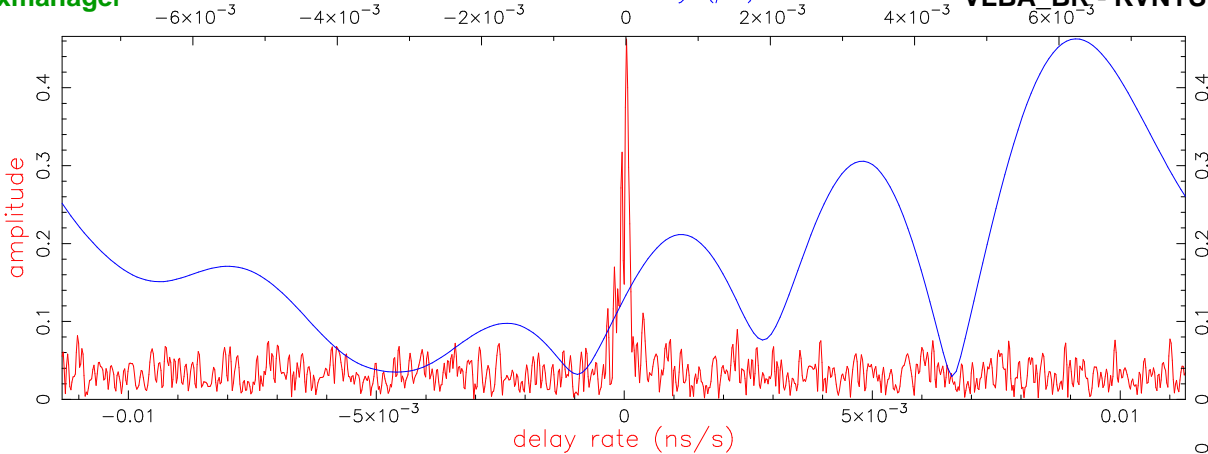
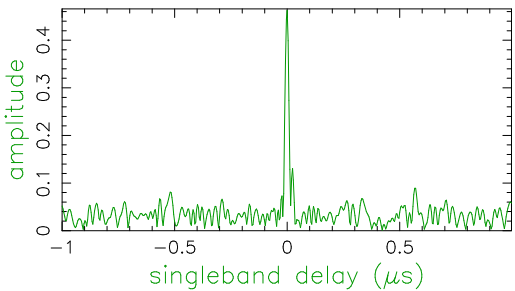


multiband delay (μ s)

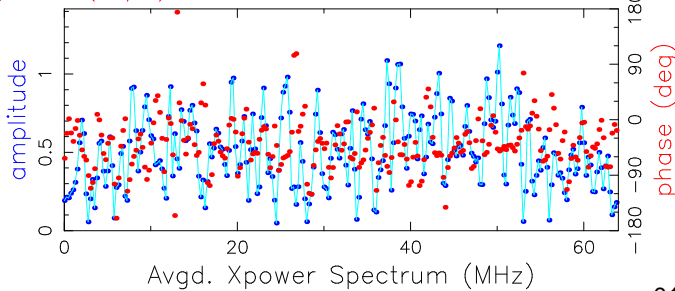
Fringe quality 8



SNR 17.1
Int time 179.975
Amp 0.466
Phase -126.4
PFD 0.0e+00
Delays (us)
SBD -0.001109
MBD 0.006198
Fringe rate (Hz)
0.003994
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

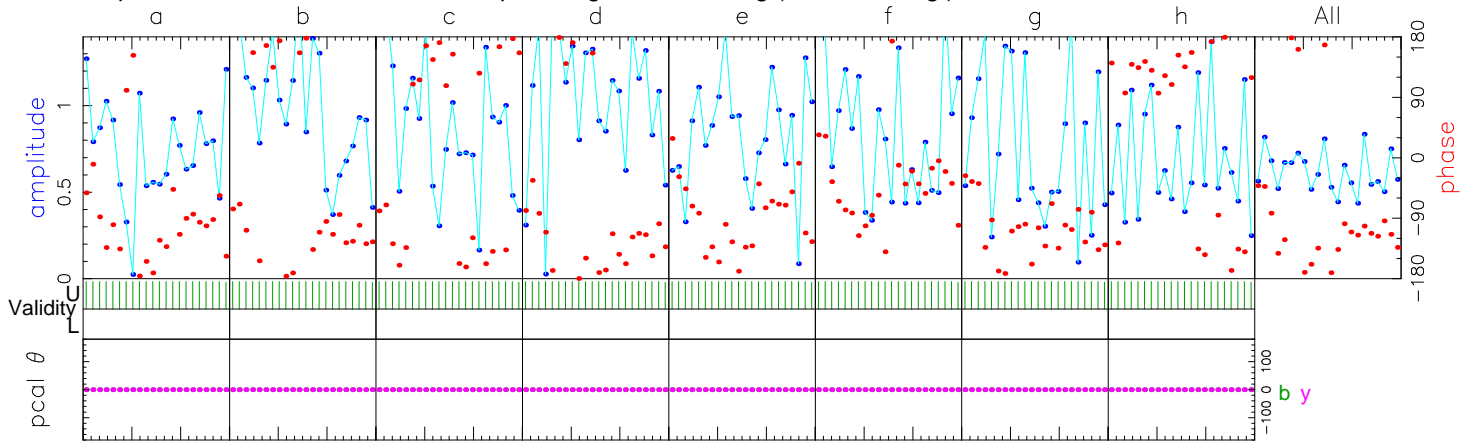


delay rate (ns/s)



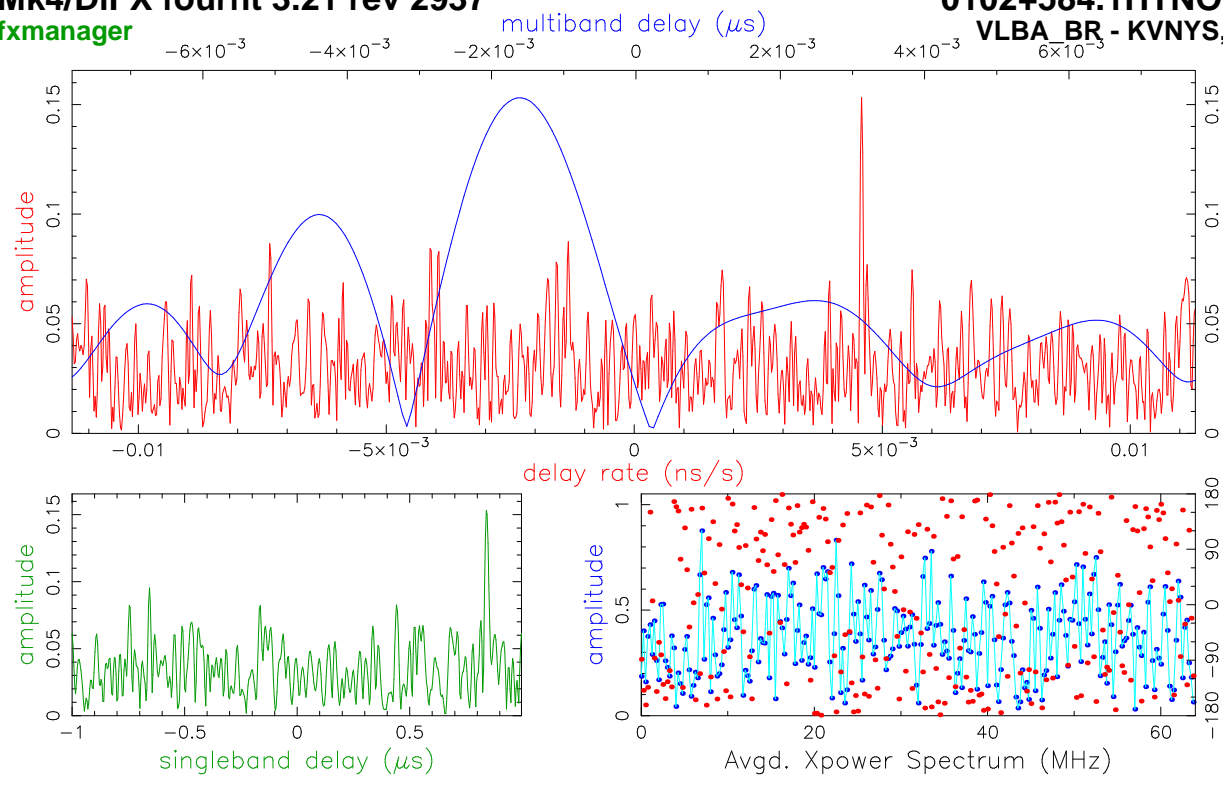
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143533
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



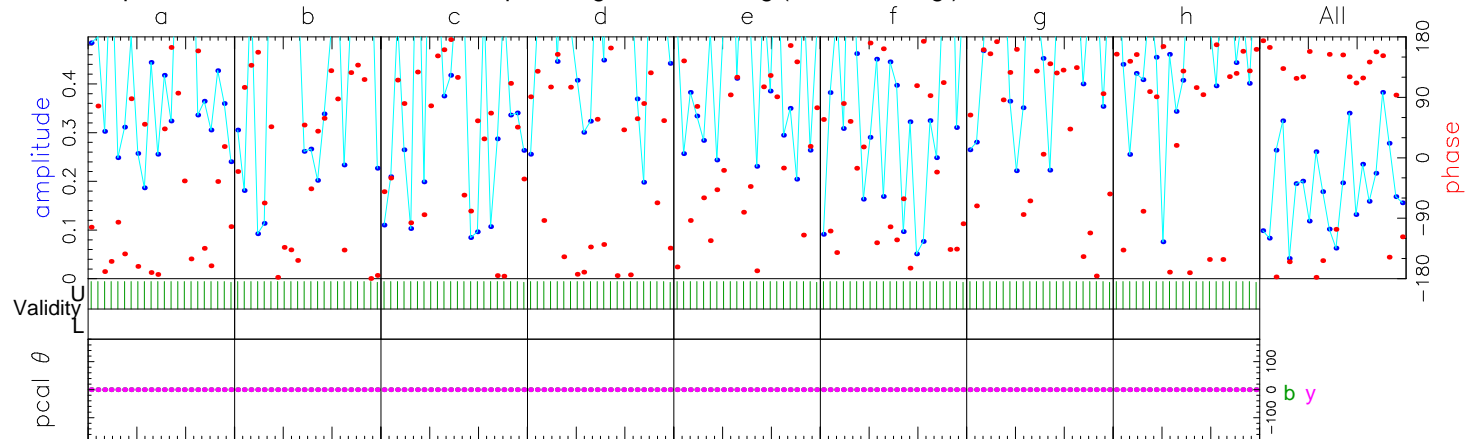
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-105.7	-144.4	-162.7	-144.7	-95.3	-44.9	-111.1	168.6	Phase	-126.4
	0.5	0.7	0.5	0.8	0.6	0.6	0.6	0.5	Ampl.	0.6
	255.2	257.3	256.5	256.8	257.3	256.8	256.2	255.2	Sbd box	256.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:y	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.83202837579E+03		Apriori delay (usec)		-4.83203457392E+03		Resid mbdelay (usec)		6.19813E-03	+/- 6.3E-05
Sband delay (usec)	-4.83203568267E+03		Apriori clock (usec)		-2.9510279E+00		Resid sbdelay (usec)		-1.10875E-03	+/- 5.0E-04
Phase delay (usec)	-4.83203457800E+03		Apriori clockrate (us/s)		-9.9999991E-08		Resid phdelay (usec)		-4.07721E-06	+/- 2.2E-07
Delay rate (us/s)	-8.38047033806E-01		Apriori rate (us/s)		-8.38047080168E-01		Resid rate (us/s)		4.63623E-08	+/- 2.1E-09
Total phase (deg)			Apriori accel (us/s/s)		3.86784758201E-05		Resid phase (deg)		-126.4	+/- 6.7

ph/seg (deg) 41.3 15.7 Search (1024X32) 0.460 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 41.2 27.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 49.1 9.5 Inc. seg. avg. 0.598 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 33.3 16.5 Inc. frq. avg. 0.592 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 315.9 el 41.5 pa 62.8 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 9219.939 5544.266 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/by..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/by.W.103.1HTNOG



Fringe quality 0
SNR 5.7
Int time 179.975
Amp 0.166
Phase 153.9
PFD 8.2e-01
Delays (us)
SBD 0.841258
MBD -0.001601
Fringe rate (Hz) 0.395338
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143535
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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
	-165.6	147.8	115.5	153.8	127.7	-138.8	147.3	150.7	Phase	153.9
	0.1	0.2	0.2	0.2	0.0	0.1	0.2	0.4	Ampl.	0.2
	39.9	177.2	391.5	329.8	54.0	390.3	400.1	472.3	Sbd box	472.4
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	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:y	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.83119242518E+03		Apriori delay (usec)		-4.83203457392E+03		Resid mbdelay (usec)		-1.60125E-03	+/- 1.9E-04
Sband delay (usec)	-4.83119331617E+03		Apriori clock (usec)		-2.9510279E+00		Resid sbdelay (usec)		8.41258E-01	+/- 1.5E-03
Phase delay (usec)	-4.83203456896E+03		Apriori clockrate (us/s)		-9.9999991E-08		Resid phdelay (usec)		4.96266E-06	+/- 6.5E-07
Delay rate (us/s)	-8.38042490681E-01		Apriori rate (us/s)		-8.38047080168E-01		Resid rate (us/s)		4.58949E-06	+/- 6.3E-09
Total phase (deg)			Apriori accel (us/s/s)		3.86784758201E-05		Resid phase (deg)		153.9	+/- 20.2

ph/seg (deg) 42.4 47.4 Search (1024X32) 0.149 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 62.4 82.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 37.5 28.6 Inc. seg. avg. 0.152 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 53.8 49.9 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 315.9 el 41.5 pa 62.8 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 9219.939 5544.266 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/by..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/by.W.119.1HTNOG

Mk4/DiFX fourfit 3.21 rev 2937

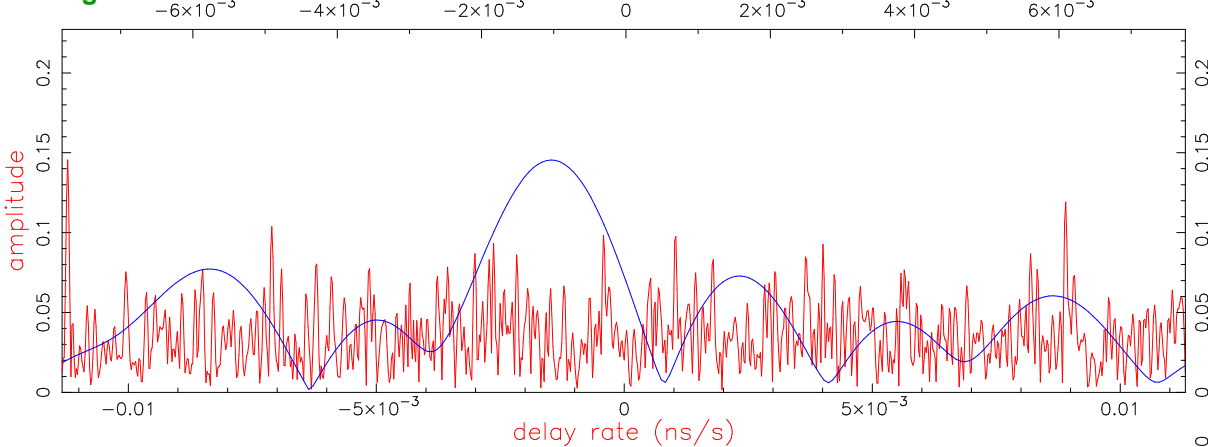
fxmanager

0102+584.1HTNOG, No0140, By

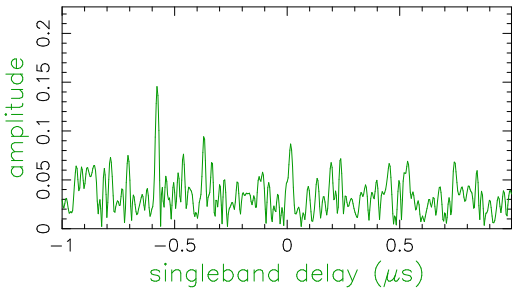
EFLSBERG - KVNYS, fgroup W, pol LR

multiband delay (μs)

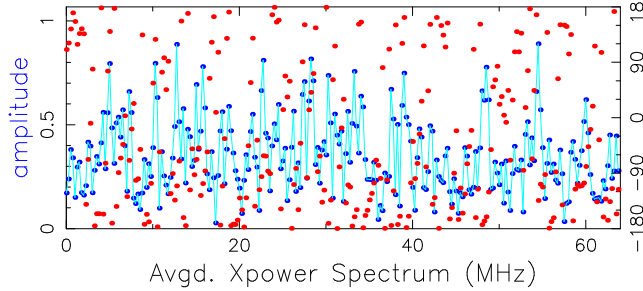
Fringe quality 0



SNR 5.3
 Int time 179.774
 Amp 0.227
 Phase 46.2
 PFD 1.0e+00
 Delays (us)
 SBD -0.577443
 MBD -0.001035
 Fringe rate (Hz)
 -0.968448
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

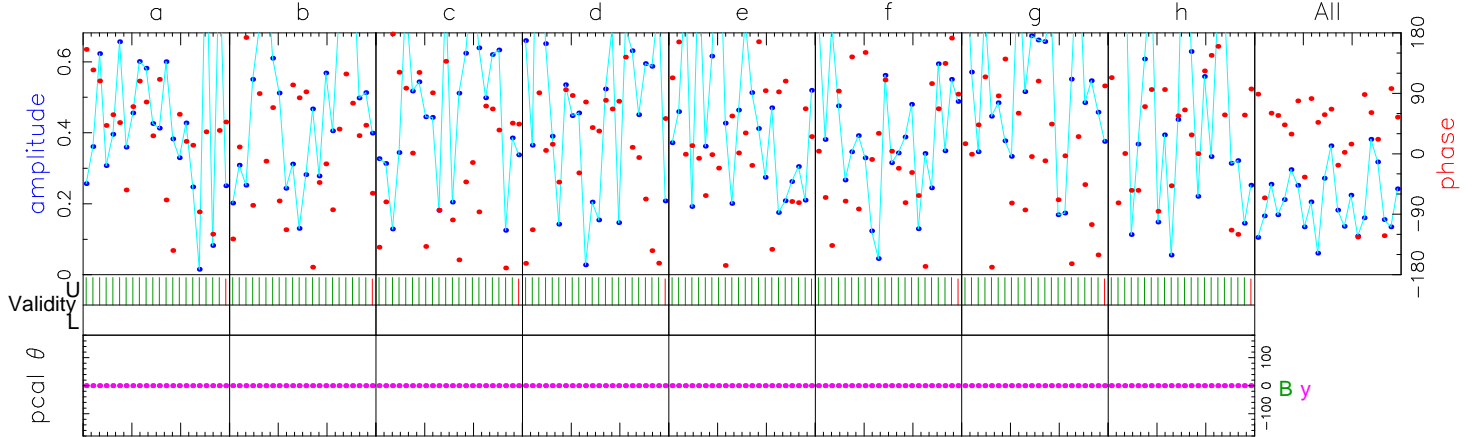


delay rate (ns/s)



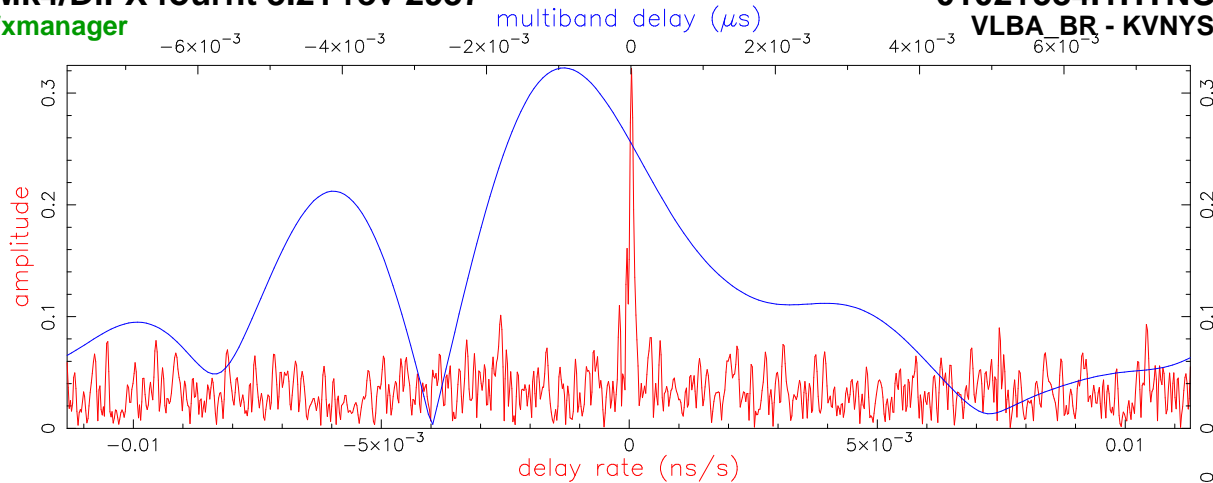
Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143537
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:y	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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.08494394419E+04									
Sband delay (usec)	-1.08494377253E+04									
Phase delay (usec)	-1.08488602806E+04									
Delay rate (us/s)	-2.13011348604E-02									
Total phase (deg)			-205.2							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)									46.2	+/- 21.4
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
ph/seg (deg)	65.4	50.2								
amp/seg (%)	70.2	87.7								
ph/frq (deg)	26.9	30.3								
amp/frq (%)	47.2	52.9								
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.227 +/- 0.042										
0.142										
0.000										
0.232										
0.216										
PCal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

B: az 17.4 el 22.1 pa -21.5 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 292.882 10157.590 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/By..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/By.W.131.1HTNOG



Fringe quality 9

SNR 11.9

Int time 179.975

Amp 0.325

Phase 31.0

PFD 2.4e-24

Delays (us)

SBD 0.006692

MDB -0.000997

Fringe rate (Hz)

0.003355

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202a

Exper # 16383

Yr:day 2020:283

Start 133000.00

Stop 133300.22

FRT 133130.00

Corr/FF/build

2021:007:234742

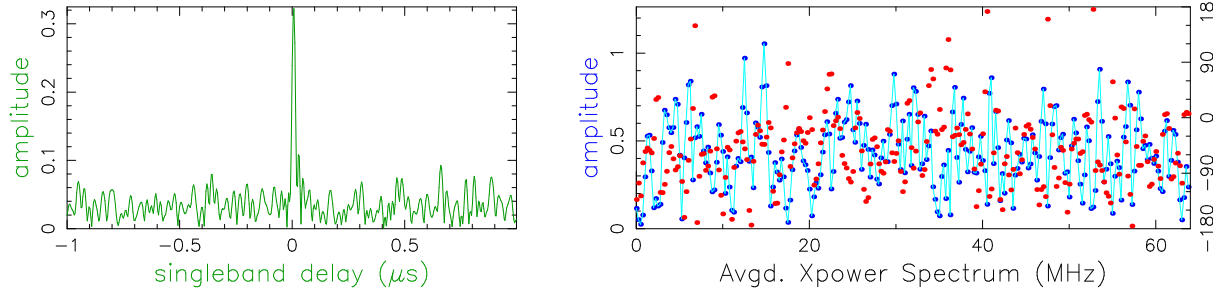
2021:010:143538

2020:247:085004

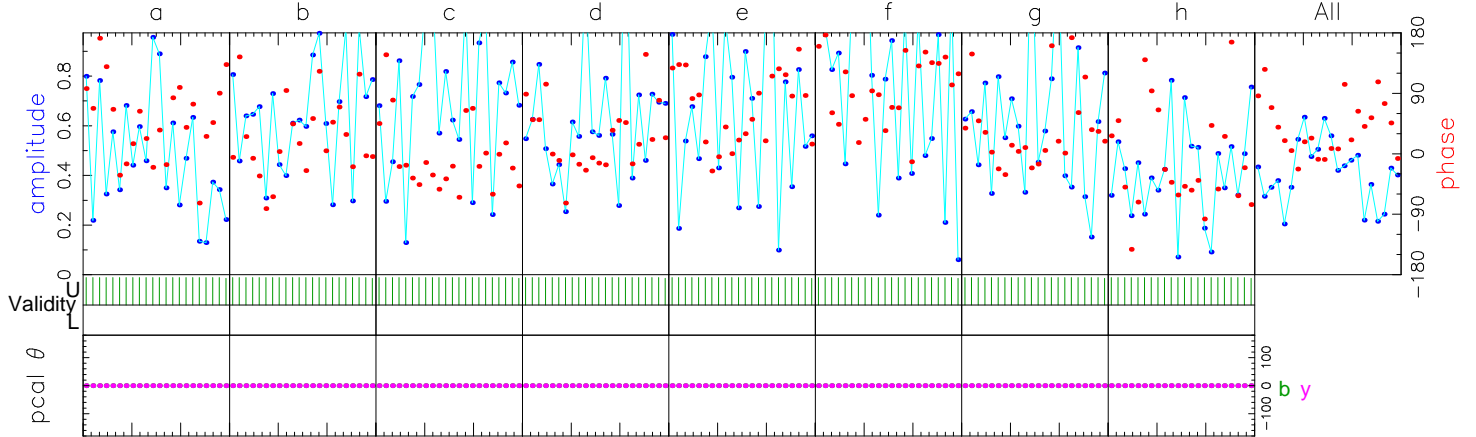
RA & Dec (J2000)

01h02m45.762375s

+58°24'11.136621"



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

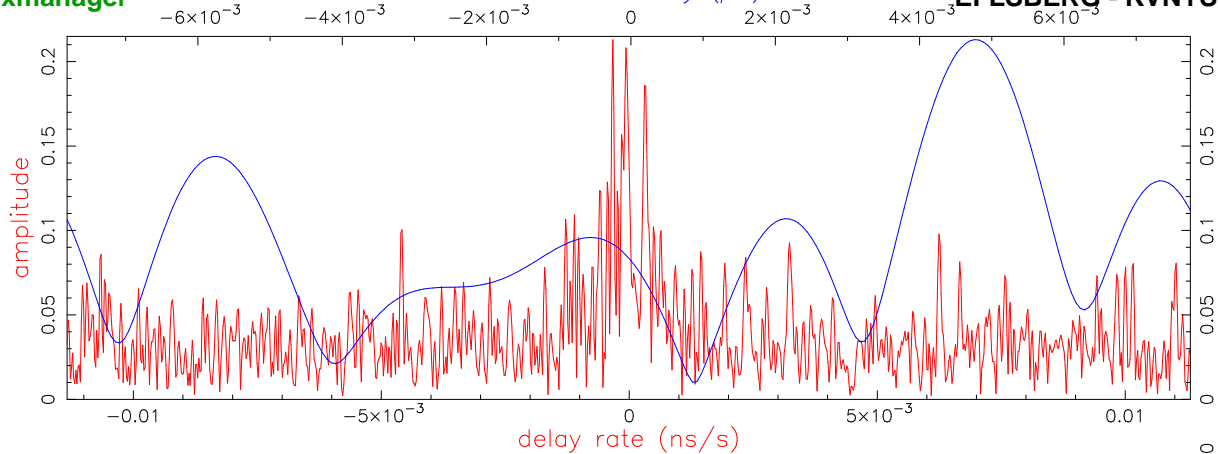


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
b:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-4.83203557095E+03				-4.83203457392E+03				-9.97026E-04	+/- 9.1E-05
Sband delay (usec)	-4.83202788167E+03				-2.9510279E+00				6.69225E-03	+/- 7.2E-04
Phase delay (usec)	-4.83203457292E+03				-9.9999991E-08				1.00076E-06	+/- 3.1E-07
Delay rate (us/s)	-8.38047041225E-01				-8.38047080168E-01				3.89437E-08	+/- 3.0E-09
Total phase (deg)			-40.1		3.86784758201E-05				31.0	+/- 9.6
	RMS	Theor.	Amplitude	0.325 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	41.5	22.6	Search (1024X32)	0.319	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	46.1	39.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	45.5	13.6	Inc. seg. avg.	0.382	Sample rate(MSamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	40.5	23.7	Inc. frq. avg.	0.397	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 315.9 el 41.5 pa 62.8 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 9219.939 5544.266 simultaneous interpolator

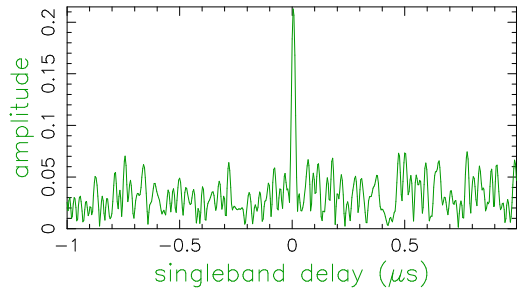
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/by..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/by.W.147.1HTNOG

multiband delay (μ s)

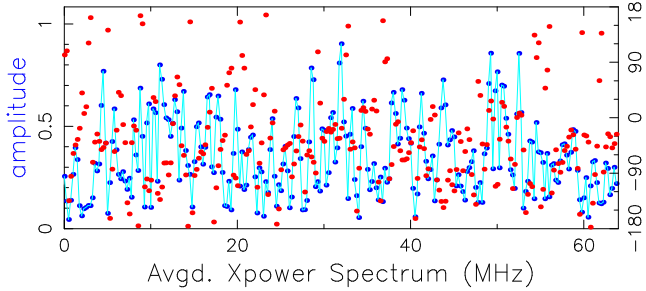


Fringe quality 9

SNR 7.9
Int time 179.774
Amp 0.215
Phase -45.4
PFD 5.7e-07
Delays (us)
SBD 0.005210
MBD 0.004817
Fringe rate (Hz)
-0.028462
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

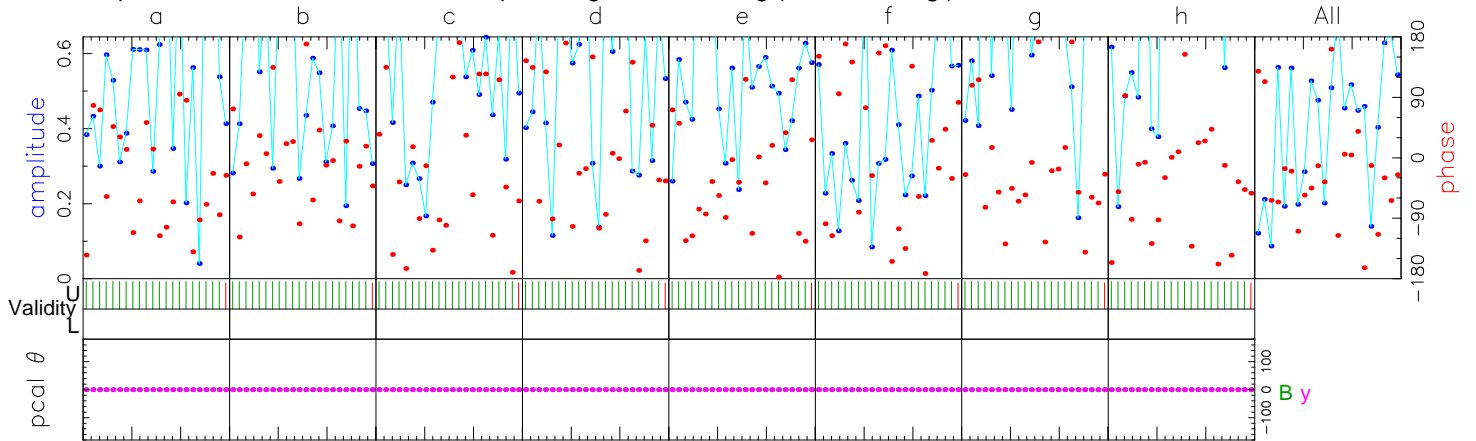


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143532
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



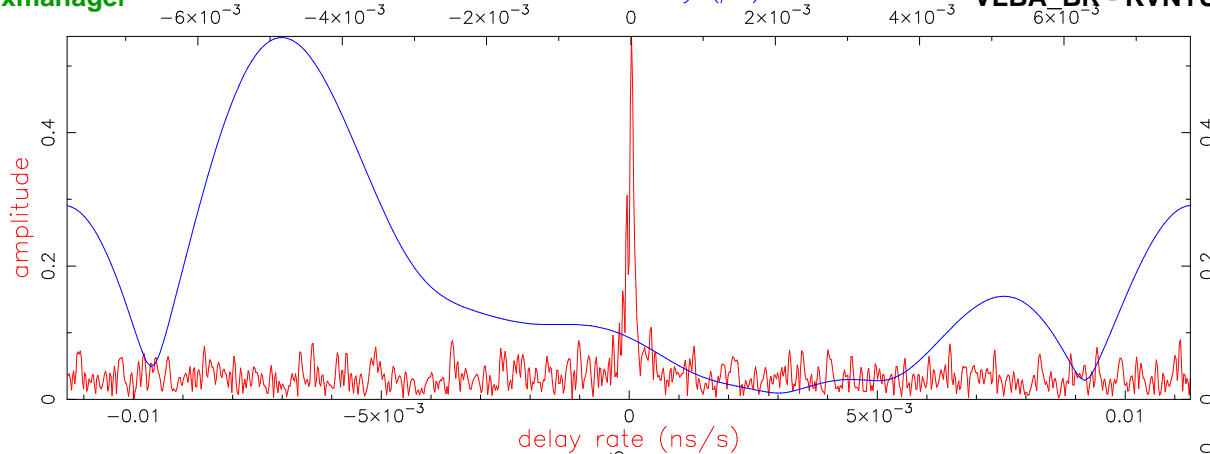
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-46.9	-25.6	-156.1	-25.9	-55.6	96.0	-58.1	-34.6	Phase	-45.4
	0.2	0.3	0.1	0.1	0.2	0.0	0.1	0.4	Ampl.	0.2
	87.2	257.4	370.1	260.1	410.4	219.3	258.9	257.2	Sbd box	258.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:y	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.08488554654E+04	Apriori delay (usec)	-1.08488602821E+04	Resid mbdelay (usec)	4.81672E-03	+/-	1.4E-04
Sband delay (usec)	-1.08488550721E+04	Apriori clock (usec)	8.8779135E+00	Resid sbdelay (usec)	5.21000E-03	+/-	1.1E-03
Phase delay (usec)	-1.08488602835E+04	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-1.46314E-06	+/-	4.7E-07
Delay rate (us/s)	-2.12902225586E-02	Apriori rate (us/s)	-2.12898921384E-02	Resid rate (us/s)	-3.30420E-07	+/-	4.5E-09
Total phase (deg)	-296.8	Apriori accel (us/s/s)	7.33618222944E-05	Resid phase (deg)	-45.4	+/-	14.5

ph/seg (deg)	RMS 75.3	Theor. 34.1	Amplitude Search (1024X32)	0.215 +/- 0.027	0.211	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	123.3	59.6	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)	74.6	20.6	Inc. seg. avg.	0.343	0.343	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	72.2	35.9	Inc. frq. avg.	0.228	0.228	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

B: az 17.4 el 22.1 pa -21.5 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 292.882 10157.590 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/By..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/By.W.85.1HTNOG

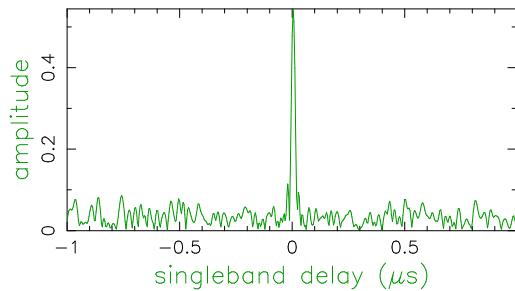
multiband delay (μ s)



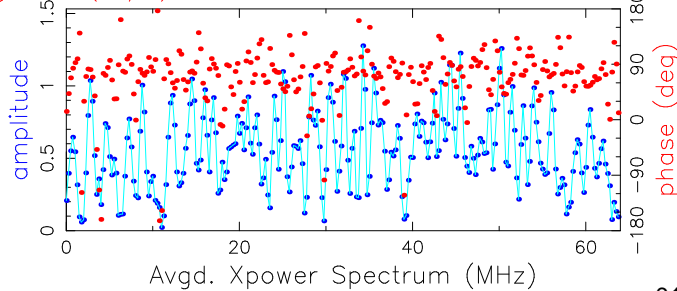
Fringe quality 8

SNR 20.0
Int time 179.975
Amp 0.544
Phase -177.6
PFD 0.0e+00
Delays (us)
SBD 0.004636
MBD -0.004811
Fringe rate (Hz)
0.003804
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

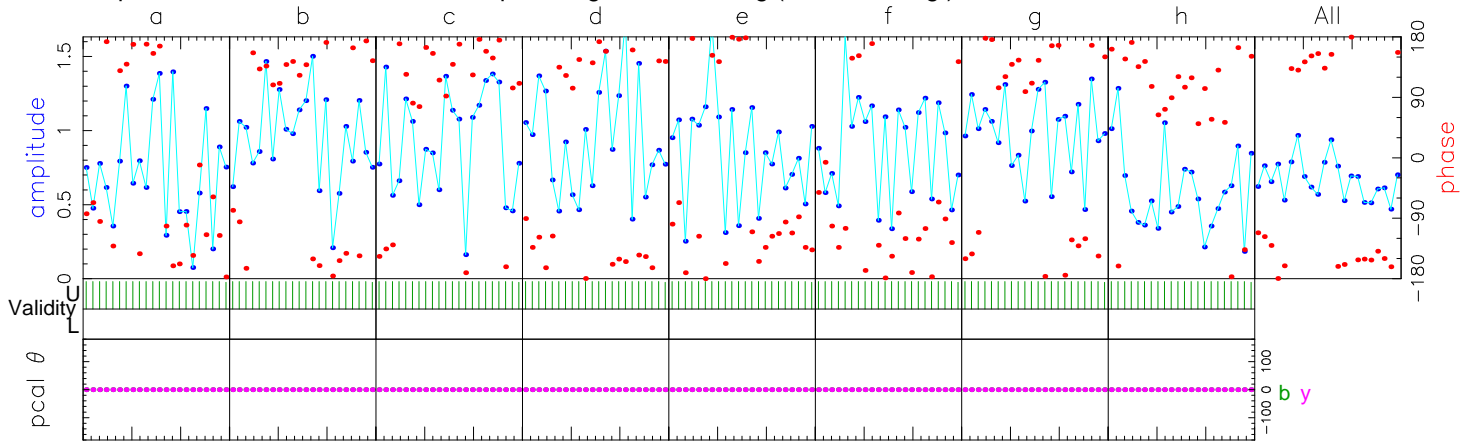
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143532
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



delay rate (ns/s)



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



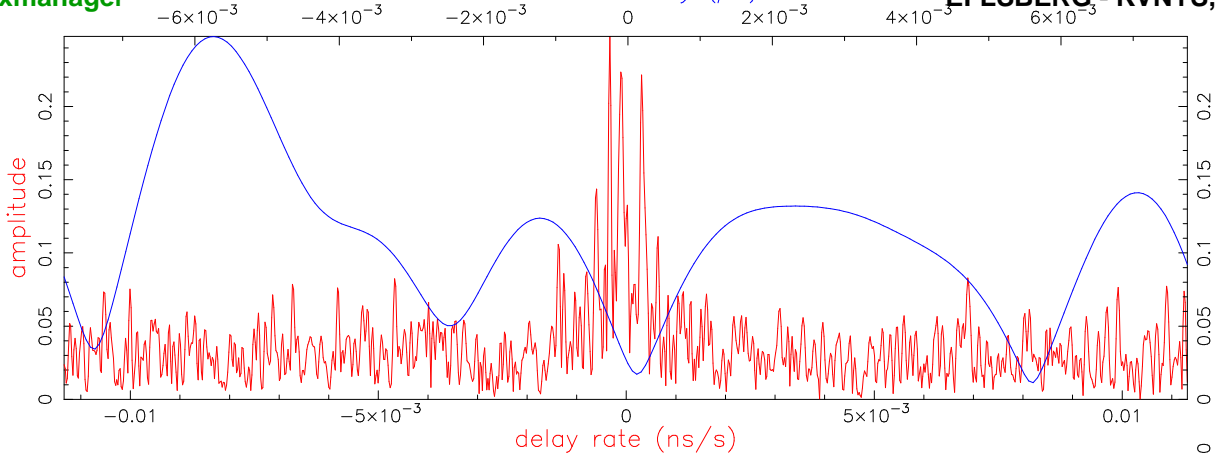
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-158.5	167.2	150.6	-169.8	-144.1	-132.2	174.2	130.4	Phase	-177.6
	0.5	0.7	0.7	0.7	0.6	0.6	0.7	0.4	Ampl.	0.6
	256.2	258.3	258.6	257.9	258.3	258.1	258.1	255.2	Sbd box	258.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:y	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-4.83202375957E+03	Apriori delay (usec)	-4.83203457392E+03	Resid mbdelay (usec)	-4.81065E-03	+/-	5.4E-05
Sband delay (usec)	-4.83202993817E+03	Apriori clock (usec)	-2.9510279E+00	Resid sbdelay (usec)	4.63575E-03	+/-	4.3E-04
Phase delay (usec)	-4.83203457965E+03	Apriori clockrate (us/s)	-9.9999991E-08	Resid phdelay (usec)	-5.72666E-06	+/-	1.9E-07
Delay rate (us/s)	-8.38047036004E-01	Apriori rate (us/s)	-8.38047080168E-01	Resid rate (us/s)	4.41644E-08	+/-	1.8E-09
Total phase (deg)	-248.8	Apriori accel (us/s/s)	3.86784758201E-05	Resid phase (deg)	-177.6	+/-	5.7

ph/seg (deg)	RMS 35.7	Theor. 13.5	Amplitude Search (1024X32)	0.542	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	33.5	23.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	35.6	8.1	Inc. seg. avg.	0.654	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	25.5	14.2	Inc. frq. avg.	0.612	Sample rate(MISamp/s): 128	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

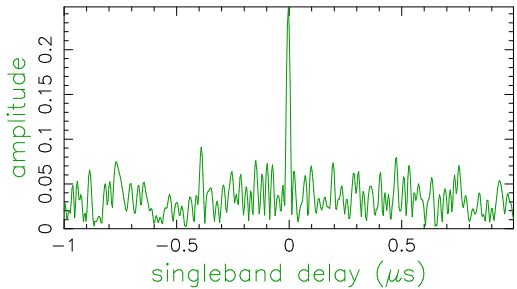
b: az 315.9 el 41.5 pa 62.8 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 9219.939 5544.266 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/by..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/by.W.87.1HTNOG

multiband delay (μ s)

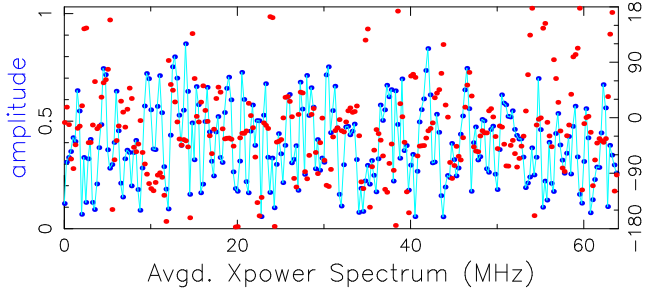


Fringe quality 9

SNR 9.1
Int time 179.774
Amp 0.248
Phase -7.7
PFD 2.0e-11
Delays (us)
SBD -0.004093
MBD -0.005750
Fringe rate (Hz)
-0.028584
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

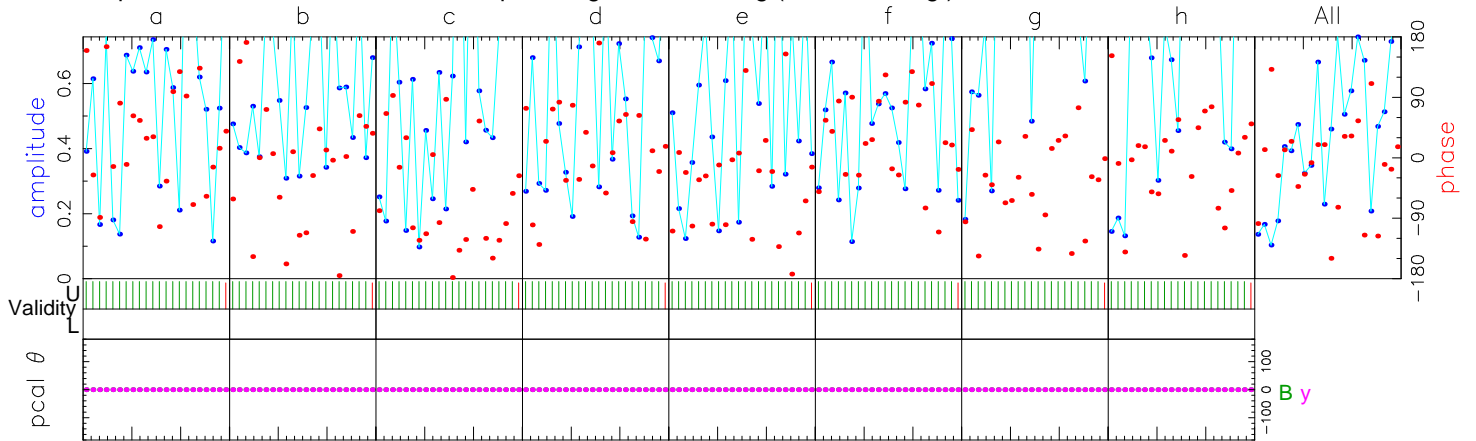


delay rate (ns/s)



Exp. c202a
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143533
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

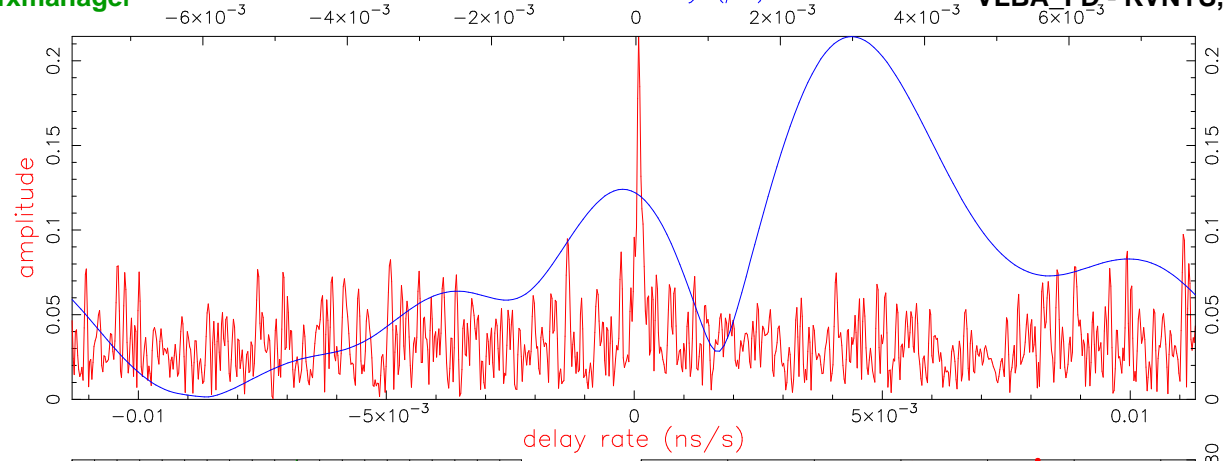
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



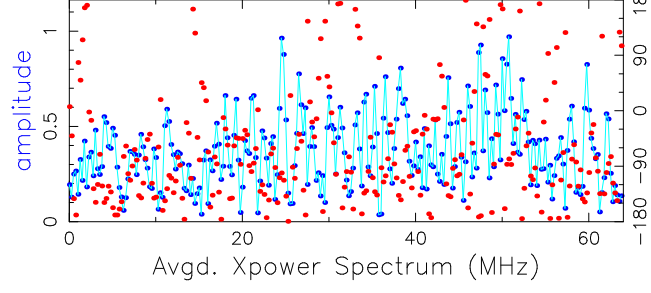
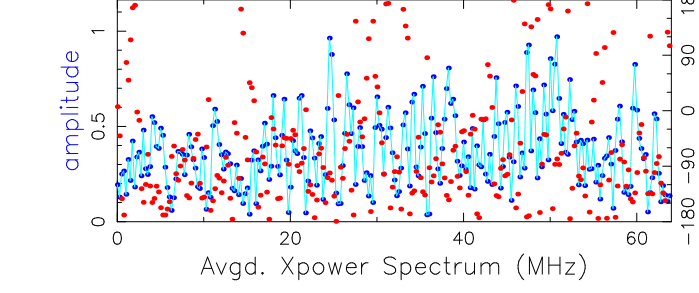
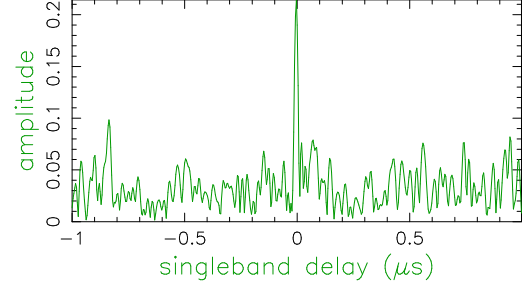
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	35.3	6.8	-91.1	7.6	-69.3	39.2	-26.3	13.9	Phase	-7.7
	0.2	0.2	0.3	0.3	0.2	0.3	0.6	0.4	Ampl.	0.3
	254.0	98.5	254.8	256.7	258.1	256.9	256.9	254.5	Sbd box	256.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:y	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.08488660321E+04		Apriori delay (usec)		-1.08488602821E+04		Resid mbdelay (usec)		-5.74999E-03	+/- 1.2E-04
Sband delay (usec)	-1.08488643753E+04		Apriori clock (usec)		8.8779135E+00		Resid sbdelay (usec)		-4.09325E-03	+/- 9.5E-04
Phase delay (usec)	-1.08488602823E+04		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		-2.47627E-07	+/- 4.1E-07
Delay rate (us/s)	-2.12902239715E-02		Apriori rate (us/s)		-2.12898921384E-02		Resid rate (us/s)		-3.31833E-07	+/- 3.9E-09
Total phase (deg)			Apriori accel (us/s/s)		7.33618222944E-05		Resid phase (deg)		-7.7	+/- 12.6

ph/seg (deg) 68.2 29.6 Search (1024X32) 0.244 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 119.4 51.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 51.7 17.8 Inc. seg. avg. 0.396 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 58.5 31.1 Inc. frq. avg. 0.308 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 17.4 el 22.1 pa -21.5 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 292.882 10157.590 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/By..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/By.W.99.1HTNOG

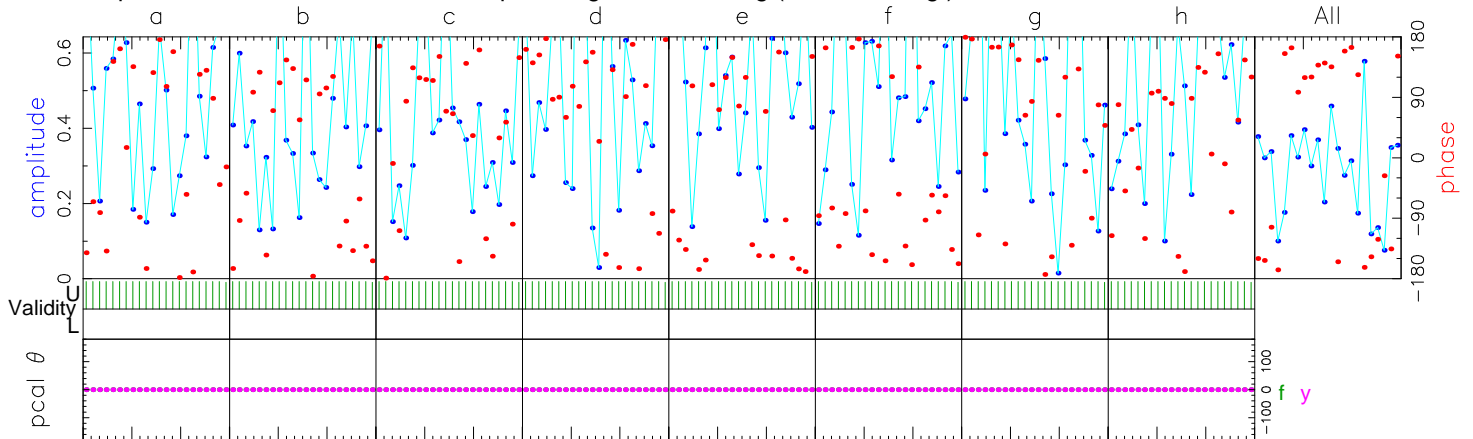
multiband delay (μ s)



Fringe quality 9
SNR 7.9
Int time 179.975
Amp 0.214
Phase 169.7
PFD 6.2e-07
Delays (us)
SBD -0.004275
MBD 0.002970
Fringe rate (Hz) 0.006890
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143535
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
f:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:y	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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.15335391234E+04									
Sband delay (usec)	-1.15335463676E+04									
Phase delay (usec)	-1.15335420877E+04									
Delay rate (us/s)	-9.81528430958E-01									
Total phase (deg)			-154.9							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
PC period (AP's) 5, 5										
SampCntNorm: enabled										
nlags: 256										
t_cohere infinite										
simultaneous interpolator										

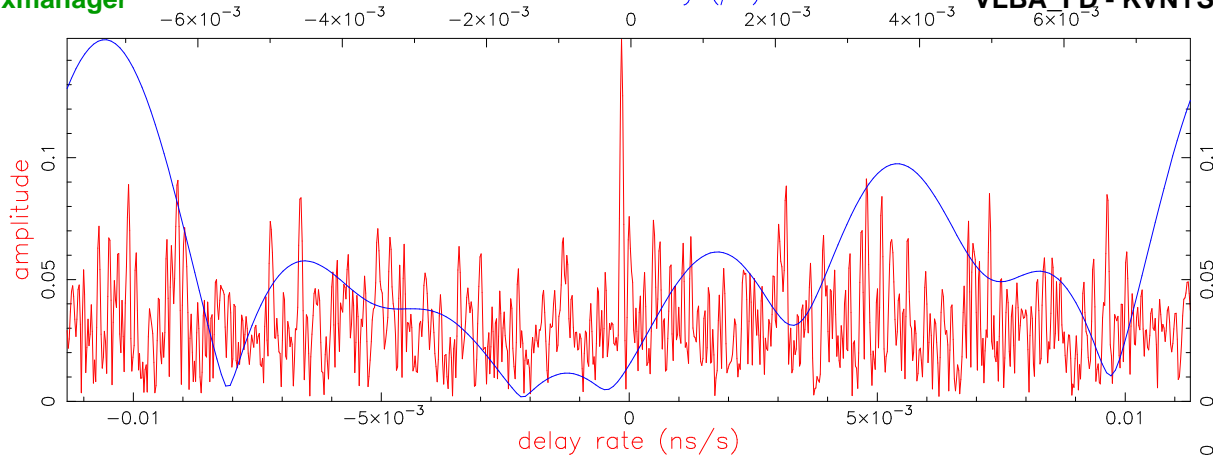
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, fy

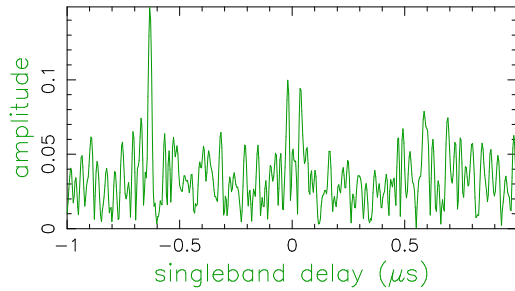
VLBA_FD - KVNYS, fgroup W, pol LR

multiband delay (μ s)

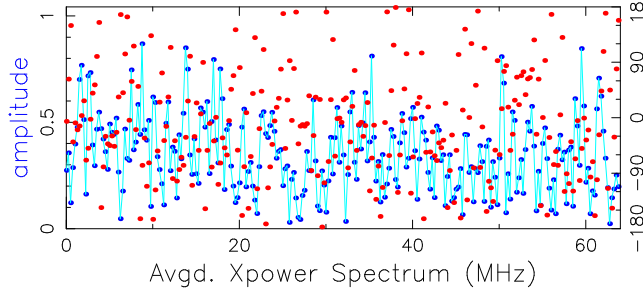


Fringe quality 0

SNR 5.5
 Int time 179.975
 Amp 0.149
 Phase -22.9
 PFD 1.0e+00
 Delays (us)
 SBD -0.632090
 MBD -0.007284
 Fringe rate (Hz)
 -0.013376
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

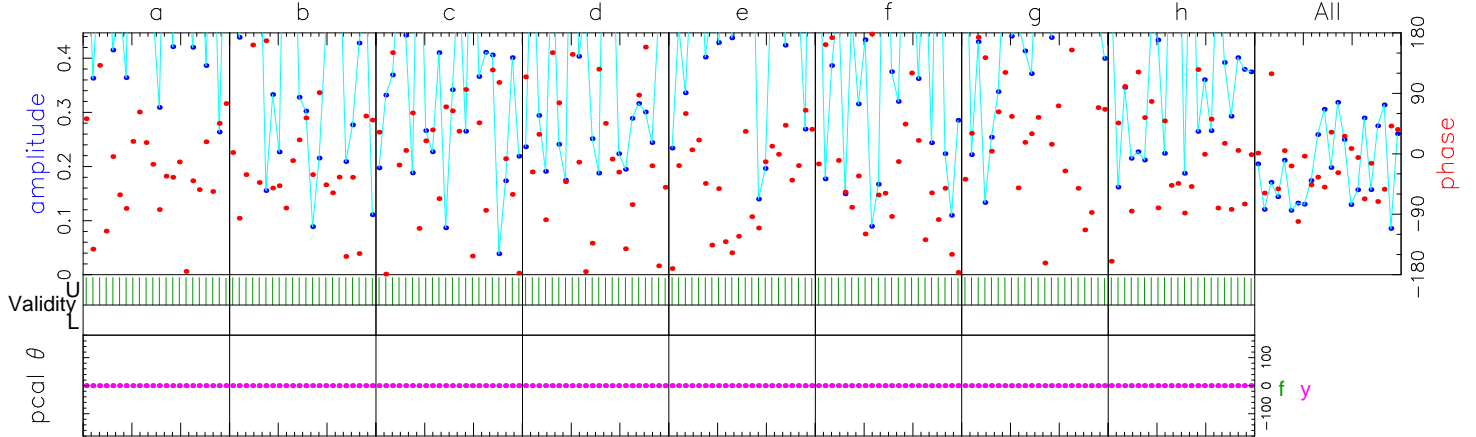


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143537
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-15.1	-37.9	-8.7	26.9	-18.2	-63.7	26.8	-31.1		Phase
	0.3	0.2	0.0	0.0	0.3	0.2	0.1	0.2		Ampl.
	96.0	245.3	387.3	52.1	498.6	266.8	270.4	111.9		Sbd box
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
y	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
f:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
f:y	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
y	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Chan ids
										Tracks
Group delay (usec)(sbd)	-1.15341743774E+04		Apriori delay (usec)		-1.15335420931E+04		Resid mbdelay (usec)		-7.28432E-03	+/- 2.0E-04
Sband delay (usec)	-1.15341741829E+04		Apriori clock (usec)		6.6010876E+00		Resid sbdelay (usec)		-6.32090E-01	+/- 1.6E-03
Phase delay (usec)	-1.15335420939E+04		Apriori clockrate (us/s)		2.9999999E-07		Resid phdelay (usec)		-7.37771E-07	+/- 6.8E-07
Delay rate (us/s)	-9.81528666229E-01		Apriori rate (us/s)		-9.81528510947E-01		Resid rate (us/s)		-1.55282E-07	+/- 6.5E-09
Total phase (deg)			Apriori accel (us/s/s)		5.17535643758E-05		Resid phase (deg)		-22.9	+/- 21.0

RMS Theor. Amplitude 0.149 +/- 0.027
 ph/seg (deg) 48.1 49.2 Search (1024X32) 0.148 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.7 85.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 34.6 29.7 Inc. seg. avg. 0.146 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 57.3 51.7 Inc. frq. avg. 0.143 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 326.9 el 20.3 pa 64.3 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 10805.175 6126.455 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/fy..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/fy.W.134.1HTNOG

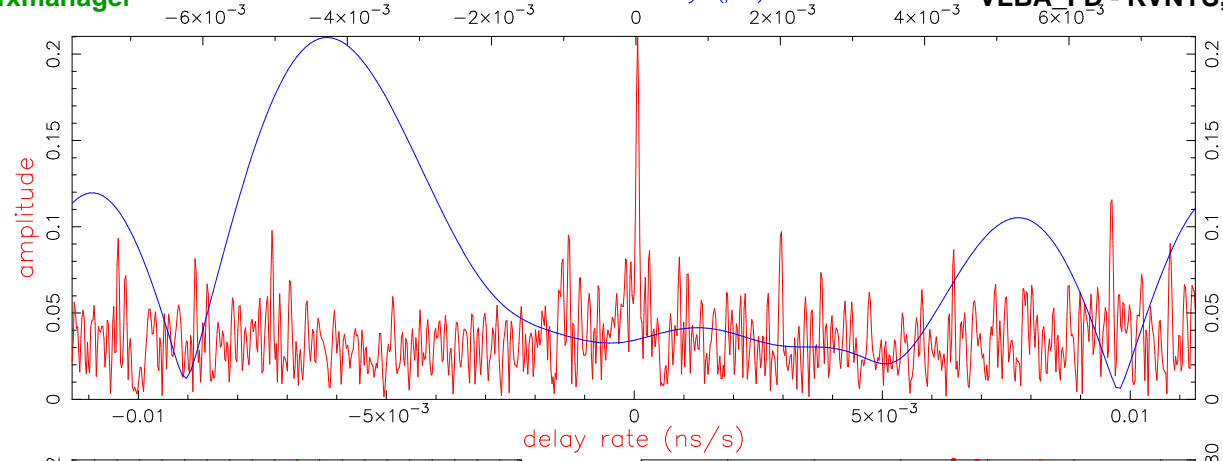
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

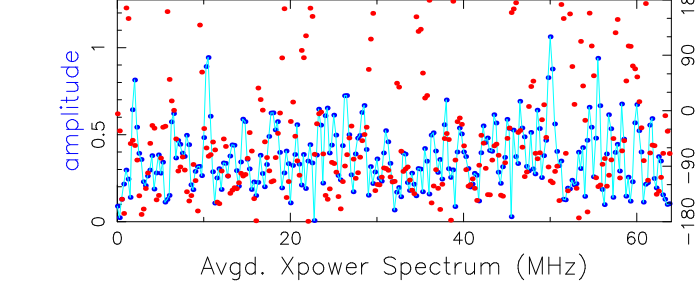
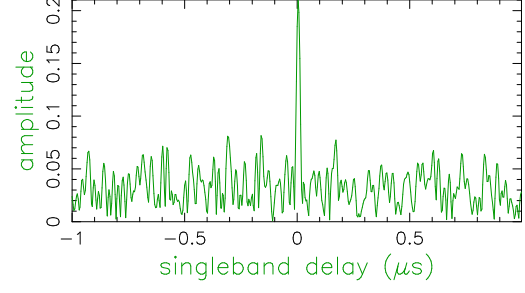
0102+584.1HTNOG, No0140, fy

VLBA_FD - KVNYS, fgroup W, pol RL

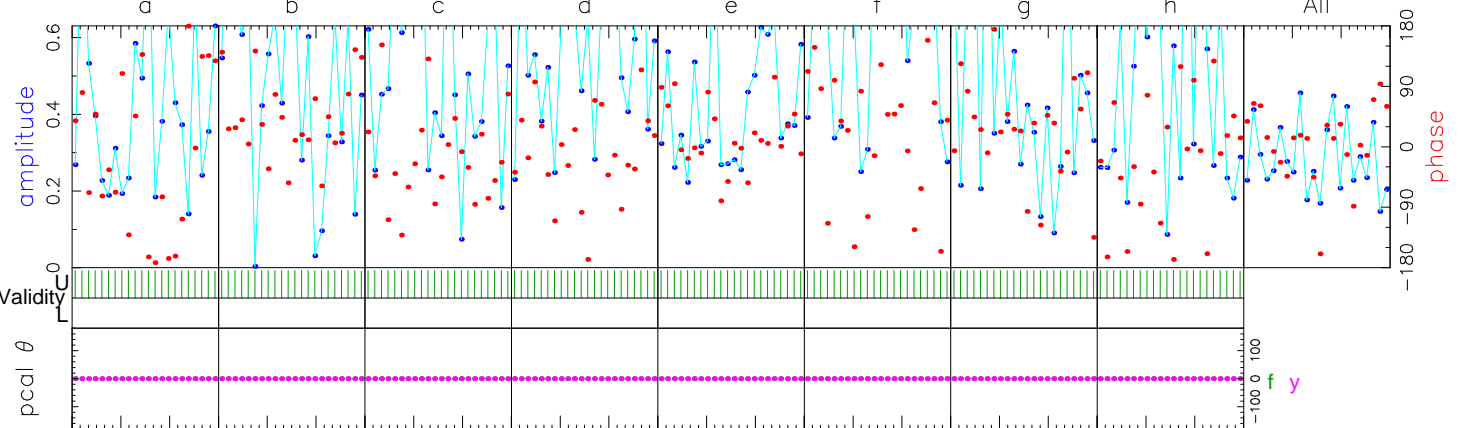
multiband delay (μ s)



Fringe quality 9
 SNR 7.7
 Int time 179.975
 Amp 0.210
 Phase 14.8
 PFD 2.0e-06
 Delays (us)
 SBD 0.004651
 MBD -0.004260
 Fringe rate (Hz) 0.006684
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143539
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
f:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:y	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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-1.15335307278E+04									
Sband delay (usec)	-1.15335374421E+04									
Phase delay (usec)	-1.15335420926E+04									
Delay rate (us/s)	-9.81528433357E-01									
Total phase (deg)			-309.9							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)									14.8	+/- 14.9
Pcal mode:	MANUAL	MANUAL								
Pcal rate:	0.000E+00	0.000E+00								
Bits/sample:	2x2									
Sample rate(MISamp/s):	128									
Data rate(Mb/s):	2048									
PC period (AP's)	5	5								
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								

f: az 326.9 el 20.3 pa 64.3 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 10805.175 6126.455 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/fy..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/fy.W.154.1HTNOG

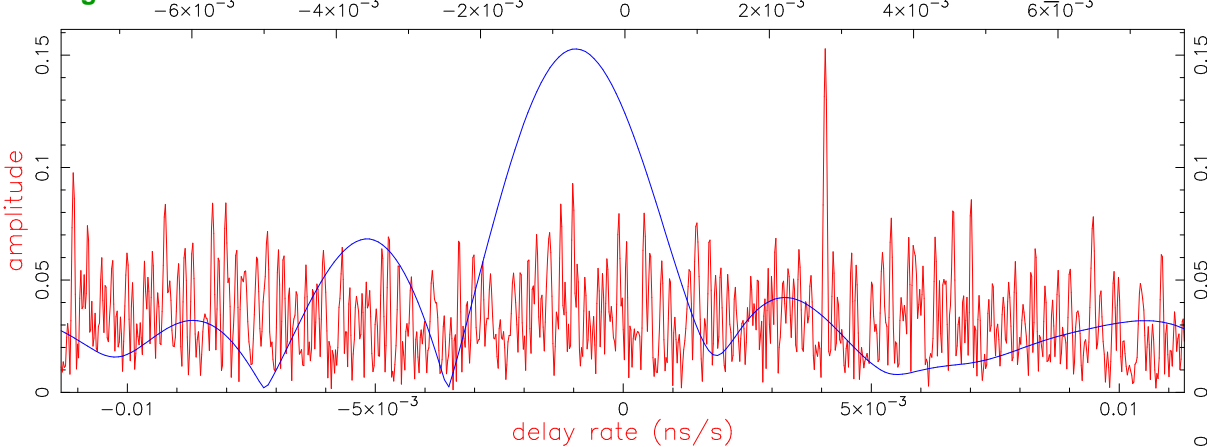
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, fy

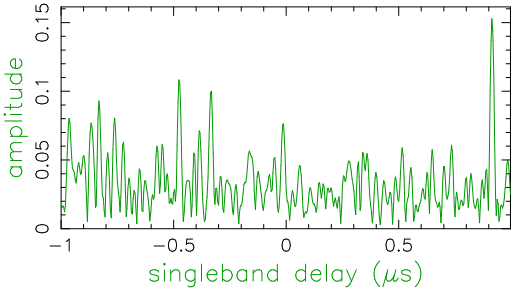
VLBA_FD - KVNYS, fgroup W, pol LL

multiband delay (μ s)

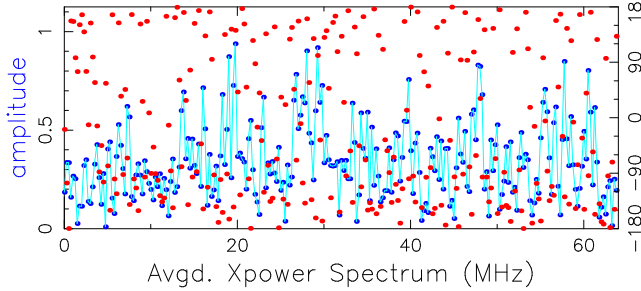


Fringe quality 0

SNR 5.6
 Int time 179.975
 Amp 0.161
 Phase -49.6
 PFD 9.1e-01
 Delays (us)
 SBD 0.914567
 MBD -0.000677
 Fringe rate (Hz)
 0.351376
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

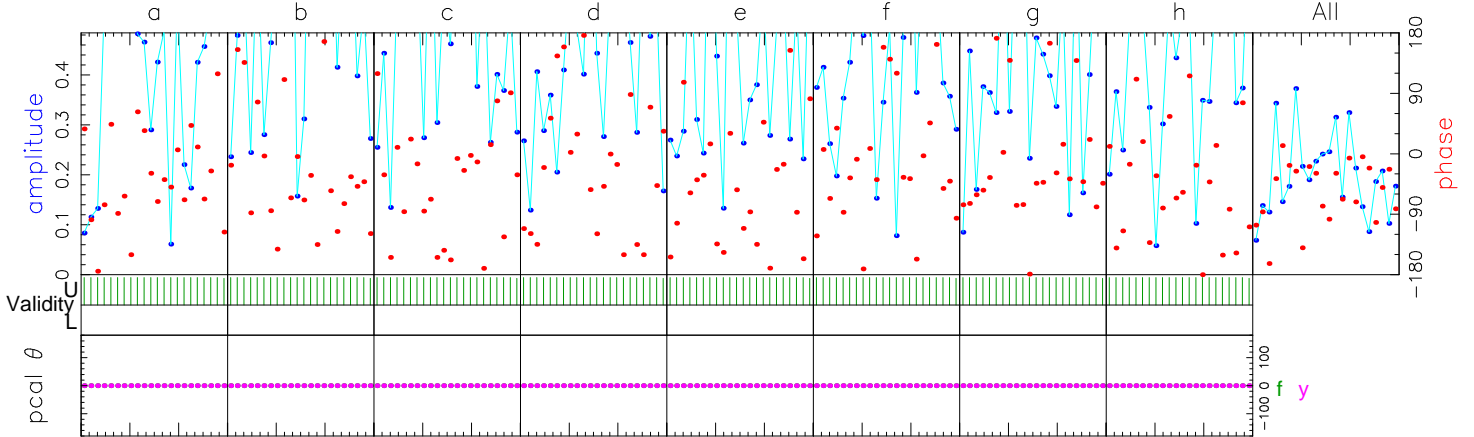


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143533
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-40.0	-72.2	-37.0	-59.4	-35.6	-34.8	-52.1	-69.1	Phase	-49.6
	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	Ampl.	0.1
	42.9	173.2	61.1	185.1	58.1	373.2	136.9	72.3	Sbd box	491.1
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	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:y	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.15326208953E+04	Apriori delay (usec)	-1.15335420931E+04	Resid mbdelay (usec)	-6.77146E-04	+/-	1.9E-04
Sband delay (usec)	-1.15326275261E+04	Apriori clock (usec)	6.6010876E+00	Resid sbdelay (usec)	9.14567E-01	+/-	1.5E-03
Phase delay (usec)	-1.15335420947E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-1.59789E-06	+/-	6.6E-07
Delay rate (us/s)	-9.81524431817E-01	Apriori rate (us/s)	-9.81528510947E-01	Resid rate (us/s)	4.07913E-06	+/-	6.3E-09
Total phase (deg)	-14.2	Apriori accel (us/s/s)	5.17535643758E-05	Resid phase (deg)	-49.6	+/-	20.4

ph/seg (deg)	45.8	Theor.	47.9	Amplitude	0.161 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	61.1	Search (1024X32)	0.150	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	16.6	Inc. seg. avg.	0.157	Inc. frq. avg.	0.148	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	29.0	Inc. frq. avg.	0.148			Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 326.9 el 20.3 pa 64.3

y: az 31.8 el 62.3 pa -127.5

u,v (fr/asec) 10805.175 6126.455

simultaneous interpolator

Control file: cf_1234_gmva

Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/fy..1HTNOG

Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/fy.W.94.1HTNOG

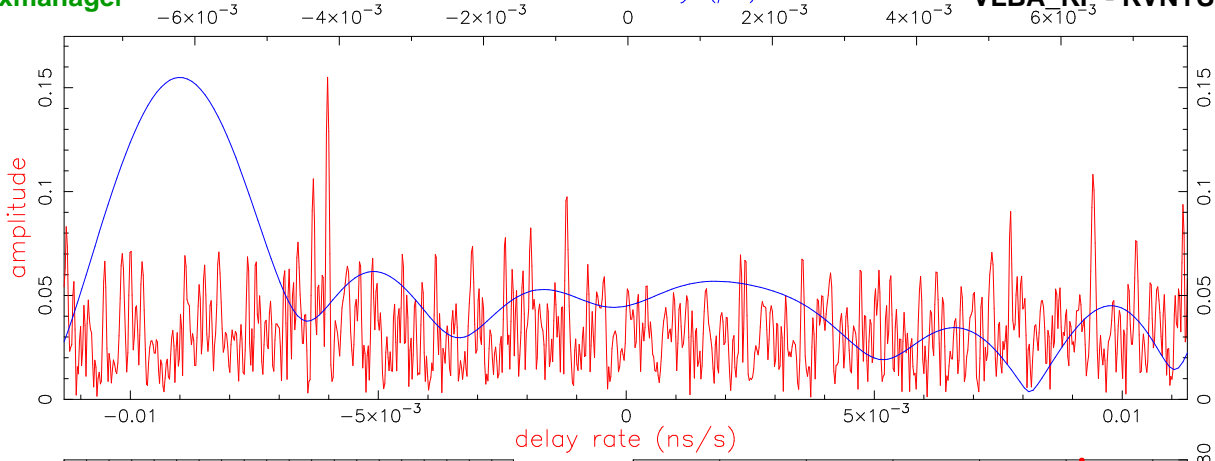
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, ky

VLBA_KP - KVNYS, fgroup W, pol LL

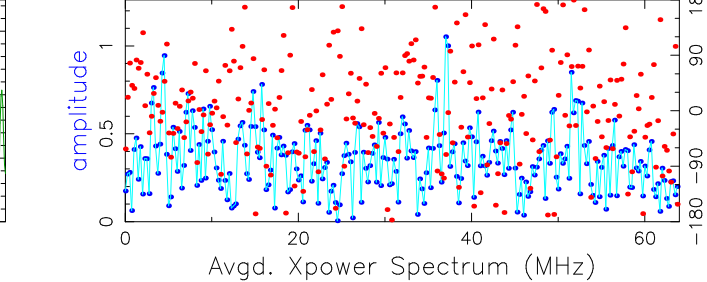
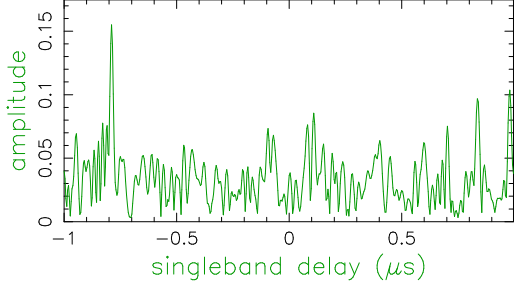
multiband delay (μ s)



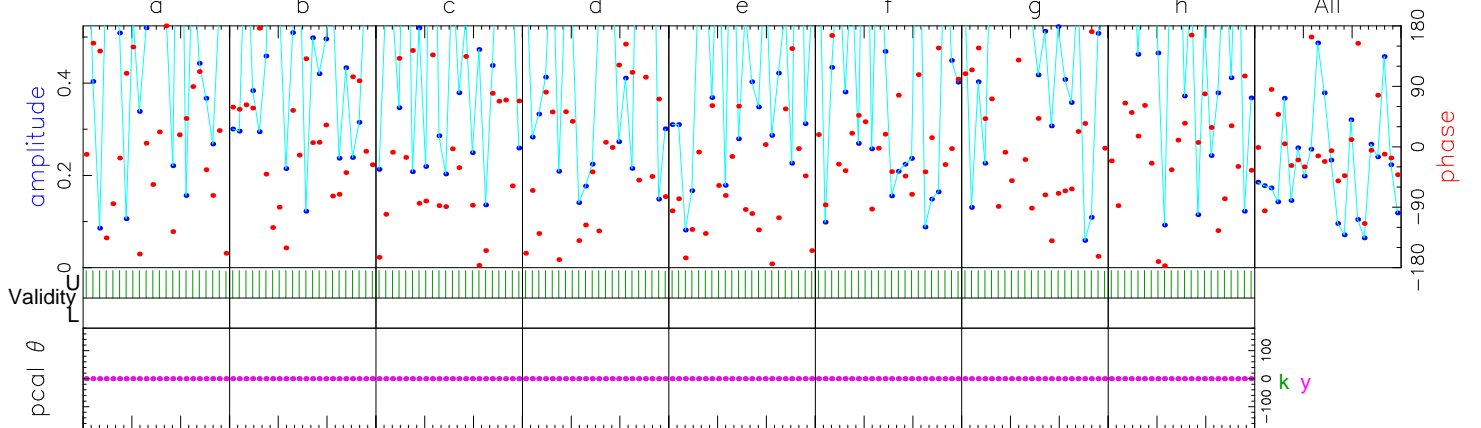
Fringe quality 0

SNR 5.7
 Int time 179.843
 Amp 0.175
 Phase -7.2
 PFD 8.0e-01
 Delays (us)
 SBD -0.789218
 MBD -0.006212
 Fringe rate (Hz)
 -0.520465
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143543
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



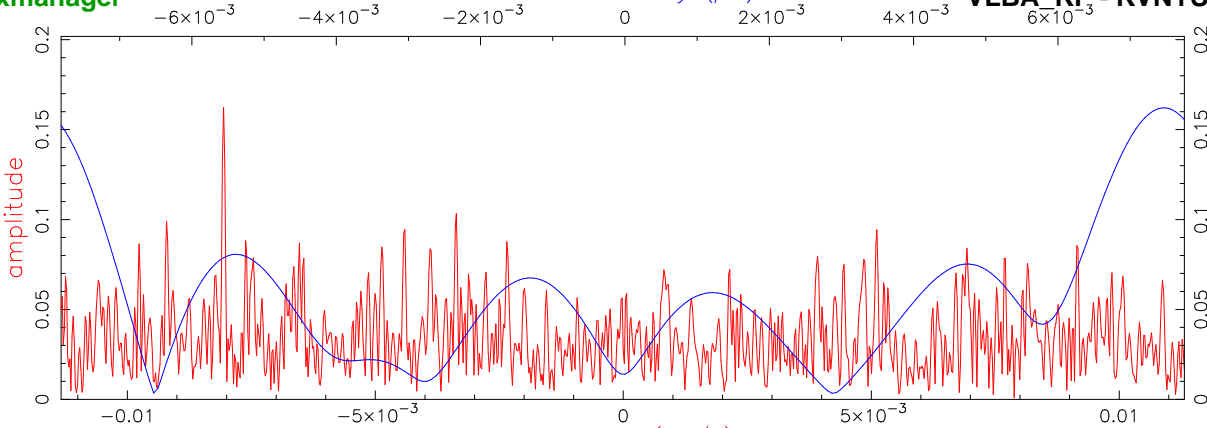
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-3.1	-5.6	21.6	-3.7	-50.5	15.4	-23.7	0.5	Phase	-7.2
	0.1	0.2	0.1	0.1	0.2	0.3	0.2	0.3	Ampl.	0.2
	370.4	45.1	89.2	285.5	432.2	55.8	59.0	54.1	Sbd box	55.0
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	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ky	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-9.90789334813E+03		Apriori delay (usec)		-9.90710588655E+03		Resid mbdelay (usec)		-6.21159E-03	+/- 1.9E-04
Sband delay (usec)	-9.90789510505E+03		Apriori clock (usec)		-9.1099930E-01		Resid sbdelay (usec)		-7.89218E-01	+/- 1.5E-03
Phase delay (usec)	-9.90710588678E+03		Apriori clockrate (us/s)		0.000000E+00		Resid phdelay (usec)		-2.32279E-07	+/- 6.5E-07
Delay rate (us/s)	-9.84438208194E-01		Apriori rate (us/s)		-9.84432166111E-01		Resid rate (us/s)		-6.04208E-06	+/- 6.2E-09
Total phase (deg)			Apriori accel (us/s/s)		4.49614147927E-05		Resid phase (deg)		-7.2	+/- 20.2

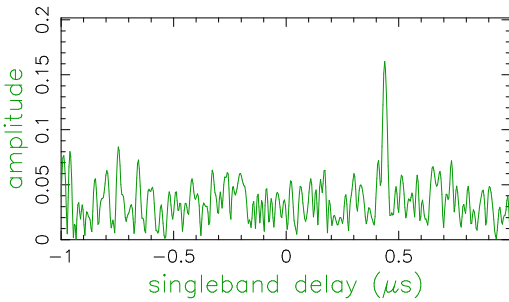
ph/seg (deg) 67.2 47.3 Search (1024X32) 0.151 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 87.4 82.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.4 28.5 Inc. seg. avg. 0.190 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.0 49.8 Inc. frq. avg. 0.167 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 324.9 el 25.1 pa 69.1 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 10831.324 5346.553 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/ky..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/ky.W.175.1HTNOG

multiband delay (μs)

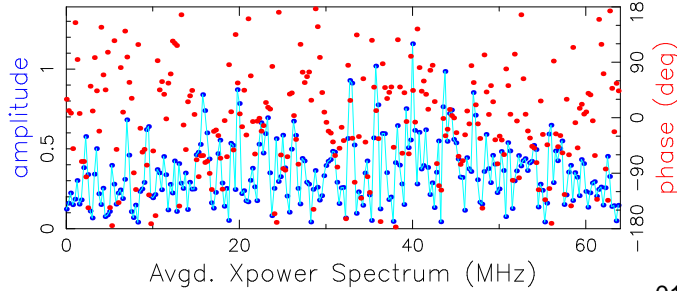


Fringe quality 0

SNR 6.0
 Int time 179.843
 Amp 0.202
 Phase 92.4
 PFD 2.9e-01
 Delays (us)
 SBD 0.437872
 MBD -0.008155
 Fringe rate (Hz)
 -0.695975
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

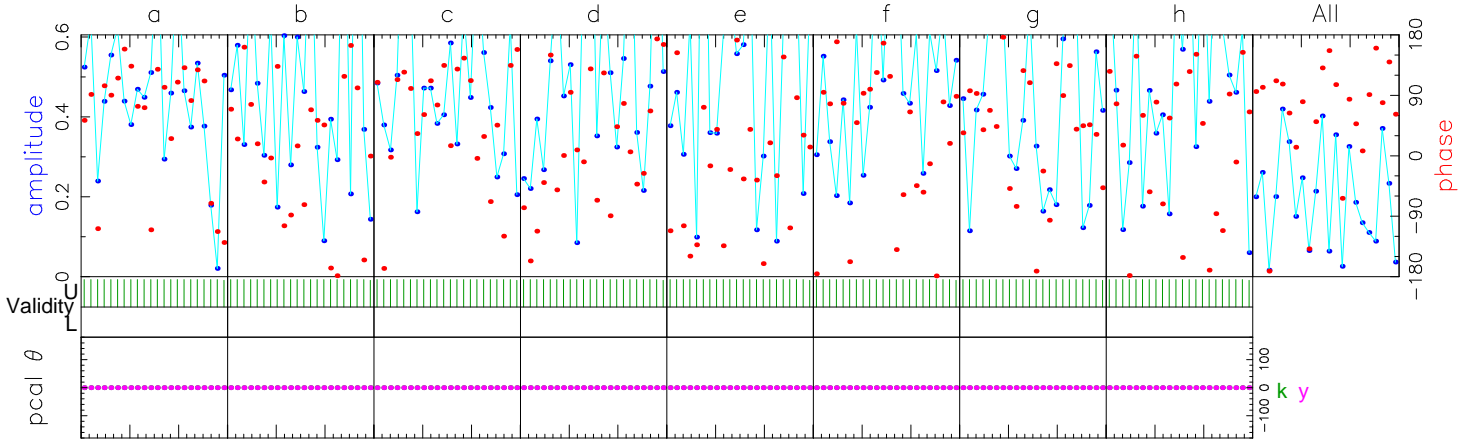


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143547
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



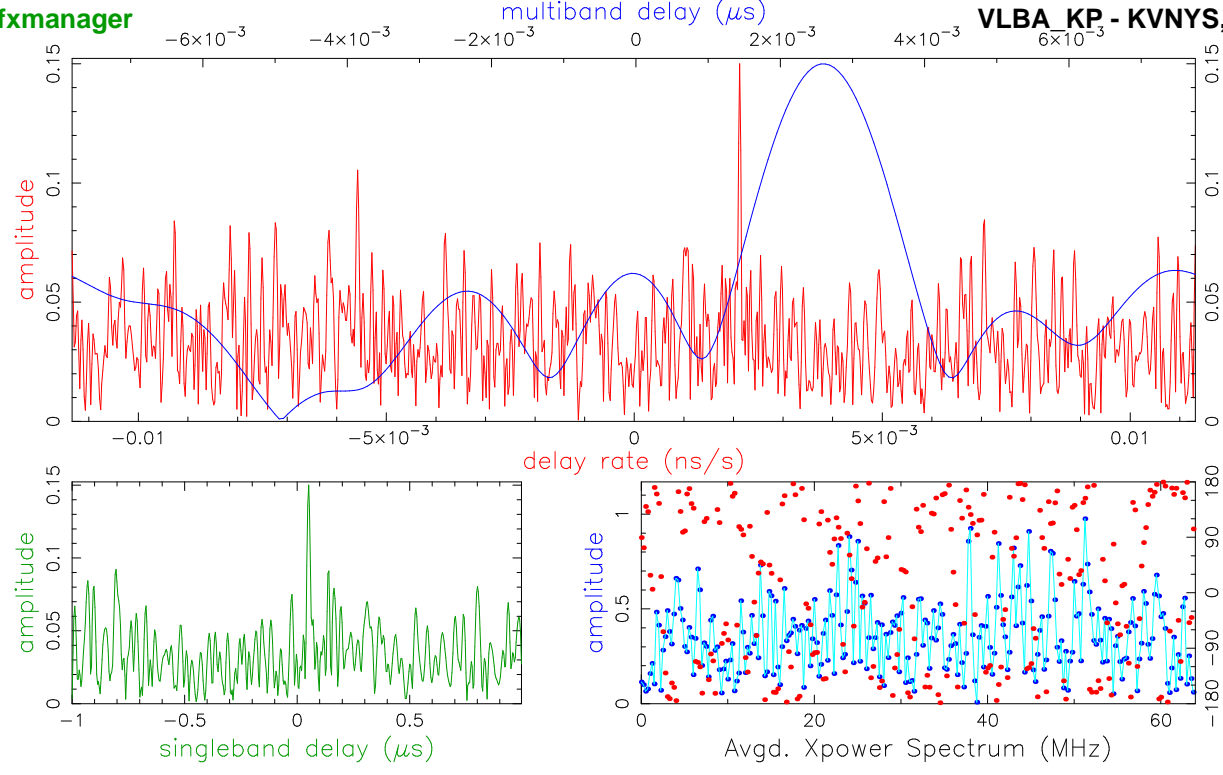
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
k:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
ky	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0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

Group delay (usec)(sbd)	-9.90666091664E+03	Apriori delay (usec)	-9.90710588655E+03	Resid mbdelay (usec)	-8.15509E-03	+/-	1.8E-04
Sband delay (usec)	-9.90666801455E+03	Apriori clock (usec)	-9.1099930E-01	Resid sbdelay (usec)	4.37872E-01	+/-	1.4E-03
Phase delay (usec)	-9.90710588357E+03	Apriori clockrate (us/s)	0.000000E+00	Resid phdelay (usec)	2.98003E-06	+/-	6.2E-07
Delay rate (us/s)	-9.84440245687E-01	Apriori rate (us/s)	-9.84432166111E-01	Resid rate (us/s)	-8.07958E-06	+/-	6.0E-09
Total phase (deg)	68.2	Apriori accel (us/s/s)	4.49614147927E-05	Resid phase (deg)	92.4	+/-	19.3

ph/seg (deg)	61.4	Theor.	45.2	Amplitude	0.202 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	80.4		78.8	Search (1024X32)	0.160	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	34.8		27.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	47.1		47.5	Inc. seg. avg.	0.192	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.197	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

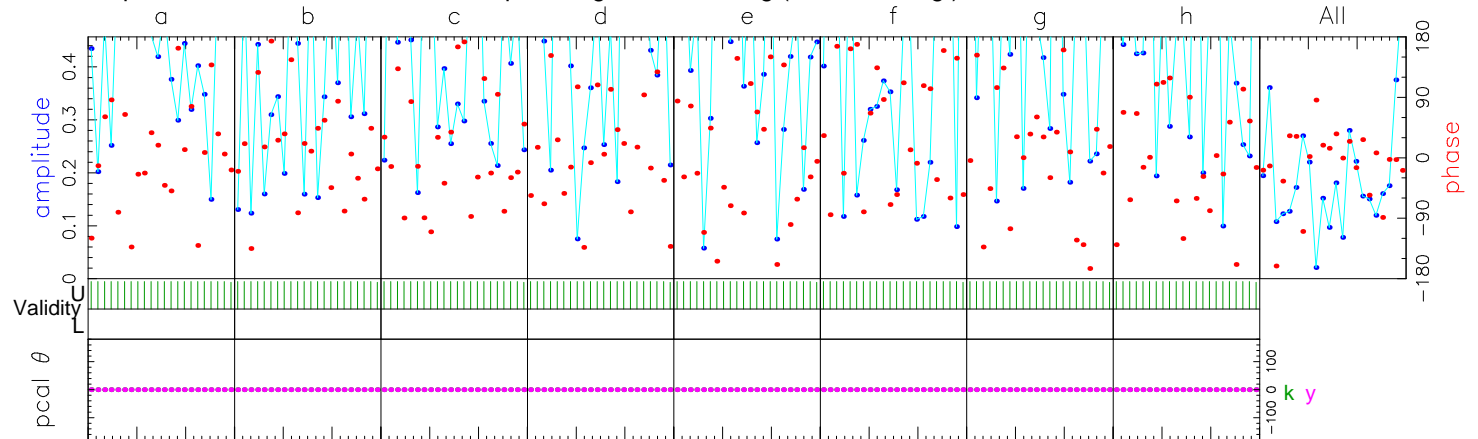
k: az 324.9 el 25.1 pa 69.1 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 10831.324 5346.553 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/ky..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/ky.W.212.1HTNOG



Fringe quality 0
SNR 5.5
Int time 179.843
Amp 0.152
Phase -8.2
PFD 9.9e-01
Delays (us)
SBD 0.050541
MBD 0.002587
Fringe rate (Hz)
0.183353
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143549
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

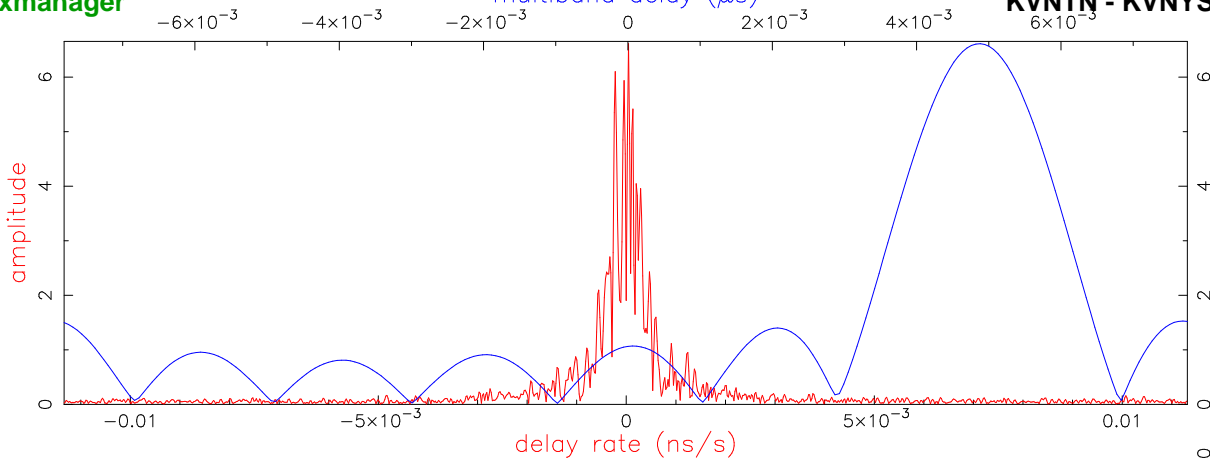
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



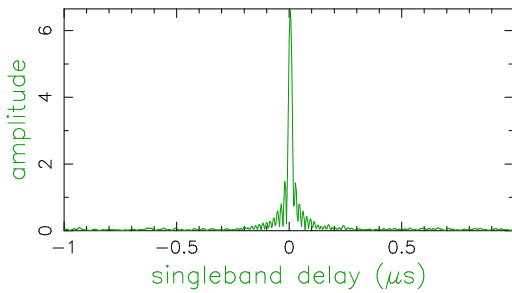
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
k:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
ky	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-9.90705642422E+03				-9.90710588655E+03				2.58733E-03	+/- 2.0E-04
Sband delay (usec)	-9.90705534580E+03				-9.1099930E-01				5.05407E-02	+/- 1.6E-03
Phase delay (usec)	-9.90710588681E+03				0.0000000E+00				-2.63637E-07	+/- 6.7E-07
Delay rate (us/s)	-9.84430037565E-01				-9.84432166111E-01				2.12855E-06	+/- 6.5E-09
Total phase (deg)			-32.4		4.49614147927E-05				-8.2	+/- 20.8
ph/seg (deg)	52.8	48.8			0.148					
amp/seg (%)	81.5	85.2			0.000					
ph/frq (deg)	28.4	29.4			0.145					
amp/frq (%)	45.4	51.4			0.143					
pcal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5							
pcal rate:	0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000							
Bits/sample:	2x2		SampCntNorm: enabled mb window (us) -0.008 0.008							
Sample rate(MISamp/s):	128		dr window (ns/s) -0.011 0.011							
Data rate(Mb/s):	2048		ion window (TEC) 0.00 0.00							
			nlags: 256 t_cohere infinite							
k: az 324.9 el 25.1 pa 69.1	y: az 31.8 el 62.3 pa -127.5		u,v (fr/asec) 10831.324 5346.553						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/ky..1HTNOG		Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/ky.W.235.1HTNOG							

multiband delay (μ s)

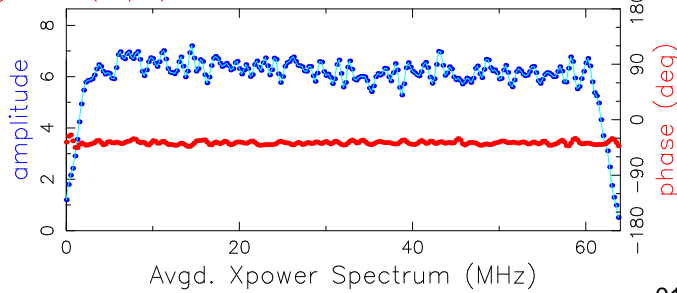
Fringe quality 5



SNR 244.1
Int time 179.975
Amp 6.654
Phase -37.3
PFD 0.0e+00
Delays (us)
SBD 0.004912
MBD 0.004871
Fringe rate (Hz)
0.003901
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

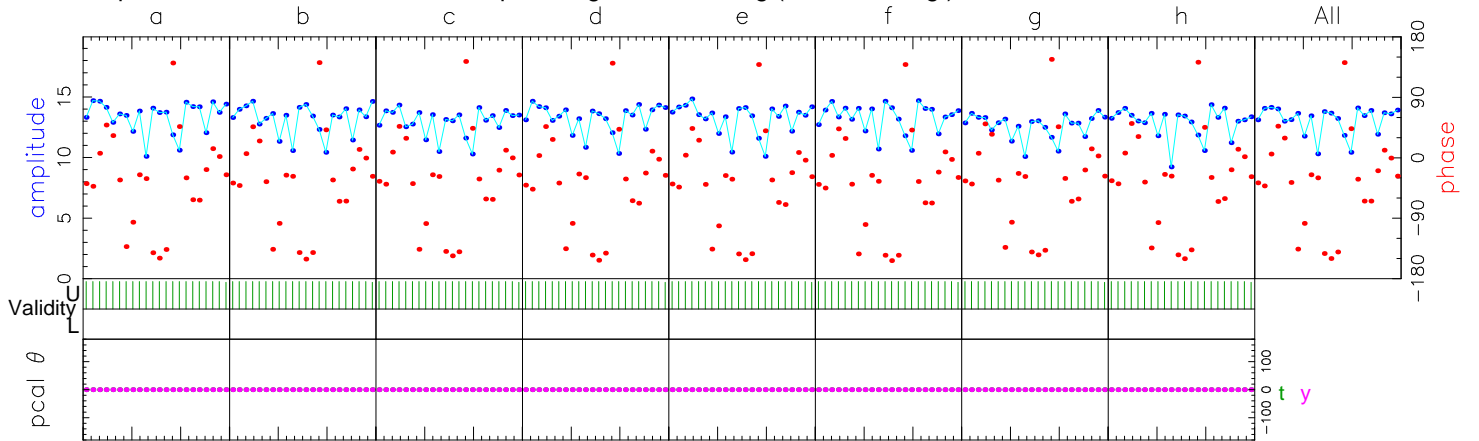


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143554
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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
	-35.9	-37.2	-35.8	-38.5	-39.7	-40.2	-35.2	-35.8	Phase	-37.3
	6.8	6.6	6.6	6.7	6.8	6.6	6.4	6.4	Ampl.	6.6
	258.2	258.2	258.3	258.2	258.3	258.3	258.3	258.3	Sbd box	258.3
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	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:y	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.10224235117E+02		Apriori delay (usec)	-7.10229106060E+02	Resid mbdelay (usec)	4.87094E-03	+/-	4.4E-06		
Sband delay (usec)	-7.10224194560E+02		Apriori clock (usec)	1.3400078E-01	Resid sbdelay (usec)	4.91150E-03	+/-	3.5E-05		
Phase delay (usec)	-7.10229107263E+02		Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.20294E-06	+/-	1.5E-08		
Delay rate (us/s)	2.12229972239E-02		Apriori rate (us/s)	2.12229519371E-02	Resid rate (us/s)	4.52868E-08	+/-	1.5E-10		
Total phase (deg)		-107.9	Apriori accel (us/s/s)	-2.06626727693E-06	Resid phase (deg)	-37.3	+/-	0.5		

ph/seg (deg) 69.3 1.1 Search (1024X32) 6.603 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 98.2 1.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 2.1 0.7 Inc. seg. avg. 13.092 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 2.3 1.2 Inc. frq. avg. 6.616 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 28.4 el 58.4 pa -130.1 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) -234.072 -544.978 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/ty..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/ty.W.269.1HTNOG

Mk4/DiFX fourfit 3.21 rev 2937

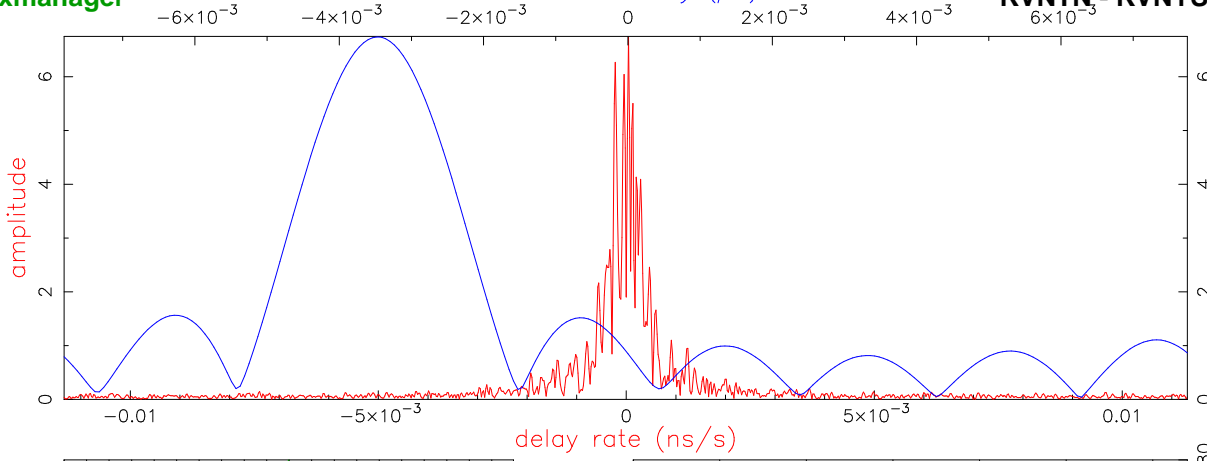
fxmanager

0102+584.1HTNOG, No0140, ty

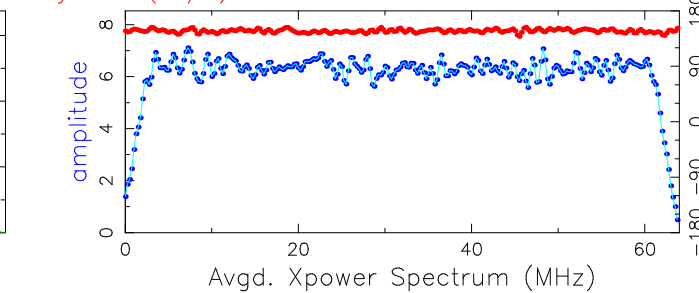
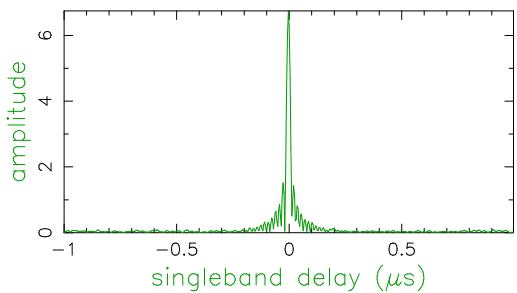
KVNTN - KVNYs, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 5

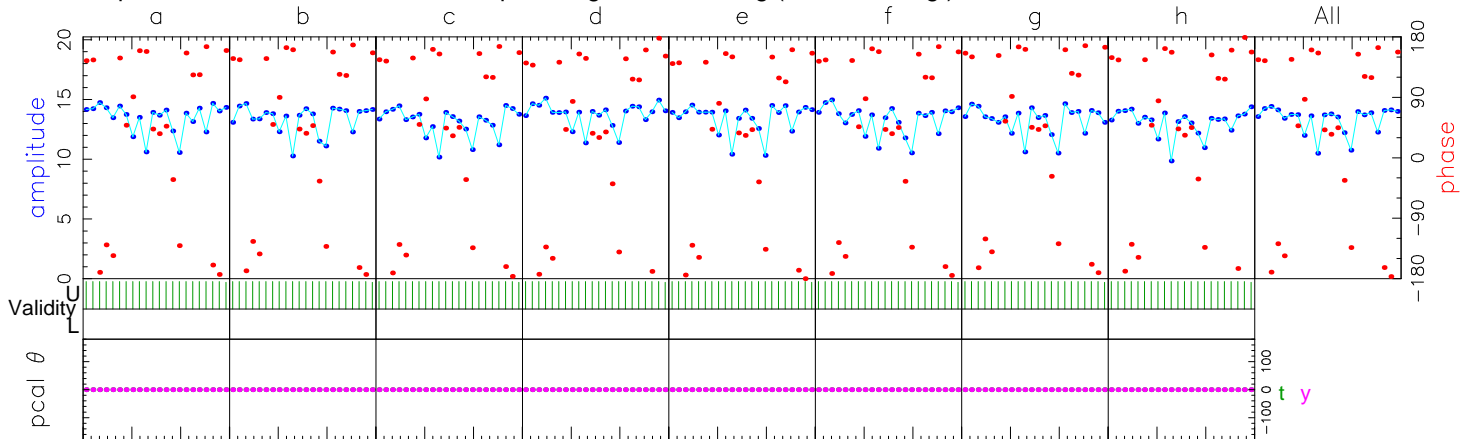


SNR 247.6
 Int time 179.975
 Amp 6.750
 Phase 147.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.003431
 MBD -0.003466
 Fringe rate (Hz)
 0.003898
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143557
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
ty	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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) -7.10232572242E+02 Apriori delay (usec) -7.10229106060E+02 Resid mbdelay (usec) -3.46618E-03 +/- 4.4E-06
 Sband delay (usec) -7.10232537310E+02 Apriori clock (usec) 1.3400078E-01 Resid sbdelay (usec) -3.43125E-03 +/- 3.5E-05
 Phase delay (usec) -7.10229101296E+02 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 4.76365E-06 +/- 1.5E-08
 Delay rate (us/s) 2.12229971927E-02 Apriori rate (us/s) 2.12229519371E-02 Resid rate (us/s) 4.52556E-08 +/- 1.4E-10
 Total phase (deg) 77.2 Apriori accel (us/s/s) -2.06626727693E-06 Resid phase (deg) 147.7 +/- 0.5

RMS Theor. Amplitude 6.750 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 69.3 1.1 Search (1024X32) 6.723 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 98.9 1.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 3.5 0.7 Inc. seg. avg. 13.339 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 1.8 1.1 Inc. frq. avg. 6.749 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

t: az 28.4 el 58.4 pa -130.1 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) -234.072 -544.978 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/ty..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/ty.W.290.1HTNOG

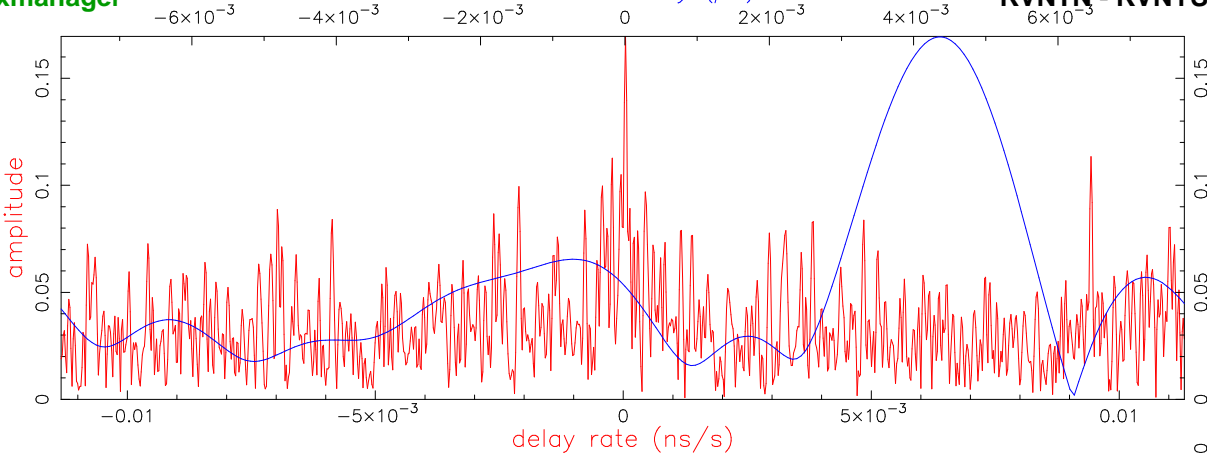
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, ty

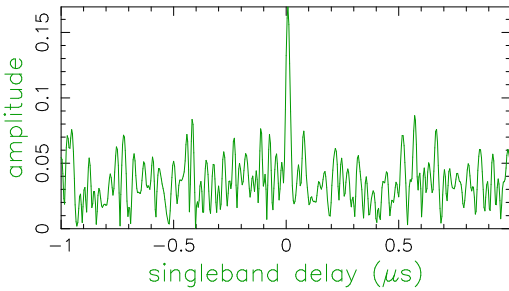
KVNTN - KVNYS, fgroup W, pol RL

multiband delay (μ s)

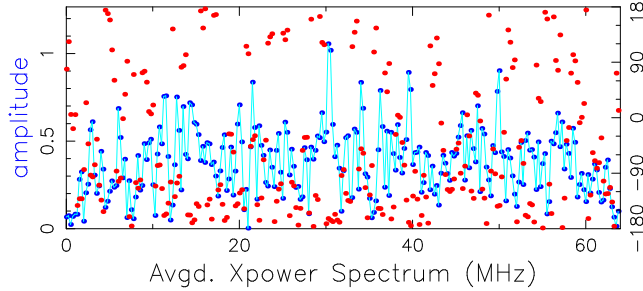


Fringe quality 0

SNR 6.2
 Int time 179.975
 Amp 0.170
 Phase -100.9
 PFD 6.4e-02
 Delays (us)
 SBD 0.007323
 MBD 0.004369
 Fringe rate (Hz) 0.004104
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

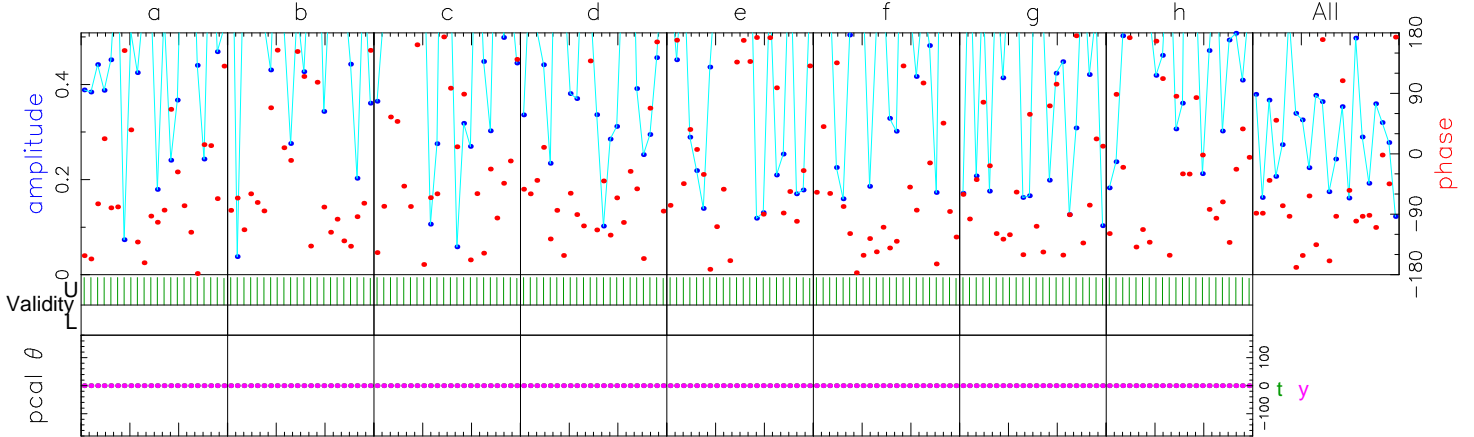


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143600
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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

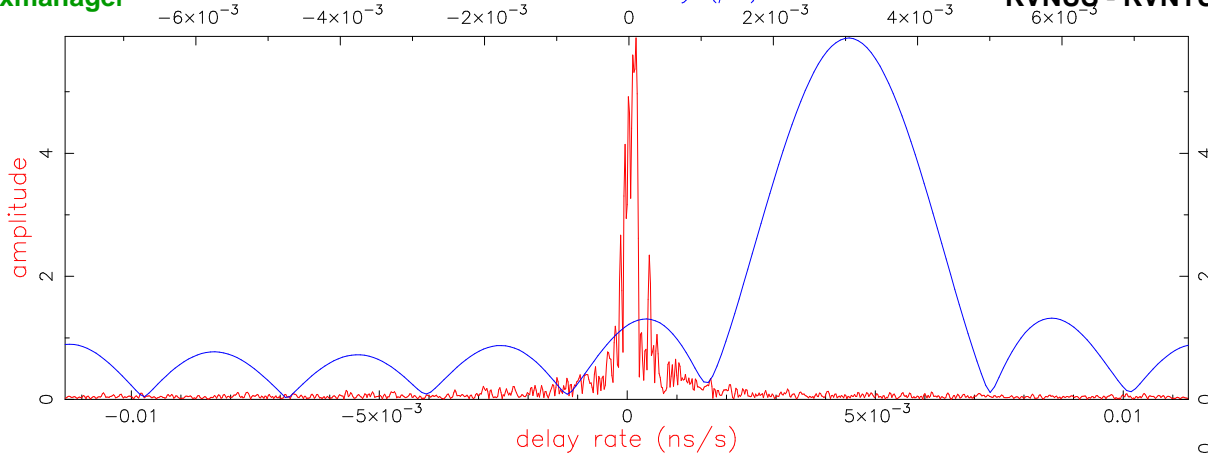


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-87.6	-114.6	-104.2	-82.6	-145.0	-110.3	-107.7	-76.8	Phase	-100.9
	0.2	0.2	0.1	0.3	0.1	0.1	0.2	0.1	Ampl.	0.2
	261.1	148.5	150.9	258.2	164.8	392.7	366.2	327.4	Sbd box	258.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ty	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.10224736929E+02		Apriori delay (usec)		-7.10229106060E+02		Resid mbdelay (usec)		4.36913E-03	+/- 1.7E-04
Sband delay (usec)	-7.10221783060E+02		Apriori clock (usec)		1.3400078E-01		Resid sbdelay (usec)		7.32300E-03	+/- 1.4E-03
Phase delay (usec)	-7.10229109313E+02		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-3.25333E-06	+/- 5.9E-07
Delay rate (us/s)	2.12229995805E-02		Apriori rate (us/s)		2.12229519371E-02		Resid rate (us/s)		4.76434E-08	+/- 5.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.06626727693E-06		Resid phase (deg)		-100.9	+/- 18.4

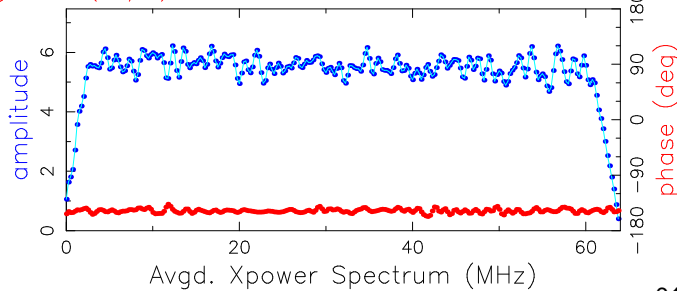
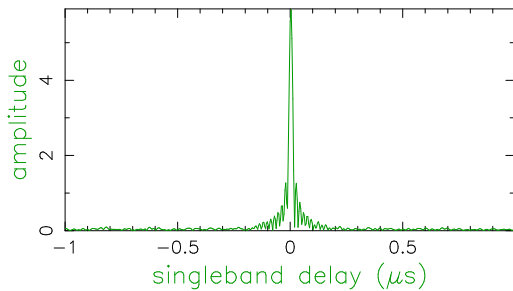
ph/seg (deg) 65.3 43.2 Search (1024X32) 0.168 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 98.1 75.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.7 26.1 Inc. seg. avg. 0.232 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.4 45.5 Inc. frq. avg. 0.163 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 28.4 el 58.4 pa -130.1 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) -234.072 -544.978 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/ty..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/ty.W.321.1HTNOG

multiband delay (μ s)

Fringe quality 5

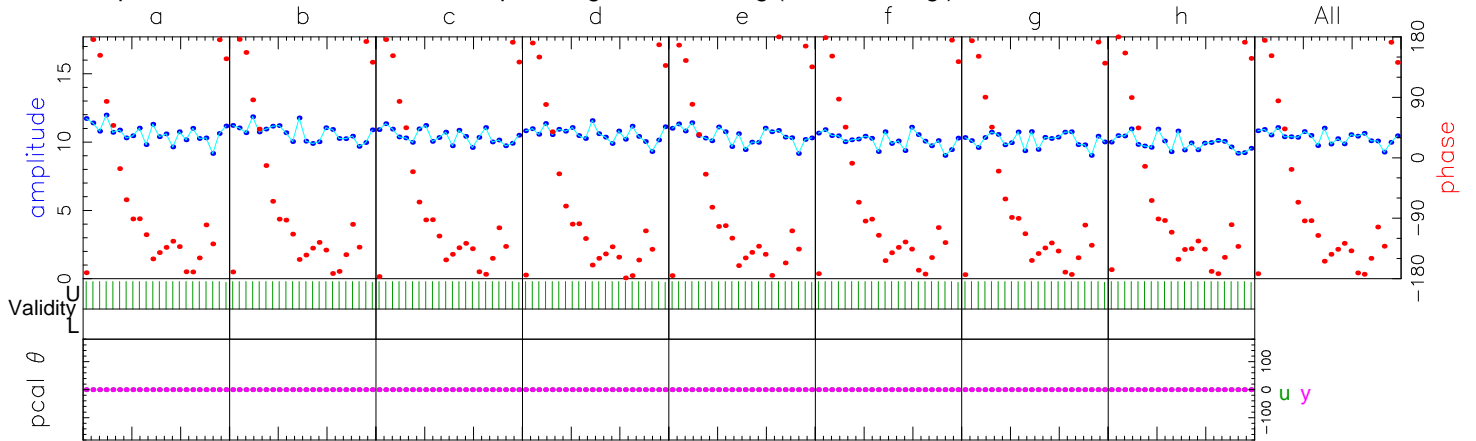


SNR 216.5
Int time 179.975
Amp 5.901
Phase -147.4
PFD 0.0e+00
Delays (us)
SBD 0.003059
MBD 0.003042
Fringe rate (Hz)
0.014584
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143601
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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
	-145.5	-145.3	-146.5	-152.1	-153.0	-145.9	-146.2	-144.4	Phase	-147.4
	6.0	6.0	6.0	6.1	5.9	5.8	5.7	5.7	Ampl.	5.9
	257.8	257.8	257.7	257.8	257.9	257.9	257.8	257.8	Sbd box	257.8
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	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:y	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.42266273667E+02			Apriori delay (usec)	-1.42269315908E+02			Resid mbdelay (usec)	3.04224E-03	+/- 5.0E-06
Sband delay (usec)	-1.42266256408E+02			Apriori clock (usec)	1.2870879E+00			Resid sbdelay (usec)	3.05950E-03	+/- 4.0E-05
Phase delay (usec)	-1.42269320661E+02			Apriori clockrate (us/s)	2.9999999E-07			Resid phdelay (usec)	-4.75350E-06	+/- 1.7E-08
Delay rate (us/s)	-1.59671808806E-02			Apriori rate (us/s)	-1.59673501904E-02			Resid rate (us/s)	1.69310E-07	+/- 1.6E-10
Total phase (deg)		-101.4		Apriori accel (us/s/s)	-1.95919028859E-06			Resid phase (deg)	-147.4	+/- 0.5

RMS Theor. Amplitude 5.901 +/- 0.027
 ph/seg (deg) 64.6 1.2 Search (1024X32) 5.725
 amp/seg (%) 76.0 2.2 Interp. 0.000
 ph/frq (deg) 3.5 0.7 Inc. seg. avg. 10.360
 amp/frq (%) 2.4 1.3 Inc. frq. avg. 5.883
 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 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

u: az 28.3 el 61.5 pa -133.0 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 173.622 -382.942 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/uy..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/uy.W.327.1HTNOG

Mk4/DiFX fourfit 3.21 rev 2937

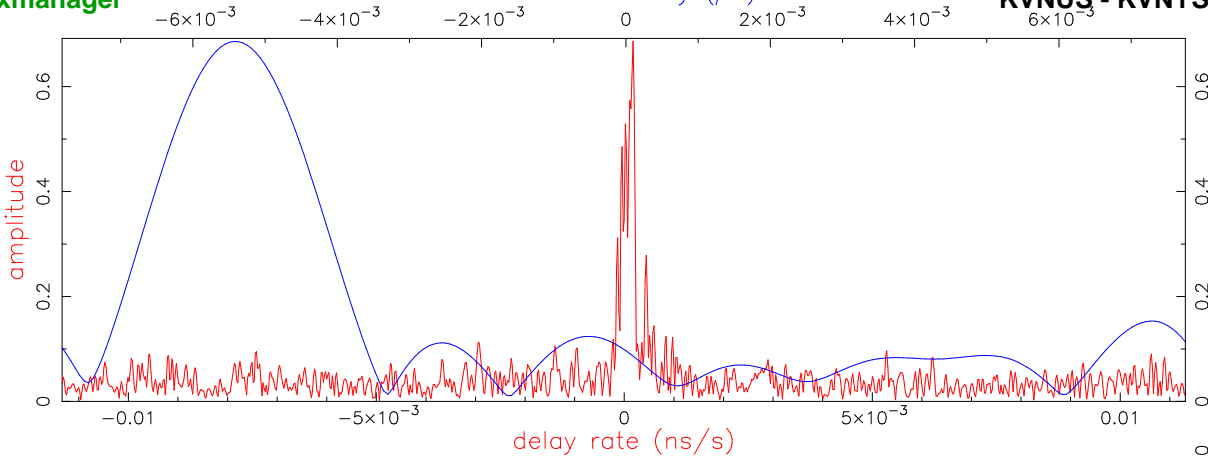
fxmanager

0102+584.1HTNOG, No0140, uy

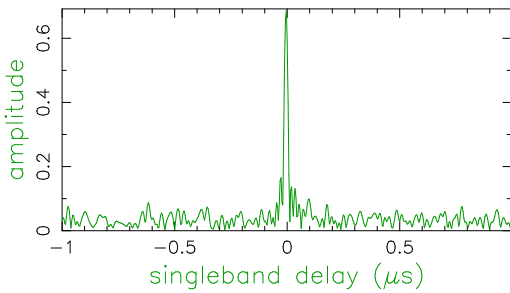
KVNU_S - KVNY_S, fgroup W, pol LR

multiband delay (μ s)

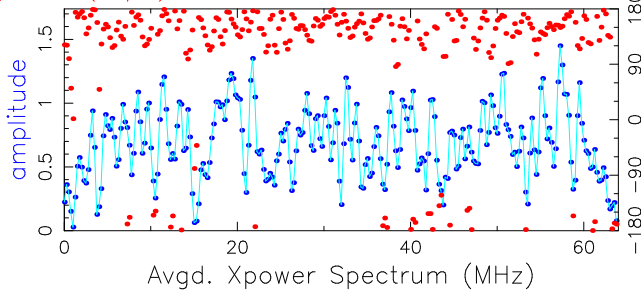
Fringe quality 7



SNR 25.4
 Int time 179.975
 Amp 0.692
 Phase 157.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.005056
 MBD -0.005420
 Fringe rate (Hz)
 0.014885
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

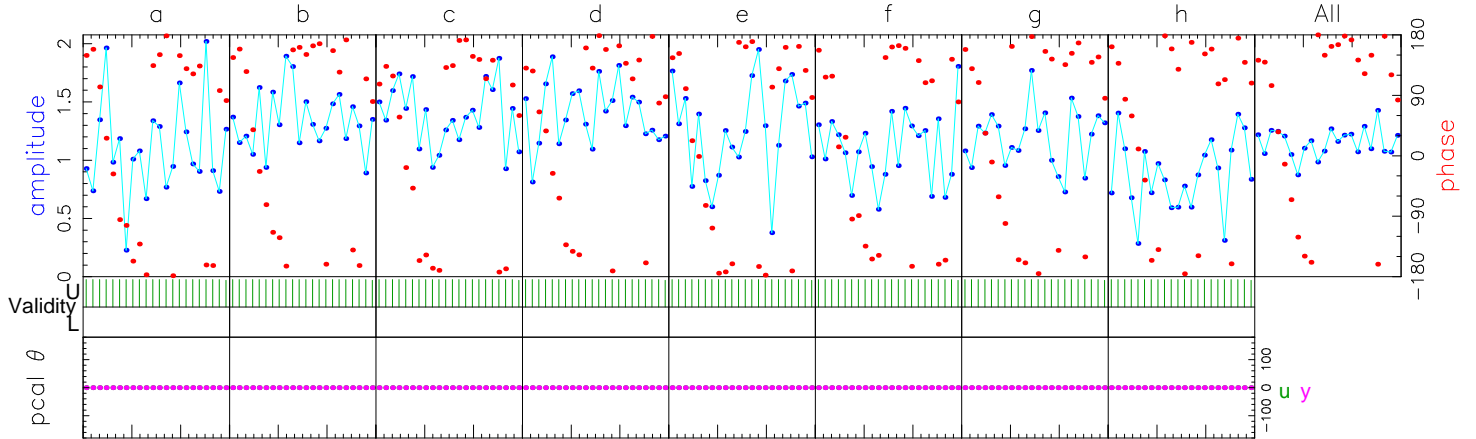


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143605
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:y	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-1.42274735917E+02								Resid mbdelay (usec)	-5.42001E-03 +/- 4.3E-05
Sband delay (usec)	-1.42274371908E+02								Resid sbdelay (usec)	-5.05600E-03 +/- 3.4E-04
Phase delay (usec)	-1.42269310835E+02								Resid phdelay (usec)	5.07228E-06 +/- 1.5E-07
Delay rate (us/s)	-1.59671773874E-02								Resid rate (us/s)	1.72803E-07 +/- 1.4E-09
Total phase (deg)			-156.7						Resid phase (deg)	157.3 +/- 4.5
	RMS	Theor.	Amplitude	0.692 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	63.7	10.6	Search (1024X32)	0.679					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	68.7	18.5	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	8.1	6.4	Inc. seg. avg.	1.133					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	13.9	11.1	Inc. frq. avg.	0.688					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 28.3 el 61.5 pa -133.0 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 173.622 -382.942 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/uy..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/uy.W.356.1HTNOG

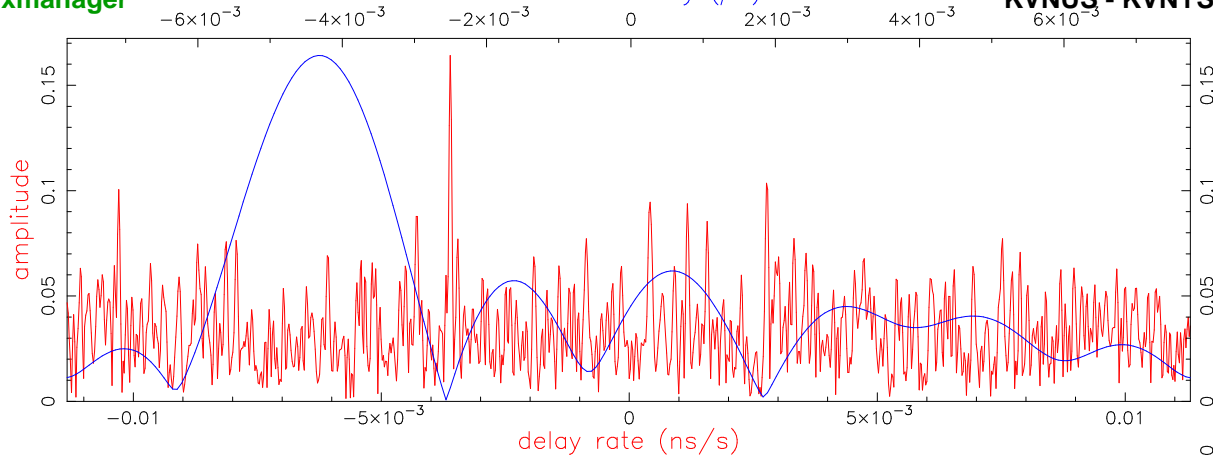
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, uy

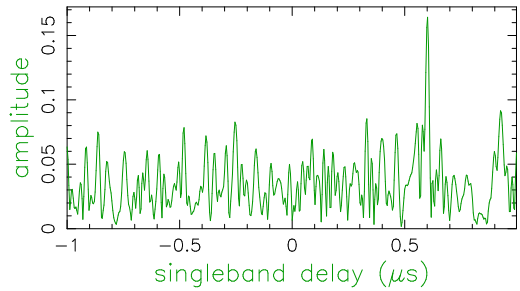
KVNU_S - KVNY_S, fgroup W, pol RL

multiband delay (μ s)

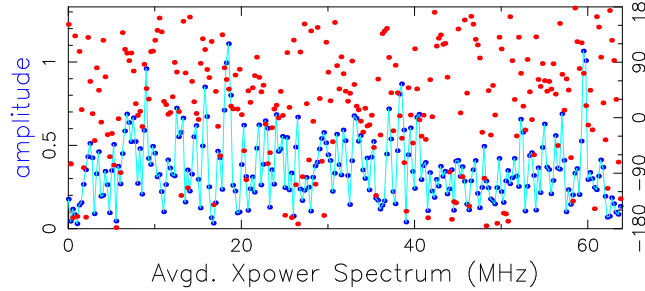


Fringe quality 0

SNR 6.1
 Int time 179.975
 Amp 0.172
 Phase -178.3
 PFD 1.7e-01
 Delays (us)
 SBD 0.600605
 MBD -0.004314
 Fringe rate (Hz)
 -0.311833
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

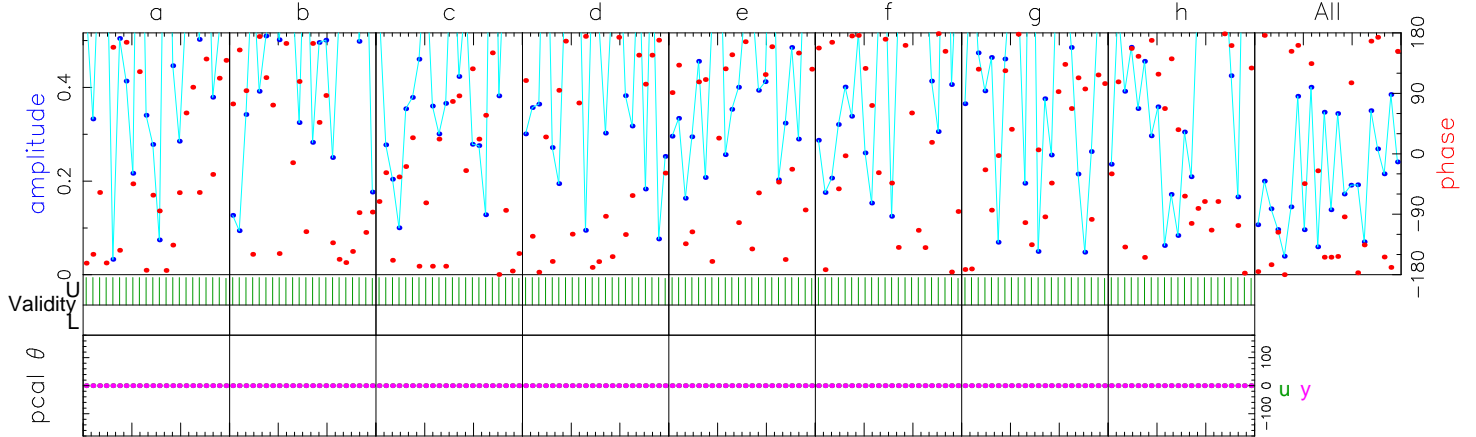


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143607
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

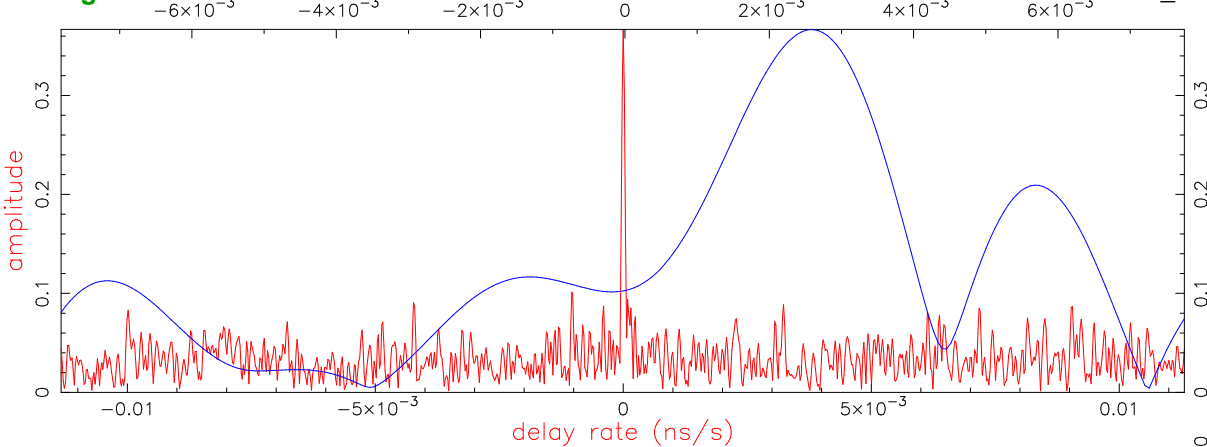
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-1.41664254938E+02									
Sband delay (usec)	-1.41668710908E+02									
Phase delay (usec)	-1.42269321658E+02									
Delay rate (us/s)	-1.59709702566E-02									
Total phase (deg)			-132.3							
Apriori delay (usec)					-1.42269315908E+02					
Apriori clock (usec)					0.155					
Apriori clockrate (us/s)					0.000					
Apriori rate (us/s)					-1.59673501904E-02					
Apriori accel (us/s/s)					-1.95919028859E-06					
Resid mbdelay (usec)									-4.31403E-03	+/- 1.8E-04
Resid sbdelay (usec)									6.00605E-01	+/- 1.4E-03
Resid phdelay (usec)									-5.75011E-06	+/- 6.1E-07
Resid rate (us/s)									-3.62007E-06	+/- 5.9E-09
Resid phase (deg)									-178.3	+/- 18.9
Pcal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5							
Pcal rate:	0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000		1.000			
Bits/sample:	2x2		SampCntNorm: enabled		mb window (us)		-0.008		0.008	
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	
u:	az 28.3 el 61.5 pa -133.0		y: az 31.8 el 62.3 pa -127.5		u, v (fr/asec) 173.622 -382.942		simultaneous interpolator			

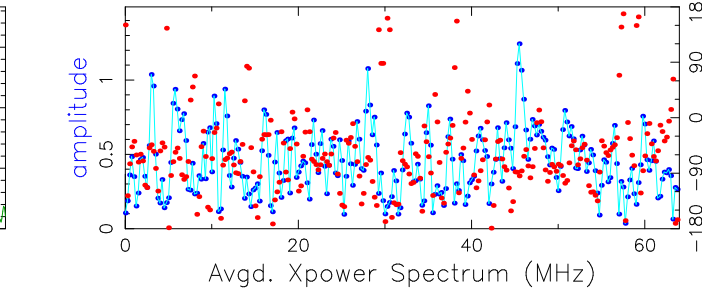
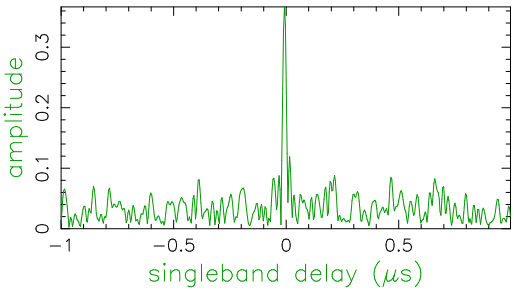
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/uy..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/uy.W.377.1HTNOG

multiband delay (μ s)



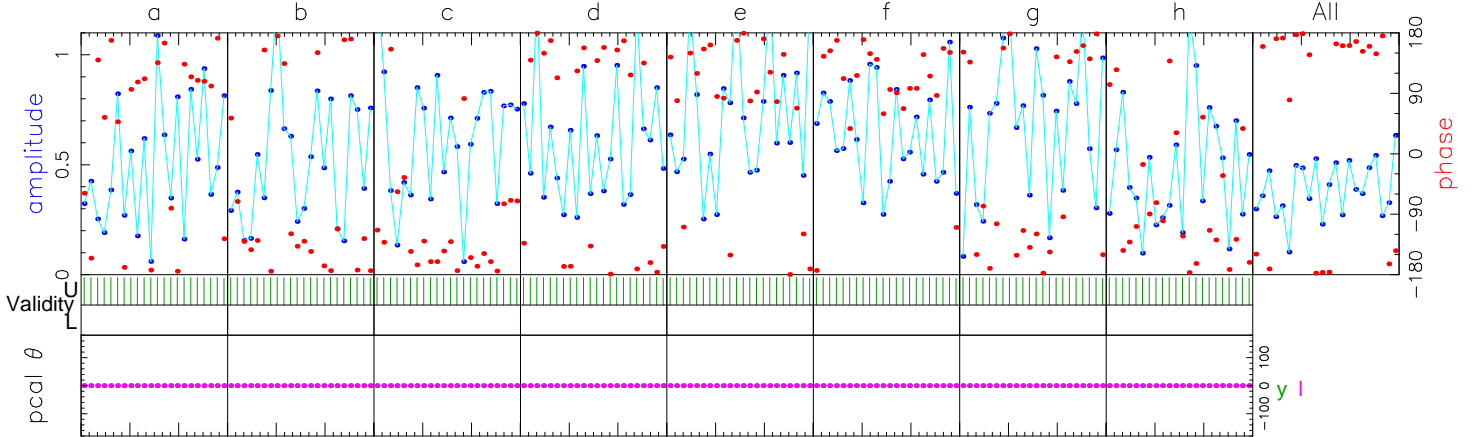
Fringe quality 9

SNR 13.5
 Int time 179.975
 Amp 0.367
 Phase 173.4
 PFD 8.2e-33
 Delays (us)
 SBD -0.007521
 MBD 0.002598
 Fringe rate (Hz)
 -0.000690
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143604
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
y:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	138.1	-169.5	-134.8	171.8	144.7	126.2	-173.7	-142.2		
Sband delay (usec)	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.2		
Phase delay (usec)	258.2	255.4	254.8	254.9	254.6	255.5	256.0	258.3		
Delay rate (us/s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total phase (deg)			101.2							
Apriori delay (usec)					9.71917608311E+03				2.59838E-03	+/- 8.1E-05
Apriori clock (usec)					1.6300573E+00				-7.52100E-03	+/- 6.4E-04
Apriori clockrate (us/s)					1.9999998E-07				5.59262E-06	+/- 2.7E-07
Apriori rate (us/s)					9.47475573366E-01				-8.01379E-09	+/- 2.6E-09
Apriori accel (us/s/s)					-4.92794977138E-05				173.4	+/- 8.5
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
PCal mode: MANUAL, MANUAL										
PCal period (AP's) 5, 5										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

ph/seg (deg) 26.6 20.0
 amp/seg (%) 34.7 34.9
 ph/frq (deg) 39.6 12.0
 amp/frq (%) 34.0 21.0

y: az 31.8 el 62.3 pa -127.5 l: az 325.1 el 25.7 pa 63.3 u,v (fr/asec) -10429.359 -6157.969 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yl..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yl.W.342.1HTNOG

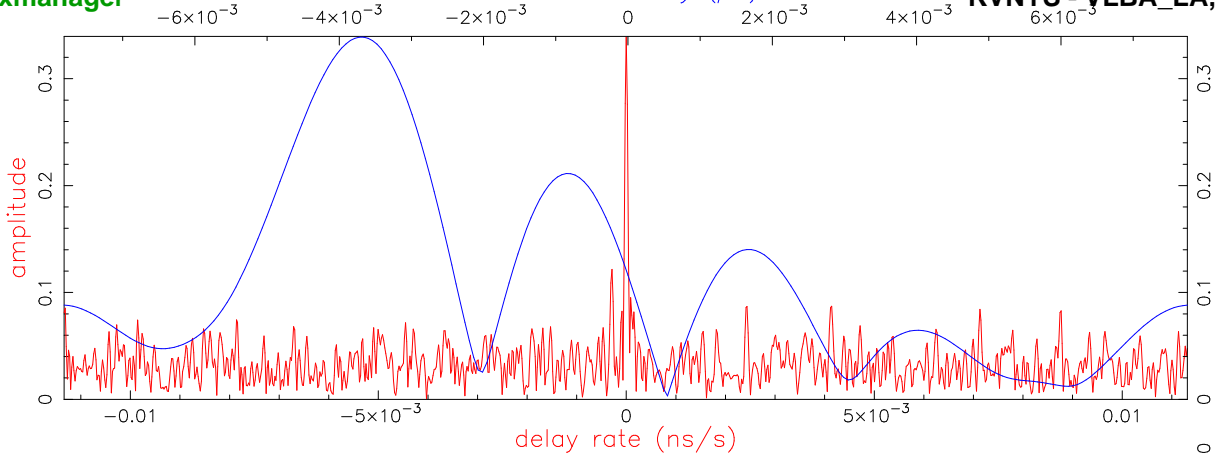
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yl

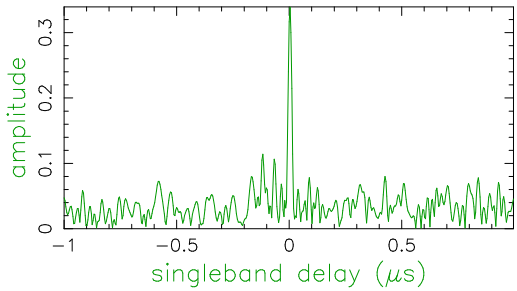
KVNYS - VLBA_LA, fgroup W, pol RR

multiband delay (μ s)

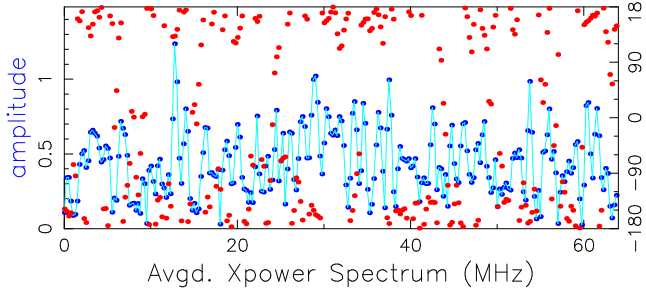


Fringe quality 9

SNR 12.5
 Int time 179.975
 Amp 0.340
 Phase -97.6
 PFD 3.3e-27
 Delays (us)
 SBD 0.003348
 MBD -0.003719
 Fringe rate (Hz)
 -0.000776
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

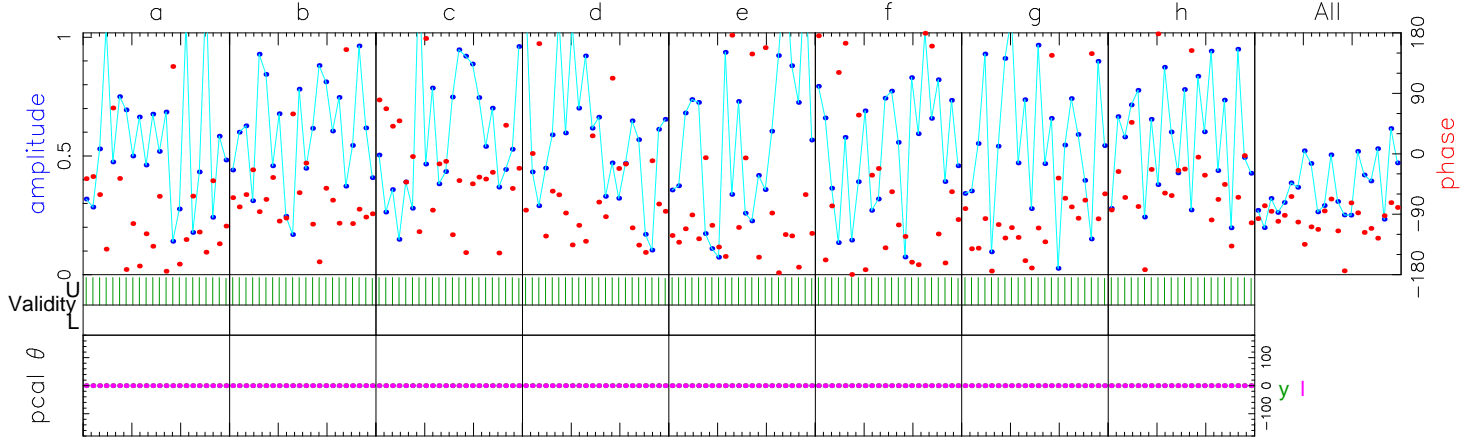


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143606
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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

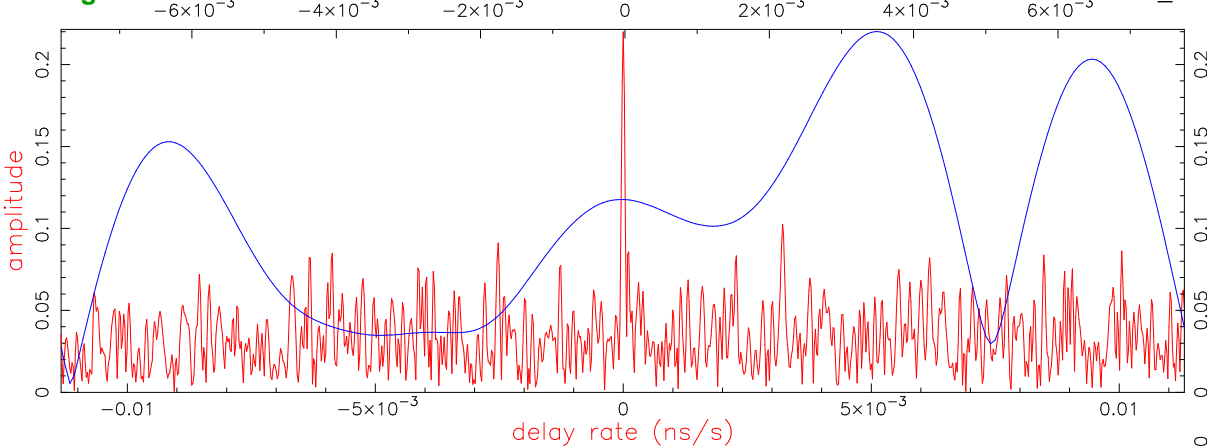


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-123.6	-81.1	-52.7	-88.5	-124.2	-144.9	-112.5	-50.8	Phase	-97.6
	0.4	0.5	0.3	0.4	0.4	0.3	0.5	0.4	Ampl.	0.4
	260.0	258.4	257.0	257.6	257.7	257.0	258.2	260.0	Sbd box	257.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:l	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	
l	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.71917236386E+03		Apriori delay (usec)		9.71917608311E+03		Resid mbdelay (usec)		-3.71925E-03	+/- 8.7E-05
Sband delay (usec)	9.71917943086E+03		Apriori clock (usec)		1.6300573E+00		Resid sbdelay (usec)		3.34775E-03	+/- 6.9E-04
Phase delay (usec)	9.71917607996E+03		Apriori clockrate (us/s)		1.9999998E-07		Resid phdelay (usec)		-3.14881E-06	+/- 3.0E-07
Delay rate (us/s)	9.47475564354E-01		Apriori rate (us/s)		9.47475573366E-01		Resid rate (us/s)		-9.01285E-09	+/- 2.9E-09
Total phase (deg)	190.1		Apriori accel (us/s/s)		-4.92794977138E-05		Resid phase (deg)		-97.6	+/- 9.2

ph/seg (deg) 25.0 21.6 Amplitude 0.340 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 35.5 37.6 Search (1024X32) 0.322 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.4 13.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 23.4 22.7 Inc. seg. avg. 0.346 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 y: az 31.8 el 62.3 pa -127.5 l: az 325.1 el 25.7 pa 63.3 u,v (fr/asec) -10429.359 -6157.969 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator

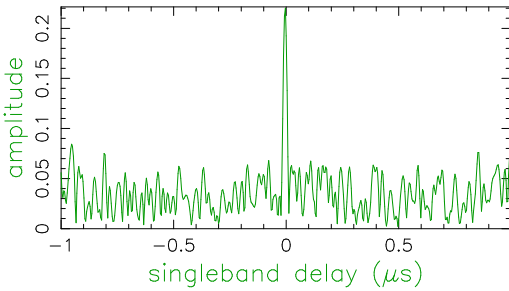
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yl..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yl.W.360.1HTNOG

multiband delay (μ s)

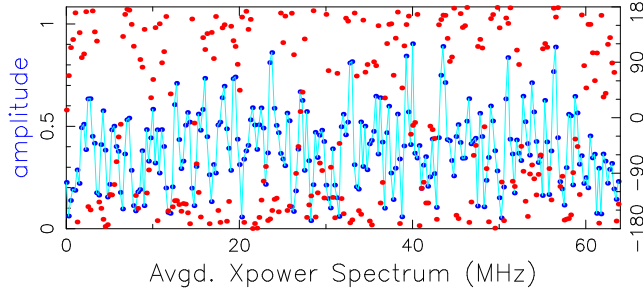


Fringe quality 9

SNR 8.1
 Int time 179.975
 Amp 0.221
 Phase 84.9
 PFD 7.8e-08
 Delays (us)
 SBD -0.005018
 MBD 0.003442
 Fringe rate (Hz)
 -0.000547
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

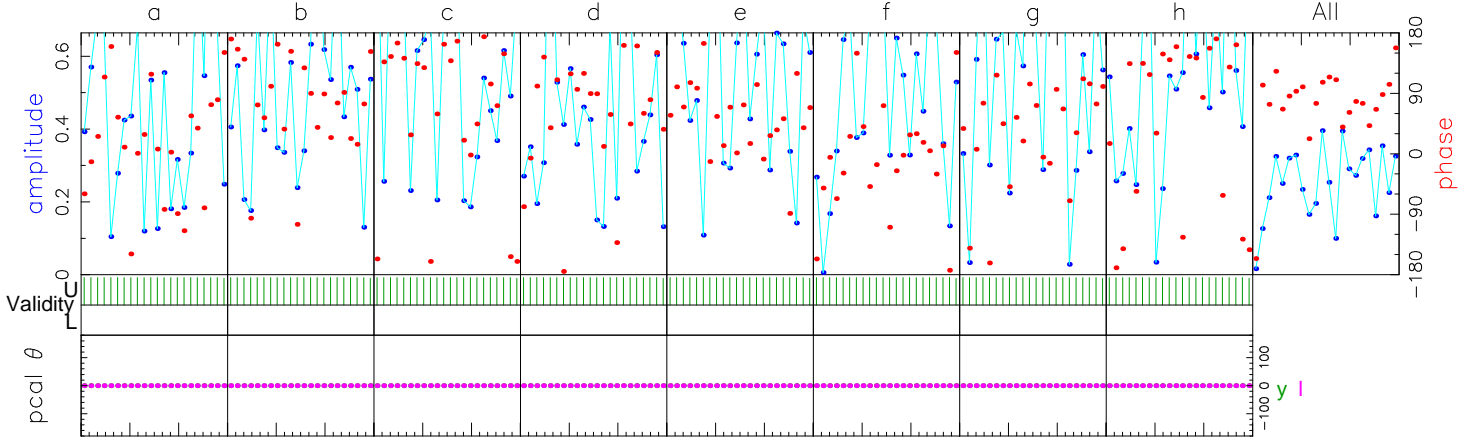


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143607
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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

Group delay (usec)(sbd)	9.71916389993E+03	Apriori delay (usec)		9.71917608311E+03	Resid mbdelay (usec)		3.44181E-03	+/- 1.3E-04	
Sband delay (usec)	9.71917106536E+03	Apriori clock (usec)		1.6300573E+00	Resid sbdelay (usec)		-5.01775E-03	+/- 1.1E-03	
Phase delay (usec)	9.71917608585E+03	Apriori clockrate (us/s)		1.9999998E-07	Resid phdelay (usec)		2.73618E-03	+/- 4.5E-07	
Delay rate (us/s)	9.47475567021E-01	Apriori rate (us/s)		9.47475573366E-01	Resid rate (us/s)		-6.34584E-09	+/- 4.4E-09	
Total phase (deg)	12.6		Apriori accel (us/s/s)		-4.92794977138E-05	Resid phase (deg)		84.9	+/- 14.1

ph/seg (deg)	38.8	Theor. 33.1	Amplitude Search (1024X32)	0.221 +/- 0.027	0.216	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	46.0	57.7	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	58.5	19.9	Inc. seg. avg.	0.219		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	62.8	34.8	Inc. frq. avg.	0.315		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

y: az 31.8 el 62.3 pa -127.5 l: az 325.1 el 25.7 pa 63.3 u,v (fr/asec) -10429.359 -6157.969 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yl..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yl.W.374.1HTNOG

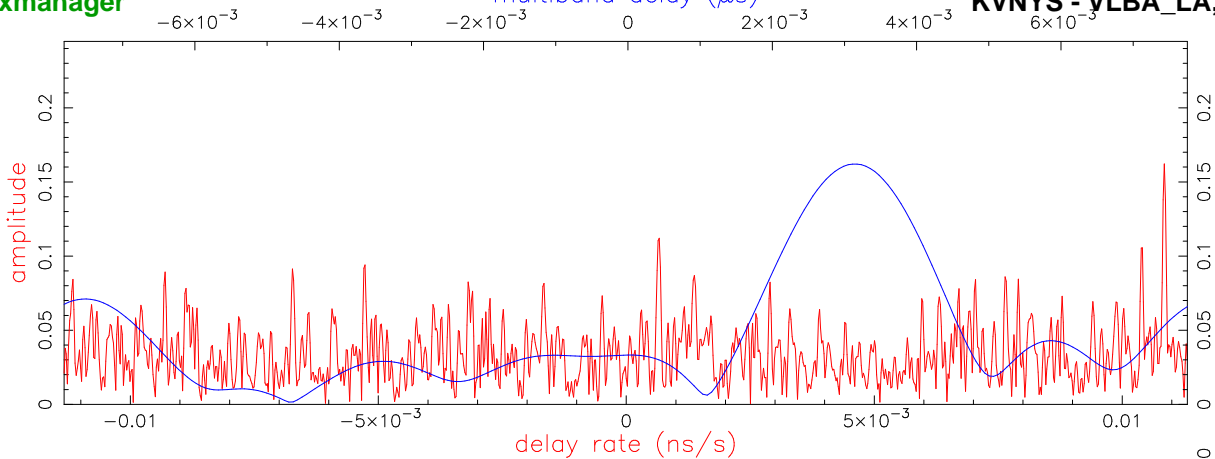
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yl

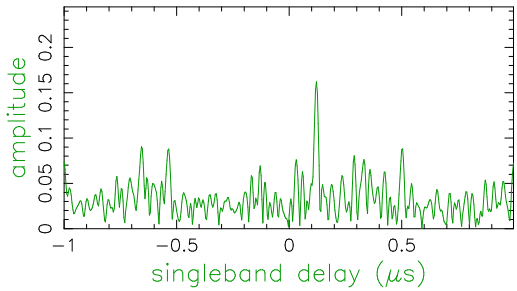
KVNYS - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

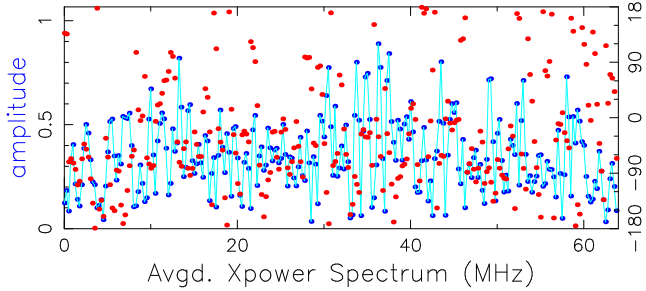


Fringe quality 0

SNR 5.9
 Int time 179.975
 Amp 0.245
 Phase -149.6
 PFD 2.9e-01
 Delays (us)
 SBD 0.120833
 MBD 0.003144
 Fringe rate (Hz)
 0.936403
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

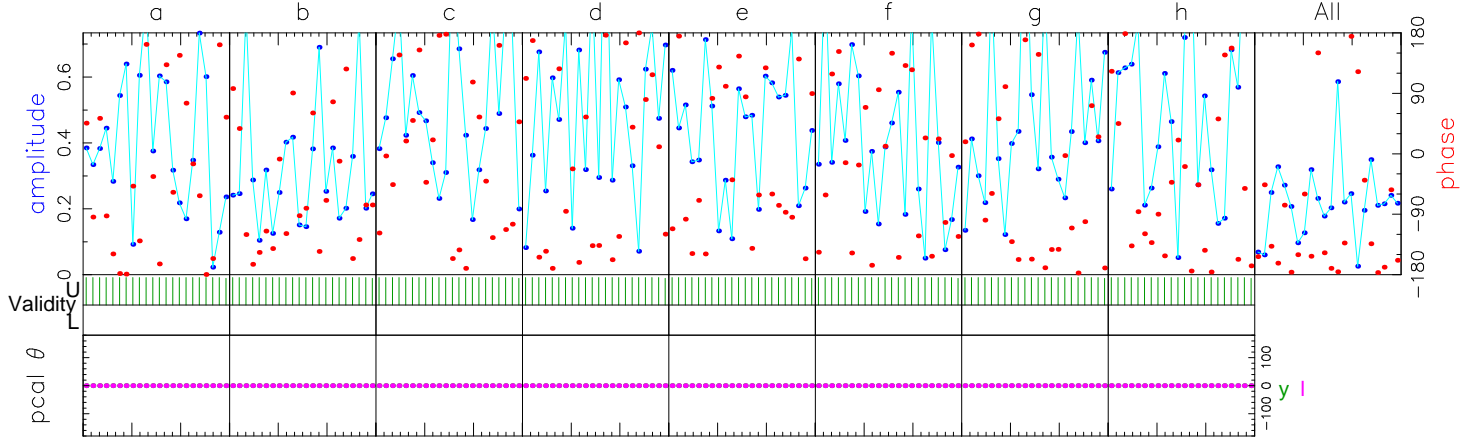


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143609
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:l	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	
l	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	9.71930422696E+03	Apriori delay (usec)	9.71917608311E+03	Resid mbdelay (usec)	3.14385E-03	+/-	1.8E-04
Sband delay (usec)	9.71929691611E+03	Apriori clock (usec)	1.6300573E+00	Resid sbdelay (usec)	1.20833E-01	+/-	1.4E-03
Phase delay (usec)	9.71917607829E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	-4.82367E-06	+/-	6.2E-07
Delay rate (us/s)	9.47486444079E-01	Apriori rate (us/s)	9.47475573366E-01	Resid rate (us/s)	1.08707E-05	+/-	6.0E-09
Total phase (deg)	138.2	Apriori accel (us/s/s)	-4.92794977138E-05	Resid phase (deg)	-149.6	+/-	19.3

ph/seg (deg)	53.1	Theor.	45.2	Amplitude	0.245 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	79.4		78.8	Search (1024X32)	0.158	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	17.4		27.2	Inc. seg. avg.	0.254	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	33.4		47.5	Inc. frq. avg.	0.228	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

y: az 31.8 el 62.3 pa -127.5 l: az 325.1 el 25.7 pa 63.3 u,v (fr/asec) -10429.359 -6157.969 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yl..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yl.W.392.1HTNOG

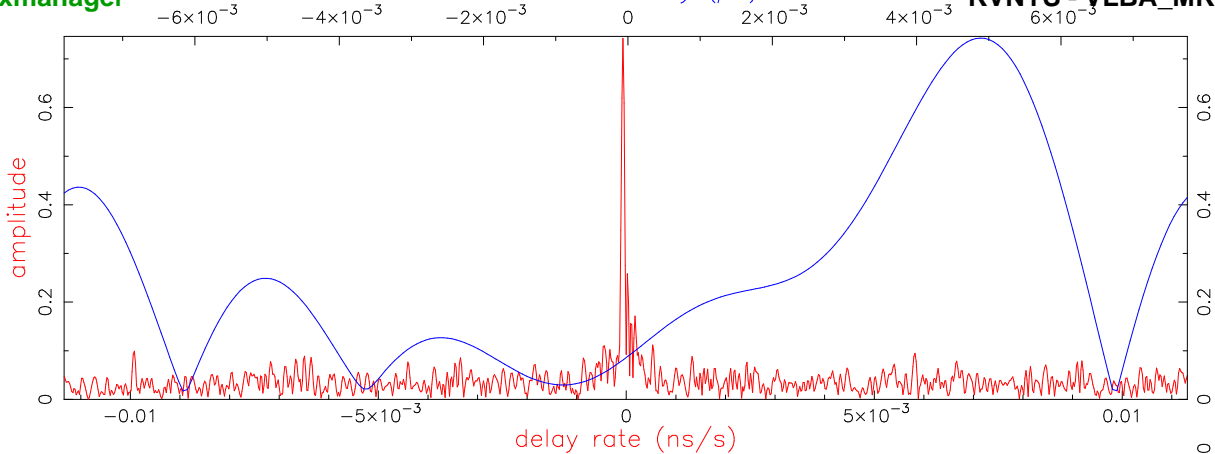
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, ym

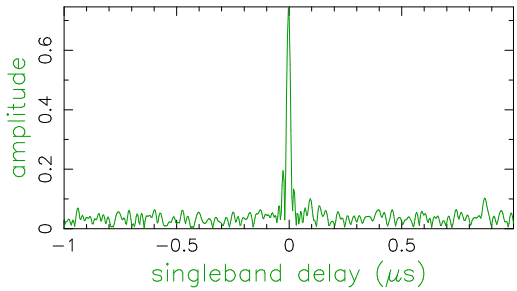
KVNYS - VLBA_MK, fgroup W, pol LL

multiband delay (μ s)

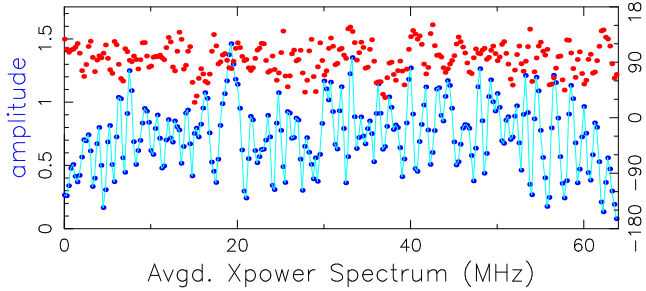


Fringe quality 7

SNR 27.4
 Int time 179.975
 Amp 0.746
 Phase 3.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.002958
 MBD 0.004940
 Fringe rate (Hz)
 -0.005491
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

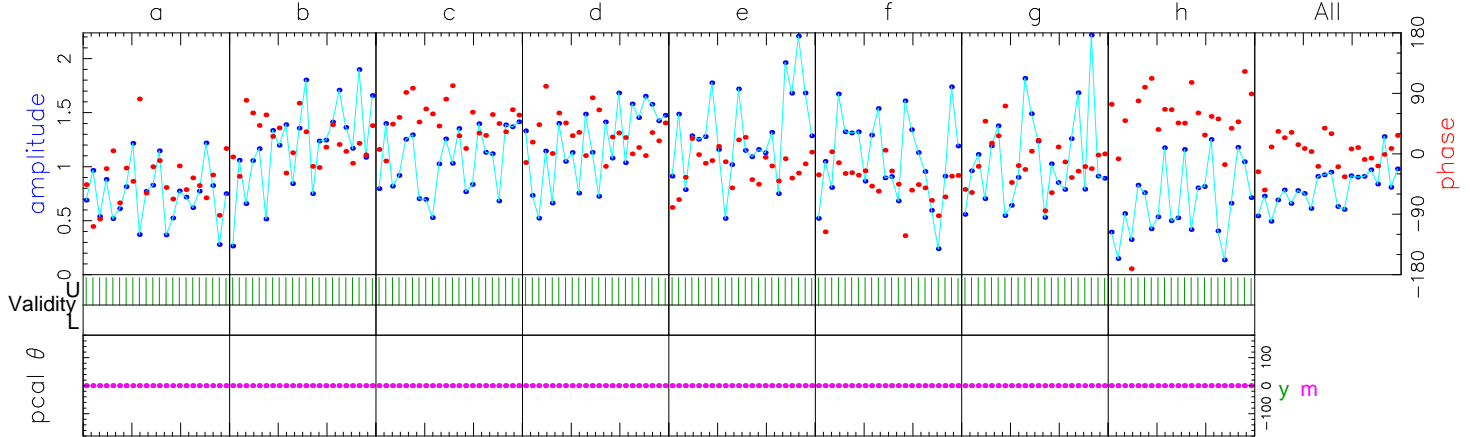


delay rate (ns/s)



Exp. c202a
 Yr:day 16383
 Start 2021:007:234742
 Stop 2021:010:143603
 FRT 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-41.1	19.1	50.0	25.1	-17.4	-43.4	-12.8	64.9		3.9
	0.6	1.0	0.9	1.0	1.2	0.9	0.9	0.6	Ampl.	0.9
	258.4	256.6	256.0	256.0	256.0	255.9	256.4	258.5	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	Mani 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)	5.97296128852E+03		Apriori delay (usec)		5.97297197307E+03		Resid mbdelay (usec)		4.94044E-03	+/- 4.0E-05
Sband delay (usec)	5.97296901532E+03		Apriori clock (usec)		-1.2119000E+01		Resid sbdelay (usec)		-2.95775E-03	+/- 3.1E-04
Phase delay (usec)	5.97297197320E+03		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		1.25908E-07	+/- 1.3E-07
Delay rate (us/s)	8.82519937664E-01		Apriori rate (us/s)		8.82520001407E-01		Resid rate (us/s)		-6.37433E-08	+/- 1.3E-09
Total phase (deg)	277.7		Apriori accel (us/s/s)		-5.82344898718E-06		Resid phase (deg)		3.9	+/- 4.2

ph/seg (deg) 23.6 9.8 Search (1024X32) 0.740 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 24.7 17.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.8 5.9 Inc. seg. avg. 0.792 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.4 10.3 Inc. frq. avg. 0.898 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 31.8 el 62.3 pa -127.5 m: az 329.9 el 37.4 pa 115.9 u,v (fr/asec) -9682.751 546.672 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/ym..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/ym.W.338.1HTNOG

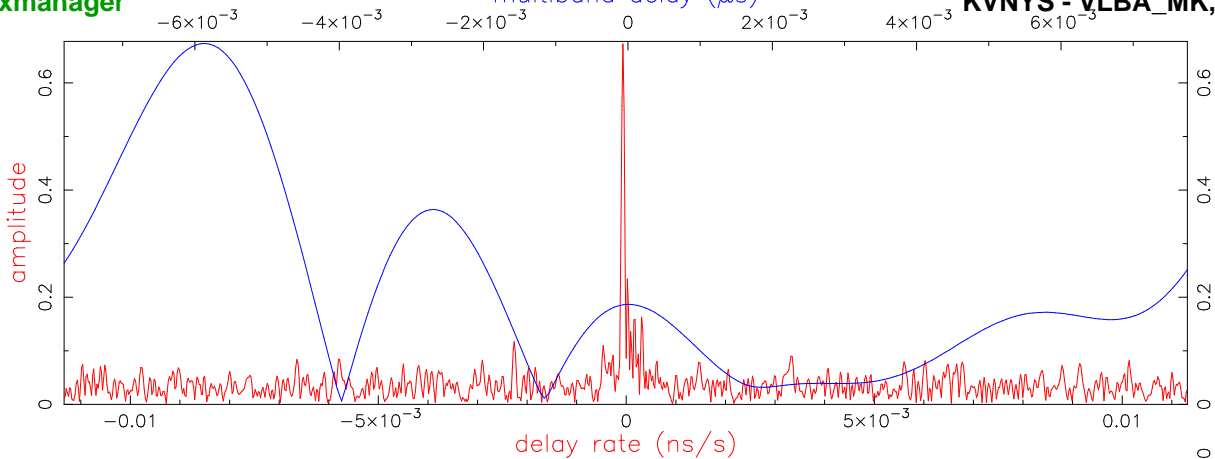
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, ym

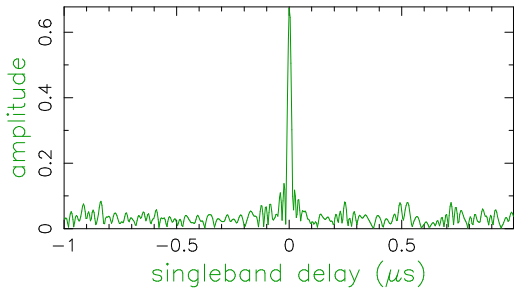
KVNYS - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)

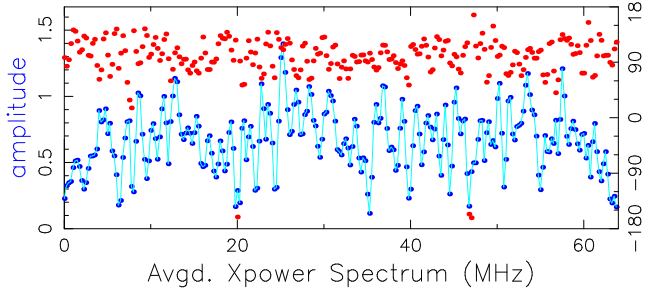


Fringe quality 7

SNR 24.8
 Int time 179.975
 Amp 0.677
 Phase 179.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.001049
 MBD -0.005816
 Fringe rate (Hz)
 -0.005468
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

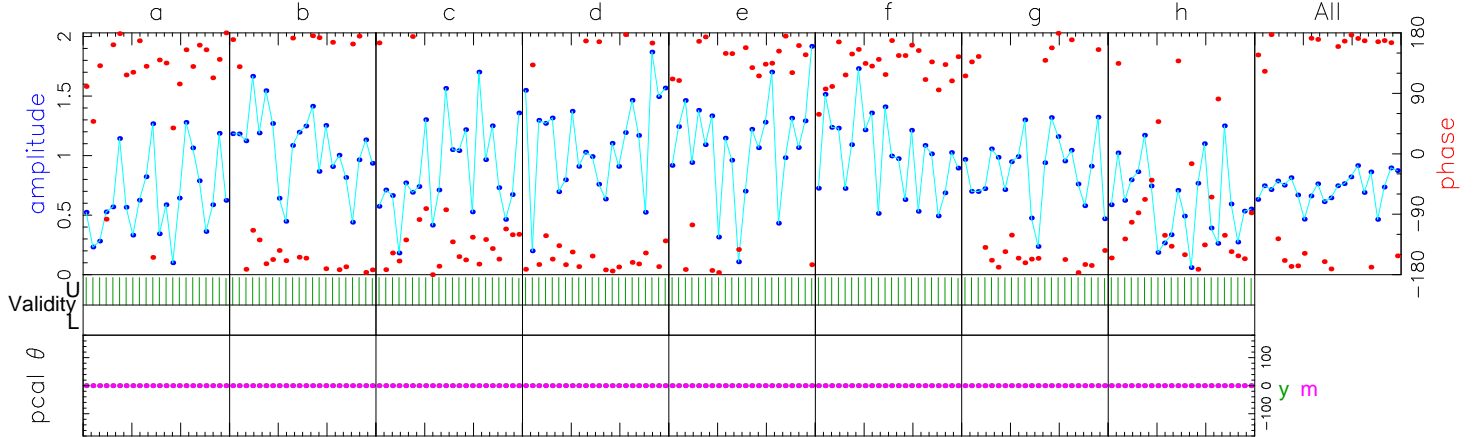


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143605
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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			
y	1000	1000	1000	1000	1000	1000	1000	1000			
m	1000	1000	1000	1000	1000	1000	1000	1000			
y:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
y:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
y	1000	1000	1000	1000	1000	1000	1000	1000			
m	1000	1000	1000	1000	1000	1000	1000	1000			
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		5.97296615680E+03			5.97297197307E+03				Resid mbdelay (usec)	-5.81627E-03 +/- 4.4E-05	
Sband delay (usec)		5.97297302257E+03			-1.2119000E+01				Resid sbdelay (usec)	1.04950E-03 +/- 3.5E-04	
Phase delay (usec)		5.97297197887E+03			0.0000000E+00				Resid phdelay (usec)	5.79197E-06 +/- 1.5E-07	
Delay rate (us/s)		8.82519937929E-01			8.82520001407E-01				Resid rate (us/s)	-6.34783E-08 +/- 1.4E-09	
Total phase (deg)			93.4		-5.82344898718E-06				Resid phase (deg)	179.6 +/- 4.6	
ph/seg (deg)	RMS 23.2	Theor. 10.8	Amplitude 0.677 +/- 0.027						Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	19.0	18.9	Search (1024X32) 0.670						Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	38.4	6.5	Interp. 0.000						Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	34.8	11.4	Inc. seg. avg. 0.717						Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.776						Data rate(Mb/s): 2048		ion window (TEC) 0.00 0.00
y: az 31.8 el 62.3 pa -127.5			m: az 329.9 el 37.4 pa 115.9						u,v (fr/asec) -9682.751 546.672		simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/ym..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/ym.W.352.1HTNOG

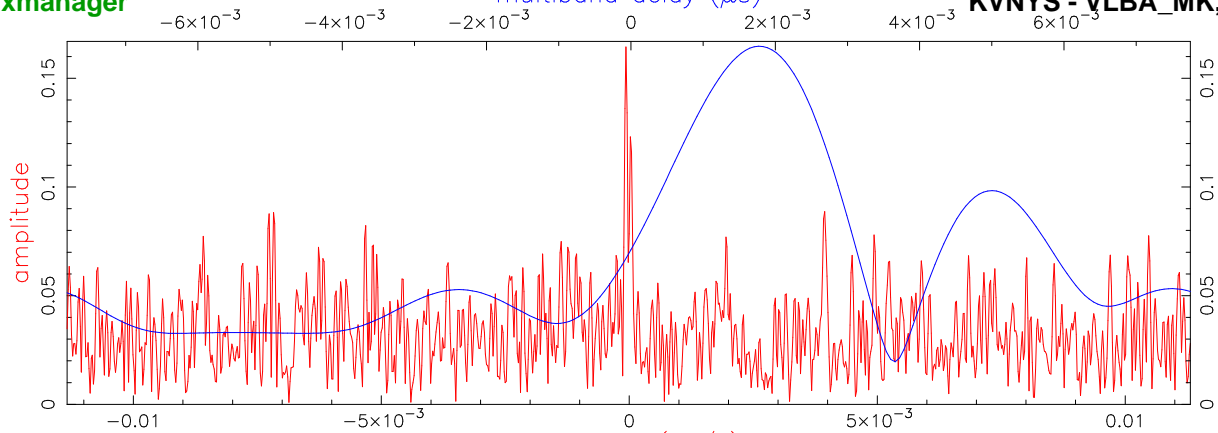
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, ym

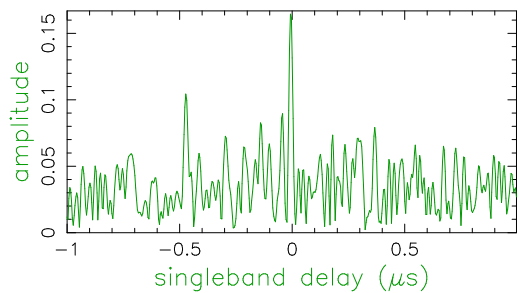
KVNYS - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

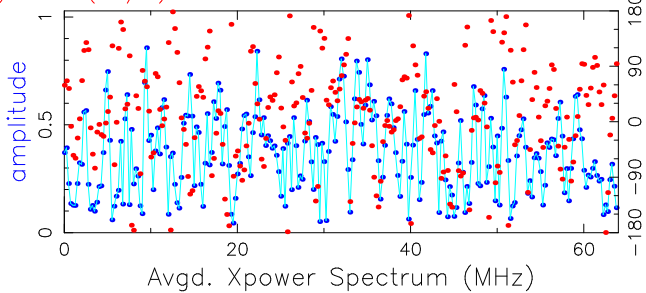


Fringe quality 0

SNR 6.1
 Int time 179.975
 Amp 0.167
 Phase -71.7
 PFD 1.1e-01
 Delays (us)
 SBD -0.006228
 MBD 0.001853
 Fringe rate (Hz)
 -0.005860
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

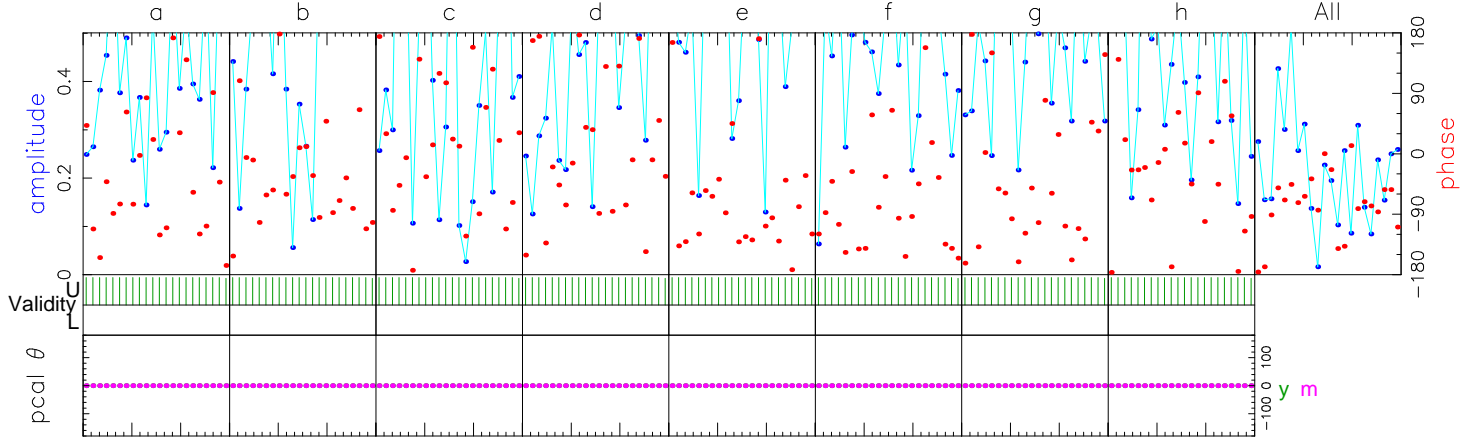


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143607
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-84.9	-67.4	-15.4	-43.2	-101.5	-94.6	-85.5	-8.2		-71.7
	0.1	0.3	0.2	0.1	0.4	0.2	0.2	0.1		0.2
	247.3	200.2	221.7	121.6	255.2	365.3	75.3	258.0		255.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks

Group delay (usec)(sbd)	5.97295820074E+03	Apriori delay (usec)	5.97297197307E+03	Resid mbdelay (usec)	1.85266E-03	+/-	1.8E-04
Sband delay (usec)	5.97296574482E+03	Apriori clock (usec)	-1.2119000E+01	Resid sbdelay (usec)	-6.22825E-03	+/-	1.4E-03
Phase delay (usec)	5.97297197076E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.31172E-06	+/-	6.0E-07
Delay rate (us/s)	8.82519933374E-01	Apriori rate (us/s)	8.82520001407E-01	Resid rate (us/s)	-6.80329E-08	+/-	5.8E-09
Total phase (deg)	202.1	Apriori accel (us/s/s)	-5.82344898718E-06	Resid phase (deg)	-71.7	+/-	18.7

ph/seg (deg)	47.3	Theor.	43.9	Amplitude	0.167 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	74.6		76.6	Search (1024X32)	0.163	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	40.5		26.5	Inc. seg. avg.	0.171	Sample rate (MSamp/s):	128	nlags:	256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	54.7		46.2	Inc. frq. avg.	0.175	Data rate (Mb/s):	2048	t_cohere	infinite	ion window (TEC)	0.00	0.00

y: az 31.8 el 62.3 pa -127.5 m: az 329.9 el 37.4 pa 115.9 u,v (fr/asec) -9682.751 546.672 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/ym..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/ym.W.371.1HTNOG

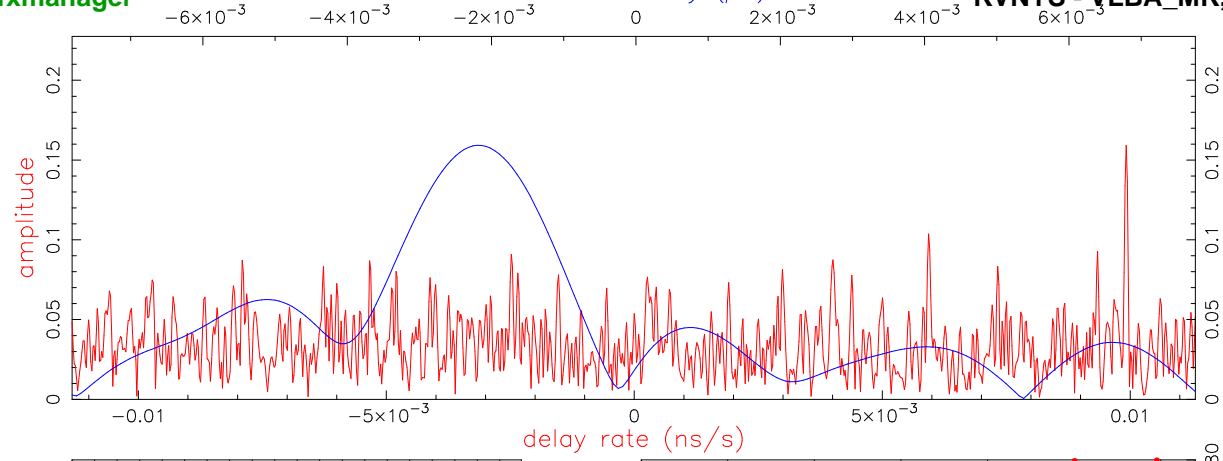
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, ym

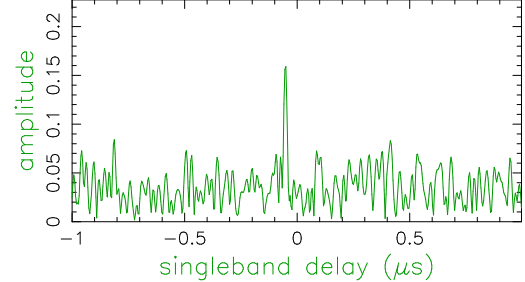
KVNYS - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

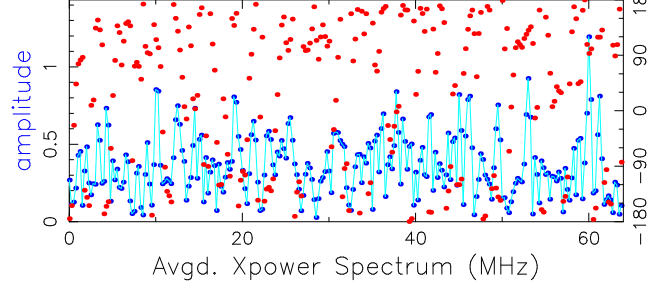


Fringe quality 0

SNR 5.9
Int time 179.975
Amp 0.228
Phase -76.9
PFD 3.0e-01
Delays (us)
SBD -0.052389
MBD -0.002213
Fringe rate (Hz)
0.856526
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

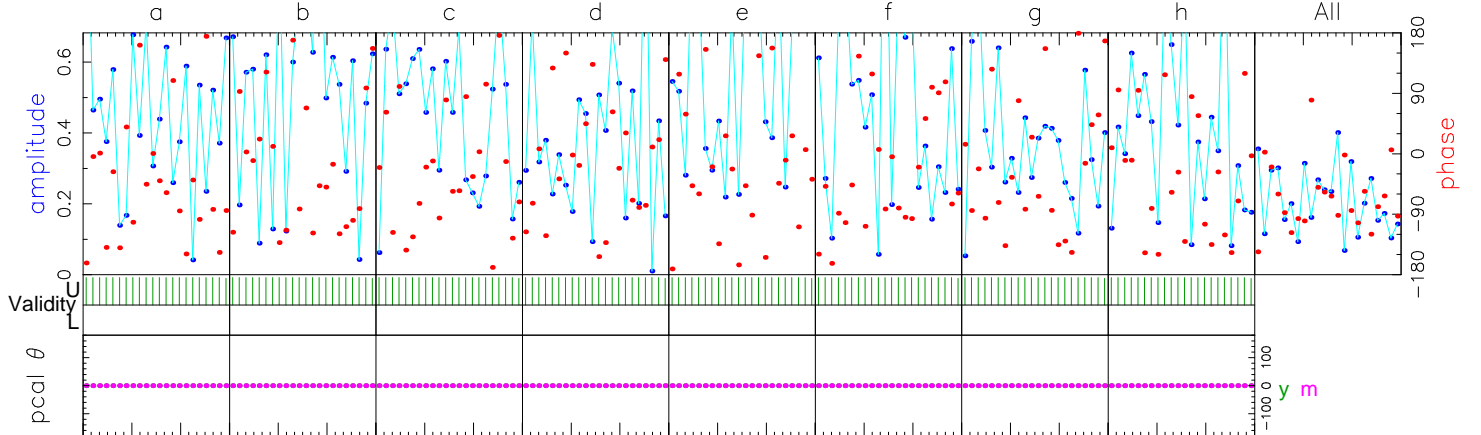


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143608
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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
	-89.1	-85.7	-74.0	-50.6	-56.5	-89.9	-72.8	-89.8	Phase	-76.9
	0.3	0.2	0.1	0.2	0.3	0.4	0.2	0.1	Ampl.	0.2
	244.0	166.0	415.0	498.9	293.0	243.8	175.1	89.9	Sbd box	243.6
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	

Group delay (usec)(sbd)	5.97292288484E+03	Apriori delay (usec)	5.97297197307E+03	Resid mbdelay (usec)	-2.21324E-03	+/-	1.8E-04
Sband delay (usec)	5.97291958357E+03	Apriori clock (usec)	-1.2119000E+01	Resid sbdelay (usec)	-5.23895E-02	+/-	1.4E-03
Phase delay (usec)	5.97297197059E+03	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.48101E-06	+/-	6.2E-07
Delay rate (us/s)	8.82529944826E-01	Apriori rate (us/s)	8.82520001407E-01	Resid rate (us/s)	9.94342E-06	+/-	6.0E-09
Total phase (deg)	196.9	Apriori accel (us/s/s)	-5.82344898718E-06	Resid phase (deg)	-76.9	+/-	19.3

ph/seg (deg)	52.0	Theor.	45.2	Amplitude	0.228 +/- 0.038	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	64.5	Search (1024X32)	0.156	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	16.8	Interp.	0.000	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	34.3	Inc. seg. avg.	0.228	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
		Inc. frq. avg.	0.208	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

y: az 31.8 el 62.3 pa -127.5 m: az 329.9 el 37.4 pa 115.9 u,v (fr/asec) -9682.751 546.672 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/ym..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/ym.W.387.1HTNOG

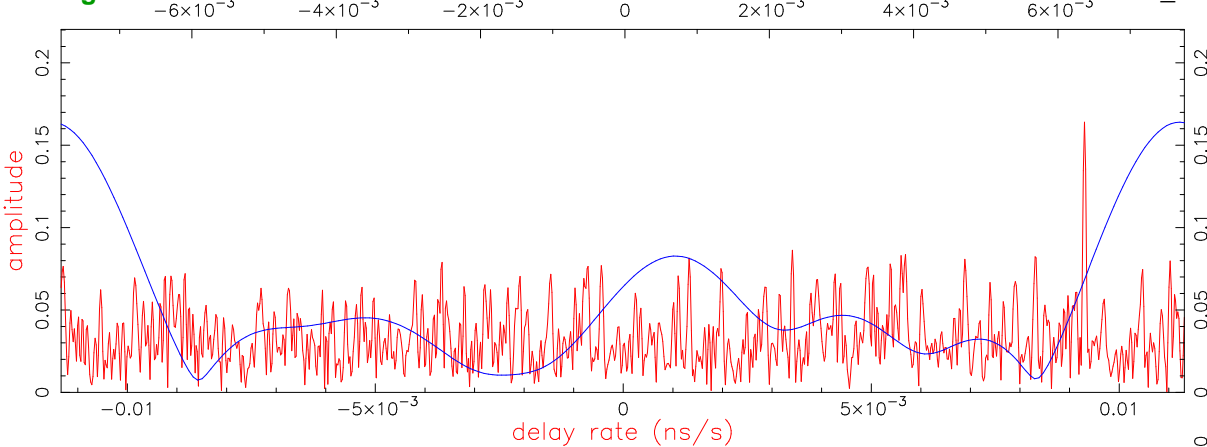
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yn

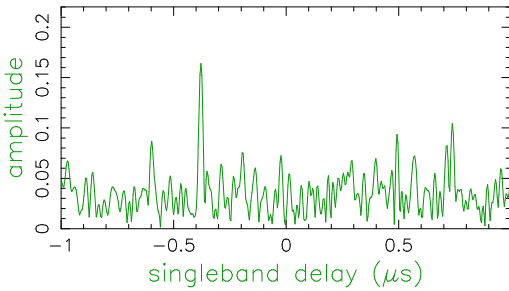
KVNS - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

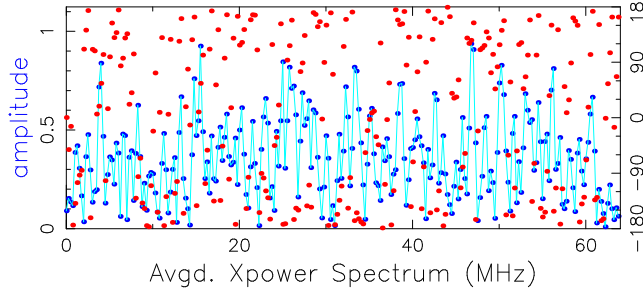


Fringe quality 0

SNR 6.0
Int time 179.975
Amp 0.220
Phase 31.2
PFD 2.1e-01
Delays (us)
SBD -0.378886
MBD 0.007684
Fringe rate (Hz)
0.802985
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

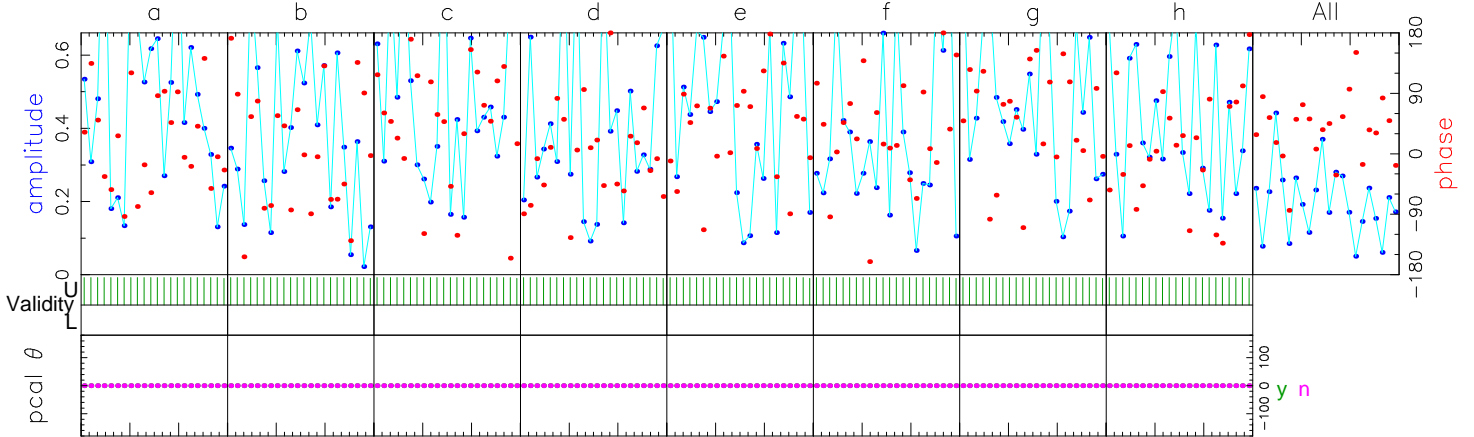


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143604
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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
	22.9	26.4	73.1	-12.4	49.9	32.4	55.8	8.6	Phase	31.2
	0.3	0.1	0.3	0.3	0.2	0.3	0.2	0.2	Ampl.	0.2
	430.4	66.5	490.4	208.0	478.1	330.6	440.0	506.1	Sbd box	160.0
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	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.01600210237E+04	Apriori delay (usec)	1.01604039649E+04	Resid mbdelay (usec)	7.68375E-03	+/-	1.8E-04
Sband delay (usec)	1.01600250789E+04	Apriori clock (usec)	1.1018839E+00	Resid sbdelay (usec)	-3.78886E-01	+/-	1.4E-03
Phase delay (usec)	1.01604039659E+04	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	1.00755E-06	+/-	6.1E-07
Delay rate (us/s)	8.50960293648E-01	Apriori rate (us/s)	8.50950971790E-01	Resid rate (us/s)	9.32186E-06	+/-	5.9E-09
Total phase (deg)	224.9	Apriori accel (us/s/s)	-5.94595601197E-05	Resid phase (deg)	31.2	+/-	19.0

ph/seg (deg)	RMS 48.7	Theor. 44.7	Amplitude Search (1024X32)	0.220 +/- 0.037	0.163	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	61.8	78.0	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)	29.5	26.9	Inc. seg. avg.	0.207	0.207	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	28.3	47.0	Inc. frq. avg.	0.223	0.223	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

y: az 31.8 el 62.3 pa -127.5 n: az 328.3 el 24.4 pa 48.7 u,v (fr/asec) -9378.937 -7844.663 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yn..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yn.W.345.1HTNOG

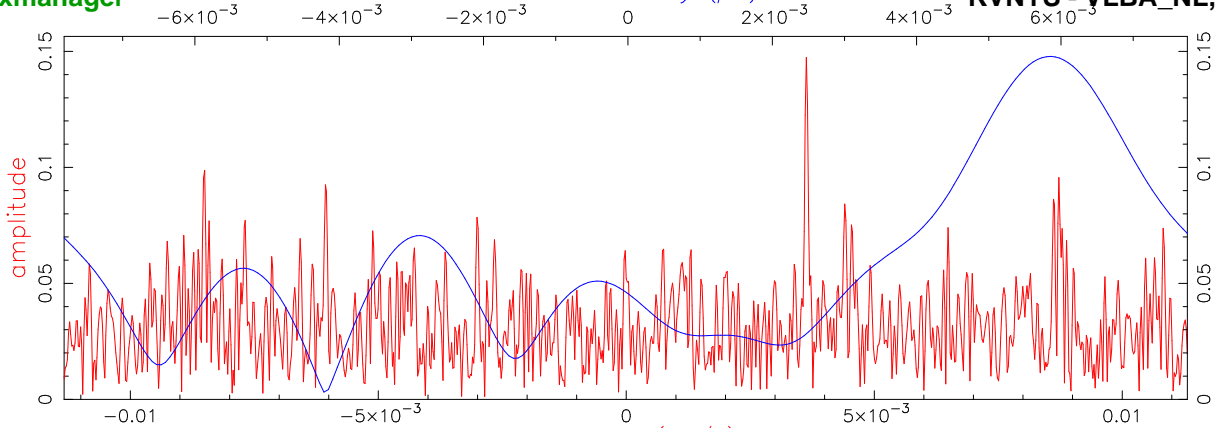
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yn

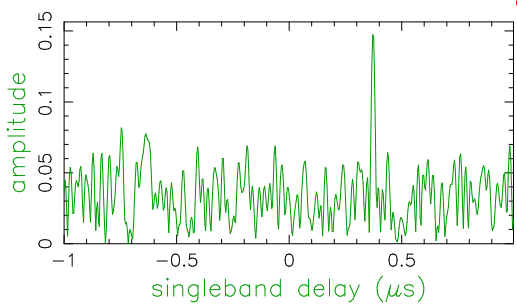
KVNYS - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

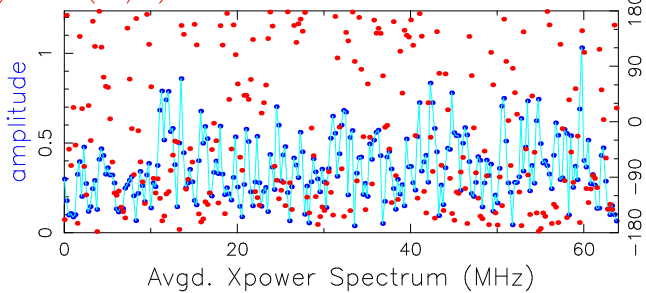


Fringe quality 0

SNR 5.5
 Int time 179.975
 Amp 0.156
 Phase 123.0
 PFD 9.9e-01
 Delays (us)
 SBD 0.372835
 MBD 0.005954
 Fringe rate (Hz)
 0.312704
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

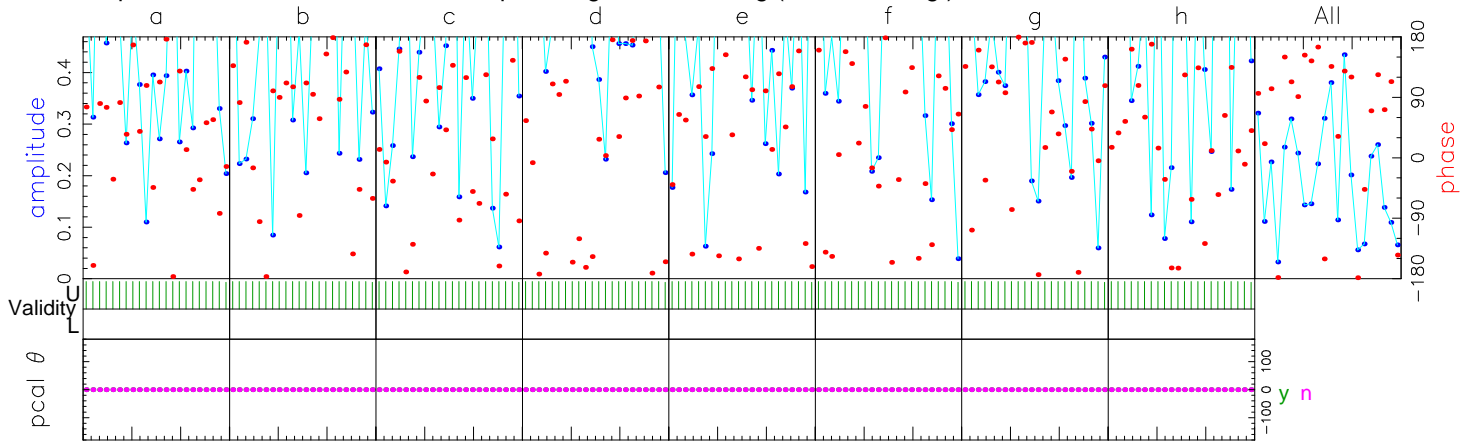


delay rate (ns/s)



Exp. c202a
 Yr:day 16383
 Start 2020:283
 Stop 2020:283
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143606
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.01607692942E+04			1.01604039649E+04				5.95424E-03	+/- 2.0E-04
Sband delay (usec)		1.01607767994E+04			1.1018839E+00				3.72835E-01	+/- 1.6E-03
Phase delay (usec)		1.01604039689E+04			-4.0000002E-07				3.96780E-06	+/- 6.7E-07
Delay rate (us/s)		8.50954601974E-01			8.50950971790E-01				3.63018E-06	+/- 6.5E-09
Total phase (deg)			316.7		-5.94595601197E-05				123.0	+/- 20.8
pcal mode:					MANUAL				MANUAL	
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					
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
PC period (AP's)									5	
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

ph/seg (deg) 61.1 48.9 Search (1024X32) 0.146 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 79.2 85.3 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.2 29.5 Inc. seg. avg. 0.153 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.8 51.4 Inc. frq. avg. 0.174 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 31.8 el 62.3 pa -127.5 n: az 328.3 el 24.4 pa 48.7 u,v (fr/asec) -9378.937 -7844.663 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yn..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yn.W.368.1HTNOG

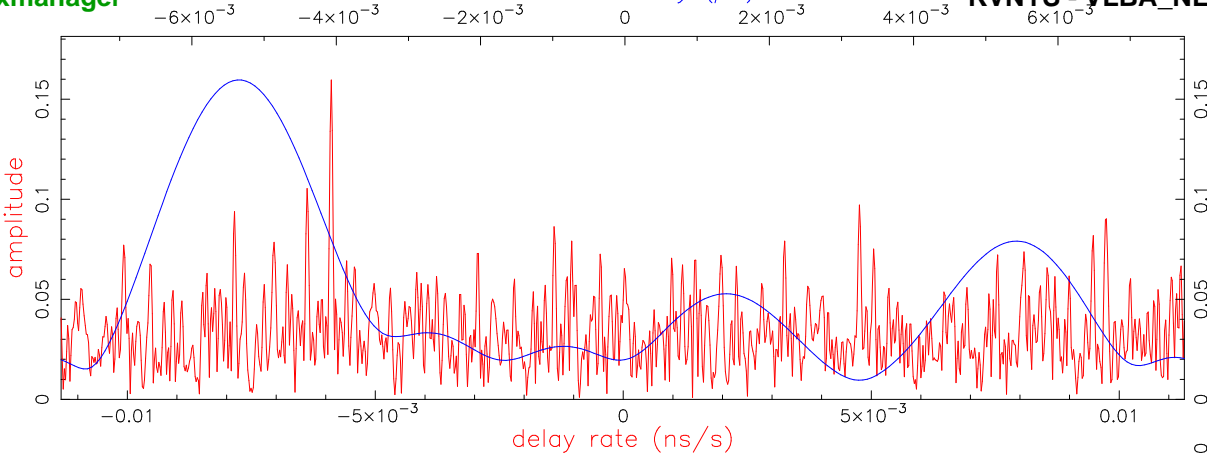
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yn

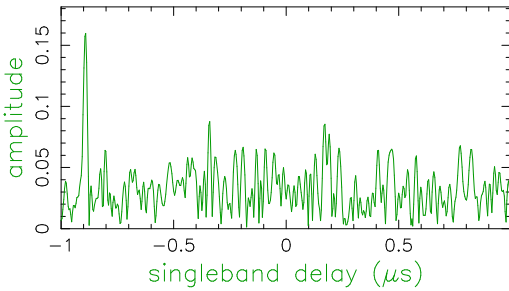
KVNYS - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

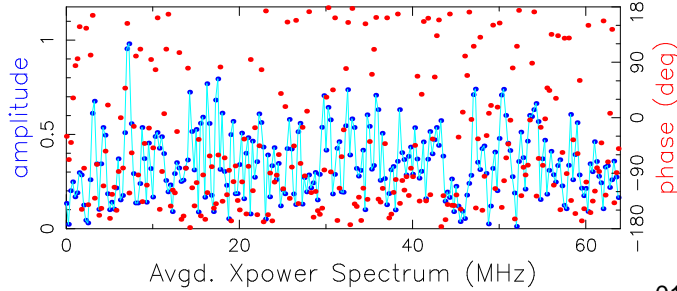


Fringe quality 0

SNR 5.9
 Int time 179.975
 Amp 0.181
 Phase 96.6
 PFD 3.1e-01
 Delays (us)
 SBD -0.892213
 MBD -0.005330
 Fringe rate (Hz)
 -0.508234
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

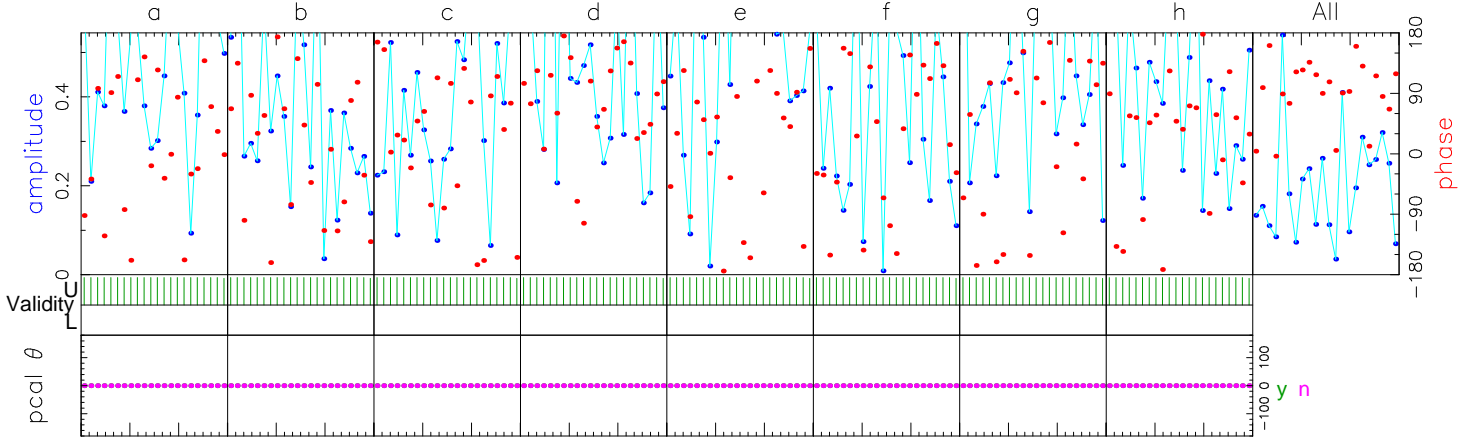


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143609
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	81.2	92.7	81.7	114.9	94.8	92.8	128.1	66.9	Phase	96.6
	0.1	0.2	0.1	0.4	0.2	0.1	0.2	0.2	Ampl.	0.2
	396.0	99.2	137.1	28.4	312.0	208.4	249.4	30.3	Sbd box	28.6
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	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)		1.01595080097E+04		Apriori delay (usec)	1.01604039649E+04		Resid mbdelay (usec)	-5.33021E-03	+/-	1.8E-04
Sband delay (usec)		1.01595117522E+04		Apriori clock (usec)	1.1018839E+00		Resid sbdelay (usec)	-8.92213E-01	+/-	1.5E-03
Phase delay (usec)		1.01604039680E+04		Apriori clockrate (us/s)	-4.0000002E-07		Resid phdelay (usec)	3.11487E-06	+/-	6.2E-07
Delay rate (us/s)		8.50945071701E-01		Apriori rate (us/s)	8.50950971790E-01		Resid rate (us/s)	-5.90009E-06	+/-	6.0E-09
Total phase (deg)		290.3		Apriori accel (us/s/s)	-5.94595601197E-05		Resid phase (deg)	96.6	+/-	19.3

ph/seg (deg) 47.5 45.3 Search (1024X32) 0.153 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 77.6 79.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.2 27.3 Inc. seg. avg. 0.171 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 44.6 47.6 Inc. frq. avg. 0.171 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 31.8 el 62.3 pa -127.5 n: az 328.3 el 24.4 pa 48.7 u,v (fr/asec) -9378.937 -7844.663 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yn..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yn.W.388.1HTNOG

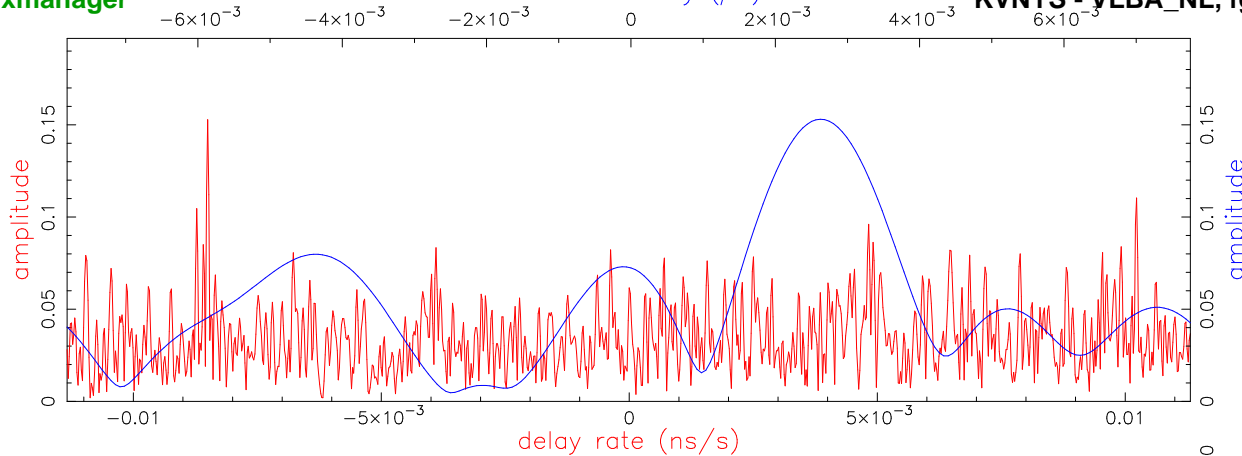
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yn

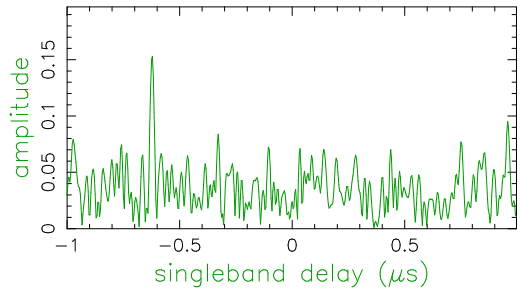
KVNYS - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

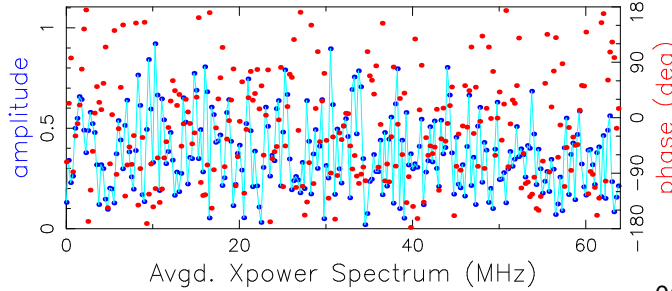


Fringe quality 0

SNR 5.7
 Int time 179.975
 Amp 0.197
 Phase -42.8
 PFD 8.5e-01
 Delays (us)
 SBD -0.622521
 MBD 0.002568
 Fringe rate (Hz)
 -0.734441
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

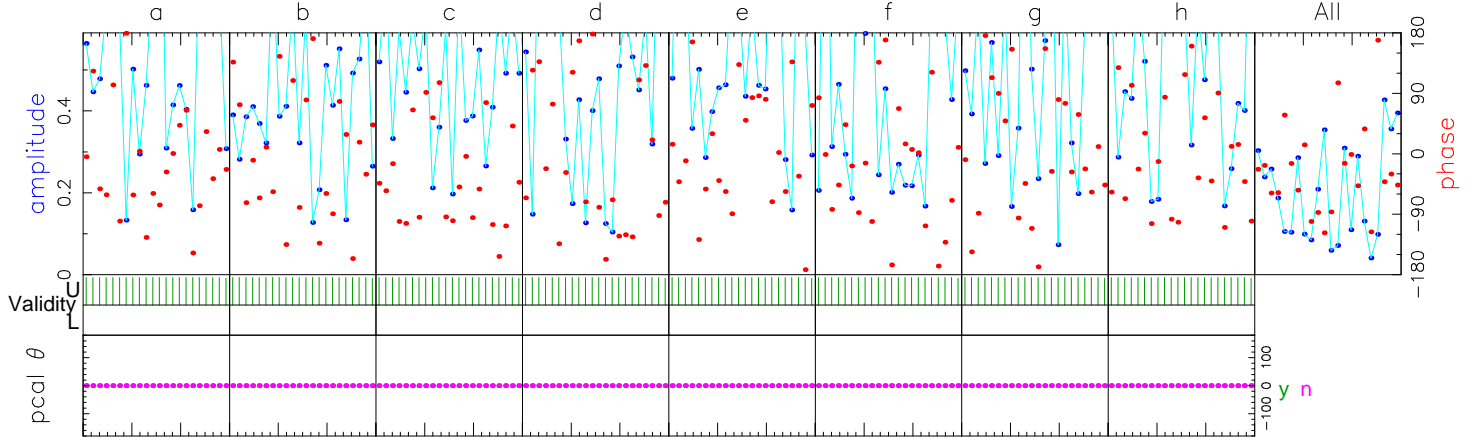


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143610
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-37.0	-18.6	-59.1	-123.2	-20.1	-48.7	-27.5	-34.8	Phase	-42.8
	0.4	0.1	0.3	0.2	0.3	0.2	0.2	0.2	Ampl.	0.2
	97.8	193.4	315.9	484.0	306.2	143.5	357.8	158.7	Sbd box	97.6
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	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)		1.01597815326E+04		Apriori delay (usec)	1.01604039649E+04		Resid mbdelay (usec)	2.56767E-03	+/-	1.9E-04
Sband delay (usec)		1.01597814439E+04		Apriori clock (usec)	1.1018839E+00		Resid sbdelay (usec)	-6.22521E-01	+/-	1.5E-03
Phase delay (usec)		1.01604039635E+04		Apriori clockrate (us/s)	-4.0000002E-07		Resid phdelay (usec)	-1.37933E-06	+/-	6.5E-07
Delay rate (us/s)		8.50942445657E-01		Apriori rate (us/s)	8.50950971790E-01		Resid rate (us/s)	-8.52613E-06	+/-	6.3E-09
Total phase (deg)		150.9		Apriori accel (us/s/s)	-5.94595601197E-05		Resid phase (deg)	-42.8	+/-	20.3

ph/seg (deg) 63.0 47.5 Search (1024X32) 0.151 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 83.2 82.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.0 28.6 Inc. seg. avg. 0.195 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 37.9 50.0 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
 y: az 31.8 el 62.3 pa -127.5 n: az 328.3 el 24.4 pa 48.7 u,v (fr/asec) -9378.937 -7844.663 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yn..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yn.W.402.1HTNOG

Mk4/DiFX fourfit 3.21 rev 2937

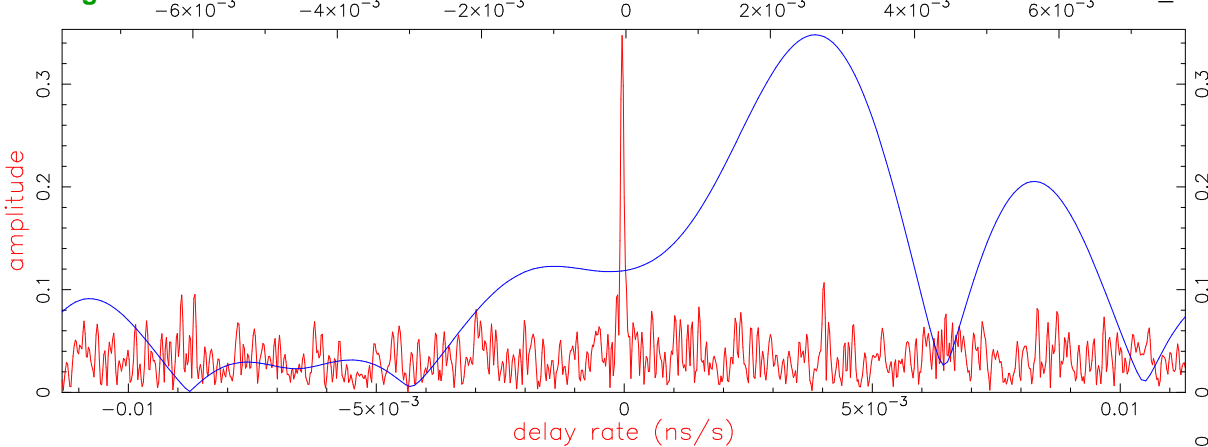
fxmanager

0102+584.1HTNOG, No0140, yo

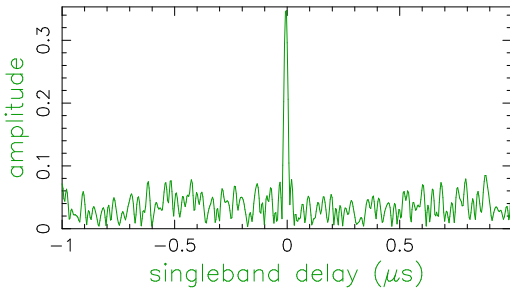
KVNYS - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

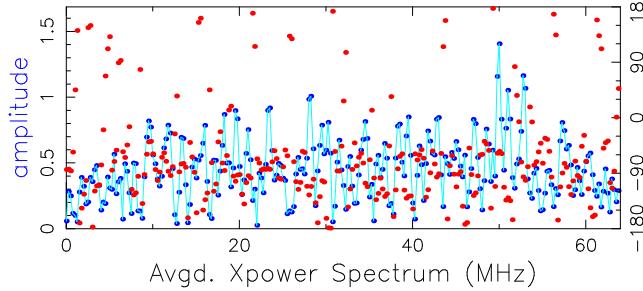
Fringe quality 9



SNR 13.0
 Int time 179.975
 Amp 0.353
 Phase 169.4
 PFD 5.7e-30
 Delays (us)
 SBD -0.005722
 MBD 0.002539
 Fringe rate (Hz) -0.004623
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

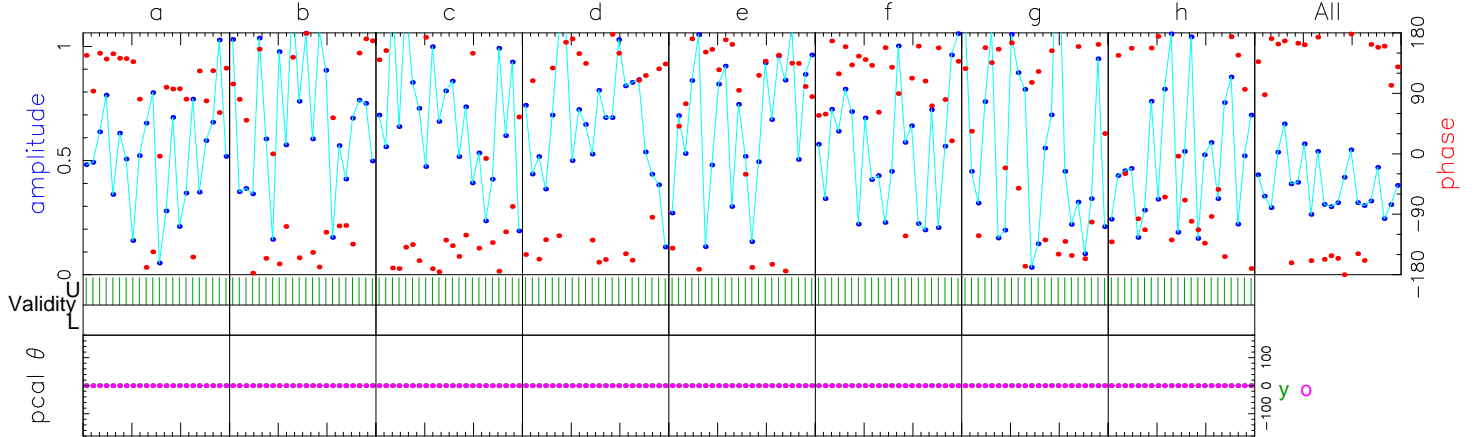


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143604
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
y:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	7.44786272387E+03	Apriori delay (usec)	7.44787580941E+03	Resid mbdelay (usec)	2.53946E-03	+/-	8.4E-05
Sband delay (usec)	7.44787008791E+03	Apriori clock (usec)	-2.0162941E+01	Resid sbdelay (usec)	-5.72150E-03	+/-	6.6E-04
Phase delay (usec)	7.44787581487E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	5.46320E-06	+/-	2.9E-07
Delay rate (us/s)	9.42959454208E-01	Apriori rate (us/s)	9.42959507879E-01	Resid rate (us/s)	-5.36718E-08	+/-	2.7E-09
Total phase (deg)	249.5	Apriori accel (us/s/s)	-3.92764483923E-05	Resid phase (deg)	169.4	+/-	8.8

ph/seg (deg)	32.2	Theor.	20.7	Amplitude	0.353 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000		
amp/seg (%)	34.0		36.2	Search (1024X32)	0.336	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008		
ph/frq (deg)	41.1		12.5	Inc. seg. avg.	0.372	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011				
amp/frq (%)	30.0		21.8	Inc. frq. avg.	0.408	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite	ion window (TEC)	0.00	0.00

y: az 31.8 el 62.3 pa -127.5 o: az 321.8 el 32.6 pa 70.9 u,v (fr/asec) -10371.509 -4969.710 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yo..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yo.W.341.1HTNOG

Mk4/DiFX fourfit 3.21 rev 2937

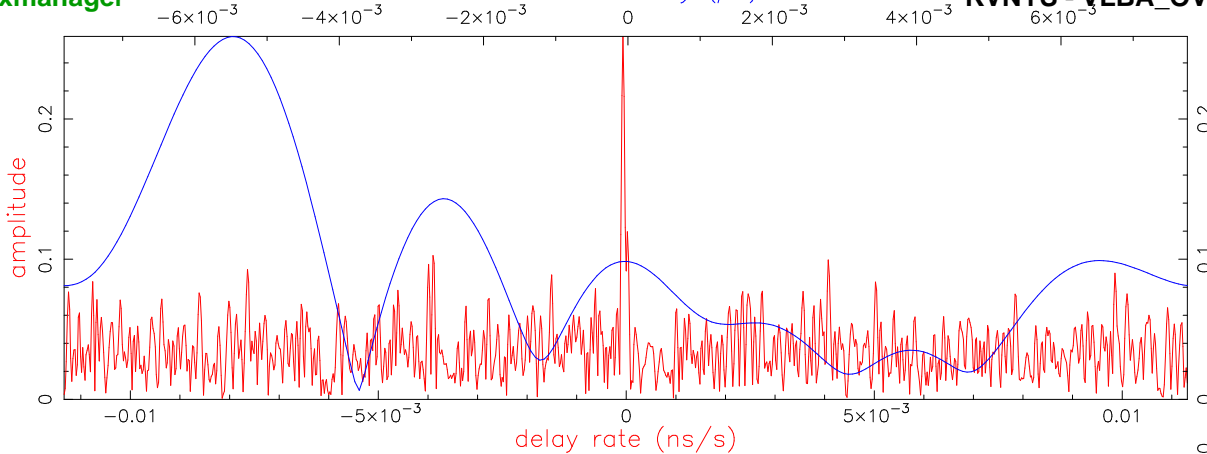
fxmanager

0102+584.1HTNOG, No0140, yo

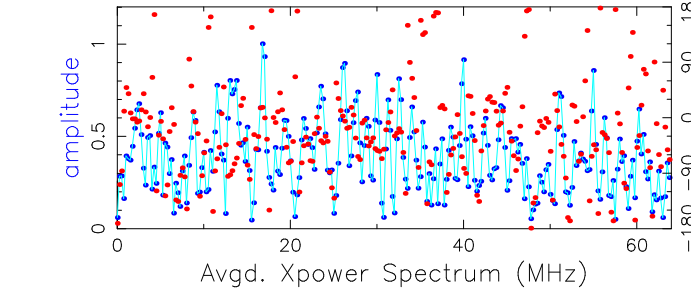
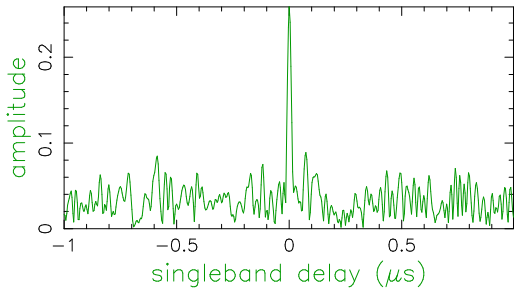
KVNYS - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

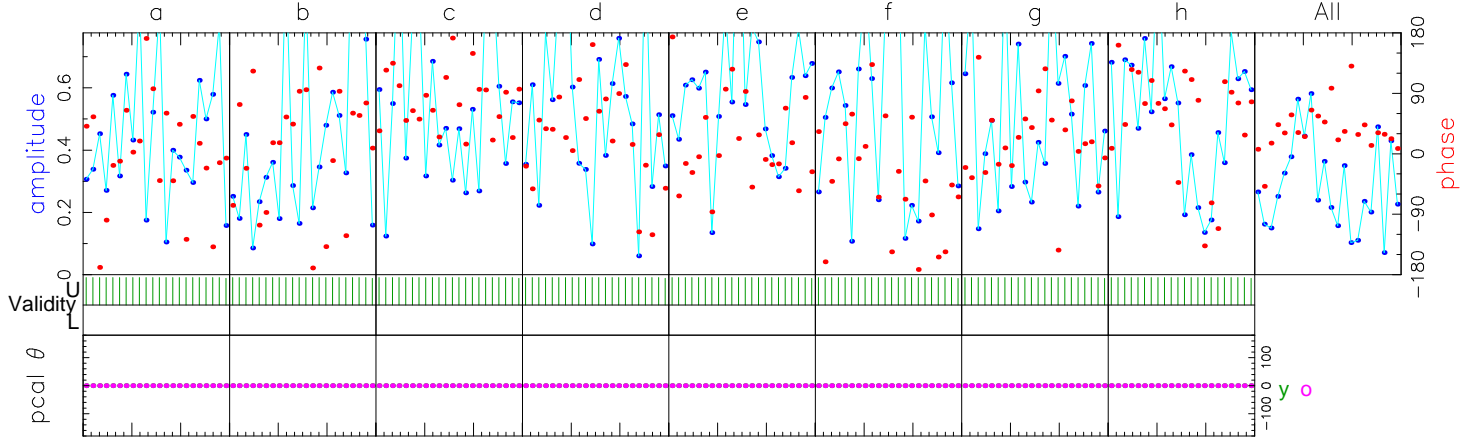


SNR 9.5
Int time 179.975
Amp 0.259
Phase 36.3
PFD 4.4e-13
Delays (us)
SBD 0.000263
MBD -0.005460
Fringe rate (Hz)
-0.004880
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143606
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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					
y	1000	1000	1000	1000	1000	1000	1000	1000					
o	1000	1000	1000	1000	1000	1000	1000	1000					
y:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0					
y:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0					
y	1000	1000	1000	1000	1000	1000	1000	1000					
o	1000	1000	1000	1000	1000	1000	1000	1000					
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR					
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR					
Group delay (usec)(sbd)		7.44787034929E+03			7.44787580941E+03				Resid mbdelay (usec)	-5.46012E-03	+/- 1.1E-04		
Sband delay (usec)		7.44787607266E+03			-2.0162941E+01				Resid sbdelay (usec)	2.63250E-04	+/- 9.1E-04		
Phase delay (usec)		7.44787581058E+03			1.9999998E-07				Resid phdelay (usec)	1.17096E-06	+/- 3.9E-07		
Delay rate (us/s)		9.42959451226E-01			9.42959507879E-01				Resid rate (us/s)	-5.66534E-08	+/- 3.7E-09		
Total phase (deg)			116.4		-3.92764483923E-05				Resid phase (deg)	36.3	+/- 12.1		
ph/seg (deg)	RMS 33.8	Theor. 28.3	Amplitude 28.3	Search (1024X32) 0.249	0.259 +/- 0.027				Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	56.3	49.4	Interp. 49.4	0.000	0.000				Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	41.5	17.1	Inc. seg. avg. 17.1	0.256	0.256				Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	35.7	29.8	Inc. frq. avg. 29.8	0.294	0.294				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

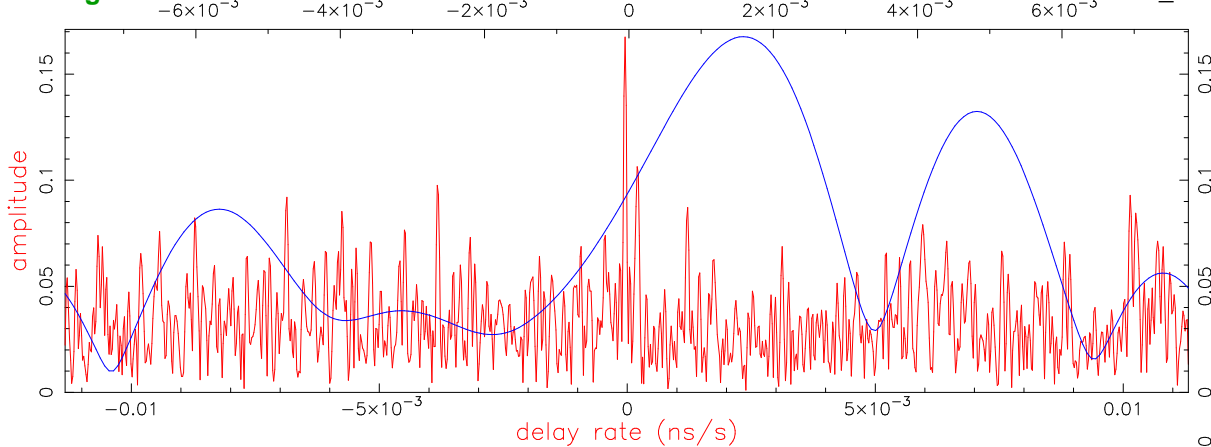
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yo

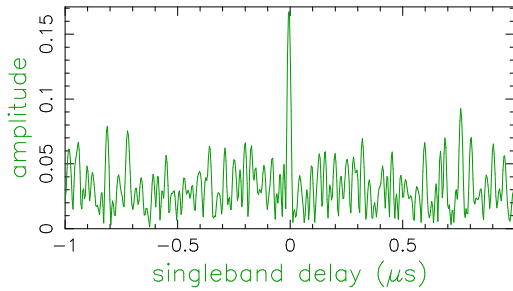
KVNYS - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

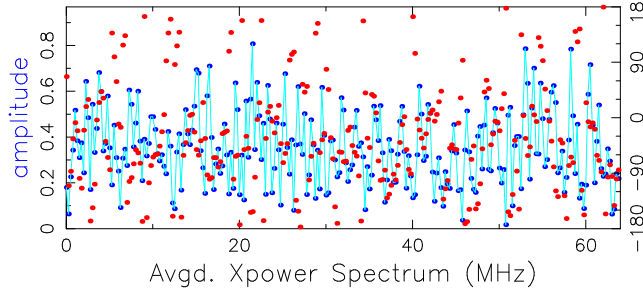


Fringe quality 0

SNR 6.3
 Int time 179.975
 Amp 0.171
 Phase -132.6
 PFD 4.6e-02
 Delays (us)
 SBD -0.005741
 MBD 0.001515
 Fringe rate (Hz)
 -0.003862
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

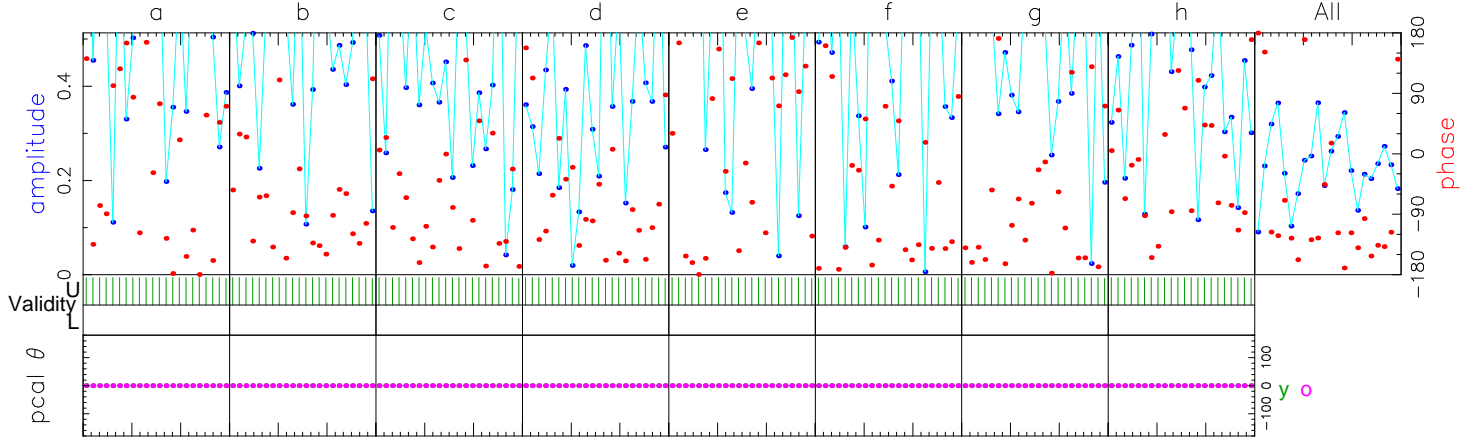


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143609
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	164.3	-101.8	-105.6	-112.1	171.5	-149.4	-129.9	-14.6	Phase	-132.6
	0.1	0.3	0.2	0.2	0.3	0.2	0.3	0.1	Ampl.	0.2
	167.3	257.3	487.7	253.9	256.2	254.7	256.0	273.0	Sbd box	255.5
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	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	7.44787732397E+03		Apriori delay (usec)		7.44787580941E+03		Resid mbdelay (usec)		1.51456E-03	+/- 1.7E-04
Sband delay (usec)	7.44787006791E+03		Apriori clock (usec)		-2.0162941E+01		Resid sbdelay (usec)		-5.74150E-03	+/- 1.4E-03
Phase delay (usec)	7.44787580513E+03		Apriori clockrate (us/s)		1.9999998E-07		Resid phdelay (usec)		-4.27759E-06	+/- 5.9E-07
Delay rate (us/s)	9.42959463043E-01		Apriori rate (us/s)		9.42959507879E-01		Resid rate (us/s)		-4.48361E-08	+/- 5.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.92764483923E-05		Resid phase (deg)		-132.6	+/- 18.3

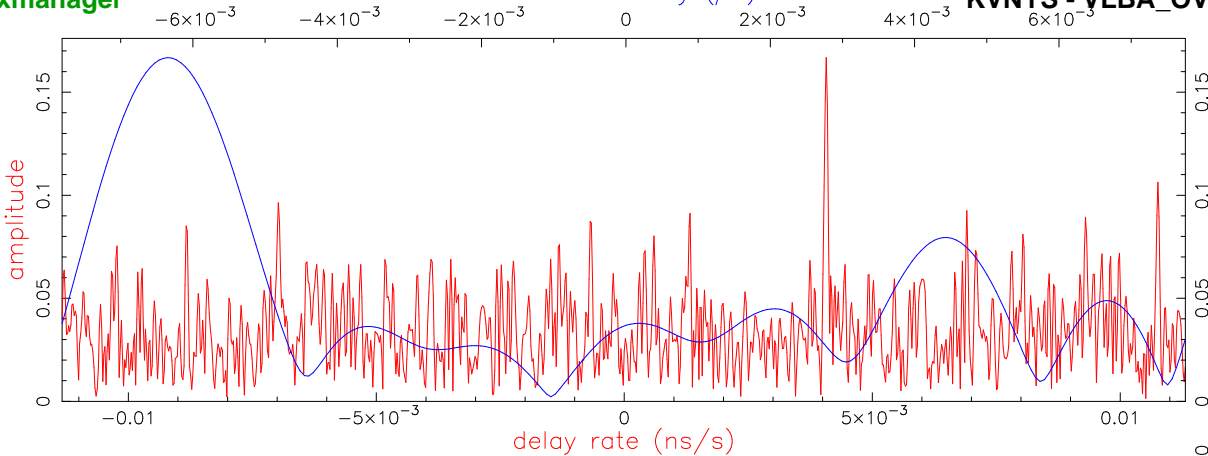
	RMS	Theor.	Amplitude	0.171 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	51.1	42.8	Search (1024X32)	0.167	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	56.3	74.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	62.5	25.8	Inc. seg. avg.	0.183	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	51.8	45.1	Inc. frq. avg.	0.206	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

y: az 31.8 el 62.3 pa -127.5 o: az 321.8 el 32.6 pa 70.9 u,v (fr/asec) -10371.509 -4969.710 simultaneous interpolator

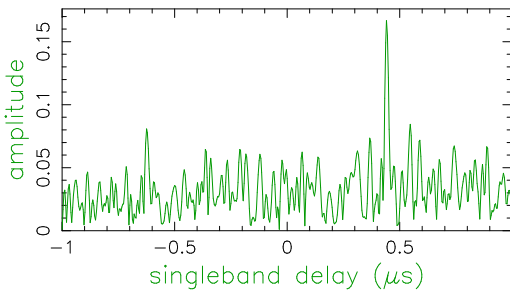
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yo..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yo.W.389.1HTNOG

multiband delay (μ s)

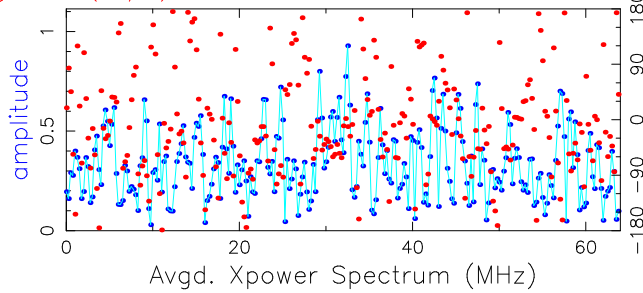
Fringe quality 0



SNR 6.1
Int time 179.975
Amp 0.176
Phase 94.2
PFD 1.2e-01
Delays (us)
SBD 0.441738
MBD -0.006336
Fringe rate (Hz)
0.351763
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

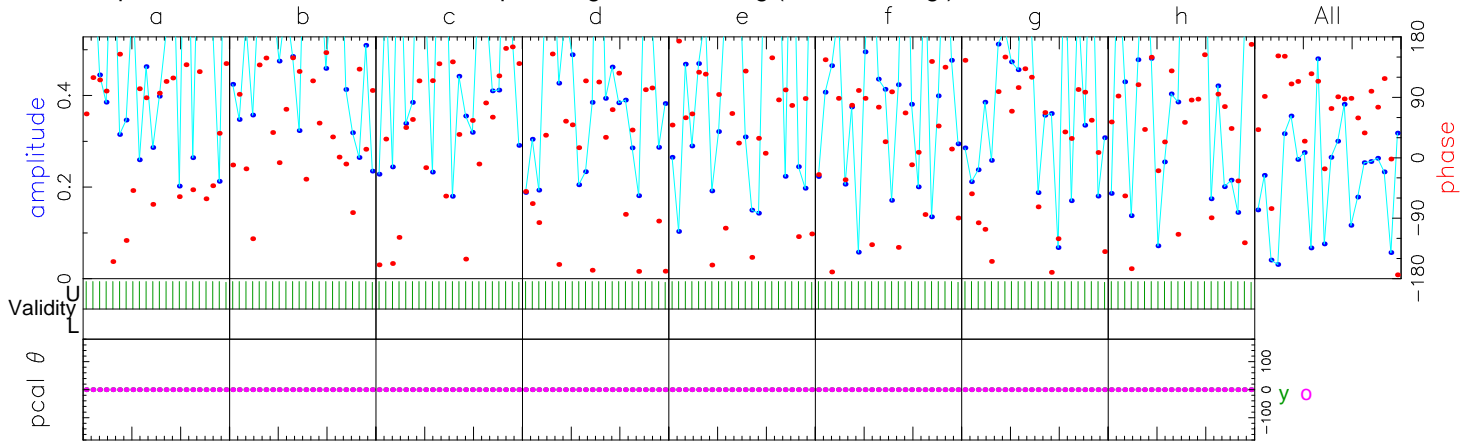


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143611
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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					
y	1000	1000	1000	1000	1000	1000	1000	1000					
o	1000	1000	1000	1000	1000	1000	1000	1000					
y:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0					
y:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0					
y	1000	1000	1000	1000	1000	1000	1000	1000					
o	1000	1000	1000	1000	1000	1000	1000	1000					
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR					
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL					
Group delay (usec)(sbd)		7.44832259876E+03				7.44787580941E+03			Resid mbdelay (usec)	-6.33565E-03	+/- 1.8E-04		
Sband delay (usec)		7.44831754716E+03				-2.0162941E+01			Resid sbdelay (usec)	4.41738E-01	+/- 1.4E-03		
Phase delay (usec)		7.44787581245E+03				1.9999998E-07			Resid phdelay (usec)	3.03924E-06	+/- 6.0E-07		
Delay rate (us/s)		9.42963591494E-01				9.42959507879E-01			Resid rate (us/s)	4.08361E-06	+/- 5.8E-09		
Total phase (deg)			174.4			-3.92764483923E-05			Resid phase (deg)	94.2	+/- 18.7		
	RMS	Theor.	Amplitude	0.176 +/- 0.029		Pcal mode: MANUAL, MANUAL			PC period (AP's)	5, 5			
ph/seg (deg)	60.5	43.9	Search (1024X32)	0.160		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000	1.000		
amp/seg (%)	78.0	76.6	Interp.	0.000		Bits/sample: 2x2			SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	23.3	26.5	Inc. seg. avg.	0.182		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011	0.011		
amp/frq (%)	22.9	46.2	Inc. frq. avg.	0.170		Data rate(Mb/s): 2048			nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

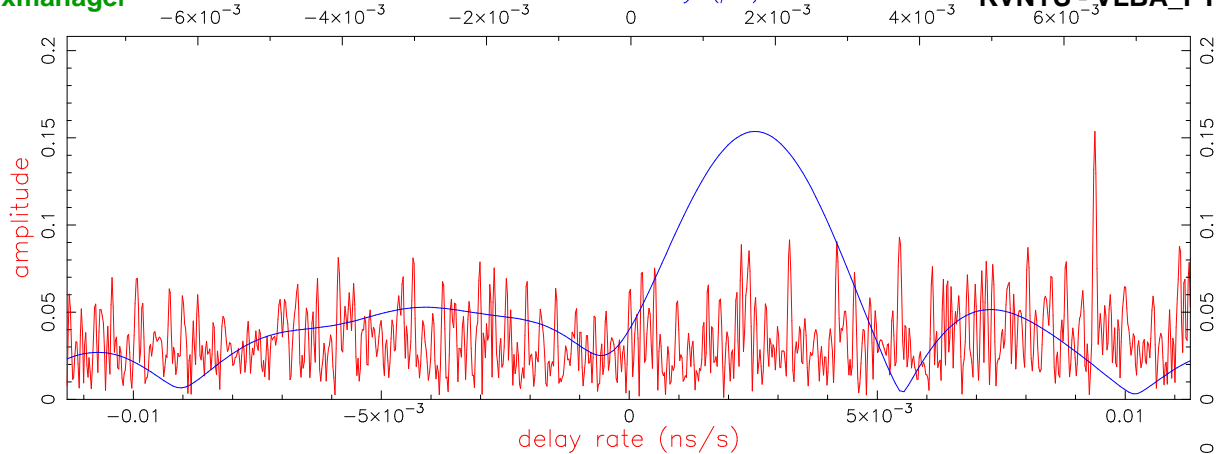
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yp

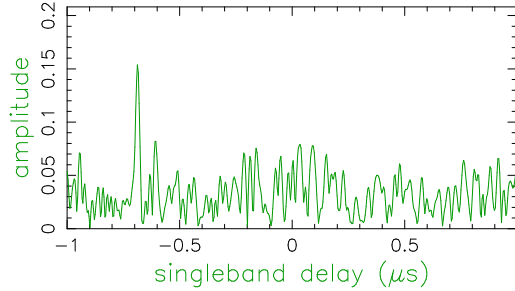
KVNYS - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

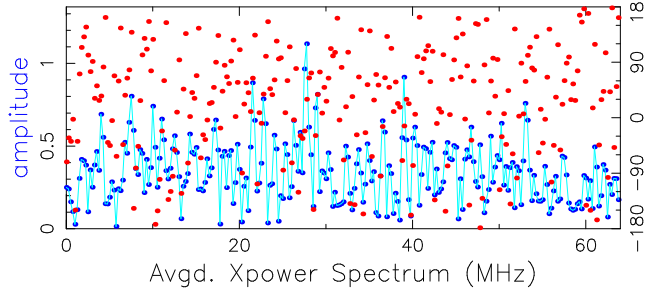


Fringe quality 0

SNR 5.6
 Int time 179.975
 Amp 0.208
 Phase 37.6
 PFD 8.6e-01
 Delays (us)
 SBD -0.686844
 MBD 0.001746
 Fringe rate (Hz)
 0.810853
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

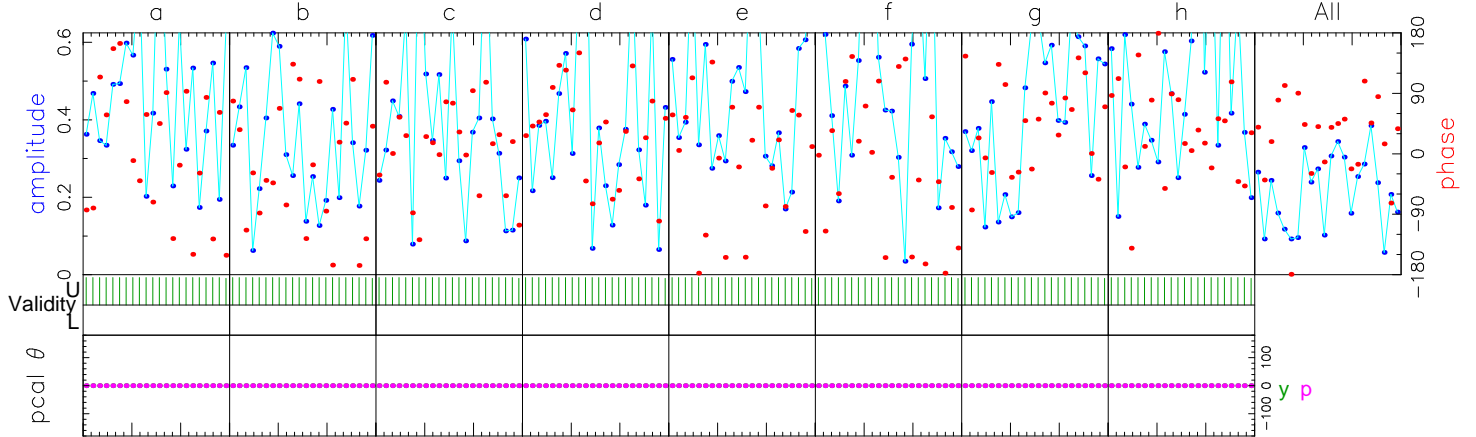


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143604
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	29.2	24.1	33.6	57.8	35.7	26.4	53.2	24.7	Phase	37.6
	0.1	0.1	0.2	0.3	0.2	0.1	0.3	0.4	Ampl.	0.2
	161.5	154.0	15.9	240.9	391.3	267.7	82.4	451.0	Sbd box	81.2
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	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	9.82733192330E+03	Apriori delay (usec)	9.82801767698E+03	Resid mbdelay (usec)	1.74632E-03	+/-	1.9E-04
Sband delay (usec)	9.82733083323E+03	Apriori clock (usec)	1.1879129E+00	Resid sbdelay (usec)	-6.86844E-01	+/-	1.5E-03
Phase delay (usec)	9.82801767819E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	1.21319E-06	+/-	6.5E-07
Delay rate (us/s)	9.62468776102E-01	Apriori rate (us/s)	9.62459362897E-01	Resid rate (us/s)	9.41320E-06	+/-	6.3E-09
Total phase (deg)	287.7	Apriori accel (us/s/s)	-4.78381120788E-05	Resid phase (deg)	37.6	+/-	20.3

ph/seg (deg)	56.1	Theor.	47.6	Amplitude	0.208 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	71.8		83.0	Search (1024X32)	0.152	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	14.2		28.7	Inc. seg. avg.	0.215	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	50.9		50.1	Inc. frq. avg.	0.189	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

y: az 31.8 el 62.3 pa -127.5 p: az 325.0 el 25.3 pa 65.0 u,v (fr/asec) -10592.585 -5875.143 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yp..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yp.W.343.1HTNOG

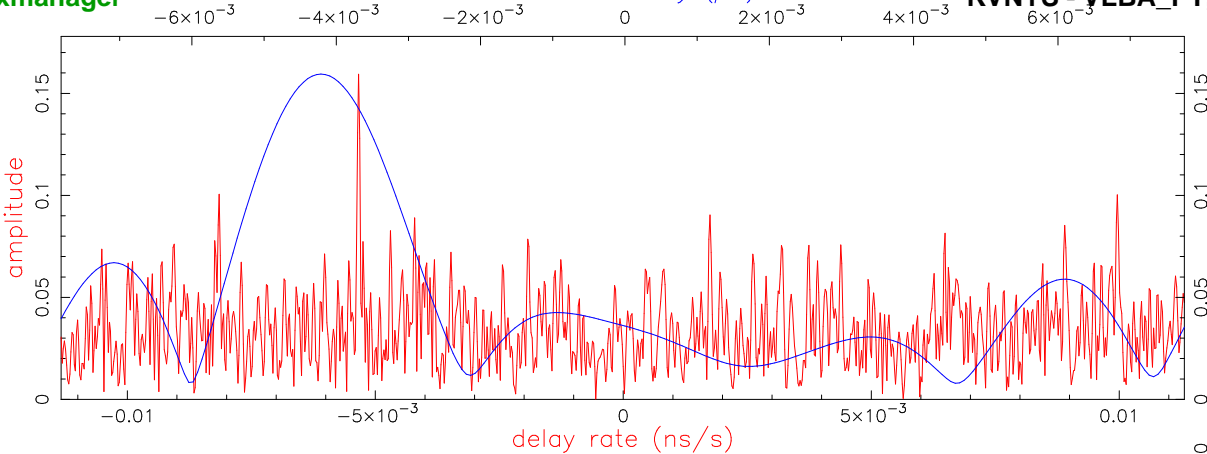
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yp

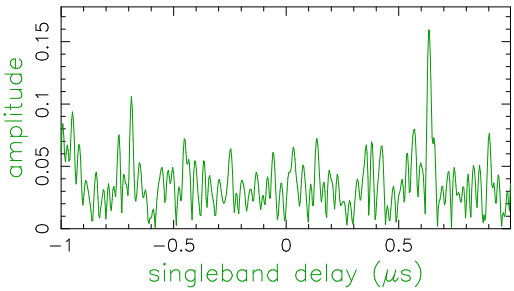
KVNYS - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

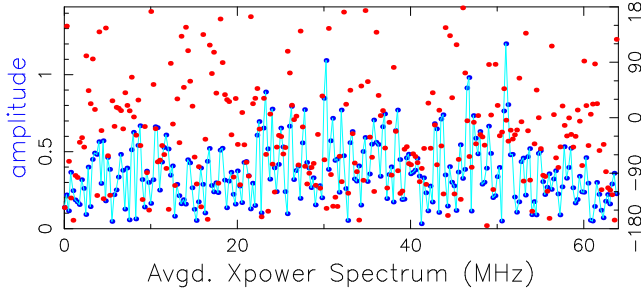


Fringe quality 0

SNR 5.9
Int time 179.975
Amp 0.178
Phase 117.3
PFD 2.9e-01
Delays (us)
SBD 0.634647
MBD -0.004185
Fringe rate (Hz)
-0.459683
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

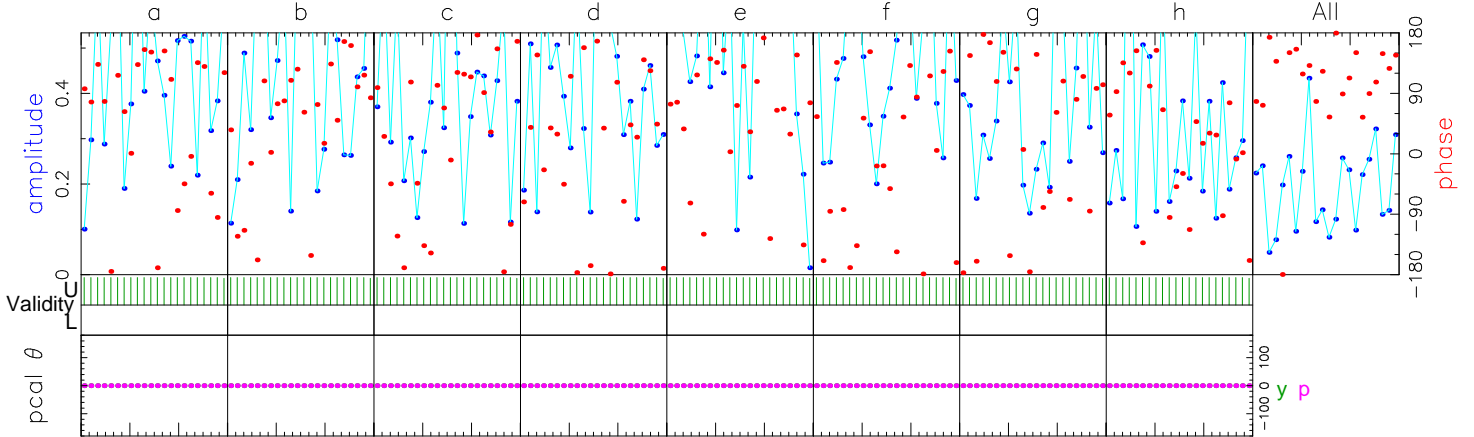


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143606
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



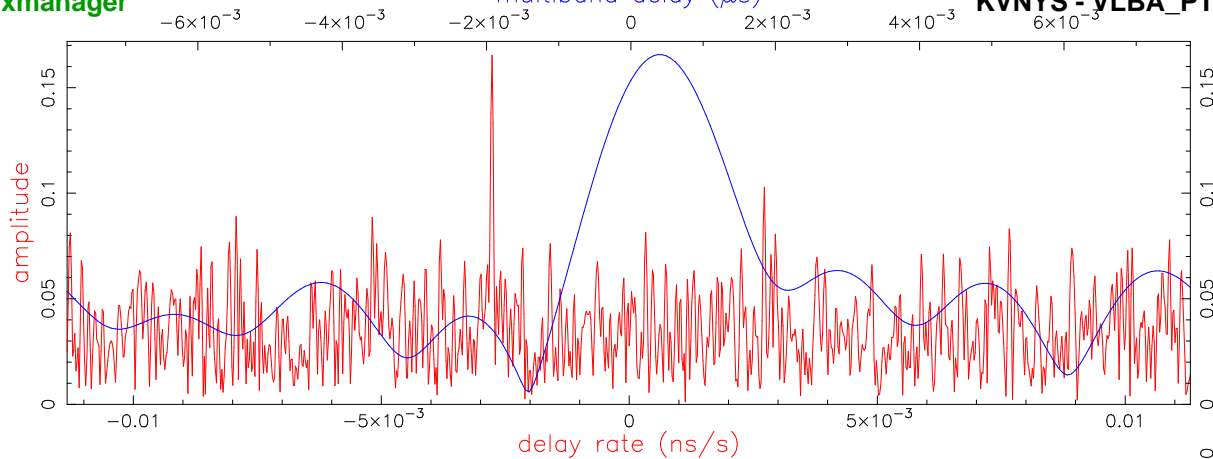
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	134.7	106.4	117.6	96.6	107.2	146.4	128.2	83.7	Phase	117.3
	0.2	0.3	0.1	0.1	0.3	0.2	0.2	0.1	Ampl.	0.2
	421.4	420.9	1.5	347.3	191.9	13.7	243.3	195.8	Sbd box	419.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.82865411679E+03		Apriori delay (usec)		9.82801767698E+03		Resid mbdelay (usec)		-4.18518E-03	+/- 1.8E-04
Sband delay (usec)	9.82865232398E+03		Apriori clock (usec)		1.1879129E+00		Resid sbdelay (usec)		6.34647E-01	+/- 1.4E-03
Phase delay (usec)	9.82801768076E+03		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		3.78250E-06	+/- 6.2E-07
Delay rate (us/s)	9.62454026428E-01		Apriori rate (us/s)		9.62459362897E-01		Resid rate (us/s)		-5.33647E-06	+/- 6.0E-09
Total phase (deg)	7.4		Apriori accel (us/s/s)		-4.78381120788E-05		Resid phase (deg)		117.3	+/- 19.3

	RMS	Theor.	Amplitude	0.178 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	38.1	45.2	Search (1024X32)	0.156	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/seg (%)	60.5	78.8	Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	22.6	27.2	Inc. seg. avg.	0.161	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00 0.00
amp/frq (%)	35.8	47.5	Inc. frq. avg.	0.165				

y: az 31.8 el 62.3 pa -127.5 p: az 325.0 el 25.3 pa 65.0 u,v (fr/asec) -10592.585 -5875.143 simultaneous interpolator

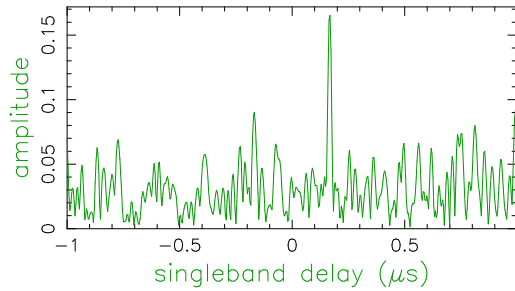
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yp..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yp.W.361.1HTNOG

multiband delay (μ s)

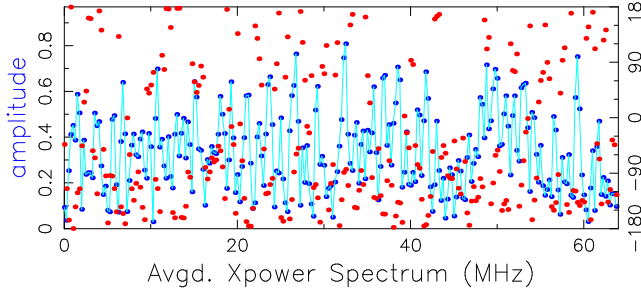


Fringe quality 0

SNR 6.2
Int time 179.975
Amp 0.172
Phase -16.0
PFD 9.6e-02
Delays (us)
SBD 0.166468
MBD 0.000336
Fringe rate (Hz)
-0.238229
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

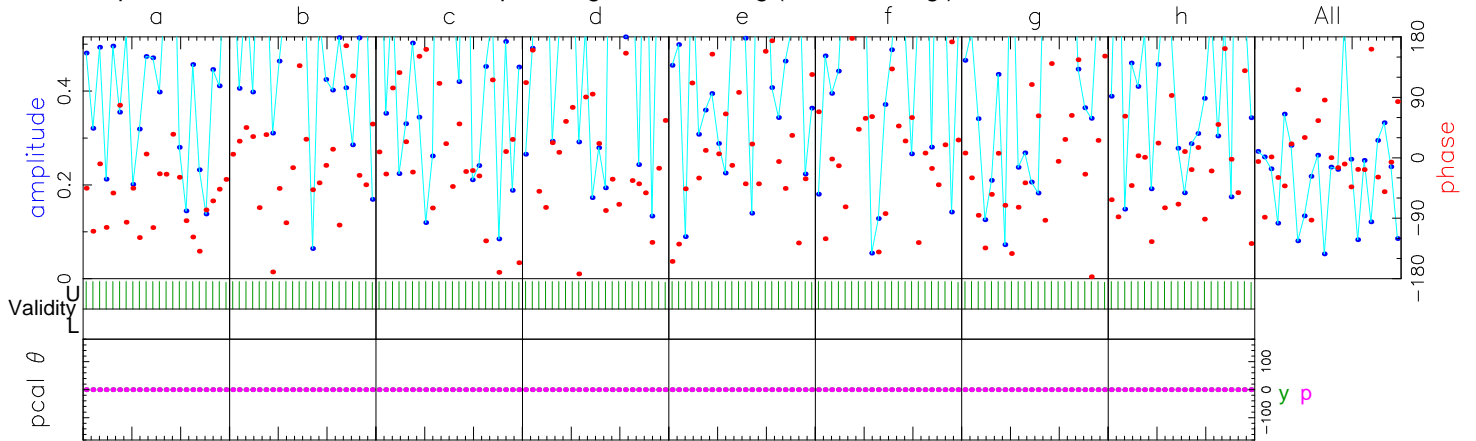


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143607
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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
	-47.0	-11.6	22.4	-18.3	-12.0	5.5	0.7	-37.9	Phase	-16.0
	0.3	0.2	0.2	0.2	0.0	0.2	0.1	0.2	Ampl.	0.2
	377.3	318.1	56.3	300.5	445.0	340.3	451.1	196.6	Sbd box	299.6
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	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.82818988799E+03		Apriori delay (usec)		9.82801767698E+03		Resid mbdelay (usec)		3.36013E-04	+/- 1.8E-04
Sband delay (usec)	9.82818414498E+03		Apriori clock (usec)		1.1879129E+00		Resid sbdelay (usec)		1.66468E-01	+/- 1.4E-03
Phase delay (usec)	9.82801767646E+03		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		-5.15384E-07	+/- 6.0E-07
Delay rate (us/s)	9.62456597292E-01		Apriori rate (us/s)		9.62459362897E-01		Resid rate (us/s)		-2.76561E-06	+/- 5.8E-09
Total phase (deg)	234.1		Apriori accel (us/s/s)		-4.78381120788E-05		Resid phase (deg)		-16.0	+/- 18.6

RMS Theor. Amplitude 0.172 +/- 0.028
 ph/seg (deg) 63.6 43.7 Search (1024X32) 0.162
 amp/seg (%) 73.9 76.2 Interp. 0.000
 ph/frq (deg) 24.8 26.3 Inc. seg. avg. 0.179
 amp/frq (%) 43.1 46.0 Inc. frq. avg. 0.166
 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 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
 y: az 31.8 el 62.3 pa -127.5 p: az 325.0 el 25.3 pa 65.0 u,v (fr/asec) -10592.585 -5875.143 simultaneous interpolator

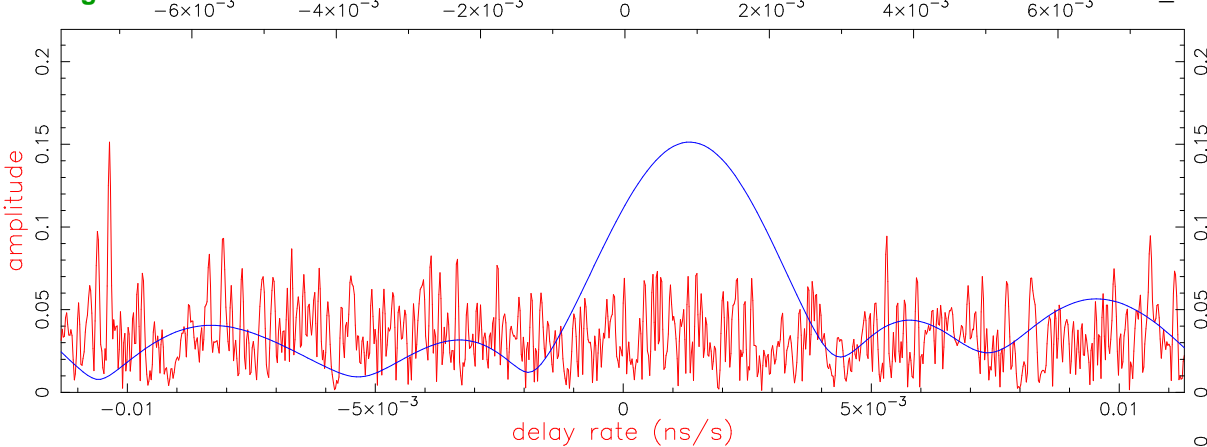
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yp

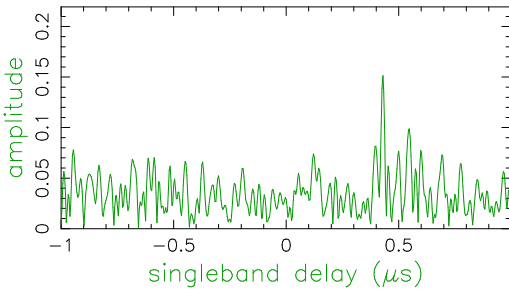
KVNYS - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

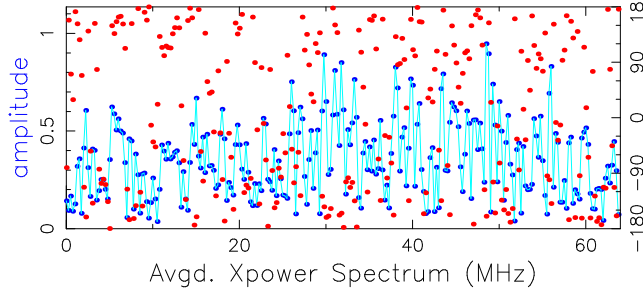


Fringe quality 0

SNR 5.6
 Int time 179.975
 Amp 0.219
 Phase 74.5
 PFD 9.7e-01
 Delays (us)
 SBD 0.429472
 MBD 0.000889
 Fringe rate (Hz)
 -0.893253
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

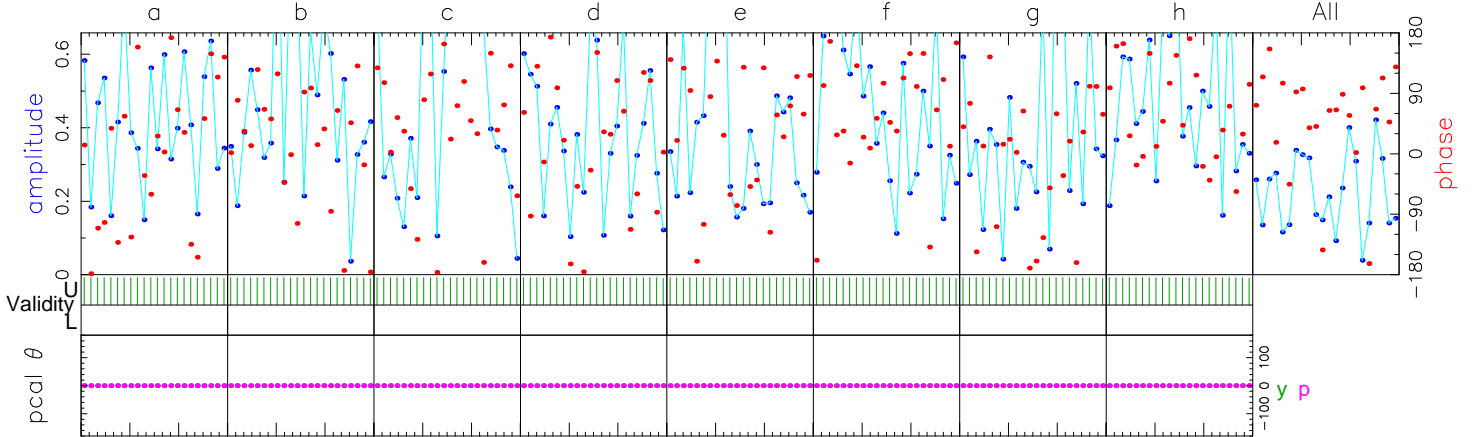


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143609
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
y:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		9.82844044133E+03				9.82801767698E+03			8.89358E-04	+/- 2.0E-04
Sband delay (usec)		9.82844714873E+03				1.1879129E+00			4.29472E-01	+/- 1.6E-03
Phase delay (usec)		9.82801767938E+03				-2.9999999E-07			2.40247E-06	+/- 6.7E-07
Delay rate (us/s)		9.62448993120E-01				9.62459362897E-01			-1.03698E-05	+/- 6.4E-09
Total phase (deg)			324.6			-4.78381120788E-05			74.5	+/- 20.6
	RMS	Theor.	Amplitude	0.219 +/- 0.040		Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5	
ph/seg (deg)	59.2	48.4	Search (1024X32)	0.147		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000 1.000
amp/seg (%)	83.2	84.4	Interp.	0.000		Bits/sample: 2x2			SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	16.3	29.2	Inc. seg. avg.	0.240		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011
amp/frq (%)	49.6	50.9	Inc. frq. avg.	0.199		Data rate(Mb/s): 2048			nlags: 256	t_cohere infinite
y: az 31.8 el 62.3 pa -127.5			p: az 325.0 el 25.3 pa 65.0			u,v (fr/asec) -10592.585 -5875.143			ion window (TEC)	0.00 0.00
Control file: cf_1234_gmva			Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yp..1HTNOG			Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yp.W.393.1HTNOG				simultaneous interpolator

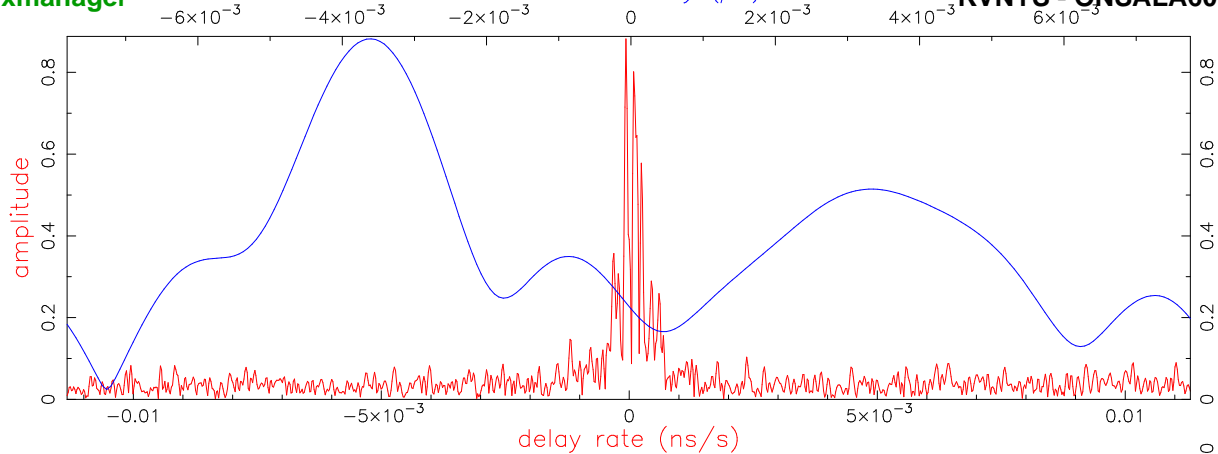
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yX

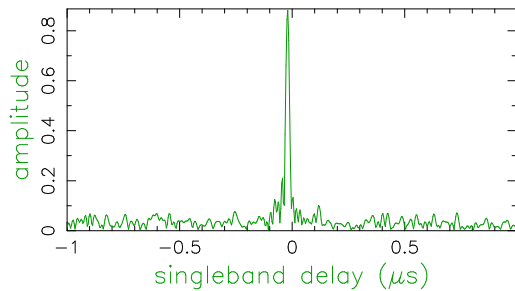
KVNYS - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

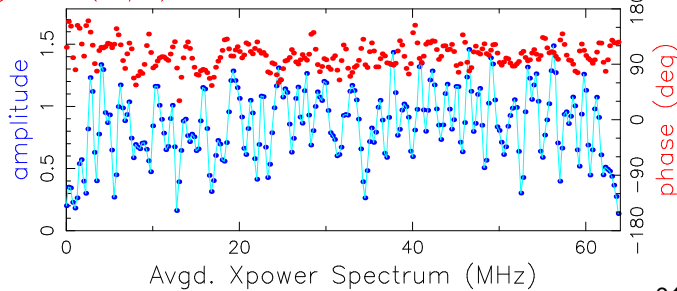


Fringe quality 4

SNR 32.6
Int time 179.959
Amp 0.888
Phase -92.7
PFD 0.0e+00
Delays (us)
SBD -0.020629
MBD -0.003647
Fringe rate (Hz)
-0.005268
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

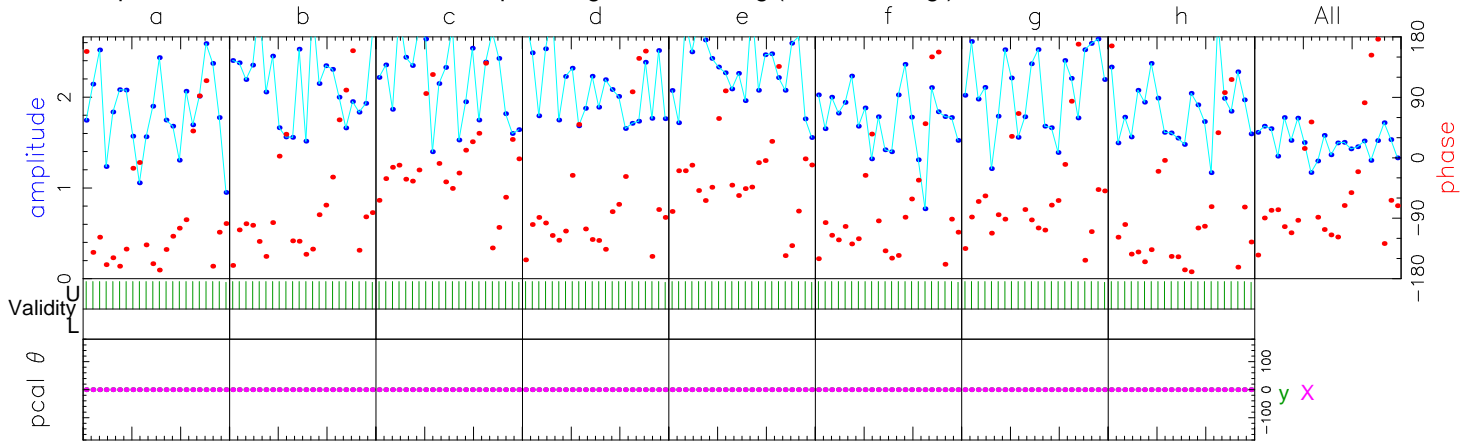


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143604
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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
	-144.1	-108.9	-19.8	-109.3	-34.0	-116.6	-81.2	-135.8	Phase	-92.7
	1.0	1.3	1.3	1.3	1.4	1.1	1.2	0.9	Ampl.	1.2
	253.6	251.5	251.1	251.2	251.3	250.8	251.1	251.3	Sbd box	251.7
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	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	8.32051610119E+03		Apriori delay (usec)		8.32053537365E+03		Resid mbdelay (usec)		-3.64746E-03	+/- 3.3E-05
Sband delay (usec)	8.32051474465E+03		Apriori clock (usec)		-4.7058876E+01		Resid sbdelay (usec)		-2.06290E-02	+/- 2.6E-04
Phase delay (usec)	8.32053537066E+03		Apriori clockrate (us/s)		-4.2800003E-07		Resid phdelay (usec)		-2.98923E-06	+/- 1.1E-07
Delay rate (us/s)	3.17583457255E-02		Apriori rate (us/s)		3.17584068826E-02		Resid rate (us/s)		-6.11570E-08	+/- 1.1E-09
Total phase (deg)			Apriori accel (us/s/s)		-6.69180033501E-05		Resid phase (deg)		-92.7	+/- 3.5

ph/seg (deg) 67.3 8.2 Search (1024X32) 0.860 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 71.5 14.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 49.1 5.0 Inc. seg. avg. 1.489 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 36.8 8.7 Inc. frq. avg. 1.176 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 31.8 el 62.3 pa -127.5 X: az 21.2 el 29.6 pa -22.1 u,v (fr/asec) -401.989 -9657.732 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yX..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yX.W.349.1HTNOG

Mk4/DiFX fourfit 3.21 rev 2937

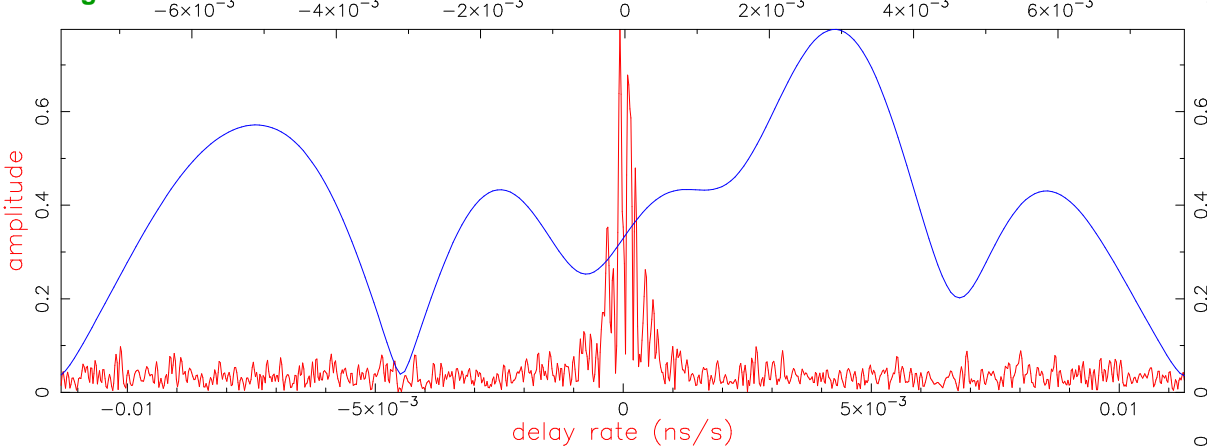
fxmanager

0102+584.1HTNOG, No0140, yX

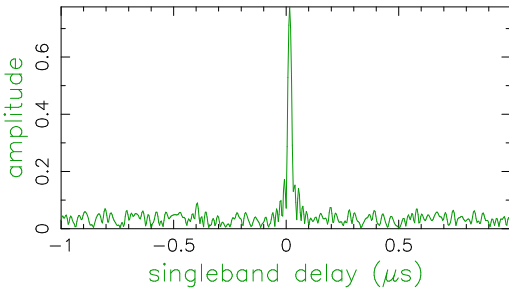
KVNYS - ONSALA60, fgroup W, pol RR

multiband delay (μ s)

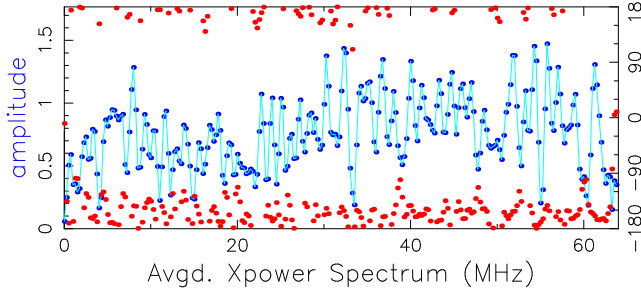
Fringe quality 3



SNR 28.5
 Int time 179.959
 Amp 0.776
 Phase -16.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.015480
 MBD 0.002903
 Fringe rate (Hz)
 -0.005054
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

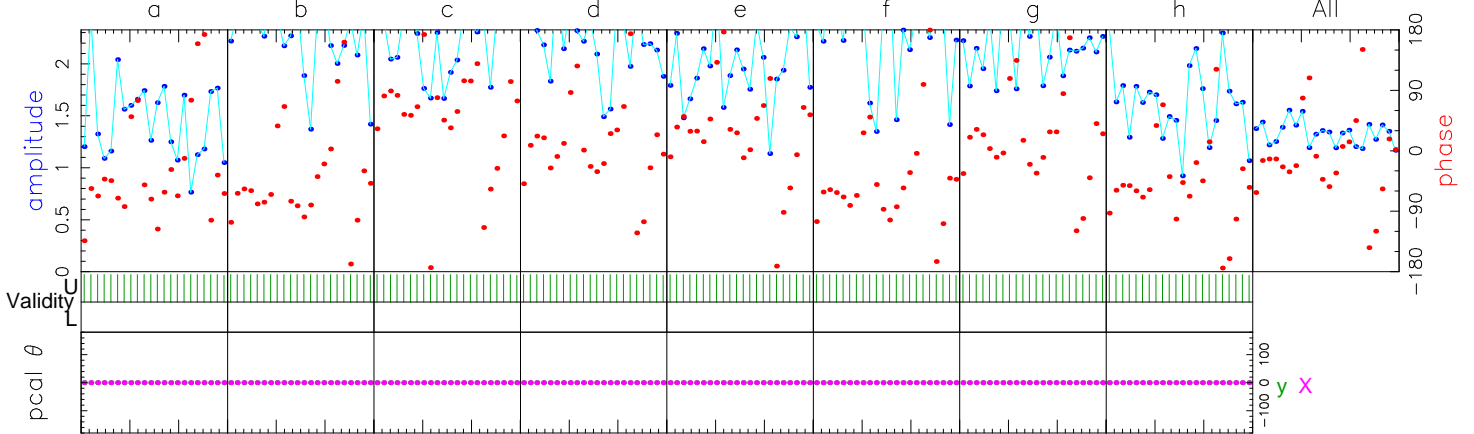


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143606
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-60.1	-61.5	71.0	2.1	33.8	-67.2	8.9	-58.8		Phase
	0.8	1.3	1.3	1.3	1.1	1.4	1.2	0.9		Ampl.
	262.6	261.7	261.1	260.3	260.2	260.8	260.5	260.8		Sbd box
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
X	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
y:X	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
X	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Chan ids
										Tracks
Group delay (usec)(sbd)	8.32055390128E+03		Apriori delay (usec)		8.32053537365E+03		Resid mbdelay (usec)		2.90263E-03	+/- 3.8E-05
Sband delay (usec)	8.32055085340E+03		Apriori clock (usec)		-4.7058876E+01		Resid sbdelay (usec)		1.54797E-02	+/- 3.0E-04
Phase delay (usec)	8.32053537311E+03		Apriori clockrate (us/s)		-4.2800003E-07		Resid phdelay (usec)		-5.45062E-07	+/- 1.3E-07
Delay rate (us/s)	3.17583482126E-02		Apriori rate (us/s)		3.17584068826E-02		Resid rate (us/s)		-5.86700E-08	+/- 1.2E-09
Total phase (deg)			Apriori accel (us/s/s)		-6.69180033501E-05		Resid phase (deg)		-16.9	+/- 4.0

	RMS	Theor.	Amplitude	0.776 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	65.0	9.4	Search (1024X32)	0.757	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	73.1	16.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	
ph/frq (deg)	57.0	5.7	Inc. seg. avg.	1.314	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011	
amp/frq (%)	57.4	9.9	Inc. frq. avg.	1.177	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	
y: az 31.8 el 62.3 pa -127.5	X: az 21.2 el 29.6 pa -22.1		u,v (fr/asec) -401.989 -9657.732		ion window (TEC) 0.00 0.00		
Control file: cf_1234_gmva							simultaneous interpolator
Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yX..1HTNOG							Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yX.W.367.1HTNOG

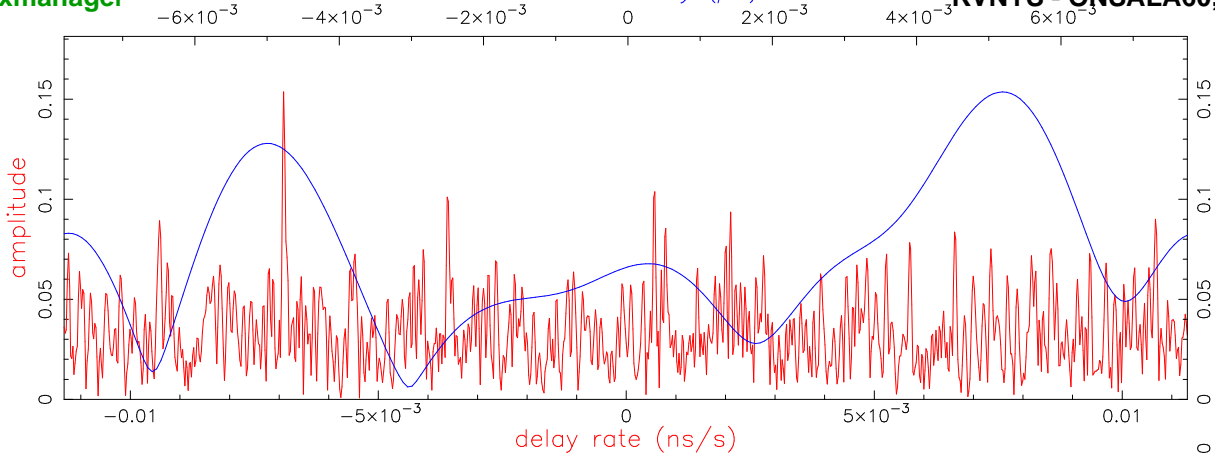
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yX

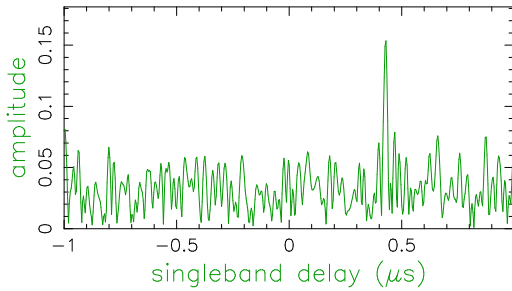
KVNYS - ONSALA60, fgroup W, pol LR

multiband delay (μ s)

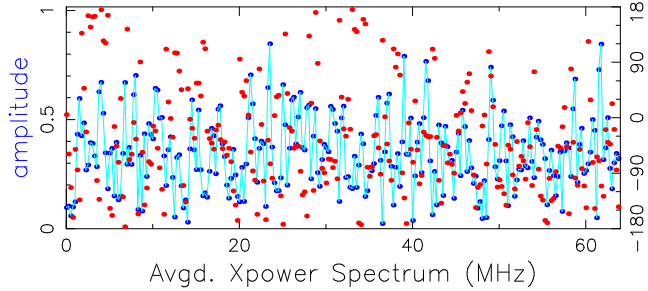


Fringe quality 0

SNR 5.7
 Int time 179.959
 Amp 0.181
 Phase 127.3
 PFD 8.1e-01
 Delays (us)
 SBD 0.428448
 MBD 0.005199
 Fringe rate (Hz)
 -0.595069
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

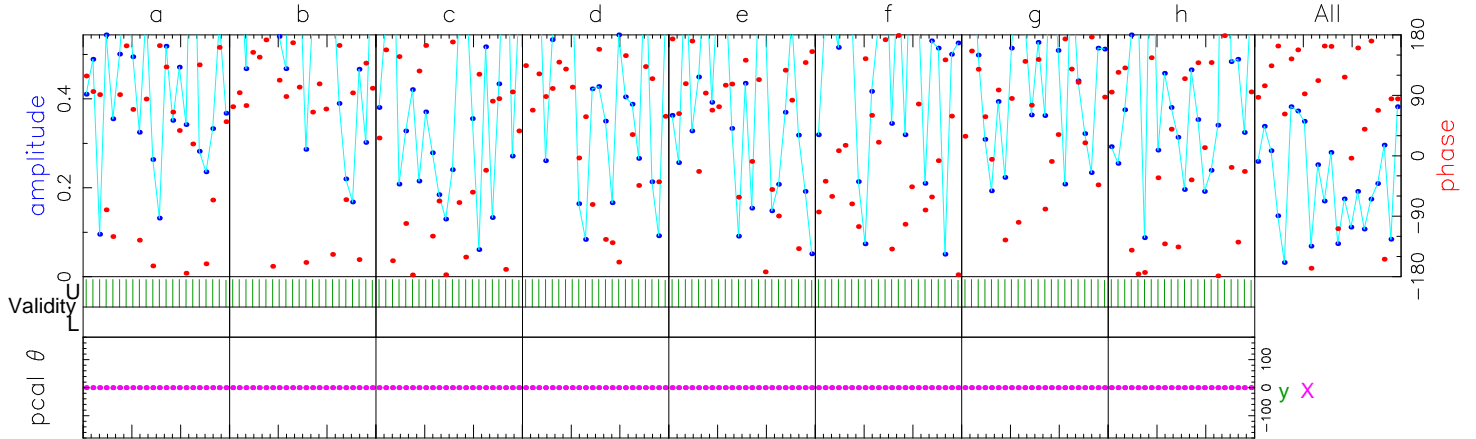


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143609
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	110.3	132.8	-167.7	119.4	110.8	-35.8	94.9	168.1	Phase	127.3
	0.2	0.5	0.2	0.3	0.3	0.2	0.2	0.2	Ampl.	0.2
	219.9	366.8	426.5	446.2	413.8	55.2	377.9	33.6	Sbd box	366.7
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	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	8.32096244794E+03		Apriori delay (usec)		8.32053537365E+03		Resid mbdelay (usec)		5.19929E-03	+/- 1.9E-04
Sband delay (usec)	8.32096382165E+03		Apriori clock (usec)		-4.7058876E+01		Resid sbdelay (usec)		4.28448E-01	+/- 1.5E-03
Phase delay (usec)	8.32053537776E+03		Apriori clockrate (us/s)		-4.2800003E-07		Resid phdelay (usec)		4.10662E-06	+/- 6.5E-07
Delay rate (us/s)	3.17514987264E-02		Apriori rate (us/s)		3.17584068826E-02		Resid rate (us/s)		-6.90816E-06	+/- 6.3E-09
Total phase (deg)	158.4		Apriori accel (us/s/s)		-6.69180033501E-05		Resid phase (deg)		127.3	+/- 20.2

ph/seg (deg) 58.0 47.3 Search (1024X32) 0.153 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 80.0 82.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 75.5 28.5 Inc. seg. avg. 0.188 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 70.8 49.8 Inc. frq. avg. 0.216 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 31.8 el 62.3 pa -127.5 X: az 21.2 el 29.6 pa -22.1 u,v (fr/asec) -401.989 -9657.732 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yX..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yX.W.391.1HTNOG

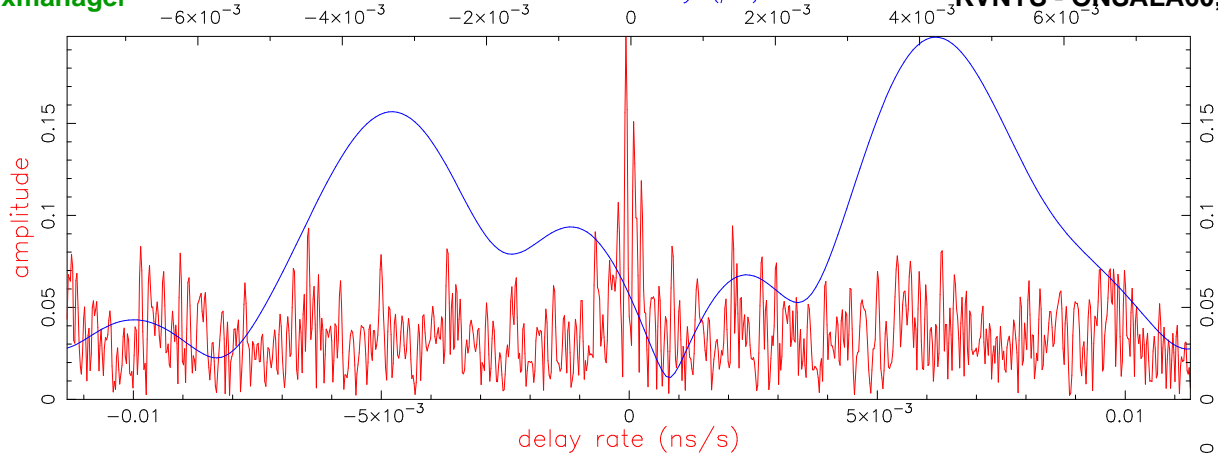
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yX

KVNYS - ONSALA60, fgroup W, pol RL

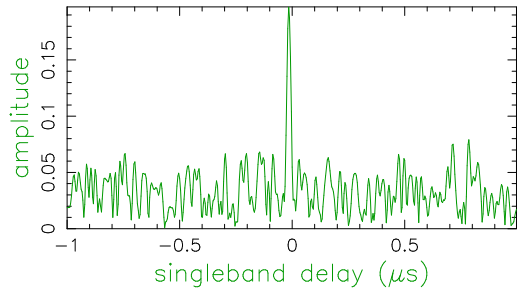
multiband delay (μ s)



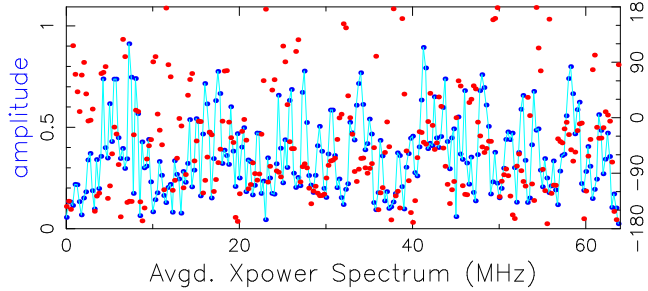
Fringe quality 9

SNR 7.2
 Int time 179.959
 Amp 0.197
 Phase 74.9
 PFD 7.1e-05
 Delays (us)
 SBD -0.014943
 MBD 0.004241
 Fringe rate (Hz)
 -0.005101
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

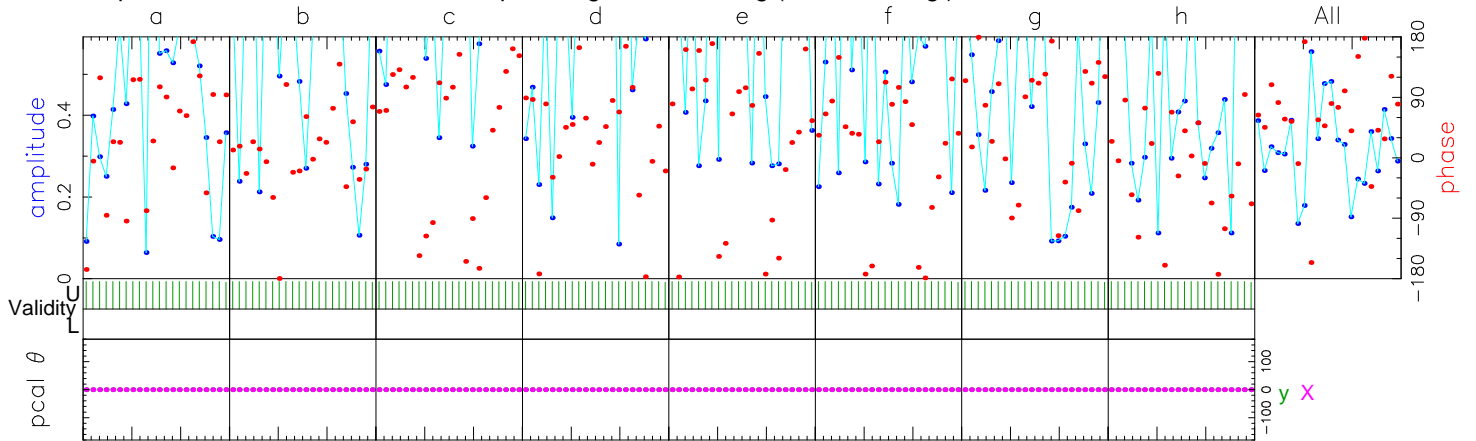
Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143610
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



delay rate (ns/s)

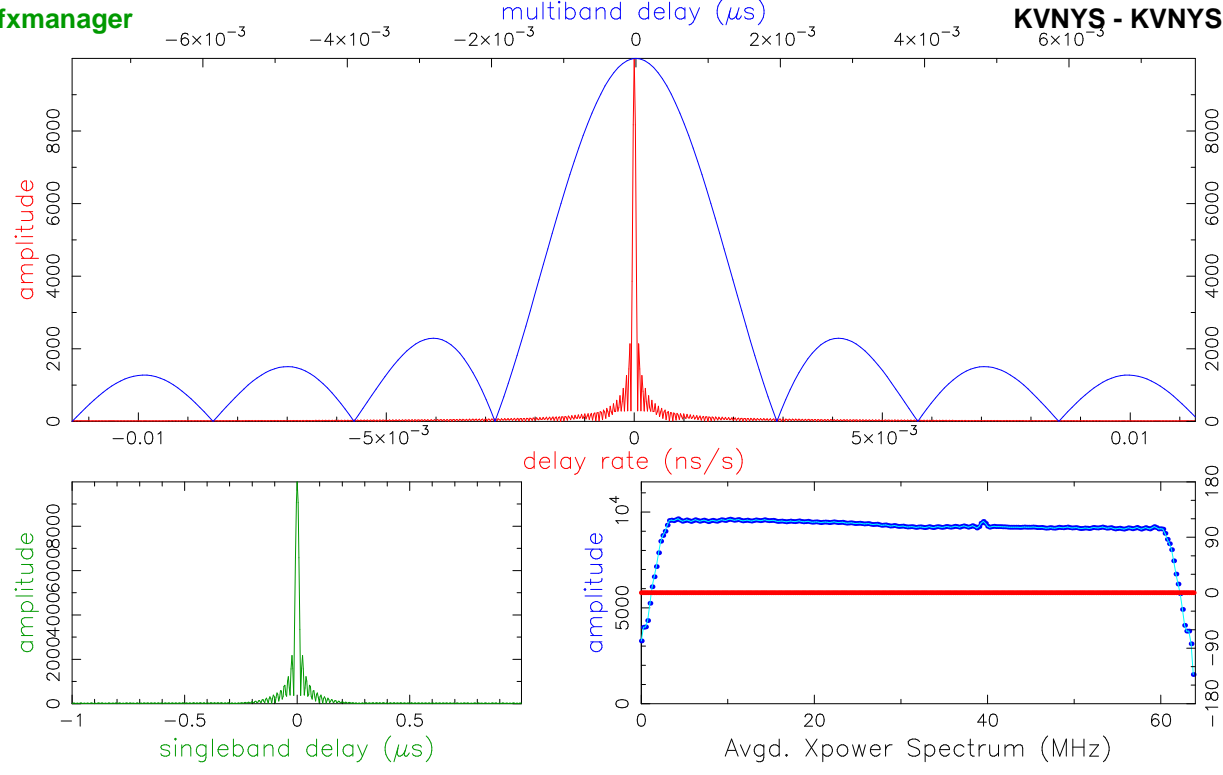


Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
66.6	20.1	134.9	55.2	126.4	66.1	98.7	6.1	87.2	Phase	74.9
0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	Ampl.	0.3
255.6	253.3	253.2	251.8	252.7	251.3	181.3	87.2	87.2	Sbd box	253.2
U/L 352/0	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	1000	PC freqs	
X 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:X 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:X 0:0	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	1000	PC amp	
X 1000	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	8.32052398978E+03		Apriori delay (usec)	8.32053537365E+03	Resid mbdelay (usec)	4.24113E-03	+/-	1.5E-04		
Sband delay (usec)	8.32052043090E+03		Apriori clock (usec)	-4.7058876E+01	Resid sbdelay (usec)	-1.49428E-02	+/-	1.2E-03		
Phase delay (usec)	8.32053537607E+03		Apriori clockrate (us/s)	-4.2800003E-07	Resid phdelay (usec)	2.41457E-06	+/-	5.1E-07		
Delay rate (us/s)	3.17583476698E-02		Apriori rate (us/s)	3.17584068826E-02	Resid rate (us/s)	-5.92127E-08	+/-	4.9E-09		
Total phase (deg)		106.0	Apriori accel (us/s/s)	-6.69180033501E-05	Resid phase (deg)	74.9	+/-	15.8		

ph/seg (deg) 58.4 37.1 Amplitude 0.197 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 82.4 64.8 Search (1024X32) 0.189 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 50.2 22.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 53.3 39.1 Inc. seg. avg. 0.267 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 y: az 31.8 el 62.3 pa -127.5 X: az 21.2 el 29.6 pa -22.1 u,v (fr/asec) -401.989 -9657.732 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/No0140/yX..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yX.W.404.1HTNOG simultaneous interpolator

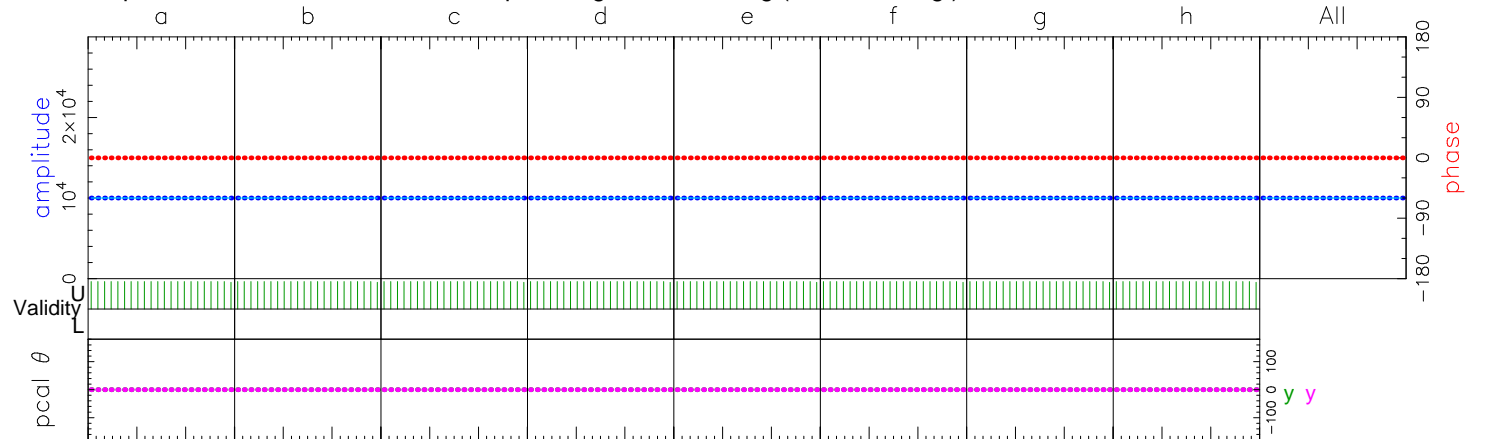


Fringe quality 9

SNR 366862.6
Int time 179.975
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c202a
Yr:day 16383
Start 2020:283
Stop 2020:283
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143604
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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			
y	1000	1000	1000	1000	1000	1000	1000	1000			
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
y	1000	1000	1000	1000	1000	1000	1000	1000			
y	1000	1000	1000	1000	1000	1000	1000	1000			
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00			
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00			
Phase delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00			
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00			
Total phase (deg)			0.0								
			Apriori delay (usec)						Resid mbdelay (usec)	0.00000E+00	+/- 3.0E-09
			Apriori clock (usec)						Resid sbdelay (usec)	0.00000E+00	+/- 2.3E-08
			Apriori clockrate (us/s)						Resid phdelay (usec)	0.00000E+00	+/- 1.0E-11
			Apriori rate (us/s)						Resid rate (us/s)	0.00000E+00	+/- 9.7E-14
			Apriori accel (us/s/s)						Resid phase (deg)	0.0	+/- 0.0

ph/seg (deg) 0.0 0.0
amp/seg (%) 0.0 0.0
ph/frq (deg) 0.0 0.0
amp/frq (%) 0.0 0.0

y: az 31.8 el 62.3 pa -127.5
Control file: cf_1234_gmva

y: az 31.8 el 62.3 pa -127.5
Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yy..1HTNOG

u,v (fr/asec) 0.000 0.000
Data rate (Mb/s): 2048
nlags: 256 t_cohere infinite
Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yy.W.346.1HTNOG

simultaneous interpolator

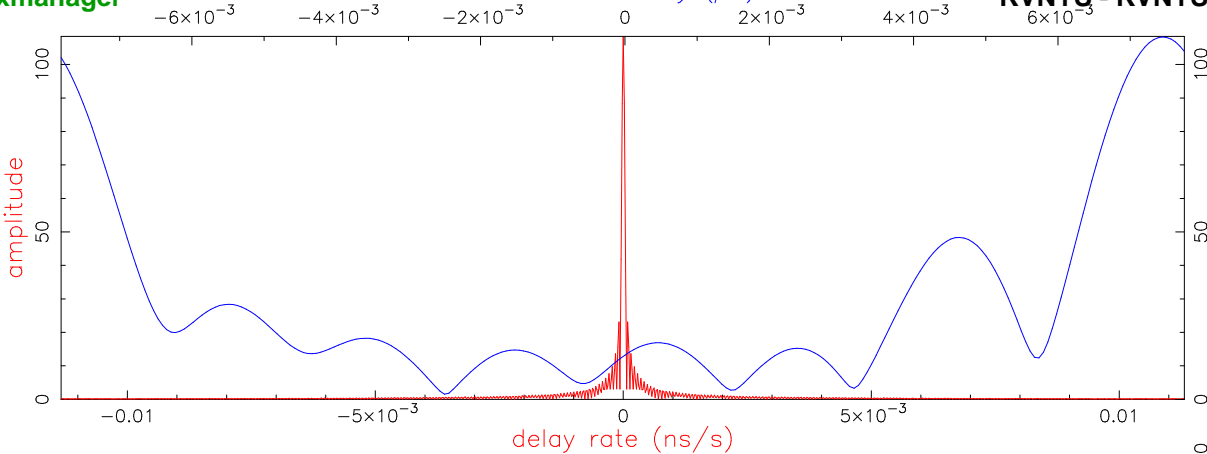
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yy

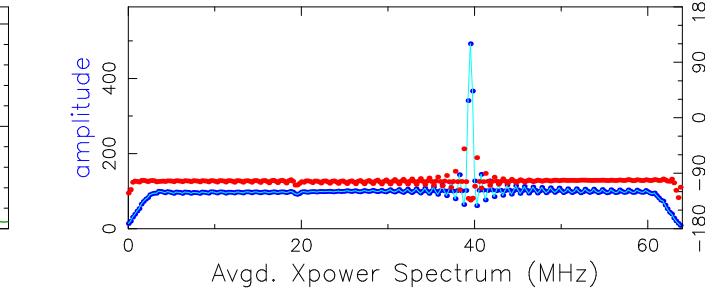
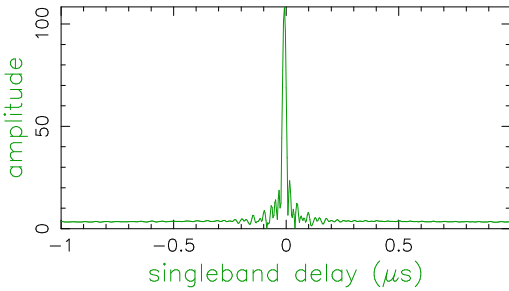
KVNYs - KVNYs, fgroup W, pol LR

multiband delay (μ s)



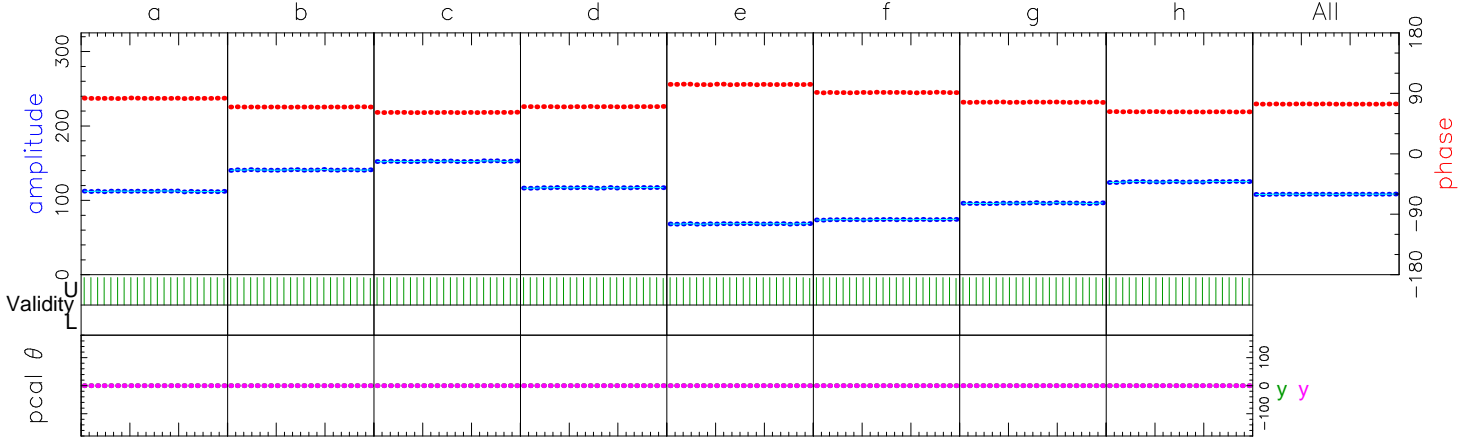
Fringe quality 7

SNR 3977.0
 Int time 179.975
 Amp 108.406
 Phase 74.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.008324
 MBD 0.007454
 Fringe rate (Hz)
 -0.000004
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143608
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-8.17134375000E-03									
Sband delay (usec)	-8.32375000000E-03									
Phase delay (usec)	2.38527184067E-06									
Delay rate (us/s)	-4.10963419359E-11									
Total phase (deg)			74.0							
Apriori delay (usec)					0.00000000000E+00				7.45366E-03	+/- 2.7E-07
Apriori clock (usec)					0.0000000E+00				-8.32375E-03	+/- 2.2E-06
Apriori clockrate (us/s)					0.0000000E+00				2.38527E-06	+/- 9.3E-10
Apriori rate (us/s)					0.00000000000E+00				-4.10963E-11	+/- 8.9E-12
Apriori accel (us/s/s)					0.00000000000E+00				74.0	+/- 0.0
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Search (1024X32)										
Inc. seg. avg.										
Inc. frq. avg.										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

ph/seg (deg) 0.1 0.1
 amp/seg (%) 0.2 0.1
 ph/frq (deg) 16.1 0.0
 amp/frq (%) 25.8 0.1

Group delay (usec)(sbd) -8.17134375000E-03
 Sband delay (usec) -8.32375000000E-03
 Phase delay (usec) 2.38527184067E-06
 Delay rate (us/s) -4.10963419359E-11
 Total phase (deg) 74.0

Apriori delay (usec) 0.00000000000E+00
 Apriori clock (usec) 0.0000000E+00
 Apriori clockrate (us/s) 0.0000000E+00
 Apriori rate (us/s) 0.00000000000E+00
 Apriori accel (us/s/s) 0.00000000000E+00

Resid mbdelay (usec) 7.45366E-03 +/- 2.7E-07
 Resid sbdelay (usec) -8.32375E-03 +/- 2.2E-06
 Resid phdelay (usec) 2.38527E-06 +/- 9.3E-10
 Resid rate (us/s) -4.10963E-11 +/- 8.9E-12
 Resid phase (deg) 74.0 +/- 0.0

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s)
 Search (1024X32)
 Inc. seg. avg. 108.237
 Inc. frq. avg. 110.757
 Bits/sample: 2x2
 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

y: az 31.8 el 62.3 pa -127.5
 y: az 31.8 el 62.3 pa -127.5
 u,v (fr/asec) 0.000 0.000
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yy..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yy.W.384.1HTNOG

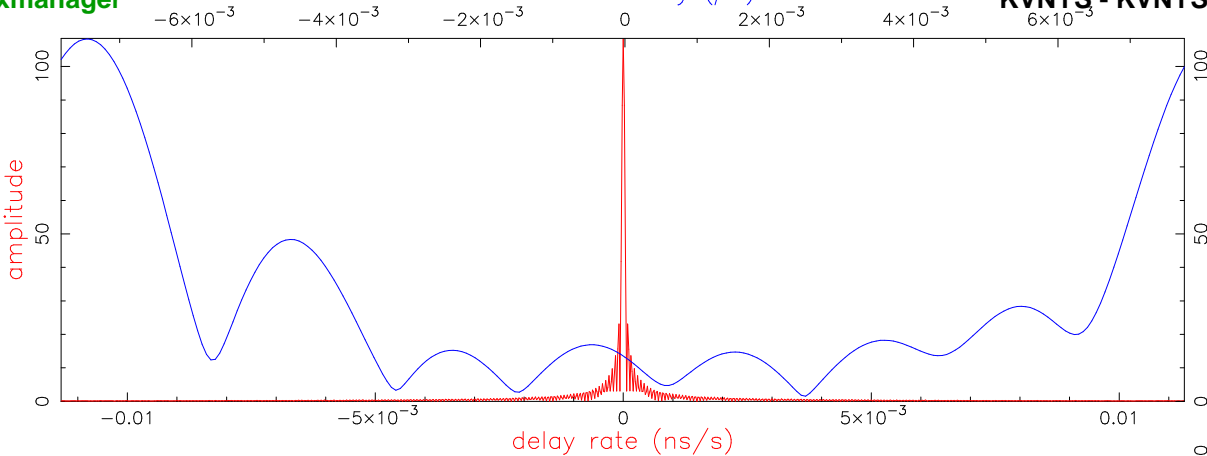
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yy

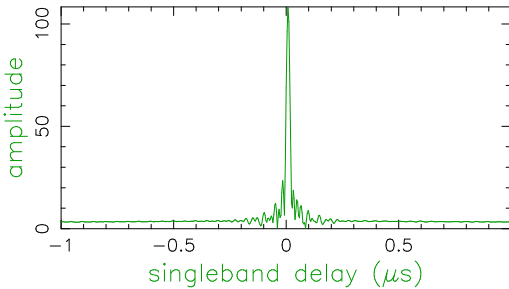
KVNY5 - KVNY5, fgroup W, pol RL

multiband delay (μ s)

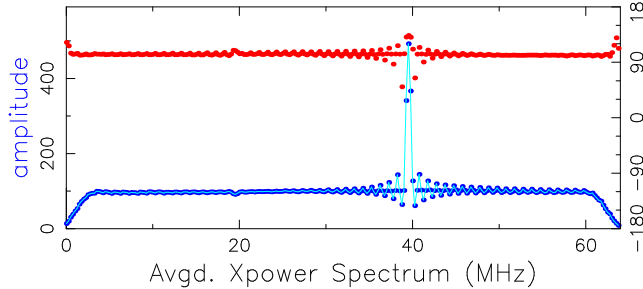


Fringe quality 7

SNR 3977.0
 Int time 179.975
 Amp 108.406
 Phase -74.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.008324
 MBD -0.007454
 Fringe rate (Hz)
 0.000004
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

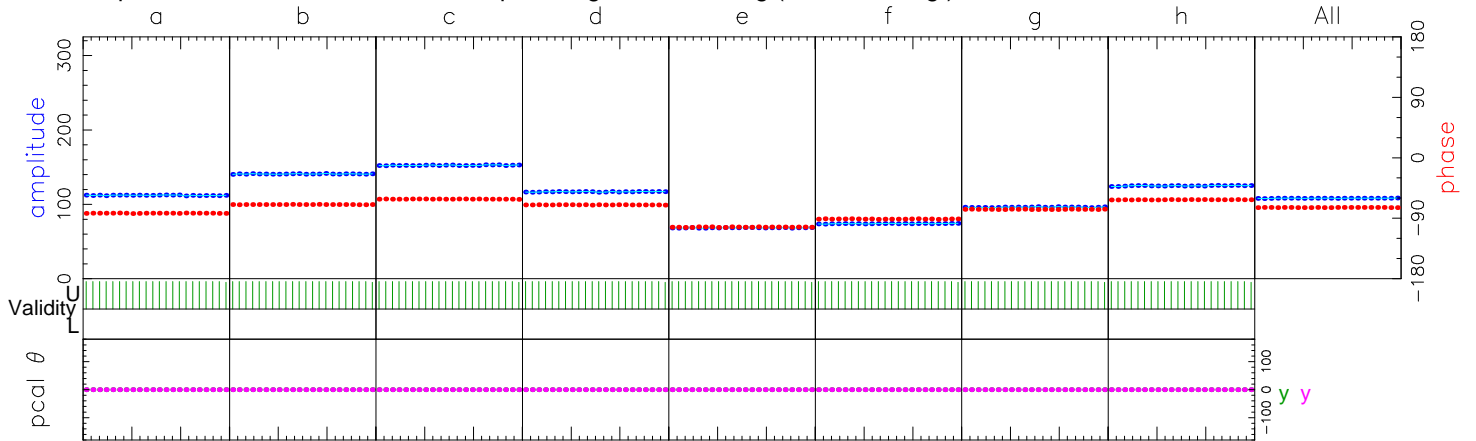


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143610
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-82.5	-69.6	-61.5	-70.1	-103.2	-91.1	-76.7	-62.4		Phase -74.0
	112.2	140.8	152.5	116.9	68.4	74.1	96.2	124.9		Ampl. 110.8
	259.2	259.2	259.2	258.8	259.0	259.4	259.2	259.1		Sbd box 259.1
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
y	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
y:y	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
y	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks
										Tracks
Group delay (usec)(sbd)	8.17134375000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-7.45366E-03	+/- 2.7E-07
Sband delay (usec)	8.32375000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		8.32375E-03	+/- 2.2E-06
Phase delay (usec)	-2.38527184049E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-2.38527E-06	+/- 9.3E-10
Delay rate (us/s)	4.10963419359E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		4.10963E-11	+/- 8.9E-12
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-74.0	+/- 0.0

ph/seg (deg) 0.1 0.1 Theor. Amplitude 108.406 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.2 0.1 Search (1024X32) 107.446 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 16.1 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 25.8 0.1 Inc. seg. avg. 108.237 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 y: az 31.8 el 62.3 pa -127.5 y: az 31.8 el 62.3 pa -127.5 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yy..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yy.W.401.1HTNOG

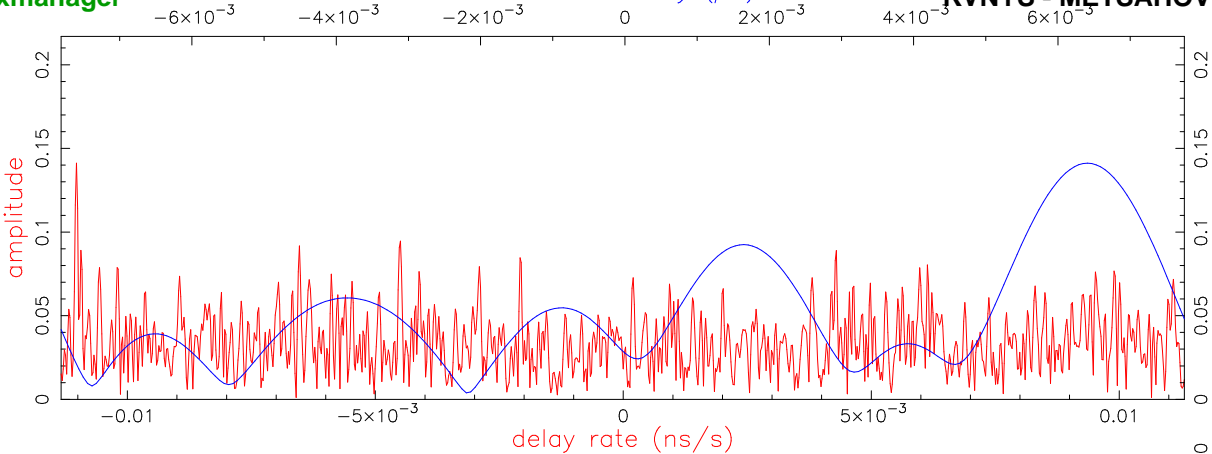
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yZ

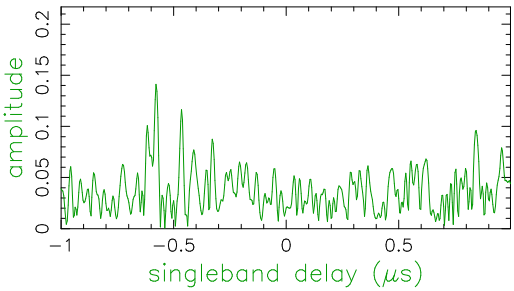
KVNYS - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

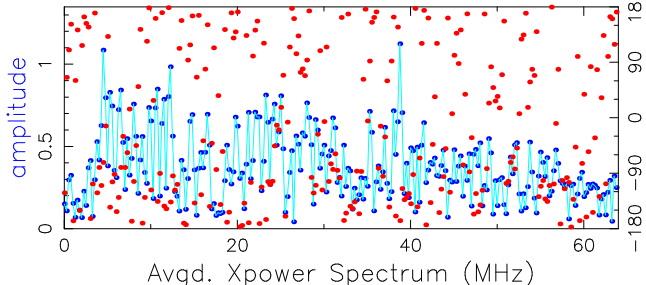


Fringe quality 0

SNR 5.2
 Int time 179.706
 Amp 0.217
 Phase -38.6
 PFD 1.0e+00
 Delays (us)
 SBD -0.577344
 MBD 0.006393
 Fringe rate (Hz)
 -0.951604
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

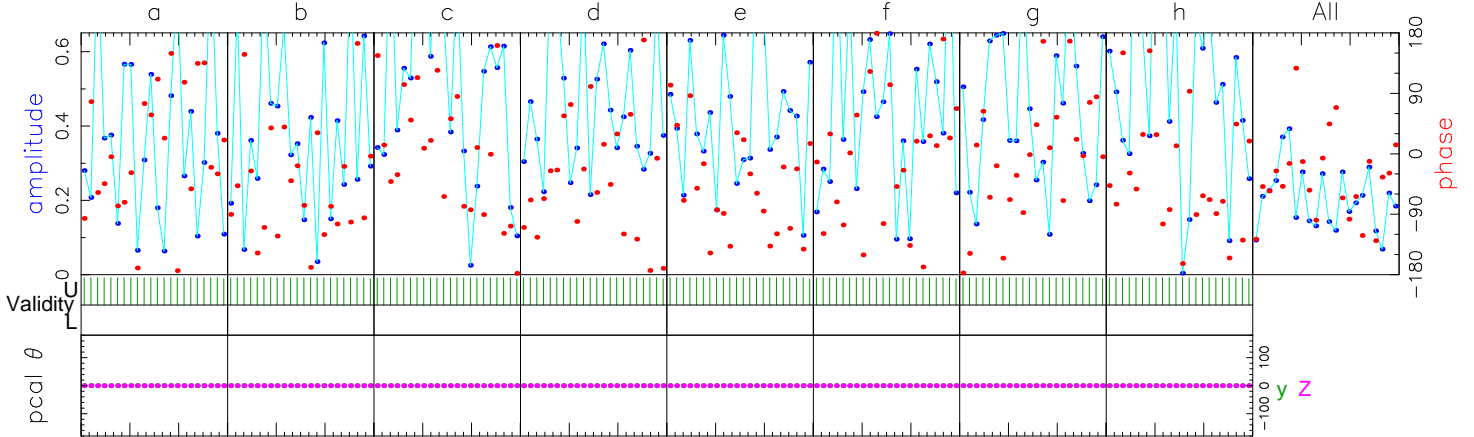


delay rate (ns/s)



Exp. c202a
 Yr:day 16383
 Start 2020:283
 Stop 2020:283
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143604
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-29.7	-80.4	30.5	-33.4	-55.9	3.6	-28.6	-48.2	Phase	-38.6
	0.2	0.3	0.2	0.3	0.3	0.1	0.2	0.4	Ampl.	0.2
	311.8	138.6	71.1	110.3	168.7	350.4	455.0	108.5	Sbd box	109.2
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	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	6.70359857675E+03	Apriori delay (usec)	6.70417030921E+03	Resid mbdelay (usec)	6.39254E-03	+/-	2.1E-04
Sband delay (usec)	6.70359296546E+03	Apriori clock (usec)	1.0939550E+00	Resid sbdelay (usec)	-5.77344E-01	+/-	1.7E-03
Phase delay (usec)	6.70417030797E+03	Apriori clockrate (us/s)	8.3999986E-08	Resid phdelay (usec)	-1.24363E-06	+/-	7.1E-07
Delay rate (us/s)	-1.09034944103E-02	Apriori rate (us/s)	-1.08924472318E-02	Resid rate (us/s)	-1.10472E-05	+/-	6.8E-09
Total phase (deg)	118.2	Apriori accel (us/s/s)	-6.05295268290E-05	Resid phase (deg)	-38.6	+/-	22.1

ph/seg (deg)	61.8	Theor.	51.8	Amplitude	0.217 +/- 0.042	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	74.0		90.3	Search (1024X32)	0.140	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	38.5		31.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	45.8		54.5	Inc. seg. avg.	0.224	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.218	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

y: az 31.8 el 62.3 pa -127.5 Z: az 29.0 el 34.9 pa -27.5 u,v (fr/asec) 71.060 -8959.058 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yZ..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yZ.W.344.1HTNOG

Mk4/DiFX fourfit 3.21 rev 2937

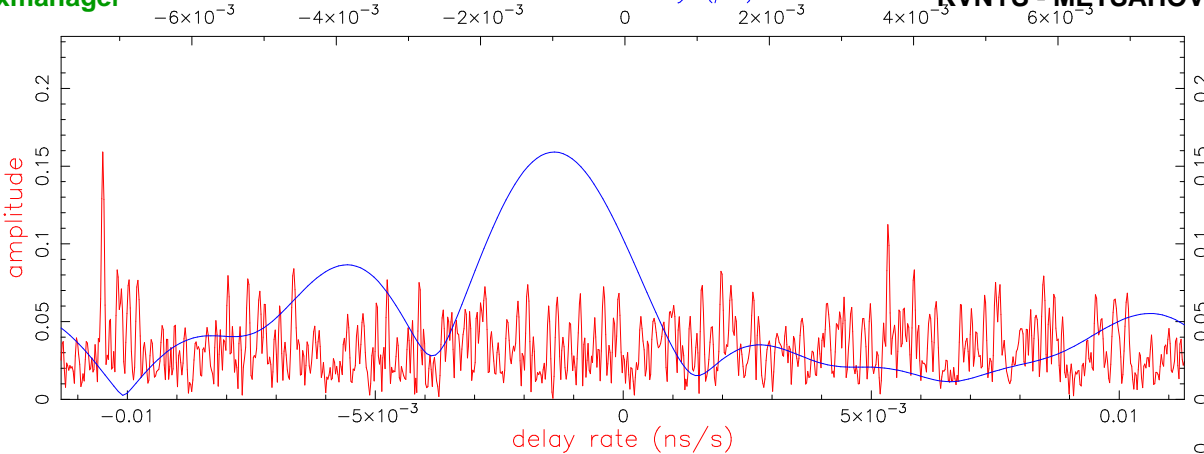
fxmanager

0102+584.1HTNOG, No0140, yZ

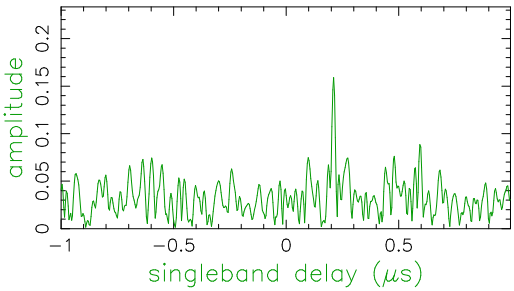
KVNYS - METSAHOV, fgroup W, pol RR

multiband delay (μs)

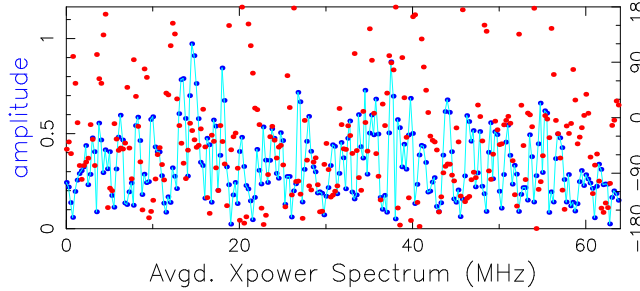
Fringe quality 0



SNR 5.8
Int time 179.706
Amp 0.233
Phase -144.1
PFD 4.9e-01
Delays (us)
SBD 0.210596
MBD -0.000993
Fringe rate (Hz)
-0.905595
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

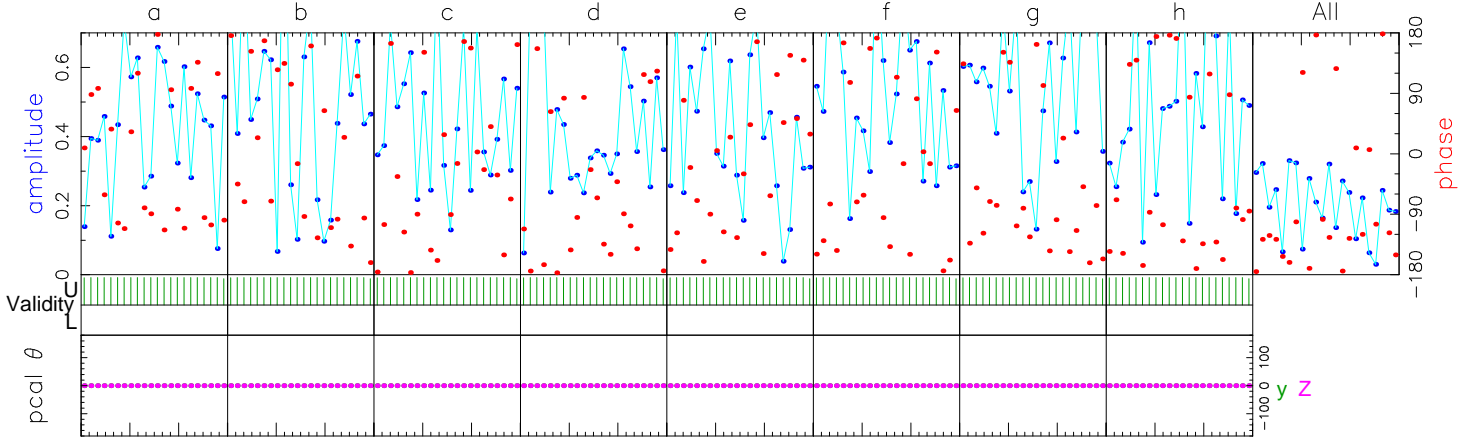


delay rate (ns/s)



Exp. c202a
Yr:day 16383
Exp# 2020:283
Start 133000.00
Stop 133300.22
FRT 133130.00
Corr/FF/build
2021:007:234742
2021:010:143606
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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
	-129.1	-159.5	-145.9	-166.0	-88.0	-140.2	-123.6	-161.9	Phase	-144.1
	0.2	0.2	0.2	0.3	0.1	0.3	0.4	0.4	Ampl.	0.2
	495.0	214.0	404.0	306.2	409.9	49.8	312.3	310.0	Sbd box	310.9
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	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	6.70438806572E+03		Apriori delay (usec)		6.70417030921E+03		Resid mbdelay (usec)		-9.93490E-04	+/- 1.9E-04
Sband delay (usec)	6.70438090471E+03		Apriori clock (usec)		1.0939550E+00		Resid sbdelay (usec)		2.10596E-01	+/- 1.5E-03
Phase delay (usec)	6.70417030456E+03		Apriori clockrate (us/s)		8.3999986E-08		Resid phdelay (usec)		-4.64663E-06	+/- 6.3E-07
Delay rate (us/s)	-1.09029602939E-02		Apriori rate (us/s)		-1.08924472318E-02		Resid rate (us/s)		-1.05131E-05	+/- 6.1E-09
Total phase (deg)			Apriori accel (us/s/s)		-6.05295268290E-05		Resid phase (deg)		-144.1	+/- 19.6

	RMS	Theor.	Amplitude	0.233 +/- 0.040	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	59.4	46.0	Search (1024X32)	0.157	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	64.3	80.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	28.4	27.8	Inc. seg. avg.	0.227	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	41.6	48.5	Inc. frq. avg.	0.222	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

y: az 31.8 el 62.3 pa -127.5 Z: az 29.0 el 34.9 pa -27.5 u,v (fr/asec) 71.060 -8959.058 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yZ..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yZ.W.364.1HTNOG

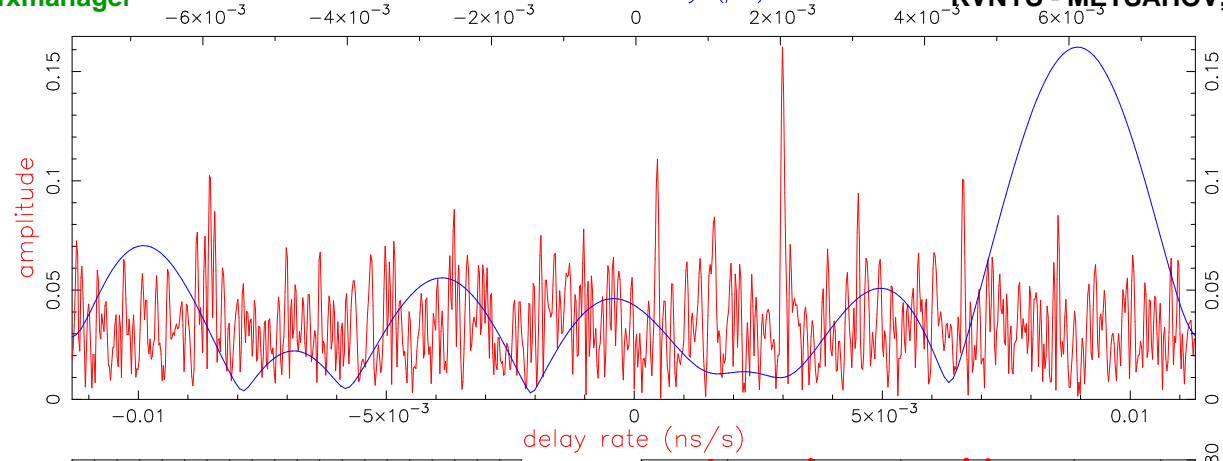
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yZ

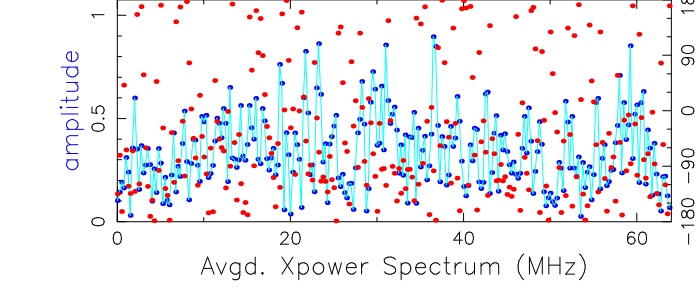
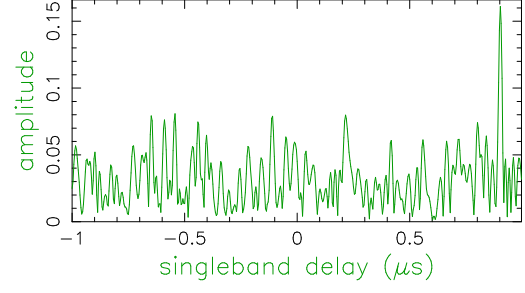
KVNYS - METSAHOV, fgroup W, pol LR

multiband delay (μ s)



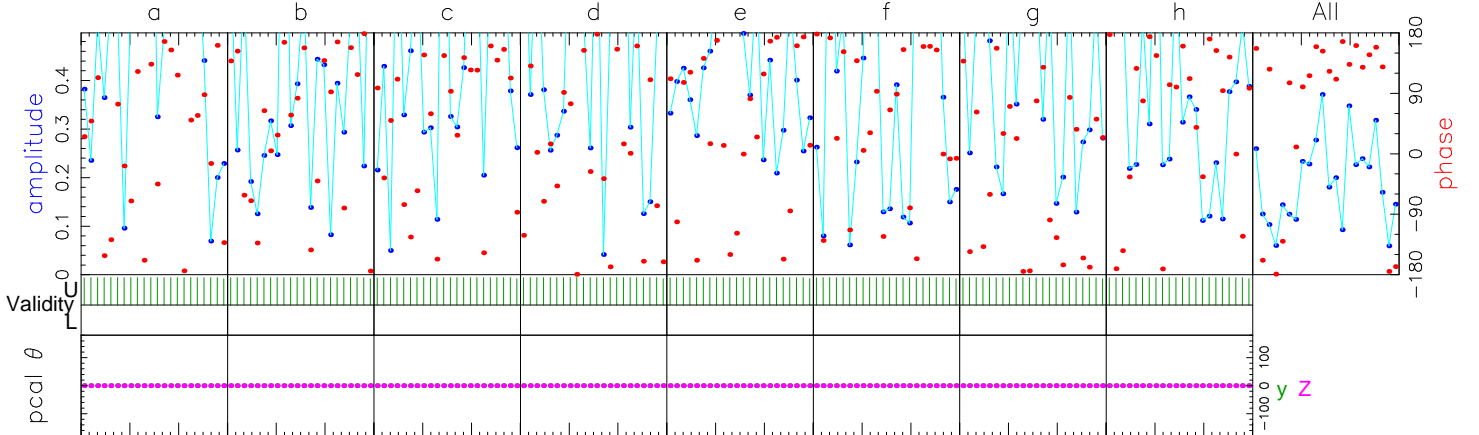
Fringe quality 0

SNR 5.9
 Int time 179.706
 Amp 0.166
 Phase 144.0
 PFD 3.5e-01
 Delays (us)
 SBD 0.902738
 MBD 0.006127
 Fringe rate (Hz)
 0.258332
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143608
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	133.7	154.2	139.0	172.2	164.1	137.6	126.3	144.8		
Sband delay (usec)	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2		
Phase delay (usec)	444.1	51.6	106.6	210.1	495.5	63.9	427.8	501.8		
Delay rate (us/s)		-1.08894482489E-02								
Total phase (deg)			300.8							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
pcal θ										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
Chan ids										
Tracks										
Chan ids										
Tracks										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

y: az 31.8 el 62.3 pa -127.5 Z: az 29.0 el 34.9 pa -27.5 u,v (fr/asec) 71.060 -8959.058
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yZ..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yZ.W.383.1HTNOG

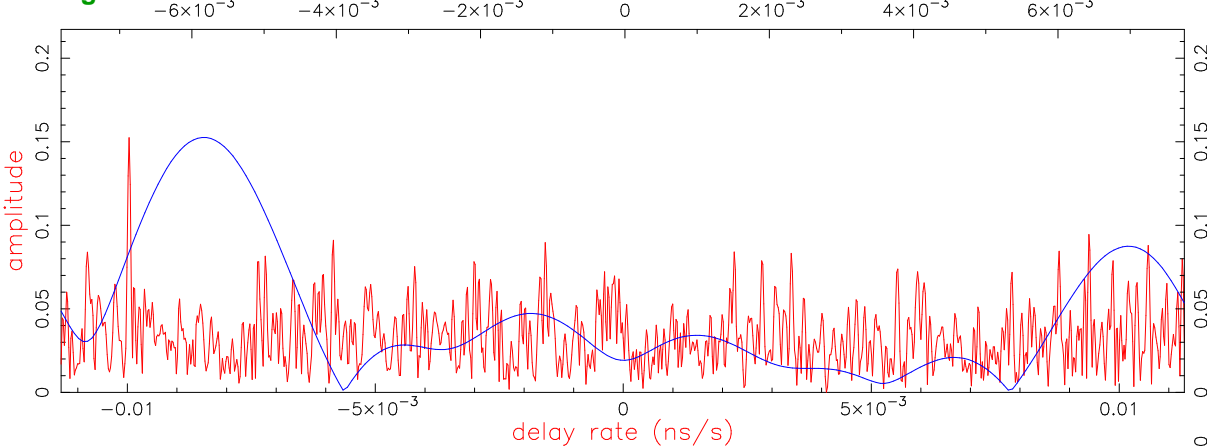
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HTNOG, No0140, yZ

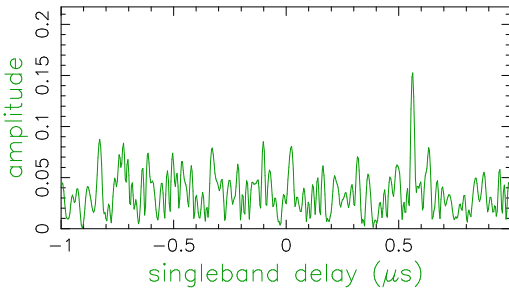
KVNYS - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

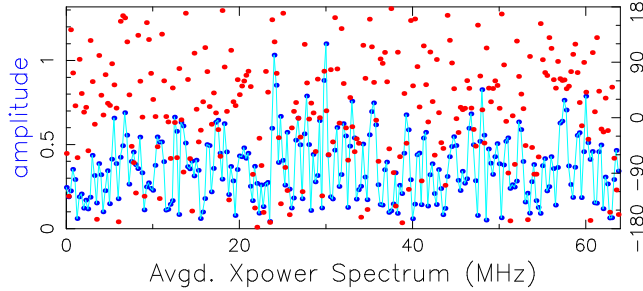


Fringe quality 0

SNR 5.7
 Int time 179.706
 Amp 0.217
 Phase 89.1
 PFD 8.5e-01
 Delays (us)
 SBD 0.561104
 MBD -0.005788
 Fringe rate (Hz)
 -0.860020
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

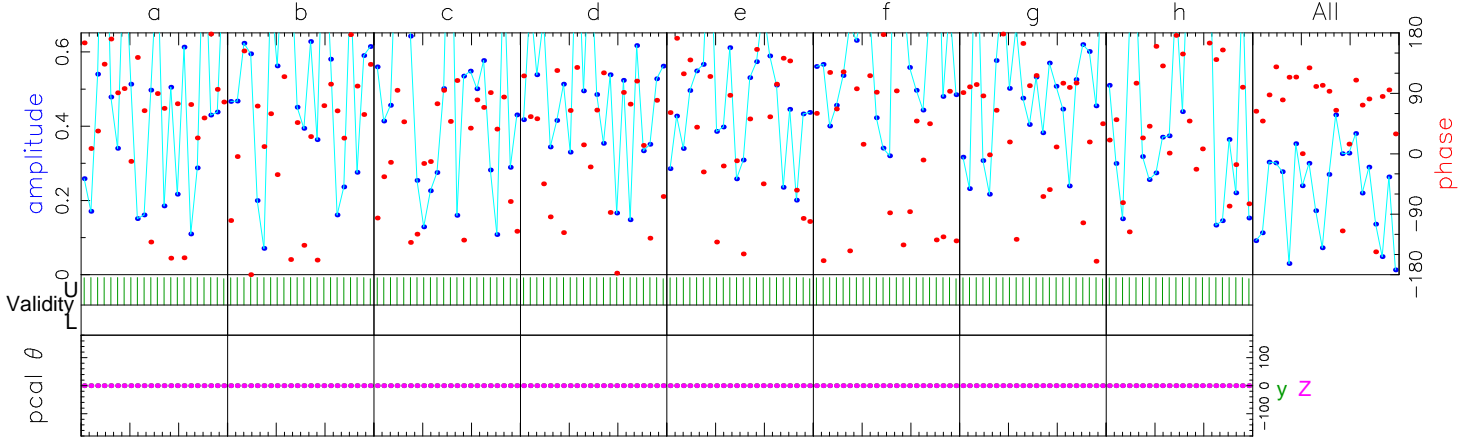


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 133000.00
 Stop 133300.22
 FRT 133130.00
 Corr/FF/build
 2021:007:234742
 2021:010:143610
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	102.9	105.7	54.4	58.4	93.6	122.2	89.7	74.4	Phase	89.1
	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	450.0	150.6	76.1	264.5	93.1	387.6	380.3	469.8	Sbd box	400.6
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	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	6.70472702076E+03	Apriori delay (usec)	6.70417030921E+03	Resid mbdelay (usec)	-5.78845E-03	+/-	1.9E-04
Sband delay (usec)	6.70473141346E+03	Apriori clock (usec)	1.0939550E+00	Resid sbdelay (usec)	5.61104E-01	+/-	1.5E-03
Phase delay (usec)	6.70417031209E+03	Apriori clockrate (us/s)	8.3999986E-08	Resid phdelay (usec)	2.87434E-06	+/-	6.5E-07
Delay rate (us/s)	-1.09024312125E-02	Apriori rate (us/s)	-1.08924472318E-02	Resid rate (us/s)	-9.98398E-06	+/-	6.3E-09
Total phase (deg)	245.9	Apriori accel (us/s/s)	-6.05295268290E-05	Resid phase (deg)	89.1	+/-	20.3

ph/seg (deg)	54.5	Theor.	47.5	Amplitude	0.217 +/- 0.038	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	89.8	Search (1024X32)	0.151	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	25.6	Inc. seg. avg.	0.237	Inc. frq. avg.	0.206	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	28.8	Inc. frq. avg.	0.206			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

y: az 31.8 el 62.3 pa -127.5 Z: az 29.0 el 34.9 pa -27.5 u,v (fr/asec) 71.060 -8959.058 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0140/yZ..1HTNOG Output file: /Exps/c202a/v1/v1_3mm/1234/No0140/yZ.W.398.1HTNOG