

Fringe quality 8

SNR 14.3

Int time 174.105

Amp 0.208

Phase 104.5

PFD 7.1e-37

Delays (us)

SBD 0.001024

MBD 0.002474

Fringe rate (Hz)

-0.035836

Ion TEC 0.000

Ref freq (MHz)

214162.7969

AP (sec) 0.400

Exp. e18c21

Exper # 3644

Yr:day 2018:111

Start 063000.00

Stop 063400.00

FRT 063200.00

Corr/FF/build

2020:286:103552

2020:301:162024

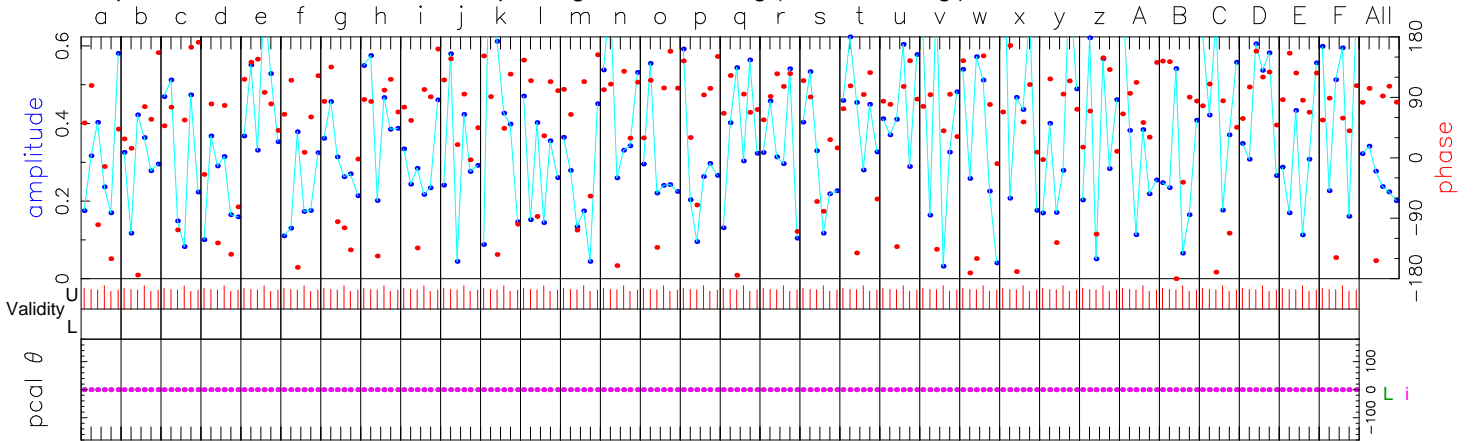
2018:237:201327

RA & Dec (J2000)

12h56m11.166567s

-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



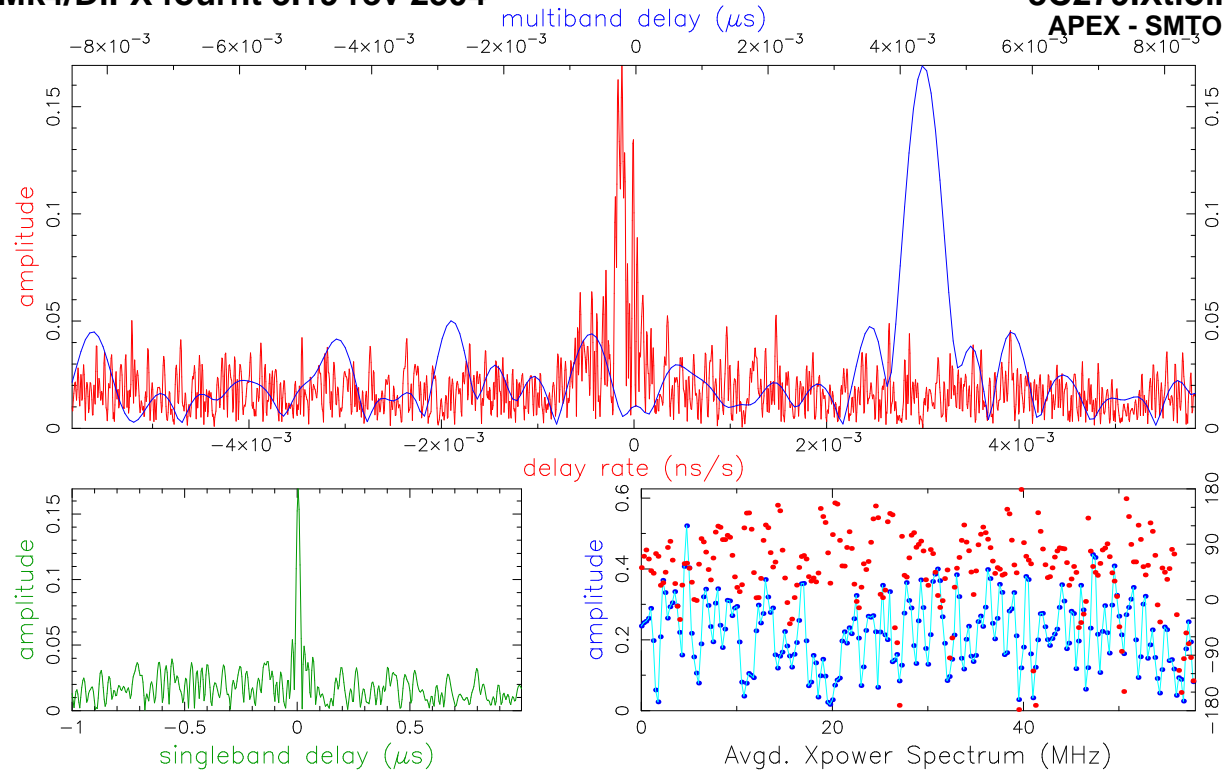
	214162.214221	214279.214338	214397.214455	214514.214572	214631.214690	214748.214807	214865.214924	214983.215041	215100.215158	215217.215276	215334.215393	215451.215510	215569.215627	215686.215744	215803.215862	215920.215979	Req (MHz)	All																				
30.8	90.9	98.5	91.3	105.0	114.0	-168.6	94.7	115.0	97.1	110.2	126.0	117.4	110.2	112.0	119.4	105.4	60.4	113.2	105.9	87.9	163.3	88.7	99.5	85.1	74.7	136.4	106.7	114.5	110.9	83.3	Phase	104.5						
0.1	0.1	0.2	0.0	0.4	0.1	0.1	0.4	0.2	0.2	0.2	0.1	0.2	0.4	0.2	0.2	0.3	0.3	0.1	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.4	0.3	0.3	Ampl	0.2							
169.9	372.3	260.1	265.5	233.3	451.8	9.0	232.7	150.8	328.6	352.8	43.2	406.8	232.9	371.9	218.1	218.7	388.2	142.8	462.9	232.9	47.0	185.0	233.0	57.3	360.1	233.1	212.1	235.4	233.5	435.8	165.8	Std box	233.2					
UL	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	APs used					
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
Li	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
Li	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC		
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
L	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids				
i	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids				

Group delay (usec)(model)	-2.05273727041E+03	Apriori delay (usec)	-2.05273974473E+03	Resid mbdelay (usec)	2.47432E-03	+/-	2.1E-05
Sband delay (usec)	-2.05273872045E+03	Apriori clock (usec)	1.5759471E-01	Resid sbdelay (usec)	1.02428E-03	+/-	6.7E-04
Phase delay (usec)	-2.05273974337E+03	Apriori clockrate (us/s)	-1.9710000E-06	Resid phdelay (usec)	1.35601E-06	+/-	1.0E-07
Delay rate (us/s)	-9.39445039721E-01	Apriori rate (us/s)	-9.39444872390E-01	Resid rate (us/s)	-1.67331E-07	+/-	8.2E-10
Total phase (deg)		Apriori accel (us/s/s)	2.16649889895E-05	Resid phase (deg)	104.5	+/-	8.0

ph/seg (deg)	RMS 43.3	Theor. 9.4	Amplitude Search (2048X128)	0.208 +/- 0.015	0.200	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	38.1	16.4	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.009	0.009
ph/frq (deg)	28.1	22.7	Inc. seg. avg.	0.264		Bits/sample: 2x2	SampCntNorm: disabled	dr window (ns/s)	-0.006	0.006
amp/frq (%)	45.6	39.6	Inc. frq. avg.	0.205		Sample rate(MISamp/s): 116		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 7424	nlags: 232	t_cohere infinite		

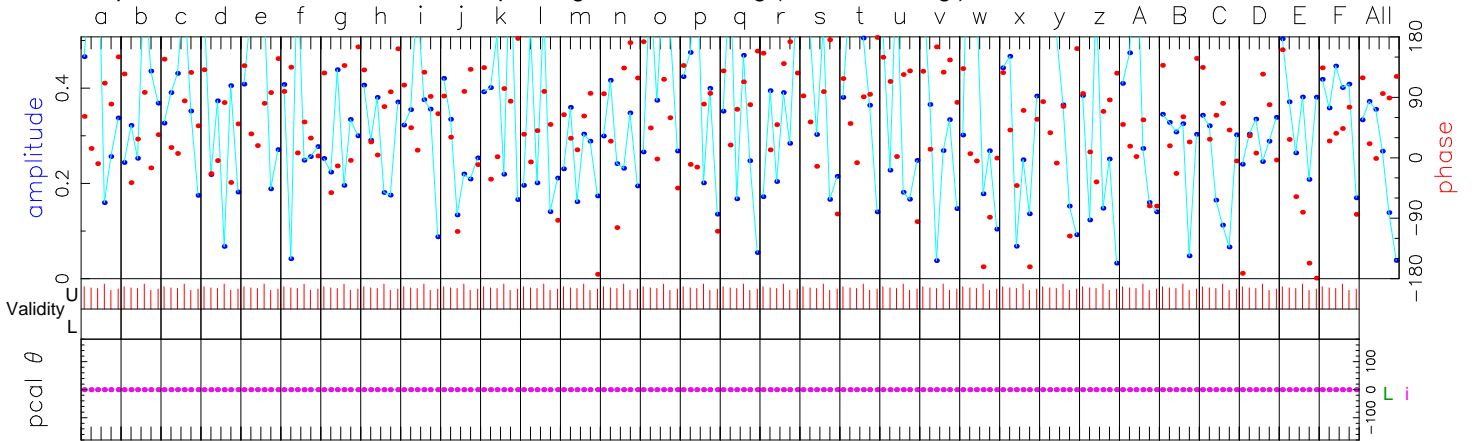
L: az 284.5 el 43.7 pa 116.3 i: az 184.2 el 51.3 pa 4.3 u,v (fr/asec) 13474.358 -20781.661 simultaneous interpolator

Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Li.Xtioin Output file: Suppressed by test mode



Fringe quality 7  
SNR 12.0  
Int time 185.317  
Amp 0.169  
Phase 62.1  
PFD 7.3e-24  
Delays (us)  
SBD 0.004393  
MBD 0.004349  
Fringe rate (Hz) -0.027158  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400  
Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162036  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

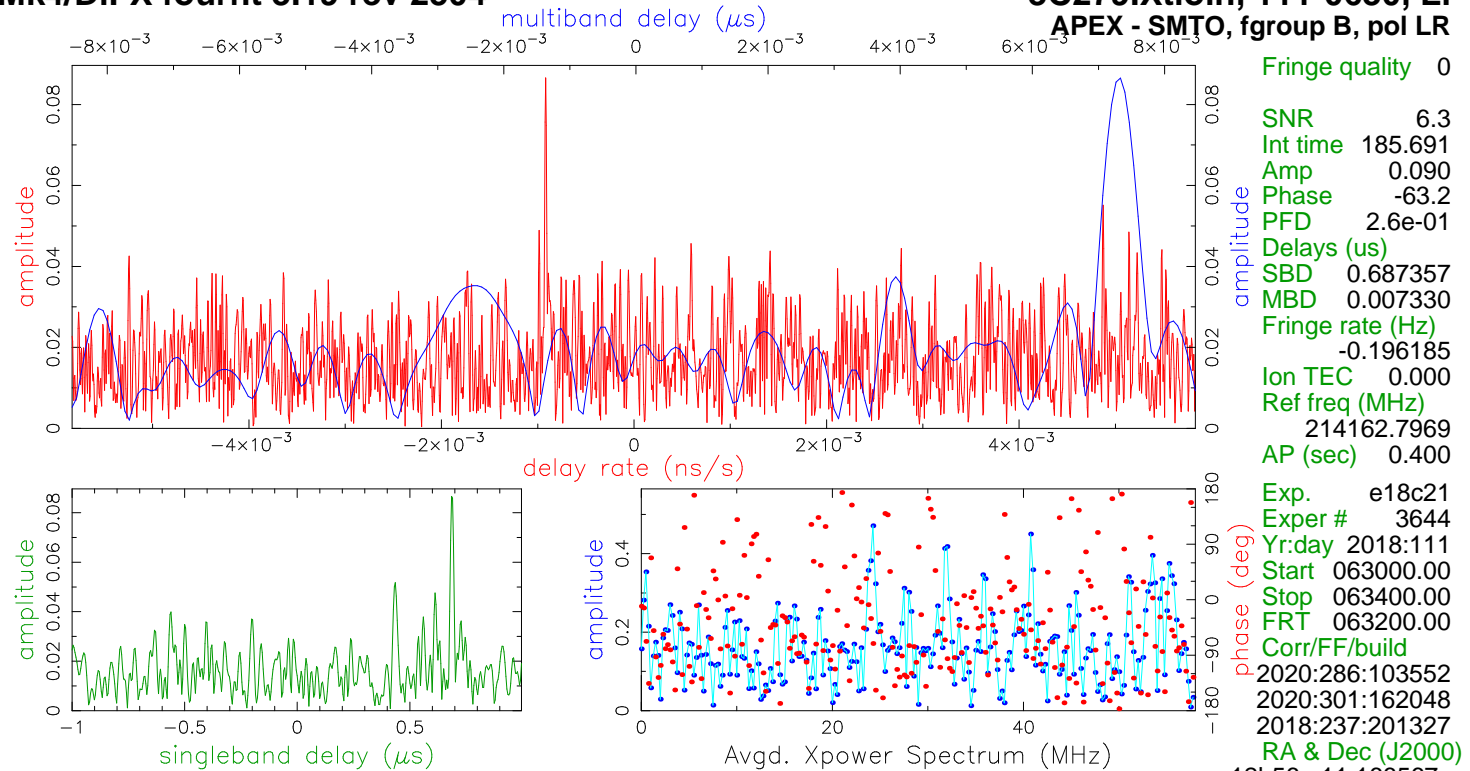


	214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All							
37.5	47.7	70.9	31.6	74.4	37.4	32.3	86.8	71.4	70.2	67.7	42.9	60.4	113.4	64.9	35.2	81.5	118.4	76.5	71.6	105.0	113.8	-0.8	75.7	53.0	38.4	16.1	67.6	57.0	50.2	-141.3	56.6	Phase	62.1								
0.3	0.2	0.3	0.1	0.3	0.2	0.0	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.1	0.2	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	Ampl	0.2							
136.6	381.3	308.7	3.8	234.7	272.7	68.8	74.5	318.1	156.7	115.2	173.8	384.3	194.8	272.7	328.9	254.4	57.8	85.4	233.1	337.3	231.6	89.2	141.2	234.3	135.9	233.8	8.4	456.1	393.0	162.7	243.2	Std box	234.0								
UL	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	APs used							
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs						
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs					
Li	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase				
Li	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC			
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
L	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR					Chan ids				
i	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR					Chan ids				

Group delay (usec)(model) -2.05273539598E+03 Apriori delay (usec) -2.05273974473E+03 Resid mbdelay (usec) 4.34874E-03 +/- 2.5E-05  
 Sband delay (usec) -2.05273535190E+03 Apriori clock (usec) 1.5759471E-01 Resid sbdelay (usec) 4.39283E-03 +/- 7.9E-04  
 Phase delay (usec) -2.05273974392E+03 Apriori clockrate (us/s) -1.9710000E-06 Resid phdelay (usec) 8.05622E-07 +/- 1.2E-07  
 Delay rate (us/s) -9.39444999198E-01 Apriori rate (us/s) -9.39444872390E-01 Resid rate (us/s) -1.26808E-07 +/- 9.8E-10  
 Total phase (deg) -293.3 Apriori accel (us/s/s) 2.16649889895E-05 Resid phase (deg) 62.1 +/- 9.6

ph/seg (deg) RMS Theor. Amplitude 0.169 +/- 0.014 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 48.5 11.2 Search (2048X128) 0.167 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 87.4 19.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 40.0 27.0 Inc. seg. avg. 0.251 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 42.0 47.2 Inc. frq. avg. 0.176 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

L: az 284.5 el 43.7 pa 116.3 i: az 184.2 el 51.3 pa 4.3 u,v (fr/asec) 13474.358 -20781.661 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Li.Xtioin Output file: Suppressed by test mode



Fringe quality 0

SNR 6.3

Int time 185.691

Amp 0.090

Phase -63.2

PFD 2.6e-01

Delays (us)

SBD 0.687357

MBD 0.007330

Fringe rate (Hz)

-0.196185

Ion TEC 0.000

Ref freq (MHz)

214162.7969

AP (sec) 0.400

Exp. e18c21

Exper # 3644

Yr:day 2018:111

Start 063000.00

Stop 063400.00

FRT 063200.00

Corr/FF/build

2020:286:103552

2020:301:162048

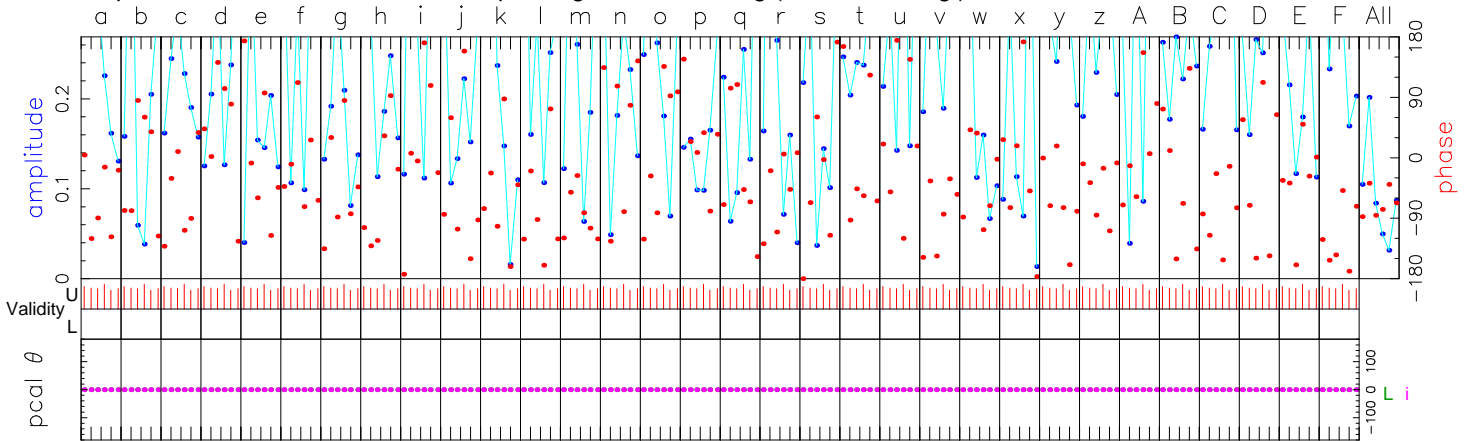
2018:237:201327

RA & Dec (J2000)

12h56m11.166567s

-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



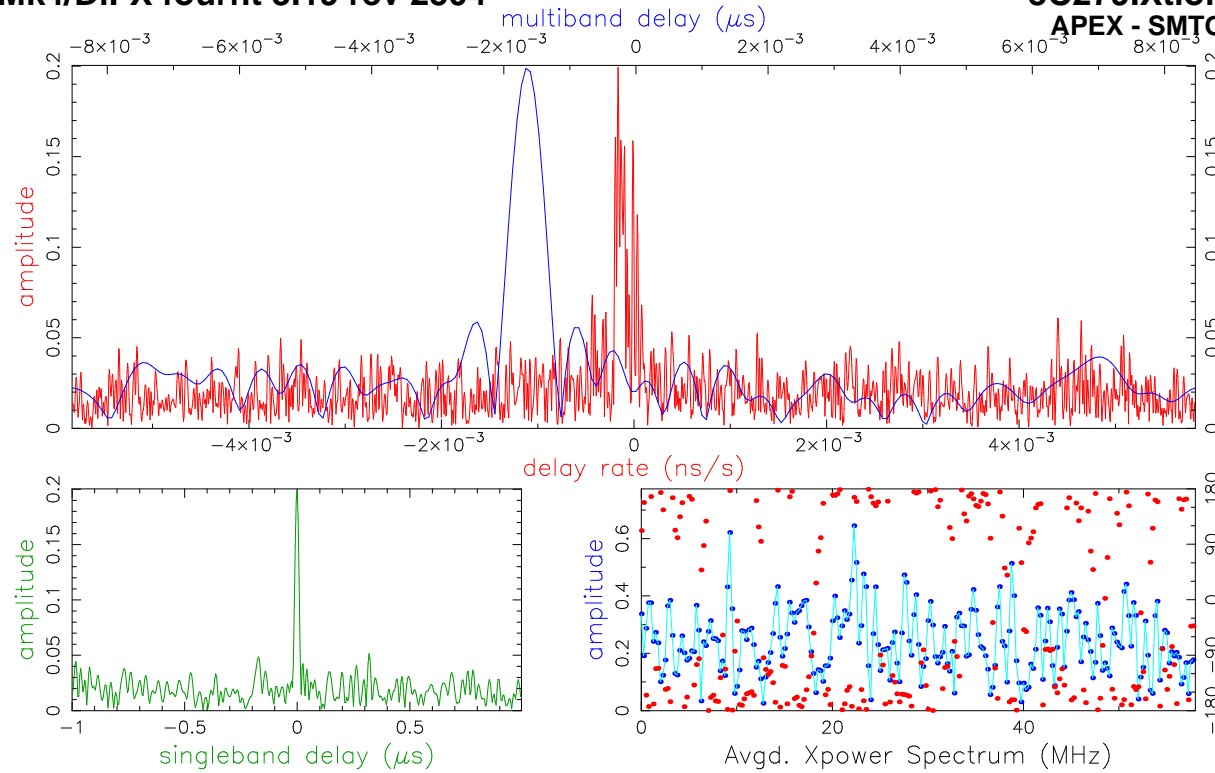
	214162.214221	214279.214338	214397.214455	214514.214572	214631.214690	214748.214807	214865.214924	214983.215041	215100.215158	215217.215276	215334.215393	215451.215510	215569.215627	215686.215744	215803.215862	215920.215979	Req (MHz)	All																					
Phase	-58.6	-76.3	-51.9	120.0	-32.6	-27.8	-51.0	-94.7	21.8	-114.7	-49.2	-112.0	-80.6	135.0	-61.6	28.3	-102.5	-46.0	-133.2	-83.4	-61.1	-71.6	-36.9	-49.6	-52.4	-42.8	-14.4	-171.2	-74.5	135.0	-20.6	-117.1	Phase	-63.2					
Ampl	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.0	0.2	0.1	0.1	0.2	0.1	0.2	Ampl	0.1				
Std box	330.9	179.9	47.4	275.4	38.8	334.8	117.4	32.2	30.6	419.5	11.4	427.7	183.4	53.6	333.9	102.9	459.2	421.0	347.0	1.4	370.0	347.3	161.8	99.7	18.2	191.9	246.9	368.7	427.2	357.0	401.7	385.4	Std box	392.5					
UL	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	APs used					
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
Li	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
Li	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC		
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
L	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL			Chan ids				
i	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR			Chan ids				

Group delay (usec)(model)	-2.05273241441E+03	Apriori delay (usec)	-2.05273974473E+03	Resid mbdelay (usec)	7.33032E-03	+/-	4.7E-05
Sband delay (usec)	-2.05205238776E+03	Apriori clock (usec)	1.5759471E-01	Resid sbdelay (usec)	6.87357E-01	+/-	1.5E-03
Phase delay (usec)	-2.05273974555E+03	Apriori clockrate (us/s)	-1.9710000E-06	Resid phdelay (usec)	-8.19244E-07	+/-	2.4E-07
Delay rate (us/s)	-9.39445788444E-01	Apriori rate (us/s)	-9.39444872390E-01	Resid rate (us/s)	-9.16055E-07	+/-	1.9E-09
Total phase (deg)	-58.6	Apriori accel (us/s/s)	2.16649889895E-05	Resid phase (deg)	-63.2	+/-	18.2

ph/seg (deg)	RMS 20.3	Theor. 21.3	Amplitude Search (2048X128)	0.090 +/- 0.014	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	60.8	37.2	Interp.	0.085	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	67.3	51.5	Inc. seg. avg.	0.087	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.009	0.009	
amp/frq (%)	68.6	89.8	Inc. frq. avg.	0.089	Sample rate(MISamp/s): 116		dr window (ns/s)	-0.006	0.006	
					Data rate(Mb/s): 7424	nlags: 232	t_cohere infinite	ion window (TEC)	0.00	0.00

L: az 284.5 el 43.7 pa 116.3 i: az 184.2 el 51.3 pa 4.3 u,v (fr/asec) 13474.358 -20781.661 simultaneous interpolator

Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Li.Xtioin Output file: Suppressed by test mode

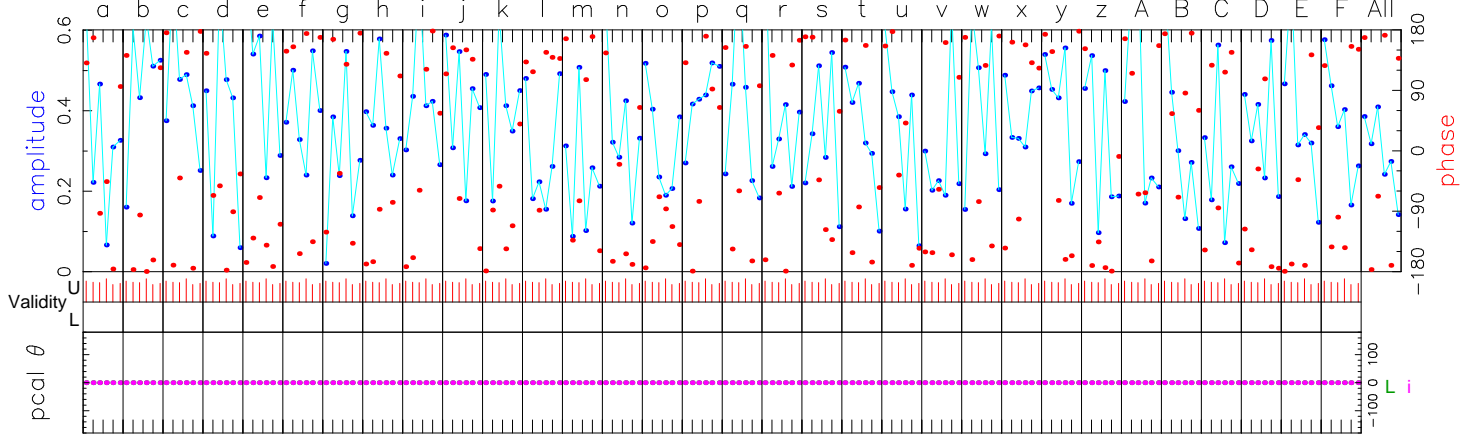


Fringe quality 7

SNR 13.7  
Int time 173.713  
Amp 0.200  
Phase -169.7  
PFD 1.1e-33  
Delays (us)  
SBD -0.001011  
MBD -0.001645  
Fringe rate (Hz)  
-0.035392  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162100  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



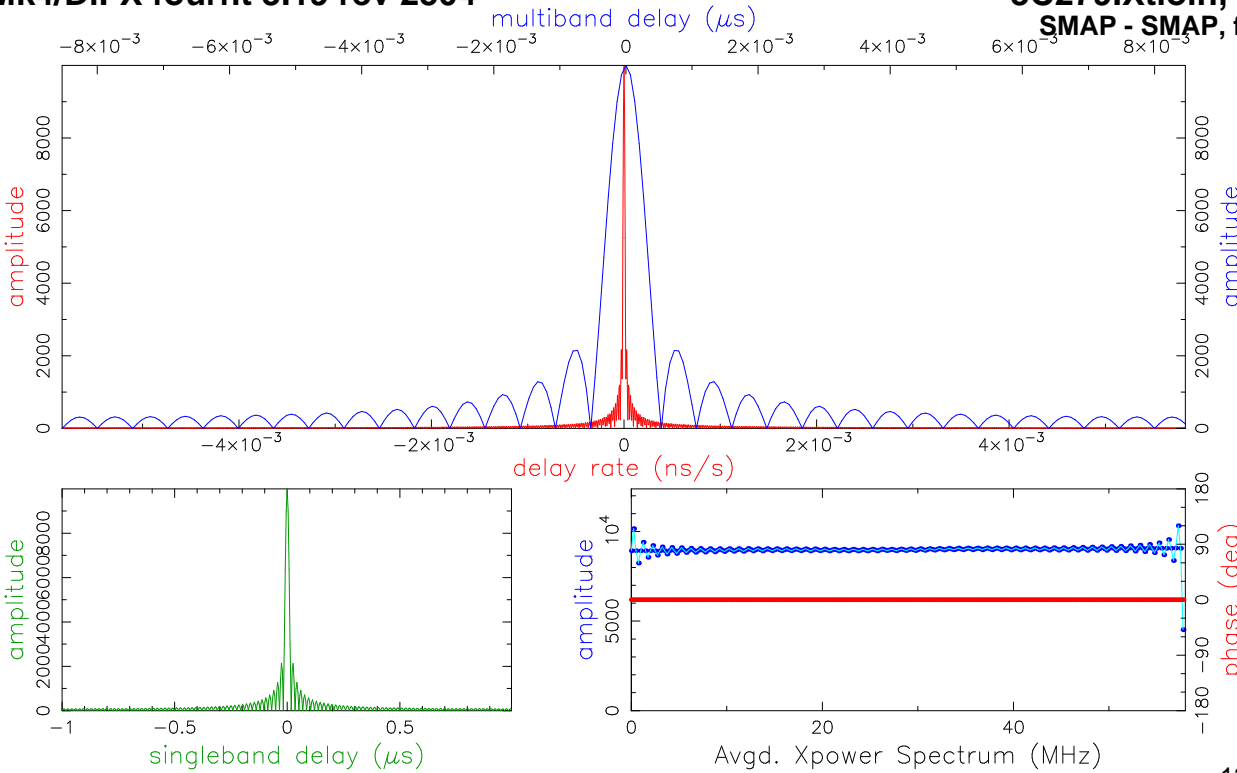
	214162.2	214221.2	214279.2	214338.2	214397.2	214455.2	214514.2	214572.2	214631.2	214690.2	214748.2	214807.2	214865.2	214924.2	214983.2	215041.2	215100.2	215158.2	215217.2	215276.2	215334.2	215393.2	215451.2	215510.2	215569.2	215627.2	215686.2	215744.2	215803.2	215862.2	215920.2	215979.2	Req (MHz)	All					
160.1	-178.0	-176.7	-120.0	-137.1	179.2	157.5	-159.9	-167.8	162.4	-108.0	140.8	-148.6	166.0	-132.4	136.1	-152.3	-175.5	-128.0	-159.9	175.5	-159.8	-155.3	169.9	-169.2	-179.4	-170.9	143.8	-151.0	-145.7	-172.7	-171.3	Phase	-169.7						
0.2	0.4	0.3	0.2	0.4	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.1	0.1	0.1	0.2	0.3	0.3	Ampl	0.2					
381.6	233.2	84.4	454.5	233.1	233.6	281.3	189.1	31.9	443.7	72.1	91.1	337.7	164.5	339.9	403.1	428.4	111.9	13.9	195.8	61.6	237.8	233.3	231.7	232.6	232.7	286.5	170.6	207.3	193.4	233.5	454.1	Std box	232.8						
UL	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	APs used					
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
Li	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
Li	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC			
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
L	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR			Chan ids				
i	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL			Chan ids				

Group delay (usec)(model)	-2.05274138966E+03	Apriori delay (usec)	-2.05273974473E+03	Resid mbdelay (usec)	-1.64493E-03	+/-	2.1E-05
Sband delay (usec)	-2.05274075549E+03	Apriori clock (usec)	1.5759471E-01	Resid sbdelay (usec)	-1.01076E-03	+/-	6.9E-04
Phase delay (usec)	-2.05273974693E+03	Apriori clockrate (us/s)	-1.9710000E-06	Resid phdelay (usec)	-2.20089E-06	+/-	1.1E-07
Delay rate (us/s)	-9.39445037647E-01	Apriori rate (us/s)	-9.39444872390E-01	Resid rate (us/s)	-1.65257E-07	+/-	8.5E-10
Total phase (deg)		Apriori accel (us/s/s)	2.16649889895E-05	Resid phase (deg)	-169.7	+/-	8.3

ph/seg (deg)	47.8	RMS	28.6	Theor.	9.8	Amplitude	0.200 +/- 0.015	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	65.2	Search (2048X128)	0.198	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000				
ph/frq (deg)	28.6	Inc. seg. avg.	0.291	Inc. frq. avg.	0.204	Bits/sample:	2x2	SampCntNorm:	disabled	mb window (us)	-0.009	0.009		
amp/frq (%)	37.9	Inc. frq. avg.	0.204	Sample rate (MSamp/s):	116	Data rate (Mb/s):	7424	nlags:	232	t_cohere	infinite	ion window (TEC)	0.00	0.00

L: az 284.5 el 43.7 pa 116.3    i: az 184.2 el 51.3 pa 4.3    u,v (fr/asec) 13474.358 -20781.661    simultaneous interpolator

Control file: cf\_3597.from.mike.titus    Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Li.Xtioin    Output file: Suppressed by test mode

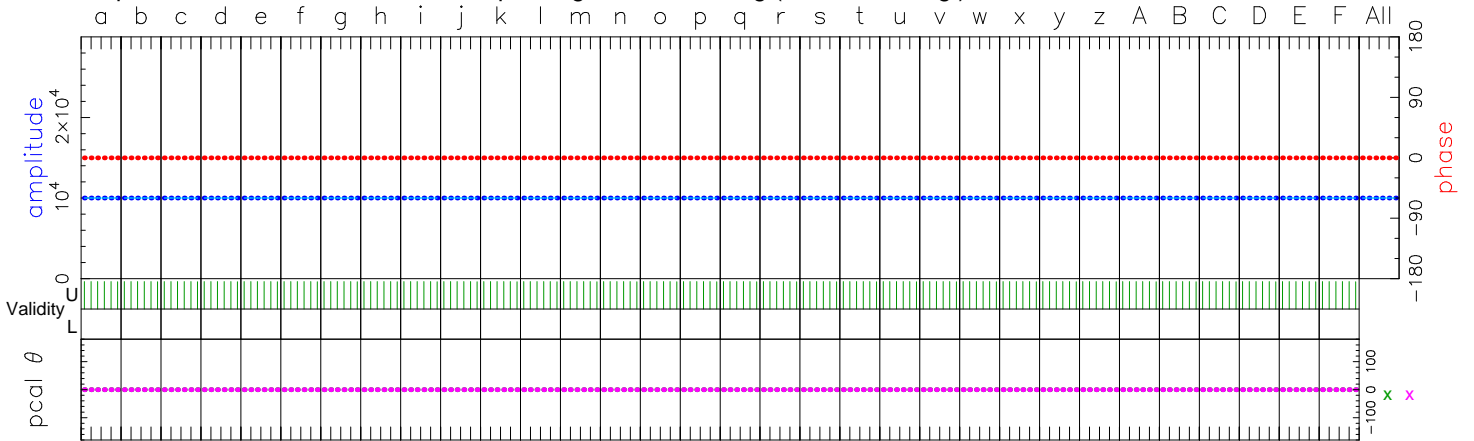


Fringe quality 9

SNR 805924.2  
Int time 239.599  
Amp 9999.997  
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)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162114  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.214221.214279.214338.214397.214455.214514.214572.214631.214690.214748.214807.214865.214924.214983.215041.215100.215158.215217.215276.215334.215393.215451.215510.215569.215627.215686.215744.215803.215862.215920.215979.216037	Req (MHz)	All
0.0	0.0	0.0
10000.0	10000.0	10000.0
233.0	233.0	233.0
UL	600/0	600/0
x	0	0
x0	0	0
xx	0.0	0.0
xx	0.0	0.0
x	1000	1000
x	1000	1000
x	800UL	B01UL
x	800UL	B01UL

Group delay (usec)(model)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.7E-10
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.2E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.8E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	Theor.	Amplitude	9999.997 +/- 0.012	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	Search (2048X128)	9999.997	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009	
amp/frq (%)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 116	dr window (ns/s)	-0.006 0.006		
			Inc. frq. avg.	9999.997	Data rate(Mb/s): 7424	nlags: 232	t_cohere infinite	ion window (TEC)	0.00 0.00

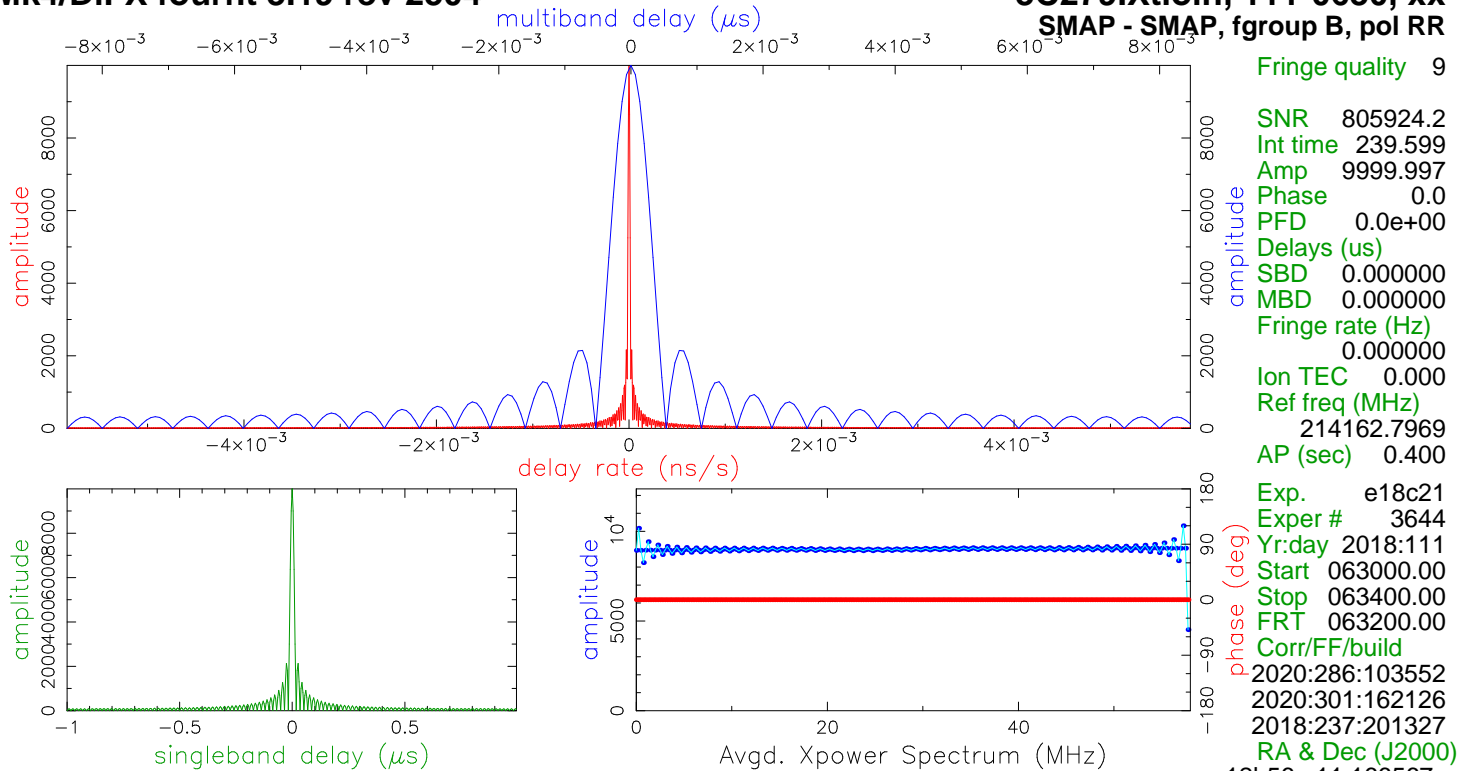
x: az 116.9 el 40.5 pa -57.4      x: az 116.9 el 40.5 pa -57.4      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_3597.from.mike.titus      Input file: /home/glindahl/golden/from-cannon/1000/111-0630/xx.Xtioin      Output file: Suppressed by test mode



Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, xx  
SMAP - SMAP, fgroup B, pol RR



Fringe quality 9

SNR 805924.2

Int time 239.599

Amp 9999.997

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)

214162.7969

AP (sec) 0.400

Exp. e18c21

Exper # 3644

Yr:day 2018:111

Start 063000.00

Stop 063400.00

FRT 063200.00

Corr/FF/build

2020:286:103552

2020:301:162126

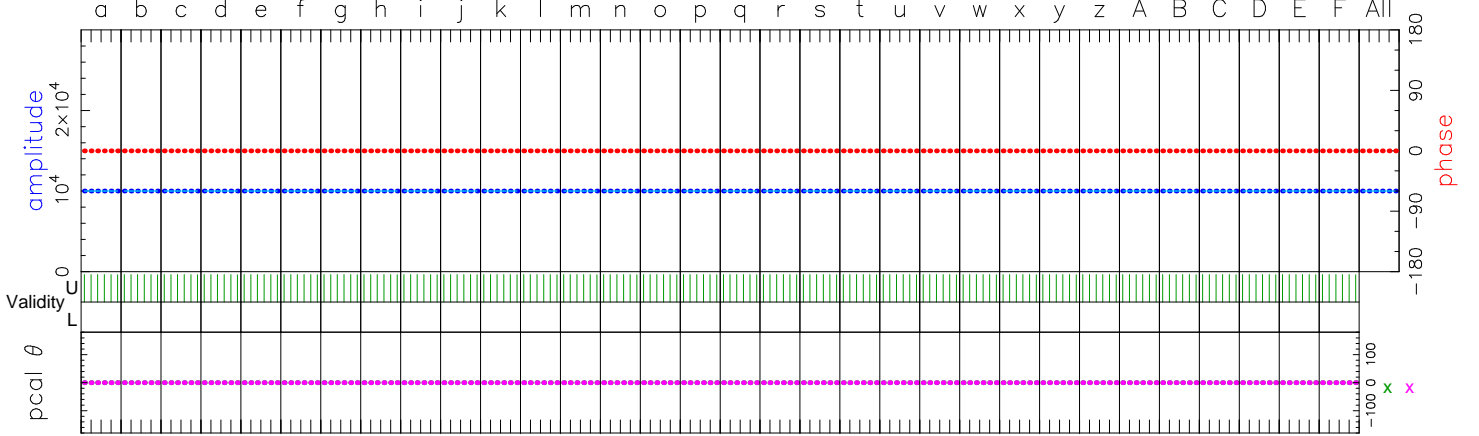
2018:237:201327

RA & Dec (J2000)

12h56m11.166567s

--5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Req (MHz)	All				
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0		
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0		
233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	Std box	233.0			
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
x0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
xx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
xx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC			
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
x	800UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	Chan ids				
x	800UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	Chan ids				

Group delay (usec)(model)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.7E-10
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.2E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.8E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg) 0.0 0.0 Search (2048X128) 9999.997 +/- 0.012 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

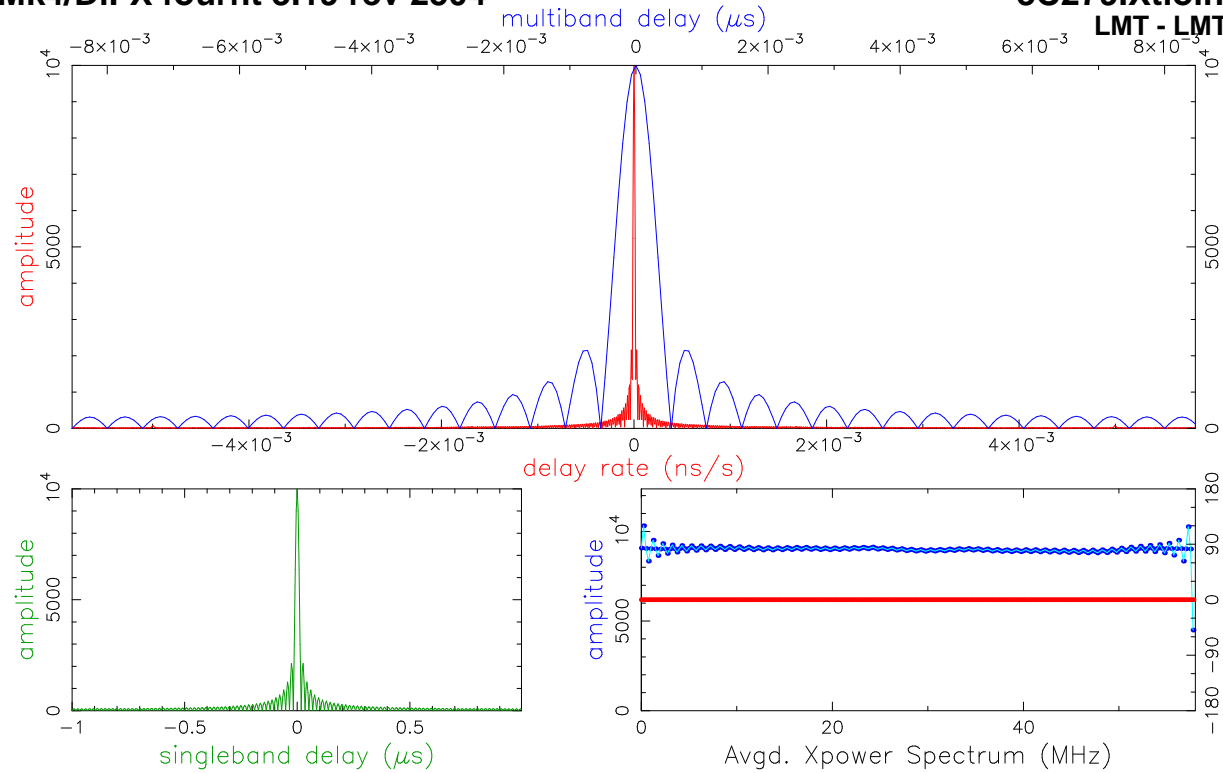
amp/seg (%) 0.0 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009

amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.997 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite dr window (ns/s) -0.006 0.006

x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 0.000 0.000 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/xx..Xtioin Output file: Suppressed by test mode

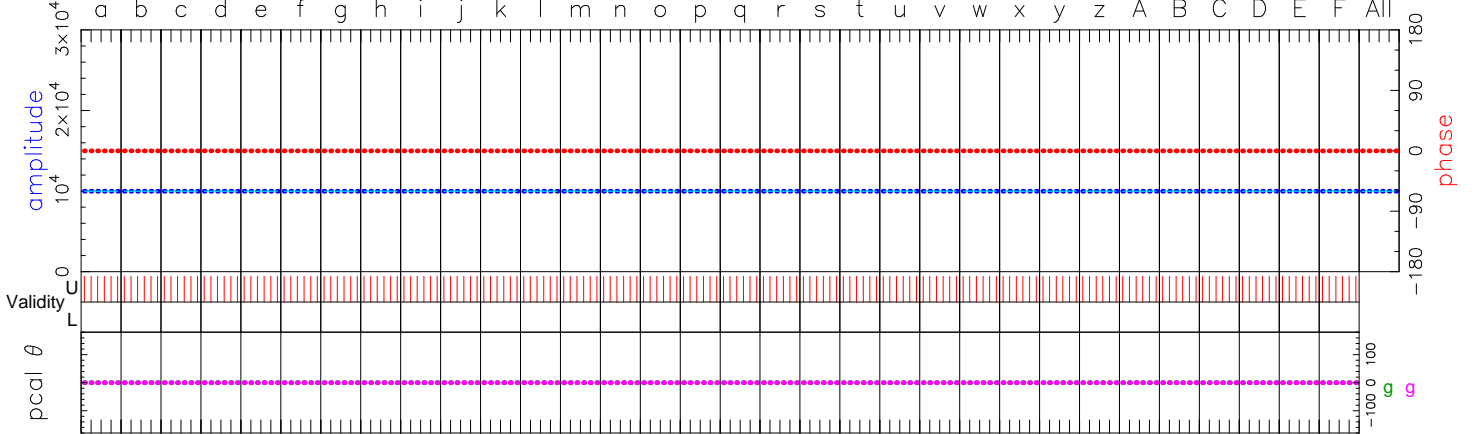


Fringe quality 9

SNR 780902.0  
Int time 224.923  
Amp 10000.643  
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)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162138  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All							
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0					
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.6					
233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	Std box	233.0					
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used						
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase			
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ManI PC			
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL			Chan ids					
g	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL			Chan ids					

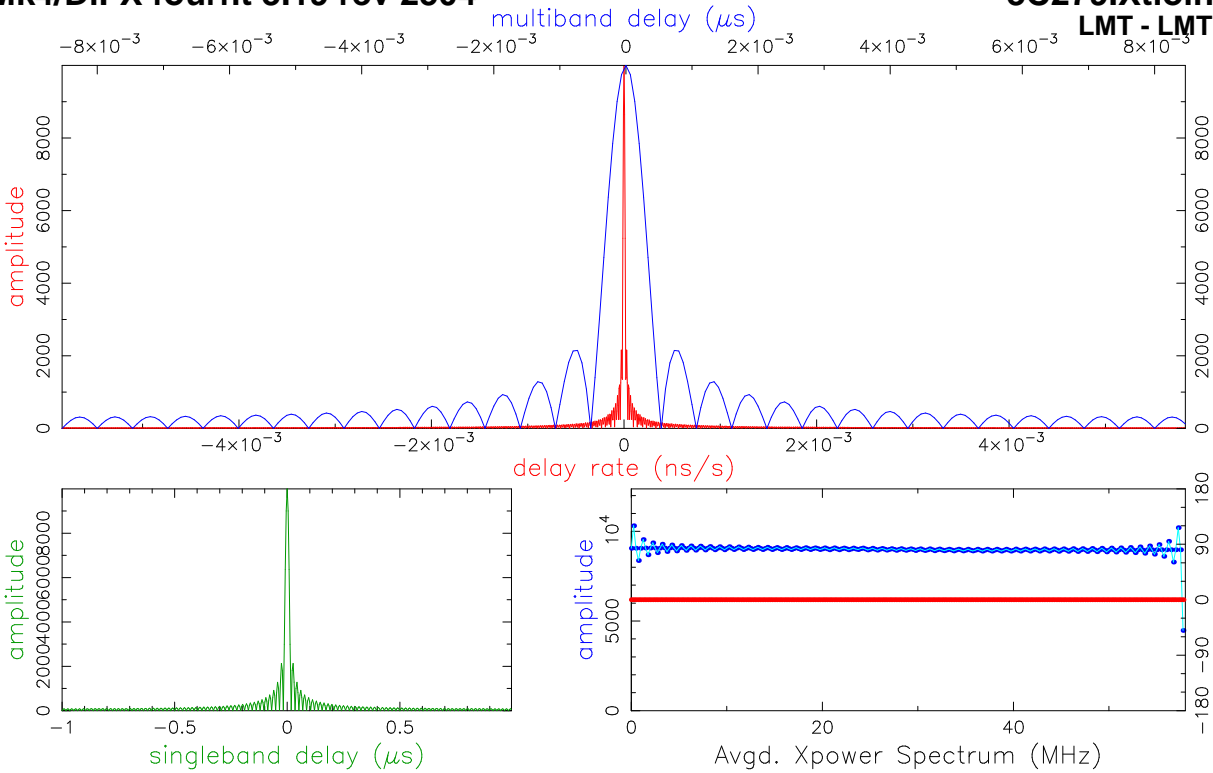
Group delay (usec)(model) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.8E-10  
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.2E-08  
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.9E-12  
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 1.4E-14  
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 10000.643 +/- 0.013 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.0 0.0 Search (2048X128) 10000.642 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.643 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

g: az 212.5 el 61.0 pa 31.0 g: az 212.5 el 61.0 pa 31.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/gg..Xtioin Output file: Suppressed by test mode

Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, gg  
LMT - LMT, fgroup B, pol RR

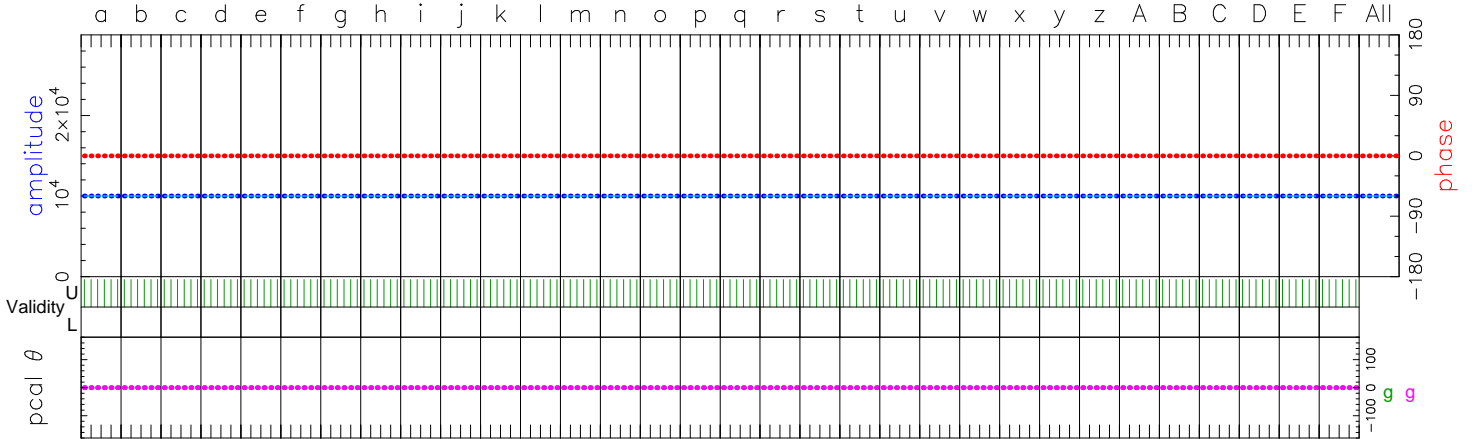


Fringe quality 9

SNR 806449.8  
Int time 239.912  
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) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162149  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



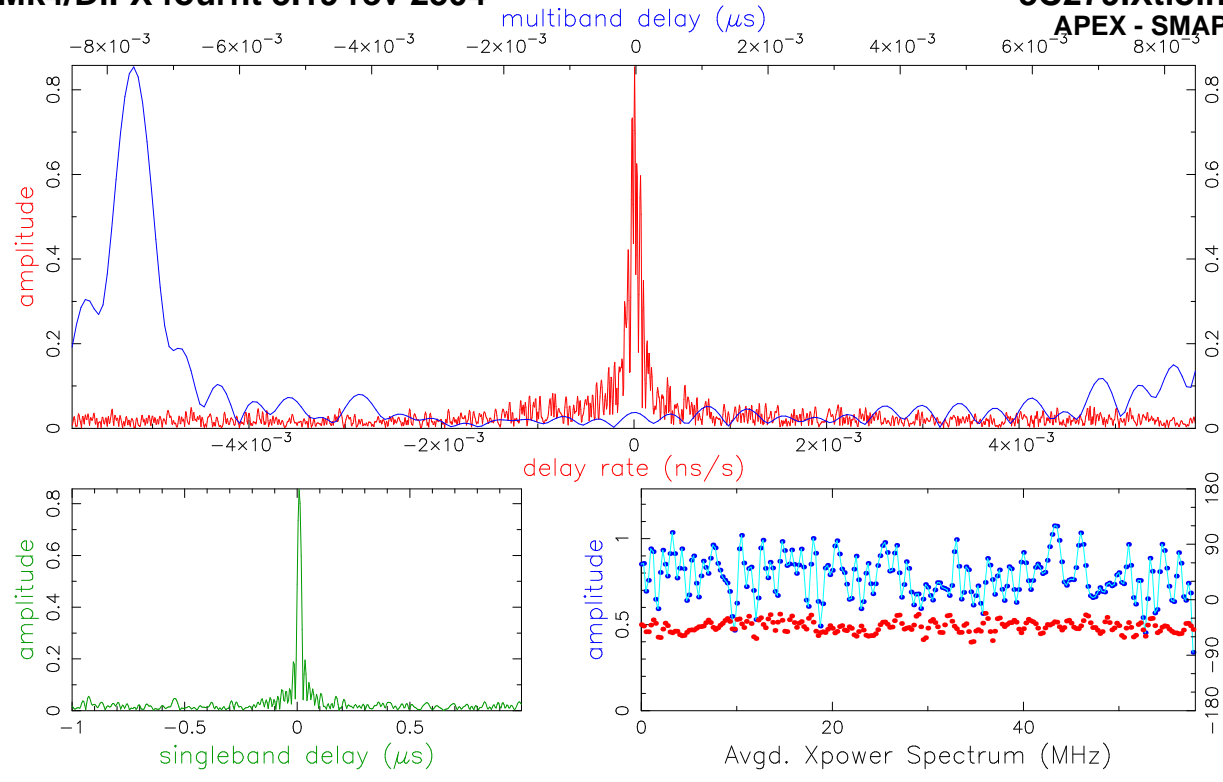
214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Req (MHz)	All							
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0					
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0				
233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	Std box	233.0				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase		
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Manl PC		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
g	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR					Chan ids			
g	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR					Tracks			

Group delay (usec)(model)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.6E-10
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.2E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.8E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	Theor.	Amplitude	9999.999 +/- 0.012	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	0.0	Search (2048X128)	9999.999	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009	
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate (MSamp/s):	116	dr window (ns/s)	-0.006 0.006		
				Inc. frq. avg.	9999.999	Data rate (Mb/s):	7424	nlags: 232	t_cohere infinite	ion window (TEC)	0.00 0.00
g: az 212.5 el 61.0 pa 31.0				g: az 212.5 el 61.0 pa 31.0		u,v (fr/asec)	0.000 0.000			simultaneous interpolator	

Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/gg..Xtioin Output file: Suppressed by test mode



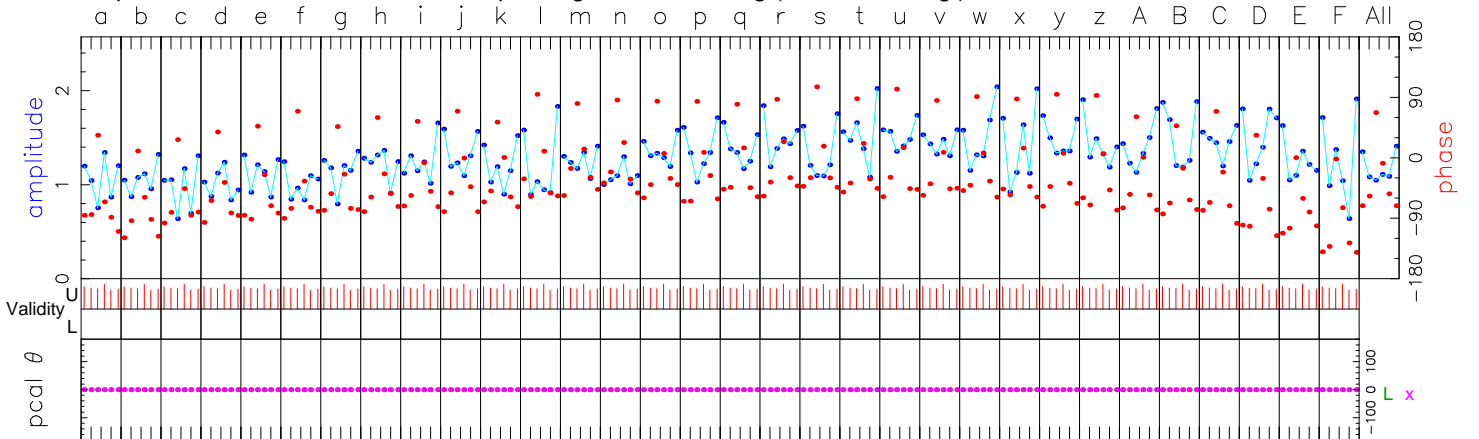


Fringe quality 3

SNR 60.8  
Int time 185.356  
Amp 0.858  
Phase -43.7  
PFD 0.0e+00  
Delays (us)  
SBD 0.009478  
MBD -0.007607  
Fringe rate (Hz) 0.001300  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162202  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



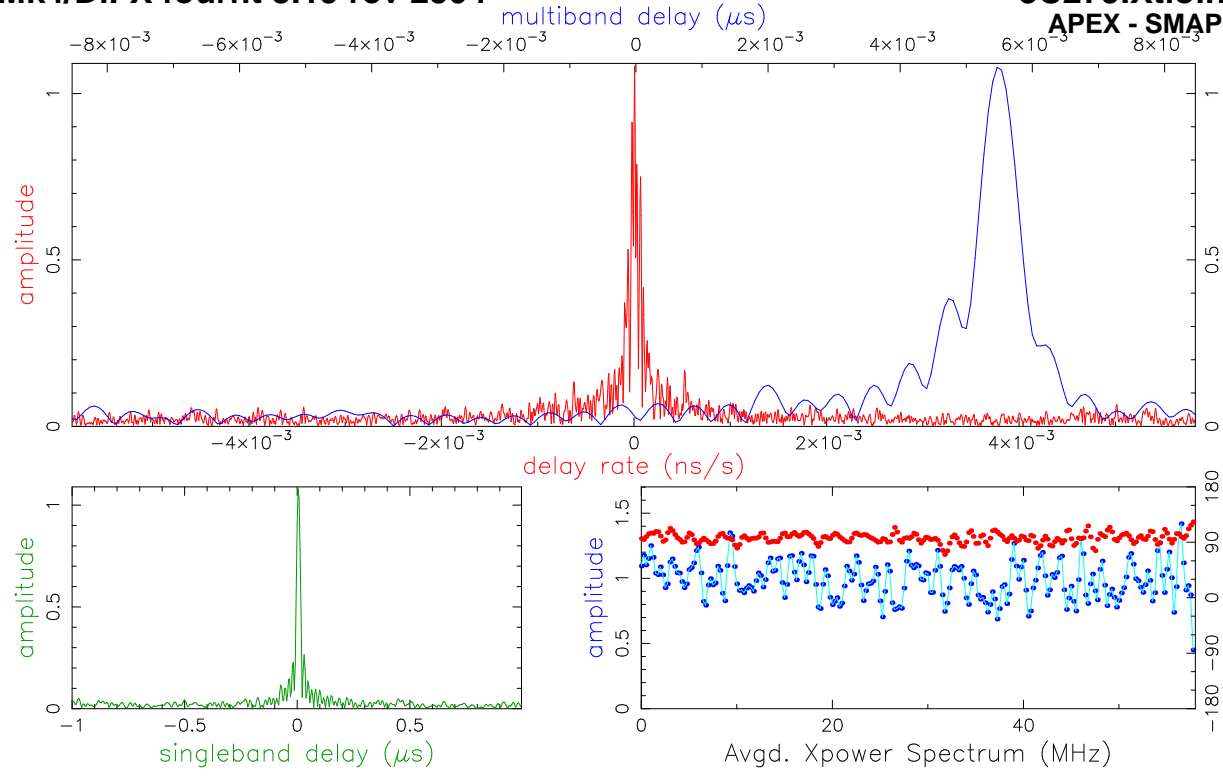
	214162.2	214221.2	214279.2	214338.2	214397.2	214455.2	214514.2	214572.2	214631.2	214690.2	214748.2	214807.2	214865.2	214924.2	214983.2	215041.2	215100.2	215158.2	215217.2	215276.2	215334.2	215393.2	215451.2	215510.2	215569.2	215627.2	215686.2	215744.2	215803.2	215862.2	215920.2	215979.2	Req (MHz)	All	
Phase	-78.0	-83.7	-69.2	-56.3	-57.5	-64.3	-53.5	-44.1	-40.9	-44.4	-40.8	-30.1	-14.9	-8.0	-22.0	-36.7	-26.1	-18.0	-20.7	-17.3	-25.0	-24.6	-28.0	-27.3	-36.8	-41.2	-44.5	-56.0	-59.2	-76.1	-81.7	-114.2	-43.7		
Ampl	0.9	0.8	0.8	0.7	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0	0.9	1.0	1.2	1.0	1.0	1.0	0.9	1.0	0.9		
Std box	234.7	235.2	235.1	235.3	235.5	235.4	235.2	235.2	235.4	235.0	235.5	235.3	235.3	234.8	234.9	235.5	235.2	235.4	235.1	234.9	235.4	235.1	235.4	235.2	235.4	235.2	235.3	235.1	234.9	235.1	235.1	234.8	235.2	235.2	
UL	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lx	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
L	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids	
x	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids	

Group delay (usec)(model)	6.21091210817E+02	Apriori delay (usec)	6.21098817533E+02	Resid mbdelay (usec)	-7.60672E-03	+/-	4.8E-06
Sband delay (usec)	6.21108295050E+02	Apriori clock (usec)	1.2877607E+00	Resid sbdelay (usec)	9.47752E-03	+/-	1.6E-04
Phase delay (usec)	6.21098816966E+02	Apriori clockrate (us/s)	4.7999999E-07	Resid phdelay (usec)	-5.66452E-07	+/-	2.4E-08
Delay rate (us/s)	-1.99136439946E+00	Apriori rate (us/s)	-1.99136440553E+00	Resid rate (us/s)	6.07197E-09	+/-	1.9E-10
Total phase (deg)	279.8	Apriori accel (us/s/s)	5.12887446396E-06	Resid phase (deg)	-43.7	+/-	1.9

ph/seg (deg)	50.2	RMS	2.2	Theor.	2.2	Amplitude	0.858 +/- 0.014	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	41.3	Search (2048X128)	0.853	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000				
ph/frq (deg)	24.8	Inc. seg. avg.	1.181	Inc. frq. avg.	0.926	Bits/sample:	2x2	SampCntNorm:	disabled	mb window (us)	-0.009	0.009		
amp/frq (%)	14.9	Inc. frq. avg.	0.926	Sample rate (MSamp/s):	116	Data rate (Mb/s):	7424	nlags:	232	t_cohere	infinite	ion window (TEC)	0.00	0.00

L: az 284.5 el 43.7 pa 116.3 x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 28505.411 -16042.565 simultaneous interpolator

Control file: cf\_3597.from.mike.titus Input file: /home/gbindahl/golden/from-cannon/1000/111-0630/Lx..Xtioin Output file: Suppressed by test mode

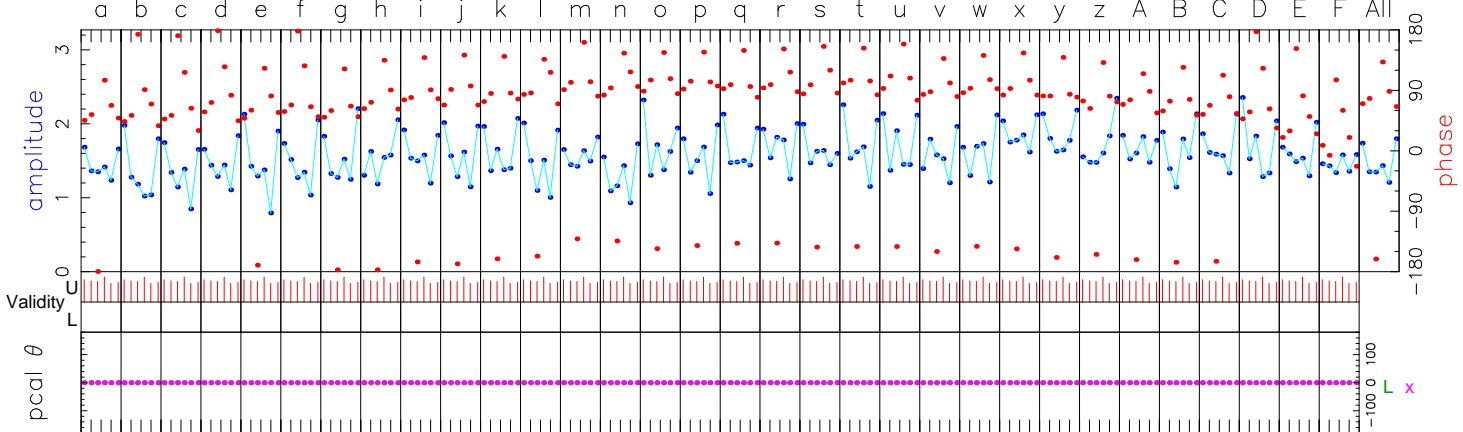


Fringe quality 3

SNR 77.2  
Int time 184.974  
Amp 1.090  
Phase 96.7  
PFD 0.0e+00  
Delays (us)  
SBD 0.005537  
MBD 0.005491  
Fringe rate (Hz) 0.001332  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162214  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.2	214221.2	214279.2	214338.2	214397.2	214455.2	214514.2	214572.2	214631.2	214690.2	214748.2	214807.2	214865.2	214924.2	214983.2	215041.2	215100.2	215158.2	215217.2	215276.2	215334.2	215393.2	215451.2	215510.2	215569.2	215627.2	215686.2	215744.2	215803.2	215862.2	215920.2	215979.2	Req (MHz)	All			
74.1	64.0	71.0	85.7	79.7	82.0	77.6	93.5	103.3	101.2	102.6	104.0	118.6	116.4	115.7	120.4	112.0	122.4	120.7	120.4	120.2	109.7	117.1	113.0	102.5	94.1	92.8	85.0	83.0	73.1	51.3	24.6	Phase	96.7			
1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.0	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.4	1.4	1.2	1.2	1.2	1.1	1.2	1.1	1.2	1.1	Ampl	1.2	
234.3	234.1	234.2	234.5	234.4	234.2	234.0	234.2	234.3	234.2	234.2	234.6	234.6	234.3	234.4	234.3	234.2	234.3	234.2	234.4	234.4	234.4	234.4	234.3	234.2	234.3	234.2	234.3	234.1	234.2	234.1	233.8	234.3	Std box	234.3		
UL	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	APs used	0		
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	0	
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	0	
Lx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase	0.0	
Lx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC	0.0	
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	1000
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
L	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	Chan ids	Tracks		
x	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	Chan ids	Tracks		

Group delay (usec)(model) 6.21104308067E+02 Apriori delay (usec) 6.21098817533E+02 Resid mbdelay (usec) 5.49053E-03 +/- 3.8E-06  
 Sband delay (usec) 6.21104354360E+02 Apriori clock (usec) 1.2877607E+00 Resid sbdelay (usec) 5.53683E-03 +/- 1.2E-04  
 Phase delay (usec) 6.21098818786E+02 Apriori clockrate (us/s) 4.7999999E-07 Resid phdelay (usec) 1.25367E-06 +/- 1.9E-08  
 Delay rate (us/s) -1.99136439931E+00 Apriori rate (us/s) -1.99136440553E+00 Resid rate (us/s) 6.21789E-09 +/- 1.5E-10  
 Total phase (deg) 60.1 Apriori accel (us/s/s) 5.12887446396E-06 Resid phase (deg) 96.7 +/- 1.5

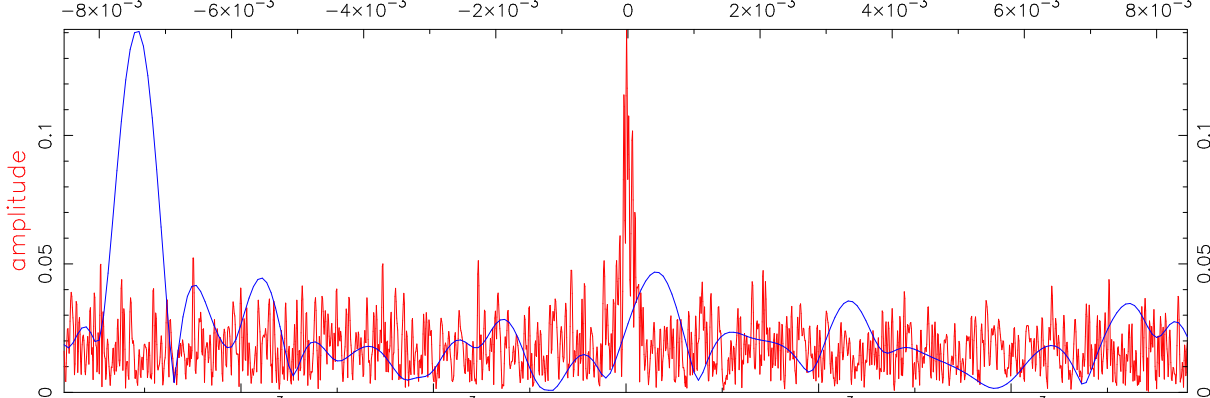
ph/seg (deg) 47.7 1.7 Search (2048X128) 1.076 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 40.8 3.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 23.7 4.2 Inc. seg. avg. 1.482 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 11.2 7.3 Inc. frq. avg. 1.164 Sample rate(MISamp/s): 116 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite dr window (ns/s) -0.006 0.006  
 L: az 284.5 el 43.7 pa 116.3 x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 28505.411 -16042.565 ion window (TEC) 0.00 0.00  
 simultaneous interpolator

Fringe quality 9

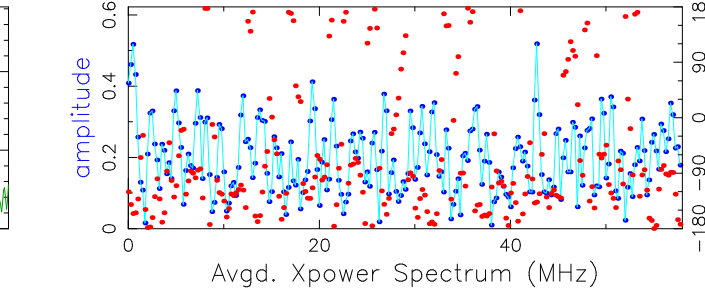
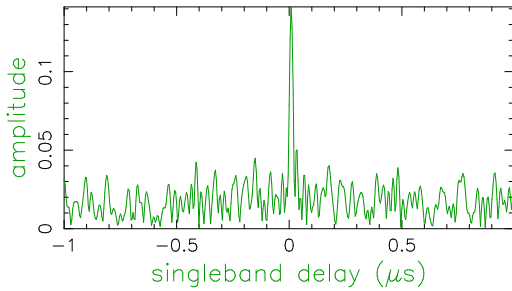
SNR 10.0  
Int time 185.356  
Amp 0.141  
Phase -130.1  
PFD 2.1e-14  
Delays (us)  
SBD 0.009136  
MBD -0.007428  
Fringe rate (Hz)  
0.001496  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162226  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

multiband delay ( $\mu$ s)



delay rate (ns/s)



Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

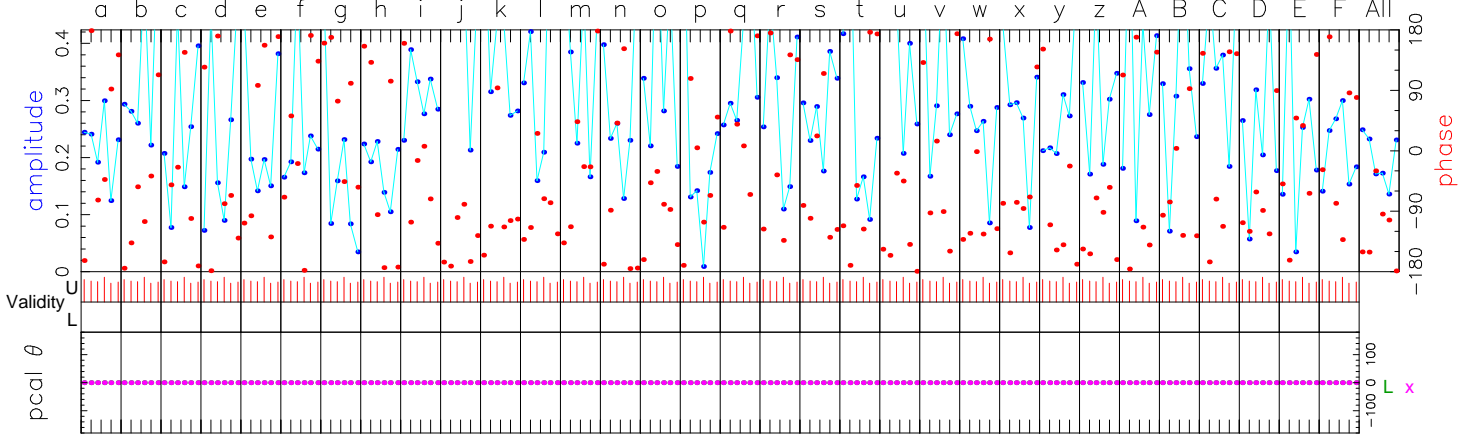


Table with columns for frequency (a-z, A-F, All) and rows for various parameters like Phase, Std box, APs used, PC freqs, etc.

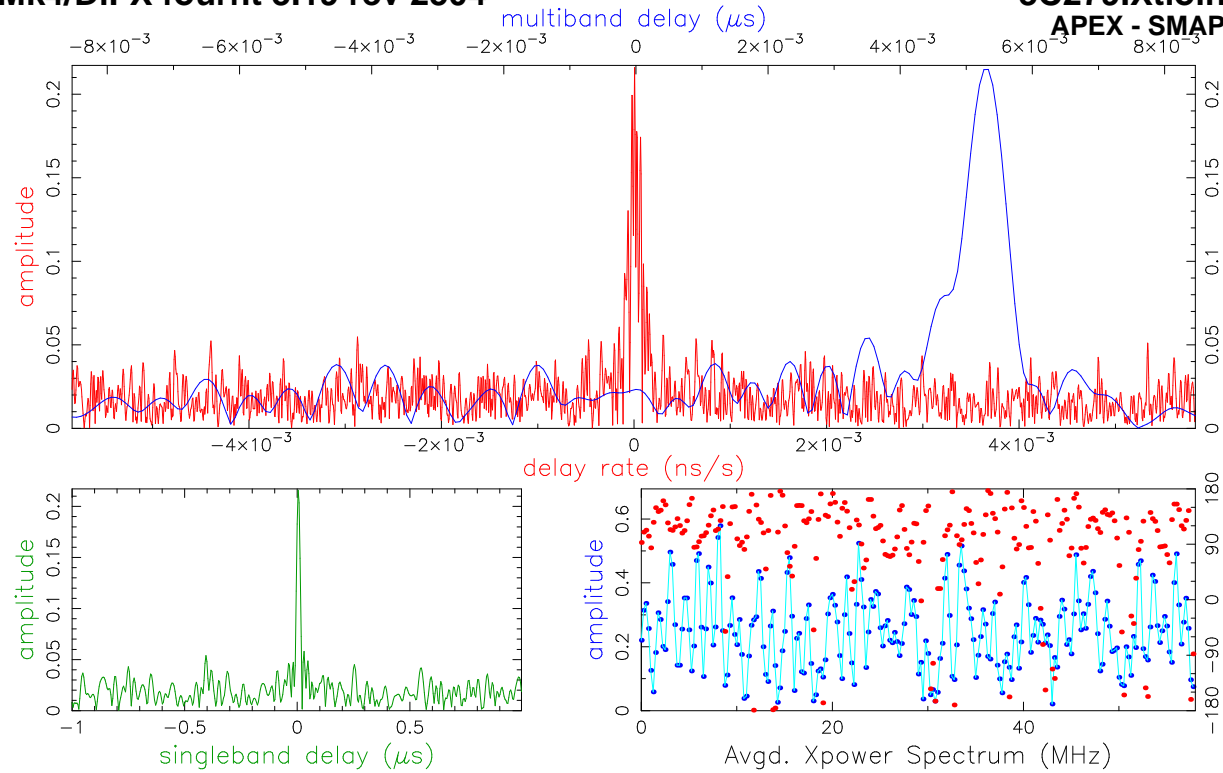
Group delay (usec)(model) 6.21091389846E+02 Apriori delay (usec) 6.21098817533E+02 Resid mbdelay (usec) -7.42769E-03 +/- 2.9E-05  
Sband delay (usec) 6.21107953809E+02 Apriori clock (usec) 1.2877607E+00 Resid sbdelay (usec) 9.13628E-03 +/- 9.5E-04  
Phase delay (usec) 6.21098815845E+02 Apriori clockrate (us/s) 4.7999999E-07 Resid phdelay (usec) -1.68751E-06 +/- 1.5E-07  
Delay rate (us/s) -1.99136439854E+00 Apriori rate (us/s) -1.99136440553E+00 Resid rate (us/s) 6.98578E-09 +/- 1.2E-09  
Total phase (deg) 193.4 Apriori accel (us/s/s) 5.12887446396E-06 Resid phase (deg) -130.1 +/- 11.4

ph/seg (deg) 49.8 13.4 Search (2048X128) 0.139 Pcd mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 50.0 23.4 Interp. 0.000 Pcd rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 41.6 32.4 Inc. seg. avg. 0.194 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
amp/frq (%) 59.4 56.5 Inc. frq. avg. 0.142 Sample rate(MISamp/s): 116 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite dr window (ns/s) -0.006 0.006  
ion window (TEC) 0.00 0.00

L: az 284.5 el 43.7 pa 116.3 x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 28505.411 -16042.565 simultaneous interpolator  
Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Lx..Xtioin Output file: Suppressed by test mode

Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, Lx  
APEX - SMAP, fgroup B, pol RL

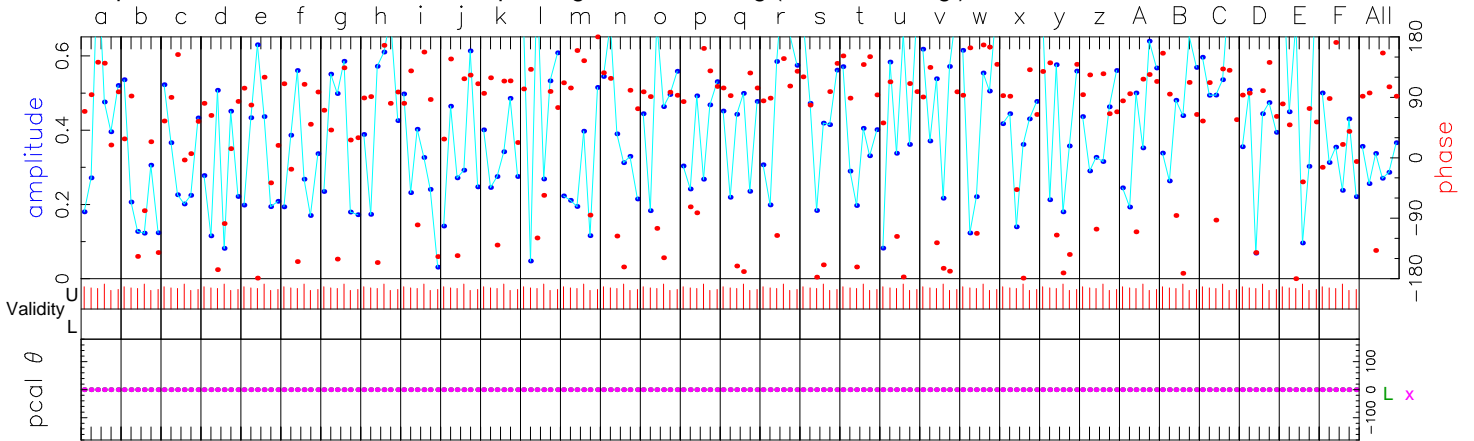


Fringe quality 7

SNR 15.4  
Int time 184.974  
Amp 0.217  
Phase 120.0  
PFD 5.2e-44  
Delays (us)  
SBD 0.005325  
MBD 0.005301  
Fringe rate (Hz) 0.001266  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162238  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.2	214221.2	214279.2	214338.2	214397.2	214455.2	214514.2	214572.2	214631.2	214690.2	214748.2	214807.2	214865.2	214924.2	214983.2	215041.2	215100.2	215158.2	215217.2	215276.2	215334.2	215393.2	215451.2	215510.2	215569.2	215627.2	215686.2	215744.2	215803.2	215862.2	215920.2	215979.2	Req (MHz)	All			
112.4	27.5	57.6	88.4	116.6	113.3	97.0	127.4	127.4	131.3	108.9	111.1	150.5	137.2	140.2	136.5	142.4	135.6	130.5	134.9	136.7	144.7	146.9	106.0	169.2	94.7	123.8	132.6	98.0	101.0	78.5	30.4	Phase	120.0				
0.3	0.1	0.2	0.1	0.2	0.1	0.2	0.3	0.1	0.3	0.2	0.1	0.2	0.3	0.2	0.1	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.2	Ampl	0.2				
234.1	395.3	438.7	132.8	328.9	10.3	367.3	234.2	153.2	14.0	410.1	61.2	239.7	233.2	236.0	383.0	235.2	234.6	233.9	233.9	234.7	234.0	234.1	47.6	234.3	358.4	45.2	174.4	234.3	233.7	232.9	322.8	Std box	234.2				
UL	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	APs used				
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
Lx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase		
Lx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC		
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
L	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids			
x	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids			

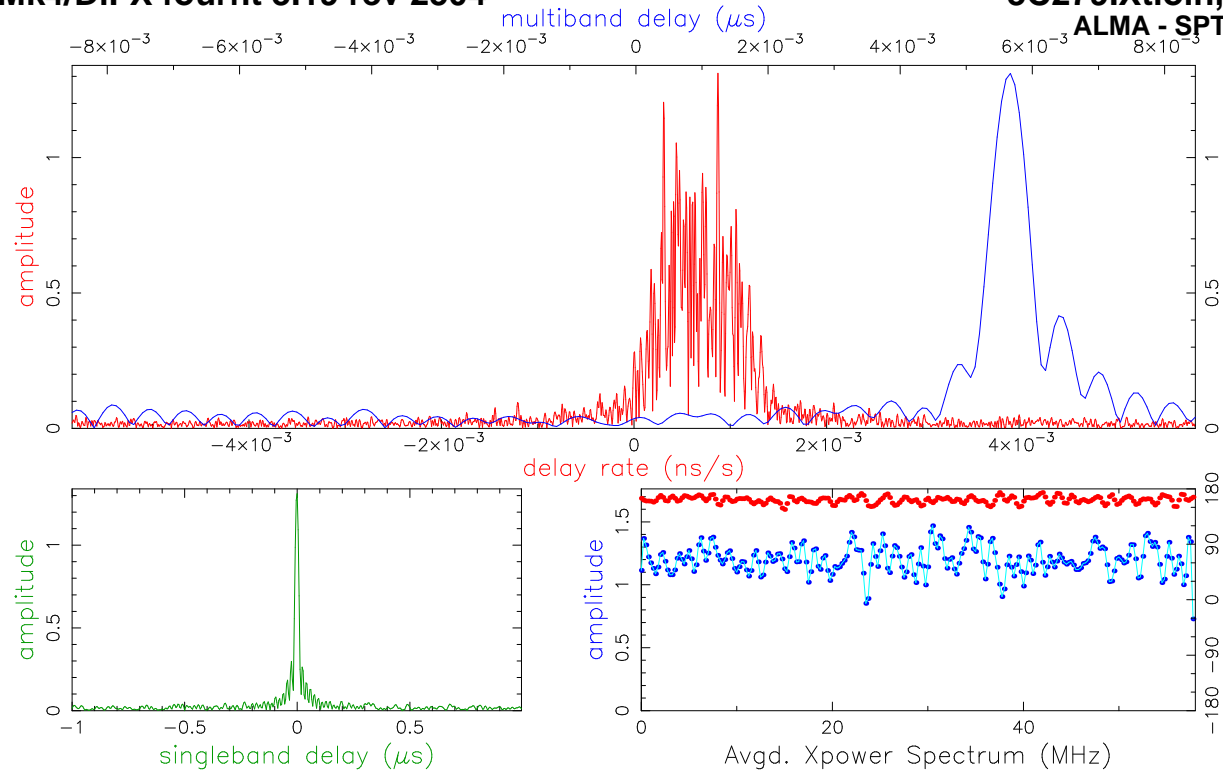
Group delay (usec)(model) 6.21104118047E+02 Apriori delay (usec) 6.21098817533E+02 Resid mbdelay (usec) 5.30051E-03 +/- 1.9E-05  
 Sband delay (usec) 6.21104142498E+02 Apriori clock (usec) 1.2877607E+00 Resid sbdelay (usec) 5.32497E-03 +/- 6.2E-04  
 Phase delay (usec) 6.21098819090E+02 Apriori clockrate (us/s) 4.7999999E-07 Resid phdelay (usec) 1.55693E-06 +/- 9.7E-08  
 Delay rate (us/s) -1.99136439962E+00 Apriori rate (us/s) -1.99136440553E+00 Resid rate (us/s) 5.91365E-09 +/- 7.6E-10  
 Total phase (deg) 83.5 Apriori accel (us/s/s) 5.12887446396E-06 Resid phase (deg) 120.0 +/- 7.5

ph/seg (deg) RMS 48.3 Theor. 8.7 Amplitude 0.217 +/- 0.014 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 47.6 15.2 Search (2048X128) 0.215 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 33.2 21.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 40.3 36.8 Inc. seg. avg. 0.307 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 Inc. frq. avg. 0.229 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

L: az 284.5 el 43.7 pa 116.3 x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 28505.411 -16042.565 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Lx..Xtioin Output file: Suppressed by test mode

Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, We  
ALMA - SPT, fgroup B, pol XL

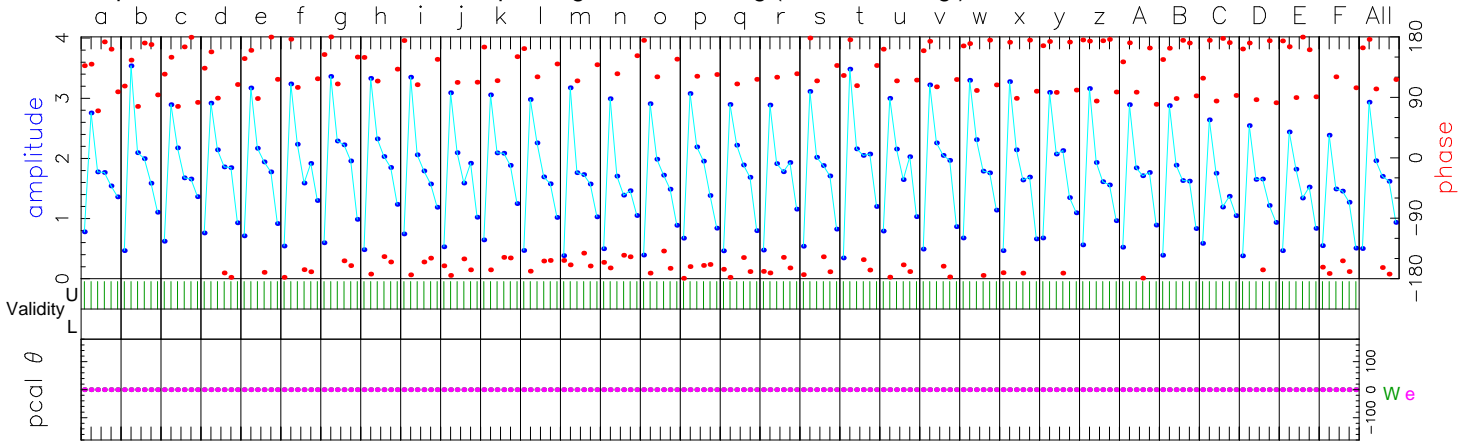


Fringe quality 4

SNR 107.1  
Int time 239.959  
Amp 1.340  
Phase 162.2  
PFD 0.0e+00  
Delays (us)  
SBD -0.001517  
MBD 0.005654  
Fringe rate (Hz)  
0.186725  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162251  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.2	214221.2	214279.2	214338.2	214397.2	214455.2	214514.2	214572.2	214631.2	214690.2	214748.2	214807.2	214865.2	214924.2	214983.2	215041.2	215100.2	215158.2	215217.2	215276.2	215334.2	215393.2	215451.2	215510.2	215569.2	215627.2	215686.2	215744.2	215803.2	215862.2	215920.2	215979.2	Req (MHz)	All			
131.9	134.5	132.6	148.8	151.4	161.7	172.2	173.6	174.9	171.4	-179.4	175.2	-175.6	-174.5	178.0	177.0	170.6	175.9	172.4	167.5	166.5	162.1	153.6	156.2	155.2	149.7	146.3	144.5	152.5	145.6	176.4	Phase	162.2					
1.4	1.5	1.3	1.4	1.5	1.5	1.6	1.5	1.5	1.4	1.5	1.4	1.3	1.3	1.3	1.4	1.3	1.4	1.4	1.6	1.5	1.5	1.3	1.4	1.3	1.3	1.3	1.1	1.0	1.1	1.1	1.1	Ampl	1.4				
232.6	232.7	232.7	233.0	232.9	232.9	232.8	232.6	232.6	232.6	232.8	232.9	232.6	232.6	232.6	232.6	232.5	232.6	232.5	232.7	232.6	232.5	232.8	232.7	232.6	232.3	232.9	232.4	232.4	232.8	232.8	233.0	Std box	232.6				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
W/e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase		
We	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC		
w	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
w	B00UX	B01UX	B02UX	B03UX	B04UX	B05UX	B06UX	B07UX	B08UX	B09UX	B10UX	B11UX	B12UX	B13UX	B14UX	B15UX	B16UX	B17UX	B18UX	B19UX	B20UX	B21UX	B22UX	B23UX	B24UX	B25UX	B26UX	B27UX	B28UX	B29UX	B30UX	B31UX		Chan ids			
e	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids			

Group delay (usec)(model)	1.02953638258E+04	Apriori delay (usec)	1.02953581714E+04	Resid mbdelay (usec)	5.65433E-03	+/-	2.7E-06
Sband delay (usec)	1.02953566542E+04	Apriori clock (usec)	-2.1068201E+03	Resid sbdelay (usec)	-1.51724E-03	+/-	8.9E-05
Phase delay (usec)	1.02953581736E+04	Apriori clockrate (us/s)	-1.3040000E-06	Resid phdelay (usec)	2.10405E-06	+/-	1.4E-08
Delay rate (us/s)	-1.00961684531E+00	Apriori rate (us/s)	-1.00961771719E+00	Resid rate (us/s)	8.71882E-07	+/-	1.0E-10
Total phase (deg)	99.9	Apriori accel (us/s/s)	-7.30050186122E-05	Resid phase (deg)	162.2	+/-	1.1

ph/seg (deg)	RMS 35.7	Theor. 1.3	Amplitude Search (2048X128)	1.289	1.340 +/- 0.013	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	61.8	2.3	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	15.6	3.0	Inc. seg. avg.	1.624		Bits/sample: 2x2	SampCntNorm: disabled
amp/frq (%)	10.5	5.3	Inc. frq. avg.	1.368		Sample rate(MISamp/s): 116	dr window (ns/s) -0.006 0.006
W: az 284.6 el 43.7 pa 116.5			e: az 292.7 el 5.9 pa 180.0			Data rate(Mb/s): 7424	ion window (TEC) 0.00 0.00
						nlags: 232	t_cohere infinite
							u,v (fr/asec) 14333.777 14835.801

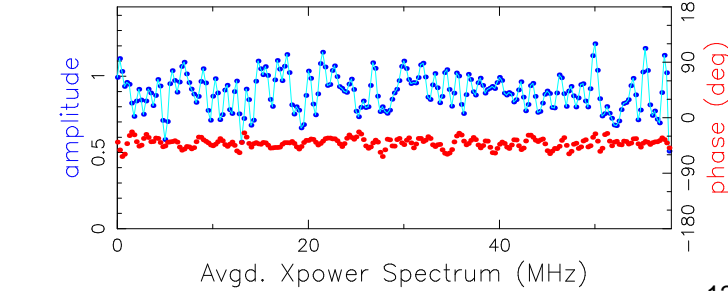
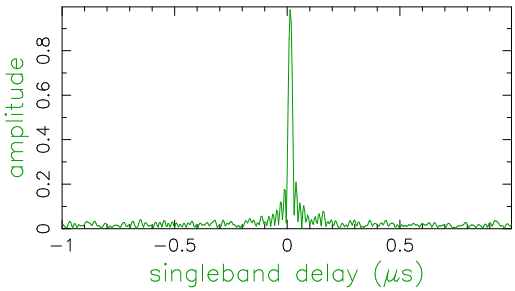
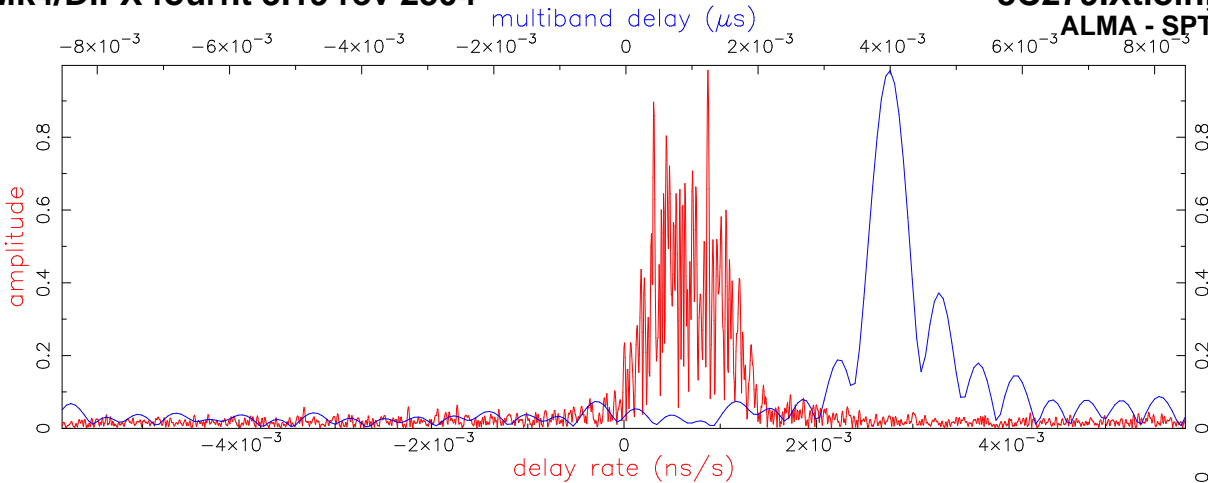
Control file: cf\_3597.from.mike.titus Input file: /home/glihdahl/golden/from-cannon/1000/111-0630/We..Xtioin Output file: Suppressed by test mode



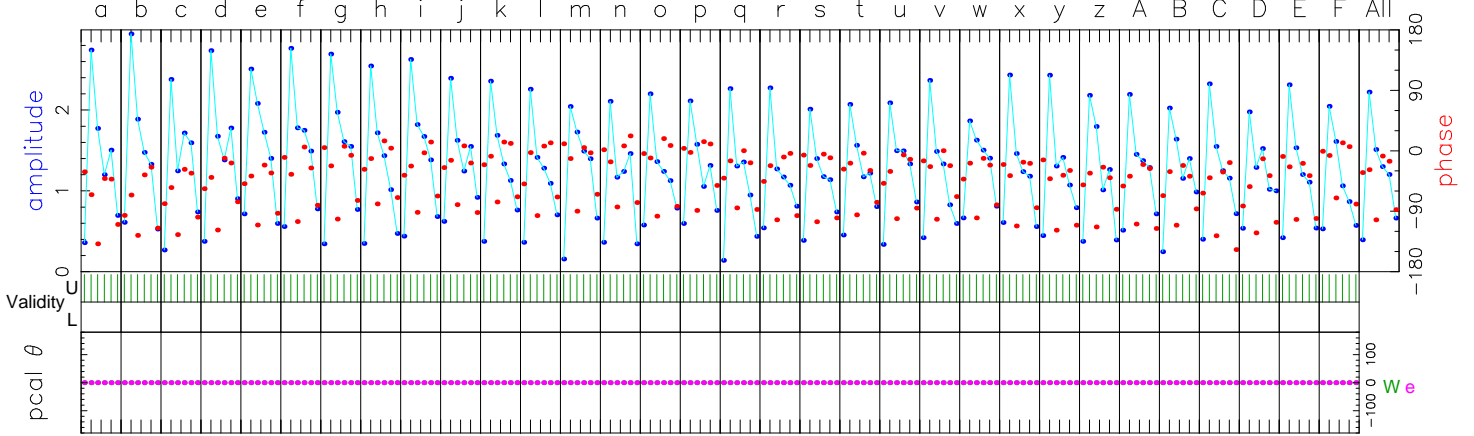
Fringe quality 4

SNR 79.7  
Int time 239.949  
Amp 0.997  
Phase -41.3  
PFD 0.0e+00  
Delays (us)  
SBD 0.013808  
MBD 0.003987  
Fringe rate (Hz)  
0.186697  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162303  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"



Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



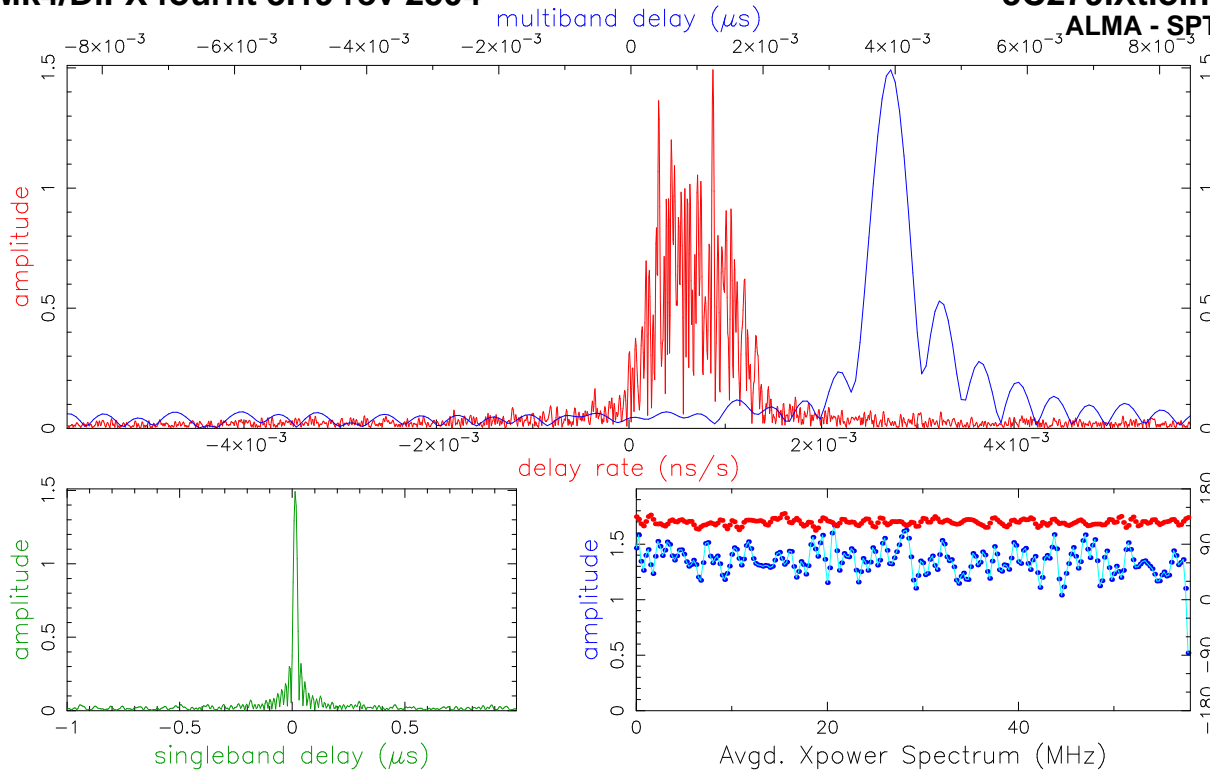
	214162.2	214221.3	214279.2	214338.2	214397.1	214455.2	214514.3	214572.2	214631.1	214690.2	214748.1	214807.3	214865.2	214924.1	214983.2	215041.1	215100.3	215158.2	215217.1	215276.2	215334.1	215393.2	215451.1	215510.3	215569.2	215627.1	215686.2	215744.1	215803.3	215862.2	215920.1	215979.2	Req (MHz)	All												
	-73.1	-71.7	-58.5	-47.5	-53.3	-39.8	-32.3	-22.5	-30.2	-32.3	-21.7	-22.7	-26.5	-14.9	-22.4	-17.5	-30.0	-39.3	-38.2	-39.8	-41.8	-36.3	-40.9	-45.1	-55.5	-55.6	-52.5	-55.5	-60.0	-63.0	-44.6	-21.6	Phase	-41.3												
	1.1	1.2	1.1	1.2	1.3	1.2	1.0	1.2	1.0	1.2	1.0	0.9	1.0	0.9	1.0	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	0.9	1.0	0.9	Ampl	1.0										
	236.1	236.3	236.1	236.1	236.3	236.5	236.2	236.2	236.3	236.2	236.4	236.1	236.1	236.2	236.1	236.2	236.0	235.9	236.1	236.1	236.2	236.0	236.1	236.1	236.2	236.5	236.1	236.3	236.2	236.5	236.3	236.5	236.5	Std box	236.2											
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used											
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs										
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs									
W/e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase								
We	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ManI PC								
w	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp						
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000				
w	B00UY	B01UY	B02UY	B03UY	B04UY	B05UY	B06UY	B07UY	B08UY	B09UY	B10UY	B11UY	B12UY	B13UY	B14UY	B15UY	B16UY	B17UY	B18UY	B19UY	B20UY	B21UY	B22UY	B23UY	B24UY	B25UY	B26UY	B27UY	B28UY	B29UY	B30UY	B31UY									Chan ids					
																																												Tracks		
e	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR													Chan ids	

Group delay (usec)(model)	1.02953621581E+04	Apriori delay (usec)	1.02953581714E+04	Resid mbdelay (usec)	3.98663E-03	+/-	3.7E-06
Sband delay (usec)	1.02953719797E+04	Apriori clock (usec)	-2.1068201E+03	Resid sbdelay (usec)	1.38083E-02	+/-	1.2E-04
Phase delay (usec)	1.02953581709E+04	Apriori clockrate (us/s)	-1.3040000E-06	Resid phdelay (usec)	-5.35692E-07	+/-	1.9E-08
Delay rate (us/s)	-1.00961684544E+00	Apriori rate (us/s)	-1.00961771719E+00	Resid rate (us/s)	8.71752E-07	+/-	1.3E-10
Total phase (deg)	256.4	Apriori accel (us/s/s)	-7.30050186122E-05	Resid phase (deg)	-41.3	+/-	1.4

ph/seg (deg)	RMS 36.4	Theor. 1.8	Amplitude Search (2048X128)	0.978	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	63.9	3.1	Interp.	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: disabled	mb window (us)	-0.009	0.009
ph/frq (deg)	16.1	4.1	Inc. seg. avg.	1.226	Sample rate(MISamp/s): 116		dr window (ns/s)	-0.006	0.006
amp/frq (%)	11.2	7.1	Inc. frq. avg.	1.028	Data rate(Mb/s): 7424	nlags: 232	ion window (TEC)	0.00	0.00

W: az 284.6 el 43.7 pa 116.5 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) 14333.777 14835.801 simultaneous interpolator  
Control file: cf\_3597.from.mike.titus Input file: /home/gliindah/golden/from-cannon/1000/111-0630/We..Xtioin Output file: Suppressed by test mode



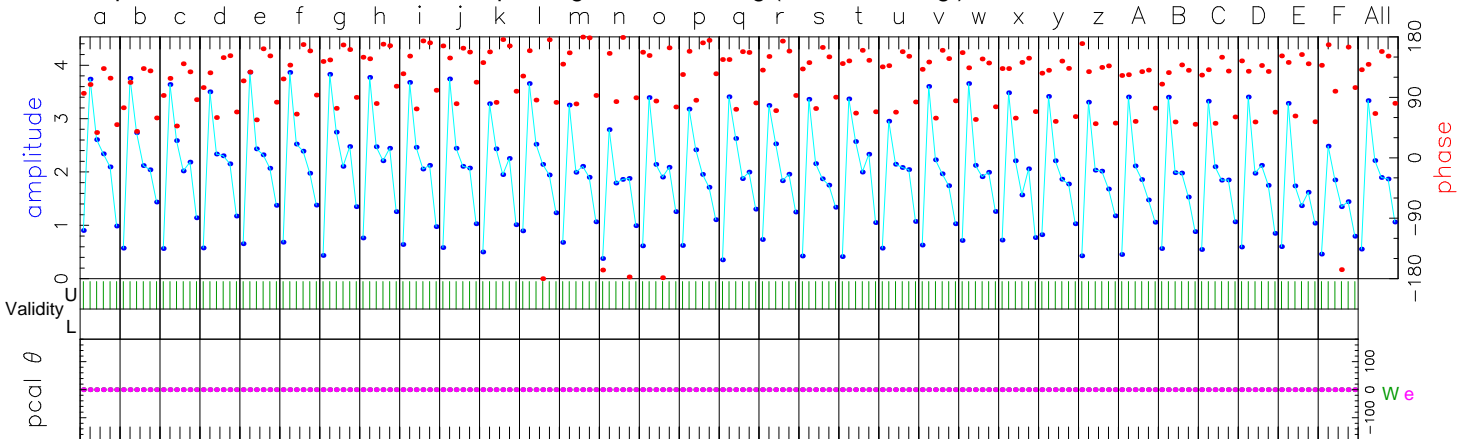


Fringe quality 4

SNR 120.7  
Int time 239.944  
Amp 1.511  
Phase 125.6  
PFD 0.0e+00  
Delays (us)  
SBD 0.013651  
MBD 0.003923  
Fringe rate (Hz)  
0.186735  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162315  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.7969	214221.4221	214279.4279	214338.4338	214397.4455	214455.4514	214514.4572	214572.4631	214631.4690	214690.4748	214748.4807	214807.4865	214865.4924	214924.4983	215041.5100	215100.5158	215158.5217	215276.5334	215333.5393	215451.5510	215510.5569	215627.5686	215744.5803	215803.5862	215920.5979	Req (MHz)	All											
96.5	96.5	105.9	117.4	120.4	128.4	133.0	139.8	139.4	138.1	142.7	142.0	146.0	149.4	140.6	143.5	127.7	132.7	128.1	125.6	126.5	120.7	119.7	113.4	111.6	107.5	110.0	113.3	114.7	123.1	149.7	Phase	125.6						
1.7	1.7	1.7	1.6	1.7	1.7	1.8	1.8	1.6	1.7	1.6	1.6	1.5	1.3	1.5	1.5	1.6	1.5	1.5	1.6	1.5	1.6	1.5	1.4	1.5	1.4	1.4	1.5	1.3	1.2	Ampl	1.6							
236.2	236.2	236.3	236.3	236.4	236.4	236.3	236.2	236.2	236.3	236.1	236.1	236.2	236.1	236.2	236.1	236.0	235.9	236.1	236.2	236.0	236.0	236.2	235.9	236.0	236.0	236.1	236.1	236.1	236.0	236.4	236.4	236.5	Std box	236.2				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used					
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
We	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase		
We	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Manl PC		
w	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
w	B00UX	B01UX	B02UX	B03UX	B04UX	B05UX	B06UX	B07UX	B08UX	B09UX	B10UX	B11UX	B12UX	B13UX	B14UX	B15UX	B16UX	B17UX	B18UX	B19UX	B20UX	B21UX	B22UX	B23UX	B24UX	B25UX	B26UX	B27UX	B28UX	B29UX	B30UX	B31UX				Chan ids		
e	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR				Chan ids		

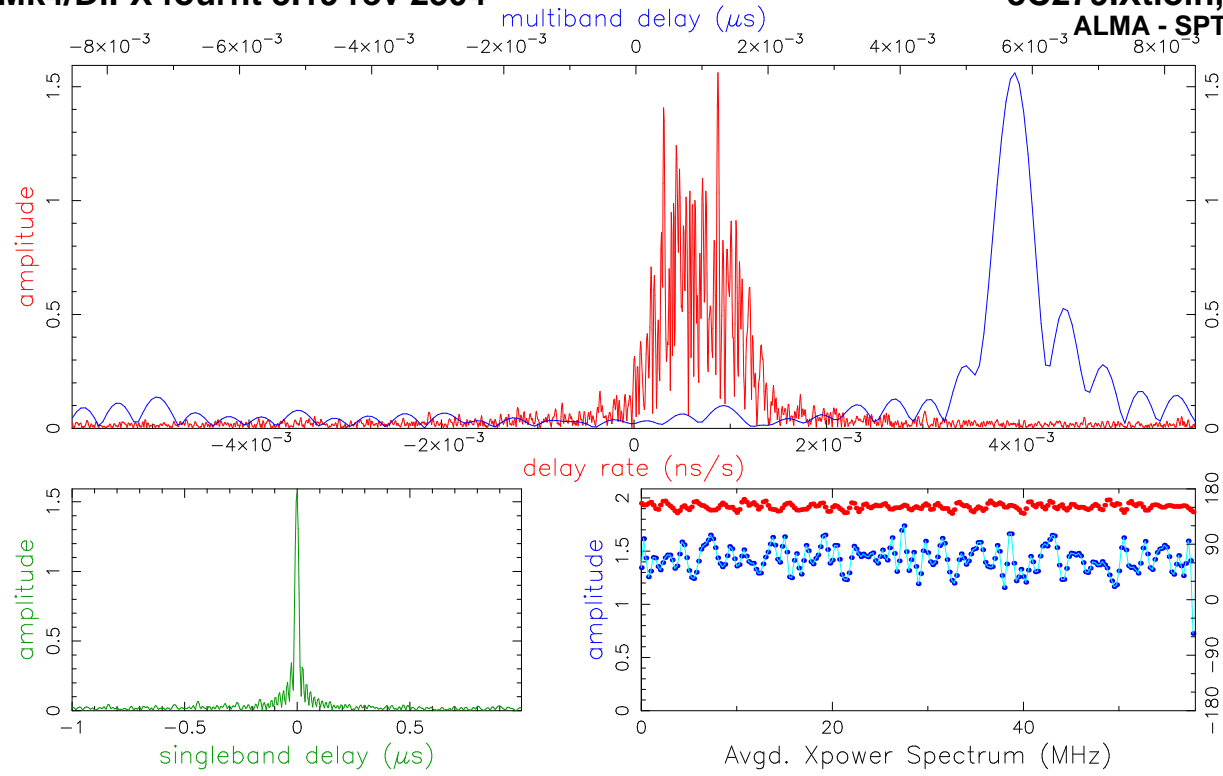
Group delay (usec)(model) 1.02953620940E+04 Apriori delay (usec) 1.02953581714E+04 Resid mbdelay (usec) 3.92260E-03 +/- 2.4E-06  
 Sband delay (usec) 1.02953718228E+04 Apriori clock (usec) -2.1068201E+03 Resid sbdelay (usec) 1.36513E-02 +/- 7.9E-05  
 Phase delay (usec) 1.02953581731E+04 Apriori clockrate (us/s) -1.3040000E-06 Resid phdelay (usec) 1.62963E-06 +/- 1.2E-08  
 Delay rate (us/s) -1.00961684526E+00 Apriori rate (us/s) -1.00961771719E+00 Resid rate (us/s) 8.71932E-07 +/- 8.9E-11  
 Total phase (deg) 63.3 Apriori accel (us/s/s) -7.30050186122E-05 Resid phase (deg) 125.6 +/- 0.9

RMS Theor. Amplitude 1.511 +/- 0.013 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 35.3 1.2 Search (2048X128) 1.465 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 62.6 2.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 15.0 2.7 Inc. seg. avg. 1.839 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 10.3 4.7 Inc. frq. avg. 1.554 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

W: az 284.6 el 43.7 pa 116.5 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) 14333.777 14835.801 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glihdahl/golden/from-cannon/1000/111-0630/We..Xtioin Output file: Suppressed by test mode

Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, We  
ALMA - SPT, fgroup B, pol YL

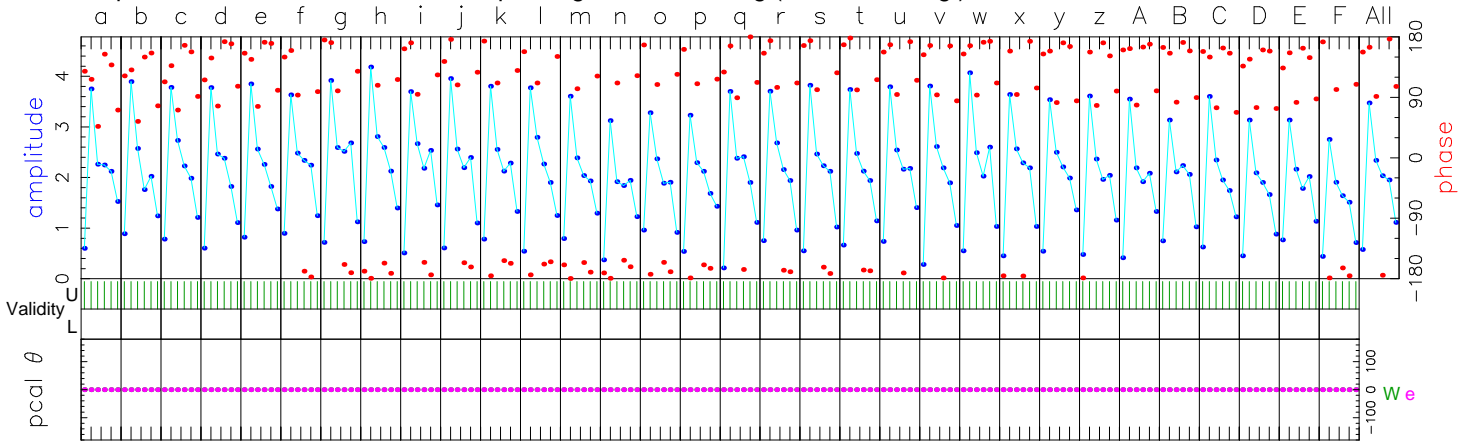


Fringe quality 4

SNR 127.3  
Int time 239.964  
Amp 1.593  
Phase 151.4  
PFD 0.0e+00  
Delays (us)  
SBD -0.001427  
MBD 0.005723  
Fringe rate (Hz)  
0.186683  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162327  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.214221	214279.214338	214397.214455	214514.214572	214631.214690	214748.214807	214865.214924	214983.215041	215100.215158	215217.215276	215334.215393	215451.215510	215569.215627	215686.215744	215803.215862	215920.215979	Req (MHz)	All																			
111.2	117.9	126.7	138.1	137.7	151.7	165.6	167.6	160.3	167.2	172.6	168.1	171.3	169.5	165.2	155.1	160.4	163.9	163.0	153.1	148.1	151.4	150.6	140.2	139.7	143.2	142.6	132.1	131.8	134.4	164.1	Phase	151.4					
1.7	1.7	1.7	1.7	1.7	1.9	1.9	1.7	1.8	1.8	1.7	1.6	1.4	1.6	1.5	1.6	1.7	1.7	1.6	1.8	1.6	1.8	1.7	1.6	1.6	1.6	1.6	1.5	1.4	1.6	1.2	Ampl	1.6					
232.8	232.7	232.7	232.8	232.8	232.6	232.7	232.8	232.6	232.6	232.7	232.7	232.7	232.7	232.6	232.7	232.5	232.6	232.6	232.6	232.6	232.7	232.7	232.5	232.6	232.7	232.8	232.5	232.5	232.8	232.9	233.0	Std box	232.7				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used					
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
W/e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
We	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC		
w	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
w	B00UY	B01UY	B02UY	B03UY	B04UY	B05UY	B06UY	B07UY	B08UY	B09UY	B10UY	B11UY	B12UY	B13UY	B14UY	B15UY	B16UY	B17UY	B18UY	B19UY	B20UY	B21UY	B22UY	B23UY	B24UY	B25UY	B26UY	B27UY	B28UY	B29UY	B30UY	B31UY		Chan ids			
e	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids			

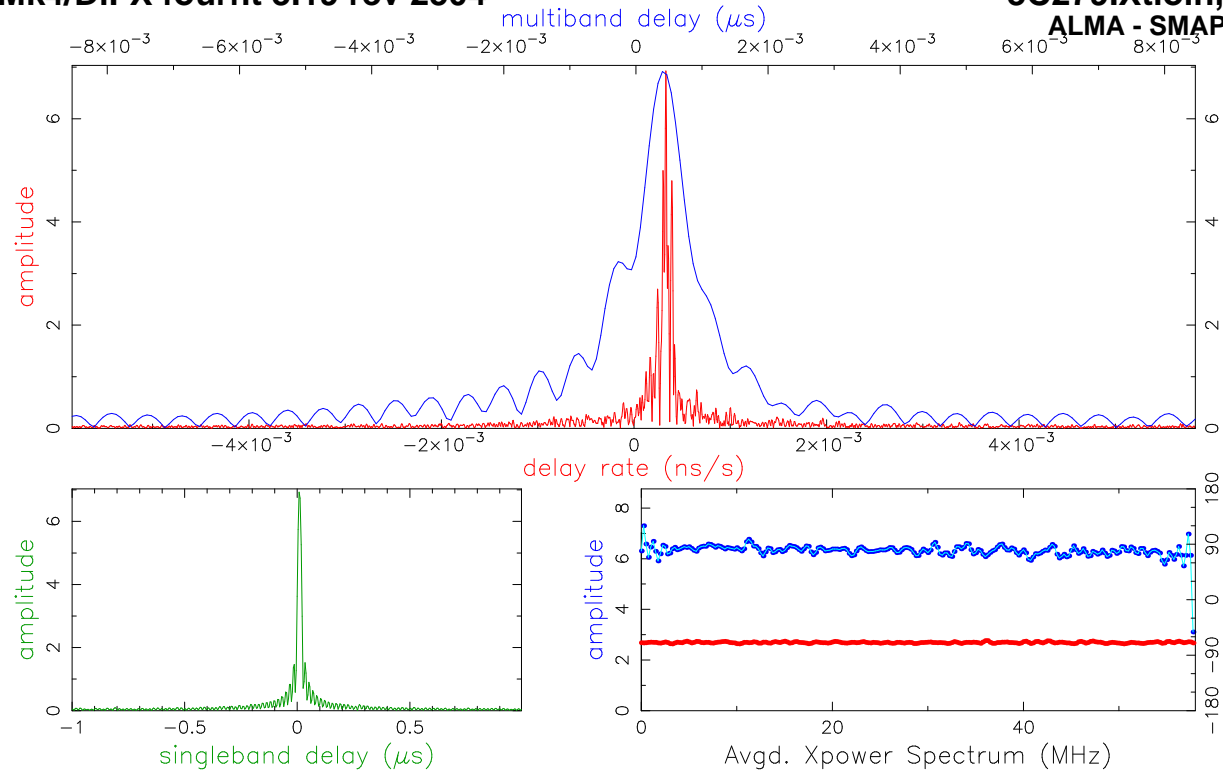
Group delay (usec)(model) 1.02953638946E+04 Apriori delay (usec) 1.02953581714E+04 Resid mbdelay (usec) 5.72319E-03 +/- 2.3E-06  
 Sband delay (usec) 1.02953567444E+04 Apriori clock (usec) -2.1068201E+03 Resid sbdelay (usec) -1.42703E-03 +/- 7.5E-05  
 Phase delay (usec) 1.02953581734E+04 Apriori clockrate (us/s) -1.3040000E-06 Resid phdelay (usec) 1.96352E-06 +/- 1.2E-08  
 Delay rate (us/s) -1.00961684550E+00 Apriori rate (us/s) -1.00961771719E+00 Resid rate (us/s) 8.71688E-07 +/- 8.4E-11  
 Total phase (deg) 89.1 Apriori accel (us/s/s) -7.30050186122E-05 Resid phase (deg) 151.4 +/- 0.9

RMS Theor. Amplitude 1.593 +/- 0.013 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 35.7 1.1 Search (2048X128) 1.550 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 61.9 1.9 Interp. 0.000 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 16.9 2.5 Inc. seg. avg. 1.933 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 9.2 4.4 Inc. frq. avg. 1.640 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

W: az 284.6 el 43.7 pa 116.5 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) 14333.777 14835.801 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glihdahl/golden/from-cannon/1000/111-0630/We..Xtioin Output file: Suppressed by test mode

Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, Wx  
ALMA - SMAP, fgroup B, pol XL

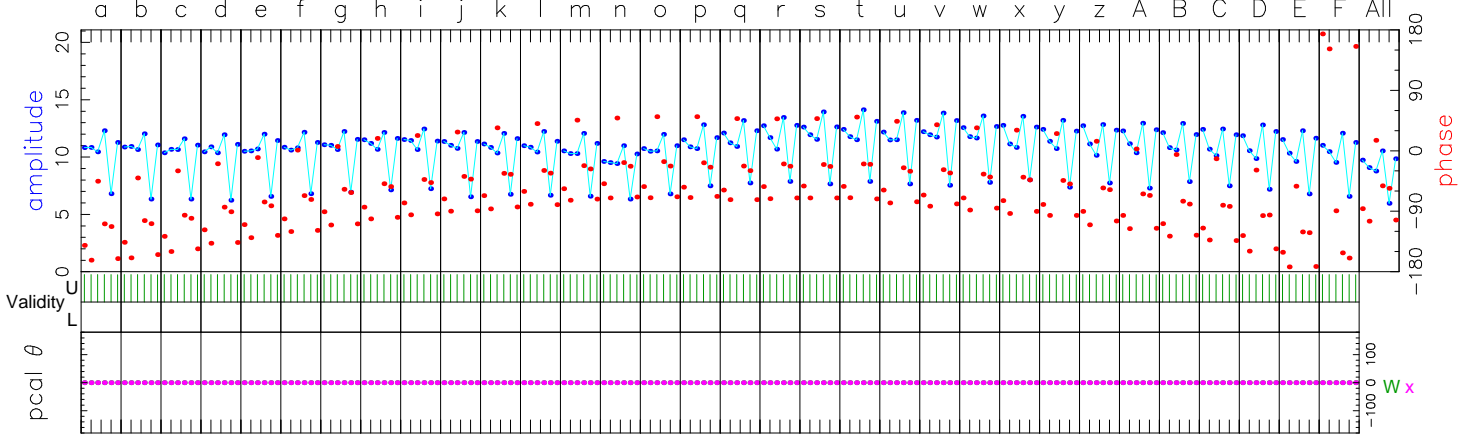


Fringe quality 4

SNR 566.1  
Int time 239.595  
Amp 7.033  
Phase -69.6  
PFD 0.0e+00  
Delays (us)  
SBD 0.010209  
MBD 0.000420  
Fringe rate (Hz) 0.071371  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162342  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.2	214221.2	214279.2	214338.2	214397.2	214455.2	214514.2	214572.2	214631.2	214690.2	214748.2	214807.2	214865.2	214924.2	214983.2	215041.2	215100.2	215158.2	215217.2	215276.2	215334.2	215393.2	215451.2	215510.2	215569.2	215627.2	215686.2	215744.2	215803.2	215862.2	215920.2	215979.2	Req (MHz)	All					
Phase	-126.0	-121.2	-112.4	-102.2	-93.1	-84.0	-74.9	-66.5	-60.6	-55.3	-50.7	-45.6	-38.9	-34.3	-34.4	-35.5	-40.2	-37.5	-36.4	-36.1	-42.3	-46.8	-52.3	-57.3	-62.7	-73.8	-81.7	-92.2	-99.1	-112.9	-137.8	-171.9	Phase	-69.6					
Ampl	8.1	8.0	7.7	7.8	7.9	8.2	8.3	8.4	8.1	8.0	8.0	7.8	7.2	7.8	8.4	8.7	9.0	9.1	9.1	8.9	9.0	8.9	8.8	8.6	8.6	8.6	8.5	8.4	8.4	8.1	7.9	Ampl	8.3						
Std box	235.4	235.4	235.4	235.5	235.5	235.4	235.5	235.5	235.4	235.4	235.5	235.4	235.4	235.3	235.3	235.4	235.4	235.4	235.4	235.4	235.2	235.3	235.4	235.3	235.2	235.3	235.2	235.3	235.2	235.1	235.0	235.0	Std box	235.4					
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used					
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
W.x	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
W.x	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC		
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
w	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
W	B00UX	B01UX	B02UX	B03UX	B04UX	B05UX	B06UX	B07UX	B08UX	B09UX	B10UX	B11UX	B12UX	B13UX	B14UX	B15UX	B16UX	B17UX	B18UX	B19UX	B20UX	B21UX	B22UX	B23UX	B24UX	B25UX	B26UX	B27UX	B28UX	B29UX	B30UX	B31UX				Chan ids			
x	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL				Chan ids			

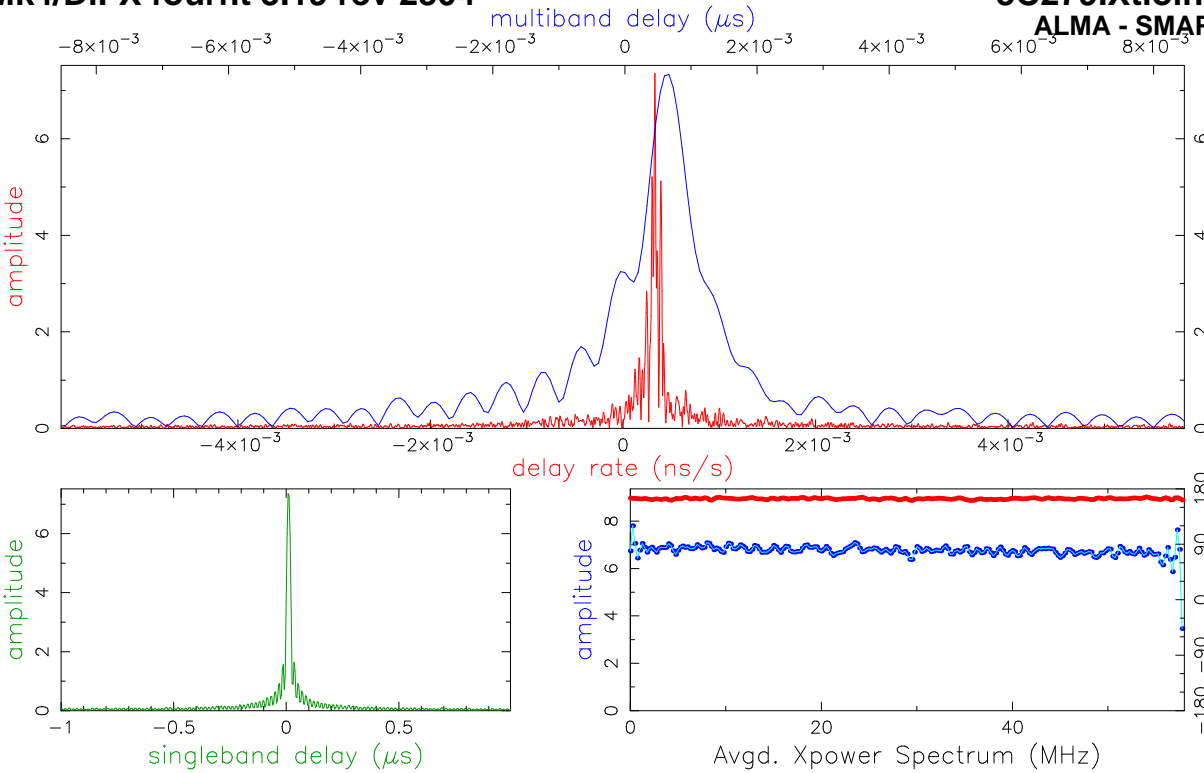
Group delay (usec)(model)	-1.48905588757E+03	Apriori delay (usec)	-1.48905630789E+03	Resid mbdelay (usec)	4.20320E-04	+/-	5.2E-07
Sband delay (usec)	-1.48904609878E+03	Apriori clock (usec)	-2.1061833E+03	Resid sbdelay (usec)	1.02091E-02	+/-	1.7E-05
Phase delay (usec)	-1.48905630879E+03	Apriori clockrate (us/s)	1.8899999E-07	Resid phdelay (usec)	-9.03090E-07	+/-	2.6E-09
Delay rate (us/s)	-1.99126182256E+00	Apriori rate (us/s)	-1.99126215582E+00	Resid rate (us/s)	3.33254E-07	+/-	1.9E-11
Total phase (deg)	-286.3	Apriori accel (us/s/s)	5.14747194084E-06	Resid phase (deg)	-69.6	+/-	0.2

ph/seg (deg)	41.6	RMS	41.6	Theor.	0.2	Amplitude	7.033 +/- 0.012	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	34.9	Search (2048X128)	6.610	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000				
ph/frq (deg)	36.4	Inc. seg. avg.	9.006	Bits/sample:	2x2	SampCntNorm:	disabled	mb window (us)	-0.009	0.009		
amp/frq (%)	19.5	Inc. frq. avg.	8.325	Sample rate (MSamp/s):	116	dr window (ns/s)	-0.006	0.006				
W: az 284.6 el 43.7 pa 116.5	x: az 116.9 el 40.5 pa -57.4	u,v (fr/asec)	28503.971 -16051.132	Data rate (Mb/s):	7424	nlags:	232	t_cohere	infinite	ion window (TEC)	0.00	0.00

Control file: cf\_3597.from.mike.titus Input file: /home/gliindah/golden/from-cannon/1000/111-0630/Wx.Xtioin Output file: Suppressed by test mode

Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, Wx  
ALMA - SMAP, fgroup B, pol YR

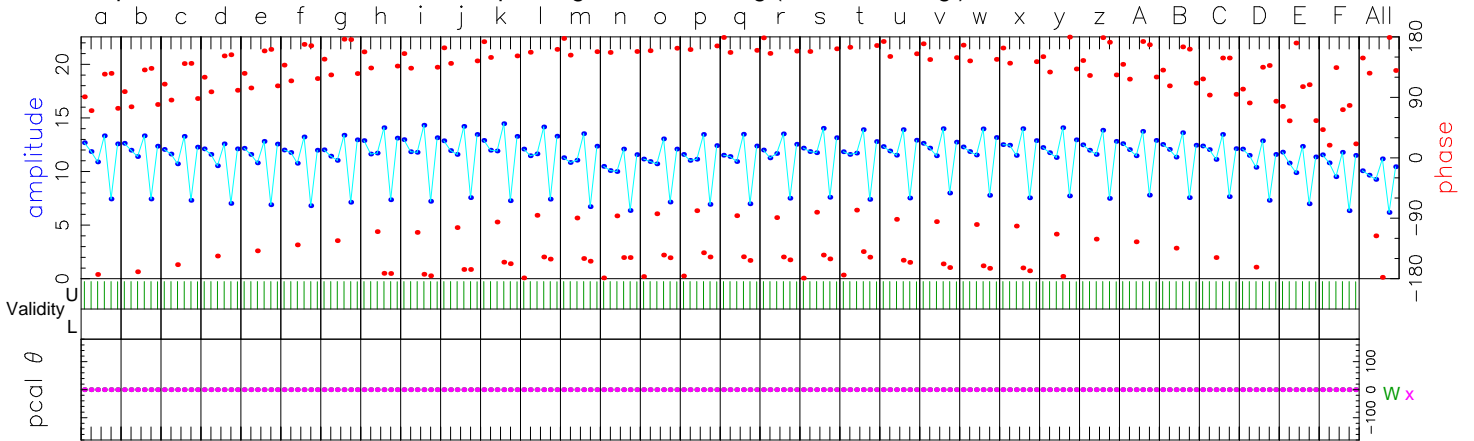


Fringe quality 4

SNR 605.3  
Int time 239.600  
Amp 7.521  
Phase 163.7  
PFD 0.0e+00  
Delays (us)  
SBD 0.010545  
MBD 0.000642  
Fringe rate (Hz) 0.071404  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162354  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

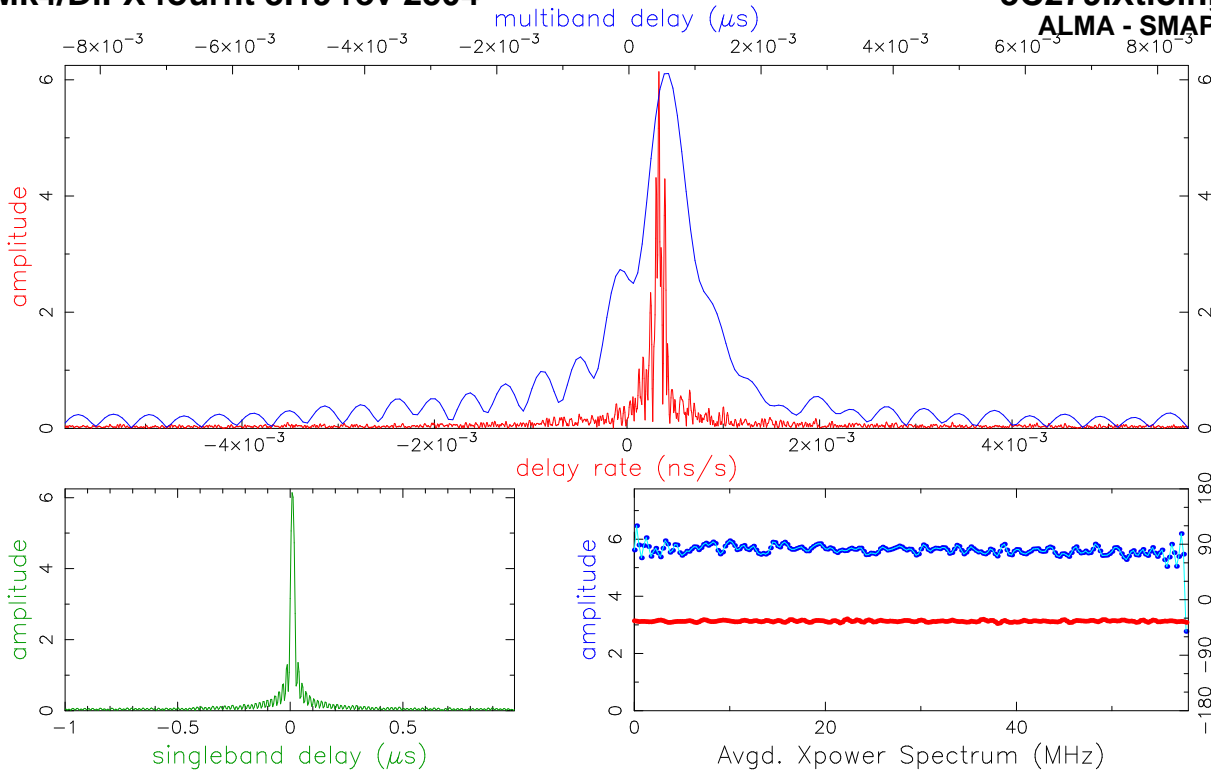


	214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All				
106.6	113.6	122.8	134.1	140.8	151.3	159.6	171.3	169.4	177.4	-173.2	-164.6	-167.9	-165.7	-162.6	-160.1	-166.1	-166.0	-166.0	-163.6	-158.5	-171.2	-176.4	-178.6	177.5	165.5	159.2	154.1	145.5	130.9	117.8	90.1	54.6	Phase	163.7				
9.0	9.0	8.8	8.6	8.7	8.7	9.0	9.2	9.3	9.4	9.4	9.1	8.5	7.9	8.5	8.6	8.7	8.9	9.0	8.9	9.1	9.2	9.2	9.2	9.1	9.1	9.2	9.0	8.9	8.6	8.3	8.1	Ampl	8.9					
235.4	235.5	235.5	235.6	235.6	235.5	235.5	235.5	235.5	235.5	235.5	235.5	235.5	235.5	235.4	235.5	235.4	235.5	235.5	235.4	235.3	235.4	235.4	235.4	235.4	235.3	235.4	235.3	235.3	235.2	235.1	235.0	Std box	235.4					
U/L	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used					
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
W:x	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
W:x	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC		
w	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
W	B00UY	B01UY	B02UY	B03UY	B04UY	B05UY	B06UY	B07UY	B08UY	B09UY	B10UY	B11UY	B12UY	B13UY	B14UY	B15UY	B16UY	B17UY	B18UY	B19UY	B20UY	B21UY	B22UY	B23UY	B24UY	B25UY	B26UY	B27UY	B28UY	B29UY	B30UY	B31UY		Chan ids				
x	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids				

Group delay (usec)(model) -1.48905566616E+03 Apriori delay (usec) -1.48905630789E+03 Resid mbdelay (usec) 6.41726E-04 +/- 4.9E-07  
 Sband delay (usec) -1.48904576306E+03 Apriori clock (usec) -2.1061833E+03 Resid sbdelay (usec) 1.05448E-02 +/- 1.6E-05  
 Phase delay (usec) -1.48905630577E+03 Apriori clockrate (us/s) 1.8899999E-07 Resid phdelay (usec) 2.12340E-06 +/- 2.5E-09  
 Delay rate (us/s) -1.99126182240E+00 Apriori rate (us/s) -1.99126215582E+00 Resid rate (us/s) 3.33411E-07 +/- 1.8E-11  
 Total phase (deg) -52.9 Apriori accel (us/s/s) 5.14747194084E-06 Resid phase (deg) 163.7 +/- 0.2

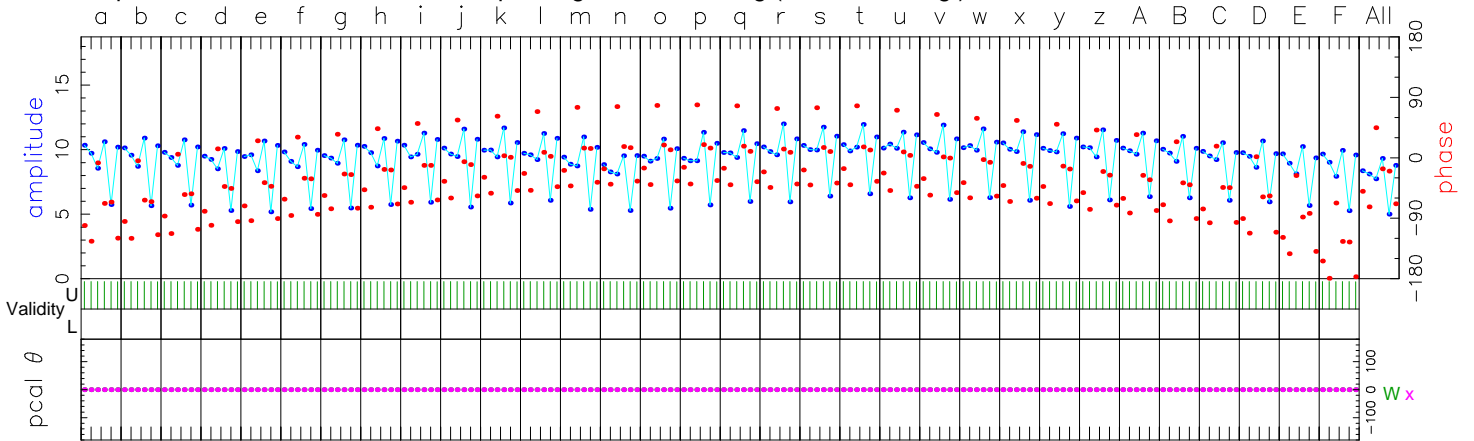
ph/seg (deg) RMS 40.5 Theor. 0.2 Amplitude 7.521 +/- 0.012 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 33.6 0.4 Search (2048X128) 6.868 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 37.3 0.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 18.7 0.9 Inc. seg. avg. 9.483 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 Inc. frq. avg. 8.881 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

W: az 284.6 el 43.7 pa 116.5 x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 28503.971 -16051.132 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/gbindahl/golden/from-cannon/1000/111-0630/Wx..Xtioin Output file: Suppressed by test mode



Fringe quality 4  
SNR 502.9  
Int time 239.595  
Amp 6.248  
Phase -35.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.010347  
MBD 0.000570  
Fringe rate (Hz) 0.071404  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400  
Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162407  
2018:237:201327  
RA & Dec (J2000) 12h56m11.166567s -5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All			
-86.7	-81.8	-73.0	-63.2	-57.6	-48.7	-41.3	-35.8	-28.5	-22.8	-14.9	-10.4	-3.4	-1.6	-0.3	0.5	-1.7	-5.7	-3.2	-1.2	-9.5	-16.8	-21.5	-26.9	-30.1	-38.6	-45.1	-55.8	-60.8	-75.8	-104.8	-142.9	Phase	-35.0			
7.2	7.3	7.1	6.9	7.0	6.9	7.2	7.4	7.4	7.5	7.5	7.4	7.0	6.5	7.0	7.2	7.4	7.6	7.8	7.8	7.7	7.6	7.6	7.6	7.4	7.6	7.6	7.3	7.2	7.1	6.8	6.9	Ampl	7.3			
235.4	235.5	235.5	235.6	235.6	235.5	235.4	235.5	235.5	235.5	235.5	235.4	235.5	235.4	235.4	235.5	235.3	235.4	235.4	235.4	235.3	235.4	235.3	235.3	235.3	235.3	235.3	235.2	235.3	235.2	235.0	235.0	Std box	235.4			
U/L	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
W:x	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
W:x	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC			
w	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
W	B00UX	B01UX	B02UX	B03UX	B04UX	B05UX	B06UX	B07UX	B08UX	B09UX	B10UX	B11UX	B12UX	B13UX	B14UX	B15UX	B16UX	B17UX	B18UX	B19UX	B20UX	B21UX	B22UX	B23UX	B24UX	B25UX	B26UX	B27UX	B28UX	B29UX	B30UX	B31UX	Chan ids			
x	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	Chan ids			

Group delay (usec)(model) -1.48905573783E+03 Apriori delay (usec) -1.48905630789E+03 Resid mbdelay (usec) 5.70054E-04 +/- 5.9E-07  
 Sband delay (usec) -1.48904596058E+03 Apriori clock (usec) -2.1061833E+03 Resid sbdelay (usec) 1.03473E-02 +/- 1.9E-05  
 Phase delay (usec) -1.48905630834E+03 Apriori clockrate (us/s) 1.8899999E-07 Resid phdelay (usec) -4.54448E-07 +/- 3.0E-09  
 Delay rate (us/s) -1.99126182241E+00 Apriori rate (us/s) -1.99126215582E+00 Resid rate (us/s) 3.33410E-07 +/- 2.1E-11  
 Total phase (deg) -251.7 Apriori accel (us/s/s) 5.14747194084E-06 Resid phase (deg) -35.0 +/- 0.2

ph/seg (deg) RMS Theor. Amplitude 6.248 +/- 0.012 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 40.3 0.3 Search (2048X128) 5.850 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 35.8 0.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 17.5 1.1 Inc. seg. avg. 7.900 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 Inc. frq. avg. 7.295 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

W: az 284.6 el 43.7 pa 116.5 x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 28503.971 -16051.132 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/gliindah/golden/from-cannon/1000/111-0630/Wx.Xtioin Output file: Suppressed by test mode

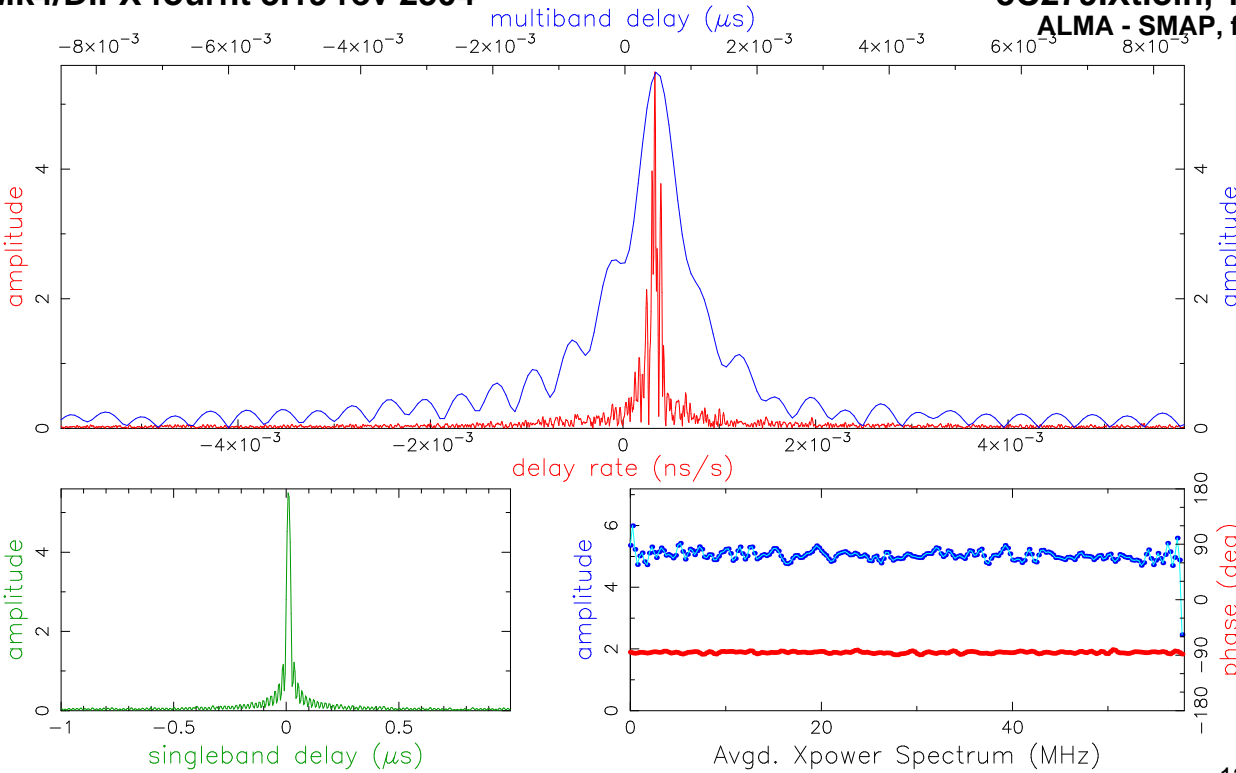
Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, Wx  
ALMA - SMAP, fgroup B, pol XL

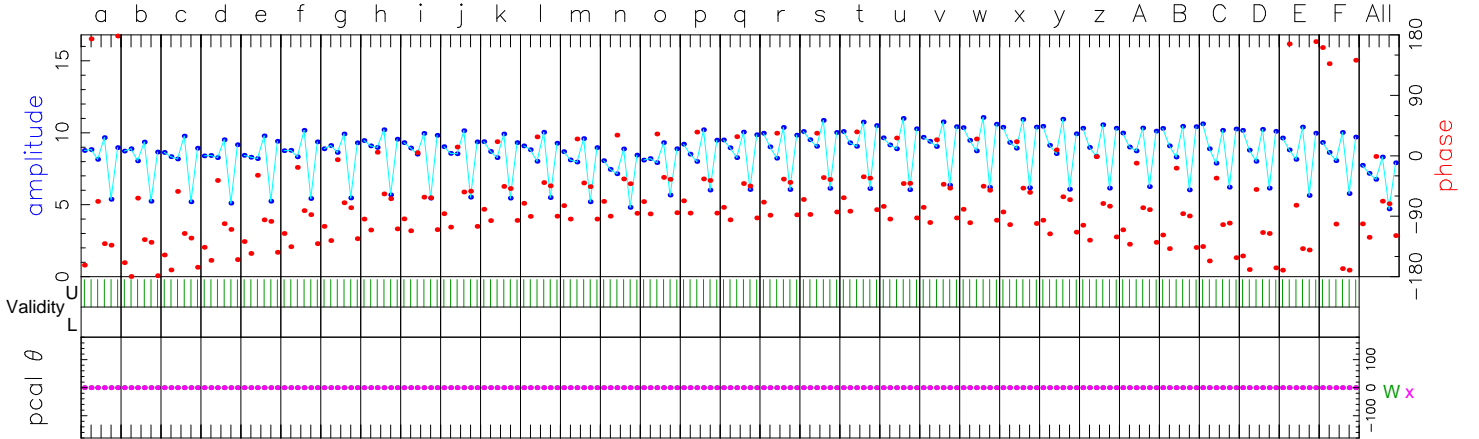
Fringe quality 3

SNR 450.7  
Int time 239.600  
Amp 5.600  
Phase -85.8  
PFD 0.0e+00  
Delays (us)  
SBD 0.010370  
MBD 0.000484  
Fringe rate (Hz)  
0.071379  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162419  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"



Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All			
Phase	-148.5	-143.8	-133.1	-120.2	-111.2	-99.3	-89.3	-75.7	-77.8	-69.9	-62.9	-56.8	-58.9	-53.3	-50.4	-51.3	-60.1	-53.9	-50.0	-47.5	-58.3	-60.9	-64.2	-67.4	-80.0	-89.2	-95.1	-104.2	-120.5	-133.6	-156.7	174.5	Phase	-85.8			
Ampl	6.5	6.3	6.4	6.2	6.4	6.6	6.5	6.9	6.8	6.6	6.6	6.6	6.6	6.2	5.8	6.2	6.7	6.7	6.9	7.2	7.3	7.0	7.1	7.2	7.2	7.0	7.1	7.0	7.1	7.0	6.8	6.7	Ampl	6.7			
Std box	235.4	235.6	235.5	235.6	235.5	235.5	235.5	235.5	235.4	235.5	235.5	235.4	235.5	235.5	235.4	235.4	235.4	235.5	235.4	235.4	235.4	235.3	235.3	235.4	235.3	235.3	235.3	235.3	235.2	235.2	235.1	235.0	Std box	235.4			
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
W:x	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase		
W:x	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC	
w	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
W	B00UY	B01UY	B02UY	B03UY	B04UY	B05UY	B06UY	B07UY	B08UY	B09UY	B10UY	B11UY	B12UY	B13UY	B14UY	B15UY	B16UY	B17UY	B18UY	B19UY	B20UY	B21UY	B22UY	B23UY	B24UY	B25UY	B26UY	B27UY	B28UY	B29UY	B30UY	B31UY		Chan ids			
x	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids			

Group delay (usec)(model)	-1.48905582403E+03	Apriori delay (usec)	-1.48905630789E+03	Resid mbdelay (usec)	4.83859E-04	+/-	6.5E-07
Sband delay (usec)	-1.48904593823E+03	Apriori clock (usec)	-2.1061833E+03	Resid sbdelay (usec)	1.03697E-02	+/-	2.1E-05
Phase delay (usec)	-1.48905630900E+03	Apriori clockrate (us/s)	1.8899999E-07	Resid phdelay (usec)	-1.11248E-06	+/-	3.3E-09
Delay rate (us/s)	-1.99126182252E+00	Apriori rate (us/s)	-1.99126215582E+00	Resid rate (us/s)	3.33291E-07	+/-	2.4E-11
Total phase (deg)	-302.4	Apriori accel (us/s/s)	5.14747194084E-06	Resid phase (deg)	-85.8	+/-	0.3

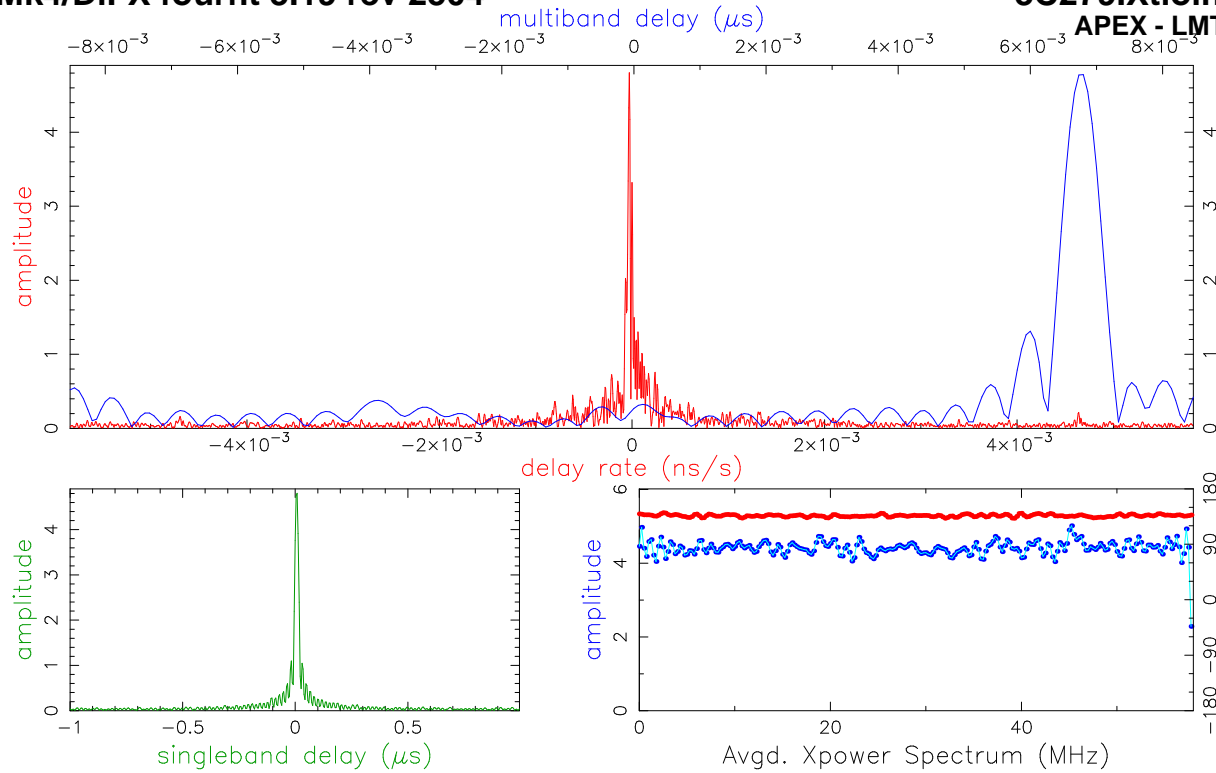
ph/seg (deg)	41.5	0.3	Search (2048X128)	5.207	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	34.3	0.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: disabled	mb window (us)	-0.009	0.009
ph/frq (deg)	37.9	0.7	Inc. seg. avg.	7.113	Sample rate(MISamp/s): 116	nlags: 232	dr window (ns/s)	-0.006	0.006
amp/frq (%)	21.3	1.3	Inc. frq. avg.	6.740	Data rate(Mb/s): 7424	t_cohere infinite	ion window (TEC)	0.00	0.00
W: az 284.6 el 43.7 pa 116.5		x: az 116.9 el 40.5 pa -57.4		u,v (fr/asec) 28503.971 -16051.132					simultaneous interpolator

Control file: cf\_3597.from.mike.titus Input file: /home/gliindah/golden/from-cannon/1000/111-0630/Wx.Xtioin Output file: Suppressed by test mode



Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, Lg  
APEX - LMT, fgroup B, pol LL

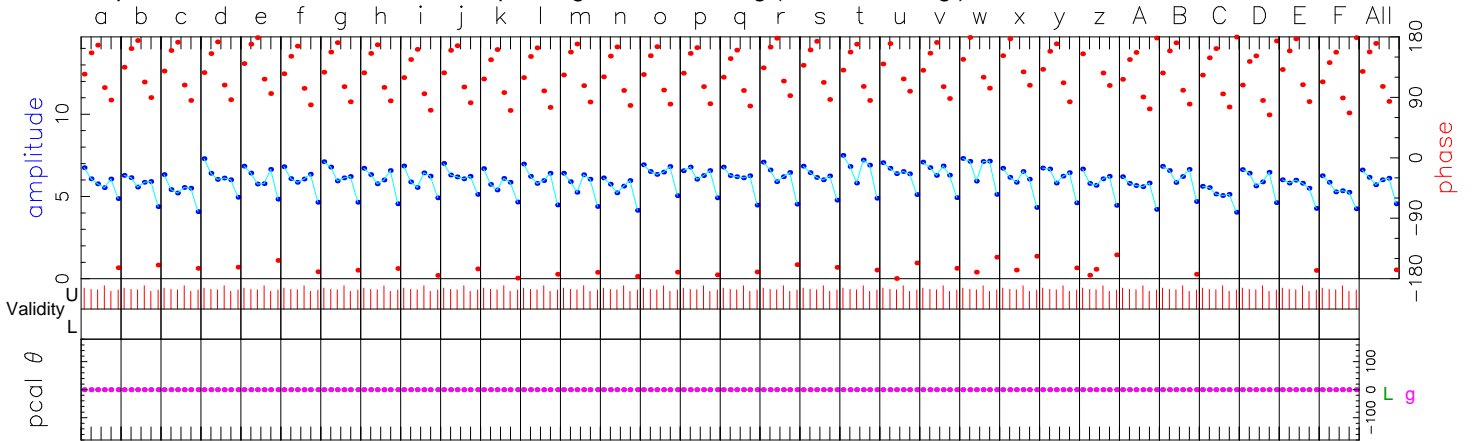


Fringe quality 6

SNR 336.7  
Int time 173.969  
Amp 4.903  
Phase 136.6  
PFD 0.0e+00  
Delays (us)  
SBD 0.006716  
MBD 0.006769  
Fringe rate (Hz)  
-0.006261  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162432  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



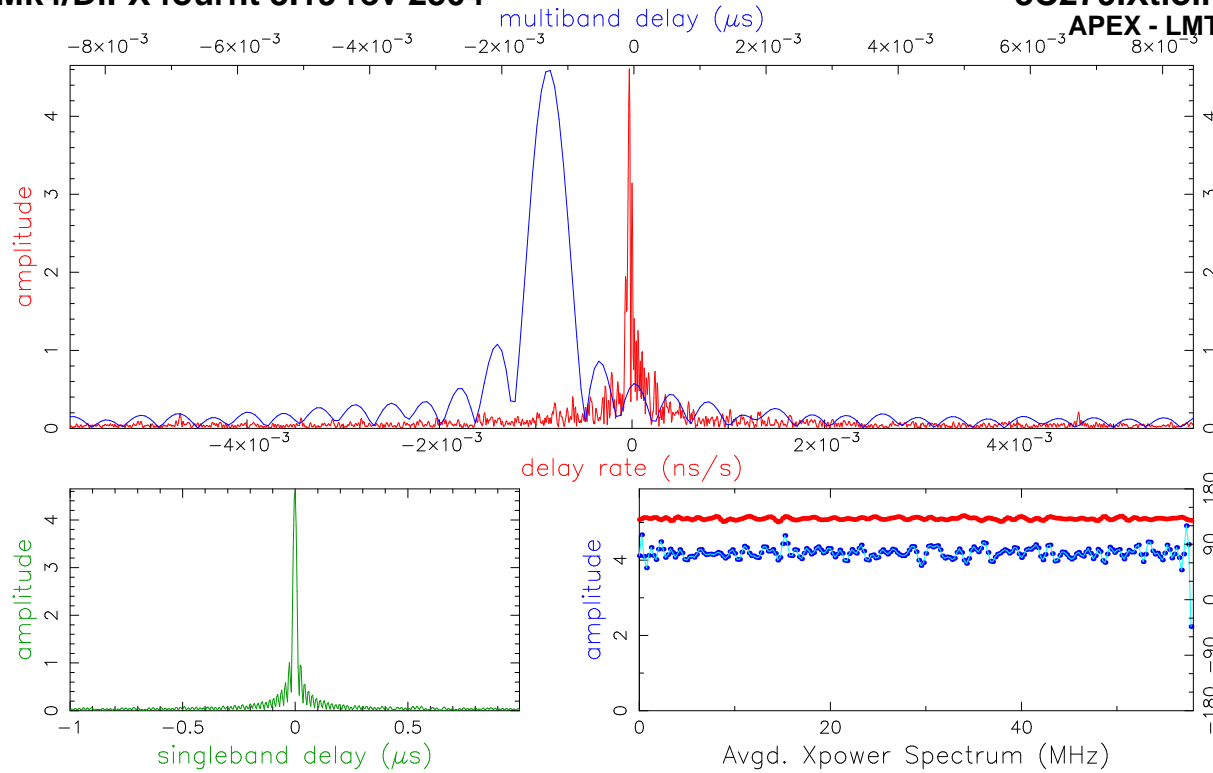
214162.7969	214221.294279	214279.294338	214397.294455	214514.294572	214631.294690	214748.294807	214865.294924	214983.295041	215100.295158	215217.295276	215334.295393	215451.295510	215569.295627	215686.295744	215803.295862	215920.295979	Req (MHz)	All																					
136.2	142.4	137.9	137.9	147.9	132.2	136.6	134.8	125.8	136.8	125.5	128.5	133.9	129.1	131.7	133.8	128.7	143.5	142.4	135.6	149.0	137.6	153.9	157.9	138.5	160.1	123.8	133.9	128.9	117.6	140.1	122.0	Phase	136.6						
4.8	4.7	4.4	5.0	4.9	4.9	5.0	4.9	4.8	5.0	4.7	4.9	4.7	4.5	5.2	5.2	5.0	5.1	5.0	5.4	5.3	5.4	5.0	5.0	4.7	4.6	4.9	4.2	4.8	4.5	4.4	Ampl	4.9							
234.6	234.7	234.5	234.6	234.6	234.5	234.7	234.4	234.6	234.6	234.5	234.6	234.6	234.6	234.7	234.6	234.7	234.4	234.7	234.6	234.4	234.9	234.2	234.8	234.5	234.2	234.9	234.9	234.9	234.9	234.9	234.9	234.9	Std box	234.6					
UL	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	APs used						
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
Lg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase			
Lg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Manl PC		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
L	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	B32UL	B33UL	B34UL	Chan ids			
g	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	B32UL	B33UL	B34UL	Chan ids			

Group delay (usec)(model)	-3.99862943862E+03	Apriori delay (usec)	-3.99863620714E+03	Resid mbdelay (usec)	6.76852E-03	+/-	8.7E-07
Sband delay (usec)	-3.99862949072E+03	Apriori clock (usec)	-1.7438483E-01	Resid sbdelay (usec)	6.71641E-03	+/-	2.8E-05
Phase delay (usec)	-3.99863620536E+03	Apriori clockrate (us/s)	-3.8110001E-06	Resid phdelay (usec)	1.77138E-06	+/-	4.4E-09
Delay rate (us/s)	-6.15034287798E-01	Apriori rate (us/s)	-6.15034258561E-01	Resid rate (us/s)	-2.92363E-08	+/-	3.5E-11
Total phase (deg)	-153.5	Apriori accel (us/s/s)	2.95275882099E-05	Resid phase (deg)	136.6	+/-	0.3

ph/seg (deg)	RMS 36.9	Theor. 0.4	Amplitude Search (2048X128)	4.764	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	23.7	0.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: disabled	mb window (us)	-0.009	0.009
ph/frq (deg)	10.0	1.0	Inc. seg. avg.	5.878	Sample rate(MSamp/s): 116	nlags: 232	dr window (ns/s)	-0.006	0.006
amp/frq (%)	5.8	1.7	Inc. frq. avg.	4.873	Data rate(Mb/s): 7424	t_cohere infinite	ion window (TEC)	0.00	0.00

L: az 284.5 el 43.7 pa 116.3      g: az 212.5 el 61.0 pa 31.0      u,v (fr/asec) 8846.307 -16240.916      simultaneous interpolator

Control file: cf\_3597.from.mike.titus      Input file: /home/gbindahl/golden/from-cannon/1000/111-0630/Lg..Xtioin      Output file: Suppressed by test mode

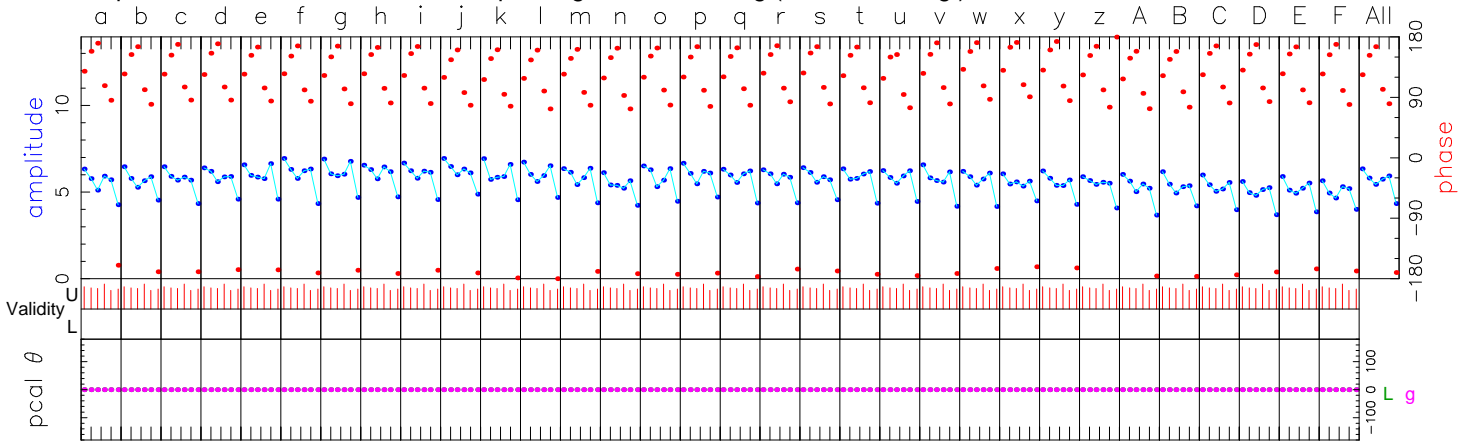


Fringe quality 6

SNR 329.7  
Int time 185.249  
Amp 4.653  
Phase 131.8  
PFD 0.0e+00  
Delays (us)  
SBD -0.001320  
MBD -0.001295  
Fringe rate (Hz)  
-0.006364  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162444  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

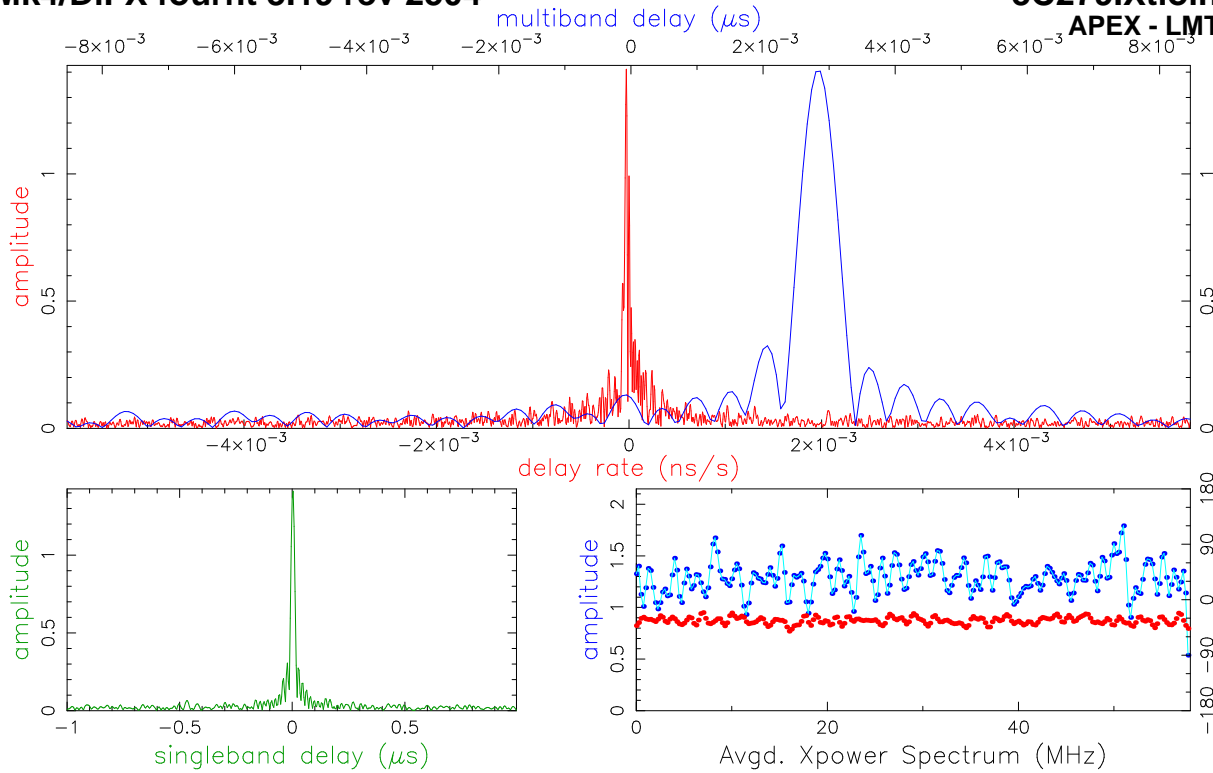


	214162.2	214221.2	214279.2	214338.2	214397.2	214455.2	214514.2	214572.2	214631.2	214690.2	214748.2	214807.2	214865.2	214924.2	214983.2	215041.2	215100.2	215158.2	215217.2	215276.2	215334.2	215393.2	215451.2	215510.2	215569.2	215627.2	215686.2	215744.2	215803.2	215862.2	215920.2	215979.2	Req (MHz)	All			
137.2	132.4	134.5	135.6	133.0	131.7	131.3	132.6	132.9	128.2	125.3	125.9	128.9	127.3	129.5	129.7	129.5	134.0	134.7	131.5	125.1	133.7	137.6	141.2	139.1	130.7	125.5	127.7	133.1	134.6	132.3	132.1	Phase	131.8				
4.5	4.6	4.7	4.7	4.9	5.0	4.9	5.0	4.9	5.0	4.9	4.9	4.7	4.2	4.7	4.8	4.8	4.7	4.7	4.8	4.7	4.6	4.6	4.4	4.4	4.4	4.3	4.4	4.3	4.1	4.1	4.0	Ampl	4.6				
232.5	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	232.7	Std box	232.7				
UL	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	APs used				
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
Lg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase		
Lg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC	
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
L	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids			
g	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids			

Group delay (usec)(model) -3.99863750182E+03 Apriori delay (usec) -3.99863620714E+03 Resid mbdelay (usec) -1.29469E-03 +/- 8.9E-07  
 Sband delay (usec) -3.99863752741E+03 Apriori clock (usec) -1.7438483E-01 Resid sbdelay (usec) -1.32028E-03 +/- 2.9E-05  
 Phase delay (usec) -3.99863620543E+03 Apriori clockrate (us/s) -3.8110001E-06 Resid phdelay (usec) 1.70930E-06 +/- 4.5E-09  
 Delay rate (us/s) -6.15034288276E-01 Apriori rate (us/s) -6.15034258561E-01 Resid rate (us/s) -2.97145E-08 +/- 3.6E-11  
 Total phase (deg) -158.3 Apriori accel (us/s/s) 2.95275882099E-05 Resid phase (deg) 131.8 +/- 0.3

ph/seg (deg) RMS 36.7 Theor. 0.4 Amplitude 4.653 +/- 0.014 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 24.6 0.7 Search (2048X128) 4.528 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 4.1 1.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 5.9 1.7 Inc. seg. avg. 5.621 Sample rate(MSamp/s): 116 dr window (ns/s) -0.006 0.006  
 Inc. frq. avg. 4.618 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

L: az 284.5 el 43.7 pa 116.3 g: az 212.5 el 61.0 pa 31.0 u,v (fr/asec) 8846.307 -16240.916 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/gbindahl/golden/from-cannon/1000/111-0630/Lg..Xtioin Output file: Suppressed by test mode

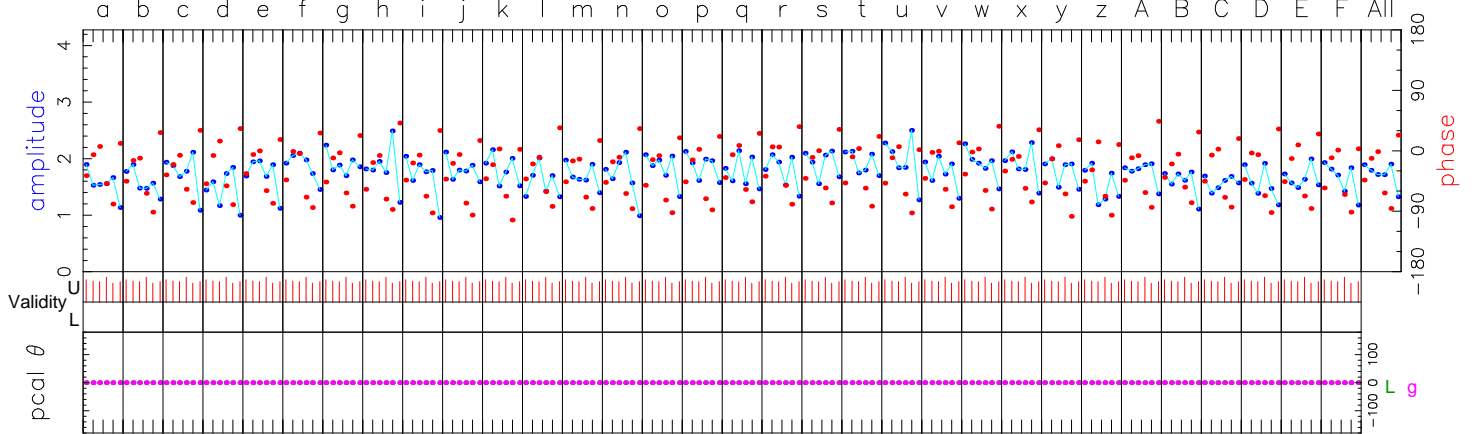


Fringe quality 6

SNR 101.2  
Int time 185.624  
Amp 1.426  
Phase -33.9  
PFD 0.0e+00  
Delays (us)  
SBD 0.002907  
MBD 0.002835  
Fringe rate (Hz)  
-0.006302  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162456  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



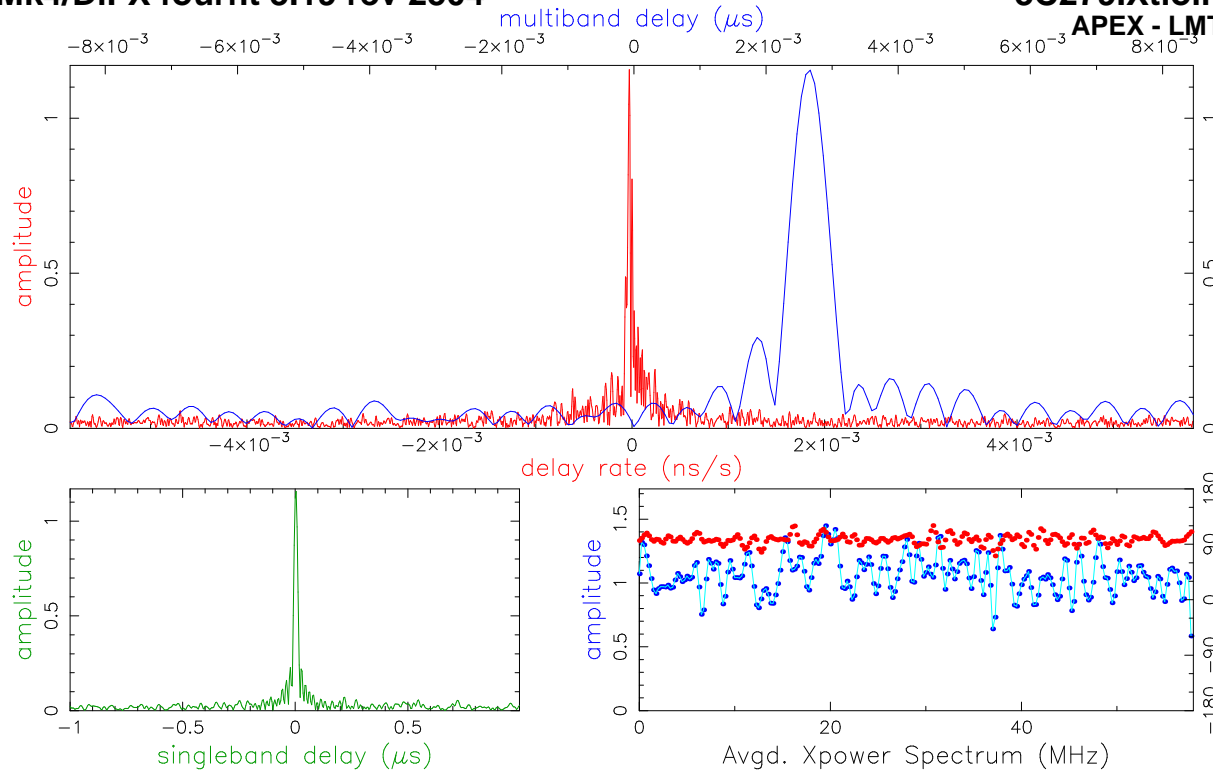
	214162.214221	214279.214338	214397.214455	214514.214572	214631.214690	214748.214807	214865.214924	214983.215041	215100.215158	215217.215276	215334.215393	215451.215510	215569.215627	215686.215744	215803.215862	215920.215979	Req (MHz)	All																					
Phase	-28.1	-34.9	-34.3	-32.1	-28.9	-31.0	-31.9	-42.8	-39.2	-39.4	-39.5	-31.6	-38.8	-38.2	-40.0	-37.0	-26.0	-22.0	-30.1	-30.6	-39.3	-30.9	-26.8	-29.8	-36.3	-39.2	-33.3	-32.4	-33.3	-35.3	-34.0	-38.4	Phase	-33.9					
Ampl	1.3	1.3	1.5	1.2	1.5	1.5	1.6	1.4	1.4	1.4	1.5	1.3	1.4	1.4	1.5	1.5	1.4	1.4	1.6	1.6	1.6	1.5	1.5	1.6	1.4	1.2	1.4	1.4	1.3	1.2	1.3	1.3	1.3	Ampl	1.4				
Std box	233.5	233.6	233.8	233.5	233.8	233.4	233.6	233.6	233.7	233.6	233.7	233.7	233.8	233.7	233.8	233.8	233.8	233.8	233.5	233.6	233.7	233.7	233.8	233.7	233.8	233.6	233.4	233.7	233.7	233.5	233.7	233.6	233.9	Std box	233.7				
UL	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	APs used	0				
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	0			
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	0		
Lg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase	0	
Lg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Manl PC	0	
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	1000
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
L	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	Chan ids	Tracks					
g	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	Chan ids	Tracks					

Group delay (usec)(model)	-3.99863337184E+03	Apriori delay (usec)	-3.99863620714E+03	Resid mbdelay (usec)	2.83529E-03	+/-	2.9E-06
Sband delay (usec)	-3.99863330038E+03	Apriori clock (usec)	-1.7438483E-01	Resid sbdelay (usec)	2.90676E-03	+/-	9.4E-05
Phase delay (usec)	-3.99863620757E+03	Apriori clockrate (us/s)	-3.8110001E-06	Resid phdelay (usec)	-4.39255E-07	+/-	1.5E-08
Delay rate (us/s)	-6.15034287988E-01	Apriori rate (us/s)	-6.15034258561E-01	Resid rate (us/s)	-2.94267E-08	+/-	1.2E-10
Total phase (deg)	-323.9	Apriori accel (us/s/s)	2.95275882099E-05	Resid phase (deg)	-33.9	+/-	1.1

ph/seg (deg)	RMS 36.7	Theor. 1.3	Amplitude Search (2048X128)	1.426 +/- 0.014	1.392	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	24.9	2.3	Interp.	0.000	1.726	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	4.9	3.2	Inc. seg. avg.	1.726	1.414	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us) -0.009 0.009
amp/frq (%)	7.8	5.6	Inc. frq. avg.	1.414		Sample rate(MISamp/s): 116	dr window (ns/s) -0.006 0.006	
						Data rate(Mb/s): 7424	nlags: 232	t_cohere infinite
								ion window (TEC) 0.00 0.00

L: az 284.5 el 43.7 pa 116.3      g: az 212.5 el 61.0 pa 31.0      u,v (fr/asec) 8846.307 -16240.916      simultaneous interpolator

Control file: cf\_3597.from.mike.titus      Input file: /home/gbindahl/golden/from-cannon/1000/111-0630/Lg..Xtioin      Output file: Suppressed by test mode

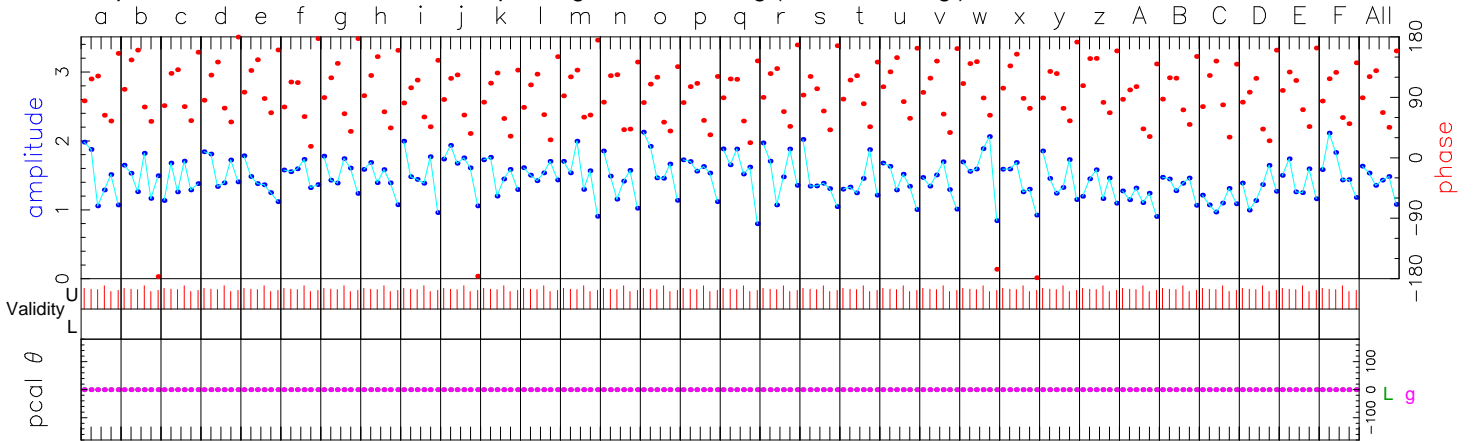


Fringe quality 6

SNR 80.3  
Int time 173.644  
Amp 1.170  
Phase 98.1  
PFD 0.0e+00  
Delays (us)  
SBD 0.002839  
MBD 0.002650  
Fringe rate (Hz)  
-0.006335  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162508  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

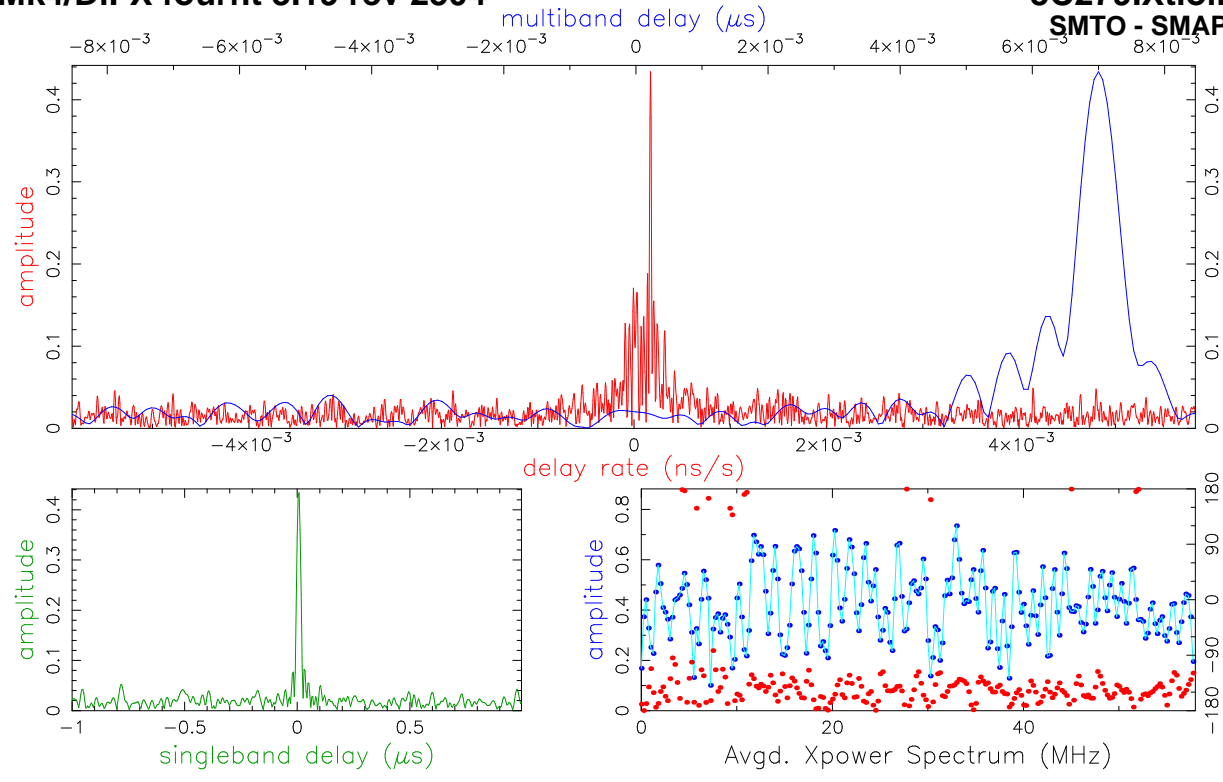


	214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All				
95.1	117.7	103.1	104.5	112.8	89.6	97.9	102.9	86.5	94.8	88.5	88.8	102.4	87.2	87.7	83.6	88.6	99.0	95.1	95.0	111.5	100.4	112.3	120.5	100.7	119.2	82.7	96.1	96.1	80.7	102.2	97.8	Phase	98.1					
1.2	1.1	1.2	1.2	1.1	1.1	1.1	1.3	1.3	1.2	1.2	1.2	1.1	1.4	1.4	1.3	1.2	1.2	1.2	1.2	1.1	1.3	1.2	1.2	1.1	1.0	1.2	0.9	0.9	1.1	1.4	Ampl	1.2						
233.5	233.6	233.6	233.8	233.6	233.6	233.8	233.5	233.9	233.8	233.5	233.8	233.9	233.6	233.7	233.5	233.9	233.6	233.6	233.9	233.6	233.6	234.1	233.1	233.7	233.4	233.3	234.4	233.6	233.9	233.6	233.6	Std box	233.7					
UL	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	APs used					
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
Lg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
Lg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
L	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids				
g	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids				

Group delay (usec)(model) -3.99863355726E+03 Apriori delay (usec) -3.99863620714E+03 Resid mbdelay (usec) 2.64987E-03 +/- 3.7E-06  
 Sband delay (usec) -3.99863336796E+03 Apriori clock (usec) -1.7438483E-01 Resid sbdelay (usec) 2.83917E-03 +/- 1.2E-04  
 Phase delay (usec) -3.99863620586E+03 Apriori clockrate (us/s) -3.8110001E-06 Resid phdelay (usec) 1.27257E-06 +/- 1.9E-08  
 Delay rate (us/s) -6.15034288143E-01 Apriori rate (us/s) -6.15034258561E-01 Resid rate (us/s) -2.95821E-08 +/- 1.5E-10  
 Total phase (deg) -192.0 Apriori accel (us/s/s) 2.95275882099E-05 Resid phase (deg) 98.1 +/- 1.4

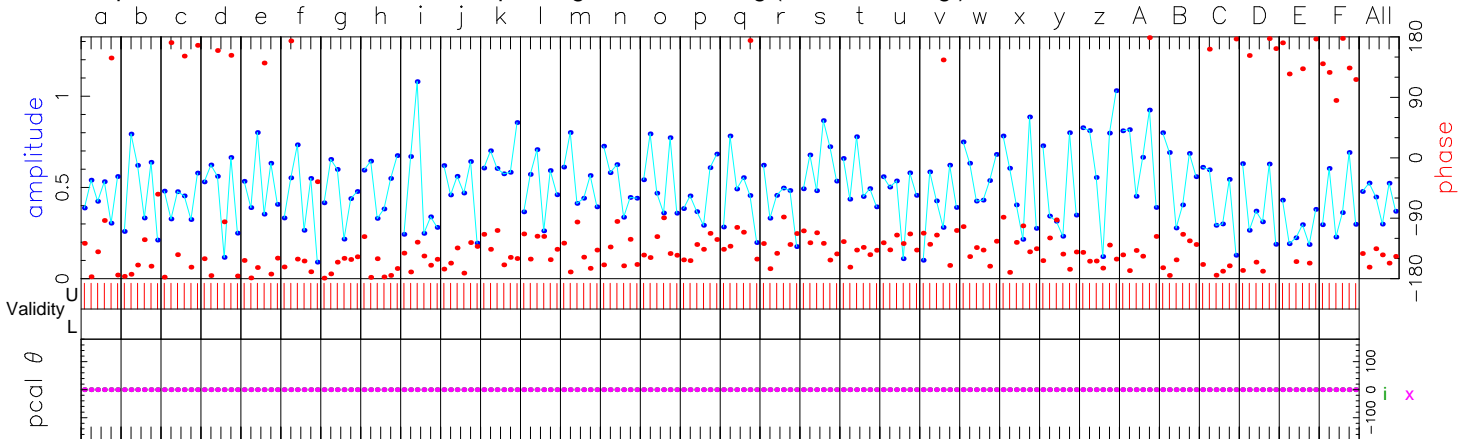
ph/seg (deg) RMS 37.8 Theor. 1.7 Amplitude 1.170 +/- 0.015 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 26.2 2.9 Search (2048X128) 1.148 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 10.9 4.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 9.7 7.0 Inc. seg. avg. 1.423 Sample rate (MSamp/s): 116 dr window (ns/s) -0.006 0.006  
 Inc. frq. avg. 1.173 Data rate (Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

L: az 284.5 el 43.7 pa 116.3 g: az 212.5 el 61.0 pa 31.0 u,v (fr/asec) 8846.307 -16240.916 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Lg..Xtioin Output file: Suppressed by test mode



Fringe quality 8  
 SNR 34.5  
 Int time 224.618  
 Amp 0.442  
 Phase -148.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.006799  
 MBD 0.006994  
 Fringe rate (Hz) 0.036796  
 Ion TEC 0.000  
 Ref freq (MHz) 214162.7969  
 AP (sec) 0.400  
 Exp. e18c21  
 Exper # 3644  
 Yr:day 2018:111  
 Start 063000.00  
 Stop 063400.00  
 FRT 063200.00  
 Corr/FF/build  
 2020:286:103552  
 2020:301:162521  
 2018:237:201327  
 RA & Dec (J2000)  
 12h56m11.166567s  
 -5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



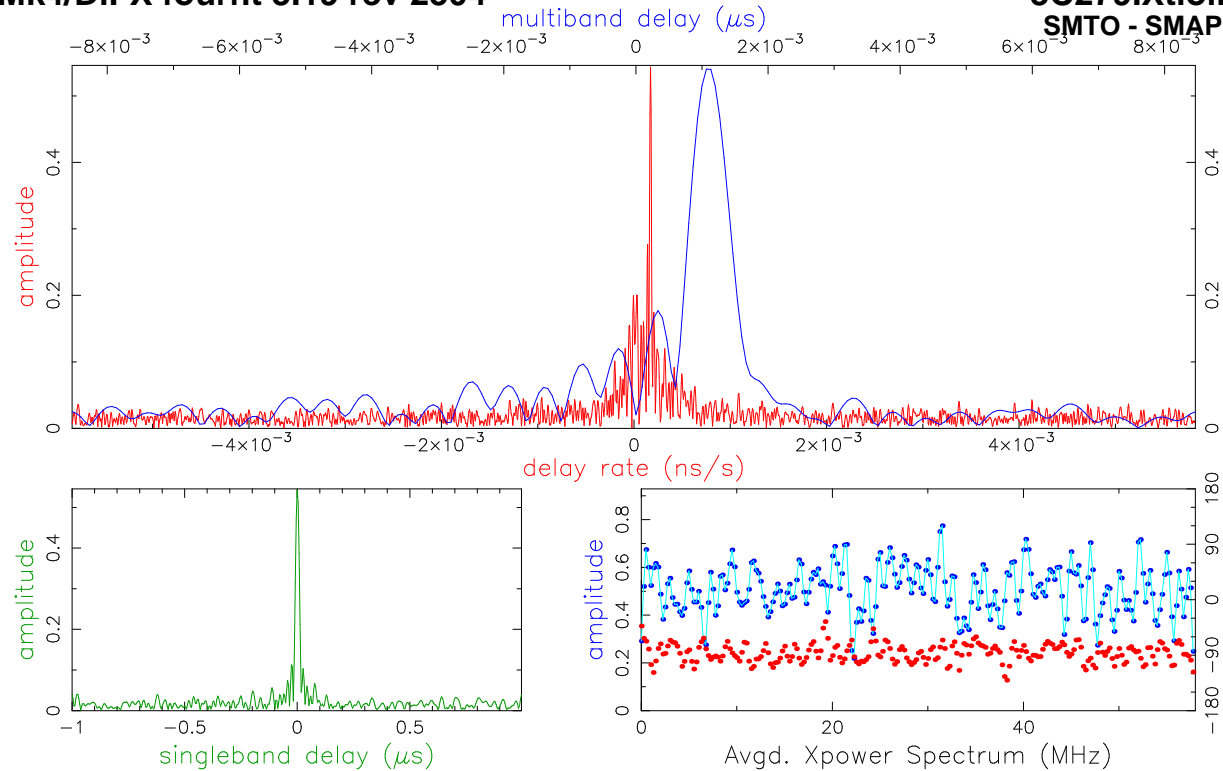
214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Eq (MHz)	All			
-152.0	-156.8	-179.9	178.7	-169.3	-163.1	-160.4	-161.0	-145.6	-148.3	-136.7	-132.9	-144.9	-136.7	-135.7	-131.3	-132.3	-126.8	-129.7	-138.6	-125.2	-138.3	-132.3	-128.2	-144.0	-146.1	-154.6	-145.4	-173.0	-176.4	168.8	132.5	Phase	-148.9			
0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.6	0.5	0.5	0.3	0.5	0.5	0.5	0.4	0.7	0.6	0.5	0.4	0.4	0.3	0.4	Ampl	0.5			
233.9	234.6	234.8	234.7	234.6	234.4	235.1	234.3	235.0	234.8	234.8	234.4	235.2	234.9	234.2	234.5	233.9	234.5	234.2	234.6	234.2	234.2	235.0	234.7	234.8	234.8	234.5	234.5	234.3	234.7	233.5	234.8	Std box	234.6			
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
ix	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
ix	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC			
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
i	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	Chan ids			
x	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	Chan ids			

Group delay (usec)(model)	2.67384555654E+03	Apriori delay (usec)	2.67383856226E+03	Resid mbdelay (usec)	6.99428E-03	+/-	8.5E-06
Sband delay (usec)	2.67384536116E+03	Apriori clock (usec)	1.1301661E+00	Resid sbdelay (usec)	6.79890E-03	+/-	2.8E-04
Phase delay (usec)	2.67383856033E+03	Apriori clockrate (us/s)	2.4510001E-00	Resid phdelay (usec)	-1.93163E-06	+/-	4.3E-08
Delay rate (us/s)	-1.05191936132E+00	Apriori rate (us/s)	-1.05191953314E+00	Resid rate (us/s)	1.71815E-07	+/-	3.1E-10
Total phase (deg)	170.0	Apriori accel (us/s/s)	-1.65361145255E-05	Resid phase (deg)	-148.9	+/-	3.3

ph/seg (deg)	9.2	Theor.	4.1	Amplitude	0.442 +/- 0.013	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	18.6		7.1	Search (2048X128)	0.426	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	23.1		9.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009	
amp/frq (%)	20.7		16.4	Inc. seg. avg.	0.439	Sample rate (MSamp/s):	116	dr window (ns/s)	-0.006 0.006		
				Inc. frq. avg.	0.457	Data rate (Mb/s):	7424	nlags: 232	t_cohere infinite	ion window (TEC)	0.00 0.00

i: az 184.2 el 51.3 pa 4.3      x: az 116.9 el 40.5 pa -57.4      u,v (fr/asec) 15031.053 4739.096      simultaneous interpolator

Control file: cf\_3597.from.mike.titus      Input file: /home/gliindah/golden/from-cannon/1000/111-0630/ix.Xtioin      Output file: Suppressed by test mode

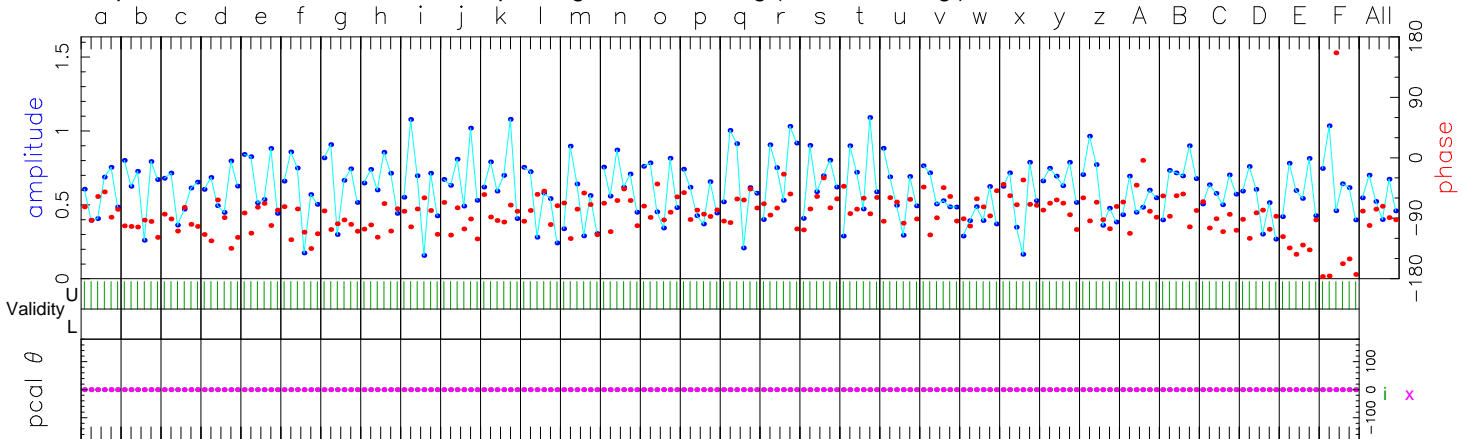


Fringe quality 9

SNR 44.0  
Int time 239.592  
Amp 0.546  
Phase -86.3  
PFD 0.0e+00  
Delays (us)  
SBD 0.000896  
MBD 0.001100  
Fringe rate (Hz) 0.036934  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162533  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.214221	214279.214338	214397.214455	214514.214572	214631.214690	214748.214807	214865.214924	214983.215041	215100.215158	215217.215276	215334.215393	215451.215510	215569.215627	215686.215744	215803.215862	215920.215979	Req (MHz)	All																				
	-72.9	-102.7	-92.6	-111.7	-88.8	-103.3	-96.8	-96.0	-88.7	-92.9	-79.8	-78.0	-88.3	-72.1	-73.8	-77.3	-74.7	-72.2	-66.0	-73.1	-77.0	-73.7	-76.9	-58.9	-76.6	-80.5	-71.0	-75.2	-93.9	-97.3	-129.1	-172.0	Phase	-86.3				
	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.7	0.7	0.5	0.5	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.7	0.6	0.6	0.5	0.4	0.5	0.7	0.6	0.4	0.6	0.6	0.5	0.6	0.6	0.6	Ampl	0.6		
	233.6	233.2	232.8	233.3	233.1	233.4	233.2	233.3	233.4	232.8	233.1	233.4	233.5	233.1	233.8	232.6	233.6	232.9	233.1	233.4	233.0	233.8	233.2	233.7	233.3	232.9	233.4	233.3	233.2	232.6	233.1	232.6	233.2	Std box	233.2			
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
ix	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase		
ix	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
i	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR			Chan ids			
x	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR			Chan ids			

Group delay (usec)(model) 2.67383966215E+03 Apriori delay (usec) 2.67383856226E+03 Resid mbdelay (usec) 1.09989E-03 +/- 6.7E-06  
 Sband delay (usec) 2.67383945798E+03 Apriori clock (usec) 1.1301661E+00 Resid sbdelay (usec) 8.95724E-04 +/- 2.2E-04  
 Phase delay (usec) 2.67383856114E+03 Apriori clockrate (us/s) 2.4510001E-06 Resid phdelay (usec) -1.11882E-06 +/- 3.4E-08  
 Delay rate (us/s) -1.05191936068E+00 Apriori rate (us/s) -1.05191953314E+00 Resid rate (us/s) 1.72458E-07 +/- 2.4E-10  
 Total phase (deg) 232.6 Apriori accel (us/s/s) -1.65361145255E-05 Resid phase (deg) -86.3 +/- 2.6

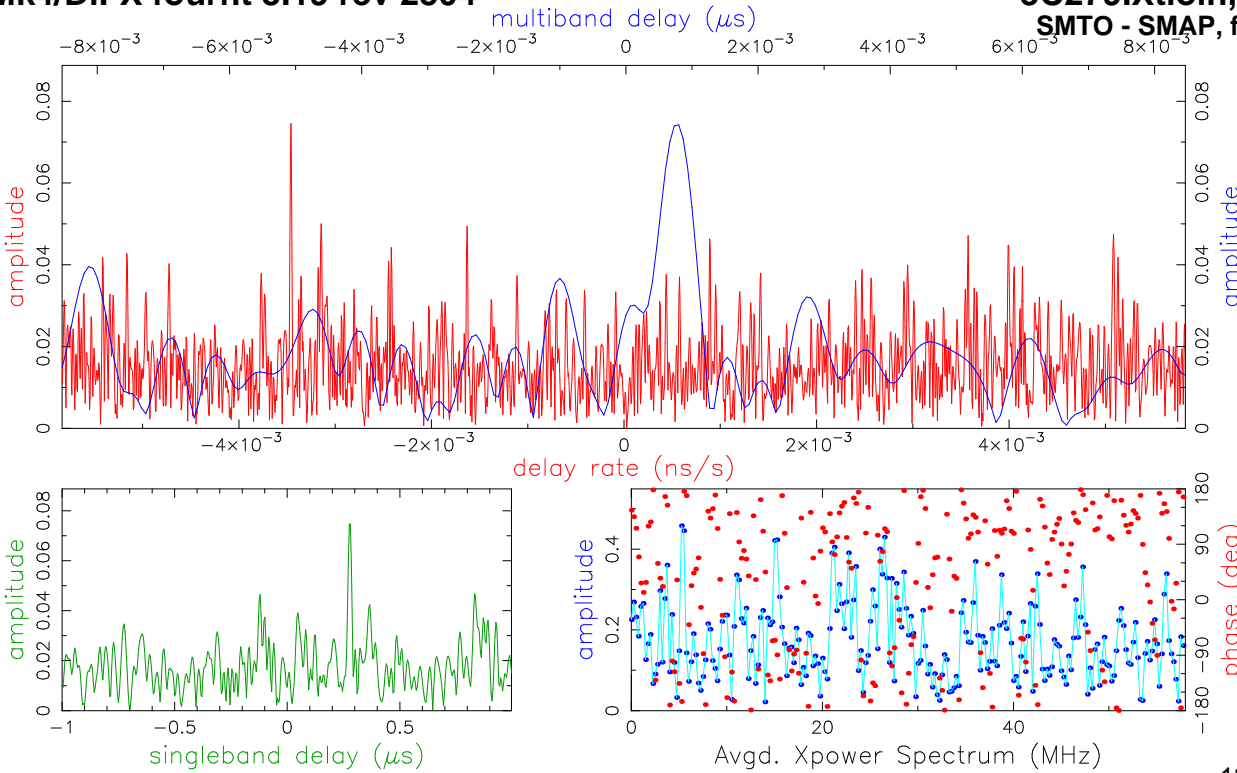
RMS Theor. Amplitude 0.546 +/- 0.012 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 9.9 3.2 Search (2048X128) 0.535 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 19.7 5.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 21.7 7.4 Inc. seg. avg. 0.551 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 14.4 12.9 Inc. frq. avg. 0.575 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

i: az 184.2 el 51.3 pa 4.3 x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 15031.053 4739.096 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/ix.Xtioin Output file: Suppressed by test mode



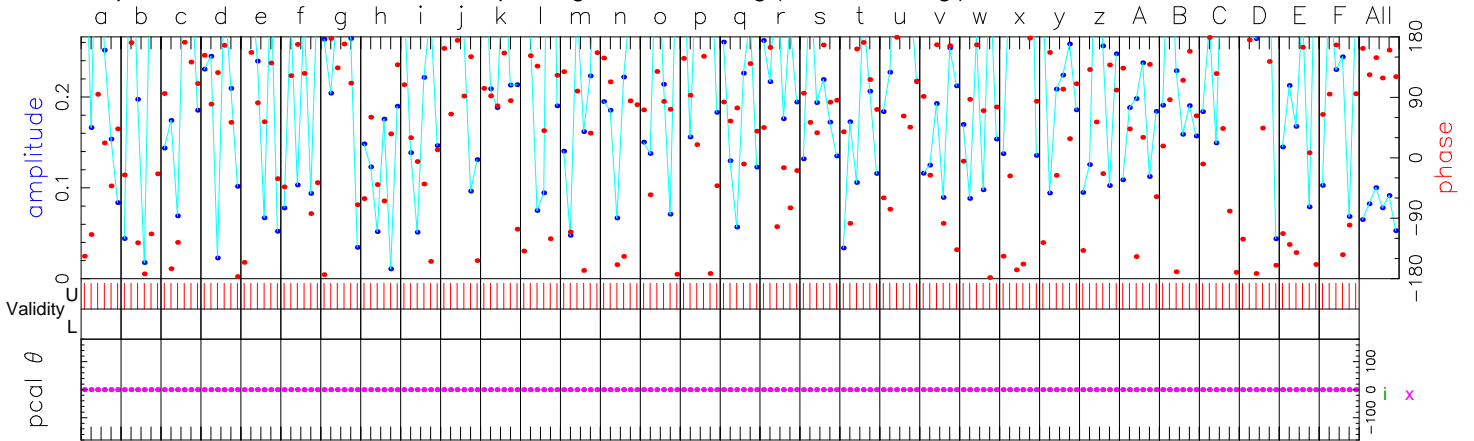
Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioon, 111-0630, ix  
SMTO - SMAP, fgroup B, pol LR



Fringe quality 0  
SNR 6.0  
Int time 224.618  
Amp 0.089  
Phase 140.5  
PFD 8.9e-01  
Delays (us)  
SBD 0.277975  
MBD 0.000782  
Fringe rate (Hz)  
-0.740790  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400  
Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162545  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.214221	214279	214338	214397	214455	214514	214572	214631	214690	214748	214807	214865	214924	214983	215041	215100	215158	215217	215276	215334	215393	215451	215510	215569	215627	215686	215744	215803	215862	215920	215979	Req (MHz)	All								
118.0	-125.3	152.8	127.7	146.3	122.1	156.3	-35.0	44.2	138.1	114.6	-154.7	129.6	112.8	128.2	138.0	71.3	-55.4	79.4	153.6	77.8	-171.4	135.1	-164.4	81.1	70.2	50.7	103.7	174.1	165.7	-152.9	129.3	Phase	140.5								
0.0	0.1	0.2	0.1	0.2	0.0	0.2	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.0	0.1	0.0	0.1	0.2	0.0	0.1	0.2	0.1	Ampl	0.1							
321.9	417.8	69.2	331.1	405.2	164.5	160.3	149.2	234.9	397.8	136.2	38.5	377.3	51.6	211.3	354.6	59.0	419.9	24.8	315.9	121.7	137.2	194.3	193.3	346.0	29.3	264.3	96.9	382.1	54.3	399.2	123.4	Std box	297.5								
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used								
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs						
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs					
ix	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase				
ix	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC			
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL						Chan ids			
	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR								Chan ids	

Group delay (usec)(model) 2.67383934471E+03 Apriori delay (usec) 2.67383856226E+03 Resid mbdelay (usec) 7.82449E-04 +/- 4.9E-05  
 Sband delay (usec) 2.67411653743E+03 Apriori clock (usec) 1.1301661E+00 Resid sbdelay (usec) 2.77975E-01 +/- 1.6E-03  
 Phase delay (usec) 2.67383856408E+03 Apriori clockrate (us/s) 2.4510001E-06 Resid phdelay (usec) 1.82228E-06 +/- 2.5E-07  
 Delay rate (us/s) -1.05192299214E+00 Apriori rate (us/s) -1.05191953314E+00 Resid rate (us/s) -3.45900E-06 +/- 1.8E-09  
 Total phase (deg) 99.4 Apriori accel (us/s/s) -1.65361145255E-05 Resid phase (deg) 140.5 +/- 19.2

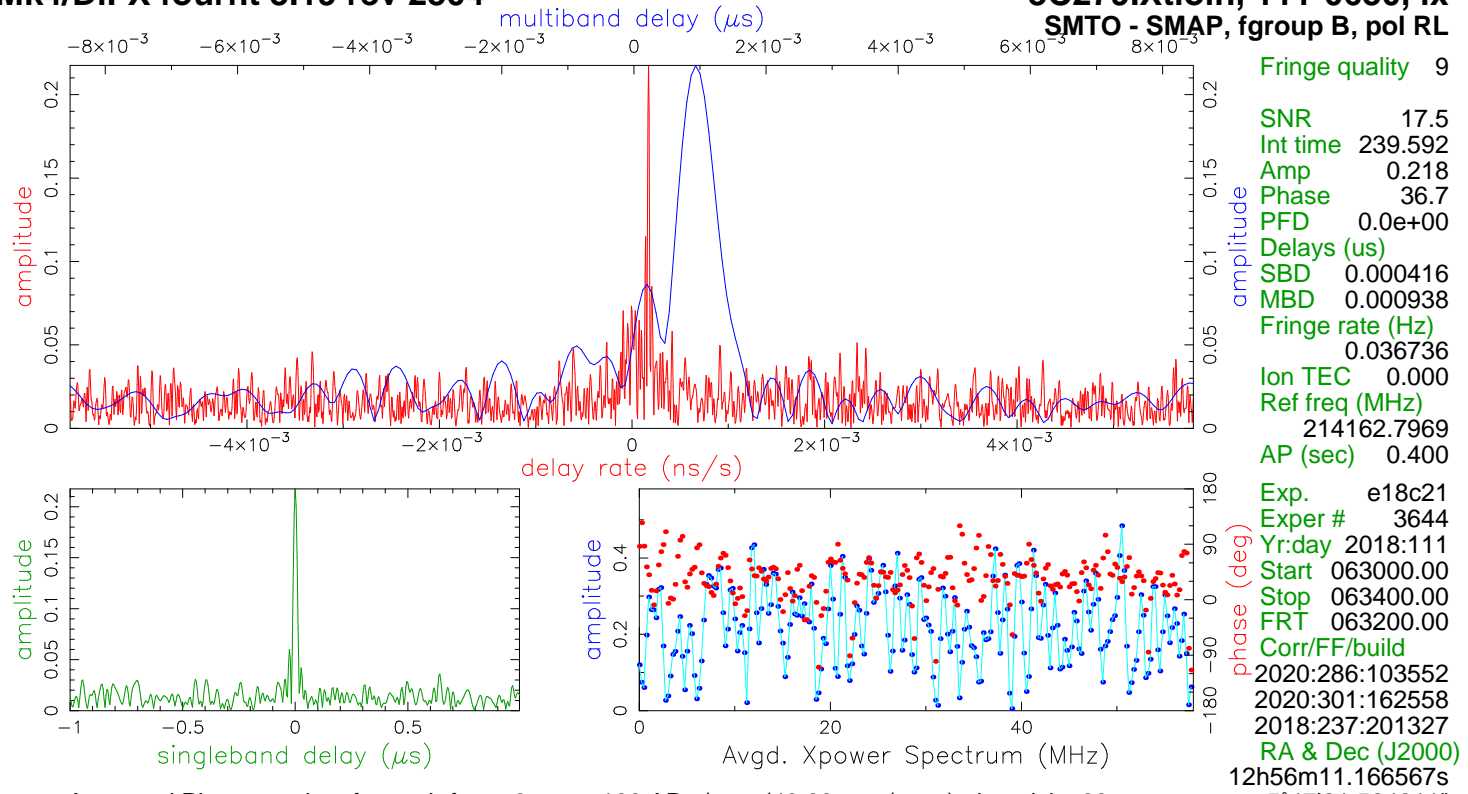
RMS Theor. Amplitude 0.089 +/- 0.015 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 18.7 23.5 Search (2048X128) 0.074 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 20.8 41.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 64.7 54.3 Inc. seg. avg. 0.084 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 81.6 94.8 Inc. frq. avg. 0.088 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

i: az 184.2 el 51.3 pa 4.3 x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 15031.053 4739.096 simultaneous interpolator

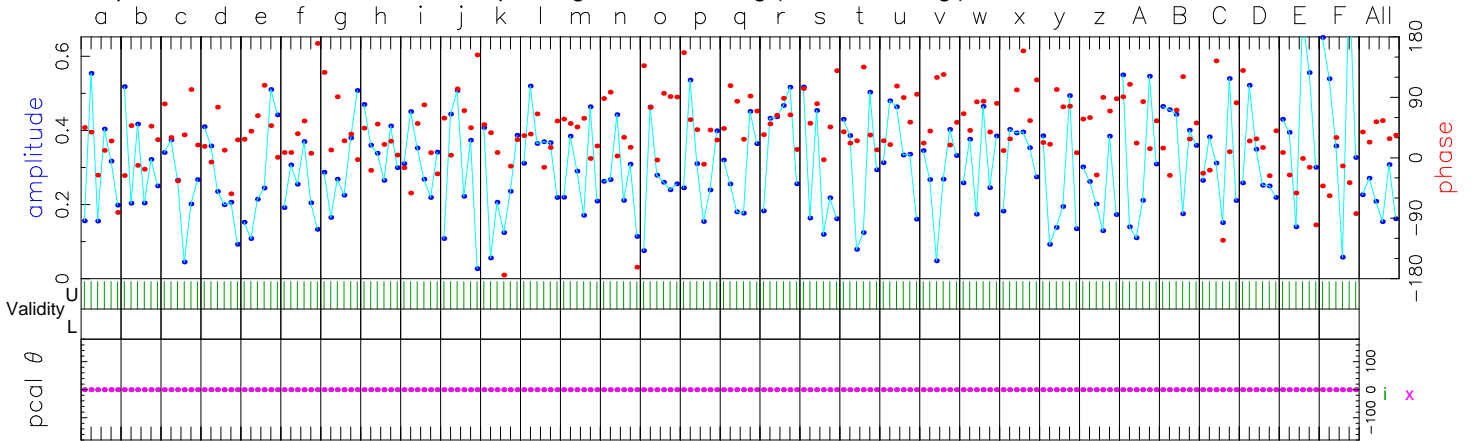
Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/ix.Xtioon Output file: Suppressed by test mode

Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, ix  
SMTO - SMAP, fgroup B, pol RL



Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



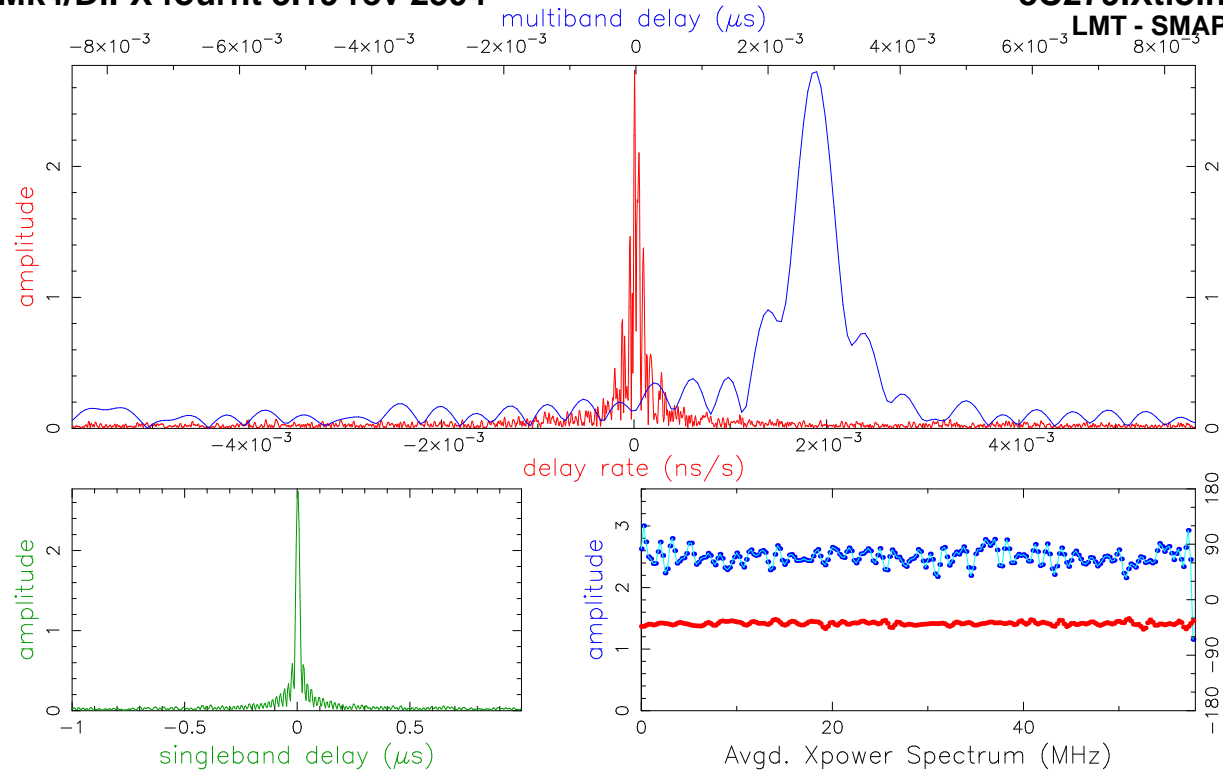
	214162.2	214221.3	214279.2	214338.2	214397.1	214455.2	214514.3	214572.2	214631.3	214690.2	214748.3	214807.2	214865.3	214924.2	214983.3	215041.2	215100.3	215158.2	215217.3	215276.2	215334.3	215393.2	215451.3	215510.2	215569.3	215627.2	215686.3	215744.2	215803.3	215862.2	215920.3	215979.2	Req (MHz)	All			
16.0	4.4	38.8	10.4	42.9	29.9	39.4	22.6	-0.3	57.3	26.7	30.5	34.2	41.9	75.9	47.1	73.7	58.5	80.3	32.4	62.1	45.8	66.7	82.3	54.7	59.8	59.3	32.7	8.3	28.5	-17.8	-39.7	Phase	36.7				
0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.1	0.2	0.4	0.4	Ampl	0.2			
233.2	234.3	199.6	53.8	234.4	154.2	382.6	233.4	202.9	321.3	244.9	232.3	232.9	388.9	131.6	232.6	232.8	232.7	298.8	233.0	233.8	127.5	232.8	11.9	231.4	232.7	110.6	233.4	353.6	263.9	232.8	232.4	Std box	233.1				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
ix	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase	
ix	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Manl PC	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
i	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids			
x	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids			

Group delay (usec)(model)	2.67383950032E+03	Apriori delay (usec)	2.67383856226E+03	Resid mbdelay (usec)	9.38058E-04	+/-	1.7E-05
Sband delay (usec)	2.67383897798E+03	Apriori clock (usec)	1.1301661E+00	Resid sbdelay (usec)	4.15724E-04	+/-	5.4E-04
Phase delay (usec)	2.67383856274E+03	Apriori clockrate (us/s)	2.4510001E-06	Resid phdelay (usec)	4.75672E-07	+/-	8.5E-08
Delay rate (us/s)	-1.05191936161E+00	Apriori rate (us/s)	-1.05191953314E+00	Resid rate (us/s)	1.71533E-07	+/-	6.1E-10
Total phase (deg)	355.6	Apriori accel (us/s/s)	-1.65361145255E-05	Resid phase (deg)	36.7	+/-	6.5

ph/seg (deg)	12.2	RMS	12.2	Theor.	8.0	Amplitude	0.218 +/- 0.012	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	25.4	12.2	8.0	Search (2048X128)	0.215	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	28.6	25.4	14.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	disabled	mb window (us)	-0.009	0.009
amp/frq (%)	30.4	28.6	18.5	Inc. seg. avg.	0.220	Sample rate (MSamp/s):	116	dr window (ns/s)	-0.006	0.006		
		30.4	32.3	Inc. frq. avg.	0.237	Data rate (Mb/s):	7424	ion window (TEC)	0.00	0.00		

i: az 184.2 el 51.3 pa 4.3      x: az 116.9 el 40.5 pa -57.4      u,v (fr/asec) 15031.053 4739.096      simultaneous interpolator

Control file: cf\_3597.from.mike.titus      Input file: /home/glindahl/golden/from-cannon/1000/111-0630/ix.Xtioin      Output file: Suppressed by test mode

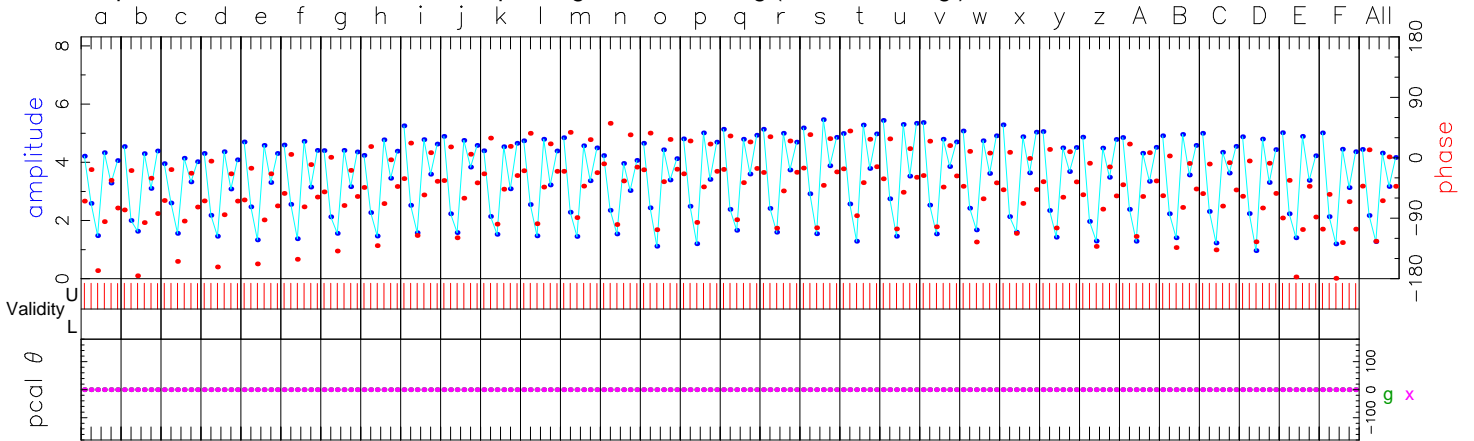


Fringe quality 3

SNR 216.2  
Int time 224.574  
Amp 2.771  
Phase -38.4  
PFD 0.0e+00  
Delays (us)  
SBD 0.002743  
MBD 0.002706  
Fringe rate (Hz) 0.001819  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162610  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

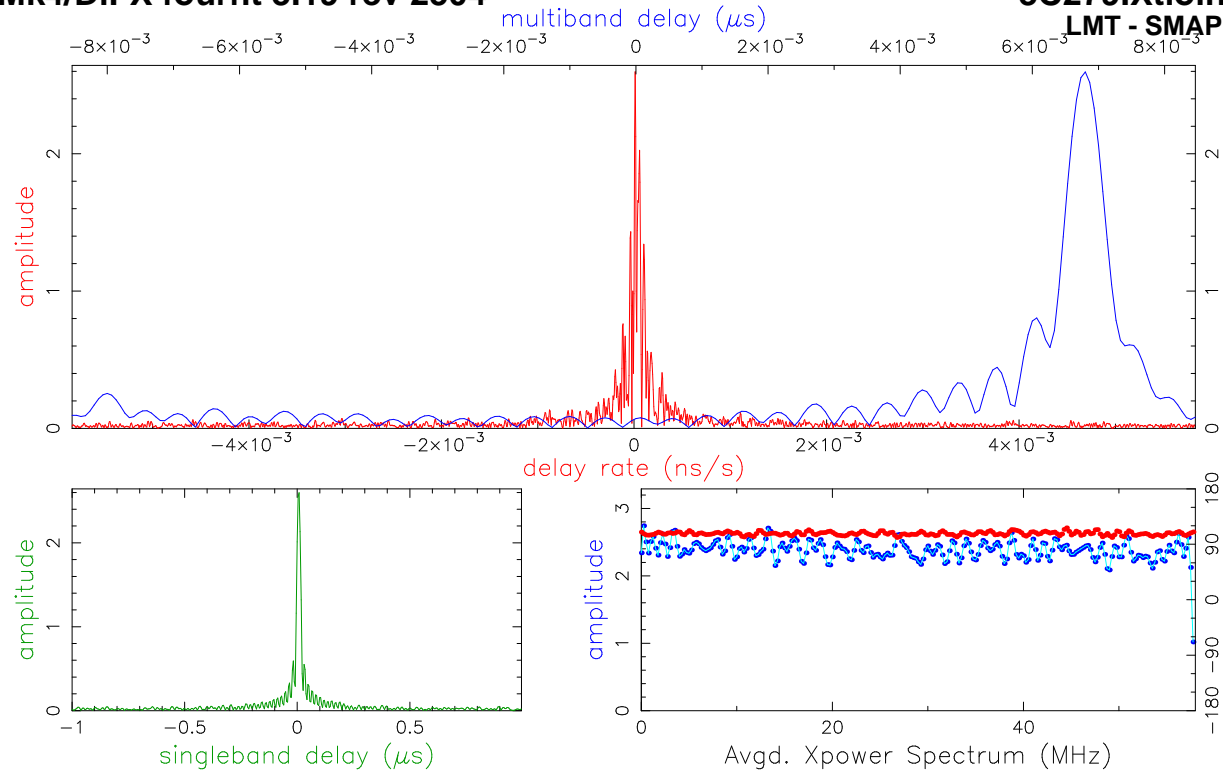


	214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All						
Phase	-67.2	-75.5	-64.7	-61.0	-64.0	-49.9	-51.6	-40.8	-29.8	-33.3	-22.9	-17.1	-16.4	-7.0	-11.2	-18.5	-14.2	-19.4	-13.8	-10.7	-26.1	-21.3	-36.5	-43.7	-31.8	-52.8	-32.1	-48.5	-46.8	-50.0	-84.4	-102.7	Phase	-38.4						
Ampl	2.7	2.6	2.6	2.6	2.8	2.8	2.8	3.1	3.0	2.9	2.9	2.9	2.5	2.8	3.1	3.2	3.1	3.3	3.3	3.4	3.2	3.1	3.2	3.1	3.0	2.9	3.0	3.0	3.0	2.9	2.9	2.9	2.9	Ampl	3.0					
Std box	233.6	233.5	233.8	233.5	233.8	233.7	233.8	233.6	233.7	233.7	233.6	233.7	233.7	233.5	233.8	233.7	233.4	233.8	233.4	233.7	233.7	233.2	233.9	233.6	233.7	233.8	233.2	233.8	233.2	233.8	233.2	233.4	233.4	233.4	Std box	233.6				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used	0				
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	0			
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	0		
gx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase	0	
gx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ManI PC	0
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	0
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
g	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL			Chan ids					
x	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL			Chan ids					

Group delay (usec)(model) 4.61973773079E+03 Apriori delay (usec) 4.61973502467E+03 Resid mbdelay (usec) 2.70612E-03 +/- 1.4E-06  
 Sband delay (usec) 4.61973776812E+03 Apriori clock (usec) 1.4621456E+00 Resid sbdelay (usec) 2.74345E-03 +/- 4.4E-05  
 Phase delay (usec) 4.61973502417E+03 Apriori clockrate (us/s) 4.2909998E-06 Resid phdelay (usec) -4.98148E-07 +/- 6.9E-09  
 Delay rate (us/s) -1.37633013847E+00 Apriori rate (us/s) -1.37633014697E+00 Resid rate (us/s) 8.49347E-09 +/- 5.0E-11  
 Total phase (deg) 215.1 Apriori accel (us/s/s) -2.43987137459E-05 Resid phase (deg) -38.4 +/- 0.5

RMS Theor. Amplitude 2.771 +/- 0.013 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 45.0 0.6 Search (2048X128) 2.585 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 46.3 1.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 24.1 1.5 Inc. seg. avg. 3.257 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 10.2 2.6 Inc. frq. avg. 2.963 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

g: az 212.5 el 61.0 pa 31.0 x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 19659.104 198.351 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/gbindahl/golden/from-cannon/1000/111-0630/gx..Xtioin Output file: Suppressed by test mode

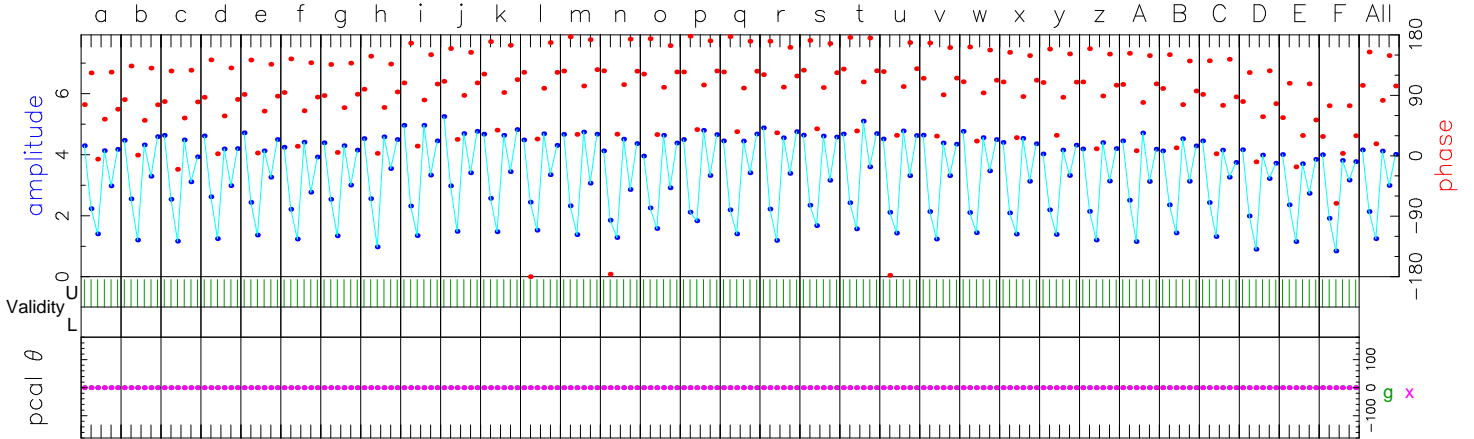


Fringe quality 3

SNR 213.0  
Int time 239.524  
Amp 2.643  
Phase 107.8  
PFD 0.0e+00  
Delays (us)  
SBD 0.006834  
MBD 0.006788  
Fringe rate (Hz) 0.001889  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162622  
2018:237:201327  
RA & Dec (J2000) 12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Req (MHz)	All			
77.7	84.7	84.4	89.8	94.3	94.0	94.9	101.4	110.4	114.4	121.4	127.5	129.5	129.2	124.6	127.3	128.3	124.2	126.2	131.9	129.1	118.8	115.6	111.7	112.7	112.0	108.7	101.2	97.6	84.6	60.4	33.7	Phase	107.8			
2.7	2.8	2.7	2.7	2.8	2.6	2.8	2.9	2.9	3.2	3.0	2.8	2.9	2.6	2.7	2.9	2.8	3.0	2.9	3.0	2.8	2.8	2.9	2.8	2.7	2.7	2.8	2.7	2.6	2.5	2.5	2.4	Ampl	2.8			
234.6	234.7	234.7	234.7	234.6	234.5	234.6	234.6	234.7	234.7	234.6	234.6	234.7	234.5	234.4	234.7	234.6	234.7	234.7	234.5	234.6	234.6	234.6	234.6	234.7	234.5	234.5	234.4	234.4	234.4	234.3	Std box	234.6				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
gx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
gx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC			
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	Chan ids			
x	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	Chan ids			

Group delay (usec)(model) 4.61974181305E+03 Apriori delay (usec) 4.61973502467E+03 Resid mbdelay (usec) 6.78838E-03 +/- 1.4E-06  
 Sband delay (usec) 4.61974185860E+03 Apriori clock (usec) 1.4621456E+00 Resid sbdelay (usec) 6.83393E-03 +/- 4.5E-05  
 Phase delay (usec) 4.61973502607E+03 Apriori clockrate (us/s) 4.2909998E-06 Resid phdelay (usec) 1.39817E-06 +/- 7.0E-09  
 Delay rate (us/s) -1.37633013815E+00 Apriori rate (us/s) -1.37633014697E+00 Resid rate (us/s) 8.81813E-09 +/- 5.0E-11  
 Total phase (deg) 1.4 Apriori accel (us/s/s) -2.43987137459E-05 Resid phase (deg) 107.8 +/- 0.5

ph/seg (deg) RMS Theor. Amplitude 2.643 +/- 0.012 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 45.9 0.7 Search (2048X128) 2.490 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 23.0 1.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 8.0 2.7 Inc. seg. avg. 3.110 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 Inc. frq. avg. 2.782 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

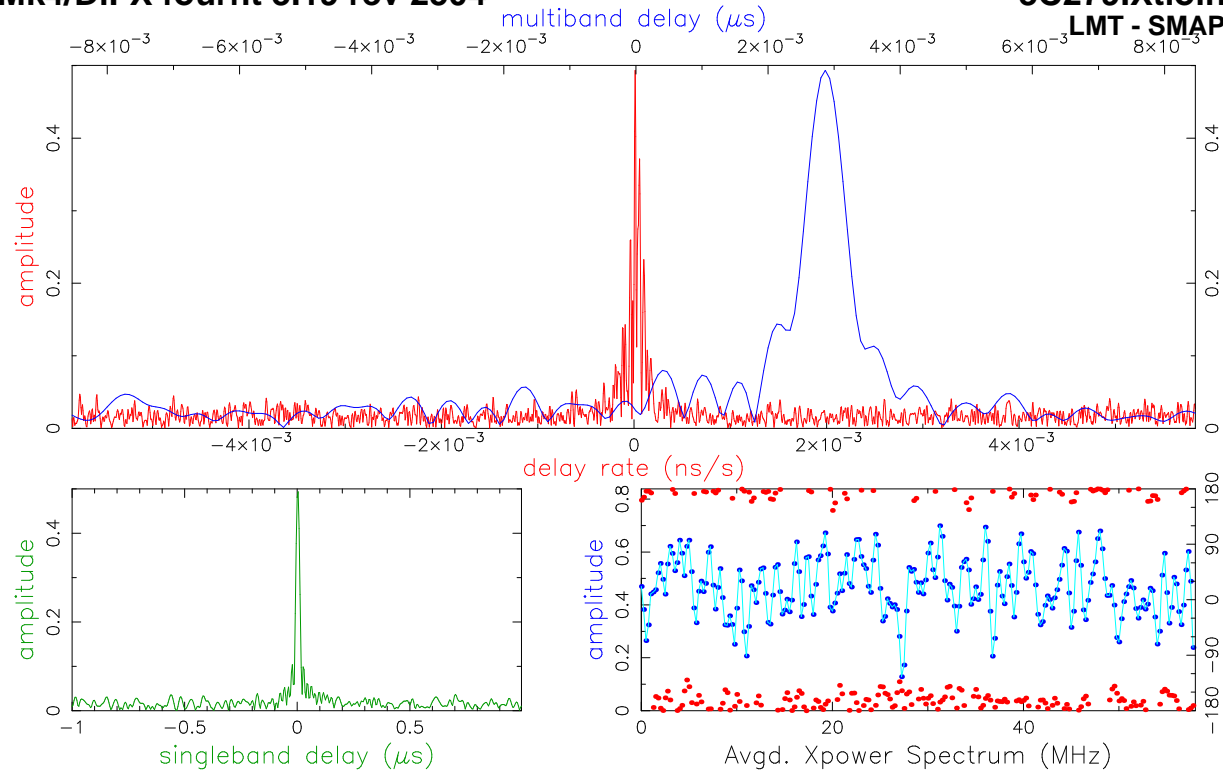
g: az 212.5 el 61.0 pa 31.0 x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 19659.104 198.351 simultaneous interpolator

Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/gx..Xtioin Output file: Suppressed by test mode

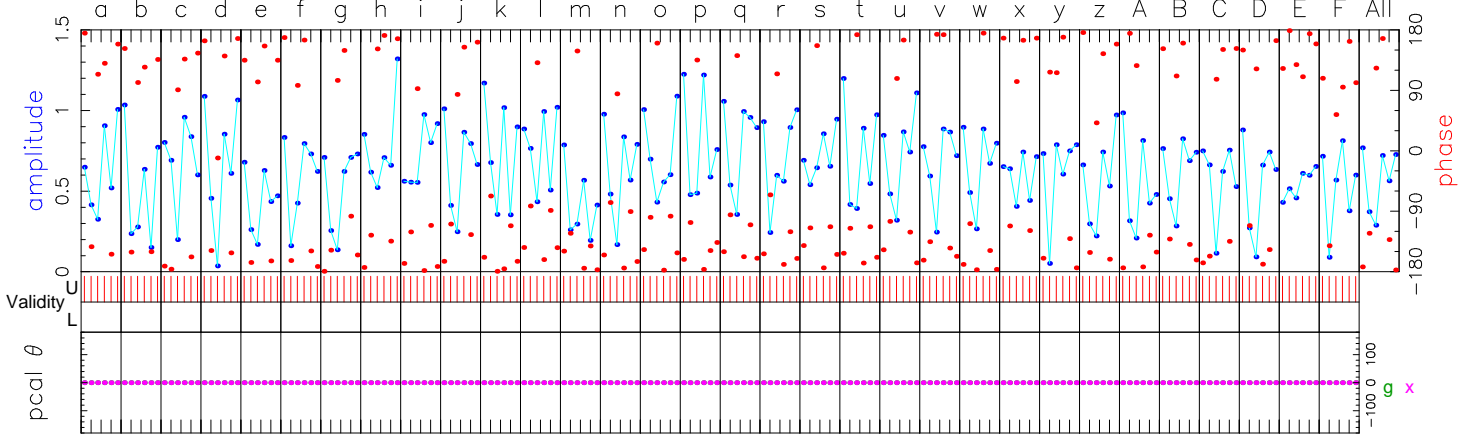
Fringe quality 5

SNR 39.0  
Int time 224.574  
Amp 0.500  
Phase -171.1  
PFD 0.0e+00  
Delays (us)  
SBD 0.002718  
MBD 0.002864  
Fringe rate (Hz)  
0.001916  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162634  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"



Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.214221	214279	214338	214397	214455	214514	214572	214631	214690	214748	214807	214865	214924	214983	215041	215100	215158	215217	215276	215334	215393	215451	215510	215569	215627	215686	215744	215803	215862	215920	215979	Req (MHz)	All				
163.2	143.8	168.2	171.4	153.3	174.5	-162.6	-174.2	-162.6	-170.7	-151.9	-138.3	-163.2	-146.3	-143.0	-160.3	-143.9	-155.9	-151.9	-151.8	-158.4	-160.6	-164.6	-177.8	-179.4	166.5	-168.5	-178.0	-173.9	-178.0	146.7	100.9	Phase	-171.1				
0.5	0.5	0.6	0.6	0.4	0.5	0.4	0.7	0.5	0.5	0.6	0.6	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.7	0.6	0.6	0.6	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	Ampl	0.5				
233.9	233.7	234.4	233.7	234.2	233.0	233.2	234.2	233.3	233.4	234.1	234.0	233.7	233.2	234.1	233.8	234.0	233.4	233.7	233.5	233.3	233.6	232.9	234.4	233.5	233.7	233.6	233.1	233.6	233.3	233.0	233.1	Std box	233.6				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
gx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase		
gx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Manl PC		
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids			
	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids			

Group delay (usec)(model)	4.61973788915E+03	Apriori delay (usec)	4.61973502467E+03	Resid mbdelay (usec)	2.86448E-03	+/-	7.5E-06	
Sband delay (usec)	4.61973774274E+03	Apriori clock (usec)	1.4621456E+00	Resid sbdelay (usec)	2.71807E-03	+/-	2.4E-04	
Phase delay (usec)	4.61973502245E+03	Apriori clockrate (us/s)	4.2909998E-06	Resid phdelay (usec)	-2.21927E-06	+/-	3.8E-08	
Delay rate (us/s)	-1.37633013802E+00	Apriori rate (us/s)	-1.37633014697E+00	Resid rate (us/s)	8.94617E-09	+/-	2.7E-10	
Total phase (deg)		82.5	Apriori accel (us/s/s)	-2.43987137459E-05	Resid phase (deg)	-171.1	+/-	2.9

ph/seg (deg)	38.2	RMS	38.2	Theor.	3.6	Amplitude	0.500 +/- 0.013	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	39.8		39.8		6.3	Search (2048X128)	0.465	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	26.1		26.1		8.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009	
amp/frq (%)	19.5		19.5		14.5	Inc. seg. avg.	0.572	Sample rate (MSamp/s):	116	dr window (ns/s)	-0.006 0.006		
						Inc. frq. avg.	0.532	Data rate (Mb/s):	7424	nlags: 232	t_cohere infinite	ion window (TEC)	0.00 0.00

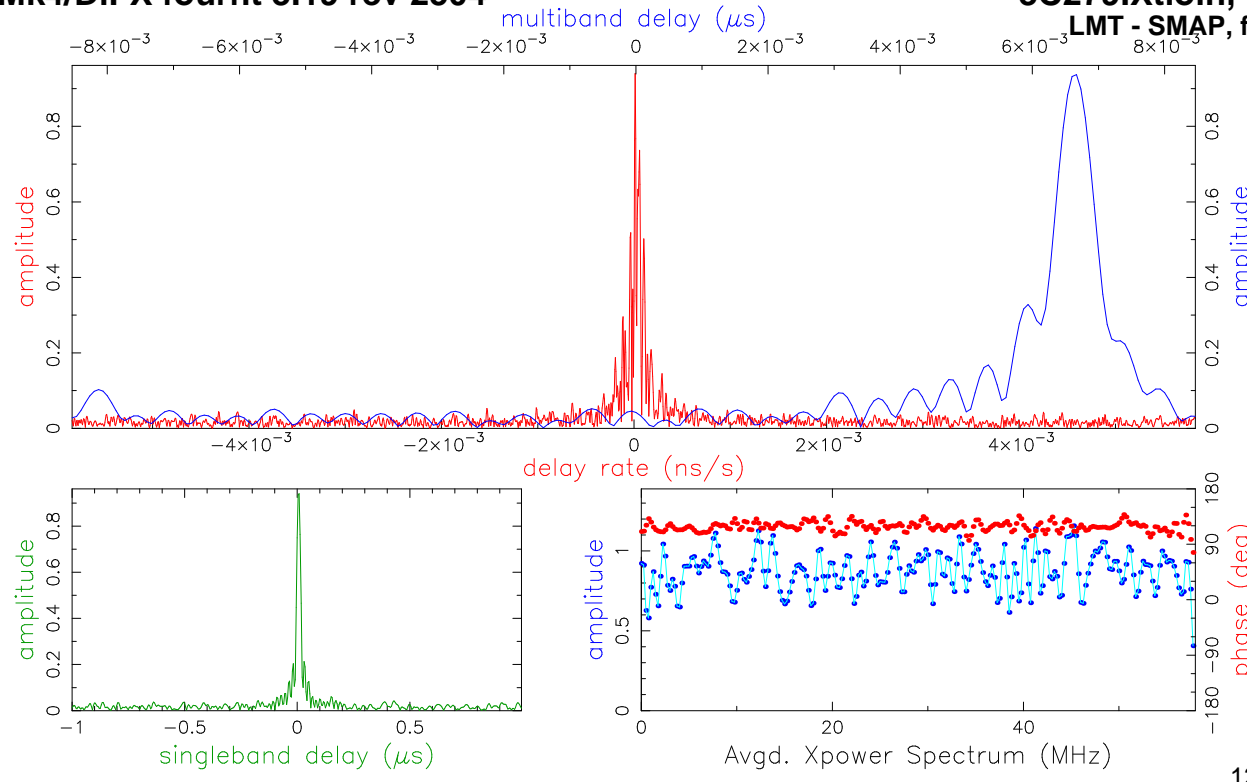
g: az 212.5 el 61.0 pa 31.0 x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 19659.104 198.351 simultaneous interpolator

Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/gx..Xtioin Output file: Suppressed by test mode



Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, gx  
LMT - SMAP, fgroup B, pol RL

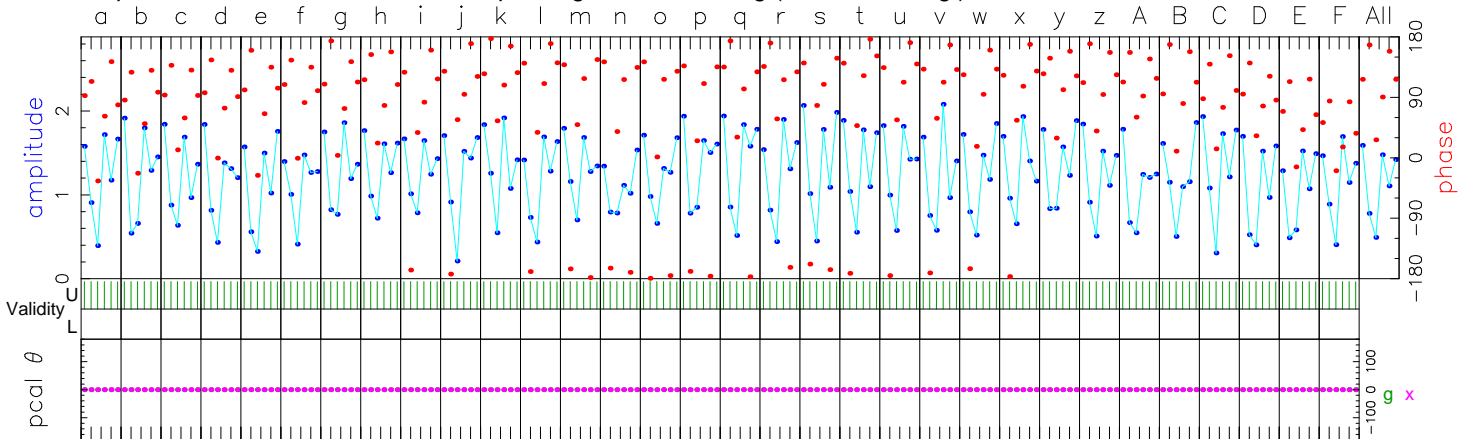


Fringe quality 3

SNR 77.5  
Int time 239.524  
Amp 0.962  
Phase 118.7  
PFD 0.0e+00  
Delays (us)  
SBD 0.006597  
MBD 0.006641  
Fringe rate (Hz) 0.001887  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162647  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



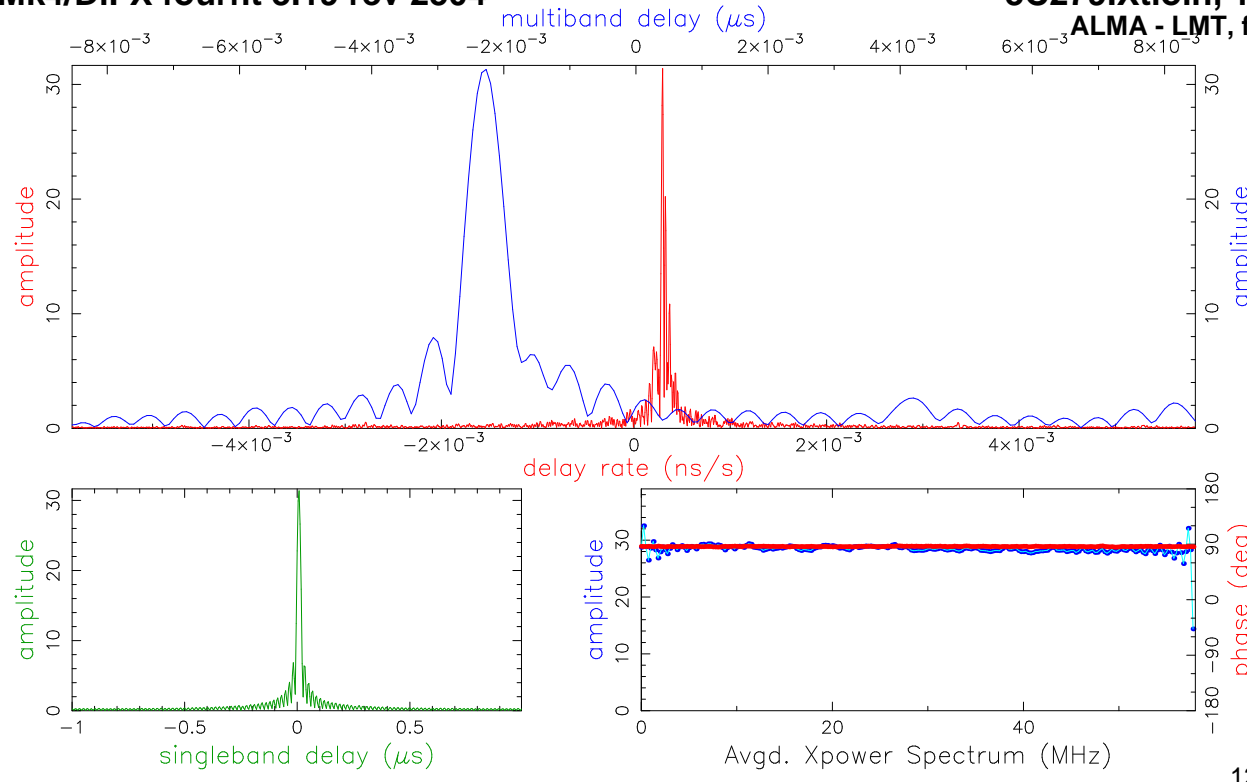
214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Req (MHz)	All				
89.2	84.8	89.6	99.1	101.0	107.9	105.9	111.9	121.5	132.8	130.6	140.0	145.1	141.6	143.3	138.3	135.0	138.8	146.5	145.9	138.6	131.4	128.5	130.1	120.3	120.2	116.4	114.8	101.7	92.5	66.2	45.8	Phase	118.7				
1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.1	1.0	1.0	1.1	1.0	1.1	1.0	1.1	1.0	1.1	1.2	1.1	1.1	1.1	1.0	1.1	1.0	1.1	1.0	1.0	0.9	1.1	1.0	0.9	1.0	0.9	1.0	Ampl	1.0		
234.5	234.4	234.5	234.7	234.5	234.7	234.9	234.7	234.4	234.6	234.6	234.5	234.4	234.4	234.6	234.4	234.7	234.5	234.6	234.5	234.5	234.3	234.5	234.5	234.6	234.6	234.4	234.6	234.5	234.2	234.0	234.2	Std box	234.5				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
gx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
gx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC			
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids			
x	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids			

Group delay (usec)(model) 4.61974166557E+03 Apriori delay (usec) 4.61973502467E+03 Resid mbdelay (usec) 6.64091E-03 +/- 3.8E-06  
 Sband delay (usec) 4.61974162163E+03 Apriori clock (usec) 1.4621456E+00 Resid sbdelay (usec) 6.59697E-03 +/- 1.2E-04  
 Phase delay (usec) 4.61973502621E+03 Apriori clockrate (us/s) 4.2909998E-06 Resid phdelay (usec) 1.53994E-06 +/- 1.9E-08  
 Delay rate (us/s) -1.37633013816E+00 Apriori rate (us/s) -1.37633014697E+00 Resid rate (us/s) 8.80901E-09 +/- 1.4E-10  
 Total phase (deg) 12.3 Apriori accel (us/s/s) -2.43987137459E-05 Resid phase (deg) 118.7 +/- 1.5

ph/seg (deg) RMS Theor. Amplitude 0.962 +/- 0.012 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 47.1 1.8 Search (2048X128) 0.899 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 45.4 3.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 25.1 4.2 Inc. seg. avg. 1.143 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 10.9 7.3 Inc. frq. avg. 1.023 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

g: az 212.5 el 61.0 pa 31.0 x: az 116.9 el 40.5 pa -57.4 u,v (fr/asec) 19659.104 198.351 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/gx..Xtioin Output file: Suppressed by test mode



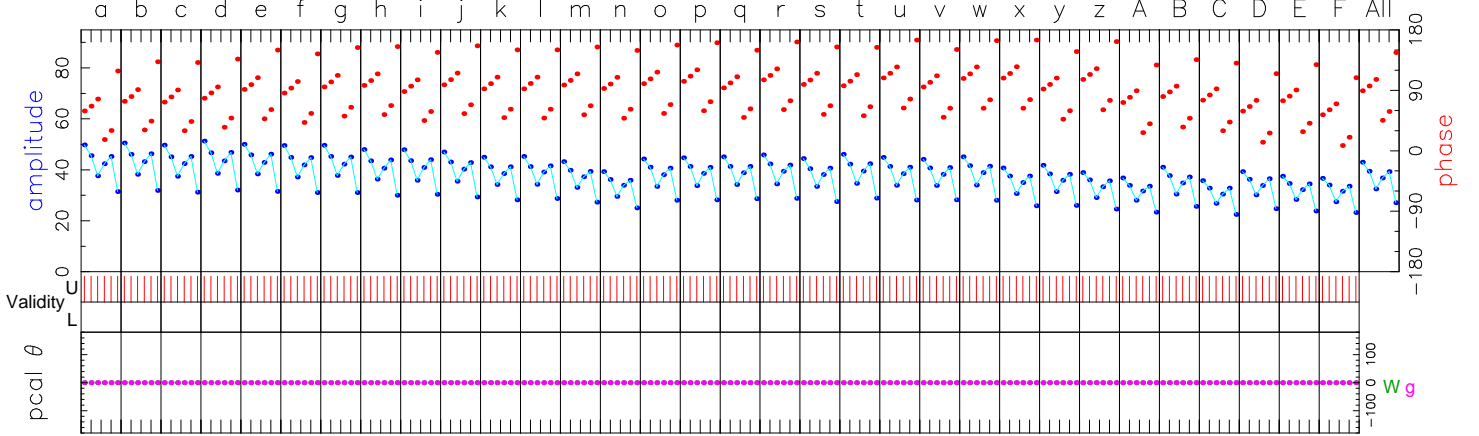


Fringe quality 5

SNR 2469.2  
Int time 224.936  
Amp 31.655  
Phase 86.6  
PFD 0.0e+00  
Delays (us)  
SBD 0.007450  
MBD -0.002288  
Fringe rate (Hz) 0.063629  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162659  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.2	214221.2	214279.2	214338.2	214397.2	214455.2	214514.2	214572.2	214631.2	214690.2	214748.2	214807.2	214865.2	214924.2	214983.2	215041.2	215100.2	215158.2	215217.2	215276.2	215334.2	215393.2	215451.2	215510.2	215569.2	215627.2	215686.2	215744.2	215803.2	215862.2	215920.2	215979.2	Req (MHz)	All			
57.7	71.5	70.8	76.1	89.1	83.6	92.8	94.9	86.2	96.1	90.1	90.0	95.1	89.9	97.2	101.0	90.8	102.5	95.4	93.8	105.3	91.8	104.5	105.0	88.5	103.1	69.1	77.1	72.2	55.3	70.6	50.1	Phase	86.6				
36.3	37.0	36.2	37.4	36.7	35.9	36.1	35.0	34.9	34.4	32.9	33.1	31.7	28.8	32.4	32.8	33.1	33.6	32.4	33.6	32.8	32.5	33.0	29.8	30.5	28.5	27.0	29.8	26.1	28.8	27.5	26.8	Ampl.	32.4				
234.8	234.9	234.6	235.0	234.8	234.7	234.9	234.7	234.8	234.8	234.6	234.9	234.7	234.7	234.9	234.7	234.7	234.9	234.6	234.9	234.7	234.6	235.1	234.5	234.9	234.6	234.4	235.0	234.4	234.9	234.7	234.6	Std box	234.7				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
Wg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase		
Wg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC	
w	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
w	B00UX	B01UX	B02UX	B03UX	B04UX	B05UX	B06UX	B07UX	B08UX	B09UX	B10UX	B11UX	B12UX	B13UX	B14UX	B15UX	B16UX	B17UX	B18UX	B19UX	B20UX	B21UX	B22UX	B23UX	B24UX	B25UX	B26UX	B27UX	B28UX	B29UX	B30UX	B31UX		Chan ids			
g	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids			

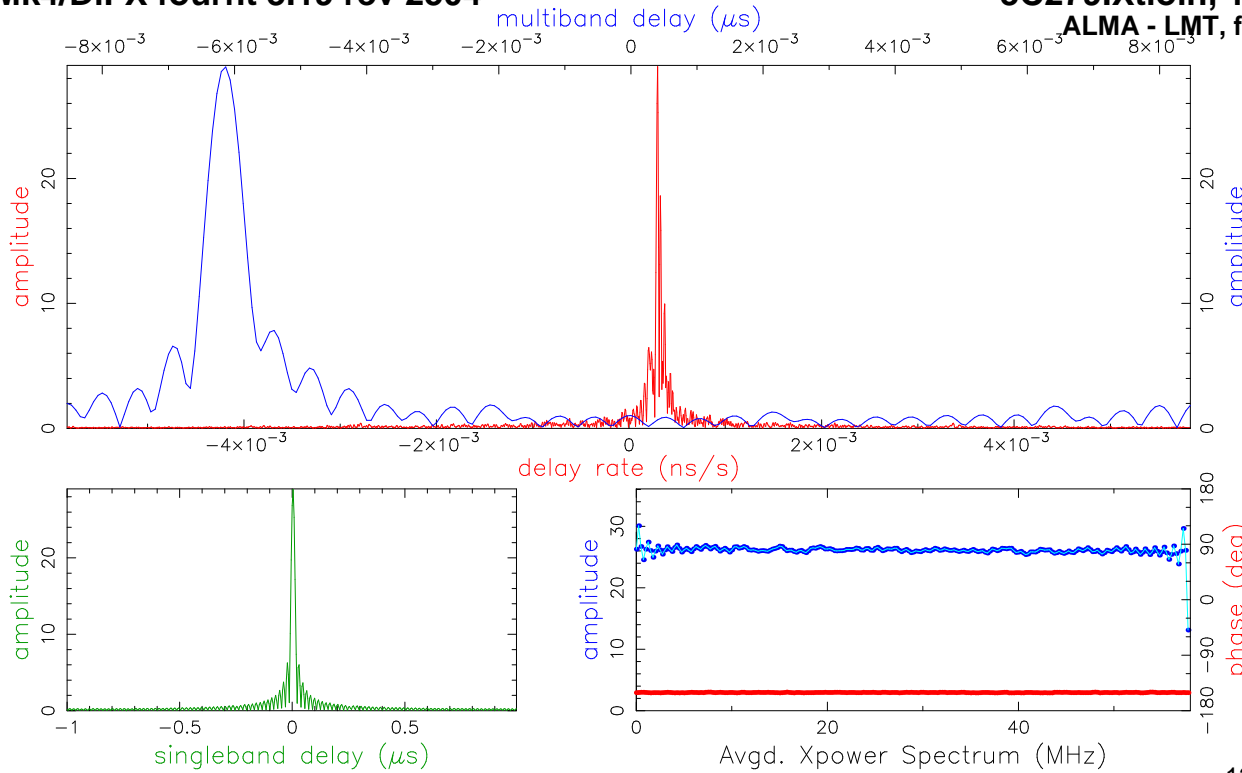
Group delay (usec)(model) -6.10879362044E+03 Apriori delay (usec) -6.10879133256E+03 Resid mbdelay (usec) -2.28788E-03 +/- 1.2E-07  
 Sband delay (usec) -6.10878388235E+03 Apriori clock (usec) -2.1076455E+03 Resid sbdelay (usec) 7.45021E-03 +/- 3.8E-06  
 Phase delay (usec) -6.10879133143E+03 Apriori clockrate (us/s) -4.1020000E-06 Resid phdelay (usec) 1.12308E-06 +/- 6.0E-10  
 Delay rate (us/s) -6.14931711745E-01 Apriori rate (us/s) -6.14932008848E-01 Resid rate (us/s) 2.97103E-07 +/- 4.3E-12  
 Total phase (deg) -23.6 Apriori accel (us/s/s) 2.95461856868E-05 Resid phase (deg) 86.6 +/- 0.0

RMS Theor. Amplitude 31.655 +/- 0.013 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 33.1 0.1 Search (2048X128) 30.644 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 22.3 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 15.2 0.1 Inc. seg. avg. 36.391 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 10.4 0.2 Inc. frq. avg. 32.425 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

W: az 284.6 el 43.7 pa 116.5 g: az 212.5 el 61.0 pa 31.0 u,v (fr/asec) 8844.867 -16249.483 simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, Wg  
ALMA - LMT, fgroup B, pol YR

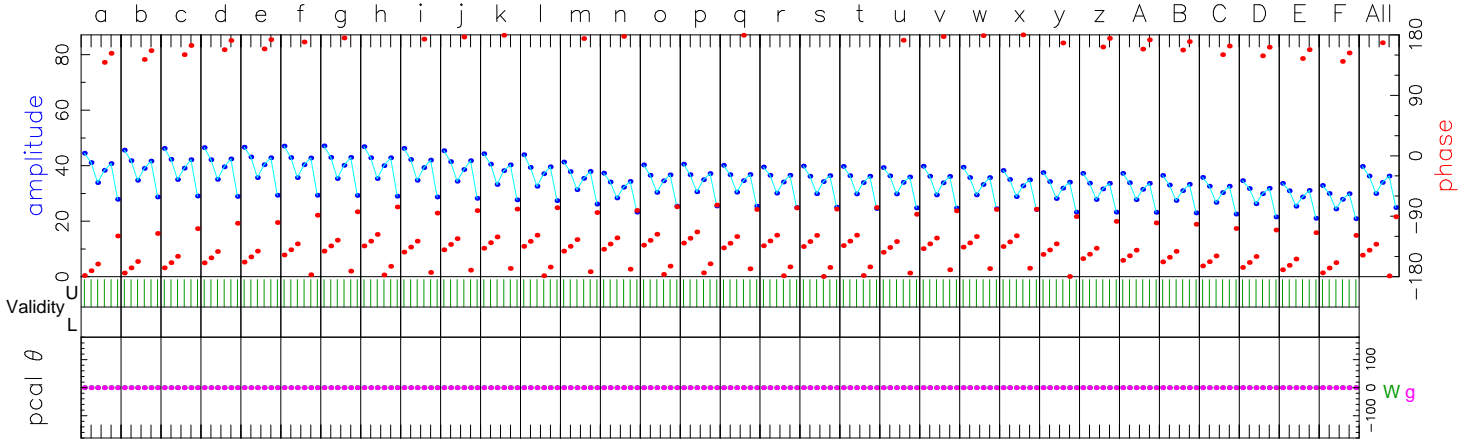


Fringe quality 5

SNR 2340.1  
Int time 239.911  
Amp 29.048  
Phase -150.5  
PFD 0.0e+00  
Delays (us)  
SBD 0.003721  
MBD -0.006150  
Fringe rate (Hz) 0.063557  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162711  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.214221	214279.214338	214397.214455	214514.214572	214631.214690	214748.214807	214865.214924	214983.215041	215100.215158	215217.215276	215334.215393	215451.215510	215569.215627	215686.215744	215803.215862	215920.215979	Req (MHz)	All																			
179.8	-176.2	-168.5	-161.3	-160.2	-149.7	-144.1	-136.6	-145.8	-142.1	-139.7	-137.3	-144.3	-141.4	-135.7	-132.7	-139.8	-137.0	-137.9	-136.9	-146.5	-141.3	-139.4	-138.4	-150.3	-156.5	-159.0	-161.2	-167.7	-169.5	-173.3	-177.7	Phase	-150.5				
32.7	33.4	33.8	33.9	34.4	34.3	34.4	34.2	33.7	33.1	32.3	31.7	30.3	27.4	29.4	29.6	29.4	29.1	29.1	28.9	28.9	28.5	27.9	27.2	27.0	26.9	26.5	26.0	25.3	24.6	23.9	Ampl.	29.9					
233.9	233.9	233.9	233.9	234.0	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	Std box	233.9			
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
Wg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase		
Wg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC		
w	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
w	B00UY	B01UY	B02UY	B03UY	B04UY	B05UY	B06UY	B07UY	B08UY	B09UY	B10UY	B11UY	B12UY	B13UY	B14UY	B15UY	B16UY	B17UY	B18UY	B19UY	B20UY	B21UY	B22UY	B23UY	B24UY	B25UY	B26UY	B27UY	B28UY	B29UY	B30UY	B31UY		Chan ids			
g	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids			

Group delay (usec)(model)	-6.10879748230E+03	Apriori delay (usec)	-6.10879133256E+03	Resid mbdelay (usec)	-6.14974E-03	+/-	1.3E-07
Sband delay (usec)	-6.10878761145E+03	Apriori clock (usec)	-2.1076455E+03	Resid sbdelay (usec)	3.72110E-03	+/-	4.1E-06
Phase delay (usec)	-6.10879133451E+03	Apriori clockrate (us/s)	-4.1020000E-06	Resid phdelay (usec)	-1.95235E-06	+/-	6.4E-10
Delay rate (us/s)	-6.14931712078E-01	Apriori rate (us/s)	-6.14932008848E-01	Resid rate (us/s)	2.96770E-07	+/-	4.6E-12
Total phase (deg)		Apriori accel (us/s/s)	2.95461856868E-05	Resid phase (deg)	-150.5	+/-	0.0

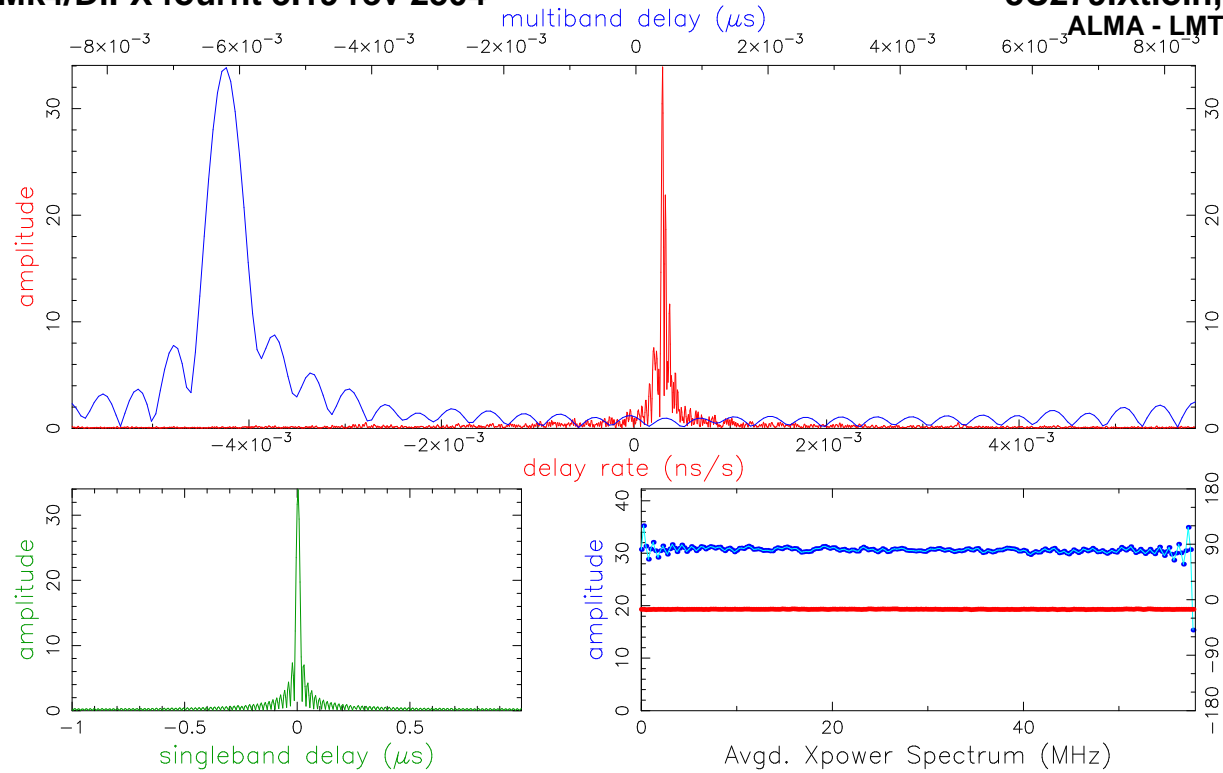
ph/seg (deg)	RMS 33.0	Theor. 0.1	Amplitude Search (2048X128)	29.048 +/- 0.012	28.393	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	22.8	0.1	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: disabled	mb window (us)	-0.009	0.009
ph/frq (deg)	14.7	0.1	Inc. seg. avg.	33.557		Bits/sample: 2x2	Sample rate(MISamp/s): 116	dr window (ns/s)	-0.006	0.006
amp/frq (%)	11.2	0.2	Inc. frq. avg.	29.893		Data rate(Mb/s): 7424	nlags: 232	ion window (TEC)	0.00	0.00

W: az 284.6 el 43.7 pa 116.5      g: az 212.5 el 61.0 pa 31.0      u,v (fr/asec) 8844.867 -16249.483      simultaneous interpolator

Control file: cf\_3597.from.mike.titus      Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Wg.Xtioin      Output file: Suppressed by test mode

Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, Wg  
ALMA - LMT, fgroup B, pol XR

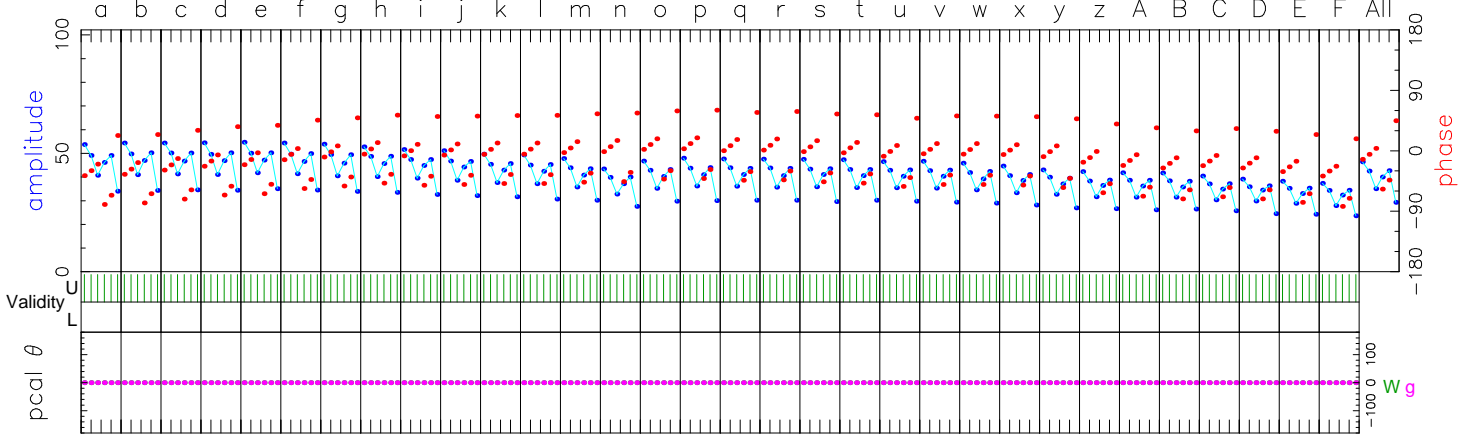


Fringe quality 5

SNR 2743.7  
Int time 239.906  
Amp 34.059  
Phase -15.4  
PFD 0.0e+00  
Delays (us)  
SBD 0.003566  
MBD -0.006219  
Fringe rate (Hz) 0.063571  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162724  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

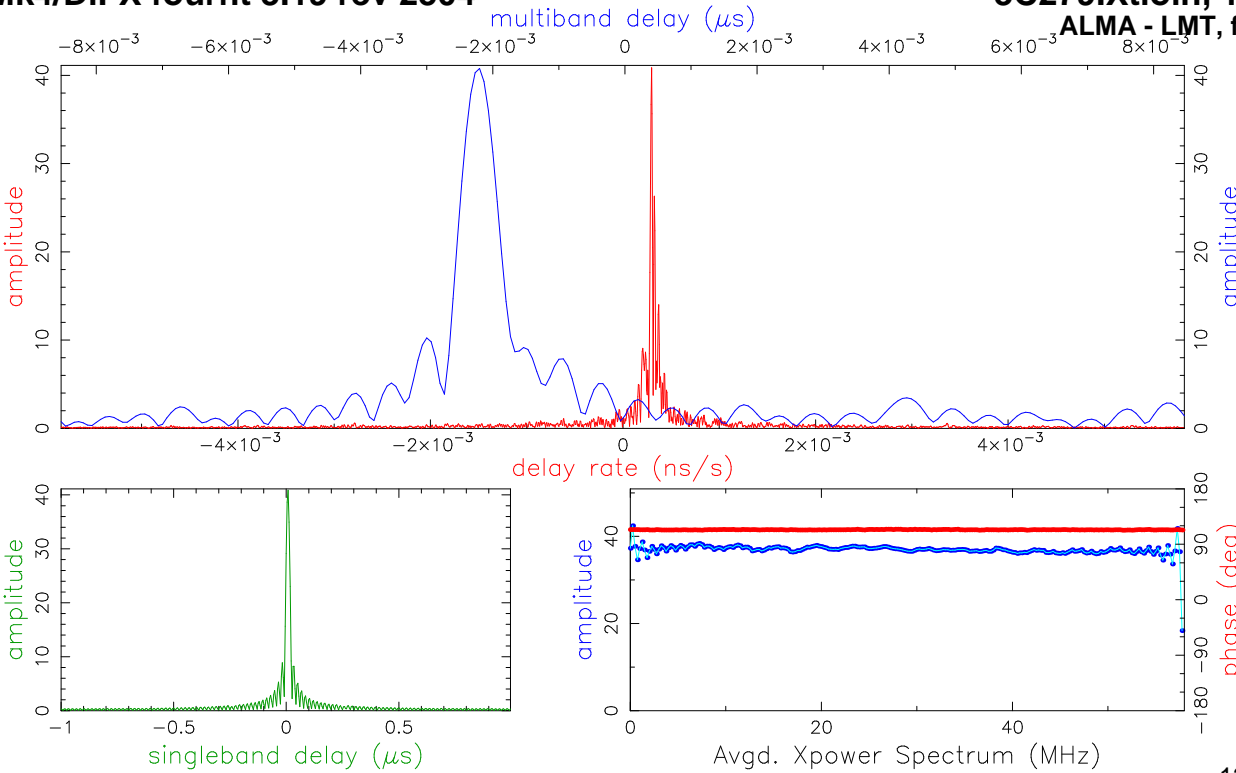


	214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All				
Phase	-38.9	-36.8	-30.6	-25.1	-22.4	-15.2	-11.5	-7.2	-9.9	-8.7	-7.6	-7.7	-5.3	-3.9	-0.9	0.3	-2.5	-1.7	-4.6	-6.0	-11.2	-8.0	-8.2	-9.3	-12.1	-20.4	-25.4	-29.3	-25.9	-29.6	-34.7	-41.3	Phase	-15.4				
Ampl	39.3	39.9	39.9	40.2	39.8	39.4	38.8	37.8	37.4	36.4	36.0	34.8	31.8	34.2	35.0	35.0	34.8	34.7	34.5	34.2	34.1	33.5	32.5	31.5	30.7	30.6	30.5	29.6	28.8	28.0	27.3	Ampl	34.7					
Std box	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.9	233.8	233.9	233.8	233.9	233.9	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.7	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	233.8	Std box	233.8			
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
Wg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase		
Wg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC		
w	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
w	800UX	B01UX	B02UX	B03UX	B04UX	B05UX	B06UX	B07UX	B08UX	B09UX	B10UX	B11UX	B12UX	B13UX	B14UX	B15UX	B16UX	B17UX	B18UX	B19UX	B20UX	B21UX	B22UX	B23UX	B24UX	B25UX	B26UX	B27UX	B28UX	B29UX	B30UX	B31UX			Chan ids			
g	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR			Chan ids			

Group delay (usec)(model) -6.10879755202E+03 Apriori delay (usec) -6.10879133256E+03 Resid mbdelay (usec) -6.21947E-03 +/- 1.1E-07  
 Sband delay (usec) -6.10878776676E+03 Apriori clock (usec) -2.1076455E+03 Resid sbdelay (usec) 3.56579E-03 +/- 3.5E-06  
 Phase delay (usec) -6.10879133276E+03 Apriori clockrate (us/s) -4.1020000E-06 Resid phdelay (usec) -1.99919E-07 +/- 5.4E-10  
 Delay rate (us/s) -6.14931712014E-01 Apriori rate (us/s) -6.14932008848E-01 Resid rate (us/s) 2.96834E-07 +/- 3.9E-12  
 Total phase (deg) -125.6 Apriori accel (us/s/s) 2.95461856868E-05 Resid phase (deg) -15.4 +/- 0.0

RMS Theor. Amplitude 34.059 +/- 0.012 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 33.2 0.1 Search (2048X128) 33.717 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 22.7 0.1 Interp. 0.000 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 12.6 0.1 Inc. seg. avg. 39.372 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 11.2 0.2 Inc. frq. avg. 34.719 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

W: az 284.6 el 43.7 pa 116.5 g: az 212.5 el 61.0 pa 31.0 u,v (fr/asec) 8844.867 -16249.483 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Wg.Xtioin Output file: Suppressed by test mode

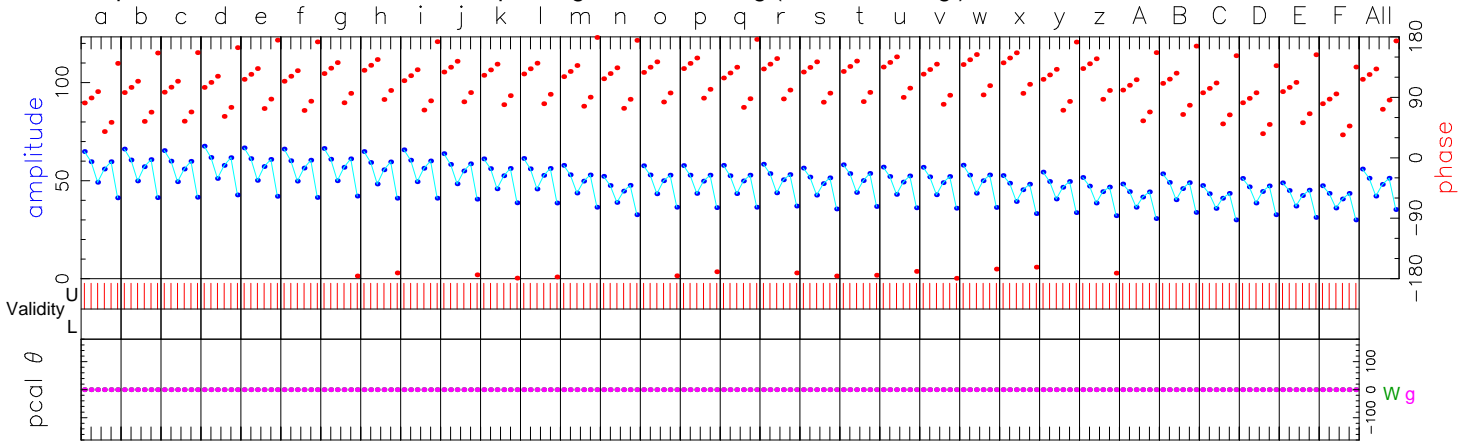


Fringe quality 5

SNR 3208.0  
Int time 224.942  
Amp 41.126  
Phase 113.7  
PFD 0.0e+00  
Delays (us)  
SBD 0.007612  
MBD -0.002217  
Fringe rate (Hz) 0.063615  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162736  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

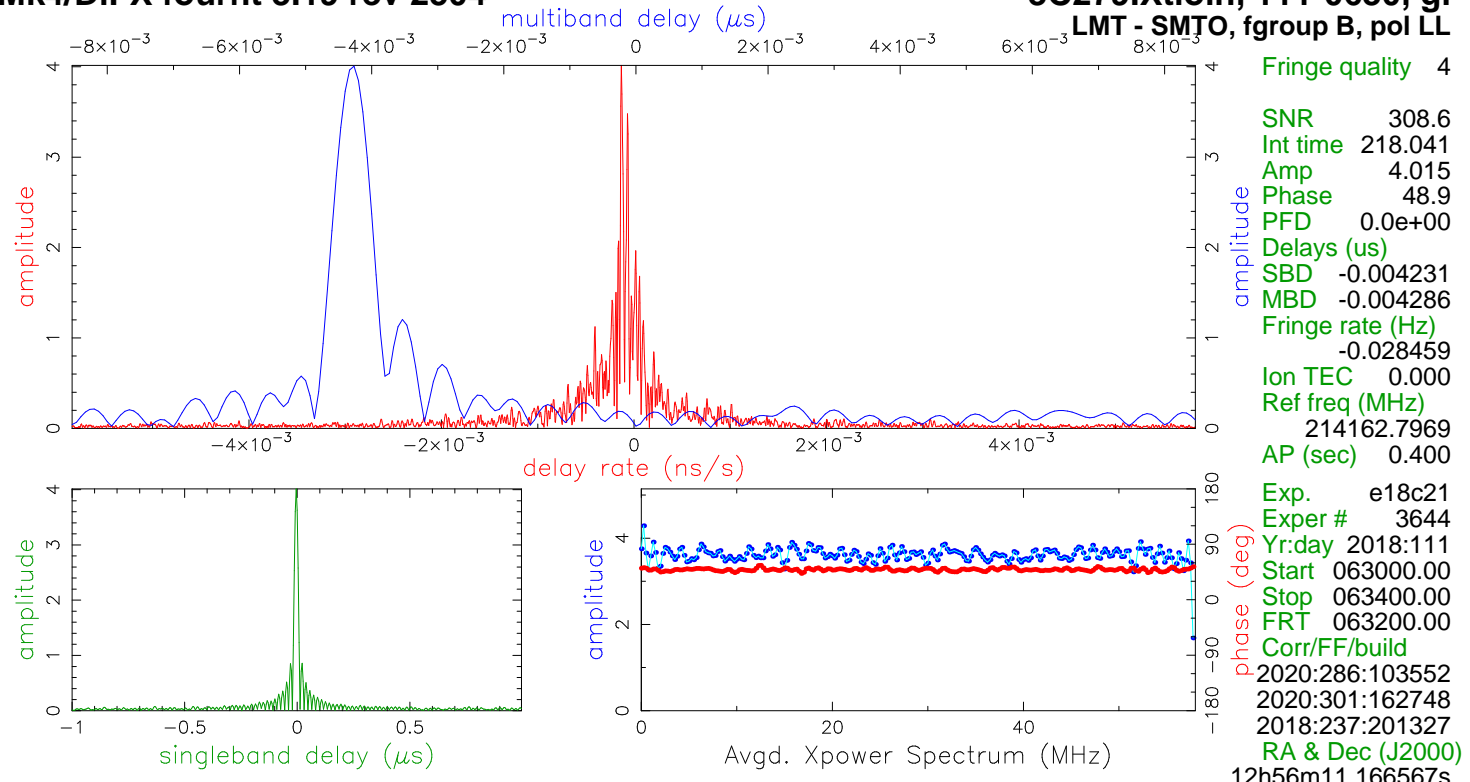


	214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All				
79.7	94.9	95.5	102.6	114.5	111.5	123.2	127.8	112.2	124.9	120.4	122.0	118.3	114.9	124.2	130.0	116.0	129.1	124.3	125.4	131.6	121.1	135.3	137.8	112.6	129.0	97.2	106.9	92.7	78.0	94.2	76.4	Phase	113.7					
47.8	48.4	47.9	49.4	46.8	48.2	48.6	47.4	48.0	46.6	44.7	44.7	42.2	38.0	42.2	42.2	42.2	42.7	41.3	42.7	41.8	41.6	42.3	38.5	39.5	37.5	35.3	39.0	34.7	37.6	35.9	34.7	Ampl.	42.6					
234.8	234.9	234.7	235.0	234.8	234.7	235.0	234.7	234.9	234.8	234.7	234.8	234.8	234.8	235.0	234.8	234.8	234.9	234.6	235.0	234.7	234.7	235.1	234.5	234.9	234.7	234.4	235.1	234.4	235.0	234.7	234.6	234.6	Std box	234.8				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used					
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
Wg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
Wg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC		
w	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
w	800UY	B01UY	B02UY	B03UY	B04UY	B05UY	B06UY	B07UY	B08UY	B09UY	B10UY	B11UY	B12UY	B13UY	B14UY	B15UY	B16UY	B17UY	B18UY	B19UY	B20UY	B21UY	B22UY	B23UY	B24UY	B25UY	B26UY	B27UY	B28UY	B29UY	B30UY	B31UY			Chan ids			
g	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL			Chan ids			

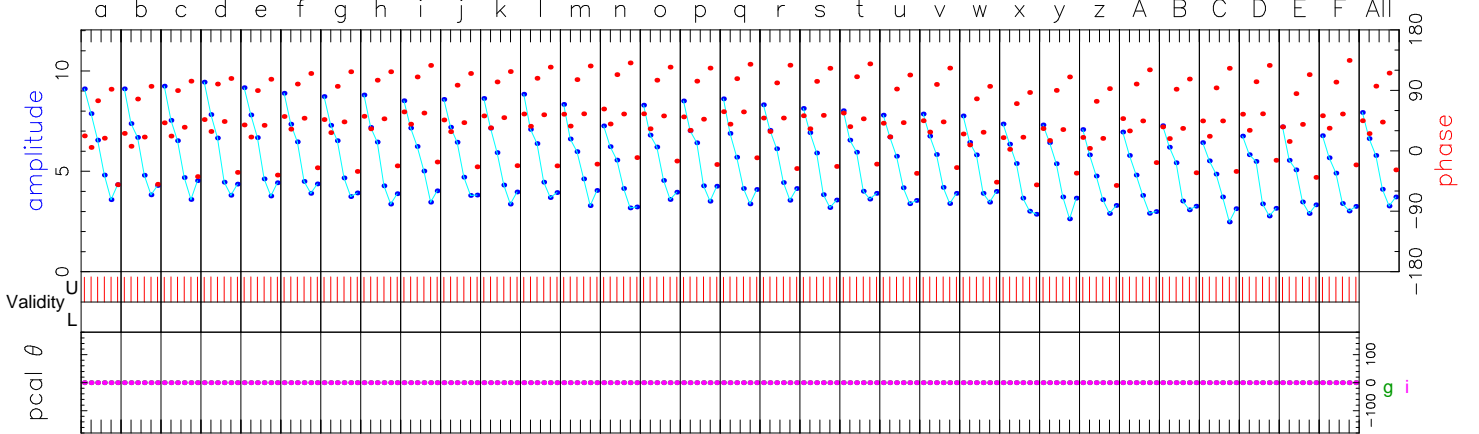
Group delay (usec)(model) -6.10879355004E+03 Apriori delay (usec) -6.10879133256E+03 Resid mbdelay (usec) -2.21749E-03 +/- 9.2E-08  
 Sband delay (usec) -6.10878372069E+03 Apriori clock (usec) -2.1076455E+03 Resid sbdelay (usec) 7.61186E-03 +/- 3.0E-06  
 Phase delay (usec) -6.10879133108E+03 Apriori clockrate (us/s) -4.1020000E-06 Resid phdelay (usec) 1.47514E-06 +/- 4.6E-10  
 Delay rate (us/s) -6.14931711806E-01 Apriori rate (us/s) -6.14932008848E-01 Resid rate (us/s) 2.97042E-07 +/- 3.3E-12  
 Total phase (deg) 3.5 Apriori accel (us/s/s) 2.95461856868E-05 Resid phase (deg) 113.7 +/- 0.0

RMS Theor. Amplitude 41.126 +/- 0.013 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 33.1 0.0 Search (2048X128) 40.566 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 22.5 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 17.2 0.1 Inc. seg. avg. 47.382 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 11.6 0.2 Inc. frq. avg. 42.579 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

W: az 284.6 el 43.7 pa 116.5 g: az 212.5 el 61.0 pa 31.0 u,v (fr/asec) 8844.867 -16249.483 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Wg.Xtioin Output file: Suppressed by test mode



Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



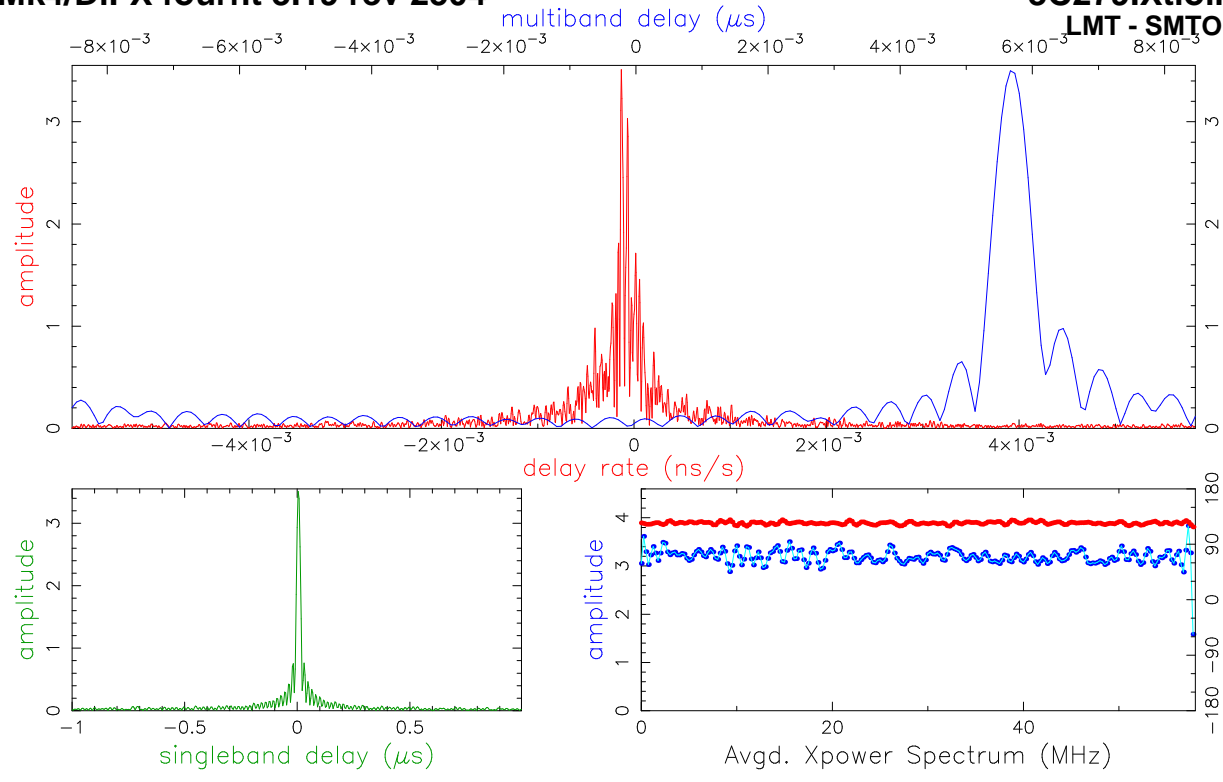
214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All				
25.8	29.6	42.6	50.1	42.5	54.1	50.7	55.6	61.9	51.2	55.1	60.0	58.9	65.5	58.5	54.5	61.4	53.1	56.6	60.0	45.8	50.2	30.9	25.6	37.3	24.7	52.6	41.8	47.2	58.4	40.1	57.9	Phase	48.9				
4.7	4.6	4.6	4.7	4.7	4.6	4.4	4.4	4.4	4.5	4.3	4.4	4.2	3.8	4.3	4.3	4.3	4.2	4.0	3.9	4.0	4.0	4.0	3.8	3.7	3.5	3.6	3.7	3.3	3.5	3.4	3.4	Ampl	4.1				
232.2	232.0	232.2	231.9	232.0	232.1	231.9	232.1	231.9	231.9	232.1	231.9	232.0	232.0	232.0	232.0	232.1	231.8	232.1	231.9	231.9	232.0	231.5	232.3	231.7	232.0	232.2	231.7	232.3	231.8	232.0	232.2	Std box	232.0				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
gi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase			
gi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Manl PC			
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	Chan ids				
i	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	Chan ids				

Group delay (usec)(model)	1.94589217629E+03	Apriori delay (usec)	1.94589646241E+03	Resid mbdelay (usec)	-4.28612E-03	+/-	9.5E-07
Sband delay (usec)	1.94589223151E+03	Apriori clock (usec)	3.3197954E-01	Resid sbdelay (usec)	-4.23090E-03	+/-	3.1E-05
Phase delay (usec)	1.94589646304E+03	Apriori clockrate (us/s)	1.8399999E-06	Resid phdelay (usec)	6.34003E-07	+/-	4.8E-09
Delay rate (us/s)	-3.24410746711E-01	Apriori rate (us/s)	-3.24410613828E-01	Resid rate (us/s)	-1.32883E-07	+/-	3.5E-11
Total phase (deg)	343.5	Apriori accel (us/s/s)	-7.86259922039E-06	Resid phase (deg)	48.9	+/-	0.4

ph/seg (deg)	RMS	Theor.	Amplitude	4.015 +/- 0.013	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	47.0	0.5	Search (2048X128)	3.965	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	51.7	0.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009	
amp/frq (%)	11.8	1.1	Inc. seg. avg.	5.239	Sample rate(MISamp/s):	116	dr window (ns/s)	-0.006 0.006		
	10.6	1.8	Inc. frq. avg.	4.094	Data rate(Mb/s):	7424	nlags: 232	t_cohere infinite	ion window (TEC)	0.00 0.00

g: az 212.5 el 61.0 pa 31.0 i: az 184.2 el 51.3 pa 4.3 u,v (fr/asec) 4628.051 -4540.745 simultaneous interpolator

Control file: cf\_3597.from.mike.titus Input file: /home/glihdahl/golden/from-cannon/1000/111-0630/gi.Xtioin Output file: Suppressed by test mode

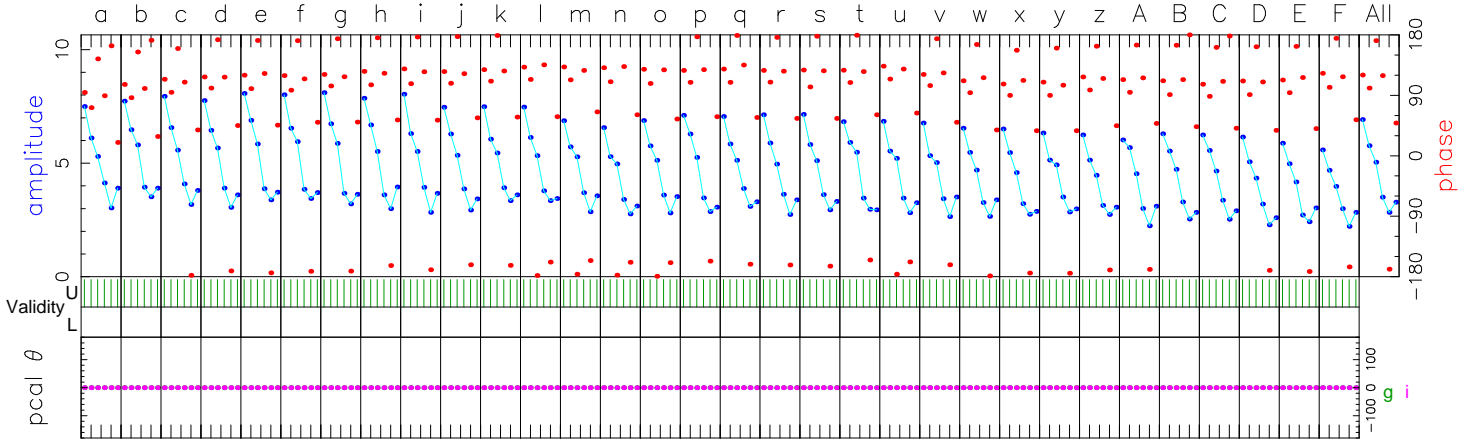


Fringe quality 5

SNR 286.3  
Int time 239.907  
Amp 3.551  
Phase 124.3  
PFD 0.0e+00  
Delays (us)  
SBD 0.005757  
MBD 0.005691  
Fringe rate (Hz)  
-0.028466  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162800  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



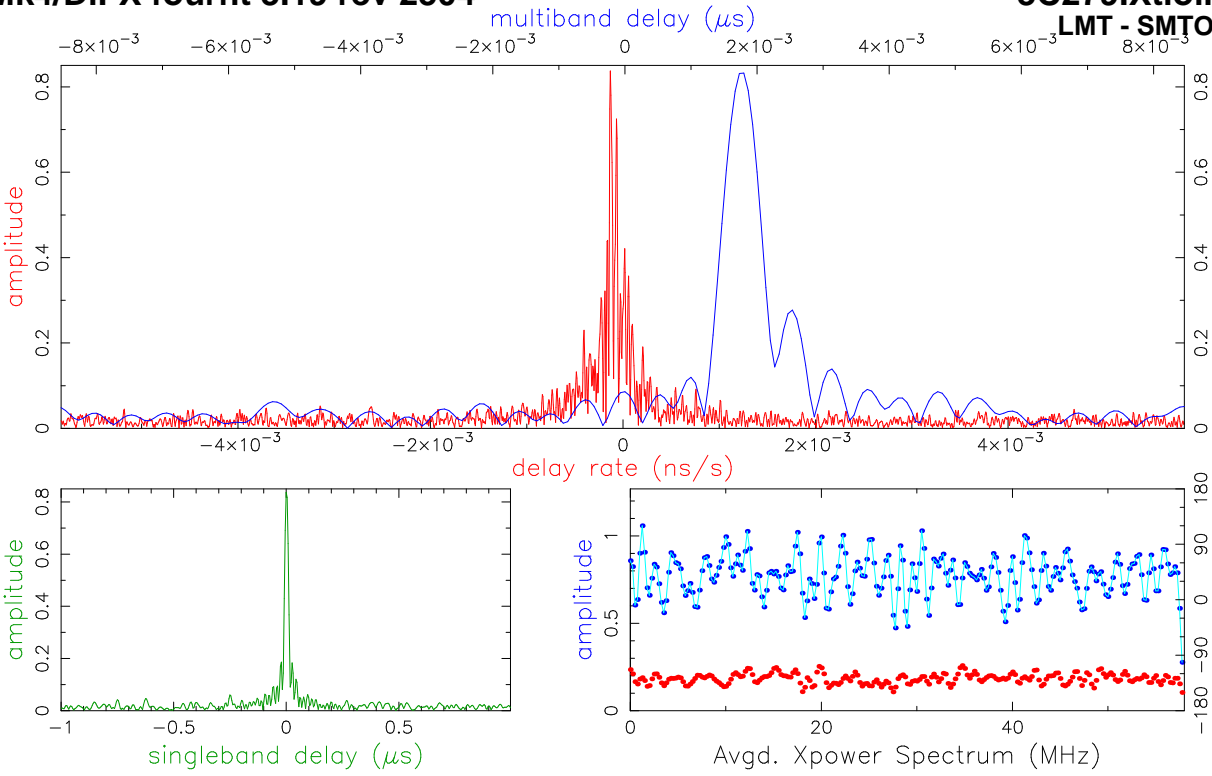
	214162.214221	214279	214338	214397	214455	214514	214572	214631	214690	214748	214807	214865	214924	214983	215041	215100	215158	215217	215276	215334	215393	215451	215510	215569	215627	215686	215744	215803	215862	215920	215979	Req (MHz)	All					
95.2	108.9	115.7	122.9	124.4	123.3	125.8	127.6	130.0	129.6	133.2	137.5	135.8	136.1	132.0	132.6	134.6	130.4	130.2	134.2	137.5	126.4	116.3	113.3	114.6	120.5	117.0	116.4	112.7	115.3	116.6	124.9	Phase	124.3					
3.8	4.0	4.0	3.9	4.1	4.0	4.0	3.9	4.0	3.8	3.9	3.8	3.6	3.3	3.5	3.6	3.7	3.6	3.6	3.5	3.5	3.4	3.3	3.3	3.2	3.2	3.2	3.3	3.3	3.0	2.9	2.9	Ampl	3.6					
234.5	234.4	234.4	234.4	234.3	234.4	234.4	234.4	234.3	234.3	234.3	234.3	234.3	234.4	234.3	234.4	234.3	234.4	234.3	234.2	234.2	234.2	234.3	234.3	234.3	234.3	234.3	234.3	234.3	234.4	234.2	234.4	Std box	234.3					
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
gi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase		
gi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Manl PC		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
g	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids				
i	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids				

Group delay (usec)(model) 1.94590215388E+03 Apriori delay (usec) 1.94589646241E+03 Resid mbdelay (usec) 5.69147E-03 +/- 1.0E-06  
 Sband delay (usec) 1.94590221965E+03 Apriori clock (usec) 3.3197954E-01 Resid sbdelay (usec) 5.75724E-03 +/- 3.3E-05  
 Phase delay (usec) 1.94589646402E+03 Apriori clockrate (us/s) 1.8399999E-06 Resid phdelay (usec) 1.61245E-06 +/- 5.2E-09  
 Delay rate (us/s) -3.24410746748E-01 Apriori rate (us/s) -3.24410613828E-01 Resid rate (us/s) -1.32920E-07 +/- 3.7E-11  
 Total phase (deg) 59.0 Apriori accel (us/s/s) -7.86259922039E-06 Resid phase (deg) 124.3 +/- 0.4

RMS Theor. Amplitude 3.551 +/- 0.012 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 46.5 0.5 Search (2048X128) 3.451 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 50.2 0.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 10.0 1.1 Inc. seg. avg. 4.561 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 9.7 2.0 Inc. frq. avg. 3.562 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

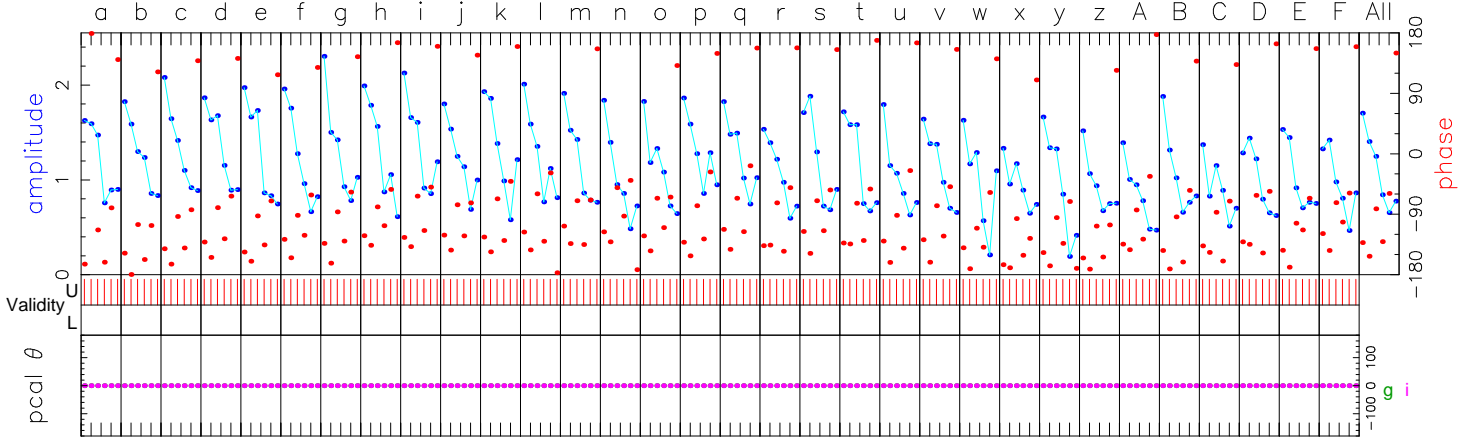
g: az 212.5 el 61.0 pa 31.0 i: az 184.2 el 51.3 pa 4.3 u,v (fr/asec) 4628.051 -4540.745 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glihdahl/golden/from-cannon/1000/111-0630/gi.Xtioin Output file: Suppressed by test mode





Fringe quality 4  
 SNR 66.4  
 Int time 224.937  
 Amp 0.850  
 Phase -128.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.001667  
 MBD 0.001769  
 Fringe rate (Hz)  
 -0.028444  
 Ion TEC 0.000  
 Ref freq (MHz)  
 214162.7969  
 AP (sec) 0.400  
 Exp. e18c21  
 Exper # 3644  
 Yr:day 2018:111  
 Start 063000.00  
 Stop 063400.00  
 FRT 063200.00  
 Corr/FF/build  
 2020:286:103552  
 2020:301:162813  
 2018:237:201327  
 RA & Dec (J2000)  
 12h56m11.166567s  
 -5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

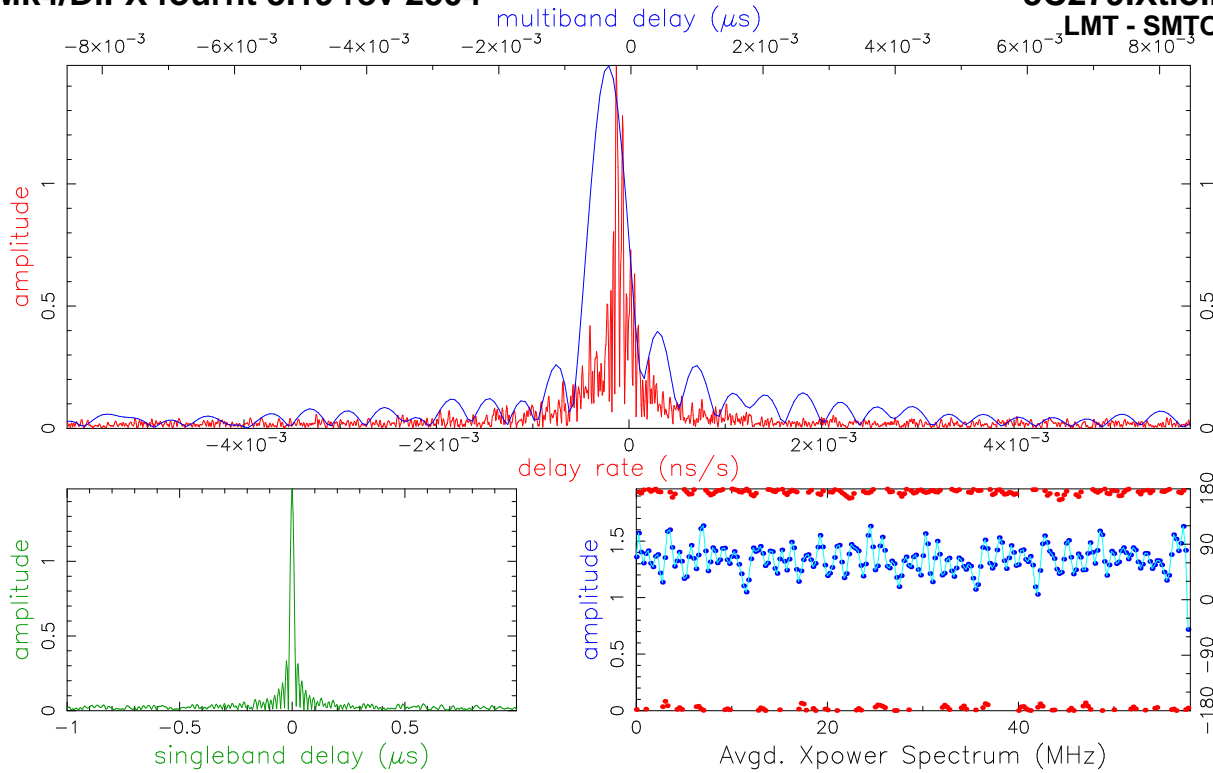


214162.214221.214279.214338.214397.214455.214514.214572.214631.214690.214748.214807.214865.214924.214983.215041.215100.215158.215217.215276.215334.215393.215451.215510.215569.215627.215686.215744.215803.215862.215920.215979.216037																										Req (MHz)	All
-155.2 -152.0 -138.2 -124.5 -133.7 -128.9 -132.3 -110.5 -116.3 -123.0 -126.1 -109.5 -112.1 -107.7 -112.0 -121.3 -112.4 -125.9 -119.6 -118.2 -132.1 -122.7 -150.3 -152.8 -137.7 -152.1 -123.0 -144.8 -134.6 -119.5 -138.3 -120.2																										Phase	-128.0
0.9 1.0 1.0 1.0 1.0 0.9 1.0 1.1 1.0 0.9 1.0 0.9 1.0 0.8 0.8 0.8 0.8 0.8 0.9 0.9 0.8 0.8 0.8 0.8 0.7 0.8 0.7 0.7 0.8 0.7 0.7 0.8 0.7																										Ampl	0.9
233.6 233.3 233.5 233.2 233.5 233.5 233.4 233.4 233.2 233.5 233.8 233.4 233.2 233.4 233.2 233.7 233.1 233.4 233.5 233.7 233.4 233.5 232.9 233.7 233.0 233.6 233.4 233.0 233.5 233.1 233.2 233.6																										Std box	233.4
UL 600/0																										APs used	
g 0																										PC freqs	
i 0																										PC freqs	
gi 0																										PC phase	
gi 0																										Manl PC	
g 1000																										PC amp	
i 1000																											
g 800UL B01UL B02UL B03UL B04UL B05UL B06UL B07UL B08UL B09UL B10UL B11UL B12UL B13UL B14UL B15UL B16UL B17UL B18UL B19UL B20UL B21UL B22UL B23UL B24UL B25UL B26UL B27UL B28UL B29UL B30UL B31UL																										Chan ids	
i 800UR B01UR B02UR B03UR B04UR B05UR B06UR B07UR B08UR B09UR B10UR B11UR B12UR B13UR B14UR B15UR B16UR B17UR B18UR B19UR B20UR B21UR B22UR B23UR B24UR B25UR B26UR B27UR B28UR B29UR B30UR B31UR																										Chan ids	

Group delay (usec)(model) 1.94589823161E+03 Apriori delay (usec) 1.94589646241E+03 Resid mbdelay (usec) 1.76920E-03 +/- 4.4E-06  
 Sband delay (usec) 1.94589812972E+03 Apriori clock (usec) 3.3197954E-01 Resid sbdelay (usec) 1.66731E-03 +/- 1.4E-04  
 Phase delay (usec) 1.94589646075E+03 Apriori clockrate (us/s) 1.8399999E-06 Resid phdelay (usec) -1.65958E-06 +/- 2.2E-08  
 Delay rate (us/s) -3.24410746644E-01 Apriori rate (us/s) -3.24410613828E-01 Resid rate (us/s) -1.32816E-07 +/- 1.6E-10  
 Total phase (deg) 166.7 Apriori accel (us/s/s) -7.86259922039E-06 Resid phase (deg) -128.0 +/- 1.7

RMS Theor. Amplitude 0.850 +/- 0.013 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 48.8 2.1 Search (2048X128) 0.817 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 53.4 3.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 14.3 4.9 Inc. seg. avg. 1.104 Sample rate (MSamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 12.9 8.5 Inc. frq. avg. 0.859 Data rate (Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

g: az 212.5 el 61.0 pa 31.0 i: az 184.2 el 51.3 pa 4.3 u,v (fr/asec) 4628.051 -4540.745 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/gi..Xtioin Output file: Suppressed by test mode

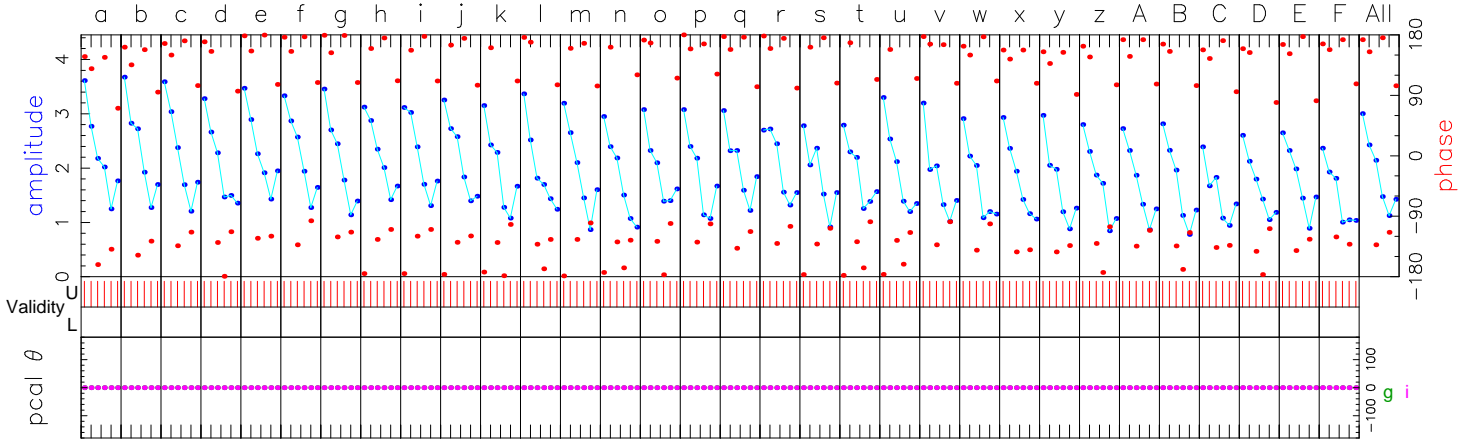


Fringe quality 5

SNR 115.9  
Int time 224.918  
Amp 1.485  
Phase 178.1  
PFD 0.0e+00  
Delays (us)  
SBD -0.000256  
MBD -0.000347  
Fringe rate (Hz)  
-0.028498  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162825  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

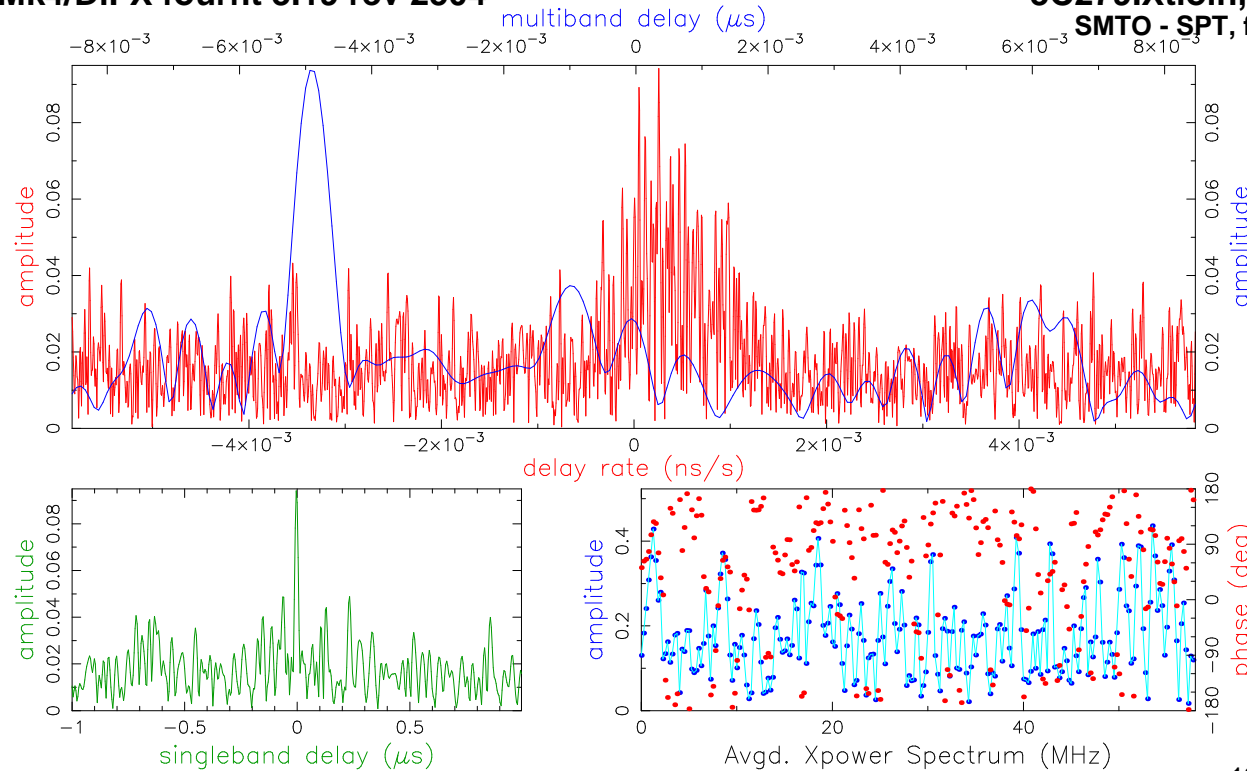
Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.214221	214279	214338	214397	214455	214514	214572	214631	214690	214748	214807	214865	214924	214983	215041	215100	215158	215217	215276	215334	215393	215451	215510	215569	215627	215686	215744	215803	215862	215920	215979	Req (MHz)	All				
149.0	163.5	172.0	-179.3	179.9	-179.5	-176.8	-175.5	-176.1	-173.8	-174.2	-174.3	179.1	-169.4	-175.2	-178.6	178.8	-177.3	-176.2	-169.3	-172.0	-178.5	175.6	166.1	160.7	175.2	174.2	176.4	168.0	173.4	170.8	179.5	Phase	178.1				
1.7	1.8	1.7	1.5	1.8	1.7	1.6	1.7	1.6	1.7	1.5	1.6	1.5	1.5	1.5	1.6	1.5	1.4	1.4	1.6	1.4	1.3	1.5	1.3	1.3	1.3	1.3	1.1	1.2	1.3	1.2	1.3	1.2	Ampl	1.5			
233.2	233.0	232.9	233.0	232.9	232.9	232.9	233.0	232.8	232.9	233.0	233.0	233.1	233.0	233.0	232.9	232.9	233.0	233.1	232.9	232.7	232.7	232.7	233.1	233.0	232.9	232.8	233.0	233.1	232.8	232.9	233.1	232.9	233.1	Std box	232.9		
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
gi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase	
gi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
g	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids			
i	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids			

Group delay (usec)(model) 1.94589611576E+03 Apriori delay (usec) 1.94589646241E+03 Resid mbdelay (usec) -3.46645E-04 +/- 2.5E-06  
 Sband delay (usec) 1.94589620668E+03 Apriori clock (usec) 3.3197954E-01 Resid sbdelay (usec) -2.55724E-04 +/- 8.2E-05  
 Phase delay (usec) 1.94589646472E+03 Apriori clockrate (us/s) 1.8399999E-06 Resid phdelay (usec) 2.31047E-06 +/- 1.3E-08  
 Delay rate (us/s) -3.24410746894E-01 Apriori rate (us/s) -3.24410613828E-01 Resid rate (us/s) -1.33066E-07 +/- 9.3E-11  
 Total phase (deg) 112.8 Apriori accel (us/s/s) -7.86259922039E-06 Resid phase (deg) 178.1 +/- 1.0

ph/seg (deg) RMS 46.7 Theor. 1.2 Amplitude 1.485 +/- 0.013 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 53.3 2.1 Search (2048X128) 1.429 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 9.3 2.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 12.0 4.9 Inc. seg. avg. 1.933 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 g: az 212.5 el 61.0 pa 31.0 i: az 184.2 el 51.3 pa 4.3 u,v (fr/asec) 4628.051 -4540.745 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00  
 simultaneous interpolator

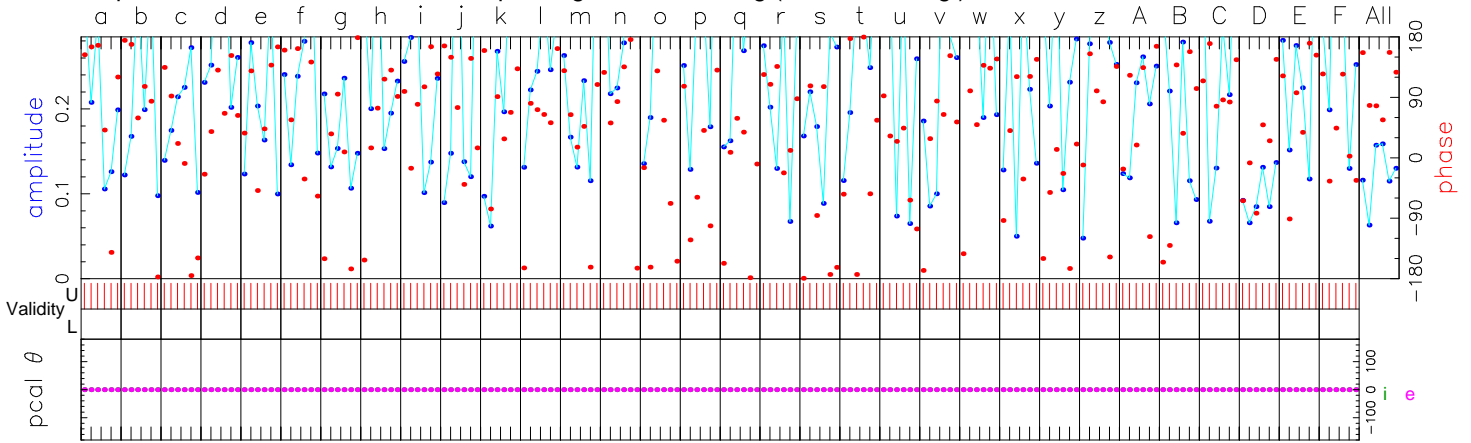


Fringe quality 0

SNR 7.4  
Int time 224.963  
Amp 0.095  
Phase 105.9  
PFD 1.4e-04  
Delays (us)  
SBD -0.003184  
MBD -0.004901  
Fringe rate (Hz)  
0.055160  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162837  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.214221	214279	214338	214397	214455	214514	214572	214631	214690	214748	214807	214865	214924	214983	215041	215100	215158	215217	215276	215334	215393	215451	215510	215569	215627	215686	215744	215803	215862	215920	215979	Req (MHz)	All									
154.7	104.2	99.0	78.2	109.3	147.4	129.9	102.3	90.0	60.8	91.5	91.1	94.2	141.8	154.3	109.5	49.5	84.9	179.7	178.7	40.0	89.8	129.1	35.8	-33.2	126.9	140.4	174.4	112.8	12.1	126.6	52.0	Phase	105.9									
0.2	0.2	0.0	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.0	0.2	0.1	Ampl	0.1									
462.9	56.6	430.9	331.3	128.9	25.2	323.7	387.2	352.8	50.6	185.4	107.5	308.7	81.1	103.5	434.3	295.6	184.0	142.2	140.5	458.4	196.8	67.9	80.9	420.8	316.7	224.5	259.5	218.7	255.9	250.1	325.1	Std box	232.3									
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used									
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs							
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs						
ie	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase					
ie	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC				
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
i	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL						Chan ids				
e	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL									Chan ids	

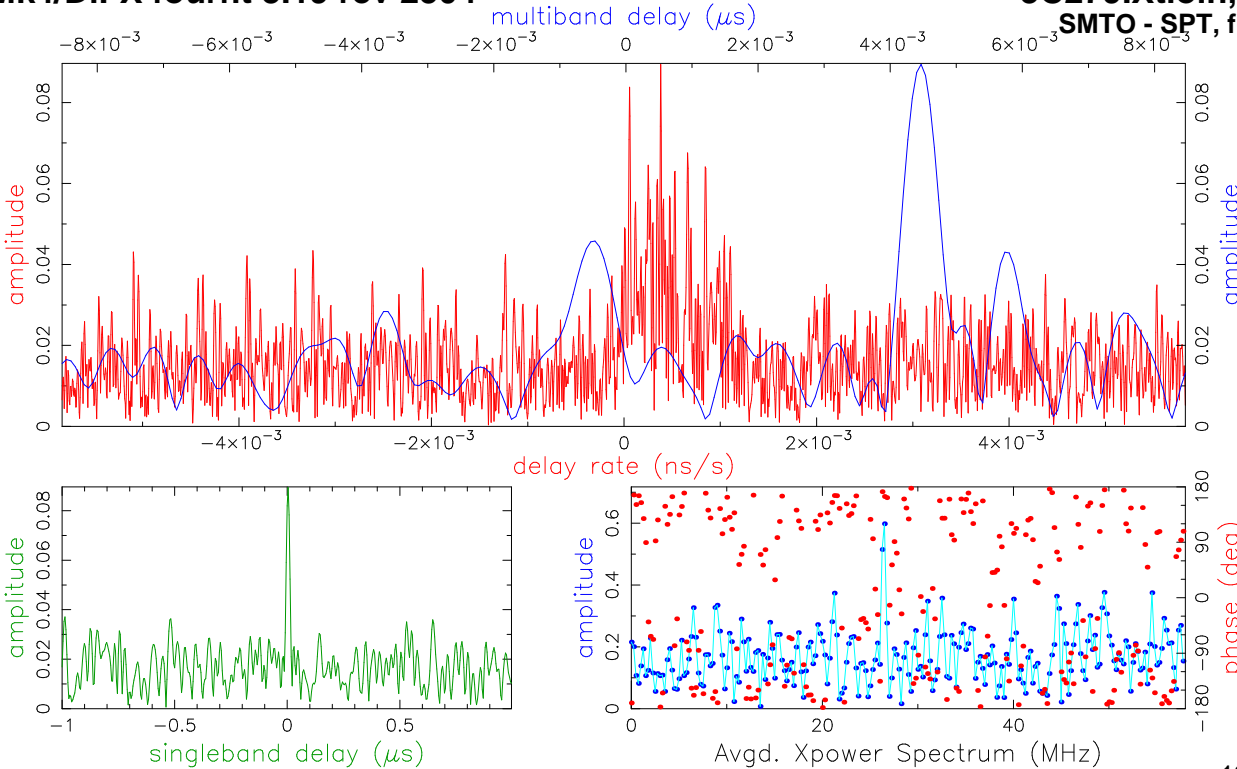
Group delay (usec)(model) 1.44582481407E+04 Apriori delay (usec) 1.44582530416E+04 Resid mbdelay (usec) -4.90085E-03 +/- 4.0E-05  
 Sband delay (usec) 1.44582498576E+04 Apriori clock (usec) 4.9359557E-01 Resid sbdelay (usec) -3.18400E-03 +/- 1.3E-03  
 Phase delay (usec) 1.44582530430E+04 Apriori clockrate (us/s) 9.5800006E-07 Resid phdelay (usec) 1.37403E-06 +/- 2.0E-07  
 Delay rate (us/s) -7.02748369510E-02 Apriori rate (us/s) -7.02750945142E-02 Resid rate (us/s) 2.57563E-07 +/- 1.4E-09  
 Total phase (deg) 219.1 Apriori accel (us/s/s) -9.46886050786E-05 Resid phase (deg) 105.9 +/- 15.5

ph/seg (deg) RMS Theor. Amplitude 0.095 +/- 0.013 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 40.1 18.9 Search (2048X128) 0.093 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 49.8 33.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 65.4 76.3 Inc. seg. avg. 0.117 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 i: az 184.2 el 51.3 pa 4.3 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) 860.859 35626.029 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00  
 simultaneous interpolator

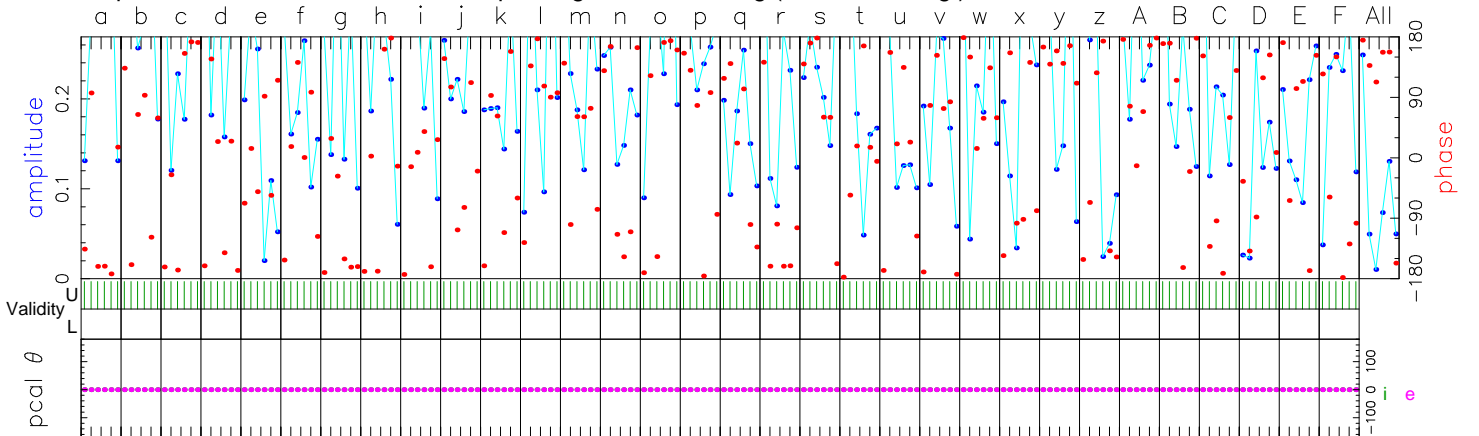
Fringe quality 0

SNR 7.2  
Int time 239.941  
Amp 0.090  
Phase 166.7  
PFD 5.9e-04  
Delays (us)  
SBD 0.003894  
MBD 0.004460  
Fringe rate (Hz)  
0.081636  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162850  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"



Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.204221.204279.204338.204397.204455.204514.204572.204631.204690.204748.204807.204865.204924.204983.215041.215100.215158.215217.215276.215334.215393.215451.215510.215569.215627.215686.215744.215803.215862.215920.215979.216037	Req (MHz)	All
-179.5 139.1 -177.9 177.8 -30.2 -173.7 -127.1 -178.0 4.3 122.4 159.1 120.2 96.1 -174.0 172.4 142.6 113.4 -173.4 155.7 -32.1 169.1 121.2 117.1 -127.2 155.1 -156.6 126.7 173.5 163.2 -135.6 165.2 -143.0	Phase	166.7
0.2 0.1 0.2 0.1 0.1 0.0 0.1 0.2 0.0 0.0 0.1 0.2 0.1 0.2 0.1 0.3 0.1 0.1 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.2 0.1 0.1 0.2 0.1 0.1 0.0 0.1 0.1	Ampl	0.1
390.7 185.7 408.3 367.8 99.6 114.0 445.4 386.1 259.0 354.2 196.7 195.4 330.3 61.1 234.1 449.7 351.6 68.5 131.4 304.2 136.1 230.8 58.0 434.2 370.2 185.1 58.9 75.9 31.1 218.8 145.4 363.2	Std box	233.9

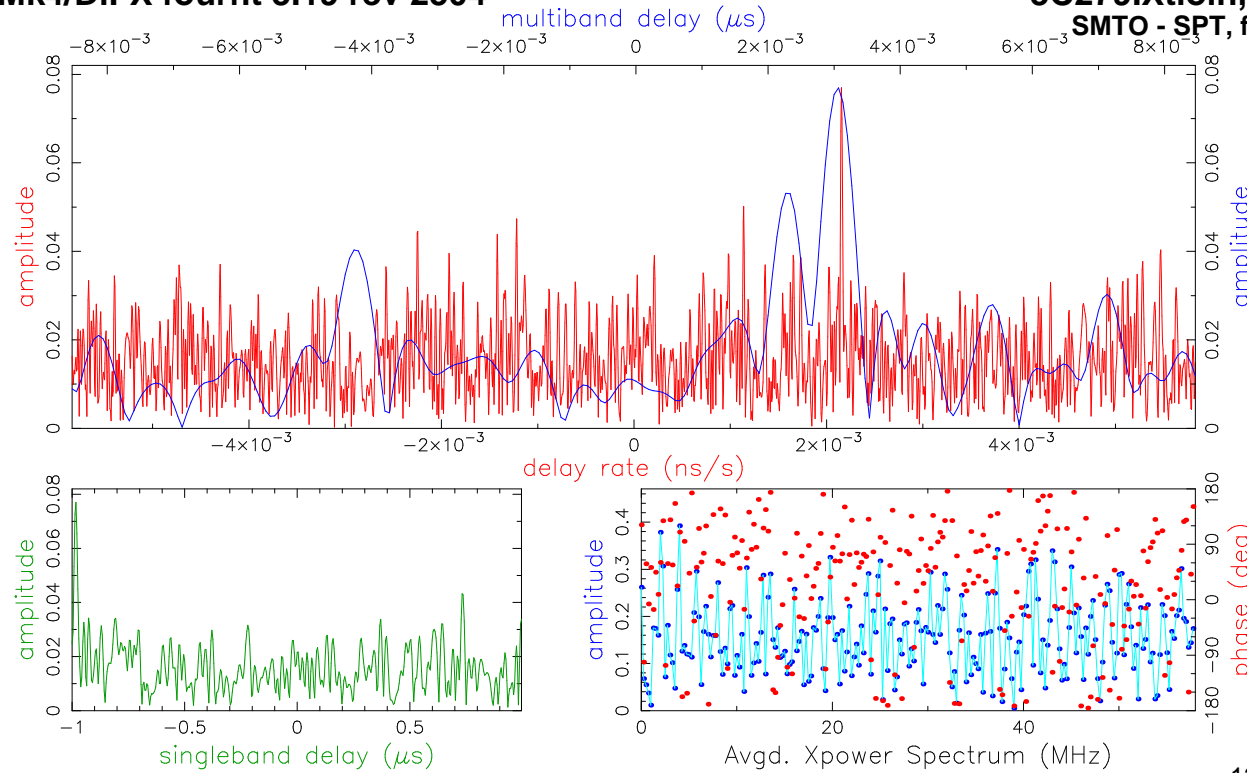
UL	i	e	ie	ie	e	i	Chans
6000/0	0	0	0	0	0	0	B00UR
6000/0	0	0	0	0	0	0	B01UR
6000/0	0	0	0	0	0	0	B02UR
6000/0	0	0	0	0	0	0	B03UR
6000/0	0	0	0	0	0	0	B04UR
6000/0	0	0	0	0	0	0	B05UR
6000/0	0	0	0	0	0	0	B06UR
6000/0	0	0	0	0	0	0	B07UR
6000/0	0	0	0	0	0	0	B08UR
6000/0	0	0	0	0	0	0	B09UR
6000/0	0	0	0	0	0	0	B10UR
6000/0	0	0	0	0	0	0	B11UR
6000/0	0	0	0	0	0	0	B12UR
6000/0	0	0	0	0	0	0	B13UR
6000/0	0	0	0	0	0	0	B14UR
6000/0	0	0	0	0	0	0	B15UR
6000/0	0	0	0	0	0	0	B16UR
6000/0	0	0	0	0	0	0	B17UR
6000/0	0	0	0	0	0	0	B18UR
6000/0	0	0	0	0	0	0	B19UR
6000/0	0	0	0	0	0	0	B20UR
6000/0	0	0	0	0	0	0	B21UR
6000/0	0	0	0	0	0	0	B22UR
6000/0	0	0	0	0	0	0	B23UR
6000/0	0	0	0	0	0	0	B24UR
6000/0	0	0	0	0	0	0	B25UR
6000/0	0	0	0	0	0	0	B26UR
6000/0	0	0	0	0	0	0	B27UR
6000/0	0	0	0	0	0	0	B28UR
6000/0	0	0	0	0	0	0	B29UR
6000/0	0	0	0	0	0	0	B30UR
6000/0	0	0	0	0	0	0	B31UR
6000/0	0	0	0	0	0	0	B32UR
6000/0	0	0	0	0	0	0	B33UR
6000/0	0	0	0	0	0	0	B34UR
6000/0	0	0	0	0	0	0	B35UR

Group delay (usec)(model)	1.44582575021E+04	Apriori delay (usec)	1.44582530416E+04	Resid mbdelay (usec)	4.46049E-03	+/-	4.1E-05
Sband delay (usec)	1.44582569351E+04	Apriori clock (usec)	4.9359557E-01	Resid sbdelay (usec)	3.89352E-03	+/-	1.3E-03
Phase delay (usec)	1.44582530438E+04	Apriori clockrate (us/s)	9.5800006E-07	Resid phdelay (usec)	2.16160E-06	+/-	2.1E-07
Delay rate (us/s)	-7.02747133253E-02	Apriori rate (us/s)	-7.02750945142E-02	Resid rate (us/s)	3.81189E-07	+/-	1.5E-09
Total phase (deg)		Apriori accel (us/s/s)	-9.46886050786E-05	Resid phase (deg)	166.7	+/-	15.9

ph/seg (deg)	29.9	RMS	19.4	Theor.	19.4	Amplitude	0.090 +/- 0.012	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	87.4	Search	(2048X128)	0.089	0.089	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	62.4	Interp.		0.000	0.000	Bits/sample:	2x2	SampCntNorm: disabled	mb window (us)	-0.009	0.009
amp/frq (%)	74.9	Inc. seg. avg.		0.089	0.089	Sample rate (MSamp/s):	116	dr window (ns/s)	-0.006	0.006	
		Inc. frq. avg.		0.090	0.090	Data rate (Mb/s):	7424	ion window (TEC)	0.00	0.00	

i: az 184.2 el 51.3 pa 4.3      e: az 292.7 el 5.9 pa 180.0      u,v (fr/asec) 860.859 35626.029      simultaneous interpolator

Control file: cf\_3597.from.mike.titus      Input file: /home/glindahl/golden/from-cannon/1000/111-0630/ie..Xtioin      Output file: Suppressed by test mode

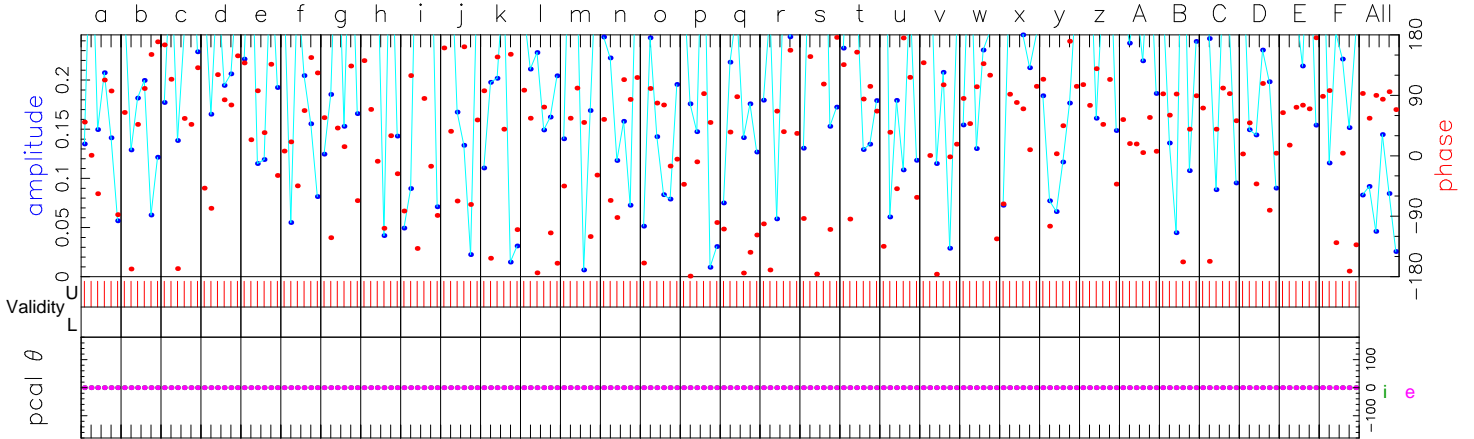


Fringe quality 0

SNR 6.1  
Int time 224.948  
Amp 0.082  
Phase 82.0  
PFD 7.4e-01  
Delays (us)  
SBD -0.983822  
MBD 0.003047  
Fringe rate (Hz)  
0.461046  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162902  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.214221	214279	214338	214397	214455	214514	214572	214631	214690	214748	214807	214865	214924	214983	215041	215100	215158	215217	215276	215334	215393	215451	215510	215569	215627	215686	215744	215803	215862	215920	215979	Req (MHz)	All							
29.5	98.5	101.0	104.5	71.1	22.3	62.3	41.0	-59.7	79.3	115.5	136.2	25.5	88.4	60.4	41.0	151.4	94.6	160.3	138.8	-140.2	65.2	109.6	74.4	110.7	87.7	29.7	112.4	93.0	6.0	64.8	154.9	Phase	82.0							
0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	Ampl	0.1					
440.2	16.6	144.3	46.7	303.7	31.5	344.1	366.3	133.3	36.5	245.2	307.9	352.8	358.7	252.9	300.3	177.2	404.5	281.1	395.8	80.0	183.5	80.1	171.5	322.5	247.2	4.6	189.3	229.8	214.8	176.8	22.6	Std box	4.8							
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used							
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs						
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs					
ie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase				
ie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ManI PC			
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
i	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL			Chan ids					
e	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR			Chan ids					

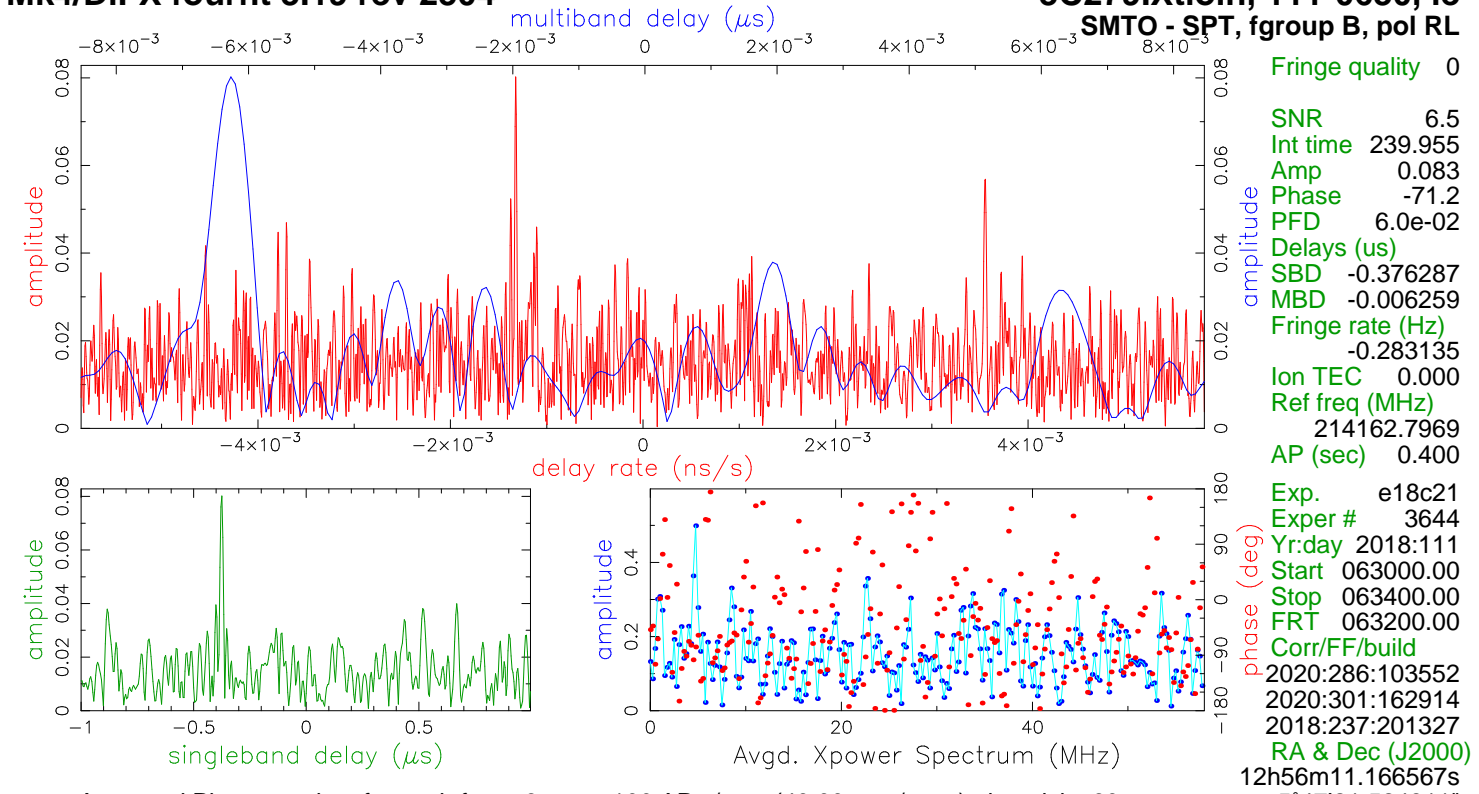
Group delay (usec)(model)	1.44582560885E+04	Apriori delay (usec)	1.44582530416E+04	Resid mbdelay (usec)	3.04689E-03	+/-	4.9E-05
Sband delay (usec)	1.44572692195E+04	Apriori clock (usec)	4.9359557E-01	Resid sbdelay (usec)	-9.83822E-01	+/-	1.6E-03
Phase delay (usec)	1.44582530427E+04	Apriori clockrate (us/s)	9.5800006E-07	Resid phdelay (usec)	1.06394E-06	+/-	2.5E-07
Delay rate (us/s)	-7.02729417332E-02	Apriori rate (us/s)	-7.02750945142E-02	Resid rate (us/s)	2.15278E-06	+/-	1.8E-09
Total phase (deg)	195.2	Apriori accel (us/s/s)	-9.46886050786E-05	Resid phase (deg)	82.0	+/-	18.9

ph/seg (deg)	RMS 14.3	Theor. 23.2	Amplitude Search (2048X128)	0.076	0.082 +/- 0.014	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	48.4	40.5	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	54.7	53.5	Inc. seg. avg.	0.078		Bits/sample: 2x2	SampCntNorm: disabled
amp/frq (%)	81.7	93.5	Inc. frq. avg.	0.078		Sample rate(MISamp/s): 116	dr window (ns/s) -0.006 0.006
						Data rate(Mb/s): 7424	nlags: 232 t_cohere infinite
							ion window (TEC) 0.00 0.00

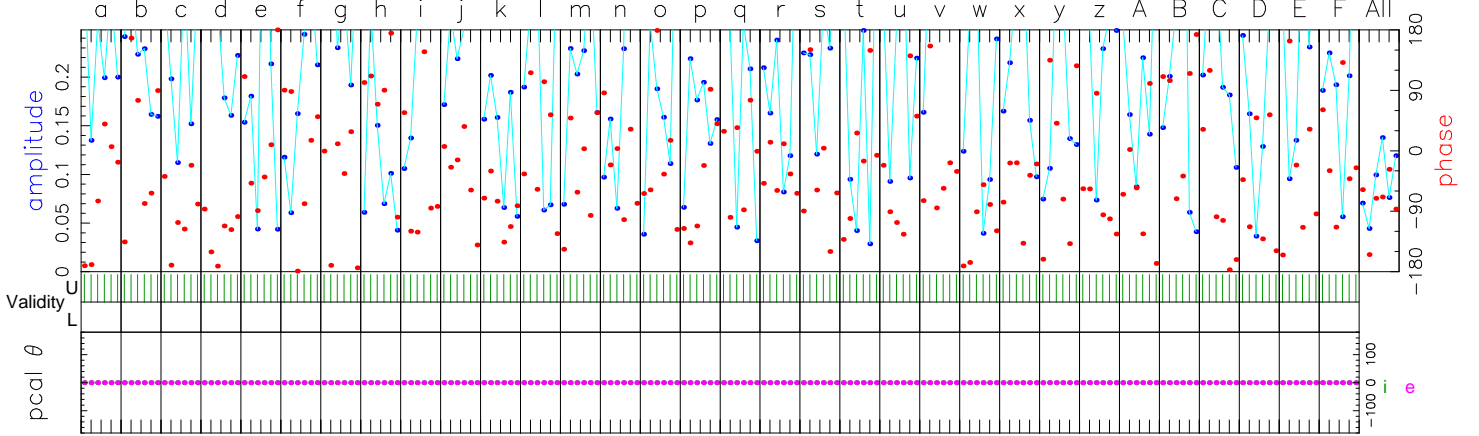
i: az 184.2 el 51.3 pa 4.3      e: az 292.7 el 5.9 pa 180.0      u,v (fr/asec) 860.859 35626.029      simultaneous interpolator

Control file: cf\_3597.from.mike.titus      Input file: /home/glindahl/golden/from-cannon/1000/111-0630/ie..Xtioin      Output file: Suppressed by test mode





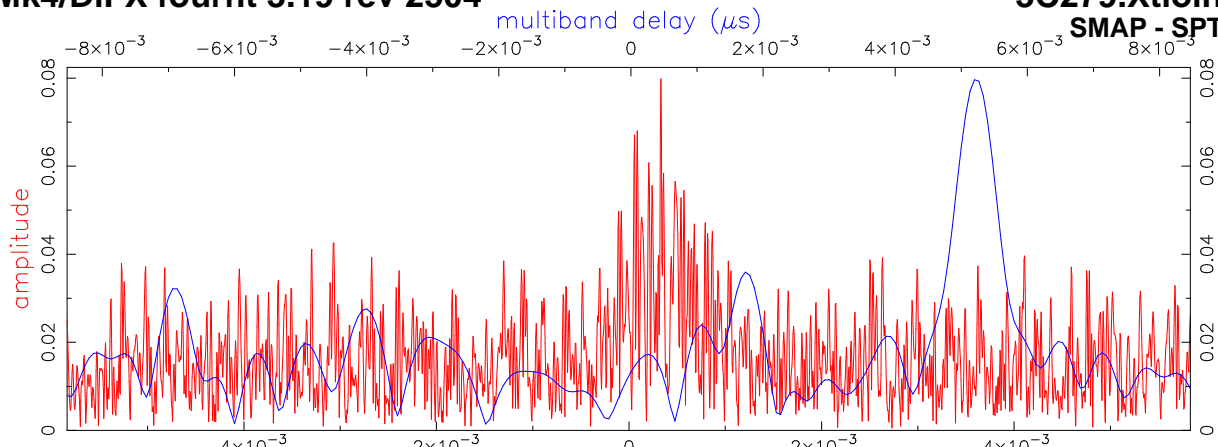
Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Req (MHz)	All	
	-41.6	-161.2	-86.3	-127.3	-27.7	29.8	-27.2	108.6	-109.1	-35.5	-76.9	-83.8	-24.8	-15.3	-90.2	-78.7	-25.5	-43.3	-77.5	-43.2	-84.7	-60.5	-121.8	-54.3	49.6	-82.8	-116.4	-30.4	-154.5	-108.0	-104.5	-28.9	Phase	-71.2	
	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl	0.1
	341.5	393.6	158.1	62.9	93.7	159.4	58.4	322.8	44.5	180.1	1.9	114.9	390.2	227.2	411.6	344.4	428.5	352.3	209.7	139.5	329.9	256.6	387.8	110.3	1.4	345.9	390.0	258.0	112.8	308.9	448.2	42.4	Std box	145.7	

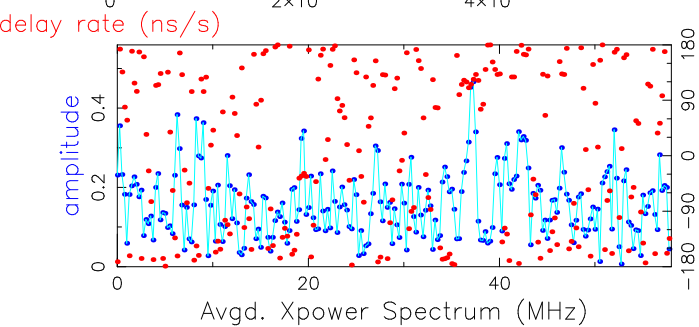
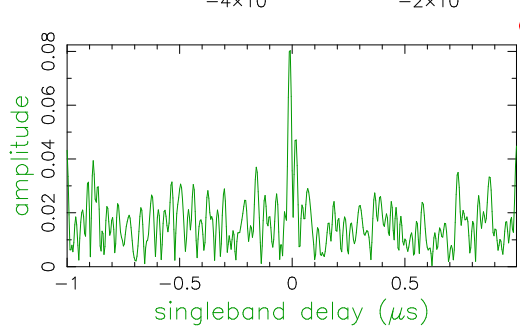
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
ie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
ie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000				
i	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000				
i	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR					Chan ids					
e	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL					Chan ids					
Group delay (usec)(model)	1.44582467824E+04																1.44582530416E+04																Resid mbdelay (usec)	-6.25916E-03	+/- 4.5E-05							
Sband delay (usec)	1.44578767550E+04																4.9359557E-01																Resid sbdelay (usec)	-3.76287E-01	+/- 1.5E-03							
Phase delay (usec)	1.44582530407E+04																9.5800006E-07																Resid phdelay (usec)	-9.23785E-07	+/- 2.3E-07							
Delay rate (us/s)	-7.02764165714E-02																-7.02750945142E-02																Resid rate (us/s)	-1.32206E-06	+/- 1.6E-09							
Total phase (deg)	42.0															Apriori accel (us/s/s)	-9.46886050786E-05																Resid phase (deg)	-71.2	+/- 17.5							
	RMS	Theor.															Amplitude		0.083 +/- 0.013																Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5					
ph/seg (deg)	39.3	21.5															Search (2048X128)		0.079																Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000			
amp/seg (%)	40.5	37.4															Interp.		0.000																Bits/sample: 2x2		SampCntNorm: disabled		mb window (us)		-0.009 0.009	
ph/frq (deg)	58.8	49.5															Inc. seg. avg.		0.087																Sample rate(MSamp/s): 116		dr window (ns/s)		-0.006 0.006			
amp/frq (%)	74.0	86.5															Inc. frq. avg.		0.081																Data rate(Mb/s): 7424		nlags: 232 t_cohere infinite		ion window (TEC)		0.00 0.00	
i: az 184.2 el 51.3 pa 4.3						e: az 292.7 el 5.9 pa 180.0					u,v (fr/asec) 860.859 35626.029															simultaneous interpolator																
Control file: cf_3597.from.mike.titus											Input file: /home/glindahl/golden/from-cannon/1000/111-0630/ie..Xtioin																				Output file: Suppressed by test mode											





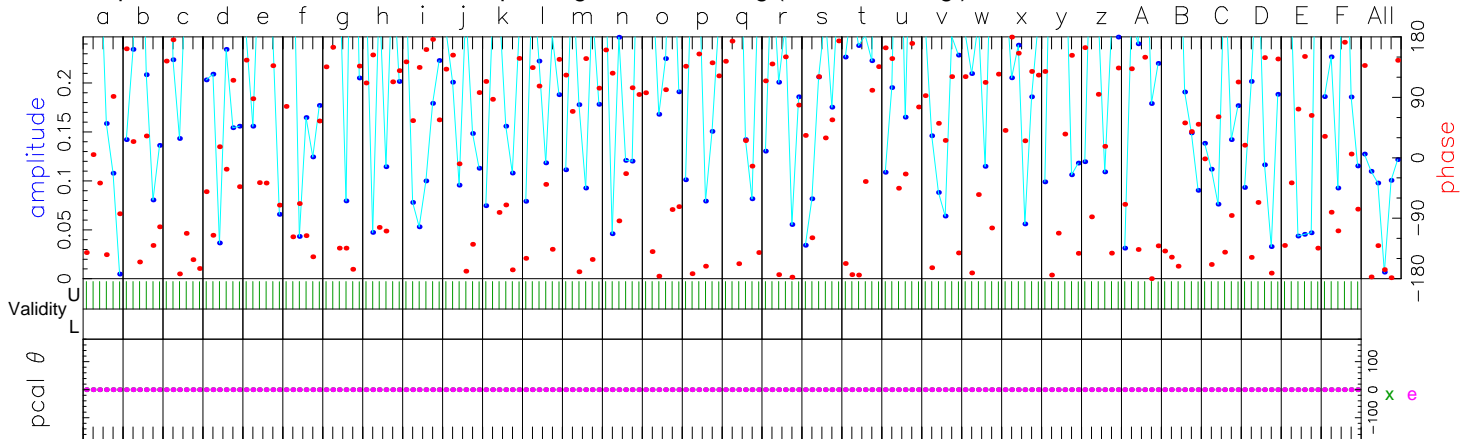
Fringe quality 0

SNR 6.6  
Int time 239.576  
Amp 0.082  
Phase 171.3  
PFD 3.3e-02  
Delays (us)  
SBD -0.010663  
MBD 0.005214  
Fringe rate (Hz)  
0.070406  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400



Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162927  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



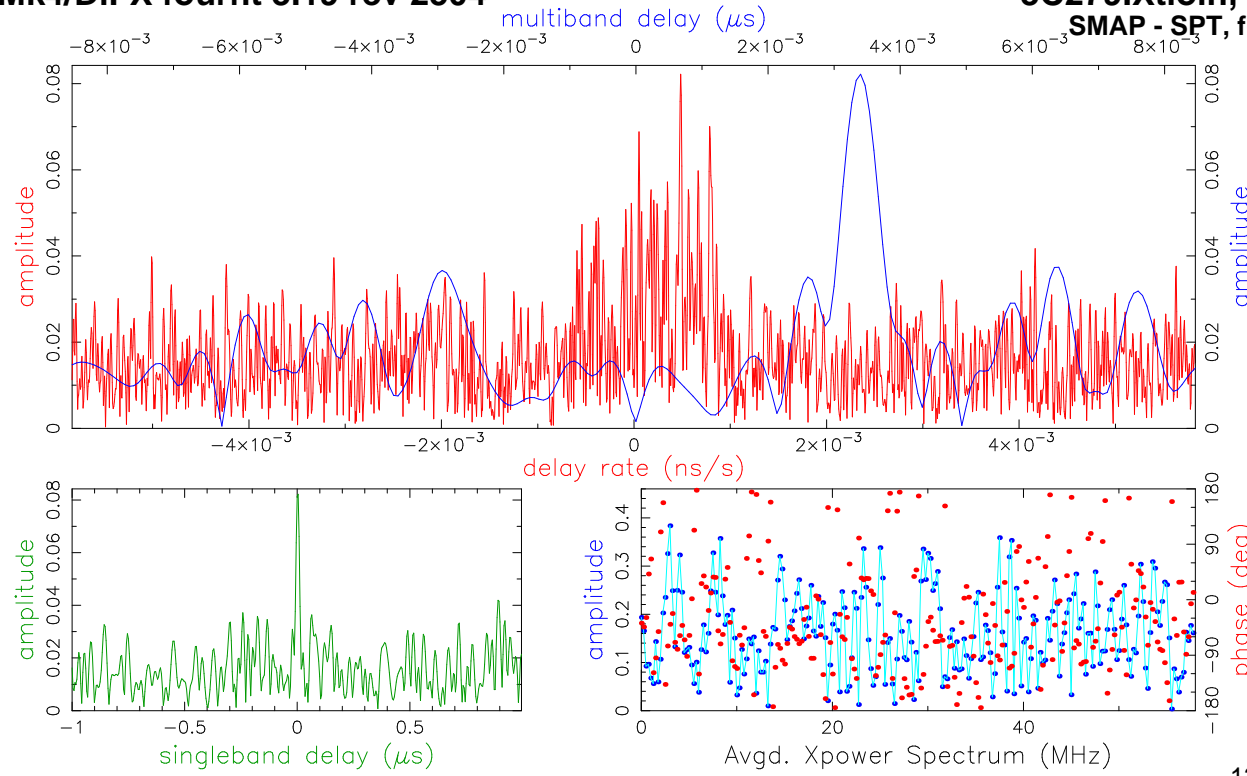
214162.204221	214279.204338	214397.2174455	214514.214572	214631.214690	214748.214807	214865.214924	214983.215041	215100.215158	215217.215276	215334.215393	215451.215510	215569.215627	215686.215744	215803.215862	215920.215979	Req (MHz)	All																					
-75.3	-150.7	-171.3	-47.0	20.2	-148.5	176.1	144.3	127.1	161.8	175.8	156.8	137.3	126.7	-141.2	156.1	-171.6	140.5	100.3	159.4	146.9	131.2	169.3	120.1	-177.1	-175.2	177.5	-161.8	-145.2	-135.0	-116.1	-104.8	Phase	171.3					
0.1	0.0	0.3	0.1	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	Ampl	0.1				
315.6	139.5	230.6	139.0	254.4	244.9	230.3	364.5	111.0	459.2	20.5	405.1	301.2	204.0	22.5	164.6	335.8	404.1	451.7	127.1	108.4	3.5	164.3	181.8	369.8	319.2	423.8	407.1	426.7	456.0	222.0	44.8	Std box	230.5					
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used					
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
xe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
xe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC			
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
x	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	Chan ids	Tracks				
e	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	Chan ids	Tracks				

Group delay (usec)(model)	1.17844196930E+04	Apriori delay (usec)	1.17844144793E+04	Resid mbdelay (usec)	5.21369E-03	+/-	4.4E-05
Sband delay (usec)	1.17844038159E+04	Apriori clock (usec)	-6.3657045E-01	Resid sbdelay (usec)	-1.06634E-02	+/-	1.4E-03
Phase delay (usec)	1.17844144816E+04	Apriori clockrate (us/s)	-1.4930000E-06	Resid phdelay (usec)	2.22204E-06	+/-	2.2E-07
Delay rate (us/s)	9.81644767373E-01	Apriori rate (us/s)	9.81644438625E-01	Resid rate (us/s)	3.28748E-07	+/-	1.6E-09
Total phase (deg)	325.6	Apriori accel (us/s/s)	-7.81524905530E-05	Resid phase (deg)	171.3	+/-	17.3

ph/seg (deg)	RMS 31.5	Theor. 21.2	Amplitude Search (2048X128)	0.078	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	51.1	36.9	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	56.9	48.9	Inc. seg. avg.	0.088	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.009	0.009	
amp/frq (%)	80.9	85.3	Inc. frq. avg.	0.076	Sample rate(MISamp/s): 116		dr window (ns/s)	-0.006	0.006	
					Data rate(Mb/s): 7424	nlags: 232	t_cohere infinite	ion window (TEC)	0.00	0.00

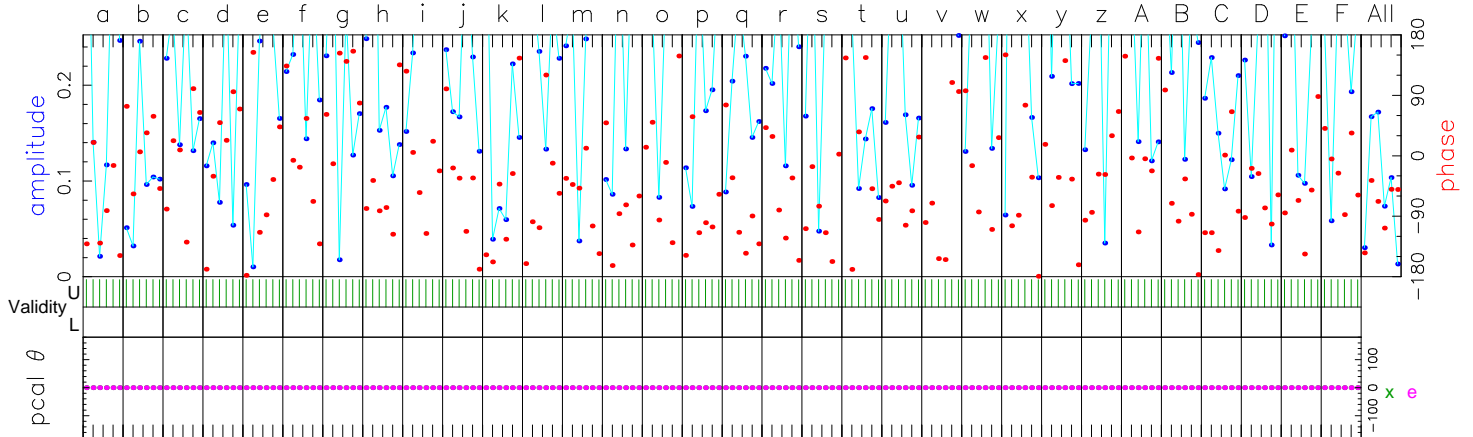
x: az 116.9 el 40.5 pa -57.4    e: az 292.7 el 5.9 pa 180.0    u,v (fr/asec) -14170.194 30886.933    simultaneous interpolator

Control file: cf\_3597.from.mike.titus    Input file: /home/glindahl/golden/from-cannon/1000/111-0630/xe..Xtioin    Output file: Suppressed by test mode



Fringe quality 0  
SNR 6.8  
Int time 239.561  
Amp 0.084  
Phase -62.6  
PFD 1.4e-02  
Delays (us)  
SBD 0.002388  
MBD 0.003397  
Fringe rate (Hz) 0.104139  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400  
Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:162939  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



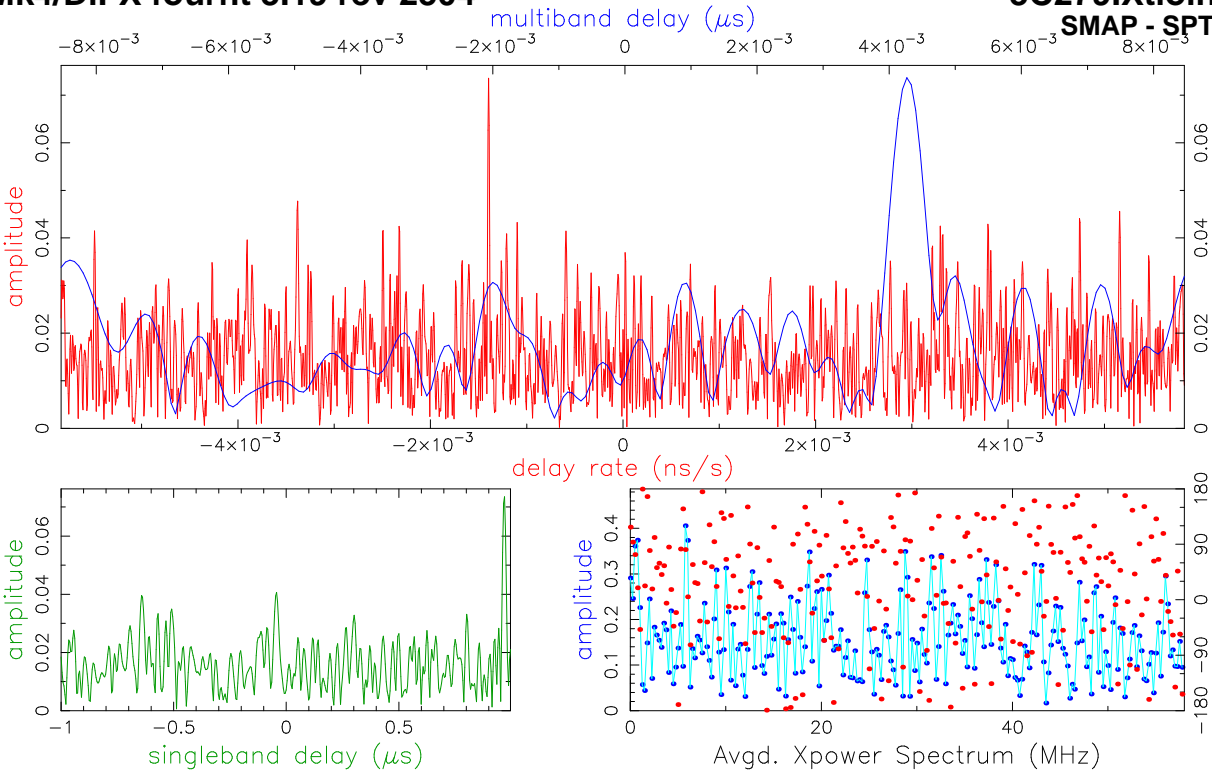
214162.0	4221.0	4279.0	4338.0	4397.0	74455.0	14514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Req (MHz)	All					
-90.4	13.5	-10.6	42.7	-76.6	-31.1	67.4	-63.4	-36.2	-66.2	-130.1	-92.5	-76.6	-93.3	2.2	-96.7	-107.5	-48.2	-66.3	169.2	-49.0	-139.0	-23.0	-96.6	-21.8	-2.7	3.1	-103.2	-101.8	-61.7	-7.5	-25.1	Phase	-62.6					
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.0	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.2	Ampl	0.1			
326.8	95.5	291.2	322.1	181.2	451.4	281.3	332.5	199.7	380.0	446.5	459.9	440.5	458.8	134.9	262.2	383.8	365.2	43.9	44.0	249.4	236.0	132.8	134.6	205.7	339.2	325.6	182.8	104.4	233.6	31.4	367.3	Std box	233.6					
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used					
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
x:e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
x:e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC			
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
x	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR			Chan ids			
e	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR			Chan ids			

Group delay (usec)(model)	1.17844178765E+04	Apriori delay (usec)	1.17844144793E+04	Resid mbdelay (usec)	3.39718E-03	+/-	4.3E-05
Sband delay (usec)	1.17844168675E+04	Apriori clock (usec)	-6.3657045E-01	Resid sbdelay (usec)	2.38814E-03	+/-	1.4E-03
Phase delay (usec)	1.17844144785E+04	Apriori clockrate (us/s)	-1.4930000E-06	Resid phdelay (usec)	-8.11902E-07	+/-	2.2E-07
Delay rate (us/s)	9.81644924884E-01	Apriori rate (us/s)	9.81644438625E-01	Resid rate (us/s)	4.86259E-07	+/-	1.6E-09
Total phase (deg)	91.7	Apriori accel (us/s/s)	-7.81524905530E-05	Resid phase (deg)	-62.6	+/-	16.9

ph/seg (deg)	RMS 40.3	Theor. 20.7	Amplitude Search (2048X128)	0.081	PCal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	73.7	36.2	Interp.	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	56.5	47.9	Inc. seg. avg.	0.088	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009
amp/frq (%)	68.7	83.6	Inc. frq. avg.	0.089	Sample rate(MSamp/s): 116	dr window (ns/s)	-0.006 0.006	
					Data rate(Mb/s): 7424	nlags: 232 t_cohere infinite	ion window (TEC)	0.00 0.00

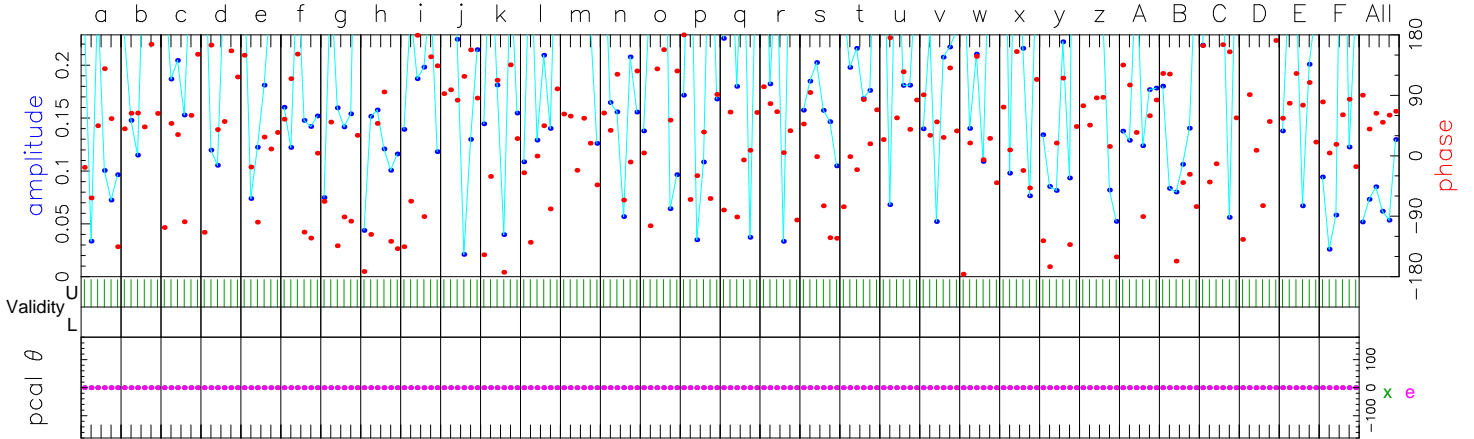
x: az 116.9 el 40.5 pa -57.4 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) -14170.194 30886.933 simultaneous interpolator  
Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/xe..Xtioin Output file: Suppressed by test mode

Fringe quality 0



SNR 6.0  
 Int time 239.561  
 Amp 0.076  
 Phase 61.2  
 PFD 8.4e-01  
 Delays (us)  
 SBD 0.968321  
 MBD 0.004293  
 Fringe rate (Hz) -0.298718  
 Ion TEC 0.000  
 Ref freq (MHz) 214162.7969  
 AP (sec) 0.400  
 Exp. e18c21  
 Exper # 3644  
 Yr:day 2018:111  
 Start 063000.00  
 Stop 063400.00  
 FRT 063200.00  
 Corr/FF/build  
 2020:286:103552  
 2020:301:162951  
 2018:237:201327  
 RA & Dec (J2000)  
 12h56m11.166567s  
 -5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



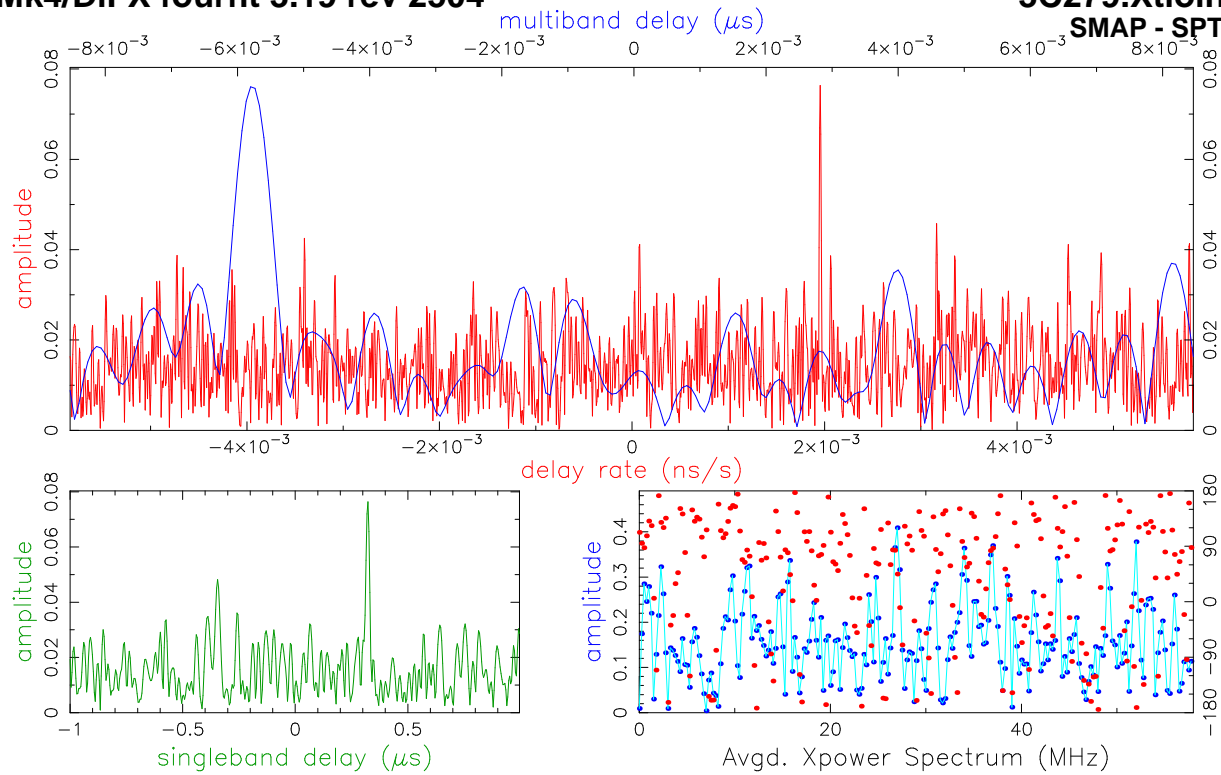
214162.204221	204229	204279	204338	204397	204455	204514	204572	204631	204690	204748	204807	204865	204924	204983	205041	205100	205158	205217	205276	205334	205393	205451	205510	205569	205627	205686	205744	205803	205862	205920	205979	Req (MHz)	All				
23.9	65.3	66.2	136.8	33.2	145.6	-4.7	-160.0	-149.7	97.4	94.2	25.9	36.1	59.6	155.3	-60.1	14.9	63.8	-18.5	17.5	61.9	56.7	11.7	89.2	64.1	71.4	69.4	-73.9	33.6	97.8	79.8	44.9	Phase	61.2				
0.1	0.2	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.2	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.2	0.1	Ampl	0.1			
280.9	459.4	153.3	121.9	139.9	108.1	143.0	101.7	357.7	302.8	400.9	348.1	457.7	390.4	257.6	125.6	302.0	55.3	224.9	218.6	271.1	43.4	38.2	254.8	123.8	74.6	128.1	247.7	348.9	161.8	49.5	300.8	Std box	457.7				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
x:e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
x:e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC			
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
x	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids			
e	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids			

Group delay (usec)(model)	1.17844187723E+04	Apriori delay (usec)	1.17844144793E+04	Resid mbdelay (usec)	4.29298E-03	+/-	4.9E-05
Sband delay (usec)	1.17853828007E+04	Apriori clock (usec)	-6.3657045E-01	Resid sbdelay (usec)	9.68321E-01	+/-	1.6E-03
Phase delay (usec)	1.17844144801E+04	Apriori clockrate (us/s)	-1.4930000E-06	Resid phdelay (usec)	7.93364E-07	+/-	2.5E-07
Delay rate (us/s)	9.81643043809E-01	Apriori rate (us/s)	9.81644438625E-01	Resid rate (us/s)	-1.39482E-06	+/-	1.8E-09
Total phase (deg)	215.5	Apriori accel (us/s/s)	-7.81524905530E-05	Resid phase (deg)	61.2	+/-	19.1

ph/seg (deg)	15.6	Theor.	23.4	Amplitude	0.076 +/- 0.013	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	35.7		40.8	Search (2048X128)	0.072	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	64.2		54.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009	
amp/frq (%)	88.3		94.3	Inc. seg. avg.	0.072	Sample rate (MSamp/s):	116	dr window (ns/s)	-0.006 0.006		
				Inc. frq. avg.	0.075	Data rate (Mb/s):	7424	nlags: 232	t_cohere infinite	ion window (TEC)	0.00 0.00

x: az 116.9 el 40.5 pa -57.4      e: az 292.7 el 5.9 pa 180.0      u,v (fr/asec) -14170.194 30886.933      simultaneous interpolator

Control file: cf\_3597.from.mike.titus      Input file: /home/glindahl/golden/from-cannon/1000/111-0630/xe..Xtioin      Output file: Suppressed by test mode

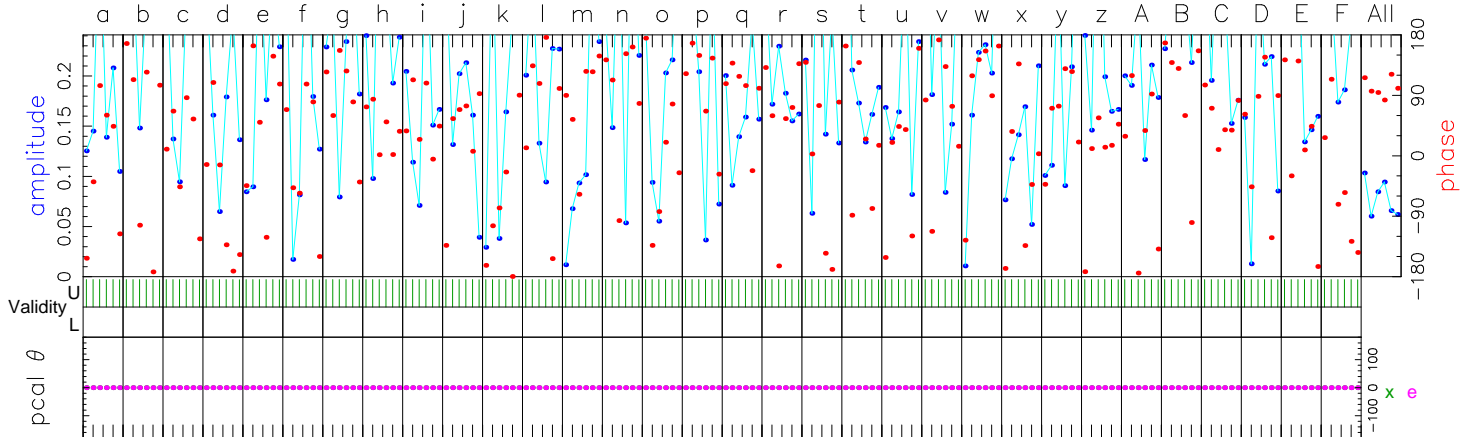


Fringe quality 0

SNR 6.2  
Int time 239.576  
Amp 0.080  
Phase 101.6  
PFD 4.6e-01  
Delays (us)  
SBD 0.322364  
MBD -0.005779  
Fringe rate (Hz)  
0.418907  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163004  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

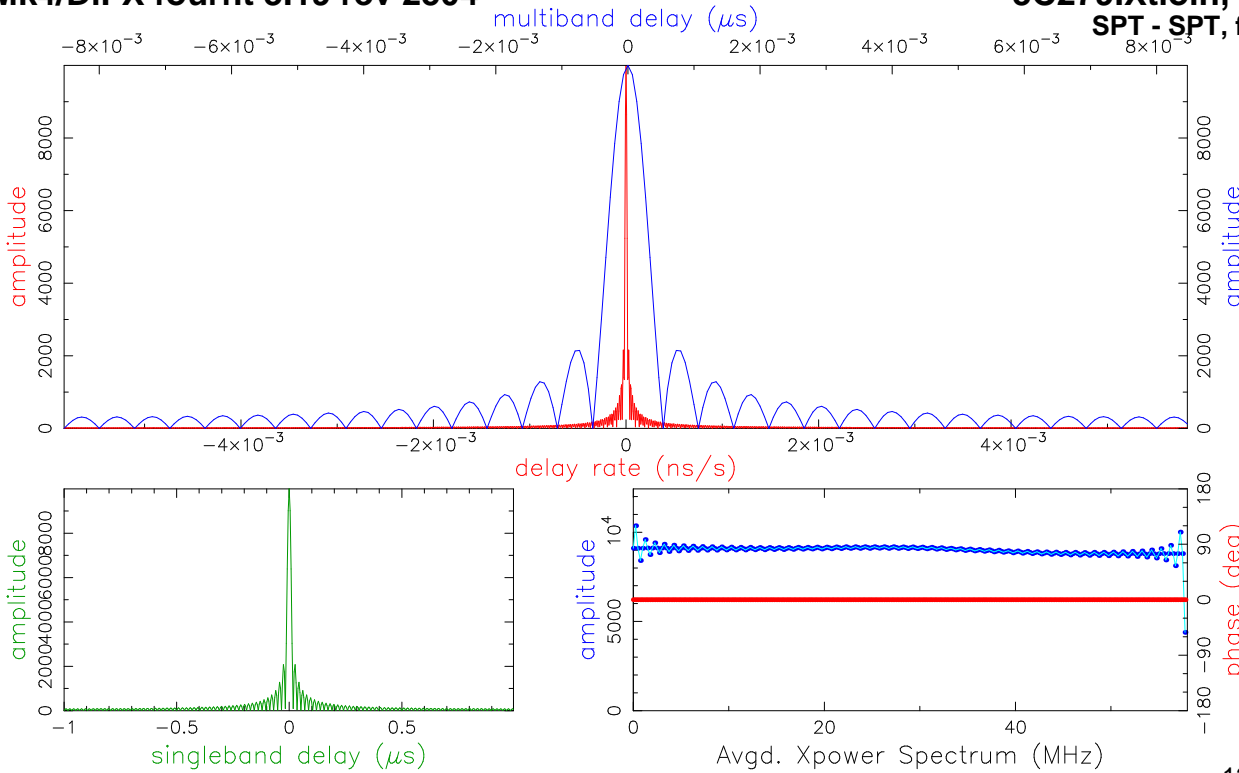
Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.214221.214279.214338.214397.214455.214514.214572.214631.214690.214748.214807.214865.214924.214983.215041.215100.215158.215217.215276.215334.215393.215451.215510.215569.215627.215686.215744.215803.215862.215920.215979.216038	77.6	141.6	37.3	-137.3	114.5	91.3	90.4	33.7	64.0	65.6	-154.1	127.5	127.5	158.2	5.3	142.7	92.4	112.6	116.9	179.2	70.8	91.5	141.8	2.7	59.9	43.5	122.2	141.6	56.0	112.5	94.9	-114.4	Phase	101.6				
0.1	0.2	0.1	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.1	0.2	0.0	0.2	0.2	0.1	0.2	0.1	0.0	0.1	0.0	0.1	Ampl	0.1			
455.2	113.9	19.1	176.0	10.1	115.7	57.7	278.3	195.2	143.8	287.1	253.9	6.6	426.5	244.2	263.8	320.7	150.2	184.7	229.8	228.4	103.3	222.3	51.3	196.6	250.0	261.0	280.3	306.2	142.7	374.5	26.6	Std box	307.8					
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
x:e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase		
x:e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC	
x	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
x	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR			Chan ids			
e	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL			Chan ids			

Group delay (usec)(model) 1.17844087000E+04 Apriori delay (usec) 1.17844144793E+04 Resid mbdelay (usec) -5.77934E-03 +/- 4.8E-05  
Sband delay (usec) 1.17847368432E+04 Apriori clock (usec) -6.3657045E-01 Resid sbdelay (usec) 3.22364E-01 +/- 1.5E-03  
Phase delay (usec) 1.17844144807E+04 Apriori clockrate (us/s) -1.4930000E-06 Resid phdelay (usec) 1.31722E-06 +/- 2.4E-07  
Delay rate (us/s) 9.81646394647E-01 Apriori rate (us/s) 9.81644438625E-01 Resid rate (us/s) 1.95602E-06 +/- 1.7E-09  
Total phase (deg) 255.9 Apriori accel (us/s/s) -7.81524905530E-05 Resid phase (deg) 101.6 +/- 18.5

ph/seg (deg) RMS 13.1 Theor. 22.7 Amplitude 0.080 +/- 0.013 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 21.9 39.6 Search (2048X128) 0.076 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 58.9 52.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
amp/frq (%) 81.8 91.5 Inc. seg. avg. 0.076 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
x: az 116.9 el 40.5 pa -57.4 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) -14170.194 30886.933 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00  
Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/xe..Xtioin Output file: Suppressed by test mode

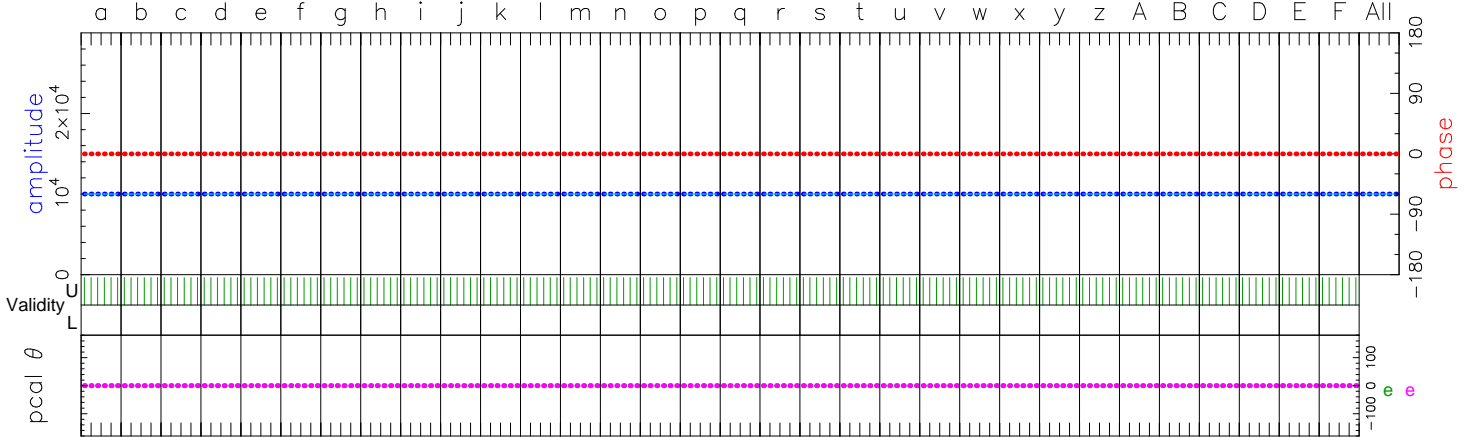


Fringe quality 9

SNR 806553.8  
Int time 239.978  
Amp 9999.903  
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) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163016  
2018:237:201327  
RA & Dec (J2000) 12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Eq (MHz)	All			
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0	
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	9999.9	
233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	Std box	233.0		
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used			
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase		
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Manl PC		
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
e	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	Chan ids			
e	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	Chan ids			

Group delay (usec)(model)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.6E-10
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.2E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.8E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	Theor.	Amplitude	9999.903 +/- 0.012	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	0.0	Search (2048X128)	9999.903	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009	
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s):	116	dr window (ns/s)	-0.006 0.006		
				Inc. frq. avg.	9999.903	Data rate(Mb/s):	7424	nlags: 232	t_cohere infinite	ion window (TEC)	0.00 0.00

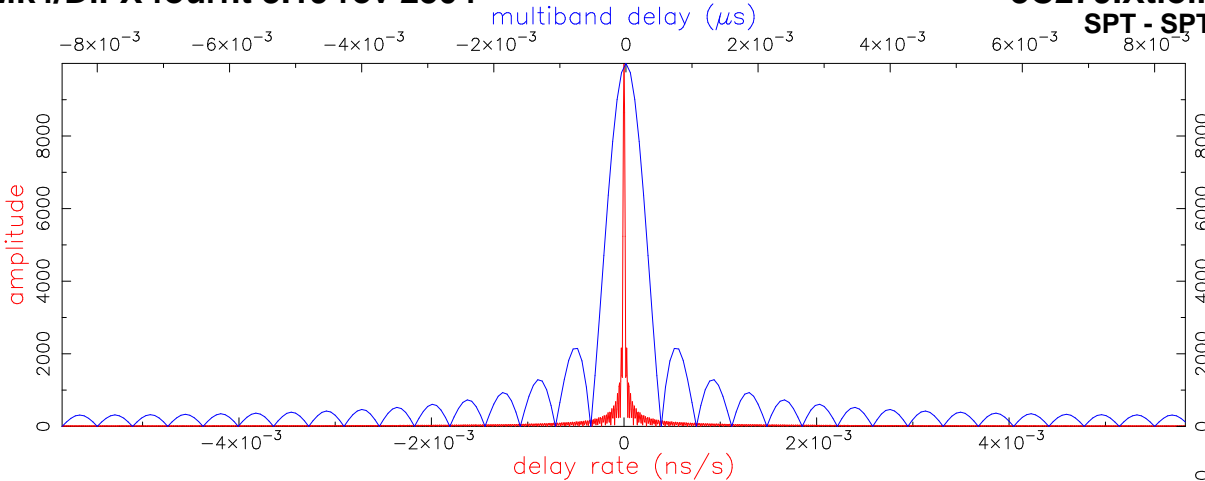
e: az 292.7 el 5.9 pa 180.0      e: az 292.7 el 5.9 pa 180.0      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_3597.from.mike.titus      Input file: /home/glindahl/golden/from-cannon/1000/111-0630/ee..Xtioin      Output file: Suppressed by test mode

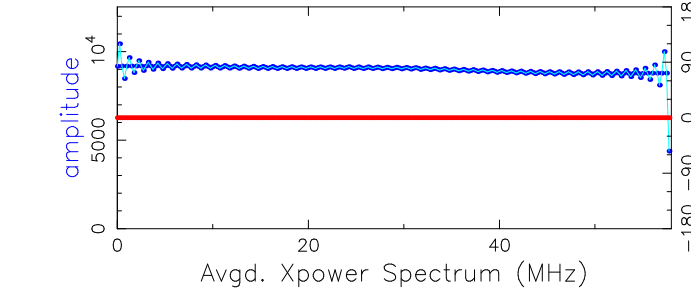
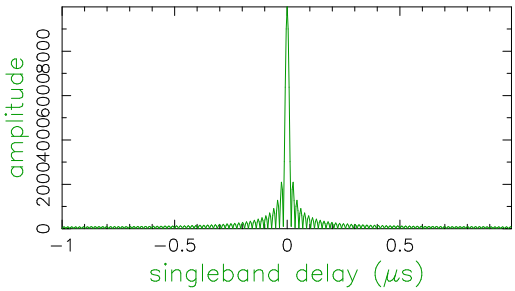


Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, ee  
SPT - SPT, fgroup B, pol RR

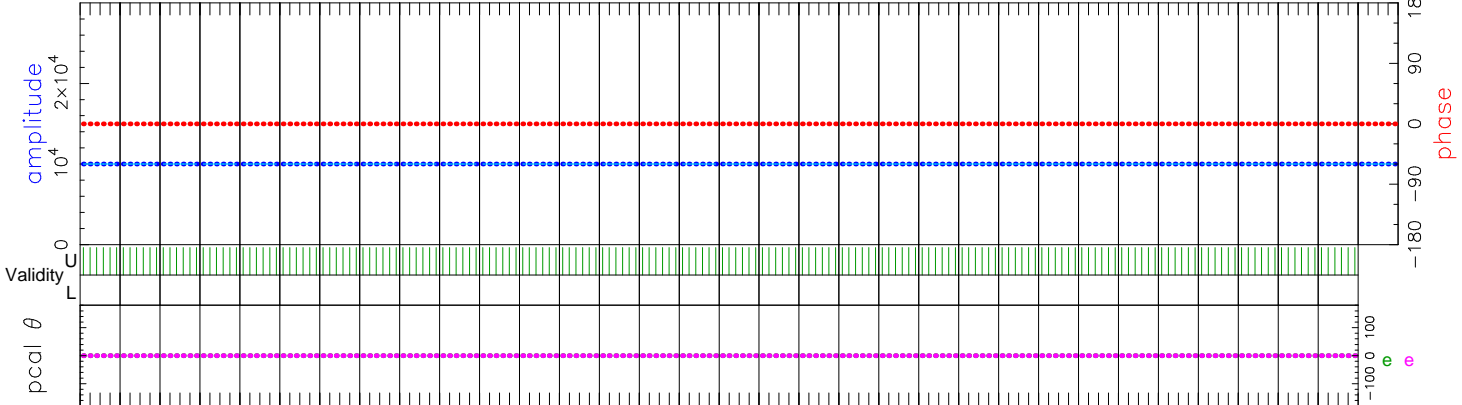


Fringe quality 9  
SNR 806520.4  
Int time 239.958  
Amp 9999.915  
Phase 0.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD 0.000000  
Fringe rate (Hz) 0.000000  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400  
Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163027  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"



Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

a b c d e f g h i j k l m n o p q r s t u v w x y z A B C D E F All



214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	eq (MHz)	All				
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0		
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	9999.9		
233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	Std box	233.0			
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase		
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Manl PC		
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
e	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	Chan ids	Tracks			
e	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	Chan ids	Tracks			

Group delay (usec)(model)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.6E-10
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.2E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.8E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	Theor.	Amplitude	9999.915 +/- 0.012	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	0.0	Search (2048X128)	9999.914	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009	
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	116	dr window (ns/s)	-0.006 0.006		
e: az 292.7	el 5.9	pa 180.0		Inc. frq. avg.	9999.914	Data rate(Mb/s):	7424	nlags: 232	t_cohere infinite	ion window (TEC)	0.00 0.00
				u,v (fr/asec)	0.000 0.000						simultaneous interpolator

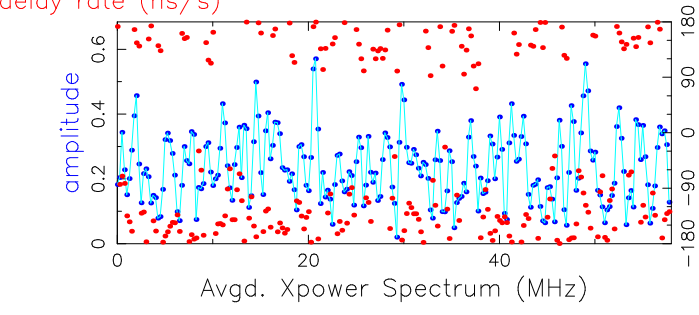
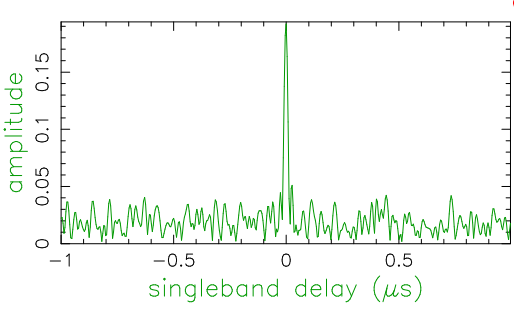
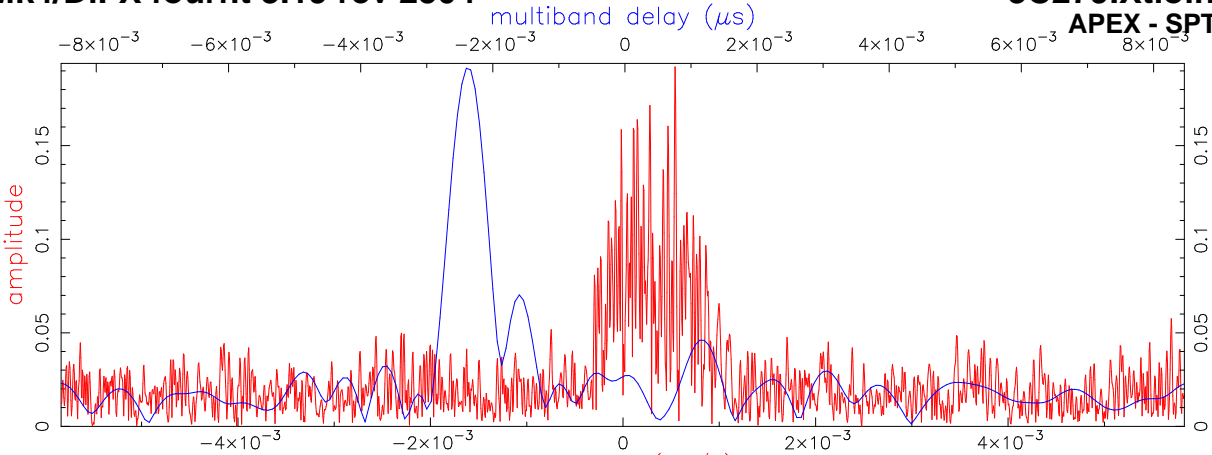
Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/ee..Xtioin Output file: Suppressed by test mode



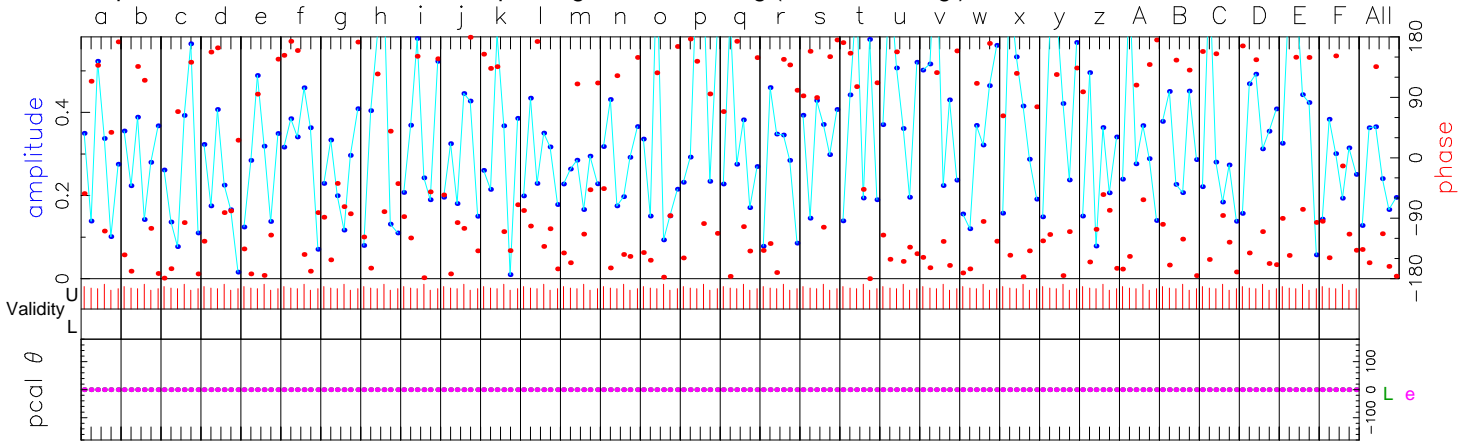
Fringe quality 7

SNR 13.7  
Int time 185.679  
Amp 0.194  
Phase -164.5  
PFD 1.8e-33  
Delays (us)  
SBD -0.001042  
MBD -0.002377  
Fringe rate (Hz) 0.115758  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163040  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"



Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

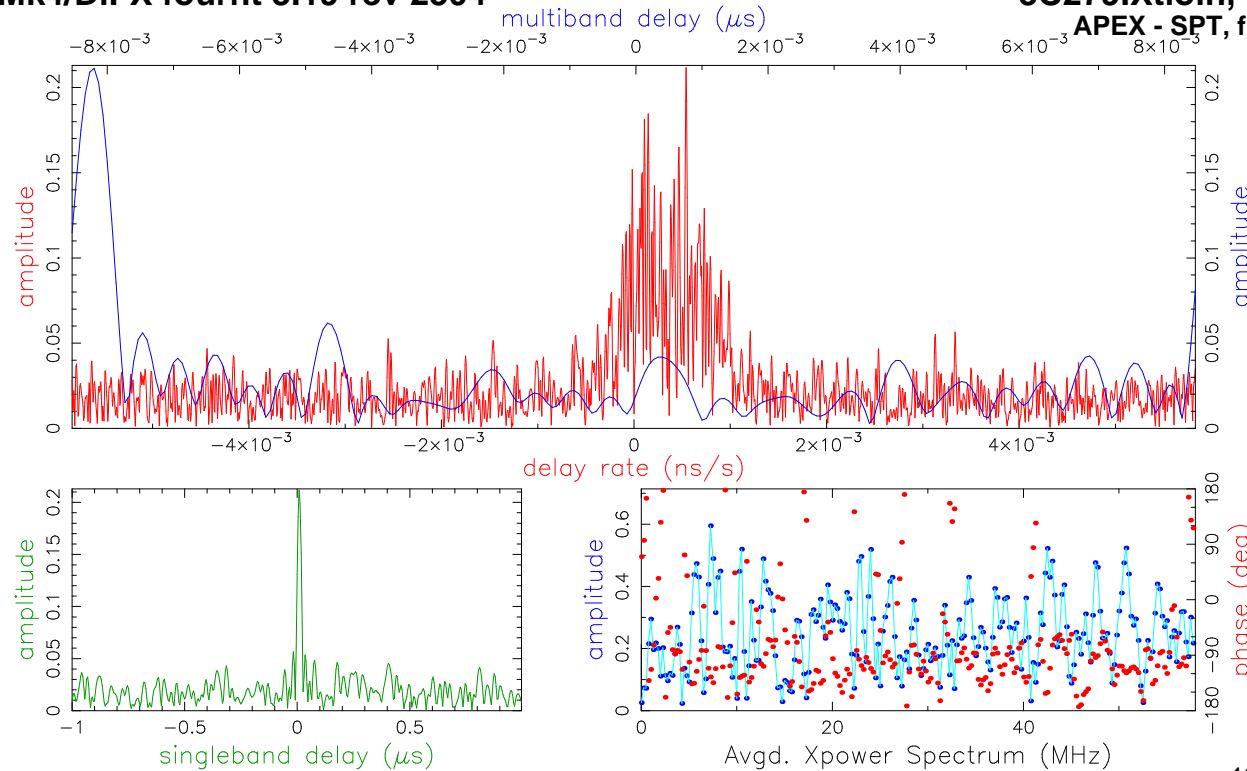


	214162.214221	214279.214338	214397.214455	214514.214572	214631.214690	214748.214807	214865.214924	214983.215041	215100.215158	215217.215276	215334.215393	215451.215510	215569.215627	215686.215744	215803.215862	215920.215979	Req (MHz)	All																						
Phase	-167.7	-173.8	-171.9	-142.1	161.1	-175.5	-117.7	-128.8	-173.8	-130.8	-174.2	-122.6	-161.7	-162.0	170.1	-149.1	-171.4	179.9	144.3	143.9	-152.2	-178.1	-157.5	174.2	179.1	-125.2	-159.3	-165.1	-156.8	-160.8	-150.7	-134.2	Phase	-164.5						
Ampl	0.1	0.2	0.2	0.1	0.2	0.3	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2	Ampl	0.2				
Std box	320.3	352.5	408.1	211.6	401.9	332.9	183.6	334.0	91.9	194.3	293.6	231.5	460.2	51.6	406.8	233.1	462.4	308.3	321.0	181.6	233.0	232.4	126.2	234.3	403.7	214.7	283.4	244.8	5.2	232.3	233.3	315.6	Std box	232.8						
UL	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	APs used						
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs					
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
Le	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
Le	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC		
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
L	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL					Chan ids			
e	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL					Chan ids			

Group delay (usec)(model)	1.24055109195E+04	Apriori delay (usec)	1.24055132969E+04	Resid mbdelay (usec)	-2.37734E-03	+/-	2.1E-05
Sband delay (usec)	1.24055122547E+04	Apriori clock (usec)	6.5119028E-01	Resid sbdelay (usec)	-1.04221E-03	+/-	6.9E-04
Phase delay (usec)	1.24055132947E+04	Apriori clockrate (us/s)	-1.0130000E-06	Resid phdelay (usec)	-2.13339E-06	+/-	1.1E-07
Delay rate (us/s)	-1.00971942639E+00	Apriori rate (us/s)	-1.00971996690E+00	Resid rate (us/s)	5.40515E-07	+/-	8.5E-10
Total phase (deg)		Apriori accel (us/s/s)	-7.30236160891E-05	Resid phase (deg)	-164.5	+/-	8.4

ph/seg (deg)	RMS 35.5	Theor. 9.8	Amplitude Search (2048X128)	0.194 +/- 0.014	0.189	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	53.7	17.1	Interp.	0.000	0.189	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	25.0	23.6	Inc. seg. avg.	0.240	0.240	Bits/sample: 2x2	SampCntNorm: disabled
amp/frq (%)	36.4	41.2	Inc. frq. avg.	0.193	0.193	Sample rate(MISamp/s): 116	dr window (ns/s) -0.006 0.006
						Data rate(Mb/s): 7424	ion window (TEC) 0.00 0.00

L: az 284.5 el 43.7 pa 116.3 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) 14335.217 14844.368 simultaneous interpolator  
Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Le..Xtioin Output file: Suppressed by test mode

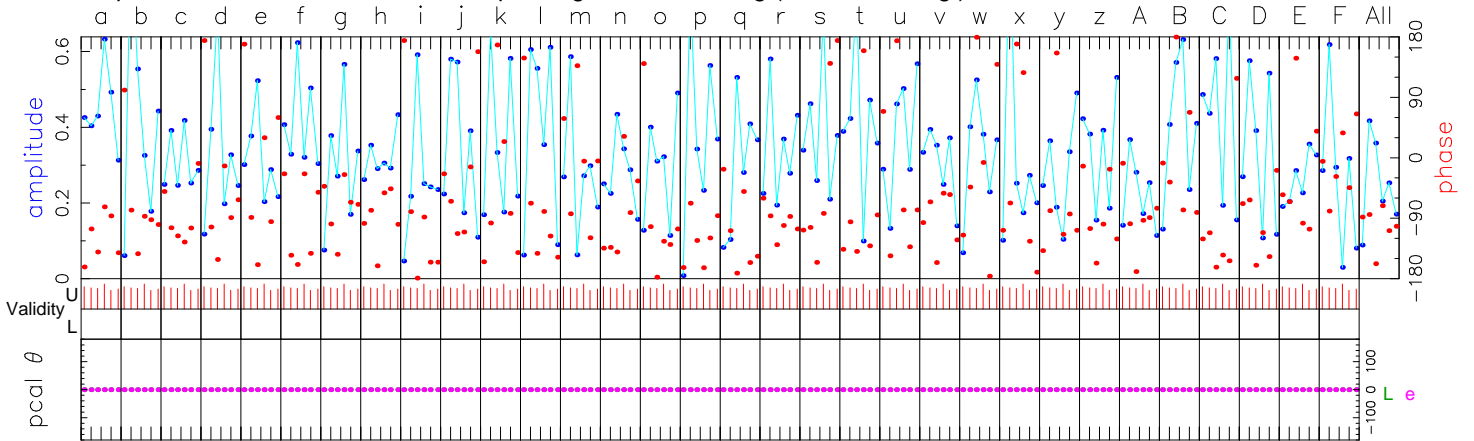


Fringe quality 7

SNR 15.0  
Int time 185.286  
Amp 0.213  
Phase -103.8  
PFD 9.0e-42  
Delays (us)  
SBD 0.009311  
MBD -0.008219  
Fringe rate (Hz) 0.116194  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163052  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

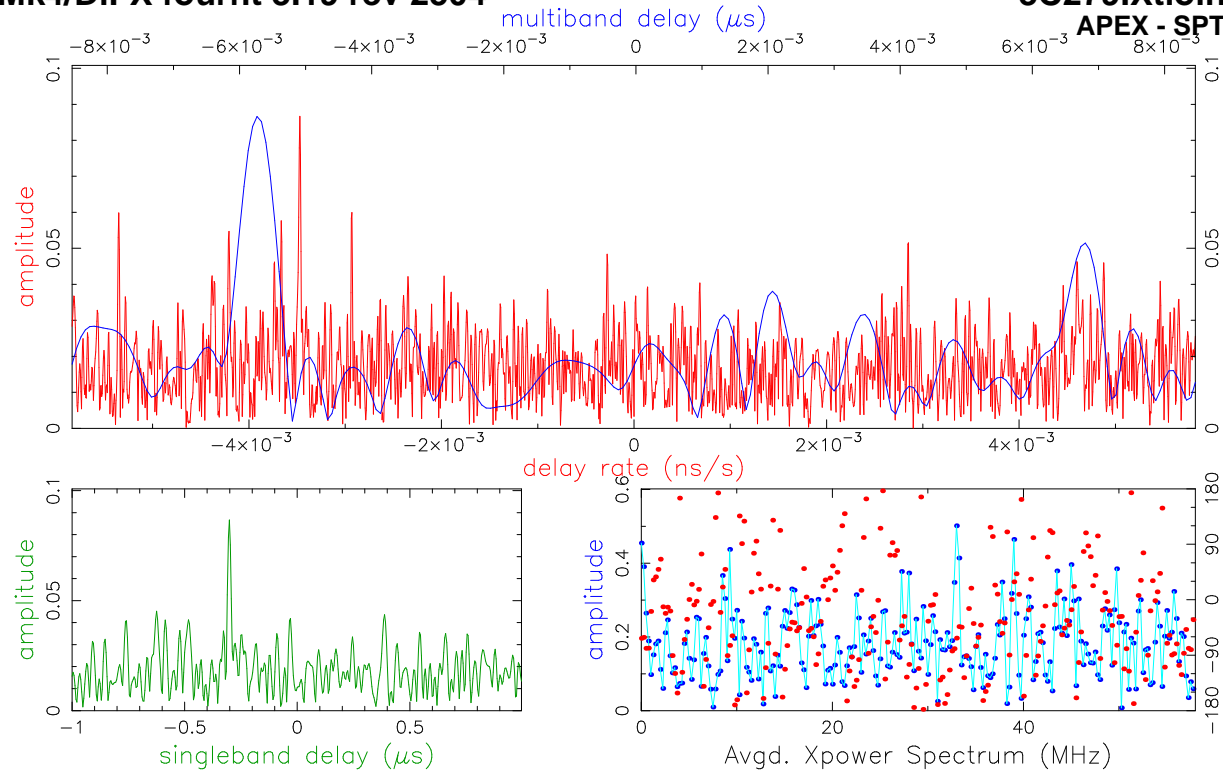


	214162.214221	214279.214338	214397.214455	214514.214572	214631.214690	214748.214807	214865.214924	214983.215041	215100.215158	215217.215276	215334.215393	215451.215510	215569.215627	215686.215744	215803.215862	215920.215979	Req (MHz)	All																		
Phase	-111.6	-98.2	-94.2	-110.8	-137.2	-102.4	-66.5	-86.3	-144.5	-73.1	-111.0	-105.3	-46.6	-102.3	-127.9	-101.7	-137.6	-94.2	-118.4	-124.8	-110.1	-85.8	-146.6	-110.4	-108.9	-89.0	-99.1	-80.0	-144.1	-104.1	-82.1	-43.3	-103.8			
Ampl	0.4	0.4	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.3	0.1	0.1	0.2	0.3	0.2	0.3	0.2	0.3	0.3	0.4	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.1	0.2	0.2		
Std box	234.1	235.4	237.8	459.2	195.3	421.0	133.6	235.6	236.6	235.8	175.9	235.6	398.9	281.8	235.3	235.6	88.9	234.8	233.7	234.3	326.1	235.1	1.3	237.3	234.4	297.4	221.3	291.3	234.3	373.5	382.7	251.2	235.2	235.2		
APs used	UL 548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	
PC freqs	L 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PC freqs	e 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PC phase	L e 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ManI PC	L e 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PC amp	e 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Tracks	L 800UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	B32UR	B33UR	B34UR	B35UR

Group delay (usec)(model) 1.24055050774E+04 Apriori delay (usec) 1.24055132969E+04 Resid mbdelay (usec) -8.21949E-03 +/- 2.0E-05  
 Sband delay (usec) 1.24055226078E+04 Apriori clock (usec) 6.5119028E-01 Resid sbdelay (usec) 9.31090E-03 +/- 6.3E-04  
 Phase delay (usec) 1.24055132955E+04 Apriori clockrate (us/s) -1.0130000E-06 Resid phdelay (usec) -1.34655E-06 +/- 9.9E-08  
 Delay rate (us/s) -1.00971942436E+00 Apriori rate (us/s) -1.00971996690E+00 Resid rate (us/s) 5.42548E-07 +/- 7.8E-10  
 Total phase (deg) 14.0 Apriori accel (us/s/s) -7.30236160891E-05 Resid phase (deg) -103.8 +/- 7.6

ph/seg (deg) RMS 28.0 Theor. 8.9 Amplitude 0.213 +/- 0.014 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 54.9 15.6 Search (2048X128) 0.210 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 26.0 21.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 38.4 37.6 Inc. seg. avg. 0.244 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 Inc. frq. avg. 0.215 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

L: az 284.5 el 43.7 pa 116.3 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) 14335.217 14844.368 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Le..Xtioin Output file: Suppressed by test mode

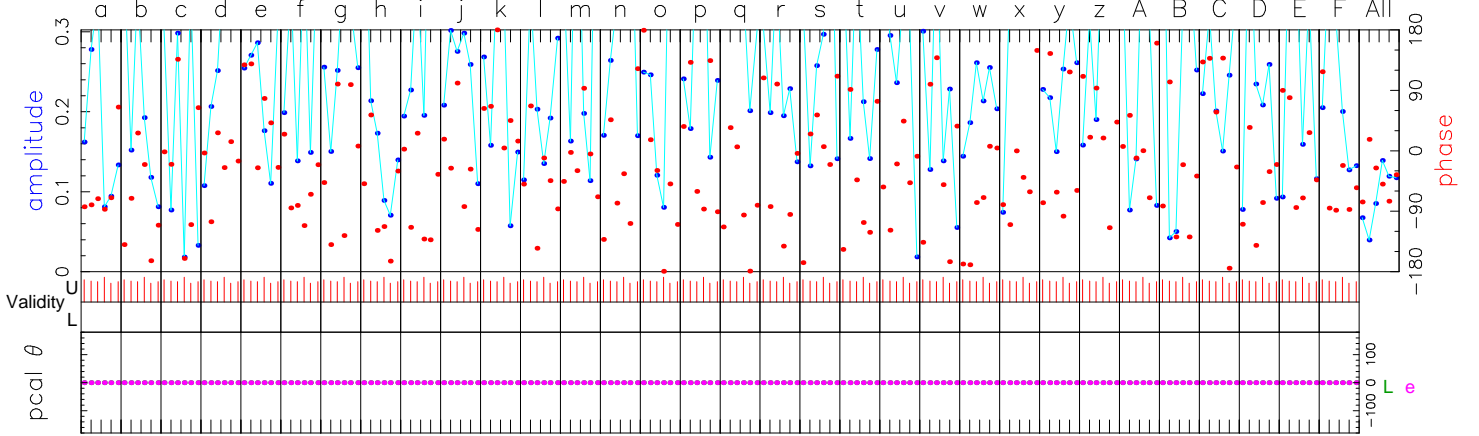


Fringe quality 0

SNR 6.2  
Int time 185.658  
Amp 0.101  
Phase -47.5  
PFD 5.1e-01  
Delays (us)  
SBD -0.302157  
MBD -0.005726  
Fringe rate (Hz)  
-0.742948  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163104  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

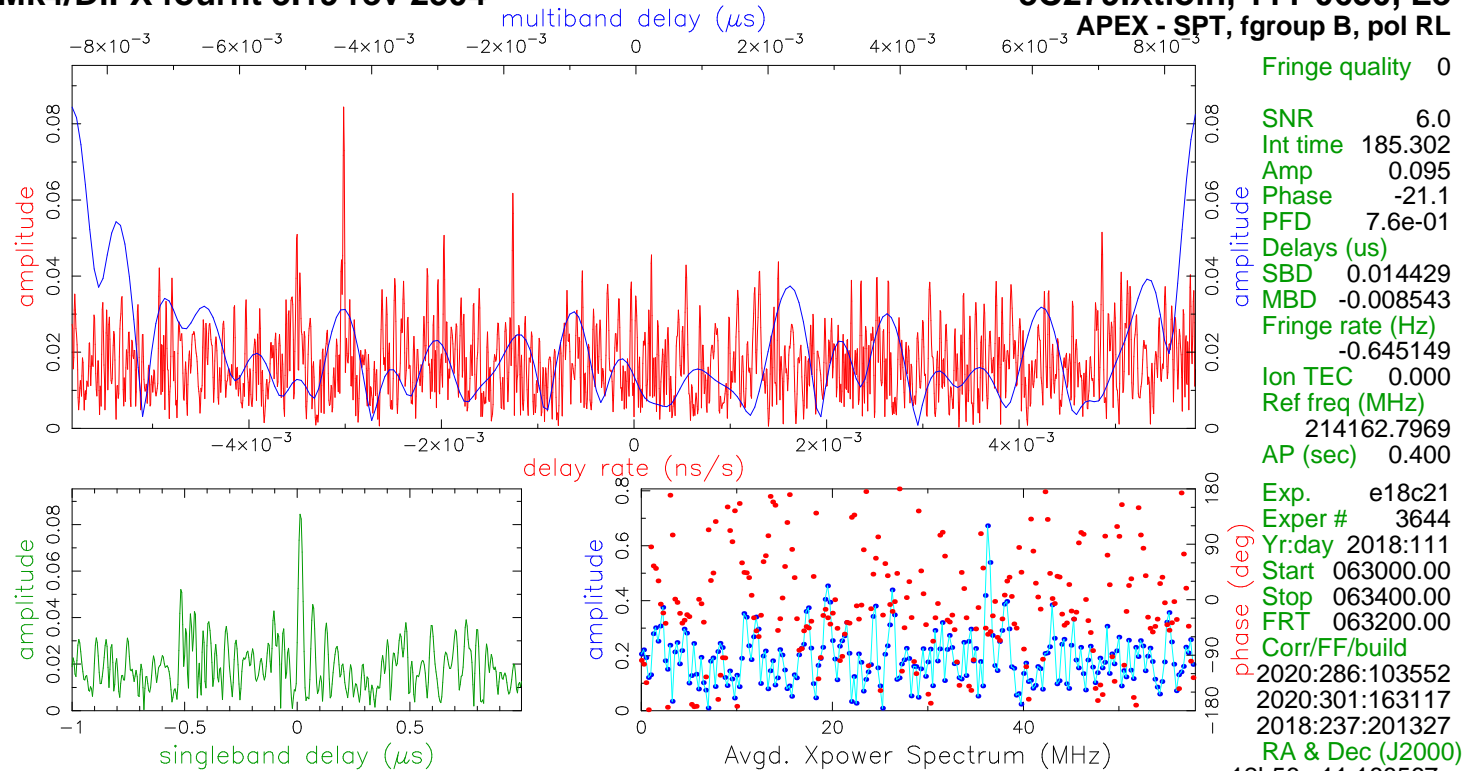


214162.7969	214221.4221	214279.4279	214338.4338	214397.4455	214455.4514	214514.4572	214572.4631	214631.4690	214690.4748	214748.4807	214807.4865	214865.4924	214923.4983	215041.5100	215100.5158	215217.5276	215334.5393	215451.5510	215569.5627	215686.5744	215803.5862	215920.5979	Req (MHz)	All															
-72.2	-74.1	-57.3	-13.1	55.3	-65.2	-113.0	-53.4	-71.3	-29.2	50.1	-42.1	-37.0	-71.3	-73.7	-74.1	149.7	12.0	-108.2	-36.8	176.9	-65.2	-64.1	-102.0	31.0	-8.1	-72.3	122.7	-34.3	1.1	-73.8	Phase	-47.5							
0.2	0.1	0.0	0.3	0.1	0.2	0.0	0.1	0.2	0.1	0.1	0.1	0.3	0.2	0.1	0.2	0.2	0.0	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	Ampl	0.1				
135.0	295.5	12.2	161.0	214.2	45.8	76.3	41.9	373.4	194.0	403.9	268.7	164.1	274.6	20.8	134.7	384.0	347.4	435.0	170.5	20.8	314.8	440.6	256.9	83.2	381.2	157.8	26.4	365.1	416.3	127.8	89.3	Std box	162.9						
UL	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	APs used					
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
Le	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase		
Le	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ManI PC	
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
L	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL					Chan ids		
e	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR					Chan ids		

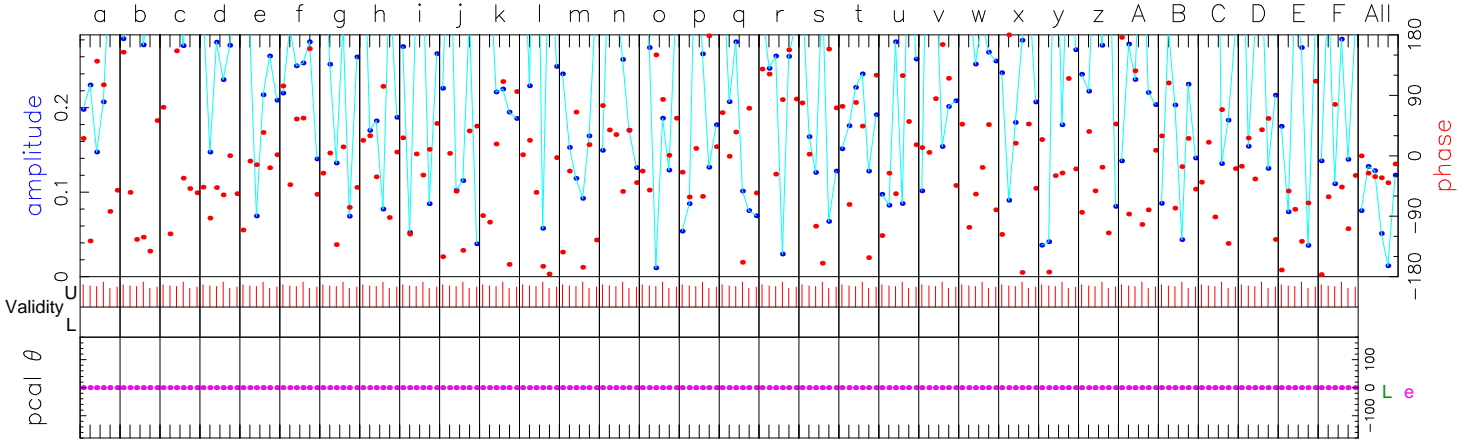
Group delay (usec)(model) 1.24055075704E+04 Apriori delay (usec) 1.24055132969E+04 Resid mbdelay (usec) -5.72643E-03 +/- 4.8E-05  
 Sband delay (usec) 1.24052111402E+04 Apriori clock (usec) 6.5119028E-01 Resid sbdelay (usec) -3.02157E-01 +/- 1.5E-03  
 Phase delay (usec) 1.24055132963E+04 Apriori clockrate (us/s) -1.0130000E-06 Resid phdelay (usec) -6.16287E-07 +/- 2.4E-07  
 Delay rate (us/s) -1.00972343598E+00 Apriori rate (us/s) -1.00971996690E+00 Resid rate (us/s) -3.46908E-06 +/- 1.9E-09  
 Total phase (deg) 70.3 Apriori accel (us/s/s) -7.30236160891E-05 Resid phase (deg) -47.5 +/- 18.6

RMS Theor. Amplitude 0.101 +/- 0.016 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 32.3 21.8 Search (2048X128) 0.084 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 41.0 38.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 65.2 52.6 Inc. seg. avg. 0.103 Sample rate (MSamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 77.3 91.9 Inc. frq. avg. 0.102 Data rate (Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

L: az 284.5 el 43.7 pa 116.3 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) 14335.217 14844.368 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Le..Xtioin Output file: Suppressed by test mode



Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



Req (MHz)	All
214162.214221.214279.214338.214397.214455.214514.214572.214631.214690.214748.214807.214865.214924.214983.215041.215100.215158.215217.215276.215334.215393.215451.215510.215569.215627.215686.215744.215803.215862.215920.215979	Phase -21.1 Ampl 0.1 Std box 236.3 APs used PC freqs PC phase ManI PC PC amp

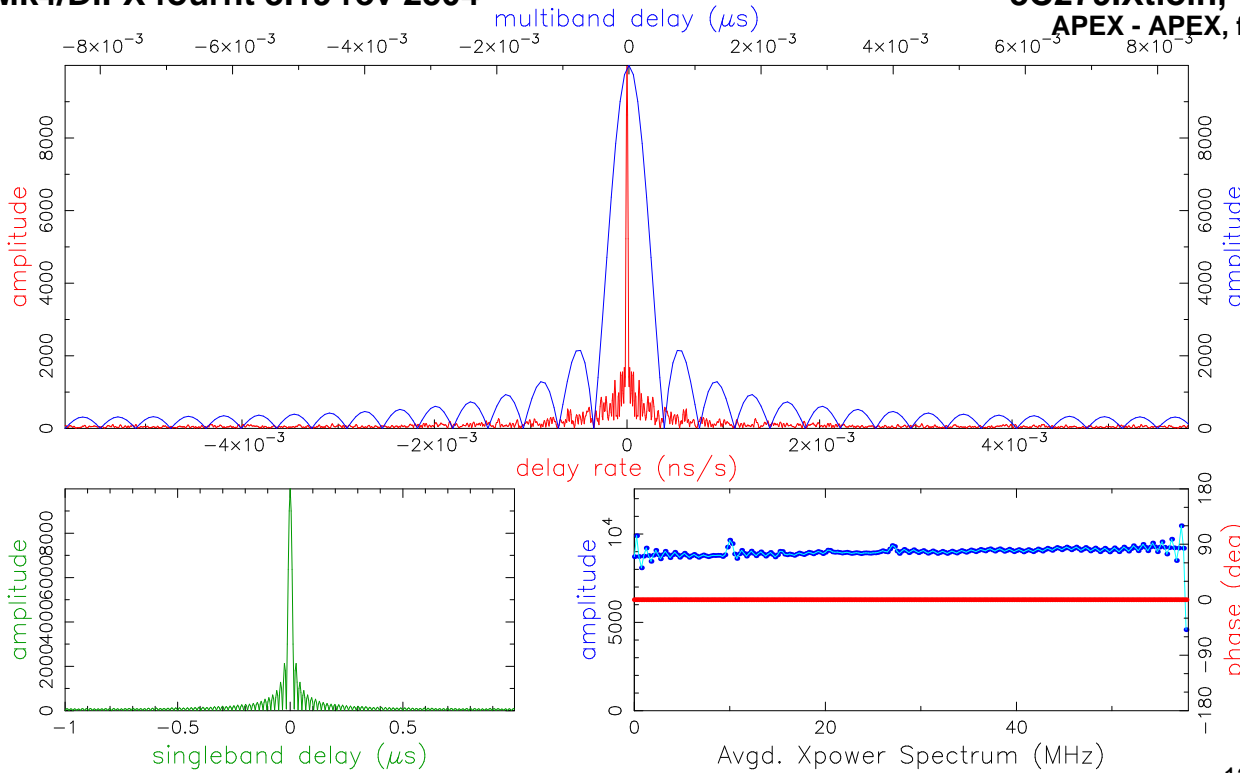
Group delay (usec)(model)	1.24055047543E+04	Apriori delay (usec)	1.24055132969E+04	Resid mbdelay (usec)	-8.54253E-03	+/-	4.9E-05
Sband delay (usec)	1.24055277261E+04	Apriori clock (usec)	6.5119028E-01	Resid sbdelay (usec)	1.44292E-02	+/-	1.6E-03
Phase delay (usec)	1.24055132966E+04	Apriori clockrate (us/s)	-1.0130000E-06	Resid phdelay (usec)	-2.74067E-07	+/-	2.5E-07
Delay rate (us/s)	-1.00972297933E+00	Apriori rate (us/s)	-1.00971996690E+00	Resid rate (us/s)	-3.01242E-06	+/-	1.9E-09
Total phase (deg)	96.7	Apriori accel (us/s/s)	-7.30236160891E-05	Resid phase (deg)	-21.1	+/-	19.0

ph/seg (deg)	13.7	RMS	22.2	Theor.	Amplitude	0.095 +/- 0.016	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	49.6	Search (2048X128)	0.081	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	Interp.	0.000	sb window (us)	-1.000	1.000	
ph/frq (deg)	65.0	Inc. seg. avg.	0.089	Bits/sample: 2x2	Inc. frq. avg.	0.100	SampCntNorm: disabled	mb window (us)	-0.009	0.009
amp/frq (%)	80.8	Inc. frq. avg.	0.100	Sample rate(MISamp/s): 116			dr window (ns/s)	-0.006	0.006	
				Data rate(Mb/s): 7424			ion window (TEC)	0.00	0.00	

L: az 284.5 el 43.7 pa 116.3 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) 14335.217 14844.368 simultaneous interpolator  
Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/Le..Xtioin Output file: Suppressed by test mode

Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, LL  
APEX - APEX, fgroup B, pol LL

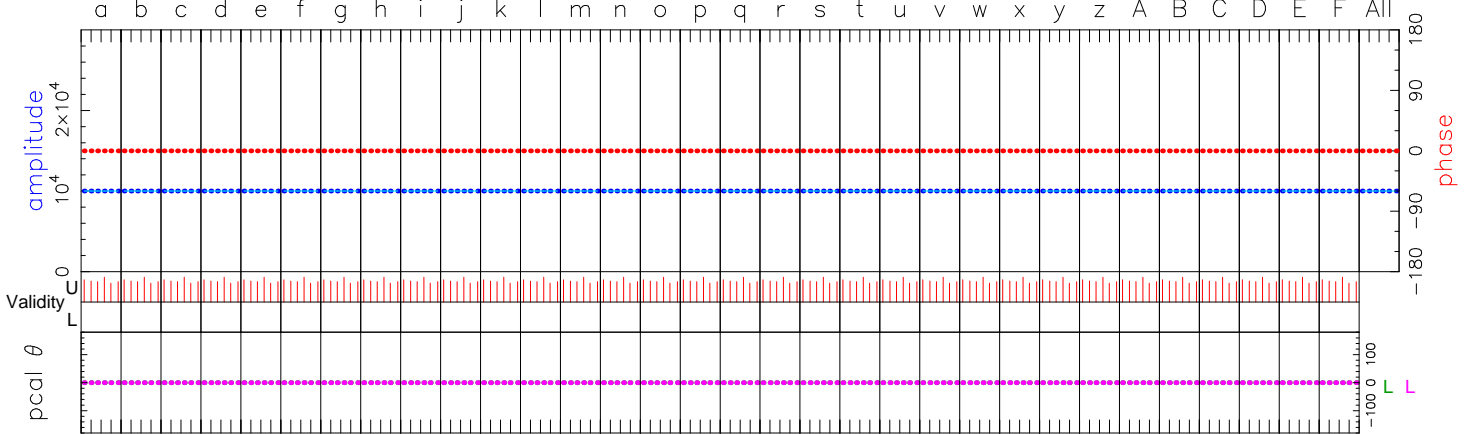


Fringe quality 9

SNR 709716.8  
Int time 185.810  
Amp 9999.977  
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) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163128  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Req (MHz)	All							
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0				
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0				
233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	Std box	233.0				
UL	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	APs used					
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
L.L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
L.L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC			
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
L	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL			Chan ids					
L	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL			Tracks					

Group delay (usec)(model)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	4.1E-10
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.3E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	2.1E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	Theor.	Amplitude	9999.977 +/- 0.014	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	0.0	Search (2048X128)	9999.977	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009	
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate (MSamp/s):	116	dr window (ns/s)	-0.006 0.006		
				Inc. frq. avg.	9999.978	Data rate (Mb/s):	7424	nlags: 232	t_cohere infinite	ion window (TEC)	0.00 0.00

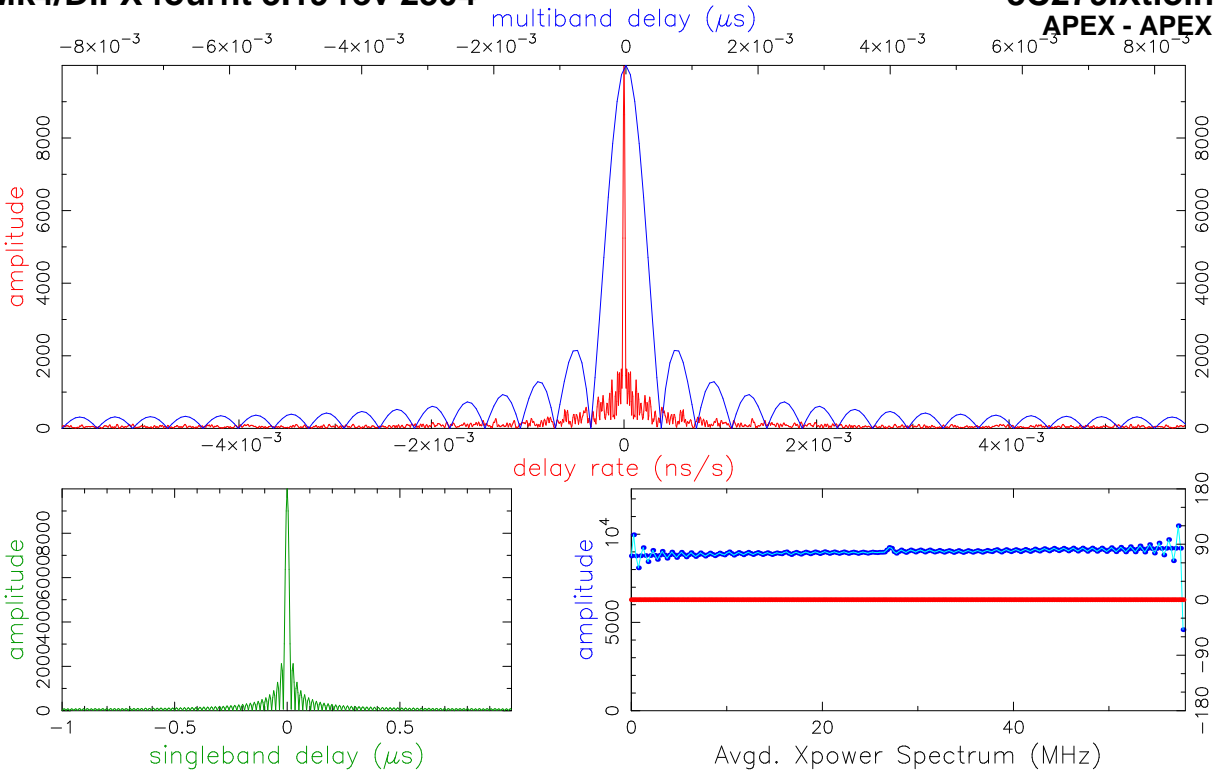
L: az 284.5 el 43.7 pa 116.3 L: az 284.5 el 43.7 pa 116.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_3597.from.mike.titus Input file: /home/gbindahl/golden/from-cannon/1000/111-0630/LL..Xtioin Output file: Suppressed by test mode



Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, LL  
APEX - APEX, fgroup B, pol RR

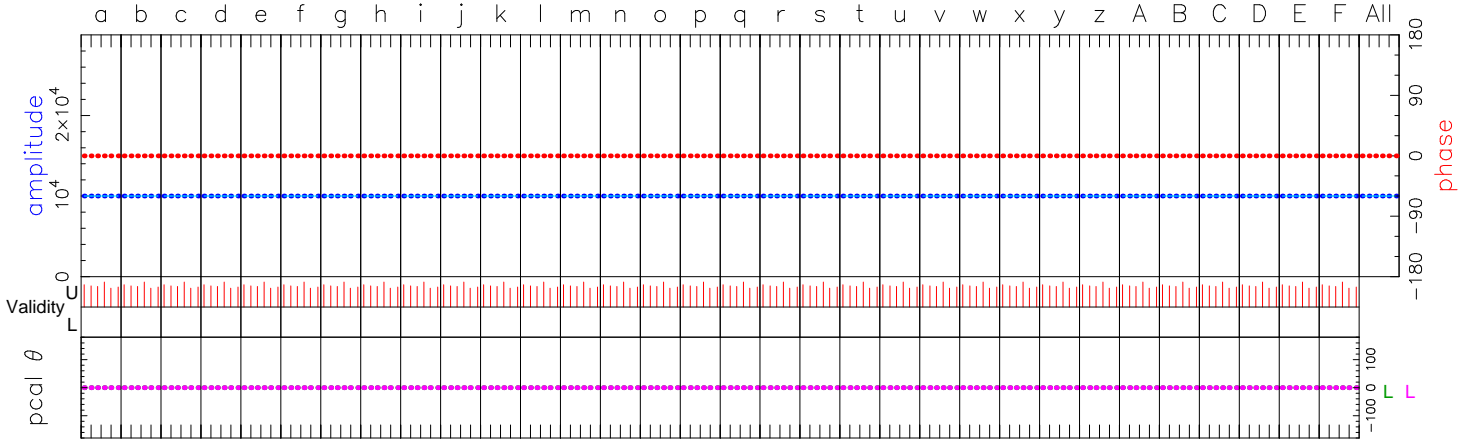


Fringe quality 9

SNR 708991.7  
Int time 185.431  
Amp 9999.950  
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) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163140  
2018:237:201327  
RA & Dec (J2000) 12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

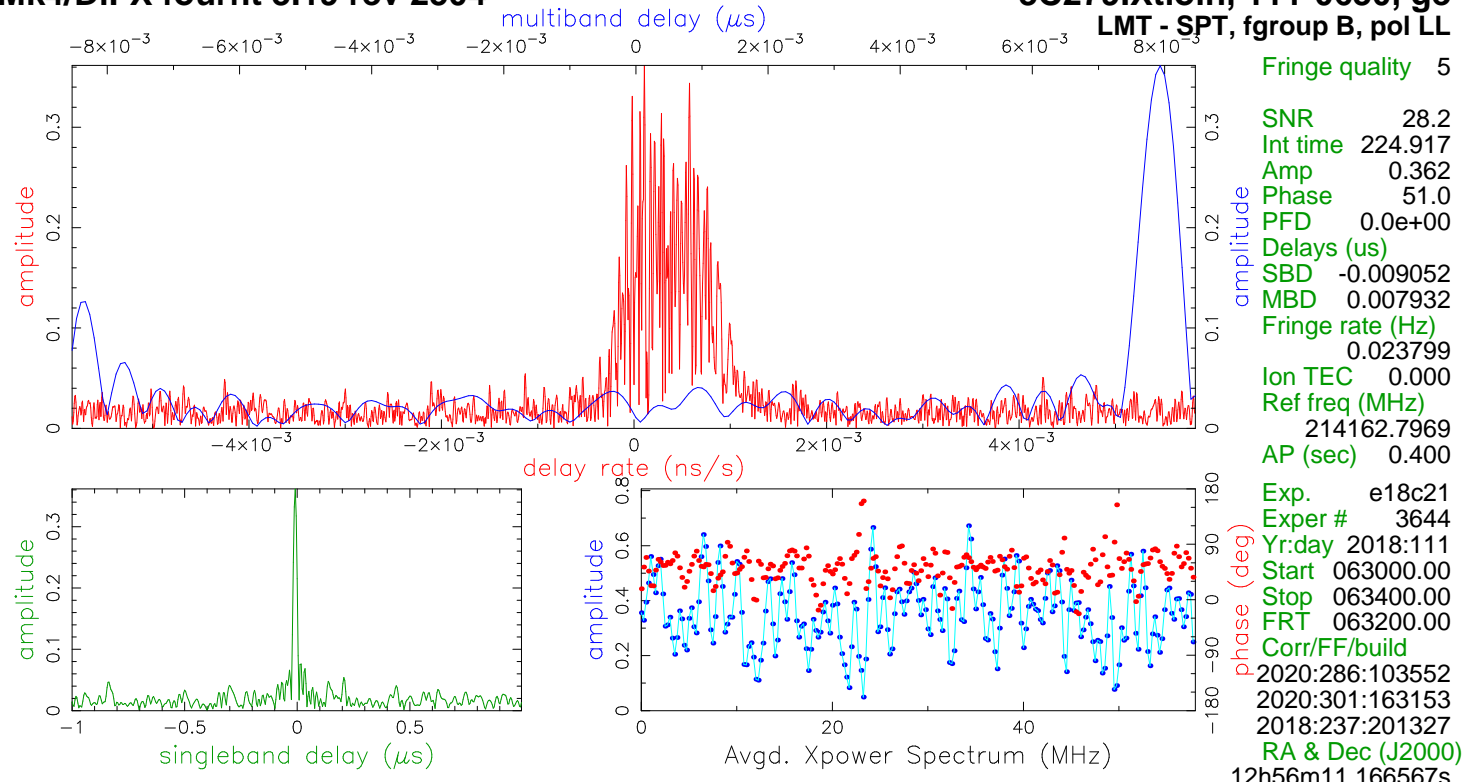


214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Req (MHz)	All							
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0					
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0				
233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	Std box	233.0					
UL	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	550/0	APs used						
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs					
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
L.L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase				
L.L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC				
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
L	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR			Chan ids					
L	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR			Tracks					

Group delay (usec)(model) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 4.1E-10  
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.3E-08  
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 2.1E-12  
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 1.7E-14  
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 9999.950 +/- 0.014 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.0 0.0 Search (2048X128) 9999.950 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.950 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

L: az 284.5 el 43.7 pa 116.3 L: az 284.5 el 43.7 pa 116.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/gлиндahl/golden/from-cannon/1000/111-0630/LL..Xtioin Output file: Suppressed by test mode



Fringe quality 5

SNR 28.2

Int time 224.917

Amp 0.362

Phase 51.0

PFD 0.0e+00

Delays (us)

SBD -0.009052

MBD 0.007932

Fringe rate (Hz)

0.023799

Ion TEC 0.000

Ref freq (MHz)

214162.7969

AP (sec) 0.400

Exp. e18c21

Exper # 3644

Yr:day 2018:111

Start 063000.00

Stop 063400.00

FRT 063200.00

Corr/FF/build

2020:286:103552

2020:301:163153

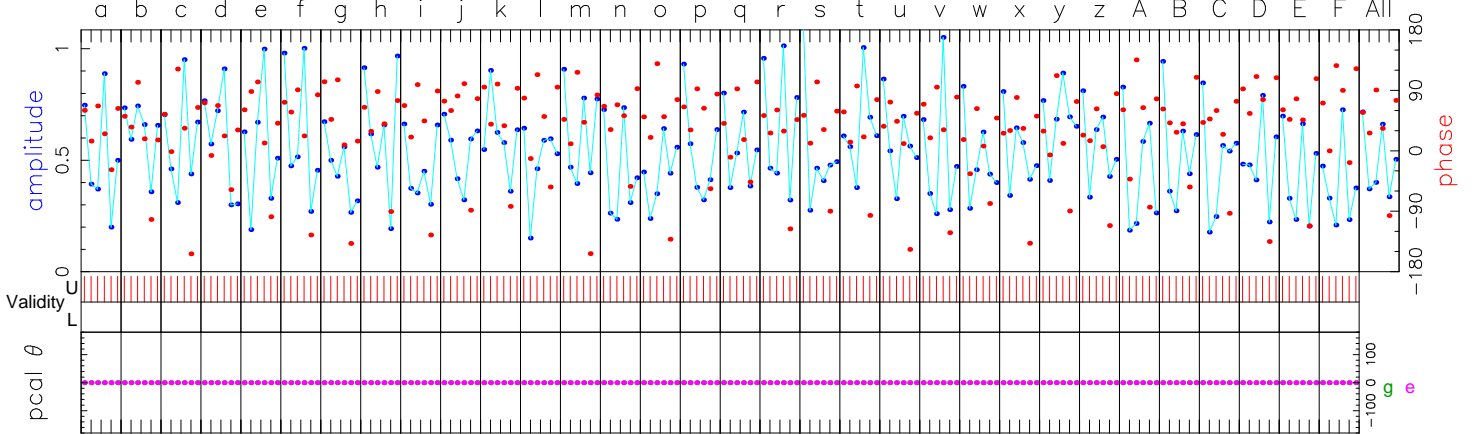
2018:237:201327

RA & Dec (J2000)

12h56m11.166567s

-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All	
40.8	40.3	51.7	33.6	47.2	60.8	62.3	58.2	66.6	71.5	66.6	63.2	61.8	55.4	69.3	58.2	39.1	40.4	47.0	34.7	43.3	52.2	11.1	44.3	29.5	30.6	48.6	50.8	37.2	91.3	65.7	76.4	Phase	51.0	
0.5	0.4	0.4	0.5	0.4	0.5	0.3	0.5	0.3	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.4	0.3	0.4	0.3	0.3	Ampl	0.4	
231.1	230.4	230.9	230.6	230.0	231.6	443.3	230.9	229.9	230.7	231.0	230.6	231.3	230.5	229.5	230.3	231.3	230.6	231.2	230.2	231.3	230.8	230.2	230.7	231.2	231.8	214.7	230.4	231.5	230.9	231.9	231.6	Std box	230.9	
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used		
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
g e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase		
g e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC		
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Tracks		
g	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	Chan ids	
e	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL	Chan ids	

Group delay (usec)(model) 1.64041574359E+04 Apriori delay (usec) 1.64041495040E+04 Resid mbdelay (usec) 7.93193E-03 +/- 1.0E-05

Sband delay (usec) 1.64041404524E+04 Apriori clock (usec) 8.2557511E-01 Resid sbdelay (usec) -9.05159E-03 +/- 3.4E-04

Phase delay (usec) 1.64041495047E+04 Apriori clockrate (us/s) 2.7980001E-06 Resid phdelay (usec) 6.60856E-07 +/- 5.3E-08

Delay rate (us/s) -3.94685597219E-01 Apriori rate (us/s) -3.94685708343E-01 Resid rate (us/s) 1.11123E-07 +/- 3.8E-10

Total phase (deg) 98.8 Apriori accel (us/s/s) -1.02551204299E-04 Resid phase (deg) 51.0 +/- 4.1

ph/seg (deg) RMS 64.3 Theor. 5.0 Amplitude 0.362 +/- 0.013 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 55.2 8.7 Search (2048X128) 0.342 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 16.6 11.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009

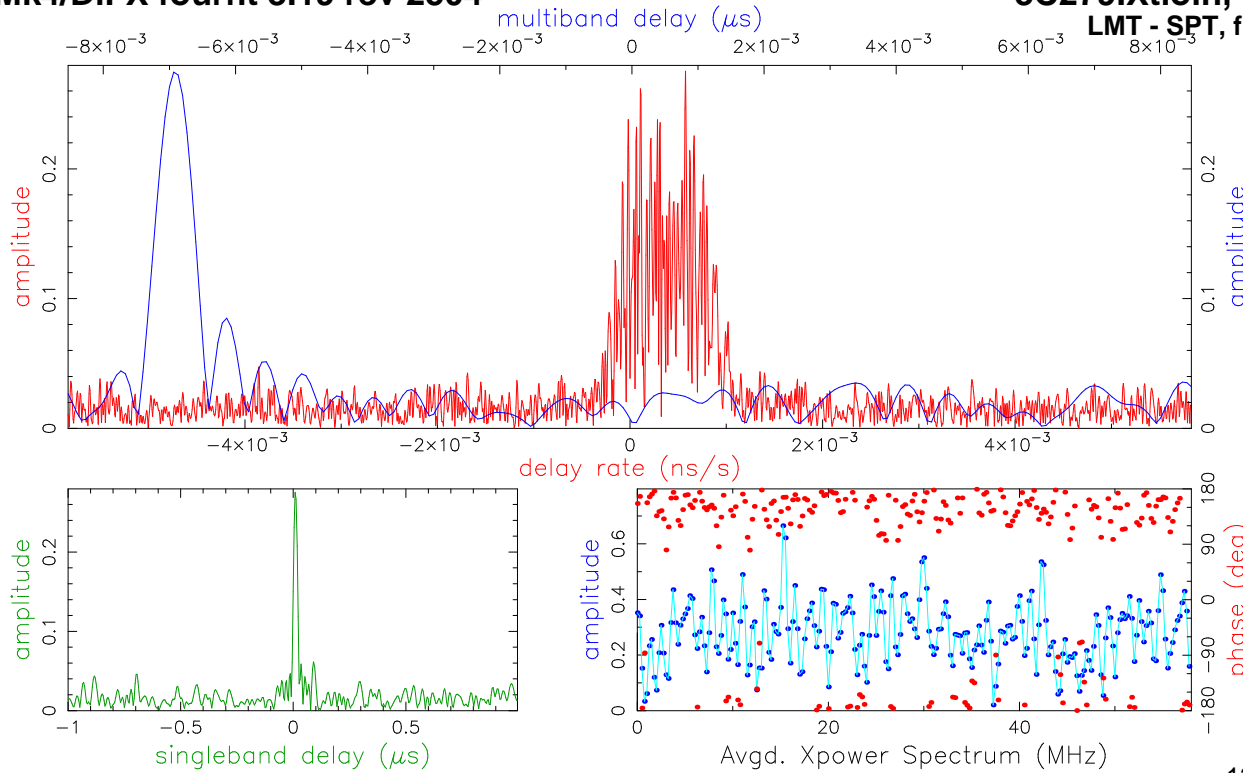
amp/frq (%) 21.2 20.0 Inc. seg. avg. 0.497 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006

g: az 212.5 el 61.0 pa 31.0 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) 5488.910 31085.284 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/ge..Xtioin Output file: Suppressed by test mode simultaneous interpolator

# Mk4/DiFX fourfit 3.19 rev 2504

**3C279.Xtioin, 111-0630, ge**  
**LMT - SPT, fgroup B, pol RR**

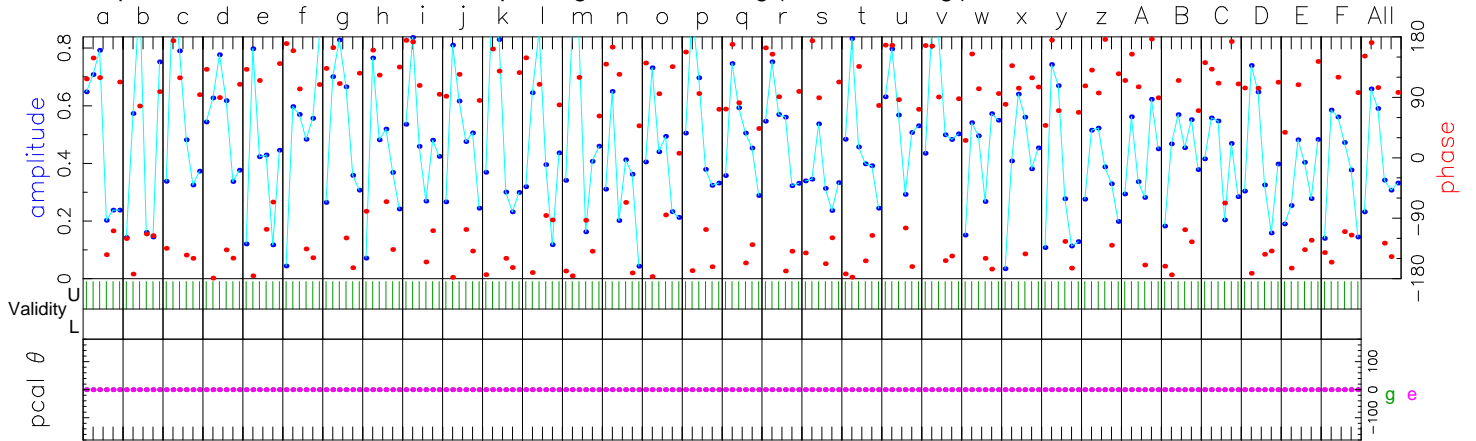


Fringe quality 7

SNR 22.5  
 Int time 239.874  
 Amp 0.280  
 Phase 156.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.010099  
 MBD -0.006908  
 Fringe rate (Hz)  
 0.123281  
 Ion TEC 0.000  
 Ref freq (MHz)  
 214162.7969  
 AP (sec) 0.400

Exp. e18c21  
 Exper # 3644  
 Yr:day 2018:111  
 Start 063000.00  
 Stop 063400.00  
 FRT 063200.00  
 Corr/FF/build  
 2020:286:103552  
 2020:301:163205  
 2018:237:201327  
 RA & Dec (J2000)  
 12h56m11.166567s  
 -5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

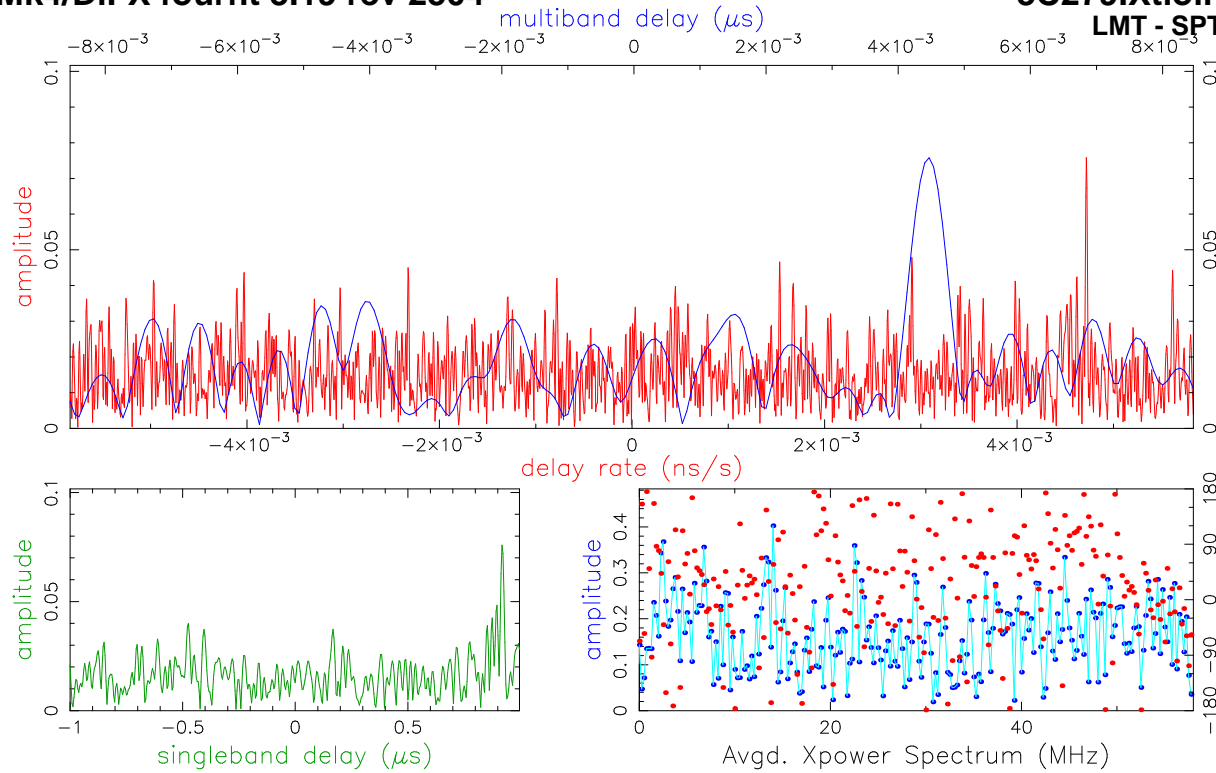


214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All					
137.1	118.0	168.3	153.2	173.2	152.6	159.8	178.0	166.9	173.2	159.5	144.0	161.5	173.0	160.8	162.7	146.3	152.8	163.2	-178.0	151.7	151.0	141.1	131.1	136.0	136.8	142.6	-174.3	136.2	149.1	165.4	-158.8	Phase	156.0					
0.4	0.2	0.4	0.3	0.2	0.3	0.4	0.2	0.3	0.3	0.4	0.2	0.3	0.2	0.2	0.3	0.2	0.4	0.2	0.4	0.3	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.2	Ampl.	0.3					
234.9	374.6	235.5	235.6	235.1	235.8	235.1	173.4	235.5	234.9	235.6	369.4	235.8	158.4	452.2	235.5	444.1	235.5	235.5	235.3	234.8	234.4	235.4	235.7	266.6	94.0	235.7	236.0	234.9	235.4	321.3	236.0	Std box	235.3					
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used					
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
g e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
g e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC			
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	Chan ids	Tracks				
e	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR	Chan ids	Tracks				

Group delay (usec)(model) 1.64041425961E+04 Apriori delay (usec) 1.64041495040E+04 Resid mbdelay (usec) -6.90794E-03 +/- 1.3E-05  
 Sband delay (usec) 1.64041596033E+04 Apriori clock (usec) 8.2557511E-01 Resid sbdelay (usec) 1.00993E-02 +/- 4.2E-04  
 Phase delay (usec) 1.64041495060E+04 Apriori clockrate (us/s) 2.7980001E-06 Resid phdelay (usec) 2.02394E-06 +/- 6.6E-08  
 Delay rate (us/s) -3.94685132700E-01 Apriori rate (us/s) -3.94685708343E-01 Resid rate (us/s) 5.75643E-07 +/- 4.8E-10  
 Total phase (deg) 203.9 Apriori accel (us/s/s) -1.02551204299E-04 Resid phase (deg) 156.0 +/- 5.1

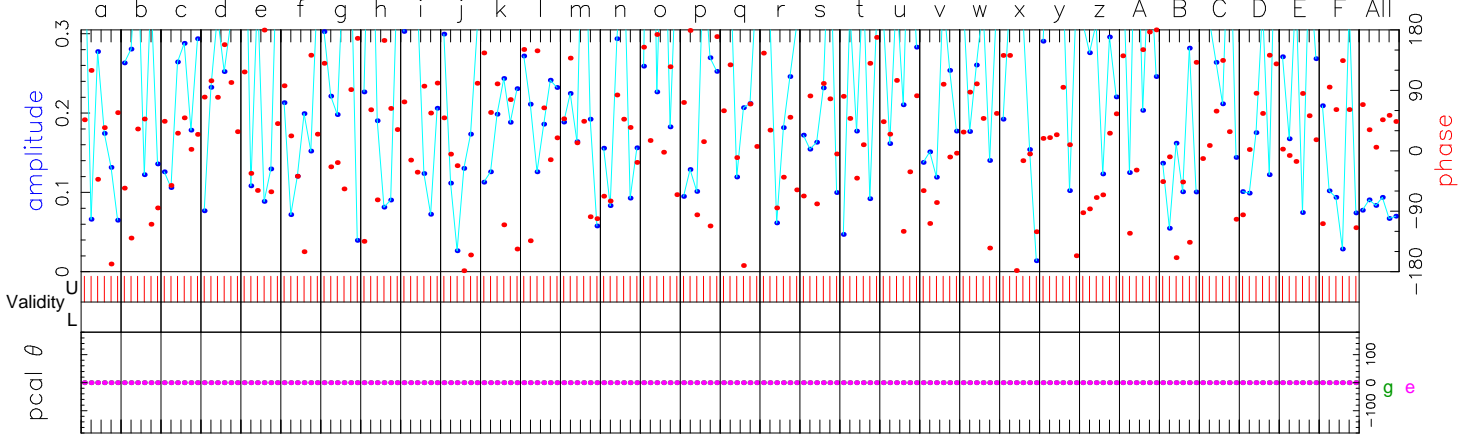
RMS Theor. Amplitude 0.280 +/- 0.012 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 50.8 6.2 Search (2048X128) 0.271 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 73.5 10.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 18.1 14.4 Inc. seg. avg. 0.410 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 27.1 25.2 Inc. frq. avg. 0.279 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

g: az 212.5 el 61.0 pa 31.0 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) 5488.910 31085.284 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/ge..Xtioin Output file: Suppressed by test mode



Fringe quality 0  
SNR 6.0  
Int time 224.904  
Amp 0.102  
Phase 40.6  
PFD 8.9e-01  
Delays (us)  
SBD 0.919247  
MBD 0.004460  
Fringe rate (Hz)  
1.010833  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400  
Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163217  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.7969	214221.4221	214279.4279	214338.4338	214397.4397	214455.4455	214514.4514	214572.4572	214631.4631	214690.4690	214748.4748	214807.4807	214865.4865	214924.4924	214983.4983	215041.5041	215100.5100	215158.5158	215217.5217	215276.5276	215334.5334	215393.5393	215451.5451	215510.5510	215569.5569	215627.5627	215686.5686	215744.5744	215803.5803	215862.5862	215920.5920	215979.5979	Req (MHz)	All							
30.8	-63.6	24.3	90.1	46.7	61.5	25.7	44.9	22.5	91.4	146.4	79.1	43.7	31.1	5.7	-122.5	70.2	10.1	60.5	45.8	36.8	-11.5	61.3	150.7	38.1	-50.8	179.0	-119.6	23.1	97.7	15.5	70.9	Phase	40.6							
0.1	0.1	0.3	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.0	0.2	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.2	0.2	0.1	0.2	0.2	0.3	0.1	0.2	0.3	0.1	Ampl	0.1					
178.1	57.2	129.3	161.3	254.3	146.4	167.2	97.5	306.7	158.1	230.1	20.6	38.9	270.8	377.1	112.1	461.3	459.8	441.8	343.9	60.2	452.2	311.2	460.5	59.6	286.8	422.2	125.1	135.6	395.8	268.9	20.3	Std box	446.3							
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used							
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs					
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
g e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
g e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC		
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
g	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL					Chan ids			
e	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR					Chan ids			

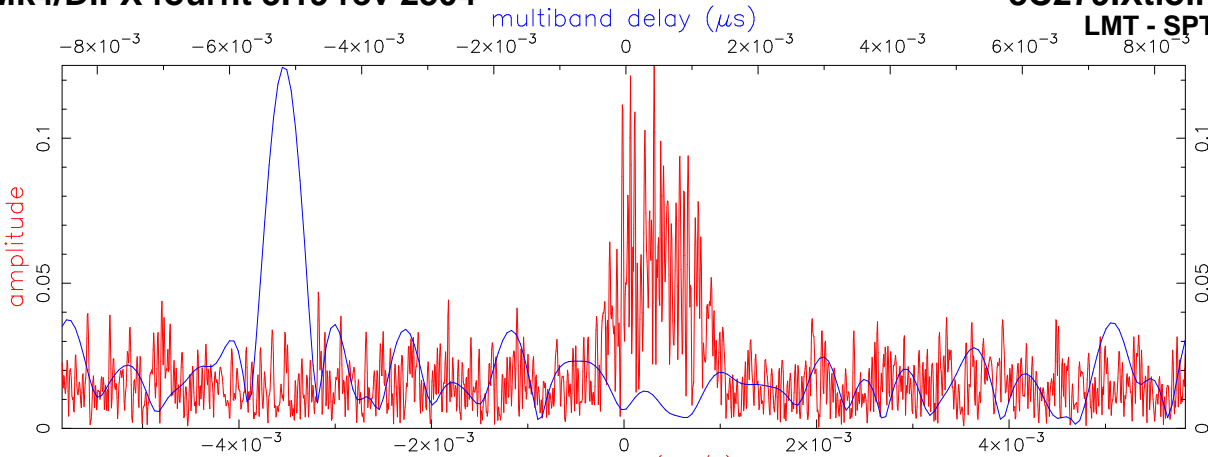
Group delay (usec)(model) 1.64041539645E+04 Apriori delay (usec) 1.64041495040E+04 Resid mbdelay (usec) 4.46050E-03 +/- 4.9E-05  
 Sband delay (usec) 1.64050687506E+04 Apriori clock (usec) 8.2557511E-01 Resid sbdelay (usec) 9.19247E-01 +/- 1.6E-03  
 Phase delay (usec) 1.64041495045E+04 Apriori clockrate (us/s) 2.7980001E-06 Resid phdelay (usec) 5.26937E-07 +/- 2.5E-07  
 Delay rate (us/s) -3.94680988416E-01 Apriori rate (us/s) -3.94685708343E-01 Resid rate (us/s) 4.71993E-06 +/- 1.8E-09  
 Total phase (deg) 88.5 Apriori accel (us/s/s) -1.02551204299E-04 Resid phase (deg) 40.6 +/- 19.2

ph/seg (deg) RMS Theor. Amplitude 0.102 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 19.6 23.5 Search (2048X128) 0.075 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 66.8 54.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 amp/frq (%) 82.5 94.8 Inc. seg. avg. 0.099 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 g: az 212.5 el 61.0 pa 31.0 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) 5488.910 31085.284 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00  
 simultaneous interpolator

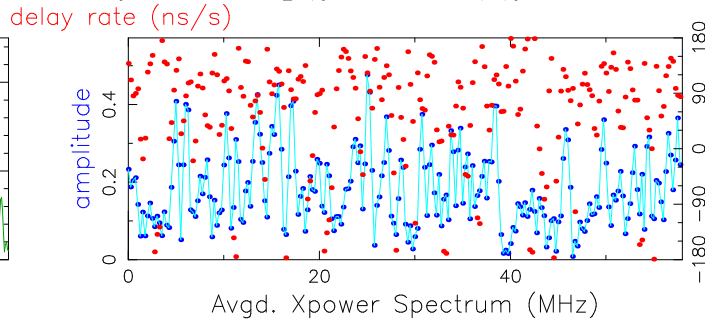
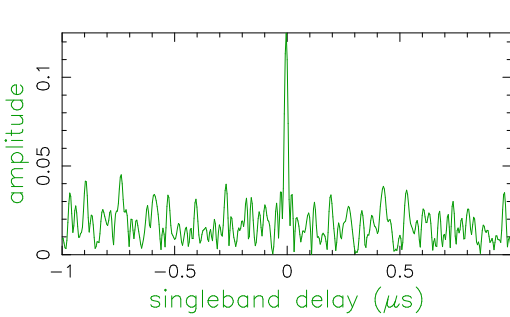
Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, ge  
LMT - SPT, fgroup B, pol RL

Fringe quality 9

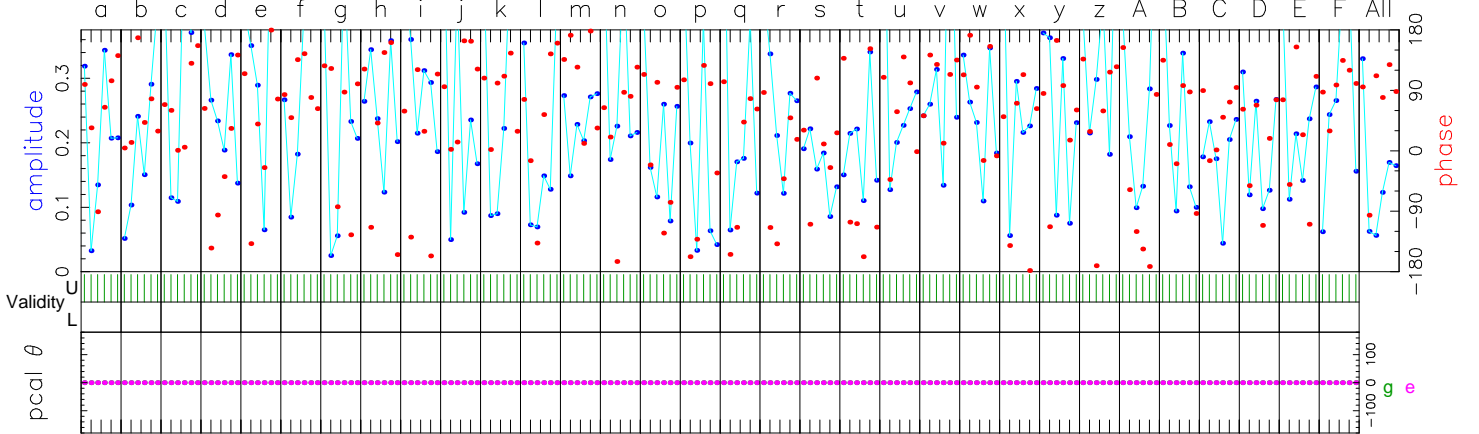


SNR 10.1  
Int time 239.887  
Amp 0.125  
Phase 100.2  
PFD 1.1e-14  
Delays (us)  
SBD -0.004590  
MBD -0.005175  
Fringe rate (Hz)  
0.066903  
Ion TEC 0.000  
Ref freq (MHz)  
214162.7969  
AP (sec) 0.400



Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163229  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



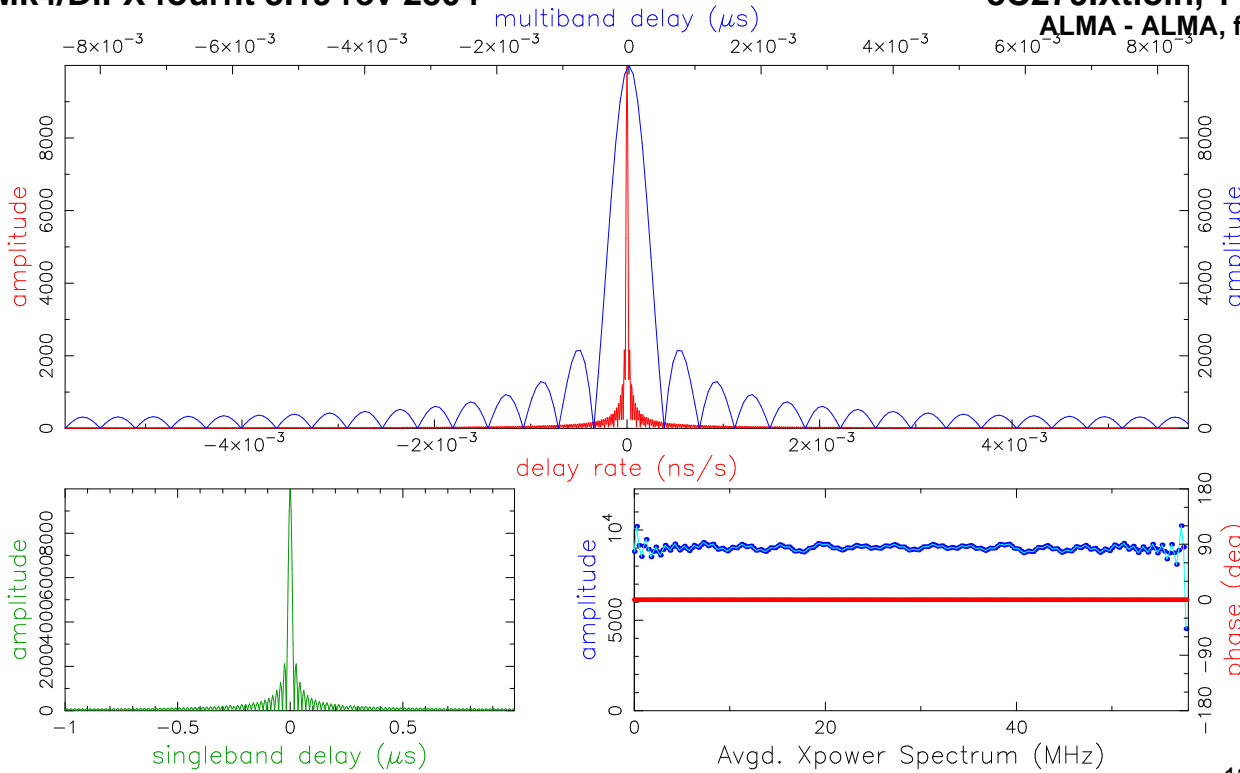
214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Req (MHz)	All				
96.2	55.7	79.8	22.8	132.4	94.6	116.6	167.2	105.5	88.2	99.0	117.5	117.7	85.4	114.4	127.5	90.0	37.6	12.8	-155.0	88.6	111.7	123.0	78.8	94.7	114.1	148.2	95.8	51.1	53.4	97.2	106.3	Phase	100.2				
0.1	0.1	0.2	0.0	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	Ampl	0.1			
13.4	105.0	419.3	393.4	97.7	232.4	252.1	140.5	310.4	188.7	217.1	387.7	369.7	278.4	36.2	320.8	28.7	457.3	126.3	205.6	259.4	232.1	6.9	77.1	319.7	231.0	395.1	97.0	399.2	367.0	186.4	186.6	Std box	231.9				
UL	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used				
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
g <sup>e</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
g <sup>e</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC			
e	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
g	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids			
e	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids			

Group delay (usec)(model) 1.64041443290E+04 Apriori delay (usec) 1.64041495040E+04 Resid mbdelay (usec) -5.17503E-03 +/- 2.9E-05  
 Sband delay (usec) 1.64041449142E+04 Apriori clock (usec) 8.2557511E-01 Resid sbdelay (usec) -4.58979E-03 +/- 9.4E-04  
 Phase delay (usec) 1.64041495053E+04 Apriori clockrate (us/s) 2.7980001E-06 Resid phdelay (usec) 1.30013E-06 +/- 1.5E-07  
 Delay rate (us/s) -3.94685395950E-01 Apriori rate (us/s) -3.94685708343E-01 Resid rate (us/s) 3.12393E-07 +/- 1.1E-09  
 Total phase (deg) 148.1 Apriori accel (us/s/s) -1.02551204299E-04 Resid phase (deg) 100.2 +/- 11.4

RMS Theor. Amplitude 0.125 +/- 0.012 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 68.8 13.9 Search (2048X128) 0.123 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 76.1 24.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 39.7 32.2 Inc. seg. avg. 0.147 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 47.1 56.1 Inc. frq. avg. 0.126 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

g: az 212.5 el 61.0 pa 31.0 e: az 292.7 el 5.9 pa 180.0 u,v (fr/asec) 5488.910 31085.284 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/ge..Xtioin Output file: Suppressed by test mode



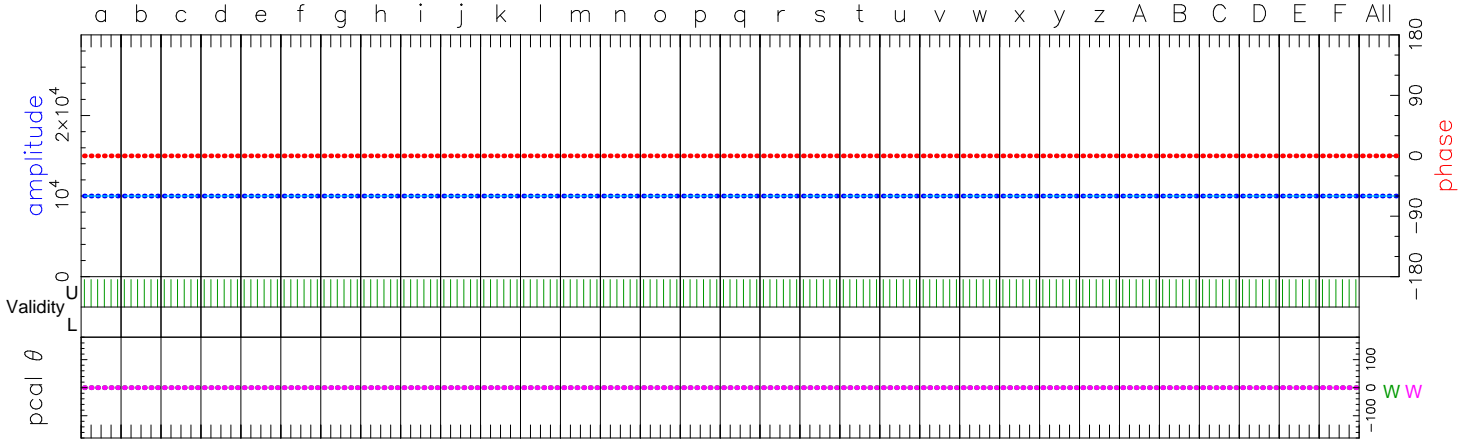


Fringe quality 9

SNR 806568.8  
Int time 239.983  
Amp 9999.996  
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) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163241  
2018:237:201327  
RA & Dec (J2000) 12h56m11.166567s -5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



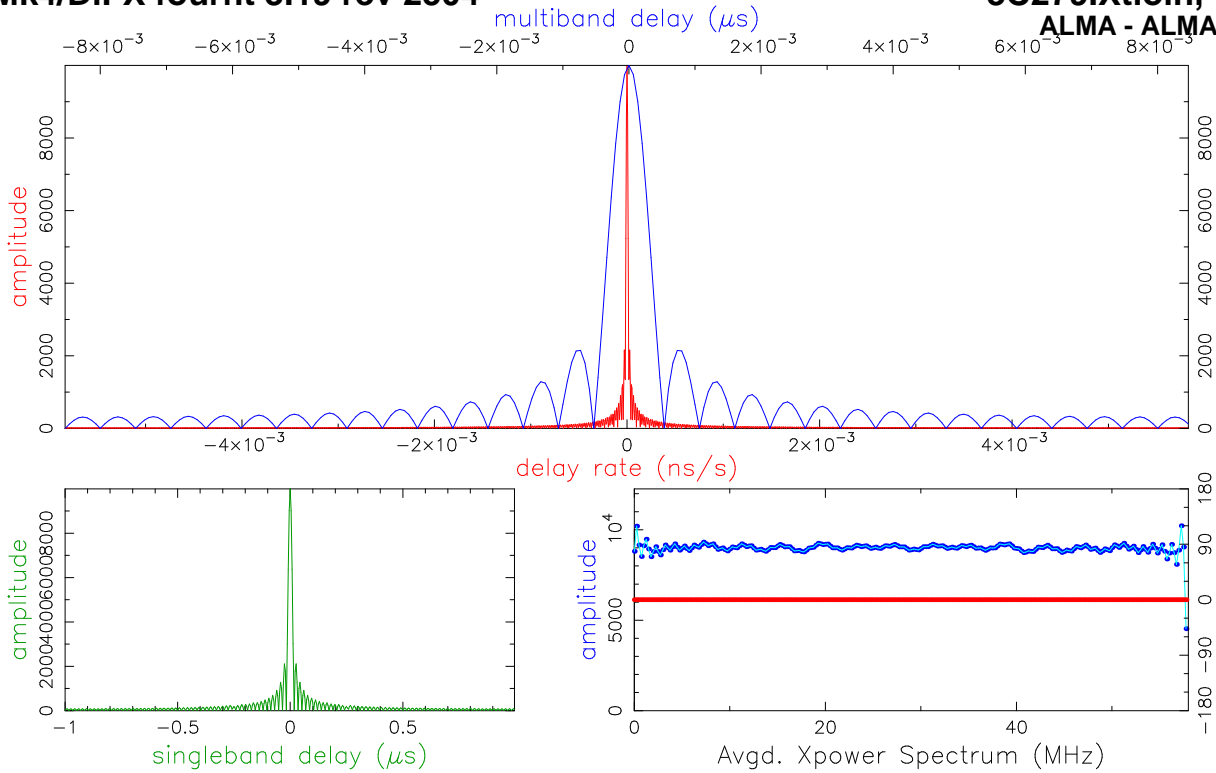
214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Req (MHz)	All				
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0		
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0	
233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	Std box	233.0	
U/L	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	600/0	APs used		
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
W:W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase		
W:W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Manl PC		
W	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
W	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
W	800UX	B01UX	B02UX	B03UX	B04UX	B05UX	B06UX	B07UX	B08UX	B09UX	B10UX	B11UX	B12UX	B13UX	B14UX	B15UX	B16UX	B17UX	B18UX	B19UX	B20UX	B21UX	B22UX	B23UX	B24UX	B25UX	B26UX	B27UX	B28UX	B29UX	B30UX	B31UX		Chan ids			
W	800UX	B01UX	B02UX	B03UX	B04UX	B05UX	B06UX	B07UX	B08UX	B09UX	B10UX	B11UX	B12UX	B13UX	B14UX	B15UX	B16UX	B17UX	B18UX	B19UX	B20UX	B21UX	B22UX	B23UX	B24UX	B25UX	B26UX	B27UX	B28UX	B29UX	B30UX	B31UX		Chan ids			

Group delay (usec)(model)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.6E-10
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.2E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.8E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	Theor.	Amplitude	9999.996 +/- 0.012	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	0.0	0.0	Search (2048X128)	9999.996	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009
amp/frq (%)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 116	dr window (ns/s)	-0.006 0.006	
			Inc. frq. avg.	9999.996	Data rate(Mb/s): 7424	nlags: 232 t_cohere infinite	ion window (TEC)	0.00 0.00

W: az 284.6 el 43.7 pa 116.5 W: az 284.6 el 43.7 pa 116.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/WW.Xtioin Output file: Suppressed by test mode

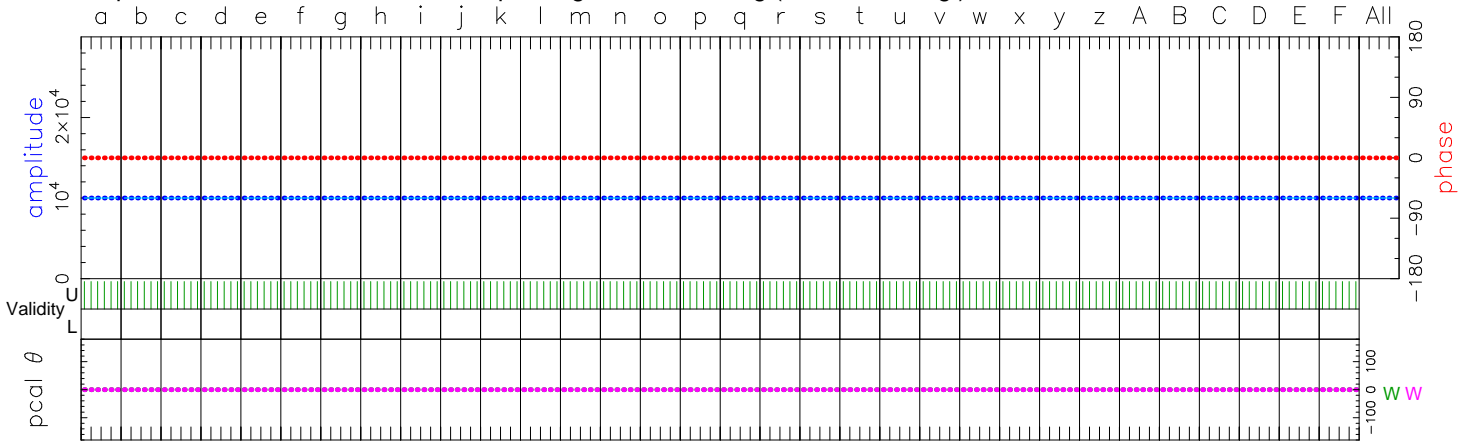


Fringe quality 9

SNR 806576.9  
Int time 239.987  
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) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163253  
2018:237:201327  
RA & Dec (J2000) 12h56m11.166567s -5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



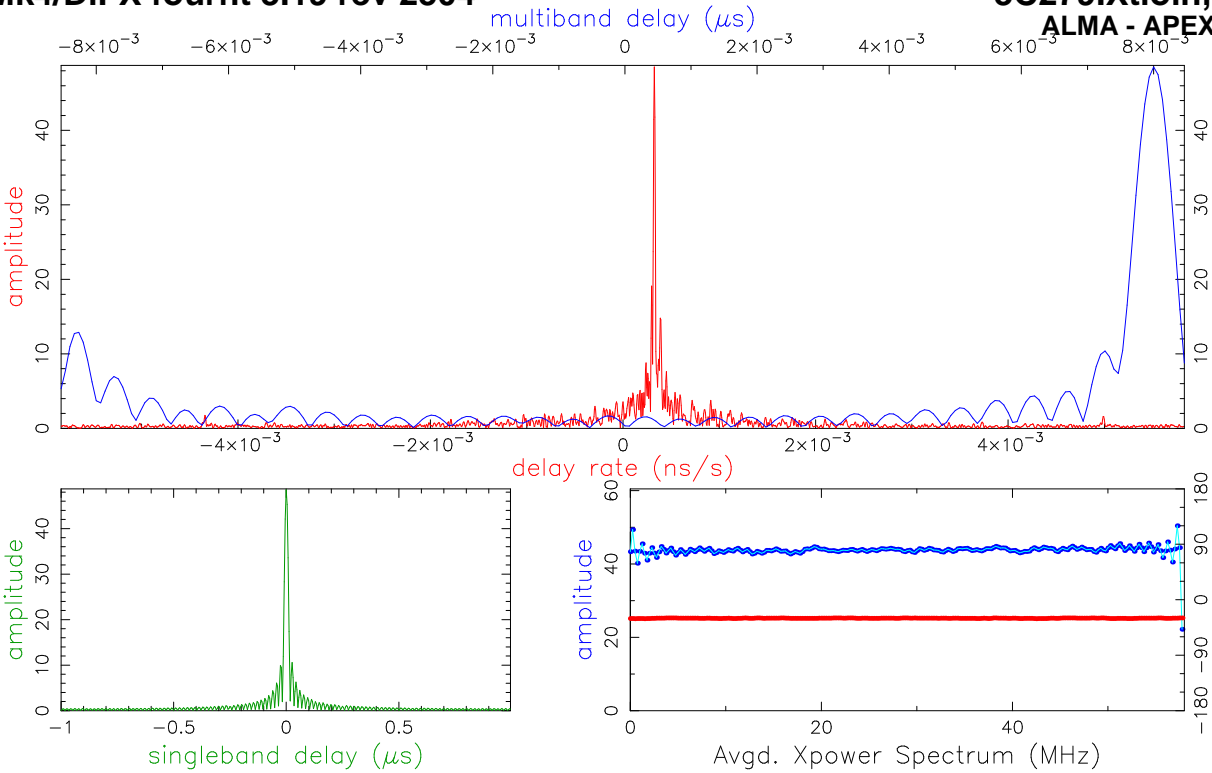
214162.0	4221.0	4279.0	4338.0	4397.0	4455.0	4514.0	4572.0	4631.0	4690.0	4748.0	4807.0	4865.0	4924.0	4983.0	5041.0	5100.0	5158.0	5217.0	5276.0	5334.0	5393.0	5451.0	5510.0	5569.0	5627.0	5686.0	5744.0	5803.0	5862.0	5920.0	5979.0	Req (MHz)	All						
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0				
10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0				
233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	Std box	233.0				
U/L	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	600/U	APs used					
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
W:W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
W:W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC			
W	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
W	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
W	800UY	B01UY	B02UY	B03UY	B04UY	B05UY	B06UY	B07UY	B08UY	B09UY	B10UY	B11UY	B12UY	B13UY	B14UY	B15UY	B16UY	B17UY	B18UY	B19UY	B20UY	B21UY	B22UY	B23UY	B24UY	B25UY	B26UY	B27UY	B28UY	B29UY	B30UY	B31UY			Chan ids				
W	800UY	B01UY	B02UY	B03UY	B04UY	B05UY	B06UY	B07UY	B08UY	B09UY	B10UY	B11UY	B12UY	B13UY	B14UY	B15UY	B16UY	B17UY	B18UY	B19UY	B20UY	B21UY	B22UY	B23UY	B24UY	B25UY	B26UY	B27UY	B28UY	B29UY	B30UY	B31UY			Tracks				

Group delay (usec)(model)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.6E-10
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.2E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.8E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	Theor.	Amplitude	9999.999 +/- 0.012	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	0.0	0.0	0.0	Search (2048X128)	9999.999	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s):	116	dr window (ns/s)	-0.006 0.006	
				Inc. frq. avg.	9999.999	Data rate(Mb/s):	7424	nlags: 232 t_cohere infinite	ion window (TEC)	0.00 0.00

W: az 284.6 el 43.7 pa 116.5 W: az 284.6 el 43.7 pa 116.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_3597.from.mike.titus Input file: /home/glindahl/golden/from-cannon/1000/111-0630/WW.Xtioin Output file: Suppressed by test mode

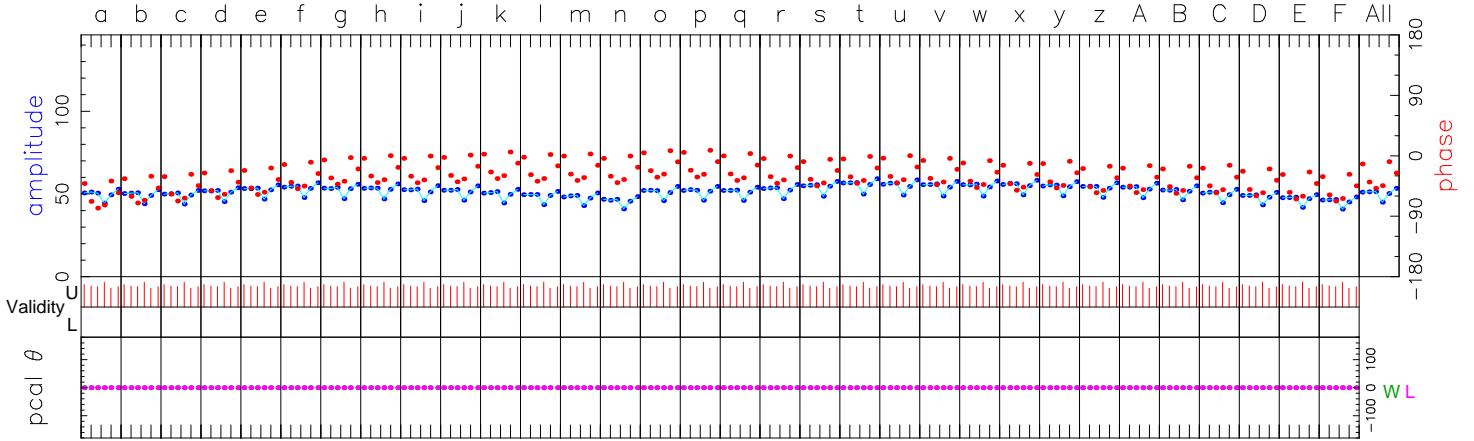


Fringe quality 7

SNR 3452.5  
Int time 185.697  
Amp 48.724  
Phase -30.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000733  
MBD 0.008005  
Fringe rate (Hz) 0.070116  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163305  
2018:237:201327  
RA & Dec (J2000) 12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec

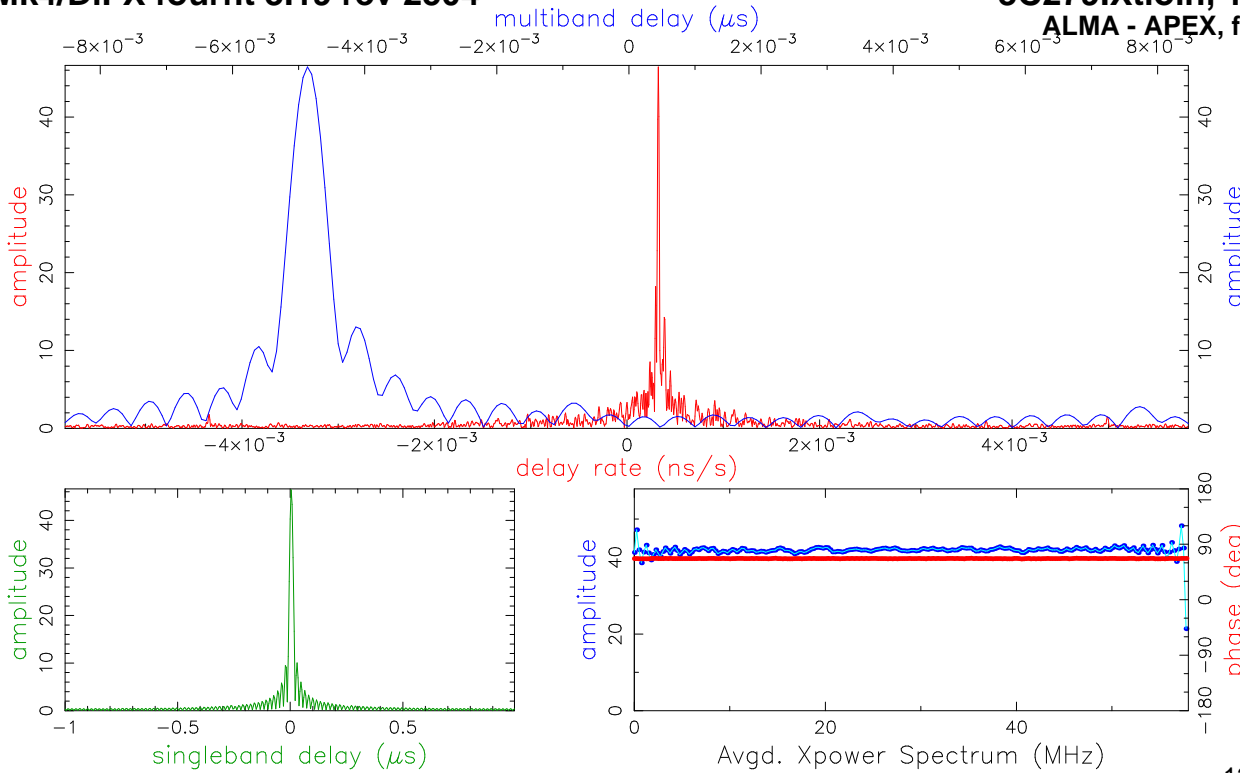


214162.2	214221.2	214279.2	214338.2	214397.2	214455.2	214514.2	214572.2	214631.2	214690.2	214748.2	214807.2	214865.2	214924.2	214983.2	215041.2	215100.2	215158.2	215217.2	215276.2	215334.2	215393.2	215451.2	215510.2	215569.2	215627.2	215686.2	215744.2	215803.2	215862.2	215920.2	215979.2	Req (MHz)	All					
-59.0	-51.8	-48.7	-43.3	-39.4	-30.7	-23.8	-21.4	-21.7	-20.2	-15.4	-19.5	-18.4	-21.4	-13.3	-13.1	-18.2	-21.9	-26.2	-22.4	-21.4	-24.7	-28.7	-32.5	-29.6	-36.9	-36.2	-37.2	-36.1	-40.9	-45.6	-49.1	Phase	-30.0					
48.0	47.7	47.6	49.1	50.6	51.7	50.9	50.8	49.8	49.7	48.2	47.1	46.2	44.2	49.5	49.6	49.4	50.7	52.5	53.8	53.2	52.7	52.6	53.2	52.4	51.7	51.3	49.8	48.1	46.6	45.3	43.9	Ampl	49.6					
233.3	233.2	233.2	233.3	233.2	233.2	233.2	233.3	233.1	233.2	233.2	233.1	233.1	233.2	233.3	233.1	233.1	233.1	233.1	233.2	233.2	233.1	233.2	233.1	233.2	233.1	233.2	233.2	233.1	233.1	233.1	233.1	233.1	Std box	233.2				
UL	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	APs used					
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs			
WL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase			
WL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC			
W	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
W	B00UX	B01UX	B02UX	B03UX	B04UX	B05UX	B06UX	B07UX	B08UX	B09UX	B10UX	B11UX	B12UX	B13UX	B14UX	B15UX	B16UX	B17UX	B18UX	B19UX	B20UX	B21UX	B22UX	B23UX	B24UX	B25UX	B26UX	B27UX	B28UX	B29UX	B30UX	B31UX		Chan ids				
L	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids				

Group delay (usec)(model) -2.11014712036E+03 Apriori delay (usec) -2.11015512542E+03 Resid mbdelay (usec) 8.00506E-03 +/- 8.5E-08  
 Sband delay (usec) -2.11015439218E+03 Apriori clock (usec) -2.1074712E+03 Resid sbdelay (usec) 7.33241E-04 +/- 2.8E-06  
 Phase delay (usec) -2.11015512581E+03 Apriori clockrate (us/s) -2.9100000E-07 Resid phdelay (usec) -3.89607E-07 +/- 4.3E-10  
 Delay rate (us/s) 1.02577110565E-04 Apriori rate (us/s) 1.02249713239E-04 Resid rate (us/s) 3.27397E-07 +/- 3.4E-12  
 Total phase (deg) -210.1 Apriori accel (us/s/s) 1.85974768754E-08 Resid phase (deg) -30.0 +/- 0.0

RMS Theor. Amplitude 48.724 +/- 0.014 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 15.2 0.0 Search (2048X128) 46.544 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 6.5 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: disabled mb window (us) -0.009 0.009  
 ph/frq (deg) 12.4 0.1 Inc. seg. avg. 50.337 Sample rate(MISamp/s): 116 dr window (ns/s) -0.006 0.006  
 amp/frq (%) 5.7 0.2 Inc. frq. avg. 49.624 Data rate(Mb/s): 7424 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

W: az 284.6 el 43.7 pa 116.5 L: az 284.5 el 43.7 pa 116.3 u,v (fr/asec) -1.440 -8.567 simultaneous interpolator  
 Control file: cf\_3597.from.mike.titus Input file: /home/gbindahl/golden/from-cannon/1000/111-0630/WL.Xtioin Output file: Suppressed by test mode

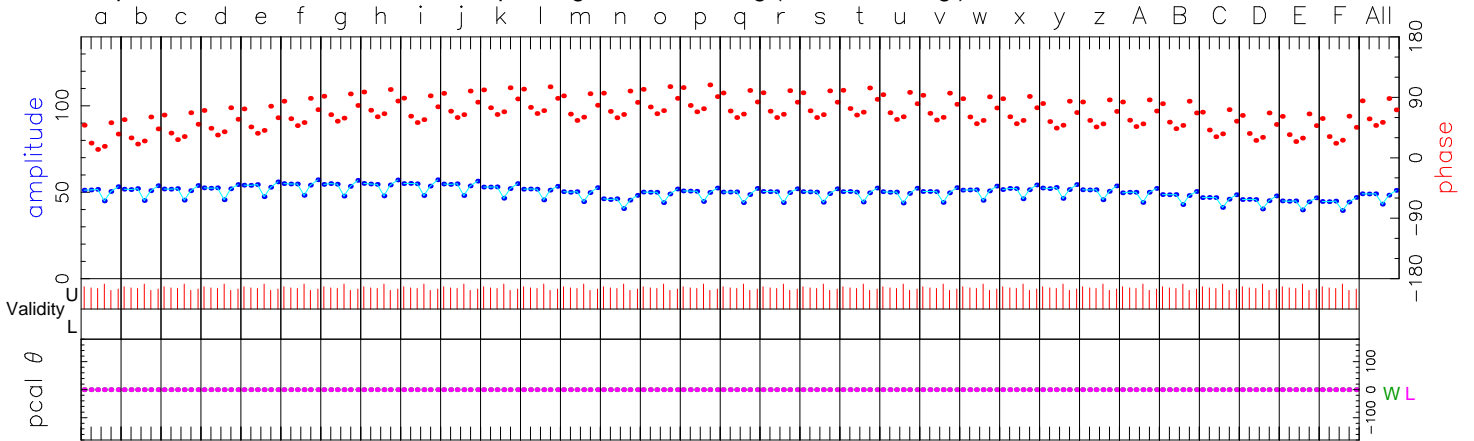


Fringe quality 7

SNR 3300.7  
Int time 185.323  
Amp 46.628  
Phase 66.8  
PFD 0.0e+00  
Delays (us)  
SBD 0.005044  
MBD -0.004860  
Fringe rate (Hz) 0.070133  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163318  
2018:237:201327  
RA & Dec (J2000)  
12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



	214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All		
30.8	38.9	45.6	52.8	55.0	66.8	73.3	79.9	70.9	78.2	83.0	84.2	74.1	78.2	84.2	86.9	78.6	78.4	82.3	75.8	74.9	69.6	69.7	62.7	64.6	64.9	62.3	50.0	44.9	43.4	40.5	Phase	66.8				
48.6	49.0	49.1	49.6	51.2	52.0	51.6	51.9	52.0	51.8	50.2	49.1	47.8	43.7	47.4	48.0	47.4	47.6	47.5	47.7	47.4	47.7	48.7	49.3	49.7	48.8	47.5	46.0	44.4	43.4	42.6	42.5	Ampl.	48.2			
234.3	234.2	234.2	234.2	234.2	234.3	234.2	234.2	234.2	234.2	234.1	234.1	234.1	234.2	234.2	234.2	234.1	234.2	234.1	234.2	234.1	234.1	234.1	234.1	234.2	234.2	234.1	234.1	234.1	234.0	234.1	234.1	234.1	Std box	234.2		
U/L	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	548/0	APs used			
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs	
W/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase	
W/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC	
W	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
W	B00UY	B01UY	B02UY	B03UY	B04UY	B05UY	B06UY	B07UY	B08UY	B09UY	B10UY	B11UY	B12UY	B13UY	B14UY	B15UY	B16UY	B17UY	B18UY	B19UY	B20UY	B21UY	B22UY	B23UY	B24UY	B25UY	B26UY	B27UY	B28UY	B29UY	B30UY	B31UY		Chan ids		
L	B00UR	B01UR	B02UR	B03UR	B04UR	B05UR	B06UR	B07UR	B08UR	B09UR	B10UR	B11UR	B12UR	B13UR	B14UR	B15UR	B16UR	B17UR	B18UR	B19UR	B20UR	B21UR	B22UR	B23UR	B24UR	B25UR	B26UR	B27UR	B28UR	B29UR	B30UR	B31UR		Chan ids		

Group delay (usec)(model)	-2.11015998541E+03	Apriori delay (usec)	-2.11015512542E+03	Resid mbdelay (usec)	-4.85999E-03	+/-	8.9E-08
Sband delay (usec)	-2.11015008101E+03	Apriori clock (usec)	-2.1074712E+03	Resid sbdelay (usec)	5.04441E-03	+/-	2.9E-06
Phase delay (usec)	-2.11015512456E+03	Apriori clockrate (us/s)	-2.9100000E-07	Resid phdelay (usec)	8.66102E-07	+/-	4.5E-10
Delay rate (us/s)	1.02577188631E-04	Apriori rate (us/s)	1.02249713239E-04	Resid rate (us/s)	3.27475E-07	+/-	3.6E-12
Total phase (deg)	-113.3	Apriori accel (us/s/s)	1.85974768754E-08	Resid phase (deg)	66.8	+/-	0.0

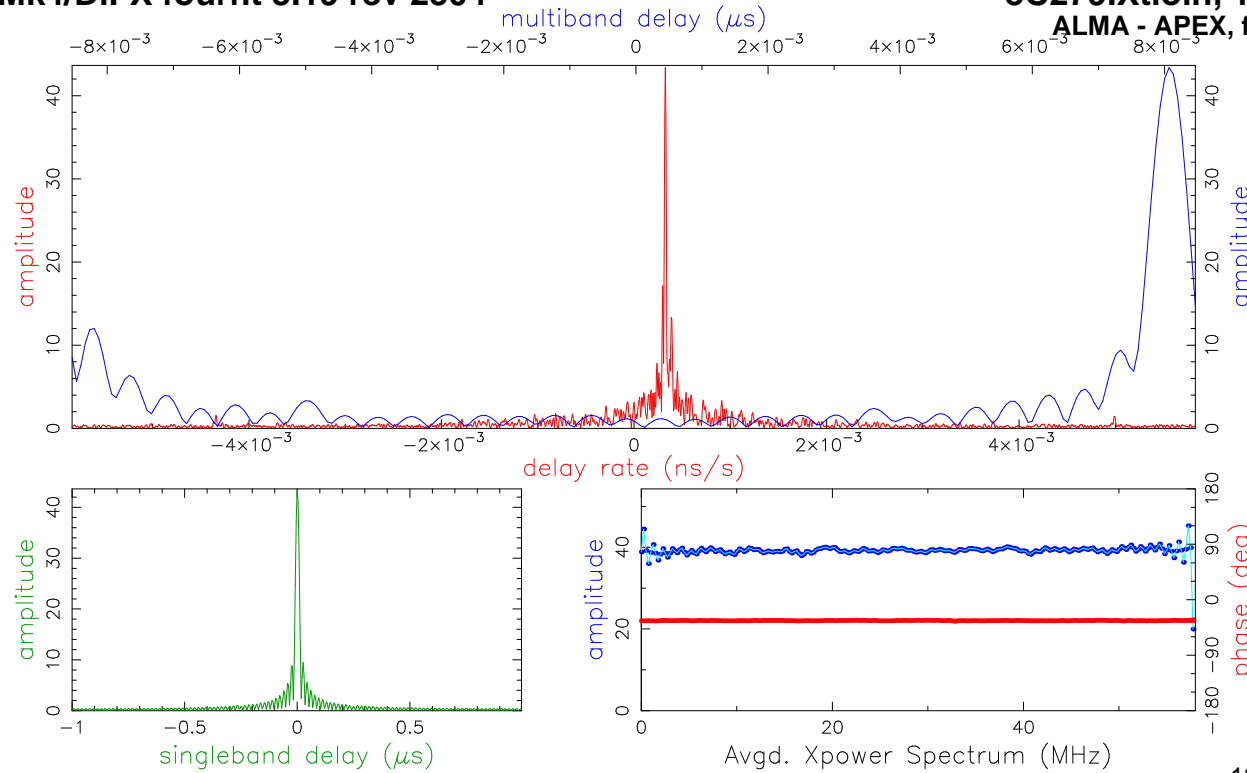
ph/seg (deg)	15.4	0.0	Search (2048X128)	44.461	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	6.5	0.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	15.8	0.1	Inc. seg. avg.	48.203	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.009 0.009	
amp/frq (%)	6.5	0.2	Inc. frq. avg.	48.157	Sample rate(MISamp/s): 116		dr window (ns/s)	-0.006 0.006	
W: az 284.6 el 43.7 pa 116.5		L: az 284.5 el 43.7 pa 116.3		u,v (fr/asec)	-1.440 -8.567	Data rate(Mb/s): 7424	nlags: 232 t_cohere infinite	ion window (TEC)	0.00 0.00





Mk4/DiFX fourfit 3.19 rev 2504

3C279.Xtioin, 111-0630, WL  
ALMA - APEX, fgroup B, pol YL

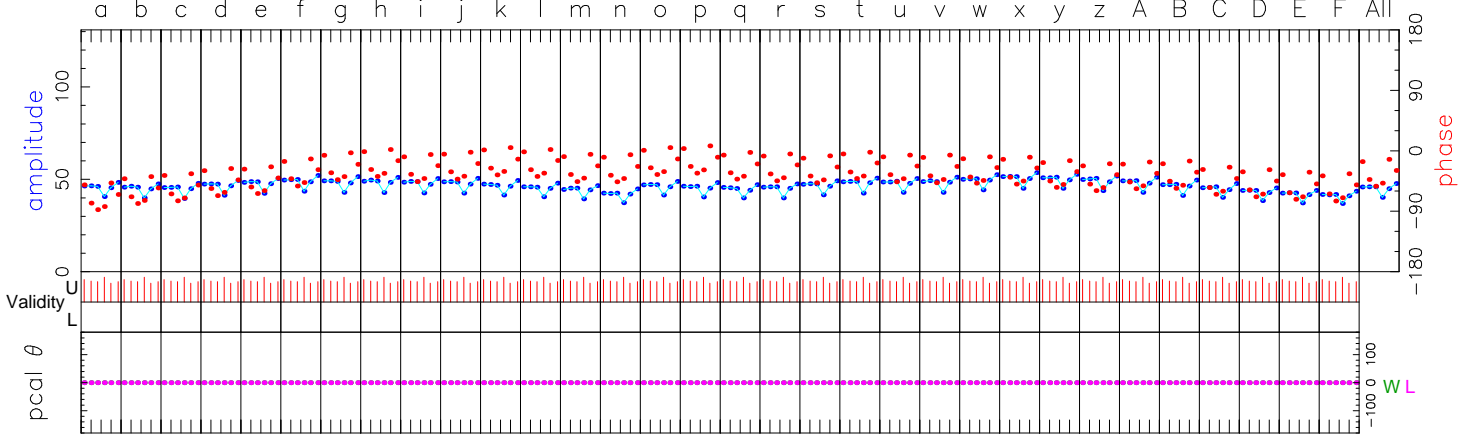


Fringe quality 7

SNR 3092.8  
Int time 185.697  
Amp 43.647  
Phase -33.9  
PFD 0.0e+00  
Delays (us)  
SBD 0.000900  
MBD 0.008075  
Fringe rate (Hz) 0.070104  
Ion TEC 0.000  
Ref freq (MHz) 214162.7969  
AP (sec) 0.400

Exp. e18c21  
Exper # 3644  
Yr:day 2018:111  
Start 063000.00  
Stop 063400.00  
FRT 063200.00  
Corr/FF/build  
2020:286:103552  
2020:301:163342  
2018:237:201327  
RA & Dec (J2000) 12h56m11.166567s  
-5°47'21.524811"

Amp. and Phase vs. time for each freq., 6 segs, 100 APs / seg (40.00 sec / seg.), time ticks 60 sec



214162.0	214221.0	214279.0	214338.0	214397.0	214455.0	214514.0	214572.0	214631.0	214690.0	214748.0	214807.0	214865.0	214924.0	214983.0	215041.0	215100.0	215158.0	215217.0	215276.0	215334.0	215393.0	215451.0	215510.0	215569.0	215627.0	215686.0	215744.0	215803.0	215862.0	215920.0	215979.0	Req (MHz)	All			
-69.0	-59.6	-55.4	-47.6	-45.0	-33.2	-24.2	-19.2	-26.8	-23.2	-16.7	-19.2	-26.7	-27.3	-16.8	-14.2	-23.8	-25.7	-28.8	-22.8	-27.2	-28.1	-29.8	-30.6	-35.8	-40.5	-37.8	-36.8	-45.8	-49.6	-53.6	-55.4	Phase	-33.9			
43.9	43.4	43.2	44.9	46.0	47.2	46.5	46.5	46.0	46.0	44.7	43.6	42.6	40.4	44.6	43.8	42.9	43.4	44.9	46.2	46.1	46.4	47.7	48.7	48.2	47.3	46.5	44.7	43.2	41.5	40.2	39.6	Ampl	44.7			
233.3	233.3	233.2	233.3	233.3	233.3	233.3	233.3	233.2	233.2	233.2	233.2	233.2	233.2	233.4	233.2	233.1	233.1	233.2	233.2	233.1	233.2	233.2	233.2	233.2	233.2	233.2	233.2	233.1	233.1	233.2	233.2	233.1	Std box	233.2		
UL	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	549/0	APs used			
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs		
WL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PC phase		
WL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ManI PC		
L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
W	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
W	B00UY	B01UY	B02UY	B03UY	B04UY	B05UY	B06UY	B07UY	B08UY	B09UY	B10UY	B11UY	B12UY	B13UY	B14UY	B15UY	B16UY	B17UY	B18UY	B19UY	B20UY	B21UY	B22UY	B23UY	B24UY	B25UY	B26UY	B27UY	B28UY	B29UY	B30UY	B31UY		Chan ids		
L	B00UL	B01UL	B02UL	B03UL	B04UL	B05UL	B06UL	B07UL	B08UL	B09UL	B10UL	B11UL	B12UL	B13UL	B14UL	B15UL	B16UL	B17UL	B18UL	B19UL	B20UL	B21UL	B22UL	B23UL	B24UL	B25UL	B26UL	B27UL	B28UL	B29UL	B30UL	B31UL		Chan ids		

Group delay (usec)(model)	-2.11014705044E+03	Apriori delay (usec)	-2.11015512542E+03	Resid mbdelay (usec)	8.07498E-03	+/-	9.5E-08
Sband delay (usec)	-2.11015422556E+03	Apriori clock (usec)	-2.1074712E+03	Resid sbdelay (usec)	8.99862E-04	+/-	3.1E-06
Phase delay (usec)	-2.11015512586E+03	Apriori clockrate (us/s)	-2.9100000E-07	Resid phdelay (usec)	-4.39998E-07	+/-	4.8E-10
Delay rate (us/s)	1.02577054022E-04	Apriori rate (us/s)	1.02249713239E-04	Resid rate (us/s)	3.27341E-07	+/-	3.8E-12
Total phase (deg)	-214.0	Apriori accel (us/s/s)	1.85974768754E-08	Resid phase (deg)	-33.9	+/-	0.0

ph/seg (deg)	RMS 15.3	Theor. 0.0	Amplitude Search (2048X128)	43.647 +/- 0.014	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	6.5	0.1	Interp.	41.654	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	14.3	0.1	Inc. seg. avg.	45.043	Bits/sample: 2x2	SampCntNorm: disabled	mb window (us)	-0.009	0.009	
amp/frq (%)	5.8	0.2	Inc. frq. avg.	44.712	Sample rate(MISamp/s): 116		dr window (ns/s)	-0.006	0.006	
					Data rate(Mb/s): 7424	nlags: 232	t_cohere infinite	ion window (TEC)	0.00	0.00

W: az 284.6 el 43.7 pa 116.5 L: az 284.5 el 43.7 pa 116.3 u,v (fr/asec) -1.440 -8.567 simultaneous interpolator

Control file: cf\_3597.from.mike.titus Input file: /home/gbindahl/golden/from-cannon/1000/111-0630/WL.Xtioin Output file: Suppressed by test mode