

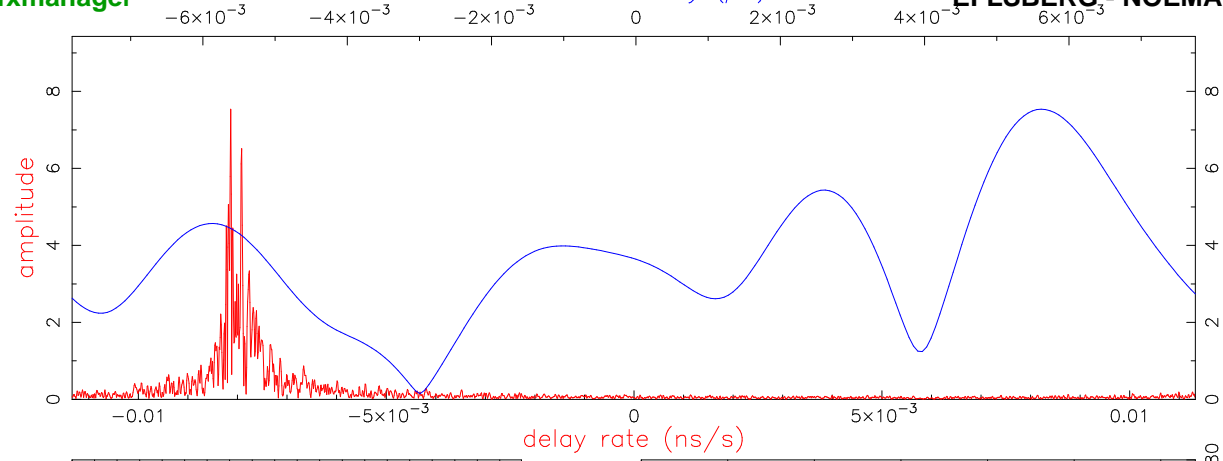
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, BN

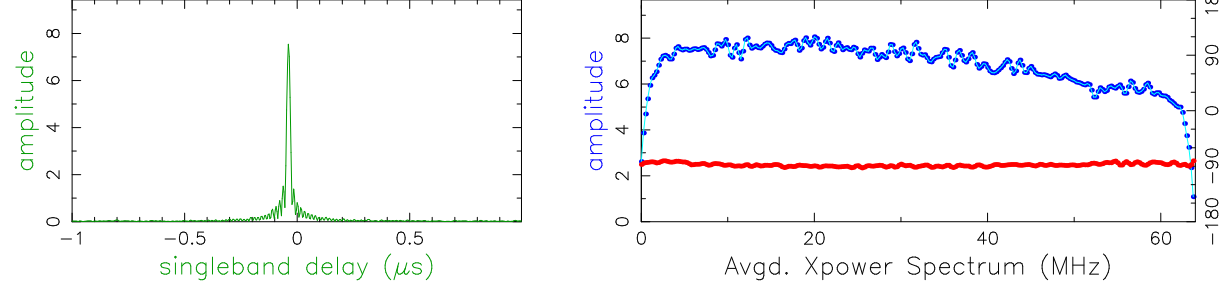
EFLSBERG₃ - NOEMA, fgroup W, pol LL

multiband delay (μ s)

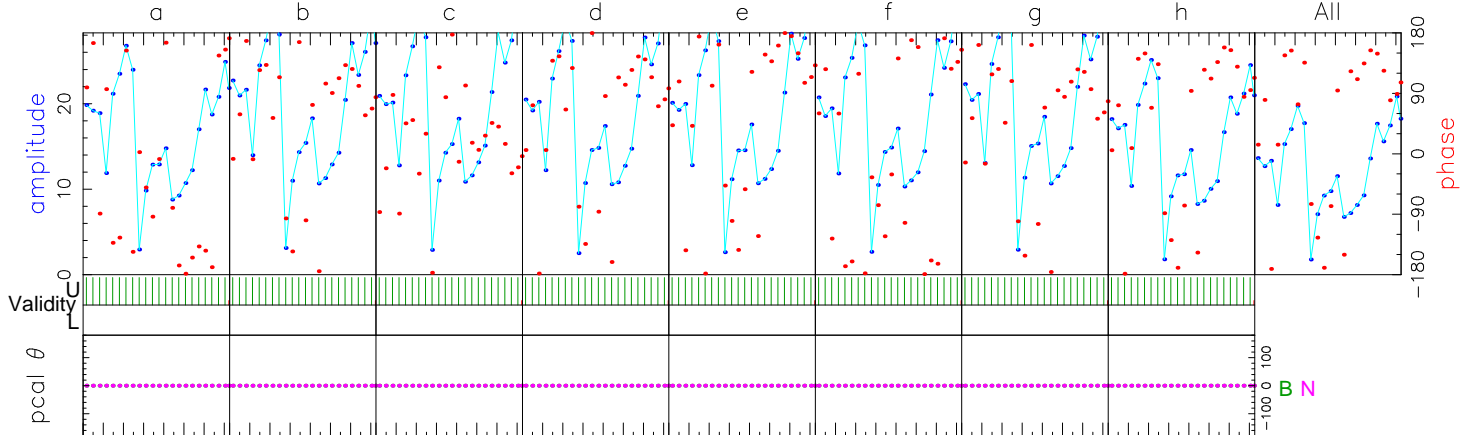


Fringe quality 1

SNR 422.9
 Int time 419.810
 Amp 9.430
 Phase 122.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.038590
 MBD 0.005636
 Fringe rate (Hz)
 -0.702343
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121435
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-164.2	100.0	15.6	113.7	148.9	169.1	94.6	122.9	Phase	122.1
	12.2	14.7	15.0	14.7	14.8	14.4	15.2	11.6	Ampl.	14.1
	245.5	246.5	247.5	247.6	247.6	247.5	247.1	245.9	Sbd box	247.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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)	1.55238905340E+02	Apriori delay (usec)	1.55280143858E+02	Resid mbdelay (usec)	5.63648E-03	+/-	2.6E-06
Sband delay (usec)	1.55241553358E+02	Apriori clock (usec)	-8.7066479E+00	Resid sbdelay (usec)	-3.85905E-02	+/-	2.0E-05
Phase delay (usec)	1.55280147795E+02	Apriori clockrate (us/s)	4.3890000E-06	Resid phdelay (usec)	3.93698E-06	+/-	8.7E-09
Delay rate (us/s)	2.34725059966E-02	Apriori rate (us/s)	2.34806594988E-02	Resid rate (us/s)	-8.15350E-06	+/-	3.6E-11
Total phase (deg)	335.2	Apriori accel (us/s/s)	5.19681586835E-06	Resid phase (deg)	122.1	+/-	0.3

ph/seg (deg)	RMS 72.7	Theor. 0.6	Amplitude 9.430 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	72.7	0.6	Search (2048X32) 6.936	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	91.5	1.1	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	59.2	0.4	Inc. seg. avg. 15.589	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
	50.9	0.7	Inc. frq. avg. 14.055	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

B: az 282.0 el 73.4 pa 81.5 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -206.246 892.047 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/BN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/BN.W.12.1X0136

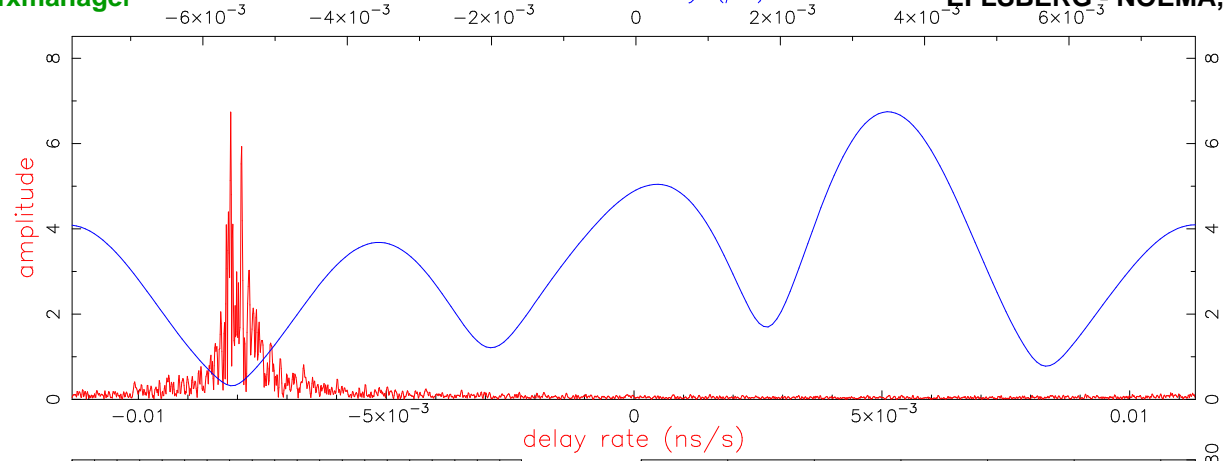
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, BN

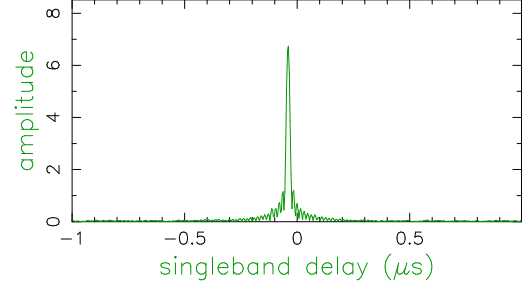
EFLSBERG - NOEMA, fgroup W, pol RR

multiband delay (μ s)

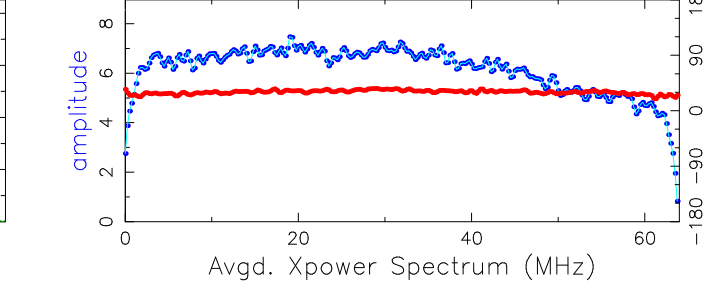


Fringe quality 1

SNR 381.9
Int time 419.808
Amp 8.515
Phase -113.8
PFD 0.0e+00
Delays (us)
SBD -0.040428
MBD 0.003439
Fringe rate (Hz)
-0.702377
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



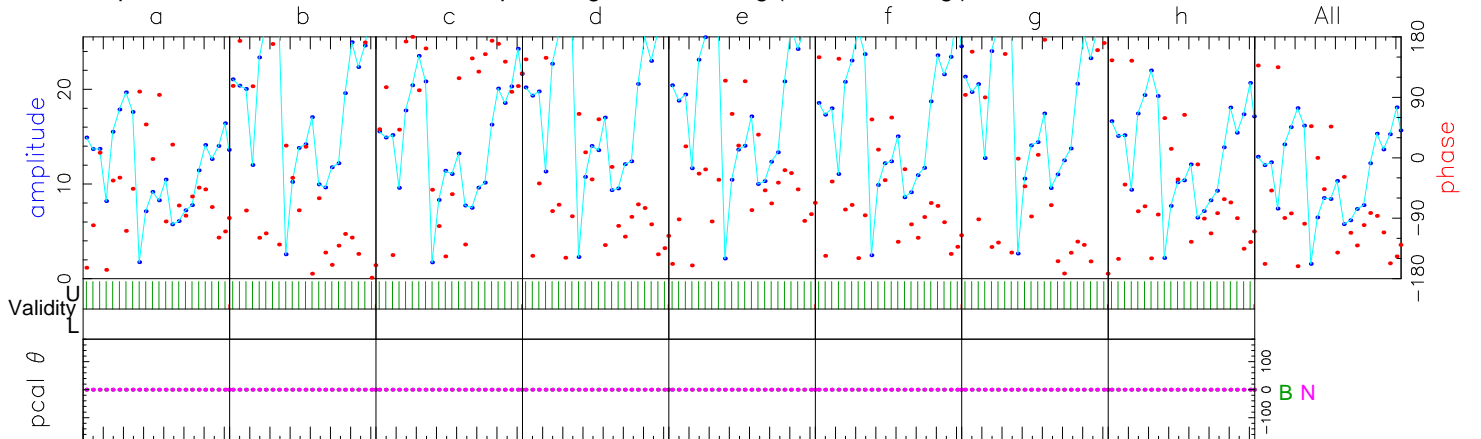
singleband delay (μ s)



delay rate (ns/s)

Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 150000.00
Stop 150659.84
FRT 150330.00
Corr/FF/build
2021:303:065408
2021:303:121439
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-68.0	-144.5	144.4	-101.5	-49.6	-100.2	-156.8	-97.6	Phase	-113.8
	8.5	13.8	11.0	14.0	14.2	12.6	14.2	9.8	Ampl.	12.2
	244.6	246.4	247.2	247.0	247.4	247.1	246.9	245.4	Sbd box	246.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	
									Tracks	
Group delay (usec)(sbd)	1.55236708080E+02		Apriori delay (usec)		1.55280143858E+02		Resid mbdelay (usec)		3.43922E-03	+/- 2.8E-06
Sband delay (usec)	1.55239715608E+02		Apriori clock (usec)		-8.7066479E+00		Resid sbdelay (usec)		-4.04283E-02	+/- 2.3E-05
Phase delay (usec)	1.55280140189E+02		Apriori clockrate (us/s)		4.3890000E-06		Resid phdelay (usec)		-3.66891E-06	+/- 9.7E-09
Delay rate (us/s)	2.34725055956E-02		Apriori rate (us/s)		2.34806594988E-02		Resid rate (us/s)		-8.15390E-06	+/- 4.0E-11
Total phase (deg)	99.3		Apriori accel (us/s/s)		5.19681586835E-06		Resid phase (deg)		-113.8	+/- 0.3

ph/seg (deg) 72.6 0.7 Theor. Amplitude 8.515 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 91.0 1.3 Search (2048X32) 6.113 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 57.7 0.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 50.2 0.7 Inc. seg. avg. 14.002 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 12.247 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 282.0 el 73.4 pa 81.5 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -206.246 892.047 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/BN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/BN.W.29.1X0136

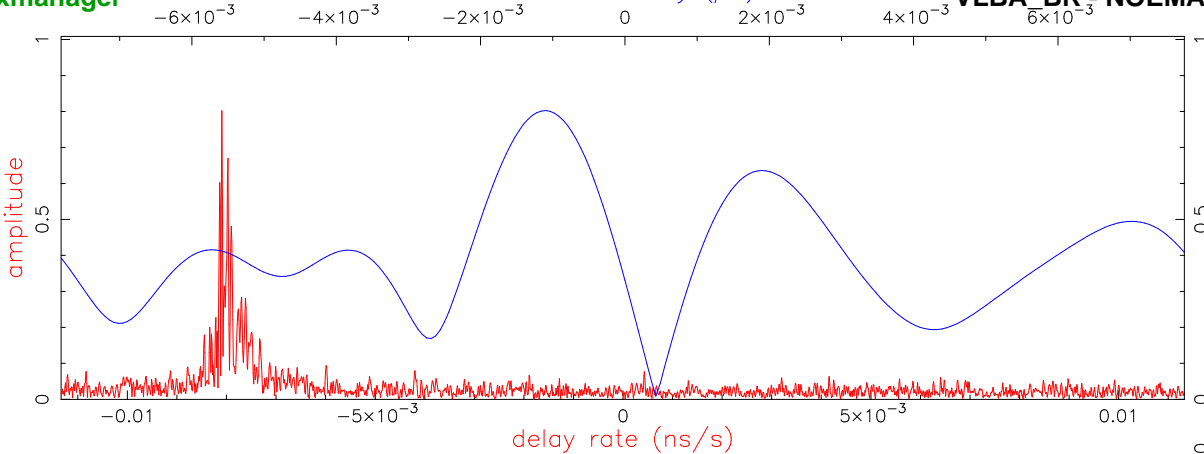
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, bN

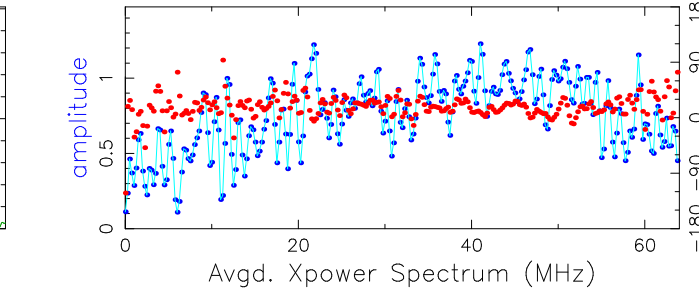
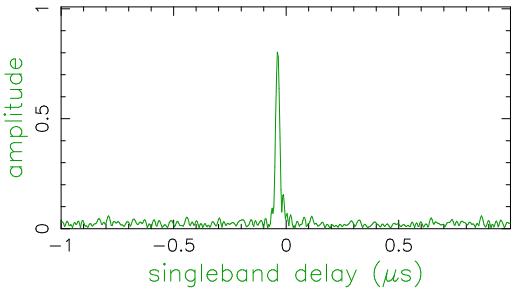
VLBA_BR - NOEMA, fgroup W, pol RR

multiband delay (μ s)



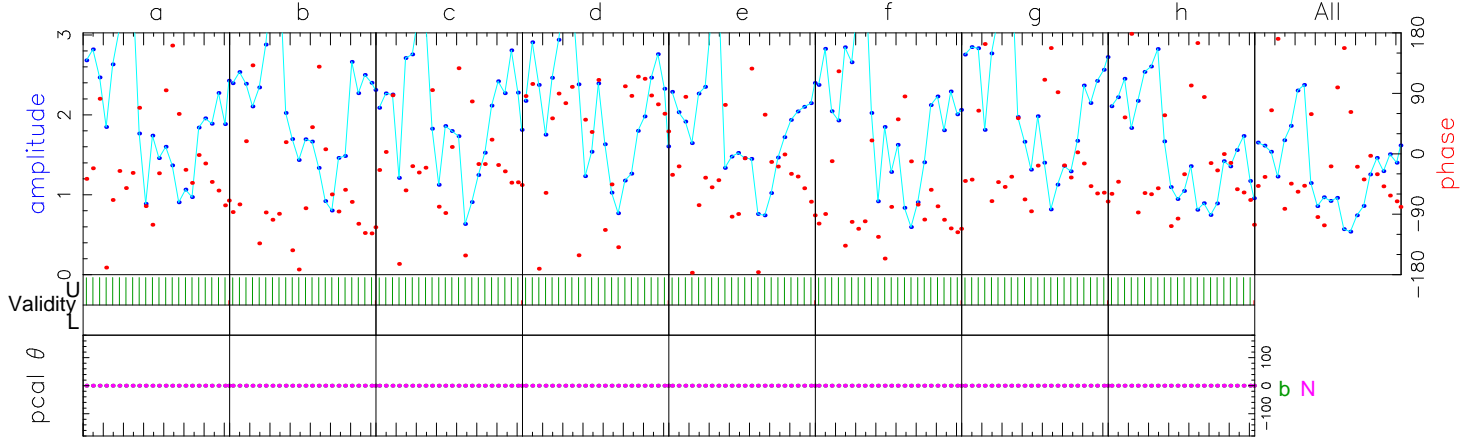
Fringe quality 3

SNR 45.4
 Int time 419.723
 Amp 1.009
 Phase -43.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.037741
 MBD -0.001070
 Fringe rate (Hz)
 -0.698520
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
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 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121439
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-33.5	-90.7	-18.2	91.5	-37.9	-95.9	-34.0	-44.6	Phase	-43.0
	1.5	1.6	1.6	1.6	1.4	1.6	1.8	1.1	Ampl.	1.5
	245.8	248.1	248.2	248.0	248.3	248.1	247.2	245.2	Sbd box	247.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	
									Tracks	
Group delay (usec)(sbd)	-9.28567747101E+03		Apriori delay (usec)		-9.28564515138E+03		Resid mbdelay (usec)		-1.06964E-03	+/- 2.4E-05
Sband delay (usec)	-9.28568289238E+03		Apriori clock (usec)		1.0372250E+01		Resid sbdelay (usec)		-3.77410E-02	+/- 1.9E-04
Phase delay (usec)	-9.28564515276E+03		Apriori clockrate (us/s)		4.2890001E-06		Resid phdelay (usec)		-1.38547E-06	+/- 8.1E-08
Delay rate (us/s)	9.52979884960E-01		Apriori rate (us/s)		9.52987994087E-01		Resid rate (us/s)		-8.10913E-06	+/- 3.4E-10
Total phase (deg)			Apriori accel (us/s/s)		5.31063758729E-05		Resid phase (deg)		-43.0	+/- 2.5

	RMS	Theor.	Amplitude	1.009 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	71.3	6.1	Search (2048X32)	0.733	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	86.0	10.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	63.2	3.6	Inc. seg. avg.	1.622	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	52.5	6.2	Inc. frq. avg.	1.502	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

b: az 45.9 el 30.3 pa -49.7 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -8589.871 5468.404 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/bN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/bN.W.32.1X0136

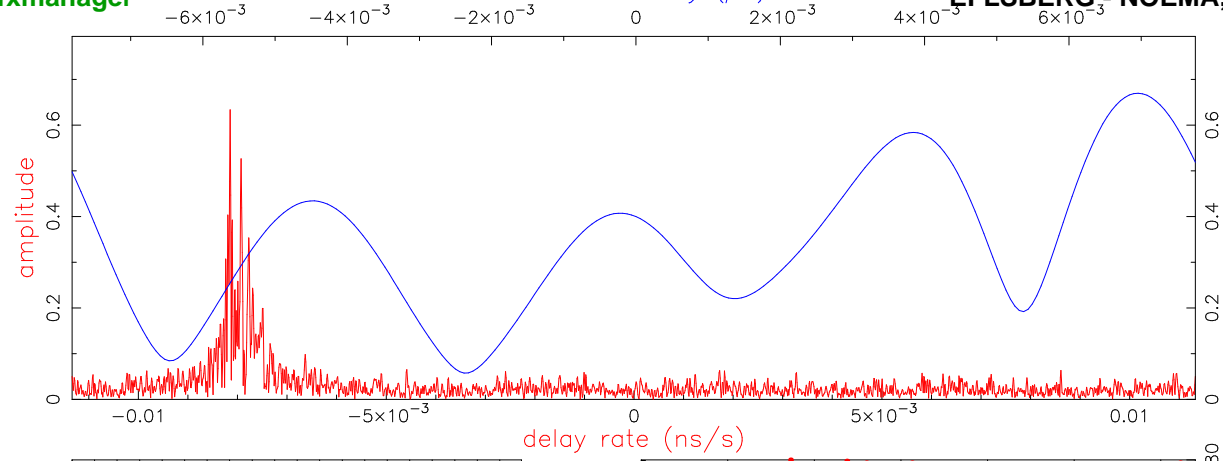
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, BN

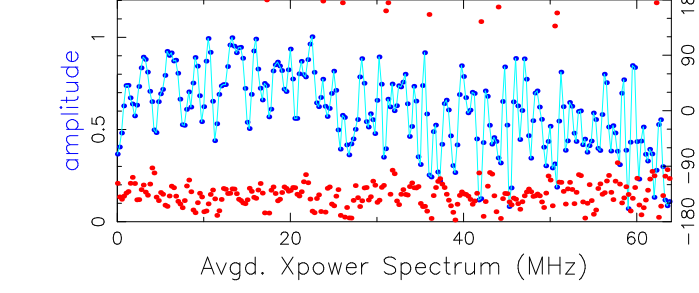
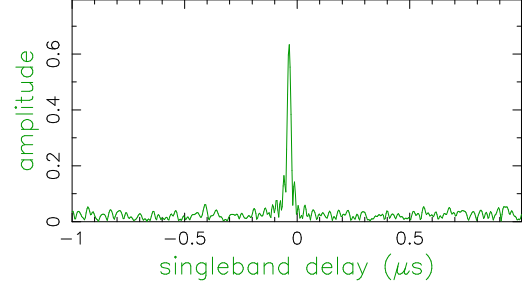
EFLSBERG - NOEMA, fgroup W, pol LR

multiband delay (μ s)



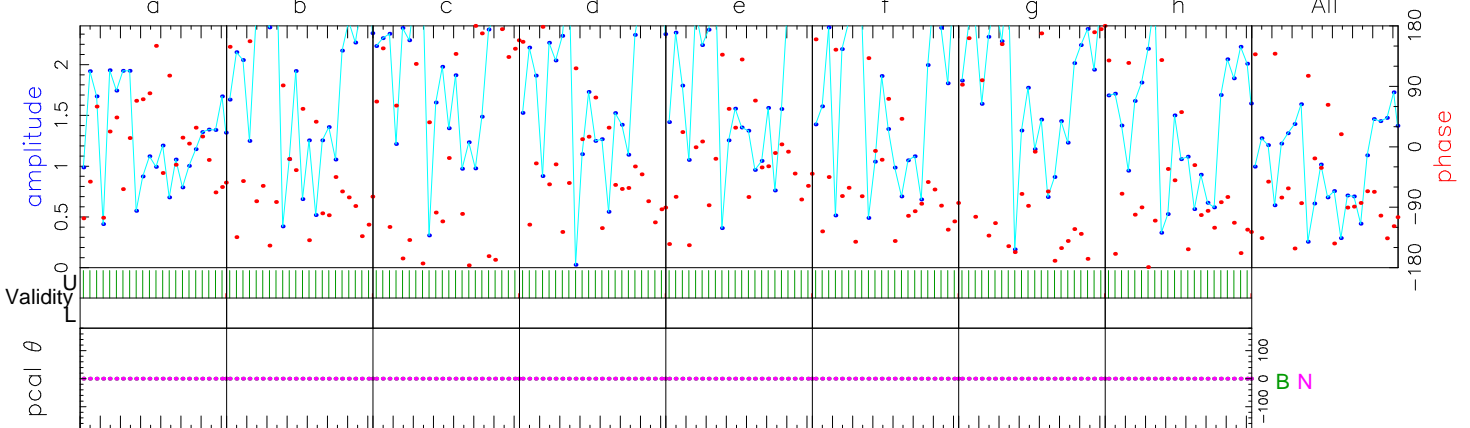
Fringe quality 3

SNR 35.6
 Int time 419.808
 Amp 0.794
 Phase -95.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.035887
 MBD -0.008301
 Fringe rate (Hz)
 -0.702484
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121443
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-2.1	-93.0	175.6	-65.9	-29.4	-83.8	-153.3	-116.5	Phase	-95.3
	0.9	1.5	1.5	1.4	1.4	1.3	1.4	1.1	Ampl.	1.3
	245.8	247.3	247.8	248.0	248.2	248.0	247.6	246.9	Sbd box	247.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.55240593077E+02	Apriori delay (usec)	1.55280143858E+02	Resid mbdelay (usec)	-8.30078E-03	+/-	3.0E-05
Sband delay (usec)	1.55244256608E+02	Apriori clock (usec)	-8.7066479E+00	Resid sbdelay (usec)	-3.58872E-02	+/-	2.4E-04
Phase delay (usec)	1.55280140786E+02	Apriori clockrate (us/s)	4.3890000E-06	Resid phdelay (usec)	-3.07167E-06	+/-	1.0E-07
Delay rate (us/s)	2.34725043549E-02	Apriori rate (us/s)	2.34806594988E-02	Resid rate (us/s)	-8.15514E-06	+/-	4.3E-10
Total phase (deg)	117.8	Apriori accel (us/s/s)	5.19681586835E-06	Resid phase (deg)	-95.3	+/-	3.2

ph/seg (deg)	RMS 73.6	Theor. 7.7	Amplitude Search (2048X32)	0.627	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	90.1	13.5	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)	65.6	4.6	Inc. seg. avg.	1.262	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	71.4	7.9	Inc. frq. avg.	1.316	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 282.0 el 73.4 pa 81.5 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -206.246 892.047 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/BN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/BN.W.48.1X0136

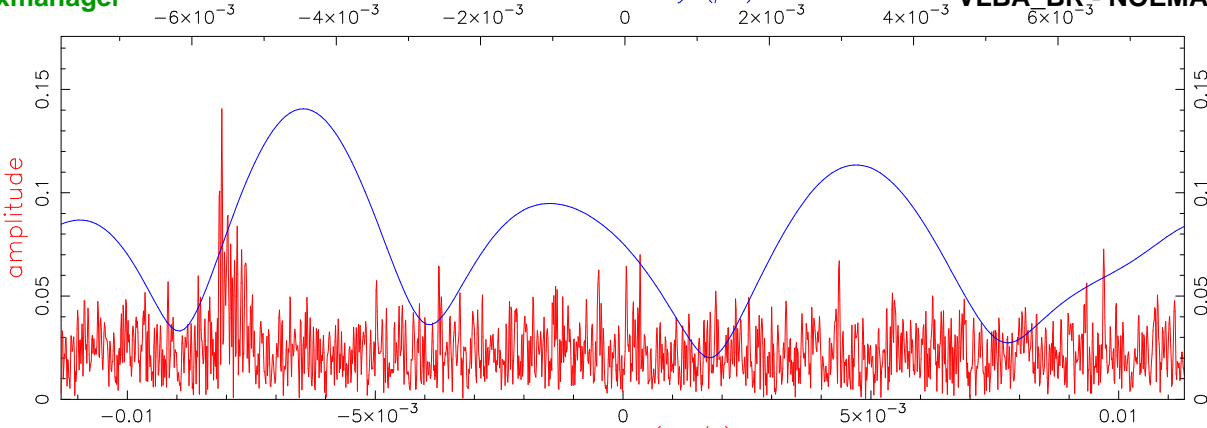
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, bN

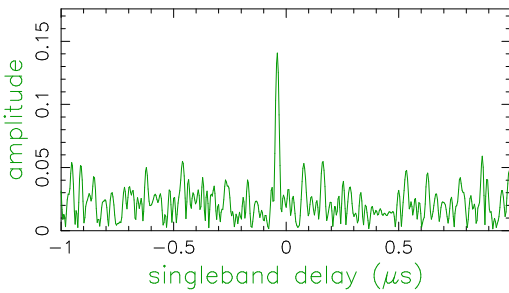
VLBA_BR - NOEMA, fgroup W, pol LR

multiband delay (μ s)

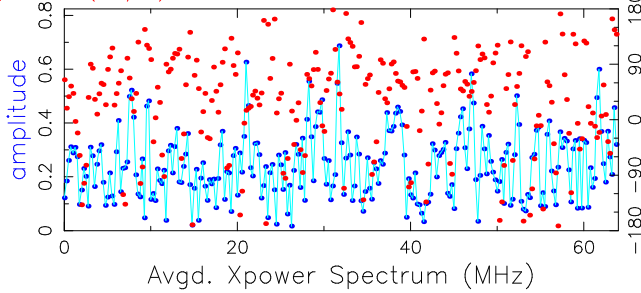


Fringe quality 9

SNR 7.9
 Int time 419.723
 Amp 0.176
 Phase 8.3
 PFD 9.5e-07
 Delays (us)
 SBD -0.039710
 MBD -0.004475
 Fringe rate (Hz)
 -0.698591
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

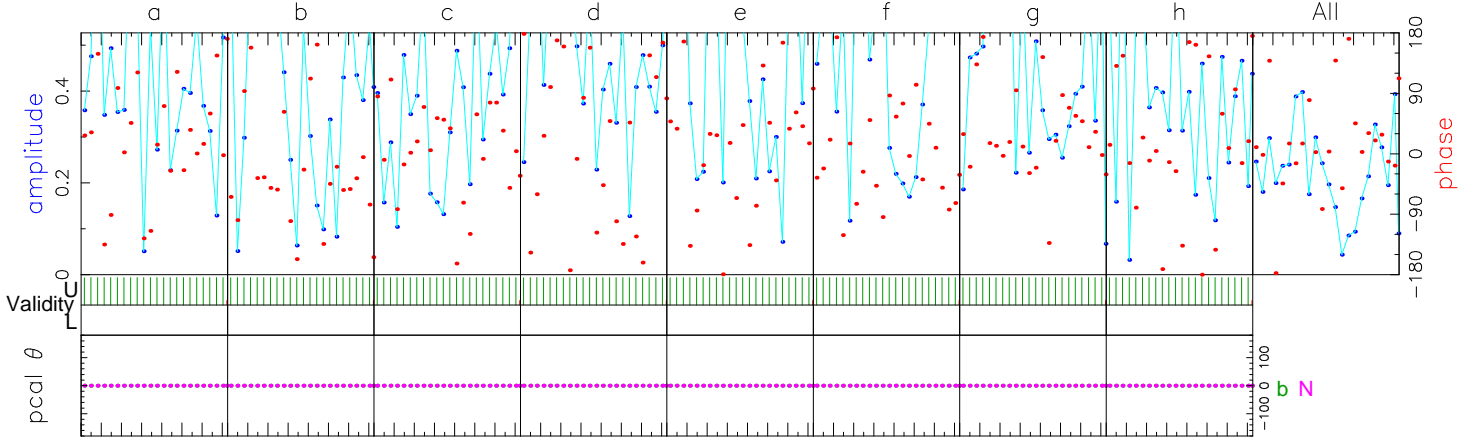


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121443
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	44.1	-46.6	28.1	177.8	32.7	-33.5	21.1	28.4	Phase	8.3
	0.2	0.3	0.3	0.2	0.3	0.4	0.4	0.1	Ampl.	0.2
	244.9	247.2	246.7	247.1	247.0	248.3	246.7	403.1	Sbd box	246.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-9.28568087596E+03		Apriori delay (usec)		-9.28564515138E+03		Resid mbdelay (usec)		-4.47458E-03	+/- 1.4E-04
Sband delay (usec)	-9.28568486113E+03		Apriori clock (usec)		1.0372250E+01		Resid sbdelay (usec)		-3.97098E-02	+/- 1.1E-03
Phase delay (usec)	-9.28564515111E+03		Apriori clockrate (us/s)		4.2890001E-06		Resid phdelay (usec)		2.69209E-07	+/- 4.7E-07
Delay rate (us/s)	9.52979884134E-01		Apriori rate (us/s)		9.52987994087E-01		Resid rate (us/s)		-8.10995E-06	+/- 1.9E-09
Total phase (deg)			Apriori accel (us/s/s)		5.31063758729E-05		Resid phase (deg)		8.3	+/- 14.5

ph/seg (deg) 72.4 34.8 Amplitude 0.176 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 91.4 60.7 Search (2048X32) 0.130 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 77.8 20.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 73.3 35.8 Inc. seg. avg. 0.240 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.249 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 45.9 el 30.3 pa -49.7 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -8589.871 5468.404 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/bN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/bN.W.51.1X0136

Mk4/DiFX fourfit 3.21 rev 2937

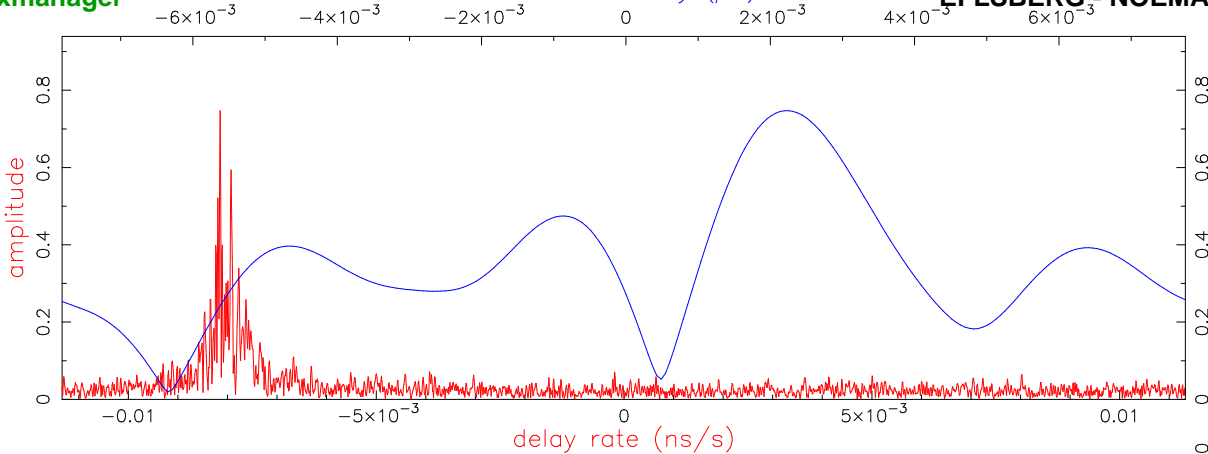
fxmanager

NRAO150.1X0136, No0081, BN

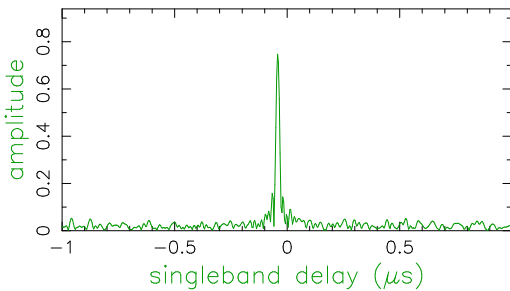
EFLSBERG - NOEMA, fgroup W, pol RL

multiband delay (μ s)

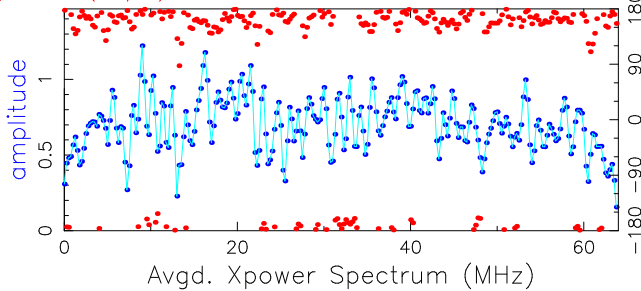
Fringe quality 3



SNR 42.1
 Int time 419.810
 Amp 0.939
 Phase 17.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.041922
 MBD 0.002266
 Fringe rate (Hz)
 -0.702505
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

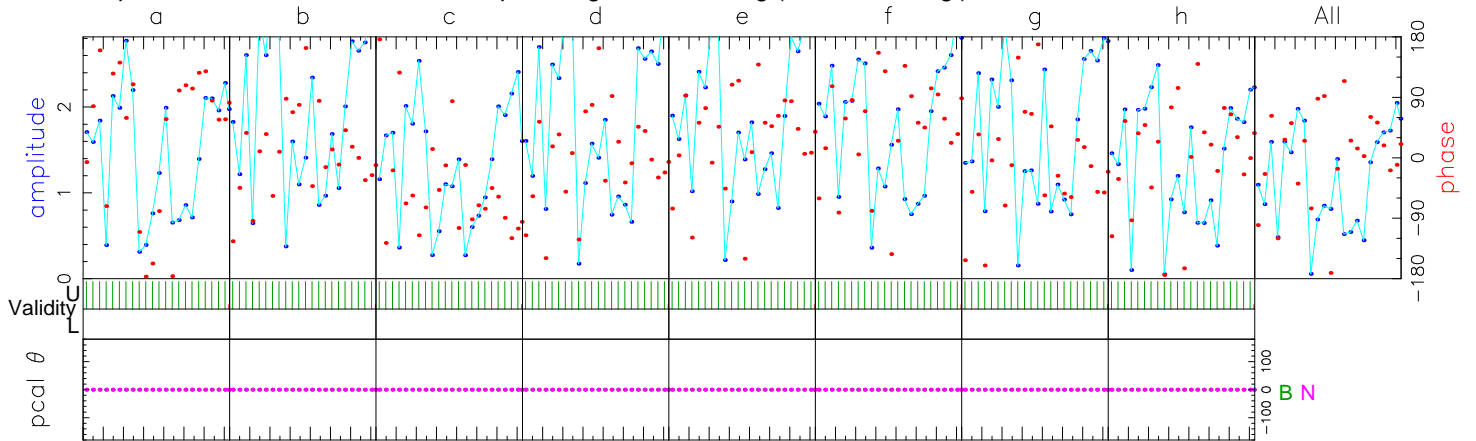


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121446
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	96.8	-0.5	-82.0	5.8	44.0	59.1	-17.6	24.9	Phase	17.7
	1.1	1.6	1.2	1.4	1.5	1.3	1.3	1.1	Ampl.	1.3
	244.1	245.7	246.6	246.7	246.7	246.7	246.5	245.1	Sbd box	246.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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)	1.55235534705E+02	Apriori delay (usec)	1.55280143858E+02	Resid mbdelay (usec)	2.26585E-03	+/-	2.6E-05
Sband delay (usec)	1.55238221608E+02	Apriori clock (usec)	-8.7066479E+00	Resid sbdelay (usec)	-4.19222E-02	+/-	2.0E-04
Phase delay (usec)	1.55280144428E+02	Apriori clockrate (us/s)	4.3890000E-06	Resid phdelay (usec)	5.70090E-07	+/-	8.8E-08
Delay rate (us/s)	2.34725041140E-02	Apriori rate (us/s)	2.34806594988E-02	Resid rate (us/s)	-8.15538E-06	+/-	3.6E-10
Total phase (deg)	230.8	Apriori accel (us/s/s)	5.19681586835E-06	Resid phase (deg)	17.7	+/-	2.7

ph/seg (deg)	68.9	RMS	6.5	Theor.	6.5	Amplitude	0.939 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	92.6	Search (2048X32)	0.706	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	58.3	Inc. seg. avg.	1.437	Inc. frq. avg.	1.324	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.4	Inc. frq. avg.	1.324	Sample rate (MSamp/s): 128		Data rate (Mb/s): 2048		nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011
B: az 282.0 el 73.4 pa 81.5		N: az 299.7 el 71.9 pa 101.5		u,v (fr/asec)	-206.246 892.047			ion window (TEC)	0.00 0.00	

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/BN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/BN.W.68.1X0136

simultaneous interpolator

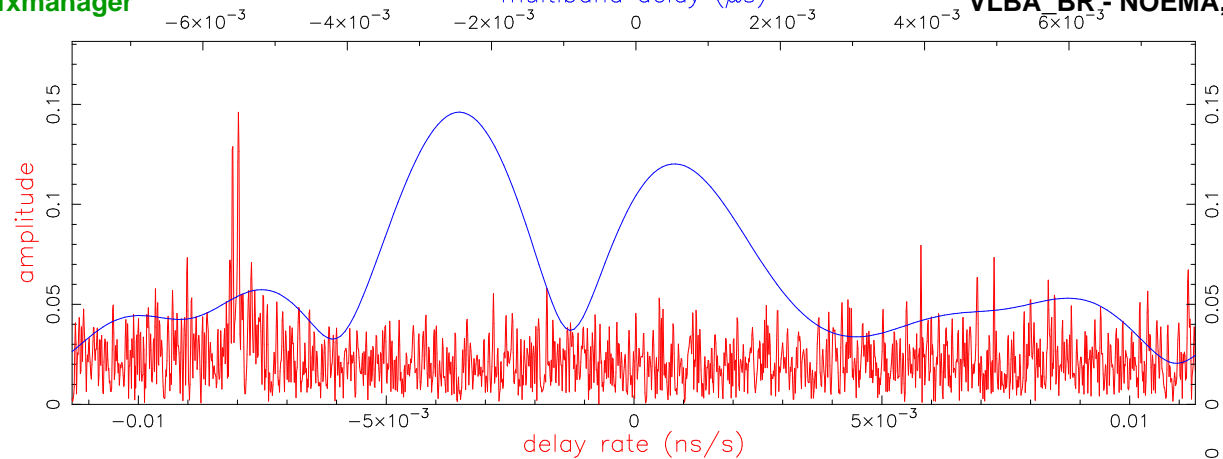
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, bN

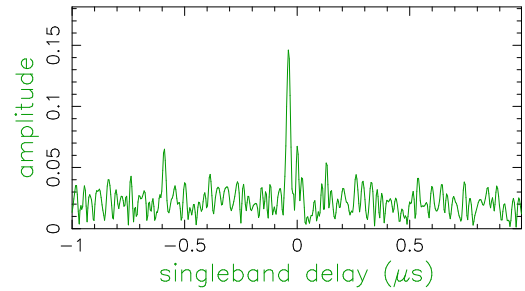
VLBA_BR - NOEMA, fgroup W, pol RL

multiband delay (μ s)

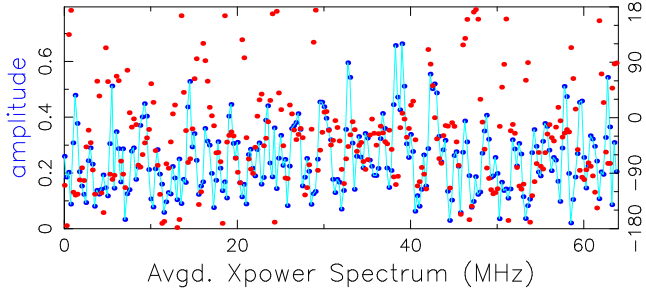


Fringe quality 9

SNR 8.2
 Int time 419.725
 Amp 0.181
 Phase -98.6
 PFD 7.6e-08
 Delays (us)
 SBD -0.038248
 MBD -0.002422
 Fringe rate (Hz)
 -0.688454
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

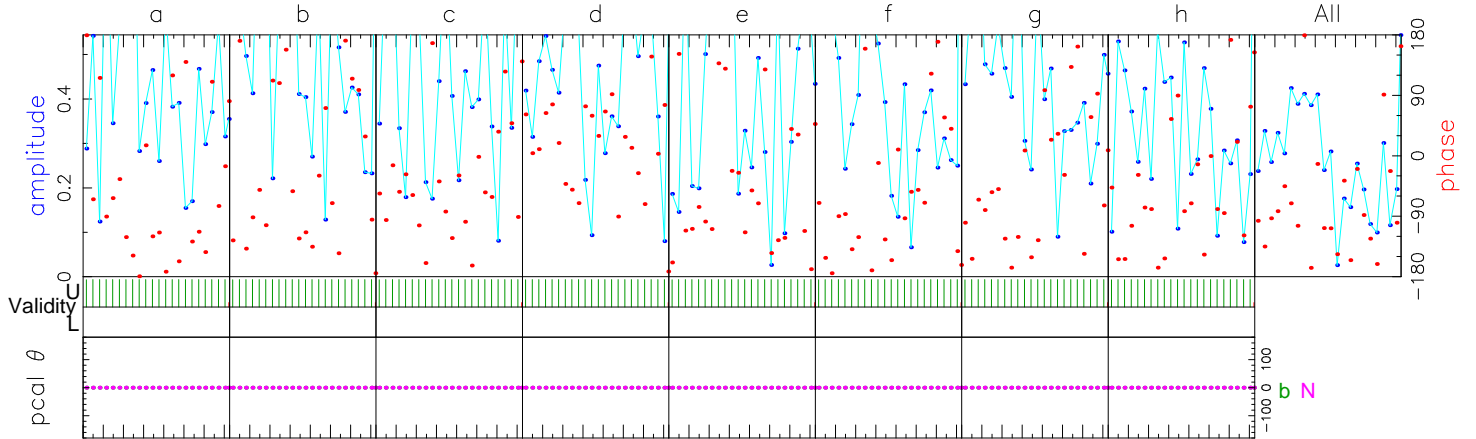


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121447
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'59.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-119.8	-122.8	-72.2	10.2	-112.6	-132.1	-101.4	-109.0	Phase	-98.6
	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	Ampl.	0.2
	245.9	247.2	247.1	247.1	248.3	247.8	247.3	343.7	Sbd box	247.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	
									Tracks	
Group delay (usec)(sbd)	-9.28567882301E+03		Apriori delay (usec)		-9.28564515138E+03		Resid mbdelay (usec)		-2.42163E-03	+/- 1.3E-04
Sband delay (usec)	-9.28568339963E+03		Apriori clock (usec)		1.0372250E+01		Resid sbdelay (usec)		-3.82482E-02	+/- 1.0E-03
Phase delay (usec)	-9.28564515456E+03		Apriori clockrate (us/s)		4.2890001E-06		Resid phdelay (usec)		-3.18086E-06	+/- 4.5E-07
Delay rate (us/s)	9.52980001821E-01		Apriori rate (us/s)		9.52987994087E-01		Resid rate (us/s)		-7.99227E-06	+/- 1.9E-09
Total phase (deg)			Apriori accel (us/s/s)		5.31063758729E-05		Resid phase (deg)		-98.6	+/- 14.0

ph/seg (deg) 60.4 33.5 Search (2048X32) 0.142 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 107.3 58.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 50.0 19.7 Inc. seg. avg. 0.272 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 44.2 34.4 Inc. frq. avg. 0.230 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 45.9 el 30.3 pa -49.7 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -8589.871 5468.404 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/bN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/bN.W.70.1X0136

Mk4/DiFX fourfit 3.21 rev 2937

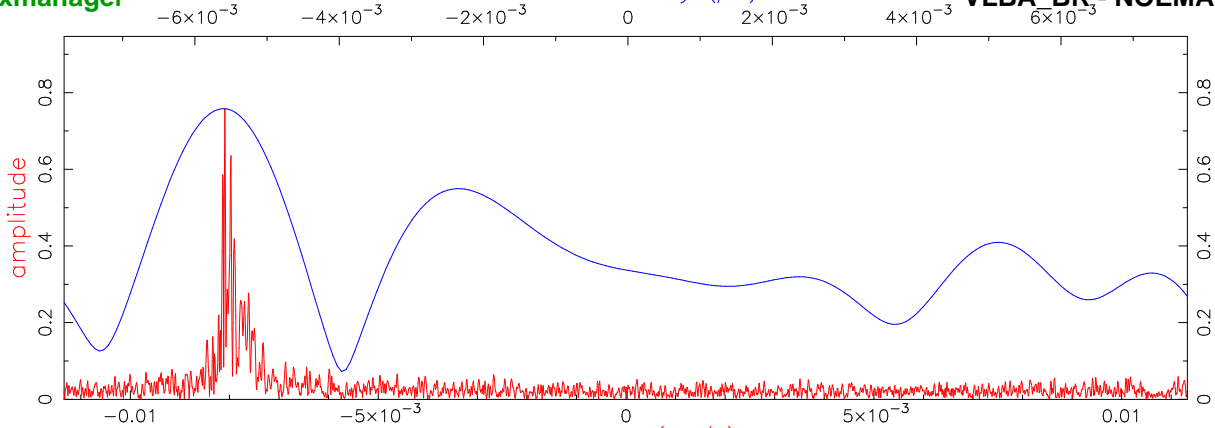
fxmanager

NRAO150.1X0136, No0081, bN

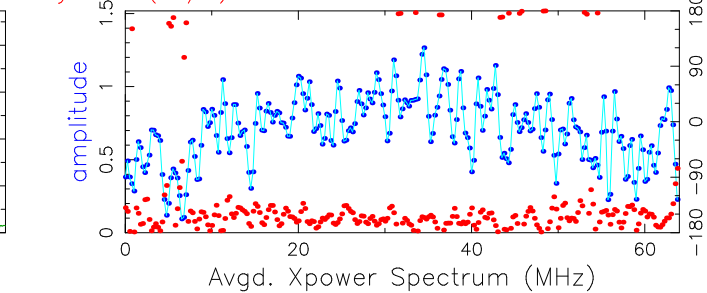
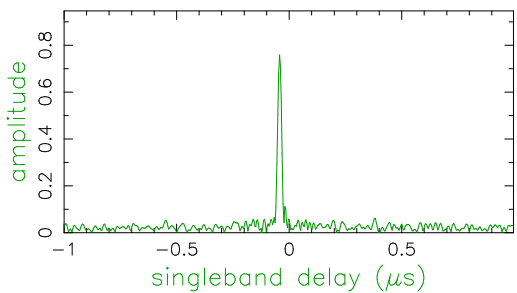
VLBA_BR - NOEMA, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 3

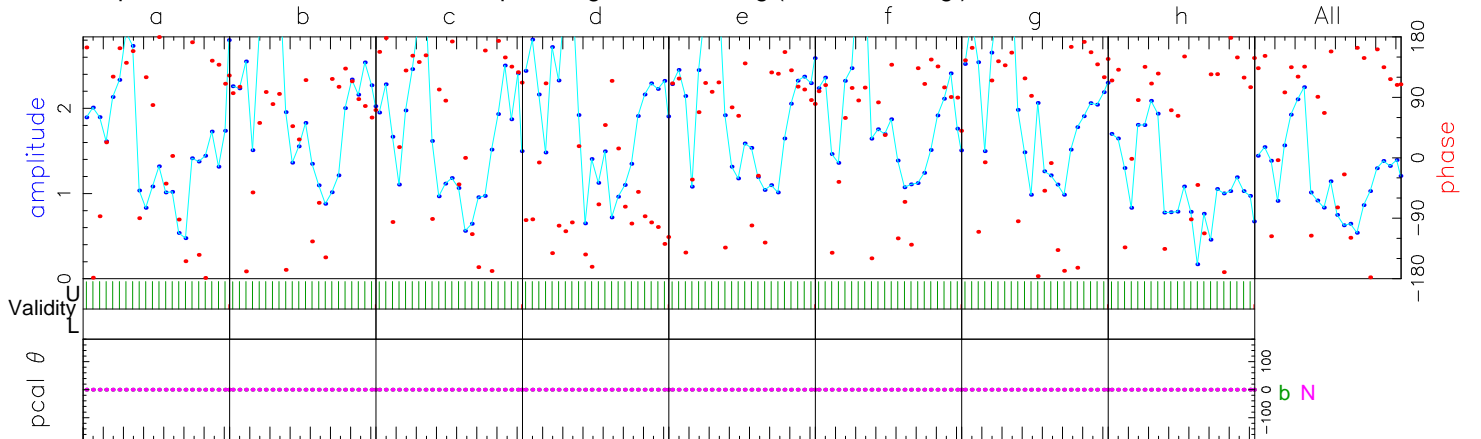


SNR 42.6
Int time 419.725
Amp 0.947
Phase 138.7
PFD 0.0e+00
Delays (us)
SBD -0.042363
MBD -0.005585
Fringe rate (Hz)
-0.698587
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 150000.00
Stop 150659.84
FRT 150330.00
Corr/FF/build
2021:303:065408
2021:303:121435
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
b	0	0	0	0	0	0	0	0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-9.28568198655E+03				-9.28564515138E+03					
Sband delay (usec)	-9.28568751488E+03				1.0372250E+01					
Phase delay (usec)	-9.28564514690E+03				4.2890001E-06					
Delay rate (us/s)	9.52979884187E-01				9.52987994087E-01					
Total phase (deg)		16.4			5.31063758729E-05					
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode:	MANUAL	MANUAL			MANUAL	MANUAL				
Pcal rate:	0.000E+00	0.000E+00			0.000E+00	0.000E+00				
Bits/sample:	2x2				2x2					
Sample rate(MISamp/s):	128				128					
Data rate(Mb/s):	2048				2048					
nlags:	256				256					
t_cohere	infinite				infinite					
sb window (us)	-1.000	1.000			-1.000	1.000				
mb window (us)	-0.008	0.008			-0.008	0.008				
dr window (ns/s)	-0.011	0.011			-0.011	0.011				
ion window (TEC)	0.00	0.00			0.00	0.00				
simultaneous interpolator										

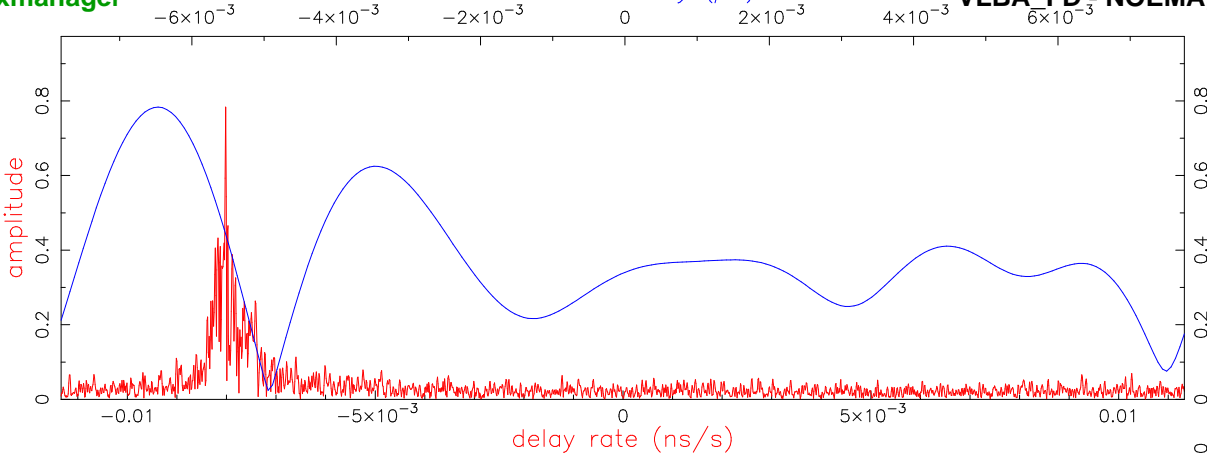
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0I36, No0081, fN

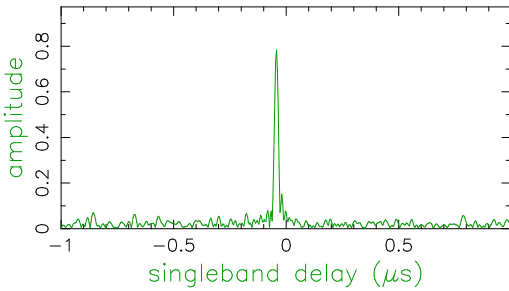
VLBA_FD - NOEMA, fgroup W, pol RR

multiband delay (μ s)

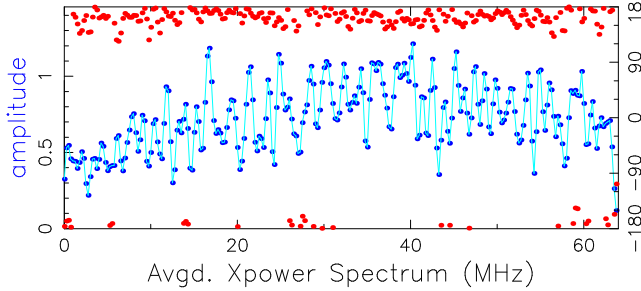


Fringe quality 3

SNR 43.7
 Int time 415.466
 Amp 0.973
 Phase 99.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.043415
 MBD -0.006483
 Fringe rate (Hz)
 -0.691682
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

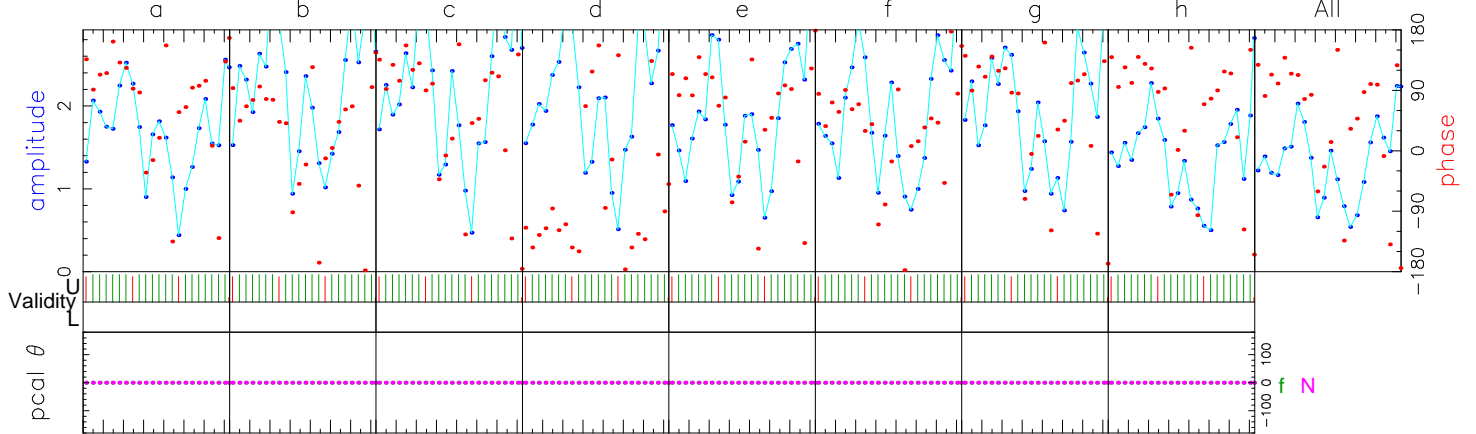


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121456
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	816/0	816/0	816/0	816/0	816/0	816/0	816/0	816/0		
f	0	0	0	0	0	0	0	0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

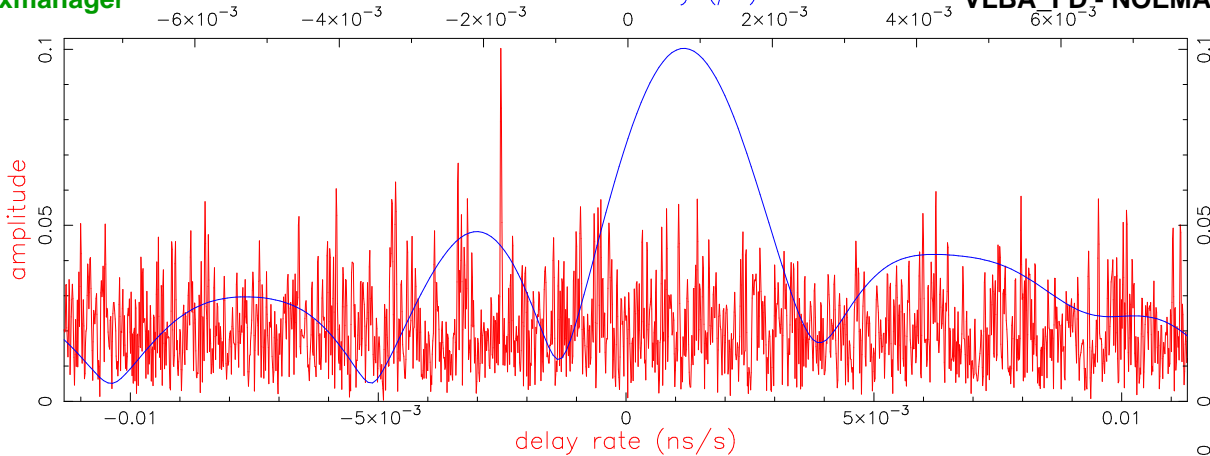
Group delay (usec)(sbd)	-1.04070869848E+04	Apriori delay (usec)	-1.04070492522E+04	Resid mbdelay (usec)	-6.48260E-03	+/-	2.5E-05
Sband delay (usec)	-1.04070926672E+04	Apriori clock (usec)	2.3617216E+01	Resid sbdelay (usec)	-4.34150E-02	+/-	2.0E-04
Phase delay (usec)	-1.04070492490E+04	Apriori clockrate (us/s)	4.4490002E-06	Resid phdelay (usec)	3.21723E-06	+/-	8.5E-08
Delay rate (us/s)	1.14407885796E+00	Apriori rate (us/s)	1.14408688771E+00	Resid rate (us/s)	-8.02975E-06	+/-	3.5E-10
Total phase (deg)	-110.0	Apriori accel (us/s/s)	3.85273692933E-05	Resid phase (deg)	99.8	+/-	2.6

ph/seg (deg)	RMS 69.5	Theor. 6.3	Amplitude Search (2048X32)	0.973 +/- 0.022	0.753	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	89.8	10.9	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	60.9	3.7	Inc. seg. avg.	1.643	1.643	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	50.5	6.5	Inc. frq. avg.	1.423	1.423	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

f: az 44.5 el 26.7 pa -73.1 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -10350.132 2759.520 simultaneous interpolator

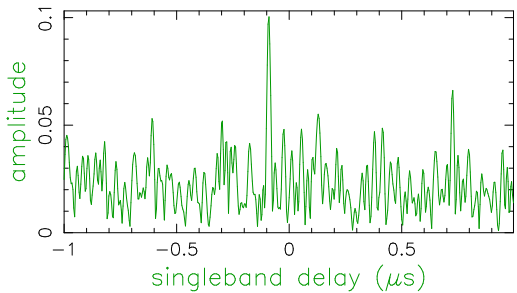
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/fN..1X0I36 Output file: /Exps/c211c/v1/1234/No0081/fN.W.107.1X0I36

multiband delay (μs)

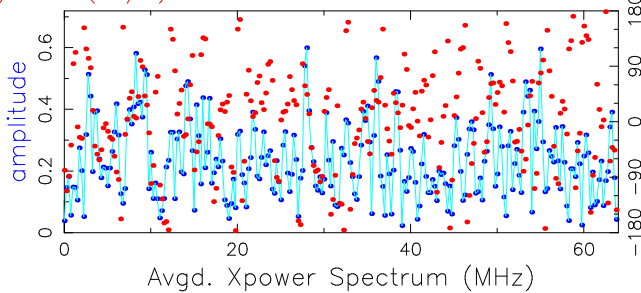


Fringe quality 0

SNR 5.6
Int time 415.467
Amp 0.103
Phase 41.4
PFD 9.9e-01
Delays (us)
SBD -0.091017
MBD 0.000794
Fringe rate (Hz)
-0.217436
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

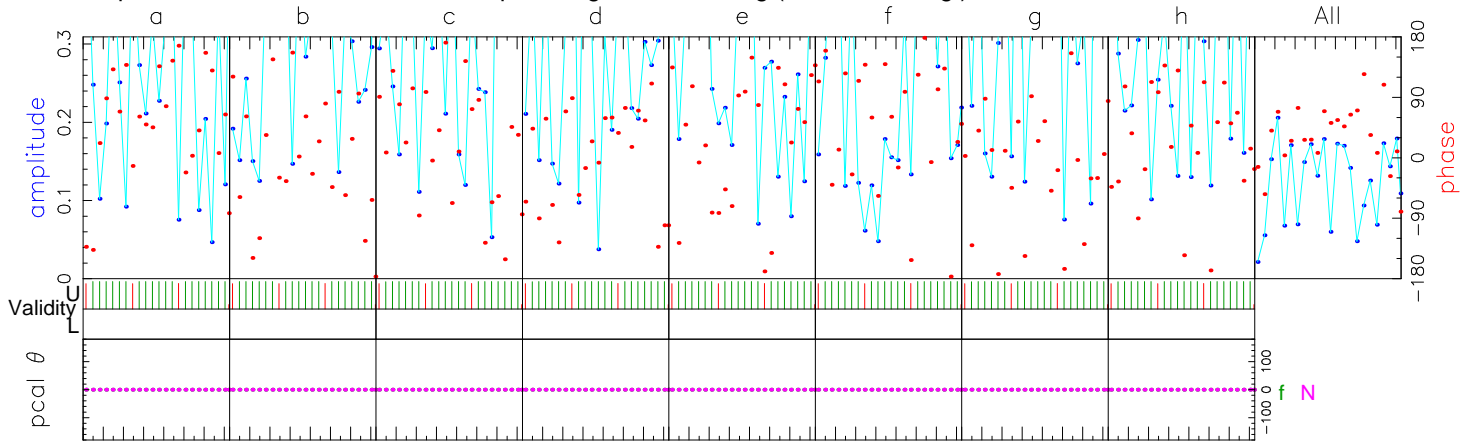


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 150000.00
Stop 150659.84
FRT 150330.00
Corr/FF/build
2021:303:065408
2021:303:121500
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	66.7	7.4	37.4	39.3	96.2	89.7	11.9	40.7	Phase	41.4
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1
	445.8	262.1	500.5	383.3	242.7	75.9	233.0	182.9	Sbd box	233.7
U/L	816/0	816/0	816/0	816/0	816/0	816/0	816/0	816/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-1.04071422079E+04	Apriori delay (usec)	-1.04070492522E+04	Resid mbdelay (usec)	7.94275E-04	+/-	1.9E-04
Sband delay (usec)	-1.04071402687E+04	Apriori clock (usec)	2.3617216E+01	Resid sbdelay (usec)	-9.10165E-02	+/-	1.5E-03
Phase delay (usec)	-1.04070492508E+04	Apriori clockrate (us/s)	4.4490002E-06	Resid phdelay (usec)	1.33422E-06	+/-	6.6E-07
Delay rate (us/s)	1.14408436350E+00	Apriori rate (us/s)	1.14408688771E+00	Resid rate (us/s)	-2.52421E-06	+/-	2.7E-09
Total phase (deg)	-168.4	Apriori accel (us/s/s)	3.85273692933E-05	Resid phase (deg)	41.4	+/-	20.4

ph/seg (deg)	42.8	Theor.	48.7	Search (2048X32)	0.098	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	57.3		85.0	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)	36.6		28.8	Inc. seg. avg.	0.094	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	33.6		50.2	Inc. frq. avg.	0.105	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 44.5 el 26.7 pa -73.1 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -10350.132 2759.520 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/fN..1X0I36 Output file: /Exps/c211c/v1/1234/No0081/fN.W.127.1X0I36

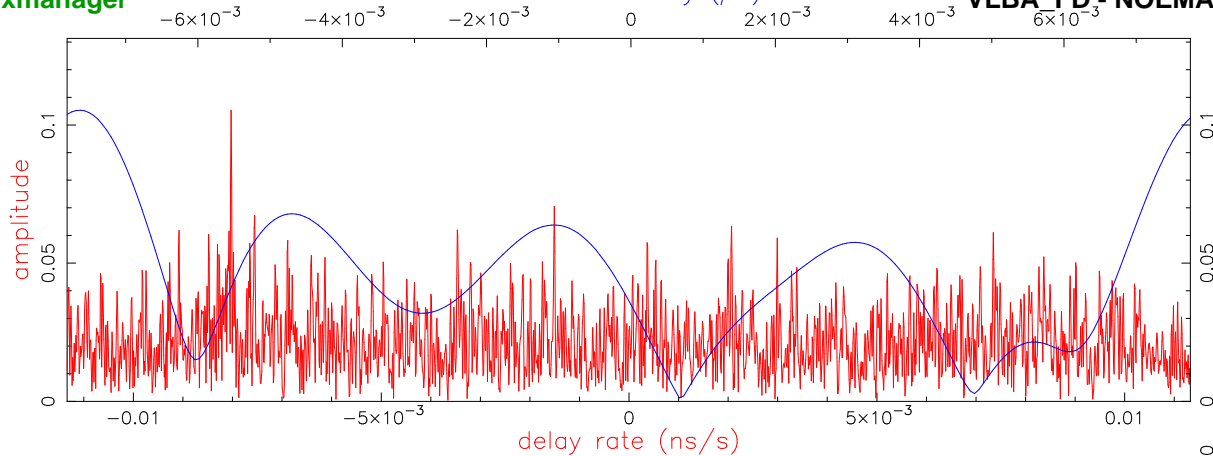
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0I36, No0081, fN

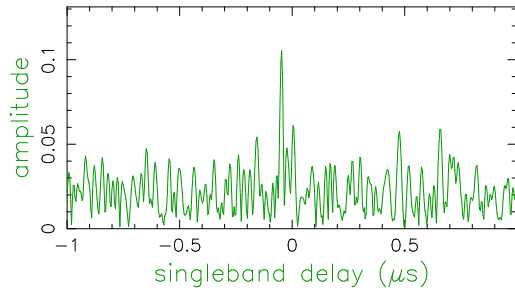
VLBA_FD- NOEMA, fgroup W, pol RL

multiband delay (μ s)

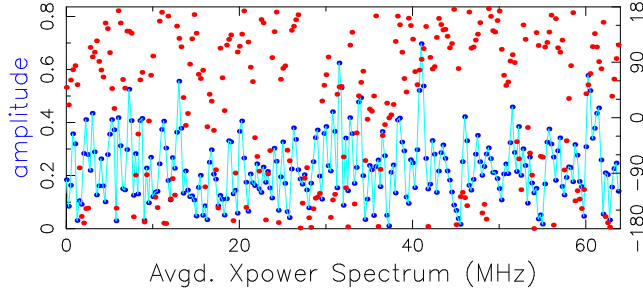


Fringe quality 0

SNR 5.9
 Int time 415.468
 Amp 0.131
 Phase 23.8
 PFD 6.1e-01
 Delays (us)
 SBD -0.047647
 MBD -0.007639
 Fringe rate (Hz)
 -0.692129
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

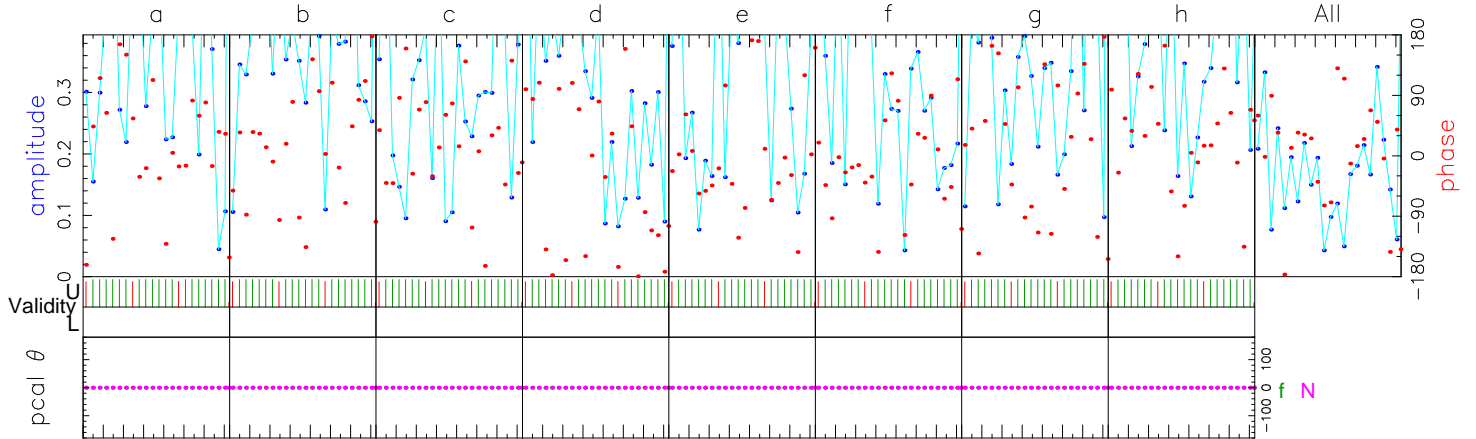


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121503
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	31.5	30.4	13.0	125.4	-27.6	-3.6	76.3	43.2	Phase	23.8	
	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2	
	218.0	498.3	452.8	207.8	245.7	244.8	258.1	244.0	Sbd box	244.8	
U/L	816/0	816/0	816/0	816/0	816/0	816/0	816/0	816/0	APs used		
f	0	0	0	0	0	0	0	0	PC freqs		
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
N	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec)(sbd)	-1.04071037657E+04		Apriori delay (usec)		-1.04070492522E+04		Resid mbdelay (usec)		-7.63855E-03	+/- 1.8E-04	
Sband delay (usec)	-1.04070968989E+04		Apriori clock (usec)		2.3617216E+01		Resid sbdelay (usec)		-4.76467E-02	+/- 1.5E-03	
Phase delay (usec)	-1.04070492514E+04		Apriori clockrate (us/s)		4.4490002E-06		Resid phdelay (usec)		7.68161E-07	+/- 6.3E-07	
Delay rate (us/s)	1.14407885278E+00		Apriori rate (us/s)		1.14408688771E+00		Resid rate (us/s)		-8.03493E-06	+/- 2.6E-09	
Total phase (deg)			Apriori accel (us/s/s)		3.85273692933E-05		Resid phase (deg)		23.8	+/- 19.4	
	RMS	Theor.	Amplitude	0.131 +/- 0.022		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	71.0	46.5	Search (2048X32)	0.102		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	98.4	81.1	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	53.3	27.5	Inc. seg. avg.	0.157		Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011
amp/frq (%)	52.3	48.0	Inc. frq. avg.	0.154		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
f: az 44.5 el 26.7 pa -73.1		N: az 299.7 el 71.9 pa 101.5		u,v (fr/asec) -10350.132 2759.520						simultaneous interpolator	
Control file: cf_1234_gmva		Input file: /Exps/c211c/v1/1234/No0081/fN..1X0I36		Output file: /Exps/c211c/v1/1234/No0081/fN.W.144.1X0I36							

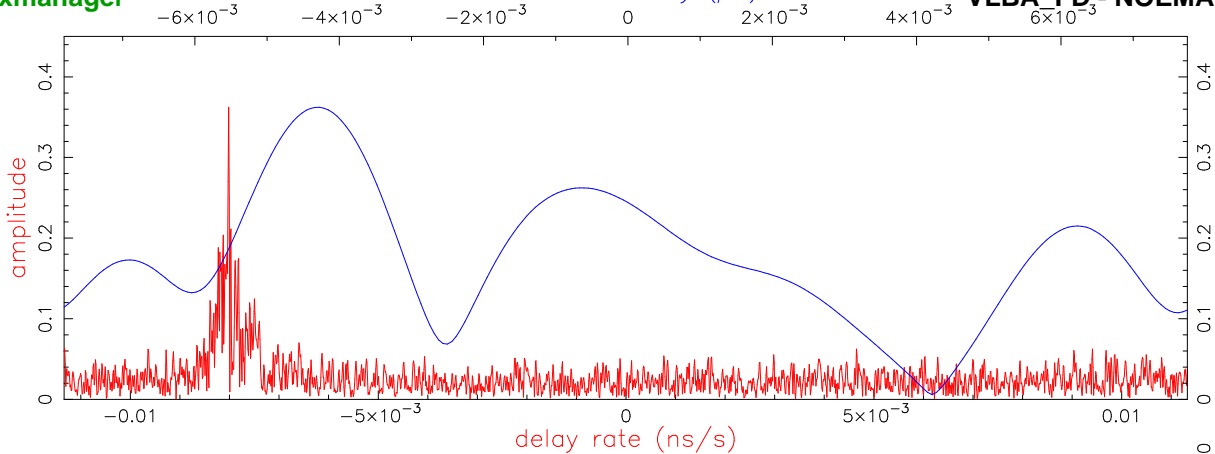
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0I36, No0081, fN

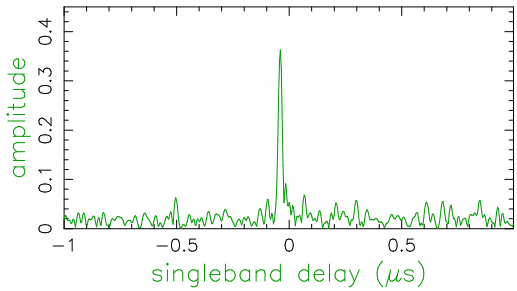
VLBA_FD- NOEMA, fgroup W, pol LL

multiband delay (μ s)

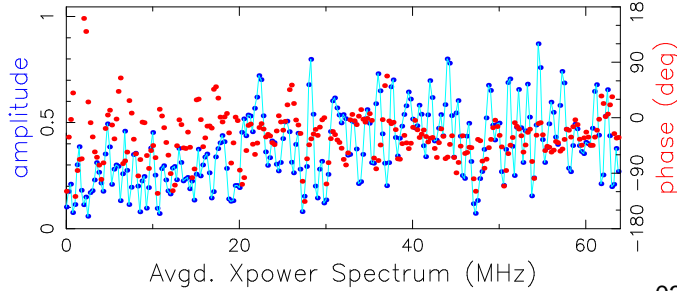


Fringe quality 7

SNR 20.2
Int time 415.468
Amp 0.450
Phase -79.6
PFD 0.0e+00
Delays (us)
SBD -0.039630
MBD -0.004314
Fringe rate (Hz)
-0.691666
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

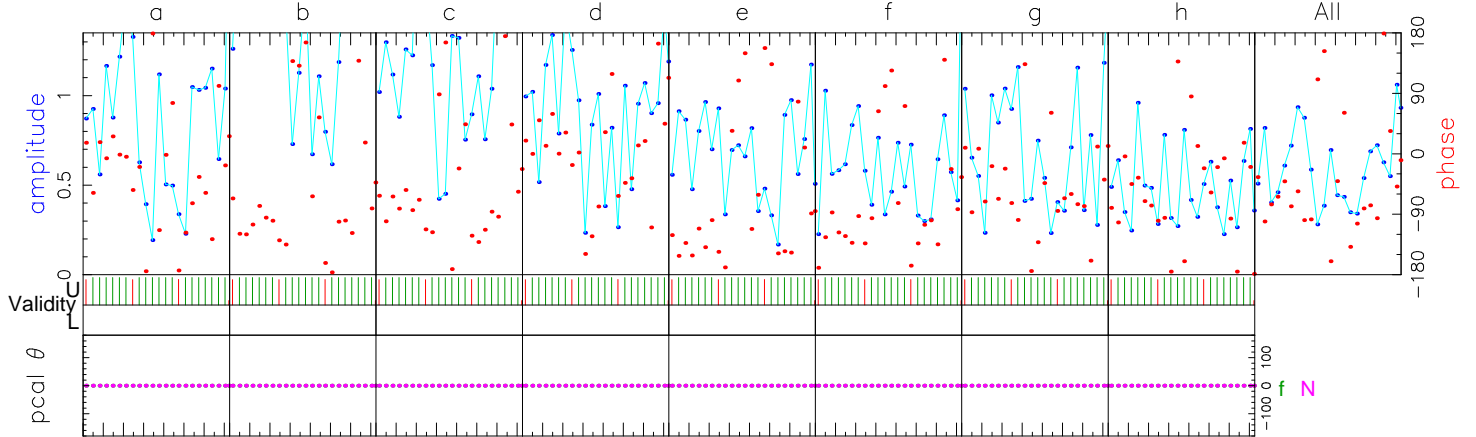


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 150000.00
Stop 150659.84
FRT 150330.00
Corr/FF/build
2021:303:065408
2021:303:121452
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-29.7	-113.3	-85.7	8.8	-138.6	-121.8	-59.6	-60.2	Phase	-79.6
	0.6	1.1	0.9	0.6	0.5	0.4	0.5	0.3	Ampl.	0.6
	244.6	246.2	247.2	246.9	247.5	247.9	246.9	245.0	Sbd box	246.9
U/L	816/0	816/0	816/0	816/0	816/0	816/0	816/0	816/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.04070848165E+04	Apriori delay (usec)	-1.04070492522E+04	Resid mbdelay (usec)	-4.31432E-03	+/-	5.4E-05
Sband delay (usec)	-1.04070888824E+04	Apriori clock (usec)	2.3617216E+01	Resid sbdelay (usec)	-3.96302E-02	+/-	4.3E-04
Phase delay (usec)	-1.04070492547E+04	Apriori clockrate (us/s)	4.4490002E-06	Resid phdelay (usec)	-2.56683E-06	+/-	1.8E-07
Delay rate (us/s)	1.14407885815E+00	Apriori rate (us/s)	1.14408688771E+00	Resid rate (us/s)	-8.02956E-06	+/-	7.6E-10
Total phase (deg)	-289.3	Apriori accel (us/s/s)	3.85273692933E-05	Resid phase (deg)	-79.6	+/-	5.7

ph/seg (deg)	69.9	RMS	13.6	Theor.	0.450 +/- 0.022	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	85.0	Search (2048X32)	0.347	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	54.0	Inc. seg. avg.	0.718	Inc. seg. avg.	0.614	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	70.0	Inc. frq. avg.	0.614	Inc. frq. avg.	0.614	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
f: az 44.5 el 26.7 pa -73.1		N: az 299.7 el 71.9 pa 101.5		u,v (fr/asec)	-10350.132 2759.520	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/c211c/v1/1234/No0081/fN..1X0I36 Output file: /Exps/c211c/v1/1234/No0081/fN.W.89.1X0I36

simultaneous interpolator

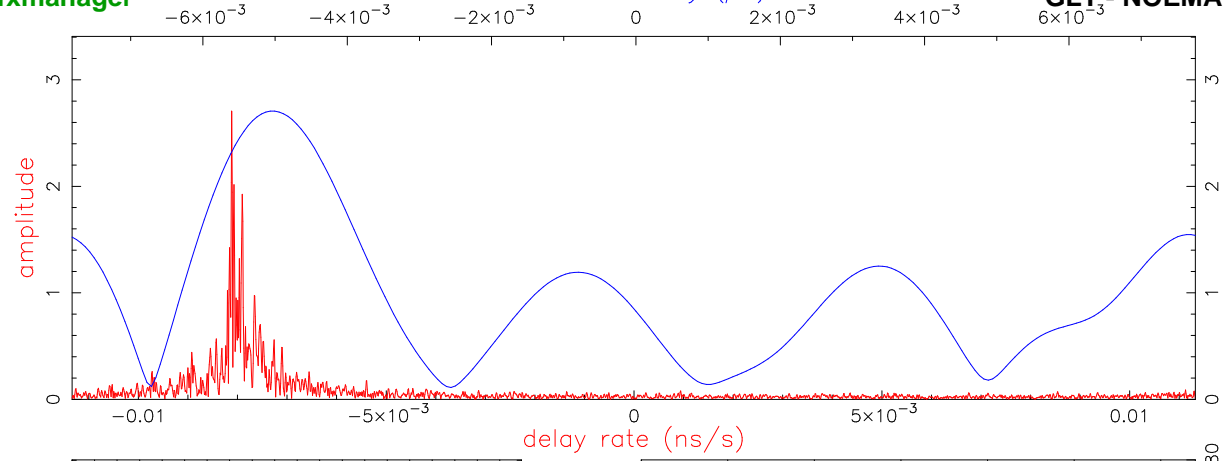
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, gN

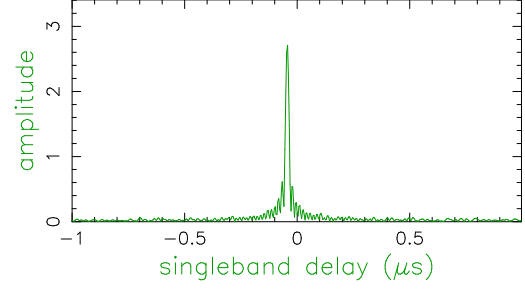
GLT - NOEMA, fgroup W, pol LL

multiband delay (μ s)

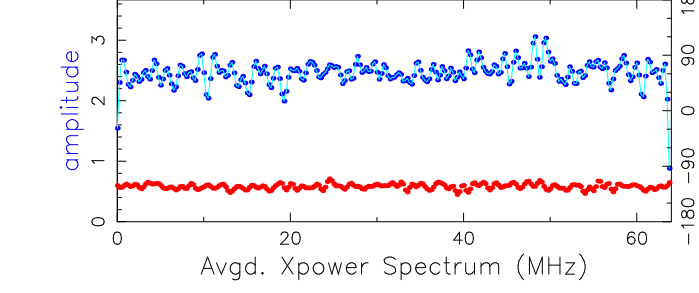


Fringe quality 2

SNR 153.1
 Int time 419.820
 Amp 3.407
 Phase 146.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.044165
 MBD -0.005034
 Fringe rate (Hz)
 -0.699606
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



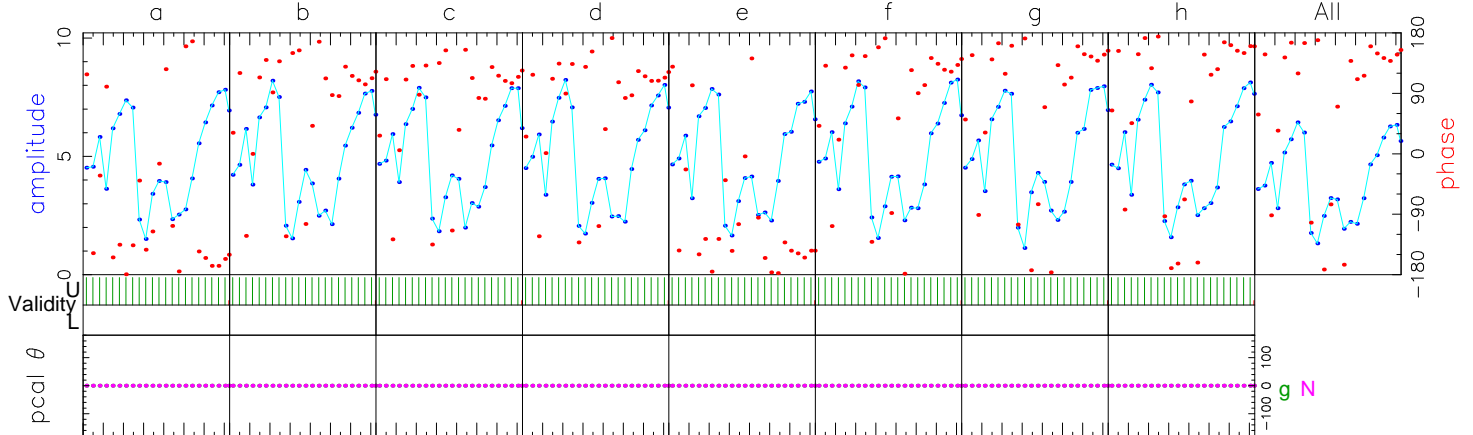
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121504
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-157.7	116.5	113.1	114.1	-146.3	129.3	145.0	155.4	Phase	146.3
	4.1	4.1	4.2	4.2	4.2	4.3	4.2	4.3	Ampl.	4.2
	245.6	245.6	245.6	245.6	245.6	245.7	245.9	245.7	Sbd box	245.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
g:N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g: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	
g	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.99317251196E+03	Apriori delay (usec)	-1.99312060340E+03	Resid mbdelay (usec)	-5.03356E-03	+/-	7.1E-06
Sband delay (usec)	-1.99316476865E+03	Apriori clock (usec)	1.3794584E+01	Resid sbdelay (usec)	-4.41652E-02	+/-	5.6E-05
Phase delay (usec)	-1.99312059868E+03	Apriori clockrate (us/s)	4.4610001E-06	Resid phdelay (usec)	4.71717E-06	+/-	2.4E-08
Delay rate (us/s)	4.78930543069E-01	Apriori rate (us/s)	4.78938664805E-01	Resid rate (us/s)	-8.12174E-06	+/-	1.0E-10
Total phase (deg)	-133.4	Apriori accel (us/s/s)	3.43981533685E-05	Resid phase (deg)	146.3	+/-	0.7

ph/seg (deg)	60.5	1.8	Search (2048X32)	2.535	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	75.9	3.1	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)	43.0	1.1	Inc. seg. avg.	4.997	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	23.0	1.8	Inc. frq. avg.	4.185	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

g: az 114.8 el 58.4 pa -19.5 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -4308.035 4886.792 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/gN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/gN.W.151.1X0136

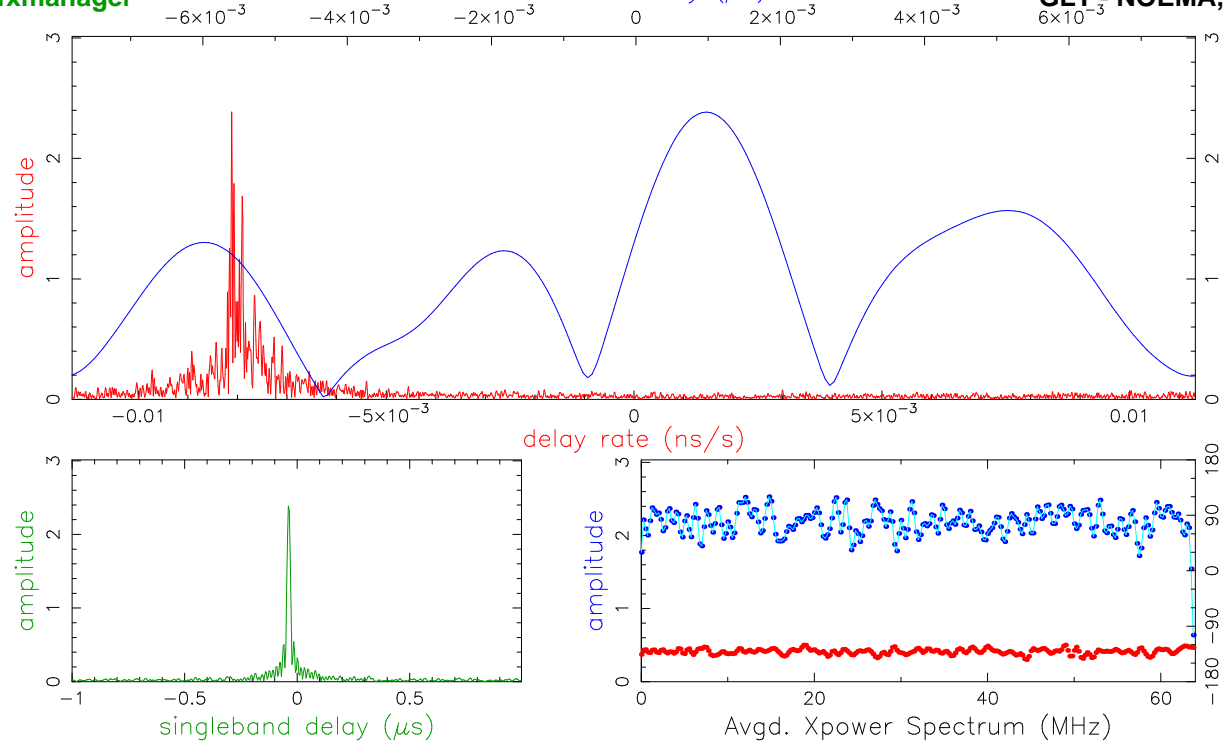
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, gN

GLT - NOEMA, fgroup W, pol RR

multiband delay (μ s)

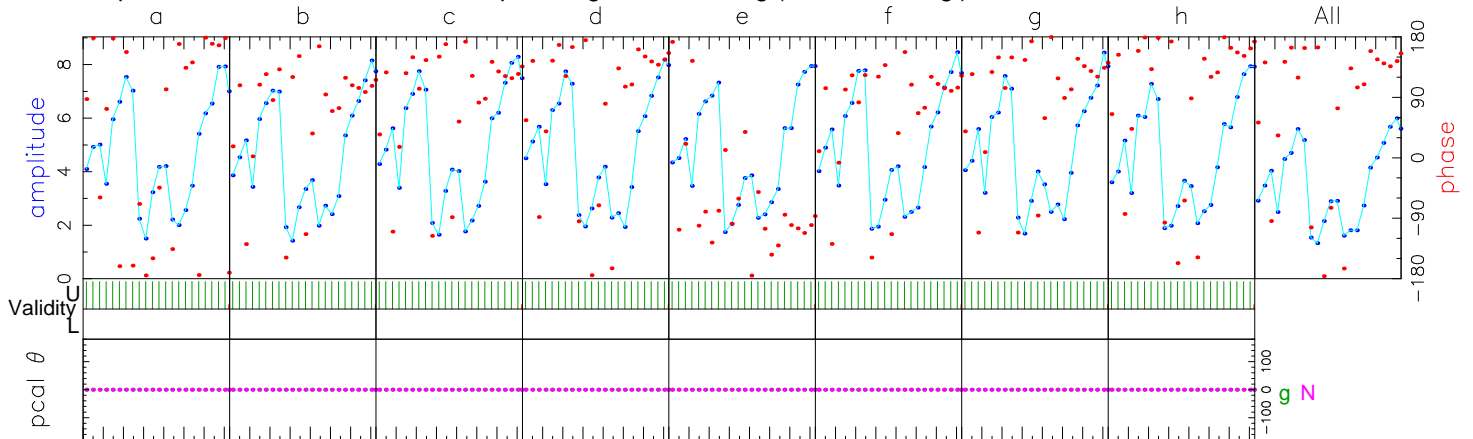


Fringe quality 2

SNR 135.4
 Int time 419.818
 Amp 3.013
 Phase 143.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.037645
 MBD 0.000977
 Fringe rate (Hz)
 -0.699639
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121508
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	176.1	107.2	125.9	146.0	-101.8	105.2	131.6	160.1	Phase	143.8
	4.0	4.0	4.1	4.0	4.0	4.2	4.0	4.0	Ampl.	4.0
	247.3	247.5	247.4	247.3	247.5	247.3	247.5	247.4	Sbd box	247.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.99315087624E+03		Apriori delay (usec)		-1.99312060340E+03		Resid mbdelay (usec)		9.77157E-04	+/- 8.0E-06
Sband delay (usec)	-1.99315824865E+03		Apriori clock (usec)		1.3794584E+01		Resid sbdelay (usec)		-3.76453E-02	+/- 6.4E-05
Phase delay (usec)	-1.99312059876E+03		Apriori clockrate (us/s)		4.4610001E-06		Resid phdelay (usec)		4.63663E-06	+/- 2.7E-08
Delay rate (us/s)	4.78930542684E-01		Apriori rate (us/s)		4.78938664805E-01		Resid rate (us/s)		-8.12212E-06	+/- 1.1E-10
Total phase (deg)			Apriori accel (us/s/s)		3.43981533685E-05		Resid phase (deg)		143.8	+/- 0.8

ph/seg (deg) 61.0 2.0 Search (2048X32) 2.198 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 76.1 3.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 54.3 1.2 Inc. seg. avg. 4.387 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.8 2.1 Inc. frq. avg. 4.029 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 g: az 114.8 el 58.4 pa -19.5 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -4308.035 4886.792 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/gN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/gN.W.161.1X0136 simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

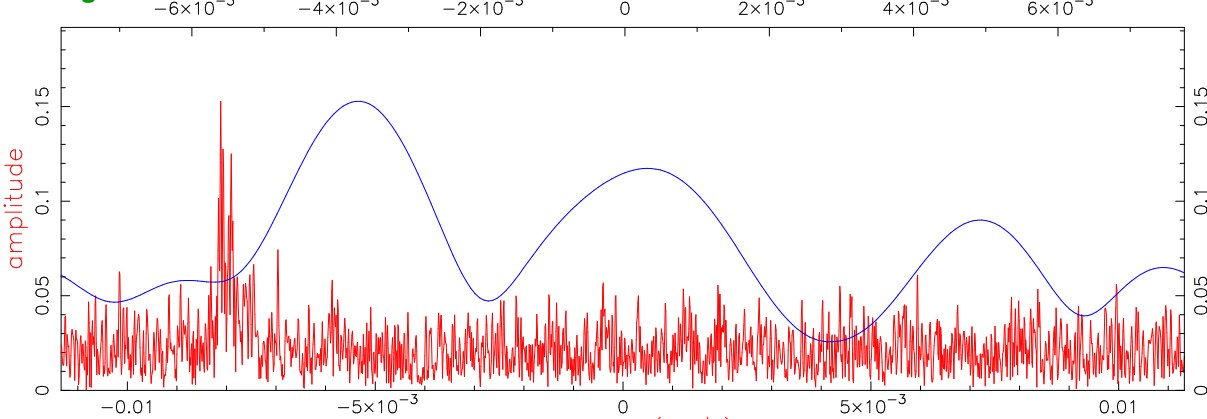
fxmanager

NRAO150.1X0136, No0081, gN

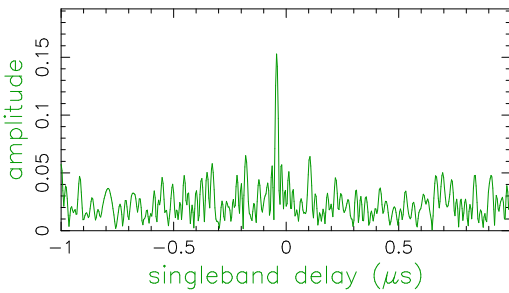
GLT - NOEMA, fgroup W, pol LR

multiband delay (μ s)

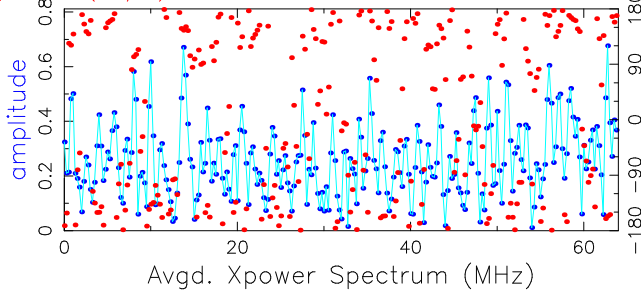
Fringe quality 9



SNR 8.6
 Int time 419.818
 Amp 0.192
 Phase 93.9
 PFD 2.5e-09
 Delays (us)
 SBD -0.042091
 MBD -0.003705
 Fringe rate (Hz)
 -0.700011
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

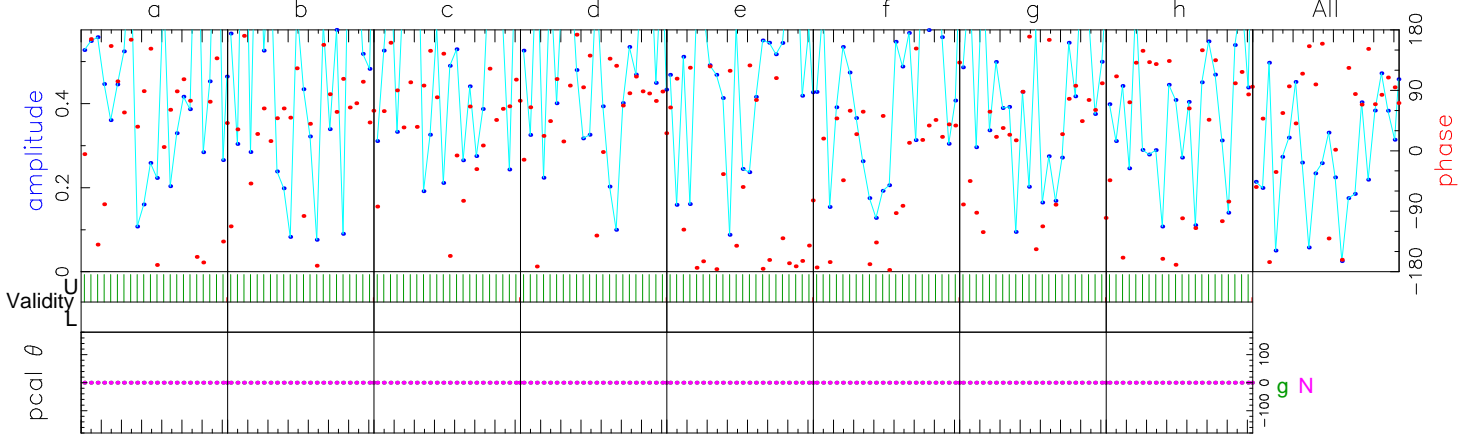


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121513
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
g:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g: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		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) -1.99315555818E+03 Apriori delay (usec) -1.99312060340E+03 Resid mbdelay (usec) -3.70478E-03 +/- 1.3E-04
 Sband delay (usec) -1.99316269440E+03 Apriori clock (usec) 1.3794584E+01 Resid sbdelay (usec) -4.20910E-02 +/- 1.0E-03
 Phase delay (usec) -1.99312060037E+03 Apriori clockrate (us/s) 4.4610001E-06 Resid phdelay (usec) 3.02776E-06 +/- 4.3E-07
 Delay rate (us/s) 4.78930538367E-01 Apriori rate (us/s) 4.78938664805E-01 Resid rate (us/s) -8.12644E-06 +/- 1.8E-09
 Total phase (deg) -185.7 Apriori accel (us/s/s) 3.43981533685E-05 Resid phase (deg) 93.9 +/- 13.3

RMS Theor. Amplitude 0.192 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 69.2 31.9 Search (2048X32) 0.151 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 113.1 55.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 56.9 18.8 Inc. seg. avg. 0.293 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 60.2 32.8 Inc. frq. avg. 0.267 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

g: az 114.8 el 58.4 pa -19.5 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -4308.035 4886.792 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/gN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/gN.W.178.1X0136

Mk4/DiFX fourfit 3.21 rev 2937

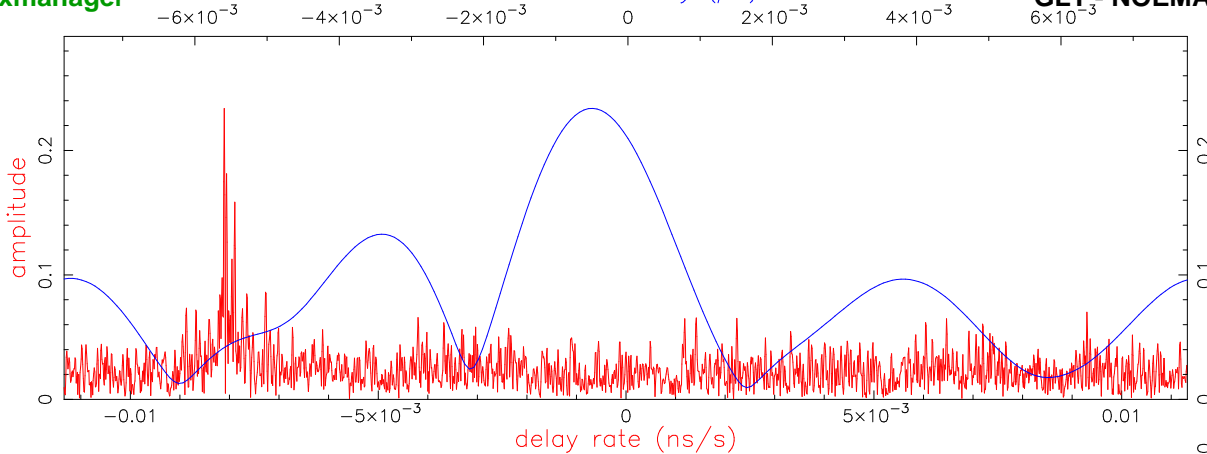
fxmanager

NRAO150.1X0136, No0081, gN

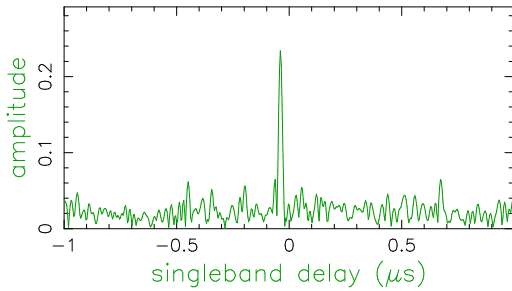
GLT - NOEMA, fgroup W, pol RL

multiband delay (μ s)

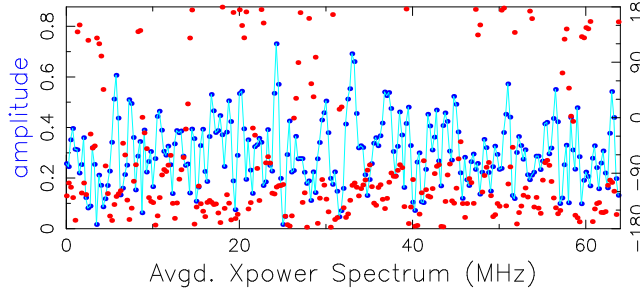
Fringe quality 9



SNR 13.1
Int time 419.820
Amp 0.292
Phase 145.9
PFD 1.7e-30
Delays (us)
SBD -0.038860
MBD -0.000496
Fringe rate (Hz)
-0.699598
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

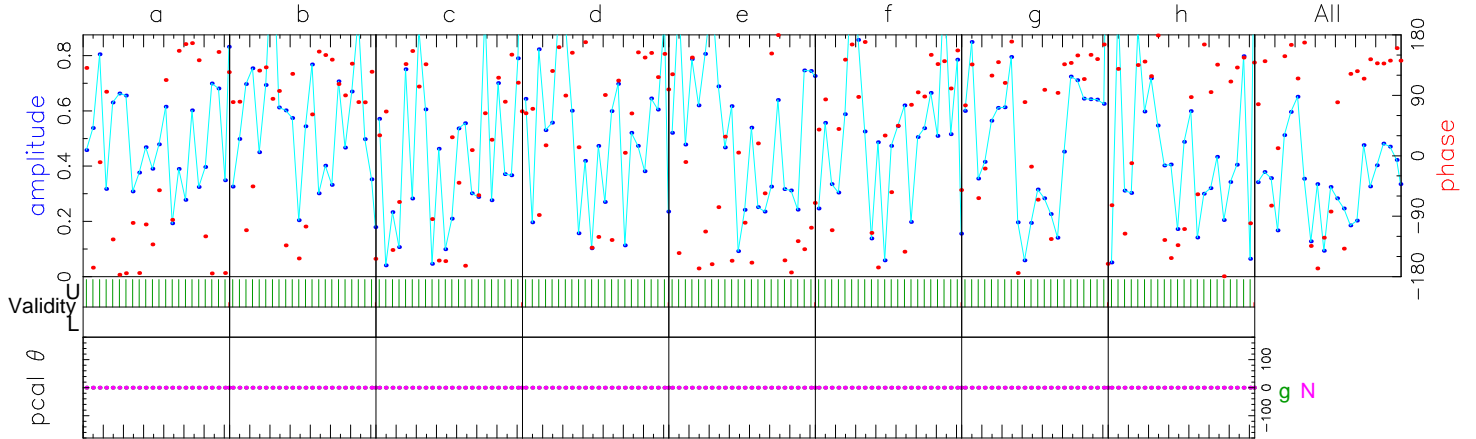


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 150000.00
Stop 150659.84
FRT 150330.00
Corr/FF/build
2021:303:065408
2021:303:121517
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
g:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.99315234952E+03	Apriori delay (usec)	-1.99312060340E+03	Resid mbdelay (usec)	-4.96124E-04	+/-	8.3E-05
Sband delay (usec)	-1.99315946390E+03	Apriori clock (usec)	1.3794584E+01	Resid sbdelay (usec)	-3.88605E-02	+/-	6.6E-04
Phase delay (usec)	-1.99312059870E+03	Apriori clockrate (us/s)	4.4610001E-06	Resid phdelay (usec)	4.70339E-06	+/-	2.8E-07
Delay rate (us/s)	4.78930543162E-01	Apriori rate (us/s)	4.78938664805E-01	Resid rate (us/s)	-8.12164E-06	+/-	1.2E-09
Total phase (deg)	-133.8	Apriori accel (us/s/s)	3.43981533685E-05	Resid phase (deg)	145.9	+/-	8.7

	RMS	Theor.	Amplitude	0.292 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	64.1	21.0	Search (2048X32)	0.215	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	78.9	36.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	39.9	12.4	Inc. seg. avg.	0.411	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	25.4	21.6	Inc. frq. avg.	0.342	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

g: az 114.8 el 58.4 pa -19.5 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -4308.035 4886.792 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/gN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/gN.W.202.1X0136

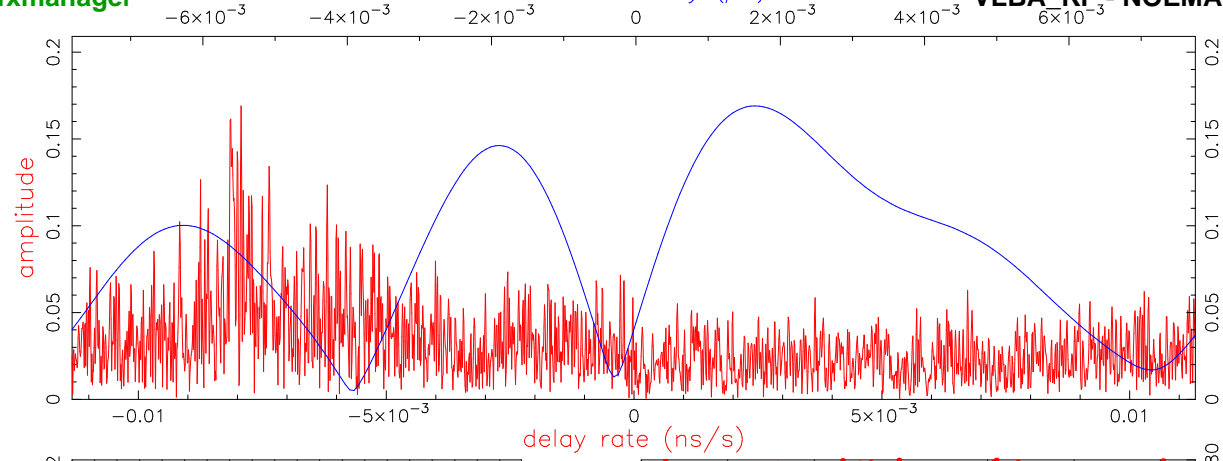
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0I36, No0081, kN

VLBA_KP - NOEMA, fgroup W, pol LL

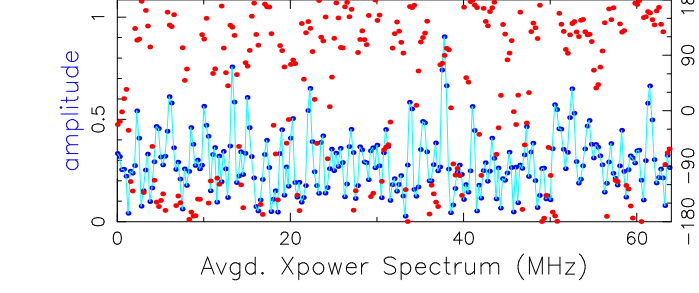
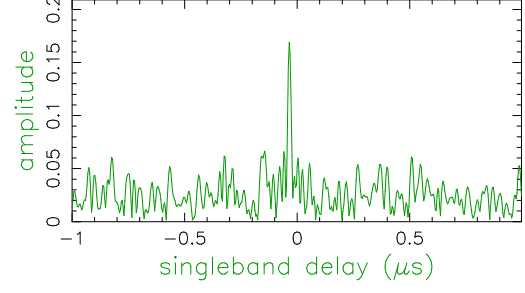
multiband delay (μ s)



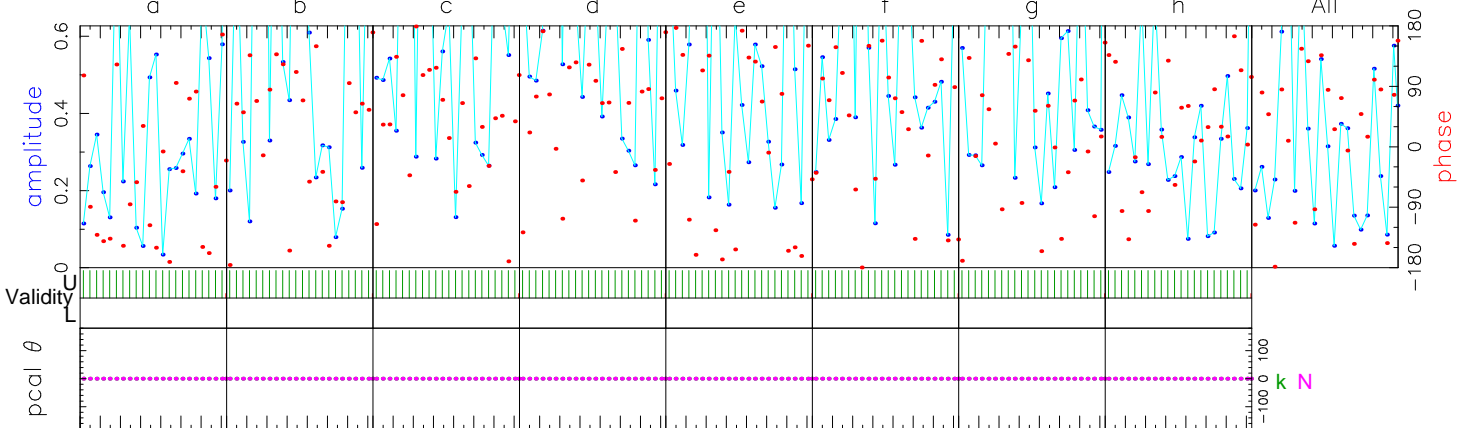
Fringe quality 9

SNR 9.5
 Int time 419.820
 Amp 0.209
 Phase 89.1
 PFD 9.3e-13
 Delays (us)
 SBD -0.034579
 MBD 0.001680
 Fringe rate (Hz)
 -0.683795
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121510
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-152.1	72.9	53.0	77.5	177.1	104.7	68.0	17.6	Phase	89.1
	0.2	0.5	0.4	0.4	0.4	0.3	0.2	0.1	Ampl.	0.3
	245.2	247.0	248.4	248.3	247.2	247.6	232.1	195.8	Sbd box	248.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.16285189768E+04	Apriori delay (usec)	-1.16284894069E+04	Resid mbdelay (usec)	1.68010E-03	+/-	1.1E-04
Sband delay (usec)	-1.16285239861E+04	Apriori clock (usec)	1.3677351E+01	Resid sbdelay (usec)	-3.45793E-02	+/-	9.1E-04
Phase delay (usec)	-1.16284894040E+04	Apriori clockrate (us/s)	4.3890000E-06	Resid phdelay (usec)	2.87458E-06	+/-	3.9E-07
Delay rate (us/s)	1.13770802880E+00	Apriori rate (us/s)	1.13771596699E+00	Resid rate (us/s)	-7.93819E-06	+/-	1.6E-09
Total phase (deg)	-94.2	Apriori accel (us/s/s)	4.66980720447E-05	Resid phase (deg)	89.1	+/-	12.1

ph/seg (deg)	84.4	Theor.	29.0	Amplitude	0.209 +/- 0.022	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	177.5	Search (2048X32)	0.167	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	70.0	Inc. seg. avg.	0.369	Inc. frq. avg.	0.301	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	78.9	Inc. frq. avg.	0.301			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

k: az 43.1 el 23.1 pa -67.9 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -10279.010 3661.946 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/kN..1X0I36 Output file: /Exps/c211c/v1/1234/No0081/kN.W.167.1X0I36

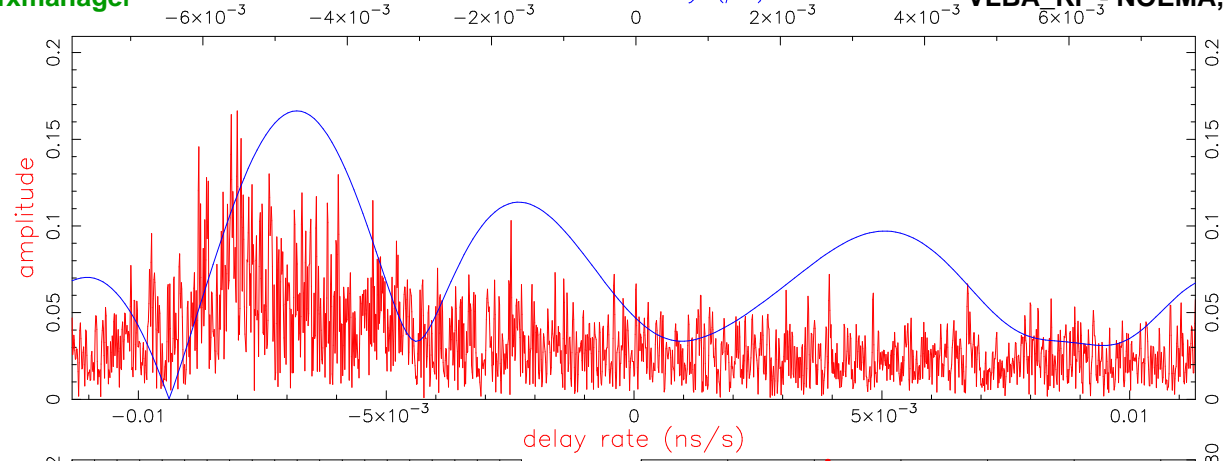
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0I36, No0081, kN

VLBA_KP - NOEMA, fgroup W, pol RR

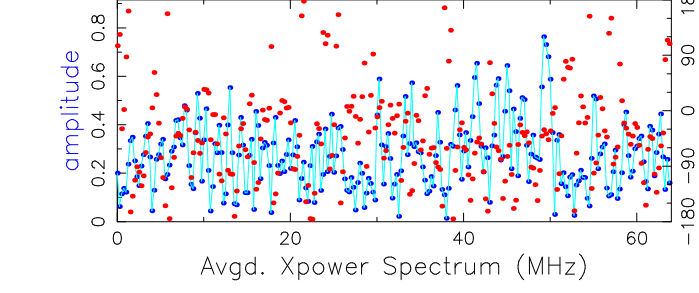
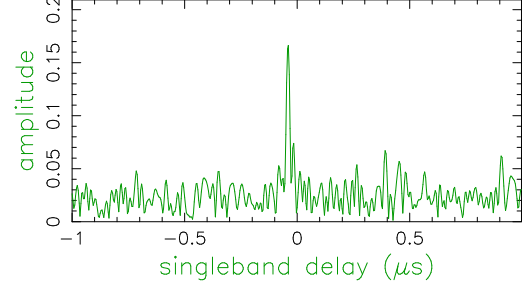
multiband delay (μ s)



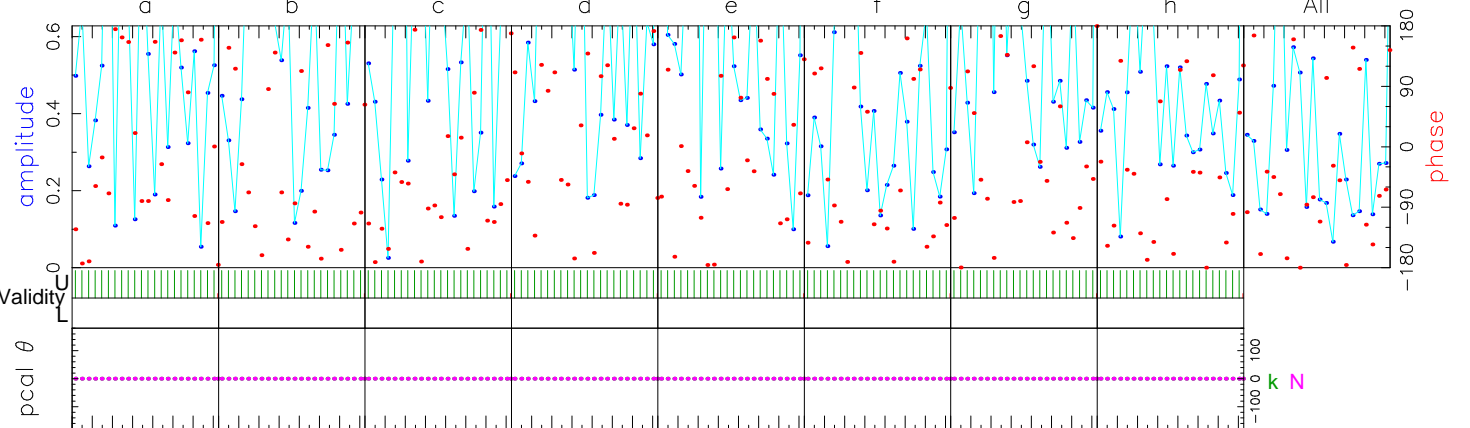
Fringe quality 9

SNR 9.5
 Int time 419.818
 Amp 0.209
 Phase -111.8
 PFD 1.2e-12
 Delays (us)
 SBD -0.040603
 MBD -0.004723
 Fringe rate (Hz)
 -0.690502
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121514
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-117.6	-134.9	-94.6	51.5	-93.0	-155.4	-99.9	-120.8	Phase	-111.8
	0.2	0.3	0.5	0.2	0.3	0.2	0.3	0.1	Ampl.	0.3
	245.2	246.7	247.1	502.7	247.1	247.6	246.7	410.7	Sbd box	246.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.16285253797E+04		Apriori delay (usec)		-1.16284894069E+04		Resid mbdelay (usec)		-4.72281E-03	+/- 1.1E-04
Sband delay (usec)	-1.16285300101E+04		Apriori clock (usec)		1.3677351E+01		Resid sbdelay (usec)		-4.06033E-02	+/- 9.1E-04
Phase delay (usec)	-1.16284894105E+04		Apriori clockrate (us/s)		4.3890000E-06		Resid phdelay (usec)		-3.60516E-06	+/- 3.9E-07
Delay rate (us/s)	1.13770795094E+00		Apriori rate (us/s)		1.13771596699E+00		Resid rate (us/s)		-8.01605E-06	+/- 1.6E-09
Total phase (deg)			Apriori accel (us/s/s)		4.66980720447E-05		Resid phase (deg)		-111.8	+/- 12.1

ph/seg (deg) 70.1 29.0 Search (2048X32) 0.164 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 165.6 50.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 70.7 17.1 Inc. seg. avg. 0.360 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 52.5 29.9 Inc. frq. avg. 0.257 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 43.1 el 23.1 pa -67.9 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -10279.010 3661.946 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/kN..1X0I36 Output file: /Exps/c211c/v1/1234/No0081/kN.W.188.1X0I36

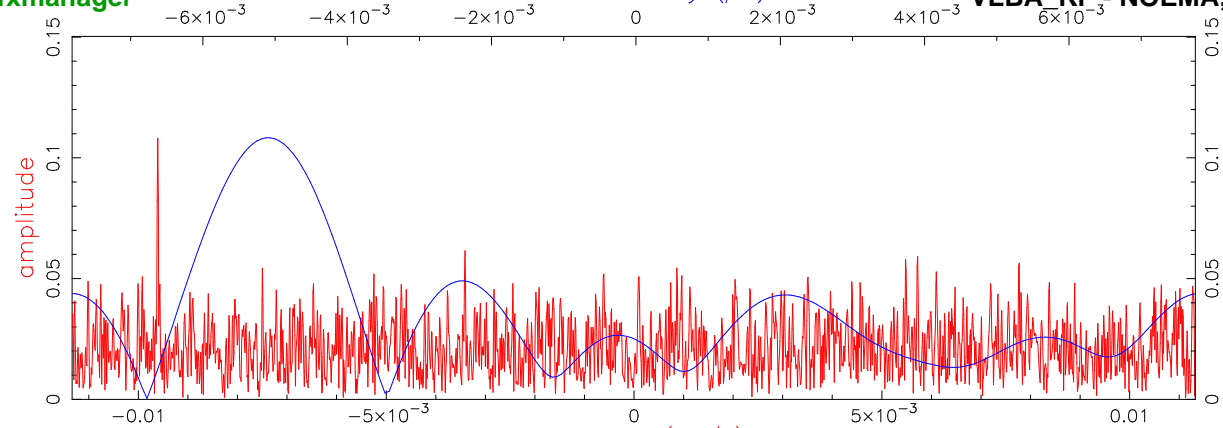
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0I36, No0081, kN

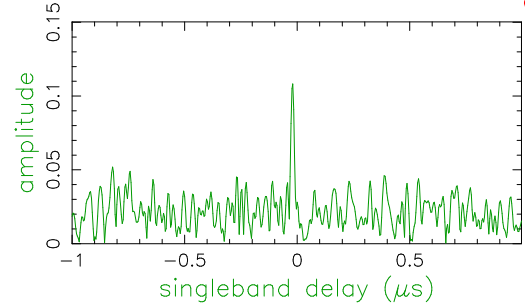
VLBA_KP - NOEMA, fgroup W, pol LR

multiband delay (μ s)

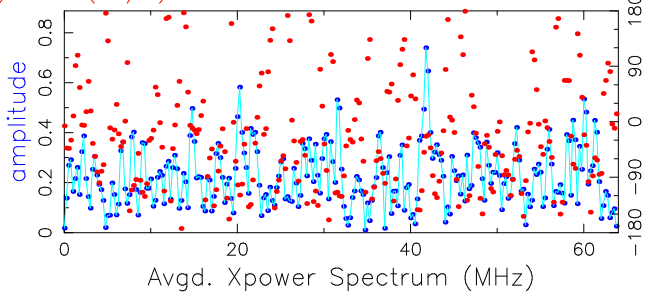


Fringe quality 0

SNR 6.1
 Int time 419.818
 Amp 0.150
 Phase 122.0
 PFD 2.0e-01
 Delays (us)
 SBD -0.020922
 MBD -0.005148
 Fringe rate (Hz)
 -0.828835
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

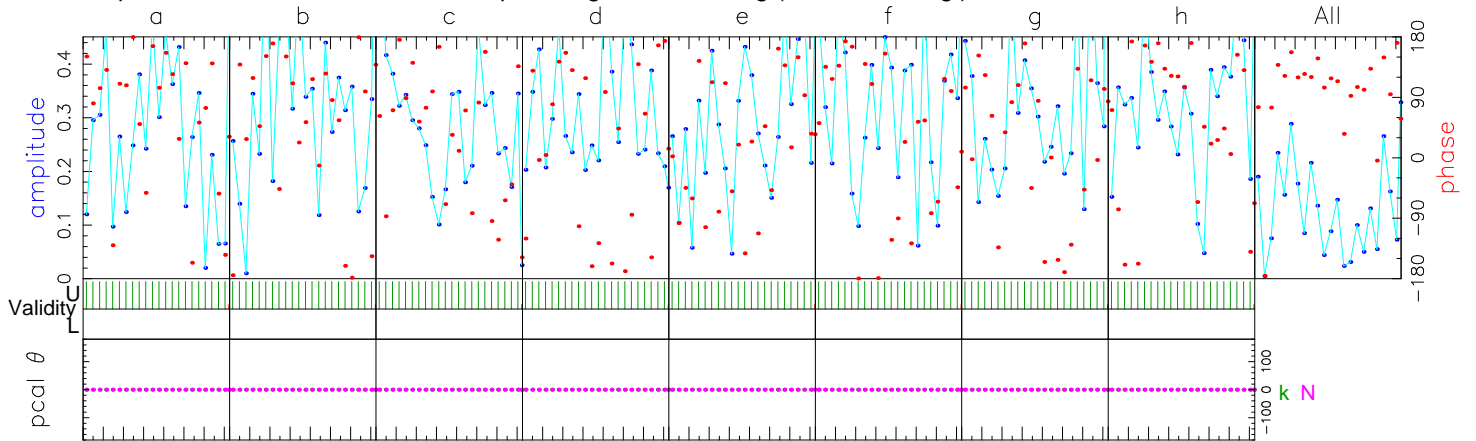


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121518
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	0	0	0	0	0	0	0	0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
k:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-1.16285101802E+04	Apriori delay (usec)	-1.16284894069E+04	Resid mbdelay (usec)	-5.14830E-03	+/-	1.8E-04
Sband delay (usec)	-1.16285103286E+04	Apriori clock (usec)	1.3677351E+01	Resid sbdelay (usec)	-2.09217E-02	+/-	1.4E-03
Phase delay (usec)	-1.16284894030E+04	Apriori clockrate (us/s)	4.3890000E-06	Resid phdelay (usec)	3.93297E-06	+/-	6.0E-07
Delay rate (us/s)	1.13770634503E+00	Apriori rate (us/s)	1.13771596699E+00	Resid rate (us/s)	-9.62196E-06	+/-	2.5E-09
Total phase (deg)	-61.4	Apriori accel (us/s/s)	4.66980720447E-05	Resid phase (deg)	122.0	+/-	18.7

ph/seg (deg)	42.7	Theor.	44.8	Amplitude	0.150 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	74.8	Search (2048X32)	0.106	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	29.2	Inc. seg. avg.	0.132	Inc. frq. avg.	0.145	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	30.0	Inc. frq. avg.	0.145			Sample rate(MISamp/s): 128	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

k: az 43.1 el 23.1 pa -67.9 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -10279.010 3661.946 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/kN..1X0I36 Output file: /Exps/c211c/v1/1234/No0081/kN.W.207.1X0I36

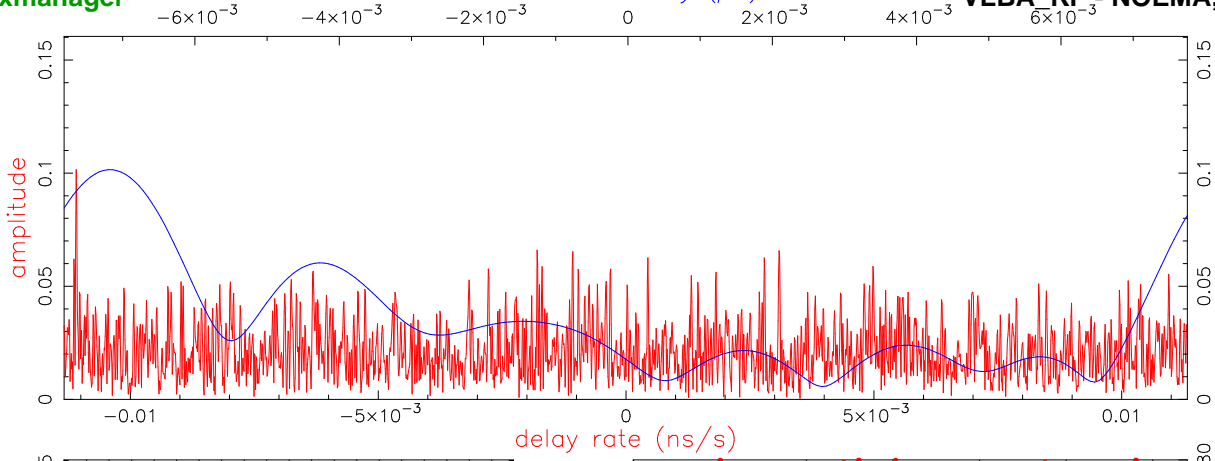
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

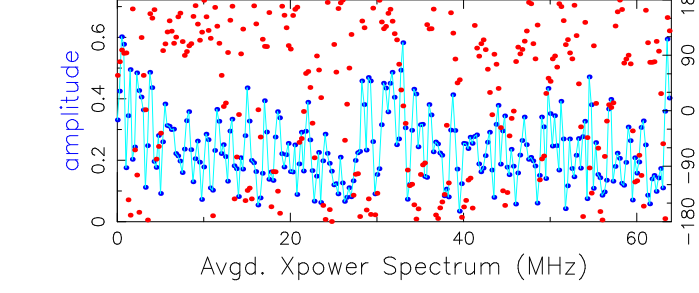
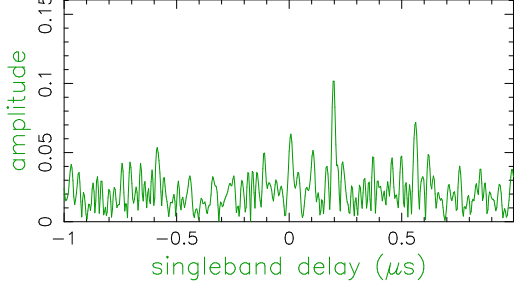
NRAO150.1X0I36, No0081, kN

VLBA_KP - NOEMA, fgroup W, pol RL

multiband delay (μ s)

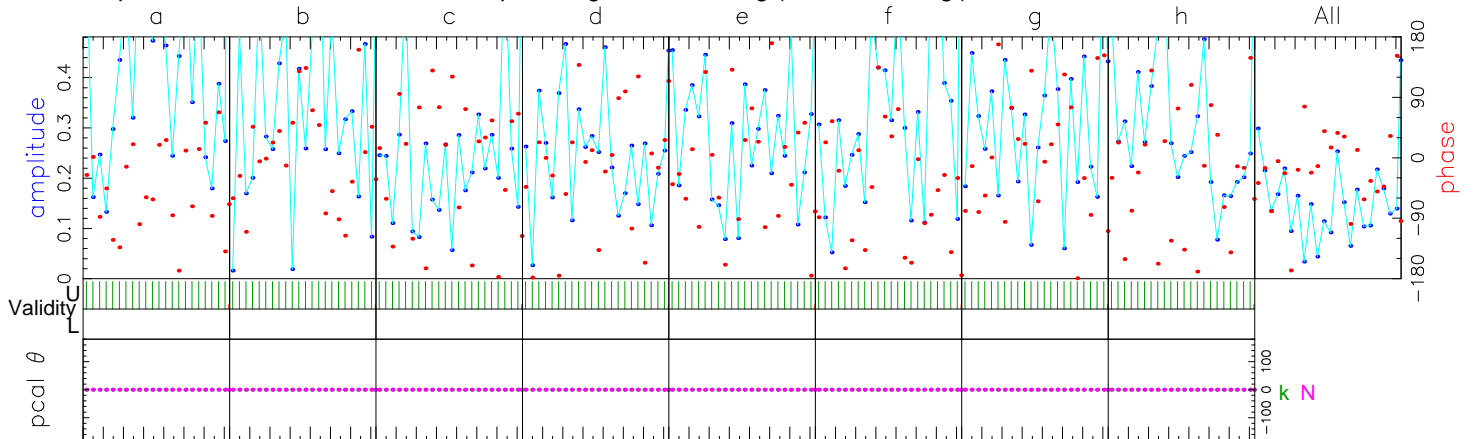


Fringe quality 0
 SNR 5.8
 Int time 419.820
 Amp 0.160
 Phase -16.8
 PFD 7.4e-01
 Delays (us)
 SBD 0.197235
 MBD -0.007175
 Fringe rate (Hz)
 -0.956641
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121522
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-37.0	4.7	20.2	-10.7	-26.7	-44.3	-1.6	-24.0	Phase	-16.8
	0.3	0.3	0.1	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	307.4	66.5	193.7	10.5	260.1	474.2	355.6	117.7	Sbd box	307.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.16282934565E+04			Apriori delay (usec)	-1.16284894069E+04			Resid mbdelay (usec)	-7.17465E-03	+/- 1.9E-04
Sband delay (usec)	-1.16282921721E+04			Apriori clock (usec)	1.3677351E+01			Resid sbdelay (usec)	1.97235E-01	+/- 1.5E-03
Phase delay (usec)	-1.16284894074E+04			Apriori clockrate (us/s)	4.3890000E-06			Resid phdelay (usec)	-5.41901E-07	+/- 6.3E-07
Delay rate (us/s)	1.13770486133E+00			Apriori rate (us/s)	1.13771596699E+00			Resid rate (us/s)	-1.11057E-05	+/- 2.6E-09
Total phase (deg)		-200.2		Apriori accel (us/s/s)	4.66980720447E-05			Resid phase (deg)	-16.8	+/- 19.6

ph/seg (deg) 63.3 47.1 Search (2048X32) 0.102 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 79.6 82.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.8 27.8 Inc. seg. avg. 0.173 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 50.1 48.4 Inc. frq. avg. 0.150 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 43.1 el 23.1 pa -67.9 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -10279.010 3661.946 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/kN..1X0I36 Output file: /Exps/c211c/v1/1234/No0081/kN.W.228.1X0I36

Mk4/DiFX fourfit 3.21 rev 2937

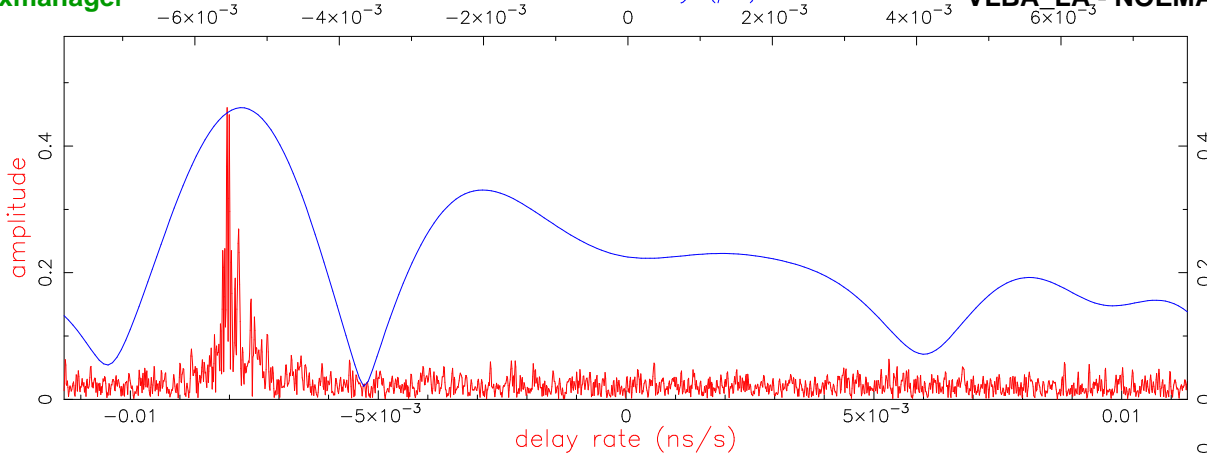
fxmanager

NRAO150.1X0I36, No0081, IN

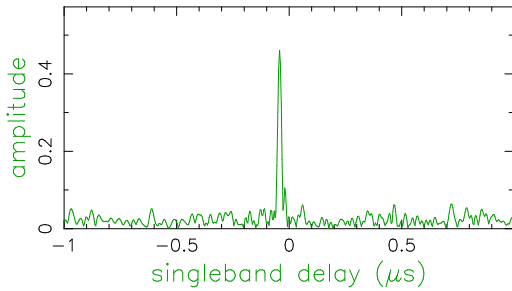
VLBA LA- NOEMA, fgroup W, pol LL

multiband delay (μ s)

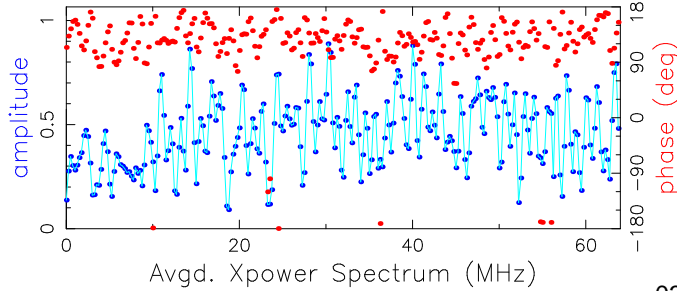
Fringe quality 5



SNR 25.8
 Int time 419.820
 Amp 0.573
 Phase 60.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.042571
 MBD -0.005347
 Fringe rate (Hz)
 -0.694675
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

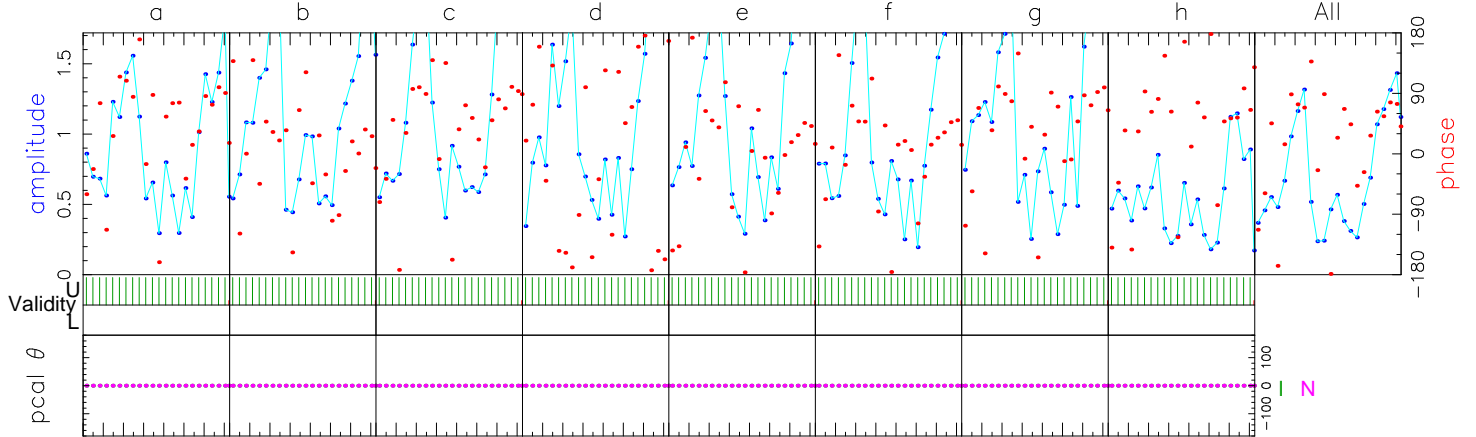


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121514
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
I	0	0	0	0	0	0	0	0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
I:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-9.69141861532E+03	Apriori delay (usec)	-9.69138201794E+03	Resid mbdelay (usec)	-5.34738E-03	+/-	4.2E-05
Sband delay (usec)	-9.69142458844E+03	Apriori clock (usec)	1.0731983E+01	Resid sbdelay (usec)	-4.25705E-02	+/-	3.3E-04
Phase delay (usec)	-9.69138201598E+03	Apriori clockrate (us/s)	4.1030001E-06	Resid phdelay (usec)	1.95861E-02	+/-	1.4E-07
Delay rate (us/s)	1.09963676698E+00	Apriori rate (us/s)	1.09964483147E+00	Resid rate (us/s)	-8.06449E-06	+/-	5.9E-10
Total phase (deg)		Apriori accel (us/s/s)	4.12329199016E-05	Resid phase (deg)	60.7	+/-	4.4

ph/seg (deg)	RMS 72.6	Theor. 10.6	Amplitude Search (2048X32)	0.573 +/- 0.022	0.425	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	96.8	18.6	Interp.	0.000	4.25	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	56.8	6.3	Inc. seg. avg.	0.846	0.846	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	52.2	10.9	Inc. frq. avg.	0.805	0.805	Sample rate(MISamp/s): 128	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

I: az 45.9 el 29.0 pa -68.4 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -9942.198 3436.493 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/IN..1X0I36 Output file: /Exps/c211c/v1/1234/No0081/IN.W.191.1X0I36

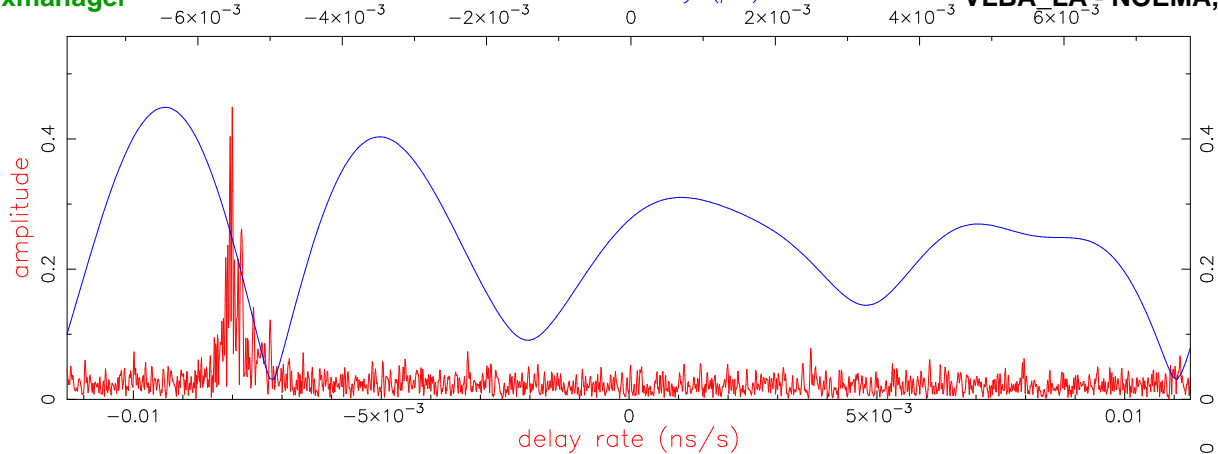
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0I36, No0081, IN

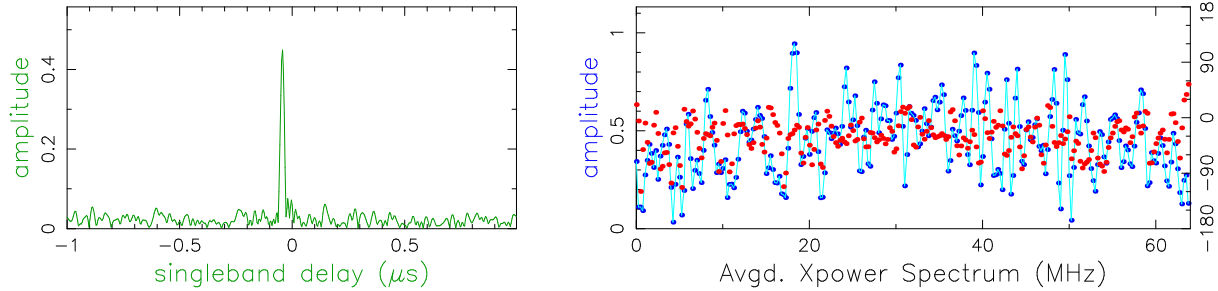
VLBA_LA - NOEMA, fgroup W, pol RR

multiband delay (μ s)

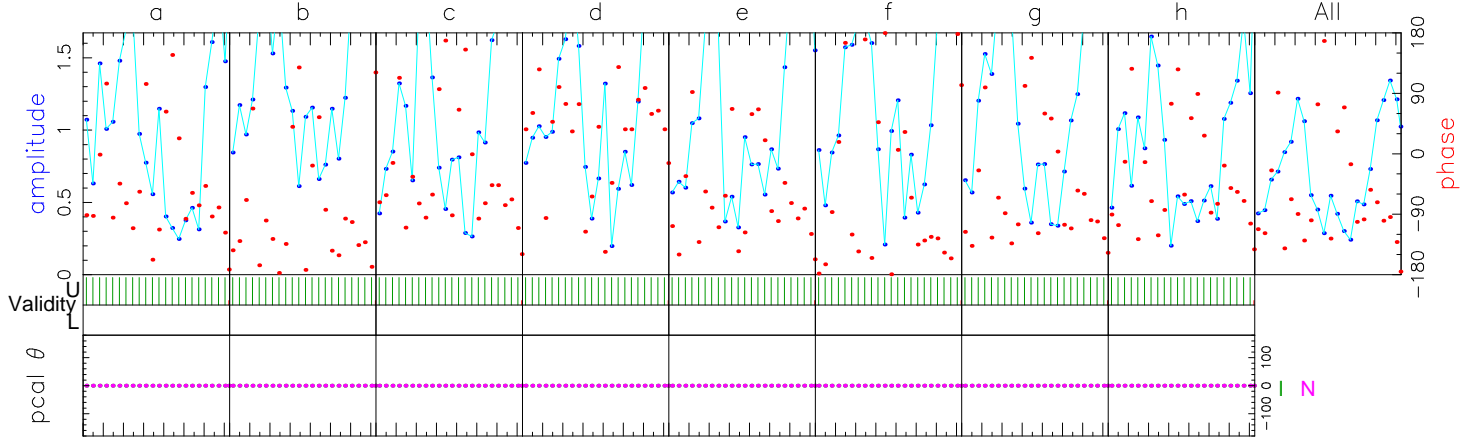


Fringe quality 5

SNR 25.2
 Int time 419.818
 Amp 0.558
 Phase -97.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.043597
 MBD -0.006470
 Fringe rate (Hz)
 -0.690862
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121519
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-82.2	-135.6	-74.7	62.7	-86.3	-151.8	-98.4	-70.4	Phase	-97.5
	0.8	1.1	1.0	1.0	0.9	0.9	1.0	0.7	Ampl.	0.9
	244.4	246.1	246.9	246.7	246.8	246.2	246.0	244.0	Sbd box	245.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
I	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-9.69141973762E+03		Apriori delay (usec)		-9.69138201794E+03		Resid mbdelay (usec)		-6.46968E-03	+/- 4.3E-05
Sband delay (usec)	-9.69142561519E+03		Apriori clock (usec)		1.0731983E+01		Resid sbdelay (usec)		-4.35973E-02	+/- 3.4E-04
Phase delay (usec)	-9.69138202108E+03		Apriori clockrate (us/s)		4.1030001E-06		Resid phdelay (usec)		-3.14280E-06	+/- 1.5E-07
Delay rate (us/s)	1.09963681125E+00		Apriori rate (us/s)		1.09964483147E+00		Resid rate (us/s)		-8.02022E-06	+/- 6.1E-10
Total phase (deg)			Apriori accel (us/s/s)		4.12329199016E-05		Resid phase (deg)		-97.5	+/- 4.5

ph/seg (deg) 77.9 10.9 Search (2048X32) 0.415 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 95.0 19.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 72.6 6.4 Inc. seg. avg. 0.869 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 67.0 11.2 Inc. frq. avg. 0.904 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 I: az 45.9 el 29.0 pa -68.4 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -9942.198 3436.493 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/IN..1X0I36 Output file: /Exps/c211c/v1/1234/No0081/IN.W.215.1X0I36 simultaneous interpolator

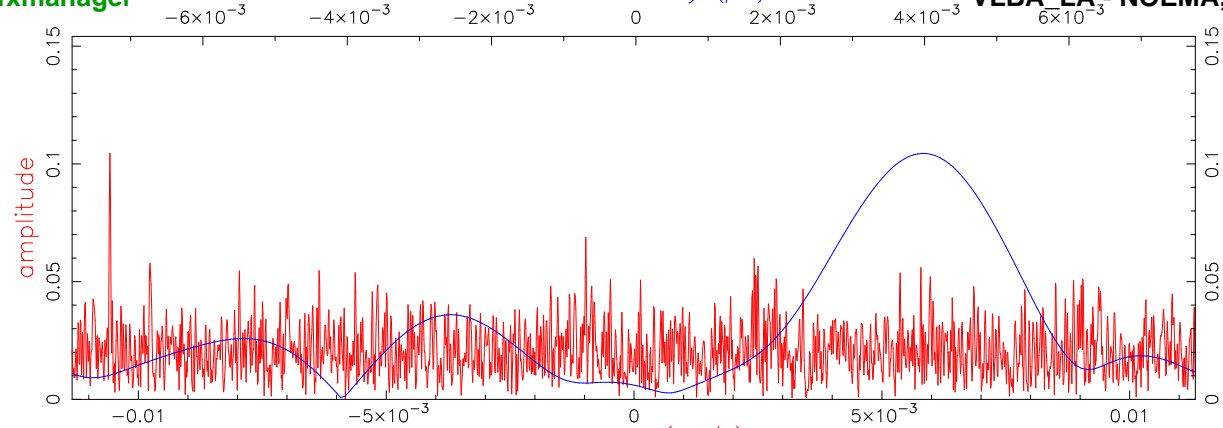
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

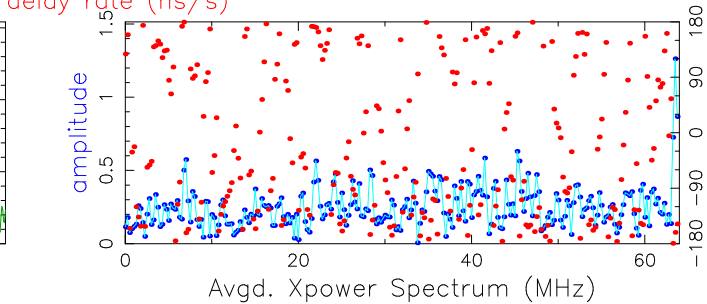
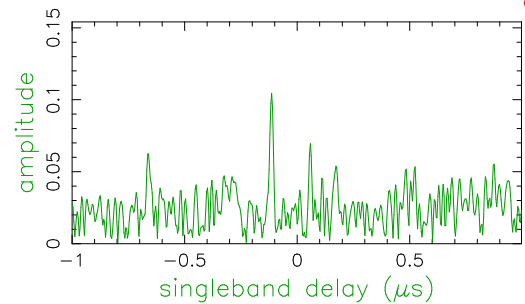
NRAO150.1X0I36, No0081, IN

VLBA_LA- NOEMA, fgroup W, pol LR

multiband delay (μ s)

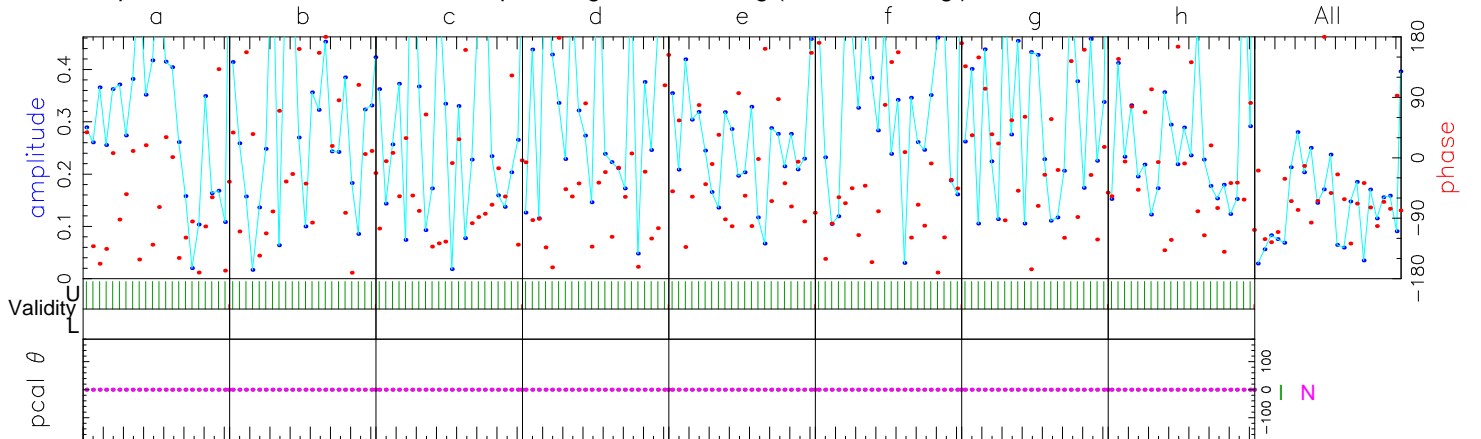


Fringe quality 0
 SNR 5.9
 Int time 419.818
 Amp 0.154
 Phase -75.7
 PFD 7.0e-01
 Delays (us)
 SBD -0.113684
 MBD 0.003999
 Fringe rate (Hz) -0.911800
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121523
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-80.8	-59.4	-77.3	-72.6	-64.3	-105.6	-38.8	-70.8	Phase	-75.7
	0.2	0.1	0.3	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
	174.2	186.7	497.2	471.8	197.5	336.4	57.5	276.9	Sbd box	227.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
I	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-9.69150301888E+03	Apriori delay (usec)	-9.69138201794E+03	Resid mbdelay (usec)	3.99905E-03	+/-	1.9E-04
Sband delay (usec)	-9.69149570194E+03	Apriori clock (usec)	1.0731983E+01	Resid sbdelay (usec)	-1.13684E-01	+/-	1.5E-03
Phase delay (usec)	-9.69138202038E+03	Apriori clockrate (us/s)	4.1030001E-06	Resid phdelay (usec)	-2.44008E-06	+/-	6.3E-07
Delay rate (us/s)	1.09963424638E+00	Apriori rate (us/s)	1.09964483147E+00	Resid rate (us/s)	-1.05851E-05	+/-	2.6E-09
Total phase (deg)	-84.7	Apriori accel (us/s/s)	4.12329199016E-05	Resid phase (deg)	-75.7	+/-	19.6

ph/seg (deg)	53.4	Theor.	46.9	Amplitude	0.154 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	78.4		81.9	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	21.3		27.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	42.0		48.3	Inc. seg. avg.	0.153	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.143	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

I: az 45.9 el 29.0 pa -68.4 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -9942.198 3436.493 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/IN..1X0I36 Output file: /Exps/c211c/v1/1234/No0081/IN.W.234.1X0I36

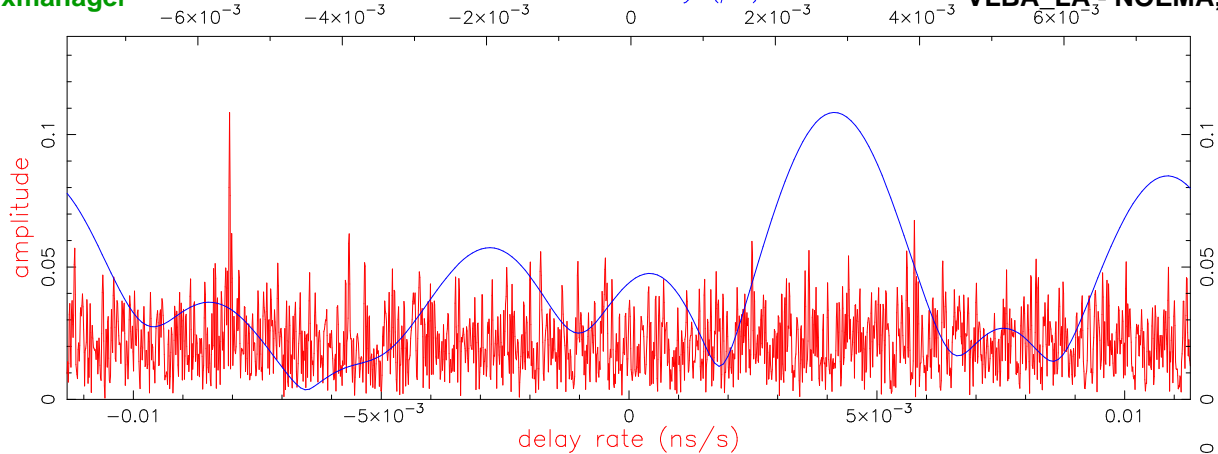
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0I36, No0081, IN

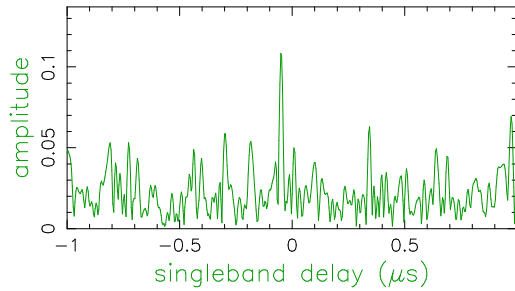
VLBA_LA- NOEMA, fgroup W, pol RL

multiband delay (μs)

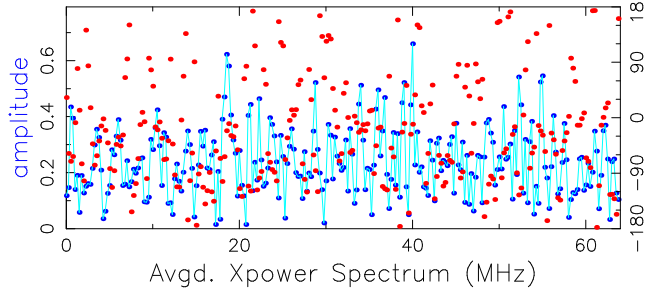


Fringe quality 0

SNR 6.2
Int time 419.820
Amp 0.137
Phase 67.3
PFD 1.6e-01
Delays (us)
SBD -0.049158
MBD 0.002843
Fringe rate (Hz)
-0.695324
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

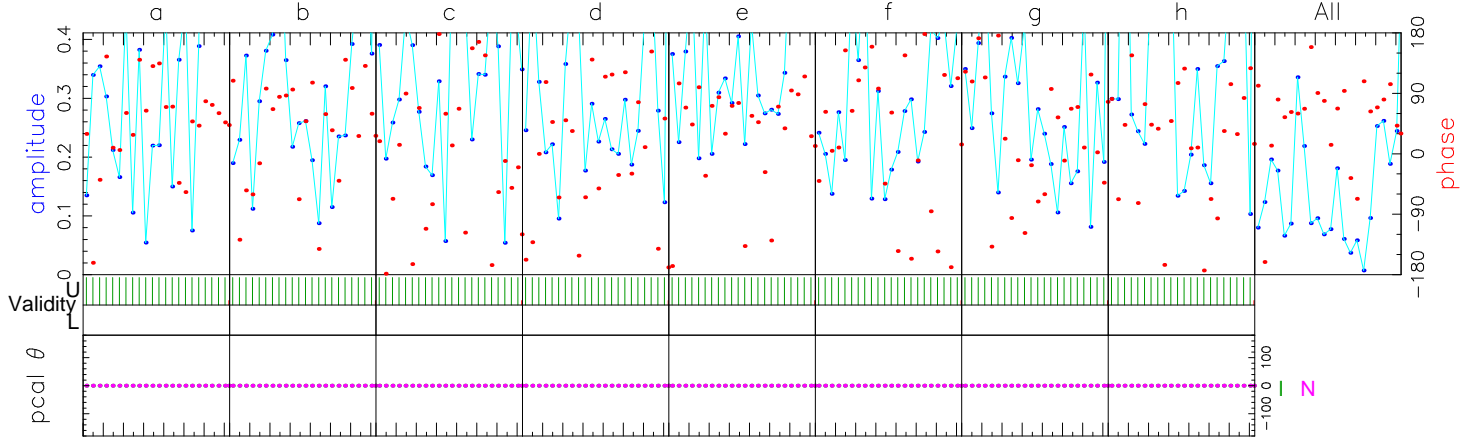


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 150000.00
Stop 150659.84
FRT 150330.00
Corr/FF/build
2021:303:065408
2021:303:121527
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	58.8	70.5	-77.1	101.3	66.5	125.7	21.9	52.0	Phase	67.3
	0.2	0.2	0.0	0.1	0.3	0.1	0.1	0.2	Ampl.	0.1
	243.1	487.5	505.2	503.3	243.8	263.4	411.5	244.7	Sbd box	244.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
I	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-9.69142605023E+03		Apriori delay (usec)		-9.69138201794E+03		Resid mbdelay (usec)		2.84271E-03	+/- 1.8E-04
Sband delay (usec)	-9.69143117544E+03		Apriori clock (usec)		1.0731983E+01		Resid sbdelay (usec)		-4.91575E-02	+/- 1.4E-03
Phase delay (usec)	-9.69138201577E+03		Apriori clockrate (us/s)		4.1030001E-06		Resid phdelay (usec)		2.16926E-06	+/- 6.0E-07
Delay rate (us/s)	1.09963675945E+00		Apriori rate (us/s)		1.09964483147E+00		Resid rate (us/s)		-8.07202E-06	+/- 2.5E-09
Total phase (deg)	58.2		Apriori accel (us/s/s)		4.12329199016E-05		Resid phase (deg)		67.3	+/- 18.5

ph/seg (deg) 55.1 44.5 Search (2048X32) 0.105 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 85.7 77.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 68.0 26.2 Inc. seg. avg. 0.133 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 69.9 45.8 Inc. frq. avg. 0.136 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 I: az 45.9 el 29.0 pa -68.4 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -9942.198 3436.493 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/IN..1X0I36 Output file: /Exps/c211c/v1/1234/No0081/IN.W.242.1X0I36

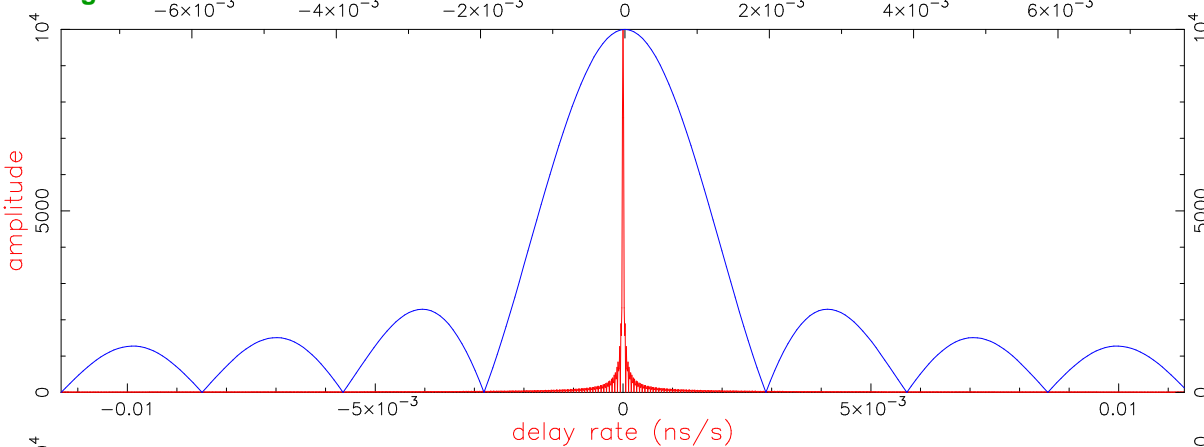
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, NN

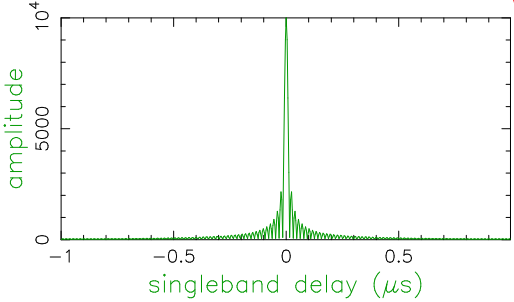
NOEMA - NOEMA, fgroup W, pol LL

multiband delay (μ s)

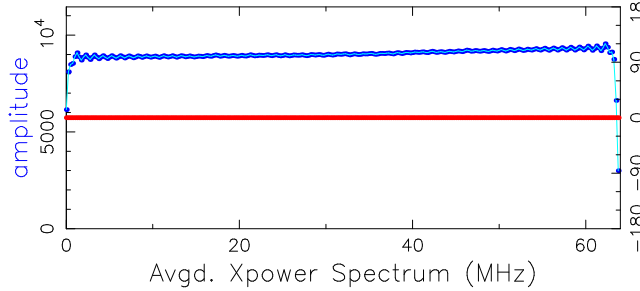


Fringe quality 9

SNR 560310.9
 Int time 419.820
 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

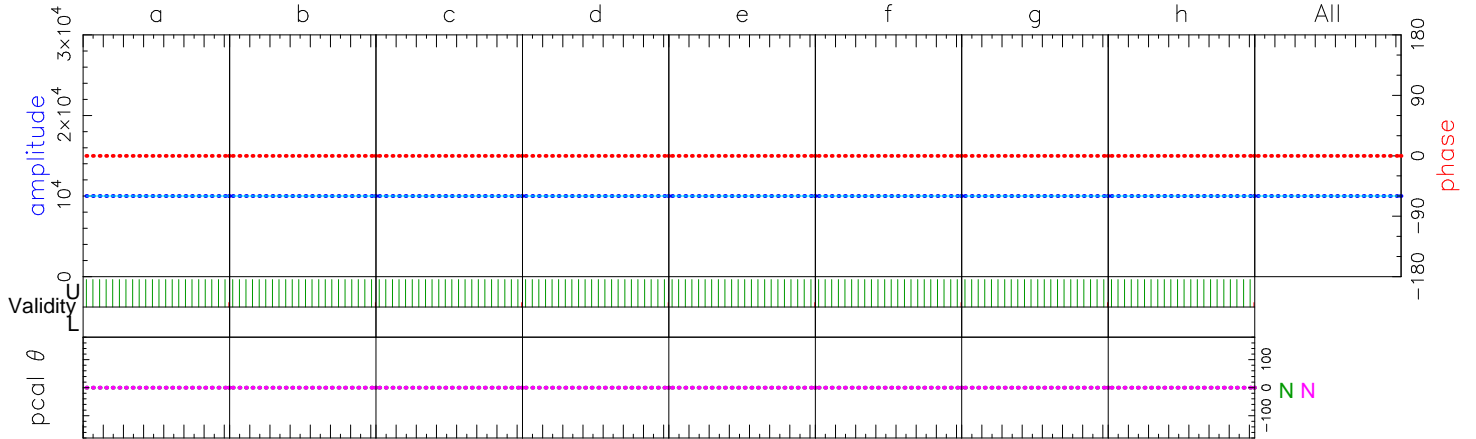


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121527
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	Ampl.	10000.0
N	1000	1000	1000	1000	1000	1000	1000	1000	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:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
N	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	1.9E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.5E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	6.6E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	0.0	Theor.	0.0	Amplitude	10000.001 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	0.0	0.0	0.0	Search (2048X32)	10000.001	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Inc. frq. avg.	10000.001	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	0.0	0.0	0.0	Inc. frq. avg.	10000.001	Inc. frq. avg.	10000.001	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011	
N: az 299.7 el 71.9 pa 101.5	N: az 299.7 el 71.9 pa 101.5	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	simultaneous interpolator		

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/NN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/NN.W.241.1X0136

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

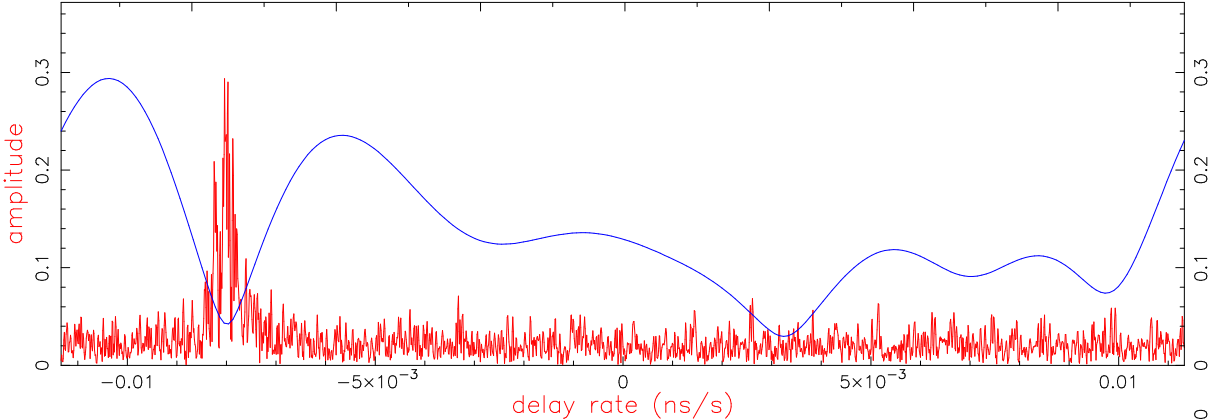
NRAO150.1X0136, No0081, nN

VLBA_NL- NOEMA, fgroup W, pol LL

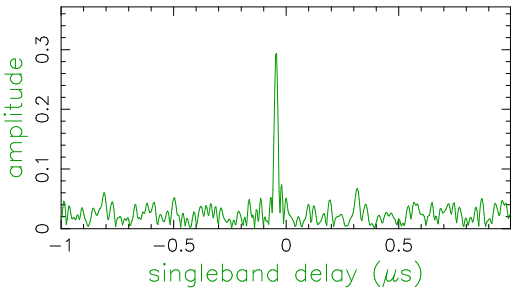
multiband delay (μ s)

-6×10^{-3} -4×10^{-3} -2×10^{-3} 0 2×10^{-3} 4×10^{-3} 6×10^{-3}

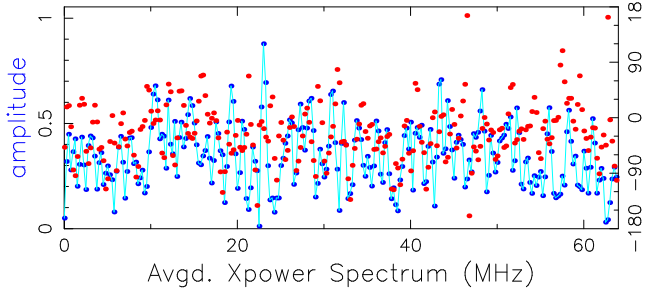
Fringe quality 7



SNR 16.8
Int time 419.820
Amp 0.372
Phase -97.2
PFD 0.0e+00
Delays (us)
SBD -0.044739
MBD -0.007187
Fringe rate (Hz)
-0.693337
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

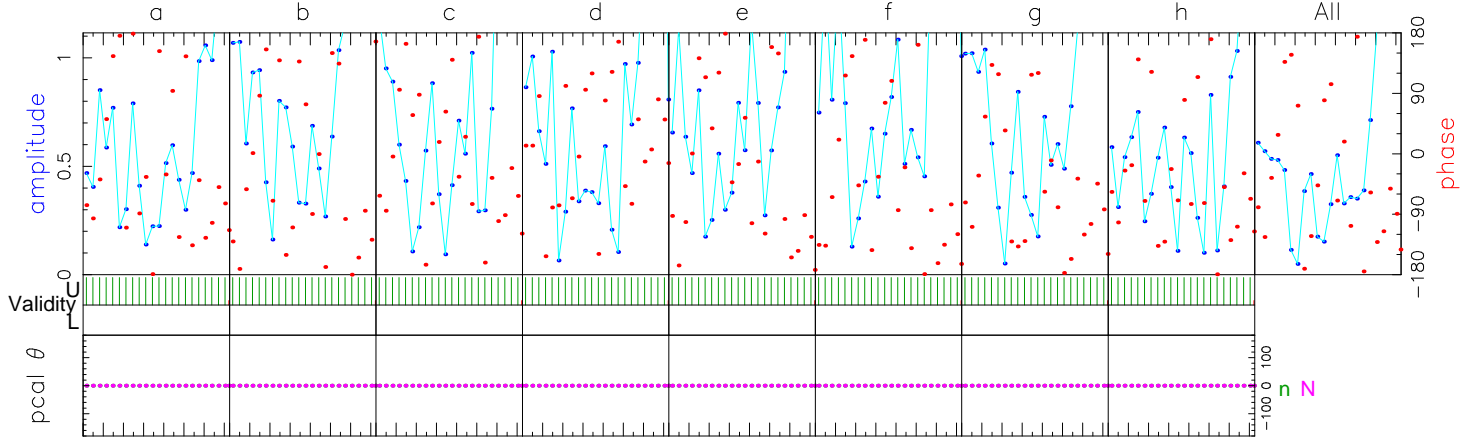


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 150000.00
Stop 150659.84
FRT 150330.00
Corr/FF/build
2021:303:065408
2021:303:121527
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'59.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-91.7	-145.7	-64.9	27.0	-127.5	-119.7	-88.5	-85.1	Phase	-97.2
	0.4	0.6	0.6	0.5	0.6	0.6	0.6	0.3	Ampl.	0.5
	244.0	245.5	246.5	246.1	245.9	245.6	245.4	243.7	Sbd box	245.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.90406209547E+03		Apriori delay (usec)		-5.90402365857E+03		Resid mbdelay (usec)		-7.18690E-03	+/- 6.5E-05
Sband delay (usec)	-5.90406839807E+03		Apriori clock (usec)		1.8831656E+01		Resid sbdelay (usec)		-4.47395E-02	+/- 5.1E-04
Phase delay (usec)	-5.90402366171E+03		Apriori clockrate (us/s)		4.6890001E-06		Resid phdelay (usec)		-3.13581E-06	+/- 2.2E-07
Delay rate (us/s)	9.98611342480E-01		Apriori rate (us/s)		9.98619391438E-01		Resid rate (us/s)		-8.04896E-06	+/- 9.1E-10
Total phase (deg)			Apriori accel (us/s/s)		2.82757600588E-05		Resid phase (deg)		-97.2	+/- 6.8

	RMS	Theor.	Amplitude	0.372 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	89.4	16.4	Search (2048X32)	0.286	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	146.7	28.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	58.5	9.7	Inc. seg. avg.	0.654	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	49.3	16.9	Inc. frq. avg.	0.513	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

n: az 53.0 el 41.5 pa -71.2 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -9044.899 2623.921 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/nN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/nN.W.244.1X0136

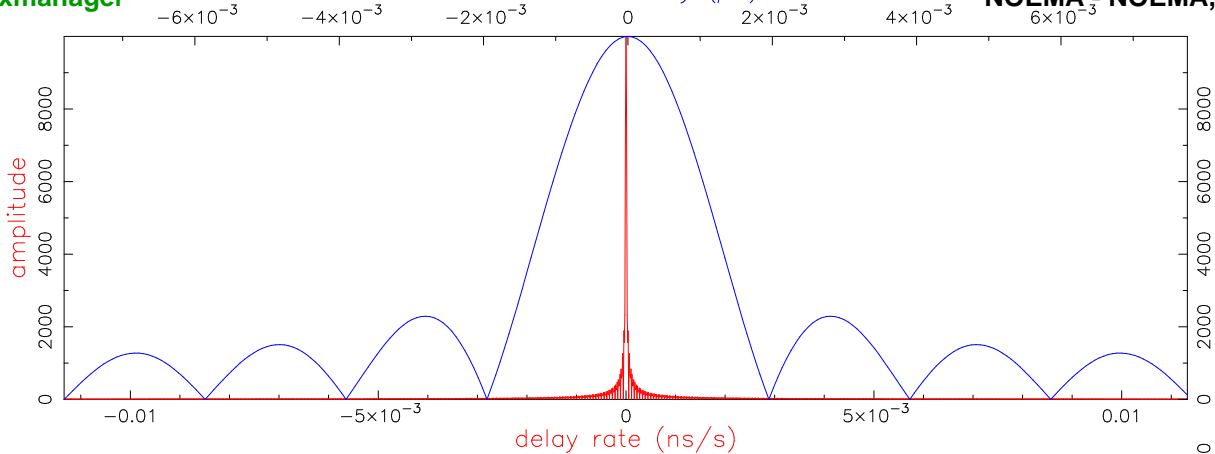
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, NN

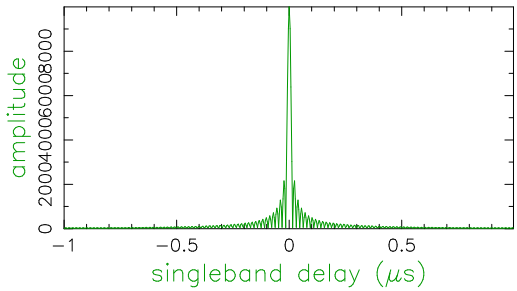
NOEMA - NOEMA, fgroup W, pol RR

multiband delay (μ s)

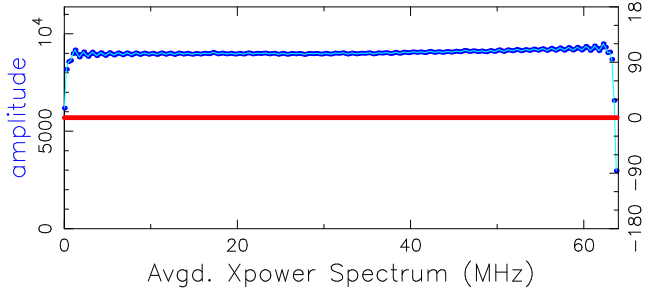


Fringe quality 9

SNR 560309.7
 Int time 419.818
 Amp 9999.999
 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

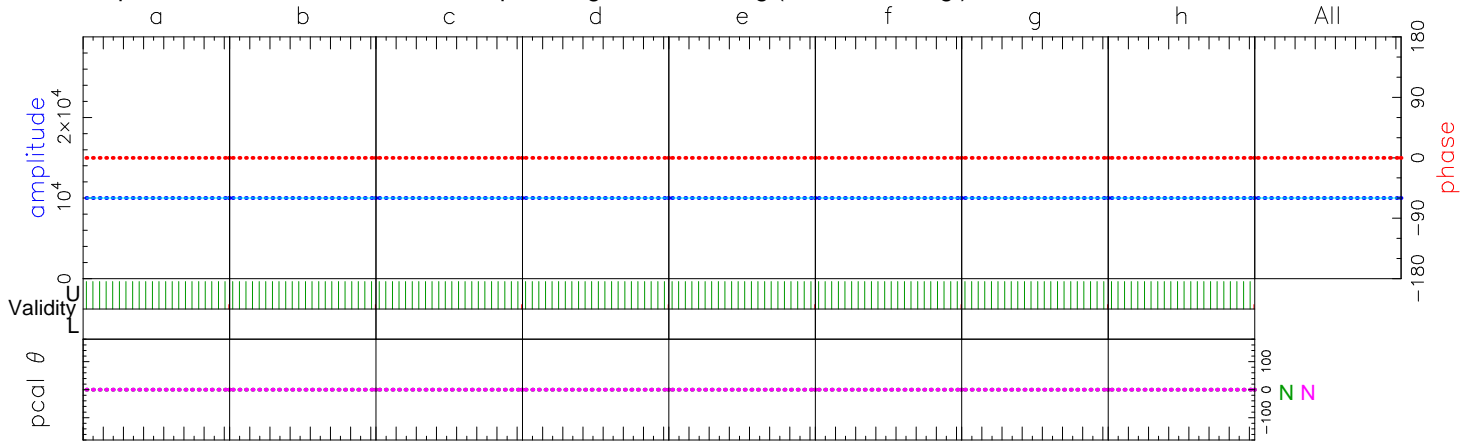


delay rate (ns/s)



Exp. c211c
 Yr:day 16383
 Start 2021:116
 Stop 2021:116
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121530
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	1.9E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.5E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	6.6E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg) 0.0 0.0 Theor. Amplitude 9999.999 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.000 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 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 299.7 el 71.9 pa 101.5 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/NN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/NN.W.260.1X0136

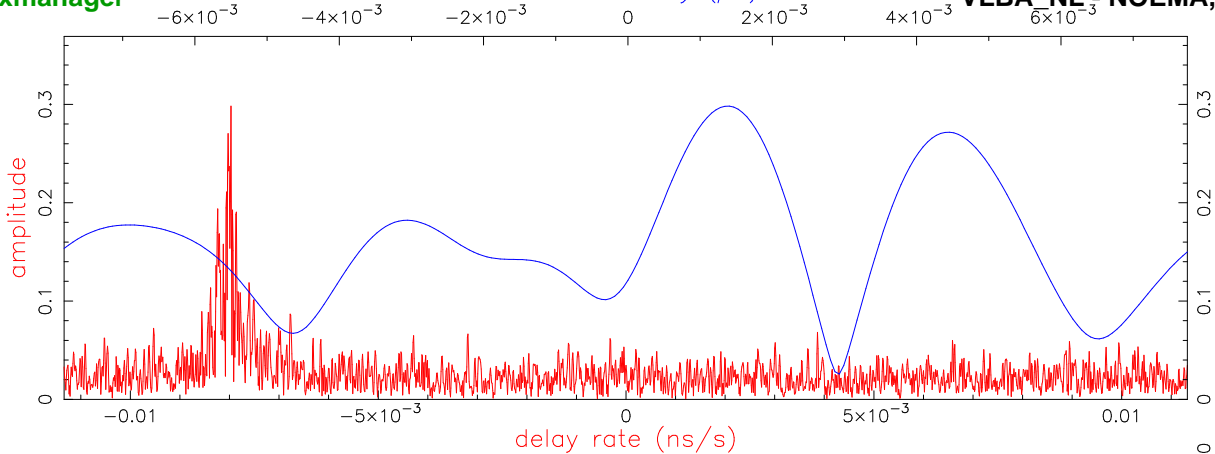
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, nN

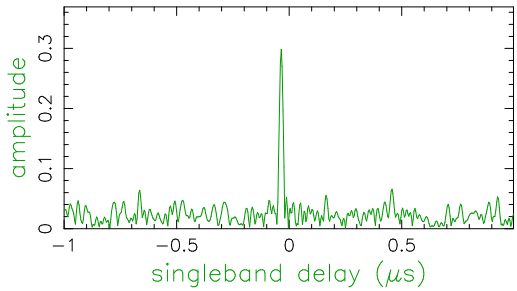
VLBA_NL - NOEMA, fgroup W, pol RR

multiband delay (μ s)

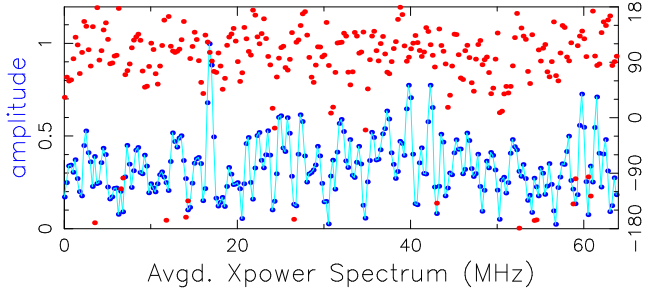


Fringe quality 7

SNR 16.7
 Int time 419.818
 Amp 0.369
 Phase 47.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.035299
 MBD 0.001377
 Fringe rate (Hz)
 -0.688026
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

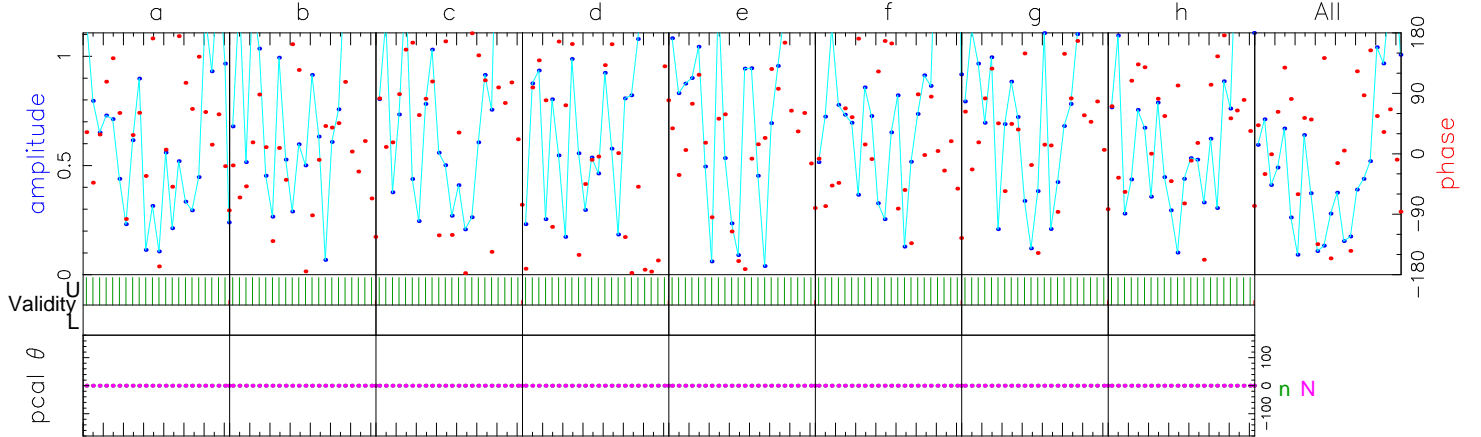


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121531
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	47.5	-5.6	93.4	175.4	46.7	-11.1	48.9	64.5	Phase	47.9
	0.4	0.6	0.6	0.6	0.7	0.6	0.7	0.4	Ampl.	0.6
	246.6	248.3	248.7	248.6	248.5	248.2	248.1	246.7	Sbd box	248.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.90405353191E+03		Apriori delay (usec)		-5.90402365857E+03		Resid mbdelay (usec)		1.37666E-03	+/- 6.5E-05
Sband delay (usec)	-5.90405895807E+03		Apriori clock (usec)		1.8831656E+01		Resid sbdelay (usec)		-3.52995E-02	+/- 5.2E-04
Phase delay (usec)	-5.90402365703E+03		Apriori clockrate (us/s)		4.6890001E-06		Resid phdelay (usec)		1.54334E-06	+/- 2.2E-07
Delay rate (us/s)	9.98611404139E-01		Apriori rate (us/s)		9.98619391438E-01		Resid rate (us/s)		-7.98730E-06	+/- 9.1E-10
Total phase (deg)			Apriori accel (us/s/s)		2.82757600588E-05		Resid phase (deg)		47.9	+/- 6.9

ph/seg (deg) 82.8 16.4 Theor. Amplitude 0.369 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 138.4 28.7 Search (2048X32) 0.270 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 64.5 9.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 65.0 16.9 Inc. seg. avg. 0.619 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 n: az 53.0 el 41.5 pa -71.2 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -9044.899 2623.921 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/nN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/nN.W.262.1X0136 simultaneous interpolator

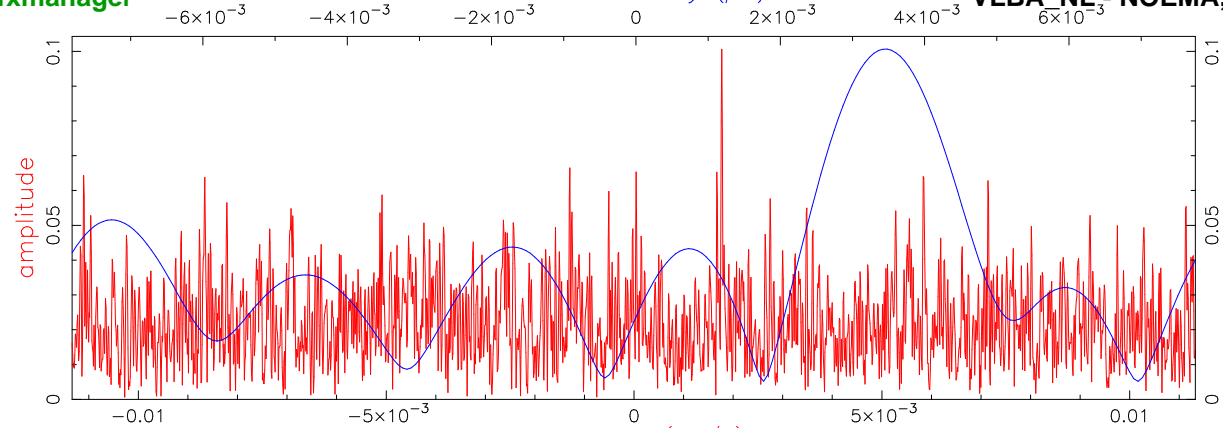
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

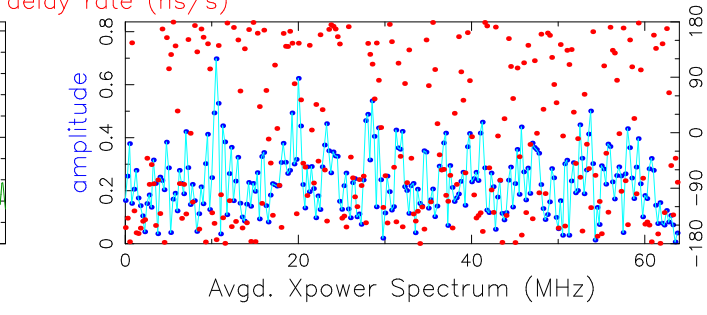
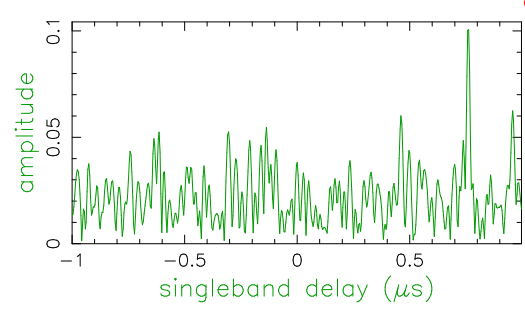
NRAO150.1X0136, No0081, nN

VLBA_NL- NOEMA, fgroup W, pol LR

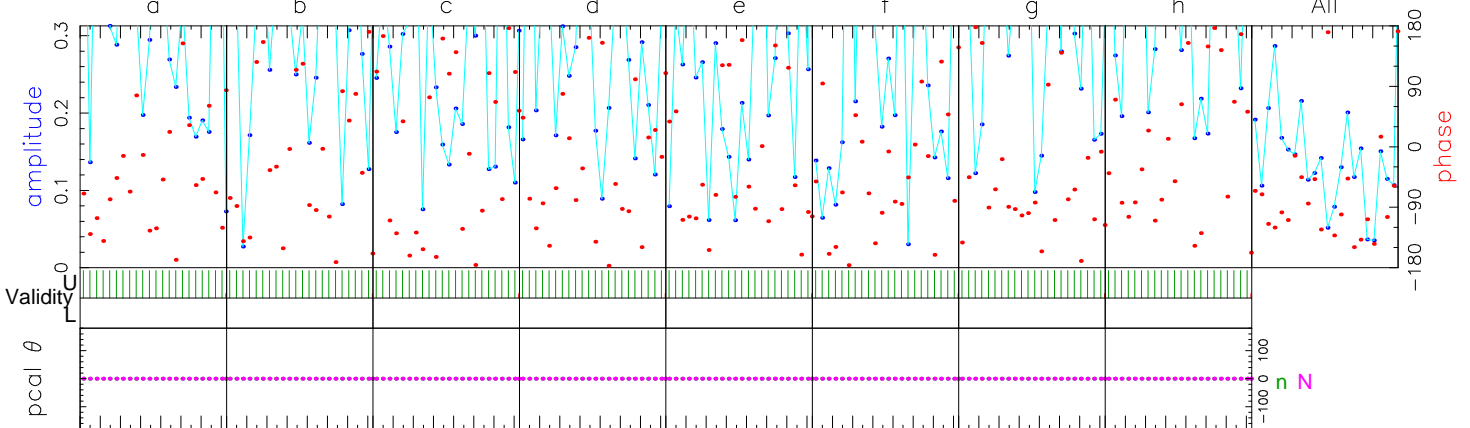
multiband delay (μ s)



Fringe quality 0
 SNR 5.8
 Int time 419.818
 Amp 0.104
 Phase -90.2
 PFD 8.4e-01
 Delays (us)
 SBD 0.759816
 MBD 0.003424
 Fringe rate (Hz)
 0.152877
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121534
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-80.8	-83.0	-152.3	-79.9	-99.8	-73.8	-87.9	-81.1	Phase	-90.2
	0.2	0.0	0.1	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1
	451.5	101.4	412.0	163.8	264.8	94.7	452.4	197.5	Sbd box	451.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	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	
									Tracks	
Group delay (usec)(sbd)	-5.90327023447E+03		Apriori delay (usec)		-5.90402365857E+03		Resid mbdelay (usec)		3.42410E-03	+/- 1.9E-04
Sband delay (usec)	-5.90326384232E+03		Apriori clock (usec)		1.8831656E+01		Resid sbdelay (usec)		7.59816E-01	+/- 1.5E-03
Phase delay (usec)	-5.90402366148E+03		Apriori clockrate (us/s)		4.6890001E-06		Resid phdelay (usec)		-2.90996E-06	+/- 6.4E-07
Delay rate (us/s)	9.98621166187E-01		Apriori rate (us/s)		9.98619391438E-01		Resid rate (us/s)		1.77475E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		2.82757600588E-05		Resid phase (deg)		-90.2	+/- 19.8

ph/seg (deg) 47.6 47.5 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 69.2 82.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 27.6 28.0 Inc. seg. avg. 0.105 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 54.5 48.9 Inc. frq. avg. 0.097 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 53.0 el 41.5 pa -71.2 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) -9044.899 2623.921 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/nN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/nN.W.280.1X0136

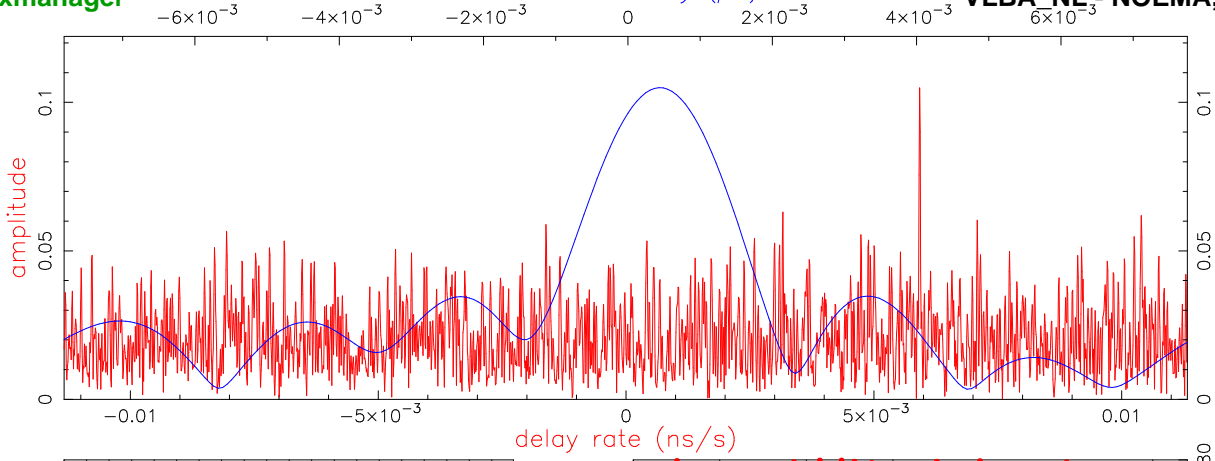
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, nN

VLBA_NL- NOEMA, fgroup W, pol RL

multiband delay (μ s)



Fringe quality 0

SNR 6.1

Int time 419.820

Amp 0.122

Phase -92.5

PFD 2.4e-01

Delays (us)

SBD -0.523010

MBD 0.000414

Fringe rate (Hz) 0.510748

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.512

Exp. c211c

Exper # 16383

Yr:day 2021:116

Start 150000.00

Stop 150659.84

FRT 150330.00

Corr/FF/build

2021:303:065408

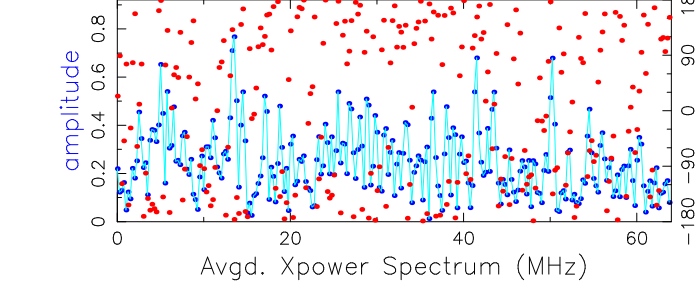
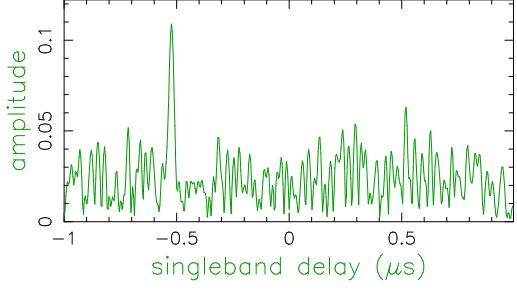
2021:303:121539

2021:252:122852

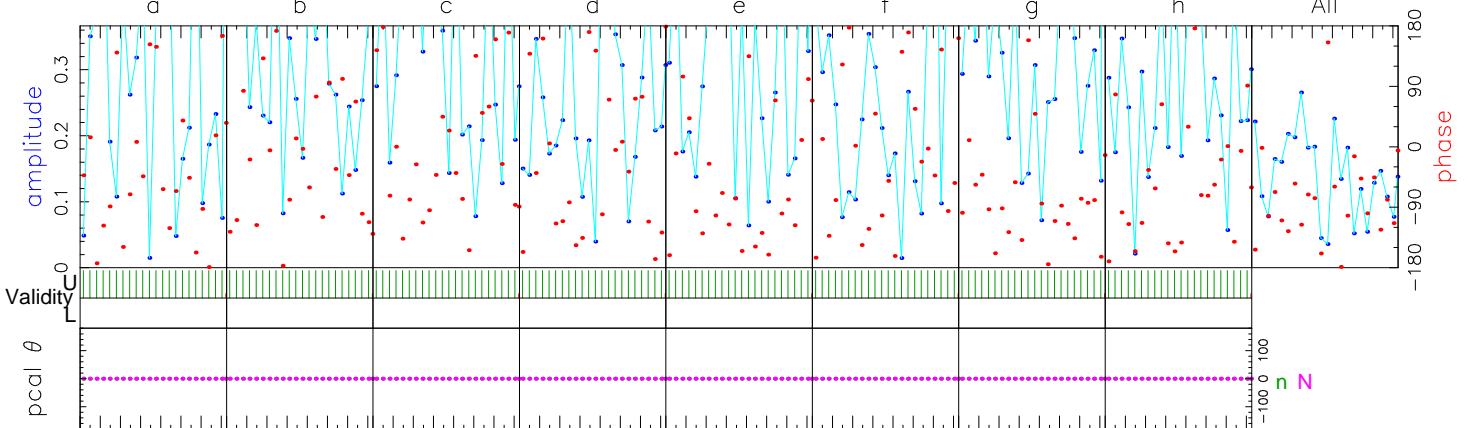
RA & Dec (J2000)

03h59m29.747267s

+50°57'50.161694"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-106.0	-93.8	-79.1	-99.6	-93.2	-83.0	-87.6	-107.2	Phase	-92.5	
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1	
	63.7	13.1	210.9	177.6	458.8	506.9	123.6	251.6	Sbd box	123.1	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used		
n	0	0	0	0	0	0	0	0	PC freqs		
N	1000	1000	1000	1000	1000	1000	1000	1000	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		
									Tracks		
Group delay (usec)(sbd)	-5.90453886976E+03		Apriori delay (usec)		-5.90402365857E+03		Resid mbdelay (usec)		4.13813E-04	+/- 1.8E-04	
Sband delay (usec)	-5.90454666857E+03		Apriori clock (usec)		1.8831656E+01		Resid sbdelay (usec)		-5.23010E-01	+/- 1.4E-03	
Phase delay (usec)	-5.90402366155E+03		Apriori clockrate (us/s)		4.6890001E-06		Resid phdelay (usec)		-2.98367E-06	+/- 6.1E-07	
Delay rate (us/s)	9.98625320714E-01		Apriori rate (us/s)		9.98619391438E-01		Resid rate (us/s)		5.92928E-06	+/- 2.5E-09	
Total phase (deg)			Apriori accel (us/s/s)		2.82757600588E-05		Resid phase (deg)		-92.5	+/- 18.8	
	RMS	Theor.	Amplitude	0.122 +/- 0.020	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	50.1	45.0	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
amp/seg (%)	64.7	78.6	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	11.1	26.6	Inc. seg. avg.	0.120	Sample rate(MISamp/s): 128		dr window (ns/s)		-0.011	0.011	
amp/frq (%)	34.5	46.3	Inc. frq. avg.	0.108	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
n: az 53.0 el 41.5 pa -71.2	N: az 299.7 el 71.9 pa 101.5		u,v (fr/asec) -9044.899 2623.921						simultaneous interpolator		

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/nN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/nN.W.302.1X0136

Mk4/DiFX fourfit 3.21 rev 2937

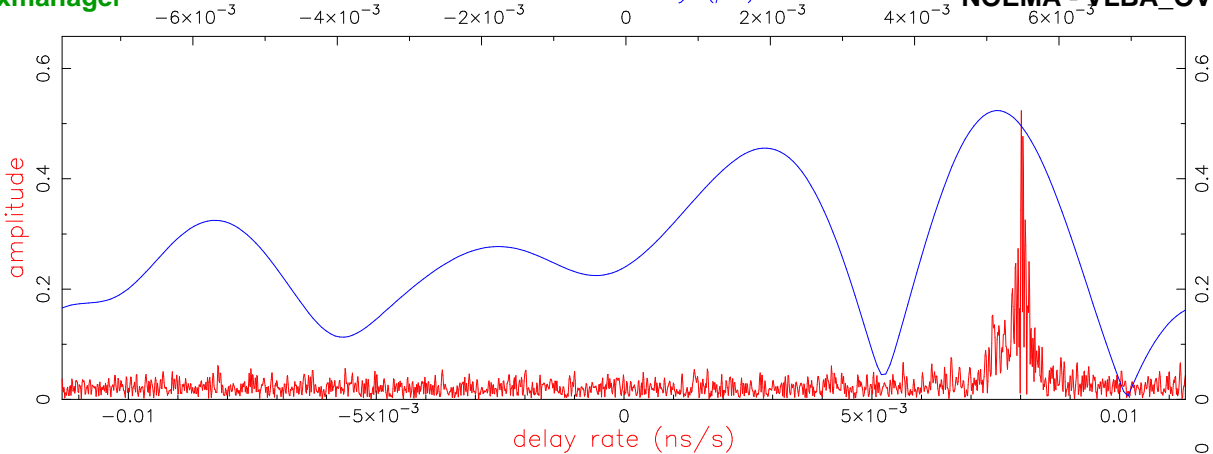
fxmanager

NRAO150.1X0136, No0081, No

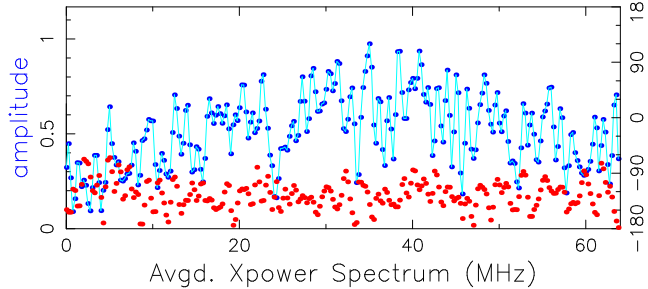
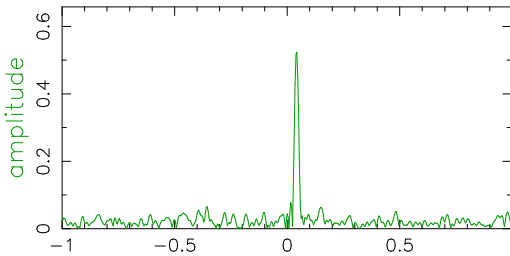
NOEMA - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 3

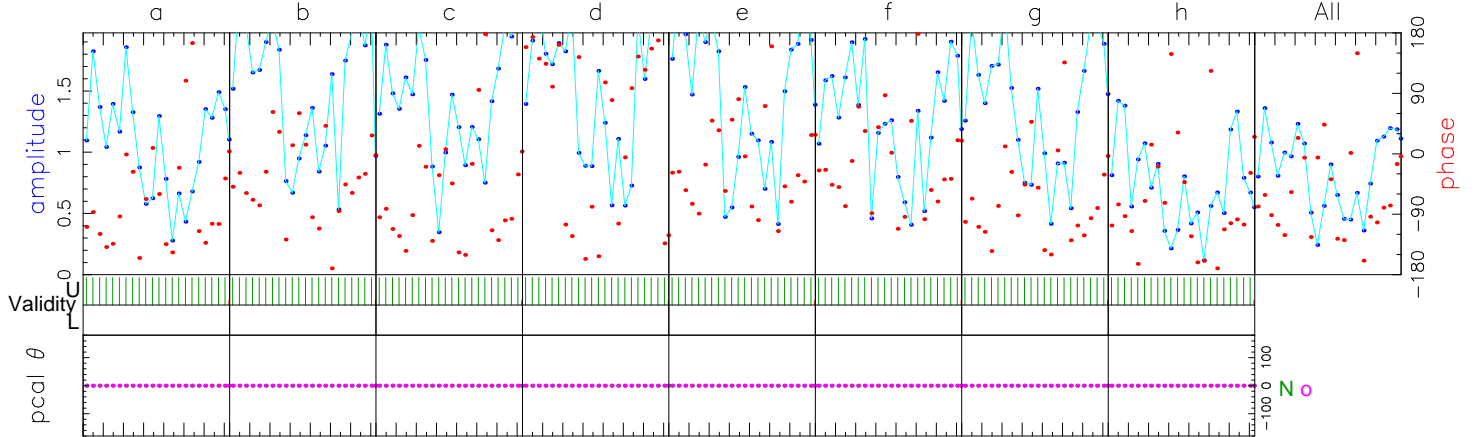


SNR 29.7
 Int time 419.820
 Amp 0.658
 Phase -68.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.041358
 MBD 0.005116
 Fringe rate (Hz) 0.691425
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121528
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-92.6	-31.7	-83.6	169.9	-28.9	-23.5	-80.0	-91.7	Phase	-68.6
	0.8	1.2	1.0	1.2	1.2	0.9	1.1	0.6	Ampl.	1.0
	269.2	267.6	266.8	267.2	267.3	266.9	267.8	269.4	Sbd box	267.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
N:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.15994642090E+04		Apriori delay (usec)		1.15994278432E+04		Resid mbdelay (usec)		5.11579E-03	+/- 3.6E-05
Sband delay (usec)	1.15994692014E+04		Apriori clock (usec)		-1.7100515E+01		Resid sbdelay (usec)		4.13583E-02	+/- 2.9E-04
Phase delay (usec)	1.15994278410E+04		Apriori clockrate (us/s)		-4.7489998E-06		Resid phdelay (usec)		-2.21286E-06	+/- 1.2E-07
Delay rate (us/s)	-1.07970721697E+00		Apriori rate (us/s)		-1.07971524373E+00		Resid rate (us/s)		8.02676E-06	+/- 5.1E-10
Total phase (deg)	80.0		Apriori accel (us/s/s)		-5.31982166129E-05		Resid phase (deg)		-68.6	+/- 3.9

	RMS	Theor.	Amplitude	0.658 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	61.4	9.2	Search (2048X32)	0.517	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	82.7	16.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	59.4	5.4	Inc. seg. avg.	1.030	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	60.2	9.5	Inc. frq. avg.	0.996	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

N: az 299.7 el 71.9 pa 101.5 o: az 42.6 el 23.2 pa -59.0 u,v (fr/asec) 9741.404 -4709.733 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/No..1X0136 Output file: /Exps/c211c/v1/1234/No0081/No.W.248.1X0136

Mk4/DiFX fourfit 3.21 rev 2937

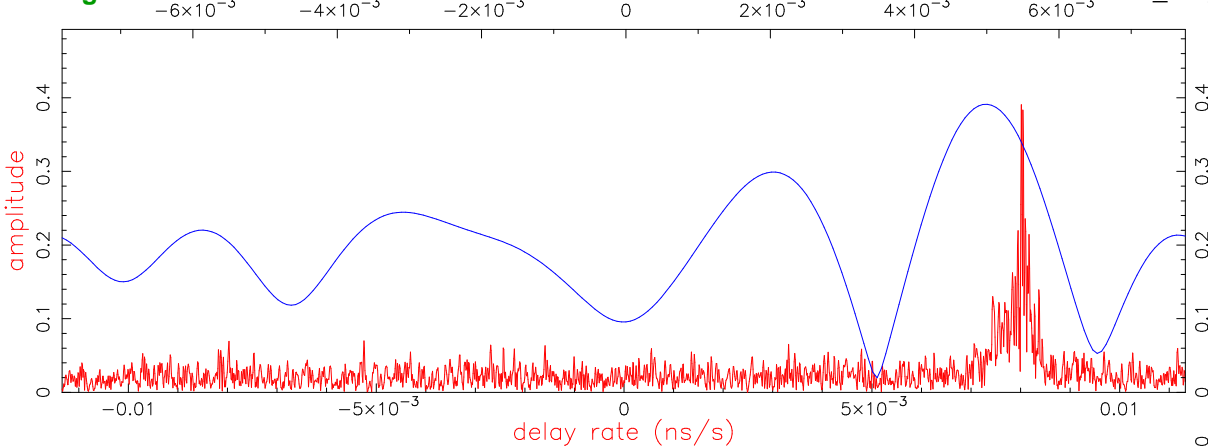
fxmanager

NRAO150.1X0136, No0081, No

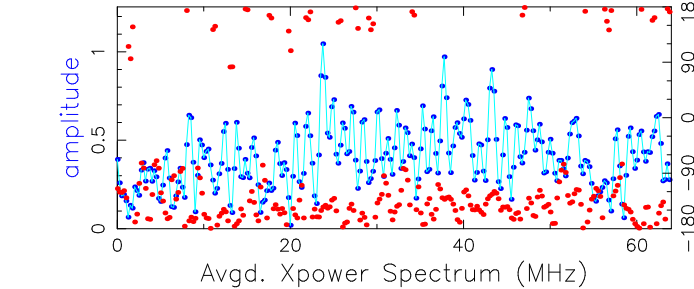
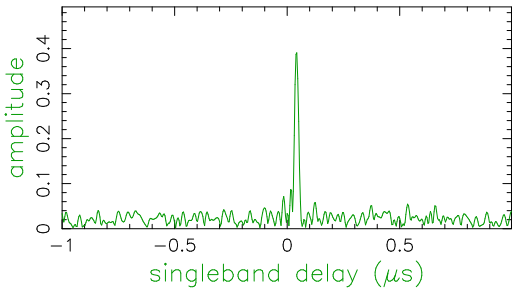
NOEMA - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 7

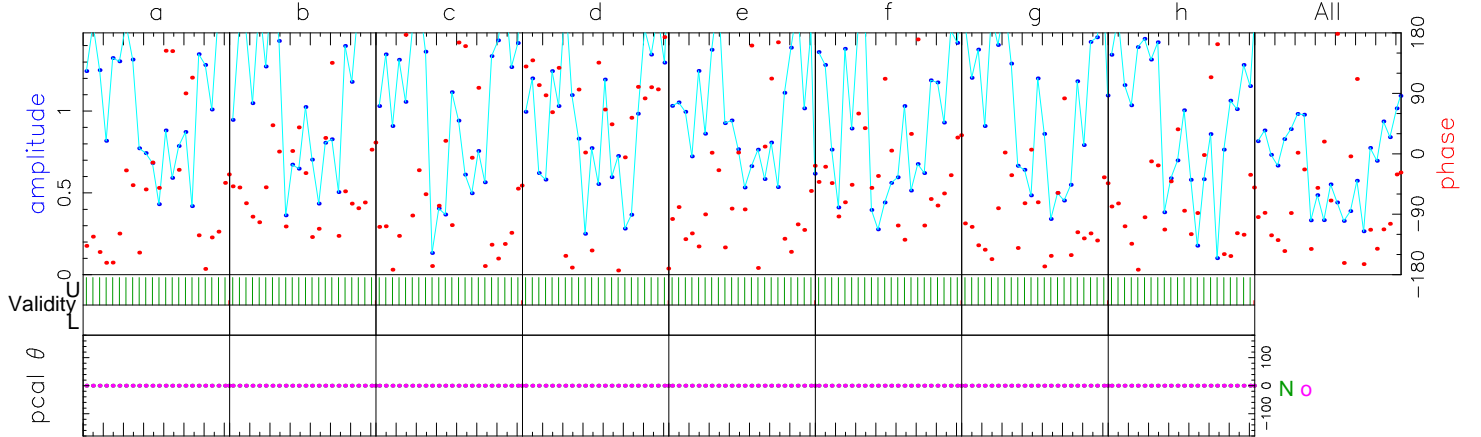


SNR 22.3
 Int time 419.818
 Amp 0.493
 Phase -91.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.041196
 MBD 0.004939
 Fringe rate (Hz) 0.691513
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c211c
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121532
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-113.4	-48.8	-115.2	118.8	-98.9	-35.0	-100.7	-89.9	Phase	-91.5
	0.7	0.9	0.8	0.7	0.7	0.6	0.8	0.7	Ampl.	0.7
	269.5	267.0	266.7	266.8	266.7	267.0	267.8	269.8	Sbd box	267.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
N:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 1.15994640321E+04 Apriori delay (usec) 1.15994278432E+04 Resid mbdelay (usec) 4.93894E-03 +/- 4.9E-05
 Sband delay (usec) 1.15994690389E+04 Apriori clock (usec) -1.7100515E+01 Resid sbdelay (usec) 4.11958E-02 +/- 3.9E-04
 Phase delay (usec) 1.15994278402E+04 Apriori clockrate (us/s) -4.7489998E-06 Resid phdelay (usec) -2.95172E-06 +/- 1.7E-07
 Delay rate (us/s) -1.07970721594E+00 Apriori rate (us/s) -1.07971524373E+00 Resid rate (us/s) 8.02778E-06 +/- 6.8E-10
 Total phase (deg) 57.0 Apriori accel (us/s/s) -5.31982166129E-05 Resid phase (deg) -91.5 +/- 5.1

RMS Theor. Amplitude 0.493 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 65.0 12.3 Search (2048X32) 0.382 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 92.3 21.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 69.0 7.3 Inc. seg. avg. 0.816 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 52.2 12.7 Inc. frq. avg. 0.732 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 299.7 el 71.9 pa 101.5 o: az 42.6 el 23.2 pa -59.0 u,v (fr/asec) 9741.404 -4709.733 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/No..1X0136 Output file: /Exps/c211c/v1/1234/No0081/No.W.268.1X0136

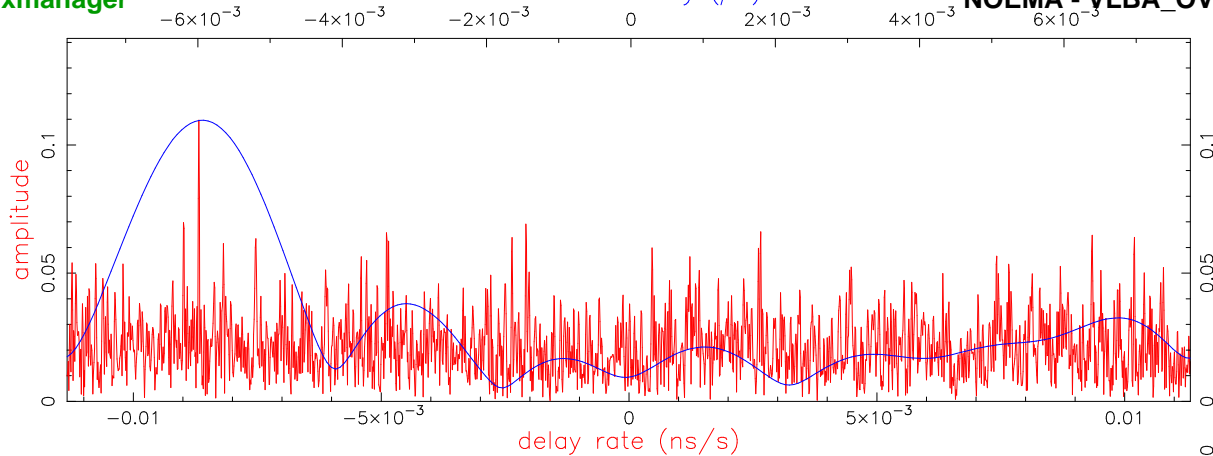
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, No

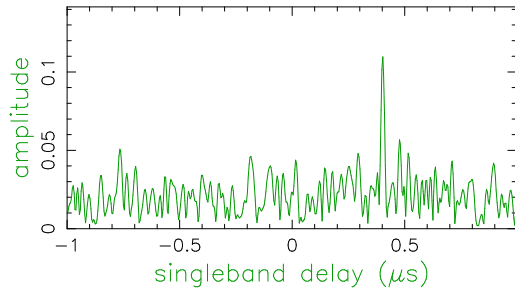
NOEMA - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

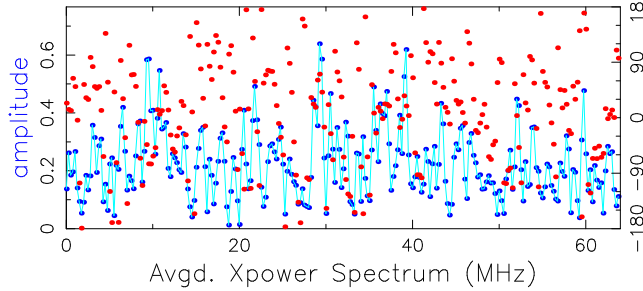


Fringe quality 0

SNR 6.1
 Int time 419.820
 Amp 0.142
 Phase 39.6
 PFD 1.9e-01
 Delays (us)
 SBD 0.401954
 MBD -0.005951
 Fringe rate (Hz)
 -0.748901
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

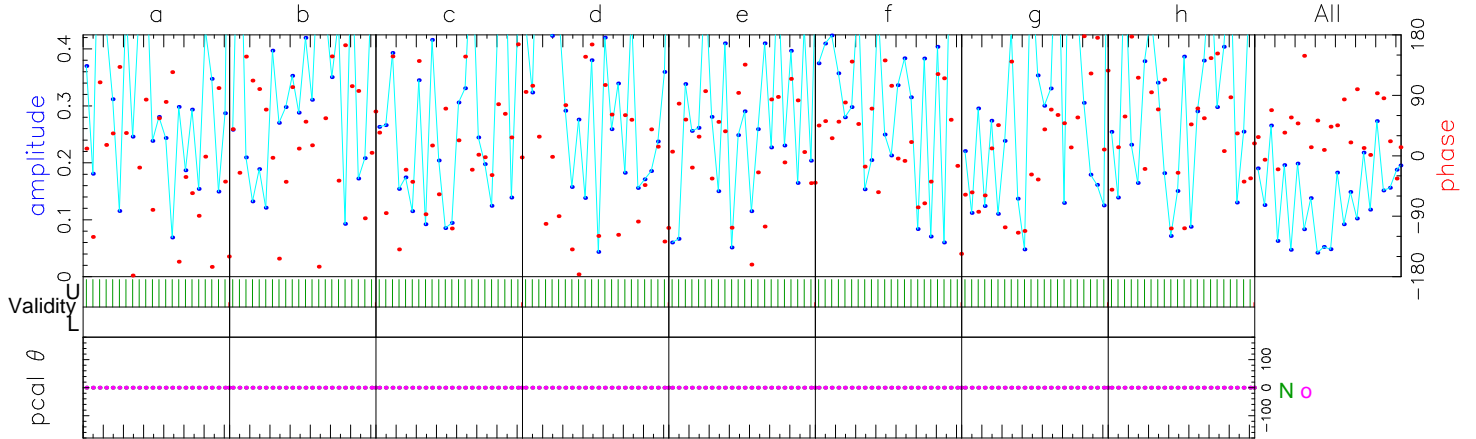


singleband delay (μ s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121536
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
N:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
N:o	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		
o	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	1.15998281420E+04	Apriori delay (usec)	1.15994278432E+04	Resid mbdelay (usec)	-5.95121E-03	+/-	1.8E-04
Sband delay (usec)	1.15998297972E+04	Apriori clock (usec)	-1.7100515E+01	Resid sbdelay (usec)	4.01954E-01	+/-	1.4E-03
Phase delay (usec)	1.15994278445E+04	Apriori clockrate (us/s)	-4.7489998E-06	Resid phdelay (usec)	1.27810E-06	+/-	6.0E-07
Delay rate (us/s)	-1.07972393773E+00	Apriori rate (us/s)	-1.07971524373E+00	Resid rate (us/s)	-8.69400E-06	+/-	2.5E-09
Total phase (deg)	188.2	Apriori accel (us/s/s)	-5.31982166129E-05	Resid phase (deg)	39.6	+/-	18.6

ph/seg (deg)	42.3	Theor.	44.7	Amplitude	0.142 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	67.7	Search (2048X32)	0.104	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	13.5	Inc. seg. avg.	0.139	Inc. frq. avg.	0.130	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	32.8	Inc. frq. avg.	0.130			Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

N: az 299.7 el 71.9 pa 101.5 o: az 42.6 el 23.2 pa -59.0 u,v (fr/asec) 9741.404 -4709.733 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/No..1X0136 Output file: /Exps/c211c/v1/1234/No0081/No.W.289.1X0136

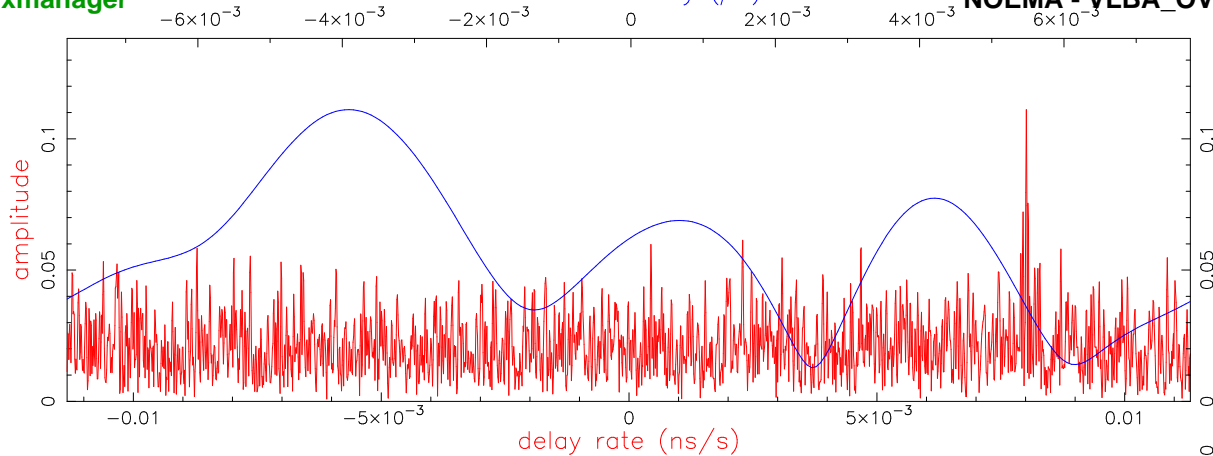
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, No

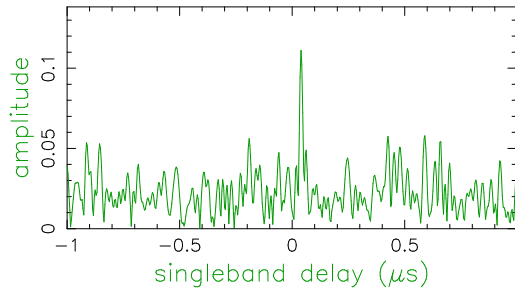
NOEMA - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

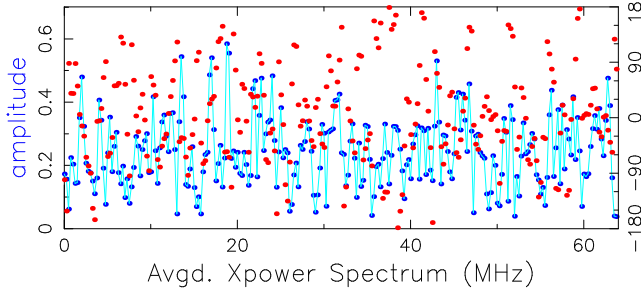


Fringe quality 0

SNR 6.2
Int time 419.818
Amp 0.138
Phase 142.1
PFD 1.1e-01
Delays (us)
SBD 0.039695
MBD -0.003912
Fringe rate (Hz) 0.691210
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

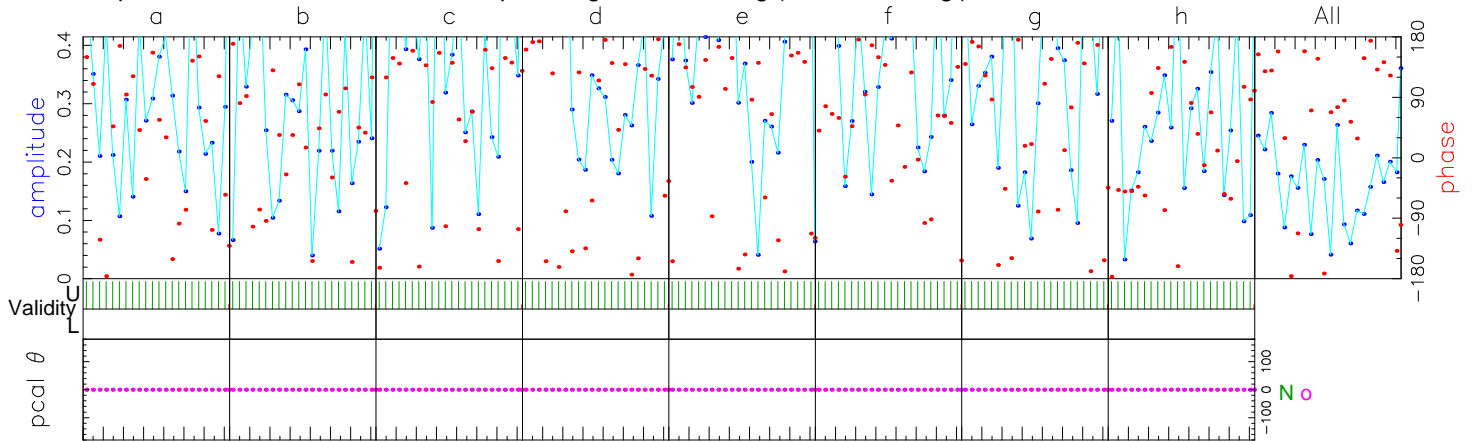


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 150000.00
Stop 150659.84
FRT 150330.00
Corr/FF/build
2021:303:065408
2021:303:121540
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	130.3	49.7	149.1	-175.9	166.5	76.1	164.1	-2.0	Phase	142.1
	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.1	Ampl.	0.2
	391.4	370.9	267.0	267.1	266.5	265.9	267.2	347.2	Sbd box	267.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
N:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.15994708058E+04		Apriori delay (usec)		1.15994278432E+04		Resid mbdelay (usec)		-3.91243E-03	+/- 1.7E-04
Sband delay (usec)	1.15994675384E+04		Apriori clock (usec)		-1.7100515E+01		Resid sbdelay (usec)		3.96953E-02	+/- 1.4E-03
Phase delay (usec)	1.15994278478E+04		Apriori clockrate (us/s)		-4.7489998E-06		Resid phdelay (usec)		4.58111E-06	+/- 5.9E-07
Delay rate (us/s)	-1.07970721946E+00		Apriori rate (us/s)		-1.07971524373E+00		Resid rate (us/s)		8.02426E-06	+/- 2.4E-09
Total phase (deg)	290.6		Apriori accel (us/s/s)		-5.31982166129E-05		Resid phase (deg)		142.1	+/- 18.3

ph/seg (deg) 59.3 44.0 Search (2048X32) 0.107 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 78.0 76.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 78.2 25.9 Inc. seg. avg. 0.160 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 77.6 45.3 Inc. frq. avg. 0.182 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 N: az 299.7 el 71.9 pa 101.5 o: az 42.6 el 23.2 pa -59.0 u,v (fr/asec) 9741.404 -4709.733 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/No..1X0136 Output file: /Exps/c211c/v1/1234/No0081/No.W.311.1X0136

Mk4/DiFX fourfit 3.21 rev 2937

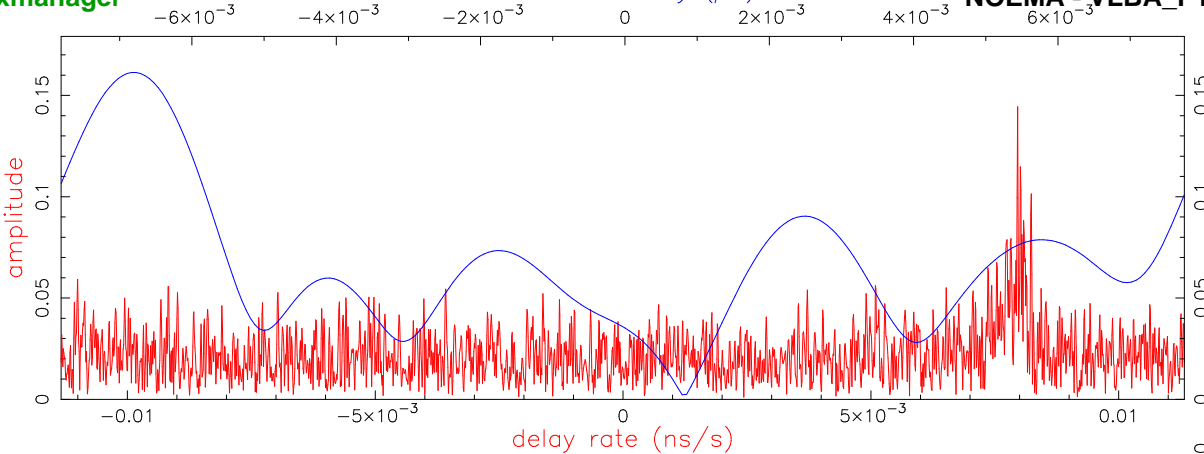
fxmanager

NRAO150.1X0136, No0081, Np

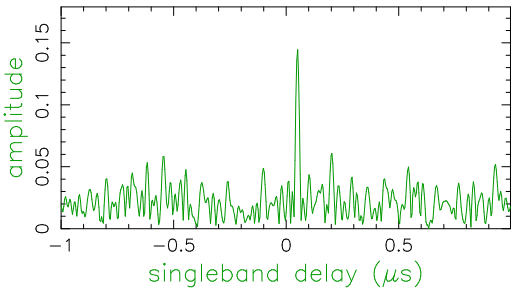
NOEMA - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

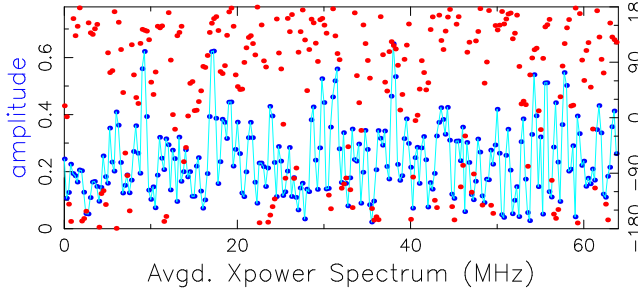
Fringe quality 9



SNR 8.1
 Int time 419.820
 Amp 0.179
 Phase -102.9
 PFD 1.6e-07
 Delays (us)
 SBD 0.050066
 MBD 0.008301
 Fringe rate (Hz) 0.686251
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

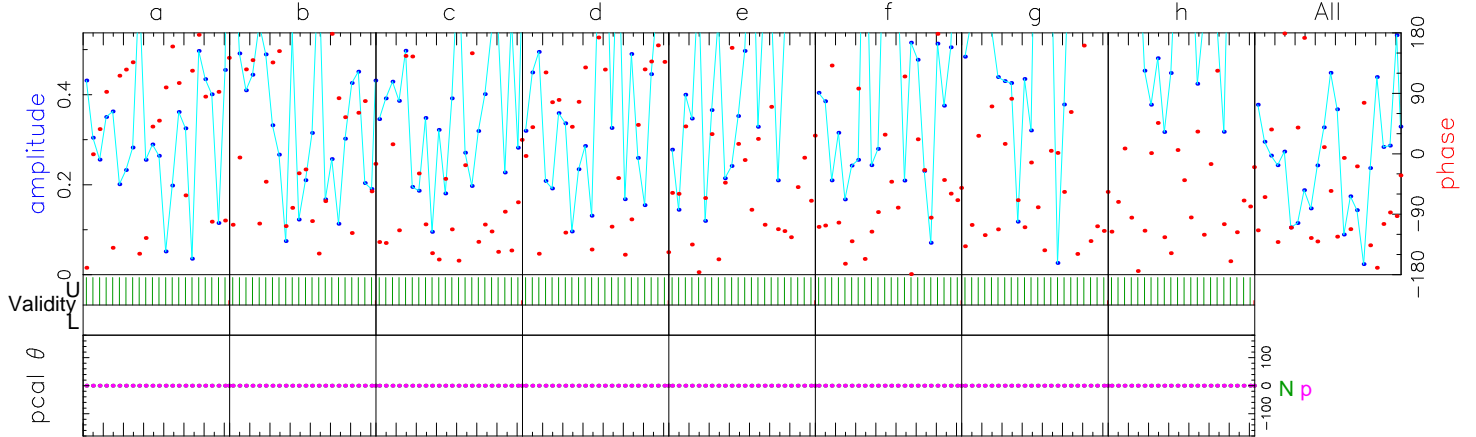


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121528
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



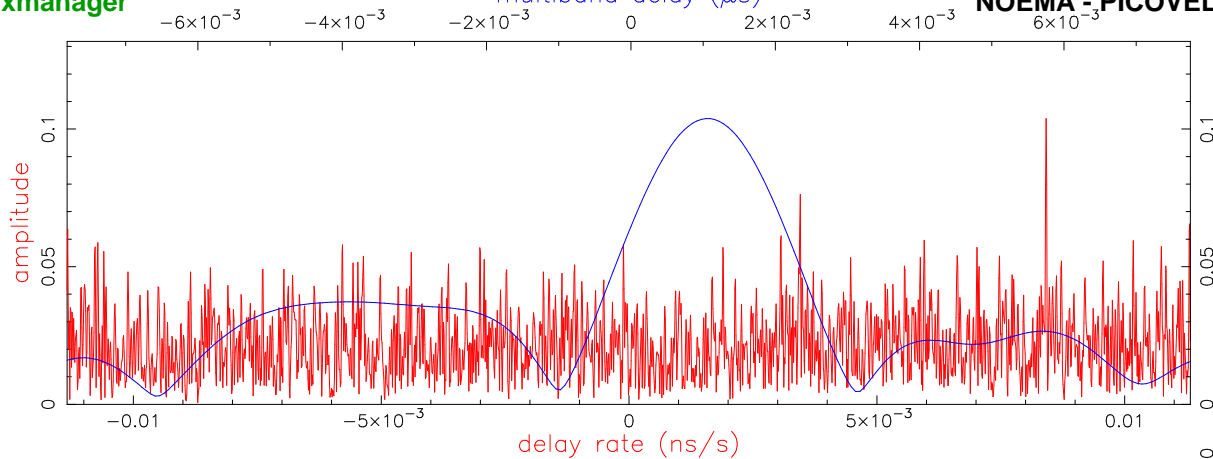
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	159.6	-107.7	-127.0	147.1	-69.0	-85.6	-103.8	-79.0	Phase	-102.9
	0.1	0.1	0.3	0.2	0.2	0.2	0.3	0.5	Ampl.	0.2
	409.5	441.8	269.6	267.1	268.3	268.0	269.6	270.6	Sbd box	269.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	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	0:0	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.03769327170E+04		Apriori delay (usec)		1.03768775412E+04		Resid mbdelay (usec)		8.30078E-03	+/- 1.3E-04
Sband delay (usec)	1.03769276075E+04		Apriori clock (usec)		-1.8893631E+01		Resid sbdelay (usec)		5.00663E-02	+/- 1.1E-03
Phase delay (usec)	1.03768775379E+04		Apriori clockrate (us/s)		-4.2690001E-06		Resid phdelay (usec)		-3.31975E-06	+/- 4.6E-07
Delay rate (us/s)	-1.11552185289E+00		Apriori rate (us/s)		-1.11552981958E+00		Resid rate (us/s)		7.96670E-06	+/- 1.9E-09
Total phase (deg)	40.9		Apriori accel (us/s/s)		-4.30776542960E-05		Resid phase (deg)		-102.9	+/- 14.1

	RMS	Theor.	Amplitude	0.179 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	75.7	33.8	Search (2048X32)	0.147	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	114.9	59.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	63.5	20.0	Inc. seg. avg.	0.269	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	70.9	34.8	Inc. frq. avg.	0.224	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

N: az 299.7 el 71.9 pa 101.5 p: az 44.8 el 26.8 pa -68.4 u,v (fr/asec) 10083.478 -3499.734 simultaneous interpolator

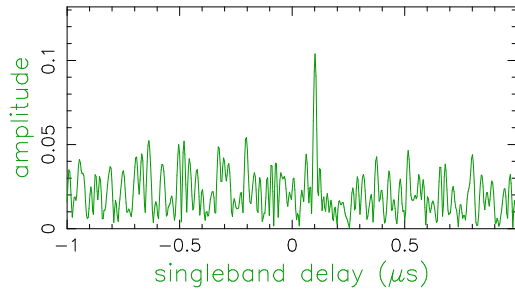
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/Np..1X0136 Output file: /Exps/c211c/v1/1234/No0081/Np.W.247.1X0136

multiband delay (μ s)

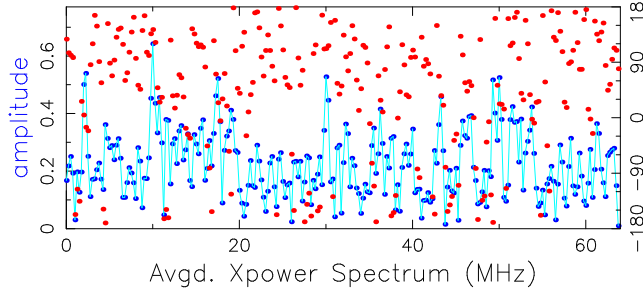


Fringe quality 0

SNR 5.8
 Int time 419.820
 Amp 0.132
 Phase 173.0
 PFD 7.7e-01
 Delays (us)
 SBD 0.101327
 MBD 0.001054
 Fringe rate (Hz) 0.725827
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

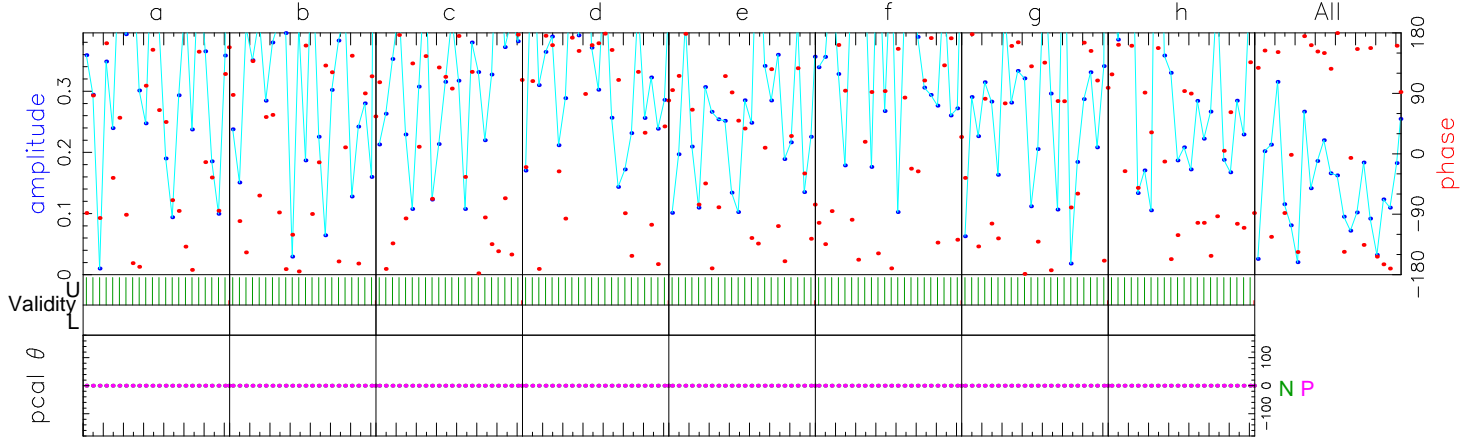


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121529
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:P	0:0	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-3.96767865599E+01	Apriori delay (usec)	-3.97715910373E+01	Resid mbdelay (usec)	1.05448E-03	+/-	1.9E-04
Sband delay (usec)	-3.96702637873E+01	Apriori clock (usec)	-1.2301746E+01	Resid sbdelay (usec)	1.01327E-01	+/-	1.5E-03
Phase delay (usec)	-3.97715854577E+01	Apriori clockrate (us/s)	-3.7889999E-06	Resid phdelay (usec)	5.57964E-06	+/-	6.3E-07
Delay rate (us/s)	-8.01449993342E-02	Apriori rate (us/s)	-8.01534254610E-02	Resid rate (us/s)	8.42613E-06	+/-	2.6E-09
Total phase (deg)	-133.7	Apriori accel (us/s/s)	8.90614194475E-06	Resid phase (deg)	173.0	+/-	19.7

ph/seg (deg)	64.5	Theor.	47.2	Amplitude	0.132 +/- 0.023	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	81.4		82.4	Search (2048X32)	0.101	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	19.3		27.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	45.2		48.6	Inc. seg. avg.	0.135	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.124	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

N: az 299.7 el 71.9 pa 101.5 P: az 325.6 el 71.9 pa 135.7 u,v (fr/asec) 742.843 1414.417 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/NP..1X0136 Output file: /Exps/c211c/v1/1234/No0081/NP.W.255.1X0136

Mk4/DiFX fourfit 3.21 rev 2937

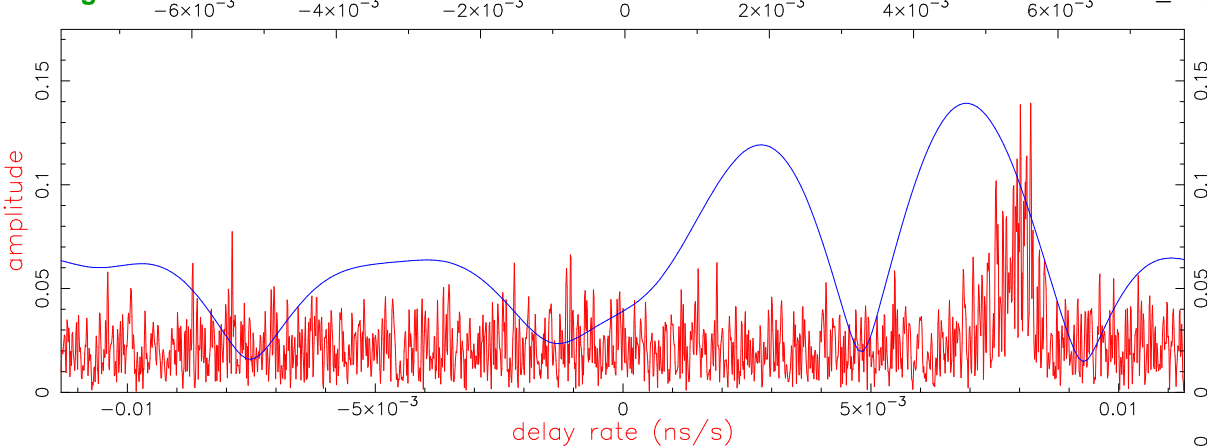
fxmanager

NRAO150.1X0136, No0081, Np

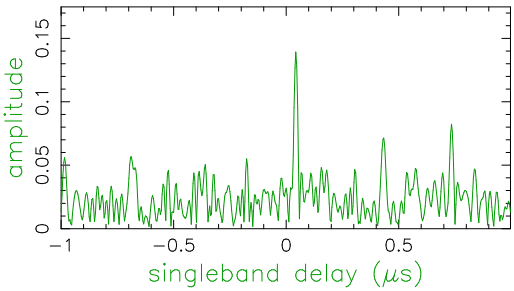
NOEMA - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

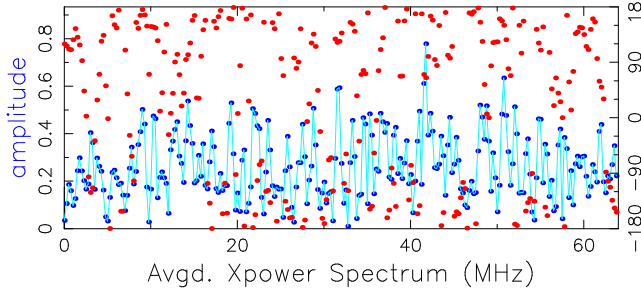
Fringe quality 9



SNR 7.8
 Int time 419.818
 Amp 0.175
 Phase -128.5
 PFD 2.0e-06
 Delays (us)
 SBD 0.043109
 MBD 0.004733
 Fringe rate (Hz) 0.709617
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

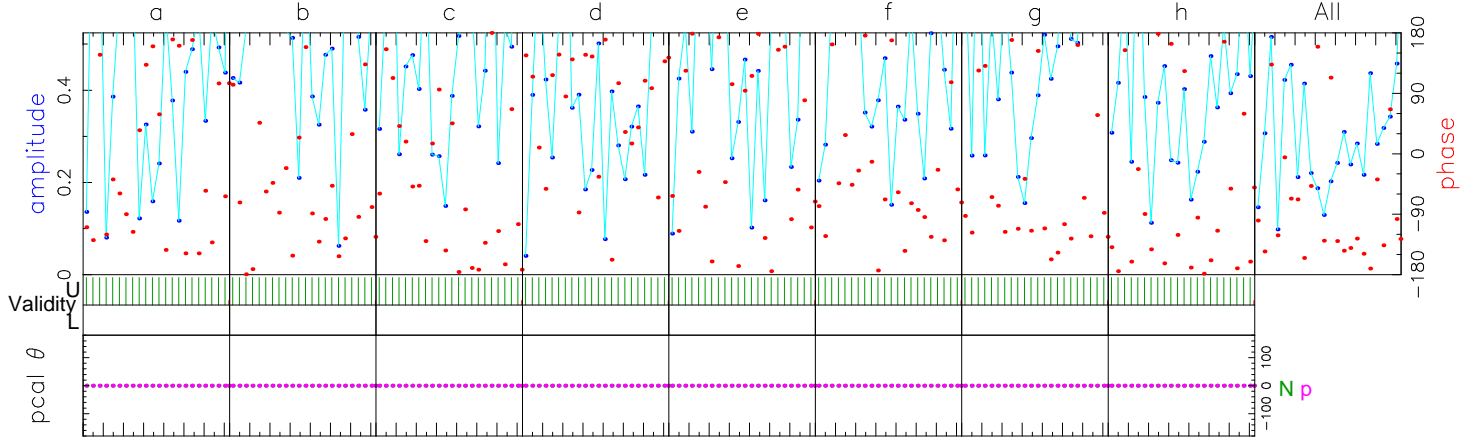


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121532
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-138.6	-92.9	-155.4	89.4	-161.7	-69.7	-122.4	-160.4	Phase	-128.5
	0.3	0.2	0.2	0.1	0.2	0.3	0.4	0.2	Ampl.	0.2
	268.8	267.0	266.5	403.6	99.0	267.1	267.9	269.4	Sbd box	268.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	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	0:0	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.03769135240E+04		Apriori delay (usec)		1.03768775412E+04		Resid mbdelay (usec)		4.73281E-03	+/- 1.4E-04
Sband delay (usec)	1.03769206497E+04		Apriori clock (usec)		-1.8893631E+01		Resid sbdelay (usec)		4.31085E-02	+/- 1.1E-03
Phase delay (usec)	1.03768775371E+04		Apriori clockrate (us/s)		-4.2690001E-06		Resid phdelay (usec)		-4.14268E-06	+/- 4.7E-07
Delay rate (us/s)	-1.11552158163E+00		Apriori rate (us/s)		-1.11552981958E+00		Resid rate (us/s)		8.23795E-06	+/- 2.0E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.30776542960E-05		Resid phase (deg)		-128.5	+/- 14.7

ph/seg (deg) 66.9 35.2 Amplitude 0.175 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 140.3 61.5 Search (2048X32) 0.137 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 68.2 20.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 53.1 36.2 Inc. seg. avg. 0.312 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 53.1 36.2 Inc. frq. avg. 0.225 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 299.7 el 71.9 pa 101.5 p: az 44.8 el 26.8 pa -68.4 u,v (fr/asec) 10083.478 -3499.734 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/Np..1X0136 Output file: /Exps/c211c/v1/1234/No0081/Np.W.269.1X0136

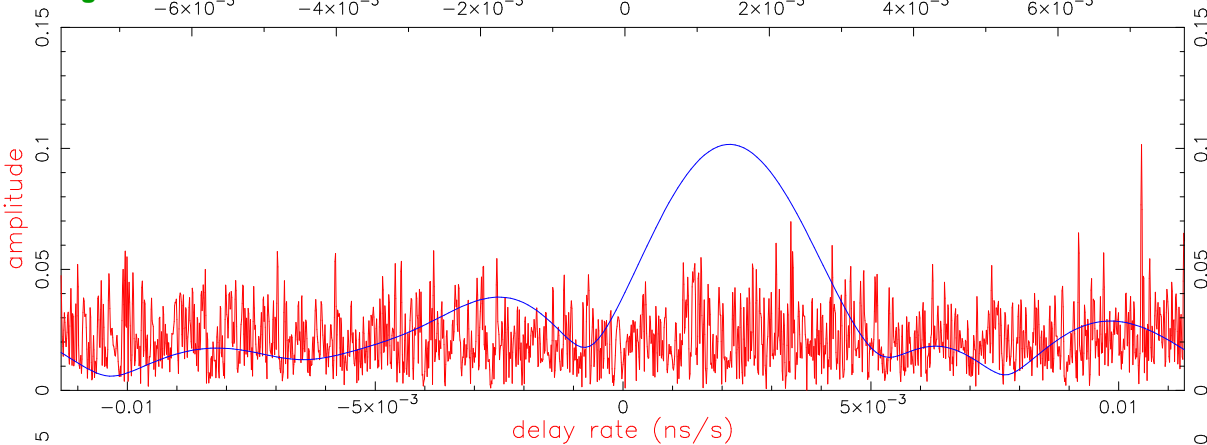
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, NP

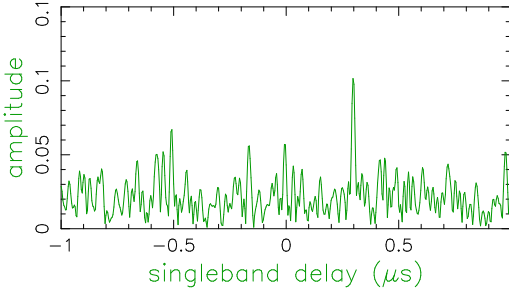
NOEMA - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

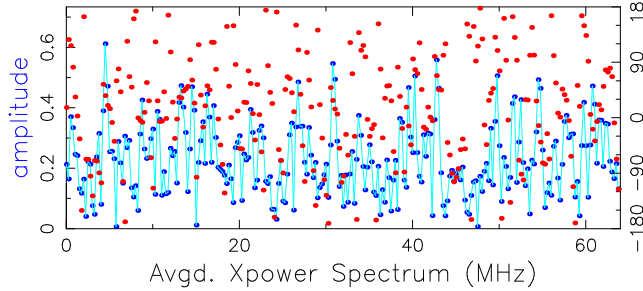


Fringe quality 0

SNR 5.7
Int time 419.818
Amp 0.150
Phase -154.9
PFD 8.9e-01
Delays (us)
SBD 0.298098
MBD 0.001500
Fringe rate (Hz) 0.902428
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

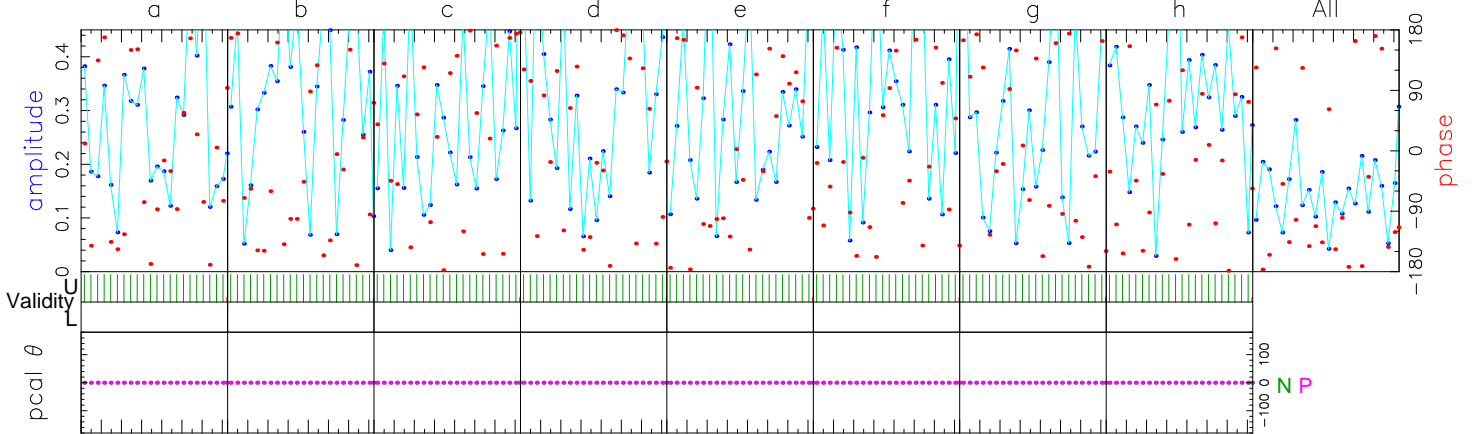


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 150000.00
Stop 150659.84
FRT 150330.00
Corr/FF/build
2021:303:065408
2021:303:121533
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-119.5	-141.4	169.5	-179.9	-149.8	-149.5	-166.2	-130.5	Phase	-154.9
	0.1	0.3	0.1	0.2	0.2	0.2	0.2	0.1	Ampl.	0.1
	98.4	333.9	416.3	105.1	70.0	46.5	256.4	437.5	Sbd box	333.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:P	0:0	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-3.94732155926E+01	Apriori delay (usec)	-3.97715910373E+01	Resid mbdelay (usec)	1.50044E-03	+/-	1.9E-04
Sband delay (usec)	-3.94734932873E+01	Apriori clock (usec)	-1.2301746E+01	Resid sbdelay (usec)	2.98098E-01	+/-	1.5E-03
Phase delay (usec)	-3.97715960316E+01	Apriori clockrate (us/s)	-3.7889999E-06	Resid phdelay (usec)	-4.99428E-06	+/-	6.4E-07
Delay rate (us/s)	-8.01429491624E-02	Apriori rate (us/s)	-8.01534254610E-02	Resid rate (us/s)	1.04763E-05	+/-	2.7E-09
Total phase (deg)	-101.6	Apriori accel (us/s/s)	8.90614194475E-06	Resid phase (deg)	-154.9	+/-	19.9

ph/seg (deg)	59.4	Theor.	47.8	Amplitude	0.150 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	70.0	Search (2048X32)	0.096	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	26.2	Inc. seg. avg.	0.158	Inc. frq. avg.	0.141	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	34.6	Inc. frq. avg.	0.141			Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
						Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
						nlags: 256	t_cohere infinite
							ion window (TEC) 0.00 0.00

N: az 299.7 el 71.9 pa 101.5 P: az 325.6 el 71.9 pa 135.7 u,v (fr/asec) 742.843 1414.417 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/NP..1X0136 Output file: /Exps/c211c/v1/1234/No0081/NP.W.275.1X0136

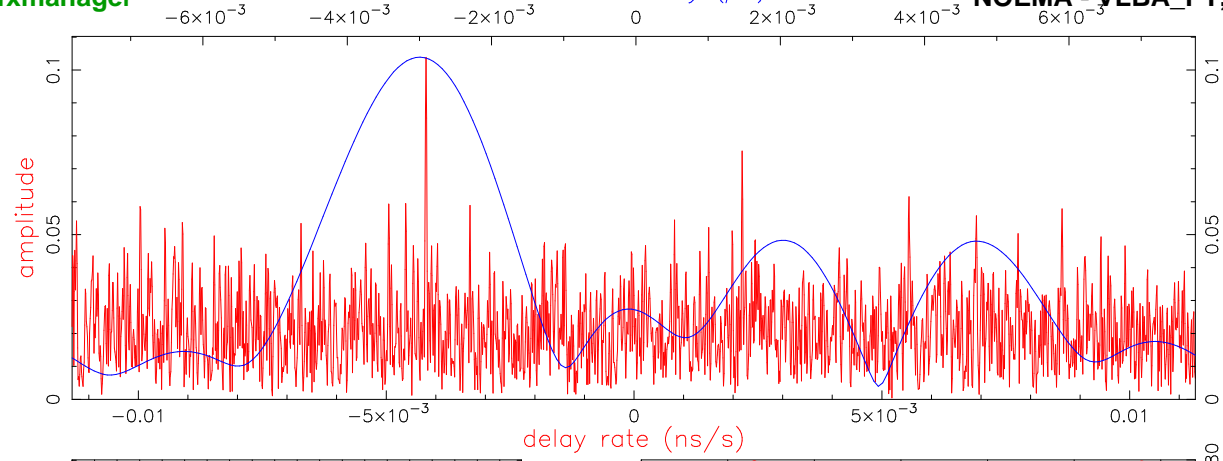
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, Np

NOEMA - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)



Fringe quality 0

SNR 5.8

Int time 419.820

Amp 0.110

Phase -16.5

PFD 7.5e-01

Delays (us)

SBD 0.504634

MBD -0.002969

Fringe rate (Hz)

-0.362204

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c211c

Exper # 16383

Yr:day 2021:116

Start 150000.00

Stop 150659.84

FRT 150330.00

Corr/FF/build

2021:303:065408

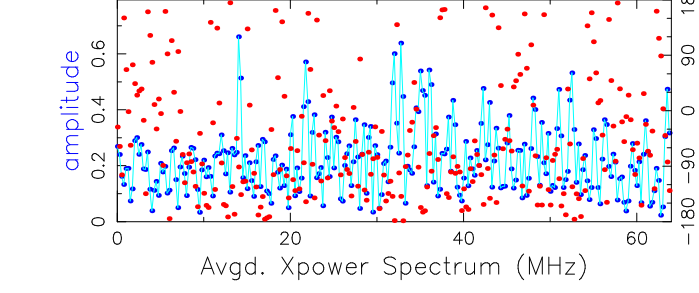
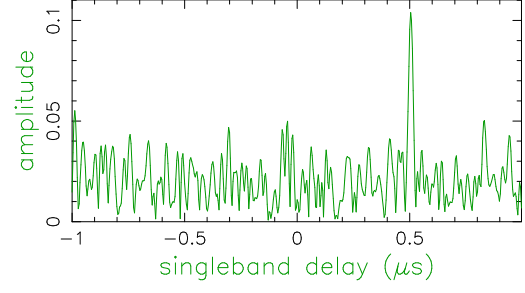
2021:303:121536

2021:252:122852

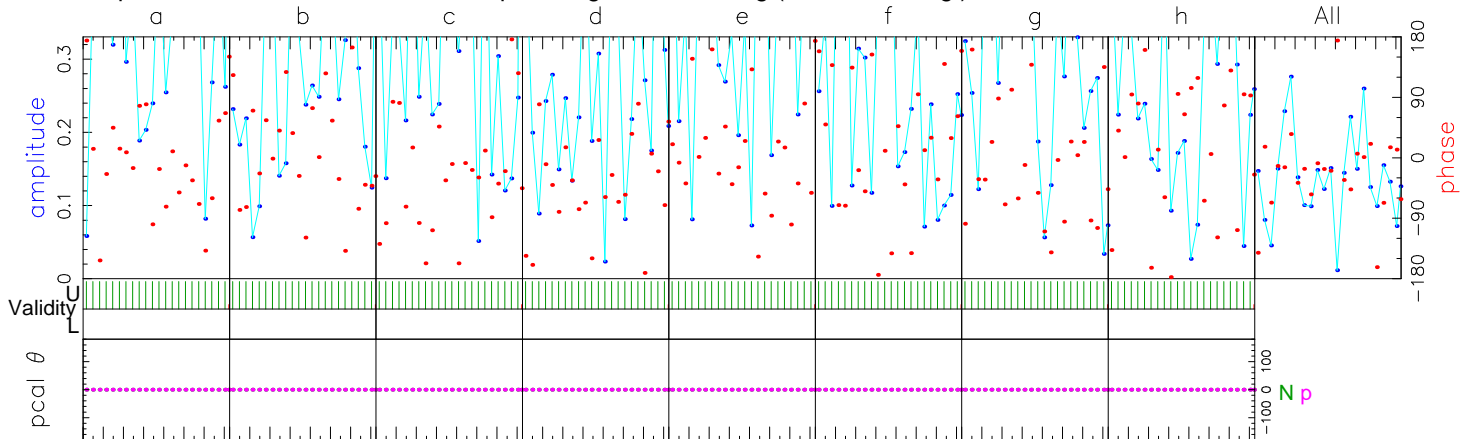
RA & Dec (J2000)

03h59m29.747267s

+50°57'50.161694"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-11.5	20.7	-26.9	-40.3	-13.4	-32.5	-25.9	70.3	Phase	-16.5
	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	Ampl.	0.1
	386.1	478.0	363.9	436.7	323.5	171.5	383.6	340.4	Sbd box	386.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	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	0:0	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	
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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.03773745720E+04		Apriori delay (usec)		1.03768775412E+04		Resid mbdelay (usec)		-2.96919E-03	+/- 1.9E-04
Sband delay (usec)	1.03773821750E+04		Apriori clock (usec)		-1.8893631E+01		Resid sbdelay (usec)		5.04634E-01	+/- 1.5E-03
Phase delay (usec)	1.03768775407E+04		Apriori clockrate (us/s)		-4.2690001E-06		Resid phdelay (usec)		-5.30477E-07	+/- 6.3E-07
Delay rate (us/s)	-1.11553402441E+00		Apriori rate (us/s)		-1.11552981958E+00		Resid rate (us/s)		-4.20483E-06	+/- 2.6E-09
Total phase (deg)	127.4		Apriori accel (us/s/s)		-4.30776542960E-05		Resid phase (deg)		-16.5	+/- 19.6

RMS Theor. Amplitude 0.110 +/- 0.019

ph/seg (deg) 60.8 47.1 Search (2048X32) 0.101

amp/seg (%) 69.0 82.2 Interp. 0.000

ph/frq (deg) 40.8 27.8 Inc. seg. avg. 0.110

amp/frq (%) 49.8 48.5 Inc. frq. avg. 0.107

pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

pcal rate: 0.000E+00, 0.000E+00 (us/s)

Bits/sample: 2x2 SampCntNorm: enabled sb window (us) -1.000 1.000

Sample rate(MISamp/s): 128 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 299.7 el 71.9 pa 101.5 p: az 44.8 el 26.8 pa -68.4 u,v (fr/asec) 10083.478 -3499.734 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/Np..1X0136 Output file: /Exps/c211c/v1/1234/No0081/Np.W.287.1X0136

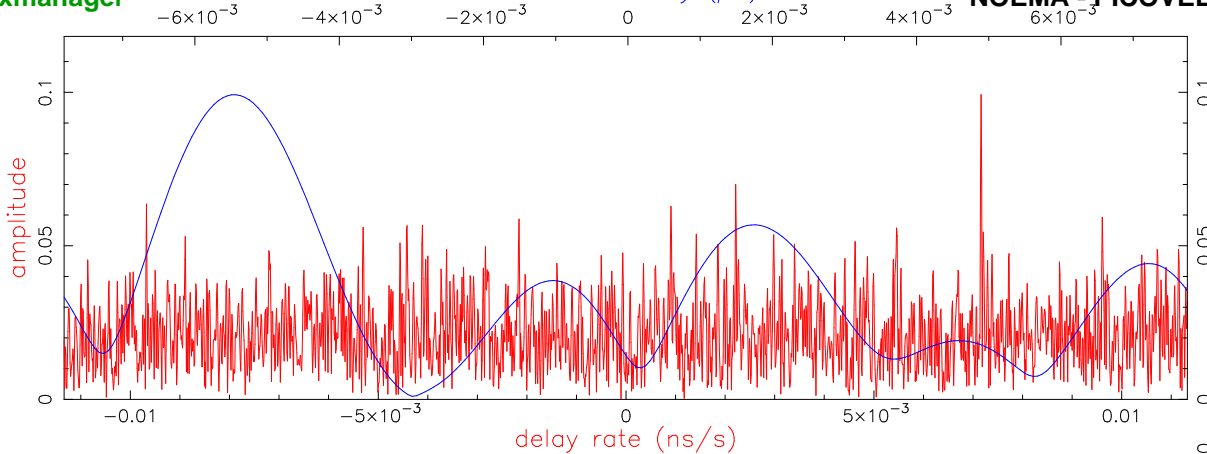
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, NP

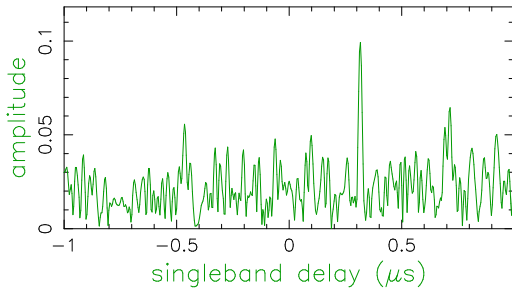
NOEMA - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

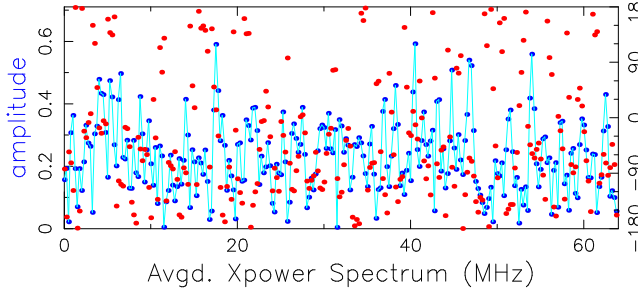


Fringe quality 0

SNR 5.6
Int time 419.820
Amp 0.118
Phase 11.4
PFD 1.0e+00
Delays (us)
SBD 0.315548
MBD -0.005454
Fringe rate (Hz) 0.618107
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

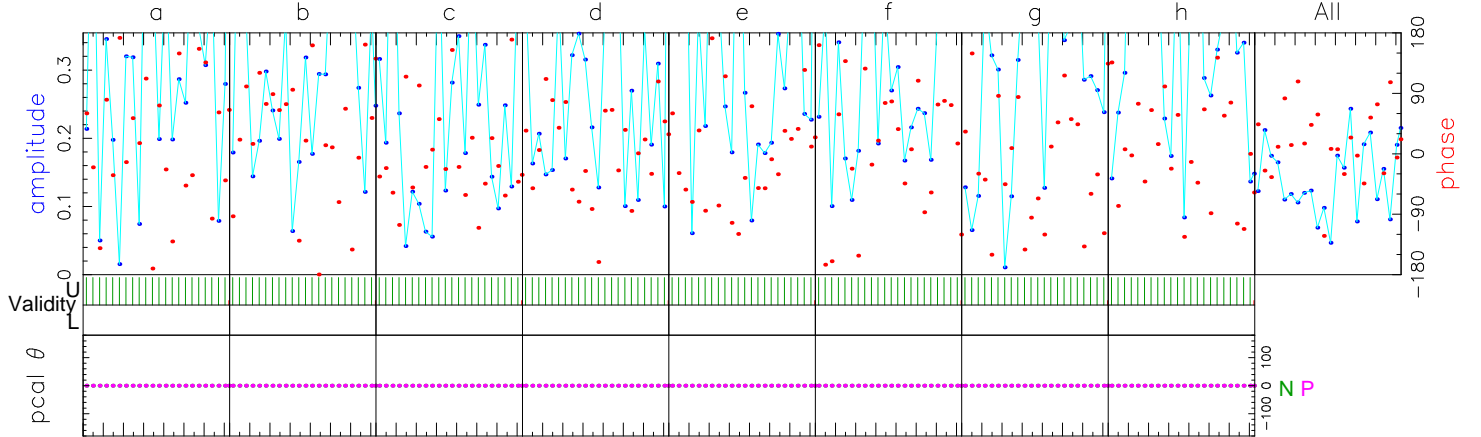


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 150000.00
Stop 150659.84
FRT 150330.00
Corr/FF/build
2021:303:065408
2021:303:121537
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
N	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:P	0:0	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	
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)	-3.94489198033E+01	Apriori delay (usec)	-3.97715910373E+01	Resid mbdelay (usec)	-5.45377E-03	+/-	1.9E-04
Sband delay (usec)	-3.94560432873E+01	Apriori clock (usec)	-1.2301746E+01	Resid sbdelay (usec)	3.15548E-01	+/-	1.5E-03
Phase delay (usec)	-3.97715906703E+01	Apriori clockrate (us/s)	-3.7889999E-06	Resid phdelay (usec)	3.67047E-07	+/-	6.6E-07
Delay rate (us/s)	-8.01462498513E-02	Apriori rate (us/s)	-8.01534254610E-02	Resid rate (us/s)	7.17561E-06	+/-	2.7E-09
Total phase (deg)	-295.3	Apriori accel (us/s/s)	8.90614194475E-06	Resid phase (deg)	11.4	+/-	20.5

ph/seg (deg)	52.8	Theor.	49.2	Amplitude	0.118 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	64.8	Search (2048X32)	0.097	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	35.8	Inc. seg. avg.	0.121	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	39.9	Inc. frq. avg.	0.122	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011 0.011
				Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

N: az 299.7 el 71.9 pa 101.5 P: az 325.6 el 71.9 pa 135.7 u,v (fr/asec) 742.843 1414.417 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/NP..1X0136 Output file: /Exps/c211c/v1/1234/No0081/NP.W.292.1X0136

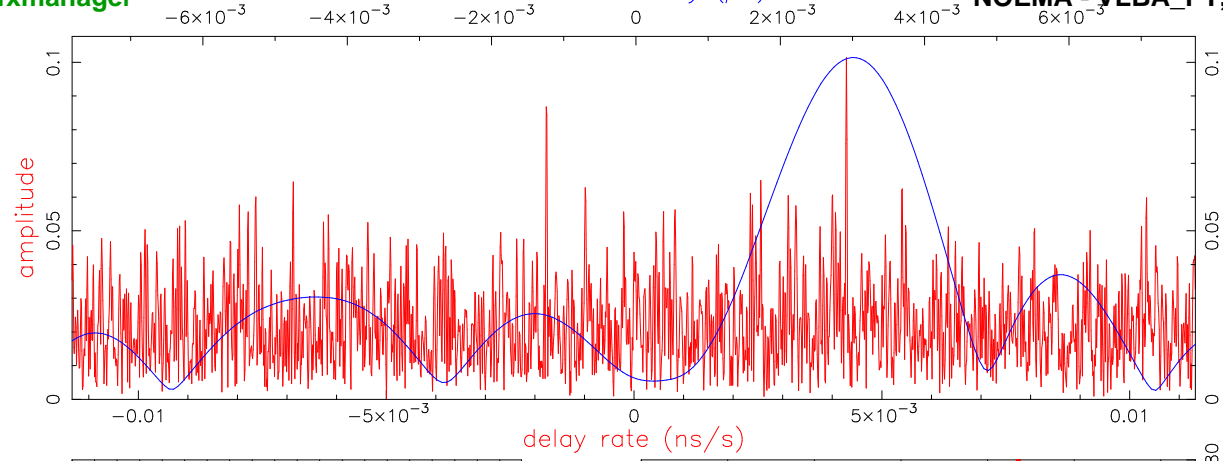
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

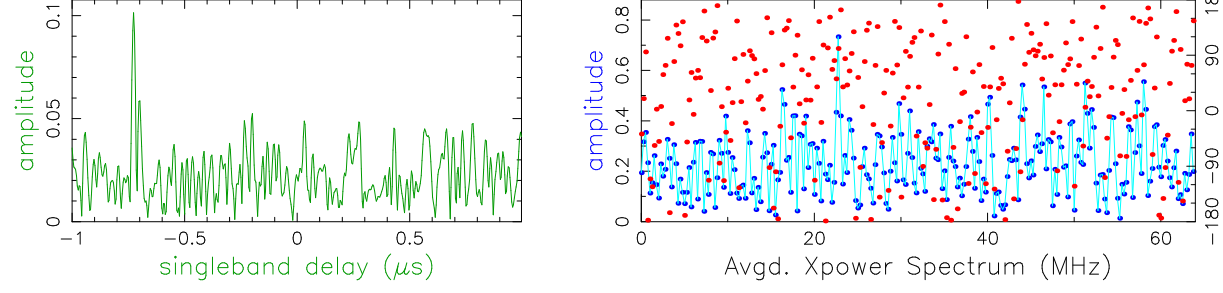
NRAO150.1X0136, No0081, Np

NOEMA - VLBA_PT, fgroup W, pol RL

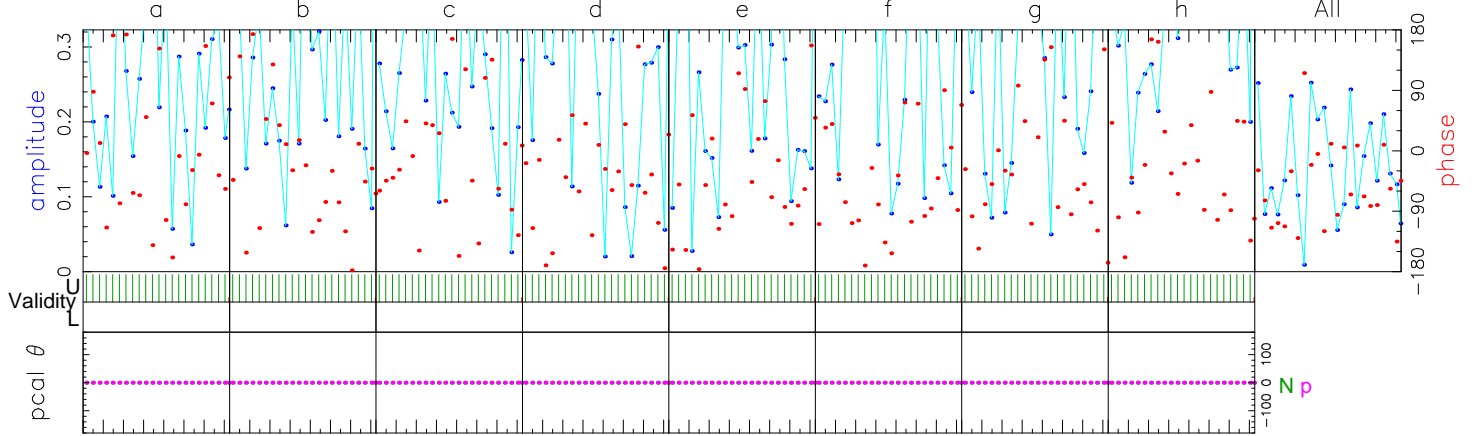
multiband delay (μ s)



Fringe quality 0
 SNR 5.7
 Int time 419.818
 Amp 0.108
 Phase -54.4
 PFD 9.6e-01
 Delays (us)
 SBD -0.726683
 MBD 0.003008
 Fringe rate (Hz) 0.370068
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121540
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'59.161694"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-67.5	-57.8	-11.2	-42.8	-67.0	-70.4	-71.1	-36.4	Phase	-54.4
	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
	284.2	159.6	334.6	275.9	206.2	485.6	281.5	427.8	Sbd box	71.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	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	0:0	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.03761461742E+04		Apriori delay (usec)		1.03768775412E+04		Resid mbdelay (usec)		3.00795E-03	+/- 1.9E-04
Sband delay (usec)	1.03761508582E+04		Apriori clock (usec)		-1.8893631E+01		Resid sbdelay (usec)		-7.26683E-01	+/- 1.5E-03
Phase delay (usec)	1.03768775395E+04		Apriori clockrate (us/s)		-4.2690001E-06		Resid phdelay (usec)		-1.75289E-06	+/- 6.5E-07
Delay rate (us/s)	-1.11552552347E+00		Apriori rate (us/s)		-1.11552981958E+00		Resid rate (us/s)		4.29612E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.30776542960E-05		Resid phase (deg)		-54.4	+/- 20.2

	RMS	Theor.	Amplitude	0.108 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	59.9	48.3	Search (2048X32)	0.099	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	80.4	84.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	23.1	28.5	Inc. seg. avg.	0.114	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	31.1	49.8	Inc. frq. avg.	0.100	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

N: az 299.7 el 71.9 pa 101.5 p: az 44.8 el 26.8 pa -68.4 u,v (fr/asec) 10083.478 -3499.734 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/Np..1X0136 Output file: /Exps/c211c/v1/1234/No0081/Np.W.306.1X0136

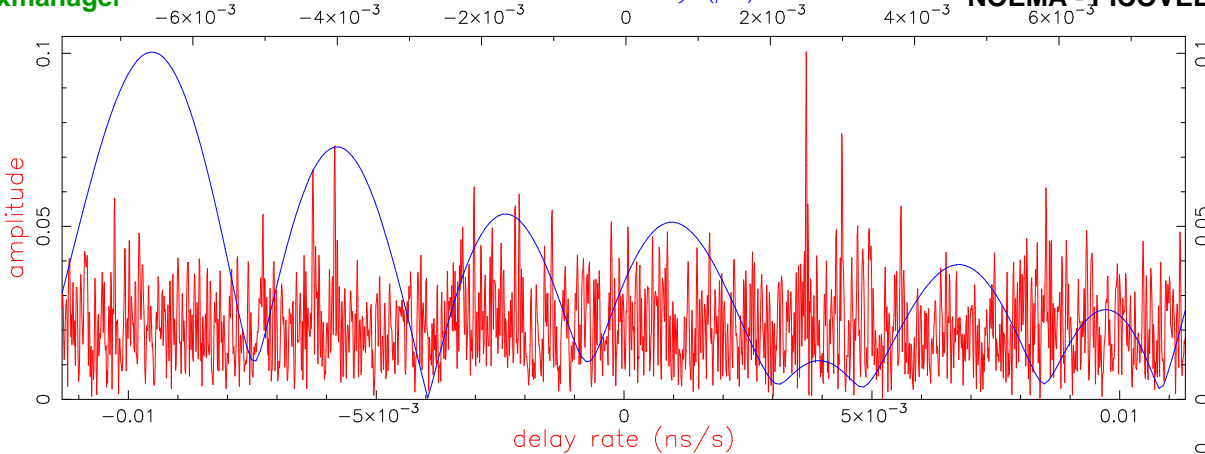
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, NP

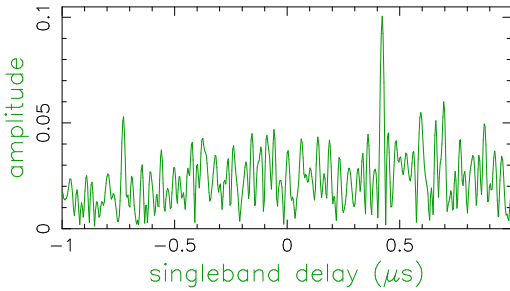
NOEMA - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

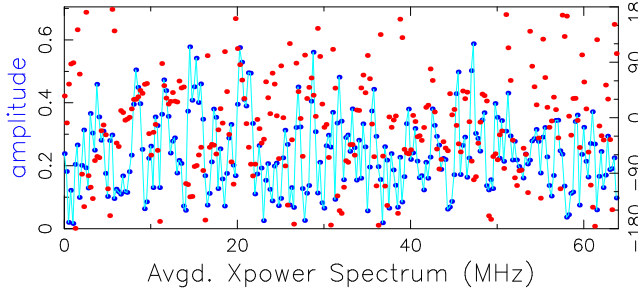


Fringe quality 0

SNR 5.6
Int time 419.818
Amp 0.105
Phase -123.2
PFD 9.9e-01
Delays (us)
SBD 0.421905
MBD -0.006568
Fringe rate (Hz)
0.317475
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

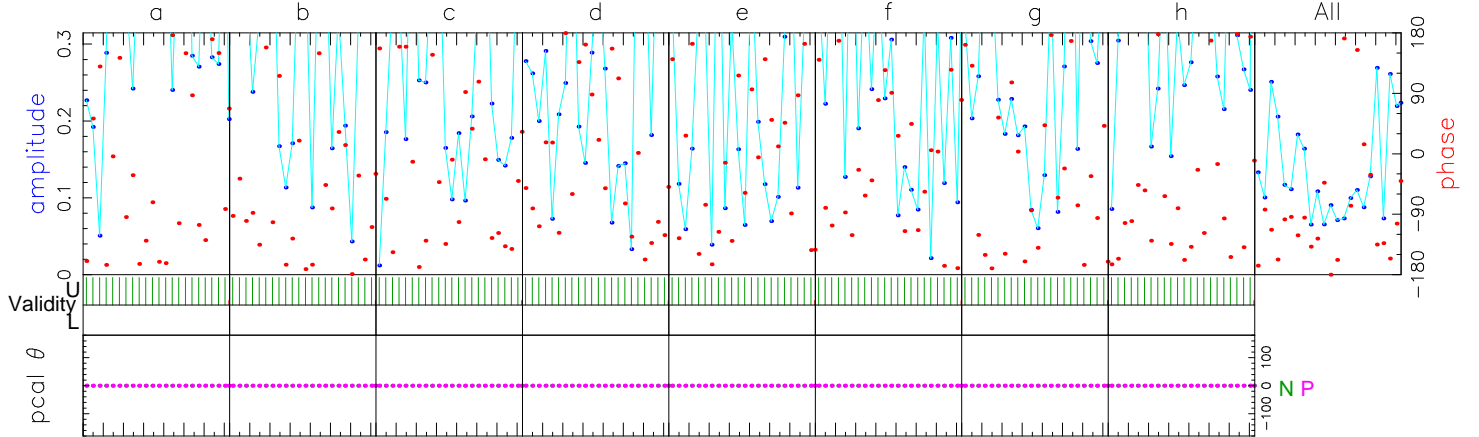


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 150000.00
Stop 150659.84
FRT 150330.00
Corr/FF/build
2021:303:065408
2021:303:121540
2021:252:122852
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-144.1	-107.1	-93.9	-74.9	-149.1	-122.9	-166.1	-110.9	Phase	-123.2
	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.2	Ampl.	0.1
	364.6	50.2	436.7	292.2	318.1	276.1	78.4	364.3	Sbd box	365.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:P	0:0	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.93562836775E+01		Apriori delay (usec)		-3.97715910373E+01		Resid mbdelay (usec)		-6.56764E-03	+/- 1.9E-04
Sband delay (usec)	-3.93496862873E+01		Apriori clock (usec)		-1.2301746E+01		Resid sbdelay (usec)		4.21905E-01	+/- 1.5E-03
Phase delay (usec)	-3.97715950086E+01		Apriori clockrate (us/s)		-3.7889999E-06		Resid phdelay (usec)		-3.97131E-06	+/- 6.6E-07
Delay rate (us/s)	-8.01497398887E-02		Apriori rate (us/s)		-8.01534254610E-02		Resid rate (us/s)		3.68557E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		8.90614194475E-06		Resid phase (deg)		-123.2	+/- 20.4

ph/seg (deg) 52.6 48.8 Search (2048X32) 0.105 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.2 85.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 33.0 28.8 Inc. seg. avg. 0.105 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 54.7 50.3 Inc. frq. avg. 0.104 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 N: az 299.7 el 71.9 pa 101.5 P: az 325.6 el 71.9 pa 135.7 u,v (fr/asec) 742.843 1414.417 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/NP..1X0136 Output file: /Exps/c211c/v1/1234/No0081/NP.W.312.1X0136

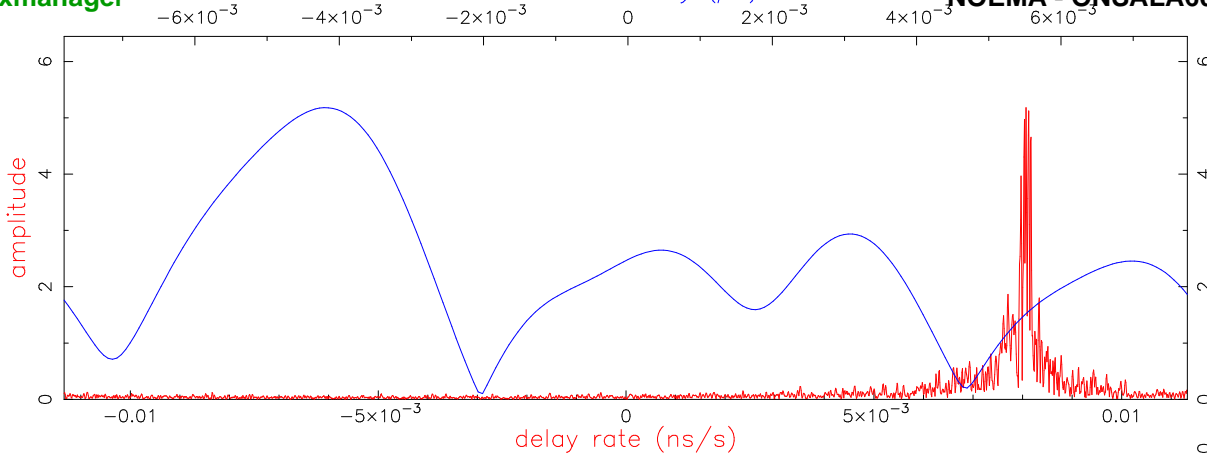
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, NX

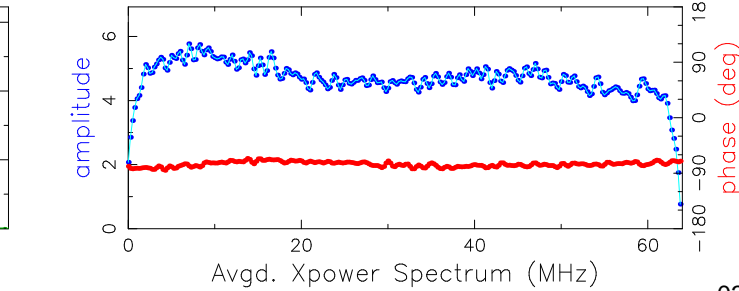
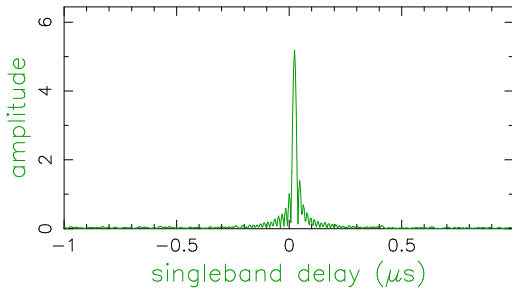
NOEMA - ONSALA60, fgroup W, pol LL

multiband delay (μ s)



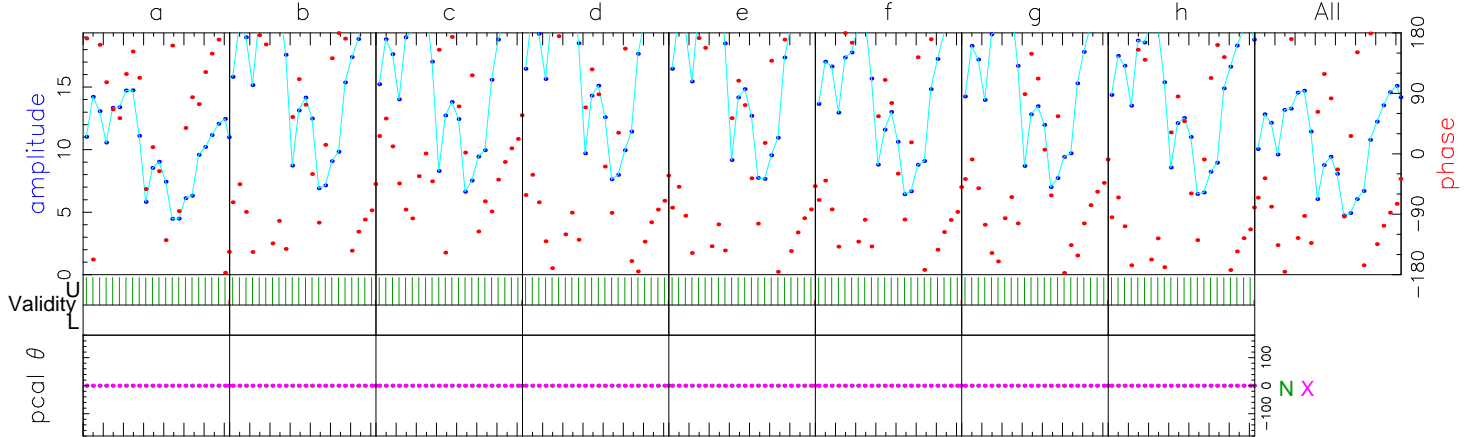
Fringe quality 1

SNR 290.3
 Int time 419.783
 Amp 6.446
 Phase -116.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.023550
 MBD -0.004187
 Fringe rate (Hz)
 0.696161
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121528
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	131.4	-124.7	-21.6	-111.5	-127.5	-122.3	-86.2	-150.8	Phase	-116.0
	6.1	9.6	9.7	10.5	10.5	9.0	9.4	8.8	Ampl.	9.2
	265.5	263.6	263.0	263.0	263.0	262.7	262.9	263.3	Sbd box	263.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	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	Mani 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) 6.97936858577E+01 Apriori delay (usec) 6.97666225223E+01 Resid mbdelay (usec) -4.18666E-03 +/- 3.7E-06
 Sband delay (usec) 6.97901722723E+01 Apriori clock (usec) -6.9848724E+01 Resid sbdelay (usec) 2.35498E-02 +/- 3.0E-05
 Phase delay (usec) 6.97666187818E+01 Apriori clockrate (us/s) -4.9170000E-06 Resid phdelay (usec) -3.74045E-06 +/- 1.3E-08
 Delay rate (us/s) -2.66827311218E-02 Apriori rate (us/s) -2.66908128663E-02 Resid rate (us/s) 8.08174E-06 +/- 5.3E-11
 Total phase (deg) 195.1 Apriori accel (us/s/s) -1.30079799081E-05 Resid phase (deg) -116.0 +/- 0.4

RMS Theor. Amplitude 6.446 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 80.3 0.9 Search (2048X32) 5.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 122.5 1.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 63.2 0.6 Inc. seg. avg. 13.200 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 47.5 1.0 Inc. frq. avg. 9.209 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 299.7 el 71.9 pa 101.5 X: az 264.3 el 70.7 pa 58.4 u,v (fr/asec) 223.705 -2044.290 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/NX..1X0136 Output file: /Exps/c211c/v1/1234/No0081/NX.W.253.1X0136

Mk4/DiFX fourfit 3.21 rev 2937

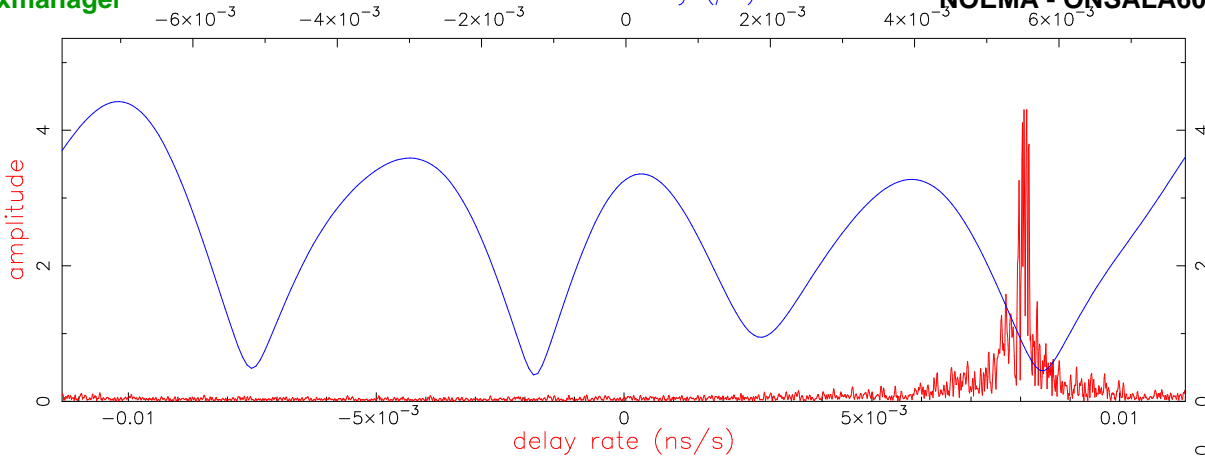
fxmanager

NRAO150.1X0136, No0081, NX

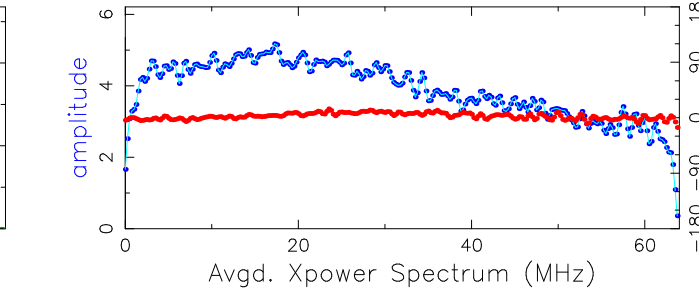
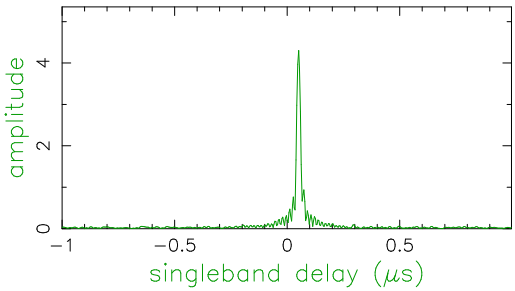
NOEMA - ONSALA60, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 1

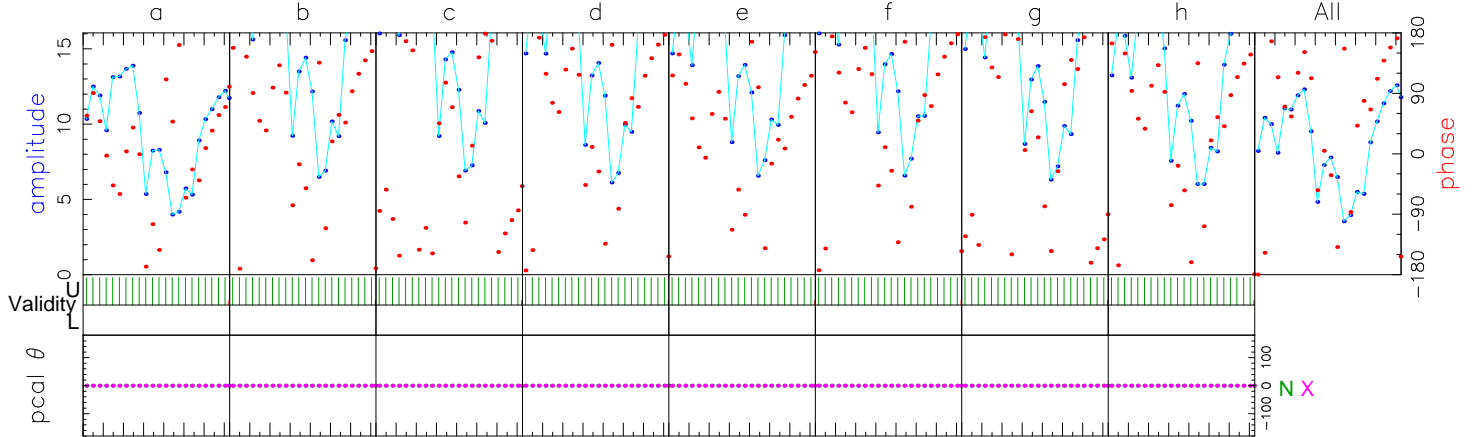


SNR 241.2
 Int time 419.781
 Amp 5.356
 Phase 129.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.050518
 MBD 0.008301
 Fringe rate (Hz)
 0.696182
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121533
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec

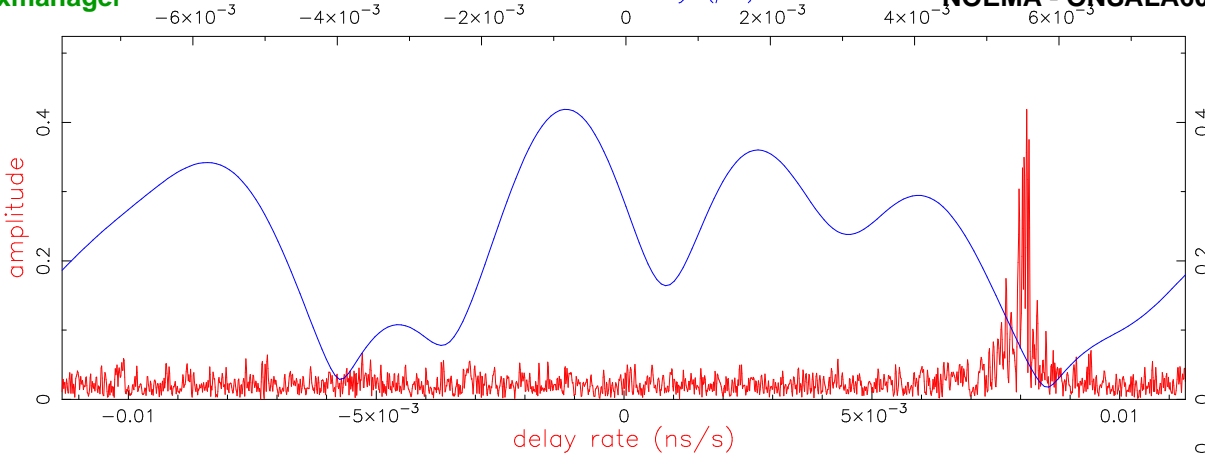


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	18.0	109.0	-131.5	134.0	70.7	135.8	-170.7	108.5	Phase	129.6
	5.9	9.9	10.4	9.6	9.7	10.1	9.5	8.4	Ampl.	9.2
	272.1	270.9	270.3	269.9	269.5	270.0	270.1	270.3	Sbd box	269.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	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	Mani 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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.98217983035E+01		Apriori delay (usec)		6.97666225223E+01		Resid mbdelay (usec)		8.30078E-03	+/- 4.5E-06
Sband delay (usec)	6.98171402723E+01		Apriori clock (usec)		-6.9848724E+01		Resid sbdelay (usec)		5.05177E-02	+/- 3.6E-05
Phase delay (usec)	6.97666267024E+01		Apriori clockrate (us/s)		-4.9170000E-06		Resid phdelay (usec)		4.18012E-06	+/- 1.5E-08
Delay rate (us/s)	-2.66827308838E-02		Apriori rate (us/s)		-2.66908128663E-02		Resid rate (us/s)		8.08198E-06	+/- 6.3E-11
Total phase (deg)	80.7		Apriori accel (us/s/s)		-1.30079799081E-05		Resid phase (deg)		129.6	+/- 0.5

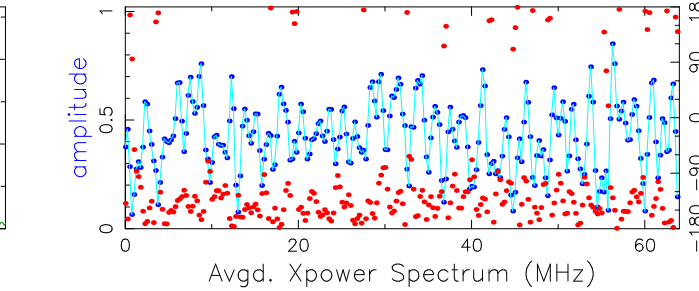
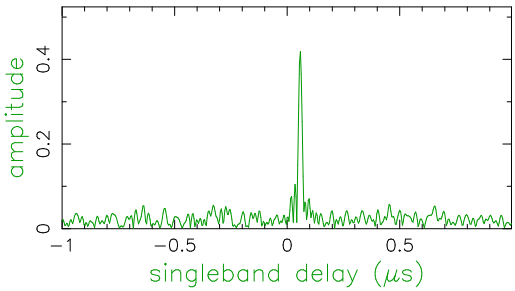
ph/seg (deg) 80.0 1.1 Search (2048X32) 4.347 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 122.2 2.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 70.9 0.7 Inc. seg. avg. 10.911 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 76.2 1.2 Inc. frq. avg. 9.202 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 N: az 299.7 el 71.9 pa 101.5 X: az 264.3 el 70.7 pa 58.4 u,v (fr/asec) 223.705 -2044.290 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/NX..1X0136 Output file: /Exps/c211c/v1/1234/No0081/NX.W.273.1X0136

multiband delay (μ s)

Fringe quality 7

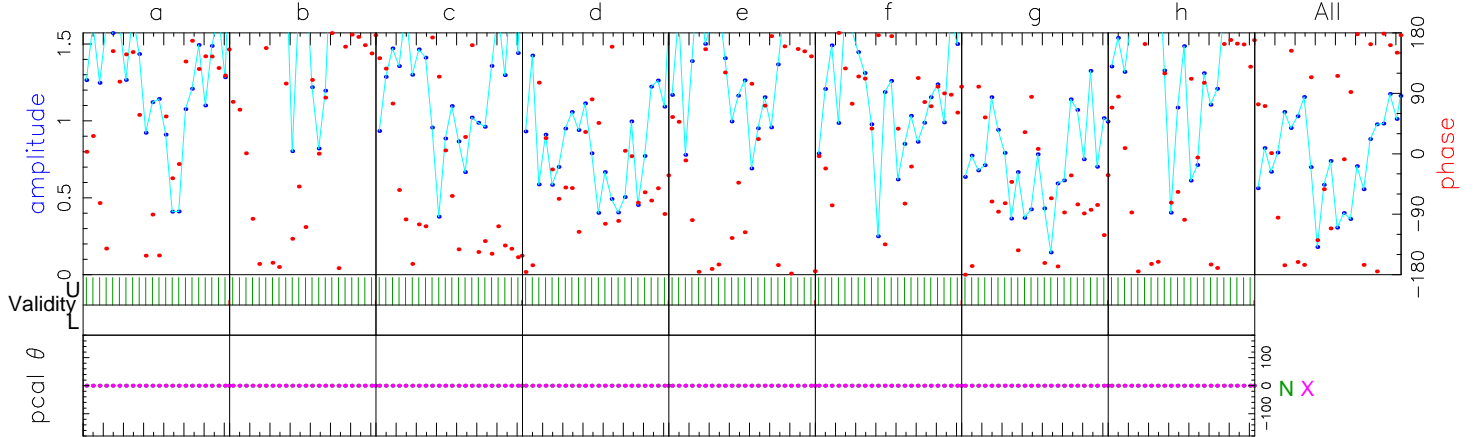


SNR 23.5
 Int time 419.783
 Amp 0.524
 Phase 174.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.057920
 MBD -0.000861
 Fringe rate (Hz)
 0.700625
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121537
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	138.8	169.7	-137.2	-57.0	164.4	87.5	-84.8	168.0	Phase	174.0
	0.7	1.5	0.8	0.4	0.9	0.6	0.5	1.0	Ampl.	0.8
	272.9	272.2	271.0	270.7	270.5	270.9	270.9	271.5	Sbd box	271.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	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	Mani 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)	6.98282614683E+01	Apriori delay (usec)	6.97666225223E+01	Resid mbdelay (usec)	-8.61054E-04	+/-	4.6E-05
Sband delay (usec)	6.98245425223E+01	Apriori clock (usec)	-6.9848724E+01	Resid sbdelay (usec)	5.79200E-02	+/-	3.7E-04
Phase delay (usec)	6.97666281339E+01	Apriori clockrate (us/s)	-4.9170000E-06	Resid phdelay (usec)	5.61166E-06	+/-	1.6E-07
Delay rate (us/s)	-2.66826793071E-02	Apriori rate (us/s)	-2.66908128663E-02	Resid rate (us/s)	8.13356E-06	+/-	6.5E-10
Total phase (deg)	125.1	Apriori accel (us/s/s)	-1.30079799081E-05	Resid phase (deg)	174.0	+/-	4.9

ph/seg (deg)	77.8	Theor.	11.7	Amplitude	0.524 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	103.9	Search (2048X32)	0.401	Search	0.401	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	79.7	Interp.	0.000	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	81.3	Inc. seg. avg.	0.927	Inc. seg. avg.	0.927	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011		
		Inc. frq. avg.	0.798	Inc. frq. avg.	0.798	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

Mk4/DiFX fourfit 3.21 rev 2937

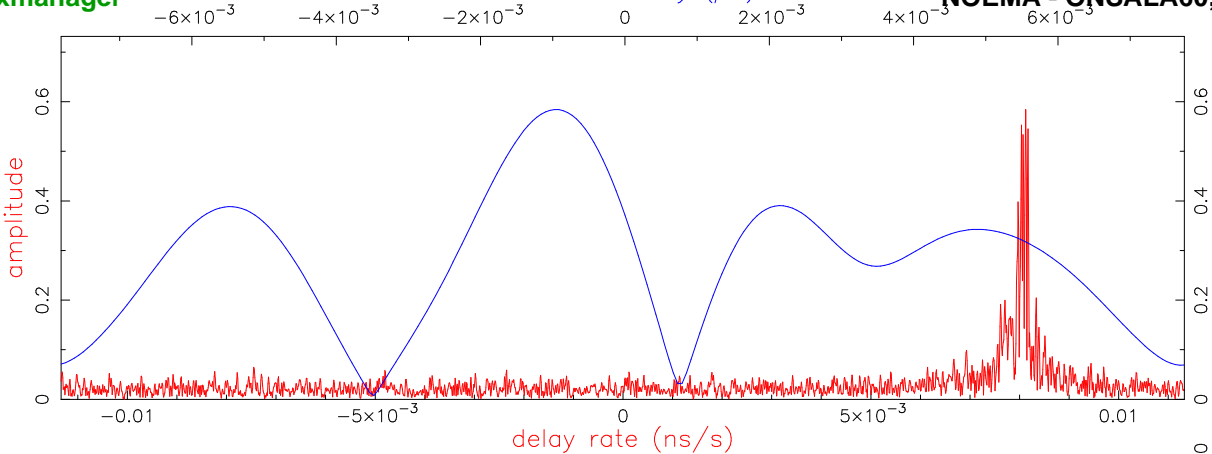
fxmanager

NRAO150.1X0136, No0081, NX

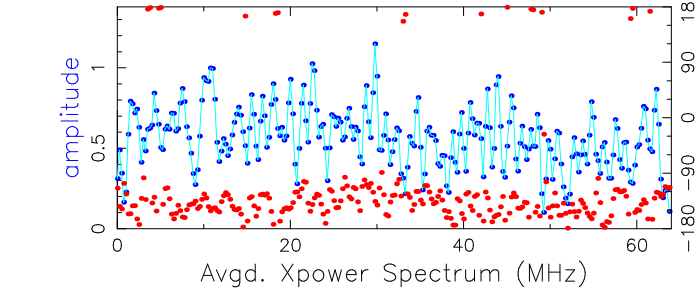
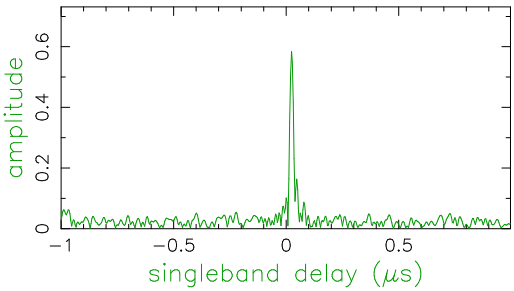
NOEMA - ONSALA60, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 3

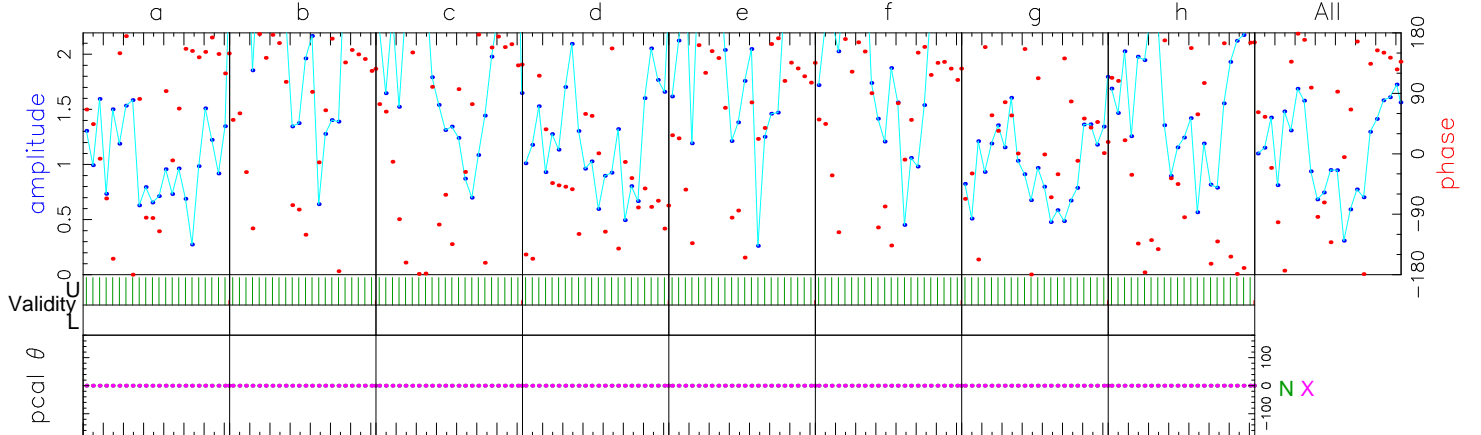


SNR 32.8
 Int time 419.781
 Amp 0.732
 Phase 147.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.024162
 MBD -0.000926
 Fringe rate (Hz)
 0.700683
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150000.00
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121541
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'59.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	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	Mani 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) 6.97969464683E+01 Apriori delay (usec) 6.97666225223E+01 Resid mbdelay (usec) -9.26054E-04 +/- 3.3E-05
 Sband delay (usec) 6.97907847723E+01 Apriori clock (usec) -6.9848724E+01 Resid sbdelay (usec) 2.41622E-02 +/- 2.6E-04
 Phase delay (usec) 6.97666272707E+01 Apriori clockrate (us/s) -4.9170000E-06 Resid phdelay (usec) 4.74840E-06 +/- 1.1E-07
 Delay rate (us/s) -2.66826786326E-02 Apriori rate (us/s) -2.66908128663E-02 Resid rate (us/s) 8.13423E-06 +/- 4.6E-10
 Total phase (deg) 98.3 Apriori accel (us/s/s) -1.30079799081E-05 Resid phase (deg) 147.2 +/- 3.5

RMS Theor. Amplitude 0.732 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 78.7 8.4 Search (2048X32) 0.556 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 115.1 14.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 73.5 4.9 Inc. seg. avg. 1.397 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 63.9 8.6 Inc. frq. avg. 1.029 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 299.7 el 71.9 pa 101.5 X: az 264.3 el 70.7 pa 58.4 u,v (fr/asec) 223.705 -2044.290 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/NX..1X0136 Output file: /Exps/c211c/v1/1234/No0081/NX.W.313.1X0136

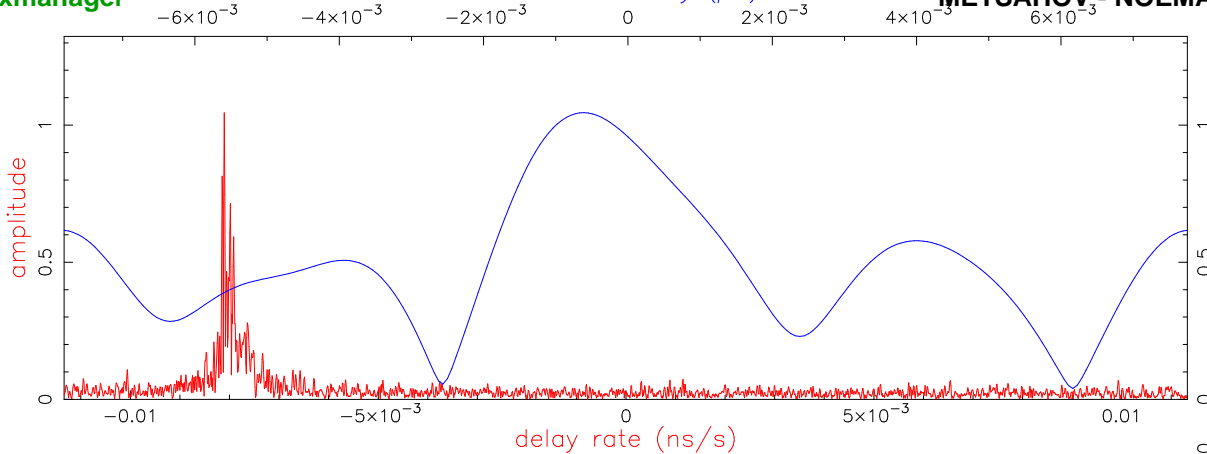
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, ZN

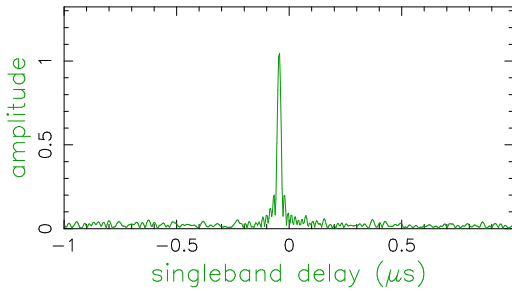
METSAHOV - NOEMA, fgroup W, pol LL

multiband delay (μ s)

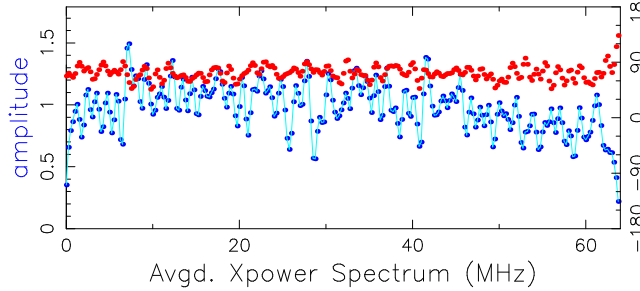


Fringe quality 1

SNR 58.5
 Int time 405.686
 Amp 1.324
 Phase -72.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.044570
 MBD -0.000648
 Fringe rate (Hz)
 -0.699133
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

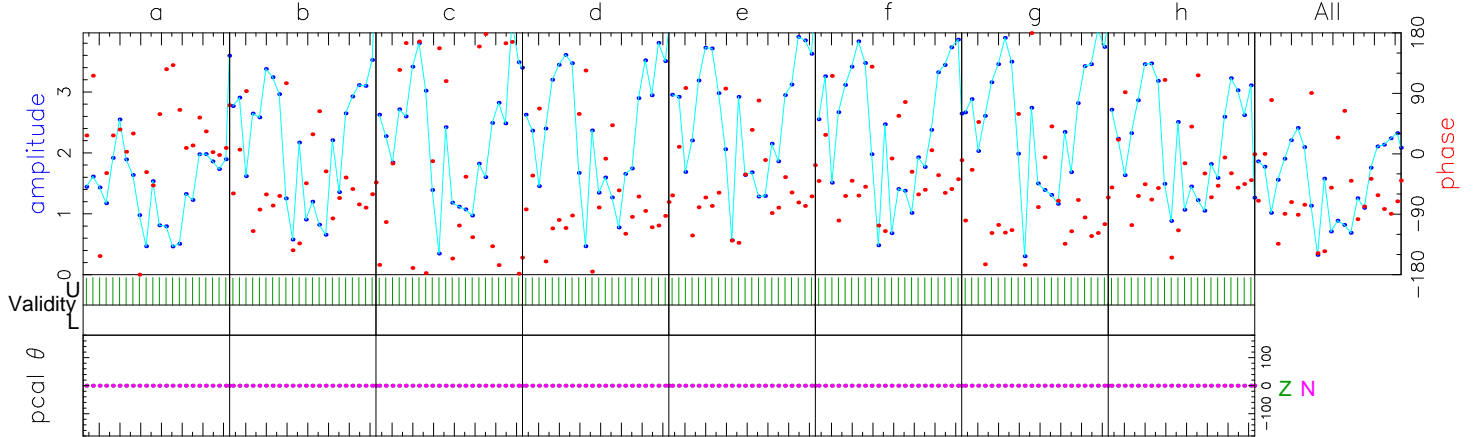


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150013.31
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121544
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	24.9	-64.1	-177.8	-93.9	-62.4	-42.7	-105.3	-44.4	Phase	-72.6
	1.2	1.9	1.9	2.0	2.1	2.0	2.1	1.9	Ampl.	1.9
	243.4	244.9	245.6	245.6	246.1	246.0	245.7	245.0	Sbd box	245.6
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	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	Mani 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)	-1.08423422596E+03	Apriori delay (usec)	-1.08418670332E+03	Resid mbdelay (usec)	-6.47647E-04	+/-	1.9E-05
Sband delay (usec)	-1.08423127307E+03	Apriori clock (usec)	1.2640848E+01	Resid sbdelay (usec)	-4.45697E-02	+/-	1.5E-04
Phase delay (usec)	-1.08418670566E+03	Apriori clockrate (us/s)	4.4049998E-06	Resid phdelay (usec)	-2.34069E-06	+/-	6.3E-08
Delay rate (us/s)	-3.37543061077E-02	Apriori rate (us/s)	-3.37461898628E-02	Resid rate (us/s)	-8.11625E-06	+/-	2.7E-10
Total phase (deg)	-297.1	Apriori accel (us/s/s)	2.03429018272E-05	Resid phase (deg)	-72.6	+/-	2.0

ph/seg (deg)	68.2	RMS	4.7	Theor.	4.7	Amplitude	1.324 +/- 0.023	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	73.0		8.2		8.2	Search (2048X32)	1.026	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	63.2		2.8		2.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.6		4.8		4.8	Inc. seg. avg.	1.915	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Inc. frq. avg.	1.896	Data rate(Mb/s):	2048	ion window (TEC)	0.00 0.00	

Z: az 269.1 el 64.1 pa 52.0 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) 338.194 2893.851 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/ZN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/ZN.W.324.1X0136

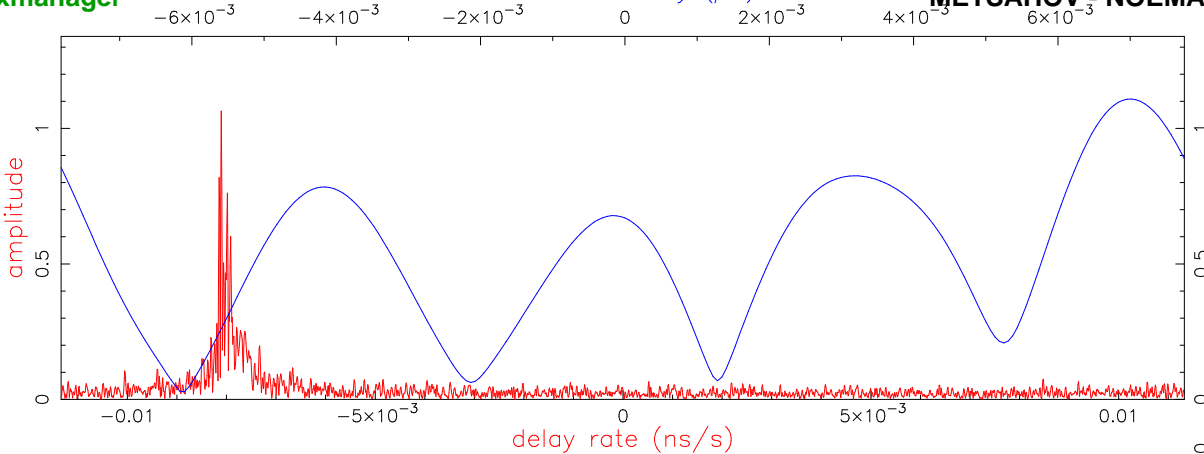
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, ZN

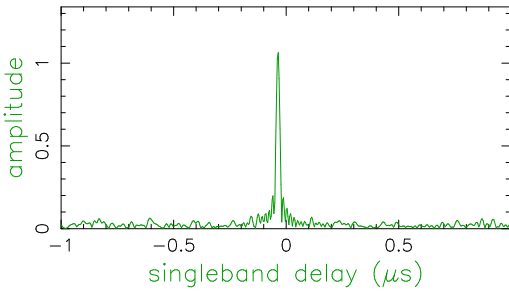
METSAHOV - NOEMA, fgroup W, pol RR

multiband delay (μ s)

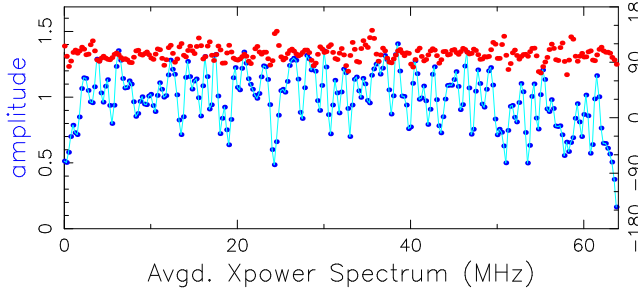


Fringe quality 1

SNR 59.2
 Int time 405.684
 Amp 1.340
 Phase 139.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.036438
 MBD -0.008301
 Fringe rate (Hz)
 -0.699209
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

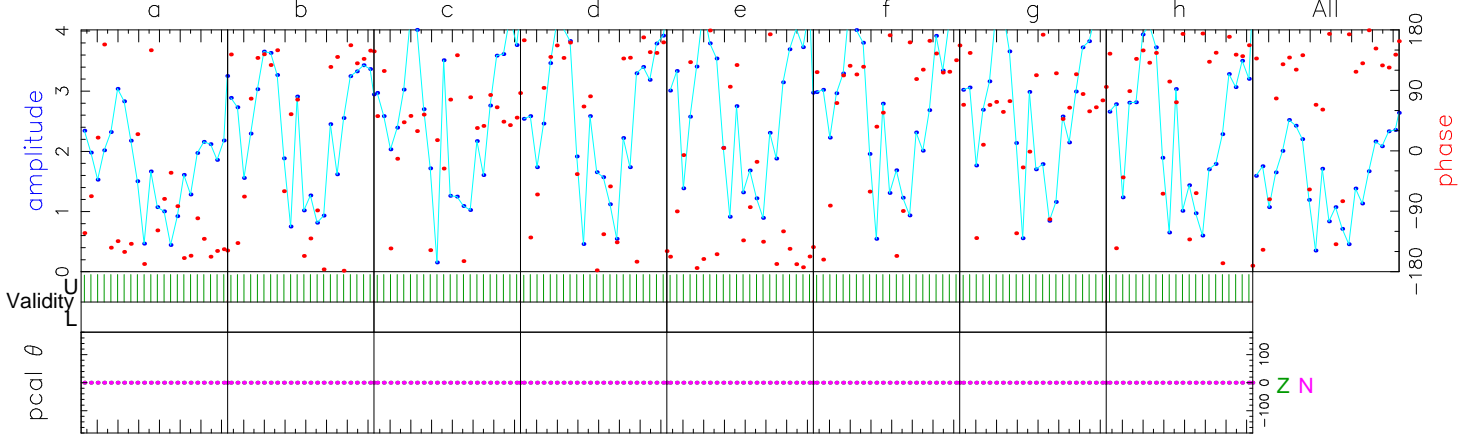


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150013.31
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121547
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-136.5	146.4	49.4	158.4	-159.5	128.5	73.3	149.2	Phase	139.9
	1.5	2.0	2.2	2.2	2.3	2.3	2.3	2.1	Ampl.	2.1
	245.8	247.3	247.7	248.0	248.1	247.8	247.9	247.1	Sbd box	247.7
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	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	Mani 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) -1.08422625410E+03 Apriori delay (usec) -1.08418670332E+03 Resid mbdelay (usec) -8.30078E-03 +/- 1.8E-05
 Sband delay (usec) -1.08422314182E+03 Apriori clock (usec) 1.2640848E+01 Resid sbdelay (usec) -3.64385E-02 +/- 1.5E-04
 Phase delay (usec) -1.08418669881E+03 Apriori clockrate (us/s) 4.4049998E-06 Resid phdelay (usec) 4.51045E-06 +/- 6.2E-08
 Delay rate (us/s) -3.37543069848E-02 Apriori rate (us/s) -3.37461898628E-02 Resid rate (us/s) -8.11712E-06 +/- 2.7E-10
 Total phase (deg) -84.7 Apriori accel (us/s/s) 2.03429018272E-05 Resid phase (deg) 139.9 +/- 1.9

RMS Theor. Amplitude 1.340 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 68.0 4.6 Search (2048X32) 1.066 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 75.8 8.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 63.1 2.7 Inc. seg. avg. 1.962 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 60.7 4.8 Inc. frq. avg. 2.109 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 269.1 el 64.1 pa 52.0 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) 338.194 2893.851 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/ZN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/ZN.W.335.1X0136

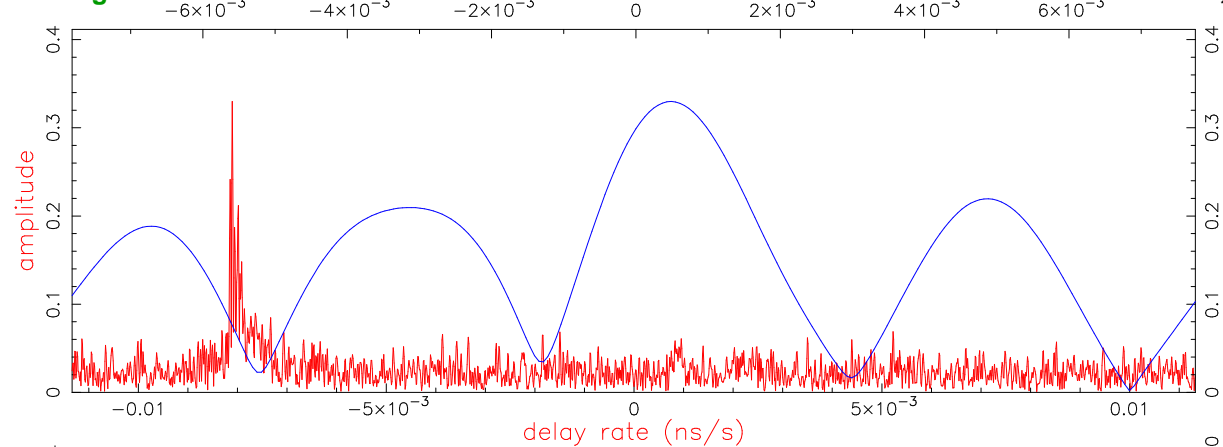
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0136, No0081, ZN

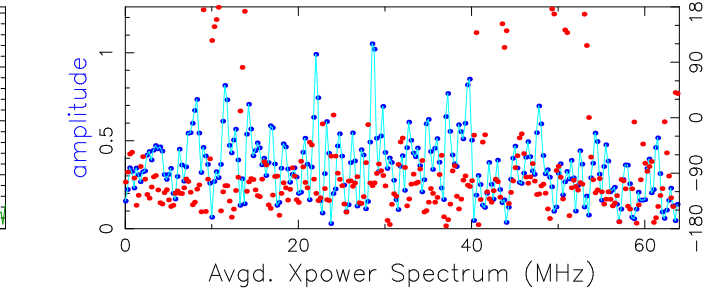
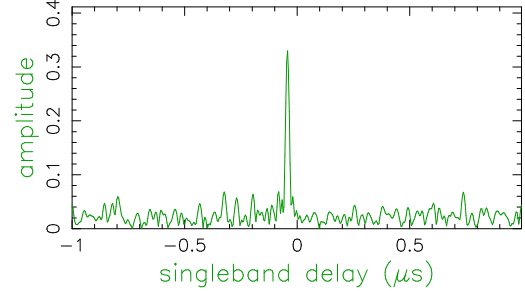
METSAHOV - NOEMA, fgroup W, pol LR

multiband delay (μ s)



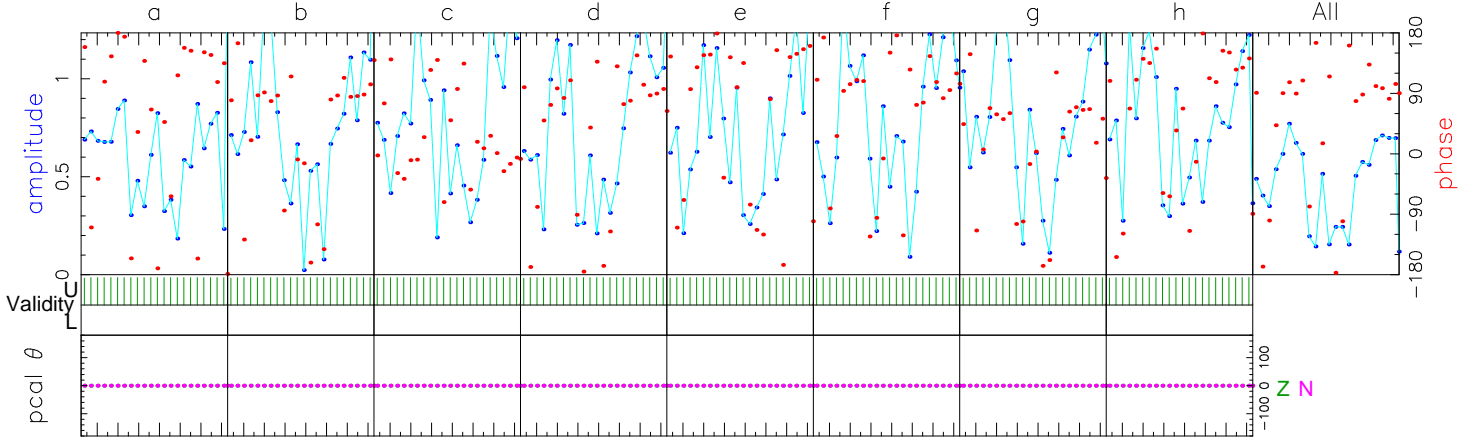
Fringe quality 7

SNR 18.2
 Int time 405.684
 Amp 0.412
 Phase 99.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.043380
 MBD 0.000475
 Fringe rate (Hz)
 -0.699129
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150013.31
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121551
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) -1.08423310353E+03 Apriori delay (usec) -1.08418670332E+03 Resid mbdelay (usec) 4.74790E-04 +/- 6.0E-05
 Sband delay (usec) -1.08423008382E+03 Apriori clock (usec) 1.2640848E+01 Resid sbdelay (usec) -4.33805E-02 +/- 4.7E-04
 Phase delay (usec) -1.08418670013E+03 Apriori clockrate (us/s) 4.4049998E-06 Resid phdelay (usec) 3.19180E-06 +/- 2.0E-07
 Delay rate (us/s) -3.37543060581E-02 Apriori rate (us/s) -3.37461898628E-02 Resid rate (us/s) -8.11620E-06 +/- 8.7E-10
 Total phase (deg) -125.6 Apriori accel (us/s/s) 2.03429018272E-05 Resid phase (deg) 99.0 +/- 6.3

RMS Theor. Amplitude 0.412 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 73.9 15.1 Search (2048X32) 0.322 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 76.4 26.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 55.8 8.9 Inc. seg. avg. 0.577 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 47.8 15.6 Inc. frq. avg. 0.587 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 269.1 el 64.1 pa 52.0 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) 338.194 2893.851 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/ZN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/ZN.W.346.1X0136

Mk4/DiFX fourfit 3.21 rev 2937

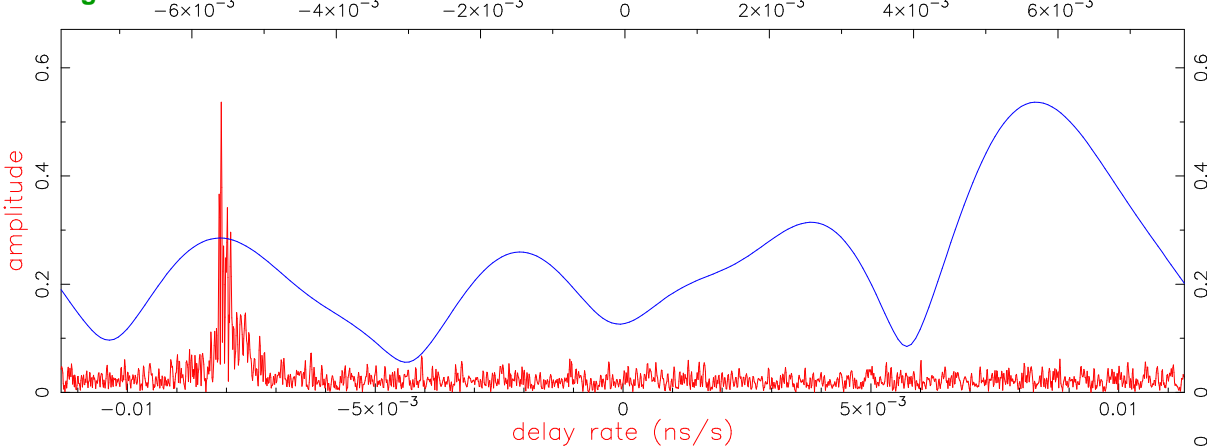
fxmanager

NRAO150.1X0136, No0081, ZN

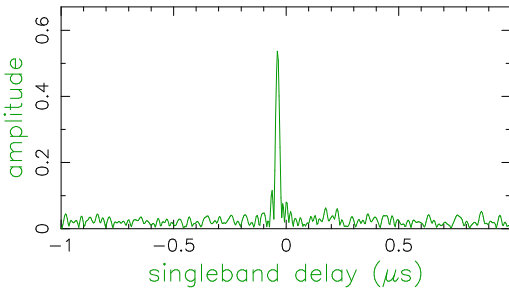
METSAHOV - NOEMA, fgroup W, pol RL

multiband delay (μ s)

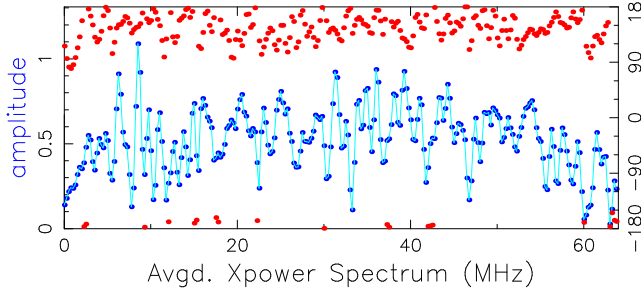
Fringe quality 3



SNR 29.7
 Int time 405.686
 Amp 0.671
 Phase 0.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.038276
 MBD 0.005712
 Fringe rate (Hz)
 -0.699149
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

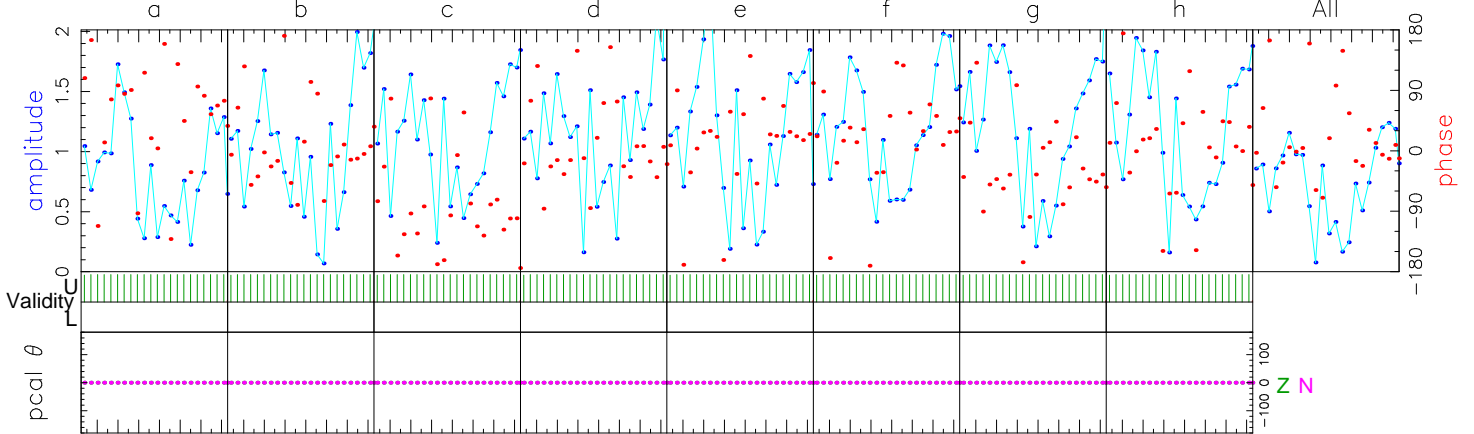


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 150013.31
 Stop 150659.84
 FRT 150330.00
 Corr/FF/build
 2021:303:065408
 2021:303:121554
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.08422786671E+03	Apriori delay (usec)	-1.08418670332E+03	Resid mbdelay (usec)	5.71160E-03	+/-	3.7E-05
Sband delay (usec)	-1.08422497907E+03	Apriori clock (usec)	1.2640848E+01	Resid sbdelay (usec)	-3.82757E-02	+/-	2.9E-04
Phase delay (usec)	-1.08418670329E+03	Apriori clockrate (us/s)	4.4049998E-06	Resid phdelay (usec)	2.46294E-08	+/-	1.2E-07
Delay rate (us/s)	-3.37543062912E-02	Apriori rate (us/s)	-3.37461898628E-02	Resid rate (us/s)	-8.11643E-06	+/-	5.3E-10
Total phase (deg)	-223.8	Apriori accel (us/s/s)	2.03429018272E-05	Resid phase (deg)	0.8	+/-	3.9

ph/seg (deg)	68.8	RMS	9.3	Theor.	68.8	Amplitude	0.671 +/- 0.023	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	74.9	Search (2048X32)	0.526	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	56.8	Inc. seg. avg.	0.923	Inc. frq. avg.	0.924	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	42.5	Inc. frq. avg.	0.924	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite

Z: az 269.1 el 64.1 pa 52.0 N: az 299.7 el 71.9 pa 101.5 u,v (fr/asec) 338.194 2893.851 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0081/ZN..1X0136 Output file: /Exps/c211c/v1/1234/No0081/ZN.W.357.1X0136