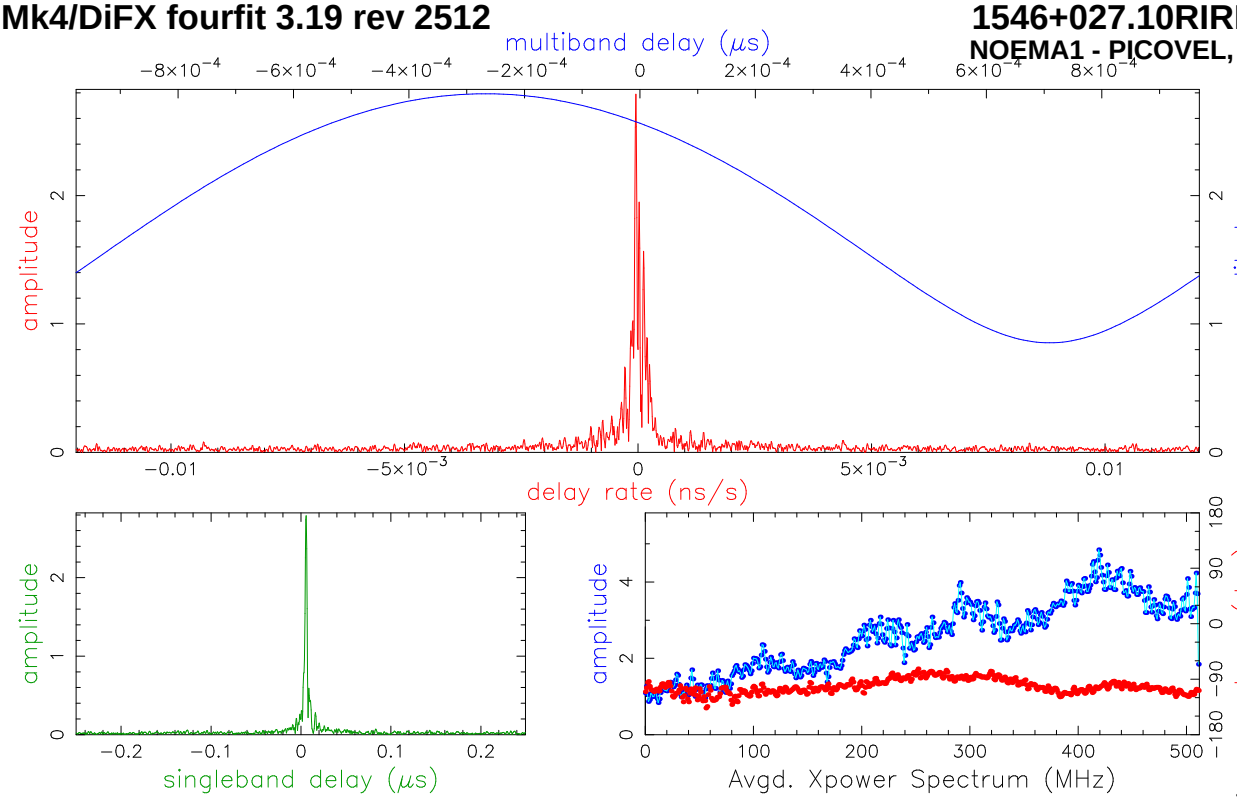
Mk4/DiFX fourfit 3.19 rev 2512

1546+027.10RIRH, No0030, tP

NOEMA1 - PICOVEL, fgroup W, pol LL

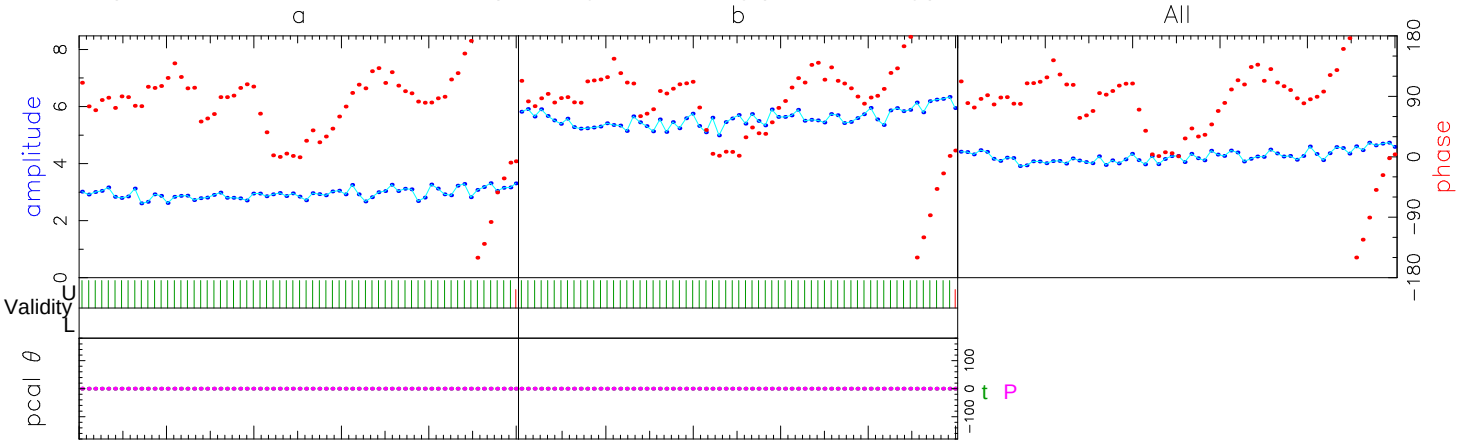


Fringe quality 4

SNR 189.3
Int time 299.983
Amp 2.826
Phase 86.1
PFD 0.0e+00
Delays (us)
SBD 0.005667
MBD -0.000303
Fringe rate (Hz)
-0.004375
Ion TEC 0.000
Ref freq (MHz)
83100.0000
AP (sec) 0.500

Exp. tjan24
Exper # 16383
Yr:day 2020:024
Start 071500.00
Stop 072000.00
FRT 071730.00
Corr/FF/build
2020:041:191939
2020:042:083603
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



	83100.00	83612.00	Freq (MHz)	All
	81.8	88.4	Phase	86.1
	1.9	3.6	Ampl.	2.8
	523.5	524.9	Sbd box	524.6
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)	-1.55153587482E+03	Apriori delay (usec)	-1.55154143103E+03	Resid mbdelay (usec)	-3.03164E-04	+/-	3.3E-06
Sband delay (usec)	-1.55153576387E+03	Apriori clock (usec)	-1.6281767E+00	Resid sbdelay (usec)	5.66716E-03	+/-	5.7E-06
Phase delay (usec)	-1.55154142815E+03	Apriori clockrate (us/s)	-3.7999999E-08	Resid phdelay (usec)	2.87928E-06	+/-	2.0E-08
Delay rate (us/s)	-1.98630989138E-01	Apriori rate (us/s)	-1.98630936488E-01	Resid rate (us/s)	-5.26497E-08	+/-	1.2E-10
Total phase (deg)	-244.6	Apriori accel (us/s/s)	8.74425184469E-06	Resid phase (deg)	86.1	+/-	0.6

	RMS	Theor.	Amplitude	2.826 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	55.1	2.5	Search (2048X8)	2.729	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-0.250	0.250
amp/seg (%)	51.3	4.3	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.	4.257	Sample rate(MSamp/s): 1024	dr window (ns/s)	-0.012	0.012
amp/frq (%)	30.2	0.7	Inc. frq. avg.	2.792	Data rate(Mb/s): 4096 nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

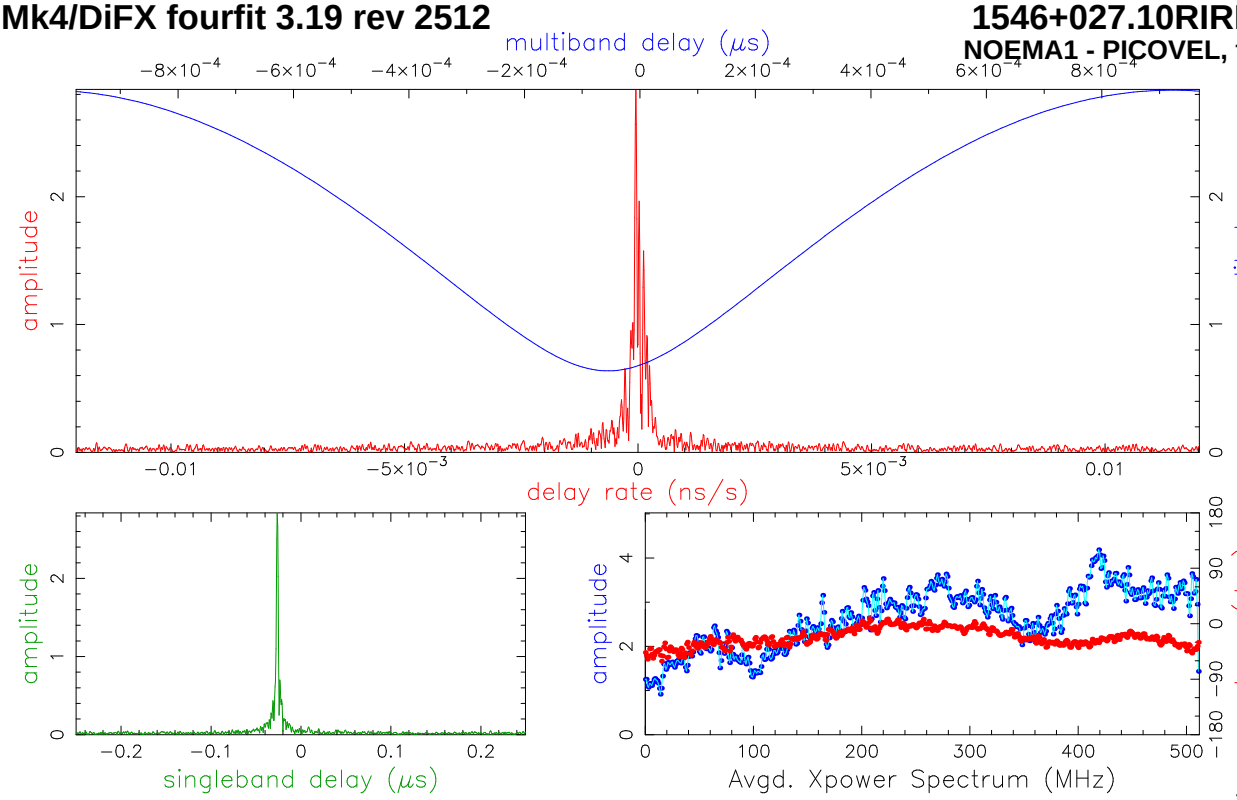
t: az 179.8 el 47.9 pa -0.1 P: az 163.7 el 54.4 pa -12.3 u,v (fr/asec) 1109.833 879.883 simultaneous interpolator

Control file: cf_1234 Input file: /Exps/tjan24/FRINGE/1001/No0030/tP..10RIRH Output file: /Exps/tjan24/FRINGE/1001/No0030/tP.W.1.10RIRH

Mk4/DiFX fourfit 3.19 rev 2512

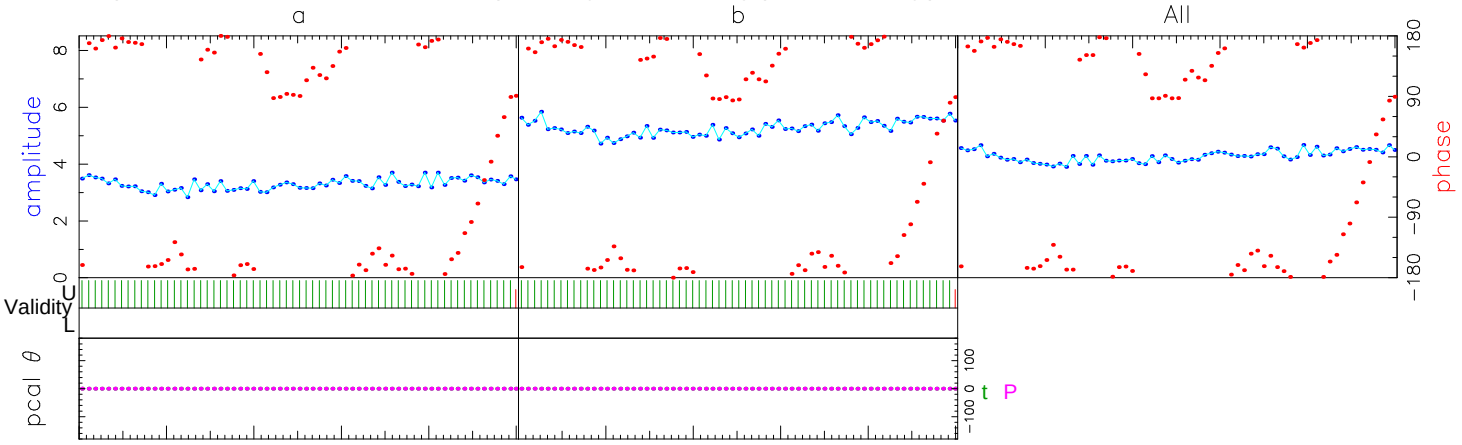
1546+027.10RIRH, No0030, tP

NOEMA1 - PICOVEL, fgroup W, pol RR



Fringe quality	4
SNR	190.2
Int time	299.980
Amp	2.839
Phase	171.3
PFD	0.0e+00
Delays (us)	
SBD	-0.026284
MBD	-0.001012
Fringe rate (Hz)	-0.004350
Ion TEC	0.000
Ref freq (MHz)	83100.0000
AP (sec)	0.500
Exp.	tjan24
Exper #	16383
Yr:day	2020:024
Start	071500.00
Stop	072000.00
FRT	071730.00
Corr/FF/build	2020:041:191939 2020:042:083604 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



	83100.00	83612.00	Freq (MHz)	All
	173.4	169.9	Phase	171.3
	2.2	3.5	Ampl.	2.8
	458.0	459.5	Sbd box	459.2
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	W00UR	W01UR	Chan ids	
			Tracks	
P	W00UR	W01UR	Chan ids	
			Tracks	

Group delay (usec)(sbd)	-1.55156783408E+03	Apriori delay (usec)	-1.55154143103E+03	Resid mbdelay (usec)	-1.01242E-03	+/-	3.3E-06
Sband delay (usec)	-1.55156771528E+03	Apriori clock (usec)	-1.6281767E+00	Resid sbdelay (usec)	-2.62842E-02	+/-	5.7E-06
Phase delay (usec)	-1.55154142531E+03	Apriori clockrate (us/s)	-3.7999999E-08	Resid phdelay (usec)	5.72449E-06	+/-	2.0E-08
Delay rate (us/s)	-1.98630988829E-01	Apriori rate (us/s)	-1.98630936488E-01	Resid rate (us/s)	-5.23413E-08	+/-	1.2E-10
Total phase (deg)	-159.5	Apriori accel (us/s/s)	8.74425184469E-06	Resid phase (deg)	171.3	+/-	0.6

	RMS	Theor.	Amplitude	2.839 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	55.2	2.5	Search (2048X8)	2.767	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-0.250 0.250
amp/seg (%)	51.4	4.3	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.	4.282	Sample rate(MSamp/s): 1024		dr window (ns/s)	-0.012 0.012
amp/frq (%)	22.5	0.7	Inc. frq. avg.	2.833	Data rate(Mb/s): 4096	nlags: 512 t_cohere infinite	ion window (TEC)	0.00 0.00

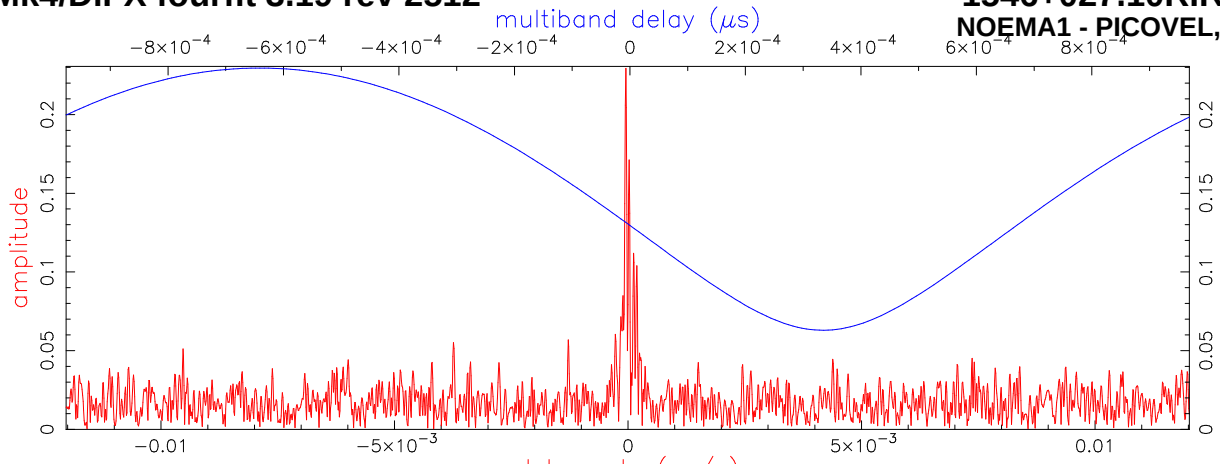
t: az 179.8 el 47.9 pa -0.1 P: az 163.7 el 54.4 pa -12.3 u,v (fr/asec) 1109.833 879.883 simultaneous interpolator

Control file: cf_1234 Input file: /Exps/tjan24/FRINGE/1001/No0030/tP..10RIRH Output file: /Exps/tjan24/FRINGE/1001/No0030/tP.W.2.10RIRH

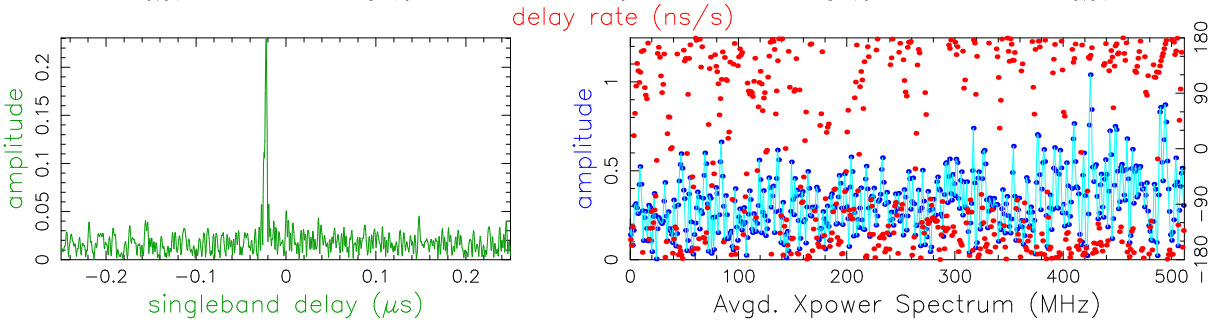
Mk4/DiFX fourfit 3.19 rev 2512

1546+027.10RIRH, No0030, tP

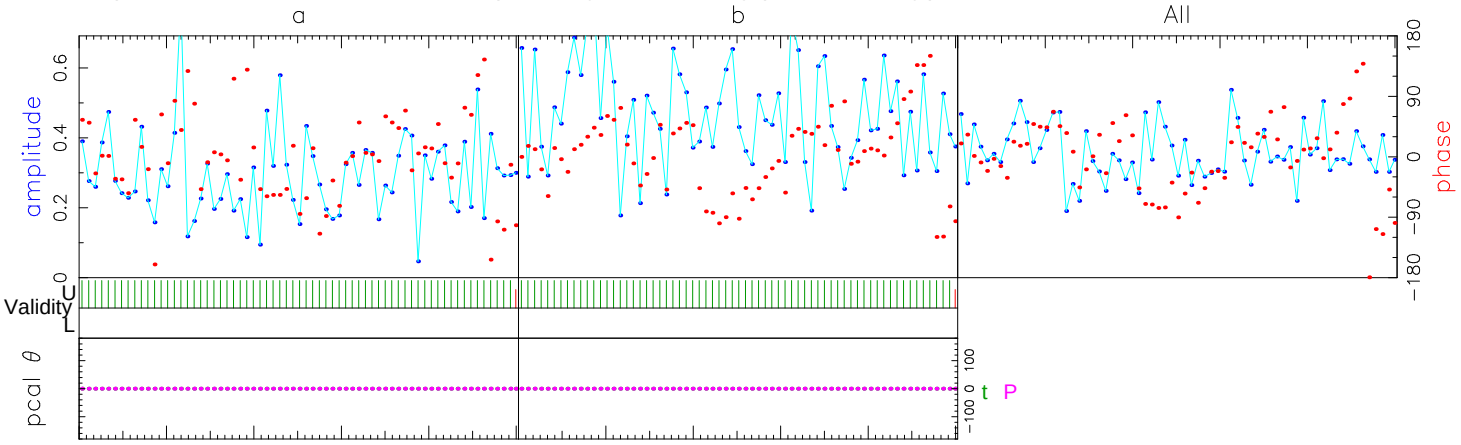
NOEMA1 - PICOVEL, fgroup W, pol LR



Fringe quality	8
SNR	15.4
Int time	299.983
Amp	0.231
Phase	5.2
PFD	2.8e-45
Delays (us)	
SBD	-0.022087
MBD	-0.000668
Fringe rate (Hz)	-0.004332
Ion TEC	0.000
Ref freq (MHz)	83100.0000
AP (sec)	0.500
Exp.	tjan24
Exper #	16383
Yr:day	2020:024
Start	071500.00
Stop	072000.00
FRT	071730.00
Corr/FF/build	2020:041:191939
	2020:042:083605
	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



	83100.00	83612.00	Freq (MHz)	All
	2.1	6.9	Phase	5.2
	0.2	0.3	Ampl.	0.2
	466.0	468.2	Sbd box	467.8
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	W00UR	W01UR	Chan ids	
			Tracks	

Group delay (usec)(sbd)	-1.55156358295E+03	Apriori delay (usec)	-1.55154143103E+03	Resid mbdelay (usec)	-6.67539E-04	+/-	4.0E-05
Sband delay (usec)	-1.55156351791E+03	Apriori clock (usec)	-1.6281767E+00	Resid sbdelay (usec)	-2.20869E-02	+/-	7.0E-05
Phase delay (usec)	-1.55154143086E+03	Apriori clockrate (us/s)	-3.7999999E-08	Resid phdelay (usec)	1.72369E-07	+/-	2.5E-07
Delay rate (us/s)	-1.98630988617E-01	Apriori rate (us/s)	-1.98630936488E-01	Resid rate (us/s)	-5.21292E-08	+/-	1.4E-09
Total phase (deg)	-325.6	Apriori accel (us/s/s)	8.74425184469E-06	Resid phase (deg)	5.2	+/-	7.4

	RMS	Theor.	Amplitude	0.231 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	55.8	30.4	Search (2048X8)	0.221	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-0.250	0.250
amp/seg (%)	64.7	53.0	Interp.	0.000	Bits/sample: 2x2 SampCntNorm: disabled	mb window (us)	-0.001	0.001
ph/frq (deg)	0.0	5.2	Inc. seg. avg.	0.315	Sample rate(MSamp/s): 1024	dr window (ns/s)	-0.012	0.012
amp/frq (%)	27.3	9.2	Inc. frq. avg.	0.229	Data rate(Mb/s): 4096 nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

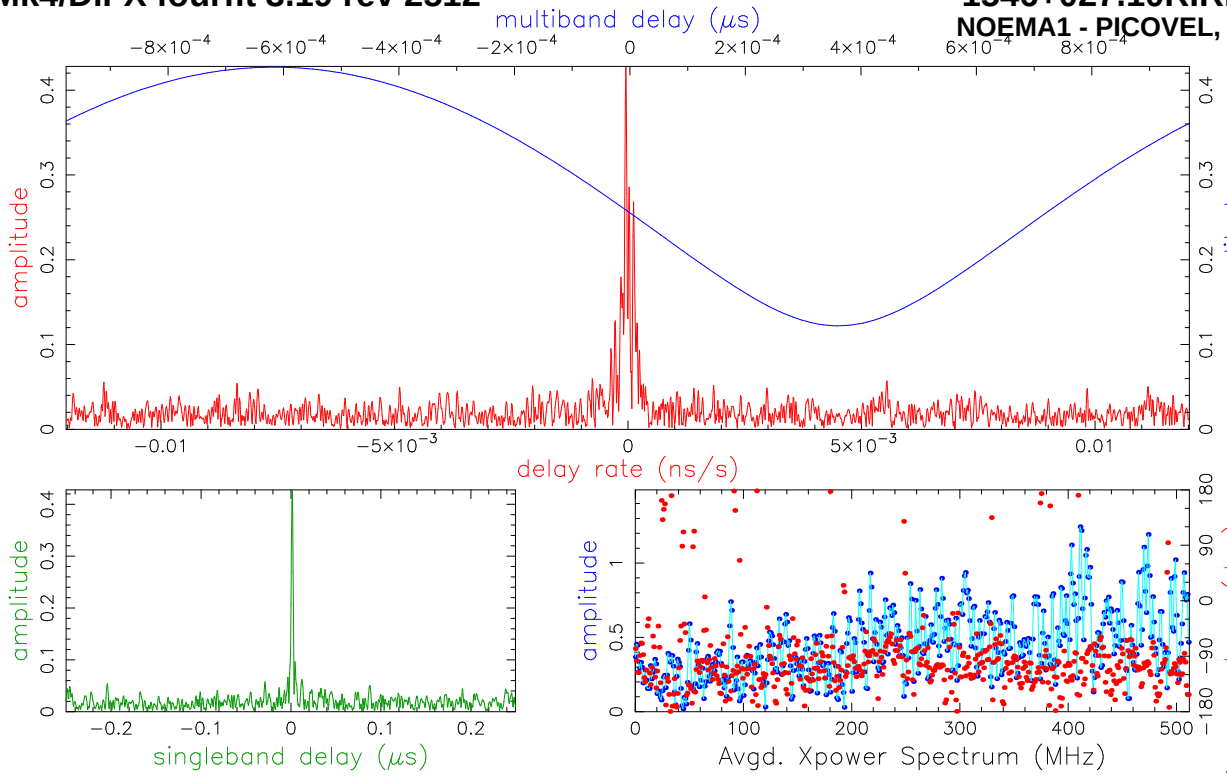
t: az 179.8 el 47.9 pa -0.1 P: az 163.7 el 54.4 pa -12.3 u,v (fr/asec) 1109.833 879.883 simultaneous interpolator

Control file: cf_1234 Input file: /Exps/tjan24/FRINGE/1001/No0030/tP..10RIRH Output file: /Exps/tjan24/FRINGE/1001/No0030/tP.W.3.10RIRH

Mk4/DiFX fourfit 3.19 rev 2512

1546+027.10RIRH, No0030, tP

NOEMA1 - PICOVEL, fgroup W, pol RL

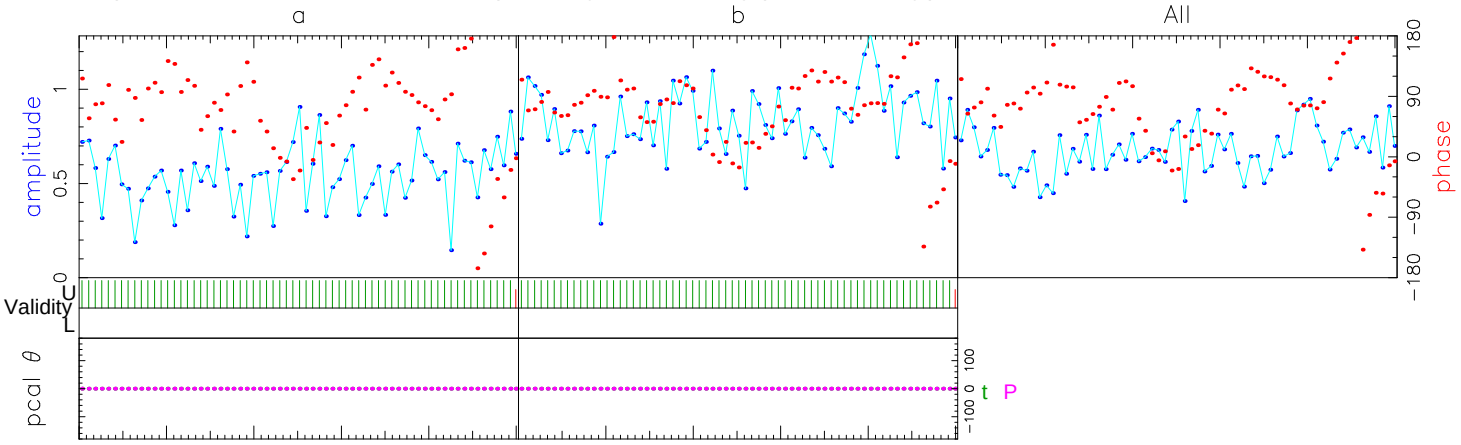


Fringe quality 8

SNR 28.7
Int time 299.980
Amp 0.428
Phase 76.8
PFD 0.0e+00
Delays (us)
SBD 0.001382
MBD -0.000635
Fringe rate (Hz)
-0.004382
Ion TEC 0.000
Ref freq (MHz)
83100.0000
AP (sec) 0.500

Exp. tjan24
Exper # 16383
Yr:day 2020:024
Start 071500.00
Stop 072000.00
FRT 071730.00
Corr/FF/build
2020:041:191939
2020:042:083607
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



	83100.00	83612.00	Freq (MHz)	All
	74.6	78.0	Phase	76.8
	0.3	0.5	Ampl.	0.4
	514.6	516.1	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)	-1.55154011299E+03	Apriori delay (usec)	-1.55154143103E+03	Resid mbdelay (usec)	-6.35086E-04	+/-	2.2E-05
Sband delay (usec)	-1.55154004922E+03	Apriori clock (usec)	-1.6281767E+00	Resid sbdelay (usec)	1.38181E-03	+/-	3.8E-05
Phase delay (usec)	-1.55154142846E+03	Apriori clockrate (us/s)	-3.7999999E-08	Resid phdelay (usec)	2.56704E-06	+/-	1.3E-07
Delay rate (us/s)	-1.98630989225E-01	Apriori rate (us/s)	-1.98630936488E-01	Resid rate (us/s)	-5.27369E-08	+/-	7.7E-10
Total phase (deg)	-253.9	Apriori accel (us/s/s)	8.74425184469E-06	Resid phase (deg)	76.8	+/-	4.0

	RMS	Theor.	Amplitude	0.428 +/- 0.015	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	56.1	16.4	Search (2048X8)	0.411	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-0.250 0.250
amp/seg (%)	65.4	28.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.001 0.001
ph/frq (deg)	0.0	2.8	Inc. seg. avg.	0.651	Sample rate(MSamp/s): 1024		dr window (ns/s)	-0.012 0.012
amp/frq (%)	28.5	4.9	Inc. frq. avg.	0.427	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) 1109.833 879.883 simultaneous interpolator

Control file: cf_1234 Input file: /Exps/tjan24/FRINGE/1001/No0030/tP..10RIRH Output file: /Exps/tjan24/FRINGE/1001/No0030/tP.W.4.10RIRH