

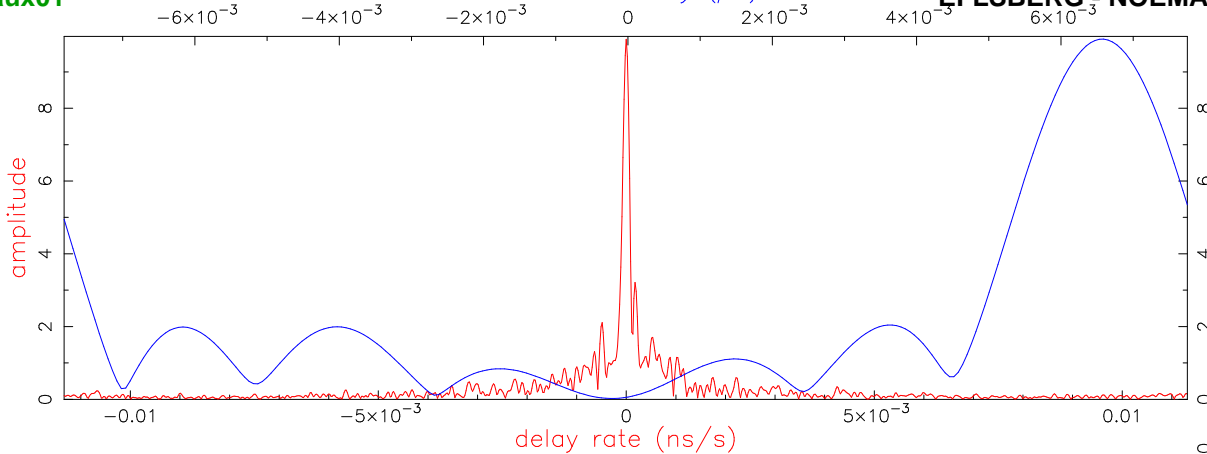
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, BN

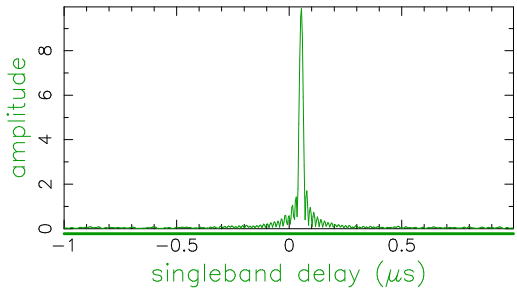
EFLSBERG - NOEMA, fgroup W, pol RR

multiband delay (μ s)

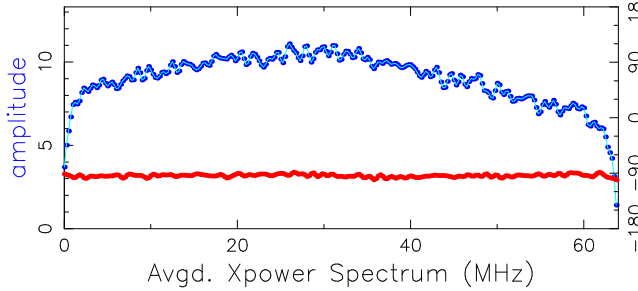


Fringe quality 5

SNR 334.0
 Int time 149.968
 Amp 9.974
 Phase 88.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.053535
 MBD 0.006545
 Fringe rate (Hz)
 -0.000058
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



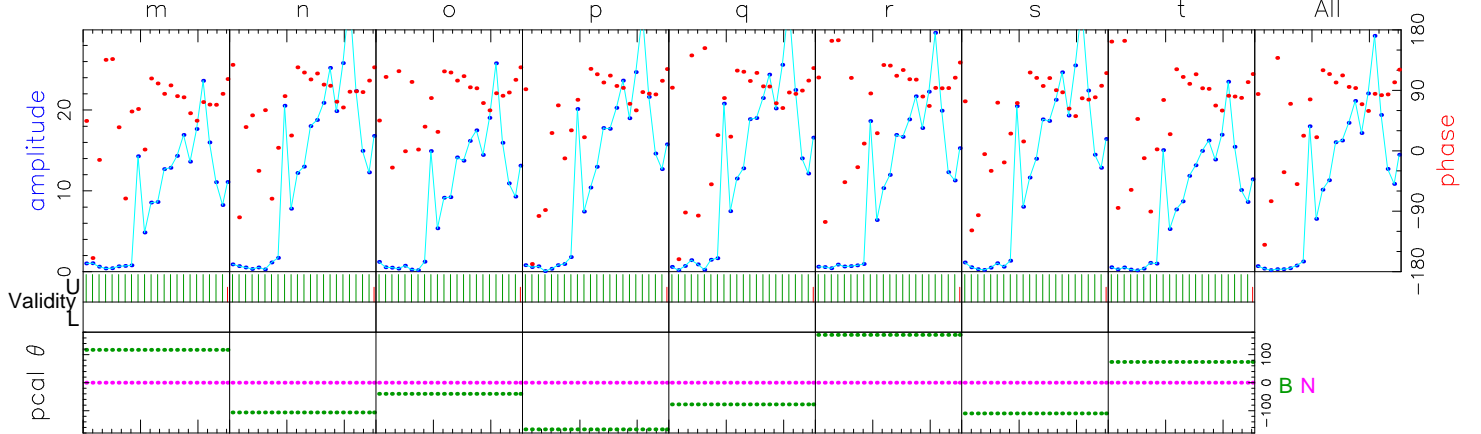
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140144
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	74.0	91.6	88.8	88.6	90.6	98.3	82.1	86.5	Phase	88.0
	7.9	11.4	8.6	11.0	11.3	10.1	11.4	7.8	Ampl.	10.0
	268.8	270.5	271.3	271.0	271.3	271.1	271.0	269.5	Sbd box	270.7
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	5.98858957211E+02	Apriori delay (usec)	5.98805536961E+02	Resid mbdelay (usec)	6.54525E-03	+/-	3.2E-06
Sband delay (usec)	5.98859072211E+02	Apriori clock (usec)	-2.2048868E+01	Resid sbdelay (usec)	5.35352E-02	+/-	2.6E-05
Phase delay (usec)	5.98805539799E+02	Apriori clockrate (us/s)	-2.0383803E-07	Resid phdelay (usec)	2.83745E-06	+/-	1.1E-08
Delay rate (us/s)	-8.87095923905E-02	Apriori rate (us/s)	-8.87095917131E-02	Resid rate (us/s)	-6.77381E-10	+/-	1.3E-10
Total phase (deg)	71.4	Apriori accel (us/s/s)	1.69068700123E-06	Resid phase (deg)	88.0	+/-	0.3

ph/seg (deg)	RMS 64.5	Theor. 0.8	Amplitude Search (1024X32)	9.974 +/- 0.030	9.708	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	87.9	1.4	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	7.7	0.5	Inc. seg. avg.	10.709	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	15.1	0.8	Inc. frq. avg.	9.959	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011
					Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00	

B: az 76.4 el 43.5 pa -53.6 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 663.414 577.506 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/BN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/BN.W.19.3MP1W9

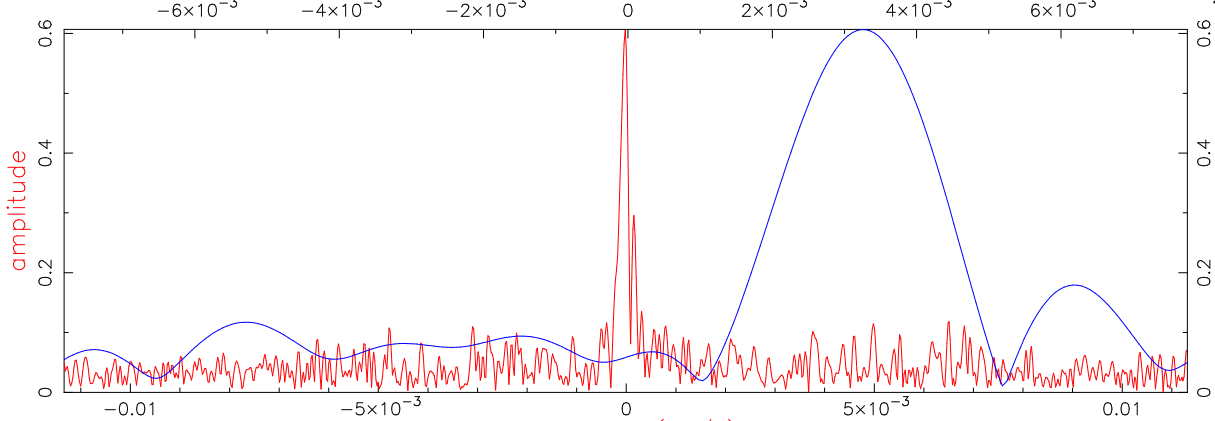
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, BN

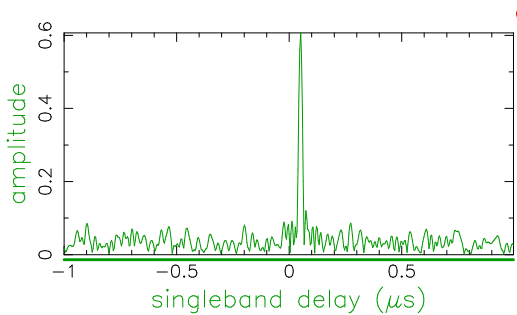
EFLSBERG - NOEMA, fgroup W, pol LR

multiband delay (μ s)

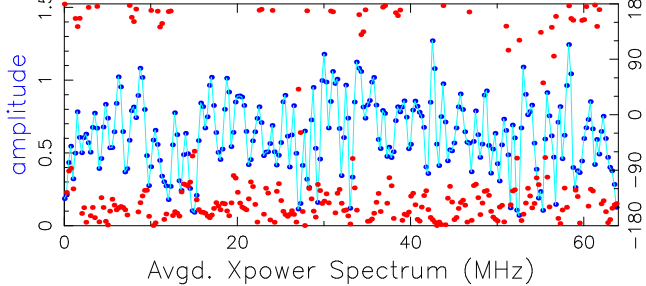


Fringe quality 9

SNR 20.3
 Int time 149.968
 Amp 0.607
 Phase 27.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.050528
 MBD 0.003251
 Fringe rate (Hz) -0.001058
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

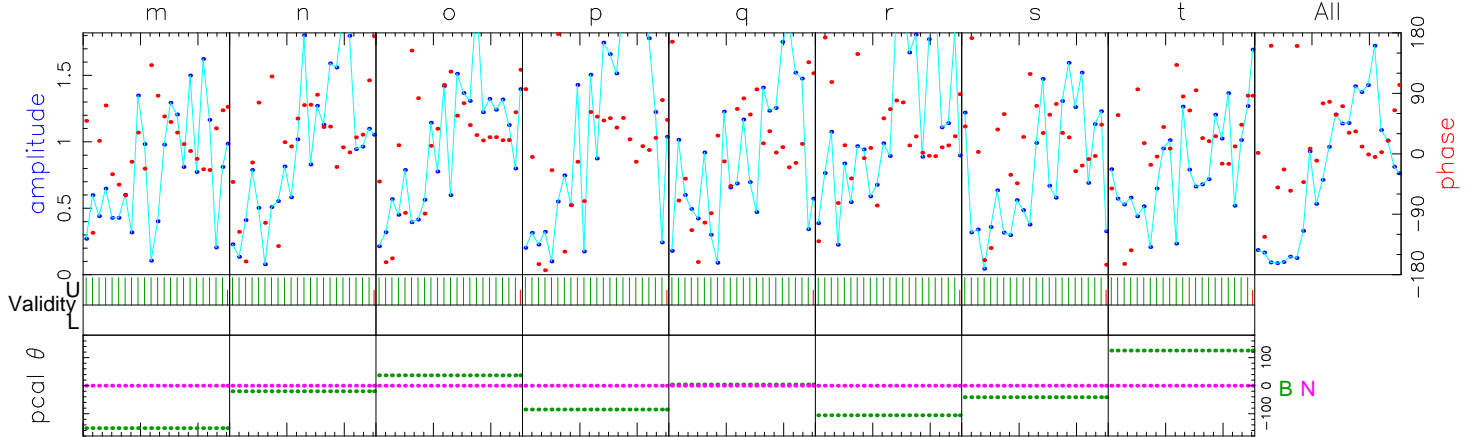


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140146
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	13.3	37.8	42.8	27.3	1.8	30.4	22.7	36.5	Phase	27.1
	0.6	0.6	0.6	0.8	0.5	0.7	0.6	0.5	Ampl.	0.6
	268.9	269.7	270.4	270.1	270.9	270.1	269.9	269.7	Sbd box	269.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	5.98855663306E+02	Apriori delay (usec)	5.98805536961E+02	Resid mbdelay (usec)	3.25134E-03	+/-	5.3E-05
Sband delay (usec)	5.98856065211E+02	Apriori clock (usec)	-2.2048868E+01	Resid sbdelay (usec)	5.05283E-02	+/-	4.2E-04
Phase delay (usec)	5.98805537837E+02	Apriori clockrate (us/s)	-2.0383803E-07	Resid phdelay (usec)	8.75185E-07	+/-	1.8E-07
Delay rate (us/s)	-8.87096039966E-02	Apriori rate (us/s)	-8.87095917131E-02	Resid rate (us/s)	-1.22836E-08	+/-	2.1E-09
Total phase (deg)	10.5	Apriori accel (us/s/s)	1.69068700123E-06	Resid phase (deg)	27.1	+/-	5.6

ph/seg (deg)	65.2	RMS	13.5	Theor.	Amplitude	0.607 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	88.4	Search (1024X32)	0.595	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	14.8	Inc. seg. avg.	0.739	Inc. frq. avg.	0.615	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	15.7	Inc. frq. avg.	0.615	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00	0.00	0.00	

B: az 76.4 el 43.5 pa -53.6 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 663.414 577.506 simultaneous interpolator

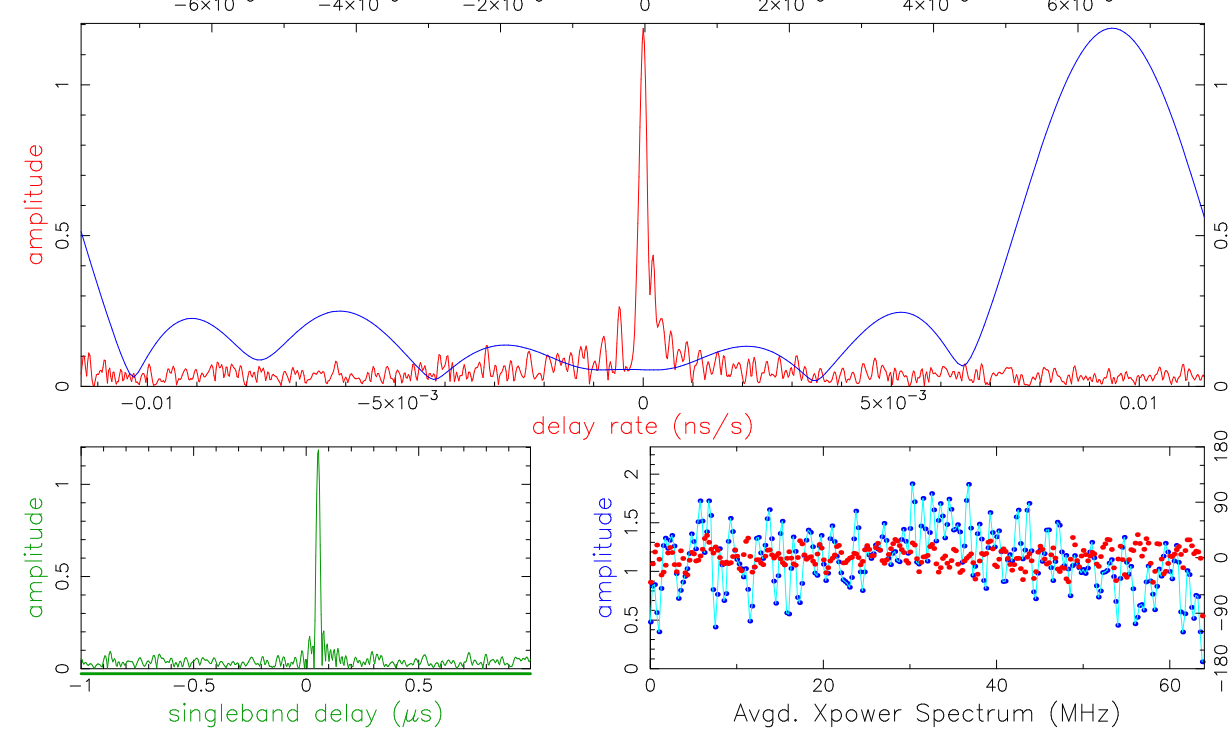
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/BN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/BN.W.34.3MP1W9

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, BN

EFLSBERG - NOEMA, fgroup W, pol RL

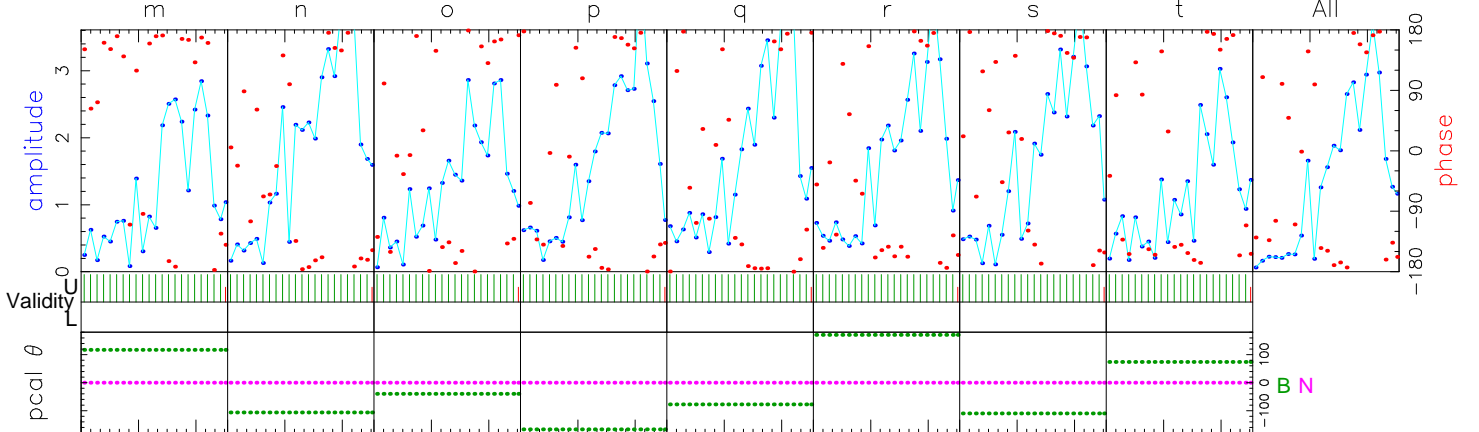


Fringe quality 7

SNR 40.3
 Int time 149.968
 Amp 1.204
 Phase 179.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.053154
 MBD 0.006431
 Fringe rate (Hz)
 -0.000148
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140148
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	167.1	-177.9	-179.6	-179.8	-178.1	-168.3	172.3	-179.3	Phase	179.9
	1.1	1.4	0.9	1.4	1.3	1.3	1.2	0.9	Ampl.	1.2
	268.9	270.4	270.8	271.1	271.2	271.3	270.8	269.7	Sbd box	270.6
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 5.98858843149E+02 Apriori delay (usec) 5.98805536961E+02 Resid mbdelay (usec) 6.43119E-03 +/- 2.7E-05
 Sband delay (usec) 5.98858691211E+02 Apriori clock (usec) -2.2048868E+01 Resid sbdelay (usec) 5.31542E-02 +/- 2.1E-04
 Phase delay (usec) 5.98805542764E+02 Apriori clockrate (us/s) -2.0383803E-07 Resid phdelay (usec) 5.80271E-06 +/- 9.2E-08
 Delay rate (us/s) -8.87095934278E-02 Apriori rate (us/s) -8.87095917131E-02 Resid rate (us/s) -1.71471E-09 +/- 1.1E-09
 Total phase (deg) 163.3 Apriori accel (us/s/s) 1.69068700123E-06 Resid phase (deg) 179.9 +/- 2.8

ph/seg (deg) RMS Theor. Amplitude 1.204 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 63.3 6.8 Search (1024X32) 1.180 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 92.6 11.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.9 4.0 Inc. seg. avg. 1.371 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 15.6 7.0 Inc. frq. avg. 1.192 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 76.4 el 43.5 pa -53.6 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 663.414 577.506 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/BN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/BN.W.49.3MP1W9

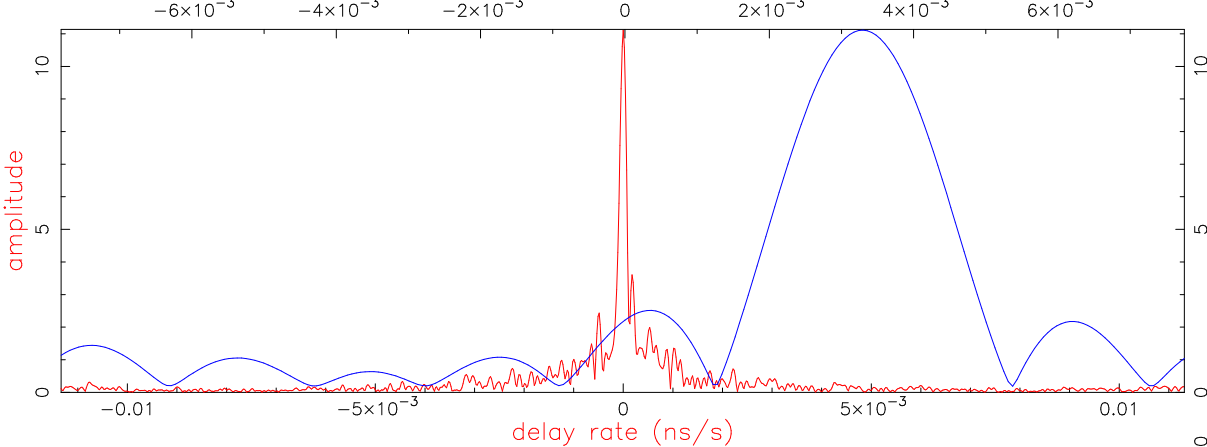
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, BN

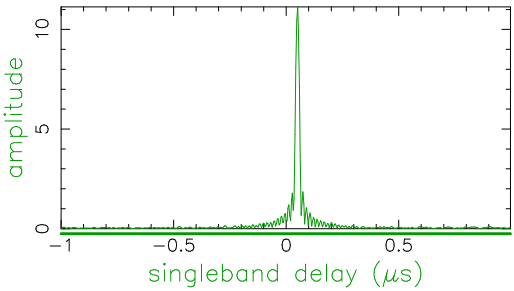
EFLSBERG₃- NOEMA, fgroup W, pol LL

multiband delay (μ s)

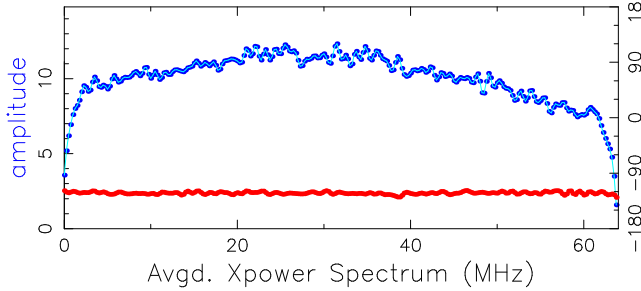


Fringe quality 5

SNR 372.9
 Int time 149.968
 Amp 11.135
 Phase 58.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.050183
 MBD 0.003279
 Fringe rate (Hz)
 -0.000041
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

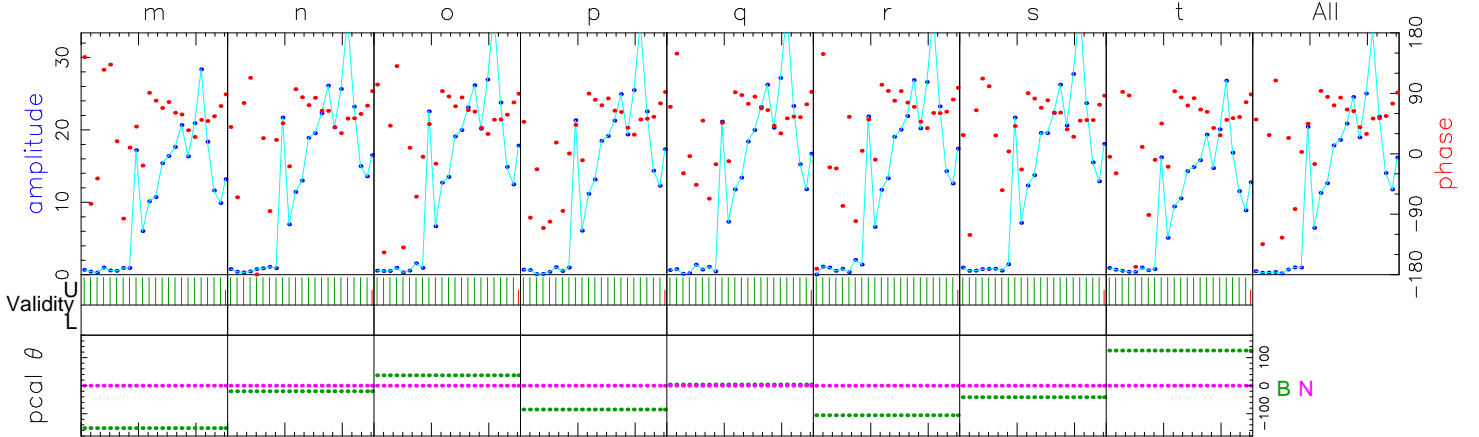


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140142
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	54.9	58.7	58.1	57.2	59.2	66.2	54.9	57.4	Phase	58.4
	9.4	11.8	12.0	11.4	11.8	11.7	12.1	8.8	Ampl.	11.1
	268.4	269.4	270.2	270.5	270.5	270.2	269.8	268.8	Sbd box	269.8
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.98855690868E+02	Apriori delay (usec)	5.98805536961E+02	Resid mbdelay (usec)	3.27891E-03	+/-	2.9E-06
Sband delay (usec)	5.98855719711E+02	Apriori clock (usec)	-2.2048868E+01	Resid sbdelay (usec)	5.01827E-02	+/-	2.3E-05
Phase delay (usec)	5.98805538846E+02	Apriori clockrate (us/s)	-2.0383803E-07	Resid phdelay (usec)	1.88418E-06	+/-	9.9E-09
Delay rate (us/s)	-8.87095921850E-02	Apriori rate (us/s)	-8.87095917131E-02	Resid rate (us/s)	-4.71899E-10	+/-	1.1E-10
Total phase (deg)	41.8	Apriori accel (us/s/s)	1.69068700123E-06	Resid phase (deg)	58.4	+/-	0.3

ph/seg (deg)	RMS 65.7	Theor. 0.7	Amplitude Search (1024X32)	11.135 +/- 0.030	11.043	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	90.5	1.3	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	3.8	0.4	Inc. seg. avg.	12.037	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	10.7	0.8	Inc. frq. avg.	11.131	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011
					Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

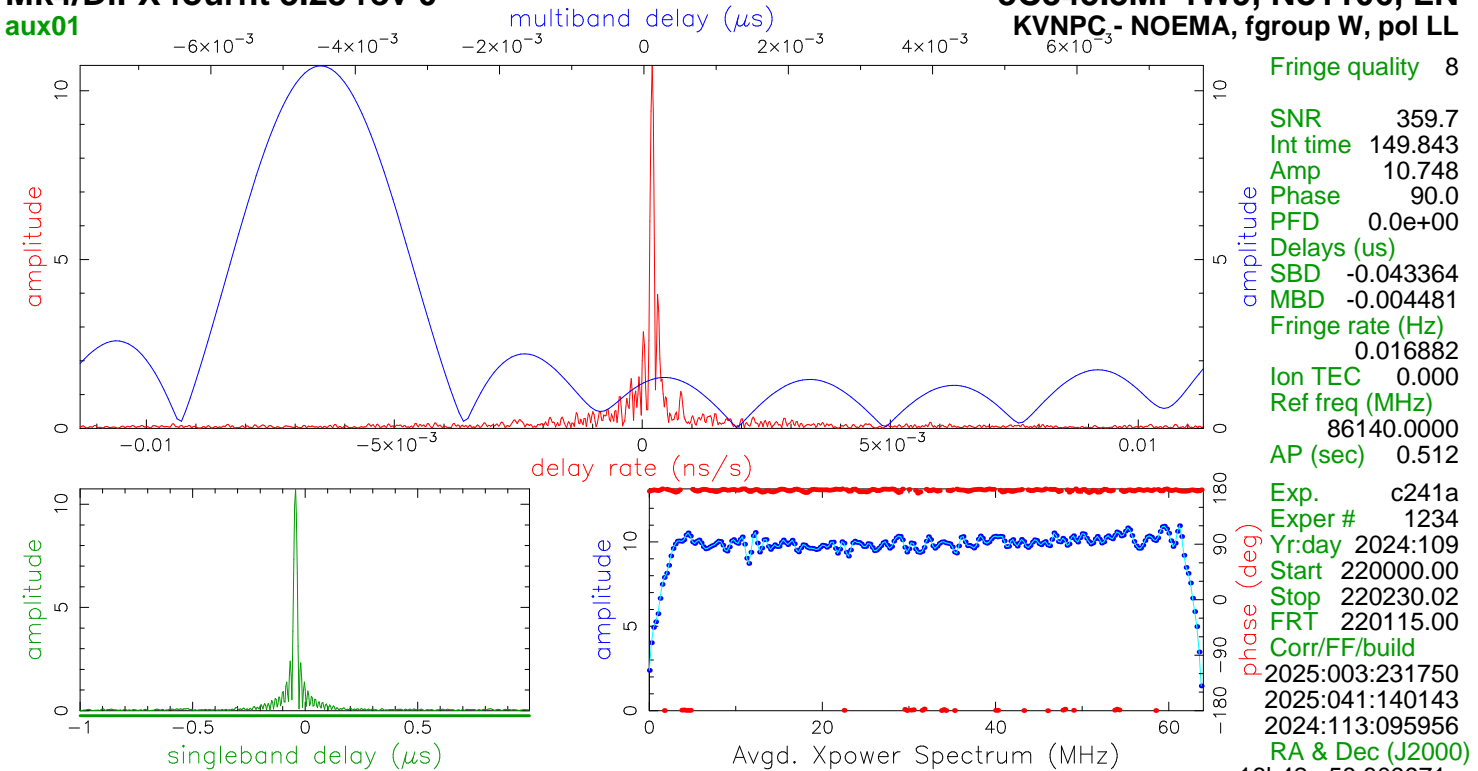
B: az 76.4 el 43.5 pa -53.6 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 663.414 577.506 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/BN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/BN.W.6.3MP1W9

Mk4/DiFX fourfit 3.25 rev 0

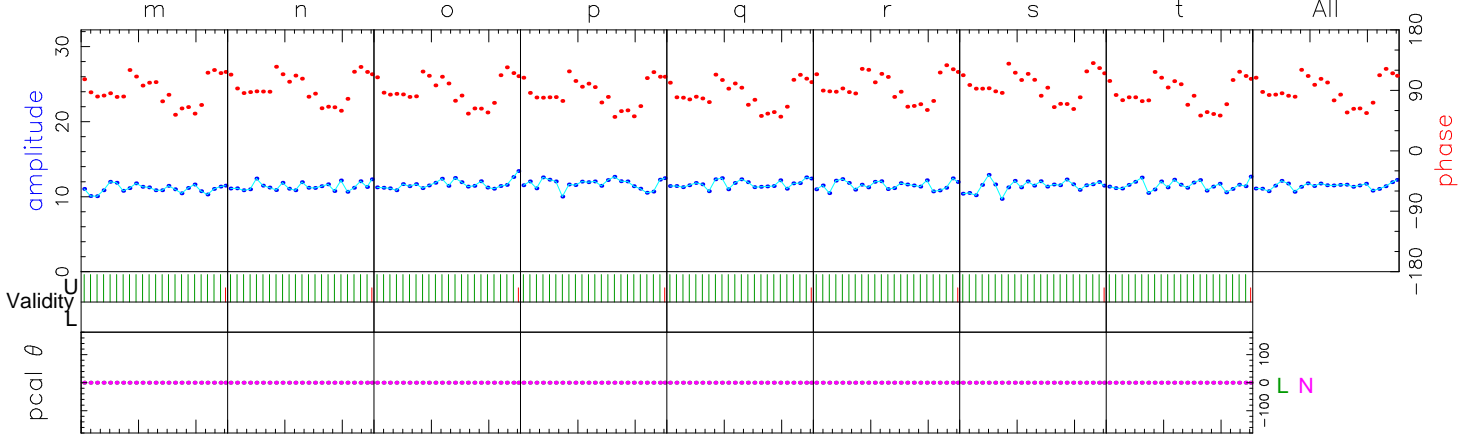
aux01

3C345.3MP1W9, No1106, LN

KVNPC- NOEMA, fgroup W, pol LL



Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



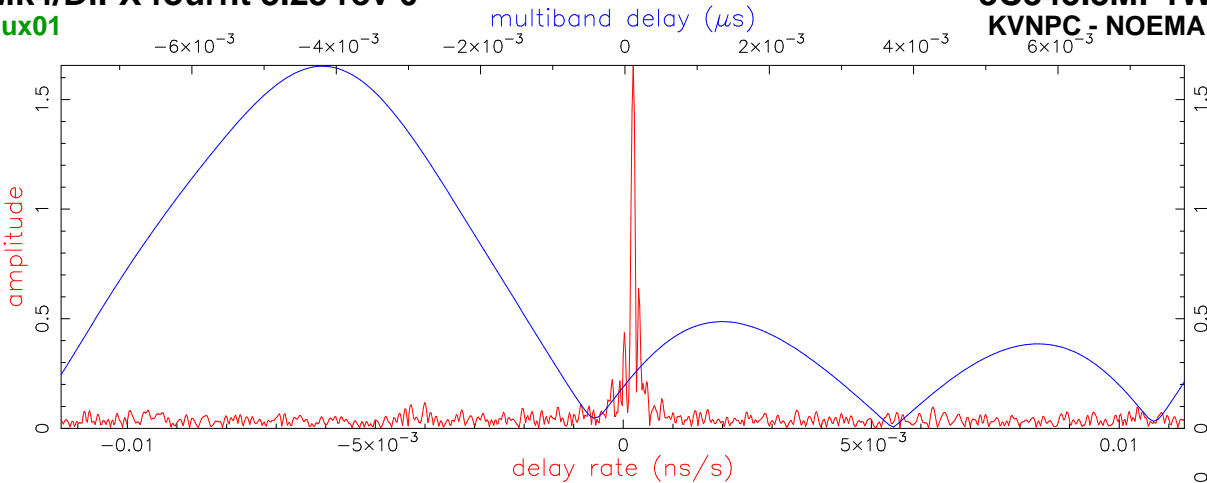
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	89.3	94.2	90.0	85.5	83.7	95.2	97.2	85.4	Phase	90.0	
	10.4	10.7	10.9	11.0	11.0	10.8	10.7	10.7	Ampl.	10.8	
	246.0	245.9	245.8	245.9	245.9	246.0	245.8	245.8	Sbd box	245.9	
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used		
L	0	0	60000	0	0	0	4000	0	PC freqs		
N	0	0	0	0	0	0	0	0	PC freqs		
L:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
L:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
L	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
N	1000	1000	1000	1000	1000	1000	1000	1000			
L	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	1.59458013444E+03		Apriori delay (usec)		1.59461586526E+03		Resid mbdelay (usec)		-4.48082E-03	+/- 3.0E-06	
Sband delay (usec)	1.59457250101E+03		Apriori clock (usec)		-1.2159723E+01		Resid sbdelay (usec)		-4.33642E-02	+/- 2.4E-05	
Phase delay (usec)	1.59461586816E+03		Apriori clockrate (us/s)		-7.4558380E-06		Resid phdelay (usec)		2.90318E-06	+/- 1.0E-08	
Delay rate (us/s)	-1.56283914022E+00		Apriori rate (us/s)		-1.56283933620E+00		Resid rate (us/s)		1.95979E-07	+/- 1.2E-10	
Total phase (deg)	318.0		Apriori accel (us/s/s)		-1.53001359582E-05		Resid phase (deg)		90.0	+/- 0.3	
	RMS	Theor.	Amplitude	10.748 +/- 0.030		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	20.2	0.8	Search (1024X32)	10.640		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	7.4	1.3	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	5.4	0.5	Inc. seg. avg.	11.438		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	1.8	0.8	Inc. frq. avg.	10.774		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
L: az 290.7 el 47.7 pa 74.7	N: az 70.7 el 41.2 pa -61.0		u,v (fr/asec) 11629.318 -1710.882						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No1106/LN..3MP1W9		Output file: /Exps/c241a/v2/3mm/1234/No1106/LN.W.14.3MP1W9								

Mk4/DiFX fourfit 3.25 rev 0

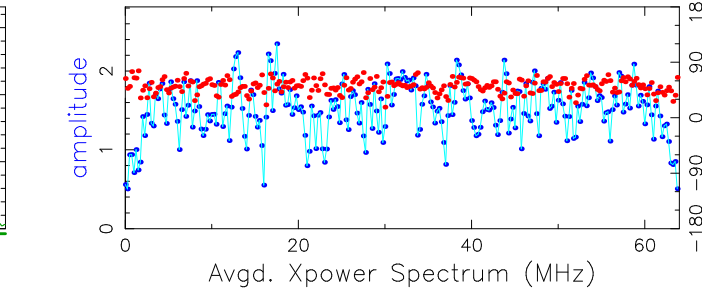
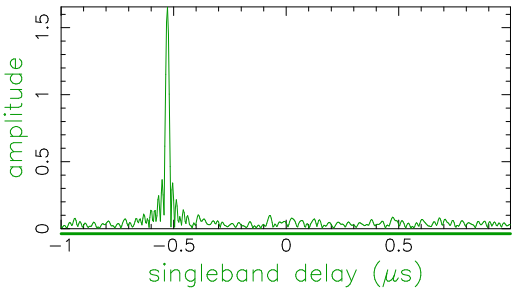
aux01

3C345.3MP1W9, No1106, LN

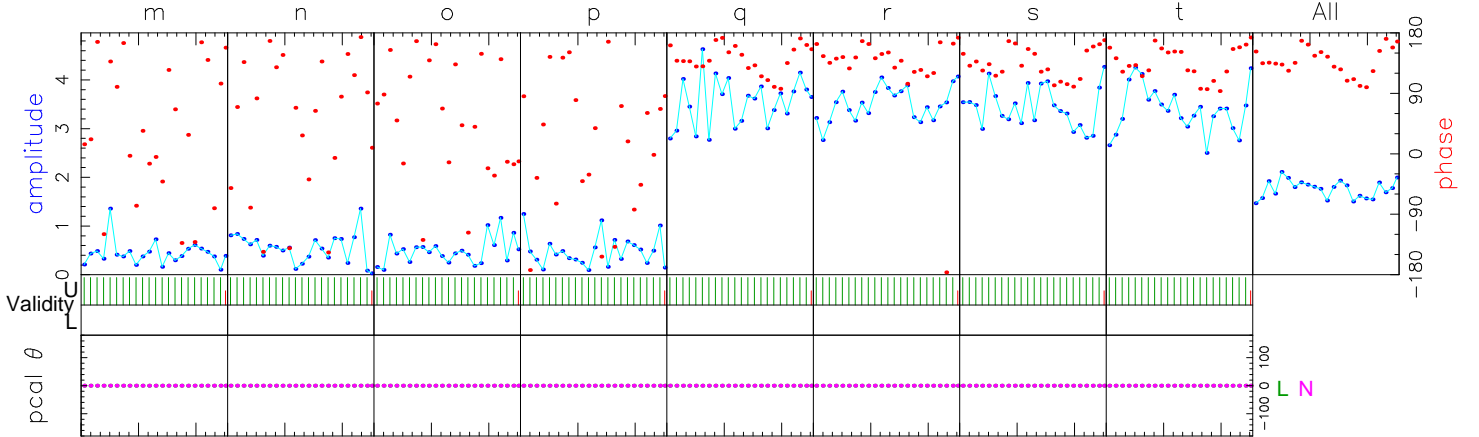
KVNPC - NOEMA, fgroup W, pol RR



Fringe quality 4
 Error code G
 SNR 55.4
 Int time 149.843
 Amp 1.656
 Phase 137.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.527928
 MBD -0.004190
 Fringe rate (Hz)
 0.016861
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140145
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"



Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
L	0	0	60000	0	0	0	4000	0		
N	0	0	0	0	0	0	0	0		
L:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
L:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
L	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
L	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) 1.59408042540E+03 Apriori delay (usec) 1.59461586526E+03 Resid mbdelay (usec) -4.18985E-03 +/- 2.0E-05
 Sband delay (usec) 1.59408793676E+03 Apriori clock (usec) -1.2159723E+01 Resid sbdelay (usec) -5.27928E-01 +/- 1.6E-04
 Phase delay (usec) 1.59461586970E+03 Apriori clockrate (us/s) -7.4558380E-06 Resid phdelay (usec) 4.43821E-06 +/- 6.7E-08
 Delay rate (us/s) -1.56283914046E+00 Apriori rate (us/s) -1.56283933620E+00 Resid rate (us/s) 1.95742E-07 +/- 7.7E-10
 Total phase (deg) 5.7 Apriori accel (us/s/s) -1.53001359582E-05 Resid phase (deg) 137.6 +/- 2.1

RMS Theor. Amplitude 1.656 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 20.4 5.0 Search (1024X32) 1.634 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 12.2 8.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 33.8 2.9 Inc. seg. avg. 1.752 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 94.3 5.1 Inc. frq. avg. 1.664 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

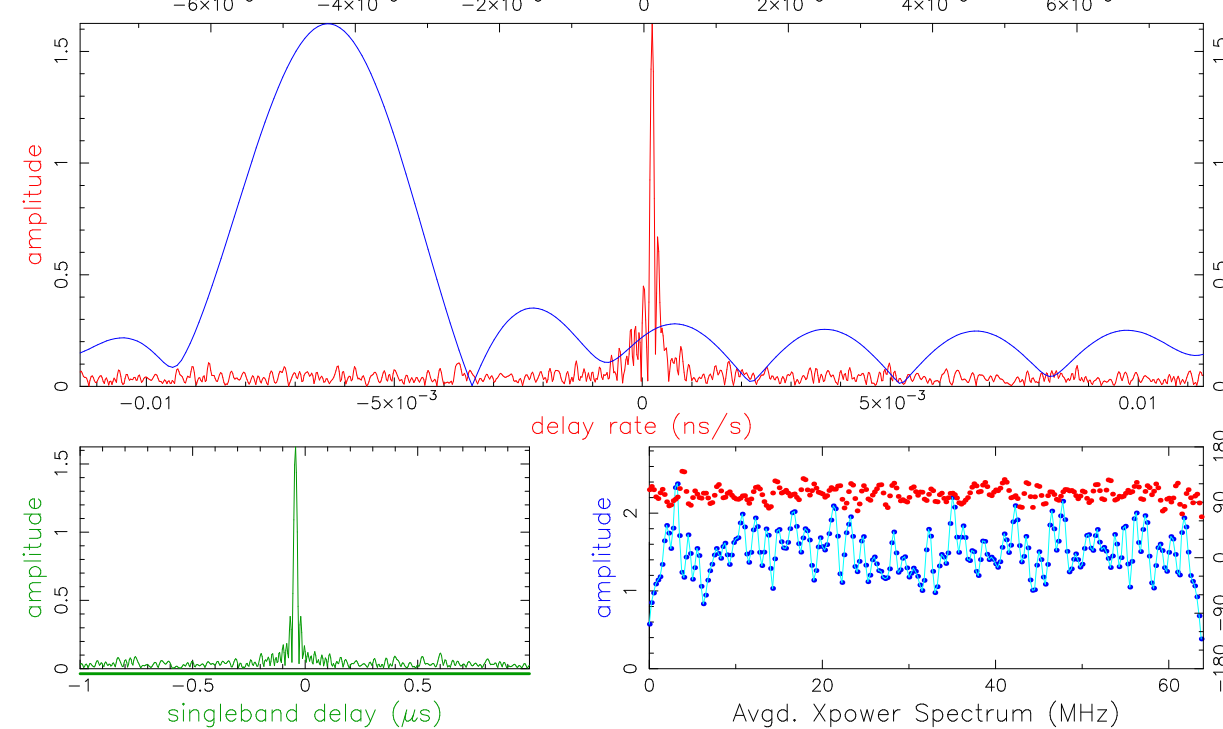
L: az 290.7 el 47.7 pa 74.7 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 11629.318 -1710.882 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/LN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/LN.W.29.3MP1W9

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, LN

KVNPC- NOEMA, fgroup W, pol LR

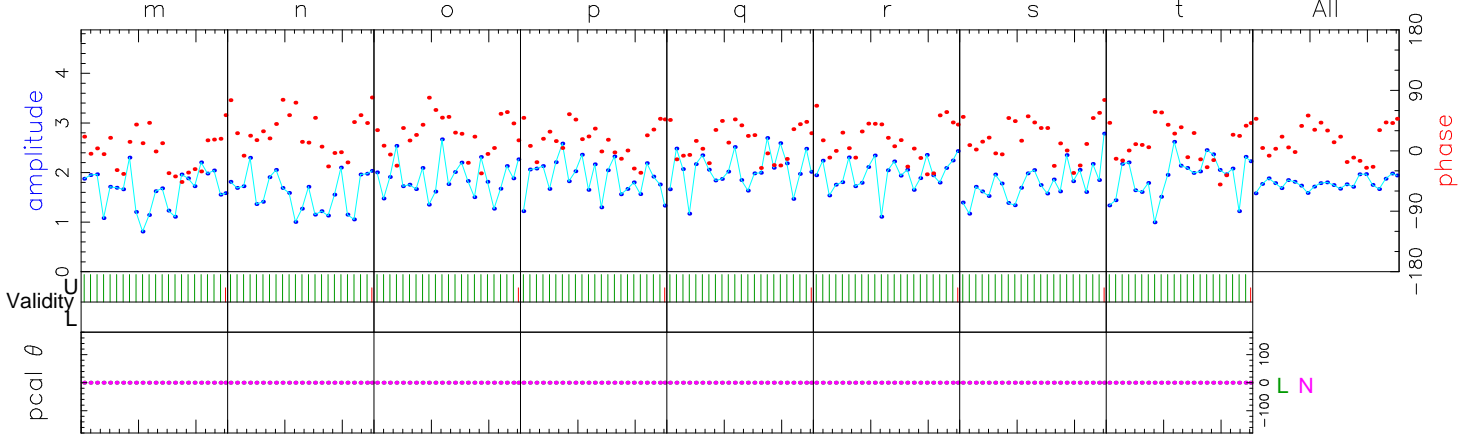


Fringe quality 7

SNR 54.4
 Int time 149.843
 Amp 1.626
 Phase 14.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.043316
 MBD -0.004380
 Fringe rate (Hz)
 0.016870
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140148
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	-2.7	28.9	23.4	15.2	11.4	16.0	19.6	8.6	Phase	14.9
	1.5	1.4	1.7	1.8	1.9	1.7	1.6	1.7	Ampl.	1.6
	246.0	246.1	246.0	246.0	245.9	245.9	245.8	245.7	Sbd box	245.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
L	0	0	60000	0	0	0	4000	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
L:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
L:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
L	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
L	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 1.59458023512E+03 Apriori delay (usec) 1.59461586526E+03 Resid mbdelay (usec) -4.38014E-03 +/- 2.0E-05
 Sband delay (usec) 1.59457254901E+03 Apriori clock (usec) -1.2159723E+01 Resid sbdelay (usec) -4.33162E-02 +/- 1.6E-04
 Phase delay (usec) 1.59461586574E+03 Apriori clockrate (us/s) -7.4558380E-06 Resid phdelay (usec) 4.80760E-07 +/- 6.8E-08
 Delay rate (us/s) -1.56283914036E+00 Apriori rate (us/s) -1.56283933620E+00 Resid rate (us/s) 1.95838E-07 +/- 7.8E-10
 Total phase (deg) 242.9 Apriori accel (us/s/s) -1.53001359582E-05 Resid phase (deg) 14.9 +/- 2.1

RMS Theor. Amplitude 1.626 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 24.3 5.0 Search (1024X32) 1.616 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 11.7 8.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 10.4 3.0 Inc. seg. avg. 1.775 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 8.7 5.2 Inc. frq. avg. 1.641 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

L: az 290.7 el 47.7 pa 74.7 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 11629.318 -1710.882 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/LN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/LN.W.50.3MP1W9

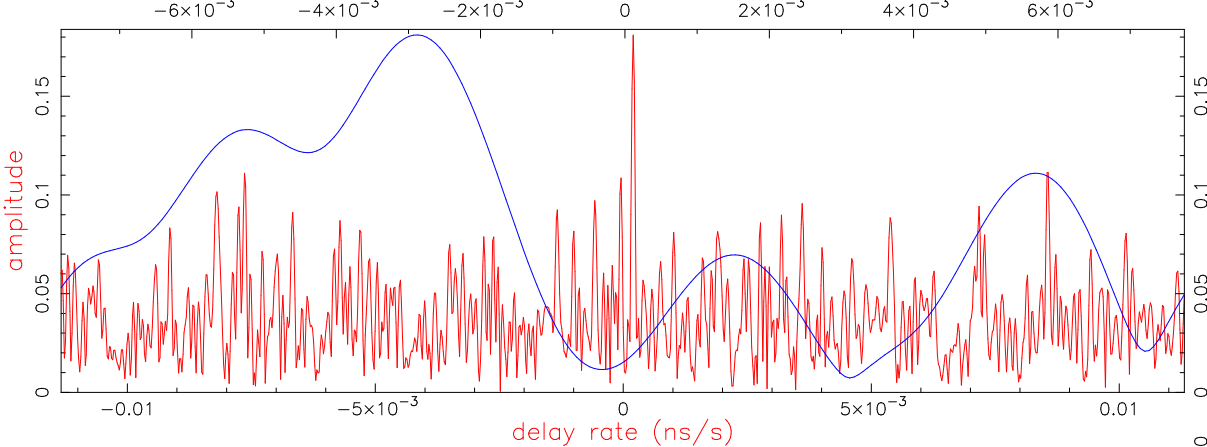
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, LN

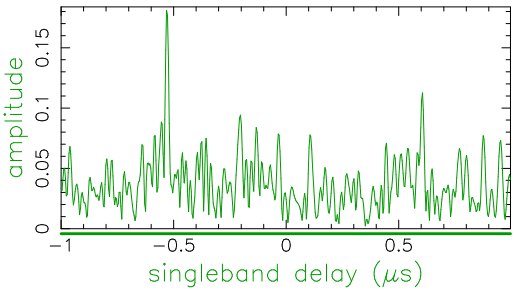
KVNPC- NOEMA, fgroup W, pol RL

multiband delay (μ s)

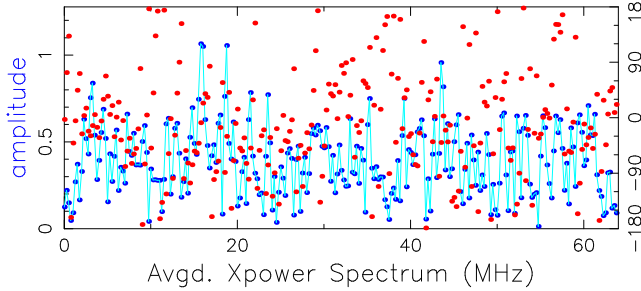


Fringe quality 0

SNR 6.2
 Int time 149.843
 Amp 0.184
 Phase 24.3
 PFD 9.5e-02
 Delays (us)
 SBD -0.529747
 MBD -0.002923
 Fringe rate (Hz)
 0.016637
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

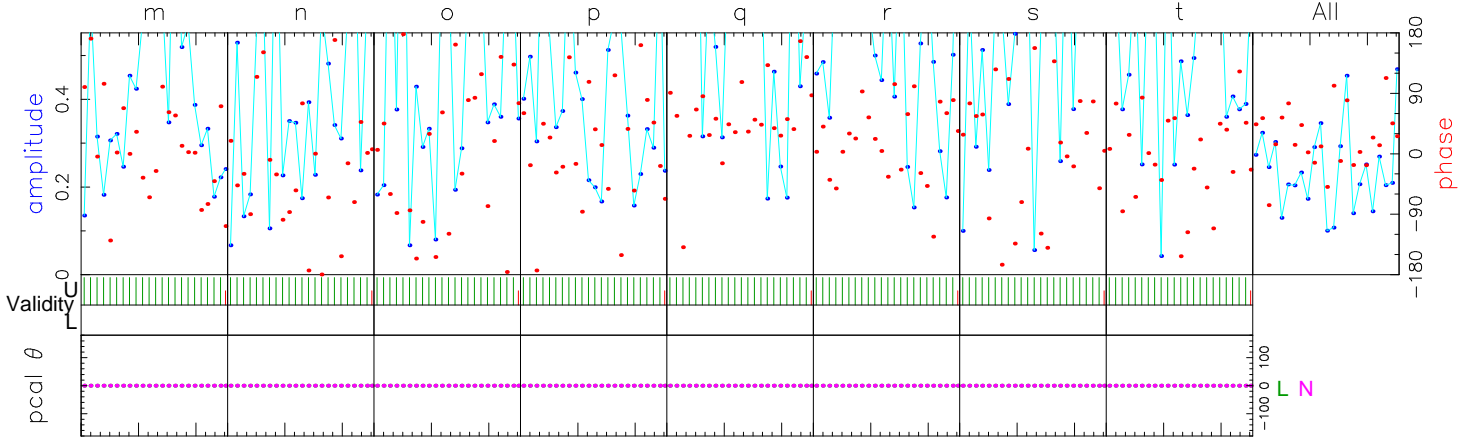


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140150
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	6.8	-52.8	144.8	22.6	58.9	13.5	37.1	-1.6		Phase 24.3
	0.2	0.1	0.1	0.1	0.5	0.4	0.1	0.3		Ampl. 0.2
	224.3	319.9	254.9	11.4	121.5	122.0	454.3	58.8		Sbd box 121.4
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		APs used
L	0	0	60000	0	0	0	4000	0		PC freqs
N	0	0	0	0	0	0	0	0		PC freqs
L:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
L:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
L	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
N	1000	1000	1000	1000	1000	1000	1000	1000		
L	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks

Group delay (usec) (SBD)	1.59408169209E+03	Apriori delay (usec)	1.59461586526E+03	Resid mbdelay (usec)	-2.92317E-03	+/-	1.8E-04
Sband delay (usec)	1.59408611826E+03	Apriori clock (usec)	-1.2159723E+01	Resid sbdelay (usec)	-5.29747E-01	+/-	1.4E-03
Phase delay (usec)	1.59461586604E+03	Apriori clockrate (us/s)	-7.4558380E-06	Resid phdelay (usec)	7.82353E-07	+/-	6.0E-07
Delay rate (us/s)	-1.56283914306E+00	Apriori rate (us/s)	-1.56283933620E+00	Resid rate (us/s)	1.93139E-07	+/-	6.9E-09
Total phase (deg)	252.3	Apriori accel (us/s/s)	-1.53001359582E-05	Resid phase (deg)	24.3	+/-	18.6

ph/seg (deg)	44.8	Theor.	44.6	Amplitude	0.184 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	56.8	Search (1024X32)	0.179	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	61.8	Inc. seg. avg.	0.182	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	74.1	Inc. frq. avg.	0.205	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
				Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

L: az 290.7 el 47.7 pa 74.7 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 11629.318 -1710.882 simultaneous interpolator

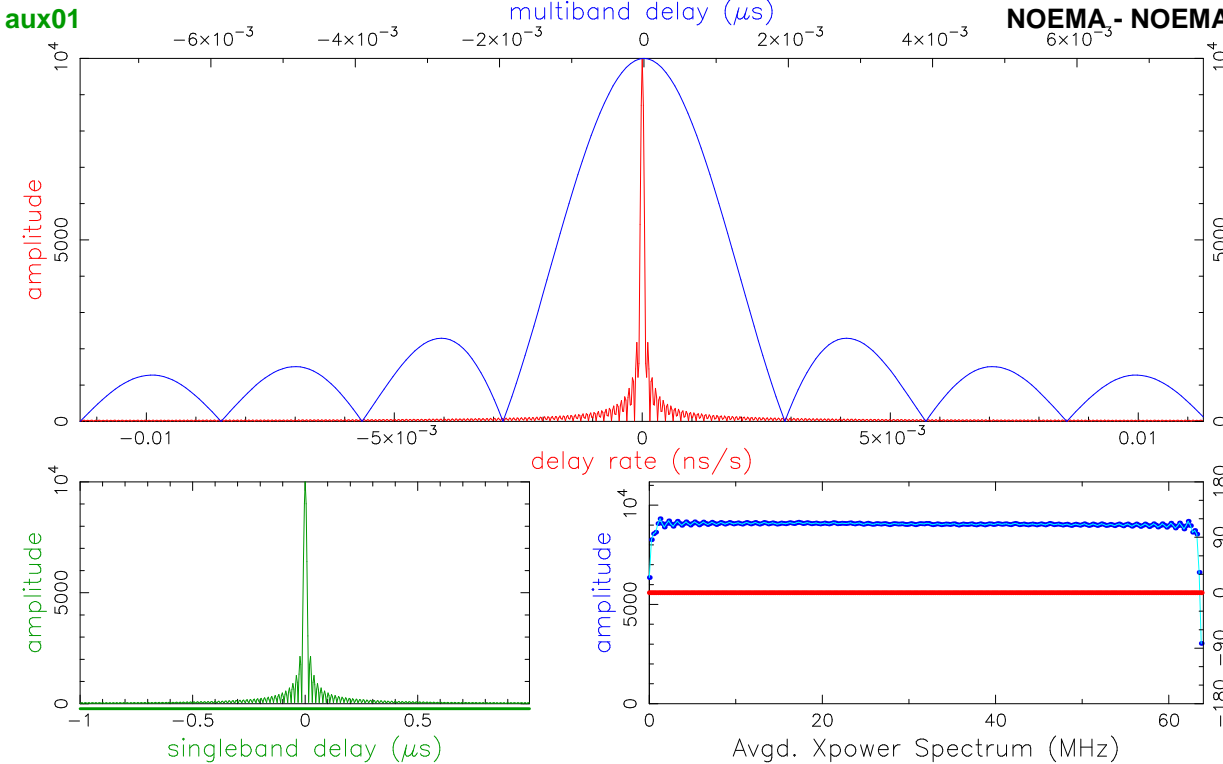
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/LN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/LN.W.62.3MP1W9

Mk4/DiFX fourfit 3.25 rev 0

aux01

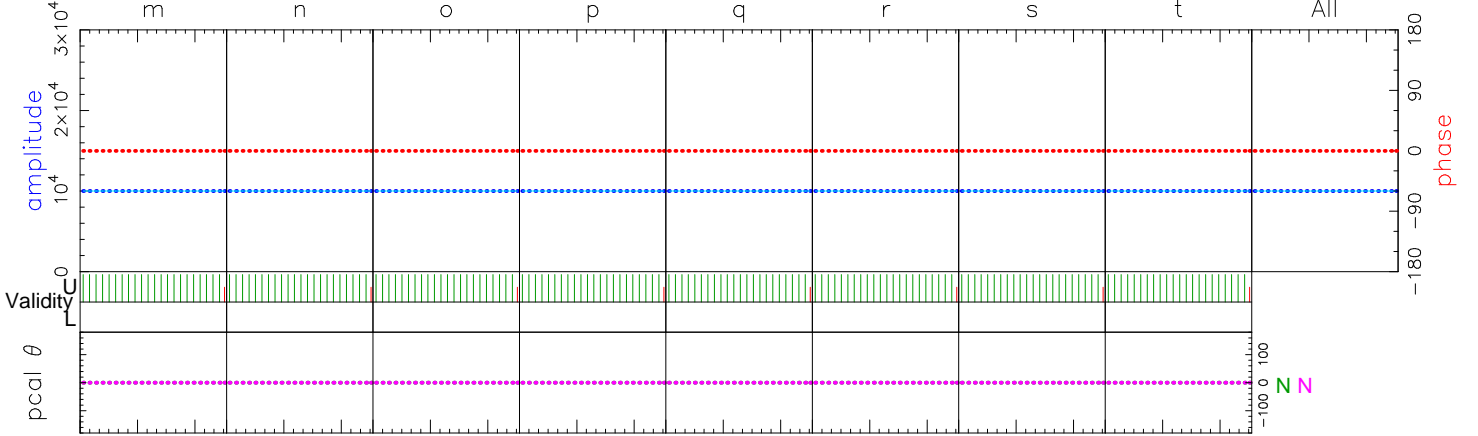
3C345.3MP1W9, No1106, NN

NOEMA - NOEMA, fgroup W, pol LL



Fringe quality 9
 SNR 334906.1
 Int time 149.986
 Amp 10000.001
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140156
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
N	0	0	0	0	0	0	0	0		
N:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.2E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.6E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.1E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 1.3E-13
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

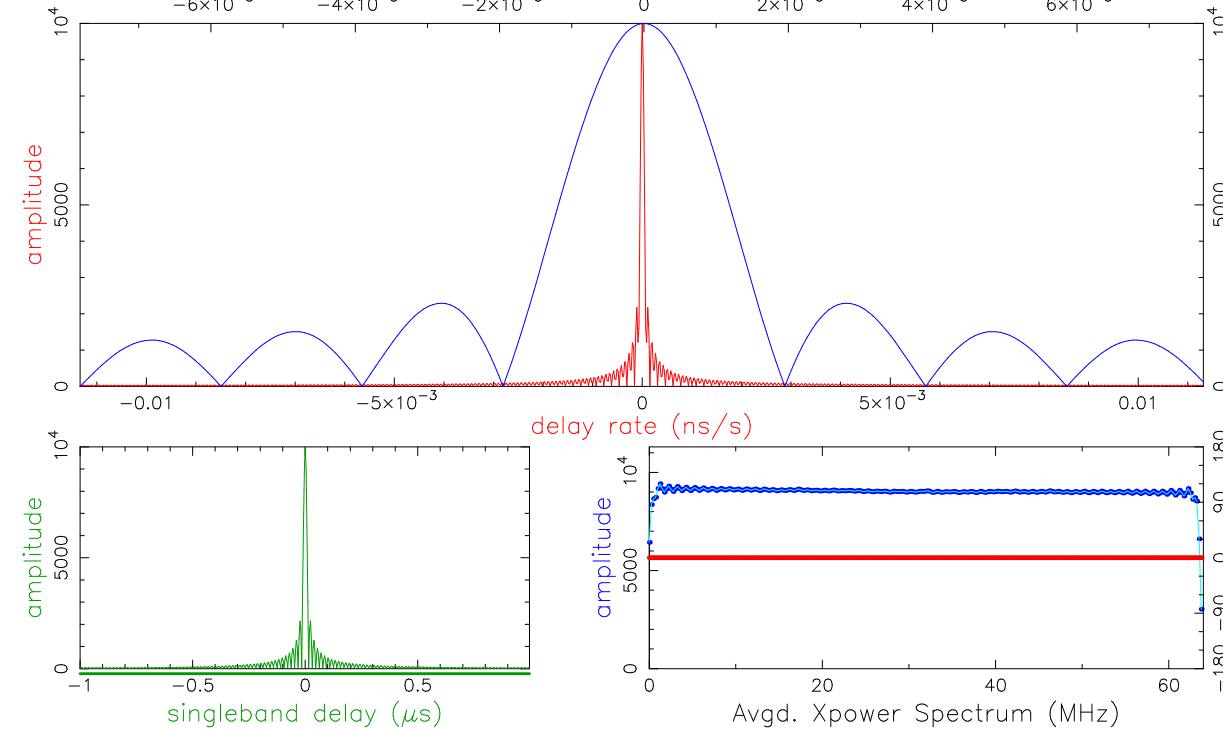
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 N: az 70.7 el 41.2 pa -61.0 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NN.W.102.3MP1W9 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, NN

NOEMA - NOEMA, fgroup W, pol RR

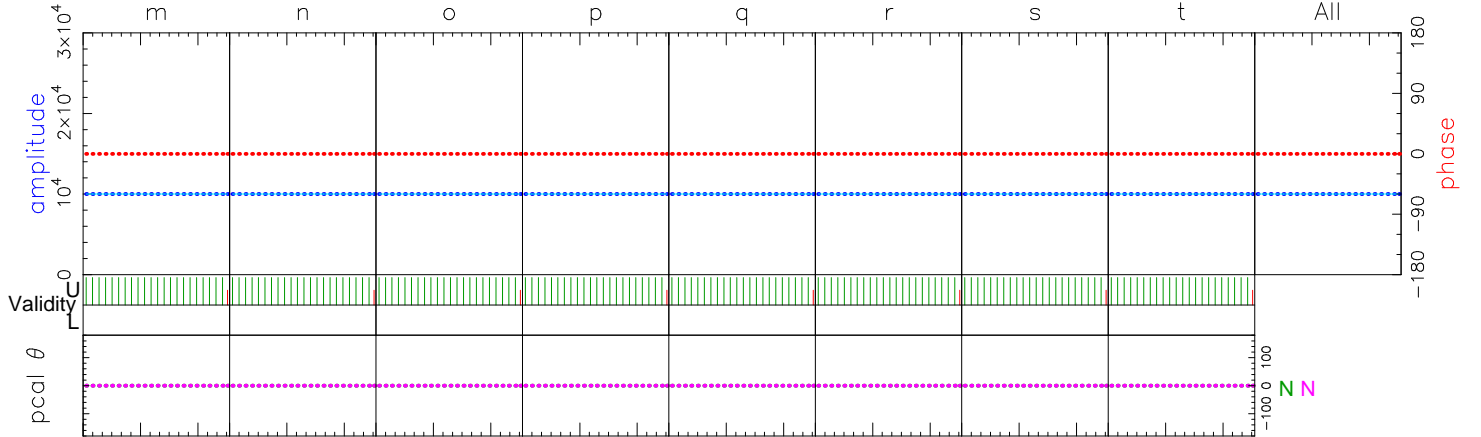


Fringe quality 9

SNR 334906.1
 Int time 149.986
 Amp 10000.001
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140202
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



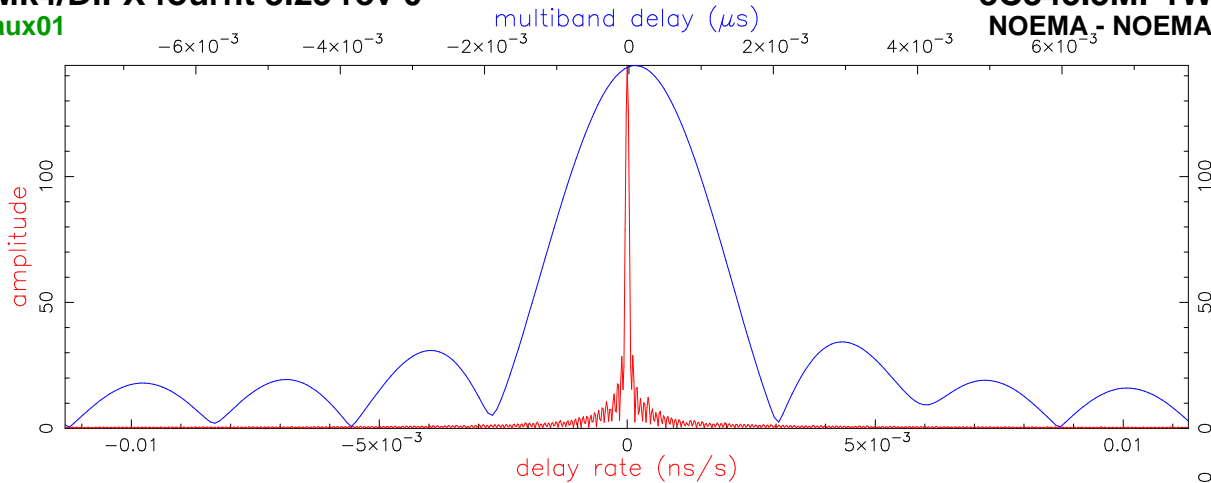
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	10000.0	10000.0
N	0	0	0	0	0	0	0	0	Ampl.	10000.0
N:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
N:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
									Chan ids	
									Tracks	
									Tracks	
Group delay (usec) (SBD)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		+/- 3.2E-09
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		+/- 2.6E-08
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		+/- 1.1E-11
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		+/- 1.3E-13
Total phase (deg)			0.0							+/- 0.0
	RMS	Theor.	Amplitude	10000.001 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	0.0	0.0	Search (1024X32)	10000.001	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.001	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00	
N: az 70.7 el 41.2 pa -61.0			N: az 70.7 el 41.2 pa -61.0		u,v (fr/asec) 0.000	0.000				simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No1106/NN..3MP1W9							Output file: /Exps/c241a/v2/3mm/1234/No1106/NN.W.139.3MP1W9

Mk4/DiFX fourfit 3.25 rev 0

aux01

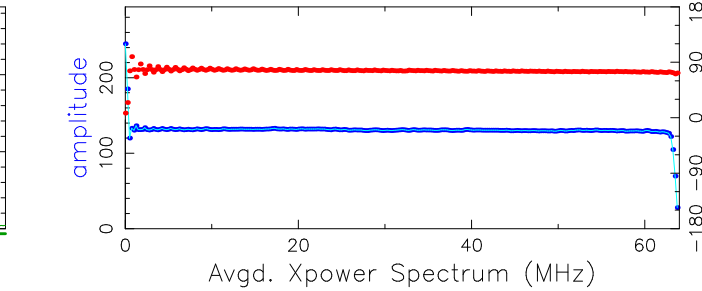
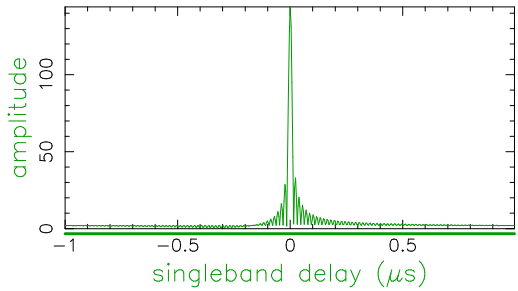
3C345.3MP1W9, No1106, NN

NOEMA - NOEMA, fgroup W, pol LR



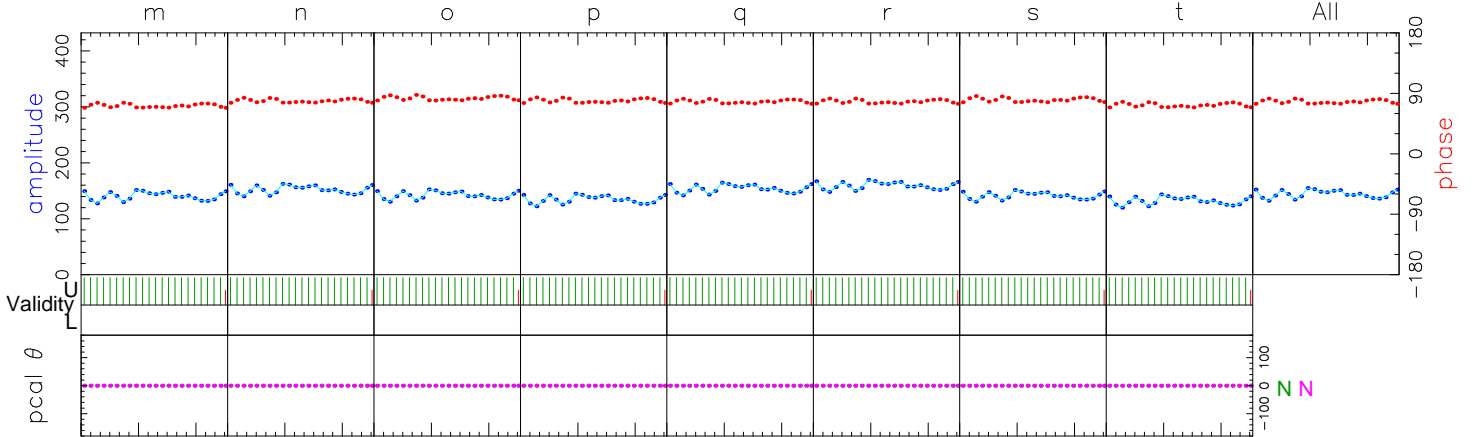
Fringe quality 9

SNR 4826.9
 Int time 149.986
 Amp 144.126
 Phase 77.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.000251
 MBD 0.000090
 Fringe rate (Hz)
 -0.000013
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140204
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	71.4	78.8	82.5	78.9	77.6	77.7	80.3	72.3	Phase	77.5
	140.5	151.9	141.9	134.5	153.7	159.0	141.2	132.0	Ampl.	144.3
	257.1	257.0	257.2	256.9	257.0	257.2	257.0	257.0	Sbd box	257.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
N:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 9.00312500000E-05 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 9.00313E-05 +/- 2.2E-07
 Sband delay (usec) 2.51000000000E-04 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 2.51000E-04 +/- 1.8E-06
 Phase delay (usec) 2.49942542058E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 2.49943E-06 +/- 7.7E-10
 Delay rate (us/s) -1.55882676309E-10 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -1.55883E-10 +/- 8.8E-12
 Total phase (deg) 77.5 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 77.5 +/- 0.0

RMS Theor. Amplitude 144.126 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 2.6 0.1 Search (1024X32) 143.585 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 4.5 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 4.1 0.0 Inc. seg. avg. 144.209 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 6.2 0.1 Inc. frq. avg. 144.331 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 70.7 el 41.2 pa -61.0 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NN.W.155.3MP1W9

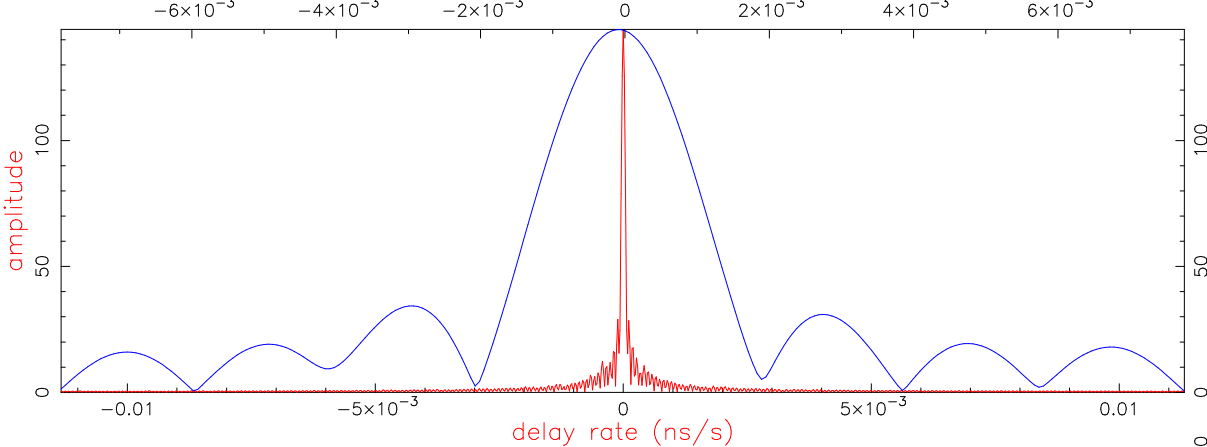
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, NN

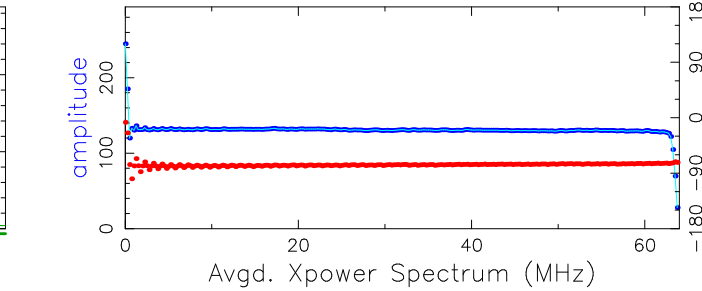
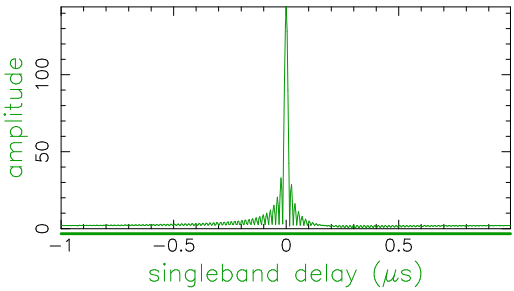
NOEMA - NOEMA, fgroup W, pol RL

multiband delay (μ s)



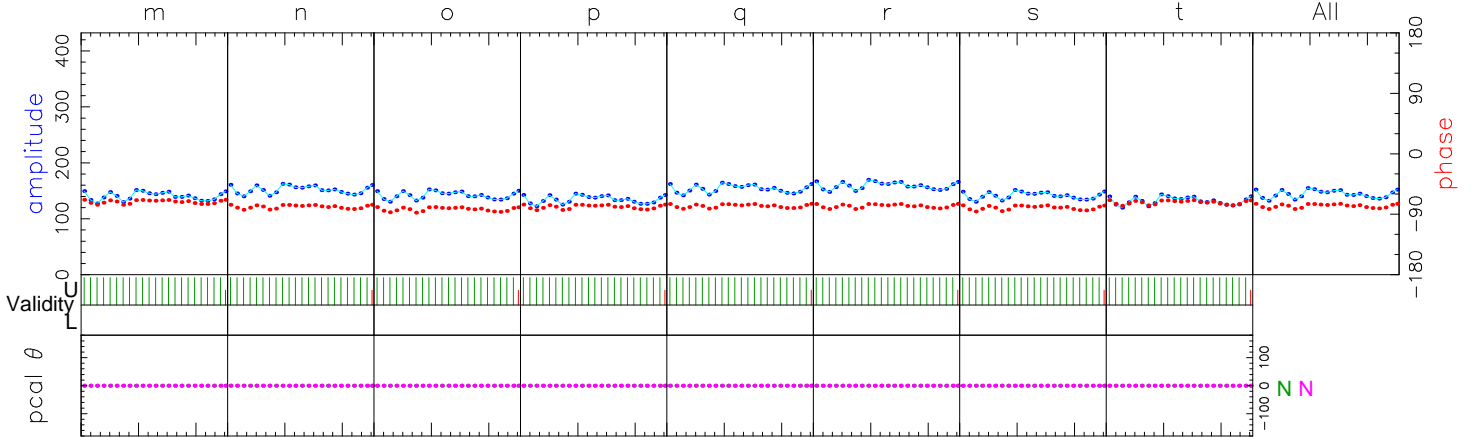
Fringe quality 9

SNR 4826.9
 Int time 149.986
 Amp 144.126
 Phase -77.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.000251
 MBD -0.000090
 Fringe rate (Hz)
 0.000013
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140206
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	-71.4	-78.8	-82.5	-78.9	-77.6	-77.7	-80.3	-72.3	Phase	-77.5
	140.5	151.9	141.9	134.5	153.7	159.0	141.2	132.0	Ampl.	144.3
	256.9	257.0	256.8	257.1	257.0	256.8	257.0	257.0	Sbd box	256.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
N:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) -9.00312500000E-05 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -9.00313E-05 +/- 2.2E-07
 Sband delay (usec) -2.51000000000E-04 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -2.51000E-04 +/- 1.8E-06
 Phase delay (usec) -2.49942542057E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -2.49943E-06 +/- 7.7E-10
 Delay rate (us/s) 1.55882676309E-10 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 1.55883E-10 +/- 8.8E-12
 Total phase (deg) -77.5 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -77.5 +/- 0.0

RMS Theor. Amplitude 144.126 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 2.6 0.1 Search (1024X32) 143.585 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 4.5 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 4.1 0.0 Inc. seg. avg. 144.209 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 6.2 0.1 Inc. frq. avg. 144.331 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 70.7 el 41.2 pa -61.0 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NN.W.170.3MP1W9

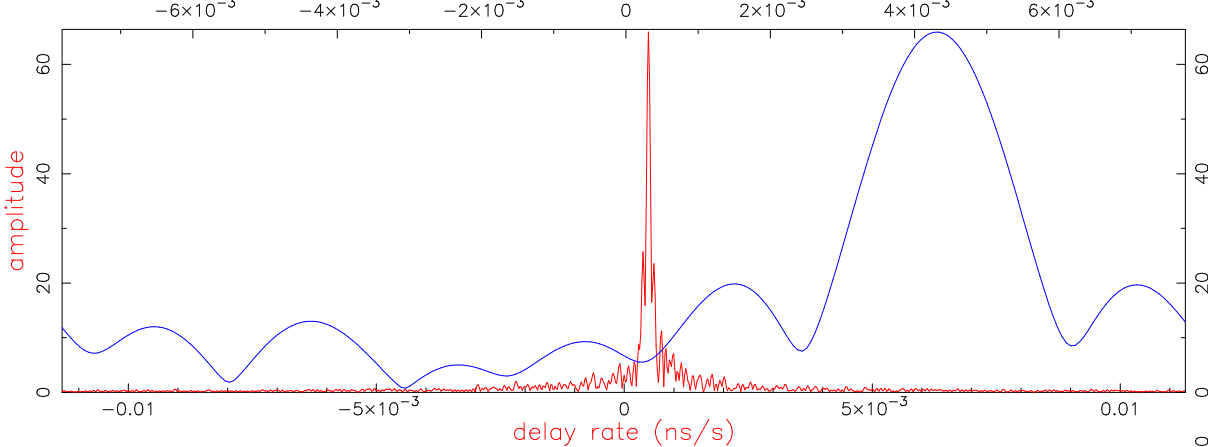
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, NP

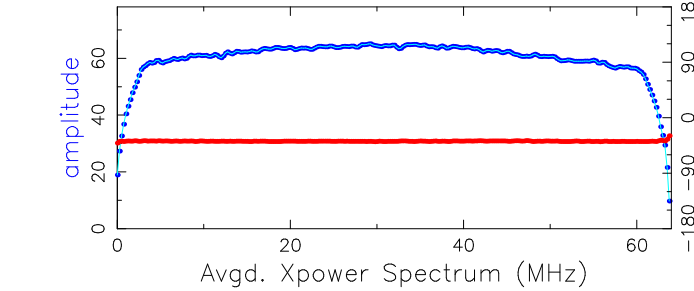
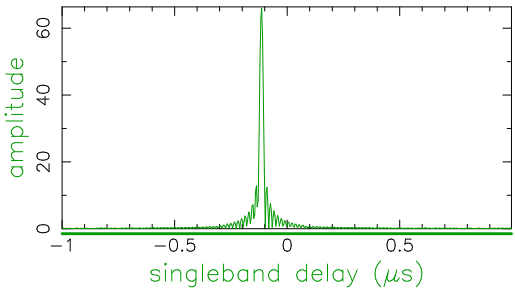
NOEMA - PICOVEL, fgroup W, pol LL

multiband delay (μ s)



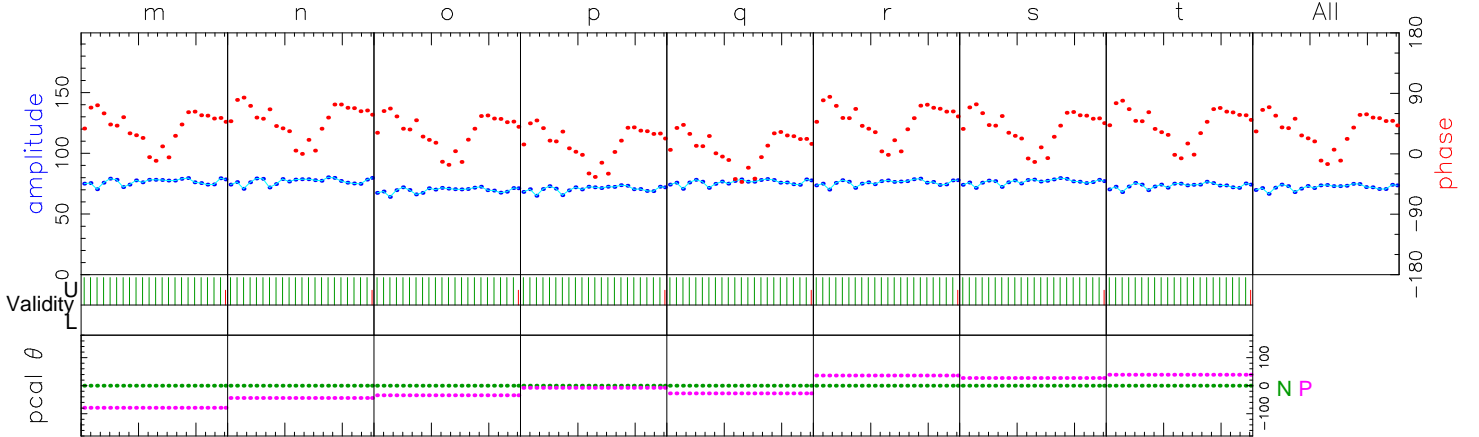
Fringe quality 6

SNR 2222.5
 Int time 149.986
 Amp 66.415
 Phase 35.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.114307
 MBD 0.004300
 Fringe rate (Hz)
 0.042576
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140157
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
N	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
N:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
N:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
N	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) 2.81155009368E+03 Apriori delay (usec) 2.81167079361E+03 Resid mbdelay (usec) 4.30007E-03 +/- 4.9E-07
 Sband delay (usec) 2.81155648636E+03 Apriori clock (usec) -1.2358387E+01 Resid sbdelay (usec) -1.14307E-01 +/- 3.9E-06
 Phase delay (usec) 2.81167079477E+03 Apriori clockrate (us/s) -5.8393806E-07 Resid phdelay (usec) 1.15162E-06 +/- 1.7E-09
 Delay rate (us/s) -1.42859864365E-01 Apriori rate (us/s) -1.42860358625E-01 Resid rate (us/s) 4.94260E-07 +/- 1.9E-11
 Total phase (deg) 94.0 Apriori accel (us/s/s) -7.80892716199E-06 Resid phase (deg) 35.7 +/- 0.1

RMS Theor. Amplitude 66.415 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 24.2 0.1 Search (1024X32) 64.323 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 9.2 0.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 16.5 0.1 Inc. seg. avg. 72.192 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 4.5 0.1 Inc. frq. avg. 68.092 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 70.7 el 41.2 pa -61.0 P: az 61.6 el 31.7 pa -66.1 u,v (fr/asec) 1060.404 163.373 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NP..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NP.W.107.3MP1W9

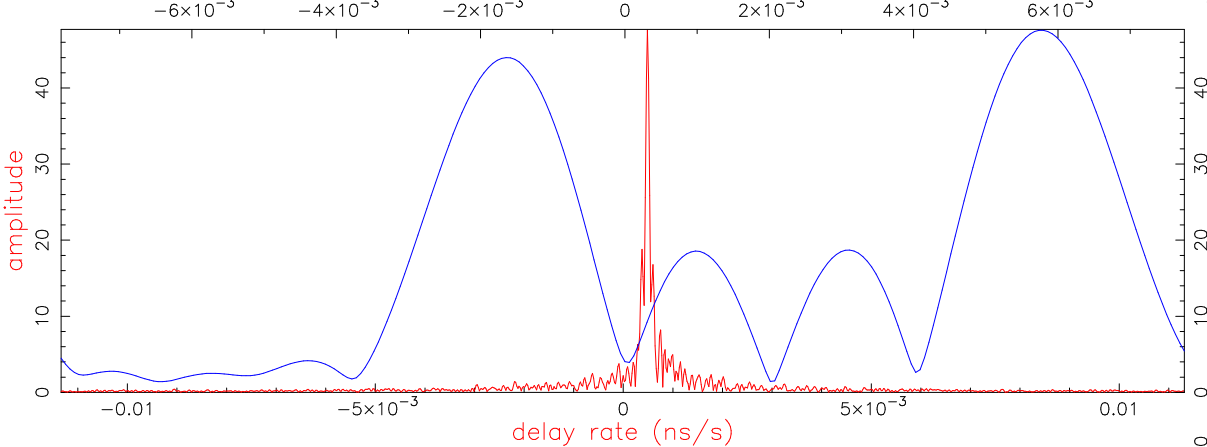
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, NP

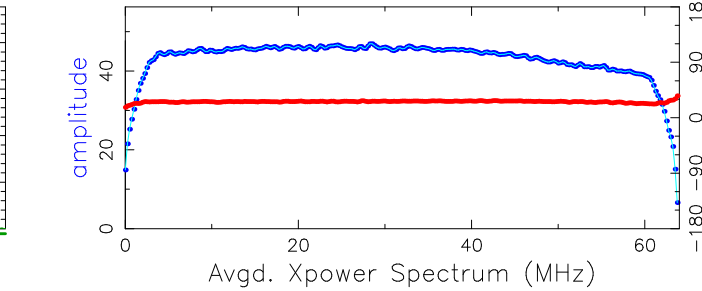
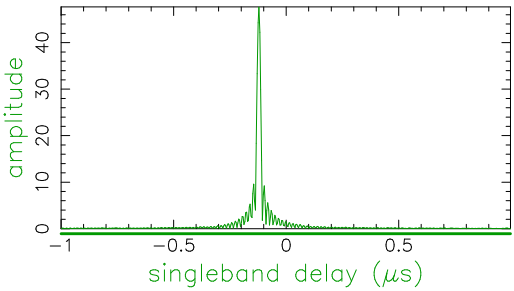
NOEMA - PICOVEL, fgroup W, pol RR

multiband delay (μ s)



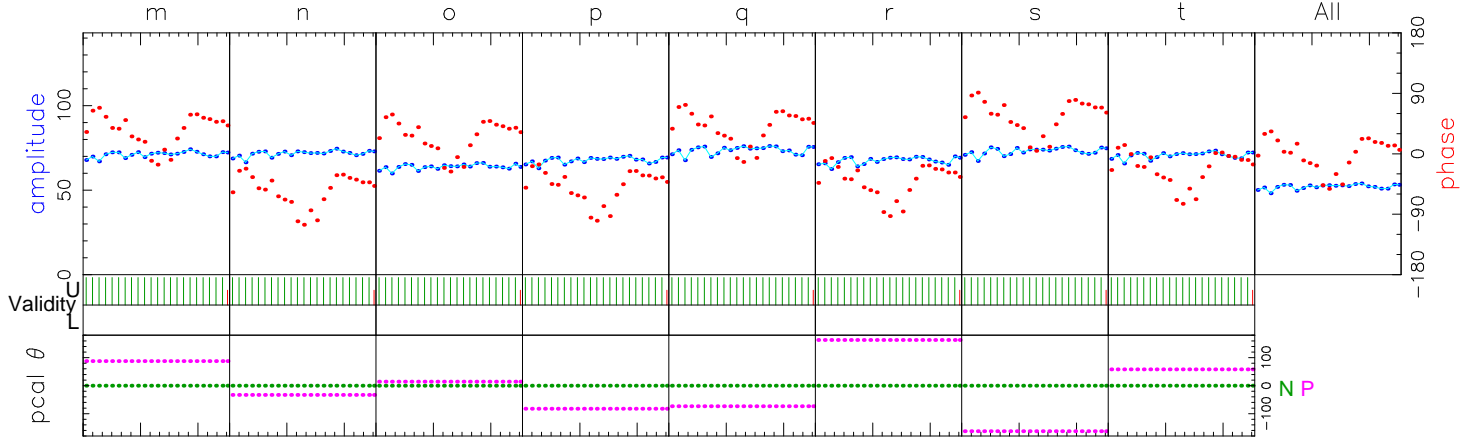
Fringe quality 4

SNR 1596.4
 Int time 149.986
 Amp 47.704
 Phase -0.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.121565
 MBD 0.005762
 Fringe rate (Hz)
 0.042566
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140159
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
N	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
N:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
N:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
N	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	2.81155155577E+03	Apriori delay (usec)		2.81167079361E+03	Resid mbdelay (usec)		5.76216E-03	+/-	6.8E-07	
Sband delay (usec)	2.81154922811E+03	Apriori clock (usec)		-1.2358387E+01	Resid sbdelay (usec)		-1.21565E-01	+/-	5.4E-06	
Phase delay (usec)	2.81167079360E+03	Apriori clockrate (us/s)		-5.8393806E-07	Resid phdelay (usec)		-1.92031E-08	+/-	2.3E-09	
Delay rate (us/s)	-1.42859864474E-01	Apriori rate (us/s)		-1.42860358625E-01	Resid rate (us/s)		4.94151E-07	+/-	2.7E-11	
Total phase (deg)	57.7		Apriori accel (us/s/s)		-7.80892716199E-06	Resid phase (deg)		-0.6	+/-	0.1

ph/seg (deg)	24.2	0.2	Search (1024X32)	46.429	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
amp/seg (%)	9.7	0.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000		
ph/frq (deg)	48.4	0.1	Inc. seg. avg.	52.111	Bits/sample: 2x2		SampCntNorm: enabled		
amp/frq (%)	34.6	0.2	Inc. frq. avg.	63.995	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s) -0.011 0.011		
				Data rate(Mb/s): 2048		nlags: 256		t_cohere infinite	
								ion window (TEC) 0.00 0.00	

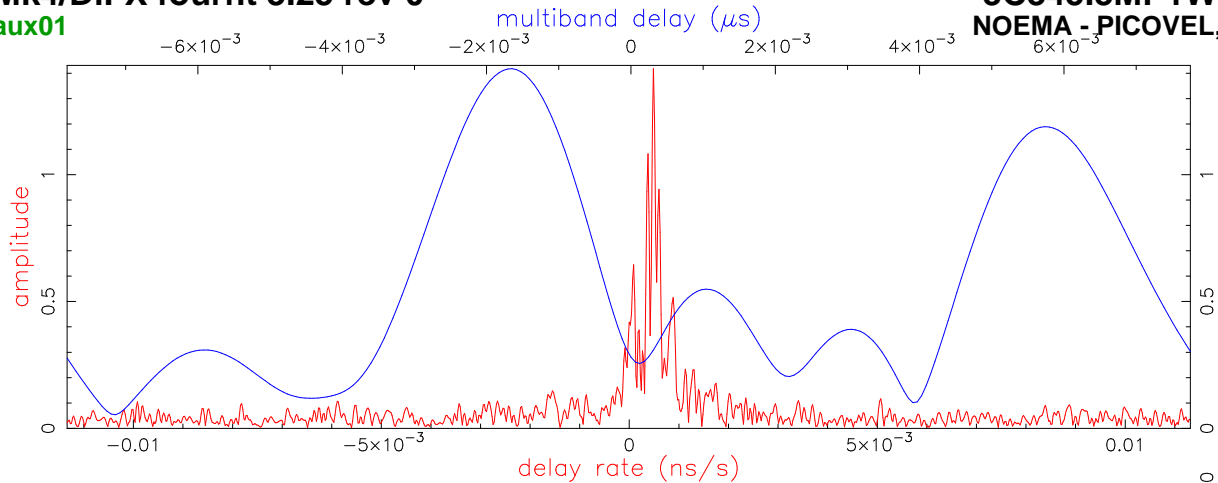
N: az 70.7 el 41.2 pa -61.0 P: az 61.6 el 31.7 pa -66.1 u,v (fr/asec) 1060.404 163.373 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NP..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NP.W.126.3MP1W9

Mk4/DiFX fourfit 3.25 rev 0

aux01

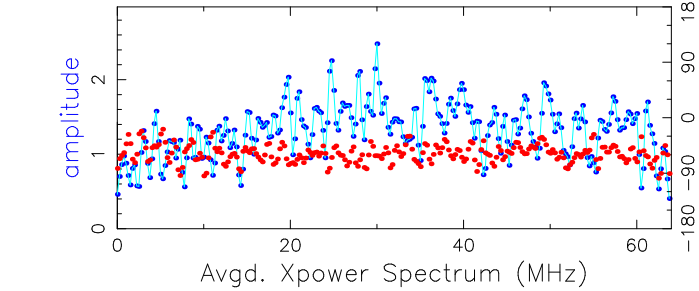
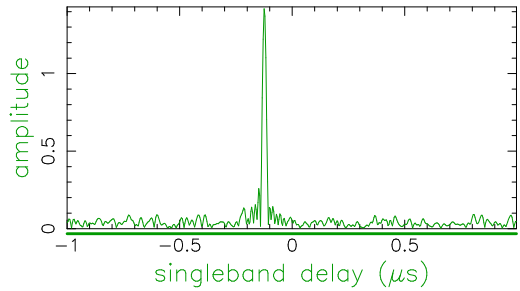
3C345.3MP1W9, No1106, NP

NOEMA - PICOVEL, fgroup W, pol LR



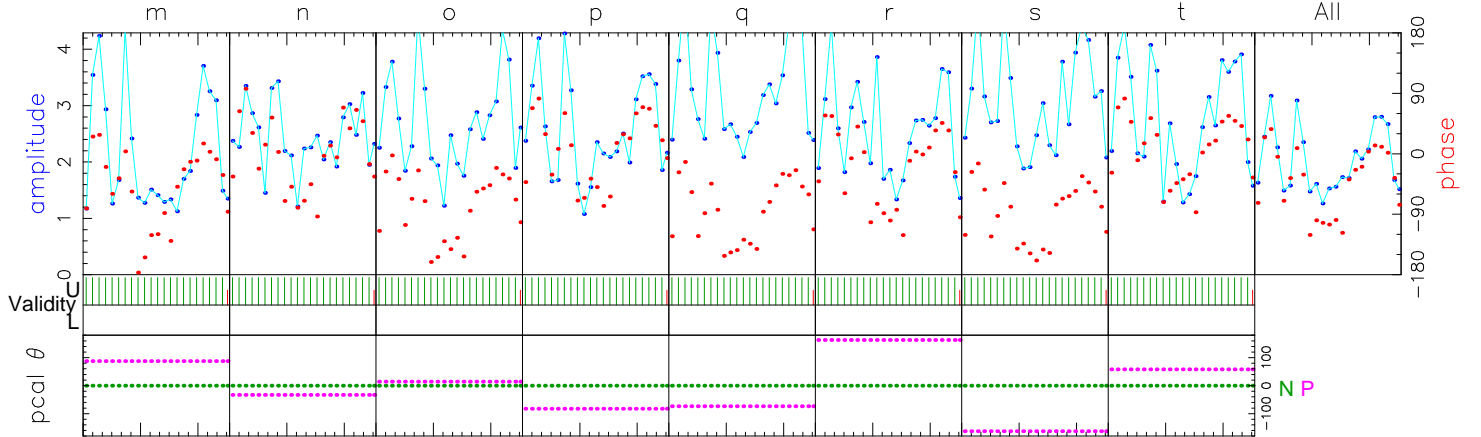
Fringe quality 4

SNR 47.9
 Int time 149.986
 Amp 1.431
 Phase -25.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.123792
 MBD -0.001660
 Fringe rate (Hz)
 0.042253
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140204
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	-19.8	7.9	-62.5	24.7	-70.4	-0.6	-74.8	25.1	Phase	-25.3
	1.5	1.6	1.9	1.7	2.4	1.6	2.3	2.1	Ampl.	1.9
	226.0	226.6	224.7	225.1	226.2	224.6	225.9	226.2	Sbd box	225.3
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
N:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Mani PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.81154413374E+03	Apriori delay (usec)	2.81167079361E+03	Resid mbdelay (usec)	-1.65987E-03	+/-	2.3E-05
Sband delay (usec)	2.81154700161E+03	Apriori clock (usec)	-1.2358387E+01	Resid sbdelay (usec)	-1.23792E-01	+/-	1.8E-04
Phase delay (usec)	2.81167079280E+03	Apriori clockrate (us/s)	-5.8393806E-07	Resid phdelay (usec)	-8.15917E-07	+/-	7.7E-08
Delay rate (us/s)	-1.42859868109E-01	Apriori rate (us/s)	-1.42860358625E-01	Resid rate (us/s)	4.90516E-07	+/-	8.9E-10
Total phase (deg)		Apriori accel (us/s/s)	-7.80892716199E-06	Resid phase (deg)	-25.3	+/-	2.4

ph/seg (deg) 51.2 5.7 Search (1024X32) 1.373 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.3 10.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.9 3.4 Inc. seg. avg. 2.040 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.6 5.9 Inc. frq. avg. 1.875 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 N: az 70.7 el 41.2 pa -61.0 P: az 61.6 el 31.7 pa -66.1 u,v (fr/asec) 1060.404 163.373 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NP..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NP.W.156.3MP1W9

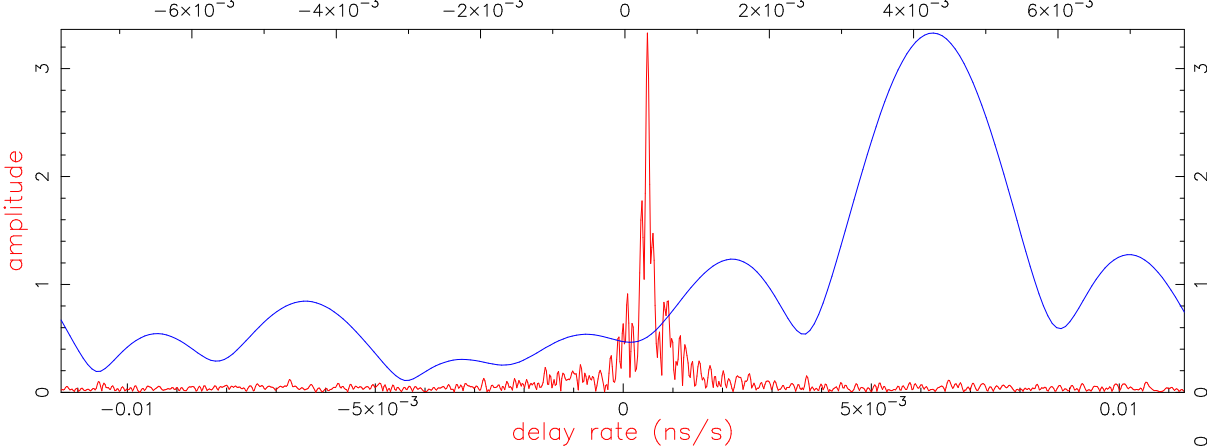
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, NP

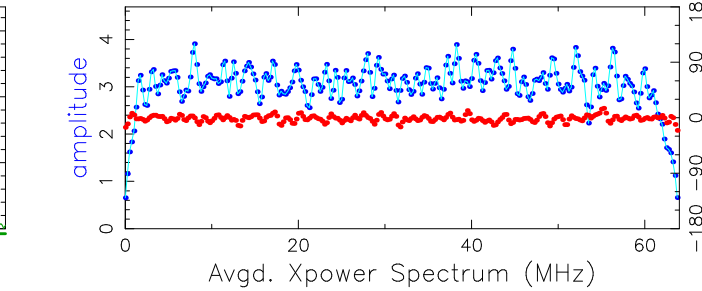
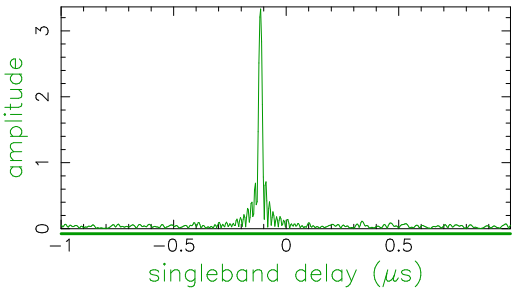
NOEMA - PICOVEL, fgroup W, pol RL

multiband delay (μ s)



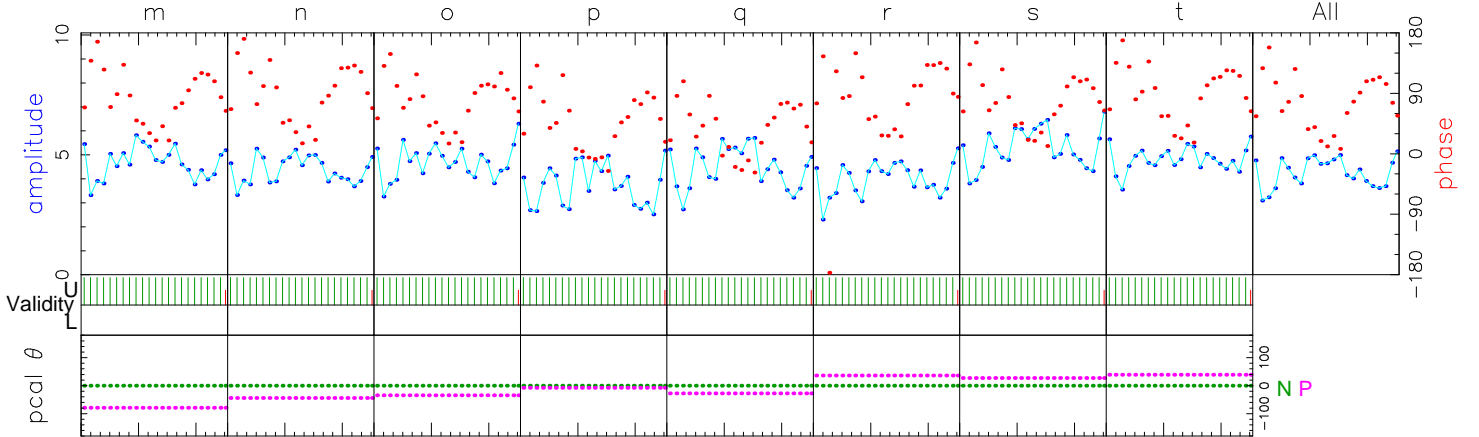
Fringe quality 4

SNR 112.6
 Int time 149.986
 Amp 3.364
 Phase 71.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.114490
 MBD 0.004256
 Fringe rate (Hz)
 0.042797
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140206
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
N	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
N:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
N:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
N	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) 2.81155004962E+03 Apriori delay (usec) 2.81167079361E+03 Resid mbdelay (usec) 4.25600E-03 +/- 9.6E-06
 Sband delay (usec) 2.81155630386E+03 Apriori clock (usec) -1.2358387E+01 Resid sbdelay (usec) -1.14490E-01 +/- 7.7E-05
 Phase delay (usec) 2.81167079590E+03 Apriori clockrate (us/s) -5.8393806E-07 Resid phdelay (usec) 2.28958E-06 +/- 3.3E-08
 Delay rate (us/s) -1.42859861792E-01 Apriori rate (us/s) -1.42860358625E-01 Resid rate (us/s) 4.96834E-07 +/- 3.8E-10
 Total phase (deg) 129.3 Apriori accel (us/s/s) -7.80892716199E-06 Resid phase (deg) 71.0 +/- 1.0

RMS Theor. Amplitude 3.364 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 40.3 2.4 Search (1024X32) 3.192 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 31.5 4.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 23.7 1.4 Inc. seg. avg. 4.248 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 13.6 2.5 Inc. frq. avg. 3.541 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 70.7 el 41.2 pa -61.0 P: az 61.6 el 31.7 pa -66.1 u,v (fr/asec) 1060.404 163.373 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NP..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NP.W.171.3MP1W9

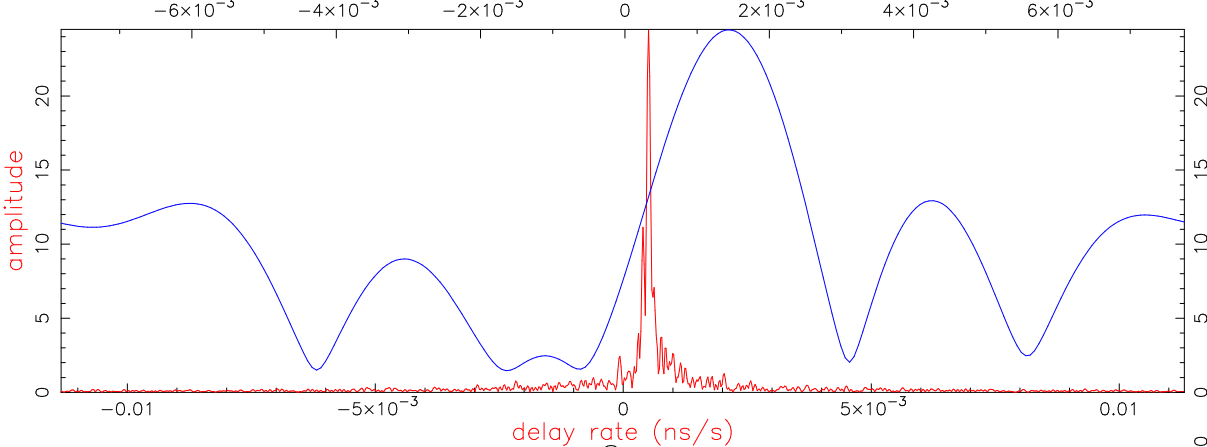
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, NX

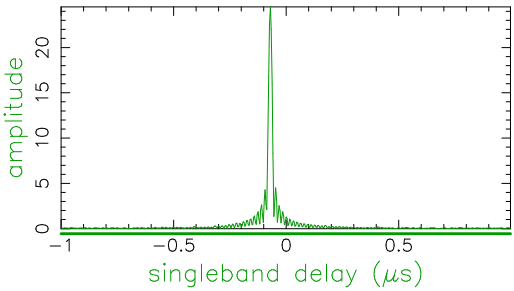
NOEMA - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

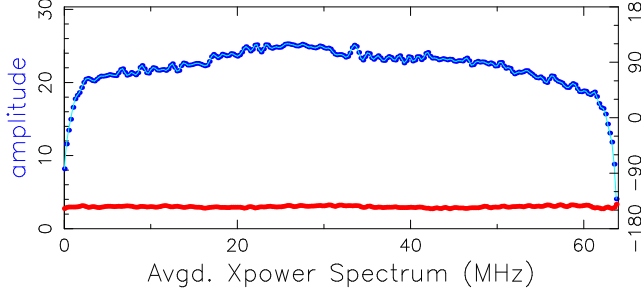


Fringe quality 4

SNR 819.2
 Int time 149.837
 Amp 24.493
 Phase 106.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.070523
 MBD 0.001435
 Fringe rate (Hz) 0.043915
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

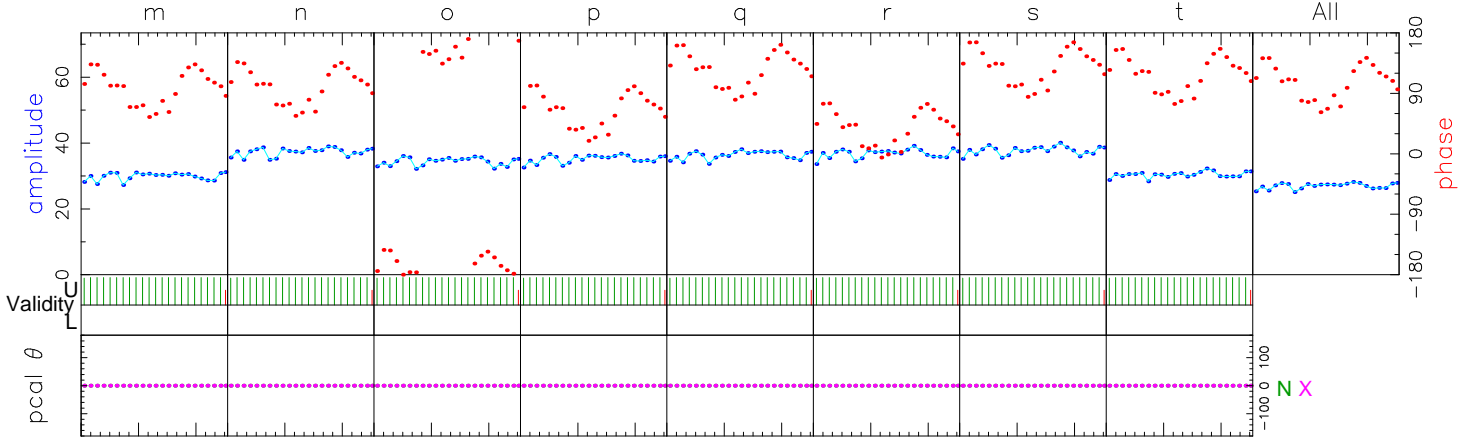


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140157
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	97.9	100.7	179.4	64.8	125.3	38.9	129.9	118.8	Phase	106.6
	27.2	33.9	31.2	31.9	33.0	33.4	34.2	27.5	Ampl.	31.5
	240.5	238.7	238.4	238.0	238.4	238.4	238.9	239.3	Sbd box	238.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
N:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.76426133610E+03	Apriori delay (usec)	-1.76418464561E+03	Resid mbdelay (usec)	1.43450E-03	+/-	1.3E-06
Sband delay (usec)	-1.76425516861E+03	Apriori clock (usec)	-1.2604255E+02	Resid sbdelay (usec)	-7.05230E-02	+/-	1.1E-05
Phase delay (usec)	-1.76418464217E+03	Apriori clockrate (us/s)	-1.2023240E-06	Resid phdelay (usec)	3.43718E-06	+/-	4.5E-09
Delay rate (us/s)	2.19610613207E-01	Apriori rate (us/s)	2.19610103398E-01	Resid rate (us/s)	5.09809E-07	+/-	5.2E-11
Total phase (deg)	-27.5	Apriori accel (us/s/s)	-1.37938924876E-06	Resid phase (deg)	106.6	+/-	0.1

ph/seg (deg)	25.1	RMS	24.493 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	10.8	Theor.	24.311	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	46.1	Search (1024X32)	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	30.7	Inc. seg. avg.	26.998	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	31.539	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

N: az 70.7 el 41.2 pa -61.0 X: az 87.0 el 47.4 pa -44.5 u,v (fr/asec) -1639.696 -1032.222 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NX..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NX.W.109.3MP1W9

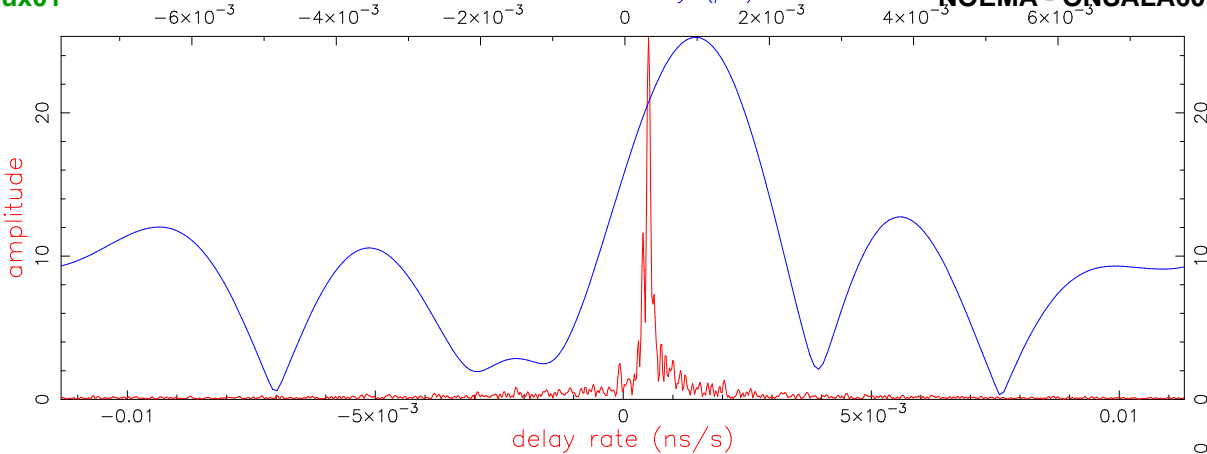
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, NX

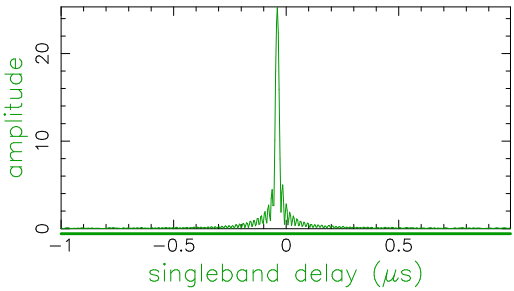
NOEMA - ONSALA60, fgroup W, pol RR

multiband delay (μ s)

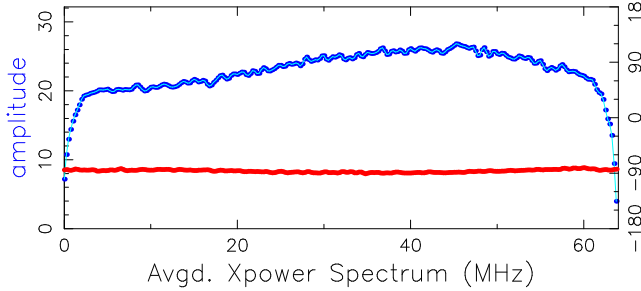


Fringe quality 4

SNR 847.4
 Int time 149.837
 Amp 25.336
 Phase 166.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.039584
 MBD 0.000967
 Fringe rate (Hz)
 0.043932
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

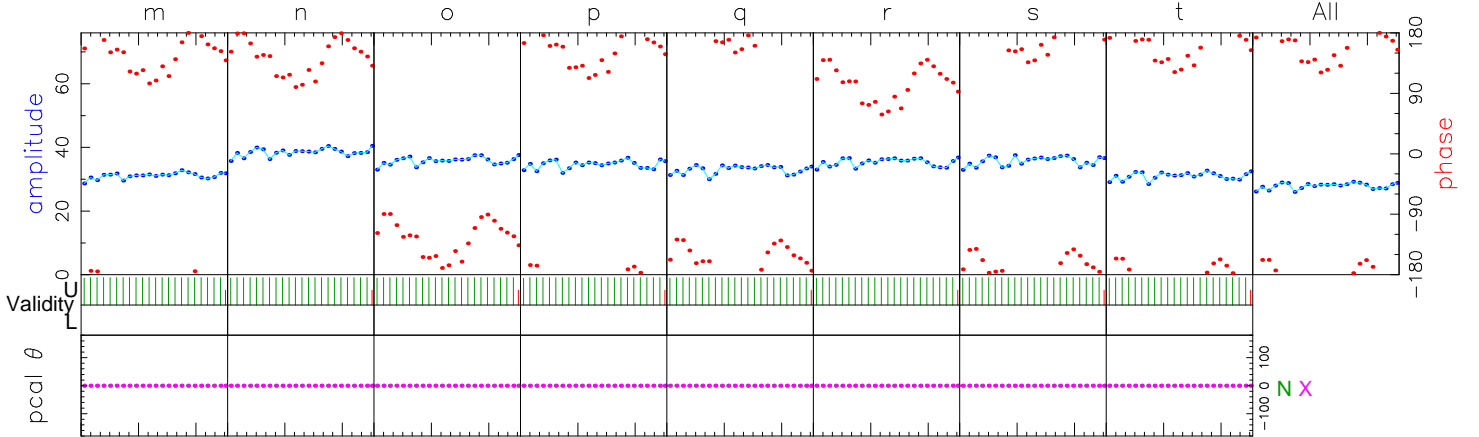


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140159
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
N	0	0	0	0	0	0	0	0		
X	0	0	0	0	0	0	0	0		
N:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
N:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-1.76423055320E+03	Apriori delay (usec)	-1.76418464561E+03	Resid mbdelay (usec)	9.67409E-04	+/-	1.3E-06
Sband delay (usec)	-1.76422422986E+03	Apriori clock (usec)	-1.2604255E+02	Resid sbdelay (usec)	-3.95842E-02	+/-	1.0E-05
Phase delay (usec)	-1.76418464025E+03	Apriori clockrate (us/s)	-1.2023240E-02	Resid phdelay (usec)	5.35645E-06	+/-	4.4E-09
Delay rate (us/s)	2.19610613411E-01	Apriori rate (us/s)	2.19610103398E-01	Resid rate (us/s)	5.10013E-07	+/-	5.0E-11
Total phase (deg)	32.0	Apriori accel (us/s/s)	-1.37938924876E-06	Resid phase (deg)	166.1	+/-	0.1

ph/seg (deg)	25.2	RMS	25.2	Theor.	0.3	Amplitude	25.336 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	10.8		10.8		0.6	Search (1024X32)	25.149	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008
ph/frq (deg)	42.0		42.0		0.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	24.6		24.6		0.3	Inc. seg. avg.	27.922	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	nlags:	256	ion window (TEC)	0.00	0.00
						Inc. frq. avg.	31.182	Data rate(Mb/s):	2048	t_cohere	infinite			

N: az 70.7 el 41.2 pa -61.0 X: az 87.0 el 47.4 pa -44.5 u,v (fr/asec) -1639.696 -1032.222 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NX..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NX.W.124.3MP1W9

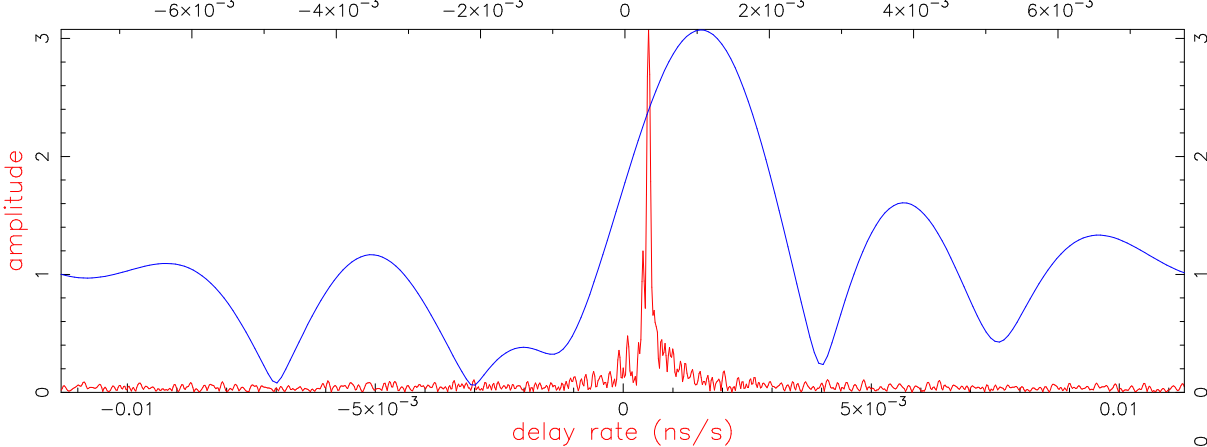
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, NX

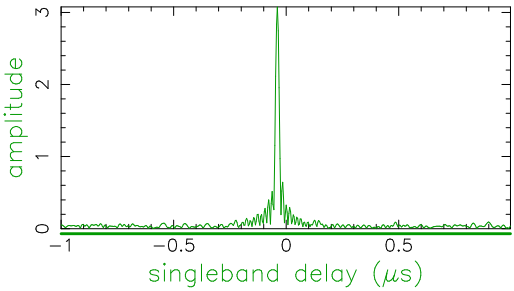
NOEMA - ONSALA60, fgroup W, pol LR

multiband delay (μ s)

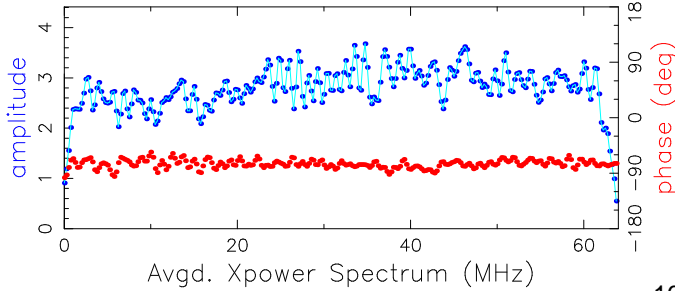


Fringe quality 4

SNR 102.9
 Int time 149.837
 Amp 3.077
 Phase 179.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.039386
 MBD 0.001046
 Fringe rate (Hz)
 0.043943
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

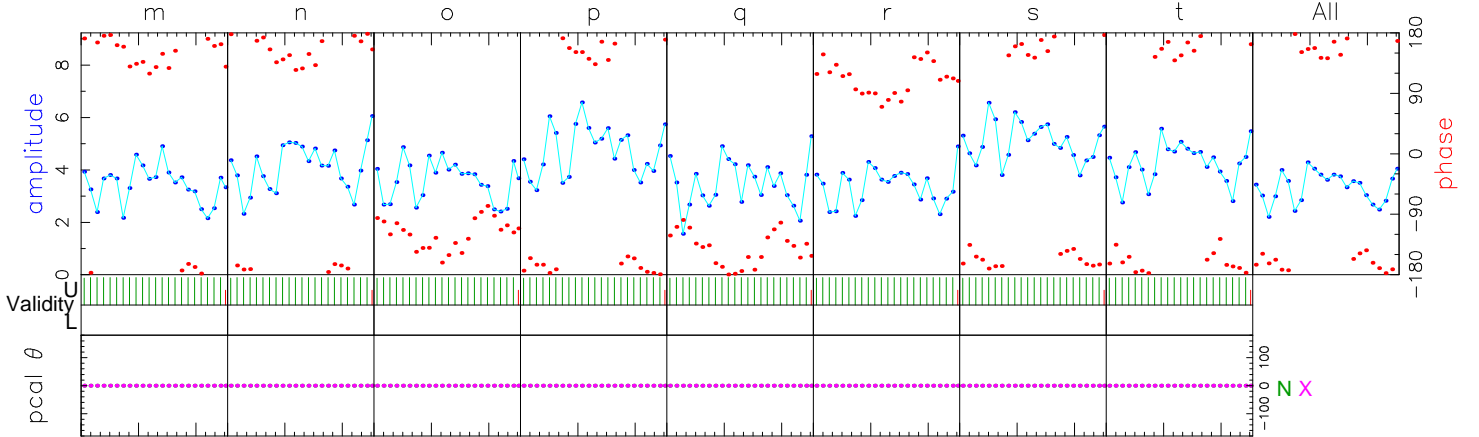


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140201
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	157.8	163.8	-119.9	174.2	-142.3	109.7	-175.3	-179.3	Phase	179.2
	3.2	3.8	3.3	4.4	3.1	3.1	4.6	3.8	Ampl.	3.7
	247.8	246.9	246.3	246.4	245.8	246.2	246.8	247.7	Sbd box	246.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
N:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) -1.76423047485E+03 Apriori delay (usec) -1.76418464561E+03 Resid mbdelay (usec) 1.04575E-03 +/- 1.1E-05
 Sband delay (usec) -1.76422403161E+03 Apriori clock (usec) -1.2604255E+02 Resid sbdelay (usec) -3.93860E-02 +/- 8.4E-05
 Phase delay (usec) -1.76418463983E+03 Apriori clockrate (us/s) -1.2023240E-02 Resid phdelay (usec) 5.77729E-06 +/- 3.6E-08
 Delay rate (us/s) 2.19610613533E-01 Apriori rate (us/s) 2.19610103398E-01 Resid rate (us/s) 5.10135E-07 +/- 4.1E-10
 Total phase (deg) 45.0 Apriori accel (us/s/s) -1.37938924876E-06 Resid phase (deg) 179.2 +/- 1.1

RMS Theor. Amplitude 3.077 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 22.8 2.7 Search (1024X32) 3.057 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 20.2 4.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 42.4 1.6 Inc. seg. avg. 3.335 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 26.5 2.7 Inc. frq. avg. 3.672 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 70.7 el 41.2 pa -61.0 X: az 87.0 el 47.4 pa -44.5 u,v (fr/asec) -1639.696 -1032.222 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NX..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NX.W.137.3MP1W9

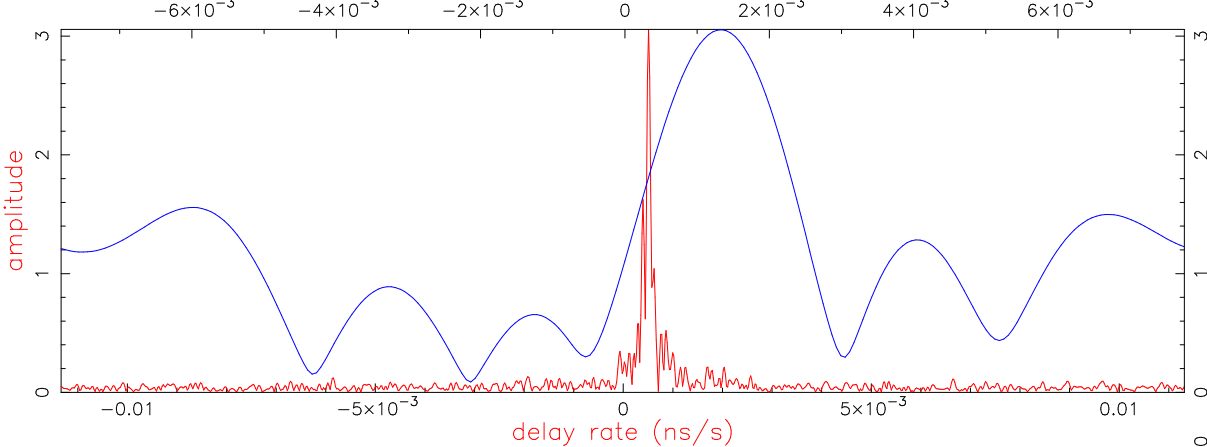
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, NX

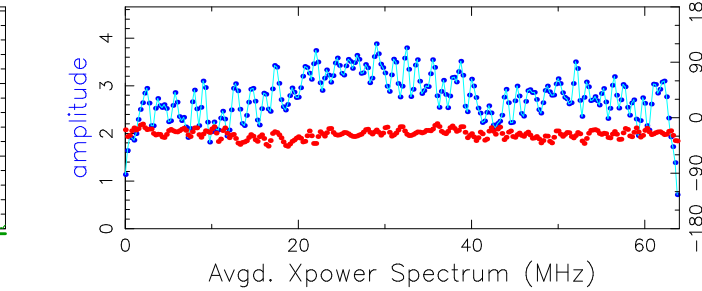
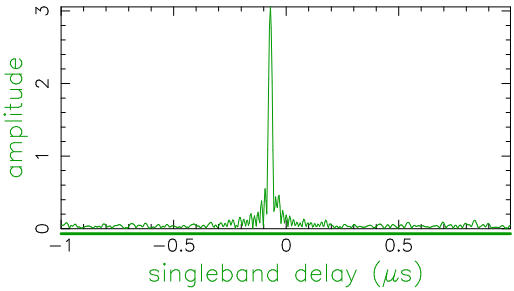
NOEMA - ONSALA60, fgroup W, pol RL

multiband delay (μ s)



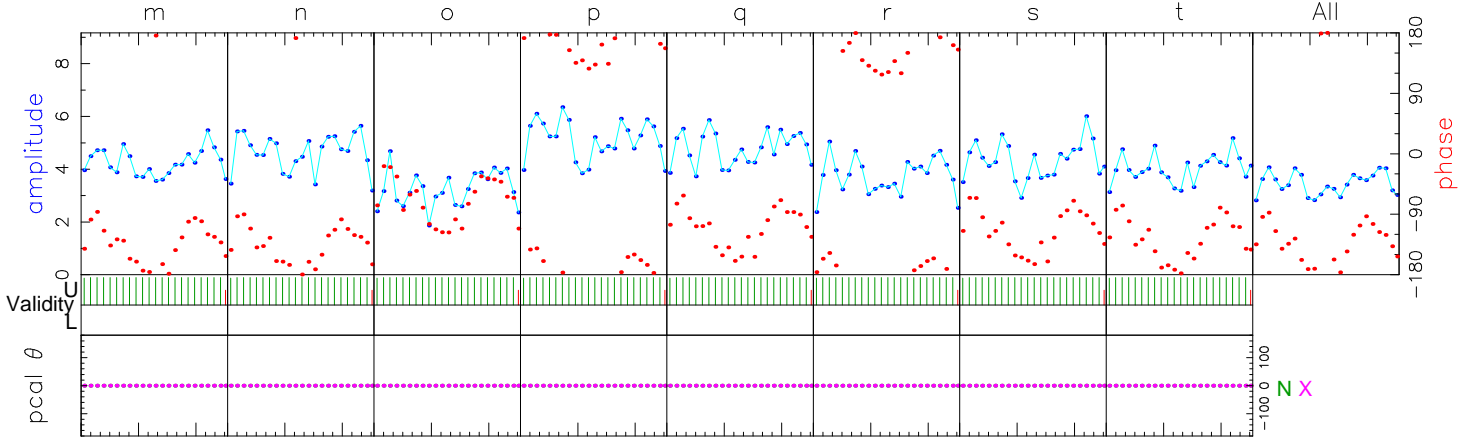
Fringe quality 4

SNR 102.2
 Int time 149.837
 Amp 3.057
 Phase -133.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.070428
 MBD 0.001325
 Fringe rate (Hz) 0.043978
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140202
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	-132.8	-134.1	-64.9	177.0	-107.8	168.5	-111.1	-124.0	Phase	-133.0
	3.8	4.2	2.8	4.6	4.2	3.3	3.8	3.5	Ampl.	3.8
	240.6	238.7	237.9	238.3	238.5	238.2	238.9	239.3	Sbd box	239.0
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
N:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) -1.76426144545E+03 Apriori delay (usec) -1.76418464561E+03 Resid mbdelay (usec) 1.32516E-03 +/- 1.1E-05
 Sband delay (usec) -1.76425507386E+03 Apriori clock (usec) -1.2604255E+02 Resid sbdelay (usec) -7.04283E-02 +/- 8.4E-05
 Phase delay (usec) -1.76418464990E+03 Apriori clockrate (us/s) -1.2023240E-02 Resid phdelay (usec) -4.28866E-06 +/- 3.6E-08
 Delay rate (us/s) 2.19610613942E-01 Apriori rate (us/s) 2.19610103398E-01 Resid rate (us/s) 5.10544E-07 +/- 4.2E-10
 Total phase (deg) -267.1 Apriori accel (us/s/s) -1.37938924876E-06 Resid phase (deg) -133.0 +/- 1.1

RMS Theor. Amplitude 3.057 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 28.8 2.7 Search (1024X32) 2.995 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 18.8 4.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 44.2 1.6 Inc. seg. avg. 3.463 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 29.0 2.8 Inc. frq. avg. 3.764 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 70.7 el 41.2 pa -61.0 X: az 87.0 el 47.4 pa -44.5 u,v (fr/asec) -1639.696 -1032.222 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NX..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NX.W.145.3MP1W9

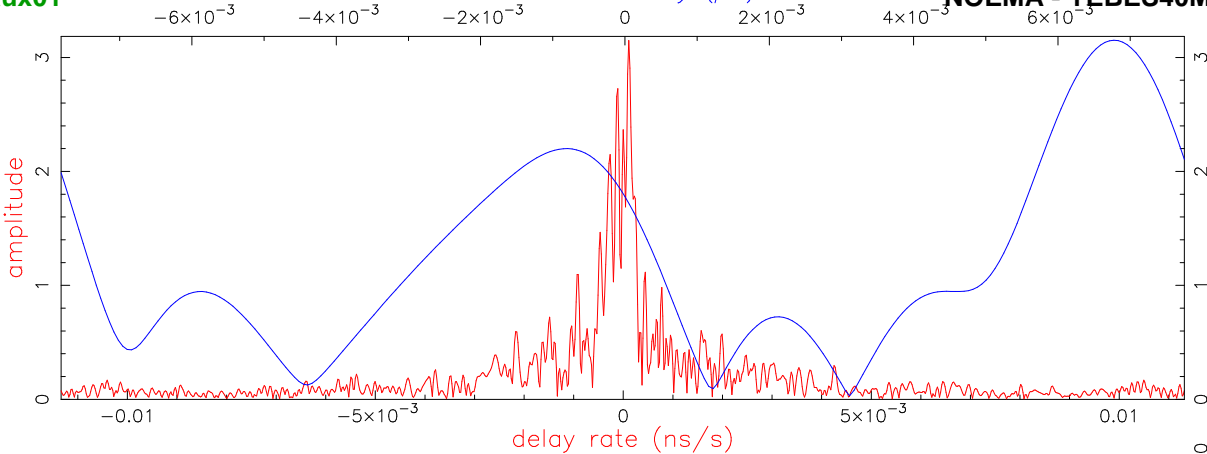
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, NY

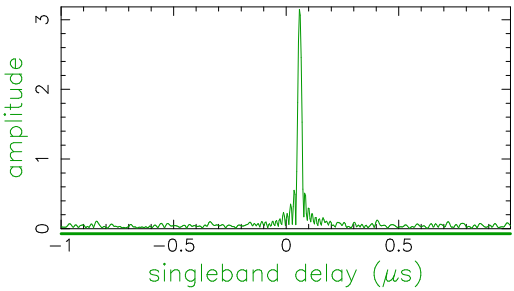
NOEMA - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

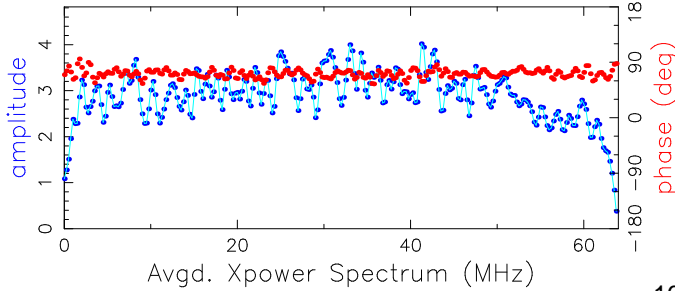


Fringe quality 2

SNR 104.6
 Int time 144.101
 Amp 3.185
 Phase -37.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.059966
 MBD 0.006822
 Fringe rate (Hz)
 0.009455
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

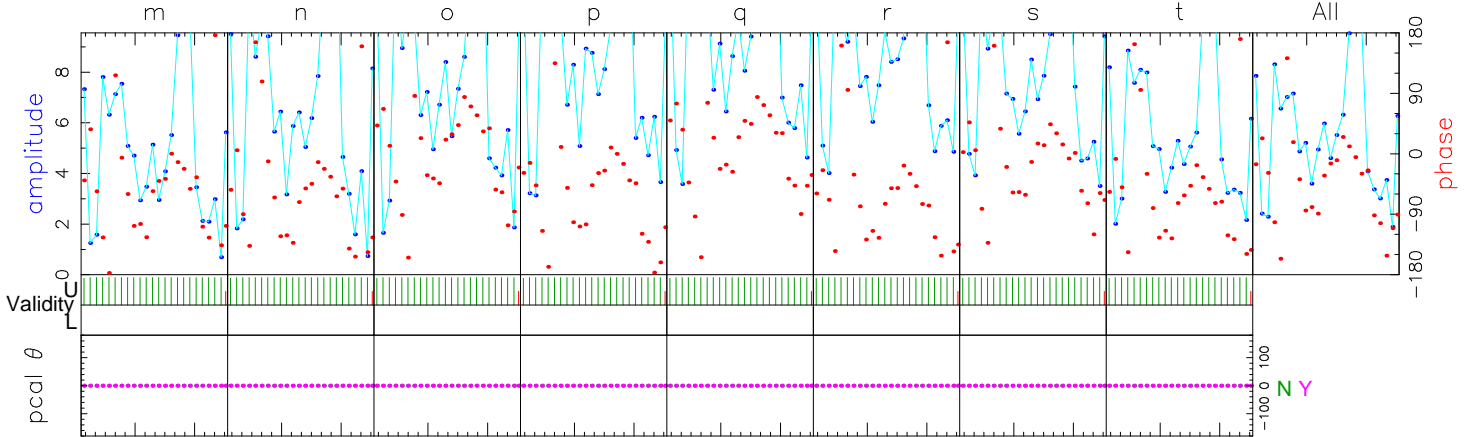


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220005.63
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140157
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 24 segs, 12 APs / seg (6.14 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
	-55.9	-68.8	17.5	-54.3	20.5	-80.9	-12.7	-78.5	Phase	-37.1
	2.7	3.4	3.9	4.4	5.2	5.0	4.8	3.3	Ampl.	4.1
	273.9	272.2	272.0	271.9	271.8	271.6	272.1	271.5	Sbd box	272.4
U/L	282/0	282/0	282/0	282/0	282/0	282/0	282/0	282/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
N:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	2.36542057849E+03	Apriori delay (usec)	2.36536688168E+03	Resid mbdelay (usec)	6.82181E-03	+/-	1.0E-05
Sband delay (usec)	2.36542684768E+03	Apriori clock (usec)	9.7213898E+01	Resid sbdelay (usec)	5.99660E-02	+/-	8.2E-05
Phase delay (usec)	2.36536688048E+03	Apriori clockrate (us/s)	1.2279680E-02	Resid phdelay (usec)	-1.19670E-06	+/-	3.5E-08
Delay rate (us/s)	-9.76944339346E-02	Apriori rate (us/s)	-9.76945437030E-02	Resid rate (us/s)	1.09768E-07	+/-	4.2E-10
Total phase (deg)	30.5	Apriori accel (us/s/s)	-8.23446939447E-06	Resid phase (deg)	-37.1	+/-	1.1

ph/seg (deg)	RMS 65.4	Theor. 2.7	Amplitude Search (1024X32)	3.185 +/- 0.030	3.143	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	108.8	4.7	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	45.0	1.6	Inc. seg. avg.	5.629	5.629	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	39.1	2.7	Inc. frq. avg.	4.092	4.092	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011	
						Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC) 0.00 0.00

N: az 70.7 el 41.2 pa -61.0 Y: az 63.7 el 33.5 pa -62.6 u,v (fr/asec) 722.741 -181.482 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NY..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NY.W.110.3MP1W9

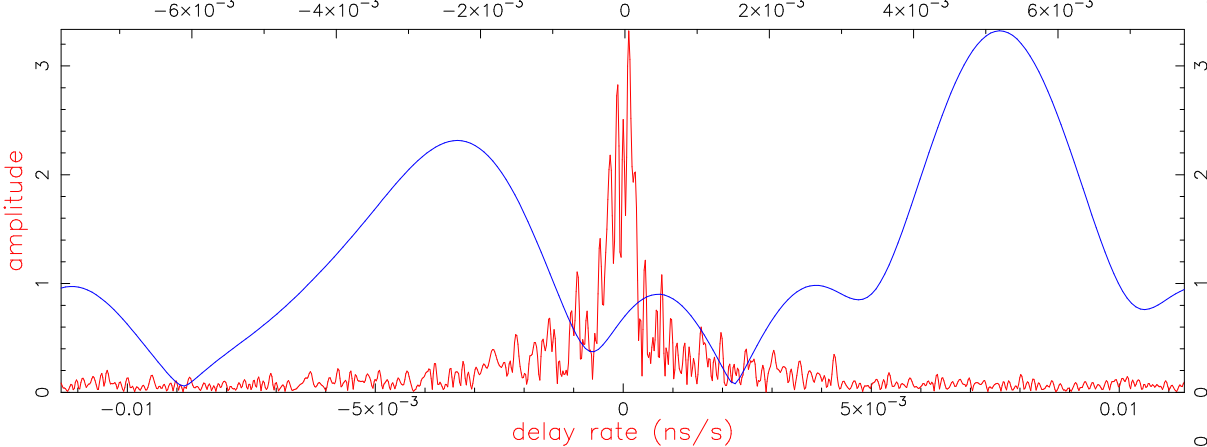
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, NY

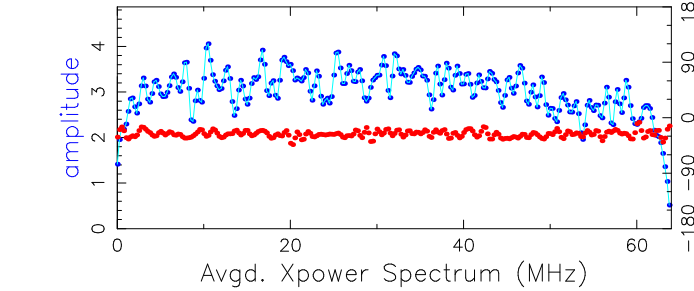
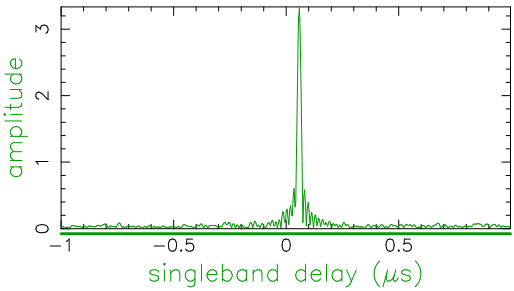
NOEMA - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

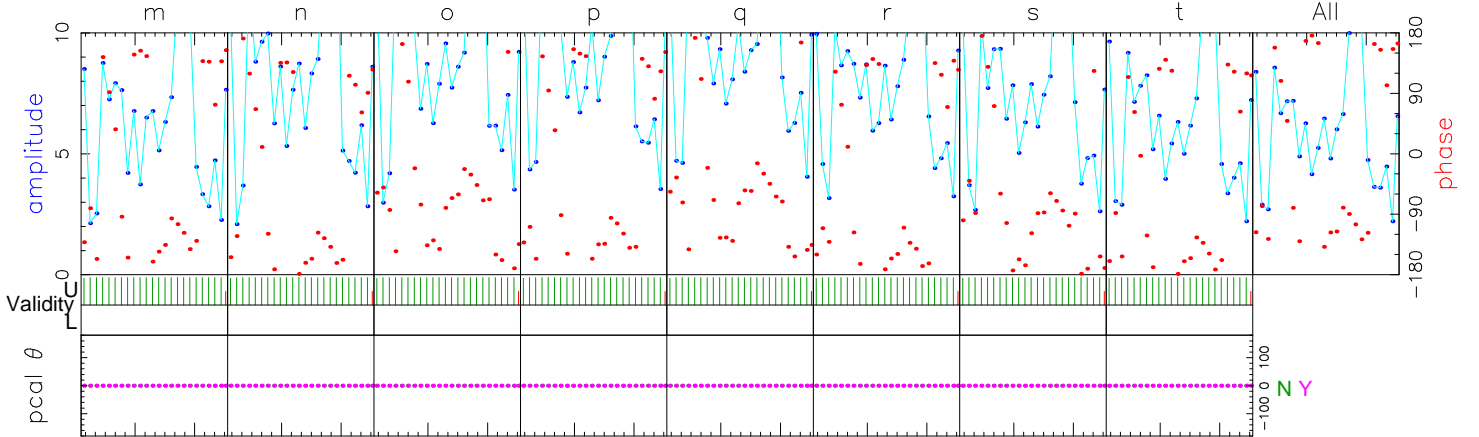


Fringe quality 2

SNR 109.5
 Int time 144.101
 Amp 3.336
 Phase -140.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.057779
 MBD 0.005174
 Fringe rate (Hz) 0.009511
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220005.63
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140203
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"



Amp. and Phase vs. time for each freq., 24 segs, 12 APs / seg (6.14 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
	-157.3	179.7	-87.5	-158.5	-82.2	-175.5	-114.0	-178.7	Phase	-140.1
	3.3	4.2	4.6	4.8	5.2	4.4	4.2	3.5	Ampl.	4.3
	273.2	271.4	271.7	271.4	271.4	271.1	271.5	271.4	Sbd box	271.8
U/L	282/0	282/0	282/0	282/0	282/0	282/0	282/0	282/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
N:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 2.36541893046E+03 Apriori delay (usec) 2.36536688168E+03 Resid mbdelay (usec) 5.17378E-03 +/- 9.9E-06
 Sband delay (usec) 2.36542466068E+03 Apriori clock (usec) 9.7213898E+01 Resid sbdelay (usec) 5.77790E-02 +/- 7.9E-05
 Phase delay (usec) 2.36536687716E+03 Apriori clockrate (us/s) 1.2279680E-02 Resid phdelay (usec) -4.51710E-06 +/- 3.4E-08
 Delay rate (us/s) -9.76944332842E-02 Apriori rate (us/s) -9.76945437030E-02 Resid rate (us/s) 1.10419E-07 +/- 4.0E-10
 Total phase (deg) -72.5 Apriori accel (us/s/s) -8.23446939447E-06 Resid phase (deg) -140.1 +/- 1.0

RMS Theor. Amplitude 3.336 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 64.5 2.6 Search (1024X32) 3.274 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 107.5 4.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 44.3 1.5 Inc. seg. avg. 6.010 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 33.6 2.6 Inc. frq. avg. 4.276 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 70.7 el 41.2 pa -61.0 Y: az 63.7 el 33.5 pa -62.6 u, v (fr/asec) 722.741 -181.482 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NY..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NY.W.147.3MP1W9

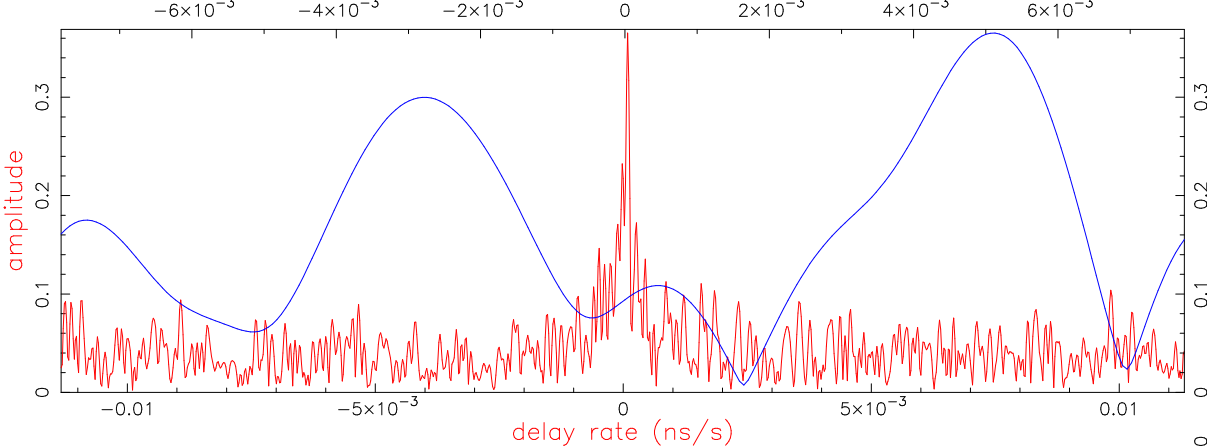
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, NY

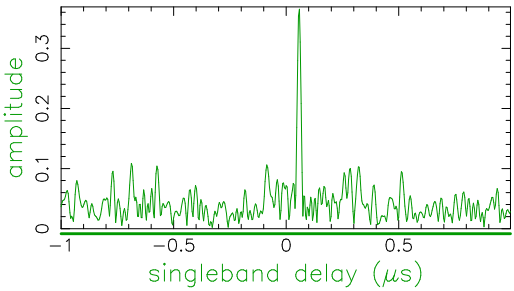
NOEMA - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

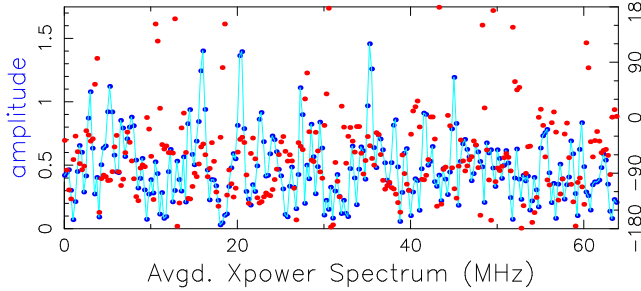


Fringe quality 9

SNR 12.1
 Int time 144.101
 Amp 0.369
 Phase 167.2
 PFD 2.3e-25
 Delays (us)
 SBD 0.057305
 MBD 0.005073
 Fringe rate (Hz)
 0.008031
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

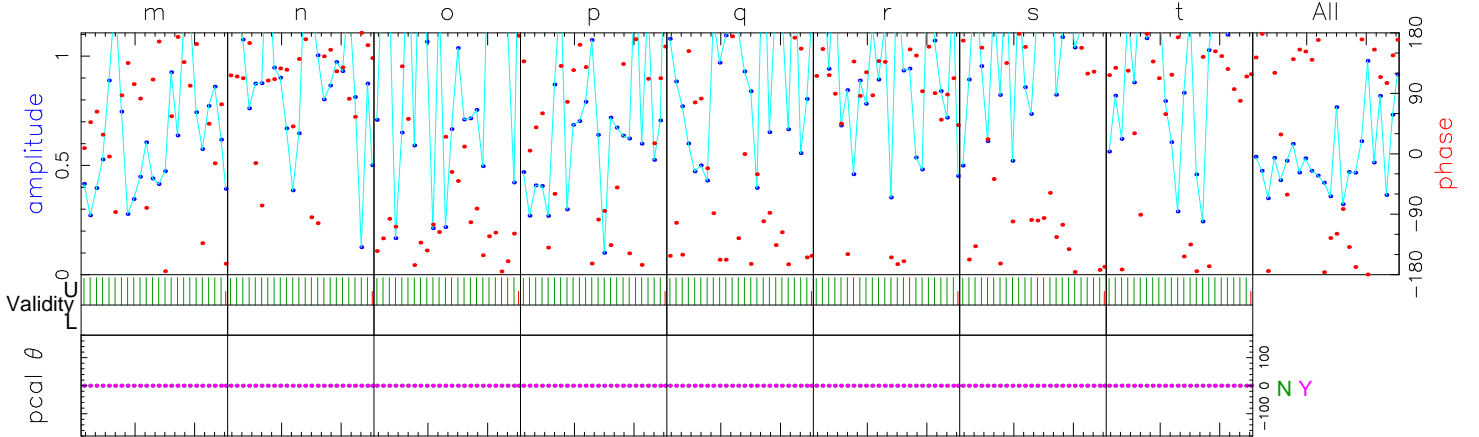


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220005.63
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140205
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 24 segs, 12 APs / seg (6.14 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	87.9	130.1	-124.5	155.6	-141.3	126.8	-156.3	137.9	Phase	167.2
	0.2	0.5	0.5	0.3	0.6	0.7	0.6	0.6	Ampl.	0.5
	109.2	271.4	271.8	270.9	271.3	270.8	271.7	270.9	Sbd box	271.7
U/L	282/0	282/0	282/0	282/0	282/0	282/0	282/0	282/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
N:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.36541882946E+03	Apriori delay (usec)	2.36536688168E+03	Resid mbdelay (usec)	5.07278E-03	+/-	9.0E-05
Sband delay (usec)	2.36542418668E+03	Apriori clock (usec)	9.7213898E+01	Resid sbdelay (usec)	5.73050E-02	+/-	7.1E-04
Phase delay (usec)	2.3653668870E+03	Apriori clockrate (us/s)	1.2279680E-06	Resid phdelay (usec)	5.39050E-06	+/-	3.1E-07
Delay rate (us/s)	-9.76944504667E-02	Apriori rate (us/s)	-9.76945437030E-02	Resid rate (us/s)	9.32363E-08	+/-	3.7E-09
Total phase (deg)	234.8	Apriori accel (us/s/s)	-8.23446939447E-06	Resid phase (deg)	167.2	+/-	9.5

ph/seg (deg)	RMS 56.5	Theor. 23.2	Amplitude Search (1024X32)	0.369 +/- 0.030	0.357	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	64.2	40.4	Interp.	0.000	0.000E+00	0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	56.2	13.4	Inc. seg. avg.	0.498	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011	0.011
amp/frq (%)	58.8	23.4	Inc. frq. avg.	0.503	Data rate(Mb/s): 2048			ion window (TEC)	0.00	0.00

N: az 70.7 el 41.2 pa -61.0 Y: az 63.7 el 33.5 pa -62.6 u, v (fr/asec) 722.741 -181.482 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NY..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NY.W.164.3MP1W9

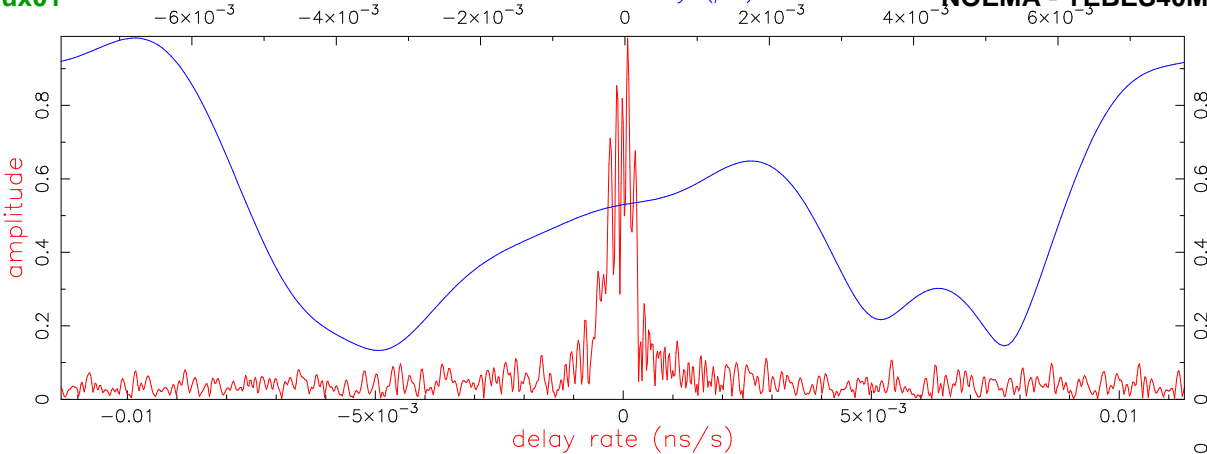
Mk4/DiFX fourfit 3.25 rev 0

aux01

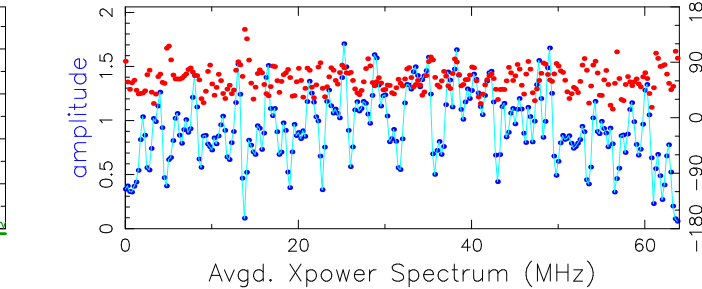
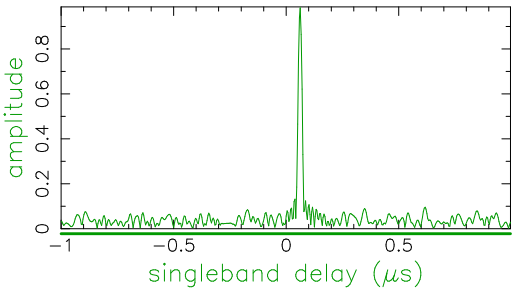
3C345.3MP1W9, No1106, NY

NOEMA - YEBES40M, fgroup W, pol RL

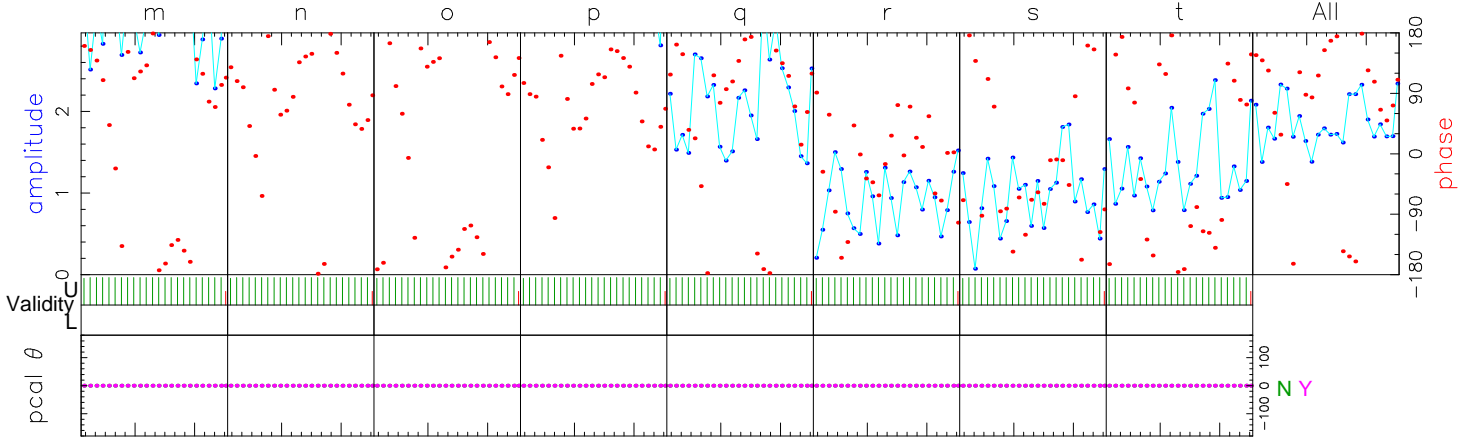
multiband delay (μ s)



Fringe quality 3
 Error code G
 SNR 32.4
 Int time 144.101
 Amp 0.988
 Phase 129.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.061600
 MBD -0.006816
 Fringe rate (Hz)
 0.008568
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220005.63
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140207
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"



Amp. and Phase vs. time for each freq., 24 segs, 12 APs / seg (6.14 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
	151.0	107.3	169.5	82.5	133.1	-9.6	-75.2	-174.8	Phase	129.8
	1.8	2.2	2.3	2.3	1.2	0.5	0.3	0.6	Ampl.	1.4
	273.8	272.4	272.0	272.2	271.8	271.0	271.3	271.3	Sbd box	272.8
U/L	282/0	282/0	282/0	282/0	282/0	282/0	282/0	282/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
N:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	2.36542256577E+03	Apriori delay (usec)	2.36536688168E+03	Resid mbdelay (usec)	-6.81591E-03	+/-	3.3E-05
Sband delay (usec)	2.36542848168E+03	Apriori clock (usec)	9.7213898E+01	Resid sbdelay (usec)	6.16000E-02	+/-	2.7E-04
Phase delay (usec)	2.36536688586E+03	Apriori clockrate (us/s)	1.2279680E-02	Resid phdelay (usec)	4.18516E-06	+/-	1.1E-07
Delay rate (us/s)	-9.76944442399E-02	Apriori rate (us/s)	-9.76945437030E-02	Resid rate (us/s)	9.94631E-08	+/-	1.4E-09
Total phase (deg)	197.4	Apriori accel (us/s/s)	-8.23446939447E-06	Resid phase (deg)	129.8	+/-	3.5

ph/seg (deg)	63.2	RMS	8.7	Theor.	Amplitude	0.988 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	91.8	63.2	8.7	Search (1024X32)	0.952		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
ph/frq (deg)	92.5	91.8	15.1	Interp.	0.000		Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
amp/frq (%)	90.4	92.5	5.0	Inc. seg. avg.	1.831		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011		
		90.4	8.7	Inc. frq. avg.	1.388		Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

N: az 70.7 el 41.2 pa -61.0 Y: az 63.7 el 33.5 pa -62.6 u,v (fr/asec) 722.741 -181.482 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/NY..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/NY.W.175.3MP1W9

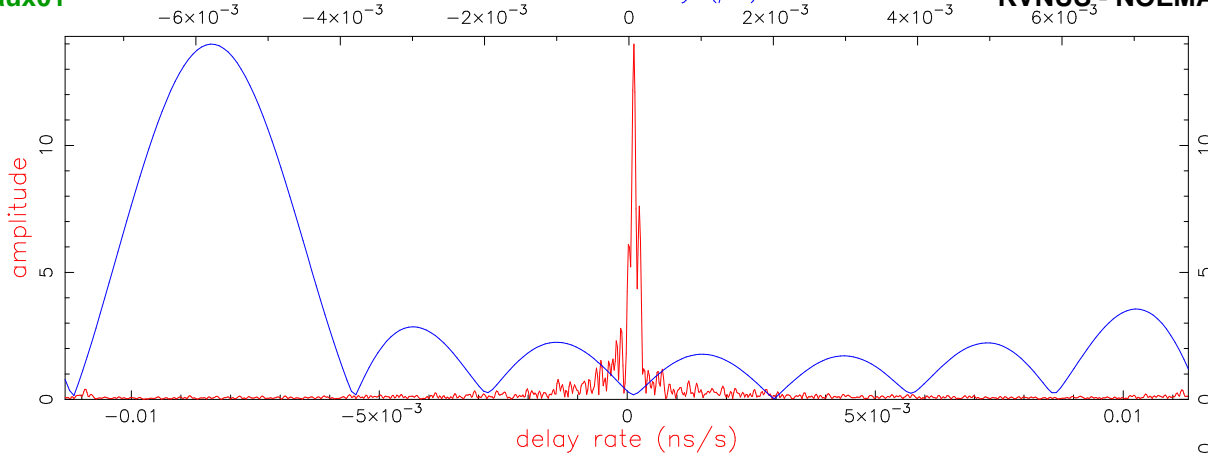
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, uN

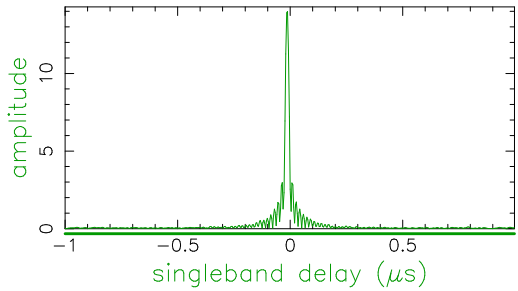
KVNUS- NOEMA, fgroup W, pol LL

multiband delay (μ s)

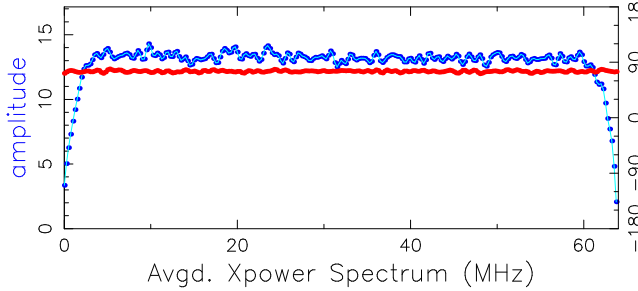


Fringe quality 7

SNR 478.4
 Int time 149.842
 Amp 14.293
 Phase -14.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.013559
 MBD -0.005783
 Fringe rate (Hz)
 0.010610
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

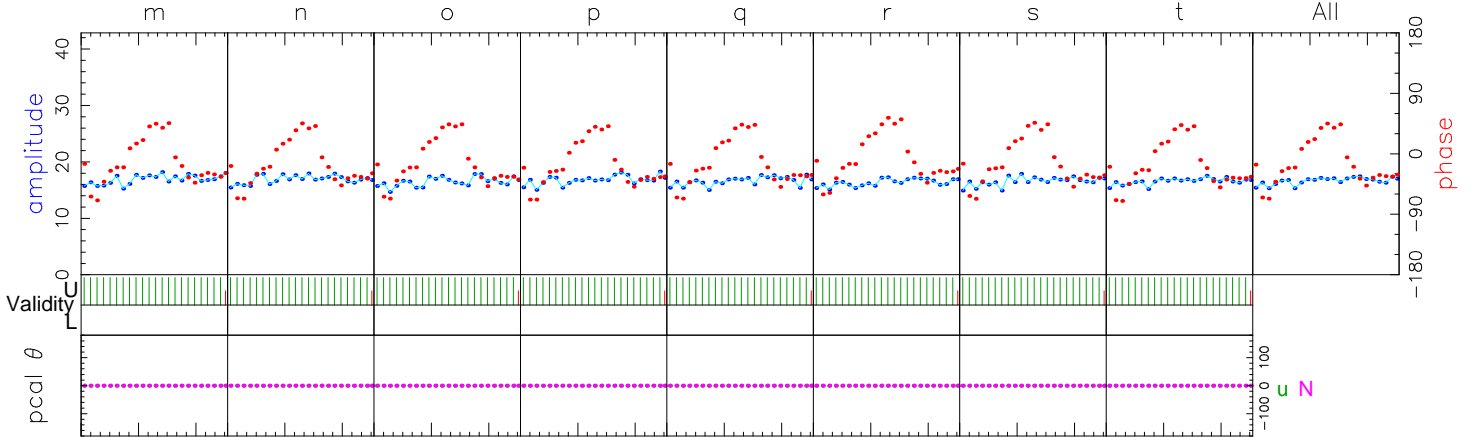


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140147
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	-12.8	-14.9	-14.1	-17.3	-14.5	-7.5	-13.7	-17.1	Phase	-14.0
	14.2	14.3	13.9	14.2	14.0	13.7	13.9	13.9	Ampl.	14.0
	253.5	253.6	253.4	253.6	253.6	253.5	253.5	253.5	Sbd box	253.5
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
u	0	0	60000	0	0	0	4000	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	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 1.28015680830E+03 Apriori delay (usec) 1.28016259105E+03 Resid mbdelay (usec) -5.78276E-03 +/- 2.3E-06
 Sband delay (usec) 1.28014903255E+03 Apriori clock (usec) 1.4696438E+01 Resid sbdelay (usec) -1.35585E-02 +/- 1.8E-05
 Phase delay (usec) 1.28016259060E+03 Apriori clockrate (us/s) 1.4846197E-07 Resid phdelay (usec) -4.52161E-02 +/- 7.7E-09
 Delay rate (us/s) -1.59062694861E+00 Apriori rate (us/s) -1.59062707178E+00 Resid rate (us/s) 1.23173E-07 +/- 8.9E-11
 Total phase (deg) 199.6 Apriori accel (us/s/s) -1.54984039758E-05 Resid phase (deg) -14.0 +/- 0.2

RMS Theor. Amplitude 14.293 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 33.2 0.6 Search (1024X32) 13.572 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 16.9 1.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 3.3 0.3 Inc. seg. avg. 16.626 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 2.5 0.6 Inc. frq. avg. 14.006 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 292.9 el 46.3 pa 77.1 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 11835.699 -1915.165 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/uN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/uN.W.42.3MP1W9

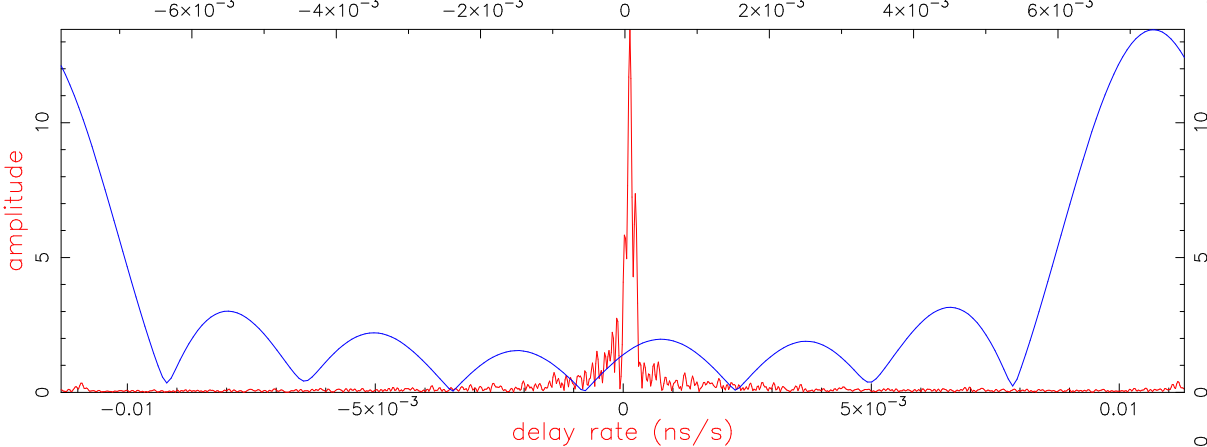
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, uN

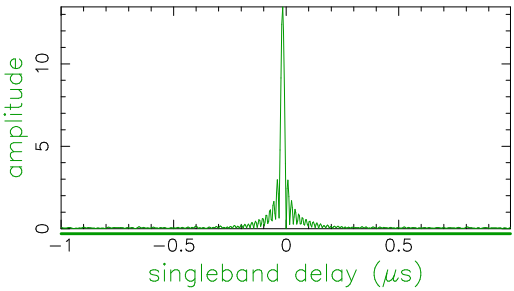
KVNUS - NOEMA, fgroup W, pol RR

multiband delay (μ s)

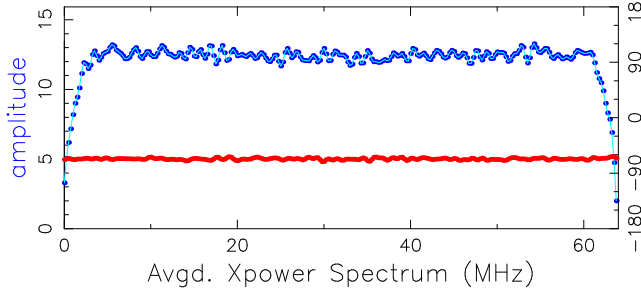


Fringe quality 7

SNR 450.6
 Int time 149.842
 Amp 13.460
 Phase 24.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.015983
 MBD 0.007321
 Fringe rate (Hz)
 0.010610
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

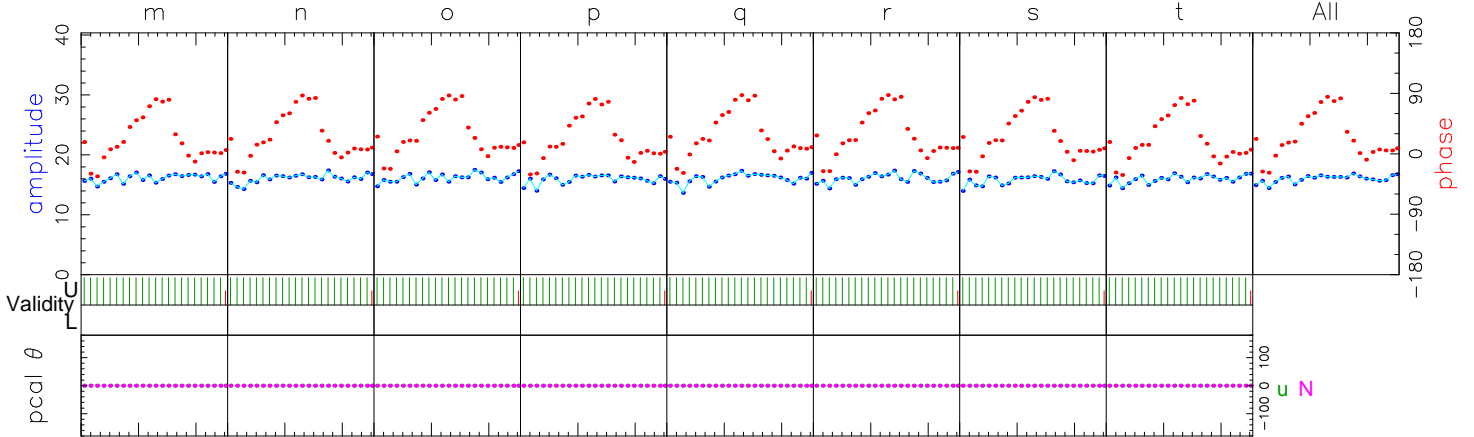


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140149
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	4000	0		
N	0	0	0	0	0	0	0	0		
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	1.28015428720E+03	Apriori delay (usec)	1.28016259105E+03	Resid mbdelay (usec)	7.32115E-03	+/-	2.4E-06
Sband delay (usec)	1.28014660755E+03	Apriori clock (usec)	1.4696438E+01	Resid sbdelay (usec)	-1.59835E-02	+/-	1.9E-05
Phase delay (usec)	1.28016259185E+03	Apriori clockrate (us/s)	1.4846197E-07	Resid phdelay (usec)	7.96494E-07	+/-	8.2E-09
Delay rate (us/s)	-1.59062694861E+00	Apriori rate (us/s)	-1.59062707178E+00	Resid rate (us/s)	1.23171E-07	+/-	9.5E-11
Total phase (deg)	238.3	Apriori accel (us/s/s)	-1.54984039758E-05	Resid phase (deg)	24.7	+/-	0.3

ph/seg (deg) 33.4 0.6 Search (1024X32) 13.074 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 19.5 1.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 3.9 0.4 Inc. seg. avg. 16.014 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.9 0.6 Inc. frq. avg. 13.472 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 u: az 292.9 el 46.3 pa 77.1 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 11835.699 -1915.165 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/uN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/uN.W.58.3MP1W9

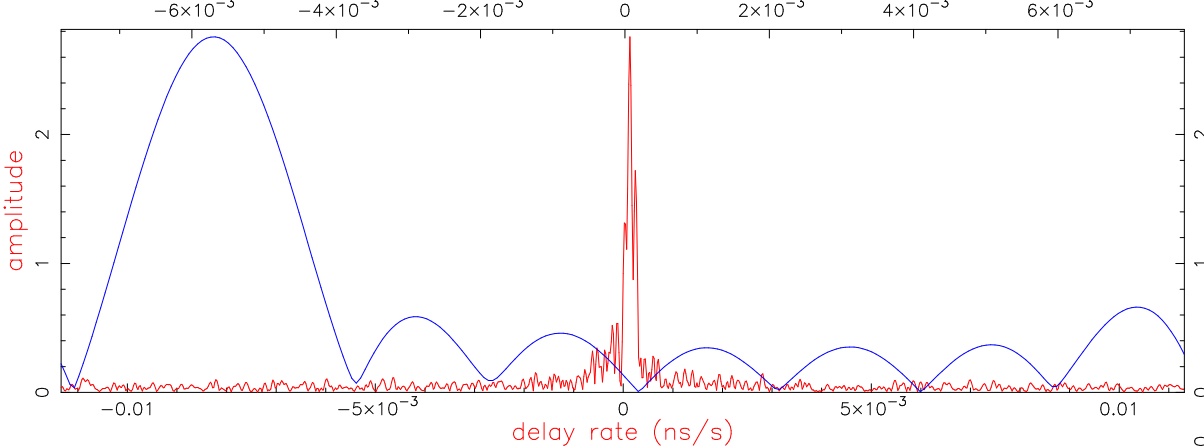
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, uN

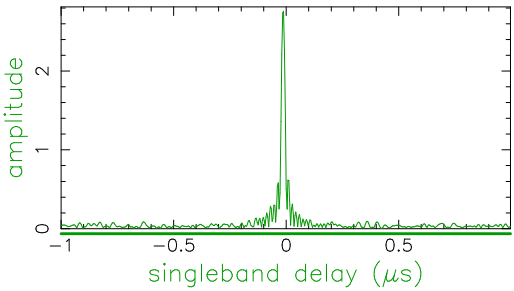
KVNUS- NOEMA, fgroup W, pol LR

multiband delay (μ s)

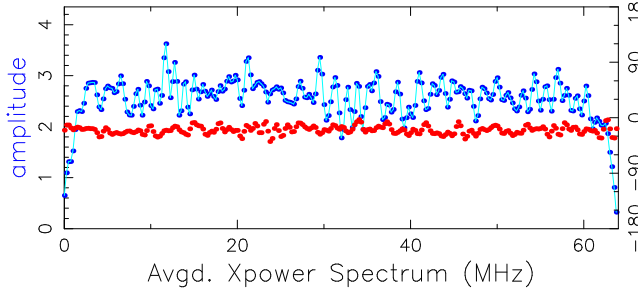


Fringe quality 6

SNR 94.2
 Int time 149.842
 Amp 2.816
 Phase -109.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.013518
 MBD -0.005701
 Fringe rate (Hz) 0.010552
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

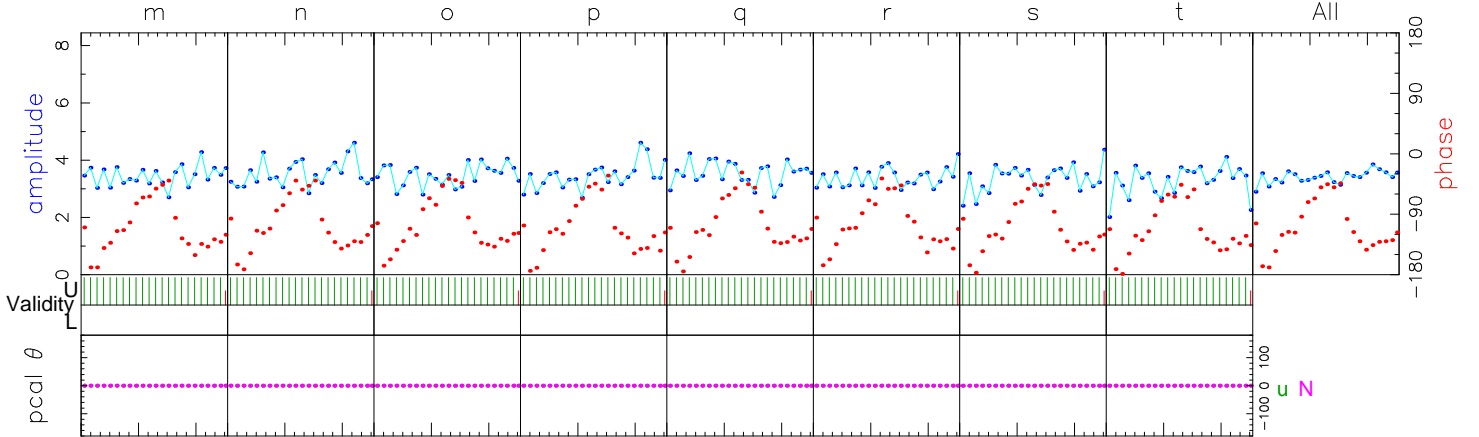


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140151
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	-112.9	-107.3	-109.1	-112.3	-107.4	-105.1	-109.7	-113.6	Phase	-109.6
	2.8	2.8	2.8	2.7	2.8	2.7	2.7	2.7	Ampl.	2.8
	253.5	253.5	253.6	253.5	253.7	253.4	253.6	253.6	Sbd box	253.5
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
u	0	0	60000	0	0	0	4000	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	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.28014126467E+03	Apriori delay (usec)	1.28016259105E+03	Resid mbdelay (usec)	-5.70138E-03	+/-	1.2E-05
Sband delay (usec)	1.28014907305E+03	Apriori clock (usec)	1.4696438E+01	Resid sbdelay (usec)	-1.35180E-02	+/-	9.1E-05
Phase delay (usec)	1.28016258752E+03	Apriori clockrate (us/s)	1.4846197E-07	Resid phdelay (usec)	-3.53579E-06	+/-	3.9E-08
Delay rate (us/s)	-1.59062694928E+00	Apriori rate (us/s)	-1.59062707178E+00	Resid rate (us/s)	1.22504E-07	+/-	4.5E-10
Total phase (deg)	103.9	Apriori accel (us/s/s)	-1.54984039758E-05	Resid phase (deg)	-109.6	+/-	1.2

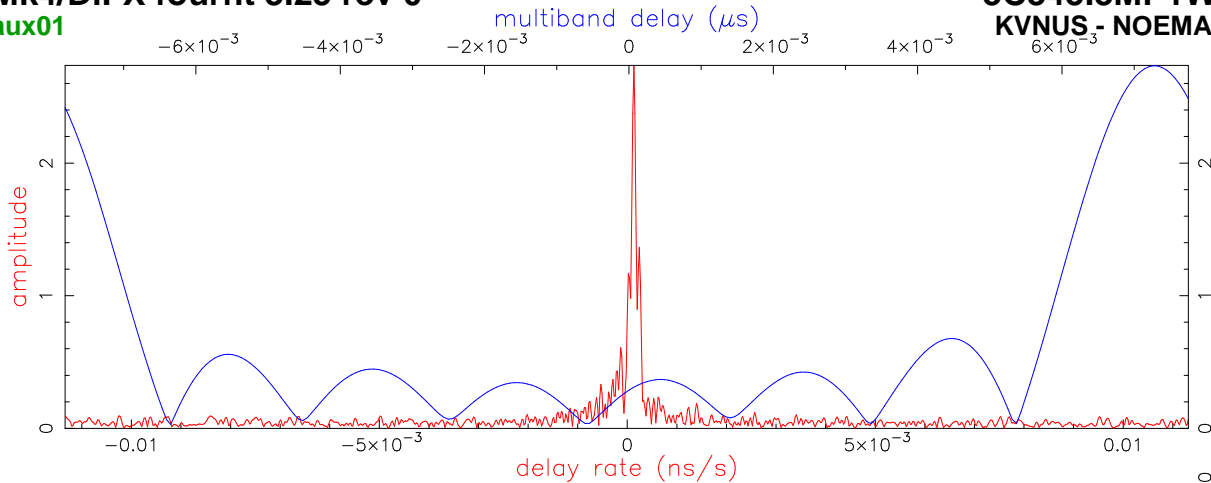
ph/seg (deg) 37.2 2.9 Amplitude 2.816 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 22.6 5.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 3.3 1.7 Inc. seg. avg. 3.412 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.9 3.0 Inc. frq. avg. 2.760 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 u: az 292.9 el 46.3 pa 77.1 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 11835.699 -1915.165 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/uN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/uN.W.72.3MP1W9

Mk4/DiFX fourfit 3.25 rev 0

aux01

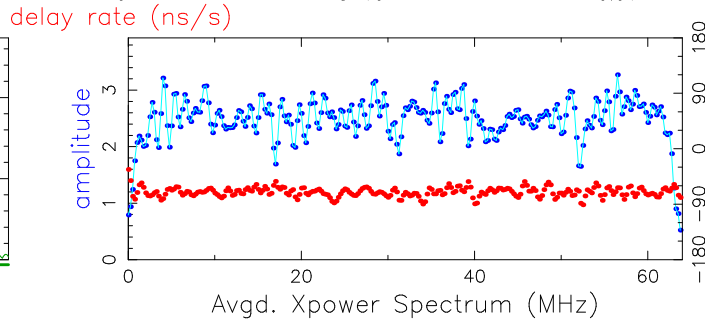
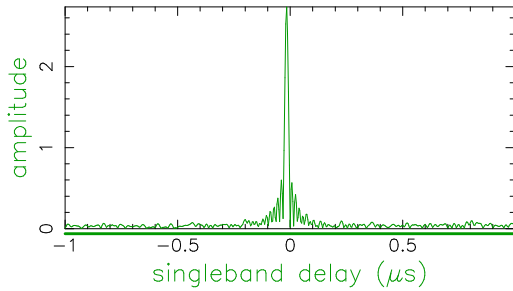
3C345.3MP1W9, No1106, uN

KVNUS- NOEMA, fgroup W, pol RL



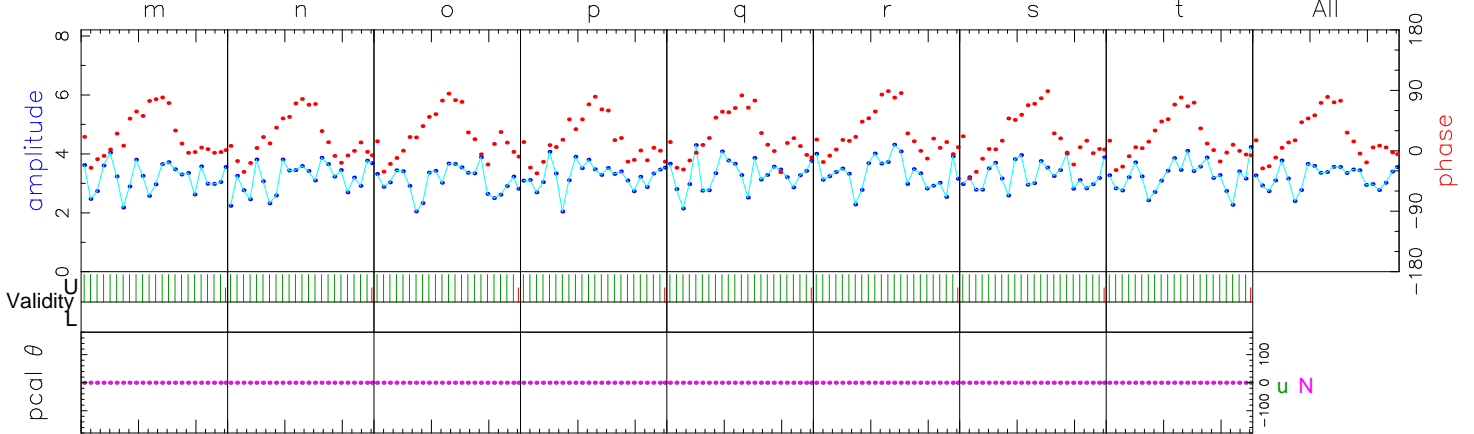
Fringe quality 6

SNR 91.6
 Int time 149.842
 Amp 2.736
 Phase 21.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.016028
 MBD 0.007282
 Fringe rate (Hz)
 0.010632
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140153
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	22.6	19.0	23.0	16.6	20.8	27.6	20.3	19.1	Phase	21.1
	2.7	2.7	2.6	2.8	2.8	2.8	2.7	2.8	Ampl.	2.7
	253.1	252.9	252.8	253.0	252.9	252.9	252.8	253.0	Sbd box	252.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
u	0	0	60000	0	0	0	4000	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	Mani 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	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 1.28015424758E+03 Apriori delay (usec) 1.28016259105E+03 Resid mbdelay (usec) 7.28152E-03 +/- 1.2E-05
 Sband delay (usec) 1.28014656330E+03 Apriori clock (usec) 1.4696438E+01 Resid sbdelay (usec) -1.60278E-02 +/- 9.4E-05
 Phase delay (usec) 1.28016259173E+03 Apriori clockrate (us/s) 1.4846197E-07 Resid phdelay (usec) 6.81433E-07 +/- 4.0E-08
 Delay rate (us/s) -1.59062694836E+00 Apriori rate (us/s) -1.59062707178E+00 Resid rate (us/s) 1.23422E-07 +/- 4.7E-10
 Total phase (deg) 234.7 Apriori accel (us/s/s) -1.54984039758E-05 Resid phase (deg) 21.1 +/- 1.3

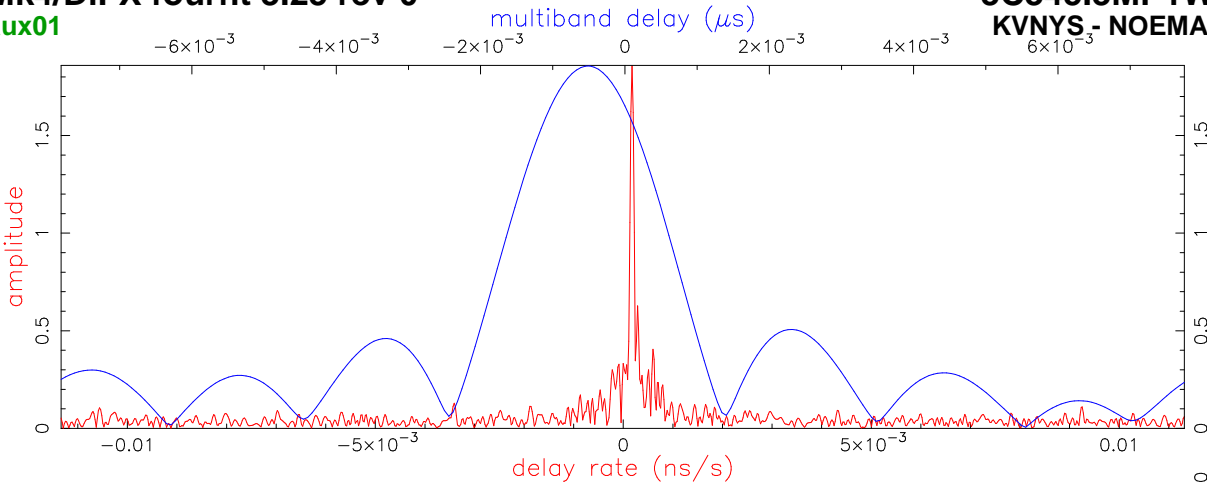
RMS Theor. Amplitude 2.736 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 32.0 3.0 Search (1024X32) 2.660 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 21.7 5.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 3.6 1.8 Inc. seg. avg. 3.214 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 2.3 3.1 Inc. frq. avg. 2.736 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 u: az 292.9 el 46.3 pa 77.1 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 11835.699 -1915.165 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/uN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/uN.W.87.3MP1W9

Mk4/DiFX fourfit 3.25 rev 0

aux01

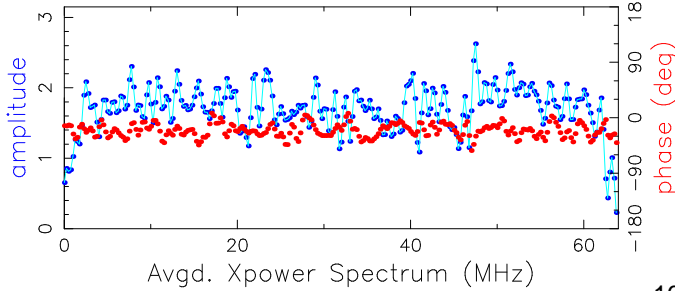
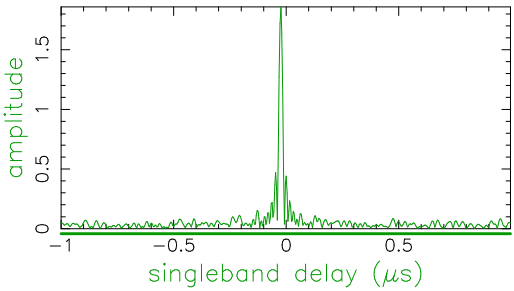
3C345.3MP1W9, No1106, yN

KVNYs- NOEMA, fgroup W, pol RL



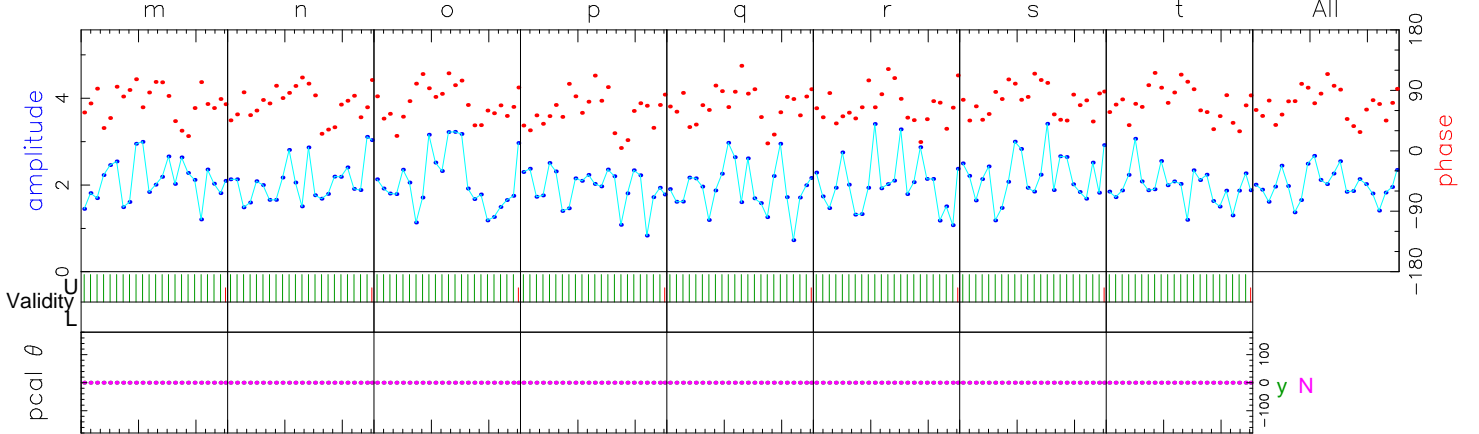
Fringe quality 8

SNR 62.2
 Int time 149.853
 Amp 1.859
 Phase 69.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.023920
 MBD -0.000513
 Fringe rate (Hz)
 0.015536
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140157
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	71.2	71.0	75.9	59.1	68.5	65.0	74.5	72.2		69.8
	1.9	1.9	1.9	1.8	1.8	1.8	2.0	1.8		1.9
	251.0	250.8	250.9	250.7	250.9	250.8	250.9	250.8		250.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
y	0	0	60000	0	0	0	4000	0		
N	0	0	0	0	0	0	0	0		
y:N	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000		Mani PC
N	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks

Group delay (usec) (SBD)	1.90656110487E+03	Apriori delay (usec)	1.90657724298E+03	Resid mbdelay (usec)	-5.13104E-04	+/-	1.7E-05
Sband delay (usec)	1.90655332273E+03	Apriori clock (usec)	1.9784952E+01	Resid sbdelay (usec)	-2.39202E-02	+/-	1.4E-04
Phase delay (usec)	1.90657724523E+03	Apriori clockrate (us/s)	-1.4737994E-08	Resid phdelay (usec)	2.25231E-06	+/-	5.9E-08
Delay rate (us/s)	-1.54800544940E+00	Apriori rate (us/s)	-1.54800562976E+00	Resid rate (us/s)	1.80359E-07	+/-	6.9E-10
Total phase (deg)	325.4	Apriori accel (us/s/s)	-1.67603819089E-05	Resid phase (deg)	69.8	+/-	1.8

ph/seg (deg)	22.0	Theor.	4.4	Amplitude	1.859 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	19.5		7.7	Search (1024X32)	1.847	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	5.9		2.6	Inc. seg. avg.	1.997	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	4.7		4.5	Inc. frq. avg.	1.862	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
y: az 290.3 el 48.8 pa 75.3		N: az 70.7 el 41.2 pa -61.0		u, v (fr/asec)	11517.802 -1802.886	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
Control file: cf_1234_gmva		Input file: /Exps/c241a/v2/3mm/1234/No1106/yN..3MP1W9		Output file: /Exps/c241a/v2/3mm/1234/No1106/yN.W.115.3MP1W9		simultaneous interpolator				

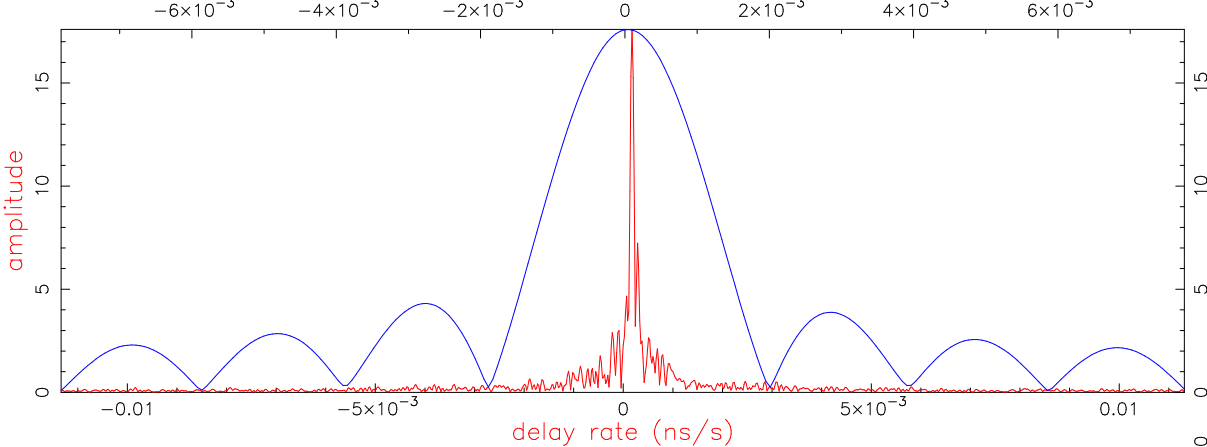
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, yN

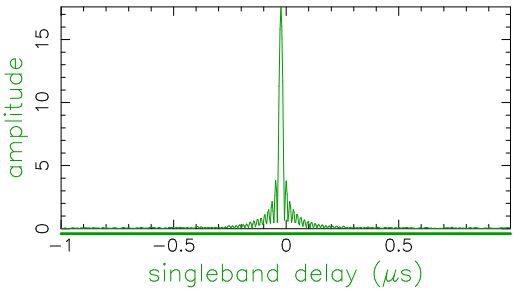
KVNYS- NOEMA, fgroup W, pol LL

multiband delay (μ s)

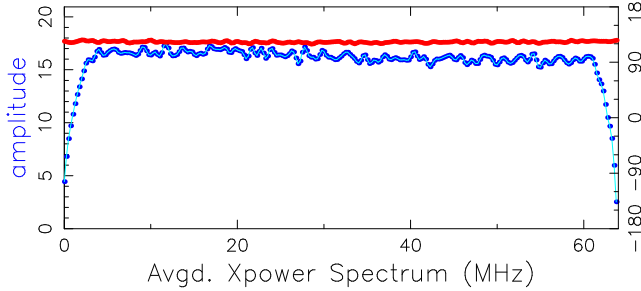


Fringe quality 7

SNR 589.0
 Int time 149.853
 Amp 17.598
 Phase -146.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.023297
 MBD 0.000042
 Fringe rate (Hz)
 0.015467
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

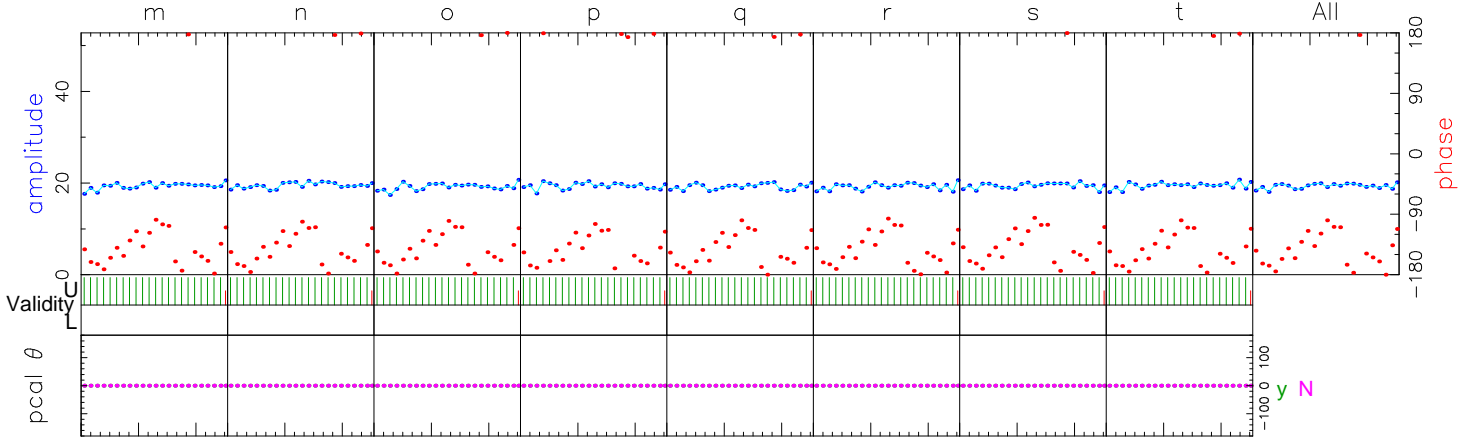


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140150
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	-144.0	-146.1	-145.6	-149.5	-148.7	-143.8	-142.8	-147.2	Phase	-146.0
	17.7	17.8	17.4	17.7	17.4	17.5	17.7	17.7	Ampl.	17.6
	251.1	251.0	251.0	251.0	251.1	251.0	251.0	251.0	Sbd box	251.0
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
y	0	0	60000	0	0	0	4000	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	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	

Group delay (usec) (SBD)	1.90656165987E+03	Apriori delay (usec)	1.90657724298E+03	Resid mbdelay (usec)	4.18964E-05	+/-	1.8E-06
Sband delay (usec)	1.90655394623E+03	Apriori clock (usec)	1.9784952E+01	Resid sbdelay (usec)	-2.32967E-02	+/-	1.5E-05
Phase delay (usec)	1.90657723827E+03	Apriori clockrate (us/s)	-1.4737994E-08	Resid phdelay (usec)	-4.70666E-06	+/-	6.3E-09
Delay rate (us/s)	-1.54800545020E+00	Apriori rate (us/s)	-1.54800562976E+00	Resid rate (us/s)	1.79558E-07	+/-	7.2E-11
Total phase (deg)	109.6	Apriori accel (us/s/s)	-1.67603819089E-05	Resid phase (deg)	-146.0	+/-	0.2

ph/seg (deg)	RMS 24.5	Theor. 0.5	Amplitude Search (1024X32)	17.530	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	10.3	0.8	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	2.6	0.3	Inc. seg. avg.	19.331	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.7	0.5	Inc. frq. avg.	17.608	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

y: az 290.3 el 48.8 pa 75.3 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 11517.802 -1802.886 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/yN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/yN.W.68.3MP1W9

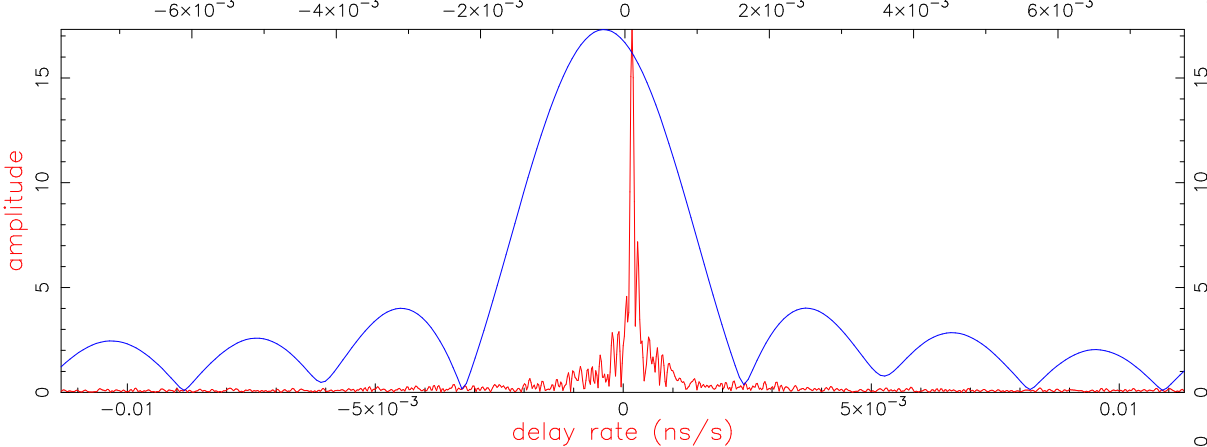
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, yN

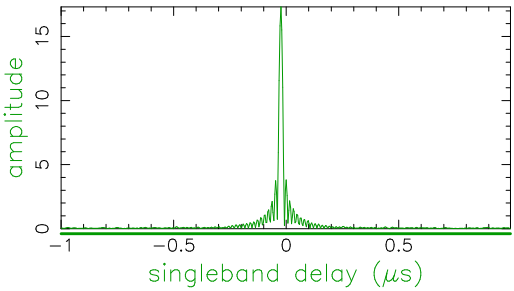
KVNYS - NOEMA, fgroup W, pol RR

multiband delay (μ s)

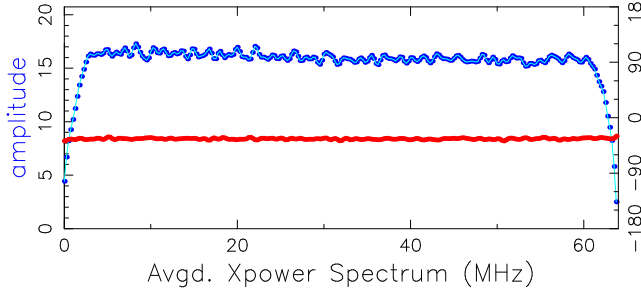


Fringe quality 7

SNR 579.6
 Int time 149.853
 Amp 17.315
 Phase 57.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.023624
 MBD -0.000294
 Fringe rate (Hz)
 0.015445
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

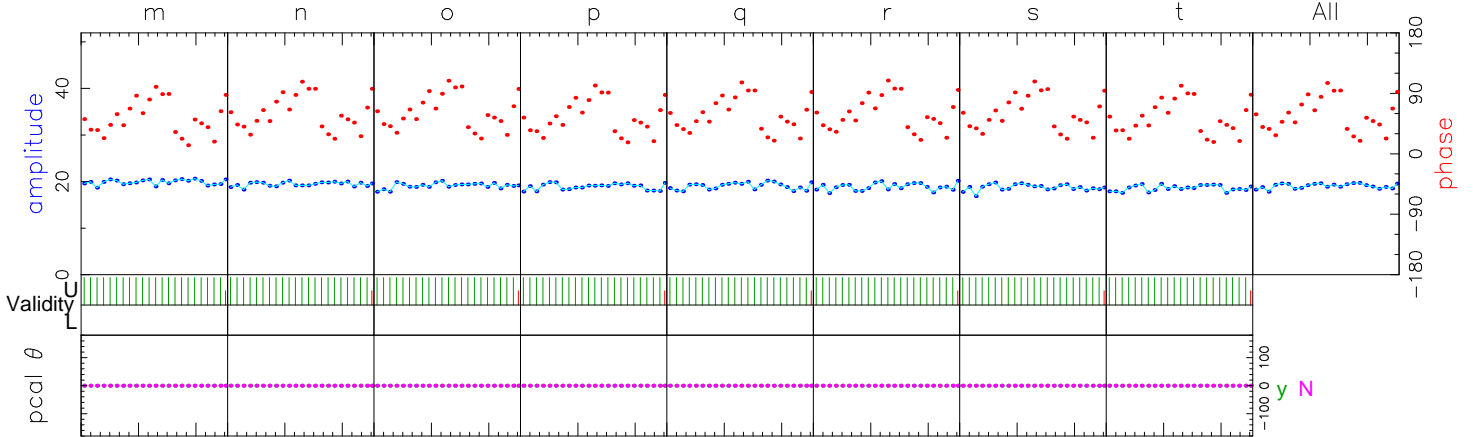


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140153
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

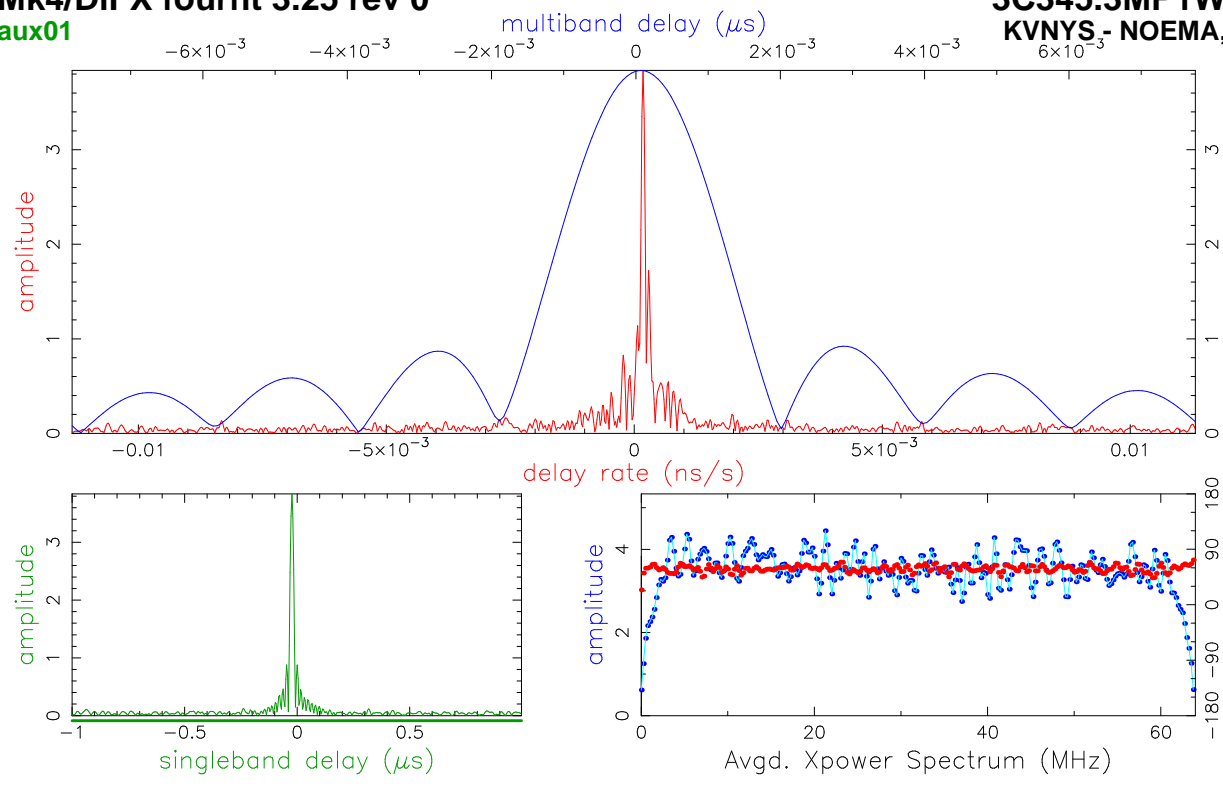
Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
y	0	0	60000	0	0	0	4000	0		
N	0	0	0	0	0	0	0	0		
y:N	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000		Mani PC
N	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks

Group delay (usec) (SBD)	1.90656132428E+03	Apriori delay (usec)	1.90657724298E+03	Resid mbdelay (usec)	-2.93697E-04	+/-	1.9E-06
Sband delay (usec)	1.90655361898E+03	Apriori clock (usec)	1.9784952E+01	Resid sbdelay (usec)	-2.36240E-02	+/-	1.5E-05
Phase delay (usec)	1.90657724481E+03	Apriori clockrate (us/s)	-1.4737994E-08	Resid phdelay (usec)	1.83867E-06	+/-	6.4E-09
Delay rate (us/s)	-1.54800545045E+00	Apriori rate (us/s)	-1.54800562976E+00	Resid rate (us/s)	1.79306E-07	+/-	7.4E-11
Total phase (deg)	312.6	Apriori accel (us/s/s)	-1.67603819089E-05	Resid phase (deg)	57.0	+/-	0.2

ph/seg (deg) 24.8 0.5 Search (1024X32) 17.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 10.4 0.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 3.8 0.3 Inc. seg. avg. 19.051 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.1 0.5 Inc. frq. avg. 17.340 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 y: az 290.3 el 48.8 pa 75.3 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 11517.802 -1802.886 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/yN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/yN.W.86.3MP1W9

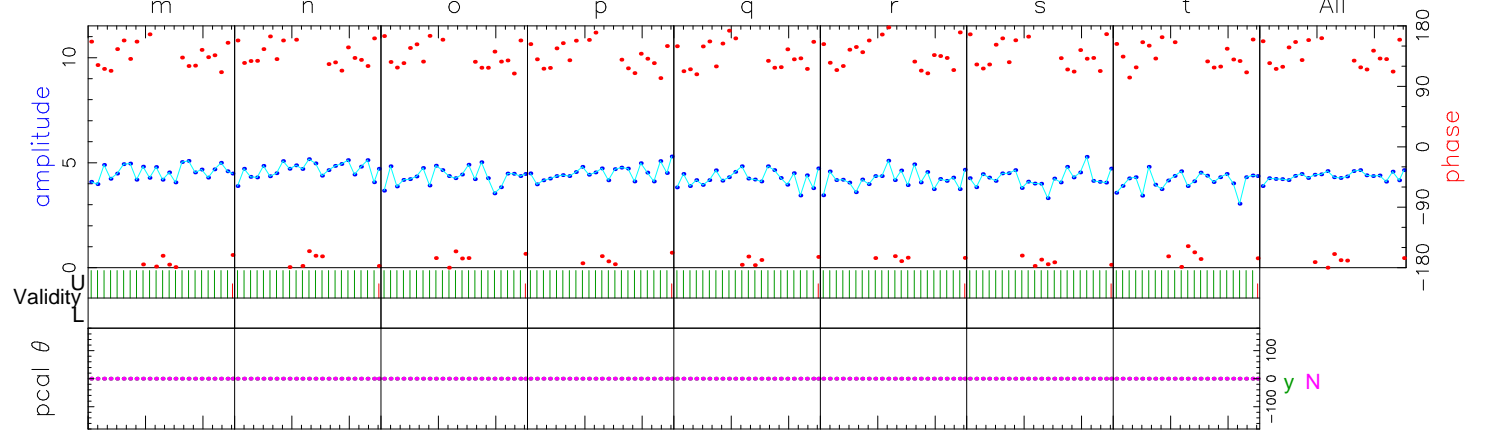


Fringe quality 7

SNR 128.5
Int time 149.853
Amp 3.839
Phase 148.6
PFD 0.0e+00
Delays (us)
SBD -0.023331
MBD 0.000069
Fringe rate (Hz) 0.015401
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 220000.00
Stop 220230.02
FRT 220115.00
Corr/FF/build
2025:003:231750
2025:041:140155
2024:113:095956
RA & Dec (J2000)
16h42m58.809971s
+39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



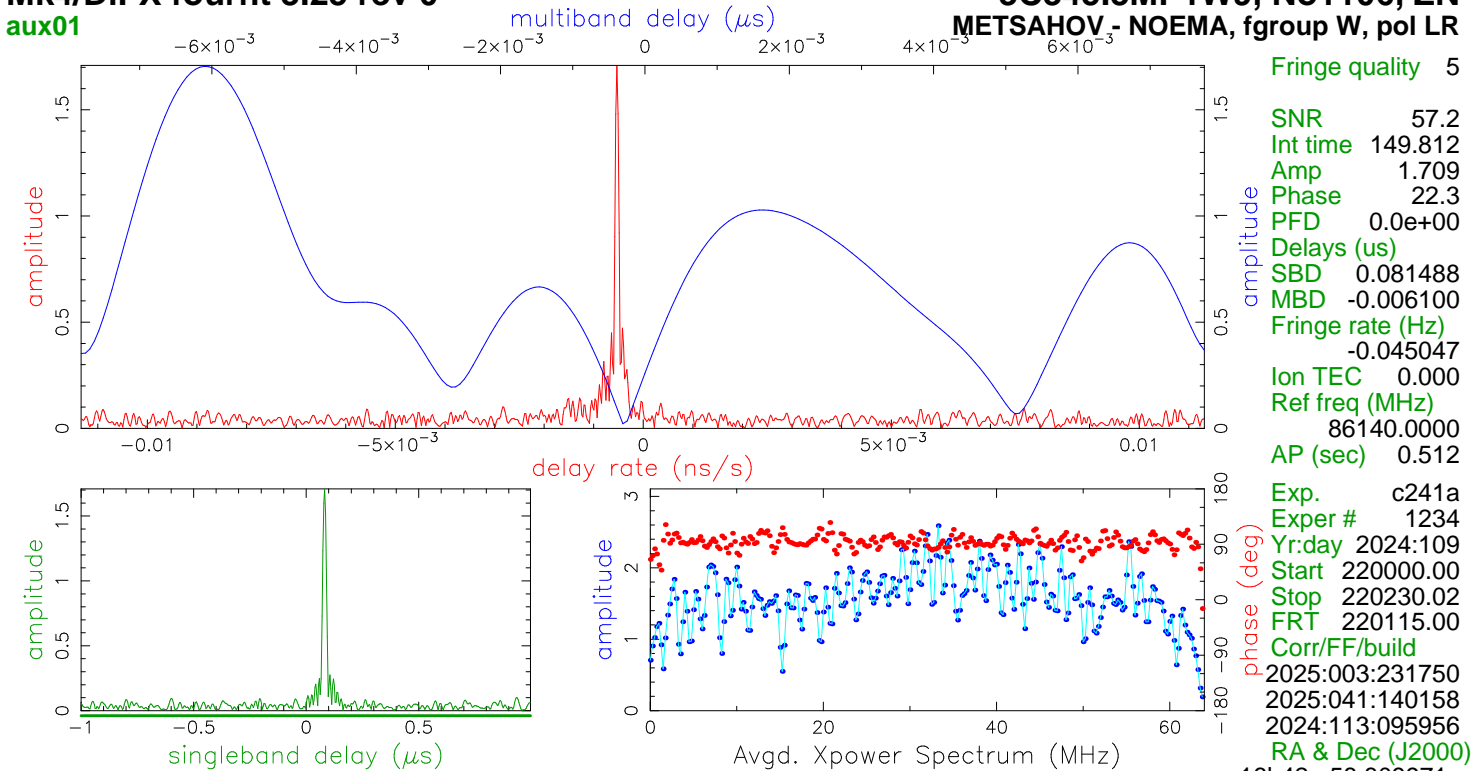
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0			
y	0	0	60000	0	0	0	0	0			
N	0	0	0	0	0	0	0	0			
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC freqs	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
y	1000	1000	1000	1000	1000	1000	1000	1000		Mani PC	
N	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	
										Tracks	
Group delay (usec) (SBD)	1.90656168725E+03					1.90657724298E+03			6.92714E-05	+/- 8.4E-06	
Sband delay (usec)	1.90655391223E+03					1.9784952E+01			-2.33307E-02	+/- 6.7E-05	
Phase delay (usec)	1.90657724777E+03					-1.4737994E-08			4.79111E-06	+/- 2.9E-08	
Delay rate (us/s)	-1.54800545097E+00					-1.54800562976E+00			1.78789E-07	+/- 3.3E-10	
Total phase (deg)			44.1			-1.67603819089E-05			148.6	+/- 0.9	
	RMS	Theor.	Amplitude	3.839 +/- 0.030		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	28.1	2.1	Search (1024X32)	3.825		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000	
amp/seg (%)	14.1	3.7	Interp.	0.000		Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	1.8	1.3	Inc. seg. avg.	4.347		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	5.1	2.2	Inc. frq. avg.	3.840		Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
y: az 290.3 el 48.8 pa 75.3			N: az 70.7 el 41.2 pa -61.0			u, v (fr/asec) 11517.802 -1802.886				simultaneous interpolator	
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No1106/yN..3MP1W9			Output file: /Exps/c241a/v2/3mm/1234/No1106/yN.W.98.3MP1W9					

Mk4/DiFX fourfit 3.25 rev 0

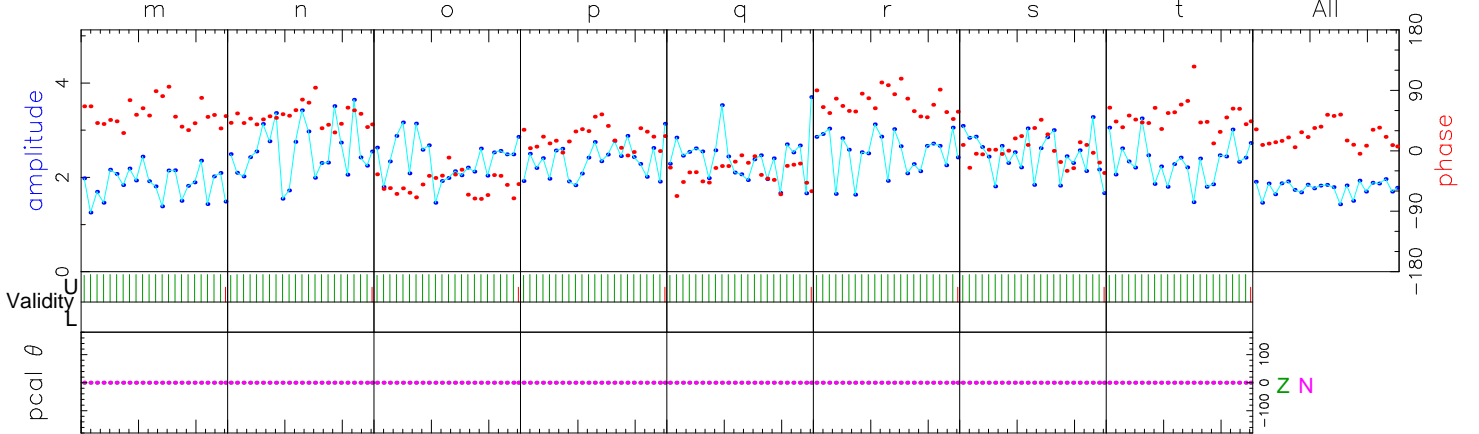
aux01

3C345.3MP1W9, No1106, ZN

METSAHOV - NOEMA, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	55.4	51.1	-51.2	19.1	-32.7	71.9	1.8	50.3	Phase	22.3
	1.8	2.5	2.3	2.3	2.3	2.4	2.4	2.2	Ampl.	2.3
	276.1	277.7	278.0	278.6	278.7	278.4	278.4	277.7	Sbd box	277.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	

Group delay (usec) (SBD)	3.11535185602E+03	Apriori delay (usec)	3.11526420643E+03	Resid mbdelay (usec)	-6.10041E-03	+/-	1.9E-05
Sband delay (usec)	3.11534569418E+03	Apriori clock (usec)	1.3481636E+01	Resid sbdelay (usec)	8.14878E-02	+/-	1.5E-04
Phase delay (usec)	3.11526420715E+03	Apriori clockrate (us/s)	5.9556093E-07	Resid phdelay (usec)	7.20427E-07	+/-	6.5E-08
Delay rate (us/s)	-3.37684439033E-01	Apriori rate (us/s)	-3.37683916080E-01	Resid rate (us/s)	-5.22952E-07	+/-	7.5E-10
Total phase (deg)		Apriori accel (us/s/s)	-4.55655074539E-06	Resid phase (deg)	22.3	+/-	2.0

ph/seg (deg)	RMS 16.0	Theor. 4.8	Amplitude Search (1024X32)	1.709 +/- 0.030	1.636	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	9.3	8.4	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	48.3	2.8	Inc. seg. avg.	1.767	1.636	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	34.7	4.9	Inc. frq. avg.	2.265	1.636	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011		
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
Z: az 101.6 el 53.6 pa -39.2			N: az 70.7 el 41.2 pa -61.0			u,v (fr/asec) 2515.408 813.144			simultaneous interpolator		

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/ZN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/ZN.W.118.3MP1W9

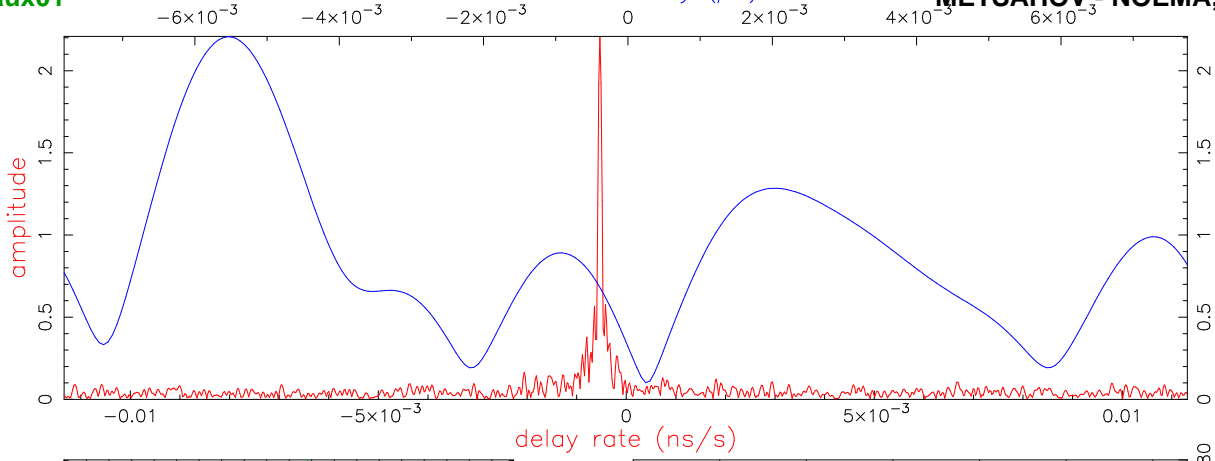
Mk4/DiFX fourfit 3.25 rev 0

aux01

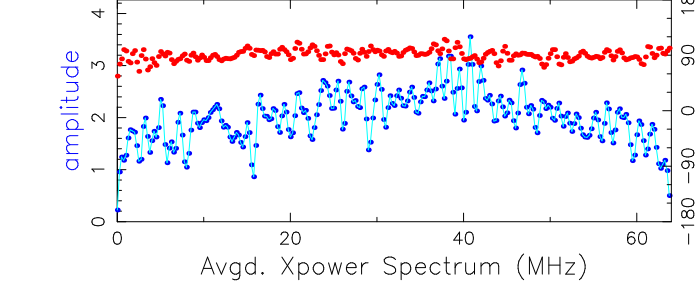
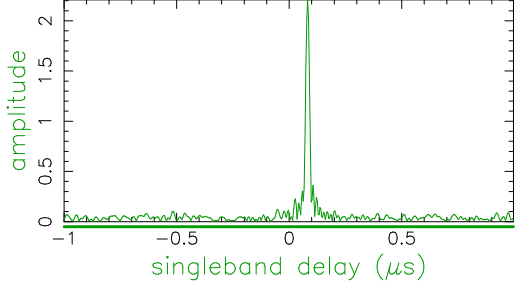
3C345.3MP1W9, No1106, ZN

METSAHOV - NOEMA, fgroup W, pol RL

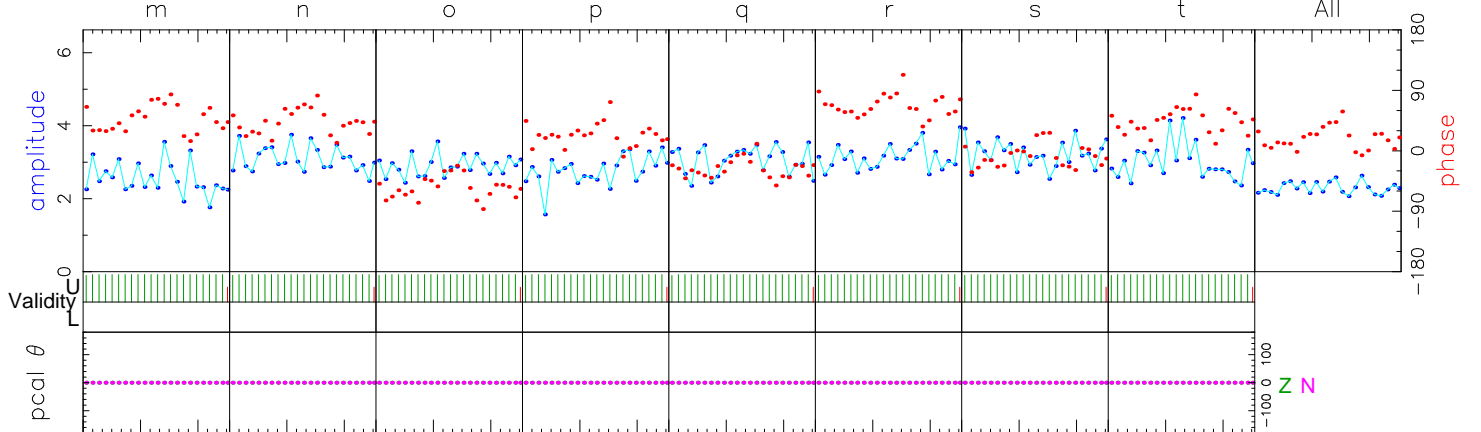
multiband delay (μ s)



Fringe quality 5
 SNR 73.9
 Int time 149.812
 Amp 2.209
 Phase 18.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.081883
 MBD -0.005536
 Fringe rate (Hz) -0.044994
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140201
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"



Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	47.5	42.7	-54.9	22.3	-26.7	67.3	-8.4	44.6	Phase	18.2
	2.4	2.9	2.8	2.7	3.0	3.0	3.1	2.9	Ampl.	2.8
	276.6	277.7	278.1	278.9	278.8	278.5	278.4	277.7	Sbd box	278.0
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 3.11535242090E+03 Apriori delay (usec) 3.11526420643E+03 Resid mbdelay (usec) -5.53553E-03 +/- 1.5E-05
 Sband delay (usec) 3.11534608918E+03 Apriori clock (usec) 1.3481636E+01 Resid sbdelay (usec) 8.18828E-02 +/- 1.2E-04
 Phase delay (usec) 3.11526420702E+03 Apriori clockrate (us/s) 5.9556093E-07 Resid phdelay (usec) 5.85563E-07 +/- 5.0E-08
 Delay rate (us/s) -3.37684438412E-01 Apriori rate (us/s) -3.37683916080E-01 Resid rate (us/s) -5.22332E-07 +/- 5.8E-10
 Total phase (deg) 285.2 Apriori accel (us/s/s) -4.55655074539E-06 Resid phase (deg) 18.2 +/- 1.6

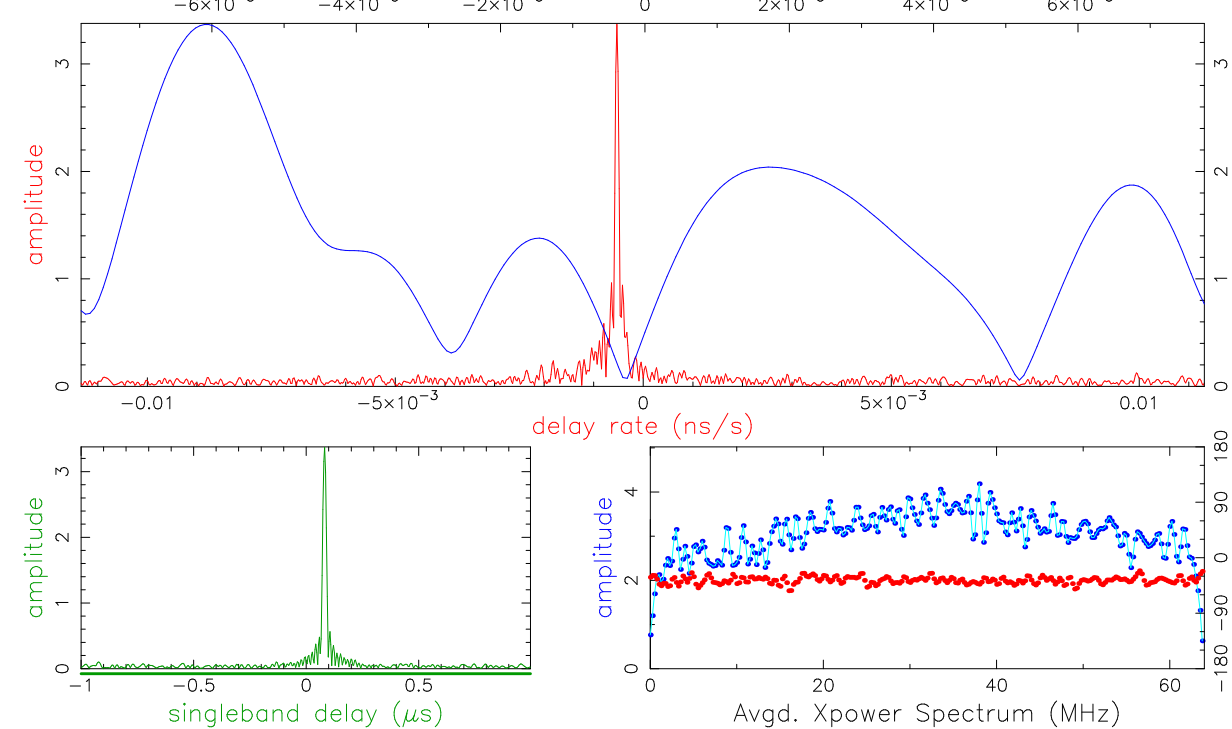
ph/seg (deg) 16.1 3.7 Search (1024X32) 2.133 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 8.3 6.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.9 2.2 Inc. seg. avg. 2.294 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.3 3.8 Inc. frq. avg. 2.842 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Z: az 101.6 el 53.6 pa -39.2 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 2515.408 813.144 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/ZN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/ZN.W.138.3MP1W9

Mk4/DiFX fourfit 3.25 rev 0

aux01

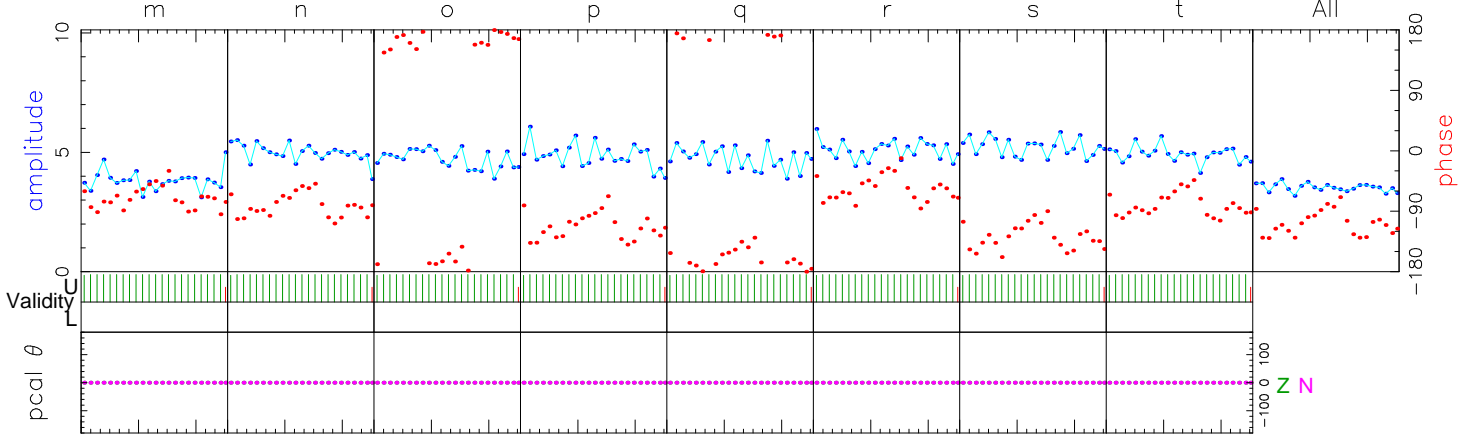
3C345.3MP1W9, No1106, ZN

METSAHOV - NOEMA, fgroup W, pol LL



Fringe quality 5
 SNR 112.9
 Int time 149.812
 Amp 3.377
 Phase -108.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.081478
 MBD -0.006089
 Fringe rate (Hz)
 -0.044936
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140152
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	-70.7	-81.5	175.7	-112.7	-168.0	-55.9	-127.9	-80.6	Phase	-108.0
	3.7	4.8	4.5	4.6	4.5	4.8	5.0	4.7	Ampl.	4.6
	276.1	277.8	278.0	278.5	278.8	278.5	278.4	277.7	Sbd box	277.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 3.11535186755E+03 Apriori delay (usec) 3.11526420643E+03 Resid mbdelay (usec) -6.08888E-03 +/- 9.6E-06
 Sband delay (usec) 3.11534568468E+03 Apriori clock (usec) 1.3481636E+01 Resid sbdelay (usec) 8.14783E-02 +/- 7.6E-05
 Phase delay (usec) 3.11526420295E+03 Apriori clockrate (us/s) 5.9556093E-07 Resid phdelay (usec) -3.48125E-06 +/- 3.3E-08
 Delay rate (us/s) -3.37684437742E-01 Apriori rate (us/s) -3.37683916080E-01 Resid rate (us/s) -5.21661E-07 +/- 3.8E-10
 Total phase (deg) 159.1 Apriori accel (us/s/s) -4.55655074539E-06 Resid phase (deg) -108.0 +/- 1.0

RMS Theor. Amplitude 3.377 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 17.7 2.4 Search (1024X32) 3.219 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 6.8 4.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 50.7 1.4 Inc. seg. avg. 3.533 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 37.2 2.5 Inc. frq. avg. 4.575 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 101.6 el 53.6 pa -39.2 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 2515.408 813.144 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/ZN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/ZN.W.79.3MP1W9

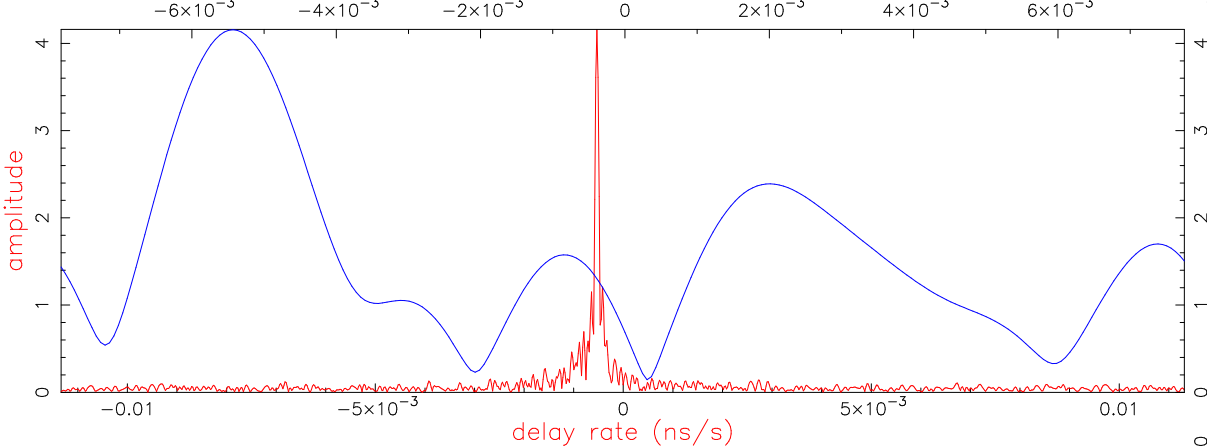
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C345.3MP1W9, No1106, ZN

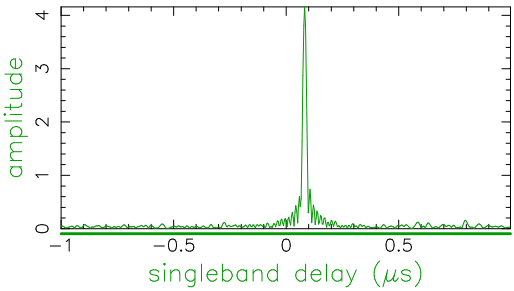
METSAHOV - NOEMA, fgroup W, pol RR

multiband delay (μ s)

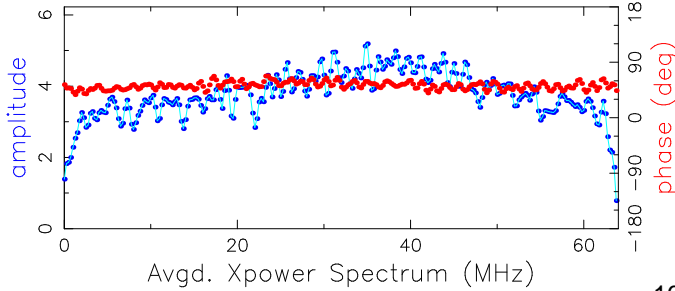


Fringe quality 5

SNR 139.1
 Int time 149.812
 Amp 4.160
 Phase -21.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.081919
 MBD -0.005434
 Fringe rate (Hz)
 -0.044959
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

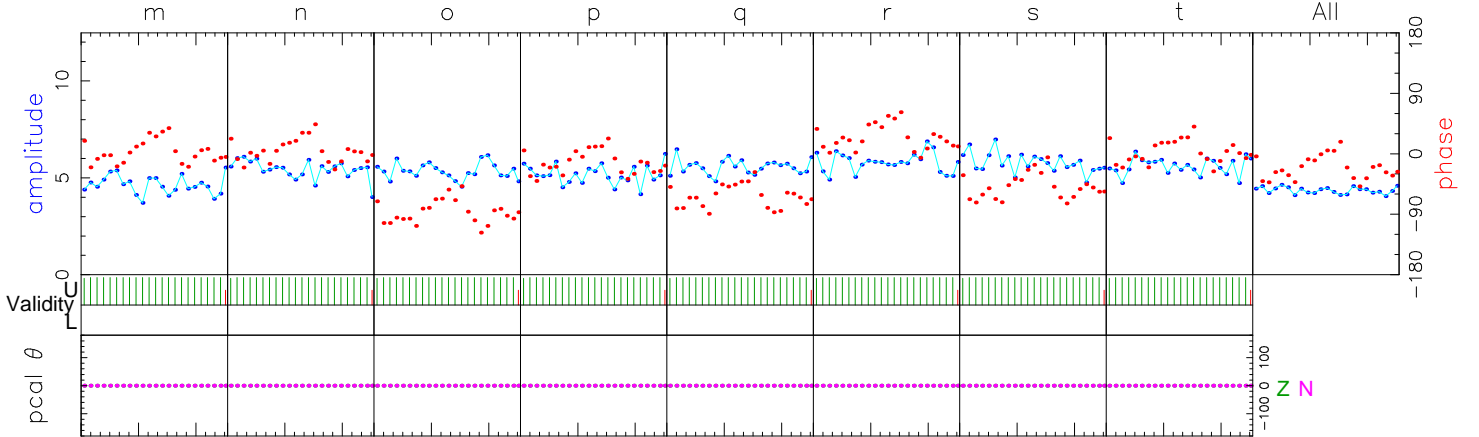


delay rate (ns/s)



Exp. c241a
 Yr:day 1234
 Start 220000.00
 Stop 220230.02
 FRT 220115.00
 Corr/FF/build
 2025:003:231750
 2025:041:140155
 2024:113:095956
 RA & Dec (J2000)
 16h42m58.809971s
 +39°48'36.993958"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 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
	2.6	3.8	-87.2	-13.2	-63.4	24.5	-49.5	2.8	Ampl.	-21.3
	4.4	5.2	5.1	4.9	5.3	5.5	5.5	5.4	Ampl.	5.2
	276.6	277.9	278.3	278.7	278.7	278.6	278.5	277.7	Sbd box	278.0
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	3.11535252258E+03	Apriori delay (usec)	3.11526420643E+03	Resid mbdelay (usec)	-5.43385E-03	+/-	7.8E-06
Sband delay (usec)	3.11534612518E+03	Apriori clock (usec)	1.3481636E+01	Resid sbdelay (usec)	8.19188E-02	+/-	6.2E-05
Phase delay (usec)	3.11526420574E+03	Apriori clockrate (us/s)	5.9556093E-07	Resid phdelay (usec)	-6.88448E-07	+/-	2.7E-08
Delay rate (us/s)	-3.37684438010E-01	Apriori rate (us/s)	-3.37683916080E-01	Resid rate (us/s)	-5.21929E-07	+/-	3.1E-10
Total phase (deg)	245.7	Apriori accel (us/s/s)	-4.55655074539E-06	Resid phase (deg)	-21.3	+/-	0.8

ph/seg (deg) 17.3 2.0 Search (1024X32) 4.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 6.1 3.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 42.5 1.2 Inc. seg. avg. 4.350 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 25.7 2.0 Inc. frq. avg. 5.173 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Z: az 101.6 el 53.6 pa -39.2 N: az 70.7 el 41.2 pa -61.0 u,v (fr/asec) 2515.408 813.144 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1106/ZN..3MP1W9 Output file: /Exps/c241a/v2/3mm/1234/No1106/ZN.W.95.3MP1W9