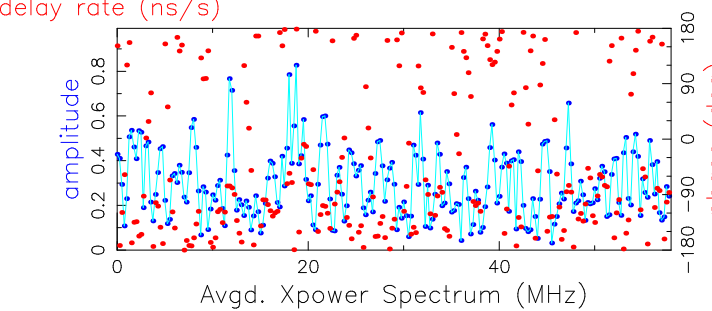
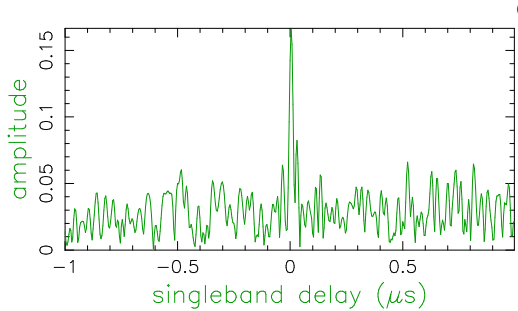
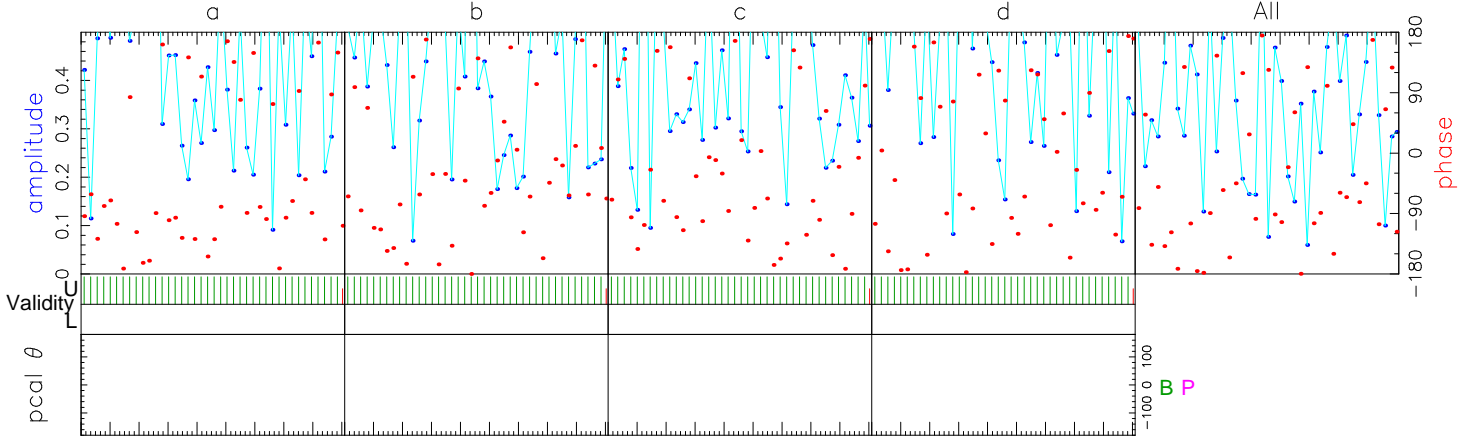


Fringe quality 0  
 SNR 7.1  
 Int time 539.959  
 Amp 0.167  
 Phase -121.7  
 PFD 3.0e-04  
 Delays (us)  
 SBD 0.005101  
 MBD 0.002850  
 Fringe rate (Hz)  
 -0.050958  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. ma008  
 Exper # 16383  
 Yr:day 2017:093  
 Start 213000.00  
 Stop 213900.16  
 FRT 213430.00  
 Corr/FF/build  
 2017:237:071917  
 2017:242:102315  
 2017:170:130423  
 RA & Dec (J2000)  
 12h29m 6.697s  
 +2°03' 8.598"



Avgd. Xpower Spectrum (MHz)

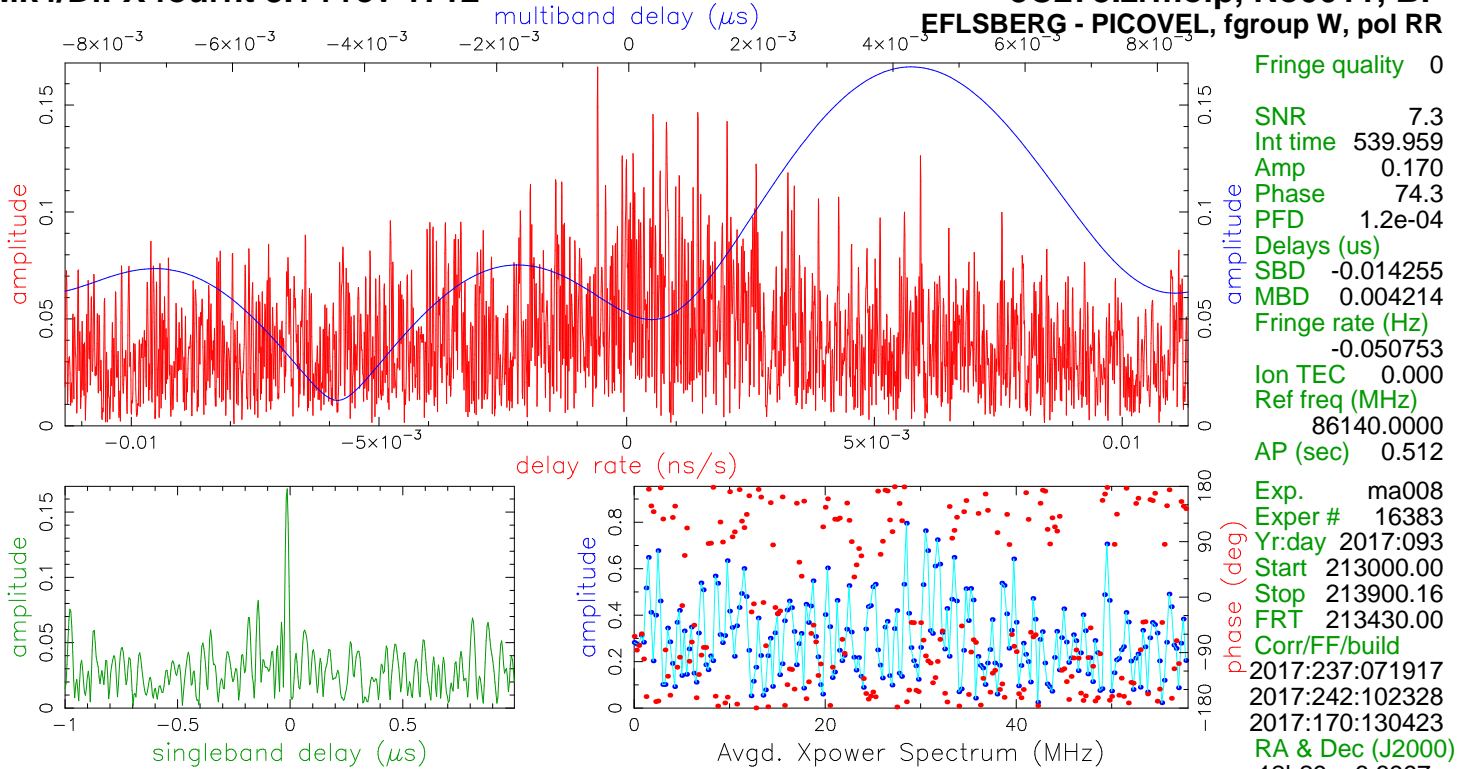
Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-124.9	-107.1	-120.6	-128.2	Phase	-121.7
	0.3	0.1	0.1	0.2	Ampl.	0.2
	233.7	53.3	225.5	43.7	Sbd box	234.2
U/L	1055/0	1055/0	1055/0	1055/0	APs used	
B	0	0	0	0	PC freqs	
P	0	0	0	0	PC freqs	
B:P	0:0	0:0	0:0	0:0	PC phase	
B:P	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	

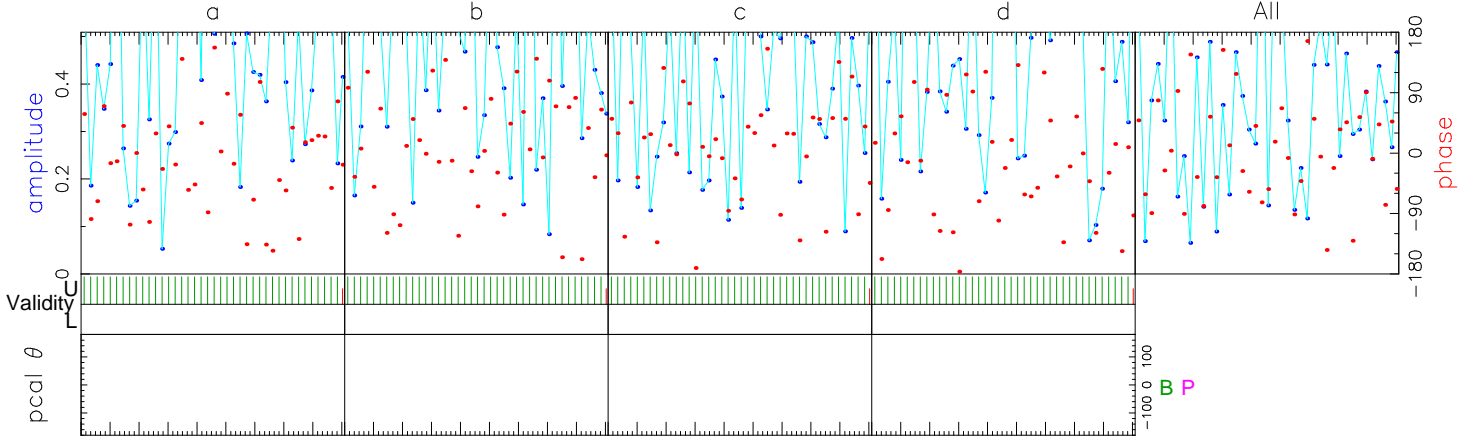
Group delay (usec)(sbd)	-1.47619845302E+03	Apriori delay (usec)	-1.47620130292E+03	Resid mbdelay (usec)	2.84990E-03	+/-	3.4E-04
Sband delay (usec)	-1.47619620196E+03	Apriori clock (usec)	2.8338945E+01	Resid sbdelay (usec)	5.10097E-03	+/-	1.3E-03
Phase delay (usec)	-1.47620130685E+03	Apriori clockrate (us/s)	-5.1787036E-07	Resid phdelay (usec)	-3.92322E-06	+/-	5.2E-07
Delay rate (us/s)	-2.97423815721E-01	Apriori rate (us/s)	-2.97423224152E-01	Resid rate (us/s)	-5.91569E-07	+/-	1.7E-09
Total phase (deg)	-205.8	Apriori accel (us/s/s)	8.65140948651E-06	Resid phase (deg)	-121.7	+/-	16.1

ph/seg (deg)	86.8	Theor.	51.5	Amplitude	0.167 +/- 0.023	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	156.0	Search (4096X16)	0.164	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	11.6	Interp.	0.000	Inc. seg. avg.	0.255	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	31.6	Inc. frq. avg.	0.161	Inc. frq. avg.	0.161	Sample rate (MSamp/s):	116	mb window (us)	-0.009 0.009
						Data rate (Mb/s):	928	dr window (ns/s)	-0.011 0.011
						nlags:	232	ion window (TEC)	0.00 0.00



Fringe quality 0  
 SNR 7.3  
 Int time 539.959  
 Amp 0.170  
 Phase 74.3  
 PFD 1.2e-04  
 Delays (us)  
 SBD -0.014255  
 MBD 0.004214  
 Fringe rate (Hz)  
 -0.050753  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. ma008  
 Exper # 16383  
 Yr:day 2017:093  
 Start 213000.00  
 Stop 213900.16  
 FRT 213430.00  
 Corr/FF/build  
 2017:237:071917  
 2017:242:102328  
 2017:170:130423  
 RA & Dec (J2000)  
 12h29m 6.697s  
 +2°03' 8.598"

Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec

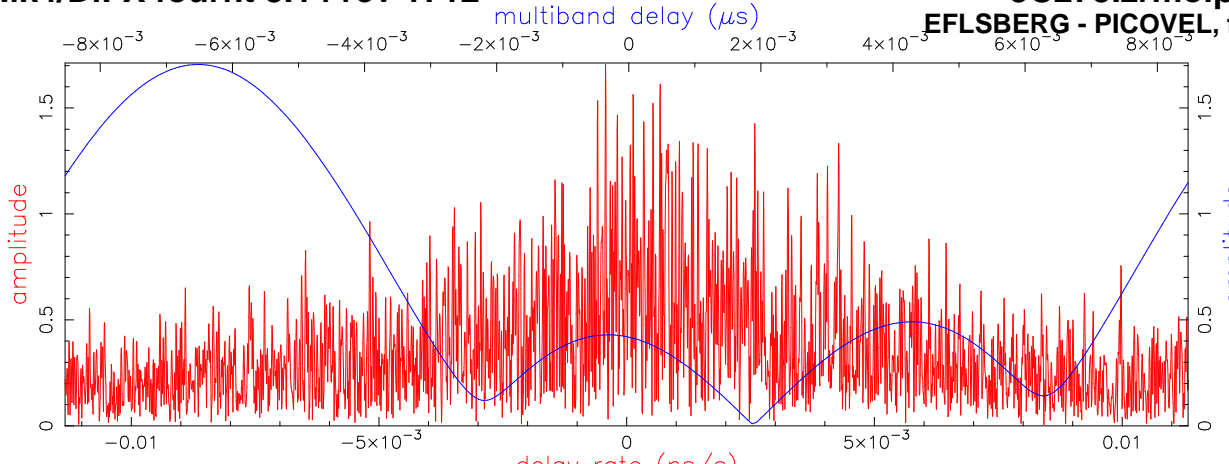


	86151.11	86209.70	86268.30	86326.89	All
U/L	1055/0	1055/0	1055/0	1055/0	
B	0	0	0	0	
P	0	0	0	0	
B:P	0:0	0:0	0:0	0:0	
B:P	0:0	0:0	0:0	0:0	
B	1000	1000	1000	1000	
P	1000	1000	1000	1000	
B	W00UR	W01UR	W02UR	W03UR	
P	W00UR	W01UR	W02UR	W03UR	

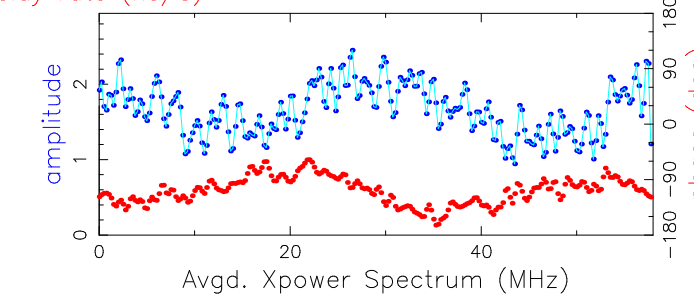
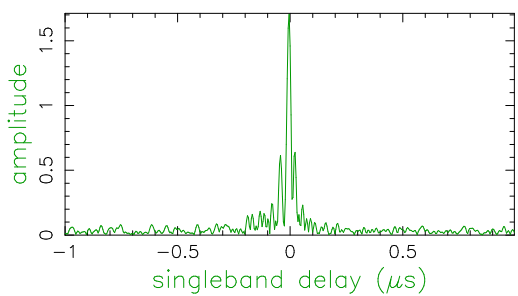
Group delay (usec)(sbd) -1.47621415566E+03 Apriori delay (usec) -1.47620130292E+03 Resid mbdelay (usec) 4.21393E-03 +/- 3.4E-04  
 Sband delay (usec) -1.47621555754E+03 Apriori clock (usec) 2.8338945E+01 Resid sbdelay (usec) -1.42546E-02 +/- 1.3E-03  
 Phase delay (usec) -1.47620130273E+03 Apriori clockrate (us/s) -5.1787036E-07 Resid phdelay (usec) 1.93744E-07 +/- 5.1E-07  
 Delay rate (us/s) -2.97423813348E-01 Apriori rate (us/s) -2.97423224152E-01 Resid rate (us/s) -5.89196E-07 +/- 1.6E-09  
 Total phase (deg) -9.9 Apriori accel (us/s/s) 8.65140948651E-06 Resid phase (deg) 74.3 +/- 15.8

RMS Theor. Amplitude 0.170 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 75.5 50.6 Search (4096X16) 0.163 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 160.4 88.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 36.8 15.8 Inc. seg. avg. 0.260 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 13.0 27.6 Inc. frq. avg. 0.180 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

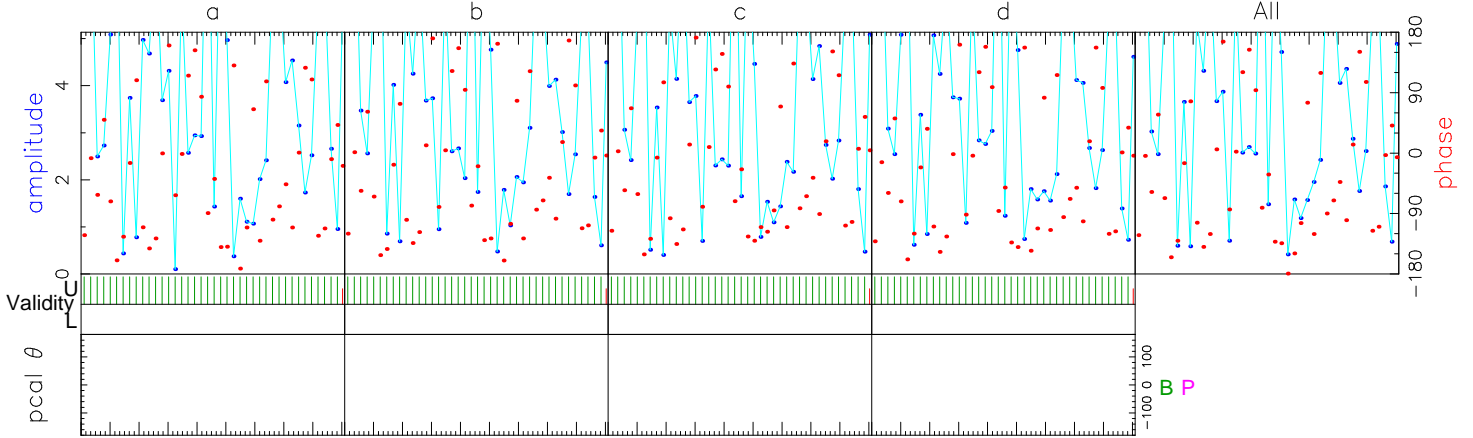
B: az 147.2 el 36.8 pa -19.4 P: az 128.1 el 41.7 pa -38.4 u,v (fr/asec) 1717.748 1518.892 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/BP..zrmolp Output file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/BP.W.34.zrmolp



Fringe quality 5  
 SNR 73.2  
 Int time 539.959  
 Amp 1.712  
 Phase -93.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.005125  
 MBD -0.006557  
 Fringe rate (Hz)  
 -0.036937  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. ma008  
 Exper # 16383  
 Yr:day 2017:093  
 Start 213000.00  
 Stop 213900.16  
 FRT 213430.00  
 Corr/FF/build  
 2017:237:071917  
 2017:242:102337  
 2017:170:130423  
 RA & Dec (J2000)  
 12h29m 6.697s  
 +2°03' 8.598"



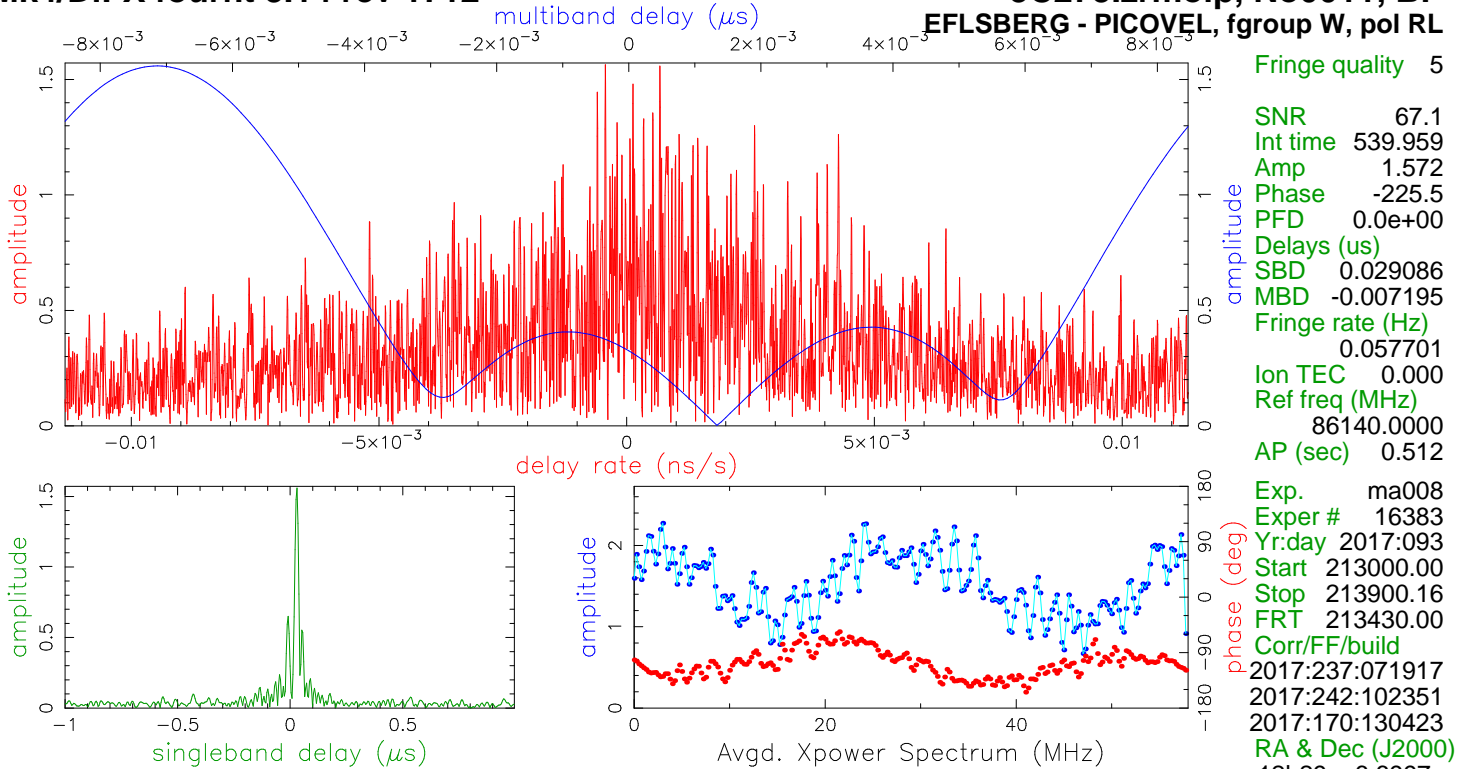
Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



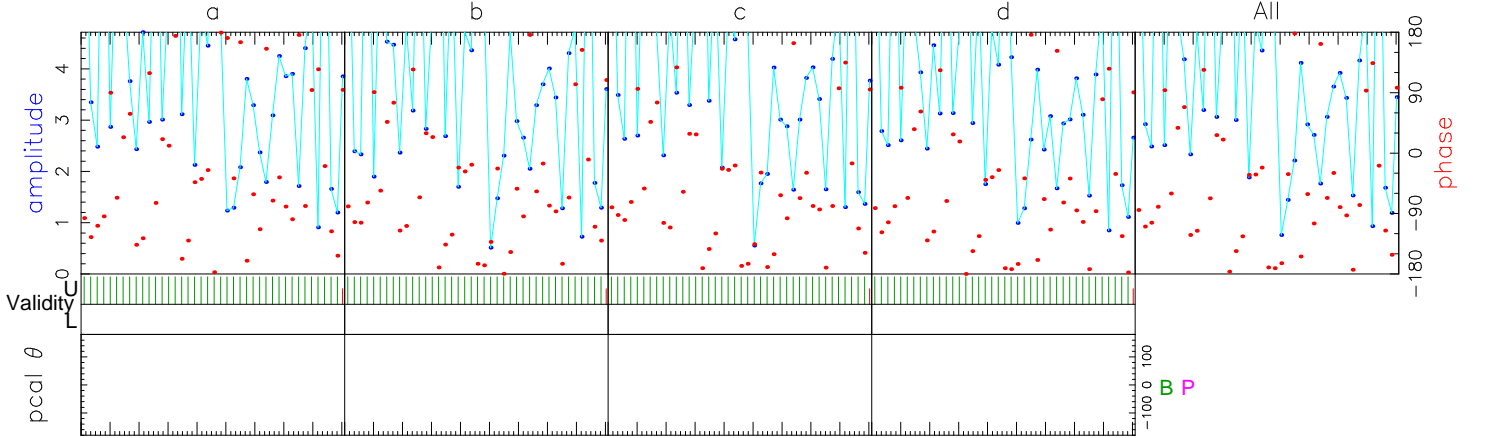
	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	1055/0	1055/0	1055/0	1055/0		
B	0	0	0	0	APs used	
P	0	0	0	0	PC freqs	
B:P	0:0	0:0	0:0	0:0	PC phase	
B	1000	1000	1000	1000	Manl PC	
P	1000	1000	1000	1000	PC amp	
B	W00UL	W01UL	W02UL	W03UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	Tracks	

Group delay (usec)(sbd)	-1.47620785988E+03	Apriori delay (usec)	-1.47620130292E+03	Resid mbdelay (usec)	-6.55696E-03	+/-	3.3E-05
Sband delay (usec)	-1.47620642789E+03	Apriori clock (usec)	2.8338945E+01	Resid sbdelay (usec)	-5.12497E-03	+/-	1.3E-04
Phase delay (usec)	-1.47620130595E+03	Apriori clockrate (us/s)	-5.1787036E-07	Resid phdelay (usec)	-3.02327E-06	+/-	5.0E-08
Delay rate (us/s)	-2.97423652950E-01	Apriori rate (us/s)	-2.97423224152E-01	Resid rate (us/s)	-4.28799E-07	+/-	1.6E-10
Total phase (deg)	-177.9	Apriori accel (us/s/s)	8.65140948651E-06	Resid phase (deg)	-93.8	+/-	1.6

ph/seg (deg)	89.3	Theor.	5.0	Amplitude	1.712 +/- 0.023	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	187.7	Search (4096X16)	1.654	Search	1.654	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	8.9	Interp.	0.000	Inc. seg. avg.	3.829	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	2.4	Inc. frq. avg.	1.716	Inc. frq. avg.	1.716	Sample rate (MSamp/s):	116	mb window (us)	-0.009 0.009
						Data rate (Mb/s):	928	dr window (ns/s)	-0.011 0.011
						nlags:	232	ion window (TEC)	0.00 0.00

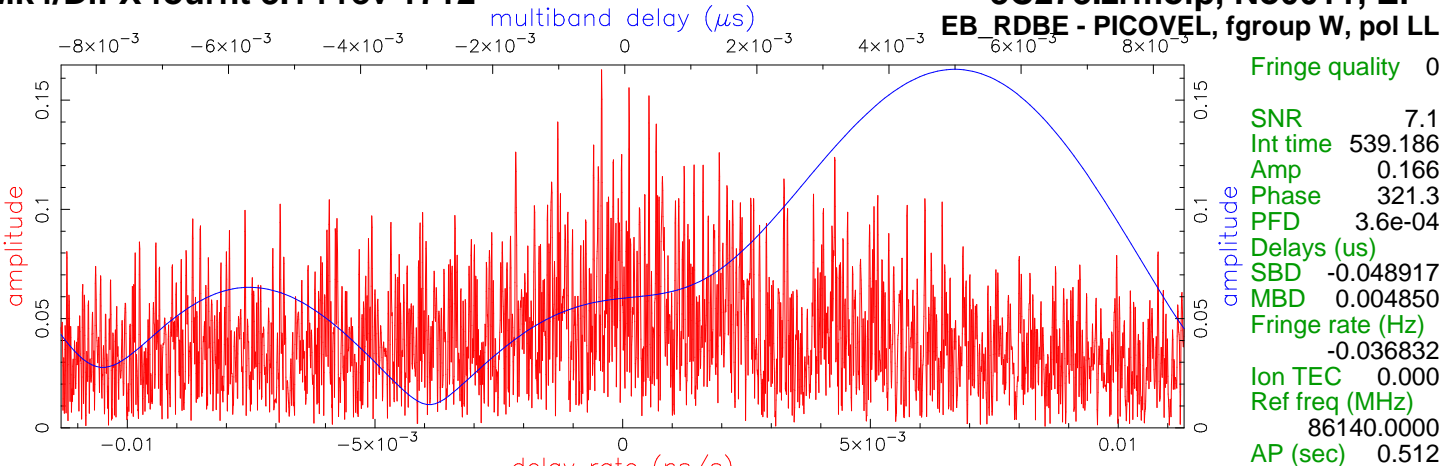


Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-96.5	-84.5	-81.8	-93.8	Phase	-89.0
	1.5	1.6	1.6	1.5	Ampl.	1.6
	239.7	239.9	240.2	239.1	Sbd box	239.7
U/L	1055/0	1055/0	1055/0	1055/0	APs used	
B	0	0	0	0	PC freqs	
P	0	0	0	0	PC freqs	
B:P	0:0	0:0	0:0	0:0	PC phase	
B:P	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-1.47617436424E+03	Apriori delay (usec)	-1.47620130292E+03	Resid mbdelay (usec)	-7.19465E-03	+/- 3.6E-05
Sband delay (usec)	-1.47617221713E+03	Apriori clock (usec)	2.8338945E+01	Resid sbdelay (usec)	2.90858E-02	+/- 1.4E-04
Phase delay (usec)	-1.47620130579E+03	Apriori clockrate (us/s)	-5.1787036E-07	Resid phdelay (usec)	-2.87103E-06	+/- 5.5E-08
Delay rate (us/s)	-2.97422554303E-01	Apriori rate (us/s)	-2.97423224152E-01	Resid rate (us/s)	6.69849E-07	+/- 1.8E-10
Total phase (deg)	-309.7	Apriori accel (us/s/s)	8.65140948651E-06	Resid phase (deg)	-225.5	+/- 1.7

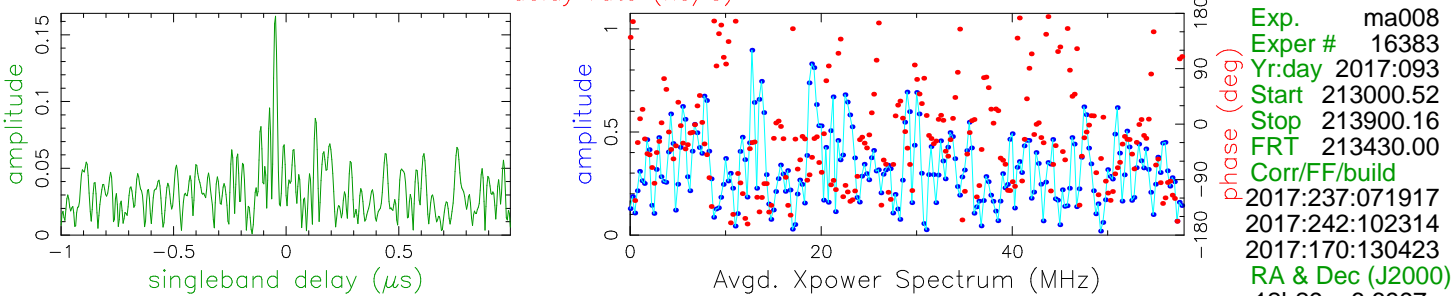
RMS Theor. Amplitude 1.572 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 83.5 5.5 Search (4096X16) 1.552 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 228.0 9.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 8.7 1.7 Inc. seg. avg. 4.145 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 2.1 3.0 Inc. frq. avg. 1.569 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00  
 B: az 147.2 el 36.8 pa -19.4 P: az 128.1 el 41.7 pa -38.4 u,v (fr/asec) 1717.748 1518.892 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/BP..zrmolp Output file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/BP.W.55.zrmolp



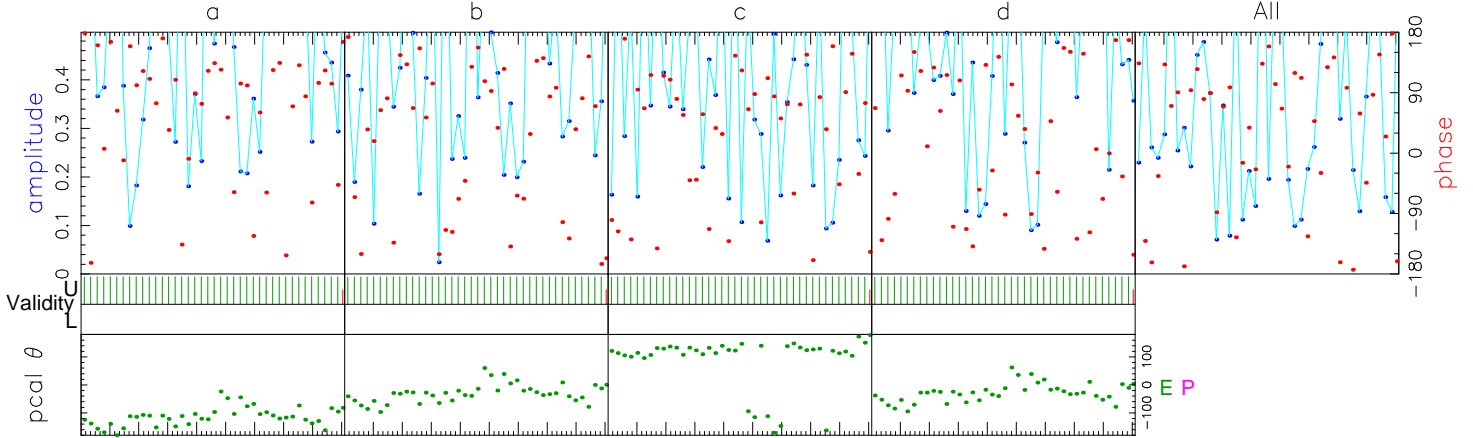
Fringe quality 0

SNR 7.1  
 Int time 539.186  
 Amp 0.166  
 Phase 321.3  
 PFD 3.6e-04  
 Delays (us)  
 SBD -0.048917  
 MBD 0.004850  
 Fringe rate (Hz)  
 -0.036832  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. ma008  
 Exper # 16383  
 Yr:day 2017:093  
 Start 213000.52  
 Stop 213900.16  
 FRT 213430.00  
 Corr/FF/build  
 2017:237:071917  
 2017:242:102314  
 2017:170:130423  
 RA & Dec (J2000)  
 12h29m 6.6997s  
 +2°03' 8.598"



Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	All
86151.11	117.5	115.1	95.0	141.9	116.5
U/L	1054/0	1054/0	1054/0	1054/0	1054/0
E	3890	296	1703	3109	1165
P	0	0	0	0	0
E:P	0:0	0:0	0:0	0:0	0:0
E:P	0:0	0:0	0:0	0:0	0:0
E	1000	1000	1000	1000	1000
P	1000	1000	1000	1000	1000
E	W00UL	W01UL	W02UL	W03UL	W00UL
P	W00UL	W01UL	W02UL	W03UL	W00UL
Group delay (usec)(sbd)	-1.47674765340E+03	-1.47670129917E+03	-1.47670130292E+03	-1.47670130292E+03	-1.47670130292E+03
Sband delay (usec)	-1.47675021989E+03	-1.47675021989E+03	-1.47675021989E+03	-1.47675021989E+03	-1.47675021989E+03
Phase delay (usec)	-1.47670129917E+03	-1.47670129917E+03	-1.47670129917E+03	-1.47670129917E+03	-1.47670129917E+03
Delay rate (us/s)	-2.97423651737E-01	-2.97423651737E-01	-2.97423651737E-01	-2.97423651737E-01	-2.97423651737E-01
Total phase (deg)		237.1			321.3
Apriori delay (usec)			0.163	0.163	0.163
Apriori clock (usec)			2.7838945E+01	2.7838945E+01	2.7838945E+01
Apriori clockrate (us/s)			-5.1787036E-07	-5.1787036E-07	-5.1787036E-07
Apriori rate (us/s)			-2.97423224152E-01	-2.97423224152E-01	-2.97423224152E-01
Apriori accel (us/s/s)			8.65140948651E-06	8.65140948651E-06	8.65140948651E-06
Resid mbdelay (usec)			4.84953E-03	4.84953E-03	4.84953E-03
Resid sbdelay (usec)			-4.89170E-02	-4.89170E-02	-4.89170E-02
Resid phdelay (usec)			3.75658E-06	3.75658E-06	3.75658E-06
Resid rate (us/s)			-4.27585E-07	-4.27585E-07	-4.27585E-07
Resid phase (deg)			321.3	321.3	321.3

ph/seg (deg) 80.2 51.7  
 amp/seg (%) 177.6 90.3  
 ph/frq (deg) 23.6 16.2  
 amp/frq (%) 37.1 28.2

RMS 80.2  
 Theor. 51.7  
 Amplitude 0.166 +/- 0.023  
 Search (4096X16) 0.163  
 Interp. 0.000  
 Inc. seg. avg. 0.255  
 Inc. frq. avg. 0.162

Group delay (usec)(sbd) -1.47674765340E+03  
 Sband delay (usec) -1.47675021989E+03  
 Phase delay (usec) -1.47670129917E+03  
 Delay rate (us/s) -2.97423651737E-01  
 Total phase (deg) 237.1

Apriori delay (usec) -1.47670130292E+03  
 Apriori clock (usec) 2.7838945E+01  
 Apriori clockrate (us/s) -5.1787036E-07  
 Apriori rate (us/s) -2.97423224152E-01  
 Apriori accel (us/s/s) 8.65140948651E-06

Resid mbdelay (usec) 4.84953E-03 +/- 3.4E-04  
 Resid sbdelay (usec) -4.89170E-02 +/- 1.3E-03  
 Resid phdelay (usec) 3.75658E-06 +/- 5.2E-07  
 Resid rate (us/s) -4.27585E-07 +/- 1.7E-09  
 Resid phase (deg) 321.3 +/- 16.2

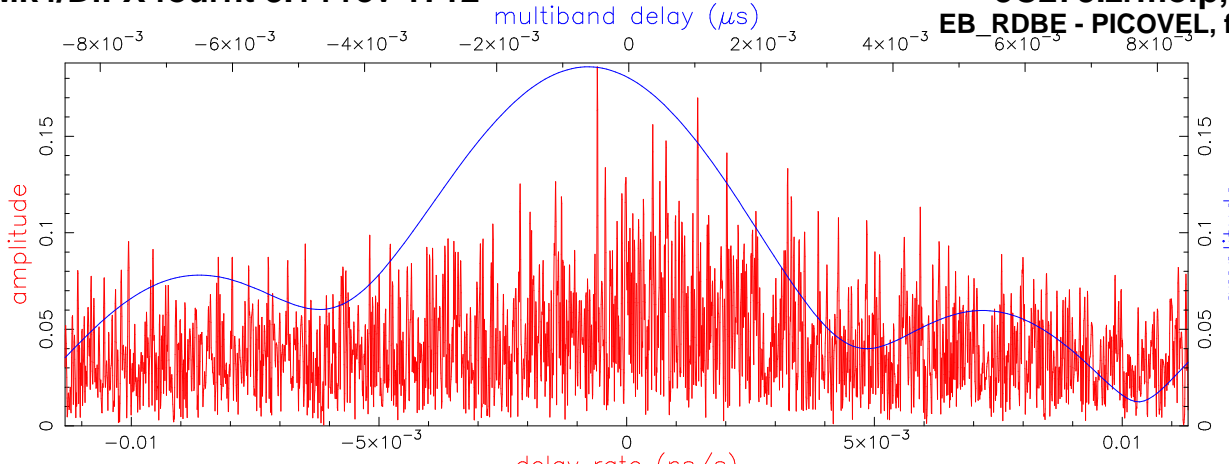
PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 Pcal rate: 0.000E+00, 0.000E+00 (us/s)  
 Bits/sample: 2x2 SampCntNorm: enabled  
 Sample rate(MSamp/s): 116  
 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite

sb window (us) -1.000 1.000  
 mb window (us) -0.009 0.009  
 dr window (ns/s) -0.011 0.011  
 ion window (TEC) 0.00 0.00

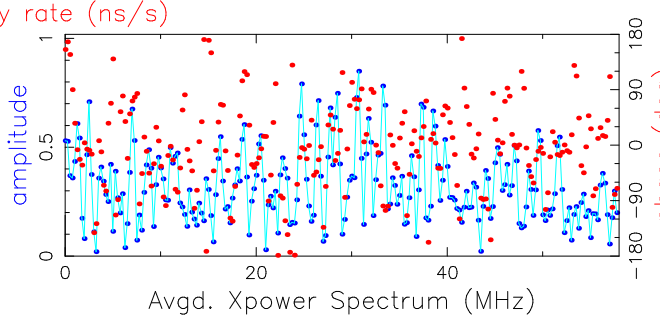
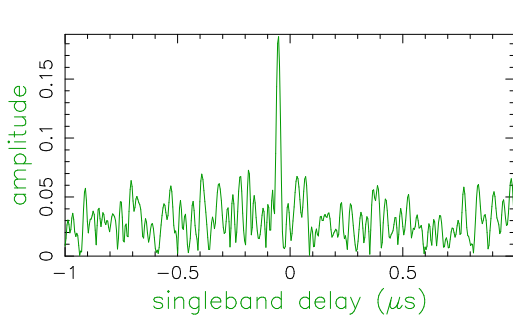
E: az 147.2 el 36.8 pa -20.2 P: az 128.1 el 41.7 pa -38.4 u,v (fr/asec) 1717.748 1518.892 simultaneous interpolator

Control file: cf\_1234 Input file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/EP..zrmlp Output file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/EP.W.17.zrmlp

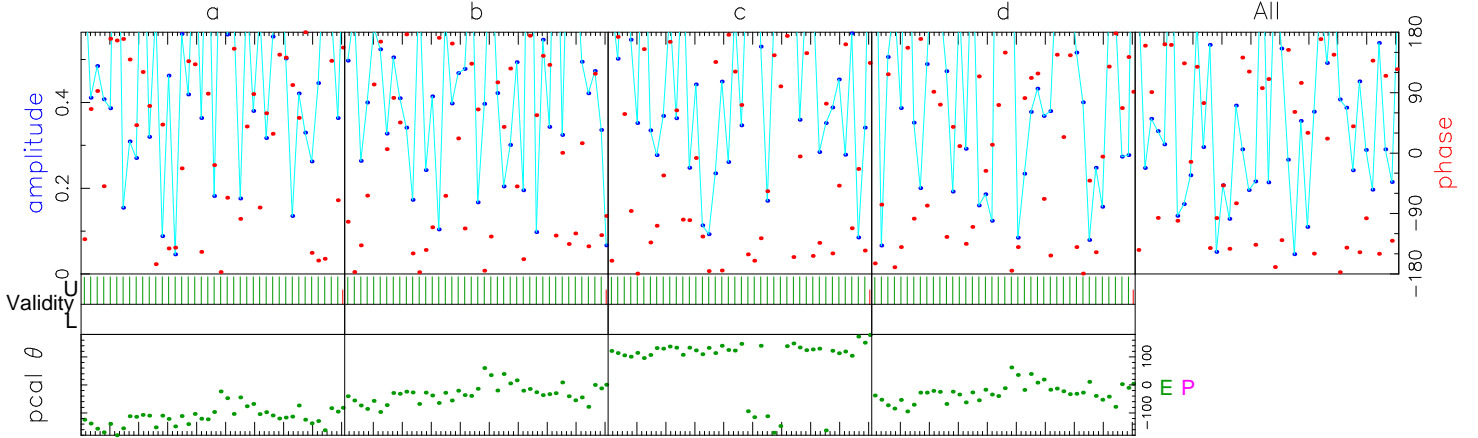




Fringe quality 9  
SNR 8.0  
Int time 539.191  
Amp 0.188  
Phase 376.1  
PFD 3.1e-07  
Delays (us)  
SBD -0.053147  
MBD -0.000615  
Fringe rate (Hz)  
-0.050780  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. ma008  
Exper # 16383  
Yr:day 2017:093  
Start 213000.52  
Stop 213900.16  
FRT 213430.00  
Corr/FF/build  
2017:237:071917  
2017:242:102328  
2017:170:130423  
RA & Dec (J2000)  
12h29m 6.6997s  
+2°03' 8.598"



Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec

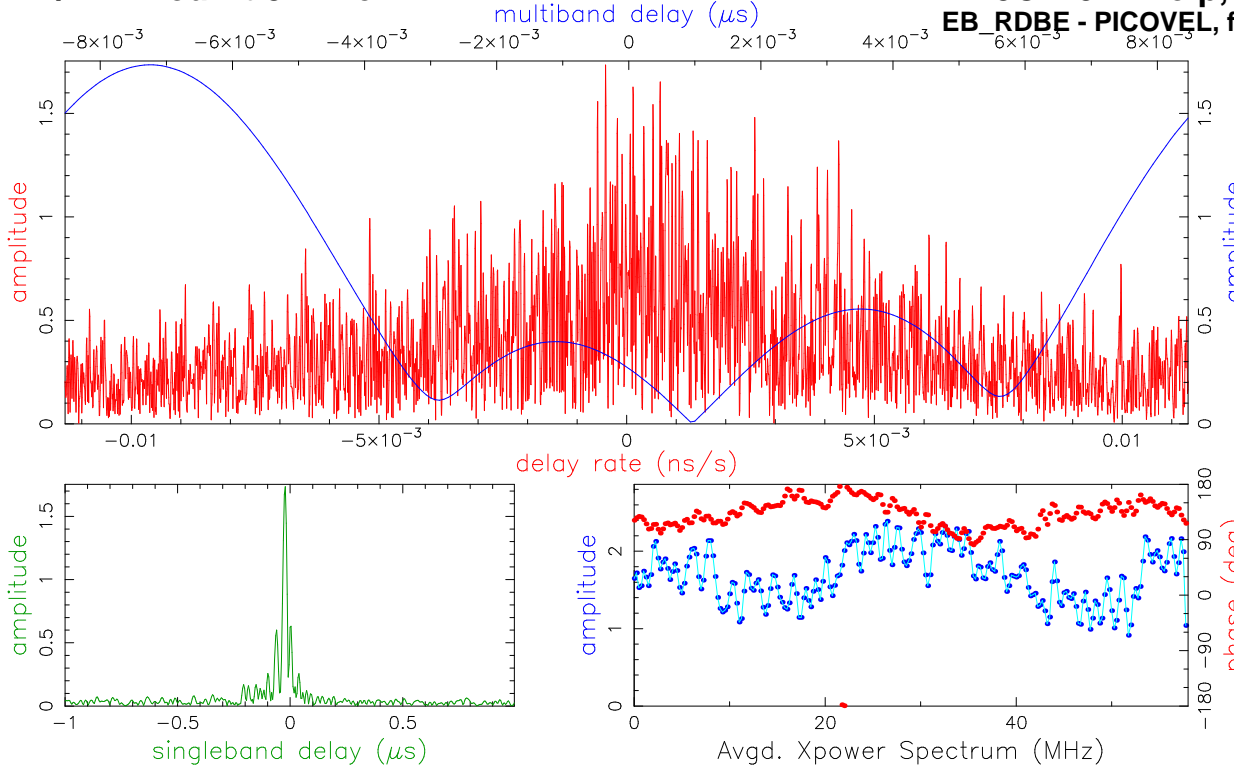


	86151.11	86209.70	86268.30	86326.89	86326.89	86326.89	All
U/L	1054/0	1054/0	1054/0	1054/0	1054/0	1054/0	1054/0
E	3890	296	1703	3109	3109	3109	3109
P	0	0	0	0	0	0	0
E:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0
E:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0
E	1000	1000	1000	1000	1000	1000	1000
P	1000	1000	1000	1000	1000	1000	1000
E	W00UR	W01UR	W02UR	W03UR	W03UR	W03UR	W03UR
P	W00UR	W01UR	W02UR	W03UR	W03UR	W03UR	W03UR

	86151.11	86209.70	86268.30	86326.89	86326.89	86326.89	All
Group delay (usec)(sbd)	-1.47675311788E+03	-1.47675311788E+03	-1.47675311788E+03	-1.47675311788E+03	-1.47675311788E+03	-1.47675311788E+03	-1.47675311788E+03
Sband delay (usec)	-1.47675445023E+03	-1.47675445023E+03	-1.47675445023E+03	-1.47675445023E+03	-1.47675445023E+03	-1.47675445023E+03	-1.47675445023E+03
Phase delay (usec)	-1.47670129740E+03	-1.47670129740E+03	-1.47670129740E+03	-1.47670129740E+03	-1.47670129740E+03	-1.47670129740E+03	-1.47670129740E+03
Delay rate (us/s)	-2.97423813659E-01	-2.97423813659E-01	-2.97423813659E-01	-2.97423813659E-01	-2.97423813659E-01	-2.97423813659E-01	-2.97423813659E-01
Total phase (deg)		291.9					

	86151.11	86209.70	86268.30	86326.89	86326.89	86326.89	All
ph/seg (deg)	76.1	45.7	Search (4096X16)	0.177	0.177	0.177	0.177
amp/seg (%)	147.5	79.8	Interp.	0.000	0.000	0.000	0.000
ph/frq (deg)	30.2	14.3	Inc. seg. avg.	0.279	0.279	0.279	0.279
amp/frq (%)	12.3	24.9	Inc. frq. avg.	0.194	0.194	0.194	0.194

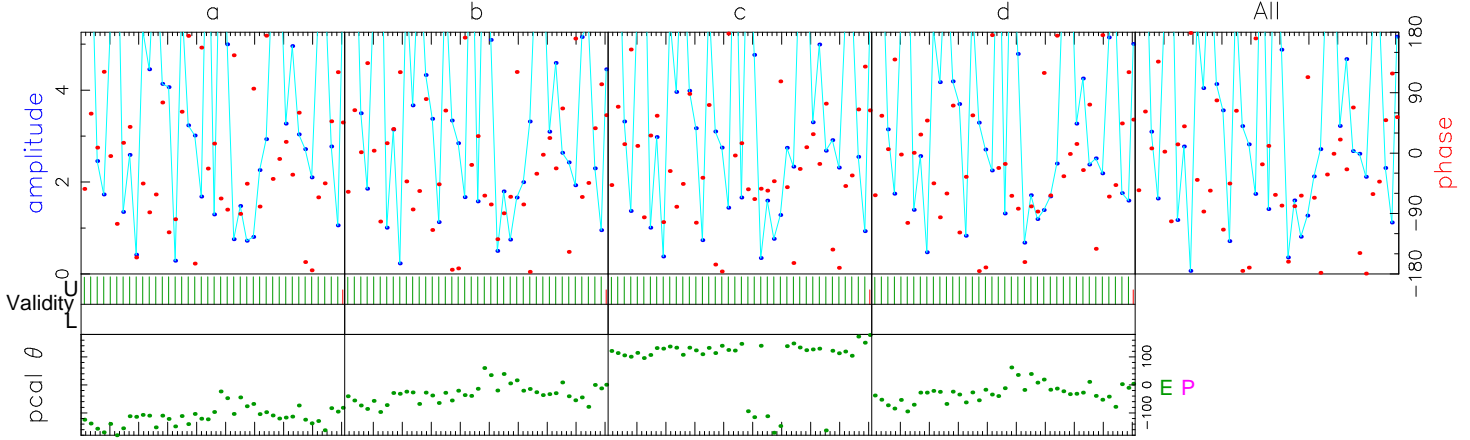
E: az 147.2 el 36.8 pa -20.2 P: az 128.1 el 41.7 pa -38.4 u,v (fr/asec) 1717.748 1518.892 simultaneous interpolator  
Control file: cf\_1234 Input file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/EP..zrmlp Output file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/EP.W.35.zrmlp



```

Fringe quality 5
SNR 74.9
Int time 539.186
Amp 1.754
Phase 36.9
PFD 0.0e+00
Delays (us)
SBD -0.022917
MBD -0.007300
Fringe rate (Hz)
-0.036946
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. ma008
Exper # 16383
Yr:day 2017:093
Start 213000.52
Stop 213900.16
FRT 213430.00
Corr/FF/build
2017:237:071917
2017:242:102340
2017:170:130423
RA & Dec (J2000)
12h29m 6.697s
+2°03' 8.598"
    
```

Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec

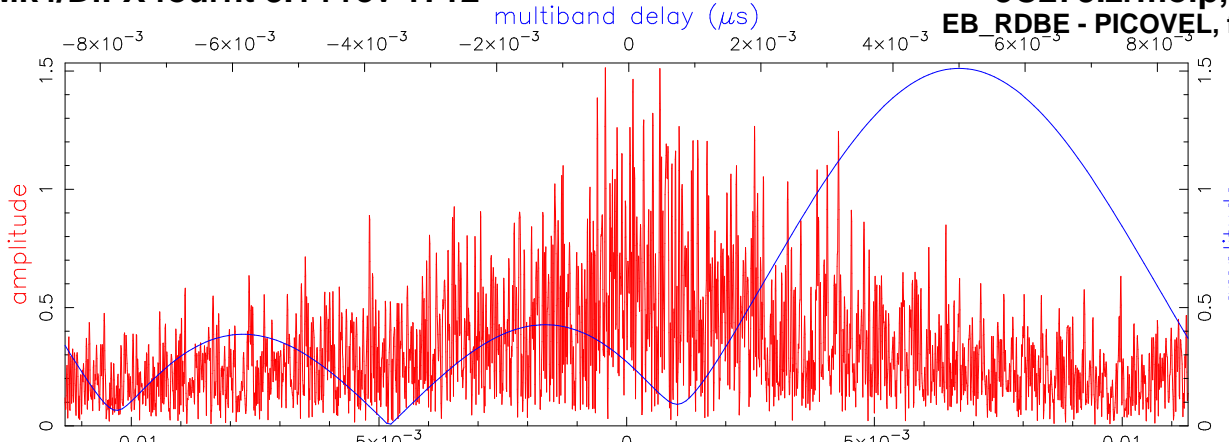


	86151.11	86209.70	86268.30	86326.89	All
U/L	1054/0	1054/0	1054/0	1054/0	
E	3890	296	1703	3109	
P	0	0	0	0	
E:P	0:0	0:0	0:0	0:0	
E:P	0:0	0:0	0:0	0:0	
E	1000	1000	1000	1000	
P	1000	1000	1000	1000	
E	W00UL	W01UL	W02UL	W03UL	
P	W00UR	W01UR	W02UR	W03UR	
	86151.11	86209.70	86268.30	86326.89	86151.11
Validity	0	0	0	0	0
p cal θ					
	-37.1	-31.2	-20.4	-37.1	Phase
	1.7	1.7	1.8	1.7	Ampl.
	227.4	228.0	228.1	227.2	Sbd box
	1054/0	1054/0	1054/0	1054/0	APs used
	3890	296	1703	3109	PC freqs
	0	0	0	0	PC freqs
	0:0	0:0	0:0	0:0	PC phase
	0:0	0:0	0:0	0:0	Manl PC
	1000	1000	1000	1000	PC amp
	1000	1000	1000	1000	
	W00UL	W01UL	W02UL	W03UL	Chan ids
	W00UR	W01UR	W02UR	W03UR	Tracks
					Chan ids
					Tracks

Group delay (usec)(sbd) -1.47672566989E+03 Apriori delay (usec) -1.47670130292E+03 Resid mbdelay (usec) -7.30030E-03 +/- 3.2E-05  
 Sband delay (usec) -1.47672421961E+03 Apriori clock (usec) 2.7838945E+01 Resid sbdelay (usec) -2.29167E-02 +/- 1.3E-04  
 Phase delay (usec) -1.47670130393E+03 Apriori clockrate (us/s) -5.1787036E-07 Resid phdelay (usec) -1.01070E-06 +/- 4.9E-08  
 Delay rate (us/s) -2.97423653061E-01 Apriori rate (us/s) -2.97423224152E-01 Resid rate (us/s) -4.28909E-07 +/- 1.6E-10  
 Total phase (deg) -47.3 Apriori accel (us/s/s) 8.65140948651E-06 Resid phase (deg) 36.9 +/- 1.5

RMS 89.3 Theor. 4.9 Amplitude 1.754 +/- 0.023 P cal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 89.3 4.9 Search (4096X16) 1.664 P cal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 189.6 8.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 9.7 1.5 Inc. seg. avg. 3.879 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 2.3 2.7 Inc. frq. avg. 1.748 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

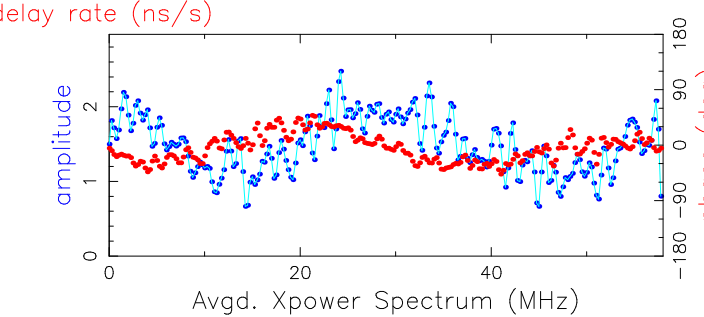
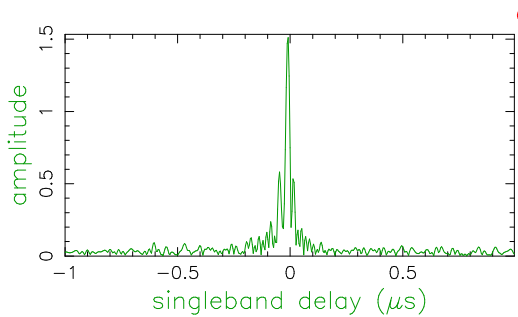
E: az 147.2 el 36.8 pa -20.2 P: az 128.1 el 41.7 pa -38.4 u,v (fr/asec) 1717.748 1518.892 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/EP..zrmolp Output file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/EP.W.49.zrmolp



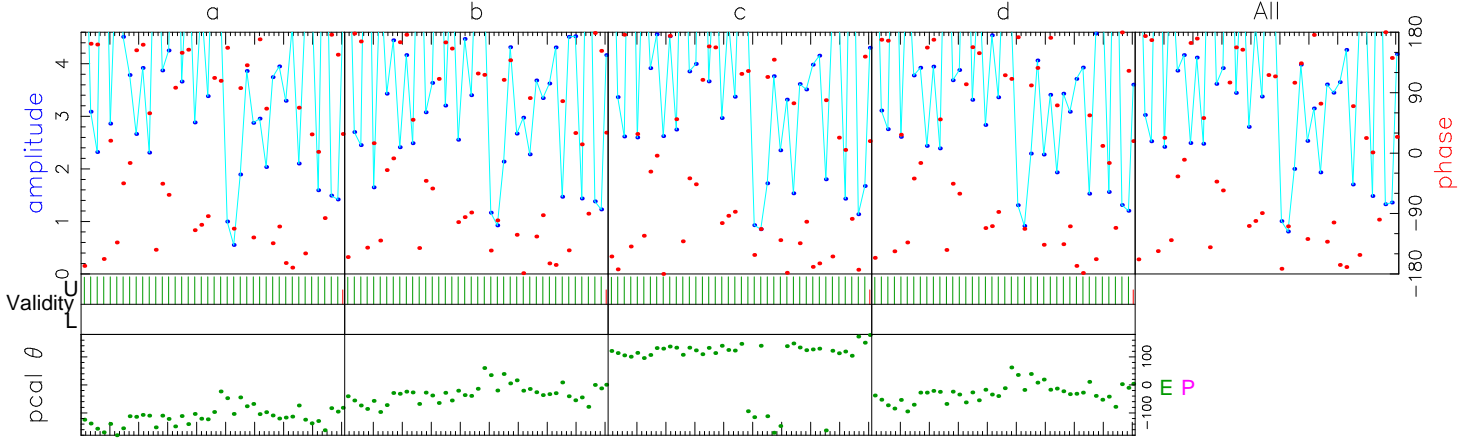
Fringe quality 5

SNR 65.5  
Int time 539.191  
Amp 1.534  
Phase -94.6  
PFD 0.0e+00  
Delays (us)  
SBD -0.010192  
MBD 0.004945  
Fringe rate (Hz) 0.057721  
Ion TEC 0.000  
Ref freq (MHz) 86140.000  
AP (sec) 0.512

Exp. ma008  
Exper # 16383  
Yr:day 2017:093  
Start 213000.52  
Stop 213900.16  
FRT 213430.00  
Corr/FF/build 2017:237:071917  
2017:242:102353  
2017:170:130423  
RA & Dec (J2000) 12h29m 6.699s +2°03' 8.598"



Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec

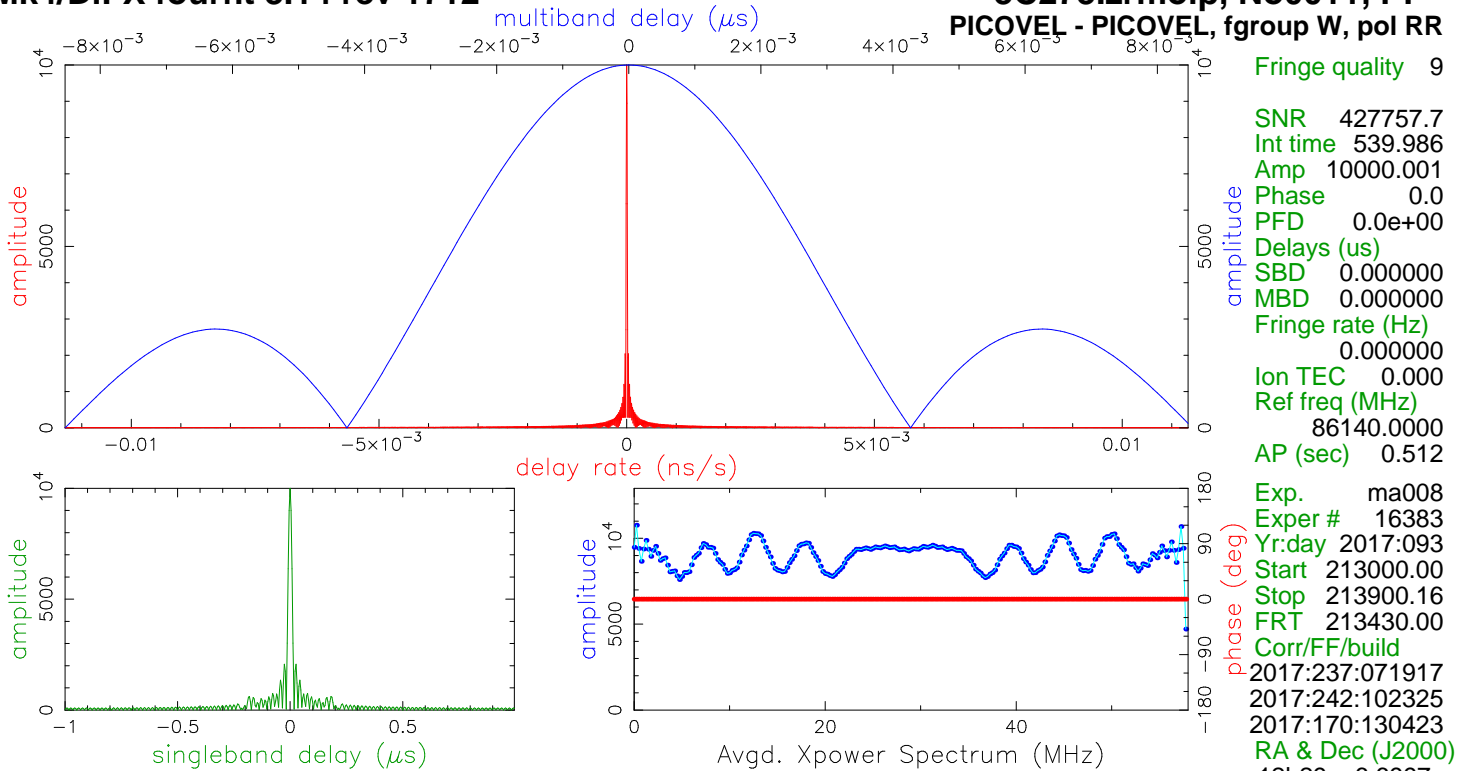


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	1054/0	1054/0	1054/0	1054/0		
E	3890	296	1703	3109	APs used	
P	0	0	0	0	PC freqs	
E:P	0:0	0:0	0:0	0:0	PC phase	
E:P	0:0	0:0	0:0	0:0	Mani PC	
E	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000		
E	W00UR	W01UR	W02UR	W03UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	

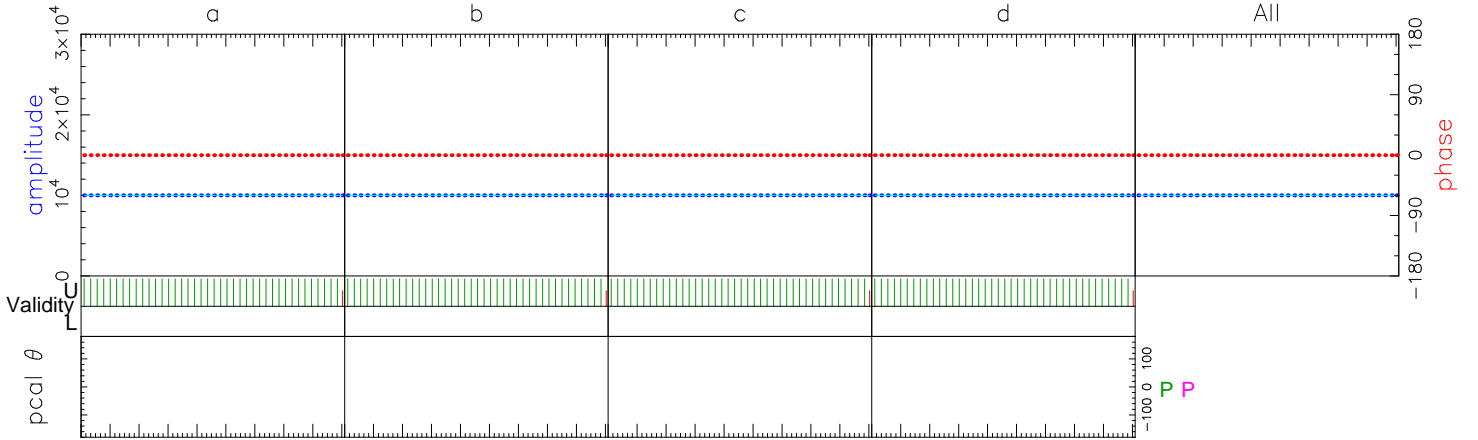
Group delay (usec)(sbd)	-1.47671342438E+03	Apriori delay (usec)	-1.47670130292E+03	Resid mbdelay (usec)	4.94521E-03	+/- 3.7E-05
Sband delay (usec)	-1.47671149465E+03	Apriori clock (usec)	2.7838945E+01	Resid sbdelay (usec)	-1.01917E-02	+/- 1.5E-04
Phase delay (usec)	-1.47670130817E+03	Apriori clockrate (us/s)	-5.1787036E-07	Resid phdelay (usec)	-5.25022E-06	+/- 5.6E-08
Delay rate (us/s)	-2.97422554065E-01	Apriori rate (us/s)	-2.97423224152E-01	Resid rate (us/s)	6.70087E-07	+/- 1.8E-10
Total phase (deg)	-178.7	Apriori accel (us/s/s)	8.65140948651E-06	Resid phase (deg)	-94.6	+/- 1.8

ph/seg (deg)	85.2	Theor.	5.6	Amplitude	1.534 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	221.4	Search (4096X16)	1.474	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	6.3	Interp.	0.000	Inc. seg. avg.	4.028	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.009 0.009
amp/frq (%)	2.1	Inc. frq. avg.	1.517	Inc. frq. avg.	1.517	Sample rate(MSamp/s): 116	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s): 928	ion window (TEC)	0.00 0.00	
						nlags: 232	t_cohere infinite		



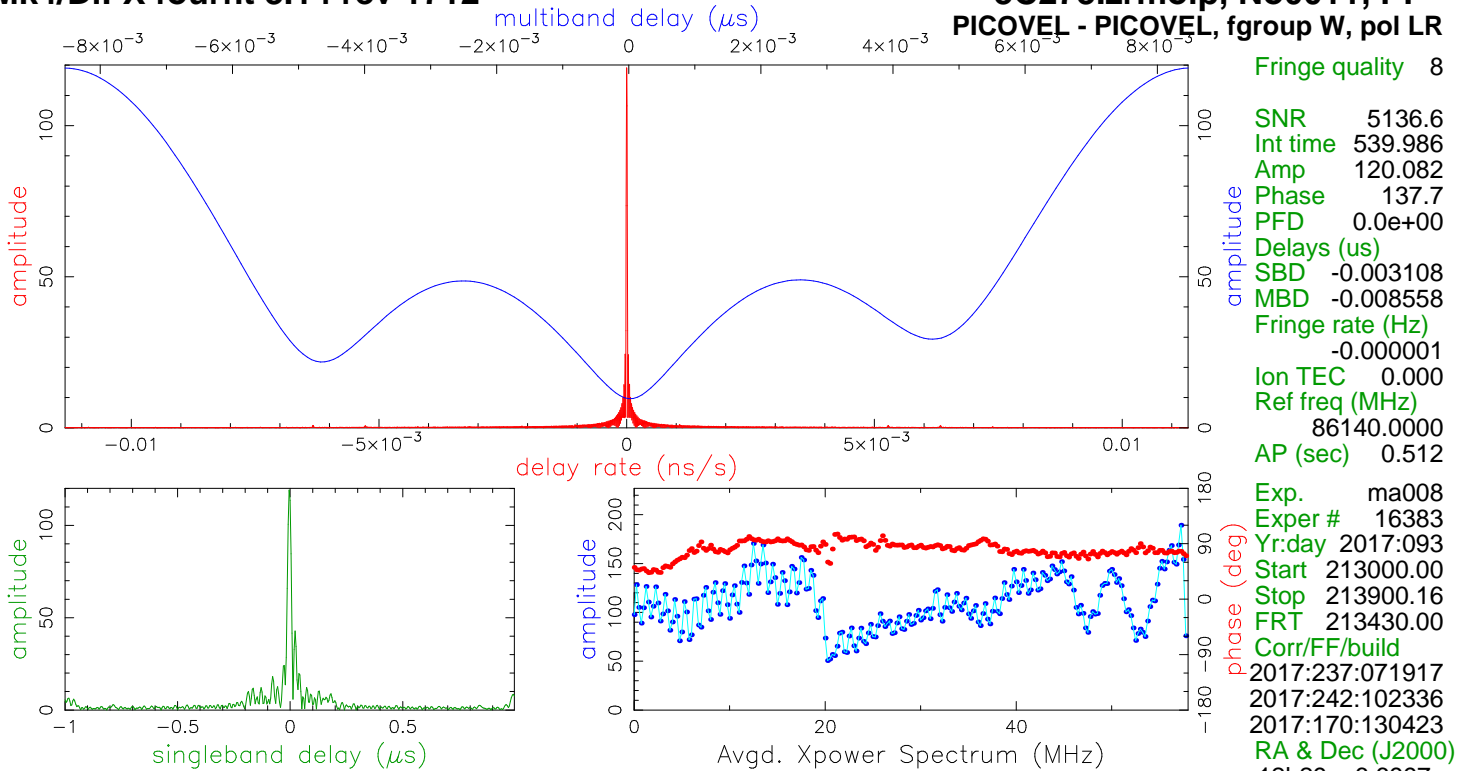


Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec

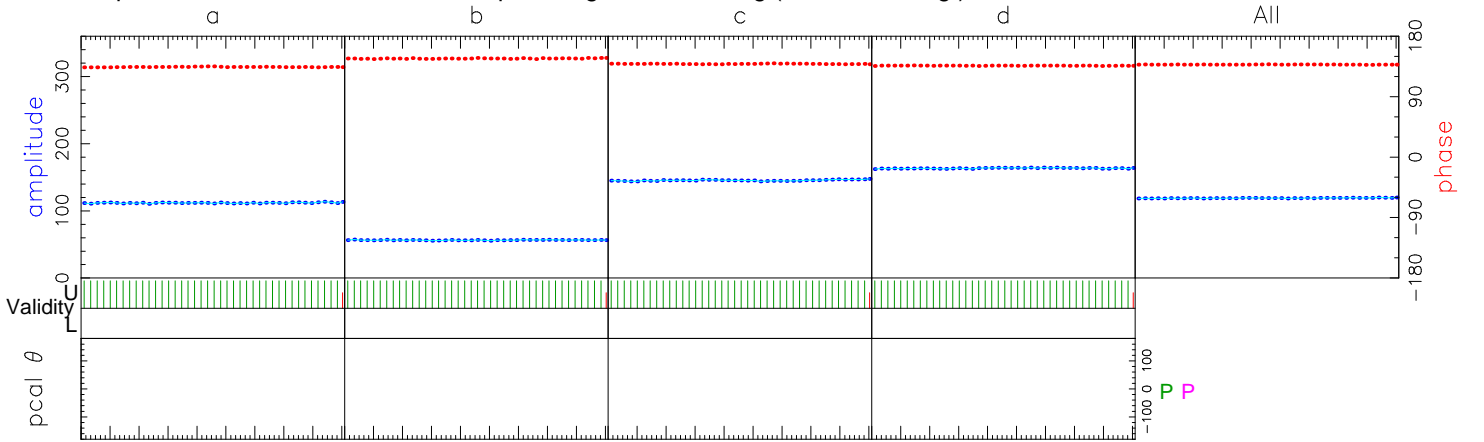


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
0.0	0.0	0.0	0.0	0.0	Phase	0.0
10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
233.0	233.0	233.0	233.0	233.0	Sbd box	233.0
U/L 1055/0	1055/0	1055/0	1055/0	1055/0	APs used	
P 0	0	0	0	0	PC freqs	
P:P 0:0	0:0	0:0	0:0	0:0	PC phase	
P:P 0:0	0:0	0:0	0:0	0:0	Mani PC	
P 1000	1000	1000	1000	1000	PC amp	
P 1000	1000	1000	1000	1000		
P W00UR	W01UR	W02UR	W03UR		Chan ids	
P W00UR	W01UR	W02UR	W03UR		Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/- 5.7E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/- 2.2E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/- 8.6E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/- 2.8E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/- 0.0

	RMS	Theor.	Amplitude	10000.001 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.0	0.0	Search (4096X16)	10000.001	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.009 0.009
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 116	dr window (ns/s) -0.011 0.011
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.001	Data rate(Mb/s): 928	nlags: 232 t_cohere infinite ion window (TEC) 0.00 0.00



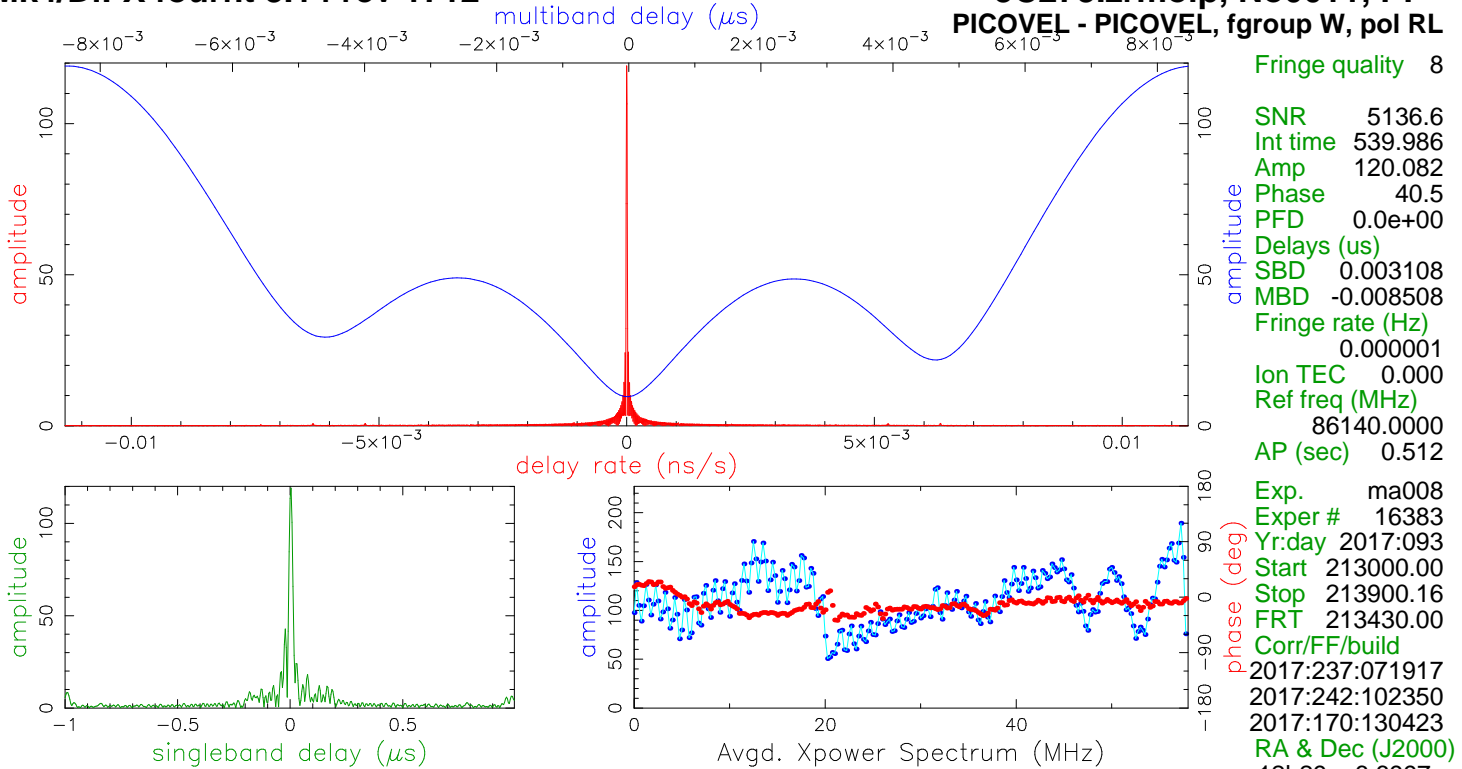
Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



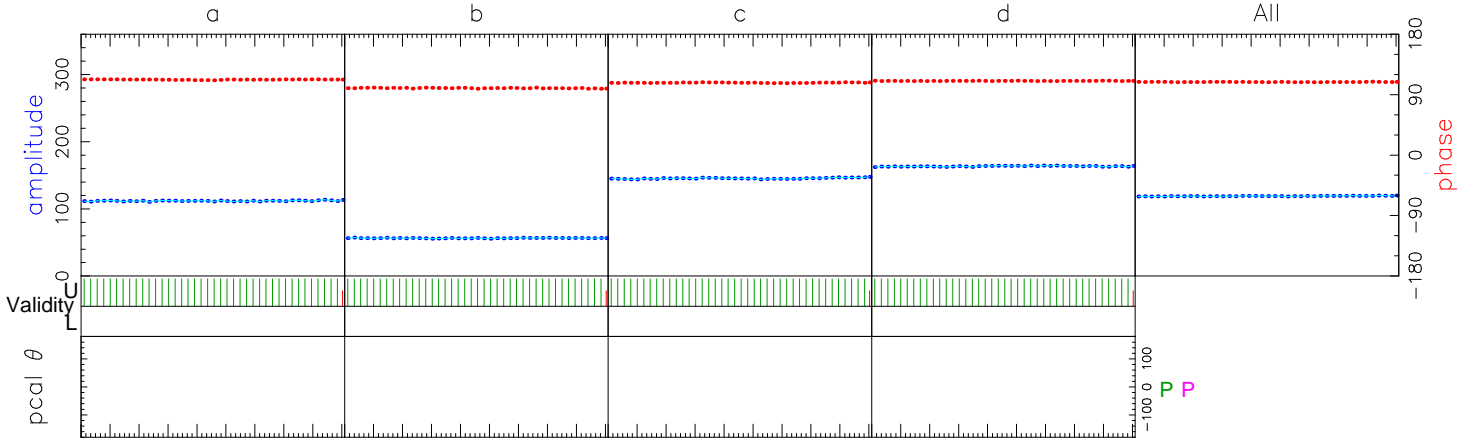
	86151.11	86209.70	86268.30	86326.89	86385.48	All
86151.11	134.1	146.7	138.7	136.0	137.7	137.7
134.1	111.9	56.5	145.5	163.5	119.4	119.4
111.9	232.2	229.2	232.4	232.6	232.6	232.3
232.2	U/L 1055/0	1055/0	1055/0	1055/0	1055/0	1055/0
U/L 1055/0	P 0	0	0	0	0	0
P 0	P:P 0:0	0:0	0:0	0:0	0:0	0:0
P:P 0:0	P 1000	1000	1000	1000	1000	1000
P 1000	P 1000	1000	1000	1000	1000	1000
P 1000	P W00UL	W01UL	W02UL	W03UL	W04UL	W05UL
P W00UL	P W00UR	W01UR	W02UR	W03UR	W04UR	W05UR
P W00UR						

Group delay (usec)(sbd)	-8.55845546667E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-8.55846E-03	+/-	4.7E-07
Sband delay (usec)	-3.10786206897E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-3.10786E-03	+/-	1.9E-06
Phase delay (usec)	4.43896469025E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	4.43896E-06	+/-	7.2E-10
Delay rate (us/s)	-1.73596616798E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.73597E-11	+/-	2.3E-12
Total phase (deg)	137.7	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	137.7	+/-	0.0

ph/seg (deg)	0.2	0.1	Search (4096X16)	119.092	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	0.9	0.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.009	0.009
ph/frq (deg)	7.0	0.0	Inc. seg. avg.	119.099	Bits/sample: 2x2	Sample rate(MSamp/s): 116	dr window (ns/s)	-0.011	0.011
amp/frq (%)	33.9	0.0	Inc. frq. avg.	119.351	Data rate(Mb/s): 928	nlags: 232	ion window (TEC)	0.00	0.00



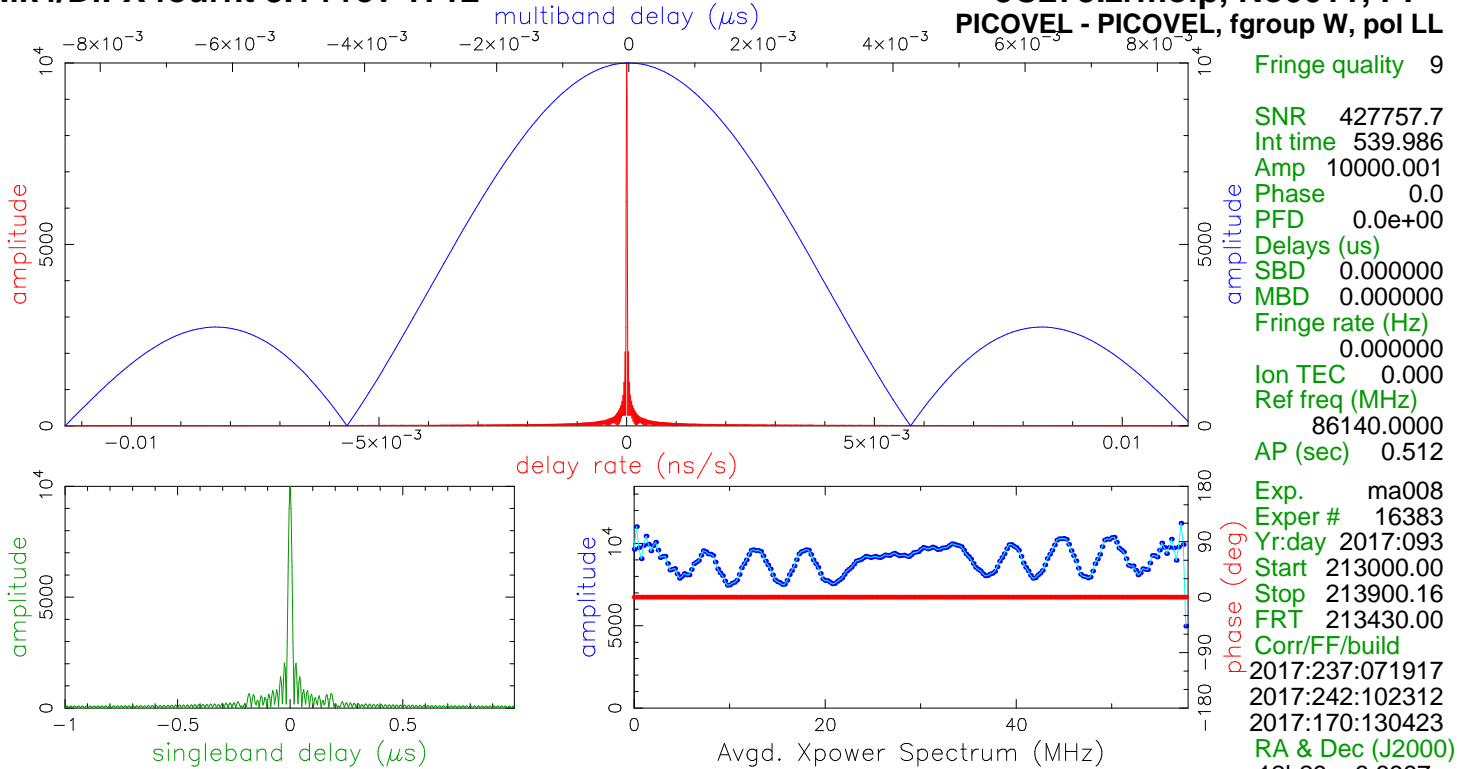
Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



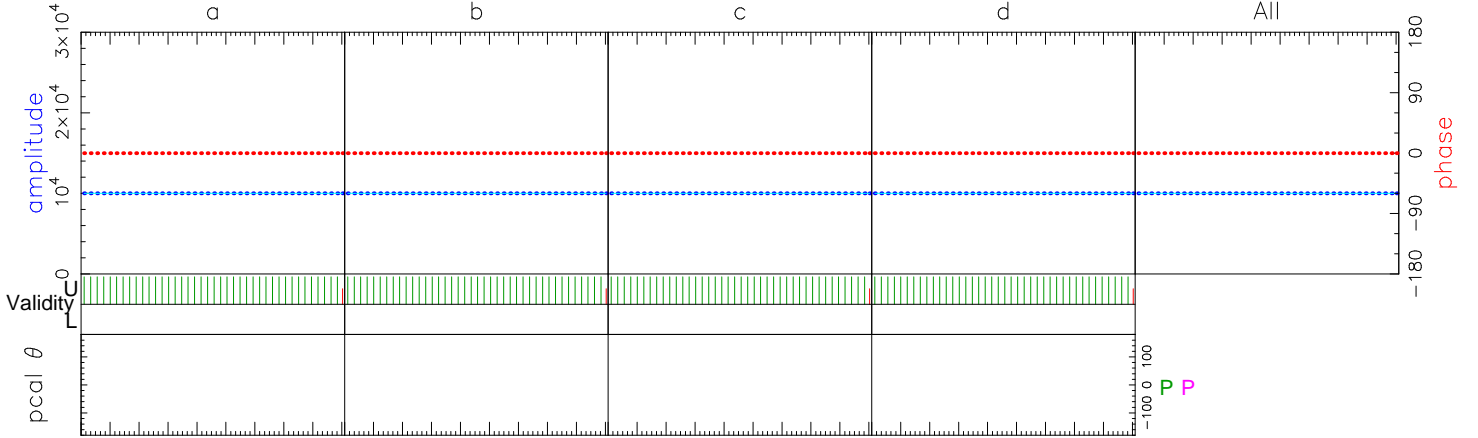
	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
112.3	99.7	107.7	110.4		Phase	108.8
111.9	56.5	145.5	163.5		Ampl.	119.4
233.8	236.8	233.6	233.4		Sbd box	233.7
U/L 1055/0	1055/0	1055/0	1055/0		APs used	
P 0	0	0	0		PC freqs	
P 0	0	0	0		PC freqs	
P:P 0:0	0:0	0:0	0:0		PC phase	
P:P 0:0	0:0	0:0	0:0		Mani PC	
P 1000	1000	1000	1000		PC amp	
P 1000	1000	1000	1000			
P W00UR	W01UR	W02UR	W03UR		Chan ids	
P W00UL	W01UL	W02UL	W03UL		Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	8.55845546667E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-8.50821E-03	+/-	4.7E-07
Sband delay (usec)	3.10786206897E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	3.10786E-03	+/-	1.9E-06
Phase delay (usec)	3.50778865702E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	3.50779E-06	+/-	7.2E-10
Delay rate (us/s)	1.73596616798E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.73597E-11	+/-	2.3E-12
Total phase (deg)	40.5	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	40.5	+/-	0.0

ph/seg (deg)	0.2	0.1	Amplitude	120.082 +/- 0.023	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	0.9	0.1	Search (4096X16)	119.092	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000				
ph/frq (deg)	7.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.009 0.009		
amp/frq (%)	33.9	0.0	Inc. seg. avg.	119.099	Sample rate(MSamp/s):	116	dr window (ns/s)	-0.011 0.011				
			Inc. frq. avg.	119.351	Data rate(Mb/s):	928	nlags:	232	t_cohere	infinite	ion window (TEC)	0.00 0.00

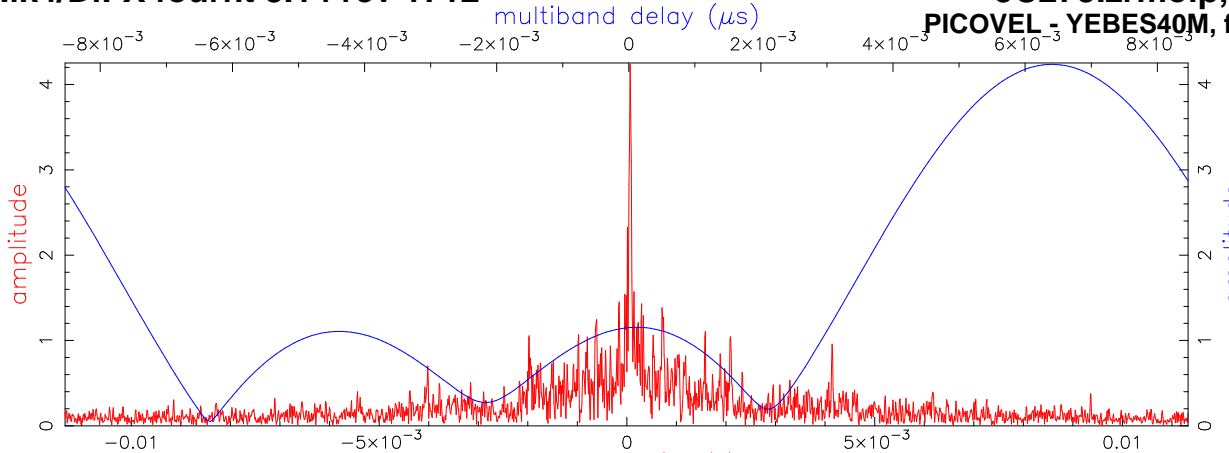


Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec

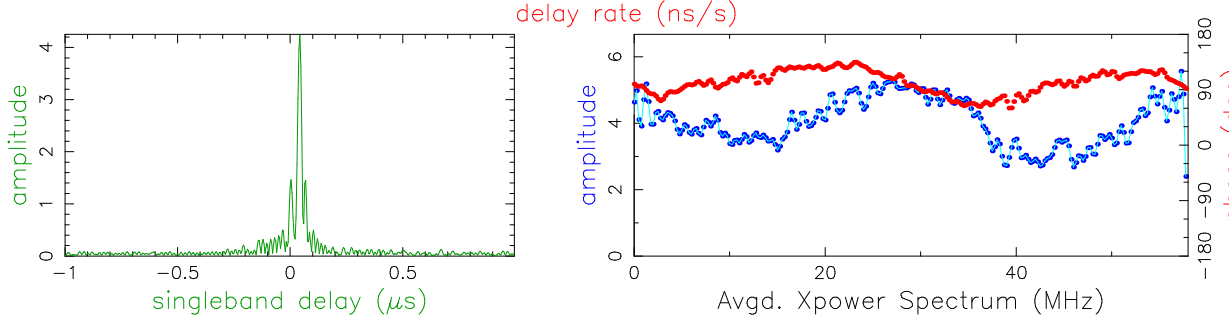


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
0.0	0.0	0.0	0.0	0.0	Phase	0.0
10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
233.0	233.0	233.0	233.0	233.0	Sbd box	233.0
U/L 1055/0	1055/0	1055/0	1055/0	1055/0	APs used	
P 0	0	0	0	0	PC freqs	
P:P 0:0	0:0	0:0	0:0	0:0	PC phase	
P:P 0:0	0:0	0:0	0:0	0:0	Mani PC	
P 1000	1000	1000	1000	1000	PC amp	
P 1000	1000	1000	1000	1000		
P W00UL	W01UL	W02UL	W03UL		Chan ids	
P W00UL	W01UL	W02UL	W03UL		Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/- 5.7E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/- 2.2E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/- 8.6E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/- 2.8E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/- 0.0

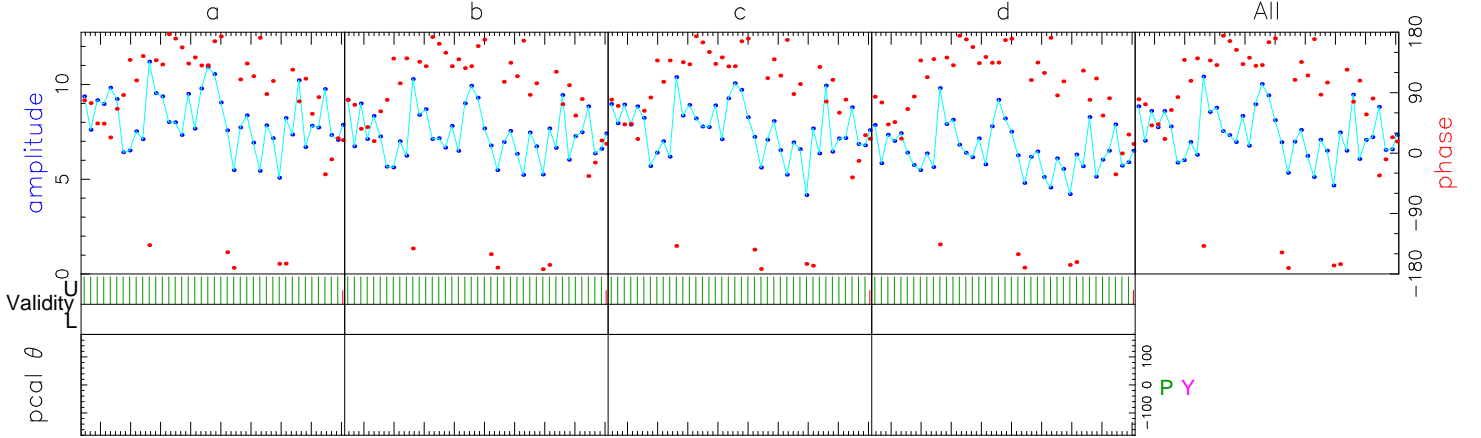
RMS Theor. Amplitude 10000.001 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.0 0.0 Search (4096X16) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.001 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00  
 P: az 128.1 el 41.7 pa -38.4 P: az 128.1 el 41.7 pa -38.4 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/PP..zrmlp Output file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/PP.W.8.zrmlp



Fringe quality 5  
 SNR 178.1  
 Int time 517.835  
 Amp 4.252  
 Phase -18.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.042287  
 MBD 0.006374  
 Fringe rate (Hz) 0.005943  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. ma008  
 Exper # 16383  
 Yr:day 2017:093  
 Start 213021.51  
 Stop 213900.16  
 FRT 213430.00  
 Corr/FF/build  
 2017:237:071917  
 2017:242:102314  
 2017:170:130423  
 RA & Dec (J2000)  
 12h29m 6.6997s  
 +2°03' 8.598"



Amp. and Phase vs. time for each freq., 41 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec

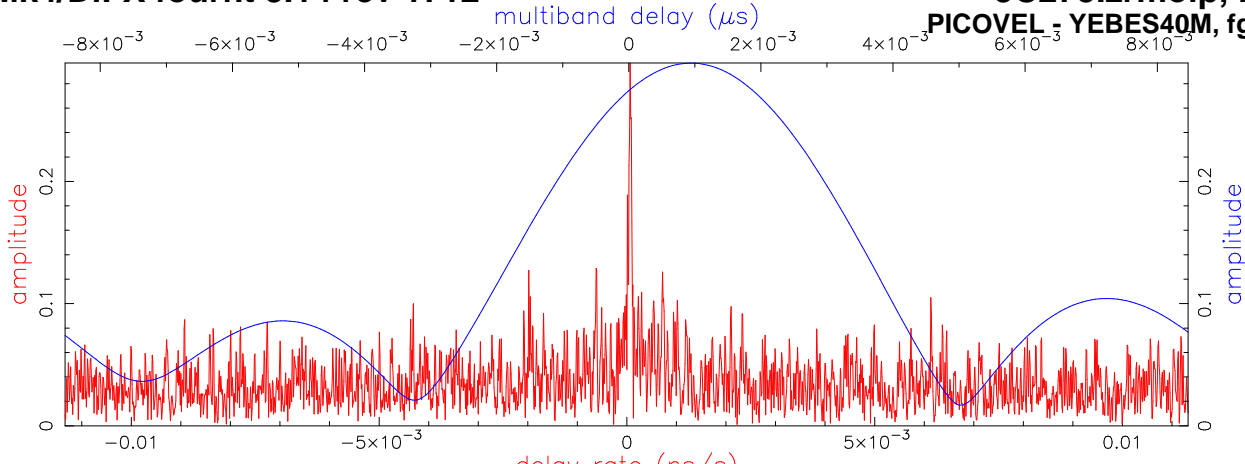


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	1013/0	1013/0	1013/0	1013/0	APs used	
P	0	0	0	0	PC freqs	
Y	0	0	0	0	PC freqs	
P:Y	0:0	0:0	0:0	0:0	PC phase	
P:Y	0:0	0:0	0:0	0:0	Mani PC	
P	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	Tracks	
Y	W00UR	W01UR	W02UR	W03UR	Chan ids	
					Tracks	

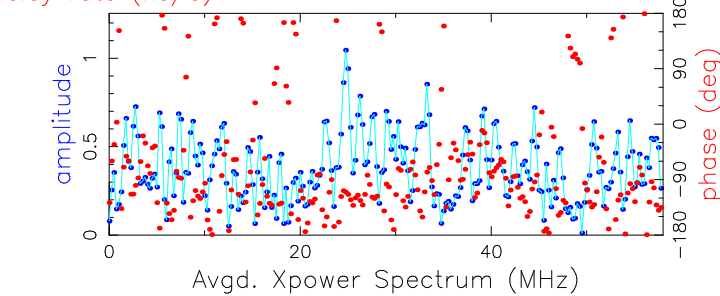
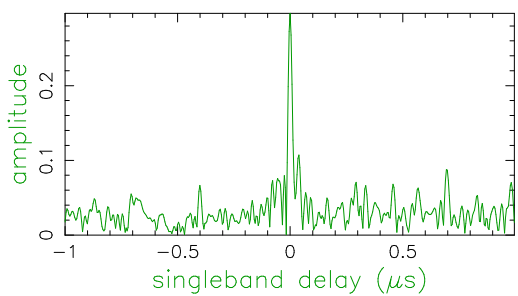
Group delay (usec)(sbd)	5.75587378944E+02	Apriori delay (usec)	5.75546871583E+02	Resid mbdelay (usec)	6.37403E-03	+/-	1.4E-05
Sband delay (usec)	5.75589158755E+02	Apriori clock (usec)	-3.5130467E+00	Resid sbdelay (usec)	4.22872E-02	+/-	5.3E-05
Phase delay (usec)	5.75546875377E+02	Apriori clockrate (us/s)	5.9999992E-08	Resid phdelay (usec)	3.79374E-06	+/-	2.1E-08
Delay rate (us/s)	3.88216727364E-02	Apriori rate (us/s)	3.88216037449E-02	Resid rate (us/s)	6.89915E-08	+/-	6.9E-11
Total phase (deg)	167.7	Apriori accel (us/s/s)	-3.25959774172E-06	Resid phase (deg)	-18.9	+/-	0.6

ph/seg (deg)	59.4	RMS	2.1	Theor.	2.1	Amplitude	4.252 +/- 0.024	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	80.7	Search (2048X16)	4.170	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	2.4	Inc. seg. avg.	7.422	Inc. frq. avg.	4.237	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.009	0.009
amp/frq (%)	7.6	u,v (fr/asec)	-227.556 -423.533	simultaneous interpolator		Sample rate (MSamp/s):	116	dr window (ns/s)	-0.011	0.011		
		Control file:	cf_1234	Input file:	/Exps/ma008/gmva_58_merged_pc1/1234/No0011/PY..zrmolp	Data rate (Mb/s):	928	ion window (TEC)	0.00	0.00		
						nlags:	232	t_cohere	infinite			

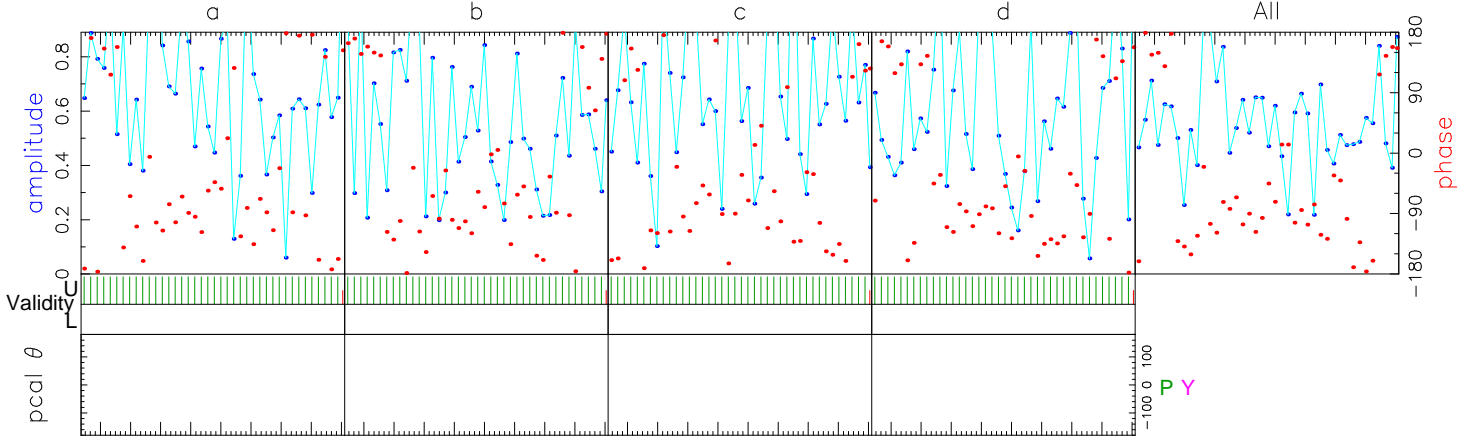




Fringe quality 9  
SNR 12.4  
Int time 517.835  
Amp 0.297  
Phase -122.3  
PFD 3.9e-27  
Delays (us)  
SBD -0.000277  
MBD 0.000942  
Fringe rate (Hz)  
0.005826  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512  
Exp. ma008  
Exper # 16383  
Yr:day 2017:093  
Start 213021.51  
Stop 213900.16  
FRT 213430.00  
Corr/FF/build  
2017:237:071917  
2017:242:102322  
2017:170:130423  
RA & Dec (J2000)  
12h29m 6.6997s  
+2°03' 8.598"



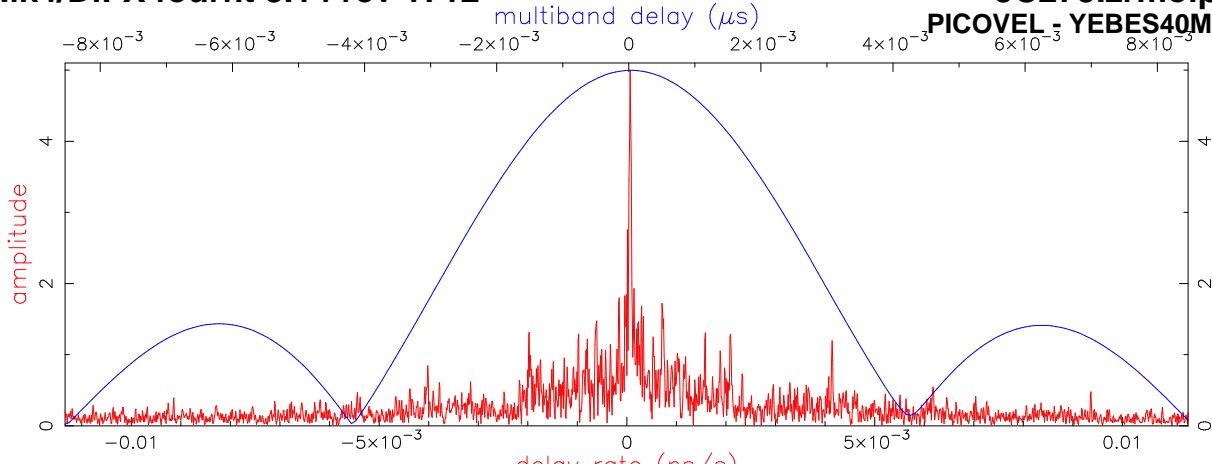
Amp. and Phase vs. time for each freq., 41 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



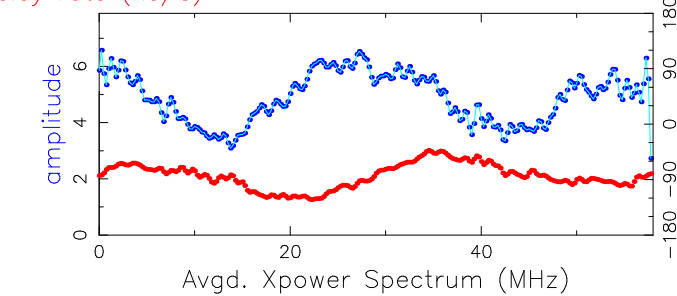
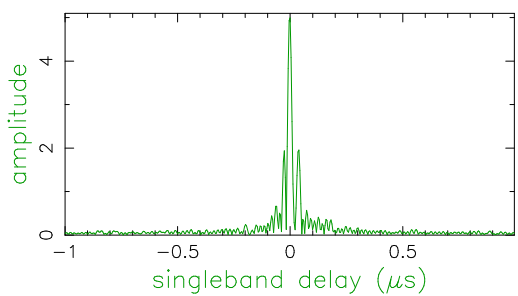
	86151.11	86209.70	86268.30	86326.89	86385.48	All
Validity	0	0	0	0	0	0
pcal $\theta$	0	0	0	0	0	0
U/L	1013/0	1013/0	1013/0	1013/0	1013/0	1013/0
P	0	0	0	0	0	0
Y	0	0	0	0	0	0
P:Y	0:0	0:0	0:0	0:0	0:0	0:0
P:Y	0:0	0:0	0:0	0:0	0:0	0:0
P	1000	1000	1000	1000	1000	1000
Y	1000	1000	1000	1000	1000	1000
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR

Group delay (usec)(sbd)	5.75547813086E+02	Apriori delay (usec)	5.75546871583E+02	Resid mbdelay (usec)	9.41503E-04	+/-	2.0E-04
Sband delay (usec)	5.75546594617E+02	Apriori clock (usec)	-3.5130467E+00	Resid sbdelay (usec)	-2.76966E-04	+/-	7.6E-04
Phase delay (usec)	5.75546867640E+02	Apriori clockrate (us/s)	5.9999992E-08	Resid phdelay (usec)	-3.94251E-06	+/-	3.0E-07
Delay rate (us/s)	3.88216713817E-02	Apriori rate (us/s)	3.88216037449E-02	Resid rate (us/s)	6.76368E-08	+/-	9.9E-10
Total phase (deg)	64.3	Apriori accel (us/s/s)	-3.25959774172E-06	Resid phase (deg)	-122.3	+/-	9.2

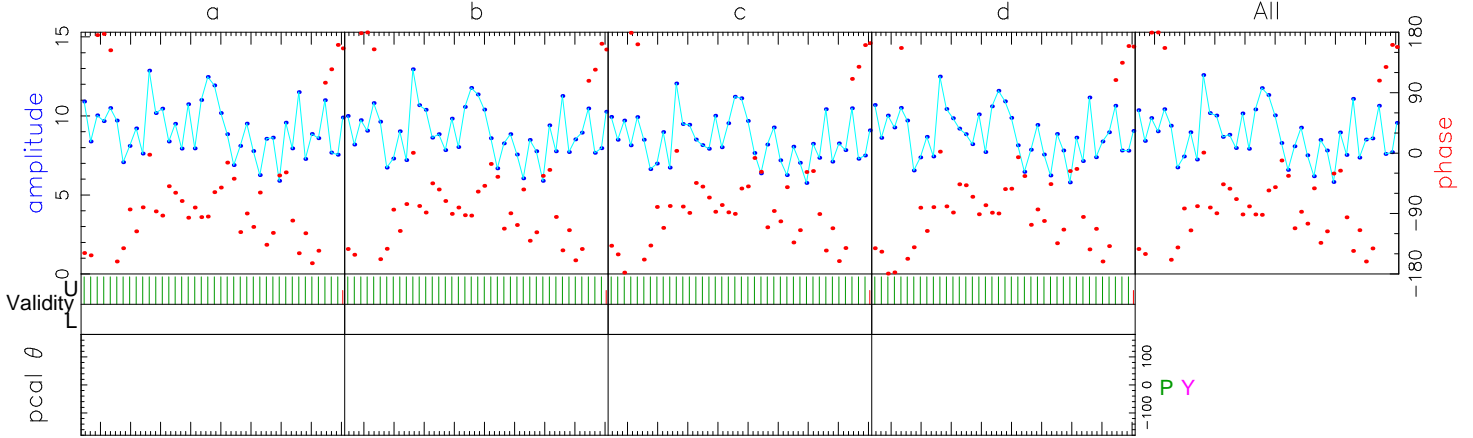
ph/seg (deg)	63.1	Theor.	29.5	Amplitude	0.297 +/- 0.024	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	103.7	51.5	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	7.8	9.2	Inc. seg. avg.	0.493	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.009	0.009
amp/frq (%)	13.8	16.1	Inc. frq. avg.	0.294	Sample rate(MSamp/s):	116	dr window (ns/s)	-0.011	0.011	



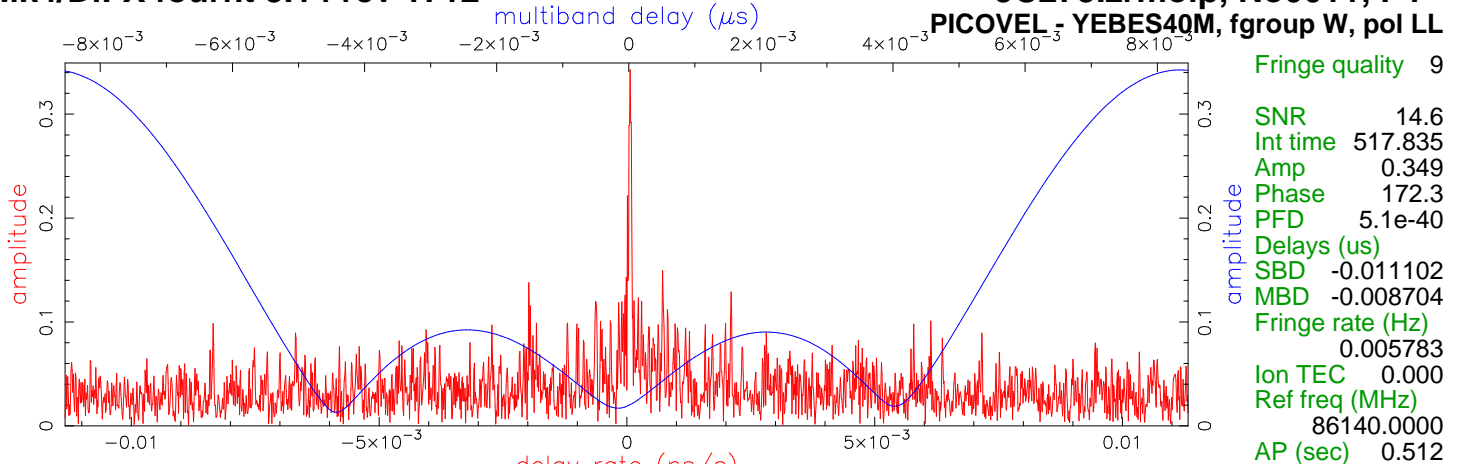
Fringe quality 5  
SNR 213.6  
Int time 517.835  
Amp 5.100  
Phase -103.8  
PFD 0.0e+00  
Delays (us)  
SBD -0.001910  
MBD -0.000041  
Fringe rate (Hz) 0.005939  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. ma008  
Exper # 16383  
Yr:day 2017:093  
Start 213021.51  
Stop 213900.16  
FRT 213430.00  
Corr/FF/build  
2017:237:071917  
2017:242:102330  
2017:170:130423  
RA & Dec (J2000)  
12h29m 6.6997s  
+2°03' 8.598"



Amp. and Phase vs. time for each freq., 41 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



86151.11		86209.70		86268.30		86326.89		Freq (MHz)		All
	-107.0		-103.8		-101.6		-102.6		Phase	-103.8
	5.2		5.0		4.8		5.0		Ampl.	5.0
	240.2		240.8		241.0		232.6		Sbd box	232.6
U/L	1013/0		1013/0		1013/0		1013/0		APs used	
P	0		0		0		0		PC freqs	
Y	0		0		0		0		PC freqs	
P:Y	0:0		0:0		0:0		0:0		PC phase	
P:Y	0:0		0:0		0:0		0:0		Manl PC	
P	1000		1000		1000		1000		PC amp	
Y	1000		1000		1000		1000			
P	W00UR		W01UR		W02UR		W03UR		Chan ids	
Y	W00UL		W01UL		W02UL		W03UL		Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	5.75546831002E+02		Apriori delay (usec)		5.75546871583E+02		Resid mbdelay (usec)		-4.05810E-05 +/- 1.1E-05	
Sband delay (usec)	5.75544961514E+02		Apriori clock (usec)		-3.5130467E+00		Resid sbdelay (usec)		-1.91007E-03 +/- 4.4E-05	
Phase delay (usec)	5.75546868235E+02		Apriori clockrate (us/s)		5.9999992E-08		Resid phdelay (usec)		-3.34781E-06 +/- 1.7E-08	
Delay rate (us/s)	3.88216726932E-02		Apriori rate (us/s)		3.88216037449E-02		Resid rate (us/s)		6.89483E-08 +/- 5.8E-11	
Total phase (deg)	82.7		Apriori accel (us/s/s)		-3.25959774172E-06		Resid phase (deg)		-103.8 +/- 0.5	
RMS	Theor.	Amplitude	5.100 +/- 0.024		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	59.6	1.7	Search (2048X16)	4.924	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000
amp/seg (%)	79.5	3.0	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		-0.009	0.009
ph/frq (deg)	2.8	0.5	Inc. seg. avg.	8.848	Sample rate(MSamp/s): 116		dr window (ns/s)		-0.011	0.011
amp/frq (%)	3.5	0.9	Inc. frq. avg.	4.998	Data rate(Mb/s): 928		ion window (TEC)		0.00	0.00
P: az 128.1 el 41.7 pa -38.4		Y: az 130.7 el 39.7 pa -34.5		u,v (fr/asec) -227.556 -423.533		simultaneous interpolator				



Fringe quality 9

SNR 14.6

Int time 517.835

Amp 0.349

Phase 172.3

PFD 5.1e-40

Delays (us)

SBD -0.011102

MBD -0.008704

Fringe rate (Hz) 0.005783

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.512

Exp. ma008

Exper # 16383

Yr:day 2017:093

Start 213021.51

Stop 213900.16

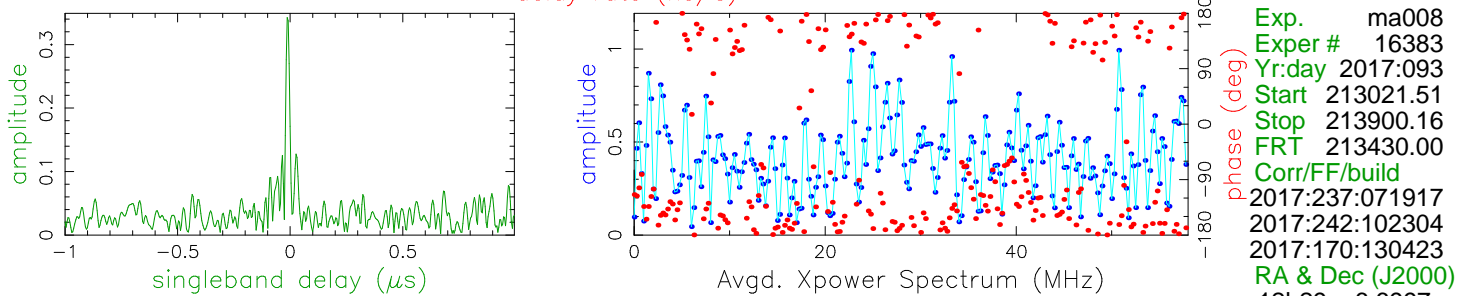
FRT 213430.00

Corr/FF/build 2017:237:071917

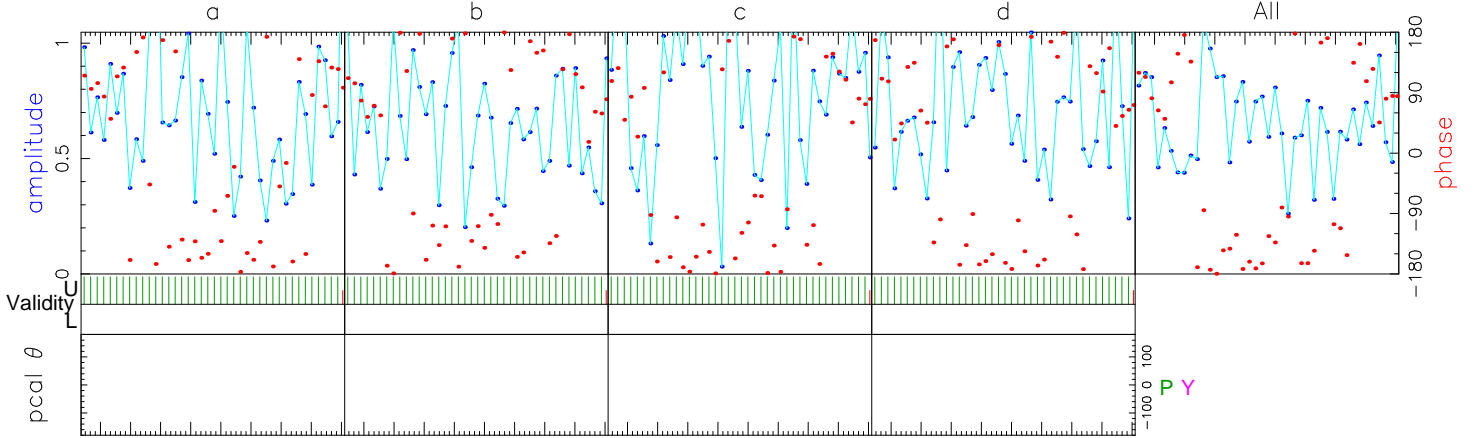
2017:242:102304

2017:170:130423

RA & Dec (J2000) 12h29m 6.6997s +2°03' 8.598"

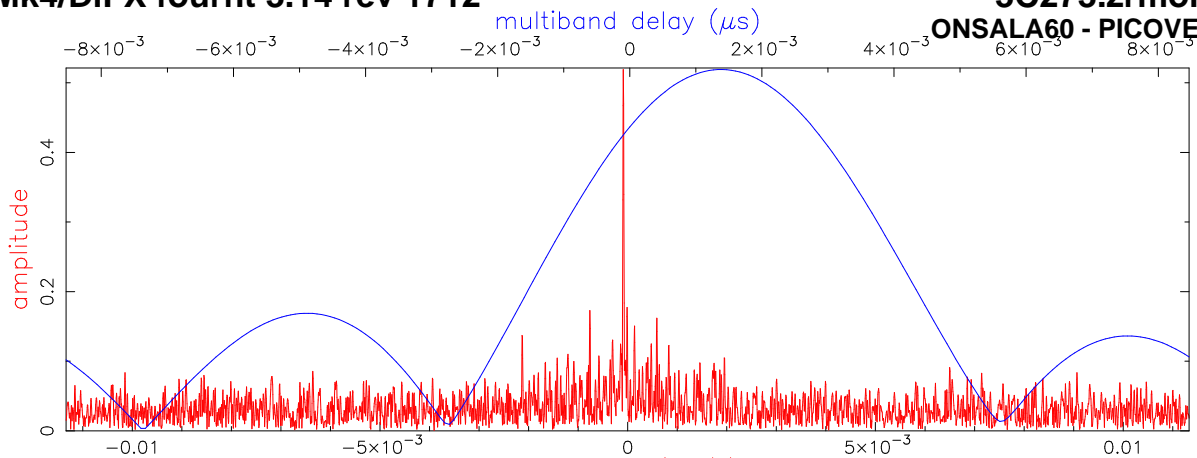


Amp. and Phase vs. time for each freq., 41 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



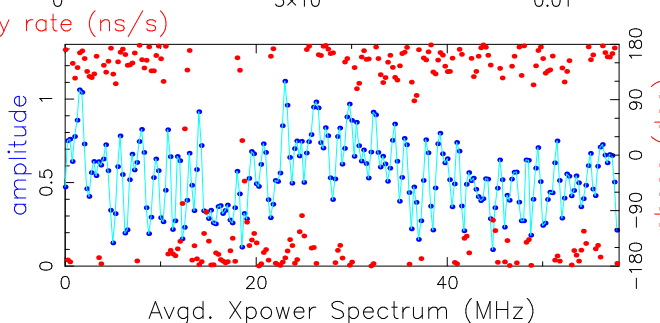
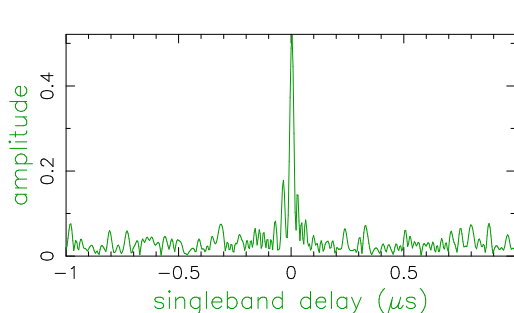
	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	172.1	173.9	172.2	171.1	Phase	172.3
	0.3	0.3	0.4	0.3	Ampl.	0.3
	231.3	238.5	230.2	230.2	Sbd box	230.4
U/L	1013/0	1013/0	1013/0	1013/0	APs used	
P	0	0	0	0	PC freqs	
Y	0	0	0	0	PC freqs	
P:Y	0:0	0:0	0:0	0:0	PC phase	
P:Y	0:0	0:0	0:0	0:0	Mani PC	
P	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	5.75538168030E+02	Apriori delay (usec)	5.75546871583E+02	Resid mbdelay (usec)	-8.70355E-03	+/-	1.7E-04
Sband delay (usec)	5.75535769790E+02	Apriori clock (usec)	-3.5130467E+00	Resid sbdelay (usec)	-1.11018E-02	+/-	6.5E-04
Phase delay (usec)	5.75546877138E+02	Apriori clockrate (us/s)	5.9999992E-08	Resid phdelay (usec)	5.55530E-06	+/-	2.5E-07
Delay rate (us/s)	3.88216708779E-02	Apriori rate (us/s)	3.88216037449E-02	Resid rate (us/s)	6.71330E-08	+/-	8.4E-10
Total phase (deg)	358.8	Apriori accel (us/s/s)	-3.25959774172E-06	Resid phase (deg)	172.3	+/-	7.8
RMS	62.1	Theor.	25.1	Amplitude	0.349 +/- 0.024	PCal mode:	MANUAL, MANUAL
ph/seg (deg)	103.1	Search (2048X16)	0.000	Search	0.000	PC period (AP's)	5, 5
amp/seg (%)	1.4	Interp.	0.599	Inc. seg. avg.	0.599	sb window (us)	-1.000 1.000
ph/frq (deg)	8.3	Inc. frq. avg.	0.339	Inc. frq. avg.	0.339	mb window (us)	-0.009 0.009
amp/frq (%)						dr window (ns/s)	-0.011 0.011
						ion window (TEC)	0.00 0.00



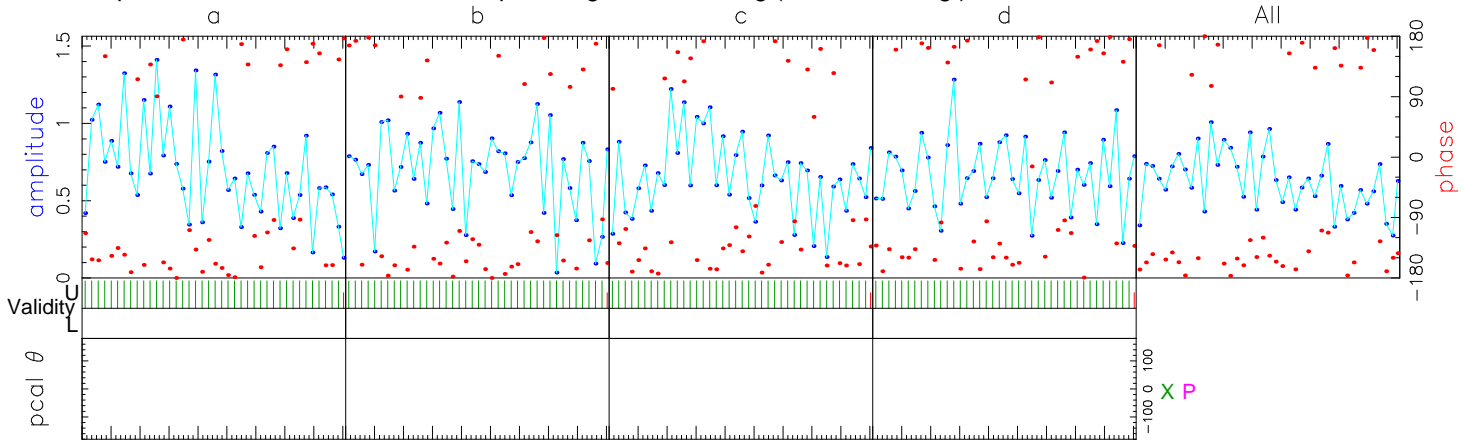
Fringe quality 9

SNR 22.3  
 Int time 539.908  
 Amp 0.521  
 Phase -165.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.003430  
 MBD 0.001341  
 Fringe rate (Hz)  
 -0.007668  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. ma008  
 Exper # 16383  
 Yr:day 2017:093  
 Start 213000.00  
 Stop 213900.16  
 FRT 213430.00  
 Corr/FF/build  
 2017:237:071917  
 2017:242:102314  
 2017:170:130423  
 RA & Dec (J2000)  
 12h 29m 6.697s  
 +2° 03' 8.598"

Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



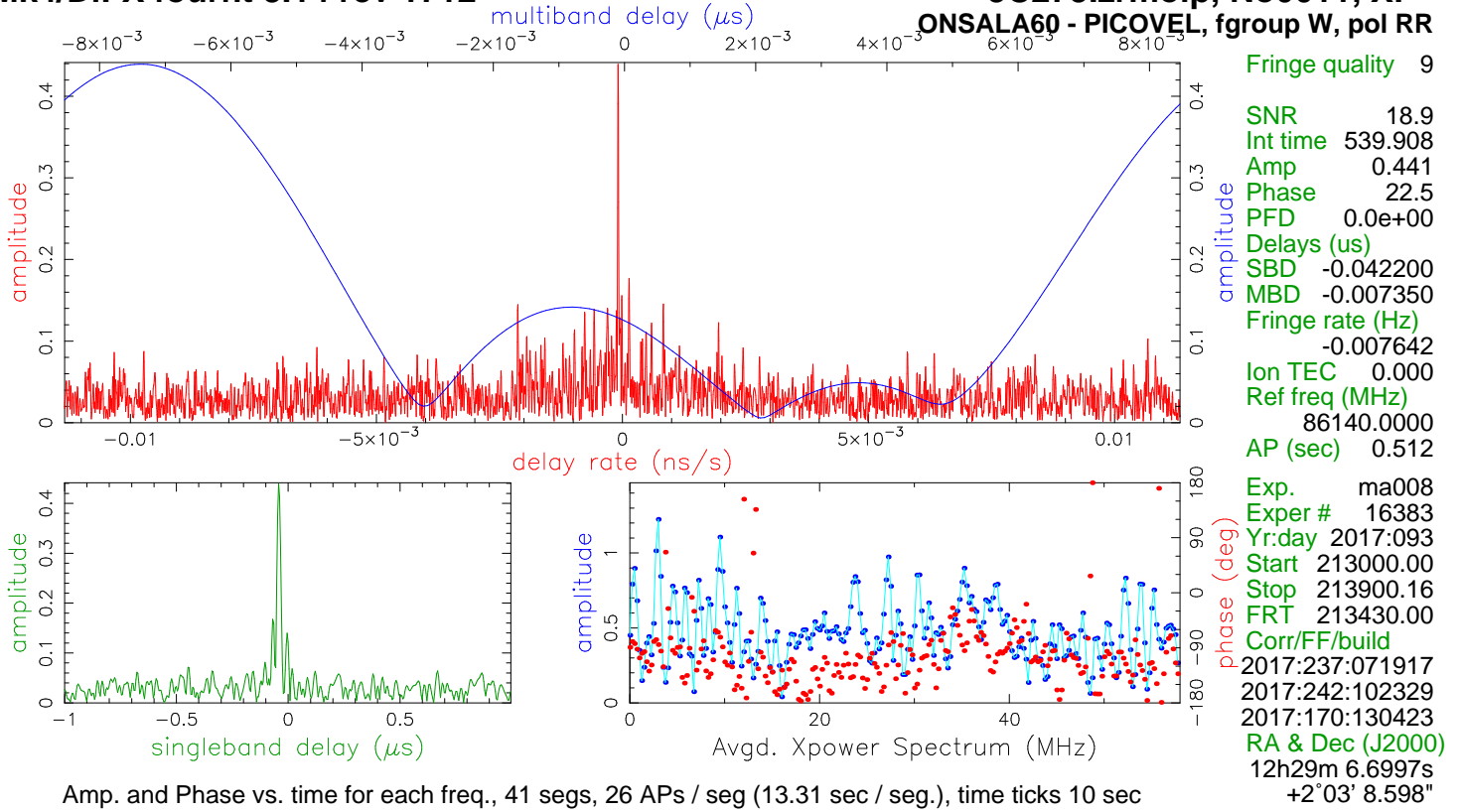
	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-165.9	-169.1	-160.8	-165.7	Phase	-165.5
	0.6	0.5	0.5	0.5	Ampl.	0.5
	233.5	233.8	234.3	225.9	Sbd box	233.8
U/L	1055/0	1055/0	1055/0	1055/0	APs used	
X	0	0	0	0	PC freqs	
P	0	0	0	0	PC freqs	
X:P	0:0	0:0	0:0	0:0	PC phase	
X:P	0:0	0:0	0:0	0:0	Manl PC	
X	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd) -2.94539673994E+03 Apriori delay (usec) -2.94539808118E+03 Resid mbdelay (usec) 1.34124E-03 +/- 1.1E-04  
 Sband delay (usec) -2.94539465139E+03 Apriori clock (usec) 2.5316691E+00 Resid sbdelay (usec) 3.42979E-03 +/- 4.3E-04  
 Phase delay (usec) -2.94539808651E+03 Apriori clockrate (us/s) -2.0511129E-07 Resid phdelay (usec) -5.33561E-06 +/- 1.7E-07  
 Delay rate (us/s) -4.28250116766E-01 Apriori rate (us/s) -4.28250027748E-01 Resid rate (us/s) -8.90182E-08 +/- 5.3E-10  
 Total phase (deg) -62.1 Apriori accel (us/s/s) 1.65986758563E-05 Resid phase (deg) -165.5 +/- 5.1

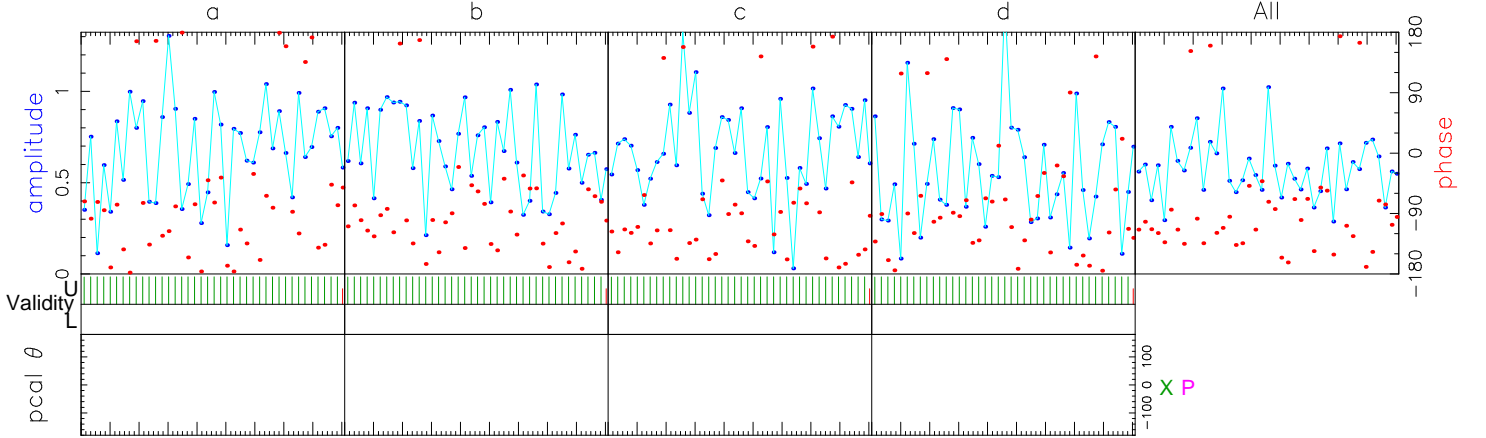
RMS Theor. Amplitude 0.521 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 33.8 16.5 Search (4096X16) 0.513 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 41.2 28.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 4.2 5.1 Inc. seg. avg. 0.605 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 4.2 9.0 Inc. frq. avg. 0.518 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

X: az 155.4 el 32.2 pa -12.3 P: az 128.1 el 41.7 pa -38.4 u,v (fr/asec) 2479.719 2165.212 simultaneous interpolator

Control file: cf\_1234 Input file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/XP..zrmlp Output file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/XP.W.13.zrmlp



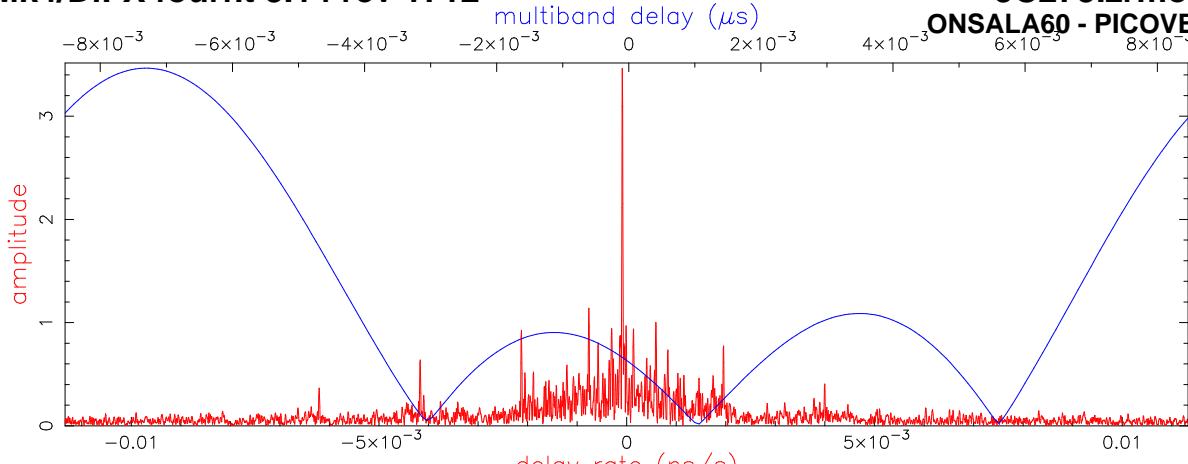
Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	86385.48	All
Group delay (usec)(sbd)	-2.94543956403E+03	-2.94544028146E+03	-2.94539808118E+03	-2.94539808118E+03	-2.94539808118E+03	-2.94539808118E+03
Sband delay (usec)	-2.94544028146E+03	-2.94544028146E+03	-2.94539808118E+03	-2.94539808118E+03	-2.94539808118E+03	-2.94539808118E+03
Phase delay (usec)	-2.94539808486E+03	-2.94539808486E+03	-2.94539808486E+03	-2.94539808486E+03	-2.94539808486E+03	-2.94539808486E+03
Delay rate (us/s)	-4.28250116465E-01	-4.28250116465E-01	-4.28250116465E-01	-4.28250116465E-01	-4.28250116465E-01	-4.28250116465E-01
Total phase (deg)		125.9				125.9
U/L	1055/0	1055/0	1055/0	1055/0	1055/0	1055/0
X	0	0	0	0	0	0
P	0	0	0	0	0	0
X:P	0:0	0:0	0:0	0:0	0:0	0:0
X:P	0:0	0:0	0:0	0:0	0:0	0:0
X	1000	1000	1000	1000	1000	1000
P	1000	1000	1000	1000	1000	1000
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR
Apriori delay (usec)			0.438			0.438
Apriori clockrate (us/s)			0.442			0.442
Apriori accel (us/s/s)			0.442			0.442
Resid mbdelay (usec)			0.438			0.438
Resid sbdelay (usec)			0.438			0.438
Resid phdelay (usec)			0.438			0.438
Resid rate (us/s)			0.442			0.442
Resid phase (deg)			0.442			0.442
Pcal mode:	MANUAL	MANUAL	MANUAL	MANUAL	MANUAL	MANUAL
Pcal rate:	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PCal period (AP's)	5	5	5	5	5	5
sb window (us)	-1.000	1.000	-1.000	1.000	-1.000	1.000
mb window (us)	-0.009	0.009	-0.009	0.009	-0.009	0.009
dr window (ns/s)	-0.011	0.011	-0.011	0.011	-0.011	0.011
ion window (TEC)	0.00	0.00	0.00	0.00	0.00	0.00

ph/seg (deg) 41.6 19.4 Search (4096X16) 0.438 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 48.7 33.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 11.6 6.1 Inc. seg. avg. 0.551 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
amp/frq (%) 12.3 10.6 Inc. frq. avg. 0.442 Sample rate(MSamp/s): 116 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite dr window (ns/s) -0.011 0.011  
X: az 155.4 el 32.2 pa -12.3 P: az 128.1 el 41.7 pa -38.4 u,v (fr/asec) 2479.719 2165.212 simultaneous interpolator  
Control file: cf\_1234 Input file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/XP..zrmlp Output file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/XP.W.36.zrmlp

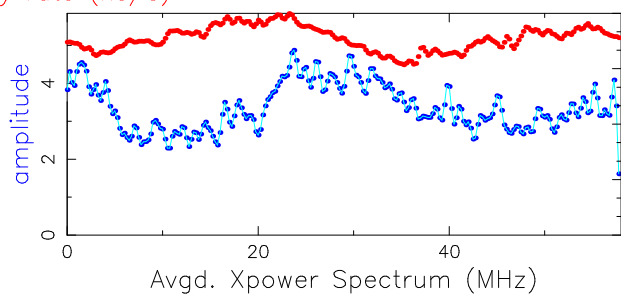
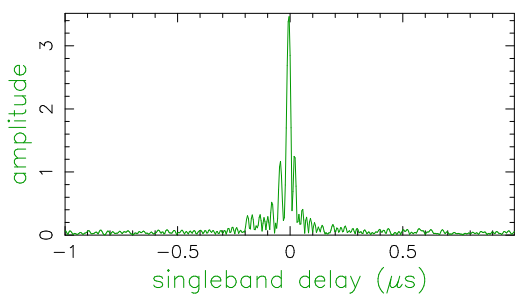




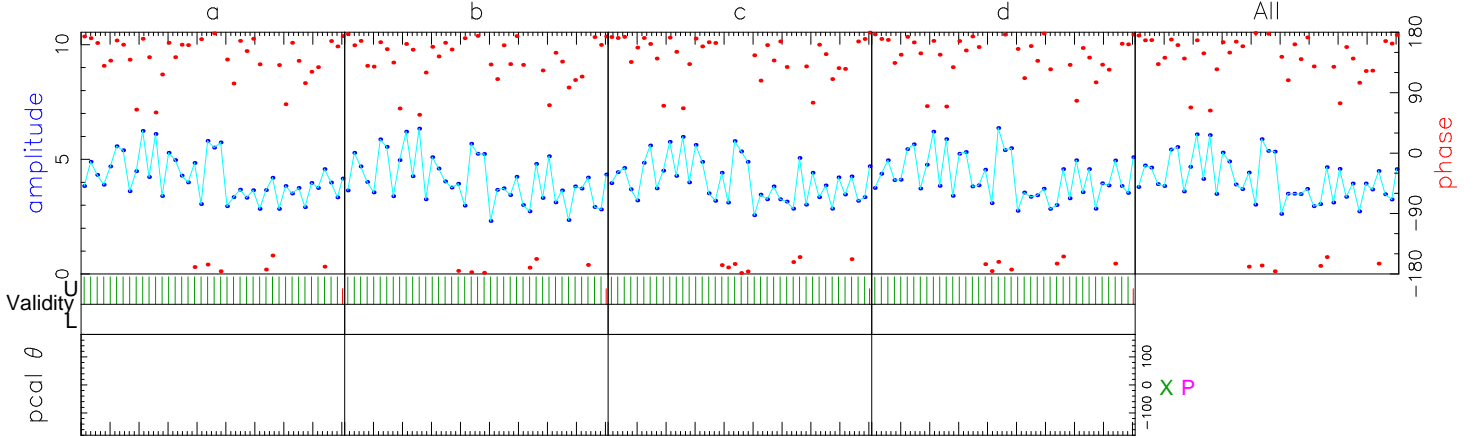
Fringe quality 6

SNR 150.4  
Int time 539.908  
Amp 3.516  
Phase 154.1  
PFD 0.0e+00  
Delays (us)  
SBD -0.005935  
MBD -0.007374  
Fringe rate (Hz)  
-0.007645  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. ma008  
Exper # 16383  
Yr:day 2017:093  
Start 213000.00  
Stop 213900.16  
FRT 213430.00  
Corr/FF/build  
2017:237:071917  
2017:242:102340  
2017:170:130423  
RA & Dec (J2000)  
12h29m 6.6997s  
+2°03' 8.598"



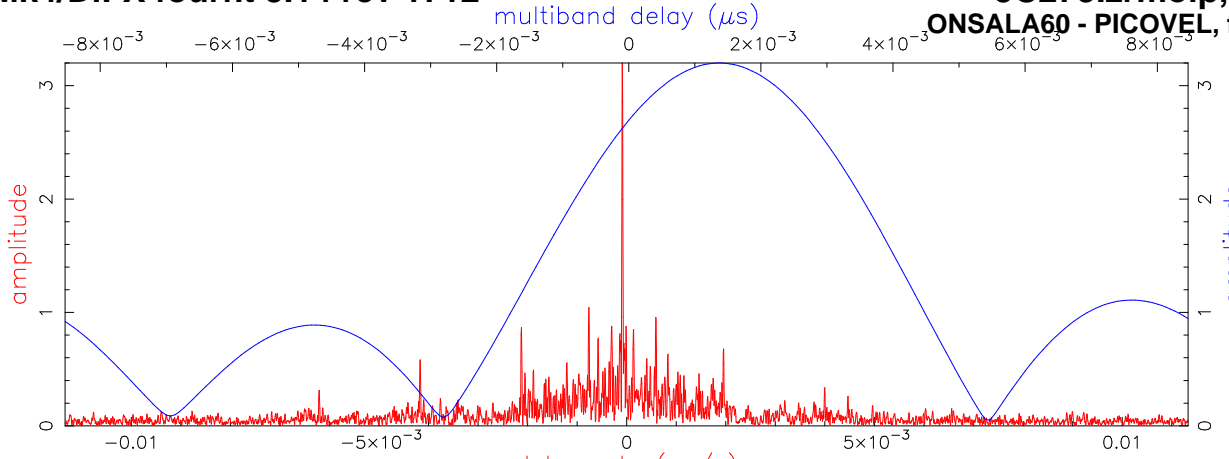
Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	1055/0	1055/0	1055/0	1055/0		
X	0	0	0	0	Phase	154.1
P	0	0	0	0	Ampl.	3.5
X:P	0:0	0:0	0:0	0:0	Sbd box	231.6
X:P	0:0	0:0	0:0	0:0	APs used	
X	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	PC freqs	
X	W00UL	W01UL	W02UL	W03UL	PC phase	
P	W00UR	W01UR	W02UR	W03UR	Mani PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-2.94540545514E+03		Apriori delay (usec)	-2.94539808118E+03	Resid mbdelay (usec)	-7.37396E-03 +/- 1.6E-05
Sband delay (usec)	-2.94540401635E+03		Apriori clock (usec)	2.5316691E+00	Resid sbdelay (usec)	-5.93517E-03 +/- 6.3E-05
Phase delay (usec)	-2.94539807621E+03		Apriori clockrate (us/s)	-2.0511129E-07	Resid phdelay (usec)	4.96775E-06 +/- 2.5E-08
Delay rate (us/s)	-4.28250116498E-01		Apriori rate (us/s)	-4.28250027748E-01	Resid rate (us/s)	-8.87504E-08 +/- 7.9E-11
Total phase (deg)		-102.6	Apriori accel (us/s/s)	1.65986758563E-05	Resid phase (deg)	154.1 +/- 0.8

RMS Theor. Amplitude 3.516 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 33.4 2.4 Search (4096X16) 3.449 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 31.9 4.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 ph/frq (deg) 4.2 0.8 Inc. seg. avg. 4.150 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 2.6 1.3 Inc. frq. avg. 3.469 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

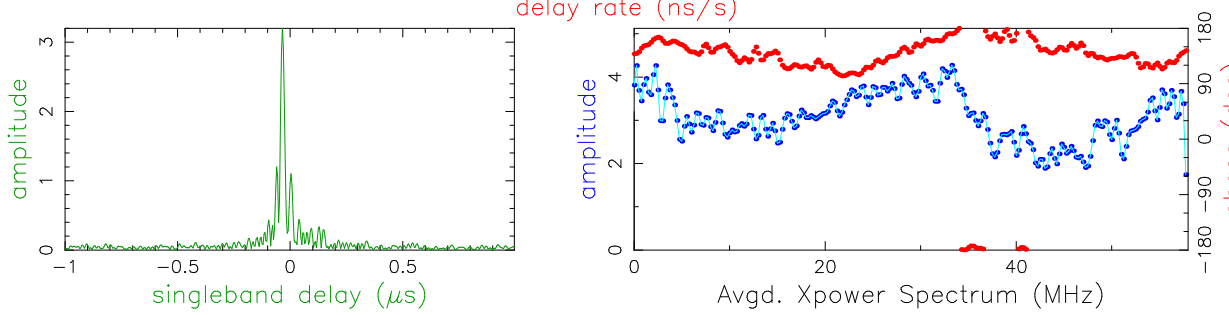
X: az 155.4 el 32.2 pa -12.3 P: az 128.1 el 41.7 pa -38.4 u,v (fr/asec) 2479.719 2165.212 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/XP..zrmlp Output file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/XP.W.50.zrmlp



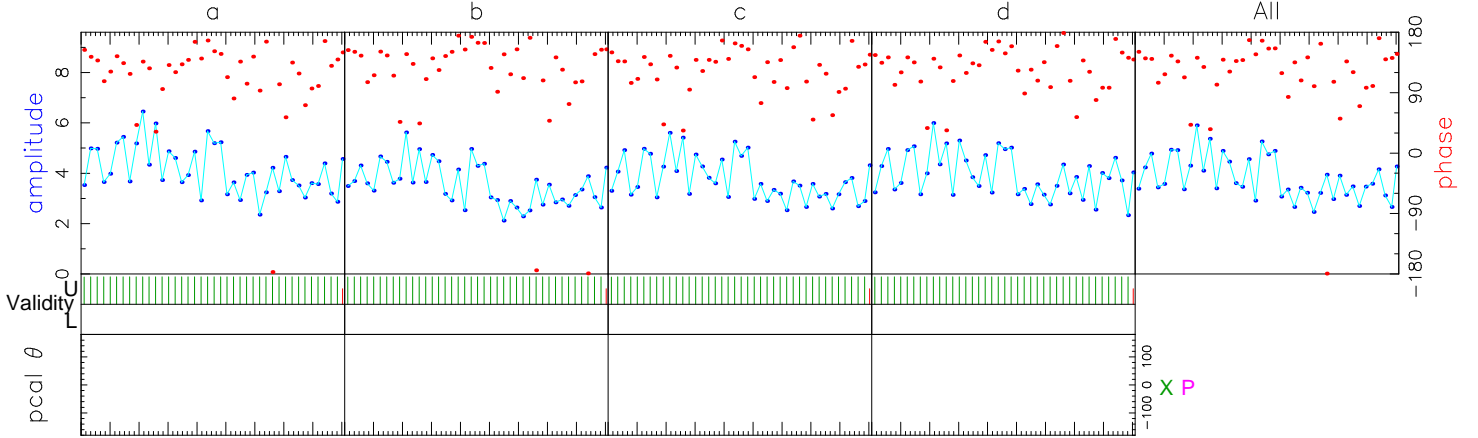
Fringe quality 6

SNR 136.9  
 Int time 539.908  
 Amp 3.201  
 Phase 265.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.034353  
 MBD 0.001373  
 Fringe rate (Hz)  
 -0.007648  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. ma008  
 Exper # 16383  
 Yr:day 2017:093  
 Start 213000.00  
 Stop 213900.16  
 FRT 213430.00  
 Corr/FF/build  
 2017:237:071917  
 2017:242:102353  
 2017:170:130423  
 RA & Dec (J2000)  
 12h29m 6.6997s  
 +2°03' 8.598"



Amp. and Phase vs. time for each freq., 41 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	1055/0	1055/0	1055/0	1055/0		
X	0	0	0	0	APs used	
P	0	0	0	0	PC freqs	
X:P	0:0	0:0	0:0	0:0	PC phase	
X:P	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-2.94543084187E+03	Apriori delay (usec)	-2.94539808118E+03	Resid mbdelay (usec)	1.37264E-03	+/- 1.8E-05
Sband delay (usec)	-2.94543243373E+03	Apriori clock (usec)	2.5316691E+00	Resid sbdelay (usec)	-3.43526E-02	+/- 6.9E-05
Phase delay (usec)	-2.94539807703E+03	Apriori clockrate (us/s)	-2.0511129E-07	Resid phdelay (usec)	4.14596E-06	+/- 2.7E-08
Delay rate (us/s)	-4.28250116529E-01	Apriori rate (us/s)	-4.28250027748E-01	Resid rate (us/s)	-8.87816E-08	+/- 8.7E-11
Total phase (deg)		Apriori accel (us/s/s)	1.65986758563E-05	Resid phase (deg)	265.1	+/- 0.8

RMS Theor. Amplitude 3.201 +/- 0.023  
 ph/seg (deg) 33.7 2.7 Search (4096X16) 3.165  
 amp/seg (%) 32.7 4.7 Interp. 0.000  
 ph/frq (deg) 5.1 0.8 Inc. seg. avg. 3.829  
 amp/frq (%) 6.0 1.5 Inc. frq. avg. 3.206

Group delay (usec)(sbd) -2.94543084187E+03 Apriori delay (usec) -2.94539808118E+03 Resid mbdelay (usec) 1.37264E-03 +/- 1.8E-05  
 Sband delay (usec) -2.94543243373E+03 Apriori clock (usec) 2.5316691E+00 Resid sbdelay (usec) -3.43526E-02 +/- 6.9E-05  
 Phase delay (usec) -2.94539807703E+03 Apriori clockrate (us/s) -2.0511129E-07 Resid phdelay (usec) 4.14596E-06 +/- 2.7E-08  
 Delay rate (us/s) -4.28250116529E-01 Apriori rate (us/s) -4.28250027748E-01 Resid rate (us/s) -8.87816E-08 +/- 8.7E-11  
 Total phase (deg) 8.5 Apriori accel (us/s/s) 1.65986758563E-05 Resid phase (deg) 265.1 +/- 0.8

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) -0.009 0.009  
 Sample rate(MSamp/s): 116 dr window (ns/s) -0.011 0.011  
 Data rate(Mb/s): 928 nlags: 232 t\_cohere infinite ion window (TEC) 0.00 0.00

X: az 155.4 el 32.2 pa -12.3 P: az 128.1 el 41.7 pa -38.4 u,v (fr/asec) 2479.719 2165.212 simultaneous interpolator  
 Control file: cf\_1234 Input file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/XP..zrmlp Output file: /Exps/ma008/gmva\_58\_merged\_pc1/1234/No0011/XP.W.58.zrmlp