

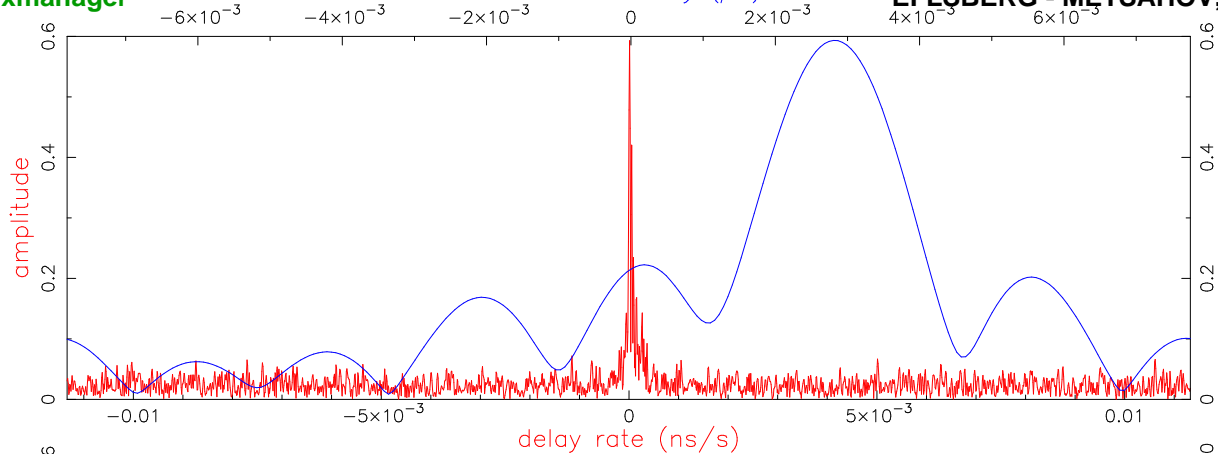
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, BZ

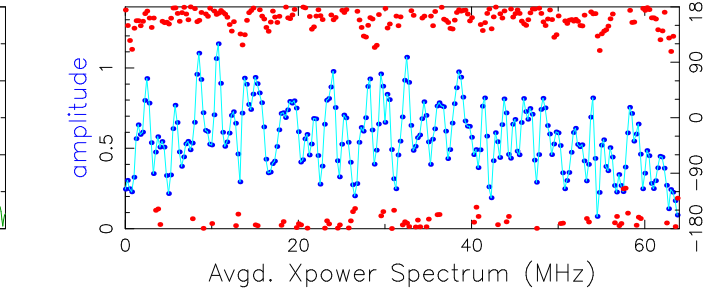
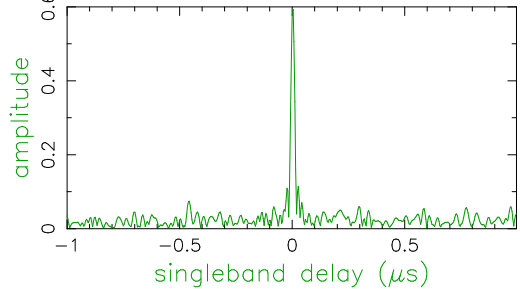
EFLSBERG - METSAHOV, fgroup W, pol RL

multiband delay (μ s)



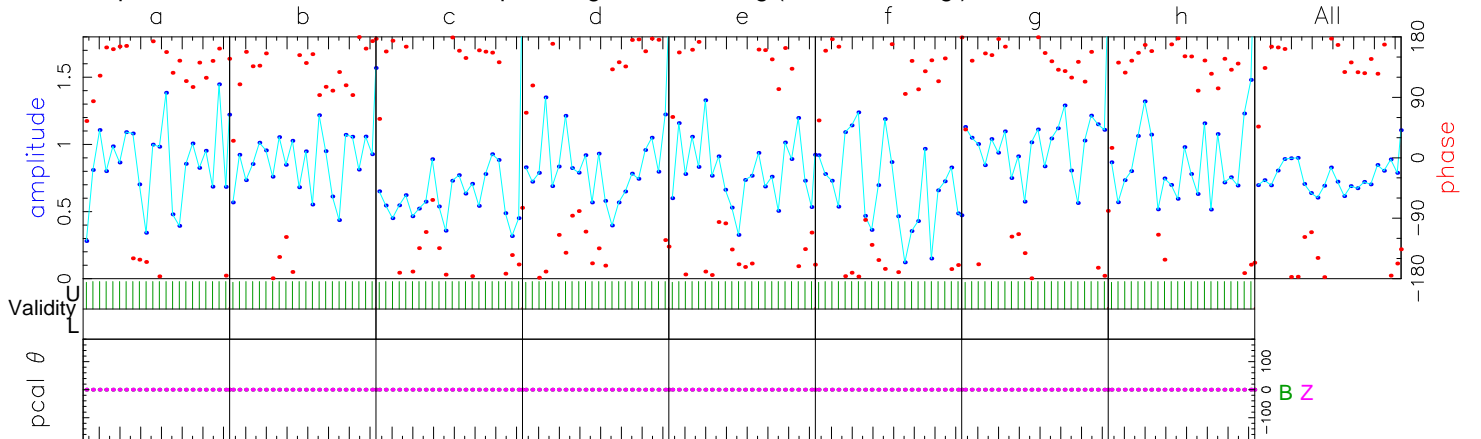
Fringe quality 7

SNR 33.1
 Int time 405.757
 Amp 0.600
 Phase 166.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.002493
 MBD 0.002783
 Fringe rate (Hz) 0.000549
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114011
 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		
B	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-3.11688574909E+03	Apriori delay (usec)	-3.11688853251E+03	Resid mbdelay (usec)	2.78342E-03	+/-	3.3E-05
Sband delay (usec)	-3.11688603976E+03	Apriori clock (usec)	-2.1347092E+01	Resid sbdelay (usec)	2.49275E-03	+/-	2.6E-04
Phase delay (usec)	-3.11688852715E+03	Apriori clockrate (us/s)	-1.6000000E-08	Resid phdelay (usec)	5.36312E-06	+/-	1.1E-07
Delay rate (us/s)	1.85266607126E-01	Apriori rate (us/s)	1.85266600756E-01	Resid rate (us/s)	6.37064E-09	+/-	4.8E-10
Total phase (deg)	97.7	Apriori accel (us/s/s)	8.01878866325E-06	Resid phase (deg)	166.3	+/-	3.5

ph/seg (deg)	42.5	RMS	42.5	Theor.	8.3	Amplitude	0.600 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	29.8		29.8		14.5	Search (2048X32)	0.564	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	18.6		18.6		4.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	16.1		16.1		8.6	Inc. seg. avg.	0.745	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Inc. frq. avg.	0.614	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 57.0 el 42.6 pa -58.1 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) -1672.152 257.498 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/BZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/BZ.W.103.1WZMQH

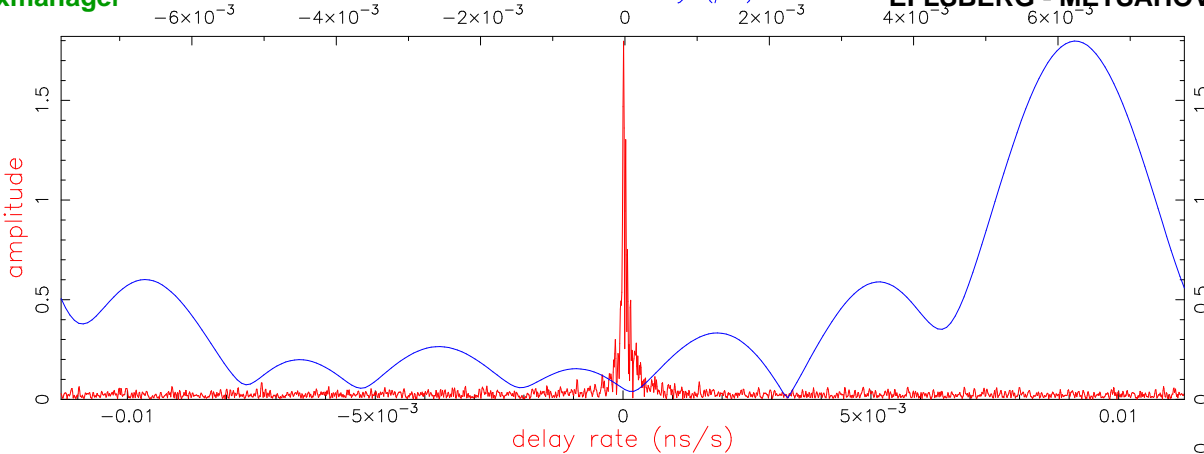
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, BZ

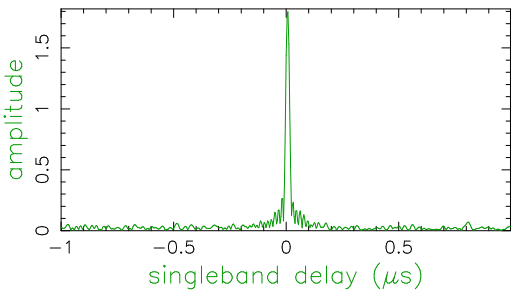
EFLSBERG - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

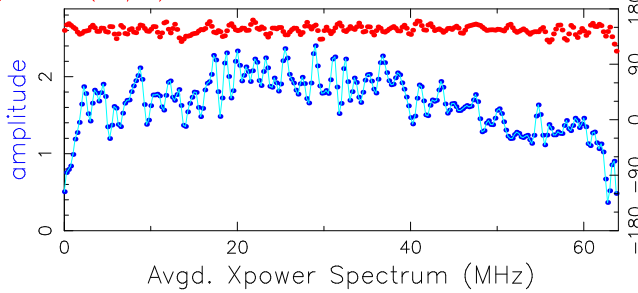


Fringe quality 5

SNR 100.3
 Int time 405.757
 Amp 1.821
 Phase 147.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.006278
 MBD 0.006202
 Fringe rate (Hz)
 0.000577
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

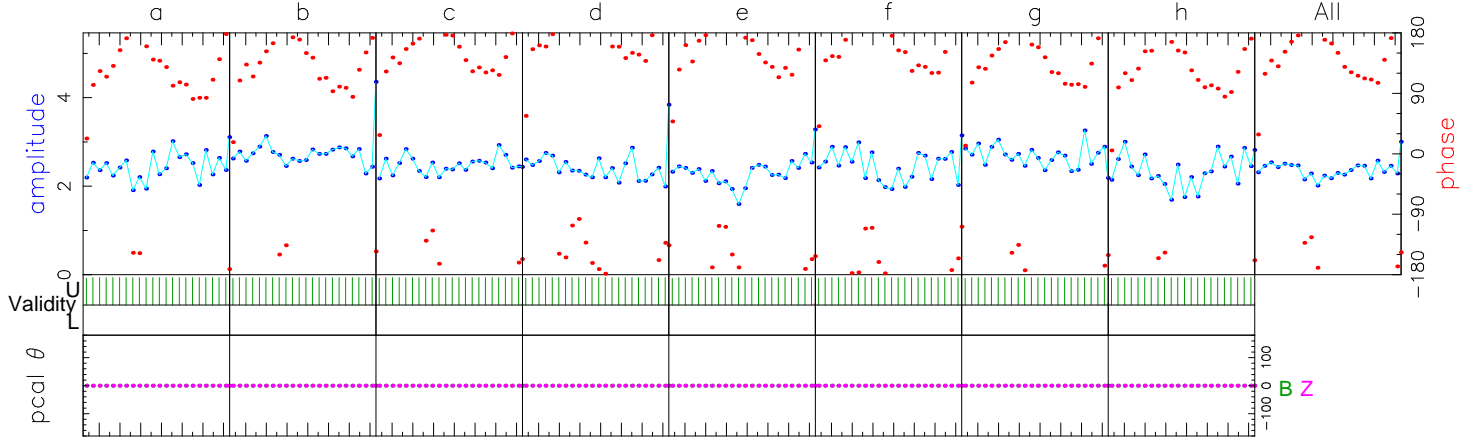


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114000
 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		
B	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-3.11688233087E+03	Apriori delay (usec)	-3.11688853251E+03	Resid mbdelay (usec)	6.20164E-03	+/-	1.1E-05
Sband delay (usec)	-3.11688225401E+03	Apriori clock (usec)	-2.1347092E+01	Resid sbdelay (usec)	6.27850E-03	+/-	8.6E-05
Phase delay (usec)	-3.11688852774E+03	Apriori clockrate (us/s)	-1.6000000E-08	Resid phdelay (usec)	4.76991E-06	+/-	3.7E-08
Delay rate (us/s)	1.85266607449E-01	Apriori rate (us/s)	1.85266600756E-01	Resid rate (us/s)	6.69374E-09	+/-	1.6E-10
Total phase (deg)	79.3	Apriori accel (us/s/s)	8.01878866325E-06	Resid phase (deg)	147.9	+/-	1.1

ph/seg (deg)	43.7	RMS	2.7	Theor.	1.821 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	30.3	Search (2048X32)	1.719	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	20.5	Inc. seg. avg.	2.351	Inc. frq. avg.	1.883	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	6.8	Inc. frq. avg.	1.883	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 57.0 el 42.6 pa -58.1	Z: az 77.3 el 55.6 pa -50.2	u, v (fr/asec)	-1672.152 257.498			ion window (TEC)	0.00 0.00	simultaneous interpolator			

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/BZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/BZ.W.29.1WZMQH

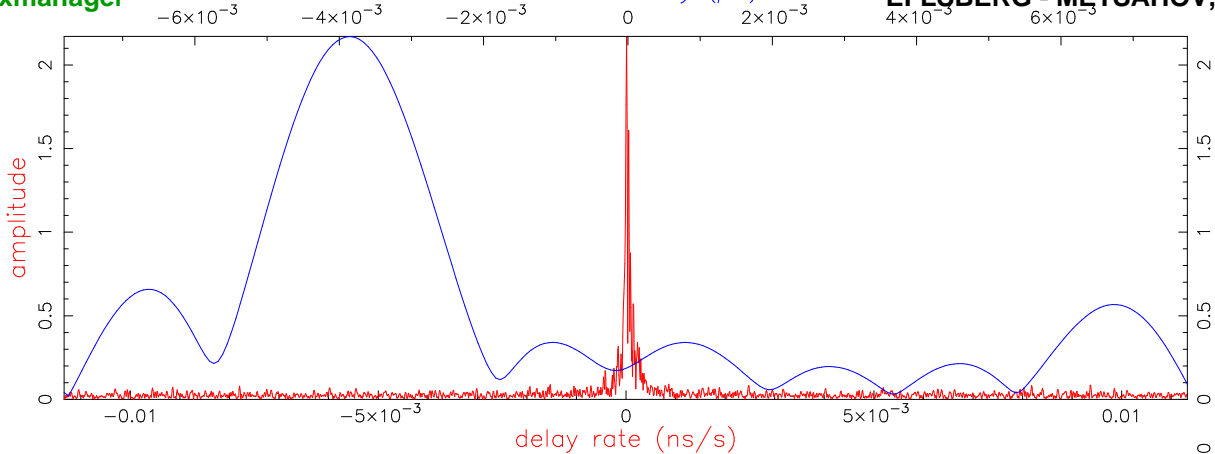
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, BZ

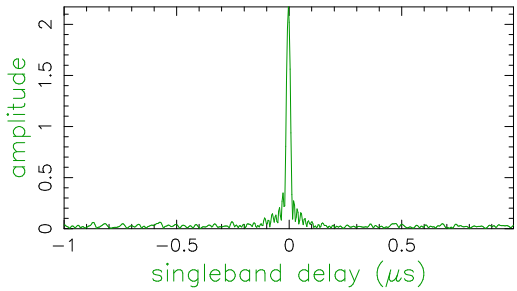
EFLSBERG - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

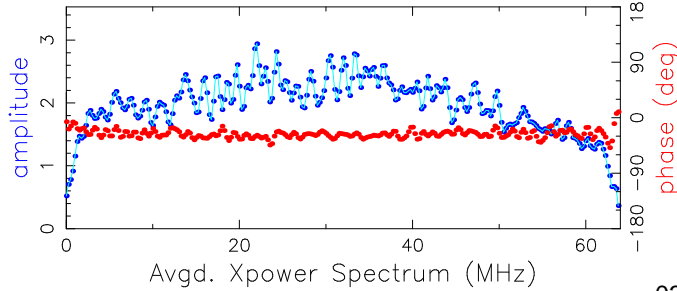


Fringe quality 5

SNR 119.6
 Int time 405.757
 Amp 2.171
 Phase -23.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.003564
 MBD -0.003850
 Fringe rate (Hz)
 0.000975
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

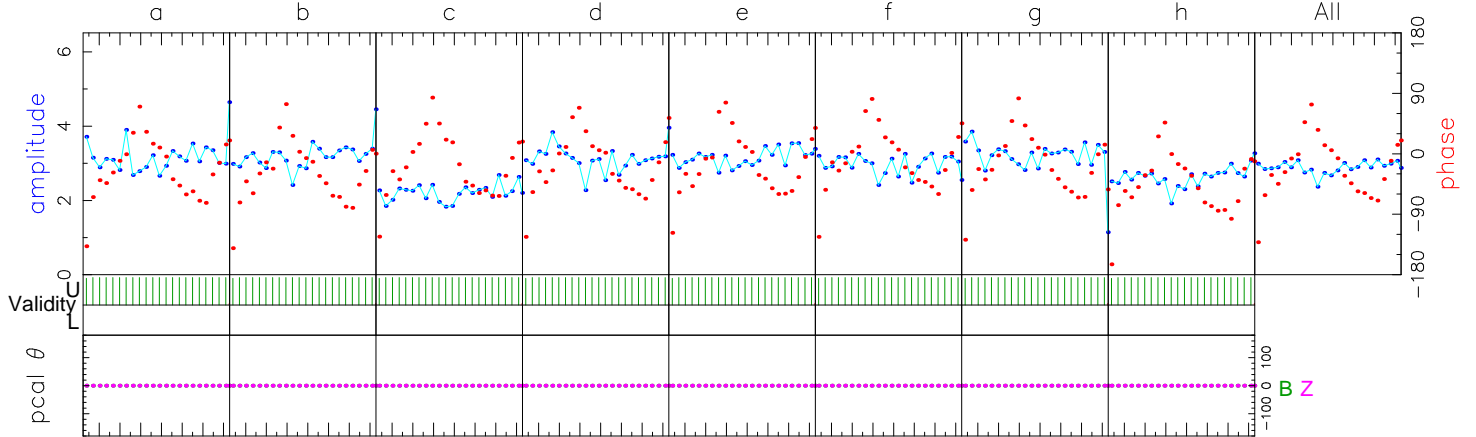


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114004
 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
	-25.8	-31.9	-19.5	-19.3	-20.1	-9.2	-17.7	-47.0	Phase	-23.5
	2.3	2.4	1.6	2.4	2.4	2.2	2.4	2.0	Ampl.	2.2
	255.9	256.2	256.4	255.9	256.2	256.2	255.9	255.1	Sbd box	256.1
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.11689238215E+03		Apriori delay (usec)		-3.11688853251E+03		Resid mbdelay (usec)		-3.84964E-03	+/- 9.1E-06
Sband delay (usec)	-3.11689209601E+03		Apriori clock (usec)		-2.1347092E+01		Resid sbdelay (usec)		-3.56350E-03	+/- 7.2E-05
Phase delay (usec)	-3.11688853327E+03		Apriori clockrate (us/s)		-1.6000000E-08		Resid phdelay (usec)		-7.59170E-07	+/- 3.1E-08
Delay rate (us/s)	1.85266612073E-01		Apriori rate (us/s)		1.85266600756E-01		Resid rate (us/s)		1.13178E-08	+/- 1.3E-10
Total phase (deg)			Apriori accel (us/s/s)		8.01878866325E-06		Resid phase (deg)		-23.5	+/- 1.0

	RMS	Theor.	Amplitude	2.171 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	44.1	2.3	Search (2048X32)	2.167	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	34.0	4.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	12.3	1.4	Inc. seg. avg.	2.888	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	12.0	2.4	Inc. frq. avg.	2.205	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 57.0 el 42.6 pa -58.1 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) -1672.152 257.498 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/BZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/BZ.W.52.1WZMQH

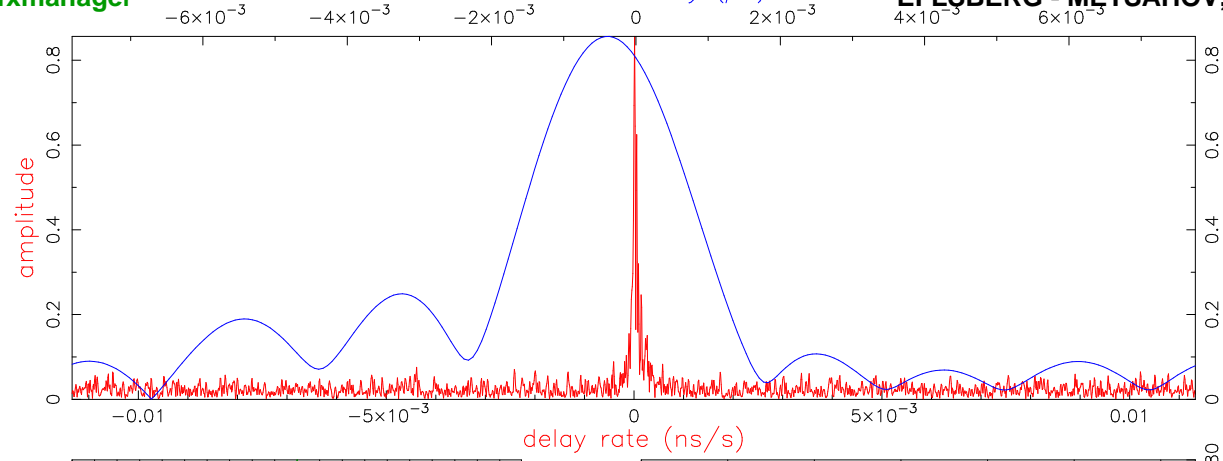
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, BZ

EFLSBERG - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

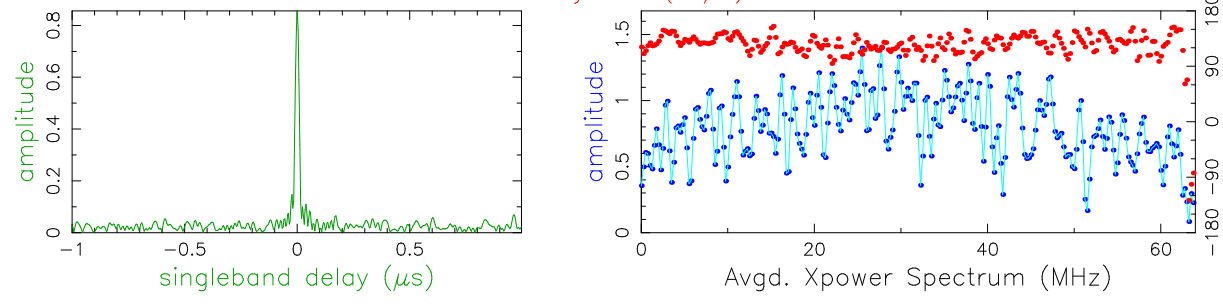


Fringe quality 7

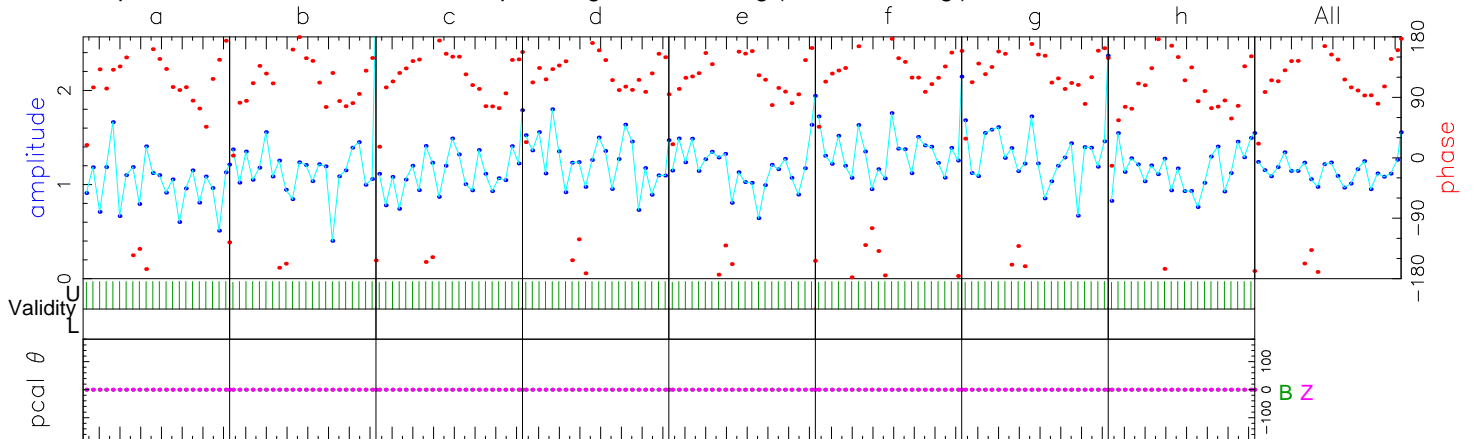
SNR 47.2
 Int time 405.757
 Amp 0.856
 Phase 129.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.000082
 MBD -0.000395
 Fringe rate (Hz) 0.001012
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114008
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

delay rate (ns/s)



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		
B	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-3.11688892740E+03	Apriori delay (usec)	-3.11688853251E+03	Resid mbdelay (usec)	-3.94888E-04	+/-	2.3E-05
Sband delay (usec)	-3.11688861476E+03	Apriori clock (usec)	-2.1347092E+01	Resid sbdelay (usec)	-8.22500E-05	+/-	1.8E-04
Phase delay (usec)	-3.11688852832E+03	Apriori clockrate (us/s)	-1.6000000E-08	Resid phdelay (usec)	4.18821E-06	+/-	7.8E-08
Delay rate (us/s)	1.85266612503E-01	Apriori rate (us/s)	1.85266600756E-01	Resid rate (us/s)	1.17479E-08	+/-	3.3E-10
Total phase (deg)		Apriori accel (us/s/s)	8.01878866325E-06	Resid phase (deg)	129.9	+/-	2.4

ph/seg (deg)	43.6	RMS	43.6	Theor.	5.8	Amplitude	0.856 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	35.2		10.2	Search (2048X32)	0.852	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	13.1		3.4	Inc. seg. avg.	1.133	Inc. frq. avg.	0.872	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	10.4		6.0					Sample rate (MSamp/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

B: az 57.0 el 42.6 pa -58.1 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) -1672.152 257.498 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/BZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/BZ.W.78.1WZMQH

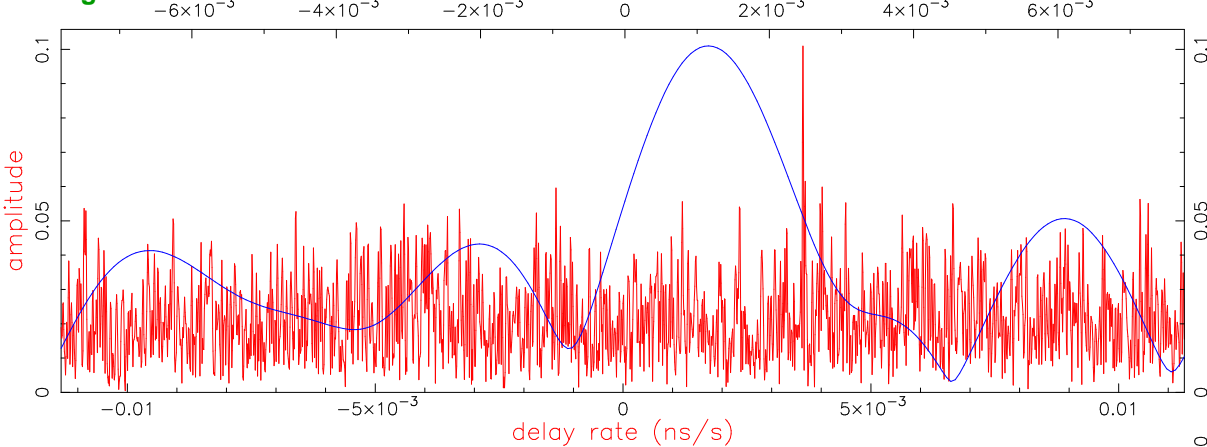
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, gZ

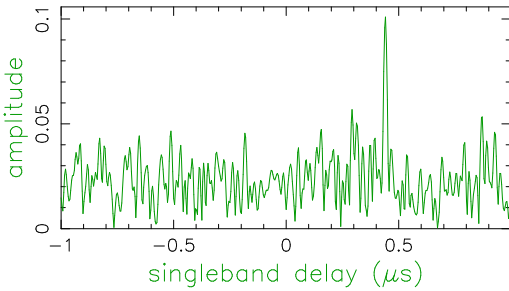
GLT - METSAHOV, fgroup W, pol RL

multiband delay (μs)

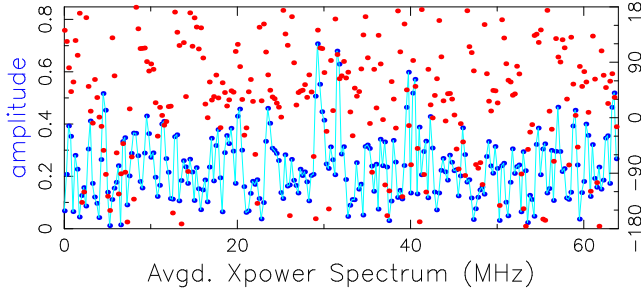


Fringe quality 0

SNR 5.6
 Int time 405.757
 Amp 0.106
 Phase 83.0
 PFD 1.0e+00
 Delays (us)
 SBD 0.440553
 MBD 0.001191
 Fringe rate (Hz)
 0.313176
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

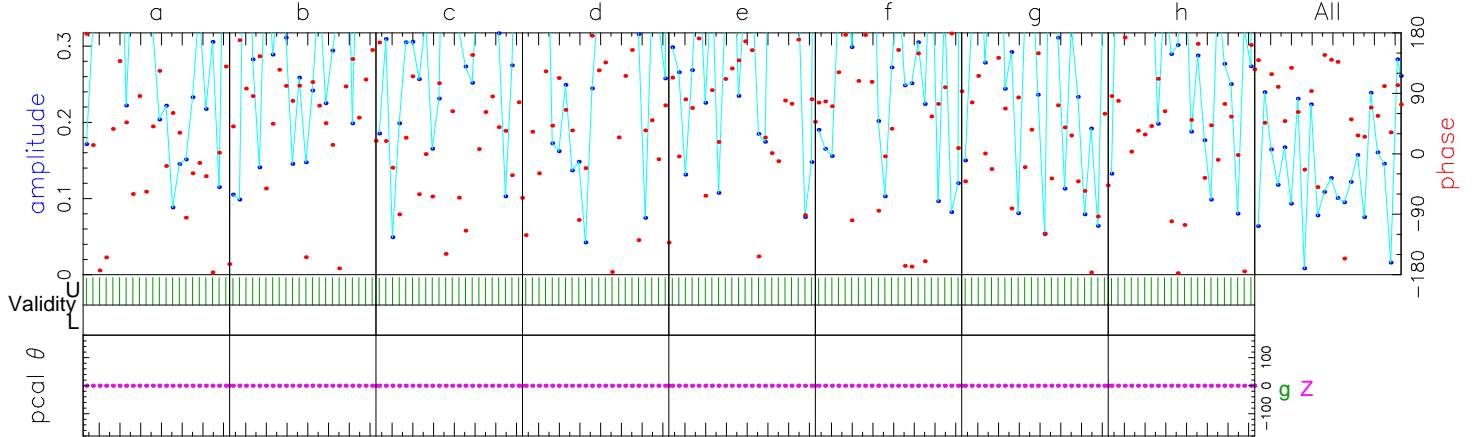


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114012
 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		
g	0	0	0	0	0	0	0	0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-4.35027467544E+03	Apriori delay (usec)	-4.35071336669E+03	Resid mbdelay (usec)	1.19125E-03	+/-	1.9E-04
Sband delay (usec)	-4.35027281419E+03	Apriori clock (usec)	1.1523266E+00	Resid sbdelay (usec)	4.40553E-01	+/-	1.5E-03
Phase delay (usec)	-4.35071336401E+03	Apriori clockrate (us/s)	5.6000004E-08	Resid phdelay (usec)	2.67709E-06	+/-	6.6E-07
Delay rate (us/s)	-3.21096630231E-01	Apriori rate (us/s)	-3.21100265898E-01	Resid rate (us/s)	3.63567E-06	+/-	2.8E-09
Total phase (deg)	-63.4	Apriori accel (us/s/s)	3.23568230515E-05	Resid phase (deg)	83.0	+/-	20.5

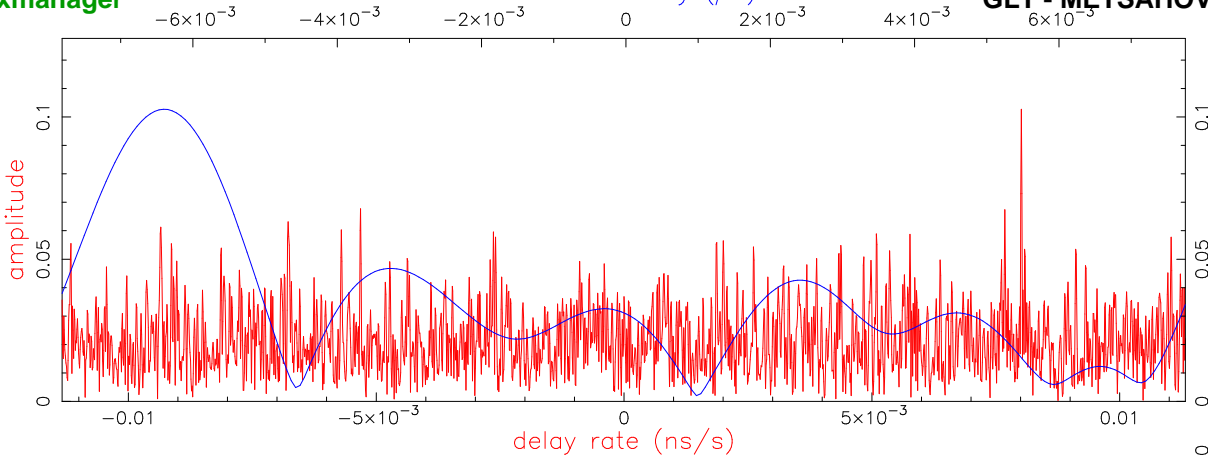
ph/seg (deg)	58.4	RMS	58.4	Theor.	49.2	Amplitude	0.106 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	78.8	Search (2048X32)	0.096	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
ph/frq (deg)	37.9	Inc. seg. avg.	0.105	Sample rate (MSamp/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
amp/frq (%)	46.8	Inc. frq. avg.	0.108	u,v (fr/asec)	2974.986 3699.451	simultaneous interpolator							

g: az 20.3 el 38.6 pa -7.6 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 2974.986 3699.451 simultaneous interpolator

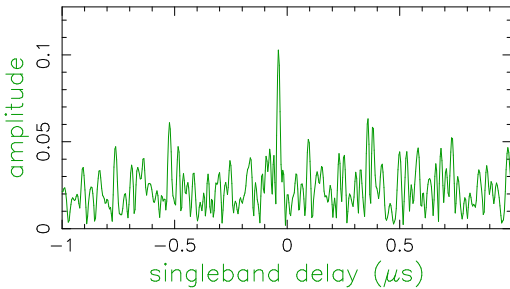
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/gz..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/gz.W.108.1WZMQH

multiband delay (μ s)

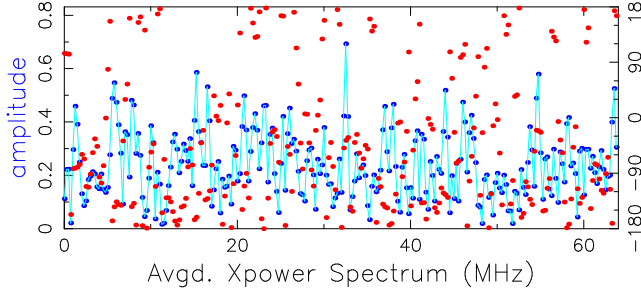
Fringe quality 0



SNR 5.7
 Int time 405.757
 Amp 0.128
 Phase -134.2
 PFD 9.7e-01
 Delays (us)
 SBD -0.038591
 MBD -0.006408
 Fringe rate (Hz)
 0.691461
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

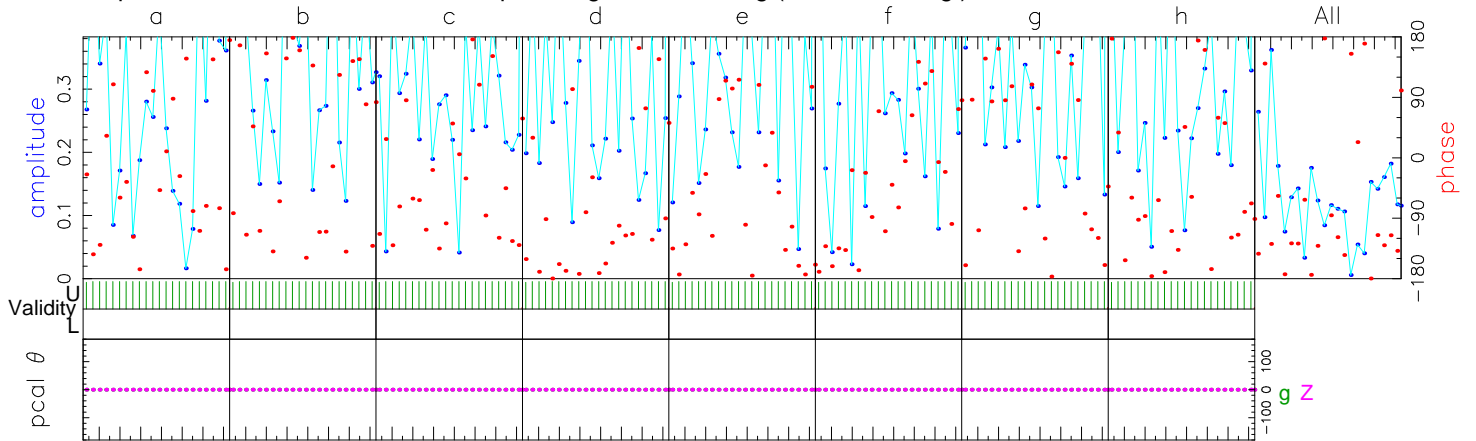


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114000
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'59.161694"

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
	-107.6	-172.5	-102.3	-128.5	-138.5	-141.5	-168.9	-112.7	Phase	-134.2
	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	Ampl.	0.1
	275.9	355.7	398.4	123.6	425.7	60.8	237.5	246.2	Sbd box	247.1
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-4.35075102472E+03	Apriori delay (usec)	-4.35071336669E+03	Resid mbdelay (usec)	-6.40803E-03	+/-	1.9E-04
Sband delay (usec)	-4.35075195794E+03	Apriori clock (usec)	1.1523266E+00	Resid sbdelay (usec)	-3.85913E-02	+/-	1.5E-03
Phase delay (usec)	-4.35071337102E+03	Apriori clockrate (us/s)	5.6000004E-08	Resid phdelay (usec)	-4.32799E-06	+/-	6.5E-07
Delay rate (us/s)	-3.21092238721E-01	Apriori rate (us/s)	-3.21100265898E-01	Resid rate (us/s)	8.02718E-06	+/-	2.8E-09
Total phase (deg)	-280.6	Apriori accel (us/s/s)	3.23568230515E-05	Resid phase (deg)	-134.2	+/-	20.2

ph/seg (deg)	53.7	Theor.	48.5	Amplitude	0.128 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	78.0	Search (2048X32)	0.101	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	28.8	Inc. seg. avg.	0.118	Inc. frq. avg.	0.126	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	40.0	Inc. frq. avg.	0.126			Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011	
g: az 20.3 el 38.6 pa -7.6		Z: az 77.3 el 55.6 pa -50.2		u, v (fr/asec)	2974.986 3699.451	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/No0029/gz..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/gz.W.31.1WZMQH

simultaneous interpolator

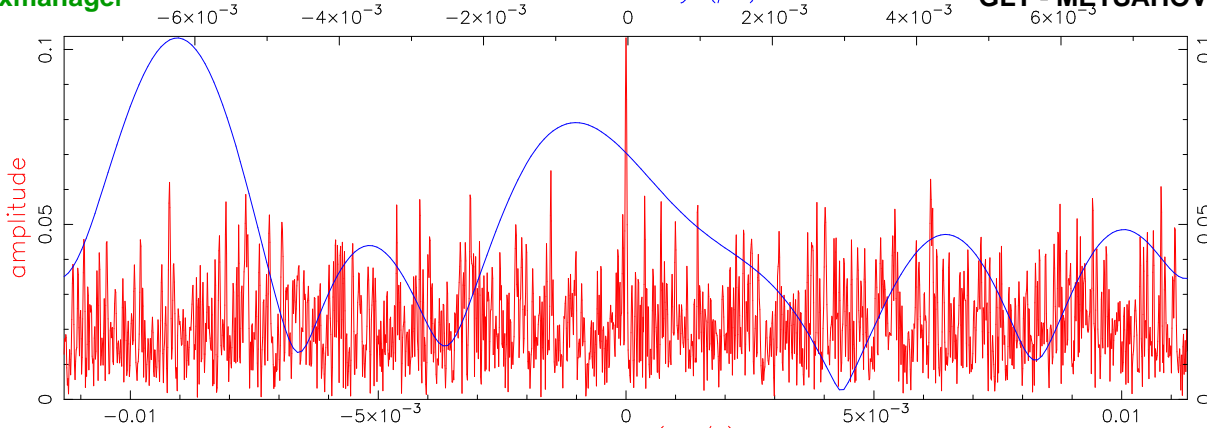
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, gZ

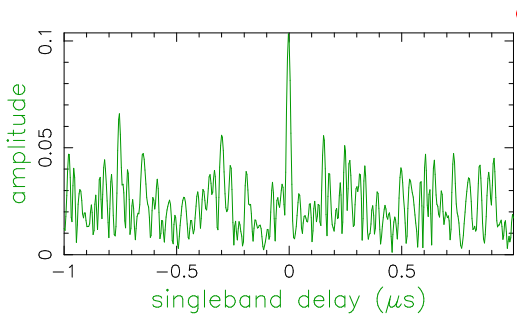
GLT - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

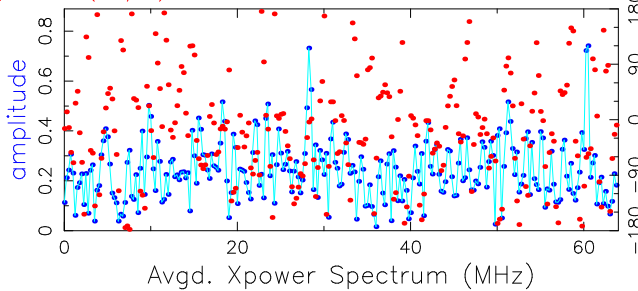


Fringe quality 0

SNR 5.7
 Int time 405.757
 Amp 0.104
 Phase 14.3
 PFD 9.3e-01
 Delays (us)
 SBD -0.002993
 MBD -0.006248
 Fringe rate (Hz)
 0.000030
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

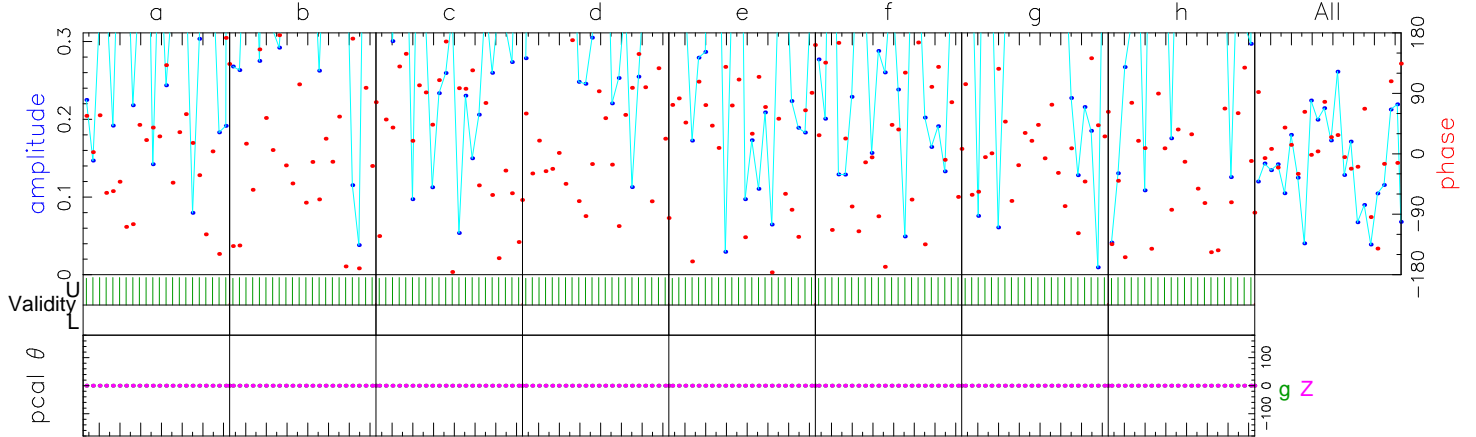


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114005
 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

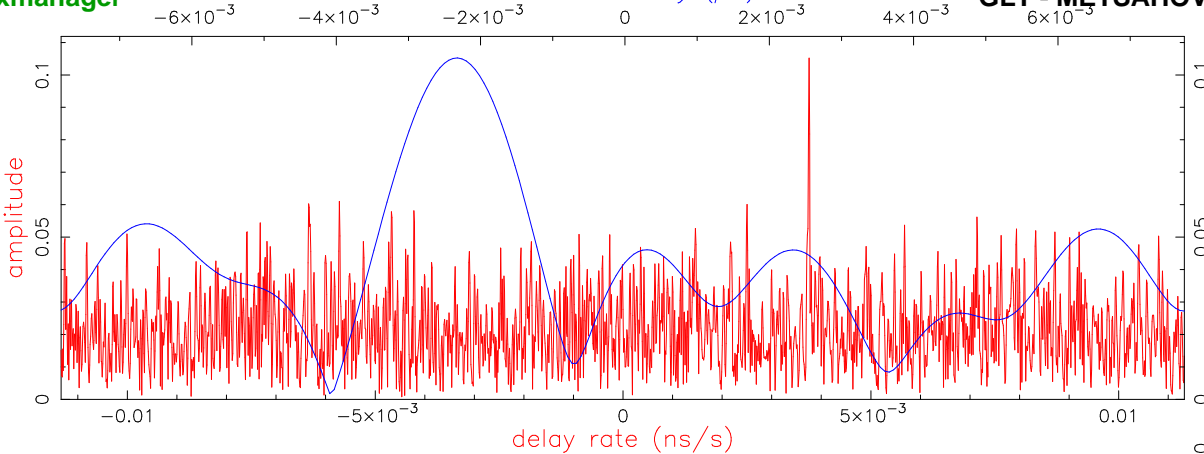


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-5.6	-3.4	130.0	6.7	66.7	-74.9	10.5	-4.1		Phase 14.3
	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1		Ampl. 0.1
	446.2	397.4	363.9	212.6	182.2	260.6	256.9	12.1		Sbd box 256.2
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0		APs used
g	0	0	0	0	0	0	0	0		PC freqs
Z	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
g	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
Z	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Chan ids
										Tracks
Group delay (usec)(sbd)	-4.35071961472E+03		Apriori delay (usec)		-4.35071336669E+03		Resid mbdelay (usec)		-6.24803E-03	+/- 1.9E-04
Sband delay (usec)	-4.35071635944E+03		Apriori clock (usec)		1.1523266E+00		Resid sbdelay (usec)		-2.99275E-03	+/- 1.5E-03
Phase delay (usec)	-4.35071336623E+03		Apriori clockrate (us/s)		5.6000004E-08		Resid phdelay (usec)		4.62335E-07	+/- 6.5E-07
Delay rate (us/s)	-3.2110026553E-01		Apriori rate (us/s)		-3.21100265898E-01		Resid rate (us/s)		3.44359E-10	+/- 2.8E-09
Total phase (deg)			Apriori accel (us/s/s)		3.23568230515E-05		Resid phase (deg)		14.3	+/- 20.1

	RMS	Theor.	Amplitude	0.104 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	56.2	48.1	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	70.0	83.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	64.8	28.4	Inc. seg. avg.	0.108	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	60.0	49.5	Inc. frq. avg.	0.122	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

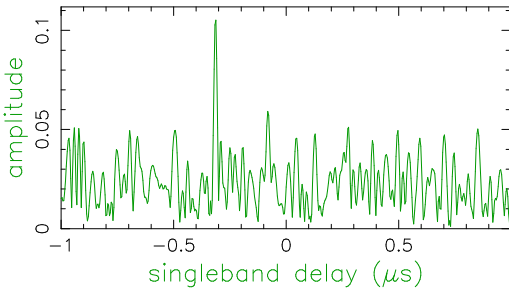
g: az 20.3 el 38.6 pa -7.6 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 2974.986 3699.451 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/gz..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/gz.W.54.1WZMQH

multiband delay (μs)

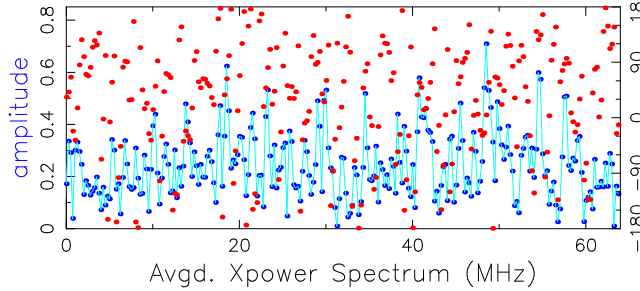


Fringe quality 0

SNR 5.9
 Int time 405.757
 Amp 0.112
 Phase 73.1
 PFD 6.3e-01
 Delays (us)
 SBD -0.314010
 MBD -0.002356
 Fringe rate (Hz)
 0.323867
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

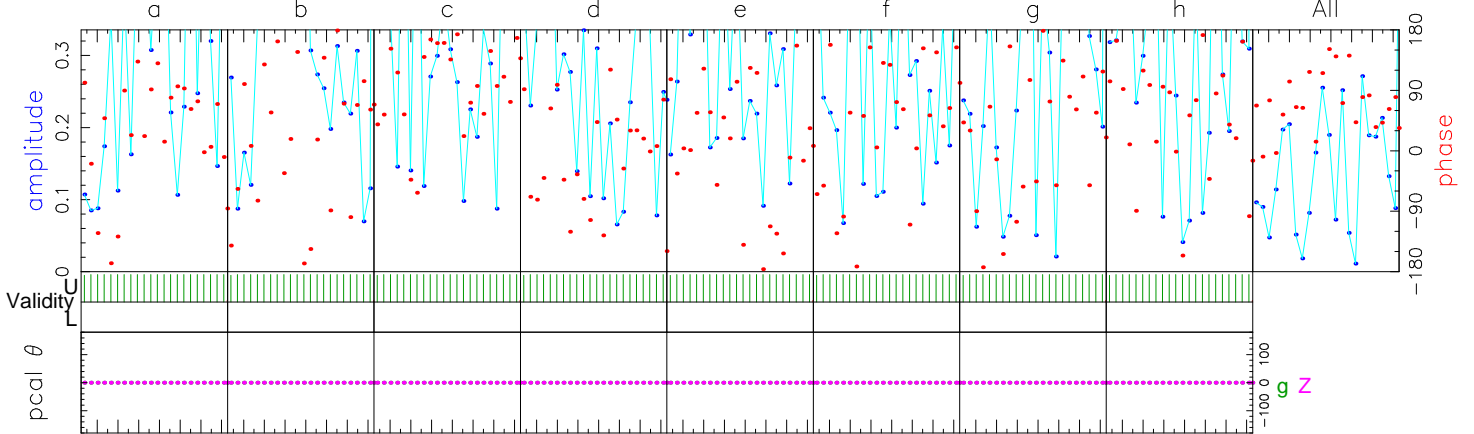


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114008
 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		
g	0	0	0	0	0	0	0	0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-4.35102822268E+03	Apriori delay (usec)	-4.35071336669E+03	Resid mbdelay (usec)	-2.35599E-03	+/-	1.8E-04
Sband delay (usec)	-4.35102737644E+03	Apriori clock (usec)	1.1523266E+00	Resid sbdelay (usec)	-3.14010E-01	+/-	1.5E-03
Phase delay (usec)	-4.35071336433E+03	Apriori clockrate (us/s)	5.6000004E-08	Resid phdelay (usec)	2.35674E-06	+/-	6.3E-07
Delay rate (us/s)	-3.21096506125E-01	Apriori rate (us/s)	-3.21100265898E-01	Resid rate (us/s)	3.75977E-06	+/-	2.7E-09
Total phase (deg)	-73.3	Apriori accel (us/s/s)	3.23568230515E-05	Resid phase (deg)	73.1	+/-	19.5

ph/seg (deg)	42.8	Theor.	46.7	Amplitude	0.112 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	79.6		81.5	Search (2048X32)	0.101	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	43.8		27.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	40.1		48.0	Inc. seg. avg.	0.107	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.119	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

g: az 20.3 el 38.6 pa -7.6 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 2974.986 3699.451 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/gZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/gZ.W.80.1WZMQH

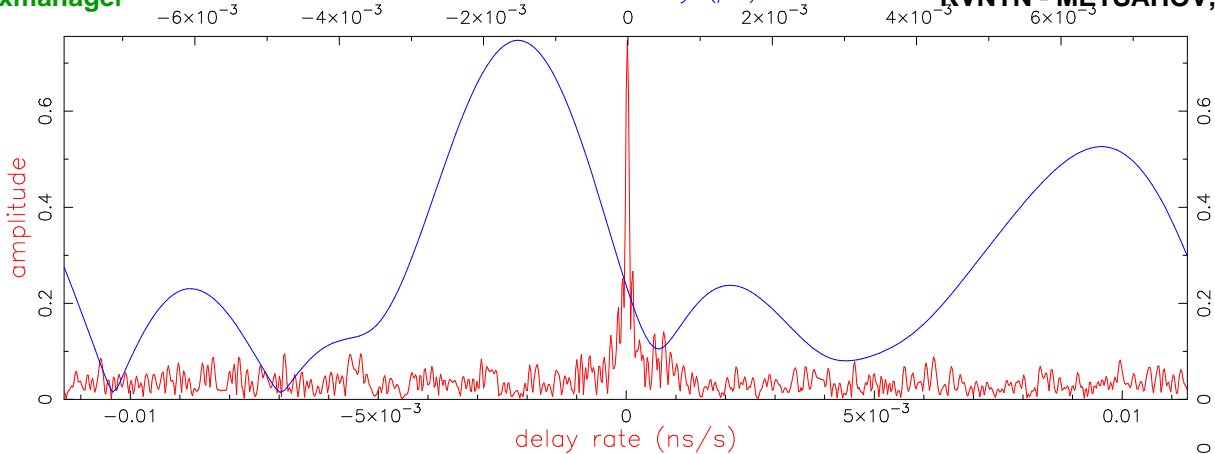
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, tZ

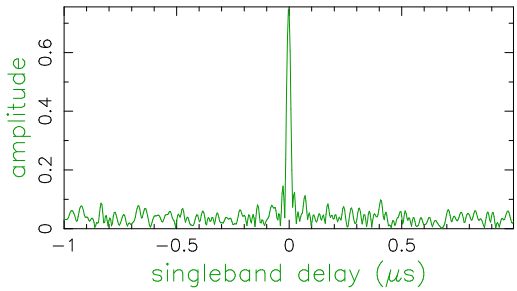
KVNTN - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

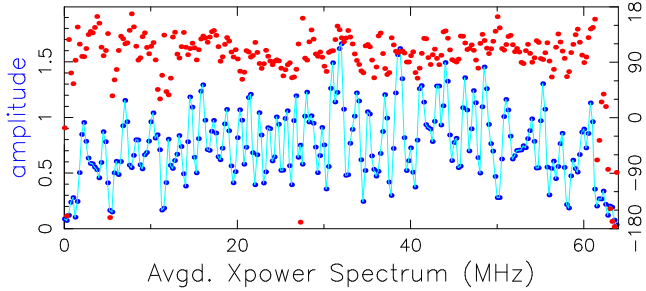


Fringe quality 7

SNR 25.7
 Int time 155.063
 Amp 0.756
 Phase 98.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.002465
 MBD -0.001500
 Fringe rate (Hz)
 0.002744
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

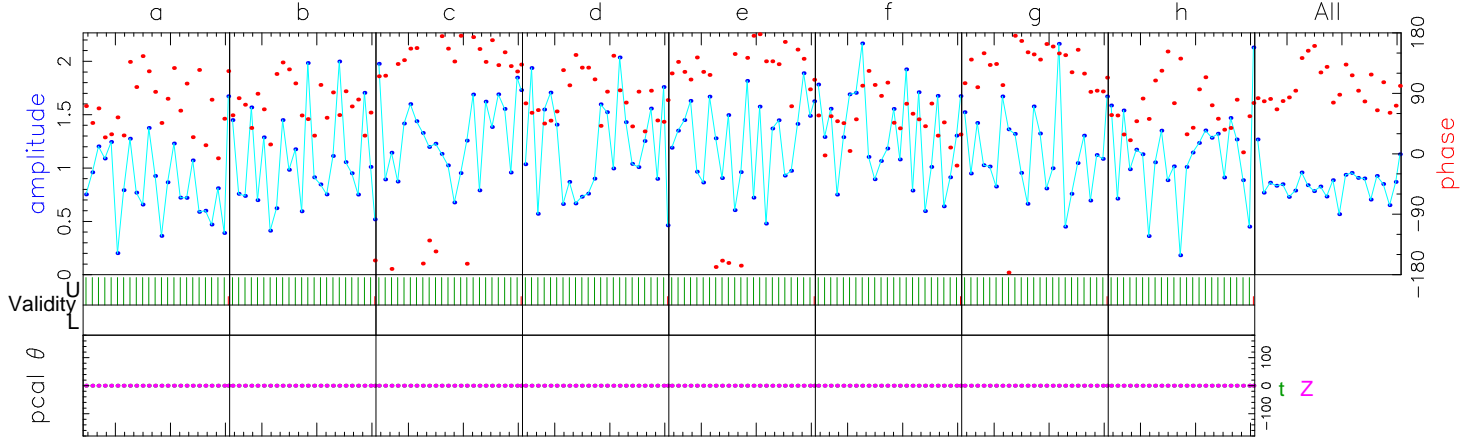


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080424.70
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114011
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

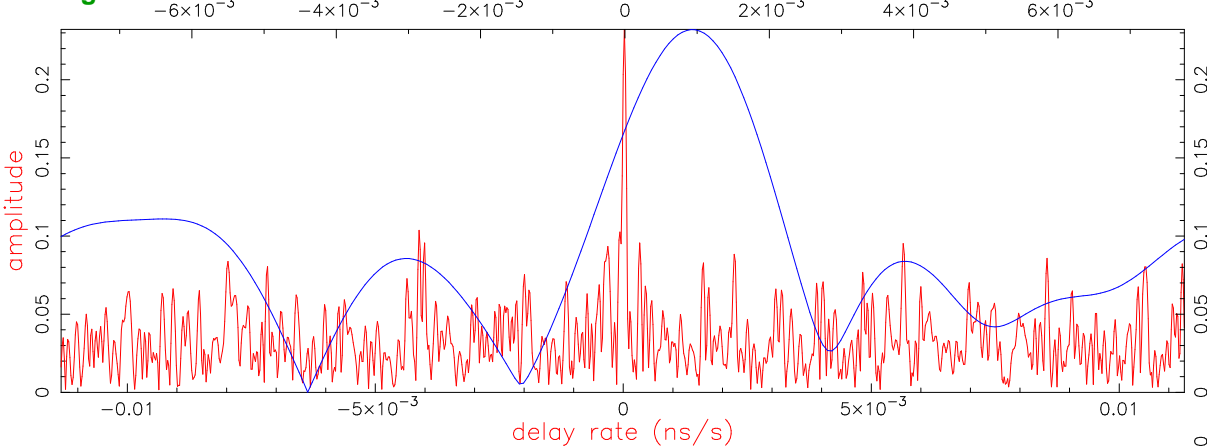
Amp. and Phase vs. time for each freq., 24 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	303/0	303/0	303/0	303/0	303/0	303/0	303/0	303/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.82973958223E+02				-1.82972458287E+02				Resid mbdelay (usec)	-1.49994E-03 +/- 4.2E-05
Sband delay (usec)	-1.82974923537E+02				4.5111847E-01				Resid sbdelay (usec)	-2.46525E-03 +/- 3.3E-04
Phase delay (usec)	-1.82972455117E+02				-6.6000001E-08				Resid phdelay (usec)	3.17007E-06 +/- 1.4E-07
Delay rate (us/s)	-9.65086384083E-01				-9.65086415943E-01				Resid rate (us/s)	3.18596E-08 +/- 1.6E-09
Total phase (deg)		-102.2			-2.70386264312E-05				Resid phase (deg)	98.3 +/- 4.5
	RMS	Theor.	Amplitude	0.756 +/- 0.029					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	28.6	10.9	Search (1024X32)	0.724					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	21.6	19.0	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	44.0	6.3	Inc. seg. avg.	0.832					Sample rate(MSamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	34.0	11.0	Inc. frq. avg.	0.957					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite
t: az 313.4 el 55.6 pa 105.4		Z: az 77.3 el 55.6 pa -50.2			u,v (fr/asec) 8747.012 -4485.666					simultaneous interpolator

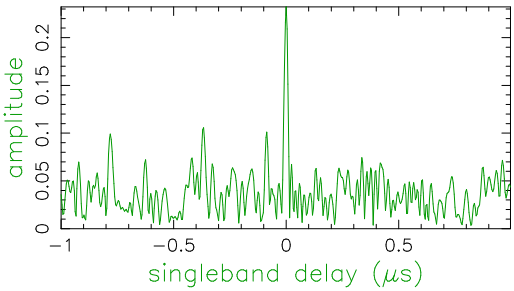
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/tZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/tZ.W.100.1WZMQH

multiband delay (μ s)

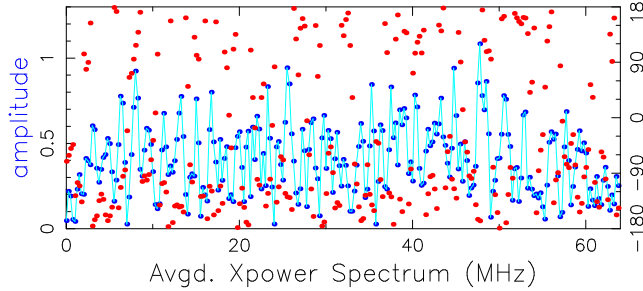


Fringe quality 9

SNR 7.9
 Int time 155.063
 Amp 0.232
 Phase -164.6
 PFD 4.4e-07
 Delays (us)
 SBD -0.000315
 MBD 0.000932
 Fringe rate (Hz) 0.002341
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

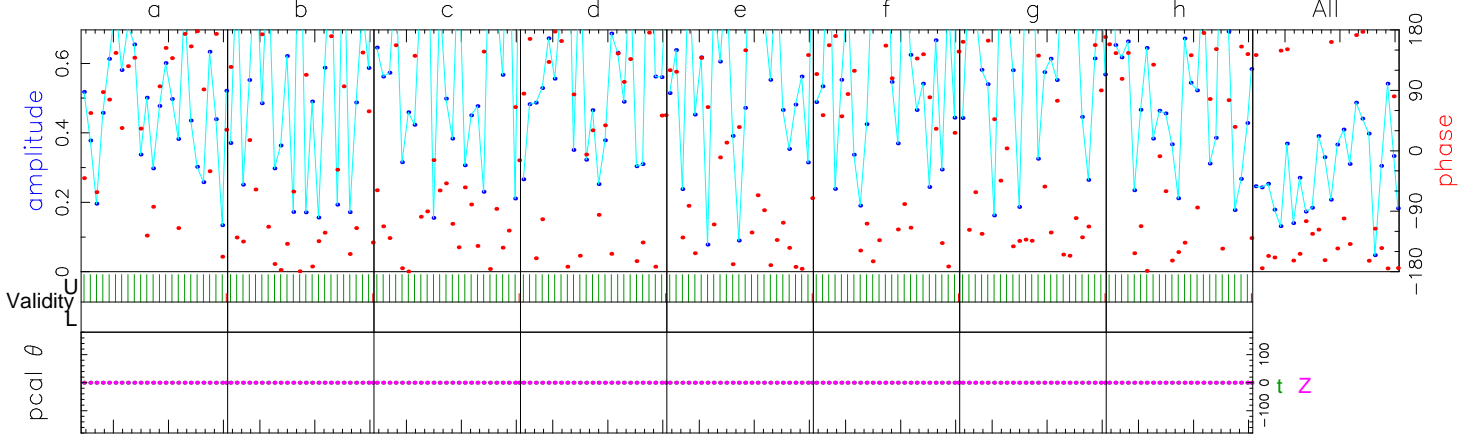


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080424.70
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114012
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	303/0	303/0	303/0	303/0	303/0	303/0	303/0	303/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.82971525910E+02				-1.82972458287E+02				9.32377E-04	+/- 1.4E-04
Sband delay (usec)	-1.82972773787E+02				4.5111847E-01				-3.15500E-04	+/- 1.1E-03
Phase delay (usec)	-1.82972463595E+02				-6.6000001E-08				-5.30812E-06	+/- 4.7E-07
Delay rate (us/s)	-9.65086388767E-01				-9.65086415943E-01				2.71760E-08	+/- 5.2E-09
Total phase (deg)			-5.1		-2.70386264312E-05				-164.6	+/- 14.5
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										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MSamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
PC period (AP's) 5, 5										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

ph/seg (deg) 40.3 35.5 Search (1024X32) 0.230 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 57.9 61.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.5 20.5 Inc. seg. avg. 0.245 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.2 35.8 Inc. frq. avg. 0.269 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 313.4 el 55.6 pa 105.4 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8747.012 -4485.666 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/No0029/tZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/tZ.W.112.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

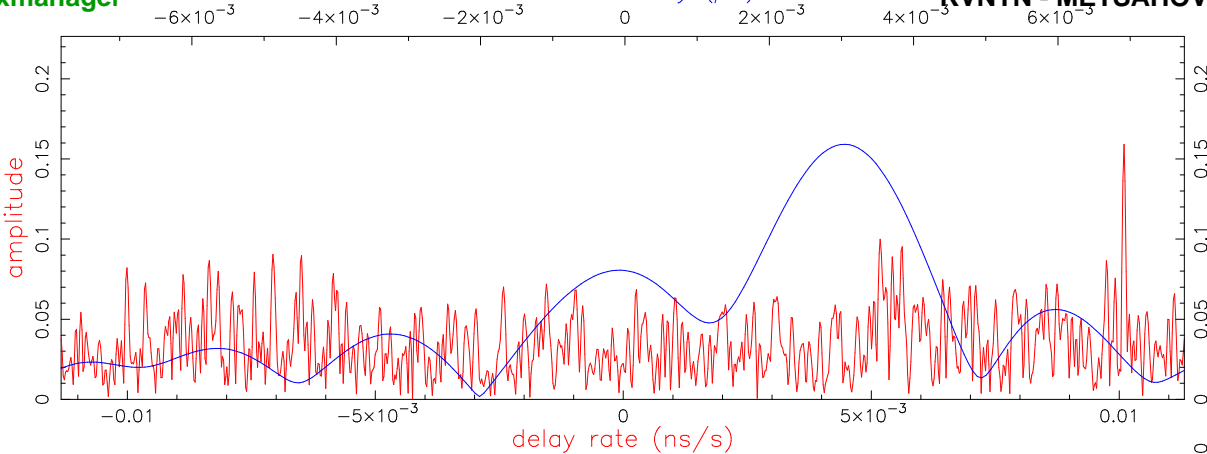
fxmanager

NRAO150.1WZMQH, No0029, tZ

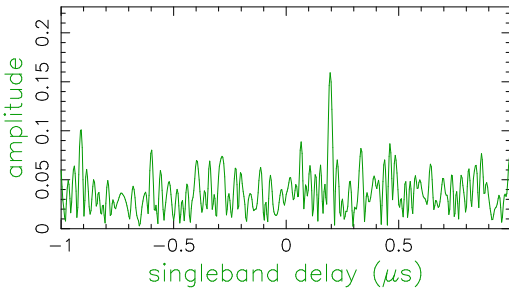
KVNTN - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

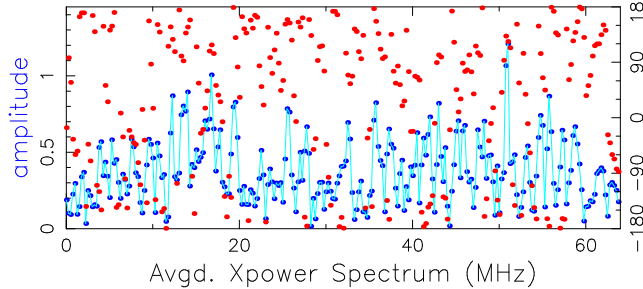
Fringe quality 0



SNR 5.4
 Int time 155.063
 Amp 0.226
 Phase -168.8
 PFD 1.0e+00
 Delays (us)
 SBD 0.195572
 MBD 0.003043
 Fringe rate (Hz) 0.871801
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

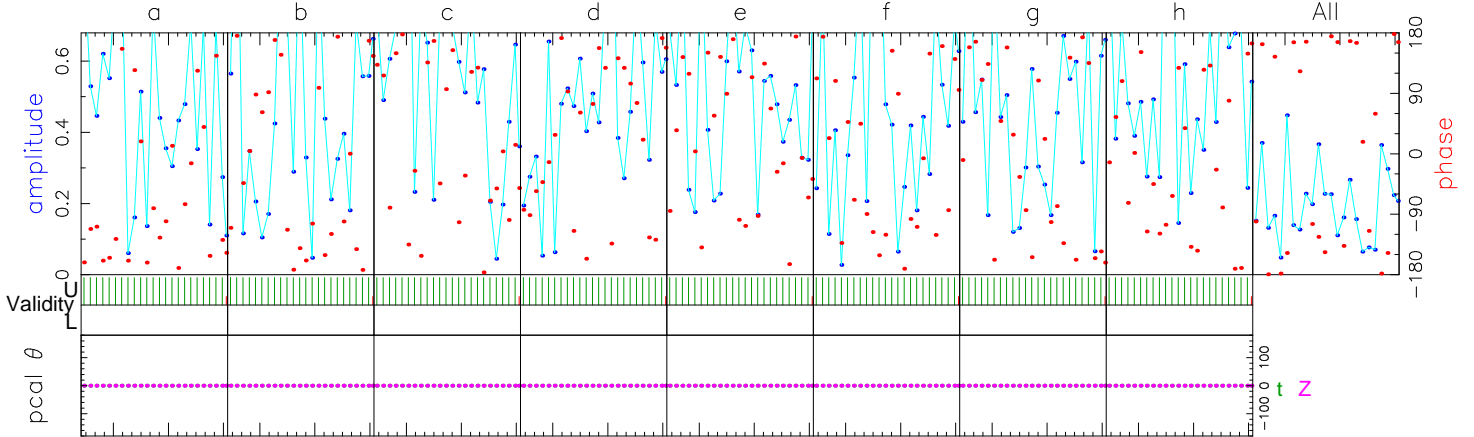


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080424.70
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build 2021:302:193655
 2021:303:114014
 2021:252:122852
 RA & Dec (J2000) 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-139.0	-171.1	176.2	155.9	173.8	-155.9	177.9	-105.6	Phase	-168.8
	0.3	0.4	0.3	0.2	0.1	0.2	0.3	0.1	Ampl.	0.2
	156.1	307.2	37.9	253.8	419.1	158.5	308.8	290.1	Sbd box	307.1
U/L	303/0	303/0	303/0	303/0	303/0	303/0	303/0	303/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.82781915651E+02	Apriori delay (usec)	-1.82972458287E+02	Resid mbdelay (usec)	3.04264E-03	+/-	2.0E-04
Sband delay (usec)	-1.82776886037E+02	Apriori clock (usec)	4.5111847E-01	Resid sbdelay (usec)	1.95572E-01	+/-	1.6E-03
Phase delay (usec)	-1.82972463730E+02	Apriori clockrate (us/s)	-6.6000001E-08	Resid phdelay (usec)	-5.44315E-06	+/-	6.8E-07
Delay rate (us/s)	-9.65076295192E-01	Apriori rate (us/s)	-9.65086415943E-01	Resid rate (us/s)	1.01208E-05	+/-	7.6E-09
Total phase (deg)	-9.3	Apriori accel (us/s/s)	-2.70386264312E-05	Resid phase (deg)	-168.8	+/-	21.1

ph/seg (deg)	56.8	Theor.	51.8	Amplitude	0.226 +/- 0.042	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	71.7	Search (1024X32)	0.155	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	34.2	Inc. seg. avg.	0.203	Inc. frq. avg.	0.218	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	39.9	Inc. frq. avg.	0.218			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	

t: az 313.4 el 55.6 pa 105.4 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8747.012 -4485.666 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/tZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/tZ.W.130.1WZMQH

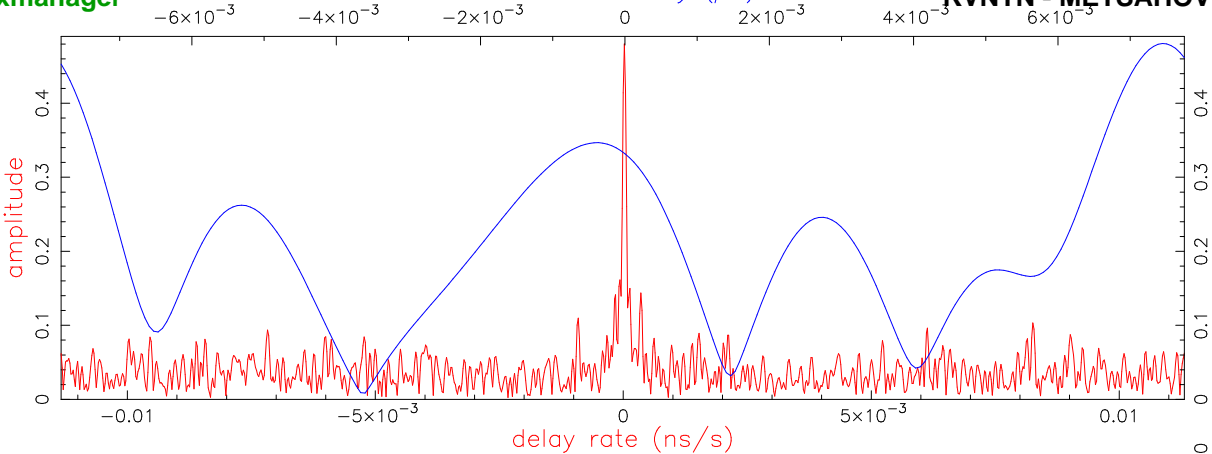
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, tZ

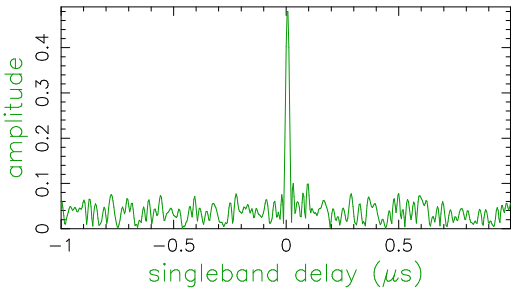
KVNTN - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

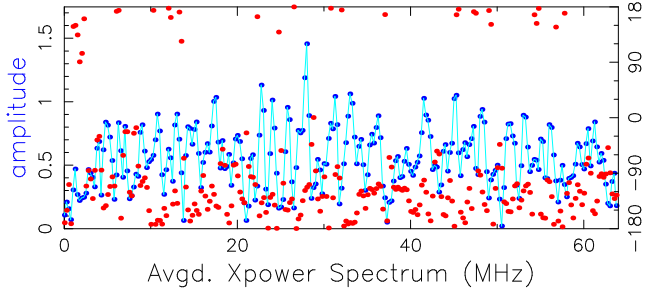


Fringe quality 7

SNR 16.7
 Int time 155.063
 Amp 0.490
 Phase -151.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.005845
 MBD 0.007507
 Fringe rate (Hz) 0.002573
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

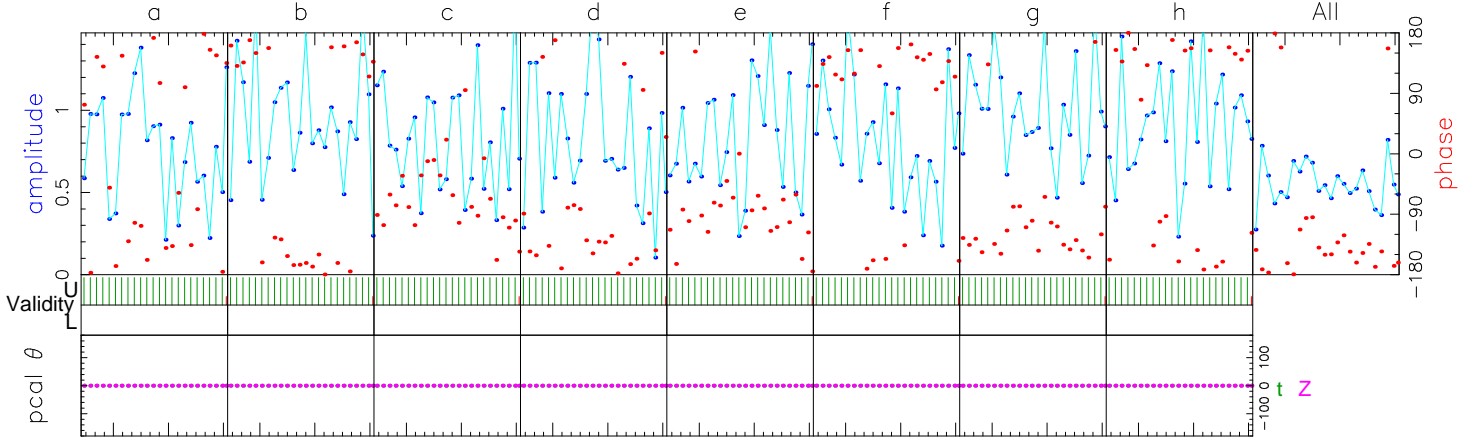


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080424.70
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114009
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-173.3	174.8	-74.2	-144.9	-95.6	144.7	-127.8	174.9	Phase	-151.9
	0.4	0.8	0.6	0.6	0.7	0.7	0.8	0.7	Ampl.	0.7
	260.0	258.6	258.0	258.1	257.6	257.8	258.2	258.7	Sbd box	258.5
U/L	303/0	303/0	303/0	303/0	303/0	303/0	303/0	303/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) -1.82964950816E+02 Apriori delay (usec) -1.82972458287E+02 Resid mbdelay (usec) 7.50747E-03 +/- 6.5E-05
 Sband delay (usec) -1.82966613537E+02 Apriori clock (usec) 4.5111847E-01 Resid sbdelay (usec) 5.84475E-03 +/- 5.2E-04
 Phase delay (usec) -1.82972463185E+02 Apriori clockrate (us/s) -6.6000001E-08 Resid phdelay (usec) -4.89776E-06 +/- 2.2E-07
 Delay rate (us/s) -9.65086386078E-01 Apriori rate (us/s) -9.65086415943E-01 Resid rate (us/s) 2.98643E-08 +/- 2.5E-09
 Total phase (deg) -352.3 Apriori accel (us/s/s) -2.70386264312E-05 Resid phase (deg) -151.9 +/- 6.9

RMS Theor. Amplitude 0.490 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 28.2 16.8 Search (1024X32) 0.468 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 29.2 29.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 52.5 9.7 Inc. seg. avg. 0.531 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 43.5 16.9 Inc. frq. avg. 0.662 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

t: az 313.4 el 55.6 pa 105.4 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8747.012 -4485.666 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/tZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/tZ.W.87.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

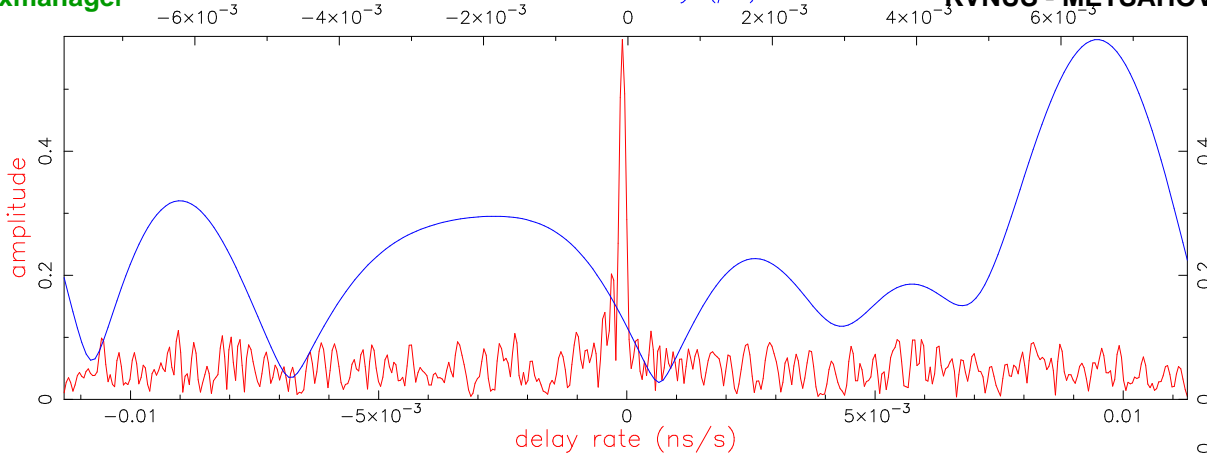
fxmanager

NRAO150.1WZMQH, No0029, uZ

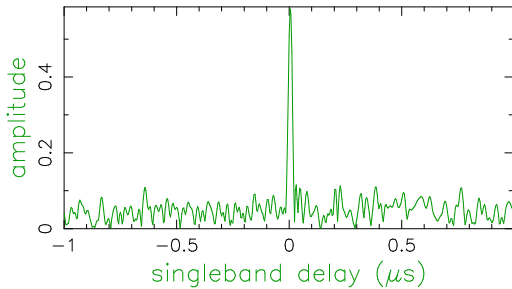
KVNUS - METSAHOV, fgroup W, pol LL

multiband delay (μs)

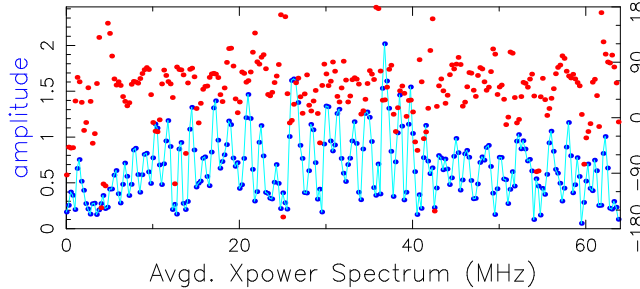
Fringe quality 8



SNR 14.8
 Int time 85.187
 Amp 0.585
 Phase 36.6
 PFD 3.7e-41
 Delays (us)
 SBD 0.005233
 MBD 0.006513
 Fringe rate (Hz)
 -0.005891
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

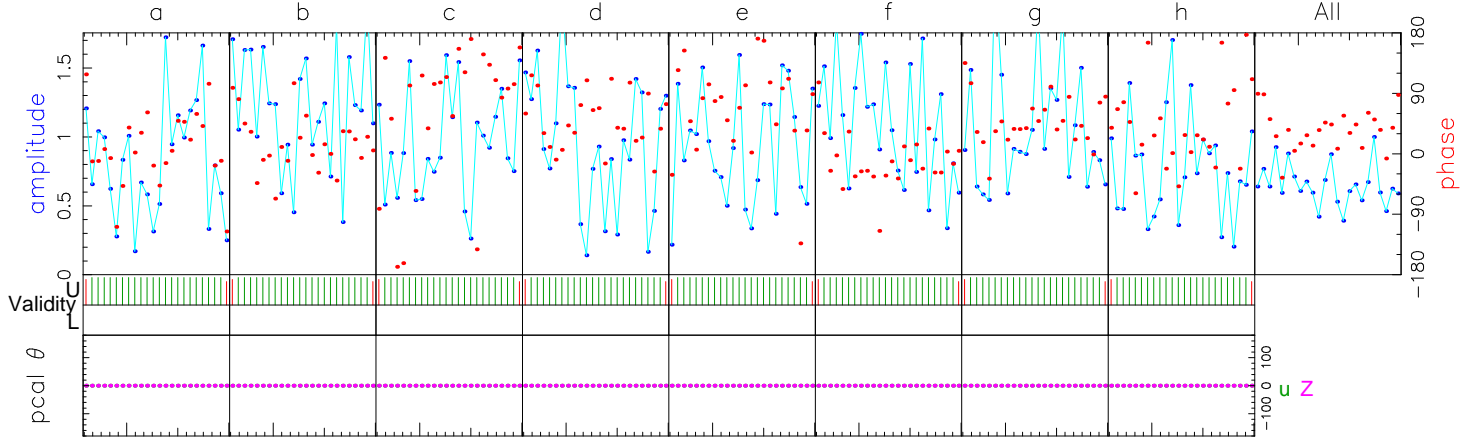


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114012
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0		
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-2.17319721064E+02	Apriori delay (usec)	-2.17326234005E+02	Resid mbdelay (usec)	6.51294E-03	+/-	7.3E-05
Sband delay (usec)	-2.17321000755E+02	Apriori clock (usec)	1.5413208E+01	Resid sbdelay (usec)	5.23325E-03	+/-	5.8E-04
Phase delay (usec)	-2.17326232824E+02	Apriori clockrate (us/s)	1.1110000E-06	Resid phdelay (usec)	1.18102E-06	+/-	2.5E-07
Delay rate (us/s)	-9.78986224340E-01	Apriori rate (us/s)	-9.78986155953E-01	Resid rate (us/s)	-6.83871E-08	+/-	5.1E-09
Total phase (deg)	-250.4	Apriori accel (us/s/s)	-2.39311466803E-05	Resid phase (deg)	36.6	+/-	7.8

ph/seg (deg)	29.1	Theor.	19.0	Amplitude	0.585 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	27.9		33.2	Search (512X32)	0.556	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	48.0		11.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	38.1		19.2	Inc. seg. avg.	0.620	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.724	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 310.3 el 55.4 pa 98.7 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8878.187 -4004.400 simultaneous interpolator

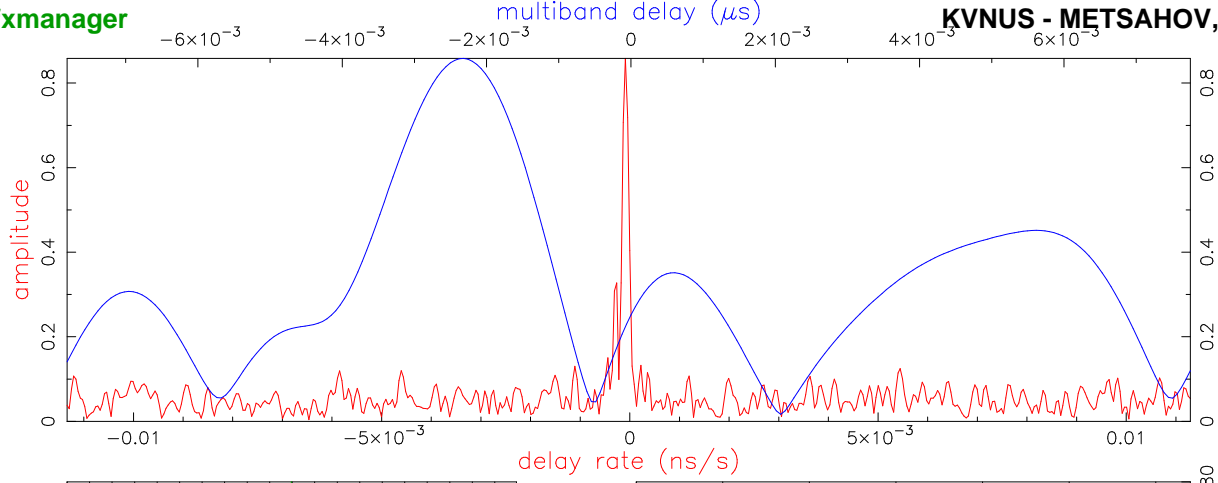
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uZ.W.109.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uZ

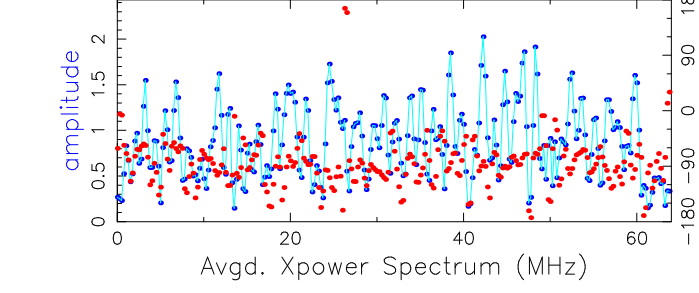
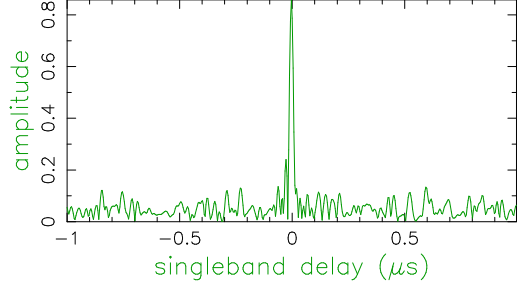
KVNUS - METSAHOV, fgroup W, pol RR



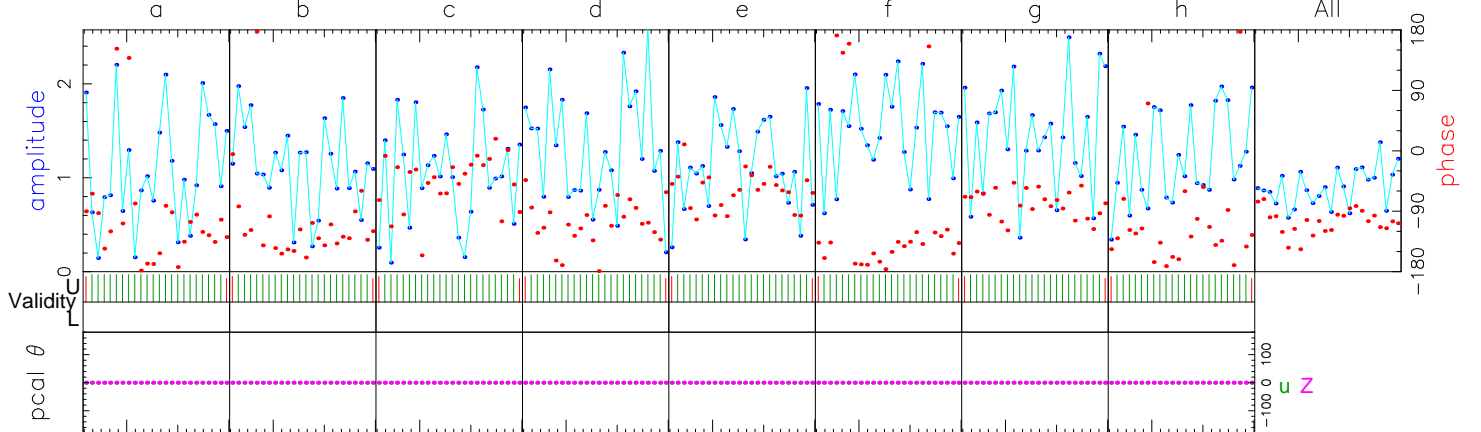
Fringe quality 8

SNR 21.7
 Int time 85.187
 Amp 0.858
 Phase -104.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.003781
 MBD -0.002329
 Fringe rate (Hz)
 -0.006357
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114013
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-130.7	-124.5	-37.4	-106.4	-60.8	-152.6	-77.5	-128.8	Phase	-104.9
	0.8	1.0	0.8	1.1	1.0	1.4	1.4	1.0	Ampl.	1.1
	257.4	255.7	255.7	255.6	255.4	255.6	255.6	255.9	Sbd box	256.0
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.17328562564E+02		Apriori delay (usec)		-2.17326234005E+02		Resid mbdelay (usec)		-2.32856E-03	+/- 5.0E-05
Sband delay (usec)	-2.17330015255E+02		Apriori clock (usec)		1.5413208E+01		Resid sbdelay (usec)		-3.78125E-03	+/- 4.0E-04
Phase delay (usec)	-2.17326237387E+02		Apriori clockrate (us/s)		1.1110000E-06		Resid phdelay (usec)		-3.38188E-06	+/- 1.7E-07
Delay rate (us/s)	-9.78986229748E-01		Apriori rate (us/s)		-9.78986155953E-01		Resid rate (us/s)		-7.37949E-08	+/- 3.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.39311466803E-05		Resid phase (deg)		-104.9	+/- 5.3

ph/seg (deg) 18.4 13.0 Search (512X32) 0.858 +/- 0.040 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 23.9 22.6 Interp. 0.837 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.1 7.5 Inc. seg. avg. 0.879 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.7 13.1 Inc. frq. avg. 1.052 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 u: az 310.3 el 55.4 pa 98.7 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8878.187 -4004.400 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uZ.W.116.1WZMQH

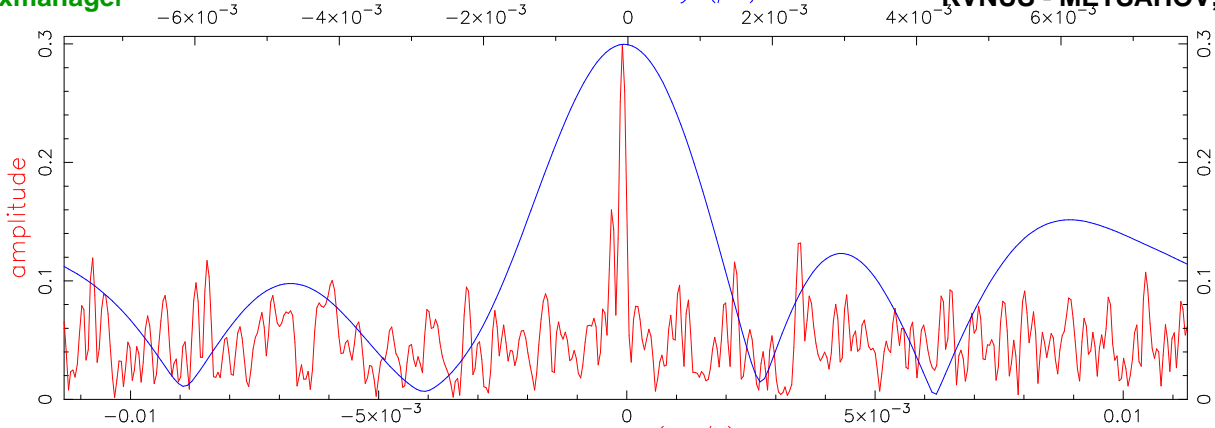
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uZ

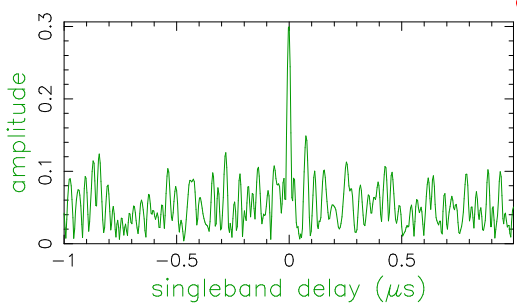
KVNUS - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

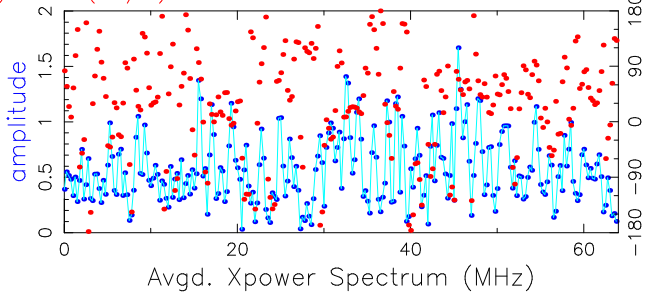


Fringe quality 9

SNR 7.7
 Int time 85.187
 Amp 0.306
 Phase 22.3
 PFD 8.7e-07
 Delays (us)
 SBD -0.001888
 MBD -0.000106
 Fringe rate (Hz)
 -0.006007
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

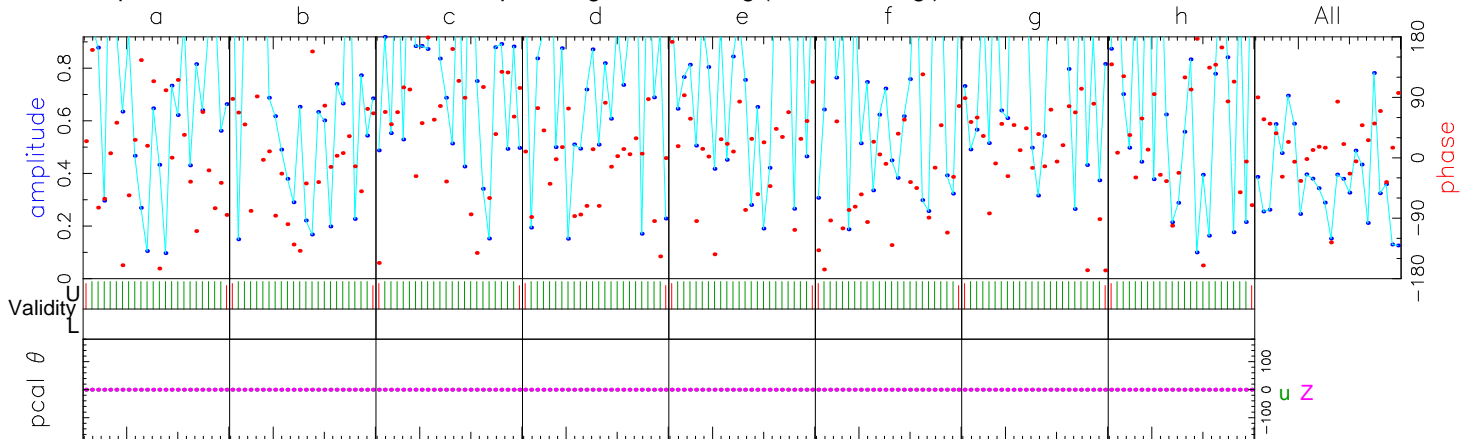


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114014
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-10.4	14.1	82.7	2.7	35.3	-38.3	38.5	26.9	Phase	22.3
	0.2	0.3	0.4	0.4	0.4	0.3	0.6	0.2	Ampl.	0.3
	27.6	323.1	342.7	256.0	256.7	421.0	256.4	200.8	Sbd box	256.5
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.17326339751E+02		Apriori delay (usec)		-2.17326234005E+02		Resid mbdelay (usec)		-1.05746E-04	+/- 1.4E-04
Sband delay (usec)	-2.17328122255E+02		Apriori clock (usec)		1.5413208E+01		Resid sbdelay (usec)		-1.88825E-03	+/- 1.1E-03
Phase delay (usec)	-2.17326233287E+02		Apriori clockrate (us/s)		1.1110000E-06		Resid phdelay (usec)		7.18568E-07	+/- 4.8E-07
Delay rate (us/s)	-9.78986225684E-01		Apriori rate (us/s)		-9.78986155953E-01		Resid rate (us/s)		-6.97306E-08	+/- 9.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.39311466803E-05		Resid phase (deg)		22.3	+/- 14.8

	RMS	Theor.	Amplitude	0.306 +/- 0.040	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	47.8	36.3	Search (512X32)	0.289	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	58.0	63.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	39.4	21.0	Inc. seg. avg.	0.314	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	39.5	36.6	Inc. frq. avg.	0.332	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 310.3 el 55.4 pa 98.7 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8878.187 -4004.400 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uZ.W.128.1WZMQH

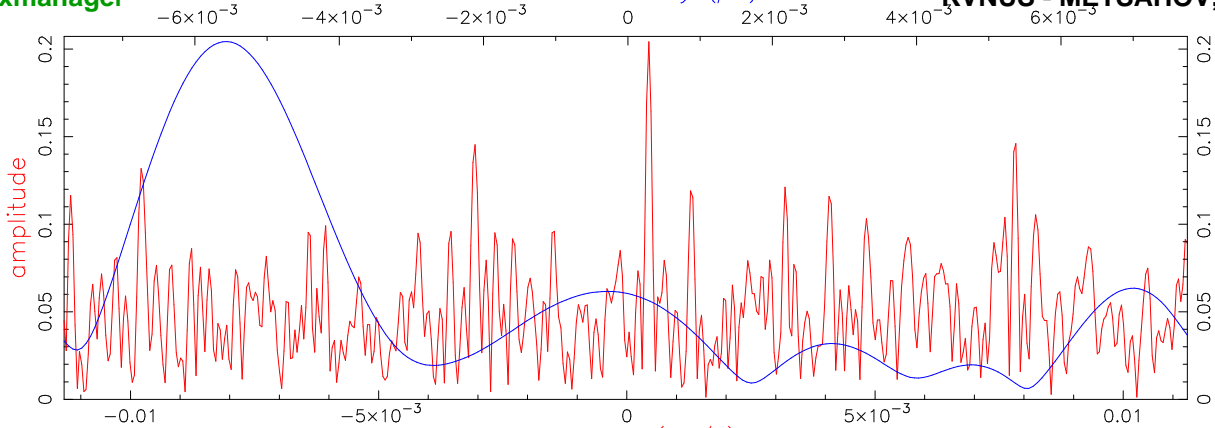
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uZ

KVNUS - METSAHOV, fgroup W, pol RL

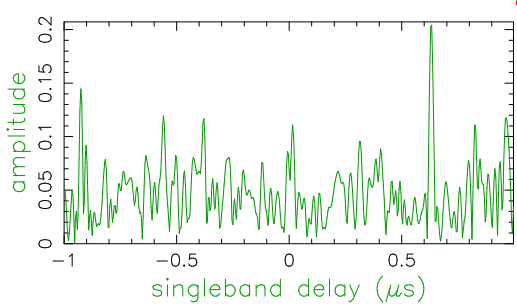
multiband delay (μ s)



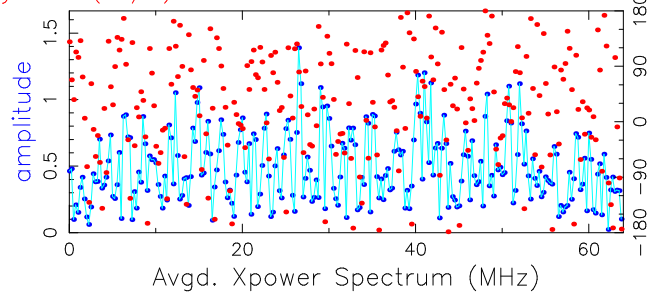
Fringe quality 0

SNR 5.2
 Int time 85.187
 Amp 0.207
 Phase -169.8
 PFD 1.0e+00
 Delays (us)
 SBD 0.631118
 MBD -0.005616
 Fringe rate (Hz)
 0.037907
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

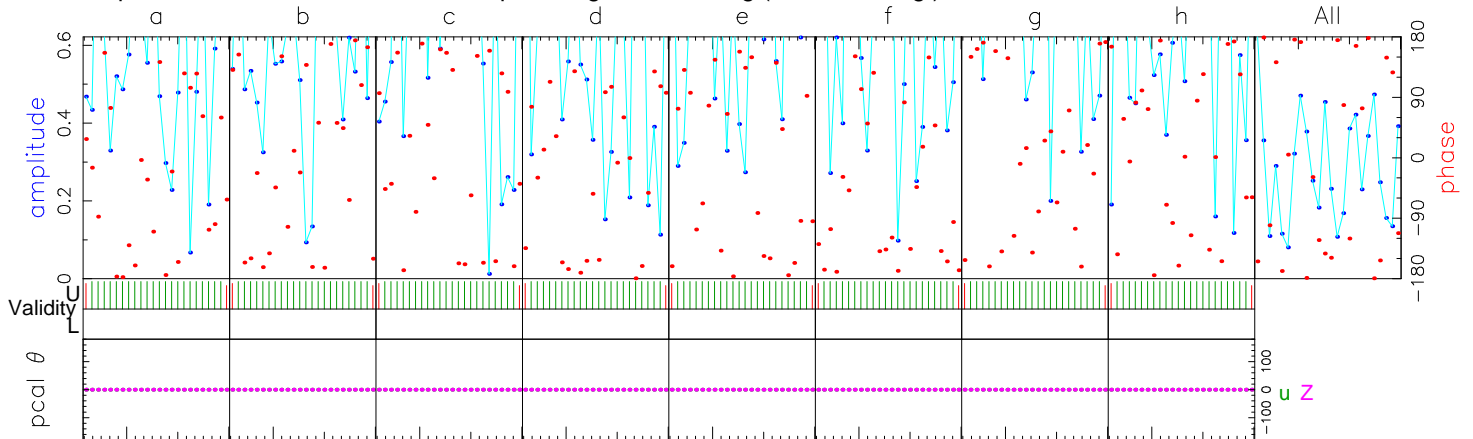
Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080534.34
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114016
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



delay rate (ns/s)



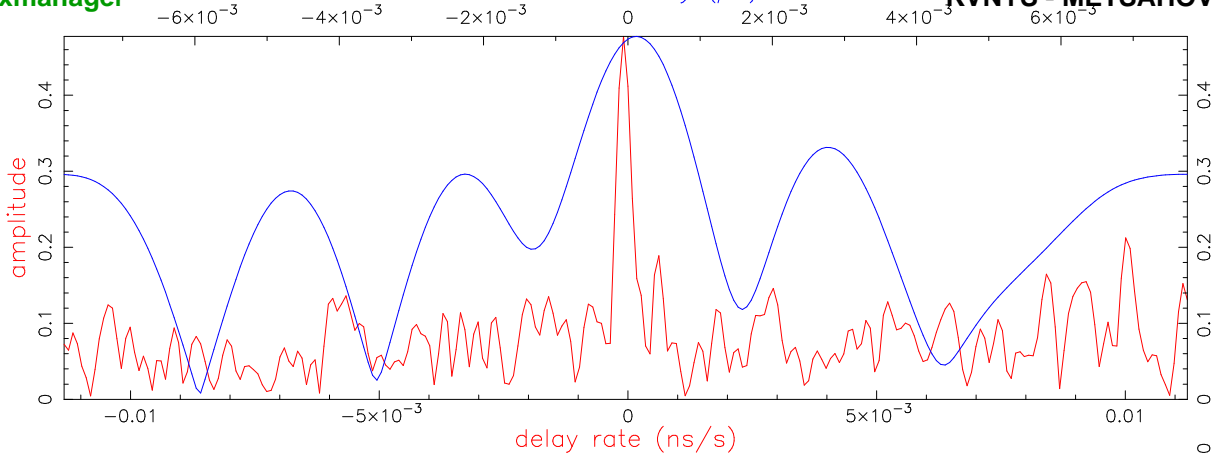
Amp. and Phase vs. time for each freq., 24 segs, 7 APs / seg (3.58 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-147.1	171.6	-168.4	157.1	-166.7	-147.7	-160.6	172.4	Phase	-169.8
	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	Ampl.	0.2
	268.7	79.1	284.5	295.7	417.8	10.6	20.3	98.2	Sbd box	418.6
U/L	167/0	167/0	167/0	167/0	167/0	167/0	167/0	167/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.16691224587E+02		Apriori delay (usec)		-2.17326234005E+02		Resid mbdelay (usec)		-5.61558E-03	+/- 2.1E-04
Sband delay (usec)	-2.16695116255E+02		Apriori clock (usec)		1.5413208E+01		Resid sbdelay (usec)		6.31118E-01	+/- 1.6E-03
Phase delay (usec)	-2.17326239482E+02		Apriori clockrate (us/s)		1.1110000E-06		Resid phdelay (usec)		-5.47641E-06	+/- 7.1E-07
Delay rate (us/s)	-9.78985715888E-01		Apriori rate (us/s)		-9.78986155953E-01		Resid rate (us/s)		4.40065E-07	+/- 1.4E-08
Total phase (deg)			Apriori accel (us/s/s)		-2.39311466803E-05		Resid phase (deg)		-169.8	+/- 21.9

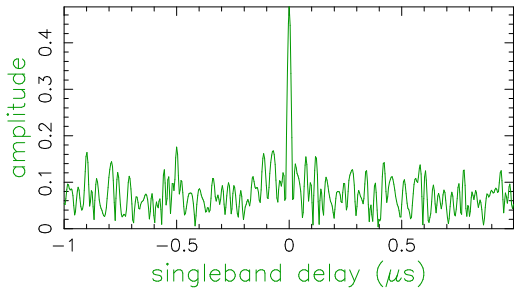
ph/seg (deg) 64.9 53.7 Search (512X32) 0.207 +/- 0.040 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 78.6 93.7 Interp. 0.202 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.8 31.0 Inc. seg. avg. 0.200 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.8 54.1 Inc. frq. avg. 0.187 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 u: az 310.3 el 55.4 pa 98.7 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8878.187 -4004.400 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/uZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uZ.W.145.1WZMQH

multiband delay (μ s)

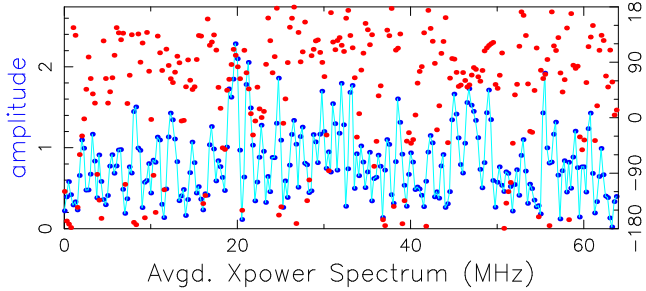


Fringe quality 9

SNR 8.3
 Int time 40.812
 Amp 0.477
 Phase 96.5
 PFD 3.3e-09
 Delays (us)
 SBD -0.000097
 MBD 0.000115
 Fringe rate (Hz)
 -0.009764
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

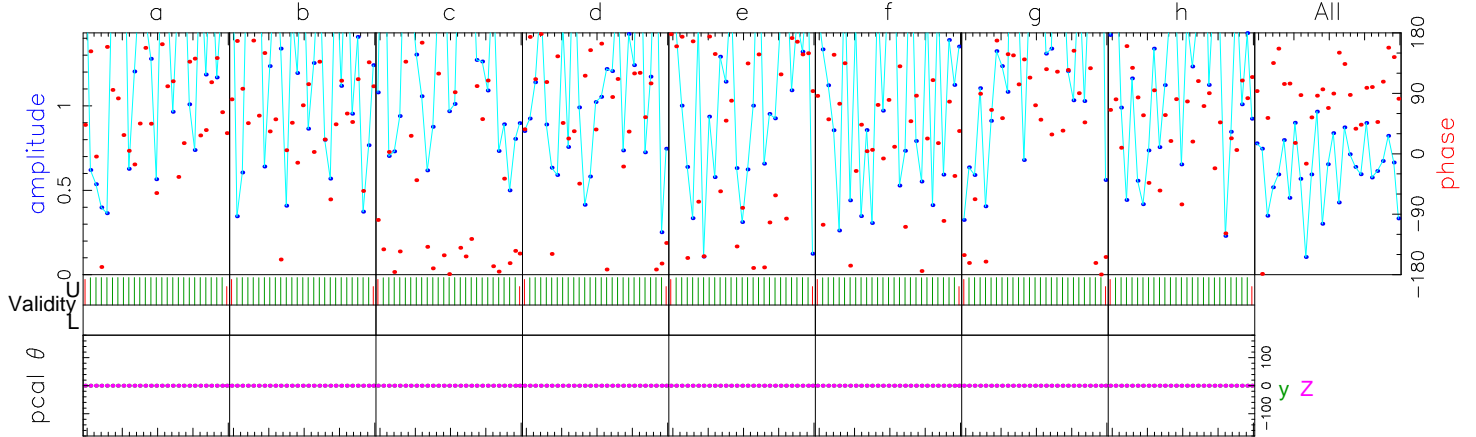


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080618.88
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114014
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	65.5	71.1	-168.3	109.5	175.2	46.6	116.4	59.7	Phase	96.5
	0.8	0.8	0.6	0.5	0.6	0.5	0.9	0.8	Ampl.	0.7
	258.4	257.2	256.4	255.6	256.9	255.7	255.9	256.9	Sbd box	257.0
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.28576084068E+02		Apriori delay (usec)		3.28575969338E+02		Resid mbdelay (usec)		1.14730E-04	+/- 1.3E-04
Sband delay (usec)	3.28575872588E+02		Apriori clock (usec)		1.4199085E+00		Resid sbdelay (usec)		-9.67500E-05	+/- 1.0E-03
Phase delay (usec)	3.28575972451E+02		Apriori clockrate (us/s)		-1.6000000E-08		Resid phdelay (usec)		3.11300E-06	+/- 4.4E-07
Delay rate (us/s)	-9.41965496967E-01		Apriori rate (us/s)		-9.41965383620E-01		Resid rate (us/s)		-1.13347E-07	+/- 1.9E-08
Total phase (deg)			Apriori accel (us/s/s)		-2.44264386706E-05		Resid phase (deg)		96.5	+/- 13.7

	RMS	Theor.	Amplitude	0.477 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	45.6	35.7	Search (256X32)	0.469	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	53.4	62.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	59.6	19.4	Inc. seg. avg.	0.530	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	54.4	33.9	Inc. frq. avg.	0.661	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

y: az 308.3 el 58.1 pa 97.9 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8539.886 -3891.659 simultaneous interpolator

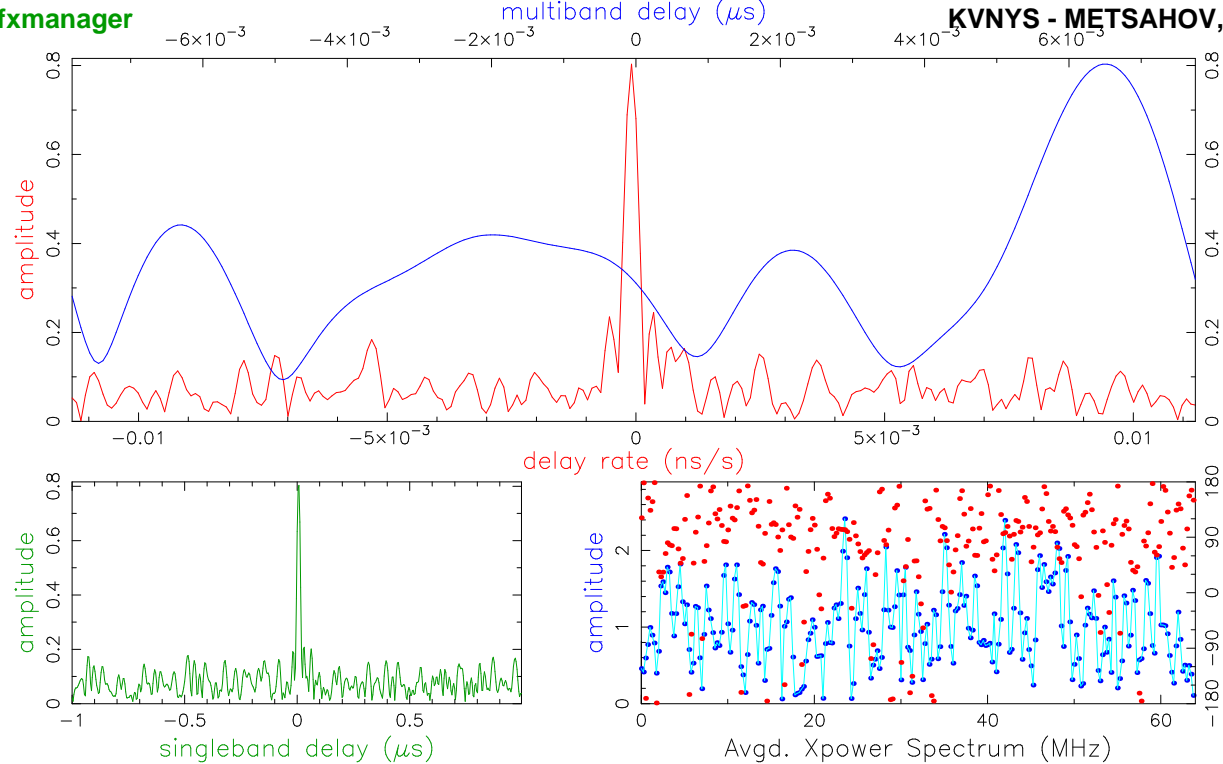
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/yZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yZ.W.127.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, yZ

KVNYS - METSAHOV, fgroup W, pol RR

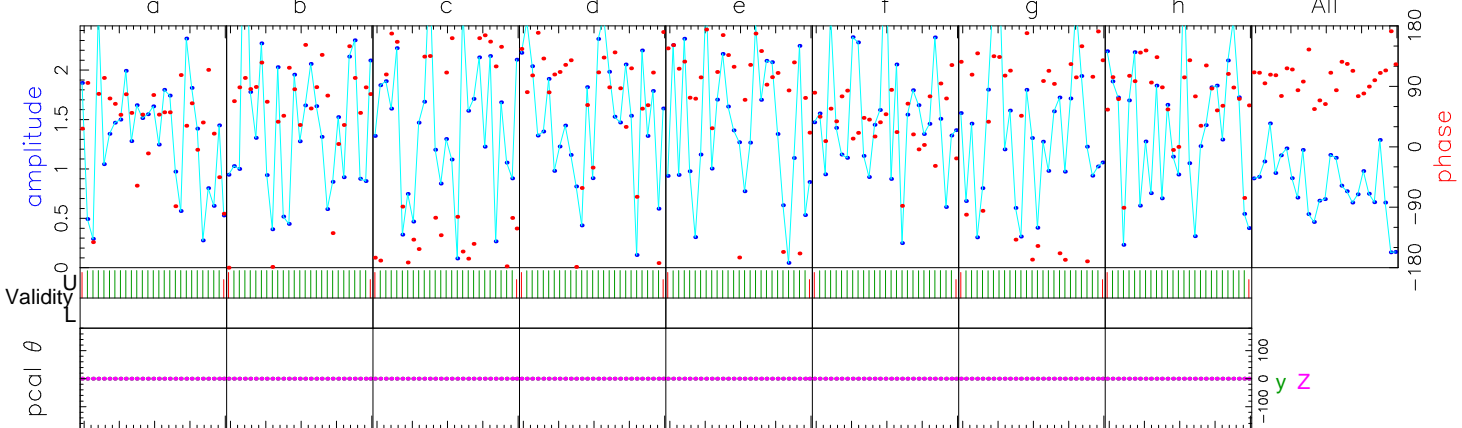


Fringe quality 8

SNR 14.3
 Int time 40.812
 Amp 0.816
 Phase 100.4
 PFD 3.0e-38
 Delays (us)
 SBD 0.006210
 MBD 0.006467
 Fringe rate (Hz) -0.009380
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080618.88
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114015
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Chan ids
										Tracks

Group delay (usec)(sbd) 3.28582436100E+02 Apriori delay (usec) 3.28575969338E+02 Resid mbdelay (usec) 6.46676E-03 +/- 7.6E-05
 Sband delay (usec) 3.28582179588E+02 Apriori clock (usec) 1.4199085E+00 Resid sbdelay (usec) 6.21025E-03 +/- 6.0E-04
 Phase delay (usec) 3.28575972575E+02 Apriori clockrate (us/s) -1.6000000E-08 Resid phdelay (usec) 3.23713E-06 +/- 2.6E-07
 Delay rate (us/s) -9.41965492517E-01 Apriori rate (us/s) -9.41965383620E-01 Resid rate (us/s) -1.08897E-07 +/- 1.1E-08
 Total phase (deg) 99.9 Apriori accel (us/s/s) -2.44264386706E-05 Resid phase (deg) 100.4 +/- 8.0

ph/seg (deg) 25.0 20.9 Search (256X32) 0.791 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 37.0 36.4 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 11.4 Inc. seg. avg. 0.799 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.2 19.8 Inc. frq. avg. 1.067 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 y: az 308.3 el 58.1 pa 97.9 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8539.886 -3891.659 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/yZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yZ.W.132.1WZMQH

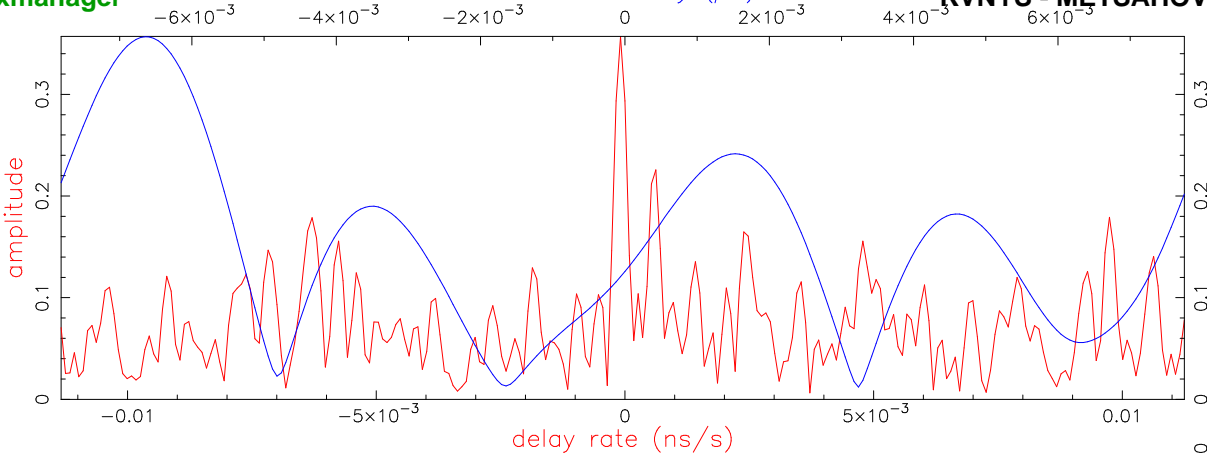
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, yZ

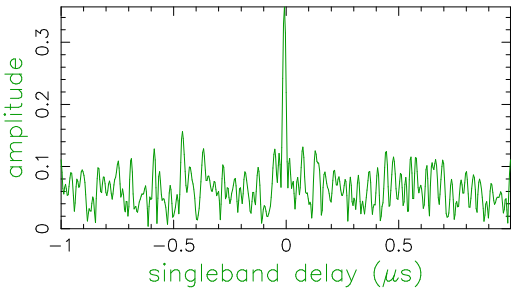
KVNYS - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

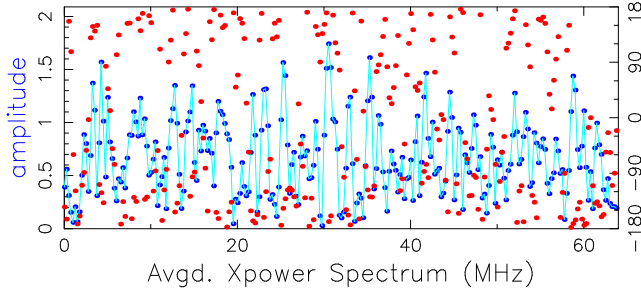


Fringe quality 0

SNR 6.2
 Int time 40.812
 Amp 0.357
 Phase 177.3
 PFD 1.5e-02
 Delays (us)
 SBD -0.008211
 MBD -0.006645
 Fringe rate (Hz)
 -0.011109
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

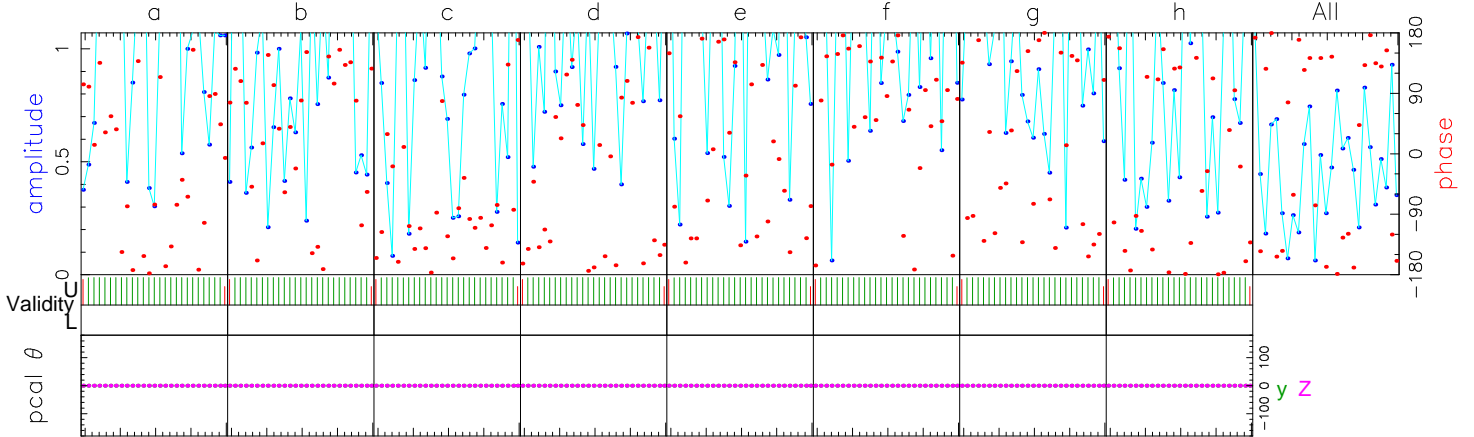


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080618.88
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114015
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	172.8	126.7	-115.8	179.1	-164.3	122.0	-153.7	-179.1	Phase	177.3
	0.2	0.5	0.6	0.4	0.4	0.7	0.5	0.5	Ampl.	0.4
	276.3	255.7	255.3	501.4	463.5	254.5	2.7	125.8	Sbd box	254.9
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.28569324225E+02		Apriori delay (usec)		3.28575969338E+02		Resid mbdelay (usec)		-6.64511E-03	+/- 1.7E-04
Sband delay (usec)	3.28567758338E+02		Apriori clock (usec)		1.4199085E+00		Resid sbdelay (usec)		-8.21100E-03	+/- 1.4E-03
Phase delay (usec)	3.28575975056E+02		Apriori clockrate (us/s)		-1.6000000E-08		Resid phdelay (usec)		5.71839E-06	+/- 5.9E-07
Delay rate (us/s)	-9.41965512589E-01		Apriori rate (us/s)		-9.41965383620E-01		Resid rate (us/s)		-1.28969E-07	+/- 2.5E-08
Total phase (deg)	176.9		Apriori accel (us/s/s)		-2.44264386706E-05		Resid phase (deg)		177.3	+/- 18.4

	RMS	Theor.	Amplitude	0.357 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	56.8	47.7	Search (256X32)	0.338	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	81.3	83.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	43.4	26.0	Inc. seg. avg.	0.361	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	49.7	45.4	Inc. frq. avg.	0.429	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

y: az 308.3 el 58.1 pa 97.9 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8539.886 -3891.659 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/yZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yZ.W.137.1WZMQH

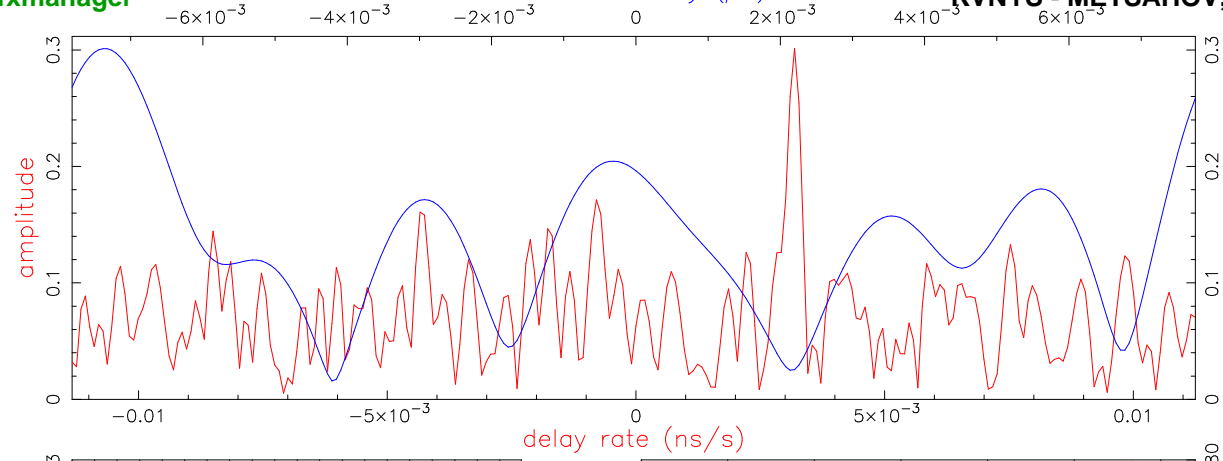
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

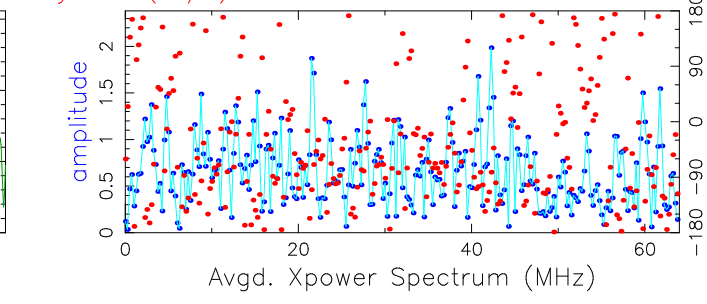
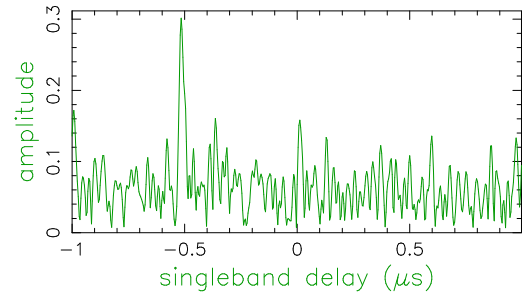
NRAO150.1WZMQH, No0029, yZ

KVNYS - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

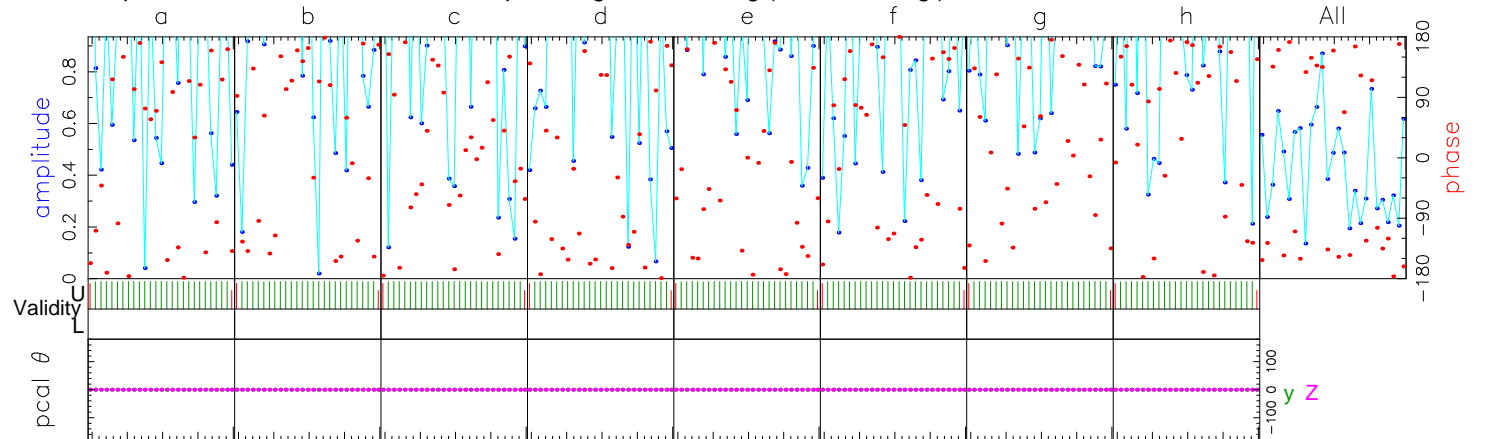


Fringe quality 0
 SNR 5.3
 Int time 40.812
 Amp 0.312
 Phase 178.0
 PFD 9.8e-01
 Delays (us)
 SBD -0.515301
 MBD -0.007347
 Fringe rate (Hz) 0.277974
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080618.88
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build 2021:302:193655
 2021:303:114016
 2021:252:122852
 RA & Dec (J2000) 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0			
y	1000	1000	1000	1000	1000	1000	1000	1000			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
y	1000	1000	1000	1000	1000	1000	1000	1000			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks	
Group delay (usec)(sbd)		3.28052997234E+02				3.28575969338E+02			Resid mbdelay (usec)	-7.34710E-03	+/- 2.1E-04
Sband delay (usec)		3.28060668088E+02				1.4199085E+00			Resid sbdelay (usec)	-5.15301E-01	+/- 1.6E-03
Phase delay (usec)		3.28575975077E+02				-1.6000000E-08			Resid phdelay (usec)	5.73847E-06	+/- 7.0E-07
Delay rate (us/s)		-9.41962156622E-01				-9.41965383620E-01			Resid rate (us/s)	3.22700E-06	+/- 3.0E-08
Total phase (deg)			177.5						Resid phase (deg)	178.0	+/- 21.8
	RMS	Theor.	Amplitude	0.312 +/- 0.059					Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5
ph/seg (deg)	47.8	56.5	Search (256X32)	0.291					Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000
amp/seg (%)	75.9	98.7	Interp.	0.000					Bits/sample: 2x2		mb window (us) -0.008 0.008
ph/frq (deg)	85.6	30.8	Inc. seg. avg.	0.300					Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
amp/frq (%)	65.4	53.7	Inc. frq. avg.	0.354					Data rate(Mb/s): 2048		ion window (TEC) 0.00 0.00
y: az 308.3 el 58.1 pa 97.9		Z: az 77.3 el 55.6 pa -50.2		u,v (fr/asec) 8539.886 -3891.659							simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/yZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yZ.W.143.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

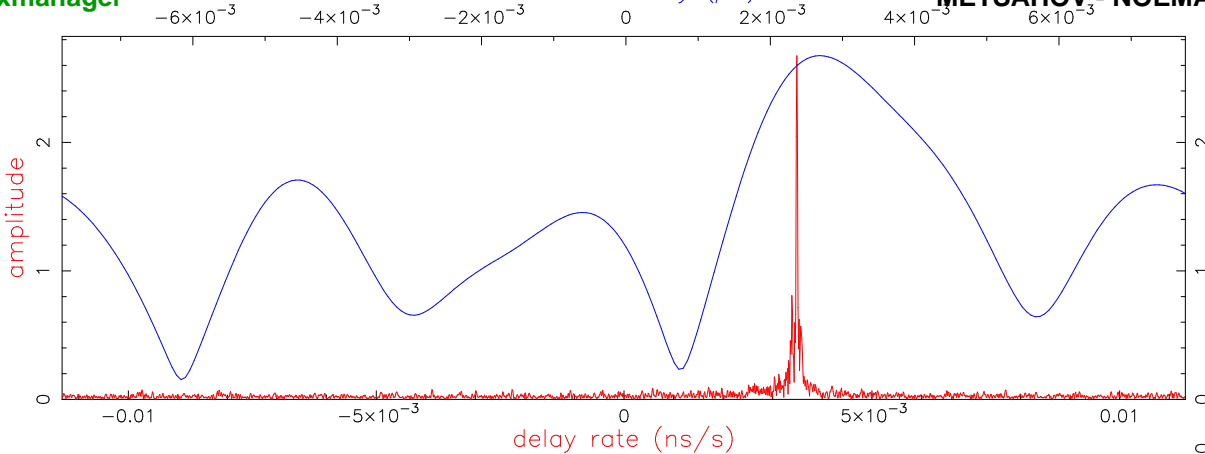
fxmanager

NRAO150.1WZMQH, No0029, ZN

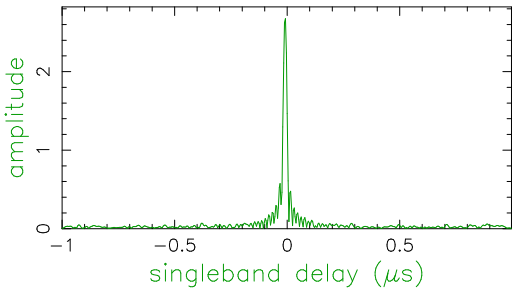
METSAHOV - NOEMA, fgroup W, pol LL

multiband delay (μ s)

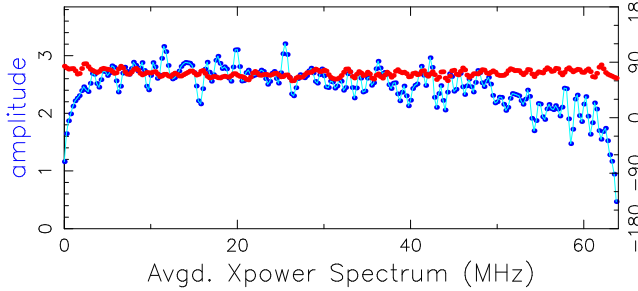
Fringe quality 4



SNR 149.6
 Int time 405.757
 Amp 2.825
 Phase -65.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.009399
 MBD 0.002660
 Fringe rate (Hz)
 0.300888
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

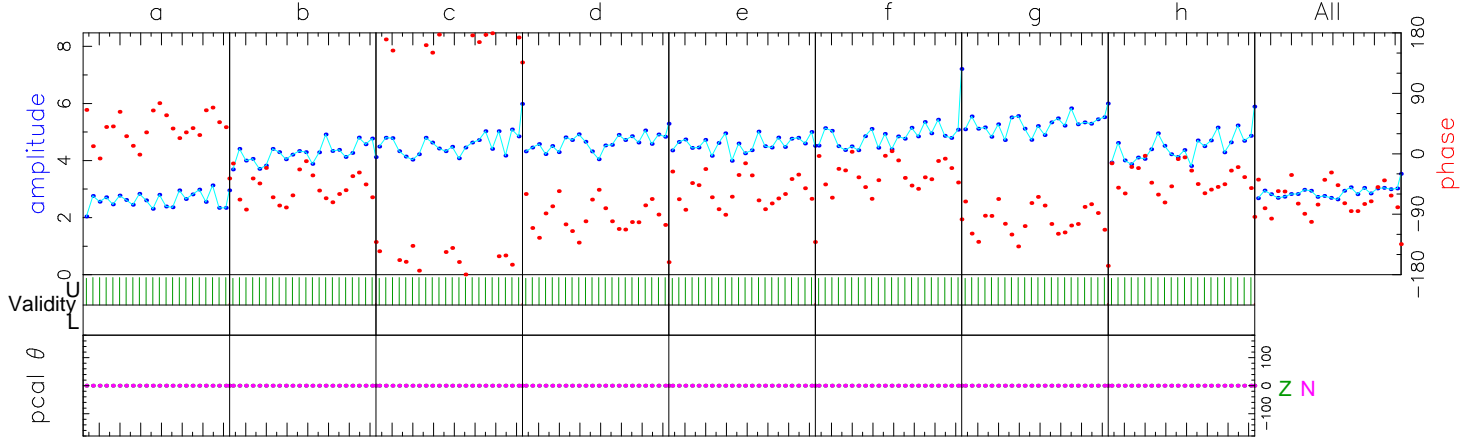


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114016
 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
	38.6	-50.6	-173.0	-93.9	-55.5	-30.2	-99.0	-37.9	Phase	-65.9
	2.5	4.1	4.4	4.5	4.4	4.7	5.1	4.4	Ampl.	4.3
	252.3	253.7	254.3	254.8	255.1	254.8	254.7	254.0	Sbd box	254.6
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)	4.19647773813E+03	Apriori delay (usec)	4.19649070298E+03	Resid mbdelay (usec)	2.66016E-03	+/-	7.3E-06
Sband delay (usec)	4.19648130423E+03	Apriori clock (usec)	1.2529841E+01	Resid sbdelay (usec)	-9.39875E-03	+/-	5.8E-05
Phase delay (usec)	4.19649070085E+03	Apriori clockrate (us/s)	4.4049998E-06	Resid phdelay (usec)	-2.12441E-06	+/-	2.5E-08
Delay rate (us/s)	-2.60192810576E-01	Apriori rate (us/s)	-2.60196303582E-01	Resid rate (us/s)	3.49301E-06	+/-	1.1E-10
Total phase (deg)	-10.3	Apriori accel (us/s/s)	-7.73764277947E-06	Resid phase (deg)	-65.9	+/-	0.8

ph/seg (deg)	21.4	1.8	Search (2048X32)	2.491	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	7.6	3.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	66.7	1.1	Inc. seg. avg.	2.983	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	56.6	1.9	Inc. frq. avg.	4.256	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
Z: az 77.3 el 55.6 pa -50.2		N: az 52.5 el 38.7 pa -64.5		u,v (fr/asec) 2353.813 149.137	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/No0029/ZN..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZN.W.147.1WZMQH

simultaneous interpolator

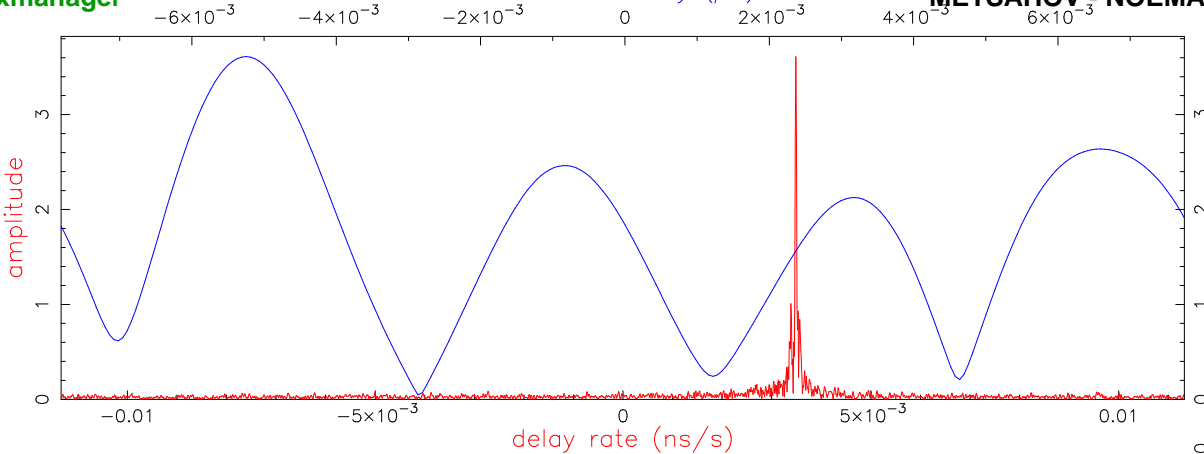
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, ZN

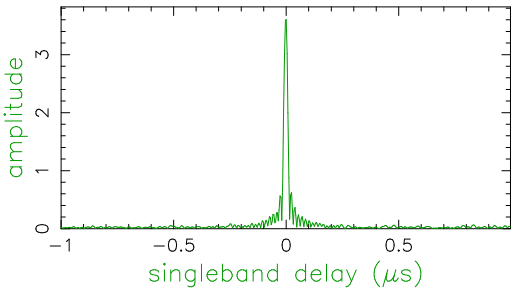
METSAHOV - NOEMA, fgroup W, pol RR

multiband delay (μ s)

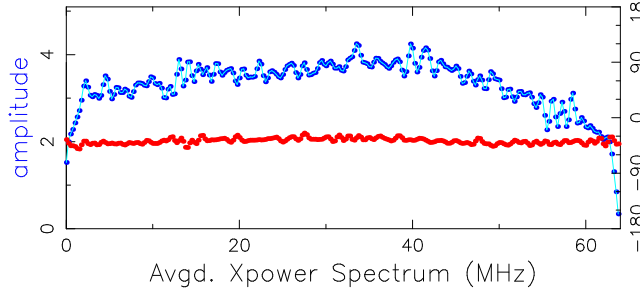


Fringe quality 4

SNR 202.5
 Int time 405.757
 Amp 3.824
 Phase 3.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.001780
 MBD -0.005282
 Fringe rate (Hz)
 0.300524
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

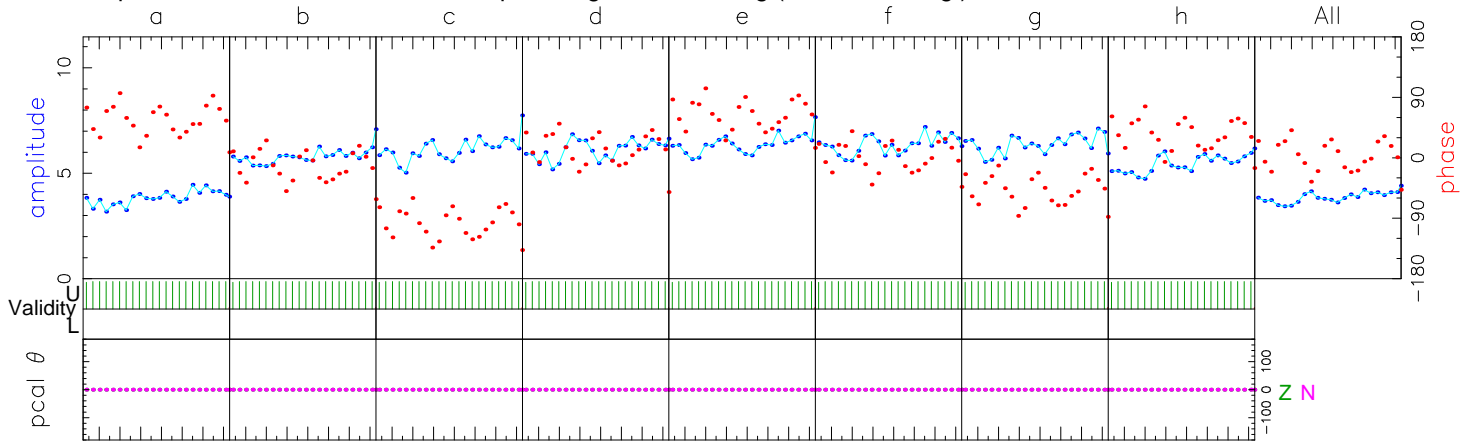


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114019
 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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	4.19648542140E+03	Apriori delay (usec)		4.19649070298E+03	Resid mbdelay (usec)		-5.28158E-03	+/-	5.4E-06	
Sband delay (usec)	4.19648892348E+03	Apriori clock (usec)		1.2529841E+01	Resid sbdelay (usec)		-1.77950E-03	+/-	4.3E-05	
Phase delay (usec)	4.19649070310E+03	Apriori clockrate (us/s)		4.4049998E-06	Resid phdelay (usec)		1.17310E-07	+/-	1.8E-08	
Delay rate (us/s)	-2.60192814797E-01	Apriori rate (us/s)		-2.60196303582E-01	Resid rate (us/s)		3.48878E-06	+/-	7.8E-11	
Total phase (deg)		59.3	Apriori accel (us/s/s)		-7.73764277947E-06	Resid phase (deg)		3.6	+/-	0.6

ph/seg (deg)	20.6	1.4	Amplitude		3.824 +/- 0.019	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5	
amp/seg (%)	7.9	2.4	Search (2048X32)		0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	58.7	0.8	Interp.		0.000	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	51.9	1.4	Inc. seg. avg.		4.006	SampCntNorm: enabled		dr window (ns/s)	-0.011 0.011
			Inc. frq. avg.		5.646	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
						Data rate(Mb/s): 2048			
						nlags: 256 t_cohere infinite			

Z: az 77.3 el 55.6 pa -50.2 N: az 52.5 el 38.7 pa -64.5 u,v (fr/asec) 2353.813 149.137 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/ZN..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZN.W.159.1WZMQH

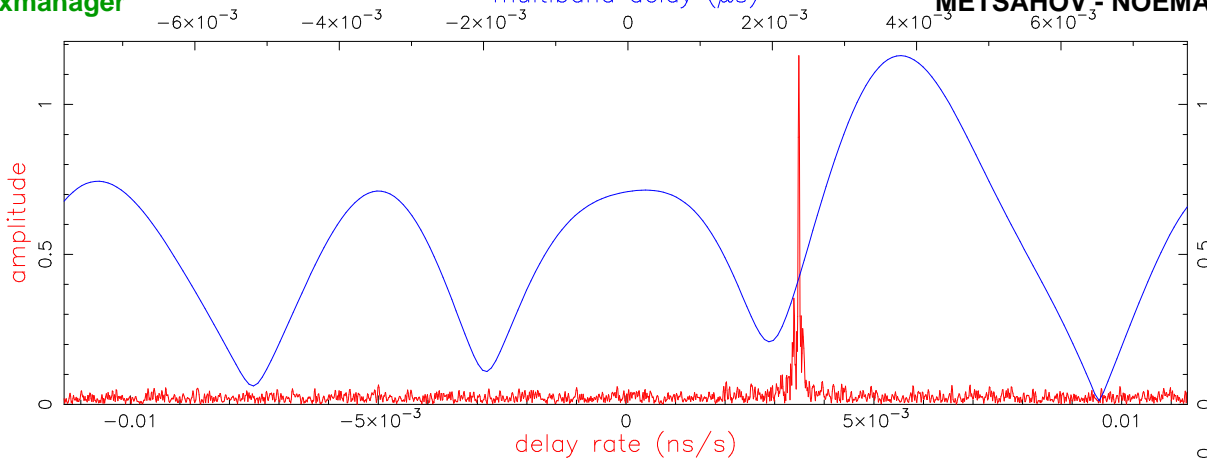
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, ZN

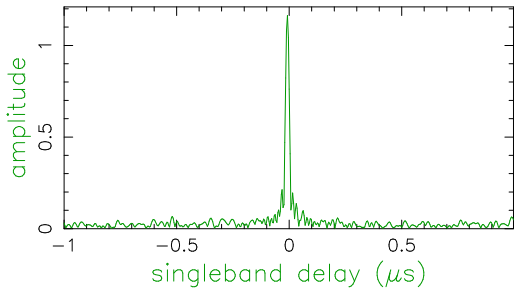
METSAHOV - NOEMA, fgroup W, pol LR

multiband delay (μ s)

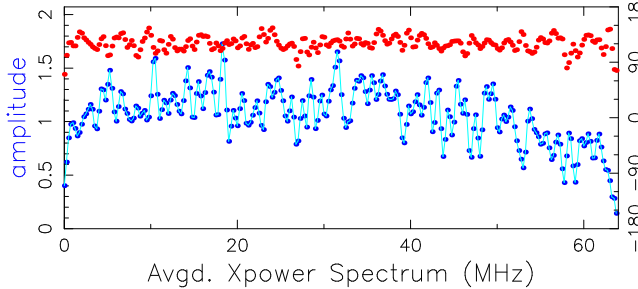


Fringe quality 4

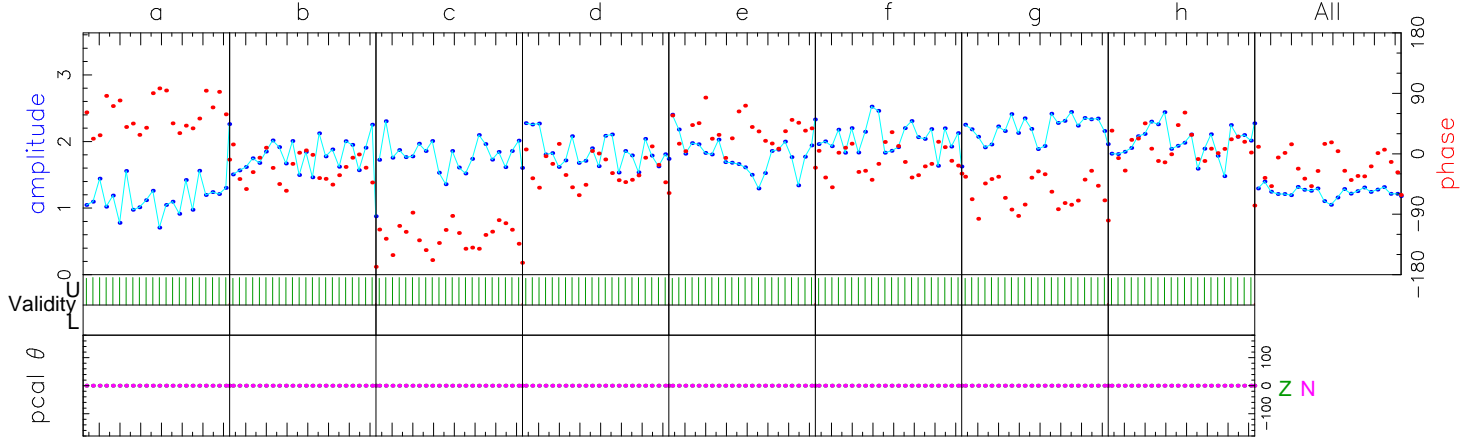
SNR 64.1
 Int time 405.757
 Amp 1.210
 Phase -16.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.008187
 MBD 0.003770
 Fringe rate (Hz)
 0.300880
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114023
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



delay rate (ns/s)



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)	4.19647884815E+03	Apriori delay (usec)		4.19649070298E+03	Resid mbdelay (usec)		3.77017E-03	+/-	1.7E-05	
Sband delay (usec)	4.19648251623E+03	Apriori clock (usec)		1.2529841E+01	Resid sbdelay (usec)		-8.18675E-03	+/-	1.3E-04	
Phase delay (usec)	4.19649070245E+03	Apriori clockrate (us/s)		4.4049998E-06	Resid phdelay (usec)		-5.30714E-07	+/-	5.8E-08	
Delay rate (us/s)	-2.60192810663E-01	Apriori rate (us/s)		-2.60196303582E-01	Resid rate (us/s)		3.49292E-06	+/-	2.5E-10	
Total phase (deg)	39.2		Apriori accel (us/s/s)		-7.73764277947E-06	Resid phase (deg)		-16.5	+/-	1.8

ph/seg (deg)	21.0	4.3	Search (2048X32)	1.072	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
amp/seg (%)	9.3	7.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000			
ph/frq (deg)	60.7	2.5	Inc. seg. avg.	1.289	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	52.4	4.4	Inc. frq. avg.	1.773	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011			
Z: az 77.3 el 55.6 pa -50.2				N: az 52.5 el 38.7 pa -64.5				ion window (TEC)		0.00 0.00	
Control file: cf_1234_gmva				Input file: /Exps/c211c/v1/1234/No0029/ZN..1WZMQH				Output file: /Exps/c211c/v1/1234/No0029/ZN.W.165.1WZMQH		simultaneous interpolator	

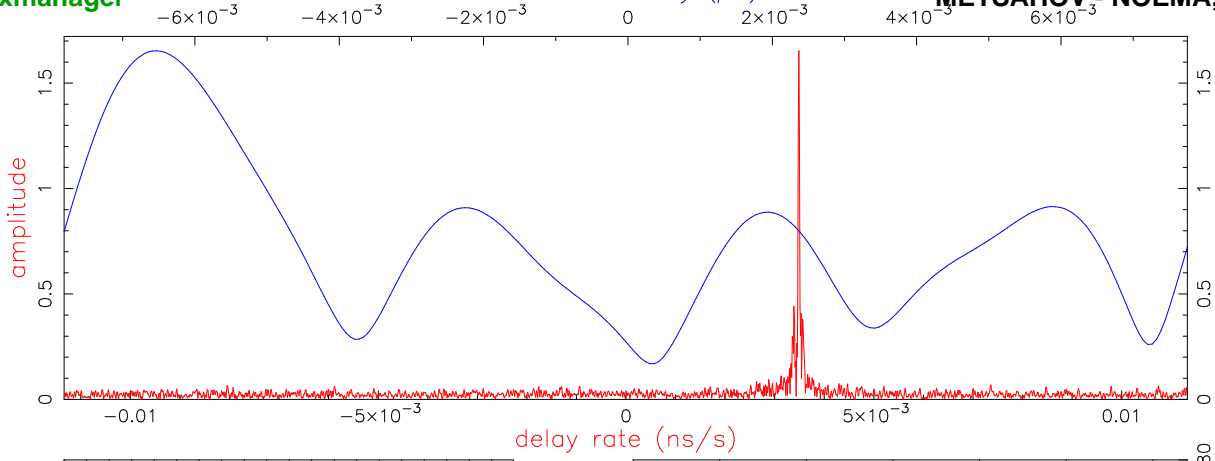
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

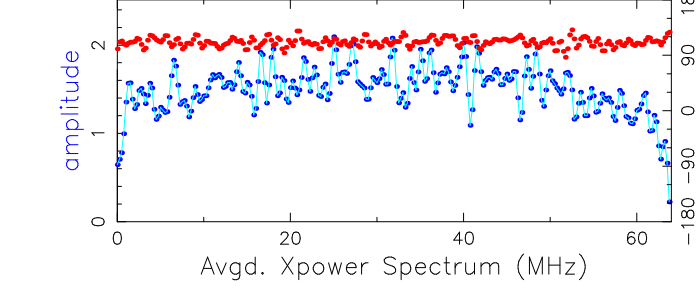
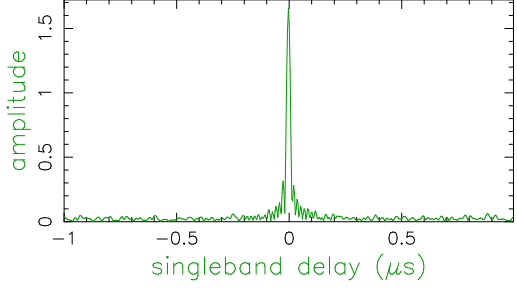
NRAO150.1WZMQH, No0029, ZN

METSAHOV - NOEMA, fgroup W, pol RL

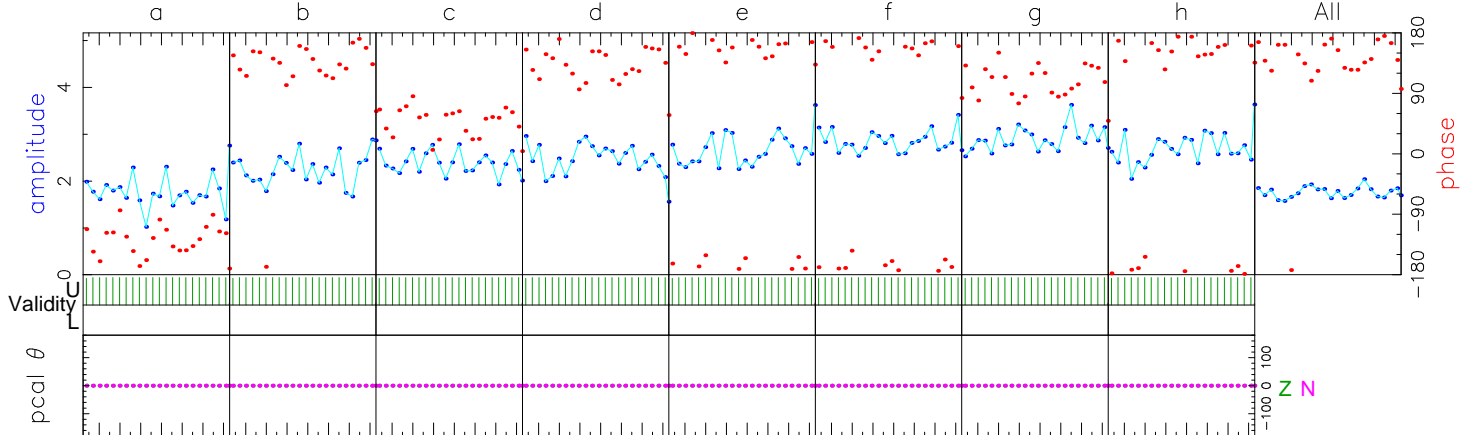
multiband delay (μ s)



Fringe quality 4
 SNR 91.2
 Int time 405.757
 Amp 1.722
 Phase 146.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.003453
 MBD -0.006530
 Fringe rate (Hz) 0.300548
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114026
 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
	-125.4	138.8	49.4	133.2	171.4	174.4	108.7	166.4	Phase	146.7
	1.7	2.2	2.3	2.4	2.5	2.8	2.4	2.6	Ampl.	2.4
	254.3	255.5	256.2	256.5	256.4	256.3	256.3	255.4	Sbd box	256.1
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.19648417261E+03		Apriori delay (usec)		4.19649070298E+03		Resid mbdelay (usec)		-6.53036E-03	+/- 1.2E-05
Sband delay (usec)	4.19648724998E+03		Apriori clock (usec)		1.2529841E+01		Resid sbdelay (usec)		-3.45300E-03	+/- 9.4E-05
Phase delay (usec)	4.19649070771E+03		Apriori clockrate (us/s)		4.4049998E-06		Resid phdelay (usec)		4.73061E-06	+/- 4.1E-08
Delay rate (us/s)	-2.60192814523E-01		Apriori rate (us/s)		-2.60196303582E-01		Resid rate (us/s)		3.48906E-06	+/- 1.7E-10
Total phase (deg)	202.3		Apriori accel (us/s/s)		-7.73764277947E-06		Resid phase (deg)		146.7	+/- 1.3

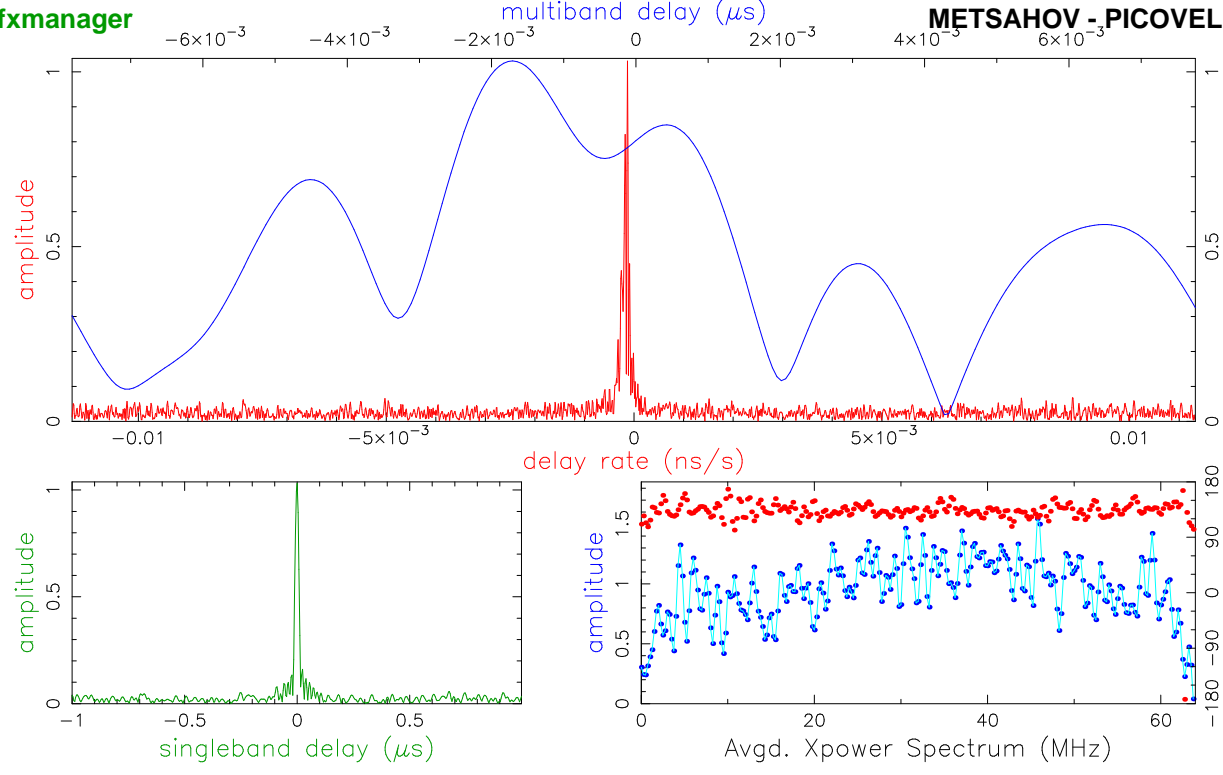
ph/seg (deg) 20.7 3.0 Search (2048X32) 1.625 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 9.6 5.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 58.7 1.8 Inc. seg. avg. 1.834 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.6 3.1 Inc. frq. avg. 2.425 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 77.3 el 55.6 pa -50.2 N: az 52.5 el 38.7 pa -64.5 u,v (fr/asec) 2353.813 149.137 ion window (TEC) 0.00 0.00
 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/ZN..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZN.W.171.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, ZP

MEṬSAHOV - PICOVEL, fgroup W, pol LL

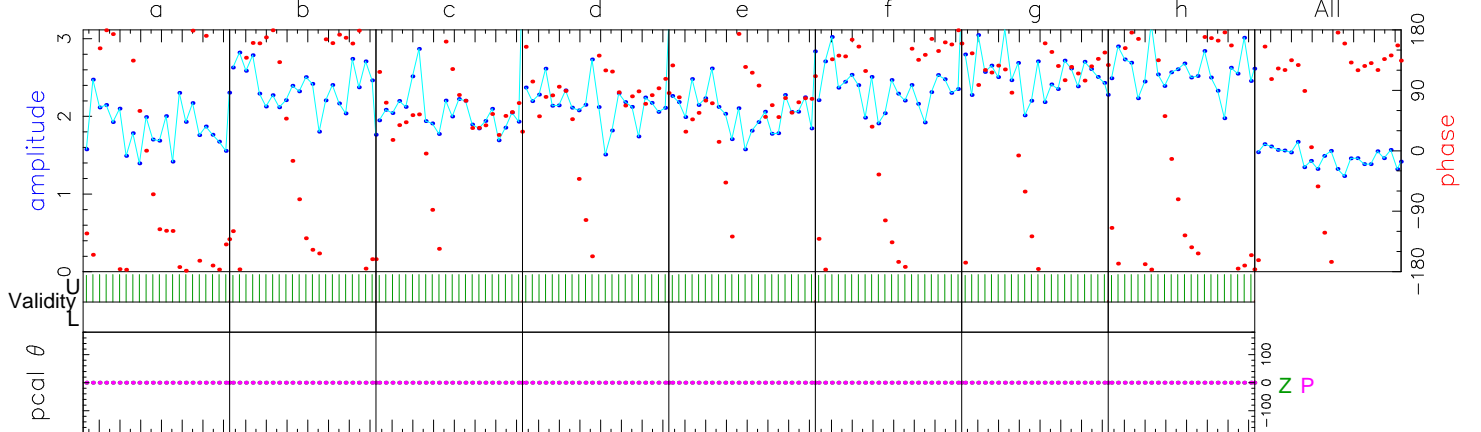


Fringe quality 1

SNR 57.2
 Int time 405.757
 Amp 1.038
 Phase 139.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.001141
 MBD -0.001741
 Fringe rate (Hz)
 -0.011538
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114018
 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
	-165.9	-179.8	56.7	93.9	72.3	164.2	130.2	-173.5	Phase	139.9
	1.3	1.6	1.4	1.5	1.4	1.7	1.8	1.8	Ampl.	1.6
	255.3	256.3	256.5	257.5	257.9	257.5	257.7	256.7	Sbd box	256.7
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	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 7.33352353261E+03 Apriori delay (usec) 7.33352527399E+03 Resid mbdelay (usec) -1.74138E-03 +/- 1.9E-05
 Sband delay (usec) 7.33352413299E+03 Apriori clock (usec) 3.2357788E-01 Resid sbdelay (usec) -1.14100E-03 +/- 1.5E-04
 Phase delay (usec) 7.33352527850E+03 Apriori clockrate (us/s) 6.159998E-07 Resid phdelay (usec) 4.51263E-06 +/- 6.5E-08
 Delay rate (us/s) -3.56880265974E-01 Apriori rate (us/s) -3.56880132034E-01 Resid rate (us/s) -1.33940E-07 +/- 2.8E-10
 Total phase (deg) 176.4 Apriori accel (us/s/s) -1.57235384118E-05 Resid phase (deg) 139.9 +/- 2.0

RMS Theor. Amplitude 1.038 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 56.3 4.8 Search (2048X32) 1.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 43.4 8.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 59.2 2.8 Inc. seg. avg. 1.469 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 53.0 4.9 Inc. frq. avg. 1.558 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 77.3 el 55.6 pa -50.2 P: az 45.7 el 28.4 pa -65.9 u,v (fr/asec) 3219.429 -77.509 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/ZP..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZP.W.157.1WZMQH

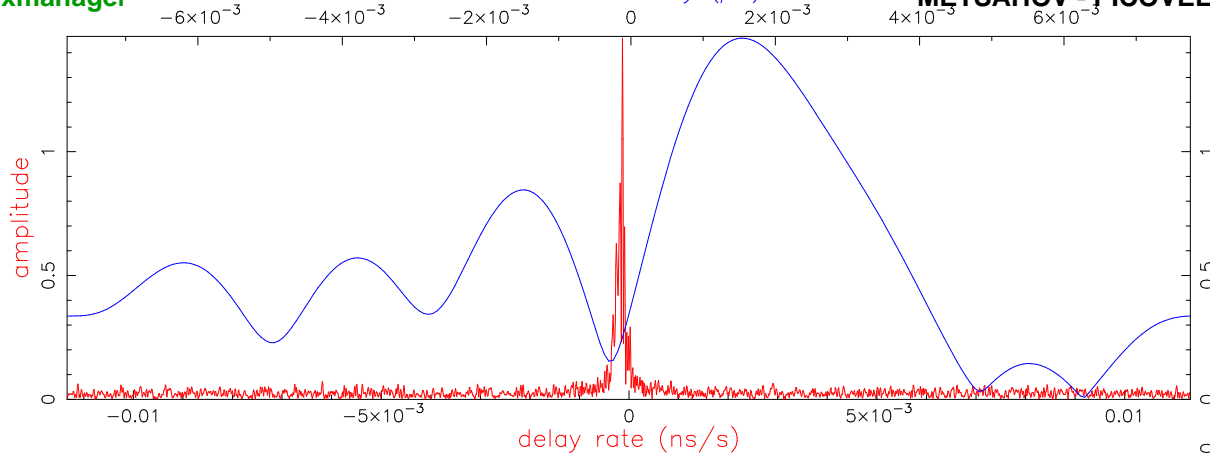
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, ZP

MEṬSAHOV - PICOVEL, fgroup W, pol RR

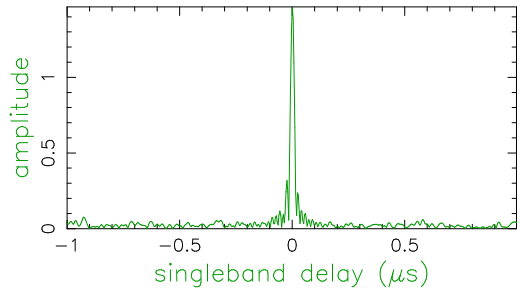
multiband delay (μ s)



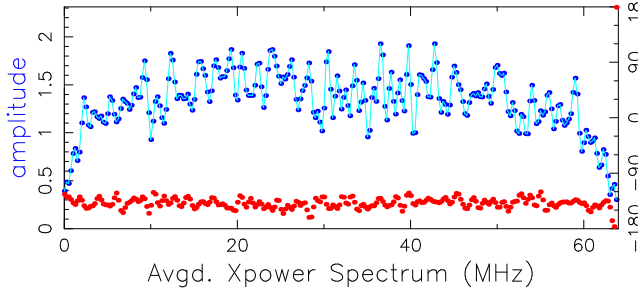
Fringe quality 3

SNR 80.7
 Int time 405.757
 Amp 1.466
 Phase -146.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.000899
 MBD 0.001556
 Fringe rate (Hz)
 -0.011902
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

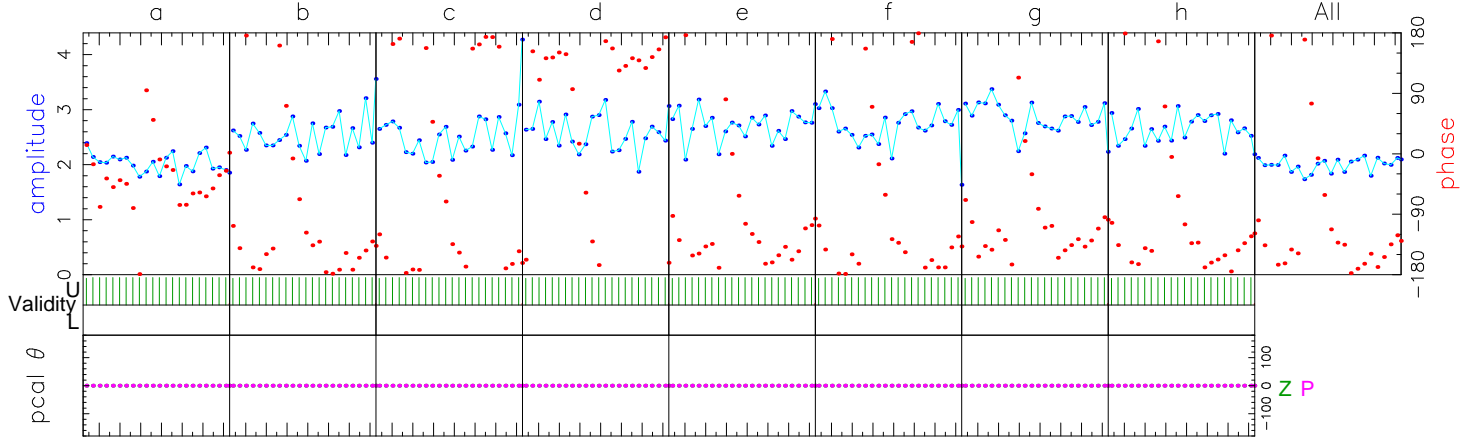
Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114022
 2021:252:122852
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



delay rate (ns/s)



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
	-39.2	-151.5	-169.3	150.9	-134.1	-155.9	-120.3	-144.0	Phase	-146.5
	1.5	1.8	1.8	1.9	2.0	2.0	2.1	1.9	Ampl.	1.9
	255.1	256.1	256.4	257.3	257.5	257.0	257.3	256.5	Sbd box	257.2
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	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	7.33352682983E+03	Apriori delay (usec)	7.33352527399E+03	Resid mbdelay (usec)	1.55584E-03	+/-	1.3E-05
Sband delay (usec)	7.33352617299E+03	Apriori clock (usec)	3.2357788E-01	Resid sbdelay (usec)	8.99000E-04	+/-	1.1E-04
Phase delay (usec)	7.33352526927E+03	Apriori clockrate (us/s)	6.1599998E-07	Resid phdelay (usec)	-4.72292E-06	+/-	4.6E-08
Delay rate (us/s)	-3.56880270204E-01	Apriori rate (us/s)	-3.56880132034E-01	Resid rate (us/s)	-1.38169E-07	+/-	2.0E-10
Total phase (deg)	-110.0	Apriori accel (us/s/s)	-1.57235384118E-05	Resid phase (deg)	-146.5	+/-	1.4

ph/seg (deg)	50.9	RMS	3.4	Theor.	3.4	Amplitude	1.466 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	37.2		5.9		5.9	Search (2048X32)	1.344	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	53.1		2.0		2.0	Inc. seg. avg.	1.993	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	30.9		3.5		3.5	Inc. frq. avg.	1.880	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

Z: az 77.3 el 55.6 pa -50.2 P: az 45.7 el 28.4 pa -65.9 u,v (fr/asec) 3219.429 -77.509 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/ZP..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZP.W.163.1WZMQH

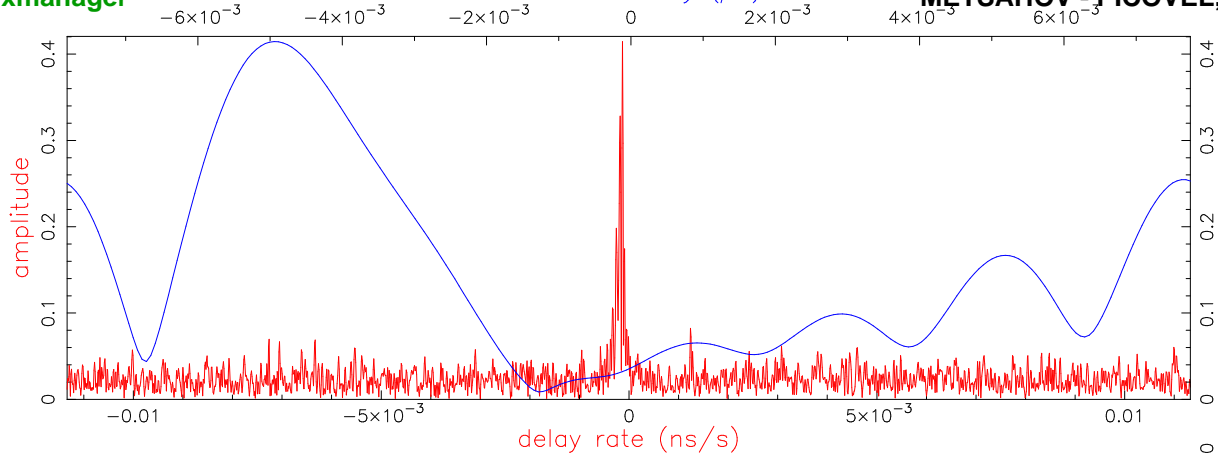
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, ZP

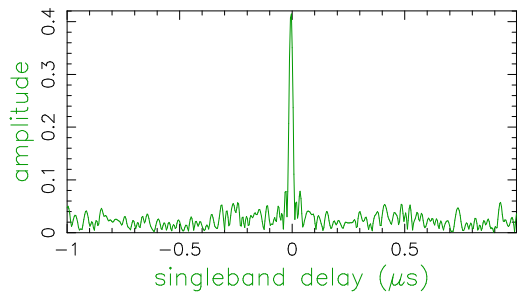
MEṬSAHOV - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

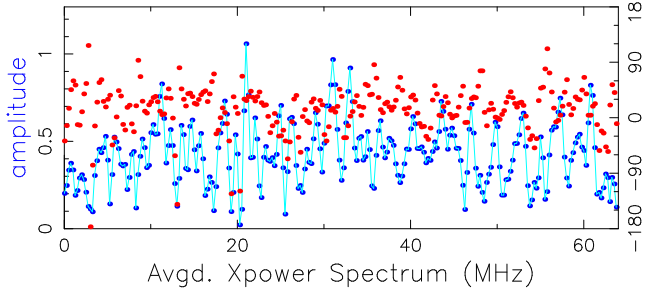


Fringe quality 8

SNR 23.2
 Int time 405.757
 Amp 0.421
 Phase 10.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.005468
 MBD -0.004960
 Fringe rate (Hz)
 -0.011614
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

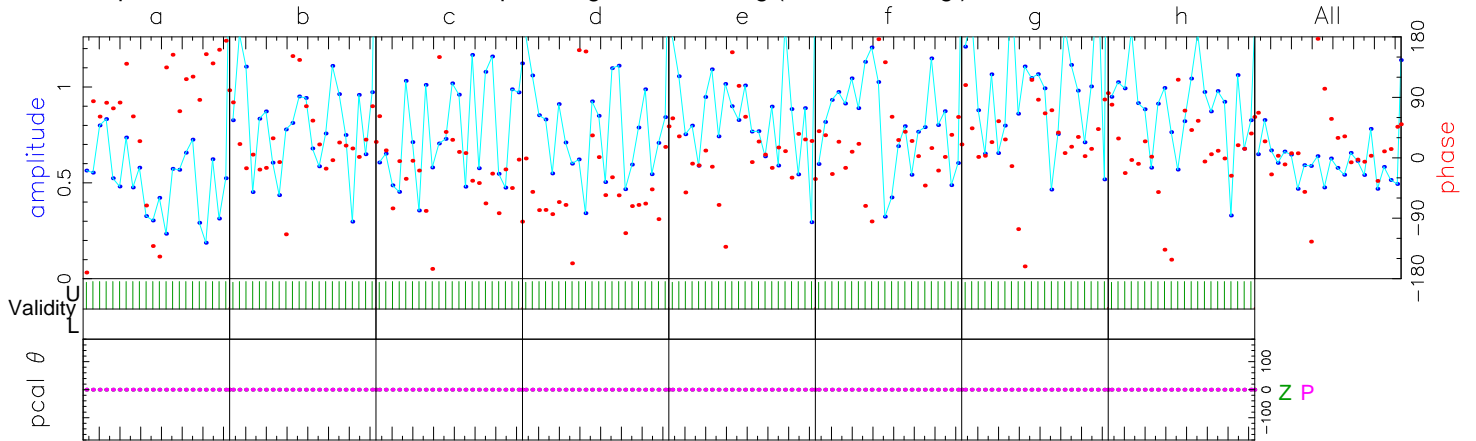


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114025
 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
	112.0	22.7	-21.9	-53.5	10.2	4.3	37.8	15.4		10.0
	0.3	0.5	0.5	0.5	0.5	0.5	0.7	0.6		0.5
	253.1	254.7	254.9	255.7	256.1	255.4	255.5	254.9		255.6
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		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:P	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		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	7.33352031352E+03		Apriori delay (usec)		7.33352527399E+03		Resid mbdelay (usec)		-4.96047E-03	+/- 4.7E-05
Sband delay (usec)	7.33351980624E+03		Apriori clock (usec)		3.2357788E-01		Resid sbdelay (usec)		-5.46775E-03	+/- 3.7E-04
Phase delay (usec)	7.33352527431E+03		Apriori clockrate (us/s)		6.1599998E-07		Resid phdelay (usec)		3.21713E-07	+/- 1.6E-07
Delay rate (us/s)	-3.56880266865E-01		Apriori rate (us/s)		-3.56880132034E-01		Resid rate (us/s)		-1.34831E-07	+/- 6.8E-10
Total phase (deg)	46.5		Apriori accel (us/s/s)		-1.57235384118E-05		Resid phase (deg)		10.0	+/- 4.9

ph/seg (deg) 56.6 11.9 Search (2048X32) 0.408 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 48.7 20.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 52.4 7.0 Inc. seg. avg. 0.590 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 31.8 12.2 Inc. frq. avg. 0.516 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 77.3 el 55.6 pa -50.2 P: az 45.7 el 28.4 pa -65.9 u,v (fr/asec) 3219.429 -77.509 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/ZP..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZP.W.169.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

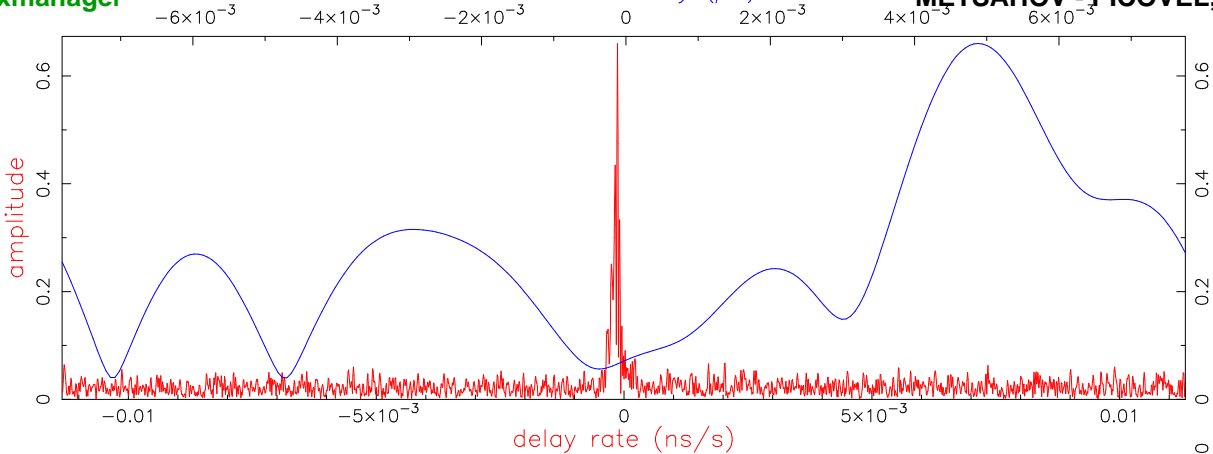
fxmanager

NRAO150.1WZMQH, No0029, ZP

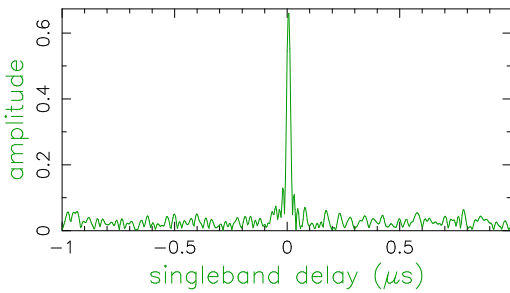
MEṬSAHOV - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

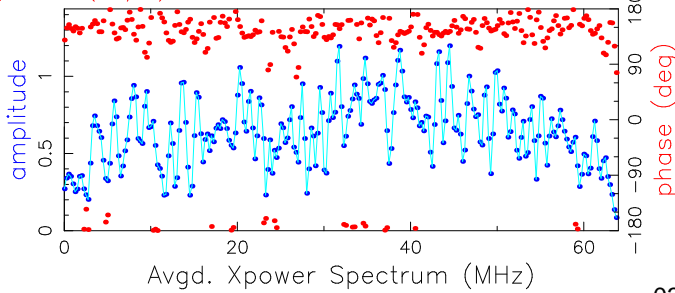
Fringe quality 5



SNR 37.1
 Int time 405.757
 Amp 0.674
 Phase 161.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.005936
 MBD 0.004847
 Fringe rate (Hz)
 -0.011927
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

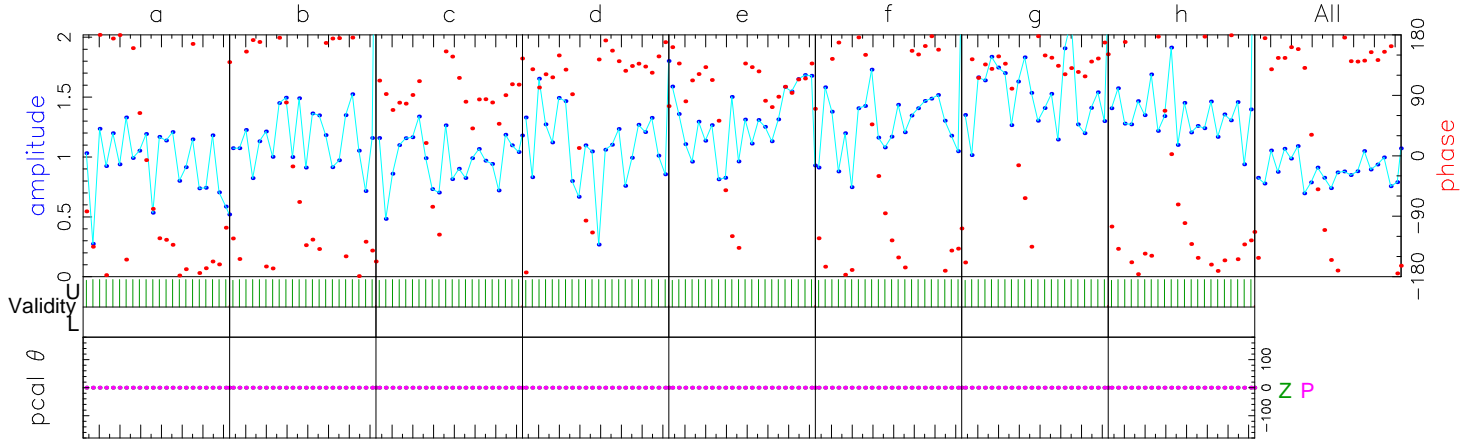


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114029
 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
	-158.1	-162.6	91.7	140.3	118.5	-175.9	142.5	-148.9	Phase	161.2
	0.6	0.8	0.7	0.8	0.9	0.9	1.1	0.9	Ampl.	0.9
	257.0	258.4	258.6	259.0	259.3	259.1	259.5	258.4	Sbd box	258.5
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	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 7.33353012100E+03 Apriori delay (usec) 7.33352527399E+03 Resid mbdelay (usec) 4.84701E-03 +/- 2.9E-05
 Sband delay (usec) 7.33353120999E+03 Apriori clock (usec) 3.2357788E-01 Resid sbdelay (usec) 5.93600E-03 +/- 2.3E-04
 Phase delay (usec) 7.33352527919E+03 Apriori clockrate (us/s) 6.159998E-07 Resid phdelay (usec) 5.19960E-06 +/- 1.0E-07
 Delay rate (us/s) -3.56880270494E-01 Apriori rate (us/s) -3.56880132034E-01 Resid rate (us/s) -1.38460E-07 +/- 4.2E-10
 Total phase (deg) 197.7 Apriori accel (us/s/s) -1.57235384118E-05 Resid phase (deg) 161.2 +/- 3.1

RMS Theor. Amplitude 0.674 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 50.8 7.4 Search (2048X32) 0.611 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 36.1 12.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 47.3 4.4 Inc. seg. avg. 0.882 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 32.7 7.6 Inc. frq. avg. 0.851 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 77.3 el 55.6 pa -50.2 P: az 45.7 el 28.4 pa -65.9 u,v (fr/asec) 3219.429 -77.509 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/ZP..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZP.W.174.1WZMQH

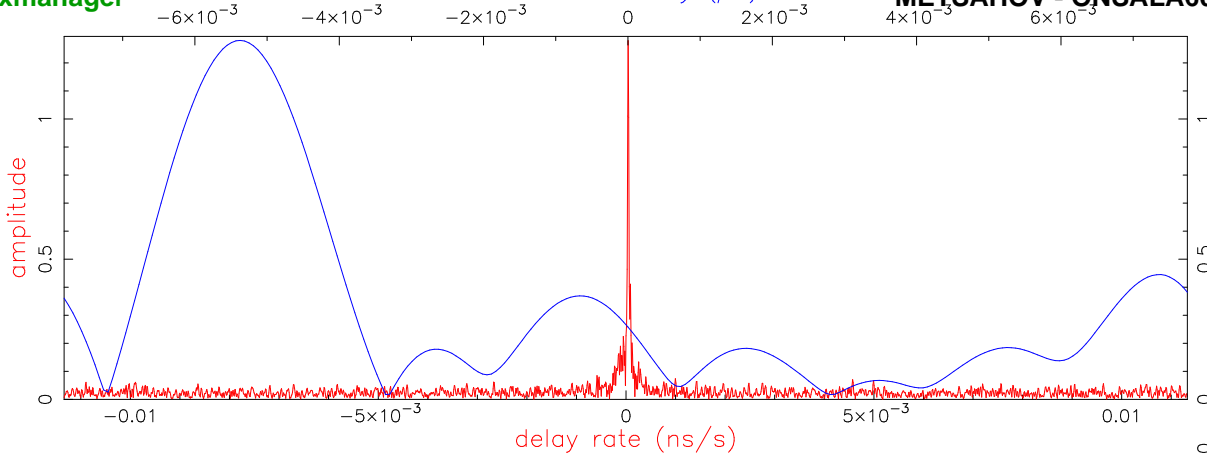
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, ZX

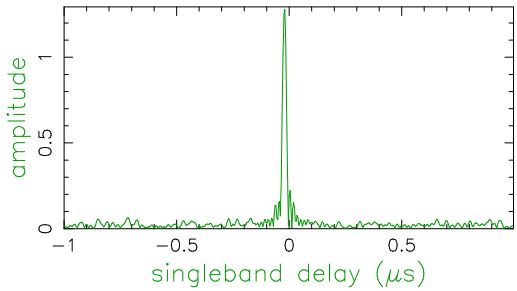
METSAHOV - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

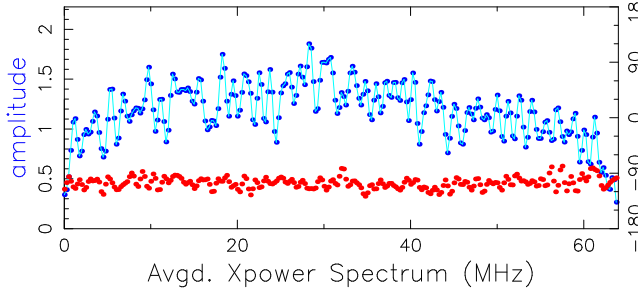


Fringe quality 6

SNR 71.3
 Int time 405.757
 Amp 1.294
 Phase 75.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.020951
 MBD -0.005405
 Fringe rate (Hz)
 0.003496
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

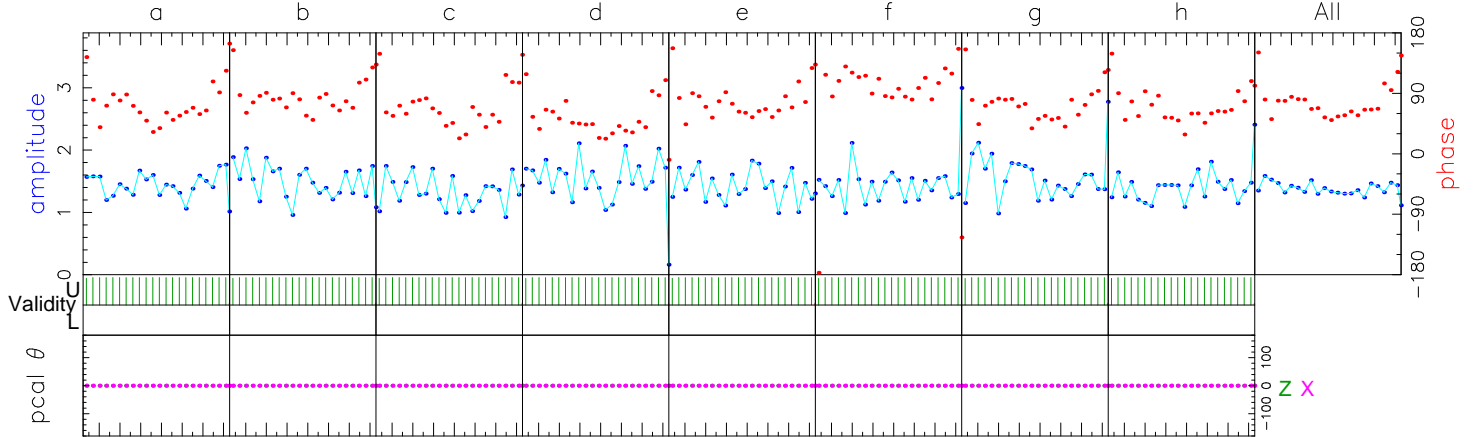


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114018
 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
	72.0	84.7	67.0	55.7	75.8	108.7	71.7	69.9		75.4
	1.3	1.4	1.2	1.4	1.3	1.3	1.4	1.3		1.3
	251.8	251.3	251.2	251.8	252.2	251.6	251.7	251.4		251.6
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		PC freqs
X	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
Z:X	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
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks

Group delay (usec)(sbd)	1.52812411627E+03	Apriori delay (usec)	1.52814514666E+03	Resid mbdelay (usec)	-5.40539E-03	+/-	1.5E-05
Sband delay (usec)	1.52812419591E+03	Apriori clock (usec)	-5.7194977E+01	Resid sbdelay (usec)	-2.09507E-02	+/-	1.2E-04
Phase delay (usec)	1.52814514909E+03	Apriori clockrate (us/s)	-5.1200000E-07	Resid phdelay (usec)	2.43152E-06	+/-	5.2E-08
Delay rate (us/s)	-8.10933871165E-02	Apriori rate (us/s)	-8.10934277006E-02	Resid rate (us/s)	4.05841E-08	+/-	2.2E-10
Total phase (deg)		Apriori accel (us/s/s)	-6.18507198224E-06	Resid phase (deg)	75.4	+/-	1.6

ph/seg (deg)	23.9	RMS	3.9	Theor.	1.294 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	10.1	Search (2048X32)	1.246	Amplitude		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	16.9	Inc. seg. avg.	1.387	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	5.8	Inc. frq. avg.	1.321	Inc. seg. avg.	1.387	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011			
				Inc. frq. avg.	1.321	Data rate (Mb/s):	2048	nlags:	256	t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 77.3 el 55.6 pa -50.2 X: az 65.8 el 48.5 pa -51.7 u,v (fr/asec) 727.773 -464.524 simultaneous interpolator

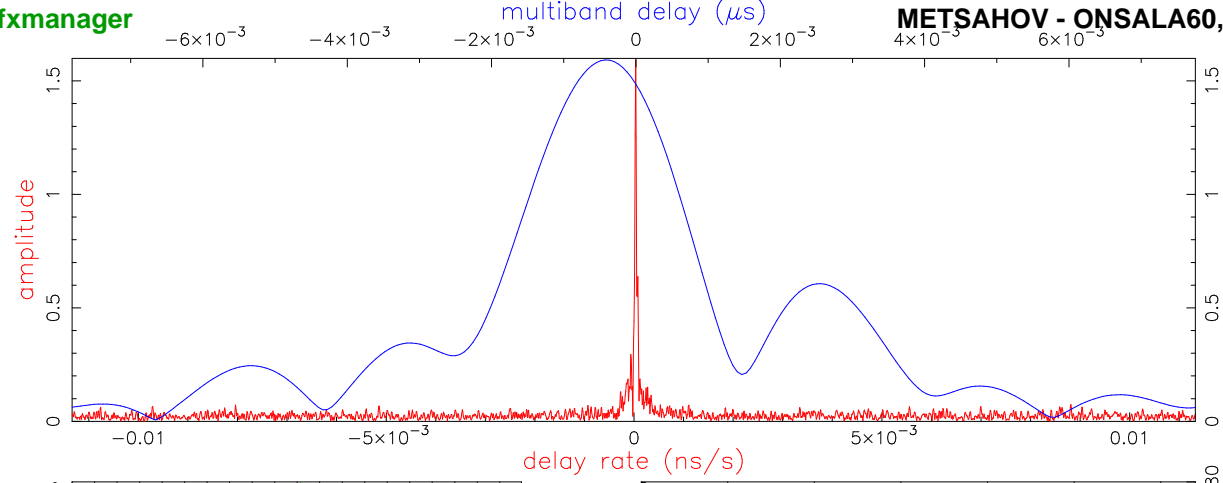
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/ZX..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZX.W.156.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, ZX

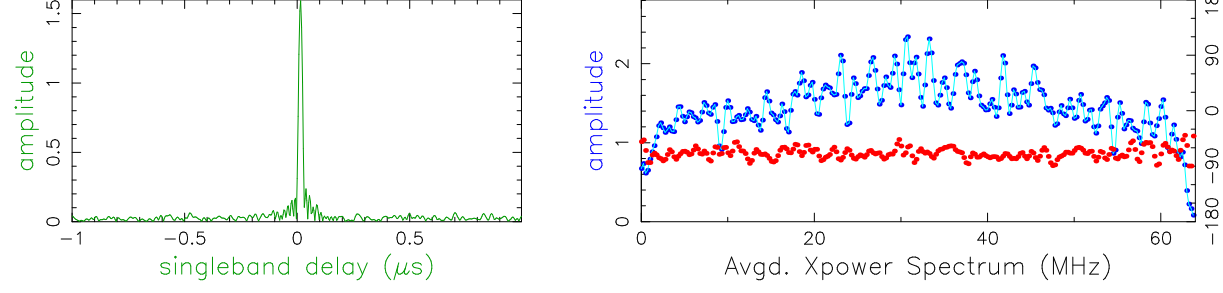
METSAHOV - ONSALA60, fgroup W, pol RR



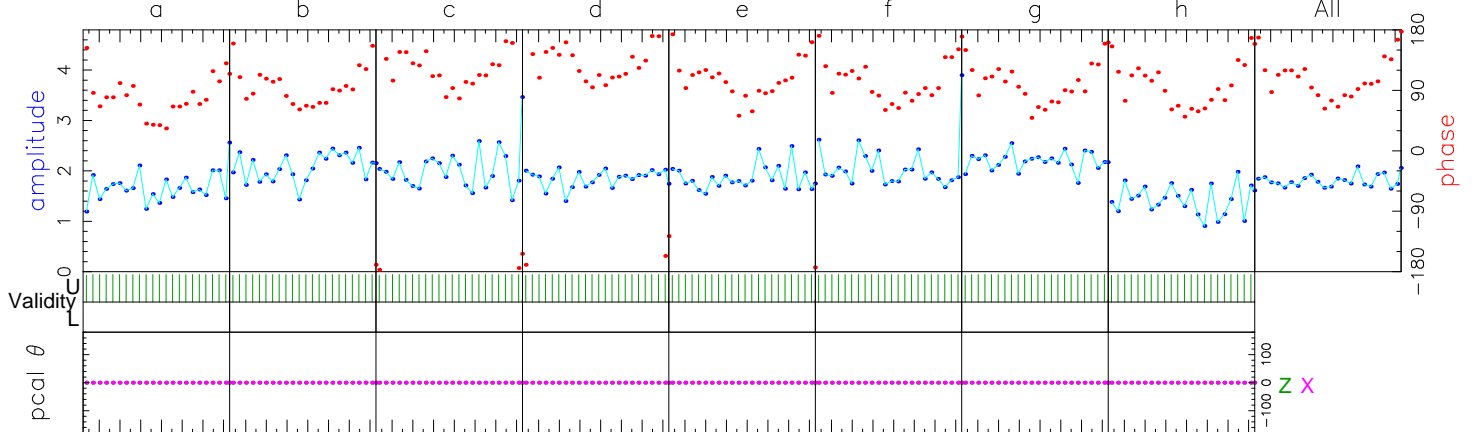
Fringe quality 6

SNR 88.1
 Int time 405.757
 Amp 1.599
 Phase 105.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.014750
 MBD -0.000433
 Fringe rate (Hz) 0.003110
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114021
 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
	79.3	96.2	126.3	135.5	106.8	103.4	99.6	97.4	Phase	105.8
	1.5	1.9	1.7	1.6	1.7	1.8	2.0	1.2	Ampl.	1.7
	260.7	261.0	261.0	261.1	260.4	260.9	261.0	260.3	Sbd box	260.8
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	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 1.52816033828E+03 Apriori delay (usec) 1.52814514666E+03 Resid mbdelay (usec) -4.33382E-04 +/- 1.2E-05
 Sband delay (usec) 1.52815989691E+03 Apriori clock (usec) -5.7194977E+01 Resid sbdelay (usec) 1.47502E-02 +/- 9.8E-05
 Phase delay (usec) 1.52814515007E+03 Apriori clockrate (us/s) -5.1200000E-07 Resid phdelay (usec) 3.41323E-06 +/- 4.2E-08
 Delay rate (us/s) -8.10933915946E-02 Apriori rate (us/s) -8.10934277006E-02 Resid rate (us/s) 3.61060E-08 +/- 1.8E-10
 Total phase (deg) 81.9 Apriori accel (us/s/s) -6.18507198224E-06 Resid phase (deg) 105.8 +/- 1.3

RMS Theor. Amplitude 1.599 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 28.2 3.1 Search (2048X32) 1.564 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 14.2 5.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 19.2 1.8 Inc. seg. avg. 1.795 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 14.3 3.2 Inc. frq. avg. 1.658 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 77.3 el 55.6 pa -50.2 X: az 65.8 el 48.5 pa -51.7 u,v (fr/asec) 727.773 -464.524 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/ZX..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZX.W.162.1WZMQH

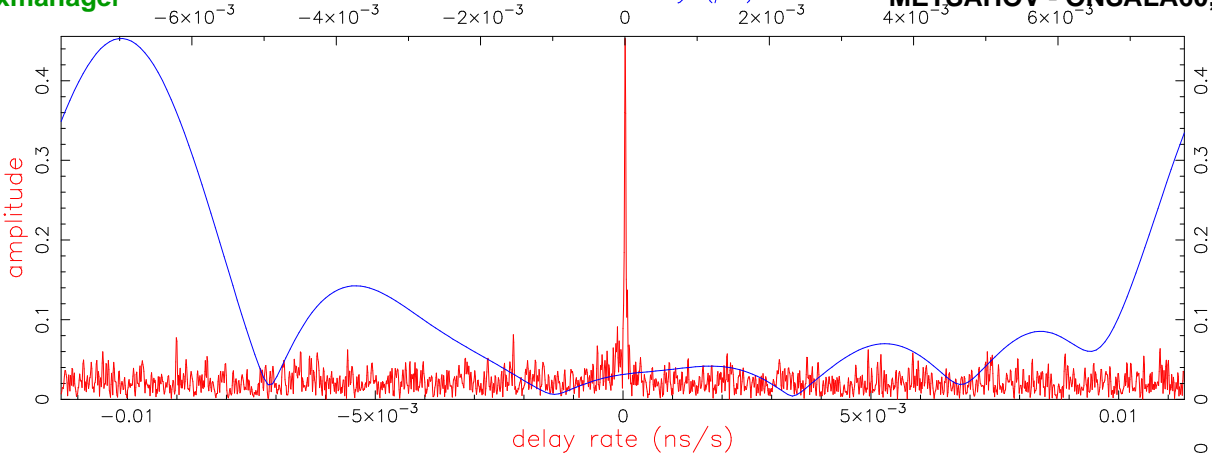
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, ZX

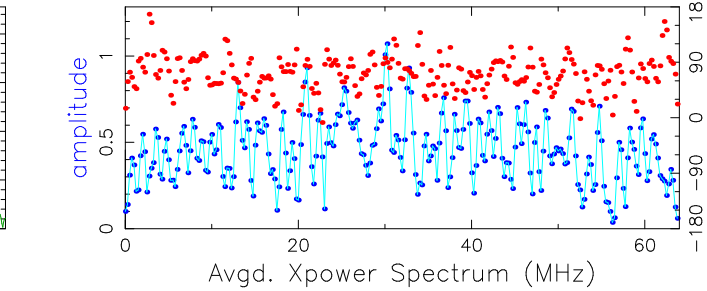
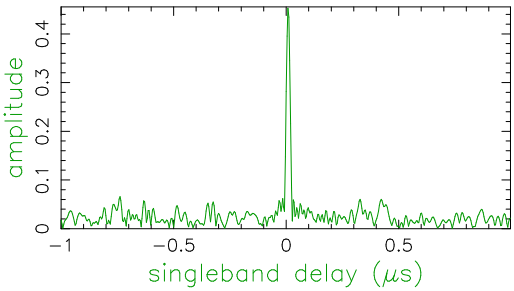
METSAHOV - ONSALA60, fgroup W, pol LR

multiband delay (μ s)



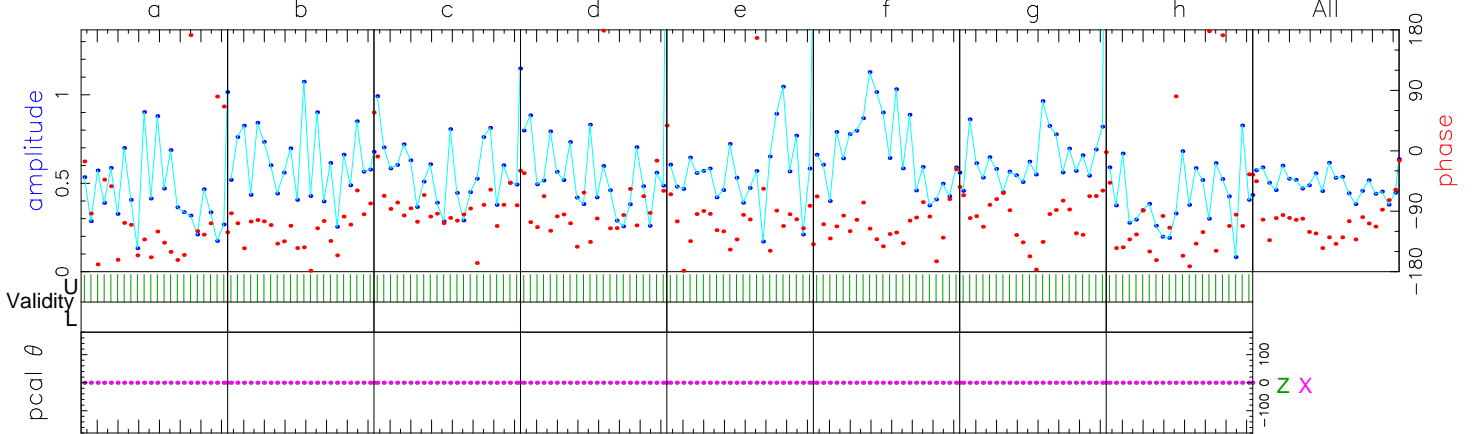
Fringe quality 8

SNR 25.1
 Int time 405.757
 Amp 0.456
 Phase -107.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.008833
 MBD -0.006962
 Fringe rate (Hz) 0.003479
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114024
 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
Group delay (usec)(sbd)	-125.7	-114.7	-81.9	-96.6	-112.2	-109.1	-98.2	-132.4	Phase	-107.0
Sband delay (usec)	0.3	0.6	0.5	0.4	0.5	0.6	0.5	0.3	Ampl.	0.5
Phase delay (usec)	258.8	259.6	258.8	259.0	259.0	259.6	259.7	259.0	Sbd box	259.3
Delay rate (us/s)	-8.10933873163E-02								APs used	
Total phase (deg)			229.0						PC freqs	
	U/L 794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	PC phase	
	Z 1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
	X 1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
	Z W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
	X W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.52815380992E+03	Apriori delay (usec)	1.52814514666E+03	Resid mbdelay (usec)	-6.96174E-03	+/-	4.3E-05
Sband delay (usec)	1.52815397991E+03	Apriori clock (usec)	-5.7194977E+01	Resid sbdelay (usec)	8.83325E-03	+/-	3.4E-04
Phase delay (usec)	1.52814514321E+03	Apriori clockrate (us/s)	-5.1200000E-07	Resid phdelay (usec)	-3.45126E-06	+/-	1.5E-07
Delay rate (us/s)	-8.10933873163E-02	Apriori rate (us/s)	-8.10934277006E-02	Resid rate (us/s)	4.03842E-08	+/-	6.3E-10
Total phase (deg)		Apriori accel (us/s/s)	-6.18507198224E-06	Resid phase (deg)	-107.0	+/-	4.6

ph/seg (deg)	24.9	RMS	24.9	Theor.	10.9	Amplitude	0.456 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	16.8		16.8		19.1	Search (2048X32)	0.436	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	17.8		17.8		6.5	Inc. seg. avg.	0.489	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	23.3		23.3		11.3	Inc. frq. avg.	0.464	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
Z: az 77.3 el 55.6 pa -50.2		X: az 65.8 el 48.5 pa -51.7		u, v (fr/asec)	727.773 -464.524	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/No0029/ZX..1WZMQH		Output file: /Exps/c211c/v1/1234/No0029/ZX.W.168.1WZMQH								simultaneous interpolator

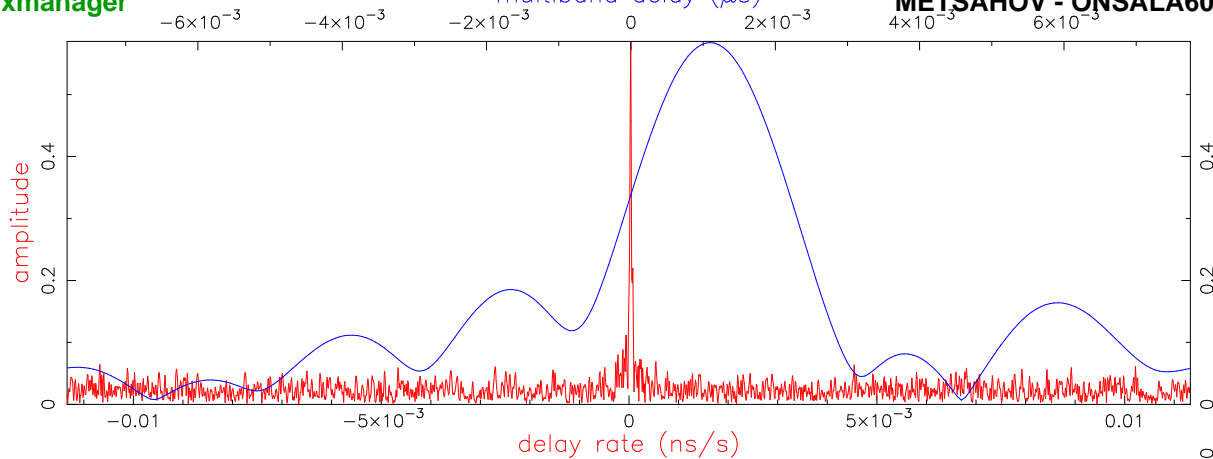
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, ZX

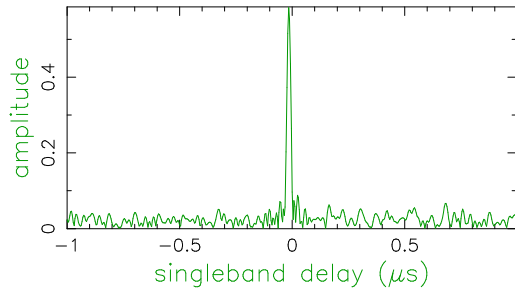
METSAHOV - ONSALA60, fgroup W, pol RL

multiband delay (μ s)

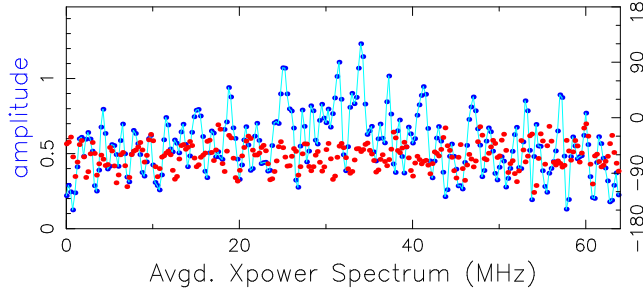


Fringe quality 7

SNR 32.3
 Int time 405.757
 Amp 0.586
 Phase 113.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.014840
 MBD 0.001112
 Fringe rate (Hz) 0.003085
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

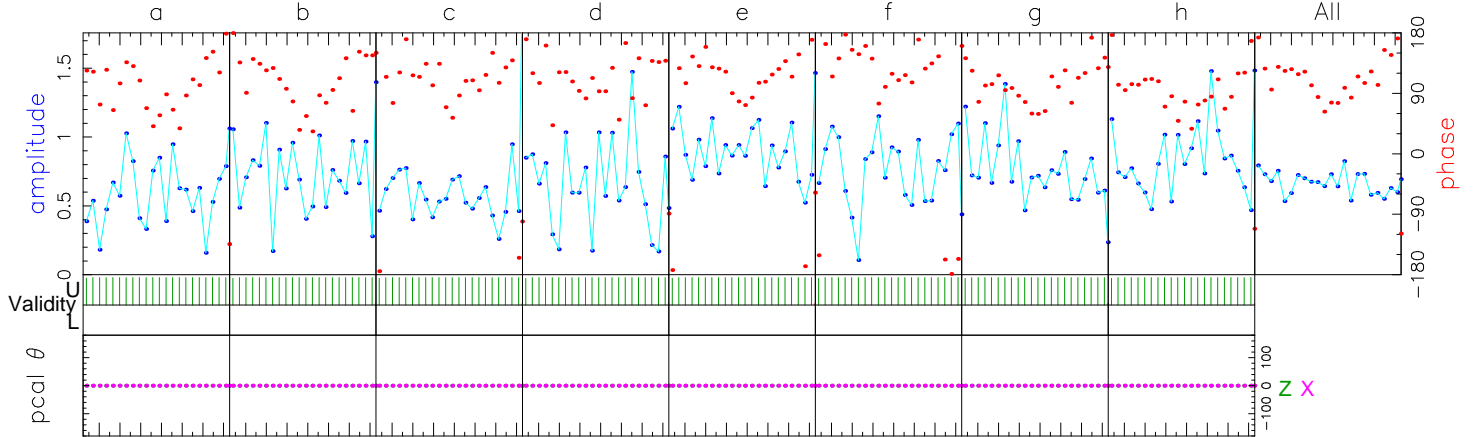


delay rate (ns/s)



Exp. c211c
 Yr:day 16383
 Start 2021:116
 Stop 2021:116
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114027
 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
	101.2	109.6	118.1	113.6	123.3	145.3	105.6	93.3	Phase	113.8
	0.5	0.6	0.5	0.6	0.8	0.6	0.7	0.7	Ampl.	0.6
	253.4	253.3	252.9	253.7	253.6	252.9	253.2	253.0	Sbd box	253.2
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	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.52813063384E+03	Apriori delay (usec)	1.52814514666E+03	Resid mbdelay (usec)	1.11218E-03	+/-	3.4E-05
Sband delay (usec)	1.52813030666E+03	Apriori clock (usec)	-5.7194977E+01	Resid sbdelay (usec)	-1.48400E-02	+/-	2.7E-04
Phase delay (usec)	1.52814515033E+03	Apriori clockrate (us/s)	-5.1200000E-07	Resid phdelay (usec)	3.67007E-06	+/-	1.1E-07
Delay rate (us/s)	-8.10933918830E-02	Apriori rate (us/s)	-8.10934277006E-02	Resid rate (us/s)	3.58176E-08	+/-	4.9E-10
Total phase (deg)		Apriori accel (us/s/s)	-6.18507198224E-06	Resid phase (deg)	113.8	+/-	3.6

ph/seg (deg)	29.7	RMS	8.5	Theor.	29.7	Amplitude	0.586 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	19.5	Search (2048X32)	0.573	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	17.2	Inc. seg. avg.	0.659	Inc. frq. avg.	0.602	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	17.8	Inc. frq. avg.	0.602			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

Z: az 77.3 el 55.6 pa -50.2 X: az 65.8 el 48.5 pa -51.7 u,v (fr/asec) 727.773 -464.524 simultaneous interpolator

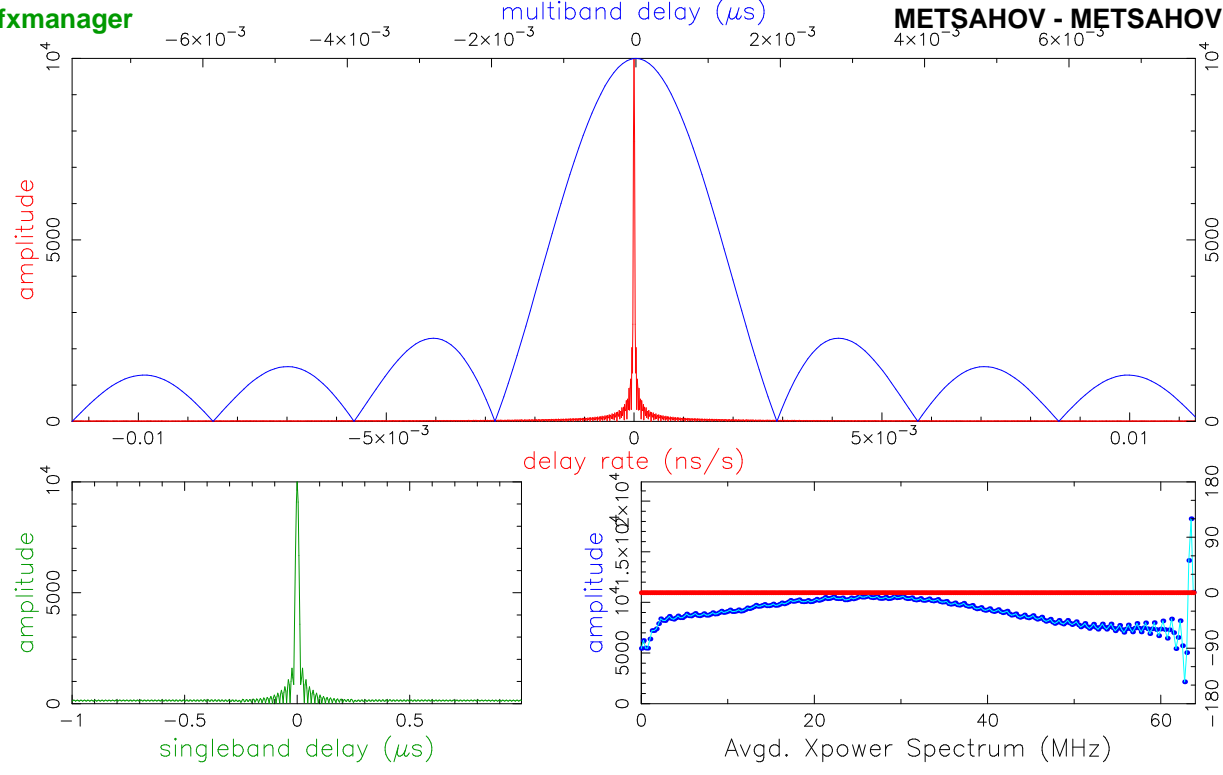
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/ZX..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZX.W.173.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, ZZ

METSAHOV - METSAHOV, fgroup W, pol LL

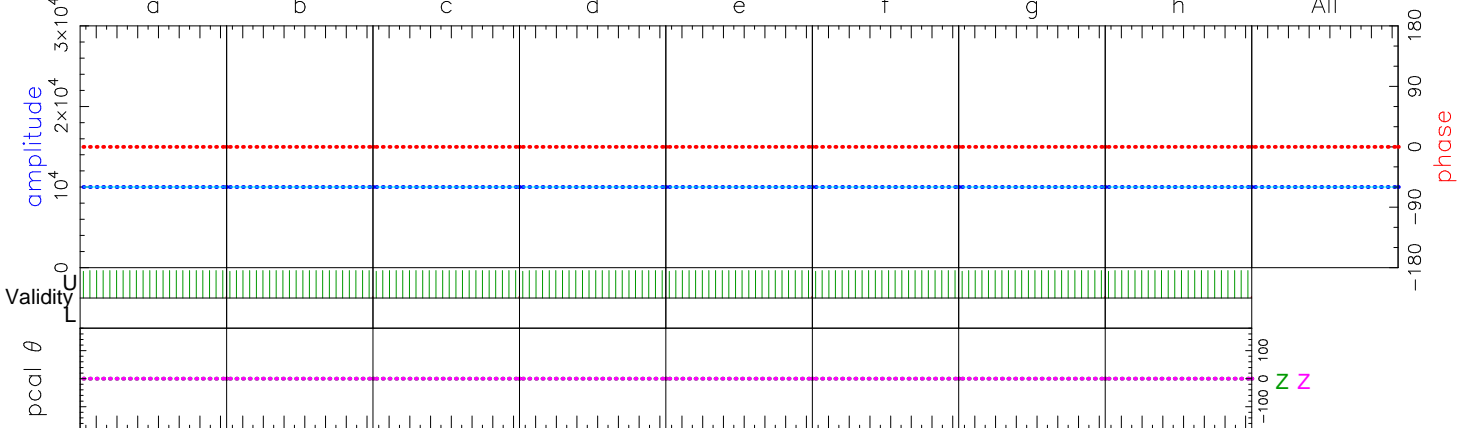


Fringe quality 9

SNR 550846.8
 Int time 405.757
 Amp 10000.001
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114018
 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	Ampl.	10000.0
Z	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
Z	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.6E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.7E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.9E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 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

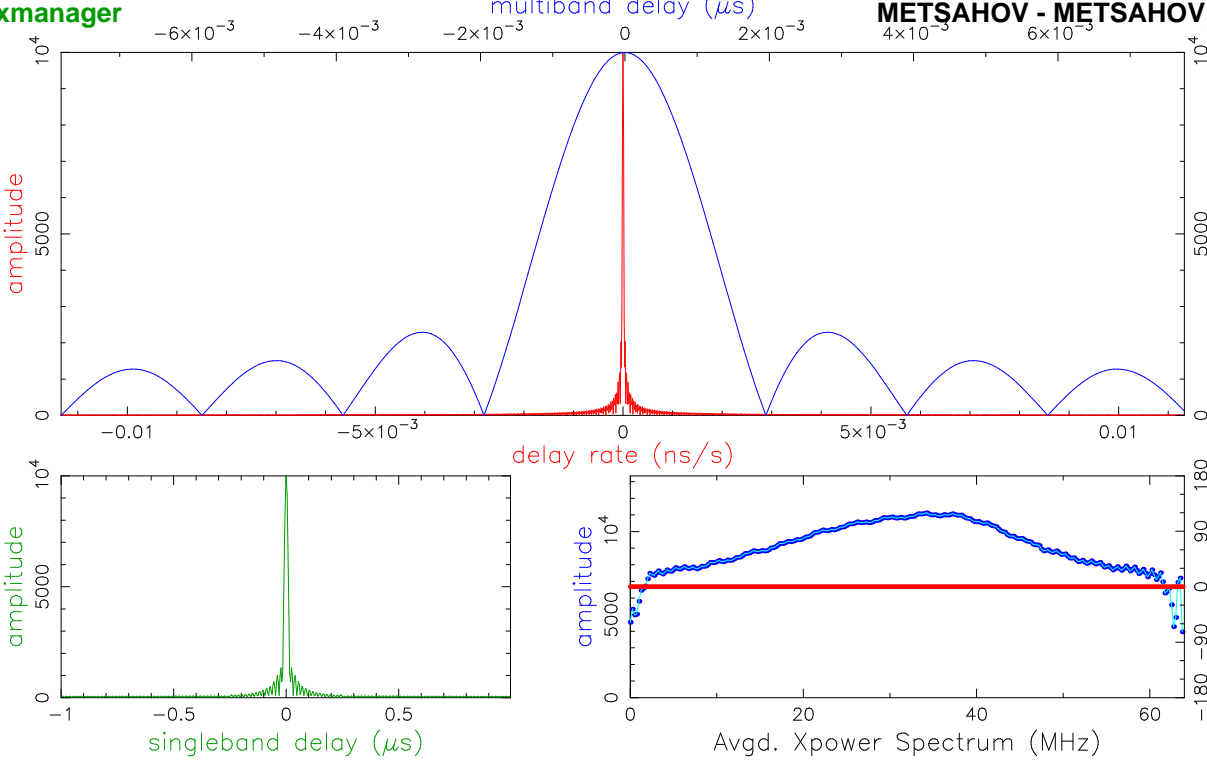
Z: az 77.3 el 55.6 pa -50.2 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/ZZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZZ.W.155.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

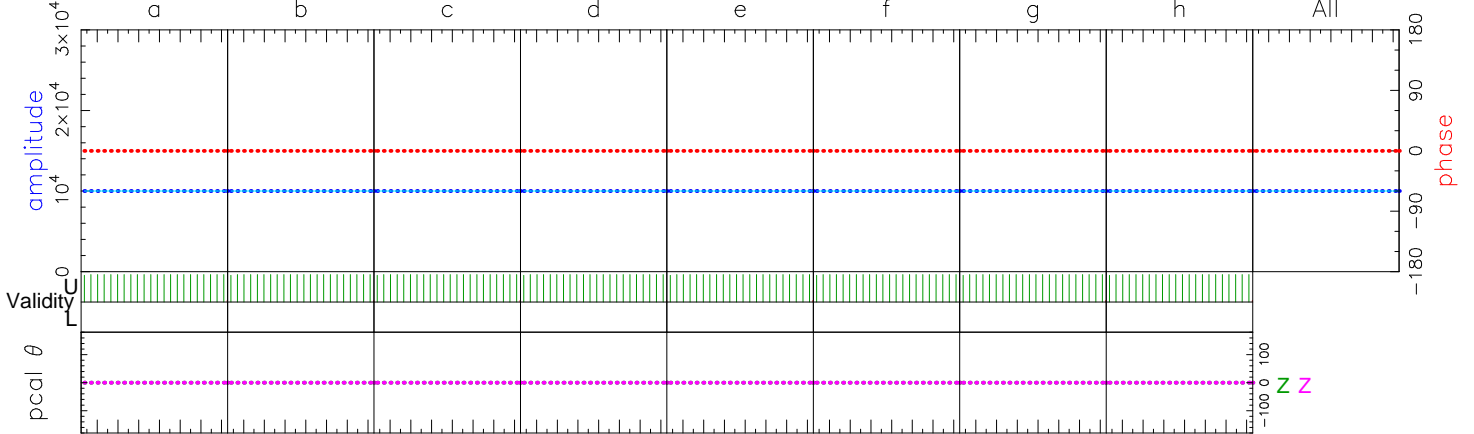
NRAO150.1WZMQH, No0029, ZZ

METS̄AHOV - MET̄SAHOV, fgroup W, pol RR



Fringe quality 9
 SNR 550846.8
 Int time 405.757
 Amp 10000.001
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114021
 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	Ampl.	10000.0
Z	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
Z	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.6E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.7E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.9E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 10000.001 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.001 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 77.3 el 55.6 pa -50.2 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/ZZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZZ.W.161.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

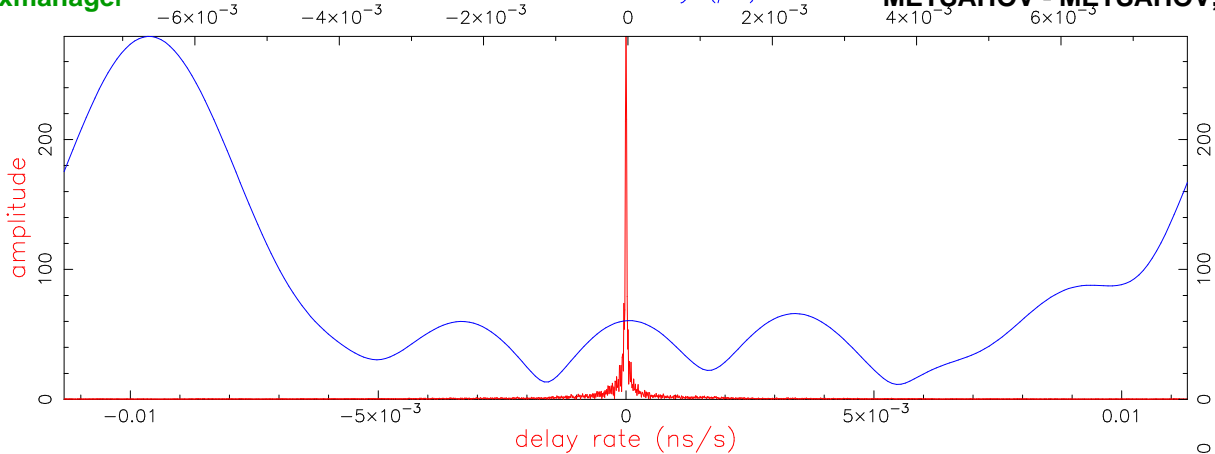
fxmanager

NRAO150.1WZMQH, No0029, ZZ

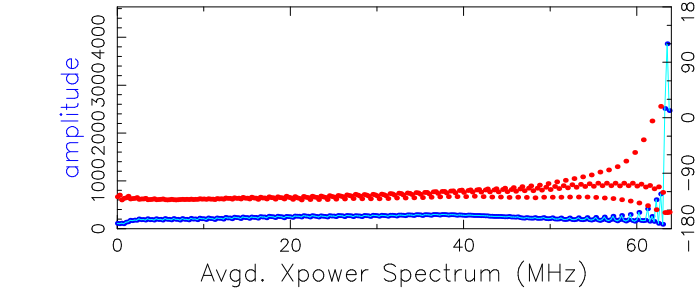
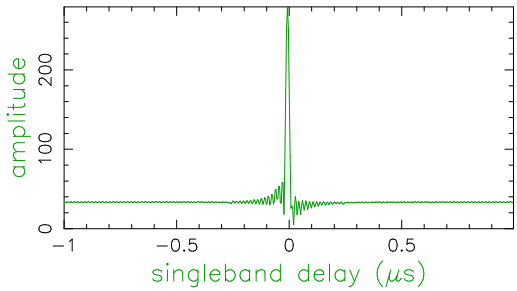
METSAHOV - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 5

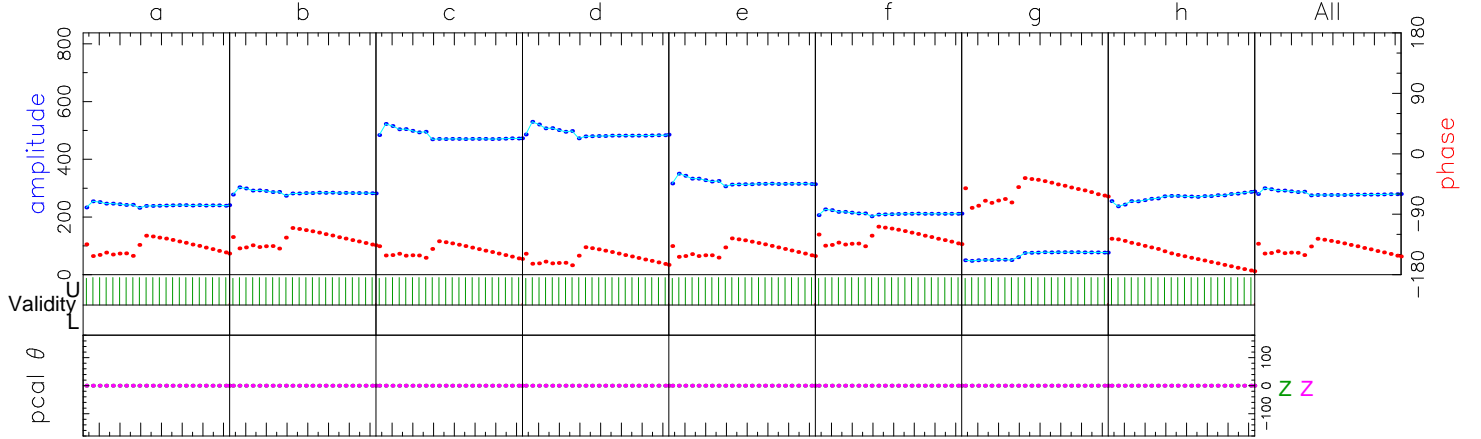


SNR 15392.7
 Int time 405.757
 Amp 279.436
 Phase -141.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.007809
 MBD -0.006636
 Fringe rate (Hz)
 0.000323
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114024
 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
	-138.8	-127.7	-145.0	-154.8	-142.4	-125.0	-54.2	-151.0	Phase	-141.1
	238.0	281.4	477.8	484.8	316.2	209.8	65.3	259.0	Ampl.	291.5
	255.2	255.2	254.9	255.2	255.4	255.6	257.0	258.3	Sbd box	255.0
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	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-6.63646875000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-6.63647E-03	+/-	7.1E-08
Sband delay (usec)	-7.80925000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-7.80925E-03	+/-	5.6E-07
Phase delay (usec)	-4.55096793353E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-4.55097E-06	+/-	2.4E-10
Delay rate (us/s)	3.74897836522E-09	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	3.74898E-09	+/-	1.0E-12
Total phase (deg)		Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-141.1	+/-	0.0

ph/seg (deg)	7.8	0.0	Search (2048X32)	267.949	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	2.8	0.0	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)	37.2	0.0	Inc. seg. avg.	282.035	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	46.6	0.0	Inc. frq. avg.	291.541	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 77.3 el 55.6 pa -50.2 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0029/ZZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZZ.W.167.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

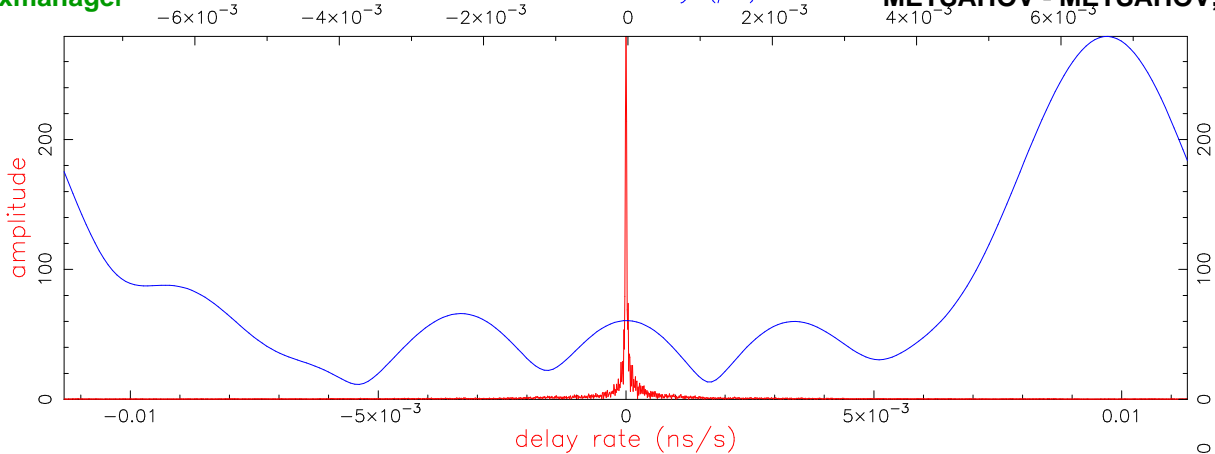
fxmanager

NRAO150.1WZMQH, No0029, ZZ

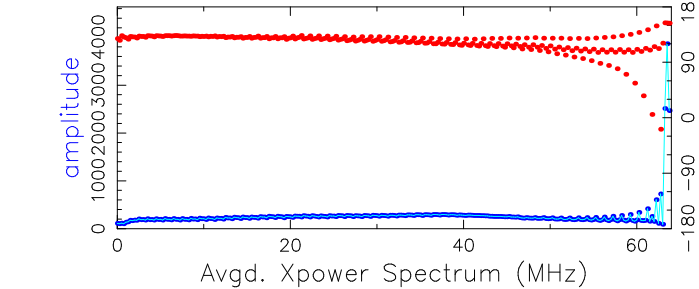
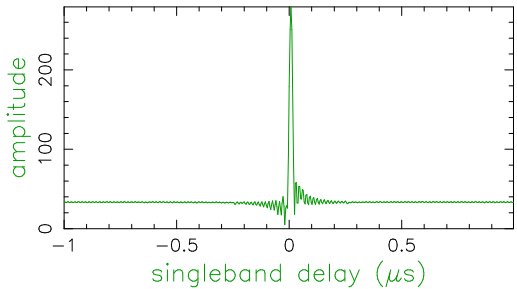
METSAHOV - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 5

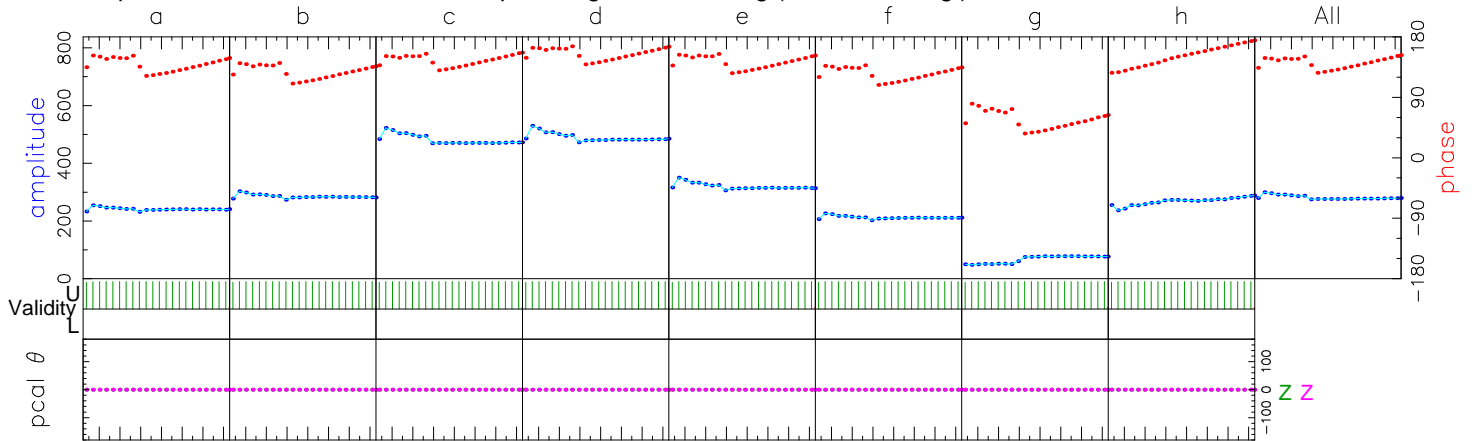


SNR 15392.7
 Int time 405.757
 Amp 279.436
 Phase 141.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.007809
 MBD 0.006636
 Fringe rate (Hz)
 -0.000323
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 080013.31
 Stop 080659.84
 FRT 080330.00
 Corr/FF/build
 2021:302:193655
 2021:303:114027
 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	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 6.63646875000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 6.63647E-03 +/- 7.1E-08
 Sband delay (usec) 7.80925000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 7.80925E-03 +/- 5.6E-07
 Phase delay (usec) 4.55096793356E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 4.55097E-06 +/- 2.4E-10
 Delay rate (us/s) -3.74897836522E-09 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -3.74898E-09 +/- 1.0E-12
 Total phase (deg) 141.1 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 141.1 +/- 0.0

ph/seg (deg) 7.8 0.0 Theor. Amplitude 279.436 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 2.8 0.0 Search (2048X32) 267.949 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.2 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 46.6 0.0 Inc. seg. avg. 282.035 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Z: az 77.3 el 55.6 pa -50.2 Z: az 77.3 el 55.6 pa -50.2 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/No0029/ZZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ZZ.W.172.1WZMQH