

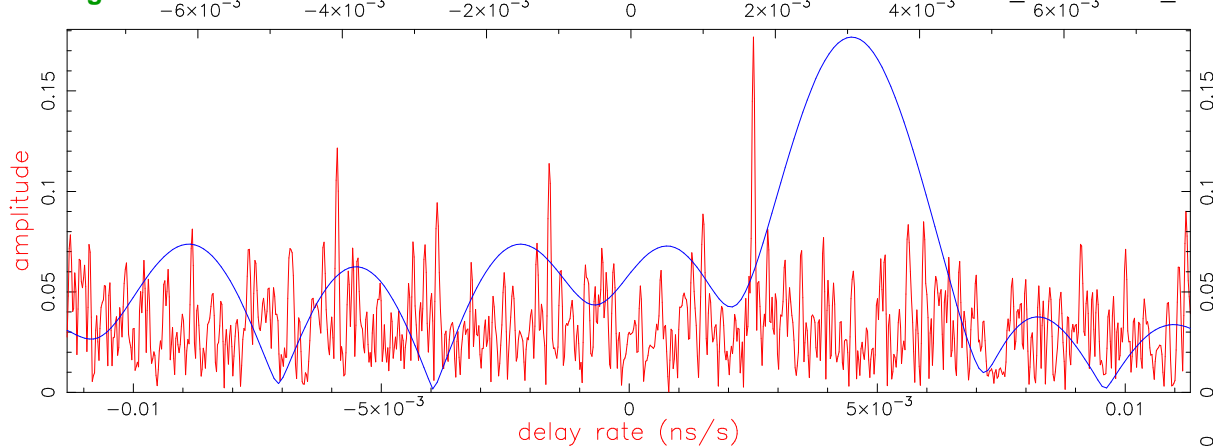
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, bm

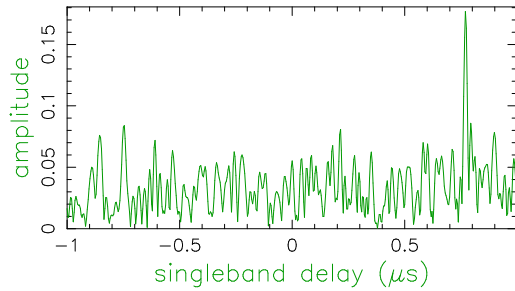
VLBA_BR - VLBA_MK, fgroup W, pol LL

multiband delay (μ s)

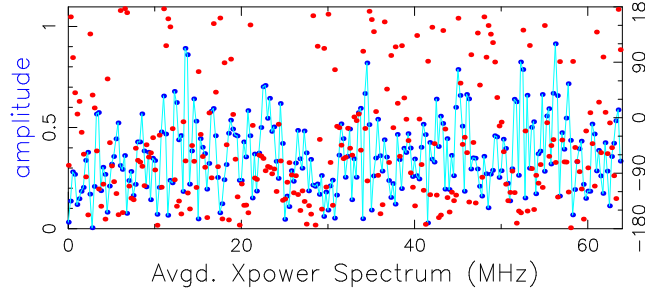


Fringe quality 0

SNR 6.4
 Int time 177.420
 Amp 0.181
 Phase 92.9
 PFD 1.6e-02
 Delays (us)
 SBD 0.769989
 MBD 0.003079
 Fringe rate (Hz) 0.216189
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

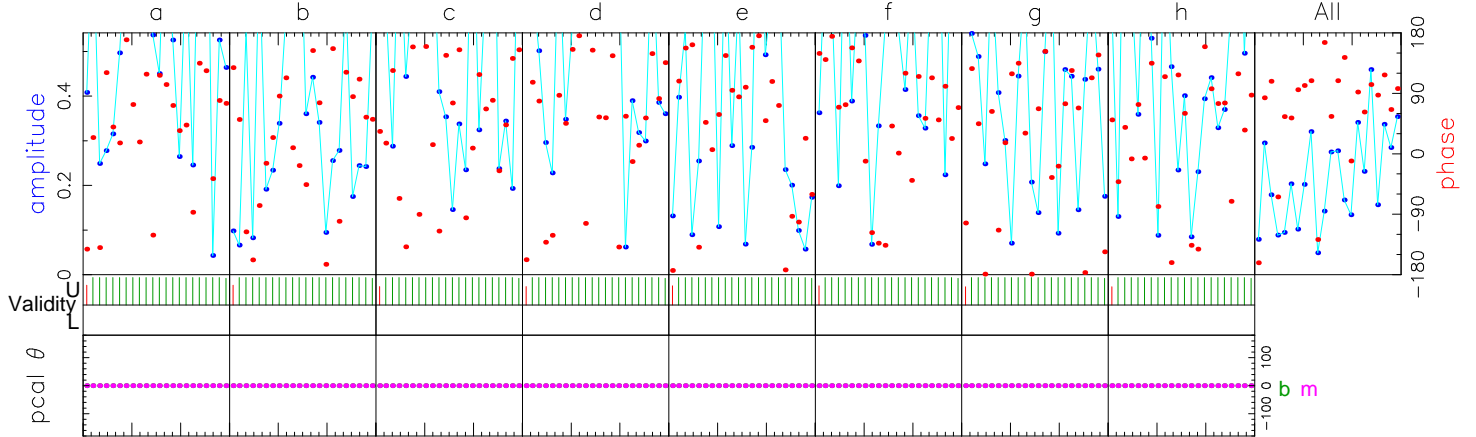


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145417
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
b:m	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		
m	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-5.14445694653E+02	Apriori delay (usec)	-5.15214398357E+02	Resid mbdelay (usec)	3.07870E-03	+/-	1.7E-04
Sband delay (usec)	-5.14444409607E+02	Apriori clock (usec)	-1.5070569E+01	Resid sbdelay (usec)	7.69989E-01	+/-	1.3E-03
Phase delay (usec)	-5.15214395361E+02	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	2.99609E-06	+/-	5.7E-07
Delay rate (us/s)	-1.50776979405E-01	Apriori rate (us/s)	-1.50779489143E-01	Resid rate (us/s)	2.50974E-06	+/-	5.5E-09
Total phase (deg)	-5.9	Apriori accel (us/s/s)	3.82128128682E-05	Resid phase (deg)	92.9	+/-	17.8

ph/seg (deg)	60.0	Theor.	41.7	Amplitude	0.181 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	64.2		72.7	Search (1024X32)	0.170	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	28.3		25.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	40.1		43.9	Inc. seg. avg.	0.177	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.177	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

b: az 298.9 el 49.9 pa 68.3 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 1386.763 5964.640 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/bm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/bm.W.14.1HV1N7

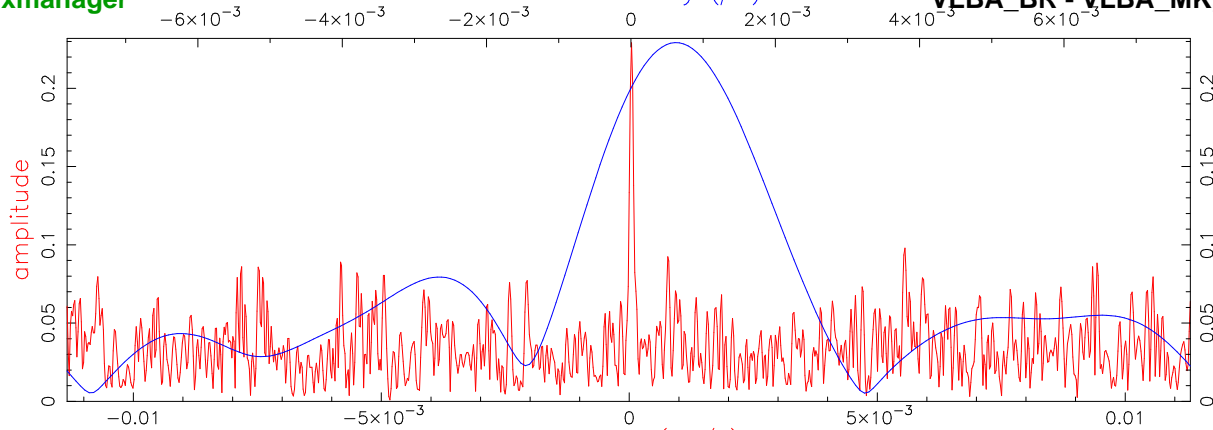
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, bm

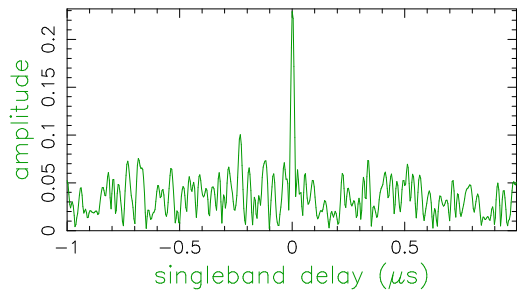
VLBA_BR - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)

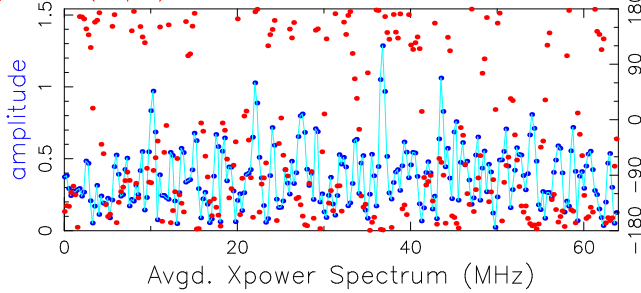


Fringe quality 9

SNR 8.4
 Int time 177.421
 Amp 0.232
 Phase -144.1
 PFD 5.4e-09
 Delays (us)
 SBD 0.001340
 MBD 0.000663
 Fringe rate (Hz) 0.003013
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

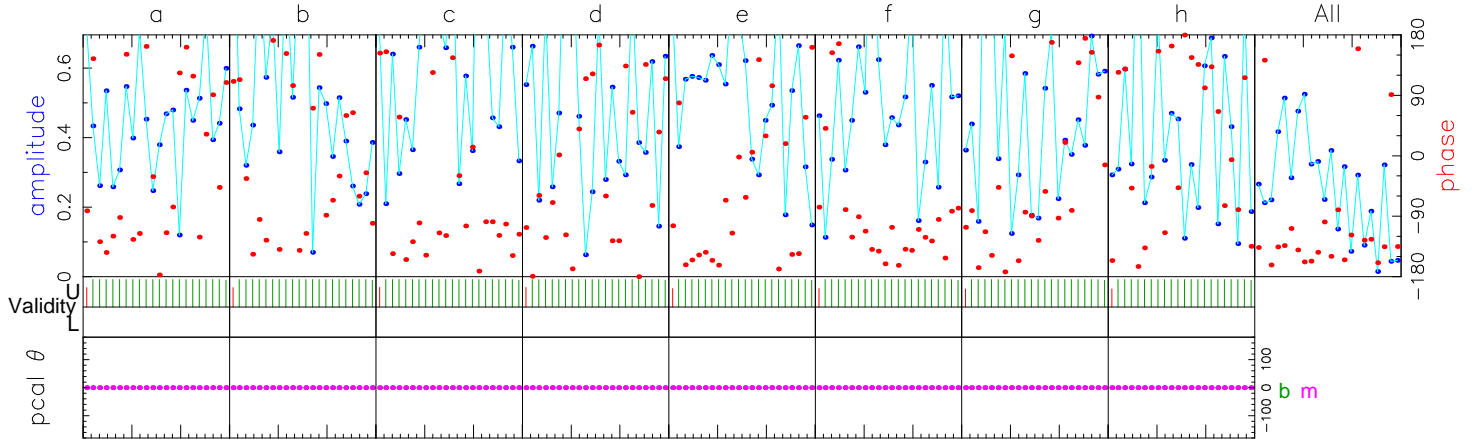


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145418
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-151.2	-146.4	-140.7	-154.0	-139.4	-128.9	-133.3	162.2	Phase	-144.1
	0.2	0.2	0.4	0.2	0.2	0.4	0.2	0.2	Ampl.	0.2
	280.7	53.7	256.8	59.2	68.9	257.0	42.8	184.0	Sbd box	257.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-5.15213735101E+02	Apriori delay (usec)	-5.15214398357E+02	Resid mbdelay (usec)	6.63256E-04	+/-	1.3E-04
Sband delay (usec)	-5.15213058357E+02	Apriori clock (usec)	-1.5070569E+01	Resid sbdelay (usec)	1.34000E-03	+/-	1.0E-03
Phase delay (usec)	-5.15214403003E+02	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	-4.64604E-06	+/-	4.4E-07
Delay rate (us/s)	-1.50779454169E-01	Apriori rate (us/s)	-1.50779489143E-01	Resid rate (us/s)	3.49744E-08	+/-	4.2E-09
Total phase (deg)	-242.9	Apriori accel (us/s/s)	3.82128128682E-05	Resid phase (deg)	-144.1	+/-	13.6

ph/seg (deg)	RMS 39.9	Theor. 31.8	Amplitude Search (1024X32)	0.232 +/- 0.027	0.223	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	64.8	55.5	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	sb window (us) -1.000 1.000
ph/frq (deg)	23.9	19.2	Inc. seg. avg.	0.224	Sample rate(MSamp/s): 128	mb window (us) -0.008 0.008	dr window (ns/s) -0.011 0.011
amp/frq (%)	42.9	33.5	Inc. frq. avg.	0.228	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC) 0.00 0.00

b: az 298.9 el 49.9 pa 68.3 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 1386.763 5964.640 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/bm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/bm.W.28.1HV1N7

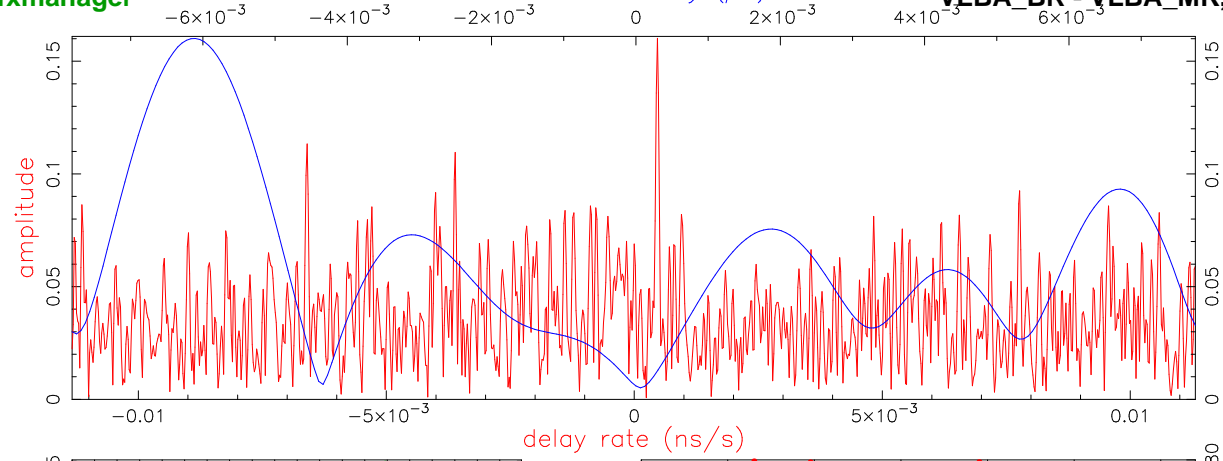
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

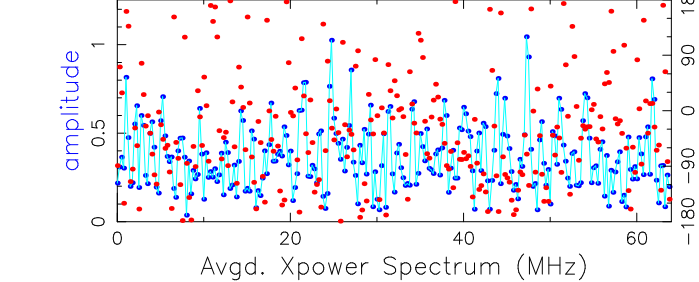
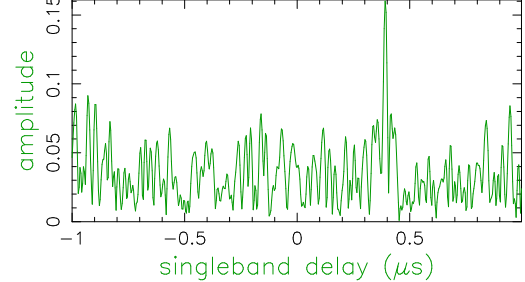
NRAO150.1HV1N7, No0150, bm

VLBA_BR - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

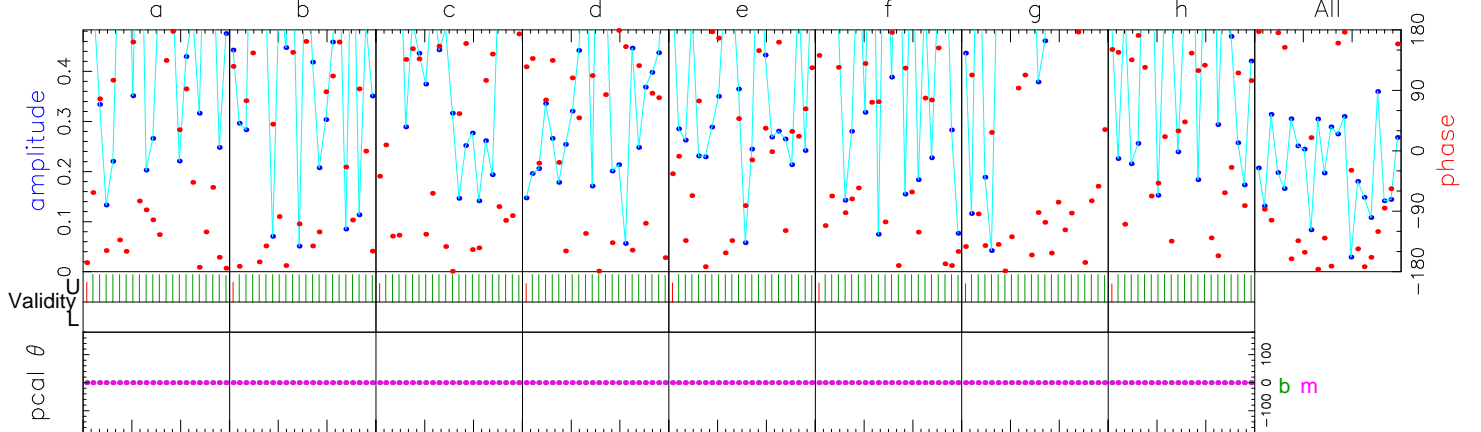


Fringe quality 0
 SNR 5.9
 Int time 177.420
 Amp 0.161
 Phase -154.9
 PFD 4.4e-01
 Delays (us)
 SBD 0.391515
 MBD -0.006117
 Fringe rate (Hz)
 0.040658
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145420
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-133.0	179.3	-132.6	154.5	149.9	-164.6	-130.9	179.5	Phase	-154.9
	0.2	0.2	0.2	0.1	0.0	0.2	0.3	0.1	Ampl.	0.2
	57.0	356.6	357.1	428.4	73.9	441.2	356.7	215.6	Sbd box	357.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.14829889908E+02		Apriori delay (usec)		-5.15214398357E+02		Resid mbdelay (usec)		-6.11655E-03	+/- 1.9E-04
Sband delay (usec)	-5.14822883607E+02		Apriori clock (usec)		-1.5070569E+01		Resid sbdelay (usec)		3.91515E-01	+/- 1.5E-03
Phase delay (usec)	-5.15214403351E+02		Apriori clockrate (us/s)		-9.9999991E-08		Resid phdelay (usec)		-4.99457E-06	+/- 6.3E-07
Delay rate (us/s)	-1.50779017144E-01		Apriori rate (us/s)		-1.50779489143E-01		Resid rate (us/s)		4.71999E-07	+/- 6.1E-09
Total phase (deg)			Apriori accel (us/s/s)		3.82128128682E-05		Resid phase (deg)		-154.9	+/- 19.6

ph/seg (deg) 60.9 45.9 Amplitude 0.161 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.0 80.0 Search (1024X32) 0.155 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.8 27.7 Inc. seg. avg. 0.160 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 54.2 48.3 Inc. frq. avg. 0.162 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 298.9 el 49.9 pa 68.3 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 1386.763 5964.640 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/bm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/bm.W.42.1HV1N7

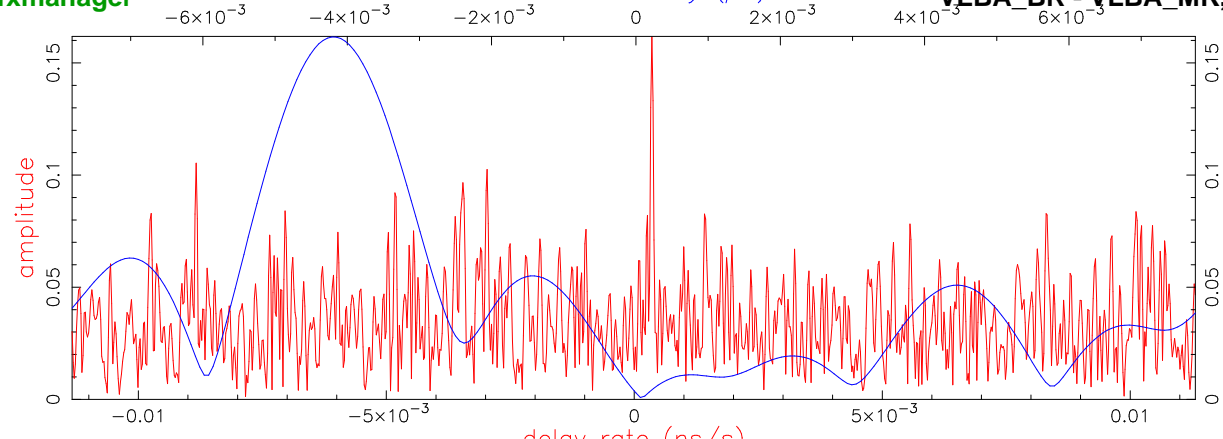
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

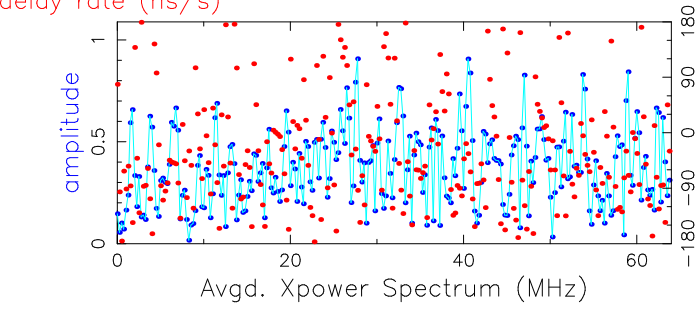
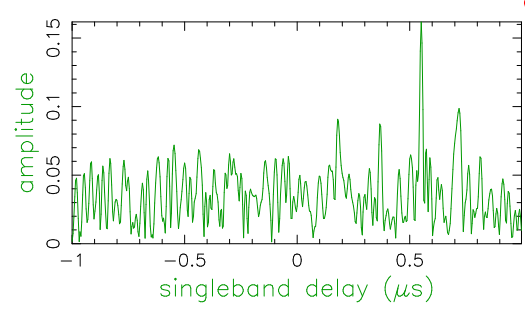
NRAO150.1HV1N7, No0150, bm

VLBA_BR - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

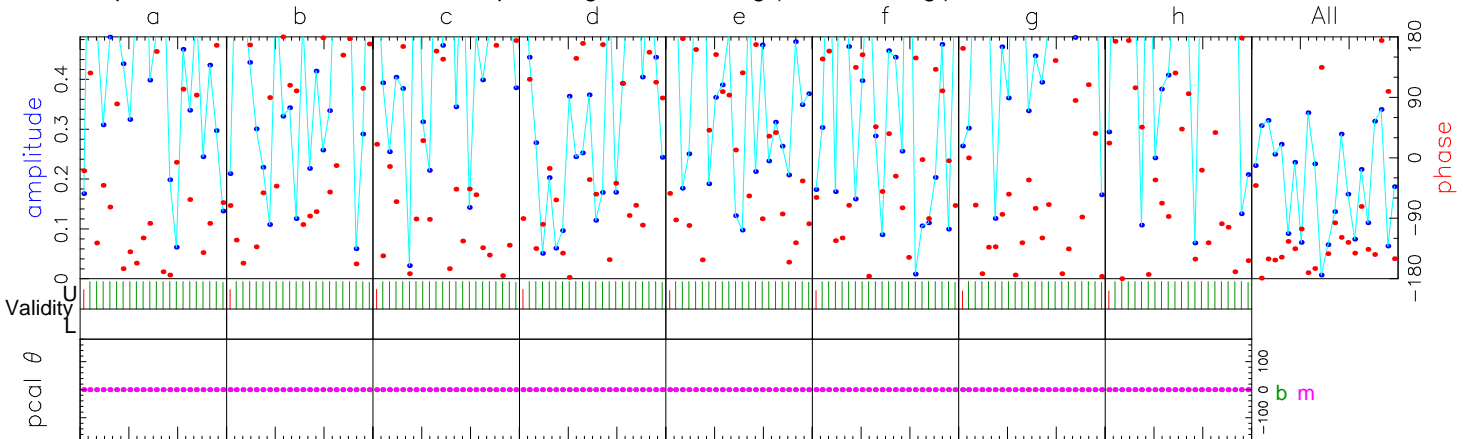


Fringe quality 0
 SNR 5.9
 Int time 177.421
 Amp 0.162
 Phase -144.7
 PFD 3.8e-01
 Delays (us)
 SBD 0.551158
 MBD -0.004178
 Fringe rate (Hz) 0.030304
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145421
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-156.9	-143.5	-140.3	-142.1	-121.1	-144.5	-131.6	-171.1	Phase	-144.7
	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	182.2	160.3	399.8	31.7	176.1	418.2	164.5	160.4	Sbd box	398.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

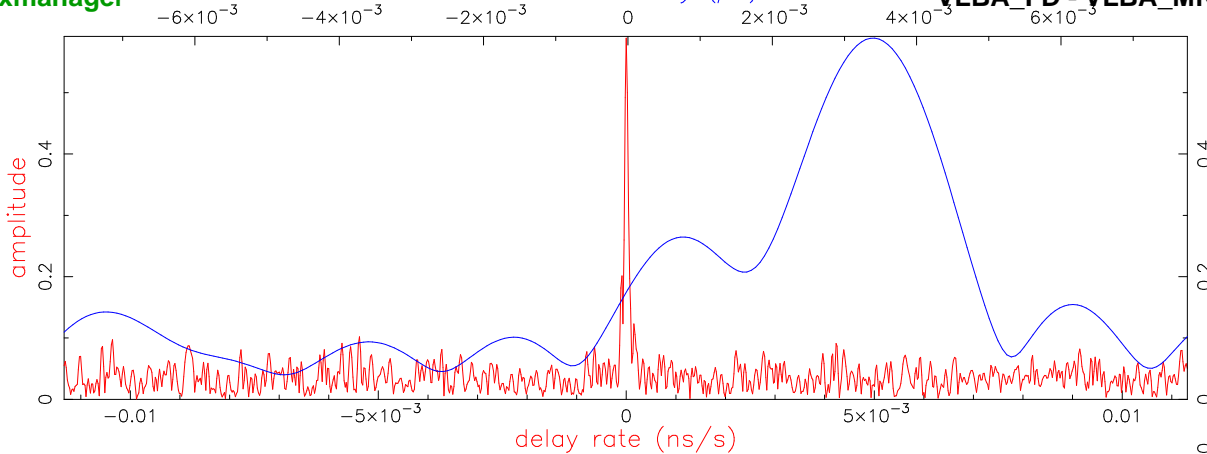
Group delay (usec)(sbd)	-5.14656075906E+02	Apriori delay (usec)	-5.15214398357E+02	Resid mbdelay (usec)	-4.17755E-03	+/-	1.8E-04
Sband delay (usec)	-5.14663239857E+02	Apriori clock (usec)	-1.5070569E+01	Resid sbdelay (usec)	5.51158E-01	+/-	1.5E-03
Phase delay (usec)	-5.15214403021E+02	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	-4.66471E-06	+/-	6.3E-07
Delay rate (us/s)	-1.50779137344E-01	Apriori rate (us/s)	-1.50779489143E-01	Resid rate (us/s)	3.51799E-07	+/-	6.0E-09
Total phase (deg)	-243.5	Apriori accel (us/s/s)	3.82128128682E-05	Resid phase (deg)	-144.7	+/-	19.4

ph/seg (deg)	44.1	Theor.	45.6	Amplitude	0.162 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	66.1		79.6	Search (1024X32)	0.158	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	16.3		27.5	Inc. seg. avg.	0.149	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	29.3		48.0	Inc. frq. avg.	0.149	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

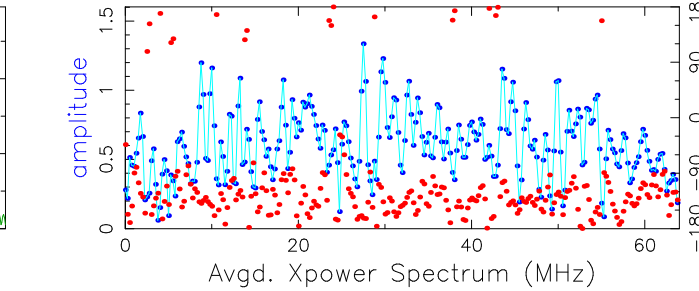
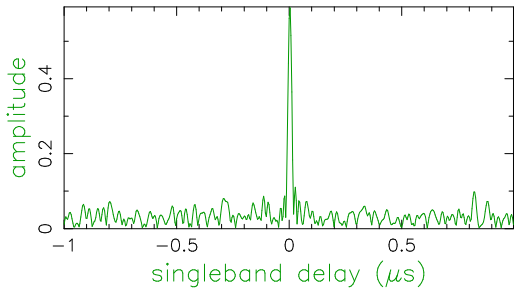
b: az 298.9 el 49.9 pa 68.3 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 1386.763 5964.640 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/bm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/bm.W.57.1HV1N7

multiband delay (μ s)

Fringe quality 8

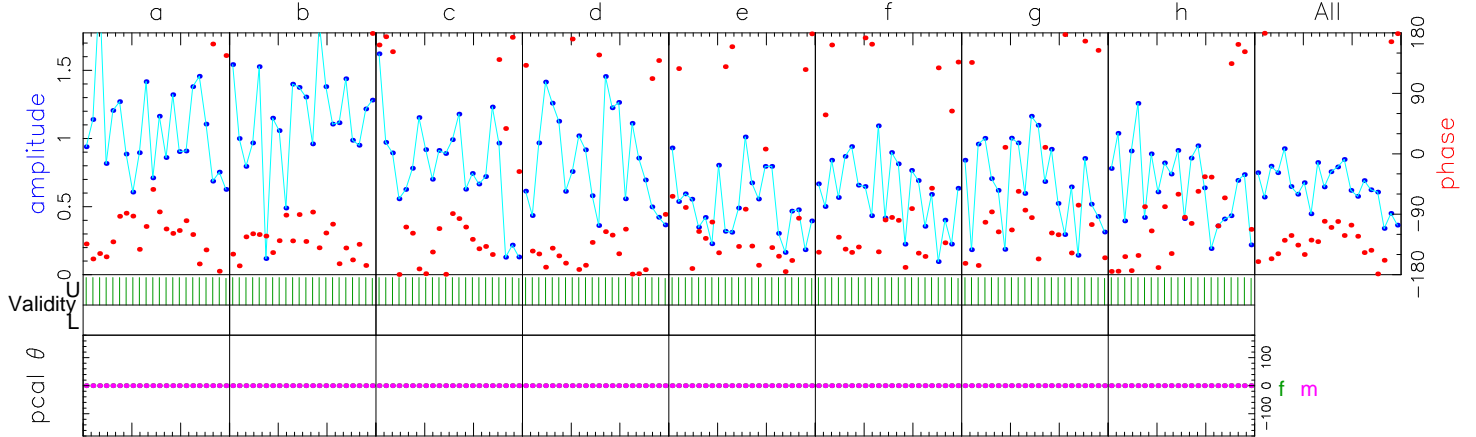


SNR 21.7
Int time 179.977
Amp 0.592
Phase -138.1
PFD 0.0e+00
Delays (us)
SBD 0.003020
MBD 0.003382
Fringe rate (Hz)
0.000520
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2021:008:174658
2021:010:145418
2020:247:085004
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-128.2	-134.3	-153.6	-158.2	-131.6	-141.3	-123.2	-129.6	Phase	-138.1
	0.9	1.0	0.6	0.7	0.3	0.4	0.5	0.4	Ampl.	0.6
	258.1	257.9	257.4	257.6	257.8	257.9	258.0	257.2	Sbd box	257.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-6.25785665539E+03	Apriori delay (usec)	-6.25786003717E+03	Resid mbdelay (usec)	3.38178E-03	+/-	5.0E-05
Sband delay (usec)	-6.25785701692E+03	Apriori clock (usec)	-5.5162930E+00	Resid sbdelay (usec)	3.02025E-03	+/-	4.0E-04
Phase delay (usec)	-6.25786004162E+03	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-4.45174E-06	+/-	1.7E-07
Delay rate (us/s)	-3.91167782935E-01	Apriori rate (us/s)	-3.91167788966E-01	Resid rate (us/s)	6.03124E-09	+/-	1.6E-09
Total phase (deg)	-354.7	Apriori accel (us/s/s)	4.81886040093E-05	Resid phase (deg)	-138.1	+/-	5.3

ph/seg (deg)	RMS 26.6	Theor. 12.4	Amplitude Search (1024X32)	0.592 +/- 0.027	0.581	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	27.2	21.6	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	13.6	7.5	Inc. seg. avg.	0.635	0.635	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	41.1	13.0	Inc. frq. avg.	0.597	0.597	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 314.6 el 29.7 pa 76.6 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 3584.153 5618.049 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/fm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/fm.W.25.1HV1N7

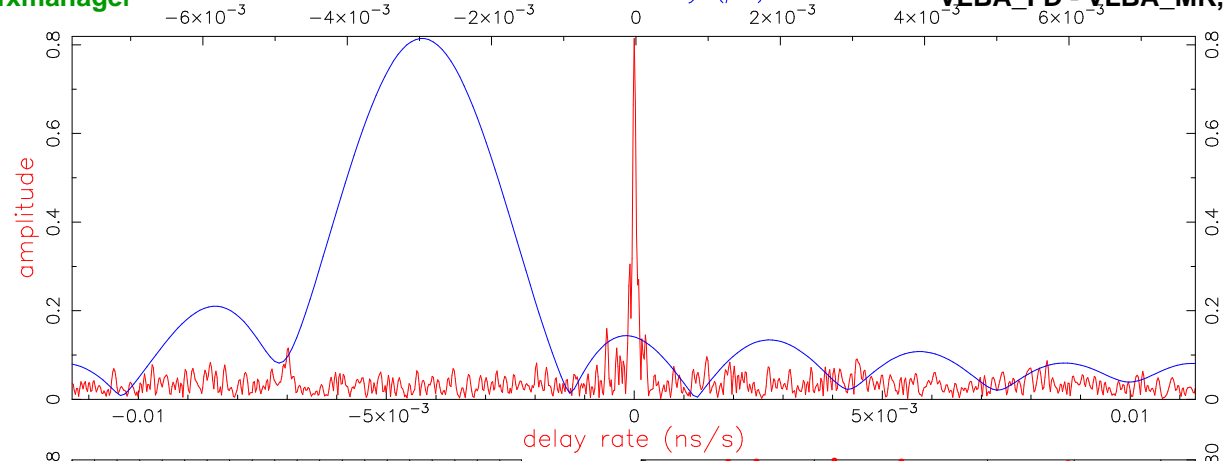
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, fm

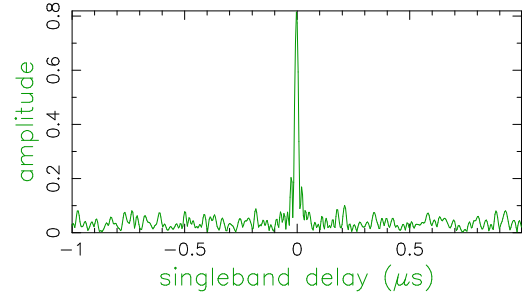
VLBA_FD - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)

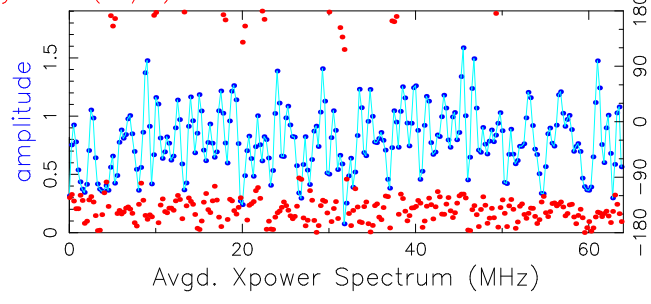


Fringe quality 8

SNR 30.0
 Int time 179.977
 Amp 0.819
 Phase -146.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.002946
 MBD -0.002931
 Fringe rate (Hz) 0.000238
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

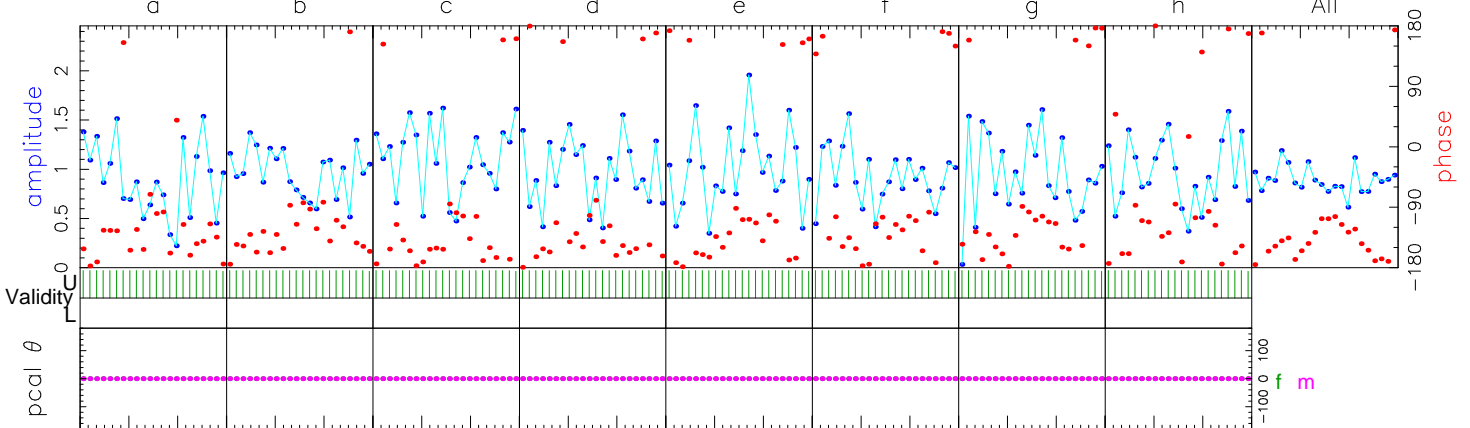


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145420
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-138.7	-134.5	-156.6	-153.6	-147.5	-146.9	-145.6	-144.6	Phase	-146.3
	0.8	0.9	1.0	0.9	0.8	0.8	0.8	0.7	Ampl.	0.8
	256.1	256.2	256.4	256.5	256.0	256.3	256.4	256.2	Sbd box	256.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-6.25786296839E+03	Apriori delay (usec)		-6.25786003717E+03	Resid mbdelay (usec)		-2.93122E-03	+/-	3.6E-05	
Sband delay (usec)	-6.25786298367E+03	Apriori clock (usec)		-5.5162930E+00	Resid sbdelay (usec)		-2.94650E-03	+/-	2.9E-04	
Phase delay (usec)	-6.25786004189E+03	Apriori clockrate (us/s)		2.9999999E-07	Resid phdelay (usec)		-4.71715E-06	+/-	1.2E-07	
Delay rate (us/s)	-3.91167786199E-01	Apriori rate (us/s)		-3.91167788966E-01	Resid rate (us/s)		2.76763E-09	+/-	1.2E-09	
Total phase (deg)		-2.9	Apriori accel (us/s/s)		4.81886040093E-05	Resid phase (deg)		-146.3	+/-	3.8

ph/seg (deg)	25.1	8.9	Amplitude	0.819 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5					
amp/seg (%)	18.3	15.6	Search (1024X32)	0.812	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000		
ph/frq (deg)	7.8	5.4	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008	
amp/frq (%)	9.2	9.4	Inc. seg. avg.	0.884	Sample rate(MISamp/s): 128		dr window (ns/s)		-0.011	0.011		
			Inc. frq. avg.	0.817	Data rate(Mb/s): 2048		nlags: 256		t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 314.6 el 29.7 pa 76.6 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 3584.153 5618.049 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/fm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/fm.W.39.1HV1N7

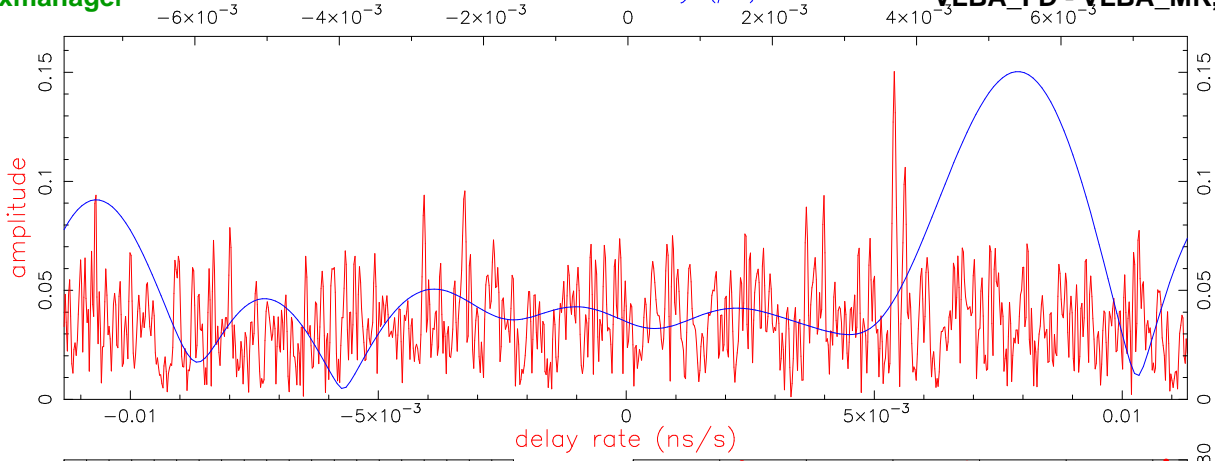
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, fm

VLBA_FD - VLBA_MK, fgroup W, pol LR

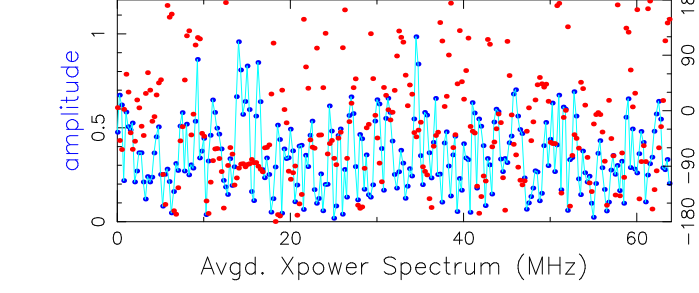
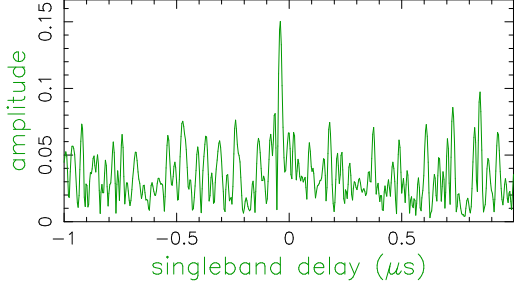
multiband delay (μ s)



Fringe quality 0

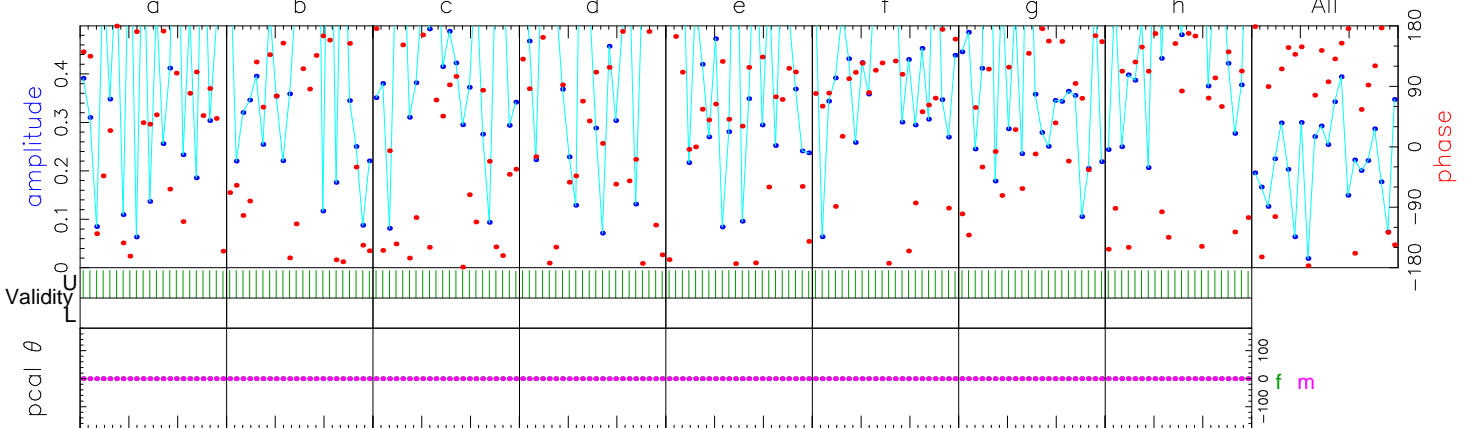
SNR 5.6
Int time 179.977
Amp 0.166
Phase 145.1
PFD 9.7e-01
Delays (us)
SBD -0.040146
MBD 0.005388
Fringe rate (Hz) 0.466035
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build 2021:008:174658
2021:010:145422
2020:247:085004
RA & Dec (J2000) 03h59m29.747267s +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



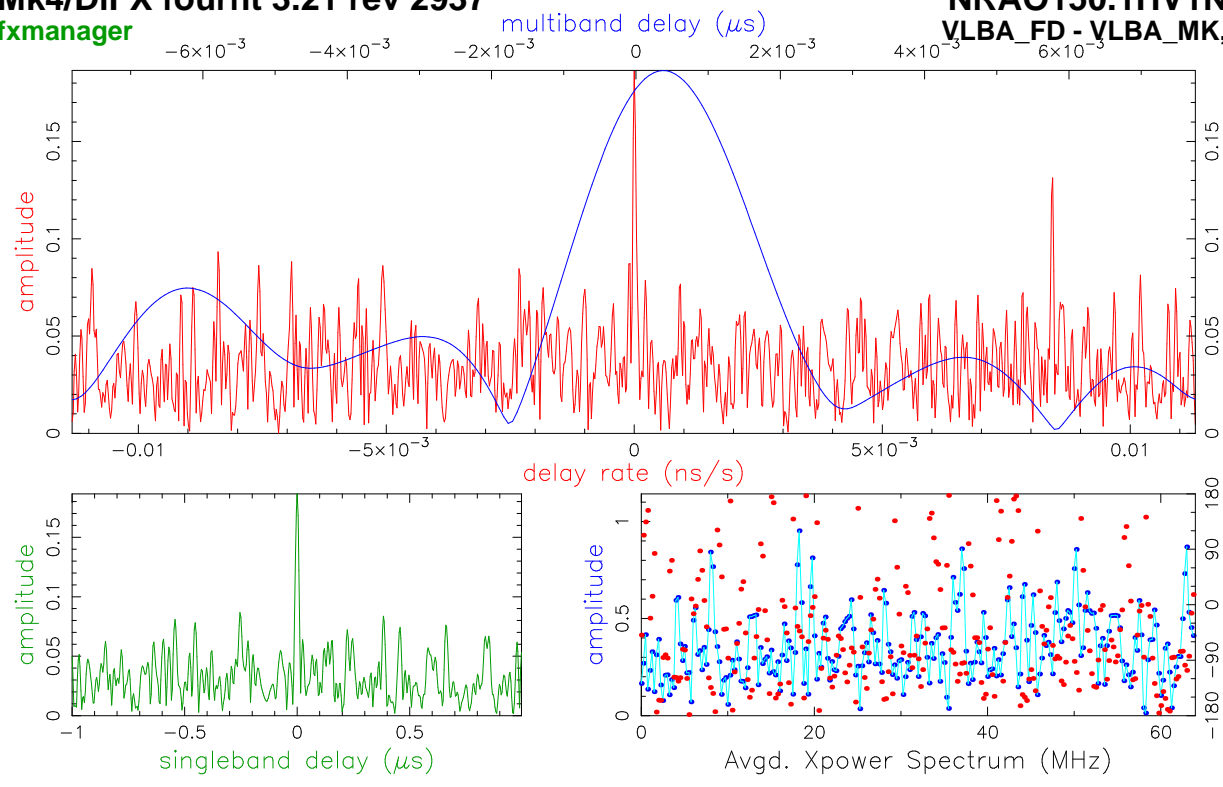
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-6.25790152412E+03	Apriori delay (usec)	-6.25786003717E+03	Resid mbdelay (usec)	5.38805E-03	+/-	2.0E-04
Sband delay (usec)	-6.25790018367E+03	Apriori clock (usec)	-5.5162930E+00	Resid sbdelay (usec)	-4.01465E-02	+/-	1.6E-03
Phase delay (usec)	-6.25786003249E+03	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	4.68003E-06	+/-	6.7E-07
Delay rate (us/s)	-3.91162378759E-01	Apriori rate (us/s)	-3.91167788966E-01	Resid rate (us/s)	5.41021E-06	+/-	6.4E-09
Total phase (deg)	-71.5	Apriori accel (us/s/s)	4.81886040093E-05	Resid phase (deg)	145.1	+/-	20.6

ph/seg (deg)	51.3	Theor.	48.4	Amplitude	0.166 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	76.6	Search (1024X32)	0.146	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	34.4	Inc. seg. avg.	0.178	Inc. frq. avg.	0.168	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	41.0	Inc. frq. avg.	0.168			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

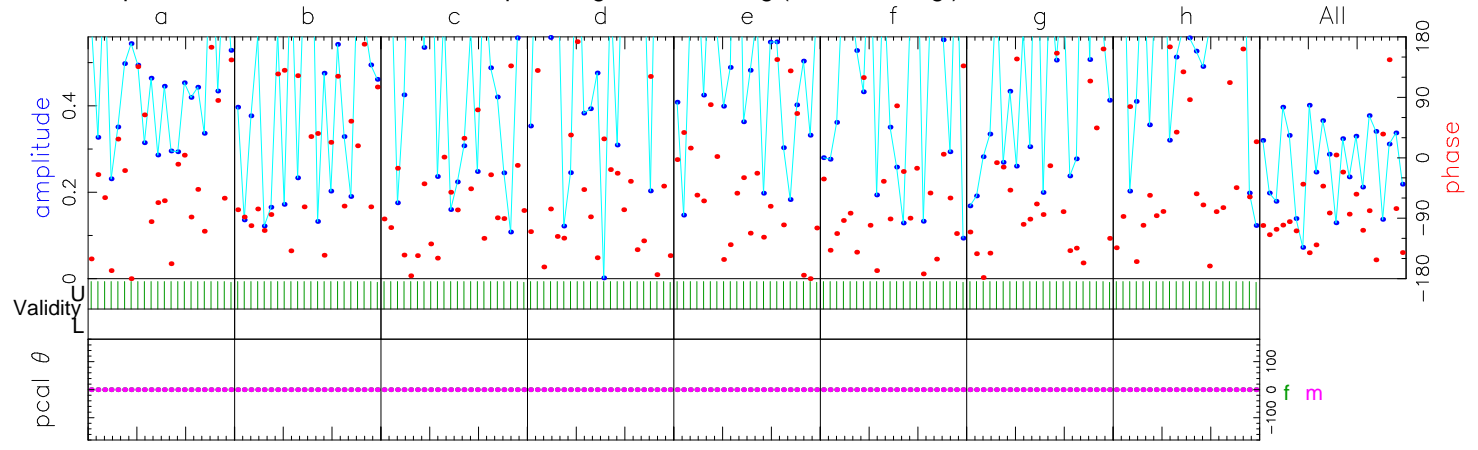
f: az 314.6 el 29.7 pa 76.6 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 3584.153 5618.049 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/fm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/fm.W.60.1HV1N7



Fringe quality 0
SNR 6.8
Int time 179.977
Amp 0.187
Phase -94.3
PFD 1.1e-03
Delays (us)
SBD -0.000258
MBD 0.000376
Fringe rate (Hz)
-0.000153
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2021:008:174658
2021:010:145424
2020:247:085004
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



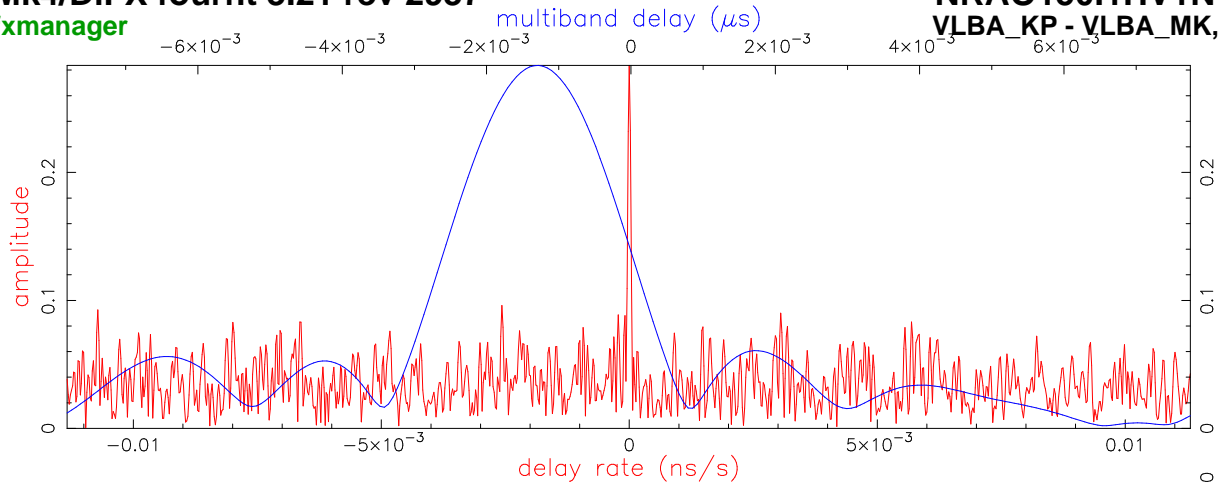
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-88.4	-89.0	-94.7	-117.2	-60.2	-85.3	-100.1	-100.0	Phase	-94.3		
	0.1	0.0	0.3	0.3	0.2	0.3	0.2	0.2	Ampl.	0.2		
	171.2	104.7	256.5	256.1	317.6	256.6	111.1	256.3	Sbd box	256.9		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
m	1000	1000	1000	1000	1000	1000	1000	1000				
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Chan ids			
									Tracks			
Group delay (usec)(sbd)	-6.25785966104E+03		Apriori delay (usec)		-6.25786003717E+03		Resid mbdelay (usec)		3.76125E-04	+/- 1.6E-04		
Sband delay (usec)	-6.25786029542E+03		Apriori clock (usec)		-5.5162930E+00		Resid sbdelay (usec)		-2.58250E-04	+/- 1.3E-03		
Phase delay (usec)	-6.25786004021E+03		Apriori clockrate (us/s)		2.9999999E-07		Resid phdelay (usec)		-3.04195E-06	+/- 5.4E-07		
Delay rate (us/s)	-3.91167790745E-01		Apriori rate (us/s)		-3.91167788966E-01		Resid rate (us/s)		-1.77848E-09	+/- 5.2E-09		
Total phase (deg)			Apriori accel (us/s/s)		4.81886040093E-05		Resid phase (deg)		-94.3	+/- 16.7		
	RMS	Theor.	Amplitude	0.187 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	54.1	39.3	Search (1024X32)	0.186		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	66.6	68.5	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	17.8	23.7	Inc. seg. avg.	0.217		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	45.4	41.3	Inc. frq. avg.	0.179		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
f: az 314.6 el 29.7 pa 76.6	m: az 331.5 el 51.8 pa 134.8		u,v (fr/asec) 3584.153 5618.049						simultaneous interpolator			
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/fm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/fm.W.77.1HV1N7												

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

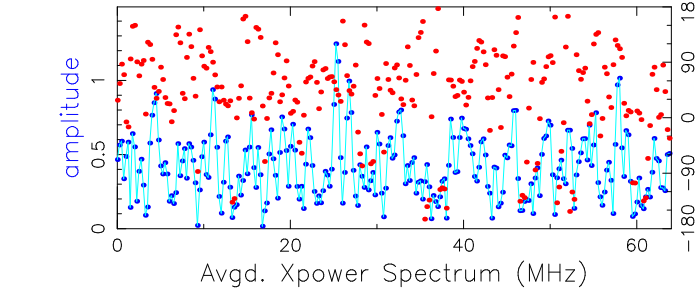
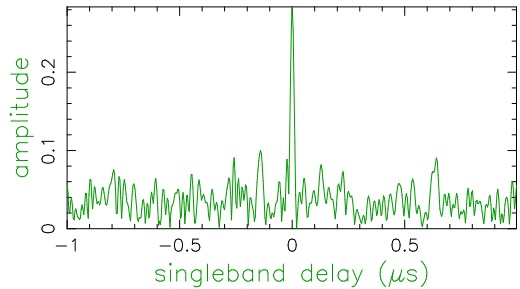
NRAO150.1HV1N7, No0150, km

VLBA_KP - VLBA_MK, fgroup W, pol RR



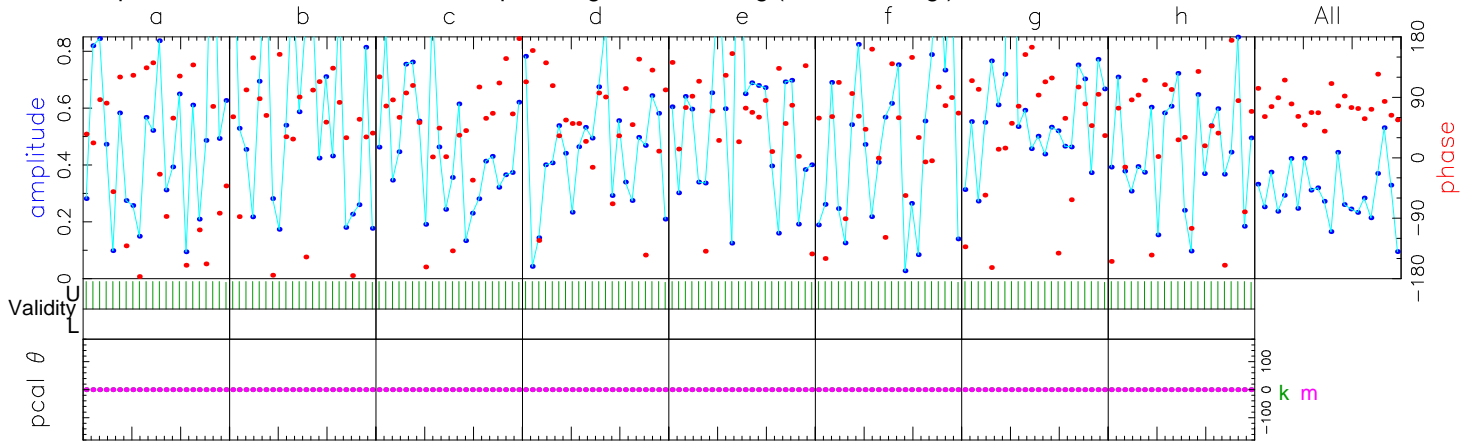
Fringe quality 9

SNR 10.4
 Int time 179.958
 Amp 0.284
 Phase 77.4
 PFD 5.1e-17
 Delays (us)
 SBD -0.000175
 MBD -0.001300
 Fringe rate (Hz)
 -0.000617
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145430
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-4.49305229039E+03								Resid mbdelay (usec)	-1.30025E-03 +/- 1.0E-04
Sband delay (usec)	-4.49305116539E+03								Resid sbdelay (usec)	-1.75250E-04 +/- 8.3E-04
Phase delay (usec)	-4.49305098764E+03								Resid phdelay (usec)	2.49438E-06 +/- 3.6E-07
Delay rate (us/s)	-3.52956880280E-01								Resid rate (us/s)	-7.15785E-09 +/- 3.4E-09
Total phase (deg)			-27.2						Resid phase (deg)	77.4 +/- 11.0
ph/seg (deg)	21.2	25.8							PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	34.5	45.1							PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	7.0	15.6							Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%)	23.3	27.2							Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
									Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

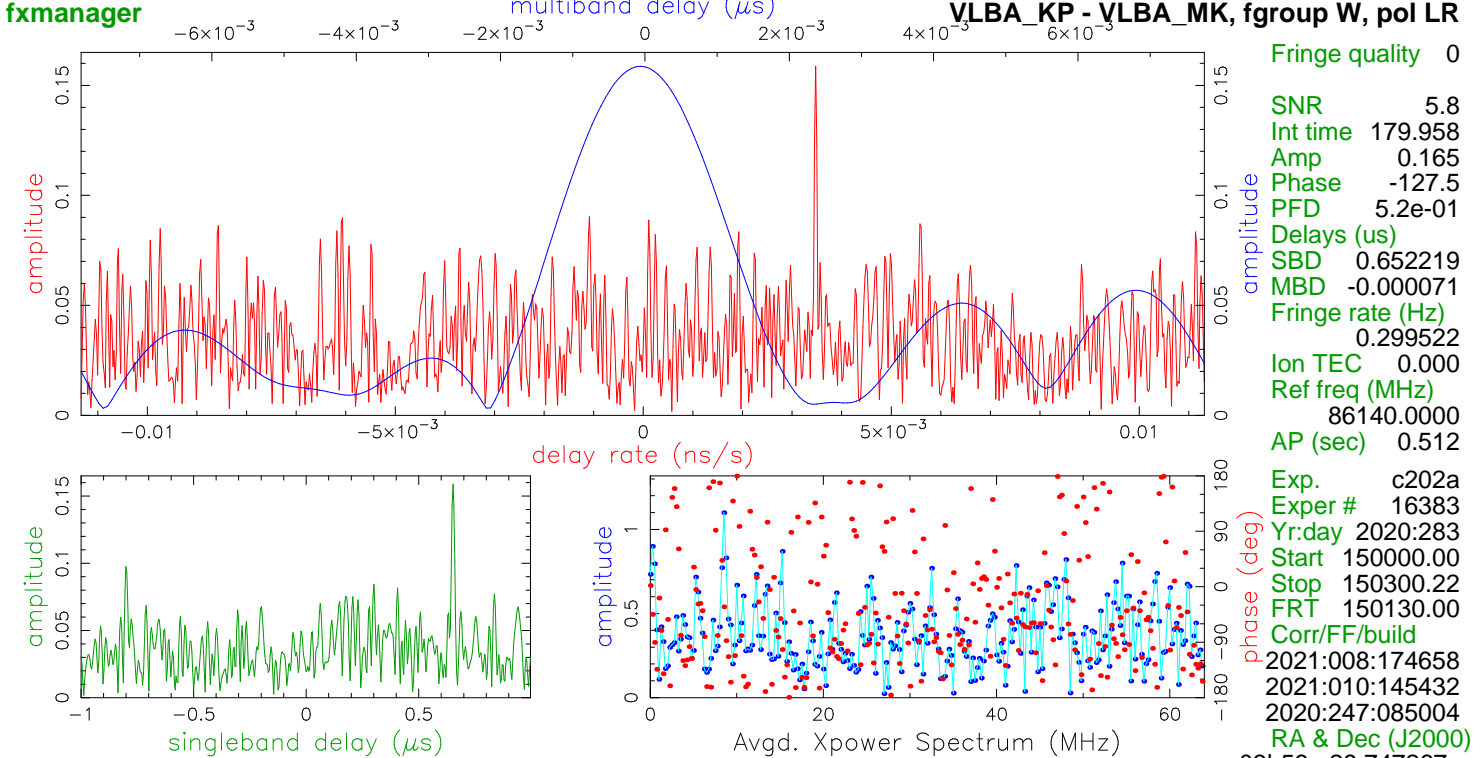
k: az 312.9 el 35.3 pa 80.9 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 3231.865 4981.813 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/km..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/km.W.117.1HV1N7

Mk4/DiFX fourfit 3.21 rev 2937

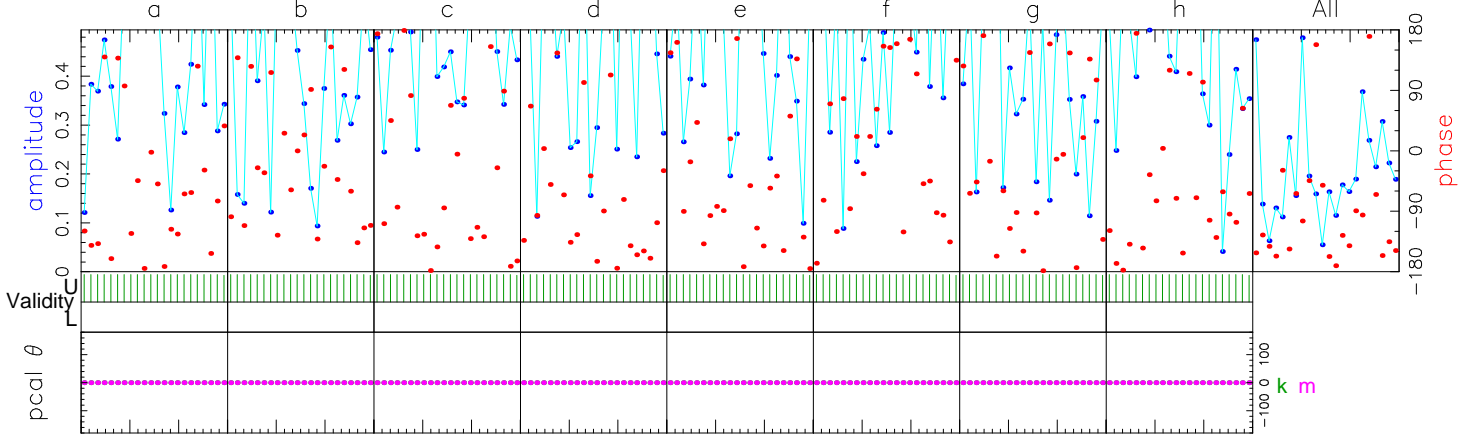
fxmanager

NRAO150.1HV1N7, No0150, km

VLBA_KP - VLBA_MK, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-131.1	-77.0	-153.9	-128.2	-122.0	-124.1	-134.5	-124.0	Phase	-127.5
	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	250.5	106.5	51.6	207.4	455.4	366.4	354.4	291.7	Sbd box	424.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.49239481150E+03		Apriori delay (usec)	-4.49305099014E+03	Resid mbdelay (usec)	-7.13612E-05	+/-	1.9E-04		
Sband delay (usec)	-4.49239877139E+03		Apriori clock (usec)	-1.3030000E+01	Resid sbdelay (usec)	6.52219E-01	+/-	1.5E-03		
Phase delay (usec)	-4.49305099425E+03		Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-4.11112E-06	+/-	6.3E-07		
Delay rate (us/s)	-3.52953395969E-01		Apriori rate (us/s)	-3.52956873122E-01	Resid rate (us/s)	3.47715E-06	+/-	6.1E-09		
Total phase (deg)		-232.0	Apriori accel (us/s/s)	4.04929158923E-05	Resid phase (deg)	-127.5	+/-	19.7		

	RMS	Theor.	Amplitude	0.165 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	47.3	46.2	Search (1024X32)	0.157	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	77.2	80.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	23.7	27.8	Inc. seg. avg.	0.165	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	27.9	48.6	Inc. frq. avg.	0.155	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

k: az 312.9 el 35.3 pa 80.9 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 3231.865 4981.813 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/km..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/km.W.140.1HV1N7

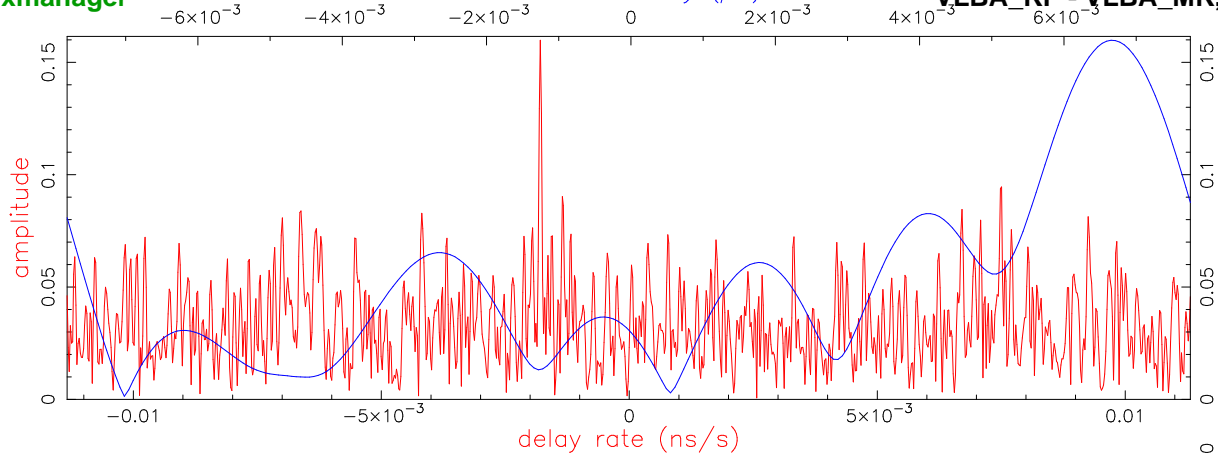
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, km

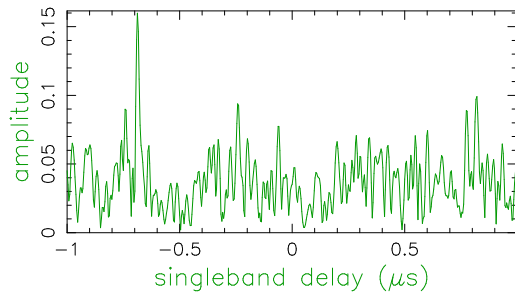
VLBA_KP - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

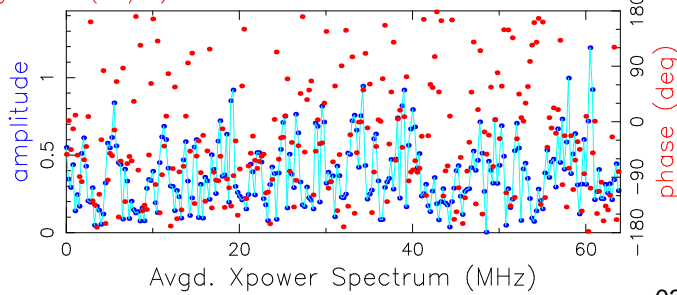


Fringe quality 0

SNR 5.9
 Int time 179.958
 Amp 0.162
 Phase -136.4
 PFD 4.3e-01
 Delays (us)
 SBD -0.687238
 MBD 0.006680
 Fringe rate (Hz)
 -0.154790
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

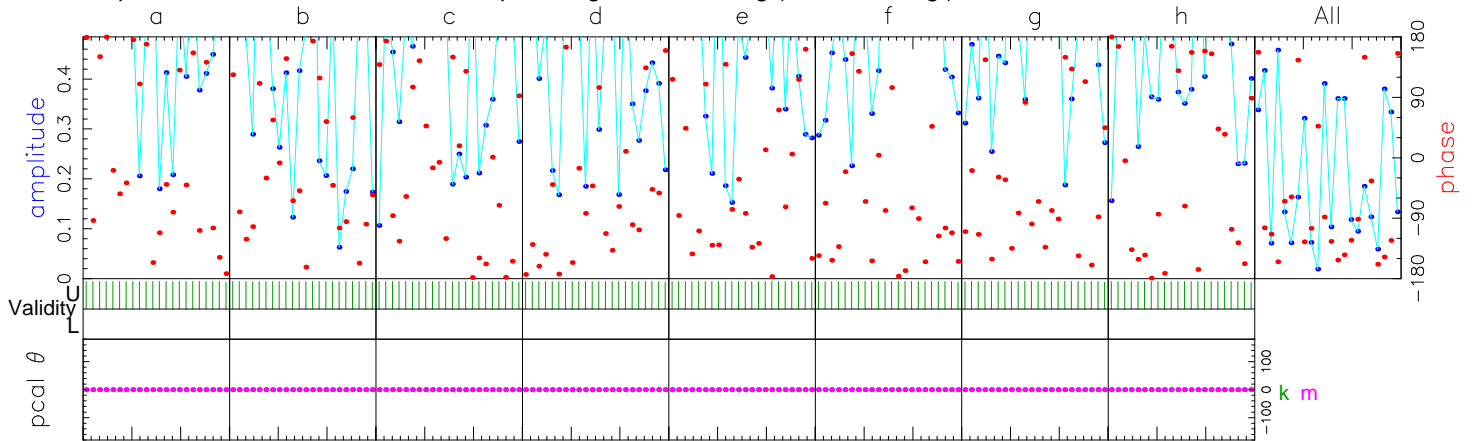


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145434
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-147.2	-148.6	-147.6	-117.3	-111.3	-127.7	-117.6	-177.9	Phase	-136.4
	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.2	Ampl.	0.2
	23.7	418.7	410.8	261.3	296.1	80.6	25.1	209.8	Sbd box	81.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-4.49373181047E+03	Apriori delay (usec)	-4.49305099014E+03	Resid mbdelay (usec)	6.67967E-03	+/-	1.9E-04
Sband delay (usec)	-4.49373822789E+03	Apriori clock (usec)	-1.3030000E+01	Resid sbdelay (usec)	-6.87238E-01	+/-	1.5E-03
Phase delay (usec)	-4.49305099454E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-4.39974E-06	+/-	6.3E-07
Delay rate (us/s)	-3.52958670078E-01	Apriori rate (us/s)	-3.52956873122E-01	Resid rate (us/s)	-1.79696E-06	+/-	6.1E-09
Total phase (deg)	-241.0	Apriori accel (us/s/s)	4.04929158923E-05	Resid phase (deg)	-136.4	+/-	19.5

ph/seg (deg)	61.2	Theor.	45.8	Amplitude	0.162 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	93.5		80.0	Search (1024X32)	0.158	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	24.3		27.6	Inc. seg. avg.	0.164	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	43.5		48.2	Inc. frq. avg.	0.155	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

k: az 312.9 el 35.3 pa 80.9 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 3231.865 4981.813 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/km..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/km.W.155.1HV1N7

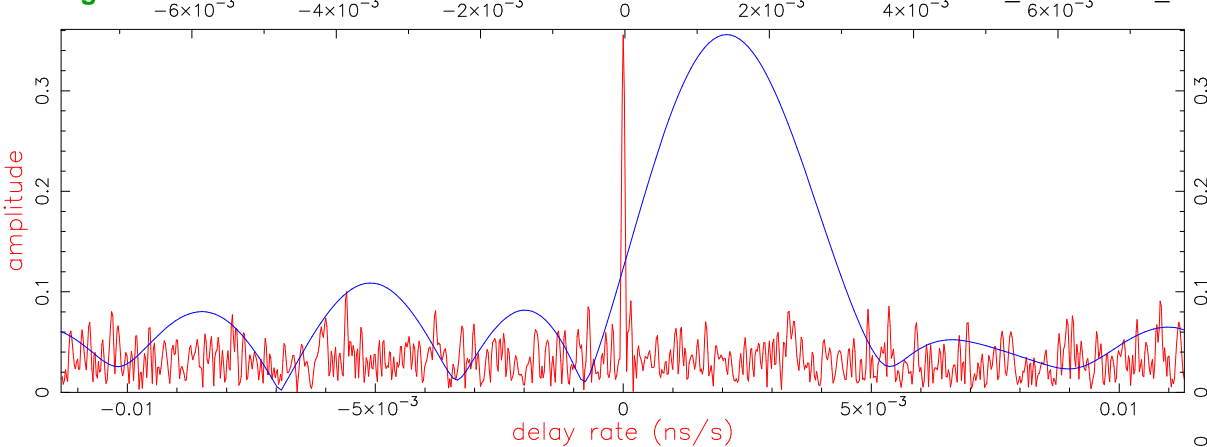
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, km

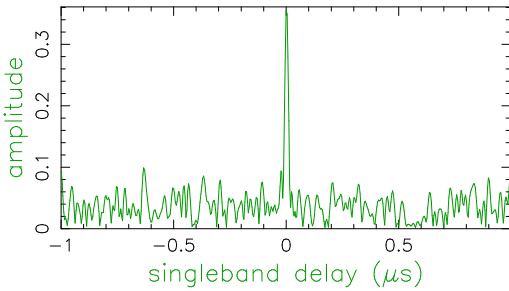
VLBA_KP - VLBA_MK, fgroup W, pol LL

multiband delay (μ s)

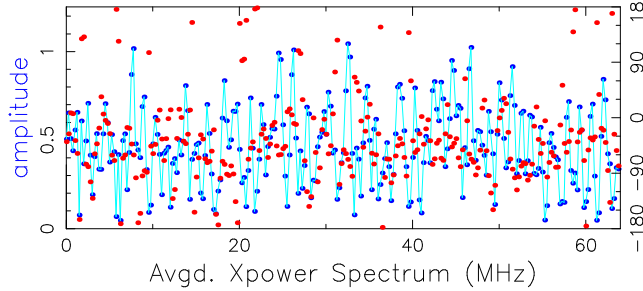


Fringe quality 9

SNR 13.2
 Int time 179.958
 Amp 0.361
 Phase -48.9
 PFD 1.3e-31
 Delays (us)
 SBD 0.001582
 MBD 0.001467
 Fringe rate (Hz)
 -0.000683
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

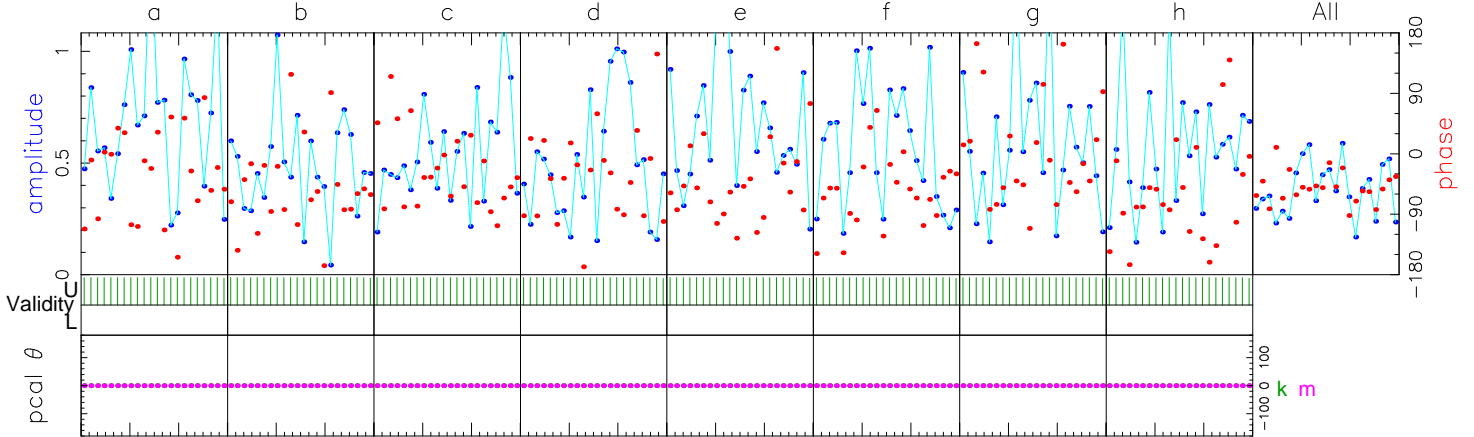


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145427
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-27.5	-69.9	-44.7	-48.3	-61.0	-47.8	-22.1	-74.1	Phase	-48.9
	0.4	0.3	0.4	0.3	0.5	0.4	0.4	0.3	Ampl.	0.4
	257.9	257.9	258.0	257.5	256.8	256.6	256.7	257.1	Sbd box	257.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-4.49304952345E+03	Apriori delay (usec)	-4.49305099014E+03	Resid mbdelay (usec)	1.46669E-03	+/-	8.2E-05
Sband delay (usec)	-4.49304940789E+03	Apriori clock (usec)	-1.3030000E+01	Resid sbdelay (usec)	1.58225E-03	+/-	6.5E-04
Phase delay (usec)	-4.49305099171E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.57791E-06	+/-	2.8E-07
Delay rate (us/s)	-3.52956881056E-01	Apriori rate (us/s)	-3.52956873122E-01	Resid rate (us/s)	-7.93443E-09	+/-	2.7E-09
Total phase (deg)	-153.4	Apriori accel (us/s/s)	4.04929158923E-05	Resid phase (deg)	-48.9	+/-	8.7

ph/seg (deg)	23.2	Theor.	20.3	Amplitude	0.361 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	33.3		35.4	Search (1024X32)	0.348	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	20.1		12.2	Inc. seg. avg.	0.358	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	15.4		21.4	Inc. frq. avg.	0.363	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

k: az 312.9 el 35.3 pa 80.9 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 3231.865 4981.813 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/km..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/km.W.88.1HV1N7

Mk4/DiFX fourfit 3.21 rev 2937

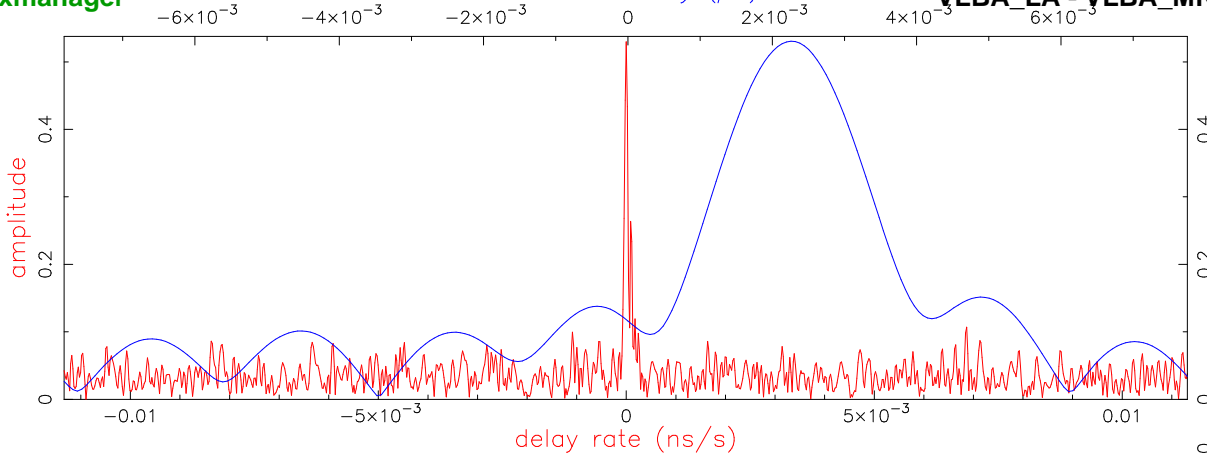
fxmanager

NRAO150.1HV1N7, No0150, Im

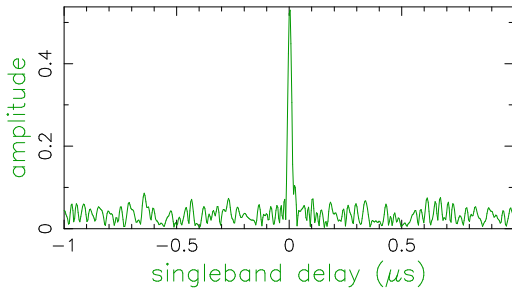
VLBA_LA - VLBA_MK, fgroup W, pol LL

multiband delay (μ s)

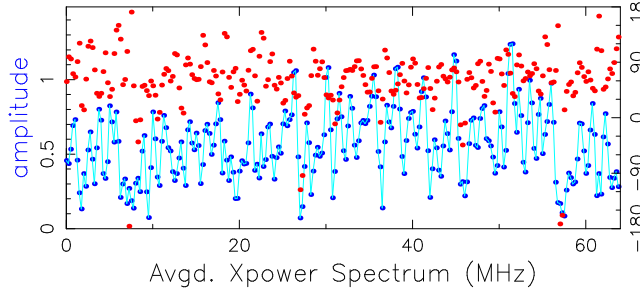
Fringe quality 9



SNR 19.7
Int time 179.977
Amp 0.538
Phase 65.7
PFD 0.0e+00
Delays (us)
SBD 0.002314
MBD 0.002205
Fringe rate (Hz) 0.000144
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

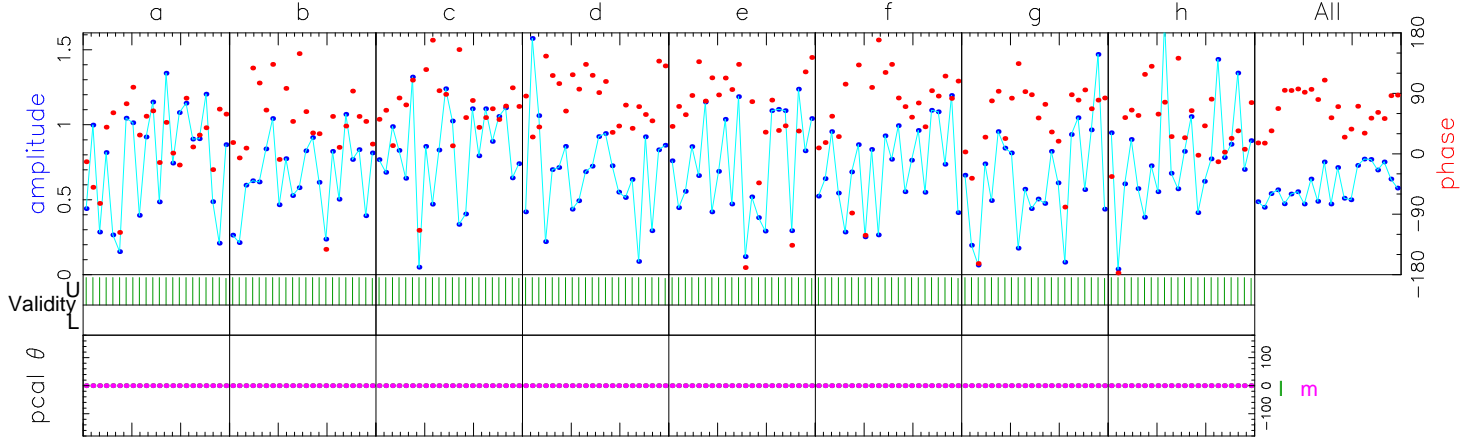


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2021:008:174658
2021:010:145428
2020:247:085004
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-4.71594018925E+03	Apriori delay (usec)	-4.71594239403E+03	Resid mbdelay (usec)	2.20478E-03	+/-	5.5E-05
Sband delay (usec)	-4.71594007978E+03	Apriori clock (usec)	-1.3750138E+01	Resid sbdelay (usec)	2.31425E-03	+/-	4.4E-04
Phase delay (usec)	-4.71594239191E+03	Apriori clockrate (us/s)	-1.9999998E-07	Resid phdelay (usec)	2.11889E-06	+/-	1.9E-07
Delay rate (us/s)	-3.37955273779E-01	Apriori rate (us/s)	-3.37955275454E-01	Resid rate (us/s)	1.67503E-09	+/-	1.8E-09
Total phase (deg)	-230.2	Apriori accel (us/s/s)	4.65249848554E-05	Resid phase (deg)	65.7	+/-	5.8

ph/seg (deg)	28.2	Theor.	13.6	Amplitude	0.538 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	23.3		23.8	Search (1024X32)	0.523	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	19.7		8.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	10.9		14.3	Inc. seg. avg.	0.579	Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
				Inc. frq. avg.	0.549	Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
						nlags: 256	t_cohere infinite
							ion window (TEC) 0.00 0.00

l: az 311.8 el 34.6 pa 74.3 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 3097.667 5875.772 simultaneous interpolator

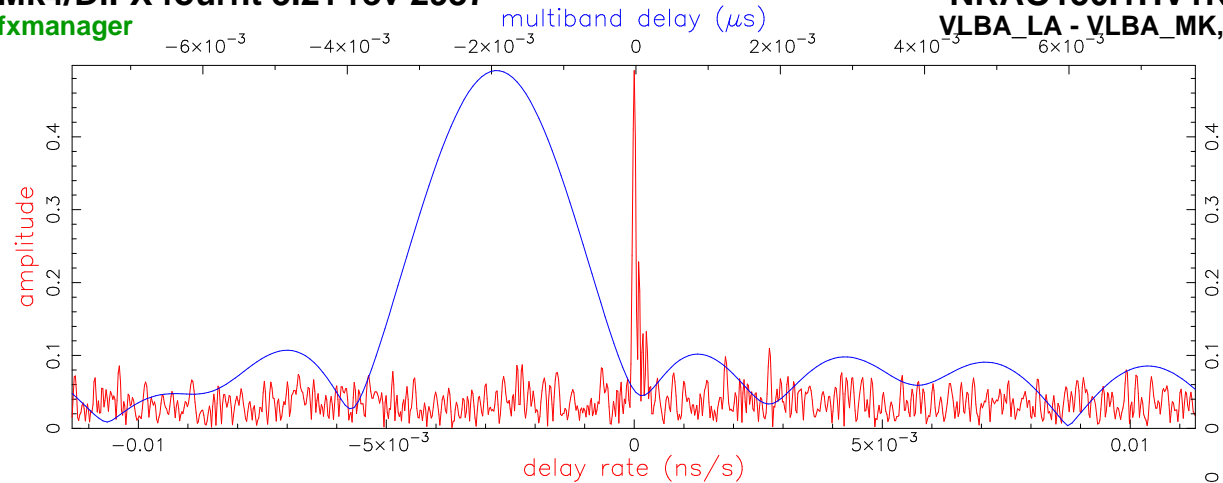
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/Im..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/Im.W.102.1HV1N7

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

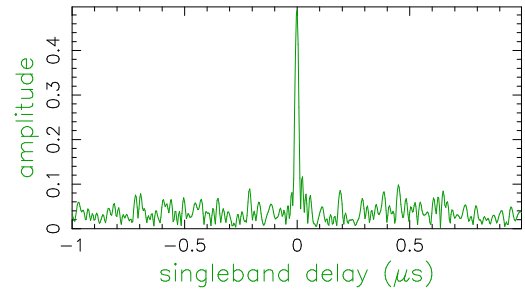
NRAO150.1HV1N7, No0150, Im

VLBA_LA - VLBA_MK, fgroup W, pol RR

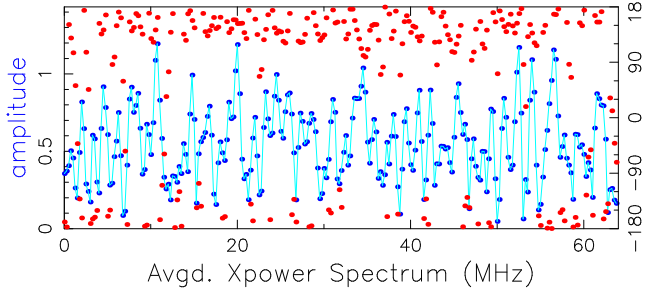


Fringe quality 9

SNR 18.3
 Int time 179.977
 Amp 0.498
 Phase 161.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.001564
 MBD -0.001960
 Fringe rate (Hz)
 0.000104
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

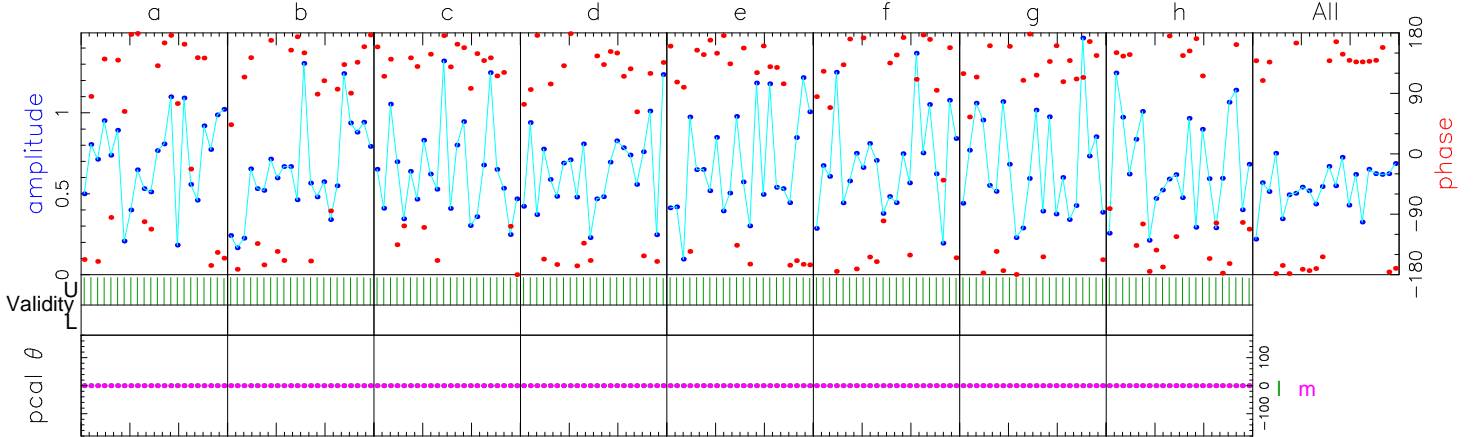


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145431
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-4.71594435394E+03	Apriori delay (usec)	-4.71594239403E+03	Resid mbdelay (usec)	-1.95991E-03	+/-	5.9E-05
Sband delay (usec)	-4.71594395828E+03	Apriori clock (usec)	-1.3750138E+01	Resid sbdelay (usec)	-1.56425E-03	+/-	4.7E-04
Phase delay (usec)	-4.71594238882E+03	Apriori clockrate (us/s)	-1.9999998E-07	Resid phdelay (usec)	5.21133E-06	+/-	2.0E-07
Delay rate (us/s)	-3.37955274251E-01	Apriori rate (us/s)	-3.37955275454E-01	Resid rate (us/s)	1.20313E-09	+/-	1.9E-09
Total phase (deg)	-134.3	Apriori accel (us/s/s)	4.65249848554E-05	Resid phase (deg)	161.6	+/-	6.3

ph/seg (deg)	25.9	Theor.	14.7	Amplitude	0.498 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	27.6		25.7	Search (1024X32)	0.491	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	15.0		8.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	5.5		15.5	Inc. seg. avg.	0.526	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.498	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

l: az 311.8 el 34.6 pa 74.3 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 3097.667 5875.772 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/Im..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/Im.W.129.1HV1N7

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

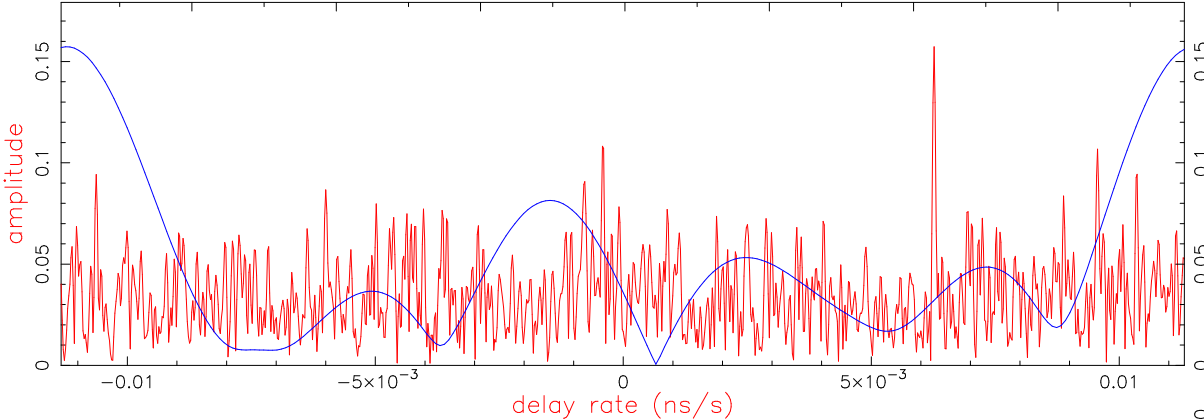
NRAO150.1HV1N7, No0150, Im

VLBA_LA - VLBA_MK, fgroup W, pol LR

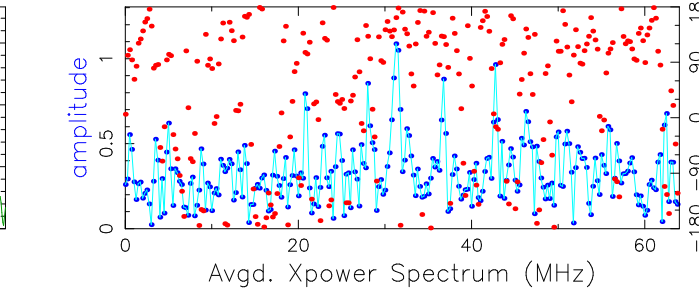
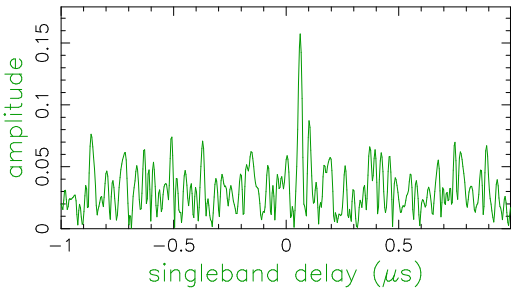
multiband delay (μ s)

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

Fringe quality 0

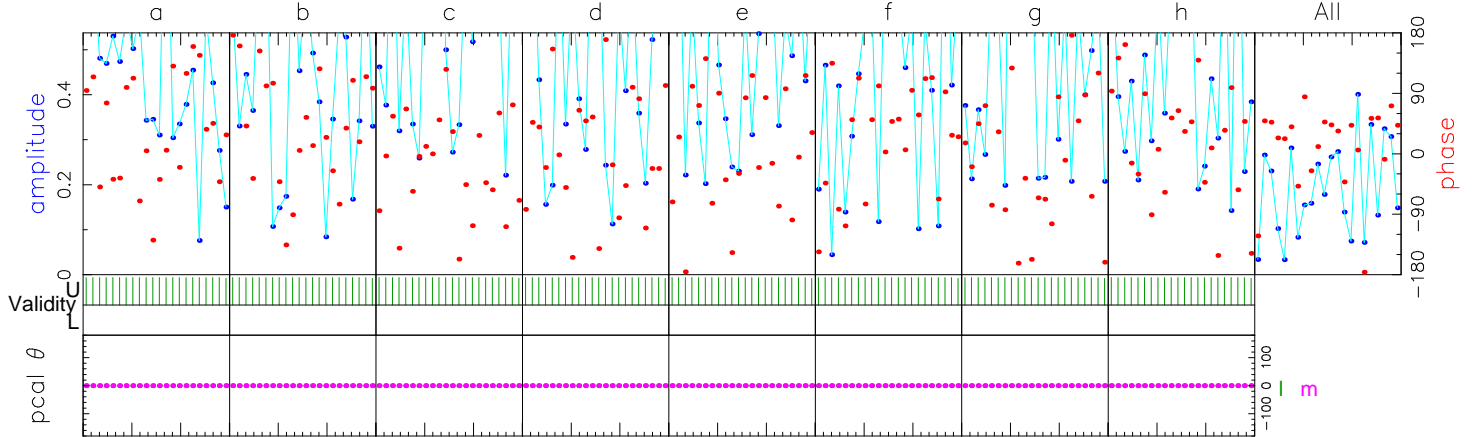


SNR 5.8
Int time 179.977
Amp 0.179
Phase 31.6
PFD 6.2e-01
Delays (us)
SBD 0.062224
MBD 0.007885
Fringe rate (Hz) 0.541535
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2021:008:174658
2021:010:145433
2020:247:085004
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) -4.71588763400E+03 Apriori delay (usec) -4.71594239403E+03 Resid mbdelay (usec) 7.88503E-03 +/- 1.9E-04
 Sband delay (usec) -4.71588017028E+03 Apriori clock (usec) -1.3750138E+01 Resid sbdelay (usec) 6.22238E-02 +/- 1.5E-03
 Phase delay (usec) -4.71594239301E+03 Apriori clockrate (us/s) -1.9999998E-07 Resid phdelay (usec) 1.02033E-06 +/- 6.4E-07
 Delay rate (us/s) -3.37948988769E-01 Apriori rate (us/s) -3.37955275454E-01 Resid rate (us/s) 6.28668E-06 +/- 6.2E-09
 Total phase (deg) -264.3 Apriori accel (us/s/s) 4.65249848554E-05 Resid phase (deg) 31.6 +/- 19.8

RMS Theor. Amplitude 0.179 +/- 0.031 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 56.9 46.5 Search (1024X32) 0.156 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 69.1 81.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 23.0 28.1 Inc. seg. avg. 0.165 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 46.9 49.0 Inc. frq. avg. 0.169 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

l: az 311.8 el 34.6 pa 74.3 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 3097.667 5875.772 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/Im..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/Im.W.146.1HV1N7

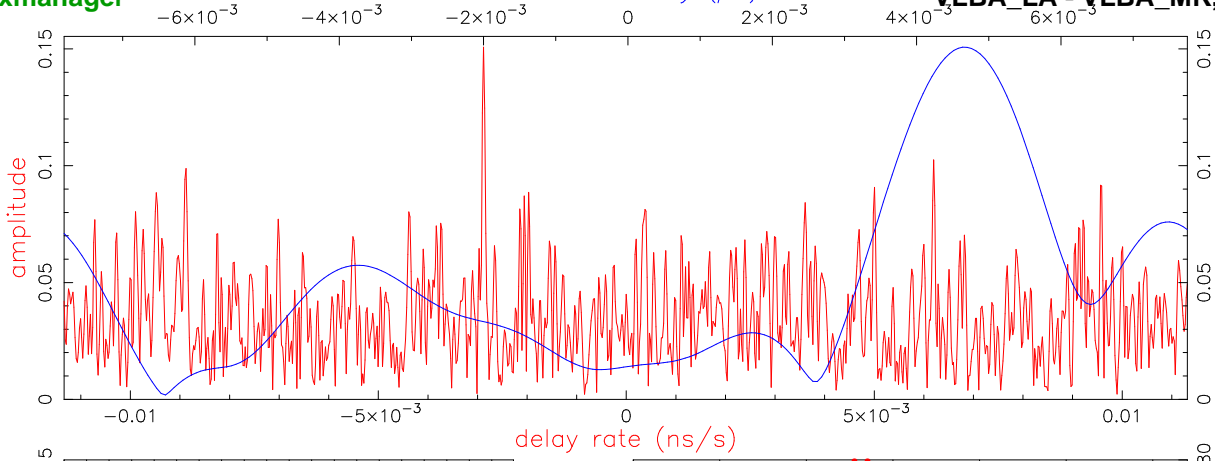
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

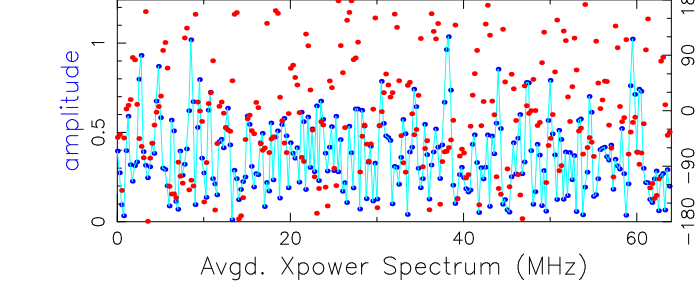
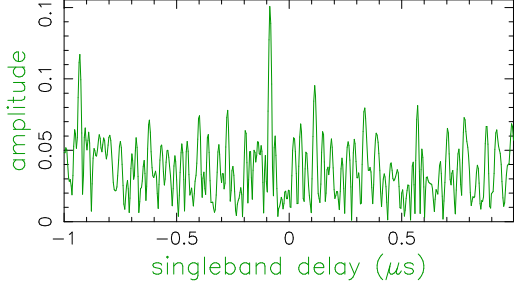
NRAO150.1HV1N7, No0150, Im

VLBA_LA - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

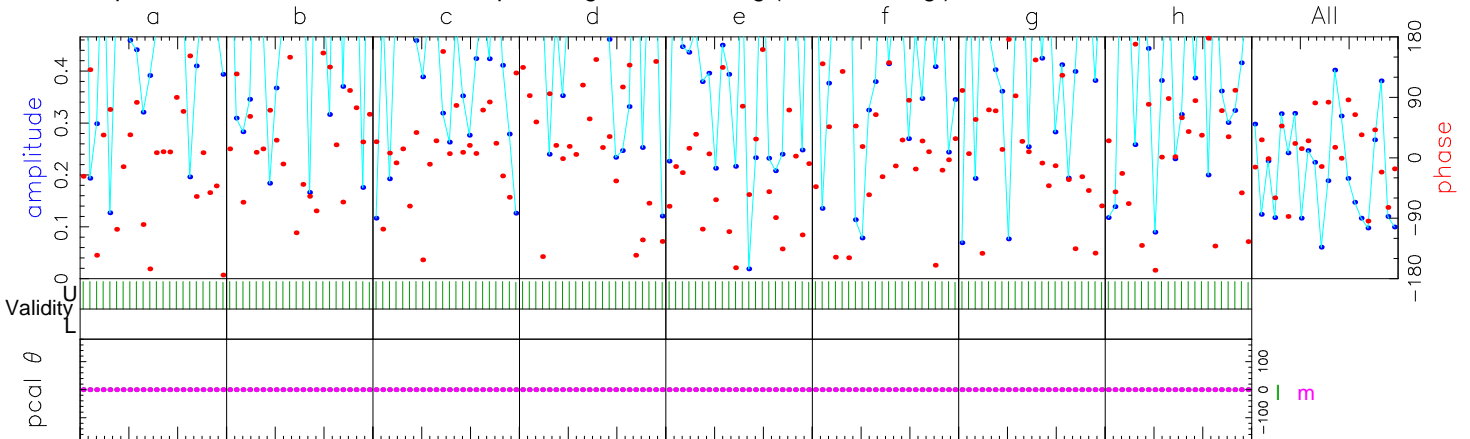


Fringe quality 0
 SNR 5.6
 Int time 179.977
 Amp 0.155
 Phase 14.1
 PFD 9.7e-01
 Delays (us)
 SBD -0.085272
 MBD 0.004681
 Fringe rate (Hz)
 -0.247693
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145435
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



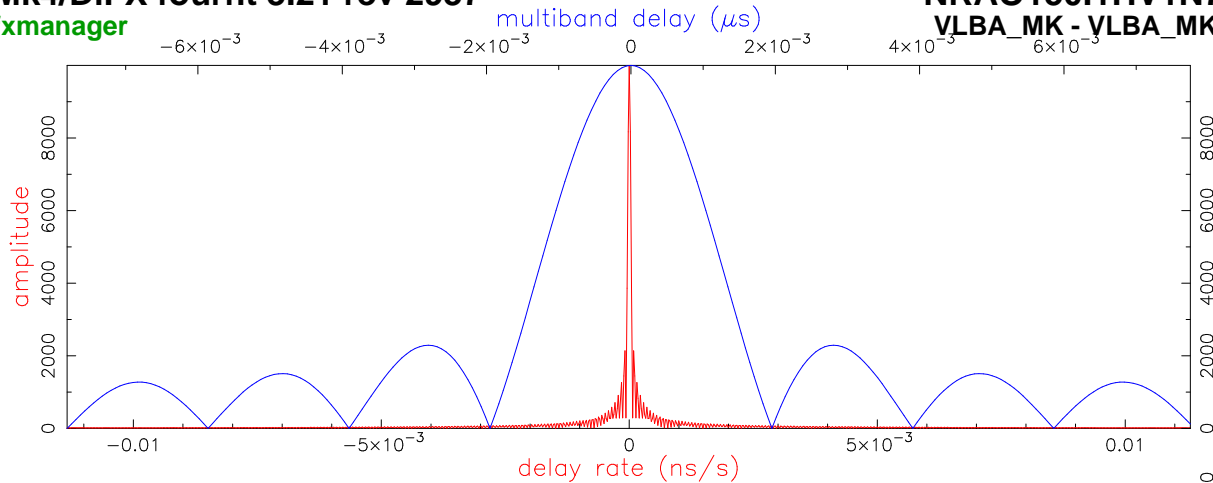
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

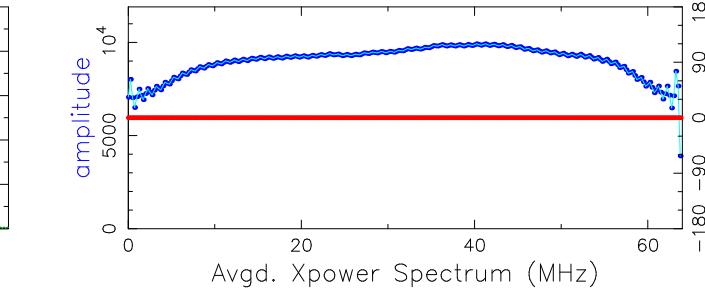
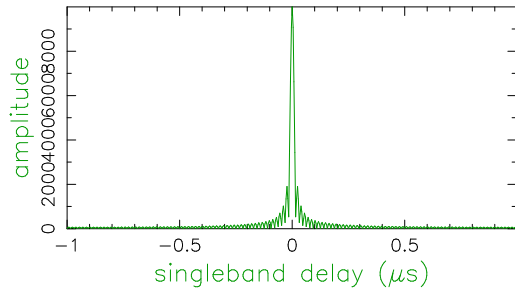


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-5.8	33.2	8.1	75.5	-0.0	-1.6	-1.7	21.7	Phase	14.1
	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	Ampl.	0.2
	167.6	511.0	344.6	65.6	221.5	18.5	136.7	285.2	Sbd box	235.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.71603146277E+03		Apriori delay (usec)		-4.71594239403E+03		Resid mbdelay (usec)		4.68126E-03	+/- 2.0E-04
Sband delay (usec)	-4.71602766628E+03		Apriori clock (usec)		-1.3750138E+01		Resid sbdelay (usec)		-8.52723E-02	+/- 1.6E-03
Phase delay (usec)	-4.71594239358E+03		Apriori clockrate (us/s)		-1.9999998E-07		Resid phdelay (usec)		4.54872E-07	+/- 6.7E-07
Delay rate (us/s)	-3.37958150920E-01		Apriori rate (us/s)		-3.37955275454E-01		Resid rate (us/s)		-2.87547E-06	+/- 6.4E-09
Total phase (deg)			Apriori accel (us/s/s)		4.65249848554E-05		Resid phase (deg)		14.1	+/- 20.6

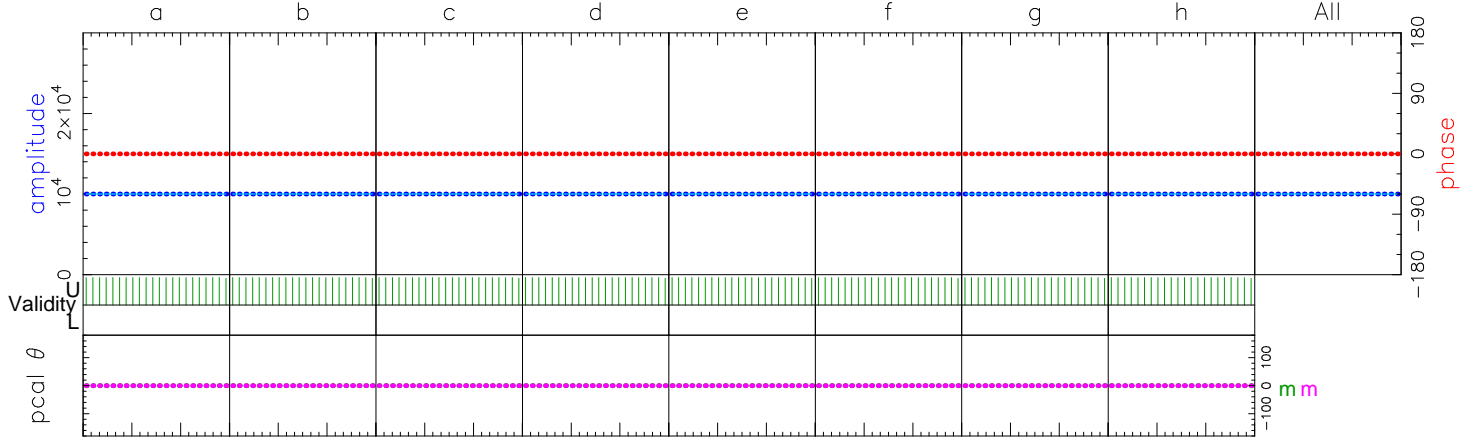
ph/seg (deg) 51.8 48.4 Search (1024X32) 0.149 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.0 84.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 29.8 29.2 Inc. seg. avg. 0.159 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.7 51.0 Inc. frq. avg. 0.150 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 l: az 311.8 el 34.6 pa 74.3 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 3097.667 5875.772 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/Im..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/Im.W.162.1HV1N7



Fringe quality 9
SNR 366864.7
Int time 179.977
Amp 9999.998
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. c202a
Yr:day 16383
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2021:008:174658
2021:010:145434
2020:247:085004
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"



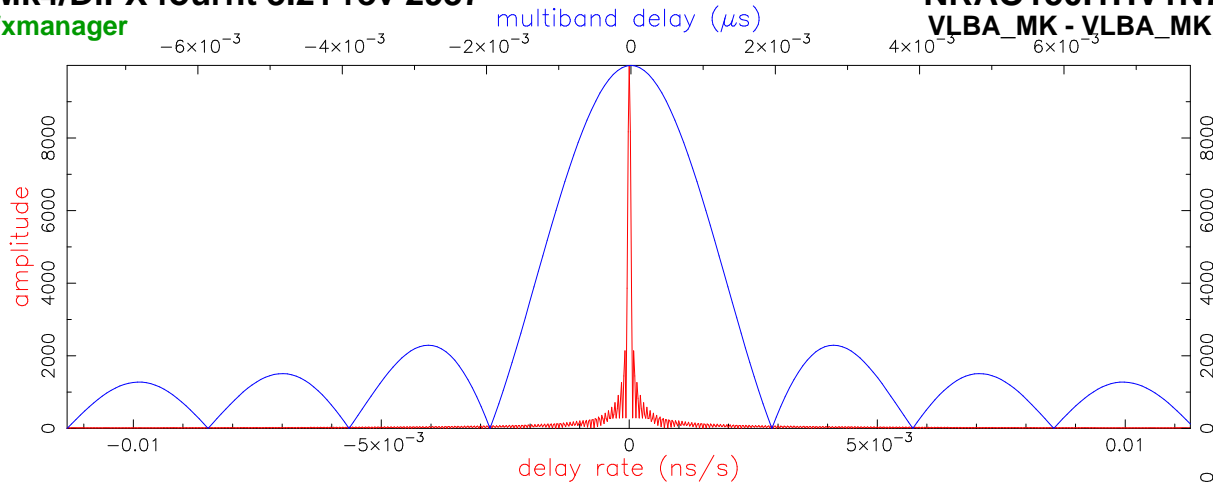
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



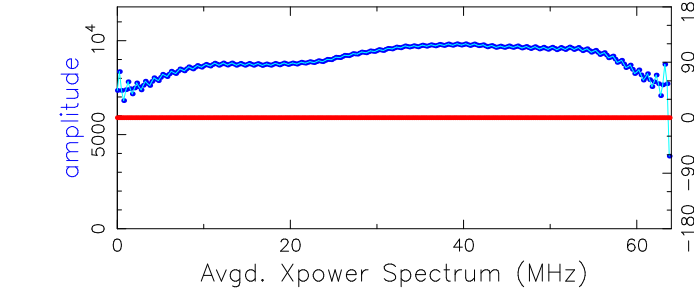
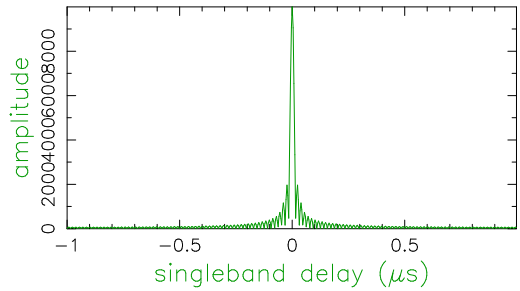
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	10000.0	10000.0
m	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	257.0	257.0
m	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
m	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	10000.0	10000.0
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	257.0	257.0

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.0E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	2.3E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.0E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	9.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

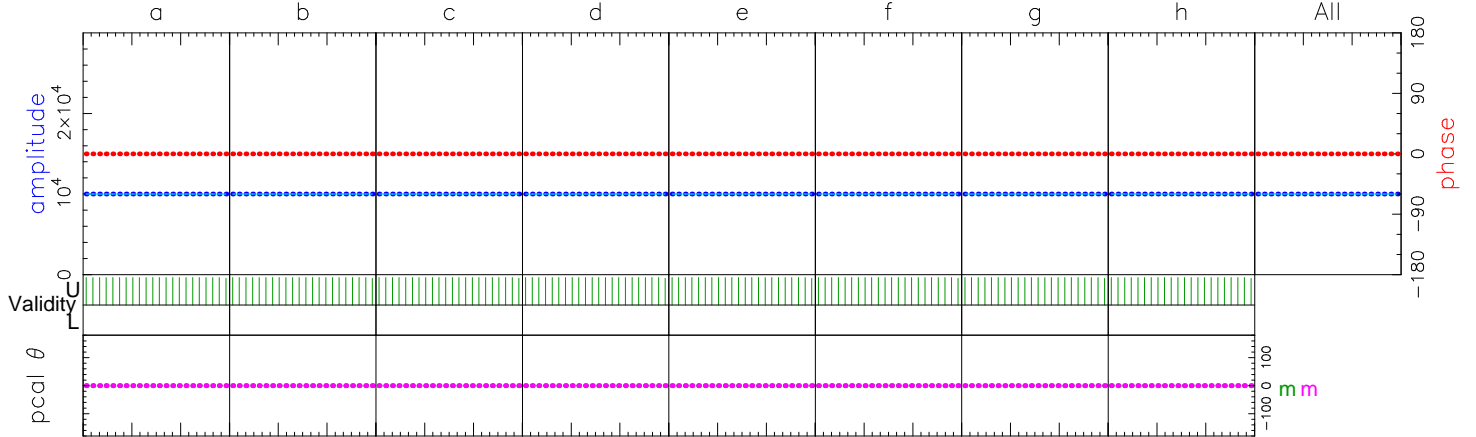
ph/seg (deg)	0.0	RMS	0.0	Theor.	0.0	Amplitude	9999.998 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0	Search (1024X32)	9999.998	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	0.0000000000E+00	SampCntNorm: enabled	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Inc. seg. avg.	10000.000	Inc. frq. avg.	9999.998	Bits/sample: 2x2	0.0000000000E+00	Sample rate(MISamp/s): 128	mb window (us)	-0.008 0.008
amp/frq (%)	0.0	Inc. frq. avg.	9999.998	u,v (fr/asec)	0.000 0.000	Data rate(Mb/s): 2048	0.0000000000E+00	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011
m: az 331.5 el 51.8 pa 134.8 simultaneous interpolator										



Fringe quality 9
SNR 366864.7
Int time 179.977
Amp 9999.998
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. c202a
Yr:day 16383
Yr:day 2020:283
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2021:008:174658
2021:010:145436
2020:247:085004
RA & Dec (J2000) 03h59m29.747267s +50°57'50.161694"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	10000.0	10000.0
m	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	257.0	257.0
m	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
m	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	10000.0	10000.0
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	257.0	257.0

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.0E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	2.3E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.0E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	9.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

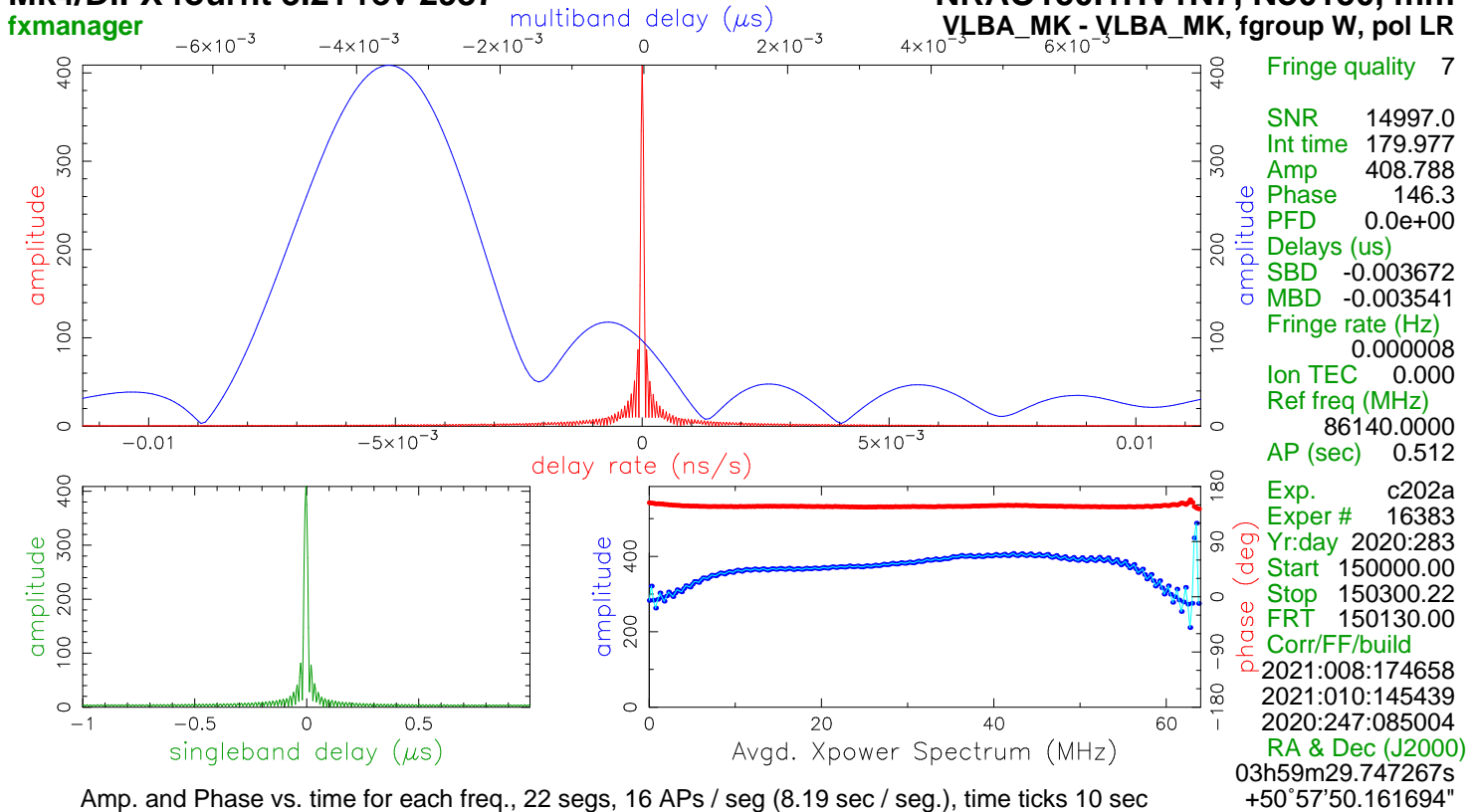
ph/seg (deg)	0.0	RMS	0.0	Theor.	0.0	Amplitude	9999.998 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	Search (1024X32)	0.000	Inc. seg. avg.	10000.000	Inc. frq. avg.	9999.998	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	Inc. seg. avg.	10000.000	Inc. frq. avg.	9999.998	u,v (fr/asec)	0.000 0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	0.0	Inc. frq. avg.	9999.998	u,v (fr/asec)	0.000 0.000	simultaneous interpolator		Sample rate (MSamp/s):	128	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011
								Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00		

Mk4/DiFX fourfit 3.21 rev 2937

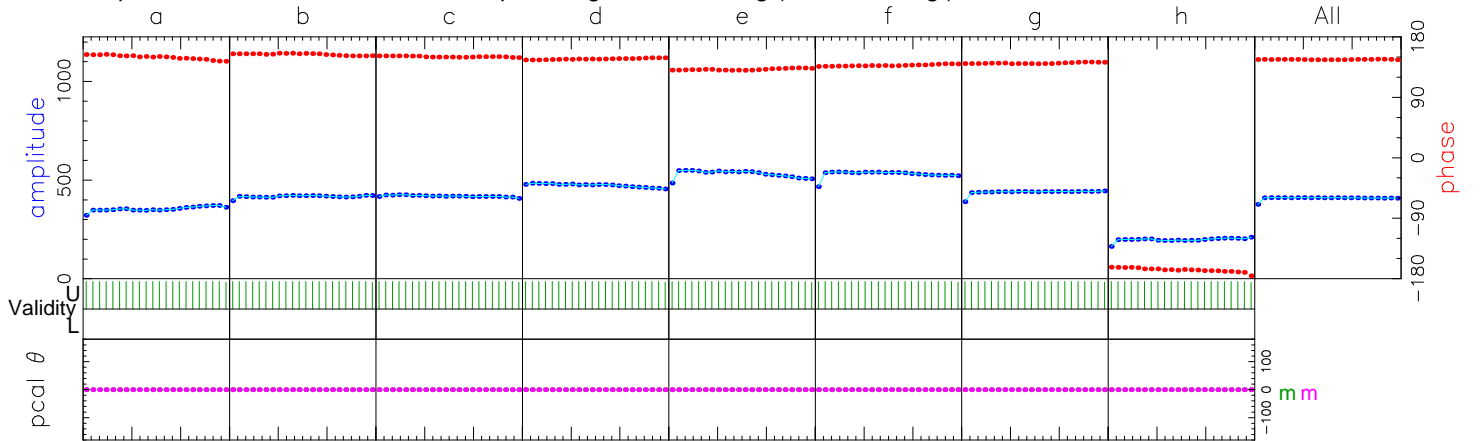
fxmanager

NRAO150.1HV1N7, No0150, mm

VLBA_MK - VLBA_MK, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



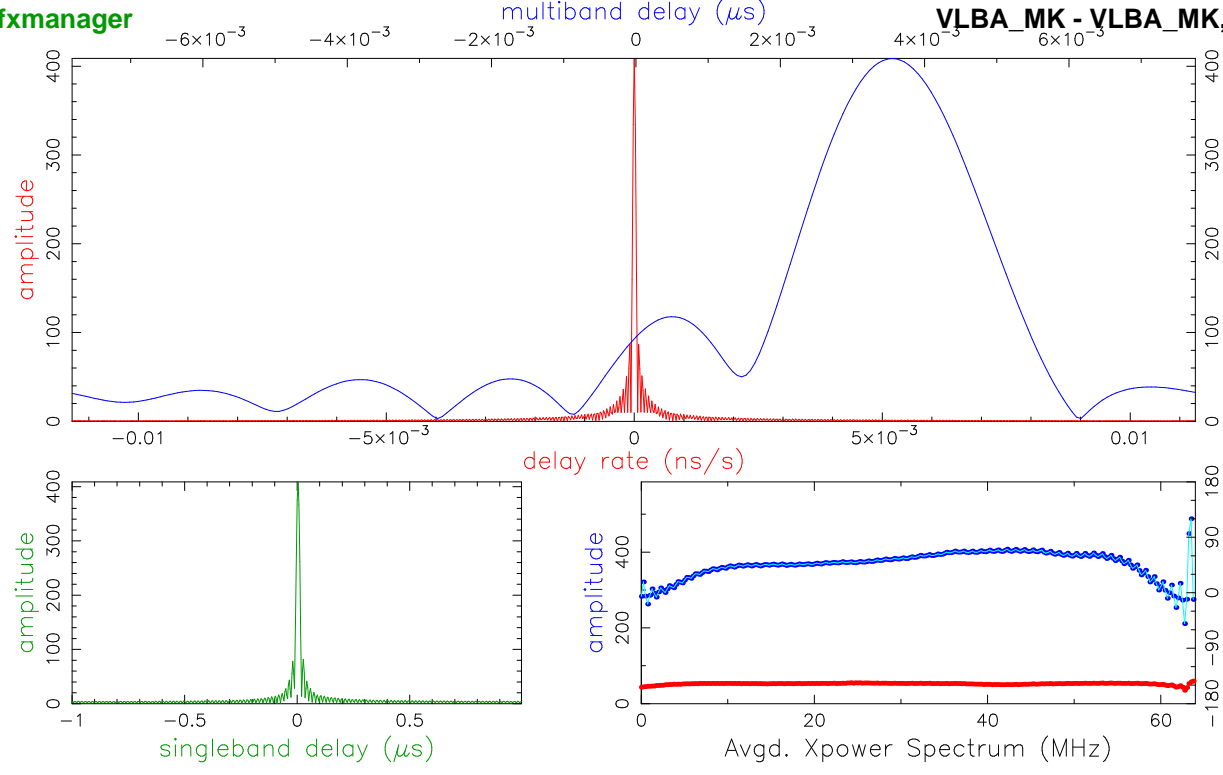
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
m	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	420.4
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	256.1
m	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC phase	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
m									PC amp	
									Chan ids	
									Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.54103125000E-03								Resid mbdelay (usec)	-3.54103E-03 +/- 7.2E-08
Sband delay (usec)	-3.67200000000E-03								Resid sbdelay (usec)	-3.67200E-03 +/- 5.7E-07
Phase delay (usec)	4.71685379387E-06								Resid phdelay (usec)	4.71685E-06 +/- 2.5E-10
Delay rate (us/s)	9.77809515026E-11								Resid rate (us/s)	9.77810E-11 +/- 2.4E-12
Total phase (deg)			146.3						Resid phase (deg)	146.3 +/- 0.0
	RMS	Theor.	Amplitude	408.788 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.3	0.0	Search (1024X32)	406.277					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	1.7	0.0	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	20.8	0.0	Inc. seg. avg.	408.651					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	24.9	0.0	Inc. frq. avg.	420.357					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
m: az 331.5 el 51.8 pa 134.8			m: az 331.5 el 51.8 pa 134.8						nlags: 256	t_cohere infinite
Control file: cf_1234_gmva			Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mm..1HV1N7							simultaneous interpolator
										Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mm.W.187.1HV1N7

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, mm

VLBA_MK - VLBA_MK, fgroup W, pol RL

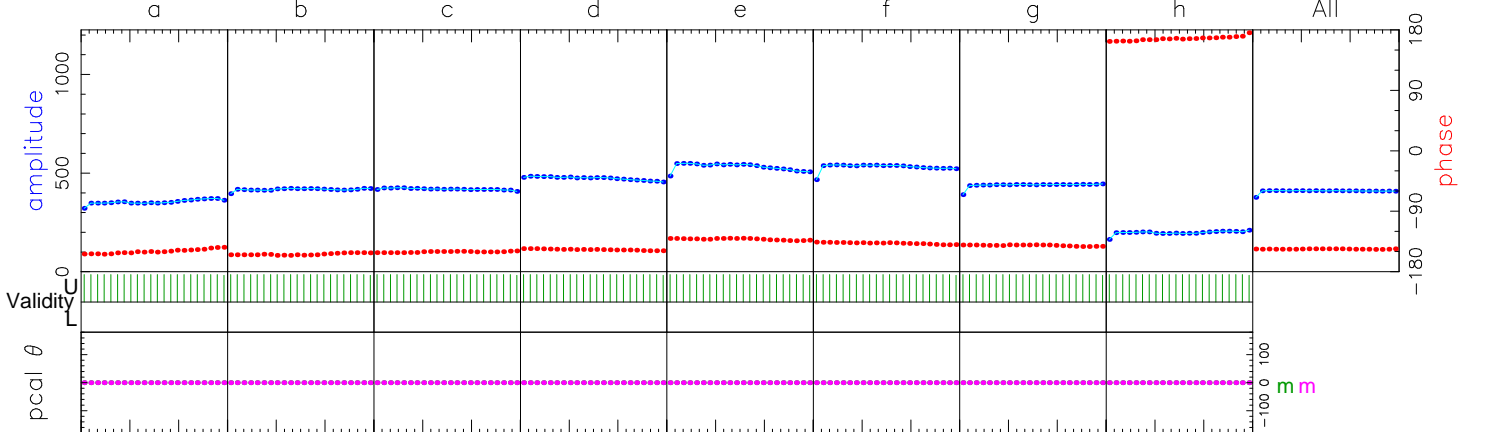


Fringe quality 7

SNR 14997.0
 Int time 179.977
 Amp 408.788
 Phase -146.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.003672
 MBD 0.003541
 Fringe rate (Hz)
 -0.000008
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145440
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-149.6	-153.9	-150.5	-147.1	-131.5	-137.5	-140.9	166.9	Phase	-146.3
	353.6	416.8	418.9	473.3	532.0	531.2	439.1	198.0	Ampl.	420.4
	257.7	258.5	258.0	257.9	258.1	257.8	257.5	256.7	Sbd box	257.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.54103125000E-03								Resid mbdelay (usec)	3.54103E-03 +/- 7.2E-08
Sband delay (usec)	3.67200000000E-03								Resid sbdelay (usec)	3.67200E-03 +/- 5.7E-07
Phase delay (usec)	-4.71685379403E-06								Resid phdelay (usec)	-4.71685E-06 +/- 2.5E-10
Delay rate (us/s)	-9.77809515026E-11								Resid rate (us/s)	-9.77810E-11 +/- 2.4E-12
Total phase (deg)			-146.3						Resid phase (deg)	-146.3 +/- 0.0

ph/seg (deg) 0.3 0.0 Search (1024X32) 406.277 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.7 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 20.8 0.0 Inc. seg. avg. 408.651 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 24.9 0.0 Inc. frq. avg. 420.357 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 331.5 el 51.8 pa 134.8 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) 0.000 0.000 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mm.W.205.1HV1N7

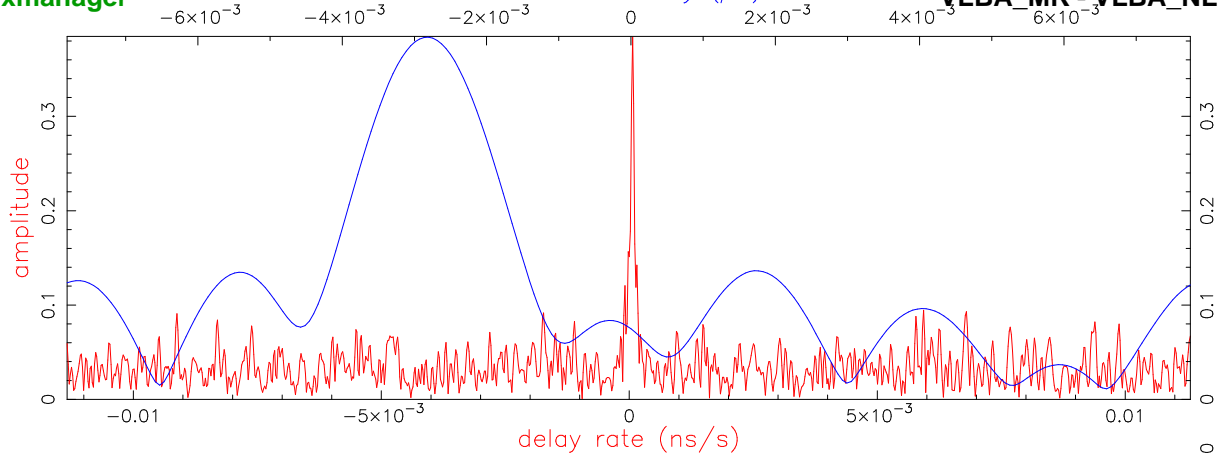
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, mn

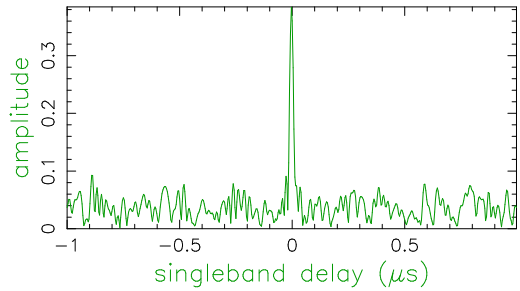
VLBA_MK - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

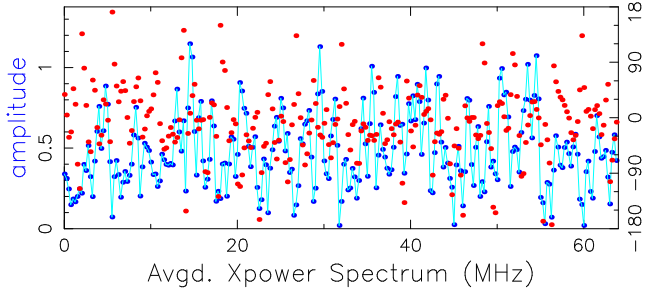


Fringe quality 9

SNR 14.1
 Int time 179.977
 Amp 0.385
 Phase -14.1
 PFD 8.9e-37
 Delays (us)
 SBD -0.003287
 MBD -0.002805
 Fringe rate (Hz)
 0.006305
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

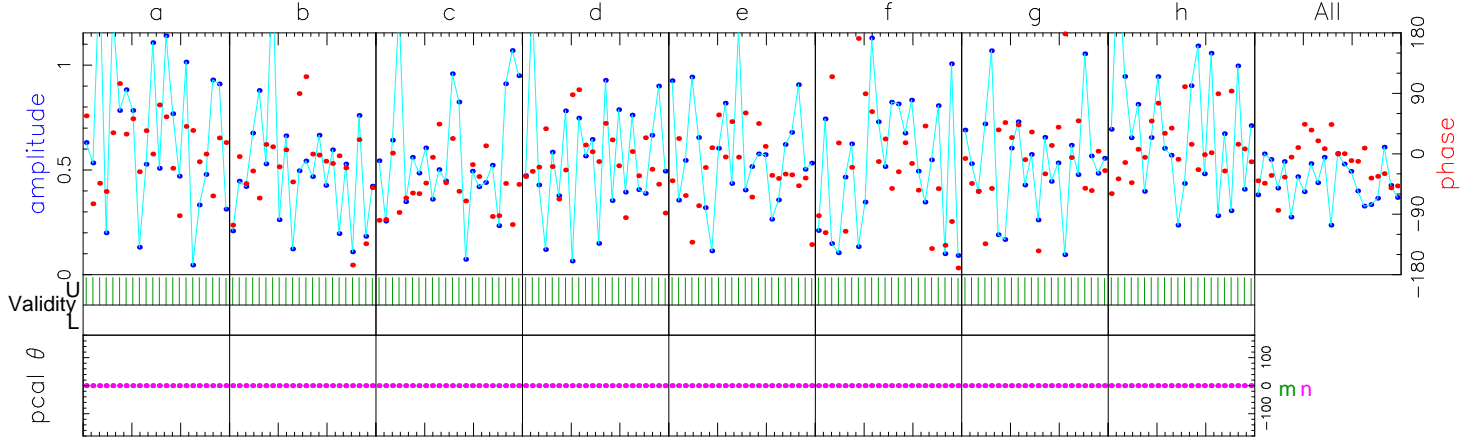


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145437
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	13.6	-7.2	-49.4	-12.8	-26.1	-34.5	-15.5	2.8	Phase	-14.1
	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.5	Ampl.	0.4
	255.6	256.2	256.6	256.7	256.4	111.0	256.7	256.1	Sbd box	256.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	6.10466560556E+03	Apriori delay (usec)		6.10466841044E+03	Resid mbdelay (usec)		-2.80488E-03	+/-	7.7E-05	
Sband delay (usec)	6.10466512344E+03	Apriori clock (usec)		1.3218724E+01	Resid sbdelay (usec)		-3.28700E-03	+/-	6.1E-04	
Phase delay (usec)	6.10466840999E+03	Apriori clockrate (us/s)		-4.0000002E-07	Resid phdelay (usec)		-4.55074E-07	+/-	2.6E-07	
Delay rate (us/s)	2.92071261227E-01	Apriori rate (us/s)		2.92071188037E-01	Resid rate (us/s)		7.31898E-08	+/-	2.5E-09	
Total phase (deg)		301.1	Apriori accel (us/s/s)		-6.10508866231E-05	Resid phase (deg)		-14.1	+/-	8.1

ph/seg (deg)	32.4	19.0	Amplitude	0.385 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
amp/seg (%)	31.1	33.2	Search (1024X32)	0.375	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
ph/frq (deg)	22.0	11.5	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	22.1	20.0	Inc. seg. avg.	0.422	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
			Inc. frq. avg.	0.399	Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

m: az 331.5 el 51.8 pa 134.8 n: az 313.3 el 30.2 pa 59.7 u,v (fr/asec) -2686.487 -7740.090 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mn..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mn.W.169.1HV1N7

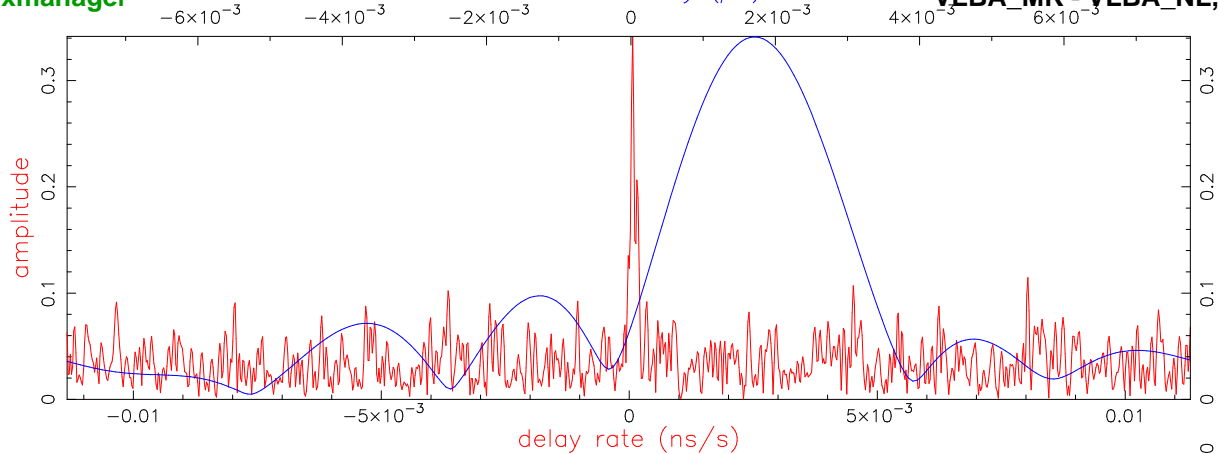
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, mn

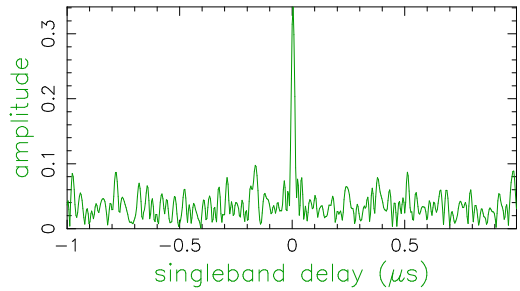
VLBA_MK - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

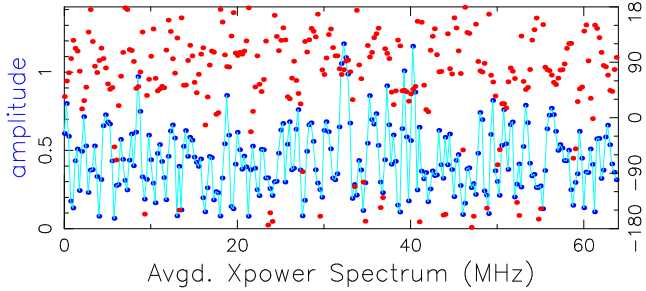


Fringe quality 9

SNR 12.5
 Int time 179.977
 Amp 0.342
 Phase 105.8
 PFD 1.3e-27
 Delays (us)
 SBD 0.003439
 MBD 0.001704
 Fringe rate (Hz)
 0.006676
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

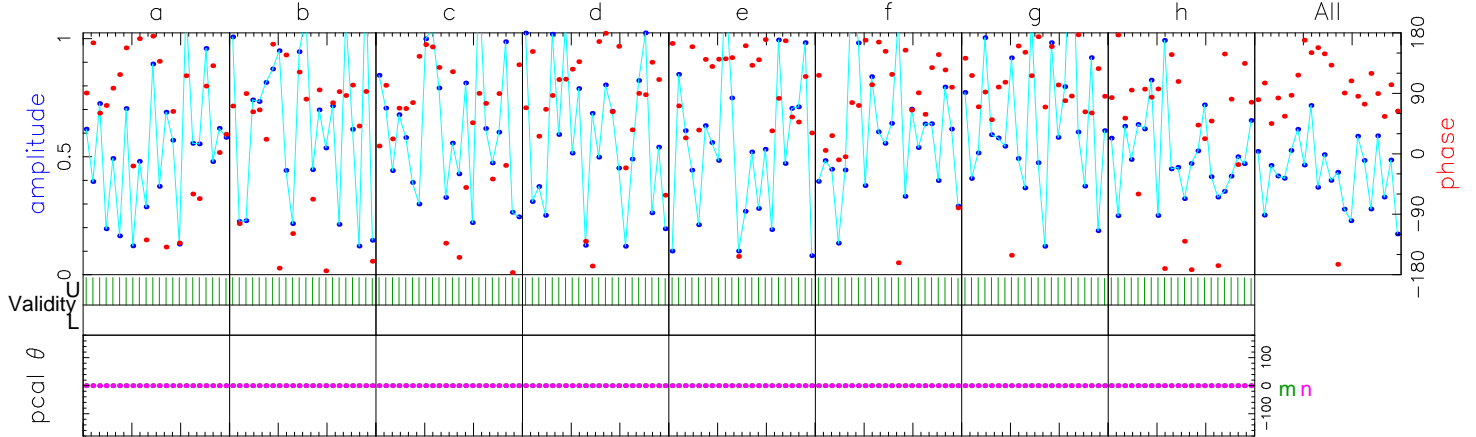


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145438
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	117.8	98.6	91.8	108.4	113.7	104.4	110.7	97.1	Phase	105.8
	0.2	0.4	0.3	0.4	0.4	0.4	0.5	0.2	Ampl.	0.3
	98.9	257.9	258.0	257.9	257.4	258.4	257.7	115.8	Sbd box	257.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.10467011408E+03		Apriori delay (usec)		6.10466841044E+03		Resid mbdelay (usec)		1.70364E-03	+/- 8.7E-05
Sband delay (usec)	6.10467184919E+03		Apriori clock (usec)		1.3218724E+01		Resid sbdelay (usec)		3.43875E-03	+/- 6.9E-04
Phase delay (usec)	6.10466841385E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		3.41129E-06	+/- 2.9E-07
Delay rate (us/s)	2.92071265540E-01		Apriori rate (us/s)		2.92071188037E-01		Resid rate (us/s)		7.75035E-08	+/- 2.8E-09
Total phase (deg)			Apriori accel (us/s/s)		-6.10508866231E-05		Resid phase (deg)		105.8	+/- 9.1

	RMS	Theor.	Amplitude	0.342 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	39.1	21.4	Search (1024X32)	0.319	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	47.7	37.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	9.7	12.9	Inc. seg. avg.	0.405	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	26.7	22.6	Inc. frq. avg.	0.336	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

m: az 331.5 el 51.8 pa 134.8 n: az 313.3 el 30.2 pa 59.7 u,v (fr/asec) -2686.487 -7740.090 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mn..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mn.W.184.1HV1N7

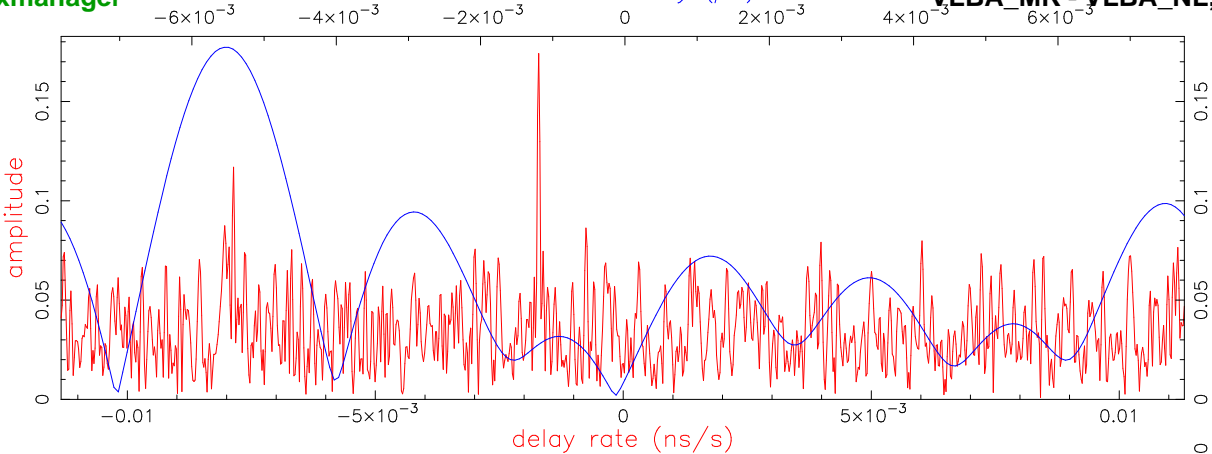
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, mn

VLBA_MK - VLBA_NL, fgroup W, pol LR

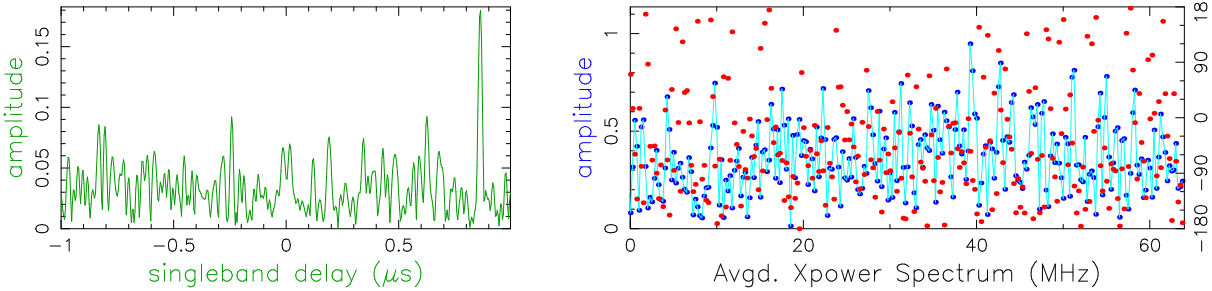
multiband delay (μ s)



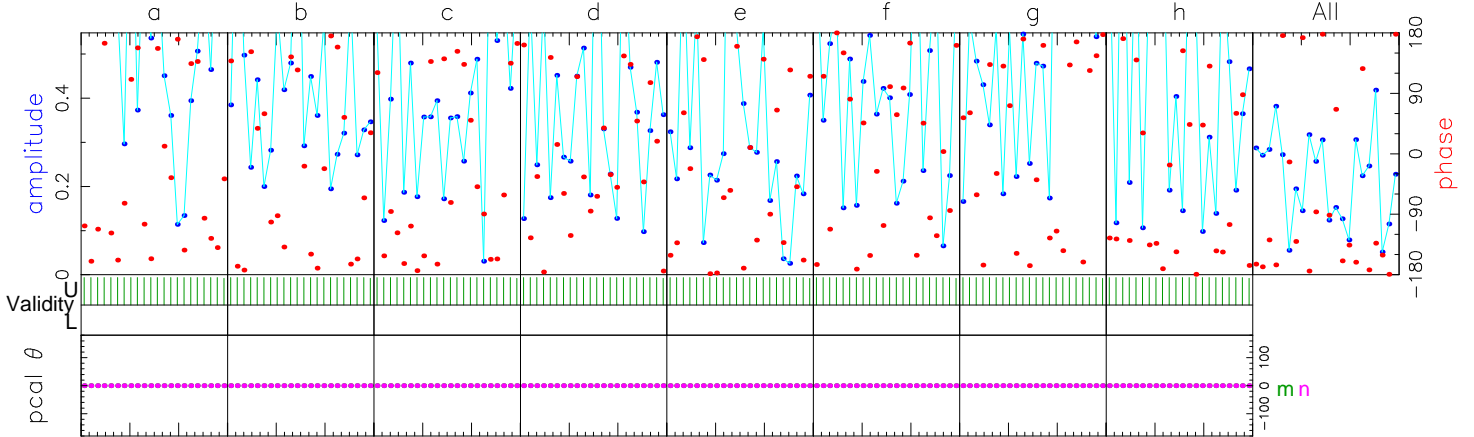
Fringe quality 0

SNR 6.6
 Int time 179.977
 Amp 0.183
 Phase -161.6
 PFD 4.4e-03
 Delays (us)
 SBD 0.862089
 MBD -0.005356
 Fringe rate (Hz)
 -0.147055
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145441
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-137.9	-178.8	-154.6	-93.5	-163.5	-167.0	177.8	-167.8	Phase	-161.6
	0.3	0.2	0.2	0.0	0.1	0.2	0.2	0.3	Ampl.	0.2
	477.5	415.9	506.4	463.8	221.7	306.1	479.7	478.1	Sbd box	477.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	6.10553805462E+03	Apriori delay (usec)	6.10466841044E+03	Resid mbdelay (usec)	-5.35582E-03	+/-	1.6E-04
Sband delay (usec)	6.10553049894E+03	Apriori clock (usec)	1.3218724E+01	Resid sbdelay (usec)	8.62089E-01	+/-	1.3E-03
Phase delay (usec)	6.10466840523E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-5.21130E-06	+/-	5.6E-07
Delay rate (us/s)	2.92069480872E-01	Apriori rate (us/s)	2.92071188037E-01	Resid rate (us/s)	-1.70716E-06	+/-	5.3E-09
Total phase (deg)	153.6	Apriori accel (us/s/s)	-6.10508866231E-05	Resid phase (deg)	-161.6	+/-	17.3

ph/seg (deg)	53.1	Theor.	40.5	Amplitude	0.183 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	59.4		70.6	Search (1024X32)	0.176	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	31.7		24.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	52.6		42.6	Inc. seg. avg.	0.178	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.169	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

m: az 331.5 el 51.8 pa 134.8 n: az 313.3 el 30.2 pa 59.7 u,v (fr/asec) -2686.487 -7740.090 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mn..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mn.W.207.1HV1N7

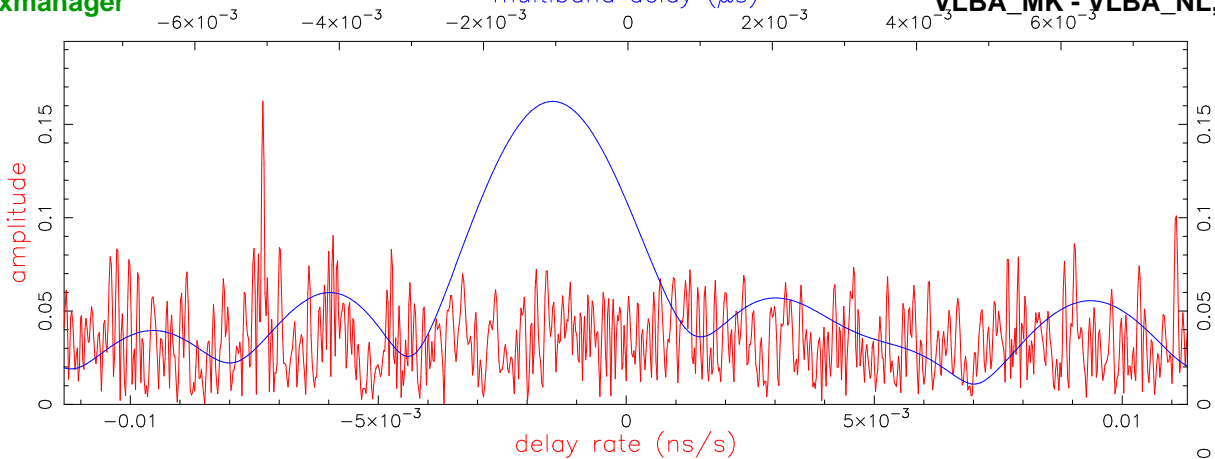
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, mn

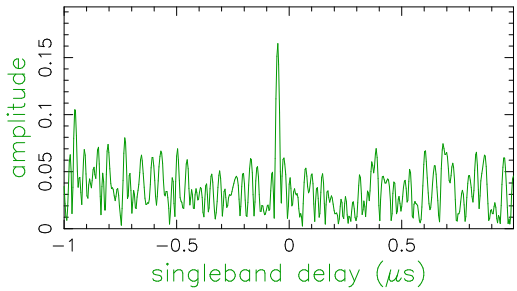
VLBA_MK - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

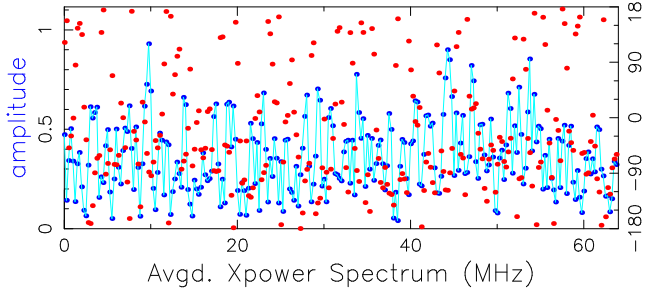


Fringe quality 0

SNR 6.0
 Int time 179.977
 Amp 0.194
 Phase 60.7
 PFD 2.7e-01
 Delays (us)
 SBD -0.051273
 MBD -0.001061
 Fringe rate (Hz)
 -0.632946
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

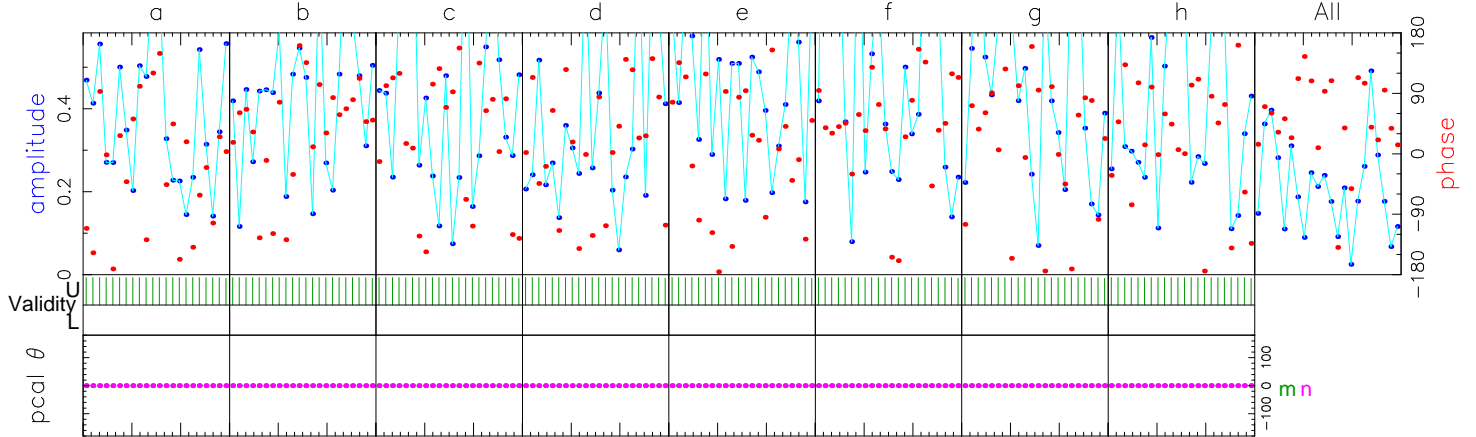


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145443
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	31.7	69.9	52.1	44.1	57.6	57.5	83.0	53.2	Phase	60.7
	0.0	0.3	0.1	0.1	0.1	0.4	0.2	0.3	Ampl.	0.2
	338.6	2.7	29.2	430.5	65.8	244.2	241.8	27.8	Sbd box	243.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	6.10462047462E+03	Apriori delay (usec)	6.10466841044E+03	Resid mbdelay (usec)	-1.06083E-03	+/-	1.8E-04
Sband delay (usec)	6.10461713694E+03	Apriori clock (usec)	1.3218724E+01	Resid sbdelay (usec)	-5.12735E-02	+/-	1.4E-03
Phase delay (usec)	6.10466841240E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	1.95801E-06	+/-	6.2E-07
Delay rate (us/s)	2.92063840161E-01	Apriori rate (us/s)	2.92071188037E-01	Resid rate (us/s)	-7.34788E-06	+/-	6.0E-09
Total phase (deg)		Apriori accel (us/s/s)	-6.10508866231E-05	Resid phase (deg)	60.7	+/-	19.2

ph/seg (deg)	57.2	Theor.	45.1	Amplitude	0.194 +/- 0.033	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	75.1		78.7	Search (1024X32)	0.161	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	17.6		27.2	Inc. seg. avg.	0.194	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	56.8		47.4	Inc. frq. avg.	0.178	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

m: az 331.5 el 51.8 pa 134.8 n: az 313.3 el 30.2 pa 59.7 u,v (fr/asec) -2686.487 -7740.090 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mn..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mn.W.224.1HV1N7

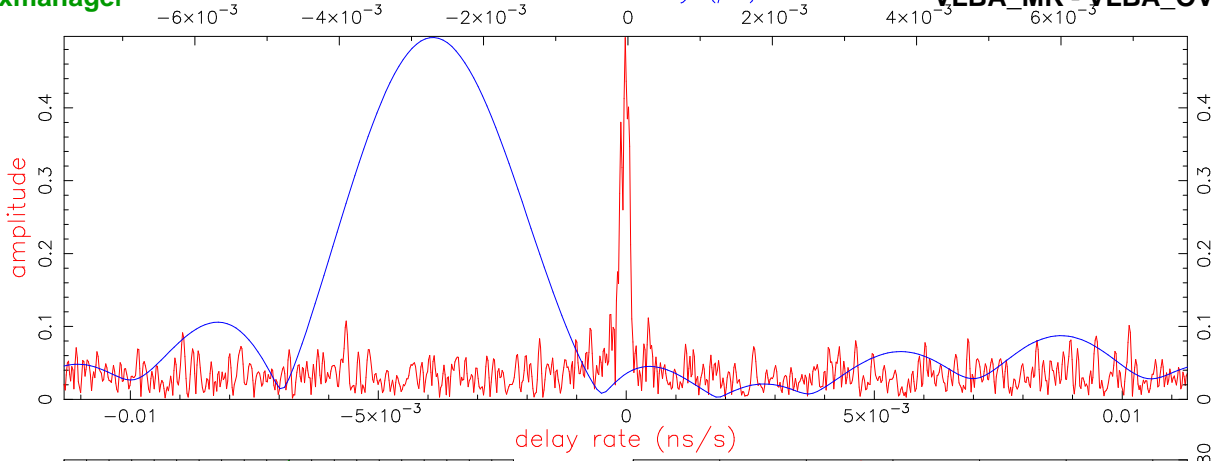
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, mo

VLBA_MK - VLBA_OV, fgroup W, pol LL

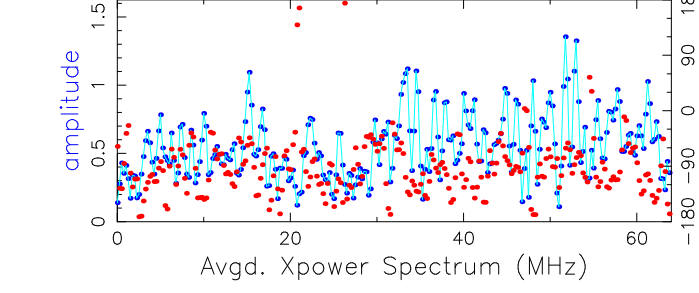
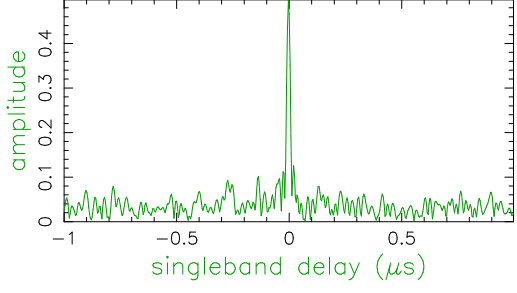
multiband delay (μ s)



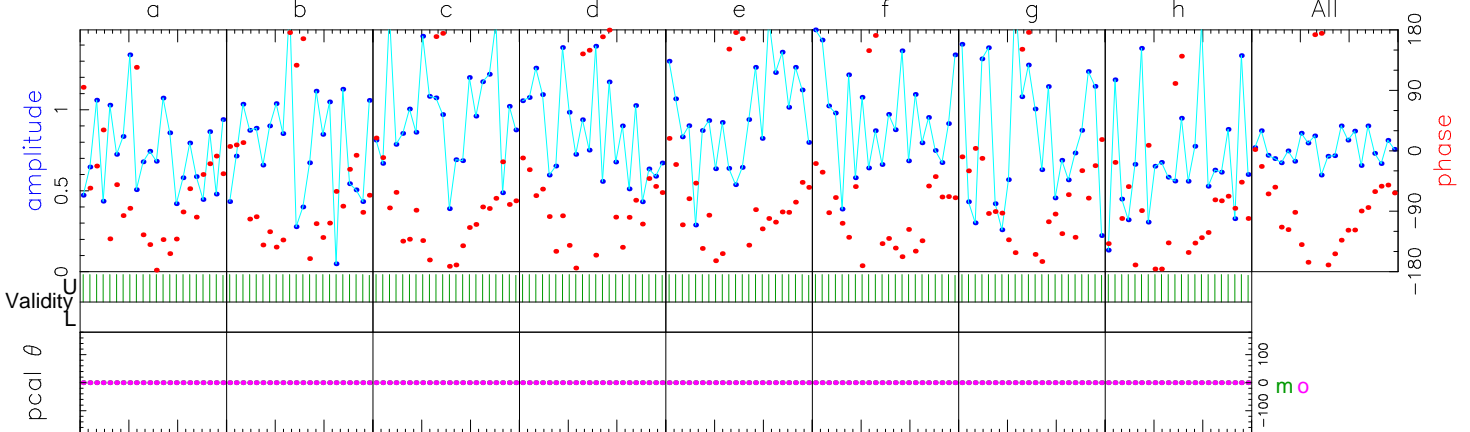
Fringe quality 9

SNR 18.3
 Int time 179.977
 Amp 0.498
 Phase -101.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.003220
 MBD -0.002684
 Fringe rate (Hz)
 -0.001593
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145437
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

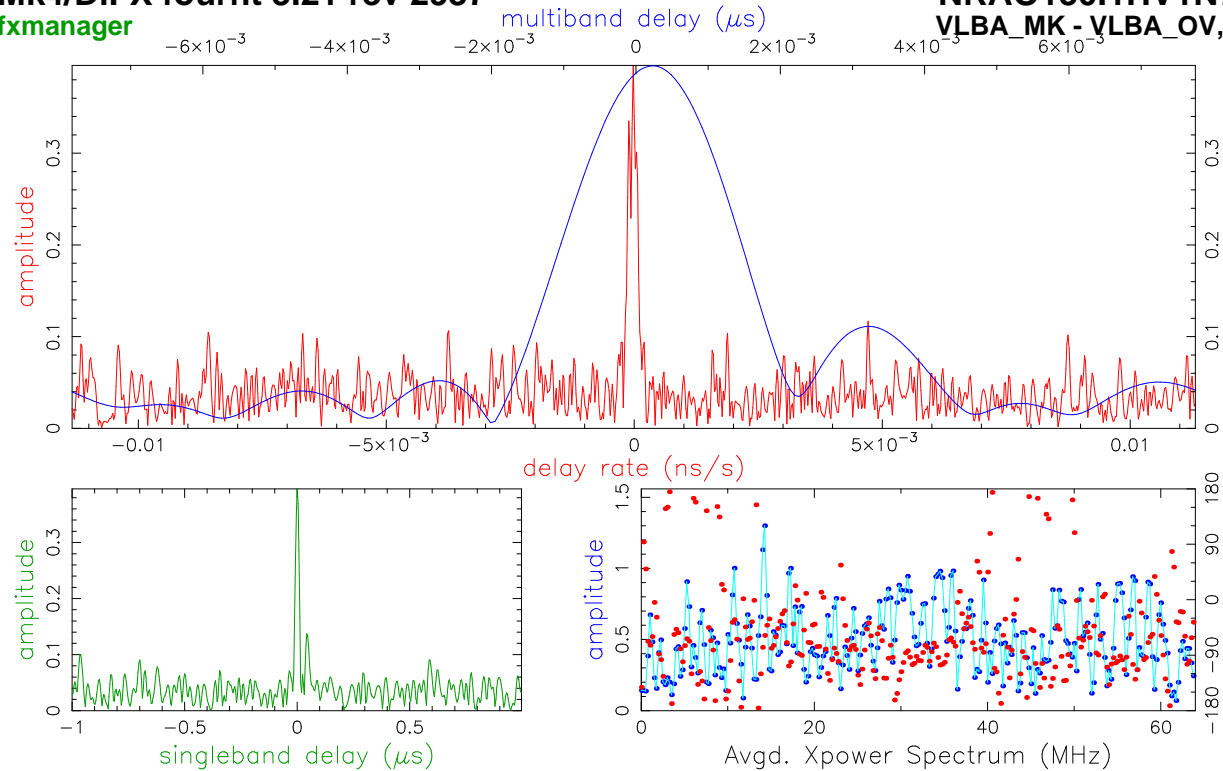


Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



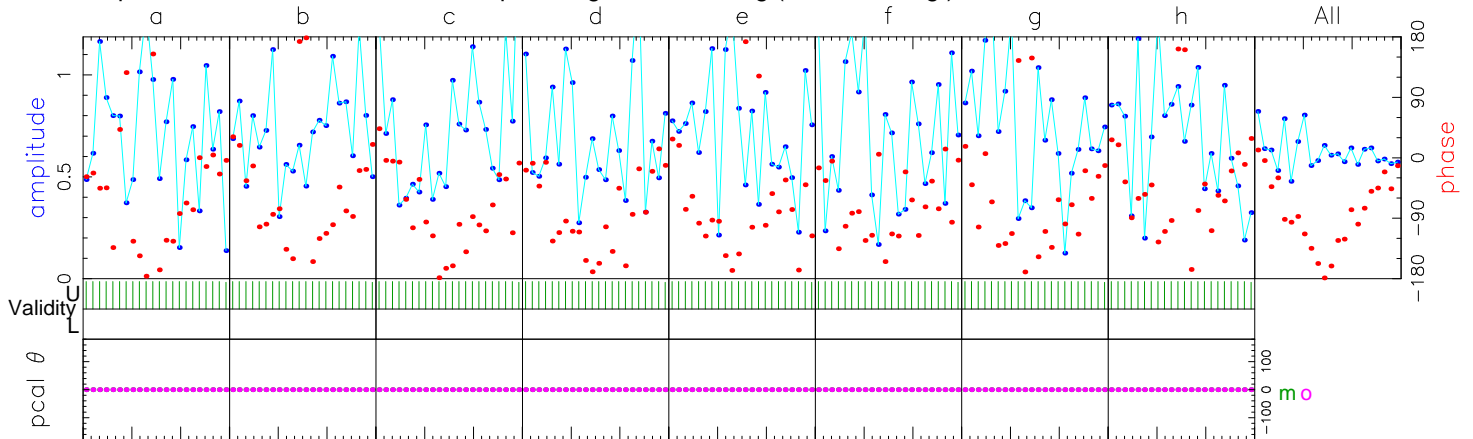
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-86.5	-108.2	-106.7	-108.1	-97.3	-102.5	-95.4	-107.2	Phase	-101.8
	0.4	0.4	0.7	0.5	0.6	0.6	0.4	0.4	Ampl.	0.5
	255.9	255.2	256.2	256.4	256.7	256.1	256.2	255.9	Sbd box	256.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	2.28065393316E+03		Apriori delay (usec)		2.28065661743E+03		Resid mbdelay (usec)		-2.68427E-03	+/- 5.9E-05
Sband delay (usec)	2.28065339718E+03		Apriori clock (usec)		-8.0428619E+00		Resid sbdelay (usec)		-3.22025E-03	+/- 4.7E-04
Phase delay (usec)	2.28065661415E+03		Apriori clockrate (us/s)		1.9999998E-07		Resid phdelay (usec)		-3.28268E-06	+/- 2.0E-07
Delay rate (us/s)	2.71841240751E-01		Apriori rate (us/s)		2.71841259239E-01		Resid rate (us/s)		-1.84877E-08	+/- 1.9E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.54767424322E-05		Resid phase (deg)		-101.8	+/- 6.3

ph/seg (deg) 51.5 14.7 Search (1024X32) 0.484 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 55.8 25.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 8.5 8.9 Inc. seg. avg. 0.738 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 20.2 15.5 Inc. frq. avg. 0.494 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 331.5 el 51.8 pa 134.8 o: az 308.8 el 42.9 pa 80.6 u,v (fr/asec) -2489.557 -4918.372 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mo..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mo.W.172.1HV1N7



Fringe quality 9
SNR 14.5
Int time 179.977
Amp 0.396
Phase -78.4
PFD 2.8e-39
Delays (us)
SBD 0.000456
MBD 0.000240
Fringe rate (Hz) -0.001560
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2021:008:174658
2021:010:145440
2020:247:085004
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

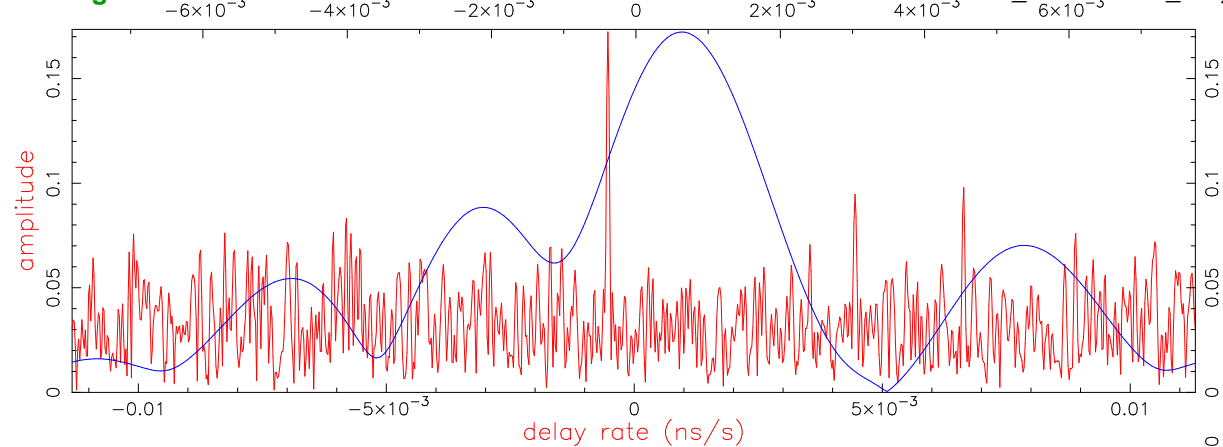


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-82.4	-75.0	-68.5	-73.7	-96.4	-79.1	-79.9	-70.8	Phase	-78.4
	0.3	0.4	0.4	0.4	0.4	0.5	0.4	0.3	Ampl.	0.4
	371.1	257.3	257.7	257.0	257.0	256.7	257.9	256.7	Sbd box	257.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	2.28065685729E+03	Apriori delay (usec)	2.28065661743E+03	Resid mbdelay (usec)	2.39857E-04	+/-	7.5E-05
Sband delay (usec)	2.28065707343E+03	Apriori clock (usec)	-8.0428619E+00	Resid sbdelay (usec)	4.56000E-04	+/-	5.9E-04
Phase delay (usec)	2.28065661490E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-2.52836E-06	+/-	2.5E-07
Delay rate (us/s)	2.71841241125E-01	Apriori rate (us/s)	2.71841259239E-01	Resid rate (us/s)	-1.81136E-08	+/-	2.4E-09
Total phase (deg)	-69.2	Apriori accel (us/s/s)	-3.54767424322E-05	Resid phase (deg)	-78.4	+/-	7.9

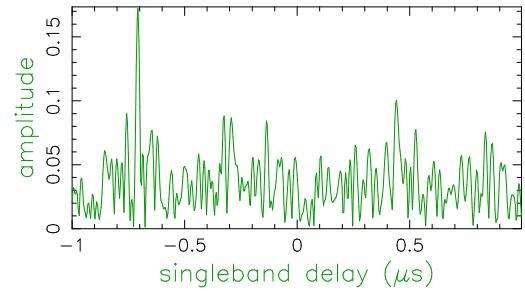
ph/seg (deg)	RMS 52.3	Theor. 18.5	Amplitude Search (1024X32)	0.396 +/- 0.027	0.386	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	61.5	32.3	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	Pcal rate:	sb window (us) -1.000 1.000
ph/frq (deg)	9.4	11.2	Inc. seg. avg.	0.593	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	17.0	19.5	Inc. frq. avg.	0.392	Sample rate(MISamp/s): 128	Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
m: az 331.5 el 51.8 pa 134.8		o: az 308.8 el 42.9 pa 80.6		u,v (fr/asec) -2489.557 -4918.372		ion window (TEC) 0.00 0.00	
simultaneous interpolator							

multiband delay (μ s)

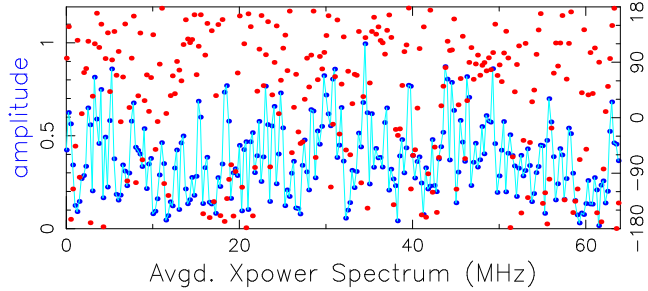


Fringe quality 0

SNR 6.4
Int time 179.977
Amp 0.174
Phase -126.6
PFD 2.7e-02
Delays (us)
SBD -0.708006
MBD 0.000613
Fringe rate (Hz)
-0.045538
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

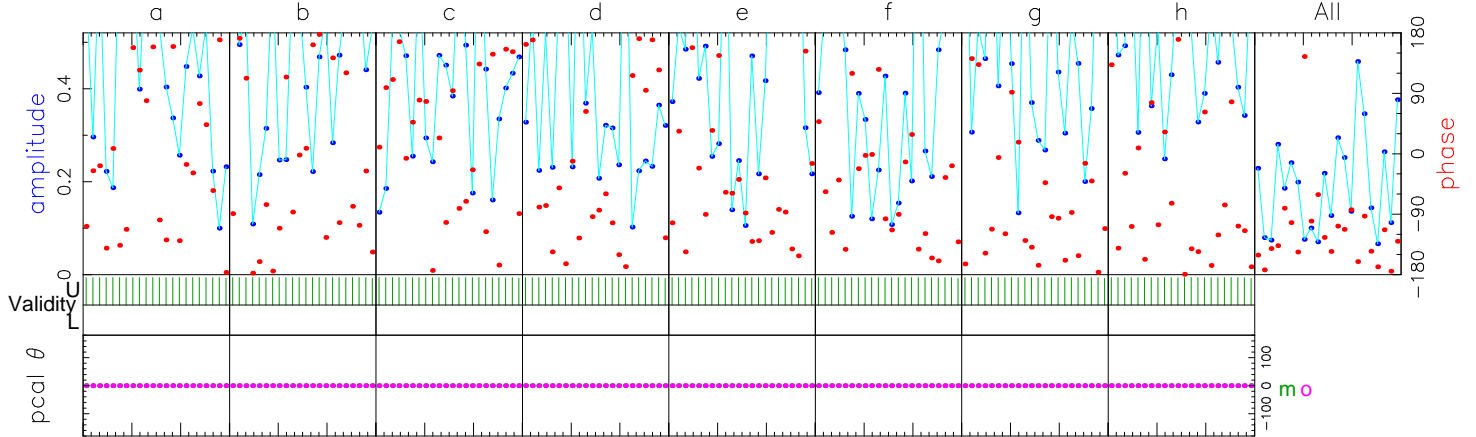


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2021:008:174658
2021:010:145443
2020:247:085004
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



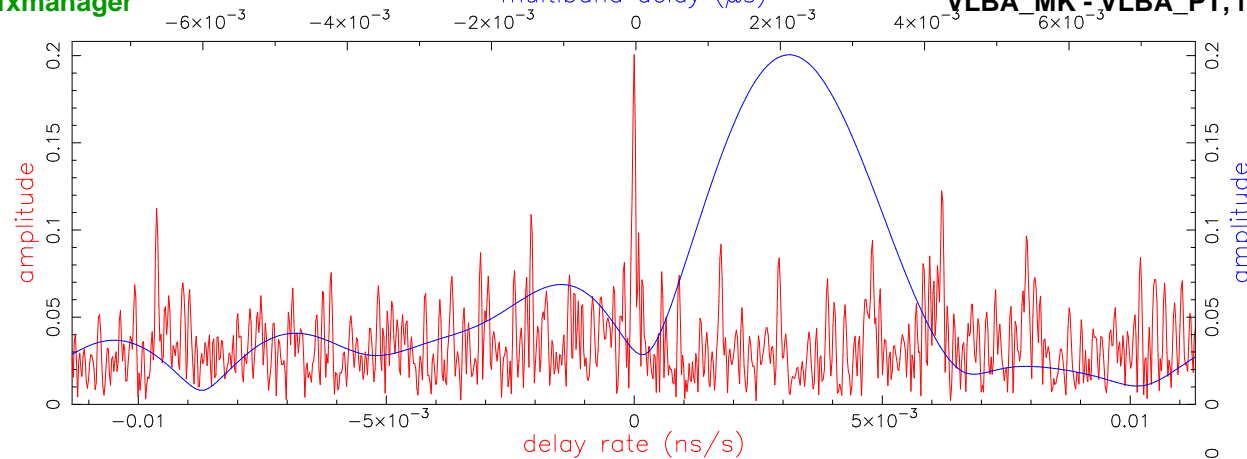
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-124.8	-130.1	142.6	-137.9	-106.7	-85.4	-129.7	-146.3	Phase	-126.6
	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.2	Ampl.	0.2
	114.0	206.1	403.7	73.8	37.1	99.1	77.1	342.7	Sbd box	75.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	2.27995410565E+03	Apriori delay (usec)	2.28065661743E+03	Resid mbdelay (usec)	6.13215E-04	+/-	1.7E-04
Sband delay (usec)	2.27994861118E+03	Apriori clock (usec)	-8.0428619E+00	Resid sbdelay (usec)	-7.08006E-01	+/-	1.4E-03
Phase delay (usec)	2.28065661335E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-4.08176E-06	+/-	5.8E-07
Delay rate (us/s)	2.71840730591E-01	Apriori rate (us/s)	2.71841259239E-01	Resid rate (us/s)	-5.28648E-07	+/-	5.6E-09
Total phase (deg)	-117.4	Apriori accel (us/s/s)	-3.54767424322E-05	Resid phase (deg)	-126.6	+/-	18.0

ph/seg (deg)	RMS 36.1	Theor. 42.3	Amplitude Search (1024X32)	0.174 +/- 0.027	0.168	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	63.5	73.7	Interp.	0.000	0.168	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	42.6	25.5	Inc. seg. avg.	0.155	0.155	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	42.9	44.5	Inc. frq. avg.	0.175	0.175	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

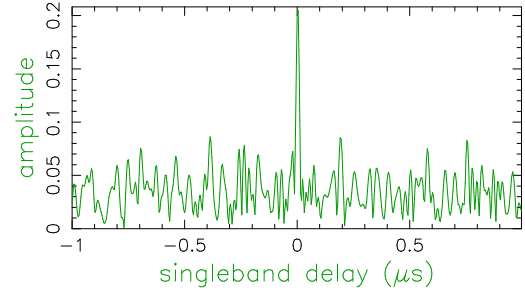
m: az 331.5 el 51.8 pa 134.8 o: az 308.8 el 42.9 pa 80.6 u,v (fr/asec) -2489.557 -4918.372 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mo..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mo.W.230.1HV1N7

multiband delay (μ s)

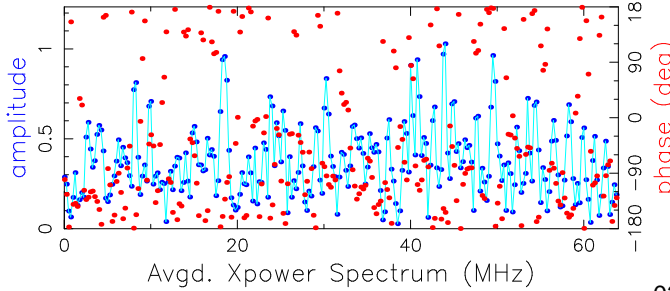


Fringe quality 9

SNR 7.6
Int time 179.977
Amp 0.208
Phase -128.2
PFD 3.6e-06
Delays (us)
SBD 0.002322
MBD 0.002164
Fringe rate (Hz) 0.000537
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

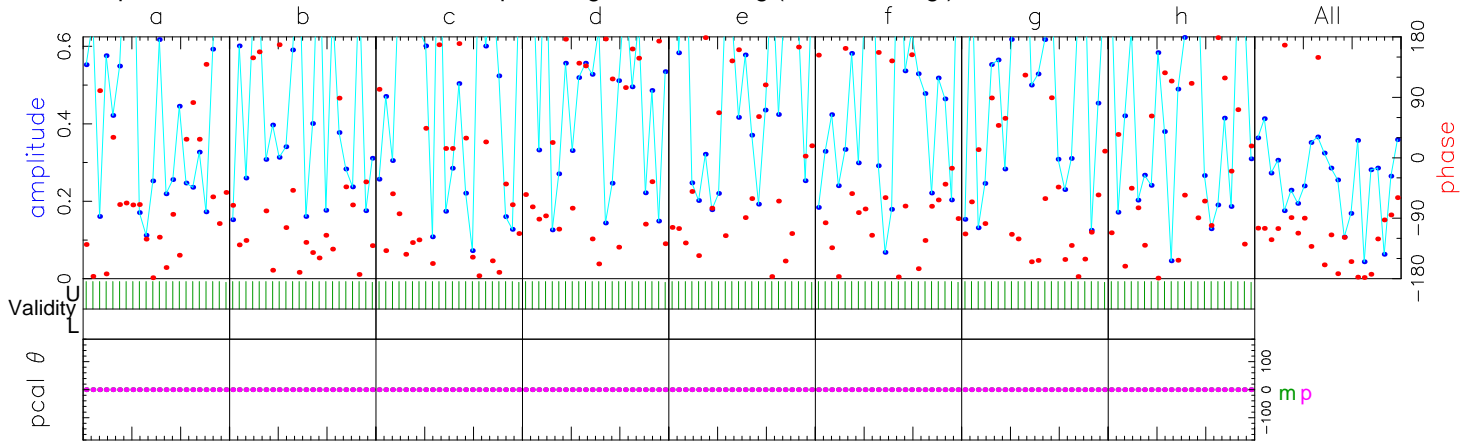


delay rate (ns/s)



Exp. c202a
Yr:day 16383
Start 2020:283
Stop 2020:283
FRT 150300.22
150130.00
Corr/FF/build
2021:008:174658
2021:010:145437
2020:247:085004
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-93.4	-146.5	-142.3	-138.6	-130.5	-116.0	-130.3	-131.4	Phase	-128.2
	0.2	0.3	0.2	0.2	0.3	0.3	0.1	0.1	Ampl.	0.2
	9.2	256.4	258.1	303.2	257.1	257.6	480.2	274.4	Sbd box	257.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.66739142070E+03		Apriori delay (usec)		4.66738925689E+03		Resid mbdelay (usec)		2.16381E-03	+/- 1.4E-04
Sband delay (usec)	4.66739157839E+03		Apriori clock (usec)		1.3305294E+01		Resid sbdelay (usec)		2.32150E-03	+/- 1.1E-03
Phase delay (usec)	4.66738925275E+03		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		-4.13442E-06	+/- 4.8E-07
Delay rate (us/s)	3.45925916211E-01		Apriori rate (us/s)		3.45925909971E-01		Resid rate (us/s)		6.23956E-09	+/- 4.6E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.44255123582E-05		Resid phase (deg)		-128.2	+/- 15.0

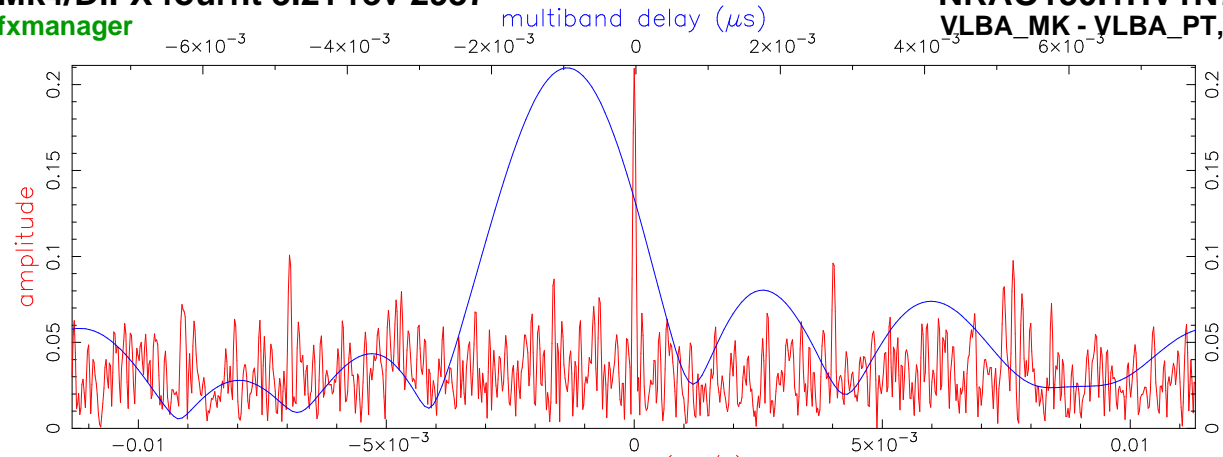
ph/seg (deg) 39.6 35.2 Search (1024X32) 0.198 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 53.1 61.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 18.3 21.2 Inc. seg. avg. 0.218 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 32.3 37.0 Inc. frq. avg. 0.196 Sample rate(MISamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
m: az 331.5 el 51.8 pa 134.8 p: az 312.2 el 34.7 pa 76.4 u,v (fr/asec) -3169.435 -5554.697 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mp..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mp.W.173.1HV1N7

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, mp

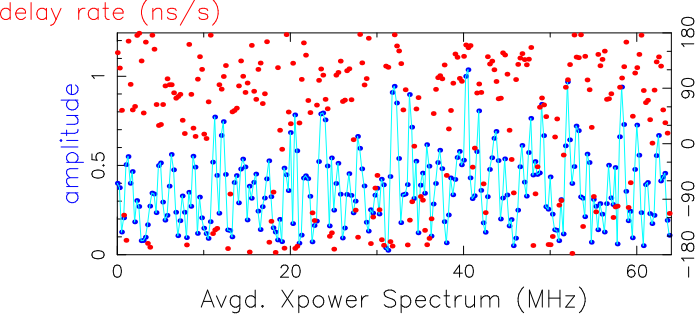
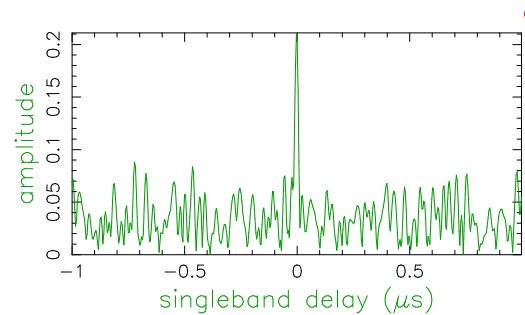
VLBA_MK - VLBA_PT, fgroup W, pol RR



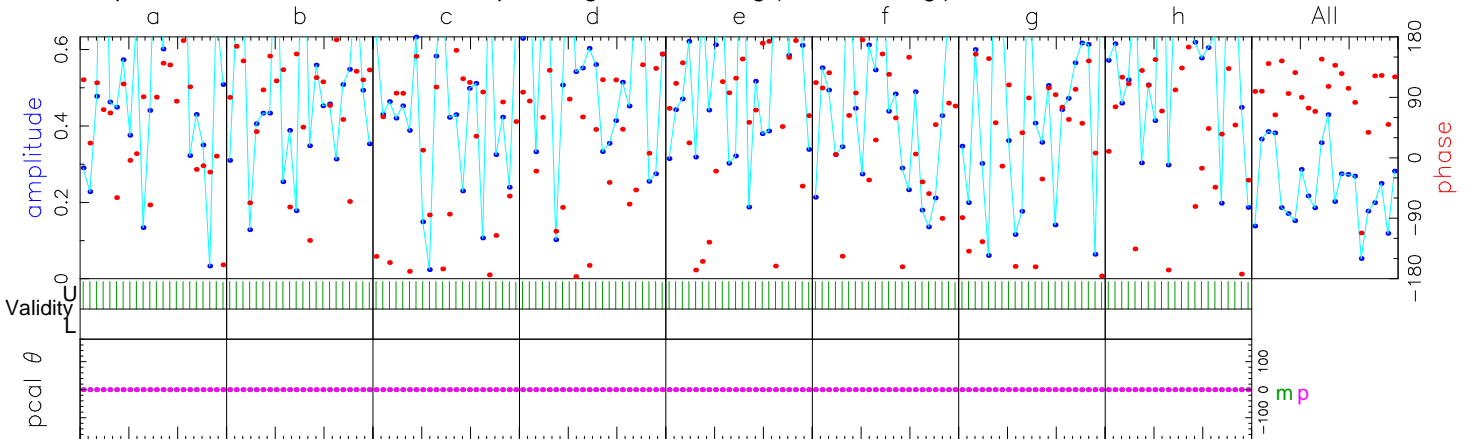
Fringe quality 9

SNR 7.7
 Int time 179.977
 Amp 0.211
 Phase 106.0
 PFD 1.6e-06
 Delays (us)
 SBD -0.002767
 MBD -0.000892
 Fringe rate (Hz) 0.000374
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145439
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	91.0	114.1	141.9	91.7	134.0	83.5	96.9	99.2	Phase	106.0
	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	116.4	256.6	377.8	165.3	401.2	510.2	152.3	234.3	Sbd box	256.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	4.66738836508E+03	Apriori delay (usec)	4.66738925689E+03	Resid mbdelay (usec)	-8.91812E-04	+/-	1.4E-04
Sband delay (usec)	4.66738648989E+03	Apriori clock (usec)	1.3305294E+01	Resid sbdelay (usec)	-2.76700E-03	+/-	1.1E-03
Phase delay (usec)	4.66738926031E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	3.41872E-06	+/-	4.8E-07
Delay rate (us/s)	3.45925914313E-01	Apriori rate (us/s)	3.45925909971E-01	Resid rate (us/s)	4.34204E-09	+/-	4.6E-09
Total phase (deg)	317.8	Apriori accel (us/s/s)	-4.44255123582E-05	Resid phase (deg)	106.0	+/-	14.8

ph/seg (deg)	42.7	Theor.	34.7	Amplitude	0.211 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	47.6	Search (1024X32)	0.208	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	23.1	Inc. seg. avg.	0.206	Inc. frq. avg.	0.208	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	16.7	Inc. frq. avg.	0.208	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011
m: az 331.5 el 51.8 pa 134.8		p: az 312.2 el 34.7 pa 76.4		u,v (fr/asec)	-3169.435 -5554.697	ion window (TEC)	0.00 0.00			simultaneous interpolator	

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mp..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mp.W.193.1HV1N7

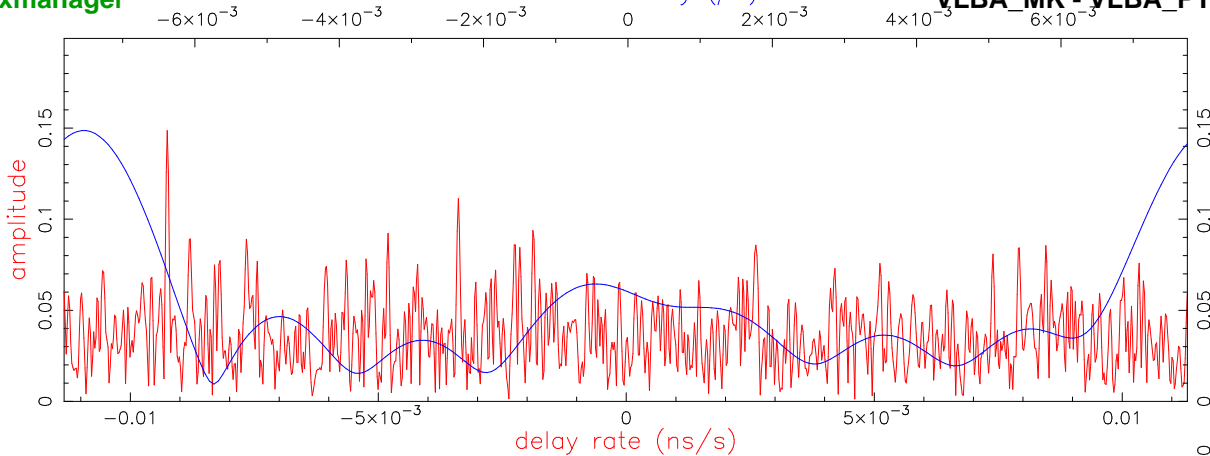
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, mp

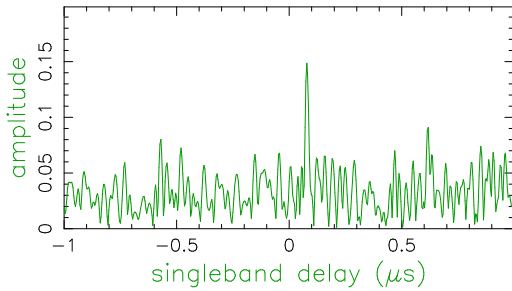
VLBA_MK - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

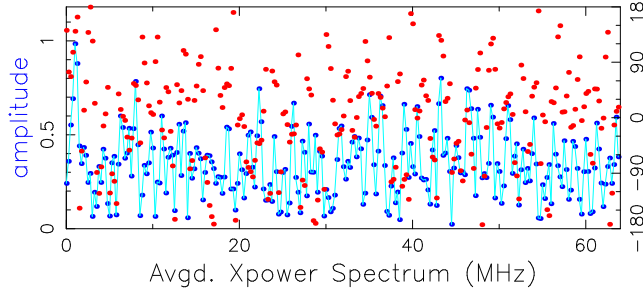


Fringe quality 0

SNR 5.5
 Int time 179.977
 Amp 0.199
 Phase -73.5
 PFD 1.0e+00
 Delays (us)
 SBD 0.078395
 MBD -0.007533
 Fringe rate (Hz)
 -0.799239
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

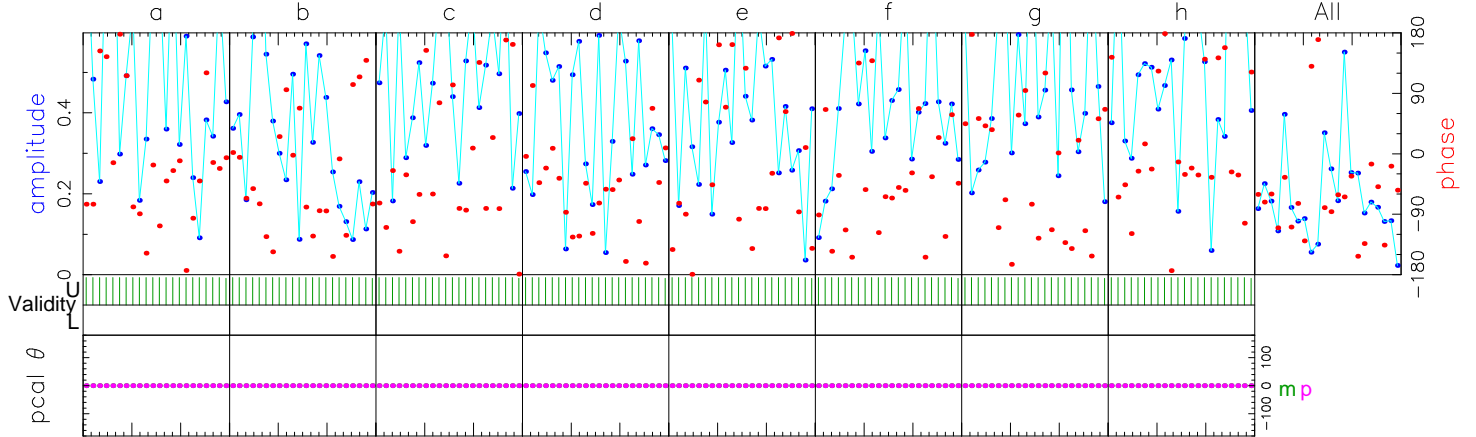


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145441
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-55.4	-70.1	-107.1	-56.6	-131.4	-70.0	-107.2	-43.3	Phase	-73.5
	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.2	Ampl.	0.2
	123.8	314.8	29.4	247.8	447.7	447.8	446.1	329.4	Sbd box	277.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	4.66745984934E+03	Apriori delay (usec)	4.66738925689E+03	Resid mbdelay (usec)	-7.53255E-03	+/-	2.0E-04
Sband delay (usec)	4.66746765139E+03	Apriori clock (usec)	1.3305294E+01	Resid sbdelay (usec)	7.83945E-02	+/-	1.6E-03
Phase delay (usec)	4.66738925452E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-2.36959E-06	+/-	6.8E-07
Delay rate (us/s)	3.45916631602E-01	Apriori rate (us/s)	3.45925909971E-01	Resid rate (us/s)	-9.27837E-06	+/-	6.5E-09
Total phase (deg)	138.3	Apriori accel (us/s/s)	-4.44255123582E-05	Resid phase (deg)	-73.5	+/-	21.0

ph/seg (deg)	RMS 56.0	Theor. 49.3	Amplitude Search (1024X32)	0.199 +/- 0.037	0.147	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	83.5	86.0	Interp.	0.000	0.147	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	34.6	29.7	Inc. seg. avg.	0.191	0.191	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	26.9	51.8	Inc. frq. avg.	0.196	0.196	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

m: az 331.5 el 51.8 pa 134.8 p: az 312.2 el 34.7 pa 76.4 u,v (fr/asec) -3169.435 -5554.697 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mp..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mp.W.211.1HV1N7

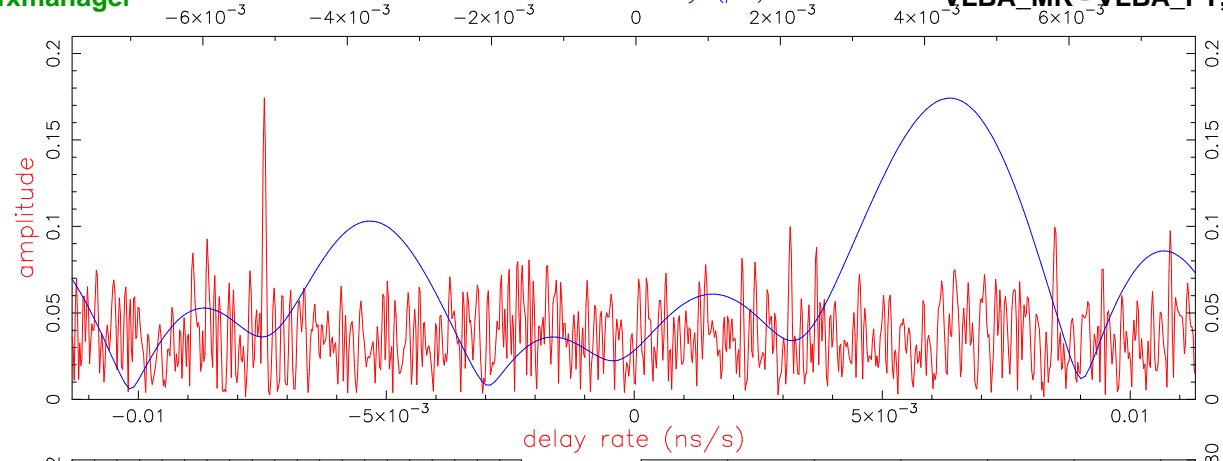
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

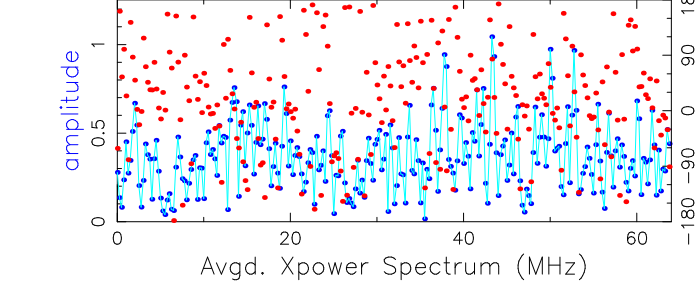
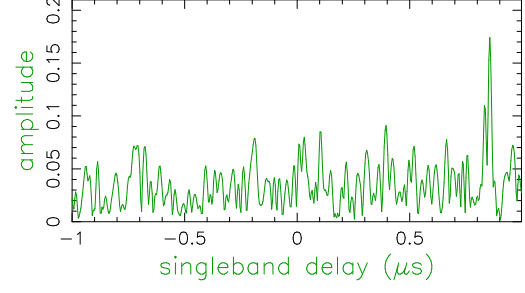
NRAO150.1HV1N7, No0150, mp

VLBA_MK - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

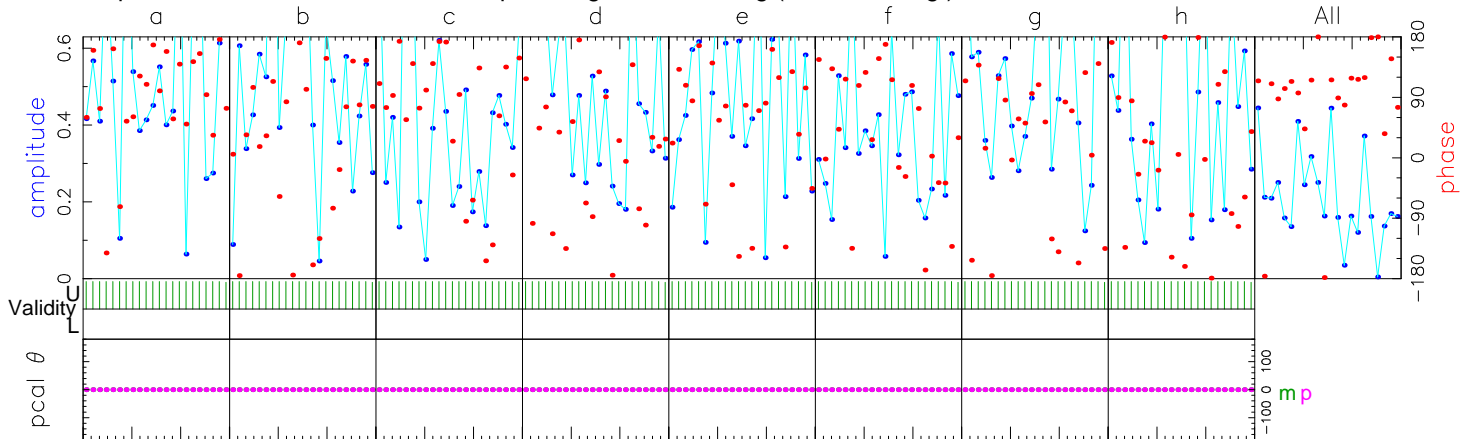


Fringe quality 0
 SNR 6.4
 Int time 179.977
 Amp 0.210
 Phase 115.0
 PFD 2.2e-02
 Delays (us)
 SBD 0.855691
 MBD 0.004358
 Fringe rate (Hz) -0.644403
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145443
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	121.1	114.0	120.7	77.0	109.9	79.3	107.3	-127.0	Phase	115.0
	0.4	0.3	0.3	0.1	0.3	0.1	0.3	0.1	Ampl.	0.2
	475.1	83.5	2.3	113.2	476.4	219.6	476.2	310.3	Sbd box	476.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	4.66823736476E+03	Apriori delay (usec)	4.66738925689E+03	Resid mbdelay (usec)	4.35787E-03	+/-	1.7E-04
Sband delay (usec)	4.66824494839E+03	Apriori clock (usec)	1.3305294E+01	Resid sbdelay (usec)	8.55691E-01	+/-	1.3E-03
Phase delay (usec)	4.66738926060E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	3.70928E-06	+/-	5.8E-07
Delay rate (us/s)	3.45918429087E-01	Apriori rate (us/s)	3.45925909971E-01	Resid rate (us/s)	-7.48088E-06	+/-	5.6E-09
Total phase (deg)	326.8	Apriori accel (us/s/s)	-4.44255123582E-05	Resid phase (deg)	115.0	+/-	17.9

ph/seg (deg)	42.1	Theor.	42.0	Amplitude	0.210 +/- 0.033	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	70.8	Search (1024X32)	0.173	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	52.9	Inc. seg. avg.	0.204	Inc. seg. avg.	0.204	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	59.9	Inc. frq. avg.	0.214	Inc. frq. avg.	0.214	SampCntNorm: enabled	dr window (ns/s) -0.011 0.011
						Sample rate(MISamp/s): 128	ion window (TEC) 0.00 0.00
						Data rate(Mb/s): 2048	
						nlags: 256	
						t_cohere infinite	

m: az 331.5 el 51.8 pa 134.8 p: az 312.2 el 34.7 pa 76.4 u,v (fr/asec) -3169.435 -5554.697 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mp..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mp.W.226.1HV1N7

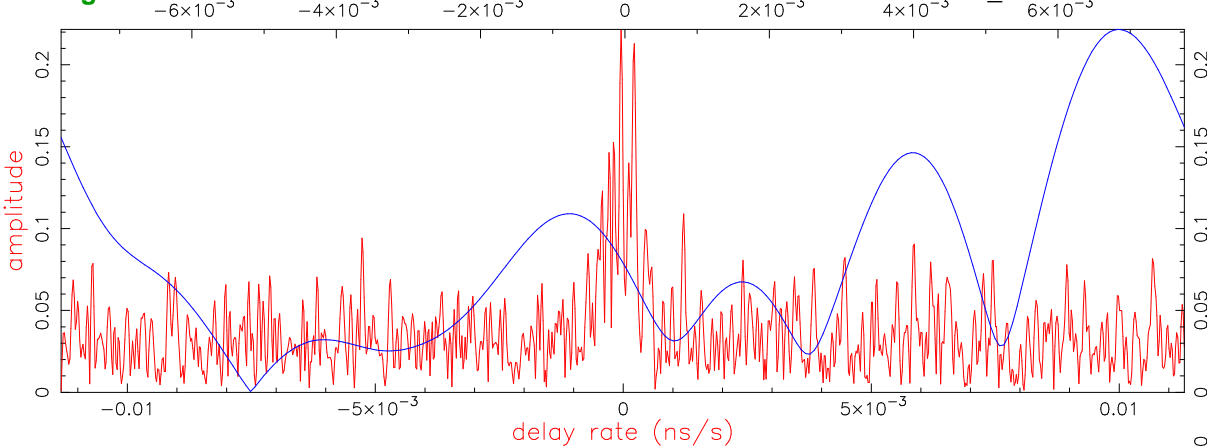
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, mX

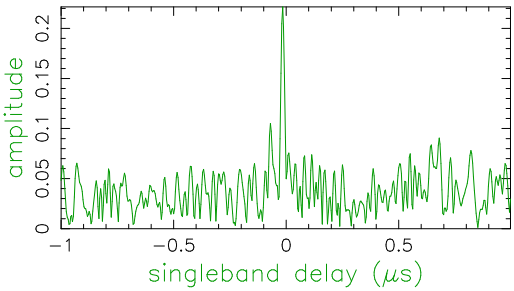
VLBA_MK - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

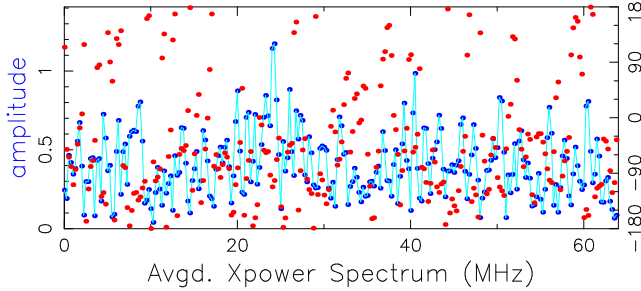


Fringe quality 9

SNR 8.1
 Int time 179.970
 Amp 0.222
 Phase 7.2
 PFD 7.5e-08
 Delays (us)
 SBD -0.015810
 MBD 0.006839
 Fringe rate (Hz)
 -0.004229
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

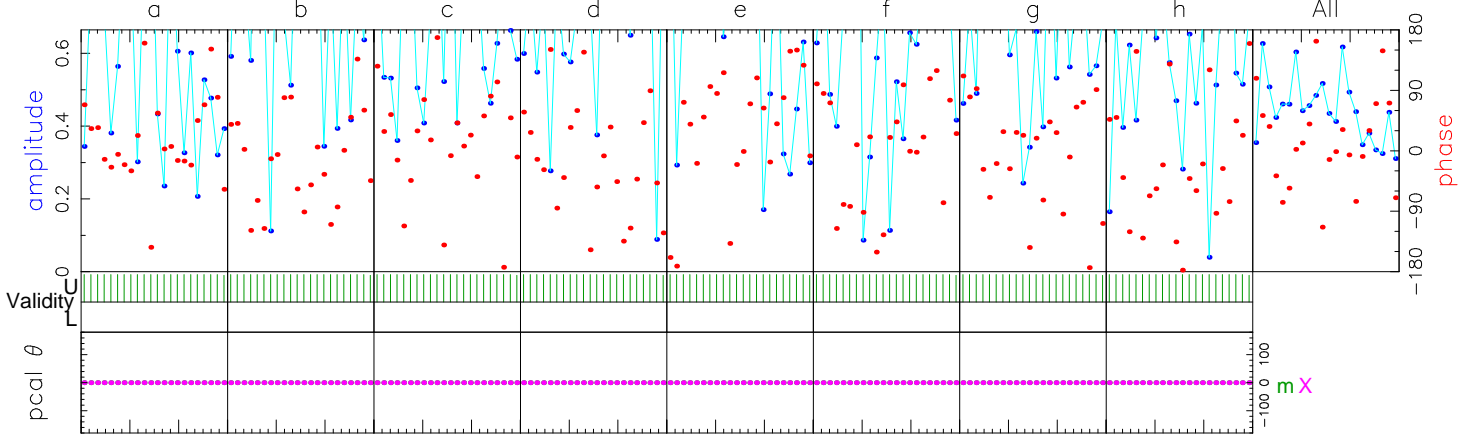


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145438
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	8.1	-25.2	25.4	-18.8	69.4	32.4	14.3	-56.8	Phase	7.2
	0.3	0.4	0.2	0.2	0.3	0.2	0.3	0.2	Ampl.	0.3
	253.4	253.0	251.5	133.2	251.9	250.8	250.6	250.9	Sbd box	253.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	9.71479712216E+03	Apriori delay (usec)	9.71480590813E+03	Resid mbdelay (usec)	6.83903E-03	+/-	1.3E-04
Sband delay (usec)	9.71479009838E+03	Apriori clock (usec)	-3.4942184E+01	Resid sbdelay (usec)	-1.58098E-02	+/-	1.1E-03
Phase delay (usec)	9.71480590836E+03	Apriori clockrate (us/s)	-4.2800003E-07	Resid phdelay (usec)	2.32348E-07	+/-	4.5E-07
Delay rate (us/s)	-5.79192847326E-01	Apriori rate (us/s)	-5.79192798232E-01	Resid rate (us/s)	-4.90945E-08	+/-	4.4E-09
Total phase (deg)	340.8	Apriori accel (us/s/s)	-9.59878510202E-05	Resid phase (deg)	7.2	+/-	14.1

ph/seg (deg)	RMS 70.3	Theor. 33.1	Amplitude Search (1024X32)	0.222 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	110.0	57.7	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)	42.2	19.9	Inc. seg. avg.	0.385	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	34.0	34.8	Inc. frq. avg.	0.259	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
m: az 331.5 el 51.8 pa 134.8	X: az 10.2 el 19.1 pa -8.8	u, v (fr/asec)	5229.004 -12132.794	simultaneous interpolator						

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mX..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mX.W.180.1HV1N7

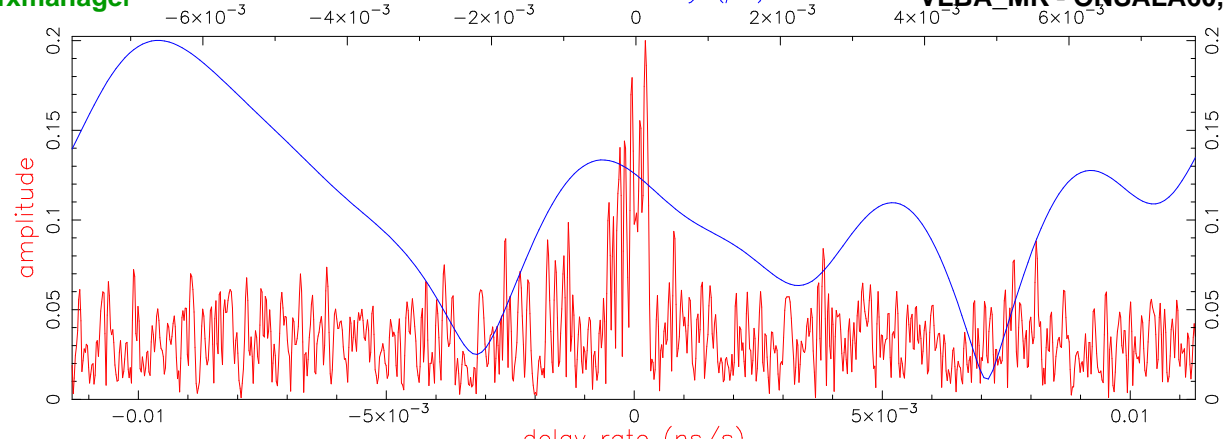
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, mX

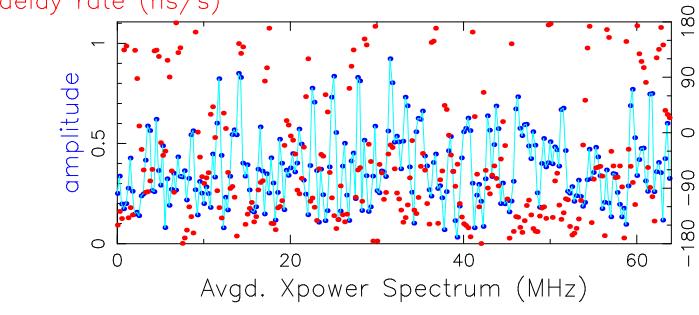
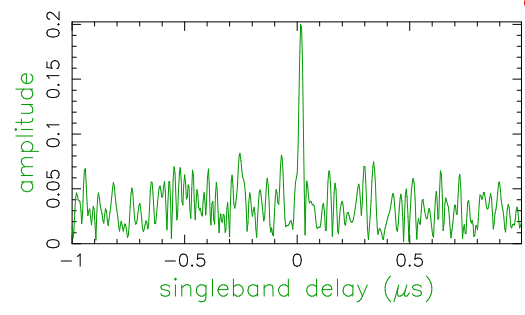
VLBA_MK - ONSALA60, fgroup W, pol RR

multiband delay (μ s)



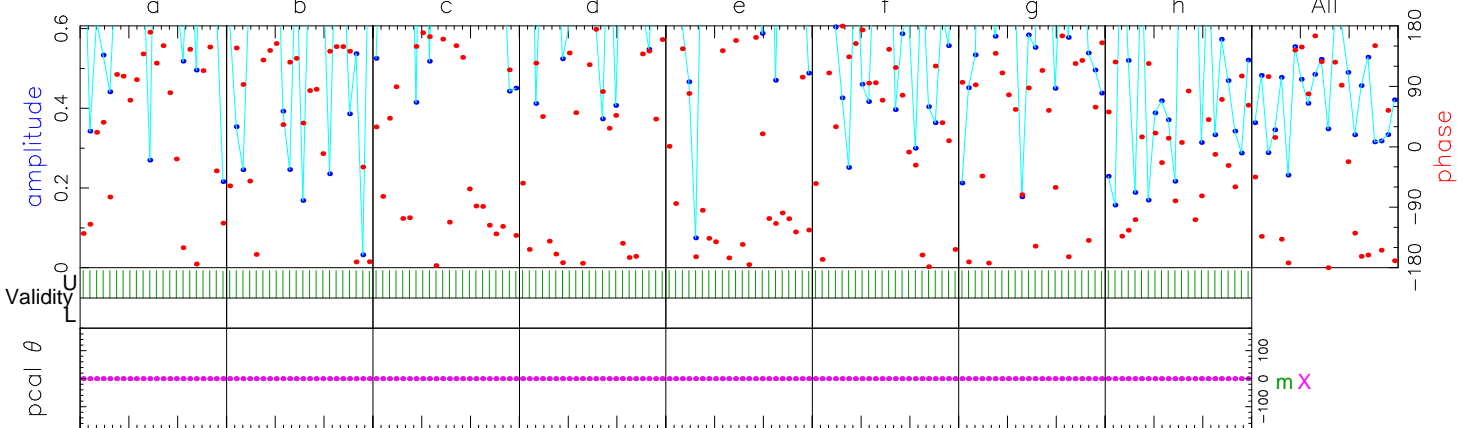
Fringe quality 9

SNR 7.4
 Int time 179.970
 Amp 0.202
 Phase 160.0
 PFD 1.8e-05
 Delays (us)
 SBD 0.017157
 MBD -0.006578
 Fringe rate (Hz) 0.018496
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145440
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	117.0	137.9	-140.9	158.5	-142.9	123.6	123.3	-0.2	Phase	160.0
	0.4	0.3	0.4	0.3	0.4	0.2	0.3	0.2	Ampl.	0.3
	261.0	261.8	261.5	261.0	260.4	134.3	260.2	111.2	Sbd box	261.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	9.71483058004E+03	Apriori delay (usec)	9.71480590813E+03	Resid mbdelay (usec)	-6.57810E-03	+/-	1.5E-04
Sband delay (usec)	9.71482306463E+03	Apriori clock (usec)	-3.4942184E+01	Resid sbdelay (usec)	1.71565E-02	+/-	1.2E-03
Phase delay (usec)	9.71480591329E+03	Apriori clockrate (us/s)	-4.2800003E-07	Resid phdelay (usec)	5.15934E-06	+/-	5.0E-07
Delay rate (us/s)	-5.79192583516E-01	Apriori rate (us/s)	-5.79192798232E-01	Resid rate (us/s)	2.14716E-07	+/-	4.8E-09
Total phase (deg)	133.5	Apriori accel (us/s/s)	-9.59878510202E-05	Resid phase (deg)	160.0	+/-	15.4

ph/seg (deg)	75.7	Theor.	36.2	Amplitude	0.202 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	123.0	Search (1024X32)	0.196	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	79.0	Inc. seg. avg.	0.357	Inc. frq. avg.	0.298	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	72.3	Inc. frq. avg.	0.298	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011
m: az 331.5 el 51.8 pa 134.8	X: az 10.2 el 19.1 pa -8.8	u, v (fr/asec)	5229.004 -12132.794	ion window (TEC)	0.00 0.00	simultaneous interpolator					

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mX..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mX.W.203.1HV1N7

Mk4/DiFX fourfit 3.21 rev 2937

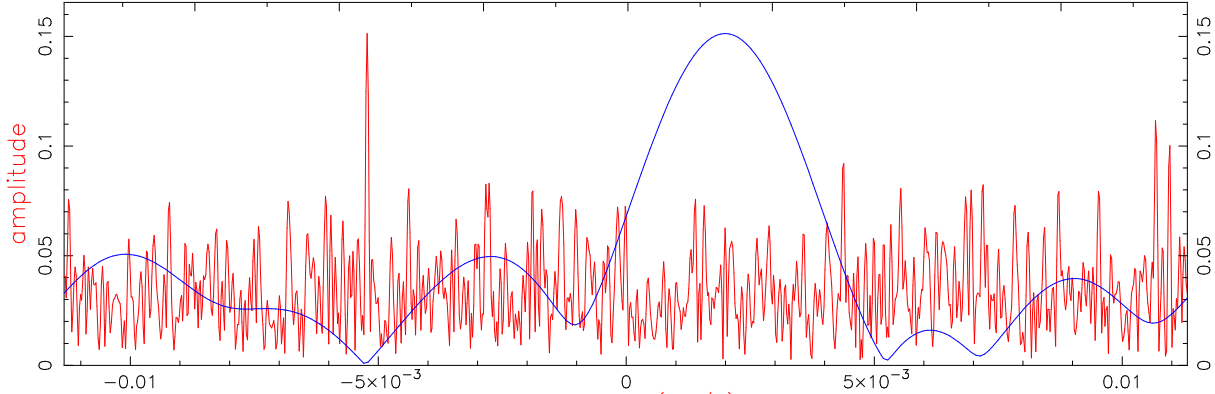
fxmanager

NRAO150.1HV1N7, No0150, mX

VLBA_MK - ONSALA60, fgroup W, pol LR

multiband delay (μ s)

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



Fringe quality 0

SNR 5.6

Int time 179.970

Amp 0.165

Phase 16.4

PFD 9.7e-01

Delays (us)

SBD 0.762014

MBD 0.001363

Fringe rate (Hz)

-0.450488

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202a

Exper # 16383

Yr:day 2020:283

Start 150000.00

Stop 150300.22

FRT 150130.00

Corr/FF/build

2021:008:174658

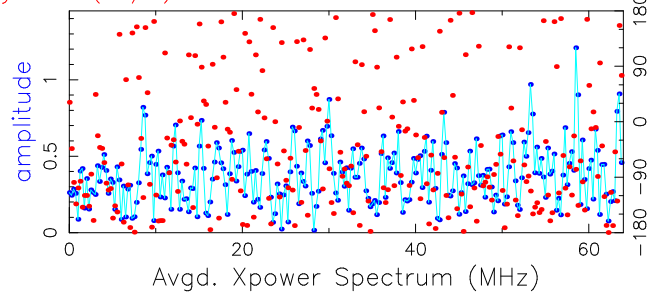
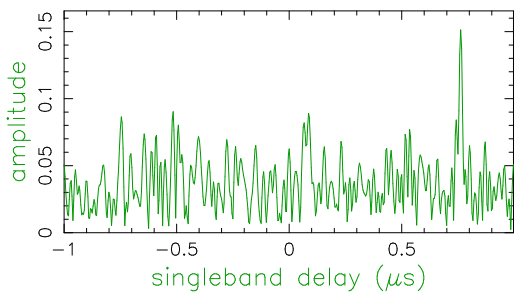
2021:010:145442

2020:247:085004

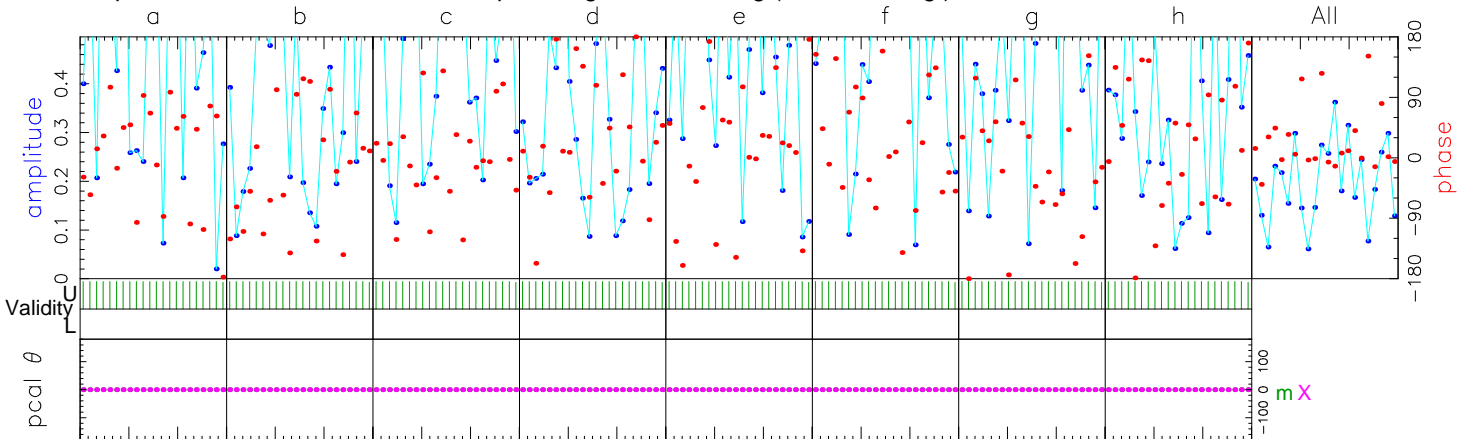
RA & Dec (J2000)

03h59m29.747267s

+50°57'50.161694"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	33.3	3.7	0.1	12.8	29.7	15.0	0.6	60.7	Phase	16.4
	0.3	0.1	0.3	0.1	0.2	0.2	0.2	0.1	Ampl.	0.2
	461.2	93.6	452.0	187.5	425.8	185.9	153.1	240.7	Sbd box	452.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	9.71557289651E+03	Apriori delay (usec)	9.71480590813E+03	Resid mbdelay (usec)	1.36338E-03	+/-	2.0E-04
Sband delay (usec)	9.71556792238E+03	Apriori clock (usec)	-3.4942184E+01	Resid sbdelay (usec)	7.62014E-01	+/-	1.6E-03
Phase delay (usec)	9.71480590866E+03	Apriori clockrate (us/s)	-4.2800003E-07	Resid phdelay (usec)	5.29710E-07	+/-	6.7E-07
Delay rate (us/s)	-5.79198027948E-01	Apriori rate (us/s)	-5.79192798232E-01	Resid rate (us/s)	-5.22972E-06	+/-	6.4E-09
Total phase (deg)	350.0	Apriori accel (us/s/s)	-9.59878510202E-05	Resid phase (deg)	16.4	+/-	20.6

ph/seg (deg)	49.6	Theor.	48.4	Amplitude	0.165 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	62.9	Search (1024X32)	0.148	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	22.8	Inc. seg. avg.	0.161	Inc. frq. avg.	0.152	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	40.1	Inc. frq. avg.	0.152			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

m: az 331.5 el 51.8 pa 134.8 X: az 10.2 el 19.1 pa -8.8 u,v (fr/asec) 5229.004 -12132.794 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mX..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mX.W.218.1HV1N7

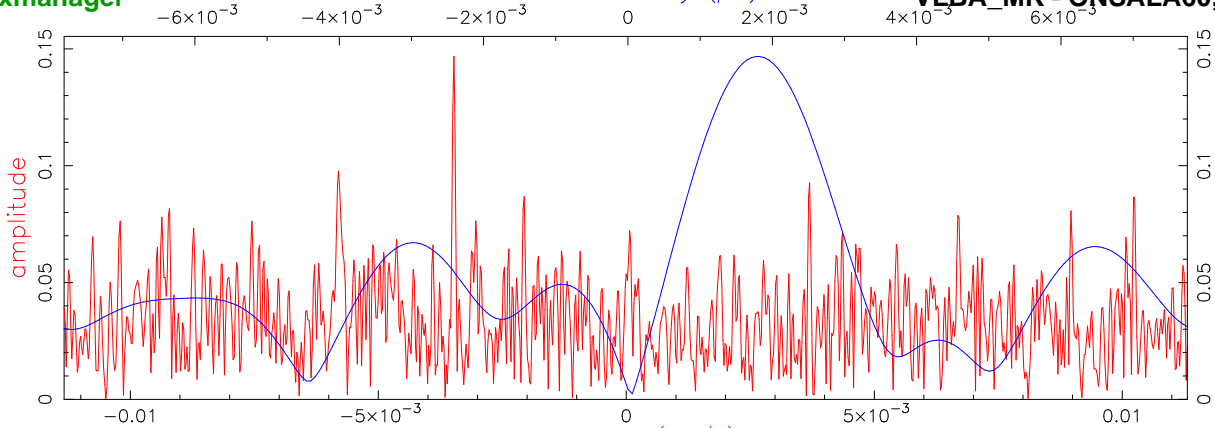
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, mX

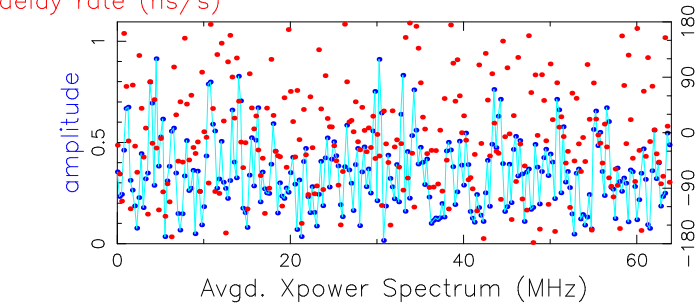
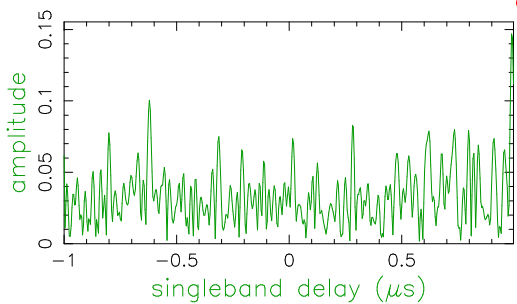
VLBA_MK - ONSALA60, fgroup W, pol RL

multiband delay (μ s)



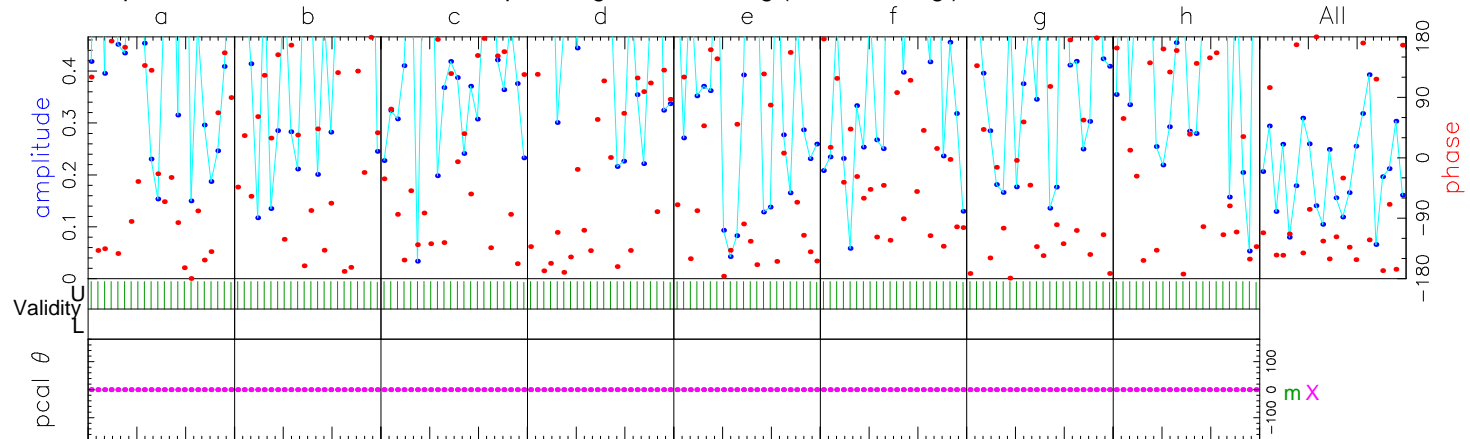
Fringe quality 0

SNR 5.5
 Int time 179.970
 Amp 0.155
 Phase -146.8
 PFD 9.9e-01
 Delays (us)
 SBD 0.989878
 MBD 0.001821
 Fringe rate (Hz)
 -0.299828
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145444
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-146.3	-160.6	-128.2	-170.4	-140.9	-43.0	-152.6	-162.9	Phase	-146.8
	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	Ampl.	0.2
	85.3	406.6	411.9	52.1	99.9	82.1	185.1	33.4	Sbd box	510.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

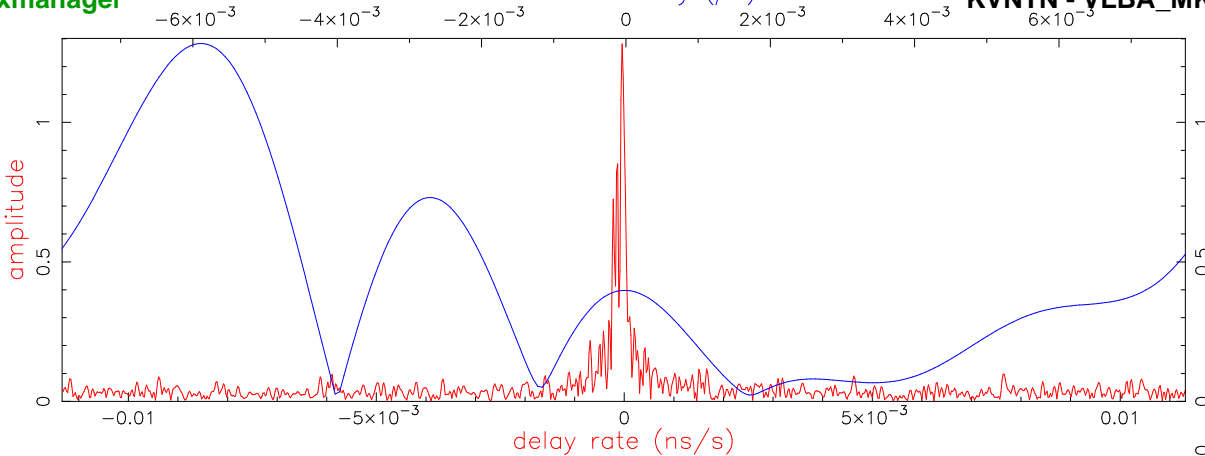
Group delay (usec)(sbd) 9.71579210446E+03 Apriori delay (usec) 9.71480590813E+03 Resid mbdelay (usec) 1.82133E-03 +/- 2.0E-04
 Sband delay (usec) 9.71579578588E+03 Apriori clock (usec) -3.4942184E+01 Resid sbdelay (usec) 9.89878E-01 +/- 1.6E-03
 Phase delay (usec) 9.71480590340E+03 Apriori clockrate (us/s) -4.2800003E-07 Resid phdelay (usec) -4.73425E-06 +/- 6.7E-07
 Delay rate (us/s) -5.79196278937E-01 Apriori rate (us/s) -5.79192798232E-01 Resid rate (us/s) -3.48071E-06 +/- 6.5E-09
 Total phase (deg) 186.7 Apriori accel (us/s/s) -9.59878510202E-05 Resid phase (deg) -146.8 +/- 20.9

RMS Theor. Amplitude 0.155 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 51.4 49.0 Search (1024X32) 0.144 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 68.4 85.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 45.1 29.6 Inc. seg. avg. 0.158 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 29.5 51.6 Inc. frq. avg. 0.153 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

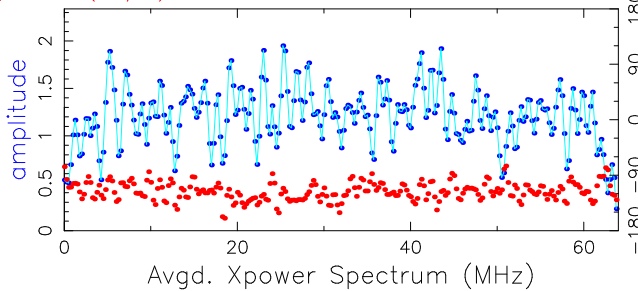
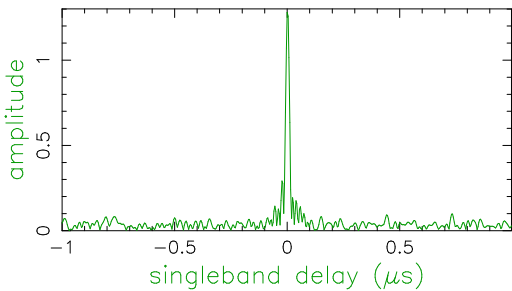
m: az 331.5 el 51.8 pa 134.8 X: az 10.2 el 19.1 pa -8.8 u,v (fr/asec) 5229.004 -12132.794 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/mX..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/mX.W.235.1HV1N7

multiband delay (μ s)

Fringe quality 2

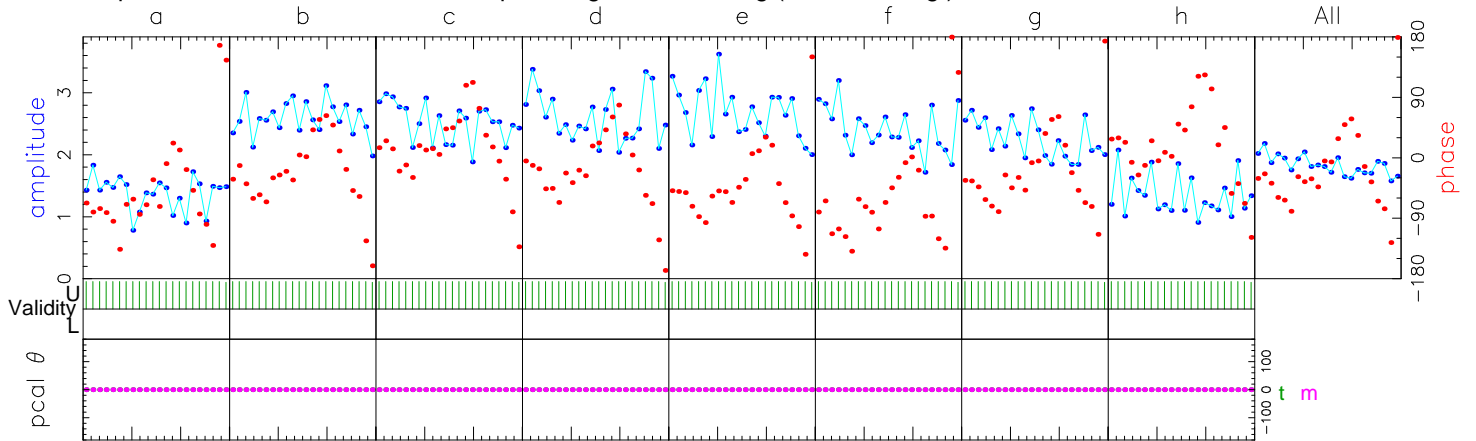


SNR 47.7
Int time 179.977
Amp 1.301
Phase -31.0
PFD 0.0e+00
Delays (us)
SBD 0.001586
MBD -0.005816
Fringe rate (Hz)
-0.003622
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2021:008:174658
2021:010:145438
2020:247:085004
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-74.2	-19.7	16.5	-17.0	-52.9	-82.5	-35.6	17.5	Phase	-31.0
	0.9	1.8	1.8	1.8	2.0	1.6	1.6	0.9	Ampl.	1.5
	259.7	257.9	257.2	256.9	257.3	257.2	257.8	259.7	Sbd box	257.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-4.12250402972E+02	Apriori delay (usec)	-4.12244586654E+02	Resid mbdelay (usec)	-5.81632E-03	+/-	2.3E-05
Sband delay (usec)	-4.12243000904E+02	Apriori clock (usec)	-1.1985000E+01	Resid sbdelay (usec)	1.58575E-03	+/-	1.8E-04
Phase delay (usec)	-4.12244587654E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.00037E-06	+/-	7.7E-08
Delay rate (us/s)	1.05957391856E+00	Apriori rate (us/s)	1.05957396061E+00	Resid rate (us/s)	-4.20458E-08	+/-	7.4E-10
Total phase (deg)	-281.0	Apriori accel (us/s/s)	2.05044846361E-05	Resid phase (deg)	-31.0	+/-	2.4

ph/seg (deg)	53.2	Theor.	5.6	Search (1024X32)	1.281	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	42.6		9.8	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)	40.7		3.4	Inc. seg. avg.	1.825	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	34.4		5.9	Inc. frq. avg.	1.522	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

t: az 48.4 el 49.8 pa -96.1 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -9638.028 3179.756 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/tm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/tm.W.181.1HV1N7

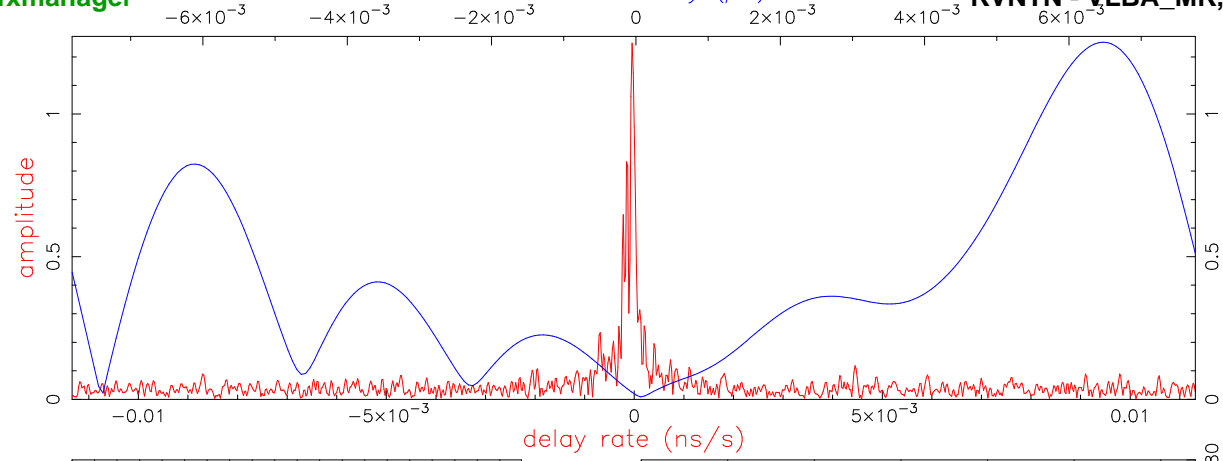
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

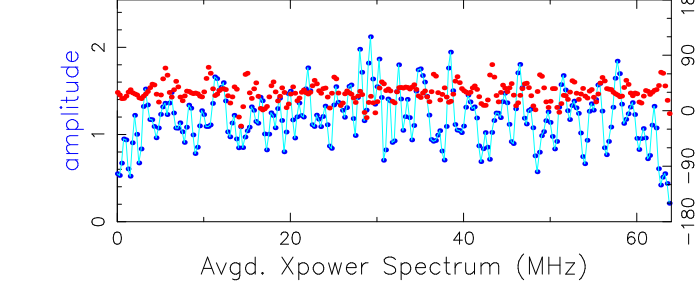
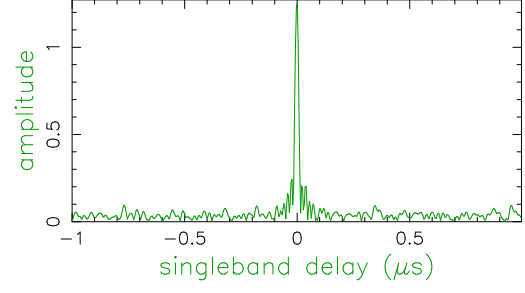
NRAO150.1HV1N7, No0150, tm

KVNTN - VLBA_MK, fgroup W, pol RR

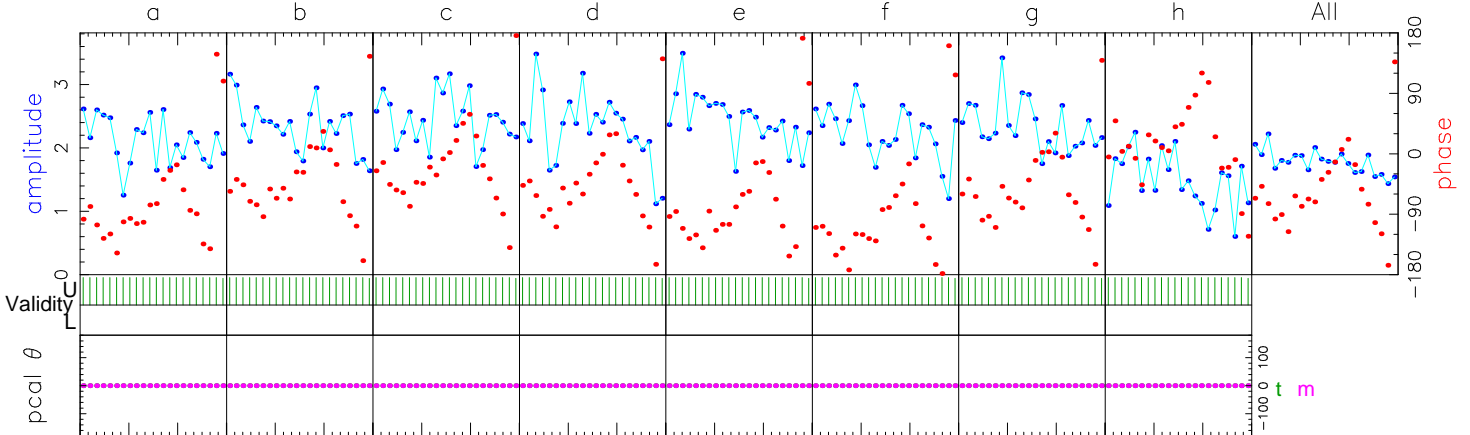
multiband delay (μ s)



Fringe quality 4
 SNR 46.7
 Int time 179.977
 Amp 1.272
 Phase -64.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.001727
 MBD 0.006387
 Fringe rate (Hz) -0.003474
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145440
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-96.2	-49.1	-28.8	-49.8	-96.4	-117.1	-60.3	14.0	Phase	-64.2
	1.5	1.7	1.7	1.7	1.7	1.5	1.6	1.0	Ampl.	1.5
	258.5	256.3	256.4	256.2	256.3	256.3	257.2	259.2	Sbd box	256.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-4.12253824378E+02	Apriori delay (usec)	-4.12244586654E+02	Resid mbdelay (usec)	6.38728E-03	+/-	2.3E-05
Sband delay (usec)	-4.12246313904E+02	Apriori clock (usec)	-1.1985000E+01	Resid sbdelay (usec)	-1.72725E-03	+/-	1.8E-04
Phase delay (usec)	-4.12244588723E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.06983E-06	+/-	7.9E-08
Delay rate (us/s)	1.05957392028E+00	Apriori rate (us/s)	1.05957396061E+00	Resid rate (us/s)	-4.03339E-08	+/-	7.6E-10
Total phase (deg)	-314.1	Apriori accel (us/s/s)	2.05044846361E-05	Resid phase (deg)	-64.2	+/-	2.5

ph/seg (deg)	54.0	Theor.	5.8	Amplitude	1.272 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	42.4	Search (1024X32)	1.238	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	46.0	Inc. seg. avg.	1.770	Inc. frq. avg.	1.538	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	26.6	Inc. frq. avg.	1.538			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

t: az 48.4 el 49.8 pa -96.1 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -9638.028 3179.756 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/tm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/tm.W.197.1HV1N7

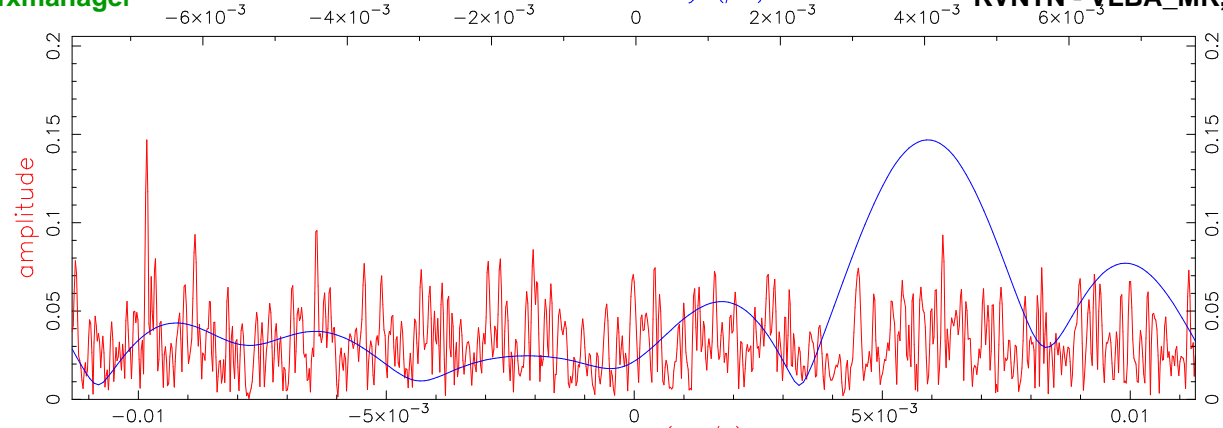
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

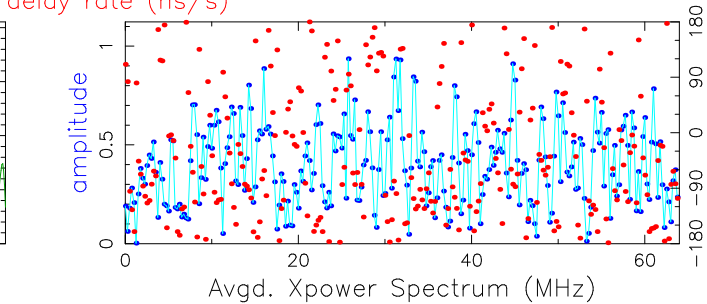
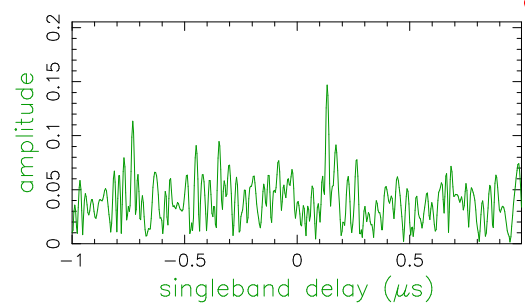
NRAO150.1HV1N7, No0150, tm

KVNTN - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

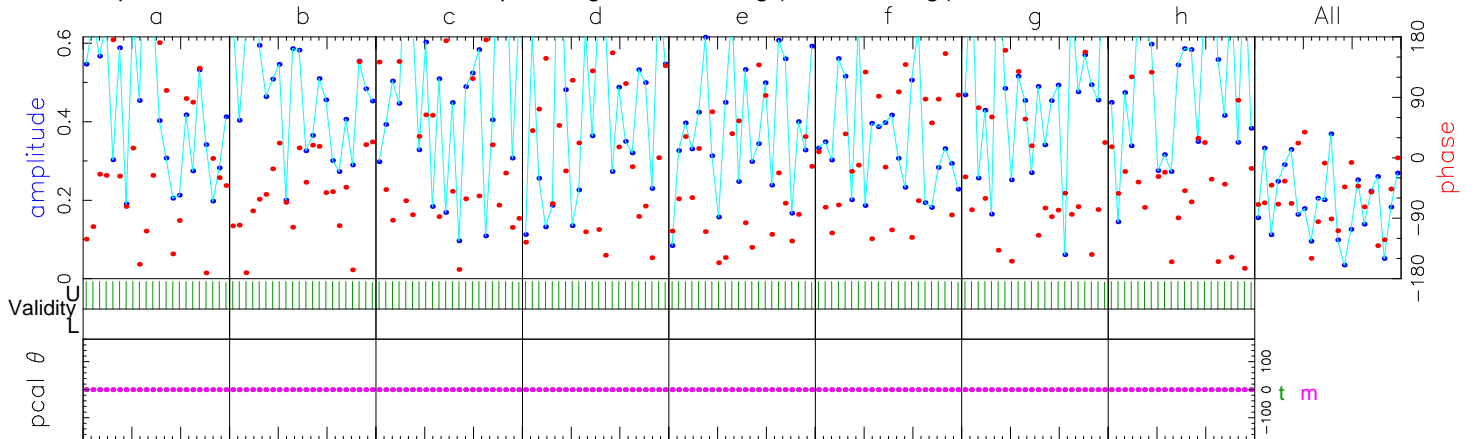


Fringe quality 0
 SNR 5.4
 Int time 179.977
 Amp 0.205
 Phase -56.5
 PFD 1.0e+00
 Delays (us)
 SBD 0.133590
 MBD 0.004060
 Fringe rate (Hz)
 -0.847235
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145441
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-71.2	-50.5	-60.2	-16.0	-41.5	-40.4	-89.0	-50.1	Phase	-56.5
	0.2	0.3	0.3	0.1	0.2	0.1	0.2	0.3	Ampl.	0.2
	203.2	289.9	467.7	326.0	426.5	346.2	167.9	299.3	Sbd box	291.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.12115526854E+02		Apriori delay (usec)		-4.12244586654E+02		Resid mbdelay (usec)		4.05980E-03	+/- 2.0E-04
Sband delay (usec)	-4.12110997154E+02		Apriori clock (usec)		-1.1985000E+01		Resid sbdelay (usec)		1.33590E-01	+/- 1.6E-03
Phase delay (usec)	-4.12244588474E+02		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-1.82045E-06	+/- 6.8E-07
Delay rate (us/s)	1.05956412505E+00		Apriori rate (us/s)		1.05957396061E+00		Resid rate (us/s)		-9.83556E-06	+/- 6.6E-09
Total phase (deg)			Apriori accel (us/s/s)		2.05044846361E-05		Resid phase (deg)		-56.5	+/- 21.2

ph/seg (deg) 47.2 49.7 Search (1024X32) 0.145 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 69.2 86.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.1 30.0 Inc. seg. avg. 0.199 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.7 52.3 Inc. frq. avg. 0.189 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 t: az 48.4 el 49.8 pa -96.1 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -9638.028 3179.756 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/tm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/tm.W.212.1HV1N7

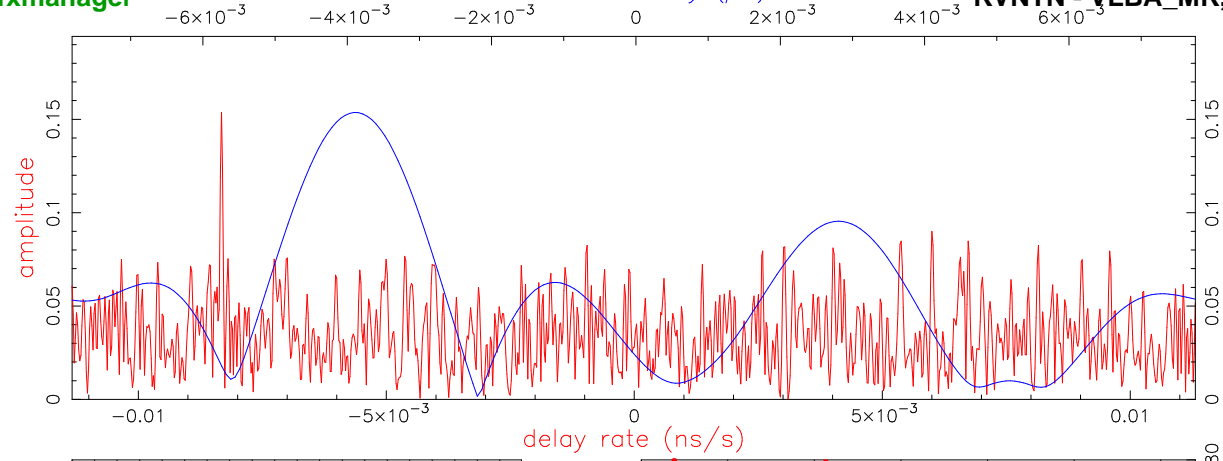
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, tm

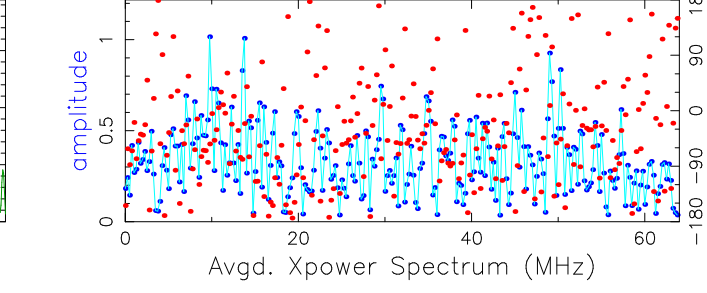
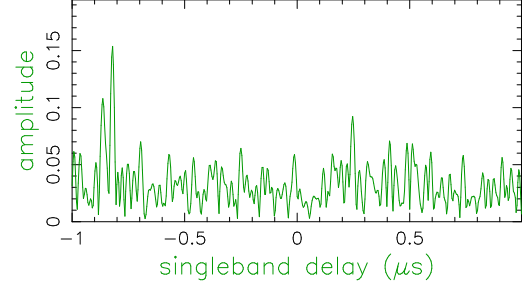
KVNTN - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)



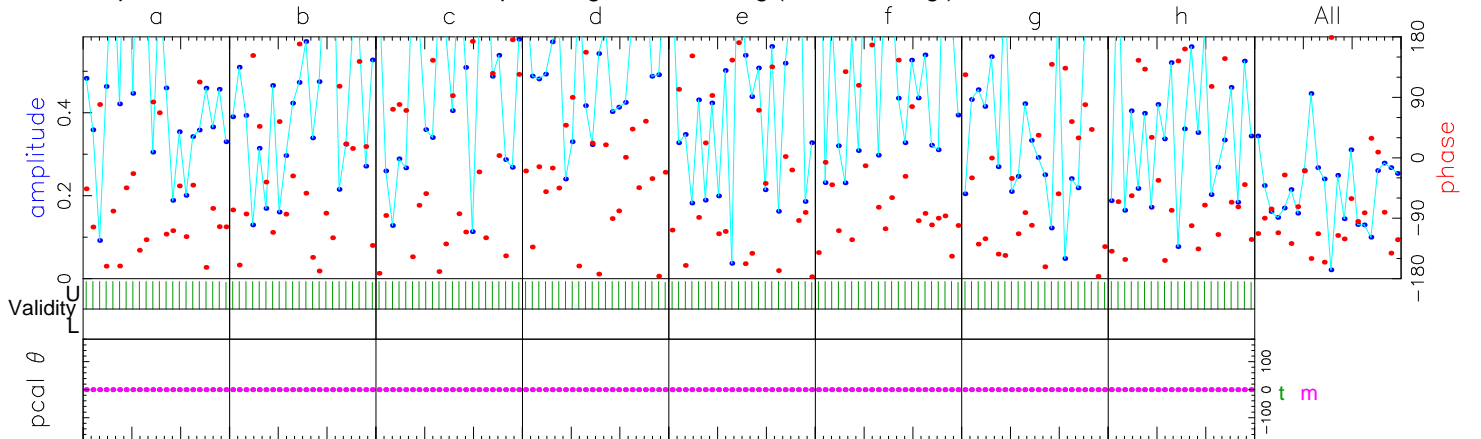
Fringe quality 0

SNR 5.6
 Int time 179.977
 Amp 0.194
 Phase -99.1
 PFD 8.7e-01
 Delays (us)
 SBD -0.820822
 MBD -0.003885
 Fringe rate (Hz)
 -0.718773
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145443
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
t:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:m	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		
m	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-4.13060971559E+02	Apriori delay (usec)		-4.12244586654E+02	Resid mbdelay (usec)		-3.88491E-03	+/- 1.9E-04	
Sband delay (usec)	-4.13065408654E+02	Apriori clock (usec)		-1.1985000E+01	Resid sbdelay (usec)		-8.20822E-01	+/- 1.5E-03	
Phase delay (usec)	-4.12244589850E+02	Apriori clockrate (us/s)		0.0000000E+00	Resid phdelay (usec)		-3.19668E-06	+/- 6.5E-07	
Delay rate (us/s)	1.05956561637E+00	Apriori rate (us/s)		1.05957396061E+00	Resid rate (us/s)		-8.34424E-06	+/- 6.3E-09	
Total phase (deg)	-349.1	Apriori accel (us/s/s)		2.05044846361E-05	Resid phase (deg)		-99.1	+/- 20.3	

ph/seg (deg)	52.2	Theor. 47.6	Amplitude Search (1024X32)	0.148	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000	1.000
amp/seg (%)	71.7	83.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	37.8	28.7	Inc. seg. avg.	0.204	Bits/sample: 2x2		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	38.6	50.1	Inc. frq. avg.	0.202	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00

t: az 48.4 el 49.8 pa -96.1 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -9638.028 3179.756 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/tm...1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/tm.W.229.1HV1N7

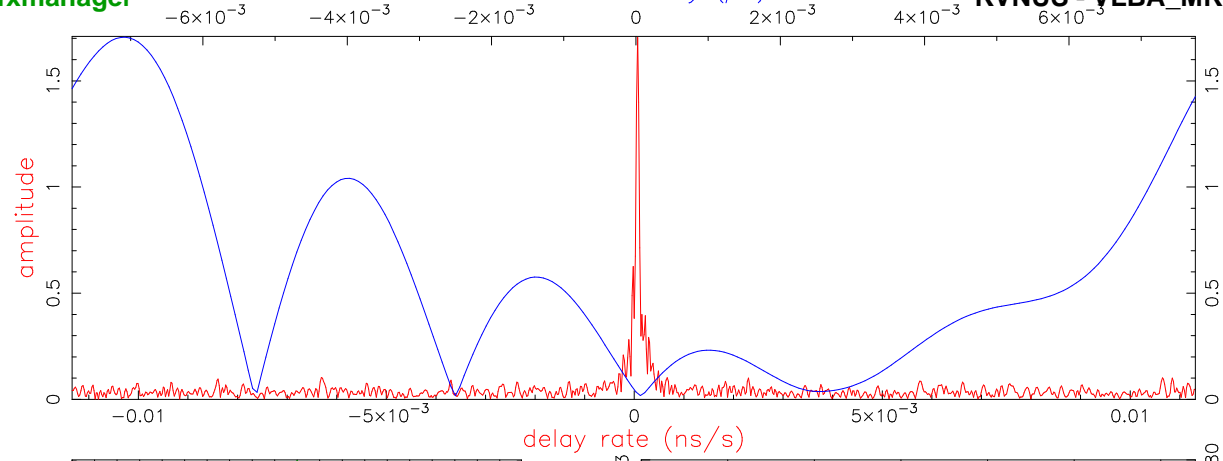
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, um

KVNUS - VLBA_MK, fgroup W, pol LL

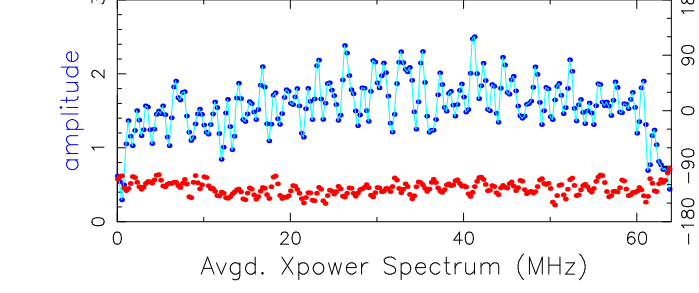
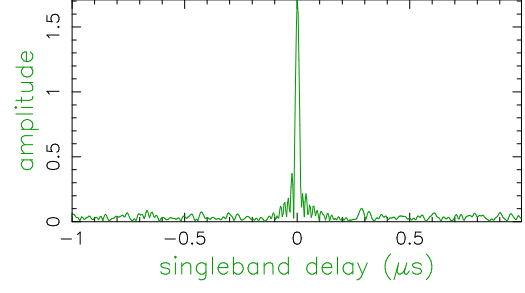
multiband delay (μ s)



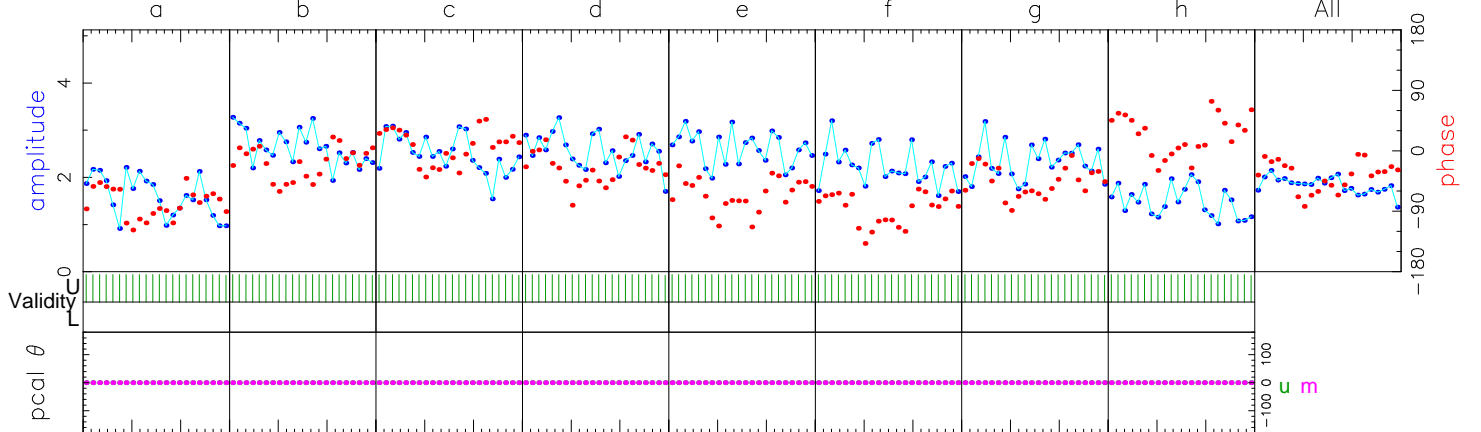
Fringe quality 5

SNR 62.7
 Int time 179.977
 Amp 1.709
 Phase -37.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000673
 MBD -0.007060
 Fringe rate (Hz) 0.005476
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145445
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-78.8	-18.6	6.4	-24.6	-63.8	-86.2	-45.7	22.3	Phase	-37.0
	1.5	2.4	2.3	2.3	2.4	2.1	2.2	1.3	Ampl.	2.1
	259.3	257.6	256.7	256.6	257.0	256.9	257.5	259.2	Sbd box	257.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.28426486644E+02		Apriori delay (usec)		3.28433546307E+02		Resid mbdelay (usec)		-7.05966E-03	+/- 1.7E-05
Sband delay (usec)	3.28434219557E+02		Apriori clock (usec)		-1.0830293E+01		Resid sbdelay (usec)		6.73250E-04	+/- 1.4E-04
Phase delay (usec)	3.28433545114E+02		Apriori clockrate (us/s)		2.9999999E-07		Resid phdelay (usec)		-1.19326E-06	+/- 5.9E-08
Delay rate (us/s)	1.01729924578E+00		Apriori rate (us/s)		1.01729918220E+00		Resid rate (us/s)		6.35732E-08	+/- 5.7E-10
Total phase (deg)	207.4		Apriori accel (us/s/s)		1.94171711387E-05		Resid phase (deg)		-37.0	+/- 1.8

ph/seg (deg) 21.6 4.3 Search (1024X32) 1.673 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 12.3 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) 42.5 2.6 Inc. seg. avg. 1.829 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.9 4.5 Inc. frq. avg. 2.055 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 50.3 el 53.0 pa -96.4 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -9254.272 3254.140 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/um..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/um.W.243.1HV1N7

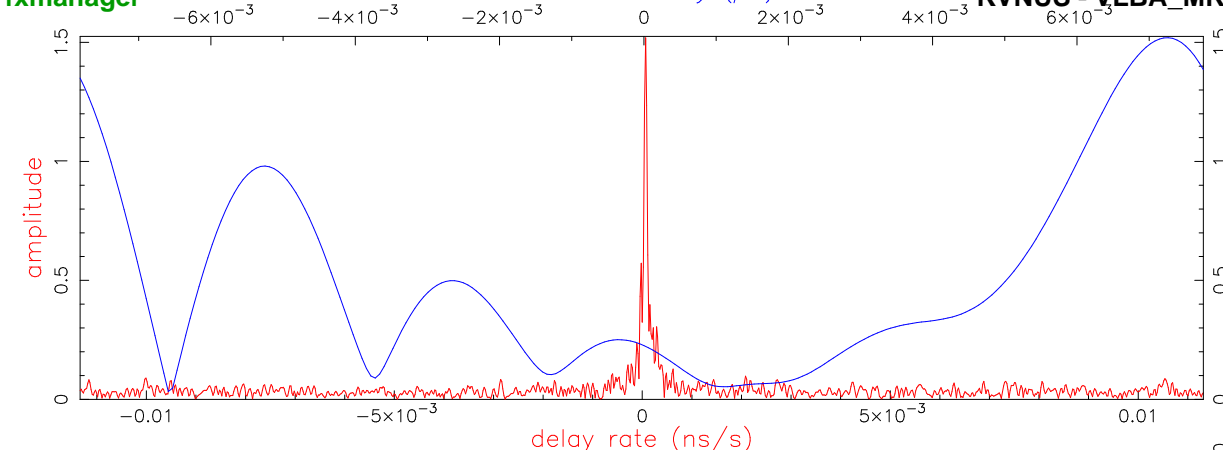
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, um

KVNUS - VLBA_MK, fgroup W, pol RR

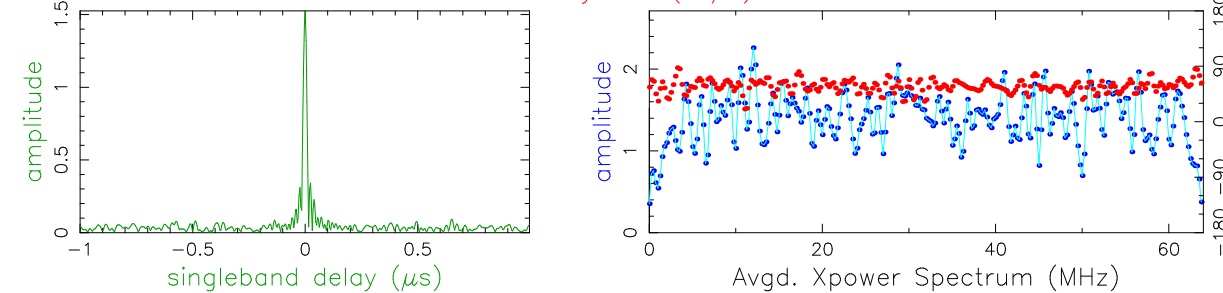
multiband delay (μ s)



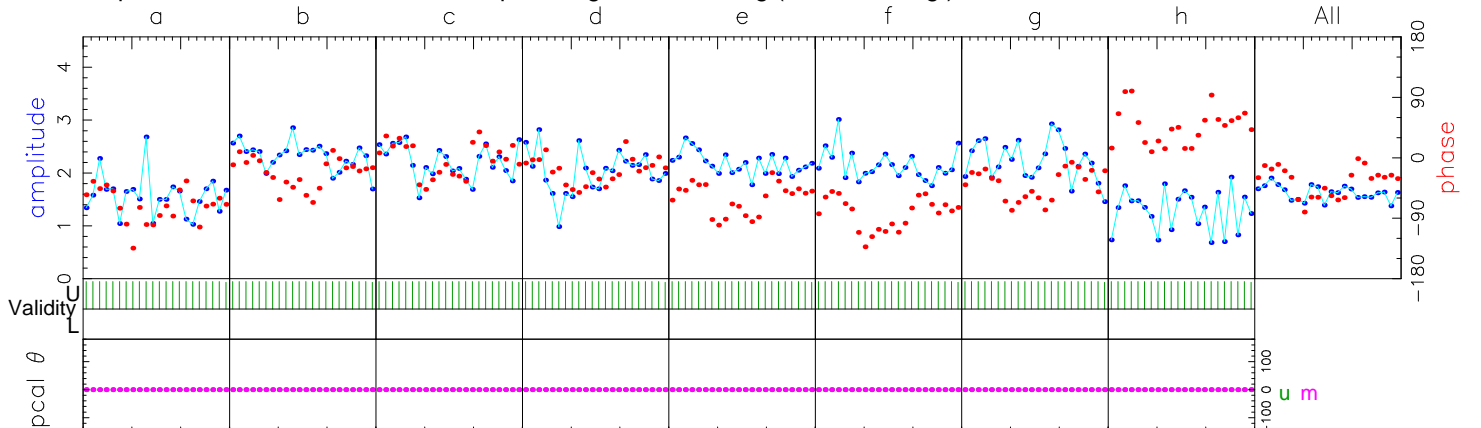
Fringe quality 5

SNR 56.0
 Int time 179.977
 Amp 1.525
 Phase -34.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.000794
 MBD 0.007211
 Fringe rate (Hz) 0.005526
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145447
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-71.6	-22.2	0.5	-18.3	-59.4	-82.1	-39.7	46.8		-34.9
	1.4	2.2	2.0	1.9	2.0	2.0	2.1	1.2	Ampl.	1.8
	258.7	256.8	256.5	256.6	256.5	256.6	257.5	259.3	Sbd box	256.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	3.28425132362E+02	Apriori delay (usec)	3.28433546307E+02	Resid mbdelay (usec)	7.21106E-03	+/-	1.9E-05
Sband delay (usec)	3.28432751807E+02	Apriori clock (usec)	-1.0830293E+01	Resid sbdelay (usec)	-7.94500E-04	+/-	1.5E-04
Phase delay (usec)	3.28433545183E+02	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-1.12416E-06	+/-	6.6E-08
Delay rate (us/s)	1.01729924635E+00	Apriori rate (us/s)	1.01729918220E+00	Resid rate (us/s)	6.41471E-08	+/-	6.3E-10
Total phase (deg)	209.5	Apriori accel (us/s/s)	1.94171711387E-05	Resid phase (deg)	-34.9	+/-	2.0

ph/seg (deg) 21.2 4.8
 amp/seg (%) 11.1 8.4
 ph/frq (deg) 45.8 2.9
 amp/frq (%) 30.3 5.1

RMS Theor. Amplitude 1.525 +/- 0.027
 Search (1024X32) 1.512
 Interp. 0.000
 Inc. seg. avg. 1.621
 Inc. frq. avg. 1.842

Group delay (usec)(sbd) 3.28425132362E+02
 Sband delay (usec) 3.28432751807E+02
 Phase delay (usec) 3.28433545183E+02
 Delay rate (us/s) 1.01729924635E+00
 Total phase (deg) 209.5

Apriori delay (usec) 3.28433546307E+02
 Apriori clock (usec) -1.0830293E+01
 Apriori clockrate (us/s) 2.9999999E-07
 Apriori rate (us/s) 1.01729918220E+00
 Apriori accel (us/s/s) 1.94171711387E-05

Resid mbdelay (usec) 7.21106E-03 +/- 1.9E-05
 Resid sbdelay (usec) -7.94500E-04 +/- 1.5E-04
 Resid phdelay (usec) -1.12416E-06 +/- 6.6E-08
 Resid rate (us/s) 6.41471E-08 +/- 6.3E-10
 Resid phase (deg) -34.9 +/- 2.0

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 PCal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Sample rate(MISamp/s): 128
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

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

u: az 50.3 el 53.0 pa -96.4 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -9254.272 3254.140 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/um..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/um.W.252.1HV1N7

Mk4/DiFX fourfit 3.21 rev 2937

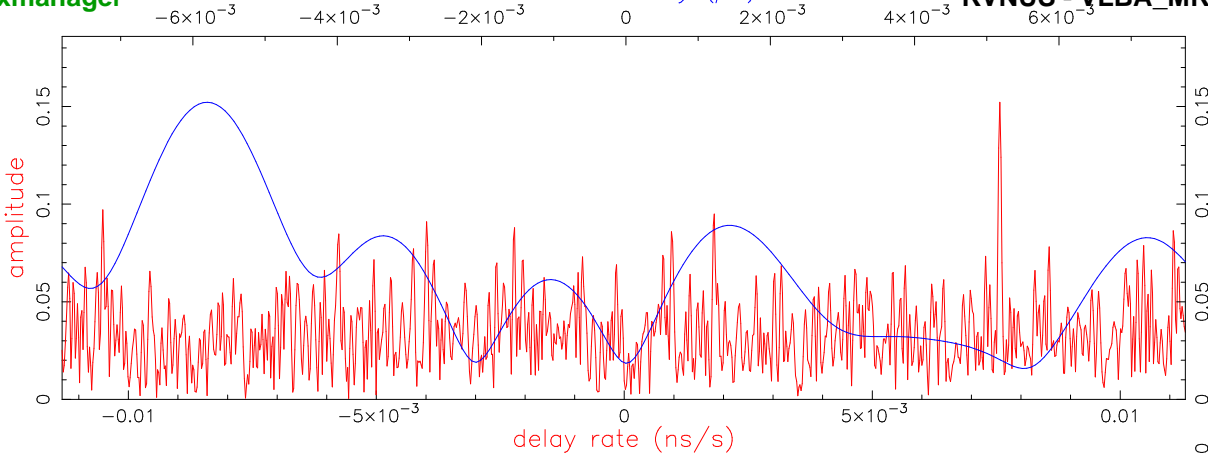
fxmanager

NRAO150.1HV1N7, No0150, um

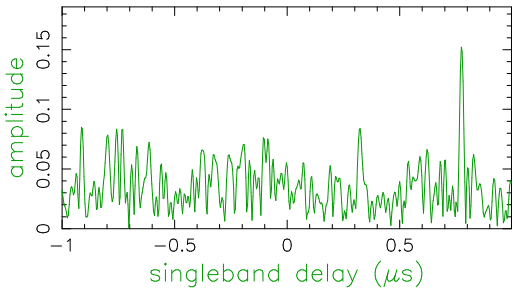
KVNUS - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

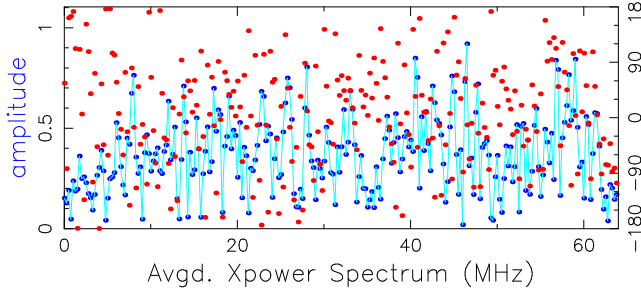
Fringe quality 0



SNR 5.6
 Int time 179.977
 Amp 0.186
 Phase 10.1
 PFD 8.9e-01
 Delays (us)
 SBD 0.774756
 MBD -0.005790
 Fringe rate (Hz)
 0.654110
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

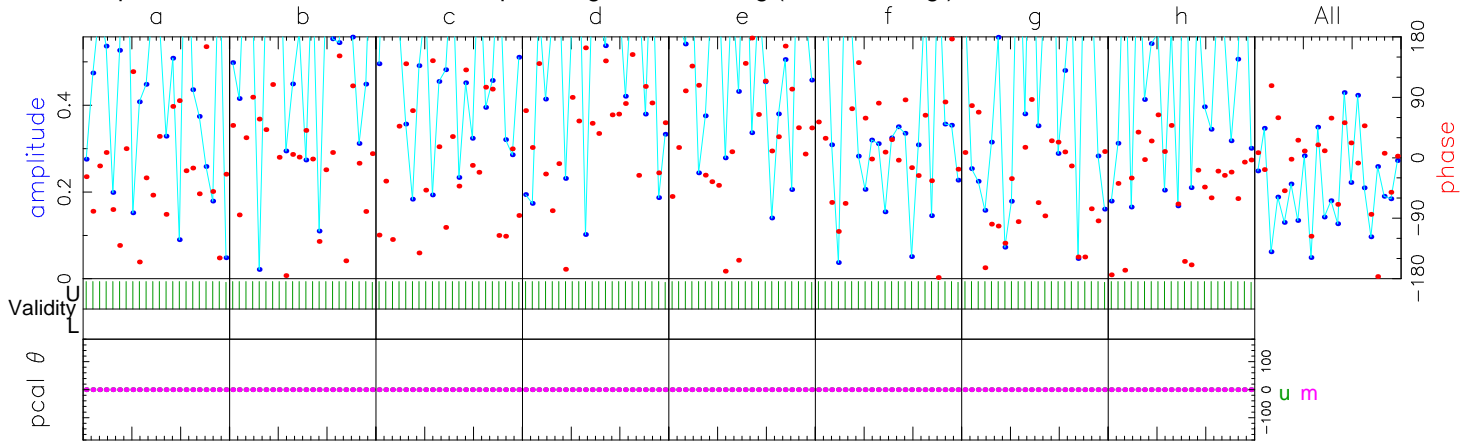


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145449
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-32.2	23.4	-47.4	63.2	50.0	42.5	-34.9	-16.1	Phase	10.1
	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3	Ampl.	0.2
	50.4	456.6	417.8	453.6	407.9	470.4	192.2	455.8	Sbd box	455.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.29209006806E+02		Apriori delay (usec)		3.28433546307E+02		Resid mbdelay (usec)		-5.78950E-03	+/- 1.9E-04
Sband delay (usec)	3.29208302057E+02		Apriori clock (usec)		-1.0830293E+01		Resid sbdelay (usec)		7.74756E-01	+/- 1.5E-03
Phase delay (usec)	3.28433546632E+02		Apriori clockrate (us/s)		2.9999999E-07		Resid phdelay (usec)		3.25183E-07	+/- 6.6E-07
Delay rate (us/s)	1.01730677577E+00		Apriori rate (us/s)		1.01729918220E+00		Resid rate (us/s)		7.59357E-06	+/- 6.3E-09
Total phase (deg)	254.5		Apriori accel (us/s/s)		1.94171711387E-05		Resid phase (deg)		10.1	+/- 20.4

ph/seg (deg) 63.2 47.7 Search (1024X32) 0.150 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 78.1 83.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 47.3 28.8 Inc. seg. avg. 0.194 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 40.8 50.2 Inc. frq. avg. 0.213 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 50.3 el 53.0 pa -96.4 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -9254.272 3254.140 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/um..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/um.W.274.1HV1N7

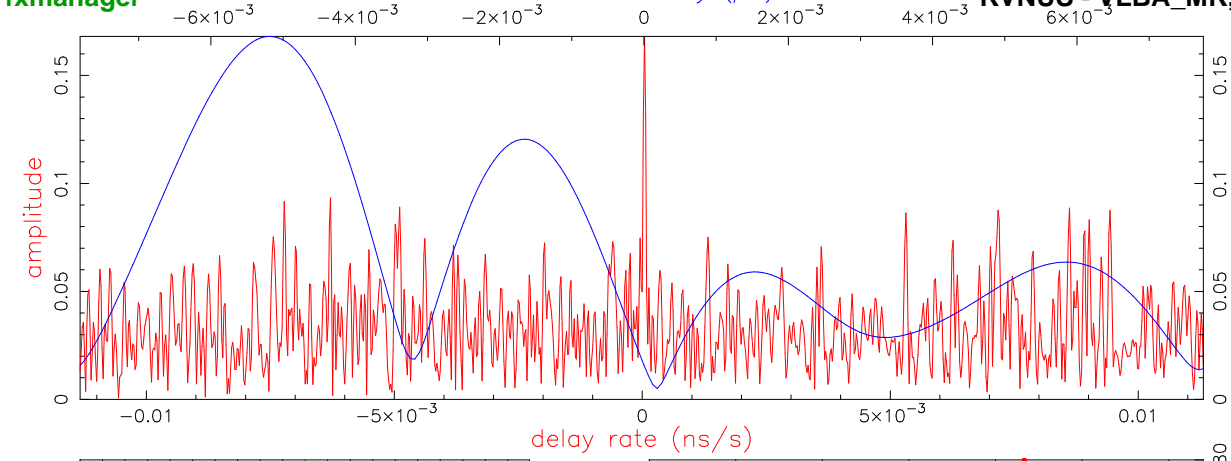
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, um

KVNUS - VLBA_MK, fgroup W, pol RL

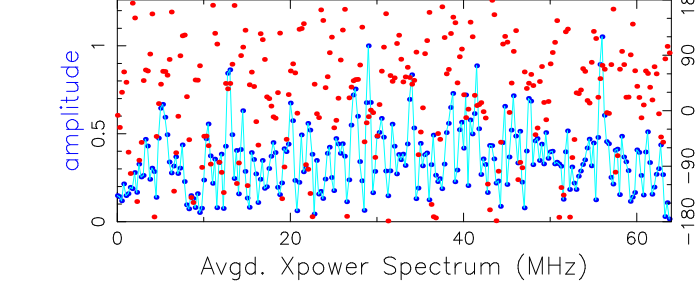
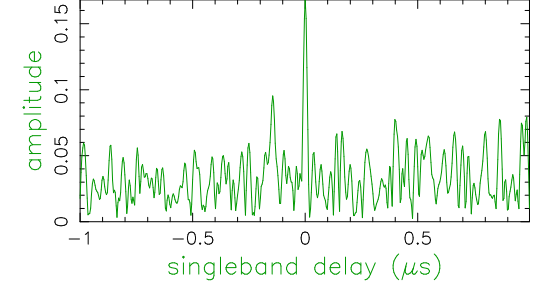
multiband delay (μ s)



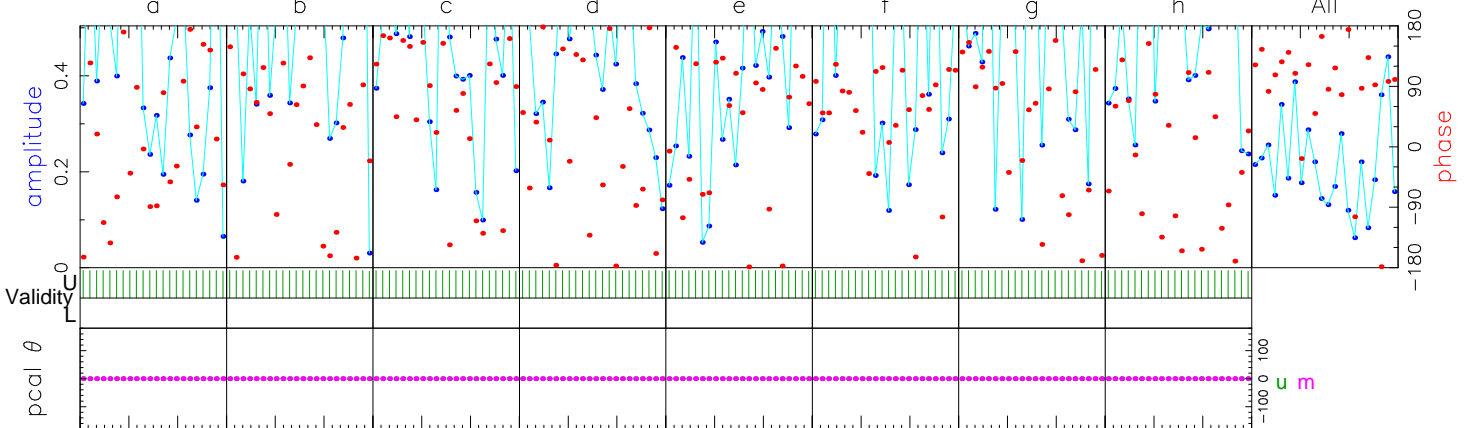
Fringe quality 0

SNR 6.2
 Int time 179.977
 Amp 0.168
 Phase 112.3
 PFD 8.8e-02
 Delays (us)
 SBD 0.000007
 MBD -0.005185
 Fringe rate (Hz) 0.004567
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145451
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



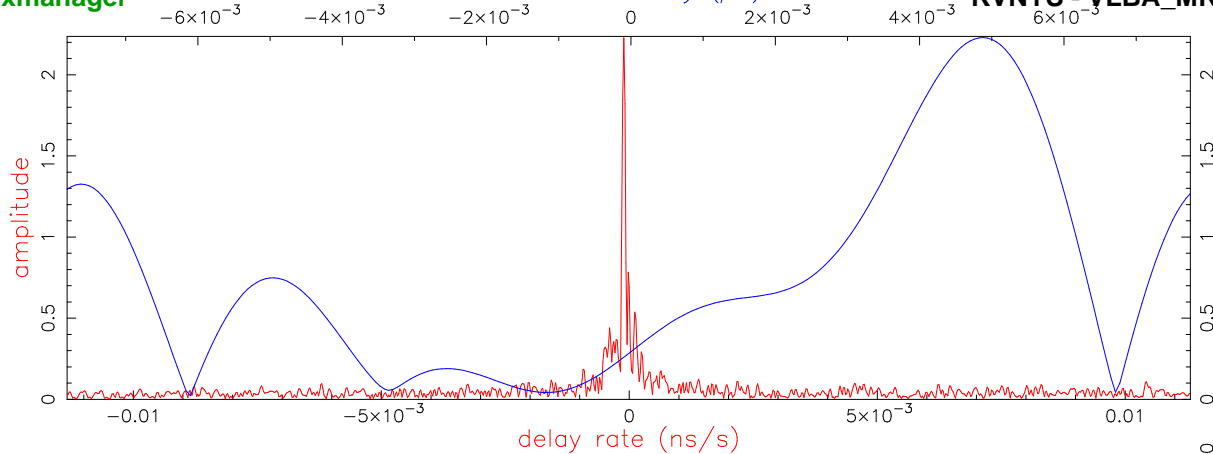
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	63.1	111.2	129.0	154.4	117.1	72.0	122.6	-149.7	Phase	112.3
	0.0	0.3	0.3	0.0	0.2	0.4	0.3	0.1	Ampl.	0.2
	287.7	256.9	256.7	161.9	259.3	257.3	258.6	260.0	Sbd box	257.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.28428361750E+02		Apriori delay (usec)		3.28433546307E+02		Resid mbdelay (usec)		-5.18456E-03	+/- 1.8E-04
Sband delay (usec)	3.28433553307E+02		Apriori clock (usec)		-1.0830293E+01		Resid sbdelay (usec)		7.00000E-06	+/- 1.4E-03
Phase delay (usec)	3.28433549929E+02		Apriori clockrate (us/s)		2.9999999E-07		Resid phdelay (usec)		3.62199E-06	+/- 6.0E-07
Delay rate (us/s)	1.01729923523E+00		Apriori rate (us/s)		1.01729918220E+00		Resid rate (us/s)		5.30228E-08	+/- 5.8E-09
Total phase (deg)	356.7		Apriori accel (us/s/s)		1.94171711387E-05		Resid phase (deg)		112.3	+/- 18.6

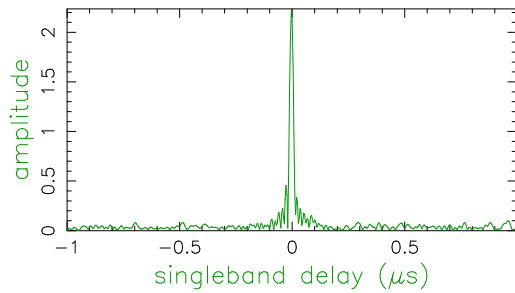
ph/seg (deg) 52.1 43.6 Search (1024X32) 0.161 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.5 76.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 51.4 26.3 Inc. seg. avg. 0.169 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 72.9 45.9 Inc. frq. avg. 0.177 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 50.3 el 53.0 pa -96.4 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -9254.272 3254.140 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/um..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/um.W.291.1HV1N7

multiband delay (μ s)

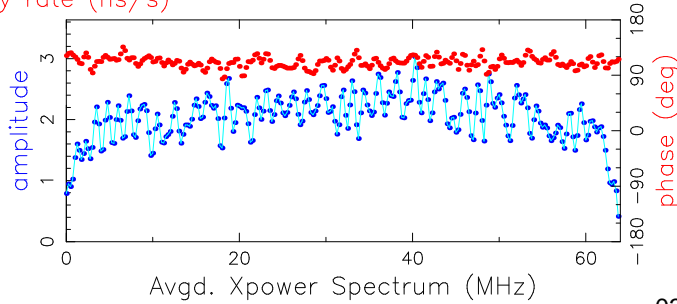


Fringe quality 4

SNR 82.0
Int time 179.956
Amp 2.236
Phase 18.5
PFD 0.0e+00
Delays (us)
SBD -0.003119
MBD 0.004915
Fringe rate (Hz)
-0.009840
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

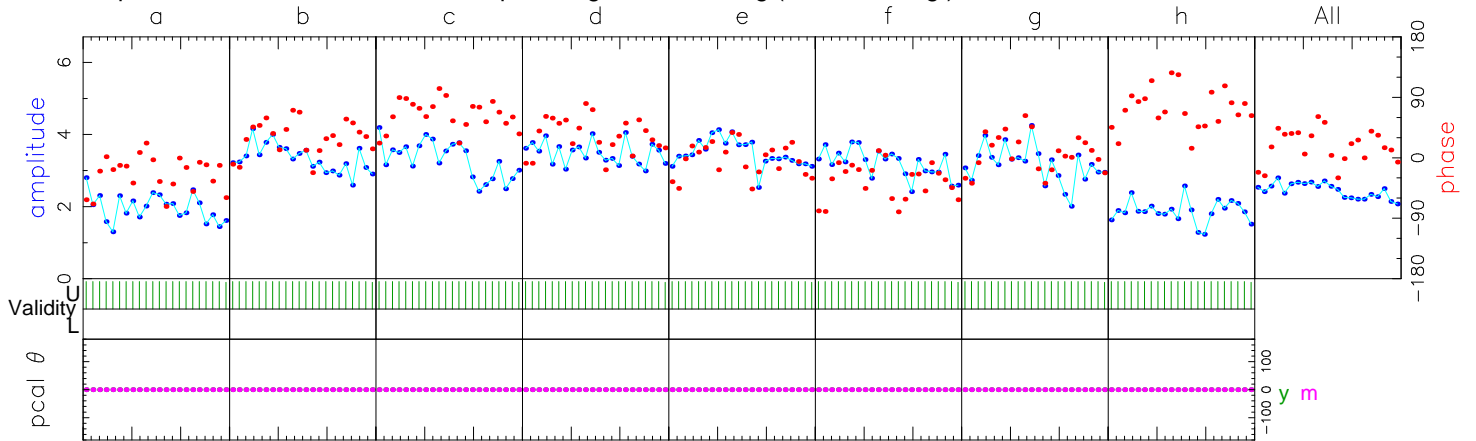


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2021:008:174658
2021:010:145449
2020:247:085004
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-25.7	30.9	63.9	33.9	-1.5	-34.2	9.9	74.5	Phase	18.5
	1.8	3.0	3.1	3.1	3.2	2.9	2.8	1.6	Ampl.	2.7
	258.4	256.5	256.0	255.7	256.1	255.9	256.6	258.3	Sbd box	256.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	2.84053173631E+02	Apriori delay (usec)	2.84063883630E+02	Resid mbdelay (usec)	4.91500E-03	+/-	1.3E-05
Sband delay (usec)	2.84060764880E+02	Apriori clock (usec)	-1.2119000E+01	Resid sbdelay (usec)	-3.11875E-03	+/-	1.1E-04
Phase delay (usec)	2.84063884227E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	5.96893E-07	+/-	4.5E-08
Delay rate (us/s)	1.02320967306E+00	Apriori rate (us/s)	1.02320978729E+00	Resid rate (us/s)	-1.14236E-07	+/-	4.3E-10
Total phase (deg)	355.4	Apriori accel (us/s/s)	2.21280600891E-05	Resid phase (deg)	18.5	+/-	1.4

ph/seg (deg)	24.6	RMS	24.6	Theor.	3.3	Amplitude	2.236 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	13.1		13.1		5.7	Search (1024X32)	2.216	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	42.4		42.4		2.0	Inc. seg. avg.	2.446	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	32.6		32.6		3.4	Inc. frq. avg.	2.686	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011	
y: az 52.5 el 52.8 pa -91.8						m: az 331.5 el 51.8 pa 134.8		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/c202a/v1/v1_3mm/1234/No0150/ym..1HV1N7		Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/ym.W.265.1HV1N7				simultaneous interpolator

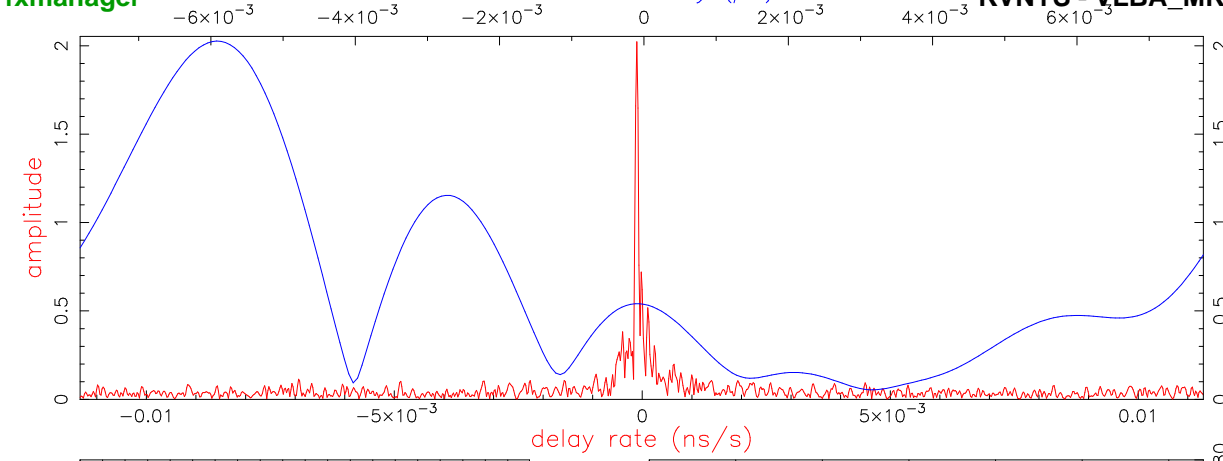
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

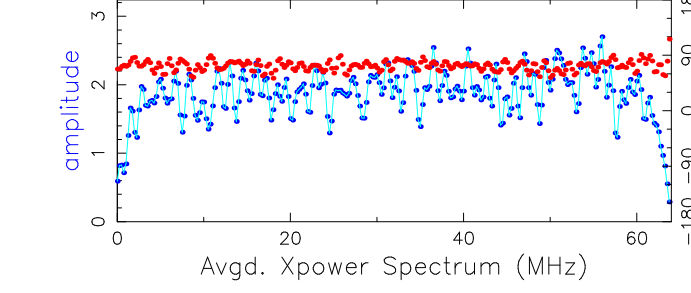
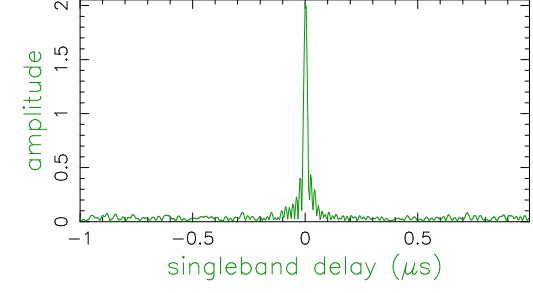
NRAO150.1HV1N7, No0150, ym

KVNS - VLBA_MK, fgroup W, pol RR

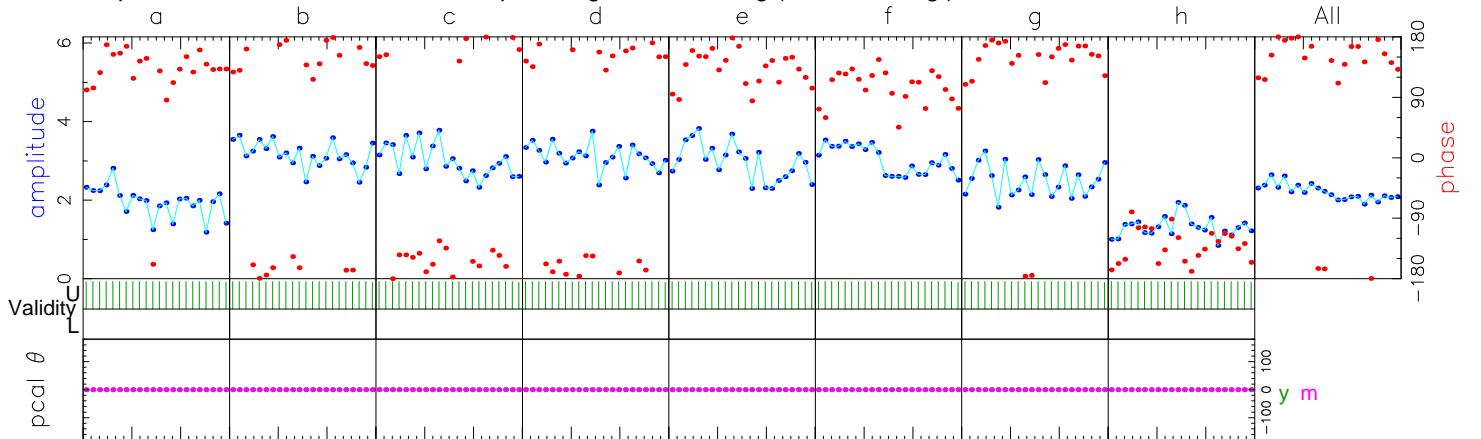
multiband delay (μ s)



Fringe quality 4
 SNR 75.3
 Int time 179.956
 Amp 2.053
 Phase 157.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.001537
 MBD -0.005839
 Fringe rate (Hz)
 -0.009791
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145451
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	136.5	167.1	-165.0	174.8	135.1	105.7	153.7	-130.1	Phase	157.9
	1.8	2.8	2.7	2.8	2.7	2.7	2.3	1.2	Ampl.	2.4
	259.2	257.4	257.2	257.1	257.3	257.1	258.1	260.0	Sbd box	257.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	2.84058044413E+02	Apriori delay (usec)	2.84063883630E+02	Resid mbdelay (usec)	-5.83922E-03	+/-	1.4E-05
Sband delay (usec)	2.84065420130E+02	Apriori clock (usec)	-1.2119000E+01	Resid sbdelay (usec)	1.53650E-03	+/-	1.1E-04
Phase delay (usec)	2.84063888723E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	5.09326E-06	+/-	4.9E-08
Delay rate (us/s)	1.02320967363E+00	Apriori rate (us/s)	1.02320978729E+00	Resid rate (us/s)	-1.13665E-07	+/-	4.7E-10
Total phase (deg)	134.9	Apriori accel (us/s/s)	2.21280600891E-05	Resid phase (deg)	157.9	+/-	1.5

ph/seg (deg) 24.0 3.6 Search (1024X32) 2.016 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 12.2 6.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 42.1 2.2 Inc. seg. avg. 2.206 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 31.6 3.8 Inc. frq. avg. 2.389 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 52.5 el 52.8 pa -91.8 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -9307.070 3675.062 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/ym..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/ym.W.287.1HV1N7

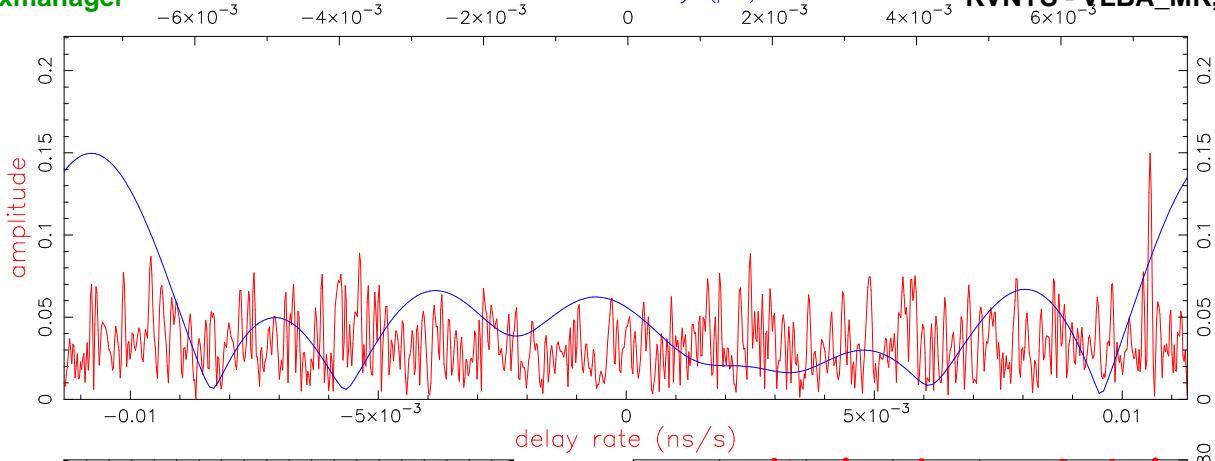
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, ym

KVNYS - VLBA_MK, fgroup W, pol LR

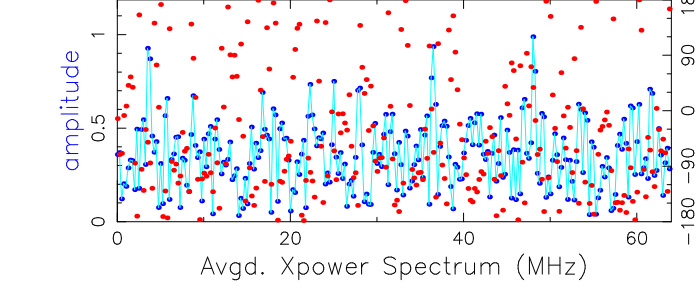
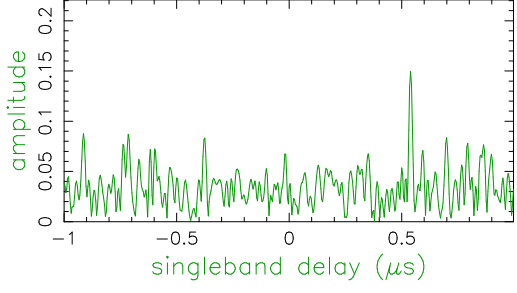
multiband delay (μ s)



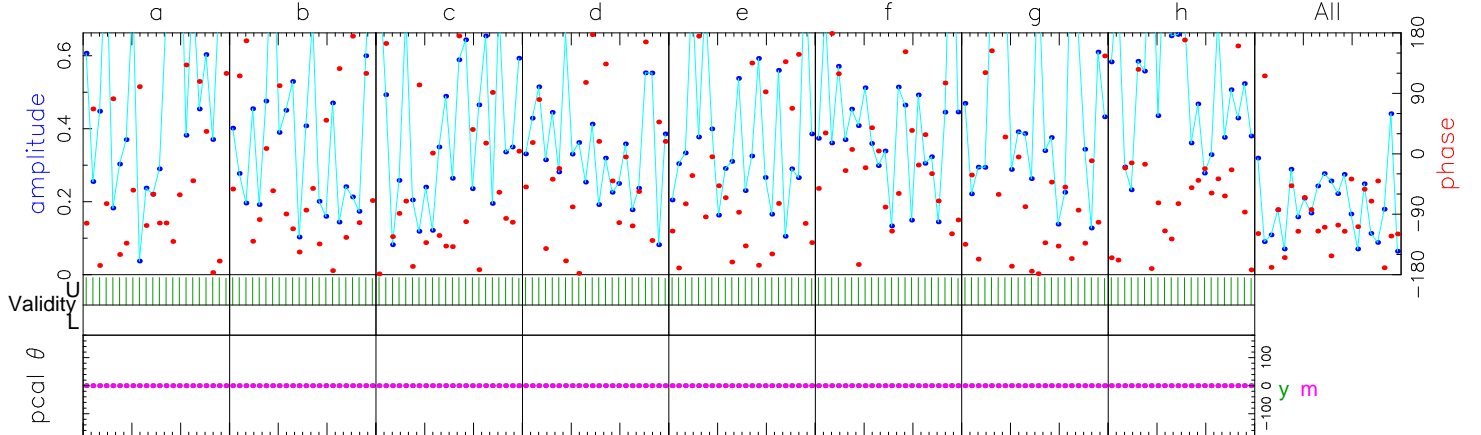
Fringe quality 0

SNR 5.5
 Int time 179.956
 Amp 0.221
 Phase -103.8
 PFD 9.9e-01
 Delays (us)
 SBD 0.539194
 MBD 0.008191
 Fringe rate (Hz) 0.911864
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145453
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



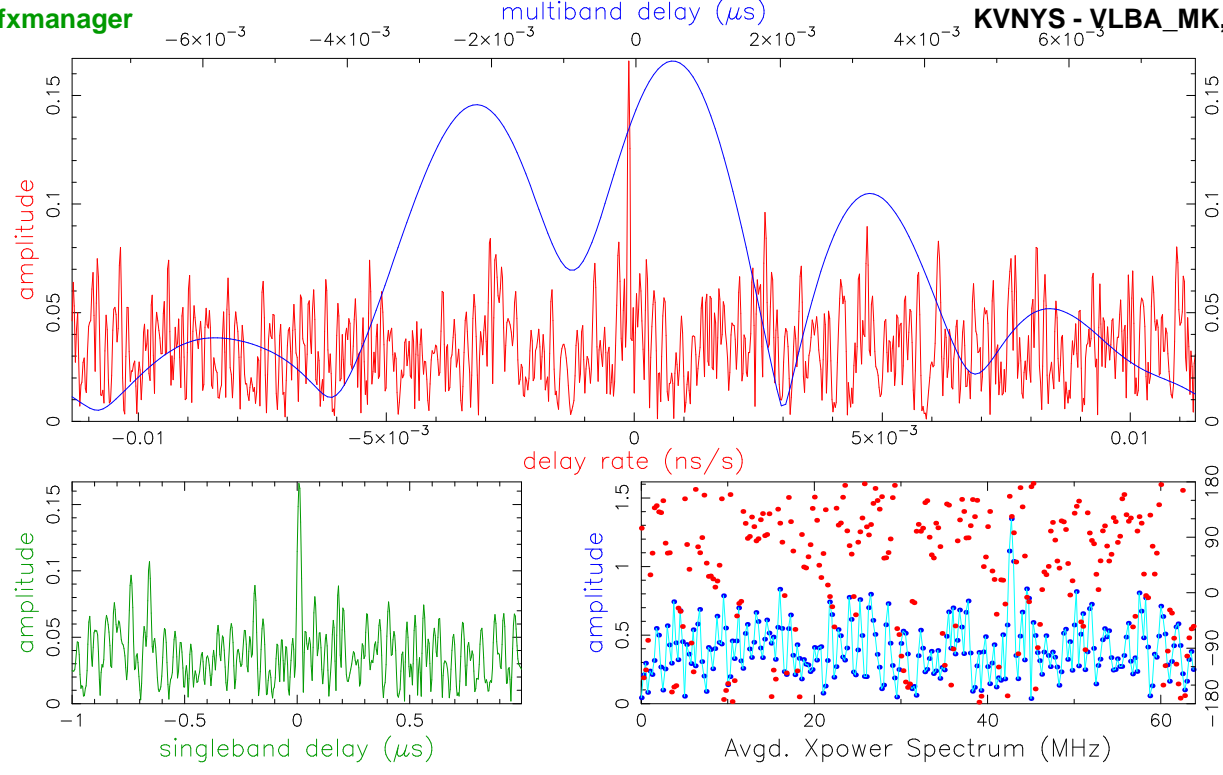
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-108.1	-92.0	-116.8	-104.3	-109.0	-35.8	-126.4	-104.1	Phase	-103.8
	0.3	0.2	0.2	0.1	0.3	0.2	0.3	0.4	Ampl.	0.2
	181.5	289.6	251.8	132.0	474.0	386.0	415.6	394.7	Sbd box	395.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	2.84603324286E+02	Apriori delay (usec)	2.84063883630E+02	Resid mbdelay (usec)	8.19066E-03	+/-	2.0E-04
Sband delay (usec)	2.84603077630E+02	Apriori clock (usec)	-1.2119000E+01	Resid sbdelay (usec)	5.39194E-01	+/-	1.6E-03
Phase delay (usec)	2.84063880282E+02	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-3.34799E-06	+/-	6.7E-07
Delay rate (us/s)	1.02322037313E+00	Apriori rate (us/s)	1.02320978729E+00	Resid rate (us/s)	1.05858E-05	+/-	6.5E-09
Total phase (deg)	233.1	Apriori accel (us/s/s)	2.21280600891E-05	Resid phase (deg)	-103.8	+/-	20.9

ph/seg (deg)	48.6	Theor.	48.9	Amplitude	0.221 +/- 0.040	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	69.1	Search (1024X32)	0.148	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	30.3	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	36.5	Inc. seg. avg.	0.208	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.210	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00	

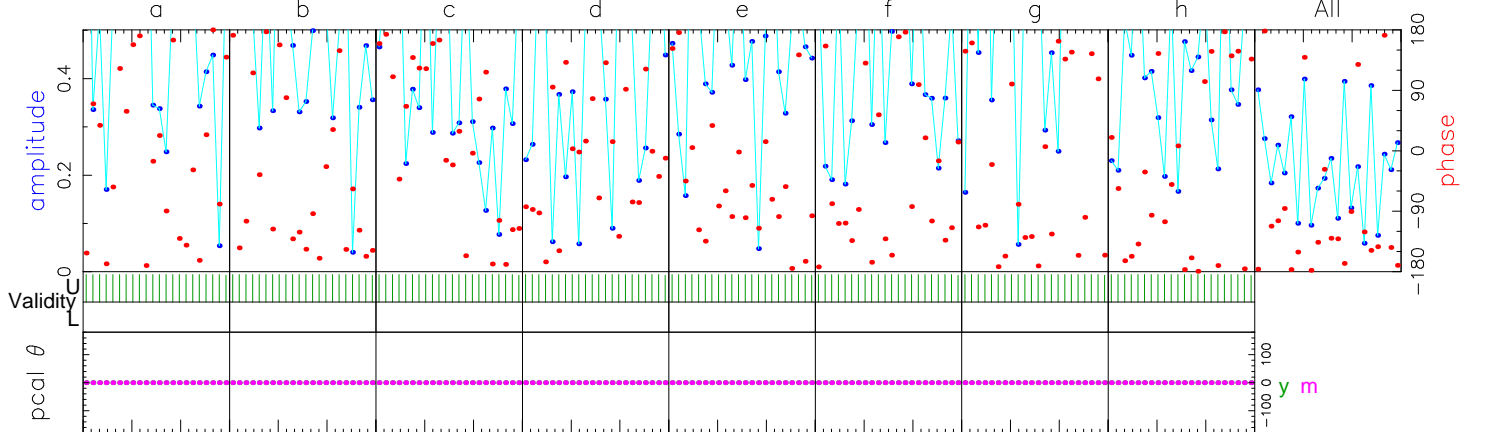
y: az 52.5 el 52.8 pa -91.8 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -9307.070 3675.062 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/ym..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/ym.W.304.1HV1N7



Fringe quality 0
SNR 6.1
Int time 179.956
Amp 0.167
Phase -157.3
PFD 1.1e-01
Delays (us)
SBD 0.009107
MBD 0.000525
Fringe rate (Hz)
-0.009708
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2021:008:174658
2021:010:145455
2020:247:085004
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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		
	179.8	-155.3	160.8	-49.4	-80.5	-157.2	-166.2	-178.1	Phase	-157.3		
	0.2	0.3	0.1	0.1	0.2	0.2	0.4	0.2	Ampl.	0.2		
	85.4	258.6	491.7	336.4	297.7	293.0	259.0	260.5	Sbd box	259.3		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
y:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
y:m	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			
m	1000	1000	1000	1000	1000	1000	1000	1000				
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Chan ids			
									Tracks			
Group delay (usec)(sbd)	2.8408003381E+02		Apriori delay (usec)		2.84063883630E+02		Resid mbdelay (usec)		5.24752E-04	+/- 1.8E-04		
Sband delay (usec)	2.84072990880E+02		Apriori clock (usec)		-1.2119000E+01		Resid sbdelay (usec)		9.10725E-03	+/- 1.4E-03		
Phase delay (usec)	2.84063878557E+02		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-5.07263E-06	+/- 6.0E-07		
Delay rate (us/s)	1.02320967460E+00		Apriori rate (us/s)		1.02320978729E+00		Resid rate (us/s)		-1.12695E-07	+/- 5.8E-09		
Total phase (deg)	179.6		Apriori accel (us/s/s)		2.21280600891E-05		Resid phase (deg)		-157.3	+/- 18.7		
	RMS	Theor.	Amplitude	0.167 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	46.5	43.9	Search (1024X32)	0.165		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	70.3	76.5	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	58.2	26.4	Inc. seg. avg.	0.173		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	57.3	46.2	Inc. frq. avg.	0.190		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
y: az 52.5 el 52.8 pa -91.8	m: az 331.5 el 51.8 pa 134.8		u,v (fr/asec) -9307.070 3675.062						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/ym..1HV1N7		Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/ym.W.319.1HV1N7									

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

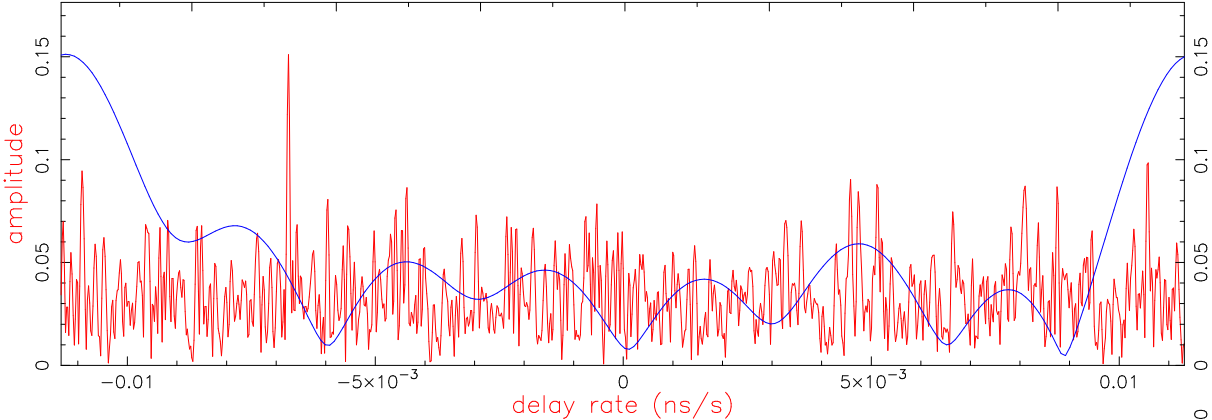
NRAO150.1HV1N7, No0150, Zm

METSAHOV - VLBA_MK, fgroup W, pol LL

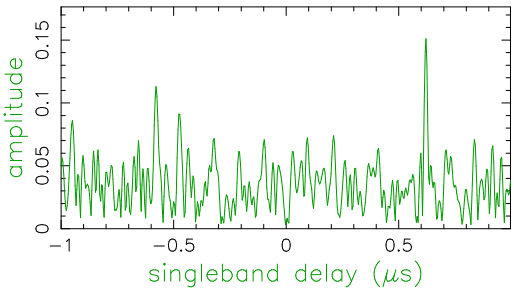
multiband delay (μ s)

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

Fringe quality 0

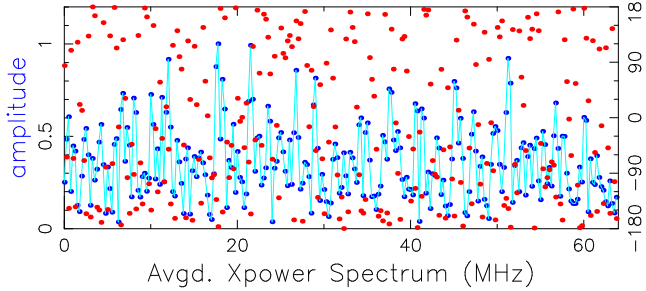


SNR 5.6
Int time 179.702
Amp 0.176
Phase -129.3
PFD 9.6e-01
Delays (us)
SBD 0.620349
MBD -0.007791
Fringe rate (Hz)
-0.583483
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



singleband delay (μ s)

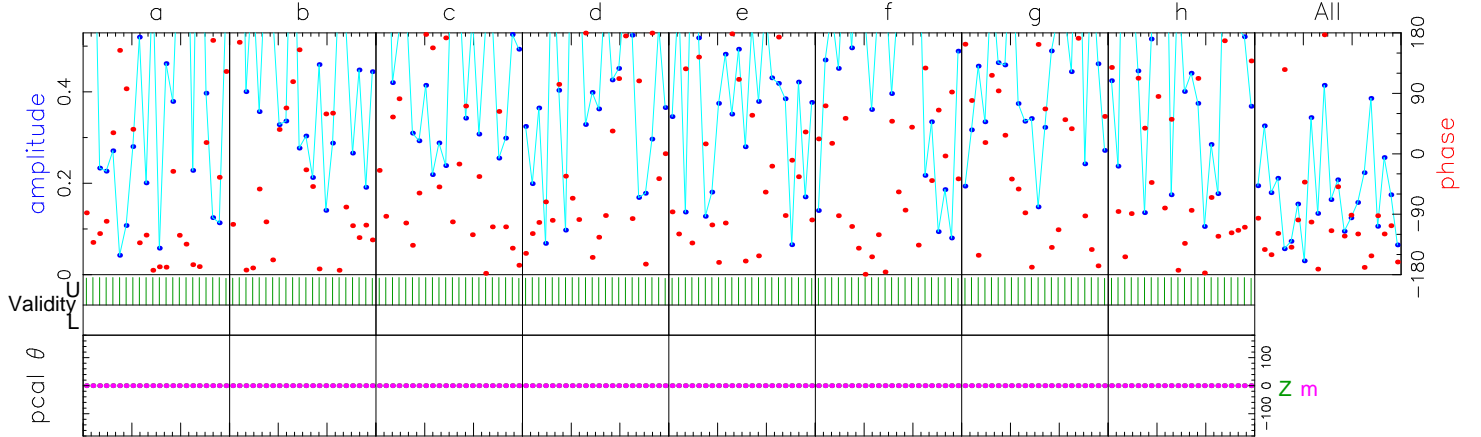
delay rate (ns/s)



Avgd. Xpower Spectrum (MHz)

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 150000.00
Stop 150300.22
FRT 150130.00
Corr/FF/build
2021:008:174658
2021:010:145456
2020:247:085004
RA & Dec (J2000)
03h59m29.747267s
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-140.2	-155.7	-106.3	-110.6	-123.6	-83.6	174.0	-136.9	Phase	-129.3
	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	Ampl.	0.2
	372.7	448.0	217.9	13.1	30.6	447.1	484.0	59.7	Sbd box	415.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-8.25598817947E+03	Apriori delay (usec)	-8.25660538828E+03	Resid mbdelay (usec)	-7.79119E-03	+/-	2.0E-04
Sband delay (usec)	-8.25598503928E+03	Apriori clock (usec)	-1.3213409E+01	Resid sbdelay (usec)	6.20349E-01	+/-	1.5E-03
Phase delay (usec)	-8.25660539245E+03	Apriori clockrate (us/s)	-8.3999986E-08	Resid phdelay (usec)	-4.17112E-06	+/-	6.6E-07
Delay rate (us/s)	6.65914328924E-01	Apriori rate (us/s)	6.65921102579E-01	Resid rate (us/s)	-6.77366E-06	+/-	6.4E-09
Total phase (deg)	-182.0	Apriori accel (us/s/s)	9.02226064473E-05	Resid phase (deg)	-129.3	+/-	20.6

ph/seg (deg)	42.9	Theor.	48.3	Search (1024X32)	0.147	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	71.9		84.4	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)	34.4		29.1	Inc. seg. avg.	0.159	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	38.6		50.9	Inc. frq. avg.	0.169	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 18.7 el 23.5 pa -14.7 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -6022.028 11717.739 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/Zm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/Zm.W.324.1HV1N7

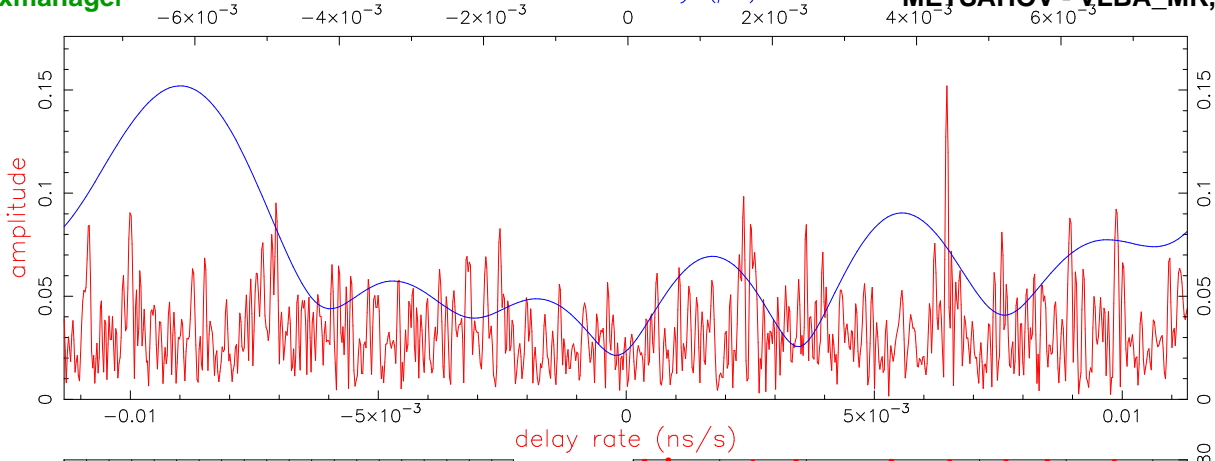
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1HV1N7, No0150, Zm

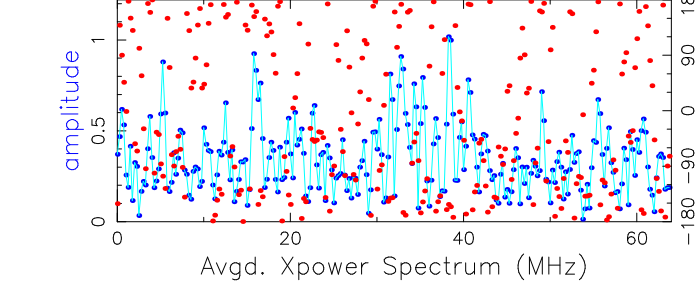
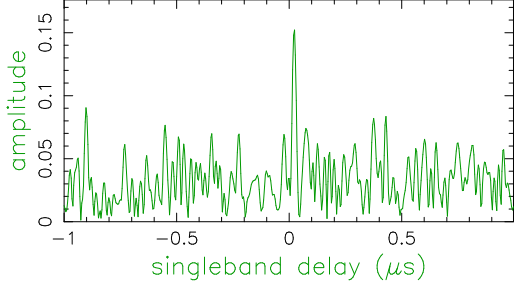
MEṬSAHOV - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)



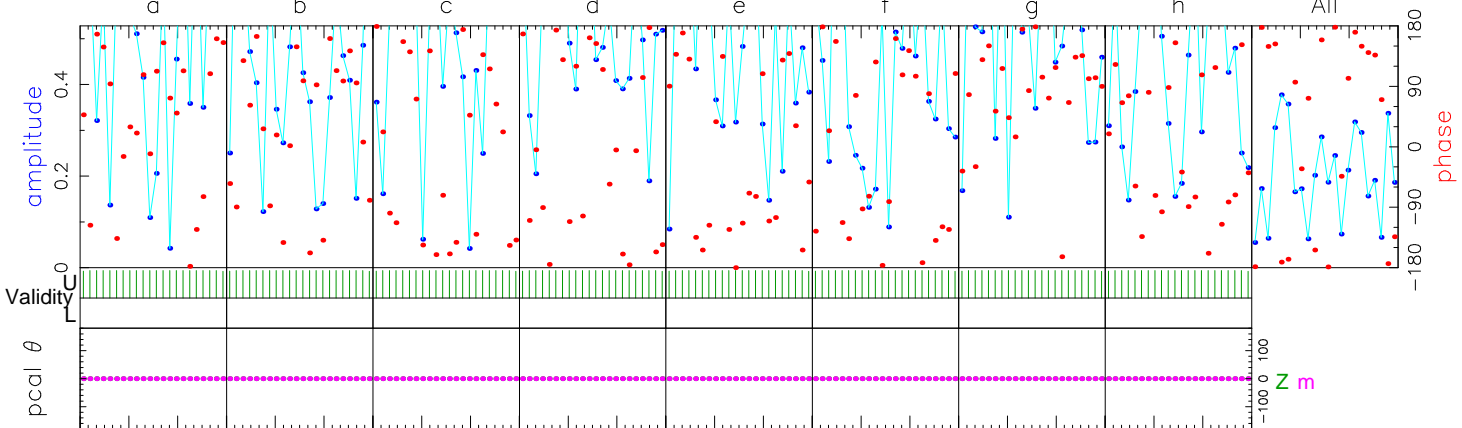
Fringe quality 0

SNR 5.6
 Int time 179.702
 Amp 0.176
 Phase 168.2
 PFD 9.0e-01
 Delays (us)
 SBD 0.022119
 MBD -0.006166
 Fringe rate (Hz)
 0.556989
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145457
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	139.7	147.4	-178.7	-167.4	-154.1	179.2	104.0	-108.7	Phase	168.2
	0.2	0.1	0.3	0.3	0.2	0.3	0.4	0.1	Ampl.	0.2
	434.5	383.7	28.4	357.5	252.4	261.5	263.5	332.8	Sbd box	262.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-8.25658030453E+03	Apriori delay (usec)	-8.25660538828E+03	Resid mbdelay (usec)	-6.16625E-03	+/-	1.9E-04
Sband delay (usec)	-8.25658326953E+03	Apriori clock (usec)	-1.3213409E+01	Resid sbdelay (usec)	2.21187E-02	+/-	1.5E-03
Phase delay (usec)	-8.25660538285E+03	Apriori clockrate (us/s)	-8.3999986E-08	Resid phdelay (usec)	5.42406E-06	+/-	6.6E-07
Delay rate (us/s)	6.65927568674E-01	Apriori rate (us/s)	6.65921102579E-01	Resid rate (us/s)	6.46610E-06	+/-	6.3E-09
Total phase (deg)		Apriori accel (us/s/s)	9.02226064473E-05	Resid phase (deg)	168.2	+/-	20.4

ph/seg (deg)	62.2	Theor.	47.8	Amplitude	0.176 +/- 0.031	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	72.6		83.4	Search (1024X32)	0.151	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	49.3		28.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	61.1		50.3	Inc. seg. avg.	0.174	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.203	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 18.7 el 23.5 pa -14.7 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -6022.028 11717.739 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/Zm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/Zm.W.334.1HV1N7

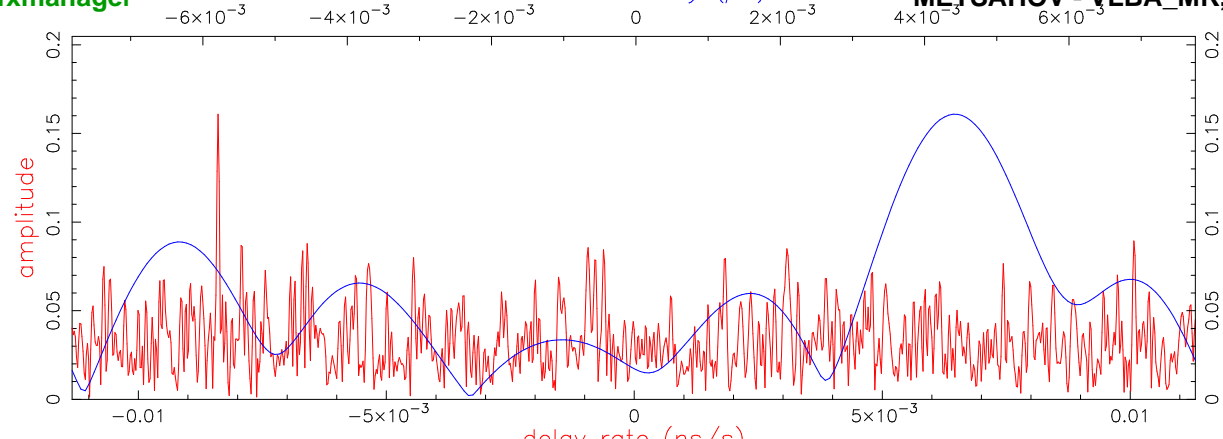
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

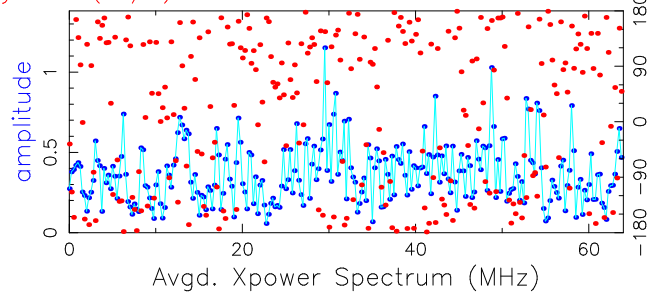
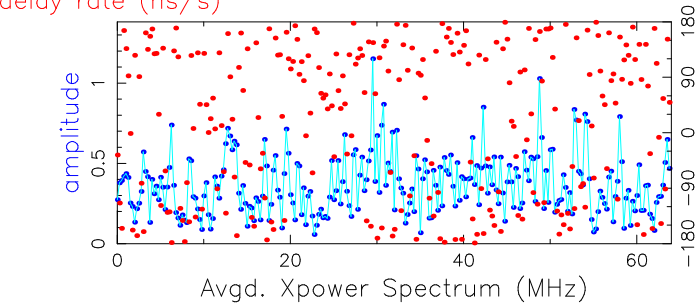
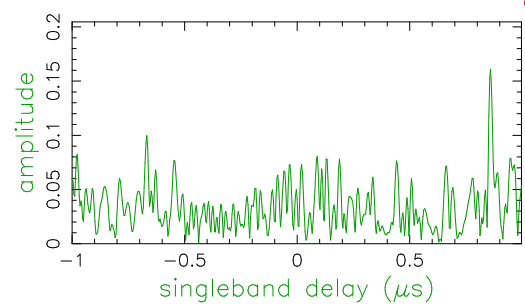
NRAO150.1HV1N7, No0150, Zm

METSAHOV - VLBA_MK, fgroup W, pol LR

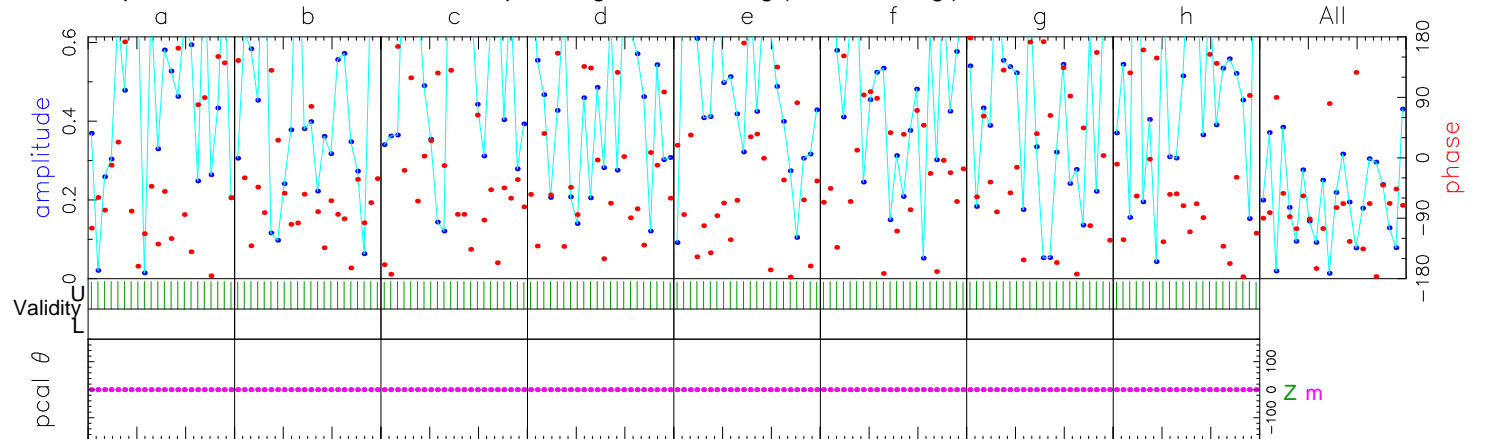
multiband delay (μ s)



Fringe quality 0
 SNR 5.9
 Int time 179.702
 Amp 0.205
 Phase -83.5
 PFD 3.3e-01
 Delays (us)
 SBD 0.858474
 MBD 0.004407
 Fringe rate (Hz) -0.723020
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145459
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-126.1	-77.7	-84.4	-71.3	-78.8	-30.6	-126.1	-100.3	Phase	-83.5
	0.2	0.4	0.2	0.2	0.2	0.2	0.1	0.4	Ampl.	0.2
	117.4	476.7	231.0	506.0	404.8	141.6	405.7	479.0	Sbd box	476.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-8.25574160647E+03	Apriori delay (usec)	-8.25660538828E+03	Resid mbdelay (usec)	4.40681E-03	+/-	1.8E-04
Sband delay (usec)	-8.25574691378E+03	Apriori clock (usec)	-1.3213409E+01	Resid sbdelay (usec)	8.58474E-01	+/-	1.5E-03
Phase delay (usec)	-8.25660539097E+03	Apriori clockrate (us/s)	-8.3999986E-08	Resid phdelay (usec)	-2.69411E-06	+/-	6.2E-07
Delay rate (us/s)	6.65912709029E-01	Apriori rate (us/s)	6.65921102579E-01	Resid rate (us/s)	-8.39355E-06	+/-	6.0E-09
Total phase (deg)	-136.2	Apriori accel (us/s/s)	9.02226064473E-05	Resid phase (deg)	-83.5	+/-	19.3

ph/seg (deg)	69.5	Theor.	45.4	Amplitude	0.205 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	75.5		79.2	Search (1024X32)	0.157	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	34.0		27.4	Inc. seg. avg.	0.197	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	47.1		47.7	Inc. frq. avg.	0.203	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
Z: az 18.7 el 23.5 pa -14.7		m: az 331.5 el 51.8 pa 134.8		u,v (fr/asec)	-6022.028 11717.739	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/c202a/v1/v1_3mm/1234/No0150/Zm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/Zm.W.344.1HV1N7 simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

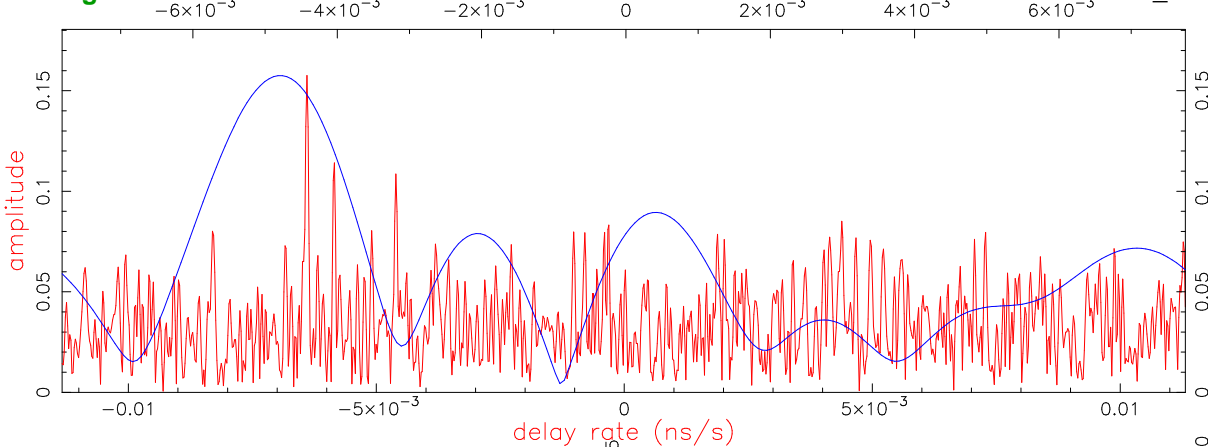
fxmanager

NRAO150.1HV1N7, No0150, Zm

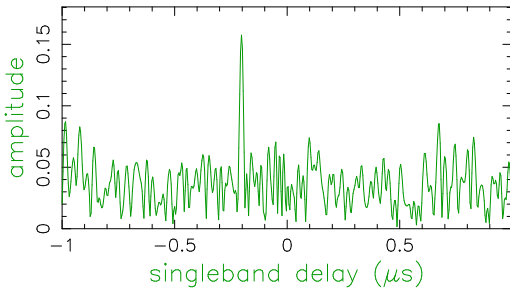
METSAHOV - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

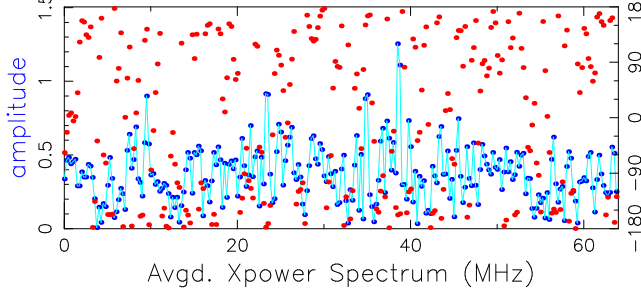
Fringe quality 0



SNR 5.8
 Int time 179.702
 Amp 0.180
 Phase 41.9
 PFD 6.1e-01
 Delays (us)
 SBD -0.202822
 MBD -0.004793
 Fringe rate (Hz)
 -0.552879
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

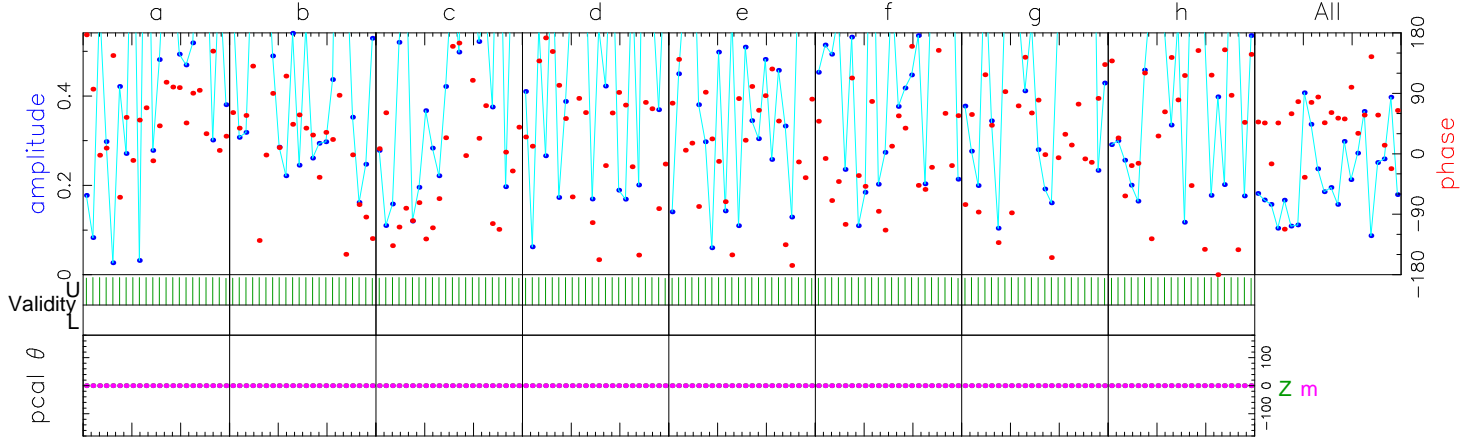


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 150000.00
 Stop 150300.22
 FRT 150130.00
 Corr/FF/build
 2021:008:174658
 2021:010:145500
 2020:247:085004
 RA & Dec (J2000)
 03h59m29.747267s
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	52.2	51.5	-45.2	60.1	30.6	13.8	35.3	121.0	Phase	41.9
	0.4	0.2	0.1	0.2	0.2	0.2	0.3	0.1	Ampl.	0.2
	205.2	498.3	108.5	436.0	15.3	399.3	60.6	320.3	Sbd box	205.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) -8.25681330586E+03 Apriori delay (usec) -8.25660538828E+03 Resid mbdelay (usec) -4.79259E-03 +/- 1.9E-04
 Sband delay (usec) -8.25680821003E+03 Apriori clock (usec) -1.3213409E+01 Resid sbdelay (usec) -2.02822E-01 +/- 1.5E-03
 Phase delay (usec) -8.25660538693E+03 Apriori clockrate (us/s) -8.3999986E-08 Resid phdelay (usec) 1.35228E-06 +/- 6.4E-07
 Delay rate (us/s) 6.65914684197E-01 Apriori rate (us/s) 6.65921102579E-01 Resid rate (us/s) -6.41838E-06 +/- 6.1E-09
 Total phase (deg) -10.7 Apriori accel (us/s/s) 9.02226064473E-05 Resid phase (deg) 41.9 +/- 19.8

RMS Theor. Amplitude 0.180 +/- 0.031 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 51.4 46.5 Search (1024X32) 0.153 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 70.7 81.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 50.6 28.0 Inc. seg. avg. 0.190 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 45.5 48.9 Inc. frq. avg. 0.191 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 18.7 el 23.5 pa -14.7 m: az 331.5 el 51.8 pa 134.8 u,v (fr/asec) -6022.028 11717.739 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0150/Zm..1HV1N7 Output file: /Exps/c202a/v1/v1_3mm/1234/No0150/Zm.W.354.1HV1N7