Total phase (deg)	-51.5	Apriori accel (us/s/s)	8.74425184469E-06	Resid phase (deg)	-78.9	+/-	5.1

	RMS	Theor.	Amplitude	0.338 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	56.2	20.7	Search (2048X8)	0.333	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-0.250 0.250
amp/seg (%)	59.7	36.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.001 0.001
ph/frq (deg)	0.0	3.6	Inc. seg. avg.	0.476	Sample rate(MSamp/s): 1024		dr window (ns/s)	-0.012 0.012
amp/frq (%)	20.8	6.3	Inc. frq. avg.	0.337	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) 1137.879 902.118 simultaneous interpolator

Control file: cf_1234 Input file: /Exps/tjan24/FRINGE/1002/No0030/tP..10RIRH Output file: /Exps/tjan24/FRINGE/1002/No0030/tP.W.4.10RIRH