

Fringe quality 9

SNR 10.7

Int time 418.917

Amp 0.382

Phase 199.1

PFD 6.9e-19

Delays (us)

SBD -0.037880

MBD -0.005818

Fringe rate (Hz)

-0.037351

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124501.00

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

2017:214:145901

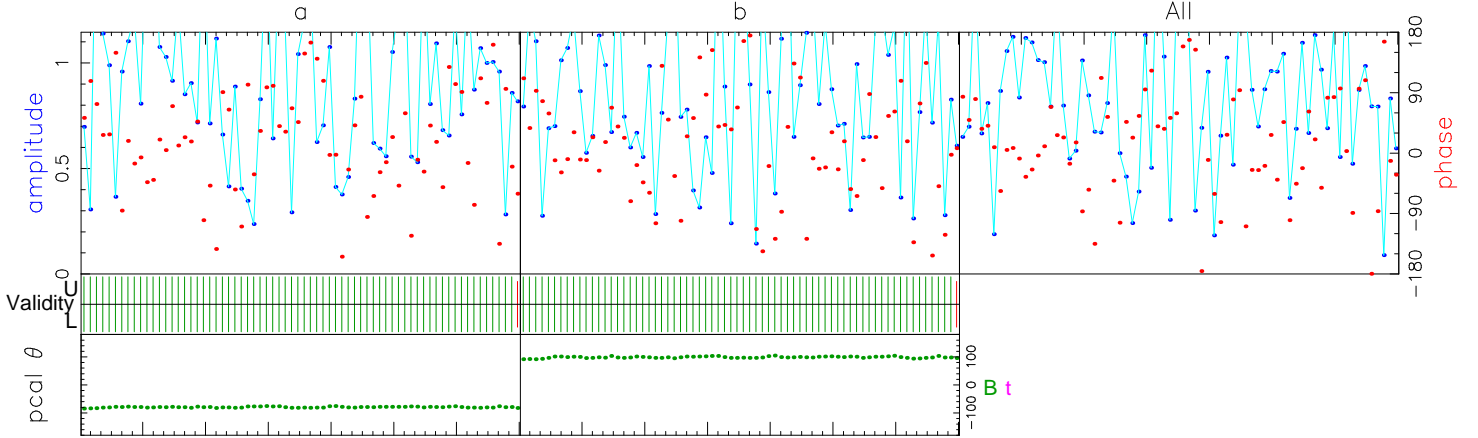
2017:188:152524

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
20.9	17.3	Phase	19.1				
0.4	0.4	Ampl.	0.4				
124.0	124.2	Sbd box	124.2				
U/L 838/838	838/838	APs used					
B -1000	-1000	PC freqs					
t 0	0	PC freqs					
B:t 0:0	0:0	PC phase					
B:t 0:0	0:0	Manl PC					
B 1000	1000	PC amp					
t 1000	1000						
B W00UL,W00LL	W02UL,W02LL	Chan ids					
t W00UL,W00LL	W01UL,W01LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.39868676700E+04	Apriori delay (usec)	1.39869047380E+04	Resid mbdelay (usec)	-5.81793E-03	+/-	4.7E-04
Sband delay (usec)	1.39868668585E+04	Apriori clock (usec)	2.2407072E+01	Resid sbdelay (usec)	-3.78795E-02	+/-	8.1E-04
Phase delay (usec)	1.39869047386E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	6.15318E-07	+/-	1.7E-07
Delay rate (us/s)	1.25543593131E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	-4.33612E-07	+/-	1.4E-09
Total phase (deg)	245.5	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	199.1	+/-	5.4

ph/seg (deg) 74.7 44.9 Search (2048X8) 0.369 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

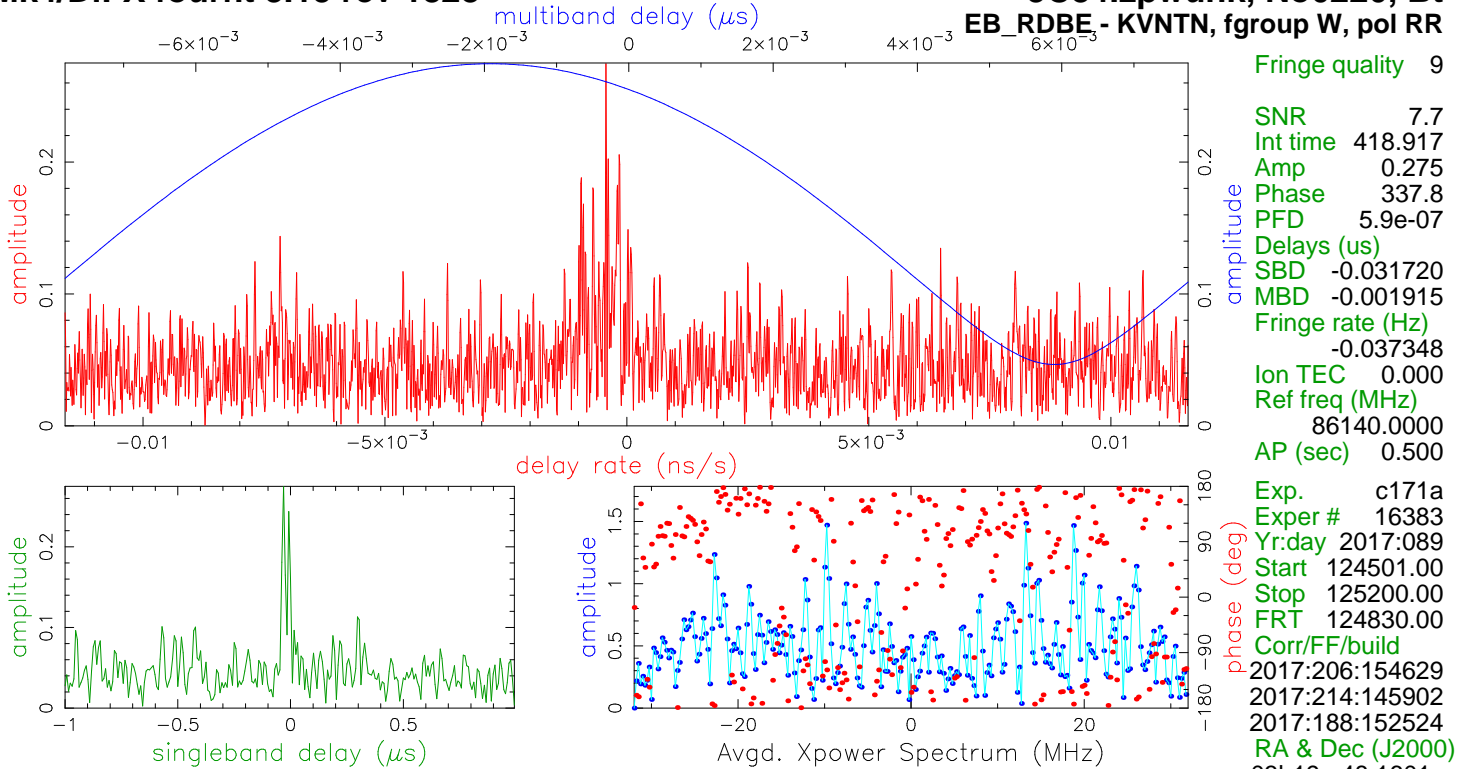
amp/seg (%) 148.0 78.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 7.6 Inc. seg. avg. 0.642 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 1.8 13.2 Inc. frq. avg. 0.375 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012

B: az 108.8 el 71.1 pa -53.4 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 ion window (TEC) 0.00 0.00

Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Bt.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Bt.W.137.zpwuhk simultaneous interpolator



Fringe quality 9

SNR 7.7

Int time 418.917

Amp 0.275

Phase 337.8

PFD 5.9e-07

Delays (us)

SBD -0.031720

MBD -0.001915

Fringe rate (Hz)

-0.037348

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124501.00

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

2017:214:145902

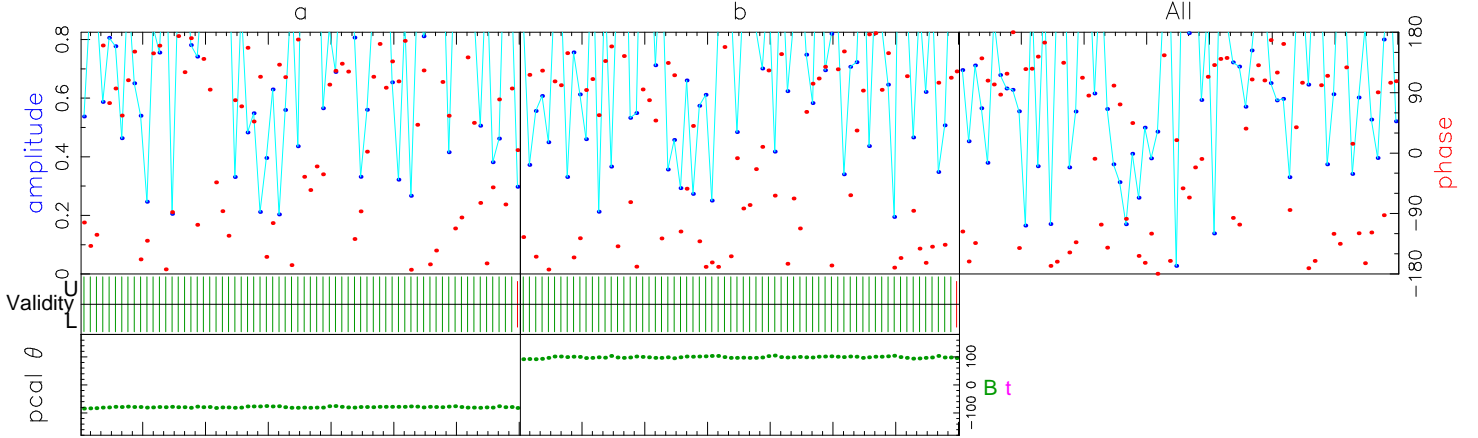
2017:188:152524

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All			
157.9	157.8	Phase	157.8			
0.2	0.3	Ampl.	0.3			
124.8	125.1	Sbd box	124.9			
U/L 838/838	838/838	APs used				
B -1000	-1000	PC freqs				
t 0	0	PC freqs				
B:t 0:0	0:0	PC phase				
B:t 0:0	0:0	Manl PC				
B 1000	1000	PC amp				
t 1000	1000					
B W00UR,W00LR	W02UR,W02LR	Chan ids				
t W00UR,W00LR	W01UR,W01LR	Tracks				
		Chan ids				
		Tracks				
Group delay (usec)(sbd)	1.39868715729E+04	Apriori delay (usec)	1.39869047380E+04	Resid mbdelay (usec)	-1.91506E-03	+/- 6.5E-04
Sband delay (usec)	1.39868730180E+04	Apriori clock (usec)	2.2407072E+01	Resid sbdelay (usec)	-3.17200E-02	+/- 1.1E-03
Phase delay (usec)	1.39869047431E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	5.08967E-06	+/- 2.4E-07
Delay rate (us/s)	1.25543593135E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	-4.33568E-07	+/- 2.0E-09
Total phase (deg)	384.3	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	337.8	+/- 7.4

ph/seg (deg) RMS Theor. Amplitude 0.275 +/- 0.036 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

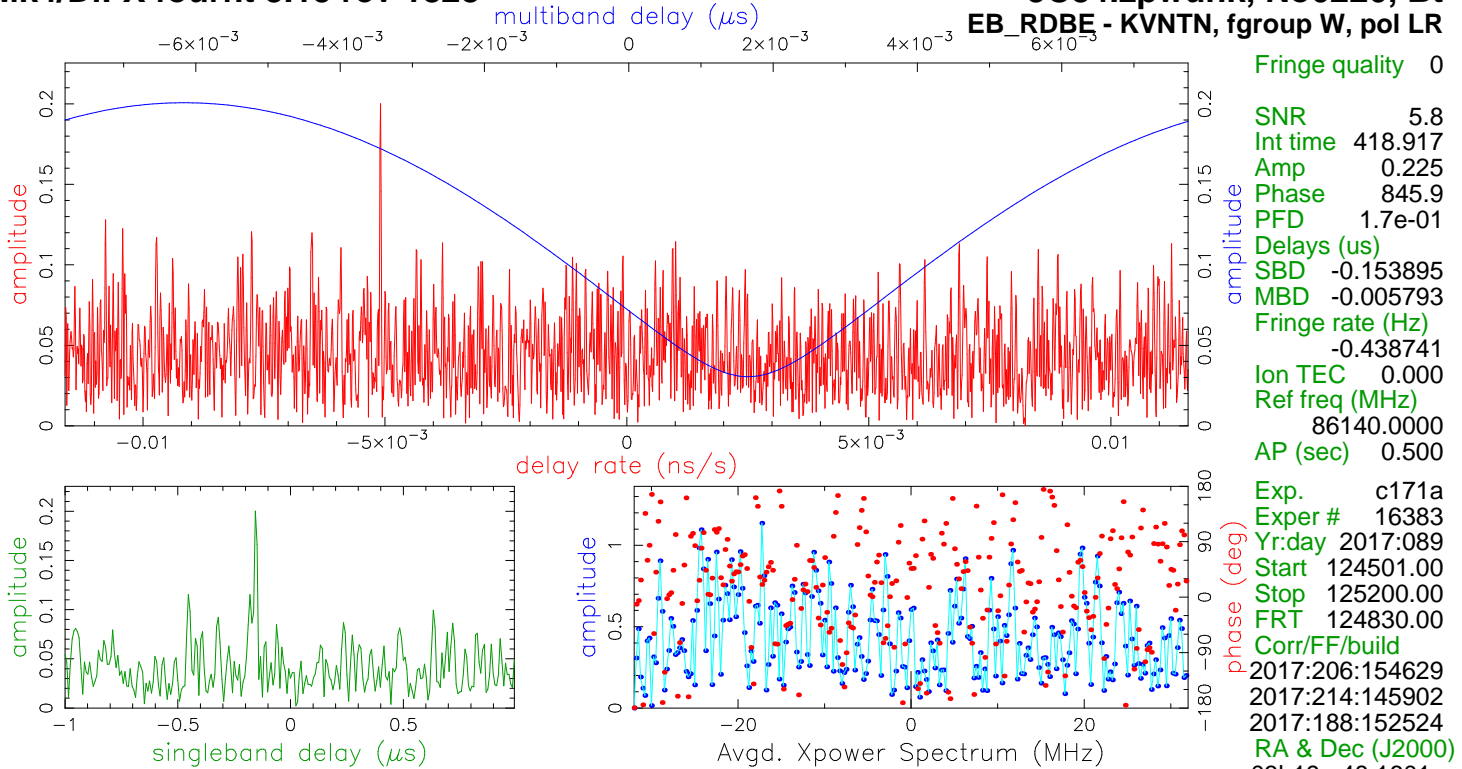
amp/seg (%) 185.7 108.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 10.5 Inc. seg. avg. 0.431 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 16.9 18.4 Inc. frq. avg. 0.270 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012

B: az 108.8 el 71.1 pa -53.4 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 ion window (TEC) 0.00 0.00

Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Bt.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Bt.W.138.zpwuhk simultaneous interpolator

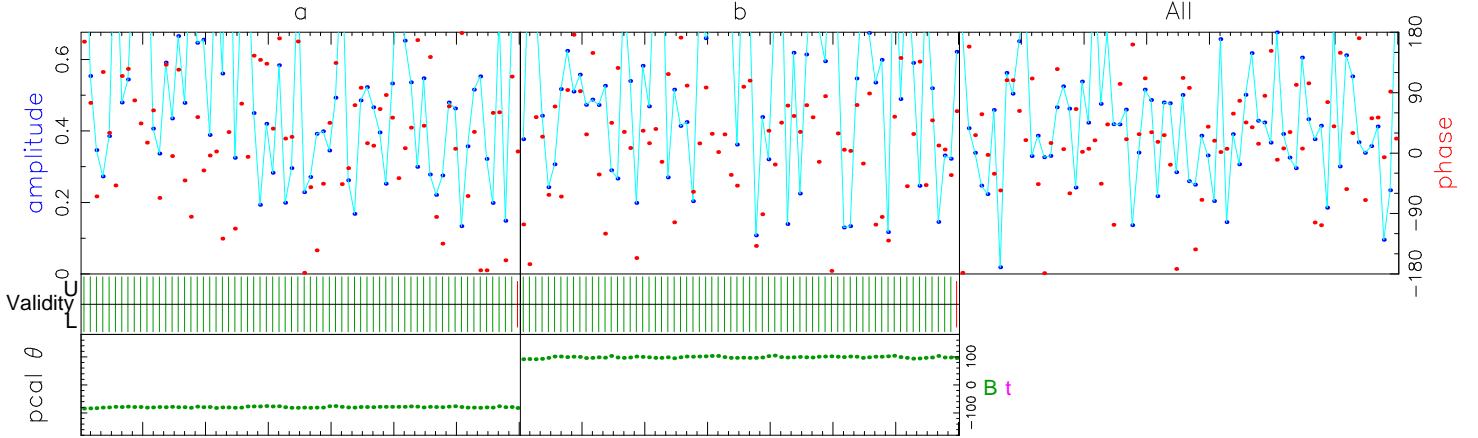


Fringe quality 0

SNR 5.8  
 Int time 418.917  
 Amp 0.225  
 Phase 845.9  
 PFD 1.7e-01  
 Delays (us)  
 SBD -0.153895  
 MBD -0.005793  
 Fringe rate (Hz)  
 -0.438741  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500

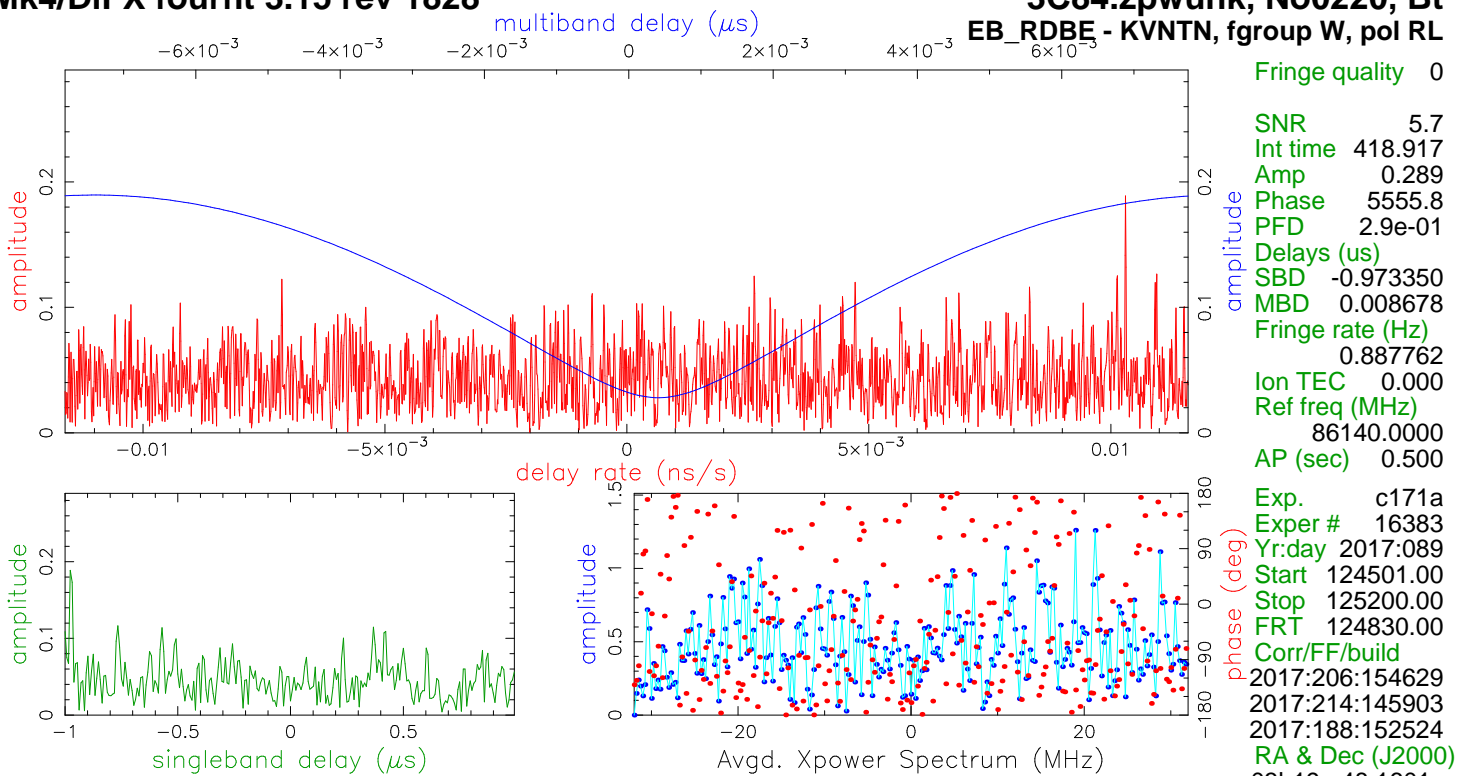
Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:214:145902  
 2017:188:152524  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)		All
U/L	838/838	B	-1000	838/838	-1000	35.9
t	0	t	0	APs used	109.3	0.2
B:t	0:0	B:t	0:0	PC freqs		109.3
B	1000	B	1000	PC phase		
t	1000	t	1000	Manl PC		
B	W00UL,W00LL	B	W02UL,W02LL	PC amp		
t	W00UR,W00LR	t	W01UR,W01LR	Chan ids		
Group delay (usec)(sbd)	1.39867583196E+04	Apriori delay (usec)	1.39869047380E+04	Tracks		
Sband delay (usec)	1.39867508430E+04	Apriori clock (usec)	2.2407072E+01	Chan ids		
Phase delay (usec)	1.39869047391E+04	Apriori clockrate (us/s)	2.5249391E-07	Tracks		
Delay rate (us/s)	1.25543127157E+00	Apriori rate (us/s)	1.25543636492E+00	Resid mbdelay (usec)	-5.79335E-03	+/- 8.5E-04
Total phase (deg)	892.4	Apriori accel (us/s/s)	-5.75491003034E-05	Resid sbdelay (usec)	-1.53895E-01	+/- 1.5E-03
				Resid phdelay (usec)	1.15858E-06	+/- 3.2E-07
				Resid rate (us/s)	-5.09335E-06	+/- 2.6E-09
				Resid phase (deg)	845.9	+/- 9.8

ph/seg (deg) 73.9 82.4 Search (2048X8) 0.188 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 129.6 143.7 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 13.9 Inc. seg. avg. 0.223 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 15.1 24.3 Inc. frq. avg. 0.211 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 B: az 108.8 el 71.1 pa -53.4 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Bt.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Bt.W.139.zpwuhk simultaneous interpolator



Fringe quality 0

SNR 5.7

Int time 418.917

Amp 0.289

Phase 5555.8

PFD 2.9e-01

Delays (us)

SBD -0.973350

MBD 0.008678

Fringe rate (Hz) 0.887762

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124501.00

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

2017:214:145903

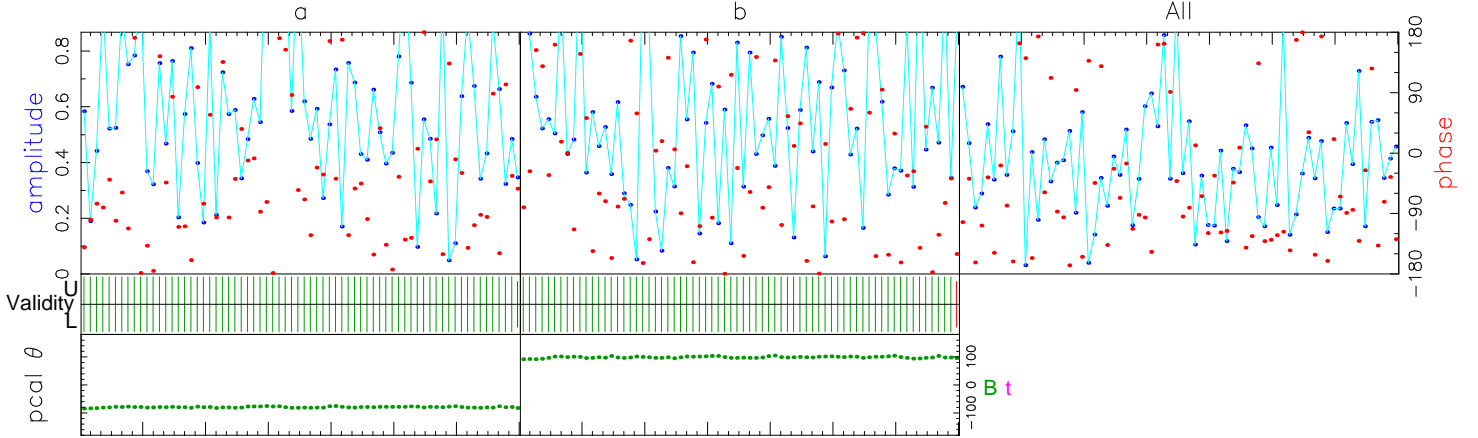
2017:188:152524

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

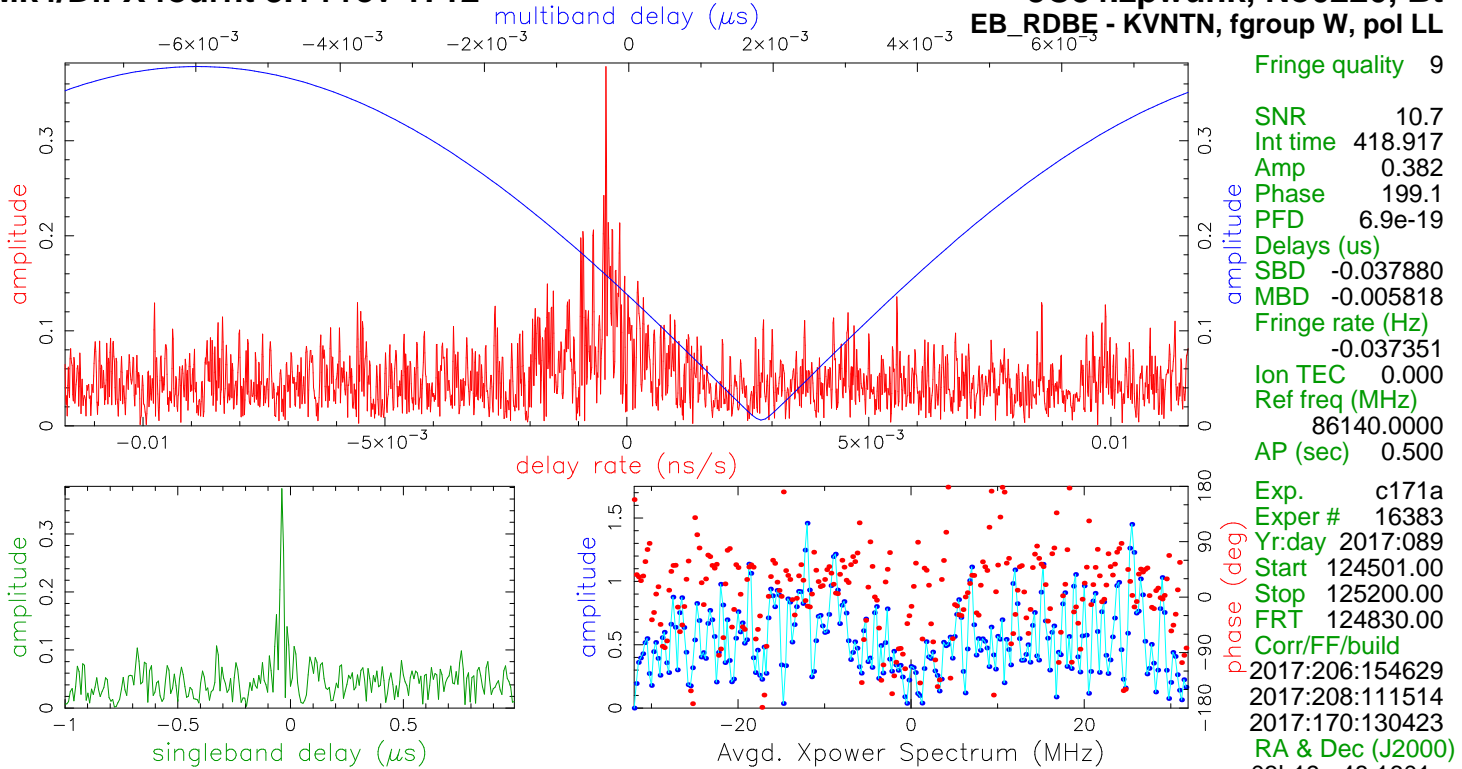


86156.00		86220.00		Freq (MHz)	All
-109.8		-120.2		Phase	-114.2
0.3		0.2		Ampl.	0.3
56.0		238.0		Sbd box	4.4
U/L 838/838		838/838		APs used	
B -1000		-1000		PC freqs	
t 0		0		PC freqs	
B:t 0:0		0:0		PC phase	
B:t 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
t 1000		1000			
B W00UR,W00LR		W02UR,W02LR		Chan ids	
t W00UL,W00LL		W01UL,W01LL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	1.39859290415E+04	Apriori delay (usec)	1.39869047380E+04	Resid mbdelay (usec)	8.67850E-03 +/- 8.7E-04
Sband delay (usec)	1.39859313880E+04	Apriori clock (usec)	2.2407072E+01	Resid sbdelay (usec)	-9.73350E-01 +/- 1.5E-03
Phase delay (usec)	1.39869047343E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	-3.68331E-06 +/- 3.2E-07
Delay rate (us/s)	1.25544667095E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	1.03060E-05 +/- 2.7E-09
Total phase (deg)	5602.2	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	5555.8 +/- 10.0

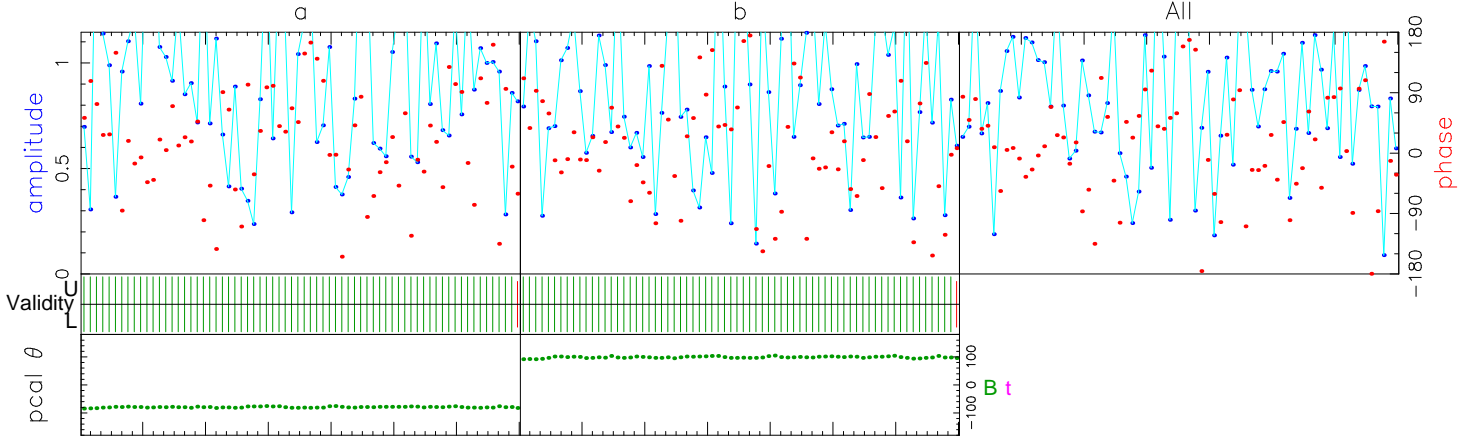
ph/seg (deg)	RMS 71.1	Theor. 83.9	Amplitude	0.289 +/- 0.051	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	141.4	146.4	Search (2048X8)	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	0.0	14.2	Interp.	0.275	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.012	0.012	
amp/frq (%)	15.5	24.7	Inc. seg. avg.	0.261	Data rate(Mb/s): 512	nlags: 128	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 108.8 el 71.1 pa -53.4 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 simultaneous interpolator

Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Bt.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Bt.W.140.zpwuhk



Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

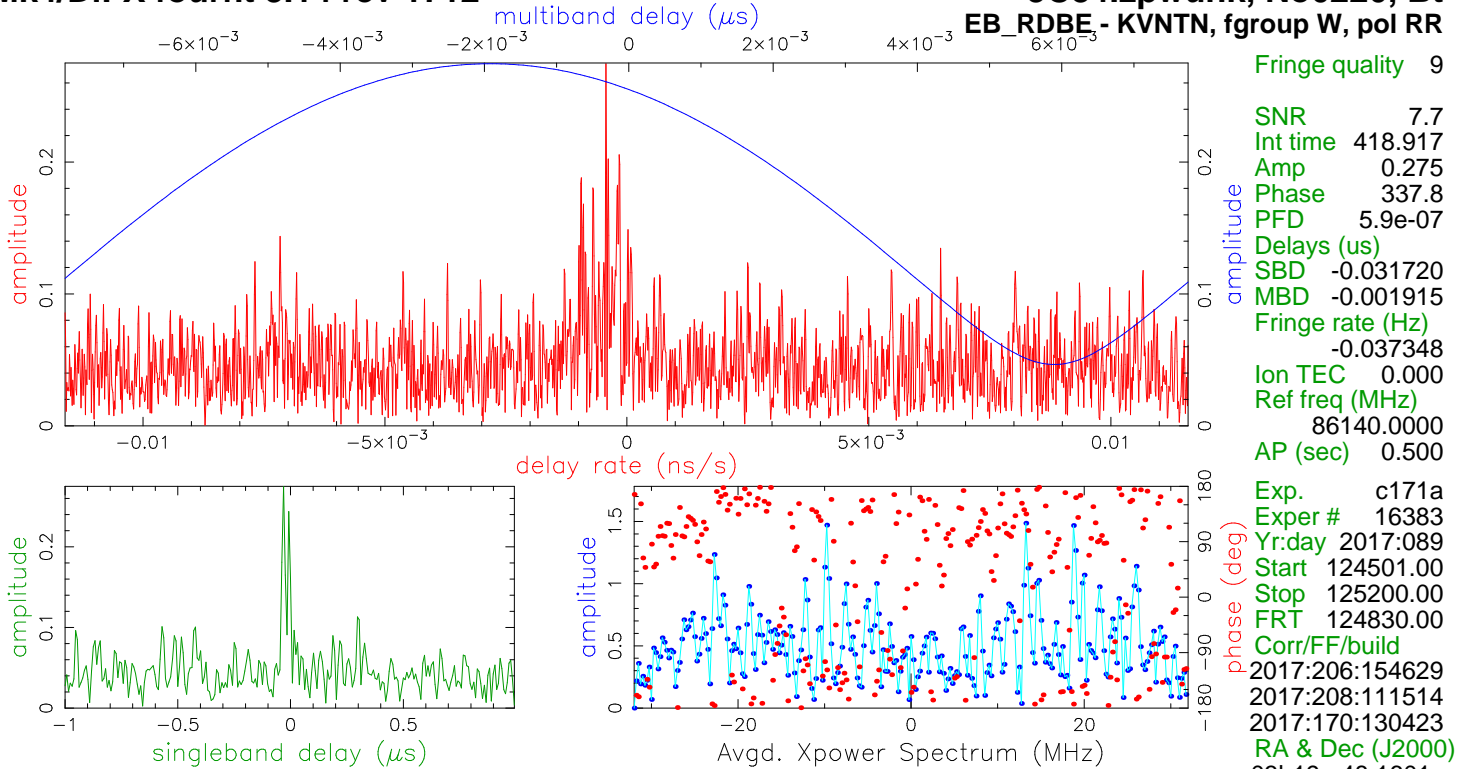


86156.00		86220.00		Freq (MHz)	All
20.9		17.3		Phase	19.1
0.4		0.4		Ampl.	0.4
124.0		124.2		Sbd box	124.2
U/L 838/838		838/838		APs used	
B -1000		-1000		PC freqs	
t 0		0		PC freqs	
B:t 0:0		0:0		PC phase	
B:t 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
t 1000		1000			
B W00UL,W00LL		W02UL,W02LL		Chan ids	
t W00UL,W00LL		W01UL,W01LL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	1.39868676700E+04	Apriori delay (usec)	1.39869047380E+04	Resid mbdelay (usec)	-5.81793E-03 +/- 4.7E-04
Sband delay (usec)	1.39868668585E+04	Apriori clock (usec)	2.2407072E+01	Resid sbdelay (usec)	-3.78795E-02 +/- 8.1E-04
Phase delay (usec)	1.39869047386E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	6.15318E-07 +/- 1.7E-07
Delay rate (us/s)	1.25543593131E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	-4.33612E-07 +/- 1.4E-09
Total phase (deg)	245.5	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	199.1 +/- 5.4

ph/seg (deg)	74.7	Theor.	44.9	Search (2048X8)	0.369	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	148.0		78.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0		7.6	Inc. seg. avg.	0.642	Bits/sample: 2x2		dr window (ns/s)	-0.012	0.012
amp/frq (%)	1.8		13.2	Inc. frq. avg.	0.375	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 512				
						nlags: 128	t_cohere infinite			

B: az 108.8 el 71.1 pa -53.4 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 simultaneous interpolator

Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Bt.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Bt.W.25.zpwuhk



Fringe quality 9

SNR 7.7

Int time 418.917

Amp 0.275

Phase 337.8

PFD 5.9e-07

Delays (us)

SBD -0.031720

MBD -0.001915

Fringe rate (Hz)

-0.037348

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124501.00

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

2017:208:111514

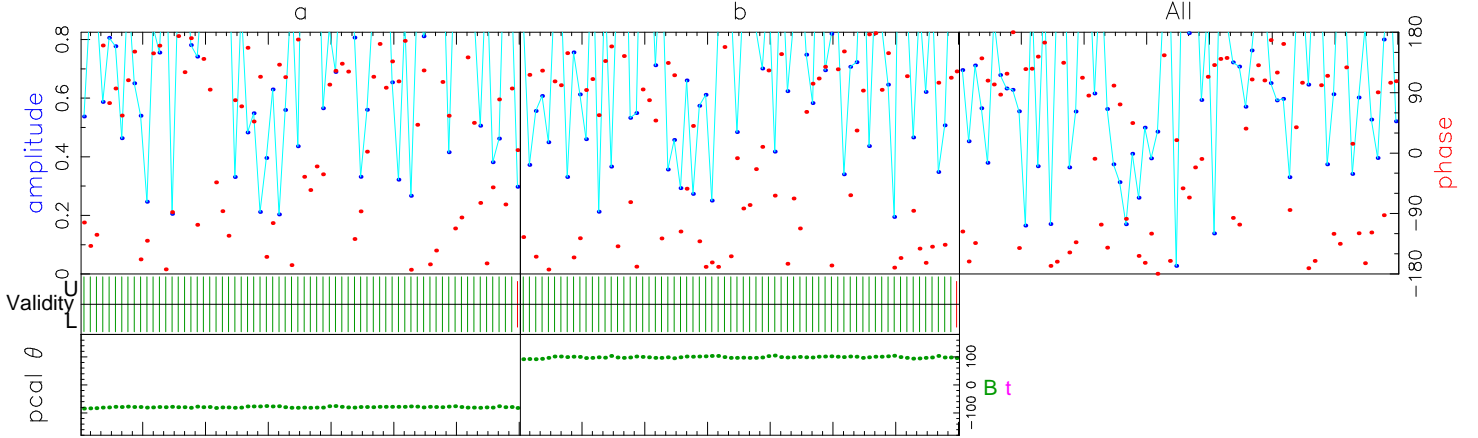
2017:170:130423

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All			
157.9	157.8	Phase	157.8			
0.2	0.3	Ampl.	0.3			
124.8	125.1	Sbd box	124.9			
U/L 838/838	838/838	APs used				
B -1000	-1000	PC freqs				
t 0	0	PC freqs				
B:t 0:0	0:0	PC phase				
B:t 0:0	0:0	Manl PC				
B 1000	1000	PC amp				
t 1000	1000					
B W00UR,W00LR	W02UR,W02LR	Chan ids				
t W00UR,W00LR	W01UR,W01LR	Tracks				
		Chan ids				
		Tracks				
Group delay (usec)(sbd)	1.39868715729E+04	Apriori delay (usec)	1.39869047380E+04	Resid mbdelay (usec)	-1.91506E-03	+/- 6.5E-04
Sband delay (usec)	1.39868730180E+04	Apriori clock (usec)	2.2407072E+01	Resid sbdelay (usec)	-3.17200E-02	+/- 1.1E-03
Phase delay (usec)	1.39869047431E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	5.08967E-06	+/- 2.4E-07
Delay rate (us/s)	1.25543593135E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	-4.33568E-07	+/- 2.0E-09
Total phase (deg)	384.3	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	337.8	+/- 7.4

ph/seg (deg) 76.9 62.3 Search (2048X8) 0.267 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

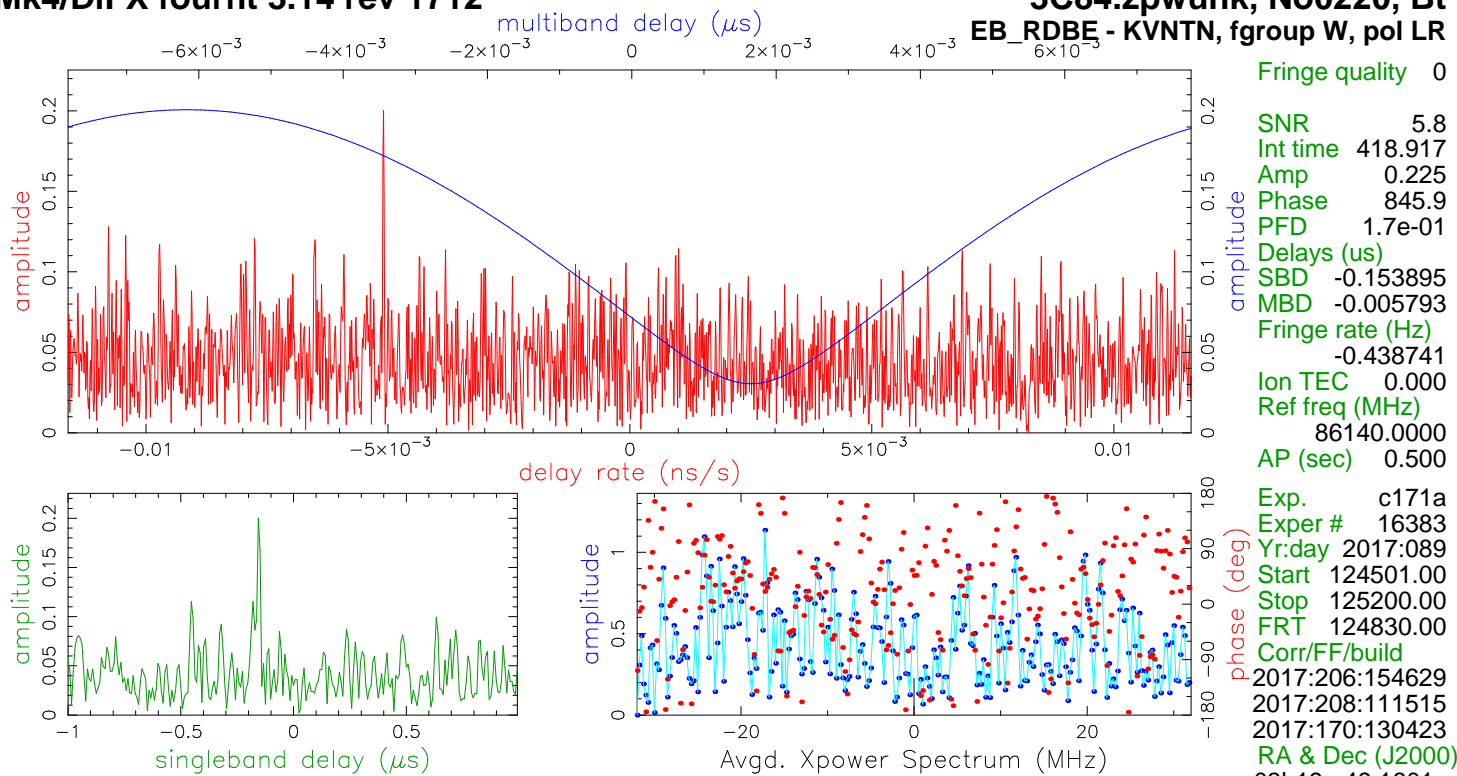
amp/seg (%) 185.7 108.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 10.5 Inc. seg. avg. 0.431 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 16.9 18.4 Inc. frq. avg. 0.270 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012

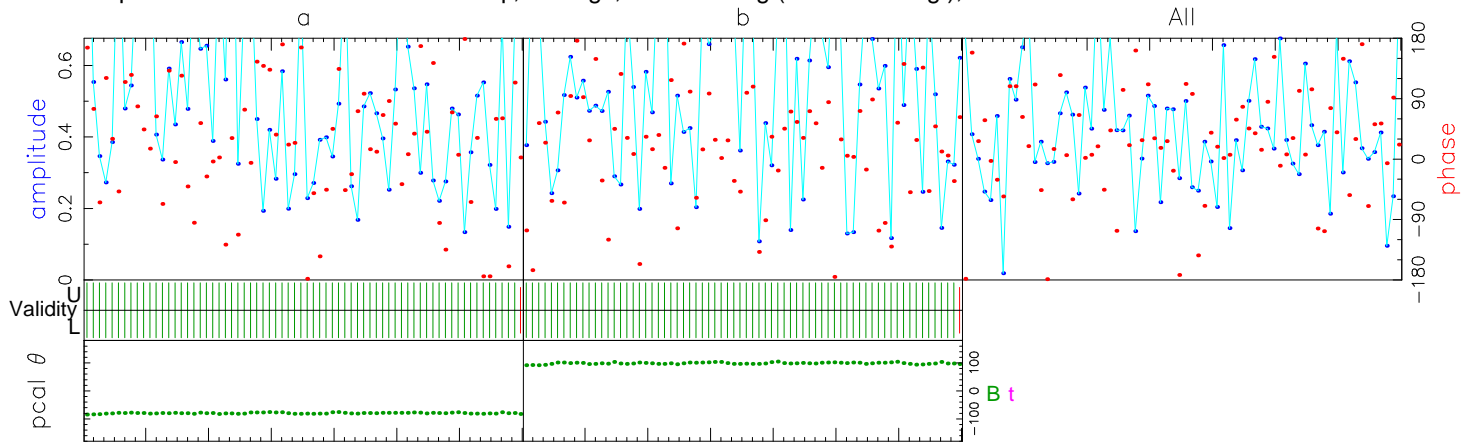
B: az 108.8 el 71.1 pa -53.4 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 ion window (TEC) 0.00 0.00

Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Bt.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Bt.W.26.zpwuhk simultaneous interpolator



Fringe quality 0  
 SNR 5.8  
 Int time 418.917  
 Amp 0.225  
 Phase 845.9  
 PFD 1.7e-01  
 Delays (us)  
 SBD -0.153895  
 MBD -0.005793  
 Fringe rate (Hz)  
 -0.438741  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:208:111515  
 2017:170:130423  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

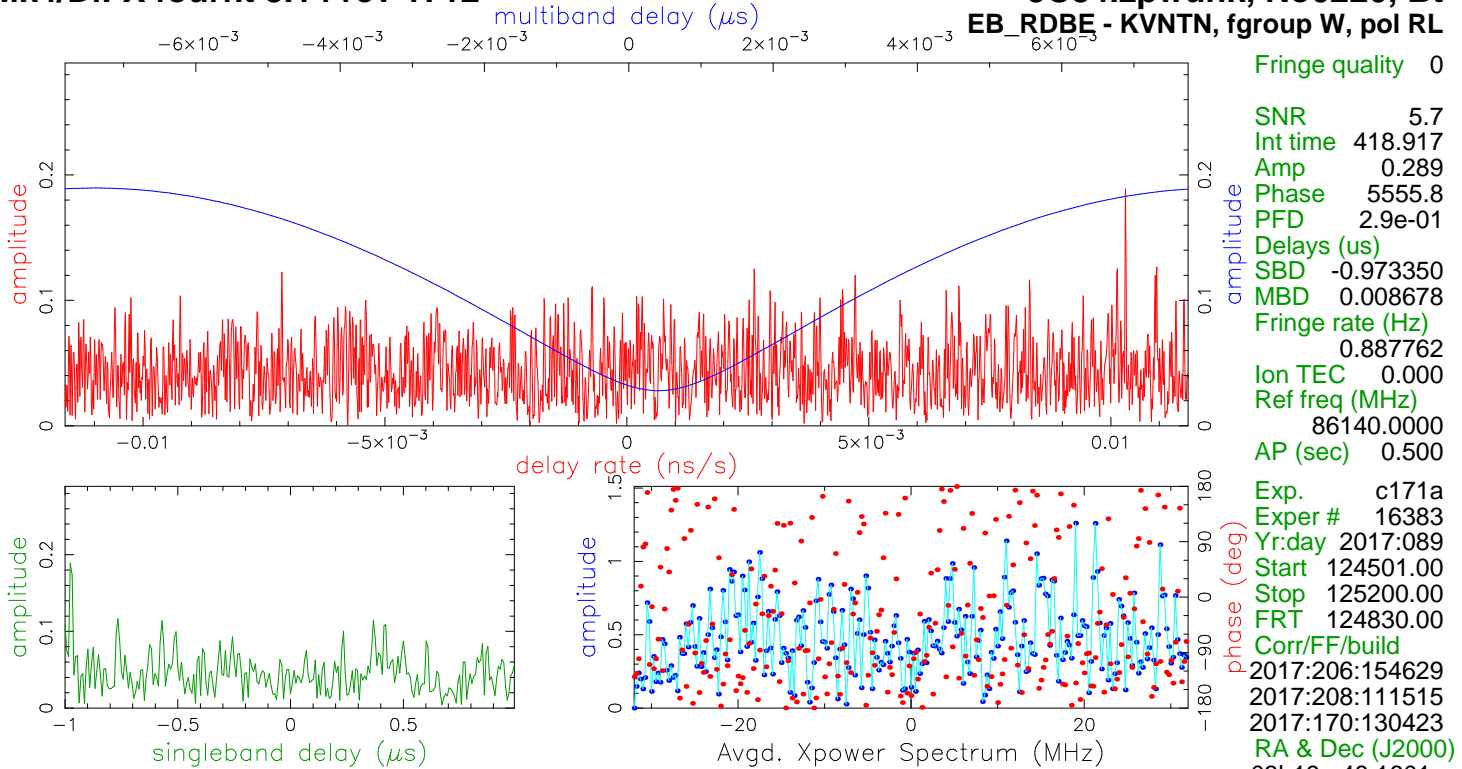
Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	86220.00	Freq (MHz)	All
40.8	32.3	32.3	Phase	35.9
0.2	0.3	0.3	Ampl.	0.2
109.4	109.1	109.1	Sbd box	109.3
U/L 838/838	838/838	838/838	APs used	
B -1000	-1000	-1000	PC freqs	
t 0	0	0	PC freqs	
B:t 0:0	0:0	0:0	PC phase	
B:t 0:0	0:0	0:0	Manl PC	
B 1000	1000	1000	PC amp	
t 1000	1000	1000	Chan ids	
B W00UL,W00LL	W02UL,W02LL	W02UL,W02LL	Tracks	
t W00UR,W00LR	W01UR,W01LR	W01UR,W01LR	Chan ids	
			Tracks	

Group delay (usec)(sbd)	1.39867583196E+04	Apriori delay (usec)	1.39869047380E+04	Resid mbdelay (usec)	-5.79335E-03	+/-	8.5E-04
Sband delay (usec)	1.39867508430E+04	Apriori clock (usec)	2.2407072E+01	Resid sbdelay (usec)	-1.53895E-01	+/-	1.5E-03
Phase delay (usec)	1.39869047391E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	1.15858E-06	+/-	3.2E-07
Delay rate (us/s)	1.25543127157E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	-5.09335E-06	+/-	2.6E-09
Total phase (deg)	892.4	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	845.9	+/-	9.8

ph/seg (deg)	73.9	Theor.	82.4	Amplitude	0.225 +/- 0.039	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	129.6	Search (2048X8)		Search	0.188	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.		Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	15.1	Inc. seg. avg.		Inc. seg. avg.	0.223	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.		Inc. frq. avg.	0.211	Data rate(Mb/s):	512	dr window (ns/s)	-0.012 0.012
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00



Fringe quality 0

SNR 5.7

Int time 418.917

Amp 0.289

Phase 5555.8

PFD 2.9e-01

Delays (us)

SBD -0.973350

MBD 0.008678

Fringe rate (Hz)

0.887762

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124501.00

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

2017:208:111515

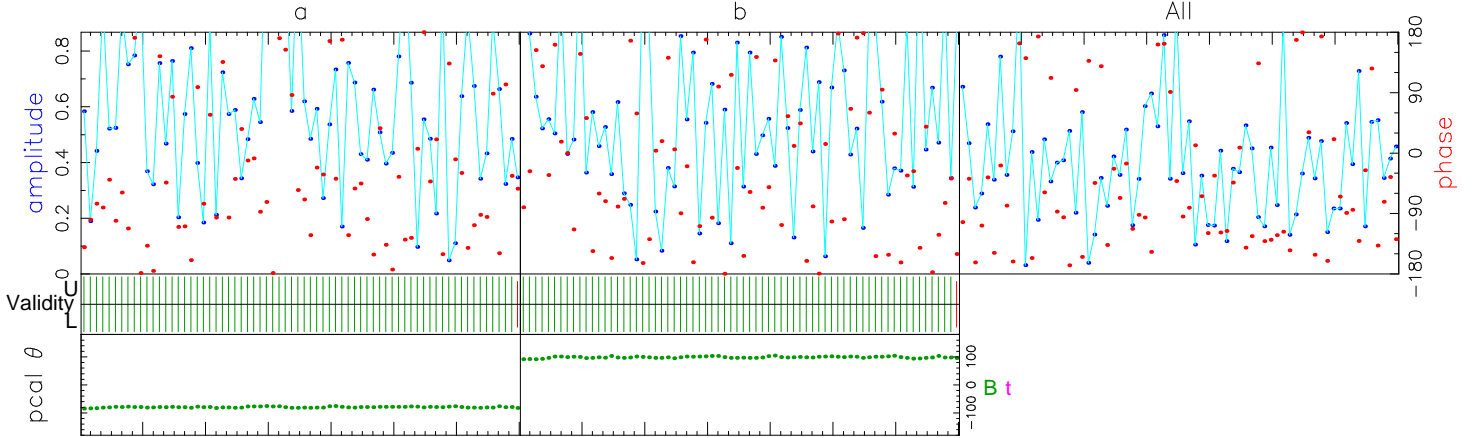
2017:170:130423

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
-109.8	-120.2	Phase	-114.2				
0.3	0.2	Ampl.	0.3				
56.0	238.0	Sbd box	4.4				
U/L 838/838	838/838	APs used					
B -1000	-1000	PC freqs					
t 0	0	PC freqs					
B:t 0:0	0:0	PC phase					
B:t 0:0	0:0	Manl PC					
B 1000	1000	PC amp					
t 1000	1000						
B W00UR,W00LR	W02UR,W02LR	Chan ids					
t W00UL,W00LL	W01UL,W01LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.39859290415E+04	Apriori delay (usec)	1.39869047380E+04	Resid mbdelay (usec)	8.67850E-03	+/-	8.7E-04
Sband delay (usec)	1.39859313880E+04	Apriori clock (usec)	2.2407072E+01	Resid sbdelay (usec)	-9.73350E-01	+/-	1.5E-03
Phase delay (usec)	1.39869047343E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	-3.68331E-06	+/-	3.2E-07
Delay rate (us/s)	1.25544667095E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	1.03060E-05	+/-	2.7E-09
Total phase (deg)	5602.2	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	5555.8	+/-	10.0

ph/seg (deg) 71.1 83.9 Search (2048X8) 0.186 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 141.4 146.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

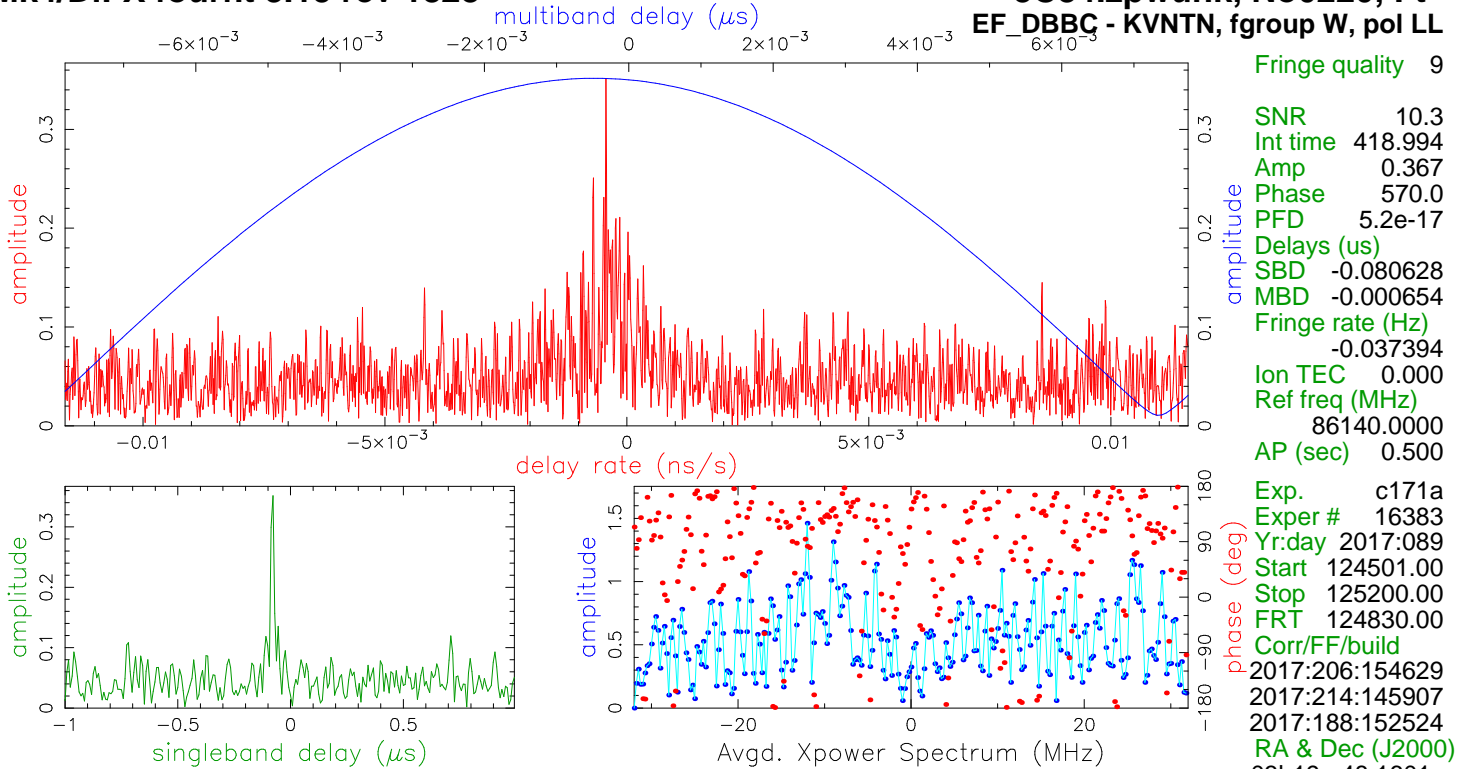
ph/frq (deg) 0.0 14.2 Inc. seg. avg. 0.275 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 15.5 24.7 Inc. frq. avg. 0.261 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012

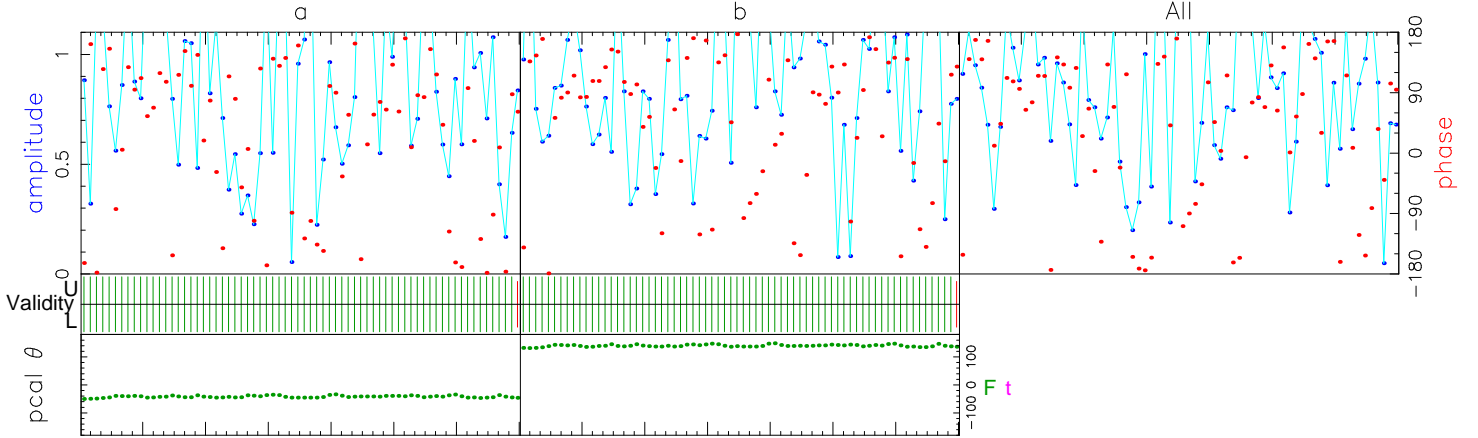
B: az 108.8 el 71.1 pa -53.4 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 ion window (TEC) 0.00 0.00

Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Bt.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Bt.W.28.zpwuhk simultaneous interpolator





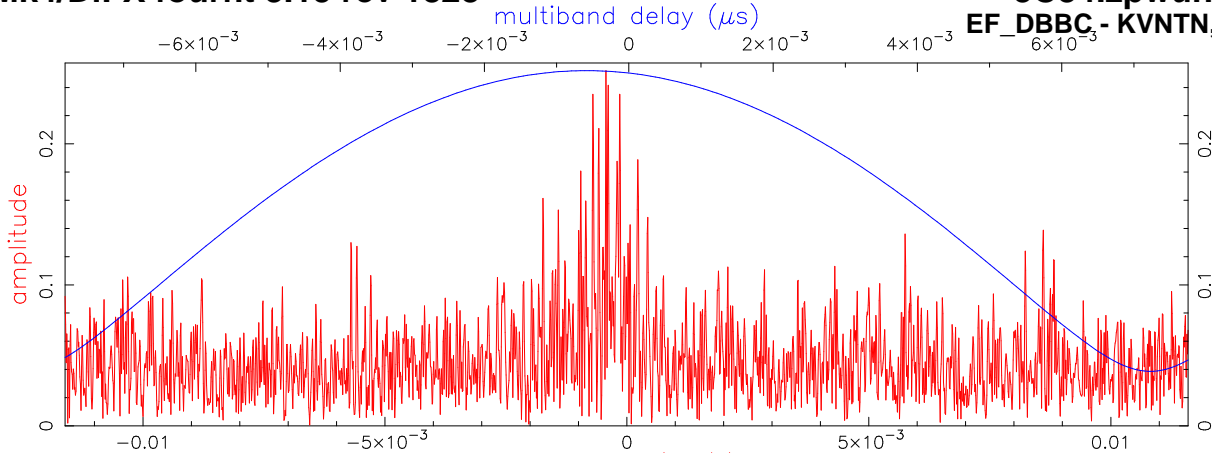
Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



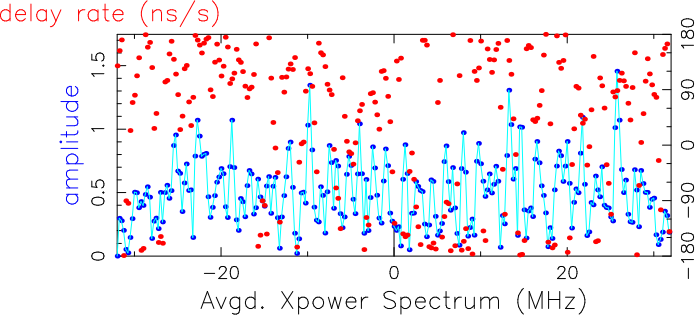
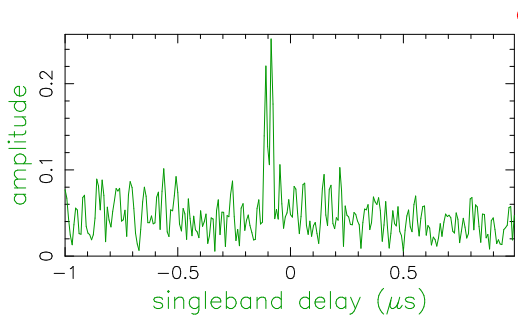
86156.00				86220.00				Freq (MHz)	All
118.0				122.2				Phase	120.0
0.4				0.3				Ampl.	0.3
118.7				118.8				Sbd box	118.7
U/L 838/838				838/838				APs used	
F -1000				-1000				PC freqs	
t 0				0				PC freqs	
F:t 0:0				0:0				PC phase	
F:t 0:0				0:0				Manl PC	
F 1000				1000				PC amp	
t 1000				1000					
F W00UL,W00LL				W02UL,W02LL				Chan ids	
t W00UL,W00LL				W01UL,W01LL				Tracks	
								Chan ids	
								Tracks	

Group delay (usec)(sbd)	1.39863859587E+04	Apriori delay (usec)	1.39864647380E+04	Resid mbdelay (usec)	-6.54305E-04	+/-	4.8E-04
Sband delay (usec)	1.39863841100E+04	Apriori clock (usec)	2.1967072E+01	Resid sbdelay (usec)	-8.06280E-02	+/-	8.4E-04
Phase delay (usec)	1.39864647418E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	3.87112E-06	+/-	1.8E-07
Delay rate (us/s)	1.25543593081E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	-4.34109E-07	+/-	1.5E-09
Total phase (deg)	760.5	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	570.0	+/-	5.6

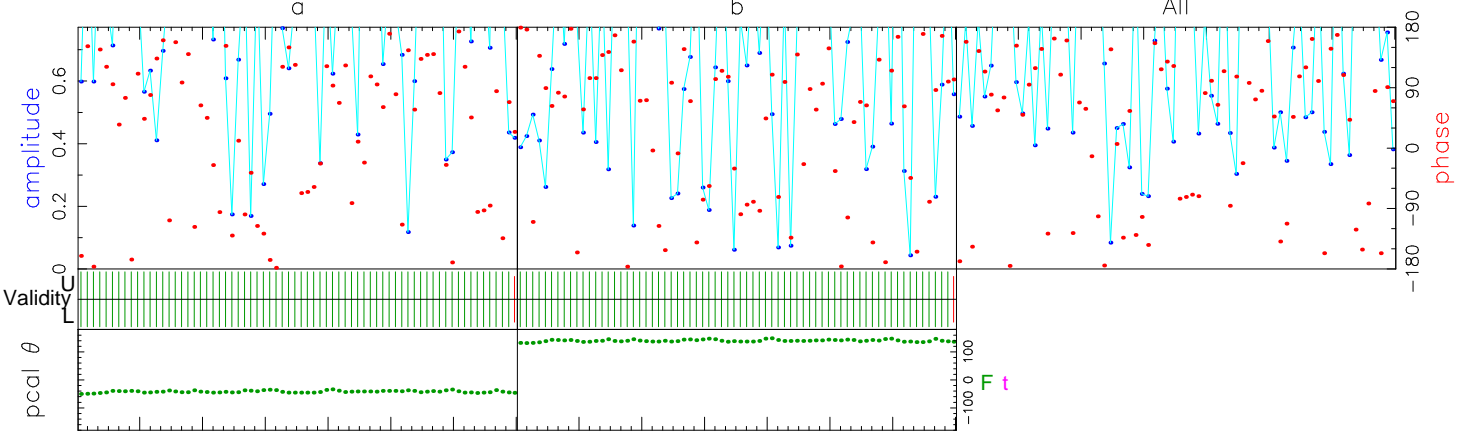
ph/seg (deg) 78.4 46.7 Search (2048X8) 0.341 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 158.1 81.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 7.9 Inc. seg. avg. 0.634 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 5.1 13.8 Inc. frq. avg. 0.349 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 F: az 108.8 el 71.1 pa -52.8 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 ion window (TEC) 0.00 0.00  
 Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Ft.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Ft.W.145.zpwuhk simultaneous interpolator



Fringe quality 9  
 SNR 7.2  
 Int time 418.994  
 Amp 0.257  
 Phase 577.9  
 PFD 2.3e-05  
 Delays (us)  
 SBD -0.084408  
 MBD -0.000551  
 Fringe rate (Hz)  
 -0.037435  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:214:145907  
 2017:188:152524  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"



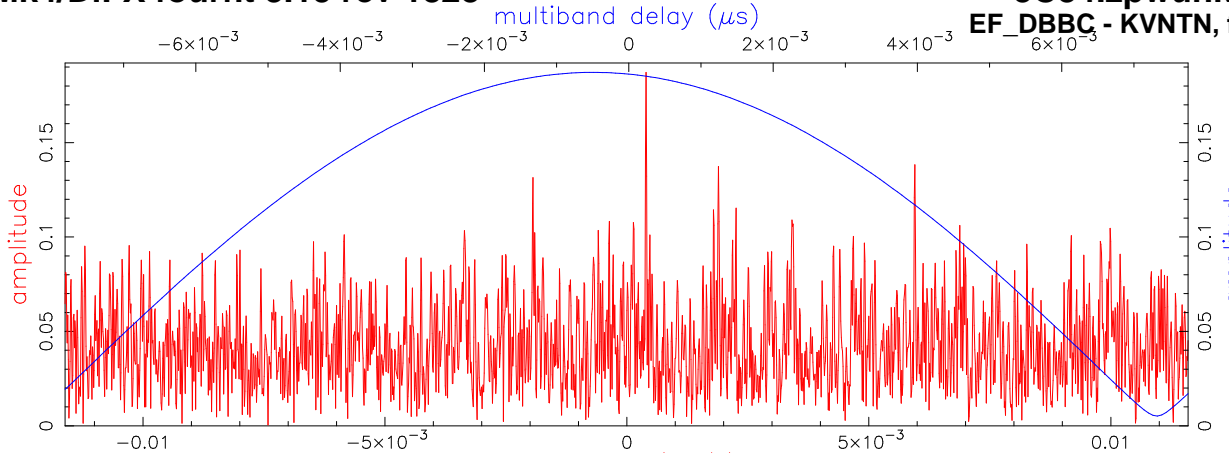
Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
128.3	127.6	Phase	127.9				
0.2	0.3	Ampl.	0.2				
118.0	118.3	Sbd box	118.2				
U/L 838/838	838/838	APs used					
F -1000	-1000	PC freqs					
t 0	0	PC freqs					
F:t 0:0	0:0	PC phase					
F:t 0:0	0:0	Manl PC					
F 1000	1000	PC amp					
t 1000	1000						
F W00UR,W00LR	W02UR,W02LR	Chan ids					
t W00UR,W00LR	W01UR,W01LR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.39863860622E+04	Apriori delay (usec)	1.39864647380E+04	Resid mbdelay (usec)	-5.50805E-04	+/-	6.9E-04
Sband delay (usec)	1.39863803305E+04	Apriori clock (usec)	2.1967072E+01	Resid sbdelay (usec)	-8.44075E-02	+/-	1.2E-03
Phase delay (usec)	1.39864647421E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	4.12360E-06	+/-	2.6E-07
Delay rate (us/s)	1.25543593033E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	-4.34588E-07	+/-	2.1E-09
Total phase (deg)	768.3	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	577.9	+/-	8.0

ph/seg (deg)	RMS 79.5	Theor. 66.6	Amplitude 0.257 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	225.2	116.2	Search (2048X8) 0.238	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	11.3	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	15.2	19.6	Inc. seg. avg. 0.439	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg. 0.247	Data rate(Mb/s): 512	dr window (ns/s) -0.012 0.012
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

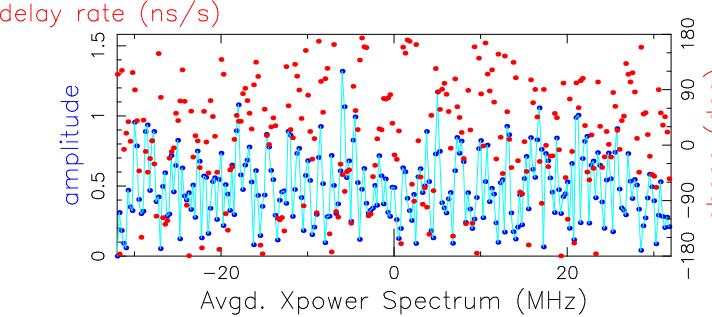
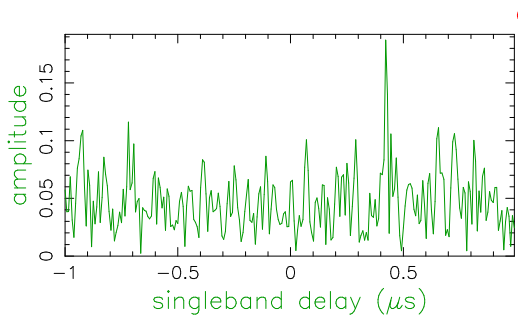
F: az 108.8 el 71.1 pa -52.8 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 simultaneous interpolator  
 Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Ft.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Ft.W.146.zpwuhk



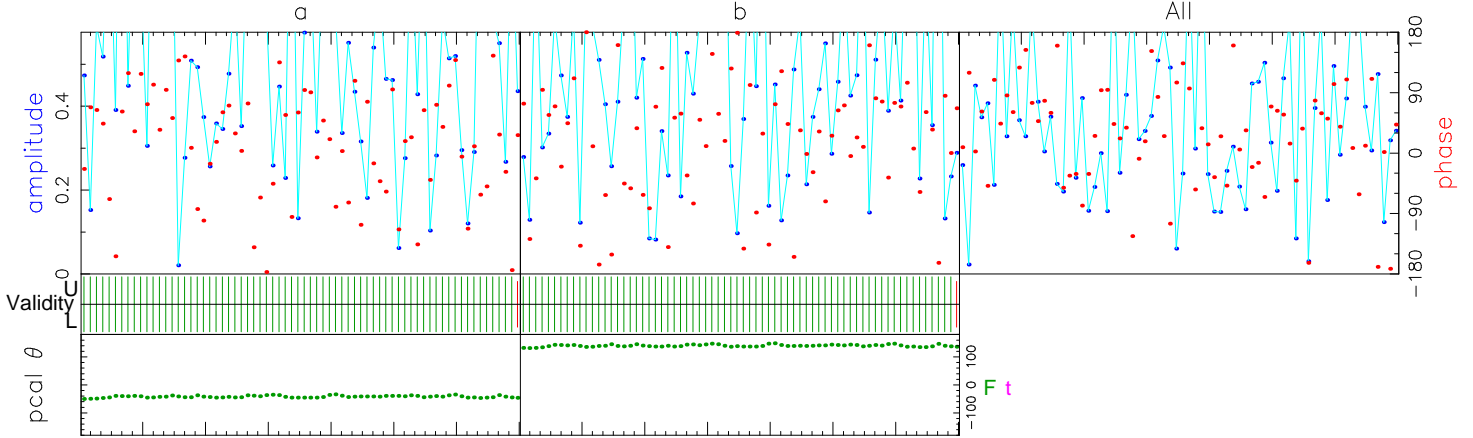
Fringe quality 0

SNR 5.4  
 Int time 418.994  
 Amp 0.192  
 Phase -2391.4  
 PFD 8.9e-01  
 Delays (us)  
 SBD 0.423667  
 MBD -0.000528  
 Fringe rate (Hz)  
 0.034648  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500

Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:214:145908  
 2017:188:152524  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

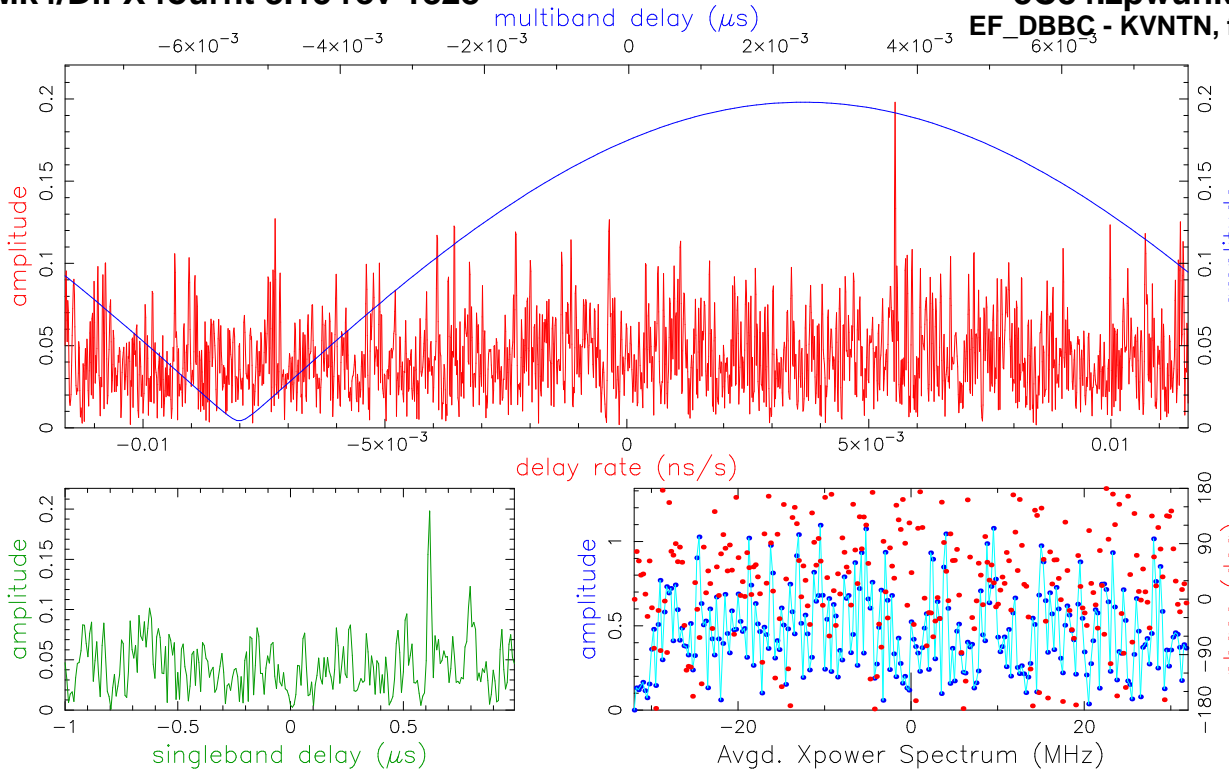


Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



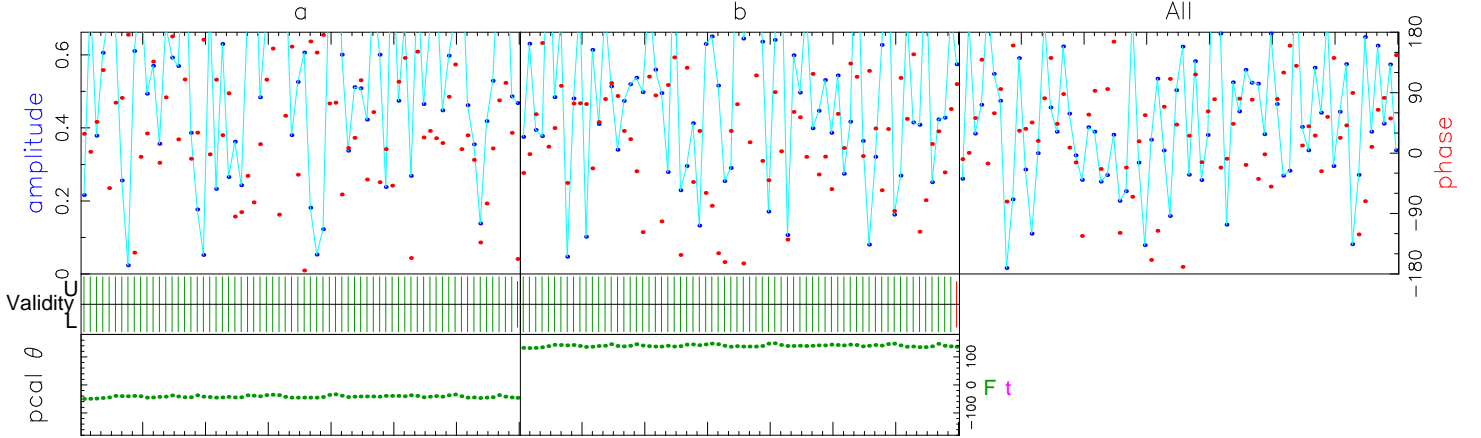
86156.00	86220.00	86220.00	Freq (MHz)		All
38.2	39.0	39.0	Phase		38.6
0.2	0.2	0.2	Ampl.		0.2
37.0	182.8	182.8	Sbd box		183.2
U/L 838/838	838/838	838/838	APs used		
F -1000	-1000	-1000	PC freqs		
t 0	0	0	PC freqs		
F:t 0:0	0:0	0:0	PC phase		
F:t 0:0	0:0	0:0	Manl PC		
F 1000	1000	1000	PC amp		
t 1000	1000	1000			
F W00UL,W00LL	W02UL,W02LL	W02UL,W02LL	Chan ids		
t W00UR,W00LR	W01UR,W01LR	W01UR,W01LR	Tracks		
			Chan ids		
			Tracks		
Group delay (usec)(sbd)	1.39868860849E+04	Apriori delay (usec)	1.39864647380E+04	Resid mbdelay (usec)	-5.28045E-04 +/- 9.3E-04
Sband delay (usec)	1.39868884055E+04	Apriori clock (usec)	2.1967072E+01	Resid sbdelay (usec)	4.23667E-01 +/- 1.6E-03
Phase delay (usec)	1.39864647392E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	1.24627E-06 +/- 3.4E-07
Delay rate (us/s)	1.25543676715E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	4.02230E-07 +/- 2.8E-09
Total phase (deg)	-2200.9	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	-2391.4 +/- 10.7

ph/seg (deg) 71.1 89.2 Search (2048X8) 0.180 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 144.5 155.6 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 15.1 Inc. seg. avg. 0.172 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 3.7 26.3 Inc. frq. avg. 0.181 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 F: az 108.8 el 71.1 pa -52.8 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Ft.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Ft.W.147.zpwuhk simultaneous interpolator



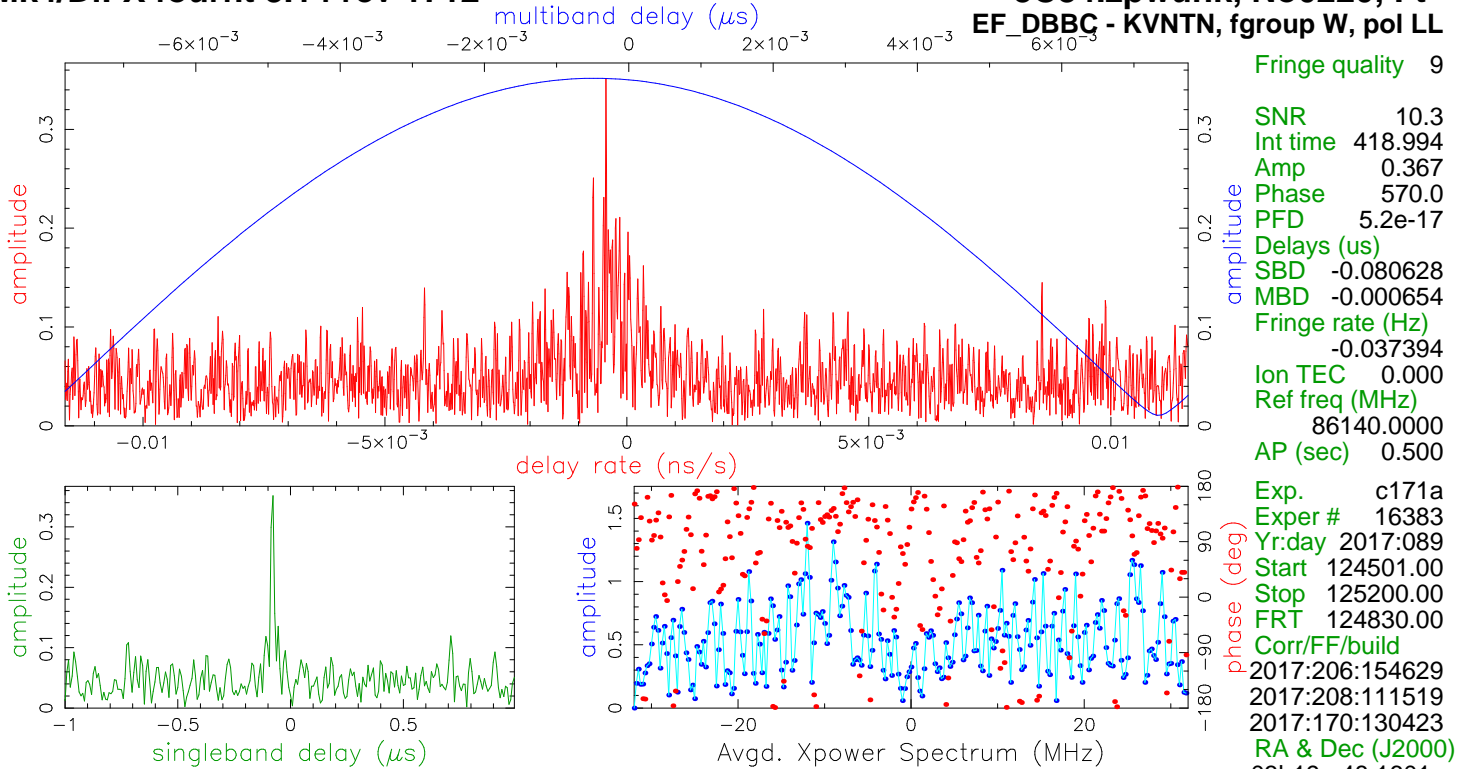
Fringe quality 0  
 SNR 5.6  
 Int time 418.994  
 Amp 0.221  
 Phase -3464.2  
 PFD 4.5e-01  
 Delays (us)  
 SBD 0.615741  
 MBD 0.002482  
 Fringe rate (Hz)  
 0.477524  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:214:145909  
 2017:188:152524  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
46.6	45.0	Phase	45.8				
0.2	0.2	Ampl.	0.2				
207.9	207.7	Sbd box	207.8				
U/L 838/838	838/838	APs used					
F -1000	-1000	PC freqs					
t 0	0	PC freqs					
F:t 0:0	0:0	PC phase					
F:t 0:0	0:0	Manl PC					
F 1000	1000	PC amp					
t 1000	1000						
F W00UR,W00LR	W02UR,W02LR	Chan ids					
t W00UL,W00LL	W01UL,W01LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.39870765946E+04	Apriori delay (usec)	1.39864647380E+04	Resid mbdelay (usec)	2.48163E-03	+/-	8.9E-04
Sband delay (usec)	1.39870804790E+04	Apriori clock (usec)	2.1967072E+01	Resid sbdelay (usec)	6.15741E-01	+/-	1.5E-03
Phase delay (usec)	1.39864647394E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	1.47662E-06	+/-	3.3E-07
Delay rate (us/s)	1.25544190850E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	5.54358E-06	+/-	2.7E-09
Total phase (deg)	-3273.8	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	-3464.2	+/-	10.2

ph/seg (deg) 73.8 85.4 Search (2048X8) 0.193 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 148.2 149.0 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 14.4 Inc. seg. avg. 0.223 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 2.5 25.2 Inc. frq. avg. 0.211 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 F: az 108.8 el 71.1 pa -52.8 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Ft.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Ft.W.148.zpwuhk simultaneous interpolator



Fringe quality 9

SNR 10.3

Int time 418.994

Amp 0.367

Phase 570.0

PFD 5.2e-17

Delays (us)

SBD -0.080628

MBD -0.000654

Fringe rate (Hz)

-0.037394

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124501.00

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

2017:208:111519

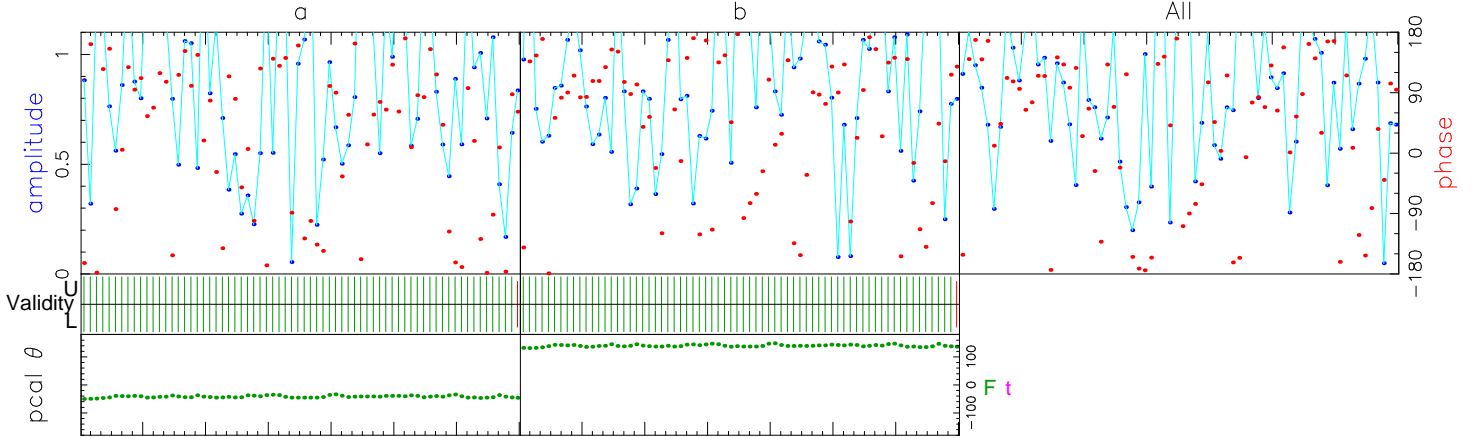
2017:170:130423

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00				86220.00				Freq (MHz)	All
118.0				122.2				Phase	120.0
0.4				0.3				Ampl.	0.3
118.7				118.8				Sbd box	118.7
U/L 838/838				838/838				APs used	
F -1000				-1000				PC freqs	
t 0				0				PC freqs	
F:t 0:0				0:0				PC phase	
F:t 0:0				0:0				Manl PC	
F 1000				1000				PC amp	
t 1000				1000					
F W00UL,W00LL				W02UL,W02LL				Chan ids	
t W00UL,W00LL				W01UL,W01LL				Tracks	
								Chan ids	
								Tracks	

Group delay (usec)(sbd)	1.39863859587E+04	Apriori delay (usec)	1.39864647380E+04	Resid mbdelay (usec)	-6.54305E-04	+/-	4.8E-04
Sband delay (usec)	1.39863841100E+04	Apriori clock (usec)	2.1967072E+01	Resid sbdelay (usec)	-8.06280E-02	+/-	8.4E-04
Phase delay (usec)	1.39864647418E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	3.87112E-06	+/-	1.8E-07
Delay rate (us/s)	1.25543593081E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	-4.34109E-07	+/-	1.5E-09
Total phase (deg)	760.5	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	570.0	+/-	5.6

ph/seg (deg) 78.4 46.7 Search (2048X8) 0.341 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

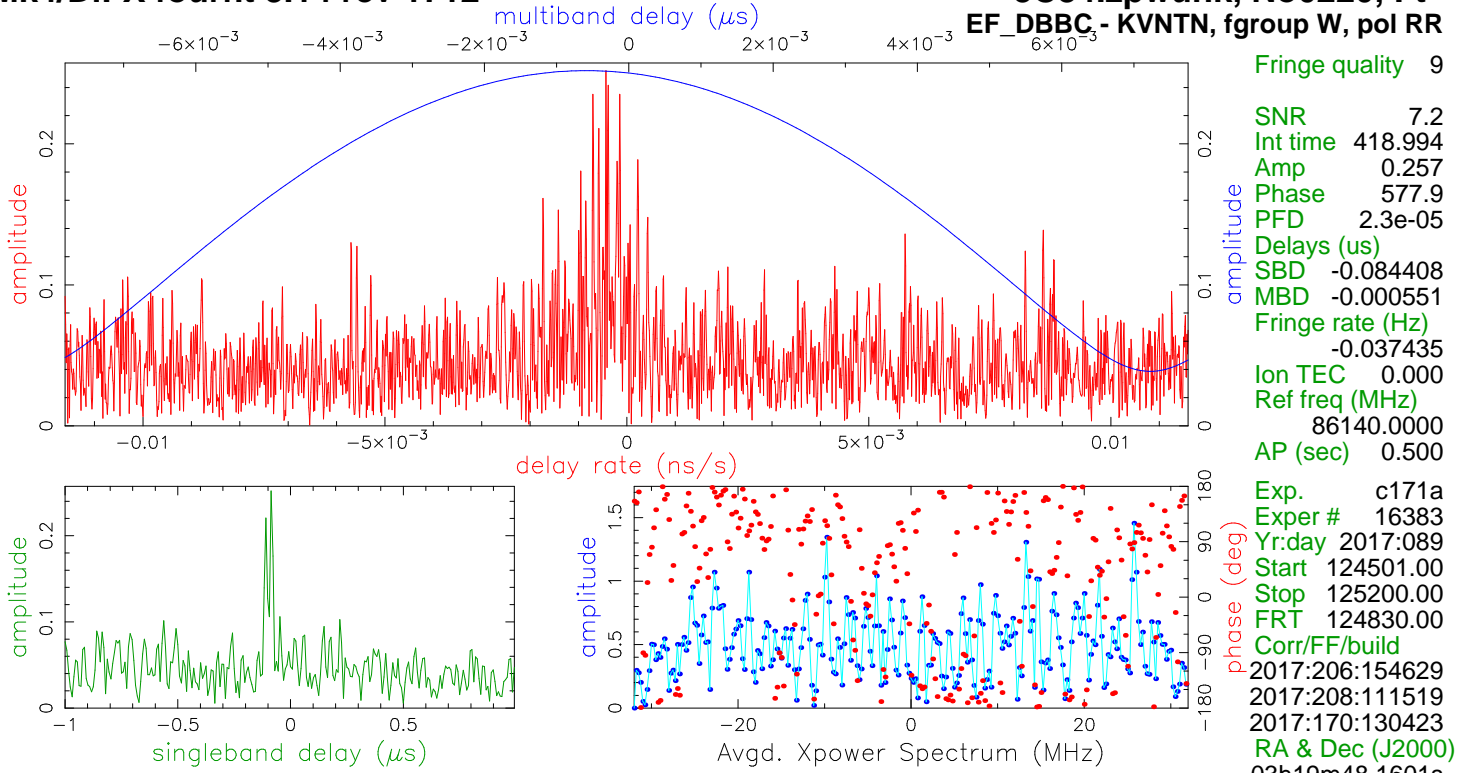
amp/seg (%) 158.1 81.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 7.9 Inc. seg. avg. 0.634 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

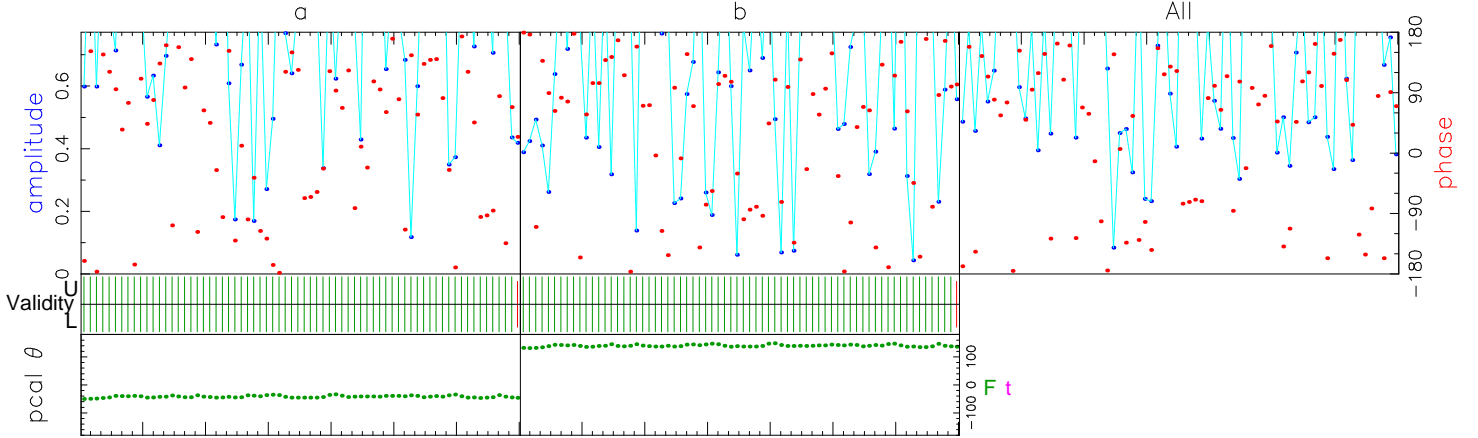
amp/frq (%) 5.1 13.8 Inc. frq. avg. 0.349 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012

F: az 108.8 el 71.1 pa -52.8 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 ion window (TEC) 0.00 0.00

Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Ft.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Ft.W.33.zpwuhk simultaneous interpolator

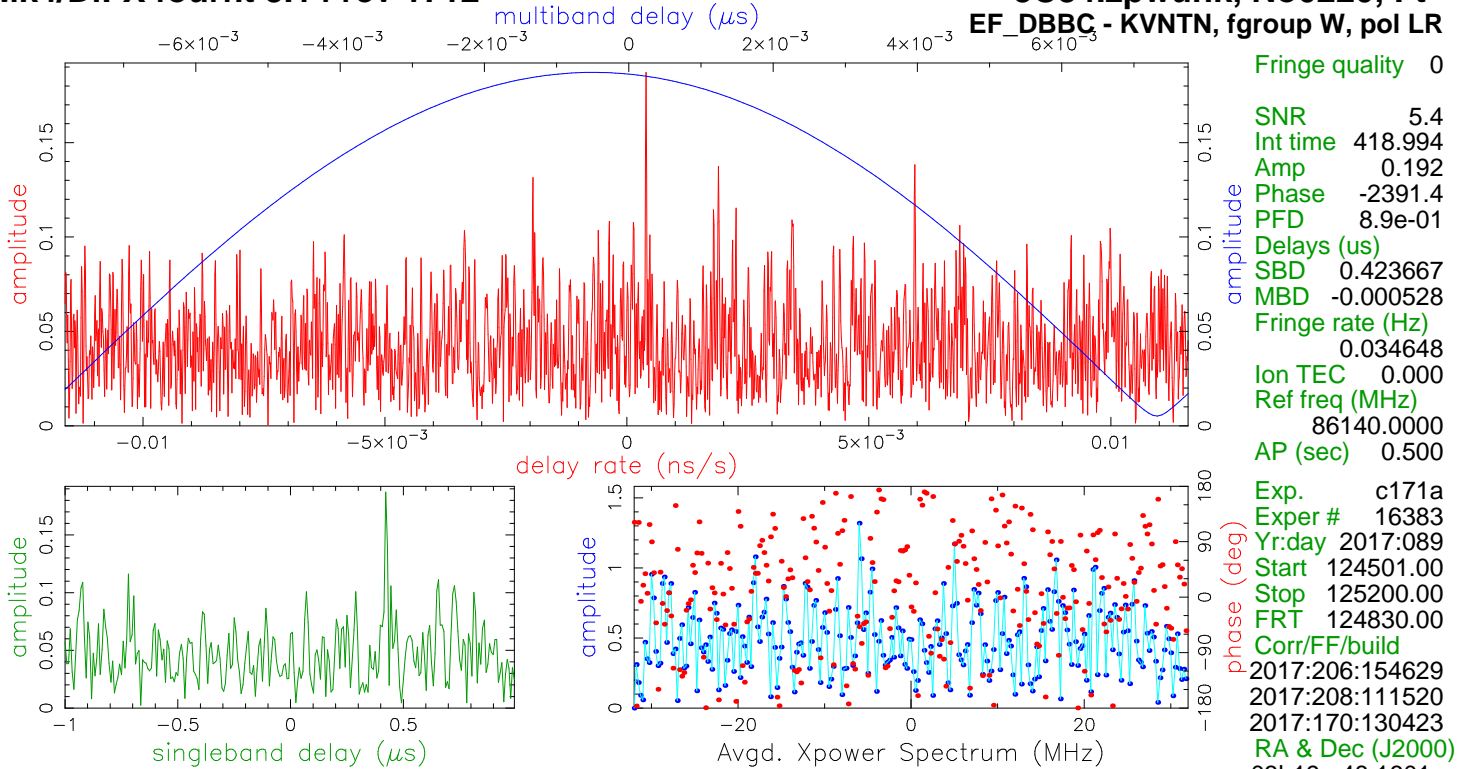


Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

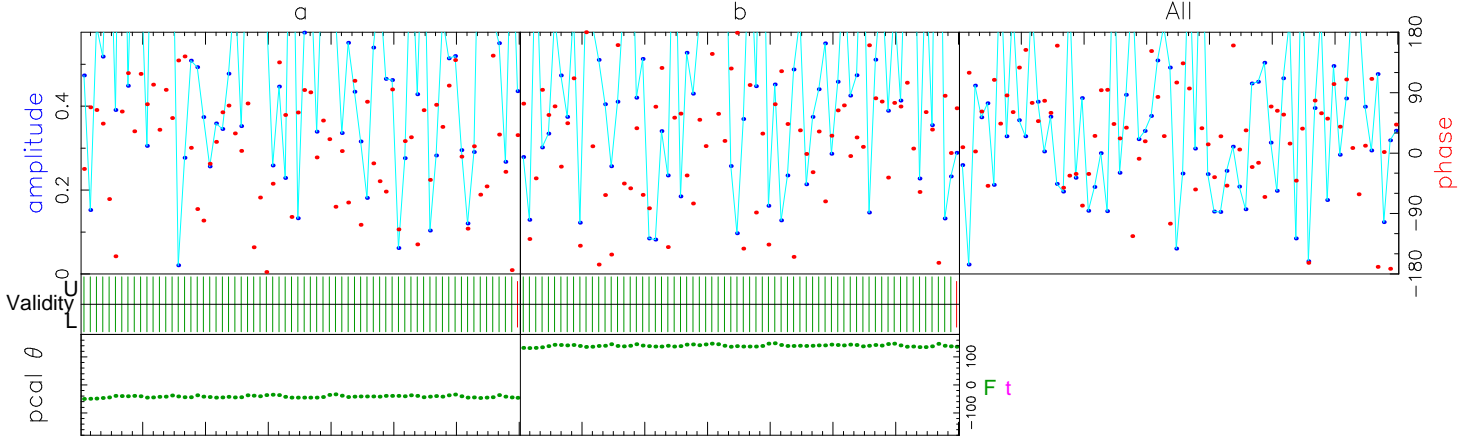


86156.00	86220.00	Freq (MHz)	All				
128.3	127.6	Phase	127.9				
0.2	0.3	Ampl.	0.2				
118.0	118.3	Sbd box	118.2				
U/L 838/838	838/838	APs used					
F -1000	-1000	PC freqs					
t 0	0	PC freqs					
F:t 0:0	0:0	PC phase					
F:t 0:0	0:0	Manl PC					
F 1000	1000	PC amp					
t 1000	1000						
F W00UR,W00LR	W02UR,W02LR	Chan ids					
t W00UR,W00LR	W01UR,W01LR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.39863860622E+04	Apriori delay (usec)	1.39864647380E+04	Resid mbdelay (usec)	-5.50805E-04	+/-	6.9E-04
Sband delay (usec)	1.39863803305E+04	Apriori clock (usec)	2.1967072E+01	Resid sbdelay (usec)	-8.44075E-02	+/-	1.2E-03
Phase delay (usec)	1.39864647421E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	4.12360E-06	+/-	2.6E-07
Delay rate (us/s)	1.25543593033E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	-4.34588E-07	+/-	2.1E-09
Total phase (deg)	768.3	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	577.9	+/-	8.0

ph/seg (deg)	RMS 79.5	Theor. 66.6	Amplitude 0.257 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	225.2	116.2	Search (2048X8) 0.238	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	11.3	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.012	0.012
amp/frq (%)	15.2	19.6	Inc. seg. avg. 0.439	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.247	Data rate(Mb/s): 512	nlags: 128	t_cohere infinite		



Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

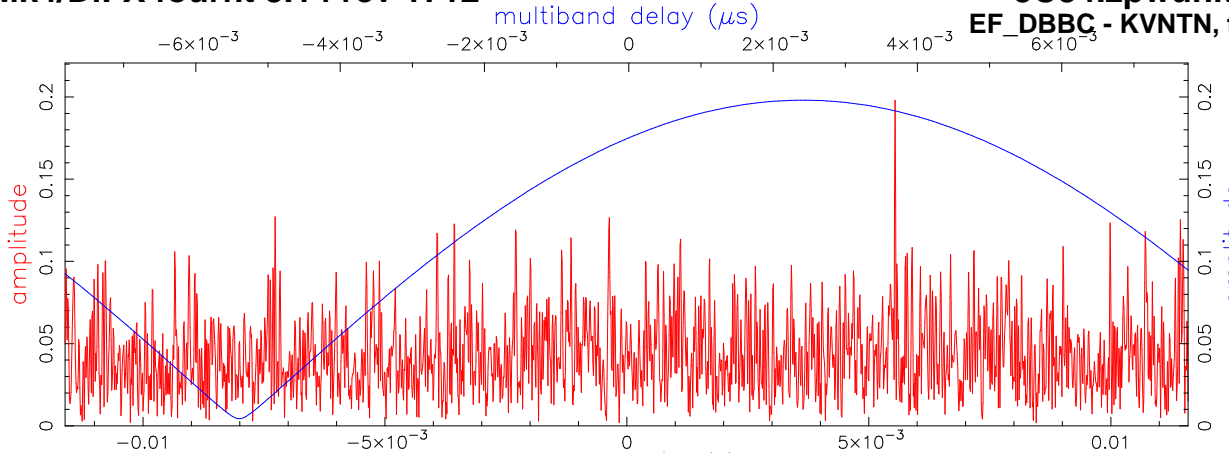


86156.00		86220.00		Freq (MHz)	All
38.2		39.0		Phase	38.6
0.2		0.2		Ampl.	0.2
37.0		182.8		Sbd box	183.2
U/L 838/838		838/838		APs used	
F -1000		-1000		PC freqs	
t 0		0		PC freqs	
F:t 0:0		0:0		PC phase	
F:t 0:0		0:0		Manl PC	
F 1000		1000		PC amp	
t 1000		1000			
F W00UL,W00LL		W02UL,W02LL		Chan ids	
t W00UR,W00LR		W01UR,W01LR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	1.39868860849E+04	Apriori delay (usec)	1.39864647380E+04	Resid mbdelay (usec)	-5.28045E-04 +/- 9.3E-04
Sband delay (usec)	1.39868884055E+04	Apriori clock (usec)	2.1967072E+01	Resid sbdelay (usec)	4.23667E-01 +/- 1.6E-03
Phase delay (usec)	1.39864647392E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	1.24627E-06 +/- 3.4E-07
Delay rate (us/s)	1.25543676715E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	4.02230E-07 +/- 2.8E-09
Total phase (deg)	-2200.9	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	-2391.4 +/- 10.7

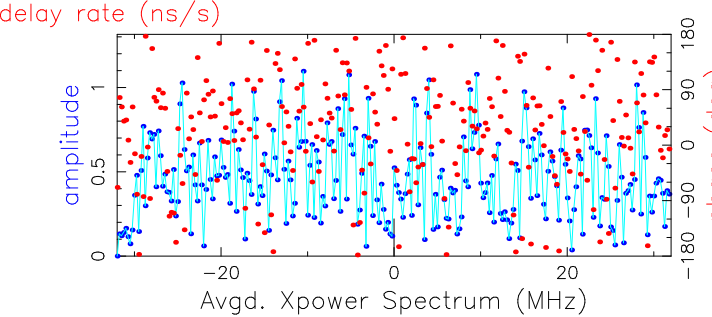
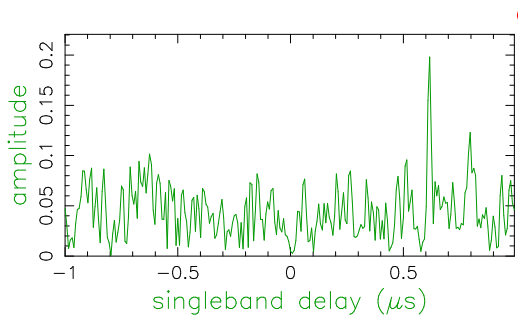
ph/seg (deg)	RMS 71.1	Theor. 89.2	Amplitude 0.192 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	144.5	155.6	Search (2048X8) 0.180	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	15.1	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	3.7	26.3	Inc. seg. avg. 0.172	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg. 0.181	Data rate(Mb/s): 512	dr window (ns/s) -0.012 0.012
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

F: az 108.8 el 71.1 pa -52.8 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 simultaneous interpolator

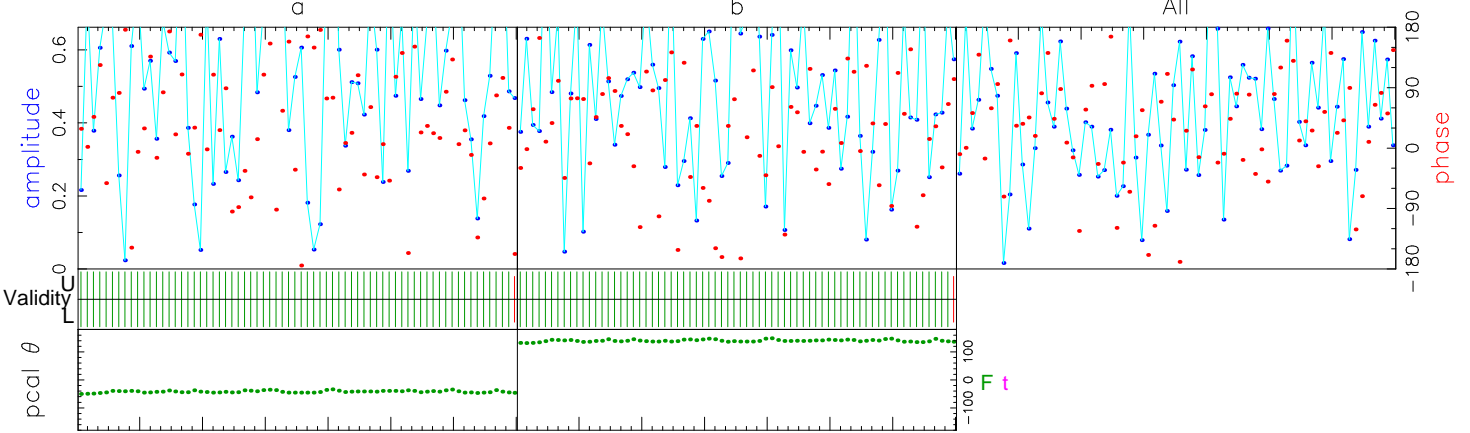
Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Ft.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Ft.W.35.zpwuhk



Fringe quality 0  
 SNR 5.6  
 Int time 418.994  
 Amp 0.221  
 Phase -3464.2  
 PFD 4.5e-01  
 Delays (us)  
 SBD 0.615741  
 MBD 0.002482  
 Fringe rate (Hz)  
 0.477524  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:208:111520  
 2017:170:130423  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"



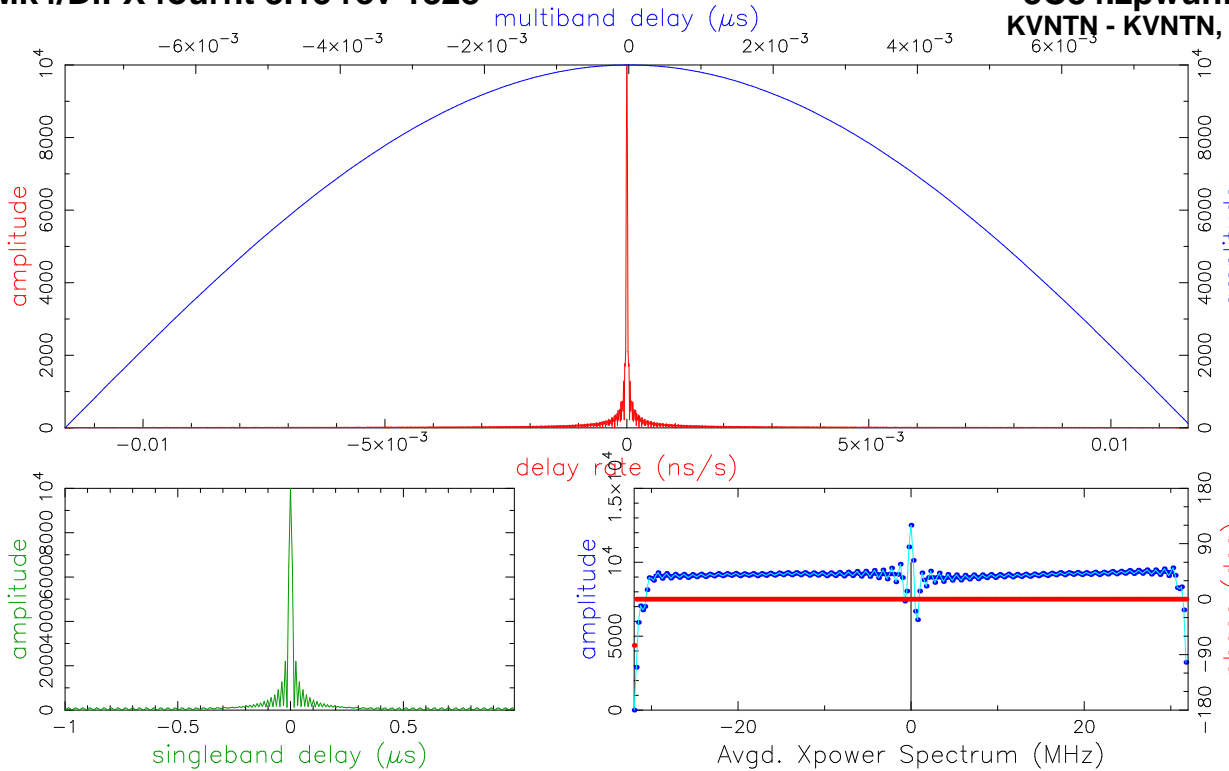
Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
46.6	45.0	Phase	45.8				
0.2	0.2	Ampl.	0.2				
207.9	207.7	Sbd box	207.8				
U/L 838/838	838/838	APs used					
F -1000	-1000	PC freqs					
t 0	0	PC freqs					
F:t 0:0	0:0	PC phase					
F:t 0:0	0:0	Manl PC					
F 1000	1000	PC amp					
t 1000	1000						
F W00UR,W00LR	W02UR,W02LR	Chan ids					
t W00UL,W00LL	W01UL,W01LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.39870765946E+04	Apriori delay (usec)	1.39864647380E+04	Resid mbdelay (usec)	2.48163E-03	+/-	8.9E-04
Sband delay (usec)	1.39870804790E+04	Apriori clock (usec)	2.1967072E+01	Resid sbdelay (usec)	6.15741E-01	+/-	1.5E-03
Phase delay (usec)	1.39864647394E+04	Apriori clockrate (us/s)	2.5249391E-07	Resid phdelay (usec)	1.47662E-06	+/-	3.3E-07
Delay rate (us/s)	1.25544190850E+00	Apriori rate (us/s)	1.25543636492E+00	Resid rate (us/s)	5.54358E-06	+/-	2.7E-09
Total phase (deg)	-3273.8	Apriori accel (us/s/s)	-5.75491003034E-05	Resid phase (deg)	-3464.2	+/-	10.2

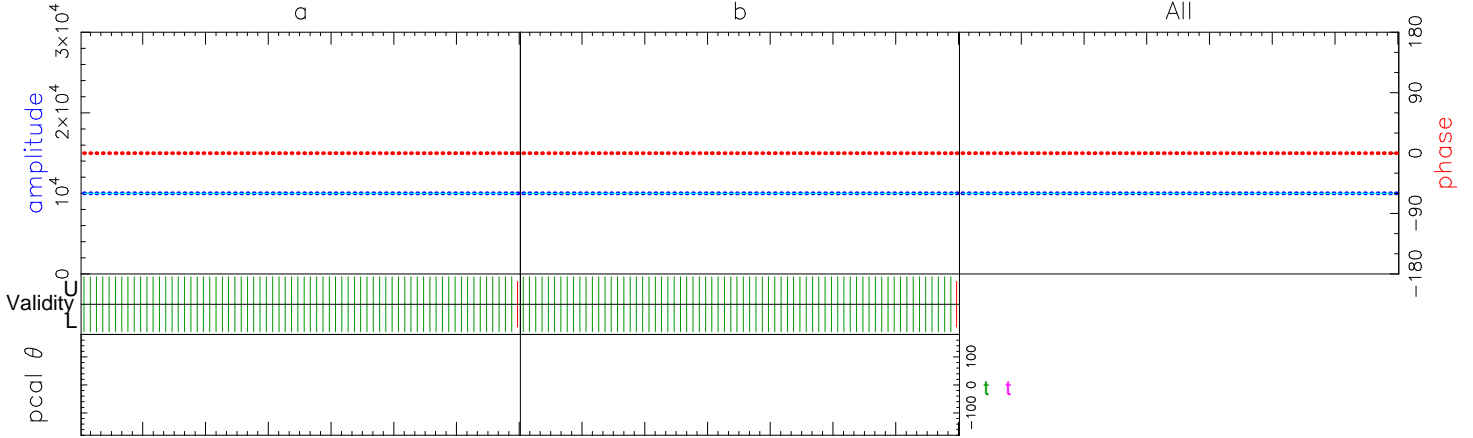
ph/seg (deg) 73.8 85.4 Theor. Amplitude 0.221 +/- 0.039 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 148.2 149.0 Search (2048X8) 0.193 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 14.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 2.5 25.2 Inc. seg. avg. 0.223 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 F: az 108.8 el 71.1 pa -52.8 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) -9723.802 -2419.990 ion window (TEC) 0.00 0.00  
 Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/Ft.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/Ft.W.36.zpwuhk simultaneous interpolator





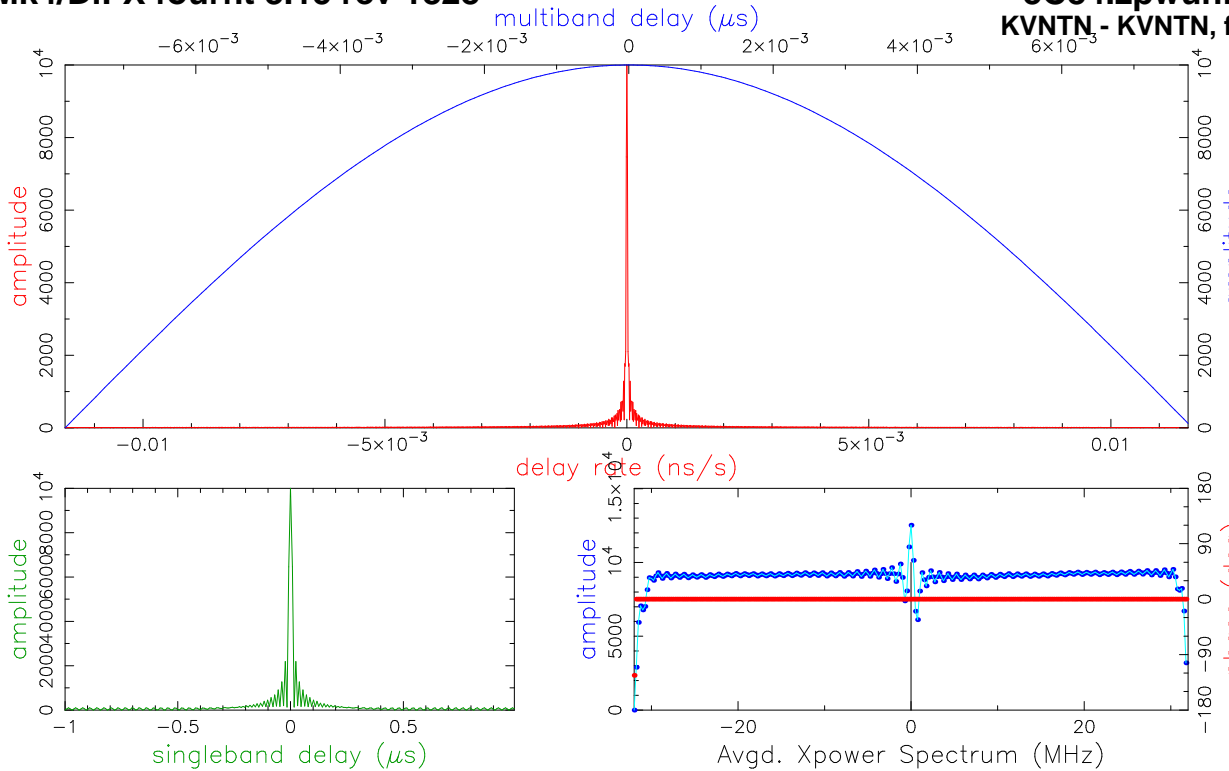
Fringe quality 9  
 SNR 279879.7  
 Int time 418.994  
 Amp 10000.000  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:214:145920  
 2017:188:152524  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



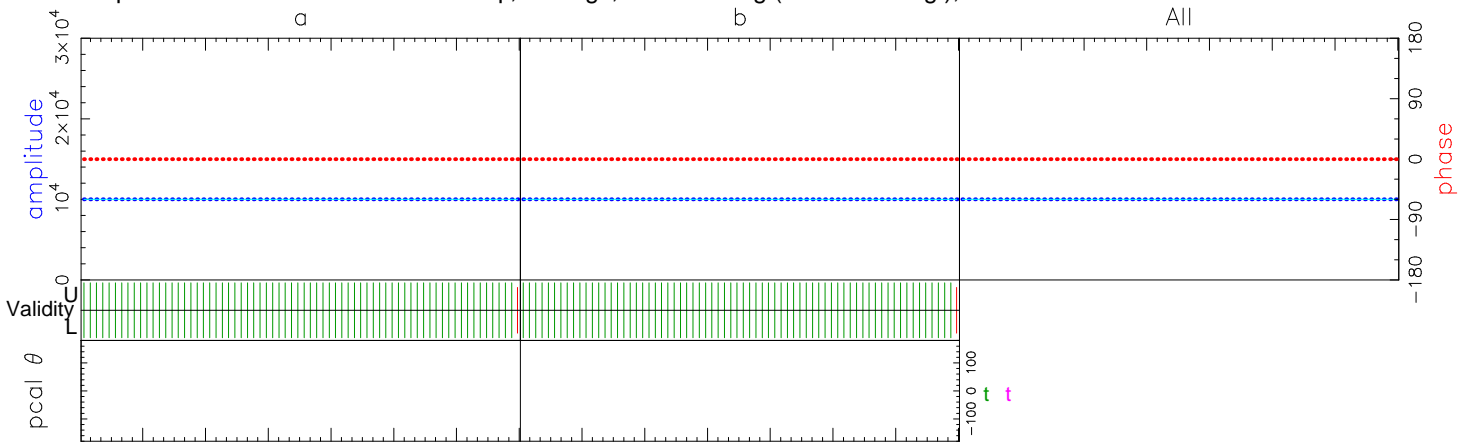
86156.00		86220.00		Freq (MHz)		All
U/L	838/838	838/838		86156.00	86220.00	129.0
t	0	0		0.0	0.0	0.0
t:t	0:0	0:0		10000.0	10000.0	10000.0
t:t	0:0	0:0		129.0	129.0	129.0
t	1000	1000		Sbd box		
t	1000	1000		APs used		
t	W00UL,W00LL	W01UL,W01LL		PC freqs		
t	W00UL,W00LL	W01UL,W01LL		PC phase		
				Mani PC		
				PC amp		
				Chan ids		
				Tracks		
				Chan ids		
				Tracks		
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/- 1.8E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/- 3.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/- 6.6E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/- 5.5E-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 Theor. Amplitude 10000.000 +/- 0.036 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (2048X8) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 t: az 308.5 el 17.8 pa 60.9 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) 0.000 0.000 ion window (TEC) 0.00 0.00  
 Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tt.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tt.W.165.zpwuhk simultaneous interpolator



Fringe quality 9  
 SNR 279879.7  
 Int time 418.994  
 Amp 10000.000  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:214:145921  
 2017:188:152524  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

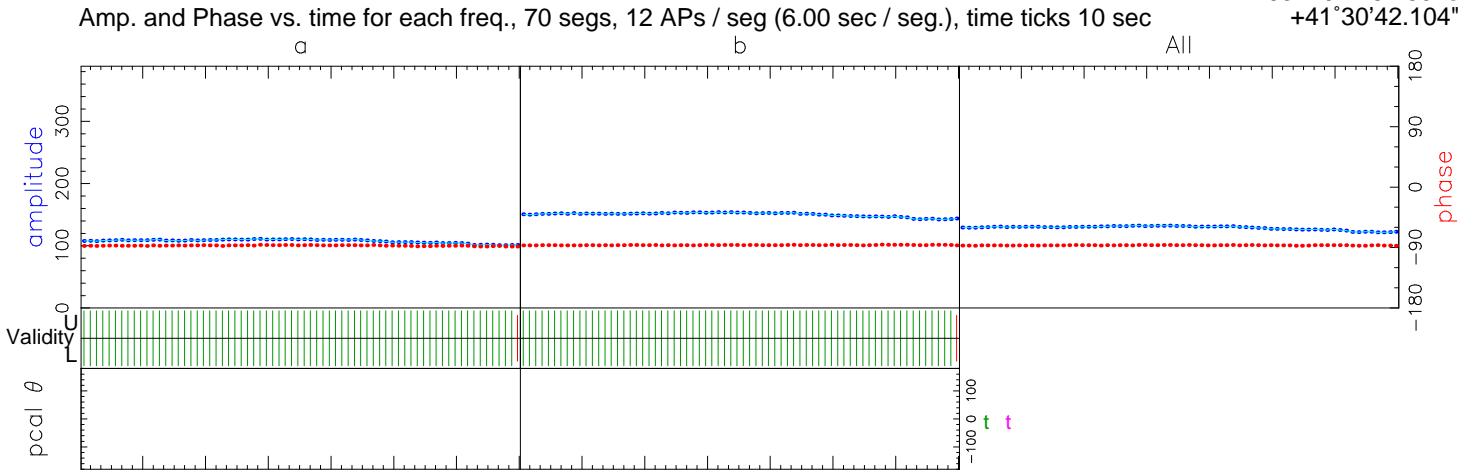
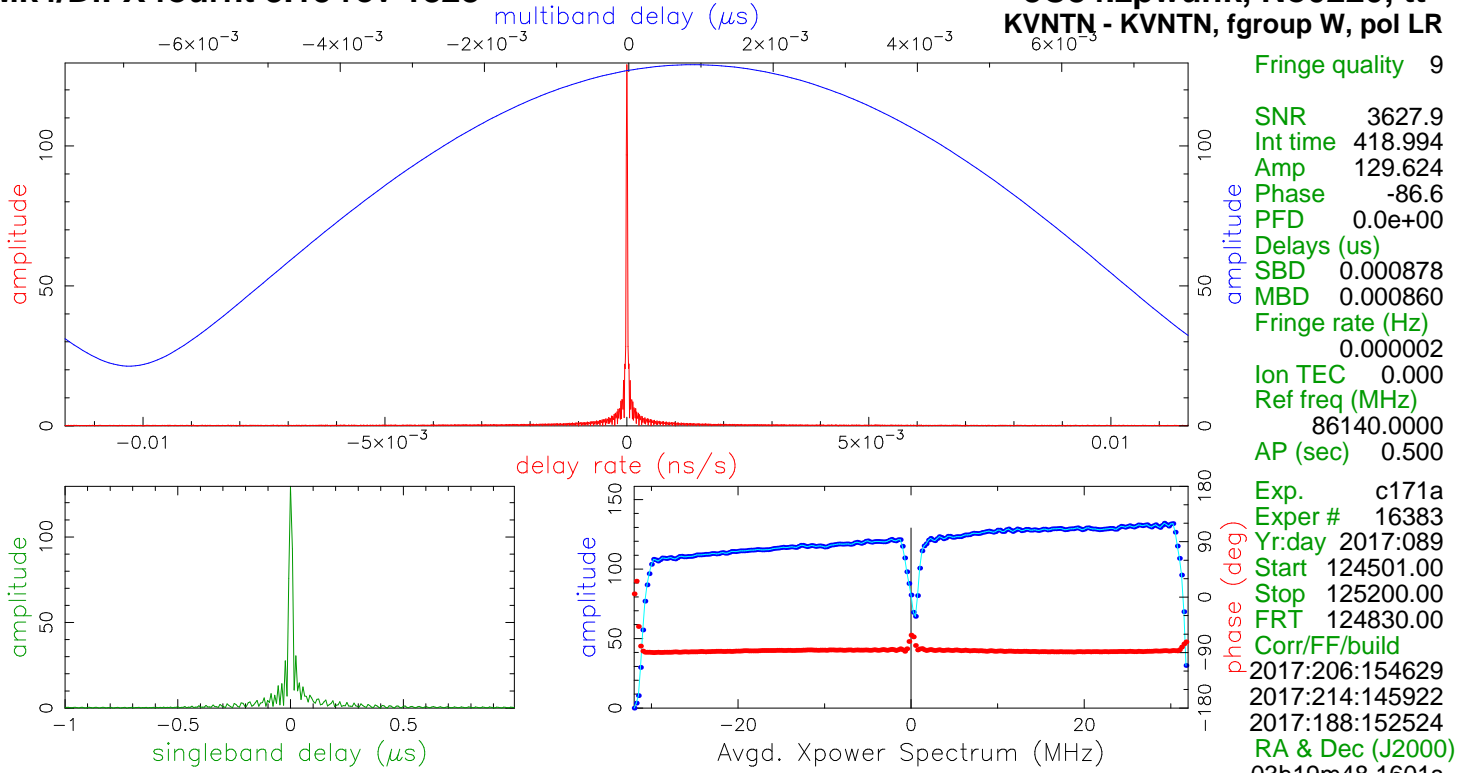
Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



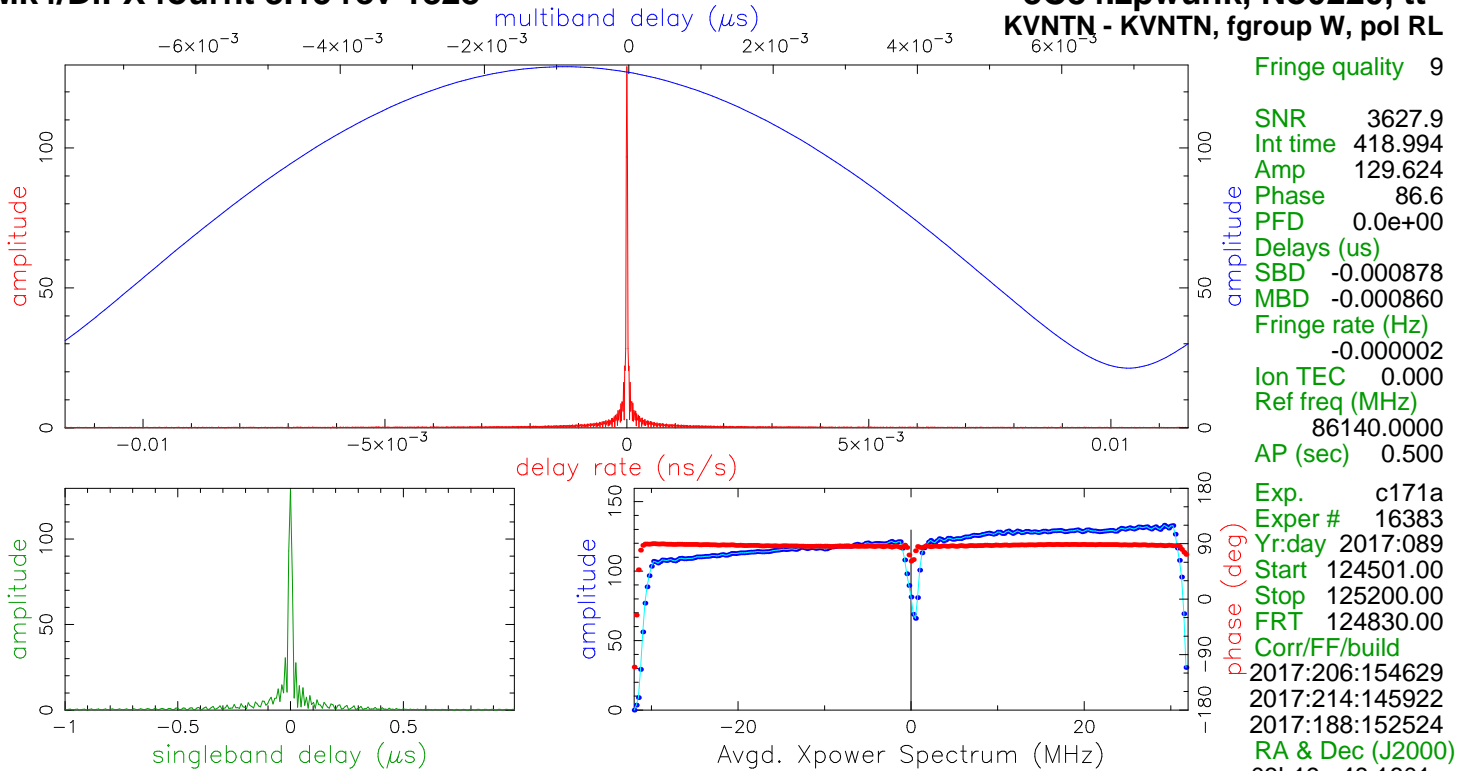
86156.00		86220.00		Freq (MHz)		All
0.0	0.0	0.0	0.0	Phase		0.0
10000.0	10000.0	10000.0	10000.0	Ampl.		10000.0
129.0	129.0	129.0	129.0	Sbd box		129.0
U/L 838/838	838/838	838/838	838/838	APs used		
t 0	0	0	0	PC freqs		
t:t 0:0	0:0	0:0	0:0	PC phase		
t:t 0:0	0:0	0:0	0:0	Manl PC		
t 1000	1000	1000	1000	PC amp		
t 1000	1000	1000	1000			
t W00UR,W00LR	W01UR,W01LR	W01UR,W01LR	W01UR,W01LR	Chan ids		
t W00UR,W00LR	W01UR,W01LR	W01UR,W01LR	W01UR,W01LR	Tracks		
				Chan ids		
				Tracks		
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/- 1.8E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/- 3.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/- 6.6E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/- 5.5E-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 Theor. Amplitude 10000.000 +/- 0.036 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (2048X8) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MSamp/s): 64 dr window (ns/s) -0.012 0.012  
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00

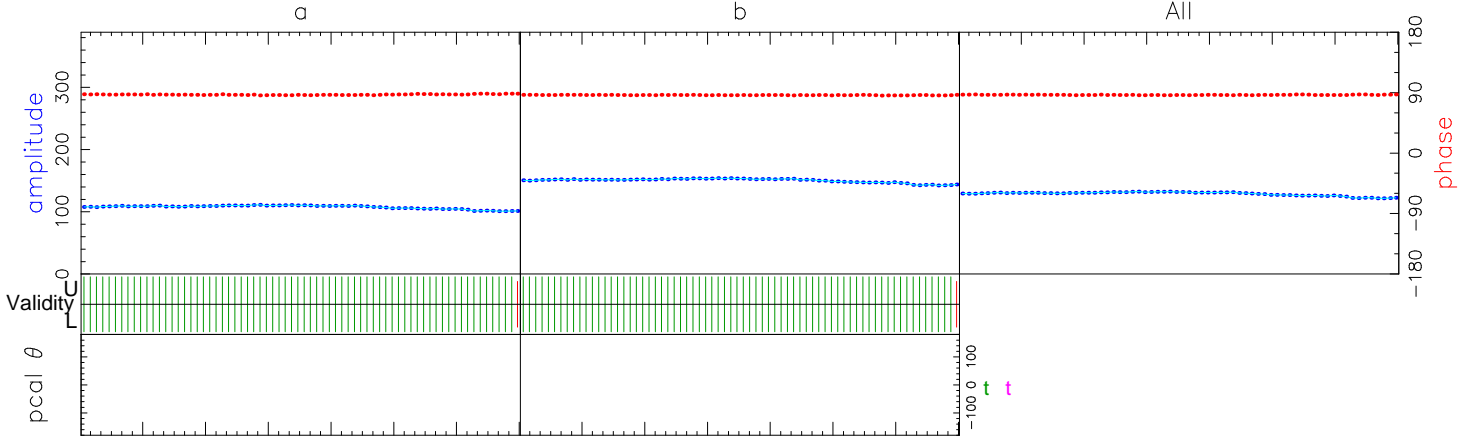
t: az 308.5 el 17.8 pa 60.9 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tt.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tt.W.166.zpwuhk



86156.00	86220.00	Freq (MHz)	All
-87.1	-86.3	Phase	-86.6
107.7	150.3	Ampl.	129.0
129.1	129.1	Sbd box	129.1
U/L 838/838	838/838	APs used	
t 0	0	PC freqs	
t 0	0	PC freqs	
t:t 0:0	0:0	PC phase	
t:t 0:0	0:0	Manl PC	
t 1000	1000	PC amp	
t 1000	1000		
t W00UL,W00LL	W01UL,W01LL	Chan ids	
t W00UR,W00LR	W01UR,W01LR	Tracks	
		Chan ids	
		Tracks	
Group delay (usec)(sbd)	8.600000000000E-04	Apriori delay (usec)	0.000000000000E+00
Sband delay (usec)	8.780000000000E-04	Apriori clock (usec)	0.000000000000E+00
Phase delay (usec)	-2.79382973134E-06	Apriori clockrate (us/s)	0.000000000000E+00
Delay rate (us/s)	2.75713954028E-11	Apriori rate (us/s)	0.000000000000E+00
Total phase (deg)	-86.6	Apriori accel (us/s/s)	0.000000000000E+00
		Resid mbdelay (usec)	8.60000E-04 +/- 1.4E-06
		Resid sbdelay (usec)	8.78000E-04 +/- 2.4E-06
		Resid phdelay (usec)	-2.79383E-06 +/- 5.1E-10
		Resid rate (us/s)	2.75714E-11 +/- 4.2E-12
		Resid phase (deg)	-86.6 +/- 0.0
		PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.3	0.1	Search (2048X8)
amp/seg (%)	2.4	0.2	Interp.
ph/frq (deg)	0.0	0.0	Inc. seg. avg.
amp/frq (%)	16.5	0.0	Inc. frq. avg.
			129.624 +/- 0.036
			126.989
			0.000
			128.997
			128.998
			0.000 0.000
			0.000E+00, 0.000E+00 (us/s)
			Bits/sample: 2x2
			Sample rate(MSamp/s): 64
			Data rate(Mb/s): 512
			nlags: 128 t_cohere infinite
			ion window (TEC) 0.00 0.00
			simultaneous interpolator



Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

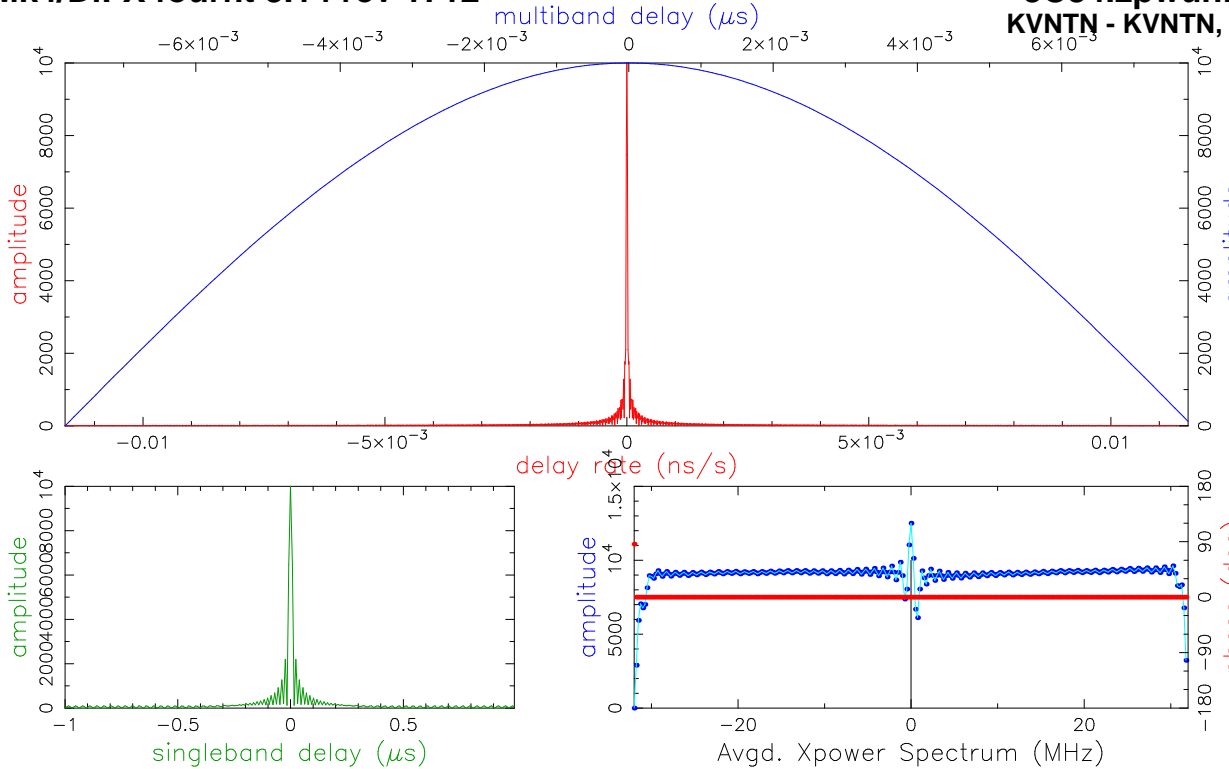


86156.00	86220.00	Freq (MHz)	All				
87.1	86.3	Phase	86.6				
107.7	150.3	Ampl.	129.0				
128.9	128.9	Sbd box	128.9				
U/L 838/838	838/838	APs used					
t 0	0	PC freqs					
t 0	0	PC freqs					
t:t 0:0	0:0	PC phase					
t:t 0:0	0:0	Manl PC					
t 1000	1000	PC amp					
t 1000	1000						
t W00UR,W00LR	W01UR,W01LR	Chan ids					
t W00UL,W00LL	W01UL,W01LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-8.600000000000E-04	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	-8.60000E-04	+/-	1.4E-06
Sband delay (usec)	-8.780000000000E-04	Apriori clock (usec)	0.000000000000E+00	Resid sbdelay (usec)	-8.78000E-04	+/-	2.4E-06
Phase delay (usec)	2.79382973147E-06	Apriori clockrate (us/s)	0.000000000000E+00	Resid phdelay (usec)	2.79383E-06	+/-	5.1E-10
Delay rate (us/s)	-2.75713954028E-11	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	-2.75714E-11	+/-	4.2E-12
Total phase (deg)	86.6	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	86.6	+/-	0.0

ph/seg (deg)	0.3	0.1	Search (2048X8)	126.989	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	2.4	0.2	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.	128.997	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
amp/frq (%)	16.5	0.0	Inc. frq. avg.	128.998	Sample rate(MSamp/s): 64	dr window (ns/s) -0.012 0.012		
					Data rate(Mb/s): 512	nlags: 128	t_cohere infinite	ion window (TEC) 0.00 0.00

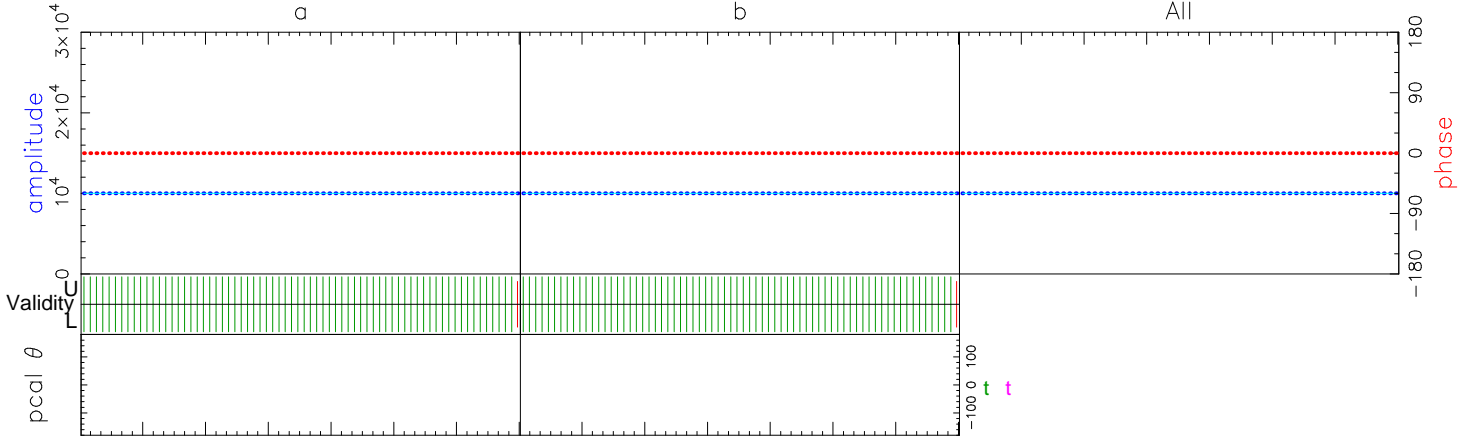
t: az 308.5 el 17.8 pa 60.9      t: az 308.5 el 17.8 pa 60.9      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: ../cf\_1234    Input file: /Exps/c171a/gmva/1234/No0220/tt.zpwuhk    Output file: /Exps/c171a/gmva/1234/No0220/tt.W.168.zpwuhk



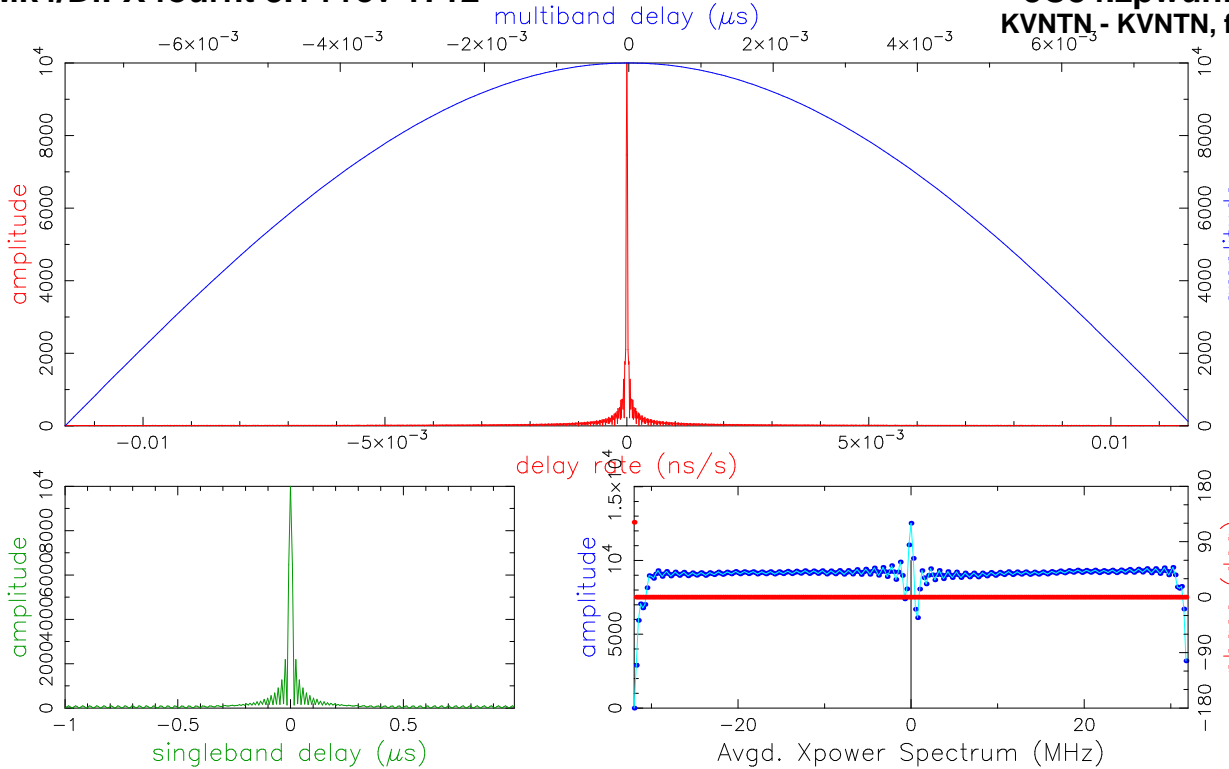
Fringe quality 9  
 SNR 279879.7  
 Int time 418.994  
 Amp 10000.000  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:208:111529  
 2017:170:130423  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



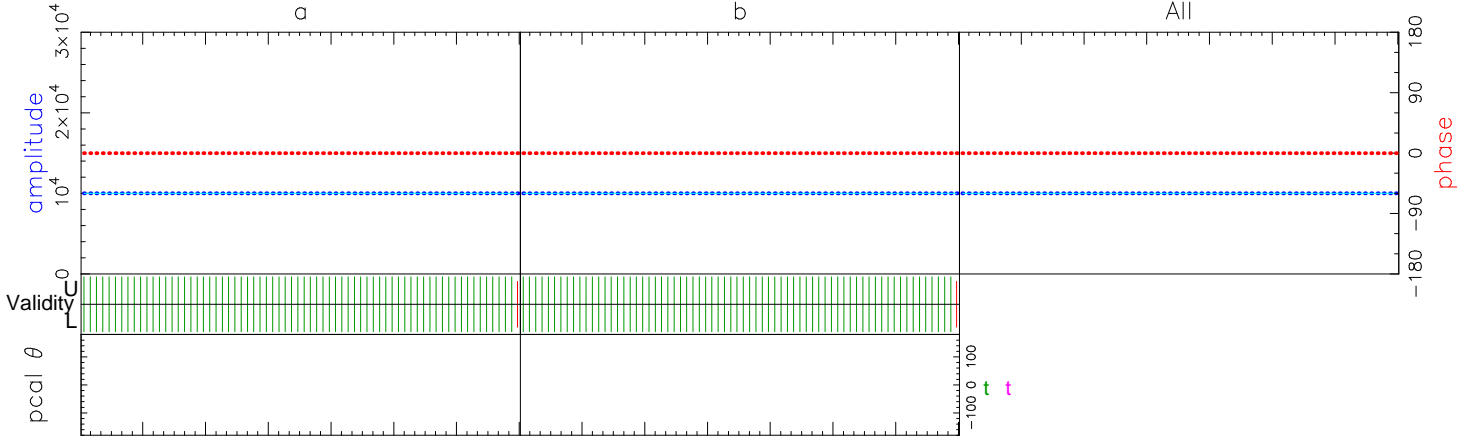
86156.00	86220.00	Freq (MHz)	All
0.0	0.0	Phase	0.0
10000.0	10000.0	Ampl.	10000.0
129.0	129.0	Sbd box	129.0
U/L 838/838	838/838	APs used	
t 0	0	PC freqs	
t 0	0	PC freqs	
t:t 0:0	0:0	PC phase	
t:t 0:0	0:0	Manl PC	
t 1000	1000	PC amp	
t 1000	1000		
t W00UL,W00LL	W01UL,W01LL	Chan ids	
t W00UL,W00LL	W01UL,W01LL	Tracks	
		Chan ids	
		Tracks	
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00
		Resid mbdelay (usec)	0.00000E+00 +/- 1.8E-08
		Resid sbdelay (usec)	0.00000E+00 +/- 3.1E-08
		Resid phdelay (usec)	0.00000E+00 +/- 6.6E-12
		Resid rate (us/s)	0.00000E+00 +/- 5.5E-14
		Resid phase (deg)	0.0 +/- 0.0

ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.036 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (2048X8) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 0.000000 Inc. frq. avg. 10000.000 ion window (TEC) 0.00 0.00



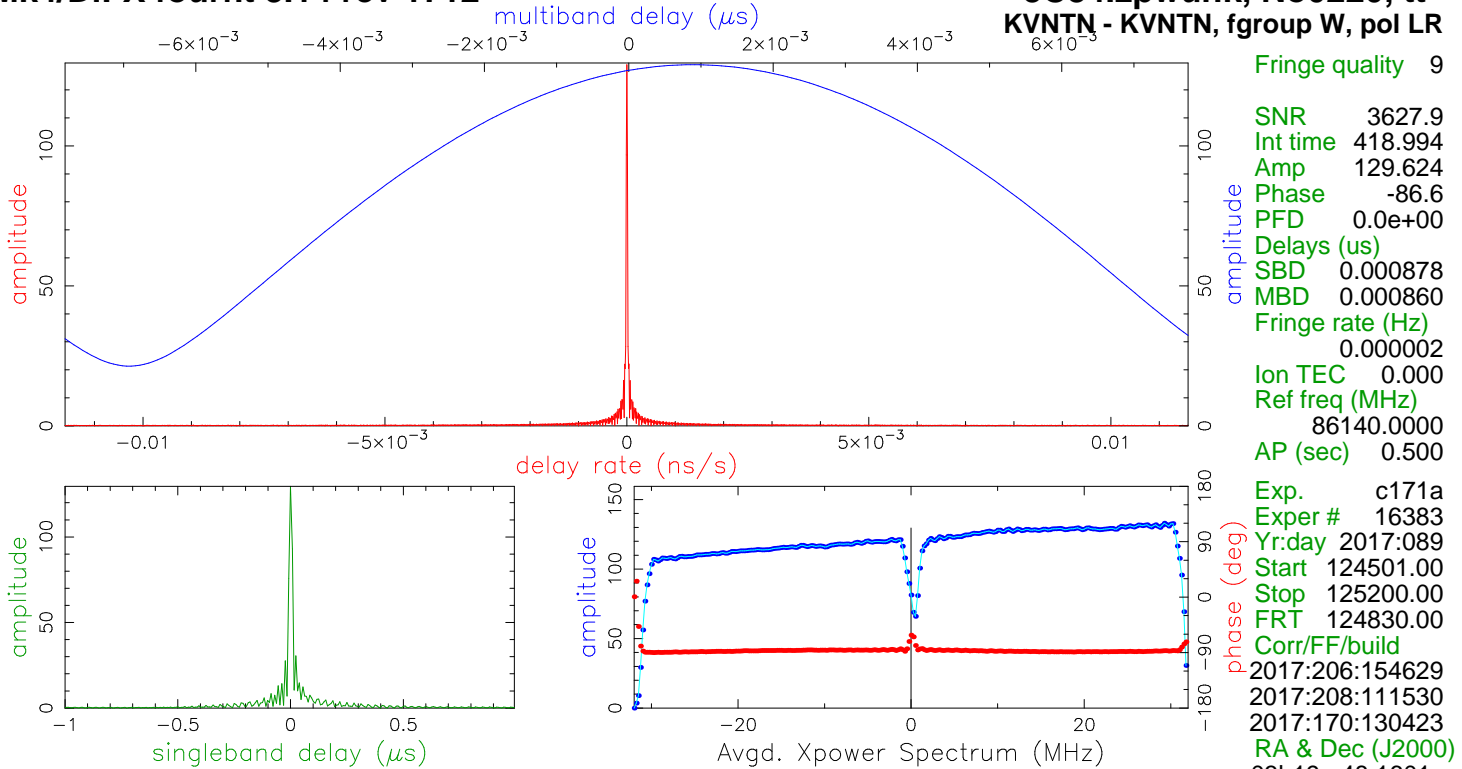
Fringe quality 9  
 SNR 279879.7  
 Int time 418.994  
 Amp 10000.000  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:208:111530  
 2017:170:130423  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

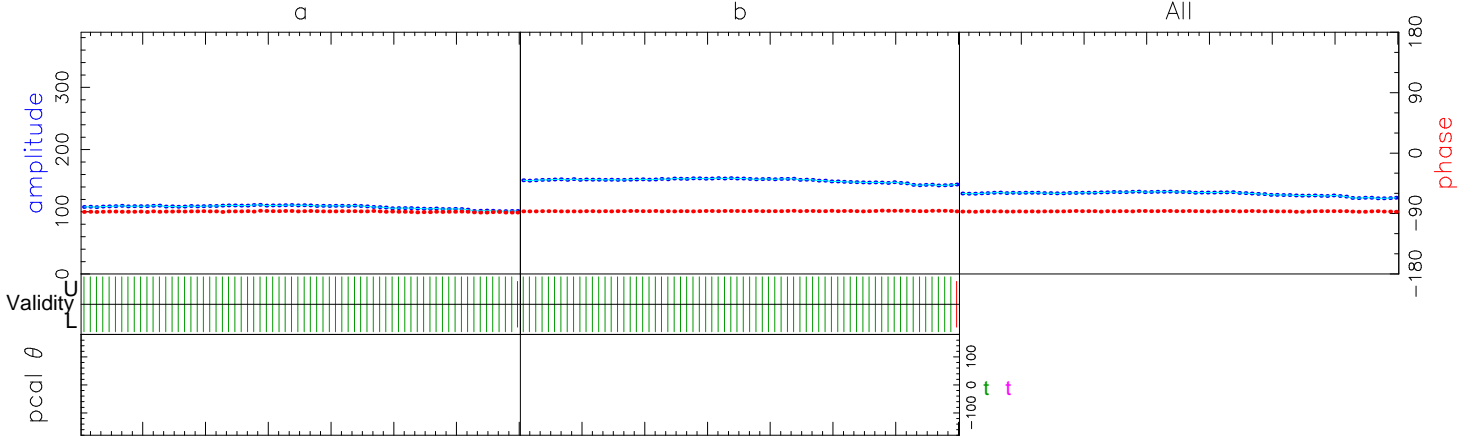


86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 838/838	838/838	APs used					
t 0	0	PC freqs					
t 0	0	PC freqs					
t:t 0:0	0:0	PC phase					
t:t 0:0	0:0	Manl PC					
t 1000	1000	PC amp					
t 1000	1000						
t W00UR,W00LR	W01UR,W01LR	Chan ids					
t W00UR,W00LR	W01UR,W01LR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	1.8E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	3.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	6.6E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	5.5E-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 Theor. Amplitude 10000.000 +/- 0.036 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (2048X8) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 0.000000 Inc. frq. avg. 10000.000 ion window (TEC) 0.00 0.00

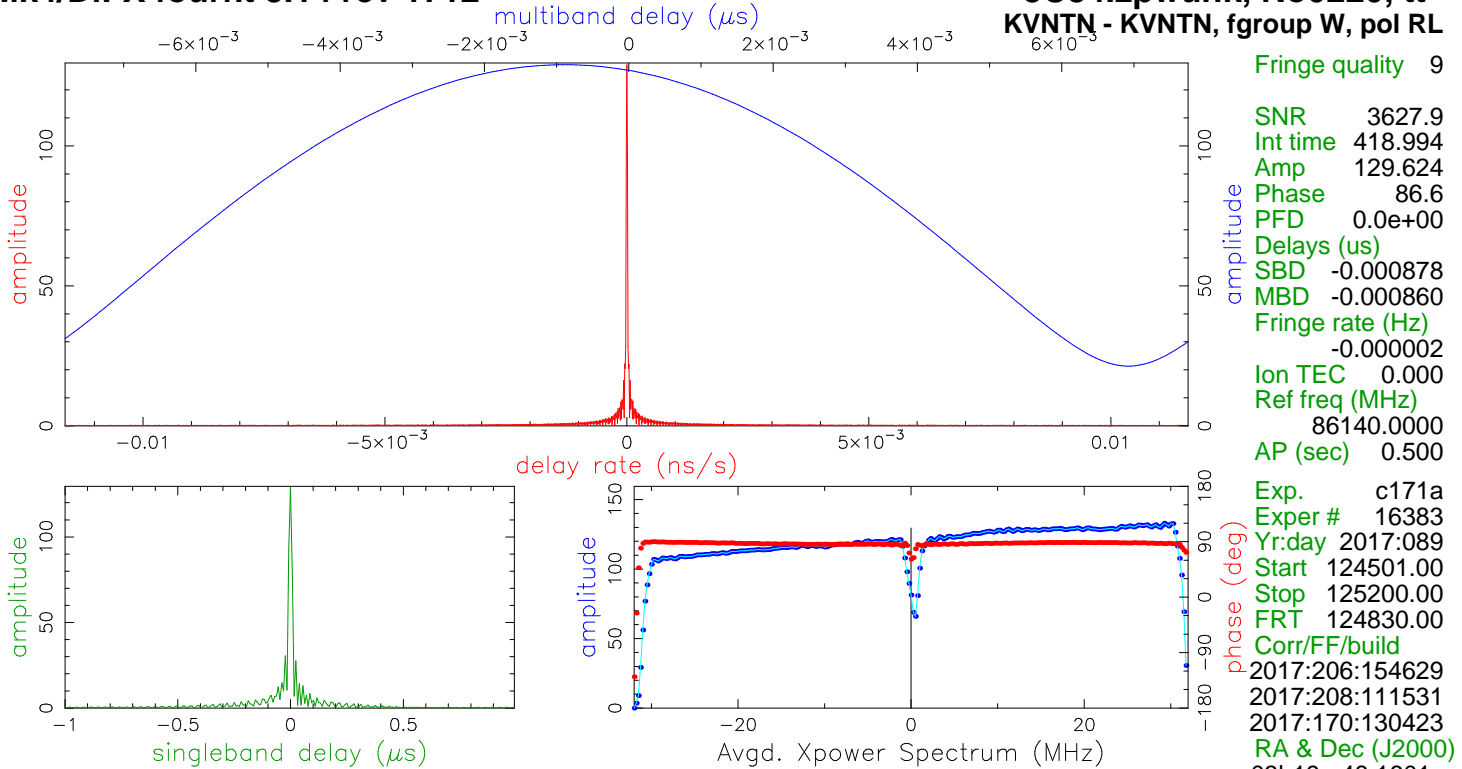


Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

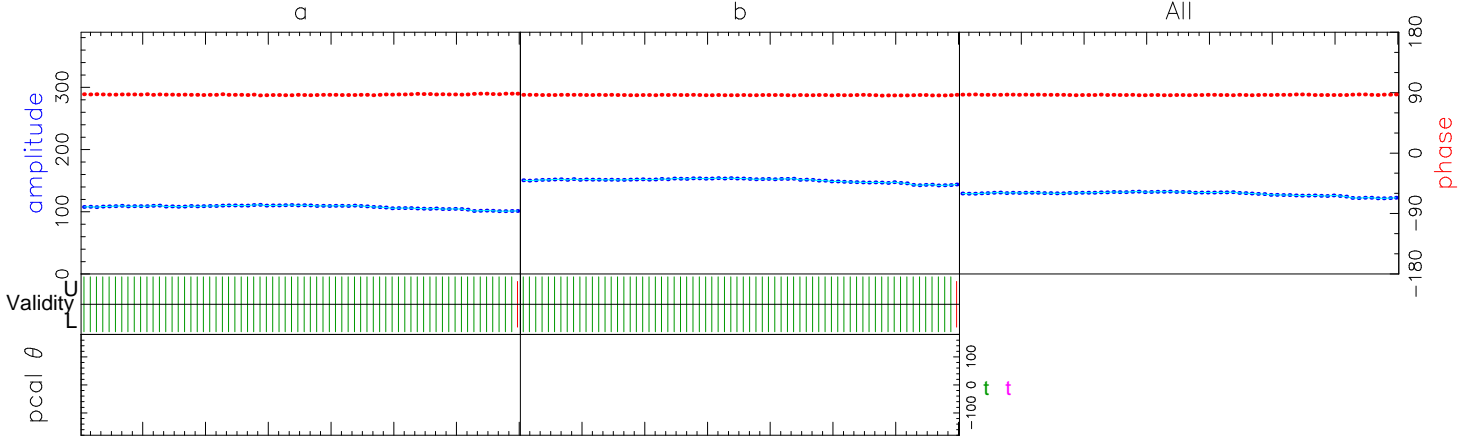


86156.00	86220.00	Freq (MHz)	All				
-87.1	-86.3	Phase	-86.6				
107.7	150.3	Ampl.	129.0				
129.1	129.1	Sbd box	129.1				
U/L 838/838	838/838	APs used					
t 0	0	PC freqs					
t 0	0	PC freqs					
t:t 0:0	0:0	PC phase					
t:t 0:0	0:0	Manl PC					
t 1000	1000	PC amp					
t 1000	1000						
t W00UL,W00LL	W01UL,W01LL	Chan ids					
t W00UR,W00LR	W01UR,W01LR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	8.600000000000E-04	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	8.60000E-04	+/-	1.4E-06
Sband delay (usec)	8.780000000000E-04	Apriori clock (usec)	0.000000000000E+00	Resid sbdelay (usec)	8.78000E-04	+/-	2.4E-06
Phase delay (usec)	-2.79382973134E-06	Apriori clockrate (us/s)	0.000000000000E+00	Resid phdelay (usec)	-2.79383E-06	+/-	5.1E-10
Delay rate (us/s)	2.75713954028E-11	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	2.75714E-11	+/-	4.2E-12
Total phase (deg)	-86.6	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	-86.6	+/-	0.0

ph/seg (deg)	0.3	0.1	Search (2048X8)	126.989	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	2.4	0.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	128.997	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.012	0.012
amp/frq (%)	16.5	0.0	Inc. frq. avg.	128.998	Data rate(Mb/s): 512	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00



Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



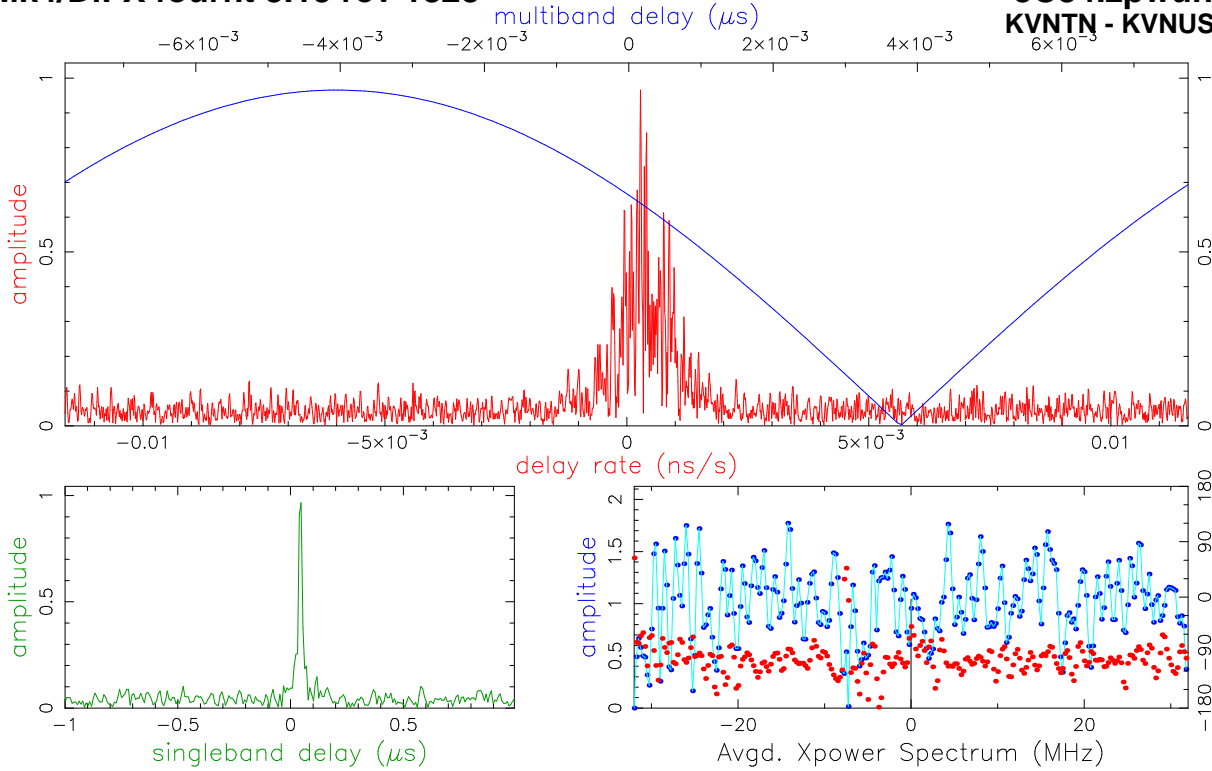
86156.00	86220.00	Freq (MHz)	All				
87.1	86.3	Phase	86.6				
107.7	150.3	Ampl.	129.0				
128.9	128.9	Sbd box	128.9				
U/L 838/838	838/838	APs used					
t 0	0	PC freqs					
t 0	0	PC freqs					
t:t 0:0	0:0	PC phase					
t:t 0:0	0:0	Manl PC					
t 1000	1000	PC amp					
t 1000	1000						
t W00UR,W00LR	W01UR,W01LR	Chan ids					
t W00UL,W00LL	W01UL,W01LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-8.600000000000E-04	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	-8.60000E-04	+/-	1.4E-06
Sband delay (usec)	-8.780000000000E-04	Apriori clock (usec)	0.000000000000E+00	Resid sbdelay (usec)	-8.78000E-04	+/-	2.4E-06
Phase delay (usec)	2.79382973147E-06	Apriori clockrate (us/s)	0.000000000000E+00	Resid phdelay (usec)	2.79383E-06	+/-	5.1E-10
Delay rate (us/s)	-2.75713954028E-11	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	-2.75714E-11	+/-	4.2E-12
Total phase (deg)	86.6	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	86.6	+/-	0.0

ph/seg (deg)	0.3	0.1	Search (2048X8)	126.989	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	2.4	0.2	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.	128.997	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	16.5	0.0	Inc. frq. avg.	128.998	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
					Data rate(Mb/s): 512	dr window (ns/s) -0.012 0.012
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00

t: az 308.5 el 17.8 pa 60.9 t: az 308.5 el 17.8 pa 60.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

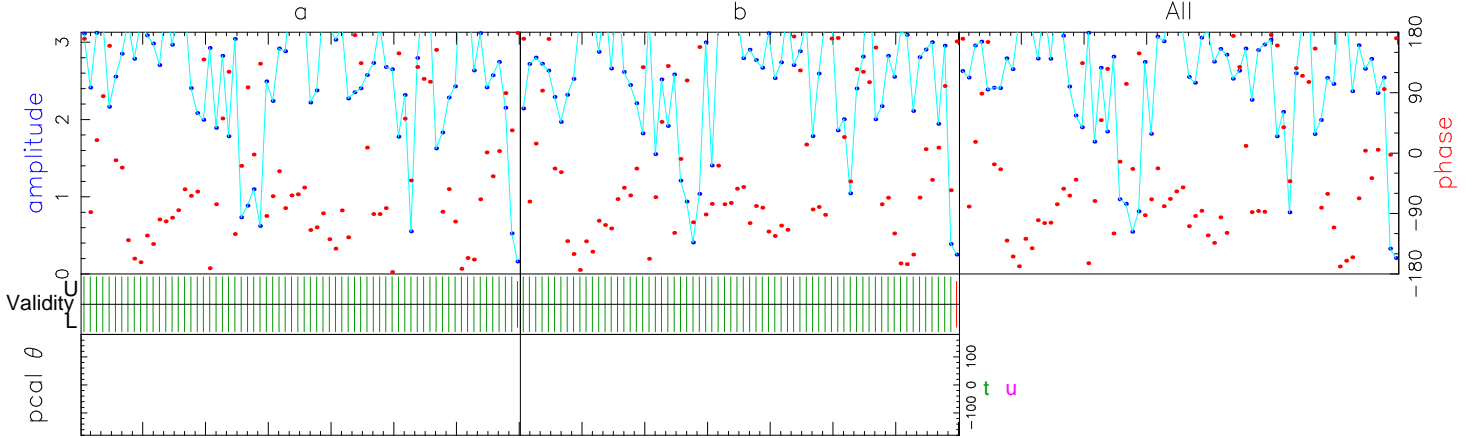
Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tt.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tt.W.56.zpwuhk





Fringe quality 9  
SNR 29.2  
Int time 418.994  
Amp 1.044  
Phase -373.2  
PFD 0.0e+00  
Delays (us)  
SBD 0.043492  
MBD -0.004037  
Fringe rate (Hz) 0.024376  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.500  
Exp. c171a  
Exper # 16383  
Yr:day 2017:089  
Start 124501.00  
Stop 125200.00  
FRT 124830.00  
Corr/FF/build  
2017:206:154629  
2017:214:145912  
2017:188:152524  
RA & Dec (J2000)  
03h19m48.1601s  
+41°30'42.104"

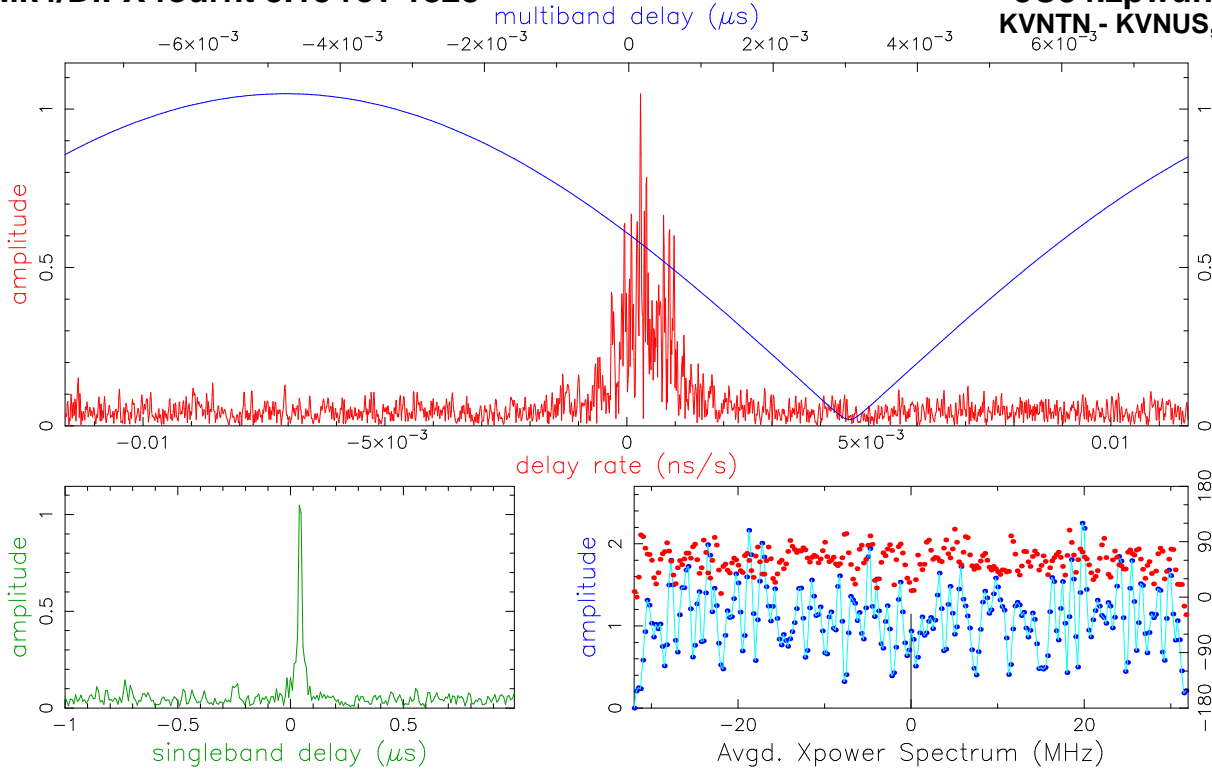
Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	86220.00	Freq (MHz)	All		
-103.1	-103.3	-103.3	Phase	-103.2		
1.0	1.0	1.0	Ampl.	1.0		
134.6	134.6	134.6	Sbd box	134.6		
U/L 838/838	838/838	838/838	APs used			
t 0	0	0	PC freqs			
u 0	0	0	PC freqs			
t:u 0:0	0:0	0:0	PC phase			
t:u 0:0	0:0	0:0	Manl PC			
t 1000	1000	1000	PC amp			
u 1000	1000	1000				
t W00UL,W00LL	W01UL,W01LL	W01UL,W01LL	Chan ids			
u W00UL,W00LL	W01UL,W01LL	W01UL,W01LL	Tracks			
			Chan ids			
			Tracks			
Group delay (usec)(sbd)	1.27062874205E+02	Apriori delay (usec)	1.27020035916E+02	Resid mbdelay (usec)	-4.03671E-03	+/- 1.7E-04
Sband delay (usec)	1.27063528416E+02	Apriori clock (usec)	-1.9200263E+00	Resid sbdelay (usec)	4.34925E-02	+/- 3.0E-04
Phase delay (usec)	1.27020032588E+02	Apriori clockrate (us/s)	-6.4644698E-07	Resid phdelay (usec)	-3.32753E-06	+/- 6.3E-08
Delay rate (us/s)	-3.19134714485E-02	Apriori rate (us/s)	-3.19137544333E-02	Resid rate (us/s)	2.82985E-07	+/- 5.2E-10
Total phase (deg)	-51.4	Apriori accel (us/s/s)	-3.11419395846E-06	Resid phase (deg)	-373.2	+/- 2.0

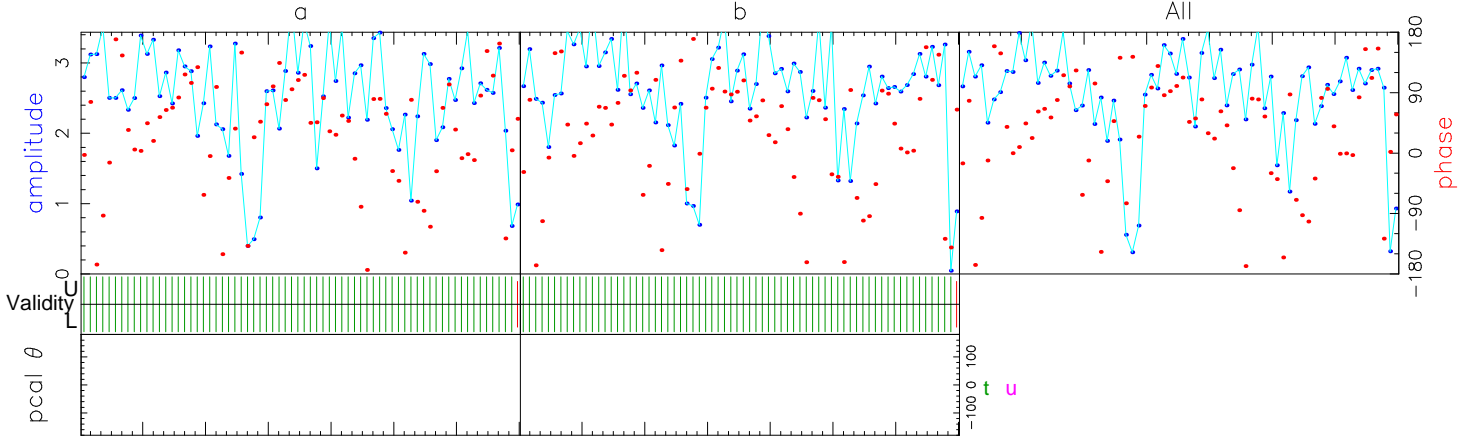
ph/seg (deg)	80.2	Theor.	16.4	Amplitude	1.044 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	161.3	Search (2048X8)	0.962	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	2.437	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	7.4	Inc. frq. avg.	0.965	Inc. frq. avg.	0.965	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.012 0.012		
						Data rate(Mb/s): 512	nlags: 128	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 308.5 el 17.8 pa 60.9      u: az 309.1 el 17.4 pa 57.2      u,v (fr/asec) 238.580 -434.757      simultaneous interpolator  
Control file: ../cf\_1234    Input file: /Exps/c171a/gmva/1234/No0220/tu..zpwuhk    Output file: /Exps/c171a/gmva/1234/No0220/tu.W.153.zpwuhk



Fringe quality 9  
 SNR 32.1  
 Int time 418.994  
 Amp 1.146  
 Phase -210.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.042638  
 MBD -0.004924  
 Fringe rate (Hz) 0.024474  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:214:145913  
 2017:188:152524  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

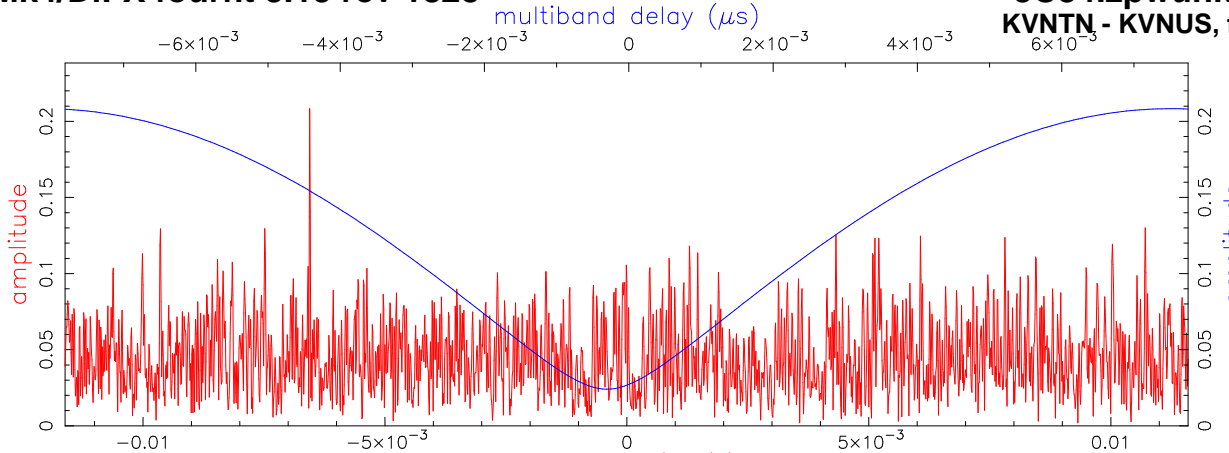
Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All			
57.7	61.6	Phase	59.7			
1.0	1.1	Ampl.	1.0			
134.5	134.4	Sbd box	134.5			
U/L 838/838	838/838	APs used				
t 0	0	PC freqs				
u 0	0	PC freqs				
tu 0:0	0:0	PC phase				
tu 0:0	0:0	Manl PC				
t 1000	1000	PC amp				
u 1000	1000					
t W00UR,W00LR	W01UR,W01LR	Chan ids				
u W00UR,W00LR	W01UR,W01LR	Tracks				
		Chan ids				
		Tracks				
Group delay (usec)(sbd)	1.27061986830E+02	Apriori delay (usec)	1.27020035916E+02	Resid mbdelay (usec)	-4.92409E-03	+/- 1.6E-04
Sband delay (usec)	1.27062673916E+02	Apriori clock (usec)	-1.9200263E+00	Resid sbdelay (usec)	4.26380E-02	+/- 2.7E-04
Phase delay (usec)	1.27020037842E+02	Apriori clockrate (us/s)	-6.4644698E-07	Resid phdelay (usec)	1.92595E-06	+/- 5.8E-08
Delay rate (us/s)	-3.19134703115E-02	Apriori rate (us/s)	-3.19137544333E-02	Resid rate (us/s)	2.84122E-07	+/- 4.8E-10
Total phase (deg)	-248.5	Apriori accel (us/s/s)	-3.11419395846E-06	Resid phase (deg)	-210.3	+/- 1.8

ph/seg (deg) 77.8 15.0 Theor. Amplitude 1.146 +/- 0.036 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 137.8 26.1 Search (2048X8) 1.028 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 2.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 8.6 4.4 Inc. seg. avg. 2.475 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 Inc. frq. avg. 1.048 ion window (TEC) 0.00 0.00

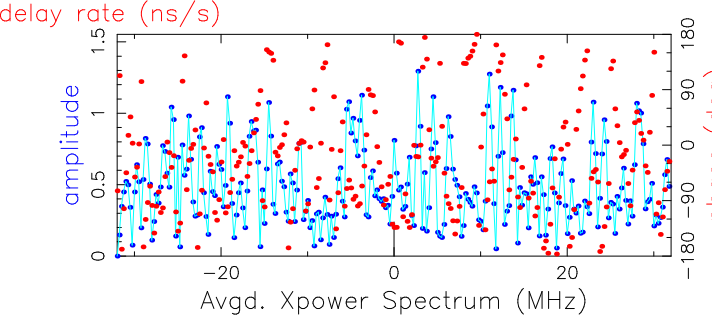
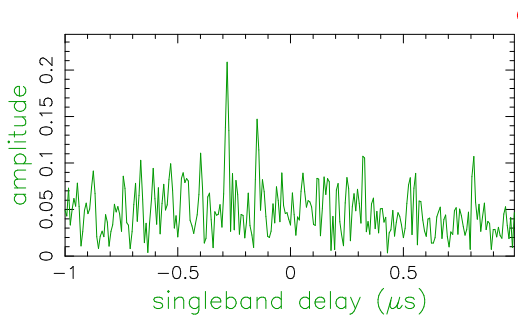
t: az 308.5 el 17.8 pa 60.9 u: az 309.1 el 17.4 pa 57.2 u,v (fr/asec) 238.580 -434.757 simultaneous interpolator  
 Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tu..zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tu.W.154.zpwuhk



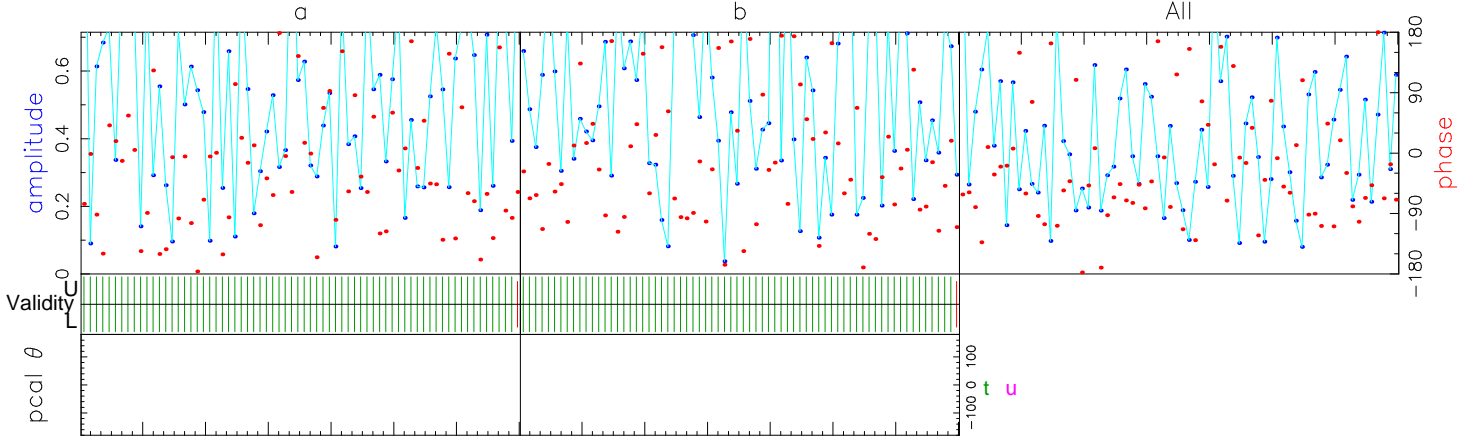
Fringe quality 0

SNR 5.8  
 Int time 418.994  
 Amp 0.238  
 Phase 1474.4  
 PFD 1.6e-01  
 Delays (us)  
 SBD -0.281194  
 MBD -0.008109  
 Fringe rate (Hz)  
 -0.564423  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500

Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:214:145914  
 2017:188:152524  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

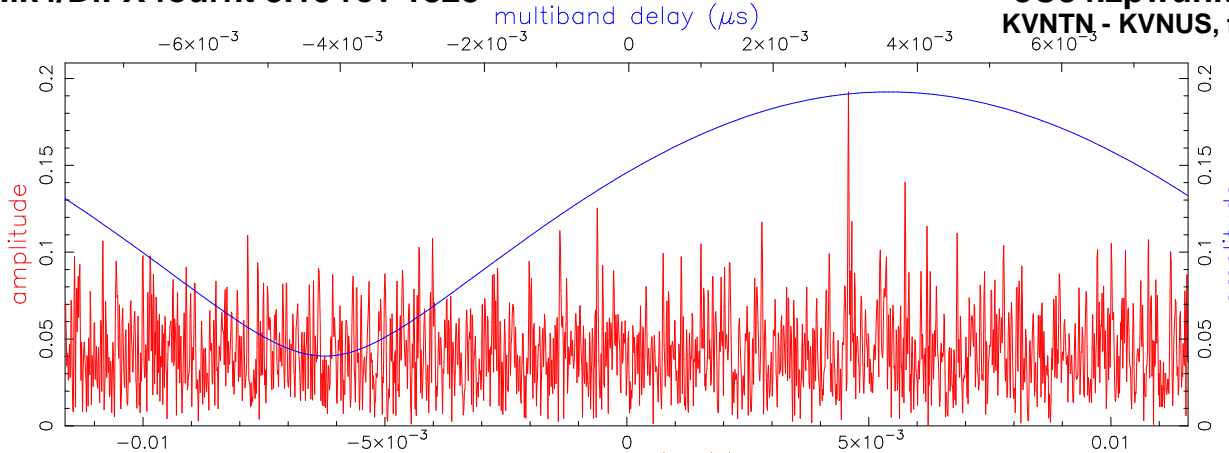


86156.00	86220.00	Freq (MHz)	All			
-55.6	-55.7	Phase	-55.6			
0.2	0.3	Ampl.	0.2			
92.8	93.1	Sbd box	93.0			
U/L 838/838	838/838	APs used				
t 0	0	PC freqs				
u 0	0	PC freqs				
t:u 0:0	0:0	PC phase				
t:u 0:0	0:0	Manl PC				
t 1000	1000	PC amp				
u 1000	1000					
t W00UL,W00LL	W01UL,W01LL	Chan ids				
u W00UR,W00LR	W01UR,W01LR	Tracks				
		Chan ids				
		Tracks				
Group delay (usec)(sbd)	1.26746301656E+02	Apriori delay (usec)	1.27020035916E+02	Resid mbdelay (usec)	-8.10926E-03	+/- 8.5E-04
Sband delay (usec)	1.26738841916E+02	Apriori clock (usec)	-1.9200263E+00	Resid sbdelay (usec)	-2.81194E-01	+/- 1.5E-03
Phase delay (usec)	1.27020034122E+02	Apriori clockrate (us/s)	-6.4644698E-07	Resid phdelay (usec)	-1.79421E-06	+/- 3.2E-07
Delay rate (us/s)	-3.19203068226E-02	Apriori rate (us/s)	-3.19137544333E-02	Resid rate (us/s)	-6.55239E-06	+/- 2.6E-09
Total phase (deg)	1796.1	Apriori accel (us/s/s)	-3.11419395846E-06	Resid phase (deg)	1474.4	+/- 9.8

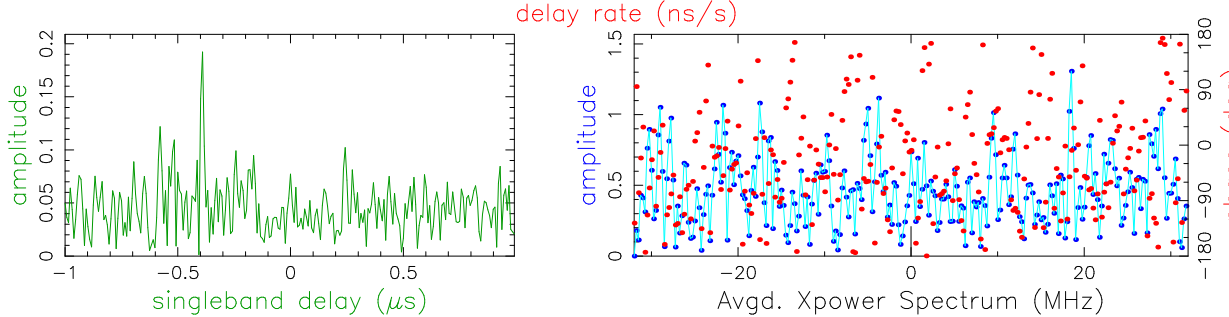
ph/seg (deg)	RMS 78.1	Theor. 82.2	Amplitude 0.238 +/- 0.041	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	132.8	143.5	Search (2048X8) 0.202	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	13.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.012	0.012
amp/frq (%)	11.6	24.3	Inc. seg. avg. 0.225	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.232	Data rate(Mb/s): 512	nlags: 128	t_cohere infinite		

t: az 308.5 el 17.8 pa 60.9      u: az 309.1 el 17.4 pa 57.2      u,v (fr/asec) 238.580 -434.757      simultaneous interpolator

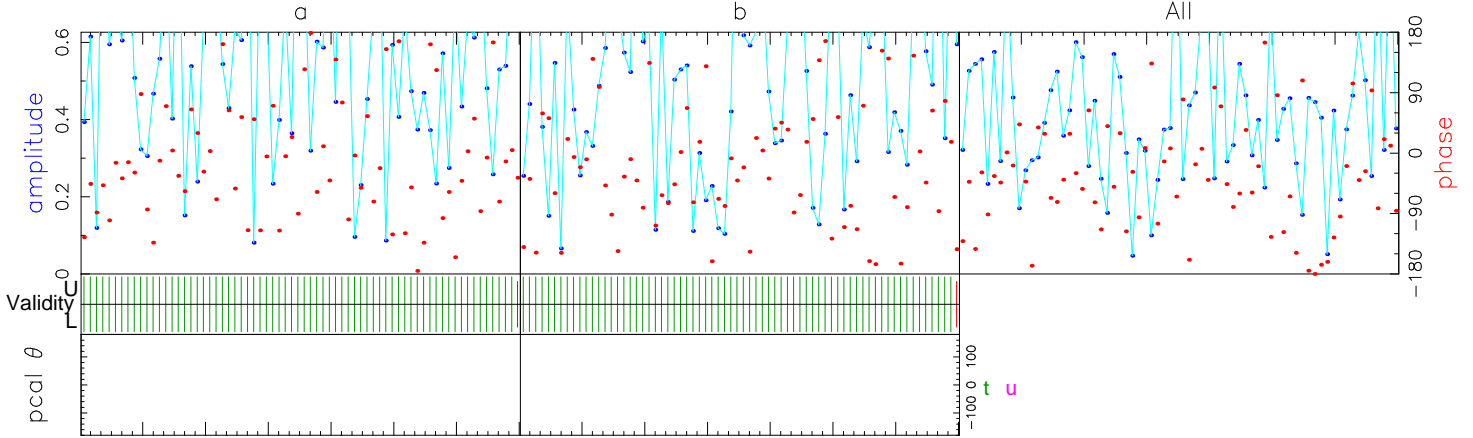
Control file: ../cf\_1234    Input file: /Exps/c171a/gmva/1234/No0220/tu..zpwuhk    Output file: /Exps/c171a/gmva/1234/No0220/tu.W.155.zpwuhk



Fringe quality 0  
 SNR 5.5  
 Int time 418.994  
 Amp 0.209  
 Phase 2208.1  
 PFD 7.1e-01  
 Delays (us)  
 SBD -0.392304  
 MBD 0.003575  
 Fringe rate (Hz)  
 0.394047  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:214:145914  
 2017:188:152524  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

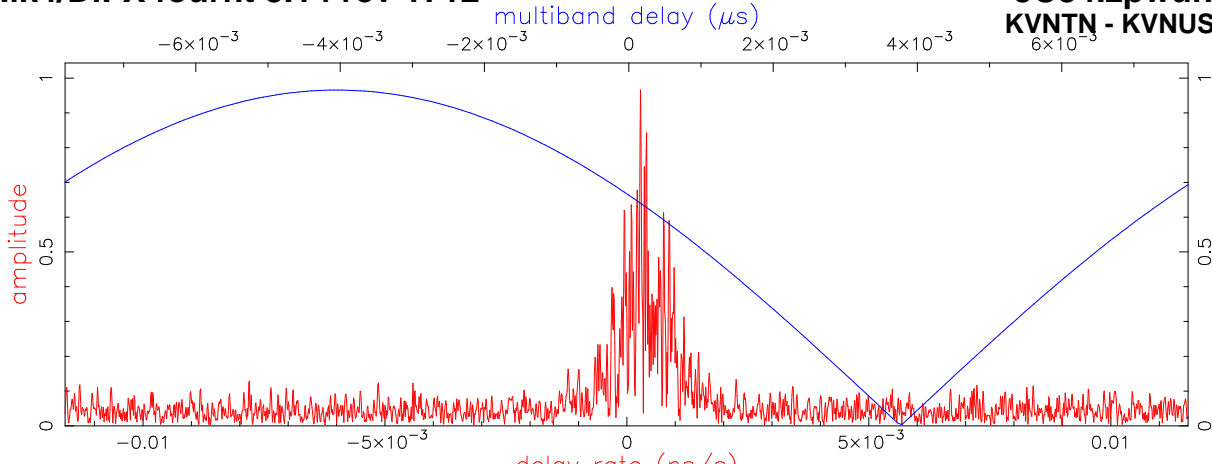


Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
-42.1	-41.5	Phase	-41.9				
0.2	0.2	Ampl.	0.2				
78.9	153.0	Sbd box	78.8				
U/L 838/838	838/838	APs used					
t 0	0	PC freqs					
u 0	0	PC freqs					
tu 0:0	0:0	PC phase					
tu 0:0	0:0	Manl PC					
t 1000	1000	PC amp					
u 1000	1000						
t W00UR,W00LR	W01UR,W01LR	Chan ids					
u W00UL,W00LL	W01UL,W01LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.26632985649E+02	Apriori delay (usec)	1.27020035916E+02	Resid mbdelay (usec)	3.57473E-03	+/-	9.1E-04
Sband delay (usec)	1.26627731916E+02	Apriori clock (usec)	-1.9200263E+00	Resid sbdelay (usec)	-3.92304E-01	+/-	1.6E-03
Phase delay (usec)	1.27020034565E+02	Apriori clockrate (us/s)	-6.4644698E-07	Resid phdelay (usec)	-1.35091E-06	+/-	3.4E-07
Delay rate (us/s)	-3.19091799427E-02	Apriori rate (us/s)	-3.19137544333E-02	Resid rate (us/s)	4.57449E-06	+/-	2.8E-09
Total phase (deg)	2529.9	Apriori accel (us/s/s)	-3.11419395846E-06	Resid phase (deg)	2208.1	+/-	10.5

ph/seg (deg) 78.3 87.5 Search (2048X8) 0.181 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 153.3 152.6 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 14.8 Inc. seg. avg. 0.207 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 20.6 25.8 Inc. frq. avg. 0.198 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 t: az 308.5 el 17.8 pa 60.9 u: az 309.1 el 17.4 pa 57.2 u,v (fr/asec) 238.580 -434.757 ion window (TEC) 0.00 0.00  
 Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tu..zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tu.W.156.zpwuhk simultaneous interpolator



Fringe quality 9

SNR 29.2

Int time 418.994

Amp 1.044

Phase -373.2

PFD 0.0e+00

Delays (us)

SBD 0.043492

MBD -0.004037

Fringe rate (Hz) 0.024376

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124501.00

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

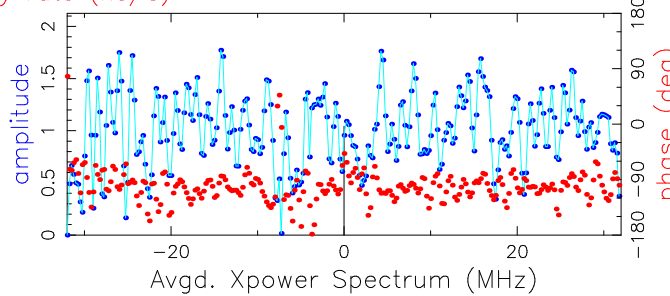
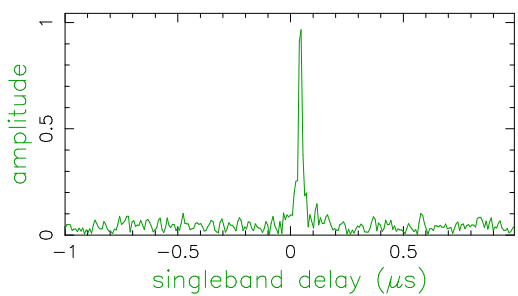
2017:208:111523

2017:170:130423

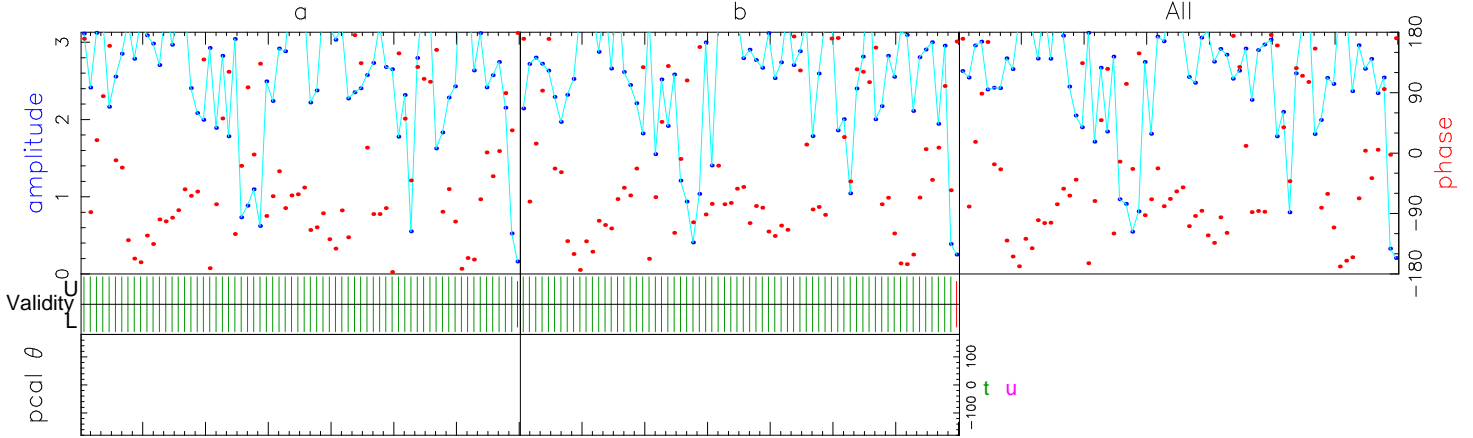
RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

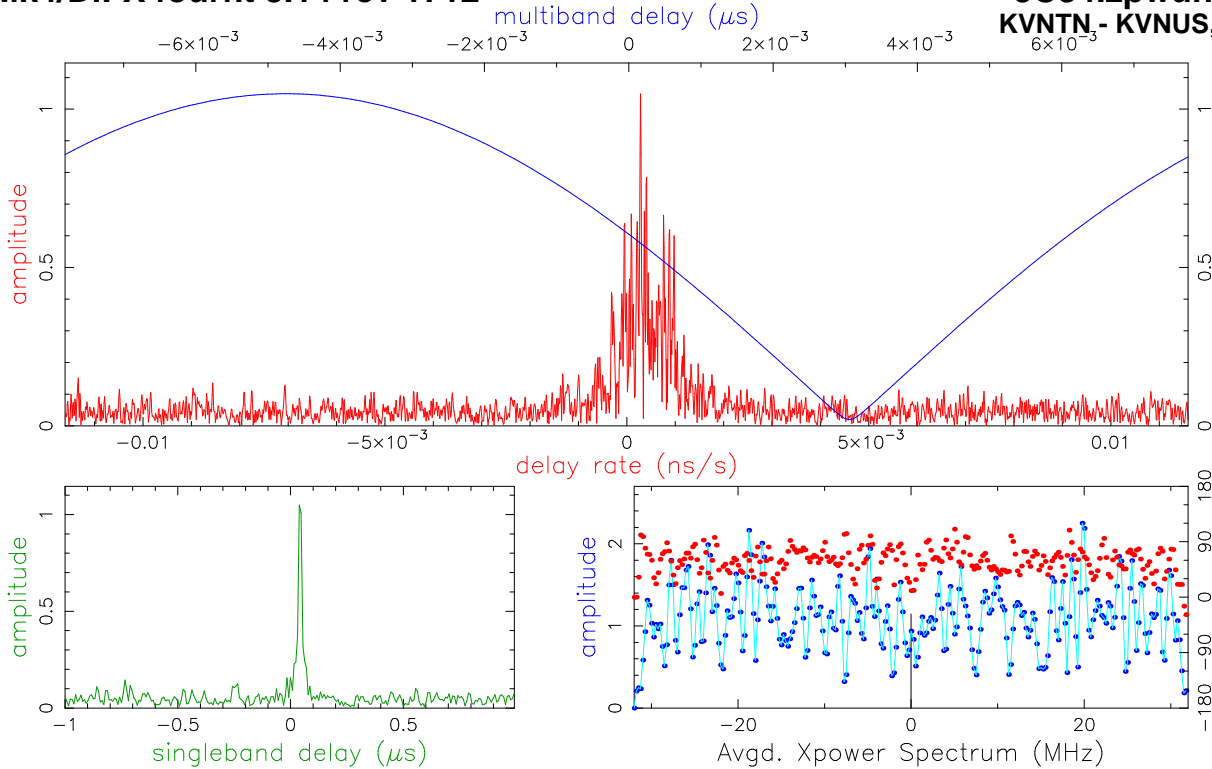


Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
-103.1	-103.3	Phase	-103.2				
1.0	1.0	Ampl.	1.0				
134.6	134.6	Sbd box	134.6				
U/L 838/838	838/838	APs used					
t 0	0	PC freqs					
u 0	0	PC freqs					
tu 0:0	0:0	PC phase					
tu 0:0	0:0	Manl PC					
t 1000	1000	PC amp					
u 1000	1000						
t W00UL,W00LL	W01UL,W01LL	Chan ids					
u W00UL,W00LL	W01UL,W01LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.27062874205E+02	Apriori delay (usec)	1.27020035916E+02	Resid mbdelay (usec)	-4.03671E-03	+/-	1.7E-04
Sband delay (usec)	1.27063528416E+02	Apriori clock (usec)	-1.9200263E+00	Resid sbdelay (usec)	4.34925E-02	+/-	3.0E-04
Phase delay (usec)	1.27020032588E+02	Apriori clockrate (us/s)	-6.4644698E-07	Resid phdelay (usec)	-3.32753E-06	+/-	6.3E-08
Delay rate (us/s)	-3.19134714485E-02	Apriori rate (us/s)	-3.19137544333E-02	Resid rate (us/s)	2.82985E-07	+/-	5.2E-10
Total phase (deg)	-51.4	Apriori accel (us/s/s)	-3.11419395846E-06	Resid phase (deg)	-373.2	+/-	2.0

ph/seg (deg)	80.2	Theor.	16.4	Amplitude	1.044 +/- 0.036	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	161.3	Search (2048X8)	0.962	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	2.437	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	7.4	Inc. frq. avg.	0.965	Inc. frq. avg.	0.965	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	512	dr window (ns/s)	-0.012 0.012
						nlags:	128	t_cohere	infinite
						ion window (TEC)	0.00	0.00	0.00

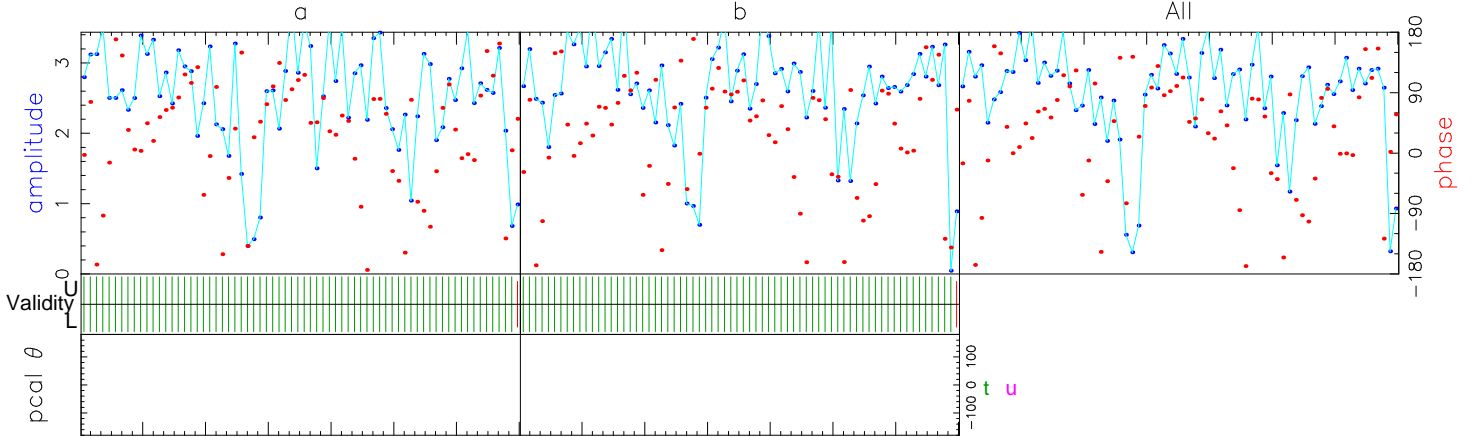


Fringe quality 9

SNR 32.1  
Int time 418.994  
Amp 1.146  
Phase -210.3  
PFD 0.0e+00  
Delays (us)  
SBD 0.042638  
MBD -0.004924  
Fringe rate (Hz)  
0.024474  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.500

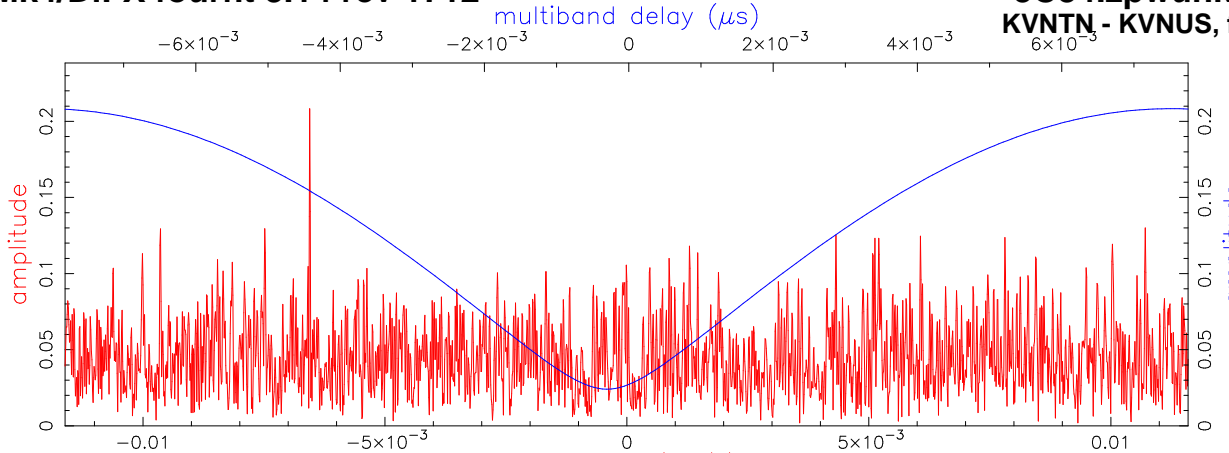
Exp. c171a  
Exper # 16383  
Yr:day 2017:089  
Start 124501.00  
Stop 125200.00  
FRT 124830.00  
Corr/FF/build  
2017:206:154629  
2017:208:111523  
2017:170:130423  
RA & Dec (J2000)  
03h19m48.1601s  
+41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)		All
57.7		61.6		Phase		59.7
1.0		1.1		Ampl.		1.0
134.5		134.4		Sbd box		134.5
U/L 838/838		838/838		APs used		
t 0		0		PC freqs		
u 0		0		PC freqs		
t:u 0:0		0:0		PC phase		
t:u 0:0		0:0		Manl PC		
t 1000		1000		PC amp		
u 1000		1000		Chan ids		
t W00UR,W00LR		W01UR,W01LR		Tracks		
u W00UR,W00LR		W01UR,W01LR		Chan ids		
				Tracks		
Group delay (usec)(sbd)		1.27061986830E+02		Apriori delay (usec)		1.27020035916E+02
Sband delay (usec)		1.27062673916E+02		Apriori clock (usec)		-1.9200263E+00
Phase delay (usec)		1.27020037842E+02		Apriori clockrate (us/s)		-6.4644698E-07
Delay rate (us/s)		-3.19134703115E-02		Apriori rate (us/s)		-3.19137544333E-02
Total phase (deg)		-248.5		Apriori accel (us/s/s)		-3.11419395846E-06
				Resid mbdelay (usec)		-4.92409E-03 +/- 1.6E-04
				Resid sbdelay (usec)		4.26380E-02 +/- 2.7E-04
				Resid phdelay (usec)		1.92595E-06 +/- 5.8E-08
				Resid rate (us/s)		2.84122E-07 +/- 4.8E-10
				Resid phase (deg)		-210.3 +/- 1.8

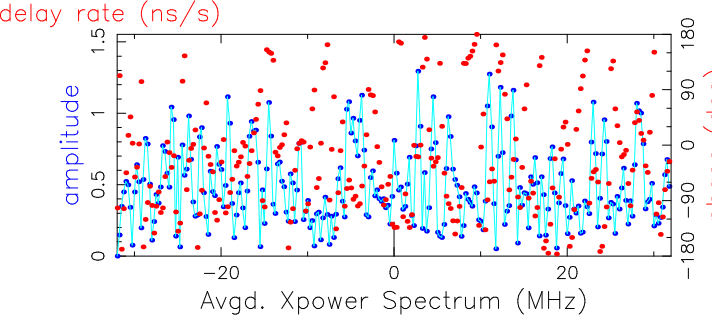
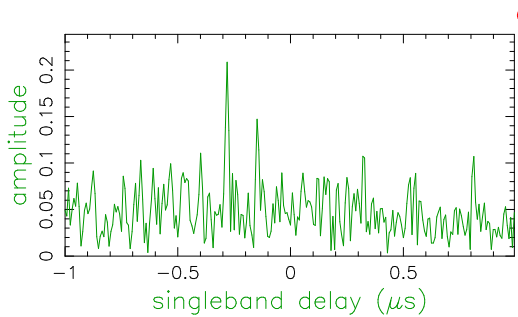
ph/seg (deg) 77.8 15.0 Theor. Amplitude 1.146 +/- 0.036 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 137.8 26.1 Search (2048X8) 1.028 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 0.0 2.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 8.6 4.4 Inc. seg. avg. 2.475 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
t: az 308.5 el 17.8 pa 60.9 u: az 309.1 el 17.4 pa 57.2 u,v (fr/asec) 238.580 -434.757 ion window (TEC) 0.00 0.00  
Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tu..zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tu.W.42.zpwuhk simultaneous interpolator



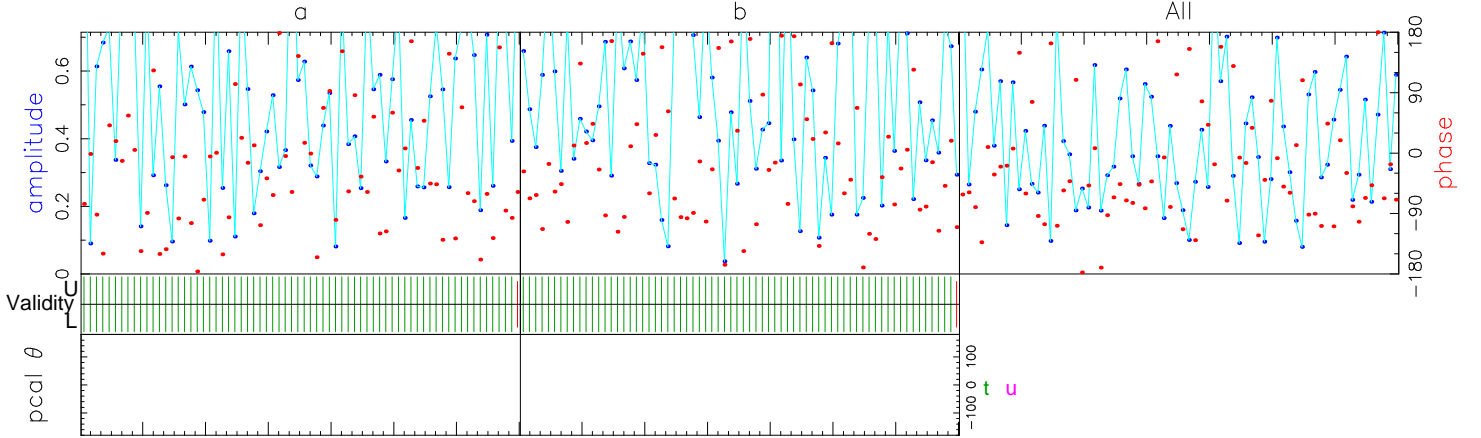
Fringe quality 0

SNR 5.8  
Int time 418.994  
Amp 0.238  
Phase 1474.4  
PFD 1.6e-01  
Delays (us)  
SBD -0.281194  
MBD -0.008109  
Fringe rate (Hz)  
-0.564423  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.500

Exp. c171a  
Exper # 16383  
Yr:day 2017:089  
Start 124501.00  
Stop 125200.00  
FRT 124830.00  
Corr/FF/build  
2017:206:154629  
2017:208:111524  
2017:170:130423  
RA & Dec (J2000)  
03h19m48.1601s  
+41°30'42.104"



Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

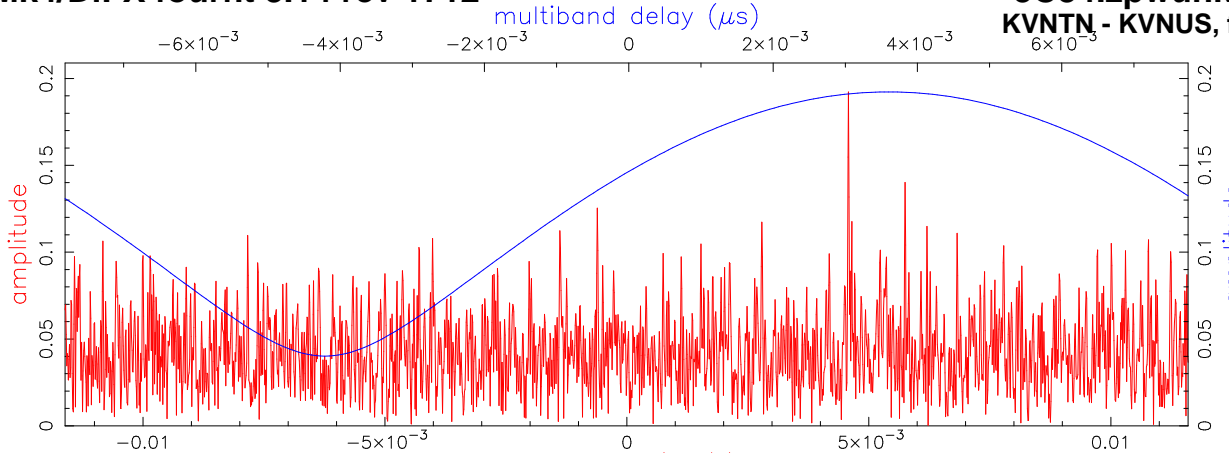


86156.00	86220.00	Freq (MHz)		All		
-55.6	-55.7	Phase	-55.6	-55.6		
0.2	0.3	Ampl.	0.2	0.2		
92.8	93.1	Sbd box	93.0	93.0		
U/L 838/838	838/838	APs used				
t 0	0	PC freqs				
u 0	0	PC freqs				
t:u 0:0	0:0	PC phase				
tu 0:0	0:0	Manl PC				
t 1000	1000	PC amp				
u 1000	1000					
t W00UL,W00LL	W01UL,W01LL	Chan ids				
u W00UR,W00LR	W01UR,W01LR	Tracks				
		Chan ids				
		Tracks				
Group delay (usec)(sbd)	1.26746301656E+02	Apriori delay (usec)	1.27020035916E+02	Resid mbdelay (usec)	-8.10926E-03	+/- 8.5E-04
Sband delay (usec)	1.26738841916E+02	Apriori clock (usec)	-1.9200263E+00	Resid sbdelay (usec)	-2.81194E-01	+/- 1.5E-03
Phase delay (usec)	1.27020034122E+02	Apriori clockrate (us/s)	-6.4644698E-07	Resid phdelay (usec)	-1.79421E-06	+/- 3.2E-07
Delay rate (us/s)	-3.19203068226E-02	Apriori rate (us/s)	-3.19137544333E-02	Resid rate (us/s)	-6.55239E-06	+/- 2.6E-09
Total phase (deg)	1796.1	Apriori accel (us/s/s)	-3.11419395846E-06	Resid phase (deg)	1474.4	+/- 9.8

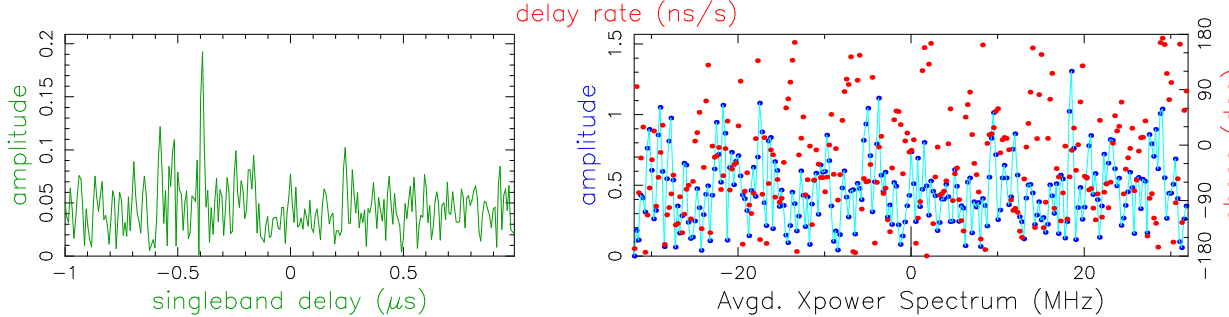
ph/seg (deg)	RMS 78.1	Theor. 82.2	Amplitude 0.238 +/- 0.041	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	132.8	143.5	Search (2048X8) 0.202	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	13.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.012	0.012
amp/frq (%)	11.6	24.3	Inc. seg. avg. 0.225	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.232	Data rate(Mb/s): 512	nlags: 128	t_cohere infinite		

t: az 308.5 el 17.8 pa 60.9      u: az 309.1 el 17.4 pa 57.2      u,v (fr/asec) 238.580 -434.757      simultaneous interpolator

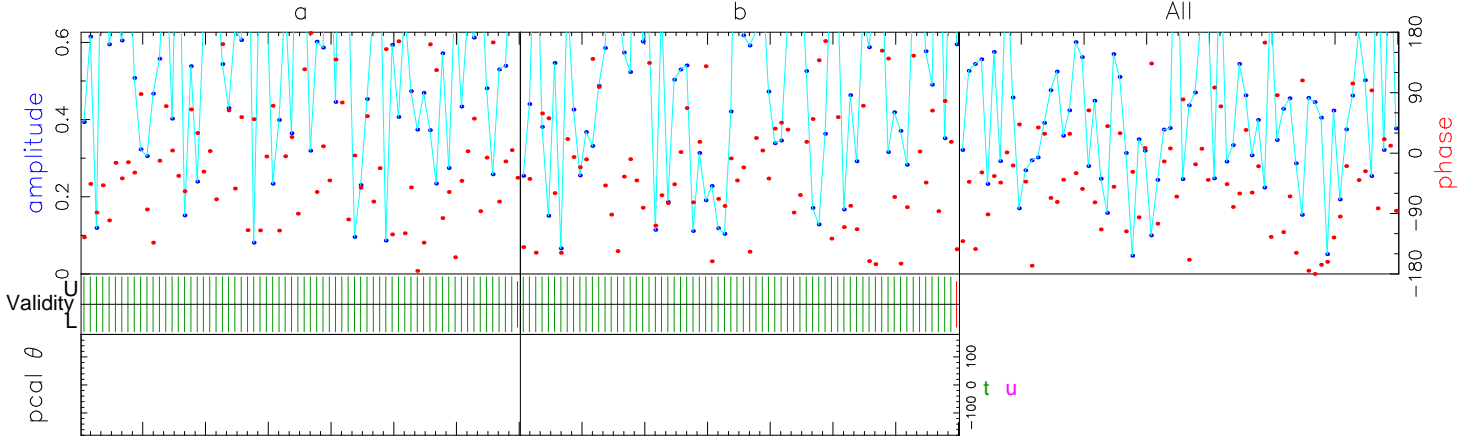
Control file: cf\_1234    Input file: /Exps/c171a/gmva/1234/No0220/tu.zpwuhk    Output file: /Exps/c171a/gmva/1234/No0220/tu.W.43.zpwuhk



Fringe quality 0  
 SNR 5.5  
 Int time 418.994  
 Amp 0.209  
 Phase 2208.1  
 PFD 7.1e-01  
 Delays (us)  
 SBD -0.392304  
 MBD 0.003575  
 Fringe rate (Hz)  
 0.394047  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:208:111524  
 2017:170:130423  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



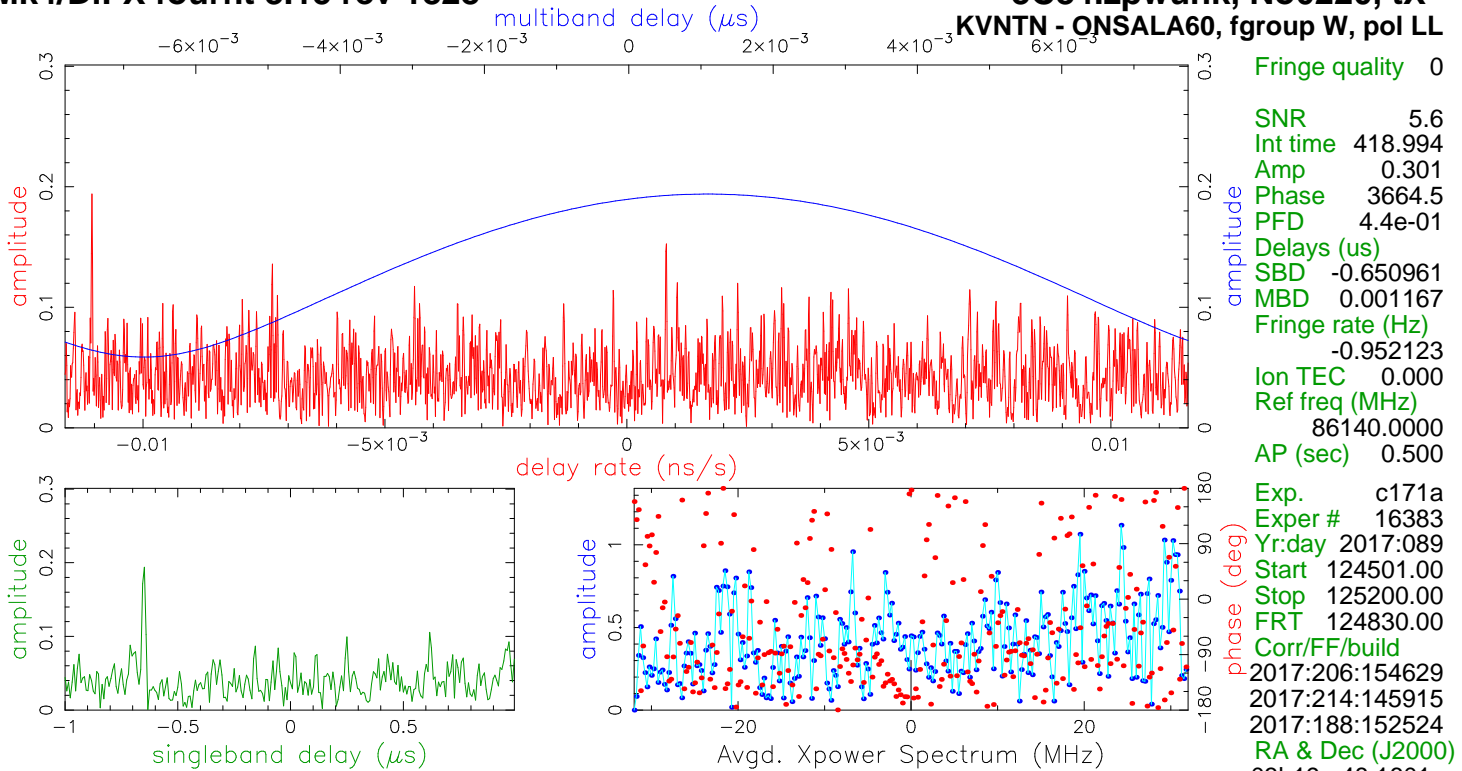
86156.00		86220.00		Freq (MHz)		All
-42.1		-41.5		Phase		-41.9
0.2		0.2		Ampl.		0.2
78.9		153.0		Sbd box		78.8
U/L 838/838		838/838		APs used		
t 0		0		PC freqs		
u 0		0		PC freqs		
tu 0:0		0:0		PC phase		
tu 0:0		0:0		Manl PC		
t 1000		1000		PC amp		
u 1000		1000				
t W00UR,W00LR		W01UR,W01LR		Chan ids		
u W00UL,W00LL		W01UL,W01LL		Tracks		
				Chan ids		
				Tracks		
Group delay (usec)(sbd)	1.26632985649E+02	Apriori delay (usec)	1.27020035916E+02	Resid mbdelay (usec)	3.57473E-03	+/- 9.1E-04
Sband delay (usec)	1.26627731916E+02	Apriori clock (usec)	-1.9200263E+00	Resid sbdelay (usec)	-3.92304E-01	+/- 1.6E-03
Phase delay (usec)	1.27020034565E+02	Apriori clockrate (us/s)	-6.4644698E-07	Resid phdelay (usec)	-1.35091E-06	+/- 3.4E-07
Delay rate (us/s)	-3.19091799427E-02	Apriori rate (us/s)	-3.19137544333E-02	Resid rate (us/s)	4.57449E-06	+/- 2.8E-09
Total phase (deg)	2529.9	Apriori accel (us/s/s)	-3.11419395846E-06	Resid phase (deg)	2208.1	+/- 10.5

RMS	Theor.	Amplitude	0.209 +/- 0.038	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
ph/seg (deg)	78.3	87.5	Search (2048X8)	0.181	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	mb window (us)	-0.008	0.008	
amp/seg (%)	153.3	152.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.012	0.012
ph/frq (deg)	0.0	14.8	Inc. seg. avg.	0.207	Sample rate(MSamp/s): 64	ion window (TEC)	0.00	0.00	
amp/frq (%)	20.6	25.8	Inc. frq. avg.	0.198	Data rate(Mb/s): 512	nlags: 128	t_cohere infinite		

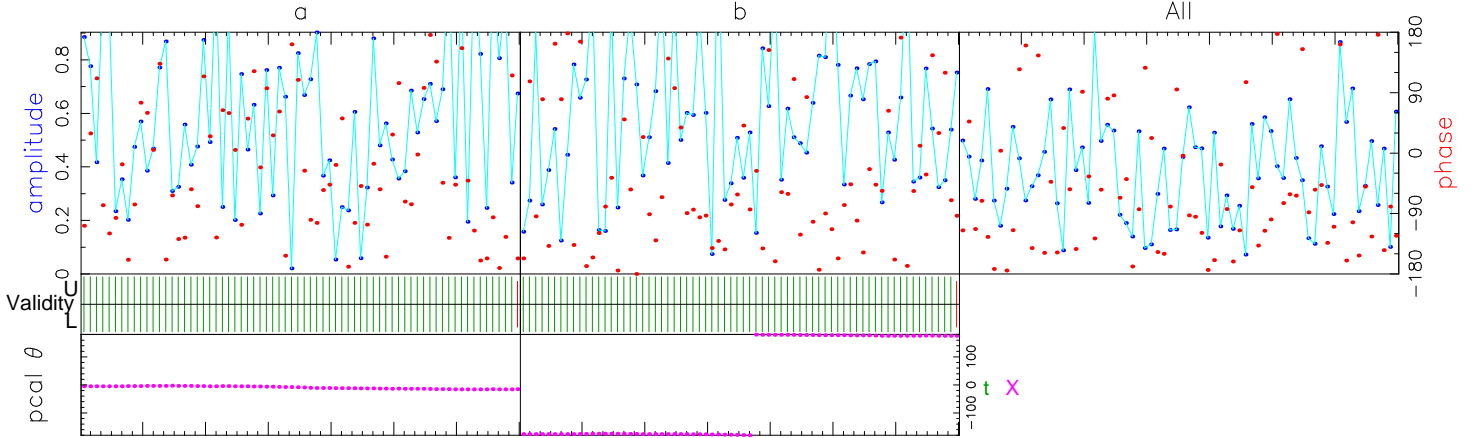
t: az 308.5 el 17.8 pa 60.9    u: az 309.1 el 17.4 pa 57.2    u,v (fr/asec) 238.580 -434.757    simultaneous interpolator

Control file: cf\_1234    Input file: /Exps/c171a/gmva/1234/No0220/tu.zpwuhk    Output file: /Exps/c171a/gmva/1234/No0220/tu.W.44.zpwuhk





Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)	All
-114.3		-116.1		Phase	-115.5
0.2		0.4		Ampl.	0.3
121.8		45.6		Sbd box	45.7
U/L 838/838		838/838		APs used	
t 0		0		PC freqs	
X -1000		-1000		PC freqs	
t:X 0:0		0:0		PC phase	
t:X 0:0		0:0		ManI PC	
t 1000		1000		PC amp	
X 1000		1000			
t W00UL,W00LL		W01UL,W01LL		Chan ids	
X W00UL,W00LL		W02UL,W02LL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.38029967848E+04	Apriori delay (usec)	-1.38023417023E+04	Resid mbdelay (usec)	1.16746E-03 +/- 8.9E-04
Sband delay (usec)	-1.38029926628E+04	Apriori clock (usec)	4.0149722E+00	Resid sbdelay (usec)	-6.50961E-01 +/- 1.5E-03
Phase delay (usec)	-1.38023417060E+04	Apriori clockrate (us/s)	-5.9130392E-07	Resid phdelay (usec)	-3.72405E-06 +/- 3.3E-07
Delay rate (us/s)	-1.15963907258E+00	Apriori rate (us/s)	-1.15962801937E+00	Resid rate (us/s)	-1.10532E-05 +/- 2.7E-09
Total phase (deg)	3580.1	Apriori accel (us/s/s)	5.14189273631E-05	Resid phase (deg)	3664.5 +/- 10.2

ph/seg (deg) 73.8 85.3 Search (2048X8) 0.189 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

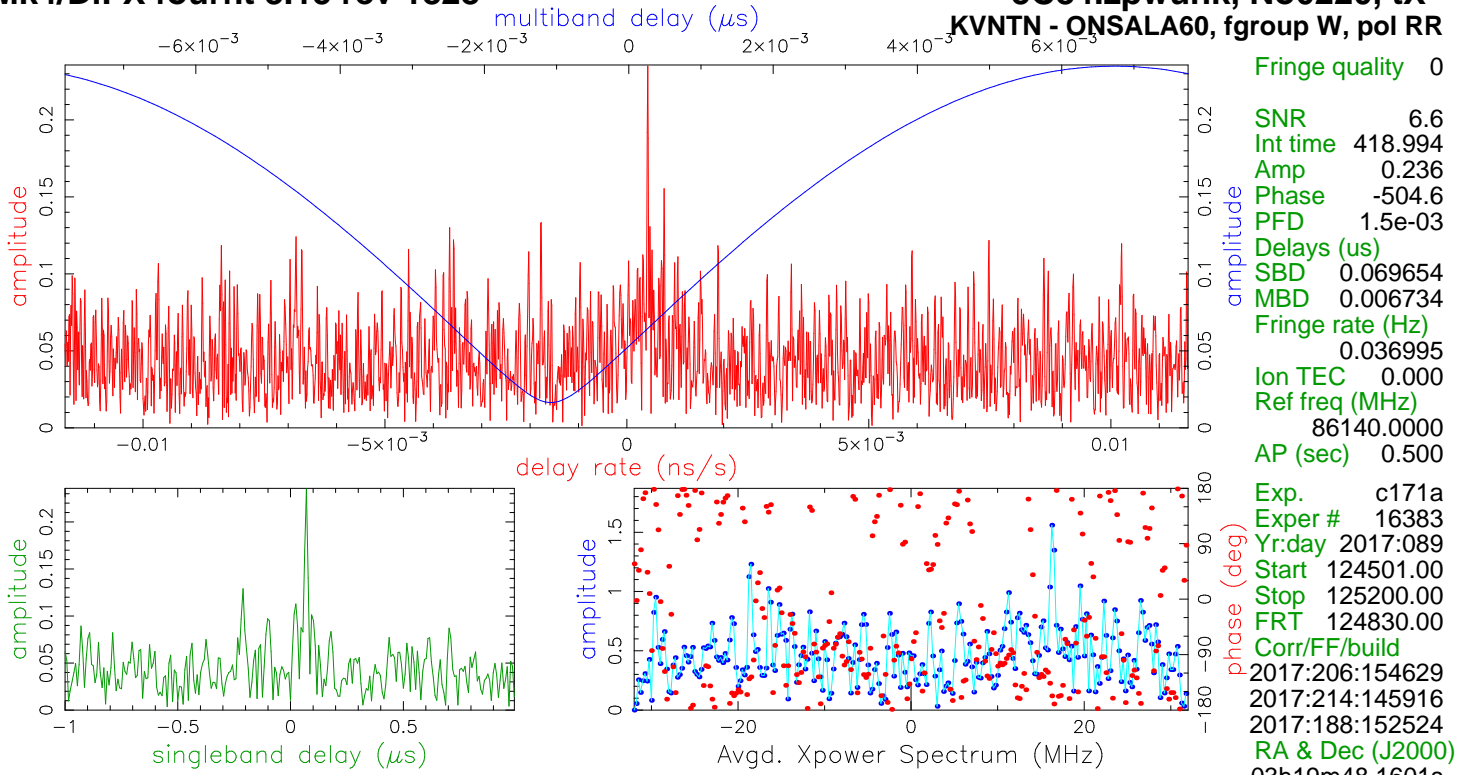
amp/seg (%) 131.9 148.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 14.4 Inc. seg. avg. 0.274 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

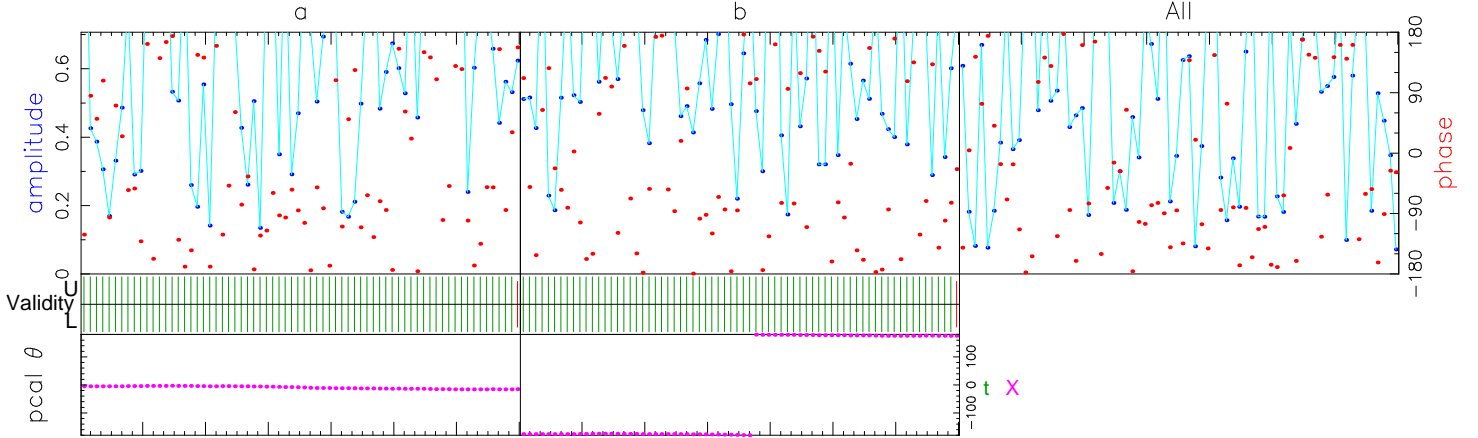
amp/frq (%) 29.4 25.2 Inc. frq. avg. 0.282 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012

t: az 308.5 el 17.8 pa 60.9 X: az 134.0 el 70.0 pa -30.1 u,v (fr/asec) 8979.319 1532.979 ion window (TEC) 0.00 0.00

Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tX..zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tX.W.157.zpwuhk simultaneous interpolator



Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

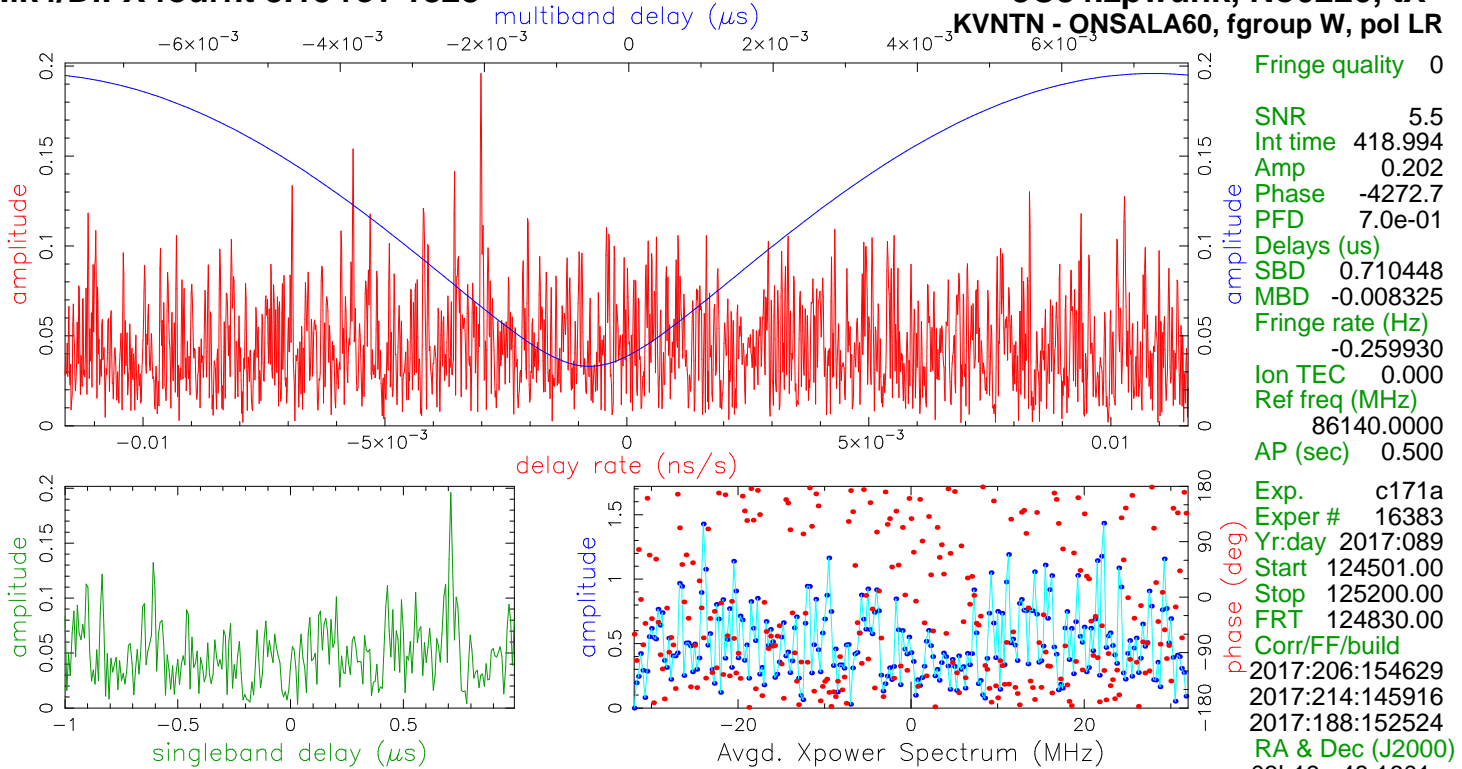


86156.00		86220.00		Freq (MHz)	All
-144.6		-144.6		Phase	-144.6
0.2		0.3		Ampl.	0.2
137.9		137.9		Sbd box	137.9
U/L 838/838		838/838		APs used	
t 0		0		PC freqs	
X -1000		-1000		PC freqs	
t:X 0:0		0:0		PC phase	
t:X 0:0		0:0		Manl PC	
t 1000		1000		PC amp	
X 1000		1000			
t W00UR,W00LR		W01UR,W01LR		Chan ids	
X W00UR,W00LR		W02UR,W02LR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.38022724680E+04	Apriori delay (usec)	-1.38023417023E+04	Resid mbdelay (usec)	6.73431E-03 +/- 7.5E-04
Sband delay (usec)	-1.38022720488E+04	Apriori clock (usec)	4.0149722E+00	Resid sbdelay (usec)	6.96535E-02 +/- 1.3E-03
Phase delay (usec)	-1.38023417069E+04	Apriori clockrate (us/s)	-5.9130392E-07	Resid phdelay (usec)	-4.66386E-06 +/- 2.8E-07
Delay rate (us/s)	-1.15962758990E+00	Apriori rate (us/s)	-1.15962801937E+00	Resid rate (us/s)	4.29474E-07 +/- 2.3E-09
Total phase (deg)	-589.0	Apriori accel (us/s/s)	5.14189273631E-05	Resid phase (deg)	-504.6 +/- 8.7

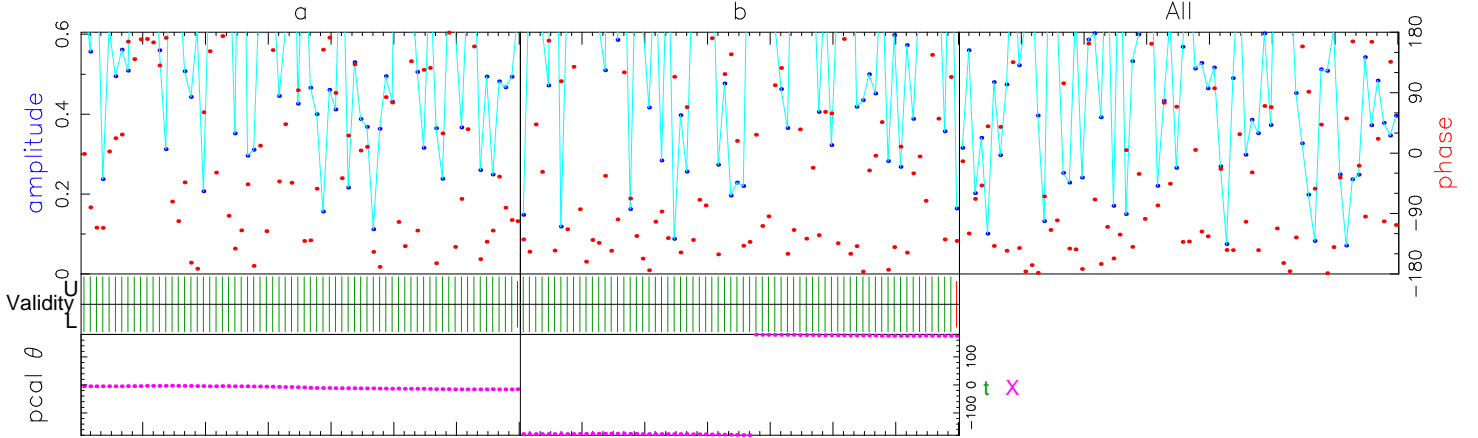
ph/seg (deg)	RMS 78.4	Theor. 72.7	Amplitude Search (2048X8)	0.236 +/- 0.036	0.231	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	168.0	126.9	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	12.3	Inc. seg. avg.	0.285		Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	7.0	21.4	Inc. frq. avg.	0.230		Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
						Data rate(Mb/s): 512	dr window (ns/s) -0.012 0.012
						nlags: 128	t_cohere infinite
							ion window (TEC) 0.00 0.00

t: az 308.5 el 17.8 pa 60.9 X: az 134.0 el 70.0 pa -30.1 u,v (fr/asec) 8979.319 1532.979 simultaneous interpolator

Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tX..zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tX.W.158.zpwuhk



Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

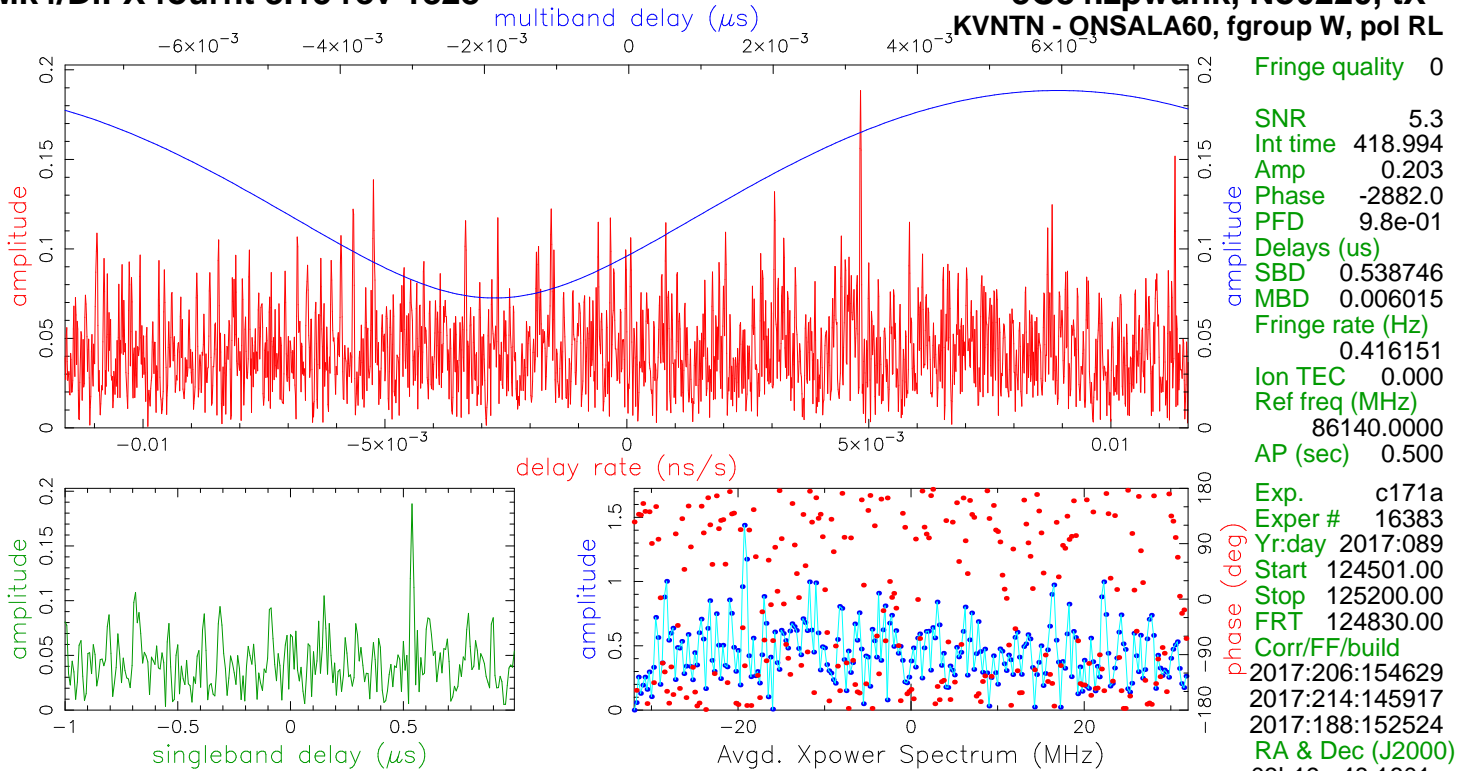


86156.00		86220.00		Freq (MHz)	All
-132.3		-133.0		Phase	-132.7
0.2		0.2		Ampl.	0.2
145.0		219.8		Sbd box	219.9
U/L 838/838		838/838		APs used	
t 0		0		PC freqs	
X -1000		-1000		PC freqs	
t:X 0:0		0:0		PC phase	
t:X 0:0		0:0		Manl PC	
t 1000		1000		PC amp	
X 1000		1000			
t W00UL,W00LL		W01UL,W01LL		Chan ids	
X W00UR,W00LR		W02UR,W02LR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.38016312777E+04	Apriori delay (usec)	-1.38023417023E+04	Resid mbdelay (usec)	-8.32537E-03 +/- 9.1E-04
Sband delay (usec)	-1.38016312543E+04	Apriori clock (usec)	4.0149722E+00	Resid sbdelay (usec)	7.10448E-01 +/- 1.6E-03
Phase delay (usec)	-1.38023417066E+04	Apriori clockrate (us/s)	-5.9130392E-07	Resid phdelay (usec)	-4.27817E-06 +/- 3.4E-07
Delay rate (us/s)	-1.15963103691E+00	Apriori rate (us/s)	-1.15962801937E+00	Resid rate (us/s)	-3.01753E-06 +/- 2.8E-09
Total phase (deg)	-4357.1	Apriori accel (us/s/s)	5.14189273631E-05	Resid phase (deg)	-4272.7 +/- 10.4

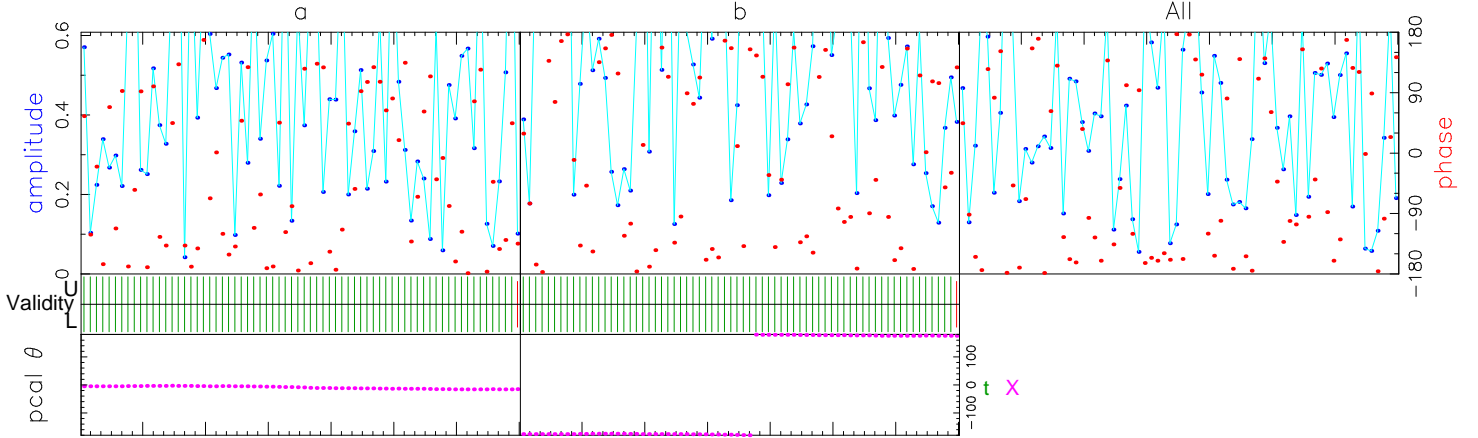
ph/seg (deg)	RMS 86.6	Theor. 87.3	Amplitude Search (2048X8)	0.202 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	183.8	152.4	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.8	Inc. seg. avg.	0.223	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	16.9	25.8	Inc. frq. avg.	0.195	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
					Data rate(Mb/s): 512	dr window (ns/s) -0.012 0.012
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00

t: az 308.5 el 17.8 pa 60.9 X: az 134.0 el 70.0 pa -30.1 u,v (fr/asec) 8979.319 1532.979 simultaneous interpolator

Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tX..zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tX.W.159.zpwuhk



Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

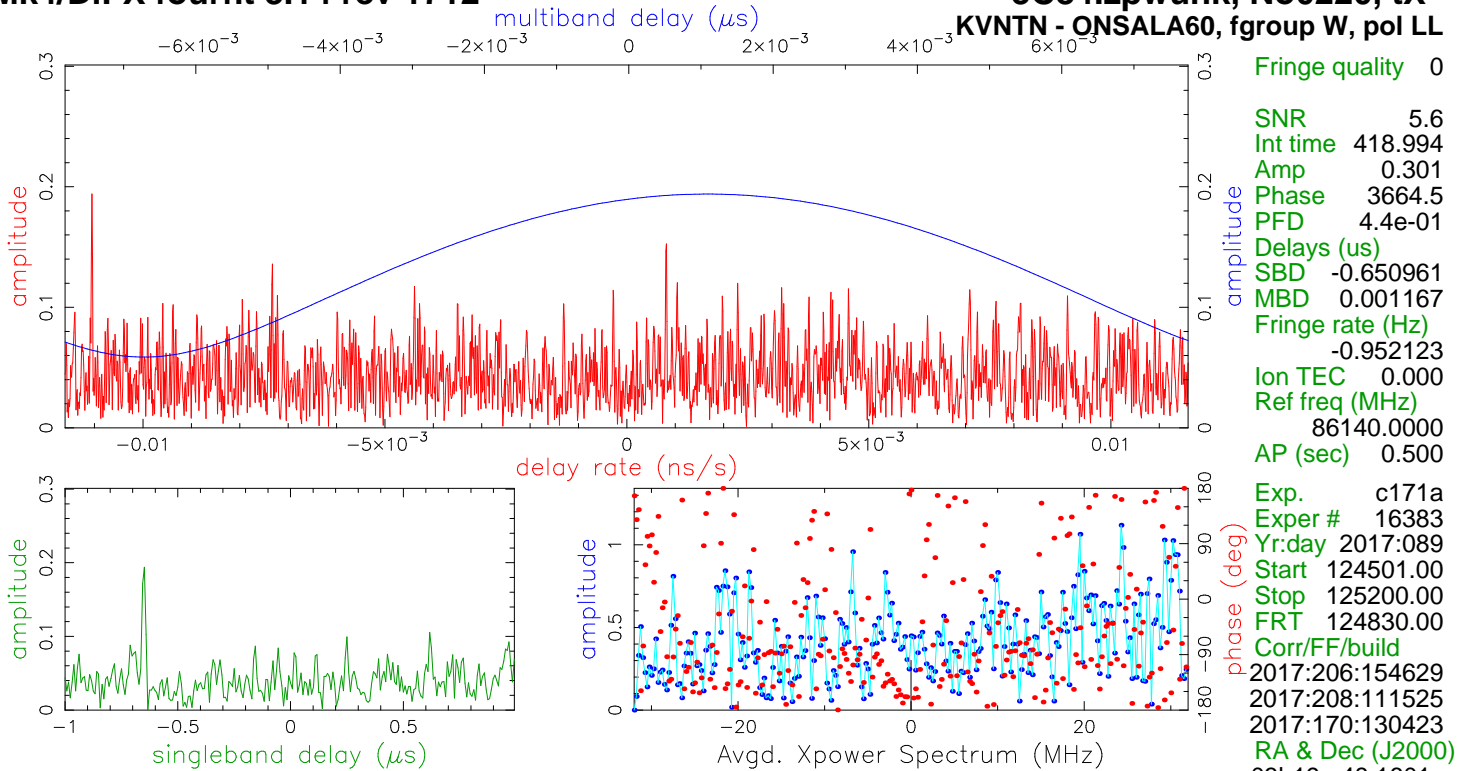


86156.00		86220.00		Freq (MHz)	All
179.0		177.5		Phase	178.0
0.1		0.3		Ampl.	0.2
55.8		197.9		Sbd box	198.0
U/L 838/838		838/838		APs used	
t 0		0		PC freqs	
X -1000		-1000		PC freqs	
t:X 0:0		0:0		PC phase	
t:X 0:0		0:0		Mani PC	
t 1000		1000		PC amp	
X 1000		1000			
t W00UR,W00LR		W01UR,W01LR		Chan ids	
X W00UL,W00LL		W02UL,W02LL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.38018044374E+04	Apriori delay (usec)	-1.38023417023E+04	Resid mbdelay (usec)	6.01491E-03 +/- 9.4E-04
Sband delay (usec)	-1.38018029558E+04	Apriori clock (usec)	4.0149722E+00	Resid sbdelay (usec)	5.38746E-01 +/- 1.6E-03
Phase delay (usec)	-1.38023416965E+04	Apriori clockrate (us/s)	-5.9130392E-07	Resid phdelay (usec)	5.73988E-06 +/- 3.5E-07
Delay rate (us/s)	-1.15962318827E+00	Apriori rate (us/s)	-1.15962801937E+00	Resid rate (us/s)	4.83111E-06 +/- 2.9E-09
Total phase (deg)	-2966.4	Apriori accel (us/s/s)	5.14189273631E-05	Resid phase (deg)	-2882.0 +/- 10.9

ph/seg (deg)	RMS 72.5	Theor. 90.8	Amplitude 0.203 +/- 0.038	Search (2048X8)	0.183	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	160.7	158.5	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	15.4	Inc. seg. avg.	0.191	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	38.5	26.8	Inc. frq. avg.	0.196	Sample rate(MSamp/s): 64	ion window (TEC)	-0.012 0.012	
					Data rate(Mb/s): 512	nlags: 128 t_cohere infinite		

t: az 308.5 el 17.8 pa 60.9 X: az 134.0 el 70.0 pa -30.1 u,v (fr/asec) 8979.319 1532.979 simultaneous interpolator

Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tX..zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tX.W.160.zpwuhk



Fringe quality 0

SNR 5.6

Int time 418.994

Amp 0.301

Phase 3664.5

PFD 4.4e-01

Delays (us)

SBD -0.650961

MBD 0.001167

Fringe rate (Hz)

-0.952123

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124501.00

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

2017:208:111525

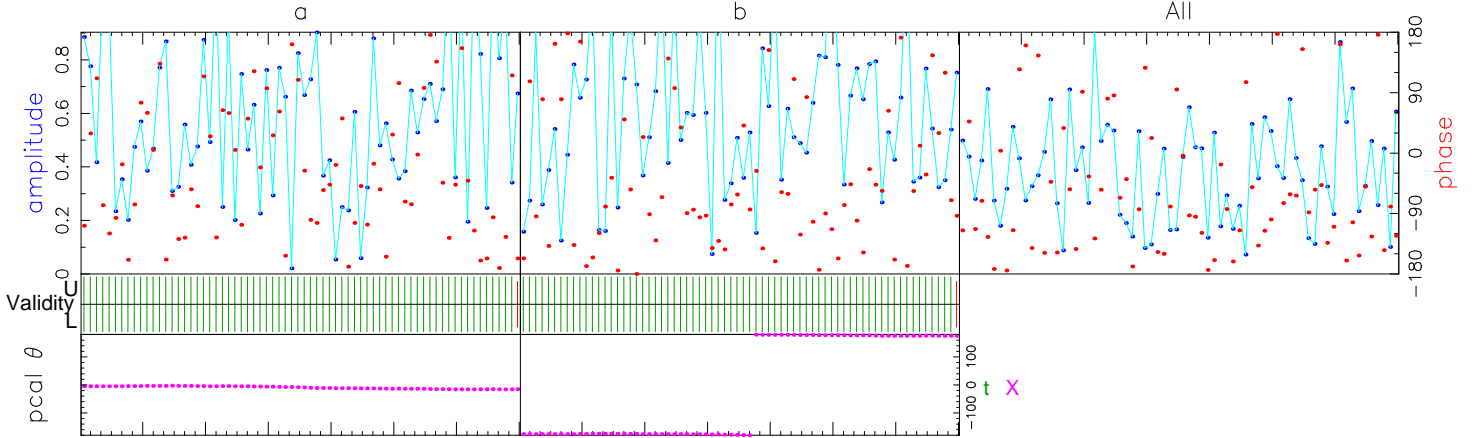
2017:170:130423

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)	All
-114.3		-116.1		Phase	-115.5
0.2		0.4		Ampl.	0.3
121.8		45.6		Sbd box	45.7
U/L 838/838		838/838		APs used	
t 0		0		PC freqs	
X -1000		-1000		PC freqs	
t:X 0:0		0:0		PC phase	
t:X 0:0		0:0		ManI PC	
t 1000		1000		PC amp	
X 1000		1000			
t W00UL,W00LL		W01UL,W01LL		Chan ids	
X W00UL,W00LL		W02UL,W02LL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.38029967848E+04	Apriori delay (usec)	-1.38023417023E+04	Resid mbdelay (usec)	1.16746E-03 +/- 8.9E-04
Sband delay (usec)	-1.38029926628E+04	Apriori clock (usec)	4.0149722E+00	Resid sbdelay (usec)	-6.50961E-01 +/- 1.5E-03
Phase delay (usec)	-1.38023417060E+04	Apriori clockrate (us/s)	-5.9130392E-07	Resid phdelay (usec)	-3.72405E-06 +/- 3.3E-07
Delay rate (us/s)	-1.15963907258E+00	Apriori rate (us/s)	-1.15962801937E+00	Resid rate (us/s)	-1.10532E-05 +/- 2.7E-09
Total phase (deg)	3580.1	Apriori accel (us/s/s)	5.14189273631E-05	Resid phase (deg)	3664.5 +/- 10.2

ph/seg (deg) 73.8 85.3 Search (2048X8) 0.189 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

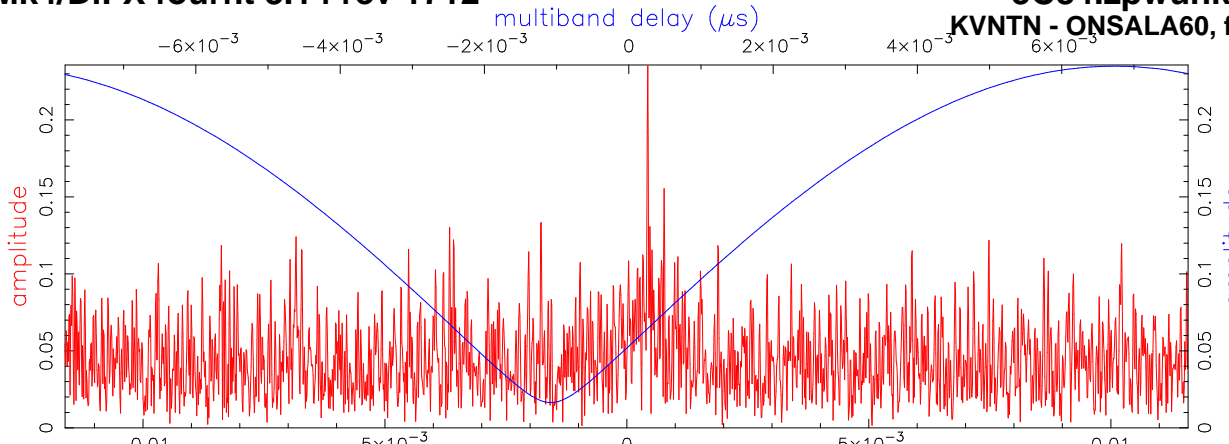
amp/seg (%) 131.9 148.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 14.4 Inc. seg. avg. 0.274 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

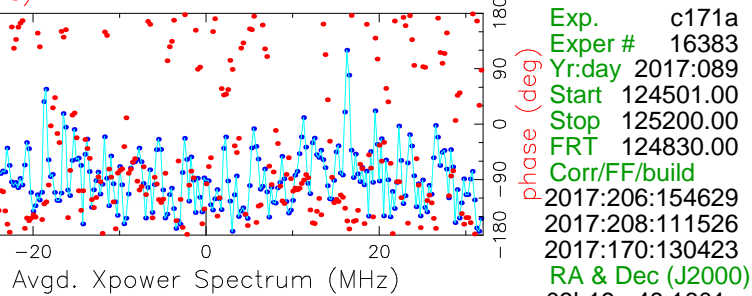
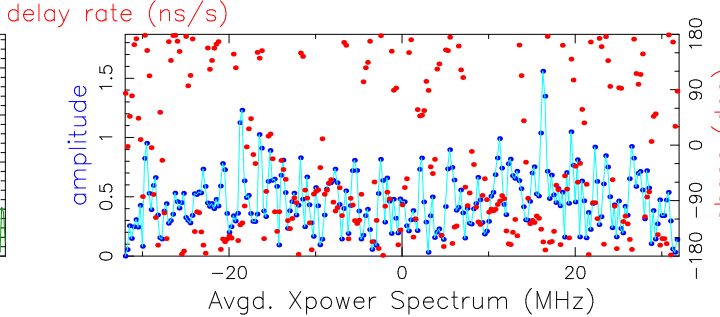
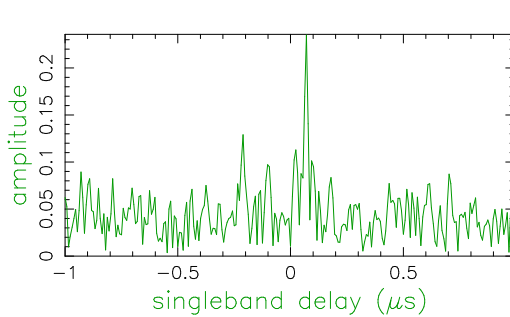
amp/frq (%) 29.4 25.2 Inc. frq. avg. 0.282 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012

t: az 308.5 el 17.8 pa 60.9 X: az 134.0 el 70.0 pa -30.1 u,v (fr/asec) 8979.319 1532.979 ion window (TEC) 0.00 0.00

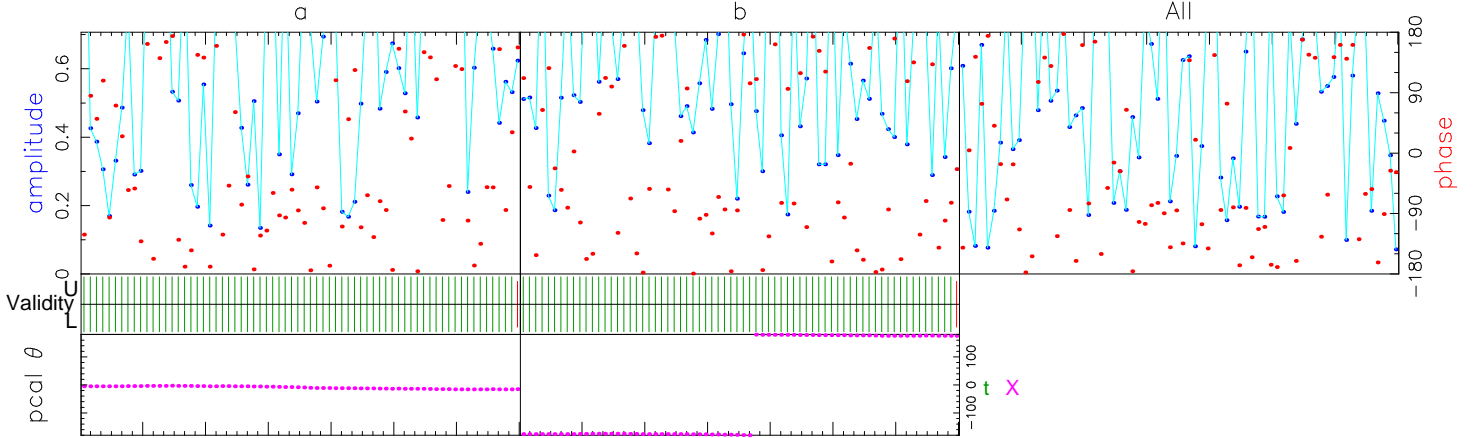
Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tX.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tX.W.45.zpwuhk simultaneous interpolator



Fringe quality 0  
 SNR 6.6  
 Int time 418.994  
 Amp 0.236  
 Phase -504.6  
 PFD 1.5e-03  
 Delays (us)  
 SBD 0.069654  
 MBD 0.006734  
 Fringe rate (Hz) 0.036995  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124501.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:208:111526  
 2017:170:130423  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"



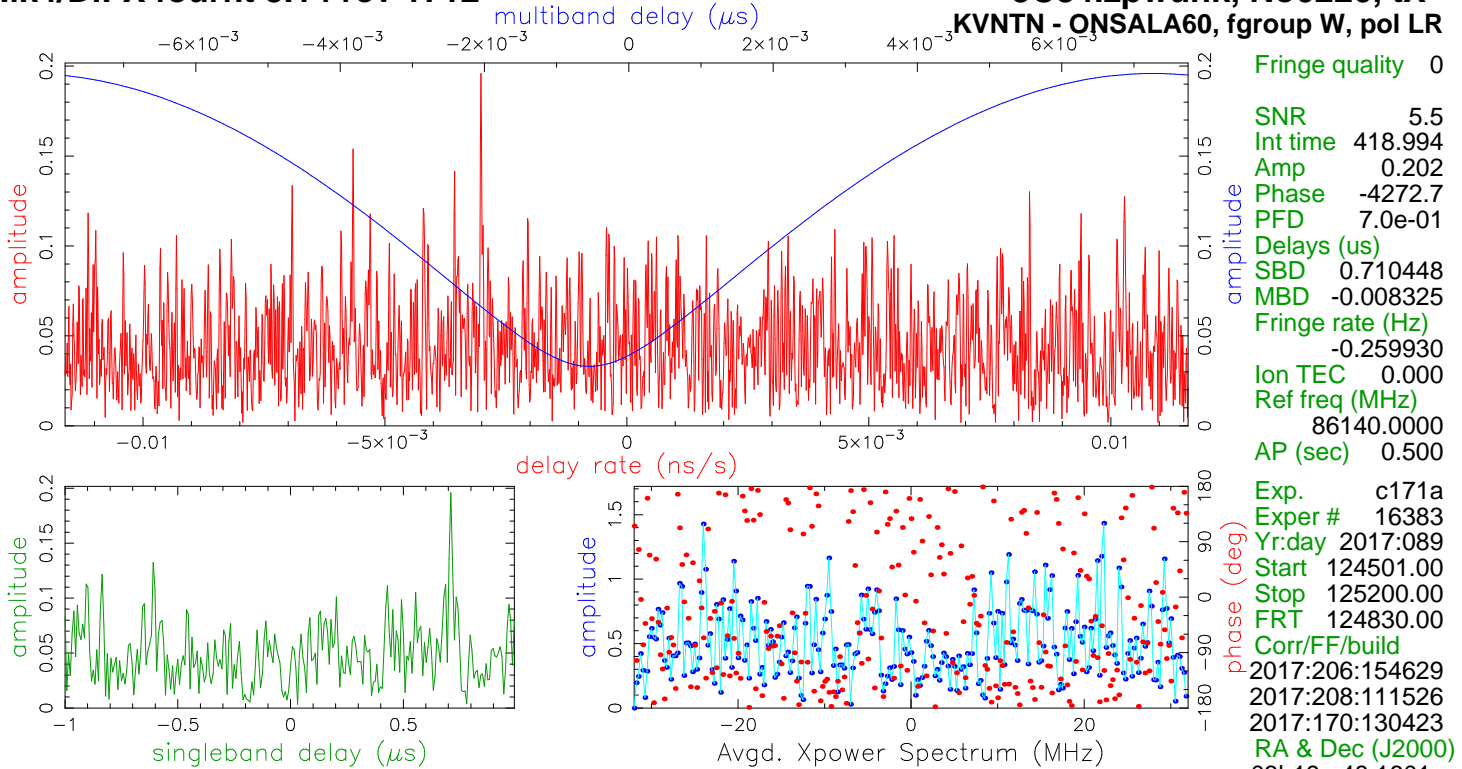
Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



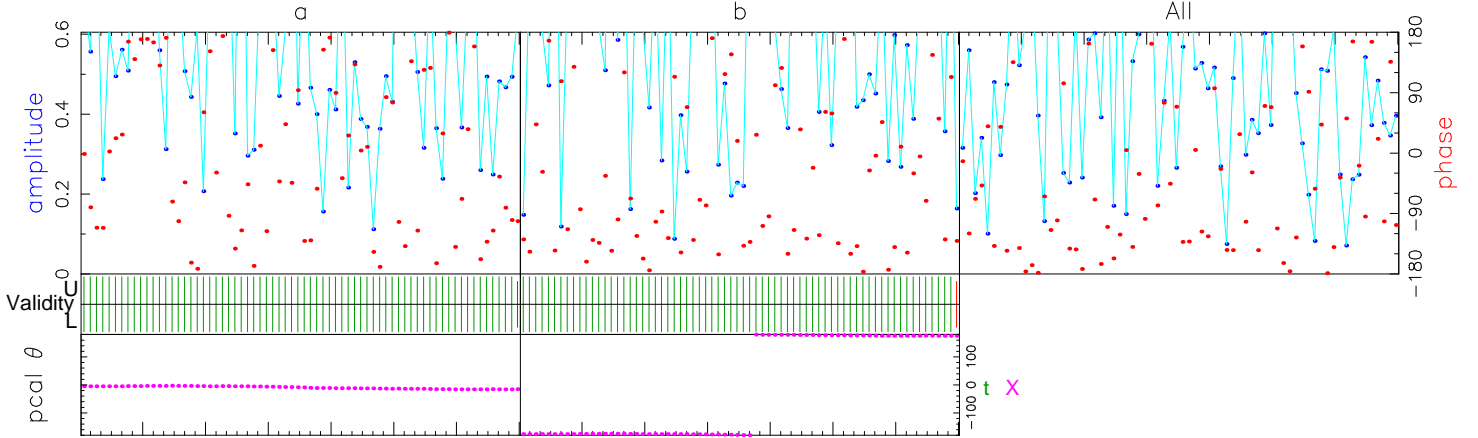
86156.00	86220.00	Freq (MHz)	All			
-144.6	-144.6	Phase	-144.6			
0.2	0.3	Ampl.	0.2			
137.9	137.9	Sbd box	137.9			
U/L 838/838	838/838	APs used				
t 0	0	PC freqs				
X -1000	-1000	PC freqs				
t:X 0:0	0:0	PC phase				
t:X 0:0	0:0	Manl PC				
t 1000	1000	PC amp				
X 1000	1000					
t W00UR,W00LR	W01UR,W01LR	Chan ids				
X W00UR,W00LR	W02UR,W02LR	Tracks				
		Chan ids				
		Tracks				
Group delay (usec)(sbd)	-1.38022724680E+04	Apriori delay (usec)	-1.38023417023E+04	Resid mbdelay (usec)	6.73431E-03	+/- 7.5E-04
Sband delay (usec)	-1.38022720488E+04	Apriori clock (usec)	4.0149722E+00	Resid sbdelay (usec)	6.96535E-02	+/- 1.3E-03
Phase delay (usec)	-1.38023417069E+04	Apriori clockrate (us/s)	-5.9130392E-07	Resid phdelay (usec)	-4.66386E-06	+/- 2.8E-07
Delay rate (us/s)	-1.15962758990E+00	Apriori rate (us/s)	-1.15962801937E+00	Resid rate (us/s)	4.29474E-07	+/- 2.3E-09
Total phase (deg)	-589.0	Apriori accel (us/s/s)	5.14189273631E-05	Resid phase (deg)	-504.6	+/- 8.7

ph/seg (deg)	RMS 78.4	Theor. 72.7	Amplitude Search (2048X8)	0.231	0.236 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	168.0	126.9	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	12.3	Inc. seg. avg.	0.285		Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	7.0	21.4	Inc. frq. avg.	0.230		Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
						Data rate(Mb/s): 512	dr window (ns/s) -0.012 0.012
						nlags: 128	t_cohere infinite
							ion window (TEC) 0.00 0.00

t: az 308.5 el 17.8 pa 60.9 X: az 134.0 el 70.0 pa -30.1 u,v (fr/asec) 8979.319 1532.979 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tX.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tX.W.46.zpwuhk



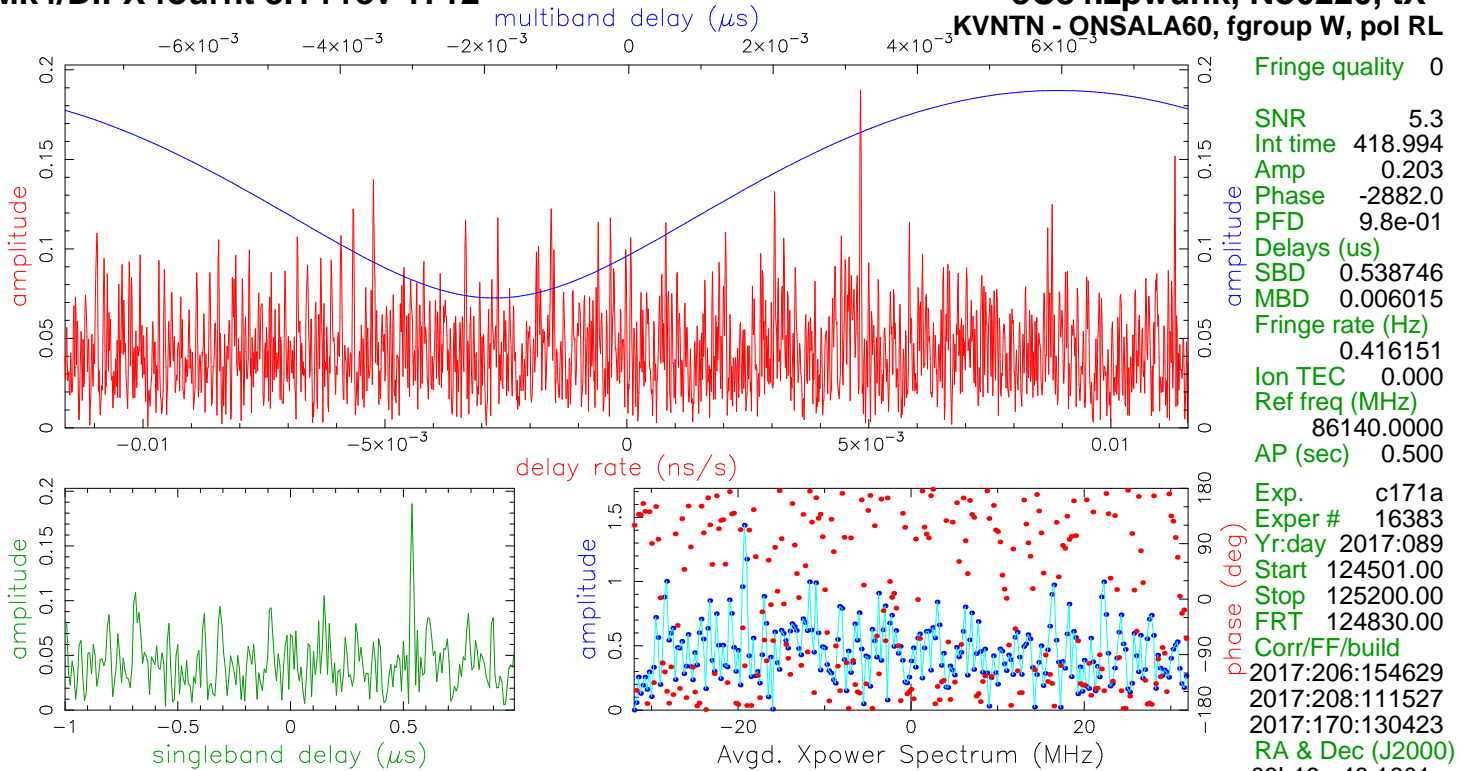
Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



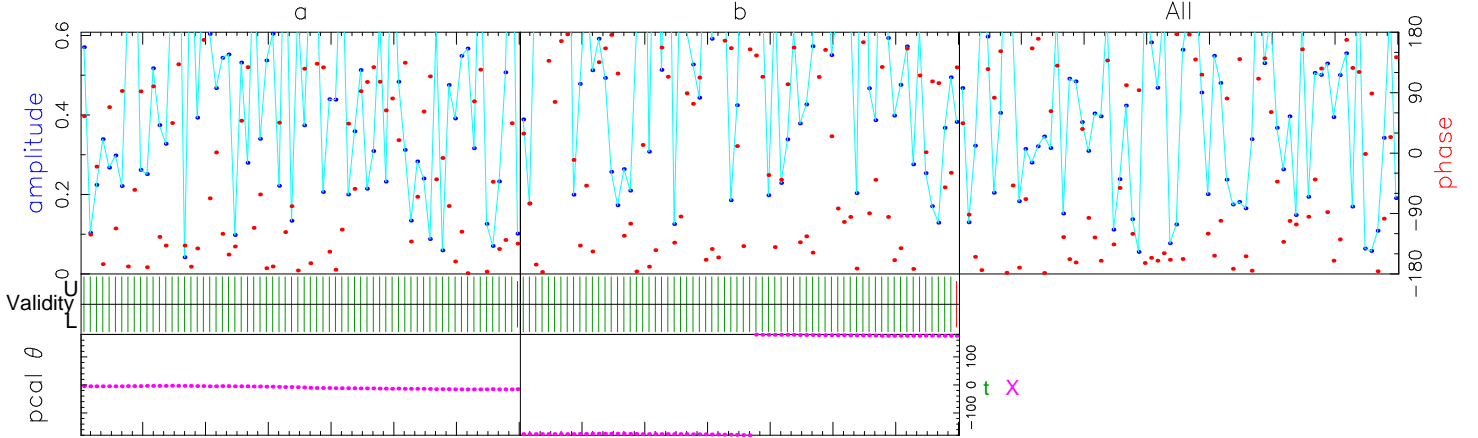
86156.00		86220.00		Freq (MHz)	All
-132.3		-133.0		Phase	-132.7
0.2		0.2		Ampl.	0.2
145.0		219.8		Sbd box	219.9
U/L 838/838		838/838		APs used	
t 0		0		PC freqs	
X -1000		-1000		PC freqs	
t:X 0:0		0:0		PC phase	
t:X 0:0		0:0		Manl PC	
t 1000		1000		PC amp	
X 1000		1000			
t W00UL,W00LL		W01UL,W01LL		Chan ids	
X W00UR,W00LR		W02UR,W02LR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.38016312777E+04	Apriori delay (usec)	-1.38023417023E+04	Resid mbdelay (usec)	-8.32537E-03 +/- 9.1E-04
Sband delay (usec)	-1.38016312543E+04	Apriori clock (usec)	4.0149722E+00	Resid sbdelay (usec)	7.10448E-01 +/- 1.6E-03
Phase delay (usec)	-1.38023417066E+04	Apriori clockrate (us/s)	-5.9130392E-07	Resid phdelay (usec)	-4.27817E-06 +/- 3.4E-07
Delay rate (us/s)	-1.15963103691E+00	Apriori rate (us/s)	-1.15962801937E+00	Resid rate (us/s)	-3.01753E-06 +/- 2.8E-09
Total phase (deg)	-4357.1	Apriori accel (us/s/s)	5.14189273631E-05	Resid phase (deg)	-4272.7 +/- 10.4

ph/seg (deg)	86.6	Theor.	87.3	Amplitude	0.202 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	183.8	Search (2048X8)	0.194	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.223	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	16.9	Inc. frq. avg.	0.195	Inc. frq. avg.	0.195	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
t: az 308.5 el 17.8 pa 60.9		X: az 134.0 el 70.0 pa -30.1		u,v (fr/asec)	8979.319 1532.979	Data rate(Mb/s):	512	dr window (ns/s)	-0.012 0.012
Control file: cf_1234		Input file: /Exps/c171a/gmva/1234/No0220/tX.zpwuhk		Output file: /Exps/c171a/gmva/1234/No0220/tX.W.47.zpwuhk		nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

simultaneous interpolator



Amp. and Phase vs. time for each freq., 70 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



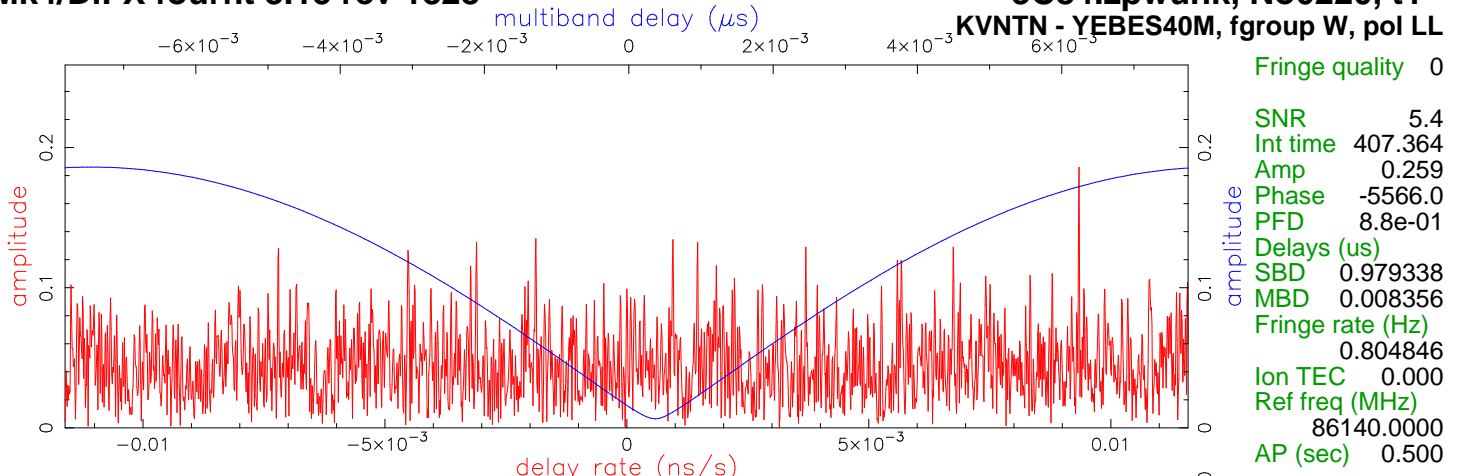
86156.00		86220.00		Freq (MHz)	All
179.0		177.5		Phase	178.0
0.1		0.3		Ampl.	0.2
55.8		197.9		Sbd box	198.0
U/L 838/838		838/838		APs used	
t 0		0		PC freqs	
X -1000		-1000		PC freqs	
t:X 0:0		0:0		PC phase	
t:X 0:0		0:0		Manl PC	
t 1000		1000		PC amp	
X 1000		1000			
t W00UR,W00LR		W01UR,W01LR		Chan ids	
X W00UL,W00LL		W02UL,W02LL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.38018044374E+04	Apriori delay (usec)	-1.38023417023E+04	Resid mbdelay (usec)	6.01491E-03 +/- 9.4E-04
Sband delay (usec)	-1.38018029558E+04	Apriori clock (usec)	4.0149722E+00	Resid sbdelay (usec)	5.38746E-01 +/- 1.6E-03
Phase delay (usec)	-1.38023416965E+04	Apriori clockrate (us/s)	-5.9130392E-07	Resid phdelay (usec)	5.73988E-06 +/- 3.5E-07
Delay rate (us/s)	-1.15962318827E+00	Apriori rate (us/s)	-1.15962801937E+00	Resid rate (us/s)	4.83111E-06 +/- 2.9E-09
Total phase (deg)	-2966.4	Apriori accel (us/s/s)	5.14189273631E-05	Resid phase (deg)	-2882.0 +/- 10.9

ph/seg (deg)	RMS 72.5	Theor. 90.8	Amplitude Search (2048X8) 0.203 +/- 0.038	0.183	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	160.7	158.5	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	15.4	Inc. seg. avg. 0.191	0.191	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	38.5	26.8	Inc. frq. avg. 0.196	0.196	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
					Data rate(Mb/s): 512	dr window (ns/s) -0.012 0.012
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00

t: az 308.5 el 17.8 pa 60.9 X: az 134.0 el 70.0 pa -30.1 u,v (fr/asec) 8979.319 1532.979 simultaneous interpolator

Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tX.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tX.W.48.zpwuhk





Fringe quality 0

SNR 5.4

Int time 407.364

Amp 0.259

Phase -5566.0

PFD 8.8e-01

Delays (us)

SBD 0.979338

MBD 0.008356

Fringe rate (Hz) 0.804846

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124512.50

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

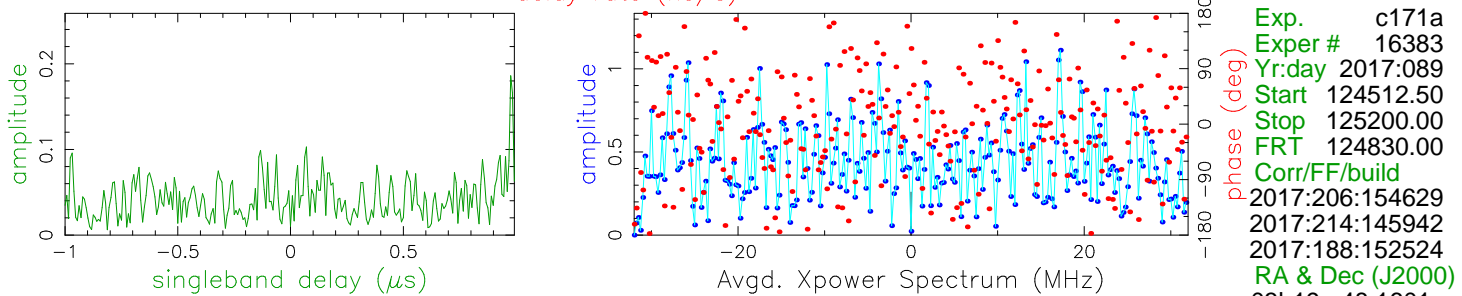
2017:214:145942

2017:188:152524

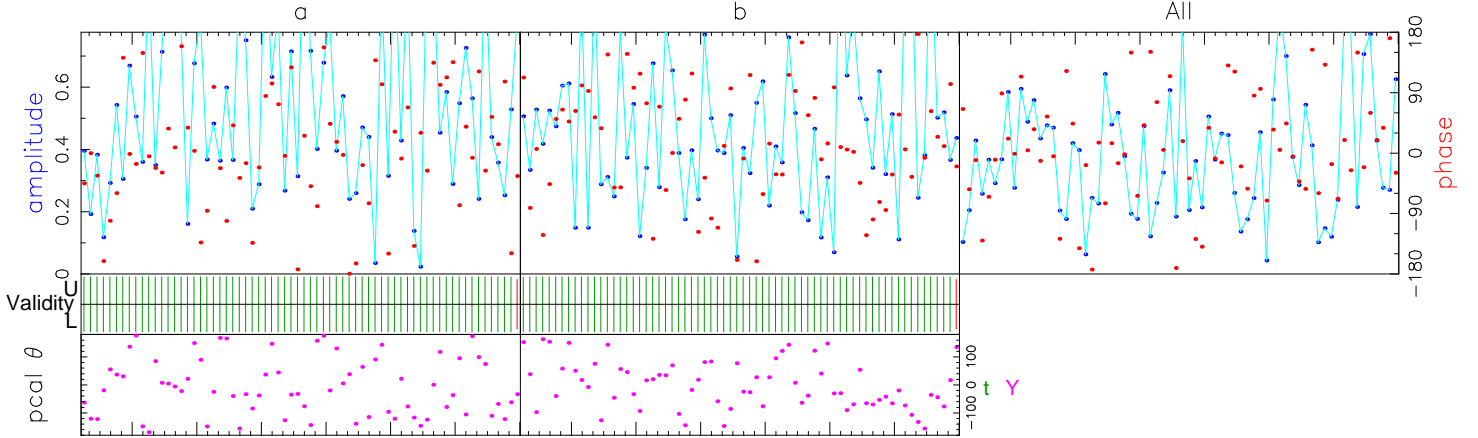
RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"



Amp. and Phase vs. time for each freq., 68 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
16.0	11.9	Phase	14.0				
0.3	0.2	Ampl.	0.2				
254.3	254.3	Sbd box	254.4				
U/L 815/815	815/815	APs used					
t 0	0	PC freqs					
Y -1000	-1000	PC freqs					
t:Y 0:0	0:0	PC phase					
t:Y 0:0	0:0	Manl PC					
t 1000	1000	PC amp					
Y 1000	1000						
t W00UL,W00LL	W01UL,W01LL	Chan ids					
Y W00UL,W00LL	W02UL,W02LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.30672072672E+04	Apriori delay (usec)	-1.30681843734E+04	Resid mbdelay (usec)	8.35614E-03	+/-	9.2E-04
Sband delay (usec)	-1.30672050359E+04	Apriori clock (usec)	2.595529E+00	Resid sbdelay (usec)	9.79338E-01	+/-	1.6E-03
Phase delay (usec)	-1.30681843729E+04	Apriori clockrate (us/s)	-7.3889397E-07	Resid phdelay (usec)	4.51955E-07	+/-	3.4E-07
Delay rate (us/s)	-1.44752406450E+00	Apriori rate (us/s)	-1.44753340797E+00	Resid rate (us/s)	9.34347E-06	+/-	2.9E-09
Total phase (deg)	-5897.6	Apriori accel (us/s/s)	6.19458014071E-05	Resid phase (deg)	-5566.0	+/-	10.6

ph/seg (deg) 80.8 87.7 Search (2048X8) 0.182 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

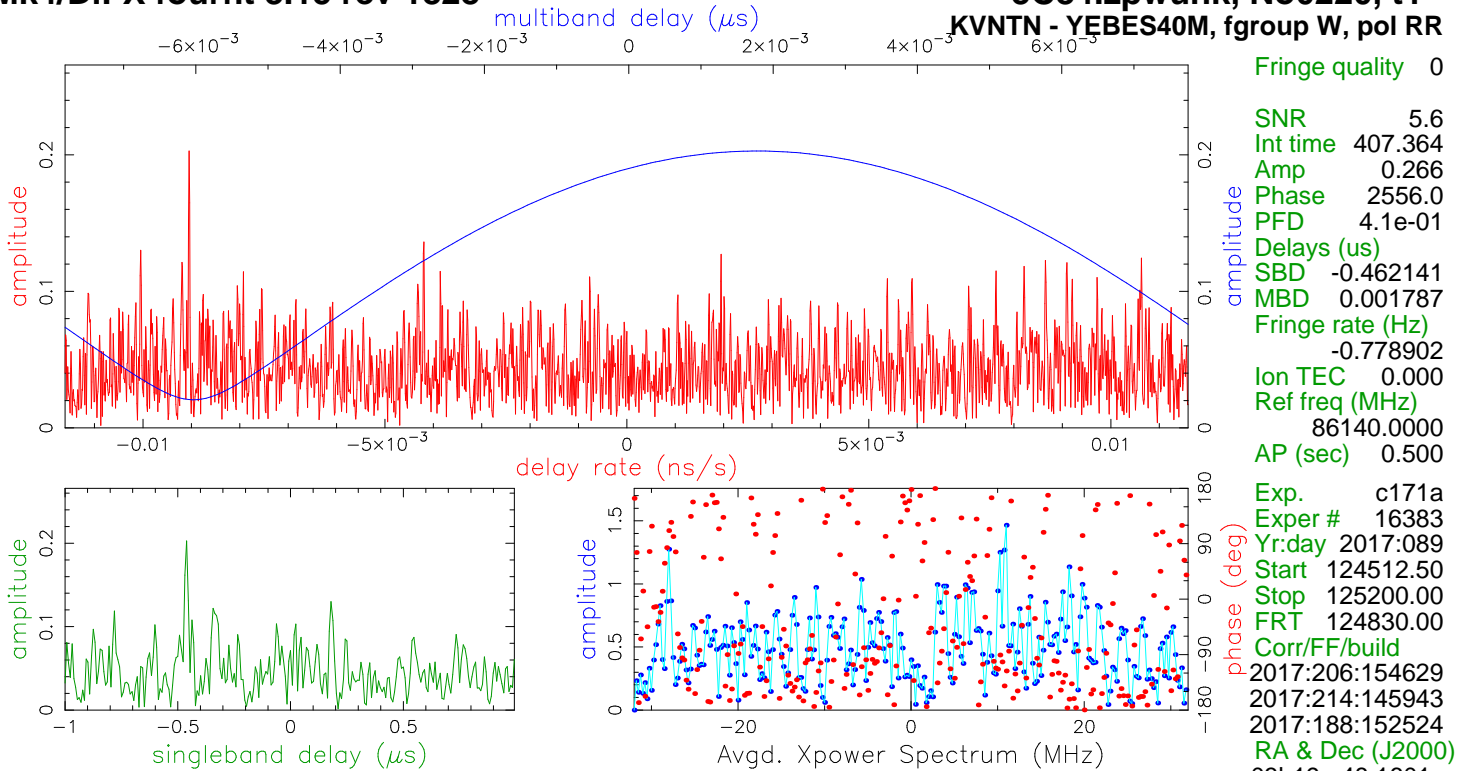
amp/seg (%) 139.6 153.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 15.0 Inc. seg. avg. 0.232 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

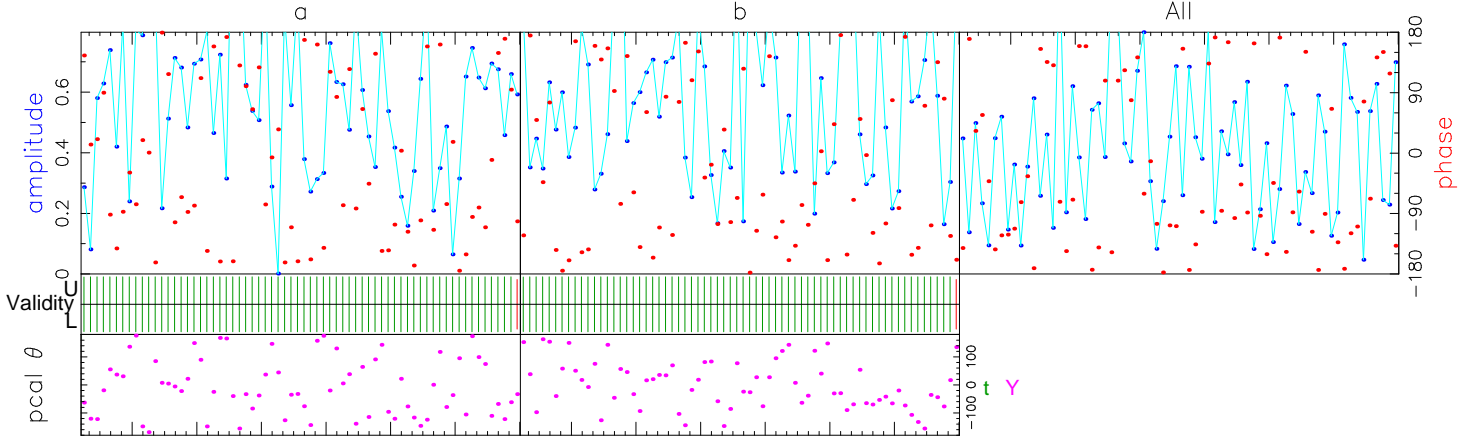
amp/frq (%) 5.7 26.2 Inc. frq. avg. 0.238 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012

t: az 308.5 el 17.8 pa 60.9 Y: az 76.3 el 64.3 pa -81.0 u,v (fr/asec) 11201.362 3519.632 ion window (TEC) 0.00 0.00

Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tY.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tY.W.181.zpwuhk simultaneous interpolator



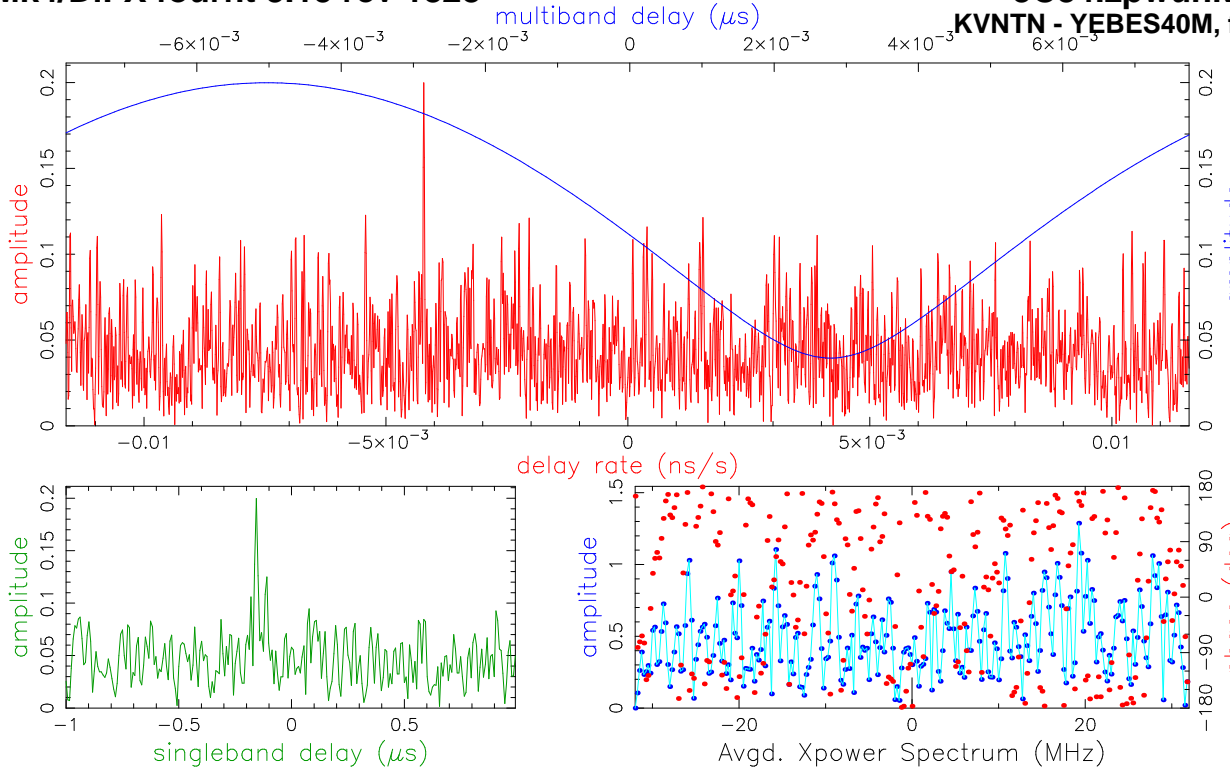
Amp. and Phase vs. time for each freq., 68 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)	All
-143.9		-144.0		Phase	-144.0
0.2		0.3		Ampl.	0.3
69.7		70.0		Sbd box	69.8
U/L 815/815		815/815		APs used	
t 0		0		PC freqs	
Y -1000		-1000		PC freqs	
t:Y 0:0		0:0		PC phase	
t:Y 0:0		0:0		ManI PC	
t 1000		1000		PC amp	
Y 1000		1000			
t W00UR,W00LR		W01UR,W01LR		Chan ids	
Y W00UR,W00LR		W02UR,W02LR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.30686513367E+04	Apriori delay (usec)	-1.30681843734E+04	Resid mbdelay (usec)	1.78663E-03 +/- 8.8E-04
Sband delay (usec)	-1.30686465139E+04	Apriori clock (usec)	2.595529E+00	Resid sbdelay (usec)	-4.62141E-01 +/- 1.5E-03
Phase delay (usec)	-1.30681843780E+04	Apriori clockrate (us/s)	-7.3889397E-07	Resid phdelay (usec)	-4.64309E-06 +/- 3.3E-07
Delay rate (us/s)	-1.44754245025E+00	Apriori rate (us/s)	-1.44753340797E+00	Resid rate (us/s)	-9.04227E-06 +/- 2.8E-09
Total phase (deg)	2584.4	Apriori accel (us/s/s)	6.19458014071E-05	Resid phase (deg)	2556.0 +/- 10.2

ph/seg (deg)	72.2	Theor.	83.8	Amplitude	0.266 +/- 0.047	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	153.0	Search (2048X8)	0.191	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.263	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	10.1	Inc. frq. avg.	0.256	Inc. frq. avg.	0.256	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
t: az 308.5 el 17.8 pa 60.9		Y: az 76.3 el 64.3 pa -81.0		u,v (fr/asec)	11201.362 3519.632	Data rate(Mb/s):	512	dr window (ns/s)	-0.012 0.012
Control file: ../cf_1234		Input file: /Exps/c171a/gmva/1234/No0220/tY.zpwuhk				nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

simultaneous interpolator



Fringe quality 0

SNR 5.5

Int time 407.364

Amp 0.211

Phase 1038.9

PFD 6.3e-01

Delays (us)

SBD -0.156713

MBD -0.005097

Fringe rate (Hz)

-0.362945

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124512.50

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

2017:214:145943

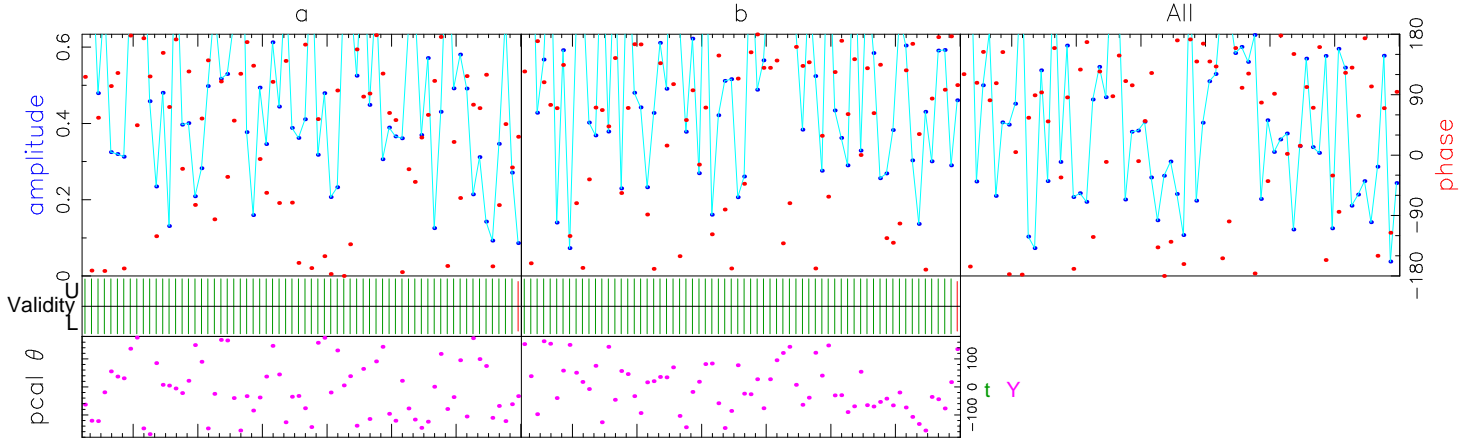
2017:188:152524

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 68 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



Group delay (usec)(sbd)	-1.30683457200E+04	Apriori delay (usec)	-1.30681843734E+04	Resid mbdelay (usec)	-5.09662E-03	+/-	9.0E-04
Sband delay (usec)	-1.30683410859E+04	Apriori clock (usec)	2.595529E+00	Resid sbdelay (usec)	-1.56713E-01	+/-	1.6E-03
Phase delay (usec)	-1.30681843689E+04	Apriori clockrate (us/s)	-7.3889397E-07	Resid phdelay (usec)	4.47778E-06	+/-	3.3E-07
Delay rate (us/s)	-1.44753762141E+00	Apriori rate (us/s)	-1.44753340797E+00	Resid rate (us/s)	-4.21344E-06	+/-	2.8E-09
Total phase (deg)	707.2	Apriori accel (us/s/s)	6.19458014071E-05	Resid phase (deg)	1038.9	+/-	10.4

86156.00 137.9 0.2 108.4 U/L 815/815 t 0 Y -1000 t:Y 0:0 t:Y 0:0 t 1000 Y 1000 t W00UL,W00LL Y W00UR,W00LR

86220.00 139.5 0.3 109.1 U/L 815/815 t 0 Y -1000 t:Y 0:0 t:Y 0:0 t 1000 Y 1000 t W01UL,W01LL Y W01UR,W01LR

86220.00 139.5 0.3 109.1 U/L 815/815 t 0 Y -1000 t:Y 0:0 t:Y 0:0 t 1000 Y 1000 t W02UL,W02LL Y W02UR,W02LR

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

PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

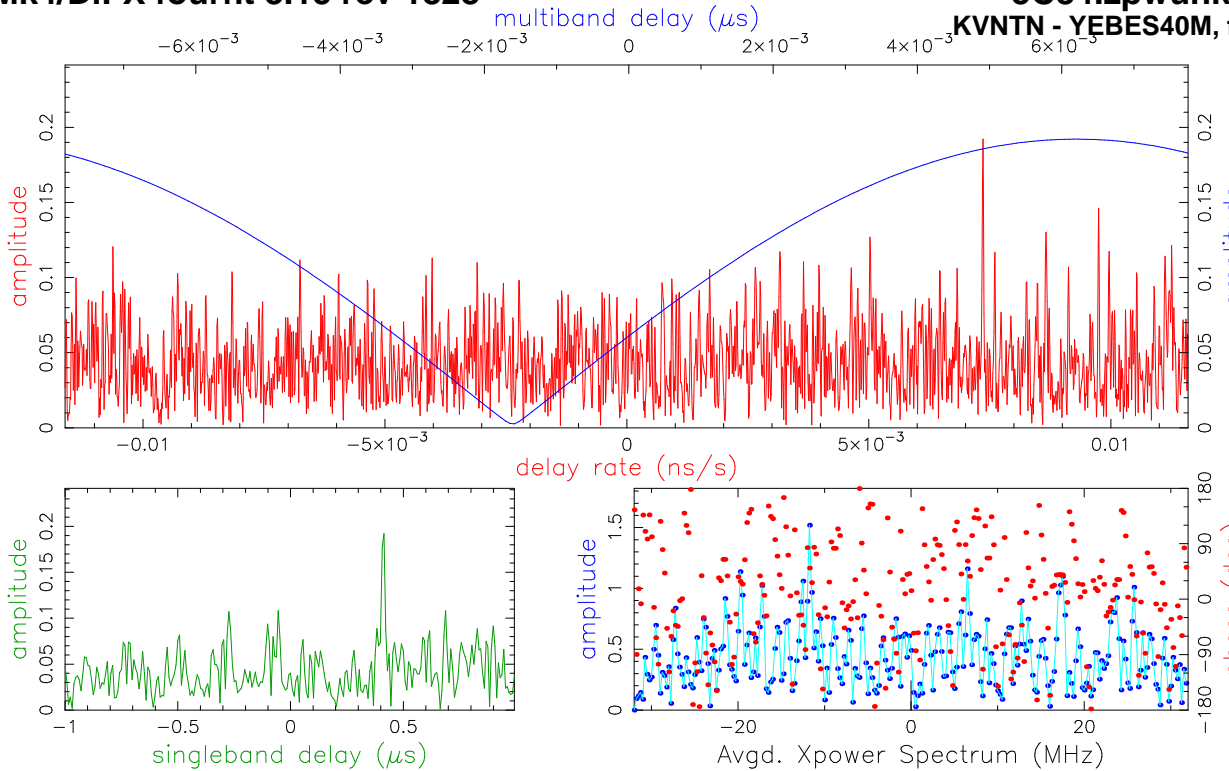
Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

Sample rate(MSamp/s): 64 dr window (ns/s) -0.012 0.012

Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite ion window (TEC) 0.00 0.00

t: az 308.5 el 17.8 pa 60.9 Y: az 76.3 el 64.3 pa -81.0 u,v (fr/asec) 11201.362 3519.632 simultaneous interpolator

Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tY.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tY.W.183.zpwuhk

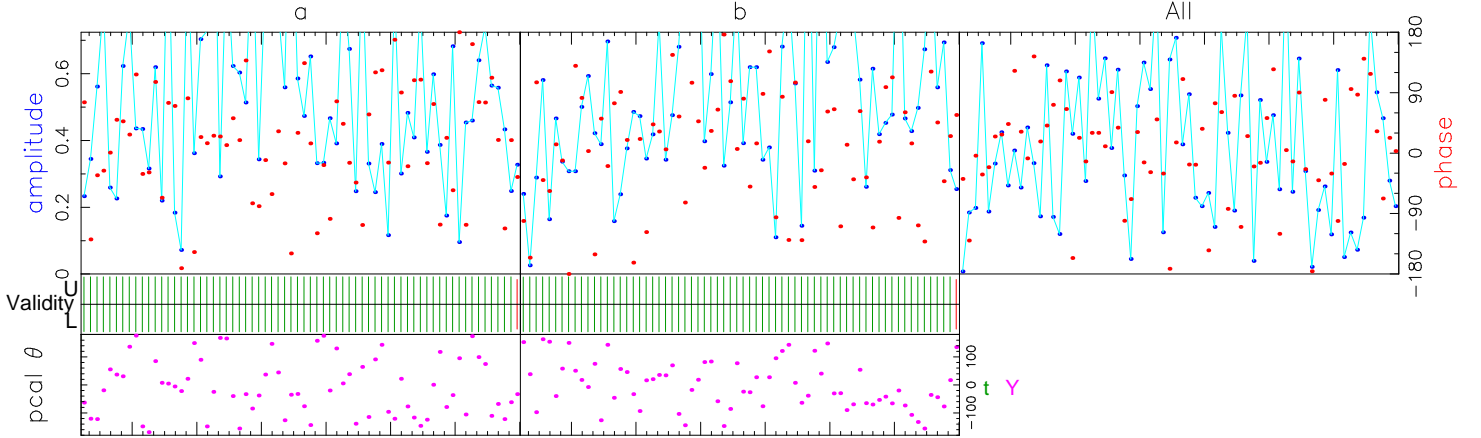


Fringe quality 0

SNR 5.6  
 Int time 407.364  
 Amp 0.241  
 Phase -2315.8  
 PFD 4.4e-01  
 Delays (us)  
 SBD 0.410978  
 MBD 0.006163  
 Fringe rate (Hz) 0.633521  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.500

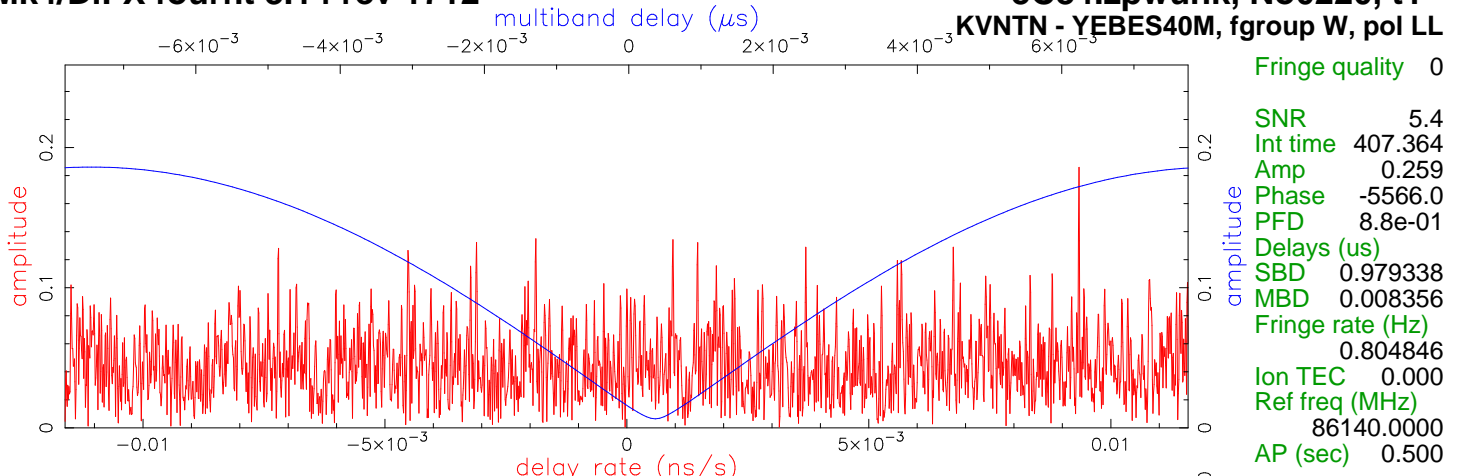
Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124512.50  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:214:145944  
 2017:188:152524  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 68 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
23.7	24.7	Phase	24.2				
0.2	0.2	Ampl.	0.2				
181.6	181.6	Sbd box	181.6				
U/L 815/815	815/815	APs used					
t 0	0	PC freqs					
Y -1000	-1000	PC freqs					
t:Y 0:0	0:0	PC phase					
t:Y 0:0	0:0	ManI PC					
t 1000	1000	PC amp					
Y 1000	1000	Chan ids					
t W00UR,W00LR	W01UR,W01LR	Tracks					
Y W00UL,W00LL	W02UL,W02LL	Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.30677719604E+04	Apriori delay (usec)	-1.30681843734E+04	Resid mbdelay (usec)	6.16292E-03	+/-	8.9E-04
Sband delay (usec)	-1.30677733959E+04	Apriori clock (usec)	2.595529E+00	Resid sbdelay (usec)	4.10978E-01	+/-	1.5E-03
Phase delay (usec)	-1.30681843726E+04	Apriori clockrate (us/s)	-7.3889397E-07	Resid phdelay (usec)	7.80976E-07	+/-	3.3E-07
Delay rate (us/s)	-1.44752605342E+00	Apriori rate (us/s)	-1.44753340797E+00	Resid rate (us/s)	7.35455E-06	+/-	2.8E-09
Total phase (deg)	-2647.4	Apriori accel (us/s/s)	6.19458014071E-05	Resid phase (deg)	-2315.8	+/-	10.2

ph/seg (deg) 74.9 84.1 Search (2048X8) 0.186 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 145.2 146.8 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 14.4 Inc. seg. avg. 0.220 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 5.8 25.2 Inc. frq. avg. 0.221 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 t: az 308.5 el 17.8 pa 60.9 Y: az 76.3 el 64.3 pa -81.0 u,v (fr/asec) 11201.362 3519.632 ion window (TEC) 0.00 0.00  
 Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tY.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tY.W.184.zpwuhk simultaneous interpolator



Fringe quality 0

SNR 5.4

Int time 407.364

Amp 0.259

Phase -5566.0

PFD 8.8e-01

Delays (us)

SBD 0.979338

MBD 0.008356

Fringe rate (Hz) 0.804846

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124512.50

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

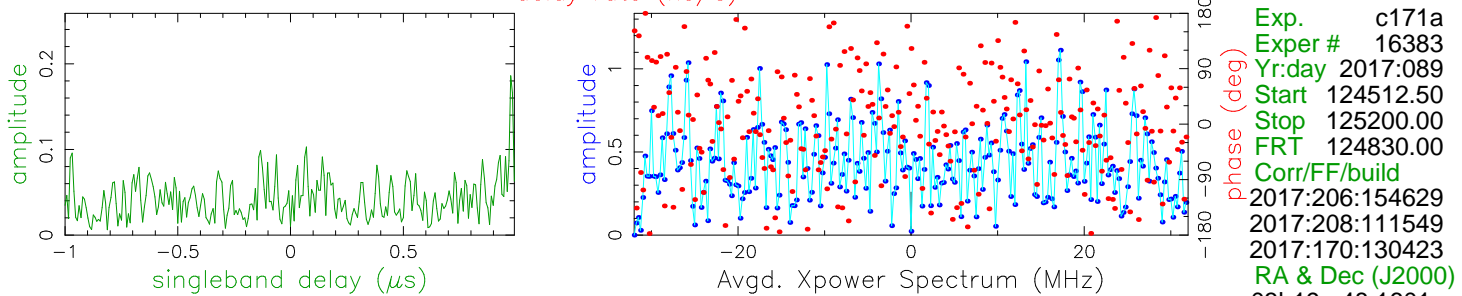
2017:208:111549

2017:170:130423

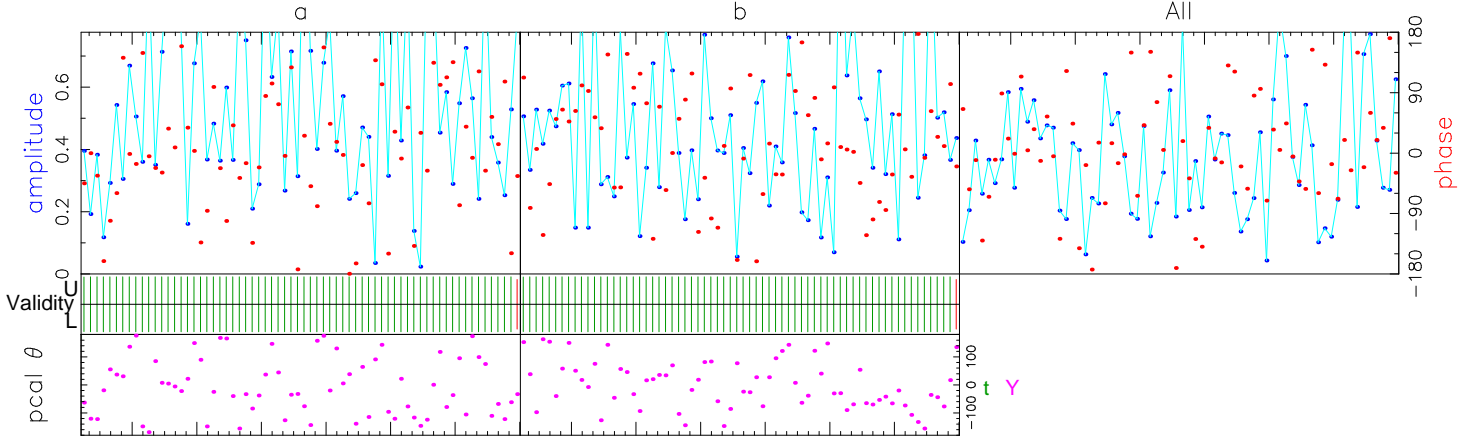
RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"



Amp. and Phase vs. time for each freq., 68 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec

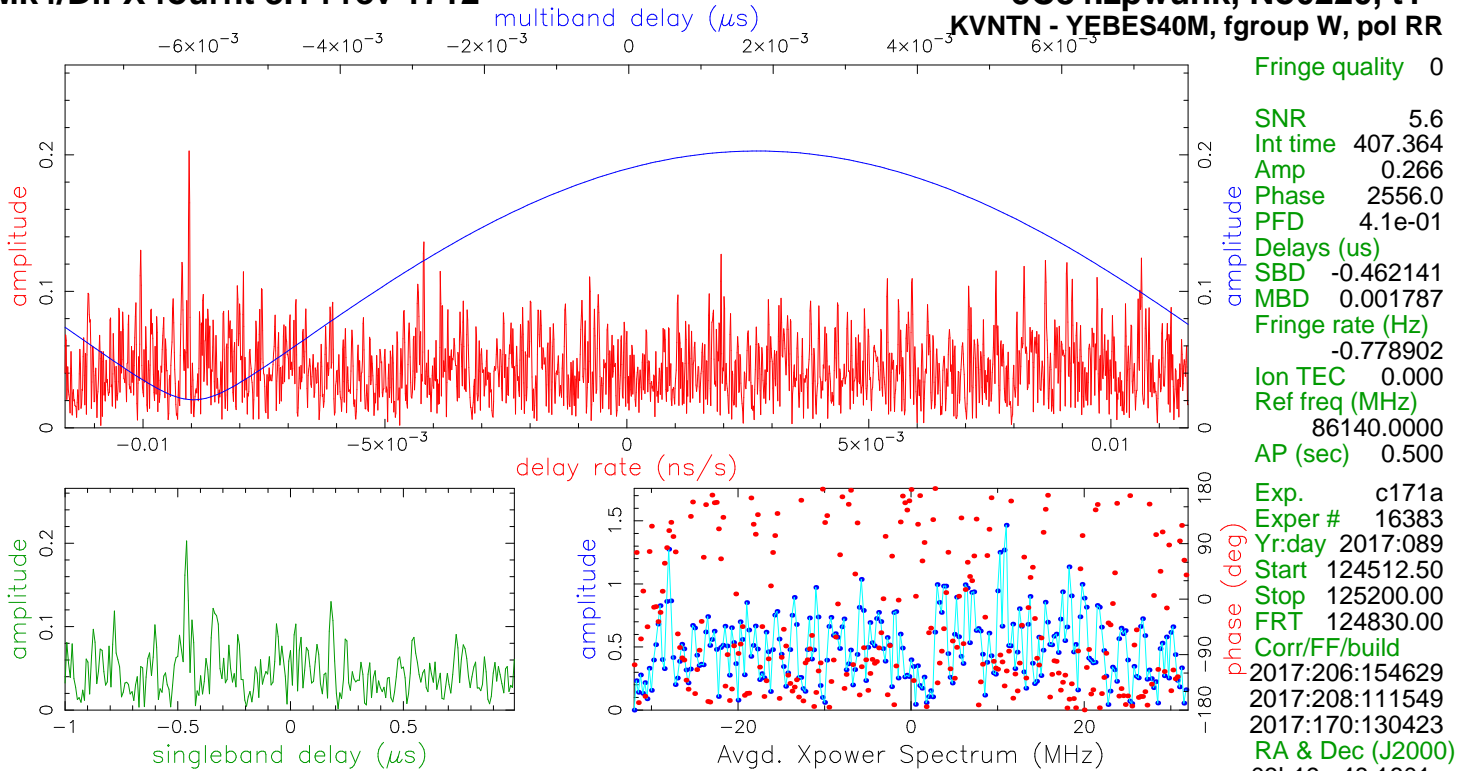


86156.00	86220.00	Freq (MHz)	All				
16.0	11.9	Phase	14.0				
0.3	0.2	Ampl.	0.2				
254.3	254.3	Sbd box	254.4				
U/L 815/815	815/815	APs used					
t 0	0	PC freqs					
Y -1000	-1000	PC freqs					
t:Y 0:0	0:0	PC phase					
t:Y 0:0	0:0	Manl PC					
t 1000	1000	PC amp					
Y 1000	1000						
t W00UL,W00LL	W01UL,W01LL	Chan ids					
Y W00UL,W00LL	W02UL,W02LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.30672072672E+04	Apriori delay (usec)	-1.30681843734E+04	Resid mbdelay (usec)	8.35614E-03	+/-	9.2E-04
Sband delay (usec)	-1.30672050359E+04	Apriori clock (usec)	2.595529E+00	Resid sbdelay (usec)	9.79338E-01	+/-	1.6E-03
Phase delay (usec)	-1.30681843729E+04	Apriori clockrate (us/s)	-7.3889397E-07	Resid phdelay (usec)	4.51955E-07	+/-	3.4E-07
Delay rate (us/s)	-1.44752406450E+00	Apriori rate (us/s)	-1.44753340797E+00	Resid rate (us/s)	9.34347E-06	+/-	2.9E-09
Total phase (deg)	-5897.6	Apriori accel (us/s/s)	6.19458014071E-05	Resid phase (deg)	-5566.0	+/-	10.6

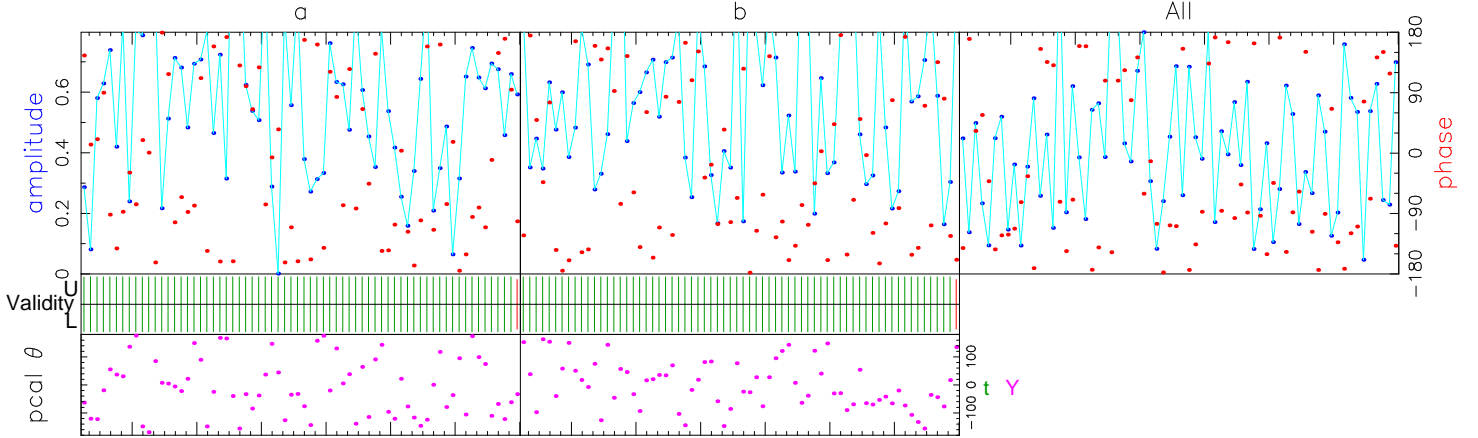
ph/seg (deg)	80.8	Theor.	87.7	Amplitude	0.259 +/- 0.048	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	139.6	Search (2048X8)	0.182	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.232	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	5.7	Inc. frq. avg.	0.238	Inc. frq. avg.	0.238	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	512	dr window (ns/s)	-0.012 0.012
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

t: az 308.5 el 17.8 pa 60.9 Y: az 76.3 el 64.3 pa -81.0 u,v (fr/asec) 11201.362 3519.632 simultaneous interpolator

Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tY..zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tY.W.69.zpwuhk



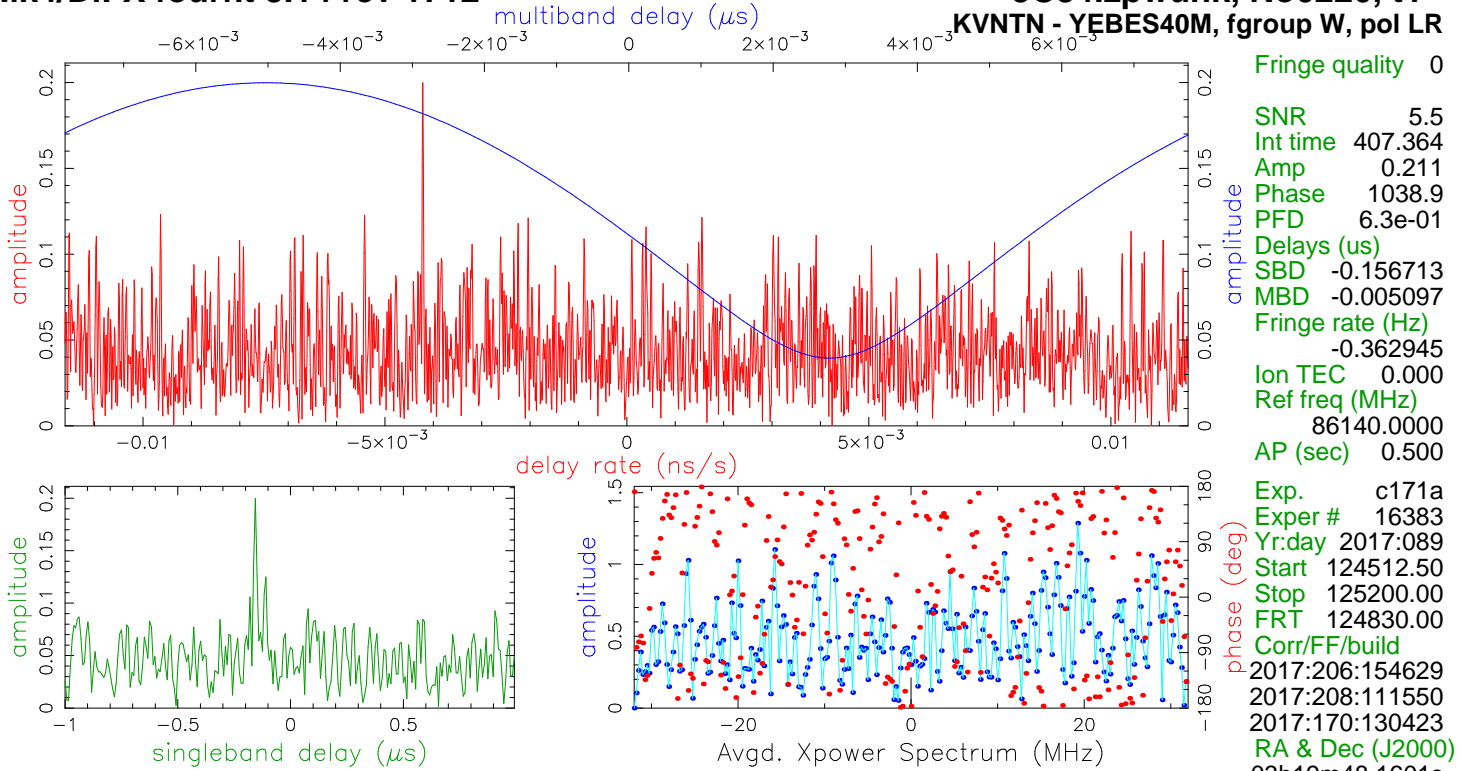
Amp. and Phase vs. time for each freq., 68 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



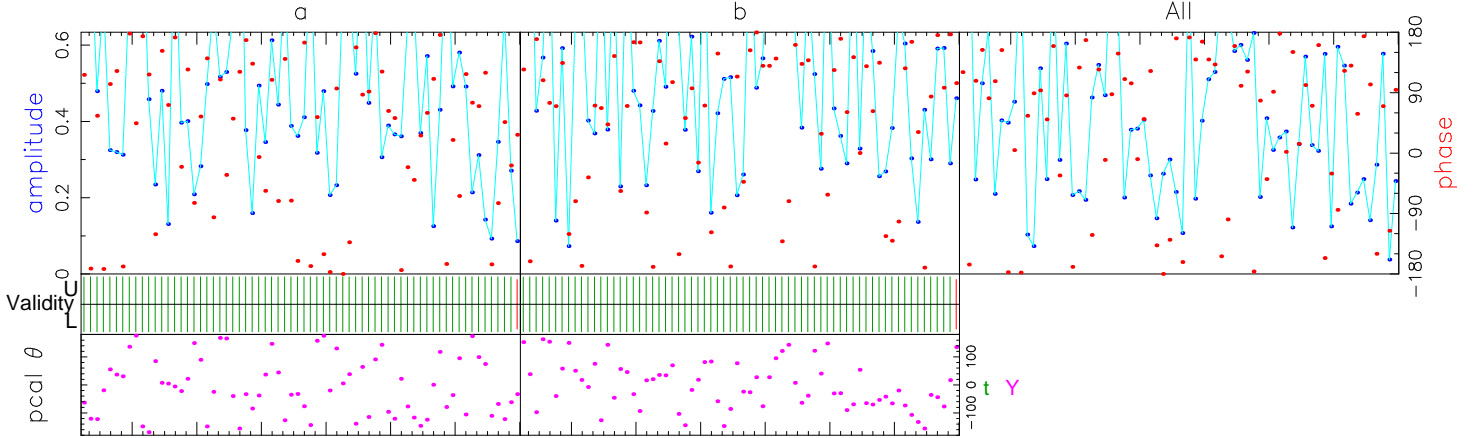
86156.00		86220.00		Freq (MHz)	All
-143.9		-144.0		Phase	-144.0
0.2		0.3		Ampl.	0.3
69.7		70.0		Sbd box	69.8
U/L 815/815		815/815		APs used	
t 0		0		PC freqs	
Y -1000		-1000		PC freqs	
t:Y 0:0		0:0		PC phase	
t:Y 0:0		0:0		Manl PC	
t 1000		1000		PC amp	
Y 1000		1000			
t W00UR,W00LR		W01UR,W01LR		Chan ids	
Y W00UR,W00LR		W02UR,W02LR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.30686513367E+04	Apriori delay (usec)	-1.30681843734E+04	Resid mbdelay (usec)	1.78663E-03 +/- 8.8E-04
Sband delay (usec)	-1.30686465139E+04	Apriori clock (usec)	2.5955529E+00	Resid sbdelay (usec)	-4.62141E-01 +/- 1.5E-03
Phase delay (usec)	-1.30681843780E+04	Apriori clockrate (us/s)	-7.3889397E-07	Resid phdelay (usec)	-4.64309E-06 +/- 3.3E-07
Delay rate (us/s)	-1.44754245025E+00	Apriori rate (us/s)	-1.44753340797E+00	Resid rate (us/s)	-9.04227E-06 +/- 2.8E-09
Total phase (deg)	2584.4	Apriori accel (us/s/s)	6.19458014071E-05	Resid phase (deg)	2556.0 +/- 10.2

ph/seg (deg)	72.2	Theor.	83.8	Amplitude	0.266 +/- 0.047	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	153.0	Search (2048X8)	0.191	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.263	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	10.1	Inc. frq. avg.	0.256	Inc. frq. avg.	0.256	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
t: az 308.5 el 17.8 pa 60.9		Y: az 76.3 el 64.3 pa -81.0		u,v (fr/asec)	11201.362 3519.632	Data rate(Mb/s):	512	dr window (ns/s)	-0.012 0.012
Control file: cf_1234		Input file: /Exps/c171a/gmva/1234/No0220/tY..zpwuhk		Output file: /Exps/c171a/gmva/1234/No0220/tY.W.70.zpwuhk		nlags:	128	t_cohere	infinite
						ion window (TEC)	0.00	0.00	

simultaneous interpolator

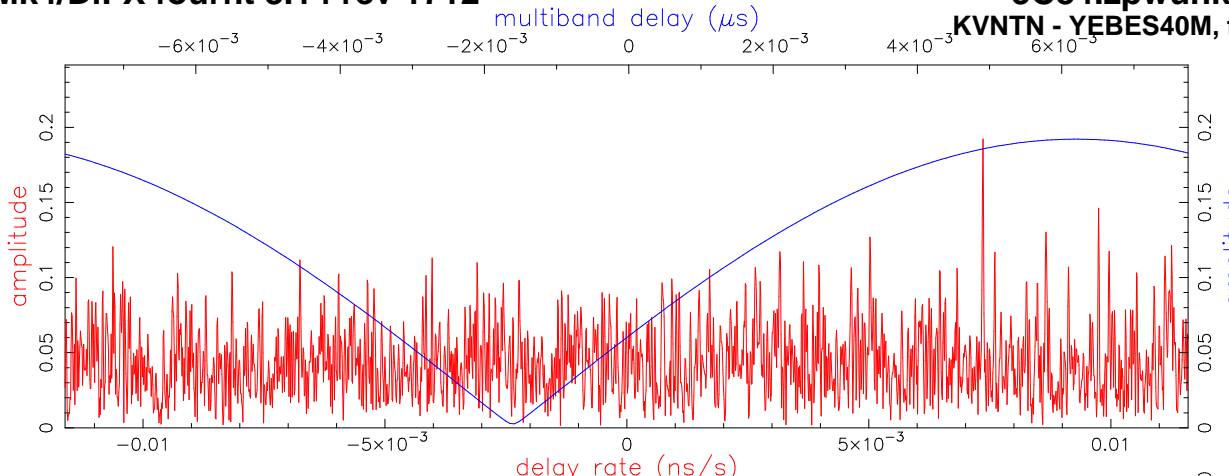


Amp. and Phase vs. time for each freq., 68 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)	All
137.9		139.5		Phase	138.9
0.2		0.3		Ampl.	0.2
108.4		109.1		Sbd box	108.9
U/L 815/815		815/815		APs used	
t 0		0		PC freqs	
Y -1000		-1000		PC freqs	
t:Y 0:0		0:0		PC phase	
t:Y 0:0		0:0		ManI PC	
t 1000		1000		PC amp	
Y 1000		1000			
t W00UL,W00LL		W01UL,W01LL		Chan ids	
Y W00UR,W00LR		W02UR,W02LR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.30683457200E+04	Apriori delay (usec)	-1.30681843734E+04	Resid mbdelay (usec)	-5.09662E-03 +/- 9.0E-04
Sband delay (usec)	-1.30683410859E+04	Apriori clock (usec)	2.595529E+00	Resid sbdelay (usec)	-1.56713E-01 +/- 1.6E-03
Phase delay (usec)	-1.30681843689E+04	Apriori clockrate (us/s)	-7.3889397E-07	Resid phdelay (usec)	4.47778E-06 +/- 3.3E-07
Delay rate (us/s)	-1.44753762141E+00	Apriori rate (us/s)	-1.44753340797E+00	Resid rate (us/s)	-4.21344E-06 +/- 2.8E-09
Total phase (deg)	707.2	Apriori accel (us/s/s)	6.19458014071E-05	Resid phase (deg)	1038.9 +/- 10.4

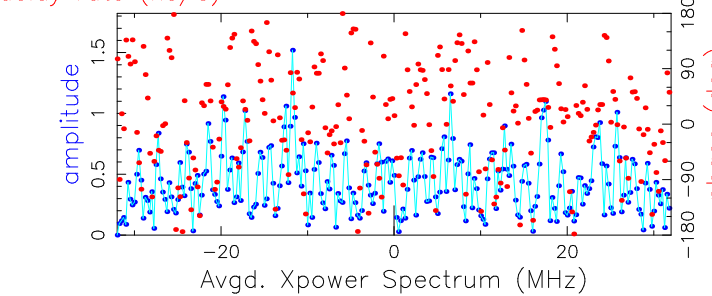
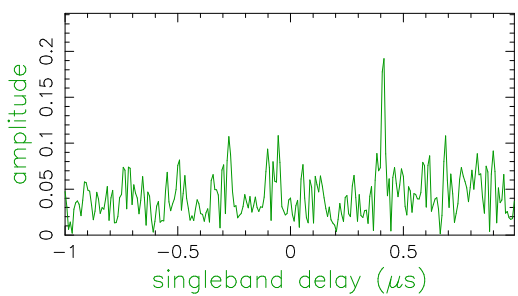
ph/seg (deg) 73.3 85.6 Search (2048X8) 0.192 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 153.2 149.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 0.0 14.7 Inc. seg. avg. 0.205 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 19.7 25.6 Inc. frq. avg. 0.204 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
t: az 308.5 el 17.8 pa 60.9 Y: az 76.3 el 64.3 pa -81.0 u,v (fr/asec) 11201.362 3519.632 ion window (TEC) 0.00 0.00  
Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tY.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tY.W.71.zpwuhk simultaneous interpolator



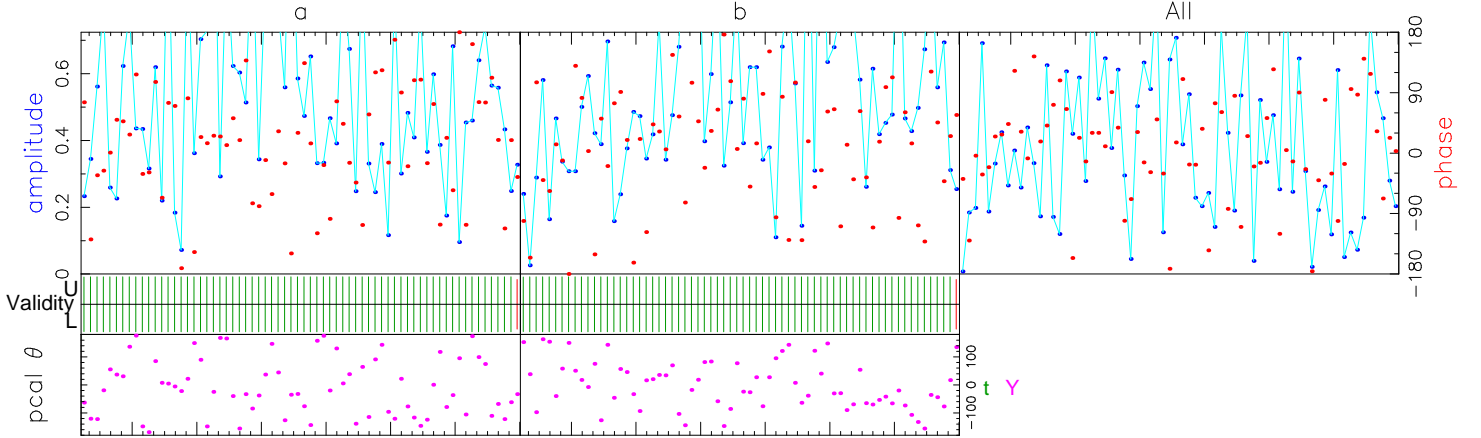
Fringe quality 0

SNR 5.6  
 Int time 407.364  
 Amp 0.241  
 Phase -2315.8  
 PFD 4.4e-01  
 Delays (us)  
 SBD 0.410978  
 MBD 0.006163  
 Fringe rate (Hz) 0.633521  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.500

Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124512.50  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:208:111550  
 2017:170:130423  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 68 segs, 12 APs / seg (6.00 sec / seg.), time ticks 10 sec



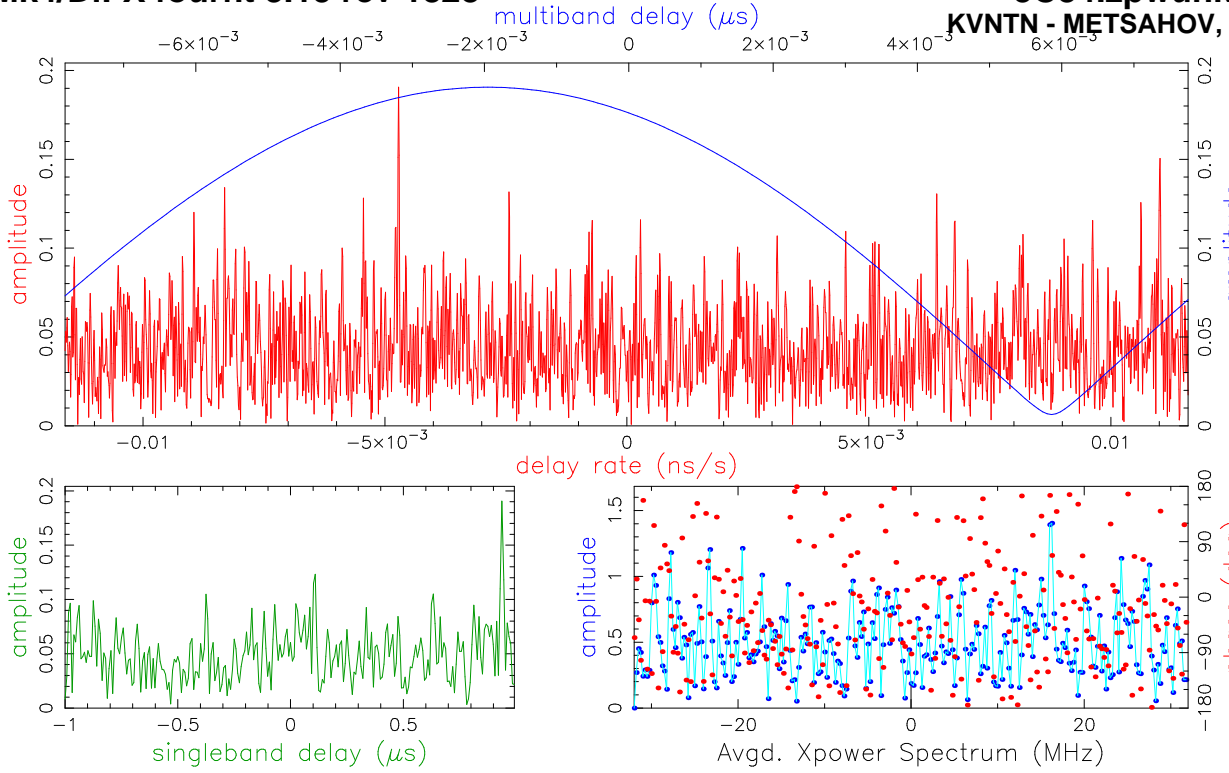
86156.00	86220.00	Freq (MHz)	All				
23.7	24.7	Phase	24.2				
0.2	0.2	Ampl.	0.2				
181.6	181.6	Sbd box	181.6				
U/L 815/815	815/815	APs used					
t 0	0	PC freqs					
Y -1000	-1000	PC freqs					
t:Y 0:0	0:0	PC phase					
t:Y 0:0	0:0	ManI PC					
t 1000	1000	PC amp					
Y 1000	1000						
t W00UR,W00LR	W01UR,W01LR	Chan ids					
Y W00UL,W00LL	W02UL,W02LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.30677719604E+04	Apriori delay (usec)	-1.30681843734E+04	Resid mbdelay (usec)	6.16292E-03	+/-	8.9E-04
Sband delay (usec)	-1.30677733959E+04	Apriori clock (usec)	2.595529E+00	Resid sbdelay (usec)	4.10978E-01	+/-	1.5E-03
Phase delay (usec)	-1.30681843726E+04	Apriori clockrate (us/s)	-7.3889397E-07	Resid phdelay (usec)	7.80976E-07	+/-	3.3E-07
Delay rate (us/s)	-1.44752605342E+00	Apriori rate (us/s)	-1.44753340797E+00	Resid rate (us/s)	7.35455E-06	+/-	2.8E-09
Total phase (deg)	-2647.4	Apriori accel (us/s/s)	6.19458014071E-05	Resid phase (deg)	-2315.8	+/-	10.2

ph/seg (deg)	74.9	Theor.	84.1	Amplitude	0.241 +/- 0.043	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	145.2	Search (2048X8)	0.186	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.220	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	5.8	Inc. frq. avg.	0.221	Inc. frq. avg.	0.221	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	512	dr window (ns/s)	-0.012 0.012
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

t: az 308.5 el 17.8 pa 60.9      Y: az 76.3 el 64.3 pa -81.0      u,v (fr/asec) 11201.362 3519.632      simultaneous interpolator

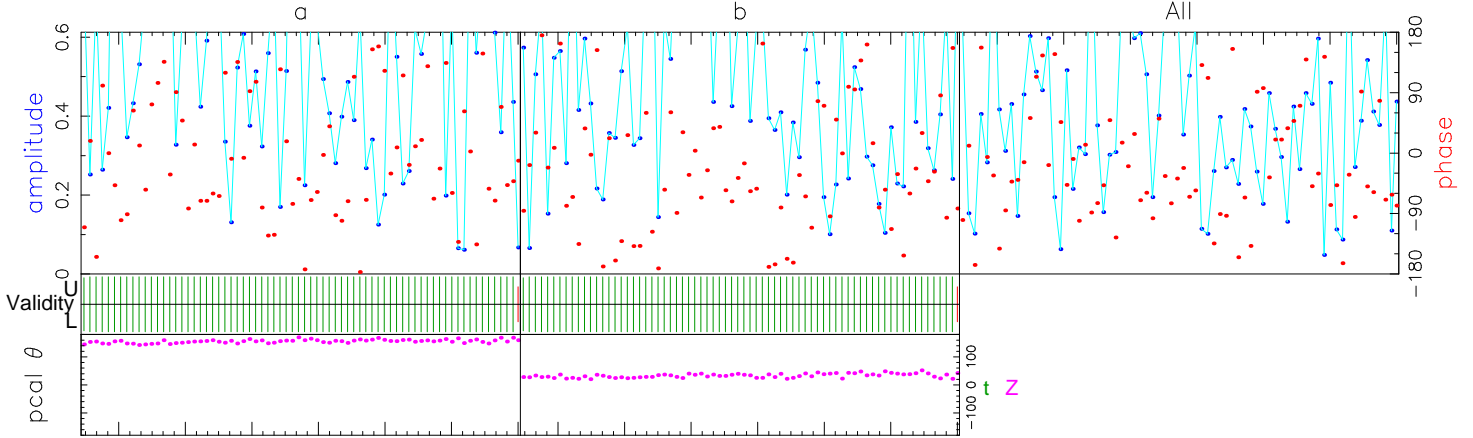
Control file: cf\_1234    Input file: /Exps/c171a/gmva/1234/No0220/tY..zpwuhk    Output file: /Exps/c171a/gmva/1234/No0220/tY.W.72.zpwuhk





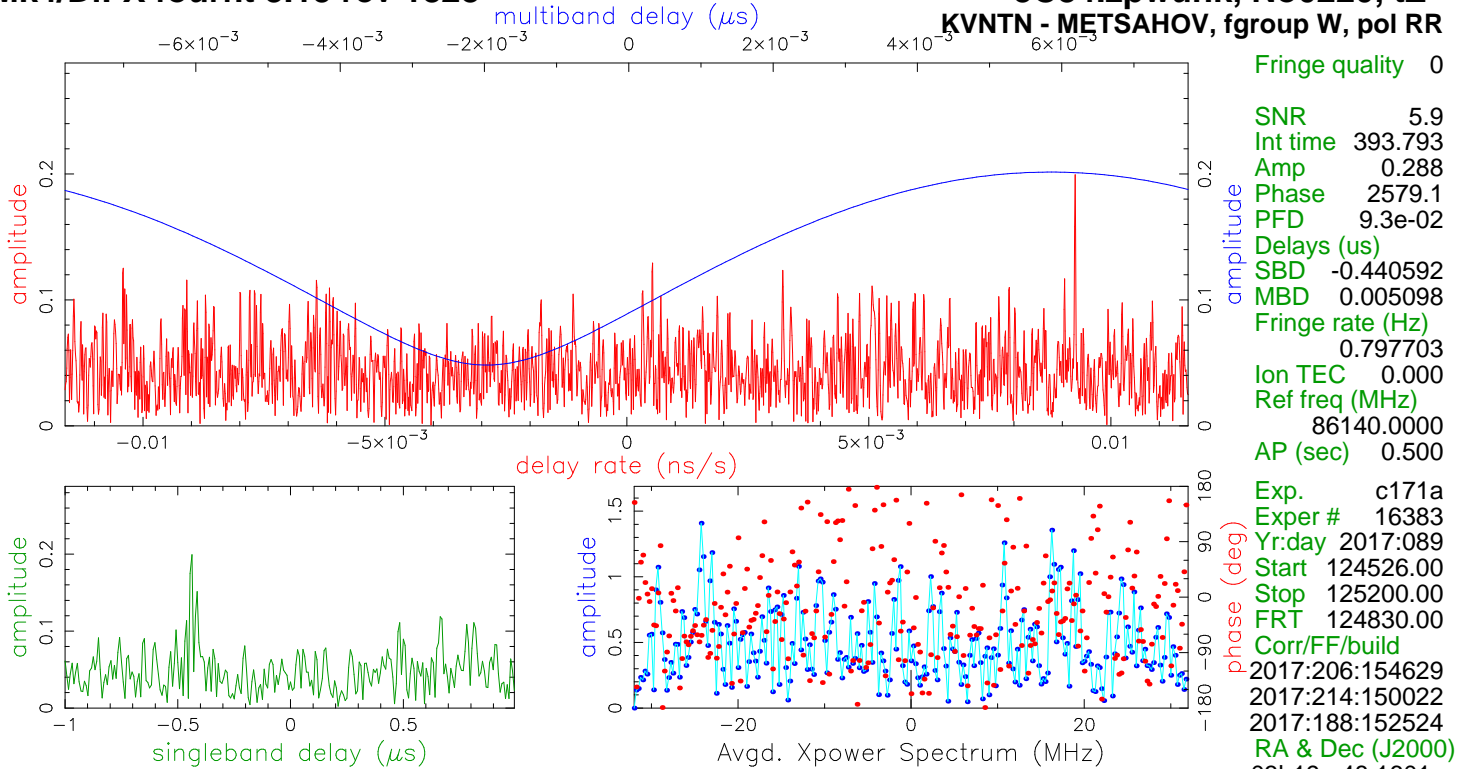
Fringe quality 0  
 SNR 5.2  
 Int time 393.793  
 Amp 0.204  
 Phase -5442.7  
 PFD 1.0e+00  
 Delays (us)  
 SBD 0.937725  
 MBD -0.001936  
 Fringe rate (Hz)  
 -0.406187  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124526.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:214:150021  
 2017:188:152524  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 11 APs / seg (5.50 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)	All
-42.5		-42.9		Phase	-42.7
0.2		0.2		Ampl.	0.2
249.0		211.3		Sbd box	249.0
U/L 788/788		788/788		APs used	
t 0		0		PC freqs	
Z -1000		-1000		PC freqs	
t:Z 0:0		0:0		PC phase	
t:Z 0:0		0:0		ManI PC	
t 1000		1000		PC amp	
Z 1000		1000			
t W00UL,W00LL		W01UL,W01LL		Chan ids	
Z W00UL,W00LL		W02UL,W02LL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.38758936622E+04	Apriori delay (usec)	-1.38768292259E+04	Resid mbdelay (usec)	-1.93622E-03 +/- 9.6E-04
Sband delay (usec)	-1.38758915004E+04	Apriori clock (usec)	5.3401995E+00	Resid sbdelay (usec)	9.37725E-01 +/- 1.7E-03
Phase delay (usec)	-1.38768292273E+04	Apriori clockrate (us/s)	-3.0800056E-07	Resid phdelay (usec)	-1.37631E-06 +/- 3.6E-07
Delay rate (us/s)	-1.02161288615E+00	Apriori rate (us/s)	-1.02160817072E+00	Resid rate (us/s)	-4.71543E-06 +/- 3.1E-09
Total phase (deg)	-5630.6	Apriori accel (us/s/s)	4.99058831342E-05	Resid phase (deg)	-5442.7 +/- 11.1

ph/seg (deg) 84.9 94.0 Search (2048X8) 0.185 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 155.9 164.0 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 15.7 Inc. seg. avg. 0.182 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 3.3 27.3 Inc. frq. avg. 0.197 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 t: az 308.5 el 17.8 pa 60.9 Z: az 164.4 el 70.9 pa -10.2 u,v (fr/asec) 7920.216 1269.948 ion window (TEC) 0.00 0.00



Fringe quality 0

SNR 5.9

Int time 393.793

Amp 0.288

Phase 2579.1

PFD 9.3e-02

Delays (us)

SBD -0.440592

MBD 0.005098

Fringe rate (Hz) 0.797703

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124526.00

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

2017:214:150022

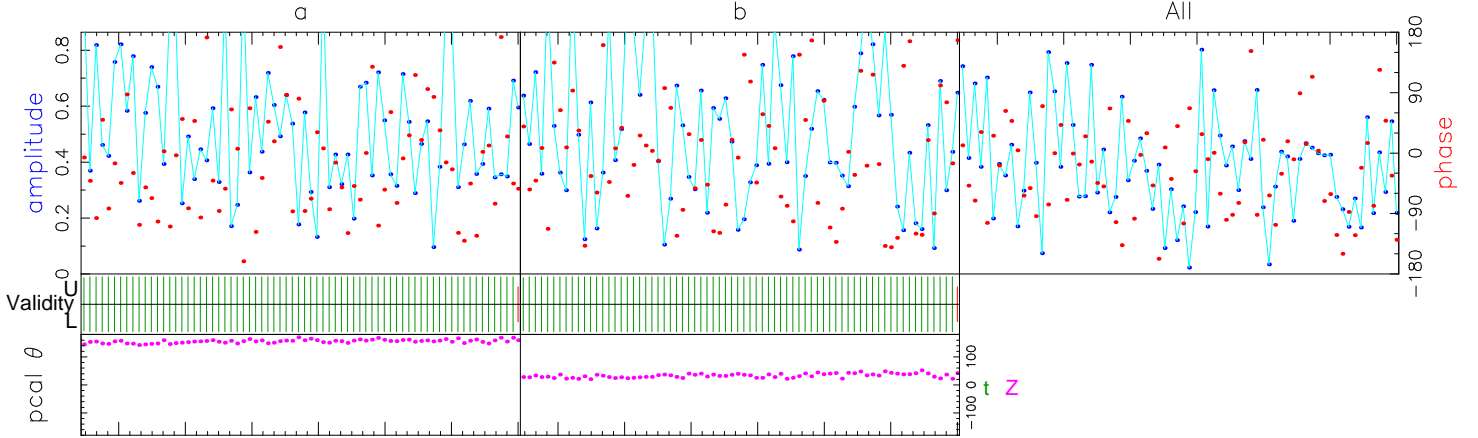
2017:188:152524

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 11 APs / seg (5.50 sec / seg.), time ticks 10 sec



86156.00	-37.4	0.3	72.7	U/L 788/788	t 0	Z -1000	t:Z 0:0	t:Z 0:0	t 1000	Z 1000	t W00UR,W00LR	Z W00UR,W00LR	Group delay (usec)(sbd)	-1.38772772527E+04	Sband delay (usec)	-1.38772698174E+04	Phase delay (usec)	-1.38768292269E+04	Delay rate (us/s)	-1.02159891017E+00	Total phase (deg)	2391.2
86220.00	-20.2	0.2	190.9	788/788	0	-1000	0:0	0:0	1000	1000	W01UR,W01LR	W02UR,W02LR	Apriori delay (usec)	-1.38768292259E+04	Apriori clock (usec)	5.3401995E+00	Apriori clockrate (us/s)	-3.0800056E-07	Apriori rate (us/s)	-1.02160817072E+00	Apriori accel (us/s/s)	4.99058831342E-05
													Freq (MHz)	All	Phase	-30.9	Ampl.	0.3	Sbd box	72.6	APs used	
													PC freqs		PC freqs		PC phase		ManI PC		PC amp	
													Chan ids		Tracks		Chan ids		Tracks		Resid mbdelay (usec)	5.09819E-03 +/- 8.4E-04
													Resid sbdelay (usec)	-4.40592E-01 +/- 1.5E-03	Resid phdelay (usec)	-9.95821E-07 +/- 3.1E-07	Resid rate (us/s)	9.26054E-06 +/- 2.7E-09	Resid phase (deg)	2579.1 +/- 9.7		

ph/seg (deg) 67.2 82.0 Search (2048X8) 0.199 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

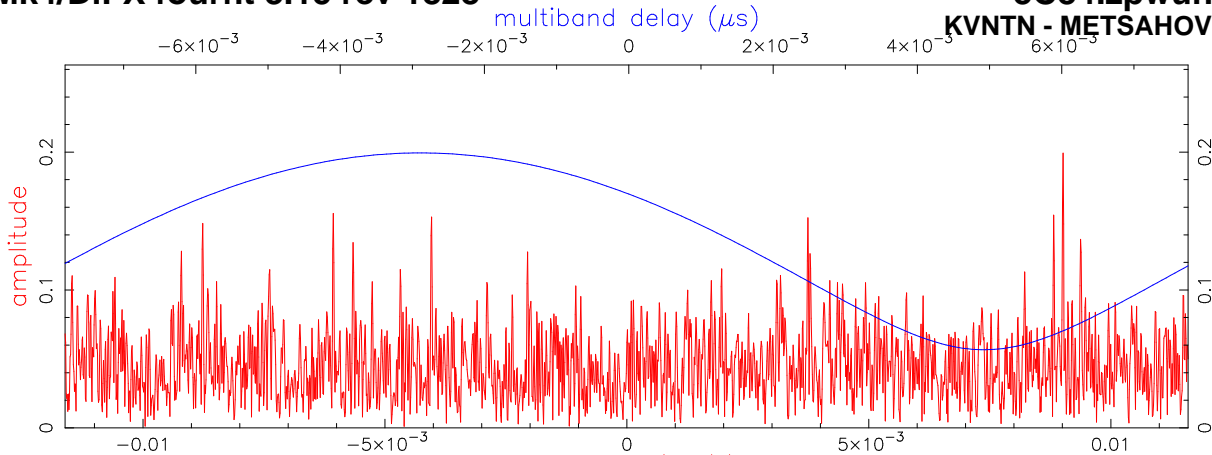
amp/seg (%) 115.1 143.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 13.7 Inc. seg. avg. 0.253 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

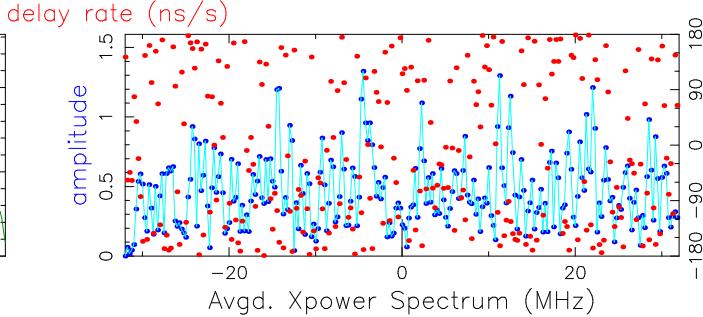
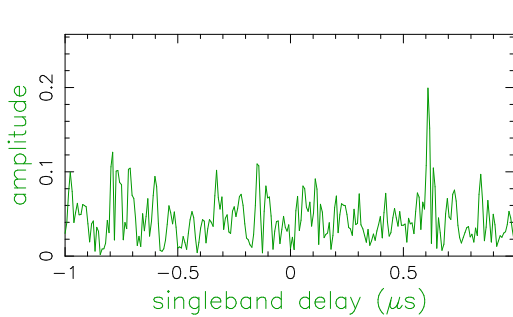
amp/frq (%) 23.4 23.9 Inc. frq. avg. 0.258 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012

t: az 308.5 el 17.8 pa 60.9 Z: az 164.4 el 70.9 pa -10.2 u,v (fr/asec) 7920.216 1269.948 ion window (TEC) 0.00 0.00

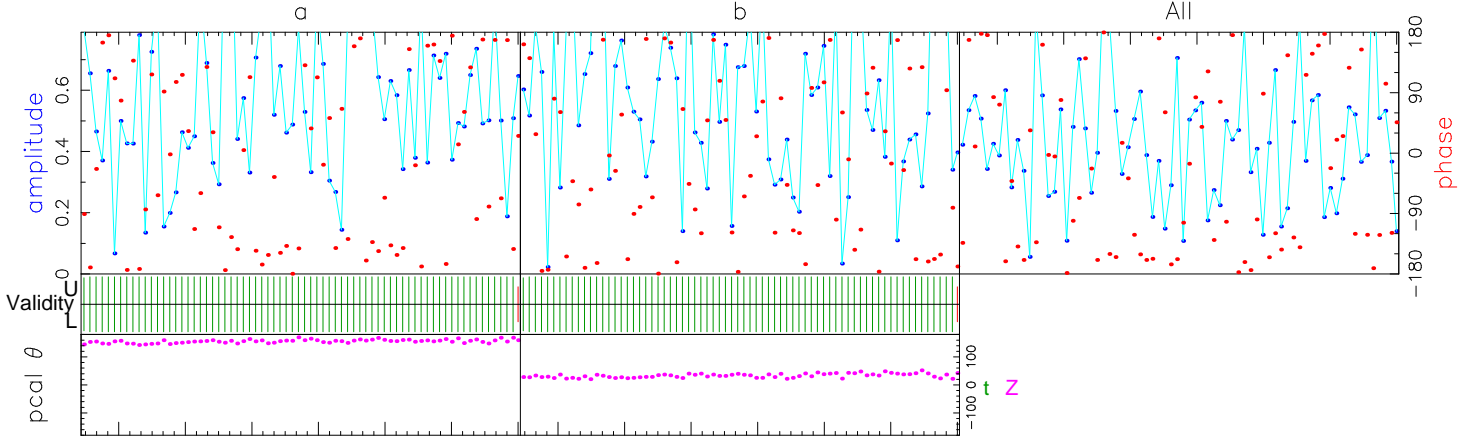
Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tZ.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tZ.W.206.zpwuhk simultaneous interpolator



Fringe quality 0  
 SNR 5.5  
 Int time 393.793  
 Amp 0.263  
 Phase -3672.0  
 PFD 6.8e-01  
 Delays (us)  
 SBD 0.610959  
 MBD -0.003085  
 Fringe rate (Hz) 0.776504  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124526.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:214:150022  
 2017:188:152524  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

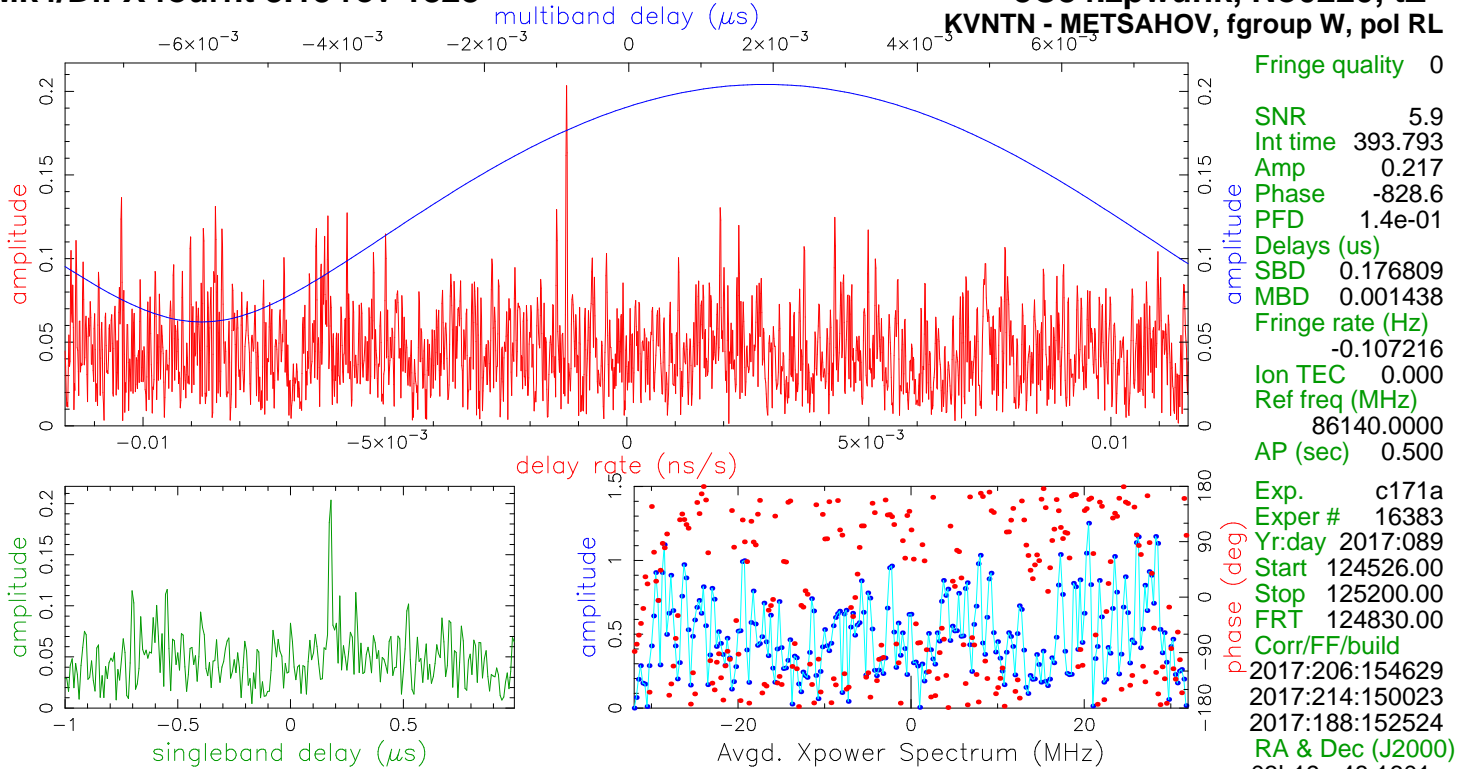


Amp. and Phase vs. time for each freq., 72 segs, 11 APs / seg (5.50 sec / seg.), time ticks 10 sec

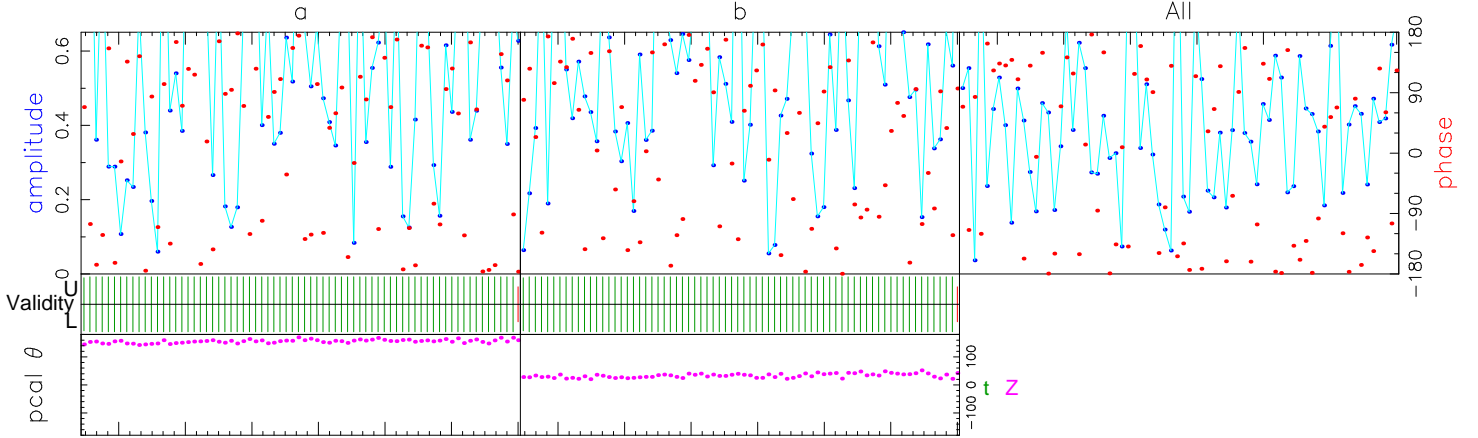


86156.00		86220.00		Freq (MHz)	All
-163.6		-159.1		Phase	-162.0
0.3		0.2		Ampl.	0.3
207.3		110.8		Sbd box	207.2
U/L 788/788		788/788		APs used	
t 0		0		PC freqs	
Z -1000		-1000		PC freqs	
t:Z 0:0		0:0		PC phase	
t:Z 0:0		0:0		Manl PC	
t 1000		1000		PC amp	
Z 1000		1000			
t W00UL,W00LL		W01UL,W01LL		Chan ids	
Z W00UR,W00LR		W02UR,W02LR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.38762229363E+04	Apriori delay (usec)	-1.38768292259E+04	Resid mbdelay (usec)	-3.08539E-03 +/- 9.0E-04
Sband delay (usec)	-1.38762182669E+04	Apriori clock (usec)	5.3401995E+00	Resid sbdelay (usec)	6.10959E-01 +/- 1.6E-03
Phase delay (usec)	-1.38768292312E+04	Apriori clockrate (us/s)	-3.0800056E-07	Resid phdelay (usec)	-5.22433E-06 +/- 3.4E-07
Delay rate (us/s)	-1.02159915628E+00	Apriori rate (us/s)	-1.02160817072E+00	Resid rate (us/s)	9.01444E-06 +/- 3.0E-09
Total phase (deg)	-3860.0	Apriori accel (us/s/s)	4.99058831342E-05	Resid phase (deg)	-3672.0 +/- 10.4

ph/seg (deg) 84.9 88.4 Search (2048X8) 0.196 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 153.7 154.3 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 14.7 Inc. seg. avg. 0.259 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 28.0 25.7 Inc. frq. avg. 0.251 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 t: az 308.5 el 17.8 pa 60.9 Z: az 164.4 el 70.9 pa -10.2 u,v (fr/asec) 7920.216 1269.948 ion window (TEC) 0.00 0.00  
 Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tZ.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tZ.W.207.zpwuhk simultaneous interpolator

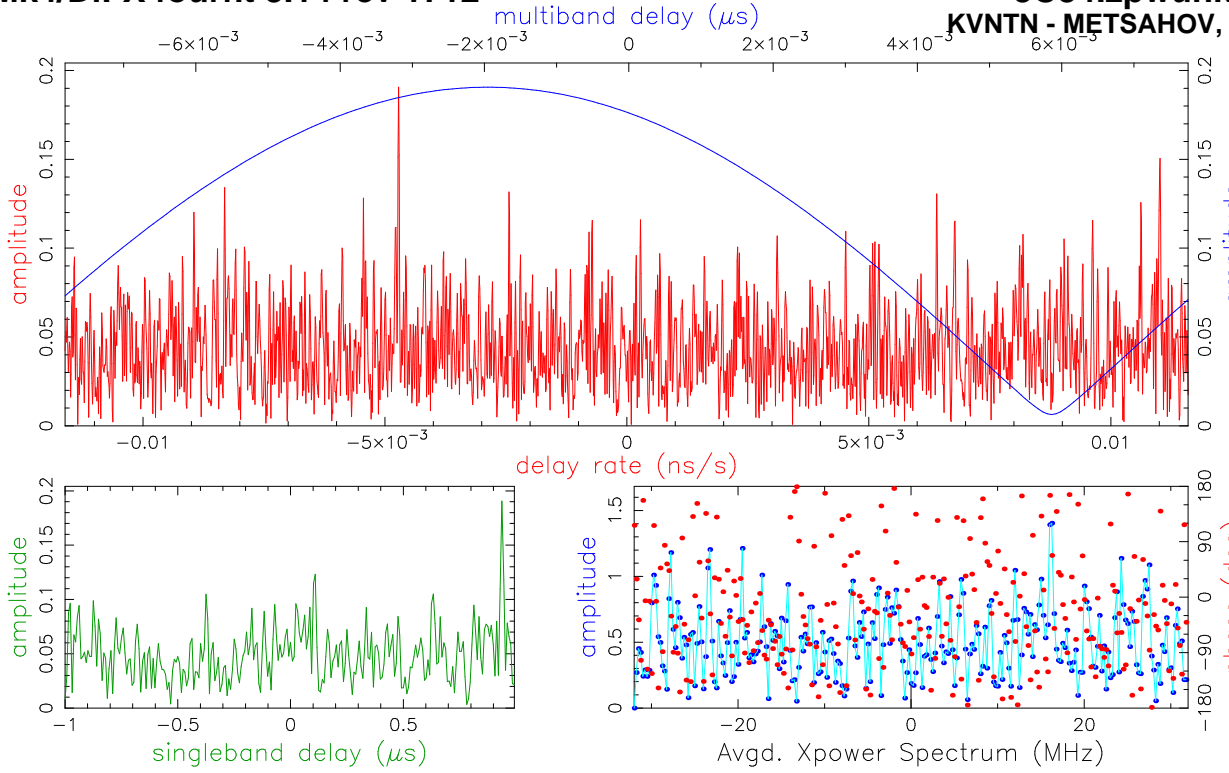


Amp. and Phase vs. time for each freq., 72 segs, 11 APs / seg (5.50 sec / seg.), time ticks 10 sec



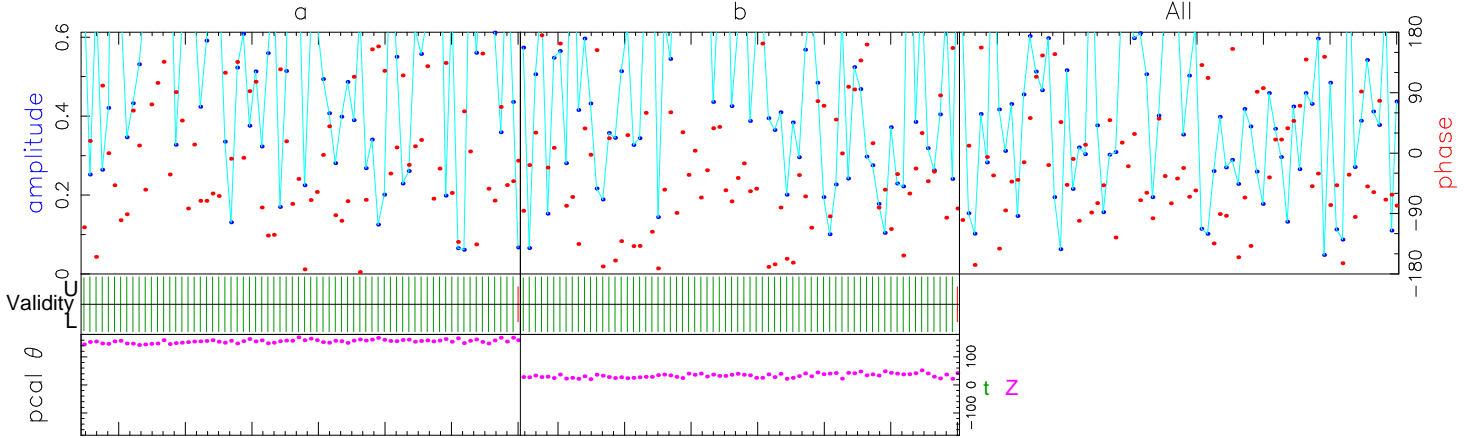
86156.00	86220.00	Freq (MHz)	All				
157.8	168.3	Phase	161.4				
0.3	0.1	Ampl.	0.2				
151.9	78.5	Sbd box	151.6				
U/L 788/788	788/788	APs used					
t 0	0	PC freqs					
Z -1000	-1000	PC freqs					
t:Z 0:0	0:0	PC phase					
t:Z 0:0	0:0	ManI PC					
t 1000	1000	PC amp					
Z 1000	1000						
t W00UR,W00LR	W01UR,W01LR	Chan ids					
Z W00UL,W00LL	W02UL,W02LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.38766559132E+04	Apriori delay (usec)	-1.38768292259E+04	Resid mbdelay (usec)	1.43773E-03	+/-	8.5E-04
Sband delay (usec)	-1.38766524169E+04	Apriori clock (usec)	5.3401995E+00	Resid sbdelay (usec)	1.76809E-01	+/-	1.5E-03
Phase delay (usec)	-1.38768292207E+04	Apriori clockrate (us/s)	-3.0800056E-07	Resid phdelay (usec)	5.20569E-06	+/-	3.2E-07
Delay rate (us/s)	-1.02160941539E+00	Apriori rate (us/s)	-1.02160817072E+00	Resid rate (us/s)	-1.24467E-06	+/-	2.8E-09
Total phase (deg)	-1016.5	Apriori accel (us/s/s)	4.99058831342E-05	Resid phase (deg)	-828.6	+/-	9.8

ph/seg (deg) 69.8 83.0 Theor. Amplitude 0.217 +/- 0.037 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 137.2 144.8 Search (2048X8) 0.200 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 13.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 29.3 24.1 Inc. seg. avg. 0.204 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 t: az 308.5 el 17.8 pa 60.9 Z: az 164.4 el 70.9 pa -10.2 u,v (fr/asec) 7920.216 1269.948 ion window (TEC) 0.00 0.00  
 Control file: ../cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tZ.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tZ.W.208.zpwuhk simultaneous interpolator



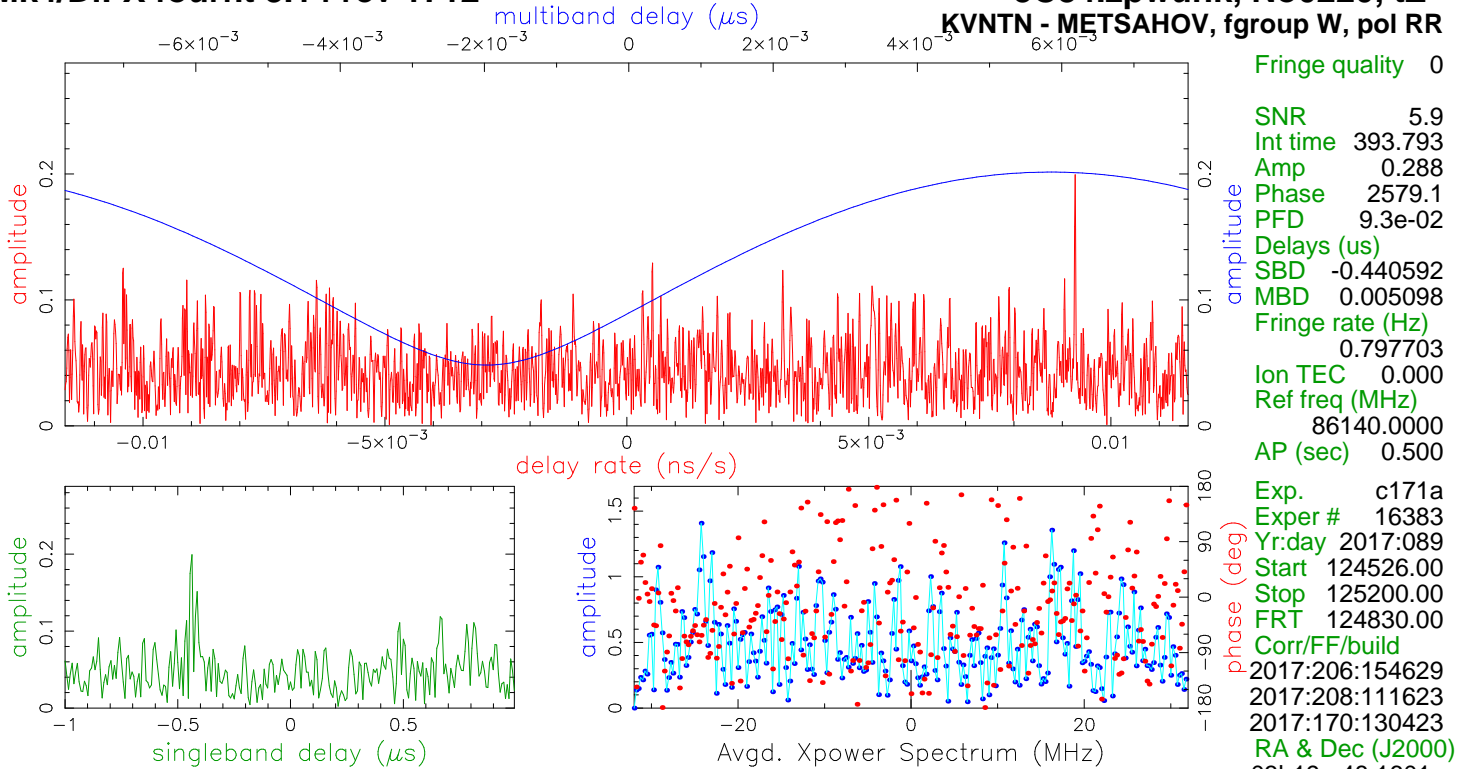
Fringe quality 0  
 SNR 5.2  
 Int time 393.793  
 Amp 0.204  
 Phase -5442.7  
 PFD 1.0e+00  
 Delays (us)  
 SBD 0.937725  
 MBD -0.001936  
 Fringe rate (Hz)  
 -0.406187  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124526.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:208:111622  
 2017:170:130423  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 11 APs / seg (5.50 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)	All
-42.5		-42.9		Phase	-42.7
0.2		0.2		Ampl.	0.2
249.0		211.3		Sbd box	249.0
U/L 788/788		788/788		APs used	
t 0		0		PC freqs	
Z -1000		-1000		PC freqs	
t:Z 0:0		0:0		PC phase	
t:Z 0:0		0:0		ManI PC	
t 1000		1000		PC amp	
Z 1000		1000			
t W00UL,W00LL		W01UL,W01LL		Chan ids	
Z W00UL,W00LL		W02UL,W02LL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.38758936622E+04	Apriori delay (usec)	-1.38768292259E+04	Resid mbdelay (usec)	-1.93622E-03 +/- 9.6E-04
Sband delay (usec)	-1.38758915004E+04	Apriori clock (usec)	5.3401995E+00	Resid sbdelay (usec)	9.37725E-01 +/- 1.7E-03
Phase delay (usec)	-1.38768292273E+04	Apriori clockrate (us/s)	-3.0800056E-07	Resid phdelay (usec)	-1.37631E-06 +/- 3.6E-07
Delay rate (us/s)	-1.02161288615E+00	Apriori rate (us/s)	-1.02160817072E+00	Resid rate (us/s)	-4.71543E-06 +/- 3.1E-09
Total phase (deg)	-5630.6	Apriori accel (us/s/s)	4.99058831342E-05	Resid phase (deg)	-5442.7 +/- 11.1

ph/seg (deg) 84.9 94.0 Search (2048X8) 0.185 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 155.9 164.0 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 15.7 Inc. seg. avg. 0.182 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 3.3 27.3 Inc. frq. avg. 0.197 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 t: az 308.5 el 17.8 pa 60.9 Z: az 164.4 el 70.9 pa -10.2 u,v (fr/asec) 7920.216 1269.948 ion window (TEC) 0.00 0.00  
 Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tZ.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tZ.W.93.zpwuhk simultaneous interpolator



Fringe quality 0

SNR 5.9

Int time 393.793

Amp 0.288

Phase 2579.1

PFD 9.3e-02

Delays (us)

SBD -0.440592

MBD 0.005098

Fringe rate (Hz) 0.797703

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124526.00

Stop 125200.00

FRT 124830.00

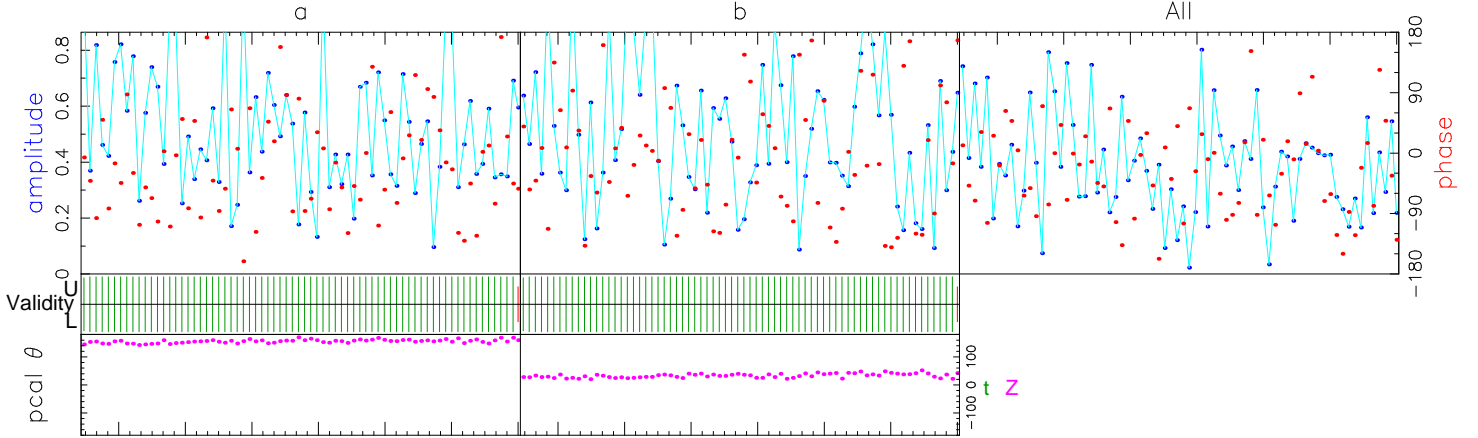
Corr/FF/build 2017:206:154629

2017:208:111623

2017:170:130423

RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 11 APs / seg (5.50 sec / seg.), time ticks 10 sec



86156.00	-37.4	0.3	72.7	U/L 788/788	t 0	Z -1000	t:Z 0:0	t:Z 0:0	t 1000	Z 1000	t W00UR,W00LR	Z W00UR,W00LR	Group delay (usec)(sbd) -1.3877272527E+04	Sband delay (usec) -1.38772698174E+04	Phase delay (usec) -1.38768292269E+04	Delay rate (us/s) -1.02159891017E+00	Total phase (deg) 2391.2	86220.00	-20.2	0.2	190.9	788/788	t 0	Z -1000	t:Z 0:0	t:Z 0:0	t 1000	Z 1000	t W01UR,W01LR	Z W02UR,W02LR	Apriori delay (usec) -1.38768292259E+04	Apriori clock (usec) 5.3401995E+00	Apriori clockrate (us/s) -3.0800056E-07	Apriori rate (us/s) -1.02160817072E+00	Apriori accel (us/s/s) 4.99058831342E-05	Freq (MHz) All	Phase -30.9	Ampl. 0.3	Sbd box 72.6	APs used	PC freqs	PC phase	ManI PC	PC amp	Chan ids	Tracks	Chan ids	Tracks	Resid mbdelay (usec) 5.09819E-03 +/- 8.4E-04	Resid sbdelay (usec) -4.40592E-01 +/- 1.5E-03	Resid phdelay (usec) -9.95821E-07 +/- 3.1E-07	Resid rate (us/s) 9.26054E-06 +/- 2.7E-09	Resid phase (deg) 2579.1 +/- 9.7
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ph/seg (deg) 67.2 82.0 Search (2048X8) 0.199

amp/seg (%) 115.1 143.1 Interp. 0.000

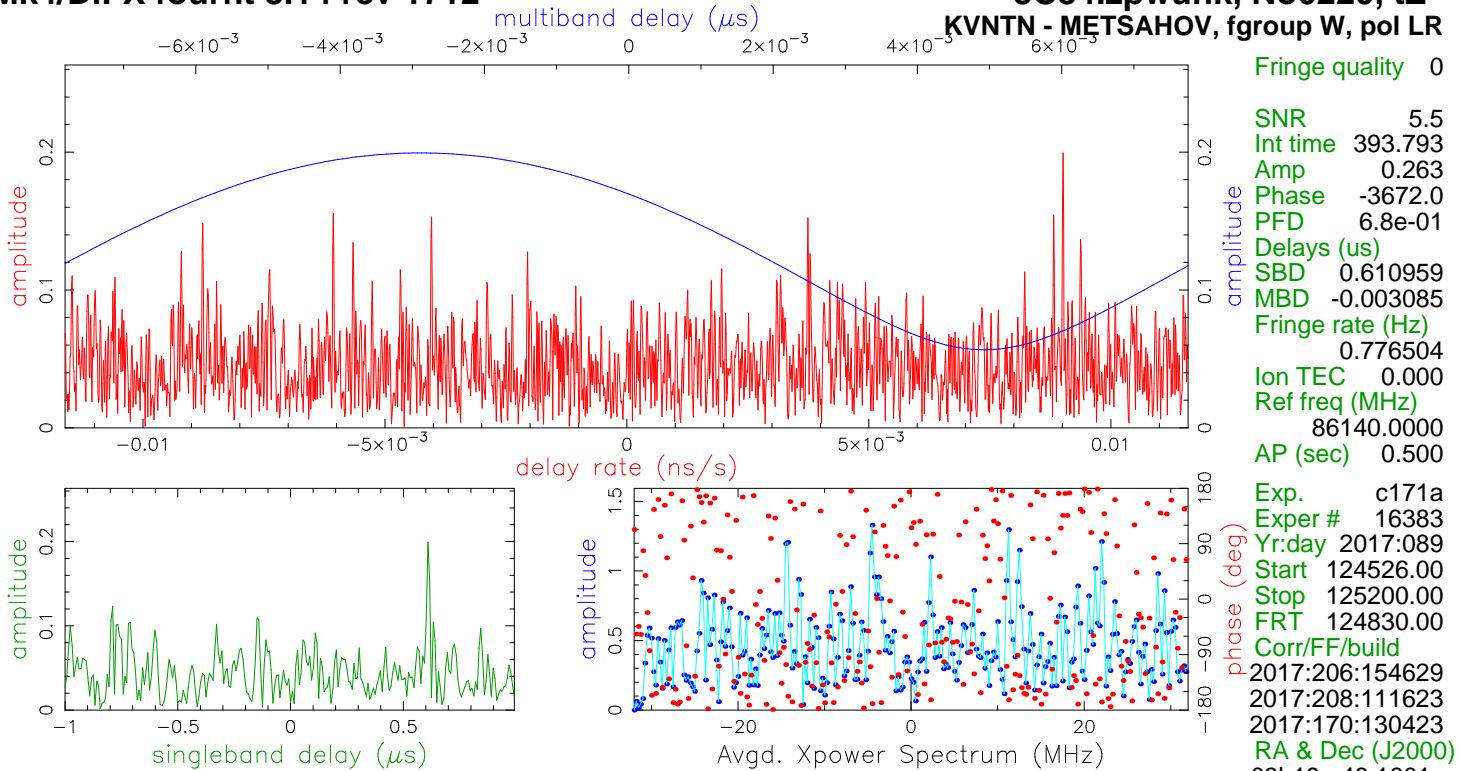
ph/frq (deg) 0.0 13.7 Inc. seg. avg. 0.253

amp/frq (%) 23.4 23.9 Inc. frq. avg. 0.258

t: az 308.5 el 17.8 pa 60.9 Z: az 164.4 el 70.9 pa -10.2 u,v (fr/asec) 7920.216 1269.948

Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tZ.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tZ.W.94.zpwuhk

simultaneous interpolator



Fringe quality 0

SNR 5.5

Int time 393.793

Amp 0.263

Phase -3672.0

PFD 6.8e-01

Delays (us)

SBD 0.610959

MBD -0.003085

Fringe rate (Hz) 0.776504

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.500

Exp. c171a

Exper # 16383

Yr:day 2017:089

Start 124526.00

Stop 125200.00

FRT 124830.00

Corr/FF/build

2017:206:154629

2017:208:111623

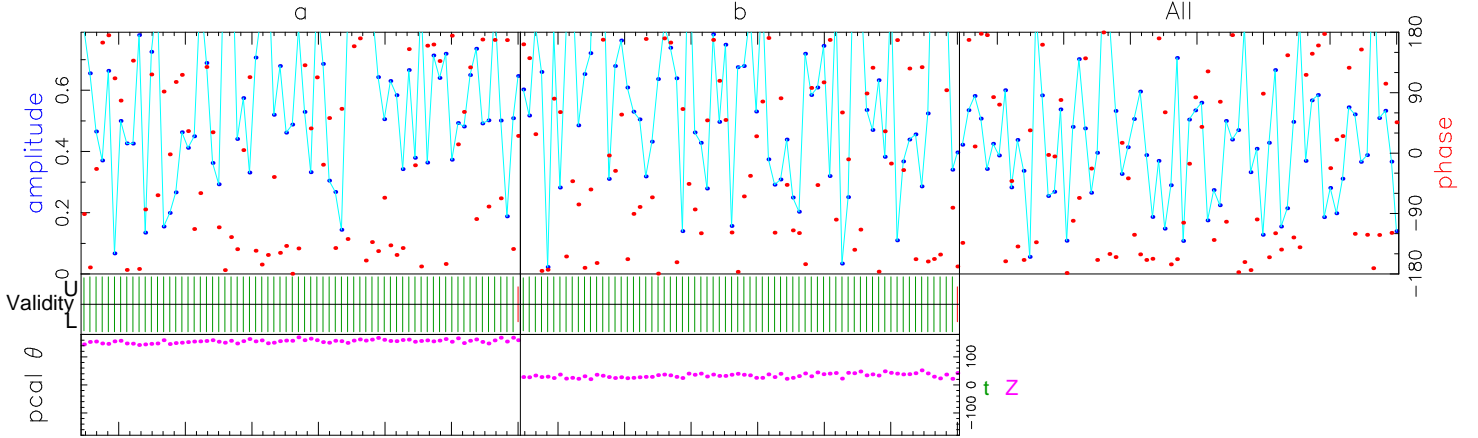
2017:170:130423

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 11 APs / seg (5.50 sec / seg.), time ticks 10 sec

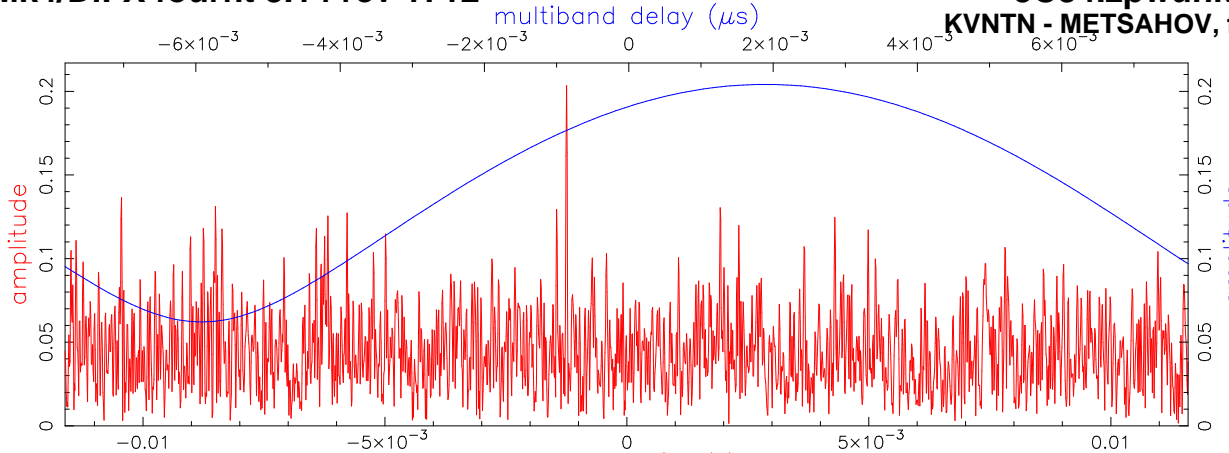


86156.00	86220.00	Freq (MHz)	All				
-163.6	-159.1	Phase	-162.0				
0.3	0.2	Ampl.	0.3				
207.3	110.8	Sbd box	207.2				
U/L 788/788	788/788	APs used					
t 0	0	PC freqs					
Z -1000	-1000	PC freqs					
t:Z 0:0	0:0	PC phase					
t:Z 0:0	0:0	Manl PC					
t 1000	1000	PC amp					
Z 1000	1000						
t W00UL,W00LL	W01UL,W01LL	Chan ids					
Z W00UR,W00LR	W02UR,W02LR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.38762229363E+04	Apriori delay (usec)	-1.38768292259E+04	Resid mbdelay (usec)	-3.08539E-03	+/-	9.0E-04
Sband delay (usec)	-1.38762182669E+04	Apriori clock (usec)	5.3401995E+00	Resid sbdelay (usec)	6.10959E-01	+/-	1.6E-03
Phase delay (usec)	-1.38768292312E+04	Apriori clockrate (us/s)	-3.0800056E-07	Resid phdelay (usec)	-5.22433E-06	+/-	3.4E-07
Delay rate (us/s)	-1.02159915628E+00	Apriori rate (us/s)	-1.02160817072E+00	Resid rate (us/s)	9.01444E-06	+/-	3.0E-09
Total phase (deg)	-3860.0	Apriori accel (us/s/s)	4.99058831342E-05	Resid phase (deg)	-3672.0	+/-	10.4

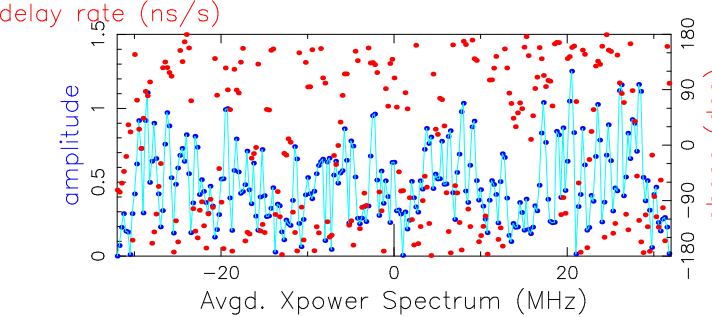
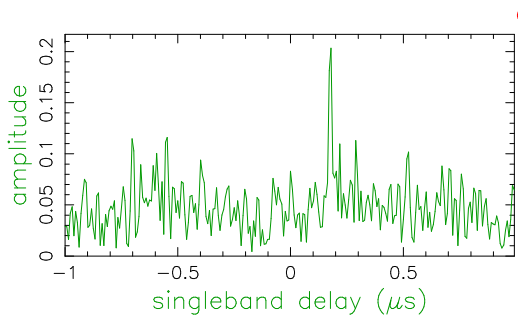
ph/seg (deg)	84.9	Theor.	88.4	Amplitude	0.263 +/- 0.048	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	153.7	Search (2048X8)	0.196	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	28.0	Inc. seg. avg.	0.259	Inc. seg. avg.	0.251	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	0.251	Inc. frq. avg.	0.251	Data rate(Mb/s):	512	dr window (ns/s)	-0.012 0.012
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

t: az 308.5 el 17.8 pa 60.9 Z: az 164.4 el 70.9 pa -10.2 u,v (fr/asec) 7920.216 1269.948 simultaneous interpolator

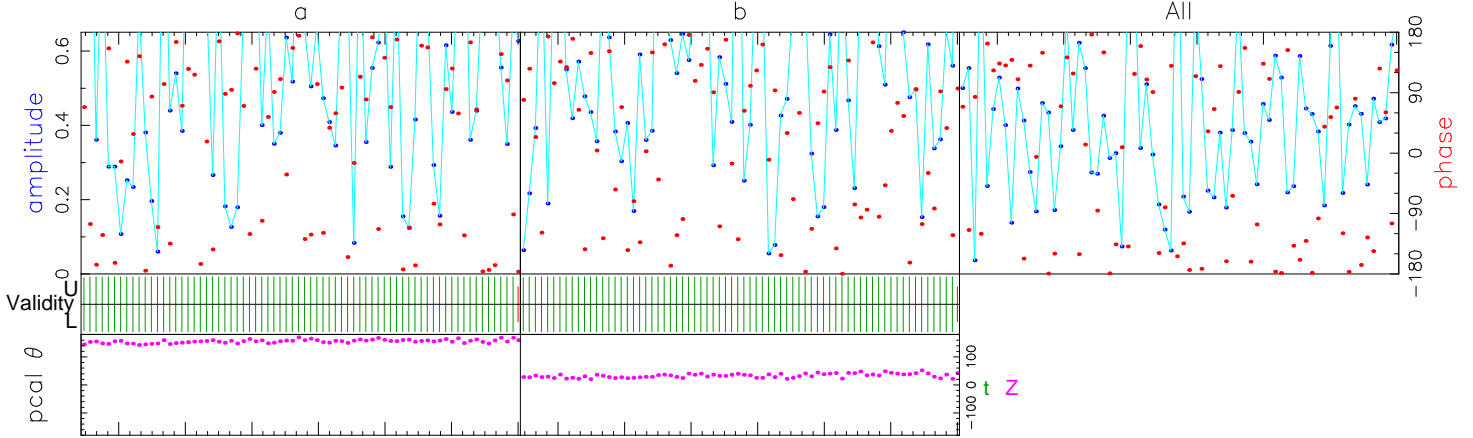
Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tZ.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tZ.W.95.zpwuhk



Fringe quality 0  
 SNR 5.9  
 Int time 393.793  
 Amp 0.217  
 Phase -828.6  
 PFD 1.4e-01  
 Delays (us)  
 SBD 0.176809  
 MBD 0.001438  
 Fringe rate (Hz)  
 -0.107216  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.500  
 Exp. c171a  
 Exper # 16383  
 Yr:day 2017:089  
 Start 124526.00  
 Stop 125200.00  
 FRT 124830.00  
 Corr/FF/build  
 2017:206:154629  
 2017:208:111624  
 2017:170:130423  
 RA & Dec (J2000)  
 03h19m48.1601s  
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 72 segs, 11 APs / seg (5.50 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
157.8	168.3	Phase	161.4				
0.3	0.1	Ampl.	0.2				
151.9	78.5	Sbd box	151.6				
U/L 788/788	788/788	APs used					
t 0	0	PC freqs					
Z -1000	-1000	PC freqs					
t:Z 0:0	0:0	PC phase					
t:Z 0:0	0:0	ManI PC					
t 1000	1000	PC amp					
Z 1000	1000						
t W00UR,W00LR	W01UR,W01LR	Chan ids					
Z W00UL,W00LL	W02UL,W02LL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.38766559132E+04	Apriori delay (usec)	-1.38768292259E+04	Resid mbdelay (usec)	1.43773E-03	+/-	8.5E-04
Sband delay (usec)	-1.38766524169E+04	Apriori clock (usec)	5.3401995E+00	Resid sbdelay (usec)	1.76809E-01	+/-	1.5E-03
Phase delay (usec)	-1.38768292207E+04	Apriori clockrate (us/s)	-3.0800056E-07	Resid phdelay (usec)	5.20569E-06	+/-	3.2E-07
Delay rate (us/s)	-1.02160941539E+00	Apriori rate (us/s)	-1.02160817072E+00	Resid rate (us/s)	-1.24467E-06	+/-	2.8E-09
Total phase (deg)	-1016.5	Apriori accel (us/s/s)	4.99058831342E-05	Resid phase (deg)	-828.6	+/-	9.8

ph/seg (deg) 69.8 83.0 Theor. Amplitude 0.217 +/- 0.037 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 137.2 144.8 Search (2048X8) 0.200 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 13.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 29.3 24.1 Inc. seg. avg. 0.204 Sample rate(MSamp/s): 64 Data rate(Mb/s): 512 nlags: 128 t\_cohere infinite dr window (ns/s) -0.012 0.012  
 t: az 308.5 el 17.8 pa 60.9 Z: az 164.4 el 70.9 pa -10.2 u,v (fr/asec) 7920.216 1269.948 ion window (TEC) 0.00 0.00  
 Control file: cf\_1234 Input file: /Exps/c171a/gmva/1234/No0220/tZ.zpwuhk Output file: /Exps/c171a/gmva/1234/No0220/tZ.W.96.zpwuhk simultaneous interpolator